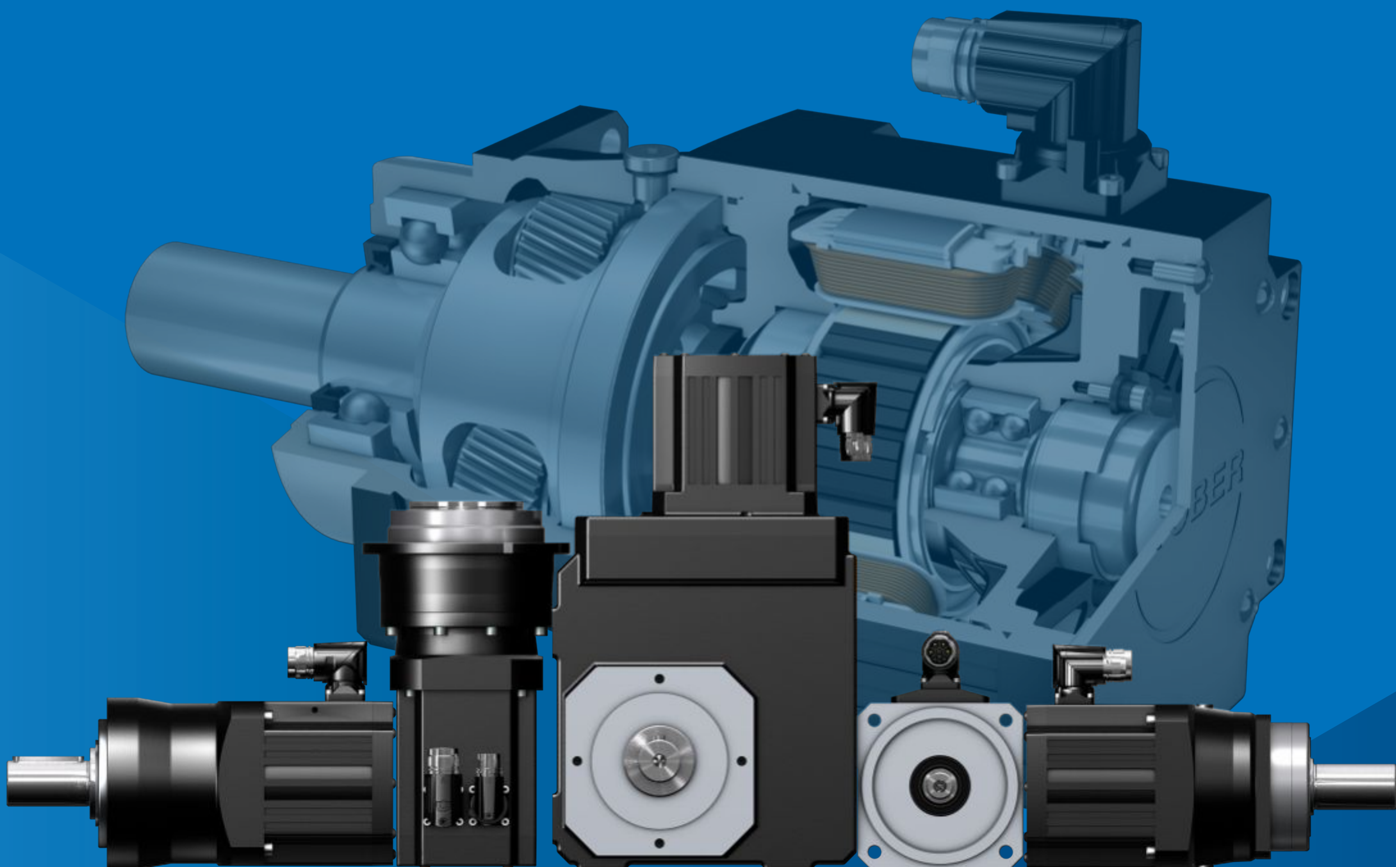


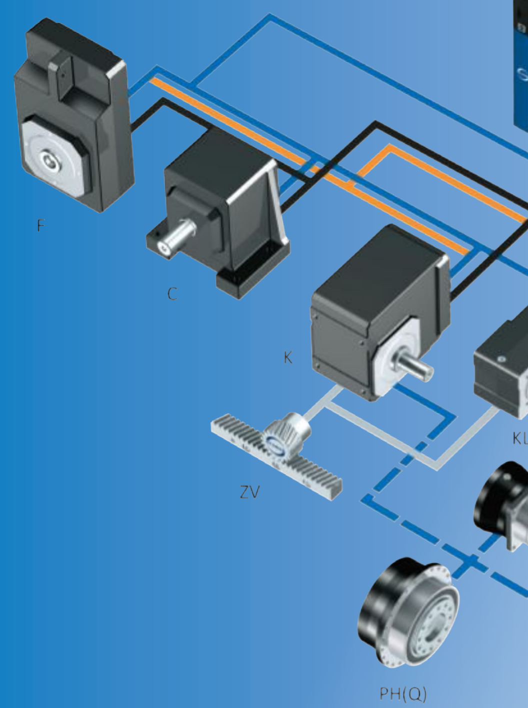
# Synchronous servo geared motors

STÖBER

# Synchronous servo geared motors

# One partner. All the possibilities.

**STOBER has developed and produced excellent drive technology since 1934 and is active internationally with around 1000 employees at 14 locations. STOBER impresses machine manufacturers in wide-ranging industries and markets around the world with tailor-made, highly efficient drive systems for demanding movements.**




**"Together with our customers, we achieve perfect motion in a wide variety of applications with our precisely coordinated system. Whenever precision, dynamics and quality are required, we are at your side as a reliable partner."**

**Rainer Wegener, Chief Executive Officer, STÖBER Antriebstechnik**

## Synchronous servo geared motors – what you can expect!

Power density redefined! Learn more about our powerhouses: STOBER synchronous servo motors of the EZ series. You will be convinced of the latest servo technology for screw drives. They are extra dynamic and efficient in direct attachment with precise, high-performing STOBER servo gearboxes. It's impossible to be more compact.

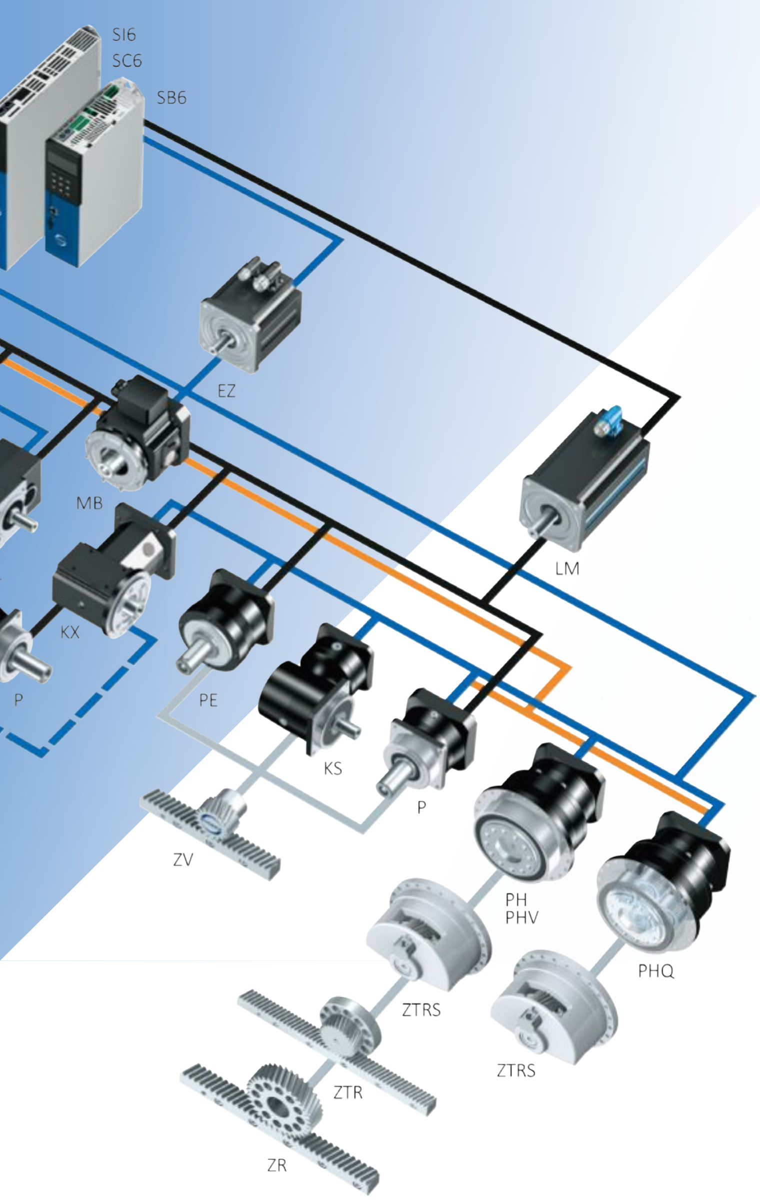
# At home in the world of demanding motion

Gearboxes

Geared motors

Motors

Cables and drive controllers




# Everything from a single source.

The STOBER drive system consisting of gearboxes, motors, cables and drive controllers has a modular design and is freely scalable—for tailor-made, compact and powerful machine concepts. It can be adapted to your individual requirements and combined as needed in nearly all industries and applications areas.

We check every single component and how it works together with others, taking on the responsibility for the complete drive train. For you, this means that one contact partner, certified operating safety and maximum availability are guaranteed.

## Need special solutions?

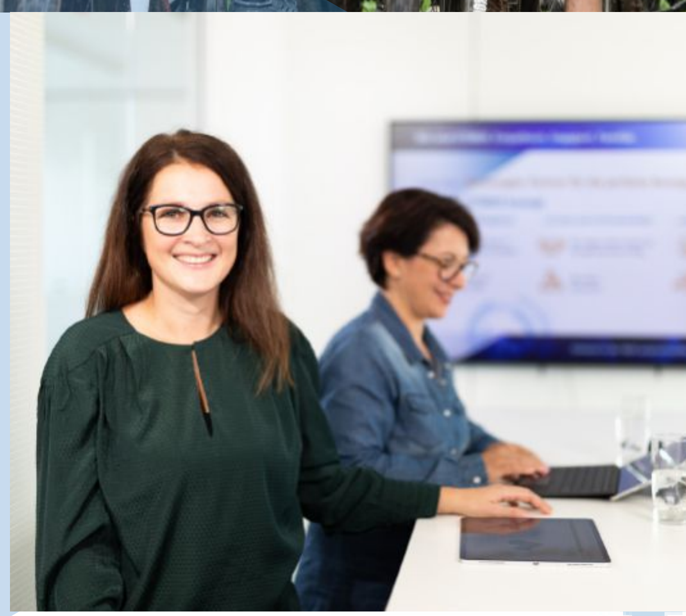
Numerous one-of-a-kind product highlights and project-related adjustments make it possible. With a holistic approach to your specific task, we work together on individualized solutions that are optimally co-ordinated to your requirements. Dedicated and solution-oriented in the support of your visions and projects.

## STOBER moves integrally and precisely.

"Versatile products, countless possibilities. Your perfect motion is what drives us!"

**Markus Graf, Chief Sales Officer, STÖBER Antriebstechnik**


## STOBER moves as a team and with personality.



As a family-owned company, it is very important to us to maintain close relationships and treat each other with trust. We put people first.

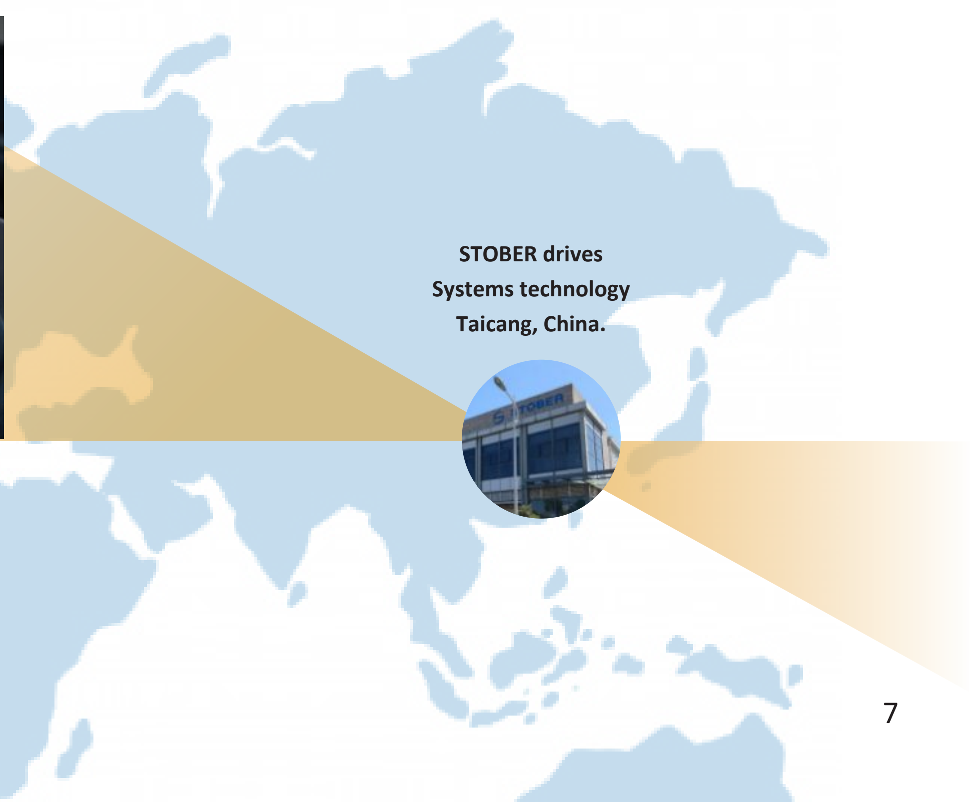
We are committed to the well-being of our employees, identify with the expectations of our customers, and show personal commitment to mutual success.

"We have installed gearboxes, motors and drive controllers from STOBER in nearly all our systems. STOBER supports us in new projects from the first stroke of a pencil in the design phase until commissioning. Our years of cooperation are shaped by openness and honesty and emanate a rather special spirit. The technical consulting, the support—that is real, experienced partnership"

**Jürgen Leicht, Managing Partner of Leicht Stanzautomation**

## Working together. Worldwide. Successfully.

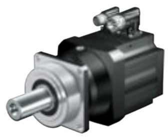
With an eye to the future, STOBER is facing the challenges of digitalization and investing in integrated solutions and a strong global presence in production, sales and service. STOBER China was founded at the end of 2019. As a result, we are present in more than 40 countries around in the world at 12 locations and with 80 service partners.



# Table of contents

# 1 Selection tool

## 1.1 Inline and Offset Geared Motors




| | | | | |
|---|---|---|---|---|
| Product chapter | P | PE | C | F |
| Chapter number | [▸ 2] | [▸ 6] | [▸ 7] | [▸ 8] |

**Technical data**

| | | | | |
|---|---|---|---|---|
| i | 3 – 100 | 3 – 50 | 2 – 270 | 4.3 – 440 |
| $M_{2acc}$ | 10 – 3450 Nm | 5.7 – 250 Nm | 9.7 – 6500 Nm | 21 – 1100 Nm |
| $\Delta\phi_2$ | 1 – 8 arcmin | 8 – 13 arcmin | 10 – 20 arcmin | 5 – 11 arcmin |
| $\eta_{get}$ | 95 – 97 % | 95 – 97 % | 96 – 97 % | 96 – 97 % |

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

**Features**

| | | | | |
|---|---|---|---|---|
| Power density | ★★★★☆ | ★★★☆☆ | ★☆☆☆☆ | ★☆☆☆☆ |
| Backlash | ★★★★★ | ★★★☆☆ | ★★☆☆☆ | ★★★☆☆ |
| Price category | €€ | € | € | € |
| Shaft load | ★★★★☆ | ★★☆☆☆ | ★★☆☆☆ | ★★★☆☆ |
| Smooth operation | ★★★★☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ |
| Torsional stiffness | ★★★☆☆ | ★★★☆☆ | ★★☆☆☆ | ★★☆☆☆ |
| Mass moment of inertia | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Key | ★☆☆☆☆ good \| ★★★★★ excellent<br>€ Economy \| €€€€€ Premium | | | |
| **Shaft design** | | | | |
| Solid shaft with feather key | ✓ | ✓ | ✓ | ✓ |
| Solid shaft without feather key | ✓ | | C0 – C5: ✓<br>Starting at C6: Request | ✓ |
| Hollow shaft with keyway | | | | ✓ |
| Hollow shaft with shrink ring | | | | ✓ |
| **Bearing design** | | | | |
| Standard | ✓ | ✓ | ✓ | ✓ |
| Axially reinforced | ✓ | | | |
| Radially reinforced | ✓ | | | |
| **Maintenance-free** | ✓ | ✓ | C0 – C5: ✓ | ✓ |

# 1 Selection tool

## 1.1 Inline and Offset Geared Motors

|  |  |  |
|---|---|---|

| | | | |
|---|---|---|---|
| Product chapter | **PH** | **PHQ** | **PHV** |
| Chapter number | [▷ 3] | [ 4] | [▷ 5] |

**Technical data**

| | | | |
|---|---|---|---|
| i | 4 – 100 | 5.5 – 600 | 61 – 121 |
| $M_{2acc}$ | 24 – 7500 Nm | 72 – 22000 Nm | 1638 – 7500 Nm |
| $\Delta\phi_2$ | 1 – 4 arcmin | 1 – 3 arcmin | 1 – 3 arcmin |
| $\eta_{get}$ | 93 – 96 % | 90 – 96 % | 90 % |

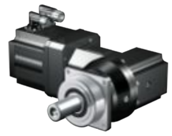
An explanation of the formula symbols can be found in Chapter [▷ 20.1].

**Features**

| | | | |
|---|---|---|---|
| Power density | ★★★★☆ | ★★★★★ | ★★★★☆ |
| Backlash | ★★★★★ | ★★★★★ | ★★★★☆ |
| Price category | €€€ | €€€€ | €€€ |
| Shaft load | ★★★★★ | ★★★★★ | ★★★★★ |
| Smooth operation | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| Torsional stiffness | ★★★★☆ | ★★★★★ | ★★★★☆ |
| Mass moment of inertia | ★★★★★ | ★★★★★ | ★★★★★ |
| Key | ★☆☆☆☆ good \| ★★★★★ excellent<br>€ Economy \| €€€€€ Premium | | |
| **Shaft design** | | | |
| Flange shaft | ✓ | ✓ | ✓ |
| **Bearing design** | | | |
| Standard | ✓ | ✓ | ✓ |
| Reinforced | ✓ (PH3 – PH5) | ✓ (PHQ4 – PHQ5) | |
| **Maintenance-free** | ✓ | ✓ | ✓ |

# 1 Selection tool

## 1.2 Right-angle geared motors

| |  |  |  |
|---|---|---|---|
| Product chapter | **KS** | **PKX** | **PK** |
| Chapter number | [▷ 9] | [▷ 10] | [▷ 11] |

**Technical data**

| | | | |
|---|---|---|---|
| i | 2 – 100 | 3 – 300 | 12 – 555 |
| $M_{2acc}$ | 9.7 – 400 Nm | 11 – 3300 Nm | 68 – 3105 Nm |
| $\Delta\varphi_2$ | 3 – 7 arcmin | 2 – 8.5 arcmin | 1.5 – 5 arcmin |
| $\eta_{get}$ | 93 – 97 % | 94 – 96 % | 94 % |

An explanation of the formula symbols can be found in Chapter [▷ 20.1].

**Features**

| | | | |
|---|---|---|---|
| Power density | ★★★☆☆ | ★★★★☆ | ★★★☆☆ |
| Backlash | ★★★☆☆ | ★★★★★ | ★★★★★ |
| Price category | €€€ | €€€ | €€€ |
| Shaft load | ★★★★★ | ★★★★☆ | ★★★★☆ |
| Smooth operation | ★★★★☆ | ★★☆☆☆ | ★★★☆☆ |
| Torsional stiffness | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ |
| Mass moment of inertia | ★★★★★ | ★★★☆☆ | ★★★★★ |
| Key | ★☆☆☆☆ good \| ★★★★★ excellent<br>€ Economy \| €€€€€ Premium | | |

| | | | |
|---|---|---|---|
| **Shaft design** | | | |
| Solid shaft with feather key | ✓ | ✓ | ✓ |
| Solid shaft without feather key | ✓ | ✓ | ✓ |
| Hollow shaft with shrink ring | ✓ | | |
| Flange hollow shaft | ✓ | | |
| **Bearing design** | | | |
| Standard | ✓ | ✓ | ✓ |
| Axially reinforced | | ✓ | ✓ |
| Radially reinforced | | ✓ | ✓ |
| **Maintenance-free** | ✓ | ✓ | ✓ |

| |  |  |  |  |
|---|---|---|---|---|
| Product chapter | **KS** | **PHKX** | **PHK** | **PHQK** |
| Chapter number | [▸ 9] | [▸ 12] | [▸ 13] | [▸ 14] |

**Technical data**

| | KS | PHKX | PHK | PHQK |
|---|---|---|---|---|
| i | 2 – 100 | 4 – 210 | 16 – 555 | 22 – 2242 |
| $M_{2acc}$ | 9.7 – 400 Nm | 26 – 6975 Nm | 89 – 7500 Nm | 123 – 43000 Nm |
| $\Delta\phi_2$ | 3 – 7 arcmin | 1 – 6 arcmin | 1.5 – 4.5 arcmin | 1.5 – 4 arcmin |
| $\eta_{get}$ | 93 – 97 % | 92 – 95 % | 92 – 93 % | 90 – 93 % |

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

**Features**

| | KS | PHKX | PHK | PHQK |
|---|---|---|---|---|
| Power density | ★★★☆☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| Backlash | ★★★☆☆ | ★★★★★ | ★★★★★ | ★★★★★ |
| Price category | €€€ | €€€€ | €€€€ | €€€€€ |
| Shaft load | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Smooth operation | ★★★★☆ | ★★☆☆☆ | ★★★☆☆ | ★★★☆☆ |
| Torsional stiffness | ★★★☆☆ | ★★★★☆ | ★★★★☆ | ★★★★★ |
| Mass moment of inertia | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★★ |
| Key | ★☆☆☆☆ good \| ★★★★★ excellent<br>€ Economy \| €€€€€ Premium | | | |

| | KS | PHKX | PHK | PHQK |
|---|---|---|---|---|
| **Shaft design** | | | | |
| Solid shaft with feather key | ✓ | | | |
| Solid shaft without feather key | ✓ | | | |
| Hollow shaft with shrink ring | ✓ | | | |
| Flange hollow shaft | ✓ | | | |
| Flange shaft | | ✓ | ✓ | ✓ |
| **Bearing design** | | | | |
| Standard | ✓ | ✓ | ✓ | ✓ |
| Reinforced | | ✓ (PH3 – PH5) | ✓ (PH5) | ✓ (PHQ5) |
| **Maintenance-free** | ✓ | ✓ | ✓ | ✓ |

| |  |  |
|---|---|---|
| Product chapter | **KL** | **K** |
| Chapter number | [15] | [16] |

**Technical data**

| | | |
|---|---|---|
| i | 4 – 32 | 4 – 381 |
| $M_{2acc}$ | 10 – 65 Nm | 23 – 12750 Nm |
| $\Delta\varphi_2$ | 16 – 25 arcmin | 1.5 – 12 arcmin |
| $\eta_{get}$ | 97 % | 94 – 97 % |

An explanation of the formula symbols can be found in Chapter [20.1].

**Features**

| | | |
|---|---|---|
| Power density | ★★☆☆☆ | ★★☆☆☆ |
| Backlash | ★☆☆☆☆ | ★★★☆☆ |
| Price category | € | €€ |
| Shaft load | ★★☆☆☆ | ★★★☆☆ |
| Smooth operation | ★★☆☆☆ | ★★★☆☆ |
| Torsional stiffness | ★★☆☆☆ | ★★☆☆☆ |
| Mass moment of inertia | ★★★★★ | ★★★★★ |
| Key | ★☆☆☆☆ good \| ★★★★★ excellent<br>€ Economy \| €€€€€ Premium | |
| **Shaft design** | | |
| Solid shaft with feather key | ✓ | ✓ |
| Solid shaft without feather key | ✓ | K1 – K4: ✓<br>Starting at K5: Request |
| Solid shaft on both sides | ✓ | ✓ |
| Hollow shaft with keyway | ✓ | ✓ |
| Hollow shaft with shrink ring | ✓ | ✓ |
| **Accessories** | | |
| Flange | ✓ | ✓ |
| Foot plates | ✓ | ✓ |
| Torque arm bracket | KL2: ✓ | ✓ |
| **Bearing design** | | |
| Standard | ✓ | ✓ |
| **Maintenance-free** | ✓ | K1 – K4: ✓ |

| | |
|---|---|
| Product chapter | **EZ** |
| Chapter number | [▹ 17] |

**Technical data**

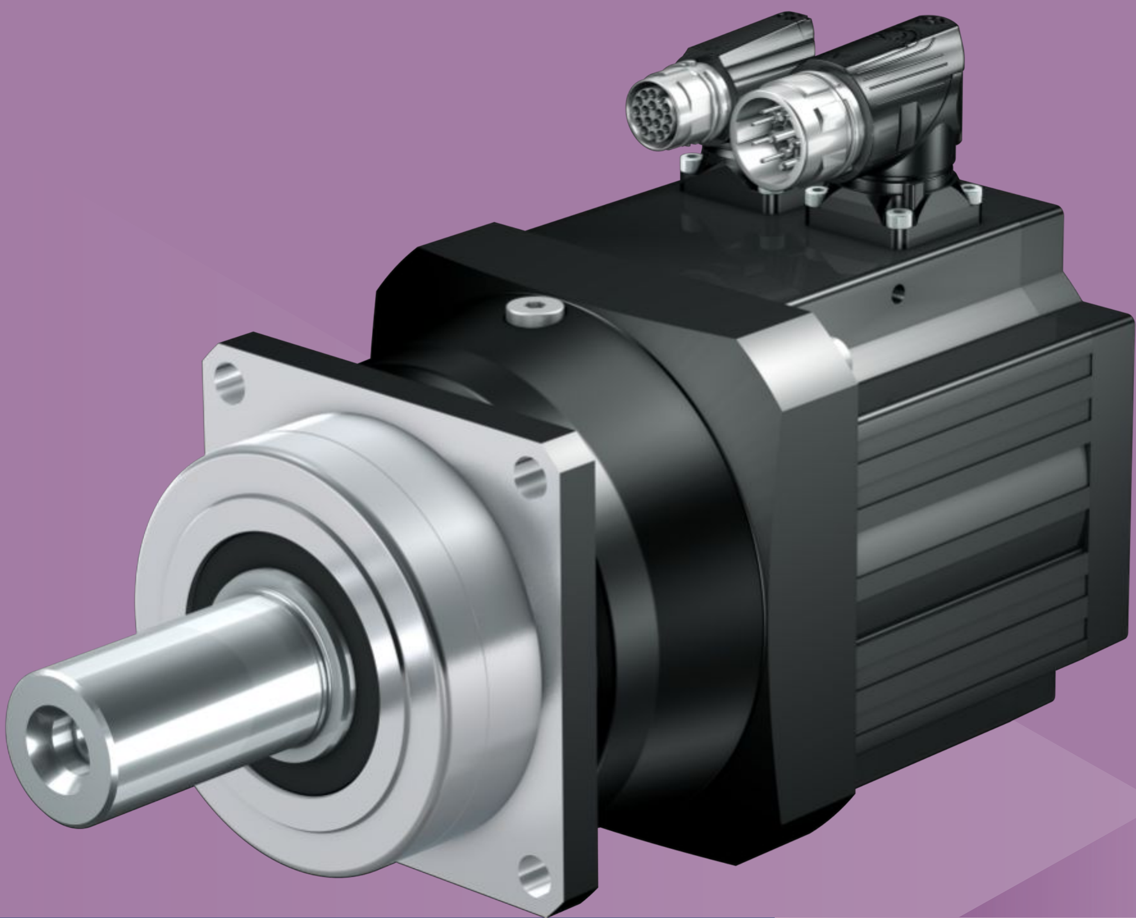
| | |
|---|---|
| $M_N$ | 0.4 – 91 Nm |
| $M_0$ | 0.44 – 100 Nm |

An explanation of the formula symbols can be found in Chapter [▹ 20.1].

| | |
|---|---|
| **Shaft design** | |
| Solid shaft without feather key | ✓ |
| **Encoder** | |
| EnDat 3 One Cable Solution (OCS) | ✓ |
| EnDat 2.2 | ✓ |
| EnDat 2.1 | ✓ |
| Resolvers | ✓ |
| **Cooling** | |
| Convection cooling | ✓ |
| Forced ventilation | ✓ |
| **Brake** | |
| Permanent magnet holding brake | ✓ |
| **Marks and test symbols** | |
| CE | ✓ |
| cURus | ✓ |
| UKCA | ✓ |

# 2 P planetary geared motors

## Table of contents



# 2 Planetary geared motors

P

## 2.1 Overview

Helical-geared precision planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★★☆ |
| Backlash | ★★★★★ |
| Price category | €€ |
| Shaft load | ★★★★☆ |
| Smooth operation | ★★★★☆ |
| Torsional stiffness | ★★★☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Any mounting position | ✓ |
| Continuous operation without cooling | ✓ |
| Reinforced output bearing | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 3 – 100 |
| $M_{2acc}$ | 10 – 3450 Nm |
| $\Delta\phi_2$ | 1 – 8 arcmin |
| $\eta_{get}$ | 95 – 97 % |

## 2.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)
- $M_{2acc}$, $M_{2accHT}$: Solid shaft design without feather key (we generally recommend this shaft design for cyclic operation)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 25 Nm) | | | | | | | | | | | | | | | | | |
| 188 | 14 | 14 | 5.8 | 1.1 | P232_0160 EZ301U | 24 | – | 48 | 16.00 | 16/1 | 6000 | 8000 | 0.23 | 8.0 | – | 1.8 | 2.9 |
| 300 | 9.0 | 9.2 | 1.1 | 1.1 | P231_0100 EZ301U | 21 | – | 41 | 10.00 | 10/1 | 6000 | 8000 | 0.20 | 6.0 | – | 1.6 | 2.3 |
| 375 | 7.2 | 7.4 | 1.2 | 1.7 | P231_0080 EZ301U | 21 | – | 41 | 8.000 | 8/1 | 6000 | 8000 | 0.20 | 6.0 | – | 1.7 | 2.3 |
| 429 | 6.3 | 6.5 | 1.3 | 2.1 | P231_0070 EZ301U | 19 | – | 46 | 7.000 | 7/1 | 6000 | 8000 | 0.20 | 6.0 | – | 1.8 | 2.3 |
| 429 | 11 | 11 | 2.2 | 1.3 | P231_0070 EZ302U | 23 | – | 46 | 7.000 | 7/1 | 6000 | 8000 | 0.30 | 6.0 | – | 1.8 | 2.9 |
| 600 | 4.5 | 4.6 | 1.9 | 3.0 | P231_0050 EZ301U | 14 | – | 51 | 5.000 | 5/1 | 6000 | 8000 | 0.22 | 6.0 | – | 1.9 | 2.3 |
| 600 | 7.7 | 8.1 | 3.3 | 1.8 | P231_0050 EZ302U | 24 | – | 51 | 5.000 | 5/1 | 6000 | 8000 | 0.32 | 6.0 | – | 1.9 | 2.9 |
| 600 | 10 | 11 | 4.3 | 1.3 | P231_0050 EZ303U | 25 | – | 51 | 5.000 | 5/1 | 6000 | 8000 | 0.43 | 6.0 | – | 1.9 | 3.4 |
| 750 | 3.6 | 3.7 | 2.5 | 3.7 | P231_0040 EZ301U | 11 | – | 51 | 4.000 | 4/1 | 6000 | 8000 | 0.24 | 6.0 | – | 1.9 | 2.3 |
| 750 | 6.2 | 6.5 | 4.3 | 2.2 | P231_0040 EZ302U | 19 | – | 51 | 4.000 | 4/1 | 6000 | 8000 | 0.34 | 6.0 | – | 1.9 | 2.9 |
| 750 | 8.0 | 8.5 | 5.6 | 1.7 | P231_0040 EZ303U | 25 | – | 51 | 4.000 | 4/1 | 6000 | 8000 | 0.45 | 6.0 | – | 1.9 | 3.4 |
| P2 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 25 Nm) | | | | | | | | | | | | | | | | | |
| 171 | 13 | 15 | 1.9 | 1.0 | P232_0350 EZ202U | 25 | – | 51 | 35.00 | 35/1 | 6000 | 8000 | 0.14 | 8.0 | – | 1.8 | 2.8 |
| 188 | 12 | 13 | 2.1 | 1.1 | P232_0320 EZ202U | 21 | – | 41 | 32.00 | 32/1 | 6000 | 8000 | 0.17 | 8.0 | – | 1.7 | 2.8 |
| 214 | 11 | 12 | 2.3 | 1.2 | P232_0280 EZ202U | 24 | – | 48 | 28.00 | 28/1 | 6000 | 8000 | 0.14 | 8.0 | – | 1.8 | 2.8 |
| 240 | 9.5 | 10 | 2.4 | 1.4 | P232_0250 EZ202U | 25 | – | 51 | 25.00 | 25/1 | 6000 | 8000 | 0.15 | 8.0 | – | 1.8 | 2.8 |
| 300 | 7.6 | 8.4 | 2.7 | 1.7 | P232_0200 EZ202U | 25 | – | 51 | 20.00 | 20/1 | 6000 | 8000 | 0.17 | 8.0 | – | 1.8 | 2.8 |
| 300 | 12 | 13 | 4.1 | 1.1 | P232_0200 EZ203U | 25 | – | 51 | 20.00 | 20/1 | 6000 | 8000 | 0.21 | 8.0 | – | 1.8 | 3.0 |
| 375 | 6.1 | 6.7 | 3.0 | 2.2 | P232_0160 EZ202U | 22 | – | 48 | 16.00 | 16/1 | 6000 | 8000 | 0.17 | 8.0 | – | 1.8 | 2.8 |
| 375 | 9.3 | 10 | 4.6 | 1.4 | P232_0160 EZ203U | 24 | – | 48 | 16.00 | 16/1 | 6000 | 8000 | 0.21 | 8.0 | – | 1.8 | 3.0 |
| 600 | 3.9 | 4.3 | 0.6 | 2.1 | P231_0100 EZ202U | 14 | – | 41 | 10.00 | 10/1 | 6000 | 8000 | 0.13 | 6.0 | – | 1.6 | 2.2 |
| 600 | 5.9 | 6.7 | 0.9 | 1.4 | P231_0100 EZ203U | 21 | – | 41 | 10.00 | 10/1 | 6000 | 8000 | 0.17 | 6.0 | – | 1.6 | 2.5 |
| 750 | 3.1 | 3.4 | 0.7 | 3.0 | P231_0080 EZ202U | 11 | – | 41 | 8.000 | 8/1 | 6000 | 8000 | 0.14 | 6.0 | – | 1.7 | 2.2 |
| 750 | 4.7 | 5.4 | 1.0 | 2.0 | P231_0080 EZ203U | 21 | – | 41 | 8.000 | 8/1 | 6000 | 8000 | 0.18 | 6.0 | – | 1.7 | 2.5 |
| 750 | 6.9 | 7.4 | 1.5 | 1.4 | P231_0080 EZ301U | 21 | – | 41 | 8.000 | 8/1 | 6000 | 8000 | 0.20 | 6.0 | – | 1.7 | 2.3 |
| 857 | 2.7 | 3.0 | 0.7 | 3.9 | P231_0070 EZ202U | 10 | – | 46 | 7.000 | 7/1 | 6000 | 8000 | 0.14 | 6.0 | – | 1.8 | 2.2 |
| 857 | 4.1 | 4.7 | 1.1 | 2.6 | P231_0070 EZ203U | 18 | – | 46 | 7.000 | 7/1 | 6000 | 8000 | 0.18 | 6.0 | – | 1.8 | 2.5 |
| 857 | 6.0 | 6.5 | 1.6 | 1.8 | P231_0070 EZ301U | 19 | – | 46 | 7.000 | 7/1 | 6000 | 8000 | 0.20 | 6.0 | – | 1.8 | 2.3 |
| 857 | 10 | 11 | 2.6 | 1.1 | P231_0070 EZ302U | 23 | – | 46 | 7.000 | 7/1 | 6000 | 8000 | 0.30 | 6.0 | – | 1.8 | 2.9 |
| 1200 | 3.0 | 3.3 | 1.6 | 3.6 | P231_0050 EZ203U | 13 | – | 51 | 5.000 | 5/1 | 6000 | 8000 | 0.20 | 6.0 | – | 1.9 | 2.5 |
| 1200 | 4.3 | 4.6 | 2.3 | 2.5 | P231_0050 EZ301U | 14 | – | 51 | 5.000 | 5/1 | 6000 | 8000 | 0.22 | 6.0 | – | 1.9 | 2.3 |
| 1200 | 7.3 | 8.1 | 3.9 | 1.5 | P231_0050 EZ302U | 24 | – | 51 | 5.000 | 5/1 | 6000 | 8000 | 0.32 | 6.0 | – | 1.9 | 2.9 |
| 1200 | 9.5 | 11 | 5.1 | 1.1 | P231_0050 EZ303U | 25 | – | 51 | 5.000 | 5/1 | 6000 | 8000 | 0.43 | 6.0 | – | 1.9 | 3.4 |
| 1500 | 2.4 | 2.7 | 2.1 | 4.5 | P231_0040 EZ203U | 10 | – | 51 | 4.000 | 4/1 | 6000 | 8000 | 0.21 | 6.0 | – | 1.9 | 2.5 |
| 1500 | 3.5 | 3.7 | 3.0 | 3.1 | P231_0040 EZ301U | 11 | – | 51 | 4.000 | 4/1 | 6000 | 8000 | 0.24 | 6.0 | – | 1.9 | 2.3 |
| 1500 | 5.8 | 6.5 | 5.1 | 1.8 | P231_0040 EZ302U | 19 | – | 51 | 4.000 | 4/1 | 6000 | 8000 | 0.34 | 6.0 | – | 1.9 | 2.9 |
| 1500 | 7.6 | 8.7 | 6.7 | 1.4 | P231_0040 EZ303U | 25 | – | 51 | 4.000 | 4/1 | 6000 | 8000 | 0.45 | 6.0 | – | 1.9 | 3.4 |
| P3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 75 Nm) | | | | | | | | | | | | | | | | | |
| 60 | 44 | 45 | 1.2 | 1.1 | P332_0500 EZ301U | 75 | 75 | 150 | 50.00 | 50/1 | 6000 | 8000 | 0.20 | 5.0 | 3.0 | 5.0 | 3.4 |
| 75 | 35 | 36 | 1.6 | 1.2 | P332_0400 EZ301U | 65 | 65 | 130 | 40.00 | 40/1 | 6000 | 8000 | 0.20 | 5.0 | 3.0 | 4.8 | 3.4 |
| 86 | 31 | 32 | 1.4 | 1.6 | P332_0350 EZ301U | 75 | 75 | 150 | 35.00 | 35/1 | 6000 | 8000 | 0.20 | 5.0 | 3.0 | 5.2 | 3.4 |
| 94 | 28 | 29 | 1.5 | 1.7 | P332_0320 EZ301U | 63 | 65 | 126 | 32.00 | 32/1 | 5500 | 8000 | 0.23 | 5.0 | 3.0 | 4.6 | 3.4 |
| 94 | 48 | 51 | 2.6 | 1.0 | P332_0320 EZ302U | 63 | 65 | 126 | 32.00 | 32/1 | 5500 | 8000 | 0.33 | 5.0 | 3.0 | 4.6 | 4.0 |
| 107 | 25 | 25 | 1.8 | 1.8 | P332_0280 EZ301U | 65 | 70 | 130 | 28.00 | 28/1 | 6000 | 8000 | 0.22 | 5.0 | 3.0 | 5.1 | 3.4 |
| 107 | 42 | 45 | 3.0 | 1.1 | P332_0280 EZ302U | 65 | 70 | 130 | 28.00 | 28/1 | 6000 | 8000 | 0.32 | 5.0 | 3.0 | 5.1 | 4.0 |
| 120 | 22 | 23 | 1.7 | 2.3 | P332_0250 EZ301U | 67 | 67 | 150 | 25.00 | 25/1 | 6000 | 8000 | 0.21 | 5.0 | 3.0 | 5.2 | 3.4 |
| 120 | 38 | 40 | 2.9 | 1.3 | P332_0250 EZ302U | 75 | 75 | 150 | 25.00 | 25/1 | 6000 | 8000 | 0.31 | 5.0 | 3.0 | 5.2 | 4.0 |
| 120 | 49 | 52 | 3.8 | 1.0 | P332_0250 EZ303U | 75 | 75 | 150 | 25.00 | 25/1 | 6000 | 8000 | 0.42 | 5.0 | 3.0 | 5.2 | 4.5 |
| 150 | 18 | 18 | 1.9 | 2.8 | P332_0200 EZ301U | 53 | 53 | 150 | 20.00 | 20/1 | 5500 | 8000 | 0.23 | 5.0 | 3.0 | 5.3 | 3.4 |
| 150 | 30 | 32 | 3.2 | 1.7 | P332_0200 EZ302U | 75 | 75 | 150 | 20.00 | 20/1 | 5500 | 8000 | 0.33 | 5.0 | 3.0 | 5.3 | 4.0 |
| 150 | 39 | 42 | 4.2 | 1.3 | P332_0200 EZ303U | 75 | 75 | 150 | 20.00 | 20/1 | 5500 | 8000 | 0.44 | 5.0 | 3.0 | 5.3 | 4.5 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 75 Nm) | | | | | | | | | | | | | | | | | |
| 188 | 14 | 14 | 2.4 | 3.2 | P332_0160 EZ301U | 43 | 43 | 130 | 16.00 | 16/1 | 5500 | 8000 | 0.23 | 5.0 | 3.0 | 5.2 | 3.4 |
| 188 | 24 | 26 | 4.0 | 1.9 | P332_0160 EZ302U | 65 | 65 | 130 | 16.00 | 16/1 | 5500 | 8000 | 0.33 | 5.0 | 3.0 | 5.2 | 4.0 |
| 188 | 31 | 33 | 5.2 | 1.4 | P332_0160 EZ303U | 65 | 65 | 130 | 16.00 | 16/1 | 5500 | 8000 | 0.44 | 5.0 | 3.0 | 5.2 | 4.5 |
| 250 | 11 | 11 | 4.1 | 2.8 | P332_0120 EZ301U | 32 | 32 | 100 | 12.00 | 12/1 | 5500 | 8000 | 0.24 | 5.0 | 3.0 | 4.7 | 3.4 |
| 250 | 18 | 19 | 7.0 | 1.7 | P332_0120 EZ302U | 50 | 50 | 100 | 12.00 | 12/1 | 5500 | 8000 | 0.34 | 5.0 | 3.0 | 4.7 | 4.0 |
| 250 | 24 | 25 | 9.1 | 1.3 | P332_0120 EZ303U | 50 | 50 | 100 | 12.00 | 12/1 | 5500 | 8000 | 0.45 | 5.0 | 3.0 | 4.7 | 4.5 |
| 300 | 9.0 | 9.2 | 0.5 | 3.2 | P331_0100 EZ301U | 27 | 27 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.21 | 4.0 | 2.0 | 4.4 | 3.0 |
| 300 | 15 | 16 | 0.9 | 1.9 | P331_0100 EZ302U | 49 | 49 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.31 | 4.0 | 2.0 | 4.4 | 3.6 |
| 300 | 20 | 21 | 1.1 | 1.4 | P331_0100 EZ303U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.42 | 4.0 | 2.0 | 4.4 | 4.1 |
| 300 | 27 | 29 | 1.5 | 1.1 | P331_0100 EZ401U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.95 | 4.0 | 2.0 | 4.4 | 5.5 |
| 375 | 7.2 | 7.4 | 0.5 | 4.8 | P331_0080 EZ301U | 22 | 22 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.22 | 4.0 | 2.0 | 4.7 | 3.0 |
| 375 | 12 | 13 | 0.9 | 2.8 | P331_0080 EZ302U | 39 | 39 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.32 | 4.0 | 2.0 | 4.7 | 3.6 |
| 375 | 16 | 17 | 1.2 | 2.2 | P331_0080 EZ303U | 54 | 54 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.43 | 4.0 | 2.0 | 4.7 | 4.1 |
| 375 | 22 | 23 | 1.6 | 1.6 | P331_0080 EZ401U | 63 | 65 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.96 | 4.0 | 2.0 | 4.7 | 5.5 |
| 429 | 11 | 11 | 1.0 | 3.6 | P331_0070 EZ302U | 34 | 34 | 138 | 7.000 | 7/1 | 5000 | 8000 | 0.33 | 4.0 | 2.0 | 5.1 | 3.6 |
| 429 | 14 | 15 | 1.3 | 2.8 | P331_0070 EZ303U | 48 | 48 | 138 | 7.000 | 7/1 | 5000 | 8000 | 0.44 | 4.0 | 2.0 | 5.1 | 4.1 |
| 429 | 19 | 20 | 1.7 | 2.1 | P331_0070 EZ401U | 58 | 58 | 138 | 7.000 | 7/1 | 5000 | 8000 | 0.97 | 4.0 | 2.0 | 5.1 | 5.5 |
| 429 | 32 | 35 | 2.9 | 1.2 | P331_0070 EZ402U | 69 | 75 | 138 | 7.000 | 7/1 | 5000 | 8000 | 1.7 | 4.0 | 2.0 | 5.1 | 6.6 |
| 600 | 10 | 11 | 1.9 | 3.9 | P331_0050 EZ303U | 34 | 34 | 150 | 5.000 | 5/1 | 4500 | 8000 | 0.48 | 4.0 | 2.0 | 5.5 | 4.1 |
| 600 | 14 | 15 | 2.6 | 2.9 | P331_0050 EZ401U | 41 | 41 | 150 | 5.000 | 5/1 | 4500 | 8000 | 1.0 | 4.0 | 2.0 | 5.5 | 5.5 |
| 600 | 23 | 25 | 4.3 | 1.7 | P331_0050 EZ402U | 75 | 78 | 150 | 5.000 | 5/1 | 4500 | 8000 | 1.7 | 4.0 | 2.0 | 5.5 | 6.6 |
| 750 | 8.0 | 8.5 | 2.5 | 4.9 | P331_0040 EZ303U | 27 | 27 | 130 | 4.000 | 4/1 | 4000 | 8000 | 0.53 | 4.0 | 2.0 | 5.5 | 4.1 |
| 750 | 11 | 12 | 3.3 | 3.6 | P331_0040 EZ401U | 33 | 33 | 130 | 4.000 | 4/1 | 4000 | 8000 | 1.1 | 4.0 | 2.0 | 5.5 | 5.5 |
| 750 | 18 | 20 | 5.6 | 2.2 | P331_0040 EZ402U | 62 | 62 | 130 | 4.000 | 4/1 | 4000 | 8000 | 1.8 | 4.0 | 2.0 | 5.5 | 6.6 |
| 1000 | 6.0 | 6.4 | 5.2 | 4.4 | P331_0030 EZ303U | 20 | 20 | 100 | 3.000 | 3/1 | 3500 | 7000 | 0.68 | 4.0 | 2.0 | 5.3 | 4.1 |
| 1000 | 8.1 | 8.7 | 7.1 | 3.2 | P331_0030 EZ401U | 25 | 25 | 100 | 3.000 | 3/1 | 3500 | 7000 | 1.2 | 4.0 | 2.0 | 5.3 | 5.5 |
| 1000 | 14 | 15 | 12 | 1.9 | P331_0030 EZ402U | 47 | 47 | 100 | 3.000 | 3/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 5.3 | 6.6 |
| P3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 75 Nm) | | | | | | | | | | | | | | | | | |
| 75 | 30 | 33 | 0.5 | 1.3 | P332_0800 EZ202U | 63 | 65 | 126 | 80.00 | 80/1 | 6000 | 8000 | 0.13 | 5.0 | 3.0 | 4.5 | 3.3 |
| 86 | 27 | 29 | 0.5 | 1.7 | P332_0700 EZ202U | 69 | 69 | 138 | 70.00 | 70/1 | 6000 | 8000 | 0.13 | 5.0 | 3.0 | 4.9 | 3.3 |
| 86 | 41 | 46 | 0.7 | 1.1 | P332_0700 EZ203U | 69 | 69 | 138 | 70.00 | 70/1 | 6000 | 8000 | 0.17 | 5.0 | 3.0 | 4.9 | 3.6 |
| 107 | 21 | 23 | 0.6 | 1.9 | P332_0560 EZ202U | 63 | 65 | 126 | 56.00 | 56/1 | 6000 | 8000 | 0.14 | 5.0 | 3.0 | 4.6 | 3.3 |
| 107 | 32 | 37 | 0.9 | 1.2 | P332_0560 EZ203U | 63 | 65 | 126 | 56.00 | 56/1 | 6000 | 8000 | 0.18 | 5.0 | 3.0 | 4.6 | 3.6 |
| 120 | 19 | 21 | 0.6 | 2.1 | P332_0500 EZ202U | 70 | 70 | 150 | 50.00 | 50/1 | 6000 | 8000 | 0.13 | 5.0 | 3.0 | 5.0 | 3.3 |
| 120 | 29 | 33 | 1.0 | 1.4 | P332_0500 EZ203U | 75 | 75 | 150 | 50.00 | 50/1 | 6000 | 8000 | 0.17 | 5.0 | 3.0 | 5.0 | 3.6 |
| 150 | 15 | 17 | 0.9 | 2.1 | P332_0400 EZ202U | 56 | 56 | 130 | 40.00 | 40/1 | 6000 | 8000 | 0.13 | 5.0 | 3.0 | 4.8 | 3.3 |
| 150 | 23 | 26 | 1.4 | 1.4 | P332_0400 EZ203U | 65 | 65 | 130 | 40.00 | 40/1 | 6000 | 8000 | 0.17 | 5.0 | 3.0 | 4.8 | 3.6 |
| 171 | 13 | 15 | 0.7 | 3.4 | P332_0350 EZ202U | 49 | 49 | 150 | 35.00 | 35/1 | 6000 | 8000 | 0.14 | 5.0 | 3.0 | 5.2 | 3.3 |
| 171 | 20 | 23 | 1.0 | 2.2 | P332_0350 EZ203U | 75 | 75 | 150 | 35.00 | 35/1 | 6000 | 8000 | 0.18 | 5.0 | 3.0 | 5.2 | 3.6 |
| 171 | 30 | 32 | 1.5 | 1.5 | P332_0350 EZ301U | 75 | 75 | 150 | 35.00 | 35/1 | 6000 | 8000 | 0.20 | 5.0 | 3.0 | 5.2 | 3.4 |
| 188 | 12 | 13 | 0.8 | 3.3 | P332_0320 EZ202U | 45 | 45 | 126 | 32.00 | 32/1 | 5500 | 8000 | 0.17 | 5.0 | 3.0 | 4.6 | 3.3 |
| 188 | 19 | 21 | 1.2 | 2.2 | P332_0320 EZ203U | 63 | 65 | 126 | 32.00 | 32/1 | 5500 | 8000 | 0.21 | 5.0 | 3.0 | 4.6 | 3.6 |
| 188 | 27 | 29 | 1.8 | 1.5 | P332_0320 EZ301U | 63 | 65 | 126 | 32.00 | 32/1 | 5500 | 8000 | 0.23 | 5.0 | 3.0 | 4.6 | 3.4 |
| 214 | 11 | 12 | 0.9 | 3.6 | P332_0280 EZ202U | 39 | 39 | 130 | 28.00 | 28/1 | 6000 | 8000 | 0.16 | 5.0 | 3.0 | 5.1 | 3.3 |
| 214 | 16 | 18 | 1.4 | 2.4 | P332_0280 EZ203U | 65 | 70 | 130 | 28.00 | 28/1 | 6000 | 8000 | 0.20 | 5.0 | 3.0 | 5.1 | 3.6 |
| 214 | 24 | 25 | 2.0 | 1.6 | P332_0280 EZ301U | 65 | 70 | 130 | 28.00 | 28/1 | 6000 | 8000 | 0.22 | 5.0 | 3.0 | 5.1 | 3.4 |
| 240 | 9.5 | 10 | 0.8 | 4.7 | P332_0250 EZ202U | 35 | 35 | 150 | 25.00 | 25/1 | 6000 | 8000 | 0.15 | 5.0 | 3.0 | 5.2 | 3.3 |
| 240 | 14 | 16 | 1.2 | 3.1 | P332_0250 EZ203U | 64 | 64 | 150 | 25.00 | 25/1 | 6000 | 8000 | 0.19 | 5.0 | 3.0 | 5.2 | 3.6 |
| 240 | 21 | 23 | 1.8 | 2.1 | P332_0250 EZ301U | 67 | 67 | 150 | 25.00 | 25/1 | 6000 | 8000 | 0.21 | 5.0 | 3.0 | 5.2 | 3.4 |
| 240 | 36 | 40 | 3.0 | 1.3 | P332_0250 EZ302U | 75 | 75 | 150 | 25.00 | 25/1 | 6000 | 8000 | 0.31 | 5.0 | 3.0 | 5.2 | 4.0 |
| 300 | 12 | 13 | 1.4 | 3.9 | P332_0200 EZ203U | 51 | 51 | 150 | 20.00 | 20/1 | 5500 | 8000 | 0.20 | 5.0 | 3.0 | 5.3 | 3.6 |
| 300 | 17 | 18 | 2.0 | 2.7 | P332_0200 EZ301U | 53 | 53 | 150 | 20.00 | 20/1 | 5500 | 8000 | 0.23 | 5.0 | 3.0 | 5.3 | 3.4 |
| 300 | 29 | 32 | 3.4 | 1.6 | P332_0200 EZ302U | 75 | 75 | 150 | 20.00 | 20/1 | 5500 | 8000 | 0.33 | 5.0 | 3.0 | 5.3 | 4.0 |
| 300 | 37 | 43 | 4.4 | 1.2 | P332_0200 EZ303U | 75 | 75 | 150 | 20.00 | 20/1 | 5500 | 8000 | 0.44 | 5.0 | 3.0 | 5.3 | 4.5 |
| 375 | 9.3 | 10 | 1.8 | 4.1 | P332_0160 EZ203U | 41 | 41 | 130 | 16.00 | 16/1 | 5500 | 8000 | 0.21 | 5.0 | 3.0 | 5.2 | 3.6 |
| 375 | 14 | 14 | 2.6 | 2.8 | P332_0160 EZ301U | 43 | 43 | 130 | 16.00 | 16/1 | 5500 | 8000 | 0.23 | 5.0 | 3.0 | 5.2 | 3.4 |
| 375 | 23 | 26 | 4.5 | 1.7 | P332_0160 EZ302U | 65 | 65 | 130 | 16.00 | 16/1 | 5500 | 8000 | 0.33 | 5.0 | 3.0 | 5.2 | 4.0 |
| 375 | 30 | 34 | 5.8 | 1.3 | P332_0160 EZ303U | 65 | 65 | 130 | 16.00 | 16/1 | 5500 | 8000 | 0.44 | 5.0 | 3.0 | 5.2 | 4.5 |
| 500 | 7.0 | 7.9 | 3.0 | 3.9 | P332_0120 EZ203U | 31 | 31 | 100 | 12.00 | 12/1 | 5500 | 8000 | 0.22 | 5.0 | 3.0 | 4.7 | 3.6 |
| 500 | 10 | 11 | 4.3 | 2.7 | P332_0120 EZ301U | 32 | 32 | 100 | 12.00 | 12/1 | 5500 | 8000 | 0.24 | 5.0 | 3.0 | 4.7 | 3.4 |
| 500 | 17 | 19 | 7.3 | 1.6 | P332_0120 EZ302U | 50 | 50 | 100 | 12.00 | 12/1 | 5500 | 8000 | 0.34 | 5.0 | 3.0 | 4.7 | 4.0 |
| 500 | 22 | 26 | 9.5 | 1.2 | P332_0120 EZ303U | 50 | 50 | 100 | 12.00 | 12/1 | 5500 | 8000 | 0.45 | 5.0 | 3.0 | 4.7 | 4.5 |
| 600 | 8.6 | 9.2 | 0.6 | 2.6 | P331_0100 EZ301U | 27 | 27 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.21 | 4.0 | 2.0 | 4.4 | 3.0 |
| 600 | 15 | 16 | 1.0 | 1.6 | P331_0100 EZ302U | 49 | 49 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.31 | 4.0 | 2.0 | 4.4 | 3.6 |
| 600 | 19 | 22 | 1.4 | 1.2 | P331_0100 EZ303U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.42 | 4.0 | 2.0 | 4.4 | 4.1 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 75 Nm) | | | | | | | | | | | | | | | | | |
| 600 | 22 | 27 | 1.6 | 1.0 | P331_0100 EZ401U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.95 | 4.0 | 2.0 | 4.4 | 5.5 |
| 750 | 6.9 | 7.4 | 0.7 | 4.0 | P331_0080 EZ301U | 22 | 22 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.22 | 4.0 | 2.0 | 4.7 | 3.0 |
| 750 | 12 | 13 | 1.1 | 2.4 | P331_0080 EZ302U | 39 | 39 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.32 | 4.0 | 2.0 | 4.7 | 3.6 |
| 750 | 15 | 17 | 1.4 | 1.8 | P331_0080 EZ303U | 54 | 54 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.43 | 4.0 | 2.0 | 4.7 | 4.1 |
| 750 | 18 | 22 | 1.7 | 1.6 | P331_0080 EZ401U | 63 | 65 | 126 | 8.000 | 8/1 | 5000 | 8000 | 0.96 | 4.0 | 2.0 | 4.7 | 5.5 |
| 750 | 27 | 38 | 2.6 | 1.0 | P331_0080 EZ402U | 63 | 65 | 126 | 8.000 | 8/1 | 5000 | 8000 | 1.7 | 4.0 | 2.0 | 4.7 | 6.6 |
| 857 | 10 | 11 | 1.2 | 3.1 | P331_0070 EZ302U | 34 | 34 | 138 | 7.000 | 7/1 | 5000 | 8000 | 0.33 | 4.0 | 2.0 | 5.1 | 3.6 |
| 857 | 13 | 15 | 1.5 | 2.3 | P331_0070 EZ303U | 48 | 48 | 138 | 7.000 | 7/1 | 5000 | 8000 | 0.44 | 4.0 | 2.0 | 5.1 | 4.1 |
| 857 | 16 | 19 | 1.8 | 2.0 | P331_0070 EZ401U | 58 | 58 | 138 | 7.000 | 7/1 | 5000 | 8000 | 0.97 | 4.0 | 2.0 | 5.1 | 5.5 |
| 857 | 24 | 33 | 2.7 | 1.3 | P331_0070 EZ402U | 69 | 75 | 138 | 7.000 | 7/1 | 5000 | 8000 | 1.7 | 4.0 | 2.0 | 5.1 | 6.6 |
| 1200 | 7.3 | 8.1 | 1.7 | 4.3 | P331_0050 EZ302U | 24 | 24 | 150 | 5.000 | 5/1 | 4500 | 8000 | 0.37 | 4.0 | 2.0 | 5.5 | 3.6 |
| 1200 | 9.5 | 11 | 2.3 | 3.3 | P331_0050 EZ303U | 34 | 34 | 150 | 5.000 | 5/1 | 4500 | 8000 | 0.48 | 4.0 | 2.0 | 5.5 | 4.1 |
| 1200 | 11 | 14 | 2.6 | 2.8 | P331_0050 EZ401U | 41 | 41 | 150 | 5.000 | 5/1 | 4500 | 8000 | 1.0 | 4.0 | 2.0 | 5.5 | 5.5 |
| 1200 | 17 | 24 | 4.0 | 1.8 | P331_0050 EZ402U | 75 | 78 | 150 | 5.000 | 5/1 | 4500 | 8000 | 1.7 | 4.0 | 2.0 | 5.5 | 6.6 |
| 1500 | 7.6 | 8.7 | 3.0 | 4.1 | P331_0040 EZ303U | 27 | 27 | 130 | 4.000 | 4/1 | 4000 | 8000 | 0.53 | 4.0 | 2.0 | 5.5 | 4.1 |
| 1500 | 8.9 | 11 | 3.5 | 3.5 | P331_0040 EZ401U | 33 | 33 | 130 | 4.000 | 4/1 | 4000 | 8000 | 1.1 | 4.0 | 2.0 | 5.5 | 5.5 |
| 1500 | 14 | 19 | 5.3 | 2.3 | P331_0040 EZ402U | 62 | 62 | 130 | 4.000 | 4/1 | 4000 | 8000 | 1.8 | 4.0 | 2.0 | 5.5 | 6.6 |
| 2000 | 4.4 | 4.9 | 4.8 | 4.8 | P331_0030 EZ302U | 15 | 15 | 100 | 3.000 | 3/1 | 3500 | 7000 | 0.57 | 4.0 | 2.0 | 5.3 | 3.6 |
| 2000 | 5.7 | 6.5 | 6.2 | 3.6 | P331_0030 EZ303U | 20 | 20 | 100 | 3.000 | 3/1 | 3500 | 7000 | 0.68 | 4.0 | 2.0 | 5.3 | 4.1 |
| 2000 | 6.7 | 8.1 | 7.3 | 3.1 | P331_0030 EZ401U | 25 | 25 | 100 | 3.000 | 3/1 | 3500 | 7000 | 1.2 | 4.0 | 2.0 | 5.3 | 5.5 |
| 2000 | 10 | 14 | 11 | 2.0 | P331_0030 EZ402U | 47 | 47 | 100 | 3.000 | 3/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 5.3 | 6.6 |
| P4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm) | | | | | | | | | | | | | | | | | |
| 38 | 71 | 72 | 0.6 | 1.3 | P432_0800 EZ301U | 115 | 115 | 230 | 80.00 | 80/1 | 5000 | 8000 | 0.20 | 5.0 | 3.0 | 9.6 | 5.4 |
| 43 | 62 | 63 | 0.6 | 1.6 | P432_0700 EZ301U | 127 | 127 | 253 | 70.00 | 70/1 | 5000 | 8000 | 0.20 | 5.0 | 3.0 | 11 | 5.4 |
| 54 | 49 | 51 | 0.7 | 1.8 | P432_0560 EZ301U | 115 | 115 | 230 | 56.00 | 56/1 | 5000 | 8000 | 0.22 | 5.0 | 3.0 | 9.6 | 5.4 |
| 54 | 85 | 89 | 1.2 | 1.0 | P432_0560 EZ302U | 115 | 115 | 230 | 56.00 | 56/1 | 5000 | 8000 | 0.32 | 5.0 | 3.0 | 9.6 | 6.0 |
| 60 | 44 | 45 | 0.7 | 2.3 | P432_0500 EZ301U | 132 | 133 | 264 | 50.00 | 50/1 | 5000 | 8000 | 0.21 | 5.0 | 3.0 | 12 | 5.4 |
| 60 | 76 | 80 | 1.1 | 1.3 | P432_0500 EZ302U | 132 | 138 | 264 | 50.00 | 50/1 | 5000 | 8000 | 0.31 | 5.0 | 3.0 | 12 | 6.0 |
| 60 | 98 | 104 | 1.5 | 1.0 | P432_0500 EZ303U | 132 | 138 | 264 | 50.00 | 50/1 | 5000 | 8000 | 0.42 | 5.0 | 3.0 | 12 | 6.5 |
| 75 | 35 | 36 | 0.9 | 2.5 | P432_0400 EZ301U | 106 | 106 | 260 | 40.00 | 40/1 | 5000 | 8000 | 0.21 | 5.0 | 3.0 | 12 | 5.4 |
| 75 | 60 | 64 | 1.5 | 1.4 | P432_0400 EZ302U | 130 | 130 | 260 | 40.00 | 40/1 | 5000 | 8000 | 0.31 | 5.0 | 3.0 | 12 | 6.0 |
| 75 | 79 | 83 | 1.9 | 1.1 | P432_0400 EZ303U | 130 | 130 | 260 | 40.00 | 40/1 | 5000 | 8000 | 0.42 | 5.0 | 3.0 | 12 | 6.5 |
| 86 | 31 | 32 | 0.8 | 3.3 | P432_0350 EZ301U | 93 | 93 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.22 | 5.0 | 3.0 | 12 | 5.4 |
| 86 | 53 | 56 | 1.3 | 1.9 | P432_0350 EZ302U | 133 | 138 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.32 | 5.0 | 3.0 | 12 | 6.0 |
| 86 | 69 | 73 | 1.8 | 1.5 | P432_0350 EZ303U | 133 | 138 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.43 | 5.0 | 3.0 | 12 | 6.5 |
| 86 | 93 | 100 | 2.4 | 1.1 | P432_0350 EZ401U | 133 | 138 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.96 | 5.0 | 3.0 | 12 | 7.9 |
| 94 | 28 | 29 | 0.9 | 3.2 | P432_0320 EZ301U | 85 | 85 | 253 | 32.00 | 32/1 | 4000 | 8000 | 0.28 | 5.0 | 3.0 | 9.6 | 5.4 |
| 94 | 48 | 51 | 1.6 | 1.9 | P432_0320 EZ302U | 126 | 131 | 253 | 32.00 | 32/1 | 4000 | 8000 | 0.38 | 5.0 | 3.0 | 9.6 | 6.0 |
| 94 | 63 | 67 | 2.1 | 1.4 | P432_0320 EZ303U | 126 | 131 | 253 | 32.00 | 32/1 | 4000 | 8000 | 0.49 | 5.0 | 3.0 | 9.6 | 6.5 |
| 94 | 85 | 91 | 2.8 | 1.1 | P432_0320 EZ401U | 126 | 131 | 253 | 32.00 | 32/1 | 4000 | 8000 | 1.0 | 5.0 | 3.0 | 9.6 | 7.9 |
| 107 | 25 | 25 | 0.9 | 3.8 | P432_0280 EZ301U | 74 | 74 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.22 | 5.0 | 3.0 | 12 | 5.4 |
| 107 | 42 | 45 | 1.6 | 2.2 | P432_0280 EZ302U | 130 | 130 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.32 | 5.0 | 3.0 | 12 | 6.0 |
| 107 | 55 | 58 | 2.1 | 1.7 | P432_0280 EZ303U | 130 | 130 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.43 | 5.0 | 3.0 | 12 | 6.5 |
| 107 | 74 | 80 | 2.9 | 1.3 | P432_0280 EZ401U | 130 | 130 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.96 | 5.0 | 3.0 | 12 | 7.9 |
| 120 | 22 | 23 | 1.0 | 4.5 | P432_0250 EZ301U | 67 | 67 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.25 | 5.0 | 3.0 | 13 | 5.4 |
| 120 | 38 | 40 | 1.6 | 2.6 | P432_0250 EZ302U | 119 | 119 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.35 | 5.0 | 3.0 | 13 | 6.0 |
| 120 | 49 | 52 | 2.1 | 2.0 | P432_0250 EZ303U | 134 | 139 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.46 | 5.0 | 3.0 | 13 | 6.5 |
| 120 | 67 | 71 | 2.9 | 1.5 | P432_0250 EZ401U | 134 | 139 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.99 | 5.0 | 3.0 | 13 | 7.9 |
| 150 | 30 | 32 | 1.9 | 3.1 | P432_0200 EZ302U | 95 | 95 | 268 | 20.00 | 20/1 | 4000 | 8000 | 0.39 | 5.0 | 3.0 | 12 | 6.0 |
| 150 | 39 | 42 | 2.5 | 2.4 | P432_0200 EZ303U | 133 | 133 | 268 | 20.00 | 20/1 | 4000 | 8000 | 0.50 | 5.0 | 3.0 | 12 | 6.5 |
| 150 | 53 | 57 | 3.4 | 1.8 | P432_0200 EZ401U | 134 | 139 | 268 | 20.00 | 20/1 | 4000 | 8000 | 1.0 | 5.0 | 3.0 | 12 | 7.9 |
| 150 | 89 | 99 | 5.7 | 1.1 | P432_0200 EZ402U | 134 | 139 | 268 | 20.00 | 20/1 | 4000 | 8000 | 1.7 | 5.0 | 3.0 | 12 | 9.0 |
| 188 | 24 | 26 | 2.3 | 3.7 | P432_0160 EZ302U | 76 | 76 | 260 | 16.00 | 16/1 | 4000 | 8000 | 0.40 | 5.0 | 3.0 | 12 | 6.0 |
| 188 | 31 | 33 | 3.0 | 2.8 | P432_0160 EZ303U | 106 | 106 | 260 | 16.00 | 16/1 | 4000 | 8000 | 0.51 | 5.0 | 3.0 | 12 | 6.5 |
| 188 | 43 | 46 | 4.0 | 2.1 | P432_0160 EZ401U | 129 | 129 | 260 | 16.00 | 16/1 | 4000 | 8000 | 1.0 | 5.0 | 3.0 | 12 | 7.9 |
| 188 | 71 | 79 | 6.8 | 1.2 | P432_0160 EZ402U | 130 | 130 | 260 | 16.00 | 16/1 | 4000 | 8000 | 1.7 | 5.0 | 3.0 | 12 | 9.0 |
| 250 | 18 | 19 | 3.9 | 3.3 | P432_0120 EZ302U | 57 | 57 | 200 | 12.00 | 12/1 | 3500 | 7000 | 0.42 | 5.0 | 3.0 | 11 | 6.0 |
| 250 | 24 | 25 | 5.1 | 2.5 | P432_0120 EZ303U | 80 | 80 | 200 | 12.00 | 12/1 | 3500 | 7000 | 0.53 | 5.0 | 3.0 | 11 | 6.5 |
| 250 | 32 | 34 | 6.9 | 1.9 | P432_0120 EZ401U | 97 | 97 | 200 | 12.00 | 12/1 | 3500 | 7000 | 1.1 | 5.0 | 3.0 | 11 | 7.9 |
| 250 | 54 | 59 | 12 | 1.1 | P432_0120 EZ402U | 100 | 100 | 200 | 12.00 | 12/1 | 3500 | 7000 | 1.8 | 5.0 | 3.0 | 11 | 9.0 |
| 300 | 27 | 29 | 0.9 | 2.2 | P431_0100 EZ401U | 82 | 82 | 230 | 10.00 | 10/1 | 4000 | 8000 | 0.98 | 4.0 | 2.0 | 9.1 | 6.5 |
| 300 | 42 | 46 | 1.4 | 1.4 | P431_0100 EZ501U | 115 | 115 | 230 | 10.00 | 10/1 | 4000 | 8000 | 2.9 | 4.0 | 2.0 | 9.1 | 7.5 |
| 300 | 46 | 50 | 1.5 | 1.3 | P431_0100 EZ402U | 115 | 115 | 230 | 10.00 | 10/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 9.1 | 7.6 |
| 375 | 22 | 23 | 1.0 | 3.2 | P431_0080 EZ401U | 66 | 66 | 239 | 8.000 | 8/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 9.8 | 6.5 |
| 375 | 33 | 36 | 1.5 | 2.1 | P431_0080 EZ501U | 120 | 124 | 239 | 8.000 | 8/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 9.8 | 7.5 |

| n2 [rpm] | M2 [Nm] | M2,0 [Nm] | ath | S | Type | M2acc [Nm] | M2accHT [Nm] | M2NOT [Nm] | i | iexakt | n1maxDB [rpm] | n1maxZB [rpm] | J1 [kgcm²] | Δφ2 [arcmin] | Δφ2red [arcmin] | C2 [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm) | | | | | | | | | | | | | | | | | |
| 375 | 36 | 40 | 1.7 | 1.9 | P431_0080 EZ402U | 120 | 124 | 239 | 8.000 | 8/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 9.8 | 7.6 |
| 375 | 54 | 67 | 2.5 | 1.3 | P431_0080 EZ404U | 120 | 125 | 239 | 8.000 | 8/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 9.8 | 9.7 |
| 375 | 57 | 62 | 2.6 | 1.2 | P431_0080 EZ502U | 120 | 125 | 239 | 8.000 | 8/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 9.8 | 9.0 |
| 429 | 19 | 20 | 1.1 | 3.9 | P431_0070 EZ401U | 58 | 58 | 271 | 7.000 | 7/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 11 | 6.5 |
| 429 | 29 | 32 | 1.7 | 2.5 | P431_0070 EZ501U | 109 | 109 | 271 | 7.000 | 7/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 11 | 7.5 |
| 429 | 32 | 35 | 1.9 | 2.3 | P431_0070 EZ402U | 109 | 109 | 271 | 7.000 | 7/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 11 | 7.6 |
| 429 | 47 | 58 | 2.7 | 1.6 | P431_0070 EZ404U | 135 | 143 | 271 | 7.000 | 7/1 | 4000 | 8000 | 3.1 | 4.0 | 2.0 | 11 | 9.7 |
| 429 | 50 | 54 | 2.9 | 1.5 | P431_0070 EZ502U | 135 | 143 | 271 | 7.000 | 7/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 11 | 9.0 |
| 429 | 66 | 75 | 3.8 | 1.1 | P431_0070 EZ503U | 135 | 143 | 271 | 7.000 | 7/1 | 4000 | 8000 | 7.7 | 4.0 | 2.0 | 11 | 10 |
| 600 | 21 | 23 | 2.5 | 3.6 | P431_0050 EZ501U | 78 | 78 | 277 | 5.000 | 5/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 13 | 7.5 |
| 600 | 23 | 25 | 2.8 | 3.3 | P431_0050 EZ402U | 78 | 78 | 277 | 5.000 | 5/1 | 3700 | 7000 | 1.8 | 4.0 | 2.0 | 13 | 7.6 |
| 600 | 33 | 42 | 4.1 | 2.2 | P431_0050 EZ404U | 139 | 141 | 277 | 5.000 | 5/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 13 | 9.7 |
| 600 | 36 | 39 | 4.4 | 2.1 | P431_0050 EZ502U | 139 | 145 | 277 | 5.000 | 5/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 13 | 9.0 |
| 600 | 47 | 54 | 5.7 | 1.6 | P431_0050 EZ503U | 139 | 145 | 277 | 5.000 | 5/1 | 3700 | 7000 | 7.8 | 4.0 | 2.0 | 13 | 10 |
| 600 | 65 | 78 | 8.0 | 1.1 | P431_0050 EZ505U | 139 | 145 | 277 | 5.000 | 5/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 13 | 13 |
| 750 | 17 | 18 | 3.3 | 4.5 | P431_0040 EZ501U | 62 | 62 | 240 | 4.000 | 4/1 | 3300 | 6500 | 3.3 | 4.0 | 2.0 | 13 | 7.5 |
| 750 | 18 | 20 | 3.6 | 4.1 | P431_0040 EZ402U | 62 | 62 | 240 | 4.000 | 4/1 | 3300 | 6500 | 2.0 | 4.0 | 2.0 | 13 | 7.6 |
| 750 | 27 | 33 | 5.3 | 2.8 | P431_0040 EZ404U | 113 | 113 | 240 | 4.000 | 4/1 | 3300 | 6500 | 3.3 | 4.0 | 2.0 | 13 | 9.7 |
| 750 | 29 | 31 | 5.7 | 2.6 | P431_0040 EZ502U | 120 | 120 | 240 | 4.000 | 4/1 | 3300 | 6500 | 5.6 | 4.0 | 2.0 | 13 | 9.0 |
| 750 | 38 | 43 | 7.5 | 2.0 | P431_0040 EZ503U | 120 | 130 | 240 | 4.000 | 4/1 | 3300 | 6500 | 7.9 | 4.0 | 2.0 | 13 | 10 |
| 750 | 52 | 62 | 10 | 1.4 | P431_0040 EZ505U | 120 | 130 | 240 | 4.000 | 4/1 | 3300 | 6500 | 13 | 4.0 | 2.0 | 13 | 13 |
| 1000 | 13 | 14 | 8.0 | 3.5 | P431_0030 EZ501U | 47 | 47 | 200 | 3.000 | 3/1 | 3000 | 6000 | 3.7 | 4.0 | 2.0 | 13 | 7.5 |
| 1000 | 14 | 15 | 8.7 | 3.2 | P431_0030 EZ402U | 47 | 47 | 200 | 3.000 | 3/1 | 3000 | 6000 | 2.4 | 4.0 | 2.0 | 13 | 7.6 |
| 1000 | 20 | 25 | 13 | 2.2 | P431_0030 EZ404U | 84 | 84 | 200 | 3.000 | 3/1 | 3000 | 6000 | 3.8 | 4.0 | 2.0 | 13 | 9.7 |
| 1000 | 22 | 23 | 14 | 2.0 | P431_0030 EZ502U | 90 | 90 | 200 | 3.000 | 3/1 | 3000 | 6000 | 6.0 | 4.0 | 2.0 | 13 | 9.0 |
| 1000 | 28 | 32 | 18 | 1.5 | P431_0030 EZ503U | 100 | 100 | 200 | 3.000 | 3/1 | 3000 | 6000 | 8.4 | 4.0 | 2.0 | 13 | 10 |
| 1000 | 39 | 47 | 25 | 1.1 | P431_0030 EZ505U | 100 | 100 | 200 | 3.000 | 3/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 13 | 13 |
| P4 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 140 Nm) | | | | | | | | | | | | | | | | | |
| 643 | 65 | 104 | 4.3 | 1.0 | P431_0070 EZ505U | 135 | 143 | 271 | 7.000 | 7/1 | 4000 | 8000 | 12 | 4.0 | 2.0 | 11 | 13 |
| 900 | 46 | 74 | 6.4 | 1.4 | P431_0050 EZ505U | 139 | 145 | 277 | 5.000 | 5/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 13 | 13 |
| 1125 | 37 | 59 | 8.4 | 1.8 | P431_0040 EZ505U | 120 | 130 | 240 | 4.000 | 4/1 | 3300 | 6500 | 13 | 4.0 | 2.0 | 13 | 13 |
| 1500 | 28 | 45 | 20 | 1.4 | P431_0030 EZ505U | 100 | 100 | 200 | 3.000 | 3/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 13 | 13 |
| P4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm) | | | | | | | | | | | | | | | | | |
| 75 | 68 | 72 | 0.6 | 1.2 | P432_0800 EZ301U | 115 | 115 | 230 | 80.00 | 80/1 | 5000 | 8000 | 0.20 | 5.0 | 3.0 | 9.6 | 5.4 |
| 86 | 59 | 63 | 0.6 | 1.4 | P432_0700 EZ301U | 127 | 127 | 253 | 70.00 | 70/1 | 5000 | 8000 | 0.20 | 5.0 | 3.0 | 11 | 5.4 |
| 107 | 47 | 51 | 0.8 | 1.7 | P432_0560 EZ301U | 115 | 115 | 230 | 56.00 | 56/1 | 5000 | 8000 | 0.22 | 5.0 | 3.0 | 9.6 | 5.4 |
| 107 | 80 | 89 | 1.3 | 1.0 | P432_0560 EZ302U | 115 | 115 | 230 | 56.00 | 56/1 | 5000 | 8000 | 0.32 | 5.0 | 3.0 | 9.6 | 6.0 |
| 120 | 42 | 45 | 0.8 | 2.0 | P432_0500 EZ301U | 132 | 133 | 264 | 50.00 | 50/1 | 5000 | 8000 | 0.21 | 5.0 | 3.0 | 12 | 5.4 |
| 120 | 71 | 80 | 1.3 | 1.2 | P432_0500 EZ302U | 132 | 138 | 264 | 50.00 | 50/1 | 5000 | 8000 | 0.31 | 5.0 | 3.0 | 12 | 6.0 |
| 150 | 34 | 36 | 0.9 | 2.4 | P432_0400 EZ301U | 106 | 106 | 260 | 40.00 | 40/1 | 5000 | 8000 | 0.21 | 5.0 | 3.0 | 12 | 5.4 |
| 150 | 57 | 64 | 1.5 | 1.4 | P432_0400 EZ302U | 130 | 130 | 260 | 40.00 | 40/1 | 5000 | 8000 | 0.31 | 5.0 | 3.0 | 12 | 6.0 |
| 150 | 74 | 86 | 2.0 | 1.1 | P432_0400 EZ303U | 130 | 130 | 260 | 40.00 | 40/1 | 5000 | 8000 | 0.42 | 5.0 | 3.0 | 12 | 6.5 |
| 171 | 30 | 32 | 0.9 | 2.9 | P432_0350 EZ301U | 93 | 93 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.22 | 5.0 | 3.0 | 12 | 5.4 |
| 171 | 50 | 56 | 1.5 | 1.7 | P432_0350 EZ302U | 133 | 138 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.32 | 5.0 | 3.0 | 12 | 6.0 |
| 171 | 65 | 75 | 2.0 | 1.3 | P432_0350 EZ303U | 133 | 138 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.43 | 5.0 | 3.0 | 12 | 6.5 |
| 171 | 76 | 93 | 2.3 | 1.1 | P432_0350 EZ401U | 133 | 138 | 266 | 35.00 | 35/1 | 4500 | 8000 | 0.96 | 5.0 | 3.0 | 12 | 7.9 |
| 188 | 27 | 29 | 1.0 | 3.0 | P432_0320 EZ301U | 85 | 85 | 253 | 32.00 | 32/1 | 4000 | 8000 | 0.28 | 5.0 | 3.0 | 9.6 | 5.4 |
| 188 | 46 | 51 | 1.7 | 1.8 | P432_0320 EZ302U | 126 | 131 | 253 | 32.00 | 32/1 | 4000 | 8000 | 0.38 | 5.0 | 3.0 | 9.6 | 6.0 |
| 188 | 60 | 68 | 2.2 | 1.3 | P432_0320 EZ303U | 126 | 131 | 253 | 32.00 | 32/1 | 4000 | 8000 | 0.49 | 5.0 | 3.0 | 9.6 | 6.5 |
| 188 | 70 | 85 | 2.6 | 1.1 | P432_0320 EZ401U | 126 | 131 | 253 | 32.00 | 32/1 | 4000 | 8000 | 1.0 | 5.0 | 3.0 | 9.6 | 7.9 |
| 214 | 24 | 25 | 1.0 | 3.6 | P432_0280 EZ301U | 74 | 74 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.22 | 5.0 | 3.0 | 12 | 5.4 |
| 214 | 40 | 45 | 1.7 | 2.1 | P432_0280 EZ302U | 130 | 130 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.32 | 5.0 | 3.0 | 12 | 6.0 |
| 214 | 52 | 60 | 2.2 | 1.6 | P432_0280 EZ303U | 130 | 130 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.43 | 5.0 | 3.0 | 12 | 6.5 |
| 214 | 61 | 74 | 2.6 | 1.4 | P432_0280 EZ401U | 130 | 130 | 260 | 28.00 | 28/1 | 4500 | 8000 | 0.96 | 5.0 | 3.0 | 12 | 7.9 |
| 240 | 21 | 23 | 1.1 | 4.0 | P432_0250 EZ301U | 67 | 67 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.25 | 5.0 | 3.0 | 13 | 5.4 |
| 240 | 36 | 40 | 1.8 | 2.4 | P432_0250 EZ302U | 119 | 119 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.35 | 5.0 | 3.0 | 13 | 6.0 |
| 240 | 47 | 53 | 2.4 | 1.8 | P432_0250 EZ303U | 134 | 139 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.46 | 5.0 | 3.0 | 13 | 6.5 |
| 240 | 55 | 67 | 2.8 | 1.6 | P432_0250 EZ401U | 134 | 139 | 268 | 25.00 | 25/1 | 4500 | 8000 | 0.99 | 5.0 | 3.0 | 13 | 7.9 |
| 240 | 83 | 116 | 4.2 | 1.0 | P432_0250 EZ402U | 134 | 139 | 268 | 25.00 | 25/1 | 4500 | 8000 | 1.7 | 5.0 | 3.0 | 13 | 9.0 |
| 300 | 29 | 32 | 2.0 | 3.0 | P432_0200 EZ302U | 95 | 95 | 268 | 20.00 | 20/1 | 4000 | 8000 | 0.39 | 5.0 | 3.0 | 12 | 6.0 |
| 300 | 37 | 43 | 2.6 | 2.3 | P432_0200 EZ303U | 133 | 133 | 268 | 20.00 | 20/1 | 4000 | 8000 | 0.50 | 5.0 | 3.0 | 12 | 6.5 |
| 300 | 44 | 53 | 3.1 | 1.9 | P432_0200 EZ401U | 134 | 139 | 268 | 20.00 | 20/1 | 4000 | 8000 | 1.0 | 5.0 | 3.0 | 12 | 7.9 |
| 300 | 67 | 93 | 4.7 | 1.3 | P432_0200 EZ402U | 134 | 139 | 268 | 20.00 | 20/1 | 4000 | 8000 | 1.7 | 5.0 | 3.0 | 12 | 9.0 |
| 375 | 23 | 26 | 2.4 | 3.5 | P432_0160 EZ302U | 76 | 76 | 260 | 16.00 | 16/1 | 4000 | 8000 | 0.40 | 5.0 | 3.0 | 12 | 6.0 |
| 375 | 30 | 34 | 3.2 | 2.6 | P432_0160 EZ303U | 106 | 106 | 260 | 16.00 | 16/1 | 4000 | 8000 | 0.51 | 5.0 | 3.0 | 12 | 6.5 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm) | | | | | | | | | | | | | | | | | |
| 375 | 35 | 43 | 3.7 | 2.3 | P432_0160 EZ401U | 129 | 129 | 260 | 16.00 | 16/1 | 4000 | 8000 | 1.0 | 5.0 | 3.0 | 12 | 7.9 |
| 375 | 53 | 74 | 5.7 | 1.5 | P432_0160 EZ402U | 130 | 130 | 260 | 16.00 | 16/1 | 4000 | 8000 | 1.7 | 5.0 | 3.0 | 12 | 9.0 |
| 500 | 10 | 11 | 2.6 | 4.9 | P432_0120 EZ301U | 32 | 32 | 200 | 12.00 | 12/1 | 3500 | 7000 | 0.32 | 5.0 | 3.0 | 11 | 5.4 |
| 500 | 17 | 19 | 4.4 | 2.9 | P432_0120 EZ302U | 57 | 57 | 200 | 12.00 | 12/1 | 3500 | 7000 | 0.42 | 5.0 | 3.0 | 11 | 6.0 |
| 500 | 22 | 26 | 5.8 | 2.2 | P432_0120 EZ303U | 80 | 80 | 200 | 12.00 | 12/1 | 3500 | 7000 | 0.53 | 5.0 | 3.0 | 11 | 6.5 |
| 500 | 26 | 32 | 6.8 | 1.9 | P432_0120 EZ401U | 97 | 97 | 200 | 12.00 | 12/1 | 3500 | 7000 | 1.1 | 5.0 | 3.0 | 11 | 7.9 |
| 500 | 40 | 56 | 10 | 1.3 | P432_0120 EZ402U | 100 | 100 | 200 | 12.00 | 12/1 | 3500 | 7000 | 1.8 | 5.0 | 3.0 | 11 | 9.0 |
| 600 | 22 | 27 | 0.9 | 2.1 | P431_0100 EZ401U | 82 | 82 | 230 | 10.00 | 10/1 | 4000 | 8000 | 0.98 | 4.0 | 2.0 | 9.1 | 6.5 |
| 600 | 33 | 43 | 1.4 | 1.4 | P431_0100 EZ501U | 115 | 115 | 230 | 10.00 | 10/1 | 4000 | 8000 | 2.9 | 4.0 | 2.0 | 9.1 | 7.5 |
| 600 | 34 | 48 | 1.4 | 1.4 | P431_0100 EZ402U | 115 | 115 | 230 | 10.00 | 10/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 9.1 | 7.6 |
| 750 | 18 | 22 | 1.0 | 3.1 | P431_0080 EZ401U | 66 | 66 | 239 | 8.000 | 8/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 9.8 | 6.5 |
| 750 | 26 | 34 | 1.5 | 2.1 | P431_0080 EZ501U | 120 | 124 | 239 | 8.000 | 8/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 9.8 | 7.5 |
| 750 | 27 | 38 | 1.6 | 2.0 | P431_0080 EZ402U | 120 | 124 | 239 | 8.000 | 8/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 9.8 | 7.6 |
| 750 | 40 | 61 | 2.3 | 1.4 | P431_0080 EZ502U | 120 | 125 | 239 | 8.000 | 8/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 9.8 | 9.0 |
| 750 | 45 | 65 | 2.6 | 1.2 | P431_0080 EZ404U | 120 | 125 | 239 | 8.000 | 8/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 9.8 | 9.7 |
| 750 | 48 | 82 | 2.8 | 1.2 | P431_0080 EZ503U | 120 | 125 | 239 | 8.000 | 8/1 | 4000 | 8000 | 7.6 | 4.0 | 2.0 | 9.8 | 10 |
| 857 | 16 | 19 | 1.1 | 3.8 | P431_0070 EZ401U | 58 | 58 | 271 | 7.000 | 7/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 11 | 6.5 |
| 857 | 23 | 30 | 1.7 | 2.6 | P431_0070 EZ501U | 109 | 109 | 271 | 7.000 | 7/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 11 | 7.5 |
| 857 | 24 | 33 | 1.7 | 2.5 | P431_0070 EZ402U | 109 | 109 | 271 | 7.000 | 7/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 11 | 7.6 |
| 857 | 35 | 53 | 2.6 | 1.7 | P431_0070 EZ502U | 135 | 143 | 271 | 7.000 | 7/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 11 | 9.0 |
| 857 | 39 | 57 | 2.9 | 1.5 | P431_0070 EZ404U | 135 | 143 | 271 | 7.000 | 7/1 | 4000 | 8000 | 3.1 | 4.0 | 2.0 | 11 | 9.7 |
| 857 | 42 | 72 | 3.1 | 1.4 | P431_0070 EZ503U | 135 | 143 | 271 | 7.000 | 7/1 | 4000 | 8000 | 7.7 | 4.0 | 2.0 | 11 | 10 |
| 1200 | 16 | 21 | 2.5 | 3.6 | P431_0050 EZ501U | 78 | 78 | 277 | 5.000 | 5/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 13 | 7.5 |
| 1200 | 17 | 24 | 2.6 | 3.5 | P431_0050 EZ402U | 78 | 78 | 277 | 5.000 | 5/1 | 3700 | 7000 | 1.8 | 4.0 | 2.0 | 13 | 7.6 |
| 1200 | 25 | 38 | 3.9 | 2.3 | P431_0050 EZ502U | 139 | 145 | 277 | 5.000 | 5/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 13 | 9.0 |
| 1200 | 28 | 41 | 4.3 | 2.1 | P431_0050 EZ404U | 139 | 141 | 277 | 5.000 | 5/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 13 | 9.7 |
| 1200 | 30 | 51 | 4.6 | 2.0 | P431_0050 EZ503U | 139 | 145 | 277 | 5.000 | 5/1 | 3700 | 7000 | 7.8 | 4.0 | 2.0 | 13 | 10 |
| 1500 | 13 | 17 | 3.3 | 4.5 | P431_0040 EZ501U | 62 | 62 | 240 | 4.000 | 4/1 | 3300 | 6500 | 3.3 | 4.0 | 2.0 | 13 | 7.5 |
| 1500 | 14 | 19 | 3.4 | 4.3 | P431_0040 EZ402U | 62 | 62 | 240 | 4.000 | 4/1 | 3300 | 6500 | 2.0 | 4.0 | 2.0 | 13 | 7.6 |
| 1500 | 20 | 30 | 5.1 | 2.9 | P431_0040 EZ502U | 120 | 120 | 240 | 4.000 | 4/1 | 3300 | 6500 | 5.6 | 4.0 | 2.0 | 13 | 9.0 |
| 1500 | 23 | 33 | 5.6 | 2.6 | P431_0040 EZ404U | 113 | 113 | 240 | 4.000 | 4/1 | 3300 | 6500 | 3.3 | 4.0 | 2.0 | 13 | 9.7 |
| 1500 | 24 | 41 | 6.0 | 2.5 | P431_0040 EZ503U | 120 | 130 | 240 | 4.000 | 4/1 | 3300 | 6500 | 7.9 | 4.0 | 2.0 | 13 | 10 |
| 2000 | 9.9 | 13 | 7.9 | 3.5 | P431_0030 EZ501U | 47 | 47 | 200 | 3.000 | 3/1 | 3000 | 6000 | 3.7 | 4.0 | 2.0 | 13 | 7.5 |
| 2000 | 10 | 14 | 8.2 | 3.4 | P431_0030 EZ402U | 47 | 47 | 200 | 3.000 | 3/1 | 3000 | 6000 | 2.4 | 4.0 | 2.0 | 13 | 7.6 |
| 2000 | 15 | 23 | 12 | 2.3 | P431_0030 EZ502U | 90 | 90 | 200 | 3.000 | 3/1 | 3000 | 6000 | 6.0 | 4.0 | 2.0 | 13 | 9.0 |
| 2000 | 17 | 24 | 14 | 2.1 | P431_0030 EZ404U | 84 | 84 | 200 | 3.000 | 3/1 | 3000 | 6000 | 3.8 | 4.0 | 2.0 | 13 | 9.7 |
| 2000 | 18 | 31 | 14 | 1.9 | P431_0030 EZ503U | 100 | 100 | 200 | 3.000 | 3/1 | 3000 | 6000 | 8.4 | 4.0 | 2.0 | 13 | 10 |
| P5 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 360 Nm) | | | | | | | | | | | | | | | | | |
| 38 | 213 | 228 | 0.8 | 1.0 | P532_0800 EZ401U | 288 | 288 | 575 | 80.00 | 80/1 | 4200 | 8000 | 0.97 | 4.0 | 2.0 | 25 | 11 |
| 43 | 186 | 200 | 0.7 | 1.4 | P532_0700 EZ401U | 345 | 357 | 690 | 70.00 | 70/1 | 4200 | 8000 | 0.97 | 4.0 | 2.0 | 30 | 11 |
| 54 | 149 | 160 | 1.0 | 1.5 | P532_0560 EZ401U | 288 | 288 | 575 | 56.00 | 56/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 25 | 11 |
| 60 | 133 | 143 | 0.9 | 1.9 | P532_0500 EZ401U | 352 | 352 | 704 | 50.00 | 50/1 | 4000 | 8000 | 0.97 | 4.0 | 2.0 | 32 | 11 |
| 60 | 204 | 223 | 1.4 | 1.2 | P532_0500 EZ501U | 352 | 352 | 704 | 50.00 | 50/1 | 4000 | 8000 | 2.9 | 4.0 | 2.0 | 32 | 12 |
| 60 | 223 | 247 | 1.5 | 1.1 | P532_0500 EZ402U | 352 | 352 | 704 | 50.00 | 50/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 32 | 12 |
| 75 | 106 | 114 | 1.2 | 1.9 | P532_0400 EZ401U | 300 | 300 | 600 | 40.00 | 40/1 | 4000 | 8000 | 0.98 | 4.0 | 2.0 | 31 | 11 |
| 75 | 163 | 179 | 1.9 | 1.2 | P532_0400 EZ501U | 300 | 300 | 600 | 40.00 | 40/1 | 4000 | 8000 | 2.9 | 4.0 | 2.0 | 31 | 12 |
| 75 | 179 | 198 | 2.1 | 1.1 | P532_0400 EZ402U | 300 | 300 | 600 | 40.00 | 40/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 31 | 12 |
| 86 | 93 | 100 | 1.0 | 2.8 | P532_0350 EZ401U | 283 | 283 | 704 | 35.00 | 35/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 33 | 11 |
| 86 | 143 | 156 | 1.6 | 1.9 | P532_0350 EZ501U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 33 | 12 |
| 86 | 156 | 173 | 1.7 | 1.7 | P532_0350 EZ402U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 33 | 12 |
| 86 | 229 | 286 | 2.5 | 1.2 | P532_0350 EZ404U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 3.1 | 4.0 | 2.0 | 33 | 14 |
| 86 | 246 | 266 | 2.7 | 1.1 | P532_0350 EZ502U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 33 | 13 |
| 94 | 85 | 91 | 1.2 | 2.8 | P532_0320 EZ401U | 258 | 258 | 624 | 32.00 | 32/1 | 3500 | 7000 | 1.2 | 4.0 | 2.0 | 25 | 11 |
| 94 | 131 | 143 | 1.8 | 1.8 | P532_0320 EZ501U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 3.1 | 4.0 | 2.0 | 25 | 12 |
| 94 | 143 | 158 | 2.0 | 1.7 | P532_0320 EZ402U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 25 | 12 |
| 94 | 210 | 261 | 2.9 | 1.1 | P532_0320 EZ404U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 25 | 14 |
| 94 | 225 | 243 | 3.1 | 1.1 | P532_0320 EZ502U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 5.4 | 4.0 | 2.0 | 25 | 13 |
| 107 | 74 | 80 | 1.3 | 3.1 | P532_0280 EZ401U | 226 | 226 | 600 | 28.00 | 28/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 32 | 11 |
| 107 | 114 | 125 | 2.0 | 2.0 | P532_0280 EZ501U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 32 | 12 |
| 107 | 125 | 138 | 2.2 | 1.8 | P532_0280 EZ402U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 32 | 12 |
| 107 | 184 | 229 | 3.2 | 1.3 | P532_0280 EZ404U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 3.1 | 4.0 | 2.0 | 32 | 14 |
| 107 | 197 | 213 | 3.5 | 1.2 | P532_0280 EZ502U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 32 | 13 |
| 120 | 67 | 71 | 1.2 | 3.9 | P532_0250 EZ401U | 202 | 202 | 710 | 25.00 | 25/1 | 3700 | 7000 | 1.1 | 4.0 | 2.0 | 33 | 11 |
| 120 | 102 | 112 | 1.9 | 2.5 | P532_0250 EZ501U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 33 | 12 |
| 120 | 112 | 124 | 2.1 | 2.3 | P532_0250 EZ402U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 1.8 | 4.0 | 2.0 | 33 | 12 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P5 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 360 Nm)** | | | | | | | | | | | | | | | | | |
| 120 | 164 | 204 | 3.0 | 1.6 | P532_0250 EZ404U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 33 | 14 |
| 120 | 176 | 190 | 3.2 | 1.5 | P532_0250 EZ502U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 33 | 13 |
| 120 | 230 | 264 | 4.3 | 1.1 | P532_0250 EZ503U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 7.7 | 4.0 | 2.0 | 33 | 15 |
| 150 | 53 | 57 | 1.4 | 4.7 | P532_0200 EZ401U | 162 | 162 | 710 | 20.00 | 20/1 | 3500 | 7000 | 1.2 | 4.0 | 2.0 | 33 | 11 |
| 150 | 82 | 89 | 2.2 | 3.1 | P532_0200 EZ501U | 304 | 304 | 710 | 20.00 | 20/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 33 | 12 |
| 150 | 89 | 99 | 2.4 | 2.8 | P532_0200 EZ402U | 304 | 304 | 710 | 20.00 | 20/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 33 | 12 |
| 150 | 131 | 163 | 3.5 | 1.9 | P532_0200 EZ404U | 355 | 364 | 710 | 20.00 | 20/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 33 | 14 |
| 150 | 141 | 152 | 3.8 | 1.8 | P532_0200 EZ502U | 355 | 364 | 710 | 20.00 | 20/1 | 3500 | 7000 | 5.5 | 4.0 | 2.0 | 33 | 13 |
| 150 | 184 | 211 | 4.9 | 1.4 | P532_0200 EZ503U | 355 | 364 | 710 | 20.00 | 20/1 | 3500 | 7000 | 7.8 | 4.0 | 2.0 | 33 | 15 |
| 188 | 65 | 71 | 2.8 | 3.4 | P532_0160 EZ501U | 243 | 243 | 600 | 16.00 | 16/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 33 | 12 |
| 188 | 71 | 79 | 3.0 | 3.1 | P532_0160 EZ402U | 243 | 243 | 600 | 16.00 | 16/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 33 | 12 |
| 188 | 105 | 131 | 4.5 | 2.1 | P532_0160 EZ404U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 3.3 | 4.0 | 2.0 | 33 | 14 |
| 188 | 112 | 122 | 4.8 | 2.0 | P532_0160 EZ502U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 5.5 | 4.0 | 2.0 | 33 | 13 |
| 188 | 147 | 169 | 6.3 | 1.5 | P532_0160 EZ503U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 7.9 | 4.0 | 2.0 | 33 | 15 |
| 188 | 205 | 243 | 8.7 | 1.1 | P532_0160 EZ505U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 12 | 4.0 | 2.0 | 33 | 18 |
| 250 | 32 | 34 | 3.8 | 3.8 | P532_0120 EZ401U | 97 | 97 | 400 | 12.00 | 12/1 | 3000 | 6000 | 1.3 | 4.0 | 2.0 | 31 | 11 |
| 250 | 49 | 54 | 5.9 | 2.4 | P532_0120 EZ501U | 182 | 182 | 400 | 12.00 | 12/1 | 3000 | 6000 | 3.3 | 4.0 | 2.0 | 31 | 12 |
| 250 | 54 | 59 | 6.4 | 2.2 | P532_0120 EZ402U | 182 | 182 | 400 | 12.00 | 12/1 | 3000 | 6000 | 2.0 | 4.0 | 2.0 | 31 | 12 |
| 250 | 79 | 98 | 9.5 | 1.5 | P532_0120 EZ404U | 200 | 200 | 400 | 12.00 | 12/1 | 3000 | 6000 | 3.4 | 4.0 | 2.0 | 31 | 14 |
| 250 | 84 | 91 | 10 | 1.4 | P532_0120 EZ502U | 200 | 200 | 400 | 12.00 | 12/1 | 3000 | 6000 | 5.6 | 4.0 | 2.0 | 31 | 13 |
| 250 | 111 | 127 | 13 | 1.1 | P532_0120 EZ503U | 200 | 200 | 400 | 12.00 | 12/1 | 3000 | 6000 | 8.0 | 4.0 | 2.0 | 31 | 15 |
| 300 | 42 | 46 | 1.6 | 3.4 | P531_0100 EZ501U | 155 | 155 | 575 | 10.00 | 10/1 | 3700 | 7000 | 3.1 | 3.0 | 1.0 | 26 | 9.4 |
| 300 | 72 | 78 | 2.7 | 2.0 | P531_0100 EZ502U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 5.4 | 3.0 | 1.0 | 26 | 11 |
| 300 | 72 | 81 | 2.7 | 2.0 | P531_0100 EZ701U | 194 | 194 | 575 | 10.00 | 10/1 | 3700 | 7000 | 8.7 | 3.0 | 1.0 | 26 | 13 |
| 300 | 94 | 108 | 3.5 | 1.5 | P531_0100 EZ503U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 7.8 | 3.0 | 1.0 | 26 | 12 |
| 300 | 116 | 140 | 4.4 | 1.2 | P531_0100 EZ702U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 26 | 15 |
| 300 | 131 | 155 | 4.9 | 1.1 | P531_0100 EZ505U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 12 | 3.0 | 1.0 | 26 | 15 |
| 375 | 57 | 62 | 2.9 | 3.0 | P531_0080 EZ502U | 241 | 241 | 592 | 8.000 | 8/1 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 25 | 11 |
| 375 | 57 | 64 | 2.9 | 3.0 | P531_0080 EZ701U | 155 | 155 | 592 | 8.000 | 8/1 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 25 | 13 |
| 375 | 75 | 86 | 3.8 | 2.3 | P531_0080 EZ503U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 7.8 | 3.0 | 1.0 | 25 | 12 |
| 375 | 93 | 112 | 4.7 | 1.9 | P531_0080 EZ702U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 25 | 15 |
| 375 | 105 | 124 | 5.3 | 1.7 | P531_0080 EZ505U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 12 | 3.0 | 1.0 | 25 | 15 |
| 375 | 128 | 161 | 6.4 | 1.4 | P531_0080 EZ703U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 22 | 3.0 | 1.0 | 25 | 17 |
| 375 | 165 | 234 | 8.3 | 1.1 | P531_0080 EZ705U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 34 | 3.0 | 1.0 | 25 | 23 |
| 429 | 50 | 54 | 3.2 | 3.7 | P531_0070 EZ502U | 210 | 210 | 667 | 7.000 | 7/1 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 31 | 11 |
| 429 | 50 | 56 | 3.2 | 3.7 | P531_0070 EZ701U | 136 | 136 | 667 | 7.000 | 7/1 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 31 | 13 |
| 429 | 66 | 75 | 4.2 | 2.8 | P531_0070 EZ503U | 292 | 292 | 667 | 7.000 | 7/1 | 3700 | 7000 | 7.9 | 3.0 | 1.0 | 31 | 12 |
| 429 | 81 | 98 | 5.2 | 2.3 | P531_0070 EZ702U | 278 | 278 | 667 | 7.000 | 7/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 31 | 15 |
| 429 | 92 | 109 | 5.9 | 2.0 | P531_0070 EZ505U | 333 | 380 | 667 | 7.000 | 7/1 | 3700 | 7000 | 12 | 3.0 | 1.0 | 31 | 15 |
| 429 | 112 | 141 | 7.2 | 1.6 | P531_0070 EZ703U | 333 | 380 | 667 | 7.000 | 7/1 | 3700 | 7000 | 22 | 3.0 | 1.0 | 31 | 17 |
| 429 | 145 | 205 | 9.3 | 1.3 | P531_0070 EZ705U | 333 | 380 | 667 | 7.000 | 7/1 | 3700 | 7000 | 34 | 3.0 | 1.0 | 31 | 23 |
| 600 | 47 | 54 | 6.3 | 3.9 | P531_0050 EZ503U | 209 | 209 | 568 | 5.000 | 5/1 | 3500 | 7000 | 8.3 | 3.0 | 1.0 | 35 | 12 |
| 600 | 58 | 70 | 7.8 | 3.2 | P531_0050 EZ702U | 199 | 199 | 700 | 5.000 | 5/1 | 3500 | 7000 | 14 | 3.0 | 1.0 | 35 | 15 |
| 600 | 65 | 78 | 8.8 | 2.8 | P531_0050 EZ505U | 325 | 325 | 568 | 5.000 | 5/1 | 3500 | 7000 | 13 | 3.0 | 1.0 | 35 | 15 |
| 600 | 80 | 101 | 11 | 2.3 | P531_0050 EZ703U | 315 | 315 | 700 | 5.000 | 5/1 | 3500 | 7000 | 22 | 3.0 | 1.0 | 35 | 17 |
| 600 | 103 | 146 | 14 | 1.8 | P531_0050 EZ705U | 350 | 385 | 700 | 5.000 | 5/1 | 3500 | 7000 | 35 | 3.0 | 1.0 | 35 | 23 |
| 750 | 38 | 43 | 8.3 | 4.9 | P531_0040 EZ503U | 167 | 167 | 457 | 4.000 | 4/1 | 3000 | 6000 | 8.8 | 3.0 | 1.0 | 35 | 12 |
| 750 | 47 | 56 | 10 | 3.9 | P531_0040 EZ702U | 159 | 159 | 600 | 4.000 | 4/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 35 | 15 |
| 750 | 52 | 62 | 11 | 3.5 | P531_0040 EZ505U | 260 | 260 | 457 | 4.000 | 4/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 35 | 15 |
| 750 | 64 | 81 | 14 | 2.9 | P531_0040 EZ703U | 252 | 252 | 600 | 4.000 | 4/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 35 | 17 |
| 750 | 83 | 117 | 18 | 2.2 | P531_0040 EZ705U | 300 | 320 | 600 | 4.000 | 4/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 35 | 23 |
| 1000 | 22 | 23 | 16 | 4.9 | P531_0030 EZ502U | 90 | 90 | 343 | 3.000 | 3/1 | 2500 | 5000 | 8.0 | 3.0 | 1.0 | 35 | 11 |
| 1000 | 22 | 24 | 16 | 4.9 | P531_0030 EZ701U | 58 | 58 | 400 | 3.000 | 3/1 | 2500 | 5000 | 11 | 3.0 | 1.0 | 35 | 13 |
| 1000 | 28 | 32 | 20 | 3.7 | P531_0030 EZ503U | 125 | 125 | 343 | 3.000 | 3/1 | 2500 | 5000 | 10 | 3.0 | 1.0 | 35 | 12 |
| 1000 | 35 | 42 | 25 | 3.0 | P531_0030 EZ702U | 119 | 119 | 400 | 3.000 | 3/1 | 2500 | 5000 | 16 | 3.0 | 1.0 | 35 | 15 |
| 1000 | 39 | 47 | 28 | 2.7 | P531_0030 EZ505U | 195 | 195 | 343 | 3.000 | 3/1 | 2500 | 5000 | 15 | 3.0 | 1.0 | 35 | 15 |
| 1000 | 48 | 61 | 35 | 2.2 | P531_0030 EZ703U | 189 | 189 | 400 | 3.000 | 3/1 | 2500 | 5000 | 24 | 3.0 | 1.0 | 35 | 17 |
| 1000 | 62 | 88 | 45 | 1.7 | P531_0030 EZ705U | 200 | 200 | 400 | 3.000 | 3/1 | 2500 | 5000 | 37 | 3.0 | 1.0 | 35 | 23 |
| **P5 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 360 Nm)** | | | | | | | | | | | | | | | | | |
| 180 | 226 | 363 | 4.7 | 1.0 | P532_0250 EZ505U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 33 | 18 |
| 225 | 181 | 291 | 5.2 | 1.3 | P532_0200 EZ505U | 355 | 364 | 710 | 20.00 | 20/1 | 3500 | 7000 | 12 | 4.0 | 2.0 | 33 | 18 |
| 281 | 144 | 233 | 6.3 | 1.5 | P532_0160 EZ505U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 12 | 4.0 | 2.0 | 33 | 18 |
| 375 | 108 | 174 | 13 | 1.1 | P532_0120 EZ505U | 200 | 200 | 400 | 12.00 | 12/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 31 | 18 |
| 450 | 92 | 148 | 4.0 | 1.4 | P531_0100 EZ505U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 12 | 3.0 | 1.0 | 26 | 15 |
| 450 | 117 | 194 | 5.0 | 1.1 | P531_0100 EZ703U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 22 | 3.0 | 1.0 | 26 | 17 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P5 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 360 Nm)** | | | | | | | | | | | | | | | | | |
| 563 | 74 | 119 | 4.2 | 2.1 | P531_0080 EZ505U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 12 | 3.0 | 1.0 | 25 | 15 |
| 563 | 94 | 155 | 5.4 | 1.6 | P531_0080 EZ703U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 22 | 3.0 | 1.0 | 25 | 17 |
| 563 | 127 | 233 | 7.3 | 1.2 | P531_0080 EZ705U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 34 | 3.0 | 1.0 | 25 | 23 |
| 643 | 65 | 104 | 4.7 | 2.5 | P531_0070 EZ505U | 333 | 380 | 667 | 7.000 | 7/1 | 3700 | 7000 | 12 | 3.0 | 1.0 | 31 | 15 |
| 643 | 82 | 136 | 6.0 | 2.0 | P531_0070 EZ703U | 333 | 380 | 667 | 7.000 | 7/1 | 3700 | 7000 | 22 | 3.0 | 1.0 | 31 | 17 |
| 643 | 111 | 204 | 8.2 | 1.4 | P531_0070 EZ705U | 333 | 380 | 667 | 7.000 | 7/1 | 3700 | 7000 | 34 | 3.0 | 1.0 | 31 | 23 |
| 900 | 46 | 74 | 7.1 | 3.5 | P531_0050 EZ505U | 325 | 325 | 568 | 5.000 | 5/1 | 3500 | 7000 | 13 | 3.0 | 1.0 | 35 | 15 |
| 900 | 59 | 97 | 9.0 | 2.7 | P531_0050 EZ703U | 315 | 315 | 700 | 5.000 | 5/1 | 3500 | 7000 | 22 | 3.0 | 1.0 | 35 | 17 |
| 900 | 80 | 146 | 12 | 2.0 | P531_0050 EZ705U | 350 | 385 | 700 | 5.000 | 5/1 | 3500 | 7000 | 35 | 3.0 | 1.0 | 35 | 23 |
| 1125 | 37 | 59 | 9.3 | 4.3 | P531_0040 EZ505U | 260 | 260 | 457 | 4.000 | 4/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 35 | 15 |
| 1125 | 47 | 78 | 12 | 3.4 | P531_0040 EZ703U | 252 | 252 | 600 | 4.000 | 4/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 35 | 17 |
| 1125 | 64 | 116 | 16 | 2.5 | P531_0040 EZ705U | 300 | 320 | 600 | 4.000 | 4/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 35 | 23 |
| 1500 | 28 | 45 | 23 | 3.3 | P531_0030 EZ505U | 195 | 195 | 343 | 3.000 | 3/1 | 2500 | 5000 | 15 | 3.0 | 1.0 | 35 | 15 |
| 1500 | 35 | 58 | 29 | 2.6 | P531_0030 EZ703U | 189 | 189 | 400 | 3.000 | 3/1 | 2500 | 5000 | 24 | 3.0 | 1.0 | 35 | 17 |
| 1500 | 48 | 87 | 40 | 1.9 | P531_0030 EZ705U | 200 | 200 | 400 | 3.000 | 3/1 | 2500 | 5000 | 37 | 3.0 | 1.0 | 35 | 23 |
| **P5 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 360 Nm)** | | | | | | | | | | | | | | | | | |
| 75 | 175 | 213 | 0.7 | 1.1 | P532_0800 EZ401U | 288 | 288 | 575 | 80.00 | 80/1 | 4200 | 8000 | 0.97 | 4.0 | 2.0 | 25 | 11 |
| 86 | 153 | 186 | 0.7 | 1.4 | P532_0700 EZ401U | 345 | 357 | 690 | 70.00 | 70/1 | 4200 | 8000 | 0.97 | 4.0 | 2.0 | 30 | 11 |
| 107 | 122 | 149 | 0.9 | 1.6 | P532_0560 EZ401U | 288 | 288 | 575 | 56.00 | 56/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 25 | 11 |
| 107 | 181 | 234 | 1.3 | 1.1 | P532_0560 EZ501U | 288 | 288 | 575 | 56.00 | 56/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 25 | 12 |
| 107 | 186 | 261 | 1.3 | 1.1 | P532_0560 EZ402U | 288 | 288 | 575 | 56.00 | 56/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 25 | 12 |
| 120 | 109 | 133 | 0.9 | 1.8 | P532_0500 EZ401U | 352 | 352 | 704 | 50.00 | 50/1 | 4000 | 8000 | 0.97 | 4.0 | 2.0 | 32 | 11 |
| 120 | 162 | 209 | 1.4 | 1.2 | P532_0500 EZ501U | 352 | 352 | 704 | 50.00 | 50/1 | 4000 | 8000 | 2.9 | 4.0 | 2.0 | 32 | 12 |
| 120 | 166 | 233 | 1.4 | 1.2 | P532_0500 EZ402U | 352 | 352 | 704 | 50.00 | 50/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 32 | 12 |
| 150 | 87 | 106 | 1.3 | 1.8 | P532_0400 EZ401U | 300 | 300 | 600 | 40.00 | 40/1 | 4000 | 8000 | 0.98 | 4.0 | 2.0 | 31 | 11 |
| 150 | 129 | 167 | 1.9 | 1.2 | P532_0400 EZ501U | 300 | 300 | 600 | 40.00 | 40/1 | 4000 | 8000 | 2.9 | 4.0 | 2.0 | 31 | 12 |
| 150 | 133 | 186 | 2.0 | 1.2 | P532_0400 EZ402U | 300 | 300 | 600 | 40.00 | 40/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 31 | 12 |
| 171 | 76 | 93 | 1.1 | 2.7 | P532_0350 EZ401U | 283 | 283 | 704 | 35.00 | 35/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 33 | 11 |
| 171 | 113 | 146 | 1.6 | 1.9 | P532_0350 EZ501U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 33 | 12 |
| 171 | 116 | 163 | 1.6 | 1.8 | P532_0350 EZ402U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 33 | 12 |
| 171 | 173 | 259 | 2.4 | 1.2 | P532_0350 EZ502U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 33 | 13 |
| 171 | 193 | 279 | 2.7 | 1.1 | P532_0350 EZ404U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 3.1 | 4.0 | 2.0 | 33 | 14 |
| 171 | 206 | 352 | 2.8 | 1.0 | P532_0350 EZ503U | 352 | 352 | 704 | 35.00 | 35/1 | 4000 | 8000 | 7.7 | 4.0 | 2.0 | 33 | 15 |
| 188 | 70 | 85 | 1.2 | 2.9 | P532_0320 EZ401U | 258 | 258 | 624 | 32.00 | 32/1 | 3500 | 7000 | 1.2 | 4.0 | 2.0 | 25 | 11 |
| 188 | 103 | 134 | 1.7 | 1.9 | P532_0320 EZ501U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 3.1 | 4.0 | 2.0 | 25 | 12 |
| 188 | 106 | 149 | 1.8 | 1.9 | P532_0320 EZ402U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 25 | 12 |
| 188 | 158 | 237 | 2.6 | 1.3 | P532_0320 EZ502U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 5.4 | 4.0 | 2.0 | 25 | 13 |
| 188 | 176 | 255 | 2.9 | 1.1 | P532_0320 EZ404U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 25 | 14 |
| 188 | 188 | 322 | 3.1 | 1.1 | P532_0320 EZ503U | 312 | 363 | 624 | 32.00 | 32/1 | 3500 | 7000 | 7.8 | 4.0 | 2.0 | 25 | 15 |
| 214 | 61 | 74 | 1.2 | 3.3 | P532_0280 EZ401U | 226 | 226 | 600 | 28.00 | 28/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 32 | 11 |
| 214 | 90 | 117 | 1.8 | 2.2 | P532_0280 EZ501U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 3.0 | 4.0 | 2.0 | 32 | 12 |
| 214 | 93 | 130 | 1.9 | 2.2 | P532_0280 EZ402U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 32 | 12 |
| 214 | 138 | 207 | 2.8 | 1.5 | P532_0280 EZ502U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 5.3 | 4.0 | 2.0 | 32 | 13 |
| 214 | 154 | 223 | 3.1 | 1.3 | P532_0280 EZ404U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 3.1 | 4.0 | 2.0 | 32 | 14 |
| 214 | 165 | 282 | 3.3 | 1.2 | P532_0280 EZ503U | 300 | 300 | 600 | 28.00 | 28/1 | 4000 | 8000 | 7.7 | 4.0 | 2.0 | 32 | 15 |
| 240 | 55 | 67 | 1.2 | 3.8 | P532_0250 EZ401U | 202 | 202 | 710 | 25.00 | 25/1 | 3700 | 7000 | 1.1 | 4.0 | 2.0 | 33 | 11 |
| 240 | 81 | 105 | 1.8 | 2.6 | P532_0250 EZ501U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 33 | 12 |
| 240 | 83 | 116 | 1.9 | 2.5 | P532_0250 EZ402U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 1.8 | 4.0 | 2.0 | 33 | 12 |
| 240 | 124 | 185 | 2.8 | 1.7 | P532_0250 EZ502U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 33 | 13 |
| 240 | 138 | 200 | 3.2 | 1.5 | P532_0250 EZ404U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 33 | 14 |
| 240 | 147 | 252 | 3.4 | 1.4 | P532_0250 EZ503U | 355 | 357 | 710 | 25.00 | 25/1 | 3700 | 7000 | 7.7 | 4.0 | 2.0 | 33 | 15 |
| 300 | 44 | 53 | 1.4 | 4.8 | P532_0200 EZ401U | 162 | 162 | 710 | 20.00 | 20/1 | 3500 | 7000 | 1.2 | 4.0 | 2.0 | 33 | 11 |
| 300 | 65 | 84 | 2.1 | 3.2 | P532_0200 EZ501U | 304 | 304 | 710 | 20.00 | 20/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 33 | 12 |
| 300 | 67 | 93 | 2.1 | 3.2 | P532_0200 EZ402U | 304 | 304 | 710 | 20.00 | 20/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 33 | 12 |
| 300 | 99 | 148 | 3.2 | 2.1 | P532_0200 EZ502U | 355 | 364 | 710 | 20.00 | 20/1 | 3500 | 7000 | 5.5 | 4.0 | 2.0 | 33 | 13 |
| 300 | 110 | 160 | 3.5 | 1.9 | P532_0200 EZ404U | 355 | 364 | 710 | 20.00 | 20/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 33 | 14 |
| 300 | 118 | 201 | 3.8 | 1.8 | P532_0200 EZ503U | 355 | 364 | 710 | 20.00 | 20/1 | 3500 | 7000 | 7.8 | 4.0 | 2.0 | 33 | 15 |
| 375 | 52 | 67 | 2.5 | 3.8 | P532_0160 EZ501U | 243 | 243 | 600 | 16.00 | 16/1 | 3500 | 7000 | 3.2 | 4.0 | 2.0 | 33 | 12 |
| 375 | 53 | 74 | 2.6 | 3.7 | P532_0160 EZ402U | 243 | 243 | 600 | 16.00 | 16/1 | 3500 | 7000 | 1.9 | 4.0 | 2.0 | 33 | 12 |
| 375 | 79 | 119 | 3.8 | 2.5 | P532_0160 EZ502U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 5.5 | 4.0 | 2.0 | 33 | 13 |
| 375 | 88 | 128 | 4.2 | 2.2 | P532_0160 EZ404U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 3.3 | 4.0 | 2.0 | 33 | 14 |
| 375 | 94 | 161 | 4.5 | 2.1 | P532_0160 EZ503U | 300 | 300 | 600 | 16.00 | 16/1 | 3500 | 7000 | 7.9 | 4.0 | 2.0 | 33 | 15 |
| 500 | 26 | 32 | 3.5 | 4.1 | P532_0120 EZ401U | 97 | 97 | 400 | 12.00 | 12/1 | 3000 | 6000 | 1.3 | 4.0 | 2.0 | 31 | 11 |
| 500 | 39 | 50 | 5.2 | 2.8 | P532_0120 EZ501U | 182 | 182 | 400 | 12.00 | 12/1 | 3000 | 6000 | 3.3 | 4.0 | 2.0 | 31 | 12 |
| 500 | 40 | 56 | 5.4 | 2.7 | P532_0120 EZ402U | 182 | 182 | 400 | 12.00 | 12/1 | 3000 | 6000 | 2.0 | 4.0 | 2.0 | 31 | 12 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P5 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 360 Nm)** | | | | | | | | | | | | | | | | | |
| 500 | 59 | 89 | 8.0 | 1.8 | P532_0120 EZ502U | 200 | 200 | 400 | 12.00 | 12/1 | 3000 | 6000 | 5.6 | 4.0 | 2.0 | 31 | 13 |
| 500 | 66 | 96 | 8.9 | 1.6 | P532_0120 EZ404U | 200 | 200 | 400 | 12.00 | 12/1 | 3000 | 6000 | 3.4 | 4.0 | 2.0 | 31 | 14 |
| 500 | 71 | 121 | 9.5 | 1.5 | P532_0120 EZ503U | 200 | 200 | 400 | 12.00 | 12/1 | 3000 | 6000 | 8.0 | 4.0 | 2.0 | 31 | 15 |
| 600 | 33 | 43 | 1.6 | 3.4 | P531_0100 EZ501U | 155 | 155 | 575 | 10.00 | 10/1 | 3700 | 7000 | 3.1 | 3.0 | 1.0 | 26 | 9.4 |
| 600 | 50 | 76 | 2.4 | 2.2 | P531_0100 EZ502U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 5.4 | 3.0 | 1.0 | 26 | 11 |
| 600 | 50 | 77 | 2.4 | 2.2 | P531_0100 EZ701U | 194 | 194 | 575 | 10.00 | 10/1 | 3700 | 7000 | 8.7 | 3.0 | 1.0 | 26 | 13 |
| 600 | 60 | 103 | 2.8 | 1.9 | P531_0100 EZ503U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 7.8 | 3.0 | 1.0 | 26 | 12 |
| 600 | 70 | 139 | 3.3 | 1.6 | P531_0100 EZ702U | 288 | 288 | 575 | 10.00 | 10/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 26 | 15 |
| 750 | 40 | 61 | 2.5 | 3.4 | P531_0080 EZ502U | 241 | 241 | 592 | 8.000 | 8/1 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 25 | 11 |
| 750 | 40 | 61 | 2.5 | 3.4 | P531_0080 EZ701U | 155 | 155 | 592 | 8.000 | 8/1 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 25 | 13 |
| 750 | 48 | 82 | 3.0 | 2.9 | P531_0080 EZ503U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 7.8 | 3.0 | 1.0 | 25 | 12 |
| 750 | 56 | 111 | 3.5 | 2.5 | P531_0080 EZ702U | 296 | 300 | 592 | 8.000 | 8/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 25 | 15 |
| 857 | 35 | 53 | 2.9 | 4.1 | P531_0070 EZ502U | 210 | 210 | 667 | 7.000 | 7/1 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 31 | 11 |
| 857 | 35 | 54 | 2.9 | 4.1 | P531_0070 EZ701U | 136 | 136 | 667 | 7.000 | 7/1 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 31 | 13 |
| 857 | 42 | 72 | 3.4 | 3.5 | P531_0070 EZ503U | 292 | 292 | 667 | 7.000 | 7/1 | 3700 | 7000 | 7.9 | 3.0 | 1.0 | 31 | 12 |
| 857 | 49 | 97 | 3.9 | 3.0 | P531_0070 EZ702U | 278 | 278 | 667 | 7.000 | 7/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 31 | 15 |
| 1200 | 30 | 51 | 5.1 | 4.8 | P531_0050 EZ503U | 209 | 209 | 568 | 5.000 | 5/1 | 3500 | 7000 | 8.3 | 3.0 | 1.0 | 35 | 12 |
| 1200 | 35 | 69 | 5.9 | 4.2 | P531_0050 EZ702U | 199 | 199 | 700 | 5.000 | 5/1 | 3500 | 7000 | 14 | 3.0 | 1.0 | 35 | 15 |
| **P7 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | |
| 250 | 303 | 339 | 8.0 | 1.3 | P731_0080 EZ813U | 668 | 700 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 105 | 3.0 | 1.0 | 58 | 46 |
| 286 | 265 | 297 | 8.5 | 1.7 | P731_0070 EZ813U | 805 | 840 | 1610 | 7.000 | 7/1 | 3000 | 6000 | 106 | 3.0 | 1.0 | 61 | 46 |
| 286 | 392 | 467 | 13 | 1.1 | P731_0070 EZ815U | 805 | 840 | 1610 | 7.000 | 7/1 | 3000 | 6000 | 169 | 3.0 | 1.0 | 61 | 59 |
| 400 | 189 | 212 | 13 | 2.3 | P731_0050 EZ813U | 679 | 679 | 1610 | 5.000 | 5/1 | 2700 | 5500 | 107 | 3.0 | 1.0 | 67 | 46 |
| 400 | 280 | 333 | 19 | 1.6 | P731_0050 EZ815U | 805 | 840 | 1610 | 5.000 | 5/1 | 2700 | 5500 | 170 | 3.0 | 1.0 | 67 | 59 |
| 500 | 151 | 170 | 17 | 2.9 | P731_0040 EZ813U | 543 | 543 | 1400 | 4.000 | 4/1 | 2500 | 5000 | 109 | 3.0 | 1.0 | 69 | 46 |
| 500 | 224 | 267 | 25 | 2.0 | P731_0040 EZ815U | 700 | 725 | 1400 | 4.000 | 4/1 | 2500 | 5000 | 172 | 3.0 | 1.0 | 69 | 59 |
| 667 | 113 | 127 | 37 | 2.5 | P731_0030 EZ813U | 407 | 407 | 1000 | 3.000 | 3/1 | 2200 | 4000 | 114 | 3.0 | 1.0 | 68 | 46 |
| 667 | 168 | 200 | 55 | 1.7 | P731_0030 EZ815U | 500 | 500 | 1000 | 3.000 | 3/1 | 2200 | 4000 | 177 | 3.0 | 1.0 | 68 | 59 |
| **P7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | |
| 38 | 327 | 357 | 0.7 | 1.5 | P732_0800 EZ501U | 620 | 620 | 1240 | 80.00 | 80/1 | 3700 | 7000 | 3.0 | 4.0 | 2.0 | 57 | 19 |
| 43 | 286 | 313 | 0.6 | 1.9 | P732_0700 EZ501U | 762 | 799 | 1525 | 70.00 | 70/1 | 3700 | 7000 | 3.0 | 4.0 | 2.0 | 60 | 19 |
| 43 | 492 | 532 | 1.1 | 1.1 | P732_0700 EZ502U | 762 | 799 | 1525 | 70.00 | 70/1 | 3700 | 7000 | 5.3 | 4.0 | 2.0 | 60 | 20 |
| 43 | 492 | 552 | 1.1 | 1.1 | P732_0700 EZ701U | 762 | 799 | 1525 | 70.00 | 70/1 | 3700 | 7000 | 8.6 | 4.0 | 2.0 | 60 | 22 |
| 54 | 229 | 250 | 0.8 | 2.2 | P732_0560 EZ501U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 57 | 19 |
| 54 | 394 | 426 | 1.4 | 1.3 | P732_0560 EZ502U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 5.5 | 4.0 | 2.0 | 57 | 20 |
| 54 | 394 | 442 | 1.4 | 1.3 | P732_0560 EZ701U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 8.8 | 4.0 | 2.0 | 57 | 22 |
| 60 | 204 | 223 | 0.8 | 2.7 | P732_0500 EZ501U | 760 | 760 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 63 | 19 |
| 60 | 352 | 380 | 1.3 | 1.6 | P732_0500 EZ502U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 63 | 20 |
| 60 | 352 | 394 | 1.3 | 1.6 | P732_0500 EZ701U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 8.7 | 4.0 | 2.0 | 63 | 22 |
| 60 | 461 | 527 | 1.7 | 1.2 | P732_0500 EZ503U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 7.7 | 4.0 | 2.0 | 63 | 22 |
| 75 | 163 | 179 | 1.0 | 2.8 | P732_0400 EZ501U | 608 | 608 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 63 | 19 |
| 75 | 281 | 304 | 1.8 | 1.6 | P732_0400 EZ502U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 63 | 20 |
| 75 | 281 | 315 | 1.8 | 1.6 | P732_0400 EZ701U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 8.7 | 4.0 | 2.0 | 63 | 22 |
| 75 | 369 | 422 | 2.3 | 1.2 | P732_0400 EZ503U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 7.8 | 4.0 | 2.0 | 63 | 22 |
| 86 | 143 | 156 | 0.9 | 3.8 | P732_0350 EZ501U | 532 | 532 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 64 | 19 |
| 86 | 246 | 266 | 1.6 | 2.2 | P732_0350 EZ502U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 5.5 | 4.0 | 2.0 | 64 | 20 |
| 86 | 246 | 276 | 1.6 | 2.2 | P732_0350 EZ701U | 665 | 665 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 8.8 | 4.0 | 2.0 | 64 | 22 |
| 86 | 323 | 369 | 2.1 | 1.7 | P732_0350 EZ503U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 7.9 | 4.0 | 2.0 | 64 | 22 |
| 86 | 399 | 479 | 2.6 | 1.4 | P732_0350 EZ702U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 14 | 4.0 | 2.0 | 64 | 24 |
| 86 | 449 | 532 | 2.9 | 1.2 | P732_0350 EZ505U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 64 | 25 |
| 94 | 131 | 143 | 1.1 | 3.6 | P732_0320 EZ501U | 486 | 486 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 3.8 | 4.0 | 2.0 | 57 | 19 |
| 94 | 225 | 243 | 1.9 | 2.1 | P732_0320 EZ502U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 6.1 | 4.0 | 2.0 | 57 | 20 |
| 94 | 225 | 252 | 1.9 | 2.1 | P732_0320 EZ701U | 608 | 608 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 9.4 | 4.0 | 2.0 | 57 | 22 |
| 94 | 295 | 337 | 2.5 | 1.6 | P732_0320 EZ503U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 8.4 | 4.0 | 2.0 | 57 | 22 |
| 94 | 365 | 438 | 3.1 | 1.3 | P732_0320 EZ702U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 57 | 24 |
| 94 | 410 | 486 | 3.5 | 1.1 | P732_0320 EZ505U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 57 | 25 |
| 107 | 114 | 125 | 1.0 | 4.7 | P732_0280 EZ501U | 426 | 426 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 64 | 19 |
| 107 | 197 | 213 | 1.8 | 2.7 | P732_0280 EZ502U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 5.5 | 4.0 | 2.0 | 64 | 20 |
| 107 | 197 | 221 | 1.8 | 2.7 | P732_0280 EZ701U | 532 | 532 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 8.8 | 4.0 | 2.0 | 64 | 22 |
| 107 | 258 | 295 | 2.3 | 2.1 | P732_0280 EZ503U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 7.9 | 4.0 | 2.0 | 64 | 22 |
| 107 | 319 | 383 | 2.9 | 1.7 | P732_0280 EZ702U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 14 | 4.0 | 2.0 | 64 | 24 |
| 107 | 359 | 426 | 3.2 | 1.5 | P732_0280 EZ505U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 64 | 25 |
| 107 | 439 | 553 | 4.0 | 1.2 | P732_0280 EZ703U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 22 | 4.0 | 2.0 | 64 | 26 |
| 120 | 102 | 112 | 1.2 | 4.9 | P732_0250 EZ501U | 380 | 380 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 3.5 | 4.0 | 2.0 | 64 | 19 |
| 120 | 176 | 190 | 2.0 | 2.8 | P732_0250 EZ502U | 736 | 736 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 5.8 | 4.0 | 2.0 | 64 | 20 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm) | | | | | | | | | | | | | | | | | |
| 120 | 176 | 197 | 2.0 | 2.8 | P732_0250 EZ701U | 475 | 475 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 9.1 | 4.0 | 2.0 | 64 | 22 |
| 120 | 230 | 264 | 2.7 | 2.2 | P732_0250 EZ503U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 8.2 | 4.0 | 2.0 | 64 | 22 |
| 120 | 285 | 342 | 3.3 | 1.8 | P732_0250 EZ702U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 14 | 4.0 | 2.0 | 64 | 24 |
| 120 | 321 | 380 | 3.7 | 1.6 | P732_0250 EZ505U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 13 | 4.0 | 2.0 | 64 | 25 |
| 120 | 392 | 494 | 4.5 | 1.3 | P732_0250 EZ703U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 22 | 4.0 | 2.0 | 64 | 26 |
| 150 | 141 | 152 | 2.5 | 3.3 | P732_0200 EZ502U | 589 | 589 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 6.1 | 4.0 | 2.0 | 64 | 20 |
| 150 | 141 | 158 | 2.5 | 3.3 | P732_0200 EZ701U | 380 | 380 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 9.4 | 4.0 | 2.0 | 64 | 22 |
| 150 | 184 | 211 | 3.2 | 2.5 | P732_0200 EZ503U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 8.5 | 4.0 | 2.0 | 64 | 22 |
| 150 | 228 | 274 | 4.0 | 2.0 | P732_0200 EZ702U | 779 | 779 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 64 | 24 |
| 150 | 257 | 304 | 4.5 | 1.8 | P732_0200 EZ505U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 64 | 25 |
| 150 | 314 | 395 | 5.5 | 1.5 | P732_0200 EZ703U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 64 | 26 |
| 150 | 405 | 574 | 7.1 | 1.1 | P732_0200 EZ705U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 64 | 32 |
| 188 | 112 | 122 | 2.8 | 4.0 | P732_0160 EZ502U | 471 | 471 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 6.3 | 4.0 | 2.0 | 65 | 20 |
| 188 | 112 | 126 | 2.8 | 4.0 | P732_0160 EZ701U | 304 | 304 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 9.6 | 4.0 | 2.0 | 65 | 22 |
| 188 | 147 | 169 | 3.7 | 3.1 | P732_0160 EZ503U | 654 | 654 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 8.6 | 4.0 | 2.0 | 65 | 22 |
| 188 | 182 | 219 | 4.6 | 2.5 | P732_0160 EZ702U | 623 | 623 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 65 | 24 |
| 188 | 205 | 243 | 5.1 | 2.2 | P732_0160 EZ505U | 700 | 700 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 65 | 25 |
| 188 | 251 | 316 | 6.3 | 1.8 | P732_0160 EZ703U | 700 | 700 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 65 | 26 |
| 188 | 324 | 459 | 8.1 | 1.4 | P732_0160 EZ705U | 700 | 700 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 65 | 32 |
| 250 | 84 | 91 | 5.0 | 3.5 | P732_0120 EZ502U | 353 | 353 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 6.6 | 4.0 | 2.0 | 62 | 20 |
| 250 | 84 | 95 | 5.0 | 3.5 | P732_0120 EZ701U | 228 | 228 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 9.9 | 4.0 | 2.0 | 62 | 22 |
| 250 | 111 | 127 | 6.5 | 2.7 | P732_0120 EZ503U | 490 | 490 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 8.9 | 4.0 | 2.0 | 62 | 22 |
| 250 | 137 | 164 | 8.0 | 2.2 | P732_0120 EZ702U | 467 | 467 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 15 | 4.0 | 2.0 | 62 | 24 |
| 250 | 154 | 182 | 9.0 | 1.9 | P732_0120 EZ505U | 500 | 500 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 14 | 4.0 | 2.0 | 62 | 25 |
| 250 | 188 | 237 | 11 | 1.6 | P732_0120 EZ703U | 500 | 500 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 23 | 4.0 | 2.0 | 62 | 26 |
| 250 | 243 | 344 | 14 | 1.2 | P732_0120 EZ705U | 500 | 500 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 35 | 4.0 | 2.0 | 62 | 32 |
| 300 | 72 | 81 | 1.7 | 3.9 | P731_0100 EZ701U | 194 | 194 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 55 | 19 |
| 300 | 116 | 140 | 2.7 | 2.4 | P731_0100 EZ702U | 398 | 398 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 55 | 21 |
| 300 | 160 | 202 | 3.7 | 1.7 | P731_0100 EZ703U | 575 | 575 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 55 | 23 |
| 300 | 207 | 293 | 4.8 | 1.3 | P731_0100 EZ705U | 575 | 575 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 55 | 29 |
| 375 | 93 | 112 | 2.8 | 3.8 | P731_0080 EZ702U | 318 | 318 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 58 | 21 |
| 375 | 128 | 161 | 3.9 | 2.7 | P731_0080 EZ703U | 504 | 504 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 58 | 23 |
| 375 | 165 | 234 | 5.0 | 2.1 | P731_0080 EZ705U | 668 | 700 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 58 | 29 |
| 429 | 81 | 98 | 3.0 | 4.7 | P731_0070 EZ702U | 278 | 278 | 1561 | 7.000 | 7/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 61 | 21 |
| 429 | 112 | 141 | 4.1 | 3.4 | P731_0070 EZ703U | 441 | 441 | 1561 | 7.000 | 7/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 61 | 23 |
| 429 | 145 | 205 | 5.3 | 2.7 | P731_0070 EZ705U | 706 | 706 | 1561 | 7.000 | 7/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 61 | 29 |
| 600 | 80 | 101 | 6.2 | 4.8 | P731_0050 EZ703U | 315 | 315 | 1119 | 5.000 | 5/1 | 2700 | 5500 | 24 | 3.0 | 1.0 | 67 | 23 |
| 600 | 103 | 146 | 7.9 | 3.7 | P731_0050 EZ705U | 504 | 504 | 1119 | 5.000 | 5/1 | 2700 | 5500 | 36 | 3.0 | 1.0 | 67 | 29 |
| 750 | 83 | 117 | 10 | 4.7 | P731_0040 EZ705U | 404 | 404 | 899 | 4.000 | 4/1 | 2500 | 5000 | 38 | 3.0 | 1.0 | 69 | 29 |
| 1000 | 62 | 88 | 23 | 3.9 | P731_0030 EZ705U | 303 | 303 | 676 | 3.000 | 3/1 | 2200 | 4000 | 43 | 3.0 | 1.0 | 68 | 29 |
| P7 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm) | | | | | | | | | | | | | | | | | |
| 400 | 244 | 424 | 6.2 | 1.0 | P731_0100 EZ813U | 575 | 575 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 105 | 3.0 | 1.0 | 55 | 46 |
| 500 | 196 | 339 | 6.5 | 1.6 | P731_0080 EZ813U | 668 | 700 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 105 | 3.0 | 1.0 | 58 | 46 |
| 500 | 203 | 521 | 6.7 | 1.6 | P731_0080 EZ815U | 668 | 700 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 168 | 3.0 | 1.0 | 58 | 59 |
| 571 | 171 | 297 | 6.9 | 2.0 | P731_0070 EZ813U | 805 | 840 | 1610 | 7.000 | 7/1 | 3000 | 6000 | 106 | 3.0 | 1.0 | 61 | 46 |
| 571 | 177 | 456 | 7.2 | 2.0 | P731_0070 EZ815U | 805 | 840 | 1610 | 7.000 | 7/1 | 3000 | 6000 | 169 | 3.0 | 1.0 | 61 | 59 |
| 800 | 122 | 212 | 10 | 2.9 | P731_0050 EZ813U | 679 | 679 | 1610 | 5.000 | 5/1 | 2700 | 5500 | 107 | 3.0 | 1.0 | 67 | 46 |
| 800 | 127 | 326 | 11 | 2.8 | P731_0050 EZ815U | 805 | 840 | 1610 | 5.000 | 5/1 | 2700 | 5500 | 170 | 3.0 | 1.0 | 67 | 59 |
| 1000 | 98 | 170 | 14 | 3.6 | P731_0040 EZ813U | 543 | 543 | 1400 | 4.000 | 4/1 | 2500 | 5000 | 109 | 3.0 | 1.0 | 69 | 46 |
| 1000 | 101 | 261 | 14 | 3.4 | P731_0040 EZ815U | 700 | 725 | 1400 | 4.000 | 4/1 | 2500 | 5000 | 172 | 3.0 | 1.0 | 69 | 59 |
| 1333 | 73 | 127 | 30 | 3.0 | P731_0030 EZ813U | 407 | 407 | 1000 | 3.000 | 3/1 | 2200 | 4000 | 114 | 3.0 | 1.0 | 68 | 46 |
| 1333 | 76 | 195 | 31 | 2.9 | P731_0030 EZ815U | 500 | 500 | 1000 | 3.000 | 3/1 | 2200 | 4000 | 177 | 3.0 | 1.0 | 68 | 59 |
| P7 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 810 Nm) | | | | | | | | | | | | | | | | | |
| 90 | 451 | 727 | 1.9 | 1.1 | P732_0500 EZ505U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 63 | 25 |
| 113 | 361 | 581 | 2.5 | 1.1 | P732_0400 EZ505U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 63 | 25 |
| 129 | 316 | 509 | 2.3 | 1.5 | P732_0350 EZ505U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 64 | 25 |
| 129 | 402 | 665 | 2.9 | 1.2 | P732_0350 EZ703U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 22 | 4.0 | 2.0 | 64 | 26 |
| 141 | 289 | 465 | 2.7 | 1.5 | P732_0320 EZ505U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 57 | 25 |
| 141 | 368 | 608 | 3.4 | 1.2 | P732_0320 EZ703U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 22 | 4.0 | 2.0 | 57 | 26 |
| 161 | 253 | 407 | 2.5 | 1.9 | P732_0280 EZ505U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 12 | 4.0 | 2.0 | 64 | 25 |
| 161 | 322 | 532 | 3.2 | 1.5 | P732_0280 EZ703U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 22 | 4.0 | 2.0 | 64 | 26 |
| 161 | 436 | 798 | 4.4 | 1.1 | P732_0280 EZ705U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 34 | 4.0 | 2.0 | 64 | 32 |
| 180 | 226 | 363 | 2.8 | 2.0 | P732_0250 EZ505U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 13 | 4.0 | 2.0 | 64 | 25 |
| 180 | 287 | 475 | 3.6 | 1.6 | P732_0250 EZ703U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 22 | 4.0 | 2.0 | 64 | 26 |
| 180 | 390 | 713 | 4.9 | 1.2 | P732_0250 EZ705U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 35 | 4.0 | 2.0 | 64 | 32 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P7 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 810 Nm) | | | | | | | | | | | | | | | | | |
| 225 | 181 | 291 | 3.2 | 2.5 | P732_0200 EZ505U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 64 | 25 |
| 225 | 230 | 380 | 4.1 | 2.0 | P732_0200 EZ703U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 64 | 26 |
| 225 | 312 | 570 | 5.6 | 1.4 | P732_0200 EZ705U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 64 | 32 |
| 281 | 144 | 233 | 3.6 | 3.1 | P732_0160 EZ505U | 700 | 700 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 13 | 4.0 | 2.0 | 65 | 25 |
| 281 | 184 | 304 | 4.6 | 2.4 | P732_0160 EZ703U | 700 | 700 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 65 | 26 |
| 281 | 249 | 456 | 6.2 | 1.8 | P732_0160 EZ705U | 700 | 700 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 65 | 32 |
| 375 | 108 | 174 | 6.6 | 2.6 | P732_0120 EZ505U | 500 | 500 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 14 | 4.0 | 2.0 | 62 | 25 |
| 375 | 138 | 228 | 8.4 | 2.1 | P732_0120 EZ703U | 500 | 500 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 23 | 4.0 | 2.0 | 62 | 26 |
| 375 | 187 | 342 | 11 | 1.5 | P732_0120 EZ705U | 500 | 500 | 1000 | 12.00 | 12/1 | 2500 | 5000 | 35 | 4.0 | 2.0 | 62 | 32 |
| 450 | 117 | 194 | 3.1 | 2.1 | P731_0100 EZ703U | 575 | 575 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 55 | 23 |
| 450 | 159 | 291 | 4.2 | 1.5 | P731_0100 EZ705U | 575 | 575 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 55 | 29 |
| 563 | 94 | 155 | 3.2 | 3.3 | P731_0080 EZ703U | 504 | 504 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 58 | 23 |
| 563 | 127 | 233 | 4.4 | 2.4 | P731_0080 EZ705U | 668 | 700 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 58 | 29 |
| 643 | 82 | 136 | 3.5 | 4.1 | P731_0070 EZ703U | 441 | 441 | 1561 | 7.000 | 7/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 61 | 23 |
| 643 | 111 | 204 | 4.7 | 3.0 | P731_0070 EZ705U | 706 | 706 | 1561 | 7.000 | 7/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 61 | 29 |
| 900 | 80 | 146 | 7.0 | 4.2 | P731_0050 EZ705U | 504 | 504 | 1119 | 5.000 | 5/1 | 2700 | 5500 | 36 | 3.0 | 1.0 | 67 | 29 |
| P7 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm) | | | | | | | | | | | | | | | | | |
| 75 | 258 | 334 | 0.7 | 1.5 | P732_0800 EZ501U | 620 | 620 | 1240 | 80.00 | 80/1 | 3700 | 7000 | 3.0 | 4.0 | 2.0 | 57 | 19 |
| 75 | 395 | 593 | 1.0 | 1.0 | P732_0800 EZ502U | 620 | 620 | 1240 | 80.00 | 80/1 | 3700 | 7000 | 5.3 | 4.0 | 2.0 | 57 | 20 |
| 75 | 395 | 600 | 1.0 | 1.0 | P732_0800 EZ701U | 620 | 620 | 1240 | 80.00 | 80/1 | 3700 | 7000 | 8.6 | 4.0 | 2.0 | 57 | 22 |
| 86 | 226 | 293 | 0.6 | 1.9 | P732_0700 EZ501U | 762 | 799 | 1525 | 70.00 | 70/1 | 3700 | 7000 | 3.0 | 4.0 | 2.0 | 60 | 19 |
| 86 | 346 | 519 | 1.0 | 1.3 | P732_0700 EZ502U | 762 | 799 | 1525 | 70.00 | 70/1 | 3700 | 7000 | 5.3 | 4.0 | 2.0 | 60 | 20 |
| 86 | 346 | 525 | 1.0 | 1.3 | P732_0700 EZ701U | 762 | 799 | 1525 | 70.00 | 70/1 | 3700 | 7000 | 8.6 | 4.0 | 2.0 | 60 | 22 |
| 86 | 412 | 705 | 1.2 | 1.1 | P732_0700 EZ503U | 762 | 799 | 1525 | 70.00 | 70/1 | 3700 | 7000 | 7.7 | 4.0 | 2.0 | 60 | 22 |
| 107 | 181 | 234 | 0.8 | 2.2 | P732_0560 EZ501U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 57 | 19 |
| 107 | 277 | 415 | 1.2 | 1.4 | P732_0560 EZ502U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 5.5 | 4.0 | 2.0 | 57 | 20 |
| 107 | 277 | 420 | 1.2 | 1.4 | P732_0560 EZ701U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 8.8 | 4.0 | 2.0 | 57 | 22 |
| 107 | 330 | 564 | 1.4 | 1.2 | P732_0560 EZ503U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 7.9 | 4.0 | 2.0 | 57 | 22 |
| 107 | 383 | 761 | 1.6 | 1.0 | P732_0560 EZ702U | 650 | 650 | 1300 | 56.00 | 56/1 | 3700 | 7000 | 14 | 4.0 | 2.0 | 57 | 24 |
| 120 | 162 | 209 | 0.7 | 2.7 | P732_0500 EZ501U | 760 | 760 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 63 | 19 |
| 120 | 247 | 371 | 1.1 | 1.8 | P732_0500 EZ502U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 63 | 20 |
| 120 | 247 | 375 | 1.1 | 1.8 | P732_0500 EZ701U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 8.7 | 4.0 | 2.0 | 63 | 22 |
| 120 | 295 | 504 | 1.4 | 1.5 | P732_0500 EZ503U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 7.7 | 4.0 | 2.0 | 63 | 22 |
| 120 | 342 | 679 | 1.6 | 1.3 | P732_0500 EZ702U | 770 | 805 | 1540 | 50.00 | 50/1 | 3700 | 7000 | 14 | 4.0 | 2.0 | 63 | 24 |
| 150 | 129 | 167 | 1.0 | 2.9 | P732_0400 EZ501U | 608 | 608 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 3.1 | 4.0 | 2.0 | 63 | 19 |
| 150 | 198 | 296 | 1.5 | 1.9 | P732_0400 EZ502U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 5.4 | 4.0 | 2.0 | 63 | 20 |
| 150 | 198 | 300 | 1.5 | 1.9 | P732_0400 EZ701U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 8.7 | 4.0 | 2.0 | 63 | 22 |
| 150 | 236 | 403 | 1.8 | 1.6 | P732_0400 EZ503U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 7.8 | 4.0 | 2.0 | 63 | 22 |
| 150 | 274 | 543 | 2.1 | 1.4 | P732_0400 EZ702U | 700 | 700 | 1400 | 40.00 | 40/1 | 3700 | 7000 | 14 | 4.0 | 2.0 | 63 | 24 |
| 171 | 113 | 146 | 0.9 | 3.9 | P732_0350 EZ501U | 532 | 532 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 64 | 19 |
| 171 | 173 | 259 | 1.4 | 2.5 | P732_0350 EZ502U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 5.5 | 4.0 | 2.0 | 64 | 20 |
| 171 | 173 | 263 | 1.4 | 2.5 | P732_0350 EZ701U | 665 | 665 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 8.8 | 4.0 | 2.0 | 64 | 22 |
| 171 | 206 | 352 | 1.6 | 2.1 | P732_0350 EZ503U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 7.9 | 4.0 | 2.0 | 64 | 22 |
| 171 | 239 | 475 | 1.9 | 1.8 | P732_0350 EZ702U | 770 | 805 | 1540 | 35.00 | 35/1 | 3700 | 7000 | 14 | 4.0 | 2.0 | 64 | 24 |
| 188 | 103 | 134 | 1.1 | 3.8 | P732_0320 EZ501U | 486 | 486 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 3.8 | 4.0 | 2.0 | 57 | 19 |
| 188 | 158 | 237 | 1.6 | 2.5 | P732_0320 EZ502U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 6.1 | 4.0 | 2.0 | 57 | 20 |
| 188 | 158 | 240 | 1.6 | 2.5 | P732_0320 EZ701U | 608 | 608 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 9.4 | 4.0 | 2.0 | 57 | 22 |
| 188 | 188 | 322 | 1.9 | 2.1 | P732_0320 EZ503U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 8.4 | 4.0 | 2.0 | 57 | 22 |
| 188 | 219 | 435 | 2.2 | 1.8 | P732_0320 EZ702U | 730 | 730 | 1460 | 32.00 | 32/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 57 | 24 |
| 214 | 90 | 117 | 1.0 | 4.9 | P732_0280 EZ501U | 426 | 426 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 3.2 | 4.0 | 2.0 | 64 | 19 |
| 214 | 138 | 207 | 1.5 | 3.2 | P732_0280 EZ502U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 5.5 | 4.0 | 2.0 | 64 | 20 |
| 214 | 138 | 210 | 1.5 | 3.2 | P732_0280 EZ701U | 532 | 532 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 8.8 | 4.0 | 2.0 | 64 | 22 |
| 214 | 165 | 282 | 1.8 | 2.7 | P732_0280 EZ503U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 7.9 | 4.0 | 2.0 | 64 | 22 |
| 214 | 192 | 380 | 2.1 | 2.3 | P732_0280 EZ702U | 700 | 700 | 1400 | 28.00 | 28/1 | 3700 | 7000 | 14 | 4.0 | 2.0 | 64 | 24 |
| 240 | 124 | 185 | 1.7 | 3.4 | P732_0250 EZ502U | 736 | 736 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 5.8 | 4.0 | 2.0 | 64 | 20 |
| 240 | 124 | 188 | 1.7 | 3.4 | P732_0250 EZ701U | 475 | 475 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 9.1 | 4.0 | 2.0 | 64 | 22 |
| 240 | 147 | 252 | 2.0 | 2.8 | P732_0250 EZ503U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 8.2 | 4.0 | 2.0 | 64 | 22 |
| 240 | 171 | 340 | 2.4 | 2.4 | P732_0250 EZ702U | 805 | 805 | 1610 | 25.00 | 25/1 | 3500 | 7000 | 14 | 4.0 | 2.0 | 64 | 24 |
| 300 | 99 | 148 | 1.9 | 4.1 | P732_0200 EZ502U | 589 | 589 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 6.1 | 4.0 | 2.0 | 64 | 20 |
| 300 | 99 | 150 | 1.9 | 4.1 | P732_0200 EZ701U | 380 | 380 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 9.4 | 4.0 | 2.0 | 64 | 22 |
| 300 | 118 | 201 | 2.3 | 3.5 | P732_0200 EZ503U | 805 | 805 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 8.5 | 4.0 | 2.0 | 64 | 22 |
| 300 | 137 | 272 | 2.7 | 3.0 | P732_0200 EZ702U | 779 | 779 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 64 | 24 |
| 375 | 94 | 161 | 2.6 | 4.3 | P732_0160 EZ503U | 654 | 654 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 8.6 | 4.0 | 2.0 | 65 | 22 |
| 375 | 109 | 217 | 3.0 | 3.7 | P732_0160 EZ702U | 623 | 623 | 1400 | 16.00 | 16/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 65 | 24 |
| 600 | 50 | 77 | 1.5 | 4.4 | P731_0100 EZ701U | 194 | 194 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 55 | 19 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P7 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | |
| 600 | 70 | 139 | 2.0 | 3.2 | P731_0100 EZ702U | 398 | 398 | 1150 | 10.00 | 10/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 55 | 21 |
| 750 | 56 | 111 | 2.1 | 5.0 | P731_0080 EZ702U | 318 | 318 | 1336 | 8.000 | 8/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 58 | 21 |
| **P8 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | |
| 57 | 1296 | 1454 | 3.5 | 1.1 | P832_0350 EZ813U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 106 | 4.0 | 2.0 | 176 | 66 |
| 71 | 1037 | 1163 | 5.0 | 1.1 | P832_0280 EZ813U | 1600 | 1600 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 106 | 4.0 | 2.0 | 172 | 66 |
| 80 | 926 | 1039 | 4.4 | 1.4 | P832_0250 EZ813U | 1840 | 2000 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 107 | 4.0 | 2.0 | 177 | 66 |
| 100 | 741 | 831 | 5.2 | 1.7 | P832_0200 EZ813U | 1840 | 2000 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 108 | 4.0 | 2.0 | 177 | 66 |
| 100 | 1097 | 1306 | 7.7 | 1.1 | P832_0200 EZ815U | 1840 | 2000 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 171 | 4.0 | 2.0 | 177 | 79 |
| 125 | 593 | 665 | 6.6 | 1.9 | P832_0160 EZ813U | 1600 | 1600 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 109 | 4.0 | 2.0 | 174 | 66 |
| 125 | 878 | 1045 | 9.7 | 1.3 | P832_0160 EZ815U | 1600 | 1600 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 172 | 4.0 | 2.0 | 174 | 79 |
| 167 | 444 | 499 | 10 | 1.8 | P832_0120 EZ813U | 1200 | 1200 | 2400 | 12.00 | 12/1 | 2200 | 4500 | 110 | 4.0 | 2.0 | 168 | 66 |
| 167 | 658 | 784 | 15 | 1.2 | P832_0120 EZ815U | 1200 | 1200 | 2400 | 12.00 | 12/1 | 2200 | 4500 | 173 | 4.0 | 2.0 | 168 | 79 |
| 200 | 378 | 424 | 3.4 | 2.0 | P831_0100 EZ813U | 1358 | 1358 | 2760 | 10.00 | 10/1 | 2800 | 4500 | 107 | 3.0 | 1.0 | 150 | 60 |
| 200 | 560 | 667 | 5.1 | 1.4 | P831_0100 EZ815U | 1380 | 1380 | 2760 | 10.00 | 10/1 | 2800 | 4500 | 170 | 3.0 | 1.0 | 150 | 72 |
| 250 | 303 | 339 | 4.3 | 2.6 | P831_0080 EZ813U | 1086 | 1086 | 3000 | 8.000 | 8/1 | 2800 | 4500 | 109 | 3.0 | 1.0 | 162 | 60 |
| 250 | 448 | 534 | 6.4 | 1.8 | P831_0080 EZ815U | 1500 | 1500 | 3000 | 8.000 | 8/1 | 2800 | 4500 | 172 | 3.0 | 1.0 | 162 | 72 |
| 286 | 265 | 297 | 4.0 | 3.8 | P831_0070 EZ813U | 951 | 951 | 3230 | 7.000 | 7/1 | 2800 | 4500 | 110 | 3.0 | 1.0 | 170 | 60 |
| 286 | 392 | 467 | 6.0 | 2.6 | P831_0070 EZ815U | 1358 | 1358 | 3230 | 7.000 | 7/1 | 2800 | 4500 | 173 | 3.0 | 1.0 | 170 | 72 |
| 400 | 280 | 333 | 9.0 | 3.6 | P831_0050 EZ815U | 970 | 970 | 2512 | 5.000 | 5/1 | 2500 | 4000 | 178 | 3.0 | 1.0 | 185 | 72 |
| 500 | 224 | 267 | 15 | 3.6 | P831_0040 EZ815U | 776 | 776 | 2018 | 4.000 | 4/1 | 2000 | 3500 | 186 | 3.0 | 1.0 | 187 | 72 |
| 667 | 168 | 200 | 21 | 4.8 | P831_0030 EZ815U | 582 | 582 | 1518 | 3.000 | 3/1 | 1800 | 3000 | 209 | 3.0 | 1.0 | 190 | 72 |
| **P8 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | |
| 30 | 703 | 789 | 0.6 | 1.3 | P832_1000 EZ701U | 1320 | 1320 | 2640 | 100.0 | 100/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 148 | 39 |
| 38 | 562 | 631 | 0.6 | 1.8 | P832_0800 EZ701U | 1380 | 1380 | 2760 | 80.00 | 80/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 159 | 39 |
| 38 | 912 | 1094 | 1.0 | 1.1 | P832_0800 EZ702U | 1380 | 1380 | 2760 | 80.00 | 80/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 159 | 41 |
| 43 | 492 | 552 | 0.5 | 2.5 | P832_0700 EZ701U | 1330 | 1330 | 3220 | 70.00 | 70/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 164 | 39 |
| 43 | 798 | 958 | 0.9 | 1.6 | P832_0700 EZ702U | 1610 | 1610 | 3220 | 70.00 | 70/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 164 | 41 |
| 43 | 1097 | 1383 | 1.2 | 1.1 | P832_0700 EZ703U | 1610 | 1610 | 3220 | 70.00 | 70/1 | 3000 | 6000 | 22 | 4.0 | 2.0 | 164 | 43 |
| 54 | 394 | 442 | 0.7 | 2.6 | P832_0560 EZ701U | 1064 | 1064 | 2760 | 56.00 | 56/1 | 3000 | 6000 | 9.6 | 4.0 | 2.0 | 159 | 39 |
| 54 | 638 | 766 | 1.2 | 1.6 | P832_0560 EZ702U | 1380 | 1380 | 2760 | 56.00 | 56/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 159 | 41 |
| 54 | 878 | 1107 | 1.6 | 1.1 | P832_0560 EZ703U | 1380 | 1380 | 2760 | 56.00 | 56/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 159 | 43 |
| 60 | 352 | 394 | 0.6 | 3.6 | P832_0500 EZ701U | 950 | 950 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 173 | 39 |
| 60 | 570 | 684 | 1.0 | 2.2 | P832_0500 EZ702U | 1840 | 1948 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 173 | 41 |
| 60 | 784 | 988 | 1.4 | 1.6 | P832_0500 EZ703U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 22 | 4.0 | 2.0 | 173 | 43 |
| 60 | 1012 | 1435 | 1.8 | 1.3 | P832_0500 EZ705U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 173 | 49 |
| 75 | 281 | 315 | 0.9 | 3.6 | P832_0400 EZ701U | 760 | 760 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 9.2 | 4.0 | 2.0 | 168 | 39 |
| 75 | 456 | 547 | 1.4 | 2.2 | P832_0400 EZ702U | 1558 | 1558 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 168 | 41 |
| 75 | 627 | 790 | 1.9 | 1.6 | P832_0400 EZ703U | 1600 | 1600 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 22 | 4.0 | 2.0 | 168 | 43 |
| 75 | 809 | 1148 | 2.5 | 1.3 | P832_0400 EZ705U | 1600 | 1600 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 168 | 49 |
| 86 | 399 | 479 | 1.2 | 3.2 | P832_0350 EZ702U | 1363 | 1363 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 176 | 41 |
| 86 | 549 | 692 | 1.6 | 2.3 | P832_0350 EZ703U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 176 | 43 |
| 86 | 708 | 1004 | 2.1 | 1.8 | P832_0350 EZ705U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 176 | 49 |
| 94 | 225 | 252 | 1.0 | 4.5 | P832_0320 EZ701U | 608 | 608 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 12 | 4.0 | 2.0 | 159 | 39 |
| 94 | 365 | 438 | 1.6 | 2.8 | P832_0320 EZ702U | 1246 | 1246 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 17 | 4.0 | 2.0 | 159 | 41 |
| 94 | 502 | 632 | 2.1 | 2.0 | P832_0320 EZ703U | 1525 | 1595 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 25 | 4.0 | 2.0 | 159 | 43 |
| 94 | 648 | 918 | 2.8 | 1.6 | P832_0320 EZ705U | 1525 | 1595 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 38 | 4.0 | 2.0 | 159 | 49 |
| 107 | 319 | 383 | 1.7 | 3.2 | P832_0280 EZ702U | 1091 | 1091 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 15 | 4.0 | 2.0 | 172 | 41 |
| 107 | 439 | 553 | 2.3 | 2.3 | P832_0280 EZ703U | 1600 | 1600 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 23 | 4.0 | 2.0 | 172 | 43 |
| 107 | 567 | 803 | 3.0 | 1.8 | P832_0280 EZ705U | 1600 | 1600 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 35 | 4.0 | 2.0 | 172 | 49 |
| 120 | 285 | 342 | 1.4 | 4.4 | P832_0250 EZ702U | 974 | 974 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 16 | 4.0 | 2.0 | 177 | 41 |
| 120 | 392 | 494 | 1.9 | 3.2 | P832_0250 EZ703U | 1544 | 1544 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 24 | 4.0 | 2.0 | 177 | 43 |
| 120 | 506 | 717 | 2.5 | 2.5 | P832_0250 EZ705U | 1840 | 2000 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 36 | 4.0 | 2.0 | 177 | 49 |
| 150 | 314 | 395 | 2.2 | 4.0 | P832_0200 EZ703U | 1235 | 1235 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 26 | 4.0 | 2.0 | 177 | 43 |
| 150 | 405 | 574 | 2.8 | 3.1 | P832_0200 EZ705U | 1840 | 1976 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 38 | 4.0 | 2.0 | 177 | 49 |
| 188 | 251 | 316 | 3.0 | 4.0 | P832_0160 EZ703U | 988 | 988 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 26 | 4.0 | 2.0 | 174 | 43 |
| 188 | 324 | 459 | 3.9 | 3.1 | P832_0160 EZ705U | 1581 | 1581 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 38 | 4.0 | 2.0 | 174 | 49 |
| 250 | 188 | 237 | 4.4 | 4.3 | P832_0120 EZ703U | 741 | 741 | 2400 | 12.00 | 12/1 | 2200 | 4500 | 28 | 4.0 | 2.0 | 168 | 43 |
| 250 | 243 | 344 | 5.7 | 3.3 | P832_0120 EZ705U | 1186 | 1186 | 2400 | 12.00 | 12/1 | 2200 | 4500 | 40 | 4.0 | 2.0 | 168 | 49 |
| **P8 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | |
| 114 | 838 | 1453 | 2.8 | 1.4 | P832_0350 EZ813U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 106 | 4.0 | 2.0 | 176 | 66 |
| 114 | 868 | 2232 | 2.9 | 1.3 | P832_0350 EZ815U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 169 | 4.0 | 2.0 | 176 | 79 |
| 125 | 766 | 1328 | 3.6 | 1.2 | P832_0320 EZ813U | 1525 | 1595 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 108 | 4.0 | 2.0 | 159 | 66 |
| 125 | 794 | 2041 | 3.7 | 1.2 | P832_0320 EZ815U | 1525 | 1595 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 171 | 4.0 | 2.0 | 159 | 79 |
| 143 | 670 | 1162 | 3.9 | 1.4 | P832_0280 EZ813U | 1600 | 1600 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 106 | 4.0 | 2.0 | 172 | 66 |
| 143 | 695 | 1786 | 4.0 | 1.3 | P832_0280 EZ815U | 1600 | 1600 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 169 | 4.0 | 2.0 | 172 | 79 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P8 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | |
| 160 | 599 | 1038 | 3.3 | 1.9 | P832_0250 EZ813U | 1840 | 2000 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 107 | 4.0 | 2.0 | 177 | 66 |
| 160 | 620 | 1595 | 3.4 | 1.8 | P832_0250 EZ815U | 1840 | 2000 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 170 | 4.0 | 2.0 | 177 | 79 |
| 200 | 479 | 830 | 3.6 | 2.4 | P832_0200 EZ813U | 1840 | 2000 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 108 | 4.0 | 2.0 | 177 | 66 |
| 200 | 496 | 1276 | 3.8 | 2.3 | P832_0200 EZ815U | 1840 | 2000 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 171 | 4.0 | 2.0 | 177 | 79 |
| 250 | 383 | 664 | 5.1 | 2.4 | P832_0160 EZ813U | 1600 | 1600 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 109 | 4.0 | 2.0 | 174 | 66 |
| 250 | 397 | 1021 | 5.3 | 2.3 | P832_0160 EZ815U | 1600 | 1600 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 172 | 4.0 | 2.0 | 174 | 79 |
| 333 | 287 | 498 | 6.8 | 2.8 | P832_0120 EZ813U | 1200 | 1200 | 2400 | 12.00 | 12/1 | 2200 | 4500 | 110 | 4.0 | 2.0 | 168 | 66 |
| 333 | 298 | 765 | 7.0 | 2.7 | P832_0120 EZ815U | 1200 | 1200 | 2400 | 12.00 | 12/1 | 2200 | 4500 | 173 | 4.0 | 2.0 | 168 | 79 |
| 400 | 244 | 424 | 2.8 | 2.5 | P831_0100 EZ813U | 1358 | 1358 | 2760 | 10.00 | 10/1 | 2800 | 4500 | 107 | 3.0 | 1.0 | 150 | 60 |
| 400 | 253 | 651 | 2.9 | 2.4 | P831_0100 EZ815U | 1380 | 1380 | 2760 | 10.00 | 10/1 | 2800 | 4500 | 170 | 3.0 | 1.0 | 150 | 72 |
| 500 | 196 | 339 | 3.5 | 3.2 | P831_0080 EZ813U | 1086 | 1086 | 3000 | 8.000 | 8/1 | 2800 | 4500 | 109 | 3.0 | 1.0 | 162 | 60 |
| 500 | 203 | 521 | 3.6 | 3.1 | P831_0080 EZ815U | 1500 | 1500 | 3000 | 8.000 | 8/1 | 2800 | 4500 | 172 | 3.0 | 1.0 | 162 | 72 |
| 571 | 171 | 297 | 3.3 | 4.6 | P831_0070 EZ813U | 951 | 951 | 3230 | 7.000 | 7/1 | 2800 | 4500 | 110 | 3.0 | 1.0 | 170 | 60 |
| 571 | 177 | 456 | 3.4 | 4.5 | P831_0070 EZ815U | 1358 | 1358 | 3230 | 7.000 | 7/1 | 2800 | 4500 | 173 | 3.0 | 1.0 | 170 | 72 |
| **P8 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | |
| 64 | 805 | 1330 | 1.0 | 1.4 | P832_0700 EZ703U | 1610 | 1610 | 3220 | 70.00 | 70/1 | 3000 | 6000 | 22 | 4.0 | 2.0 | 164 | 43 |
| 64 | 1091 | 1995 | 1.3 | 1.0 | P832_0700 EZ705U | 1610 | 1610 | 3220 | 70.00 | 70/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 164 | 49 |
| 80 | 644 | 1064 | 1.4 | 1.4 | P832_0560 EZ703U | 1380 | 1380 | 2760 | 56.00 | 56/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 159 | 43 |
| 80 | 872 | 1596 | 1.8 | 1.0 | P832_0560 EZ705U | 1380 | 1380 | 2760 | 56.00 | 56/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 159 | 49 |
| 90 | 575 | 950 | 1.1 | 1.9 | P832_0500 EZ703U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 22 | 4.0 | 2.0 | 173 | 43 |
| 90 | 779 | 1425 | 1.5 | 1.4 | P832_0500 EZ705U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 173 | 49 |
| 113 | 460 | 760 | 1.6 | 1.9 | P832_0400 EZ703U | 1600 | 1600 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 22 | 4.0 | 2.0 | 168 | 43 |
| 113 | 623 | 1140 | 2.2 | 1.4 | P832_0400 EZ705U | 1600 | 1600 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 168 | 49 |
| 129 | 402 | 665 | 1.4 | 2.7 | P832_0350 EZ703U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 23 | 4.0 | 2.0 | 176 | 43 |
| 129 | 545 | 998 | 1.9 | 2.0 | P832_0350 EZ705U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 35 | 4.0 | 2.0 | 176 | 49 |
| 141 | 368 | 608 | 1.8 | 2.4 | P832_0320 EZ703U | 1525 | 1595 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 25 | 4.0 | 2.0 | 159 | 43 |
| 141 | 499 | 912 | 2.4 | 1.8 | P832_0320 EZ705U | 1525 | 1595 | 3049 | 32.00 | 32/1 | 2700 | 5000 | 38 | 4.0 | 2.0 | 159 | 49 |
| 161 | 322 | 532 | 1.9 | 2.7 | P832_0280 EZ703U | 1600 | 1600 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 23 | 4.0 | 2.0 | 172 | 43 |
| 161 | 436 | 798 | 2.6 | 2.0 | P832_0280 EZ705U | 1600 | 1600 | 3200 | 28.00 | 28/1 | 3000 | 5000 | 35 | 4.0 | 2.0 | 172 | 49 |
| 180 | 287 | 475 | 1.6 | 3.8 | P832_0250 EZ703U | 1544 | 1544 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 24 | 4.0 | 2.0 | 177 | 43 |
| 180 | 390 | 713 | 2.2 | 2.8 | P832_0250 EZ705U | 1840 | 2000 | 3230 | 25.00 | 25/1 | 2900 | 5000 | 36 | 4.0 | 2.0 | 177 | 49 |
| 225 | 230 | 380 | 1.8 | 4.8 | P832_0200 EZ703U | 1235 | 1235 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 26 | 4.0 | 2.0 | 177 | 43 |
| 225 | 312 | 570 | 2.5 | 3.5 | P832_0200 EZ705U | 1840 | 1976 | 3230 | 20.00 | 20/1 | 2700 | 5000 | 38 | 4.0 | 2.0 | 177 | 49 |
| 281 | 184 | 304 | 2.5 | 4.8 | P832_0160 EZ703U | 988 | 988 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 26 | 4.0 | 2.0 | 174 | 43 |
| 281 | 249 | 456 | 3.5 | 3.5 | P832_0160 EZ705U | 1581 | 1581 | 3200 | 16.00 | 16/1 | 2700 | 5000 | 38 | 4.0 | 2.0 | 174 | 49 |
| 375 | 187 | 342 | 4.6 | 4.1 | P832_0120 EZ705U | 1186 | 1186 | 2400 | 12.00 | 12/1 | 2200 | 4500 | 40 | 4.0 | 2.0 | 168 | 49 |
| **P8 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | |
| 60 | 494 | 751 | 0.6 | 1.4 | P832_1000 EZ701U | 1320 | 1320 | 2640 | 100.0 | 100/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 148 | 39 |
| 60 | 684 | 1359 | 0.8 | 1.0 | P832_1000 EZ702U | 1320 | 1320 | 2640 | 100.0 | 100/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 148 | 41 |
| 75 | 395 | 600 | 0.5 | 2.0 | P832_0800 EZ701U | 1380 | 1380 | 2760 | 80.00 | 80/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 159 | 39 |
| 75 | 547 | 1087 | 0.7 | 1.5 | P832_0800 EZ702U | 1380 | 1380 | 2760 | 80.00 | 80/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 159 | 41 |
| 86 | 346 | 525 | 0.5 | 2.9 | P832_0700 EZ701U | 1330 | 1330 | 3220 | 70.00 | 70/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 164 | 39 |
| 86 | 479 | 951 | 0.6 | 2.1 | P832_0700 EZ702U | 1610 | 1610 | 3220 | 70.00 | 70/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 164 | 41 |
| 107 | 277 | 420 | 0.6 | 2.9 | P832_0560 EZ701U | 1064 | 1064 | 2760 | 56.00 | 56/1 | 3000 | 6000 | 9.6 | 4.0 | 2.0 | 159 | 39 |
| 107 | 383 | 761 | 0.9 | 2.1 | P832_0560 EZ702U | 1380 | 1380 | 2760 | 56.00 | 56/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 159 | 41 |
| 120 | 247 | 375 | 0.5 | 4.1 | P832_0500 EZ701U | 950 | 950 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 9.1 | 4.0 | 2.0 | 173 | 39 |
| 120 | 342 | 679 | 0.7 | 3.0 | P832_0500 EZ702U | 1840 | 1948 | 3230 | 50.00 | 50/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 173 | 41 |
| 150 | 198 | 300 | 0.8 | 4.1 | P832_0400 EZ701U | 760 | 760 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 9.2 | 4.0 | 2.0 | 168 | 39 |
| 150 | 274 | 543 | 1.0 | 3.0 | P832_0400 EZ702U | 1558 | 1558 | 3200 | 40.00 | 40/1 | 3000 | 6000 | 14 | 4.0 | 2.0 | 168 | 41 |
| 171 | 239 | 475 | 0.9 | 4.2 | P832_0350 EZ702U | 1363 | 1363 | 3230 | 35.00 | 35/1 | 3000 | 6000 | 15 | 4.0 | 2.0 | 176 | 41 |
| **P9 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 3450 Nm)** | | | | | | | | | | | | | | | | | |
| 40 | 1852 | 2077 | 1.9 | 1.2 | P932_0500 EZ813U | 3200 | – | 6400 | 50.00 | 50/1 | 2800 | 4500 | 107 | 4.0 | – | 399 | 93 |
| 50 | 1482 | 1662 | 2.5 | 1.4 | P932_0400 EZ813U | 3000 | – | 6000 | 40.00 | 40/1 | 2800 | 4500 | 107 | 4.0 | – | 394 | 93 |
| 57 | 1296 | 1454 | 2.2 | 1.8 | P932_0350 EZ813U | 3300 | – | 6600 | 35.00 | 35/1 | 2800 | 4500 | 110 | 4.0 | – | 404 | 93 |
| 57 | 1920 | 2286 | 3.3 | 1.2 | P932_0350 EZ815U | 3300 | – | 6600 | 35.00 | 35/1 | 2800 | 4500 | 173 | 4.0 | – | 404 | 106 |
| 71 | 1037 | 1163 | 2.6 | 2.2 | P932_0280 EZ813U | 3000 | – | 6000 | 28.00 | 28/1 | 2800 | 4500 | 110 | 4.0 | – | 402 | 93 |
| 71 | 1536 | 1829 | 3.8 | 1.5 | P932_0280 EZ815U | 3000 | – | 6000 | 28.00 | 28/1 | 2800 | 4500 | 173 | 4.0 | – | 402 | 106 |
| 80 | 926 | 1039 | 2.5 | 2.6 | P932_0250 EZ813U | 3300 | – | 6600 | 25.00 | 25/1 | 2500 | 4000 | 115 | 4.0 | – | 407 | 93 |
| 80 | 1372 | 1633 | 3.8 | 1.8 | P932_0250 EZ815U | 3300 | – | 6600 | 25.00 | 25/1 | 2500 | 4000 | 178 | 4.0 | – | 407 | 106 |
| 100 | 741 | 831 | 2.8 | 3.4 | P932_0200 EZ813U | 2660 | – | 6900 | 20.00 | 20/1 | 2000 | 3500 | 123 | 4.0 | – | 407 | 93 |
| 100 | 1097 | 1306 | 4.2 | 2.3 | P932_0200 EZ815U | 3450 | – | 6900 | 20.00 | 20/1 | 2000 | 3500 | 186 | 4.0 | – | 407 | 106 |
| 125 | 593 | 665 | 3.9 | 3.4 | P932_0160 EZ813U | 2128 | – | 6000 | 16.00 | 16/1 | 2000 | 3500 | 124 | 4.0 | – | 406 | 93 |
| 125 | 878 | 1045 | 5.8 | 2.3 | P932_0160 EZ815U | 3000 | – | 6000 | 16.00 | 16/1 | 2000 | 3500 | 187 | 4.0 | – | 406 | 106 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P9 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 3300 Nm) | | | | | | | | | | | | | | | | | |
| 57 | 1676 | 2906 | 1.1 | 1.4 | P932_0700 EZ813U | 3156 | – | 6312 | 70.00 | 70/1 | 2800 | 4500 | 107 | 4.0 | – | 372 | 93 |
| 57 | 1736 | 4465 | 1.1 | 1.3 | P932_0700 EZ815U | 3156 | – | 6312 | 70.00 | 70/1 | 2800 | 4500 | 170 | 4.0 | – | 372 | 106 |
| 80 | 1197 | 2076 | 1.2 | 1.9 | P932_0500 EZ813U | 3200 | – | 6400 | 50.00 | 50/1 | 2800 | 4500 | 107 | 4.0 | – | 399 | 93 |
| 80 | 1240 | 3189 | 1.3 | 1.8 | P932_0500 EZ815U | 3200 | – | 6400 | 50.00 | 50/1 | 2800 | 4500 | 170 | 4.0 | – | 399 | 106 |
| 100 | 958 | 1661 | 1.6 | 2.1 | P932_0400 EZ813U | 3000 | – | 6000 | 40.00 | 40/1 | 2800 | 4500 | 107 | 4.0 | – | 394 | 93 |
| 100 | 992 | 2551 | 1.6 | 2.0 | P932_0400 EZ815U | 3000 | – | 6000 | 40.00 | 40/1 | 2800 | 4500 | 170 | 4.0 | – | 394 | 106 |
| 114 | 838 | 1453 | 1.5 | 2.7 | P932_0350 EZ813U | 3300 | – | 6600 | 35.00 | 35/1 | 2800 | 4500 | 110 | 4.0 | – | 404 | 93 |
| 114 | 868 | 2232 | 1.5 | 2.6 | P932_0350 EZ815U | 3300 | – | 6600 | 35.00 | 35/1 | 2800 | 4500 | 173 | 4.0 | – | 404 | 106 |
| 143 | 670 | 1162 | 1.7 | 3.4 | P932_0280 EZ813U | 3000 | – | 6000 | 28.00 | 28/1 | 2800 | 4500 | 110 | 4.0 | – | 402 | 93 |
| 143 | 695 | 1786 | 1.7 | 3.3 | P932_0280 EZ815U | 3000 | – | 6000 | 28.00 | 28/1 | 2800 | 4500 | 173 | 4.0 | – | 402 | 106 |
| 160 | 599 | 1038 | 1.8 | 3.8 | P932_0250 EZ813U | 3300 | – | 6600 | 25.00 | 25/1 | 2500 | 4000 | 115 | 4.0 | – | 407 | 93 |
| 160 | 620 | 1595 | 1.8 | 3.7 | P932_0250 EZ815U | 3300 | – | 6600 | 25.00 | 25/1 | 2500 | 4000 | 178 | 4.0 | – | 407 | 106 |

## 2.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

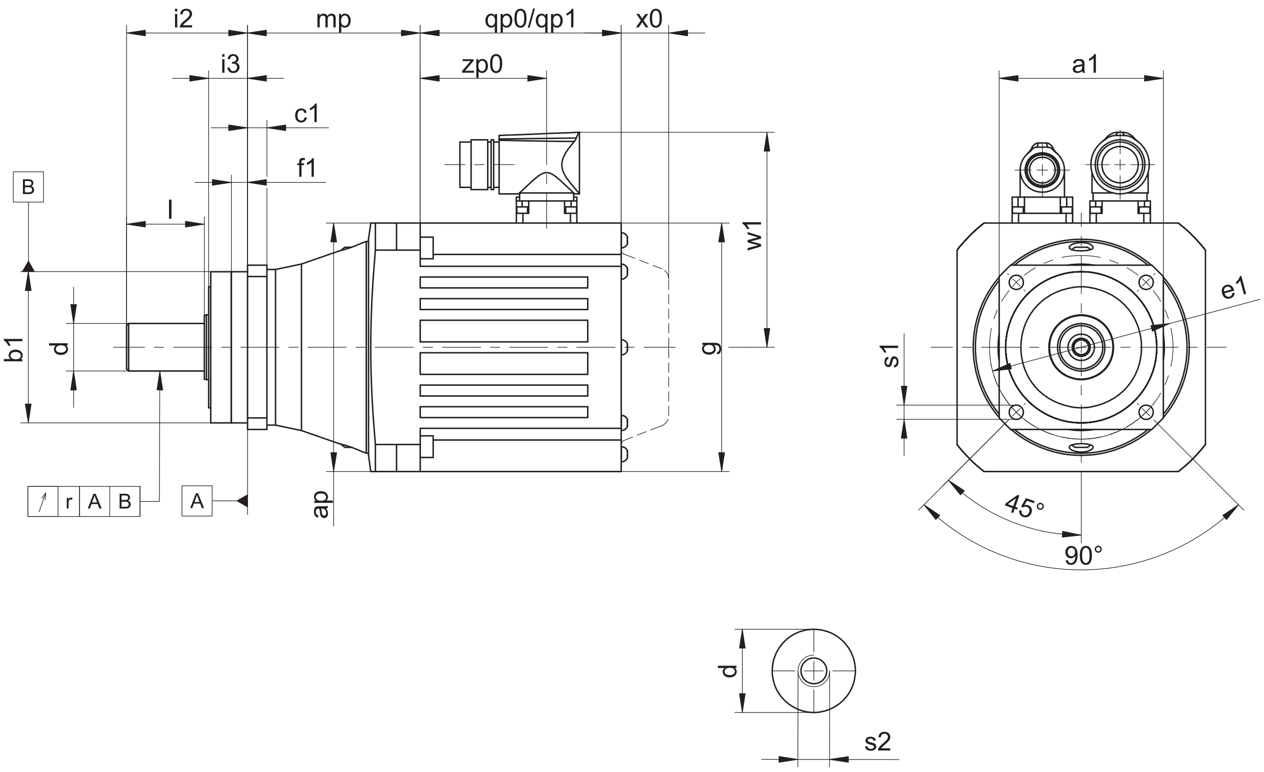
**Tolerances**

| Solid shaft | Tolerance |
|---|---|
| Fit | ISO k6 |
| Feather keys | DIN 6885-1, high form A |
| Balancing | With half feather key |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 2.3.1 G shaft design (solid shaft without feather key)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| – | The radial runout specification applies only to the reinforced bearing D. | | |

**Dimensions of gearboxes**

| Type | □a1 | ∅b1 | c1 | ∅d | ∅e1 | f1 | i2 | i3 | l | r | ∅s1 | s2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P231 | 55 | $50_{h6}$ | 6 | $12_{k6}$ | 63 | 7.0 | 36 | 12 | 22 | – | 5.5 | M4 |
| P232 | 55 | $50_{h6}$ | 6 | $12_{k6}$ | 63 | 7.0 | 36 | 12 | 22 | – | 5.5 | M4 |
| P331 | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 28 | 0.025 | 5.5 | M5 |
| P332 | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 28 | 0.025 | 5.5 | M5 |
| P431 | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 36 | 0.025 | 6.6 | M8 |
| P432 | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 36 | 0.025 | 6.6 | M8 |
| P531 | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 58 | 0.030 | 9.0 | M12 |
| P532 | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 58 | 0.030 | 9.0 | M12 |
| P731 | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 82 | 0.035 | 11.0 | M16 |
| P732 | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 82 | 0.035 | 11.0 | M16 |
| P831 | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 82 | 0.035 | 13.5 | M20 |
| P832 | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 82 | 0.035 | 13.5 | M20 |
| P932 | 212 | $180_{h6}$ | 17 | $75_{k6}$ | 250 | 10.0 | 143 | 34 | 105 | 0.040 | 17.5 | M20 |

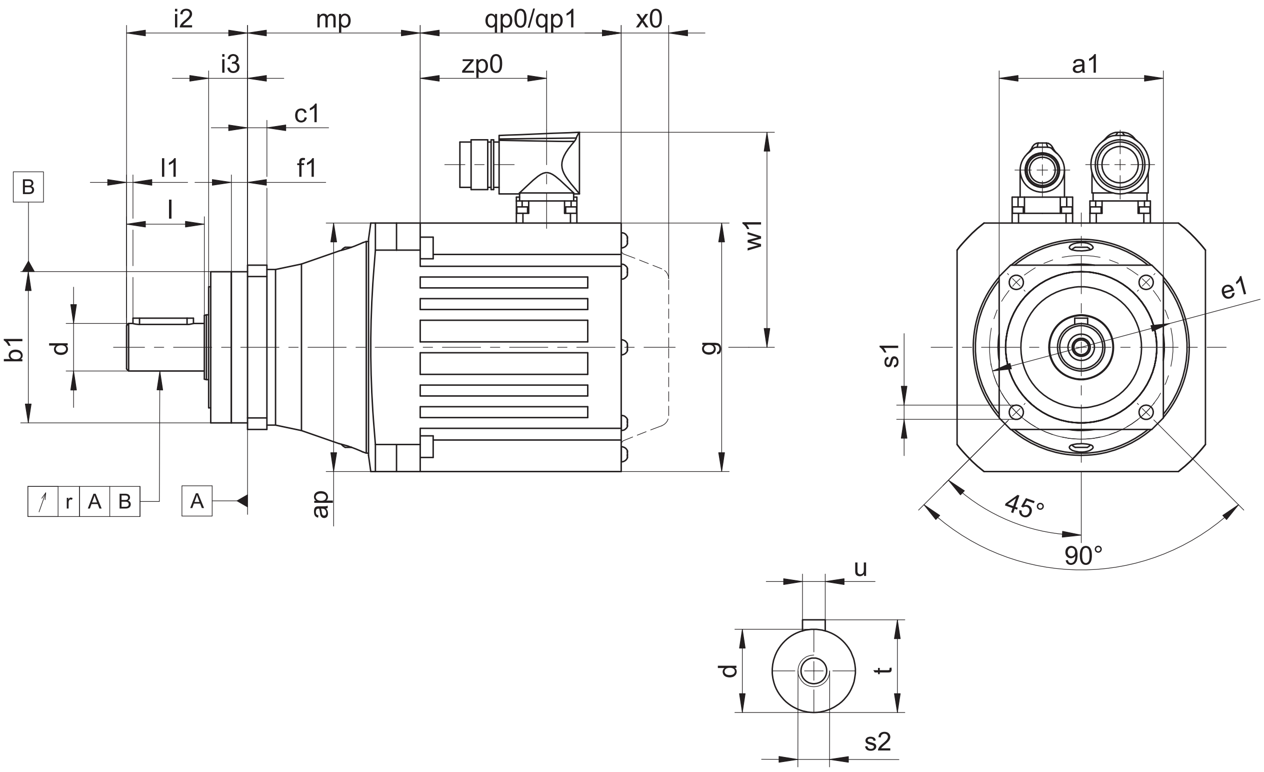
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ2 | | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ap | mp | ap | mp | ap | mp | ap | mp | ap | mp | ap | mp |
| P231 | □55 | 48.0 | □72 | 61.5 | – | – | – | – | – | – | – | – |
| P232 | □55 | 80.0 | □72 | 93.5 | – | – | – | – | – | – | – | – |
| P331 | – | – | □72 | 68.5 | □98 | 65.0 | – | – | – | – | – | – |
| P332 | ∅75 | 89.5 | ∅75 | 103.0 | – | – | – | – | – | – | – | – |
| P431 | – | – | – | – | □98 | 80.5 | □115 | 80.0 | – | – | – | – |
| P432 | – | – | ∅100 | 117.5 | ∅100 | 114.0 | – | – | – | – | – | – |
| P531 | – | – | – | – | – | – | □115 | 80.5 | □145 | 83.5 | – | – |
| P532 | – | – | – | – | ∅120 | 122.5 | ∅120 | 122.0 | – | – | – | – |
| P731 | – | – | – | – | – | – | – | – | □158 | 100.5 | □190 | 110.5 |
| P732 | – | – | – | – | – | – | ∅150 | 148.5 | ∅150 | 151.5 | – | – |
| P831 | – | – | – | – | – | – | – | – | – | – | □214 | 141.5 |
| P832 | – | – | – | – | – | – | – | – | ∅204 | 192.5 | ∅204 | 202.5 |
| P932 | – | – | – | – | – | – | – | – | – | – | ∅230 | 262.5 |

## 2.3.2 P shaft design (solid shaft with feather key)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| – | The radial runout specification applies only to the reinforced bearing D. | | |

**Dimensions of gearboxes**

| Type | □a1 | ⌀b1 | c1 | ⌀d | ⌀e1 | f1 | i2 | i3 | l | l1 | r | ⌀s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P231 | 55 | $50_{h6}$ | 6 | $12_{k6}$ | 63 | 7.0 | 36 | 12 | 22 | 2 | – | 5.5 | M4 | 13.5 | A4×4×18 |
| P232 | 55 | $50_{h6}$ | 6 | $12_{k6}$ | 63 | 7.0 | 36 | 12 | 22 | 2 | – | 5.5 | M4 | 13.5 | A4×4×18 |
| P331 | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 28 | 2 | 0.025 | 5.5 | M5 | 18.0 | A5×5×22 |
| P332 | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 28 | 2 | 0.025 | 5.5 | M5 | 18.0 | A5×5×22 |
| P431 | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 36 | 3 | 0.025 | 6.6 | M8 | 24.5 | A6×6×28 |
| P432 | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 36 | 3 | 0.025 | 6.6 | M8 | 24.5 | A6×6×28 |
| P531 | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 58 | 3 | 0.030 | 9.0 | M12 | 35.0 | A10×8×50 |
| P532 | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 58 | 3 | 0.030 | 9.0 | M12 | 35.0 | A10×8×50 |
| P731 | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 82 | 4 | 0.035 | 11.0 | M16 | 43.0 | A12×8×70 |
| P732 | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 82 | 4 | 0.035 | 11.0 | M16 | 43.0 | A12×8×70 |
| P831 | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 82 | 6 | 0.035 | 13.5 | M20 | 59.0 | A16×10×70 |
| P832 | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 82 | 6 | 0.035 | 13.5 | M20 | 59.0 | A16×10×70 |
| P932 | 212 | $180_{h6}$ | 17 | $75_{k6}$ | 250 | 10.0 | 143 | 34 | 105 | 7 | 0.040 | 17.5 | M20 | 79.5 | A20×12×90 |

### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ2 | | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ap | mp | ap | mp | ap | mp | ap | mp | ap | mp | ap | mp |
| P231 | □55 | 48.0 | □72 | 61.5 | – | – | – | – | – | – | – | – |
| P232 | □55 | 80.0 | □72 | 93.5 | – | – | – | – | – | – | – | – |
| P331 | – | – | □72 | 68.5 | □98 | 65.0 | – | – | – | – | – | – |
| P332 | ∅75 | 89.5 | ∅75 | 103.0 | – | – | – | – | – | – | – | – |
| P431 | – | – | – | – | □98 | 80.5 | □115 | 80.0 | – | – | – | – |
| P432 | – | – | ∅100 | 117.5 | ∅100 | 114.0 | – | – | – | – | – | – |
| P531 | – | – | – | – | – | – | □115 | 80.5 | □145 | 83.5 | – | – |
| P532 | – | – | – | – | ∅120 | 122.5 | ∅120 | 122.0 | – | – | – | – |
| P731 | – | – | – | – | – | – | – | – | □158 | 100.5 | □190 | 110.5 |
| P732 | – | – | – | – | – | – | ∅150 | 148.5 | ∅150 | 151.5 | – | – |
| P831 | – | – | – | – | – | – | – | – | – | – | □214 | 141.5 |
| P832 | – | – | – | – | – | – | – | – | ∅204 | 192.5 | ∅204 | 202.5 |
| P932 | – | – | – | – | – | – | – | – | – | – | ∅230 | 262.5 |

# 2.4 Type designation

In this chapter, you can find an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| P | 4 | 3 | 1 | S | G | S | S | 0100 | EZ401U |
|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **P** | Type | Planetary gearbox |
| **4** | Size | 4 (example) |
| **3** | Generation | Generation 3 |
| **1** | Stages | Single-stage |
| 2 | | Two-stage |
| **S** | Housing | Standard |
| **G** | Shaft | Solid shaft without feather key |
| P | | Solid shaft with feather key |
| **S** | Bearing | Standard bearing |
| D | | Axially reinforced bearing (P3 – P9) |
| Z | | Radially reinforced bearing (P3 – P9)[1] |
| **S** | Backlash | Standard |
| R | | Reduced |
| **0100** | Transmission ratio (i x 10) | i = 10 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▷ 17.5]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▷ 2.6.3]
- Position of the plug connectors, see the chapter [▷ 2.5.4]
- For reverse operation of the output shaft from ±20° to ±90° and horizontal installation, note the chapter [▷ 2.6.4]

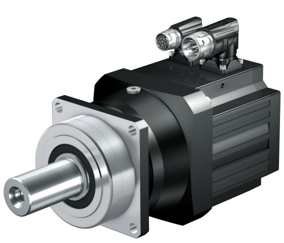
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▷ 17.5.1].

# 2.5 Product description

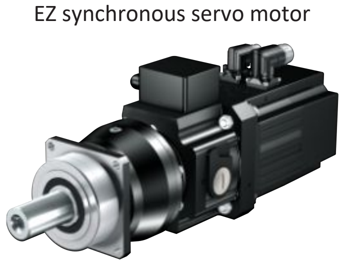
## 2.5.1 Input options

EZ synchronous servo motor



Catalog ID 442437_en

MB motor adapter + EZ synchronous servo motor



Catalog ID 443311_en

LM Lean motor

Catalog ID 443016_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

[1] Not for reduced-backlash option.

### 2.5.2 Installation conditions

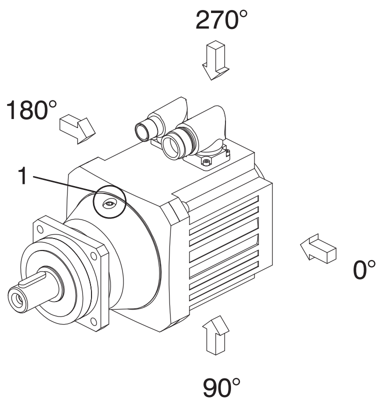
The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 12.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

### 2.5.3 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate.

You will receive lubricants for use in the food industry upon request.

### 2.5.4 Position of the plug connectors



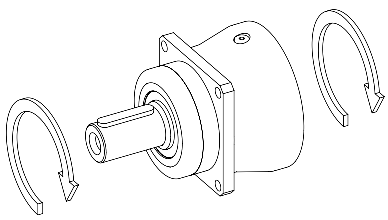

In the standard version, the plug connectors are attached in the 270° position (relative to the oil drain plug (1) of the planetary gearbox). Indicate variations for your geared motor in the order.

### 2.5.5 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ single-stage | 97% |
| $\eta_{get}$ two-stage | 95% |
| **Protection class:**[2] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

### 2.5.6 Direction of rotation

The input and output rotate in the same direction.



## 2.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

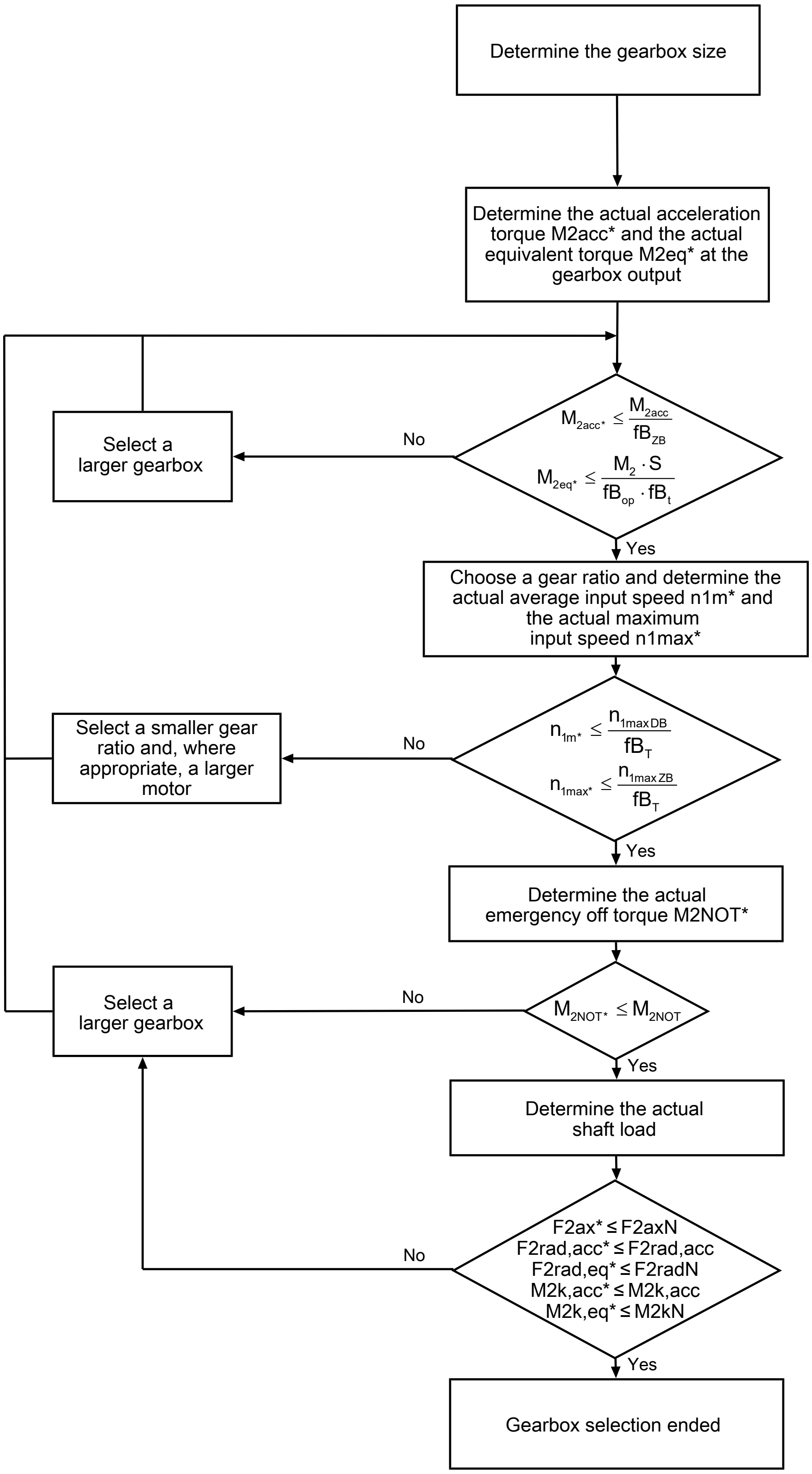
An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

[2] Observe the protection class of all the components.

## 2.6.1 Drive selection

**Drive selection for gearboxes**

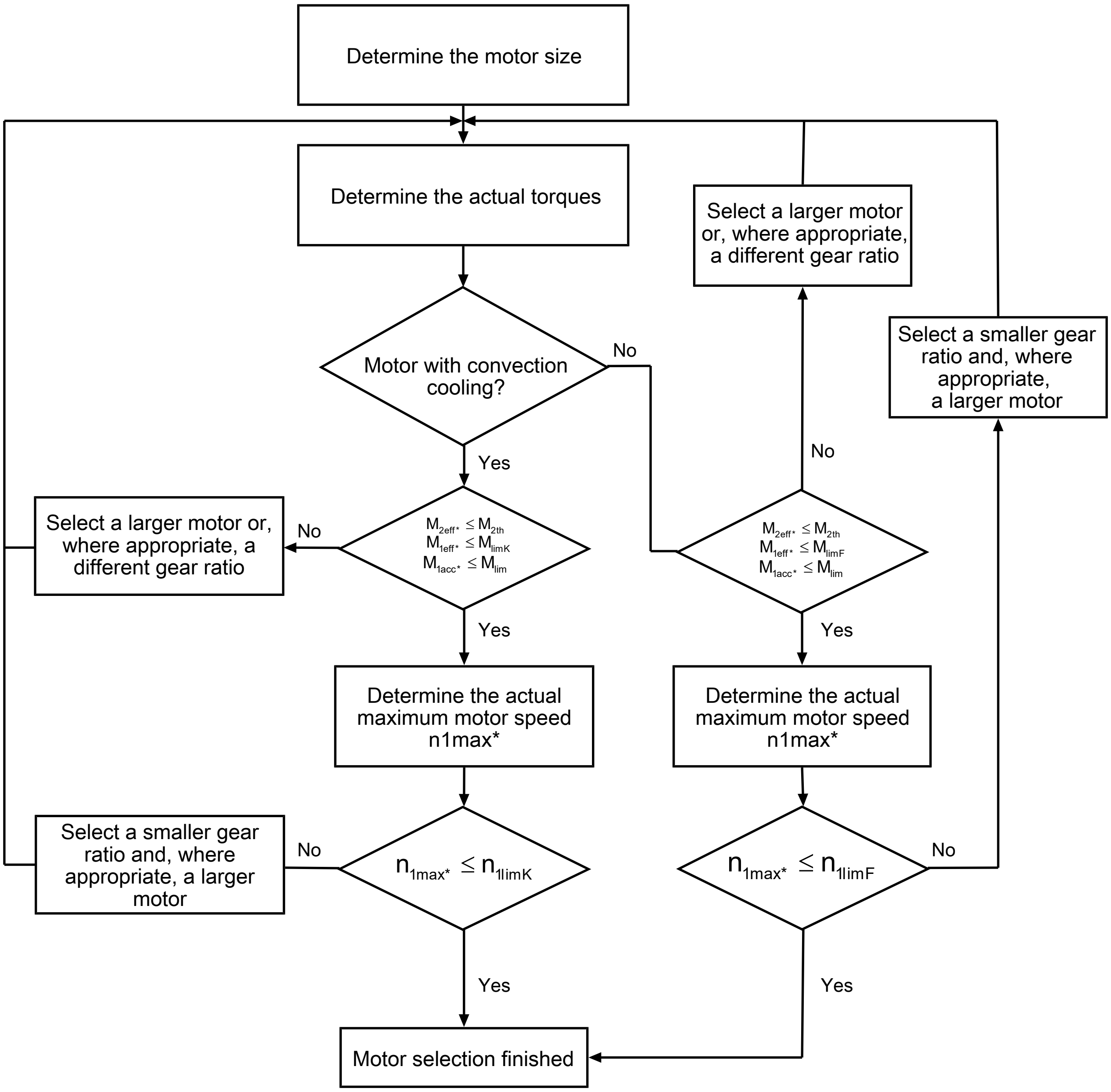



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

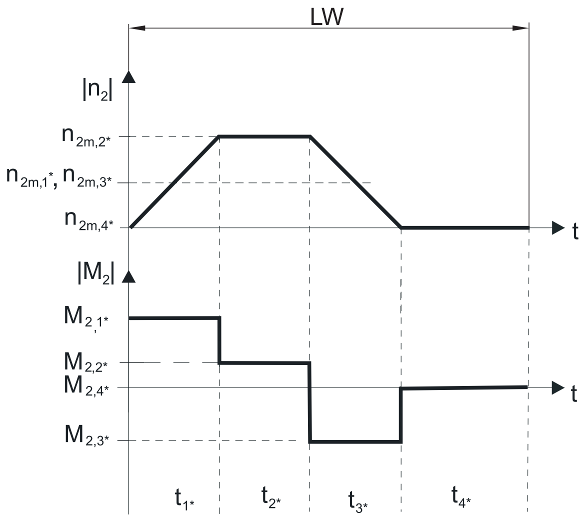
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc^*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L^*}$$

$$M_{1acc^*} = \frac{M_{2acc^*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m^*} = n_{2m^*} \cdot i$$

$$n_{2m^*} = \frac{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}{t_{1^*} + \ldots + t_{n^*}}$$

If $t_{1^*} + \ldots + t_{3^*} \geq 6$ min, calculate $n_{2m^*}$ without the rest phase $t_{4^*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff^*} = \sqrt{\frac{t_{1^*} \cdot M_{2,1^*}^{\ 2} + \ldots + t_{n^*} \cdot M_{2,n^*}^{\ 2}}{t_{1^*} + \ldots + t_{n^*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT^*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L^*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2,1^*}^{\ 3}| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2,n^*}^{\ 3}|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

### Calculation of the thermal limit torque

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

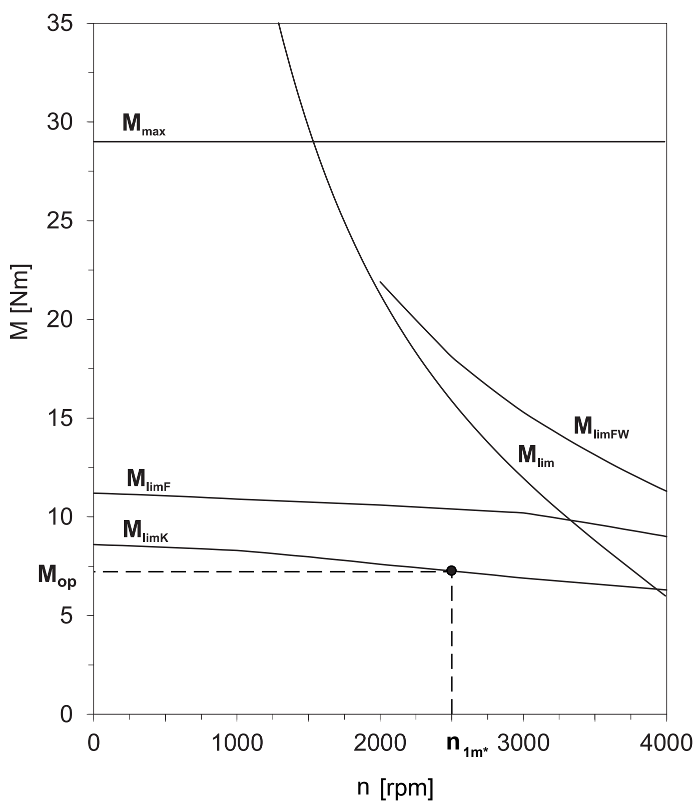
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}95 - \frac{a_{th}}{1000} \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^3$$

Refer to the selection tables for the values of i and $a_{th}$.

The values for $fB_T$ can be found in the corresponding table in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▹ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




### Operating factors

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.00 |
| Reversing load cyclic operation | 1.00 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 2.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*}$ ≤ 100 rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| P2 | 17.0 | 500 | 1200 | 1300 | 34 | 36 |
| P3 | 17.5 | 1000 | 2500 | 2500 | 79 | 79 |
| P4 | 18.5 | 1500 | 4000 | 4500 | 146 | 164 |
| P5 | 19.5 | 2300 | 6500 | 7000 | 315 | 340 |
| P7 | 23.0 | 2900 | 8500 | 9000 | 544 | 576 |
| P8 | 24.5 | 4700 | 13000 | 18000 | 852 | 1179 |
| P9 | 33.0 | 6000 | 18000 | 27000 | 1539 | 2309 |

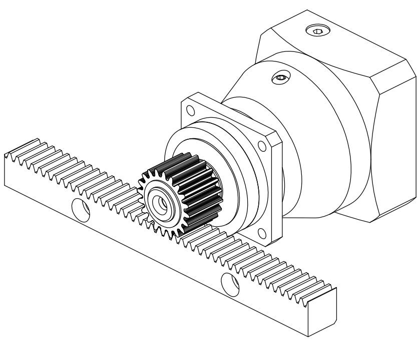


*Fig. 1:* Recommendation for bearing assignment S (e.g. for straight-cut gearing)

**Permitted shaft loads for axially reinforced bearing D**

| Type | $z_2$ | $F_{2ax100}$ | $F_{2rad100}$ | $F_{2rad,acc}$ | $M_{2k100}$ | $M_{2k,acc}$ |
|---|---|---|---|---|---|---|
| | [mm] | [N] | [N] | [N] | [Nm] | [Nm] |
| P3 | 20.0 | 2500 | 2750 | 2750 | 94 | 94 |
| P4 | 22.5 | 4000 | 4500 | 5000 | 182 | 203 |
| P5 | 25.5 | 6000 | 7000 | 8000 | 382 | 436 |
| P7 | 29.0 | 10000 | 9500 | 10000 | 665 | 700 |
| P8 | 32.0 | 15500 | 15000 | 18000 | 1095 | 1314 |
| P9 | 44.0 | 25000 | 20000 | 30000 | 1930 | 2895 |

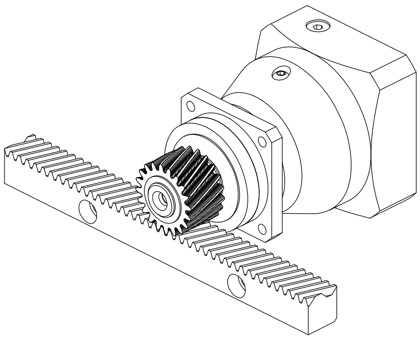


*Fig. 2:* Recommendation for bearing assignment D (e.g. for helical gearing)

**Permitted shaft loads for radially reinforced bearing Z**

| Type | $z_2$ | $F_{2ax100}$ | $F_{2rad100}$ | $F_{2rad,acc}$ | $M_{2k100}$ | $M_{2k,acc}$ |
|---|---|---|---|---|---|---|
| | [mm] | [N] | [N] | [N] | [Nm] | [Nm] |
| P3 | 17.5 | 600 | 3000 | 3000 | 95 | 95 |
| P4 | 18.5 | 1000 | 5000 | 5000 | 183 | 183 |
| P5 | 19.5 | 1600 | 8000 | 8000 | 388 | 388 |
| P7 | 23.0 | 2000 | 10000 | 10000 | 640 | 640 |
| P8 | 24.5 | 3600 | 18000 | 18000 | 1179 | 1179 |
| P9 | 33.0 | 5000 | 27000 | 35000 | 2309 | 2993 |

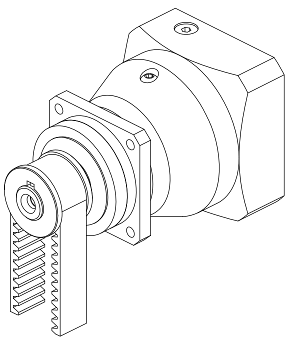


*Fig. 3:* Recommendation for bearing assignment Z (e.g. for belt drives)

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

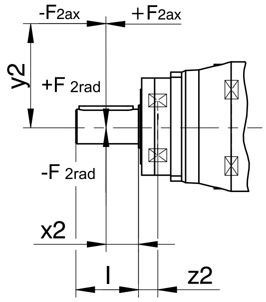



*Fig. 4:* Force application points

The specified values for $F_{2rad100}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10} \leq 40\%$):**

$L_{10h} > 10000$ h with $1 < M_{2kN}/M_{2k*} < 1.25$

$L_{10h} > 20000$ h with $1.25 < M_{2kN}/M_{2k*} < 1.5$

$L_{10h} > 30000$ h with $1.5 < M_{2kN}/M_{2k*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 2.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

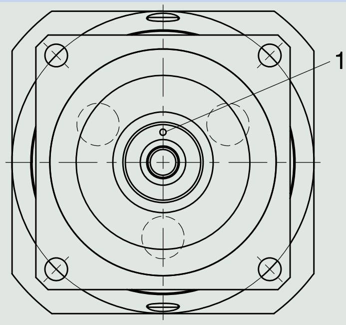
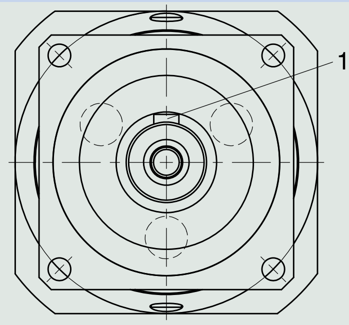
- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

### 2.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below. The images show the center position of reverse operation. Cyclic reverse operation ≤ ± 20° on request.

| Solid shaft without feather key | Solid shaft with feather key |
|---|---|
|  |  |
| 1 Position of the mark: top | 1 Position of the feather key: top |

**Notes**

- If you use the solid shaft without a feather key (G), you must note the position of the mark during assembly.
- As an alternative, you can use the solid shaft with a feather key (P). In that case, the feather key functions for position orientation. For a backlash-free connection, also use a clamp.

## 2.7 Additional documentation

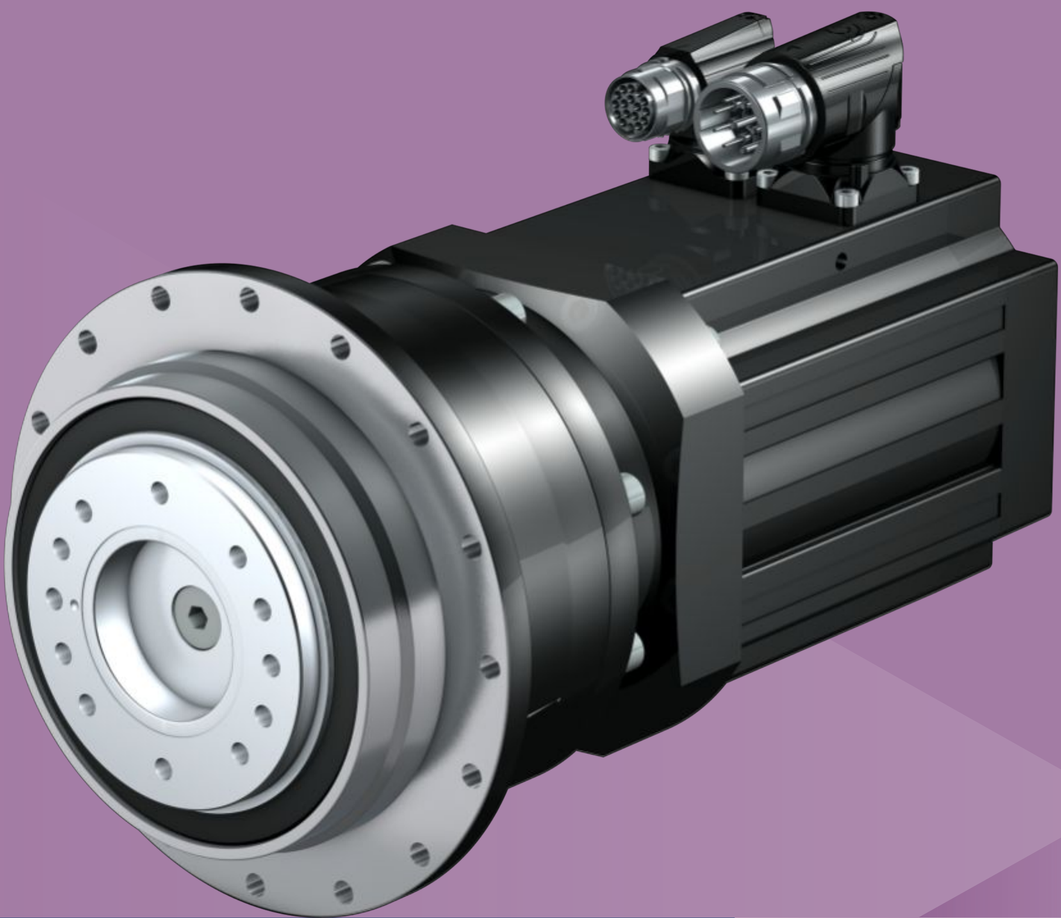
Additional documentation related to the product can be found at
http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors P23 – P93 | 443356_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 3 PH planetary geared motors

## Table of contents



3

# Planetary geared motors

PH

## 3.1 Overview

High-performance precision planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★★☆ |
| Backlash | ★★★★★ |
| Price category | €€€ |
| Shaft load | ★★★★★ |
| Smooth operation | ★★★★☆ |
| Torsional stiffness | ★★★★☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Any mounting position | ✓ |
| Continuous operation without cooling | ✓ |
| Stiff output bearings due to pretension | ✓ |
| Reinforced output bearing (PH3 – PH5) | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| $i$ | 4 – 100 |
| $M_{2acc}$ | 24 – 7500 Nm |
| $\Delta\phi_2$ | 1 – 4 arcmin |
| $\eta_{get}$ | 93 – 96 % |

## 3.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

In the case of the version with a reinforced bearing and gear ratios ≤ 5, the maximum permitted input speed $n_{1maxZB}$ is reduced. You can find values at https://configurator.stoeber.de/en-US/

An explanation of the formula symbols can be found in Chapter [▶ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH3 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 80 Nm) | | | | | | | | | | | | | | | | | |
| 60 | 43 | 44 | 1.4 | 1.2 | PH332_0500 EZ301U | 75 | 75 | 150 | 50.00 | 50/1 | 6000 | 8000 | 0.21 | 4.0 | 2.0 | 12 | 3.2 |
| 75 | 35 | 35 | 1.5 | 1.4 | PH332_0400 EZ301U | 67 | 67 | 134 | 40.00 | 40/1 | 6000 | 8000 | 0.22 | 4.0 | 2.0 | 9.0 | 3.2 |
| 86 | 30 | 31 | 1.6 | 1.7 | PH332_0350 EZ301U | 80 | 85 | 160 | 35.00 | 35/1 | 6000 | 8000 | 0.21 | 4.0 | 2.0 | 14 | 3.2 |
| 107 | 24 | 25 | 1.8 | 2.1 | PH332_0280 EZ301U | 73 | 73 | 150 | 28.00 | 28/1 | 6000 | 8000 | 0.22 | 4.0 | 2.0 | 12 | 3.2 |
| 107 | 41 | 44 | 3.1 | 1.2 | PH332_0280 EZ302U | 75 | 75 | 150 | 28.00 | 28/1 | 6000 | 8000 | 0.32 | 4.0 | 2.0 | 12 | 3.8 |
| 120 | 22 | 22 | 1.9 | 2.3 | PH332_0250 EZ301U | 65 | 65 | 160 | 25.00 | 25/1 | 6000 | 8000 | 0.21 | 4.0 | 2.0 | 14 | 3.2 |
| 120 | 37 | 39 | 3.3 | 1.4 | PH332_0250 EZ302U | 80 | 85 | 160 | 25.00 | 25/1 | 6000 | 8000 | 0.31 | 4.0 | 2.0 | 14 | 3.8 |
| 120 | 48 | 51 | 4.3 | 1.0 | PH332_0250 EZ303U | 80 | 85 | 160 | 25.00 | 25/1 | 6000 | 8000 | 0.42 | 4.0 | 2.0 | 14 | 4.3 |
| 150 | 17 | 18 | 2.4 | 2.6 | PH332_0200 EZ301U | 52 | 52 | 160 | 20.00 | 20/1 | 5500 | 8000 | 0.23 | 4.0 | 2.0 | 14 | 3.2 |
| 150 | 30 | 31 | 4.1 | 1.5 | PH332_0200 EZ302U | 80 | 85 | 160 | 20.00 | 20/1 | 5500 | 8000 | 0.33 | 4.0 | 2.0 | 14 | 3.8 |
| 150 | 39 | 41 | 5.4 | 1.2 | PH332_0200 EZ303U | 80 | 85 | 160 | 20.00 | 20/1 | 5500 | 8000 | 0.44 | 4.0 | 2.0 | 14 | 4.3 |
| 300 | 8.9 | 9.1 | 1.5 | 3.2 | PH331_0100 EZ301U | 27 | 27 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.21 | 4.0 | 2.0 | 9.2 | 2.7 |
| 300 | 15 | 16 | 2.6 | 1.9 | PH331_0100 EZ302U | 48 | 48 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.31 | 4.0 | 2.0 | 9.2 | 3.3 |
| 300 | 20 | 21 | 3.3 | 1.4 | PH331_0100 EZ303U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.42 | 4.0 | 2.0 | 9.2 | 3.8 |
| 300 | 27 | 29 | 4.5 | 1.1 | PH331_0100 EZ401U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.95 | 4.0 | 2.0 | 9.2 | 5.2 |
| 429 | 11 | 11 | 2.9 | 3.7 | PH331_0070 EZ302U | 34 | 34 | 150 | 7.000 | 7/1 | 5000 | 8000 | 0.33 | 4.0 | 2.0 | 13 | 3.3 |
| 429 | 14 | 15 | 3.7 | 2.8 | PH331_0070 EZ303U | 47 | 47 | 150 | 7.000 | 7/1 | 5000 | 8000 | 0.44 | 4.0 | 2.0 | 13 | 3.8 |
| 429 | 19 | 20 | 5.0 | 2.1 | PH331_0070 EZ401U | 57 | 57 | 150 | 7.000 | 7/1 | 5000 | 8000 | 0.97 | 4.0 | 2.0 | 13 | 5.2 |
| 429 | 32 | 35 | 8.4 | 1.2 | PH331_0070 EZ402U | 75 | 77 | 150 | 7.000 | 7/1 | 5000 | 8000 | 1.7 | 4.0 | 2.0 | 13 | 6.3 |
| 600 | 9.9 | 11 | 5.6 | 4.0 | PH331_0050 EZ303U | 34 | 34 | 160 | 5.000 | 5/1 | 4000 | 8000 | 0.48 | 4.0 | 2.0 | 15 | 3.8 |
| 600 | 13 | 14 | 7.5 | 2.9 | PH331_0050 EZ401U | 41 | 41 | 160 | 5.000 | 5/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 15 | 5.2 |
| 600 | 23 | 25 | 13 | 1.7 | PH331_0050 EZ402U | 77 | 77 | 160 | 5.000 | 5/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 15 | 6.3 |
| PH3 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 80 Nm) | | | | | | | | | | | | | | | | | |
| 86 | 26 | 29 | 0.6 | 1.7 | PH332_0700 EZ202U | 69 | 69 | 138 | 70.00 | 70/1 | 6000 | 8000 | 0.14 | 4.0 | 2.0 | 12 | 3.1 |
| 86 | 40 | 45 | 0.8 | 1.1 | PH332_0700 EZ203U | 69 | 69 | 138 | 70.00 | 70/1 | 6000 | 8000 | 0.18 | 4.0 | 2.0 | 12 | 3.4 |
| 120 | 19 | 20 | 0.7 | 2.2 | PH332_0500 EZ202U | 69 | 69 | 150 | 50.00 | 50/1 | 6000 | 8000 | 0.15 | 4.0 | 2.0 | 12 | 3.1 |
| 120 | 28 | 32 | 1.1 | 1.4 | PH332_0500 EZ203U | 75 | 75 | 150 | 50.00 | 50/1 | 6000 | 8000 | 0.19 | 4.0 | 2.0 | 12 | 3.4 |
| 150 | 15 | 16 | 0.8 | 2.8 | PH332_0400 EZ202U | 55 | 55 | 134 | 40.00 | 40/1 | 6000 | 8000 | 0.16 | 4.0 | 2.0 | 9.0 | 3.1 |
| 150 | 23 | 26 | 1.2 | 1.8 | PH332_0400 EZ203U | 67 | 67 | 134 | 40.00 | 40/1 | 6000 | 8000 | 0.20 | 4.0 | 2.0 | 9.0 | 3.4 |
| 150 | 33 | 35 | 1.8 | 1.2 | PH332_0400 EZ301U | 67 | 67 | 134 | 40.00 | 40/1 | 6000 | 8000 | 0.22 | 4.0 | 2.0 | 9.0 | 3.2 |
| 171 | 13 | 14 | 0.8 | 3.5 | PH332_0350 EZ202U | 48 | 48 | 160 | 35.00 | 35/1 | 6000 | 8000 | 0.15 | 4.0 | 2.0 | 14 | 3.1 |
| 171 | 20 | 22 | 1.2 | 2.3 | PH332_0350 EZ203U | 80 | 85 | 160 | 35.00 | 35/1 | 6000 | 8000 | 0.19 | 4.0 | 2.0 | 14 | 3.4 |
| 171 | 29 | 31 | 1.7 | 1.6 | PH332_0350 EZ301U | 80 | 85 | 160 | 35.00 | 35/1 | 6000 | 8000 | 0.21 | 4.0 | 2.0 | 14 | 3.2 |
| 214 | 10 | 11 | 0.9 | 4.0 | PH332_0280 EZ202U | 39 | 39 | 150 | 28.00 | 28/1 | 6000 | 8000 | 0.16 | 4.0 | 2.0 | 12 | 3.1 |
| 214 | 16 | 18 | 1.4 | 2.6 | PH332_0280 EZ203U | 70 | 70 | 150 | 28.00 | 28/1 | 6000 | 8000 | 0.20 | 4.0 | 2.0 | 12 | 3.4 |
| 214 | 23 | 25 | 2.1 | 1.8 | PH332_0280 EZ301U | 73 | 73 | 150 | 28.00 | 28/1 | 6000 | 8000 | 0.22 | 4.0 | 2.0 | 12 | 3.2 |
| 214 | 39 | 44 | 3.6 | 1.1 | PH332_0280 EZ302U | 75 | 75 | 150 | 28.00 | 28/1 | 6000 | 8000 | 0.32 | 4.0 | 2.0 | 12 | 3.8 |
| 240 | 9.3 | 10 | 0.9 | 4.8 | PH332_0250 EZ202U | 34 | 34 | 160 | 25.00 | 25/1 | 6000 | 8000 | 0.15 | 4.0 | 2.0 | 14 | 3.1 |
| 240 | 14 | 16 | 1.4 | 3.2 | PH332_0250 EZ203U | 63 | 63 | 160 | 25.00 | 25/1 | 6000 | 8000 | 0.19 | 4.0 | 2.0 | 14 | 3.4 |
| 240 | 21 | 22 | 2.1 | 2.2 | PH332_0250 EZ301U | 65 | 65 | 160 | 25.00 | 25/1 | 6000 | 8000 | 0.21 | 4.0 | 2.0 | 14 | 3.2 |
| 240 | 35 | 39 | 3.5 | 1.3 | PH332_0250 EZ302U | 80 | 85 | 160 | 25.00 | 25/1 | 6000 | 8000 | 0.31 | 4.0 | 2.0 | 14 | 3.8 |
| 300 | 11 | 13 | 1.9 | 3.3 | PH332_0200 EZ203U | 50 | 50 | 160 | 20.00 | 20/1 | 5500 | 8000 | 0.20 | 4.0 | 2.0 | 14 | 3.4 |
| 300 | 17 | 18 | 2.7 | 2.3 | PH332_0200 EZ301U | 52 | 52 | 160 | 20.00 | 20/1 | 5500 | 8000 | 0.23 | 4.0 | 2.0 | 14 | 3.2 |
| 300 | 28 | 31 | 4.6 | 1.4 | PH332_0200 EZ302U | 80 | 85 | 160 | 20.00 | 20/1 | 5500 | 8000 | 0.33 | 4.0 | 2.0 | 14 | 3.8 |
| 300 | 36 | 42 | 6.0 | 1.0 | PH332_0200 EZ303U | 80 | 85 | 160 | 20.00 | 20/1 | 5500 | 8000 | 0.44 | 4.0 | 2.0 | 14 | 4.3 |
| 600 | 8.5 | 9.1 | 1.8 | 2.7 | PH331_0100 EZ301U | 27 | 27 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.21 | 4.0 | 2.0 | 9.2 | 2.7 |
| 600 | 14 | 16 | 3.0 | 1.6 | PH331_0100 EZ302U | 48 | 48 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.31 | 4.0 | 2.0 | 9.2 | 3.3 |
| 600 | 19 | 22 | 4.0 | 1.2 | PH331_0100 EZ303U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.42 | 4.0 | 2.0 | 9.2 | 3.8 |
| 600 | 22 | 27 | 4.7 | 1.0 | PH331_0100 EZ401U | 60 | 60 | 120 | 10.00 | 10/1 | 5500 | 8000 | 0.95 | 4.0 | 2.0 | 9.2 | 5.2 |
| 857 | 10 | 11 | 3.4 | 3.1 | PH331_0070 EZ302U | 34 | 34 | 150 | 7.000 | 7/1 | 5000 | 8000 | 0.33 | 4.0 | 2.0 | 13 | 3.3 |
| 857 | 13 | 15 | 4.4 | 2.4 | PH331_0070 EZ303U | 47 | 47 | 150 | 7.000 | 7/1 | 5000 | 8000 | 0.44 | 4.0 | 2.0 | 13 | 3.8 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH3 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 80 Nm) | | | | | | | | | | | | | | | | | |
| 857 | 15 | 19 | 5.2 | 2.0 | PH331_0070 EZ401U | 57 | 57 | 150 | 7.000 | 7/1 | 5000 | 8000 | 0.97 | 4.0 | 2.0 | 13 | 5.2 |
| 857 | 24 | 33 | 7.9 | 1.3 | PH331_0070 EZ402U | 75 | 77 | 150 | 7.000 | 7/1 | 5000 | 8000 | 1.7 | 4.0 | 2.0 | 13 | 6.3 |
| 1200 | 7.2 | 8.1 | 5.1 | 4.3 | PH331_0050 EZ302U | 24 | 24 | 160 | 5.000 | 5/1 | 4000 | 8000 | 0.37 | 4.0 | 2.0 | 15 | 3.3 |
| 1200 | 9.4 | 11 | 6.6 | 3.3 | PH331_0050 EZ303U | 34 | 34 | 160 | 5.000 | 5/1 | 4000 | 8000 | 0.48 | 4.0 | 2.0 | 15 | 3.8 |
| 1200 | 11 | 13 | 7.8 | 2.8 | PH331_0050 EZ401U | 41 | 41 | 160 | 5.000 | 5/1 | 4000 | 8000 | 1.0 | 4.0 | 2.0 | 15 | 5.2 |
| 1200 | 17 | 24 | 12 | 1.9 | PH331_0050 EZ402U | 77 | 77 | 160 | 5.000 | 5/1 | 4000 | 8000 | 1.7 | 4.0 | 2.0 | 15 | 6.3 |
| PH4 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 170 Nm) | | | | | | | | | | | | | | | | | |
| 43 | 61 | 62 | 0.6 | 1.8 | PH432_0700 EZ301U | 158 | 164 | 316 | 70.00 | 70/1 | 4500 | 8000 | 0.22 | 3.0 | 1.0 | 27 | 5.7 |
| 43 | 104 | 109 | 1.0 | 1.0 | PH432_0700 EZ302U | 158 | 164 | 316 | 70.00 | 70/1 | 4500 | 8000 | 0.32 | 3.0 | 1.0 | 27 | 6.3 |
| 60 | 43 | 44 | 0.7 | 2.5 | PH432_0500 EZ301U | 130 | 130 | 318 | 50.00 | 50/1 | 4500 | 8000 | 0.25 | 3.0 | 1.0 | 31 | 5.7 |
| 60 | 74 | 78 | 1.2 | 1.4 | PH432_0500 EZ302U | 159 | 174 | 318 | 50.00 | 50/1 | 4500 | 8000 | 0.35 | 3.0 | 1.0 | 31 | 6.3 |
| 60 | 96 | 102 | 1.6 | 1.1 | PH432_0500 EZ303U | 159 | 174 | 318 | 50.00 | 50/1 | 4500 | 8000 | 0.46 | 3.0 | 1.0 | 31 | 6.8 |
| 75 | 35 | 35 | 0.8 | 2.9 | PH432_0400 EZ301U | 104 | 104 | 310 | 40.00 | 40/1 | 4500 | 8000 | 0.28 | 3.0 | 1.0 | 30 | 5.7 |
| 75 | 59 | 62 | 1.4 | 1.7 | PH432_0400 EZ302U | 155 | 169 | 310 | 40.00 | 40/1 | 4500 | 8000 | 0.38 | 3.0 | 1.0 | 30 | 6.3 |
| 75 | 77 | 81 | 1.9 | 1.3 | PH432_0400 EZ303U | 155 | 169 | 310 | 40.00 | 40/1 | 4500 | 8000 | 0.49 | 3.0 | 1.0 | 30 | 6.8 |
| 86 | 30 | 31 | 0.9 | 3.5 | PH432_0350 EZ301U | 91 | 91 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.25 | 3.0 | 1.0 | 32 | 5.7 |
| 86 | 52 | 55 | 1.5 | 2.1 | PH432_0350 EZ302U | 160 | 163 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.35 | 3.0 | 1.0 | 32 | 6.3 |
| 86 | 67 | 71 | 1.9 | 1.6 | PH432_0350 EZ303U | 160 | 174 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.46 | 3.0 | 1.0 | 32 | 6.8 |
| 86 | 91 | 98 | 2.6 | 1.2 | PH432_0350 EZ401U | 160 | 174 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.99 | 3.0 | 1.0 | 32 | 8.2 |
| 107 | 24 | 25 | 1.1 | 3.9 | PH432_0280 EZ301U | 73 | 73 | 312 | 28.00 | 28/1 | 4500 | 8000 | 0.29 | 3.0 | 1.0 | 31 | 5.7 |
| 107 | 41 | 44 | 1.9 | 2.3 | PH432_0280 EZ302U | 130 | 130 | 312 | 28.00 | 28/1 | 4500 | 8000 | 0.39 | 3.0 | 1.0 | 31 | 6.3 |
| 107 | 54 | 57 | 2.4 | 1.8 | PH432_0280 EZ303U | 160 | 173 | 312 | 28.00 | 28/1 | 4500 | 8000 | 0.50 | 3.0 | 1.0 | 31 | 6.8 |
| 107 | 73 | 78 | 3.3 | 1.3 | PH432_0280 EZ401U | 160 | 173 | 312 | 28.00 | 28/1 | 4500 | 8000 | 1.0 | 3.0 | 1.0 | 31 | 8.2 |
| 120 | 22 | 22 | 1.1 | 4.6 | PH432_0250 EZ301U | 65 | 65 | 322 | 25.00 | 25/1 | 4500 | 8000 | 0.26 | 3.0 | 1.0 | 32 | 5.7 |
| 120 | 37 | 39 | 1.9 | 2.7 | PH432_0250 EZ302U | 116 | 116 | 322 | 25.00 | 25/1 | 4500 | 8000 | 0.36 | 3.0 | 1.0 | 32 | 6.3 |
| 120 | 48 | 51 | 2.4 | 2.1 | PH432_0250 EZ303U | 161 | 163 | 322 | 25.00 | 25/1 | 4500 | 8000 | 0.47 | 3.0 | 1.0 | 32 | 6.8 |
| 120 | 65 | 70 | 3.3 | 1.5 | PH432_0250 EZ401U | 161 | 174 | 322 | 25.00 | 25/1 | 4500 | 8000 | 1.0 | 3.0 | 1.0 | 32 | 8.2 |
| 150 | 30 | 31 | 2.2 | 3.2 | PH432_0200 EZ302U | 93 | 93 | 299 | 20.00 | 20/1 | 4000 | 8000 | 0.36 | 3.0 | 1.0 | 32 | 6.3 |
| 150 | 39 | 41 | 2.9 | 2.5 | PH432_0200 EZ303U | 130 | 130 | 299 | 20.00 | 20/1 | 4000 | 8000 | 0.47 | 3.0 | 1.0 | 32 | 6.8 |
| 150 | 52 | 56 | 3.9 | 1.8 | PH432_0200 EZ401U | 150 | 150 | 299 | 20.00 | 20/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 32 | 8.2 |
| 150 | 87 | 97 | 6.5 | 1.1 | PH432_0200 EZ402U | 150 | 150 | 299 | 20.00 | 20/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 32 | 9.3 |
| 188 | 24 | 25 | 2.6 | 3.8 | PH432_0160 EZ302U | 74 | 74 | 312 | 16.00 | 16/1 | 4000 | 8000 | 0.41 | 3.0 | 1.0 | 31 | 6.3 |
| 188 | 31 | 33 | 3.4 | 2.9 | PH432_0160 EZ303U | 104 | 104 | 312 | 16.00 | 16/1 | 4000 | 8000 | 0.52 | 3.0 | 1.0 | 31 | 6.8 |
| 188 | 42 | 45 | 4.6 | 2.2 | PH432_0160 EZ401U | 126 | 126 | 312 | 16.00 | 16/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 31 | 8.2 |
| 188 | 70 | 77 | 7.6 | 1.3 | PH432_0160 EZ402U | 160 | 173 | 312 | 16.00 | 16/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 31 | 9.3 |
| 300 | 27 | 29 | 2.4 | 2.2 | PH431_0100 EZ401U | 82 | 82 | 230 | 10.00 | 10/1 | 3500 | 7000 | 1.0 | 3.0 | 1.0 | 21 | 7.0 |
| 300 | 41 | 45 | 3.7 | 1.4 | PH431_0100 EZ501U | 115 | 115 | 230 | 10.00 | 10/1 | 3500 | 7000 | 3.0 | 3.0 | 1.0 | 21 | 8.0 |
| 300 | 45 | 50 | 4.1 | 1.3 | PH431_0100 EZ402U | 115 | 115 | 230 | 10.00 | 10/1 | 3500 | 7000 | 1.7 | 3.0 | 1.0 | 21 | 8.1 |
| 429 | 19 | 20 | 3.0 | 3.9 | PH431_0070 EZ401U | 57 | 57 | 320 | 7.000 | 7/1 | 3200 | 6000 | 1.1 | 3.0 | 1.0 | 31 | 7.0 |
| 429 | 29 | 32 | 4.6 | 2.6 | PH431_0070 EZ501U | 108 | 108 | 320 | 7.000 | 7/1 | 3200 | 6000 | 3.1 | 3.0 | 1.0 | 31 | 8.0 |
| 429 | 32 | 35 | 5.0 | 2.4 | PH431_0070 EZ402U | 108 | 108 | 320 | 7.000 | 7/1 | 3200 | 6000 | 1.8 | 3.0 | 1.0 | 31 | 8.1 |
| 429 | 46 | 58 | 7.4 | 1.6 | PH431_0070 EZ404U | 160 | 175 | 320 | 7.000 | 7/1 | 3200 | 6000 | 3.1 | 3.0 | 1.0 | 31 | 10 |
| 429 | 50 | 54 | 7.9 | 1.5 | PH431_0070 EZ502U | 160 | 175 | 320 | 7.000 | 7/1 | 3200 | 6000 | 5.4 | 3.0 | 1.0 | 31 | 9.5 |
| 429 | 65 | 75 | 10 | 1.1 | PH431_0070 EZ503U | 160 | 175 | 320 | 7.000 | 7/1 | 3200 | 6000 | 7.7 | 3.0 | 1.0 | 31 | 11 |
| 600 | 21 | 23 | 6.9 | 3.6 | PH431_0050 EZ501U | 77 | 77 | 344 | 5.000 | 5/1 | 3000 | 6000 | 3.2 | 3.0 | 1.0 | 37 | 8.0 |
| 600 | 23 | 25 | 7.5 | 3.3 | PH431_0050 EZ402U | 77 | 77 | 344 | 5.000 | 5/1 | 3000 | 6000 | 1.9 | 3.0 | 1.0 | 37 | 8.1 |
| 600 | 33 | 41 | 11 | 2.2 | PH431_0050 EZ404U | 139 | 139 | 344 | 5.000 | 5/1 | 3000 | 6000 | 3.3 | 3.0 | 1.0 | 37 | 10 |
| 600 | 36 | 38 | 12 | 2.1 | PH431_0050 EZ502U | 149 | 149 | 344 | 5.000 | 5/1 | 3000 | 6000 | 5.5 | 3.0 | 1.0 | 37 | 9.5 |
| 600 | 47 | 53 | 16 | 1.6 | PH431_0050 EZ503U | 172 | 189 | 344 | 5.000 | 5/1 | 3000 | 6000 | 7.9 | 3.0 | 1.0 | 37 | 11 |
| 600 | 65 | 77 | 22 | 1.1 | PH431_0050 EZ505U | 172 | 189 | 344 | 5.000 | 5/1 | 3000 | 6000 | 12 | 3.0 | 1.0 | 37 | 14 |
| 750 | 17 | 18 | 9.0 | 4.5 | PH431_0040 EZ501U | 61 | 61 | 273 | 4.000 | 4/1 | 2600 | 5000 | 3.4 | 3.0 | 1.0 | 39 | 8.0 |
| 750 | 18 | 20 | 9.8 | 4.1 | PH431_0040 EZ402U | 61 | 61 | 273 | 4.000 | 4/1 | 2600 | 5000 | 2.1 | 3.0 | 1.0 | 39 | 8.1 |
| 750 | 26 | 33 | 14 | 2.8 | PH431_0040 EZ404U | 111 | 111 | 273 | 4.000 | 4/1 | 2600 | 5000 | 3.5 | 3.0 | 1.0 | 39 | 10 |
| 750 | 28 | 31 | 15 | 2.6 | PH431_0040 EZ502U | 119 | 119 | 273 | 4.000 | 4/1 | 2600 | 5000 | 5.7 | 3.0 | 1.0 | 39 | 9.5 |
| 750 | 37 | 43 | 20 | 2.0 | PH431_0040 EZ503U | 136 | 165 | 273 | 4.000 | 4/1 | 2600 | 5000 | 8.1 | 3.0 | 1.0 | 39 | 11 |
| 750 | 52 | 61 | 28 | 1.4 | PH431_0040 EZ505U | 136 | 189 | 273 | 4.000 | 4/1 | 2600 | 5000 | 13 | 3.0 | 1.0 | 39 | 14 |
| PH4 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 170 Nm) | | | | | | | | | | | | | | | | | |
| 643 | 64 | 103 | 12 | 1.0 | PH431_0070 EZ505U | 160 | 175 | 320 | 7.000 | 7/1 | 3200 | 6000 | 12 | 3.0 | 1.0 | 31 | 14 |
| 900 | 46 | 73 | 17 | 1.4 | PH431_0050 EZ505U | 172 | 189 | 344 | 5.000 | 5/1 | 3000 | 6000 | 12 | 3.0 | 1.0 | 37 | 14 |
| 1125 | 36 | 59 | 23 | 1.8 | PH431_0040 EZ505U | 136 | 189 | 273 | 4.000 | 4/1 | 2600 | 5000 | 13 | 3.0 | 1.0 | 39 | 14 |
| PH4 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 170 Nm) | | | | | | | | | | | | | | | | | |
| 86 | 58 | 62 | 0.7 | 1.5 | PH432_0700 EZ301U | 158 | 164 | 316 | 70.00 | 70/1 | 4500 | 8000 | 0.22 | 3.0 | 1.0 | 27 | 5.7 |
| 120 | 41 | 44 | 0.9 | 2.1 | PH432_0500 EZ301U | 130 | 130 | 318 | 50.00 | 50/1 | 4500 | 8000 | 0.25 | 3.0 | 1.0 | 31 | 5.7 |
| 120 | 70 | 78 | 1.5 | 1.2 | PH432_0500 EZ302U | 159 | 174 | 318 | 50.00 | 50/1 | 4500 | 8000 | 0.35 | 3.0 | 1.0 | 31 | 6.3 |
| 150 | 33 | 35 | 1.0 | 2.4 | PH432_0400 EZ301U | 104 | 104 | 310 | 40.00 | 40/1 | 4500 | 8000 | 0.28 | 3.0 | 1.0 | 30 | 5.7 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH4 ($n_{1N}$ = 6000 min⁻¹, $M_{2acc,max}$ = 170 Nm) | | | | | | | | | | | | | | | | | |
| 150 | 56 | 62 | 1.7 | 1.4 | PH432_0400 EZ302U | 155 | 169 | 310 | 40.00 | 40/1 | 4500 | 8000 | 0.38 | 3.0 | 1.0 | 30 | 6.3 |
| 150 | 73 | 84 | 2.2 | 1.1 | PH432_0400 EZ303U | 155 | 169 | 310 | 40.00 | 40/1 | 4500 | 8000 | 0.49 | 3.0 | 1.0 | 30 | 6.8 |
| 171 | 29 | 31 | 1.0 | 2.9 | PH432_0350 EZ301U | 91 | 91 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.25 | 3.0 | 1.0 | 32 | 5.7 |
| 171 | 49 | 55 | 1.7 | 1.7 | PH432_0350 EZ302U | 160 | 163 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.35 | 3.0 | 1.0 | 32 | 6.3 |
| 171 | 64 | 73 | 2.3 | 1.3 | PH432_0350 EZ303U | 160 | 174 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.46 | 3.0 | 1.0 | 32 | 6.8 |
| 171 | 75 | 91 | 2.7 | 1.1 | PH432_0350 EZ401U | 160 | 174 | 320 | 35.00 | 35/1 | 4500 | 8000 | 0.99 | 3.0 | 1.0 | 32 | 8.2 |
| 214 | 23 | 25 | 1.2 | 3.7 | PH432_0280 EZ301U | 73 | 73 | 312 | 28.00 | 28/1 | 4500 | 8000 | 0.29 | 3.0 | 1.0 | 31 | 5.7 |
| 214 | 39 | 44 | 2.0 | 2.2 | PH432_0280 EZ302U | 130 | 130 | 312 | 28.00 | 28/1 | 4500 | 8000 | 0.39 | 3.0 | 1.0 | 31 | 6.3 |
| 214 | 51 | 59 | 2.6 | 1.7 | PH432_0280 EZ303U | 160 | 173 | 312 | 28.00 | 28/1 | 4500 | 8000 | 0.50 | 3.0 | 1.0 | 31 | 6.8 |
| 214 | 60 | 73 | 3.0 | 1.4 | PH432_0280 EZ401U | 160 | 173 | 312 | 28.00 | 28/1 | 4500 | 8000 | 1.0 | 3.0 | 1.0 | 31 | 8.2 |
| 240 | 21 | 22 | 1.2 | 4.1 | PH432_0250 EZ301U | 65 | 65 | 322 | 25.00 | 25/1 | 4500 | 8000 | 0.26 | 3.0 | 1.0 | 32 | 5.7 |
| 240 | 35 | 39 | 2.1 | 2.4 | PH432_0250 EZ302U | 116 | 116 | 322 | 25.00 | 25/1 | 4500 | 8000 | 0.36 | 3.0 | 1.0 | 32 | 6.3 |
| 240 | 46 | 52 | 2.7 | 1.9 | PH432_0250 EZ303U | 161 | 163 | 322 | 25.00 | 25/1 | 4500 | 8000 | 0.47 | 3.0 | 1.0 | 32 | 6.8 |
| 240 | 53 | 65 | 3.2 | 1.6 | PH432_0250 EZ401U | 161 | 174 | 322 | 25.00 | 25/1 | 4500 | 8000 | 1.0 | 3.0 | 1.0 | 32 | 8.2 |
| 240 | 81 | 114 | 4.8 | 1.0 | PH432_0250 EZ402U | 161 | 174 | 322 | 25.00 | 25/1 | 4500 | 8000 | 1.7 | 3.0 | 1.0 | 32 | 9.3 |
| 300 | 28 | 31 | 2.3 | 3.0 | PH432_0200 EZ302U | 93 | 93 | 299 | 20.00 | 20/1 | 4000 | 8000 | 0.36 | 3.0 | 1.0 | 32 | 6.3 |
| 300 | 36 | 42 | 3.0 | 2.3 | PH432_0200 EZ303U | 130 | 130 | 299 | 20.00 | 20/1 | 4000 | 8000 | 0.47 | 3.0 | 1.0 | 32 | 6.8 |
| 300 | 43 | 52 | 3.5 | 2.0 | PH432_0200 EZ401U | 150 | 150 | 299 | 20.00 | 20/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 32 | 8.2 |
| 300 | 65 | 91 | 5.4 | 1.3 | PH432_0200 EZ402U | 150 | 150 | 299 | 20.00 | 20/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 32 | 9.3 |
| 375 | 22 | 25 | 2.8 | 3.5 | PH432_0160 EZ302U | 74 | 74 | 312 | 16.00 | 16/1 | 4000 | 8000 | 0.41 | 3.0 | 1.0 | 31 | 6.3 |
| 375 | 29 | 33 | 3.6 | 2.7 | PH432_0160 EZ303U | 104 | 104 | 312 | 16.00 | 16/1 | 4000 | 8000 | 0.52 | 3.0 | 1.0 | 31 | 6.8 |
| 375 | 34 | 42 | 4.3 | 2.3 | PH432_0160 EZ401U | 126 | 126 | 312 | 16.00 | 16/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 31 | 8.2 |
| 375 | 52 | 73 | 6.5 | 1.5 | PH432_0160 EZ402U | 160 | 173 | 312 | 16.00 | 16/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 31 | 9.3 |
| 600 | 22 | 27 | 2.5 | 2.1 | PH431_0100 EZ401U | 82 | 82 | 230 | 10.00 | 10/1 | 3500 | 7000 | 1.0 | 3.0 | 1.0 | 21 | 7.0 |
| 600 | 33 | 42 | 3.7 | 1.4 | PH431_0100 EZ501U | 115 | 115 | 230 | 10.00 | 10/1 | 3500 | 7000 | 3.0 | 3.0 | 1.0 | 21 | 8.0 |
| 600 | 34 | 47 | 3.8 | 1.4 | PH431_0100 EZ402U | 115 | 115 | 230 | 10.00 | 10/1 | 3500 | 7000 | 1.7 | 3.0 | 1.0 | 21 | 8.1 |
| 857 | 15 | 19 | 3.1 | 3.8 | PH431_0070 EZ401U | 57 | 57 | 320 | 7.000 | 7/1 | 3200 | 6000 | 1.1 | 3.0 | 1.0 | 31 | 7.0 |
| 857 | 23 | 30 | 4.6 | 2.6 | PH431_0070 EZ501U | 108 | 108 | 320 | 7.000 | 7/1 | 3200 | 6000 | 3.1 | 3.0 | 1.0 | 31 | 8.0 |
| 857 | 24 | 33 | 4.7 | 2.5 | PH431_0070 EZ402U | 108 | 108 | 320 | 7.000 | 7/1 | 3200 | 6000 | 1.8 | 3.0 | 1.0 | 31 | 8.1 |
| 857 | 35 | 52 | 7.0 | 1.7 | PH431_0070 EZ502U | 160 | 175 | 320 | 7.000 | 7/1 | 3200 | 6000 | 5.4 | 3.0 | 1.0 | 31 | 9.5 |
| 857 | 39 | 56 | 7.8 | 1.5 | PH431_0070 EZ404U | 160 | 175 | 320 | 7.000 | 7/1 | 3200 | 6000 | 3.1 | 3.0 | 1.0 | 31 | 10 |
| 857 | 42 | 71 | 8.4 | 1.4 | PH431_0070 EZ503U | 160 | 175 | 320 | 7.000 | 7/1 | 3200 | 6000 | 7.7 | 3.0 | 1.0 | 31 | 11 |
| 1200 | 16 | 21 | 6.9 | 3.6 | PH431_0050 EZ501U | 77 | 77 | 344 | 5.000 | 5/1 | 3000 | 6000 | 3.2 | 3.0 | 1.0 | 37 | 8.0 |
| 1200 | 17 | 24 | 7.1 | 3.5 | PH431_0050 EZ402U | 77 | 77 | 344 | 5.000 | 5/1 | 3000 | 6000 | 1.9 | 3.0 | 1.0 | 37 | 8.1 |
| 1200 | 25 | 37 | 10 | 2.4 | PH431_0050 EZ502U | 149 | 149 | 344 | 5.000 | 5/1 | 3000 | 6000 | 5.5 | 3.0 | 1.0 | 37 | 9.5 |
| 1200 | 28 | 40 | 12 | 2.1 | PH431_0050 EZ404U | 139 | 139 | 344 | 5.000 | 5/1 | 3000 | 6000 | 3.3 | 3.0 | 1.0 | 37 | 10 |
| 1200 | 30 | 51 | 13 | 2.0 | PH431_0050 EZ503U | 172 | 189 | 344 | 5.000 | 5/1 | 3000 | 6000 | 7.9 | 3.0 | 1.0 | 37 | 11 |
| PH5 ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 390 Nm) | | | | | | | | | | | | | | | | | |
| 43 | 182 | 195 | 0.8 | 1.5 | PH532_0700 EZ401U | 370 | 387 | 705 | 70.00 | 70/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 70 | 11 |
| 60 | 130 | 140 | 1.0 | 2.0 | PH532_0500 EZ401U | 385 | 395 | 705 | 50.00 | 50/1 | 4000 | 8000 | 1.1 | 3.0 | 1.0 | 79 | 11 |
| 60 | 200 | 219 | 1.6 | 1.3 | PH532_0500 EZ501U | 385 | 400 | 705 | 50.00 | 50/1 | 4000 | 8000 | 3.0 | 3.0 | 1.0 | 79 | 12 |
| 60 | 219 | 242 | 1.7 | 1.2 | PH532_0500 EZ402U | 385 | 400 | 705 | 50.00 | 50/1 | 4000 | 8000 | 1.8 | 3.0 | 1.0 | 79 | 12 |
| 75 | 104 | 112 | 1.4 | 2.0 | PH532_0400 EZ401U | 316 | 316 | 696 | 40.00 | 40/1 | 4000 | 8000 | 1.2 | 3.0 | 1.0 | 74 | 11 |
| 75 | 160 | 175 | 2.1 | 1.3 | PH532_0400 EZ501U | 355 | 356 | 696 | 40.00 | 40/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 74 | 12 |
| 75 | 175 | 193 | 2.3 | 1.2 | PH532_0400 EZ402U | 355 | 356 | 696 | 40.00 | 40/1 | 4000 | 8000 | 1.9 | 3.0 | 1.0 | 74 | 12 |
| 86 | 91 | 98 | 1.2 | 2.9 | PH532_0350 EZ401U | 277 | 277 | 705 | 35.00 | 35/1 | 4000 | 8000 | 1.1 | 3.0 | 1.0 | 84 | 11 |
| 86 | 140 | 153 | 1.8 | 1.9 | PH532_0350 EZ501U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 84 | 12 |
| 86 | 153 | 169 | 2.0 | 1.7 | PH532_0350 EZ402U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 1.8 | 3.0 | 1.0 | 84 | 12 |
| 86 | 225 | 280 | 2.9 | 1.2 | PH532_0350 EZ404U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 84 | 14 |
| 86 | 241 | 260 | 3.1 | 1.1 | PH532_0350 EZ502U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 5.4 | 3.0 | 1.0 | 84 | 13 |
| 107 | 73 | 78 | 1.4 | 3.3 | PH532_0280 EZ401U | 221 | 221 | 696 | 28.00 | 28/1 | 4000 | 8000 | 1.2 | 3.0 | 1.0 | 80 | 11 |
| 107 | 112 | 122 | 2.2 | 2.1 | PH532_0280 EZ501U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 80 | 12 |
| 107 | 122 | 135 | 2.4 | 2.0 | PH532_0280 EZ402U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 1.9 | 3.0 | 1.0 | 80 | 12 |
| 107 | 180 | 224 | 3.5 | 1.3 | PH532_0280 EZ404U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 3.2 | 3.0 | 1.0 | 80 | 14 |
| 107 | 193 | 208 | 3.8 | 1.2 | PH532_0280 EZ502U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 5.4 | 3.0 | 1.0 | 80 | 13 |
| 120 | 65 | 70 | 1.4 | 4.0 | PH532_0250 EZ401U | 198 | 198 | 705 | 25.00 | 25/1 | 3700 | 7500 | 1.1 | 3.0 | 1.0 | 85 | 11 |
| 120 | 100 | 109 | 2.2 | 2.6 | PH532_0250 EZ501U | 372 | 372 | 705 | 25.00 | 25/1 | 3700 | 7500 | 3.1 | 3.0 | 1.0 | 85 | 12 |
| 120 | 109 | 121 | 2.4 | 2.4 | PH532_0250 EZ402U | 372 | 372 | 705 | 25.00 | 25/1 | 3700 | 7500 | 1.8 | 3.0 | 1.0 | 85 | 12 |
| 120 | 160 | 200 | 3.5 | 1.6 | PH532_0250 EZ404U | 385 | 400 | 705 | 25.00 | 25/1 | 3700 | 7500 | 3.2 | 3.0 | 1.0 | 85 | 14 |
| 120 | 172 | 186 | 3.7 | 1.5 | PH532_0250 EZ502U | 385 | 400 | 705 | 25.00 | 25/1 | 3700 | 7500 | 5.4 | 3.0 | 1.0 | 85 | 13 |
| 120 | 226 | 258 | 4.9 | 1.2 | PH532_0250 EZ503U | 385 | 400 | 705 | 25.00 | 25/1 | 3700 | 7500 | 7.8 | 3.0 | 1.0 | 85 | 15 |
| 150 | 52 | 56 | 1.6 | 4.8 | PH532_0200 EZ401U | 158 | 158 | 705 | 20.00 | 20/1 | 3500 | 7000 | 1.1 | 3.0 | 1.0 | 86 | 11 |
| 150 | 80 | 87 | 2.5 | 3.1 | PH532_0200 EZ501U | 298 | 298 | 705 | 20.00 | 20/1 | 3500 | 7000 | 3.1 | 3.0 | 1.0 | 86 | 12 |
| 150 | 87 | 97 | 2.7 | 2.9 | PH532_0200 EZ402U | 298 | 298 | 705 | 20.00 | 20/1 | 3500 | 7000 | 1.8 | 3.0 | 1.0 | 86 | 12 |
| 150 | 128 | 160 | 4.0 | 1.9 | PH532_0200 EZ404U | 370 | 387 | 705 | 20.00 | 20/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 86 | 14 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH5 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | |
| 150 | 138 | 149 | 4.3 | 1.8 | PH532_0200 EZ502U | 370 | 387 | 705 | 20.00 | 20/1 | 3500 | 7000 | 5.4 | 3.0 | 1.0 | 86 | 13 |
| 150 | 180 | 206 | 5.6 | 1.4 | PH532_0200 EZ503U | 370 | 387 | 705 | 20.00 | 20/1 | 3500 | 7000 | 7.8 | 3.0 | 1.0 | 86 | 15 |
| 188 | 64 | 70 | 3.0 | 3.6 | PH532_0160 EZ501U | 238 | 238 | 696 | 16.00 | 16/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 83 | 12 |
| 188 | 70 | 77 | 3.3 | 3.3 | PH532_0160 EZ402U | 238 | 238 | 696 | 16.00 | 16/1 | 3500 | 7000 | 1.9 | 3.0 | 1.0 | 83 | 12 |
| 188 | 103 | 128 | 4.9 | 2.2 | PH532_0160 EZ404U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 3.3 | 3.0 | 1.0 | 83 | 14 |
| 188 | 110 | 119 | 5.2 | 2.1 | PH532_0160 EZ502U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 5.5 | 3.0 | 1.0 | 83 | 13 |
| 188 | 144 | 165 | 6.9 | 1.6 | PH532_0160 EZ503U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 7.9 | 3.0 | 1.0 | 83 | 15 |
| 188 | 201 | 238 | 9.6 | 1.1 | PH532_0160 EZ505U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 12 | 3.0 | 1.0 | 83 | 18 |
| 300 | 41 | 45 | 1.7 | 3.5 | PH531_0100 EZ501U | 154 | 154 | 575 | 10.00 | 10/1 | 3300 | 6500 | 3.2 | 3.0 | 1.0 | 53 | 9.9 |
| 300 | 71 | 77 | 3.0 | 2.0 | PH531_0100 EZ502U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 5.5 | 3.0 | 1.0 | 53 | 11 |
| 300 | 71 | 80 | 3.0 | 2.0 | PH531_0100 EZ701U | 192 | 192 | 575 | 10.00 | 10/1 | 3300 | 6500 | 8.8 | 3.0 | 1.0 | 53 | 13 |
| 300 | 93 | 107 | 3.9 | 1.5 | PH531_0100 EZ503U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 7.8 | 3.0 | 1.0 | 53 | 13 |
| 300 | 115 | 138 | 4.8 | 1.2 | PH531_0100 EZ702U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 14 | 3.0 | 1.0 | 53 | 16 |
| 300 | 130 | 154 | 5.4 | 1.1 | PH531_0100 EZ505U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 12 | 3.0 | 1.0 | 53 | 16 |
| 429 | 50 | 54 | 3.6 | 3.7 | PH531_0070 EZ502U | 208 | 208 | 705 | 7.000 | 7/1 | 3000 | 6000 | 5.8 | 3.0 | 1.0 | 77 | 11 |
| 429 | 50 | 56 | 3.6 | 3.7 | PH531_0070 EZ701U | 134 | 134 | 705 | 7.000 | 7/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 77 | 13 |
| 429 | 65 | 75 | 4.7 | 2.8 | PH531_0070 EZ503U | 289 | 289 | 705 | 7.000 | 7/1 | 3000 | 6000 | 8.1 | 3.0 | 1.0 | 77 | 13 |
| 429 | 81 | 97 | 5.8 | 2.3 | PH531_0070 EZ702U | 276 | 276 | 705 | 7.000 | 7/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 77 | 16 |
| 429 | 91 | 108 | 6.5 | 2.0 | PH531_0070 EZ505U | 370 | 387 | 705 | 7.000 | 7/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 77 | 16 |
| 429 | 111 | 140 | 7.9 | 1.7 | PH531_0070 EZ703U | 370 | 387 | 705 | 7.000 | 7/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 77 | 18 |
| 429 | 143 | 203 | 10 | 1.3 | PH531_0070 EZ705U | 370 | 387 | 705 | 7.000 | 7/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 77 | 23 |
| 600 | 47 | 53 | 7.0 | 3.9 | PH531_0050 EZ503U | 206 | 206 | 562 | 5.000 | 5/1 | 2500 | 5500 | 8.6 | 3.0 | 1.0 | 97 | 13 |
| 600 | 58 | 69 | 8.6 | 3.2 | PH531_0050 EZ702U | 197 | 197 | 705 | 5.000 | 5/1 | 2500 | 5500 | 15 | 3.0 | 1.0 | 97 | 16 |
| 600 | 65 | 77 | 9.7 | 2.8 | PH531_0050 EZ505U | 322 | 322 | 562 | 5.000 | 5/1 | 2500 | 5500 | 13 | 3.0 | 1.0 | 97 | 16 |
| 600 | 79 | 100 | 12 | 2.3 | PH531_0050 EZ703U | 312 | 312 | 705 | 5.000 | 5/1 | 2500 | 5500 | 23 | 3.0 | 1.0 | 97 | 18 |
| 600 | 102 | 145 | 15 | 1.8 | PH531_0050 EZ705U | 385 | 400 | 705 | 5.000 | 5/1 | 2500 | 5500 | 35 | 3.0 | 1.0 | 97 | 23 |
| 750 | 37 | 43 | 9.1 | 4.9 | PH531_0040 EZ503U | 165 | 165 | 452 | 4.000 | 4/1 | 2200 | 5000 | 9.2 | 3.0 | 1.0 | 100 | 13 |
| 750 | 46 | 55 | 11 | 4.0 | PH531_0040 EZ702U | 157 | 157 | 696 | 4.000 | 4/1 | 2200 | 5000 | 15 | 3.0 | 1.0 | 100 | 16 |
| 750 | 52 | 61 | 13 | 3.5 | PH531_0040 EZ505U | 257 | 257 | 452 | 4.000 | 4/1 | 2200 | 5000 | 14 | 3.0 | 1.0 | 100 | 16 |
| 750 | 63 | 80 | 16 | 2.9 | PH531_0040 EZ703U | 250 | 250 | 696 | 4.000 | 4/1 | 2200 | 5000 | 23 | 3.0 | 1.0 | 100 | 18 |
| 750 | 82 | 116 | 20 | 2.2 | PH531_0040 EZ705U | 355 | 387 | 696 | 4.000 | 4/1 | 2200 | 5000 | 36 | 3.0 | 1.0 | 100 | 23 |
| **PH5 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | |
| 180 | 221 | 356 | 5.4 | 1.0 | PH532_0250 EZ505U | 385 | 400 | 705 | 25.00 | 25/1 | 3700 | 7500 | 12 | 3.0 | 1.0 | 85 | 18 |
| 225 | 177 | 285 | 6.0 | 1.3 | PH532_0200 EZ505U | 370 | 387 | 705 | 20.00 | 20/1 | 3500 | 7000 | 12 | 3.0 | 1.0 | 86 | 18 |
| 281 | 141 | 228 | 7.2 | 1.5 | PH532_0160 EZ505U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 12 | 3.0 | 1.0 | 83 | 18 |
| 450 | 91 | 147 | 4.4 | 1.4 | PH531_0100 EZ505U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 12 | 3.0 | 1.0 | 53 | 16 |
| 450 | 116 | 192 | 5.6 | 1.1 | PH531_0100 EZ703U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 22 | 3.0 | 1.0 | 53 | 18 |
| 643 | 64 | 103 | 5.2 | 2.5 | PH531_0070 EZ505U | 370 | 387 | 705 | 7.000 | 7/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 77 | 16 |
| 643 | 81 | 134 | 6.7 | 2.0 | PH531_0070 EZ703U | 370 | 387 | 705 | 7.000 | 7/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 77 | 18 |
| 643 | 110 | 202 | 9.0 | 1.5 | PH531_0070 EZ705U | 370 | 387 | 705 | 7.000 | 7/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 77 | 23 |
| 900 | 46 | 73 | 7.8 | 3.5 | PH531_0050 EZ505U | 322 | 322 | 562 | 5.000 | 5/1 | 2500 | 5500 | 13 | 3.0 | 1.0 | 97 | 16 |
| 900 | 58 | 96 | 10 | 2.8 | PH531_0050 EZ703U | 312 | 312 | 705 | 5.000 | 5/1 | 2500 | 5500 | 23 | 3.0 | 1.0 | 97 | 18 |
| 900 | 79 | 144 | 14 | 2.0 | PH531_0050 EZ705U | 385 | 400 | 705 | 5.000 | 5/1 | 2500 | 5500 | 35 | 3.0 | 1.0 | 97 | 23 |
| 1125 | 36 | 59 | 10 | 4.4 | PH531_0040 EZ505U | 257 | 257 | 452 | 4.000 | 4/1 | 2200 | 5000 | 14 | 3.0 | 1.0 | 100 | 16 |
| 1125 | 46 | 77 | 13 | 3.4 | PH531_0040 EZ703U | 250 | 250 | 696 | 4.000 | 4/1 | 2200 | 5000 | 23 | 3.0 | 1.0 | 100 | 18 |
| 1125 | 63 | 115 | 18 | 2.5 | PH531_0040 EZ705U | 355 | 387 | 696 | 4.000 | 4/1 | 2200 | 5000 | 36 | 3.0 | 1.0 | 100 | 23 |
| **PH5 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | |
| 86 | 150 | 182 | 0.9 | 1.4 | PH532_0700 EZ401U | 370 | 387 | 705 | 70.00 | 70/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 70 | 11 |
| 120 | 107 | 130 | 1.0 | 1.9 | PH532_0500 EZ401U | 385 | 395 | 705 | 50.00 | 50/1 | 4000 | 8000 | 1.1 | 3.0 | 1.0 | 79 | 11 |
| 120 | 158 | 205 | 1.6 | 1.3 | PH532_0500 EZ501U | 385 | 400 | 705 | 50.00 | 50/1 | 4000 | 8000 | 3.0 | 3.0 | 1.0 | 79 | 12 |
| 120 | 163 | 228 | 1.6 | 1.2 | PH532_0500 EZ402U | 385 | 400 | 705 | 50.00 | 50/1 | 4000 | 8000 | 1.8 | 3.0 | 1.0 | 79 | 12 |
| 150 | 86 | 104 | 1.4 | 1.9 | PH532_0400 EZ401U | 316 | 316 | 696 | 40.00 | 40/1 | 4000 | 8000 | 1.2 | 3.0 | 1.0 | 74 | 11 |
| 150 | 126 | 164 | 2.1 | 1.3 | PH532_0400 EZ501U | 355 | 356 | 696 | 40.00 | 40/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 74 | 12 |
| 150 | 130 | 182 | 2.2 | 1.3 | PH532_0400 EZ402U | 355 | 356 | 696 | 40.00 | 40/1 | 4000 | 8000 | 1.9 | 3.0 | 1.0 | 74 | 12 |
| 171 | 75 | 91 | 1.2 | 2.8 | PH532_0350 EZ401U | 277 | 277 | 705 | 35.00 | 35/1 | 4000 | 8000 | 1.1 | 3.0 | 1.0 | 84 | 11 |
| 171 | 111 | 143 | 1.8 | 1.9 | PH532_0350 EZ501U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 84 | 12 |
| 171 | 114 | 159 | 1.8 | 1.8 | PH532_0350 EZ402U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 1.8 | 3.0 | 1.0 | 84 | 12 |
| 171 | 169 | 254 | 2.7 | 1.2 | PH532_0350 EZ502U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 5.4 | 3.0 | 1.0 | 84 | 13 |
| 171 | 189 | 273 | 3.0 | 1.1 | PH532_0350 EZ404U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 84 | 14 |
| 171 | 202 | 345 | 3.3 | 1.0 | PH532_0350 EZ503U | 385 | 400 | 705 | 35.00 | 35/1 | 4000 | 8000 | 7.7 | 3.0 | 1.0 | 84 | 15 |
| 214 | 60 | 73 | 1.4 | 3.4 | PH532_0280 EZ401U | 221 | 221 | 696 | 28.00 | 28/1 | 4000 | 8000 | 1.2 | 3.0 | 1.0 | 80 | 11 |
| 214 | 89 | 115 | 2.1 | 2.3 | PH532_0280 EZ501U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 80 | 12 |
| 214 | 91 | 128 | 2.1 | 2.2 | PH532_0280 EZ402U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 1.9 | 3.0 | 1.0 | 80 | 12 |
| 214 | 135 | 203 | 3.2 | 1.5 | PH532_0280 EZ502U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 5.4 | 3.0 | 1.0 | 80 | 13 |
| 214 | 151 | 219 | 3.5 | 1.3 | PH532_0280 EZ404U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 3.2 | 3.0 | 1.0 | 80 | 14 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH5 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm) | | | | | | | | | | | | | | | | | |
| 214 | 161 | 276 | 3.8 | 1.2 | PH532_0280 EZ503U | 355 | 387 | 696 | 28.00 | 28/1 | 4000 | 8000 | 7.8 | 3.0 | 1.0 | 80 | 15 |
| 240 | 53 | 65 | 1.4 | 3.9 | PH532_0250 EZ401U | 198 | 198 | 705 | 25.00 | 25/1 | 3700 | 7500 | 1.1 | 3.0 | 1.0 | 85 | 11 |
| 240 | 79 | 102 | 2.1 | 2.7 | PH532_0250 EZ501U | 372 | 372 | 705 | 25.00 | 25/1 | 3700 | 7500 | 3.1 | 3.0 | 1.0 | 85 | 12 |
| 240 | 81 | 114 | 2.2 | 2.6 | PH532_0250 EZ402U | 372 | 372 | 705 | 25.00 | 25/1 | 3700 | 7500 | 1.8 | 3.0 | 1.0 | 85 | 12 |
| 240 | 121 | 181 | 3.2 | 1.7 | PH532_0250 EZ502U | 385 | 400 | 705 | 25.00 | 25/1 | 3700 | 7500 | 5.4 | 3.0 | 1.0 | 85 | 13 |
| 240 | 135 | 195 | 3.6 | 1.6 | PH532_0250 EZ404U | 385 | 400 | 705 | 25.00 | 25/1 | 3700 | 7500 | 3.2 | 3.0 | 1.0 | 85 | 14 |
| 240 | 144 | 246 | 3.8 | 1.5 | PH532_0250 EZ503U | 385 | 400 | 705 | 25.00 | 25/1 | 3700 | 7500 | 7.8 | 3.0 | 1.0 | 85 | 15 |
| 300 | 43 | 52 | 1.6 | 4.9 | PH532_0200 EZ401U | 158 | 158 | 705 | 20.00 | 20/1 | 3500 | 7000 | 1.1 | 3.0 | 1.0 | 86 | 11 |
| 300 | 63 | 82 | 2.4 | 3.3 | PH532_0200 EZ501U | 298 | 298 | 705 | 20.00 | 20/1 | 3500 | 7000 | 3.1 | 3.0 | 1.0 | 86 | 12 |
| 300 | 65 | 91 | 2.4 | 3.2 | PH532_0200 EZ402U | 298 | 298 | 705 | 20.00 | 20/1 | 3500 | 7000 | 1.8 | 3.0 | 1.0 | 86 | 12 |
| 300 | 97 | 145 | 3.6 | 2.2 | PH532_0200 EZ502U | 370 | 387 | 705 | 20.00 | 20/1 | 3500 | 7000 | 5.4 | 3.0 | 1.0 | 86 | 13 |
| 300 | 108 | 156 | 4.0 | 1.9 | PH532_0200 EZ404U | 370 | 387 | 705 | 20.00 | 20/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 86 | 14 |
| 300 | 115 | 197 | 4.3 | 1.8 | PH532_0200 EZ503U | 370 | 387 | 705 | 20.00 | 20/1 | 3500 | 7000 | 7.8 | 3.0 | 1.0 | 86 | 15 |
| 375 | 51 | 65 | 2.8 | 3.9 | PH532_0160 EZ501U | 238 | 238 | 696 | 16.00 | 16/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 83 | 12 |
| 375 | 52 | 73 | 2.9 | 3.8 | PH532_0160 EZ402U | 238 | 238 | 696 | 16.00 | 16/1 | 3500 | 7000 | 1.9 | 3.0 | 1.0 | 83 | 12 |
| 375 | 77 | 116 | 4.3 | 2.5 | PH532_0160 EZ502U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 5.5 | 3.0 | 1.0 | 83 | 13 |
| 375 | 86 | 125 | 4.8 | 2.3 | PH532_0160 EZ404U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 3.3 | 3.0 | 1.0 | 83 | 14 |
| 375 | 92 | 158 | 5.2 | 2.1 | PH532_0160 EZ503U | 355 | 355 | 696 | 16.00 | 16/1 | 3500 | 7000 | 7.9 | 3.0 | 1.0 | 83 | 15 |
| 600 | 33 | 42 | 1.7 | 3.5 | PH531_0100 EZ501U | 154 | 154 | 575 | 10.00 | 10/1 | 3300 | 6500 | 3.2 | 3.0 | 1.0 | 53 | 9.9 |
| 600 | 50 | 75 | 2.6 | 2.3 | PH531_0100 EZ502U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 5.5 | 3.0 | 1.0 | 53 | 11 |
| 600 | 50 | 76 | 2.6 | 2.3 | PH531_0100 EZ701U | 192 | 192 | 575 | 10.00 | 10/1 | 3300 | 6500 | 8.8 | 3.0 | 1.0 | 53 | 13 |
| 600 | 60 | 102 | 3.1 | 1.9 | PH531_0100 EZ503U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 7.8 | 3.0 | 1.0 | 53 | 13 |
| 600 | 69 | 137 | 3.7 | 1.6 | PH531_0100 EZ702U | 288 | 288 | 575 | 10.00 | 10/1 | 3300 | 6500 | 14 | 3.0 | 1.0 | 53 | 16 |
| 857 | 35 | 52 | 3.2 | 4.2 | PH531_0070 EZ502U | 208 | 208 | 705 | 7.000 | 7/1 | 3000 | 6000 | 5.8 | 3.0 | 1.0 | 77 | 11 |
| 857 | 35 | 53 | 3.2 | 4.2 | PH531_0070 EZ701U | 134 | 134 | 705 | 7.000 | 7/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 77 | 13 |
| 857 | 42 | 71 | 3.8 | 3.5 | PH531_0070 EZ503U | 289 | 289 | 705 | 7.000 | 7/1 | 3000 | 6000 | 8.1 | 3.0 | 1.0 | 77 | 13 |
| 857 | 48 | 96 | 4.4 | 3.0 | PH531_0070 EZ702U | 276 | 276 | 705 | 7.000 | 7/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 77 | 16 |
| PH7 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 880 Nm) | | | | | | | | | | | | | | | | | |
| 286 | 262 | 294 | 9.4 | 1.7 | PH731_0070 EZ813U | 869 | 869 | 1720 | 7.000 | 7/1 | 2500 | 5000 | 106 | 3.0 | 1.0 | 166 | 45 |
| 286 | 388 | 462 | 14 | 1.1 | PH731_0070 EZ815U | 869 | 869 | 1720 | 7.000 | 7/1 | 2500 | 5000 | 169 | 3.0 | 1.0 | 166 | 58 |
| 400 | 187 | 210 | 14 | 2.4 | PH731_0050 EZ813U | 672 | 672 | 1720 | 5.000 | 5/1 | 2200 | 5000 | 108 | 3.0 | 1.0 | 208 | 45 |
| 400 | 277 | 330 | 21 | 1.6 | PH731_0050 EZ815U | 882 | 924 | 1720 | 5.000 | 5/1 | 2200 | 5000 | 171 | 3.0 | 1.0 | 208 | 58 |
| 500 | 150 | 168 | 18 | 2.9 | PH731_0040 EZ813U | 538 | 538 | 1680 | 4.000 | 4/1 | 1900 | 4000 | 110 | 3.0 | 1.0 | 243 | 45 |
| 500 | 222 | 264 | 27 | 2.0 | PH731_0040 EZ815U | 768 | 768 | 1680 | 4.000 | 4/1 | 1900 | 4000 | 173 | 3.0 | 1.0 | 243 | 58 |
| PH7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 870 Nm) | | | | | | | | | | | | | | | | | |
| 43 | 280 | 306 | 0.7 | 2.0 | PH732_0700 EZ501U | 809 | 847 | 1617 | 70.00 | 70/1 | 3700 | 7000 | 3.2 | 3.0 | 1.0 | 154 | 18 |
| 43 | 482 | 521 | 1.2 | 1.2 | PH732_0700 EZ502U | 809 | 847 | 1617 | 70.00 | 70/1 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 154 | 20 |
| 43 | 482 | 540 | 1.2 | 1.2 | PH732_0700 EZ701U | 809 | 847 | 1617 | 70.00 | 70/1 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 154 | 21 |
| 60 | 200 | 219 | 0.9 | 2.8 | PH732_0500 EZ501U | 744 | 744 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 3.4 | 3.0 | 1.0 | 176 | 18 |
| 60 | 344 | 372 | 1.5 | 1.6 | PH732_0500 EZ502U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 5.7 | 3.0 | 1.0 | 176 | 20 |
| 60 | 344 | 386 | 1.5 | 1.6 | PH732_0500 EZ701U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 9.0 | 3.0 | 1.0 | 176 | 21 |
| 60 | 451 | 516 | 1.9 | 1.2 | PH732_0500 EZ503U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 8.1 | 3.0 | 1.0 | 176 | 21 |
| 75 | 160 | 175 | 1.1 | 3.0 | PH732_0400 EZ501U | 595 | 595 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 3.7 | 3.0 | 1.0 | 182 | 18 |
| 75 | 275 | 298 | 1.9 | 1.7 | PH732_0400 EZ502U | 770 | 770 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 6.0 | 3.0 | 1.0 | 182 | 20 |
| 75 | 275 | 309 | 1.9 | 1.7 | PH732_0400 EZ701U | 744 | 744 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 9.3 | 3.0 | 1.0 | 182 | 21 |
| 75 | 361 | 413 | 2.5 | 1.3 | PH732_0400 EZ503U | 770 | 770 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 8.4 | 3.0 | 1.0 | 182 | 21 |
| 75 | 446 | 536 | 3.1 | 1.1 | PH732_0400 EZ702U | 770 | 770 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 15 | 3.0 | 1.0 | 182 | 24 |
| 86 | 140 | 153 | 1.1 | 3.9 | PH732_0350 EZ501U | 521 | 521 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 3.5 | 3.0 | 1.0 | 183 | 18 |
| 86 | 241 | 260 | 1.8 | 2.2 | PH732_0350 EZ502U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 5.8 | 3.0 | 1.0 | 183 | 20 |
| 86 | 241 | 270 | 1.8 | 2.2 | PH732_0350 EZ701U | 651 | 651 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 9.1 | 3.0 | 1.0 | 183 | 21 |
| 86 | 316 | 361 | 2.4 | 1.7 | PH732_0350 EZ503U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 8.1 | 3.0 | 1.0 | 183 | 21 |
| 86 | 391 | 469 | 2.9 | 1.4 | PH732_0350 EZ702U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 183 | 24 |
| 86 | 439 | 521 | 3.3 | 1.2 | PH732_0350 EZ505U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 13 | 3.0 | 1.0 | 183 | 24 |
| 86 | 537 | 677 | 4.0 | 1.0 | PH732_0350 EZ703U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 22 | 3.0 | 1.0 | 183 | 26 |
| 107 | 112 | 122 | 1.2 | 4.8 | PH732_0280 EZ501U | 417 | 417 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 3.8 | 3.0 | 1.0 | 194 | 18 |
| 107 | 193 | 208 | 2.0 | 2.8 | PH732_0280 EZ502U | 770 | 807 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 6.1 | 3.0 | 1.0 | 194 | 20 |
| 107 | 193 | 216 | 2.0 | 2.8 | PH732_0280 EZ701U | 521 | 521 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 9.4 | 3.0 | 1.0 | 194 | 21 |
| 107 | 253 | 289 | 2.7 | 2.1 | PH732_0280 EZ503U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 8.5 | 3.0 | 1.0 | 194 | 21 |
| 107 | 312 | 375 | 3.3 | 1.7 | PH732_0280 EZ702U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 15 | 3.0 | 1.0 | 194 | 24 |
| 107 | 352 | 417 | 3.7 | 1.5 | PH732_0280 EZ505U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 13 | 3.0 | 1.0 | 194 | 24 |
| 107 | 430 | 542 | 4.5 | 1.3 | PH732_0280 EZ703U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 23 | 3.0 | 1.0 | 194 | 26 |
| 120 | 172 | 186 | 2.3 | 2.9 | PH732_0250 EZ502U | 721 | 721 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 5.8 | 3.0 | 1.0 | 186 | 20 |
| 120 | 172 | 193 | 2.3 | 2.9 | PH732_0250 EZ701U | 465 | 465 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 9.1 | 3.0 | 1.0 | 186 | 21 |
| 120 | 226 | 258 | 3.0 | 2.2 | PH732_0250 EZ503U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 8.2 | 3.0 | 1.0 | 186 | 21 |
| 120 | 279 | 335 | 3.8 | 1.8 | PH732_0250 EZ702U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 14 | 3.0 | 1.0 | 186 | 24 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH7 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 870 Nm)** | | | | | | | | | | | | | | | | | |
| 120 | 314 | 372 | 4.2 | 1.6 | PH732_0250 EZ505U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 13 | 3.0 | 1.0 | 186 | 24 |
| 120 | 384 | 484 | 5.2 | 1.3 | PH732_0250 EZ703U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 22 | 3.0 | 1.0 | 186 | 26 |
| 120 | 495 | 702 | 6.7 | 1.0 | PH732_0250 EZ705U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 35 | 3.0 | 1.0 | 186 | 31 |
| 150 | 138 | 149 | 2.8 | 3.3 | PH732_0200 EZ502U | 577 | 577 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 5.9 | 3.0 | 1.0 | 188 | 20 |
| 150 | 138 | 154 | 2.8 | 3.3 | PH732_0200 EZ701U | 372 | 372 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 9.2 | 3.0 | 1.0 | 188 | 21 |
| 150 | 180 | 206 | 3.7 | 2.6 | PH732_0200 EZ503U | 800 | 800 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 8.3 | 3.0 | 1.0 | 188 | 21 |
| 150 | 223 | 268 | 4.6 | 2.1 | PH732_0200 EZ702U | 763 | 763 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 188 | 24 |
| 150 | 251 | 298 | 5.1 | 1.8 | PH732_0200 EZ505U | 805 | 845 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 188 | 24 |
| 150 | 307 | 387 | 6.3 | 1.5 | PH732_0200 EZ703U | 805 | 845 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 188 | 26 |
| 150 | 396 | 562 | 8.1 | 1.2 | PH732_0200 EZ705U | 805 | 845 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 188 | 31 |
| 188 | 110 | 119 | 3.2 | 4.1 | PH732_0160 EZ502U | 461 | 461 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 6.3 | 3.0 | 1.0 | 202 | 20 |
| 188 | 110 | 124 | 3.2 | 4.1 | PH732_0160 EZ701U | 298 | 298 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 9.6 | 3.0 | 1.0 | 202 | 21 |
| 188 | 144 | 165 | 4.2 | 3.1 | PH732_0160 EZ503U | 640 | 640 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 8.7 | 3.0 | 1.0 | 202 | 21 |
| 188 | 179 | 214 | 5.2 | 2.5 | PH732_0160 EZ702U | 610 | 610 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 202 | 24 |
| 188 | 201 | 238 | 5.9 | 2.2 | PH732_0160 EZ505U | 740 | 740 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 202 | 24 |
| 188 | 246 | 310 | 7.2 | 1.8 | PH732_0160 EZ703U | 740 | 740 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 202 | 26 |
| 188 | 317 | 449 | 9.2 | 1.4 | PH732_0160 EZ705U | 740 | 740 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 202 | 31 |
| 300 | 71 | 80 | 1.8 | 3.9 | PH731_0100 EZ701U | 192 | 192 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 9.3 | 3.0 | 1.0 | 125 | 18 |
| 300 | 115 | 138 | 3.0 | 2.4 | PH731_0100 EZ702U | 394 | 394 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 15 | 3.0 | 1.0 | 125 | 20 |
| 300 | 158 | 200 | 4.1 | 1.8 | PH731_0100 EZ703U | 575 | 575 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 22 | 3.0 | 1.0 | 125 | 22 |
| 300 | 204 | 290 | 5.3 | 1.4 | PH731_0100 EZ705U | 575 | 575 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 35 | 3.0 | 1.0 | 125 | 28 |
| 429 | 81 | 97 | 3.3 | 4.8 | PH731_0070 EZ702U | 276 | 276 | 1545 | 7.000 | 7/1 | 2500 | 5000 | 15 | 3.0 | 1.0 | 166 | 20 |
| 429 | 111 | 140 | 4.5 | 3.5 | PH731_0070 EZ703U | 437 | 437 | 1545 | 7.000 | 7/1 | 2500 | 5000 | 23 | 3.0 | 1.0 | 166 | 22 |
| 429 | 143 | 203 | 5.9 | 2.7 | PH731_0070 EZ705U | 699 | 699 | 1545 | 7.000 | 7/1 | 2500 | 5000 | 36 | 3.0 | 1.0 | 166 | 28 |
| 600 | 79 | 100 | 6.8 | 4.9 | PH731_0050 EZ703U | 312 | 312 | 1107 | 5.000 | 5/1 | 2200 | 5000 | 25 | 3.0 | 1.0 | 208 | 22 |
| 600 | 102 | 145 | 8.8 | 3.8 | PH731_0050 EZ705U | 499 | 499 | 1107 | 5.000 | 5/1 | 2200 | 5000 | 37 | 3.0 | 1.0 | 208 | 28 |
| 750 | 82 | 116 | 11 | 4.7 | PH731_0040 EZ705U | 399 | 399 | 889 | 4.000 | 4/1 | 1900 | 4000 | 39 | 3.0 | 1.0 | 243 | 28 |
| **PH7 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | |
| 400 | 242 | 420 | 6.9 | 1.0 | PH731_0100 EZ813U | 575 | 575 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 105 | 3.0 | 1.0 | 125 | 45 |
| 400 | 251 | 645 | 7.1 | 1.0 | PH731_0100 EZ815U | 575 | 575 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 168 | 3.0 | 1.0 | 125 | 58 |
| 571 | 169 | 294 | 7.6 | 2.1 | PH731_0070 EZ813U | 869 | 869 | 1720 | 7.000 | 7/1 | 2500 | 5000 | 106 | 3.0 | 1.0 | 166 | 45 |
| 571 | 175 | 451 | 7.9 | 2.0 | PH731_0070 EZ815U | 869 | 869 | 1720 | 7.000 | 7/1 | 2500 | 5000 | 169 | 3.0 | 1.0 | 166 | 58 |
| 800 | 121 | 210 | 11 | 2.9 | PH731_0050 EZ813U | 672 | 672 | 1720 | 5.000 | 5/1 | 2200 | 5000 | 108 | 3.0 | 1.0 | 208 | 45 |
| 800 | 125 | 322 | 12 | 2.8 | PH731_0050 EZ815U | 882 | 924 | 1720 | 5.000 | 5/1 | 2200 | 5000 | 171 | 3.0 | 1.0 | 208 | 58 |
| 1000 | 97 | 168 | 15 | 3.6 | PH731_0040 EZ813U | 538 | 538 | 1680 | 4.000 | 4/1 | 1900 | 4000 | 110 | 3.0 | 1.0 | 243 | 45 |
| 1000 | 100 | 258 | 16 | 3.5 | PH731_0040 EZ815U | 768 | 768 | 1680 | 4.000 | 4/1 | 1900 | 4000 | 173 | 3.0 | 1.0 | 243 | 58 |
| **PH7 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 870 Nm)** | | | | | | | | | | | | | | | | | |
| 90 | 442 | 711 | 2.2 | 1.1 | PH732_0500 EZ505U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 13 | 3.0 | 1.0 | 176 | 24 |
| 113 | 353 | 569 | 2.8 | 1.2 | PH732_0400 EZ505U | 770 | 770 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 13 | 3.0 | 1.0 | 182 | 24 |
| 129 | 309 | 498 | 2.6 | 1.6 | PH732_0350 EZ505U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 13 | 3.0 | 1.0 | 183 | 24 |
| 129 | 394 | 651 | 3.3 | 1.2 | PH732_0350 EZ703U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 22 | 3.0 | 1.0 | 183 | 26 |
| 161 | 247 | 398 | 2.9 | 2.0 | PH732_0280 EZ505U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 13 | 3.0 | 1.0 | 194 | 24 |
| 161 | 315 | 521 | 3.7 | 1.5 | PH732_0280 EZ703U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 23 | 3.0 | 1.0 | 194 | 26 |
| 161 | 427 | 781 | 5.0 | 1.1 | PH732_0280 EZ705U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 35 | 3.0 | 1.0 | 194 | 31 |
| 180 | 221 | 356 | 3.2 | 2.1 | PH732_0250 EZ505U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 13 | 3.0 | 1.0 | 186 | 24 |
| 180 | 281 | 465 | 4.1 | 1.6 | PH732_0250 EZ703U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 22 | 3.0 | 1.0 | 186 | 26 |
| 180 | 381 | 698 | 5.6 | 1.2 | PH732_0250 EZ705U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 35 | 3.0 | 1.0 | 186 | 31 |
| 225 | 177 | 285 | 3.7 | 2.6 | PH732_0200 EZ505U | 805 | 845 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 188 | 24 |
| 225 | 225 | 372 | 4.7 | 2.0 | PH732_0200 EZ703U | 805 | 845 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 188 | 26 |
| 225 | 305 | 558 | 6.4 | 1.5 | PH732_0200 EZ705U | 805 | 845 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 188 | 31 |
| 281 | 141 | 228 | 4.1 | 3.2 | PH732_0160 EZ505U | 740 | 740 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 202 | 24 |
| 281 | 180 | 298 | 5.3 | 2.5 | PH732_0160 EZ703U | 740 | 740 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 202 | 26 |
| 281 | 244 | 446 | 7.1 | 1.8 | PH732_0160 EZ705U | 740 | 740 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 202 | 31 |
| 450 | 116 | 192 | 3.4 | 2.1 | PH731_0100 EZ703U | 575 | 575 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 22 | 3.0 | 1.0 | 125 | 22 |
| 450 | 157 | 288 | 4.7 | 1.5 | PH731_0100 EZ705U | 575 | 575 | 1150 | 10.00 | 10/1 | 2500 | 5000 | 35 | 3.0 | 1.0 | 125 | 28 |
| 643 | 81 | 134 | 3.8 | 4.1 | PH731_0070 EZ703U | 437 | 437 | 1545 | 7.000 | 7/1 | 2500 | 5000 | 23 | 3.0 | 1.0 | 166 | 22 |
| 643 | 110 | 202 | 5.2 | 3.0 | PH731_0070 EZ705U | 699 | 699 | 1545 | 7.000 | 7/1 | 2500 | 5000 | 36 | 3.0 | 1.0 | 166 | 28 |
| 900 | 79 | 144 | 7.7 | 4.3 | PH731_0050 EZ705U | 499 | 499 | 1107 | 5.000 | 5/1 | 2200 | 5000 | 37 | 3.0 | 1.0 | 208 | 28 |
| **PH7 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 870 Nm)** | | | | | | | | | | | | | | | | | |
| 86 | 221 | 286 | 0.7 | 2.0 | PH732_0700 EZ501U | 809 | 847 | 1617 | 70.00 | 70/1 | 3700 | 7000 | 3.2 | 3.0 | 1.0 | 154 | 18 |
| 86 | 339 | 508 | 1.1 | 1.3 | PH732_0700 EZ502U | 809 | 847 | 1617 | 70.00 | 70/1 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 154 | 20 |
| 86 | 339 | 514 | 1.1 | 1.3 | PH732_0700 EZ701U | 809 | 847 | 1617 | 70.00 | 70/1 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 154 | 21 |
| 86 | 404 | 690 | 1.3 | 1.1 | PH732_0700 EZ503U | 809 | 847 | 1617 | 70.00 | 70/1 | 3700 | 7000 | 7.9 | 3.0 | 1.0 | 154 | 21 |
| 120 | 158 | 205 | 0.9 | 2.8 | PH732_0500 EZ501U | 744 | 744 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 3.4 | 3.0 | 1.0 | 176 | 18 |
| 120 | 242 | 363 | 1.3 | 1.8 | PH732_0500 EZ502U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 5.7 | 3.0 | 1.0 | 176 | 20 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH7 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 870 Nm) | | | | | | | | | | | | | | | | | |
| 120 | 242 | 367 | 1.3 | 1.8 | PH732_0500 EZ701U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 9.0 | 3.0 | 1.0 | 176 | 21 |
| 120 | 288 | 493 | 1.6 | 1.5 | PH732_0500 EZ503U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 8.1 | 3.0 | 1.0 | 176 | 21 |
| 120 | 335 | 665 | 1.8 | 1.3 | PH732_0500 EZ702U | 830 | 834 | 1660 | 50.00 | 50/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 176 | 24 |
| 150 | 126 | 164 | 1.1 | 3.0 | PH732_0400 EZ501U | 595 | 595 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 3.7 | 3.0 | 1.0 | 182 | 18 |
| 150 | 193 | 290 | 1.7 | 1.9 | PH732_0400 EZ502U | 770 | 770 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 6.0 | 3.0 | 1.0 | 182 | 20 |
| 150 | 193 | 294 | 1.7 | 1.9 | PH732_0400 EZ701U | 744 | 744 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 9.3 | 3.0 | 1.0 | 182 | 21 |
| 150 | 231 | 394 | 2.0 | 1.6 | PH732_0400 EZ503U | 770 | 770 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 8.4 | 3.0 | 1.0 | 182 | 21 |
| 150 | 268 | 532 | 2.4 | 1.4 | PH732_0400 EZ702U | 770 | 770 | 1540 | 40.00 | 40/1 | 3700 | 7000 | 15 | 3.0 | 1.0 | 182 | 24 |
| 171 | 111 | 143 | 1.0 | 4.0 | PH732_0350 EZ501U | 521 | 521 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 3.5 | 3.0 | 1.0 | 183 | 18 |
| 171 | 169 | 254 | 1.6 | 2.6 | PH732_0350 EZ502U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 5.8 | 3.0 | 1.0 | 183 | 20 |
| 171 | 169 | 257 | 1.6 | 2.6 | PH732_0350 EZ701U | 651 | 651 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 9.1 | 3.0 | 1.0 | 183 | 21 |
| 171 | 202 | 345 | 1.9 | 2.2 | PH732_0350 EZ503U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 8.1 | 3.0 | 1.0 | 183 | 21 |
| 171 | 234 | 465 | 2.2 | 1.9 | PH732_0350 EZ702U | 866 | 908 | 1720 | 35.00 | 35/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 183 | 24 |
| 214 | 89 | 115 | 1.1 | 5.0 | PH732_0280 EZ501U | 417 | 417 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 3.8 | 3.0 | 1.0 | 194 | 18 |
| 214 | 135 | 203 | 1.7 | 3.2 | PH732_0280 EZ502U | 770 | 807 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 6.1 | 3.0 | 1.0 | 194 | 20 |
| 214 | 135 | 206 | 1.7 | 3.2 | PH732_0280 EZ701U | 521 | 521 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 9.4 | 3.0 | 1.0 | 194 | 21 |
| 214 | 161 | 276 | 2.1 | 2.7 | PH732_0280 EZ503U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 8.5 | 3.0 | 1.0 | 194 | 21 |
| 214 | 187 | 372 | 2.4 | 2.3 | PH732_0280 EZ702U | 770 | 880 | 1540 | 28.00 | 28/1 | 3700 | 7000 | 15 | 3.0 | 1.0 | 194 | 24 |
| 240 | 121 | 181 | 2.0 | 3.4 | PH732_0250 EZ502U | 721 | 721 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 5.8 | 3.0 | 1.0 | 186 | 20 |
| 240 | 121 | 184 | 2.0 | 3.4 | PH732_0250 EZ701U | 465 | 465 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 9.1 | 3.0 | 1.0 | 186 | 21 |
| 240 | 144 | 246 | 2.3 | 2.9 | PH732_0250 EZ503U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 8.2 | 3.0 | 1.0 | 186 | 21 |
| 240 | 167 | 332 | 2.7 | 2.5 | PH732_0250 EZ702U | 866 | 908 | 1720 | 25.00 | 25/1 | 3500 | 7000 | 14 | 3.0 | 1.0 | 186 | 24 |
| 300 | 97 | 145 | 2.2 | 4.2 | PH732_0200 EZ502U | 577 | 577 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 5.9 | 3.0 | 1.0 | 188 | 20 |
| 300 | 97 | 147 | 2.2 | 4.2 | PH732_0200 EZ701U | 372 | 372 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 9.2 | 3.0 | 1.0 | 188 | 21 |
| 300 | 115 | 197 | 2.6 | 3.6 | PH732_0200 EZ503U | 800 | 800 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 8.3 | 3.0 | 1.0 | 188 | 21 |
| 300 | 134 | 266 | 3.1 | 3.1 | PH732_0200 EZ702U | 763 | 763 | 1610 | 20.00 | 20/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 188 | 24 |
| 375 | 92 | 158 | 3.0 | 4.4 | PH732_0160 EZ503U | 640 | 640 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 8.7 | 3.0 | 1.0 | 202 | 21 |
| 375 | 107 | 213 | 3.4 | 3.8 | PH732_0160 EZ702U | 610 | 610 | 1480 | 16.00 | 16/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 202 | 24 |
| PH8 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 2100 Nm) | | | | | | | | | | | | | | | | | |
| 57 | 1269 | 1423 | 3.9 | 1.1 | PH832_0350 EZ813U | 2100 | 2300 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 107 | 3.0 | 1.0 | 511 | 69 |
| 71 | 1015 | 1139 | 5.7 | 1.1 | PH832_0280 EZ813U | 2000 | 2000 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 108 | 3.0 | 1.0 | 480 | 69 |
| 80 | 907 | 1017 | 5.1 | 1.4 | PH832_0250 EZ813U | 2100 | 2300 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 107 | 3.0 | 1.0 | 521 | 69 |
| 100 | 725 | 813 | 5.9 | 1.7 | PH832_0200 EZ813U | 2100 | 2300 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 107 | 3.0 | 1.0 | 526 | 69 |
| 100 | 1074 | 1279 | 8.7 | 1.2 | PH832_0200 EZ815U | 2100 | 2300 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 171 | 3.0 | 1.0 | 526 | 82 |
| 125 | 580 | 651 | 7.5 | 1.9 | PH832_0160 EZ813U | 2000 | 2083 | 3929 | 16.00 | 16/1 | 2500 | 4500 | 109 | 3.0 | 1.0 | 501 | 69 |
| 125 | 859 | 1023 | 11 | 1.3 | PH832_0160 EZ815U | 2000 | 2200 | 3929 | 16.00 | 16/1 | 2500 | 4500 | 172 | 3.0 | 1.0 | 501 | 82 |
| 200 | 374 | 420 | 3.8 | 2.1 | PH831_0100 EZ813U | 1344 | 1344 | 2784 | 10.00 | 10/1 | 2200 | 4000 | 109 | 3.0 | 1.0 | 344 | 62 |
| 200 | 554 | 660 | 5.6 | 1.4 | PH831_0100 EZ815U | 1392 | 1392 | 2784 | 10.00 | 10/1 | 2200 | 4000 | 172 | 3.0 | 1.0 | 344 | 74 |
| 286 | 262 | 294 | 4.5 | 3.8 | PH831_0070 EZ813U | 941 | 941 | 3442 | 7.000 | 7/1 | 2000 | 4000 | 114 | 3.0 | 1.0 | 463 | 62 |
| 286 | 388 | 462 | 6.6 | 2.6 | PH831_0070 EZ815U | 1344 | 1344 | 3442 | 7.000 | 7/1 | 2000 | 4000 | 177 | 3.0 | 1.0 | 463 | 74 |
| 400 | 277 | 330 | 9.9 | 3.6 | PH831_0050 EZ815U | 960 | 960 | 2487 | 5.000 | 5/1 | 1600 | 4000 | 184 | 3.0 | 1.0 | 604 | 74 |
| 500 | 222 | 264 | 16 | 3.6 | PH831_0040 EZ815U | 768 | 768 | 1998 | 4.000 | 4/1 | 1400 | 3500 | 194 | 3.0 | 1.0 | 620 | 74 |
| PH8 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2100 Nm) | | | | | | | | | | | | | | | | | |
| 30 | 688 | 772 | 0.7 | 1.3 | PH832_1000 EZ701U | 1380 | 1380 | 2760 | 100.0 | 100/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 333 | 41 |
| 43 | 482 | 540 | 0.6 | 2.6 | PH832_0700 EZ701U | 1302 | 1302 | 3696 | 70.00 | 70/1 | 3000 | 6000 | 9.6 | 3.0 | 1.0 | 425 | 41 |
| 43 | 781 | 937 | 1.0 | 1.6 | PH832_0700 EZ702U | 1848 | 1936 | 3696 | 70.00 | 70/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 425 | 44 |
| 43 | 1074 | 1354 | 1.3 | 1.2 | PH832_0700 EZ703U | 1848 | 1936 | 3696 | 70.00 | 70/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 425 | 46 |
| 60 | 344 | 386 | 0.7 | 3.7 | PH832_0500 EZ701U | 930 | 930 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 11 | 3.0 | 1.0 | 491 | 41 |
| 60 | 558 | 670 | 1.1 | 2.3 | PH832_0500 EZ702U | 1907 | 1907 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 16 | 3.0 | 1.0 | 491 | 44 |
| 60 | 767 | 967 | 1.6 | 1.7 | PH832_0500 EZ703U | 2100 | 2300 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 24 | 3.0 | 1.0 | 491 | 46 |
| 60 | 990 | 1404 | 2.0 | 1.3 | PH832_0500 EZ705U | 2100 | 2300 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 36 | 3.0 | 1.0 | 491 | 51 |
| 75 | 275 | 309 | 1.0 | 3.7 | PH832_0400 EZ701U | 744 | 744 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 12 | 3.0 | 1.0 | 453 | 41 |
| 75 | 446 | 536 | 1.6 | 2.3 | PH832_0400 EZ702U | 1525 | 1525 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 17 | 3.0 | 1.0 | 453 | 44 |
| 75 | 614 | 774 | 2.2 | 1.7 | PH832_0400 EZ703U | 1920 | 1936 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 25 | 3.0 | 1.0 | 453 | 46 |
| 75 | 792 | 1123 | 2.8 | 1.3 | PH832_0400 EZ705U | 1920 | 1936 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 38 | 3.0 | 1.0 | 453 | 51 |
| 86 | 391 | 469 | 1.4 | 3.2 | PH832_0350 EZ702U | 1335 | 1335 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 16 | 3.0 | 1.0 | 511 | 44 |
| 86 | 537 | 677 | 1.9 | 2.3 | PH832_0350 EZ703U | 2100 | 2116 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 24 | 3.0 | 1.0 | 511 | 46 |
| 86 | 693 | 983 | 2.4 | 1.8 | PH832_0350 EZ705U | 2100 | 2300 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 36 | 3.0 | 1.0 | 511 | 51 |
| 107 | 312 | 375 | 1.9 | 3.2 | PH832_0280 EZ702U | 1068 | 1068 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 18 | 3.0 | 1.0 | 480 | 44 |
| 107 | 430 | 542 | 2.6 | 2.3 | PH832_0280 EZ703U | 1693 | 1693 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 25 | 3.0 | 1.0 | 480 | 46 |
| 107 | 555 | 786 | 3.4 | 1.8 | PH832_0280 EZ705U | 2000 | 2000 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 38 | 3.0 | 1.0 | 480 | 51 |
| 120 | 279 | 335 | 1.6 | 4.5 | PH832_0250 EZ702U | 953 | 953 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 16 | 3.0 | 1.0 | 521 | 44 |
| 120 | 384 | 484 | 2.2 | 3.3 | PH832_0250 EZ703U | 1511 | 1511 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 24 | 3.0 | 1.0 | 521 | 46 |
| 120 | 495 | 702 | 2.9 | 2.5 | PH832_0250 EZ705U | 2100 | 2300 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 37 | 3.0 | 1.0 | 521 | 51 |
| 150 | 307 | 387 | 2.5 | 4.1 | PH832_0200 EZ703U | 1209 | 1209 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 25 | 3.0 | 1.0 | 526 | 46 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH8 ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 2100 Nm) | | | | | | | | | | | | | | | | | |
| 150 | 396 | 562 | 3.2 | 3.2 | PH832_0200 EZ705U | 1934 | 1934 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 37 | 3.0 | 1.0 | 526 | 51 |
| 188 | 246 | 310 | 3.5 | 4.1 | PH832_0160 EZ703U | 967 | 967 | 3451 | 16.00 | 16/1 | 2500 | 4500 | 27 | 3.0 | 1.0 | 501 | 46 |
| 188 | 317 | 449 | 4.5 | 3.2 | PH832_0160 EZ705U | 1548 | 1548 | 3451 | 16.00 | 16/1 | 2500 | 4500 | 39 | 3.0 | 1.0 | 501 | 51 |
| PH8 ($n_{1N}$ = 4000 min⁻¹, $M_{2acc,max}$ = 2100 Nm) | | | | | | | | | | | | | | | | | |
| 114 | 820 | 1422 | 3.2 | 1.4 | PH832_0350 EZ813U | 2100 | 2300 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 107 | 3.0 | 1.0 | 511 | 69 |
| 114 | 850 | 2185 | 3.3 | 1.3 | PH832_0350 EZ815U | 2100 | 2300 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 170 | 3.0 | 1.0 | 511 | 82 |
| 143 | 656 | 1138 | 4.4 | 1.4 | PH832_0280 EZ813U | 2000 | 2000 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 108 | 3.0 | 1.0 | 480 | 69 |
| 143 | 680 | 1748 | 4.6 | 1.3 | PH832_0280 EZ815U | 2000 | 2000 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 171 | 3.0 | 1.0 | 480 | 82 |
| 160 | 586 | 1016 | 3.7 | 2.0 | PH832_0250 EZ813U | 2100 | 2300 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 107 | 3.0 | 1.0 | 521 | 69 |
| 160 | 607 | 1561 | 3.9 | 1.9 | PH832_0250 EZ815U | 2100 | 2300 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 170 | 3.0 | 1.0 | 521 | 82 |
| 200 | 469 | 813 | 4.2 | 2.4 | PH832_0200 EZ813U | 2100 | 2300 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 107 | 3.0 | 1.0 | 526 | 69 |
| 200 | 486 | 1249 | 4.3 | 2.4 | PH832_0200 EZ815U | 2100 | 2300 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 171 | 3.0 | 1.0 | 526 | 82 |
| 250 | 375 | 650 | 5.8 | 2.4 | PH832_0160 EZ813U | 2000 | 2083 | 3929 | 16.00 | 16/1 | 2500 | 4500 | 109 | 3.0 | 1.0 | 501 | 69 |
| 250 | 389 | 999 | 6.0 | 2.4 | PH832_0160 EZ815U | 2000 | 2200 | 3929 | 16.00 | 16/1 | 2500 | 4500 | 172 | 3.0 | 1.0 | 501 | 82 |
| 400 | 242 | 420 | 3.1 | 2.5 | PH831_0100 EZ813U | 1344 | 1344 | 2784 | 10.00 | 10/1 | 2200 | 4000 | 109 | 3.0 | 1.0 | 344 | 62 |
| 400 | 251 | 645 | 3.2 | 2.4 | PH831_0100 EZ815U | 1392 | 1392 | 2784 | 10.00 | 10/1 | 2200 | 4000 | 172 | 3.0 | 1.0 | 344 | 74 |
| 571 | 169 | 294 | 3.6 | 4.7 | PH831_0070 EZ813U | 941 | 941 | 3442 | 7.000 | 7/1 | 2000 | 4000 | 114 | 3.0 | 1.0 | 463 | 62 |
| 571 | 175 | 451 | 3.8 | 4.5 | PH831_0070 EZ815U | 1344 | 1344 | 3442 | 7.000 | 7/1 | 2000 | 4000 | 177 | 3.0 | 1.0 | 463 | 74 |
| PH8 ($n_{1N}$ = 4500 min⁻¹, $M_{2acc,max}$ = 2100 Nm) | | | | | | | | | | | | | | | | | |
| 64 | 788 | 1302 | 1.1 | 1.4 | PH832_0700 EZ703U | 1848 | 1936 | 3696 | 70.00 | 70/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 425 | 46 |
| 64 | 1068 | 1953 | 1.5 | 1.0 | PH832_0700 EZ705U | 1848 | 1936 | 3696 | 70.00 | 70/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 425 | 51 |
| 90 | 563 | 930 | 1.3 | 2.0 | PH832_0500 EZ703U | 2100 | 2300 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 24 | 3.0 | 1.0 | 491 | 46 |
| 90 | 763 | 1395 | 1.8 | 1.5 | PH832_0500 EZ705U | 2100 | 2300 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 36 | 3.0 | 1.0 | 491 | 51 |
| 113 | 450 | 744 | 1.8 | 2.0 | PH832_0400 EZ703U | 1920 | 1936 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 25 | 3.0 | 1.0 | 453 | 46 |
| 113 | 610 | 1116 | 2.5 | 1.5 | PH832_0400 EZ705U | 1920 | 1936 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 38 | 3.0 | 1.0 | 453 | 51 |
| 129 | 394 | 651 | 1.6 | 2.8 | PH832_0350 EZ703U | 2100 | 2116 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 24 | 3.0 | 1.0 | 511 | 46 |
| 129 | 534 | 977 | 2.1 | 2.1 | PH832_0350 EZ705U | 2100 | 2300 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 36 | 3.0 | 1.0 | 511 | 51 |
| 161 | 315 | 521 | 2.2 | 2.8 | PH832_0280 EZ703U | 1693 | 1693 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 25 | 3.0 | 1.0 | 480 | 46 |
| 161 | 427 | 781 | 3.0 | 2.1 | PH832_0280 EZ705U | 2000 | 2000 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 38 | 3.0 | 1.0 | 480 | 51 |
| 180 | 281 | 465 | 1.9 | 3.9 | PH832_0250 EZ703U | 1511 | 1511 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 24 | 3.0 | 1.0 | 521 | 46 |
| 180 | 381 | 698 | 2.5 | 2.9 | PH832_0250 EZ705U | 2100 | 2300 | 4200 | 25.00 | 25/1 | 2700 | 5500 | 37 | 3.0 | 1.0 | 521 | 51 |
| 225 | 225 | 372 | 2.1 | 4.9 | PH832_0200 EZ703U | 1209 | 1209 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 25 | 3.0 | 1.0 | 526 | 46 |
| 225 | 305 | 558 | 2.8 | 3.6 | PH832_0200 EZ705U | 1934 | 1934 | 4200 | 20.00 | 20/1 | 2500 | 4500 | 37 | 3.0 | 1.0 | 526 | 51 |
| 281 | 180 | 298 | 2.9 | 4.9 | PH832_0160 EZ703U | 967 | 967 | 3451 | 16.00 | 16/1 | 2500 | 4500 | 27 | 3.0 | 1.0 | 501 | 46 |
| 281 | 244 | 446 | 3.9 | 3.6 | PH832_0160 EZ705U | 1548 | 1548 | 3451 | 16.00 | 16/1 | 2500 | 4500 | 39 | 3.0 | 1.0 | 501 | 51 |
| PH8 ($n_{1N}$ = 6000 min⁻¹, $M_{2acc,max}$ = 1910 Nm) | | | | | | | | | | | | | | | | | |
| 60 | 484 | 735 | 0.6 | 1.4 | PH832_1000 EZ701U | 1380 | 1380 | 2760 | 100.0 | 100/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 333 | 41 |
| 60 | 670 | 1330 | 0.9 | 1.0 | PH832_1000 EZ702U | 1380 | 1380 | 2760 | 100.0 | 100/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 333 | 44 |
| 86 | 339 | 514 | 0.5 | 3.0 | PH832_0700 EZ701U | 1302 | 1302 | 3696 | 70.00 | 70/1 | 3000 | 6000 | 9.6 | 3.0 | 1.0 | 425 | 41 |
| 86 | 469 | 931 | 0.7 | 2.1 | PH832_0700 EZ702U | 1848 | 1936 | 3696 | 70.00 | 70/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 425 | 44 |
| 120 | 242 | 367 | 0.6 | 4.2 | PH832_0500 EZ701U | 930 | 930 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 11 | 3.0 | 1.0 | 491 | 41 |
| 120 | 335 | 665 | 0.9 | 3.0 | PH832_0500 EZ702U | 1907 | 1907 | 4200 | 50.00 | 50/1 | 3000 | 6000 | 16 | 3.0 | 1.0 | 491 | 44 |
| 150 | 193 | 294 | 0.9 | 4.2 | PH832_0400 EZ701U | 744 | 744 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 12 | 3.0 | 1.0 | 453 | 41 |
| 150 | 268 | 532 | 1.2 | 3.0 | PH832_0400 EZ702U | 1525 | 1525 | 3840 | 40.00 | 40/1 | 3000 | 6000 | 17 | 3.0 | 1.0 | 453 | 44 |
| 171 | 234 | 465 | 1.0 | 4.3 | PH832_0350 EZ702U | 1335 | 1335 | 4200 | 35.00 | 35/1 | 3000 | 6000 | 16 | 3.0 | 1.0 | 511 | 44 |
| 214 | 187 | 372 | 1.4 | 4.3 | PH832_0280 EZ702U | 1068 | 1068 | 3929 | 28.00 | 28/1 | 3000 | 6000 | 18 | 3.0 | 1.0 | 480 | 44 |
| PH9 ($n_{1N}$ = 2000 min⁻¹, $M_{2acc,max}$ = 5000 Nm) | | | | | | | | | | | | | | | | | |
| 33 | 2176 | 2440 | 1.3 | 1.6 | PH942_0600 EZ813U | 5000 | 5000 | 10000 | 60.00 | 60/1 | 2800 | 4500 | 108 | 3.0 | 1.0 | 1065 | 99 |
| 33 | 3222 | 3837 | 1.9 | 1.1 | PH942_0600 EZ815U | 5000 | 5000 | 10000 | 60.00 | 60/1 | 2800 | 4500 | 171 | 3.0 | 1.0 | 1065 | 111 |
| 42 | 1741 | 1952 | 1.5 | 2.0 | PH942_0480 EZ813U | 5000 | 5000 | 10000 | 48.00 | 48/1 | 2800 | 4500 | 110 | 3.0 | 1.0 | 1084 | 99 |
| 42 | 2578 | 3069 | 2.2 | 1.4 | PH942_0480 EZ815U | 5000 | 5000 | 10000 | 48.00 | 48/1 | 2800 | 4500 | 173 | 3.0 | 1.0 | 1084 | 111 |
| 48 | 1523 | 1708 | 1.6 | 2.3 | PH942_0420 EZ813U | 5000 | 5000 | 10000 | 42.00 | 42/1 | 2800 | 4500 | 111 | 3.0 | 1.0 | 1103 | 99 |
| 48 | 2256 | 2686 | 2.3 | 1.6 | PH942_0420 EZ815U | 5000 | 5000 | 10000 | 42.00 | 42/1 | 2800 | 4500 | 174 | 3.0 | 1.0 | 1103 | 111 |
| 50 | 1450 | 1627 | 1.9 | 2.0 | PH942_0400 EZ813U | 4600 | 4600 | 9200 | 40.00 | 40/1 | 2800 | 4500 | 108 | 3.0 | 1.0 | 1068 | 99 |
| 50 | 2148 | 2558 | 2.9 | 1.4 | PH942_0400 EZ815U | 4600 | 4600 | 9200 | 40.00 | 40/1 | 2800 | 4500 | 171 | 3.0 | 1.0 | 1068 | 111 |
| 63 | 1160 | 1301 | 2.0 | 2.6 | PH942_0320 EZ813U | 4166 | 4166 | 9200 | 32.00 | 32/1 | 2800 | 4500 | 110 | 3.0 | 1.0 | 1112 | 99 |
| 63 | 1719 | 2046 | 3.0 | 1.8 | PH942_0320 EZ815U | 4600 | 4600 | 9200 | 32.00 | 32/1 | 2800 | 4500 | 173 | 3.0 | 1.0 | 1112 | 111 |
| 67 | 1088 | 1220 | 2.0 | 3.0 | PH942_0300 EZ813U | 3906 | 3906 | 10000 | 30.00 | 30/1 | 2500 | 4000 | 116 | 3.0 | 1.0 | 1117 | 99 |
| 67 | 1611 | 1918 | 2.9 | 2.0 | PH942_0300 EZ815U | 5000 | 5000 | 10000 | 30.00 | 30/1 | 2500 | 4000 | 179 | 3.0 | 1.0 | 1117 | 111 |
| 71 | 1015 | 1139 | 1.9 | 3.4 | PH942_0280 EZ813U | 3646 | 3646 | 10000 | 28.00 | 28/1 | 2800 | 4500 | 112 | 3.0 | 1.0 | 1156 | 99 |
| 71 | 1504 | 1791 | 2.8 | 2.3 | PH942_0280 EZ815U | 5000 | 5000 | 10000 | 28.00 | 28/1 | 2800 | 4500 | 175 | 3.0 | 1.0 | 1156 | 111 |
| 83 | 870 | 976 | 2.4 | 3.4 | PH942_0240 EZ813U | 3125 | 3125 | 10000 | 24.00 | 24/1 | 2000 | 3500 | 124 | 3.0 | 1.0 | 1124 | 99 |
| 83 | 1289 | 1535 | 3.6 | 2.3 | PH942_0240 EZ815U | 4464 | 4464 | 10000 | 24.00 | 24/1 | 2000 | 3500 | 187 | 3.0 | 1.0 | 1124 | 111 |
| 100 | 725 | 813 | 2.6 | 4.1 | PH942_0200 EZ813U | 2604 | 2604 | 9548 | 20.00 | 20/1 | 2500 | 4000 | 119 | 3.0 | 1.0 | 1193 | 99 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH9 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 5000 Nm) | | | | | | | | | | | | | | | | | |
| 100 | 1074 | 1279 | 3.9 | 2.8 | PH942_0200 EZ815U | 3720 | 3720 | 9548 | 20.00 | 20/1 | 2500 | 4000 | 182 | 3.0 | 1.0 | 1193 | 111 |
| 111 | 653 | 732 | 2.8 | 4.6 | PH942_0180 EZ813U | 2344 | 2344 | 8655 | 18.00 | 18/1 | 1800 | 3000 | 149 | 3.0 | 1.0 | 1141 | 99 |
| 111 | 967 | 1151 | 4.1 | 3.1 | PH942_0180 EZ815U | 3348 | 3348 | 8655 | 18.00 | 18/1 | 1800 | 3000 | 213 | 3.0 | 1.0 | 1141 | 111 |
| 125 | 859 | 1023 | 4.4 | 3.5 | PH942_0160 EZ815U | 2976 | 2976 | 7670 | 16.00 | 16/1 | 2000 | 3500 | 190 | 3.0 | 1.0 | 1211 | 111 |
| 167 | 644 | 767 | 5.1 | 4.7 | PH942_0120 EZ815U | 2232 | 2232 | 5770 | 12.00 | 12/1 | 1800 | 3000 | 218 | 3.0 | 1.0 | 1256 | 111 |
| PH9 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 5000 Nm) | | | | | | | | | | | | | | | | | |
| 67 | 1406 | 2438 | 0.9 | 2.3 | PH942_0600 EZ813U | 5000 | 5000 | 10000 | 60.00 | 60/1 | 2800 | 4500 | 108 | 3.0 | 1.0 | 1065 | 99 |
| 67 | 1457 | 3746 | 1.0 | 2.2 | PH942_0600 EZ815U | 5000 | 5000 | 10000 | 60.00 | 60/1 | 2800 | 4500 | 171 | 3.0 | 1.0 | 1065 | 111 |
| 83 | 1125 | 1951 | 0.9 | 3.1 | PH942_0480 EZ813U | 5000 | 5000 | 10000 | 48.00 | 48/1 | 2800 | 4500 | 110 | 3.0 | 1.0 | 1084 | 99 |
| 83 | 1166 | 2997 | 1.0 | 3.0 | PH942_0480 EZ815U | 5000 | 5000 | 10000 | 48.00 | 48/1 | 2800 | 4500 | 173 | 3.0 | 1.0 | 1084 | 111 |
| 95 | 984 | 1707 | 1.0 | 3.6 | PH942_0420 EZ813U | 5000 | 5000 | 10000 | 42.00 | 42/1 | 2800 | 4500 | 111 | 3.0 | 1.0 | 1103 | 99 |
| 95 | 1020 | 2622 | 1.0 | 3.4 | PH942_0420 EZ815U | 5000 | 5000 | 10000 | 42.00 | 42/1 | 2800 | 4500 | 174 | 3.0 | 1.0 | 1103 | 111 |
| 100 | 937 | 1626 | 1.6 | 2.5 | PH942_0400 EZ813U | 4600 | 4600 | 9200 | 40.00 | 40/1 | 2800 | 4500 | 108 | 3.0 | 1.0 | 1068 | 99 |
| 100 | 971 | 2498 | 1.6 | 2.4 | PH942_0400 EZ815U | 4600 | 4600 | 9200 | 40.00 | 40/1 | 2800 | 4500 | 171 | 3.0 | 1.0 | 1068 | 111 |
| 125 | 750 | 1301 | 1.7 | 3.3 | PH942_0320 EZ813U | 4166 | 4166 | 9200 | 32.00 | 32/1 | 2800 | 4500 | 110 | 3.0 | 1.0 | 1112 | 99 |
| 125 | 777 | 1998 | 1.7 | 3.1 | PH942_0320 EZ815U | 4600 | 4600 | 9200 | 32.00 | 32/1 | 2800 | 4500 | 173 | 3.0 | 1.0 | 1112 | 111 |
| 133 | 703 | 1219 | 1.3 | 4.7 | PH942_0300 EZ813U | 3906 | 3906 | 10000 | 30.00 | 30/1 | 2500 | 4000 | 116 | 3.0 | 1.0 | 1117 | 99 |
| 133 | 728 | 1873 | 1.3 | 4.5 | PH942_0300 EZ815U | 5000 | 5000 | 10000 | 30.00 | 30/1 | 2500 | 4000 | 179 | 3.0 | 1.0 | 1117 | 111 |
| 143 | 656 | 1138 | 1.4 | 4.6 | PH942_0280 EZ813U | 3646 | 3646 | 10000 | 28.00 | 28/1 | 2800 | 4500 | 112 | 3.0 | 1.0 | 1156 | 99 |
| 143 | 680 | 1748 | 1.5 | 4.5 | PH942_0280 EZ815U | 5000 | 5000 | 10000 | 28.00 | 28/1 | 2800 | 4500 | 175 | 3.0 | 1.0 | 1156 | 111 |
| PH10 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 7500 Nm) | | | | | | | | | | | | | | | | | |
| 33 | 2176 | 2440 | 1.1 | 2.0 | PH1042_0600 EZ813U | 7000 | – | 14000 | 60.00 | 60/1 | 2800 | 4500 | 108 | 3.0 | – | 1615 | 114 |
| 33 | 3222 | 3837 | 1.6 | 1.4 | PH1042_0600 EZ815U | 7000 | – | 14000 | 60.00 | 60/1 | 2800 | 4500 | 171 | 3.0 | – | 1615 | 127 |
| 48 | 1523 | 1708 | 1.2 | 3.3 | PH1042_0420 EZ813U | 5468 | – | 15000 | 42.00 | 42/1 | 2800 | 4500 | 111 | 3.0 | – | 1702 | 114 |
| 48 | 2256 | 2686 | 1.7 | 2.2 | PH1042_0420 EZ815U | 7500 | – | 15000 | 42.00 | 42/1 | 2800 | 4500 | 174 | 3.0 | – | 1702 | 127 |
| 67 | 1088 | 1220 | 1.4 | 4.6 | PH1042_0300 EZ813U | 3906 | – | 14323 | 30.00 | 30/1 | 2500 | 4000 | 117 | 3.0 | – | 1737 | 114 |
| 67 | 1611 | 1918 | 2.1 | 3.1 | PH1042_0300 EZ815U | 5580 | – | 14323 | 30.00 | 30/1 | 2500 | 4000 | 180 | 3.0 | – | 1737 | 127 |
| 83 | 1289 | 1535 | 2.5 | 3.6 | PH1042_0240 EZ815U | 4464 | – | 11506 | 24.00 | 24/1 | 2000 | 3500 | 188 | 3.0 | – | 1754 | 127 |
| 111 | 967 | 1151 | 2.9 | 4.8 | PH1042_0180 EZ815U | 3348 | – | 8655 | 18.00 | 18/1 | 1800 | 3000 | 214 | 3.0 | – | 1778 | 127 |
| PH10 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 7500 Nm) | | | | | | | | | | | | | | | | | |
| 67 | 1406 | 2438 | 0.9 | 2.5 | PH1042_0600 EZ813U | 7000 | – | 14000 | 60.00 | 60/1 | 2800 | 4500 | 108 | 3.0 | – | 1615 | 114 |
| 67 | 1457 | 3746 | 0.9 | 2.4 | PH1042_0600 EZ815U | 7000 | – | 14000 | 60.00 | 60/1 | 2800 | 4500 | 171 | 3.0 | – | 1615 | 127 |
| 95 | 984 | 1707 | 0.8 | 4.6 | PH1042_0420 EZ813U | 5468 | – | 15000 | 42.00 | 42/1 | 2800 | 4500 | 111 | 3.0 | – | 1702 | 114 |
| 95 | 1020 | 2622 | 0.9 | 4.5 | PH1042_0420 EZ815U | 7500 | – | 15000 | 42.00 | 42/1 | 2800 | 4500 | 174 | 3.0 | – | 1702 | 127 |

# 3.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

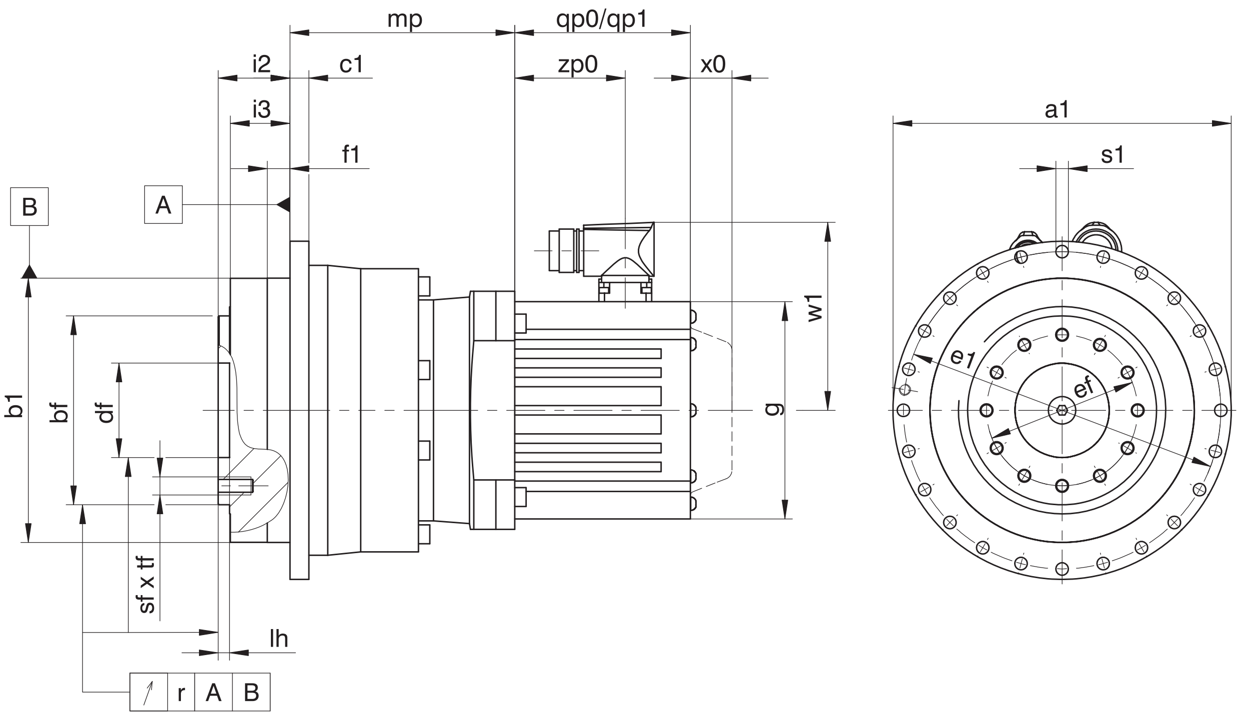
Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

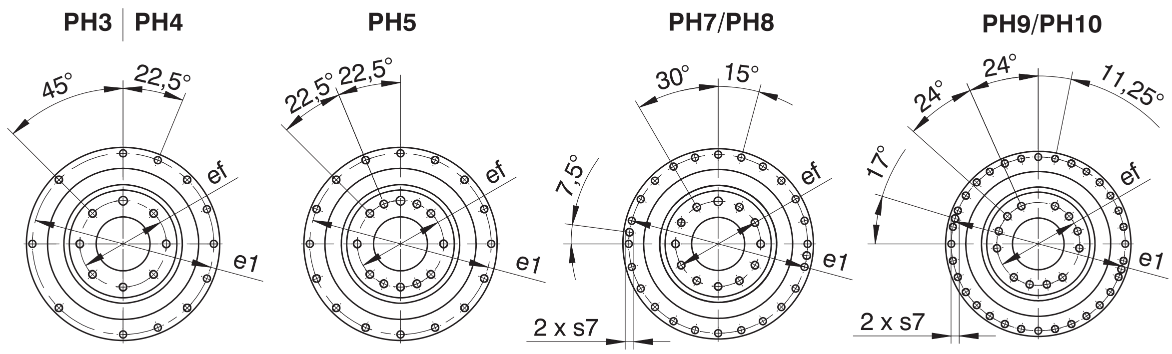
We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

## 3.3.1 F shaft design (flange shaft)




qp0 Applies to motors without brake.

qp1 Applies to motors with brake.

x0 EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method
EZ3 – EZ8: Applies to encoders using an optical measuring method

w1 Different for the One Cable Solution (OCS), see the chapter [▹ 17.4]

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b1 | ∅bf | c1 | ∅df | ∅e1 | ∅ef | f1 | i2 | i3 | lh | r | ∅s1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH331 | 86 | $64_{h7}$ | $40_{h7}$ | 4 | $20.0^{H6}$ | 79 | 31.5 | 7 | 19.5 | 16.5 | 4 | 0.020 | 4.5 | – | M5 | 7 |
| PH332 | 86 | $64_{h7}$ | $40_{h7}$ | 4 | $20.0^{H6}$ | 79 | 31.5 | 7 | 19.5 | 16.5 | 4 | 0.020 | 4.5 | – | M5 | 7 |
| PH431 | 118 | $90_{h7}$ | $63_{h7}$ | 7 | $31.5^{H6}$ | 109 | 50.0 | 10 | 30.0 | 24.0 | 6 | 0.020 | 5.5 | – | M6 | 11 |
| PH432 | 118 | $90_{h7}$ | $63_{h7}$ | 7 | $31.5^{H6}$ | 109 | 50.0 | 10 | 30.0 | 24.0 | 6 | 0.020 | 5.5 | – | M6 | 11 |
| PH531 | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40.0^{H6}$ | 135 | 63.0 | 12 | 29.0 | 23.0 | 6 | 0.020 | 5.5 | – | M6 | 11 |
| PH532 | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40.0^{H6}$ | 135 | 63.0 | 12 | 29.0 | 23.0 | 6 | 0.020 | 5.5 | – | M6 | 11 |
| PH731 | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50.0^{H6}$ | 168 | 80.0 | 12 | 38.0 | 32.0 | 6 | 0.025 | 6.6 | – | M8 | 14 |
| PH732 | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50.0^{H6}$ | 168 | 80.0 | 12 | 38.0 | 32.0 | 6 | 0.025 | 6.6 | – | M8 | 14 |
| PH831 | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80.0^{H6}$ | 233 | 125.0 | 15 | 50.0 | 42.0 | 8 | 0.030 | 9.0 | M10 | M10 | 18 |
| PH832 | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80.0^{H6}$ | 233 | 125.0 | 15 | 50.0 | 42.0 | 8 | 0.030 | 9.0 | M10 | M10 | 18 |
| PH942 | 300 | $255_{h7}$ | $180_{h7}$ | 18 | $90.0^{H6}$ | 280 | 140.0 | 20 | 66.0 | 55.0 | 12 | 0.030 | 13.5 | M8 | M16 | 24 |
| PH1042 | 330 | $285_{h7}$ | $200_{h7}$ | 20 | $95.0^{H6}$ | 310 | 160.0 | 20 | 75.0 | 60.0 | 10 | 0.040 | 13.5 | M10 | M20 | 28 |

### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 | EZ5 | EZ7 | EZ8 |
|---|---|---|---|---|---|---|
| | mp | mp | mp | mp | mp | mp |
| PH331 | – | 51.0 | 47.5 | – | – | – |
| PH332 | 71.0 | 84.5 | – | – | – | – |
| PH431 | – | – | 54.5 | 54.0 | – | – |
| PH432 | – | 99.0 | 95.5 | – | – | – |
| PH531 | – | – | – | 61.0 | 64.0 | – |
| PH532 | – | – | 103.0 | 102.5 | – | – |
| PH731 | – | – | – | – | 71.0 | 81.0 |
| PH732 | – | – | – | 119.0 | 122.0 | – |
| PH831 | – | – | – | – | – | 110.0 |
| PH832 | – | – | – | – | 161.0 | 171.0 |
| PH942 | – | – | – | – | – | 210.5 |
| PH1042 | – | – | – | – | – | 217.5 |

# 3.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| PH | 5 | 3 | 2 | S | F | S | S | 0250 | EZ401U |
|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **PH** | Type | Planetary gearbox |
| **5** | Size | 5 (example) |
| **3** | Generation | Generation 3 |
| 4 | | Generation 4 |
| 1 | Stages | Single-stage |
| **2** | | Two-stage |
| **S** | Housing | Standard |
| **F** | Shaft | Flange shaft |
| **S** | Bearing | Standard bearing |
| V | | Reinforced bearing (PH3 – PH5) |
| **S** | Backlash | Standard |
| R | | Reduced (PH3 – PH9) |
| **0250** | Transmission ratio (i x 10) | i = 25 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▷ 17.5]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▷ 3.6.3]
- Reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▷ 3.6.4]

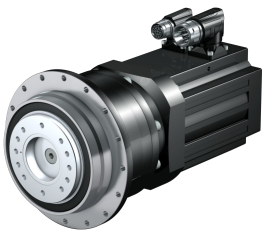
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▷ 17.5.1].

# 3.5 Product description

## 3.5.1 Input options

EZ synchronous servo motor



Catalog ID 442437_en

MB motor adapter +
EZ synchronous servo motor

Catalog ID 443311_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

### 3.5.2 Installation conditions

The torque and force values listed in this catalog are valid under the following conditions:

- When the flange shaft and gear housing are fastened on the machine side using screws of strength class 12.9
- When the gear housings are adjusted at pilot øb1. The machine-side fit must be H7.
- When the flange shaft is adjusted using the connecting element at pilot øbf or ødf

### 3.5.3 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate.

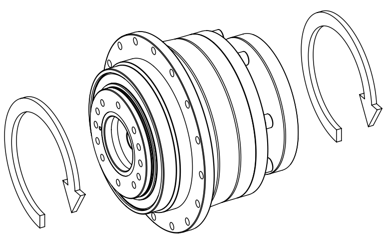
You will receive lubricants for use in the food industry upon request.

### 3.5.4 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ single-stage | 96% |
| $\eta_{get}$ two-stage | 93% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

### 3.5.5 Direction of rotation

The input and output rotate in the same direction.



## 3.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

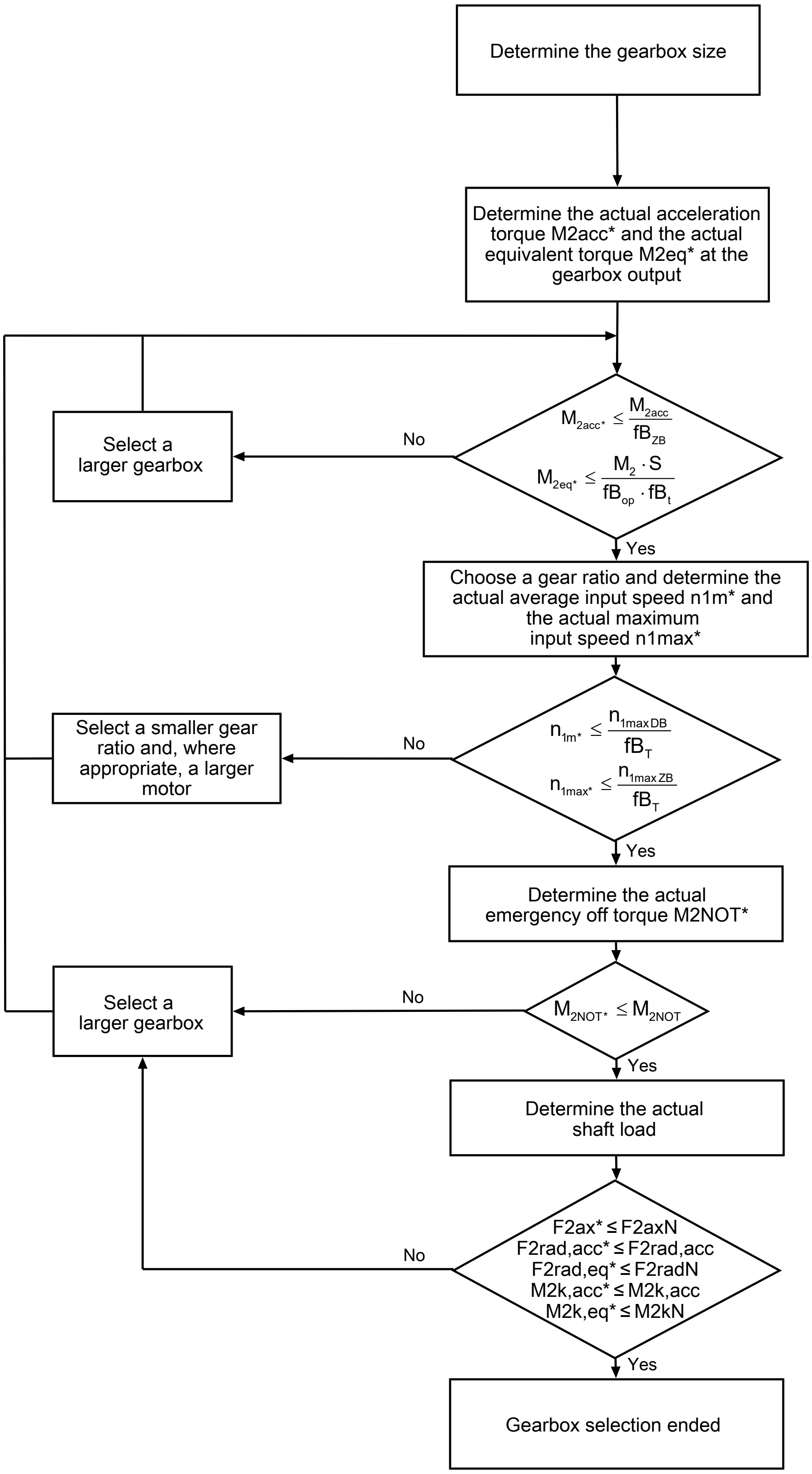
An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

[1] Observe the protection class of all the components.

## 3.6.1 Drive selection

**Drive selection for gearboxes**

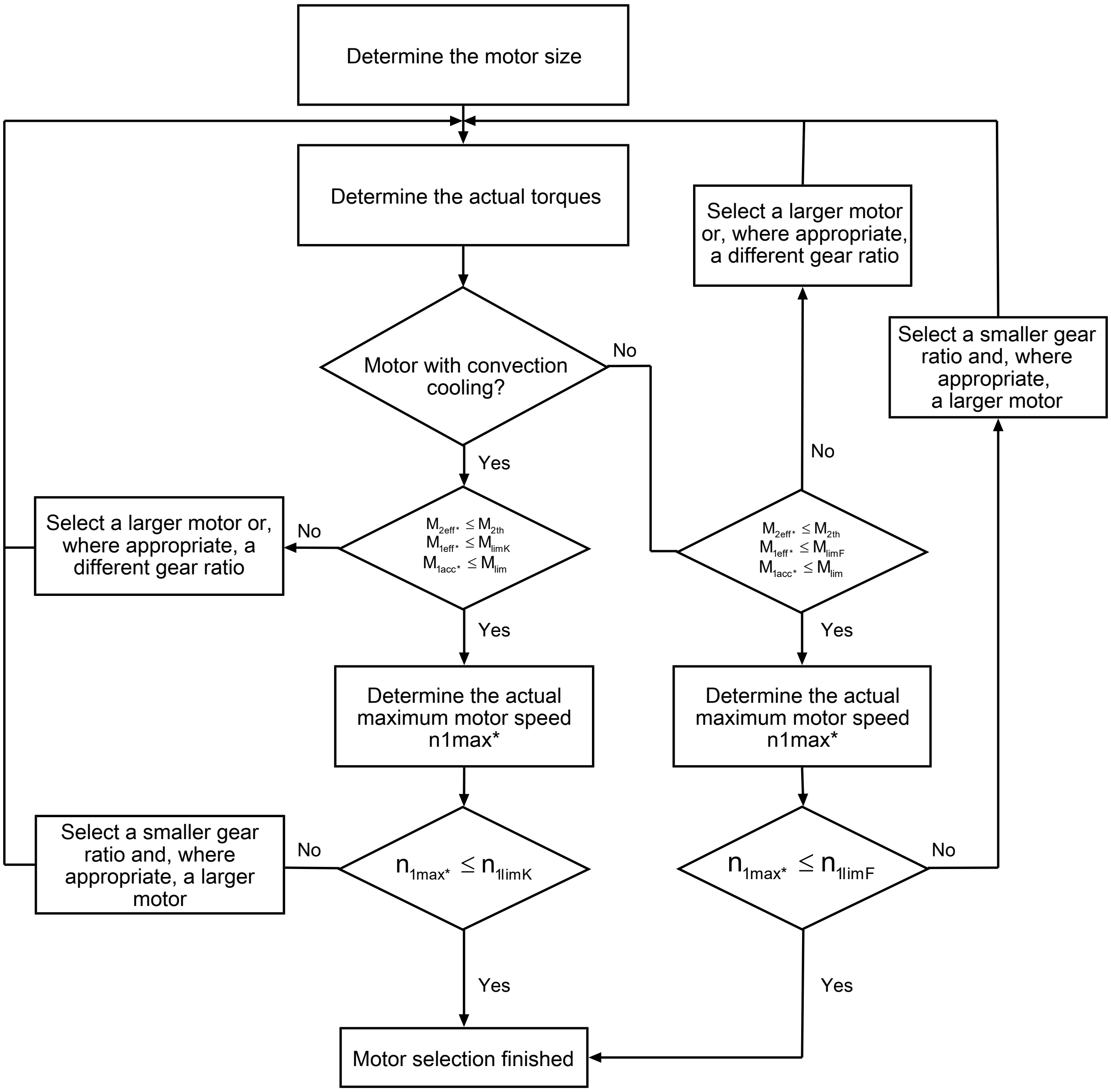



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

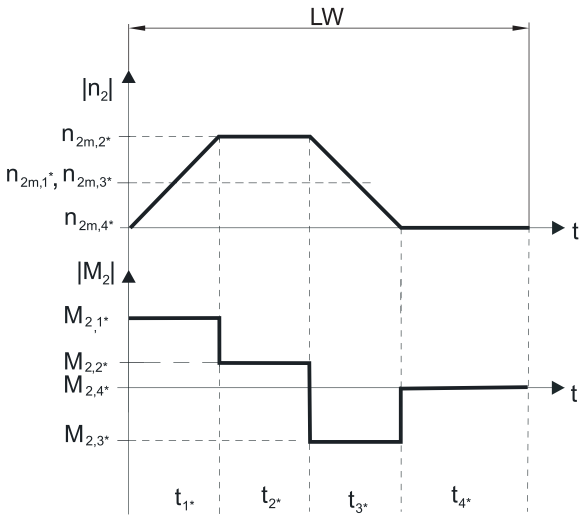
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▹ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*} + \ldots + t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}^{\ 2} + \ldots + t_{n*} \cdot M_{2,n*}^{\ 2}}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2,1*}^{\ 3}| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2,n*}^{\ 3}|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10} > 50\%$ and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

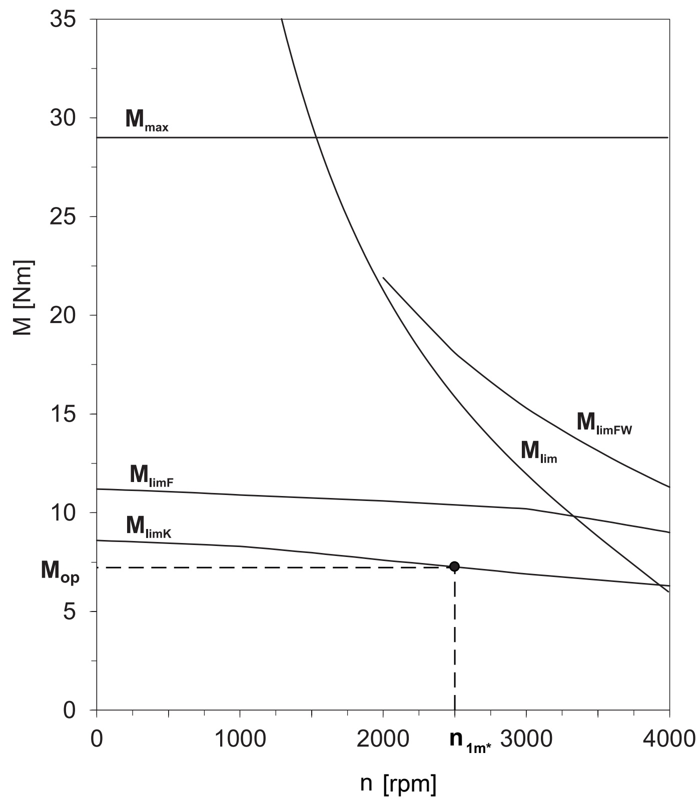
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}93 - \frac{a_{th}}{1000} \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^3$$

Refer to the selection tables for the values of i and $a_{th}$.

The values for $fB_T$ can be found in the corresponding table in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.00 |
| Reversing load cyclic operation | 1.00 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 3.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 100$ rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PH3 | 62.5 | 1650 | 1613 | 1613 | 101 | 101 | 75 |
| PH4 | 83.0 | 2150 | 3095 | 3571 | 257 | 296 | 192 |
| PH5 | 97.0 | 4150 | 4536 | 4897 | 440 | 475 | 429 |
| PH7 | 86.0 | 6150 | 17045 | 17045 | 1466 | 1466 | 500 |
| PH8 | 125.5 | 10050 | 27778 | 27778 | 3486 | 3486 | 1550 |
| PH9 | 155.0 | 33000 | 48387 | 70968 | 7500 | 11000 | 7500 |
| PH10 | 171.0 | 50000 | 51462 | 73099 | 8800 | 12500 | 9500 |

**Permitted shaft loads for reinforced bearing V**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PH3 | 66.5 | 2200 | 2250 | 2250 | 150 | 150 | 80 |
| PH4 | 88.5 | 2900 | 4000 | 4000 | 354 | 354 | 217 |
| PH5 | 104.0 | 5000 | 5500 | 5500 | 572 | 572 | 478 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 100$ rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

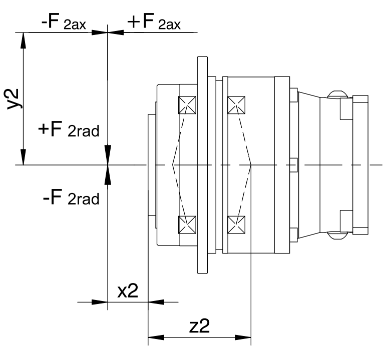



*Fig. 1:* Force application points

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{\left|n_{2m,1^*}\right| \cdot t_{1^*} \cdot \left|M_{2k,acc,1^*}{}^3\right| + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*} \cdot \left|M_{2k,acc,n^*}{}^3\right|}{\left|n_{2m,1^*}\right| \cdot t_{1^*} + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{\left|n_{2m,1^*}\right| \cdot t_{1^*} \cdot \left|F_{2rad,acc,1^*}{}^3\right| + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*} \cdot \left|F_{2rad,acc,n^*}{}^3\right|}{\left|n_{2m,1^*}\right| \cdot t_{1^*} + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10}$ ≤ 40%):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k^*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k^*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k^*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 3.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

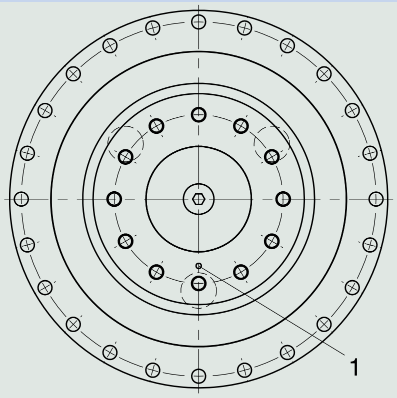
### 3.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below.

The images show the center position of reverse operation.

Cyclic reverse operation ≤ ± 20° on request.

**Size 3 – 10**




1 Position of the mark: bottom

Please note that the hole pattern may be different, depending on the size of the planetary gearbox.

## 3.7 Additional documentation

Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors PH33 – PH83, PH94 – PH104 | 443354_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 4 PHQ planetary geared motors

## Table of contents

4 Planetary geared motors

# PHQ

## 4.1 Overview

Quattro-Power for maximum power density

**Features**

| | |
|---|---|
| Power density | ★★★★★ |
| Backlash | ★★★★★ |
| Price category | €€€€ |
| Shaft load | ★★★★★ |
| Smooth operation | ★★★★☆ |
| Torsional stiffness | ★★★★★ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Any mounting position (single/two stage) | ✓ |
| High power density | ✓ |
| Continuous operation without cooling | ✓ |
| Stiff output bearings due to pretension | ✓ |
| Reinforced output bearing (PHQ4 – PHQ5) | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 5.5 – 600 |
| $M_{2acc}$ | 72 – 22000 Nm |
| $\Delta\phi_2$ | 1 – 3 arcmin |
| $\eta_{get}$ | 90 – 96 % |

# 4.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

In the case of the version with a reinforced bearing and gear ratios ≤ 5, the maximum permitted input speed $n_{1maxZB}$ is reduced. You can find values at https://configurator.stoeber.de/en-US/

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ4 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 200 Nm)** | | | | | | | | | | | | | | | | | |
| 55 | 48 | 49 | 0.6 | 2.7 | PHQ432_0550 EZ301U | 143 | 143 | 400 | 55.00 | 55/1 | 4500 | 8000 | 0.21 | 3.0 | 1.0 | 38 | 5.8 |
| 55 | 81 | 86 | 1.0 | 1.6 | PHQ432_0550 EZ302U | 200 | 247 | 400 | 55.00 | 55/1 | 4500 | 8000 | 0.31 | 3.0 | 1.0 | 38 | 6.4 |
| 55 | 106 | 112 | 1.3 | 1.2 | PHQ432_0550 EZ303U | 200 | 247 | 400 | 55.00 | 55/1 | 4500 | 8000 | 0.42 | 3.0 | 1.0 | 38 | 6.9 |
| 78 | 33 | 34 | 0.7 | 3.9 | PHQ432_0390 EZ301U | 100 | 100 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.22 | 3.0 | 1.0 | 40 | 5.8 |
| 78 | 57 | 60 | 1.2 | 2.3 | PHQ432_0390 EZ302U | 179 | 179 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.32 | 3.0 | 1.0 | 40 | 6.4 |
| 78 | 74 | 78 | 1.5 | 1.8 | PHQ432_0390 EZ303U | 200 | 246 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.43 | 3.0 | 1.0 | 40 | 6.9 |
| 78 | 100 | 107 | 2.0 | 1.3 | PHQ432_0390 EZ401U | 200 | 246 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.96 | 3.0 | 1.0 | 40 | 8.3 |
| 109 | 41 | 43 | 1.5 | 3.0 | PHQ432_0280 EZ302U | 128 | 128 | 400 | 27.50 | 55/2 | 4500 | 8000 | 0.35 | 3.0 | 1.0 | 40 | 6.4 |
| 109 | 53 | 56 | 1.9 | 2.3 | PHQ432_0280 EZ303U | 179 | 179 | 400 | 27.50 | 55/2 | 4500 | 8000 | 0.46 | 3.0 | 1.0 | 40 | 6.9 |
| 109 | 72 | 77 | 2.6 | 1.7 | PHQ432_0280 EZ401U | 200 | 217 | 400 | 27.50 | 55/2 | 4500 | 8000 | 0.99 | 3.0 | 1.0 | 40 | 8.3 |
| 136 | 33 | 34 | 1.7 | 3.7 | PHQ432_0220 EZ302U | 102 | 102 | 400 | 22.00 | 22/1 | 4000 | 8000 | 0.39 | 3.0 | 1.0 | 41 | 6.4 |
| 136 | 42 | 45 | 2.2 | 2.8 | PHQ432_0220 EZ303U | 143 | 143 | 400 | 22.00 | 22/1 | 4000 | 8000 | 0.50 | 3.0 | 1.0 | 41 | 6.9 |
| 136 | 57 | 61 | 2.9 | 2.1 | PHQ432_0220 EZ401U | 174 | 174 | 400 | 22.00 | 22/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 41 | 8.3 |
| 136 | 96 | 106 | 4.9 | 1.2 | PHQ432_0220 EZ402U | 200 | 238 | 400 | 22.00 | 22/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 41 | 9.4 |
| 545 | 23 | 25 | 4.8 | 4.2 | PHQ431_0055 EZ501U | 84 | 84 | 400 | 5.500 | 11/2 | 3000 | 6000 | 3.2 | 3.0 | 1.0 | 44 | 8.0 |
| 545 | 25 | 27 | 5.2 | 3.8 | PHQ431_0055 EZ402U | 84 | 84 | 400 | 5.500 | 11/2 | 3000 | 6000 | 1.9 | 3.0 | 1.0 | 44 | 8.1 |
| 545 | 36 | 45 | 7.7 | 2.6 | PHQ431_0055 EZ404U | 153 | 153 | 400 | 5.500 | 11/2 | 3000 | 6000 | 3.2 | 3.0 | 1.0 | 44 | 10 |
| 545 | 39 | 42 | 8.2 | 2.4 | PHQ431_0055 EZ502U | 164 | 164 | 400 | 5.500 | 11/2 | 3000 | 6000 | 5.5 | 3.0 | 1.0 | 44 | 9.5 |
| 545 | 51 | 59 | 11 | 1.9 | PHQ431_0055 EZ503U | 200 | 220 | 400 | 5.500 | 11/2 | 3000 | 6000 | 7.8 | 3.0 | 1.0 | 44 | 11 |
| 545 | 71 | 84 | 15 | 1.3 | PHQ431_0055 EZ505U | 200 | 220 | 400 | 5.500 | 11/2 | 3000 | 6000 | 12 | 3.0 | 1.0 | 44 | 14 |
| **PHQ4 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 200 Nm)** | | | | | | | | | | | | | | | | | |
| 109 | 46 | 49 | 0.7 | 2.3 | PHQ432_0550 EZ301U | 143 | 143 | 400 | 55.00 | 55/1 | 4500 | 8000 | 0.21 | 3.0 | 1.0 | 38 | 5.8 |
| 109 | 77 | 86 | 1.1 | 1.3 | PHQ432_0550 EZ302U | 200 | 247 | 400 | 55.00 | 55/1 | 4500 | 8000 | 0.31 | 3.0 | 1.0 | 38 | 6.4 |
| 109 | 100 | 115 | 1.5 | 1.0 | PHQ432_0550 EZ303U | 200 | 247 | 400 | 55.00 | 55/1 | 4500 | 8000 | 0.42 | 3.0 | 1.0 | 38 | 6.9 |
| 156 | 32 | 34 | 0.8 | 3.2 | PHQ432_0390 EZ301U | 100 | 100 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.22 | 3.0 | 1.0 | 40 | 5.8 |
| 156 | 54 | 60 | 1.4 | 1.9 | PHQ432_0390 EZ302U | 179 | 179 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.32 | 3.0 | 1.0 | 40 | 6.4 |
| 156 | 70 | 81 | 1.8 | 1.5 | PHQ432_0390 EZ303U | 200 | 246 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.43 | 3.0 | 1.0 | 40 | 6.9 |
| 156 | 82 | 100 | 2.1 | 1.3 | PHQ432_0390 EZ401U | 200 | 246 | 400 | 38.50 | 77/2 | 4500 | 8000 | 0.96 | 3.0 | 1.0 | 40 | 8.3 |
| 218 | 23 | 24 | 1.0 | 4.2 | PHQ432_0280 EZ301U | 72 | 72 | 400 | 27.50 | 55/2 | 4500 | 8000 | 0.25 | 3.0 | 1.0 | 40 | 5.8 |
| 218 | 38 | 43 | 1.8 | 2.5 | PHQ432_0280 EZ302U | 128 | 128 | 400 | 27.50 | 55/2 | 4500 | 8000 | 0.35 | 3.0 | 1.0 | 40 | 6.4 |
| 218 | 50 | 58 | 2.3 | 1.9 | PHQ432_0280 EZ303U | 179 | 179 | 400 | 27.50 | 55/2 | 4500 | 8000 | 0.46 | 3.0 | 1.0 | 40 | 6.9 |
| 218 | 59 | 72 | 2.7 | 1.6 | PHQ432_0280 EZ401U | 200 | 217 | 400 | 27.50 | 55/2 | 4500 | 8000 | 0.99 | 3.0 | 1.0 | 40 | 8.3 |
| 218 | 90 | 125 | 4.1 | 1.1 | PHQ432_0280 EZ402U | 200 | 246 | 400 | 27.50 | 55/2 | 4500 | 8000 | 1.7 | 3.0 | 1.0 | 40 | 9.4 |
| 273 | 31 | 34 | 2.0 | 3.1 | PHQ432_0220 EZ302U | 102 | 102 | 400 | 22.00 | 22/1 | 4000 | 8000 | 0.39 | 3.0 | 1.0 | 41 | 6.4 |
| 273 | 40 | 46 | 2.6 | 2.4 | PHQ432_0220 EZ303U | 143 | 143 | 400 | 22.00 | 22/1 | 4000 | 8000 | 0.50 | 3.0 | 1.0 | 41 | 6.9 |
| 273 | 47 | 57 | 3.0 | 2.0 | PHQ432_0220 EZ401U | 174 | 174 | 400 | 22.00 | 22/1 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 41 | 8.3 |
| 273 | 72 | 100 | 4.6 | 1.3 | PHQ432_0220 EZ402U | 200 | 238 | 400 | 22.00 | 22/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 41 | 9.4 |
| 1091 | 18 | 23 | 4.8 | 4.2 | PHQ431_0055 EZ501U | 84 | 84 | 400 | 5.500 | 11/2 | 3000 | 6000 | 3.2 | 3.0 | 1.0 | 44 | 8.0 |
| 1091 | 18 | 26 | 4.9 | 4.1 | PHQ431_0055 EZ402U | 84 | 84 | 400 | 5.500 | 11/2 | 3000 | 6000 | 1.9 | 3.0 | 1.0 | 44 | 8.1 |
| 1091 | 27 | 41 | 7.3 | 2.8 | PHQ431_0055 EZ502U | 164 | 164 | 400 | 5.500 | 11/2 | 3000 | 6000 | 5.5 | 3.0 | 1.0 | 44 | 9.5 |
| 1091 | 31 | 44 | 8.1 | 2.5 | PHQ431_0055 EZ404U | 153 | 153 | 400 | 5.500 | 11/2 | 3000 | 6000 | 3.2 | 3.0 | 1.0 | 44 | 10 |
| 1091 | 33 | 56 | 8.7 | 2.3 | PHQ431_0055 EZ503U | 200 | 220 | 400 | 5.500 | 11/2 | 3000 | 6000 | 7.8 | 3.0 | 1.0 | 44 | 11 |
| **PHQ5 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 550 Nm)** | | | | | | | | | | | | | | | | | |
| 55 | 143 | 153 | 0.8 | 2.2 | PHQ532_0550 EZ401U | 435 | 435 | 948 | 55.00 | 55/1 | 4000 | 8000 | 0.97 | 3.0 | 1.0 | 95 | 11 |
| 55 | 220 | 240 | 1.2 | 1.5 | PHQ532_0550 EZ501U | 500 | 500 | 948 | 55.00 | 55/1 | 4000 | 8000 | 2.9 | 3.0 | 1.0 | 95 | 12 |
| 55 | 240 | 266 | 1.3 | 1.3 | PHQ532_0550 EZ402U | 500 | 500 | 948 | 55.00 | 55/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 95 | 12 |
| 78 | 100 | 107 | 0.9 | 3.2 | PHQ532_0390 EZ401U | 304 | 304 | 948 | 38.50 | 77/2 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 100 | 11 |
| 78 | 154 | 168 | 1.4 | 2.1 | PHQ532_0390 EZ501U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 3.0 | 3.0 | 1.0 | 100 | 12 |
| 78 | 168 | 186 | 1.5 | 1.9 | PHQ532_0390 EZ402U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 100 | 12 |
| 78 | 247 | 308 | 2.3 | 1.3 | PHQ532_0390 EZ404U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 100 | 14 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ5 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 550 Nm)** | | | | | | | | | | | | | | | | | |
| 78 | 265 | 286 | 2.4 | 1.2 | PHQ532_0390 EZ502U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 5.3 | 3.0 | 1.0 | 100 | 14 |
| 109 | 72 | 77 | 1.2 | 4.2 | PHQ532_0280 EZ401U | 217 | 217 | 948 | 27.50 | 55/2 | 3700 | 7500 | 1.1 | 3.0 | 1.0 | 102 | 11 |
| 109 | 110 | 120 | 1.8 | 2.7 | PHQ532_0280 EZ501U | 409 | 409 | 948 | 27.50 | 55/2 | 3700 | 7500 | 3.1 | 3.0 | 1.0 | 102 | 12 |
| 109 | 120 | 133 | 1.9 | 2.5 | PHQ532_0280 EZ402U | 409 | 409 | 948 | 27.50 | 55/2 | 3700 | 7500 | 1.8 | 3.0 | 1.0 | 102 | 12 |
| 109 | 176 | 220 | 2.9 | 1.7 | PHQ532_0280 EZ404U | 540 | 562 | 948 | 27.50 | 55/2 | 3700 | 7500 | 3.1 | 3.0 | 1.0 | 102 | 14 |
| 109 | 189 | 205 | 3.1 | 1.6 | PHQ532_0280 EZ502U | 540 | 562 | 948 | 27.50 | 55/2 | 3700 | 7500 | 5.4 | 3.0 | 1.0 | 102 | 14 |
| 109 | 248 | 284 | 4.0 | 1.2 | PHQ532_0280 EZ503U | 540 | 562 | 948 | 27.50 | 55/2 | 3700 | 7500 | 7.7 | 3.0 | 1.0 | 102 | 15 |
| 136 | 88 | 96 | 2.1 | 3.3 | PHQ532_0220 EZ501U | 327 | 327 | 948 | 22.00 | 22/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 103 | 12 |
| 136 | 96 | 106 | 2.2 | 3.0 | PHQ532_0220 EZ402U | 327 | 327 | 948 | 22.00 | 22/1 | 3500 | 7000 | 1.9 | 3.0 | 1.0 | 103 | 12 |
| 136 | 141 | 176 | 3.3 | 2.1 | PHQ532_0220 EZ404U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 103 | 14 |
| 136 | 151 | 164 | 3.5 | 1.9 | PHQ532_0220 EZ502U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 5.5 | 3.0 | 1.0 | 103 | 14 |
| 136 | 198 | 227 | 4.6 | 1.5 | PHQ532_0220 EZ503U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 7.8 | 3.0 | 1.0 | 103 | 15 |
| 136 | 276 | 327 | 6.5 | 1.1 | PHQ532_0220 EZ505U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 12 | 3.0 | 1.0 | 103 | 18 |
| 545 | 63 | 76 | 6.4 | 3.5 | PHQ531_0055 EZ702U | 216 | 216 | 948 | 5.500 | 11/2 | 2500 | 5000 | 15 | 3.0 | 1.0 | 107 | 16 |
| 545 | 87 | 110 | 8.8 | 2.6 | PHQ531_0055 EZ703U | 343 | 343 | 948 | 5.500 | 11/2 | 2500 | 5000 | 22 | 3.0 | 1.0 | 107 | 18 |
| 545 | 112 | 159 | 11 | 2.0 | PHQ531_0055 EZ705U | 549 | 549 | 948 | 5.500 | 11/2 | 2500 | 5000 | 35 | 3.0 | 1.0 | 107 | 23 |
| **PHQ5 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 550 Nm)** | | | | | | | | | | | | | | | | | |
| 164 | 243 | 391 | 4.5 | 1.1 | PHQ532_0280 EZ505U | 540 | 562 | 948 | 27.50 | 55/2 | 3700 | 7500 | 12 | 3.0 | 1.0 | 102 | 18 |
| 205 | 194 | 313 | 5.2 | 1.3 | PHQ532_0220 EZ505U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 12 | 3.0 | 1.0 | 103 | 18 |
| 818 | 64 | 106 | 7.3 | 3.0 | PHQ531_0055 EZ703U | 343 | 343 | 948 | 5.500 | 11/2 | 2500 | 5000 | 22 | 3.0 | 1.0 | 107 | 18 |
| 818 | 87 | 158 | 10 | 2.2 | PHQ531_0055 EZ705U | 549 | 549 | 948 | 5.500 | 11/2 | 2500 | 5000 | 35 | 3.0 | 1.0 | 107 | 23 |
| **PHQ5 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 540 Nm)** | | | | | | | | | | | | | | | | | |
| 109 | 118 | 143 | 0.8 | 2.2 | PHQ532_0550 EZ401U | 435 | 435 | 948 | 55.00 | 55/1 | 4000 | 8000 | 0.97 | 3.0 | 1.0 | 95 | 11 |
| 109 | 174 | 225 | 1.2 | 1.5 | PHQ532_0550 EZ501U | 500 | 500 | 948 | 55.00 | 55/1 | 4000 | 8000 | 2.9 | 3.0 | 1.0 | 95 | 12 |
| 109 | 179 | 251 | 1.2 | 1.4 | PHQ532_0550 EZ402U | 500 | 500 | 948 | 55.00 | 55/1 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 95 | 12 |
| 156 | 82 | 100 | 1.0 | 3.1 | PHQ532_0390 EZ401U | 304 | 304 | 948 | 38.50 | 77/2 | 4000 | 8000 | 1.0 | 3.0 | 1.0 | 100 | 11 |
| 156 | 122 | 158 | 1.4 | 2.1 | PHQ532_0390 EZ501U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 3.0 | 3.0 | 1.0 | 100 | 12 |
| 156 | 125 | 175 | 1.4 | 2.0 | PHQ532_0390 EZ402U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 1.7 | 3.0 | 1.0 | 100 | 12 |
| 156 | 186 | 279 | 2.1 | 1.4 | PHQ532_0390 EZ502U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 5.3 | 3.0 | 1.0 | 100 | 14 |
| 156 | 208 | 301 | 2.4 | 1.2 | PHQ532_0390 EZ404U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 3.1 | 3.0 | 1.0 | 100 | 14 |
| 156 | 222 | 380 | 2.6 | 1.1 | PHQ532_0390 EZ503U | 530 | 552 | 948 | 38.50 | 77/2 | 4000 | 8000 | 7.7 | 3.0 | 1.0 | 100 | 15 |
| 218 | 59 | 72 | 1.2 | 4.0 | PHQ532_0280 EZ401U | 217 | 217 | 948 | 27.50 | 55/2 | 3700 | 7500 | 1.1 | 3.0 | 1.0 | 102 | 11 |
| 218 | 87 | 113 | 1.8 | 2.7 | PHQ532_0280 EZ501U | 409 | 409 | 948 | 27.50 | 55/2 | 3700 | 7500 | 3.1 | 3.0 | 1.0 | 102 | 12 |
| 218 | 90 | 125 | 1.8 | 2.7 | PHQ532_0280 EZ402U | 409 | 409 | 948 | 27.50 | 55/2 | 3700 | 7500 | 1.8 | 3.0 | 1.0 | 102 | 12 |
| 218 | 133 | 199 | 2.7 | 1.8 | PHQ532_0280 EZ502U | 540 | 562 | 948 | 27.50 | 55/2 | 3700 | 7500 | 5.4 | 3.0 | 1.0 | 102 | 14 |
| 218 | 148 | 215 | 3.0 | 1.6 | PHQ532_0280 EZ404U | 540 | 562 | 948 | 27.50 | 55/2 | 3700 | 7500 | 3.1 | 3.0 | 1.0 | 102 | 14 |
| 218 | 159 | 271 | 3.2 | 1.5 | PHQ532_0280 EZ503U | 540 | 562 | 948 | 27.50 | 55/2 | 3700 | 7500 | 7.7 | 3.0 | 1.0 | 102 | 15 |
| 273 | 47 | 57 | 1.4 | 4.9 | PHQ532_0220 EZ401U | 174 | 174 | 948 | 22.00 | 22/1 | 3500 | 7000 | 1.2 | 3.0 | 1.0 | 103 | 11 |
| 273 | 70 | 90 | 2.1 | 3.3 | PHQ532_0220 EZ501U | 327 | 327 | 948 | 22.00 | 22/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 103 | 12 |
| 273 | 72 | 100 | 2.1 | 3.2 | PHQ532_0220 EZ402U | 327 | 327 | 948 | 22.00 | 22/1 | 3500 | 7000 | 1.9 | 3.0 | 1.0 | 103 | 12 |
| 273 | 106 | 160 | 3.1 | 2.2 | PHQ532_0220 EZ502U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 5.5 | 3.0 | 1.0 | 103 | 14 |
| 273 | 119 | 172 | 3.5 | 1.9 | PHQ532_0220 EZ404U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 3.2 | 3.0 | 1.0 | 103 | 14 |
| 273 | 127 | 217 | 3.7 | 1.8 | PHQ532_0220 EZ503U | 480 | 530 | 948 | 22.00 | 22/1 | 3500 | 7000 | 7.8 | 3.0 | 1.0 | 103 | 15 |
| **PHQ7 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | |
| 364 | 206 | 231 | 11 | 2.4 | PHQ731_0055 EZ813U | 739 | 739 | 2100 | 5.500 | 11/2 | 2200 | 5000 | 107 | 3.0 | 1.0 | 235 | 45 |
| 364 | 305 | 363 | 16 | 1.6 | PHQ731_0055 EZ815U | 1050 | 1050 | 2100 | 5.500 | 11/2 | 2200 | 5000 | 170 | 3.0 | 1.0 | 235 | 58 |
| **PHQ7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | |
| 14 | 554 | 594 | 0.2 | 1.2 | PHQ733_2200 EZ401U | 1050 | 1050 | 2100 | 220.0 | 220/1 | 4000 | 7000 | 0.97 | 3.0 | 1.0 | 222 | 20 |
| 16 | 485 | 520 | 0.2 | 1.4 | PHQ733_1930 EZ401U | 1050 | 1050 | 2100 | 192.5 | 385/2 | 4000 | 7000 | 1.0 | 3.0 | 1.0 | 223 | 20 |
| 19 | 388 | 416 | 0.3 | 1.8 | PHQ733_1540 EZ401U | 1050 | 1050 | 2100 | 154.0 | 154/1 | 4000 | 7000 | 1.0 | 3.0 | 1.0 | 223 | 20 |
| 19 | 596 | 651 | 0.4 | 1.1 | PHQ733_1540 EZ501U | 1050 | 1050 | 2100 | 154.0 | 154/1 | 4000 | 7000 | 3.0 | 3.0 | 1.0 | 223 | 21 |
| 19 | 651 | 721 | 0.4 | 1.0 | PHQ733_1540 EZ402U | 1050 | 1050 | 2100 | 154.0 | 154/1 | 4000 | 7000 | 1.7 | 3.0 | 1.0 | 223 | 21 |
| 22 | 347 | 371 | 0.3 | 2.0 | PHQ733_1380 EZ401U | 1050 | 1050 | 2100 | 137.5 | 275/2 | 3700 | 6500 | 1.1 | 3.0 | 1.0 | 224 | 20 |
| 22 | 532 | 582 | 0.4 | 1.3 | PHQ733_1380 EZ501U | 1050 | 1050 | 2100 | 137.5 | 275/2 | 3700 | 6500 | 3.1 | 3.0 | 1.0 | 224 | 21 |
| 22 | 582 | 644 | 0.4 | 1.2 | PHQ733_1380 EZ402U | 1050 | 1050 | 2100 | 137.5 | 275/2 | 3700 | 6500 | 1.8 | 3.0 | 1.0 | 224 | 21 |
| 27 | 277 | 297 | 0.3 | 2.5 | PHQ733_1100 EZ401U | 842 | 842 | 2100 | 110.0 | 110/1 | 3300 | 6000 | 1.2 | 3.0 | 1.0 | 224 | 20 |
| 27 | 426 | 465 | 0.5 | 1.6 | PHQ733_1100 EZ501U | 1050 | 1050 | 2100 | 110.0 | 110/1 | 3300 | 6000 | 3.2 | 3.0 | 1.0 | 224 | 21 |
| 27 | 465 | 515 | 0.5 | 1.5 | PHQ733_1100 EZ402U | 1050 | 1050 | 2100 | 110.0 | 110/1 | 3300 | 6000 | 1.9 | 3.0 | 1.0 | 224 | 21 |
| 34 | 222 | 238 | 0.3 | 3.1 | PHQ733_0880 EZ401U | 673 | 673 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 1.2 | 3.0 | 1.0 | 224 | 20 |
| 34 | 341 | 372 | 0.5 | 2.0 | PHQ733_0880 EZ501U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 3.2 | 3.0 | 1.0 | 224 | 21 |
| 34 | 372 | 412 | 0.6 | 1.8 | PHQ733_0880 EZ402U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 1.9 | 3.0 | 1.0 | 224 | 21 |
| 34 | 546 | 681 | 0.8 | 1.2 | PHQ733_0880 EZ404U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 3.3 | 3.0 | 1.0 | 224 | 23 |
| 34 | 586 | 634 | 0.9 | 1.2 | PHQ733_0880 EZ502U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 5.5 | 3.0 | 1.0 | 224 | 22 |
| 55 | 220 | 240 | 0.7 | 3.1 | PHQ732_0550 EZ501U | 818 | 818 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 3.1 | 3.0 | 1.0 | 213 | 18 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ7 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | |
| 55 | 379 | 409 | 1.1 | 1.8 | PHQ732_0550 EZ502U | 1050 | 1050 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 5.4 | 3.0 | 1.0 | 213 | 20 |
| 55 | 379 | 425 | 1.1 | 1.8 | PHQ732_0550 EZ701U | 1023 | 1023 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 8.7 | 3.0 | 1.0 | 213 | 22 |
| 55 | 496 | 568 | 1.5 | 1.4 | PHQ732_0550 EZ503U | 1050 | 1050 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 7.7 | 3.0 | 1.0 | 213 | 21 |
| 55 | 614 | 737 | 1.9 | 1.1 | PHQ732_0550 EZ702U | 1050 | 1050 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 213 | 24 |
| 78 | 154 | 168 | 0.8 | 4.4 | PHQ732_0390 EZ501U | 573 | 573 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 3.2 | 3.0 | 1.0 | 221 | 18 |
| 78 | 265 | 286 | 1.4 | 2.6 | PHQ732_0390 EZ502U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 221 | 20 |
| 78 | 265 | 297 | 1.4 | 2.6 | PHQ732_0390 EZ701U | 716 | 716 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 221 | 22 |
| 78 | 347 | 397 | 1.8 | 2.0 | PHQ732_0390 EZ503U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 7.9 | 3.0 | 1.0 | 221 | 21 |
| 78 | 430 | 516 | 2.2 | 1.6 | PHQ732_0390 EZ702U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 14 | 3.0 | 1.0 | 221 | 24 |
| 78 | 483 | 573 | 2.5 | 1.4 | PHQ732_0390 EZ505U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 12 | 3.0 | 1.0 | 221 | 24 |
| 78 | 591 | 745 | 3.1 | 1.2 | PHQ732_0390 EZ703U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 22 | 3.0 | 1.0 | 221 | 26 |
| 109 | 189 | 205 | 1.7 | 3.4 | PHQ732_0280 EZ502U | 793 | 793 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 5.8 | 3.0 | 1.0 | 224 | 20 |
| 109 | 189 | 212 | 1.7 | 3.4 | PHQ732_0280 EZ701U | 512 | 512 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 9.1 | 3.0 | 1.0 | 224 | 22 |
| 109 | 248 | 284 | 2.2 | 2.6 | PHQ732_0280 EZ503U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 8.2 | 3.0 | 1.0 | 224 | 21 |
| 109 | 307 | 368 | 2.8 | 2.1 | PHQ732_0280 EZ702U | 1049 | 1049 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 14 | 3.0 | 1.0 | 224 | 24 |
| 109 | 345 | 409 | 3.1 | 1.9 | PHQ732_0280 EZ505U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 13 | 3.0 | 1.0 | 224 | 24 |
| 109 | 422 | 532 | 3.8 | 1.5 | PHQ732_0280 EZ703U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 22 | 3.0 | 1.0 | 224 | 26 |
| 109 | 545 | 772 | 4.9 | 1.2 | PHQ732_0280 EZ705U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 35 | 3.0 | 1.0 | 224 | 32 |
| 136 | 151 | 164 | 1.9 | 4.3 | PHQ732_0220 EZ502U | 634 | 634 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 6.2 | 3.0 | 1.0 | 226 | 20 |
| 136 | 151 | 170 | 1.9 | 4.3 | PHQ732_0220 EZ701U | 409 | 409 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 9.5 | 3.0 | 1.0 | 226 | 22 |
| 136 | 198 | 227 | 2.5 | 3.3 | PHQ732_0220 EZ503U | 880 | 880 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 8.5 | 3.0 | 1.0 | 226 | 21 |
| 136 | 246 | 295 | 3.1 | 2.6 | PHQ732_0220 EZ702U | 839 | 839 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 226 | 24 |
| 136 | 276 | 327 | 3.5 | 2.4 | PHQ732_0220 EZ505U | 900 | 1000 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 226 | 24 |
| 136 | 338 | 426 | 4.2 | 1.9 | PHQ732_0220 EZ703U | 900 | 1000 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 226 | 26 |
| 136 | 436 | 618 | 5.5 | 1.5 | PHQ732_0220 EZ705U | 900 | 1000 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 226 | 32 |
| **PHQ7 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | |
| 727 | 133 | 231 | 8.2 | 3.3 | PHQ731_0055 EZ813U | 739 | 739 | 2100 | 5.500 | 11/2 | 2200 | 5000 | 107 | 3.0 | 1.0 | 235 | 45 |
| 727 | 138 | 354 | 8.5 | 3.1 | PHQ731_0055 EZ815U | 1050 | 1050 | 2100 | 5.500 | 11/2 | 2200 | 5000 | 170 | 3.0 | 1.0 | 235 | 58 |
| **PHQ7 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | |
| 82 | 486 | 783 | 1.7 | 1.2 | PHQ732_0550 EZ505U | 1050 | 1050 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 12 | 3.0 | 1.0 | 213 | 24 |
| 117 | 340 | 548 | 2.0 | 1.7 | PHQ732_0390 EZ505U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 12 | 3.0 | 1.0 | 221 | 24 |
| 117 | 433 | 716 | 2.6 | 1.4 | PHQ732_0390 EZ703U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 22 | 3.0 | 1.0 | 221 | 26 |
| 117 | 587 | 1074 | 3.5 | 1.0 | PHQ732_0390 EZ705U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 34 | 3.0 | 1.0 | 221 | 32 |
| 164 | 243 | 391 | 2.5 | 2.3 | PHQ732_0280 EZ505U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 13 | 3.0 | 1.0 | 224 | 24 |
| 164 | 309 | 512 | 3.2 | 1.8 | PHQ732_0280 EZ703U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 22 | 3.0 | 1.0 | 224 | 26 |
| 164 | 419 | 767 | 4.3 | 1.4 | PHQ732_0280 EZ705U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 35 | 3.0 | 1.0 | 224 | 32 |
| 205 | 194 | 313 | 2.8 | 2.9 | PHQ732_0220 EZ505U | 900 | 1000 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 13 | 3.0 | 1.0 | 226 | 24 |
| 205 | 248 | 409 | 3.5 | 2.3 | PHQ732_0220 EZ703U | 900 | 1000 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 226 | 26 |
| 205 | 336 | 614 | 4.8 | 1.7 | PHQ732_0220 EZ705U | 900 | 1000 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 226 | 32 |
| **PHQ7 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | |
| 27 | 455 | 554 | 0.2 | 1.2 | PHQ733_2200 EZ401U | 1050 | 1050 | 2100 | 220.0 | 220/1 | 4000 | 7000 | 0.97 | 3.0 | 1.0 | 222 | 20 |
| 31 | 398 | 485 | 0.2 | 1.4 | PHQ733_1930 EZ401U | 1050 | 1050 | 2100 | 192.5 | 385/2 | 4000 | 7000 | 1.0 | 3.0 | 1.0 | 223 | 20 |
| 39 | 319 | 388 | 0.3 | 1.7 | PHQ733_1540 EZ401U | 1050 | 1050 | 2100 | 154.0 | 154/1 | 4000 | 7000 | 1.0 | 3.0 | 1.0 | 223 | 20 |
| 39 | 471 | 610 | 0.4 | 1.1 | PHQ733_1540 EZ501U | 1050 | 1050 | 2100 | 154.0 | 154/1 | 4000 | 7000 | 3.0 | 3.0 | 1.0 | 223 | 21 |
| 39 | 485 | 679 | 0.4 | 1.1 | PHQ733_1540 EZ402U | 1050 | 1050 | 2100 | 154.0 | 154/1 | 4000 | 7000 | 1.7 | 3.0 | 1.0 | 223 | 21 |
| 44 | 285 | 347 | 0.3 | 1.9 | PHQ733_1380 EZ401U | 1050 | 1050 | 2100 | 137.5 | 275/2 | 3700 | 6500 | 1.1 | 3.0 | 1.0 | 224 | 20 |
| 44 | 421 | 545 | 0.4 | 1.3 | PHQ733_1380 EZ501U | 1050 | 1050 | 2100 | 137.5 | 275/2 | 3700 | 6500 | 3.1 | 3.0 | 1.0 | 224 | 21 |
| 44 | 433 | 606 | 0.4 | 1.2 | PHQ733_1380 EZ402U | 1050 | 1050 | 2100 | 137.5 | 275/2 | 3700 | 6500 | 1.8 | 3.0 | 1.0 | 224 | 21 |
| 55 | 228 | 277 | 0.3 | 2.4 | PHQ733_1100 EZ401U | 842 | 842 | 2100 | 110.0 | 110/1 | 3300 | 6000 | 1.2 | 3.0 | 1.0 | 224 | 20 |
| 55 | 337 | 436 | 0.5 | 1.6 | PHQ733_1100 EZ501U | 1050 | 1050 | 2100 | 110.0 | 110/1 | 3300 | 6000 | 3.2 | 3.0 | 1.0 | 224 | 21 |
| 55 | 347 | 485 | 0.5 | 1.6 | PHQ733_1100 EZ402U | 1050 | 1050 | 2100 | 110.0 | 110/1 | 3300 | 6000 | 1.9 | 3.0 | 1.0 | 224 | 21 |
| 55 | 515 | 772 | 0.7 | 1.0 | PHQ733_1100 EZ502U | 1050 | 1050 | 2100 | 110.0 | 110/1 | 3300 | 6000 | 5.5 | 3.0 | 1.0 | 224 | 22 |
| 68 | 182 | 222 | 0.3 | 3.0 | PHQ733_0880 EZ401U | 673 | 673 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 1.2 | 3.0 | 1.0 | 224 | 20 |
| 68 | 269 | 348 | 0.5 | 2.0 | PHQ733_0880 EZ501U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 3.2 | 3.0 | 1.0 | 224 | 21 |
| 68 | 277 | 388 | 0.5 | 1.9 | PHQ733_0880 EZ402U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 1.9 | 3.0 | 1.0 | 224 | 21 |
| 68 | 412 | 618 | 0.8 | 1.3 | PHQ733_0880 EZ502U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 5.5 | 3.0 | 1.0 | 224 | 22 |
| 68 | 459 | 665 | 0.9 | 1.2 | PHQ733_0880 EZ404U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 3.3 | 3.0 | 1.0 | 224 | 23 |
| 68 | 491 | 840 | 0.9 | 1.1 | PHQ733_0880 EZ503U | 1050 | 1050 | 2100 | 88.00 | 88/1 | 3300 | 6000 | 7.9 | 3.0 | 1.0 | 224 | 24 |
| 109 | 174 | 225 | 0.7 | 3.1 | PHQ732_0550 EZ501U | 818 | 818 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 3.1 | 3.0 | 1.0 | 213 | 18 |
| 109 | 266 | 399 | 1.0 | 2.0 | PHQ732_0550 EZ502U | 1050 | 1050 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 5.4 | 3.0 | 1.0 | 213 | 20 |
| 109 | 266 | 404 | 1.0 | 2.0 | PHQ732_0550 EZ701U | 1023 | 1023 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 8.7 | 3.0 | 1.0 | 213 | 22 |
| 109 | 317 | 542 | 1.2 | 1.7 | PHQ732_0550 EZ503U | 1050 | 1050 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 7.7 | 3.0 | 1.0 | 213 | 21 |
| 109 | 368 | 731 | 1.4 | 1.5 | PHQ732_0550 EZ702U | 1050 | 1050 | 2100 | 55.00 | 55/1 | 3700 | 7000 | 14 | 3.0 | 1.0 | 213 | 24 |
| 156 | 122 | 158 | 0.8 | 4.4 | PHQ732_0390 EZ501U | 573 | 573 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 3.2 | 3.0 | 1.0 | 221 | 18 |
| 156 | 186 | 279 | 1.2 | 2.9 | PHQ732_0390 EZ502U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 5.5 | 3.0 | 1.0 | 221 | 20 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHQ7 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 1050 Nm) | | | | | | | | | | | | | | | | | |
| 156 | 186 | 283 | 1.2 | 2.9 | PHQ732_0390 EZ701U | 716 | 716 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 8.8 | 3.0 | 1.0 | 221 | 22 |
| 156 | 222 | 380 | 1.4 | 2.4 | PHQ732_0390 EZ503U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 7.9 | 3.0 | 1.0 | 221 | 21 |
| 156 | 258 | 512 | 1.7 | 2.1 | PHQ732_0390 EZ702U | 1050 | 1050 | 2100 | 38.50 | 77/2 | 3700 | 7000 | 14 | 3.0 | 1.0 | 221 | 24 |
| 218 | 133 | 199 | 1.5 | 3.9 | PHQ732_0280 EZ502U | 793 | 793 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 5.8 | 3.0 | 1.0 | 224 | 20 |
| 218 | 133 | 202 | 1.5 | 3.9 | PHQ732_0280 EZ701U | 512 | 512 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 9.1 | 3.0 | 1.0 | 224 | 22 |
| 218 | 159 | 271 | 1.8 | 3.3 | PHQ732_0280 EZ503U | 1050 | 1050 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 8.2 | 3.0 | 1.0 | 224 | 21 |
| 218 | 184 | 366 | 2.1 | 2.8 | PHQ732_0280 EZ702U | 1049 | 1049 | 2100 | 27.50 | 55/2 | 3500 | 7000 | 14 | 3.0 | 1.0 | 224 | 24 |
| 273 | 106 | 160 | 1.7 | 4.8 | PHQ732_0220 EZ502U | 634 | 634 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 6.2 | 3.0 | 1.0 | 226 | 20 |
| 273 | 106 | 162 | 1.7 | 4.8 | PHQ732_0220 EZ701U | 409 | 409 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 9.5 | 3.0 | 1.0 | 226 | 22 |
| 273 | 127 | 217 | 2.0 | 4.1 | PHQ732_0220 EZ503U | 880 | 880 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 8.5 | 3.0 | 1.0 | 226 | 21 |
| 273 | 147 | 293 | 2.3 | 3.5 | PHQ732_0220 EZ702U | 839 | 839 | 1800 | 22.00 | 22/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 226 | 24 |
| PHQ8 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 2800 Nm) | | | | | | | | | | | | | | | | | |
| 52 | 1396 | 1566 | 3.1 | 1.2 | PHQ832_0390 EZ813U | 2800 | 3300 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 106 | 3.0 | 1.0 | 701 | 70 |
| 73 | 997 | 1118 | 3.7 | 1.7 | PHQ832_0280 EZ813U | 2800 | 3300 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 107 | 3.0 | 1.0 | 715 | 70 |
| 73 | 1477 | 1759 | 5.5 | 1.2 | PHQ832_0280 EZ815U | 2800 | 3300 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 170 | 3.0 | 1.0 | 715 | 82 |
| 91 | 798 | 895 | 4.1 | 2.1 | PHQ832_0220 EZ813U | 2800 | 2864 | 4964 | 22.00 | 22/1 | 2500 | 4500 | 109 | 3.0 | 1.0 | 720 | 70 |
| 91 | 1182 | 1407 | 6.1 | 1.4 | PHQ832_0220 EZ815U | 2800 | 3300 | 4964 | 22.00 | 22/1 | 2500 | 4500 | 172 | 3.0 | 1.0 | 720 | 82 |
| PHQ8 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 2800 Nm) | | | | | | | | | | | | | | | | | |
| 7.8 | 1490 | 1629 | 0.1 | 1.1 | PHQ833_3850 EZ501U | 2800 | 3300 | 4964 | 385.0 | 385/1 | 3700 | 6500 | 3.0 | 3.0 | 1.0 | 699 | 40 |
| 11 | 1064 | 1163 | 0.1 | 1.6 | PHQ833_2750 EZ501U | 2800 | 3300 | 4964 | 275.0 | 275/1 | 3700 | 6500 | 3.1 | 3.0 | 1.0 | 707 | 40 |
| 14 | 851 | 931 | 0.1 | 2.0 | PHQ833_2200 EZ501U | 2800 | 3168 | 4964 | 220.0 | 220/1 | 3700 | 6500 | 3.1 | 3.0 | 1.0 | 705 | 40 |
| 14 | 1465 | 1584 | 0.2 | 1.2 | PHQ833_2200 EZ502U | 2800 | 3300 | 4964 | 220.0 | 220/1 | 3700 | 6500 | 5.4 | 3.0 | 1.0 | 705 | 41 |
| 14 | 1465 | 1643 | 0.2 | 1.2 | PHQ833_2200 EZ701U | 2800 | 3300 | 4964 | 220.0 | 220/1 | 3700 | 6500 | 8.7 | 3.0 | 1.0 | 705 | 43 |
| 16 | 745 | 814 | 0.1 | 2.3 | PHQ833_1930 EZ501U | 2772 | 2772 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 3.2 | 3.0 | 1.0 | 710 | 40 |
| 16 | 1282 | 1386 | 0.3 | 1.3 | PHQ833_1930 EZ502U | 2800 | 3300 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 5.5 | 3.0 | 1.0 | 710 | 41 |
| 16 | 1282 | 1438 | 0.3 | 1.3 | PHQ833_1930 EZ701U | 2800 | 3300 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 8.8 | 3.0 | 1.0 | 710 | 43 |
| 16 | 1681 | 1923 | 0.3 | 1.0 | PHQ833_1930 EZ503U | 2800 | 3300 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 7.9 | 3.0 | 1.0 | 710 | 43 |
| 19 | 596 | 651 | 0.2 | 2.9 | PHQ833_1540 EZ501U | 2218 | 2218 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 3.2 | 3.0 | 1.0 | 710 | 40 |
| 19 | 1026 | 1109 | 0.3 | 1.7 | PHQ833_1540 EZ502U | 2800 | 3300 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 5.5 | 3.0 | 1.0 | 710 | 41 |
| 19 | 1026 | 1150 | 0.3 | 1.7 | PHQ833_1540 EZ701U | 2772 | 2772 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 8.8 | 3.0 | 1.0 | 710 | 43 |
| 19 | 1344 | 1538 | 0.4 | 1.3 | PHQ833_1540 EZ503U | 2800 | 3300 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 7.9 | 3.0 | 1.0 | 710 | 43 |
| 19 | 1663 | 1996 | 0.5 | 1.0 | PHQ833_1540 EZ702U | 2800 | 3300 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 14 | 3.0 | 1.0 | 710 | 46 |
| 22 | 532 | 582 | 0.2 | 3.2 | PHQ833_1380 EZ501U | 1980 | 1980 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 3.5 | 3.0 | 1.0 | 711 | 40 |
| 22 | 916 | 990 | 0.3 | 1.9 | PHQ833_1380 EZ502U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 5.8 | 3.0 | 1.0 | 711 | 41 |
| 22 | 916 | 1027 | 0.3 | 1.9 | PHQ833_1380 EZ701U | 2475 | 2475 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 9.1 | 3.0 | 1.0 | 711 | 43 |
| 22 | 1200 | 1374 | 0.4 | 1.4 | PHQ833_1380 EZ503U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 8.2 | 3.0 | 1.0 | 711 | 43 |
| 22 | 1485 | 1782 | 0.5 | 1.1 | PHQ833_1380 EZ702U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 14 | 3.0 | 1.0 | 711 | 46 |
| 22 | 1671 | 1980 | 0.6 | 1.0 | PHQ833_1380 EZ505U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 13 | 3.0 | 1.0 | 711 | 46 |
| 27 | 426 | 465 | 0.2 | 4.0 | PHQ833_1100 EZ501U | 1584 | 1584 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 3.9 | 3.0 | 1.0 | 712 | 40 |
| 27 | 733 | 792 | 0.3 | 2.3 | PHQ833_1100 EZ502U | 2800 | 3069 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 6.2 | 3.0 | 1.0 | 712 | 41 |
| 27 | 733 | 822 | 0.3 | 2.3 | PHQ833_1100 EZ701U | 1980 | 1980 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 9.5 | 3.0 | 1.0 | 712 | 43 |
| 27 | 960 | 1099 | 0.4 | 1.8 | PHQ833_1100 EZ503U | 2800 | 3300 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 8.5 | 3.0 | 1.0 | 712 | 43 |
| 27 | 1188 | 1426 | 0.6 | 1.4 | PHQ833_1100 EZ702U | 2800 | 3300 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 15 | 3.0 | 1.0 | 712 | 46 |
| 27 | 1337 | 1584 | 0.6 | 1.3 | PHQ833_1100 EZ505U | 2800 | 3300 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 13 | 3.0 | 1.0 | 712 | 46 |
| 27 | 1634 | 2059 | 0.8 | 1.0 | PHQ833_1100 EZ703U | 2800 | 3300 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 23 | 3.0 | 1.0 | 712 | 48 |
| 34 | 341 | 372 | 0.2 | 5.0 | PHQ833_0880 EZ501U | 1267 | 1267 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 4.0 | 3.0 | 1.0 | 712 | 40 |
| 34 | 586 | 634 | 0.4 | 2.9 | PHQ833_0880 EZ502U | 2455 | 2455 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 6.3 | 3.0 | 1.0 | 712 | 41 |
| 34 | 586 | 657 | 0.4 | 2.9 | PHQ833_0880 EZ701U | 1584 | 1584 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 9.6 | 3.0 | 1.0 | 712 | 43 |
| 34 | 768 | 879 | 0.5 | 2.2 | PHQ833_0880 EZ503U | 2800 | 3300 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 8.6 | 3.0 | 1.0 | 712 | 43 |
| 34 | 950 | 1140 | 0.6 | 1.8 | PHQ833_0880 EZ702U | 2800 | 3247 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 15 | 3.0 | 1.0 | 712 | 46 |
| 34 | 1069 | 1267 | 0.7 | 1.6 | PHQ833_0880 EZ505U | 2800 | 3300 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 13 | 3.0 | 1.0 | 712 | 46 |
| 34 | 1307 | 1647 | 0.8 | 1.3 | PHQ833_0880 EZ703U | 2800 | 3300 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 23 | 3.0 | 1.0 | 712 | 48 |
| 34 | 1687 | 2392 | 1.1 | 1.0 | PHQ833_0880 EZ705U | 2800 | 3300 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 35 | 3.0 | 1.0 | 712 | 53 |
| 55 | 379 | 425 | 0.5 | 4.5 | PHQ832_0550 EZ701U | 1023 | 1023 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 9.2 | 3.0 | 1.0 | 670 | 42 |
| 55 | 614 | 737 | 0.8 | 2.8 | PHQ832_0550 EZ702U | 2097 | 2097 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 670 | 45 |
| 55 | 844 | 1064 | 1.1 | 2.0 | PHQ832_0550 EZ703U | 2700 | 2990 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 670 | 47 |
| 55 | 1089 | 1545 | 1.4 | 1.6 | PHQ832_0550 EZ705U | 2700 | 2990 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 670 | 52 |
| 78 | 430 | 516 | 1.0 | 4.0 | PHQ832_0390 EZ702U | 1468 | 1468 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 15 | 3.0 | 1.0 | 701 | 45 |
| 78 | 591 | 745 | 1.3 | 2.9 | PHQ832_0390 EZ703U | 2327 | 2327 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 23 | 3.0 | 1.0 | 701 | 47 |
| 78 | 763 | 1081 | 1.7 | 2.2 | PHQ832_0390 EZ705U | 2800 | 3300 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 35 | 3.0 | 1.0 | 701 | 52 |
| 109 | 422 | 532 | 1.6 | 4.0 | PHQ832_0280 EZ703U | 1662 | 1662 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 24 | 3.0 | 1.0 | 715 | 47 |
| 109 | 545 | 772 | 2.0 | 3.1 | PHQ832_0280 EZ705U | 2660 | 2660 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 37 | 3.0 | 1.0 | 715 | 52 |
| 136 | 436 | 618 | 2.3 | 3.9 | PHQ832_0220 EZ705U | 2128 | 2128 | 4745 | 22.00 | 22/1 | 2500 | 4500 | 38 | 3.0 | 1.0 | 720 | 52 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ8 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | |
| 73 | 1289 | 2235 | 1.9 | 1.2 | PHQ832_0550 EZ813U | 2700 | 2990 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 105 | 3.0 | 1.0 | 670 | 70 |
| 73 | 1336 | 3434 | 1.9 | 1.2 | PHQ832_0550 EZ815U | 2700 | 2990 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 168 | 3.0 | 1.0 | 670 | 82 |
| 104 | 902 | 1565 | 2.2 | 1.7 | PHQ832_0390 EZ813U | 2800 | 3300 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 106 | 3.0 | 1.0 | 701 | 70 |
| 104 | 935 | 2404 | 2.3 | 1.7 | PHQ832_0390 EZ815U | 2800 | 3300 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 169 | 3.0 | 1.0 | 701 | 82 |
| 145 | 644 | 1118 | 2.6 | 2.4 | PHQ832_0280 EZ813U | 2800 | 3300 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 107 | 3.0 | 1.0 | 715 | 70 |
| 145 | 668 | 1717 | 2.7 | 2.3 | PHQ832_0280 EZ815U | 2800 | 3300 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 170 | 3.0 | 1.0 | 715 | 82 |
| 182 | 516 | 894 | 2.9 | 3.0 | PHQ832_0220 EZ813U | 2800 | 2864 | 4964 | 22.00 | 22/1 | 2500 | 4500 | 109 | 3.0 | 1.0 | 720 | 70 |
| 182 | 534 | 1374 | 3.1 | 2.9 | PHQ832_0220 EZ815U | 2800 | 3300 | 4964 | 22.00 | 22/1 | 2500 | 4500 | 172 | 3.0 | 1.0 | 720 | 82 |
| **PHQ8 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | |
| 29 | 1317 | 2121 | 0.4 | 1.1 | PHQ833_1540 EZ505U | 2800 | 3300 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 12 | 3.0 | 1.0 | 710 | 46 |
| 33 | 1176 | 1893 | 0.4 | 1.3 | PHQ833_1380 EZ505U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 13 | 3.0 | 1.0 | 711 | 46 |
| 41 | 941 | 1515 | 0.5 | 1.6 | PHQ833_1100 EZ505U | 2800 | 3300 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 13 | 3.0 | 1.0 | 712 | 46 |
| 41 | 1198 | 1980 | 0.6 | 1.2 | PHQ833_1100 EZ703U | 2800 | 3300 | 4964 | 110.0 | 110/1 | 3000 | 5000 | 23 | 3.0 | 1.0 | 712 | 48 |
| 51 | 752 | 1212 | 0.6 | 2.0 | PHQ833_0880 EZ505U | 2800 | 3300 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 13 | 3.0 | 1.0 | 712 | 46 |
| 51 | 958 | 1584 | 0.7 | 1.6 | PHQ833_0880 EZ703U | 2800 | 3300 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 23 | 3.0 | 1.0 | 712 | 48 |
| 51 | 1299 | 2376 | 1.0 | 1.1 | PHQ833_0880 EZ705U | 2800 | 3300 | 4964 | 88.00 | 88/1 | 3000 | 5000 | 35 | 3.0 | 1.0 | 712 | 53 |
| 82 | 619 | 1023 | 0.9 | 2.4 | PHQ832_0550 EZ703U | 2700 | 2990 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 670 | 47 |
| 82 | 839 | 1535 | 1.3 | 1.8 | PHQ832_0550 EZ705U | 2700 | 2990 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 670 | 52 |
| 117 | 433 | 716 | 1.1 | 3.4 | PHQ832_0390 EZ703U | 2327 | 2327 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 23 | 3.0 | 1.0 | 701 | 47 |
| 117 | 587 | 1074 | 1.5 | 2.5 | PHQ832_0390 EZ705U | 2800 | 3300 | 4964 | 38.50 | 77/2 | 3000 | 6000 | 35 | 3.0 | 1.0 | 701 | 52 |
| 164 | 309 | 512 | 1.3 | 4.8 | PHQ832_0280 EZ703U | 1662 | 1662 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 24 | 3.0 | 1.0 | 715 | 47 |
| 164 | 419 | 767 | 1.8 | 3.5 | PHQ832_0280 EZ705U | 2660 | 2660 | 4964 | 27.50 | 55/2 | 2700 | 5500 | 37 | 3.0 | 1.0 | 715 | 52 |
| 205 | 336 | 614 | 2.0 | 4.4 | PHQ832_0220 EZ705U | 2128 | 2128 | 4745 | 22.00 | 22/1 | 2500 | 4500 | 38 | 3.0 | 1.0 | 720 | 52 |
| **PHQ8 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | |
| 16 | 1178 | 1525 | 0.1 | 1.1 | PHQ833_3850 EZ501U | 2800 | 3300 | 4964 | 385.0 | 385/1 | 3700 | 6500 | 3.0 | 3.0 | 1.0 | 699 | 40 |
| 22 | 842 | 1089 | 0.1 | 1.6 | PHQ833_2750 EZ501U | 2800 | 3300 | 4964 | 275.0 | 275/1 | 3700 | 6500 | 3.1 | 3.0 | 1.0 | 707 | 40 |
| 22 | 1287 | 1931 | 0.2 | 1.0 | PHQ833_2750 EZ502U | 2800 | 3300 | 4964 | 275.0 | 275/1 | 3700 | 6500 | 5.4 | 3.0 | 1.0 | 707 | 41 |
| 22 | 1287 | 1955 | 0.2 | 1.0 | PHQ833_2750 EZ701U | 2800 | 3300 | 4964 | 275.0 | 275/1 | 3700 | 6500 | 8.7 | 3.0 | 1.0 | 707 | 43 |
| 27 | 673 | 871 | 0.1 | 2.0 | PHQ833_2200 EZ501U | 2800 | 3168 | 4964 | 220.0 | 220/1 | 3700 | 6500 | 3.1 | 3.0 | 1.0 | 705 | 40 |
| 27 | 1030 | 1544 | 0.2 | 1.3 | PHQ833_2200 EZ502U | 2800 | 3300 | 4964 | 220.0 | 220/1 | 3700 | 6500 | 5.4 | 3.0 | 1.0 | 705 | 41 |
| 27 | 1030 | 1564 | 0.2 | 1.3 | PHQ833_2200 EZ701U | 2800 | 3300 | 4964 | 220.0 | 220/1 | 3700 | 6500 | 8.7 | 3.0 | 1.0 | 705 | 43 |
| 27 | 1228 | 2099 | 0.3 | 1.1 | PHQ833_2200 EZ503U | 2800 | 3300 | 4964 | 220.0 | 220/1 | 3700 | 6500 | 7.8 | 3.0 | 1.0 | 705 | 43 |
| 31 | 589 | 762 | 0.1 | 2.3 | PHQ833_1930 EZ501U | 2772 | 2772 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 3.2 | 3.0 | 1.0 | 710 | 40 |
| 31 | 901 | 1351 | 0.2 | 1.5 | PHQ833_1930 EZ502U | 2800 | 3300 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 5.5 | 3.0 | 1.0 | 710 | 41 |
| 31 | 901 | 1369 | 0.2 | 1.5 | PHQ833_1930 EZ701U | 2800 | 3300 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 8.8 | 3.0 | 1.0 | 710 | 43 |
| 31 | 1074 | 1836 | 0.3 | 1.3 | PHQ833_1930 EZ503U | 2800 | 3300 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 7.9 | 3.0 | 1.0 | 710 | 43 |
| 31 | 1247 | 2477 | 0.3 | 1.1 | PHQ833_1930 EZ702U | 2800 | 3300 | 4964 | 192.5 | 385/2 | 3700 | 6500 | 14 | 3.0 | 1.0 | 710 | 46 |
| 39 | 471 | 610 | 0.2 | 2.9 | PHQ833_1540 EZ501U | 2218 | 2218 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 3.2 | 3.0 | 1.0 | 710 | 40 |
| 39 | 721 | 1081 | 0.3 | 1.9 | PHQ833_1540 EZ502U | 2800 | 3300 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 5.5 | 3.0 | 1.0 | 710 | 41 |
| 39 | 721 | 1095 | 0.3 | 1.9 | PHQ833_1540 EZ701U | 2772 | 2772 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 8.8 | 3.0 | 1.0 | 710 | 43 |
| 39 | 859 | 1469 | 0.3 | 1.6 | PHQ833_1540 EZ503U | 2800 | 3300 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 7.9 | 3.0 | 1.0 | 710 | 43 |
| 39 | 998 | 1982 | 0.4 | 1.4 | PHQ833_1540 EZ702U | 2800 | 3300 | 4964 | 154.0 | 154/1 | 3700 | 6500 | 14 | 3.0 | 1.0 | 710 | 46 |
| 44 | 421 | 545 | 0.2 | 3.2 | PHQ833_1380 EZ501U | 1980 | 1980 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 3.5 | 3.0 | 1.0 | 711 | 40 |
| 44 | 644 | 965 | 0.3 | 2.1 | PHQ833_1380 EZ502U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 5.8 | 3.0 | 1.0 | 711 | 41 |
| 44 | 644 | 978 | 0.3 | 2.1 | PHQ833_1380 EZ701U | 2475 | 2475 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 9.1 | 3.0 | 1.0 | 711 | 43 |
| 44 | 767 | 1312 | 0.3 | 1.8 | PHQ833_1380 EZ503U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 8.2 | 3.0 | 1.0 | 711 | 43 |
| 44 | 891 | 1770 | 0.4 | 1.5 | PHQ833_1380 EZ702U | 2800 | 3300 | 4964 | 137.5 | 275/2 | 3500 | 6000 | 14 | 3.0 | 1.0 | 711 | 46 |
| 109 | 368 | 731 | 0.6 | 3.7 | PHQ832_0550 EZ702U | 2097 | 2097 | 4964 | 55.00 | 55/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 670 | 45 |
| **PHQ9 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 6600 Nm)** | | | | | | | | | | | | | | | | | |
| 21 | 3369 | 3778 | 0.9 | 1.1 | PHQ943_0960 EZ813U | 6600 | 6600 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 109 | 3.0 | 1.0 | 1207 | 117 |
| 28 | 2527 | 2834 | 1.1 | 1.5 | PHQ943_0720 EZ813U | 6600 | 6600 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 111 | 3.0 | 1.0 | 1205 | 117 |
| 28 | 3742 | 4456 | 1.6 | 1.0 | PHQ943_0720 EZ815U | 6600 | 6600 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 174 | 3.0 | 1.0 | 1205 | 130 |
| 33 | 2176 | 2440 | 1.1 | 1.9 | PHQ942_0600 EZ813U | 6600 | 6600 | 13200 | 60.00 | 60/1 | 2800 | 4500 | 108 | 3.0 | 1.0 | 1149 | 109 |
| 33 | 3222 | 3837 | 1.7 | 1.3 | PHQ942_0600 EZ815U | 6600 | 6600 | 13200 | 60.00 | 60/1 | 2800 | 4500 | 171 | 3.0 | 1.0 | 1149 | 122 |
| 48 | 1523 | 1708 | 1.2 | 3.0 | PHQ942_0420 EZ813U | 5468 | 5468 | 13200 | 42.00 | 42/1 | 2800 | 4500 | 111 | 3.0 | 1.0 | 1195 | 109 |
| 48 | 2256 | 2686 | 1.8 | 2.0 | PHQ942_0420 EZ815U | 6600 | 6600 | 13200 | 42.00 | 42/1 | 2800 | 4500 | 174 | 3.0 | 1.0 | 1195 | 122 |
| 67 | 1088 | 1220 | 1.5 | 3.9 | PHQ942_0300 EZ813U | 3906 | 3906 | 13200 | 30.00 | 30/1 | 2500 | 4000 | 116 | 3.0 | 1.0 | 1214 | 109 |
| 67 | 1611 | 1918 | 2.3 | 2.6 | PHQ942_0300 EZ815U | 5580 | 5580 | 13200 | 30.00 | 30/1 | 2500 | 4000 | 179 | 3.0 | 1.0 | 1214 | 122 |
| 83 | 870 | 976 | 1.9 | 4.4 | PHQ942_0240 EZ813U | 3125 | 3125 | 11506 | 24.00 | 24/1 | 2000 | 3500 | 124 | 3.0 | 1.0 | 1225 | 109 |
| 83 | 1289 | 1535 | 2.8 | 2.9 | PHQ942_0240 EZ815U | 4464 | 4464 | 11506 | 24.00 | 24/1 | 2000 | 3500 | 187 | 3.0 | 1.0 | 1225 | 122 |
| 111 | 967 | 1151 | 3.3 | 3.9 | PHQ942_0180 EZ815U | 3348 | 3348 | 8655 | 18.00 | 18/1 | 1800 | 3000 | 213 | 3.0 | 1.0 | 1237 | 122 |
| **PHQ9 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 6600 Nm)** | | | | | | | | | | | | | | | | | |
| 5.0 | 3996 | 4482 | 0.1 | 1.1 | PHQ943_6000 EZ701U | 6600 | 6600 | 13200 | 600.0 | 600/1 | 3000 | 6000 | 9.0 | 3.0 | 1.0 | 1145 | 90 |
| 7.1 | 2797 | 3137 | 0.1 | 1.6 | PHQ943_4200 EZ701U | 6600 | 6600 | 13200 | 420.0 | 420/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 1184 | 90 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHQ9 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 6600 Nm) | | | | | | | | | | | | | | | | | |
| 10 | 1998 | 2241 | 0.1 | 2.1 | PHQ943_3000 EZ701U | 5400 | 5400 | 13200 | 300.0 | 300/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 1196 | 90 |
| 10 | 3240 | 3888 | 0.1 | 1.3 | PHQ943_3000 EZ702U | 6600 | 6600 | 13200 | 300.0 | 300/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 1196 | 92 |
| 13 | 1598 | 1793 | 0.1 | 2.4 | PHQ943_2400 EZ701U | 4320 | 4320 | 13200 | 240.0 | 240/1 | 3000 | 6000 | 9.2 | 3.0 | 1.0 | 1198 | 90 |
| 13 | 2592 | 3110 | 0.2 | 1.5 | PHQ943_2400 EZ702U | 6600 | 6600 | 13200 | 240.0 | 240/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 1198 | 92 |
| 13 | 3564 | 4493 | 0.2 | 1.1 | PHQ943_2400 EZ703U | 6600 | 6600 | 13200 | 240.0 | 240/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 1198 | 94 |
| 14 | 1399 | 1569 | 0.1 | 3.0 | PHQ943_2100 EZ701U | 3780 | 3780 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 9.7 | 3.0 | 1.0 | 1200 | 90 |
| 14 | 2268 | 2722 | 0.2 | 1.9 | PHQ943_2100 EZ702U | 6600 | 6600 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 1200 | 92 |
| 14 | 3119 | 3931 | 0.2 | 1.3 | PHQ943_2100 EZ703U | 6600 | 6600 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 1200 | 94 |
| 14 | 4026 | 5708 | 0.3 | 1.0 | PHQ943_2100 EZ705U | 6600 | 6600 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 1200 | 100 |
| 18 | 1119 | 1255 | 0.1 | 3.4 | PHQ943_1680 EZ701U | 3024 | 3024 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 9.9 | 3.0 | 1.0 | 1204 | 90 |
| 18 | 1814 | 2177 | 0.2 | 2.1 | PHQ943_1680 EZ702U | 6199 | 6199 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 1204 | 92 |
| 18 | 2495 | 3145 | 0.3 | 1.5 | PHQ943_1680 EZ703U | 6600 | 6600 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 1204 | 94 |
| 18 | 3221 | 4566 | 0.4 | 1.2 | PHQ943_1680 EZ705U | 6600 | 6600 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 1204 | 100 |
| 20 | 999 | 1121 | 0.1 | 4.2 | PHQ943_1500 EZ701U | 2700 | 2700 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 11 | 3.0 | 1.0 | 1202 | 90 |
| 20 | 1620 | 1944 | 0.2 | 2.6 | PHQ943_1500 EZ702U | 5535 | 5535 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 16 | 3.0 | 1.0 | 1202 | 92 |
| 20 | 2228 | 2808 | 0.3 | 1.9 | PHQ943_1500 EZ703U | 6600 | 6600 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 24 | 3.0 | 1.0 | 1202 | 94 |
| 20 | 2876 | 4077 | 0.4 | 1.5 | PHQ943_1500 EZ705U | 6600 | 6600 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 36 | 3.0 | 1.0 | 1202 | 100 |
| 25 | 1296 | 1555 | 0.2 | 3.2 | PHQ943_1200 EZ702U | 4428 | 4428 | 13200 | 120.0 | 120/1 | 2500 | 4500 | 18 | 3.0 | 1.0 | 1203 | 92 |
| 25 | 1782 | 2246 | 0.3 | 2.4 | PHQ943_1200 EZ703U | 6600 | 6600 | 13200 | 120.0 | 120/1 | 2500 | 4500 | 26 | 3.0 | 1.0 | 1203 | 94 |
| 25 | 2300 | 3262 | 0.4 | 1.8 | PHQ943_1200 EZ705U | 6600 | 6600 | 13200 | 120.0 | 120/1 | 2500 | 4500 | 38 | 3.0 | 1.0 | 1203 | 100 |
| 31 | 1037 | 1244 | 0.3 | 3.7 | PHQ943_0960 EZ702U | 3542 | 3542 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 18 | 3.0 | 1.0 | 1207 | 92 |
| 31 | 1426 | 1797 | 0.4 | 2.7 | PHQ943_0960 EZ703U | 5616 | 5616 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 26 | 3.0 | 1.0 | 1207 | 94 |
| 31 | 1840 | 2609 | 0.5 | 2.1 | PHQ943_0960 EZ705U | 6600 | 6600 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 39 | 3.0 | 1.0 | 1207 | 100 |
| 42 | 778 | 933 | 0.3 | 4.9 | PHQ943_0720 EZ702U | 2657 | 2657 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 20 | 3.0 | 1.0 | 1205 | 92 |
| 42 | 1069 | 1348 | 0.5 | 3.6 | PHQ943_0720 EZ703U | 4212 | 4212 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 28 | 3.0 | 1.0 | 1205 | 94 |
| 42 | 1380 | 1957 | 0.6 | 2.8 | PHQ943_0720 EZ705U | 6600 | 6600 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 40 | 3.0 | 1.0 | 1205 | 100 |
| PHQ9 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 6600 Nm) | | | | | | | | | | | | | | | | | |
| 27 | 3402 | 5900 | 0.4 | 1.2 | PHQ943_1500 EZ813U | 6600 | 6600 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 107 | 3.0 | 1.0 | 1202 | 117 |
| 27 | 3525 | 9064 | 0.4 | 1.2 | PHQ943_1500 EZ815U | 6600 | 6600 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 170 | 3.0 | 1.0 | 1202 | 130 |
| 33 | 2722 | 4720 | 0.5 | 1.5 | PHQ943_1200 EZ813U | 6600 | 6600 | 13200 | 120.0 | 120/1 | 2500 | 4500 | 109 | 3.0 | 1.0 | 1203 | 117 |
| 33 | 2820 | 7251 | 0.5 | 1.5 | PHQ943_1200 EZ815U | 6600 | 6600 | 13200 | 120.0 | 120/1 | 2500 | 4500 | 172 | 3.0 | 1.0 | 1203 | 130 |
| 42 | 2177 | 3776 | 0.6 | 1.7 | PHQ943_0960 EZ813U | 6600 | 6600 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 109 | 3.0 | 1.0 | 1207 | 117 |
| 42 | 2256 | 5801 | 0.6 | 1.7 | PHQ943_0960 EZ815U | 6600 | 6600 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 172 | 3.0 | 1.0 | 1207 | 130 |
| 56 | 1633 | 2832 | 0.7 | 2.3 | PHQ943_0720 EZ813U | 6600 | 6600 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 111 | 3.0 | 1.0 | 1205 | 117 |
| 56 | 1692 | 4351 | 0.7 | 2.2 | PHQ943_0720 EZ815U | 6600 | 6600 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 174 | 3.0 | 1.0 | 1205 | 130 |
| 67 | 1406 | 2438 | 0.9 | 2.3 | PHQ942_0600 EZ813U | 6600 | 6600 | 13200 | 60.00 | 60/1 | 2800 | 4500 | 108 | 3.0 | 1.0 | 1149 | 109 |
| 67 | 1457 | 3746 | 0.9 | 2.2 | PHQ942_0600 EZ815U | 6600 | 6600 | 13200 | 60.00 | 60/1 | 2800 | 4500 | 171 | 3.0 | 1.0 | 1149 | 122 |
| 95 | 984 | 1707 | 0.8 | 4.6 | PHQ942_0420 EZ813U | 5468 | 5468 | 13200 | 42.00 | 42/1 | 2800 | 4500 | 111 | 3.0 | 1.0 | 1195 | 109 |
| 95 | 1020 | 2622 | 0.8 | 4.4 | PHQ942_0420 EZ815U | 6600 | 6600 | 13200 | 42.00 | 42/1 | 2800 | 4500 | 174 | 3.0 | 1.0 | 1195 | 122 |
| PHQ9 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 6600 Nm) | | | | | | | | | | | | | | | | | |
| 15 | 3267 | 5400 | 0.1 | 1.3 | PHQ943_3000 EZ703U | 6600 | 6600 | 13200 | 300.0 | 300/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 1196 | 94 |
| 19 | 2614 | 4320 | 0.2 | 1.5 | PHQ943_2400 EZ703U | 6600 | 6600 | 13200 | 240.0 | 240/1 | 3000 | 6000 | 22 | 3.0 | 1.0 | 1198 | 94 |
| 19 | 3542 | 6480 | 0.2 | 1.1 | PHQ943_2400 EZ705U | 6600 | 6600 | 13200 | 240.0 | 240/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 1198 | 100 |
| 21 | 2287 | 3780 | 0.2 | 1.8 | PHQ943_2100 EZ703U | 6600 | 6600 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 1200 | 94 |
| 21 | 3100 | 5670 | 0.2 | 1.4 | PHQ943_2100 EZ705U | 6600 | 6600 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 1200 | 100 |
| 27 | 1830 | 3024 | 0.2 | 2.1 | PHQ943_1680 EZ703U | 6600 | 6600 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 23 | 3.0 | 1.0 | 1204 | 94 |
| 27 | 2480 | 4536 | 0.3 | 1.5 | PHQ943_1680 EZ705U | 6600 | 6600 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 35 | 3.0 | 1.0 | 1204 | 100 |
| 30 | 1634 | 2700 | 0.2 | 2.6 | PHQ943_1500 EZ703U | 6600 | 6600 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 24 | 3.0 | 1.0 | 1202 | 94 |
| 30 | 2214 | 4050 | 0.3 | 1.9 | PHQ943_1500 EZ705U | 6600 | 6600 | 13200 | 150.0 | 150/1 | 2700 | 5500 | 36 | 3.0 | 1.0 | 1202 | 100 |
| 38 | 1307 | 2160 | 0.2 | 3.2 | PHQ943_1200 EZ703U | 6600 | 6600 | 13200 | 120.0 | 120/1 | 2500 | 4500 | 26 | 3.0 | 1.0 | 1203 | 94 |
| 38 | 1771 | 3240 | 0.3 | 2.4 | PHQ943_1200 EZ705U | 6600 | 6600 | 13200 | 120.0 | 120/1 | 2500 | 4500 | 38 | 3.0 | 1.0 | 1203 | 100 |
| 47 | 1045 | 1728 | 0.3 | 3.6 | PHQ943_0960 EZ703U | 5616 | 5616 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 26 | 3.0 | 1.0 | 1207 | 94 |
| 47 | 1417 | 2592 | 0.4 | 2.7 | PHQ943_0960 EZ705U | 6600 | 6600 | 13200 | 96.00 | 96/1 | 2500 | 4500 | 39 | 3.0 | 1.0 | 1207 | 100 |
| 63 | 784 | 1296 | 0.3 | 4.8 | PHQ943_0720 EZ703U | 4212 | 4212 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 28 | 3.0 | 1.0 | 1205 | 94 |
| 63 | 1063 | 1944 | 0.4 | 3.6 | PHQ943_0720 EZ705U | 6600 | 6600 | 13200 | 72.00 | 72/1 | 2200 | 4500 | 40 | 3.0 | 1.0 | 1205 | 100 |
| PHQ9 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 6600 Nm) | | | | | | | | | | | | | | | | | |
| 10 | 2808 | 4266 | – | 1.6 | PHQ943_6000 EZ701U | 6600 | 6600 | 13200 | 600.0 | 600/1 | 3000 | 6000 | 9.0 | 3.0 | 1.0 | 1145 | 90 |
| 10 | 3888 | 7722 | 0.1 | 1.2 | PHQ943_6000 EZ702U | 6600 | 6600 | 13200 | 600.0 | 600/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 1145 | 92 |
| 14 | 1966 | 2986 | 0.1 | 2.3 | PHQ943_4200 EZ701U | 6600 | 6600 | 13200 | 420.0 | 420/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 1184 | 90 |
| 14 | 2722 | 5405 | 0.1 | 1.7 | PHQ943_4200 EZ702U | 6600 | 6600 | 13200 | 420.0 | 420/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 1184 | 92 |
| 20 | 1404 | 2133 | 0.1 | 3.0 | PHQ943_3000 EZ701U | 5400 | 5400 | 13200 | 300.0 | 300/1 | 3000 | 6000 | 9.1 | 3.0 | 1.0 | 1196 | 90 |
| 20 | 1944 | 3861 | 0.1 | 2.2 | PHQ943_3000 EZ702U | 6600 | 6600 | 13200 | 300.0 | 300/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 1196 | 92 |
| 25 | 1123 | 1706 | 0.1 | 3.4 | PHQ943_2400 EZ701U | 4320 | 4320 | 13200 | 240.0 | 240/1 | 3000 | 6000 | 9.2 | 3.0 | 1.0 | 1198 | 90 |
| 25 | 1555 | 3089 | 0.1 | 2.4 | PHQ943_2400 EZ702U | 6600 | 6600 | 13200 | 240.0 | 240/1 | 3000 | 6000 | 14 | 3.0 | 1.0 | 1198 | 92 |
| 29 | 983 | 1493 | 0.1 | 4.3 | PHQ943_2100 EZ701U | 3780 | 3780 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 9.7 | 3.0 | 1.0 | 1200 | 90 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ9 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 6600 Nm)** | | | | | | | | | | | | | | | | | |
| 29 | 1361 | 2703 | 0.1 | 3.1 | PHQ943_2100 EZ702U | 6600 | 6600 | 13200 | 210.0 | 210/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 1200 | 92 |
| 36 | 786 | 1194 | 0.1 | 4.8 | PHQ943_1680 EZ701U | 3024 | 3024 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 9.9 | 3.0 | 1.0 | 1204 | 90 |
| 36 | 1089 | 2162 | 0.1 | 3.5 | PHQ943_1680 EZ702U | 6199 | 6199 | 13200 | 168.0 | 168/1 | 3000 | 6000 | 15 | 3.0 | 1.0 | 1204 | 92 |
| **PHQ10 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 10000 Nm)** | | | | | | | | | | | | | | | | | |
| 12 | 5895 | 6612 | 0.4 | 1.1 | PHQ1043_1680 EZ813U | 10000 | – | 20000 | 168.0 | 168/1 | 2800 | 4500 | 110 | 3.0 | – | 2064 | 156 |
| 13 | 5264 | 5904 | 0.5 | 1.2 | PHQ1043_1500 EZ813U | 10000 | – | 20000 | 150.0 | 150/1 | 2500 | 4000 | 115 | 3.0 | – | 2061 | 156 |
| 17 | 4211 | 4723 | 0.5 | 1.5 | PHQ1043_1200 EZ813U | 10000 | – | 20000 | 120.0 | 120/1 | 2000 | 3500 | 123 | 3.0 | – | 2062 | 156 |
| 17 | 6237 | 7426 | 0.8 | 1.0 | PHQ1043_1200 EZ815U | 10000 | – | 20000 | 120.0 | 120/1 | 2000 | 3500 | 186 | 3.0 | – | 2062 | 169 |
| 21 | 3369 | 3778 | 0.6 | 1.9 | PHQ1043_0960 EZ813U | 10000 | – | 20000 | 96.00 | 96/1 | 2000 | 3500 | 124 | 3.0 | – | 2068 | 156 |
| 21 | 4990 | 5941 | 0.9 | 1.3 | PHQ1043_0960 EZ815U | 10000 | – | 20000 | 96.00 | 96/1 | 2000 | 3500 | 187 | 3.0 | – | 2068 | 169 |
| **PHQ10 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 10000 Nm)** | | | | | | | | | | | | | | | | | |
| 17 | 5443 | 9439 | 0.2 | 1.2 | PHQ1043_2400 EZ813U | 10000 | – | 20000 | 240.0 | 240/1 | 2800 | 4500 | 107 | 3.0 | – | 2055 | 156 |
| 17 | 5640 | 14502 | 0.2 | 1.2 | PHQ1043_2400 EZ815U | 10000 | – | 20000 | 240.0 | 240/1 | 2800 | 4500 | 170 | 3.0 | – | 2055 | 169 |
| 19 | 4763 | 8259 | 0.3 | 1.4 | PHQ1043_2100 EZ813U | 10000 | – | 20000 | 210.0 | 210/1 | 2800 | 4500 | 110 | 3.0 | – | 2059 | 156 |
| 19 | 4935 | 12689 | 0.3 | 1.3 | PHQ1043_2100 EZ815U | 10000 | – | 20000 | 210.0 | 210/1 | 2800 | 4500 | 173 | 3.0 | – | 2059 | 169 |
| 24 | 3810 | 6607 | 0.3 | 1.7 | PHQ1043_1680 EZ813U | 10000 | – | 20000 | 168.0 | 168/1 | 2800 | 4500 | 110 | 3.0 | – | 2064 | 156 |
| 24 | 3948 | 10152 | 0.3 | 1.6 | PHQ1043_1680 EZ815U | 10000 | – | 20000 | 168.0 | 168/1 | 2800 | 4500 | 173 | 3.0 | – | 2064 | 169 |
| 27 | 3402 | 5900 | 0.3 | 1.9 | PHQ1043_1500 EZ813U | 10000 | – | 20000 | 150.0 | 150/1 | 2500 | 4000 | 115 | 3.0 | – | 2061 | 156 |
| 27 | 3525 | 9064 | 0.3 | 1.8 | PHQ1043_1500 EZ815U | 10000 | – | 20000 | 150.0 | 150/1 | 2500 | 4000 | 178 | 3.0 | – | 2061 | 169 |
| **PHQ11 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 22000 Nm)** | | | | | | | | | | | | | | | | | |
| 6.7 | 10527 | 11807 | 0.2 | 1.2 | PHQ1143_3000 EZ813U | 22000 | – | 40000 | 300.0 | 300/1 | 2800 | 4500 | 108 | 3.0 | – | 3490 | 266 |
| 8.3 | 8422 | 9446 | 0.2 | 1.5 | PHQ1143_2400 EZ813U | 22000 | – | 40000 | 240.0 | 240/1 | 2800 | 4500 | 108 | 3.0 | – | 3495 | 266 |
| 8.3 | 12474 | 14852 | 0.3 | 1.0 | PHQ1143_2400 EZ815U | 22000 | – | 40000 | 240.0 | 240/1 | 2800 | 4500 | 171 | 3.0 | – | 3495 | 278 |
| 9.5 | 7369 | 8265 | 0.2 | 1.8 | PHQ1143_2100 EZ813U | 22000 | – | 40000 | 210.0 | 210/1 | 2800 | 4500 | 111 | 3.0 | – | 3506 | 266 |
| 9.5 | 10915 | 12996 | 0.3 | 1.2 | PHQ1143_2100 EZ815U | 22000 | – | 40000 | 210.0 | 210/1 | 2800 | 4500 | 174 | 3.0 | – | 3506 | 278 |
| 12 | 5895 | 6612 | 0.2 | 2.2 | PHQ1143_1680 EZ813U | 21168 | – | 40000 | 168.0 | 168/1 | 2800 | 4500 | 112 | 3.0 | – | 3520 | 266 |
| 12 | 8732 | 10397 | 0.3 | 1.5 | PHQ1143_1680 EZ815U | 22000 | – | 40000 | 168.0 | 168/1 | 2800 | 4500 | 175 | 3.0 | – | 3520 | 278 |
| 13 | 5264 | 5904 | 0.2 | 2.5 | PHQ1143_1500 EZ813U | 18900 | – | 40000 | 150.0 | 150/1 | 2500 | 4000 | 118 | 3.0 | – | 3511 | 266 |
| 13 | 7796 | 9283 | 0.4 | 1.7 | PHQ1143_1500 EZ815U | 22000 | – | 40000 | 150.0 | 150/1 | 2500 | 4000 | 181 | 3.0 | – | 3511 | 278 |
| 17 | 4211 | 4723 | 0.3 | 3.1 | PHQ1143_1200 EZ813U | 15120 | – | 40000 | 120.0 | 120/1 | 2000 | 3500 | 127 | 3.0 | – | 3514 | 266 |
| 17 | 6237 | 7426 | 0.4 | 2.1 | PHQ1143_1200 EZ815U | 21600 | – | 40000 | 120.0 | 120/1 | 2000 | 3500 | 190 | 3.0 | – | 3514 | 278 |
| 21 | 3369 | 3778 | 0.3 | 3.9 | PHQ1143_0960 EZ813U | 12096 | – | 40000 | 96.00 | 96/1 | 2000 | 3500 | 130 | 3.0 | – | 3533 | 266 |
| 21 | 4990 | 5941 | 0.5 | 2.6 | PHQ1143_0960 EZ815U | 17280 | – | 40000 | 96.00 | 96/1 | 2000 | 3500 | 193 | 3.0 | – | 3533 | 278 |
| **PHQ11 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 22000 Nm)** | | | | | | | | | | | | | | | | | |
| 13 | 6804 | 11799 | 0.1 | 1.9 | PHQ1143_3000 EZ813U | 22000 | – | 40000 | 300.0 | 300/1 | 2800 | 4500 | 108 | 3.0 | – | 3490 | 266 |
| 13 | 7050 | 18128 | 0.1 | 1.8 | PHQ1143_3000 EZ815U | 22000 | – | 40000 | 300.0 | 300/1 | 2800 | 4500 | 171 | 3.0 | – | 3490 | 278 |
| 17 | 5443 | 9439 | 0.1 | 2.3 | PHQ1143_2400 EZ813U | 22000 | – | 40000 | 240.0 | 240/1 | 2800 | 4500 | 108 | 3.0 | – | 3495 | 266 |
| 17 | 5640 | 14502 | 0.1 | 2.2 | PHQ1143_2400 EZ815U | 22000 | – | 40000 | 240.0 | 240/1 | 2800 | 4500 | 171 | 3.0 | – | 3495 | 278 |
| 19 | 4763 | 8259 | 0.1 | 2.7 | PHQ1143_2100 EZ813U | 22000 | – | 40000 | 210.0 | 210/1 | 2800 | 4500 | 111 | 3.0 | – | 3506 | 266 |
| 19 | 4935 | 12689 | 0.1 | 2.6 | PHQ1143_2100 EZ815U | 22000 | – | 40000 | 210.0 | 210/1 | 2800 | 4500 | 174 | 3.0 | – | 3506 | 278 |
| 24 | 3810 | 6607 | 0.2 | 3.4 | PHQ1143_1680 EZ813U | 21168 | – | 40000 | 168.0 | 168/1 | 2800 | 4500 | 112 | 3.0 | – | 3520 | 266 |
| 24 | 3948 | 10152 | 0.2 | 3.3 | PHQ1143_1680 EZ815U | 22000 | – | 40000 | 168.0 | 168/1 | 2800 | 4500 | 175 | 3.0 | – | 3520 | 278 |
| 27 | 3402 | 5900 | 0.2 | 3.8 | PHQ1143_1500 EZ813U | 18900 | – | 40000 | 150.0 | 150/1 | 2500 | 4000 | 118 | 3.0 | – | 3511 | 266 |
| 27 | 3525 | 9064 | 0.2 | 3.7 | PHQ1143_1500 EZ815U | 22000 | – | 40000 | 150.0 | 150/1 | 2500 | 4000 | 181 | 3.0 | – | 3511 | 278 |

# 4.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

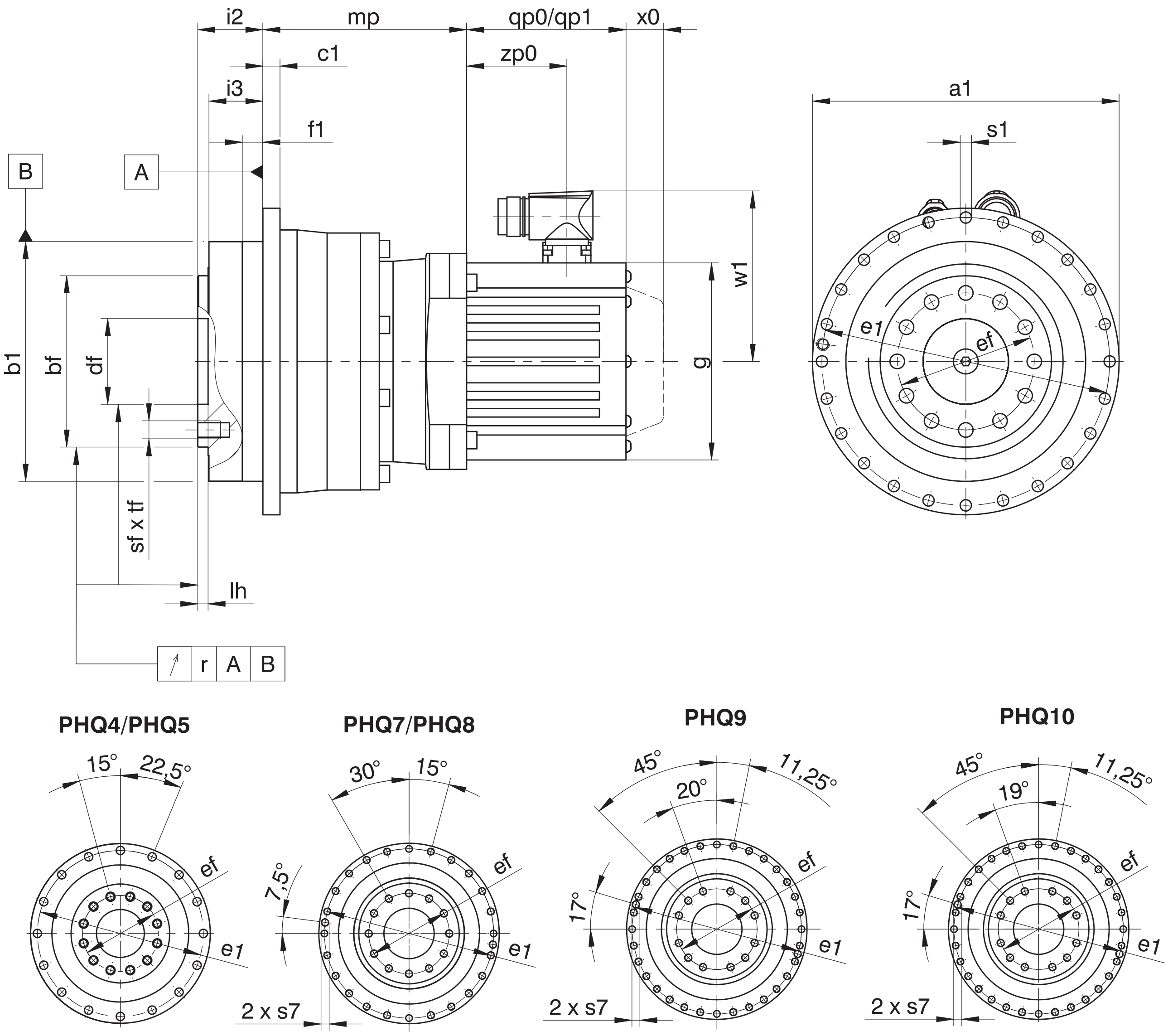
Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

## 4.3.1 PHQ4 – PHQ10 F shaft design (flange shaft)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |

### Dimensions of gearboxes

| Type | Øa1 | Øb1 | Øbf | c1 | Ødf | Øe1 | Øef | f1 | i2 | i3 | lh | r | Øs1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHQ431 | 118 | $90_{h7}$ | $63_{h7}$ | 7 | $31.5^{H6}$ | 109 | 50 | 10 | 30 | 24 | 6 | 0.020 | 5.5 | – | M6 | 11.0 |
| PHQ432 | 118 | $90_{h7}$ | $63_{h7}$ | 7 | $31.5^{H6}$ | 109 | 50 | 10 | 30 | 24 | 6 | 0.020 | 5.5 | – | M6 | 11.0 |
| PHQ531 | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40.0^{H6}$ | 135 | 63 | 12 | 29 | 23 | 6 | 0.020 | 5.5 | – | M8 | 12.0 |
| PHQ532 | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40.0^{H6}$ | 135 | 63 | 12 | 29 | 23 | 6 | 0.020 | 5.5 | – | M8 | 12.0 |
| PHQ731 | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50.0^{H6}$ | 168 | 80 | 12 | 38 | 32 | 6 | 0.025 | 6.6 | – | M10 | 16.0 |
| PHQ732 | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50.0^{H6}$ | 168 | 80 | 12 | 38 | 32 | 6 | 0.025 | 6.6 | – | M10 | 16.0 |
| PHQ733 | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50.0^{H6}$ | 168 | 80 | 12 | 38 | 32 | 6 | 0.025 | 6.6 | – | M10 | 16.0 |
| PHQ832 | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80.0^{H6}$ | 233 | 125 | 15 | 50 | 42 | 8 | 0.030 | 9.0 | M10 | M12 | 17.0 |
| PHQ833 | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80.0^{H6}$ | 233 | 125 | 15 | 50 | 42 | 8 | 0.030 | 9.0 | M10 | M12 | 17.0 |
| PHQ942 | 300 | $255_{h7}$ | $180_{h7}$ | 18 | $90.0^{H6}$ | 280 | 145 | 20 | 66 | 55 | 12 | 0.030 | 13.5 | M8 | M20 | 28.0 |
| PHQ943 | 300 | $255_{h7}$ | $180_{h7}$ | 18 | $90.0^{H6}$ | 280 | 145 | 20 | 66 | 55 | 12 | 0.030 | 13.5 | M8 | M20 | 28.0 |
| PHQ1043 | 330 | $285_{h7}$ | $200_{h7}$ | 20 | $95.0^{H6}$ | 310 | 166 | 20 | 75 | 60 | 10 | 0.040 | 13.5 | M10 | M24 | 35.0 |

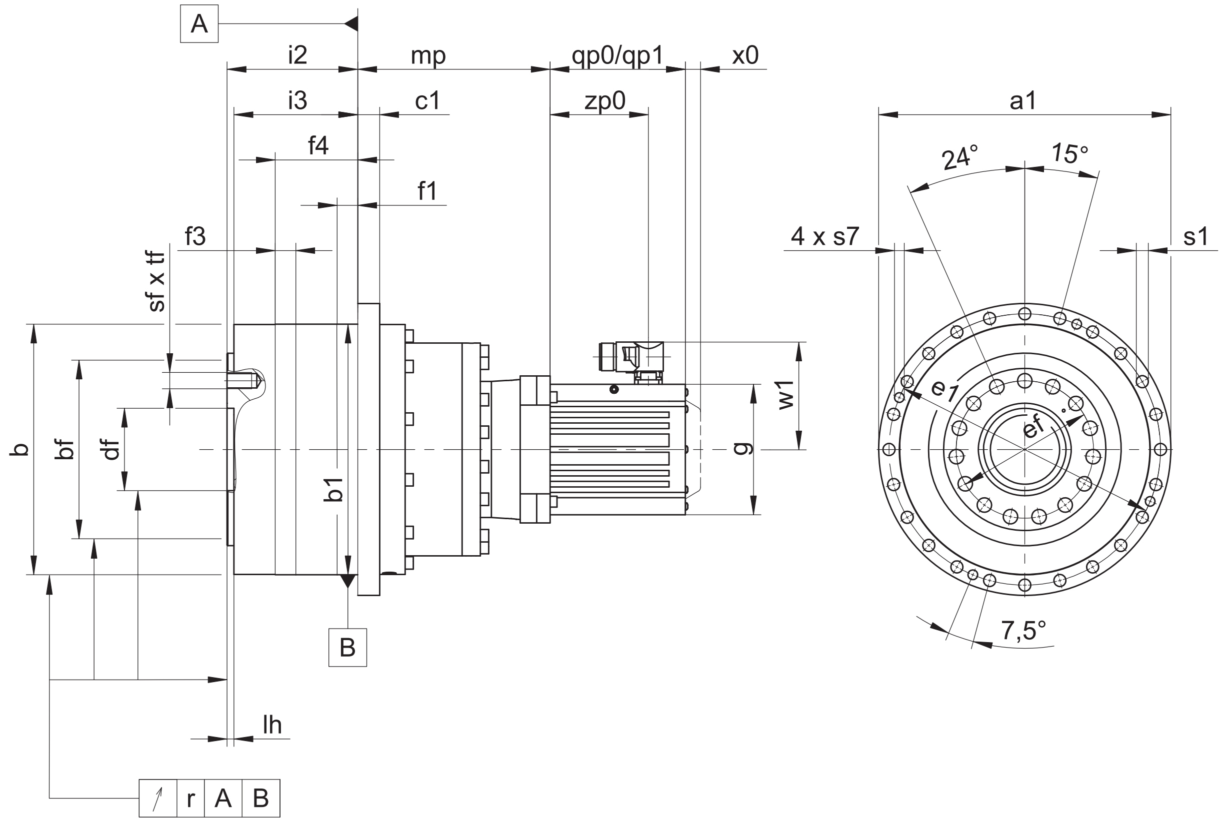
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ3 | EZ4 | EZ5 | EZ7 | EZ8 |
|---|---|---|---|---|---|
| | mp | mp | mp | mp | mp |
| PHQ431 | – | 54.5 | 54.0 | – | – |
| PHQ432 | 91.5 | 88.0 | – | – | – |
| PHQ531 | – | – | – | 64.0 | – |
| PHQ532 | – | 103.0 | 102.5 | – | – |
| PHQ731 | – | – | – | – | 81.0 |
| PHQ732 | – | – | 119.0 | 122.0 | – |
| PHQ733 | – | 161.0 | 160.5 | – | – |
| PHQ832 | – | – | – | 161.0 | 171.0 |
| PHQ833 | – | – | 209.0 | 212.0 | – |
| PHQ942 | – | – | – | – | 210.5 |
| PHQ943 | – | – | – | 261.5 | 271.5 |
| PHQ1043 | – | – | – | – | 324.5 |

## 4.3.2 PHQ11 F shaft design (flange shaft)




qp0 Applies to motors without brake.

qp1 Applies to motors with brake.

x0 Applies to encoders using an optical measuring method

w1 Different for the One Cable Solution (OCS), see the chapter [▷ 17.4]

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b | ∅b1 | ∅bf | c1 | ∅df | ∅e1 | ∅ef | f1 | f3 | f4 | i2 | i3 | lh | r | ∅s1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHQ1143 | 425 | $365_{g6}$ | $365_{h6}$ | $260_{h7}$ | 32 | $120.0^{H6}$ | 395 | 200 | 30 | 30 | 120 | 190 | 180 | 10 | 0.040 | 17.5 | M16 | M24 | 35.5 |

**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ813U | 190 | 238 | 315 | 156.5 | 22 | 184 |
| EZ815U | 190 | 320 | 397 | 156.5 | 22 | 266 |

**Dimensions of geared motors**

| Type | EZ8 |
|---|---|
| | mp |
| PHQ1143 | 280 |

# 4.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| PHQ | 7 | 3 | 3 | S | F | S | S | 0880 | EZ401U |
|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **PHQ** | Type | Planetary gearbox |
| **7** | Size | 7 (example) |
| **3** | Generation | Generation 3 |
| 4 | | Generation 4 |
| 1 | Stages | Single-stage |
| 2 | | Two-stage |
| **3** | | Three-stage |
| **S** | Housing | Standard |
| **F** | Shaft | Flange shaft |
| **S** | Bearing | Standard bearing |
| V | | Reinforced bearing (PHQ4 – PHQ5) |
| **S** | Backlash | Standard |
| R | | Reduced (PHQ4 – PHQ9) |
| **0880** | Transmission ratio (i x 10) | i = 88 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- For a detailed type designation of the motor, see the chapter [▷ 17.5]
- Mounting position (for three-stage gearboxes), see the chapter [▷ 4.5.3]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▷ 4.6.3]
- Reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▷ 4.6.4]

To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▷ 17.5.1].

# 4.5 Product description

## 4.5.1 Input options

| EZ synchronous servo motor | MB motor adapter + EZ synchronous servo motor |
|---|---|
|  |  |
| Catalog ID 442437_en | Catalog ID 443311_en |

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 4.5.2 Installation conditions

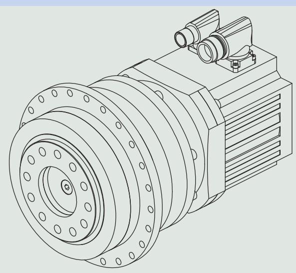
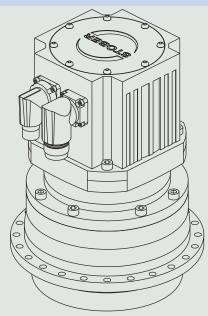
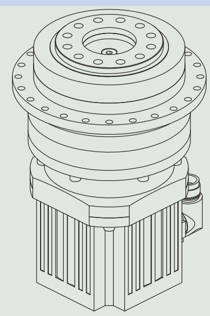
The torque and force values listed in this catalog are valid under the following conditions:

- When the flange shaft and gear housing are fastened on the machine side using screws of strength class 12.9
- When the gear housings are adjusted at pilot øb1, and also at pilot Øb for size PHQ11. The machine-side fit must be H7.
- When the flange shaft is adjusted using the connecting element at pilot øbf or ødf

## 4.5.3 Mounting positions

The following table shows the standard mounting positions.

Please indicate the mounting position when ordering three-stage geared motors.

| EL1 | EL5 | EL6 |
|---|---|---|
|  |  |  |
| Horizontal output | Vertical downward output | Vertical upward output |

## 4.5.4 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

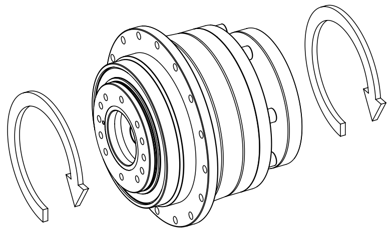
## 4.5.5 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ single-stage | 96% |
| $\eta_{get}$ two-stage | 93% |
| $\eta_{get}$ three-stage | 90% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

[1] Observe the protection class of all the components.

### 4.5.6 Direction of rotation

The input and output rotate in the same direction.



## 4.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

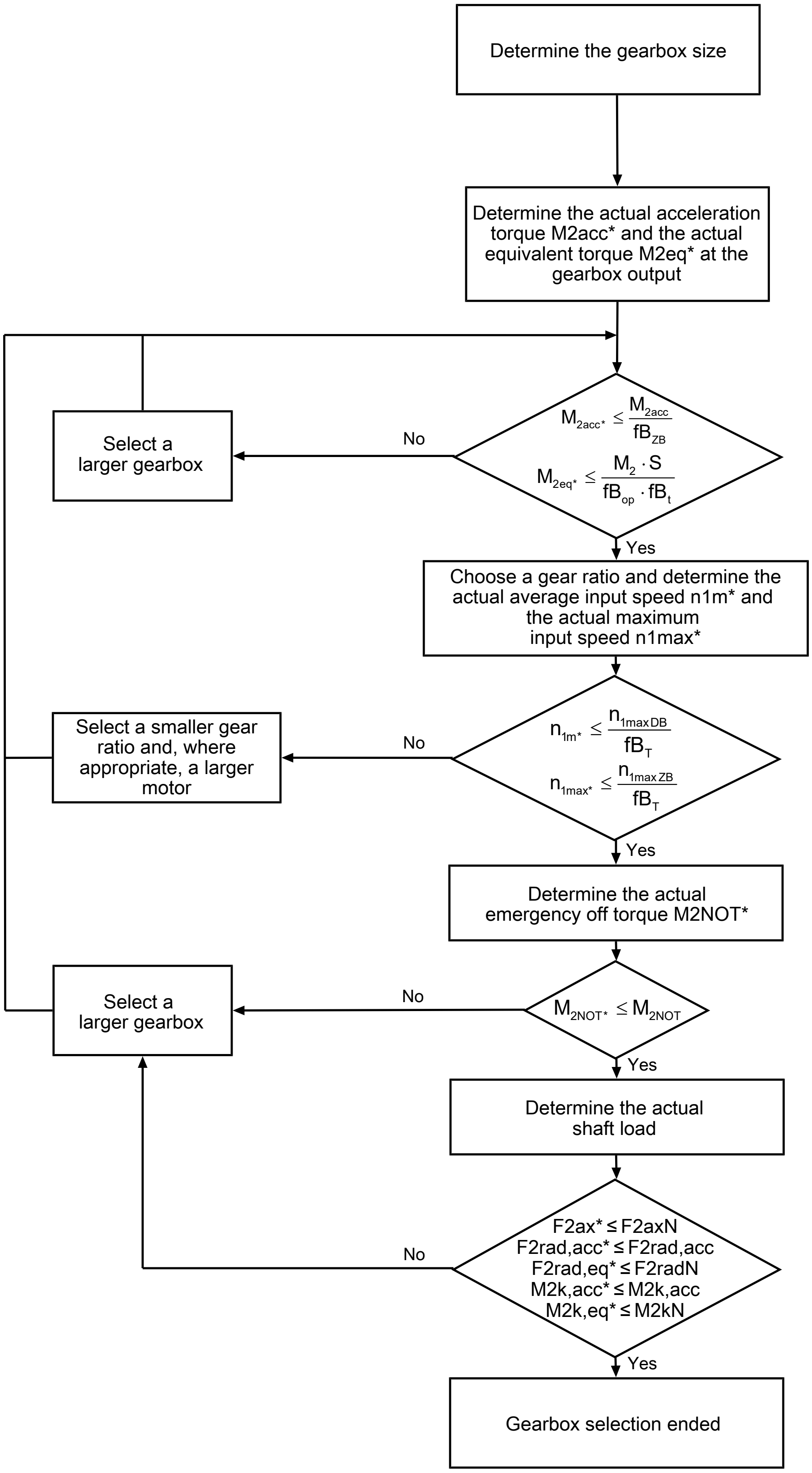
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▶ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 4.6.1 Drive selection

**Drive selection for gearboxes**

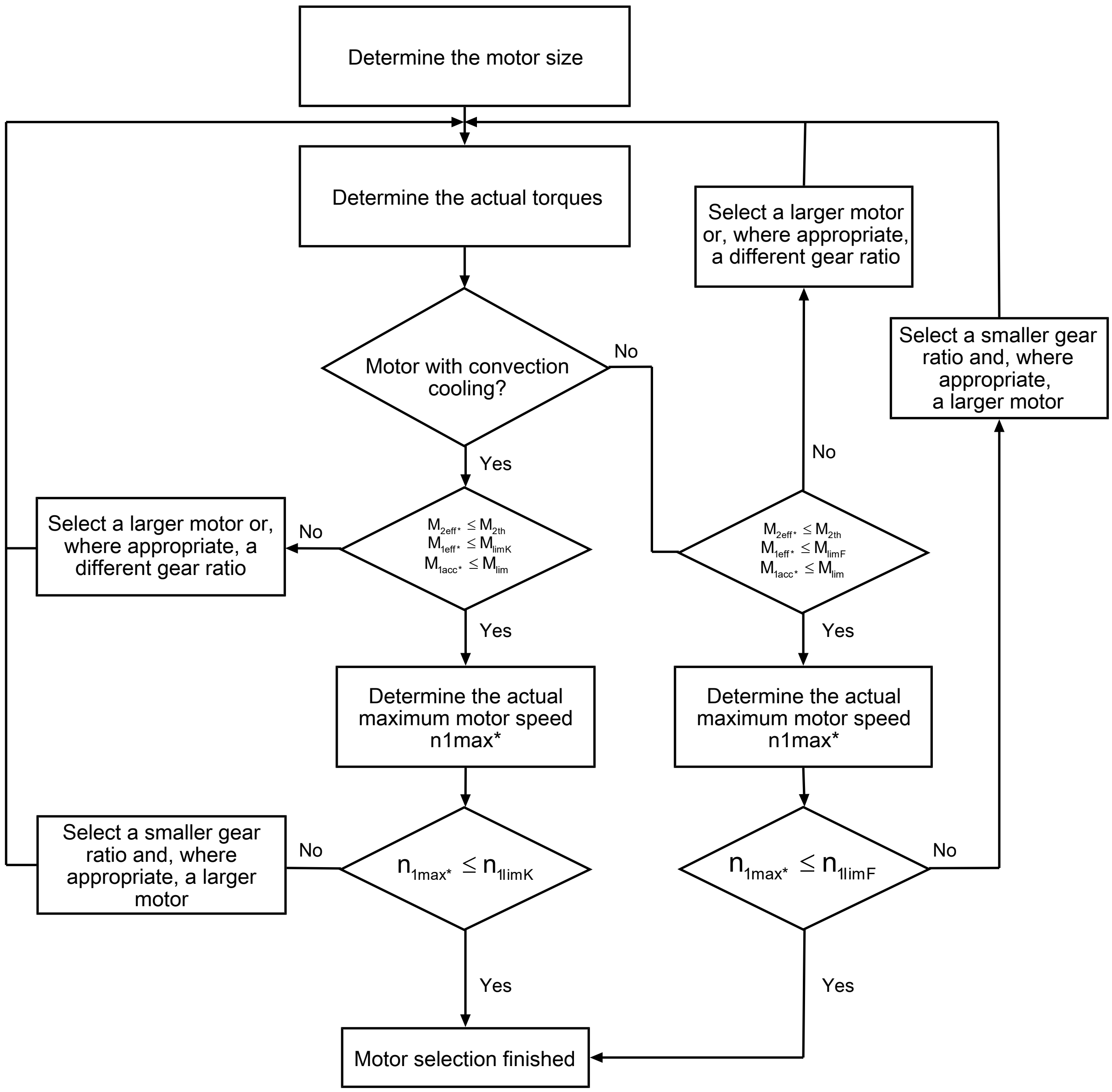



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

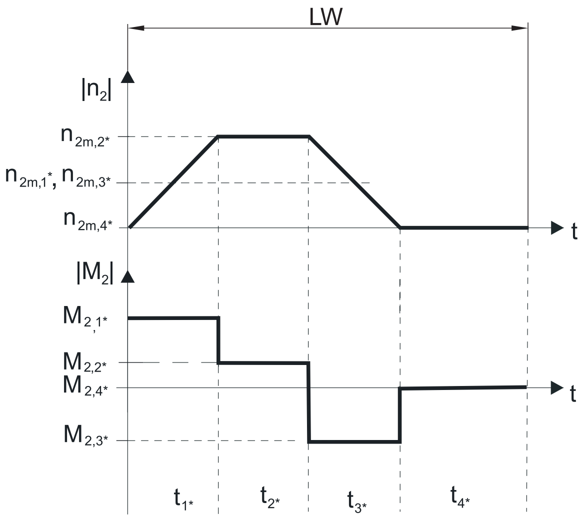
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc^*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L^*}$$

$$M_{1acc^*} = \frac{M_{2acc^*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m^*} = n_{2m^*} \cdot i$$

$$n_{2m^*} = \frac{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}{t_{1^*} + \ldots + t_{n^*}}$$

If $t_{1*} + ... + t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff^*} = \sqrt{\frac{t_{1^*} \cdot M_{2,1^*}^{\,2} + \ldots + t_{n^*} \cdot M_{2,n^*}^{\,2}}{t_{1^*} + \ldots + t_{n^*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT^*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L^*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

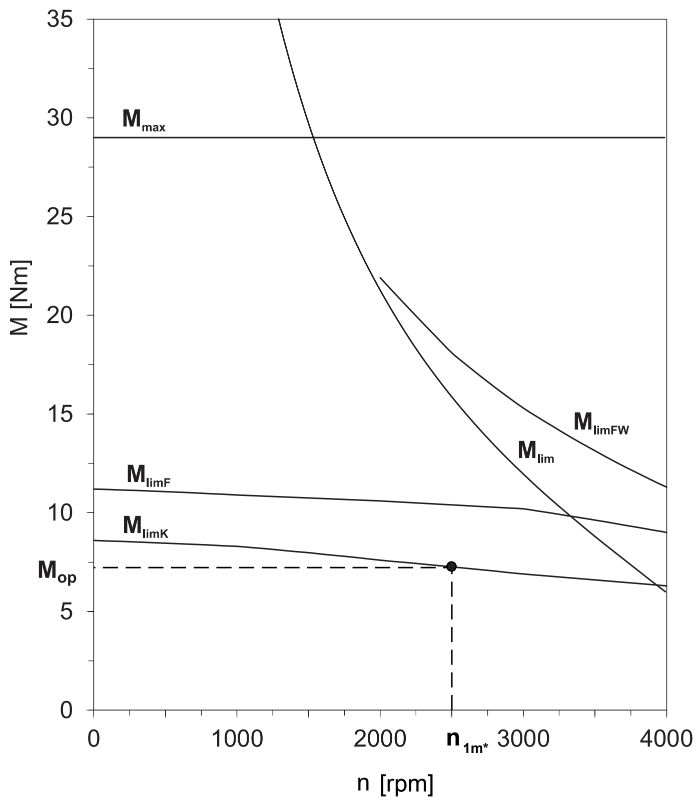
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}93 - \frac{a_{th}}{1000} \cdot fB_T \cdot \left(\frac{n_{1m^*}}{1000}\right)^3$$

Refer to the selection tables for the values of i and $a_{th}$.

The values for $fB_T$ can be found in the corresponding table in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.00 |
| Reversing load cyclic operation | 1.00 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 4.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m^*} \leq 100$ rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PHQ4 | 83.0 | 2150 | 3095 | 3929 | 257 | 326 | 192 |
| PHQ5 | 97.0 | 4150 | 4536 | 4897 | 440 | 475 | 429 |
| PHQ7 | 86.0 | 6150 | 17045 | 17045 | 1466 | 1466 | 500 |
| PHQ8 | 125.5 | 10050 | 27778 | 33333 | 3486 | 4183 | 1550 |
| PHQ9 | 155.0 | 33000 | 48387 | 70968 | 7500 | 11000 | 7500 |
| PHQ10 | 171.0 | 50000 | 51462 | 73099 | 8800 | 12500 | 9500 |
| PHQ11 | 231.0 | 60000 | 47619 | 69264 | 11000 | 16000 | 11500 |
| PHQ12 | 281.0 | 70000 | 64057 | 106761 | 18000 | 30000 | 14000 |

**Permitted shaft loads for reinforced bearing V**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PHQ4 | 88.5 | 2900 | 4000 | 4000 | 354 | 354 | 217 |
| PHQ5 | 104.0 | 5000 | 5500 | 5500 | 572 | 572 | 478 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m^*} > 100$ rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m^*}}{100\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m^*}}{100\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m^*}}{100\ \text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

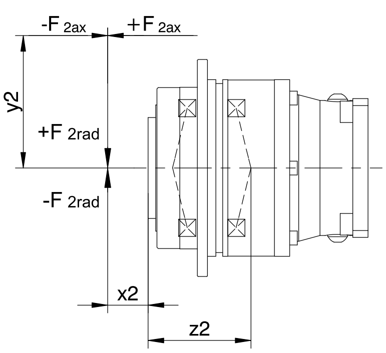



*Fig. 1:* Force application points

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc^*} = \frac{2 \cdot F_{2ax^*} \cdot y_2 + F_{2rad,acc^*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{\left|n_{2m,1^*}\right| \cdot t_{1^*} \cdot \left|M_{2k,acc,1^*}{}^3\right| + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*} \cdot \left|M_{2k,acc,n^*}{}^3\right|}{\left|n_{2m,1^*}\right| \cdot t_{1^*} + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{\left|n_{2m,1^*}\right| \cdot t_{1^*} \cdot \left|F_{2rad,acc,1^*}{}^3\right| + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*} \cdot \left|F_{2rad,acc,n^*}{}^3\right|}{\left|n_{2m,1^*}\right| \cdot t_{1^*} + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10} \leq 40\%$):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k^*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k^*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k^*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 4.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

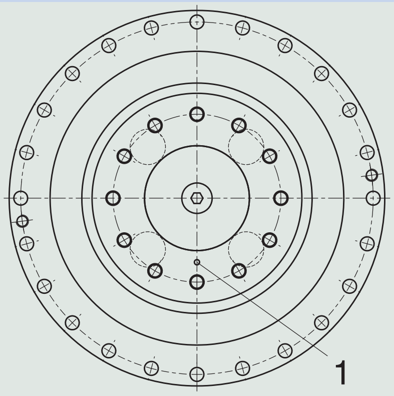
Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

## 4.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below.

The images show the center position of reverse operation.

Cyclic reverse operation ≤ ± 20° on request.

| PHQ4 – PHQ12 |
| --- |
|  |
| 1 Position of the mark: bottom |

Please note that the hole pattern may be different, depending on the size of the planetary gearbox.

# 4.7 Additional documentation

Additional documentation related to the product can be found at
http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
| --- | --- |
| Operating manual gearboxes, geared motors PHQ43 – PHQ83, PHQ94 – PHQ124 | 443353_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 5 PHV planetary geared motors

## Table of contents

5 **Planetary geared motors**

# PHV

## 5.1 Overview

High-performance precision planetary geared motors for large gear ratios

**Features**

| | |
|---|---|
| Power density | ★★★★☆ |
| Backlash | ★★★★☆ |
| Price category | €€€ |
| Shaft load | ★★★★★ |
| Smooth operation | ★★★★☆ |
| Torsional stiffness | ★★★★☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Any mounting position | ✓ |
| Continuous operation without cooling | ✓ |
| Stiff output bearings due to pretension | ✓ |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 61 – 121 |
| $M_{2acc}$ | 1638 – 7500 Nm |
| $\Delta\varphi_2$ | 1 – 3 arcmin |
| $\eta_{get}$ | 90 % |

# 5.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHV9 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 4250 Nm)** | | | | | | | | | | | | | | | | | |
| 25 | 806 | 904 | 0.2 | 3.1 | PHV943_1210 EZ701U | 2178 | 2178 | 9000 | 121.0 | 121/1 | 2500 | 4500 | 9.8 | 3.0 | 1.0 | 805 | 67 |
| 25 | 1307 | 1568 | 0.4 | 1.9 | PHV943_1210 EZ702U | 4250 | 4250 | 9000 | 121.0 | 121/1 | 2500 | 4500 | 15 | 3.0 | 1.0 | 805 | 70 |
| 25 | 1797 | 2265 | 0.5 | 1.4 | PHV943_1210 EZ703U | 4250 | 4250 | 9000 | 121.0 | 121/1 | 2500 | 4500 | 23 | 3.0 | 1.0 | 805 | 72 |
| 25 | 2320 | 3289 | 0.7 | 1.1 | PHV943_1210 EZ705U | 4250 | 4250 | 9000 | 121.0 | 121/1 | 2500 | 4500 | 35 | 3.0 | 1.0 | 805 | 77 |
| 33 | 606 | 680 | 0.3 | 4.1 | PHV943_0910 EZ701U | 1638 | 1638 | 9000 | 91.00 | 91/1 | 2500 | 4500 | 11 | 3.0 | 1.0 | 838 | 67 |
| 33 | 983 | 1179 | 0.4 | 2.5 | PHV943_0910 EZ702U | 3358 | 3358 | 9000 | 91.00 | 91/1 | 2500 | 4500 | 16 | 3.0 | 1.0 | 838 | 70 |
| 33 | 1351 | 1704 | 0.6 | 1.9 | PHV943_0910 EZ703U | 4250 | 4250 | 9000 | 91.00 | 91/1 | 2500 | 4500 | 24 | 3.0 | 1.0 | 838 | 72 |
| 33 | 1744 | 2473 | 0.8 | 1.4 | PHV943_0910 EZ705U | 4250 | 4250 | 9000 | 91.00 | 91/1 | 2500 | 4500 | 36 | 3.0 | 1.0 | 838 | 77 |
| 49 | 659 | 791 | 0.5 | 3.8 | PHV943_0610 EZ702U | 2251 | 2251 | 9000 | 61.00 | 61/1 | 2500 | 4500 | 19 | 3.0 | 1.0 | 850 | 70 |
| 49 | 906 | 1142 | 0.7 | 2.8 | PHV943_0610 EZ703U | 3569 | 3569 | 9000 | 61.00 | 61/1 | 2500 | 4500 | 27 | 3.0 | 1.0 | 850 | 72 |
| 49 | 1169 | 1658 | 1.0 | 2.1 | PHV943_0610 EZ705U | 4250 | 4250 | 9000 | 61.00 | 61/1 | 2500 | 4500 | 40 | 3.0 | 1.0 | 850 | 77 |
| **PHV9 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 4250 Nm)** | | | | | | | | | | | | | | | | | |
| 37 | 1318 | 2178 | 0.4 | 1.7 | PHV943_1210 EZ703U | 4250 | 4250 | 9000 | 121.0 | 121/1 | 2500 | 4500 | 23 | 3.0 | 1.0 | 805 | 72 |
| 37 | 1786 | 3267 | 0.6 | 1.3 | PHV943_1210 EZ705U | 4250 | 4250 | 9000 | 121.0 | 121/1 | 2500 | 4500 | 35 | 3.0 | 1.0 | 805 | 77 |
| 49 | 991 | 1638 | 0.5 | 2.3 | PHV943_0910 EZ703U | 4250 | 4250 | 9000 | 91.00 | 91/1 | 2500 | 4500 | 24 | 3.0 | 1.0 | 838 | 72 |
| 49 | 1343 | 2457 | 0.7 | 1.7 | PHV943_0910 EZ705U | 4250 | 4250 | 9000 | 91.00 | 91/1 | 2500 | 4500 | 36 | 3.0 | 1.0 | 838 | 77 |
| 74 | 664 | 1098 | 0.6 | 3.4 | PHV943_0610 EZ703U | 3569 | 3569 | 9000 | 61.00 | 61/1 | 2500 | 4500 | 27 | 3.0 | 1.0 | 850 | 72 |
| 74 | 900 | 1647 | 0.8 | 2.5 | PHV943_0610 EZ705U | 4250 | 4250 | 9000 | 61.00 | 61/1 | 2500 | 4500 | 40 | 3.0 | 1.0 | 850 | 77 |
| **PHV10 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 7500 Nm)** | | | | | | | | | | | | | | | | | |
| 22 | 3193 | 3581 | 1.0 | 1.3 | PHV1043_0910 EZ813U | 7500 | – | 15000 | 91.00 | 91/1 | 2500 | 4500 | 108 | 3.0 | – | 1342 | 118 |
| 33 | 2141 | 2401 | 1.2 | 1.9 | PHV1043_0610 EZ813U | 7500 | – | 15000 | 61.00 | 61/1 | 2500 | 4500 | 111 | 3.0 | – | 1370 | 118 |
| 33 | 3170 | 3775 | 1.7 | 1.3 | PHV1043_0610 EZ815U | 7500 | – | 15000 | 61.00 | 61/1 | 2500 | 4500 | 174 | 3.0 | – | 1370 | 131 |
| **PHV10 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 7500 Nm)** | | | | | | | | | | | | | | | | | |
| 44 | 2064 | 3579 | 0.6 | 1.9 | PHV1043_0910 EZ813U | 7500 | – | 15000 | 91.00 | 91/1 | 2500 | 4500 | 108 | 3.0 | – | 1342 | 118 |
| 44 | 2138 | 5499 | 0.7 | 1.9 | PHV1043_0910 EZ815U | 7500 | – | 15000 | 91.00 | 91/1 | 2500 | 4500 | 171 | 3.0 | – | 1342 | 131 |
| 66 | 1383 | 2399 | 0.8 | 2.9 | PHV1043_0610 EZ813U | 7500 | – | 15000 | 61.00 | 61/1 | 2500 | 4500 | 111 | 3.0 | – | 1370 | 118 |
| 66 | 1433 | 3686 | 0.8 | 2.8 | PHV1043_0610 EZ815U | 7500 | – | 15000 | 61.00 | 61/1 | 2500 | 4500 | 174 | 3.0 | – | 1370 | 131 |

# 5.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

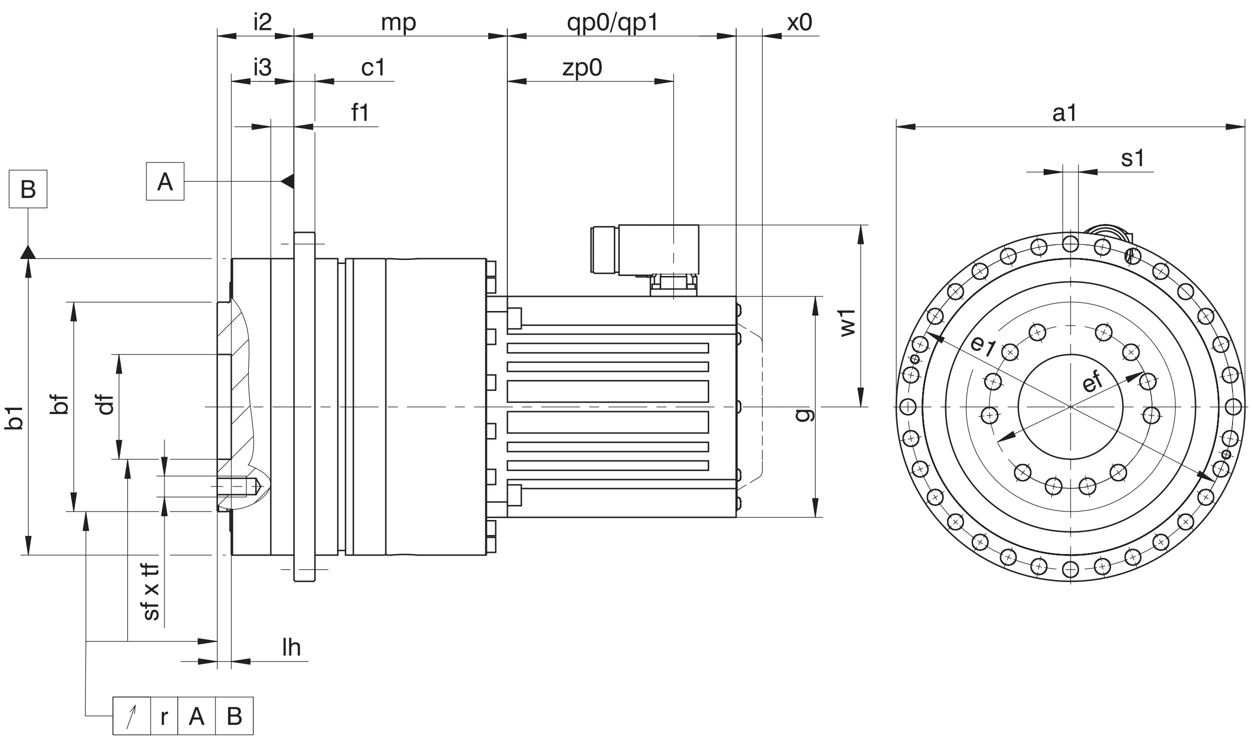
Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

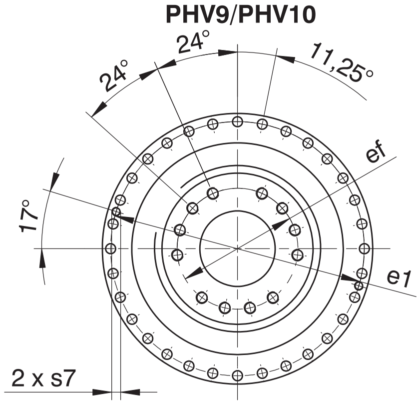
You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

## 5.3.1 F shaft design (flange shaft)




PHV9/PHV10




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b1 | ∅bf | c1 | ∅df | ∅e1 | ∅ef | f1 | i2 | i3 | lh | r | ∅s1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHV943 | 300 | $255_{h7}$ | $180_{h7}$ | 18 | $90^{H6}$ | 280 | 140 | 20 | 66 | 55 | 12 | 0.030 | 13.5 | M8 | M16 | 24 |
| PHV1043 | 330 | $285_{h7}$ | $200_{h7}$ | 20 | $95^{H6}$ | 310 | 160 | 20 | 75 | 60 | 10 | 0.040 | 13.5 | M10 | M20 | 28 |

**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ701U | 145 | 102 | 161 | 115.0 | 22 | 64 |
| EZ702U | 145 | 127 | 186 | 115.0 | 22 | 89 |
| EZ703U | 145 | 152 | 211 | 115.0 | 22 | 114 |
| EZ705U | 145 | 207 | 266 | 134.0 | 22 | 165 |
| EZ813U | 190 | 238 | 315 | 156.5 | 22 | 184 |
| EZ815U | 190 | 320 | 397 | 156.5 | 22 | 266 |

**Dimensions of geared motors**

| Type | EZ7 | EZ8 |
|---|---|---|
| | mp | mp |
| PHV943 | 174 | – |
| PHV1043 | – | 208 |

# 5.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| PHV | 9 | 4 | 3 | S | F | S | S | 0910 | EZ703U |
|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **PHV** | Type | Planetary gearbox |
| **9** | Size | 9 (example) |
| **4** | Generation | Generation 4 |
| **3** | Stages | Three-stage |
| **S** | Housing | Standard |
| **F** | Shaft | Flange shaft |
| **S** | Bearing | Standard bearing |
| **S** | Backlash | Standard |
| R | | Reduced (PHV9) |
| **0910** | Transmission ratio (i x 10) | i = 91 (example) |
| **EZ703U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▸ 17.5]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▸ 5.6.3]
- Reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▸ 5.6.4]

To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▸ 17.5.1].

# 5.5 Product description

## 5.5.1 Input options

EZ synchronous servo motor

Catalog ID 442437_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 5.5.2 Installation conditions

The torque and force values listed in this catalog are valid under the following conditions:

- When the flange shaft and gear housing are fastened on the machine side using screws of strength class 12.9
- When the gear housings are adjusted at pilot øb1. The machine-side fit must be H7.
- When the flange shaft is adjusted using the connecting element at pilot øbf or ødf

### 5.5.3 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate.

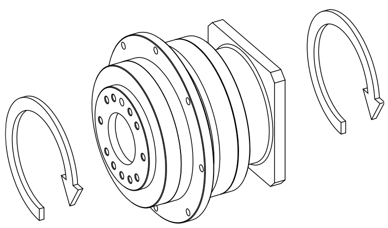
You will receive lubricants for use in the food industry upon request.

### 5.5.4 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ three-stage | 90% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

### 5.5.5 Direction of rotation

The input and output rotate in the same direction.



## 5.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

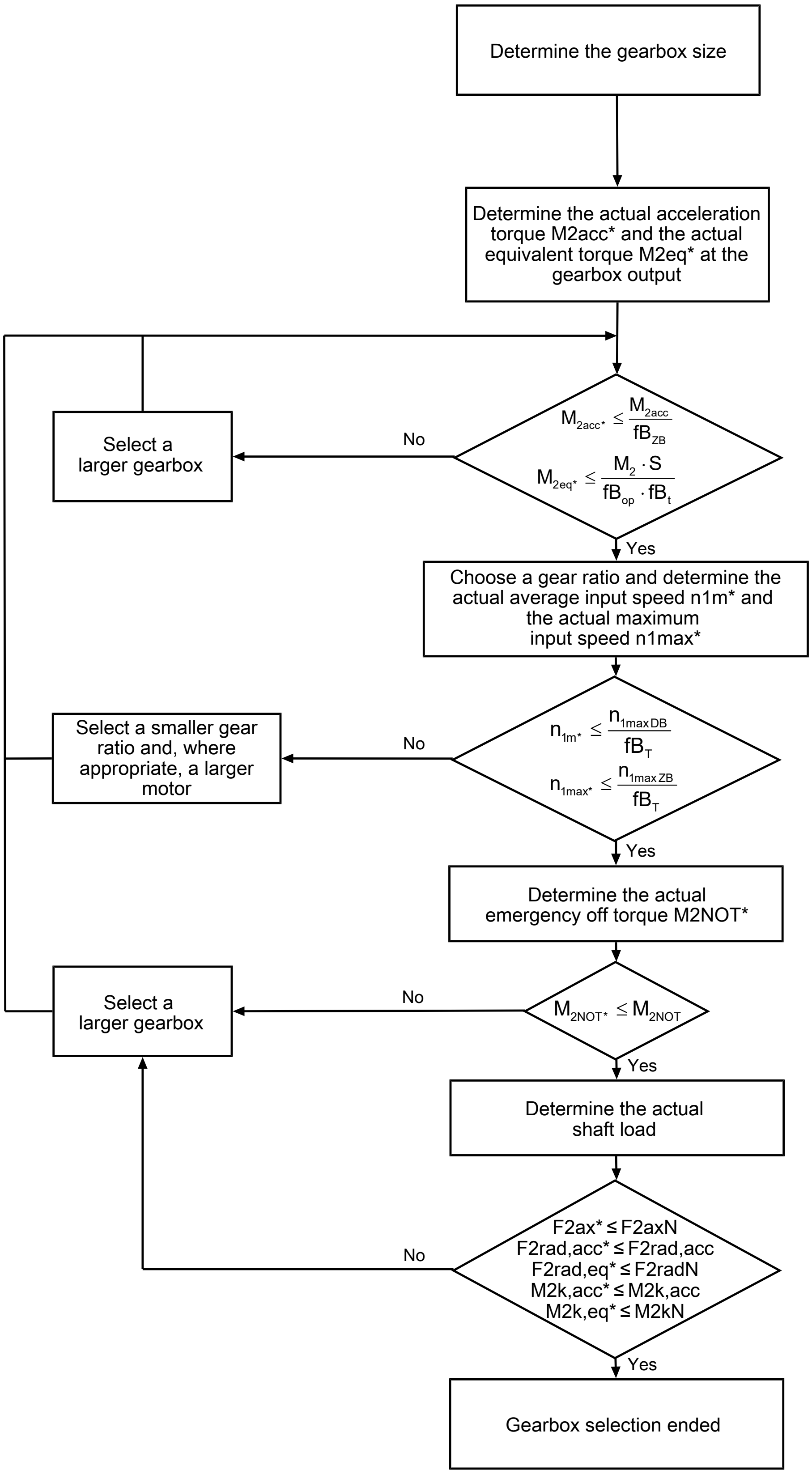
An explanation of the formula symbols can be found in Chapter [▹ 20.1].

The formula symbols for values actually present in the application are marked with *.

[1] Observe the protection class of all the components.

## 5.6.1 Drive selection

**Drive selection for gearboxes**

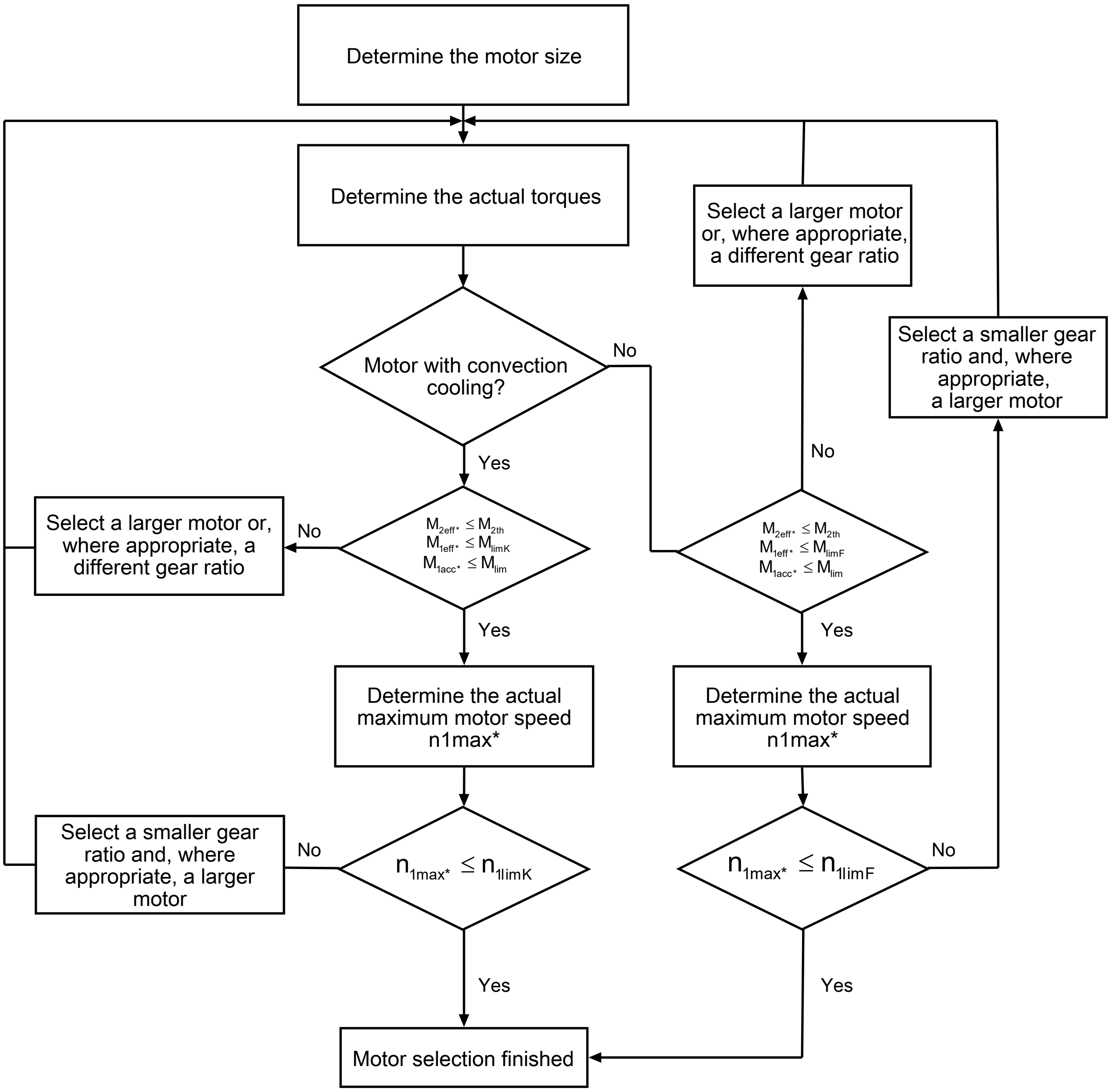



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$, $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

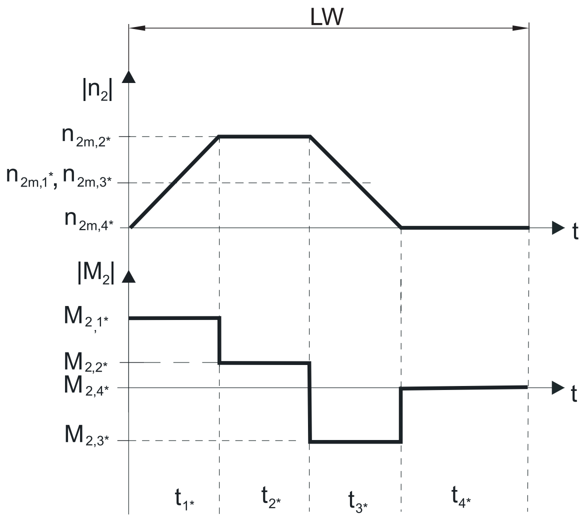
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▹ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*} + \ldots + t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}^{2} + \ldots + t_{n*} \cdot M_{2,n*}^{2}}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2,1*}^{3}| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2,n*}^{3}|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10} > 50\%$ and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

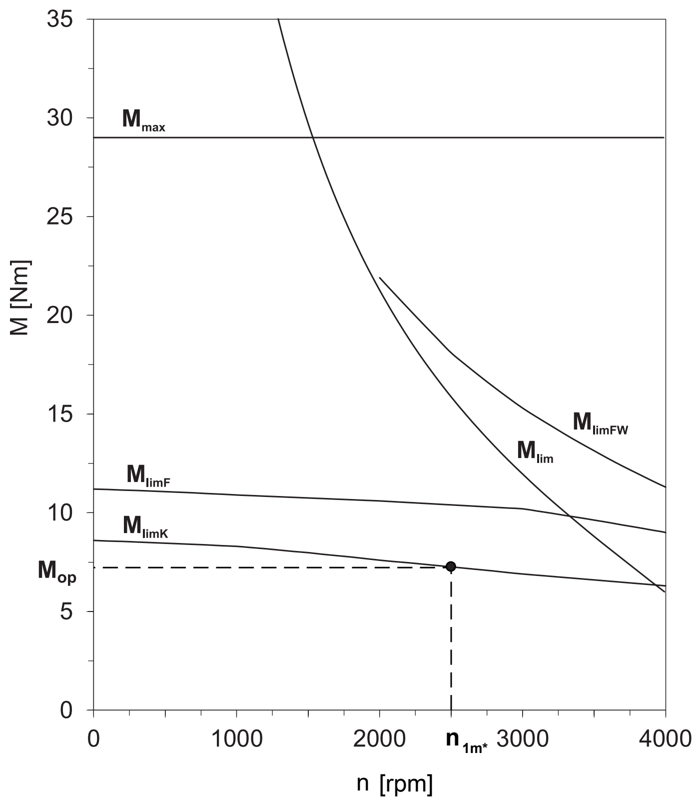
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}93 - \frac{a_{th}}{1000} \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^3$$

Refer to the selection tables for the values of i and $a_{th}$.

The values for $fB_T$ can be found in the corresponding table in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▷ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.00 |
| Reversing load cyclic operation | 1.00 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 5.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 100$ rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PHV9 | 155.0 | 33000 | 48387 | 70968 | 7500 | 11000 | 7500 |
| PHV10 | 171.0 | 50000 | 51462 | 73099 | 8800 | 12500 | 9500 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 100$ rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

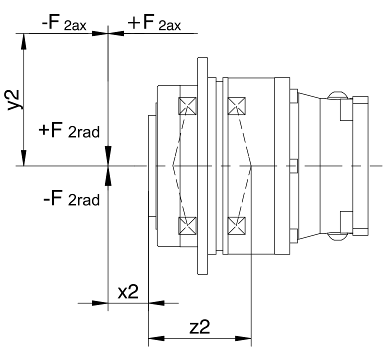



*Fig. 1:* Force application points

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10} \leq 40\%$):**

$L_{10h} > 10000$ h with $1 < M_{2kN}/M_{2k*} < 1.25$

$L_{10h} > 20000$ h with $1.25 < M_{2kN}/M_{2k*} < 1.5$

$L_{10h} > 30000$ h with $1.5 < M_{2kN}/M_{2k*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 5.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

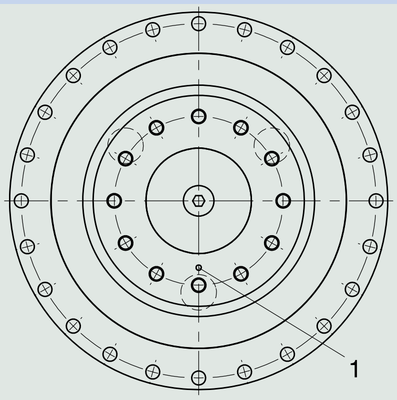
## 5.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below.

The images show the center position of reverse operation.

Cyclic reverse operation ≤ ± 20° on request.

**Size 9 – 10**




1 Position of the mark: bottom

Please note that the hole pattern may be different, depending on the size of the planetary gearbox.

# 5.7 Additional documentation

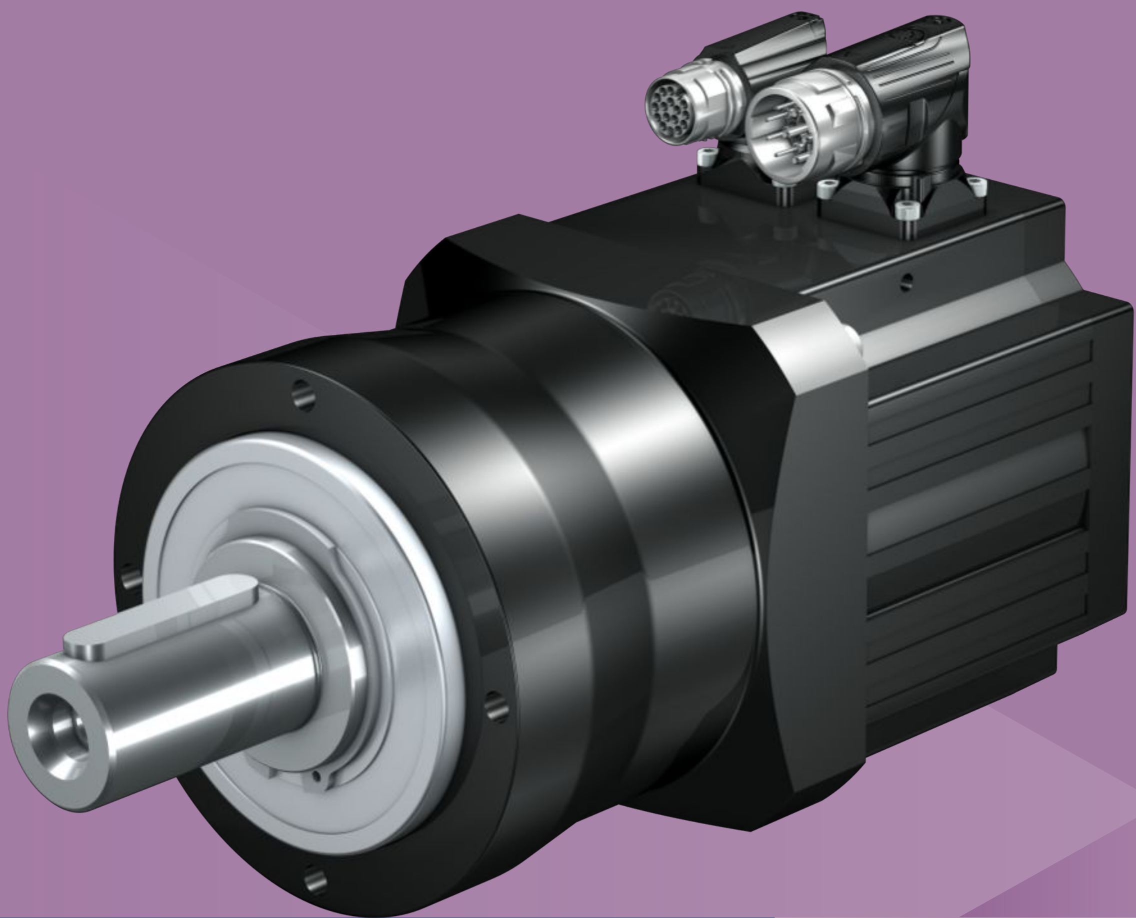
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors PHV94 – PHV104 | 443355_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 6 PE planetary geared motors

## Table of contents



# 6 Planetary geared motors

# PE

## 6.1 Overview

Cost-efficient helical-geared planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★☆☆ |
| Backlash | ★★★☆☆ |
| Price category | € |
| Shaft load | ★★☆☆☆ |
| Smooth operation | ★★★☆☆ |
| Torsional stiffness | ★★★☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Any mounting position | ✓ |
| Non-contact sealing at the input | ✓ |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 3 – 50 |
| $M_{2acc}$ | 5.7 – 250 Nm |
| $\Delta\phi_2$ | 8 – 13 arcmin |
| $\eta_{get}$ | 95 – 97 % |

# 6.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [▷ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PE2 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 19 Nm) | | | | | | | | | | | | | | | |
| 429 | 6.3 | 6.5 | 2.7 | 1.0 | PE221_0070 EZ301U | 18 | 32 | 7.000 | 7/1 | 4500 | 8000 | 0.20 | 10.0 | 1.3 | 2.1 |
| 600 | 4.5 | 4.6 | 4.1 | 1.4 | PE221_0050 EZ301U | 14 | 32 | 5.000 | 5/1 | 4000 | 8000 | 0.21 | 10.0 | 1.4 | 2.1 |
| 750 | 3.6 | 3.7 | 5.4 | 1.8 | PE221_0040 EZ301U | 11 | 32 | 4.000 | 4/1 | 4000 | 8000 | 0.22 | 10.0 | 1.5 | 2.1 |
| 750 | 6.2 | 6.5 | 9.2 | 1.0 | PE221_0040 EZ302U | 19 | 32 | 4.000 | 4/1 | 4000 | 8000 | 0.32 | 10.0 | 1.5 | 2.7 |
| PE2 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 19 Nm) | | | | | | | | | | | | | | | |
| 375 | 6.1 | 6.7 | 6.3 | 1.0 | PE222_0160 EZ202U | 19 | 32 | 16.00 | 16/1 | 4000 | 8000 | 0.17 | 13.0 | 1.4 | 2.6 |
| 600 | 3.9 | 4.3 | 1.0 | 1.3 | PE221_0100 EZ202U | 14 | 32 | 10.00 | 10/1 | 4500 | 8000 | 0.13 | 10.0 | 1.2 | 2.1 |
| 857 | 2.7 | 3.0 | 1.5 | 1.9 | PE221_0070 EZ202U | 10 | 32 | 7.000 | 7/1 | 4500 | 8000 | 0.14 | 10.0 | 1.3 | 2.1 |
| 857 | 4.1 | 4.7 | 2.3 | 1.2 | PE221_0070 EZ203U | 18 | 32 | 7.000 | 7/1 | 4500 | 8000 | 0.18 | 10.0 | 1.3 | 2.3 |
| 1200 | 1.9 | 2.1 | 2.2 | 2.6 | PE221_0050 EZ202U | 7.2 | 32 | 5.000 | 5/1 | 4000 | 8000 | 0.14 | 10.0 | 1.4 | 2.1 |
| 1200 | 3.0 | 3.3 | 3.4 | 1.7 | PE221_0050 EZ203U | 13 | 32 | 5.000 | 5/1 | 4000 | 8000 | 0.18 | 10.0 | 1.4 | 2.3 |
| 1200 | 4.3 | 4.6 | 5.0 | 1.2 | PE221_0050 EZ301U | 14 | 32 | 5.000 | 5/1 | 4000 | 8000 | 0.21 | 10.0 | 1.4 | 2.1 |
| 1500 | 1.6 | 1.7 | 2.9 | 3.2 | PE221_0040 EZ202U | 5.7 | 32 | 4.000 | 4/1 | 4000 | 8000 | 0.16 | 10.0 | 1.5 | 2.1 |
| 1500 | 2.4 | 2.7 | 4.4 | 2.1 | PE221_0040 EZ203U | 10 | 32 | 4.000 | 4/1 | 4000 | 8000 | 0.20 | 10.0 | 1.5 | 2.3 |
| 1500 | 3.5 | 3.7 | 6.5 | 1.5 | PE221_0040 EZ301U | 11 | 32 | 4.000 | 4/1 | 4000 | 8000 | 0.22 | 10.0 | 1.5 | 2.1 |
| PE3 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 50 Nm) | | | | | | | | | | | | | | | |
| 120 | 22 | 23 | 3.6 | 1.1 | PE322_0250 EZ301U | 50 | 90 | 25.00 | 25/1 | 4000 | 8000 | 0.23 | 10.0 | 4.2 | 3.6 |
| 150 | 18 | 18 | 4.0 | 1.3 | PE322_0200 EZ301U | 50 | 90 | 20.00 | 20/1 | 4000 | 8000 | 0.25 | 10.0 | 4.0 | 3.6 |
| 188 | 14 | 14 | 4.5 | 1.7 | PE322_0160 EZ301U | 43 | 90 | 16.00 | 16/1 | 4000 | 8000 | 0.25 | 10.0 | 4.1 | 3.6 |
| 300 | 9.0 | 9.2 | 0.7 | 2.3 | PE321_0100 EZ301U | 27 | 90 | 10.00 | 10/1 | 4000 | 7000 | 0.20 | 8.0 | 3.7 | 3.0 |
| 300 | 15 | 16 | 1.2 | 1.3 | PE321_0100 EZ302U | 48 | 90 | 10.00 | 10/1 | 4000 | 7000 | 0.30 | 8.0 | 3.7 | 3.6 |
| 300 | 20 | 21 | 1.6 | 1.0 | PE321_0100 EZ303U | 48 | 90 | 10.00 | 10/1 | 4000 | 7000 | 0.41 | 8.0 | 3.7 | 4.1 |
| 429 | 6.3 | 6.5 | 1.1 | 3.3 | PE321_0070 EZ301U | 19 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.22 | 8.0 | 4.1 | 3.0 |
| 429 | 11 | 11 | 1.8 | 1.9 | PE321_0070 EZ302U | 34 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.32 | 8.0 | 4.1 | 3.6 |
| 429 | 14 | 15 | 2.4 | 1.5 | PE321_0070 EZ303U | 48 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.43 | 8.0 | 4.1 | 4.1 |
| 429 | 19 | 20 | 3.3 | 1.1 | PE321_0070 EZ401U | 50 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.96 | 8.0 | 4.1 | 5.5 |
| 600 | 4.5 | 4.6 | 1.7 | 4.4 | PE321_0050 EZ301U | 14 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.24 | 8.0 | 4.5 | 3.0 |
| 600 | 7.7 | 8.1 | 2.9 | 2.6 | PE321_0050 EZ302U | 24 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.34 | 8.0 | 4.5 | 3.6 |
| 600 | 10 | 11 | 3.7 | 2.0 | PE321_0050 EZ303U | 34 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.45 | 8.0 | 4.5 | 4.1 |
| 600 | 14 | 15 | 5.1 | 1.5 | PE321_0050 EZ401U | 41 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.98 | 8.0 | 4.5 | 5.5 |
| 750 | 6.2 | 6.5 | 3.9 | 3.1 | PE321_0040 EZ302U | 19 | 85 | 4.000 | 4/1 | 3700 | 7000 | 0.38 | 8.0 | 4.4 | 3.6 |
| 750 | 8.0 | 8.5 | 5.1 | 2.4 | PE321_0040 EZ303U | 27 | 85 | 4.000 | 4/1 | 3700 | 7000 | 0.49 | 8.0 | 4.4 | 4.1 |
| 750 | 11 | 12 | 6.9 | 1.8 | PE321_0040 EZ401U | 33 | 85 | 4.000 | 4/1 | 3700 | 7000 | 1.0 | 8.0 | 4.4 | 5.5 |
| 750 | 18 | 20 | 12 | 1.0 | PE321_0040 EZ402U | 46 | 85 | 4.000 | 4/1 | 3700 | 7000 | 1.7 | 8.0 | 4.4 | 6.6 |
| 1000 | 4.6 | 4.9 | 6.3 | 3.6 | PE321_0030 EZ302U | 15 | 64 | 3.000 | 3/1 | 3500 | 6000 | 0.47 | 8.0 | 3.5 | 3.6 |
| 1000 | 6.0 | 6.4 | 8.2 | 2.8 | PE321_0030 EZ303U | 20 | 64 | 3.000 | 3/1 | 3500 | 6000 | 0.58 | 8.0 | 3.5 | 4.1 |
| 1000 | 8.1 | 8.7 | 11 | 2.0 | PE321_0030 EZ401U | 25 | 64 | 3.000 | 3/1 | 3500 | 6000 | 1.1 | 8.0 | 3.5 | 5.5 |
| 1000 | 14 | 15 | 19 | 1.2 | PE321_0030 EZ402U | 40 | 64 | 3.000 | 3/1 | 3500 | 6000 | 1.8 | 8.0 | 3.5 | 6.6 |
| PE3 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 50 Nm) | | | | | | | | | | | | | | | |
| 150 | 15 | 17 | 1.5 | 1.2 | PE322_0400 EZ202U | 44 | 88 | 40.00 | 40/1 | 4500 | 8000 | 0.14 | 10.0 | 3.9 | 3.5 |
| 171 | 13 | 15 | 1.6 | 1.4 | PE322_0350 EZ202U | 49 | 90 | 35.00 | 35/1 | 4000 | 8000 | 0.15 | 10.0 | 4.2 | 3.5 |
| 214 | 11 | 12 | 1.8 | 1.8 | PE322_0280 EZ202U | 39 | 88 | 28.00 | 28/1 | 4000 | 8000 | 0.15 | 10.0 | 4.0 | 3.5 |
| 214 | 16 | 18 | 2.8 | 1.2 | PE322_0280 EZ203U | 44 | 88 | 28.00 | 28/1 | 4000 | 8000 | 0.19 | 10.0 | 4.0 | 3.8 |
| 240 | 9.5 | 10 | 1.9 | 2.0 | PE322_0250 EZ202U | 35 | 90 | 25.00 | 25/1 | 4000 | 8000 | 0.17 | 10.0 | 4.2 | 3.5 |
| 240 | 14 | 16 | 2.9 | 1.3 | PE322_0250 EZ203U | 50 | 90 | 25.00 | 25/1 | 4000 | 8000 | 0.21 | 10.0 | 4.2 | 3.8 |
| 300 | 7.6 | 8.4 | 2.2 | 2.5 | PE322_0200 EZ202U | 28 | 90 | 20.00 | 20/1 | 4000 | 8000 | 0.19 | 10.0 | 4.0 | 3.5 |
| 300 | 12 | 13 | 3.3 | 1.6 | PE322_0200 EZ203U | 50 | 90 | 20.00 | 20/1 | 4000 | 8000 | 0.23 | 10.0 | 4.0 | 3.8 |
| 300 | 17 | 18 | 4.8 | 1.1 | PE322_0200 EZ301U | 50 | 90 | 20.00 | 20/1 | 4000 | 8000 | 0.25 | 10.0 | 4.0 | 3.6 |
| 375 | 6.1 | 6.7 | 2.4 | 3.1 | PE322_0160 EZ202U | 22 | 90 | 16.00 | 16/1 | 4000 | 8000 | 0.19 | 10.0 | 4.1 | 3.5 |
| 375 | 9.3 | 10 | 3.7 | 2.0 | PE322_0160 EZ203U | 41 | 90 | 16.00 | 16/1 | 4000 | 8000 | 0.23 | 10.0 | 4.1 | 3.8 |
| 375 | 14 | 14 | 5.4 | 1.4 | PE322_0160 EZ301U | 43 | 90 | 16.00 | 16/1 | 4000 | 8000 | 0.25 | 10.0 | 4.1 | 3.6 |
| 600 | 8.6 | 9.2 | 0.9 | 1.9 | PE321_0100 EZ301U | 27 | 90 | 10.00 | 10/1 | 4000 | 7000 | 0.20 | 8.0 | 3.7 | 3.0 |
| 600 | 15 | 16 | 1.4 | 1.1 | PE321_0100 EZ302U | 48 | 90 | 10.00 | 10/1 | 4000 | 7000 | 0.30 | 8.0 | 3.7 | 3.6 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PE3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 50 Nm)** | | | | | | | | | | | | | | | |
| 857 | 6.0 | 6.5 | 1.3 | 2.7 | PE321_0070 EZ301U | 19 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.22 | 8.0 | 4.1 | 3.0 |
| 857 | 10 | 11 | 2.2 | 1.6 | PE321_0070 EZ302U | 34 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.32 | 8.0 | 4.1 | 3.6 |
| 857 | 13 | 15 | 2.9 | 1.2 | PE321_0070 EZ303U | 48 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.43 | 8.0 | 4.1 | 4.1 |
| 857 | 16 | 19 | 3.4 | 1.0 | PE321_0070 EZ401U | 50 | 90 | 7.000 | 7/1 | 4000 | 7000 | 0.96 | 8.0 | 4.1 | 5.5 |
| 1200 | 4.3 | 4.6 | 2.0 | 3.6 | PE321_0050 EZ301U | 14 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.24 | 8.0 | 4.5 | 3.0 |
| 1200 | 7.3 | 8.1 | 3.4 | 2.2 | PE321_0050 EZ302U | 24 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.34 | 8.0 | 4.5 | 3.6 |
| 1200 | 9.5 | 11 | 4.5 | 1.7 | PE321_0050 EZ303U | 34 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.45 | 8.0 | 4.5 | 4.1 |
| 1200 | 11 | 14 | 5.2 | 1.4 | PE321_0050 EZ401U | 41 | 90 | 5.000 | 5/1 | 3700 | 7000 | 0.98 | 8.0 | 4.5 | 5.5 |
| 1500 | 3.5 | 3.7 | 2.8 | 4.4 | PE321_0040 EZ301U | 11 | 85 | 4.000 | 4/1 | 3700 | 7000 | 0.28 | 8.0 | 4.4 | 3.0 |
| 1500 | 5.8 | 6.5 | 4.7 | 2.6 | PE321_0040 EZ302U | 19 | 85 | 4.000 | 4/1 | 3700 | 7000 | 0.38 | 8.0 | 4.4 | 3.6 |
| 1500 | 7.6 | 8.7 | 6.1 | 2.0 | PE321_0040 EZ303U | 27 | 85 | 4.000 | 4/1 | 3700 | 7000 | 0.49 | 8.0 | 4.4 | 4.1 |
| 1500 | 8.9 | 11 | 7.1 | 1.7 | PE321_0040 EZ401U | 33 | 85 | 4.000 | 4/1 | 3700 | 7000 | 1.0 | 8.0 | 4.4 | 5.5 |
| 1500 | 14 | 19 | 11 | 1.1 | PE321_0040 EZ402U | 46 | 85 | 4.000 | 4/1 | 3700 | 7000 | 1.7 | 8.0 | 4.4 | 6.6 |
| 2000 | 4.4 | 4.9 | 7.5 | 3.0 | PE321_0030 EZ302U | 15 | 64 | 3.000 | 3/1 | 3500 | 6000 | 0.47 | 8.0 | 3.5 | 3.6 |
| 2000 | 5.7 | 6.5 | 9.8 | 2.3 | PE321_0030 EZ303U | 20 | 64 | 3.000 | 3/1 | 3500 | 6000 | 0.58 | 8.0 | 3.5 | 4.1 |
| 2000 | 6.7 | 8.1 | 12 | 2.0 | PE321_0030 EZ401U | 25 | 64 | 3.000 | 3/1 | 3500 | 6000 | 1.1 | 8.0 | 3.5 | 5.5 |
| 2000 | 10 | 14 | 18 | 1.3 | PE321_0030 EZ402U | 40 | 64 | 3.000 | 3/1 | 3500 | 6000 | 1.8 | 8.0 | 3.5 | 6.6 |
| **PE4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 110 Nm)** | | | | | | | | | | | | | | | |
| 60 | 44 | 45 | 1.3 | 1.2 | PE422_0500 EZ301U | 102 | 200 | 50.00 | 50/1 | 4000 | 7000 | 0.21 | 10.0 | 13 | 5.5 |
| 75 | 35 | 36 | 1.5 | 1.5 | PE422_0400 EZ301U | 95 | 190 | 40.00 | 40/1 | 4000 | 7000 | 0.21 | 10.0 | 13 | 5.5 |
| 86 | 31 | 32 | 1.6 | 1.7 | PE422_0350 EZ301U | 93 | 200 | 35.00 | 35/1 | 4000 | 7000 | 0.23 | 10.0 | 13 | 5.5 |
| 107 | 25 | 25 | 1.7 | 2.1 | PE422_0280 EZ301U | 74 | 190 | 28.00 | 28/1 | 4000 | 7000 | 0.23 | 10.0 | 13 | 5.5 |
| 107 | 42 | 45 | 3.0 | 1.2 | PE422_0280 EZ302U | 95 | 190 | 28.00 | 28/1 | 4000 | 7000 | 0.33 | 10.0 | 13 | 6.1 |
| 120 | 22 | 23 | 1.8 | 2.3 | PE422_0250 EZ301U | 67 | 200 | 25.00 | 25/1 | 3700 | 7000 | 0.27 | 10.0 | 13 | 5.5 |
| 120 | 38 | 40 | 3.2 | 1.4 | PE422_0250 EZ302U | 103 | 200 | 25.00 | 25/1 | 3700 | 7000 | 0.37 | 10.0 | 13 | 6.1 |
| 120 | 49 | 52 | 4.1 | 1.0 | PE422_0250 EZ303U | 103 | 200 | 25.00 | 25/1 | 3700 | 7000 | 0.48 | 10.0 | 13 | 6.6 |
| 150 | 18 | 18 | 2.1 | 2.9 | PE422_0200 EZ301U | 53 | 200 | 20.00 | 20/1 | 3700 | 7000 | 0.32 | 10.0 | 13 | 5.5 |
| 150 | 30 | 32 | 3.5 | 1.7 | PE422_0200 EZ302U | 95 | 200 | 20.00 | 20/1 | 3700 | 7000 | 0.42 | 10.0 | 13 | 6.1 |
| 150 | 39 | 42 | 4.6 | 1.3 | PE422_0200 EZ303U | 104 | 200 | 20.00 | 20/1 | 3700 | 7000 | 0.53 | 10.0 | 13 | 6.6 |
| 188 | 14 | 14 | 2.3 | 3.7 | PE422_0160 EZ301U | 43 | 190 | 16.00 | 16/1 | 3700 | 7000 | 0.32 | 10.0 | 13 | 5.5 |
| 188 | 24 | 26 | 4.0 | 2.1 | PE422_0160 EZ302U | 76 | 190 | 16.00 | 16/1 | 3700 | 7000 | 0.42 | 10.0 | 13 | 6.1 |
| 188 | 31 | 33 | 5.1 | 1.6 | PE422_0160 EZ303U | 95 | 190 | 16.00 | 16/1 | 3700 | 7000 | 0.53 | 10.0 | 13 | 6.6 |
| 188 | 43 | 46 | 7.0 | 1.2 | PE422_0160 EZ401U | 95 | 190 | 16.00 | 16/1 | 3700 | 7000 | 1.1 | 10.0 | 13 | 8.0 |
| 300 | 27 | 29 | 1.1 | 1.8 | PE421_0100 EZ401U | 82 | 184 | 10.00 | 10/1 | 3600 | 6000 | 0.97 | 8.0 | 10 | 6.8 |
| 300 | 42 | 46 | 1.7 | 1.1 | PE421_0100 EZ501U | 92 | 184 | 10.00 | 10/1 | 3600 | 6000 | 2.9 | 8.0 | 10 | 7.8 |
| 300 | 46 | 50 | 1.9 | 1.0 | PE421_0100 EZ402U | 92 | 184 | 10.00 | 10/1 | 3600 | 6000 | 1.7 | 8.0 | 10 | 7.9 |
| 429 | 19 | 20 | 1.7 | 2.5 | PE421_0070 EZ401U | 58 | 200 | 7.000 | 7/1 | 3600 | 6000 | 1.0 | 8.0 | 13 | 6.8 |
| 429 | 29 | 32 | 2.6 | 1.6 | PE421_0070 EZ501U | 100 | 200 | 7.000 | 7/1 | 3600 | 6000 | 3.0 | 8.0 | 13 | 7.8 |
| 429 | 32 | 35 | 2.9 | 1.5 | PE421_0070 EZ402U | 100 | 200 | 7.000 | 7/1 | 3600 | 6000 | 1.7 | 8.0 | 13 | 7.9 |
| 429 | 47 | 58 | 4.2 | 1.0 | PE421_0070 EZ404U | 100 | 200 | 7.000 | 7/1 | 3600 | 6000 | 3.1 | 8.0 | 13 | 10 |
| 600 | 14 | 15 | 2.8 | 3.3 | PE421_0050 EZ401U | 41 | 200 | 5.000 | 5/1 | 3400 | 6000 | 1.1 | 8.0 | 14 | 6.8 |
| 600 | 21 | 23 | 4.2 | 2.1 | PE421_0050 EZ501U | 78 | 200 | 5.000 | 5/1 | 3400 | 6000 | 3.1 | 8.0 | 14 | 7.8 |
| 600 | 23 | 25 | 4.6 | 2.0 | PE421_0050 EZ402U | 78 | 200 | 5.000 | 5/1 | 3400 | 6000 | 1.8 | 8.0 | 14 | 7.9 |
| 600 | 33 | 42 | 6.8 | 1.3 | PE421_0050 EZ404U | 109 | 200 | 5.000 | 5/1 | 3400 | 6000 | 3.2 | 8.0 | 14 | 10 |
| 600 | 36 | 39 | 7.3 | 1.2 | PE421_0050 EZ502U | 109 | 200 | 5.000 | 5/1 | 3400 | 6000 | 5.4 | 8.0 | 14 | 9.3 |
| 750 | 11 | 12 | 3.7 | 4.0 | PE421_0040 EZ401U | 33 | 200 | 4.000 | 4/1 | 3400 | 6000 | 1.2 | 8.0 | 14 | 6.8 |
| 750 | 17 | 18 | 5.6 | 2.6 | PE421_0040 EZ501U | 62 | 200 | 4.000 | 4/1 | 3400 | 6000 | 3.2 | 8.0 | 14 | 7.8 |
| 750 | 18 | 20 | 6.2 | 2.4 | PE421_0040 EZ402U | 62 | 200 | 4.000 | 4/1 | 3400 | 6000 | 1.9 | 8.0 | 14 | 7.9 |
| 750 | 27 | 33 | 9.0 | 1.6 | PE421_0040 EZ404U | 100 | 200 | 4.000 | 4/1 | 3400 | 6000 | 3.3 | 8.0 | 14 | 10 |
| 750 | 29 | 31 | 9.7 | 1.5 | PE421_0040 EZ502U | 100 | 200 | 4.000 | 4/1 | 3400 | 6000 | 5.5 | 8.0 | 14 | 9.3 |
| 750 | 38 | 43 | 13 | 1.2 | PE421_0040 EZ503U | 100 | 200 | 4.000 | 4/1 | 3400 | 6000 | 7.9 | 8.0 | 14 | 11 |
| 1000 | 8.1 | 8.7 | 6.3 | 4.4 | PE421_0030 EZ401U | 25 | 180 | 3.000 | 3/1 | 3000 | 5500 | 1.5 | 8.0 | 12 | 6.8 |
| 1000 | 13 | 14 | 9.7 | 2.9 | PE421_0030 EZ501U | 47 | 180 | 3.000 | 3/1 | 3000 | 5500 | 3.5 | 8.0 | 12 | 7.8 |
| 1000 | 14 | 15 | 11 | 2.6 | PE421_0030 EZ402U | 47 | 180 | 3.000 | 3/1 | 3000 | 5500 | 2.2 | 8.0 | 12 | 7.9 |
| 1000 | 20 | 25 | 16 | 1.8 | PE421_0030 EZ404U | 84 | 180 | 3.000 | 3/1 | 3000 | 5500 | 3.6 | 8.0 | 12 | 10 |
| 1000 | 22 | 23 | 17 | 1.7 | PE421_0030 EZ502U | 90 | 180 | 3.000 | 3/1 | 3000 | 5500 | 5.8 | 8.0 | 12 | 9.3 |
| 1000 | 28 | 32 | 22 | 1.3 | PE421_0030 EZ503U | 90 | 180 | 3.000 | 3/1 | 3000 | 5500 | 8.2 | 8.0 | 12 | 11 |
| **PE4 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 100 Nm)** | | | | | | | | | | | | | | | |
| 1125 | 37 | 59 | 14 | 1.0 | PE421_0040 EZ505U | 100 | 200 | 4.000 | 4/1 | 3400 | 6000 | 12 | 8.0 | 14 | 14 |
| 1500 | 28 | 45 | 25 | 1.1 | PE421_0030 EZ505U | 90 | 180 | 3.000 | 3/1 | 3000 | 5500 | 13 | 8.0 | 12 | 14 |
| **PE4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 110 Nm)** | | | | | | | | | | | | | | | |
| 150 | 34 | 36 | 1.8 | 1.2 | PE422_0400 EZ301U | 95 | 190 | 40.00 | 40/1 | 4000 | 7000 | 0.21 | 10.0 | 13 | 5.5 |
| 171 | 30 | 32 | 1.9 | 1.4 | PE422_0350 EZ301U | 93 | 200 | 35.00 | 35/1 | 4000 | 7000 | 0.23 | 10.0 | 13 | 5.5 |
| 214 | 24 | 25 | 2.1 | 1.7 | PE422_0280 EZ301U | 74 | 190 | 28.00 | 28/1 | 4000 | 7000 | 0.23 | 10.0 | 13 | 5.5 |
| 214 | 40 | 45 | 3.6 | 1.0 | PE422_0280 EZ302U | 95 | 190 | 28.00 | 28/1 | 4000 | 7000 | 0.33 | 10.0 | 13 | 6.1 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PE4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 110 Nm)** | | | | | | | | | | | | | | | |
| 240 | 21 | 23 | 2.2 | 1.9 | PE422_0250 EZ301U | 67 | 200 | 25.00 | 25/1 | 3700 | 7000 | 0.27 | 10.0 | 13 | 5.5 |
| 240 | 36 | 40 | 3.8 | 1.1 | PE422_0250 EZ302U | 103 | 200 | 25.00 | 25/1 | 3700 | 7000 | 0.37 | 10.0 | 13 | 6.1 |
| 300 | 17 | 18 | 2.5 | 2.4 | PE422_0200 EZ301U | 53 | 200 | 20.00 | 20/1 | 3700 | 7000 | 0.32 | 10.0 | 13 | 5.5 |
| 300 | 29 | 32 | 4.2 | 1.4 | PE422_0200 EZ302U | 95 | 200 | 20.00 | 20/1 | 3700 | 7000 | 0.42 | 10.0 | 13 | 6.1 |
| 300 | 37 | 43 | 5.5 | 1.1 | PE422_0200 EZ303U | 104 | 200 | 20.00 | 20/1 | 3700 | 7000 | 0.53 | 10.0 | 13 | 6.6 |
| 375 | 14 | 14 | 2.8 | 3.0 | PE422_0160 EZ301U | 43 | 190 | 16.00 | 16/1 | 3700 | 7000 | 0.32 | 10.0 | 13 | 5.5 |
| 375 | 23 | 26 | 4.7 | 1.8 | PE422_0160 EZ302U | 76 | 190 | 16.00 | 16/1 | 3700 | 7000 | 0.42 | 10.0 | 13 | 6.1 |
| 375 | 30 | 34 | 6.1 | 1.4 | PE422_0160 EZ303U | 95 | 190 | 16.00 | 16/1 | 3700 | 7000 | 0.53 | 10.0 | 13 | 6.6 |
| 375 | 35 | 43 | 7.2 | 1.2 | PE422_0160 EZ401U | 95 | 190 | 16.00 | 16/1 | 3700 | 7000 | 1.1 | 10.0 | 13 | 8.0 |
| 600 | 22 | 27 | 1.2 | 1.7 | PE421_0100 EZ401U | 82 | 184 | 10.00 | 10/1 | 3600 | 6000 | 0.97 | 8.0 | 10 | 6.8 |
| 600 | 33 | 43 | 1.7 | 1.1 | PE421_0100 EZ501U | 92 | 184 | 10.00 | 10/1 | 3600 | 6000 | 2.9 | 8.0 | 10 | 7.8 |
| 600 | 34 | 48 | 1.8 | 1.1 | PE421_0100 EZ402U | 92 | 184 | 10.00 | 10/1 | 3600 | 6000 | 1.7 | 8.0 | 10 | 7.9 |
| 857 | 16 | 19 | 1.8 | 2.4 | PE421_0070 EZ401U | 58 | 200 | 7.000 | 7/1 | 3600 | 6000 | 1.0 | 8.0 | 13 | 6.8 |
| 857 | 23 | 30 | 2.6 | 1.6 | PE421_0070 EZ501U | 100 | 200 | 7.000 | 7/1 | 3600 | 6000 | 3.0 | 8.0 | 13 | 7.8 |
| 857 | 24 | 33 | 2.7 | 1.6 | PE421_0070 EZ402U | 100 | 200 | 7.000 | 7/1 | 3600 | 6000 | 1.7 | 8.0 | 13 | 7.9 |
| 857 | 35 | 53 | 4.0 | 1.1 | PE421_0070 EZ502U | 100 | 200 | 7.000 | 7/1 | 3600 | 6000 | 5.3 | 8.0 | 13 | 9.3 |
| 1200 | 11 | 14 | 2.9 | 3.2 | PE421_0050 EZ401U | 41 | 200 | 5.000 | 5/1 | 3400 | 6000 | 1.1 | 8.0 | 14 | 6.8 |
| 1200 | 16 | 21 | 4.2 | 2.1 | PE421_0050 EZ501U | 78 | 200 | 5.000 | 5/1 | 3400 | 6000 | 3.1 | 8.0 | 14 | 7.8 |
| 1200 | 17 | 24 | 4.3 | 2.1 | PE421_0050 EZ402U | 78 | 200 | 5.000 | 5/1 | 3400 | 6000 | 1.8 | 8.0 | 14 | 7.9 |
| 1200 | 25 | 38 | 6.5 | 1.4 | PE421_0050 EZ502U | 109 | 200 | 5.000 | 5/1 | 3400 | 6000 | 5.4 | 8.0 | 14 | 9.3 |
| 1200 | 28 | 41 | 7.2 | 1.3 | PE421_0050 EZ404U | 109 | 200 | 5.000 | 5/1 | 3400 | 6000 | 3.2 | 8.0 | 14 | 10 |
| 1200 | 30 | 51 | 7.7 | 1.2 | PE421_0050 EZ503U | 109 | 200 | 5.000 | 5/1 | 3400 | 6000 | 7.8 | 8.0 | 14 | 11 |
| 1500 | 8.9 | 11 | 3.8 | 3.9 | PE421_0040 EZ401U | 33 | 200 | 4.000 | 4/1 | 3400 | 6000 | 1.2 | 8.0 | 14 | 6.8 |
| 1500 | 13 | 17 | 5.6 | 2.6 | PE421_0040 EZ501U | 62 | 200 | 4.000 | 4/1 | 3400 | 6000 | 3.2 | 8.0 | 14 | 7.8 |
| 1500 | 14 | 19 | 5.8 | 2.6 | PE421_0040 EZ402U | 62 | 200 | 4.000 | 4/1 | 3400 | 6000 | 1.9 | 8.0 | 14 | 7.9 |
| 1500 | 20 | 30 | 8.6 | 1.7 | PE421_0040 EZ502U | 100 | 200 | 4.000 | 4/1 | 3400 | 6000 | 5.5 | 8.0 | 14 | 9.3 |
| 1500 | 23 | 33 | 9.6 | 1.5 | PE421_0040 EZ404U | 100 | 200 | 4.000 | 4/1 | 3400 | 6000 | 3.3 | 8.0 | 14 | 10 |
| 1500 | 24 | 41 | 10 | 1.4 | PE421_0040 EZ503U | 100 | 200 | 4.000 | 4/1 | 3400 | 6000 | 7.9 | 8.0 | 14 | 11 |
| **PE5 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 250 Nm)** | | | | | | | | | | | | | | | |
| 75 | 106 | 114 | 2.0 | 1.2 | PE522_0400 EZ401U | 240 | 480 | 40.00 | 40/1 | 3600 | 6000 | 0.99 | 10.0 | 33 | 12 |
| 86 | 93 | 100 | 2.1 | 1.4 | PE522_0350 EZ401U | 250 | 500 | 35.00 | 35/1 | 3600 | 6000 | 1.0 | 10.0 | 33 | 12 |
| 107 | 74 | 80 | 2.4 | 1.7 | PE522_0280 EZ401U | 226 | 480 | 28.00 | 28/1 | 3600 | 6000 | 1.0 | 10.0 | 33 | 12 |
| 107 | 114 | 125 | 3.6 | 1.1 | PE522_0280 EZ501U | 240 | 480 | 28.00 | 28/1 | 3600 | 6000 | 3.0 | 10.0 | 33 | 13 |
| 107 | 125 | 138 | 4.0 | 1.0 | PE522_0280 EZ402U | 240 | 480 | 28.00 | 28/1 | 3600 | 6000 | 1.7 | 10.0 | 33 | 13 |
| 120 | 67 | 71 | 2.5 | 1.9 | PE522_0250 EZ401U | 202 | 500 | 25.00 | 25/1 | 3400 | 6000 | 1.1 | 10.0 | 33 | 12 |
| 120 | 102 | 112 | 3.9 | 1.2 | PE522_0250 EZ501U | 250 | 500 | 25.00 | 25/1 | 3400 | 6000 | 3.1 | 10.0 | 33 | 13 |
| 120 | 112 | 124 | 4.2 | 1.1 | PE522_0250 EZ402U | 250 | 500 | 25.00 | 25/1 | 3400 | 6000 | 1.8 | 10.0 | 33 | 13 |
| 150 | 53 | 57 | 2.8 | 2.4 | PE522_0200 EZ401U | 162 | 500 | 20.00 | 20/1 | 3400 | 6000 | 1.3 | 10.0 | 33 | 12 |
| 150 | 82 | 89 | 4.3 | 1.6 | PE522_0200 EZ501U | 250 | 500 | 20.00 | 20/1 | 3400 | 6000 | 3.2 | 10.0 | 33 | 13 |
| 150 | 89 | 99 | 4.7 | 1.4 | PE522_0200 EZ402U | 250 | 500 | 20.00 | 20/1 | 3400 | 6000 | 2.0 | 10.0 | 33 | 13 |
| 188 | 43 | 46 | 3.1 | 3.0 | PE522_0160 EZ401U | 129 | 480 | 16.00 | 16/1 | 3400 | 6000 | 1.3 | 10.0 | 33 | 12 |
| 188 | 65 | 71 | 4.8 | 1.9 | PE522_0160 EZ501U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 3.3 | 10.0 | 33 | 13 |
| 188 | 71 | 79 | 5.3 | 1.8 | PE522_0160 EZ402U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 2.0 | 10.0 | 33 | 13 |
| 188 | 105 | 131 | 7.7 | 1.2 | PE522_0160 EZ404U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 3.3 | 10.0 | 33 | 15 |
| 188 | 112 | 122 | 8.3 | 1.1 | PE522_0160 EZ502U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 5.6 | 10.0 | 33 | 15 |
| 300 | 42 | 46 | 2.2 | 2.5 | PE521_0100 EZ501U | 155 | 440 | 10.00 | 10/1 | 3000 | 5000 | 3.1 | 8.0 | 27 | 11 |
| 300 | 72 | 78 | 3.7 | 1.4 | PE521_0100 EZ502U | 220 | 440 | 10.00 | 10/1 | 3000 | 5000 | 5.4 | 8.0 | 27 | 12 |
| 300 | 72 | 81 | 3.7 | 1.4 | PE521_0100 EZ701U | 194 | 440 | 10.00 | 10/1 | 3000 | 5000 | 8.7 | 8.0 | 27 | 14 |
| 300 | 94 | 108 | 4.9 | 1.1 | PE521_0100 EZ503U | 220 | 440 | 10.00 | 10/1 | 3000 | 5000 | 7.7 | 8.0 | 27 | 14 |
| 429 | 29 | 32 | 3.3 | 3.5 | PE521_0070 EZ501U | 109 | 500 | 7.000 | 7/1 | 2800 | 5000 | 3.2 | 8.0 | 32 | 11 |
| 429 | 50 | 54 | 5.7 | 2.1 | PE521_0070 EZ502U | 210 | 500 | 7.000 | 7/1 | 2800 | 5000 | 5.5 | 8.0 | 32 | 12 |
| 429 | 50 | 56 | 5.7 | 2.1 | PE521_0070 EZ701U | 136 | 500 | 7.000 | 7/1 | 2800 | 5000 | 8.8 | 8.0 | 32 | 14 |
| 429 | 66 | 75 | 7.5 | 1.6 | PE521_0070 EZ503U | 250 | 500 | 7.000 | 7/1 | 2800 | 5000 | 7.9 | 8.0 | 32 | 14 |
| 429 | 81 | 98 | 9.3 | 1.3 | PE521_0070 EZ702U | 250 | 500 | 7.000 | 7/1 | 2800 | 5000 | 14 | 8.0 | 32 | 17 |
| 429 | 92 | 109 | 10 | 1.1 | PE521_0070 EZ505U | 250 | 500 | 7.000 | 7/1 | 2800 | 5000 | 12 | 8.0 | 32 | 17 |
| 600 | 21 | 23 | 5.0 | 4.9 | PE521_0050 EZ501U | 78 | 432 | 5.000 | 5/1 | 2600 | 5000 | 3.5 | 8.0 | 36 | 11 |
| 600 | 36 | 39 | 8.6 | 2.9 | PE521_0050 EZ502U | 150 | 432 | 5.000 | 5/1 | 2600 | 5000 | 5.8 | 8.0 | 36 | 12 |
| 600 | 36 | 40 | 8.6 | 2.9 | PE521_0050 EZ701U | 97 | 500 | 5.000 | 5/1 | 2600 | 5000 | 9.1 | 8.0 | 36 | 14 |
| 600 | 47 | 54 | 11 | 2.2 | PE521_0050 EZ503U | 209 | 432 | 5.000 | 5/1 | 2600 | 5000 | 8.2 | 8.0 | 36 | 14 |
| 600 | 58 | 70 | 14 | 1.8 | PE521_0050 EZ702U | 199 | 500 | 5.000 | 5/1 | 2600 | 5000 | 14 | 8.0 | 36 | 17 |
| 600 | 65 | 78 | 16 | 1.6 | PE521_0050 EZ505U | 250 | 432 | 5.000 | 5/1 | 2600 | 5000 | 13 | 8.0 | 36 | 17 |
| 600 | 80 | 101 | 19 | 1.3 | PE521_0050 EZ703U | 250 | 500 | 5.000 | 5/1 | 2600 | 5000 | 22 | 8.0 | 36 | 19 |
| 750 | 29 | 31 | 11 | 3.6 | PE521_0040 EZ502U | 120 | 345 | 4.000 | 4/1 | 2600 | 5000 | 6.2 | 8.0 | 37 | 12 |
| 750 | 29 | 32 | 11 | 3.6 | PE521_0040 EZ701U | 78 | 500 | 4.000 | 4/1 | 2600 | 5000 | 9.5 | 8.0 | 37 | 14 |
| 750 | 38 | 43 | 15 | 2.7 | PE521_0040 EZ503U | 167 | 345 | 4.000 | 4/1 | 2600 | 5000 | 8.6 | 8.0 | 37 | 14 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PE5 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 250 Nm)** | | | | | | | | | | | | | | | |
| 750 | 47 | 56 | 18 | 2.2 | PE521_0040 EZ702U | 159 | 500 | 4.000 | 4/1 | 2600 | 5000 | 15 | 8.0 | 37 | 17 |
| 750 | 52 | 62 | 20 | 2.0 | PE521_0040 EZ505U | 250 | 345 | 4.000 | 4/1 | 2600 | 5000 | 13 | 8.0 | 37 | 17 |
| 750 | 64 | 81 | 25 | 1.6 | PE521_0040 EZ703U | 250 | 500 | 4.000 | 4/1 | 2600 | 5000 | 23 | 8.0 | 37 | 19 |
| 750 | 83 | 117 | 32 | 1.2 | PE521_0040 EZ705U | 250 | 500 | 4.000 | 4/1 | 2600 | 5000 | 35 | 8.0 | 37 | 24 |
| 1000 | 22 | 23 | 23 | 3.3 | PE521_0030 EZ502U | 90 | 259 | 3.000 | 3/1 | 2500 | 4500 | 7.1 | 8.0 | 33 | 12 |
| 1000 | 22 | 24 | 23 | 3.3 | PE521_0030 EZ701U | 58 | 360 | 3.000 | 3/1 | 2500 | 4500 | 10 | 8.0 | 33 | 14 |
| 1000 | 28 | 32 | 30 | 2.5 | PE521_0030 EZ503U | 125 | 259 | 3.000 | 3/1 | 2500 | 4500 | 9.5 | 8.0 | 33 | 14 |
| 1000 | 35 | 42 | 37 | 2.0 | PE521_0030 EZ702U | 119 | 360 | 3.000 | 3/1 | 2500 | 4500 | 16 | 8.0 | 33 | 17 |
| 1000 | 39 | 47 | 42 | 1.8 | PE521_0030 EZ505U | 180 | 259 | 3.000 | 3/1 | 2500 | 4500 | 14 | 8.0 | 33 | 17 |
| 1000 | 48 | 61 | 51 | 1.5 | PE521_0030 EZ703U | 180 | 360 | 3.000 | 3/1 | 2500 | 4500 | 24 | 8.0 | 33 | 19 |
| 1000 | 62 | 88 | 66 | 1.2 | PE521_0030 EZ705U | 180 | 360 | 3.000 | 3/1 | 2500 | 4500 | 36 | 8.0 | 33 | 24 |
| **PE5 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 250 Nm)** | | | | | | | | | | | | | | | |
| 643 | 65 | 104 | 8.4 | 1.4 | PE521_0070 EZ505U | 250 | 500 | 7.000 | 7/1 | 2800 | 5000 | 12 | 8.0 | 32 | 17 |
| 643 | 82 | 136 | 11 | 1.1 | PE521_0070 EZ703U | 250 | 500 | 7.000 | 7/1 | 2800 | 5000 | 22 | 8.0 | 32 | 19 |
| 900 | 46 | 74 | 13 | 2.0 | PE521_0050 EZ505U | 250 | 432 | 5.000 | 5/1 | 2600 | 5000 | 13 | 8.0 | 36 | 17 |
| 900 | 59 | 97 | 16 | 1.5 | PE521_0050 EZ703U | 250 | 500 | 5.000 | 5/1 | 2600 | 5000 | 22 | 8.0 | 36 | 19 |
| 900 | 80 | 146 | 22 | 1.1 | PE521_0050 EZ705U | 250 | 500 | 5.000 | 5/1 | 2600 | 5000 | 35 | 8.0 | 36 | 24 |
| 1125 | 37 | 59 | 16 | 2.4 | PE521_0040 EZ505U | 250 | 345 | 4.000 | 4/1 | 2600 | 5000 | 13 | 8.0 | 37 | 17 |
| 1125 | 47 | 78 | 21 | 1.9 | PE521_0040 EZ703U | 250 | 500 | 4.000 | 4/1 | 2600 | 5000 | 23 | 8.0 | 37 | 19 |
| 1125 | 64 | 116 | 28 | 1.4 | PE521_0040 EZ705U | 250 | 500 | 4.000 | 4/1 | 2600 | 5000 | 35 | 8.0 | 37 | 24 |
| 1500 | 28 | 45 | 34 | 2.3 | PE521_0030 EZ505U | 180 | 259 | 3.000 | 3/1 | 2500 | 4500 | 14 | 8.0 | 33 | 17 |
| 1500 | 35 | 58 | 43 | 1.8 | PE521_0030 EZ703U | 180 | 360 | 3.000 | 3/1 | 2500 | 4500 | 24 | 8.0 | 33 | 19 |
| 1500 | 48 | 87 | 58 | 1.3 | PE521_0030 EZ705U | 180 | 360 | 3.000 | 3/1 | 2500 | 4500 | 36 | 8.0 | 33 | 24 |
| **PE5 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 250 Nm)** | | | | | | | | | | | | | | | |
| 150 | 87 | 106 | 2.1 | 1.2 | PE522_0400 EZ401U | 240 | 480 | 40.00 | 40/1 | 3600 | 6000 | 0.99 | 10.0 | 33 | 12 |
| 171 | 76 | 93 | 2.2 | 1.3 | PE522_0350 EZ401U | 250 | 500 | 35.00 | 35/1 | 3600 | 6000 | 1.0 | 10.0 | 33 | 12 |
| 214 | 61 | 74 | 2.5 | 1.6 | PE522_0280 EZ401U | 226 | 480 | 28.00 | 28/1 | 3600 | 6000 | 1.0 | 10.0 | 33 | 12 |
| 214 | 90 | 117 | 3.6 | 1.1 | PE522_0280 EZ501U | 240 | 480 | 28.00 | 28/1 | 3600 | 6000 | 3.0 | 10.0 | 33 | 13 |
| 214 | 93 | 130 | 3.7 | 1.1 | PE522_0280 EZ402U | 240 | 480 | 28.00 | 28/1 | 3600 | 6000 | 1.7 | 10.0 | 33 | 13 |
| 240 | 55 | 67 | 2.6 | 1.8 | PE522_0250 EZ401U | 202 | 500 | 25.00 | 25/1 | 3400 | 6000 | 1.1 | 10.0 | 33 | 12 |
| 240 | 81 | 105 | 3.8 | 1.2 | PE522_0250 EZ501U | 250 | 500 | 25.00 | 25/1 | 3400 | 6000 | 3.1 | 10.0 | 33 | 13 |
| 240 | 83 | 116 | 4.0 | 1.2 | PE522_0250 EZ402U | 250 | 500 | 25.00 | 25/1 | 3400 | 6000 | 1.8 | 10.0 | 33 | 13 |
| 300 | 44 | 53 | 2.9 | 2.3 | PE522_0200 EZ401U | 162 | 500 | 20.00 | 20/1 | 3400 | 6000 | 1.3 | 10.0 | 33 | 12 |
| 300 | 65 | 84 | 4.3 | 1.6 | PE522_0200 EZ501U | 250 | 500 | 20.00 | 20/1 | 3400 | 6000 | 3.2 | 10.0 | 33 | 13 |
| 300 | 67 | 93 | 4.4 | 1.5 | PE522_0200 EZ402U | 250 | 500 | 20.00 | 20/1 | 3400 | 6000 | 2.0 | 10.0 | 33 | 13 |
| 300 | 99 | 148 | 6.6 | 1.0 | PE522_0200 EZ502U | 250 | 500 | 20.00 | 20/1 | 3400 | 6000 | 5.5 | 10.0 | 33 | 15 |
| 375 | 35 | 43 | 3.3 | 2.9 | PE522_0160 EZ401U | 129 | 480 | 16.00 | 16/1 | 3400 | 6000 | 1.3 | 10.0 | 33 | 12 |
| 375 | 52 | 67 | 4.8 | 2.0 | PE522_0160 EZ501U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 3.3 | 10.0 | 33 | 13 |
| 375 | 53 | 74 | 4.9 | 1.9 | PE522_0160 EZ402U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 2.0 | 10.0 | 33 | 13 |
| 375 | 79 | 119 | 7.4 | 1.3 | PE522_0160 EZ502U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 5.6 | 10.0 | 33 | 15 |
| 375 | 88 | 128 | 8.2 | 1.1 | PE522_0160 EZ404U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 3.3 | 10.0 | 33 | 15 |
| 375 | 94 | 161 | 8.8 | 1.1 | PE522_0160 EZ503U | 240 | 480 | 16.00 | 16/1 | 3400 | 6000 | 7.9 | 10.0 | 33 | 16 |

# 6.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

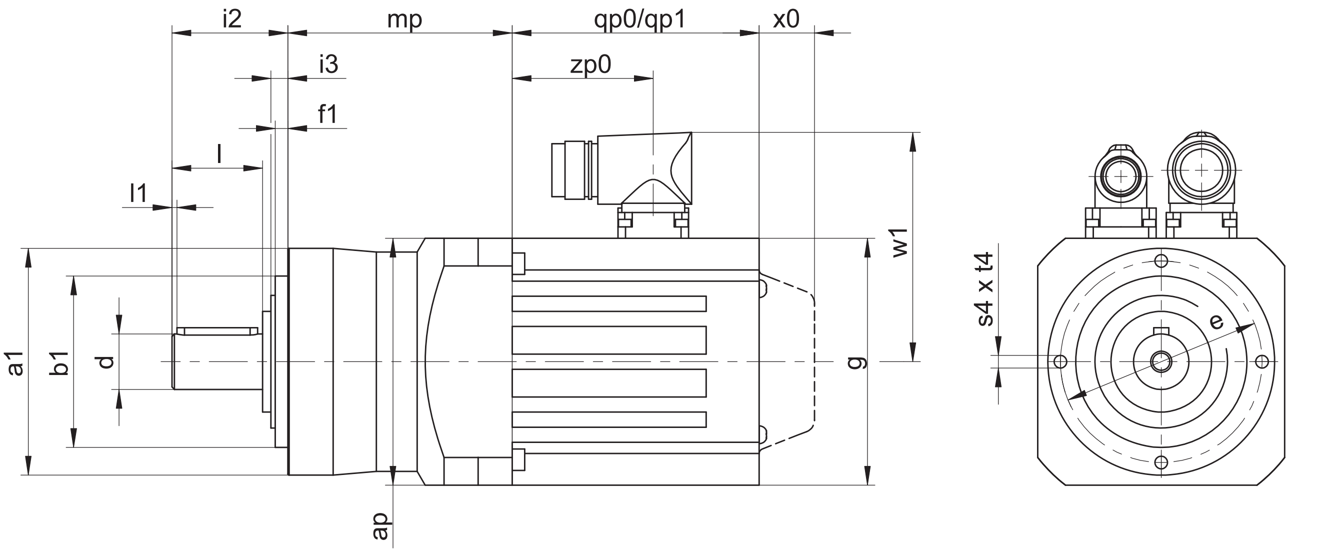
**Tolerances**

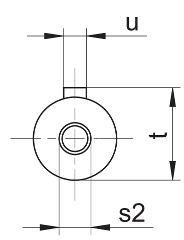
| Solid shaft | Tolerance |
|---|---|
| Fit | ISO k6 |
| Feather keys | DIN 6885-1, high form A |
| Balancing | With half feather key |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 6.3.1 P shaft design (solid shaft with feather key)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b1 | ∅d | ∅e | f1 | i2 | i3 | l | l1 | s2 | s4 | t | t4 | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PE221 | 50 | $35_{h6}$ | $12_{k6}$ | 44 | 4 | 24.5 | 5.0 | 18 | 2 | M4 | M4 | 13.5 | 8 | A4×4×14 |
| PE222 | 50 | $35_{h6}$ | $12_{k6}$ | 44 | 4 | 24.5 | 5.0 | 18 | 2 | M4 | M4 | 13.5 | 8 | A4×4×14 |
| PE321 | 70 | $52_{h6}$ | $16_{k6}$ | 62 | 5 | 36.0 | 6.0 | 28 | 2 | M5 | M5 | 18.0 | 10 | A5×5×22 |
| PE322 | 70 | $52_{h6}$ | $16_{k6}$ | 62 | 5 | 36.0 | 6.0 | 28 | 2 | M5 | M5 | 18.0 | 10 | A5×5×22 |
| PE421 | 90 | $68_{h6}$ | $22_{k6}$ | 80 | 5 | 46.0 | 6.5 | 36 | 2 | M8 | M6 | 24.5 | 12 | A6×6×32 |
| PE422 | 90 | $68_{h6}$ | $22_{k6}$ | 80 | 5 | 46.0 | 6.5 | 36 | 2 | M8 | M6 | 24.5 | 12 | A6×6×32 |
| PE521 | 120 | $90_{h6}$ | $32_{k6}$ | 108 | 6 | 70.0 | 8.0 | 58 | 4 | M12 | M8 | 35.0 | 16 | A10×8×50 |
| PE522 | 120 | $90_{h6}$ | $32_{k6}$ | 108 | 6 | 70.0 | 8.0 | 58 | 4 | M12 | M8 | 35.0 | 16 | A10×8×50 |

**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |

**Dimensions of geared motors**

| Type | EZ2 | | EZ3 | | EZ4 | | EZ5 | | EZ7 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ap | mp | ap | mp | ap | mp | ap | mp | ap | mp |
| PE221 | □55 | 59.5 | □72 | 73.0 | – | – | – | – | – | – |
| PE222 | □55 | 91.5 | – | – | – | – | – | – | – | – |
| PE321 | – | – | □72 | 86.5 | □98 | 83.0 | – | – | – | – |
| PE322 | ∅75 | 106.5 | ∅75 | 120.0 | – | – | – | – | – | – |
| PE421 | – | – | – | – | □98 | 89.0 | □115 | 91.5 | – | – |
| PE422 | – | – | ∅100 | 129.0 | ∅100 | 125.5 | – | – | – | – |
| PE521 | – | – | – | – | – | – | ∅120 | 110.0 | □145 | 113.0 |
| PE522 | – | – | – | – | ∅120 | 152.0 | ∅120 | 151.5 | – | – |

# 6.4 Type designation

In this chapter, you can find an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| PE | 4 | 2 | 2 | S | P | S | S | 0200 | EZ401U |
|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **PE** | Type | Planetary gearbox |
| **4** | Size | 4 (example) |
| **2** | Generation | Generation 2 |
| 1 | Stages | Single-stage |
| **2** | | Two-stage |
| **S** | Housing | Standard |
| **P** | Shaft | Solid shaft with feather key |
| **S** | Bearing | Standard bearing |
| **S** | Backlash | Standard |
| **0200** | Transmission ratio (i x 10) | i = 20 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [ 17.5]

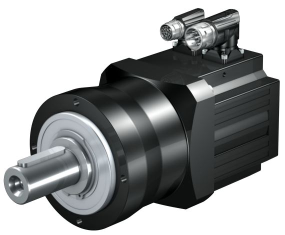
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [ 17.5.1].

# 6.5 Product description

## 6.5.1 Input options

EZ synchronous servo motor



Catalog ID 442437_en

LM Lean motor

Catalog ID 443016_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 6.5.2 Installation conditions

The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 10.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

## 6.5.3 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate.

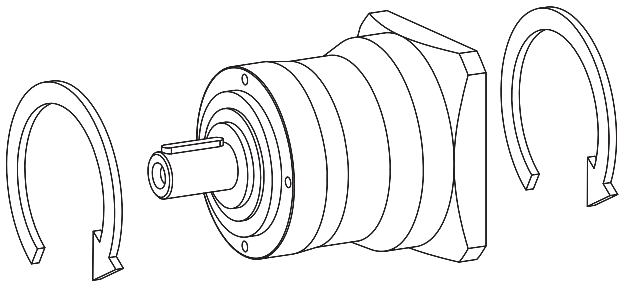
You will receive lubricants for use in the food industry upon request.

### 6.5.4 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 80 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ single-stage | 97% |
| $\eta_{get}$ two-stage | 95% |
| **Protection class:**[1] | |
| Gearbox | IP64 |
| Motor | IP56, optionally IP66 |

### 6.5.5 Direction of rotation

The input and output rotate in the same direction.



## 6.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

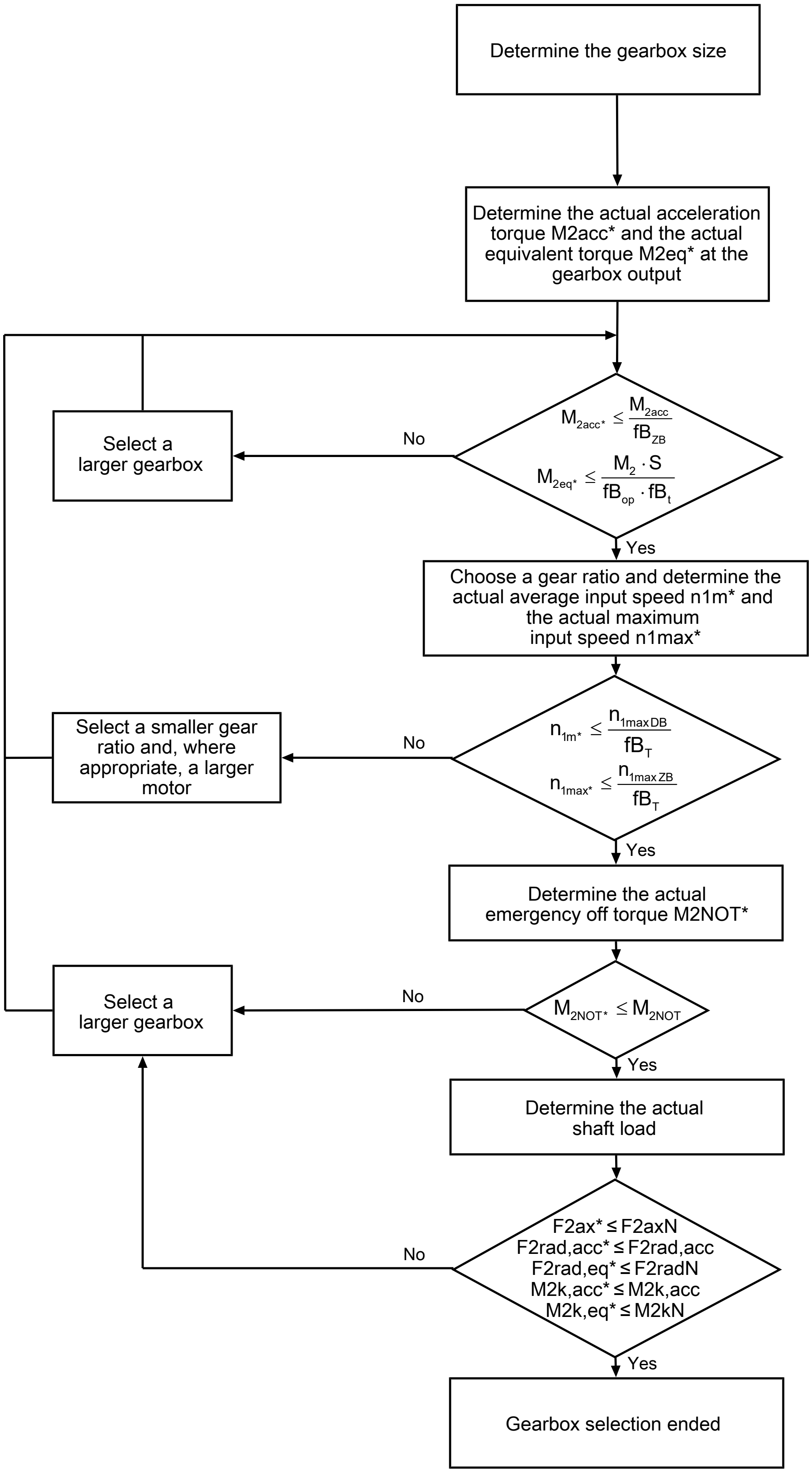
An explanation of the formula symbols can be found in Chapter [▷ 20.1].

The formula symbols for values actually present in the application are marked with *.

[1] Observe the protection class of all the components.

## 6.6.1 Drive selection

**Drive selection for gearboxes**

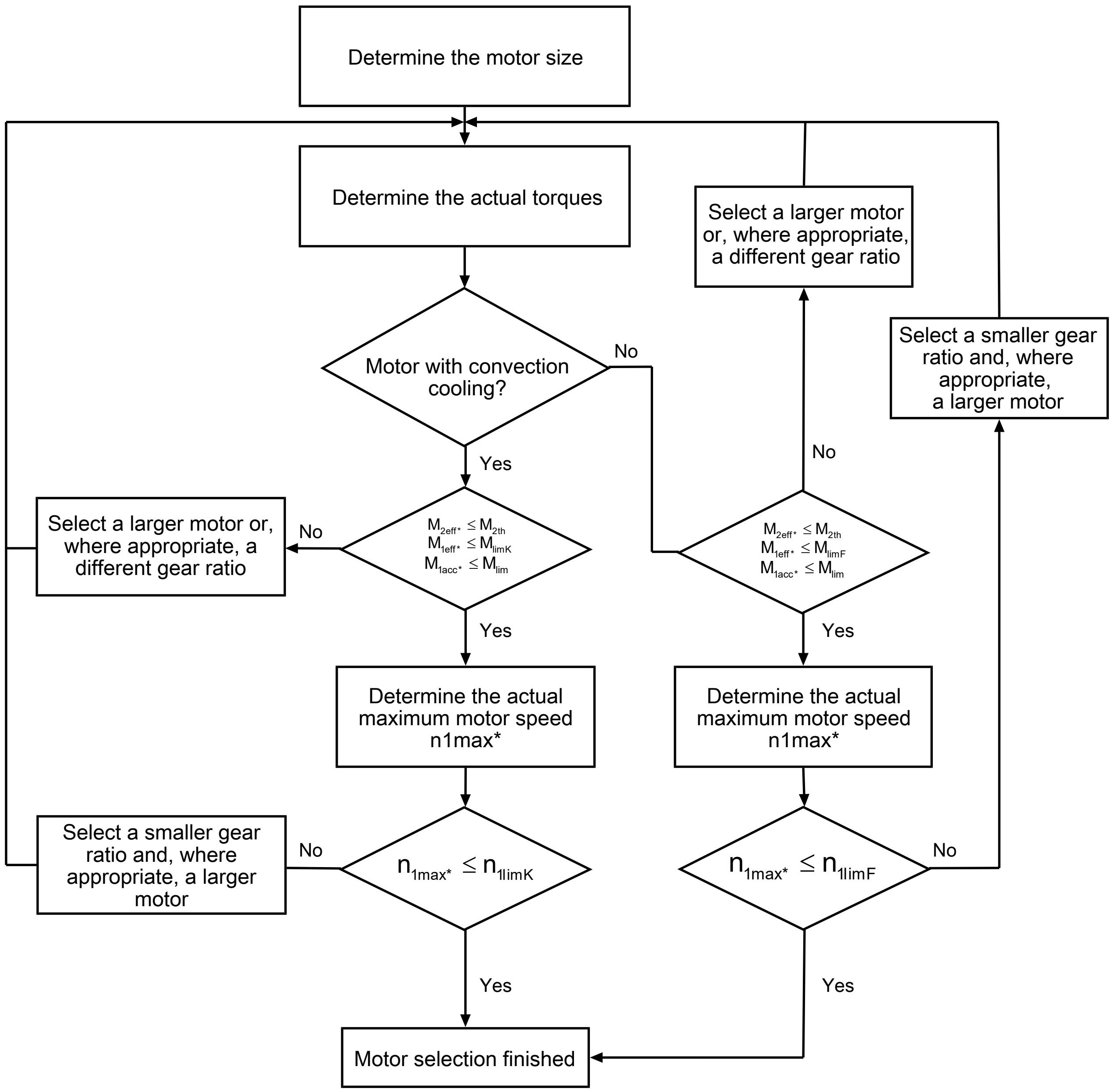



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$, $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

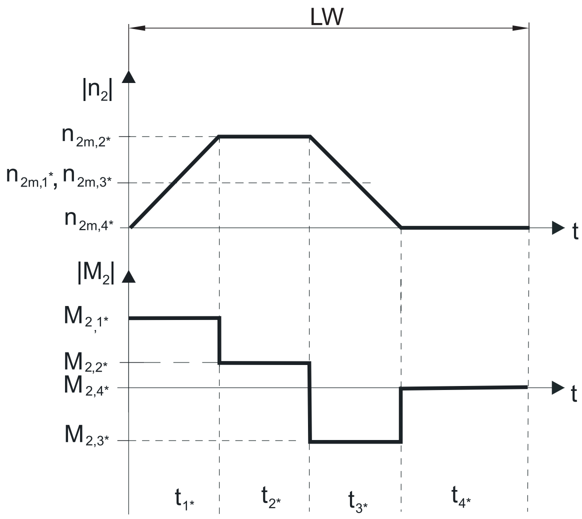
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc^*} = J_{tot} \cdot \frac{\Delta n_2}{9,55 \cdot \Delta t} + M_{L^*}$$

$$M_{1acc^*} = \frac{M_{2acc^*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9,55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m^*} = n_{2m^*} \cdot i$$

$$n_{2m^*} = \frac{\left|n_{2m,1^*}\right| \cdot t_{1^*} + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*}}{t_{1^*} + \ldots + t_{n^*}}$$

If $t_{1*} + \ldots + t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff^*} = \sqrt{\frac{t_{1^*} \cdot M_{2,1^*}{}^2 + \ldots + t_{n^*} \cdot M_{2,n^*}{}^2}{t_{1^*} + \ldots + t_{n^*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT^*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L^*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq^*} = \sqrt[3]{\frac{\left|n_{2m,1^*}\right| \cdot t_{1^*} \cdot \left|M_{2,1^*}{}^3\right| + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*} \cdot \left|M_{2,n^*}{}^3\right|}{\left|n_{2m,1^*}\right| \cdot t_{1^*} + \ldots + \left|n_{2m,n^*}\right| \cdot t_{n^*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

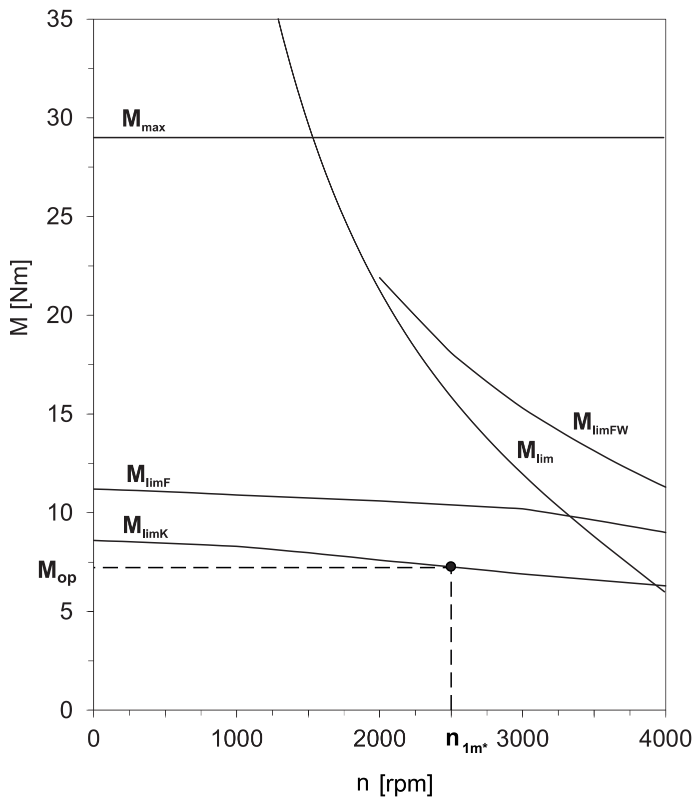
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0,95 - \frac{a_{th}}{1000} \cdot fB_T \cdot \left(\frac{n_{1m^*}}{1000}\right)^3$$

Refer to the selection tables for the values of i and $a_{th}$.

The values for $fB_T$ can be found in the corresponding table in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▶ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.00 |
| Reversing load cyclic operation | 1.00 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 6.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 100$ rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| PE2 | 8.0 | 400 | 800 | 800 | 13 | 13 |
| PE3 | 11.0 | 800 | 1600 | 1600 | 40 | 40 |
| PE4 | 13.0 | 1900 | 2400 | 2400 | 73 | 73 |
| PE5 | 16.0 | 4000 | 4600 | 4600 | 206 | 206 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 100$ rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

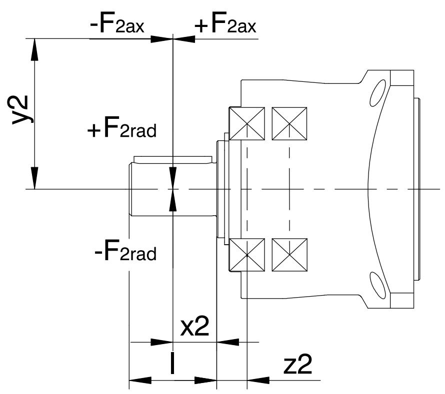



*Fig. 1:* Force application points

The specified values for $F_{2rad100}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10}$ ≤ 40%):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

### 6.6.3 Radial shaft seal rings

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

## 6.7 Additional documentation

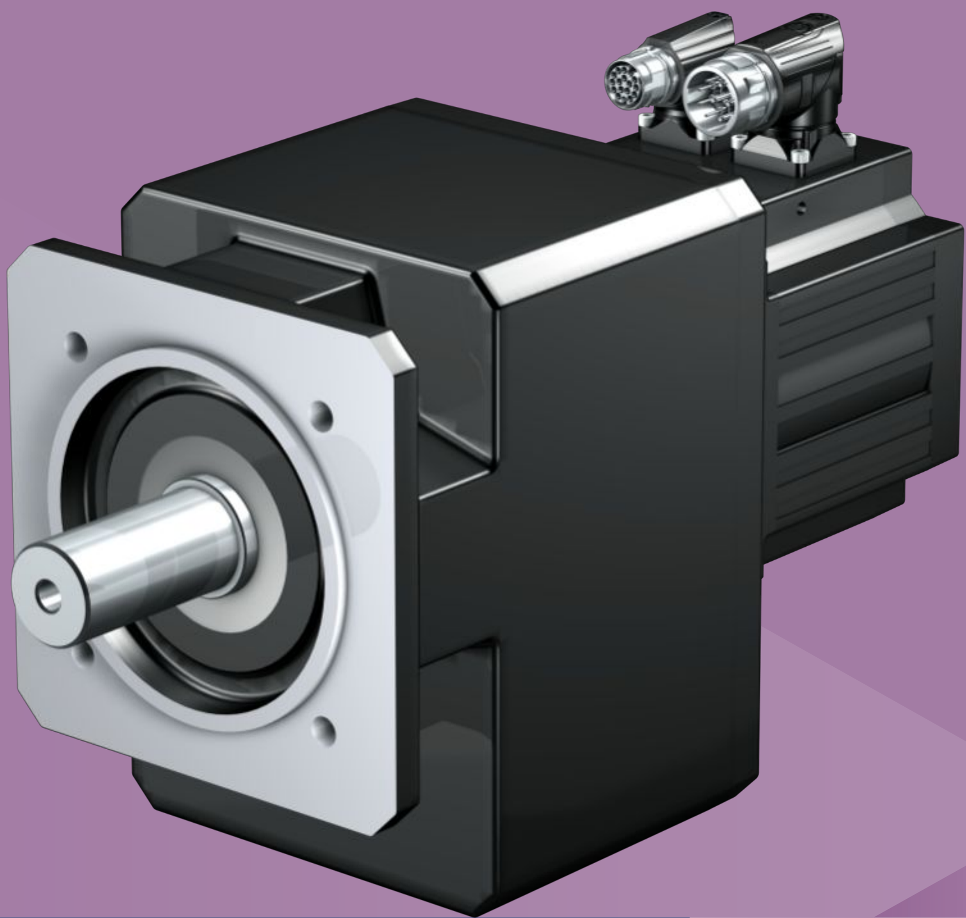
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual for PE22 – PE52 planetary gearboxes and planetary geared motors | 443252_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 7 C helical geared motors

## Table of contents



# 7 Helical geared motors

C

## 7.1 Overview

Compact helical geared motors

**Features**

| | |
|---|---|
| Power density | ★☆☆☆☆ |
| Backlash | ★★☆☆☆ |
| Price category | € |
| Shaft load | ★★☆☆☆ |
| Smooth operation | ★★★☆☆ |
| Torsional stiffness | ★★☆☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free (C0 – C5) | ✓ |
| FKM seal ring at the input | ✓ |
| Reinforced output bearing | ✓ (on request) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 2 – 270 |
| $M_{2acc}$ | 9.7 – 6500 Nm |
| $\Delta\varphi_2$ | 10 – 20 arcmin |
| $\eta_{get}$ | 96 – 97 % |

# 7.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)
- Weight specification for mounting position EL1, housing design N

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [▷ 20.1].

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2,3,4 | EL5,6 | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **C0 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 72 Nm)** | | | | | | | | | | | | | | | | |
| 48 | 56 | 57 | 2.1 | 1.1 | C002_0620 EZ301U | 72 | 120 | 62.35 | 1247/20 | 4000 | 4000 | 7000 | 0.20 | 16.0 | 1.6 | 7.5 |
| 54 | 50 | 52 | 2.0 | 1.2 | C002_0560 EZ301U | 65 | 120 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 60 | 45 | 46 | 1.9 | 1.3 | C002_0500 EZ301U | 72 | 120 | 49.94 | 899/18 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 64 | 42 | 43 | 1.9 | 1.4 | C002_0470 EZ301U | 65 | 120 | 46.82 | 7865/168 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 72 | 38 | 38 | 1.7 | 1.6 | C002_0420 EZ301U | 72 | 120 | 41.77 | 3509/84 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 86 | 32 | 32 | 1.6 | 1.9 | C002_0350 EZ301U | 65 | 120 | 35.03 | 1261/36 | 4000 | 4000 | 7000 | 0.23 | 16.0 | 1.6 | 7.5 |
| 86 | 54 | 57 | 2.7 | 1.1 | C002_0350 EZ302U | 65 | 120 | 35.03 | 1261/36 | 4000 | 4000 | 7000 | 0.33 | 16.0 | 1.6 | 8.1 |
| 96 | 28 | 29 | 1.5 | 2.1 | C002_0310 EZ301U | 72 | 120 | 31.26 | 2813/90 | 4000 | 4000 | 7000 | 0.23 | 16.0 | 1.6 | 7.5 |
| 96 | 48 | 51 | 2.6 | 1.2 | C002_0310 EZ302U | 72 | 120 | 31.26 | 2813/90 | 4000 | 4000 | 7000 | 0.33 | 16.0 | 1.6 | 8.1 |
| 107 | 25 | 26 | 1.4 | 2.4 | C002_0280 EZ301U | 65 | 120 | 27.99 | 2015/72 | 4000 | 4000 | 7000 | 0.25 | 16.0 | 1.6 | 7.5 |
| 107 | 43 | 46 | 2.4 | 1.4 | C002_0280 EZ302U | 65 | 120 | 27.99 | 2015/72 | 4000 | 4000 | 7000 | 0.35 | 16.0 | 1.6 | 8.1 |
| 107 | 56 | 59 | 3.2 | 1.1 | C002_0280 EZ303U | 65 | 120 | 27.99 | 2015/72 | 4000 | 4000 | 7000 | 0.46 | 16.0 | 1.6 | 8.6 |
| 120 | 23 | 23 | 1.4 | 2.7 | C002_0250 EZ301U | 68 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.25 | 16.0 | 1.6 | 7.5 |
| 120 | 39 | 41 | 2.3 | 1.6 | C002_0250 EZ302U | 72 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.35 | 16.0 | 1.6 | 8.1 |
| 120 | 50 | 53 | 3.0 | 1.2 | C002_0250 EZ303U | 72 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.46 | 16.0 | 1.6 | 8.6 |
| 129 | 21 | 21 | 1.3 | 2.9 | C002_0230 EZ301U | 63 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 0.27 | 16.0 | 1.6 | 7.5 |
| 129 | 36 | 38 | 2.2 | 1.7 | C002_0230 EZ302U | 65 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 0.37 | 16.0 | 1.6 | 8.1 |
| 129 | 47 | 49 | 2.9 | 1.3 | C002_0230 EZ303U | 65 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 0.48 | 16.0 | 1.6 | 8.6 |
| 145 | 19 | 19 | 1.2 | 3.2 | C002_0210 EZ301U | 56 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 0.27 | 16.0 | 1.6 | 7.5 |
| 145 | 32 | 34 | 2.1 | 1.9 | C002_0210 EZ302U | 72 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 0.37 | 16.0 | 1.6 | 8.1 |
| 145 | 42 | 44 | 2.7 | 1.4 | C002_0210 EZ303U | 72 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 0.48 | 16.0 | 1.6 | 8.6 |
| 145 | 56 | 60 | 3.7 | 1.1 | C002_0210 EZ401U | 72 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 1.0 | 16.0 | 1.6 | 10 |
| 171 | 16 | 16 | 1.1 | 3.8 | C002_0175 EZ301U | 48 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 0.31 | 16.0 | 1.6 | 7.5 |
| 171 | 27 | 29 | 1.9 | 2.2 | C002_0175 EZ302U | 65 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 0.41 | 16.0 | 1.6 | 8.1 |
| 171 | 35 | 37 | 2.5 | 1.7 | C002_0175 EZ303U | 65 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 0.52 | 16.0 | 1.6 | 8.6 |
| 171 | 48 | 51 | 3.4 | 1.3 | C002_0175 EZ401U | 65 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 1.0 | 16.0 | 1.6 | 10 |
| 192 | 14 | 14 | 1.1 | 4.3 | C002_0155 EZ301U | 42 | 114 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 0.31 | 16.0 | 1.6 | 7.5 |
| 192 | 24 | 25 | 1.8 | 2.5 | C002_0155 EZ302U | 72 | 114 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 0.41 | 16.0 | 1.6 | 8.1 |
| 192 | 31 | 33 | 2.4 | 1.9 | C002_0155 EZ303U | 72 | 114 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 0.52 | 16.0 | 1.6 | 8.6 |
| 192 | 42 | 46 | 3.2 | 1.4 | C002_0155 EZ401U | 72 | 120 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 1.0 | 16.0 | 1.6 | 10 |
| 213 | 13 | 13 | 1.0 | 4.7 | C002_0140 EZ301U | 38 | 102 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 0.35 | 16.0 | 1.6 | 7.5 |
| 213 | 22 | 23 | 1.7 | 2.8 | C002_0140 EZ302U | 65 | 102 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 0.45 | 16.0 | 1.6 | 8.1 |
| 213 | 28 | 30 | 2.3 | 2.1 | C002_0140 EZ303U | 65 | 102 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 0.56 | 16.0 | 1.6 | 8.6 |
| 213 | 38 | 41 | 3.1 | 1.6 | C002_0140 EZ401U | 65 | 120 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 1.1 | 16.0 | 1.6 | 10 |
| 213 | 59 | 64 | 4.7 | 1.0 | C002_0140 EZ501U | 65 | 120 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 3.1 | 16.0 | 1.6 | 11 |
| 239 | 19 | 20 | 1.6 | 3.1 | C002_0125 EZ302U | 61 | 91 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 0.45 | 16.0 | 1.6 | 8.1 |
| 239 | 25 | 27 | 2.1 | 2.4 | C002_0125 EZ303U | 72 | 91 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 0.56 | 16.0 | 1.6 | 8.6 |
| 239 | 34 | 37 | 2.9 | 1.8 | C002_0125 EZ401U | 72 | 120 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 1.1 | 16.0 | 1.6 | 10 |
| 239 | 52 | 57 | 4.4 | 1.1 | C002_0125 EZ501U | 72 | 120 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 3.1 | 16.0 | 1.6 | 11 |
| 239 | 57 | 63 | 4.9 | 1.0 | C002_0125 EZ402U | 72 | 120 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 1.8 | 16.0 | 1.6 | 11 |
| 260 | 18 | 19 | 1.6 | 3.3 | C002_0115 EZ302U | 56 | 84 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 0.49 | 16.0 | 1.6 | 8.1 |
| 260 | 23 | 25 | 2.1 | 2.5 | C002_0115 EZ303U | 65 | 84 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 0.60 | 16.0 | 1.6 | 8.6 |
| 260 | 31 | 34 | 2.9 | 1.9 | C002_0115 EZ401U | 65 | 120 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 1.1 | 16.0 | 1.6 | 10 |
| 260 | 48 | 53 | 4.4 | 1.2 | C002_0115 EZ501U | 65 | 120 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 3.1 | 16.0 | 1.6 | 11 |
| 260 | 53 | 58 | 4.8 | 1.1 | C002_0115 EZ402U | 65 | 120 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 1.8 | 16.0 | 1.6 | 11 |
| 291 | 16 | 17 | 1.6 | 3.5 | C002_0105 EZ302U | 50 | 75 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 0.49 | 16.0 | 1.6 | 8.1 |
| 291 | 21 | 22 | 2.1 | 2.7 | C002_0105 EZ303U | 60 | 75 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 0.60 | 16.0 | 1.6 | 8.6 |
| 291 | 28 | 30 | 2.8 | 2.0 | C002_0105 EZ401U | 72 | 120 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 1.1 | 16.0 | 1.6 | 10 |
| 291 | 43 | 47 | 4.3 | 1.3 | C002_0105 EZ501U | 72 | 120 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 3.1 | 16.0 | 1.6 | 11 |
| 291 | 47 | 52 | 4.7 | 1.2 | C002_0105 EZ402U | 72 | 120 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 1.8 | 16.0 | 1.6 | 11 |
| 325 | 14 | 15 | 1.6 | 3.8 | C002_0092 EZ302U | 45 | 67 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 0.56 | 16.0 | 1.6 | 8.1 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C0 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 72 Nm)** | | | | | | | | | | | | | | | | |
| 325 | 19 | 20 | 2.0 | 2.9 | C002_0092 EZ303U | 54 | 67 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 0.67 | 16.0 | 1.6 | 8.6 |
| 325 | 25 | 27 | 2.7 | 2.2 | C002_0092 EZ401U | 65 | 120 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 1.2 | 16.0 | 1.6 | 10 |
| 325 | 38 | 42 | 4.2 | 1.4 | C002_0092 EZ501U | 65 | 120 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 3.2 | 16.0 | 1.6 | 11 |
| 325 | 42 | 47 | 4.6 | 1.3 | C002_0092 EZ402U | 65 | 120 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 1.9 | 16.0 | 1.6 | 11 |
| 364 | 13 | 13 | 1.7 | 3.8 | C002_0082 EZ302U | 40 | 60 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 0.56 | 16.0 | 1.6 | 8.1 |
| 364 | 17 | 17 | 2.2 | 2.9 | C002_0082 EZ303U | 48 | 60 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 0.67 | 16.0 | 1.6 | 8.6 |
| 364 | 22 | 24 | 2.7 | 2.3 | C002_0082 EZ401U | 68 | 120 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 1.2 | 16.0 | 1.6 | 10 |
| 364 | 34 | 38 | 4.1 | 1.5 | C002_0082 EZ501U | 72 | 120 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 3.2 | 16.0 | 1.6 | 11 |
| 364 | 38 | 42 | 4.5 | 1.4 | C002_0082 EZ402U | 72 | 120 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 1.9 | 16.0 | 1.6 | 11 |
| 389 | 12 | 13 | 1.8 | 3.5 | C002_0077 EZ302U | 37 | 53 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 0.38 | 20.0 | 1.3 | 8.1 |
| 389 | 15 | 16 | 2.4 | 2.7 | C002_0077 EZ303U | 42 | 53 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 0.49 | 20.0 | 1.3 | 8.6 |
| 389 | 21 | 22 | 3.1 | 2.1 | C002_0077 EZ401U | 64 | 110 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 1.0 | 20.0 | 1.3 | 10 |
| 389 | 32 | 35 | 4.8 | 1.3 | C002_0077 EZ501U | 65 | 110 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 3.0 | 20.0 | 1.3 | 11 |
| 389 | 35 | 39 | 5.3 | 1.2 | C002_0077 EZ402U | 65 | 110 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 1.7 | 20.0 | 1.3 | 11 |
| 476 | 9.7 | 10 | 1.9 | 3.8 | C002_0063 EZ302U | 31 | 46 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 0.43 | 20.0 | 1.3 | 8.1 |
| 476 | 13 | 13 | 2.5 | 2.9 | C002_0063 EZ303U | 37 | 46 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 0.54 | 20.0 | 1.3 | 8.6 |
| 476 | 17 | 18 | 3.0 | 2.4 | C002_0063 EZ401U | 52 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 476 | 26 | 29 | 4.7 | 1.5 | C002_0063 EZ501U | 65 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 3.0 | 20.0 | 1.3 | 11 |
| 476 | 29 | 32 | 5.1 | 1.4 | C002_0063 EZ402U | 65 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 515 | 9.0 | 9.5 | 2.0 | 3.8 | C002_0058 EZ302U | 28 | 42 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 0.43 | 20.0 | 1.3 | 8.1 |
| 515 | 12 | 12 | 2.6 | 2.9 | C002_0058 EZ303U | 34 | 42 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 0.54 | 20.0 | 1.3 | 8.6 |
| 515 | 16 | 17 | 3.0 | 2.5 | C002_0058 EZ401U | 48 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 515 | 24 | 27 | 4.6 | 1.6 | C002_0058 EZ501U | 65 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 3.0 | 20.0 | 1.3 | 11 |
| 515 | 27 | 29 | 5.0 | 1.5 | C002_0058 EZ402U | 65 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 515 | 39 | 49 | 7.4 | 1.0 | C002_0058 EZ404U | 65 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 3.1 | 20.0 | 1.3 | 13 |
| 593 | 7.8 | 8.3 | 2.1 | 3.8 | C002_0051 EZ302U | 25 | 37 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 0.48 | 20.0 | 1.3 | 8.1 |
| 593 | 10 | 11 | 2.8 | 2.9 | C002_0051 EZ303U | 29 | 37 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 0.59 | 20.0 | 1.3 | 8.6 |
| 593 | 14 | 15 | 2.9 | 2.7 | C002_0051 EZ401U | 42 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 593 | 21 | 23 | 4.5 | 1.8 | C002_0051 EZ501U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 3.1 | 20.0 | 1.3 | 11 |
| 593 | 23 | 26 | 4.9 | 1.6 | C002_0051 EZ402U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 593 | 34 | 42 | 7.2 | 1.1 | C002_0051 EZ404U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 3.2 | 20.0 | 1.3 | 13 |
| 593 | 36 | 39 | 7.8 | 1.0 | C002_0051 EZ502U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 5.4 | 20.0 | 1.3 | 13 |
| 593 | 36 | 41 | 7.8 | 1.0 | C002_0051 EZ701U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 8.7 | 20.0 | 1.3 | 14 |
| 641 | 7.2 | 7.6 | 2.2 | 3.8 | C002_0047 EZ302U | 23 | 34 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 0.49 | 20.0 | 1.3 | 8.1 |
| 641 | 9.4 | 9.9 | 2.9 | 2.9 | C002_0047 EZ303U | 27 | 34 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 0.60 | 20.0 | 1.3 | 8.6 |
| 641 | 13 | 14 | 2.9 | 2.9 | C002_0047 EZ401U | 39 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 641 | 20 | 21 | 4.5 | 1.9 | C002_0047 EZ501U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 3.1 | 20.0 | 1.3 | 11 |
| 641 | 21 | 24 | 4.9 | 1.7 | C002_0047 EZ402U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 641 | 31 | 39 | 7.1 | 1.2 | C002_0047 EZ404U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 3.2 | 20.0 | 1.3 | 13 |
| 641 | 34 | 36 | 7.7 | 1.1 | C002_0047 EZ502U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 5.4 | 20.0 | 1.3 | 13 |
| 641 | 34 | 38 | 7.7 | 1.1 | C002_0047 EZ701U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 8.7 | 20.0 | 1.3 | 14 |
| 723 | 6.4 | 6.8 | 2.3 | 3.8 | C002_0041 EZ302U | 20 | 30 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 0.55 | 20.0 | 1.3 | 8.1 |
| 723 | 8.3 | 8.8 | 3.0 | 2.9 | C002_0041 EZ303U | 24 | 30 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 0.66 | 20.0 | 1.3 | 8.6 |
| 723 | 11 | 12 | 2.8 | 3.1 | C002_0041 EZ401U | 34 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 1.2 | 20.0 | 1.3 | 10 |
| 723 | 17 | 19 | 4.4 | 2.0 | C002_0041 EZ501U | 64 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 11 |
| 723 | 19 | 21 | 4.8 | 1.9 | C002_0041 EZ402U | 64 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 1.9 | 20.0 | 1.3 | 11 |
| 723 | 28 | 35 | 7.0 | 1.3 | C002_0041 EZ404U | 65 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 13 |
| 723 | 30 | 32 | 7.5 | 1.2 | C002_0041 EZ502U | 65 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 5.5 | 20.0 | 1.3 | 13 |
| 723 | 30 | 33 | 7.5 | 1.2 | C002_0041 EZ701U | 65 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 8.8 | 20.0 | 1.3 | 14 |
| 782 | 5.9 | 6.3 | 2.4 | 3.8 | C002_0038 EZ302U | 19 | 28 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 0.55 | 20.0 | 1.3 | 8.1 |
| 782 | 7.7 | 8.1 | 3.2 | 2.9 | C002_0038 EZ303U | 22 | 28 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 0.66 | 20.0 | 1.3 | 8.6 |
| 782 | 10 | 11 | 2.8 | 3.3 | C002_0038 EZ401U | 32 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 1.2 | 20.0 | 1.3 | 10 |
| 782 | 16 | 17 | 4.3 | 2.1 | C002_0038 EZ501U | 60 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 11 |
| 782 | 17 | 19 | 4.7 | 2.0 | C002_0038 EZ402U | 60 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 1.9 | 20.0 | 1.3 | 11 |
| 782 | 26 | 32 | 6.9 | 1.3 | C002_0038 EZ404U | 65 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 13 |
| 782 | 28 | 30 | 7.4 | 1.2 | C002_0038 EZ502U | 65 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 5.5 | 20.0 | 1.3 | 13 |
| 782 | 28 | 31 | 7.4 | 1.2 | C002_0038 EZ701U | 65 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 8.8 | 20.0 | 1.3 | 14 |
| 904 | 5.1 | 5.4 | 2.6 | 3.8 | C002_0033 EZ302U | 16 | 24 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 0.65 | 20.0 | 1.3 | 8.1 |
| 904 | 6.7 | 7.0 | 3.4 | 2.9 | C002_0033 EZ303U | 19 | 24 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 0.76 | 20.0 | 1.3 | 8.6 |
| 904 | 9.0 | 9.7 | 2.7 | 3.6 | C002_0033 EZ401U | 27 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 1.3 | 20.0 | 1.3 | 10 |
| 904 | 14 | 15 | 4.2 | 2.4 | C002_0033 EZ501U | 51 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 11 |
| 904 | 15 | 17 | 4.6 | 2.2 | C002_0033 EZ402U | 51 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 2.0 | 20.0 | 1.3 | 11 |
| 904 | 22 | 28 | 6.7 | 1.5 | C002_0033 EZ404U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 13 |
| 904 | 24 | 26 | 7.2 | 1.4 | C002_0033 EZ502U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 5.6 | 20.0 | 1.3 | 13 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C0 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 72 Nm)** | | | | | | | | | | | | | | | | |
| 904 | 24 | 27 | 7.2 | 1.4 | C002_0033 EZ701U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 8.9 | 20.0 | 1.3 | 14 |
| 904 | 31 | 36 | 9.5 | 1.0 | C002_0033 EZ503U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 7.9 | 20.0 | 1.3 | 14 |
| 978 | 4.7 | 5.0 | 2.7 | 3.8 | C002_0031 EZ302U | 15 | 22 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 0.66 | 20.0 | 1.3 | 8.1 |
| 978 | 6.2 | 6.5 | 3.5 | 2.9 | C002_0031 EZ303U | 18 | 22 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 0.77 | 20.0 | 1.3 | 8.6 |
| 978 | 8.3 | 8.9 | 2.7 | 3.8 | C002_0031 EZ401U | 25 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 1.3 | 20.0 | 1.3 | 10 |
| 978 | 13 | 14 | 4.1 | 2.5 | C002_0031 EZ501U | 48 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 11 |
| 978 | 14 | 15 | 4.5 | 2.3 | C002_0031 EZ402U | 48 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 2.0 | 20.0 | 1.3 | 11 |
| 978 | 21 | 26 | 6.7 | 1.5 | C002_0031 EZ404U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 13 |
| 978 | 22 | 24 | 7.1 | 1.4 | C002_0031 EZ502U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 5.6 | 20.0 | 1.3 | 13 |
| 978 | 22 | 25 | 7.1 | 1.4 | C002_0031 EZ701U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 8.9 | 20.0 | 1.3 | 14 |
| 978 | 29 | 33 | 9.4 | 1.1 | C002_0031 EZ503U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 7.9 | 20.0 | 1.3 | 14 |
| 1083 | 7.5 | 8.1 | 2.7 | 4.1 | C002_0028 EZ401U | 23 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 1.4 | 20.0 | 1.3 | 10 |
| 1083 | 12 | 13 | 4.1 | 2.7 | C002_0028 EZ501U | 43 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 3.3 | 20.0 | 1.3 | 11 |
| 1083 | 13 | 14 | 4.5 | 2.4 | C002_0028 EZ402U | 43 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 2.1 | 20.0 | 1.3 | 11 |
| 1083 | 19 | 23 | 6.5 | 1.7 | C002_0028 EZ404U | 58 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 3.4 | 20.0 | 1.3 | 13 |
| 1083 | 20 | 21 | 7.0 | 1.5 | C002_0028 EZ502U | 58 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 5.6 | 20.0 | 1.3 | 13 |
| 1083 | 20 | 22 | 7.0 | 1.5 | C002_0028 EZ701U | 54 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 8.9 | 20.0 | 1.3 | 14 |
| 1083 | 26 | 30 | 9.2 | 1.2 | C002_0028 EZ503U | 58 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 8.0 | 20.0 | 1.3 | 14 |
| 1502 | 3.1 | 3.3 | 3.4 | 3.8 | C002_0020 EZ302U | 9.7 | 15 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 1.0 | 20.0 | 1.3 | 8.1 |
| 1502 | 4.0 | 4.2 | 4.4 | 2.9 | C002_0020 EZ303U | 12 | 15 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 1.1 | 20.0 | 1.3 | 8.6 |
| 1502 | 8.3 | 9.1 | 3.9 | 3.3 | C002_0020 EZ501U | 31 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 3.6 | 20.0 | 1.3 | 11 |
| 1502 | 9.1 | 10 | 4.2 | 3.0 | C002_0020 EZ402U | 31 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 2.4 | 20.0 | 1.3 | 11 |
| 1502 | 13 | 17 | 6.2 | 2.1 | C002_0020 EZ404U | 47 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 3.7 | 20.0 | 1.3 | 13 |
| 1502 | 14 | 15 | 6.6 | 1.9 | C002_0020 EZ502U | 47 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 5.9 | 20.0 | 1.3 | 13 |
| 1502 | 14 | 16 | 6.6 | 1.9 | C002_0020 EZ701U | 39 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 9.2 | 20.0 | 1.3 | 14 |
| 1502 | 19 | 22 | 8.7 | 1.5 | C002_0020 EZ503U | 47 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 8.3 | 20.0 | 1.3 | 14 |
| **C0 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 72 Nm)** | | | | | | | | | | | | | | | | |
| 86 | 41 | 47 | 1.5 | 1.5 | C002_0700 EZ203U | 65 | 120 | 69.88 | 559/8 | 4000 | 4000 | 7000 | 0.18 | 16.0 | 1.6 | 7.7 |
| 96 | 37 | 42 | 1.4 | 1.6 | C002_0620 EZ203U | 72 | 120 | 62.35 | 1247/20 | 4000 | 4000 | 7000 | 0.18 | 16.0 | 1.6 | 7.7 |
| 96 | 54 | 57 | 2.0 | 1.1 | C002_0620 EZ301U | 72 | 120 | 62.35 | 1247/20 | 4000 | 4000 | 7000 | 0.20 | 16.0 | 1.6 | 7.5 |
| 107 | 33 | 37 | 1.3 | 1.8 | C002_0560 EZ203U | 65 | 120 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.19 | 16.0 | 1.6 | 7.7 |
| 107 | 48 | 52 | 1.9 | 1.2 | C002_0560 EZ301U | 65 | 120 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 120 | 30 | 33 | 1.3 | 2.0 | C002_0500 EZ203U | 72 | 120 | 49.94 | 899/18 | 4000 | 4000 | 7000 | 0.19 | 16.0 | 1.6 | 7.7 |
| 120 | 43 | 46 | 1.8 | 1.4 | C002_0500 EZ301U | 72 | 120 | 49.94 | 899/18 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 128 | 28 | 31 | 1.2 | 2.2 | C002_0470 EZ203U | 65 | 120 | 46.82 | 7865/168 | 4000 | 4000 | 7000 | 0.19 | 16.0 | 1.6 | 7.7 |
| 128 | 40 | 43 | 1.8 | 1.5 | C002_0470 EZ301U | 65 | 120 | 46.82 | 7865/168 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 144 | 25 | 28 | 1.1 | 2.4 | C002_0420 EZ203U | 72 | 120 | 41.77 | 3509/84 | 4000 | 4000 | 7000 | 0.19 | 16.0 | 1.6 | 7.7 |
| 144 | 36 | 38 | 1.7 | 1.7 | C002_0420 EZ301U | 72 | 120 | 41.77 | 3509/84 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.5 |
| 171 | 21 | 23 | 1.1 | 2.9 | C002_0350 EZ203U | 65 | 120 | 35.03 | 1261/36 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.7 |
| 171 | 30 | 32 | 1.5 | 2.0 | C002_0350 EZ301U | 65 | 120 | 35.03 | 1261/36 | 4000 | 4000 | 7000 | 0.23 | 16.0 | 1.6 | 7.5 |
| 171 | 51 | 57 | 2.6 | 1.2 | C002_0350 EZ302U | 65 | 120 | 35.03 | 1261/36 | 4000 | 4000 | 7000 | 0.33 | 16.0 | 1.6 | 8.1 |
| 192 | 18 | 21 | 1.0 | 3.2 | C002_0310 EZ203U | 72 | 120 | 31.26 | 2813/90 | 4000 | 4000 | 7000 | 0.21 | 16.0 | 1.6 | 7.7 |
| 192 | 27 | 29 | 1.4 | 2.2 | C002_0310 EZ301U | 72 | 120 | 31.26 | 2813/90 | 4000 | 4000 | 7000 | 0.23 | 16.0 | 1.6 | 7.5 |
| 192 | 45 | 51 | 2.4 | 1.3 | C002_0310 EZ302U | 72 | 120 | 31.26 | 2813/90 | 4000 | 4000 | 7000 | 0.33 | 16.0 | 1.6 | 8.1 |
| 192 | 59 | 68 | 3.2 | 1.0 | C002_0310 EZ303U | 72 | 120 | 31.26 | 2813/90 | 4000 | 4000 | 7000 | 0.44 | 16.0 | 1.6 | 8.6 |
| 214 | 17 | 19 | 0.9 | 3.6 | C002_0280 EZ203U | 65 | 120 | 27.99 | 2015/72 | 4000 | 4000 | 7000 | 0.23 | 16.0 | 1.6 | 7.7 |
| 214 | 24 | 26 | 1.4 | 2.5 | C002_0280 EZ301U | 65 | 120 | 27.99 | 2015/72 | 4000 | 4000 | 7000 | 0.25 | 16.0 | 1.6 | 7.5 |
| 214 | 41 | 46 | 2.3 | 1.5 | C002_0280 EZ302U | 65 | 120 | 27.99 | 2015/72 | 4000 | 4000 | 7000 | 0.35 | 16.0 | 1.6 | 8.1 |
| 214 | 53 | 61 | 3.0 | 1.1 | C002_0280 EZ303U | 65 | 120 | 27.99 | 2015/72 | 4000 | 4000 | 7000 | 0.46 | 16.0 | 1.6 | 8.6 |
| 240 | 15 | 17 | 0.9 | 4.0 | C002_0250 EZ203U | 65 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.23 | 16.0 | 1.6 | 7.7 |
| 240 | 22 | 23 | 1.3 | 2.8 | C002_0250 EZ301U | 68 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.25 | 16.0 | 1.6 | 7.5 |
| 240 | 36 | 41 | 2.2 | 1.6 | C002_0250 EZ302U | 72 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.35 | 16.0 | 1.6 | 8.1 |
| 240 | 47 | 55 | 2.9 | 1.3 | C002_0250 EZ303U | 72 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.46 | 16.0 | 1.6 | 8.6 |
| 240 | 56 | 68 | 3.4 | 1.1 | C002_0250 EZ401U | 72 | 120 | 24.97 | 899/36 | 4000 | 4000 | 7000 | 0.99 | 16.0 | 1.6 | 10 |
| 258 | 14 | 16 | 0.9 | 4.3 | C002_0230 EZ203U | 61 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 0.24 | 16.0 | 1.6 | 7.7 |
| 258 | 20 | 21 | 1.3 | 2.9 | C002_0230 EZ301U | 63 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 0.27 | 16.0 | 1.6 | 7.5 |
| 258 | 34 | 38 | 2.2 | 1.7 | C002_0230 EZ302U | 65 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 0.37 | 16.0 | 1.6 | 8.1 |
| 258 | 44 | 51 | 2.8 | 1.3 | C002_0230 EZ303U | 65 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 0.48 | 16.0 | 1.6 | 8.6 |
| 258 | 52 | 63 | 3.3 | 1.1 | C002_0230 EZ401U | 65 | 120 | 23.21 | 325/14 | 4000 | 4000 | 7000 | 1.0 | 16.0 | 1.6 | 10 |
| 290 | 12 | 14 | 0.9 | 4.6 | C002_0210 EZ203U | 54 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 0.24 | 16.0 | 1.6 | 7.7 |
| 290 | 18 | 19 | 1.3 | 3.1 | C002_0210 EZ301U | 56 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 0.27 | 16.0 | 1.6 | 7.5 |
| 290 | 30 | 34 | 2.1 | 1.9 | C002_0210 EZ302U | 72 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 0.37 | 16.0 | 1.6 | 8.1 |
| 290 | 39 | 45 | 2.8 | 1.4 | C002_0210 EZ303U | 72 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 0.48 | 16.0 | 1.6 | 8.6 |
| 290 | 46 | 56 | 3.3 | 1.2 | C002_0210 EZ401U | 72 | 120 | 20.71 | 145/7 | 4000 | 4000 | 7000 | 1.0 | 16.0 | 1.6 | 10 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C0 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 72 Nm) | | | | | | | | | | | | | | | | |
| 342 | 15 | 16 | 1.2 | 3.5 | C002_0175 EZ301U | 48 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 0.31 | 16.0 | 1.6 | 7.5 |
| 342 | 25 | 29 | 2.1 | 2.1 | C002_0175 EZ302U | 65 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 0.41 | 16.0 | 1.6 | 8.1 |
| 342 | 33 | 38 | 2.7 | 1.6 | C002_0175 EZ303U | 65 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 0.52 | 16.0 | 1.6 | 8.6 |
| 342 | 39 | 48 | 3.2 | 1.4 | C002_0175 EZ401U | 65 | 120 | 17.53 | 3575/204 | 4000 | 4000 | 6500 | 1.0 | 16.0 | 1.6 | 10 |
| 384 | 13 | 14 | 1.2 | 3.8 | C002_0155 EZ301U | 42 | 114 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 0.31 | 16.0 | 1.6 | 7.5 |
| 384 | 23 | 25 | 2.0 | 2.3 | C002_0155 EZ302U | 72 | 114 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 0.41 | 16.0 | 1.6 | 8.1 |
| 384 | 30 | 34 | 2.6 | 1.7 | C002_0155 EZ303U | 72 | 114 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 0.52 | 16.0 | 1.6 | 8.6 |
| 384 | 35 | 42 | 3.1 | 1.5 | C002_0155 EZ401U | 72 | 120 | 15.64 | 1595/102 | 4000 | 4000 | 6500 | 1.0 | 16.0 | 1.6 | 10 |
| 426 | 12 | 13 | 1.2 | 4.1 | C002_0140 EZ301U | 38 | 102 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 0.35 | 16.0 | 1.6 | 7.5 |
| 426 | 20 | 23 | 2.0 | 2.4 | C002_0140 EZ302U | 65 | 102 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 0.45 | 16.0 | 1.6 | 8.1 |
| 426 | 27 | 31 | 2.6 | 1.8 | C002_0140 EZ303U | 65 | 102 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 0.56 | 16.0 | 1.6 | 8.6 |
| 426 | 31 | 38 | 3.1 | 1.6 | C002_0140 EZ401U | 65 | 120 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 1.1 | 16.0 | 1.6 | 10 |
| 426 | 46 | 60 | 4.5 | 1.1 | C002_0140 EZ501U | 65 | 120 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 3.1 | 16.0 | 1.6 | 11 |
| 426 | 48 | 67 | 4.6 | 1.0 | C002_0140 EZ402U | 65 | 120 | 14.08 | 169/12 | 4000 | 4000 | 6500 | 1.8 | 16.0 | 1.6 | 11 |
| 477 | 11 | 12 | 1.2 | 4.4 | C002_0125 EZ301U | 34 | 91 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 0.35 | 16.0 | 1.6 | 7.5 |
| 477 | 18 | 20 | 2.0 | 2.6 | C002_0125 EZ302U | 61 | 91 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 0.45 | 16.0 | 1.6 | 8.1 |
| 477 | 24 | 27 | 2.5 | 2.0 | C002_0125 EZ303U | 72 | 91 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 0.56 | 16.0 | 1.6 | 8.6 |
| 477 | 28 | 34 | 3.0 | 1.7 | C002_0125 EZ401U | 72 | 120 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 1.1 | 16.0 | 1.6 | 10 |
| 477 | 41 | 54 | 4.4 | 1.1 | C002_0125 EZ501U | 72 | 120 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 3.1 | 16.0 | 1.6 | 11 |
| 477 | 43 | 60 | 4.6 | 1.1 | C002_0125 EZ402U | 72 | 120 | 12.57 | 377/30 | 4000 | 4000 | 6500 | 1.8 | 16.0 | 1.6 | 11 |
| 520 | 10 | 11 | 1.1 | 4.6 | C002_0115 EZ301U | 31 | 84 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 0.39 | 16.0 | 1.6 | 7.5 |
| 520 | 17 | 19 | 1.9 | 2.8 | C002_0115 EZ302U | 56 | 84 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 0.49 | 16.0 | 1.6 | 8.1 |
| 520 | 22 | 25 | 2.5 | 2.1 | C002_0115 EZ303U | 65 | 84 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 0.60 | 16.0 | 1.6 | 8.6 |
| 520 | 26 | 31 | 2.9 | 1.8 | C002_0115 EZ401U | 65 | 120 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 1.1 | 16.0 | 1.6 | 10 |
| 520 | 38 | 49 | 4.4 | 1.2 | C002_0115 EZ501U | 65 | 120 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 3.1 | 16.0 | 1.6 | 11 |
| 520 | 39 | 55 | 4.5 | 1.2 | C002_0115 EZ402U | 65 | 120 | 11.54 | 3185/276 | 3700 | 3600 | 6000 | 1.8 | 16.0 | 1.6 | 11 |
| 583 | 15 | 17 | 1.9 | 3.0 | C002_0105 EZ302U | 50 | 75 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 0.49 | 16.0 | 1.6 | 8.1 |
| 583 | 20 | 22 | 2.5 | 2.3 | C002_0105 EZ303U | 60 | 75 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 0.60 | 16.0 | 1.6 | 8.6 |
| 583 | 23 | 28 | 2.9 | 1.9 | C002_0105 EZ401U | 72 | 120 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 1.1 | 16.0 | 1.6 | 10 |
| 583 | 34 | 44 | 4.3 | 1.3 | C002_0105 EZ501U | 72 | 120 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 3.1 | 16.0 | 1.6 | 11 |
| 583 | 35 | 49 | 4.4 | 1.3 | C002_0105 EZ402U | 72 | 120 | 10.30 | 1421/138 | 3700 | 3600 | 6000 | 1.8 | 16.0 | 1.6 | 11 |
| 650 | 13 | 15 | 1.9 | 3.2 | C002_0092 EZ302U | 45 | 67 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 0.56 | 16.0 | 1.6 | 8.1 |
| 650 | 18 | 20 | 2.4 | 2.4 | C002_0092 EZ303U | 54 | 67 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 0.67 | 16.0 | 1.6 | 8.6 |
| 650 | 21 | 25 | 2.8 | 2.1 | C002_0092 EZ401U | 65 | 120 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 1.2 | 16.0 | 1.6 | 10 |
| 650 | 30 | 39 | 4.2 | 1.4 | C002_0092 EZ501U | 65 | 120 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 3.2 | 16.0 | 1.6 | 11 |
| 650 | 31 | 44 | 4.3 | 1.4 | C002_0092 EZ402U | 65 | 120 | 9.228 | 1495/162 | 3700 | 3600 | 6000 | 1.9 | 16.0 | 1.6 | 11 |
| 729 | 12 | 13 | 1.8 | 3.5 | C002_0082 EZ302U | 40 | 60 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 0.56 | 16.0 | 1.6 | 8.1 |
| 729 | 16 | 18 | 2.4 | 2.6 | C002_0082 EZ303U | 48 | 60 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 0.67 | 16.0 | 1.6 | 8.6 |
| 729 | 18 | 22 | 2.8 | 2.3 | C002_0082 EZ401U | 68 | 120 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 1.2 | 16.0 | 1.6 | 10 |
| 729 | 27 | 35 | 4.1 | 1.5 | C002_0082 EZ501U | 72 | 120 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 3.2 | 16.0 | 1.6 | 11 |
| 729 | 28 | 39 | 4.2 | 1.5 | C002_0082 EZ402U | 72 | 120 | 8.235 | 667/81 | 3700 | 3600 | 6000 | 1.9 | 16.0 | 1.6 | 11 |
| 778 | 11 | 13 | 2.1 | 3.1 | C002_0077 EZ302U | 37 | 53 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 0.38 | 20.0 | 1.3 | 8.1 |
| 778 | 15 | 17 | 2.8 | 2.3 | C002_0077 EZ303U | 42 | 53 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 0.49 | 20.0 | 1.3 | 8.6 |
| 778 | 17 | 21 | 3.3 | 2.0 | C002_0077 EZ401U | 64 | 110 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 1.0 | 20.0 | 1.3 | 10 |
| 778 | 25 | 33 | 4.8 | 1.3 | C002_0077 EZ501U | 65 | 110 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 3.0 | 20.0 | 1.3 | 11 |
| 778 | 26 | 37 | 5.0 | 1.3 | C002_0077 EZ402U | 65 | 110 | 7.714 | 54/7 | 4000 | 4000 | 7000 | 1.7 | 20.0 | 1.3 | 11 |
| 952 | 9.2 | 10 | 2.1 | 3.5 | C002_0063 EZ302U | 31 | 46 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 0.43 | 20.0 | 1.3 | 8.1 |
| 952 | 12 | 14 | 2.7 | 2.7 | C002_0063 EZ303U | 37 | 46 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 0.54 | 20.0 | 1.3 | 8.6 |
| 952 | 14 | 17 | 3.2 | 2.3 | C002_0063 EZ401U | 52 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 952 | 21 | 27 | 4.7 | 1.5 | C002_0063 EZ501U | 65 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 3.0 | 20.0 | 1.3 | 11 |
| 952 | 21 | 30 | 4.8 | 1.5 | C002_0063 EZ402U | 65 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 952 | 32 | 48 | 7.1 | 1.0 | C002_0063 EZ502U | 65 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 5.3 | 20.0 | 1.3 | 13 |
| 952 | 32 | 48 | 7.1 | 1.0 | C002_0063 EZ701U | 65 | 110 | 6.300 | 2035/323 | 4000 | 4000 | 6500 | 8.6 | 20.0 | 1.3 | 14 |
| 1030 | 8.5 | 9.5 | 2.0 | 3.7 | C002_0058 EZ302U | 28 | 42 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 0.43 | 20.0 | 1.3 | 8.1 |
| 1030 | 11 | 13 | 2.7 | 2.8 | C002_0058 EZ303U | 34 | 42 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 0.54 | 20.0 | 1.3 | 8.6 |
| 1030 | 13 | 16 | 3.1 | 2.4 | C002_0058 EZ401U | 48 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 1030 | 19 | 25 | 4.6 | 1.6 | C002_0058 EZ501U | 65 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 3.0 | 20.0 | 1.3 | 11 |
| 1030 | 20 | 28 | 4.7 | 1.6 | C002_0058 EZ402U | 65 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 1030 | 29 | 44 | 7.0 | 1.1 | C002_0058 EZ502U | 65 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 5.3 | 20.0 | 1.3 | 13 |
| 1030 | 29 | 45 | 7.0 | 1.1 | C002_0058 EZ701U | 65 | 110 | 5.824 | 99/17 | 4000 | 4000 | 6500 | 8.6 | 20.0 | 1.3 | 14 |
| 1185 | 7.4 | 8.3 | 2.0 | 4.0 | C002_0051 EZ302U | 25 | 37 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 0.48 | 20.0 | 1.3 | 8.1 |
| 1185 | 9.6 | 11 | 2.6 | 3.1 | C002_0051 EZ303U | 29 | 37 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 0.59 | 20.0 | 1.3 | 8.6 |
| 1185 | 11 | 14 | 3.0 | 2.6 | C002_0051 EZ401U | 42 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 1185 | 17 | 22 | 4.5 | 1.8 | C002_0051 EZ501U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 3.1 | 20.0 | 1.3 | 11 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2,3,4 | EL5,6 | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| C0 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 72 Nm) | | | | | | | | | | | | | | | | |
| 1185 | 17 | 24 | 4.6 | 1.7 | C002_0051 EZ402U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 1185 | 26 | 38 | 6.9 | 1.2 | C002_0051 EZ502U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 5.4 | 20.0 | 1.3 | 13 |
| 1185 | 26 | 39 | 6.9 | 1.2 | C002_0051 EZ701U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 8.7 | 20.0 | 1.3 | 14 |
| 1185 | 28 | 41 | 7.7 | 1.0 | C002_0051 EZ404U | 65 | 110 | 5.063 | 481/95 | 4000 | 4000 | 6500 | 3.2 | 20.0 | 1.3 | 13 |
| 1282 | 6.8 | 7.6 | 2.1 | 4.0 | C002_0047 EZ302U | 23 | 34 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 0.49 | 20.0 | 1.3 | 8.1 |
| 1282 | 8.9 | 10 | 2.7 | 3.1 | C002_0047 EZ303U | 27 | 34 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 0.60 | 20.0 | 1.3 | 8.6 |
| 1282 | 10 | 13 | 3.0 | 2.8 | C002_0047 EZ401U | 39 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 1.1 | 20.0 | 1.3 | 10 |
| 1282 | 15 | 20 | 4.4 | 1.9 | C002_0047 EZ501U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 3.1 | 20.0 | 1.3 | 11 |
| 1282 | 16 | 22 | 4.6 | 1.8 | C002_0047 EZ402U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 1.8 | 20.0 | 1.3 | 11 |
| 1282 | 24 | 35 | 6.8 | 1.2 | C002_0047 EZ502U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 5.4 | 20.0 | 1.3 | 13 |
| 1282 | 24 | 36 | 6.8 | 1.2 | C002_0047 EZ701U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 8.7 | 20.0 | 1.3 | 14 |
| 1282 | 26 | 38 | 7.6 | 1.1 | C002_0047 EZ404U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 3.2 | 20.0 | 1.3 | 13 |
| 1282 | 28 | 48 | 8.1 | 1.0 | C002_0047 EZ503U | 65 | 110 | 4.680 | 117/25 | 4000 | 4000 | 6500 | 7.8 | 20.0 | 1.3 | 14 |
| 1446 | 6.0 | 6.8 | 2.2 | 4.0 | C002_0041 EZ302U | 20 | 30 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 0.55 | 20.0 | 1.3 | 8.1 |
| 1446 | 7.9 | 9.1 | 2.9 | 3.1 | C002_0041 EZ303U | 24 | 30 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 0.66 | 20.0 | 1.3 | 8.6 |
| 1446 | 9.3 | 11 | 2.9 | 3.0 | C002_0041 EZ401U | 34 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 1.2 | 20.0 | 1.3 | 10 |
| 1446 | 14 | 18 | 4.3 | 2.0 | C002_0041 EZ501U | 64 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 11 |
| 1446 | 14 | 20 | 4.5 | 2.0 | C002_0041 EZ402U | 64 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 1.9 | 20.0 | 1.3 | 11 |
| 1446 | 21 | 31 | 6.6 | 1.3 | C002_0041 EZ502U | 65 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 5.5 | 20.0 | 1.3 | 13 |
| 1446 | 21 | 32 | 6.6 | 1.3 | C002_0041 EZ701U | 65 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 8.8 | 20.0 | 1.3 | 14 |
| 1446 | 23 | 34 | 7.4 | 1.2 | C002_0041 EZ404U | 65 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 13 |
| 1446 | 25 | 43 | 7.9 | 1.1 | C002_0041 EZ503U | 65 | 110 | 4.149 | 1813/437 | 3700 | 3600 | 6000 | 7.8 | 20.0 | 1.3 | 14 |
| 1565 | 5.6 | 6.3 | 2.3 | 4.0 | C002_0038 EZ302U | 19 | 28 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 0.55 | 20.0 | 1.3 | 8.1 |
| 1565 | 7.3 | 8.4 | 3.0 | 3.1 | C002_0038 EZ303U | 22 | 28 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 0.66 | 20.0 | 1.3 | 8.6 |
| 1565 | 8.6 | 10 | 2.9 | 3.2 | C002_0038 EZ401U | 32 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 1.2 | 20.0 | 1.3 | 10 |
| 1565 | 13 | 16 | 4.3 | 2.1 | C002_0038 EZ501U | 60 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 11 |
| 1565 | 13 | 18 | 4.4 | 2.1 | C002_0038 EZ402U | 60 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 1.9 | 20.0 | 1.3 | 11 |
| 1565 | 19 | 29 | 6.6 | 1.4 | C002_0038 EZ502U | 65 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 5.5 | 20.0 | 1.3 | 13 |
| 1565 | 19 | 29 | 6.6 | 1.4 | C002_0038 EZ701U | 65 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 8.8 | 20.0 | 1.3 | 14 |
| 1565 | 22 | 31 | 7.3 | 1.3 | C002_0038 EZ404U | 65 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 3.2 | 20.0 | 1.3 | 13 |
| 1565 | 23 | 39 | 7.8 | 1.2 | C002_0038 EZ503U | 65 | 110 | 3.835 | 441/115 | 3700 | 3600 | 6000 | 7.8 | 20.0 | 1.3 | 14 |
| 1808 | 4.8 | 5.4 | 2.5 | 4.0 | C002_0033 EZ302U | 16 | 24 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 0.65 | 20.0 | 1.3 | 8.1 |
| 1808 | 6.3 | 7.2 | 3.2 | 3.1 | C002_0033 EZ303U | 19 | 24 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 0.76 | 20.0 | 1.3 | 8.6 |
| 1808 | 7.4 | 9.0 | 2.8 | 3.5 | C002_0033 EZ401U | 27 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 1.3 | 20.0 | 1.3 | 10 |
| 1808 | 11 | 14 | 4.2 | 2.4 | C002_0033 EZ501U | 51 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 11 |
| 1808 | 11 | 16 | 4.3 | 2.3 | C002_0033 EZ402U | 51 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 2.0 | 20.0 | 1.3 | 11 |
| 1808 | 17 | 25 | 6.4 | 1.5 | C002_0033 EZ502U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 5.6 | 20.0 | 1.3 | 13 |
| 1808 | 17 | 25 | 6.4 | 1.5 | C002_0033 EZ701U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 8.9 | 20.0 | 1.3 | 14 |
| 1808 | 19 | 27 | 7.1 | 1.4 | C002_0033 EZ404U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 13 |
| 1808 | 20 | 34 | 7.6 | 1.3 | C002_0033 EZ503U | 62 | 97 | 3.318 | 1702/513 | 3700 | 3600 | 6000 | 7.9 | 20.0 | 1.3 | 14 |
| 1956 | 4.5 | 5.0 | 2.6 | 4.0 | C002_0031 EZ302U | 15 | 22 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 0.66 | 20.0 | 1.3 | 8.1 |
| 1956 | 5.8 | 6.7 | 3.4 | 3.1 | C002_0031 EZ303U | 18 | 22 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 0.77 | 20.0 | 1.3 | 8.6 |
| 1956 | 6.8 | 8.3 | 2.8 | 3.7 | C002_0031 EZ401U | 25 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 1.3 | 20.0 | 1.3 | 10 |
| 1956 | 10 | 13 | 4.1 | 2.5 | C002_0031 EZ501U | 48 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 11 |
| 1956 | 10 | 15 | 4.3 | 2.4 | C002_0031 EZ402U | 48 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 2.0 | 20.0 | 1.3 | 11 |
| 1956 | 15 | 23 | 6.3 | 1.6 | C002_0031 EZ502U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 5.6 | 20.0 | 1.3 | 13 |
| 1956 | 15 | 24 | 6.3 | 1.6 | C002_0031 EZ701U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 8.9 | 20.0 | 1.3 | 14 |
| 1956 | 17 | 25 | 7.0 | 1.5 | C002_0031 EZ404U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 3.3 | 20.0 | 1.3 | 13 |
| 1956 | 18 | 32 | 7.5 | 1.4 | C002_0031 EZ503U | 60 | 89 | 3.067 | 46/15 | 3700 | 3600 | 6000 | 7.9 | 20.0 | 1.3 | 14 |
| 2167 | 6.2 | 7.5 | 2.7 | 3.9 | C002_0028 EZ401U | 23 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 1.4 | 20.0 | 1.3 | 10 |
| 2167 | 9.1 | 12 | 4.1 | 2.7 | C002_0028 EZ501U | 43 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 3.3 | 20.0 | 1.3 | 11 |
| 2167 | 9.4 | 13 | 4.2 | 2.6 | C002_0028 EZ402U | 43 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 2.1 | 20.0 | 1.3 | 11 |
| 2167 | 14 | 21 | 6.2 | 1.7 | C002_0028 EZ502U | 58 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 5.6 | 20.0 | 1.3 | 13 |
| 2167 | 14 | 21 | 6.2 | 1.7 | C002_0028 EZ701U | 54 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 8.9 | 20.0 | 1.3 | 14 |
| 2167 | 16 | 23 | 6.9 | 1.6 | C002_0028 EZ404U | 58 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 3.4 | 20.0 | 1.3 | 13 |
| 2167 | 17 | 28 | 7.4 | 1.5 | C002_0028 EZ503U | 58 | 81 | 2.769 | 36/13 | 3500 | 3000 | 6000 | 8.0 | 20.0 | 1.3 | 14 |
| 3005 | 2.9 | 3.3 | 3.2 | 4.0 | C002_0020 EZ302U | 9.7 | 15 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 1.0 | 20.0 | 1.3 | 8.1 |
| 3005 | 3.8 | 4.4 | 4.2 | 3.1 | C002_0020 EZ303U | 12 | 15 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 1.1 | 20.0 | 1.3 | 8.6 |
| 3005 | 4.5 | 5.4 | 2.6 | 4.9 | C002_0020 EZ401U | 16 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 1.7 | 20.0 | 1.3 | 10 |
| 3005 | 6.6 | 8.5 | 3.8 | 3.3 | C002_0020 EZ501U | 31 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 3.6 | 20.0 | 1.3 | 11 |
| 3005 | 6.8 | 9.5 | 4.0 | 3.2 | C002_0020 EZ402U | 31 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 2.4 | 20.0 | 1.3 | 11 |
| 3005 | 10 | 15 | 5.9 | 2.2 | C002_0020 EZ502U | 47 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 5.9 | 20.0 | 1.3 | 13 |
| 3005 | 10 | 15 | 5.9 | 2.2 | C002_0020 EZ701U | 39 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 9.2 | 20.0 | 1.3 | 14 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **C0 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 72 Nm)** | | | | | | | | | | | | | | | | |
| 3005 | 11 | 16 | 6.6 | 1.9 | C002_0020 EZ404U | 47 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 3.7 | 20.0 | 1.3 | 13 |
| 3005 | 12 | 21 | 7.0 | 1.8 | C002_0020 EZ503U | 47 | 58 | 1.997 | 1480/741 | 3500 | 3000 | 6000 | 8.3 | 20.0 | 1.3 | 14 |
| **C1 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 27 | 99 | 101 | 1.6 | 1.2 | C103_1110 EZ301U | 138 | 240 | 111.1 | 1222/11 | 4000 | 3900 | 6500 | 0.25 | 15.0 | 3.9 | 15 |
| 33 | 82 | 84 | 1.4 | 1.5 | C103_0920 EZ301U | 138 | 240 | 92.13 | 16215/176 | 4000 | 3900 | 6500 | 0.25 | 15.0 | 3.9 | 15 |
| 37 | 73 | 74 | 1.3 | 1.7 | C103_0820 EZ301U | 138 | 240 | 81.64 | 31349/384 | 4000 | 3900 | 6500 | 0.25 | 15.0 | 3.9 | 15 |
| 43 | 64 | 65 | 1.3 | 1.9 | C102_0700 EZ301U | 138 | 240 | 70.46 | 775/11 | 4000 | 3900 | 6500 | 0.22 | 15.0 | 3.9 | 12 |
| 43 | 109 | 115 | 2.2 | 1.1 | C102_0700 EZ302U | 138 | 240 | 70.46 | 775/11 | 4000 | 3900 | 6500 | 0.32 | 15.0 | 3.9 | 13 |
| 48 | 56 | 58 | 1.2 | 2.1 | C102_0620 EZ301U | 138 | 228 | 62.43 | 4495/72 | 4000 | 3900 | 6500 | 0.22 | 15.0 | 3.9 | 12 |
| 48 | 96 | 102 | 2.0 | 1.2 | C102_0620 EZ302U | 138 | 228 | 62.43 | 4495/72 | 4000 | 3900 | 6500 | 0.32 | 15.0 | 3.9 | 13 |
| 53 | 51 | 52 | 1.1 | 2.4 | C102_0560 EZ301U | 138 | 240 | 56.36 | 620/11 | 4000 | 3900 | 6500 | 0.24 | 15.0 | 3.9 | 12 |
| 53 | 87 | 92 | 1.9 | 1.4 | C102_0560 EZ302U | 138 | 240 | 56.36 | 620/11 | 4000 | 3900 | 6500 | 0.34 | 15.0 | 3.9 | 13 |
| 53 | 113 | 120 | 2.5 | 1.1 | C102_0560 EZ303U | 138 | 240 | 56.36 | 620/11 | 4000 | 3900 | 6500 | 0.45 | 15.0 | 3.9 | 14 |
| 60 | 45 | 46 | 1.1 | 2.7 | C102_0500 EZ301U | 136 | 240 | 49.94 | 899/18 | 4000 | 3900 | 6500 | 0.24 | 15.0 | 3.9 | 12 |
| 60 | 77 | 81 | 1.8 | 1.6 | C102_0500 EZ302U | 138 | 240 | 49.94 | 899/18 | 4000 | 3900 | 6500 | 0.34 | 15.0 | 3.9 | 13 |
| 60 | 100 | 106 | 2.4 | 1.2 | C102_0500 EZ303U | 138 | 240 | 49.94 | 899/18 | 4000 | 3900 | 6500 | 0.45 | 15.0 | 3.9 | 14 |
| 64 | 42 | 43 | 1.0 | 2.8 | C102_0470 EZ301U | 127 | 240 | 46.91 | 516/11 | 4000 | 3900 | 6500 | 0.26 | 15.0 | 3.9 | 12 |
| 64 | 72 | 76 | 1.8 | 1.7 | C102_0470 EZ302U | 138 | 240 | 46.91 | 516/11 | 4000 | 3900 | 6500 | 0.36 | 15.0 | 3.9 | 13 |
| 64 | 94 | 100 | 2.3 | 1.3 | C102_0470 EZ303U | 138 | 240 | 46.91 | 516/11 | 4000 | 3900 | 6500 | 0.47 | 15.0 | 3.9 | 14 |
| 72 | 37 | 38 | 1.0 | 3.2 | C102_0420 EZ301U | 113 | 232 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 0.26 | 15.0 | 3.9 | 12 |
| 72 | 64 | 68 | 1.7 | 1.9 | C102_0420 EZ302U | 138 | 232 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 0.36 | 15.0 | 3.9 | 13 |
| 72 | 83 | 88 | 2.2 | 1.4 | C102_0420 EZ303U | 138 | 232 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 0.47 | 15.0 | 3.9 | 14 |
| 72 | 113 | 121 | 2.9 | 1.1 | C102_0420 EZ401U | 138 | 240 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 1.0 | 15.0 | 3.9 | 15 |
| 86 | 32 | 32 | 0.9 | 3.8 | C102_0350 EZ301U | 95 | 217 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 0.30 | 15.0 | 3.9 | 12 |
| 86 | 54 | 57 | 1.5 | 2.2 | C102_0350 EZ302U | 138 | 217 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 0.40 | 15.0 | 3.9 | 13 |
| 86 | 70 | 74 | 2.0 | 1.7 | C102_0350 EZ303U | 138 | 217 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 0.51 | 15.0 | 3.9 | 14 |
| 86 | 95 | 102 | 2.7 | 1.3 | C102_0350 EZ401U | 138 | 240 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 1.0 | 15.0 | 3.9 | 15 |
| 97 | 28 | 29 | 0.8 | 4.3 | C102_0310 EZ301U | 84 | 193 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 0.30 | 15.0 | 3.9 | 12 |
| 97 | 48 | 51 | 1.4 | 2.5 | C102_0310 EZ302U | 138 | 193 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 0.40 | 15.0 | 3.9 | 13 |
| 97 | 62 | 66 | 1.9 | 1.9 | C102_0310 EZ303U | 138 | 193 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 0.51 | 15.0 | 3.9 | 14 |
| 97 | 84 | 90 | 2.5 | 1.4 | C102_0310 EZ401U | 138 | 240 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 1.0 | 15.0 | 3.9 | 15 |
| 106 | 77 | 83 | 2.4 | 1.6 | C102_0280 EZ401U | 138 | 240 | 28.36 | 312/11 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 106 | 118 | 129 | 3.7 | 1.0 | C102_0280 EZ501U | 138 | 240 | 28.36 | 312/11 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 119 | 68 | 73 | 2.3 | 1.8 | C102_0250 EZ401U | 138 | 240 | 25.13 | 377/15 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 119 | 105 | 115 | 3.5 | 1.1 | C102_0250 EZ501U | 138 | 240 | 25.13 | 377/15 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 119 | 115 | 127 | 3.8 | 1.0 | C102_0250 EZ402U | 138 | 240 | 25.13 | 377/15 | 4000 | 3900 | 6500 | 1.8 | 15.0 | 3.9 | 16 |
| 128 | 36 | 38 | 1.2 | 3.3 | C102_0240 EZ302U | 114 | 171 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 0.49 | 15.0 | 3.9 | 13 |
| 128 | 47 | 50 | 1.6 | 2.5 | C102_0240 EZ303U | 137 | 171 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 0.60 | 15.0 | 3.9 | 14 |
| 128 | 64 | 68 | 2.2 | 1.9 | C102_0240 EZ401U | 138 | 240 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 128 | 98 | 107 | 3.4 | 1.2 | C102_0240 EZ501U | 138 | 240 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 128 | 107 | 119 | 3.7 | 1.1 | C102_0240 EZ402U | 138 | 240 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 1.8 | 15.0 | 3.9 | 16 |
| 144 | 32 | 34 | 1.2 | 3.7 | C102_0210 EZ302U | 101 | 152 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 0.49 | 15.0 | 3.9 | 13 |
| 144 | 42 | 44 | 1.5 | 2.9 | C102_0210 EZ303U | 121 | 152 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 0.60 | 15.0 | 3.9 | 14 |
| 144 | 57 | 61 | 2.1 | 2.1 | C102_0210 EZ401U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 144 | 87 | 95 | 3.2 | 1.4 | C102_0210 EZ501U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 144 | 95 | 105 | 3.5 | 1.3 | C102_0210 EZ402U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 1.8 | 15.0 | 3.9 | 16 |
| 169 | 27 | 29 | 1.3 | 3.8 | C102_0175 EZ302U | 86 | 129 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 0.59 | 15.0 | 3.9 | 13 |
| 169 | 36 | 38 | 1.6 | 2.9 | C102_0175 EZ303U | 103 | 129 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 0.70 | 15.0 | 3.9 | 14 |
| 169 | 48 | 52 | 1.9 | 2.5 | C102_0175 EZ401U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 1.2 | 15.0 | 3.9 | 15 |
| 169 | 74 | 81 | 2.9 | 1.6 | C102_0175 EZ501U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 3.2 | 15.0 | 3.9 | 16 |
| 169 | 81 | 89 | 3.2 | 1.5 | C102_0175 EZ402U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 1.9 | 15.0 | 3.9 | 16 |
| 169 | 119 | 148 | 4.7 | 1.0 | C102_0175 EZ404U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 18 |
| 191 | 24 | 26 | 1.3 | 3.8 | C102_0155 EZ302U | 76 | 114 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 0.60 | 15.0 | 3.9 | 13 |
| 191 | 32 | 33 | 1.7 | 2.9 | C102_0155 EZ303U | 91 | 114 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 0.71 | 15.0 | 3.9 | 14 |
| 191 | 43 | 46 | 1.8 | 2.8 | C102_0155 EZ401U | 130 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 1.2 | 15.0 | 3.9 | 15 |
| 191 | 66 | 72 | 2.8 | 1.8 | C102_0155 EZ501U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 3.2 | 15.0 | 3.9 | 16 |
| 191 | 72 | 79 | 3.0 | 1.7 | C102_0155 EZ402U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 1.9 | 15.0 | 3.9 | 16 |
| 191 | 105 | 131 | 4.4 | 1.1 | C102_0155 EZ404U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 18 |
| 191 | 113 | 122 | 4.7 | 1.1 | C102_0155 EZ502U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 5.5 | 15.0 | 3.9 | 17 |
| 191 | 113 | 126 | 4.7 | 1.1 | C102_0155 EZ701U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 8.8 | 15.0 | 3.9 | 19 |
| 213 | 38 | 41 | 1.7 | 3.1 | C102_0140 EZ401U | 116 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 1.3 | 15.0 | 3.9 | 15 |
| 213 | 59 | 64 | 2.6 | 2.0 | C102_0140 EZ501U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 16 |
| 213 | 64 | 71 | 2.8 | 1.9 | C102_0140 EZ402U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 2.0 | 15.0 | 3.9 | 16 |
| 213 | 94 | 117 | 4.2 | 1.3 | C102_0140 EZ404U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 3.4 | 15.0 | 3.9 | 18 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C1 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 213 | 101 | 109 | 4.5 | 1.2 | C102_0140 EZ502U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 5.6 | 15.0 | 3.9 | 17 |
| 213 | 101 | 113 | 4.5 | 1.2 | C102_0140 EZ701U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 8.9 | 15.0 | 3.9 | 19 |
| 241 | 34 | 36 | 1.6 | 3.5 | C102_0125 EZ401U | 103 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 1.3 | 15.0 | 3.9 | 15 |
| 241 | 52 | 57 | 2.5 | 2.3 | C102_0125 EZ501U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 16 |
| 241 | 57 | 63 | 2.7 | 2.1 | C102_0125 EZ402U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 2.0 | 15.0 | 3.9 | 16 |
| 241 | 83 | 104 | 4.0 | 1.4 | C102_0125 EZ404U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 3.4 | 15.0 | 3.9 | 18 |
| 241 | 89 | 97 | 4.2 | 1.3 | C102_0125 EZ502U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 5.6 | 15.0 | 3.9 | 17 |
| 241 | 89 | 100 | 4.2 | 1.3 | C102_0125 EZ701U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 8.9 | 15.0 | 3.9 | 19 |
| 241 | 117 | 134 | 5.6 | 1.0 | C102_0125 EZ503U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 8.0 | 15.0 | 3.9 | 19 |
| 256 | 18 | 19 | 1.5 | 3.8 | C102_0115 EZ302U | 57 | 85 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 0.82 | 15.0 | 3.9 | 13 |
| 256 | 24 | 25 | 2.0 | 2.9 | C102_0115 EZ303U | 68 | 85 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 0.93 | 15.0 | 3.9 | 14 |
| 256 | 32 | 34 | 1.6 | 3.7 | C102_0115 EZ401U | 97 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 1.5 | 15.0 | 3.9 | 15 |
| 256 | 49 | 53 | 2.4 | 2.4 | C102_0115 EZ501U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 3.4 | 15.0 | 3.9 | 16 |
| 256 | 53 | 59 | 2.7 | 2.2 | C102_0115 EZ402U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 2.2 | 15.0 | 3.9 | 16 |
| 256 | 78 | 98 | 3.9 | 1.5 | C102_0115 EZ404U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 3.5 | 15.0 | 3.9 | 18 |
| 256 | 84 | 91 | 4.2 | 1.4 | C102_0115 EZ502U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 5.7 | 15.0 | 3.9 | 17 |
| 256 | 84 | 94 | 4.2 | 1.4 | C102_0115 EZ701U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 9.0 | 15.0 | 3.9 | 19 |
| 256 | 110 | 126 | 5.5 | 1.1 | C102_0115 EZ503U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 8.1 | 15.0 | 3.9 | 19 |
| 289 | 16 | 17 | 1.6 | 3.8 | C102_0105 EZ302U | 50 | 76 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 0.83 | 15.0 | 3.9 | 13 |
| 289 | 21 | 22 | 2.1 | 2.9 | C102_0105 EZ303U | 60 | 76 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 0.94 | 15.0 | 3.9 | 14 |
| 289 | 28 | 30 | 1.6 | 4.0 | C102_0105 EZ401U | 86 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 1.5 | 15.0 | 3.9 | 15 |
| 289 | 43 | 47 | 2.4 | 2.6 | C102_0105 EZ501U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 3.4 | 15.0 | 3.9 | 16 |
| 289 | 47 | 52 | 2.6 | 2.4 | C102_0105 EZ402U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 2.2 | 15.0 | 3.9 | 16 |
| 289 | 69 | 87 | 3.8 | 1.6 | C102_0105 EZ404U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 3.5 | 15.0 | 3.9 | 18 |
| 289 | 75 | 81 | 4.1 | 1.5 | C102_0105 EZ502U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 5.7 | 15.0 | 3.9 | 17 |
| 289 | 75 | 84 | 4.1 | 1.5 | C102_0105 EZ701U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 9.0 | 15.0 | 3.9 | 19 |
| 289 | 98 | 112 | 5.4 | 1.2 | C102_0105 EZ503U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 8.1 | 15.0 | 3.9 | 19 |
| 322 | 25 | 27 | 1.5 | 4.3 | C102_0093 EZ401U | 77 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 1.6 | 15.0 | 3.9 | 15 |
| 322 | 39 | 43 | 2.3 | 2.8 | C102_0093 EZ501U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 3.6 | 15.0 | 3.9 | 16 |
| 322 | 43 | 47 | 2.6 | 2.6 | C102_0093 EZ402U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 2.3 | 15.0 | 3.9 | 16 |
| 322 | 62 | 78 | 3.8 | 1.7 | C102_0093 EZ404U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 3.7 | 15.0 | 3.9 | 18 |
| 322 | 67 | 72 | 4.0 | 1.6 | C102_0093 EZ502U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 5.9 | 15.0 | 3.9 | 17 |
| 322 | 67 | 75 | 4.0 | 1.6 | C102_0093 EZ701U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 9.2 | 15.0 | 3.9 | 19 |
| 322 | 88 | 100 | 5.3 | 1.2 | C102_0093 EZ503U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 8.3 | 15.0 | 3.9 | 19 |
| 322 | 109 | 130 | 6.5 | 1.0 | C102_0093 EZ702U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 363 | 22 | 24 | 1.5 | 4.6 | C102_0083 EZ401U | 68 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 1.7 | 15.0 | 3.9 | 15 |
| 363 | 34 | 38 | 2.3 | 3.0 | C102_0083 EZ501U | 128 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 3.6 | 15.0 | 3.9 | 16 |
| 363 | 38 | 42 | 2.5 | 2.8 | C102_0083 EZ402U | 128 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 2.4 | 15.0 | 3.9 | 16 |
| 363 | 55 | 69 | 3.7 | 1.9 | C102_0083 EZ404U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 3.7 | 15.0 | 3.9 | 18 |
| 363 | 59 | 64 | 4.0 | 1.8 | C102_0083 EZ502U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 5.9 | 15.0 | 3.9 | 17 |
| 363 | 59 | 67 | 4.0 | 1.8 | C102_0083 EZ701U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 9.2 | 15.0 | 3.9 | 19 |
| 363 | 78 | 89 | 5.2 | 1.3 | C102_0083 EZ503U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 8.3 | 15.0 | 3.9 | 19 |
| 363 | 96 | 115 | 6.4 | 1.1 | C102_0083 EZ702U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 385 | 12 | 13 | 1.9 | 3.8 | C102_0078 EZ302U | 38 | 57 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 0.54 | 18.0 | 3.1 | 13 |
| 385 | 16 | 17 | 2.5 | 2.9 | C102_0078 EZ303U | 45 | 57 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 0.65 | 18.0 | 3.1 | 14 |
| 385 | 21 | 23 | 1.8 | 4.1 | C102_0078 EZ401U | 64 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 1.2 | 18.0 | 3.1 | 15 |
| 385 | 33 | 36 | 2.7 | 2.7 | C102_0078 EZ501U | 121 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 3.1 | 18.0 | 3.1 | 16 |
| 385 | 36 | 39 | 2.9 | 2.4 | C102_0078 EZ402U | 121 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 1.9 | 18.0 | 3.1 | 16 |
| 385 | 52 | 65 | 4.3 | 1.7 | C102_0078 EZ404U | 130 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 3.2 | 18.0 | 3.1 | 18 |
| 385 | 56 | 60 | 4.6 | 1.5 | C102_0078 EZ502U | 130 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 5.4 | 18.0 | 3.1 | 17 |
| 385 | 56 | 63 | 4.6 | 1.5 | C102_0078 EZ701U | 130 | 220 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 8.7 | 18.0 | 3.1 | 19 |
| 385 | 73 | 84 | 6.1 | 1.2 | C102_0078 EZ503U | 130 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 7.8 | 18.0 | 3.1 | 19 |
| 473 | 9.8 | 10 | 2.1 | 3.8 | C102_0063 EZ302U | 31 | 46 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 0.67 | 18.0 | 3.1 | 13 |
| 473 | 13 | 13 | 2.7 | 2.9 | C102_0063 EZ303U | 37 | 46 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 0.78 | 18.0 | 3.1 | 14 |
| 473 | 17 | 18 | 1.7 | 4.7 | C102_0063 EZ401U | 52 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 1.3 | 18.0 | 3.1 | 15 |
| 473 | 26 | 29 | 2.6 | 3.1 | C102_0063 EZ501U | 98 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 3.3 | 18.0 | 3.1 | 16 |
| 473 | 29 | 32 | 2.8 | 2.8 | C102_0063 EZ402U | 98 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 2.0 | 18.0 | 3.1 | 16 |
| 473 | 42 | 53 | 4.2 | 1.9 | C102_0063 EZ404U | 130 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 18 |
| 473 | 45 | 49 | 4.5 | 1.8 | C102_0063 EZ502U | 130 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 5.6 | 18.0 | 3.1 | 17 |
| 473 | 45 | 51 | 4.5 | 1.8 | C102_0063 EZ701U | 123 | 220 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 8.9 | 18.0 | 3.1 | 19 |
| 473 | 60 | 68 | 5.9 | 1.4 | C102_0063 EZ503U | 130 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 8.0 | 18.0 | 3.1 | 19 |
| 473 | 74 | 89 | 7.3 | 1.1 | C102_0063 EZ702U | 130 | 220 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 511 | 9.1 | 9.6 | 2.2 | 3.8 | C102_0059 EZ302U | 28 | 43 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 0.67 | 18.0 | 3.1 | 13 |
| 511 | 12 | 12 | 2.8 | 2.9 | C102_0059 EZ303U | 34 | 43 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 0.78 | 18.0 | 3.1 | 14 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2,3,4 | EL5,6 | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| **C1 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 511 | 16 | 17 | 1.7 | 4.9 | C102_0059 EZ401U | 48 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 1.3 | 18.0 | 3.1 | 15 |
| 511 | 25 | 27 | 2.6 | 3.2 | C102_0059 EZ501U | 91 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 3.3 | 18.0 | 3.1 | 16 |
| 511 | 27 | 30 | 2.8 | 2.9 | C102_0059 EZ402U | 91 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 2.0 | 18.0 | 3.1 | 16 |
| 511 | 39 | 49 | 4.1 | 2.0 | C102_0059 EZ404U | 130 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 18 |
| 511 | 42 | 46 | 4.4 | 1.9 | C102_0059 EZ502U | 130 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 5.6 | 18.0 | 3.1 | 17 |
| 511 | 42 | 47 | 4.4 | 1.9 | C102_0059 EZ701U | 114 | 220 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 8.9 | 18.0 | 3.1 | 19 |
| 511 | 55 | 63 | 5.8 | 1.4 | C102_0059 EZ503U | 130 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 8.0 | 18.0 | 3.1 | 19 |
| 511 | 68 | 82 | 7.2 | 1.2 | C102_0059 EZ702U | 130 | 220 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 511 | 77 | 91 | 8.1 | 1.0 | C102_0059 EZ505U | 130 | 220 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 597 | 21 | 23 | 2.5 | 3.6 | C102_0050 EZ501U | 78 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 16 |
| 597 | 23 | 25 | 2.7 | 3.3 | C102_0050 EZ402U | 78 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 2.2 | 18.0 | 3.1 | 16 |
| 597 | 34 | 42 | 4.0 | 2.2 | C102_0050 EZ404U | 117 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 3.5 | 18.0 | 3.1 | 18 |
| 597 | 36 | 39 | 4.3 | 2.1 | C102_0050 EZ502U | 117 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 5.7 | 18.0 | 3.1 | 17 |
| 597 | 36 | 40 | 4.3 | 2.1 | C102_0050 EZ701U | 97 | 220 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 9.0 | 18.0 | 3.1 | 19 |
| 597 | 47 | 54 | 5.6 | 1.6 | C102_0050 EZ503U | 117 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 8.1 | 18.0 | 3.1 | 19 |
| 597 | 58 | 70 | 7.0 | 1.3 | C102_0050 EZ702U | 130 | 220 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 597 | 66 | 78 | 7.9 | 1.1 | C102_0050 EZ505U | 130 | 220 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 644 | 19 | 21 | 2.5 | 3.8 | C102_0047 EZ501U | 72 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 16 |
| 644 | 21 | 23 | 2.7 | 3.4 | C102_0047 EZ402U | 72 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 2.2 | 18.0 | 3.1 | 16 |
| 644 | 31 | 39 | 4.0 | 2.3 | C102_0047 EZ404U | 108 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 3.5 | 18.0 | 3.1 | 18 |
| 644 | 33 | 36 | 4.3 | 2.2 | C102_0047 EZ502U | 108 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 5.7 | 18.0 | 3.1 | 17 |
| 644 | 33 | 38 | 4.3 | 2.2 | C102_0047 EZ701U | 90 | 220 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 9.0 | 18.0 | 3.1 | 19 |
| 644 | 44 | 50 | 5.6 | 1.7 | C102_0047 EZ503U | 108 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 8.1 | 18.0 | 3.1 | 19 |
| 644 | 54 | 65 | 6.9 | 1.3 | C102_0047 EZ702U | 130 | 220 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 644 | 61 | 72 | 7.8 | 1.2 | C102_0047 EZ505U | 130 | 220 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 716 | 6.5 | 6.8 | 2.6 | 3.8 | C102_0042 EZ302U | 20 | 30 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 0.99 | 18.0 | 3.1 | 13 |
| 716 | 8.4 | 8.9 | 3.4 | 2.9 | C102_0042 EZ303U | 24 | 30 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 1.1 | 18.0 | 3.1 | 14 |
| 716 | 17 | 19 | 2.4 | 4.0 | C102_0042 EZ501U | 65 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 3.6 | 18.0 | 3.1 | 16 |
| 716 | 19 | 21 | 2.7 | 3.7 | C102_0042 EZ402U | 65 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 2.3 | 18.0 | 3.1 | 16 |
| 716 | 28 | 35 | 3.9 | 2.5 | C102_0042 EZ404U | 98 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 3.7 | 18.0 | 3.1 | 18 |
| 716 | 30 | 33 | 4.2 | 2.3 | C102_0042 EZ502U | 98 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 5.9 | 18.0 | 3.1 | 17 |
| 716 | 30 | 34 | 4.2 | 2.3 | C102_0042 EZ701U | 81 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 9.2 | 18.0 | 3.1 | 19 |
| 716 | 39 | 45 | 5.5 | 1.8 | C102_0042 EZ503U | 98 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 8.3 | 18.0 | 3.1 | 19 |
| 716 | 49 | 59 | 6.8 | 1.4 | C102_0042 EZ702U | 130 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 716 | 55 | 65 | 7.6 | 1.3 | C102_0042 EZ505U | 130 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 716 | 67 | 85 | 9.3 | 1.1 | C102_0042 EZ703U | 130 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 22 | 18.0 | 3.1 | 24 |
| 773 | 6.0 | 6.3 | 2.7 | 3.8 | C102_0039 EZ302U | 19 | 28 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 1.0 | 18.0 | 3.1 | 13 |
| 773 | 7.8 | 8.2 | 3.5 | 2.9 | C102_0039 EZ303U | 23 | 28 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 1.1 | 18.0 | 3.1 | 14 |
| 773 | 16 | 18 | 2.4 | 4.2 | C102_0039 EZ501U | 60 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 3.6 | 18.0 | 3.1 | 16 |
| 773 | 18 | 20 | 2.6 | 3.9 | C102_0039 EZ402U | 60 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 2.3 | 18.0 | 3.1 | 16 |
| 773 | 26 | 32 | 3.8 | 2.6 | C102_0039 EZ404U | 90 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 3.7 | 18.0 | 3.1 | 18 |
| 773 | 28 | 30 | 4.1 | 2.5 | C102_0039 EZ502U | 90 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 5.9 | 18.0 | 3.1 | 17 |
| 773 | 28 | 31 | 4.1 | 2.5 | C102_0039 EZ701U | 75 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 9.2 | 18.0 | 3.1 | 19 |
| 773 | 37 | 42 | 5.4 | 1.9 | C102_0039 EZ503U | 90 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 8.3 | 18.0 | 3.1 | 19 |
| 773 | 45 | 54 | 6.7 | 1.5 | C102_0039 EZ702U | 130 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 773 | 51 | 60 | 7.5 | 1.3 | C102_0039 EZ505U | 130 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 773 | 62 | 78 | 9.2 | 1.1 | C102_0039 EZ703U | 130 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 22 | 18.0 | 3.1 | 24 |
| 900 | 14 | 15 | 2.3 | 4.7 | C102_0033 EZ501U | 52 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 3.9 | 18.0 | 3.1 | 16 |
| 900 | 15 | 17 | 2.6 | 4.3 | C102_0033 EZ402U | 52 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 2.6 | 18.0 | 3.1 | 16 |
| 900 | 22 | 28 | 3.7 | 2.9 | C102_0033 EZ404U | 78 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 4.0 | 18.0 | 3.1 | 18 |
| 900 | 24 | 26 | 4.0 | 2.7 | C102_0033 EZ502U | 78 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 6.2 | 18.0 | 3.1 | 17 |
| 900 | 24 | 27 | 4.0 | 2.7 | C102_0033 EZ701U | 65 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 9.5 | 18.0 | 3.1 | 19 |
| 900 | 31 | 36 | 5.3 | 2.1 | C102_0033 EZ503U | 78 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 8.6 | 18.0 | 3.1 | 19 |
| 900 | 39 | 47 | 6.5 | 1.7 | C102_0033 EZ702U | 123 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 15 | 18.0 | 3.1 | 22 |
| 900 | 44 | 52 | 7.3 | 1.5 | C102_0033 EZ505U | 123 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 900 | 53 | 67 | 9.0 | 1.2 | C102_0033 EZ703U | 123 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 23 | 18.0 | 3.1 | 24 |
| 971 | 13 | 14 | 2.3 | 4.9 | C102_0031 EZ501U | 48 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 3.9 | 18.0 | 3.1 | 16 |
| 971 | 14 | 16 | 2.5 | 4.5 | C102_0031 EZ402U | 48 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 2.6 | 18.0 | 3.1 | 16 |
| 971 | 21 | 26 | 3.7 | 3.1 | C102_0031 EZ404U | 72 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 4.0 | 18.0 | 3.1 | 18 |
| 971 | 22 | 24 | 4.0 | 2.9 | C102_0031 EZ502U | 72 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 6.2 | 18.0 | 3.1 | 17 |
| 971 | 22 | 25 | 4.0 | 2.9 | C102_0031 EZ701U | 60 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 9.5 | 18.0 | 3.1 | 19 |
| 971 | 29 | 33 | 5.2 | 2.2 | C102_0031 EZ503U | 72 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 8.6 | 18.0 | 3.1 | 19 |
| 971 | 36 | 43 | 6.4 | 1.8 | C102_0031 EZ702U | 120 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 15 | 18.0 | 3.1 | 22 |
| 971 | 40 | 48 | 7.2 | 1.6 | C102_0031 EZ505U | 120 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| **C1 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 971 | 49 | 62 | 8.9 | 1.3 | C102_0031 EZ703U | 120 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 23 | 18.0 | 3.1 | 24 |
| 1162 | 19 | 21 | 3.9 | 3.2 | C102_0026 EZ701U | 50 | 188 | 2.582 | 1911/740 | 3100 | 2600 | 5000 | 10 | 18.0 | 3.1 | 19 |
| 1162 | 30 | 36 | 6.2 | 2.0 | C102_0026 EZ702U | 103 | 188 | 2.582 | 1911/740 | 3100 | 2600 | 5000 | 15 | 18.0 | 3.1 | 22 |
| 1162 | 34 | 40 | 7.0 | 1.8 | C102_0026 EZ505U | 113 | 188 | 2.582 | 1911/740 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 1162 | 41 | 52 | 8.6 | 1.4 | C102_0026 EZ703U | 113 | 188 | 2.582 | 1911/740 | 3100 | 2600 | 5000 | 23 | 18.0 | 3.1 | 24 |
| 1253 | 17 | 19 | 3.8 | 3.4 | C102_0024 EZ701U | 46 | 174 | 2.394 | 2303/962 | 3100 | 2600 | 5000 | 10 | 18.0 | 3.1 | 19 |
| 1253 | 28 | 33 | 6.2 | 2.1 | C102_0024 EZ702U | 95 | 174 | 2.394 | 2303/962 | 3100 | 2600 | 5000 | 15 | 18.0 | 3.1 | 22 |
| 1253 | 31 | 37 | 6.9 | 1.9 | C102_0024 EZ505U | 110 | 174 | 2.394 | 2303/962 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 1253 | 38 | 48 | 8.5 | 1.5 | C102_0024 EZ703U | 110 | 174 | 2.394 | 2303/962 | 3100 | 2600 | 5000 | 23 | 18.0 | 3.1 | 24 |
| 1378 | 15 | 18 | 3.9 | 3.5 | C102_0022 EZ404U | 51 | 63 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 4.8 | 18.0 | 3.1 | 18 |
| 1378 | 16 | 17 | 4.2 | 3.2 | C102_0022 EZ502U | 51 | 63 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 7.0 | 18.0 | 3.1 | 17 |
| 1378 | 16 | 18 | 3.7 | 3.6 | C102_0022 EZ701U | 42 | 158 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 10 | 18.0 | 3.1 | 19 |
| 1378 | 20 | 23 | 5.5 | 2.5 | C102_0022 EZ503U | 51 | 63 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 9.4 | 18.0 | 3.1 | 19 |
| 1378 | 25 | 30 | 6.1 | 2.2 | C102_0022 EZ702U | 87 | 158 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 16 | 18.0 | 3.1 | 22 |
| 1378 | 29 | 34 | 6.8 | 2.0 | C102_0022 EZ505U | 107 | 158 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 1378 | 35 | 44 | 8.3 | 1.6 | C102_0022 EZ703U | 107 | 158 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 23 | 18.0 | 3.1 | 24 |
| 1487 | 14 | 17 | 4.0 | 3.5 | C102_0020 EZ404U | 47 | 59 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 4.9 | 18.0 | 3.1 | 18 |
| 1487 | 14 | 16 | 4.3 | 3.2 | C102_0020 EZ502U | 47 | 59 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 7.1 | 18.0 | 3.1 | 17 |
| 1487 | 14 | 16 | 3.7 | 3.8 | C102_0020 EZ701U | 39 | 147 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 10 | 18.0 | 3.1 | 19 |
| 1487 | 19 | 22 | 5.7 | 2.5 | C102_0020 EZ503U | 47 | 59 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 9.5 | 18.0 | 3.1 | 19 |
| 1487 | 23 | 28 | 6.0 | 2.3 | C102_0020 EZ702U | 80 | 147 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 16 | 18.0 | 3.1 | 22 |
| 1487 | 26 | 31 | 6.7 | 2.1 | C102_0020 EZ505U | 104 | 147 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 1487 | 32 | 41 | 8.2 | 1.7 | C102_0020 EZ703U | 104 | 147 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 24 | 18.0 | 3.1 | 24 |
| **C1 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 433 | 96 | 154 | 6.0 | 1.0 | C102_0105 EZ505U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 13 | 15.0 | 3.9 | 22 |
| 483 | 86 | 138 | 5.9 | 1.1 | C102_0093 EZ505U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 13 | 15.0 | 3.9 | 22 |
| 545 | 76 | 123 | 5.8 | 1.2 | C102_0083 EZ505U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 13 | 15.0 | 3.9 | 22 |
| 577 | 72 | 116 | 6.8 | 1.1 | C102_0078 EZ505U | 130 | 220 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 12 | 18.0 | 3.1 | 22 |
| 710 | 58 | 94 | 6.6 | 1.2 | C102_0063 EZ505U | 130 | 220 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 766 | 54 | 87 | 6.5 | 1.3 | C102_0059 EZ505U | 130 | 220 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 896 | 46 | 75 | 6.3 | 1.4 | C102_0050 EZ505U | 130 | 220 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 896 | 59 | 97 | 8.1 | 1.1 | C102_0050 EZ703U | 130 | 220 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 22 | 18.0 | 3.1 | 24 |
| 966 | 43 | 69 | 6.2 | 1.5 | C102_0047 EZ505U | 130 | 220 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 966 | 55 | 90 | 8.0 | 1.2 | C102_0047 EZ703U | 130 | 220 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 22 | 18.0 | 3.1 | 24 |
| 1074 | 39 | 62 | 6.1 | 1.6 | C102_0042 EZ505U | 130 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 1074 | 49 | 81 | 7.8 | 1.3 | C102_0042 EZ703U | 130 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 22 | 18.0 | 3.1 | 24 |
| 1159 | 36 | 58 | 6.1 | 1.7 | C102_0039 EZ505U | 130 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 1159 | 46 | 75 | 7.7 | 1.3 | C102_0039 EZ703U | 130 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 22 | 18.0 | 3.1 | 24 |
| 1350 | 31 | 49 | 5.9 | 1.9 | C102_0033 EZ505U | 123 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 1350 | 39 | 65 | 7.5 | 1.5 | C102_0033 EZ703U | 123 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 23 | 18.0 | 3.1 | 24 |
| 1456 | 28 | 46 | 5.8 | 2.0 | C102_0031 EZ505U | 120 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 13 | 18.0 | 3.1 | 22 |
| 1456 | 36 | 60 | 7.4 | 1.5 | C102_0031 EZ703U | 120 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 23 | 18.0 | 3.1 | 24 |
| 1743 | 24 | 38 | 5.7 | 2.2 | C102_0026 EZ505U | 113 | 188 | 2.582 | 1911/740 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 1743 | 30 | 50 | 7.2 | 1.7 | C102_0026 EZ703U | 113 | 188 | 2.582 | 1911/740 | 3100 | 2600 | 5000 | 23 | 18.0 | 3.1 | 24 |
| 1880 | 22 | 36 | 5.6 | 2.3 | C102_0024 EZ505U | 110 | 174 | 2.394 | 2303/962 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 1880 | 28 | 46 | 7.1 | 1.8 | C102_0024 EZ703U | 110 | 174 | 2.394 | 2303/962 | 3100 | 2600 | 5000 | 23 | 18.0 | 3.1 | 24 |
| 2067 | 20 | 32 | 5.5 | 2.5 | C102_0022 EZ505U | 107 | 158 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 2067 | 26 | 42 | 7.0 | 1.9 | C102_0022 EZ703U | 107 | 158 | 2.177 | 468/215 | 3100 | 2600 | 5000 | 23 | 18.0 | 3.1 | 24 |
| 2230 | 19 | 30 | 5.4 | 2.6 | C102_0020 EZ505U | 104 | 147 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 14 | 18.0 | 3.1 | 22 |
| 2230 | 24 | 39 | 6.9 | 2.0 | C102_0020 EZ703U | 104 | 147 | 2.018 | 1128/559 | 3100 | 2600 | 5000 | 24 | 18.0 | 3.1 | 24 |
| **C1 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 44 | 117 | 125 | 1.7 | 1.0 | C103_1370 EZ301U | 138 | 240 | 137.3 | 10575/77 | 4000 | 3900 | 6500 | 0.24 | 15.0 | 3.9 | 15 |
| 54 | 95 | 101 | 1.5 | 1.3 | C103_1110 EZ301U | 138 | 240 | 111.1 | 1222/11 | 4000 | 3900 | 6500 | 0.25 | 15.0 | 3.9 | 15 |
| 65 | 78 | 84 | 1.4 | 1.5 | C103_0920 EZ301U | 138 | 240 | 92.13 | 16215/176 | 4000 | 3900 | 6500 | 0.25 | 15.0 | 3.9 | 15 |
| 73 | 69 | 74 | 1.3 | 1.7 | C103_0820 EZ301U | 138 | 240 | 81.64 | 31349/384 | 4000 | 3900 | 6500 | 0.25 | 15.0 | 3.9 | 15 |
| 73 | 117 | 131 | 2.2 | 1.0 | C103_0820 EZ302U | 138 | 240 | 81.64 | 31349/384 | 4000 | 3900 | 6500 | 0.35 | 15.0 | 3.9 | 16 |
| 85 | 61 | 65 | 1.2 | 2.0 | C102_0700 EZ301U | 138 | 240 | 70.46 | 775/11 | 4000 | 3900 | 6500 | 0.22 | 15.0 | 3.9 | 12 |
| 85 | 103 | 115 | 2.0 | 1.2 | C102_0700 EZ302U | 138 | 240 | 70.46 | 775/11 | 4000 | 3900 | 6500 | 0.32 | 15.0 | 3.9 | 13 |
| 96 | 54 | 58 | 1.1 | 2.2 | C102_0620 EZ301U | 138 | 228 | 62.43 | 4495/72 | 4000 | 3900 | 6500 | 0.22 | 15.0 | 3.9 | 12 |
| 96 | 91 | 102 | 1.9 | 1.3 | C102_0620 EZ302U | 138 | 228 | 62.43 | 4495/72 | 4000 | 3900 | 6500 | 0.32 | 15.0 | 3.9 | 13 |
| 96 | 119 | 136 | 2.5 | 1.0 | C102_0620 EZ303U | 138 | 228 | 62.43 | 4495/72 | 4000 | 3900 | 6500 | 0.43 | 15.0 | 3.9 | 14 |
| 106 | 49 | 52 | 1.1 | 2.5 | C102_0560 EZ301U | 138 | 240 | 56.36 | 620/11 | 4000 | 3900 | 6500 | 0.24 | 15.0 | 3.9 | 12 |
| 106 | 82 | 92 | 1.8 | 1.5 | C102_0560 EZ302U | 138 | 240 | 56.36 | 620/11 | 4000 | 3900 | 6500 | 0.34 | 15.0 | 3.9 | 13 |
| 106 | 107 | 123 | 2.4 | 1.1 | C102_0560 EZ303U | 138 | 240 | 56.36 | 620/11 | 4000 | 3900 | 6500 | 0.45 | 15.0 | 3.9 | 14 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C1 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 120 | 43 | 46 | 1.0 | 2.8 | C102_0500 EZ301U | 136 | 240 | 49.94 | 899/18 | 4000 | 3900 | 6500 | 0.24 | 15.0 | 3.9 | 12 |
| 120 | 73 | 81 | 1.7 | 1.7 | C102_0500 EZ302U | 138 | 240 | 49.94 | 899/18 | 4000 | 3900 | 6500 | 0.34 | 15.0 | 3.9 | 13 |
| 120 | 95 | 109 | 2.2 | 1.3 | C102_0500 EZ303U | 138 | 240 | 49.94 | 899/18 | 4000 | 3900 | 6500 | 0.45 | 15.0 | 3.9 | 14 |
| 120 | 111 | 136 | 2.6 | 1.1 | C102_0500 EZ401U | 138 | 240 | 49.94 | 899/18 | 4000 | 3900 | 6500 | 0.98 | 15.0 | 3.9 | 15 |
| 128 | 40 | 43 | 1.0 | 3.0 | C102_0470 EZ301U | 127 | 240 | 46.91 | 516/11 | 4000 | 3900 | 6500 | 0.26 | 15.0 | 3.9 | 12 |
| 128 | 68 | 76 | 1.7 | 1.8 | C102_0470 EZ302U | 138 | 240 | 46.91 | 516/11 | 4000 | 3900 | 6500 | 0.36 | 15.0 | 3.9 | 13 |
| 128 | 89 | 102 | 2.2 | 1.3 | C102_0470 EZ303U | 138 | 240 | 46.91 | 516/11 | 4000 | 3900 | 6500 | 0.47 | 15.0 | 3.9 | 14 |
| 128 | 105 | 127 | 2.5 | 1.1 | C102_0470 EZ401U | 138 | 240 | 46.91 | 516/11 | 4000 | 3900 | 6500 | 1.0 | 15.0 | 3.9 | 15 |
| 144 | 36 | 38 | 0.9 | 3.3 | C102_0420 EZ301U | 113 | 232 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 0.26 | 15.0 | 3.9 | 12 |
| 144 | 60 | 68 | 1.6 | 2.0 | C102_0420 EZ302U | 138 | 232 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 0.36 | 15.0 | 3.9 | 13 |
| 144 | 79 | 91 | 2.0 | 1.5 | C102_0420 EZ303U | 138 | 232 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 0.47 | 15.0 | 3.9 | 14 |
| 144 | 93 | 113 | 2.4 | 1.3 | C102_0420 EZ401U | 138 | 240 | 41.57 | 1247/30 | 4000 | 3900 | 6500 | 1.0 | 15.0 | 3.9 | 15 |
| 171 | 30 | 32 | 0.9 | 4.0 | C102_0350 EZ301U | 95 | 217 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 0.30 | 15.0 | 3.9 | 12 |
| 171 | 51 | 57 | 1.4 | 2.4 | C102_0350 EZ302U | 138 | 217 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 0.40 | 15.0 | 3.9 | 13 |
| 171 | 67 | 77 | 1.9 | 1.8 | C102_0350 EZ303U | 138 | 217 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 0.51 | 15.0 | 3.9 | 14 |
| 171 | 78 | 95 | 2.2 | 1.5 | C102_0350 EZ401U | 138 | 240 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 1.0 | 15.0 | 3.9 | 15 |
| 171 | 116 | 150 | 3.3 | 1.0 | C102_0350 EZ501U | 138 | 240 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 3.0 | 15.0 | 3.9 | 16 |
| 171 | 119 | 167 | 3.4 | 1.0 | C102_0350 EZ402U | 138 | 240 | 35.07 | 2700/77 | 4000 | 3900 | 6500 | 1.7 | 15.0 | 3.9 | 16 |
| 193 | 27 | 29 | 0.8 | 4.5 | C102_0310 EZ301U | 84 | 193 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 0.30 | 15.0 | 3.9 | 12 |
| 193 | 45 | 51 | 1.4 | 2.7 | C102_0310 EZ302U | 138 | 193 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 0.40 | 15.0 | 3.9 | 13 |
| 193 | 59 | 68 | 1.8 | 2.0 | C102_0310 EZ303U | 138 | 193 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 0.51 | 15.0 | 3.9 | 14 |
| 193 | 69 | 84 | 2.1 | 1.7 | C102_0310 EZ401U | 138 | 240 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 1.0 | 15.0 | 3.9 | 15 |
| 193 | 102 | 133 | 3.1 | 1.2 | C102_0310 EZ501U | 138 | 240 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 3.0 | 15.0 | 3.9 | 16 |
| 193 | 105 | 148 | 3.2 | 1.1 | C102_0310 EZ402U | 138 | 240 | 31.07 | 435/14 | 4000 | 3900 | 6500 | 1.7 | 15.0 | 3.9 | 16 |
| 212 | 63 | 77 | 2.0 | 1.9 | C102_0280 EZ401U | 138 | 240 | 28.36 | 312/11 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 212 | 94 | 121 | 2.9 | 1.3 | C102_0280 EZ501U | 138 | 240 | 28.36 | 312/11 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 212 | 96 | 135 | 3.0 | 1.2 | C102_0280 EZ402U | 138 | 240 | 28.36 | 312/11 | 4000 | 3900 | 6500 | 1.8 | 15.0 | 3.9 | 16 |
| 239 | 56 | 68 | 1.9 | 2.1 | C102_0250 EZ401U | 138 | 240 | 25.13 | 377/15 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 239 | 83 | 107 | 2.8 | 1.4 | C102_0250 EZ501U | 138 | 240 | 25.13 | 377/15 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 239 | 85 | 119 | 2.8 | 1.4 | C102_0250 EZ402U | 138 | 240 | 25.13 | 377/15 | 4000 | 3900 | 6500 | 1.8 | 15.0 | 3.9 | 16 |
| 255 | 34 | 38 | 1.2 | 3.4 | C102_0240 EZ302U | 114 | 171 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 0.49 | 15.0 | 3.9 | 13 |
| 255 | 45 | 51 | 1.6 | 2.6 | C102_0240 EZ303U | 137 | 171 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 0.60 | 15.0 | 3.9 | 14 |
| 255 | 52 | 64 | 1.8 | 2.2 | C102_0240 EZ401U | 138 | 240 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 255 | 78 | 100 | 2.7 | 1.5 | C102_0240 EZ501U | 138 | 240 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 255 | 80 | 112 | 2.8 | 1.5 | C102_0240 EZ402U | 138 | 240 | 23.52 | 1035/44 | 4000 | 3900 | 6500 | 1.8 | 15.0 | 3.9 | 16 |
| 288 | 30 | 34 | 1.2 | 3.7 | C102_0210 EZ302U | 101 | 152 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 0.49 | 15.0 | 3.9 | 13 |
| 288 | 40 | 45 | 1.5 | 2.8 | C102_0210 EZ303U | 121 | 152 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 0.60 | 15.0 | 3.9 | 14 |
| 288 | 47 | 57 | 1.8 | 2.4 | C102_0210 EZ401U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 1.1 | 15.0 | 3.9 | 15 |
| 288 | 69 | 89 | 2.7 | 1.6 | C102_0210 EZ501U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 3.1 | 15.0 | 3.9 | 16 |
| 288 | 71 | 99 | 2.8 | 1.6 | C102_0210 EZ402U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 1.8 | 15.0 | 3.9 | 16 |
| 288 | 105 | 158 | 4.1 | 1.1 | C102_0210 EZ502U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 5.4 | 15.0 | 3.9 | 17 |
| 288 | 105 | 160 | 4.1 | 1.1 | C102_0210 EZ701U | 138 | 240 | 20.84 | 667/32 | 4000 | 3900 | 6500 | 8.7 | 15.0 | 3.9 | 19 |
| 338 | 26 | 29 | 1.2 | 4.0 | C102_0175 EZ302U | 86 | 129 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 0.59 | 15.0 | 3.9 | 13 |
| 338 | 34 | 39 | 1.6 | 3.1 | C102_0175 EZ303U | 103 | 129 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 0.70 | 15.0 | 3.9 | 14 |
| 338 | 40 | 48 | 1.8 | 2.7 | C102_0175 EZ401U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 1.2 | 15.0 | 3.9 | 15 |
| 338 | 58 | 76 | 2.6 | 1.8 | C102_0175 EZ501U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 3.2 | 15.0 | 3.9 | 16 |
| 338 | 60 | 84 | 2.7 | 1.8 | C102_0175 EZ402U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 1.9 | 15.0 | 3.9 | 16 |
| 338 | 89 | 134 | 4.0 | 1.2 | C102_0175 EZ502U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 5.5 | 15.0 | 3.9 | 17 |
| 338 | 89 | 136 | 4.0 | 1.2 | C102_0175 EZ701U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 8.8 | 15.0 | 3.9 | 19 |
| 338 | 100 | 144 | 4.4 | 1.1 | C102_0175 EZ404U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 18 |
| 338 | 107 | 182 | 4.7 | 1.0 | C102_0175 EZ503U | 138 | 240 | 17.73 | 195/11 | 3800 | 3500 | 6000 | 7.9 | 15.0 | 3.9 | 19 |
| 382 | 23 | 26 | 1.3 | 4.0 | C102_0155 EZ302U | 76 | 114 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 0.60 | 15.0 | 3.9 | 13 |
| 382 | 30 | 34 | 1.6 | 3.1 | C102_0155 EZ303U | 91 | 114 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 0.71 | 15.0 | 3.9 | 14 |
| 382 | 35 | 43 | 1.7 | 2.9 | C102_0155 EZ401U | 130 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 1.2 | 15.0 | 3.9 | 15 |
| 382 | 52 | 67 | 2.6 | 2.0 | C102_0155 EZ501U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 3.2 | 15.0 | 3.9 | 16 |
| 382 | 53 | 75 | 2.6 | 1.9 | C102_0155 EZ402U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 1.9 | 15.0 | 3.9 | 16 |
| 382 | 79 | 119 | 3.9 | 1.3 | C102_0155 EZ502U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 5.5 | 15.0 | 3.9 | 17 |
| 382 | 79 | 120 | 3.9 | 1.3 | C102_0155 EZ701U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 8.8 | 15.0 | 3.9 | 19 |
| 382 | 88 | 128 | 4.4 | 1.2 | C102_0155 EZ404U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 18 |
| 382 | 94 | 162 | 4.7 | 1.1 | C102_0155 EZ503U | 138 | 240 | 15.71 | 377/24 | 3800 | 3500 | 6000 | 7.9 | 15.0 | 3.9 | 19 |
| 427 | 31 | 38 | 1.7 | 3.2 | C102_0140 EZ401U | 116 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 1.3 | 15.0 | 3.9 | 15 |
| 427 | 46 | 60 | 2.5 | 2.1 | C102_0140 EZ501U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 16 |
| 427 | 48 | 67 | 2.6 | 2.1 | C102_0140 EZ402U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 2.0 | 15.0 | 3.9 | 16 |
| 427 | 71 | 106 | 3.8 | 1.4 | C102_0140 EZ502U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 5.6 | 15.0 | 3.9 | 17 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C1 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | |
| 427 | 71 | 108 | 3.8 | 1.4 | C102_0140 EZ701U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 8.9 | 15.0 | 3.9 | 19 |
| 427 | 79 | 115 | 4.3 | 1.2 | C102_0140 EZ404U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 3.4 | 15.0 | 3.9 | 18 |
| 427 | 85 | 145 | 4.6 | 1.2 | C102_0140 EZ503U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 8.0 | 15.0 | 3.9 | 19 |
| 427 | 98 | 195 | 5.3 | 1.0 | C102_0140 EZ702U | 138 | 240 | 14.06 | 2010/143 | 3800 | 3500 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 482 | 28 | 34 | 1.7 | 3.4 | C102_0125 EZ401U | 103 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 1.3 | 15.0 | 3.9 | 15 |
| 482 | 41 | 53 | 2.5 | 2.3 | C102_0125 EZ501U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 3.3 | 15.0 | 3.9 | 16 |
| 482 | 42 | 59 | 2.5 | 2.2 | C102_0125 EZ402U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 2.0 | 15.0 | 3.9 | 16 |
| 482 | 63 | 94 | 3.8 | 1.5 | C102_0125 EZ502U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 5.6 | 15.0 | 3.9 | 17 |
| 482 | 63 | 95 | 3.8 | 1.5 | C102_0125 EZ701U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 8.9 | 15.0 | 3.9 | 19 |
| 482 | 70 | 101 | 4.2 | 1.4 | C102_0125 EZ404U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 3.4 | 15.0 | 3.9 | 18 |
| 482 | 75 | 128 | 4.5 | 1.3 | C102_0125 EZ503U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 8.0 | 15.0 | 3.9 | 19 |
| 482 | 87 | 173 | 5.2 | 1.1 | C102_0125 EZ702U | 138 | 240 | 12.46 | 1943/156 | 3800 | 3500 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 512 | 17 | 19 | 1.5 | 4.0 | C102_0115 EZ302U | 57 | 85 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 0.82 | 15.0 | 3.9 | 13 |
| 512 | 22 | 26 | 1.9 | 3.1 | C102_0115 EZ303U | 68 | 85 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 0.93 | 15.0 | 3.9 | 14 |
| 512 | 26 | 32 | 1.6 | 3.6 | C102_0115 EZ401U | 97 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 1.5 | 15.0 | 3.9 | 15 |
| 512 | 39 | 50 | 2.4 | 2.4 | C102_0115 EZ501U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 3.4 | 15.0 | 3.9 | 16 |
| 512 | 40 | 56 | 2.5 | 2.3 | C102_0115 EZ402U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 2.2 | 15.0 | 3.9 | 16 |
| 512 | 59 | 89 | 3.7 | 1.6 | C102_0115 EZ502U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 5.7 | 15.0 | 3.9 | 17 |
| 512 | 59 | 90 | 3.7 | 1.6 | C102_0115 EZ701U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 9.0 | 15.0 | 3.9 | 19 |
| 512 | 66 | 95 | 4.1 | 1.4 | C102_0115 EZ404U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 3.5 | 15.0 | 3.9 | 18 |
| 512 | 70 | 120 | 4.4 | 1.3 | C102_0115 EZ503U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 8.1 | 15.0 | 3.9 | 19 |
| 512 | 82 | 163 | 5.1 | 1.1 | C102_0115 EZ702U | 138 | 240 | 11.72 | 1160/99 | 3600 | 3100 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 578 | 15 | 17 | 1.6 | 4.0 | C102_0105 EZ302U | 50 | 76 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 0.83 | 15.0 | 3.9 | 13 |
| 578 | 20 | 23 | 2.0 | 3.1 | C102_0105 EZ303U | 60 | 76 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 0.94 | 15.0 | 3.9 | 14 |
| 578 | 23 | 28 | 1.6 | 3.9 | C102_0105 EZ401U | 86 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 1.5 | 15.0 | 3.9 | 15 |
| 578 | 34 | 44 | 2.4 | 2.6 | C102_0105 EZ501U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 3.4 | 15.0 | 3.9 | 16 |
| 578 | 35 | 49 | 2.4 | 2.5 | C102_0105 EZ402U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 2.2 | 15.0 | 3.9 | 16 |
| 578 | 52 | 79 | 3.6 | 1.7 | C102_0105 EZ502U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 5.7 | 15.0 | 3.9 | 17 |
| 578 | 52 | 80 | 3.6 | 1.7 | C102_0105 EZ701U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 9.0 | 15.0 | 3.9 | 19 |
| 578 | 58 | 85 | 4.1 | 1.5 | C102_0105 EZ404U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 3.5 | 15.0 | 3.9 | 18 |
| 578 | 62 | 107 | 4.3 | 1.4 | C102_0105 EZ503U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 8.1 | 15.0 | 3.9 | 19 |
| 578 | 73 | 144 | 5.0 | 1.2 | C102_0105 EZ702U | 138 | 240 | 10.38 | 841/81 | 3600 | 3100 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 643 | 21 | 25 | 1.6 | 4.1 | C102_0093 EZ401U | 77 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 1.6 | 15.0 | 3.9 | 15 |
| 643 | 31 | 40 | 2.3 | 2.8 | C102_0093 EZ501U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 3.6 | 15.0 | 3.9 | 16 |
| 643 | 32 | 44 | 2.4 | 2.7 | C102_0093 EZ402U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 2.3 | 15.0 | 3.9 | 16 |
| 643 | 47 | 71 | 3.6 | 1.8 | C102_0093 EZ502U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 5.9 | 15.0 | 3.9 | 17 |
| 643 | 47 | 71 | 3.6 | 1.8 | C102_0093 EZ701U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 9.2 | 15.0 | 3.9 | 19 |
| 643 | 52 | 76 | 4.0 | 1.6 | C102_0093 EZ404U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 3.7 | 15.0 | 3.9 | 18 |
| 643 | 56 | 96 | 4.3 | 1.5 | C102_0093 EZ503U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 8.3 | 15.0 | 3.9 | 19 |
| 643 | 65 | 129 | 5.0 | 1.3 | C102_0093 EZ702U | 138 | 240 | 9.326 | 3180/341 | 3600 | 3100 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 726 | 18 | 22 | 1.6 | 4.5 | C102_0083 EZ401U | 68 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 1.7 | 15.0 | 3.9 | 15 |
| 726 | 27 | 35 | 2.3 | 3.0 | C102_0083 EZ501U | 128 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 3.6 | 15.0 | 3.9 | 16 |
| 726 | 28 | 39 | 2.4 | 3.0 | C102_0083 EZ402U | 128 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 2.4 | 15.0 | 3.9 | 16 |
| 726 | 42 | 63 | 3.5 | 2.0 | C102_0083 EZ502U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 5.9 | 15.0 | 3.9 | 17 |
| 726 | 42 | 63 | 3.5 | 2.0 | C102_0083 EZ701U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 9.2 | 15.0 | 3.9 | 19 |
| 726 | 46 | 67 | 3.9 | 1.8 | C102_0083 EZ404U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 3.7 | 15.0 | 3.9 | 18 |
| 726 | 50 | 85 | 4.2 | 1.7 | C102_0083 EZ503U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 8.3 | 15.0 | 3.9 | 19 |
| 726 | 58 | 115 | 4.9 | 1.4 | C102_0083 EZ702U | 138 | 240 | 8.263 | 1537/186 | 3600 | 3100 | 6000 | 14 | 15.0 | 3.9 | 22 |
| 770 | 11 | 13 | 1.8 | 4.0 | C102_0078 EZ302U | 38 | 57 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 0.54 | 18.0 | 3.1 | 13 |
| 770 | 15 | 17 | 2.3 | 3.1 | C102_0078 EZ303U | 45 | 57 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 0.65 | 18.0 | 3.1 | 14 |
| 770 | 17 | 21 | 1.8 | 4.0 | C102_0078 EZ401U | 64 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 1.2 | 18.0 | 3.1 | 15 |
| 770 | 26 | 33 | 2.7 | 2.7 | C102_0078 EZ501U | 121 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 3.1 | 18.0 | 3.1 | 16 |
| 770 | 26 | 37 | 2.8 | 2.6 | C102_0078 EZ402U | 121 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 1.9 | 18.0 | 3.1 | 16 |
| 770 | 39 | 59 | 4.1 | 1.7 | C102_0078 EZ502U | 130 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 5.4 | 18.0 | 3.1 | 17 |
| 770 | 39 | 60 | 4.1 | 1.7 | C102_0078 EZ701U | 130 | 220 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 8.7 | 18.0 | 3.1 | 19 |
| 770 | 44 | 64 | 4.6 | 1.6 | C102_0078 EZ404U | 130 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 3.2 | 18.0 | 3.1 | 18 |
| 770 | 47 | 80 | 4.9 | 1.5 | C102_0078 EZ503U | 130 | 209 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 7.8 | 18.0 | 3.1 | 19 |
| 770 | 54 | 108 | 5.7 | 1.3 | C102_0078 EZ702U | 130 | 220 | 7.796 | 3243/416 | 4000 | 3900 | 6500 | 14 | 18.0 | 3.1 | 22 |
| 947 | 9.2 | 10 | 2.0 | 4.0 | C102_0063 EZ302U | 31 | 46 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 0.67 | 18.0 | 3.1 | 13 |
| 947 | 12 | 14 | 2.6 | 3.1 | C102_0063 EZ303U | 37 | 46 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 0.78 | 18.0 | 3.1 | 14 |
| 947 | 14 | 17 | 1.8 | 4.5 | C102_0063 EZ401U | 52 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 1.3 | 18.0 | 3.1 | 15 |
| 947 | 21 | 27 | 2.6 | 3.1 | C102_0063 EZ501U | 98 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 3.3 | 18.0 | 3.1 | 16 |
| 947 | 22 | 30 | 2.7 | 3.0 | C102_0063 EZ402U | 98 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 2.0 | 18.0 | 3.1 | 16 |
| 947 | 32 | 48 | 4.0 | 2.0 | C102_0063 EZ502U | 130 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 5.6 | 18.0 | 3.1 | 17 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm) | | | | | | | | | | | | | | | | |
| 947 | 32 | 49 | 4.0 | 2.0 | C102_0063 EZ701U | 123 | 220 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 8.9 | 18.0 | 3.1 | 19 |
| 947 | 36 | 52 | 4.4 | 1.8 | C102_0063 EZ404U | 130 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 18 |
| 947 | 38 | 65 | 4.7 | 1.7 | C102_0063 EZ503U | 130 | 184 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 8.0 | 18.0 | 3.1 | 19 |
| 947 | 44 | 88 | 5.5 | 1.4 | C102_0063 EZ702U | 130 | 220 | 6.338 | 507/80 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 1021 | 8.5 | 9.6 | 2.1 | 4.0 | C102_0059 EZ302U | 28 | 43 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 0.67 | 18.0 | 3.1 | 13 |
| 1021 | 11 | 13 | 2.7 | 3.1 | C102_0059 EZ303U | 34 | 43 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 0.78 | 18.0 | 3.1 | 14 |
| 1021 | 13 | 16 | 1.7 | 4.8 | C102_0059 EZ401U | 48 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 1.3 | 18.0 | 3.1 | 15 |
| 1021 | 19 | 25 | 2.6 | 3.2 | C102_0059 EZ501U | 91 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 3.3 | 18.0 | 3.1 | 16 |
| 1021 | 20 | 28 | 2.6 | 3.1 | C102_0059 EZ402U | 91 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 2.0 | 18.0 | 3.1 | 16 |
| 1021 | 30 | 44 | 3.9 | 2.1 | C102_0059 EZ502U | 130 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 5.6 | 18.0 | 3.1 | 17 |
| 1021 | 30 | 45 | 3.9 | 2.1 | C102_0059 EZ701U | 114 | 220 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 8.9 | 18.0 | 3.1 | 19 |
| 1021 | 33 | 48 | 4.4 | 1.9 | C102_0059 EZ404U | 130 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 18 |
| 1021 | 35 | 60 | 4.7 | 1.8 | C102_0059 EZ503U | 130 | 171 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 8.0 | 18.0 | 3.1 | 19 |
| 1021 | 41 | 81 | 5.4 | 1.5 | C102_0059 EZ702U | 130 | 220 | 5.875 | 47/8 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 1194 | 17 | 21 | 2.5 | 3.6 | C102_0050 EZ501U | 78 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 16 |
| 1194 | 17 | 24 | 2.6 | 3.5 | C102_0050 EZ402U | 78 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 2.2 | 18.0 | 3.1 | 16 |
| 1194 | 25 | 38 | 3.8 | 2.3 | C102_0050 EZ502U | 117 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 5.7 | 18.0 | 3.1 | 17 |
| 1194 | 25 | 39 | 3.8 | 2.3 | C102_0050 EZ701U | 97 | 220 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 9.0 | 18.0 | 3.1 | 19 |
| 1194 | 28 | 41 | 4.3 | 2.1 | C102_0050 EZ404U | 117 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 3.5 | 18.0 | 3.1 | 18 |
| 1194 | 30 | 52 | 4.5 | 2.0 | C102_0050 EZ503U | 117 | 146 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 8.1 | 18.0 | 3.1 | 19 |
| 1194 | 35 | 70 | 5.3 | 1.7 | C102_0050 EZ702U | 130 | 220 | 5.025 | 201/40 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 1288 | 15 | 20 | 2.5 | 3.8 | C102_0047 EZ501U | 72 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 3.4 | 18.0 | 3.1 | 16 |
| 1288 | 16 | 22 | 2.5 | 3.7 | C102_0047 EZ402U | 72 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 2.2 | 18.0 | 3.1 | 16 |
| 1288 | 23 | 35 | 3.8 | 2.5 | C102_0047 EZ502U | 108 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 5.7 | 18.0 | 3.1 | 17 |
| 1288 | 23 | 36 | 3.8 | 2.5 | C102_0047 EZ701U | 90 | 220 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 9.0 | 18.0 | 3.1 | 19 |
| 1288 | 26 | 38 | 4.2 | 2.2 | C102_0047 EZ404U | 108 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 3.5 | 18.0 | 3.1 | 18 |
| 1288 | 28 | 48 | 4.5 | 2.1 | C102_0047 EZ503U | 108 | 136 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 8.1 | 18.0 | 3.1 | 19 |
| 1288 | 33 | 65 | 5.2 | 1.8 | C102_0047 EZ702U | 130 | 220 | 4.658 | 3149/676 | 3800 | 3500 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 1432 | 6.1 | 6.8 | 2.4 | 4.0 | C102_0042 EZ302U | 20 | 30 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 0.99 | 18.0 | 3.1 | 13 |
| 1432 | 8.0 | 9.1 | 3.2 | 3.1 | C102_0042 EZ303U | 24 | 30 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 1.1 | 18.0 | 3.1 | 14 |
| 1432 | 14 | 18 | 2.4 | 4.0 | C102_0042 EZ501U | 65 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 3.6 | 18.0 | 3.1 | 16 |
| 1432 | 14 | 20 | 2.5 | 3.9 | C102_0042 EZ402U | 65 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 2.3 | 18.0 | 3.1 | 16 |
| 1432 | 21 | 32 | 3.7 | 2.6 | C102_0042 EZ502U | 98 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 5.9 | 18.0 | 3.1 | 17 |
| 1432 | 21 | 32 | 3.7 | 2.6 | C102_0042 EZ701U | 81 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 9.2 | 18.0 | 3.1 | 19 |
| 1432 | 24 | 34 | 4.1 | 2.4 | C102_0042 EZ404U | 98 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 3.7 | 18.0 | 3.1 | 18 |
| 1432 | 25 | 43 | 4.4 | 2.2 | C102_0042 EZ503U | 98 | 122 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 8.3 | 18.0 | 3.1 | 19 |
| 1432 | 29 | 58 | 5.1 | 1.9 | C102_0042 EZ702U | 130 | 220 | 4.189 | 377/90 | 3600 | 3100 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 1545 | 5.7 | 6.3 | 2.5 | 4.0 | C102_0039 EZ302U | 19 | 28 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 1.0 | 18.0 | 3.1 | 13 |
| 1545 | 7.4 | 8.5 | 3.3 | 3.1 | C102_0039 EZ303U | 23 | 28 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 1.1 | 18.0 | 3.1 | 14 |
| 1545 | 13 | 17 | 2.4 | 4.3 | C102_0039 EZ501U | 60 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 3.6 | 18.0 | 3.1 | 16 |
| 1545 | 13 | 18 | 2.5 | 4.1 | C102_0039 EZ402U | 60 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 2.3 | 18.0 | 3.1 | 16 |
| 1545 | 20 | 29 | 3.7 | 2.8 | C102_0039 EZ502U | 90 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 5.9 | 18.0 | 3.1 | 17 |
| 1545 | 20 | 30 | 3.7 | 2.8 | C102_0039 EZ701U | 75 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 9.2 | 18.0 | 3.1 | 19 |
| 1545 | 22 | 32 | 4.1 | 2.5 | C102_0039 EZ404U | 90 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 3.7 | 18.0 | 3.1 | 18 |
| 1545 | 23 | 40 | 4.4 | 2.3 | C102_0039 EZ503U | 90 | 113 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 8.3 | 18.0 | 3.1 | 19 |
| 1545 | 27 | 54 | 5.1 | 2.0 | C102_0039 EZ702U | 130 | 220 | 3.883 | 1363/351 | 3600 | 3100 | 6000 | 14 | 18.0 | 3.1 | 22 |
| 1800 | 11 | 14 | 2.3 | 4.7 | C102_0033 EZ501U | 52 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 3.9 | 18.0 | 3.1 | 16 |
| 1800 | 11 | 16 | 2.4 | 4.6 | C102_0033 EZ402U | 52 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 2.6 | 18.0 | 3.1 | 16 |
| 1800 | 17 | 25 | 3.6 | 3.1 | C102_0033 EZ502U | 78 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 6.2 | 18.0 | 3.1 | 17 |
| 1800 | 17 | 26 | 3.6 | 3.1 | C102_0033 EZ701U | 65 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 9.5 | 18.0 | 3.1 | 19 |
| 1800 | 19 | 27 | 4.0 | 2.8 | C102_0033 EZ404U | 78 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 4.0 | 18.0 | 3.1 | 18 |
| 1800 | 20 | 34 | 4.2 | 2.6 | C102_0033 EZ503U | 78 | 97 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 8.6 | 18.0 | 3.1 | 19 |
| 1800 | 23 | 46 | 4.9 | 2.2 | C102_0033 EZ702U | 123 | 220 | 3.334 | 2067/620 | 3600 | 3100 | 6000 | 15 | 18.0 | 3.1 | 22 |
| 1941 | 10 | 13 | 2.3 | 5.0 | C102_0031 EZ501U | 48 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 3.9 | 18.0 | 3.1 | 16 |
| 1941 | 10 | 15 | 2.4 | 4.8 | C102_0031 EZ402U | 48 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 2.6 | 18.0 | 3.1 | 16 |
| 1941 | 16 | 23 | 3.5 | 3.2 | C102_0031 EZ502U | 72 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 6.2 | 18.0 | 3.1 | 17 |
| 1941 | 16 | 24 | 3.5 | 3.2 | C102_0031 EZ701U | 60 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 9.5 | 18.0 | 3.1 | 19 |
| 1941 | 17 | 25 | 3.9 | 2.9 | C102_0031 EZ404U | 72 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 4.0 | 18.0 | 3.1 | 18 |
| 1941 | 19 | 32 | 4.2 | 2.7 | C102_0031 EZ503U | 72 | 90 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 8.6 | 18.0 | 3.1 | 19 |
| 1941 | 22 | 43 | 4.9 | 2.3 | C102_0031 EZ702U | 120 | 220 | 3.091 | 2491/806 | 3600 | 3100 | 6000 | 15 | 18.0 | 3.1 | 22 |
| C2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 230 Nm) | | | | | | | | | | | | | | | | |
| 27 | 168 | 178 | 1.8 | 1.2 | C203_1110 EZ302U | 230 | 400 | 110.6 | 191149/1728 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 22 |
| 32 | 140 | 148 | 1.6 | 1.4 | C203_0920 EZ302U | 230 | 400 | 92.40 | 29939/324 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 22 |
| 32 | 183 | 193 | 2.1 | 1.1 | C203_0920 EZ303U | 230 | 400 | 92.40 | 29939/324 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 22 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 230 Nm) | | | | | | | | | | | | | | | | |
| 37 | 123 | 129 | 1.5 | 1.6 | C203_0810 EZ302U | 230 | 400 | 80.62 | 11609/144 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 22 |
| 37 | 160 | 169 | 2.0 | 1.3 | C203_0810 EZ303U | 230 | 400 | 80.62 | 11609/144 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 22 |
| 43 | 108 | 115 | 1.4 | 1.8 | C202_0700 EZ302U | 230 | 302 | 70.32 | 7595/108 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 17 |
| 43 | 141 | 149 | 1.9 | 1.4 | C202_0700 EZ303U | 230 | 302 | 70.32 | 7595/108 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 18 |
| 43 | 191 | 205 | 2.5 | 1.0 | C202_0700 EZ401U | 230 | 302 | 70.32 | 7595/108 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 49 | 95 | 100 | 1.4 | 2.0 | C202_0610 EZ302U | 211 | 263 | 61.35 | 2945/48 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 17 |
| 49 | 123 | 130 | 1.8 | 1.5 | C202_0610 EZ303U | 211 | 263 | 61.35 | 2945/48 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 18 |
| 49 | 167 | 179 | 2.5 | 1.1 | C202_0610 EZ401U | 211 | 263 | 61.35 | 2945/48 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 53 | 153 | 164 | 2.2 | 1.3 | C202_0560 EZ401U | 230 | 400 | 56.42 | 1862/33 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 61 | 134 | 143 | 2.1 | 1.5 | C202_0490 EZ401U | 230 | 400 | 49.23 | 1083/22 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 64 | 127 | 136 | 2.0 | 1.6 | C202_0470 EZ401U | 230 | 400 | 46.82 | 2107/45 | 4000 | 3900 | 6500 | 1.1 | 14.0 | 8.3 | 19 |
| 64 | 195 | 213 | 3.1 | 1.0 | C202_0470 EZ501U | 230 | 400 | 46.82 | 2107/45 | 4000 | 3900 | 6500 | 3.0 | 14.0 | 8.3 | 20 |
| 73 | 111 | 119 | 1.9 | 1.8 | C202_0410 EZ401U | 230 | 400 | 40.85 | 817/20 | 4000 | 3900 | 6500 | 1.1 | 14.0 | 8.3 | 19 |
| 73 | 170 | 186 | 2.9 | 1.2 | C202_0410 EZ501U | 230 | 400 | 40.85 | 817/20 | 4000 | 3900 | 6500 | 3.0 | 14.0 | 8.3 | 20 |
| 73 | 186 | 206 | 3.2 | 1.1 | C202_0410 EZ402U | 230 | 400 | 40.85 | 817/20 | 4000 | 3900 | 6500 | 1.8 | 14.0 | 8.3 | 20 |
| 85 | 96 | 102 | 1.8 | 2.1 | C202_0350 EZ401U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 1.2 | 14.0 | 8.3 | 19 |
| 85 | 147 | 160 | 2.7 | 1.4 | C202_0350 EZ501U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 3.1 | 14.0 | 8.3 | 20 |
| 85 | 160 | 177 | 3.0 | 1.2 | C202_0350 EZ402U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 1.9 | 14.0 | 8.3 | 20 |
| 98 | 83 | 89 | 1.7 | 2.4 | C202_0310 EZ401U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 1.2 | 14.0 | 8.3 | 19 |
| 98 | 128 | 140 | 2.5 | 1.6 | C202_0310 EZ501U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 3.1 | 14.0 | 8.3 | 20 |
| 98 | 140 | 155 | 2.8 | 1.4 | C202_0310 EZ402U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 1.9 | 14.0 | 8.3 | 20 |
| 106 | 77 | 82 | 1.6 | 2.6 | C202_0280 EZ401U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 1.2 | 14.0 | 8.3 | 19 |
| 106 | 118 | 129 | 2.4 | 1.7 | C202_0280 EZ501U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 3.2 | 14.0 | 8.3 | 20 |
| 106 | 129 | 142 | 2.7 | 1.6 | C202_0280 EZ402U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 1.9 | 14.0 | 8.3 | 20 |
| 106 | 189 | 236 | 3.9 | 1.1 | C202_0280 EZ404U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 22 |
| 122 | 67 | 72 | 1.5 | 3.0 | C202_0250 EZ401U | 203 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 1.3 | 14.0 | 8.3 | 19 |
| 122 | 103 | 112 | 2.3 | 1.9 | C202_0250 EZ501U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 3.2 | 14.0 | 8.3 | 20 |
| 122 | 112 | 124 | 2.5 | 1.8 | C202_0250 EZ402U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 2.0 | 14.0 | 8.3 | 20 |
| 122 | 165 | 206 | 3.7 | 1.2 | C202_0250 EZ404U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 22 |
| 122 | 177 | 191 | 3.9 | 1.1 | C202_0250 EZ502U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 5.5 | 14.0 | 8.3 | 21 |
| 122 | 177 | 198 | 3.9 | 1.1 | C202_0250 EZ701U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 8.8 | 14.0 | 8.3 | 23 |
| 127 | 64 | 69 | 1.5 | 3.1 | C202_0240 EZ401U | 195 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 1.3 | 14.0 | 8.3 | 19 |
| 127 | 98 | 108 | 2.2 | 2.0 | C202_0240 EZ501U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 20 |
| 127 | 108 | 119 | 2.4 | 1.9 | C202_0240 EZ402U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 2.0 | 14.0 | 8.3 | 20 |
| 127 | 158 | 197 | 3.6 | 1.3 | C202_0240 EZ404U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 3.4 | 14.0 | 8.3 | 22 |
| 127 | 169 | 183 | 3.8 | 1.2 | C202_0240 EZ502U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 5.6 | 14.0 | 8.3 | 21 |
| 127 | 169 | 190 | 3.8 | 1.2 | C202_0240 EZ701U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 8.9 | 14.0 | 8.3 | 23 |
| 146 | 56 | 60 | 1.4 | 3.6 | C202_0210 EZ401U | 170 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 1.4 | 14.0 | 8.3 | 19 |
| 146 | 86 | 94 | 2.1 | 2.3 | C202_0210 EZ501U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 20 |
| 146 | 94 | 104 | 2.3 | 2.1 | C202_0210 EZ402U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 2.1 | 14.0 | 8.3 | 20 |
| 146 | 138 | 172 | 3.3 | 1.5 | C202_0210 EZ404U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 3.4 | 14.0 | 8.3 | 22 |
| 146 | 148 | 160 | 3.6 | 1.4 | C202_0210 EZ502U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 5.6 | 14.0 | 8.3 | 21 |
| 146 | 148 | 166 | 3.6 | 1.4 | C202_0210 EZ701U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 8.9 | 14.0 | 8.3 | 23 |
| 146 | 194 | 222 | 4.7 | 1.0 | C202_0210 EZ503U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 8.0 | 14.0 | 8.3 | 23 |
| 171 | 48 | 51 | 1.3 | 4.2 | C202_0175 EZ401U | 144 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 1.6 | 14.0 | 8.3 | 19 |
| 171 | 73 | 80 | 1.9 | 2.7 | C202_0175 EZ501U | 230 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 3.5 | 14.0 | 8.3 | 20 |
| 171 | 80 | 88 | 2.1 | 2.5 | C202_0175 EZ402U | 230 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 2.3 | 14.0 | 8.3 | 20 |
| 171 | 117 | 146 | 3.1 | 1.7 | C202_0175 EZ404U | 230 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 3.6 | 14.0 | 8.3 | 22 |
| 171 | 126 | 136 | 3.3 | 1.6 | C202_0175 EZ502U | 230 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 5.8 | 14.0 | 8.3 | 21 |
| 171 | 126 | 141 | 3.3 | 1.6 | C202_0175 EZ701U | 230 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 9.1 | 14.0 | 8.3 | 23 |
| 171 | 165 | 189 | 4.3 | 1.2 | C202_0175 EZ503U | 230 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 8.2 | 14.0 | 8.3 | 23 |
| 196 | 42 | 44 | 1.2 | 4.8 | C202_0155 EZ401U | 126 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 1.6 | 14.0 | 8.3 | 19 |
| 196 | 64 | 70 | 1.8 | 3.1 | C202_0155 EZ501U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 3.5 | 14.0 | 8.3 | 20 |
| 196 | 70 | 77 | 2.0 | 2.9 | C202_0155 EZ402U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 2.3 | 14.0 | 8.3 | 20 |
| 196 | 102 | 127 | 2.9 | 2.0 | C202_0155 EZ404U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 3.6 | 14.0 | 8.3 | 22 |
| 196 | 110 | 119 | 3.1 | 1.8 | C202_0155 EZ502U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 5.8 | 14.0 | 8.3 | 21 |
| 196 | 110 | 123 | 3.1 | 1.8 | C202_0155 EZ701U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 9.1 | 14.0 | 8.3 | 23 |
| 196 | 144 | 165 | 4.0 | 1.4 | C202_0155 EZ503U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 8.2 | 14.0 | 8.3 | 23 |
| 196 | 178 | 213 | 5.0 | 1.1 | C202_0155 EZ702U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 14 | 14.0 | 8.3 | 26 |
| 213 | 59 | 64 | 1.7 | 3.4 | C202_0140 EZ501U | 219 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 3.7 | 14.0 | 8.3 | 20 |
| 213 | 64 | 71 | 1.9 | 3.1 | C202_0140 EZ402U | 219 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 2.5 | 14.0 | 8.3 | 20 |
| 213 | 94 | 118 | 2.8 | 2.1 | C202_0140 EZ404U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 3.8 | 14.0 | 8.3 | 22 |
| 213 | 101 | 110 | 3.0 | 2.0 | C202_0140 EZ502U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 6.0 | 14.0 | 8.3 | 21 |
| 213 | 101 | 114 | 3.0 | 2.0 | C202_0140 EZ701U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 9.3 | 14.0 | 8.3 | 23 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C2 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 230 Nm)** | | | | | | | | | | | | | | | | |
| 213 | 133 | 152 | 3.9 | 1.5 | C202_0140 EZ503U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 8.4 | 14.0 | 8.3 | 23 |
| 213 | 164 | 197 | 4.8 | 1.2 | C202_0140 EZ702U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 15 | 14.0 | 8.3 | 26 |
| 213 | 185 | 219 | 5.4 | 1.1 | C202_0140 EZ505U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 13 | 14.0 | 8.3 | 26 |
| 244 | 51 | 56 | 1.6 | 3.8 | C202_0125 EZ501U | 191 | 359 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 3.8 | 14.0 | 8.3 | 20 |
| 244 | 56 | 62 | 1.8 | 3.5 | C202_0125 EZ402U | 191 | 359 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 2.5 | 14.0 | 8.3 | 20 |
| 244 | 82 | 103 | 2.6 | 2.4 | C202_0125 EZ404U | 230 | 359 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 3.8 | 14.0 | 8.3 | 22 |
| 244 | 88 | 96 | 2.8 | 2.2 | C202_0125 EZ502U | 230 | 359 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 6.1 | 14.0 | 8.3 | 21 |
| 244 | 88 | 99 | 2.8 | 2.2 | C202_0125 EZ701U | 230 | 400 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 9.4 | 14.0 | 8.3 | 23 |
| 244 | 116 | 133 | 3.7 | 1.7 | C202_0125 EZ503U | 230 | 359 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 8.4 | 14.0 | 8.3 | 23 |
| 244 | 143 | 172 | 4.6 | 1.4 | C202_0125 EZ702U | 230 | 400 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 15 | 14.0 | 8.3 | 26 |
| 244 | 161 | 191 | 5.2 | 1.2 | C202_0125 EZ505U | 230 | 400 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 13 | 14.0 | 8.3 | 26 |
| 255 | 49 | 54 | 1.6 | 3.9 | C202_0120 EZ501U | 183 | 342 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 4.0 | 14.0 | 8.3 | 20 |
| 255 | 54 | 59 | 1.8 | 3.6 | C202_0120 EZ402U | 183 | 342 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 2.7 | 14.0 | 8.3 | 20 |
| 255 | 79 | 98 | 2.6 | 2.4 | C202_0120 EZ404U | 230 | 342 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 4.1 | 14.0 | 8.3 | 22 |
| 255 | 84 | 91 | 2.8 | 2.3 | C202_0120 EZ502U | 230 | 342 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 6.3 | 14.0 | 8.3 | 21 |
| 255 | 84 | 95 | 2.8 | 2.3 | C202_0120 EZ701U | 228 | 400 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 9.6 | 14.0 | 8.3 | 23 |
| 255 | 111 | 127 | 3.7 | 1.7 | C202_0120 EZ503U | 230 | 342 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 8.7 | 14.0 | 8.3 | 23 |
| 255 | 137 | 164 | 4.6 | 1.4 | C202_0120 EZ702U | 230 | 400 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 15 | 14.0 | 8.3 | 26 |
| 255 | 154 | 183 | 5.1 | 1.3 | C202_0120 EZ505U | 230 | 400 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 13 | 14.0 | 8.3 | 26 |
| 255 | 188 | 237 | 6.3 | 1.0 | C202_0120 EZ703U | 230 | 400 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 292 | 43 | 47 | 1.6 | 4.3 | C202_0105 EZ501U | 159 | 299 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 4.0 | 14.0 | 8.3 | 20 |
| 292 | 47 | 52 | 1.7 | 3.9 | C202_0105 EZ402U | 159 | 299 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 2.8 | 14.0 | 8.3 | 20 |
| 292 | 69 | 86 | 2.6 | 2.7 | C202_0105 EZ404U | 230 | 299 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 4.1 | 14.0 | 8.3 | 22 |
| 292 | 74 | 80 | 2.7 | 2.5 | C202_0105 EZ502U | 230 | 299 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 6.3 | 14.0 | 8.3 | 21 |
| 292 | 74 | 83 | 2.7 | 2.5 | C202_0105 EZ701U | 199 | 400 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 9.6 | 14.0 | 8.3 | 23 |
| 292 | 97 | 110 | 3.6 | 1.9 | C202_0105 EZ503U | 230 | 299 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 8.7 | 14.0 | 8.3 | 23 |
| 292 | 119 | 143 | 4.5 | 1.5 | C202_0105 EZ702U | 230 | 400 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 15 | 14.0 | 8.3 | 26 |
| 292 | 134 | 159 | 5.0 | 1.4 | C202_0105 EZ505U | 230 | 400 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 13 | 14.0 | 8.3 | 26 |
| 292 | 164 | 207 | 6.1 | 1.1 | C202_0105 EZ703U | 230 | 400 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 320 | 67 | 76 | 2.7 | 2.7 | C202_0094 EZ701U | 182 | 400 | 9.387 | 2450/261 | 3500 | 3100 | 5000 | 10 | 14.0 | 8.3 | 23 |
| 320 | 109 | 131 | 4.4 | 1.6 | C202_0094 EZ702U | 230 | 400 | 9.387 | 2450/261 | 3500 | 3100 | 5000 | 15 | 14.0 | 8.3 | 26 |
| 320 | 123 | 146 | 4.9 | 1.5 | C202_0094 EZ505U | 230 | 400 | 9.387 | 2450/261 | 3500 | 3100 | 5000 | 14 | 14.0 | 8.3 | 26 |
| 320 | 150 | 189 | 6.0 | 1.2 | C202_0094 EZ703U | 230 | 400 | 9.387 | 2450/261 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 366 | 59 | 66 | 2.6 | 2.9 | C202_0082 EZ701U | 159 | 400 | 8.190 | 475/58 | 3500 | 3100 | 5000 | 10 | 14.0 | 8.3 | 23 |
| 366 | 95 | 114 | 4.3 | 1.8 | C202_0082 EZ702U | 230 | 400 | 8.190 | 475/58 | 3500 | 3100 | 5000 | 15 | 14.0 | 8.3 | 26 |
| 366 | 107 | 127 | 4.8 | 1.6 | C202_0082 EZ505U | 230 | 400 | 8.190 | 475/58 | 3500 | 3100 | 5000 | 14 | 14.0 | 8.3 | 26 |
| 366 | 131 | 165 | 5.9 | 1.3 | C202_0082 EZ703U | 230 | 400 | 8.190 | 475/58 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 385 | 33 | 36 | 1.9 | 4.1 | C202_0078 EZ501U | 121 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 3.4 | 17.0 | 6.0 | 20 |
| 385 | 36 | 39 | 2.1 | 3.7 | C202_0078 EZ402U | 121 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 2.1 | 17.0 | 6.0 | 20 |
| 385 | 52 | 65 | 3.1 | 2.5 | C202_0078 EZ404U | 173 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 3.5 | 17.0 | 6.0 | 22 |
| 385 | 56 | 61 | 3.3 | 2.4 | C202_0078 EZ502U | 173 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 5.7 | 17.0 | 6.0 | 21 |
| 385 | 56 | 63 | 3.3 | 2.4 | C202_0078 EZ701U | 151 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 9.0 | 17.0 | 6.0 | 23 |
| 385 | 73 | 84 | 4.4 | 1.8 | C202_0078 EZ503U | 173 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 8.1 | 17.0 | 6.0 | 23 |
| 385 | 91 | 109 | 5.4 | 1.5 | C202_0078 EZ702U | 200 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 14 | 17.0 | 6.0 | 26 |
| 385 | 102 | 121 | 6.1 | 1.3 | C202_0078 EZ505U | 200 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 13 | 17.0 | 6.0 | 26 |
| 385 | 125 | 157 | 7.4 | 1.1 | C202_0078 EZ703U | 200 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 22 | 17.0 | 6.0 | 28 |
| 477 | 26 | 29 | 1.9 | 4.7 | C202_0063 EZ501U | 98 | 183 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 3.7 | 17.0 | 6.0 | 20 |
| 477 | 29 | 32 | 2.0 | 4.3 | C202_0063 EZ402U | 98 | 183 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 2.4 | 17.0 | 6.0 | 20 |
| 477 | 42 | 53 | 3.0 | 2.9 | C202_0063 EZ404U | 147 | 183 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 3.8 | 17.0 | 6.0 | 22 |
| 477 | 45 | 49 | 3.2 | 2.7 | C202_0063 EZ502U | 147 | 183 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 6.0 | 17.0 | 6.0 | 21 |
| 477 | 45 | 51 | 3.2 | 2.7 | C202_0063 EZ701U | 122 | 350 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 9.3 | 17.0 | 6.0 | 23 |
| 477 | 59 | 68 | 4.2 | 2.1 | C202_0063 EZ503U | 147 | 183 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 8.4 | 17.0 | 6.0 | 23 |
| 477 | 73 | 88 | 5.2 | 1.7 | C202_0063 EZ702U | 200 | 350 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 15 | 17.0 | 6.0 | 26 |
| 477 | 82 | 98 | 5.9 | 1.5 | C202_0063 EZ505U | 200 | 350 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 477 | 101 | 127 | 7.2 | 1.2 | C202_0063 EZ703U | 200 | 350 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 22 | 17.0 | 6.0 | 28 |
| 518 | 24 | 26 | 1.8 | 5.0 | C202_0058 EZ501U | 90 | 169 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 3.7 | 17.0 | 6.0 | 20 |
| 518 | 26 | 29 | 2.0 | 4.5 | C202_0058 EZ402U | 90 | 169 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 2.4 | 17.0 | 6.0 | 20 |
| 518 | 39 | 48 | 3.0 | 3.1 | C202_0058 EZ404U | 135 | 169 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 3.8 | 17.0 | 6.0 | 22 |
| 518 | 42 | 45 | 3.2 | 2.9 | C202_0058 EZ502U | 135 | 169 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 6.0 | 17.0 | 6.0 | 21 |
| 518 | 42 | 47 | 3.2 | 2.9 | C202_0058 EZ701U | 112 | 350 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 9.3 | 17.0 | 6.0 | 23 |
| 518 | 54 | 62 | 4.2 | 2.2 | C202_0058 EZ503U | 135 | 169 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 8.4 | 17.0 | 6.0 | 23 |
| 518 | 67 | 81 | 5.1 | 1.8 | C202_0058 EZ702U | 200 | 350 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 15 | 17.0 | 6.0 | 26 |
| 518 | 76 | 90 | 5.8 | 1.6 | C202_0058 EZ505U | 200 | 350 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 518 | 93 | 117 | 7.1 | 1.3 | C202_0058 EZ703U | 200 | 350 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 22 | 17.0 | 6.0 | 28 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| C2 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 230 Nm) | | | | | | | | | | | | | | | | |
| 591 | 23 | 26 | 2.0 | 5.0 | C202_0051 EZ402U | 79 | 148 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 2.7 | 17.0 | 6.0 | 20 |
| 591 | 34 | 42 | 2.9 | 3.4 | C202_0051 EZ404U | 118 | 148 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 4.1 | 17.0 | 6.0 | 22 |
| 591 | 36 | 39 | 3.1 | 3.1 | C202_0051 EZ502U | 118 | 148 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 6.3 | 17.0 | 6.0 | 21 |
| 591 | 36 | 41 | 3.1 | 3.1 | C202_0051 EZ701U | 98 | 350 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 9.6 | 17.0 | 6.0 | 23 |
| 591 | 48 | 55 | 4.1 | 2.4 | C202_0051 EZ503U | 118 | 148 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 8.7 | 17.0 | 6.0 | 23 |
| 591 | 59 | 71 | 5.0 | 1.9 | C202_0051 EZ702U | 200 | 350 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 15 | 17.0 | 6.0 | 26 |
| 591 | 66 | 79 | 5.7 | 1.7 | C202_0051 EZ505U | 200 | 350 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 591 | 81 | 102 | 6.9 | 1.4 | C202_0051 EZ703U | 200 | 350 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 23 | 17.0 | 6.0 | 28 |
| 643 | 31 | 39 | 2.9 | 3.5 | C202_0047 EZ404U | 109 | 136 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 4.1 | 17.0 | 6.0 | 22 |
| 643 | 34 | 36 | 3.1 | 3.2 | C202_0047 EZ502U | 109 | 136 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 6.3 | 17.0 | 6.0 | 21 |
| 643 | 34 | 38 | 3.1 | 3.3 | C202_0047 EZ701U | 91 | 339 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 9.6 | 17.0 | 6.0 | 23 |
| 643 | 44 | 50 | 4.1 | 2.5 | C202_0047 EZ503U | 109 | 136 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 8.7 | 17.0 | 6.0 | 23 |
| 643 | 54 | 65 | 5.0 | 2.1 | C202_0047 EZ702U | 186 | 339 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 15 | 17.0 | 6.0 | 26 |
| 643 | 61 | 72 | 5.6 | 1.8 | C202_0047 EZ505U | 200 | 339 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 643 | 75 | 94 | 6.8 | 1.5 | C202_0047 EZ703U | 200 | 339 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 23 | 17.0 | 6.0 | 28 |
| 710 | 28 | 35 | 3.1 | 3.5 | C202_0042 EZ404U | 98 | 123 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 4.4 | 17.0 | 6.0 | 22 |
| 710 | 30 | 33 | 3.3 | 3.2 | C202_0042 EZ502U | 98 | 123 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 6.6 | 17.0 | 6.0 | 21 |
| 710 | 30 | 34 | 3.0 | 3.6 | C202_0042 EZ701U | 82 | 308 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 9.9 | 17.0 | 6.0 | 23 |
| 710 | 40 | 46 | 4.3 | 2.5 | C202_0042 EZ503U | 98 | 123 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 9.0 | 17.0 | 6.0 | 23 |
| 710 | 49 | 59 | 4.9 | 2.2 | C202_0042 EZ702U | 168 | 308 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 15 | 17.0 | 6.0 | 26 |
| 710 | 55 | 66 | 5.5 | 1.9 | C202_0042 EZ505U | 200 | 308 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 710 | 68 | 85 | 6.7 | 1.6 | C202_0042 EZ703U | 200 | 308 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 23 | 17.0 | 6.0 | 28 |
| 772 | 26 | 32 | 3.2 | 3.5 | C202_0039 EZ404U | 91 | 113 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 4.5 | 17.0 | 6.0 | 22 |
| 772 | 28 | 30 | 3.4 | 3.2 | C202_0039 EZ502U | 91 | 113 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 6.7 | 17.0 | 6.0 | 21 |
| 772 | 28 | 31 | 3.0 | 3.8 | C202_0039 EZ701U | 75 | 283 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 10 | 17.0 | 6.0 | 23 |
| 772 | 37 | 42 | 4.5 | 2.5 | C202_0039 EZ503U | 91 | 113 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 9.1 | 17.0 | 6.0 | 23 |
| 772 | 45 | 54 | 4.8 | 2.3 | C202_0039 EZ702U | 155 | 283 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 15 | 17.0 | 6.0 | 26 |
| 772 | 51 | 60 | 5.4 | 2.1 | C202_0039 EZ505U | 198 | 283 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 772 | 62 | 78 | 6.6 | 1.7 | C202_0039 EZ703U | 198 | 283 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 23 | 17.0 | 6.0 | 28 |
| 889 | 24 | 27 | 2.9 | 4.1 | C202_0034 EZ701U | 65 | 246 | 3.373 | 2250/667 | 3500 | 3100 | 5000 | 11 | 17.0 | 6.0 | 23 |
| 889 | 39 | 47 | 4.7 | 2.5 | C202_0034 EZ702U | 134 | 246 | 3.373 | 2250/667 | 3500 | 3100 | 5000 | 16 | 17.0 | 6.0 | 26 |
| 889 | 44 | 52 | 5.3 | 2.3 | C202_0034 EZ505U | 189 | 246 | 3.373 | 2250/667 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 889 | 54 | 68 | 6.5 | 1.9 | C202_0034 EZ703U | 189 | 246 | 3.373 | 2250/667 | 3500 | 3100 | 5000 | 24 | 17.0 | 6.0 | 28 |
| 967 | 22 | 25 | 2.9 | 4.4 | C202_0031 EZ701U | 60 | 226 | 3.103 | 90/29 | 3500 | 3100 | 5000 | 11 | 17.0 | 6.0 | 23 |
| 967 | 36 | 43 | 4.6 | 2.7 | C202_0031 EZ702U | 123 | 226 | 3.103 | 90/29 | 3500 | 3100 | 5000 | 16 | 17.0 | 6.0 | 26 |
| 967 | 41 | 48 | 5.2 | 2.4 | C202_0031 EZ505U | 181 | 226 | 3.103 | 90/29 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 967 | 50 | 63 | 6.4 | 2.0 | C202_0031 EZ703U | 181 | 226 | 3.103 | 90/29 | 3500 | 3100 | 5000 | 24 | 17.0 | 6.0 | 28 |
| 1115 | 19 | 22 | 2.8 | 4.8 | C202_0027 EZ701U | 52 | 196 | 2.690 | 495/184 | 3000 | 2600 | 4500 | 11 | 17.0 | 6.0 | 23 |
| 1115 | 31 | 38 | 4.5 | 3.0 | C202_0027 EZ702U | 107 | 196 | 2.690 | 495/184 | 3000 | 2600 | 4500 | 17 | 17.0 | 6.0 | 26 |
| 1115 | 35 | 42 | 5.1 | 2.6 | C202_0027 EZ505U | 157 | 196 | 2.690 | 495/184 | 3000 | 2600 | 4500 | 15 | 17.0 | 6.0 | 26 |
| 1115 | 43 | 54 | 6.2 | 2.2 | C202_0027 EZ703U | 157 | 196 | 2.690 | 495/184 | 3000 | 2600 | 4500 | 24 | 17.0 | 6.0 | 28 |
| 1212 | 29 | 35 | 4.5 | 3.1 | C202_0025 EZ702U | 98 | 180 | 2.475 | 99/40 | 3000 | 2600 | 4500 | 17 | 17.0 | 6.0 | 26 |
| 1212 | 32 | 38 | 5.0 | 2.8 | C202_0025 EZ505U | 144 | 180 | 2.475 | 99/40 | 3000 | 2600 | 4500 | 15 | 17.0 | 6.0 | 26 |
| 1212 | 40 | 50 | 6.1 | 2.3 | C202_0025 EZ703U | 144 | 180 | 2.475 | 99/40 | 3000 | 2600 | 4500 | 25 | 17.0 | 6.0 | 28 |
| 1374 | 25 | 31 | 4.4 | 3.4 | C202_0022 EZ702U | 87 | 159 | 2.184 | 2160/989 | 3000 | 2600 | 4500 | 17 | 17.0 | 6.0 | 26 |
| 1374 | 29 | 34 | 4.9 | 3.0 | C202_0022 EZ505U | 127 | 159 | 2.184 | 2160/989 | 3000 | 2600 | 4500 | 16 | 17.0 | 6.0 | 26 |
| 1374 | 35 | 44 | 6.0 | 2.5 | C202_0022 EZ703U | 127 | 159 | 2.184 | 2160/989 | 3000 | 2600 | 4500 | 25 | 17.0 | 6.0 | 28 |
| 1374 | 45 | 64 | 7.8 | 1.9 | C202_0022 EZ705U | 163 | 350 | 2.184 | 2160/989 | 3000 | 2600 | 4500 | 38 | 17.0 | 6.0 | 33 |
| 1493 | 23 | 28 | 4.3 | 3.6 | C202_0020 EZ702U | 80 | 146 | 2.009 | 432/215 | 3000 | 2600 | 4500 | 18 | 17.0 | 6.0 | 26 |
| 1493 | 26 | 31 | 4.9 | 3.2 | C202_0020 EZ505U | 117 | 146 | 2.009 | 432/215 | 3000 | 2600 | 4500 | 16 | 17.0 | 6.0 | 26 |
| 1493 | 32 | 41 | 5.9 | 2.6 | C202_0020 EZ703U | 117 | 146 | 2.009 | 432/215 | 3000 | 2600 | 4500 | 26 | 17.0 | 6.0 | 28 |
| 1493 | 42 | 59 | 7.7 | 2.0 | C202_0020 EZ705U | 159 | 350 | 2.009 | 432/215 | 3000 | 2600 | 4500 | 38 | 17.0 | 6.0 | 33 |
| C2 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 230 Nm) | | | | | | | | | | | | | | | | |
| 219 | 190 | 305 | 4.6 | 1.1 | C202_0210 EZ505U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 13 | 14.0 | 8.3 | 26 |
| 257 | 161 | 260 | 4.4 | 1.2 | C202_0175 EZ505U | 230 | 400 | 17.52 | 3626/207 | 3700 | 3500 | 5500 | 13 | 14.0 | 8.3 | 26 |
| 294 | 141 | 227 | 4.3 | 1.3 | C202_0155 EZ505U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 13 | 14.0 | 8.3 | 26 |
| 294 | 179 | 296 | 5.5 | 1.0 | C202_0155 EZ703U | 230 | 400 | 15.28 | 703/46 | 3700 | 3500 | 5500 | 22 | 14.0 | 8.3 | 28 |
| 319 | 130 | 209 | 4.3 | 1.4 | C202_0140 EZ505U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 13 | 14.0 | 8.3 | 26 |
| 319 | 166 | 274 | 5.4 | 1.1 | C202_0140 EZ703U | 230 | 400 | 14.12 | 3430/243 | 3700 | 3500 | 5500 | 22 | 14.0 | 8.3 | 28 |
| 365 | 113 | 183 | 4.2 | 1.5 | C202_0125 EZ505U | 230 | 400 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 13 | 14.0 | 8.3 | 26 |
| 365 | 145 | 239 | 5.3 | 1.2 | C202_0125 EZ703U | 230 | 400 | 12.32 | 665/54 | 3700 | 3500 | 5500 | 22 | 14.0 | 8.3 | 28 |
| 383 | 108 | 175 | 4.1 | 1.6 | C202_0120 EZ505U | 230 | 400 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 13 | 14.0 | 8.3 | 26 |
| 383 | 138 | 228 | 5.3 | 1.2 | C202_0120 EZ703U | 230 | 400 | 11.76 | 294/25 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 439 | 95 | 152 | 4.0 | 1.7 | C202_0105 EZ505U | 230 | 400 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 13 | 14.0 | 8.3 | 26 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C2 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 230 Nm) | | | | | | | | | | | | | | | | |
| 439 | 120 | 199 | 5.1 | 1.3 | C202_0105 EZ703U | 230 | 400 | 10.26 | 513/50 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 479 | 87 | 139 | 4.0 | 1.8 | C202_0094 EZ505U | 230 | 400 | 9.387 | 2450/261 | 3500 | 3100 | 5000 | 14 | 14.0 | 8.3 | 26 |
| 479 | 110 | 182 | 5.1 | 1.4 | C202_0094 EZ703U | 230 | 400 | 9.387 | 2450/261 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 549 | 75 | 122 | 3.9 | 2.0 | C202_0082 EZ505U | 230 | 400 | 8.190 | 475/58 | 3500 | 3100 | 5000 | 14 | 14.0 | 8.3 | 26 |
| 549 | 96 | 159 | 5.0 | 1.6 | C202_0082 EZ703U | 230 | 400 | 8.190 | 475/58 | 3500 | 3100 | 5000 | 23 | 14.0 | 8.3 | 28 |
| 577 | 72 | 116 | 4.9 | 1.6 | C202_0078 EZ505U | 200 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 13 | 17.0 | 6.0 | 26 |
| 577 | 92 | 151 | 6.2 | 1.3 | C202_0078 EZ703U | 200 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 22 | 17.0 | 6.0 | 28 |
| 715 | 58 | 93 | 4.7 | 1.9 | C202_0063 EZ505U | 200 | 350 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 715 | 74 | 122 | 6.0 | 1.5 | C202_0063 EZ703U | 200 | 350 | 6.295 | 3330/529 | 3700 | 3500 | 5500 | 22 | 17.0 | 6.0 | 28 |
| 777 | 53 | 86 | 4.7 | 2.0 | C202_0058 EZ505U | 200 | 350 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 777 | 68 | 112 | 5.9 | 1.5 | C202_0058 EZ703U | 200 | 350 | 5.791 | 666/115 | 3700 | 3500 | 5500 | 22 | 17.0 | 6.0 | 28 |
| 887 | 47 | 75 | 4.6 | 2.1 | C202_0051 EZ505U | 200 | 350 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 887 | 60 | 98 | 5.8 | 1.7 | C202_0051 EZ703U | 200 | 350 | 5.072 | 350/69 | 3700 | 3500 | 5500 | 23 | 17.0 | 6.0 | 28 |
| 964 | 43 | 69 | 4.5 | 2.3 | C202_0047 EZ505U | 200 | 339 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 13 | 17.0 | 6.0 | 26 |
| 964 | 55 | 91 | 5.7 | 1.8 | C202_0047 EZ703U | 200 | 339 | 4.667 | 14/3 | 3700 | 3500 | 5500 | 23 | 17.0 | 6.0 | 28 |
| 1065 | 39 | 63 | 4.4 | 2.4 | C202_0042 EZ505U | 200 | 308 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 1065 | 50 | 82 | 5.6 | 1.9 | C202_0042 EZ703U | 200 | 308 | 4.226 | 486/115 | 3500 | 3100 | 5000 | 23 | 17.0 | 6.0 | 28 |
| 1157 | 36 | 58 | 4.4 | 2.6 | C202_0039 EZ505U | 198 | 283 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 1157 | 46 | 75 | 5.6 | 2.0 | C202_0039 EZ703U | 198 | 283 | 3.888 | 486/125 | 3500 | 3100 | 5000 | 23 | 17.0 | 6.0 | 28 |
| 1334 | 31 | 50 | 4.3 | 2.8 | C202_0034 EZ505U | 189 | 246 | 3.373 | 2250/667 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 1334 | 40 | 65 | 5.4 | 2.2 | C202_0034 EZ703U | 189 | 246 | 3.373 | 2250/667 | 3500 | 3100 | 5000 | 24 | 17.0 | 6.0 | 28 |
| 1450 | 29 | 46 | 4.2 | 3.0 | C202_0031 EZ505U | 181 | 226 | 3.103 | 90/29 | 3500 | 3100 | 5000 | 14 | 17.0 | 6.0 | 26 |
| 1450 | 36 | 60 | 5.4 | 2.3 | C202_0031 EZ703U | 181 | 226 | 3.103 | 90/29 | 3500 | 3100 | 5000 | 24 | 17.0 | 6.0 | 28 |
| 1673 | 25 | 40 | 4.1 | 3.3 | C202_0027 EZ505U | 157 | 196 | 2.690 | 495/184 | 3000 | 2600 | 4500 | 15 | 17.0 | 6.0 | 26 |
| 1673 | 32 | 52 | 5.2 | 2.6 | C202_0027 EZ703U | 157 | 196 | 2.690 | 495/184 | 3000 | 2600 | 4500 | 24 | 17.0 | 6.0 | 28 |
| 1818 | 23 | 37 | 4.0 | 3.5 | C202_0025 EZ505U | 144 | 180 | 2.475 | 99/40 | 3000 | 2600 | 4500 | 15 | 17.0 | 6.0 | 26 |
| 1818 | 29 | 48 | 5.2 | 2.7 | C202_0025 EZ703U | 144 | 180 | 2.475 | 99/40 | 3000 | 2600 | 4500 | 25 | 17.0 | 6.0 | 28 |
| 2060 | 20 | 32 | 4.0 | 3.8 | C202_0022 EZ505U | 127 | 159 | 2.184 | 2160/989 | 3000 | 2600 | 4500 | 16 | 17.0 | 6.0 | 26 |
| 2060 | 26 | 42 | 5.1 | 2.9 | C202_0022 EZ703U | 127 | 159 | 2.184 | 2160/989 | 3000 | 2600 | 4500 | 25 | 17.0 | 6.0 | 28 |
| 2060 | 35 | 64 | 6.8 | 2.2 | C202_0022 EZ705U | 163 | 350 | 2.184 | 2160/989 | 3000 | 2600 | 4500 | 38 | 17.0 | 6.0 | 33 |
| 2240 | 19 | 30 | 3.9 | 4.0 | C202_0020 EZ505U | 117 | 146 | 2.009 | 432/215 | 3000 | 2600 | 4500 | 16 | 17.0 | 6.0 | 26 |
| 2240 | 24 | 39 | 5.0 | 3.1 | C202_0020 EZ703U | 117 | 146 | 2.009 | 432/215 | 3000 | 2600 | 4500 | 26 | 17.0 | 6.0 | 28 |
| 2240 | 32 | 58 | 6.7 | 2.3 | C202_0020 EZ705U | 159 | 350 | 2.009 | 432/215 | 3000 | 2600 | 4500 | 38 | 17.0 | 6.0 | 33 |
| C2 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 230 Nm) | | | | | | | | | | | | | | | | |
| 44 | 198 | 221 | 1.9 | 1.0 | C203_1380 EZ302U | 230 | 400 | 137.8 | 16121/117 | 4000 | 3900 | 6500 | 0.35 | 14.0 | 8.3 | 22 |
| 54 | 159 | 178 | 1.7 | 1.3 | C203_1110 EZ302U | 230 | 400 | 110.6 | 191149/1728 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 22 |
| 65 | 133 | 148 | 1.5 | 1.5 | C203_0920 EZ302U | 230 | 400 | 92.40 | 29939/324 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 22 |
| 65 | 173 | 199 | 2.0 | 1.2 | C203_0920 EZ303U | 230 | 400 | 92.40 | 29939/324 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 22 |
| 74 | 116 | 129 | 1.4 | 1.7 | C203_0810 EZ302U | 230 | 400 | 80.62 | 11609/144 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 22 |
| 74 | 151 | 173 | 1.9 | 1.3 | C203_0810 EZ303U | 230 | 400 | 80.62 | 11609/144 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 22 |
| 74 | 177 | 216 | 2.2 | 1.1 | C203_0810 EZ401U | 230 | 400 | 80.62 | 11609/144 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 24 |
| 85 | 102 | 115 | 1.3 | 2.0 | C202_0700 EZ302U | 230 | 302 | 70.32 | 7595/108 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 17 |
| 85 | 134 | 153 | 1.8 | 1.5 | C202_0700 EZ303U | 230 | 302 | 70.32 | 7595/108 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 18 |
| 85 | 157 | 191 | 2.1 | 1.3 | C202_0700 EZ401U | 230 | 302 | 70.32 | 7595/108 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 98 | 89 | 100 | 1.3 | 2.1 | C202_0610 EZ302U | 211 | 263 | 61.35 | 2945/48 | 4000 | 3900 | 6500 | 0.36 | 14.0 | 8.3 | 17 |
| 98 | 117 | 134 | 1.8 | 1.6 | C202_0610 EZ303U | 211 | 263 | 61.35 | 2945/48 | 4000 | 3900 | 6500 | 0.47 | 14.0 | 8.3 | 18 |
| 98 | 137 | 167 | 2.1 | 1.4 | C202_0610 EZ401U | 211 | 263 | 61.35 | 2945/48 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 106 | 126 | 153 | 1.8 | 1.6 | C202_0560 EZ401U | 230 | 400 | 56.42 | 1862/33 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 106 | 186 | 241 | 2.7 | 1.1 | C202_0560 EZ501U | 230 | 400 | 56.42 | 1862/33 | 4000 | 3900 | 6500 | 3.0 | 14.0 | 8.3 | 20 |
| 106 | 192 | 268 | 2.8 | 1.0 | C202_0560 EZ402U | 230 | 400 | 56.42 | 1862/33 | 4000 | 3900 | 6500 | 1.7 | 14.0 | 8.3 | 20 |
| 122 | 110 | 134 | 1.7 | 1.8 | C202_0490 EZ401U | 230 | 400 | 49.23 | 1083/22 | 4000 | 3900 | 6500 | 1.0 | 14.0 | 8.3 | 19 |
| 122 | 162 | 210 | 2.5 | 1.2 | C202_0490 EZ501U | 230 | 400 | 49.23 | 1083/22 | 4000 | 3900 | 6500 | 3.0 | 14.0 | 8.3 | 20 |
| 122 | 167 | 234 | 2.6 | 1.2 | C202_0490 EZ402U | 230 | 400 | 49.23 | 1083/22 | 4000 | 3900 | 6500 | 1.7 | 14.0 | 8.3 | 20 |
| 128 | 104 | 127 | 1.7 | 1.9 | C202_0470 EZ401U | 230 | 400 | 46.82 | 2107/45 | 4000 | 3900 | 6500 | 1.1 | 14.0 | 8.3 | 19 |
| 128 | 154 | 200 | 2.5 | 1.3 | C202_0470 EZ501U | 230 | 400 | 46.82 | 2107/45 | 4000 | 3900 | 6500 | 3.0 | 14.0 | 8.3 | 20 |
| 128 | 159 | 223 | 2.6 | 1.3 | C202_0470 EZ402U | 230 | 400 | 46.82 | 2107/45 | 4000 | 3900 | 6500 | 1.8 | 14.0 | 8.3 | 20 |
| 147 | 91 | 111 | 1.6 | 2.2 | C202_0410 EZ401U | 230 | 400 | 40.85 | 817/20 | 4000 | 3900 | 6500 | 1.1 | 14.0 | 8.3 | 19 |
| 147 | 135 | 174 | 2.3 | 1.5 | C202_0410 EZ501U | 230 | 400 | 40.85 | 817/20 | 4000 | 3900 | 6500 | 3.0 | 14.0 | 8.3 | 20 |
| 147 | 139 | 194 | 2.4 | 1.4 | C202_0410 EZ402U | 230 | 400 | 40.85 | 817/20 | 4000 | 3900 | 6500 | 1.8 | 14.0 | 8.3 | 20 |
| 171 | 78 | 96 | 1.5 | 2.5 | C202_0350 EZ401U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 1.2 | 14.0 | 8.3 | 19 |
| 171 | 116 | 150 | 2.2 | 1.7 | C202_0350 EZ501U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 3.1 | 14.0 | 8.3 | 20 |
| 171 | 119 | 167 | 2.2 | 1.7 | C202_0350 EZ402U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 1.9 | 14.0 | 8.3 | 20 |
| 171 | 177 | 266 | 3.3 | 1.1 | C202_0350 EZ502U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 5.4 | 14.0 | 8.3 | 21 |
| 171 | 177 | 270 | 3.3 | 1.1 | C202_0350 EZ701U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 8.7 | 14.0 | 8.3 | 23 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C2 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 230 Nm) | | | | | | | | | | | | | | | | |
| 171 | 198 | 287 | 3.7 | 1.0 | C202_0350 EZ404U | 230 | 400 | 35.18 | 1372/39 | 4000 | 3900 | 6500 | 3.2 | 14.0 | 8.3 | 22 |
| 195 | 68 | 83 | 1.4 | 2.9 | C202_0310 EZ401U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 1.2 | 14.0 | 8.3 | 19 |
| 195 | 101 | 131 | 2.0 | 2.0 | C202_0310 EZ501U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 3.1 | 14.0 | 8.3 | 20 |
| 195 | 104 | 146 | 2.1 | 1.9 | C202_0310 EZ402U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 1.9 | 14.0 | 8.3 | 20 |
| 195 | 155 | 232 | 3.1 | 1.3 | C202_0310 EZ502U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 5.4 | 14.0 | 8.3 | 21 |
| 195 | 155 | 235 | 3.1 | 1.3 | C202_0310 EZ701U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 8.7 | 14.0 | 8.3 | 23 |
| 195 | 173 | 250 | 3.4 | 1.2 | C202_0310 EZ404U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 3.2 | 14.0 | 8.3 | 22 |
| 195 | 185 | 316 | 3.7 | 1.1 | C202_0310 EZ503U | 230 | 400 | 30.69 | 399/13 | 4000 | 3900 | 6500 | 7.8 | 14.0 | 8.3 | 23 |
| 212 | 63 | 77 | 1.3 | 3.2 | C202_0280 EZ401U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 1.2 | 14.0 | 8.3 | 19 |
| 212 | 93 | 121 | 1.9 | 2.1 | C202_0280 EZ501U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 3.2 | 14.0 | 8.3 | 20 |
| 212 | 96 | 134 | 2.0 | 2.1 | C202_0280 EZ402U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 1.9 | 14.0 | 8.3 | 20 |
| 212 | 142 | 214 | 2.9 | 1.4 | C202_0280 EZ502U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 5.5 | 14.0 | 8.3 | 21 |
| 212 | 142 | 216 | 2.9 | 1.4 | C202_0280 EZ701U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 8.8 | 14.0 | 8.3 | 23 |
| 212 | 159 | 230 | 3.3 | 1.3 | C202_0280 EZ404U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 22 |
| 212 | 170 | 290 | 3.5 | 1.2 | C202_0280 EZ503U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 7.9 | 14.0 | 8.3 | 23 |
| 212 | 197 | 392 | 4.1 | 1.0 | C202_0280 EZ702U | 230 | 400 | 28.24 | 4067/144 | 4000 | 3900 | 6500 | 14 | 14.0 | 8.3 | 26 |
| 243 | 55 | 67 | 1.2 | 3.6 | C202_0250 EZ401U | 203 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 1.3 | 14.0 | 8.3 | 19 |
| 243 | 81 | 105 | 1.8 | 2.4 | C202_0250 EZ501U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 3.2 | 14.0 | 8.3 | 20 |
| 243 | 84 | 117 | 1.9 | 2.3 | C202_0250 EZ402U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 2.0 | 14.0 | 8.3 | 20 |
| 243 | 124 | 186 | 2.8 | 1.6 | C202_0250 EZ502U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 5.5 | 14.0 | 8.3 | 21 |
| 243 | 124 | 189 | 2.8 | 1.6 | C202_0250 EZ701U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 8.8 | 14.0 | 8.3 | 23 |
| 243 | 139 | 201 | 3.1 | 1.4 | C202_0250 EZ404U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 22 |
| 243 | 148 | 253 | 3.4 | 1.3 | C202_0250 EZ503U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 7.9 | 14.0 | 8.3 | 23 |
| 243 | 172 | 342 | 3.9 | 1.1 | C202_0250 EZ702U | 230 | 400 | 24.64 | 1577/64 | 4000 | 3900 | 6500 | 14 | 14.0 | 8.3 | 26 |
| 254 | 53 | 64 | 1.2 | 3.7 | C202_0240 EZ401U | 195 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 1.3 | 14.0 | 8.3 | 19 |
| 254 | 78 | 101 | 1.8 | 2.5 | C202_0240 EZ501U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 20 |
| 254 | 80 | 112 | 1.9 | 2.4 | C202_0240 EZ402U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 2.0 | 14.0 | 8.3 | 20 |
| 254 | 119 | 179 | 2.8 | 1.6 | C202_0240 EZ502U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 5.6 | 14.0 | 8.3 | 21 |
| 254 | 119 | 181 | 2.8 | 1.6 | C202_0240 EZ701U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 8.9 | 14.0 | 8.3 | 23 |
| 254 | 133 | 192 | 3.1 | 1.5 | C202_0240 EZ404U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 3.4 | 14.0 | 8.3 | 22 |
| 254 | 142 | 243 | 3.3 | 1.4 | C202_0240 EZ503U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 8.0 | 14.0 | 8.3 | 23 |
| 254 | 165 | 327 | 3.9 | 1.2 | C202_0240 EZ702U | 230 | 400 | 23.59 | 637/27 | 4000 | 3900 | 6500 | 14 | 14.0 | 8.3 | 26 |
| 292 | 46 | 56 | 1.2 | 4.0 | C202_0210 EZ401U | 170 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 1.4 | 14.0 | 8.3 | 19 |
| 292 | 68 | 88 | 1.8 | 2.7 | C202_0210 EZ501U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 3.3 | 14.0 | 8.3 | 20 |
| 292 | 70 | 98 | 1.8 | 2.6 | C202_0210 EZ402U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 2.1 | 14.0 | 8.3 | 20 |
| 292 | 104 | 156 | 2.7 | 1.8 | C202_0210 EZ502U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 5.6 | 14.0 | 8.3 | 21 |
| 292 | 104 | 158 | 2.7 | 1.8 | C202_0210 EZ701U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 8.9 | 14.0 | 8.3 | 23 |
| 292 | 116 | 168 | 3.0 | 1.6 | C202_0210 EZ404U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 3.4 | 14.0 | 8.3 | 22 |
| 292 | 124 | 212 | 3.3 | 1.5 | C202_0210 EZ503U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 8.0 | 14.0 | 8.3 | 23 |
| 292 | 144 | 286 | 3.8 | 1.3 | C202_0210 EZ702U | 230 | 400 | 20.58 | 247/12 | 4000 | 3900 | 6500 | 14 | 14.0 | 8.3 | 26 |
| 769 | 26 | 33 | 1.9 | 4.1 | C202_0078 EZ501U | 121 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 3.4 | 17.0 | 6.0 | 20 |
| 769 | 26 | 37 | 2.0 | 4.0 | C202_0078 EZ402U | 121 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 2.1 | 17.0 | 6.0 | 20 |
| 769 | 39 | 59 | 3.0 | 2.7 | C202_0078 EZ502U | 173 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 5.7 | 17.0 | 6.0 | 21 |
| 769 | 39 | 60 | 3.0 | 2.7 | C202_0078 EZ701U | 151 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 9.0 | 17.0 | 6.0 | 23 |
| 769 | 44 | 64 | 3.3 | 2.4 | C202_0078 EZ404U | 173 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 3.5 | 17.0 | 6.0 | 22 |
| 769 | 47 | 80 | 3.5 | 2.2 | C202_0078 EZ503U | 173 | 216 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 8.1 | 17.0 | 6.0 | 23 |
| 769 | 54 | 108 | 4.1 | 1.9 | C202_0078 EZ702U | 200 | 350 | 7.800 | 39/5 | 4000 | 3900 | 6500 | 14 | 17.0 | 6.0 | 26 |
| C3 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 330 Nm) | | | | | | | | | | | | | | | | |
| 341 | 222 | 249 | 9.8 | 1.0 | C302_0059 EZ813U | 330 | 550 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 106 | 16.0 | 7.1 | 56 |
| 397 | 191 | 214 | 9.5 | 1.1 | C302_0050 EZ813U | 330 | 550 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 106 | 16.0 | 7.1 | 56 |
| 428 | 177 | 198 | 9.4 | 1.2 | C302_0047 EZ813U | 330 | 550 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 106 | 16.0 | 7.1 | 56 |
| 479 | 158 | 177 | 9.2 | 1.3 | C302_0042 EZ813U | 330 | 550 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 107 | 16.0 | 7.1 | 56 |
| 516 | 147 | 164 | 9.1 | 1.3 | C302_0039 EZ813U | 324 | 550 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 107 | 16.0 | 7.1 | 56 |
| 597 | 127 | 142 | 8.9 | 1.5 | C302_0034 EZ813U | 309 | 550 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 108 | 16.0 | 7.1 | 56 |
| 643 | 118 | 132 | 8.8 | 1.6 | C302_0031 EZ813U | 301 | 550 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 108 | 16.0 | 7.1 | 56 |
| 643 | 174 | 207 | 13 | 1.0 | C302_0031 EZ815U | 301 | 550 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 171 | 16.0 | 7.1 | 68 |
| 739 | 102 | 115 | 8.6 | 1.7 | C302_0027 EZ813U | 287 | 525 | 2.705 | 1677/620 | 2700 | 2300 | 4000 | 109 | 16.0 | 7.1 | 56 |
| 739 | 152 | 180 | 13 | 1.1 | C302_0027 EZ815U | 287 | 525 | 2.705 | 1677/620 | 2700 | 2300 | 4000 | 172 | 16.0 | 7.1 | 68 |
| 797 | 95 | 106 | 8.5 | 1.8 | C302_0025 EZ813U | 280 | 487 | 2.510 | 1634/651 | 2700 | 2300 | 4000 | 110 | 16.0 | 7.1 | 56 |
| 797 | 141 | 167 | 13 | 1.2 | C302_0025 EZ815U | 280 | 487 | 2.510 | 1634/651 | 2700 | 2300 | 4000 | 173 | 16.0 | 7.1 | 68 |
| 919 | 82 | 92 | 8.3 | 2.0 | C302_0022 EZ813U | 267 | 422 | 2.177 | 468/215 | 2700 | 2300 | 4000 | 111 | 16.0 | 7.1 | 56 |
| 919 | 122 | 145 | 12 | 1.3 | C302_0022 EZ815U | 267 | 422 | 2.177 | 468/215 | 2700 | 2300 | 4000 | 174 | 16.0 | 7.1 | 68 |
| 990 | 76 | 86 | 8.2 | 2.1 | C302_0020 EZ813U | 261 | 392 | 2.020 | 608/301 | 2700 | 2300 | 4000 | 111 | 16.0 | 7.1 | 56 |
| 990 | 113 | 135 | 12 | 1.4 | C302_0020 EZ815U | 261 | 392 | 2.020 | 608/301 | 2700 | 2300 | 4000 | 174 | 16.0 | 7.1 | 68 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm) | | | | | | | | | | | | | | | | |
| 14 | 334 | 353 | 1.5 | 1.0 | C303_2200 EZ302U | 350 | 700 | 219.9 | 58045/264 | 3800 | 3500 | 6000 | 0.35 | 13.0 | 8.7 | 26 |
| 16 | 278 | 294 | 1.4 | 1.3 | C303_1830 EZ302U | 350 | 700 | 182.8 | 1645/9 | 3800 | 3500 | 6000 | 0.35 | 13.0 | 8.7 | 26 |
| 22 | 209 | 220 | 1.2 | 1.7 | C303_1370 EZ302U | 350 | 700 | 137.2 | 59267/432 | 3800 | 3500 | 6000 | 0.36 | 13.0 | 8.7 | 26 |
| 22 | 271 | 287 | 1.6 | 1.3 | C303_1370 EZ303U | 350 | 700 | 137.2 | 59267/432 | 3800 | 3500 | 6000 | 0.47 | 13.0 | 8.7 | 27 |
| 27 | 167 | 176 | 1.1 | 2.1 | C303_1100 EZ302U | 350 | 700 | 109.6 | 94705/864 | 3800 | 3500 | 6000 | 0.37 | 13.0 | 8.7 | 26 |
| 27 | 217 | 229 | 1.4 | 1.6 | C303_1100 EZ303U | 350 | 700 | 109.6 | 94705/864 | 3800 | 3500 | 6000 | 0.48 | 13.0 | 8.7 | 27 |
| 27 | 293 | 314 | 1.9 | 1.2 | C303_1100 EZ401U | 350 | 700 | 109.6 | 94705/864 | 3800 | 3500 | 6000 | 1.0 | 13.0 | 8.7 | 28 |
| 33 | 140 | 148 | 1.0 | 2.5 | C303_0920 EZ302U | 350 | 590 | 91.93 | 39715/432 | 3800 | 3500 | 6000 | 0.38 | 13.0 | 8.7 | 26 |
| 33 | 182 | 192 | 1.3 | 1.9 | C303_0920 EZ303U | 350 | 590 | 91.93 | 39715/432 | 3800 | 3500 | 6000 | 0.49 | 13.0 | 8.7 | 27 |
| 33 | 246 | 264 | 1.8 | 1.4 | C303_0920 EZ401U | 350 | 590 | 91.93 | 39715/432 | 3800 | 3500 | 6000 | 1.0 | 13.0 | 8.7 | 28 |
| 37 | 124 | 131 | 0.9 | 2.8 | C303_0810 EZ302U | 389 | 522 | 81.47 | 1222/15 | 3800 | 3500 | 6000 | 0.38 | 13.0 | 8.7 | 26 |
| 37 | 161 | 171 | 1.2 | 2.2 | C303_0810 EZ303U | 400 | 522 | 81.47 | 1222/15 | 3800 | 3500 | 6000 | 0.49 | 13.0 | 8.7 | 27 |
| 37 | 218 | 234 | 1.7 | 1.6 | C303_0810 EZ401U | 400 | 522 | 81.47 | 1222/15 | 3800 | 3500 | 6000 | 1.0 | 13.0 | 8.7 | 28 |
| 37 | 331 | 361 | 2.5 | 1.1 | C303_0800 EZ501U | 400 | 700 | 80.43 | 6032/75 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 29 |
| 43 | 291 | 319 | 2.4 | 1.2 | C302_0700 EZ501U | 350 | 700 | 69.88 | 559/8 | 3800 | 3500 | 6000 | 3.0 | 13.0 | 8.7 | 25 |
| 48 | 258 | 282 | 2.4 | 1.3 | C302_0620 EZ501U | 397 | 662 | 61.92 | 1548/25 | 3800 | 3500 | 6000 | 3.0 | 13.0 | 8.7 | 25 |
| 53 | 234 | 256 | 2.1 | 1.5 | C302_0560 EZ501U | 350 | 700 | 56.14 | 1235/22 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |
| 60 | 207 | 227 | 2.0 | 1.7 | C302_0500 EZ501U | 400 | 700 | 49.75 | 2736/55 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |
| 64 | 195 | 213 | 2.0 | 1.8 | C302_0470 EZ501U | 350 | 700 | 46.67 | 140/3 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |
| 64 | 335 | 362 | 3.4 | 1.0 | C302_0470 EZ502U | 350 | 700 | 46.67 | 140/3 | 3800 | 3500 | 6000 | 5.4 | 13.0 | 8.7 | 27 |
| 64 | 335 | 376 | 3.4 | 1.0 | C302_0470 EZ701U | 350 | 700 | 46.67 | 140/3 | 3800 | 3500 | 6000 | 8.7 | 13.0 | 8.7 | 28 |
| 73 | 172 | 189 | 1.8 | 2.0 | C302_0410 EZ501U | 400 | 700 | 41.35 | 2688/65 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |
| 73 | 297 | 321 | 3.2 | 1.2 | C302_0410 EZ502U | 400 | 700 | 41.35 | 2688/65 | 3800 | 3500 | 6000 | 5.4 | 13.0 | 8.7 | 27 |
| 73 | 297 | 333 | 3.2 | 1.2 | C302_0410 EZ701U | 400 | 700 | 41.35 | 2688/65 | 3800 | 3500 | 6000 | 8.7 | 13.0 | 8.7 | 28 |
| 86 | 146 | 160 | 1.7 | 2.4 | C302_0350 EZ501U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 3.3 | 13.0 | 8.7 | 25 |
| 86 | 251 | 272 | 2.9 | 1.4 | C302_0350 EZ502U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 5.6 | 13.0 | 8.7 | 27 |
| 86 | 251 | 282 | 2.9 | 1.4 | C302_0350 EZ701U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 8.9 | 13.0 | 8.7 | 28 |
| 86 | 330 | 377 | 3.8 | 1.1 | C302_0350 EZ503U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 8.0 | 13.0 | 8.7 | 28 |
| 97 | 129 | 142 | 1.6 | 2.7 | C302_0310 EZ501U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 3.3 | 13.0 | 8.7 | 25 |
| 97 | 223 | 241 | 2.7 | 1.6 | C302_0310 EZ502U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 5.6 | 13.0 | 8.7 | 27 |
| 97 | 223 | 250 | 2.7 | 1.6 | C302_0310 EZ701U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 8.9 | 13.0 | 8.7 | 28 |
| 97 | 292 | 334 | 3.6 | 1.2 | C302_0310 EZ503U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 8.0 | 13.0 | 8.7 | 28 |
| 107 | 117 | 128 | 1.5 | 3.0 | C302_0280 EZ501U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 3.4 | 13.0 | 8.7 | 25 |
| 107 | 201 | 217 | 2.6 | 1.7 | C302_0280 EZ502U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 5.7 | 13.0 | 8.7 | 27 |
| 107 | 201 | 225 | 2.6 | 1.7 | C302_0280 EZ701U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 9.0 | 13.0 | 8.7 | 28 |
| 107 | 263 | 301 | 3.4 | 1.3 | C302_0280 EZ503U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 8.1 | 13.0 | 8.7 | 28 |
| 107 | 326 | 391 | 4.2 | 1.1 | C302_0280 EZ702U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 121 | 103 | 113 | 1.4 | 3.4 | C302_0250 EZ501U | 385 | 666 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 3.4 | 13.0 | 8.7 | 25 |
| 121 | 178 | 192 | 2.5 | 2.0 | C302_0250 EZ502U | 400 | 666 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 5.7 | 13.0 | 8.7 | 27 |
| 121 | 178 | 200 | 2.5 | 2.0 | C302_0250 EZ701U | 400 | 700 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 9.0 | 13.0 | 8.7 | 28 |
| 121 | 233 | 267 | 3.2 | 1.5 | C302_0250 EZ503U | 400 | 666 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 8.1 | 13.0 | 8.7 | 28 |
| 121 | 289 | 346 | 4.0 | 1.2 | C302_0250 EZ702U | 400 | 700 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 121 | 325 | 385 | 4.5 | 1.1 | C302_0250 EZ505U | 400 | 700 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 128 | 98 | 107 | 1.4 | 3.6 | C302_0230 EZ501U | 350 | 683 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 3.6 | 13.0 | 8.7 | 25 |
| 128 | 168 | 182 | 2.4 | 2.1 | C302_0230 EZ502U | 350 | 683 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 5.9 | 13.0 | 8.7 | 27 |
| 128 | 168 | 189 | 2.4 | 2.1 | C302_0230 EZ701U | 350 | 700 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 9.2 | 13.0 | 8.7 | 28 |
| 128 | 221 | 253 | 3.1 | 1.6 | C302_0230 EZ503U | 350 | 683 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 8.3 | 13.0 | 8.7 | 28 |
| 128 | 273 | 328 | 3.9 | 1.3 | C302_0230 EZ702U | 350 | 700 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 128 | 307 | 364 | 4.3 | 1.1 | C302_0230 EZ505U | 350 | 700 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 144 | 87 | 95 | 1.3 | 4.0 | C302_0210 EZ501U | 323 | 605 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 3.6 | 13.0 | 8.7 | 25 |
| 144 | 149 | 161 | 2.2 | 2.3 | C302_0210 EZ502U | 400 | 605 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 5.9 | 13.0 | 8.7 | 27 |
| 144 | 149 | 167 | 2.2 | 2.3 | C302_0210 EZ701U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 9.2 | 13.0 | 8.7 | 28 |
| 144 | 196 | 224 | 2.9 | 1.8 | C302_0210 EZ503U | 400 | 605 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 8.3 | 13.0 | 8.7 | 28 |
| 144 | 242 | 291 | 3.6 | 1.4 | C302_0210 EZ702U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 144 | 272 | 323 | 4.1 | 1.3 | C302_0210 EZ505U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 144 | 333 | 420 | 5.0 | 1.1 | C302_0210 EZ703U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 22 | 13.0 | 8.7 | 33 |
| 171 | 126 | 141 | 2.1 | 2.7 | C302_0175 EZ701U | 340 | 700 | 17.54 | 1105/63 | 3500 | 3100 | 5500 | 9.6 | 13.0 | 8.7 | 28 |
| 171 | 204 | 245 | 3.4 | 1.7 | C302_0175 EZ702U | 350 | 700 | 17.54 | 1105/63 | 3500 | 3100 | 5500 | 15 | 13.0 | 8.7 | 31 |
| 171 | 230 | 272 | 3.8 | 1.5 | C302_0175 EZ505U | 350 | 700 | 17.54 | 1105/63 | 3500 | 3100 | 5500 | 13 | 13.0 | 8.7 | 31 |
| 171 | 281 | 354 | 4.7 | 1.2 | C302_0175 EZ703U | 350 | 700 | 17.54 | 1105/63 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |
| 193 | 112 | 125 | 2.1 | 2.9 | C302_0155 EZ701U | 302 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 9.6 | 13.0 | 8.7 | 28 |
| 193 | 181 | 217 | 3.4 | 1.8 | C302_0155 EZ702U | 400 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 15 | 13.0 | 8.7 | 31 |
| 193 | 204 | 241 | 3.8 | 1.6 | C302_0155 EZ505U | 400 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 13 | 13.0 | 8.7 | 31 |
| 193 | 249 | 314 | 4.6 | 1.3 | C302_0155 EZ703U | 400 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| C3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm) | | | | | | | | | | | | | | | | |
| 193 | 321 | 455 | 5.9 | 1.0 | C302_0155 EZ705U | 400 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 35 | 13.0 | 8.7 | 38 |
| 214 | 100 | 113 | 2.0 | 3.2 | C302_0140 EZ701U | 271 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 10 | 13.0 | 8.7 | 28 |
| 214 | 163 | 195 | 3.3 | 1.9 | C302_0140 EZ702U | 350 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 15 | 13.0 | 8.7 | 31 |
| 214 | 183 | 217 | 3.7 | 1.7 | C302_0140 EZ505U | 350 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 14 | 13.0 | 8.7 | 31 |
| 214 | 224 | 282 | 4.5 | 1.4 | C302_0140 EZ703U | 350 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |
| 214 | 289 | 410 | 5.8 | 1.1 | C302_0140 EZ705U | 350 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 35 | 13.0 | 8.7 | 38 |
| 242 | 89 | 100 | 2.0 | 3.4 | C302_0125 EZ701U | 241 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 10 | 13.0 | 8.7 | 28 |
| 242 | 144 | 173 | 3.2 | 2.1 | C302_0125 EZ702U | 400 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 15 | 13.0 | 8.7 | 31 |
| 242 | 162 | 192 | 3.6 | 1.9 | C302_0125 EZ505U | 400 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 14 | 13.0 | 8.7 | 31 |
| 242 | 198 | 250 | 4.4 | 1.5 | C302_0125 EZ703U | 400 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |
| 242 | 256 | 363 | 5.7 | 1.2 | C302_0125 EZ705U | 400 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 36 | 13.0 | 8.7 | 38 |
| 258 | 83 | 93 | 2.0 | 3.6 | C302_0115 EZ701U | 225 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 10 | 13.0 | 8.7 | 28 |
| 258 | 135 | 162 | 3.2 | 2.2 | C302_0115 EZ702U | 350 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 16 | 13.0 | 8.7 | 31 |
| 258 | 152 | 180 | 3.6 | 2.0 | C302_0115 EZ505U | 350 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 14 | 13.0 | 8.7 | 31 |
| 258 | 186 | 234 | 4.4 | 1.6 | C302_0115 EZ703U | 350 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 258 | 240 | 340 | 5.7 | 1.2 | C302_0115 EZ705U | 350 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 36 | 13.0 | 8.7 | 38 |
| 292 | 74 | 83 | 1.9 | 3.9 | C302_0105 EZ701U | 200 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 10 | 13.0 | 8.7 | 28 |
| 292 | 120 | 144 | 3.1 | 2.4 | C302_0105 EZ702U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 16 | 13.0 | 8.7 | 31 |
| 292 | 135 | 160 | 3.5 | 2.1 | C302_0105 EZ505U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 14 | 13.0 | 8.7 | 31 |
| 292 | 165 | 208 | 4.3 | 1.7 | C302_0105 EZ703U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 292 | 213 | 301 | 5.6 | 1.3 | C302_0105 EZ705U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 36 | 13.0 | 8.7 | 38 |
| 322 | 67 | 75 | 1.9 | 4.1 | C302_0093 EZ701U | 181 | 678 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 11 | 13.0 | 8.7 | 28 |
| 322 | 108 | 130 | 3.1 | 2.6 | C302_0093 EZ702U | 350 | 678 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 16 | 13.0 | 8.7 | 31 |
| 322 | 122 | 144 | 3.5 | 2.3 | C302_0093 EZ505U | 350 | 678 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 15 | 13.0 | 8.7 | 31 |
| 322 | 149 | 188 | 4.2 | 1.9 | C302_0093 EZ703U | 350 | 678 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 322 | 192 | 273 | 5.5 | 1.4 | C302_0093 EZ705U | 350 | 700 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 37 | 13.0 | 8.7 | 38 |
| 364 | 59 | 66 | 1.9 | 4.5 | C302_0083 EZ701U | 160 | 600 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 11 | 13.0 | 8.7 | 28 |
| 364 | 96 | 115 | 3.0 | 2.8 | C302_0083 EZ702U | 328 | 600 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 16 | 13.0 | 8.7 | 31 |
| 364 | 108 | 128 | 3.4 | 2.5 | C302_0083 EZ505U | 400 | 600 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 15 | 13.0 | 8.7 | 31 |
| 364 | 132 | 166 | 4.1 | 2.0 | C302_0083 EZ703U | 400 | 600 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 364 | 170 | 242 | 5.4 | 1.6 | C302_0083 EZ705U | 400 | 700 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 37 | 13.0 | 8.7 | 38 |
| 383 | 56 | 61 | 2.6 | 3.2 | C302_0078 EZ502U | 183 | 228 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 6.1 | 16.0 | 7.1 | 27 |
| 383 | 56 | 63 | 2.2 | 3.9 | C302_0078 EZ701U | 152 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 9.4 | 16.0 | 7.1 | 28 |
| 383 | 74 | 84 | 3.5 | 2.5 | C302_0078 EZ503U | 183 | 228 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 8.5 | 16.0 | 7.1 | 28 |
| 383 | 91 | 110 | 3.6 | 2.4 | C302_0078 EZ702U | 312 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 15 | 16.0 | 7.1 | 31 |
| 383 | 103 | 122 | 4.1 | 2.1 | C302_0078 EZ505U | 330 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 13 | 16.0 | 7.1 | 31 |
| 383 | 125 | 158 | 5.0 | 1.7 | C302_0078 EZ703U | 330 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 22 | 16.0 | 7.1 | 33 |
| 383 | 162 | 230 | 6.4 | 1.3 | C302_0078 EZ705U | 330 | 550 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 35 | 16.0 | 7.1 | 38 |
| 475 | 45 | 51 | 2.1 | 4.5 | C302_0063 EZ701U | 122 | 434 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 9.9 | 16.0 | 7.1 | 28 |
| 475 | 73 | 88 | 3.5 | 2.7 | C302_0063 EZ702U | 251 | 434 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 15 | 16.0 | 7.1 | 31 |
| 475 | 83 | 98 | 3.9 | 2.4 | C302_0063 EZ505U | 330 | 434 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 475 | 101 | 127 | 4.8 | 2.0 | C302_0063 EZ703U | 330 | 434 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 23 | 16.0 | 7.1 | 33 |
| 475 | 130 | 185 | 6.2 | 1.5 | C302_0063 EZ705U | 330 | 550 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 35 | 16.0 | 7.1 | 38 |
| 512 | 42 | 47 | 2.1 | 4.7 | C302_0059 EZ701U | 114 | 403 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 9.9 | 16.0 | 7.1 | 28 |
| 512 | 68 | 82 | 3.4 | 2.9 | C302_0059 EZ702U | 233 | 403 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 15 | 16.0 | 7.1 | 31 |
| 512 | 77 | 91 | 3.9 | 2.6 | C302_0059 EZ505U | 322 | 403 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 512 | 94 | 118 | 4.7 | 2.1 | C302_0059 EZ703U | 322 | 403 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 23 | 16.0 | 7.1 | 33 |
| 512 | 121 | 172 | 6.1 | 1.6 | C302_0059 EZ705U | 330 | 550 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 35 | 16.0 | 7.1 | 38 |
| 595 | 59 | 70 | 3.4 | 3.2 | C302_0050 EZ702U | 200 | 367 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 16 | 16.0 | 7.1 | 31 |
| 595 | 66 | 78 | 3.8 | 2.8 | C302_0050 EZ505U | 293 | 367 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 595 | 81 | 102 | 4.6 | 2.3 | C302_0050 EZ703U | 293 | 367 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 24 | 16.0 | 7.1 | 33 |
| 595 | 104 | 148 | 6.0 | 1.8 | C302_0050 EZ705U | 330 | 550 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 36 | 16.0 | 7.1 | 38 |
| 642 | 54 | 65 | 3.3 | 3.4 | C302_0047 EZ702U | 186 | 340 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 16 | 16.0 | 7.1 | 31 |
| 642 | 61 | 73 | 3.7 | 3.0 | C302_0047 EZ505U | 272 | 340 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 642 | 75 | 94 | 4.6 | 2.4 | C302_0047 EZ703U | 272 | 340 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 24 | 16.0 | 7.1 | 33 |
| 642 | 97 | 137 | 5.9 | 1.9 | C302_0047 EZ705U | 330 | 550 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 36 | 16.0 | 7.1 | 38 |
| 718 | 49 | 58 | 3.2 | 3.6 | C302_0042 EZ702U | 166 | 304 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 16 | 16.0 | 7.1 | 31 |
| 718 | 55 | 65 | 3.7 | 3.2 | C302_0042 EZ505U | 243 | 304 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 15 | 16.0 | 7.1 | 31 |
| 718 | 67 | 84 | 4.5 | 2.6 | C302_0042 EZ703U | 243 | 304 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 24 | 16.0 | 7.1 | 33 |
| 718 | 86 | 122 | 5.8 | 2.0 | C302_0042 EZ705U | 330 | 550 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 37 | 16.0 | 7.1 | 38 |
| 774 | 45 | 54 | 3.2 | 3.8 | C302_0039 EZ702U | 154 | 282 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 16 | 16.0 | 7.1 | 31 |
| 774 | 51 | 60 | 3.6 | 3.4 | C302_0039 EZ505U | 226 | 282 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 15 | 16.0 | 7.1 | 31 |
| 774 | 62 | 78 | 4.4 | 2.8 | C302_0039 EZ703U | 226 | 282 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 24 | 16.0 | 7.1 | 33 |
| 774 | 80 | 114 | 5.7 | 2.1 | C302_0039 EZ705U | 324 | 550 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 37 | 16.0 | 7.1 | 38 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | | |
| 895 | 39 | 47 | 3.1 | 4.2 | C302_0034 EZ702U | 133 | 244 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 17 | 16.0 | 7.1 | 31 |
| 895 | 44 | 52 | 3.5 | 3.7 | C302_0034 EZ505U | 195 | 244 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 16 | 16.0 | 7.1 | 31 |
| 895 | 54 | 68 | 4.3 | 3.0 | C302_0034 EZ703U | 195 | 244 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 25 | 16.0 | 7.1 | 33 |
| 895 | 69 | 98 | 5.6 | 2.4 | C302_0034 EZ705U | 309 | 550 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 37 | 16.0 | 7.1 | 38 |
| 965 | 36 | 43 | 3.1 | 4.4 | C302_0031 EZ702U | 124 | 226 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 17 | 16.0 | 7.1 | 31 |
| 965 | 41 | 48 | 3.5 | 3.9 | C302_0031 EZ505U | 181 | 226 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 16 | 16.0 | 7.1 | 31 |
| 965 | 50 | 63 | 4.3 | 3.2 | C302_0031 EZ703U | 181 | 226 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 25 | 16.0 | 7.1 | 33 |
| 965 | 64 | 91 | 5.5 | 2.5 | C302_0031 EZ705U | 301 | 550 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 38 | 16.0 | 7.1 | 38 |
| 1109 | 56 | 79 | 5.4 | 2.7 | C302_0027 EZ705U | 273 | 525 | 2.705 | 1677/620 | 2700 | 2300 | 4000 | 39 | 16.0 | 7.1 | 38 |
| 1195 | 52 | 74 | 5.3 | 2.9 | C302_0025 EZ705U | 253 | 487 | 2.510 | 1634/651 | 2700 | 2300 | 4000 | 39 | 16.0 | 7.1 | 38 |
| 1378 | 45 | 64 | 5.2 | 3.1 | C302_0022 EZ705U | 220 | 422 | 2.177 | 468/215 | 2700 | 2300 | 4000 | 41 | 16.0 | 7.1 | 38 |
| 1485 | 42 | 59 | 5.1 | 3.3 | C302_0020 EZ705U | 204 | 392 | 2.020 | 608/301 | 2700 | 2300 | 4000 | 41 | 16.0 | 7.1 | 38 |
| **C3 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | | |
| 389 | 251 | 436 | 7.2 | 1.0 | C302_0105 EZ813U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 106 | 13.0 | 8.7 | 56 |
| 430 | 228 | 395 | 7.1 | 1.1 | C302_0093 EZ813U | 350 | 700 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 107 | 13.0 | 8.7 | 56 |
| 430 | 236 | 606 | 7.4 | 1.1 | C302_0093 EZ815U | 350 | 700 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 170 | 13.0 | 8.7 | 68 |
| 485 | 202 | 350 | 7.0 | 1.2 | C302_0083 EZ813U | 400 | 700 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 107 | 13.0 | 8.7 | 56 |
| 485 | 209 | 537 | 7.2 | 1.2 | C302_0083 EZ815U | 400 | 700 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 170 | 13.0 | 8.7 | 68 |
| 510 | 192 | 332 | 8.3 | 1.0 | C302_0078 EZ813U | 330 | 550 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 105 | 16.0 | 7.1 | 56 |
| 634 | 154 | 268 | 8.0 | 1.2 | C302_0063 EZ813U | 330 | 550 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 106 | 16.0 | 7.1 | 56 |
| 634 | 160 | 411 | 8.3 | 1.1 | C302_0063 EZ815U | 330 | 550 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 169 | 16.0 | 7.1 | 68 |
| 683 | 143 | 248 | 7.9 | 1.2 | C302_0059 EZ813U | 330 | 550 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 106 | 16.0 | 7.1 | 56 |
| 683 | 148 | 382 | 8.2 | 1.2 | C302_0059 EZ815U | 330 | 550 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 169 | 16.0 | 7.1 | 68 |
| 794 | 123 | 214 | 7.7 | 1.4 | C302_0050 EZ813U | 330 | 550 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 106 | 16.0 | 7.1 | 56 |
| 794 | 128 | 328 | 8.0 | 1.3 | C302_0050 EZ815U | 330 | 550 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 169 | 16.0 | 7.1 | 68 |
| 856 | 114 | 198 | 7.7 | 1.5 | C302_0047 EZ813U | 330 | 550 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 106 | 16.0 | 7.1 | 56 |
| 856 | 118 | 304 | 7.9 | 1.4 | C302_0047 EZ815U | 330 | 550 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 169 | 16.0 | 7.1 | 68 |
| 957 | 102 | 177 | 7.5 | 1.6 | C302_0042 EZ813U | 330 | 550 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 107 | 16.0 | 7.1 | 56 |
| 957 | 106 | 272 | 7.8 | 1.5 | C302_0042 EZ815U | 330 | 550 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 170 | 16.0 | 7.1 | 68 |
| 1031 | 95 | 164 | 7.4 | 1.6 | C302_0039 EZ813U | 324 | 550 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 107 | 16.0 | 7.1 | 56 |
| 1031 | 98 | 253 | 7.7 | 1.6 | C302_0039 EZ815U | 324 | 550 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 170 | 16.0 | 7.1 | 68 |
| 1193 | 82 | 142 | 7.2 | 1.8 | C302_0034 EZ813U | 309 | 550 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 108 | 16.0 | 7.1 | 56 |
| 1193 | 85 | 218 | 7.5 | 1.7 | C302_0034 EZ815U | 309 | 550 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 171 | 16.0 | 7.1 | 68 |
| 1286 | 76 | 132 | 7.1 | 1.9 | C302_0031 EZ813U | 301 | 550 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 108 | 16.0 | 7.1 | 56 |
| 1286 | 79 | 203 | 7.4 | 1.8 | C302_0031 EZ815U | 301 | 550 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 171 | 16.0 | 7.1 | 68 |
| 1479 | 66 | 115 | 7.0 | 2.1 | C302_0027 EZ813U | 287 | 525 | 2.705 | 1677/620 | 2700 | 2300 | 4000 | 109 | 16.0 | 7.1 | 56 |
| 1479 | 69 | 176 | 7.2 | 2.0 | C302_0027 EZ815U | 287 | 525 | 2.705 | 1677/620 | 2700 | 2300 | 4000 | 172 | 16.0 | 7.1 | 68 |
| 1594 | 61 | 106 | 6.9 | 2.2 | C302_0025 EZ813U | 280 | 487 | 2.510 | 1634/651 | 2700 | 2300 | 4000 | 110 | 16.0 | 7.1 | 56 |
| 1594 | 64 | 163 | 7.1 | 2.1 | C302_0025 EZ815U | 280 | 487 | 2.510 | 1634/651 | 2700 | 2300 | 4000 | 173 | 16.0 | 7.1 | 68 |
| 1837 | 53 | 92 | 6.7 | 2.4 | C302_0022 EZ813U | 267 | 422 | 2.177 | 468/215 | 2700 | 2300 | 4000 | 111 | 16.0 | 7.1 | 56 |
| 1837 | 55 | 142 | 7.0 | 2.3 | C302_0022 EZ815U | 267 | 422 | 2.177 | 468/215 | 2700 | 2300 | 4000 | 174 | 16.0 | 7.1 | 68 |
| 1980 | 49 | 86 | 6.7 | 2.5 | C302_0020 EZ813U | 261 | 392 | 2.020 | 608/301 | 2700 | 2300 | 4000 | 111 | 16.0 | 7.1 | 56 |
| 1980 | 51 | 132 | 6.9 | 2.5 | C302_0020 EZ815U | 261 | 392 | 2.020 | 608/301 | 2700 | 2300 | 4000 | 174 | 16.0 | 7.1 | 68 |
| **C3 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | | |
| 128 | 323 | 520 | 3.7 | 1.1 | C302_0350 EZ505U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 145 | 286 | 461 | 3.5 | 1.2 | C302_0310 EZ505U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 161 | 258 | 415 | 3.3 | 1.4 | C302_0280 EZ505U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 161 | 328 | 543 | 4.3 | 1.1 | C302_0280 EZ703U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 22 | 13.0 | 8.7 | 33 |
| 181 | 229 | 368 | 3.3 | 1.5 | C302_0250 EZ505U | 400 | 700 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 181 | 291 | 481 | 4.2 | 1.2 | C302_0250 EZ703U | 400 | 700 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 22 | 13.0 | 8.7 | 33 |
| 192 | 216 | 348 | 3.3 | 1.5 | C302_0230 EZ505U | 350 | 700 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 192 | 275 | 455 | 4.1 | 1.2 | C302_0230 EZ703U | 350 | 700 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 22 | 13.0 | 8.7 | 33 |
| 216 | 192 | 309 | 3.2 | 1.7 | C302_0210 EZ505U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 13 | 13.0 | 8.7 | 31 |
| 216 | 244 | 404 | 4.1 | 1.3 | C302_0210 EZ703U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 22 | 13.0 | 8.7 | 33 |
| 257 | 162 | 260 | 3.1 | 1.9 | C302_0175 EZ505U | 350 | 700 | 17.54 | 1105/63 | 3500 | 3100 | 5500 | 13 | 13.0 | 8.7 | 31 |
| 257 | 206 | 340 | 3.9 | 1.5 | C302_0175 EZ703U | 350 | 700 | 17.54 | 1105/63 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |
| 257 | 279 | 510 | 5.3 | 1.1 | C302_0175 EZ705U | 350 | 700 | 17.54 | 1105/63 | 3500 | 3100 | 5500 | 35 | 13.0 | 8.7 | 38 |
| 290 | 143 | 231 | 3.0 | 2.0 | C302_0155 EZ505U | 400 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 13 | 13.0 | 8.7 | 31 |
| 290 | 182 | 302 | 3.9 | 1.6 | C302_0155 EZ703U | 400 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |
| 290 | 247 | 452 | 5.2 | 1.2 | C302_0155 EZ705U | 400 | 700 | 15.54 | 544/35 | 3500 | 3100 | 5500 | 35 | 13.0 | 8.7 | 38 |
| 322 | 129 | 208 | 3.0 | 2.2 | C302_0140 EZ505U | 350 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 14 | 13.0 | 8.7 | 31 |
| 322 | 164 | 271 | 3.8 | 1.7 | C302_0140 EZ703U | 350 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |
| 322 | 223 | 407 | 5.1 | 1.2 | C302_0140 EZ705U | 350 | 700 | 13.99 | 2015/144 | 3500 | 3100 | 5500 | 35 | 13.0 | 8.7 | 38 |
| 363 | 114 | 184 | 2.9 | 2.3 | C302_0125 EZ505U | 400 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 14 | 13.0 | 8.7 | 31 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| C3 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 400 Nm) | | | | | | | | | | | | | | | | |
| 363 | 146 | 241 | 3.7 | 1.8 | C302_0125 EZ703U | 400 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 23 | 13.0 | 8.7 | 33 |
| 363 | 197 | 361 | 5.0 | 1.4 | C302_0125 EZ705U | 400 | 700 | 12.40 | 62/5 | 3500 | 3100 | 5500 | 36 | 13.0 | 8.7 | 38 |
| 388 | 107 | 172 | 2.9 | 2.4 | C302_0115 EZ505U | 350 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 14 | 13.0 | 8.7 | 31 |
| 388 | 136 | 225 | 3.7 | 1.9 | C302_0115 EZ703U | 350 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 388 | 185 | 338 | 5.0 | 1.4 | C302_0115 EZ705U | 350 | 700 | 11.61 | 325/28 | 3200 | 2800 | 4800 | 36 | 13.0 | 8.7 | 38 |
| 437 | 95 | 153 | 2.8 | 2.6 | C302_0105 EZ505U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 14 | 13.0 | 8.7 | 31 |
| 437 | 121 | 200 | 3.6 | 2.1 | C302_0105 EZ703U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 437 | 164 | 299 | 4.9 | 1.5 | C302_0105 EZ705U | 400 | 700 | 10.29 | 72/7 | 3200 | 2800 | 4800 | 36 | 13.0 | 8.7 | 38 |
| 483 | 86 | 138 | 2.8 | 2.8 | C302_0093 EZ505U | 350 | 678 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 15 | 13.0 | 8.7 | 31 |
| 483 | 109 | 181 | 3.6 | 2.2 | C302_0093 EZ703U | 350 | 678 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 483 | 148 | 271 | 4.8 | 1.6 | C302_0093 EZ705U | 350 | 700 | 9.310 | 3575/384 | 3200 | 2800 | 4800 | 37 | 13.0 | 8.7 | 38 |
| 545 | 76 | 122 | 2.7 | 3.1 | C302_0083 EZ505U | 400 | 600 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 15 | 13.0 | 8.7 | 31 |
| 545 | 97 | 160 | 3.5 | 2.4 | C302_0083 EZ703U | 400 | 600 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 24 | 13.0 | 8.7 | 33 |
| 545 | 131 | 240 | 4.7 | 1.8 | C302_0083 EZ705U | 400 | 700 | 8.250 | 33/4 | 3200 | 2800 | 4800 | 37 | 13.0 | 8.7 | 38 |
| 574 | 72 | 116 | 3.3 | 2.6 | C302_0078 EZ505U | 330 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 13 | 16.0 | 7.1 | 31 |
| 574 | 92 | 152 | 4.2 | 2.1 | C302_0078 EZ703U | 330 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 22 | 16.0 | 7.1 | 33 |
| 574 | 125 | 228 | 5.6 | 1.5 | C302_0078 EZ705U | 330 | 550 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 35 | 16.0 | 7.1 | 38 |
| 713 | 58 | 94 | 3.2 | 3.0 | C302_0063 EZ505U | 330 | 434 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 713 | 74 | 122 | 4.0 | 2.4 | C302_0063 EZ703U | 330 | 434 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 23 | 16.0 | 7.1 | 33 |
| 713 | 100 | 184 | 5.4 | 1.8 | C302_0063 EZ705U | 330 | 550 | 6.314 | 221/35 | 3500 | 3100 | 5500 | 35 | 16.0 | 7.1 | 38 |
| 768 | 54 | 87 | 3.1 | 3.2 | C302_0059 EZ505U | 322 | 403 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 768 | 69 | 114 | 4.0 | 2.5 | C302_0059 EZ703U | 322 | 403 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 23 | 16.0 | 7.1 | 33 |
| 768 | 93 | 170 | 5.4 | 1.8 | C302_0059 EZ705U | 330 | 550 | 5.859 | 2584/441 | 3500 | 3100 | 5500 | 35 | 16.0 | 7.1 | 38 |
| 893 | 46 | 75 | 3.0 | 3.5 | C302_0050 EZ505U | 293 | 367 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 893 | 59 | 98 | 3.9 | 2.8 | C302_0050 EZ703U | 293 | 367 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 24 | 16.0 | 7.1 | 33 |
| 893 | 80 | 147 | 5.2 | 2.0 | C302_0050 EZ705U | 330 | 550 | 5.038 | 403/80 | 3500 | 3100 | 5500 | 36 | 16.0 | 7.1 | 38 |
| 963 | 43 | 69 | 3.0 | 3.7 | C302_0047 EZ505U | 272 | 340 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 14 | 16.0 | 7.1 | 31 |
| 963 | 55 | 91 | 3.8 | 2.9 | C302_0047 EZ703U | 272 | 340 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 24 | 16.0 | 7.1 | 33 |
| 963 | 74 | 136 | 5.2 | 2.1 | C302_0047 EZ705U | 330 | 550 | 4.675 | 589/126 | 3500 | 3100 | 5500 | 36 | 16.0 | 7.1 | 38 |
| 1077 | 39 | 62 | 2.9 | 4.0 | C302_0042 EZ505U | 243 | 304 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 15 | 16.0 | 7.1 | 31 |
| 1077 | 49 | 81 | 3.8 | 3.1 | C302_0042 EZ703U | 243 | 304 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 24 | 16.0 | 7.1 | 33 |
| 1077 | 66 | 122 | 5.1 | 2.3 | C302_0042 EZ705U | 330 | 550 | 4.179 | 117/28 | 3200 | 2800 | 4800 | 37 | 16.0 | 7.1 | 38 |
| 1160 | 36 | 58 | 2.9 | 4.2 | C302_0039 EZ505U | 226 | 282 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 15 | 16.0 | 7.1 | 31 |
| 1160 | 46 | 75 | 3.7 | 3.3 | C302_0039 EZ703U | 226 | 282 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 24 | 16.0 | 7.1 | 33 |
| 1160 | 62 | 113 | 5.0 | 2.4 | C302_0039 EZ705U | 324 | 550 | 3.878 | 190/49 | 3200 | 2800 | 4800 | 37 | 16.0 | 7.1 | 38 |
| 1342 | 31 | 50 | 2.8 | 4.6 | C302_0034 EZ505U | 195 | 244 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 16 | 16.0 | 7.1 | 31 |
| 1342 | 39 | 65 | 3.6 | 3.6 | C302_0034 EZ703U | 195 | 244 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 25 | 16.0 | 7.1 | 33 |
| 1342 | 53 | 98 | 4.9 | 2.7 | C302_0034 EZ705U | 309 | 550 | 3.352 | 429/128 | 3200 | 2800 | 4800 | 37 | 16.0 | 7.1 | 38 |
| 1447 | 29 | 46 | 2.8 | 4.9 | C302_0031 EZ505U | 181 | 226 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 16 | 16.0 | 7.1 | 31 |
| 1447 | 37 | 60 | 3.6 | 3.8 | C302_0031 EZ703U | 181 | 226 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 25 | 16.0 | 7.1 | 33 |
| 1447 | 49 | 91 | 4.8 | 2.8 | C302_0031 EZ705U | 301 | 550 | 3.110 | 1045/336 | 3200 | 2800 | 4800 | 38 | 16.0 | 7.1 | 38 |
| C3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm) | | | | | | | | | | | | | | | | |
| 27 | 315 | 353 | 1.5 | 1.1 | C303_2200 EZ302U | 350 | 700 | 219.9 | 58045/264 | 3800 | 3500 | 6000 | 0.35 | 13.0 | 8.7 | 26 |
| 33 | 262 | 294 | 1.3 | 1.3 | C303_1830 EZ302U | 350 | 700 | 182.8 | 1645/9 | 3800 | 3500 | 6000 | 0.35 | 13.0 | 8.7 | 26 |
| 33 | 342 | 393 | 1.7 | 1.0 | C303_1830 EZ303U | 350 | 700 | 182.8 | 1645/9 | 3800 | 3500 | 6000 | 0.46 | 13.0 | 8.7 | 27 |
| 44 | 197 | 220 | 1.2 | 1.8 | C303_1370 EZ302U | 350 | 700 | 137.2 | 59267/432 | 3800 | 3500 | 6000 | 0.36 | 13.0 | 8.7 | 26 |
| 44 | 257 | 295 | 1.5 | 1.4 | C303_1370 EZ303U | 350 | 700 | 137.2 | 59267/432 | 3800 | 3500 | 6000 | 0.47 | 13.0 | 8.7 | 27 |
| 44 | 302 | 367 | 1.8 | 1.2 | C303_1370 EZ401U | 350 | 700 | 137.2 | 59267/432 | 3800 | 3500 | 6000 | 1.0 | 13.0 | 8.7 | 28 |
| 55 | 157 | 176 | 1.0 | 2.2 | C303_1100 EZ302U | 350 | 700 | 109.6 | 94705/864 | 3800 | 3500 | 6000 | 0.37 | 13.0 | 8.7 | 26 |
| 55 | 205 | 236 | 1.3 | 1.7 | C303_1100 EZ303U | 350 | 700 | 109.6 | 94705/864 | 3800 | 3500 | 6000 | 0.48 | 13.0 | 8.7 | 27 |
| 55 | 241 | 293 | 1.6 | 1.5 | C303_1100 EZ401U | 350 | 700 | 109.6 | 94705/864 | 3800 | 3500 | 6000 | 1.0 | 13.0 | 8.7 | 28 |
| 65 | 132 | 148 | 1.0 | 2.5 | C303_0920 EZ302U | 350 | 590 | 91.93 | 39715/432 | 3800 | 3500 | 6000 | 0.38 | 13.0 | 8.7 | 26 |
| 65 | 172 | 198 | 1.3 | 1.9 | C303_0920 EZ303U | 350 | 590 | 91.93 | 39715/432 | 3800 | 3500 | 6000 | 0.49 | 13.0 | 8.7 | 27 |
| 65 | 202 | 246 | 1.5 | 1.7 | C303_0920 EZ401U | 350 | 590 | 91.93 | 39715/432 | 3800 | 3500 | 6000 | 1.0 | 13.0 | 8.7 | 28 |
| 66 | 295 | 382 | 2.1 | 1.2 | C303_0910 EZ501U | 350 | 700 | 90.76 | 4901/54 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 29 |
| 74 | 117 | 131 | 1.0 | 2.5 | C303_0810 EZ302U | 389 | 522 | 81.47 | 1222/15 | 3800 | 3500 | 6000 | 0.38 | 13.0 | 8.7 | 26 |
| 74 | 153 | 175 | 1.4 | 1.9 | C303_0810 EZ303U | 400 | 522 | 81.47 | 1222/15 | 3800 | 3500 | 6000 | 0.49 | 13.0 | 8.7 | 27 |
| 74 | 179 | 218 | 1.6 | 1.7 | C303_0810 EZ401U | 400 | 522 | 81.47 | 1222/15 | 3800 | 3500 | 6000 | 1.0 | 13.0 | 8.7 | 28 |
| 75 | 261 | 338 | 2.0 | 1.3 | C303_0800 EZ501U | 400 | 700 | 80.43 | 6032/75 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 29 |
| 86 | 230 | 298 | 1.9 | 1.5 | C302_0700 EZ501U | 350 | 700 | 69.88 | 559/8 | 3800 | 3500 | 6000 | 3.0 | 13.0 | 8.7 | 25 |
| 97 | 204 | 264 | 1.9 | 1.6 | C302_0620 EZ501U | 397 | 662 | 61.92 | 1548/25 | 3800 | 3500 | 6000 | 3.0 | 13.0 | 8.7 | 25 |
| 97 | 312 | 468 | 2.9 | 1.1 | C302_0620 EZ502U | 397 | 662 | 61.92 | 1548/25 | 3800 | 3500 | 6000 | 5.3 | 13.0 | 8.7 | 27 |
| 97 | 312 | 474 | 2.9 | 1.1 | C302_0620 EZ701U | 397 | 662 | 61.92 | 1548/25 | 3800 | 3500 | 6000 | 8.6 | 13.0 | 8.7 | 28 |
| 107 | 185 | 240 | 1.7 | 1.9 | C302_0560 EZ501U | 350 | 700 | 56.14 | 1235/22 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | | |
| 107 | 283 | 425 | 2.6 | 1.2 | C302_0560 EZ502U | 350 | 700 | 56.14 | 1235/22 | 3800 | 3500 | 6000 | 5.4 | 13.0 | 8.7 | 27 |
| 107 | 283 | 430 | 2.6 | 1.2 | C302_0560 EZ701U | 350 | 700 | 56.14 | 1235/22 | 3800 | 3500 | 6000 | 8.7 | 13.0 | 8.7 | 28 |
| 107 | 338 | 577 | 3.1 | 1.0 | C302_0560 EZ503U | 350 | 700 | 56.14 | 1235/22 | 3800 | 3500 | 6000 | 7.8 | 13.0 | 8.7 | 28 |
| 121 | 164 | 212 | 1.6 | 2.1 | C302_0500 EZ501U | 400 | 700 | 49.75 | 2736/55 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |
| 121 | 251 | 376 | 2.4 | 1.4 | C302_0500 EZ502U | 400 | 700 | 49.75 | 2736/55 | 3800 | 3500 | 6000 | 5.4 | 13.0 | 8.7 | 27 |
| 121 | 251 | 381 | 2.4 | 1.4 | C302_0500 EZ701U | 400 | 700 | 49.75 | 2736/55 | 3800 | 3500 | 6000 | 8.7 | 13.0 | 8.7 | 28 |
| 121 | 299 | 511 | 2.9 | 1.2 | C302_0500 EZ503U | 400 | 700 | 49.75 | 2736/55 | 3800 | 3500 | 6000 | 7.8 | 13.0 | 8.7 | 28 |
| 129 | 154 | 199 | 1.5 | 2.3 | C302_0470 EZ501U | 350 | 700 | 46.67 | 140/3 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |
| 129 | 235 | 353 | 2.4 | 1.5 | C302_0470 EZ502U | 350 | 700 | 46.67 | 140/3 | 3800 | 3500 | 6000 | 5.4 | 13.0 | 8.7 | 27 |
| 129 | 235 | 358 | 2.4 | 1.5 | C302_0470 EZ701U | 350 | 700 | 46.67 | 140/3 | 3800 | 3500 | 6000 | 8.7 | 13.0 | 8.7 | 28 |
| 129 | 281 | 480 | 2.8 | 1.2 | C302_0470 EZ503U | 350 | 700 | 46.67 | 140/3 | 3800 | 3500 | 6000 | 7.8 | 13.0 | 8.7 | 28 |
| 145 | 136 | 176 | 1.5 | 2.6 | C302_0410 EZ501U | 400 | 700 | 41.35 | 2688/65 | 3800 | 3500 | 6000 | 3.1 | 13.0 | 8.7 | 25 |
| 145 | 209 | 313 | 2.2 | 1.7 | C302_0410 EZ502U | 400 | 700 | 41.35 | 2688/65 | 3800 | 3500 | 6000 | 5.4 | 13.0 | 8.7 | 27 |
| 145 | 209 | 317 | 2.2 | 1.7 | C302_0410 EZ701U | 400 | 700 | 41.35 | 2688/65 | 3800 | 3500 | 6000 | 8.7 | 13.0 | 8.7 | 28 |
| 145 | 249 | 425 | 2.7 | 1.4 | C302_0410 EZ503U | 400 | 700 | 41.35 | 2688/65 | 3800 | 3500 | 6000 | 7.8 | 13.0 | 8.7 | 28 |
| 171 | 116 | 150 | 1.4 | 3.0 | C302_0350 EZ501U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 3.3 | 13.0 | 8.7 | 25 |
| 171 | 177 | 265 | 2.1 | 1.9 | C302_0350 EZ502U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 5.6 | 13.0 | 8.7 | 27 |
| 171 | 177 | 268 | 2.1 | 1.9 | C302_0350 EZ701U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 8.9 | 13.0 | 8.7 | 28 |
| 171 | 211 | 360 | 2.5 | 1.6 | C302_0350 EZ503U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 8.0 | 13.0 | 8.7 | 28 |
| 171 | 245 | 486 | 2.9 | 1.4 | C302_0350 EZ702U | 350 | 700 | 35.03 | 1261/36 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 193 | 102 | 132 | 1.3 | 3.2 | C302_0310 EZ501U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 3.3 | 13.0 | 8.7 | 25 |
| 193 | 157 | 235 | 2.1 | 2.1 | C302_0310 EZ502U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 5.6 | 13.0 | 8.7 | 27 |
| 193 | 157 | 238 | 2.1 | 2.1 | C302_0310 EZ701U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 8.9 | 13.0 | 8.7 | 28 |
| 193 | 187 | 319 | 2.4 | 1.8 | C302_0310 EZ503U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 8.0 | 13.0 | 8.7 | 28 |
| 193 | 217 | 431 | 2.8 | 1.5 | C302_0310 EZ702U | 400 | 700 | 31.04 | 776/25 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 214 | 92 | 119 | 1.3 | 3.4 | C302_0280 EZ501U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 3.4 | 13.0 | 8.7 | 25 |
| 214 | 141 | 212 | 2.0 | 2.2 | C302_0280 EZ502U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 5.7 | 13.0 | 8.7 | 27 |
| 214 | 141 | 214 | 2.0 | 2.2 | C302_0280 EZ701U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 9.0 | 13.0 | 8.7 | 28 |
| 214 | 168 | 288 | 2.4 | 1.9 | C302_0280 EZ503U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 8.1 | 13.0 | 8.7 | 28 |
| 214 | 195 | 388 | 2.8 | 1.6 | C302_0280 EZ702U | 350 | 700 | 27.99 | 2015/72 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 242 | 82 | 106 | 1.3 | 3.7 | C302_0250 EZ501U | 385 | 666 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 3.4 | 13.0 | 8.7 | 25 |
| 242 | 125 | 188 | 2.0 | 2.4 | C302_0250 EZ502U | 400 | 666 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 5.7 | 13.0 | 8.7 | 27 |
| 242 | 125 | 190 | 2.0 | 2.4 | C302_0250 EZ701U | 400 | 700 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 9.0 | 13.0 | 8.7 | 28 |
| 242 | 149 | 255 | 2.4 | 2.0 | C302_0250 EZ503U | 400 | 666 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 8.1 | 13.0 | 8.7 | 28 |
| 242 | 173 | 344 | 2.7 | 1.8 | C302_0250 EZ702U | 400 | 700 | 24.80 | 124/5 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 256 | 77 | 100 | 1.3 | 3.9 | C302_0230 EZ501U | 350 | 683 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 3.6 | 13.0 | 8.7 | 25 |
| 256 | 118 | 178 | 2.0 | 2.5 | C302_0230 EZ502U | 350 | 683 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 5.9 | 13.0 | 8.7 | 27 |
| 256 | 118 | 180 | 2.0 | 2.5 | C302_0230 EZ701U | 350 | 700 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 9.2 | 13.0 | 8.7 | 28 |
| 256 | 141 | 241 | 2.3 | 2.1 | C302_0230 EZ503U | 350 | 683 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 8.3 | 13.0 | 8.7 | 28 |
| 256 | 164 | 326 | 2.7 | 1.8 | C302_0230 EZ702U | 350 | 700 | 23.47 | 845/36 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 288 | 69 | 89 | 1.3 | 4.2 | C302_0210 EZ501U | 323 | 605 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 3.6 | 13.0 | 8.7 | 25 |
| 288 | 105 | 157 | 1.9 | 2.7 | C302_0210 EZ502U | 400 | 605 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 5.9 | 13.0 | 8.7 | 27 |
| 288 | 105 | 159 | 1.9 | 2.7 | C302_0210 EZ701U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 9.2 | 13.0 | 8.7 | 28 |
| 288 | 125 | 214 | 2.3 | 2.3 | C302_0210 EZ503U | 400 | 605 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 8.3 | 13.0 | 8.7 | 28 |
| 288 | 145 | 289 | 2.7 | 2.0 | C302_0210 EZ702U | 400 | 700 | 20.80 | 104/5 | 3800 | 3500 | 6000 | 14 | 13.0 | 8.7 | 31 |
| 765 | 40 | 59 | 2.0 | 4.4 | C302_0078 EZ502U | 183 | 228 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 6.1 | 16.0 | 7.1 | 27 |
| 765 | 40 | 60 | 2.0 | 4.4 | C302_0078 EZ701U | 152 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 9.4 | 16.0 | 7.1 | 28 |
| 765 | 47 | 81 | 2.3 | 3.6 | C302_0078 EZ503U | 183 | 228 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 8.5 | 16.0 | 7.1 | 28 |
| 765 | 55 | 109 | 2.7 | 3.1 | C302_0078 EZ702U | 312 | 469 | 7.841 | 494/63 | 3800 | 3500 | 6000 | 15 | 16.0 | 7.1 | 31 |
| **C4 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | |
| 143 | 529 | 594 | 6.7 | 1.0 | C402_0140 EZ813U | 550 | 1100 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 108 | 12.0 | 22 | 66 |
| 160 | 473 | 531 | 6.3 | 1.2 | C402_0125 EZ813U | 600 | 1100 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 108 | 12.0 | 22 | 66 |
| 172 | 440 | 494 | 6.1 | 1.3 | C402_0115 EZ813U | 550 | 1100 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 109 | 12.0 | 22 | 66 |
| 192 | 394 | 442 | 5.8 | 1.4 | C402_0105 EZ813U | 600 | 1100 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 109 | 12.0 | 22 | 66 |
| 216 | 350 | 393 | 5.6 | 1.5 | C402_0093 EZ813U | 550 | 1100 | 9.261 | 3445/372 | 2900 | 2500 | 4500 | 110 | 12.0 | 22 | 66 |
| 216 | 519 | 618 | 8.3 | 1.0 | C402_0093 EZ815U | 550 | 1100 | 9.261 | 3445/372 | 2900 | 2500 | 4500 | 173 | 12.0 | 22 | 79 |
| 241 | 313 | 351 | 5.5 | 1.6 | C402_0083 EZ813U | 600 | 1100 | 8.285 | 3339/403 | 2900 | 2500 | 4500 | 110 | 12.0 | 22 | 66 |
| 241 | 464 | 553 | 8.2 | 1.1 | C402_0083 EZ815U | 600 | 1100 | 8.285 | 3339/403 | 2900 | 2500 | 4500 | 173 | 12.0 | 22 | 79 |
| 256 | 296 | 332 | 7.6 | 1.2 | C402_0078 EZ813U | 550 | 850 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 107 | 15.0 | 17 | 66 |
| 340 | 223 | 250 | 7.3 | 1.5 | C402_0059 EZ813U | 542 | 850 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 108 | 15.0 | 17 | 66 |
| 427 | 177 | 199 | 7.0 | 1.7 | C402_0047 EZ813U | 502 | 800 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 109 | 15.0 | 17 | 66 |
| 427 | 262 | 312 | 10 | 1.2 | C402_0047 EZ815U | 502 | 800 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 172 | 15.0 | 17 | 79 |
| 514 | 147 | 165 | 6.8 | 1.9 | C402_0039 EZ813U | 472 | 713 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 110 | 15.0 | 17 | 66 |
| 514 | 218 | 260 | 10 | 1.3 | C402_0039 EZ815U | 472 | 713 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 173 | 15.0 | 17 | 79 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **C4 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | |
| 645 | 117 | 131 | 6.5 | 2.3 | C402_0031 EZ813U | 421 | 599 | 3.099 | 1537/496 | 2900 | 2500 | 4500 | 113 | 15.0 | 17 | 66 |
| 645 | 174 | 207 | 9.7 | 1.5 | C402_0031 EZ815U | 437 | 599 | 3.099 | 1537/496 | 2900 | 2500 | 4500 | 176 | 15.0 | 17 | 79 |
| 814 | 93 | 104 | 6.3 | 2.6 | C402_0025 EZ813U | 334 | 477 | 2.456 | 609/248 | 2500 | 2100 | 3500 | 117 | 15.0 | 17 | 66 |
| 814 | 138 | 164 | 9.3 | 1.8 | C402_0025 EZ815U | 381 | 477 | 2.456 | 609/248 | 2500 | 2100 | 3500 | 180 | 15.0 | 17 | 79 |
| 1016 | 74 | 83 | 6.1 | 3.1 | C402_0020 EZ813U | 267 | 382 | 1.968 | 551/280 | 2500 | 2100 | 3500 | 121 | 15.0 | 17 | 66 |
| 1016 | 110 | 131 | 9.0 | 2.1 | C402_0020 EZ815U | 306 | 382 | 1.968 | 551/280 | 2500 | 2100 | 3500 | 185 | 15.0 | 17 | 79 |
| **C4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | |
| 28 | 443 | 484 | 2.0 | 1.2 | C403_1080 EZ501U | 550 | 1100 | 107.7 | 754/7 | 3500 | 3200 | 5500 | 3.2 | 12.0 | 22 | 40 |
| 33 | 371 | 406 | 1.8 | 1.5 | C403_0900 EZ501U | 550 | 1100 | 90.32 | 8671/96 | 3500 | 3200 | 5500 | 3.2 | 12.0 | 22 | 40 |
| 37 | 332 | 363 | 1.7 | 1.7 | C403_0810 EZ501U | 600 | 1100 | 80.81 | 42021/520 | 3500 | 3200 | 5500 | 3.2 | 12.0 | 22 | 40 |
| 43 | 291 | 319 | 1.6 | 1.9 | C402_0700 EZ501U | 550 | 1022 | 69.88 | 559/8 | 3500 | 3200 | 5500 | 3.2 | 12.0 | 22 | 35 |
| 43 | 502 | 542 | 2.8 | 1.1 | C402_0700 EZ502U | 550 | 1022 | 69.88 | 559/8 | 3500 | 3200 | 5500 | 5.5 | 12.0 | 22 | 37 |
| 43 | 502 | 563 | 2.8 | 1.1 | C402_0700 EZ701U | 550 | 1022 | 69.88 | 559/8 | 3500 | 3200 | 5500 | 8.8 | 12.0 | 22 | 39 |
| 48 | 261 | 285 | 1.7 | 1.9 | C402_0630 EZ501U | 600 | 914 | 62.52 | 8127/130 | 3500 | 3200 | 5500 | 3.2 | 12.0 | 22 | 35 |
| 48 | 449 | 485 | 2.9 | 1.1 | C402_0630 EZ502U | 600 | 914 | 62.52 | 8127/130 | 3500 | 3200 | 5500 | 5.5 | 12.0 | 22 | 37 |
| 48 | 449 | 503 | 2.9 | 1.1 | C402_0630 EZ701U | 600 | 914 | 62.52 | 8127/130 | 3500 | 3200 | 5500 | 8.8 | 12.0 | 22 | 39 |
| 53 | 234 | 256 | 1.5 | 2.4 | C402_0560 EZ501U | 550 | 1025 | 56.10 | 9425/168 | 3500 | 3200 | 5500 | 3.3 | 12.0 | 22 | 35 |
| 53 | 403 | 435 | 2.5 | 1.4 | C402_0560 EZ502U | 550 | 1025 | 56.10 | 9425/168 | 3500 | 3200 | 5500 | 5.6 | 12.0 | 22 | 37 |
| 53 | 403 | 452 | 2.5 | 1.4 | C402_0560 EZ701U | 550 | 1025 | 56.10 | 9425/168 | 3500 | 3200 | 5500 | 8.9 | 12.0 | 22 | 39 |
| 53 | 528 | 604 | 3.3 | 1.0 | C402_0560 EZ503U | 550 | 1025 | 56.10 | 9425/168 | 3500 | 3200 | 5500 | 8.0 | 12.0 | 22 | 38 |
| 60 | 209 | 229 | 1.4 | 2.6 | C402_0500 EZ501U | 600 | 917 | 50.19 | 1305/26 | 3500 | 3200 | 5500 | 3.3 | 12.0 | 22 | 35 |
| 60 | 360 | 389 | 2.4 | 1.5 | C402_0500 EZ502U | 600 | 917 | 50.19 | 1305/26 | 3500 | 3200 | 5500 | 5.6 | 12.0 | 22 | 37 |
| 60 | 360 | 404 | 2.4 | 1.5 | C402_0500 EZ701U | 600 | 917 | 50.19 | 1305/26 | 3500 | 3200 | 5500 | 8.9 | 12.0 | 22 | 39 |
| 60 | 472 | 540 | 3.2 | 1.2 | C402_0500 EZ503U | 600 | 917 | 50.19 | 1305/26 | 3500 | 3200 | 5500 | 8.0 | 12.0 | 22 | 38 |
| 64 | 195 | 213 | 1.3 | 2.8 | C402_0470 EZ501U | 550 | 934 | 46.67 | 140/3 | 3500 | 3200 | 5500 | 3.4 | 12.0 | 22 | 35 |
| 64 | 335 | 362 | 2.3 | 1.6 | C402_0470 EZ502U | 550 | 934 | 46.67 | 140/3 | 3500 | 3200 | 5500 | 5.7 | 12.0 | 22 | 37 |
| 64 | 335 | 376 | 2.3 | 1.6 | C402_0470 EZ701U | 550 | 1100 | 46.67 | 140/3 | 3500 | 3200 | 5500 | 9.0 | 12.0 | 22 | 39 |
| 64 | 439 | 502 | 3.0 | 1.3 | C402_0470 EZ503U | 550 | 934 | 46.67 | 140/3 | 3500 | 3200 | 5500 | 8.1 | 12.0 | 22 | 38 |
| 64 | 543 | 652 | 3.8 | 1.0 | C402_0470 EZ702U | 550 | 1100 | 46.67 | 140/3 | 3500 | 3200 | 5500 | 14 | 12.0 | 22 | 41 |
| 72 | 174 | 190 | 1.3 | 3.2 | C402_0420 EZ501U | 600 | 835 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 3.5 | 12.0 | 22 | 35 |
| 72 | 300 | 324 | 2.2 | 1.8 | C402_0420 EZ502U | 600 | 835 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 5.8 | 12.0 | 22 | 37 |
| 72 | 300 | 336 | 2.2 | 1.8 | C402_0420 EZ701U | 600 | 1100 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 9.1 | 12.0 | 22 | 39 |
| 72 | 393 | 450 | 2.9 | 1.4 | C402_0420 EZ503U | 600 | 835 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 8.1 | 12.0 | 22 | 38 |
| 72 | 486 | 583 | 3.6 | 1.1 | C402_0420 EZ702U | 600 | 1100 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 14 | 12.0 | 22 | 41 |
| 72 | 547 | 648 | 4.0 | 1.0 | C402_0420 EZ505U | 600 | 1100 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 86 | 145 | 159 | 1.2 | 3.8 | C402_0350 EZ501U | 540 | 794 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 3.8 | 12.0 | 22 | 35 |
| 86 | 250 | 270 | 2.0 | 2.2 | C402_0350 EZ502U | 550 | 794 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 6.1 | 12.0 | 22 | 37 |
| 86 | 250 | 280 | 2.0 | 2.2 | C402_0350 EZ701U | 550 | 1100 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 9.4 | 12.0 | 22 | 39 |
| 86 | 328 | 375 | 2.6 | 1.7 | C402_0350 EZ503U | 550 | 794 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 8.5 | 12.0 | 22 | 38 |
| 86 | 405 | 486 | 3.2 | 1.4 | C402_0350 EZ702U | 550 | 1100 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 15 | 12.0 | 22 | 41 |
| 86 | 456 | 540 | 3.7 | 1.2 | C402_0350 EZ505U | 550 | 1100 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 96 | 130 | 142 | 1.1 | 4.2 | C402_0310 EZ501U | 484 | 711 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 3.8 | 12.0 | 22 | 35 |
| 96 | 224 | 242 | 1.9 | 2.5 | C402_0310 EZ502U | 568 | 711 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 6.1 | 12.0 | 22 | 37 |
| 96 | 224 | 251 | 1.9 | 2.5 | C402_0310 EZ701U | 600 | 1100 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 9.4 | 12.0 | 22 | 39 |
| 96 | 293 | 335 | 2.5 | 1.9 | C402_0310 EZ503U | 568 | 711 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 8.5 | 12.0 | 22 | 38 |
| 96 | 363 | 435 | 3.1 | 1.5 | C402_0310 EZ702U | 600 | 1100 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 15 | 12.0 | 22 | 41 |
| 96 | 408 | 484 | 3.5 | 1.3 | C402_0310 EZ505U | 600 | 1100 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 96 | 499 | 629 | 4.2 | 1.1 | C402_0310 EZ703U | 600 | 1100 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 108 | 200 | 224 | 1.8 | 2.8 | C402_0280 EZ701U | 540 | 1100 | 27.86 | 195/7 | 3500 | 3200 | 5500 | 9.8 | 12.0 | 22 | 39 |
| 108 | 324 | 389 | 2.9 | 1.7 | C402_0280 EZ702U | 550 | 1100 | 27.86 | 195/7 | 3500 | 3200 | 5500 | 15 | 12.0 | 22 | 41 |
| 108 | 365 | 432 | 3.3 | 1.5 | C402_0280 EZ505U | 550 | 1100 | 27.86 | 195/7 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 108 | 446 | 562 | 4.0 | 1.2 | C402_0280 EZ703U | 550 | 1100 | 27.86 | 195/7 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 120 | 179 | 201 | 1.7 | 3.1 | C402_0250 EZ701U | 484 | 1100 | 24.92 | 324/13 | 3500 | 3200 | 5500 | 9.8 | 12.0 | 22 | 39 |
| 120 | 290 | 348 | 2.7 | 1.9 | C402_0250 EZ702U | 600 | 1100 | 24.92 | 324/13 | 3500 | 3200 | 5500 | 15 | 12.0 | 22 | 41 |
| 120 | 326 | 387 | 3.1 | 1.7 | C402_0250 EZ505U | 600 | 1100 | 24.92 | 324/13 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 120 | 399 | 503 | 3.8 | 1.4 | C402_0250 EZ703U | 600 | 1100 | 24.92 | 324/13 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 128 | 168 | 188 | 1.6 | 3.3 | C402_0230 EZ701U | 453 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 10 | 12.0 | 22 | 39 |
| 128 | 272 | 326 | 2.7 | 2.0 | C402_0230 EZ702U | 550 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 15 | 12.0 | 22 | 41 |
| 128 | 306 | 363 | 3.0 | 1.8 | C402_0230 EZ505U | 550 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 14 | 12.0 | 22 | 41 |
| 128 | 374 | 471 | 3.7 | 1.5 | C402_0230 EZ703U | 550 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 128 | 483 | 684 | 4.7 | 1.1 | C402_0230 EZ705U | 550 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 36 | 12.0 | 22 | 49 |
| 144 | 150 | 168 | 1.6 | 3.7 | C402_0210 EZ701U | 405 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 10 | 12.0 | 22 | 39 |
| 144 | 243 | 292 | 2.5 | 2.3 | C402_0210 EZ702U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 15 | 12.0 | 22 | 41 |
| 144 | 274 | 324 | 2.8 | 2.0 | C402_0210 EZ505U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 14 | 12.0 | 22 | 41 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | |
| 144 | 334 | 422 | 3.5 | 1.6 | C402_0210 EZ703U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 144 | 432 | 612 | 4.5 | 1.3 | C402_0210 EZ705U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 36 | 12.0 | 22 | 49 |
| 170 | 126 | 142 | 1.4 | 4.4 | C402_0175 EZ701U | 342 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 11 | 12.0 | 22 | 39 |
| 170 | 205 | 246 | 2.3 | 2.7 | C402_0175 EZ702U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 16 | 12.0 | 22 | 41 |
| 170 | 231 | 273 | 2.6 | 2.4 | C402_0175 EZ505U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 15 | 12.0 | 22 | 41 |
| 170 | 282 | 355 | 3.2 | 2.0 | C402_0175 EZ703U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 24 | 12.0 | 22 | 43 |
| 170 | 364 | 516 | 4.1 | 1.5 | C402_0175 EZ705U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 36 | 12.0 | 22 | 49 |
| 190 | 113 | 127 | 1.3 | 4.9 | C402_0160 EZ701U | 306 | 1065 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 11 | 12.0 | 22 | 39 |
| 190 | 183 | 220 | 2.2 | 3.0 | C402_0160 EZ702U | 600 | 1065 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 16 | 12.0 | 22 | 41 |
| 190 | 206 | 244 | 2.5 | 2.7 | C402_0160 EZ505U | 600 | 1065 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 15 | 12.0 | 22 | 41 |
| 190 | 252 | 318 | 3.0 | 2.2 | C402_0160 EZ703U | 600 | 1065 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 24 | 12.0 | 22 | 43 |
| 190 | 325 | 461 | 3.9 | 1.7 | C402_0160 EZ705U | 600 | 1100 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 37 | 12.0 | 22 | 49 |
| 214 | 163 | 195 | 2.1 | 3.3 | C402_0140 EZ702U | 550 | 1018 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 17 | 12.0 | 22 | 41 |
| 214 | 183 | 217 | 2.4 | 2.9 | C402_0140 EZ505U | 550 | 1018 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 16 | 12.0 | 22 | 41 |
| 214 | 224 | 282 | 2.9 | 2.4 | C402_0140 EZ703U | 550 | 1018 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 25 | 12.0 | 22 | 43 |
| 214 | 289 | 410 | 3.8 | 1.8 | C402_0140 EZ705U | 550 | 1100 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 37 | 12.0 | 22 | 49 |
| 240 | 146 | 175 | 2.1 | 3.5 | C402_0125 EZ702U | 498 | 911 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 17 | 12.0 | 22 | 41 |
| 240 | 164 | 194 | 2.3 | 3.1 | C402_0125 EZ505U | 600 | 911 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 16 | 12.0 | 22 | 41 |
| 240 | 200 | 253 | 2.9 | 2.6 | C402_0125 EZ703U | 600 | 911 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 25 | 12.0 | 22 | 43 |
| 240 | 259 | 367 | 3.7 | 2.0 | C402_0125 EZ705U | 600 | 1100 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 37 | 12.0 | 22 | 49 |
| 258 | 135 | 163 | 2.1 | 3.7 | C402_0115 EZ702U | 463 | 847 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 18 | 12.0 | 22 | 41 |
| 258 | 152 | 181 | 2.3 | 3.3 | C402_0115 EZ505U | 550 | 847 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 16 | 12.0 | 22 | 41 |
| 258 | 186 | 235 | 2.8 | 2.7 | C402_0115 EZ703U | 550 | 847 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 26 | 12.0 | 22 | 43 |
| 258 | 240 | 341 | 3.7 | 2.1 | C402_0115 EZ705U | 550 | 1100 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 38 | 12.0 | 22 | 49 |
| 288 | 121 | 145 | 2.0 | 4.0 | C402_0105 EZ702U | 414 | 757 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 18 | 12.0 | 22 | 41 |
| 288 | 136 | 162 | 2.3 | 3.5 | C402_0105 EZ505U | 600 | 757 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 17 | 12.0 | 22 | 41 |
| 288 | 167 | 210 | 2.8 | 2.9 | C402_0105 EZ703U | 600 | 757 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 26 | 12.0 | 22 | 43 |
| 288 | 215 | 305 | 3.6 | 2.2 | C402_0105 EZ705U | 600 | 1100 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 38 | 12.0 | 22 | 49 |
| 324 | 191 | 271 | 3.5 | 2.4 | C402_0093 EZ705U | 550 | 1100 | 9.261 | 3445/372 | 2900 | 2500 | 4500 | 40 | 12.0 | 22 | 49 |
| 362 | 171 | 243 | 3.5 | 2.6 | C402_0083 EZ705U | 600 | 1100 | 8.285 | 3339/403 | 2900 | 2500 | 4500 | 40 | 12.0 | 22 | 49 |
| 384 | 91 | 109 | 2.7 | 3.5 | C402_0078 EZ702U | 311 | 450 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 16 | 15.0 | 17 | 41 |
| 384 | 102 | 121 | 3.0 | 3.1 | C402_0078 EZ505U | 360 | 450 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 14 | 15.0 | 17 | 41 |
| 384 | 125 | 158 | 3.7 | 2.5 | C402_0078 EZ703U | 360 | 450 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 24 | 15.0 | 17 | 43 |
| 384 | 161 | 229 | 4.8 | 2.0 | C402_0078 EZ705U | 550 | 850 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 36 | 15.0 | 17 | 49 |
| 509 | 69 | 82 | 2.6 | 4.2 | C402_0059 EZ702U | 234 | 399 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 17 | 15.0 | 17 | 41 |
| 509 | 77 | 91 | 2.9 | 3.7 | C402_0059 EZ505U | 319 | 399 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 15 | 15.0 | 17 | 41 |
| 509 | 94 | 119 | 3.5 | 3.0 | C402_0059 EZ703U | 319 | 399 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 25 | 15.0 | 17 | 43 |
| 509 | 122 | 173 | 4.5 | 2.4 | C402_0059 EZ705U | 542 | 850 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 37 | 15.0 | 17 | 49 |
| 641 | 54 | 65 | 2.5 | 4.9 | C402_0047 EZ702U | 186 | 341 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 18 | 15.0 | 17 | 41 |
| 641 | 61 | 73 | 2.8 | 4.3 | C402_0047 EZ505U | 273 | 341 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 17 | 15.0 | 17 | 41 |
| 641 | 75 | 94 | 3.4 | 3.5 | C402_0047 EZ703U | 273 | 341 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 26 | 15.0 | 17 | 43 |
| 641 | 97 | 137 | 4.4 | 2.7 | C402_0047 EZ705U | 472 | 800 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 39 | 15.0 | 17 | 49 |
| 770 | 51 | 60 | 3.0 | 4.4 | C402_0039 EZ505U | 227 | 283 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 18 | 15.0 | 17 | 41 |
| 770 | 62 | 79 | 3.6 | 3.6 | C402_0039 EZ703U | 227 | 283 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 28 | 15.0 | 17 | 43 |
| 770 | 80 | 114 | 4.2 | 3.1 | C402_0039 EZ705U | 393 | 713 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 40 | 15.0 | 17 | 49 |
| 968 | 64 | 91 | 4.1 | 3.6 | C402_0031 EZ705U | 313 | 599 | 3.099 | 1537/496 | 2900 | 2500 | 4500 | 42 | 15.0 | 17 | 49 |
| 1221 | 51 | 72 | 3.9 | 4.2 | C402_0025 EZ705U | 248 | 477 | 2.456 | 609/248 | 2500 | 2100 | 3500 | 46 | 15.0 | 17 | 49 |
| 1524 | 41 | 58 | 3.8 | 4.9 | C402_0020 EZ705U | 199 | 382 | 1.968 | 551/280 | 2500 | 2100 | 3500 | 51 | 15.0 | 17 | 49 |
| **C4 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | |
| 191 | 511 | 886 | 5.3 | 1.1 | C402_0210 EZ813U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 106 | 12.0 | 22 | 66 |
| 191 | 529 | 1361 | 5.5 | 1.0 | C402_0210 EZ815U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 169 | 12.0 | 22 | 79 |
| 227 | 430 | 746 | 5.1 | 1.2 | C402_0175 EZ813U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 107 | 12.0 | 22 | 66 |
| 227 | 446 | 1146 | 5.3 | 1.2 | C402_0175 EZ815U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 170 | 12.0 | 22 | 79 |
| 254 | 385 | 668 | 5.0 | 1.3 | C402_0160 EZ813U | 600 | 1100 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 107 | 12.0 | 22 | 66 |
| 254 | 399 | 1026 | 5.2 | 1.3 | C402_0160 EZ815U | 600 | 1100 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 170 | 12.0 | 22 | 79 |
| 286 | 342 | 593 | 4.9 | 1.4 | C402_0140 EZ813U | 550 | 1100 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 108 | 12.0 | 22 | 66 |
| 286 | 354 | 911 | 5.1 | 1.4 | C402_0140 EZ815U | 550 | 1100 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 171 | 12.0 | 22 | 79 |
| 320 | 306 | 531 | 4.8 | 1.5 | C402_0125 EZ813U | 600 | 1100 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 108 | 12.0 | 22 | 66 |
| 320 | 317 | 815 | 5.0 | 1.5 | C402_0125 EZ815U | 600 | 1100 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 171 | 12.0 | 22 | 79 |
| 344 | 284 | 493 | 4.8 | 1.6 | C402_0115 EZ813U | 550 | 1100 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 109 | 12.0 | 22 | 66 |
| 344 | 295 | 758 | 4.9 | 1.5 | C402_0115 EZ815U | 550 | 1100 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 172 | 12.0 | 22 | 79 |
| 384 | 254 | 441 | 4.7 | 1.7 | C402_0105 EZ813U | 600 | 1100 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 109 | 12.0 | 22 | 66 |
| 384 | 264 | 678 | 4.8 | 1.7 | C402_0105 EZ815U | 600 | 1100 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 172 | 12.0 | 22 | 79 |
| 432 | 226 | 393 | 4.6 | 1.9 | C402_0093 EZ813U | 550 | 1100 | 9.261 | 3445/372 | 2900 | 2500 | 4500 | 110 | 12.0 | 22 | 66 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C4 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | |
| 432 | 235 | 603 | 4.8 | 1.8 | C402_0093 EZ815U | 550 | 1100 | 9.261 | 3445/372 | 2900 | 2500 | 4500 | 173 | 12.0 | 22 | 79 |
| 483 | 203 | 351 | 4.5 | 2.0 | C402_0083 EZ813U | 600 | 1100 | 8.285 | 3339/403 | 2900 | 2500 | 4500 | 110 | 12.0 | 22 | 66 |
| 483 | 210 | 540 | 4.7 | 1.9 | C402_0083 EZ815U | 600 | 1100 | 8.285 | 3339/403 | 2900 | 2500 | 4500 | 173 | 12.0 | 22 | 79 |
| 512 | 191 | 331 | 6.2 | 1.5 | C402_0078 EZ813U | 550 | 850 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 107 | 15.0 | 17 | 66 |
| 512 | 198 | 509 | 6.4 | 1.4 | C402_0078 EZ815U | 550 | 850 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 170 | 15.0 | 17 | 79 |
| 679 | 144 | 250 | 5.9 | 1.8 | C402_0059 EZ813U | 542 | 850 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 108 | 15.0 | 17 | 66 |
| 679 | 149 | 384 | 6.1 | 1.7 | C402_0059 EZ815U | 542 | 850 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 171 | 15.0 | 17 | 79 |
| 854 | 114 | 198 | 5.7 | 2.1 | C402_0047 EZ813U | 502 | 800 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 109 | 15.0 | 17 | 66 |
| 854 | 119 | 305 | 5.9 | 2.0 | C402_0047 EZ815U | 502 | 800 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 172 | 15.0 | 17 | 79 |
| 1027 | 95 | 165 | 5.5 | 2.4 | C402_0039 EZ813U | 472 | 713 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 110 | 15.0 | 17 | 66 |
| 1027 | 99 | 254 | 5.7 | 2.3 | C402_0039 EZ815U | 472 | 713 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 173 | 15.0 | 17 | 79 |
| 1291 | 76 | 131 | 5.3 | 2.8 | C402_0031 EZ813U | 421 | 599 | 3.099 | 1537/496 | 2900 | 2500 | 4500 | 113 | 15.0 | 17 | 66 |
| 1291 | 78 | 202 | 5.5 | 2.7 | C402_0031 EZ815U | 437 | 599 | 3.099 | 1537/496 | 2900 | 2500 | 4500 | 176 | 15.0 | 17 | 79 |
| **C4 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | |
| 96 | 430 | 693 | 3.0 | 1.3 | C402_0470 EZ505U | 550 | 1100 | 46.67 | 140/3 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 96 | 548 | 905 | 3.8 | 1.0 | C402_0470 EZ703U | 550 | 1100 | 46.67 | 140/3 | 3500 | 3200 | 5500 | 22 | 12.0 | 22 | 43 |
| 108 | 385 | 620 | 2.8 | 1.4 | C402_0420 EZ505U | 600 | 1100 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 108 | 490 | 810 | 3.6 | 1.1 | C402_0420 EZ703U | 600 | 1100 | 41.75 | 7056/169 | 3500 | 3200 | 5500 | 22 | 12.0 | 22 | 43 |
| 129 | 321 | 517 | 2.6 | 1.7 | C402_0350 EZ505U | 550 | 1100 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 129 | 409 | 676 | 3.3 | 1.3 | C402_0350 EZ703U | 550 | 1100 | 34.82 | 975/28 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 144 | 287 | 462 | 2.4 | 1.9 | C402_0310 EZ505U | 600 | 1100 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 144 | 366 | 604 | 3.1 | 1.5 | C402_0310 EZ703U | 600 | 1100 | 31.15 | 405/13 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 162 | 257 | 413 | 2.3 | 2.1 | C402_0280 EZ505U | 550 | 1100 | 27.86 | 195/7 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 162 | 327 | 540 | 2.9 | 1.7 | C402_0280 EZ703U | 550 | 1100 | 27.86 | 195/7 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 181 | 230 | 370 | 2.2 | 2.4 | C402_0250 EZ505U | 600 | 1100 | 24.92 | 324/13 | 3500 | 3200 | 5500 | 13 | 12.0 | 22 | 41 |
| 181 | 293 | 484 | 2.8 | 1.9 | C402_0250 EZ703U | 600 | 1100 | 24.92 | 324/13 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 193 | 215 | 347 | 2.1 | 2.6 | C402_0230 EZ505U | 550 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 14 | 12.0 | 22 | 41 |
| 193 | 274 | 453 | 2.7 | 2.0 | C402_0230 EZ703U | 550 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 193 | 372 | 680 | 3.6 | 1.5 | C402_0230 EZ705U | 550 | 1100 | 23.36 | 1495/64 | 3500 | 3200 | 5500 | 36 | 12.0 | 22 | 49 |
| 215 | 193 | 310 | 2.1 | 2.8 | C402_0210 EZ505U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 14 | 12.0 | 22 | 41 |
| 215 | 245 | 405 | 2.6 | 2.2 | C402_0210 EZ703U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 23 | 12.0 | 22 | 43 |
| 215 | 332 | 608 | 3.6 | 1.6 | C402_0210 EZ705U | 600 | 1100 | 20.90 | 4347/208 | 3500 | 3200 | 5500 | 36 | 12.0 | 22 | 49 |
| 256 | 162 | 261 | 2.0 | 3.1 | C402_0175 EZ505U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 15 | 12.0 | 22 | 41 |
| 256 | 207 | 342 | 2.5 | 2.4 | C402_0175 EZ703U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 24 | 12.0 | 22 | 43 |
| 256 | 280 | 512 | 3.5 | 1.8 | C402_0175 EZ705U | 550 | 1100 | 17.60 | 845/48 | 3300 | 2800 | 5000 | 36 | 12.0 | 22 | 49 |
| 286 | 145 | 234 | 2.0 | 3.3 | C402_0160 EZ505U | 600 | 1065 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 15 | 12.0 | 22 | 41 |
| 286 | 185 | 306 | 2.5 | 2.6 | C402_0160 EZ703U | 600 | 1065 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 24 | 12.0 | 22 | 43 |
| 286 | 251 | 458 | 3.4 | 1.9 | C402_0160 EZ705U | 600 | 1100 | 15.75 | 63/4 | 3300 | 2800 | 5000 | 37 | 12.0 | 22 | 49 |
| 322 | 129 | 208 | 1.9 | 3.6 | C402_0140 EZ505U | 550 | 1018 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 16 | 12.0 | 22 | 41 |
| 322 | 164 | 271 | 2.5 | 2.8 | C402_0140 EZ703U | 550 | 1018 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 25 | 12.0 | 22 | 43 |
| 322 | 223 | 407 | 3.3 | 2.1 | C402_0140 EZ705U | 550 | 1100 | 13.99 | 2015/144 | 3300 | 2800 | 5000 | 37 | 12.0 | 22 | 49 |
| 359 | 115 | 186 | 1.9 | 3.9 | C402_0125 EZ505U | 600 | 911 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 16 | 12.0 | 22 | 41 |
| 359 | 147 | 243 | 2.4 | 3.1 | C402_0125 EZ703U | 600 | 911 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 25 | 12.0 | 22 | 43 |
| 359 | 199 | 364 | 3.3 | 2.3 | C402_0125 EZ705U | 600 | 1100 | 12.52 | 651/52 | 3300 | 2800 | 5000 | 37 | 12.0 | 22 | 49 |
| 387 | 107 | 173 | 1.9 | 4.1 | C402_0115 EZ505U | 550 | 847 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 16 | 12.0 | 22 | 41 |
| 387 | 137 | 226 | 2.4 | 3.2 | C402_0115 EZ703U | 550 | 847 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 26 | 12.0 | 22 | 43 |
| 387 | 185 | 339 | 3.2 | 2.4 | C402_0115 EZ705U | 550 | 1100 | 11.64 | 1885/162 | 2900 | 2500 | 4500 | 38 | 12.0 | 22 | 49 |
| 432 | 96 | 154 | 1.8 | 4.4 | C402_0105 EZ505U | 600 | 757 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 17 | 12.0 | 22 | 41 |
| 432 | 122 | 202 | 2.3 | 3.5 | C402_0105 EZ703U | 600 | 757 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 26 | 12.0 | 22 | 43 |
| 432 | 166 | 303 | 3.2 | 2.5 | C402_0105 EZ705U | 600 | 1100 | 10.41 | 406/39 | 2900 | 2500 | 4500 | 38 | 12.0 | 22 | 49 |
| 486 | 147 | 269 | 3.1 | 2.8 | C402_0093 EZ705U | 550 | 1100 | 9.261 | 3445/372 | 2900 | 2500 | 4500 | 40 | 12.0 | 22 | 49 |
| 543 | 132 | 241 | 3.0 | 3.0 | C402_0083 EZ705U | 600 | 1100 | 8.285 | 3339/403 | 2900 | 2500 | 4500 | 40 | 12.0 | 22 | 49 |
| 576 | 72 | 116 | 2.4 | 3.8 | C402_0078 EZ505U | 360 | 450 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 14 | 15.0 | 17 | 41 |
| 576 | 92 | 152 | 3.1 | 3.0 | C402_0078 EZ703U | 360 | 450 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 24 | 15.0 | 17 | 43 |
| 576 | 124 | 227 | 4.2 | 2.2 | C402_0078 EZ705U | 550 | 850 | 7.816 | 2001/256 | 3500 | 3200 | 5500 | 36 | 15.0 | 17 | 49 |
| 764 | 54 | 87 | 2.3 | 4.6 | C402_0059 EZ505U | 319 | 399 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 15 | 15.0 | 17 | 41 |
| 764 | 69 | 114 | 3.0 | 3.6 | C402_0059 EZ703U | 319 | 399 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 25 | 15.0 | 17 | 43 |
| 764 | 94 | 171 | 4.0 | 2.7 | C402_0059 EZ705U | 542 | 850 | 5.891 | 377/64 | 3300 | 2800 | 5000 | 37 | 15.0 | 17 | 49 |
| 961 | 55 | 91 | 2.8 | 4.2 | C402_0047 EZ703U | 273 | 341 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 26 | 15.0 | 17 | 43 |
| 961 | 74 | 136 | 3.9 | 3.1 | C402_0047 EZ705U | 472 | 800 | 4.682 | 899/192 | 3300 | 2800 | 5000 | 39 | 15.0 | 17 | 49 |
| 1156 | 46 | 76 | 2.8 | 4.8 | C402_0039 EZ703U | 227 | 283 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 28 | 15.0 | 17 | 43 |
| 1156 | 62 | 113 | 3.7 | 3.5 | C402_0039 EZ705U | 393 | 713 | 3.894 | 841/216 | 2900 | 2500 | 4500 | 40 | 15.0 | 17 | 49 |
| 1452 | 49 | 90 | 3.6 | 4.1 | C402_0031 EZ705U | 313 | 599 | 3.099 | 1537/496 | 2900 | 2500 | 4500 | 42 | 15.0 | 17 | 49 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C5 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 920 Nm)** | | | | | | | | | | | | | | | | |
| 96 | 788 | 884 | 6.0 | 1.0 | C502_0210 EZ813U | 920 | 1600 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 107 | 12.0 | 23 | 78 |
| 114 | 666 | 747 | 5.6 | 1.2 | C502_0175 EZ813U | 850 | 1600 | 17.60 | 845/48 | 3100 | 2700 | 4500 | 109 | 12.0 | 23 | 78 |
| 127 | 594 | 666 | 5.2 | 1.3 | C502_0155 EZ813U | 920 | 1600 | 15.71 | 377/24 | 3100 | 2700 | 4500 | 109 | 12.0 | 23 | 78 |
| 144 | 527 | 591 | 4.9 | 1.5 | C502_0140 EZ813U | 850 | 1600 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 111 | 12.0 | 23 | 78 |
| 144 | 780 | 929 | 7.3 | 1.0 | C502_0140 EZ815U | 850 | 1600 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 174 | 12.0 | 23 | 90 |
| 161 | 470 | 527 | 4.7 | 1.7 | C502_0125 EZ813U | 920 | 1600 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 111 | 12.0 | 23 | 78 |
| 161 | 696 | 829 | 6.9 | 1.1 | C502_0125 EZ815U | 920 | 1600 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 174 | 12.0 | 23 | 90 |
| 172 | 440 | 494 | 4.5 | 1.8 | C502_0115 EZ813U | 850 | 1600 | 11.64 | 1885/162 | 2800 | 2400 | 4000 | 112 | 12.0 | 23 | 78 |
| 172 | 652 | 776 | 6.7 | 1.2 | C502_0115 EZ815U | 850 | 1600 | 11.64 | 1885/162 | 2800 | 2400 | 4000 | 175 | 12.0 | 23 | 90 |
| 193 | 393 | 440 | 4.3 | 2.0 | C502_0105 EZ813U | 920 | 1600 | 10.38 | 841/81 | 2800 | 2400 | 4000 | 113 | 12.0 | 23 | 78 |
| 193 | 582 | 693 | 6.3 | 1.4 | C502_0105 EZ815U | 920 | 1600 | 10.38 | 841/81 | 2800 | 2400 | 4000 | 176 | 12.0 | 23 | 90 |
| 216 | 350 | 393 | 4.0 | 2.3 | C502_0093 EZ813U | 850 | 1600 | 9.261 | 3445/372 | 2800 | 2400 | 4000 | 115 | 12.0 | 23 | 78 |
| 216 | 519 | 618 | 6.0 | 1.5 | C502_0093 EZ815U | 850 | 1600 | 9.261 | 3445/372 | 2800 | 2400 | 4000 | 178 | 12.0 | 23 | 90 |
| 242 | 313 | 351 | 4.0 | 2.5 | C502_0083 EZ813U | 920 | 1600 | 8.263 | 1537/186 | 2800 | 2400 | 4000 | 115 | 12.0 | 23 | 78 |
| 242 | 463 | 551 | 5.9 | 1.7 | C502_0083 EZ815U | 920 | 1600 | 8.263 | 1537/186 | 2800 | 2400 | 4000 | 178 | 12.0 | 23 | 90 |
| 258 | 294 | 329 | 5.3 | 1.9 | C502_0078 EZ813U | 800 | 1110 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 108 | 14.0 | 21 | 78 |
| 258 | 435 | 518 | 7.8 | 1.3 | C502_0078 EZ815U | 800 | 1110 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 171 | 14.0 | 21 | 90 |
| 342 | 221 | 248 | 5.0 | 2.3 | C502_0059 EZ813U | 774 | 967 | 5.850 | 117/20 | 3100 | 2700 | 4500 | 110 | 14.0 | 21 | 78 |
| 342 | 328 | 390 | 7.5 | 1.5 | C502_0059 EZ815U | 774 | 967 | 5.850 | 117/20 | 3100 | 2700 | 4500 | 173 | 14.0 | 21 | 90 |
| 432 | 175 | 196 | 4.9 | 2.7 | C502_0046 EZ813U | 629 | 881 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 113 | 14.0 | 21 | 78 |
| 432 | 259 | 309 | 7.2 | 1.8 | C502_0046 EZ815U | 704 | 881 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 176 | 14.0 | 21 | 90 |
| 517 | 146 | 164 | 4.7 | 3.0 | C502_0039 EZ813U | 525 | 750 | 3.867 | 58/15 | 2800 | 2400 | 4000 | 115 | 14.0 | 21 | 78 |
| 517 | 217 | 258 | 7.0 | 2.0 | C502_0039 EZ815U | 600 | 750 | 3.867 | 58/15 | 2800 | 2400 | 4000 | 178 | 14.0 | 21 | 90 |
| 650 | 116 | 131 | 4.5 | 3.5 | C502_0031 EZ813U | 418 | 597 | 3.077 | 477/155 | 2800 | 2400 | 4000 | 120 | 14.0 | 21 | 78 |
| 650 | 172 | 205 | 6.7 | 2.4 | C502_0031 EZ815U | 478 | 597 | 3.077 | 477/155 | 2800 | 2400 | 4000 | 183 | 14.0 | 21 | 90 |
| 1012 | 75 | 84 | 4.2 | 4.7 | C502_0020 EZ813U | 268 | 719 | 1.976 | 81/41 | 2400 | 2000 | 3200 | 134 | 14.0 | 21 | 78 |
| 1012 | 111 | 132 | 6.2 | 3.2 | C502_0020 EZ815U | 383 | 719 | 1.976 | 81/41 | 2400 | 2000 | 3200 | 197 | 14.0 | 21 | 90 |
| **C5 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 920 Nm)** | | | | | | | | | | | | | | | | |
| 17 | 743 | 812 | 1.9 | 1.1 | C503_1810 EZ501U | 850 | 1600 | 180.6 | 8671/48 | 3400 | 3000 | 5000 | 3.1 | 12.0 | 23 | 51 |
| 22 | 556 | 608 | 1.7 | 1.4 | C503_1350 EZ501U | 850 | 1600 | 135.3 | 406/3 | 3400 | 3000 | 5000 | 3.2 | 12.0 | 23 | 51 |
| 28 | 447 | 488 | 1.5 | 1.8 | C503_1090 EZ501U | 850 | 1600 | 108.6 | 31291/288 | 3400 | 3000 | 5000 | 3.2 | 12.0 | 23 | 51 |
| 28 | 769 | 831 | 2.6 | 1.0 | C503_1090 EZ502U | 850 | 1600 | 108.6 | 31291/288 | 3400 | 3000 | 5000 | 5.5 | 12.0 | 23 | 52 |
| 33 | 371 | 406 | 1.4 | 2.2 | C503_0900 EZ501U | 850 | 1491 | 90.32 | 8671/96 | 3400 | 3000 | 5000 | 3.3 | 12.0 | 23 | 51 |
| 33 | 639 | 691 | 2.4 | 1.3 | C503_0900 EZ502U | 850 | 1491 | 90.32 | 8671/96 | 3400 | 3000 | 5000 | 5.6 | 12.0 | 23 | 52 |
| 37 | 331 | 362 | 1.3 | 2.4 | C503_0810 EZ501U | 920 | 1331 | 80.60 | 19343/240 | 3400 | 3000 | 5000 | 3.3 | 12.0 | 23 | 51 |
| 37 | 570 | 616 | 2.2 | 1.4 | C503_0810 EZ502U | 920 | 1331 | 80.60 | 19343/240 | 3400 | 3000 | 5000 | 5.6 | 12.0 | 23 | 52 |
| 37 | 747 | 855 | 2.9 | 1.1 | C503_0810 EZ503U | 920 | 1331 | 80.60 | 19343/240 | 3400 | 3000 | 5000 | 8.0 | 12.0 | 23 | 54 |
| 43 | 292 | 319 | 1.2 | 2.7 | C502_0700 EZ501U | 850 | 1406 | 69.97 | 10075/144 | 3400 | 3000 | 5000 | 3.4 | 12.0 | 23 | 47 |
| 43 | 502 | 543 | 2.1 | 1.6 | C502_0700 EZ502U | 850 | 1406 | 69.97 | 10075/144 | 3400 | 3000 | 5000 | 5.7 | 12.0 | 23 | 48 |
| 43 | 502 | 563 | 2.1 | 1.6 | C502_0700 EZ701U | 850 | 1406 | 69.97 | 10075/144 | 3400 | 3000 | 5000 | 9.0 | 12.0 | 23 | 50 |
| 43 | 658 | 753 | 2.8 | 1.2 | C502_0700 EZ503U | 850 | 1406 | 69.97 | 10075/144 | 3400 | 3000 | 5000 | 8.1 | 12.0 | 23 | 50 |
| 48 | 260 | 285 | 1.3 | 2.7 | C502_0620 EZ501U | 857 | 1254 | 62.43 | 4495/72 | 3400 | 3000 | 5000 | 3.4 | 12.0 | 23 | 47 |
| 48 | 448 | 484 | 2.2 | 1.6 | C502_0620 EZ502U | 857 | 1254 | 62.43 | 4495/72 | 3400 | 3000 | 5000 | 5.7 | 12.0 | 23 | 48 |
| 48 | 448 | 503 | 2.2 | 1.6 | C502_0620 EZ701U | 857 | 1254 | 62.43 | 4495/72 | 3400 | 3000 | 5000 | 9.0 | 12.0 | 23 | 50 |
| 48 | 587 | 672 | 2.9 | 1.2 | C502_0620 EZ503U | 857 | 1254 | 62.43 | 4495/72 | 3400 | 3000 | 5000 | 8.1 | 12.0 | 23 | 50 |
| 54 | 233 | 255 | 1.1 | 3.4 | C502_0560 EZ501U | 850 | 1117 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 3.6 | 12.0 | 23 | 47 |
| 54 | 401 | 433 | 1.9 | 2.0 | C502_0560 EZ502U | 850 | 1117 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 5.9 | 12.0 | 23 | 48 |
| 54 | 401 | 450 | 1.9 | 2.0 | C502_0560 EZ701U | 850 | 1600 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 9.2 | 12.0 | 23 | 50 |
| 54 | 525 | 601 | 2.5 | 1.5 | C502_0560 EZ503U | 850 | 1117 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 8.3 | 12.0 | 23 | 50 |
| 54 | 650 | 780 | 3.0 | 1.2 | C502_0560 EZ702U | 850 | 1600 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 54 | 731 | 867 | 3.4 | 1.1 | C502_0560 EZ505U | 850 | 1600 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 60 | 208 | 227 | 1.0 | 3.8 | C502_0500 EZ501U | 773 | 997 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 3.6 | 12.0 | 23 | 47 |
| 60 | 358 | 387 | 1.8 | 2.2 | C502_0500 EZ502U | 797 | 997 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 5.9 | 12.0 | 23 | 48 |
| 60 | 358 | 401 | 1.8 | 2.2 | C502_0500 EZ701U | 920 | 1600 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 9.2 | 12.0 | 23 | 50 |
| 60 | 469 | 536 | 2.3 | 1.7 | C502_0500 EZ503U | 797 | 997 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 8.3 | 12.0 | 23 | 50 |
| 60 | 580 | 696 | 2.9 | 1.4 | C502_0500 EZ702U | 920 | 1600 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 60 | 652 | 773 | 3.2 | 1.2 | C502_0500 EZ505U | 920 | 1600 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 60 | 797 | 1005 | 4.0 | 1.0 | C502_0500 EZ703U | 920 | 1600 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 22 | 12.0 | 23 | 55 |
| 64 | 335 | 376 | 1.7 | 2.4 | C502_0470 EZ701U | 850 | 1600 | 46.72 | 1495/32 | 3400 | 3000 | 5000 | 9.5 | 12.0 | 23 | 50 |
| 64 | 544 | 653 | 2.8 | 1.5 | C502_0470 EZ702U | 850 | 1600 | 46.72 | 1495/32 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |
| 64 | 612 | 725 | 3.1 | 1.3 | C502_0470 EZ505U | 850 | 1600 | 46.72 | 1495/32 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 64 | 748 | 943 | 3.8 | 1.1 | C502_0470 EZ703U | 850 | 1600 | 46.72 | 1495/32 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 72 | 299 | 336 | 1.6 | 2.7 | C502_0420 EZ701U | 809 | 1600 | 41.69 | 667/16 | 3400 | 3000 | 5000 | 9.5 | 12.0 | 23 | 50 |
| 72 | 485 | 582 | 2.6 | 1.6 | C502_0420 EZ702U | 920 | 1600 | 41.69 | 667/16 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C5 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 920 Nm)** | | | | | | | | | | | | | | | | |
| 72 | 546 | 647 | 3.0 | 1.5 | C502_0420 EZ505U | 920 | 1600 | 41.69 | 667/16 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 72 | 667 | 841 | 3.6 | 1.2 | C502_0420 EZ703U | 920 | 1600 | 41.69 | 667/16 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 86 | 251 | 282 | 1.5 | 3.2 | C502_0350 EZ701U | 679 | 1600 | 35.00 | 35/1 | 3400 | 3000 | 5000 | 10 | 12.0 | 23 | 50 |
| 86 | 407 | 489 | 2.4 | 2.0 | C502_0350 EZ702U | 850 | 1600 | 35.00 | 35/1 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |
| 86 | 458 | 543 | 2.7 | 1.7 | C502_0350 EZ505U | 850 | 1600 | 35.00 | 35/1 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 86 | 560 | 706 | 3.3 | 1.4 | C502_0350 EZ703U | 850 | 1600 | 35.00 | 35/1 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 96 | 224 | 251 | 1.4 | 3.6 | C502_0310 EZ701U | 606 | 1524 | 31.23 | 406/13 | 3400 | 3000 | 5000 | 10 | 12.0 | 23 | 50 |
| 96 | 364 | 436 | 2.3 | 2.2 | C502_0310 EZ702U | 920 | 1524 | 31.23 | 406/13 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |
| 96 | 409 | 485 | 2.6 | 2.0 | C502_0310 EZ505U | 920 | 1524 | 31.23 | 406/13 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 96 | 500 | 630 | 3.1 | 1.6 | C502_0310 EZ703U | 920 | 1524 | 31.23 | 406/13 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 107 | 202 | 226 | 1.3 | 4.0 | C502_0280 EZ701U | 545 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 11 | 12.0 | 23 | 50 |
| 107 | 327 | 392 | 2.2 | 2.4 | C502_0280 EZ702U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 16 | 12.0 | 23 | 53 |
| 107 | 368 | 436 | 2.4 | 2.2 | C502_0280 EZ505U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 107 | 450 | 567 | 3.0 | 1.8 | C502_0280 EZ703U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 24 | 12.0 | 23 | 55 |
| 107 | 581 | 823 | 3.8 | 1.4 | C502_0280 EZ705U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 36 | 12.0 | 23 | 60 |
| 120 | 180 | 202 | 1.3 | 4.4 | C502_0250 EZ701U | 486 | 1444 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 11 | 12.0 | 23 | 50 |
| 120 | 292 | 350 | 2.0 | 2.7 | C502_0250 EZ702U | 920 | 1444 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 16 | 12.0 | 23 | 53 |
| 120 | 328 | 389 | 2.3 | 2.4 | C502_0250 EZ505U | 920 | 1444 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 120 | 401 | 506 | 2.8 | 2.0 | C502_0250 EZ703U | 920 | 1444 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 24 | 12.0 | 23 | 55 |
| 120 | 518 | 734 | 3.6 | 1.5 | C502_0250 EZ705U | 920 | 1600 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 36 | 12.0 | 23 | 60 |
| 128 | 168 | 188 | 1.2 | 4.8 | C502_0230 EZ701U | 453 | 1491 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 12 | 12.0 | 23 | 50 |
| 128 | 272 | 326 | 2.0 | 2.9 | C502_0230 EZ702U | 850 | 1491 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 17 | 12.0 | 23 | 53 |
| 128 | 306 | 363 | 2.2 | 2.6 | C502_0230 EZ505U | 850 | 1491 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |
| 128 | 374 | 471 | 2.7 | 2.1 | C502_0230 EZ703U | 850 | 1491 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 25 | 12.0 | 23 | 55 |
| 128 | 483 | 684 | 3.5 | 1.7 | C502_0230 EZ705U | 850 | 1600 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 37 | 12.0 | 23 | 60 |
| 144 | 243 | 291 | 1.9 | 3.3 | C502_0210 EZ702U | 829 | 1331 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 17 | 12.0 | 23 | 53 |
| 144 | 273 | 323 | 2.1 | 2.9 | C502_0210 EZ505U | 920 | 1331 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |
| 144 | 334 | 421 | 2.6 | 2.4 | C502_0210 EZ703U | 920 | 1331 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 25 | 12.0 | 23 | 55 |
| 144 | 431 | 611 | 3.3 | 1.9 | C502_0210 EZ705U | 920 | 1600 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 37 | 12.0 | 23 | 60 |
| 170 | 364 | 516 | 3.0 | 2.2 | C502_0175 EZ705U | 850 | 1600 | 17.60 | 845/48 | 3100 | 2700 | 4500 | 39 | 12.0 | 23 | 60 |
| 191 | 325 | 460 | 2.9 | 2.5 | C502_0155 EZ705U | 920 | 1600 | 15.71 | 377/24 | 3100 | 2700 | 4500 | 39 | 12.0 | 23 | 60 |
| 215 | 162 | 195 | 1.5 | 4.9 | C502_0140 EZ702U | 554 | 1013 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 20 | 12.0 | 23 | 53 |
| 215 | 182 | 216 | 1.7 | 4.4 | C502_0140 EZ505U | 811 | 1013 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 18 | 12.0 | 23 | 53 |
| 215 | 223 | 281 | 2.1 | 3.6 | C502_0140 EZ703U | 811 | 1013 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 28 | 12.0 | 23 | 55 |
| 215 | 288 | 408 | 2.7 | 2.8 | C502_0140 EZ705U | 850 | 1600 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 40 | 12.0 | 23 | 60 |
| 241 | 145 | 174 | 1.6 | 5.0 | C502_0125 EZ702U | 494 | 904 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 20 | 12.0 | 23 | 53 |
| 241 | 163 | 193 | 1.8 | 4.4 | C502_0125 EZ505U | 723 | 904 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 18 | 12.0 | 23 | 53 |
| 241 | 199 | 251 | 2.2 | 3.6 | C502_0125 EZ703U | 723 | 904 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 28 | 12.0 | 23 | 55 |
| 241 | 257 | 364 | 2.7 | 3.0 | C502_0125 EZ705U | 920 | 1600 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 40 | 12.0 | 23 | 60 |
| 258 | 240 | 341 | 2.6 | 3.1 | C502_0115 EZ705U | 850 | 1600 | 11.64 | 1885/162 | 2800 | 2400 | 4000 | 42 | 12.0 | 23 | 60 |
| 289 | 215 | 304 | 2.6 | 3.4 | C502_0105 EZ705U | 920 | 1600 | 10.38 | 841/81 | 2800 | 2400 | 4000 | 42 | 12.0 | 23 | 60 |
| 324 | 191 | 271 | 2.5 | 3.6 | C502_0093 EZ705U | 850 | 1600 | 9.261 | 3445/372 | 2800 | 2400 | 4000 | 45 | 12.0 | 23 | 60 |
| 363 | 171 | 242 | 2.5 | 3.9 | C502_0083 EZ705U | 834 | 1600 | 8.263 | 1537/186 | 2800 | 2400 | 4000 | 45 | 12.0 | 23 | 60 |
| 386 | 90 | 108 | 2.3 | 4.4 | C502_0078 EZ702U | 309 | 496 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 18 | 14.0 | 21 | 53 |
| 386 | 102 | 120 | 2.6 | 3.9 | C502_0078 EZ505U | 396 | 496 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 16 | 14.0 | 21 | 53 |
| 386 | 124 | 157 | 3.1 | 3.2 | C502_0078 EZ703U | 396 | 496 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 25 | 14.0 | 21 | 55 |
| 386 | 160 | 227 | 3.3 | 3.0 | C502_0078 EZ705U | 783 | 1110 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 38 | 14.0 | 21 | 60 |
| 513 | 121 | 171 | 3.2 | 3.7 | C502_0059 EZ705U | 590 | 967 | 5.850 | 117/20 | 3100 | 2700 | 4500 | 40 | 14.0 | 21 | 60 |
| 648 | 54 | 65 | 2.6 | 5.0 | C502_0046 EZ702U | 184 | 337 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 22 | 14.0 | 21 | 53 |
| 648 | 61 | 72 | 2.9 | 4.4 | C502_0046 EZ505U | 269 | 337 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 20 | 14.0 | 21 | 53 |
| 648 | 74 | 93 | 3.6 | 3.6 | C502_0046 EZ703U | 269 | 337 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 30 | 14.0 | 21 | 55 |
| 648 | 96 | 136 | 3.0 | 4.3 | C502_0046 EZ705U | 467 | 881 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 42 | 14.0 | 21 | 60 |
| 776 | 80 | 113 | 2.9 | 4.8 | C502_0039 EZ705U | 390 | 750 | 3.867 | 58/15 | 2800 | 2400 | 4000 | 45 | 14.0 | 21 | 60 |
| **C5 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 920 Nm)** | | | | | | | | | | | | | | | | |
| 142 | 687 | 1191 | 4.5 | 1.2 | C502_0280 EZ813U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 107 | 12.0 | 23 | 78 |
| 142 | 712 | 1830 | 4.7 | 1.1 | C502_0280 EZ815U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 170 | 12.0 | 23 | 90 |
| 160 | 613 | 1063 | 4.3 | 1.3 | C502_0250 EZ813U | 920 | 1600 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 107 | 12.0 | 23 | 78 |
| 160 | 635 | 1633 | 4.4 | 1.3 | C502_0250 EZ815U | 920 | 1600 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 170 | 12.0 | 23 | 90 |
| 171 | 571 | 990 | 4.1 | 1.4 | C502_0230 EZ813U | 850 | 1600 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 107 | 12.0 | 23 | 78 |
| 171 | 592 | 1521 | 4.3 | 1.4 | C502_0230 EZ815U | 850 | 1600 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 171 | 12.0 | 23 | 90 |
| 192 | 510 | 884 | 3.9 | 1.6 | C502_0210 EZ813U | 920 | 1600 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 107 | 12.0 | 23 | 78 |
| 192 | 528 | 1357 | 4.0 | 1.5 | C502_0210 EZ815U | 920 | 1600 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 171 | 12.0 | 23 | 90 |
| 227 | 430 | 746 | 3.7 | 1.8 | C502_0175 EZ813U | 850 | 1600 | 17.60 | 845/48 | 3100 | 2700 | 4500 | 109 | 12.0 | 23 | 78 |
| 227 | 446 | 1146 | 3.8 | 1.8 | C502_0175 EZ815U | 850 | 1600 | 17.60 | 845/48 | 3100 | 2700 | 4500 | 172 | 12.0 | 23 | 90 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C5 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 920 Nm)** | | | | | | | | | | | | | | | | |
| 255 | 384 | 666 | 3.6 | 2.0 | C502_0155 EZ813U | 920 | 1600 | 15.71 | 377/24 | 3100 | 2700 | 4500 | 109 | 12.0 | 23 | 78 |
| 255 | 398 | 1023 | 3.7 | 1.9 | C502_0155 EZ815U | 920 | 1600 | 15.71 | 377/24 | 3100 | 2700 | 4500 | 172 | 12.0 | 23 | 90 |
| 287 | 340 | 590 | 3.5 | 2.1 | C502_0140 EZ813U | 850 | 1600 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 111 | 12.0 | 23 | 78 |
| 287 | 353 | 907 | 3.7 | 2.1 | C502_0140 EZ815U | 850 | 1600 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 174 | 12.0 | 23 | 90 |
| 322 | 304 | 527 | 3.5 | 2.3 | C502_0125 EZ813U | 920 | 1600 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 111 | 12.0 | 23 | 78 |
| 322 | 315 | 809 | 3.6 | 2.2 | C502_0125 EZ815U | 920 | 1600 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 174 | 12.0 | 23 | 90 |
| 344 | 284 | 493 | 3.4 | 2.4 | C502_0115 EZ813U | 850 | 1600 | 11.64 | 1885/162 | 2800 | 2400 | 4000 | 112 | 12.0 | 23 | 78 |
| 344 | 295 | 758 | 3.5 | 2.3 | C502_0115 EZ815U | 850 | 1600 | 11.64 | 1885/162 | 2800 | 2400 | 4000 | 175 | 12.0 | 23 | 90 |
| 385 | 254 | 440 | 3.4 | 2.6 | C502_0105 EZ813U | 920 | 1600 | 10.38 | 841/81 | 2800 | 2400 | 4000 | 113 | 12.0 | 23 | 78 |
| 385 | 263 | 676 | 3.5 | 2.5 | C502_0105 EZ815U | 920 | 1600 | 10.38 | 841/81 | 2800 | 2400 | 4000 | 176 | 12.0 | 23 | 90 |
| 432 | 226 | 393 | 3.3 | 2.8 | C502_0093 EZ813U | 850 | 1600 | 9.261 | 3445/372 | 2800 | 2400 | 4000 | 115 | 12.0 | 23 | 78 |
| 432 | 235 | 603 | 3.4 | 2.7 | C502_0093 EZ815U | 850 | 1600 | 9.261 | 3445/372 | 2800 | 2400 | 4000 | 178 | 12.0 | 23 | 90 |
| 484 | 202 | 350 | 3.2 | 3.0 | C502_0083 EZ813U | 920 | 1600 | 8.263 | 1537/186 | 2800 | 2400 | 4000 | 115 | 12.0 | 23 | 78 |
| 484 | 209 | 538 | 3.3 | 2.9 | C502_0083 EZ815U | 920 | 1600 | 8.263 | 1537/186 | 2800 | 2400 | 4000 | 178 | 12.0 | 23 | 90 |
| 515 | 190 | 329 | 4.3 | 2.3 | C502_0078 EZ813U | 800 | 1110 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 108 | 14.0 | 21 | 78 |
| 515 | 197 | 506 | 4.5 | 2.3 | C502_0078 EZ815U | 800 | 1110 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 171 | 14.0 | 21 | 90 |
| 684 | 143 | 248 | 4.1 | 2.8 | C502_0059 EZ813U | 774 | 967 | 5.850 | 117/20 | 3100 | 2700 | 4500 | 110 | 14.0 | 21 | 78 |
| 684 | 148 | 381 | 4.3 | 2.7 | C502_0059 EZ815U | 774 | 967 | 5.850 | 117/20 | 3100 | 2700 | 4500 | 173 | 14.0 | 21 | 90 |
| 864 | 113 | 196 | 4.0 | 3.3 | C502_0046 EZ813U | 629 | 881 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 113 | 14.0 | 21 | 78 |
| 864 | 117 | 301 | 4.1 | 3.2 | C502_0046 EZ815U | 704 | 881 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 176 | 14.0 | 21 | 90 |
| 1034 | 95 | 164 | 3.8 | 3.7 | C502_0039 EZ813U | 525 | 750 | 3.867 | 58/15 | 2800 | 2400 | 4000 | 115 | 14.0 | 21 | 78 |
| 1034 | 98 | 252 | 4.0 | 3.6 | C502_0039 EZ815U | 600 | 750 | 3.867 | 58/15 | 2800 | 2400 | 4000 | 178 | 14.0 | 21 | 90 |
| 1300 | 75 | 130 | 3.7 | 4.3 | C502_0031 EZ813U | 418 | 597 | 3.077 | 477/155 | 2800 | 2400 | 4000 | 120 | 14.0 | 21 | 78 |
| 1300 | 78 | 200 | 3.8 | 4.2 | C502_0031 EZ815U | 478 | 597 | 3.077 | 477/155 | 2800 | 2400 | 4000 | 183 | 14.0 | 21 | 90 |
| **C5 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 920 Nm)** | | | | | | | | | | | | | | | | |
| 81 | 515 | 829 | 2.4 | 1.6 | C502_0560 EZ505U | 850 | 1600 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 81 | 655 | 1083 | 3.1 | 1.2 | C502_0560 EZ703U | 850 | 1600 | 55.83 | 335/6 | 3400 | 3000 | 5000 | 22 | 12.0 | 23 | 55 |
| 90 | 459 | 739 | 2.3 | 1.7 | C502_0500 EZ505U | 920 | 1600 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 90 | 585 | 967 | 2.9 | 1.4 | C502_0500 EZ703U | 920 | 1600 | 49.82 | 1943/39 | 3400 | 3000 | 5000 | 22 | 12.0 | 23 | 55 |
| 96 | 431 | 693 | 2.2 | 1.9 | C502_0470 EZ505U | 850 | 1600 | 46.72 | 1495/32 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 96 | 548 | 906 | 2.8 | 1.5 | C502_0470 EZ703U | 850 | 1600 | 46.72 | 1495/32 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 108 | 384 | 619 | 2.1 | 2.1 | C502_0420 EZ505U | 920 | 1600 | 41.69 | 667/16 | 3400 | 3000 | 5000 | 13 | 12.0 | 23 | 53 |
| 108 | 489 | 809 | 2.7 | 1.6 | C502_0420 EZ703U | 920 | 1600 | 41.69 | 667/16 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 129 | 323 | 519 | 1.9 | 2.5 | C502_0350 EZ505U | 850 | 1600 | 35.00 | 35/1 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 129 | 411 | 679 | 2.4 | 1.9 | C502_0350 EZ703U | 850 | 1600 | 35.00 | 35/1 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 144 | 288 | 463 | 1.8 | 2.8 | C502_0310 EZ505U | 920 | 1524 | 31.23 | 406/13 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 144 | 367 | 606 | 2.3 | 2.2 | C502_0310 EZ703U | 920 | 1524 | 31.23 | 406/13 | 3400 | 3000 | 5000 | 23 | 12.0 | 23 | 55 |
| 160 | 259 | 417 | 1.7 | 3.1 | C502_0280 EZ505U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 160 | 330 | 545 | 2.2 | 2.4 | C502_0280 EZ703U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 24 | 12.0 | 23 | 55 |
| 160 | 447 | 818 | 3.0 | 1.8 | C502_0280 EZ705U | 850 | 1600 | 28.10 | 5395/192 | 3400 | 3000 | 5000 | 36 | 12.0 | 23 | 60 |
| 179 | 231 | 372 | 1.6 | 3.5 | C502_0250 EZ505U | 920 | 1444 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 14 | 12.0 | 23 | 53 |
| 179 | 294 | 486 | 2.1 | 2.7 | C502_0250 EZ703U | 920 | 1444 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 24 | 12.0 | 23 | 55 |
| 179 | 399 | 730 | 2.8 | 2.0 | C502_0250 EZ705U | 920 | 1600 | 25.07 | 2407/96 | 3400 | 3000 | 5000 | 36 | 12.0 | 23 | 60 |
| 193 | 215 | 347 | 1.6 | 3.7 | C502_0230 EZ505U | 850 | 1491 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |
| 193 | 274 | 453 | 2.0 | 2.9 | C502_0230 EZ703U | 850 | 1491 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 25 | 12.0 | 23 | 55 |
| 193 | 372 | 680 | 2.7 | 2.2 | C502_0230 EZ705U | 850 | 1600 | 23.36 | 1495/64 | 3400 | 3000 | 5000 | 37 | 12.0 | 23 | 60 |
| 216 | 192 | 309 | 1.5 | 4.2 | C502_0210 EZ505U | 920 | 1331 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 15 | 12.0 | 23 | 53 |
| 216 | 245 | 404 | 1.9 | 3.3 | C502_0210 EZ703U | 920 | 1331 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 25 | 12.0 | 23 | 55 |
| 216 | 332 | 607 | 2.6 | 2.4 | C502_0210 EZ705U | 920 | 1600 | 20.84 | 667/32 | 3400 | 3000 | 5000 | 37 | 12.0 | 23 | 60 |
| 256 | 280 | 512 | 2.5 | 2.7 | C502_0175 EZ705U | 850 | 1600 | 17.60 | 845/48 | 3100 | 2700 | 4500 | 39 | 12.0 | 23 | 60 |
| 286 | 250 | 457 | 2.4 | 2.9 | C502_0155 EZ705U | 920 | 1600 | 15.71 | 377/24 | 3100 | 2700 | 4500 | 39 | 12.0 | 23 | 60 |
| 323 | 163 | 270 | 1.8 | 4.3 | C502_0140 EZ703U | 811 | 1013 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 28 | 12.0 | 23 | 55 |
| 323 | 222 | 405 | 2.4 | 3.1 | C502_0140 EZ705U | 850 | 1600 | 13.93 | 195/14 | 3100 | 2700 | 4500 | 40 | 12.0 | 23 | 60 |
| 362 | 146 | 241 | 1.7 | 4.6 | C502_0125 EZ703U | 723 | 904 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 28 | 12.0 | 23 | 55 |
| 362 | 198 | 362 | 2.3 | 3.4 | C502_0125 EZ705U | 920 | 1600 | 12.43 | 87/7 | 3100 | 2700 | 4500 | 40 | 12.0 | 23 | 60 |
| 580 | 91 | 151 | 2.3 | 4.4 | C502_0078 EZ703U | 396 | 496 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 25 | 14.0 | 21 | 55 |
| 580 | 123 | 226 | 2.9 | 3.4 | C502_0078 EZ705U | 783 | 1110 | 7.763 | 621/80 | 3400 | 3000 | 5000 | 38 | 14.0 | 21 | 60 |
| 769 | 93 | 170 | 2.8 | 4.2 | C502_0059 EZ705U | 590 | 967 | 5.850 | 117/20 | 3100 | 2700 | 4500 | 40 | 14.0 | 21 | 60 |
| 972 | 54 | 90 | 2.6 | 5.0 | C502_0046 EZ703U | 269 | 337 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 30 | 14.0 | 21 | 55 |
| 972 | 74 | 135 | 2.7 | 4.9 | C502_0046 EZ705U | 467 | 881 | 4.629 | 162/35 | 3100 | 2700 | 4500 | 42 | 14.0 | 21 | 60 |
| **C6 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 1650 Nm)** | | | | | | | | | | | | | | | | |
| 62 | 1226 | 1375 | 4.5 | 1.2 | C612_0320 EZ813U | 1650 | 2900 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 107 | 10.0 | 74 | 93 |
| 73 | 1037 | 1163 | 4.6 | 1.3 | C612_0270 EZ813U | 1380 | 2600 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 110 | 10.0 | 74 | 93 |
| 80 | 943 | 1057 | 3.9 | 1.5 | C612_0250 EZ813U | 1650 | 2900 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 108 | 10.0 | 74 | 93 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2,3,4 | EL5,6 | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **C6 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 1650 Nm)** | | | | | | | | | | | | | | | | |
| 80 | 1396 | 1663 | 5.8 | 1.0 | C612_0250 EZ815U | 1650 | 2900 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 171 | 10.0 | 74 | 106 |
| 88 | 857 | 961 | 4.2 | 1.5 | C612_0230 EZ813U | 1380 | 2600 | 22.67 | 68/3 | 3200 | 2900 | 4500 | 111 | 10.0 | 74 | 93 |
| 88 | 1270 | 1512 | 6.2 | 1.0 | C612_0230 EZ815U | 1380 | 2600 | 22.67 | 68/3 | 3200 | 2900 | 4500 | 174 | 10.0 | 74 | 106 |
| 102 | 742 | 832 | 3.6 | 1.9 | C612_0195 EZ813U | 1650 | 2560 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 110 | 10.0 | 74 | 93 |
| 102 | 1098 | 1308 | 5.3 | 1.3 | C612_0195 EZ815U | 1650 | 2560 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 173 | 10.0 | 74 | 106 |
| 114 | 666 | 747 | 3.7 | 2.0 | C612_0175 EZ813U | 1380 | 2600 | 17.60 | 88/5 | 3000 | 2600 | 4000 | 115 | 10.0 | 74 | 93 |
| 114 | 986 | 1174 | 5.4 | 1.3 | C612_0175 EZ815U | 1380 | 2600 | 17.60 | 88/5 | 3000 | 2600 | 4000 | 178 | 10.0 | 74 | 106 |
| 123 | 613 | 687 | 3.5 | 2.2 | C612_0160 EZ813U | 1650 | 2900 | 16.20 | 1037/64 | 3200 | 2900 | 4500 | 112 | 10.0 | 74 | 93 |
| 123 | 908 | 1081 | 5.1 | 1.5 | C612_0160 EZ815U | 1650 | 2900 | 16.20 | 1037/64 | 3200 | 2900 | 4500 | 175 | 10.0 | 74 | 106 |
| 141 | 535 | 600 | 3.4 | 2.4 | C612_0140 EZ813U | 1380 | 2600 | 14.15 | 976/69 | 3000 | 2600 | 4000 | 118 | 10.0 | 74 | 93 |
| 141 | 792 | 943 | 5.0 | 1.6 | C612_0140 EZ815U | 1380 | 2600 | 14.15 | 976/69 | 3000 | 2600 | 4000 | 181 | 10.0 | 74 | 106 |
| 159 | 476 | 534 | 3.3 | 2.6 | C612_0125 EZ813U | 1650 | 2900 | 12.58 | 2013/160 | 3000 | 2600 | 4000 | 115 | 10.0 | 74 | 93 |
| 159 | 705 | 839 | 4.9 | 1.7 | C612_0125 EZ815U | 1650 | 2900 | 12.58 | 2013/160 | 3000 | 2600 | 4000 | 178 | 10.0 | 74 | 106 |
| 175 | 433 | 486 | 3.3 | 2.7 | C612_0115 EZ813U | 1380 | 2600 | 11.46 | 928/81 | 2700 | 2300 | 3800 | 122 | 10.0 | 74 | 93 |
| 175 | 642 | 764 | 4.8 | 1.8 | C612_0115 EZ815U | 1380 | 2600 | 11.46 | 928/81 | 2700 | 2300 | 3800 | 185 | 10.0 | 74 | 106 |
| 198 | 382 | 429 | 3.2 | 3.0 | C612_0100 EZ813U | 1373 | 2900 | 10.11 | 3721/368 | 3000 | 2600 | 4000 | 119 | 10.0 | 74 | 93 |
| 198 | 566 | 674 | 4.7 | 2.0 | C612_0100 EZ815U | 1650 | 2900 | 10.11 | 3721/368 | 3000 | 2600 | 4000 | 182 | 10.0 | 74 | 106 |
| 219 | 345 | 387 | 3.1 | 3.2 | C612_0091 EZ813U | 1238 | 2600 | 9.118 | 848/93 | 2700 | 2300 | 3800 | 128 | 10.0 | 74 | 93 |
| 219 | 511 | 608 | 4.6 | 2.1 | C612_0091 EZ815U | 1380 | 2600 | 9.118 | 848/93 | 2700 | 2300 | 3800 | 191 | 10.0 | 74 | 106 |
| 244 | 310 | 347 | 3.1 | 3.4 | C612_0082 EZ813U | 1112 | 2900 | 8.190 | 1769/216 | 2700 | 2300 | 3800 | 123 | 10.0 | 74 | 93 |
| 244 | 459 | 546 | 4.6 | 2.3 | C612_0082 EZ815U | 1589 | 2900 | 8.190 | 1769/216 | 2700 | 2300 | 3800 | 186 | 10.0 | 74 | 106 |
| 281 | 269 | 302 | 3.0 | 3.7 | C612_0071 EZ813U | 966 | 2586 | 7.111 | 64/9 | 2300 | 1900 | 3000 | 137 | 10.0 | 74 | 93 |
| 281 | 398 | 474 | 4.5 | 2.5 | C612_0071 EZ815U | 1380 | 2586 | 7.111 | 64/9 | 2300 | 1900 | 3000 | 200 | 10.0 | 74 | 106 |
| 307 | 247 | 276 | 3.0 | 4.0 | C612_0065 EZ813U | 885 | 2372 | 6.518 | 3233/496 | 2700 | 2300 | 3800 | 130 | 10.0 | 74 | 93 |
| 307 | 365 | 435 | 4.4 | 2.7 | C612_0065 EZ815U | 1264 | 2372 | 6.518 | 3233/496 | 2700 | 2300 | 3800 | 193 | 10.0 | 74 | 106 |
| 342 | 221 | 248 | 2.9 | 4.3 | C612_0059 EZ813U | 795 | 2130 | 5.854 | 240/41 | 2300 | 1900 | 3000 | 146 | 10.0 | 74 | 93 |
| 342 | 328 | 390 | 4.3 | 2.9 | C612_0059 EZ815U | 1136 | 2130 | 5.854 | 240/41 | 2300 | 1900 | 3000 | 209 | 10.0 | 74 | 106 |
| 393 | 192 | 216 | 2.8 | 4.7 | C612_0051 EZ813U | 690 | 1849 | 5.083 | 61/12 | 2300 | 1900 | 3000 | 140 | 10.0 | 74 | 93 |
| 393 | 285 | 339 | 4.2 | 3.2 | C612_0051 EZ815U | 986 | 1849 | 5.083 | 61/12 | 2300 | 1900 | 3000 | 204 | 10.0 | 74 | 106 |
| 478 | 234 | 279 | 4.1 | 3.6 | C612_0042 EZ815U | 812 | 1523 | 4.184 | 2745/656 | 2300 | 1900 | 3000 | 214 | 10.0 | 74 | 106 |
| **C6 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 1650 Nm)** | | | | | | | | | | | | | | | | |
| 11 | 1095 | 1197 | 1.5 | 1.2 | C613_2660 EZ501U | 1380 | 2289 | 266.4 | 7192/27 | 3200 | 2900 | 4500 | 3.1 | 10.0 | 74 | 71 |
| 14 | 876 | 957 | 1.4 | 1.5 | C613_2130 EZ501U | 1380 | 2230 | 213.1 | 28768/135 | 3200 | 2900 | 4500 | 3.2 | 10.0 | 74 | 71 |
| 17 | 1256 | 1409 | 2.2 | 1.0 | C613_1780 EZ701U | 1380 | 2600 | 177.6 | 1598/9 | 3200 | 2900 | 4500 | 9.1 | 10.0 | 74 | 74 |
| 17 | 721 | 788 | 1.3 | 1.8 | C613_1750 EZ501U | 1380 | 1992 | 175.3 | 7888/45 | 3200 | 2900 | 4500 | 3.2 | 10.0 | 74 | 71 |
| 17 | 1240 | 1341 | 2.2 | 1.0 | C613_1750 EZ502U | 1380 | 1992 | 175.3 | 7888/45 | 3200 | 2900 | 4500 | 5.5 | 10.0 | 74 | 72 |
| 22 | 966 | 1084 | 1.9 | 1.3 | C613_1370 EZ701U | 1380 | 2600 | 136.6 | 15980/117 | 3200 | 2900 | 4500 | 9.2 | 10.0 | 74 | 74 |
| 22 | 554 | 606 | 1.1 | 2.3 | C613_1350 EZ501U | 1376 | 1720 | 134.8 | 15776/117 | 3200 | 2900 | 4500 | 3.3 | 10.0 | 74 | 71 |
| 22 | 954 | 1031 | 1.9 | 1.4 | C613_1350 EZ502U | 1376 | 1720 | 134.8 | 15776/117 | 3200 | 2900 | 4500 | 5.6 | 10.0 | 74 | 72 |
| 22 | 1250 | 1431 | 2.5 | 1.0 | C613_1350 EZ503U | 1376 | 1720 | 134.8 | 15776/117 | 3200 | 2900 | 4500 | 8.0 | 10.0 | 74 | 74 |
| 24 | 898 | 1007 | 1.6 | 1.6 | C613_1270 EZ701U | 1650 | 2900 | 126.9 | 48739/384 | 3200 | 2900 | 4500 | 9.1 | 10.0 | 74 | 74 |
| 28 | 760 | 852 | 1.7 | 1.7 | C613_1070 EZ701U | 1380 | 2600 | 107.4 | 752/7 | 3200 | 2900 | 4500 | 9.3 | 10.0 | 74 | 74 |
| 28 | 1232 | 1479 | 2.7 | 1.1 | C613_1070 EZ702U | 1380 | 2600 | 107.4 | 752/7 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 76 |
| 28 | 436 | 477 | 1.0 | 2.9 | C613_1060 EZ501U | 1277 | 1597 | 106.1 | 3712/35 | 3200 | 2900 | 4500 | 3.4 | 10.0 | 74 | 71 |
| 28 | 750 | 811 | 1.7 | 1.7 | C613_1060 EZ502U | 1277 | 1597 | 106.1 | 3712/35 | 3200 | 2900 | 4500 | 5.7 | 10.0 | 74 | 72 |
| 28 | 983 | 1125 | 2.3 | 1.3 | C613_1060 EZ503U | 1277 | 1597 | 106.1 | 3712/35 | 3200 | 2900 | 4500 | 8.1 | 10.0 | 74 | 74 |
| 31 | 691 | 775 | 1.4 | 2.1 | C613_0980 EZ701U | 1650 | 2900 | 97.63 | 243695/2496 | 3200 | 2900 | 4500 | 9.2 | 10.0 | 74 | 74 |
| 31 | 1120 | 1344 | 2.3 | 1.3 | C613_0980 EZ702U | 1650 | 2900 | 97.63 | 243695/2496 | 3200 | 2900 | 4500 | 14 | 10.0 | 74 | 76 |
| 34 | 628 | 704 | 1.5 | 2.1 | C613_0890 EZ701U | 1380 | 2600 | 88.78 | 799/9 | 3200 | 2900 | 4500 | 9.4 | 10.0 | 74 | 74 |
| 34 | 1018 | 1222 | 2.5 | 1.3 | C613_0890 EZ702U | 1380 | 2600 | 88.78 | 799/9 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 76 |
| 39 | 543 | 609 | 1.3 | 2.7 | C613_0770 EZ701U | 1468 | 2560 | 76.80 | 8601/112 | 3200 | 2900 | 4500 | 9.3 | 10.0 | 74 | 74 |
| 39 | 881 | 1057 | 2.1 | 1.6 | C613_0770 EZ702U | 1650 | 2560 | 76.80 | 8601/112 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 76 |
| 39 | 1211 | 1527 | 2.9 | 1.2 | C613_0770 EZ703U | 1650 | 2560 | 76.80 | 8601/112 | 3200 | 2900 | 4500 | 22 | 10.0 | 74 | 78 |
| 40 | 312 | 341 | 1.2 | 2.9 | C613_0760 EZ501U | 913 | 1141 | 75.81 | 5307/70 | 3200 | 2900 | 4500 | 3.4 | 10.0 | 74 | 71 |
| 40 | 536 | 580 | 2.1 | 1.7 | C613_0760 EZ502U | 913 | 1141 | 75.81 | 5307/70 | 3200 | 2900 | 4500 | 5.7 | 10.0 | 74 | 72 |
| 40 | 703 | 805 | 2.7 | 1.3 | C613_0760 EZ503U | 913 | 1141 | 75.81 | 5307/70 | 3200 | 2900 | 4500 | 8.1 | 10.0 | 74 | 74 |
| 44 | 494 | 555 | 1.4 | 2.6 | C612_0690 EZ701U | 1336 | 2289 | 68.89 | 620/9 | 3200 | 2900 | 4500 | 9.6 | 10.0 | 74 | 65 |
| 44 | 802 | 962 | 2.2 | 1.6 | C612_0690 EZ702U | 1380 | 2289 | 68.89 | 620/9 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 68 |
| 44 | 1103 | 1390 | 3.1 | 1.2 | C612_0690 EZ703U | 1380 | 2289 | 68.89 | 620/9 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 70 |
| 47 | 449 | 504 | 1.2 | 3.1 | C613_0630 EZ701U | 1213 | 2296 | 63.46 | 48739/768 | 3200 | 2900 | 4500 | 9.4 | 10.0 | 74 | 74 |
| 47 | 728 | 874 | 2.0 | 1.9 | C613_0630 EZ702U | 1650 | 2296 | 63.46 | 48739/768 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 76 |
| 47 | 1001 | 1262 | 2.7 | 1.4 | C613_0630 EZ703U | 1650 | 2296 | 63.46 | 48739/768 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 78 |
| 54 | 396 | 444 | 1.2 | 3.3 | C612_0550 EZ701U | 1069 | 2230 | 55.11 | 496/9 | 3200 | 2900 | 4500 | 10 | 10.0 | 74 | 65 |
| 54 | 641 | 770 | 2.0 | 2.0 | C612_0550 EZ702U | 1380 | 2230 | 55.11 | 496/9 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 68 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| C6 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1650 Nm) | | | | | | | | | | | | | | | | |
| 54 | 882 | 1112 | 2.7 | 1.5 | C612_0550 EZ703U | 1380 | 2230 | 55.11 | 496/9 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 70 |
| 61 | 349 | 391 | 1.2 | 3.7 | C613_0490 EZ701U | 942 | 1931 | 49.28 | 31537/640 | 3200 | 2900 | 4500 | 9.7 | 10.0 | 74 | 74 |
| 61 | 565 | 678 | 1.9 | 2.3 | C613_0490 EZ702U | 1545 | 1931 | 49.28 | 31537/640 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 76 |
| 61 | 777 | 980 | 2.6 | 1.6 | C613_0490 EZ703U | 1545 | 1931 | 49.28 | 31537/640 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 78 |
| 66 | 325 | 365 | 1.1 | 4.0 | C612_0450 EZ701U | 879 | 1992 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 11 | 10.0 | 74 | 65 |
| 66 | 528 | 633 | 1.8 | 2.5 | C612_0450 EZ702U | 1380 | 1992 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 16 | 10.0 | 74 | 68 |
| 66 | 726 | 915 | 2.5 | 1.8 | C612_0450 EZ703U | 1380 | 1992 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 24 | 10.0 | 74 | 70 |
| 66 | 937 | 1328 | 3.2 | 1.4 | C612_0450 EZ705U | 1380 | 2600 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 36 | 10.0 | 74 | 75 |
| 76 | 283 | 317 | 1.1 | 4.3 | C612_0390 EZ701U | 764 | 1595 | 39.40 | 1891/48 | 3200 | 2900 | 4500 | 10 | 10.0 | 74 | 65 |
| 76 | 459 | 550 | 1.8 | 2.7 | C612_0390 EZ702U | 1276 | 1595 | 39.40 | 1891/48 | 3200 | 2900 | 4500 | 15 | 10.0 | 74 | 68 |
| 76 | 631 | 795 | 2.5 | 1.9 | C612_0390 EZ703U | 1276 | 1595 | 39.40 | 1891/48 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 70 |
| 86 | 406 | 487 | 1.6 | 3.2 | C612_0350 EZ702U | 1376 | 1720 | 34.87 | 1360/39 | 3200 | 2900 | 4500 | 17 | 10.0 | 74 | 68 |
| 86 | 558 | 704 | 2.2 | 2.3 | C612_0350 EZ703U | 1376 | 1720 | 34.87 | 1360/39 | 3200 | 2900 | 4500 | 25 | 10.0 | 74 | 70 |
| 86 | 720 | 1022 | 2.8 | 1.8 | C612_0350 EZ705U | 1380 | 2600 | 34.87 | 1360/39 | 3200 | 2900 | 4500 | 38 | 10.0 | 74 | 75 |
| 93 | 233 | 261 | 1.1 | 4.9 | C612_0320 EZ701U | 629 | 1424 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 11 | 10.0 | 74 | 65 |
| 93 | 377 | 453 | 1.7 | 3.0 | C612_0320 EZ702U | 1139 | 1424 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 16 | 10.0 | 74 | 68 |
| 93 | 519 | 654 | 2.4 | 2.2 | C612_0320 EZ703U | 1139 | 1424 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 24 | 10.0 | 74 | 70 |
| 93 | 670 | 949 | 2.4 | 2.2 | C612_0320 EZ705U | 1650 | 2900 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 36 | 10.0 | 74 | 75 |
| 109 | 319 | 383 | 1.4 | 4.0 | C612_0270 EZ702U | 1091 | 1597 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 19 | 10.0 | 74 | 68 |
| 109 | 439 | 553 | 2.0 | 2.9 | C612_0270 EZ703U | 1277 | 1597 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 27 | 10.0 | 74 | 70 |
| 109 | 567 | 804 | 2.5 | 2.3 | C612_0270 EZ705U | 1380 | 2600 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 39 | 10.0 | 74 | 75 |
| 120 | 290 | 348 | 1.8 | 3.4 | C612_0250 EZ702U | 984 | 1230 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 17 | 10.0 | 74 | 68 |
| 120 | 399 | 503 | 2.4 | 2.5 | C612_0250 EZ703U | 984 | 1230 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 25 | 10.0 | 74 | 70 |
| 120 | 515 | 730 | 2.3 | 2.6 | C612_0250 EZ705U | 1650 | 2900 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 38 | 10.0 | 74 | 75 |
| 132 | 468 | 664 | 2.3 | 2.8 | C612_0230 EZ705U | 1380 | 2600 | 22.67 | 68/3 | 3200 | 2900 | 4500 | 41 | 10.0 | 74 | 75 |
| 153 | 228 | 274 | 1.7 | 4.0 | C612_0195 EZ702U | 780 | 1141 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 19 | 10.0 | 74 | 68 |
| 153 | 314 | 396 | 2.3 | 2.9 | C612_0195 EZ703U | 913 | 1141 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 27 | 10.0 | 74 | 70 |
| 153 | 405 | 574 | 2.2 | 3.0 | C612_0195 EZ705U | 1650 | 2560 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 39 | 10.0 | 74 | 75 |
| 170 | 364 | 516 | 2.2 | 3.3 | C612_0175 EZ705U | 1380 | 2600 | 17.60 | 88/5 | 3000 | 2600 | 4000 | 44 | 10.0 | 74 | 75 |
| 185 | 335 | 475 | 2.2 | 3.5 | C612_0160 EZ705U | 1635 | 2296 | 16.20 | 1037/64 | 3200 | 2900 | 4500 | 41 | 10.0 | 74 | 75 |
| 212 | 292 | 414 | 2.1 | 3.8 | C612_0140 EZ705U | 1380 | 2516 | 14.15 | 976/69 | 3000 | 2600 | 4000 | 48 | 10.0 | 74 | 75 |
| 238 | 260 | 369 | 2.1 | 4.1 | C612_0125 EZ705U | 1269 | 2120 | 12.58 | 2013/160 | 3000 | 2600 | 4000 | 45 | 10.0 | 74 | 75 |
| 262 | 237 | 336 | 2.0 | 4.4 | C612_0115 EZ705U | 1156 | 2217 | 11.46 | 928/81 | 2700 | 2300 | 3800 | 52 | 10.0 | 74 | 75 |
| 297 | 209 | 296 | 2.0 | 4.7 | C612_0100 EZ705U | 1020 | 1799 | 10.11 | 3721/368 | 3000 | 2600 | 4000 | 49 | 10.0 | 74 | 75 |
| C6 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 1650 Nm) | | | | | | | | | | | | | | | | |
| 88 | 1108 | 1922 | 3.8 | 1.2 | C612_0450 EZ813U | 1380 | 2600 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 107 | 10.0 | 74 | 93 |
| 88 | 1148 | 2952 | 3.9 | 1.1 | C612_0450 EZ815U | 1380 | 2600 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 170 | 10.0 | 74 | 106 |
| 115 | 852 | 1478 | 3.3 | 1.5 | C612_0350 EZ813U | 1380 | 2600 | 34.87 | 1360/39 | 3200 | 2900 | 4500 | 108 | 10.0 | 74 | 93 |
| 115 | 883 | 2271 | 3.5 | 1.5 | C612_0350 EZ815U | 1380 | 2600 | 34.87 | 1360/39 | 3200 | 2900 | 4500 | 171 | 10.0 | 74 | 106 |
| 123 | 792 | 1374 | 3.2 | 1.7 | C612_0320 EZ813U | 1650 | 2900 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 107 | 10.0 | 74 | 93 |
| 123 | 821 | 2110 | 3.3 | 1.6 | C612_0320 EZ815U | 1650 | 2900 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 170 | 10.0 | 74 | 106 |
| 146 | 670 | 1163 | 3.1 | 1.9 | C612_0270 EZ813U | 1380 | 2600 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 110 | 10.0 | 74 | 93 |
| 146 | 695 | 1786 | 3.2 | 1.8 | C612_0270 EZ815U | 1380 | 2600 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 173 | 10.0 | 74 | 106 |
| 160 | 609 | 1057 | 3.0 | 2.0 | C612_0250 EZ813U | 1650 | 2900 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 108 | 10.0 | 74 | 93 |
| 160 | 631 | 1623 | 3.1 | 1.9 | C612_0250 EZ815U | 1650 | 2900 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 171 | 10.0 | 74 | 106 |
| 176 | 554 | 961 | 3.0 | 2.1 | C612_0230 EZ813U | 1380 | 2600 | 22.67 | 68/3 | 3200 | 2900 | 4500 | 111 | 10.0 | 74 | 93 |
| 176 | 574 | 1476 | 3.1 | 2.0 | C612_0230 EZ815U | 1380 | 2600 | 22.67 | 68/3 | 3200 | 2900 | 4500 | 174 | 10.0 | 74 | 106 |
| 204 | 479 | 831 | 2.9 | 2.3 | C612_0195 EZ813U | 1650 | 2560 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 110 | 10.0 | 74 | 93 |
| 204 | 497 | 1277 | 3.0 | 2.3 | C612_0195 EZ815U | 1650 | 2560 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 173 | 10.0 | 74 | 106 |
| 227 | 430 | 746 | 2.9 | 2.5 | C612_0175 EZ813U | 1380 | 2600 | 17.60 | 88/5 | 3000 | 2600 | 4000 | 115 | 10.0 | 74 | 93 |
| 227 | 446 | 1146 | 3.0 | 2.4 | C612_0175 EZ815U | 1380 | 2600 | 17.60 | 88/5 | 3000 | 2600 | 4000 | 178 | 10.0 | 74 | 106 |
| 247 | 396 | 687 | 2.8 | 2.7 | C612_0160 EZ813U | 1650 | 2900 | 16.20 | 1037/64 | 3200 | 2900 | 4500 | 112 | 10.0 | 74 | 93 |
| 247 | 410 | 1055 | 2.9 | 2.6 | C612_0160 EZ815U | 1650 | 2900 | 16.20 | 1037/64 | 3200 | 2900 | 4500 | 175 | 10.0 | 74 | 106 |
| 283 | 346 | 600 | 2.7 | 2.9 | C612_0140 EZ813U | 1380 | 2600 | 14.15 | 976/69 | 3000 | 2600 | 4000 | 118 | 10.0 | 74 | 93 |
| 283 | 358 | 921 | 2.8 | 2.8 | C612_0140 EZ815U | 1380 | 2600 | 14.15 | 976/69 | 3000 | 2600 | 4000 | 181 | 10.0 | 74 | 106 |
| 318 | 308 | 533 | 2.7 | 3.1 | C612_0125 EZ813U | 1650 | 2900 | 12.58 | 2013/160 | 3000 | 2600 | 4000 | 115 | 10.0 | 74 | 93 |
| 318 | 319 | 819 | 2.8 | 3.0 | C612_0125 EZ815U | 1650 | 2900 | 12.58 | 2013/160 | 3000 | 2600 | 4000 | 178 | 10.0 | 74 | 106 |
| 396 | 247 | 429 | 2.6 | 3.6 | C612_0100 EZ813U | 1373 | 2900 | 10.11 | 3721/368 | 3000 | 2600 | 4000 | 119 | 10.0 | 74 | 93 |
| 396 | 256 | 658 | 2.7 | 3.5 | C612_0100 EZ815U | 1650 | 2900 | 10.11 | 3721/368 | 3000 | 2600 | 4000 | 182 | 10.0 | 74 | 106 |
| C6 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 1650 Nm) | | | | | | | | | | | | | | | | |
| 42 | 1243 | 2054 | 2.8 | 1.0 | C613_1070 EZ703U | 1380 | 2600 | 107.4 | 752/7 | 3200 | 2900 | 4500 | 22 | 10.0 | 74 | 78 |
| 46 | 1129 | 1867 | 2.6 | 1.2 | C613_0980 EZ703U | 1650 | 2900 | 97.63 | 243695/2496 | 3200 | 2900 | 4500 | 22 | 10.0 | 74 | 78 |
| 51 | 1027 | 1697 | 2.5 | 1.3 | C613_0890 EZ703U | 1380 | 2600 | 88.78 | 799/9 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 78 |
| 59 | 888 | 1468 | 2.4 | 1.4 | C613_0770 EZ703U | 1650 | 2560 | 76.80 | 8601/112 | 3200 | 2900 | 4500 | 22 | 10.0 | 74 | 78 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2,3,4 | EL5,6 | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| C6 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 1650 Nm) | | | | | | | | | | | | | | | | |
| 65 | 809 | 1336 | 2.2 | 1.6 | C612_0690 EZ703U | 1380 | 2289 | 68.89 | 620/9 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 70 |
| 71 | 734 | 1213 | 2.3 | 1.6 | C613_0630 EZ703U | 1650 | 2296 | 63.46 | 48739/768 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 78 |
| 82 | 647 | 1069 | 2.0 | 2.0 | C612_0550 EZ703U | 1380 | 2230 | 55.11 | 496/9 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 70 |
| 91 | 570 | 942 | 2.2 | 2.0 | C613_0490 EZ703U | 1545 | 1931 | 49.28 | 31537/640 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 78 |
| 99 | 532 | 879 | 1.8 | 2.4 | C612_0450 EZ703U | 1380 | 1992 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 24 | 10.0 | 74 | 70 |
| 99 | 721 | 1319 | 2.5 | 1.8 | C612_0450 EZ705U | 1380 | 2600 | 45.33 | 136/3 | 3200 | 2900 | 4500 | 36 | 10.0 | 74 | 75 |
| 114 | 462 | 764 | 1.8 | 2.6 | C612_0390 EZ703U | 1276 | 1595 | 39.40 | 1891/48 | 3200 | 2900 | 4500 | 23 | 10.0 | 74 | 70 |
| 129 | 409 | 677 | 1.6 | 3.2 | C612_0350 EZ703U | 1376 | 1720 | 34.87 | 1360/39 | 3200 | 2900 | 4500 | 25 | 10.0 | 74 | 70 |
| 129 | 555 | 1015 | 2.2 | 2.3 | C612_0350 EZ705U | 1380 | 2600 | 34.87 | 1360/39 | 3200 | 2900 | 4500 | 38 | 10.0 | 74 | 75 |
| 139 | 380 | 629 | 1.8 | 3.0 | C612_0320 EZ703U | 1139 | 1424 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 24 | 10.0 | 74 | 70 |
| 139 | 516 | 943 | 2.1 | 2.5 | C612_0320 EZ705U | 1650 | 2900 | 32.41 | 1037/32 | 3200 | 2900 | 4500 | 36 | 10.0 | 74 | 75 |
| 164 | 322 | 532 | 1.5 | 3.7 | C612_0270 EZ703U | 1277 | 1597 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 27 | 10.0 | 74 | 70 |
| 164 | 436 | 798 | 2.1 | 2.8 | C612_0270 EZ705U | 1380 | 2600 | 27.43 | 192/7 | 3200 | 2900 | 4500 | 39 | 10.0 | 74 | 75 |
| 181 | 293 | 484 | 1.8 | 3.4 | C612_0250 EZ703U | 984 | 1230 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 25 | 10.0 | 74 | 70 |
| 181 | 397 | 725 | 2.0 | 2.9 | C612_0250 EZ705U | 1650 | 2900 | 24.93 | 5185/208 | 3200 | 2900 | 4500 | 38 | 10.0 | 74 | 75 |
| 199 | 361 | 660 | 2.0 | 3.1 | C612_0230 EZ705U | 1380 | 2600 | 22.67 | 68/3 | 3200 | 2900 | 4500 | 41 | 10.0 | 74 | 75 |
| 230 | 230 | 380 | 1.7 | 4.0 | C612_0195 EZ703U | 913 | 1141 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 27 | 10.0 | 74 | 70 |
| 230 | 312 | 571 | 2.0 | 3.4 | C612_0195 EZ705U | 1650 | 2560 | 19.61 | 549/28 | 3200 | 2900 | 4500 | 39 | 10.0 | 74 | 75 |
| 278 | 258 | 472 | 1.9 | 3.9 | C612_0160 EZ705U | 1635 | 2296 | 16.20 | 1037/64 | 3200 | 2900 | 4500 | 41 | 10.0 | 74 | 75 |
| C7 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 2760 Nm) | | | | | | | | | | | | | | | | |
| 39 | 1895 | 2126 | 3.5 | 1.3 | C713_0510 EZ813U | 2760 | 4797 | 50.85 | 18711/368 | 3100 | 2900 | 4500 | 107 | 10.0 | 122 | 141 |
| 43 | 1771 | 1986 | 4.1 | 1.1 | C712_0470 EZ813U | 2300 | 4000 | 46.82 | 515/11 | 3100 | 2900 | 4500 | 109 | 10.0 | 122 | 128 |
| 49 | 1551 | 1740 | 3.7 | 1.4 | C712_0410 EZ813U | 2514 | 4006 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 108 | 10.0 | 122 | 128 |
| 57 | 1326 | 1487 | 3.6 | 1.5 | C712_0350 EZ813U | 2300 | 4000 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 112 | 10.0 | 122 | 128 |
| 57 | 1964 | 2339 | 5.3 | 1.0 | C712_0350 EZ815U | 2300 | 4000 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 175 | 10.0 | 122 | 141 |
| 59 | 1278 | 1434 | 2.9 | 1.9 | C712_0340 EZ813U | 2760 | 3710 | 33.80 | 2163/64 | 3100 | 2900 | 4500 | 109 | 10.0 | 122 | 128 |
| 59 | 1893 | 2254 | 4.3 | 1.3 | C712_0340 EZ815U | 2760 | 3710 | 33.80 | 2163/64 | 3100 | 2900 | 4500 | 172 | 10.0 | 122 | 141 |
| 70 | 1083 | 1215 | 3.2 | 1.8 | C712_0290 EZ813U | 2300 | 4000 | 28.64 | 315/11 | 3100 | 2900 | 4500 | 115 | 10.0 | 122 | 128 |
| 70 | 1604 | 1910 | 4.8 | 1.2 | C712_0290 EZ815U | 2300 | 4000 | 28.64 | 315/11 | 3100 | 2900 | 4500 | 178 | 10.0 | 122 | 141 |
| 79 | 957 | 1074 | 2.5 | 2.5 | C712_0250 EZ813U | 2536 | 3170 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 112 | 10.0 | 122 | 128 |
| 79 | 1418 | 1688 | 3.8 | 1.7 | C712_0250 EZ815U | 2536 | 3170 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 175 | 10.0 | 122 | 141 |
| 86 | 877 | 983 | 2.9 | 2.3 | C712_0230 EZ813U | 2300 | 4000 | 23.18 | 255/11 | 3100 | 2900 | 4500 | 119 | 10.0 | 122 | 128 |
| 86 | 1299 | 1546 | 4.3 | 1.5 | C712_0230 EZ815U | 2300 | 4000 | 23.18 | 255/11 | 3100 | 2900 | 4500 | 182 | 10.0 | 122 | 141 |
| 97 | 782 | 877 | 2.3 | 3.0 | C712_0210 EZ813U | 2760 | 4800 | 20.67 | 1323/64 | 3100 | 2900 | 4500 | 115 | 10.0 | 122 | 128 |
| 97 | 1158 | 1379 | 3.4 | 2.1 | C712_0210 EZ815U | 2760 | 4800 | 20.67 | 1323/64 | 3100 | 2900 | 4500 | 178 | 10.0 | 122 | 141 |
| 110 | 691 | 775 | 2.6 | 2.9 | C712_0185 EZ813U | 2300 | 4000 | 18.26 | 420/23 | 2900 | 2600 | 4000 | 125 | 10.0 | 122 | 128 |
| 110 | 1023 | 1218 | 3.8 | 2.0 | C712_0185 EZ815U | 2300 | 4000 | 18.26 | 420/23 | 2900 | 2600 | 4000 | 188 | 10.0 | 122 | 141 |
| 120 | 633 | 710 | 2.2 | 3.5 | C712_0165 EZ813U | 2272 | 4800 | 16.73 | 1071/64 | 3100 | 2900 | 4500 | 119 | 10.0 | 122 | 128 |
| 120 | 937 | 1116 | 3.3 | 2.4 | C712_0165 EZ815U | 2760 | 4800 | 16.73 | 1071/64 | 3100 | 2900 | 4500 | 183 | 10.0 | 122 | 141 |
| 146 | 519 | 582 | 2.2 | 3.9 | C712_0135 EZ813U | 1865 | 4000 | 13.73 | 4380/319 | 2900 | 2600 | 4000 | 134 | 10.0 | 122 | 128 |
| 146 | 769 | 916 | 3.3 | 2.6 | C712_0135 EZ815U | 2300 | 4000 | 13.73 | 4380/319 | 2900 | 2600 | 4000 | 197 | 10.0 | 122 | 141 |
| 152 | 499 | 559 | 2.2 | 4.1 | C712_0130 EZ813U | 1790 | 4797 | 13.18 | 4851/368 | 2900 | 2600 | 4000 | 126 | 10.0 | 122 | 128 |
| 152 | 738 | 879 | 3.2 | 2.8 | C712_0130 EZ815U | 2557 | 4797 | 13.18 | 4851/368 | 2900 | 2600 | 4000 | 189 | 10.0 | 122 | 141 |
| 170 | 445 | 499 | 2.1 | 4.4 | C712_0120 EZ813U | 1597 | 4000 | 11.76 | 1035/88 | 2600 | 2300 | 3500 | 140 | 10.0 | 122 | 128 |
| 170 | 659 | 784 | 3.1 | 3.0 | C712_0120 EZ815U | 2282 | 4000 | 11.76 | 1035/88 | 2600 | 2300 | 3500 | 203 | 10.0 | 122 | 141 |
| 202 | 375 | 420 | 2.1 | 5.0 | C712_0099 EZ813U | 1346 | 3606 | 9.912 | 4599/464 | 2900 | 2600 | 4000 | 136 | 10.0 | 122 | 128 |
| 202 | 555 | 661 | 3.0 | 3.3 | C712_0099 EZ815U | 1923 | 3606 | 9.912 | 4599/464 | 2900 | 2600 | 4000 | 199 | 10.0 | 122 | 141 |
| 236 | 476 | 566 | 3.0 | 3.7 | C712_0085 EZ815U | 1647 | 3089 | 8.490 | 4347/512 | 2600 | 2300 | 3500 | 206 | 10.0 | 122 | 141 |
| 272 | 412 | 491 | 2.9 | 4.1 | C712_0074 EZ815U | 1427 | 2677 | 7.357 | 3480/473 | 2200 | 1900 | 2800 | 232 | 10.0 | 122 | 141 |
| C7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2760 Nm) | | | | | | | | | | | | | | | | |
| 13 | 1574 | 1766 | 1.7 | 1.3 | C713_2230 EZ701U | 2300 | 4000 | 222.5 | 29375/132 | 3100 | 2900 | 4500 | 9.2 | 10.0 | 122 | 114 |
| 16 | 1297 | 1455 | 1.5 | 1.5 | C713_1830 EZ701U | 2300 | 4000 | 183.4 | 24205/132 | 3100 | 2900 | 4500 | 9.3 | 10.0 | 122 | 114 |
| 22 | 972 | 1090 | 1.3 | 2.1 | C713_1370 EZ701U | 2300 | 4000 | 137.3 | 10575/77 | 3100 | 2900 | 4500 | 9.5 | 10.0 | 122 | 114 |
| 22 | 1576 | 1891 | 2.2 | 1.3 | C713_1370 EZ702U | 2300 | 4000 | 137.3 | 10575/77 | 3100 | 2900 | 4500 | 15 | 10.0 | 122 | 116 |
| 23 | 936 | 1050 | 1.3 | 2.1 | C713_1320 EZ701U | 2531 | 3710 | 132.4 | 33887/256 | 3100 | 2900 | 4500 | 9.3 | 10.0 | 122 | 114 |
| 23 | 1519 | 1822 | 2.1 | 1.3 | C713_1320 EZ702U | 2760 | 3710 | 132.4 | 33887/256 | 3100 | 2900 | 4500 | 15 | 10.0 | 122 | 116 |
| 30 | 701 | 787 | 1.2 | 2.7 | C713_0990 EZ701U | 1896 | 3170 | 99.14 | 6345/64 | 3100 | 2900 | 4500 | 9.5 | 10.0 | 122 | 114 |
| 30 | 1137 | 1365 | 2.0 | 1.6 | C713_0990 EZ702U | 2536 | 3170 | 99.14 | 6345/64 | 3100 | 2900 | 4500 | 15 | 10.0 | 122 | 116 |
| 30 | 1564 | 1971 | 2.7 | 1.2 | C713_0990 EZ703U | 2536 | 3170 | 99.14 | 6345/64 | 3100 | 2900 | 4500 | 23 | 10.0 | 122 | 118 |
| 37 | 573 | 642 | 1.2 | 3.1 | C713_0810 EZ701U | 1548 | 2821 | 80.97 | 20727/256 | 3100 | 2900 | 4500 | 9.7 | 10.0 | 122 | 114 |
| 37 | 929 | 1115 | 1.9 | 1.9 | C713_0810 EZ702U | 2257 | 2821 | 80.97 | 20727/256 | 3100 | 2900 | 4500 | 15 | 10.0 | 122 | 116 |
| 37 | 1277 | 1610 | 2.6 | 1.4 | C713_0810 EZ703U | 2257 | 2821 | 80.97 | 20727/256 | 3100 | 2900 | 4500 | 23 | 10.0 | 122 | 118 |
| 43 | 499 | 560 | 1.0 | 4.0 | C712_0700 EZ701U | 1349 | 2646 | 69.55 | 765/11 | 3100 | 2900 | 4500 | 11 | 10.0 | 122 | 101 |
| 43 | 810 | 971 | 1.6 | 2.5 | C712_0700 EZ702U | 2116 | 2646 | 69.55 | 765/11 | 3100 | 2900 | 4500 | 16 | 10.0 | 122 | 103 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2760 Nm) | | | | | | | | | | | | | | | | |
| 43 | 1113 | 1403 | 2.1 | 1.8 | C712_0700 EZ703U | 2116 | 2646 | 69.55 | 765/11 | 3100 | 2900 | 4500 | 24 | 10.0 | 122 | 105 |
| 53 | 408 | 457 | 0.9 | 4.7 | C712_0570 EZ701U | 1102 | 2374 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 12 | 10.0 | 122 | 101 |
| 53 | 661 | 794 | 1.5 | 2.9 | C712_0570 EZ702U | 1899 | 2374 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 17 | 10.0 | 122 | 103 |
| 53 | 909 | 1146 | 2.0 | 2.1 | C712_0570 EZ703U | 1899 | 2374 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 25 | 10.0 | 122 | 105 |
| 53 | 1174 | 1664 | 2.5 | 1.7 | C712_0570 EZ705U | 2300 | 4000 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 37 | 10.0 | 122 | 111 |
| 64 | 967 | 1371 | 2.3 | 2.1 | C712_0470 EZ705U | 2300 | 4000 | 46.82 | 515/11 | 3100 | 2900 | 4500 | 39 | 10.0 | 122 | 111 |
| 73 | 294 | 330 | 1.1 | 4.7 | C712_0410 EZ701U | 796 | 1714 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 12 | 10.0 | 122 | 101 |
| 73 | 477 | 573 | 1.7 | 2.9 | C712_0410 EZ702U | 1371 | 1714 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 17 | 10.0 | 122 | 103 |
| 73 | 656 | 828 | 2.4 | 2.1 | C712_0410 EZ703U | 1371 | 1714 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 25 | 10.0 | 122 | 105 |
| 73 | 847 | 1202 | 2.0 | 2.5 | C712_0410 EZ705U | 2514 | 4006 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 37 | 10.0 | 122 | 111 |
| 86 | 408 | 490 | 1.4 | 3.8 | C712_0350 EZ702U | 1395 | 1958 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 21 | 10.0 | 122 | 103 |
| 86 | 561 | 707 | 1.9 | 2.8 | C712_0350 EZ703U | 1566 | 1958 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 29 | 10.0 | 122 | 105 |
| 86 | 724 | 1027 | 2.0 | 2.8 | C712_0350 EZ705U | 2300 | 4000 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 42 | 10.0 | 122 | 111 |
| 89 | 698 | 990 | 1.6 | 3.4 | C712_0340 EZ705U | 2760 | 3710 | 33.80 | 2163/64 | 3100 | 2900 | 4500 | 39 | 10.0 | 122 | 111 |
| 105 | 592 | 839 | 1.8 | 3.4 | C712_0290 EZ705U | 2300 | 3908 | 28.64 | 315/11 | 3100 | 2900 | 4500 | 44 | 10.0 | 122 | 111 |
| 119 | 295 | 354 | 1.7 | 3.8 | C712_0250 EZ702U | 1007 | 1413 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 22 | 10.0 | 122 | 103 |
| 119 | 405 | 511 | 2.3 | 2.8 | C712_0250 EZ703U | 1131 | 1413 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 29 | 10.0 | 122 | 105 |
| 119 | 523 | 742 | 1.5 | 4.2 | C712_0250 EZ705U | 2536 | 3170 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 42 | 10.0 | 122 | 111 |
| 129 | 479 | 679 | 1.6 | 4.2 | C712_0230 EZ705U | 2300 | 3770 | 23.18 | 255/11 | 3100 | 2900 | 4500 | 48 | 10.0 | 122 | 111 |
| 145 | 427 | 606 | 1.4 | 4.9 | C712_0210 EZ705U | 2085 | 2821 | 20.67 | 1323/64 | 3100 | 2900 | 4500 | 45 | 10.0 | 122 | 111 |
| C7 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 2760 Nm) | | | | | | | | | | | | | | | | |
| 41 | 2352 | 4079 | 3.2 | 1.0 | C713_0980 EZ813U | 2536 | 3170 | 97.63 | 10935/112 | 3100 | 2900 | 4500 | 107 | 10.0 | 122 | 141 |
| 50 | 1921 | 3331 | 2.9 | 1.2 | C713_0800 EZ813U | 2760 | 4800 | 79.73 | 5103/64 | 3100 | 2900 | 4500 | 107 | 10.0 | 122 | 141 |
| 50 | 1990 | 5118 | 3.0 | 1.2 | C713_0800 EZ815U | 2760 | 4800 | 79.73 | 5103/64 | 3100 | 2900 | 4500 | 170 | 10.0 | 122 | 154 |
| 62 | 1555 | 2697 | 2.6 | 1.5 | C713_0650 EZ813U | 2760 | 4800 | 64.55 | 4131/64 | 3100 | 2900 | 4500 | 107 | 10.0 | 122 | 141 |
| 62 | 1611 | 4143 | 2.7 | 1.5 | C713_0650 EZ815U | 2760 | 4800 | 64.55 | 4131/64 | 3100 | 2900 | 4500 | 170 | 10.0 | 122 | 154 |
| 70 | 1389 | 2408 | 2.9 | 1.4 | C712_0570 EZ813U | 2300 | 4000 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 108 | 10.0 | 122 | 128 |
| 70 | 1439 | 3700 | 3.1 | 1.4 | C712_0570 EZ815U | 2300 | 4000 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 171 | 10.0 | 122 | 141 |
| 79 | 1225 | 2124 | 2.4 | 1.9 | C713_0510 EZ813U | 2760 | 4797 | 50.85 | 18711/368 | 3100 | 2900 | 4500 | 107 | 10.0 | 122 | 141 |
| 79 | 1269 | 3264 | 2.4 | 1.8 | C713_0510 EZ815U | 2760 | 4797 | 50.85 | 18711/368 | 3100 | 2900 | 4500 | 171 | 10.0 | 122 | 154 |
| 85 | 1144 | 1985 | 2.7 | 1.7 | C712_0470 EZ813U | 2300 | 4000 | 46.82 | 515/11 | 3100 | 2900 | 4500 | 109 | 10.0 | 122 | 128 |
| 85 | 1186 | 3049 | 2.8 | 1.7 | C712_0470 EZ815U | 2300 | 4000 | 46.82 | 515/11 | 3100 | 2900 | 4500 | 172 | 10.0 | 122 | 141 |
| 98 | 1003 | 1739 | 2.4 | 2.1 | C712_0410 EZ813U | 2514 | 4006 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 108 | 10.0 | 122 | 128 |
| 98 | 1039 | 2671 | 2.5 | 2.0 | C712_0410 EZ815U | 2514 | 4006 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 171 | 10.0 | 122 | 141 |
| 114 | 857 | 1486 | 2.3 | 2.3 | C712_0350 EZ813U | 2300 | 4000 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 112 | 10.0 | 122 | 128 |
| 114 | 888 | 2284 | 2.4 | 2.3 | C712_0350 EZ815U | 2300 | 4000 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 175 | 10.0 | 122 | 141 |
| 118 | 826 | 1433 | 2.0 | 2.7 | C712_0340 EZ813U | 2760 | 3710 | 33.80 | 2163/64 | 3100 | 2900 | 4500 | 109 | 10.0 | 122 | 128 |
| 118 | 856 | 2201 | 2.1 | 2.6 | C712_0340 EZ815U | 2760 | 3710 | 33.80 | 2163/64 | 3100 | 2900 | 4500 | 172 | 10.0 | 122 | 141 |
| 140 | 700 | 1214 | 2.1 | 2.9 | C712_0290 EZ813U | 2300 | 4000 | 28.64 | 315/11 | 3100 | 2900 | 4500 | 115 | 10.0 | 122 | 128 |
| 140 | 725 | 1865 | 2.2 | 2.8 | C712_0290 EZ815U | 2300 | 4000 | 28.64 | 315/11 | 3100 | 2900 | 4500 | 178 | 10.0 | 122 | 141 |
| 158 | 619 | 1073 | 2.0 | 3.3 | C712_0250 EZ813U | 2536 | 3170 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 112 | 10.0 | 122 | 128 |
| 158 | 641 | 1649 | 2.0 | 3.1 | C712_0250 EZ815U | 2536 | 3170 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 175 | 10.0 | 122 | 141 |
| 173 | 567 | 983 | 1.9 | 3.5 | C712_0230 EZ813U | 2300 | 4000 | 23.18 | 255/11 | 3100 | 2900 | 4500 | 119 | 10.0 | 122 | 128 |
| 173 | 587 | 1510 | 2.0 | 3.3 | C712_0230 EZ815U | 2300 | 4000 | 23.18 | 255/11 | 3100 | 2900 | 4500 | 182 | 10.0 | 122 | 141 |
| 193 | 505 | 876 | 1.9 | 3.7 | C712_0210 EZ813U | 2760 | 4800 | 20.67 | 1323/64 | 3100 | 2900 | 4500 | 115 | 10.0 | 122 | 128 |
| 193 | 524 | 1346 | 2.0 | 3.6 | C712_0210 EZ815U | 2760 | 4800 | 20.67 | 1323/64 | 3100 | 2900 | 4500 | 178 | 10.0 | 122 | 141 |
| 219 | 446 | 774 | 1.8 | 4.1 | C712_0185 EZ813U | 2300 | 4000 | 18.26 | 420/23 | 2900 | 2600 | 4000 | 125 | 10.0 | 122 | 128 |
| 219 | 462 | 1189 | 1.9 | 3.9 | C712_0185 EZ815U | 2300 | 4000 | 18.26 | 420/23 | 2900 | 2600 | 4000 | 188 | 10.0 | 122 | 141 |
| 239 | 409 | 709 | 1.8 | 4.3 | C712_0165 EZ813U | 2272 | 4800 | 16.73 | 1071/64 | 3100 | 2900 | 4500 | 119 | 10.0 | 122 | 128 |
| 239 | 424 | 1090 | 1.9 | 4.1 | C712_0165 EZ815U | 2760 | 4800 | 16.73 | 1071/64 | 3100 | 2900 | 4500 | 183 | 10.0 | 122 | 141 |
| 291 | 336 | 582 | 1.8 | 4.9 | C712_0135 EZ813U | 1865 | 4000 | 13.73 | 4380/319 | 2900 | 2600 | 4000 | 134 | 10.0 | 122 | 128 |
| 291 | 348 | 894 | 1.8 | 4.7 | C712_0135 EZ815U | 2300 | 4000 | 13.73 | 4380/319 | 2900 | 2600 | 4000 | 197 | 10.0 | 122 | 141 |
| 303 | 334 | 858 | 1.8 | 4.9 | C712_0130 EZ815U | 2557 | 4797 | 13.18 | 4851/368 | 2900 | 2600 | 4000 | 189 | 10.0 | 122 | 141 |
| C7 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 2760 Nm) | | | | | | | | | | | | | | | | |
| 33 | 1589 | 2626 | 2.2 | 1.3 | C713_1370 EZ703U | 2300 | 4000 | 137.3 | 10575/77 | 3100 | 2900 | 4500 | 23 | 10.0 | 122 | 118 |
| 34 | 1531 | 2531 | 2.5 | 1.1 | C713_1320 EZ703U | 2760 | 3710 | 132.4 | 33887/256 | 3100 | 2900 | 4500 | 22 | 10.0 | 122 | 118 |
| 45 | 1147 | 1896 | 2.3 | 1.4 | C713_0990 EZ703U | 2536 | 3170 | 99.14 | 6345/64 | 3100 | 2900 | 4500 | 23 | 10.0 | 122 | 118 |
| 56 | 937 | 1548 | 2.2 | 1.6 | C713_0810 EZ703U | 2257 | 2821 | 80.97 | 20727/256 | 3100 | 2900 | 4500 | 23 | 10.0 | 122 | 118 |
| 65 | 816 | 1349 | 1.6 | 2.5 | C712_0700 EZ703U | 2116 | 2646 | 69.55 | 765/11 | 3100 | 2900 | 4500 | 24 | 10.0 | 122 | 105 |
| 79 | 667 | 1102 | 1.5 | 2.8 | C712_0570 EZ703U | 1899 | 2374 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 25 | 10.0 | 122 | 105 |
| 79 | 904 | 1653 | 1.9 | 2.2 | C712_0570 EZ705U | 2300 | 4000 | 56.82 | 625/11 | 3100 | 2900 | 4500 | 37 | 10.0 | 122 | 111 |
| 96 | 745 | 1362 | 1.7 | 2.7 | C712_0470 EZ705U | 2300 | 4000 | 46.82 | 515/11 | 3100 | 2900 | 4500 | 39 | 10.0 | 122 | 111 |
| 110 | 481 | 796 | 1.8 | 2.8 | C712_0410 EZ703U | 1371 | 1714 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 25 | 10.0 | 122 | 105 |
| 110 | 652 | 1194 | 1.6 | 3.2 | C712_0410 EZ705U | 2514 | 4006 | 41.02 | 2625/64 | 3100 | 2900 | 4500 | 37 | 10.0 | 122 | 111 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ |  | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  | EL1,2,3,4 | EL5,6 |  |  |  |  |  |
| [rpm] | [Nm] | [Nm] |  |  |  | [Nm] | [Nm] |  |  | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| C7 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 2760 Nm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 128 | 412 | 680 | 1.4 | 3.8 | C712_0350 EZ703U | 1566 | 1958 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 29 | 10.0 | 122 | 105 |
| 128 | 558 | 1020 | 1.5 | 3.6 | C712_0350 EZ705U | 2300 | 4000 | 35.07 | 2700/77 | 3100 | 2900 | 4500 | 42 | 10.0 | 122 | 111 |
| 133 | 538 | 983 | 1.4 | 4.0 | C712_0340 EZ705U | 2760 | 3710 | 33.80 | 2163/64 | 3100 | 2900 | 4500 | 39 | 10.0 | 122 | 111 |
| 157 | 456 | 833 | 1.4 | 4.4 | C712_0290 EZ705U | 2300 | 3908 | 28.64 | 315/11 | 3100 | 2900 | 4500 | 44 | 10.0 | 122 | 111 |
| 178 | 297 | 491 | 1.7 | 3.8 | C712_0250 EZ703U | 1131 | 1413 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 29 | 10.0 | 122 | 105 |
| 178 | 403 | 737 | 1.3 | 4.8 | C712_0250 EZ705U | 2536 | 3170 | 25.31 | 405/16 | 3100 | 2900 | 4500 | 42 | 10.0 | 122 | 111 |
| C8 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 4800 Nm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | 3746 | 4202 | 3.0 | 1.1 | C813_1010 EZ813U | 4800 | 7453 | 100.5 | 28143/280 | 2900 | 2700 | 4300 | 107 | 10.0 | 204 | 200 |
| 22 | 3334 | 3739 | 3.3 | 1.1 | C813_0890 EZ813U | 4140 | 7200 | 89.44 | 14400/161 | 2900 | 2700 | 4300 | 108 | 10.0 | 204 | 200 |
| 26 | 2912 | 3266 | 2.8 | 1.4 | C813_0780 EZ813U | 4800 | 6759 | 78.13 | 54693/700 | 2900 | 2700 | 4300 | 108 | 10.0 | 204 | 200 |
| 29 | 2605 | 2922 | 3.0 | 1.4 | C812_0690 EZ813U | 4140 | 6652 | 68.89 | 620/9 | 2900 | 2700 | 4300 | 110 | 10.0 | 204 | 188 |
| 30 | 2459 | 2758 | 2.7 | 1.5 | C813_0660 EZ813U | 4800 | 6222 | 65.96 | 10620/161 | 2900 | 2700 | 4300 | 108 | 10.0 | 204 | 200 |
| 30 | 3642 | 4336 | 4.0 | 1.0 | C813_0660 EZ815U | 4800 | 6222 | 65.96 | 10620/161 | 2900 | 2700 | 4300 | 171 | 10.0 | 204 | 213 |
| 37 | 2048 | 2297 | 2.6 | 1.8 | C812_0540 EZ813U | 4140 | 6248 | 54.15 | 704/13 | 2900 | 2700 | 4300 | 113 | 10.0 | 204 | 188 |
| 37 | 3034 | 3612 | 3.9 | 1.2 | C812_0540 EZ815U | 4140 | 6248 | 54.15 | 704/13 | 2900 | 2700 | 4300 | 176 | 10.0 | 204 | 200 |
| 41 | 1833 | 2056 | 2.5 | 1.9 | C813_0490 EZ813U | 3710 | 4638 | 49.18 | 49914/1015 | 2900 | 2700 | 4300 | 110 | 10.0 | 204 | 200 |
| 41 | 2715 | 3233 | 3.8 | 1.3 | C813_0490 EZ815U | 3710 | 4638 | 49.18 | 49914/1015 | 2900 | 2700 | 4300 | 173 | 10.0 | 204 | 213 |
| 44 | 1722 | 1932 | 2.4 | 2.1 | C812_0460 EZ813U | 4140 | 7200 | 45.54 | 592/13 | 2900 | 2700 | 4300 | 116 | 10.0 | 204 | 188 |
| 44 | 2551 | 3037 | 3.6 | 1.4 | C812_0460 EZ815U | 4140 | 7200 | 45.54 | 592/13 | 2900 | 2700 | 4300 | 179 | 10.0 | 204 | 200 |
| 50 | 1510 | 1694 | 2.2 | 2.4 | C812_0400 EZ813U | 3686 | 4608 | 39.94 | 2596/65 | 2900 | 2700 | 4300 | 113 | 10.0 | 145 | 188 |
| 50 | 2237 | 2664 | 3.3 | 1.6 | C812_0400 EZ815U | 3686 | 4608 | 39.94 | 2596/65 | 2900 | 2700 | 4300 | 176 | 10.0 | 145 | 200 |
| 57 | 1336 | 1499 | 2.1 | 2.7 | C812_0350 EZ813U | 4140 | 7200 | 35.33 | 106/3 | 2900 | 2700 | 4300 | 122 | 10.0 | 204 | 188 |
| 57 | 1979 | 2357 | 3.1 | 1.8 | C812_0350 EZ815U | 4140 | 7200 | 35.33 | 106/3 | 2900 | 2700 | 4300 | 185 | 10.0 | 204 | 200 |
| 60 | 1270 | 1425 | 1.8 | 3.3 | C812_0340 EZ813U | 4561 | 8400 | 33.59 | 2183/65 | 2900 | 2700 | 4300 | 117 | 10.0 | 145 | 188 |
| 60 | 1881 | 2240 | 2.6 | 2.2 | C812_0340 EZ815U | 4800 | 8400 | 33.59 | 2183/65 | 2900 | 2700 | 4300 | 180 | 10.0 | 145 | 200 |
| 73 | 1039 | 1165 | 1.9 | 3.5 | C812_0270 EZ813U | 3730 | 7200 | 27.47 | 412/15 | 2900 | 2700 | 4300 | 130 | 10.0 | 204 | 188 |
| 73 | 1539 | 1832 | 2.8 | 2.3 | C812_0270 EZ815U | 4140 | 7200 | 27.47 | 412/15 | 2900 | 2700 | 4300 | 193 | 10.0 | 204 | 200 |
| 77 | 986 | 1105 | 1.6 | 4.2 | C812_0260 EZ813U | 3539 | 7453 | 26.06 | 3127/120 | 2900 | 2700 | 4300 | 123 | 10.0 | 145 | 188 |
| 77 | 1460 | 1738 | 2.3 | 2.9 | C812_0260 EZ815U | 4800 | 7453 | 26.06 | 3127/120 | 2900 | 2700 | 4300 | 186 | 10.0 | 145 | 200 |
| 86 | 877 | 984 | 1.7 | 4.1 | C812_0230 EZ813U | 3149 | 7200 | 23.19 | 1600/69 | 2900 | 2700 | 4300 | 138 | 10.0 | 204 | 188 |
| 86 | 1299 | 1547 | 2.5 | 2.8 | C812_0230 EZ815U | 4140 | 7200 | 23.19 | 1600/69 | 2900 | 2700 | 4300 | 201 | 10.0 | 204 | 200 |
| 99 | 1135 | 1351 | 2.2 | 3.4 | C812_0200 EZ815U | 3930 | 6759 | 20.26 | 6077/300 | 2900 | 2700 | 4300 | 195 | 10.0 | 145 | 200 |
| 116 | 968 | 1153 | 2.2 | 3.7 | C812_0175 EZ815U | 3354 | 6289 | 17.29 | 1504/87 | 2700 | 2400 | 3800 | 218 | 10.0 | 204 | 200 |
| 117 | 958 | 1141 | 2.2 | 3.8 | C812_0170 EZ815U | 3318 | 6222 | 17.10 | 1180/69 | 2900 | 2700 | 4300 | 203 | 10.0 | 145 | 200 |
| 145 | 771 | 918 | 2.1 | 4.4 | C812_0140 EZ815U | 2670 | 5008 | 13.76 | 1280/93 | 2700 | 2400 | 3800 | 237 | 10.0 | 204 | 200 |
| 157 | 714 | 850 | 2.1 | 4.6 | C812_0125 EZ815U | 2473 | 4638 | 12.75 | 5546/435 | 2700 | 2400 | 3800 | 221 | 10.0 | 145 | 200 |
| C8 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 4140 Nm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 1909 | 2141 | 1.1 | 1.8 | C813_2700 EZ701U | 4140 | 6652 | 269.8 | 7285/27 | 2900 | 2700 | 4300 | 9.4 | 10.0 | 204 | 173 |
| 11 | 3095 | 3714 | 1.9 | 1.1 | C813_2700 EZ702U | 4140 | 6652 | 269.8 | 7285/27 | 2900 | 2700 | 4300 | 15 | 10.0 | 204 | 175 |
| 14 | 1501 | 1683 | 1.1 | 2.2 | C813_2120 EZ701U | 4055 | 6248 | 212.1 | 8272/39 | 2900 | 2700 | 4300 | 9.6 | 10.0 | 204 | 173 |
| 14 | 2433 | 2920 | 1.7 | 1.4 | C813_2120 EZ702U | 4140 | 6248 | 212.1 | 8272/39 | 2900 | 2700 | 4300 | 15 | 10.0 | 204 | 175 |
| 17 | 1262 | 1415 | 1.0 | 2.5 | C813_1780 EZ701U | 3410 | 5251 | 178.4 | 6956/39 | 2900 | 2700 | 4300 | 9.8 | 10.0 | 204 | 173 |
| 17 | 2046 | 2455 | 1.6 | 1.6 | C813_1780 EZ702U | 4140 | 5251 | 178.4 | 6956/39 | 2900 | 2700 | 4300 | 15 | 10.0 | 204 | 175 |
| 17 | 2813 | 3547 | 2.3 | 1.1 | C813_1780 EZ703U | 4140 | 5251 | 178.4 | 6956/39 | 2900 | 2700 | 4300 | 23 | 10.0 | 204 | 177 |
| 22 | 979 | 1098 | 0.9 | 3.1 | C813_1380 EZ701U | 2646 | 4648 | 138.4 | 2491/18 | 2900 | 2700 | 4300 | 10 | 10.0 | 204 | 173 |
| 22 | 1588 | 1905 | 1.5 | 1.9 | C813_1380 EZ702U | 3718 | 4648 | 138.4 | 2491/18 | 2900 | 2700 | 4300 | 15 | 10.0 | 204 | 175 |
| 22 | 2183 | 2752 | 2.1 | 1.4 | C813_1380 EZ703U | 3718 | 4648 | 138.4 | 2491/18 | 2900 | 2700 | 4300 | 23 | 10.0 | 204 | 177 |
| 28 | 761 | 854 | 0.9 | 3.8 | C813_1080 EZ701U | 2057 | 4214 | 107.6 | 4841/45 | 2900 | 2700 | 4300 | 11 | 10.0 | 204 | 173 |
| 28 | 1234 | 1481 | 1.4 | 2.3 | C813_1080 EZ702U | 3371 | 4214 | 107.6 | 4841/45 | 2900 | 2700 | 4300 | 16 | 10.0 | 204 | 175 |
| 28 | 1697 | 2139 | 1.9 | 1.7 | C813_1080 EZ703U | 3371 | 4214 | 107.6 | 4841/45 | 2900 | 2700 | 4300 | 24 | 10.0 | 204 | 177 |
| 33 | 643 | 721 | 0.8 | 4.3 | C813_0910 EZ701U | 1736 | 3558 | 90.82 | 18800/207 | 2900 | 2700 | 4300 | 11 | 10.0 | 204 | 173 |
| 33 | 1042 | 1250 | 1.4 | 2.6 | C813_0910 EZ702U | 2846 | 3558 | 90.82 | 18800/207 | 2900 | 2700 | 4300 | 16 | 10.0 | 204 | 175 |
| 33 | 1433 | 1806 | 1.9 | 1.9 | C813_0910 EZ703U | 2846 | 3558 | 90.82 | 18800/207 | 2900 | 2700 | 4300 | 24 | 10.0 | 204 | 177 |
| 38 | 561 | 630 | 1.0 | 3.8 | C813_0790 EZ701U | 1517 | 3108 | 79.34 | 285619/3600 | 2900 | 2700 | 4300 | 11 | 10.0 | 204 | 173 |
| 38 | 910 | 1092 | 1.6 | 2.3 | C813_0790 EZ702U | 2486 | 3108 | 79.34 | 285619/3600 | 2900 | 2700 | 4300 | 16 | 10.0 | 204 | 175 |
| 38 | 1251 | 1578 | 2.3 | 1.7 | C813_0790 EZ703U | 2486 | 3108 | 79.34 | 285619/3600 | 2900 | 2700 | 4300 | 24 | 10.0 | 204 | 177 |
| C8 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 4800 Nm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 | 3283 | 5694 | 2.7 | 1.1 | C813_1360 EZ813U | 4140 | 7200 | 136.3 | 954/7 | 2900 | 2700 | 4300 | 107 | 10.0 | 204 | 200 |
| 29 | 3402 | 8748 | 2.8 | 1.1 | C813_1360 EZ815U | 4140 | 7200 | 136.3 | 954/7 | 2900 | 2700 | 4300 | 170 | 10.0 | 204 | 213 |
| 31 | 3121 | 5412 | 2.7 | 1.1 | C813_1300 EZ813U | 4800 | 8400 | 129.5 | 58941/455 | 2900 | 2700 | 4300 | 107 | 10.0 | 204 | 200 |
| 31 | 3233 | 8315 | 2.8 | 1.1 | C813_1300 EZ815U | 4800 | 8400 | 129.5 | 58941/455 | 2900 | 2700 | 4300 | 170 | 10.0 | 204 | 213 |
| 38 | 2552 | 4426 | 2.3 | 1.4 | C813_1060 EZ813U | 4140 | 7200 | 105.9 | 3708/35 | 2900 | 2700 | 4300 | 108 | 10.0 | 204 | 200 |
| 38 | 2644 | 6800 | 2.4 | 1.4 | C813_1060 EZ815U | 4140 | 7200 | 105.9 | 3708/35 | 2900 | 2700 | 4300 | 171 | 10.0 | 204 | 213 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C8 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 4800 Nm)** | | | | | | | | | | | | | | | | |
| 40 | 2421 | 4199 | 2.5 | 1.4 | C813_1010 EZ813U | 4800 | 7453 | 100.5 | 28143/280 | 2900 | 2700 | 4300 | 107 | 10.0 | 204 | 200 |
| 40 | 2509 | 6451 | 2.6 | 1.3 | C813_1010 EZ815U | 4800 | 7453 | 100.5 | 28143/280 | 2900 | 2700 | 4300 | 170 | 10.0 | 204 | 213 |
| 45 | 2155 | 3737 | 2.2 | 1.7 | C813_0890 EZ813U | 4140 | 7200 | 89.44 | 14400/161 | 2900 | 2700 | 4300 | 108 | 10.0 | 204 | 200 |
| 45 | 2233 | 5741 | 2.2 | 1.6 | C813_0890 EZ815U | 4140 | 7200 | 89.44 | 14400/161 | 2900 | 2700 | 4300 | 171 | 10.0 | 204 | 213 |
| 51 | 1882 | 3264 | 2.3 | 1.7 | C813_0780 EZ813U | 4800 | 6759 | 78.13 | 54693/700 | 2900 | 2700 | 4300 | 108 | 10.0 | 204 | 200 |
| 51 | 1950 | 5015 | 2.4 | 1.6 | C813_0780 EZ815U | 4800 | 6759 | 78.13 | 54693/700 | 2900 | 2700 | 4300 | 171 | 10.0 | 204 | 213 |
| 58 | 1684 | 2920 | 1.9 | 2.1 | C812_0690 EZ813U | 4140 | 6652 | 68.89 | 620/9 | 2900 | 2700 | 4300 | 110 | 10.0 | 204 | 188 |
| 58 | 1745 | 4486 | 2.0 | 2.1 | C812_0690 EZ815U | 4140 | 6652 | 68.89 | 620/9 | 2900 | 2700 | 4300 | 173 | 10.0 | 204 | 200 |
| 61 | 1589 | 2756 | 2.2 | 1.9 | C813_0660 EZ813U | 4800 | 6222 | 65.96 | 10620/161 | 2900 | 2700 | 4300 | 108 | 10.0 | 204 | 200 |
| 61 | 1647 | 4234 | 2.3 | 1.8 | C813_0660 EZ815U | 4800 | 6222 | 65.96 | 10620/161 | 2900 | 2700 | 4300 | 171 | 10.0 | 204 | 213 |
| 74 | 1324 | 2296 | 1.7 | 2.7 | C812_0540 EZ813U | 4140 | 6248 | 54.15 | 704/13 | 2900 | 2700 | 4300 | 113 | 10.0 | 204 | 188 |
| 74 | 1372 | 3527 | 1.8 | 2.6 | C812_0540 EZ815U | 4140 | 6248 | 54.15 | 704/13 | 2900 | 2700 | 4300 | 176 | 10.0 | 204 | 200 |
| 81 | 1185 | 2054 | 2.1 | 2.3 | C813_0490 EZ813U | 3710 | 4638 | 49.18 | 49914/1015 | 2900 | 2700 | 4300 | 110 | 10.0 | 204 | 200 |
| 81 | 1227 | 3156 | 2.1 | 2.3 | C813_0490 EZ815U | 3710 | 4638 | 49.18 | 49914/1015 | 2900 | 2700 | 4300 | 173 | 10.0 | 204 | 213 |
| 88 | 1113 | 1930 | 1.6 | 3.2 | C812_0460 EZ813U | 4140 | 7200 | 45.54 | 592/13 | 2900 | 2700 | 4300 | 116 | 10.0 | 204 | 188 |
| 88 | 1153 | 2966 | 1.6 | 3.1 | C812_0460 EZ815U | 4140 | 7200 | 45.54 | 592/13 | 2900 | 2700 | 4300 | 179 | 10.0 | 204 | 200 |
| 100 | 976 | 1693 | 1.4 | 3.8 | C812_0400 EZ813U | 3686 | 4608 | 39.94 | 2596/65 | 2900 | 2700 | 4300 | 113 | 10.0 | 145 | 188 |
| 100 | 1011 | 2601 | 1.5 | 3.6 | C812_0400 EZ815U | 3686 | 4608 | 39.94 | 2596/65 | 2900 | 2700 | 4300 | 176 | 10.0 | 145 | 200 |
| 113 | 864 | 1498 | 1.4 | 4.2 | C812_0350 EZ813U | 4140 | 7200 | 35.33 | 106/3 | 2900 | 2700 | 4300 | 122 | 10.0 | 204 | 188 |
| 113 | 895 | 2301 | 1.4 | 4.0 | C812_0350 EZ815U | 4140 | 7200 | 35.33 | 106/3 | 2900 | 2700 | 4300 | 185 | 10.0 | 204 | 200 |
| 119 | 821 | 1424 | 1.3 | 4.4 | C812_0340 EZ813U | 4561 | 8400 | 33.59 | 2183/65 | 2900 | 2700 | 4300 | 117 | 10.0 | 145 | 188 |
| 119 | 851 | 2187 | 1.4 | 4.2 | C812_0340 EZ815U | 4800 | 8400 | 33.59 | 2183/65 | 2900 | 2700 | 4300 | 180 | 10.0 | 145 | 200 |
| 146 | 696 | 1789 | 1.3 | 4.8 | C812_0270 EZ815U | 4140 | 7200 | 27.47 | 412/15 | 2900 | 2700 | 4300 | 193 | 10.0 | 204 | 200 |
| **C9 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 6500 Nm)** | | | | | | | | | | | | | | | | |
| 18 | 4116 | 4617 | 2.4 | 1.5 | C913_1100 EZ813U | 6500 | 9997 | 110.4 | 21645/196 | 2800 | 2600 | 4000 | 110 | 10.0 | 393 | 307 |
| 26 | 2897 | 3249 | 2.6 | 1.6 | C913_0780 EZ813U | 5630 | 7037 | 77.73 | 60939/784 | 2800 | 2600 | 4000 | 110 | 10.0 | 393 | 307 |
| 26 | 4291 | 5109 | 3.9 | 1.1 | C913_0780 EZ815U | 5630 | 7037 | 77.73 | 60939/784 | 2800 | 2600 | 4000 | 173 | 10.0 | 393 | 320 |
| **C9 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 6500 Nm)** | | | | | | | | | | | | | | | | |
| 19 | 5188 | 8997 | 2.2 | 1.1 | C913_2150 EZ813U | 6500 | 12000 | 215.4 | 3015/14 | 2800 | 2600 | 4000 | 108 | 10.0 | 393 | 307 |
| 19 | 5376 | 13823 | 2.3 | 1.1 | C913_2150 EZ815U | 6500 | 12000 | 215.4 | 3015/14 | 2800 | 2600 | 4000 | 171 | 10.0 | 393 | 320 |
| 23 | 4242 | 7357 | 2.0 | 1.3 | C913_1760 EZ813U | 6500 | 12000 | 176.1 | 34515/196 | 2800 | 2600 | 4000 | 108 | 10.0 | 393 | 307 |
| 23 | 4396 | 11303 | 2.1 | 1.3 | C913_1760 EZ815U | 6500 | 12000 | 176.1 | 34515/196 | 2800 | 2600 | 4000 | 171 | 10.0 | 393 | 320 |
| 36 | 2660 | 4614 | 1.8 | 1.9 | C913_1100 EZ813U | 6500 | 9997 | 110.4 | 21645/196 | 2800 | 2600 | 4000 | 110 | 10.0 | 393 | 307 |
| 36 | 2757 | 7088 | 1.8 | 1.9 | C913_1100 EZ815U | 6500 | 9997 | 110.4 | 21645/196 | 2800 | 2600 | 4000 | 173 | 10.0 | 393 | 320 |
| 51 | 1873 | 3247 | 2.1 | 1.9 | C913_0780 EZ813U | 5630 | 7037 | 77.73 | 60939/784 | 2800 | 2600 | 4000 | 110 | 10.0 | 393 | 307 |
| 51 | 1940 | 4989 | 2.2 | 1.9 | C913_0780 EZ815U | 5630 | 7037 | 77.73 | 60939/784 | 2800 | 2600 | 4000 | 173 | 10.0 | 393 | 320 |

# 7.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

**Tolerances**

| Axis height in accordance with DIN 747 | Tolerance |
|---|---|
| Up to 50 mm | -0.4 mm |
| Up to 250 mm | -0.5 mm |
| Up to 630 mm | -0.6 mm |

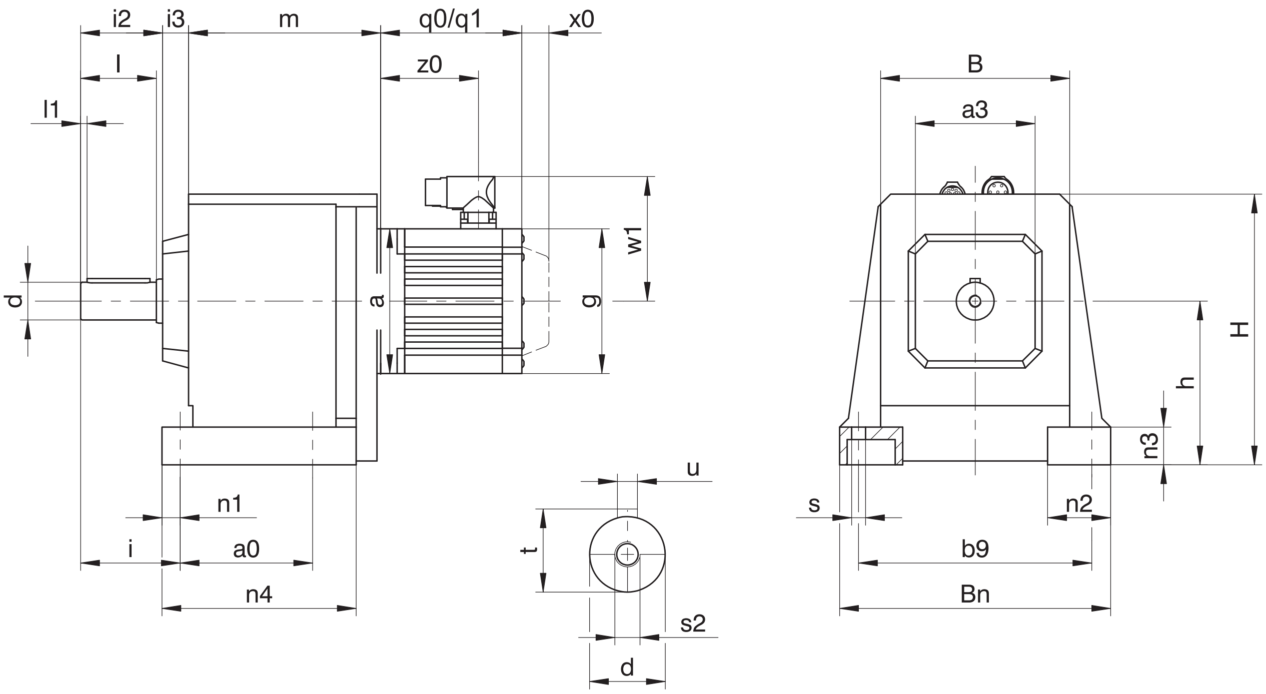
| Solid shaft | Tolerance |
|---|---|
| Shaft ∅ fit ≤ 50 mm | DIN 748-1, ISO k6 |
| Shaft ∅ fit > 50 mm | DIN 748-1, ISO m6 |
| Feather keys | DIN 6885-1, high form A |

| Flange | Pilot tolerance |
|---|---|
| Up to 300 mm | ISO j6 |
| Starting at 350 mm | ISO h6 |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| Thread size | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|---|
| Thread depth [mm] | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 7.3.1 Solid shaft design with feather key, N housing design (foot)




q0 Applies to motors without brake.

q1 Applies to motors with brake.

x0 EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method
EZ3 – EZ8: Applies to encoders using an optical measuring method

w1 Different for the One Cable Solution (OCS), see the chapter [▷ 17.4]

C203, C303, C612, C613: Motor and gearbox are sometimes non-coaxial.

**Options:** C0 – C5 also available with solid shaft without feather key; on request starting at C6.

**Dimensions of gearboxes**

| Type | a0 | a3 | b9 | B | Bn | Ød | h | H | i | i2 | i3 | l | l1 | n1 | n2 | n3 | n4 | Øs | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C0 | 62 | 60 | 110 | 92 | 132 | $20_{k6}$ | 82 | 144 | 55 | 44 | 13 | 40 | 3 | 11 | 35 | 20 | 95.0 | 7 | M6 | 22.5 | A6×6×32 |
| C1 | 70 | 80 | 150 | 124 | 176 | $25_{k6}$ | 102 | 177 | 67 | 54 | 15 | 50 | 5 | 13 | 42 | 25 | 117.5 | 9 | M10 | 28.0 | A8×7×40 |
| C2 | 85 | 95 | 170 | 138 | 200 | $30_{k6}$ | 115 | 195 | 79 | 65 | 21 | 60 | 5 | 14 | 50 | 30 | 134.5 | 11 | M10 | 33.0 | A8×7×50 |
| C3 | 105 | 95 | 185 | 150 | 215 | $30_{k6}$ | 130 | 215 | 79 | 65 | 20 | 60 | 5 | 14 | 50 | 30 | 153.5 | 11 | M10 | 33.0 | A8×7×50 |
| C4 | 110 | 110 | 220 | 175 | 255 | $40_{k6}$ | 145 | 245 | 105 | 86 | 20 | 80 | 5 | 19 | 60 | 35 | 180.0 | 14 | M16 | 43.0 | A12×8×70 |
| C5 | 130 | 130 | 245 | 192 | 290 | $40_{k6}$ | 170 | 290 | 108 | 86 | 21 | 80 | 5 | 22 | 70 | 40 | 197.0 | 18 | M16 | 43.0 | A12×8×70 |
| C6 | 215 | 177 | 245 | 225 | 300 | $50_{k6}$ | 200 | 315 | 130 | 106 | 47 | 100 | 5 | 25 | 75 | 40 | 265.0 | 18 | M16 | 53.5 | A14×9×90 |
| C7 | 235 | 192 | 300 | 265 | 365 | $60_{m6}$ | 235 | 375 | 163 | 127 | 58 | 120 | 5 | 25 | 90 | 50 | 285.0 | 18 | M20 | 64.0 | A18×11×100 |
| C8 | 300 | 223 | 340 | 310 | 435 | $70_{m6}$ | 290 | 450 | 190 | 148 | 70 | 140 | 5 | 29 | 95 | 55 | 360.0 | 22 | M20 | 74.5 | A20×12×125 |
| C9 | 340 | 277 | 400 | 365 | 510 | $90_{m6}$ | 340 | 530 | 222 | 178 | 78 | 170 | 5 | 34 | 110 | 60 | 410.0 | 26 | M24 | 95.0 | A25×14×140 |

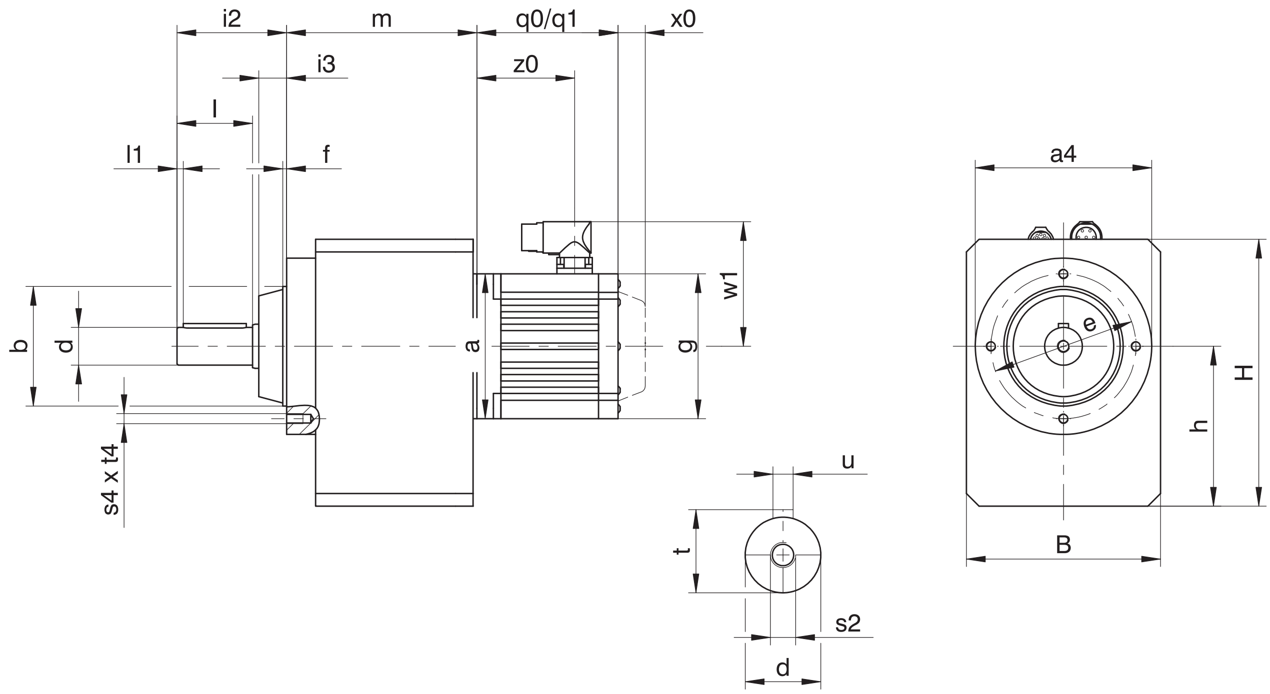
### Dimensions of motors

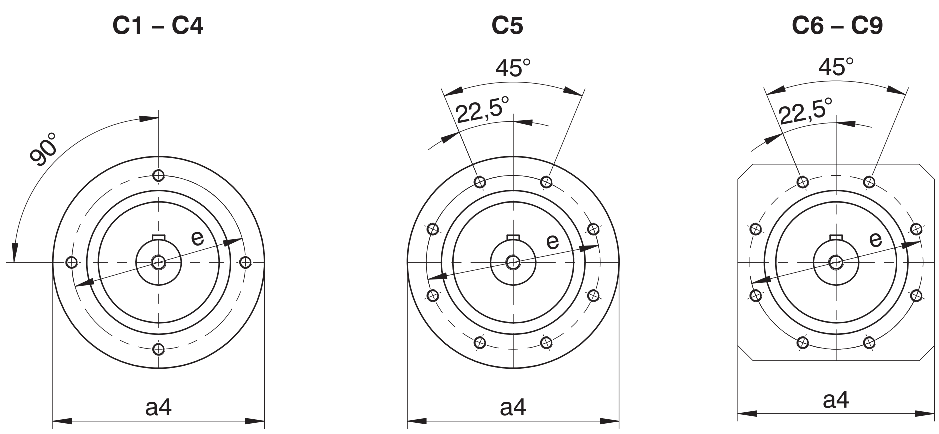
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ2 | | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | a | m | a | m | a | m | a | m | a | m |
| C002 | □55 | 97.5 | □72 | 97.5 | □98 | 97.5 | □115 | 101.5 | □145 | 103.5 | – | – |
| C102 | – | – | □72 | 118.0 | □98 | 118.0 | □115 | 122.0 | □145 | 124.0 | – | – |
| C103 | – | – | ∅140 | 155.0 | – | – | – | – | – | – | – | – |
| C202 | – | – | ∅140 | 129.0 | ∅140 | 129.0 | □115 | 133.0 | □145 | 135.0 | – | – |
| C203 | – | – | ∅140 | 166.0 | ∅140 | 166.0 | – | – | – | – | – | – |
| C302 | – | – | – | – | – | – | ∅160 | 152.5 | □145 | 154.5 | □190 | 157.5 |
| C303 | – | – | ∅140 | 185.5 | ∅140 | 185.5 | ∅160 | 195.5 | – | – | – | – |
| C402 | – | – | – | – | – | – | ∅160 | 180.0 | □145 | 182.0 | □190 | 185.0 |
| C403 | – | – | – | – | – | – | ∅160 | 223.0 | – | – | – | – |
| C502 | – | – | – | – | – | – | ∅160 | 200.0 | ∅200 | 202.0 | □190 | 205.0 |
| C503 | – | – | – | – | – | – | ∅160 | 243.0 | – | – | – | – |
| C612 | – | – | – | – | – | – | – | – | ∅200 | 180.0 | □190 | 183.0 |
| C613 | – | – | – | – | – | – | ∅160 | 222.0 | ∅200 | 242.0 | – | – |
| C712 | – | – | – | – | – | – | – | – | ∅200 | 201.0 | ∅250 | 203.0 |
| C713 | – | – | – | – | – | – | – | – | ∅200 | 262.0 | ∅250 | 274.0 |
| C812 | – | – | – | – | – | – | – | – | – | – | ∅250 | 237.0 |
| C813 | – | – | – | – | – | – | – | – | ∅200 | 296.0 | ∅250 | 308.0 |
| C913 | – | – | – | – | – | – | – | – | – | – | ∅250 | 337.0 |

## 7.3.2 Solid shaft design with feather key, G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |

C203, C303, C612, C613: Motor and gearbox are sometimes non-coaxial.

**Options:** C0 – C5 also available with solid shaft without feather key; on request starting at C6.

**Dimensions of gearboxes**

| Type | a4 | Øb | B | Ød | Øe | f | h | H | i2 | i3 | l | l1 | s2 | s4 | t | t4 | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C0 | Ø87 | $55_{j6}$ | 97 | $20_{k6}$ | 75 | 3.0 | 79.0 | 141.0 | 58 | 14 | 40 | 3 | M6 | M6 | 22.5 | 10 | A6×6×32 |
| C1 | Ø120 | $80_{j6}$ | 130 | $25_{k6}$ | 100 | 3.0 | 100.0 | 175.0 | 71 | 17 | 50 | 5 | M10 | M6 | 28.0 | 13 | A8×7×40 |
| C2 | Ø140 | $95_{j6}$ | 142 | $30_{k6}$ | 115 | 3.0 | 112.0 | 192.0 | 87 | 22 | 60 | 5 | M10 | M8 | 33.0 | 13 | A8×7×50 |
| C3 | Ø140 | $95_{j6}$ | 154 | $30_{k6}$ | 115 | 3.0 | 127.0 | 212.0 | 87 | 22 | 60 | 5 | M10 | M8 | 33.0 | 13 | A8×7×50 |
| C4 | Ø160 | $110_{j6}$ | 178 | $40_{k6}$ | 130 | 3.5 | 142.5 | 242.5 | 108 | 22 | 80 | 5 | M16 | M10 | 43.0 | 16 | A12×8×70 |
| C5 | Ø192 | $130_{j6}$ | 195 | $40_{k6}$ | 165 | 3.5 | 166.0 | 286.0 | 109 | 23 | 80 | 5 | M16 | M10 | 43.0 | 16 | A12×8×70 |
| C6 | □180 | $140_{j6}$ | 225 | $50_{k6}$ | 165 | 5.0 | 195.0 | 310.0 | 136 | 30 | 100 | 5 | M16 | M10 | 53.5 | 16 | A14×9×90 |
| C7 | □195 | $155_{j6}$ | 265 | $60_{m6}$ | 185 | 8.0 | 231.0 | 371.0 | 164 | 37 | 120 | 5 | M20 | M12 | 64.0 | 19 | A18×11×100 |
| C8 | □226 | $185_{j6}$ | 310 | $70_{m6}$ | 215 | 5.0 | 285.0 | 445.0 | 185 | 37 | 140 | 5 | M20 | M12 | 74.5 | 19 | A20×12×125 |
| C9 | □280 | $230_{j6}$ | 365 | $90_{m6}$ | 265 | 5.0 | 334.0 | 524.0 | 220 | 42 | 170 | 5 | M24 | M16 | 95.0 | 26 | A25×14×140 |

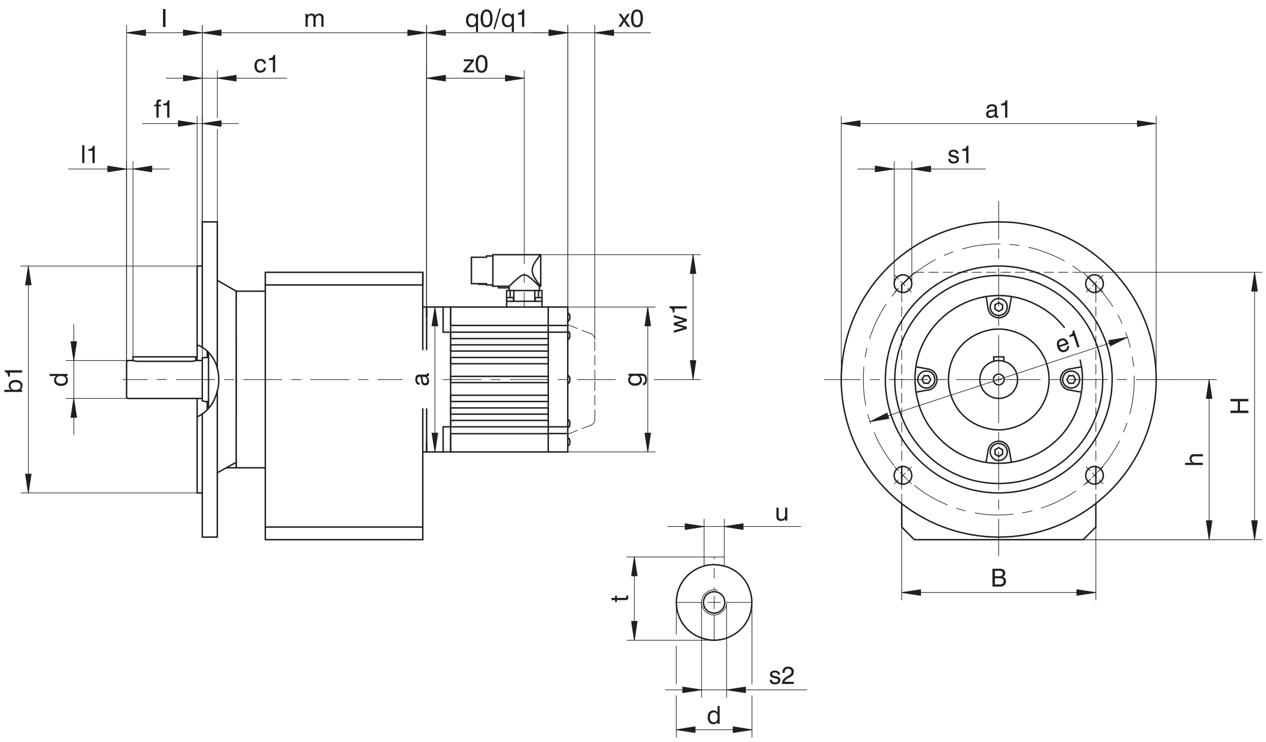
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ2 | | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | a | m | a | m | a | m | a | m | a | m |
| C002 | □55 | 96 | □72 | 96 | □98 | 96 | □115 | 100 | □145 | 102 | – | – |
| C102 | – | – | □72 | 116 | □98 | 116 | □115 | 120 | □145 | 122 | – | – |
| C103 | – | – | ∅140 | 153 | – | – | – | – | – | – | – | – |
| C202 | – | – | ∅140 | 128 | ∅140 | 128 | □115 | 132 | □145 | 134 | – | – |
| C203 | – | – | ∅140 | 165 | ∅140 | 165 | – | – | – | – | – | – |
| C302 | – | – | – | – | – | – | ∅160 | 151 | □145 | 153 | □190 | 156 |
| C303 | – | – | ∅140 | 184 | ∅140 | 184 | ∅160 | 194 | – | – | – | – |
| C402 | – | – | – | – | – | – | ∅160 | 178 | □145 | 180 | □190 | 183 |
| C403 | – | – | – | – | – | – | ∅160 | 221 | – | – | – | – |
| C502 | – | – | – | – | – | – | ∅160 | 198 | ∅200 | 200 | □190 | 203 |
| C503 | – | – | – | – | – | – | ∅160 | 241 | – | – | – | – |
| C612 | – | – | – | – | – | – | – | – | ∅200 | 197 | □190 | 200 |
| C613 | – | – | – | – | – | – | ∅160 | 239 | ∅200 | 259 | – | – |
| C712 | – | – | – | – | – | – | – | – | ∅200 | 222 | ∅250 | 224 |
| C713 | – | – | – | – | – | – | – | – | ∅200 | 283 | ∅250 | 295 |
| C812 | – | – | – | – | – | – | – | – | – | – | ∅250 | 270 |
| C813 | – | – | – | – | – | – | – | – | ∅200 | 329 | ∅250 | 341 |
| C913 | – | – | – | – | – | – | – | – | – | – | ∅250 | 373 |

### 7.3.3 Solid shaft design with feather key, F housing design (round flange)




q0 Applies to motors without brake.

q1 Applies to motors with brake.

x0 EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method
EZ3 – EZ8: Applies to encoders using an optical measuring method

w1 Different for the One Cable Solution (OCS), see the chapter [▷ 17.4]

C203, C303, C612, C613: Motor and gearbox are sometimes non-coaxial.

**Options:** C0 – C5 also available with solid shaft without feather key; on request starting at C6.

**Dimensions of gearboxes**

| Type | Øa1 | Øb1 | B | c1 | Ød | Øe1 | f1 | h | H | l | l1 | Øs1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C0 | 160 | $110_{j6}$ | 97 | 10 | $20_{k6}$ | 130 | 3.0 | 79.0 | 141.0 | 40 | 3 | 9 | M6 | 22.5 | A6×6×32 |
| C1 | 200 | $130_{j6}$ | 130 | 12 | $25_{k6}$ | 165 | 3.5 | 100.0 | 175.0 | 50 | 5 | 11 | M10 | 28.0 | A8×7×40 |
| C2 | 200 | $130_{j6}$ | 142 | 12 | $30_{k6}$ | 165 | 3.5 | 112.0 | 192.0 | 60 | 5 | 11 | M10 | 33.0 | A8×7×50 |
| C3 | 250 | $180_{j6}$ | 154 | 12 | $30_{k6}$ | 215 | 4.0 | 127.0 | 212.0 | 60 | 5 | 14 | M10 | 33.0 | A8×7×50 |
| C4 | 250 | $180_{j6}$ | 178 | 14 | $40_{k6}$ | 215 | 4.0 | 142.5 | 242.5 | 80 | 5 | 14 | M16 | 43.0 | A12×8×70 |
| C5 | 300 | $230_{j6}$ | 195 | 16 | $40_{k6}$ | 265 | 4.0 | 166.0 | 286.0 | 80 | 5 | 14 | M16 | 43.0 | A12×8×70 |
| C6 | 300 | $230_{j6}$ | 225 | 17 | $50_{k6}$ | 265 | 4.0 | 195.0 | 310.0 | 100 | 5 | 14 | M16 | 53.5 | A14×9×90 |
| C7 | 350 | $250_{h6}$ | 265 | 18 | $60_{m6}$ | 300 | 5.0 | 231.0 | 371.0 | 120 | 5 | 18 | M20 | 64.0 | A18×11×100 |
| C8 | 400 | $300_{h6}$ | 310 | 20 | $70_{m6}$ | 350 | 5.0 | 285.0 | 445.0 | 140 | 5 | 18 | M20 | 74.5 | A20×12×125 |
| C9 | 450 | $350_{h6}$ | 365 | 23 | $90_{m6}$ | 400 | 5.0 | 334.0 | 524.0 | 170 | 5 | 18 | M24 | 95.0 | A25×14×140 |

**Dimensions of additional round flanges**

| Type | Øa1 | Øb1 | c1 | Øe1 | f1 | Øs1 |
|---|---|---|---|---|---|---|
| C0 | 120 | $80_{j6}$ | 10 | 100 | 3.0 | 7 |
| C0 | 140 | $95_{j6}$ | 10 | 115 | 3.0 | 9 |
| C1 | 140 | $95_{j6}$ | 8 | 115 | 3.5 | 9 |
| C1 | 160 | $110_{j6}$ | 10 | 130 | 3.5 | 9 |
| C2 | 160 | $110_{j6}$ | 10 | 130 | 3.5 | 9 |
| C2 | 250 | $180_{j6}$ | 12 | 215 | 4.0 | 14 |
| C3 | 160 | $110_{j6}$ | 10 | 130 | 3.5 | 9 |
| C3 | 200 | $130_{j6}$ | 12 | 165 | 3.5 | 11 |
| C4 | 200 | $130_{j6}$ | 14 | 165 | 3.5 | 11 |
| C4 | 300 | $230_{j6}$ | 14 | 265 | 4.0 | 14 |
| C5 | 250 | $180_{j6}$ | 14 | 215 | 4.0 | 14 |
| C8 | 350 | $250_{h6}$ | 18 | 300 | 5.0 | 18 |
| C8 | 450 | $350_{h6}$ | 20 | 400 | 5.0 | 18 |

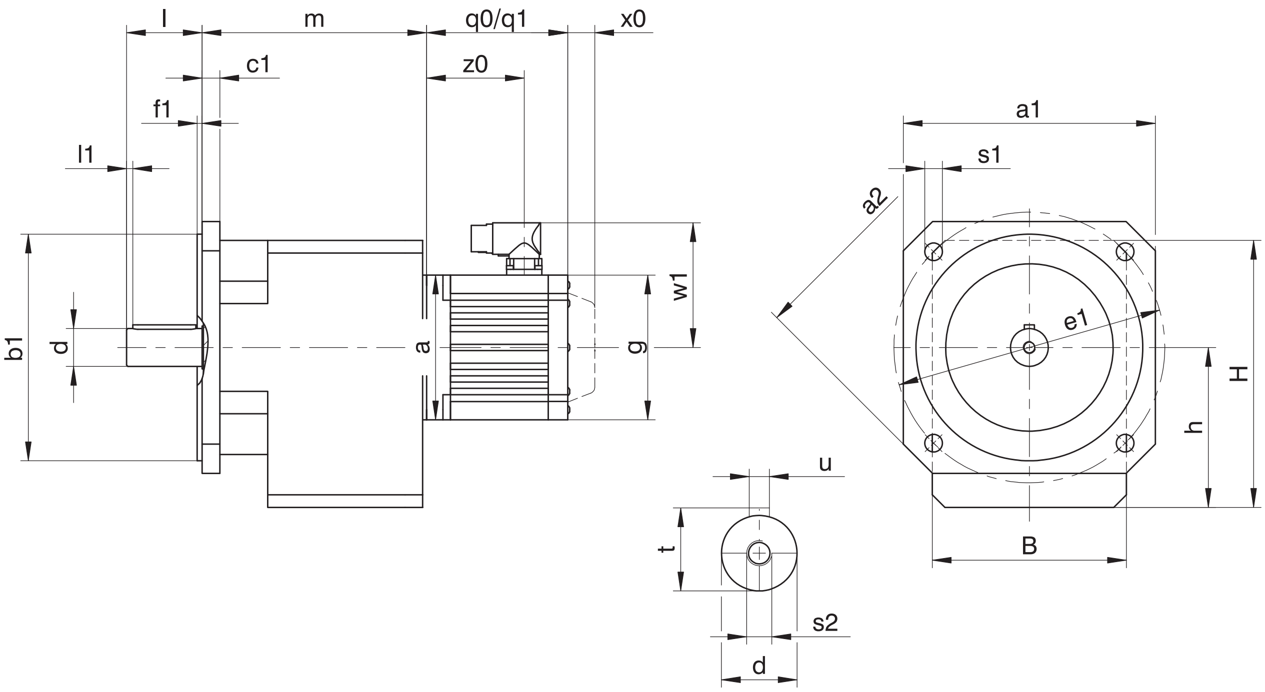
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ2 | | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | a | m | a | m | a | m | a | m | a | m |
| C002 | □55 | 114 | □72 | 114 | □98 | 114 | □115 | 118 | □145 | 120 | – | – |
| C102 | – | – | □72 | 137 | □98 | 137 | □115 | 141 | □145 | 143 | – | – |
| C103 | – | – | ∅140 | 174 | – | – | – | – | – | – | – | – |
| C202 | – | – | ∅140 | 155 | ∅140 | 155 | □115 | 159 | □145 | 161 | – | – |
| C203 | – | – | ∅140 | 192 | ∅140 | 192 | – | – | – | – | – | – |
| C302 | – | – | – | – | – | – | ∅160 | 178 | □145 | 180 | □190 | 183 |
| C303 | – | – | ∅140 | 211 | ∅140 | 211 | ∅160 | 221 | – | – | – | – |
| C402 | – | – | – | – | – | – | ∅160 | 206 | □145 | 208 | □190 | 211 |
| C403 | – | – | – | – | – | – | ∅160 | 249 | – | – | – | – |
| C502 | – | – | – | – | – | – | ∅160 | 227 | ∅200 | 229 | □190 | 232 |
| C503 | – | – | – | – | – | – | ∅160 | 270 | – | – | – | – |
| C612 | – | – | – | – | – | – | – | – | ∅200 | 233 | □190 | 236 |
| C613 | – | – | – | – | – | – | ∅160 | 275 | ∅200 | 295 | – | – |
| C712 | – | – | – | – | – | – | – | – | ∅200 | 266 | ∅250 | 268 |
| C713 | – | – | – | – | – | – | – | – | ∅200 | 327 | ∅250 | 339 |
| C812 | – | – | – | – | – | – | – | – | – | – | ∅250 | 315 |
| C813 | – | – | – | – | – | – | – | – | ∅200 | 374 | ∅250 | 386 |
| C913 | – | – | – | – | – | – | – | – | – | – | ∅250 | 423 |

## 7.3.4 Solid shaft design with feather key, Q housing design (square flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |

C203, C303: Motor and gearbox are sometimes non-coaxial.

**Options:** C0 – C4 also available with solid shaft without feather key.

**Dimensions of gearboxes**

| Type | □a1 | □a2 | ⌀b1 | B | c1 | ⌀d | ⌀e1 | f1 | h | H | l | l1 | ⌀s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C0 | 124 | 160 | $110_{j6}$ | 97 | 9 | $20_{k6}$ | 130 | 3.0 | 79.0 | 141.0 | 40 | 3 | 9 | M6 | 22.5 | A6×6×32 |
| C1 | 145 | 192 | $130_{j6}$ | 130 | 11 | $25_{k6}$ | 165 | 3.5 | 100.0 | 175.0 | 50 | 5 | 11 | M10 | 28.0 | A8×7×40 |
| C2 | 145 | 192 | $130_{j6}$ | 142 | 11 | $30_{k6}$ | 165 | 3.5 | 112.0 | 192.0 | 60 | 5 | 11 | M10 | 33.0 | A8×7×50 |
| C3 | 200 | 250 | $180_{j6}$ | 154 | 14 | $30_{k6}$ | 215 | 4.0 | 127.0 | 212.0 | 60 | 5 | 14 | M10 | 33.0 | A8×7×50 |
| C4 | 200 | 250 | $180_{j6}$ | 178 | 14 | $40_{k6}$ | 215 | 4.0 | 142.5 | 242.5 | 80 | 5 | 14 | M16 | 43.0 | A12×8×70 |

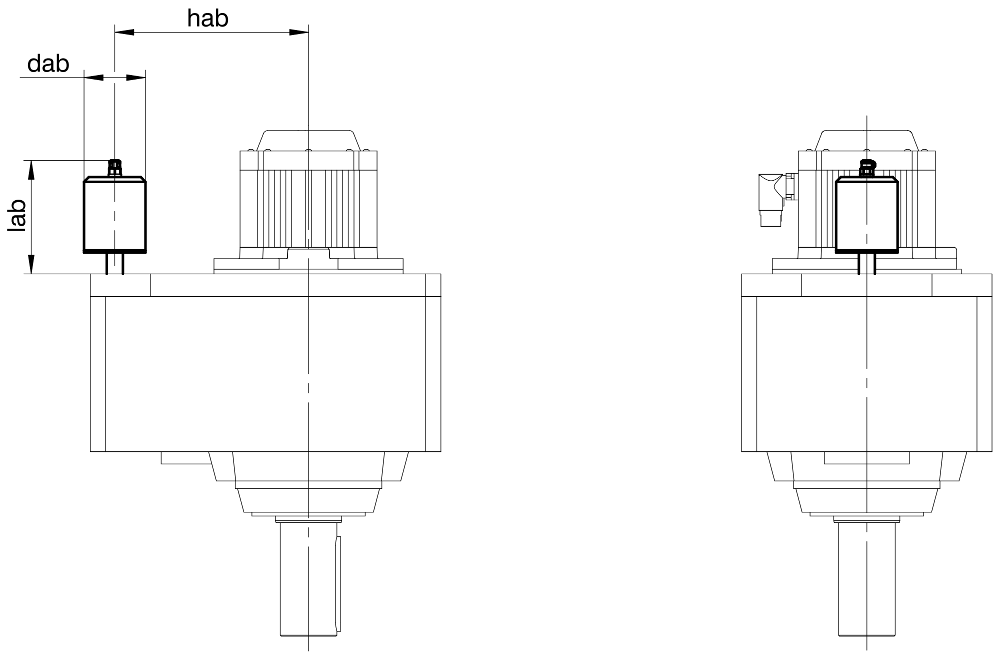
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ2 | | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | a | m | a | m | a | m | a | m | a | m |
| C002 | □55 | 114 | □72 | 114 | □98 | 114 | □115 | 118 | □145 | 120 | – | – |
| C102 | – | – | □72 | 137 | □98 | 137 | □115 | 141 | □145 | 143 | – | – |
| C103 | – | – | ∅140 | 174 | – | – | – | – | – | – | – | – |
| C202 | – | – | ∅140 | 155 | ∅140 | 155 | □115 | 159 | □145 | 161 | – | – |
| C203 | – | – | ∅140 | 192 | ∅140 | 192 | – | – | – | – | – | – |
| C302 | – | – | – | – | – | – | ∅160 | 178 | □145 | 180 | □190 | 183 |
| C303 | – | – | ∅140 | 211 | ∅140 | 211 | ∅160 | 221 | – | – | – | – |
| C402 | – | – | – | – | – | – | ∅160 | 206 | □145 | 208 | □190 | 211 |
| C403 | – | – | – | – | – | – | ∅160 | 249 | – | – | – | – |

### 7.3.5 Oil expansion tank




**Dimensions**

| Type | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|
| | dab | hab | lab | dab | hab | lab |
| C612 | 65 | 170 | 114.5 | 65 | 170 | 112 |
| C712 | 73 | 205 | 129.5 | 73 | 205 | 129.5 |

More information can be found in Chapter [▸ 7.6.4]

# 7.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| C | 2 | 0 | 2 | N | 0280 | EZ401U |
|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **C** | Type | Helical gearbox |
| **2** | Size | 2 (example) |
| **0** | Generation | Generation 0 |
| 1 | | Generation 1 |
| **2** | Stages | Two-stage |
| 3 | | Three-stage |
| G | Housing | Pitch circle diameter |
| F | | Round flange |
| Q | | Square flange |
| **N** | | Foot |
| **0280** | Transmission ratio (i x 10 rounded) | i = 28.24 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

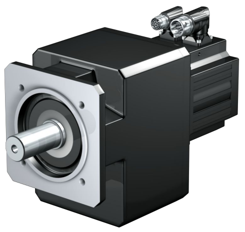
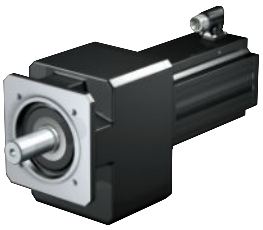
- A detailed type designation of the motor, see the chapter [▷ 17.5]
- Mounting position, see the chapter [▷ 7.5.5]
- Position of the plug connectors, see the chapter [▷ 7.5.7]
- Oil expansion tank (option, recommended for gearboxes in mounting position EL5), see the chapter [▷ 7.6.4]

To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▷ 17.5.1].

# 7.5 Product description

## 7.5.1 Input options

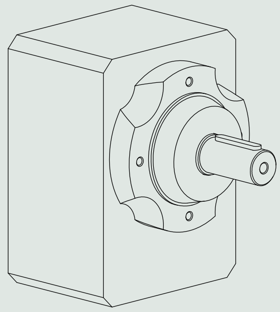
| EZ synchronous servo motor | MB motor adapter + EZ synchronous servo motor | LM Lean motor |
|---|---|---|
|  |  |  |
| Catalog ID 442437_en | Catalog ID 443311_en | Catalog ID 443016_en |

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

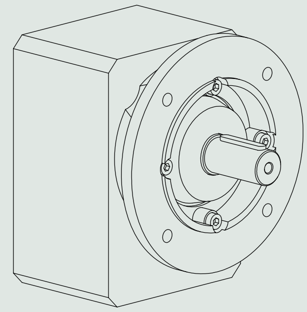
Enter the ID of the catalog in the Search term field.

## 7.5.2 Housing design

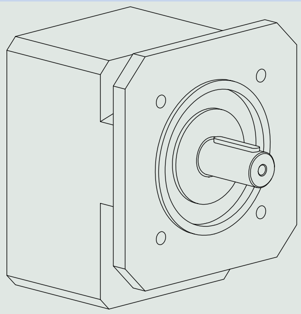
**Pitch circle diameter G**



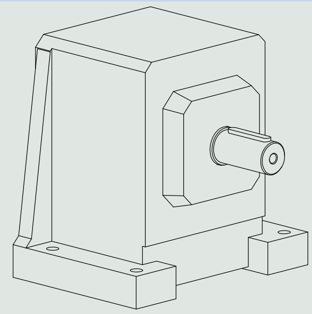
**Round flange F**



**Square flange Q**



**Foot N**



| | G | F | Q | N |
|---|---|---|---|---|
| C0 | ✓ | ✓ | ✓ | ✓ |
| C1 | ✓ | ✓ | ✓ | ✓ |
| C2 | ✓ | ✓ | ✓ | ✓ |
| C3 | ✓ | ✓ | ✓ | ✓ |
| C4 | ✓ | ✓ | ✓ | ✓ |
| C5 | ✓ | ✓ | – | ✓ |
| C6 | ✓ | ✓ | – | ✓ |
| C7 | ✓ | ✓ | – | ✓ |
| C8 | ✓ | ✓ | – | ✓ |
| C9 | ✓ | ✓ | – | ✓ |

## 7.5.3 Shaft design

Gearboxes in sizes C0 – C9 come standard with a solid shaft with feather key.

Gearboxes in sizes C0 – C5 can be ordered with the option of a solid shaft without feather key. Only upon request starting at size C6.

## 7.5.4 Installation conditions

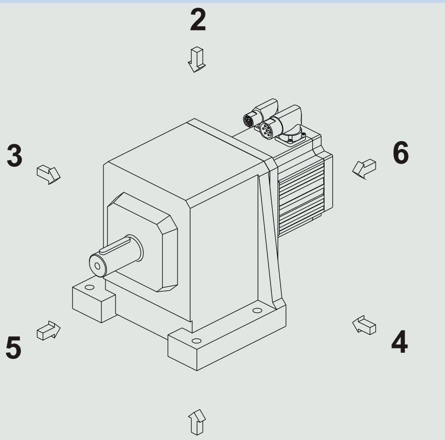
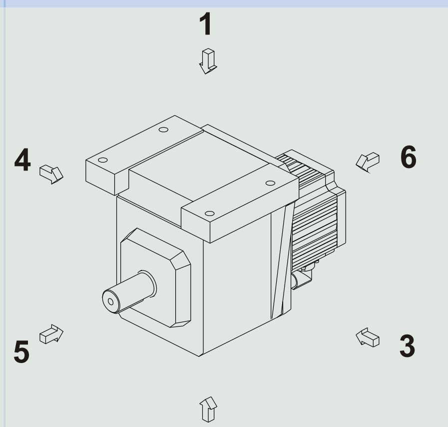
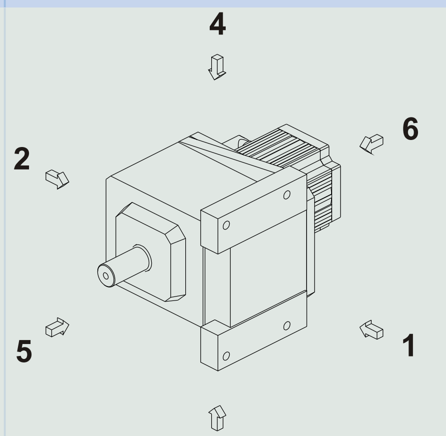
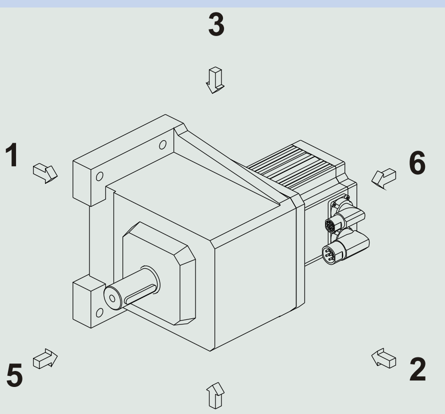
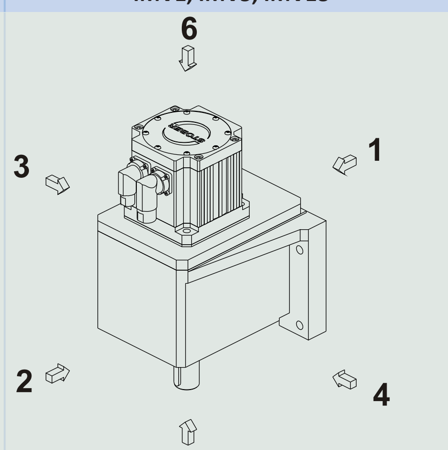
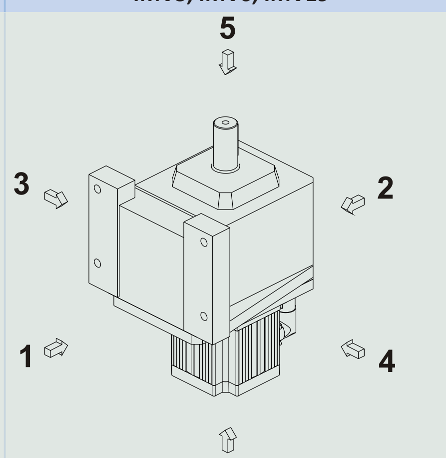
**Fastening the gearboxes on the machine side using the pitch circle diameter**

The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 10.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

## 7.5.5 Mounting positions

The following table shows the standard mounting positions.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

| EL1<br>IMB3, IMB5, IMB14, IMB34, IMB35 | EL2<br>IMB8 | EL3<br>IMB7 |
|---|---|---|
| <br>1 | <br>2 | <br>3 |
| **EL4**<br>**IMB6** | **EL5**<br>**IMV1, IMV5, IMV18** | **EL6**<br>**IMV3, IMV6, IMV19** |
| <br>4 | <br>5 | <br>6 |

Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

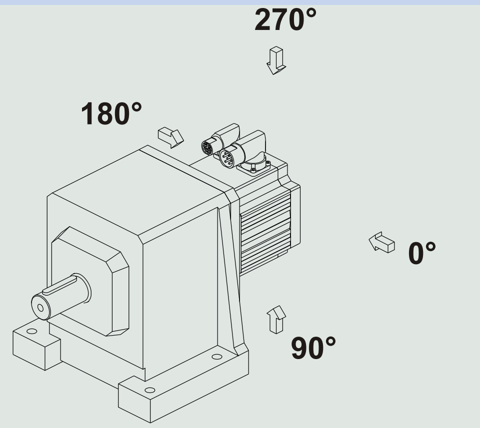
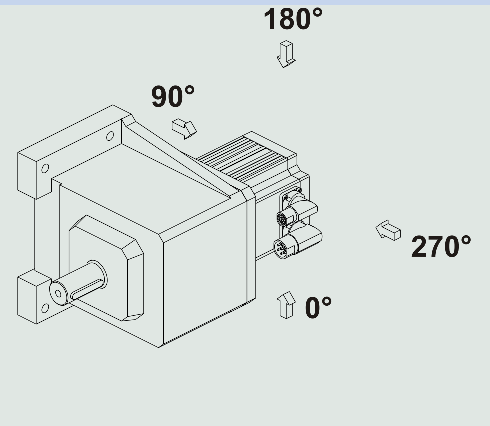
## 7.5.6 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

### 7.5.7 Position of the plug connectors

| Mounting position EL1<br>Plug connector in 270° position (standard) | Mounting position EL4<br>Plug connector in 270° position (standard) |
|---|---|
|  |  |

Indicate variations for your geared motor in the order.

Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

### 7.5.8 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 80 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ two-stage | 97% |
| $\eta_{get}$ three-stage | 96% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

### 7.5.9 Maintenance

The instructions for maintenance can be found in the operating manual, ID 443365_en, at http://www.stoeber.de/en/downloads/. Enter the ID of the documentation in the Search... field.

**Ventilation**

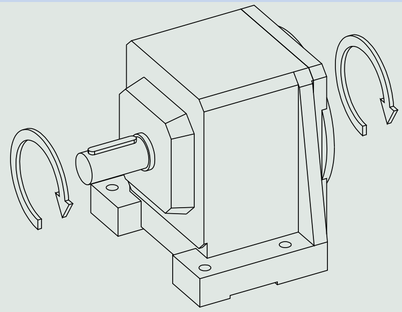
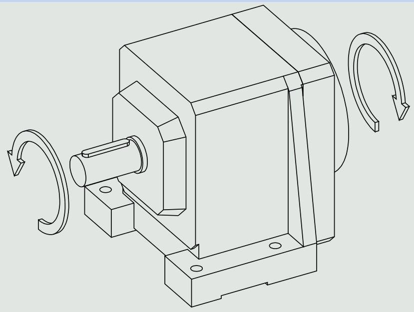
Air release valves are fitted as a standard feature and independently of installation position for gearbox sizes C6 to C9.

For the position and dimensions of the air release valve, refer to the 3D model.

Download the 3D model at https://configurator.stoeber.de/en-US/.

[1] Observe the protection class of all the components.

## 7.5.10 Direction of rotation

| C002 – C912 | C103 – C913 |
|---|---|
|  |  |
| The input and output rotate in the same direction. | The input and output rotate in opposite directions. |

The pictures show mounting position EL1.

# 7.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

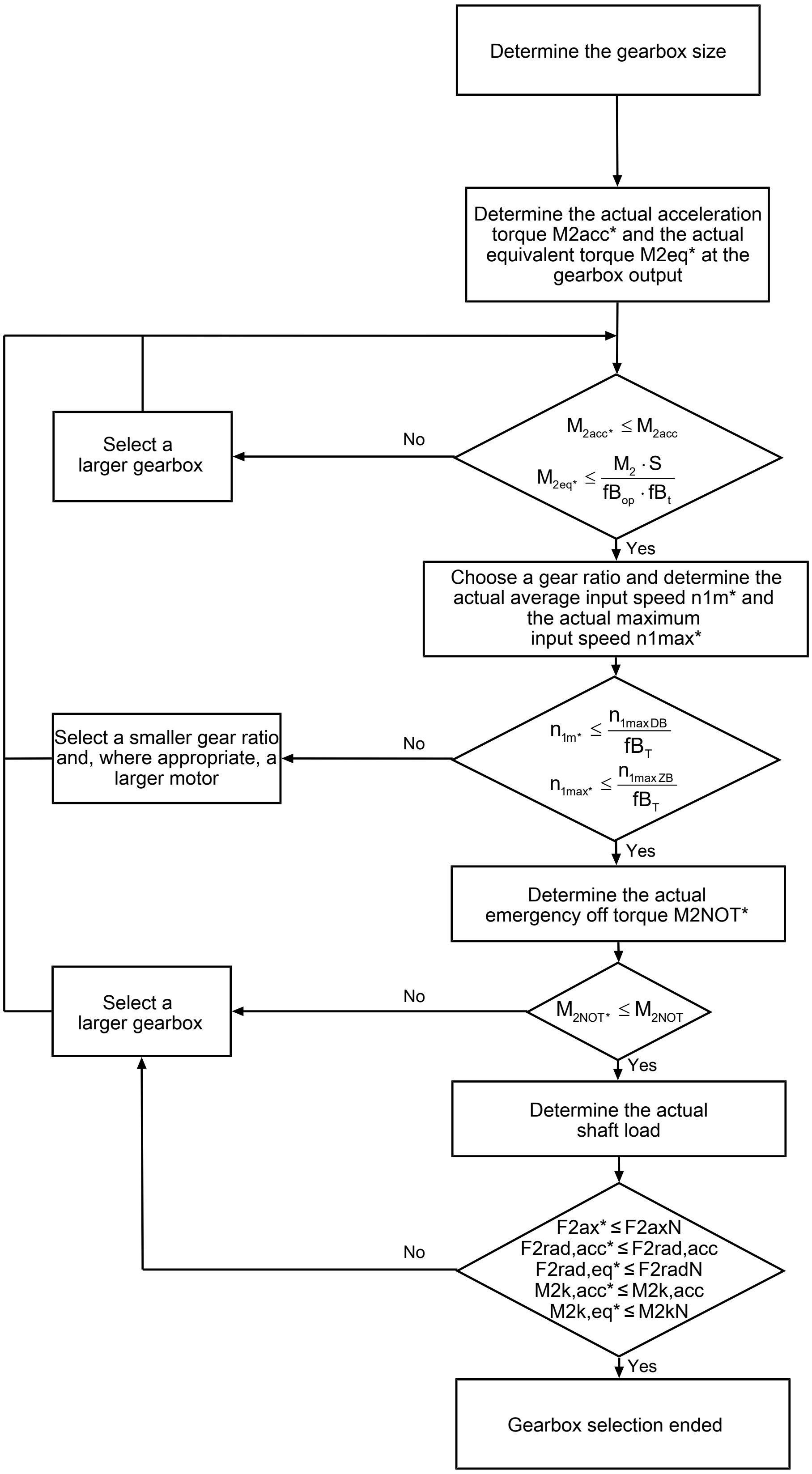
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 7.6.1 Drive selection

**Drive selection for gearboxes**

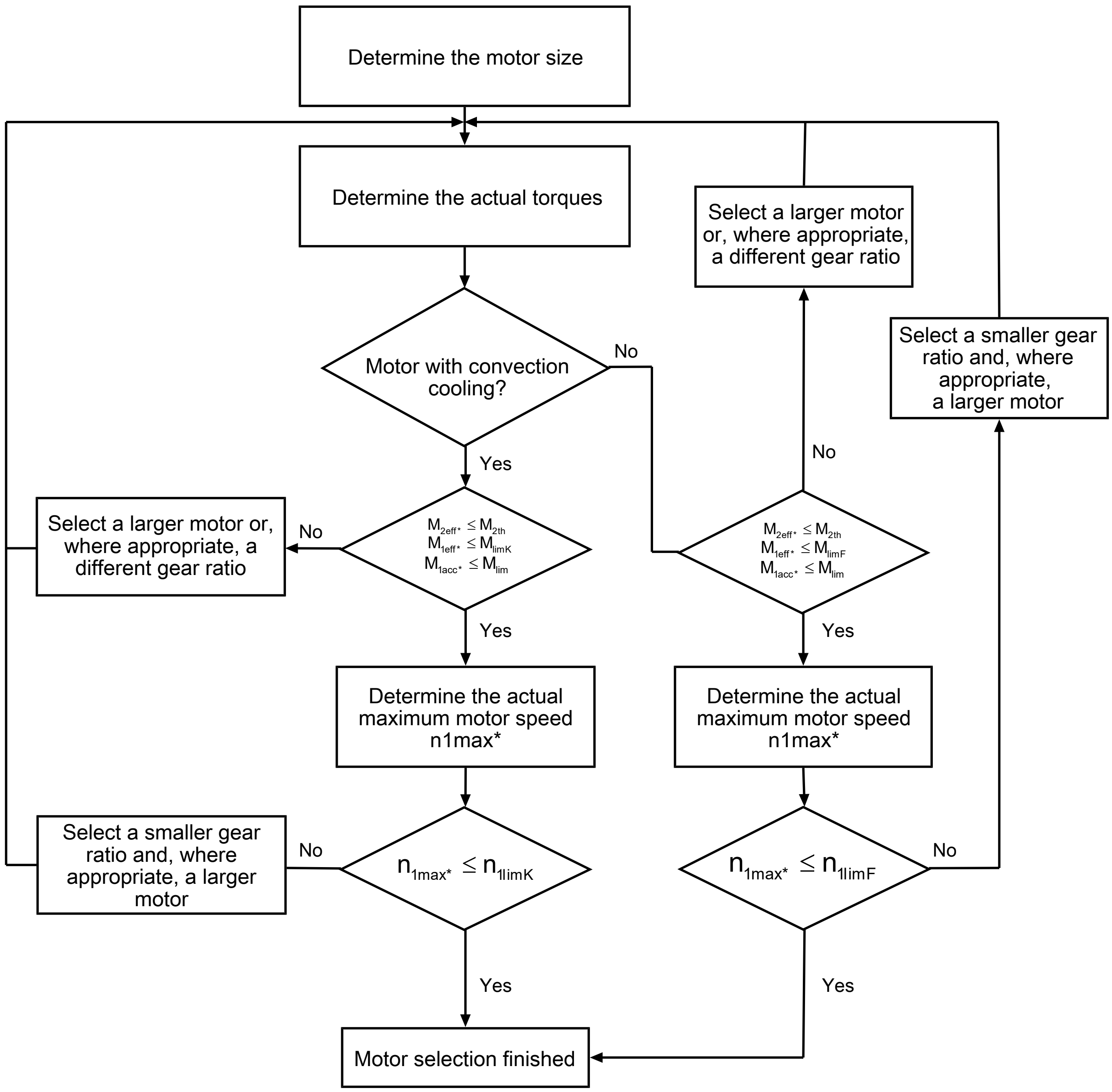



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$, $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$ and $fB_t$ can be found in the corresponding tables in this chapter.

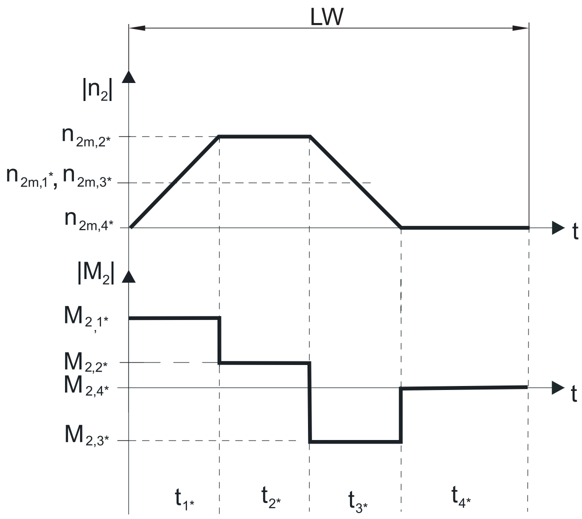
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▹ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*} + \ldots + t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}^{\,2} + \ldots + t_{n*} \cdot M_{2,n*}^{\,2}}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2,1*}^{\,3}| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2,n*}^{\,3}|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

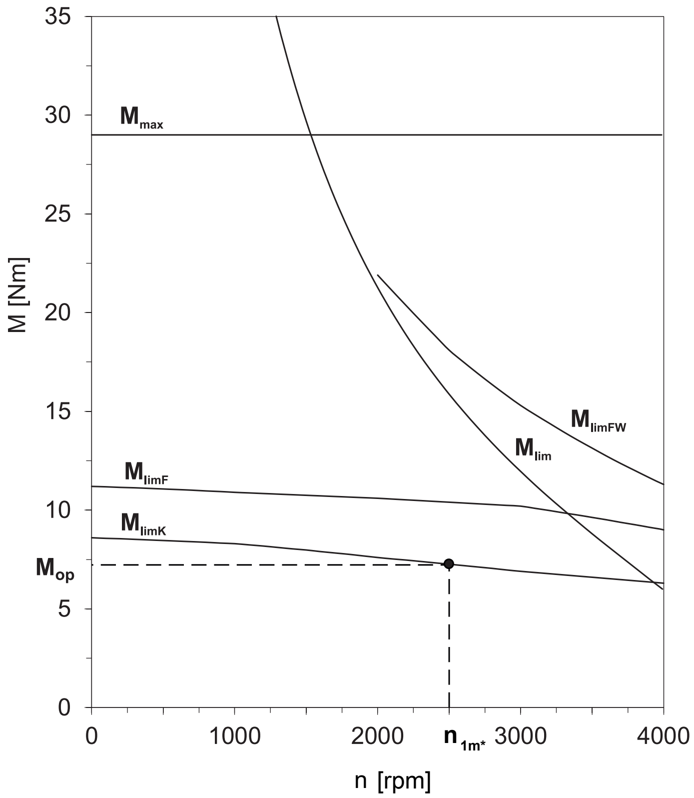
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}95 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^3$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

**Parameter $a_{thEL}$**

| Mounting position | $a_{thEL}$ |
|---|---|
| EL1, 2, 5, 6 | 1.0 |
| EL3, 4 | 1.1 |

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 7.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 20$ rpm ($F_{2axN} = F_{2ax20}$; $F_{2radN} = F_{2rad20}$; $M_{2kN} = M_{2k20}$)
- Only if radial forces on the gearbox are stabilized by its pilots for the pitch circle diameter and flange housing design

**Permitted shaft loads**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| C0 | 20.0 | 500 | 1900 | 1900 | 80 | 80 |
| C1 | 30.0 | 850 | 3400 | 3400 | 190 | 190 |
| C2 | 30.0 | 1050 | 4200 | 4200 | 260 | 260 |
| C3 | 30.0 | 1400 | 5650 | 5650 | 350 | 350 |
| C4 | 35.0 | 2400 | 9700 | 9700 | 750 | 750 |
| C5 | 42.0 | 3000 | 11000 | 11000 | 900 | 900 |
| C6 | 40.0 | 4000 | 16000 | 16000 | 1500 | 1500 |
| C7 | 45.0 | 5500 | 22000 | 22000 | 2400 | 2400 |
| C8 | 50.0 | 7500 | 30000 | 30000 | 3700 | 3700 |
| C9 | 55.0 | 9500 | 37000 | 37000 | 5200 | 5200 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 20$ rpm:**

$$F_{2axN} = \frac{F_{2ax20}}{\sqrt[3]{\frac{n_{2m*}}{20\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad20}}{\sqrt[3]{\frac{n_{2m*}}{20\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k20}}{\sqrt[3]{\frac{n_{2m*}}{20\text{ rpm}}}}$$

The values for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ can be found in the table "Permitted shaft loads" in this chapter.

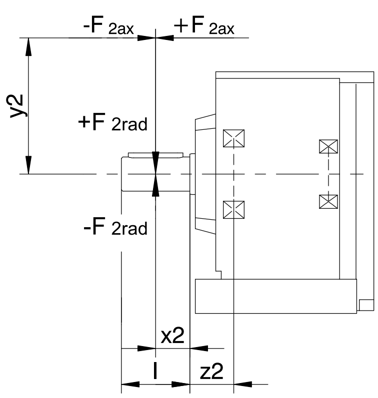



*Fig. 1:* Force application points

The specified values for $F_{2rad20}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2k,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2k,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |F_{2rad,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |F_{2rad,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

### 7.6.3 Radial shaft seal rings

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

### 7.6.4 Oil expansion tank

The gearboxes have a higher fill level in mounting position EL5. The oil expansion tank prevents oil from escaping out of the gearbox.

**Notes**

- We recommend using an oil expansion tank in mounting position EL5 (additional cost) for fast running gearboxes with an input speed $n_1$ > 1750 rpm and gear ratios i < 20.
- It is not possible to use an oil expansion tank if the plug connector is at 90°!
- The oil expansion tank can only be used with certain sizes; see the chapter [▷ 7.3.5]

## 7.7 Additional documentation

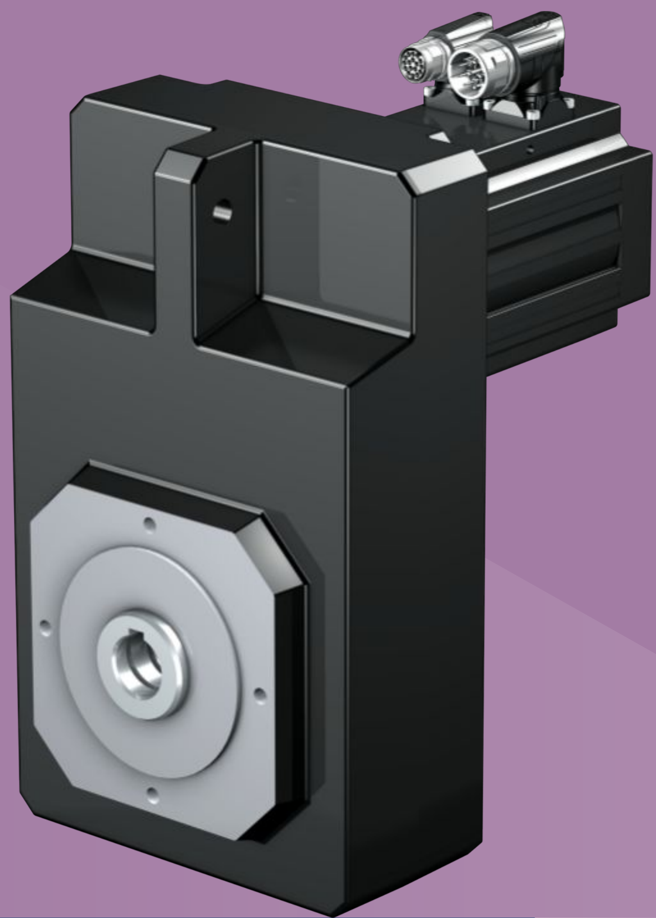
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors C | 443365_en |

# 8 F offset helical geared motors

## Table of contents



# 8 Offset helical geared motors

F

## 8.1 Overview

Offset helical geared motors with large axial distances

**Features**

| | |
|---|---|
| Power density | ★☆☆☆☆ |
| Backlash | ★★★☆☆ |
| Price category | € |
| Shaft load | ★★★☆☆ |
| Smooth operation | ★★★☆☆ |
| Torsional stiffness | ★★☆☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| FKM seal ring at the input | ✓ |
| Large axial distances, suitable for confined situations | ✓ |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 4.3 – 440 |
| $M_{2acc}$ | 21 – 1100 Nm |
| $\Delta\phi_2$ | 5 – 11 arcmin |
| $\eta_{get}$ | 96 – 97 % |

## 8.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)
- Weight specification for mounting position EL1, housing design G

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **F1 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 120 Nm)** | | | | | | | | | | | | | | | | | |
| 27 | 101 | 103 | 1.6 | 1.2 | F102_1120 EZ301U | 120 | 240 | 111.9 | 2015/18 | 4000 | 4000 | 7000 | 0.21 | 11.0 | 6.0 | 7.7 | 13 |
| 32 | 84 | 86 | 1.5 | 1.4 | F102_0940 EZ301U | 120 | 240 | 93.63 | 7865/84 | 4000 | 4000 | 7000 | 0.22 | 11.0 | 6.0 | 7.7 | 13 |
| 43 | 63 | 65 | 1.3 | 1.9 | F102_0700 EZ301U | 120 | 240 | 70.06 | 1261/18 | 4000 | 4000 | 7000 | 0.23 | 11.0 | 6.0 | 7.7 | 13 |
| 43 | 108 | 114 | 2.2 | 1.1 | F102_0700 EZ302U | 120 | 240 | 70.06 | 1261/18 | 4000 | 4000 | 7000 | 0.33 | 11.0 | 6.0 | 7.7 | 13 |
| 54 | 50 | 52 | 1.1 | 2.4 | F102_0560 EZ301U | 120 | 240 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.25 | 11.0 | 6.0 | 7.7 | 13 |
| 54 | 86 | 91 | 1.9 | 1.4 | F102_0560 EZ302U | 120 | 240 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.35 | 11.0 | 6.0 | 7.7 | 13 |
| 54 | 112 | 119 | 2.5 | 1.1 | F102_0560 EZ303U | 120 | 240 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.46 | 11.0 | 6.0 | 7.7 | 14 |
| 65 | 42 | 43 | 1.0 | 2.9 | F102_0460 EZ301U | 120 | 240 | 46.43 | 325/7 | 4000 | 4000 | 7000 | 0.28 | 11.0 | 6.0 | 7.7 | 13 |
| 65 | 72 | 76 | 1.8 | 1.7 | F102_0460 EZ302U | 120 | 240 | 46.43 | 325/7 | 4000 | 4000 | 7000 | 0.38 | 11.0 | 6.0 | 7.7 | 13 |
| 65 | 93 | 99 | 2.3 | 1.3 | F102_0460 EZ303U | 120 | 240 | 46.43 | 325/7 | 4000 | 4000 | 7000 | 0.49 | 11.0 | 6.0 | 7.7 | 14 |
| 86 | 32 | 32 | 1.0 | 3.5 | F102_0350 EZ301U | 95 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 0.32 | 11.0 | 6.0 | 7.7 | 13 |
| 86 | 54 | 57 | 1.7 | 2.0 | F102_0350 EZ302U | 120 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 0.42 | 11.0 | 6.0 | 7.7 | 13 |
| 86 | 70 | 74 | 2.2 | 1.6 | F102_0350 EZ303U | 120 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 0.53 | 11.0 | 6.0 | 7.7 | 14 |
| 86 | 95 | 102 | 2.9 | 1.2 | F102_0350 EZ401U | 120 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 1.1 | 11.0 | 6.0 | 7.7 | 15 |
| 107 | 25 | 26 | 0.9 | 4.0 | F102_0280 EZ301U | 77 | 205 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 0.37 | 11.0 | 6.0 | 7.7 | 13 |
| 107 | 43 | 46 | 1.6 | 2.3 | F102_0280 EZ302U | 120 | 205 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 0.47 | 11.0 | 6.0 | 7.7 | 13 |
| 107 | 57 | 60 | 2.1 | 1.8 | F102_0280 EZ303U | 120 | 205 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 0.58 | 11.0 | 6.0 | 7.7 | 14 |
| 107 | 77 | 82 | 2.8 | 1.3 | F102_0280 EZ401U | 120 | 240 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 1.1 | 11.0 | 6.0 | 7.7 | 15 |
| 130 | 21 | 21 | 0.9 | 4.6 | F102_0230 EZ301U | 63 | 168 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 0.43 | 11.0 | 6.0 | 7.7 | 13 |
| 130 | 36 | 38 | 1.6 | 2.7 | F102_0230 EZ302U | 112 | 168 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 0.53 | 11.0 | 6.0 | 7.7 | 13 |
| 130 | 46 | 49 | 2.0 | 2.1 | F102_0230 EZ303U | 120 | 168 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 0.64 | 11.0 | 6.0 | 7.7 | 14 |
| 130 | 63 | 67 | 2.7 | 1.5 | F102_0230 EZ401U | 120 | 240 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 1.2 | 11.0 | 6.0 | 7.7 | 15 |
| 163 | 28 | 30 | 1.5 | 3.1 | F102_0185 EZ302U | 90 | 134 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 0.62 | 11.0 | 6.0 | 7.7 | 13 |
| 163 | 37 | 39 | 2.0 | 2.4 | F102_0185 EZ303U | 107 | 134 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 0.73 | 11.0 | 6.0 | 7.7 | 14 |
| 163 | 50 | 54 | 2.6 | 1.8 | F102_0185 EZ401U | 120 | 240 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 1.3 | 11.0 | 6.0 | 7.7 | 15 |
| 163 | 77 | 84 | 4.1 | 1.1 | F102_0185 EZ501U | 120 | 240 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 3.2 | 11.0 | 6.0 | 7.7 | 16 |
| 163 | 84 | 93 | 4.4 | 1.1 | F102_0185 EZ402U | 120 | 240 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 2.0 | 11.0 | 6.0 | 7.7 | 16 |
| 221 | 21 | 22 | 1.4 | 3.8 | F102_0135 EZ302U | 66 | 99 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 0.51 | 11.0 | 8.0 | 6.5 | 13 |
| 221 | 27 | 29 | 1.9 | 2.9 | F102_0135 EZ303U | 79 | 99 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 0.62 | 11.0 | 8.0 | 6.5 | 14 |
| 221 | 37 | 40 | 2.5 | 2.2 | F102_0135 EZ401U | 105 | 200 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 1.1 | 11.0 | 8.0 | 6.5 | 15 |
| 221 | 57 | 62 | 3.9 | 1.4 | F102_0135 EZ501U | 105 | 200 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 3.1 | 11.0 | 8.0 | 6.5 | 16 |
| 221 | 62 | 69 | 4.2 | 1.3 | F102_0135 EZ402U | 105 | 200 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 1.8 | 11.0 | 8.0 | 6.5 | 16 |
| 275 | 17 | 18 | 1.6 | 3.8 | F102_0110 EZ302U | 53 | 79 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 0.60 | 11.0 | 8.0 | 6.5 | 13 |
| 275 | 22 | 23 | 2.1 | 2.9 | F102_0110 EZ303U | 64 | 79 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 0.71 | 11.0 | 8.0 | 6.5 | 14 |
| 275 | 30 | 32 | 2.4 | 2.5 | F102_0110 EZ401U | 90 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 1.2 | 11.0 | 8.0 | 6.5 | 15 |
| 275 | 46 | 50 | 3.7 | 1.6 | F102_0110 EZ501U | 105 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 3.2 | 11.0 | 8.0 | 6.5 | 16 |
| 275 | 50 | 55 | 4.1 | 1.5 | F102_0110 EZ402U | 105 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 1.9 | 11.0 | 8.0 | 6.5 | 16 |
| 275 | 73 | 91 | 6.0 | 1.0 | F102_0110 EZ404U | 105 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 3.3 | 11.0 | 8.0 | 6.5 | 18 |
| 335 | 14 | 15 | 1.8 | 3.8 | F102_0089 EZ302U | 43 | 65 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 0.73 | 11.0 | 8.0 | 6.5 | 13 |
| 335 | 18 | 19 | 2.3 | 2.9 | F102_0089 EZ303U | 52 | 65 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 0.84 | 11.0 | 8.0 | 6.5 | 14 |
| 335 | 24 | 26 | 2.3 | 2.9 | F102_0089 EZ401U | 74 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 1.4 | 11.0 | 8.0 | 6.5 | 15 |
| 335 | 37 | 41 | 3.6 | 1.9 | F102_0089 EZ501U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 3.3 | 11.0 | 8.0 | 6.5 | 16 |
| 335 | 41 | 45 | 3.9 | 1.7 | F102_0089 EZ402U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 2.1 | 11.0 | 8.0 | 6.5 | 16 |
| 335 | 60 | 75 | 5.8 | 1.2 | F102_0089 EZ404U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 3.4 | 11.0 | 8.0 | 6.5 | 18 |
| 335 | 64 | 69 | 6.2 | 1.1 | F102_0089 EZ502U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 5.6 | 11.0 | 8.0 | 6.5 | 18 |
| 335 | 64 | 72 | 6.2 | 1.1 | F102_0089 EZ701U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 8.9 | 11.0 | 8.0 | 6.5 | 20 |
| 419 | 11 | 12 | 2.0 | 3.8 | F102_0072 EZ302U | 35 | 52 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 0.92 | 11.0 | 8.0 | 6.5 | 13 |
| 419 | 14 | 15 | 2.6 | 2.9 | F102_0072 EZ303U | 42 | 52 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 1.0 | 11.0 | 8.0 | 6.5 | 14 |
| 419 | 19 | 21 | 2.3 | 3.3 | F102_0072 EZ401U | 59 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 1.6 | 11.0 | 8.0 | 6.5 | 15 |
| 419 | 30 | 33 | 3.5 | 2.2 | F102_0072 EZ501U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 3.5 | 11.0 | 8.0 | 6.5 | 16 |
| 419 | 33 | 36 | 3.8 | 2.0 | F102_0072 EZ402U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 2.3 | 11.0 | 8.0 | 6.5 | 16 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| F1 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 120 Nm) | | | | | | | | | | | | | | | | | |
| 419 | 48 | 60 | 5.6 | 1.3 | F102_0072 EZ404U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 3.6 | 11.0 | 8.0 | 6.5 | 18 |
| 419 | 51 | 56 | 6.0 | 1.3 | F102_0072 EZ502U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 5.8 | 11.0 | 8.0 | 6.5 | 18 |
| 419 | 51 | 58 | 6.0 | 1.3 | F102_0072 EZ701U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 9.1 | 11.0 | 8.0 | 6.5 | 20 |
| 464 | 18 | 19 | 2.2 | 3.6 | F102_0065 EZ401U | 53 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 1.7 | 11.0 | 8.0 | 6.5 | 15 |
| 464 | 27 | 29 | 3.4 | 2.3 | F102_0065 EZ501U | 100 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 3.7 | 11.0 | 8.0 | 6.5 | 16 |
| 464 | 29 | 33 | 3.7 | 2.1 | F102_0065 EZ402U | 100 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 2.4 | 11.0 | 8.0 | 6.5 | 16 |
| 464 | 43 | 54 | 5.5 | 1.4 | F102_0065 EZ404U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 3.7 | 11.0 | 8.0 | 6.5 | 18 |
| 464 | 46 | 50 | 5.9 | 1.3 | F102_0065 EZ502U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 6.0 | 11.0 | 8.0 | 6.5 | 18 |
| 464 | 46 | 52 | 5.9 | 1.3 | F102_0065 EZ701U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 9.3 | 11.0 | 8.0 | 6.5 | 20 |
| 464 | 61 | 70 | 7.7 | 1.0 | F102_0065 EZ503U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 8.3 | 11.0 | 8.0 | 6.5 | 19 |
| 696 | 6.6 | 7.0 | 2.6 | 3.8 | F102_0043 EZ302U | 21 | 31 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 1.8 | 11.0 | 8.0 | 6.5 | 13 |
| 696 | 8.7 | 9.2 | 3.3 | 2.9 | F102_0043 EZ303U | 25 | 31 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 1.9 | 11.0 | 8.0 | 6.5 | 14 |
| 696 | 12 | 13 | 2.1 | 4.7 | F102_0043 EZ401U | 36 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 2.4 | 11.0 | 8.0 | 6.5 | 15 |
| 696 | 18 | 20 | 3.2 | 3.0 | F102_0043 EZ501U | 67 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 4.4 | 11.0 | 8.0 | 6.5 | 16 |
| 696 | 20 | 22 | 3.5 | 2.8 | F102_0043 EZ402U | 67 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 3.1 | 11.0 | 8.0 | 6.5 | 16 |
| 696 | 29 | 36 | 5.1 | 1.9 | F102_0043 EZ404U | 100 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 4.5 | 11.0 | 8.0 | 6.5 | 18 |
| 696 | 31 | 33 | 5.5 | 1.8 | F102_0043 EZ502U | 100 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 6.7 | 11.0 | 8.0 | 6.5 | 18 |
| 696 | 31 | 35 | 5.5 | 1.8 | F102_0043 EZ701U | 84 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 10 | 11.0 | 8.0 | 6.5 | 20 |
| 696 | 41 | 46 | 7.2 | 1.3 | F102_0043 EZ503U | 100 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 9.1 | 11.0 | 8.0 | 6.5 | 19 |
| F1 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 120 Nm) | | | | | | | | | | | | | | | | | |
| 43 | 83 | 94 | 1.2 | 1.5 | F102_1400 EZ203U | 120 | 240 | 139.8 | 559/4 | 4000 | 4000 | 7000 | 0.18 | 11.0 | 6.0 | 7.7 | 13 |
| 54 | 66 | 75 | 1.0 | 1.8 | F102_1120 EZ203U | 120 | 240 | 111.9 | 2015/18 | 4000 | 4000 | 7000 | 0.19 | 11.0 | 6.0 | 7.7 | 13 |
| 54 | 97 | 103 | 1.5 | 1.2 | F102_1120 EZ301U | 120 | 240 | 111.9 | 2015/18 | 4000 | 4000 | 7000 | 0.21 | 11.0 | 6.0 | 7.7 | 13 |
| 64 | 55 | 63 | 1.0 | 2.2 | F102_0940 EZ203U | 120 | 240 | 93.63 | 7865/84 | 4000 | 4000 | 7000 | 0.19 | 11.0 | 6.0 | 7.7 | 13 |
| 64 | 81 | 86 | 1.4 | 1.5 | F102_0940 EZ301U | 120 | 240 | 93.63 | 7865/84 | 4000 | 4000 | 7000 | 0.22 | 11.0 | 6.0 | 7.7 | 13 |
| 86 | 60 | 65 | 1.3 | 1.8 | F102_0700 EZ301U | 120 | 240 | 70.06 | 1261/18 | 4000 | 4000 | 7000 | 0.23 | 11.0 | 6.0 | 7.7 | 13 |
| 86 | 102 | 114 | 2.2 | 1.1 | F102_0700 EZ302U | 120 | 240 | 70.06 | 1261/18 | 4000 | 4000 | 7000 | 0.33 | 11.0 | 6.0 | 7.7 | 13 |
| 107 | 48 | 52 | 1.3 | 2.1 | F102_0560 EZ301U | 120 | 240 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.25 | 11.0 | 6.0 | 7.7 | 13 |
| 107 | 81 | 91 | 2.1 | 1.2 | F102_0560 EZ302U | 120 | 240 | 55.97 | 2015/36 | 4000 | 4000 | 7000 | 0.35 | 11.0 | 6.0 | 7.7 | 13 |
| 129 | 40 | 43 | 1.2 | 2.4 | F102_0460 EZ301U | 120 | 240 | 46.43 | 325/7 | 4000 | 4000 | 7000 | 0.28 | 11.0 | 6.0 | 7.7 | 13 |
| 129 | 68 | 76 | 2.1 | 1.4 | F102_0460 EZ302U | 120 | 240 | 46.43 | 325/7 | 4000 | 4000 | 7000 | 0.38 | 11.0 | 6.0 | 7.7 | 13 |
| 129 | 88 | 101 | 2.7 | 1.1 | F102_0460 EZ303U | 120 | 240 | 46.43 | 325/7 | 4000 | 4000 | 7000 | 0.49 | 11.0 | 6.0 | 7.7 | 14 |
| 171 | 30 | 32 | 1.2 | 2.9 | F102_0350 EZ301U | 95 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 0.32 | 11.0 | 6.0 | 7.7 | 13 |
| 171 | 51 | 57 | 2.0 | 1.7 | F102_0350 EZ302U | 120 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 0.42 | 11.0 | 6.0 | 7.7 | 13 |
| 171 | 67 | 76 | 2.6 | 1.3 | F102_0350 EZ303U | 120 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 0.53 | 11.0 | 6.0 | 7.7 | 14 |
| 171 | 78 | 95 | 3.0 | 1.1 | F102_0350 EZ401U | 120 | 240 | 35.05 | 3575/102 | 4000 | 4000 | 6500 | 1.1 | 11.0 | 6.0 | 7.7 | 15 |
| 213 | 24 | 26 | 1.1 | 3.3 | F102_0280 EZ301U | 77 | 205 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 0.37 | 11.0 | 6.0 | 7.7 | 13 |
| 213 | 41 | 46 | 1.9 | 2.0 | F102_0280 EZ302U | 120 | 205 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 0.47 | 11.0 | 6.0 | 7.7 | 13 |
| 213 | 54 | 61 | 2.5 | 1.5 | F102_0280 EZ303U | 120 | 205 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 0.58 | 11.0 | 6.0 | 7.7 | 14 |
| 213 | 63 | 77 | 2.9 | 1.3 | F102_0280 EZ401U | 120 | 240 | 28.17 | 169/6 | 4000 | 4000 | 6500 | 1.1 | 11.0 | 6.0 | 7.7 | 15 |
| 260 | 20 | 21 | 1.1 | 3.8 | F102_0230 EZ301U | 63 | 168 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 0.43 | 11.0 | 6.0 | 7.7 | 13 |
| 260 | 34 | 38 | 1.8 | 2.3 | F102_0230 EZ302U | 112 | 168 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 0.53 | 11.0 | 6.0 | 7.7 | 13 |
| 260 | 44 | 50 | 2.4 | 1.7 | F102_0230 EZ303U | 120 | 168 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 0.64 | 11.0 | 6.0 | 7.7 | 14 |
| 260 | 51 | 63 | 2.8 | 1.5 | F102_0230 EZ401U | 120 | 240 | 23.08 | 3185/138 | 3700 | 3600 | 6000 | 1.2 | 11.0 | 6.0 | 7.7 | 15 |
| 325 | 16 | 17 | 1.1 | 4.4 | F102_0185 EZ301U | 50 | 134 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 0.52 | 11.0 | 6.0 | 7.7 | 13 |
| 325 | 27 | 30 | 1.8 | 2.6 | F102_0185 EZ302U | 90 | 134 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 0.62 | 11.0 | 6.0 | 7.7 | 13 |
| 325 | 35 | 40 | 2.3 | 2.0 | F102_0185 EZ303U | 107 | 134 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 0.73 | 11.0 | 6.0 | 7.7 | 14 |
| 325 | 41 | 50 | 2.7 | 1.7 | F102_0185 EZ401U | 120 | 240 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 1.3 | 11.0 | 6.0 | 7.7 | 15 |
| 325 | 61 | 79 | 4.0 | 1.2 | F102_0185 EZ501U | 120 | 240 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 3.2 | 11.0 | 6.0 | 7.7 | 16 |
| 325 | 63 | 88 | 4.2 | 1.1 | F102_0185 EZ402U | 120 | 240 | 18.46 | 1495/81 | 3700 | 3600 | 6000 | 2.0 | 11.0 | 6.0 | 7.7 | 16 |
| 442 | 20 | 22 | 1.7 | 3.2 | F102_0135 EZ302U | 66 | 99 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 0.51 | 11.0 | 8.0 | 6.5 | 13 |
| 442 | 26 | 30 | 2.2 | 2.5 | F102_0135 EZ303U | 79 | 99 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 0.62 | 11.0 | 8.0 | 6.5 | 14 |
| 442 | 30 | 37 | 2.6 | 2.1 | F102_0135 EZ401U | 105 | 200 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 1.1 | 11.0 | 8.0 | 6.5 | 15 |
| 442 | 45 | 58 | 3.8 | 1.4 | F102_0135 EZ501U | 105 | 200 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 3.1 | 11.0 | 8.0 | 6.5 | 16 |
| 442 | 46 | 65 | 4.0 | 1.4 | F102_0135 EZ402U | 105 | 200 | 13.59 | 231/17 | 4000 | 4000 | 6500 | 1.8 | 11.0 | 8.0 | 6.5 | 16 |
| 549 | 16 | 18 | 1.6 | 3.7 | F102_0110 EZ302U | 53 | 79 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 0.60 | 11.0 | 8.0 | 6.5 | 13 |
| 549 | 21 | 24 | 2.1 | 2.8 | F102_0110 EZ303U | 64 | 79 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 0.71 | 11.0 | 8.0 | 6.5 | 14 |
| 549 | 24 | 30 | 2.5 | 2.4 | F102_0110 EZ401U | 90 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 1.2 | 11.0 | 8.0 | 6.5 | 15 |
| 549 | 36 | 47 | 3.7 | 1.6 | F102_0110 EZ501U | 105 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 3.2 | 11.0 | 8.0 | 6.5 | 16 |
| 549 | 37 | 52 | 3.8 | 1.6 | F102_0110 EZ402U | 105 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 1.9 | 11.0 | 8.0 | 6.5 | 16 |
| 549 | 55 | 83 | 5.7 | 1.1 | F102_0110 EZ502U | 105 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 5.5 | 11.0 | 8.0 | 6.5 | 18 |
| 549 | 55 | 84 | 5.7 | 1.1 | F102_0110 EZ701U | 105 | 200 | 10.92 | 273/25 | 4000 | 4000 | 6500 | 8.8 | 11.0 | 8.0 | 6.5 | 20 |
| 671 | 13 | 15 | 1.7 | 4.0 | F102_0089 EZ302U | 43 | 65 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 0.73 | 11.0 | 8.0 | 6.5 | 13 |
| 671 | 17 | 20 | 2.2 | 3.1 | F102_0089 EZ303U | 52 | 65 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 0.84 | 11.0 | 8.0 | 6.5 | 14 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 120 Nm) | | | | | | | | | | | | | | | | | |
| 671 | 20 | 24 | 2.4 | 2.8 | F102_0089 EZ401U | 74 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 1.4 | 11.0 | 8.0 | 6.5 | 15 |
| 671 | 30 | 38 | 3.6 | 1.9 | F102_0089 EZ501U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 3.3 | 11.0 | 8.0 | 6.5 | 16 |
| 671 | 30 | 43 | 3.7 | 1.8 | F102_0089 EZ402U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 2.1 | 11.0 | 8.0 | 6.5 | 16 |
| 671 | 45 | 68 | 5.5 | 1.2 | F102_0089 EZ502U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 5.6 | 11.0 | 8.0 | 6.5 | 18 |
| 671 | 45 | 69 | 5.5 | 1.2 | F102_0089 EZ701U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 8.9 | 11.0 | 8.0 | 6.5 | 20 |
| 671 | 50 | 73 | 6.1 | 1.1 | F102_0089 EZ404U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 3.4 | 11.0 | 8.0 | 6.5 | 18 |
| 671 | 54 | 92 | 6.5 | 1.0 | F102_0089 EZ503U | 105 | 200 | 8.948 | 1029/115 | 3700 | 3600 | 6000 | 8.0 | 11.0 | 8.0 | 6.5 | 19 |
| 838 | 10 | 12 | 1.9 | 4.0 | F102_0072 EZ302U | 35 | 52 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 0.92 | 11.0 | 8.0 | 6.5 | 13 |
| 838 | 14 | 16 | 2.4 | 3.1 | F102_0072 EZ303U | 42 | 52 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 1.0 | 11.0 | 8.0 | 6.5 | 14 |
| 838 | 16 | 19 | 2.3 | 3.2 | F102_0072 EZ401U | 59 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 1.6 | 11.0 | 8.0 | 6.5 | 15 |
| 838 | 24 | 31 | 3.4 | 2.2 | F102_0072 EZ501U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 3.5 | 11.0 | 8.0 | 6.5 | 16 |
| 838 | 24 | 34 | 3.6 | 2.1 | F102_0072 EZ402U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 2.3 | 11.0 | 8.0 | 6.5 | 16 |
| 838 | 36 | 54 | 5.3 | 1.4 | F102_0072 EZ502U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 5.8 | 11.0 | 8.0 | 6.5 | 18 |
| 838 | 36 | 55 | 5.3 | 1.4 | F102_0072 EZ701U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 9.1 | 11.0 | 8.0 | 6.5 | 20 |
| 838 | 40 | 58 | 5.9 | 1.3 | F102_0072 EZ404U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 3.6 | 11.0 | 8.0 | 6.5 | 18 |
| 838 | 43 | 74 | 6.3 | 1.2 | F102_0072 EZ503U | 105 | 200 | 7.156 | 322/45 | 3700 | 3600 | 6000 | 8.2 | 11.0 | 8.0 | 6.5 | 19 |
| 929 | 14 | 18 | 2.3 | 3.4 | F102_0065 EZ401U | 53 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 1.7 | 11.0 | 8.0 | 6.5 | 15 |
| 929 | 21 | 28 | 3.4 | 2.3 | F102_0065 EZ501U | 100 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 3.7 | 11.0 | 8.0 | 6.5 | 16 |
| 929 | 22 | 31 | 3.5 | 2.3 | F102_0065 EZ402U | 100 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 2.4 | 11.0 | 8.0 | 6.5 | 16 |
| 929 | 33 | 49 | 5.2 | 1.5 | F102_0065 EZ502U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 6.0 | 11.0 | 8.0 | 6.5 | 18 |
| 929 | 33 | 50 | 5.2 | 1.5 | F102_0065 EZ701U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 9.3 | 11.0 | 8.0 | 6.5 | 20 |
| 929 | 36 | 53 | 5.8 | 1.4 | F102_0065 EZ404U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 3.7 | 11.0 | 8.0 | 6.5 | 18 |
| 929 | 39 | 66 | 6.2 | 1.3 | F102_0065 EZ503U | 105 | 188 | 6.462 | 84/13 | 3500 | 3000 | 6000 | 8.3 | 11.0 | 8.0 | 6.5 | 19 |
| 1393 | 6.3 | 7.0 | 2.4 | 4.0 | F102_0043 EZ302U | 21 | 31 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 1.8 | 11.0 | 8.0 | 6.5 | 13 |
| 1393 | 8.2 | 9.4 | 3.1 | 3.1 | F102_0043 EZ303U | 25 | 31 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 1.9 | 11.0 | 8.0 | 6.5 | 14 |
| 1393 | 9.6 | 12 | 2.1 | 4.5 | F102_0043 EZ401U | 36 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 2.4 | 11.0 | 8.0 | 6.5 | 15 |
| 1393 | 14 | 18 | 3.2 | 3.0 | F102_0043 EZ501U | 67 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 4.4 | 11.0 | 8.0 | 6.5 | 16 |
| 1393 | 15 | 20 | 3.3 | 3.0 | F102_0043 EZ402U | 67 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 3.1 | 11.0 | 8.0 | 6.5 | 16 |
| 1393 | 22 | 33 | 4.8 | 2.0 | F102_0043 EZ502U | 100 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 6.7 | 11.0 | 8.0 | 6.5 | 18 |
| 1393 | 22 | 33 | 4.8 | 2.0 | F102_0043 EZ701U | 84 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 10 | 11.0 | 8.0 | 6.5 | 20 |
| 1393 | 24 | 35 | 5.4 | 1.8 | F102_0043 EZ404U | 100 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 4.5 | 11.0 | 8.0 | 6.5 | 18 |
| 1393 | 26 | 44 | 5.8 | 1.7 | F102_0043 EZ503U | 100 | 125 | 4.308 | 56/13 | 3500 | 3000 | 6000 | 9.1 | 11.0 | 8.0 | 6.5 | 19 |
| F2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 270 Nm) | | | | | | | | | | | | | | | | | |
| 14 | 198 | 202 | 1.2 | 1.2 | F203_2220 EZ301U | 270 | 480 | 222.2 | 2444/11 | 4000 | 3900 | 6500 | 0.25 | 11.0 | 7.0 | 18 | 24 |
| 16 | 164 | 167 | 1.1 | 1.5 | F203_1840 EZ301U | 270 | 480 | 184.3 | 16215/88 | 4000 | 3900 | 6500 | 0.25 | 11.0 | 7.0 | 18 | 24 |
| 21 | 127 | 130 | 1.0 | 1.9 | F202_1410 EZ301U | 270 | 480 | 140.9 | 1550/11 | 4000 | 3900 | 6500 | 0.23 | 11.0 | 6.0 | 18 | 21 |
| 21 | 217 | 230 | 1.7 | 1.1 | F202_1410 EZ302U | 270 | 480 | 140.9 | 1550/11 | 4000 | 3900 | 6500 | 0.33 | 11.0 | 6.0 | 18 | 22 |
| 27 | 102 | 104 | 0.9 | 2.4 | F202_1130 EZ301U | 270 | 480 | 112.7 | 1240/11 | 4000 | 3900 | 6500 | 0.24 | 11.0 | 6.0 | 18 | 21 |
| 27 | 174 | 184 | 1.5 | 1.4 | F202_1130 EZ302U | 270 | 480 | 112.7 | 1240/11 | 4000 | 3900 | 6500 | 0.34 | 11.0 | 6.0 | 18 | 22 |
| 27 | 226 | 239 | 2.0 | 1.1 | F202_1130 EZ303U | 270 | 480 | 112.7 | 1240/11 | 4000 | 3900 | 6500 | 0.45 | 11.0 | 6.0 | 18 | 22 |
| 32 | 85 | 86 | 0.8 | 2.8 | F202_0940 EZ301U | 255 | 480 | 93.82 | 1032/11 | 4000 | 3900 | 6500 | 0.26 | 11.0 | 6.0 | 18 | 21 |
| 32 | 145 | 153 | 1.4 | 1.7 | F202_0940 EZ302U | 270 | 480 | 93.82 | 1032/11 | 4000 | 3900 | 6500 | 0.36 | 11.0 | 6.0 | 18 | 22 |
| 32 | 188 | 199 | 1.8 | 1.3 | F202_0940 EZ303U | 270 | 480 | 93.82 | 1032/11 | 4000 | 3900 | 6500 | 0.47 | 11.0 | 6.0 | 18 | 22 |
| 43 | 108 | 114 | 1.2 | 2.2 | F202_0700 EZ302U | 270 | 435 | 70.13 | 5400/77 | 4000 | 3900 | 6500 | 0.41 | 11.0 | 6.0 | 18 | 22 |
| 43 | 141 | 149 | 1.5 | 1.7 | F202_0700 EZ303U | 270 | 435 | 70.13 | 5400/77 | 4000 | 3900 | 6500 | 0.52 | 11.0 | 6.0 | 18 | 22 |
| 43 | 190 | 204 | 2.1 | 1.3 | F202_0700 EZ401U | 270 | 480 | 70.13 | 5400/77 | 4000 | 3900 | 6500 | 1.1 | 11.0 | 6.0 | 18 | 23 |
| 53 | 154 | 165 | 1.9 | 1.6 | F202_0570 EZ401U | 270 | 480 | 56.73 | 624/11 | 4000 | 3900 | 6500 | 1.1 | 11.0 | 6.0 | 18 | 23 |
| 53 | 237 | 259 | 2.9 | 1.0 | F202_0570 EZ501U | 270 | 480 | 56.73 | 624/11 | 4000 | 3900 | 6500 | 3.1 | 11.0 | 6.0 | 18 | 24 |
| 64 | 73 | 77 | 1.0 | 3.3 | F202_0470 EZ302U | 228 | 342 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 0.52 | 11.0 | 6.0 | 18 | 22 |
| 64 | 94 | 100 | 1.3 | 2.5 | F202_0470 EZ303U | 270 | 342 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 0.63 | 11.0 | 6.0 | 18 | 22 |
| 64 | 128 | 137 | 1.7 | 1.9 | F202_0470 EZ401U | 270 | 480 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 1.2 | 11.0 | 6.0 | 18 | 23 |
| 64 | 196 | 214 | 2.6 | 1.2 | F202_0470 EZ501U | 270 | 480 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 3.1 | 11.0 | 6.0 | 18 | 24 |
| 64 | 214 | 237 | 2.9 | 1.1 | F202_0470 EZ402U | 270 | 480 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 1.9 | 11.0 | 6.0 | 18 | 25 |
| 85 | 55 | 58 | 1.0 | 3.8 | F202_0350 EZ302U | 172 | 258 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 0.65 | 11.0 | 6.0 | 18 | 22 |
| 85 | 71 | 75 | 1.3 | 2.9 | F202_0350 EZ303U | 206 | 258 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 0.76 | 11.0 | 6.0 | 18 | 22 |
| 85 | 96 | 103 | 1.6 | 2.3 | F202_0350 EZ401U | 270 | 480 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 1.3 | 11.0 | 6.0 | 18 | 23 |
| 85 | 148 | 162 | 2.5 | 1.5 | F202_0350 EZ501U | 270 | 480 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 3.3 | 11.0 | 6.0 | 18 | 24 |
| 85 | 162 | 179 | 2.7 | 1.4 | F202_0350 EZ402U | 270 | 480 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 2.0 | 11.0 | 6.0 | 18 | 25 |
| 107 | 76 | 82 | 1.6 | 2.7 | F202_0280 EZ401U | 232 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 1.4 | 11.0 | 6.0 | 18 | 23 |
| 107 | 117 | 128 | 2.4 | 1.7 | F202_0280 EZ501U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 3.4 | 11.0 | 6.0 | 18 | 24 |
| 107 | 128 | 142 | 2.6 | 1.6 | F202_0280 EZ402U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 2.1 | 11.0 | 6.0 | 18 | 25 |
| 107 | 188 | 235 | 3.9 | 1.1 | F202_0280 EZ404U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 3.5 | 11.0 | 6.0 | 18 | 27 |
| 107 | 202 | 218 | 4.1 | 1.0 | F202_0280 EZ502U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 5.7 | 11.0 | 6.0 | 18 | 26 |
| 107 | 202 | 226 | 4.1 | 1.0 | F202_0280 EZ701U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 9.0 | 11.0 | 6.0 | 18 | 28 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 270 Nm) | | | | | | | | | | | | | | | | | |
| 128 | 36 | 38 | 1.2 | 3.8 | F202_0230 EZ302U | 114 | 171 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 0.95 | 11.0 | 6.0 | 18 | 22 |
| 128 | 47 | 50 | 1.6 | 2.9 | F202_0230 EZ303U | 136 | 171 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 1.1 | 11.0 | 6.0 | 18 | 22 |
| 128 | 64 | 68 | 1.5 | 3.0 | F202_0230 EZ401U | 193 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 1.6 | 11.0 | 6.0 | 18 | 23 |
| 128 | 98 | 107 | 2.3 | 1.9 | F202_0230 EZ501U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 3.6 | 11.0 | 6.0 | 18 | 24 |
| 128 | 107 | 118 | 2.5 | 1.8 | F202_0230 EZ402U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 2.3 | 11.0 | 6.0 | 18 | 25 |
| 128 | 157 | 195 | 3.7 | 1.2 | F202_0230 EZ404U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 3.6 | 11.0 | 6.0 | 18 | 27 |
| 128 | 168 | 182 | 4.0 | 1.1 | F202_0230 EZ502U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 5.9 | 11.0 | 6.0 | 18 | 26 |
| 128 | 168 | 189 | 4.0 | 1.1 | F202_0230 EZ701U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 9.2 | 11.0 | 6.0 | 18 | 28 |
| 161 | 51 | 54 | 1.5 | 3.5 | F202_0185 EZ401U | 154 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 1.9 | 11.0 | 6.0 | 18 | 23 |
| 161 | 78 | 85 | 2.2 | 2.3 | F202_0185 EZ501U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 3.8 | 11.0 | 6.0 | 18 | 24 |
| 161 | 85 | 94 | 2.5 | 2.1 | F202_0185 EZ402U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 2.6 | 11.0 | 6.0 | 18 | 25 |
| 161 | 125 | 156 | 3.6 | 1.4 | F202_0185 EZ404U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 3.9 | 11.0 | 6.0 | 18 | 27 |
| 161 | 134 | 145 | 3.9 | 1.3 | F202_0185 EZ502U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 6.1 | 11.0 | 6.0 | 18 | 26 |
| 161 | 134 | 150 | 3.9 | 1.3 | F202_0185 EZ701U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 9.4 | 11.0 | 6.0 | 18 | 28 |
| 161 | 175 | 201 | 5.1 | 1.0 | F202_0185 EZ503U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 8.5 | 11.0 | 6.0 | 18 | 27 |
| 220 | 21 | 22 | 1.6 | 3.8 | F202_0135 EZ302U | 66 | 99 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 0.93 | 11.0 | 8.0 | 16 | 22 |
| 220 | 27 | 29 | 2.1 | 2.9 | F202_0135 EZ303U | 79 | 99 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 1.0 | 11.0 | 8.0 | 16 | 22 |
| 220 | 37 | 40 | 1.4 | 4.3 | F202_0135 EZ401U | 112 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 1.6 | 11.0 | 8.0 | 16 | 23 |
| 220 | 57 | 62 | 2.1 | 2.8 | F202_0135 EZ501U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 3.5 | 11.0 | 8.0 | 16 | 24 |
| 220 | 62 | 69 | 2.3 | 2.6 | F202_0135 EZ402U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 2.3 | 11.0 | 8.0 | 16 | 25 |
| 220 | 91 | 114 | 3.4 | 1.7 | F202_0135 EZ404U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 3.6 | 11.0 | 8.0 | 16 | 27 |
| 220 | 98 | 106 | 3.7 | 1.6 | F202_0135 EZ502U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 5.8 | 11.0 | 8.0 | 16 | 26 |
| 220 | 98 | 110 | 3.7 | 1.6 | F202_0135 EZ701U | 210 | 400 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 9.1 | 11.0 | 8.0 | 16 | 28 |
| 220 | 128 | 147 | 4.8 | 1.2 | F202_0135 EZ503U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 8.2 | 11.0 | 8.0 | 16 | 27 |
| 220 | 159 | 190 | 5.9 | 1.0 | F202_0135 EZ702U | 210 | 400 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 14 | 11.0 | 8.0 | 16 | 30 |
| 278 | 45 | 49 | 2.0 | 3.3 | F202_0110 EZ501U | 168 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 3.8 | 11.0 | 8.0 | 16 | 24 |
| 278 | 49 | 54 | 2.2 | 3.0 | F202_0110 EZ402U | 168 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 2.6 | 11.0 | 8.0 | 16 | 25 |
| 278 | 72 | 90 | 3.3 | 2.0 | F202_0110 EZ404U | 210 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 3.9 | 11.0 | 8.0 | 16 | 27 |
| 278 | 78 | 84 | 3.5 | 1.9 | F202_0110 EZ502U | 210 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 6.1 | 11.0 | 8.0 | 16 | 26 |
| 278 | 78 | 87 | 3.5 | 1.9 | F202_0110 EZ701U | 210 | 400 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 9.4 | 11.0 | 8.0 | 16 | 28 |
| 278 | 102 | 116 | 4.6 | 1.4 | F202_0110 EZ503U | 210 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 8.5 | 11.0 | 8.0 | 16 | 27 |
| 278 | 126 | 151 | 5.7 | 1.2 | F202_0110 EZ702U | 210 | 400 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 15 | 11.0 | 8.0 | 16 | 30 |
| 278 | 141 | 168 | 6.4 | 1.0 | F202_0110 EZ505U | 210 | 400 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 13 | 11.0 | 8.0 | 16 | 30 |
| 333 | 14 | 15 | 1.9 | 3.8 | F202_0090 EZ302U | 44 | 66 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 1.6 | 11.0 | 8.0 | 16 | 22 |
| 333 | 18 | 19 | 2.5 | 2.9 | F202_0090 EZ303U | 52 | 66 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 1.7 | 11.0 | 8.0 | 16 | 22 |
| 333 | 38 | 41 | 2.0 | 3.7 | F202_0090 EZ501U | 140 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 4.2 | 11.0 | 8.0 | 16 | 24 |
| 333 | 41 | 45 | 2.2 | 3.4 | F202_0090 EZ402U | 140 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 2.9 | 11.0 | 8.0 | 16 | 25 |
| 333 | 60 | 75 | 3.2 | 2.3 | F202_0090 EZ404U | 210 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 4.3 | 11.0 | 8.0 | 16 | 27 |
| 333 | 65 | 70 | 3.4 | 2.1 | F202_0090 EZ502U | 210 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 6.5 | 11.0 | 8.0 | 16 | 26 |
| 333 | 65 | 73 | 3.4 | 2.1 | F202_0090 EZ701U | 175 | 400 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 9.8 | 11.0 | 8.0 | 16 | 28 |
| 333 | 85 | 97 | 4.5 | 1.6 | F202_0090 EZ503U | 210 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 8.9 | 11.0 | 8.0 | 16 | 27 |
| 333 | 105 | 126 | 5.6 | 1.3 | F202_0090 EZ702U | 210 | 400 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 15 | 11.0 | 8.0 | 16 | 30 |
| 333 | 118 | 140 | 6.2 | 1.2 | F202_0090 EZ505U | 210 | 400 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 13 | 11.0 | 8.0 | 16 | 30 |
| 419 | 30 | 33 | 1.9 | 4.3 | F202_0072 EZ501U | 111 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 4.8 | 11.0 | 8.0 | 16 | 24 |
| 419 | 33 | 36 | 2.1 | 3.9 | F202_0072 EZ402U | 111 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 3.6 | 11.0 | 8.0 | 16 | 25 |
| 419 | 48 | 60 | 3.1 | 2.7 | F202_0072 EZ404U | 167 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 4.9 | 11.0 | 8.0 | 16 | 27 |
| 419 | 51 | 56 | 3.3 | 2.5 | F202_0072 EZ502U | 167 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 7.1 | 11.0 | 8.0 | 16 | 26 |
| 419 | 51 | 58 | 3.3 | 2.5 | F202_0072 EZ701U | 139 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 10 | 11.0 | 8.0 | 16 | 28 |
| 419 | 67 | 77 | 4.3 | 1.9 | F202_0072 EZ503U | 167 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 9.5 | 11.0 | 8.0 | 16 | 27 |
| 419 | 83 | 100 | 5.3 | 1.5 | F202_0072 EZ702U | 210 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 16 | 11.0 | 8.0 | 16 | 30 |
| 419 | 94 | 111 | 6.0 | 1.4 | F202_0072 EZ505U | 210 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 14 | 11.0 | 8.0 | 16 | 30 |
| 419 | 115 | 145 | 7.3 | 1.1 | F202_0072 EZ703U | 210 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 24 | 11.0 | 8.0 | 16 | 32 |
| 540 | 40 | 45 | 3.2 | 3.0 | F202_0056 EZ701U | 108 | 400 | 5.552 | 5341/962 | 3100 | 2600 | 5000 | 12 | 11.0 | 8.0 | 16 | 28 |
| 540 | 65 | 78 | 5.1 | 1.8 | F202_0056 EZ702U | 210 | 400 | 5.552 | 5341/962 | 3100 | 2600 | 5000 | 17 | 11.0 | 8.0 | 16 | 30 |
| 540 | 73 | 86 | 5.8 | 1.6 | F202_0056 EZ505U | 210 | 400 | 5.552 | 5341/962 | 3100 | 2600 | 5000 | 15 | 11.0 | 8.0 | 16 | 30 |
| 540 | 89 | 112 | 7.0 | 1.3 | F202_0056 EZ703U | 210 | 400 | 5.552 | 5341/962 | 3100 | 2600 | 5000 | 25 | 11.0 | 8.0 | 16 | 32 |
| 641 | 31 | 39 | 2.9 | 3.5 | F202_0047 EZ404U | 109 | 136 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 7.0 | 11.0 | 8.0 | 16 | 27 |
| 641 | 34 | 36 | 3.1 | 3.2 | F202_0047 EZ502U | 109 | 136 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 9.3 | 11.0 | 8.0 | 16 | 26 |
| 641 | 34 | 38 | 3.1 | 3.3 | F202_0047 EZ701U | 91 | 340 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 13 | 11.0 | 8.0 | 16 | 28 |
| 641 | 44 | 50 | 4.1 | 2.5 | F202_0047 EZ503U | 109 | 136 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 12 | 11.0 | 8.0 | 16 | 27 |
| 641 | 54 | 65 | 5.0 | 2.0 | F202_0047 EZ702U | 186 | 340 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 18 | 11.0 | 8.0 | 16 | 30 |
| 641 | 61 | 73 | 5.6 | 1.8 | F202_0047 EZ505U | 210 | 340 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 16 | 11.0 | 8.0 | 16 | 30 |
| 641 | 75 | 94 | 6.8 | 1.5 | F202_0047 EZ703U | 210 | 340 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 26 | 11.0 | 8.0 | 16 | 32 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| F2 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 210 Nm) | | | | | | | | | | | | | | | | | |
| 330 | 126 | 202 | 5.4 | 1.1 | F202_0135 EZ505U | 210 | 400 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 13 | 11.0 | 8.0 | 16 | 30 |
| 417 | 100 | 160 | 5.2 | 1.3 | F202_0110 EZ505U | 210 | 400 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 13 | 11.0 | 8.0 | 16 | 30 |
| 417 | 127 | 210 | 6.6 | 1.0 | F202_0110 EZ703U | 210 | 400 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 23 | 11.0 | 8.0 | 16 | 32 |
| 500 | 83 | 134 | 5.0 | 1.5 | F202_0090 EZ505U | 210 | 400 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 13 | 11.0 | 8.0 | 16 | 30 |
| 500 | 106 | 175 | 6.4 | 1.1 | F202_0090 EZ703U | 210 | 400 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 23 | 11.0 | 8.0 | 16 | 32 |
| 628 | 66 | 106 | 4.8 | 1.7 | F202_0072 EZ505U | 210 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 14 | 11.0 | 8.0 | 16 | 30 |
| 628 | 84 | 139 | 6.2 | 1.3 | F202_0072 EZ703U | 210 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 24 | 11.0 | 8.0 | 16 | 32 |
| 811 | 51 | 82 | 4.6 | 2.0 | F202_0056 EZ505U | 210 | 400 | 5.552 | 5341/962 | 3100 | 2600 | 5000 | 15 | 11.0 | 8.0 | 16 | 30 |
| 811 | 65 | 108 | 5.9 | 1.6 | F202_0056 EZ703U | 210 | 400 | 5.552 | 5341/962 | 3100 | 2600 | 5000 | 25 | 11.0 | 8.0 | 16 | 32 |
| 962 | 43 | 69 | 4.5 | 2.3 | F202_0047 EZ505U | 210 | 340 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 16 | 11.0 | 8.0 | 16 | 30 |
| 962 | 55 | 91 | 5.7 | 1.8 | F202_0047 EZ703U | 210 | 340 | 4.680 | 2616/559 | 3100 | 2600 | 5000 | 26 | 11.0 | 8.0 | 16 | 32 |
| F2 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 270 Nm) | | | | | | | | | | | | | | | | | |
| 43 | 205 | 230 | 1.6 | 1.2 | F202_1410 EZ302U | 270 | 480 | 140.9 | 1550/11 | 4000 | 3900 | 6500 | 0.33 | 11.0 | 6.0 | 18 | 22 |
| 53 | 164 | 184 | 1.4 | 1.5 | F202_1130 EZ302U | 270 | 480 | 112.7 | 1240/11 | 4000 | 3900 | 6500 | 0.34 | 11.0 | 6.0 | 18 | 22 |
| 53 | 214 | 246 | 1.9 | 1.1 | F202_1130 EZ303U | 270 | 480 | 112.7 | 1240/11 | 4000 | 3900 | 6500 | 0.45 | 11.0 | 6.0 | 18 | 22 |
| 64 | 137 | 153 | 1.3 | 1.8 | F202_0940 EZ302U | 270 | 480 | 93.82 | 1032/11 | 4000 | 3900 | 6500 | 0.36 | 11.0 | 6.0 | 18 | 22 |
| 64 | 178 | 205 | 1.7 | 1.3 | F202_0940 EZ303U | 270 | 480 | 93.82 | 1032/11 | 4000 | 3900 | 6500 | 0.47 | 11.0 | 6.0 | 18 | 22 |
| 64 | 209 | 255 | 2.0 | 1.1 | F202_0940 EZ401U | 270 | 480 | 93.82 | 1032/11 | 4000 | 3900 | 6500 | 1.0 | 11.0 | 6.0 | 18 | 23 |
| 86 | 102 | 114 | 1.2 | 2.1 | F202_0700 EZ302U | 270 | 435 | 70.13 | 5400/77 | 4000 | 3900 | 6500 | 0.41 | 11.0 | 6.0 | 18 | 22 |
| 86 | 133 | 153 | 1.6 | 1.6 | F202_0700 EZ303U | 270 | 435 | 70.13 | 5400/77 | 4000 | 3900 | 6500 | 0.52 | 11.0 | 6.0 | 18 | 22 |
| 86 | 156 | 190 | 1.9 | 1.4 | F202_0700 EZ401U | 270 | 480 | 70.13 | 5400/77 | 4000 | 3900 | 6500 | 1.1 | 11.0 | 6.0 | 18 | 23 |
| 106 | 127 | 154 | 1.8 | 1.6 | F202_0570 EZ401U | 270 | 480 | 56.73 | 624/11 | 4000 | 3900 | 6500 | 1.1 | 11.0 | 6.0 | 18 | 23 |
| 106 | 187 | 242 | 2.7 | 1.1 | F202_0570 EZ501U | 270 | 480 | 56.73 | 624/11 | 4000 | 3900 | 6500 | 3.1 | 11.0 | 6.0 | 18 | 24 |
| 106 | 193 | 270 | 2.8 | 1.1 | F202_0570 EZ402U | 270 | 480 | 56.73 | 624/11 | 4000 | 3900 | 6500 | 1.8 | 11.0 | 6.0 | 18 | 25 |
| 128 | 68 | 77 | 1.2 | 2.8 | F202_0470 EZ302U | 228 | 342 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 0.52 | 11.0 | 6.0 | 18 | 22 |
| 128 | 89 | 103 | 1.5 | 2.1 | F202_0470 EZ303U | 270 | 342 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 0.63 | 11.0 | 6.0 | 18 | 22 |
| 128 | 105 | 128 | 1.8 | 1.8 | F202_0470 EZ401U | 270 | 480 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 1.2 | 11.0 | 6.0 | 18 | 23 |
| 128 | 155 | 201 | 2.6 | 1.2 | F202_0470 EZ501U | 270 | 480 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 3.1 | 11.0 | 6.0 | 18 | 24 |
| 128 | 160 | 224 | 2.7 | 1.2 | F202_0470 EZ402U | 270 | 480 | 47.05 | 1035/22 | 4000 | 3900 | 6500 | 1.9 | 11.0 | 6.0 | 18 | 25 |
| 169 | 52 | 58 | 1.1 | 3.4 | F202_0350 EZ302U | 172 | 258 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 0.65 | 11.0 | 6.0 | 18 | 22 |
| 169 | 67 | 77 | 1.4 | 2.6 | F202_0350 EZ303U | 206 | 258 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 0.76 | 11.0 | 6.0 | 18 | 22 |
| 169 | 79 | 96 | 1.7 | 2.2 | F202_0350 EZ401U | 270 | 480 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 1.3 | 11.0 | 6.0 | 18 | 23 |
| 169 | 117 | 151 | 2.5 | 1.5 | F202_0350 EZ501U | 270 | 480 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 3.3 | 11.0 | 6.0 | 18 | 24 |
| 169 | 120 | 169 | 2.6 | 1.4 | F202_0350 EZ402U | 270 | 480 | 35.46 | 390/11 | 3800 | 3500 | 6000 | 2.0 | 11.0 | 6.0 | 18 | 25 |
| 213 | 63 | 76 | 1.6 | 2.6 | F202_0280 EZ401U | 232 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 1.4 | 11.0 | 6.0 | 18 | 23 |
| 213 | 93 | 120 | 2.4 | 1.7 | F202_0280 EZ501U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 3.4 | 11.0 | 6.0 | 18 | 24 |
| 213 | 95 | 134 | 2.5 | 1.7 | F202_0280 EZ402U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 2.1 | 11.0 | 6.0 | 18 | 25 |
| 213 | 142 | 213 | 3.7 | 1.1 | F202_0280 EZ502U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 5.7 | 11.0 | 6.0 | 18 | 26 |
| 213 | 142 | 215 | 3.7 | 1.1 | F202_0280 EZ701U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 9.0 | 11.0 | 6.0 | 18 | 28 |
| 213 | 158 | 229 | 4.1 | 1.0 | F202_0280 EZ404U | 270 | 480 | 28.11 | 4020/143 | 3800 | 3500 | 6000 | 3.5 | 11.0 | 6.0 | 18 | 27 |
| 256 | 34 | 38 | 1.1 | 4.0 | F202_0230 EZ302U | 114 | 171 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 0.95 | 11.0 | 6.0 | 18 | 22 |
| 256 | 45 | 51 | 1.5 | 3.1 | F202_0230 EZ303U | 136 | 171 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 1.1 | 11.0 | 6.0 | 18 | 22 |
| 256 | 52 | 64 | 1.6 | 2.9 | F202_0230 EZ401U | 193 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 1.6 | 11.0 | 6.0 | 18 | 23 |
| 256 | 77 | 100 | 2.3 | 2.0 | F202_0230 EZ501U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 3.6 | 11.0 | 6.0 | 18 | 24 |
| 256 | 80 | 111 | 2.4 | 1.9 | F202_0230 EZ402U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 2.3 | 11.0 | 6.0 | 18 | 25 |
| 256 | 118 | 177 | 3.6 | 1.3 | F202_0230 EZ502U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 5.9 | 11.0 | 6.0 | 18 | 26 |
| 256 | 118 | 180 | 3.6 | 1.3 | F202_0230 EZ701U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 9.2 | 11.0 | 6.0 | 18 | 28 |
| 256 | 132 | 191 | 4.0 | 1.1 | F202_0230 EZ404U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 3.6 | 11.0 | 6.0 | 18 | 27 |
| 256 | 141 | 241 | 4.2 | 1.1 | F202_0230 EZ503U | 270 | 480 | 23.43 | 2320/99 | 3600 | 3100 | 6000 | 8.2 | 11.0 | 6.0 | 18 | 27 |
| 322 | 42 | 51 | 1.5 | 3.4 | F202_0185 EZ401U | 154 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 1.9 | 11.0 | 6.0 | 18 | 23 |
| 322 | 62 | 80 | 2.2 | 2.3 | F202_0185 EZ501U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 3.8 | 11.0 | 6.0 | 18 | 24 |
| 322 | 63 | 89 | 2.3 | 2.2 | F202_0185 EZ402U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 2.6 | 11.0 | 6.0 | 18 | 25 |
| 322 | 94 | 141 | 3.4 | 1.5 | F202_0185 EZ502U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 6.1 | 11.0 | 6.0 | 18 | 26 |
| 322 | 94 | 143 | 3.4 | 1.5 | F202_0185 EZ701U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 9.4 | 11.0 | 6.0 | 18 | 28 |
| 322 | 105 | 152 | 3.8 | 1.3 | F202_0185 EZ404U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 3.9 | 11.0 | 6.0 | 18 | 27 |
| 322 | 112 | 192 | 4.1 | 1.2 | F202_0185 EZ503U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 8.5 | 11.0 | 6.0 | 18 | 27 |
| 322 | 130 | 259 | 4.7 | 1.1 | F202_0185 EZ702U | 270 | 480 | 18.65 | 6360/341 | 3600 | 3100 | 6000 | 15 | 11.0 | 6.0 | 18 | 30 |
| 440 | 20 | 22 | 1.5 | 4.0 | F202_0135 EZ302U | 66 | 99 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 0.93 | 11.0 | 8.0 | 16 | 22 |
| 440 | 26 | 30 | 1.9 | 3.1 | F202_0135 EZ303U | 79 | 99 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 1.0 | 11.0 | 8.0 | 16 | 22 |
| 440 | 30 | 37 | 1.4 | 4.2 | F202_0135 EZ401U | 112 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 1.6 | 11.0 | 8.0 | 16 | 23 |
| 440 | 45 | 58 | 2.1 | 2.8 | F202_0135 EZ501U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 3.5 | 11.0 | 8.0 | 16 | 24 |
| 440 | 46 | 65 | 2.2 | 2.7 | F202_0135 EZ402U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 2.3 | 11.0 | 8.0 | 16 | 25 |
| 440 | 69 | 103 | 3.2 | 1.8 | F202_0135 EZ502U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 5.8 | 11.0 | 8.0 | 16 | 26 |
| 440 | 69 | 104 | 3.2 | 1.8 | F202_0135 EZ701U | 210 | 400 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 9.1 | 11.0 | 8.0 | 16 | 28 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F2 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 270 Nm) | | | | | | | | | | | | | | | | | |
| 440 | 77 | 111 | 3.6 | 1.6 | F202_0135 EZ404U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 3.6 | 11.0 | 8.0 | 16 | 27 |
| 440 | 82 | 140 | 3.9 | 1.5 | F202_0135 EZ503U | 210 | 397 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 8.2 | 11.0 | 8.0 | 16 | 27 |
| 440 | 95 | 189 | 4.5 | 1.3 | F202_0135 EZ702U | 210 | 400 | 13.63 | 109/8 | 3800 | 3500 | 6000 | 14 | 11.0 | 8.0 | 16 | 30 |
| 555 | 24 | 29 | 1.4 | 4.8 | F202_0110 EZ401U | 89 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 1.9 | 11.0 | 8.0 | 16 | 23 |
| 555 | 36 | 46 | 2.0 | 3.3 | F202_0110 EZ501U | 168 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 3.8 | 11.0 | 8.0 | 16 | 24 |
| 555 | 37 | 51 | 2.1 | 3.2 | F202_0110 EZ402U | 168 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 2.6 | 11.0 | 8.0 | 16 | 25 |
| 555 | 54 | 82 | 3.1 | 2.1 | F202_0110 EZ502U | 210 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 6.1 | 11.0 | 8.0 | 16 | 26 |
| 555 | 54 | 83 | 3.1 | 2.1 | F202_0110 EZ701U | 210 | 400 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 9.4 | 11.0 | 8.0 | 16 | 28 |
| 555 | 61 | 88 | 3.5 | 1.9 | F202_0110 EZ404U | 210 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 3.9 | 11.0 | 8.0 | 16 | 27 |
| 555 | 65 | 111 | 3.7 | 1.8 | F202_0110 EZ503U | 210 | 314 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 8.5 | 11.0 | 8.0 | 16 | 27 |
| 555 | 75 | 150 | 4.3 | 1.5 | F202_0110 EZ702U | 210 | 400 | 10.80 | 7303/676 | 3800 | 3500 | 6000 | 15 | 11.0 | 8.0 | 16 | 30 |
| 666 | 13 | 15 | 1.8 | 4.0 | F202_0090 EZ302U | 44 | 66 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 1.6 | 11.0 | 8.0 | 16 | 22 |
| 666 | 17 | 20 | 2.4 | 3.1 | F202_0090 EZ303U | 52 | 66 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 1.7 | 11.0 | 8.0 | 16 | 22 |
| 666 | 30 | 38 | 2.0 | 3.7 | F202_0090 EZ501U | 140 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 4.2 | 11.0 | 8.0 | 16 | 24 |
| 666 | 31 | 43 | 2.0 | 3.6 | F202_0090 EZ402U | 140 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 2.9 | 11.0 | 8.0 | 16 | 25 |
| 666 | 45 | 68 | 3.0 | 2.4 | F202_0090 EZ502U | 210 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 6.5 | 11.0 | 8.0 | 16 | 26 |
| 666 | 45 | 69 | 3.0 | 2.4 | F202_0090 EZ701U | 175 | 400 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 9.8 | 11.0 | 8.0 | 16 | 28 |
| 666 | 51 | 73 | 3.4 | 2.2 | F202_0090 EZ404U | 210 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 4.3 | 11.0 | 8.0 | 16 | 27 |
| 666 | 54 | 93 | 3.6 | 2.0 | F202_0090 EZ503U | 210 | 262 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 8.9 | 11.0 | 8.0 | 16 | 27 |
| 666 | 63 | 125 | 4.2 | 1.7 | F202_0090 EZ702U | 210 | 400 | 9.006 | 3161/351 | 3600 | 3100 | 6000 | 15 | 11.0 | 8.0 | 16 | 30 |
| 837 | 24 | 31 | 1.9 | 4.3 | F202_0072 EZ501U | 111 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 4.8 | 11.0 | 8.0 | 16 | 24 |
| 837 | 24 | 34 | 2.0 | 4.2 | F202_0072 EZ402U | 111 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 3.6 | 11.0 | 8.0 | 16 | 25 |
| 837 | 36 | 54 | 2.9 | 2.8 | F202_0072 EZ502U | 167 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 7.1 | 11.0 | 8.0 | 16 | 26 |
| 837 | 36 | 55 | 2.9 | 2.8 | F202_0072 EZ701U | 139 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 10 | 11.0 | 8.0 | 16 | 28 |
| 837 | 40 | 58 | 3.3 | 2.5 | F202_0072 EZ404U | 167 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 4.9 | 11.0 | 8.0 | 16 | 27 |
| 837 | 43 | 74 | 3.5 | 2.4 | F202_0072 EZ503U | 167 | 209 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 9.5 | 11.0 | 8.0 | 16 | 27 |
| 837 | 50 | 99 | 4.0 | 2.0 | F202_0072 EZ702U | 210 | 400 | 7.167 | 5777/806 | 3600 | 3100 | 6000 | 16 | 11.0 | 8.0 | 16 | 30 |
| F3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 450 Nm) | | | | | | | | | | | | | | | | | |
| 14 | 336 | 355 | 1.4 | 1.2 | F303_2210 EZ302U | 450 | 800 | 221.2 | 191149/864 | 4000 | 3900 | 6500 | 0.36 | 11.0 | 7.0 | 22 | 34 |
| 16 | 281 | 297 | 1.2 | 1.4 | F303_1850 EZ302U | 450 | 800 | 184.8 | 29939/162 | 4000 | 3900 | 6500 | 0.37 | 11.0 | 7.0 | 22 | 34 |
| 16 | 366 | 387 | 1.6 | 1.1 | F303_1850 EZ303U | 450 | 800 | 184.8 | 29939/162 | 4000 | 3900 | 6500 | 0.48 | 11.0 | 7.0 | 22 | 35 |
| 21 | 217 | 229 | 1.1 | 1.8 | F302_1410 EZ302U | 450 | 603 | 140.6 | 7595/54 | 4000 | 3900 | 6500 | 0.37 | 11.0 | 6.0 | 22 | 29 |
| 21 | 282 | 299 | 1.4 | 1.4 | F302_1410 EZ303U | 450 | 603 | 140.6 | 7595/54 | 4000 | 3900 | 6500 | 0.48 | 11.0 | 6.0 | 22 | 30 |
| 21 | 382 | 409 | 1.9 | 1.0 | F302_1410 EZ401U | 450 | 603 | 140.6 | 7595/54 | 4000 | 3900 | 6500 | 1.0 | 11.0 | 6.0 | 22 | 31 |
| 27 | 306 | 328 | 1.7 | 1.3 | F302_1130 EZ401U | 450 | 800 | 112.8 | 3724/33 | 4000 | 3900 | 6500 | 1.0 | 11.0 | 6.0 | 22 | 31 |
| 32 | 254 | 273 | 1.6 | 1.6 | F302_0940 EZ401U | 450 | 800 | 93.64 | 4214/45 | 4000 | 3900 | 6500 | 1.1 | 11.0 | 6.0 | 22 | 31 |
| 32 | 391 | 427 | 2.4 | 1.0 | F302_0940 EZ501U | 450 | 800 | 93.64 | 4214/45 | 4000 | 3900 | 6500 | 3.1 | 11.0 | 6.0 | 22 | 32 |
| 43 | 191 | 205 | 1.4 | 2.1 | F302_0700 EZ401U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 1.2 | 11.0 | 6.0 | 22 | 31 |
| 43 | 293 | 321 | 2.1 | 1.4 | F302_0700 EZ501U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 3.2 | 11.0 | 6.0 | 22 | 32 |
| 43 | 321 | 355 | 2.3 | 1.2 | F302_0700 EZ402U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 1.9 | 11.0 | 6.0 | 22 | 32 |
| 53 | 153 | 164 | 1.2 | 2.6 | F302_0560 EZ401U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 1.3 | 11.0 | 6.0 | 22 | 31 |
| 53 | 236 | 258 | 1.9 | 1.7 | F302_0560 EZ501U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 3.3 | 11.0 | 6.0 | 22 | 32 |
| 53 | 258 | 285 | 2.1 | 1.6 | F302_0560 EZ402U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 2.0 | 11.0 | 6.0 | 22 | 32 |
| 53 | 378 | 471 | 3.0 | 1.1 | F302_0560 EZ404U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 3.3 | 11.0 | 6.0 | 22 | 34 |
| 64 | 128 | 137 | 1.1 | 3.1 | F302_0470 EZ401U | 389 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 1.4 | 11.0 | 6.0 | 22 | 31 |
| 64 | 197 | 215 | 1.7 | 2.0 | F302_0470 EZ501U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 3.4 | 11.0 | 6.0 | 22 | 32 |
| 64 | 215 | 238 | 1.9 | 1.9 | F302_0470 EZ402U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 2.1 | 11.0 | 6.0 | 22 | 32 |
| 64 | 316 | 394 | 2.8 | 1.3 | F302_0470 EZ404U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 3.5 | 11.0 | 6.0 | 22 | 34 |
| 64 | 339 | 366 | 3.0 | 1.2 | F302_0470 EZ502U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 5.7 | 11.0 | 6.0 | 22 | 34 |
| 64 | 339 | 380 | 3.0 | 1.2 | F302_0470 EZ701U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 9.0 | 11.0 | 6.0 | 22 | 35 |
| 86 | 95 | 102 | 1.1 | 3.8 | F302_0350 EZ401U | 289 | 800 | 35.03 | 7252/207 | 3700 | 3500 | 5500 | 1.7 | 11.0 | 6.0 | 22 | 31 |
| 86 | 146 | 160 | 1.6 | 2.5 | F302_0350 EZ501U | 450 | 800 | 35.03 | 7252/207 | 3700 | 3500 | 5500 | 3.6 | 11.0 | 6.0 | 22 | 32 |
| 86 | 160 | 177 | 1.8 | 2.3 | F302_0350 EZ402U | 450 | 800 | 35.03 | 7252/207 | 3700 | 3500 | 5500 | 2.4 | 11.0 | 6.0 | 22 | 32 |
| 86 | 234 | 292 | 2.6 | 1.5 | F302_0350 EZ404U | 450 | 800 | 35.03 | 7252/207 | 3700 | 3500 | 5500 | 3.7 | 11.0 | 6.0 | 22 | 34 |
| 86 | 251 | 272 | 2.8 | 1.4 | F302_0350 EZ502U | 450 | 800 | 35.03 | 7252/207 | 3700 | 3500 | 5500 | 5.9 | 11.0 | 6.0 | 22 | 34 |
| 86 | 251 | 282 | 2.8 | 1.4 | F302_0350 EZ701U | 450 | 800 | 35.03 | 7252/207 | 3700 | 3500 | 5500 | 9.2 | 11.0 | 6.0 | 22 | 35 |
| 86 | 330 | 377 | 3.7 | 1.1 | F302_0350 EZ503U | 450 | 800 | 35.03 | 7252/207 | 3700 | 3500 | 5500 | 8.3 | 11.0 | 6.0 | 22 | 35 |
| 106 | 77 | 82 | 1.0 | 4.4 | F302_0280 EZ401U | 233 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 2.0 | 11.0 | 6.0 | 22 | 31 |
| 106 | 118 | 129 | 1.6 | 2.9 | F302_0280 EZ501U | 438 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 3.9 | 11.0 | 6.0 | 22 | 32 |
| 106 | 129 | 142 | 1.7 | 2.6 | F302_0280 EZ402U | 438 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 2.7 | 11.0 | 6.0 | 22 | 32 |
| 106 | 189 | 235 | 2.5 | 1.8 | F302_0280 EZ404U | 450 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 4.0 | 11.0 | 6.0 | 22 | 34 |
| 106 | 203 | 219 | 2.7 | 1.7 | F302_0280 EZ502U | 450 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 6.2 | 11.0 | 6.0 | 22 | 34 |
| 106 | 203 | 227 | 2.7 | 1.7 | F302_0280 EZ701U | 450 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 9.5 | 11.0 | 6.0 | 22 | 35 |
| 106 | 266 | 304 | 3.6 | 1.3 | F302_0280 EZ503U | 450 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 8.6 | 11.0 | 6.0 | 22 | 35 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **F3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 450 Nm)** | | | | | | | | | | | | | | | | | |
| 106 | 329 | 394 | 4.4 | 1.0 | F302_0280 EZ702U | 450 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 15 | 11.0 | 6.0 | 22 | 38 |
| 128 | 64 | 68 | 1.0 | 5.0 | F302_0240 EZ401U | 194 | 685 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 2.3 | 11.0 | 6.0 | 22 | 31 |
| 128 | 98 | 107 | 1.5 | 3.2 | F302_0240 EZ501U | 365 | 685 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 4.3 | 11.0 | 6.0 | 22 | 32 |
| 128 | 107 | 119 | 1.7 | 3.0 | F302_0240 EZ402U | 365 | 685 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 3.0 | 11.0 | 6.0 | 22 | 32 |
| 128 | 157 | 196 | 2.5 | 2.0 | F302_0240 EZ404U | 450 | 685 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 4.4 | 11.0 | 6.0 | 22 | 34 |
| 128 | 169 | 183 | 2.6 | 1.9 | F302_0240 EZ502U | 450 | 685 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 6.6 | 11.0 | 6.0 | 22 | 34 |
| 128 | 169 | 189 | 2.6 | 1.9 | F302_0240 EZ701U | 450 | 800 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 9.9 | 11.0 | 6.0 | 22 | 35 |
| 128 | 221 | 253 | 3.5 | 1.4 | F302_0240 EZ503U | 450 | 685 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 9.0 | 11.0 | 6.0 | 22 | 35 |
| 128 | 274 | 329 | 4.3 | 1.2 | F302_0240 EZ702U | 450 | 800 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 15 | 11.0 | 6.0 | 22 | 38 |
| 128 | 308 | 365 | 4.8 | 1.0 | F302_0240 EZ505U | 450 | 800 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 14 | 11.0 | 6.0 | 22 | 38 |
| 160 | 135 | 151 | 2.5 | 2.2 | F302_0190 EZ701U | 364 | 800 | 18.77 | 4900/261 | 3500 | 3100 | 5000 | 10 | 11.0 | 6.0 | 22 | 35 |
| 160 | 219 | 262 | 4.1 | 1.3 | F302_0190 EZ702U | 450 | 800 | 18.77 | 4900/261 | 3500 | 3100 | 5000 | 16 | 11.0 | 6.0 | 22 | 38 |
| 160 | 246 | 291 | 4.6 | 1.2 | F302_0190 EZ505U | 450 | 800 | 18.77 | 4900/261 | 3500 | 3100 | 5000 | 14 | 11.0 | 6.0 | 22 | 38 |
| 224 | 56 | 61 | 1.4 | 4.7 | F302_0135 EZ501U | 208 | 390 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 4.2 | 11.0 | 8.0 | 20 | 32 |
| 224 | 61 | 68 | 1.5 | 4.3 | F302_0135 EZ402U | 208 | 390 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 2.9 | 11.0 | 8.0 | 20 | 32 |
| 224 | 90 | 112 | 2.2 | 2.9 | F302_0135 EZ404U | 312 | 390 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 4.3 | 11.0 | 8.0 | 20 | 34 |
| 224 | 96 | 104 | 2.4 | 2.7 | F302_0135 EZ502U | 312 | 390 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 6.5 | 11.0 | 8.0 | 20 | 34 |
| 224 | 96 | 108 | 2.4 | 2.7 | F302_0135 EZ701U | 260 | 650 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 9.8 | 11.0 | 8.0 | 20 | 35 |
| 224 | 126 | 144 | 3.1 | 2.1 | F302_0135 EZ503U | 312 | 390 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 8.9 | 11.0 | 8.0 | 20 | 35 |
| 224 | 156 | 187 | 3.9 | 1.7 | F302_0135 EZ702U | 350 | 650 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 15 | 11.0 | 8.0 | 20 | 38 |
| 224 | 175 | 208 | 4.4 | 1.5 | F302_0135 EZ505U | 350 | 650 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 13 | 11.0 | 8.0 | 20 | 38 |
| 224 | 214 | 270 | 5.3 | 1.2 | F302_0135 EZ703U | 350 | 650 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 23 | 11.0 | 8.0 | 20 | 40 |
| 278 | 49 | 54 | 1.5 | 5.0 | F302_0110 EZ402U | 167 | 314 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 3.5 | 11.0 | 8.0 | 20 | 32 |
| 278 | 72 | 90 | 2.2 | 3.4 | F302_0110 EZ404U | 251 | 314 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 4.9 | 11.0 | 8.0 | 20 | 34 |
| 278 | 77 | 84 | 2.3 | 3.2 | F302_0110 EZ502U | 251 | 314 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 7.1 | 11.0 | 8.0 | 20 | 34 |
| 278 | 77 | 87 | 2.3 | 3.2 | F302_0110 EZ701U | 209 | 650 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 10 | 11.0 | 8.0 | 20 | 35 |
| 278 | 101 | 116 | 3.0 | 2.4 | F302_0110 EZ503U | 251 | 314 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 9.5 | 11.0 | 8.0 | 20 | 35 |
| 278 | 126 | 151 | 3.7 | 2.0 | F302_0110 EZ702U | 350 | 650 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 16 | 11.0 | 8.0 | 20 | 38 |
| 278 | 141 | 167 | 4.2 | 1.7 | F302_0110 EZ505U | 350 | 650 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 14 | 11.0 | 8.0 | 20 | 38 |
| 278 | 173 | 218 | 5.2 | 1.4 | F302_0110 EZ703U | 350 | 650 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 24 | 11.0 | 8.0 | 20 | 40 |
| 334 | 60 | 75 | 2.3 | 3.5 | F302_0090 EZ404U | 209 | 262 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 5.6 | 11.0 | 8.0 | 20 | 34 |
| 334 | 65 | 70 | 2.5 | 3.2 | F302_0090 EZ502U | 209 | 262 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 7.8 | 11.0 | 8.0 | 20 | 34 |
| 334 | 65 | 72 | 2.2 | 3.6 | F302_0090 EZ701U | 174 | 650 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 11 | 11.0 | 8.0 | 20 | 35 |
| 334 | 85 | 97 | 3.2 | 2.5 | F302_0090 EZ503U | 209 | 262 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 10 | 11.0 | 8.0 | 20 | 35 |
| 334 | 105 | 126 | 3.6 | 2.2 | F302_0090 EZ702U | 350 | 650 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 16 | 11.0 | 8.0 | 20 | 38 |
| 334 | 118 | 139 | 4.1 | 2.0 | F302_0090 EZ505U | 350 | 650 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 15 | 11.0 | 8.0 | 20 | 38 |
| 334 | 144 | 181 | 5.0 | 1.6 | F302_0090 EZ703U | 350 | 650 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 24 | 11.0 | 8.0 | 20 | 40 |
| 418 | 51 | 58 | 2.2 | 4.2 | F302_0072 EZ701U | 139 | 522 | 7.172 | 208/29 | 3500 | 3100 | 5000 | 12 | 11.0 | 8.0 | 20 | 35 |
| 418 | 83 | 100 | 3.5 | 2.6 | F302_0072 EZ702U | 285 | 522 | 7.172 | 208/29 | 3500 | 3100 | 5000 | 18 | 11.0 | 8.0 | 20 | 38 |
| 418 | 94 | 111 | 3.9 | 2.3 | F302_0072 EZ505U | 350 | 522 | 7.172 | 208/29 | 3500 | 3100 | 5000 | 16 | 11.0 | 8.0 | 20 | 38 |
| 418 | 115 | 145 | 4.8 | 1.9 | F302_0072 EZ703U | 350 | 522 | 7.172 | 208/29 | 3500 | 3100 | 5000 | 25 | 11.0 | 8.0 | 20 | 40 |
| 524 | 41 | 46 | 2.1 | 4.8 | F302_0057 EZ701U | 111 | 416 | 5.720 | 143/25 | 3000 | 2600 | 4500 | 14 | 11.0 | 8.0 | 20 | 35 |
| 524 | 67 | 80 | 3.4 | 3.0 | F302_0057 EZ702U | 227 | 416 | 5.720 | 143/25 | 3000 | 2600 | 4500 | 19 | 11.0 | 8.0 | 20 | 38 |
| 524 | 75 | 89 | 3.8 | 2.6 | F302_0057 EZ505U | 333 | 416 | 5.720 | 143/25 | 3000 | 2600 | 4500 | 18 | 11.0 | 8.0 | 20 | 38 |
| 524 | 92 | 115 | 4.6 | 2.2 | F302_0057 EZ703U | 333 | 416 | 5.720 | 143/25 | 3000 | 2600 | 4500 | 27 | 11.0 | 8.0 | 20 | 40 |
| 646 | 54 | 65 | 3.3 | 3.4 | F302_0046 EZ702U | 185 | 338 | 4.644 | 4992/1075 | 3000 | 2600 | 4500 | 22 | 11.0 | 8.0 | 20 | 38 |
| 646 | 61 | 72 | 3.7 | 3.0 | F302_0046 EZ505U | 270 | 338 | 4.644 | 4992/1075 | 3000 | 2600 | 4500 | 20 | 11.0 | 8.0 | 20 | 38 |
| 646 | 74 | 94 | 4.5 | 2.5 | F302_0046 EZ703U | 270 | 338 | 4.644 | 4992/1075 | 3000 | 2600 | 4500 | 30 | 11.0 | 8.0 | 20 | 40 |
| 646 | 96 | 136 | 5.8 | 1.9 | F302_0046 EZ705U | 349 | 650 | 4.644 | 4992/1075 | 3000 | 2600 | 4500 | 42 | 11.0 | 8.0 | 20 | 45 |
| **F3 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 450 Nm)** | | | | | | | | | | | | | | | | | |
| 159 | 260 | 419 | 4.0 | 1.1 | F302_0280 EZ505U | 450 | 800 | 28.23 | 6860/243 | 3700 | 3500 | 5500 | 13 | 11.0 | 6.0 | 22 | 38 |
| 191 | 217 | 349 | 3.9 | 1.3 | F302_0240 EZ505U | 450 | 800 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 14 | 11.0 | 6.0 | 22 | 38 |
| 191 | 276 | 456 | 4.9 | 1.0 | F302_0240 EZ703U | 450 | 800 | 23.52 | 588/25 | 3500 | 3100 | 5000 | 23 | 11.0 | 6.0 | 22 | 40 |
| 240 | 173 | 279 | 3.7 | 1.5 | F302_0190 EZ505U | 450 | 800 | 18.77 | 4900/261 | 3500 | 3100 | 5000 | 14 | 11.0 | 6.0 | 22 | 38 |
| 240 | 220 | 364 | 4.7 | 1.2 | F302_0190 EZ703U | 450 | 800 | 18.77 | 4900/261 | 3500 | 3100 | 5000 | 24 | 11.0 | 6.0 | 22 | 40 |
| 336 | 123 | 199 | 3.5 | 1.9 | F302_0135 EZ505U | 350 | 650 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 13 | 11.0 | 8.0 | 20 | 38 |
| 336 | 157 | 260 | 4.5 | 1.5 | F302_0135 EZ703U | 350 | 650 | 13.38 | 7696/575 | 3700 | 3500 | 5500 | 23 | 11.0 | 8.0 | 20 | 40 |
| 417 | 99 | 160 | 3.4 | 2.2 | F302_0110 EZ505U | 350 | 650 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 14 | 11.0 | 8.0 | 20 | 38 |
| 417 | 127 | 209 | 4.3 | 1.7 | F302_0110 EZ703U | 350 | 650 | 10.79 | 1456/135 | 3700 | 3500 | 5500 | 24 | 11.0 | 8.0 | 20 | 40 |
| 501 | 83 | 133 | 3.3 | 2.4 | F302_0090 EZ505U | 350 | 650 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 15 | 11.0 | 8.0 | 20 | 38 |
| 501 | 105 | 174 | 4.2 | 1.9 | F302_0090 EZ703U | 350 | 650 | 8.986 | 5616/625 | 3500 | 3100 | 5000 | 24 | 11.0 | 8.0 | 20 | 40 |
| 627 | 66 | 106 | 3.2 | 2.8 | F302_0072 EZ505U | 350 | 522 | 7.172 | 208/29 | 3500 | 3100 | 5000 | 16 | 11.0 | 8.0 | 20 | 38 |
| 627 | 84 | 139 | 4.0 | 2.2 | F302_0072 EZ703U | 350 | 522 | 7.172 | 208/29 | 3500 | 3100 | 5000 | 25 | 11.0 | 8.0 | 20 | 40 |
| 787 | 53 | 85 | 3.1 | 3.3 | F302_0057 EZ505U | 333 | 416 | 5.720 | 143/25 | 3000 | 2600 | 4500 | 18 | 11.0 | 8.0 | 20 | 38 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F3 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 450 Nm) | | | | | | | | | | | | | | | | | |
| 787 | 67 | 111 | 3.9 | 2.6 | F302_0057 EZ703U | 333 | 416 | 5.720 | 143/25 | 3000 | 2600 | 4500 | 27 | 11.0 | 8.0 | 20 | 40 |
| 969 | 43 | 69 | 3.0 | 3.8 | F302_0046 EZ505U | 270 | 338 | 4.644 | 4992/1075 | 3000 | 2600 | 4500 | 20 | 11.0 | 8.0 | 20 | 38 |
| 969 | 55 | 90 | 3.8 | 3.0 | F302_0046 EZ703U | 270 | 338 | 4.644 | 4992/1075 | 3000 | 2600 | 4500 | 30 | 11.0 | 8.0 | 20 | 40 |
| 969 | 74 | 135 | 5.1 | 2.2 | F302_0046 EZ705U | 349 | 650 | 4.644 | 4992/1075 | 3000 | 2600 | 4500 | 42 | 11.0 | 8.0 | 20 | 45 |
| F3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 450 Nm) | | | | | | | | | | | | | | | | | |
| 22 | 395 | 443 | 1.4 | 1.0 | F303_2760 EZ302U | 450 | 800 | 275.6 | 32242/117 | 4000 | 3900 | 6500 | 0.35 | 11.0 | 7.0 | 22 | 34 |
| 27 | 317 | 355 | 1.3 | 1.3 | F303_2210 EZ302U | 450 | 800 | 221.2 | 191149/864 | 4000 | 3900 | 6500 | 0.36 | 11.0 | 7.0 | 22 | 34 |
| 32 | 265 | 297 | 1.2 | 1.5 | F303_1850 EZ302U | 450 | 800 | 184.8 | 29939/162 | 4000 | 3900 | 6500 | 0.37 | 11.0 | 7.0 | 22 | 34 |
| 32 | 346 | 398 | 1.5 | 1.2 | F303_1850 EZ303U | 450 | 800 | 184.8 | 29939/162 | 4000 | 3900 | 6500 | 0.48 | 11.0 | 7.0 | 22 | 35 |
| 43 | 205 | 229 | 1.0 | 2.0 | F302_1410 EZ302U | 450 | 603 | 140.6 | 7595/54 | 4000 | 3900 | 6500 | 0.37 | 11.0 | 6.0 | 22 | 29 |
| 43 | 267 | 307 | 1.4 | 1.5 | F302_1410 EZ303U | 450 | 603 | 140.6 | 7595/54 | 4000 | 3900 | 6500 | 0.48 | 11.0 | 6.0 | 22 | 30 |
| 43 | 314 | 382 | 1.6 | 1.3 | F302_1410 EZ401U | 450 | 603 | 140.6 | 7595/54 | 4000 | 3900 | 6500 | 1.0 | 11.0 | 6.0 | 22 | 31 |
| 53 | 252 | 306 | 1.4 | 1.6 | F302_1130 EZ401U | 450 | 800 | 112.8 | 3724/33 | 4000 | 3900 | 6500 | 1.0 | 11.0 | 6.0 | 22 | 31 |
| 53 | 372 | 482 | 2.1 | 1.1 | F302_1130 EZ501U | 450 | 800 | 112.8 | 3724/33 | 4000 | 3900 | 6500 | 3.0 | 11.0 | 6.0 | 22 | 32 |
| 53 | 383 | 536 | 2.2 | 1.0 | F302_1130 EZ402U | 450 | 800 | 112.8 | 3724/33 | 4000 | 3900 | 6500 | 1.7 | 11.0 | 6.0 | 22 | 32 |
| 64 | 209 | 254 | 1.3 | 1.9 | F302_0940 EZ401U | 450 | 800 | 93.64 | 4214/45 | 4000 | 3900 | 6500 | 1.1 | 11.0 | 6.0 | 22 | 31 |
| 64 | 309 | 400 | 1.9 | 1.3 | F302_0940 EZ501U | 450 | 800 | 93.64 | 4214/45 | 4000 | 3900 | 6500 | 3.1 | 11.0 | 6.0 | 22 | 32 |
| 64 | 318 | 445 | 2.0 | 1.3 | F302_0940 EZ402U | 450 | 800 | 93.64 | 4214/45 | 4000 | 3900 | 6500 | 1.8 | 11.0 | 6.0 | 22 | 32 |
| 85 | 157 | 191 | 1.2 | 2.3 | F302_0700 EZ401U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 1.2 | 11.0 | 6.0 | 22 | 31 |
| 85 | 232 | 300 | 1.8 | 1.6 | F302_0700 EZ501U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 3.2 | 11.0 | 6.0 | 22 | 32 |
| 85 | 239 | 334 | 1.9 | 1.5 | F302_0700 EZ402U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 1.9 | 11.0 | 6.0 | 22 | 32 |
| 85 | 355 | 532 | 2.8 | 1.0 | F302_0700 EZ502U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 5.5 | 11.0 | 6.0 | 22 | 34 |
| 85 | 355 | 539 | 2.8 | 1.0 | F302_0700 EZ701U | 450 | 800 | 70.36 | 2744/39 | 4000 | 3900 | 6500 | 8.8 | 11.0 | 6.0 | 22 | 35 |
| 106 | 126 | 153 | 1.2 | 2.7 | F302_0560 EZ401U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 1.3 | 11.0 | 6.0 | 22 | 31 |
| 106 | 186 | 241 | 1.8 | 1.8 | F302_0560 EZ501U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 3.3 | 11.0 | 6.0 | 22 | 32 |
| 106 | 192 | 268 | 1.8 | 1.8 | F302_0560 EZ402U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 2.0 | 11.0 | 6.0 | 22 | 32 |
| 106 | 285 | 427 | 2.7 | 1.2 | F302_0560 EZ502U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 5.6 | 11.0 | 6.0 | 22 | 34 |
| 106 | 285 | 433 | 2.7 | 1.2 | F302_0560 EZ701U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 8.9 | 11.0 | 6.0 | 22 | 35 |
| 106 | 318 | 460 | 3.0 | 1.1 | F302_0560 EZ404U | 450 | 800 | 56.49 | 4067/72 | 4000 | 3900 | 6500 | 3.3 | 11.0 | 6.0 | 22 | 34 |
| 127 | 105 | 128 | 1.2 | 3.0 | F302_0470 EZ401U | 389 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 1.4 | 11.0 | 6.0 | 22 | 31 |
| 127 | 156 | 201 | 1.7 | 2.0 | F302_0470 EZ501U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 3.4 | 11.0 | 6.0 | 22 | 32 |
| 127 | 160 | 224 | 1.8 | 2.0 | F302_0470 EZ402U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 2.1 | 11.0 | 6.0 | 22 | 32 |
| 127 | 238 | 357 | 2.6 | 1.3 | F302_0470 EZ502U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 5.7 | 11.0 | 6.0 | 22 | 34 |
| 127 | 238 | 362 | 2.6 | 1.3 | F302_0470 EZ701U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 9.0 | 11.0 | 6.0 | 22 | 35 |
| 127 | 265 | 384 | 2.9 | 1.2 | F302_0470 EZ404U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 3.5 | 11.0 | 6.0 | 22 | 34 |
| 127 | 284 | 485 | 3.1 | 1.1 | F302_0470 EZ503U | 450 | 800 | 47.19 | 1274/27 | 4000 | 3900 | 6500 | 8.1 | 11.0 | 6.0 | 22 | 35 |
| F4 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 550 Nm) | | | | | | | | | | | | | | | | | |
| 185 | 409 | 459 | 7.0 | 1.1 | F402_0110 EZ813U | 550 | 1100 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 108 | 10.0 | 7.0 | 39 | 71 |
| 223 | 340 | 381 | 6.8 | 1.3 | F402_0090 EZ813U | 550 | 1100 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 109 | 10.0 | 7.0 | 39 | 71 |
| 278 | 272 | 305 | 6.5 | 1.5 | F402_0072 EZ813U | 550 | 1100 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 111 | 10.0 | 7.0 | 39 | 71 |
| 278 | 403 | 480 | 9.7 | 1.0 | F402_0072 EZ815U | 550 | 1100 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 174 | 10.0 | 7.0 | 39 | 84 |
| 344 | 220 | 247 | 6.3 | 1.7 | F402_0058 EZ813U | 550 | 1100 | 5.813 | 3784/651 | 2700 | 2300 | 4000 | 115 | 10.0 | 7.0 | 39 | 71 |
| 344 | 326 | 388 | 9.3 | 1.2 | F402_0058 EZ815U | 550 | 1100 | 5.813 | 3784/651 | 2700 | 2300 | 4000 | 178 | 10.0 | 7.0 | 39 | 84 |
| 428 | 177 | 198 | 6.1 | 2.0 | F402_0047 EZ813U | 550 | 907 | 4.678 | 1408/301 | 2700 | 2300 | 4000 | 119 | 10.0 | 7.0 | 39 | 71 |
| 428 | 262 | 312 | 9.0 | 1.3 | F402_0047 EZ815U | 550 | 907 | 4.678 | 1408/301 | 2700 | 2300 | 4000 | 182 | 10.0 | 7.0 | 39 | 84 |
| F4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 700 Nm) | | | | | | | | | | | | | | | | | |
| 6.8 | 668 | 706 | 1.2 | 1.0 | F403_4400 EZ302U | 700 | 1400 | 439.7 | 58045/132 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 6.0 | 39 | 42 |
| 8.2 | 556 | 587 | 1.1 | 1.3 | F403_3660 EZ302U | 700 | 1400 | 365.6 | 3290/9 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 6.0 | 39 | 42 |
| 11 | 417 | 441 | 0.9 | 1.7 | F403_2740 EZ302U | 700 | 1400 | 274.4 | 59267/216 | 3800 | 3500 | 6000 | 0.36 | 10.0 | 6.0 | 39 | 42 |
| 11 | 543 | 574 | 1.2 | 1.3 | F403_2740 EZ303U | 700 | 1400 | 274.4 | 59267/216 | 3800 | 3500 | 6000 | 0.47 | 10.0 | 6.0 | 39 | 42 |
| 14 | 333 | 352 | 0.8 | 2.1 | F403_2190 EZ302U | 700 | 1400 | 219.2 | 94705/432 | 3800 | 3500 | 6000 | 0.38 | 10.0 | 6.0 | 39 | 42 |
| 14 | 434 | 459 | 1.1 | 1.6 | F403_2190 EZ303U | 700 | 1400 | 219.2 | 94705/432 | 3800 | 3500 | 6000 | 0.49 | 10.0 | 6.0 | 39 | 42 |
| 14 | 587 | 629 | 1.5 | 1.2 | F403_2190 EZ401U | 700 | 1400 | 219.2 | 94705/432 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 6.0 | 39 | 44 |
| 16 | 279 | 295 | 0.8 | 2.5 | F403_1840 EZ302U | 700 | 1179 | 183.9 | 39715/216 | 3800 | 3500 | 6000 | 0.39 | 10.0 | 6.0 | 39 | 42 |
| 16 | 364 | 385 | 1.0 | 1.9 | F403_1840 EZ303U | 700 | 1179 | 183.9 | 39715/216 | 3800 | 3500 | 6000 | 0.50 | 10.0 | 6.0 | 39 | 42 |
| 16 | 492 | 527 | 1.3 | 1.4 | F403_1840 EZ401U | 700 | 1179 | 183.9 | 39715/216 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 6.0 | 39 | 44 |
| 21 | 583 | 637 | 1.8 | 1.2 | F402_1400 EZ501U | 700 | 1400 | 139.8 | 559/4 | 3800 | 3500 | 6000 | 3.0 | 10.0 | 5.0 | 39 | 40 |
| 27 | 468 | 512 | 1.6 | 1.5 | F402_1120 EZ501U | 700 | 1400 | 112.3 | 1235/11 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 39 | 40 |
| 32 | 389 | 426 | 1.5 | 1.8 | F402_0930 EZ501U | 700 | 1400 | 93.33 | 280/3 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 5.0 | 39 | 40 |
| 32 | 670 | 724 | 2.6 | 1.0 | F402_0930 EZ502U | 700 | 1400 | 93.33 | 280/3 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 5.0 | 39 | 42 |
| 32 | 670 | 751 | 2.6 | 1.0 | F402_0930 EZ701U | 700 | 1400 | 93.33 | 280/3 | 3800 | 3500 | 6000 | 8.8 | 10.0 | 5.0 | 39 | 44 |
| 43 | 292 | 319 | 1.3 | 2.4 | F402_0700 EZ501U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 5.0 | 39 | 40 |
| 43 | 503 | 544 | 2.2 | 1.4 | F402_0700 EZ502U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 5.6 | 10.0 | 5.0 | 39 | 42 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 700 Nm) | | | | | | | | | | | | | | | | | |
| 43 | 503 | 564 | 2.2 | 1.4 | F402_0700 EZ701U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 8.9 | 10.0 | 5.0 | 39 | 44 |
| 43 | 659 | 754 | 2.9 | 1.1 | F402_0700 EZ503U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 8.0 | 10.0 | 5.0 | 39 | 43 |
| 54 | 233 | 255 | 1.2 | 3.0 | F402_0560 EZ501U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 3.5 | 10.0 | 5.0 | 39 | 40 |
| 54 | 402 | 434 | 2.0 | 1.7 | F402_0560 EZ502U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 5.8 | 10.0 | 5.0 | 39 | 42 |
| 54 | 402 | 451 | 2.0 | 1.7 | F402_0560 EZ701U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 9.1 | 10.0 | 5.0 | 39 | 44 |
| 54 | 527 | 603 | 2.6 | 1.3 | F402_0560 EZ503U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 8.2 | 10.0 | 5.0 | 39 | 43 |
| 54 | 652 | 782 | 3.2 | 1.1 | F402_0560 EZ702U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 14 | 10.0 | 5.0 | 39 | 46 |
| 64 | 196 | 214 | 1.1 | 3.4 | F402_0470 EZ501U | 700 | 1366 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 3.7 | 10.0 | 5.0 | 39 | 40 |
| 64 | 337 | 364 | 1.9 | 2.0 | F402_0470 EZ502U | 700 | 1366 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 6.0 | 10.0 | 5.0 | 39 | 42 |
| 64 | 337 | 378 | 1.9 | 2.0 | F402_0470 EZ701U | 700 | 1400 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 9.3 | 10.0 | 5.0 | 39 | 44 |
| 64 | 442 | 505 | 2.5 | 1.5 | F402_0470 EZ503U | 700 | 1366 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 8.4 | 10.0 | 5.0 | 39 | 43 |
| 64 | 546 | 656 | 3.1 | 1.2 | F402_0470 EZ702U | 700 | 1400 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 15 | 10.0 | 5.0 | 39 | 46 |
| 64 | 615 | 729 | 3.5 | 1.1 | F402_0470 EZ505U | 700 | 1400 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 13 | 10.0 | 5.0 | 39 | 46 |
| 86 | 252 | 282 | 1.8 | 2.4 | F402_0350 EZ701U | 681 | 1400 | 35.08 | 2210/63 | 3500 | 3100 | 5500 | 9.8 | 10.0 | 5.0 | 39 | 44 |
| 86 | 408 | 490 | 3.0 | 1.5 | F402_0350 EZ702U | 700 | 1400 | 35.08 | 2210/63 | 3500 | 3100 | 5500 | 15 | 10.0 | 5.0 | 39 | 46 |
| 86 | 459 | 544 | 3.4 | 1.3 | F402_0350 EZ505U | 700 | 1400 | 35.08 | 2210/63 | 3500 | 3100 | 5500 | 13 | 10.0 | 5.0 | 39 | 46 |
| 86 | 561 | 708 | 4.1 | 1.1 | F402_0350 EZ703U | 700 | 1400 | 35.08 | 2210/63 | 3500 | 3100 | 5500 | 23 | 10.0 | 5.0 | 39 | 48 |
| 107 | 201 | 225 | 1.8 | 2.8 | F402_0280 EZ701U | 543 | 1400 | 27.99 | 2015/72 | 3500 | 3100 | 5500 | 10 | 10.0 | 5.0 | 39 | 44 |
| 107 | 326 | 391 | 2.9 | 1.7 | F402_0280 EZ702U | 700 | 1400 | 27.99 | 2015/72 | 3500 | 3100 | 5500 | 16 | 10.0 | 5.0 | 39 | 46 |
| 107 | 366 | 434 | 3.2 | 1.5 | F402_0280 EZ505U | 700 | 1400 | 27.99 | 2015/72 | 3500 | 3100 | 5500 | 14 | 10.0 | 5.0 | 39 | 46 |
| 107 | 448 | 565 | 4.0 | 1.2 | F402_0280 EZ703U | 700 | 1400 | 27.99 | 2015/72 | 3500 | 3100 | 5500 | 23 | 10.0 | 5.0 | 39 | 48 |
| 129 | 167 | 187 | 1.7 | 3.1 | F402_0230 EZ701U | 450 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 11 | 10.0 | 5.0 | 39 | 44 |
| 129 | 270 | 324 | 2.8 | 1.9 | F402_0230 EZ702U | 700 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 16 | 10.0 | 5.0 | 39 | 46 |
| 129 | 304 | 360 | 3.1 | 1.7 | F402_0230 EZ505U | 700 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 15 | 10.0 | 5.0 | 39 | 46 |
| 129 | 372 | 468 | 3.8 | 1.4 | F402_0230 EZ703U | 700 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 24 | 10.0 | 5.0 | 39 | 48 |
| 129 | 480 | 680 | 5.0 | 1.1 | F402_0230 EZ705U | 700 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 36 | 10.0 | 5.0 | 39 | 54 |
| 161 | 134 | 150 | 1.7 | 3.6 | F402_0185 EZ701U | 361 | 1355 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 12 | 10.0 | 5.0 | 39 | 44 |
| 161 | 217 | 260 | 2.7 | 2.2 | F402_0185 EZ702U | 700 | 1355 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 17 | 10.0 | 5.0 | 39 | 46 |
| 161 | 244 | 289 | 3.0 | 2.0 | F402_0185 EZ505U | 700 | 1355 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 15 | 10.0 | 5.0 | 39 | 46 |
| 161 | 298 | 376 | 3.7 | 1.6 | F402_0185 EZ703U | 700 | 1355 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 25 | 10.0 | 5.0 | 39 | 48 |
| 161 | 385 | 545 | 4.8 | 1.3 | F402_0185 EZ705U | 700 | 1400 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 37 | 10.0 | 5.0 | 39 | 54 |
| 221 | 97 | 109 | 1.6 | 4.5 | F402_0135 EZ701U | 263 | 932 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 11 | 10.0 | 7.0 | 39 | 44 |
| 221 | 158 | 190 | 2.6 | 2.8 | F402_0135 EZ702U | 540 | 932 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 16 | 10.0 | 7.0 | 39 | 46 |
| 221 | 178 | 211 | 2.9 | 2.5 | F402_0135 EZ505U | 550 | 932 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 14 | 10.0 | 7.0 | 39 | 46 |
| 221 | 217 | 274 | 3.5 | 2.0 | F402_0135 EZ703U | 550 | 932 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 24 | 10.0 | 7.0 | 39 | 48 |
| 221 | 280 | 397 | 4.5 | 1.6 | F402_0135 EZ705U | 550 | 1100 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 36 | 10.0 | 7.0 | 39 | 54 |
| 277 | 126 | 151 | 2.5 | 3.2 | F402_0110 EZ702U | 431 | 788 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 17 | 10.0 | 7.0 | 39 | 46 |
| 277 | 142 | 168 | 2.8 | 2.9 | F402_0110 EZ505U | 550 | 788 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 16 | 10.0 | 7.0 | 39 | 46 |
| 277 | 173 | 218 | 3.4 | 2.3 | F402_0110 EZ703U | 550 | 788 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 25 | 10.0 | 7.0 | 39 | 48 |
| 277 | 224 | 317 | 4.4 | 1.8 | F402_0110 EZ705U | 550 | 1100 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 37 | 10.0 | 7.0 | 39 | 54 |
| 334 | 105 | 125 | 2.4 | 3.6 | F402_0090 EZ702U | 357 | 653 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 18 | 10.0 | 7.0 | 39 | 46 |
| 334 | 118 | 139 | 2.7 | 3.2 | F402_0090 EZ505U | 523 | 653 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 17 | 10.0 | 7.0 | 39 | 46 |
| 334 | 144 | 181 | 3.3 | 2.6 | F402_0090 EZ703U | 523 | 653 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 26 | 10.0 | 7.0 | 39 | 48 |
| 334 | 186 | 263 | 4.2 | 2.1 | F402_0090 EZ705U | 550 | 1100 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 39 | 10.0 | 7.0 | 39 | 54 |
| 417 | 84 | 101 | 2.3 | 4.2 | F402_0072 EZ702U | 286 | 524 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 21 | 10.0 | 7.0 | 39 | 46 |
| 417 | 94 | 112 | 2.6 | 3.7 | F402_0072 EZ505U | 419 | 524 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 19 | 10.0 | 7.0 | 39 | 46 |
| 417 | 115 | 145 | 3.2 | 3.1 | F402_0072 EZ703U | 419 | 524 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 29 | 10.0 | 7.0 | 39 | 48 |
| 417 | 149 | 211 | 4.1 | 2.4 | F402_0072 EZ705U | 550 | 1100 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 41 | 10.0 | 7.0 | 39 | 54 |
| 516 | 120 | 170 | 3.9 | 2.7 | F402_0058 EZ705U | 550 | 1100 | 5.813 | 3784/651 | 2700 | 2300 | 4000 | 44 | 10.0 | 7.0 | 39 | 54 |
| 641 | 97 | 137 | 3.8 | 3.2 | F402_0047 EZ705U | 472 | 907 | 4.678 | 1408/301 | 2700 | 2300 | 4000 | 49 | 10.0 | 7.0 | 39 | 54 |
| F4 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 550 Nm) | | | | | | | | | | | | | | | | | |
| 295 | 332 | 575 | 5.9 | 1.2 | F402_0135 EZ813U | 550 | 1100 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 107 | 10.0 | 7.0 | 39 | 71 |
| 295 | 344 | 884 | 6.1 | 1.2 | F402_0135 EZ815U | 550 | 1100 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 170 | 10.0 | 7.0 | 39 | 84 |
| 370 | 265 | 459 | 5.7 | 1.4 | F402_0110 EZ813U | 550 | 1100 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 108 | 10.0 | 7.0 | 39 | 71 |
| 370 | 274 | 705 | 5.9 | 1.3 | F402_0110 EZ815U | 550 | 1100 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 171 | 10.0 | 7.0 | 39 | 84 |
| 445 | 220 | 381 | 5.5 | 1.6 | F402_0090 EZ813U | 550 | 1100 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 109 | 10.0 | 7.0 | 39 | 71 |
| 445 | 227 | 585 | 5.7 | 1.5 | F402_0090 EZ815U | 550 | 1100 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 172 | 10.0 | 7.0 | 39 | 84 |
| 555 | 176 | 305 | 5.3 | 1.8 | F402_0072 EZ813U | 550 | 1100 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 111 | 10.0 | 7.0 | 39 | 71 |
| 555 | 182 | 469 | 5.5 | 1.8 | F402_0072 EZ815U | 550 | 1100 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 174 | 10.0 | 7.0 | 39 | 84 |
| 688 | 142 | 246 | 5.1 | 2.1 | F402_0058 EZ813U | 550 | 1100 | 5.813 | 3784/651 | 2700 | 2300 | 4000 | 115 | 10.0 | 7.0 | 39 | 71 |
| 688 | 147 | 379 | 5.3 | 2.0 | F402_0058 EZ815U | 550 | 1100 | 5.813 | 3784/651 | 2700 | 2300 | 4000 | 178 | 10.0 | 7.0 | 39 | 84 |
| 855 | 114 | 198 | 4.9 | 2.4 | F402_0047 EZ813U | 550 | 907 | 4.678 | 1408/301 | 2700 | 2300 | 4000 | 119 | 10.0 | 7.0 | 39 | 71 |
| 855 | 118 | 305 | 5.1 | 2.3 | F402_0047 EZ815U | 550 | 907 | 4.678 | 1408/301 | 2700 | 2300 | 4000 | 182 | 10.0 | 7.0 | 39 | 84 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **F4 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 700 Nm)** | | | | | | | | | | | | | | | | | |
| 64 | 646 | 1040 | 3.0 | 1.0 | F402_0700 EZ505U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 13 | 10.0 | 5.0 | 39 | 46 |
| 80 | 516 | 831 | 2.9 | 1.2 | F402_0560 EZ505U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 13 | 10.0 | 5.0 | 39 | 46 |
| 96 | 433 | 697 | 2.8 | 1.3 | F402_0470 EZ505U | 700 | 1400 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 13 | 10.0 | 5.0 | 39 | 46 |
| 96 | 551 | 911 | 3.6 | 1.0 | F402_0470 EZ703U | 700 | 1400 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 22 | 10.0 | 5.0 | 39 | 48 |
| 128 | 323 | 521 | 2.7 | 1.6 | F402_0350 EZ505U | 700 | 1400 | 35.08 | 2210/63 | 3500 | 3100 | 5500 | 13 | 10.0 | 5.0 | 39 | 46 |
| 128 | 412 | 681 | 3.5 | 1.3 | F402_0350 EZ703U | 700 | 1400 | 35.08 | 2210/63 | 3500 | 3100 | 5500 | 23 | 10.0 | 5.0 | 39 | 48 |
| 161 | 258 | 415 | 2.6 | 1.9 | F402_0280 EZ505U | 700 | 1400 | 27.99 | 2015/72 | 3500 | 3100 | 5500 | 14 | 10.0 | 5.0 | 39 | 46 |
| 161 | 328 | 543 | 3.3 | 1.5 | F402_0280 EZ703U | 700 | 1400 | 27.99 | 2015/72 | 3500 | 3100 | 5500 | 23 | 10.0 | 5.0 | 39 | 48 |
| 161 | 445 | 814 | 4.5 | 1.1 | F402_0280 EZ705U | 700 | 1400 | 27.99 | 2015/72 | 3500 | 3100 | 5500 | 36 | 10.0 | 5.0 | 39 | 54 |
| 194 | 214 | 345 | 2.5 | 2.1 | F402_0230 EZ505U | 700 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 15 | 10.0 | 5.0 | 39 | 46 |
| 194 | 272 | 450 | 3.2 | 1.7 | F402_0230 EZ703U | 700 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 24 | 10.0 | 5.0 | 39 | 48 |
| 194 | 369 | 676 | 4.4 | 1.2 | F402_0230 EZ705U | 700 | 1400 | 23.21 | 325/14 | 3200 | 2800 | 4800 | 36 | 10.0 | 5.0 | 39 | 54 |
| 242 | 172 | 276 | 2.4 | 2.5 | F402_0185 EZ505U | 700 | 1355 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 15 | 10.0 | 5.0 | 39 | 46 |
| 242 | 219 | 361 | 3.1 | 1.9 | F402_0185 EZ703U | 700 | 1355 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 25 | 10.0 | 5.0 | 39 | 48 |
| 242 | 296 | 542 | 4.2 | 1.4 | F402_0185 EZ705U | 700 | 1400 | 18.62 | 3575/192 | 3200 | 2800 | 4800 | 37 | 10.0 | 5.0 | 39 | 54 |
| 332 | 125 | 201 | 2.3 | 3.0 | F402_0135 EZ505U | 550 | 932 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 14 | 10.0 | 7.0 | 39 | 46 |
| 332 | 159 | 263 | 2.9 | 2.4 | F402_0135 EZ703U | 550 | 932 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 24 | 10.0 | 7.0 | 39 | 48 |
| 332 | 216 | 395 | 4.0 | 1.8 | F402_0135 EZ705U | 550 | 1100 | 13.57 | 5984/441 | 3500 | 3100 | 5500 | 36 | 10.0 | 7.0 | 39 | 54 |
| 416 | 100 | 161 | 2.2 | 3.5 | F402_0110 EZ505U | 550 | 788 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 16 | 10.0 | 7.0 | 39 | 46 |
| 416 | 127 | 210 | 2.8 | 2.8 | F402_0110 EZ703U | 550 | 788 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 25 | 10.0 | 7.0 | 39 | 48 |
| 416 | 172 | 315 | 3.8 | 2.1 | F402_0110 EZ705U | 550 | 1100 | 10.83 | 682/63 | 3500 | 3100 | 5500 | 37 | 10.0 | 7.0 | 39 | 54 |
| 501 | 83 | 133 | 2.2 | 4.0 | F402_0090 EZ505U | 523 | 653 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 17 | 10.0 | 7.0 | 39 | 46 |
| 501 | 105 | 174 | 2.8 | 3.2 | F402_0090 EZ703U | 523 | 653 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 26 | 10.0 | 7.0 | 39 | 48 |
| 501 | 143 | 261 | 3.7 | 2.3 | F402_0090 EZ705U | 550 | 1100 | 8.980 | 440/49 | 3200 | 2800 | 4800 | 39 | 10.0 | 7.0 | 39 | 54 |
| 625 | 66 | 107 | 2.1 | 4.7 | F402_0072 EZ505U | 419 | 524 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 19 | 10.0 | 7.0 | 39 | 46 |
| 625 | 85 | 140 | 2.7 | 3.7 | F402_0072 EZ703U | 419 | 524 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 29 | 10.0 | 7.0 | 39 | 48 |
| 625 | 115 | 210 | 3.6 | 2.7 | F402_0072 EZ705U | 550 | 1100 | 7.202 | 605/84 | 3200 | 2800 | 4800 | 41 | 10.0 | 7.0 | 39 | 54 |
| **F4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 700 Nm)** | | | | | | | | | | | | | | | | | |
| 14 | 631 | 706 | 1.1 | 1.1 | F403_4400 EZ302U | 700 | 1400 | 439.7 | 58045/132 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 6.0 | 39 | 42 |
| 16 | 524 | 587 | 1.0 | 1.3 | F403_3660 EZ302U | 700 | 1400 | 365.6 | 3290/9 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 6.0 | 39 | 42 |
| 16 | 685 | 786 | 1.3 | 1.0 | F403_3660 EZ303U | 700 | 1400 | 365.6 | 3290/9 | 3800 | 3500 | 6000 | 0.46 | 10.0 | 6.0 | 39 | 42 |
| 22 | 393 | 441 | 0.9 | 1.8 | F403_2740 EZ302U | 700 | 1400 | 274.4 | 59267/216 | 3800 | 3500 | 6000 | 0.36 | 10.0 | 6.0 | 39 | 42 |
| 22 | 514 | 590 | 1.2 | 1.4 | F403_2740 EZ303U | 700 | 1400 | 274.4 | 59267/216 | 3800 | 3500 | 6000 | 0.47 | 10.0 | 6.0 | 39 | 42 |
| 22 | 603 | 734 | 1.4 | 1.2 | F403_2740 EZ401U | 700 | 1400 | 274.4 | 59267/216 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 6.0 | 39 | 44 |
| 27 | 314 | 352 | 0.8 | 2.2 | F403_2190 EZ302U | 700 | 1400 | 219.2 | 94705/432 | 3800 | 3500 | 6000 | 0.38 | 10.0 | 6.0 | 39 | 42 |
| 27 | 411 | 472 | 1.0 | 1.7 | F403_2190 EZ303U | 700 | 1400 | 219.2 | 94705/432 | 3800 | 3500 | 6000 | 0.49 | 10.0 | 6.0 | 39 | 42 |
| 27 | 482 | 587 | 1.2 | 1.5 | F403_2190 EZ401U | 700 | 1400 | 219.2 | 94705/432 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 6.0 | 39 | 44 |
| 33 | 264 | 295 | 0.8 | 2.5 | F403_1840 EZ302U | 700 | 1179 | 183.9 | 39715/216 | 3800 | 3500 | 6000 | 0.39 | 10.0 | 6.0 | 39 | 42 |
| 33 | 345 | 395 | 1.0 | 1.9 | F403_1840 EZ303U | 700 | 1179 | 183.9 | 39715/216 | 3800 | 3500 | 6000 | 0.50 | 10.0 | 6.0 | 39 | 42 |
| 33 | 404 | 492 | 1.2 | 1.7 | F403_1840 EZ401U | 700 | 1179 | 183.9 | 39715/216 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 6.0 | 39 | 44 |
| 33 | 590 | 764 | 1.6 | 1.2 | F403_1820 EZ501U | 700 | 1400 | 181.5 | 4901/27 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 6.0 | 39 | 45 |
| 43 | 461 | 596 | 1.4 | 1.5 | F402_1400 EZ501U | 700 | 1400 | 139.8 | 559/4 | 3800 | 3500 | 6000 | 3.0 | 10.0 | 5.0 | 39 | 40 |
| 53 | 370 | 479 | 1.3 | 1.9 | F402_1120 EZ501U | 700 | 1400 | 112.3 | 1235/11 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 39 | 40 |
| 53 | 566 | 849 | 2.0 | 1.2 | F402_1120 EZ502U | 700 | 1400 | 112.3 | 1235/11 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 39 | 42 |
| 53 | 566 | 860 | 2.0 | 1.2 | F402_1120 EZ701U | 700 | 1400 | 112.3 | 1235/11 | 3800 | 3500 | 6000 | 8.7 | 10.0 | 5.0 | 39 | 44 |
| 53 | 675 | 1154 | 2.4 | 1.0 | F402_1120 EZ503U | 700 | 1400 | 112.3 | 1235/11 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 39 | 43 |
| 64 | 308 | 398 | 1.3 | 2.1 | F402_0930 EZ501U | 700 | 1400 | 93.33 | 280/3 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 5.0 | 39 | 40 |
| 64 | 471 | 706 | 1.9 | 1.4 | F402_0930 EZ502U | 700 | 1400 | 93.33 | 280/3 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 5.0 | 39 | 42 |
| 64 | 471 | 715 | 1.9 | 1.4 | F402_0930 EZ701U | 700 | 1400 | 93.33 | 280/3 | 3800 | 3500 | 6000 | 8.8 | 10.0 | 5.0 | 39 | 44 |
| 64 | 561 | 960 | 2.3 | 1.2 | F402_0930 EZ503U | 700 | 1400 | 93.33 | 280/3 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 39 | 43 |
| 86 | 231 | 299 | 1.2 | 2.6 | F402_0700 EZ501U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 5.0 | 39 | 40 |
| 86 | 353 | 530 | 1.8 | 1.7 | F402_0700 EZ502U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 5.6 | 10.0 | 5.0 | 39 | 42 |
| 86 | 353 | 537 | 1.8 | 1.7 | F402_0700 EZ701U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 8.9 | 10.0 | 5.0 | 39 | 44 |
| 86 | 421 | 720 | 2.2 | 1.4 | F402_0700 EZ503U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 8.0 | 10.0 | 5.0 | 39 | 43 |
| 86 | 489 | 972 | 2.5 | 1.2 | F402_0700 EZ702U | 700 | 1400 | 70.06 | 1261/18 | 3800 | 3500 | 6000 | 14 | 10.0 | 5.0 | 39 | 46 |
| 107 | 185 | 239 | 1.2 | 3.0 | F402_0560 EZ501U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 3.5 | 10.0 | 5.0 | 39 | 40 |
| 107 | 282 | 423 | 1.8 | 2.0 | F402_0560 EZ502U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 5.8 | 10.0 | 5.0 | 39 | 42 |
| 107 | 282 | 429 | 1.8 | 2.0 | F402_0560 EZ701U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 9.1 | 10.0 | 5.0 | 39 | 44 |
| 107 | 337 | 576 | 2.1 | 1.7 | F402_0560 EZ503U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 8.2 | 10.0 | 5.0 | 39 | 43 |
| 107 | 391 | 776 | 2.4 | 1.4 | F402_0560 EZ702U | 700 | 1400 | 55.97 | 2015/36 | 3800 | 3500 | 6000 | 14 | 10.0 | 5.0 | 39 | 46 |
| 128 | 155 | 200 | 1.1 | 3.4 | F402_0470 EZ501U | 700 | 1366 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 3.7 | 10.0 | 5.0 | 39 | 40 |
| 128 | 237 | 355 | 1.7 | 2.2 | F402_0470 EZ502U | 700 | 1366 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 6.0 | 10.0 | 5.0 | 39 | 42 |
| 128 | 237 | 360 | 1.7 | 2.2 | F402_0470 EZ701U | 700 | 1400 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 9.3 | 10.0 | 5.0 | 39 | 44 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 [rpm] | $n_{1maxDB}$ EL5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **F4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 700 Nm)** | | | | | | | | | | | | | | | | | |
| 128 | 282 | 483 | 2.0 | 1.9 | F402_0470 EZ503U | 700 | 1366 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 8.4 | 10.0 | 5.0 | 39 | 43 |
| 128 | 328 | 651 | 2.4 | 1.6 | F402_0470 EZ702U | 700 | 1400 | 46.94 | 845/18 | 3800 | 3500 | 6000 | 15 | 10.0 | 5.0 | 39 | 46 |
| **F6 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1100 Nm)** | | | | | | | | | | | | | | | | | |
| 71 | 1058 | 1187 | 5.6 | 1.0 | F602_0280 EZ813U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 109 | 10.0 | 5.0 | 77 | 98 |
| 86 | 880 | 987 | 5.5 | 1.1 | F602_0230 EZ813U | 1100 | 2000 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 110 | 10.0 | 5.0 | 77 | 98 |
| 108 | 701 | 786 | 5.3 | 1.3 | F602_0185 EZ813U | 1100 | 2000 | 18.52 | 3445/186 | 2900 | 2500 | 4500 | 112 | 10.0 | 5.0 | 77 | 98 |
| 147 | 515 | 577 | 5.0 | 1.6 | F602_0135 EZ813U | 1000 | 1600 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 110 | 10.0 | 7.0 | 73 | 98 |
| 147 | 762 | 908 | 7.4 | 1.1 | F602_0135 EZ815U | 1000 | 1600 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 173 | 10.0 | 7.0 | 73 | 111 |
| 185 | 409 | 459 | 4.8 | 1.9 | F602_0110 EZ813U | 1000 | 1600 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 112 | 10.0 | 7.0 | 73 | 98 |
| 185 | 606 | 722 | 7.1 | 1.3 | F602_0110 EZ815U | 1000 | 1600 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 175 | 10.0 | 7.0 | 73 | 111 |
| 222 | 340 | 382 | 4.7 | 2.1 | F602_0090 EZ813U | 1000 | 1600 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 115 | 10.0 | 7.0 | 73 | 98 |
| 222 | 504 | 600 | 6.9 | 1.4 | F602_0090 EZ815U | 1000 | 1600 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 178 | 10.0 | 7.0 | 73 | 111 |
| 279 | 271 | 304 | 4.5 | 2.5 | F602_0072 EZ813U | 972 | 1385 | 7.159 | 3551/496 | 2900 | 2500 | 4500 | 121 | 10.0 | 7.0 | 73 | 98 |
| 279 | 401 | 477 | 6.7 | 1.7 | F602_0072 EZ815U | 1000 | 1385 | 7.159 | 3551/496 | 2900 | 2500 | 4500 | 184 | 10.0 | 7.0 | 73 | 111 |
| 353 | 215 | 241 | 4.3 | 2.9 | F602_0057 EZ813U | 770 | 1101 | 5.673 | 1407/248 | 2500 | 2100 | 3500 | 129 | 10.0 | 7.0 | 73 | 98 |
| 353 | 318 | 378 | 6.4 | 2.0 | F602_0057 EZ815U | 881 | 1101 | 5.673 | 1407/248 | 2500 | 2100 | 3500 | 192 | 10.0 | 7.0 | 73 | 111 |
| 440 | 172 | 193 | 4.2 | 3.4 | F602_0045 EZ813U | 617 | 883 | 4.546 | 1273/280 | 2500 | 2100 | 3500 | 141 | 10.0 | 7.0 | 73 | 98 |
| 440 | 255 | 303 | 6.2 | 2.3 | F602_0045 EZ815U | 706 | 883 | 4.546 | 1273/280 | 2500 | 2100 | 3500 | 204 | 10.0 | 7.0 | 73 | 111 |
| **F6 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1100 Nm)** | | | | | | | | | | | | | | | | | |
| 14 | 886 | 968 | 1.6 | 1.2 | F603_2150 EZ501U | 1100 | 2000 | 215.4 | 1508/7 | 3500 | 3200 | 5500 | 3.2 | 10.0 | 6.0 | 77 | 72 |
| 17 | 743 | 812 | 1.5 | 1.5 | F603_1810 EZ501U | 1100 | 2000 | 180.6 | 8671/48 | 3500 | 3200 | 5500 | 3.2 | 10.0 | 6.0 | 77 | 72 |
| 21 | 583 | 637 | 1.3 | 1.9 | F602_1400 EZ501U | 1100 | 2000 | 139.8 | 559/4 | 3500 | 3200 | 5500 | 3.2 | 10.0 | 5.0 | 77 | 67 |
| 21 | 1003 | 1084 | 2.3 | 1.1 | F602_1400 EZ502U | 1100 | 2000 | 139.8 | 559/4 | 3500 | 3200 | 5500 | 5.5 | 10.0 | 5.0 | 77 | 69 |
| 21 | 1003 | 1125 | 2.3 | 1.1 | F602_1400 EZ701U | 1100 | 2000 | 139.8 | 559/4 | 3500 | 3200 | 5500 | 8.8 | 10.0 | 5.0 | 77 | 71 |
| 27 | 468 | 512 | 1.2 | 2.4 | F602_1120 EZ501U | 1100 | 2000 | 112.2 | 9425/84 | 3500 | 3200 | 5500 | 3.3 | 10.0 | 5.0 | 77 | 67 |
| 27 | 805 | 871 | 2.1 | 1.4 | F602_1120 EZ502U | 1100 | 2000 | 112.2 | 9425/84 | 3500 | 3200 | 5500 | 5.6 | 10.0 | 5.0 | 77 | 69 |
| 27 | 805 | 903 | 2.1 | 1.4 | F602_1120 EZ701U | 1100 | 2000 | 112.2 | 9425/84 | 3500 | 3200 | 5500 | 8.9 | 10.0 | 5.0 | 77 | 71 |
| 27 | 1056 | 1208 | 2.7 | 1.0 | F602_1120 EZ503U | 1100 | 2000 | 112.2 | 9425/84 | 3500 | 3200 | 5500 | 8.0 | 10.0 | 5.0 | 77 | 70 |
| 32 | 389 | 426 | 1.1 | 2.8 | F602_0930 EZ501U | 1100 | 1867 | 93.33 | 280/3 | 3500 | 3200 | 5500 | 3.5 | 10.0 | 5.0 | 77 | 67 |
| 32 | 670 | 724 | 1.9 | 1.6 | F602_0930 EZ502U | 1100 | 1867 | 93.33 | 280/3 | 3500 | 3200 | 5500 | 5.8 | 10.0 | 5.0 | 77 | 69 |
| 32 | 670 | 751 | 1.9 | 1.6 | F602_0930 EZ701U | 1100 | 2000 | 93.33 | 280/3 | 3500 | 3200 | 5500 | 9.1 | 10.0 | 5.0 | 77 | 71 |
| 32 | 878 | 1005 | 2.5 | 1.3 | F602_0930 EZ503U | 1100 | 1867 | 93.33 | 280/3 | 3500 | 3200 | 5500 | 8.2 | 10.0 | 5.0 | 77 | 70 |
| 32 | 1086 | 1304 | 3.1 | 1.0 | F602_0930 EZ702U | 1100 | 2000 | 93.33 | 280/3 | 3500 | 3200 | 5500 | 14 | 10.0 | 5.0 | 77 | 73 |
| 43 | 290 | 318 | 0.9 | 3.8 | F602_0700 EZ501U | 1081 | 1588 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 3.9 | 10.0 | 5.0 | 77 | 67 |
| 43 | 500 | 540 | 1.6 | 2.2 | F602_0700 EZ502U | 1100 | 1588 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 6.2 | 10.0 | 5.0 | 77 | 69 |
| 43 | 500 | 561 | 1.6 | 2.2 | F602_0700 EZ701U | 1100 | 2000 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 9.5 | 10.0 | 5.0 | 77 | 71 |
| 43 | 655 | 750 | 2.1 | 1.7 | F602_0700 EZ503U | 1100 | 1588 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 8.6 | 10.0 | 5.0 | 77 | 70 |
| 43 | 811 | 973 | 2.6 | 1.4 | F602_0700 EZ702U | 1100 | 2000 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 15 | 10.0 | 5.0 | 77 | 73 |
| 43 | 912 | 1081 | 3.0 | 1.2 | F602_0700 EZ505U | 1100 | 2000 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 13 | 10.0 | 5.0 | 77 | 73 |
| 54 | 400 | 449 | 1.5 | 2.8 | F602_0560 EZ701U | 1081 | 2000 | 55.71 | 390/7 | 3500 | 3200 | 5500 | 10 | 10.0 | 5.0 | 77 | 71 |
| 54 | 649 | 778 | 2.4 | 1.7 | F602_0560 EZ702U | 1100 | 2000 | 55.71 | 390/7 | 3500 | 3200 | 5500 | 15 | 10.0 | 5.0 | 77 | 73 |
| 54 | 730 | 865 | 2.7 | 1.5 | F602_0560 EZ505U | 1100 | 2000 | 55.71 | 390/7 | 3500 | 3200 | 5500 | 14 | 10.0 | 5.0 | 77 | 73 |
| 54 | 892 | 1124 | 3.3 | 1.2 | F602_0560 EZ703U | 1100 | 2000 | 55.71 | 390/7 | 3500 | 3200 | 5500 | 23 | 10.0 | 5.0 | 77 | 75 |
| 64 | 335 | 376 | 1.3 | 3.3 | F602_0470 EZ701U | 906 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 10 | 10.0 | 5.0 | 77 | 71 |
| 64 | 544 | 653 | 2.2 | 2.0 | F602_0470 EZ702U | 1100 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 16 | 10.0 | 5.0 | 77 | 73 |
| 64 | 612 | 725 | 2.4 | 1.8 | F602_0470 EZ505U | 1100 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 14 | 10.0 | 5.0 | 77 | 73 |
| 64 | 748 | 943 | 3.0 | 1.5 | F602_0470 EZ703U | 1100 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 24 | 10.0 | 5.0 | 77 | 75 |
| 64 | 965 | 1369 | 3.9 | 1.1 | F602_0470 EZ705U | 1100 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 36 | 10.0 | 5.0 | 77 | 81 |
| 85 | 253 | 283 | 1.3 | 4.0 | F602_0350 EZ701U | 683 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 11 | 10.0 | 5.0 | 77 | 71 |
| 85 | 410 | 492 | 2.1 | 2.4 | F602_0350 EZ702U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 17 | 10.0 | 5.0 | 77 | 73 |
| 85 | 461 | 546 | 2.3 | 2.2 | F602_0350 EZ505U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 15 | 10.0 | 5.0 | 77 | 73 |
| 85 | 564 | 710 | 2.8 | 1.8 | F602_0350 EZ703U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 25 | 10.0 | 5.0 | 77 | 75 |
| 85 | 727 | 1031 | 3.7 | 1.4 | F602_0350 EZ705U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 37 | 10.0 | 5.0 | 77 | 81 |
| 107 | 201 | 225 | 1.2 | 4.6 | F602_0280 EZ701U | 543 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 13 | 10.0 | 5.0 | 77 | 71 |
| 107 | 326 | 391 | 2.0 | 2.9 | F602_0280 EZ702U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 18 | 10.0 | 5.0 | 77 | 73 |
| 107 | 366 | 434 | 2.2 | 2.5 | F602_0280 EZ505U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 16 | 10.0 | 5.0 | 77 | 73 |
| 107 | 448 | 565 | 2.7 | 2.1 | F602_0280 EZ703U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 26 | 10.0 | 5.0 | 77 | 75 |
| 107 | 578 | 820 | 3.5 | 1.6 | F602_0280 EZ705U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 38 | 10.0 | 5.0 | 77 | 81 |
| 129 | 271 | 325 | 1.9 | 3.2 | F602_0230 EZ702U | 926 | 1693 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 19 | 10.0 | 5.0 | 77 | 73 |
| 129 | 305 | 361 | 2.2 | 2.9 | F602_0230 EZ505U | 1100 | 1693 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 18 | 10.0 | 5.0 | 77 | 73 |
| 129 | 372 | 470 | 2.7 | 2.3 | F602_0230 EZ703U | 1100 | 1693 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 27 | 10.0 | 5.0 | 77 | 75 |
| 129 | 481 | 682 | 3.4 | 1.8 | F602_0230 EZ705U | 1100 | 2000 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 39 | 10.0 | 5.0 | 77 | 81 |
| 162 | 383 | 543 | 3.3 | 2.1 | F602_0185 EZ705U | 1100 | 2000 | 18.52 | 3445/186 | 2900 | 2500 | 4500 | 42 | 10.0 | 5.0 | 77 | 81 |
| 220 | 158 | 190 | 1.8 | 4.6 | F602_0135 EZ702U | 541 | 921 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 19 | 10.0 | 7.0 | 73 | 73 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,3,4 | $n_{1maxDB}$ EL5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| F6 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1100 Nm) | | | | | | | | | | | | | | | | | |
| 220 | 178 | 211 | 2.0 | 4.1 | F602_0135 EZ505U | 736 | 921 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 18 | 10.0 | 7.0 | 73 | 73 |
| 220 | 218 | 275 | 2.4 | 3.4 | F602_0135 EZ703U | 736 | 921 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 27 | 10.0 | 7.0 | 73 | 75 |
| 220 | 281 | 399 | 3.1 | 2.6 | F602_0135 EZ705U | 1000 | 1600 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 39 | 10.0 | 7.0 | 73 | 81 |
| 277 | 142 | 168 | 2.1 | 4.4 | F602_0110 EZ505U | 630 | 787 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 20 | 10.0 | 7.0 | 73 | 73 |
| 277 | 173 | 218 | 2.5 | 3.6 | F602_0110 EZ703U | 630 | 787 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 30 | 10.0 | 7.0 | 73 | 75 |
| 277 | 224 | 317 | 3.0 | 3.0 | F602_0110 EZ705U | 1000 | 1600 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 42 | 10.0 | 7.0 | 73 | 81 |
| 334 | 118 | 140 | 2.3 | 4.4 | F602_0090 EZ505U | 524 | 655 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 23 | 10.0 | 7.0 | 73 | 73 |
| 334 | 144 | 181 | 2.8 | 3.6 | F602_0090 EZ703U | 524 | 655 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 33 | 10.0 | 7.0 | 73 | 75 |
| 334 | 186 | 264 | 2.9 | 3.4 | F602_0090 EZ705U | 907 | 1600 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 45 | 10.0 | 7.0 | 73 | 81 |
| 419 | 148 | 210 | 2.8 | 4.0 | F602_0072 EZ705U | 722 | 1385 | 7.159 | 3551/496 | 2900 | 2500 | 4500 | 50 | 10.0 | 7.0 | 73 | 81 |
| 529 | 117 | 166 | 2.7 | 4.7 | F602_0057 EZ705U | 572 | 1101 | 5.673 | 1407/248 | 2500 | 2100 | 3500 | 58 | 10.0 | 7.0 | 73 | 81 |
| F6 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 1100 Nm) | | | | | | | | | | | | | | | | | |
| 114 | 861 | 1492 | 4.8 | 1.1 | F602_0350 EZ813U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 107 | 10.0 | 5.0 | 77 | 98 |
| 114 | 892 | 2293 | 5.0 | 1.0 | F602_0350 EZ815U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 170 | 10.0 | 5.0 | 77 | 111 |
| 143 | 684 | 1186 | 4.6 | 1.2 | F602_0280 EZ813U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 109 | 10.0 | 5.0 | 77 | 98 |
| 143 | 709 | 1823 | 4.8 | 1.2 | F602_0280 EZ815U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 172 | 10.0 | 5.0 | 77 | 111 |
| 172 | 569 | 986 | 4.5 | 1.4 | F602_0230 EZ813U | 1100 | 2000 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 110 | 10.0 | 5.0 | 77 | 98 |
| 172 | 589 | 1516 | 4.6 | 1.3 | F602_0230 EZ815U | 1100 | 2000 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 173 | 10.0 | 5.0 | 77 | 111 |
| 216 | 453 | 785 | 4.3 | 1.6 | F602_0185 EZ813U | 1100 | 2000 | 18.52 | 3445/186 | 2900 | 2500 | 4500 | 112 | 10.0 | 5.0 | 77 | 98 |
| 216 | 469 | 1206 | 4.4 | 1.6 | F602_0185 EZ815U | 1100 | 2000 | 18.52 | 3445/186 | 2900 | 2500 | 4500 | 175 | 10.0 | 5.0 | 77 | 111 |
| 294 | 333 | 577 | 4.1 | 2.0 | F602_0135 EZ813U | 1000 | 1600 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 110 | 10.0 | 7.0 | 73 | 98 |
| 294 | 345 | 886 | 4.2 | 1.9 | F602_0135 EZ815U | 1000 | 1600 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 173 | 10.0 | 7.0 | 73 | 111 |
| 370 | 264 | 459 | 3.9 | 2.3 | F602_0110 EZ813U | 1000 | 1600 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 112 | 10.0 | 7.0 | 73 | 98 |
| 370 | 274 | 705 | 4.1 | 2.2 | F602_0110 EZ815U | 1000 | 1600 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 175 | 10.0 | 7.0 | 73 | 111 |
| 445 | 220 | 381 | 3.8 | 2.6 | F602_0090 EZ813U | 1000 | 1600 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 115 | 10.0 | 7.0 | 73 | 98 |
| 445 | 228 | 586 | 3.9 | 2.5 | F602_0090 EZ815U | 1000 | 1600 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 178 | 10.0 | 7.0 | 73 | 111 |
| 559 | 175 | 303 | 3.7 | 3.1 | F602_0072 EZ813U | 972 | 1385 | 7.159 | 3551/496 | 2900 | 2500 | 4500 | 121 | 10.0 | 7.0 | 73 | 98 |
| 559 | 181 | 466 | 3.8 | 3.0 | F602_0072 EZ815U | 1000 | 1385 | 7.159 | 3551/496 | 2900 | 2500 | 4500 | 184 | 10.0 | 7.0 | 73 | 111 |
| F6 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 1100 Nm) | | | | | | | | | | | | | | | | | |
| 48 | 860 | 1385 | 2.4 | 1.3 | F602_0930 EZ505U | 1100 | 2000 | 93.33 | 280/3 | 3500 | 3200 | 5500 | 13 | 10.0 | 5.0 | 77 | 73 |
| 48 | 1095 | 1811 | 3.1 | 1.0 | F602_0930 EZ703U | 1100 | 2000 | 93.33 | 280/3 | 3500 | 3200 | 5500 | 22 | 10.0 | 5.0 | 77 | 75 |
| 65 | 642 | 1034 | 2.1 | 1.7 | F602_0700 EZ505U | 1100 | 2000 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 13 | 10.0 | 5.0 | 77 | 73 |
| 65 | 817 | 1351 | 2.7 | 1.3 | F602_0700 EZ703U | 1100 | 2000 | 69.64 | 975/14 | 3500 | 3200 | 5500 | 23 | 10.0 | 5.0 | 77 | 75 |
| 81 | 513 | 827 | 2.0 | 2.0 | F602_0560 EZ505U | 1100 | 2000 | 55.71 | 390/7 | 3500 | 3200 | 5500 | 14 | 10.0 | 5.0 | 77 | 73 |
| 81 | 654 | 1081 | 2.6 | 1.6 | F602_0560 EZ703U | 1100 | 2000 | 55.71 | 390/7 | 3500 | 3200 | 5500 | 23 | 10.0 | 5.0 | 77 | 75 |
| 96 | 431 | 693 | 2.0 | 2.2 | F602_0470 EZ505U | 1100 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 14 | 10.0 | 5.0 | 77 | 73 |
| 96 | 548 | 906 | 2.5 | 1.8 | F602_0470 EZ703U | 1100 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 24 | 10.0 | 5.0 | 77 | 75 |
| 96 | 743 | 1360 | 3.4 | 1.3 | F602_0470 EZ705U | 1100 | 2000 | 46.72 | 1495/32 | 3500 | 3200 | 5500 | 36 | 10.0 | 5.0 | 77 | 81 |
| 128 | 324 | 523 | 1.9 | 2.7 | F602_0350 EZ505U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 15 | 10.0 | 5.0 | 77 | 73 |
| 128 | 413 | 683 | 2.4 | 2.1 | F602_0350 EZ703U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 25 | 10.0 | 5.0 | 77 | 75 |
| 128 | 560 | 1025 | 3.2 | 1.6 | F602_0350 EZ705U | 1100 | 2000 | 35.21 | 845/24 | 3300 | 2800 | 5000 | 37 | 10.0 | 5.0 | 77 | 81 |
| 161 | 258 | 415 | 1.8 | 3.1 | F602_0280 EZ505U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 16 | 10.0 | 5.0 | 77 | 73 |
| 161 | 328 | 543 | 2.3 | 2.5 | F602_0280 EZ703U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 26 | 10.0 | 5.0 | 77 | 75 |
| 161 | 445 | 814 | 3.1 | 1.8 | F602_0280 EZ705U | 1100 | 2000 | 27.99 | 2015/72 | 3300 | 2800 | 5000 | 38 | 10.0 | 5.0 | 77 | 81 |
| 193 | 214 | 345 | 1.7 | 3.6 | F602_0230 EZ505U | 1100 | 1693 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 18 | 10.0 | 5.0 | 77 | 73 |
| 193 | 273 | 451 | 2.2 | 2.8 | F602_0230 EZ703U | 1100 | 1693 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 27 | 10.0 | 5.0 | 77 | 75 |
| 193 | 370 | 677 | 3.0 | 2.1 | F602_0230 EZ705U | 1100 | 2000 | 23.27 | 1885/81 | 2900 | 2500 | 4500 | 39 | 10.0 | 5.0 | 77 | 81 |
| 243 | 295 | 539 | 2.9 | 2.4 | F602_0185 EZ705U | 1100 | 2000 | 18.52 | 3445/186 | 2900 | 2500 | 4500 | 42 | 10.0 | 5.0 | 77 | 81 |
| 331 | 160 | 264 | 2.0 | 4.0 | F602_0135 EZ703U | 736 | 921 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 27 | 10.0 | 7.0 | 73 | 75 |
| 331 | 216 | 396 | 2.8 | 2.9 | F602_0135 EZ705U | 1000 | 1600 | 13.61 | 871/64 | 3300 | 2800 | 5000 | 39 | 10.0 | 7.0 | 73 | 81 |
| 416 | 127 | 210 | 2.0 | 4.7 | F602_0110 EZ703U | 630 | 787 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 30 | 10.0 | 7.0 | 73 | 75 |
| 416 | 172 | 315 | 2.7 | 3.4 | F602_0110 EZ705U | 1000 | 1600 | 10.82 | 2077/192 | 3300 | 2800 | 5000 | 42 | 10.0 | 7.0 | 73 | 81 |
| 500 | 106 | 175 | 2.0 | 5.0 | F602_0090 EZ703U | 524 | 655 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 33 | 10.0 | 7.0 | 73 | 75 |
| 500 | 143 | 262 | 2.6 | 3.9 | F602_0090 EZ705U | 907 | 1600 | 8.995 | 1943/216 | 2900 | 2500 | 4500 | 45 | 10.0 | 7.0 | 73 | 81 |
| 629 | 114 | 208 | 2.5 | 4.5 | F602_0072 EZ705U | 722 | 1385 | 7.159 | 3551/496 | 2900 | 2500 | 4500 | 50 | 10.0 | 7.0 | 73 | 81 |

# 8.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

**Tolerances**

| Axis height in accordance with DIN 747 | Tolerance |
|---|---|
| Up to 50 mm | -0.4 mm |
| Up to 250 mm | -0.5 mm |
| Up to 630 mm | -0.6 mm |

| Solid shaft | Tolerance |
|---|---|
| Shaft ∅ fit ≤ 50 mm | DIN 748-1, ISO k6 |
| Shaft ∅ fit > 50 mm | DIN 748-1, ISO m6 |
| Feather keys | DIN 6885-1, high form A |

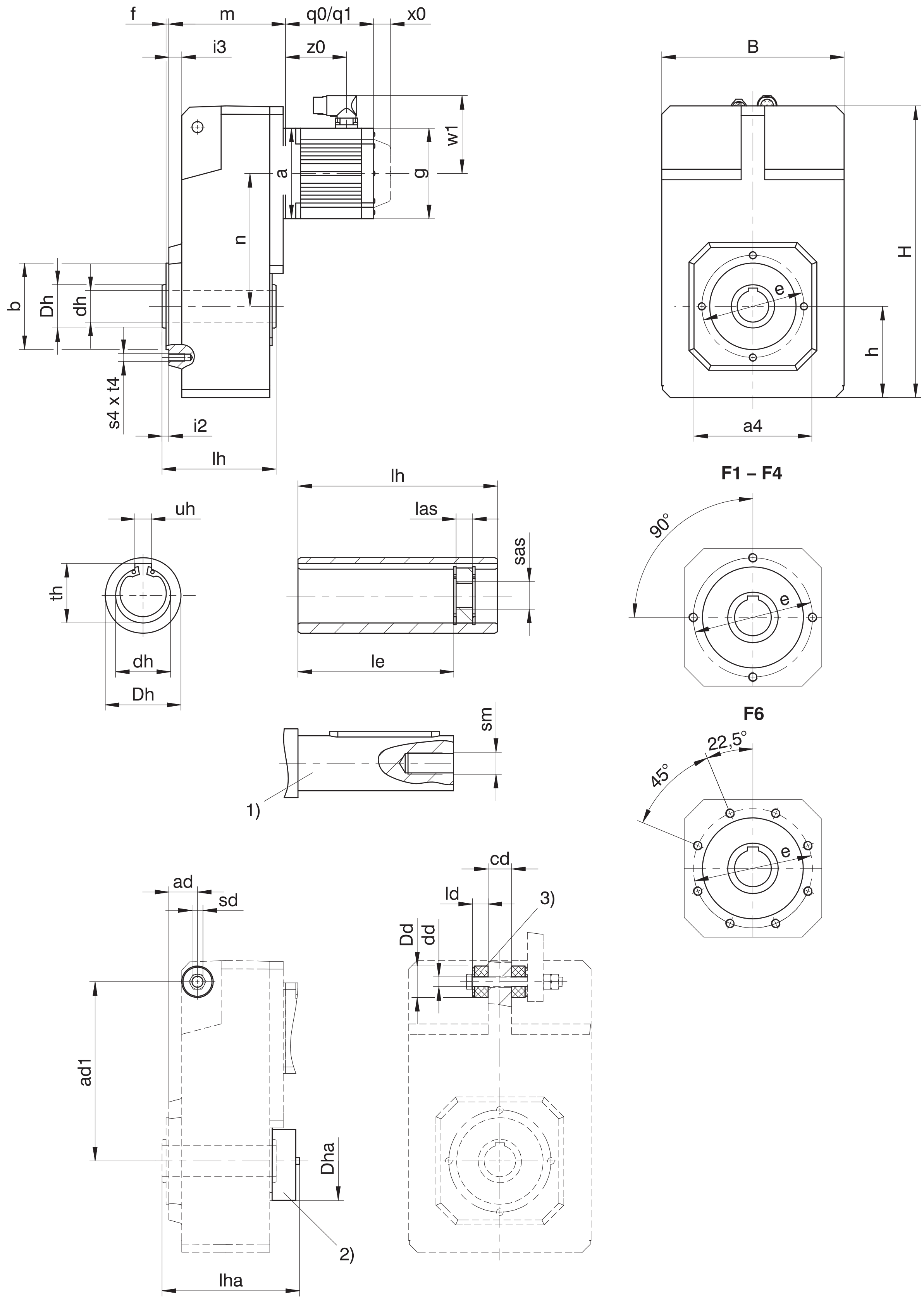
| Hollow shaft | Tolerance |
|---|---|
| Hollow shaft hole fit | ISO H7 |
| Feather keys | DIN 6885-1, high form |

| Flange | Pilot tolerance |
|---|---|
| Up to 300 mm | ISO j6 |
| Starting at 350 mm | ISO h6 |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|---|
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 8.3.1 A shaft design (hollow shaft), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

3) Rubber buffer for torque arm bracket (optional). Dimension ∅Dd = outer diameter of the rubber buffer when not tensioned.

**Dimensions of gearboxes**

| Type | □a4 | ad | ad1 | ∅b | B | cd | ∅dd | ∅dh | ∅Dd | ∅Dh | ∅Dha | ∅e | f | h | H | i2 | i3 | ld | le | lh | las | lha | s4 | sd | sm | sas | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 100 | 28.5 | 150 | $70_{j6}$ | 145 | 20 | $11.0^{+0,5}$ | $20^{H7}$ | 30 | 35 | 70 | 85 | 2.5 | 74 | 238.0 | 6.5 | 12.5 | 15 | 73 | 95 | 12 | 112 | M8 | M10 | M6 | M8 | 13 | 22.8 | $6^{JS9}$ |
| F2 | 130 | 32.0 | 181 | $95_{j6}$ | 180 | 22 | $11.0^{+0,5}$ | $25^{H7}$ | 30 | 45 | 82 | 115 | 3.0 | 93 | 299.0 | 8.0 | 15.0 | 15 | 92 | 115 | 12 | 132 | M8 | M10 | M10 | M12 | 13 | 28.3 | $8^{JS9}$ |
| F3 | 150 | 36.5 | 205 | $110_{j6}$ | 206 | 30 | $14.0^{+0,5}$ | $30^{H7}$ | 37 | 50 | 88 | 130 | 3.5 | 106 | 335.5 | 8.5 | 16.5 | 20 | 103 | 130 | 12 | 157 | M10 | M12 | M10 | M12 | 16 | 33.3 | $8^{JS9}$ |
| F4 | 150 | 36.5 | 228 | $110_{j6}$ | 230 | 30 | $14.0^{+0,5}$ | $40^{H7}$ | 37 | 55 | 100 | 130 | 3.5 | 116 | 370.0 | 8.5 | 16.5 | 20 | 114 | 145 | 12 | 175 | M10 | M12 | M16 | M20 | 16 | 43.3 | $12^{JS9}$ |
| F6 | 180 | 44.5 | 270 | $130_{j6}$ | 265 | 35 | $22.0^{+0,5}$ | $50^{H7}$ | 60 | 70 | 115 | 165 | 3.5 | 137 | 433.0 | 10.5 | 20.5 | 30 | 143 | 180 | 12 | 194 | M10 | M20 | M16 | M20 | 16 | 53.8 | $14^{JS9}$ |

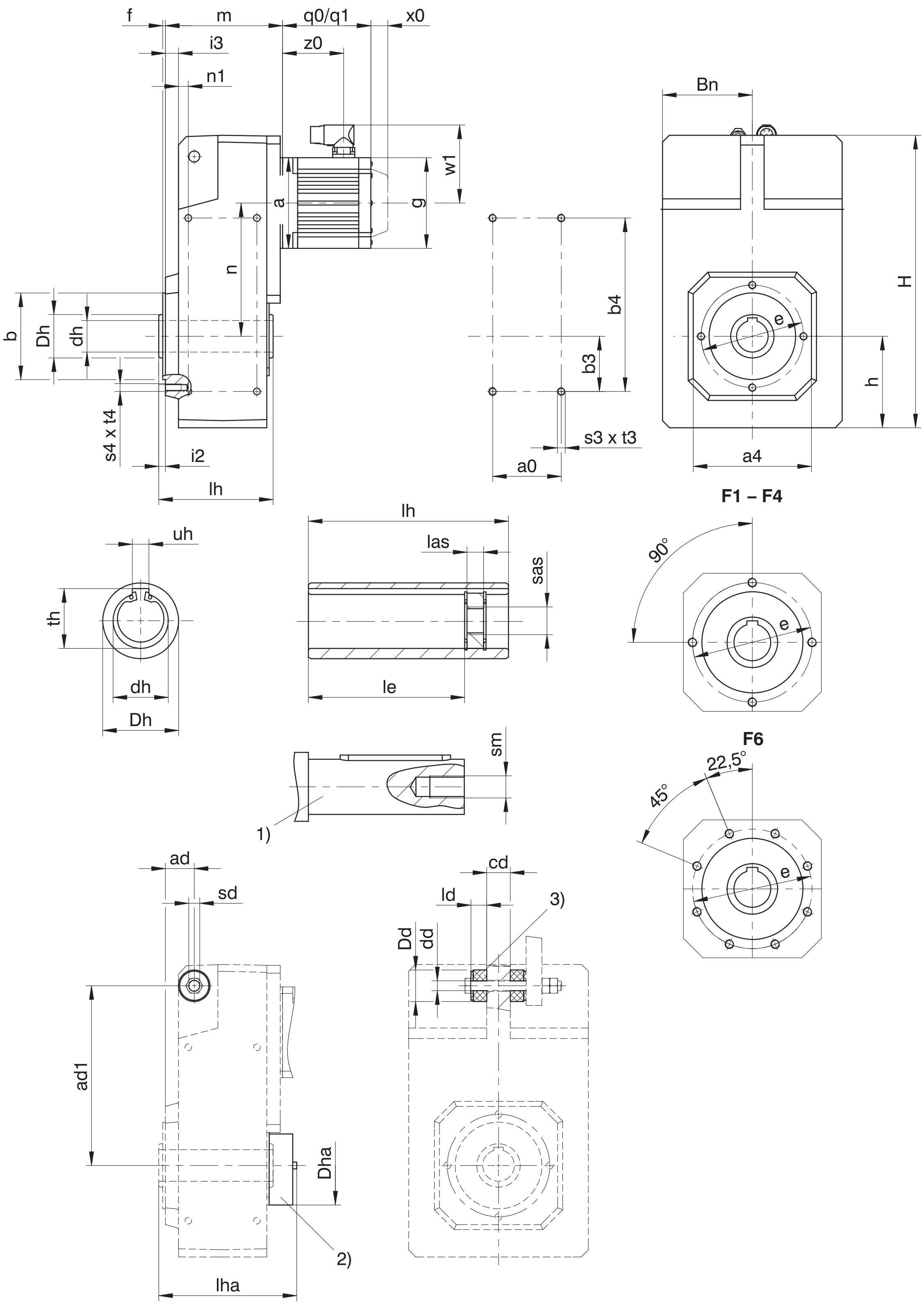
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 97.5 | 102.0 | □72 | 97.5 | 102.0 | □98 | 97.5 | 102.0 | □115 | 101.5 | 102.0 | □145 | 103.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 115.0 | 131.0 | □98 | 115.0 | 131.0 | □115 | 119.0 | 131.0 | □145 | 121.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 152.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 129.5 | 149.5 | ∅140 | 129.5 | 149.5 | □115 | 133.5 | 149.5 | □145 | 135.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 166.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 148.5 | 169.0 | □145 | 150.5 | 169.0 | □190 | 153.5 | 169.0 |
| F403 | – | – | – | ∅140 | 181.5 | 169.0 | ∅140 | 181.5 | 169.0 | ∅160 | 191.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 179.5 | 196.0 | □145 | 181.5 | 196.0 | □190 | 184.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 222.5 | 196.0 | – | – | – | – | – | – |

## 8.3.2 A shaft design (hollow shaft), GN housing design (pitch circle diameter + side fastening)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

3) Rubber buffer for torque arm bracket (optional). Dimension ∅Dd = outer diameter of the rubber buffer when not tensioned.

### Dimensions of gearboxes

| Type | a0 | □a4 | ad | ad1 | ∅b | b3 | b4 | Bn | cd | ∅dd | ∅dh | ∅Dd | ∅Dh | ∅Dha | ∅e | f | h | H |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 50 | 100 | 28.5 | 150 | $70_{j6}$ | 40 | 140 | 71 | 20 | $11.0^{+0,5}$ | $20^{H7}$ | 30 | 35 | 70 | 85 | 2.5 | 74 | 238.0 |
| F2 | 64 | 130 | 32.0 | 181 | $95_{j6}$ | 55 | 175 | 88 | 22 | $11.0^{+0,5}$ | $25^{H7}$ | 30 | 45 | 82 | 115 | 3.0 | 93 | 299.0 |
| F3 | 72 | 150 | 36.5 | 205 | $110_{j6}$ | 60 | 200 | 102 | 30 | $14.0^{+0,5}$ | $30^{H7}$ | 37 | 50 | 88 | 130 | 3.5 | 106 | 335.5 |
| F4 | 87 | 150 | 36.5 | 228 | $110_{j6}$ | 70 | 220 | 114 | 30 | $14.0^{+0,5}$ | $40^{H7}$ | 37 | 55 | 100 | 130 | 3.5 | 116 | 370.0 |
| F6 | 108 | 180 | 44.5 | 270 | $130_{j6}$ | 85 | 270 | 131 | 35 | $22.0^{+0,5}$ | $50^{H7}$ | 60 | 70 | 115 | 165 | 3.5 | 137 | 433.0 |

| Type | i2 | i3 | ld | le | lh | las | lha | n1 | s3 | s4 | sd | sm | sas | t3 | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 6.5 | 12.5 | 15 | 73 | 95 | 12 | 112 | 10.0 | M6 | M8 | M10 | M6 | M8 | 11 | 13 | 22.8 | $6^{JS9}$ |
| F2 | 8.0 | 15.0 | 15 | 92 | 115 | 12 | 132 | 10.5 | M8 | M8 | M10 | M10 | M12 | 13 | 13 | 28.3 | $8^{JS9}$ |
| F3 | 8.5 | 16.5 | 20 | 103 | 130 | 12 | 157 | 12.5 | M10 | M10 | M12 | M10 | M12 | 16 | 16 | 33.3 | $8^{JS9}$ |
| F4 | 8.5 | 16.5 | 20 | 114 | 145 | 12 | 175 | 12.5 | M10 | M10 | M12 | M16 | M20 | 16 | 16 | 43.3 | $12^{JS9}$ |
| F6 | 10.5 | 20.5 | 30 | 143 | 180 | 12 | 194 | 15.5 | M12 | M10 | M20 | M16 | M20 | 19 | 16 | 53.8 | $14^{JS9}$ |

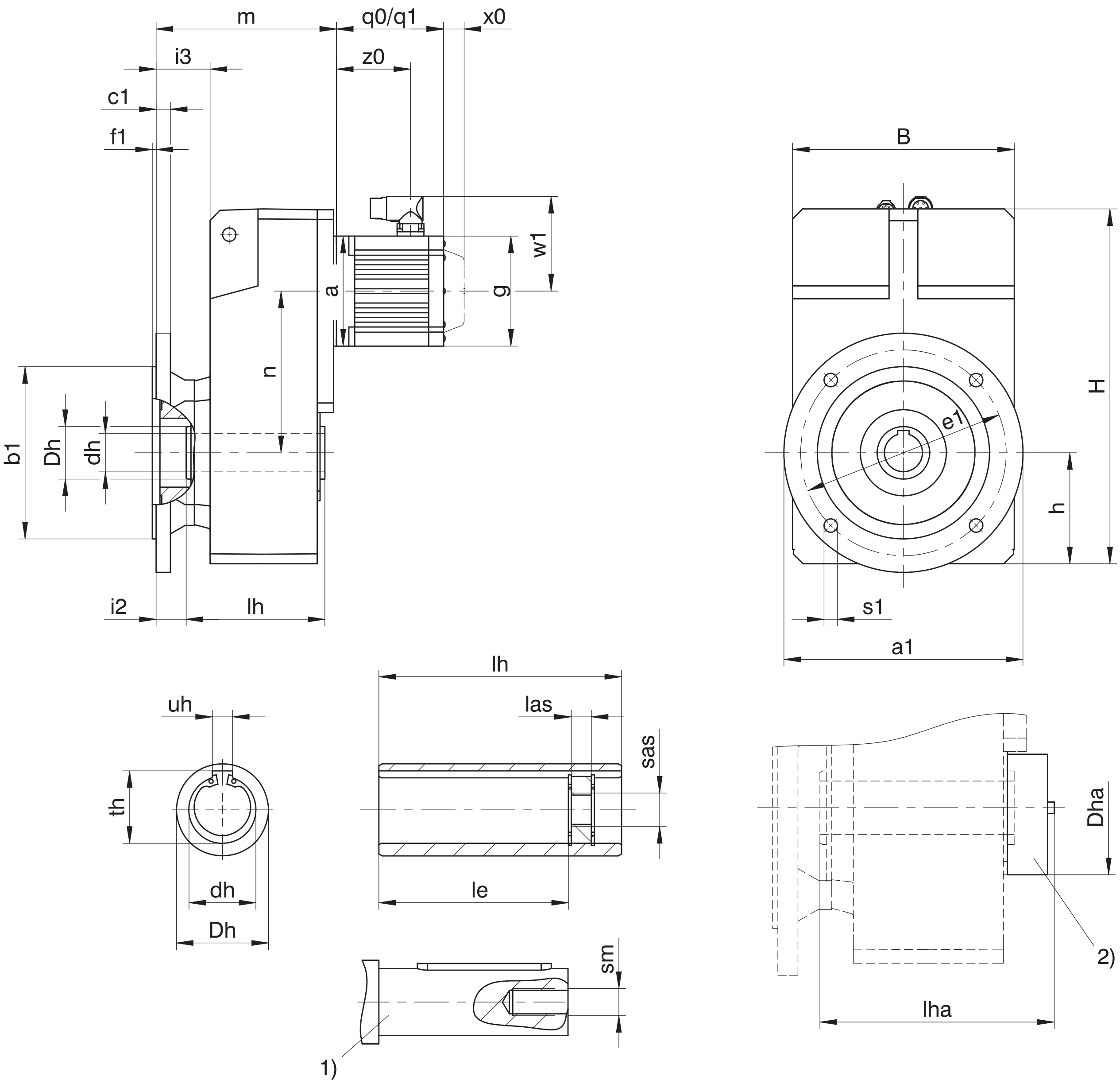
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 97.5 | 102.0 | □72 | 97.5 | 102.0 | □98 | 97.5 | 102.0 | □115 | 101.5 | 102.0 | □145 | 103.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 115.0 | 131.0 | □98 | 115.0 | 131.0 | □115 | 119.0 | 131.0 | □145 | 121.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 152.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 129.5 | 149.5 | ∅140 | 129.5 | 149.5 | □115 | 133.5 | 149.5 | □145 | 135.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 166.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 148.5 | 169.0 | □145 | 150.5 | 169.0 | □190 | 153.5 | 169.0 |
| F403 | – | – | – | ∅140 | 181.5 | 169.0 | ∅140 | 181.5 | 169.0 | ∅160 | 191.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 179.5 | 196.0 | □145 | 181.5 | 196.0 | □190 | 184.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 222.5 | 196.0 | – | – | – | – | – | – |

## 8.3.3 A shaft design (hollow shaft), F housing design (round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b1 | B | c1 | ∅dh | ∅Dh | ∅Dha | ∅e1 | f1 | h | H | i2 | i3 | le | lh | las | lha | ∅s1 | sm | sas | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 160 | $110_{j6}$ | 145 | 10 | $20^{H7}$ | 35 | 70 | 130 | 3.5 | 74 | 238.0 | 25.5 | 44.5 | 73 | 95 | 12 | 112 | 9 | M6 | M8 | 22.8 | $6^{JS9}$ |
| F2 | 200 | $130_{j6}$ | 180 | 14 | $25^{H7}$ | 45 | 82 | 165 | 3.5 | 93 | 299.0 | 30.0 | 53.0 | 92 | 115 | 12 | 132 | 11 | M10 | M12 | 28.3 | $8^{JS9}$ |
| F3 | 250 | $180_{j6}$ | 206 | 15 | $30^{H7}$ | 50 | 88 | 215 | 4.0 | 106 | 335.5 | 31.5 | 56.5 | 103 | 130 | 12 | 157 | 14 | M10 | M12 | 33.3 | $8^{JS9}$ |
| F4 | 250 | $180_{j6}$ | 230 | 15 | $40^{H7}$ | 55 | 100 | 215 | 4.0 | 116 | 370.0 | 31.5 | 56.5 | 114 | 145 | 12 | 175 | 14 | M16 | M20 | 43.3 | $12^{JS9}$ |
| F6 | 300 | $230_{j6}$ | 265 | 17 | $50^{H7}$ | 70 | 115 | 265 | 4.0 | 137 | 433.0 | 29.5 | 60.5 | 143 | 180 | 12 | 194 | 14 | M16 | M20 | 53.8 | $14^{JS9}$ |

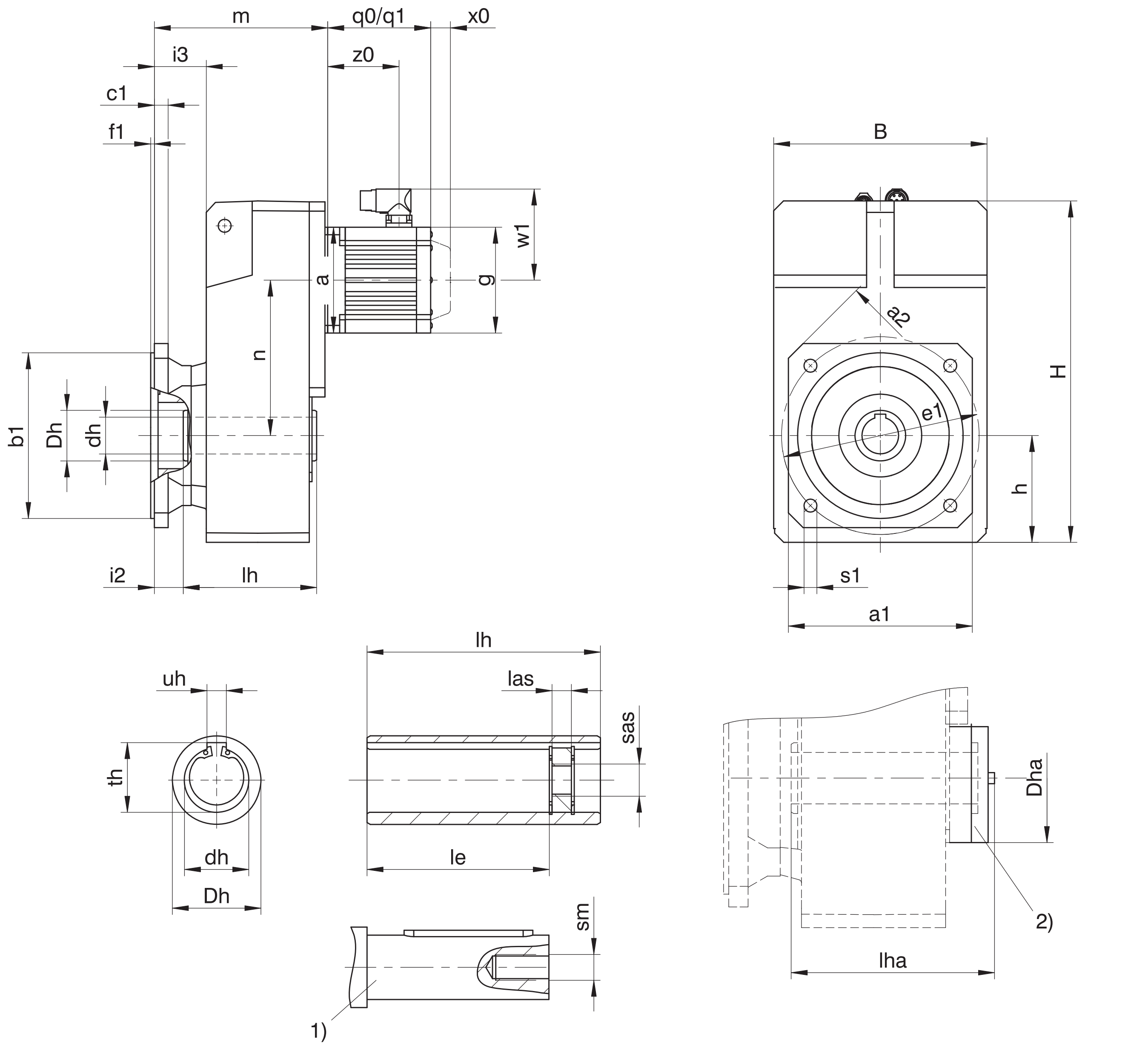
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 129.5 | 102.0 | □72 | 129.5 | 102.0 | □98 | 129.5 | 102.0 | □115 | 133.5 | 102.0 | □145 | 135.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 153.0 | 131.0 | □98 | 153.0 | 131.0 | □115 | 157.0 | 131.0 | □145 | 159.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 190.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 169.5 | 149.5 | ∅140 | 169.5 | 149.5 | □115 | 173.5 | 149.5 | □145 | 175.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 206.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 188.5 | 169.0 | □145 | 190.5 | 169.0 | □190 | 193.5 | 169.0 |
| F403 | – | – | – | ∅140 | 221.5 | 169.0 | ∅140 | 221.5 | 169.0 | ∅160 | 231.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 219.5 | 196.0 | □145 | 221.5 | 196.0 | □190 | 224.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 262.5 | 196.0 | – | – | – | – | – | – |

## 8.3.4 A shaft design (hollow shaft), Q housing design (square flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

**Dimensions of gearboxes**

| Type | □a1 | □a2 | ∅b1 | B | c1 | ∅dh | ∅Dh | ∅Dha | ∅e1 | f1 | h | H | i2 | i3 | le | lh | las | lha | ∅s1 | sm | sas | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 125 | 160 | $110_{j6}$ | 145 | 10 | $20^{H7}$ | 35 | 70 | 130 | 3.5 | 74 | 238.0 | 25.5 | 44.5 | 73 | 95 | 12 | 112 | 9 | M6 | M8 | 22.8 | $6^{JS9}$ |
| F2 | 150 | 195 | $130_{j6}$ | 180 | 14 | $25^{H7}$ | 45 | 82 | 165 | 3.5 | 93 | 299.0 | 30.0 | 53.0 | 92 | 115 | 12 | 132 | 11 | M10 | M12 | 28.3 | $8^{JS9}$ |
| F3 | 200 | 260 | $180_{j6}$ | 206 | 15 | $30^{H7}$ | 50 | 88 | 215 | 4.0 | 106 | 335.5 | 31.5 | 56.5 | 103 | 130 | 12 | 157 | 14 | M10 | M12 | 33.3 | $8^{JS9}$ |
| F4 | 200 | 260 | $180_{j6}$ | 230 | 15 | $40^{H7}$ | 55 | 100 | 215 | 4.0 | 116 | 370.0 | 31.5 | 56.5 | 114 | 145 | 12 | 175 | 14 | M16 | M20 | 43.3 | $12^{JS9}$ |
| F6 | 250 | 325 | $230_{j6}$ | 265 | 17 | $50^{H7}$ | 70 | 115 | 265 | 4.0 | 137 | 433.0 | 29.5 | 60.5 | 143 | 180 | 12 | 194 | 14 | M16 | M20 | 53.8 | $14^{JS9}$ |

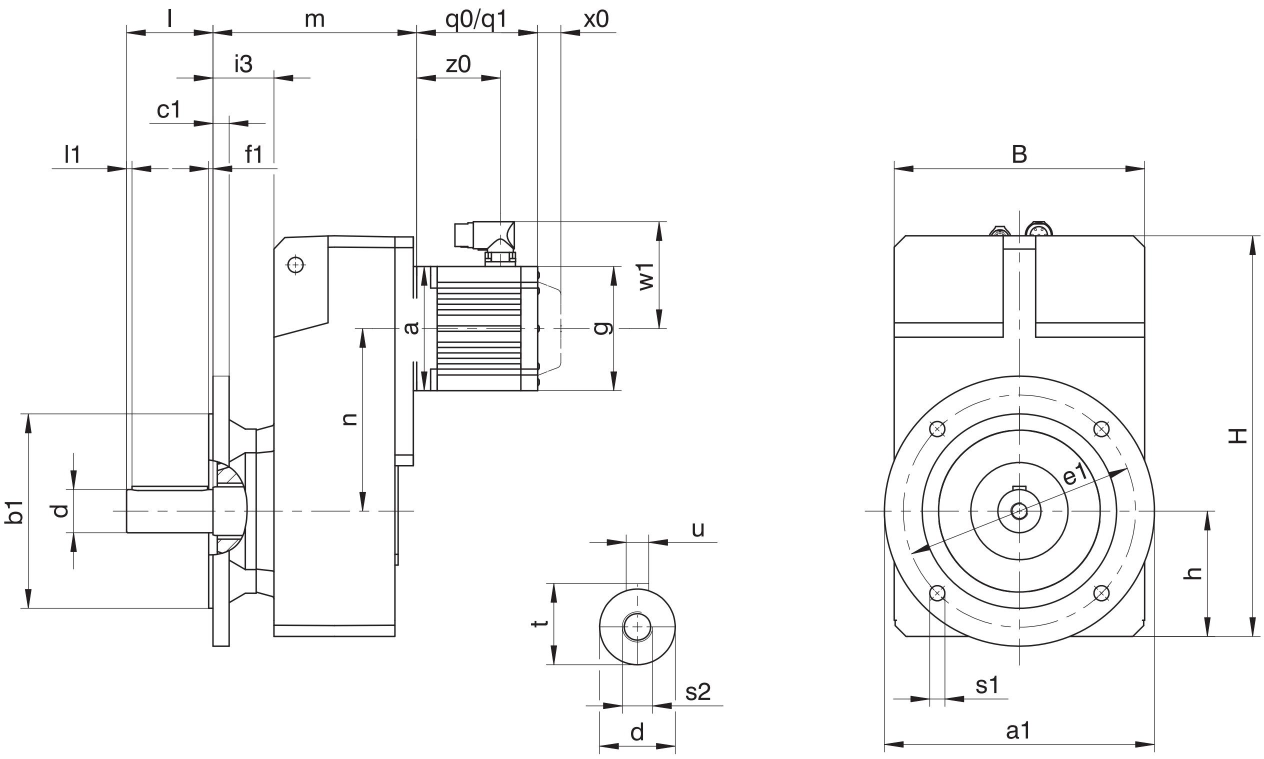
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 129.5 | 102.0 | □72 | 129.5 | 102.0 | □98 | 129.5 | 102.0 | □115 | 133.5 | 102.0 | □145 | 135.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 153.0 | 131.0 | □98 | 153.0 | 131.0 | □115 | 157.0 | 131.0 | □145 | 159.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 190.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 169.5 | 149.5 | ∅140 | 169.5 | 149.5 | □115 | 173.5 | 149.5 | □145 | 175.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 206.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 188.5 | 169.0 | □145 | 190.5 | 169.0 | □190 | 193.5 | 169.0 |
| F403 | – | – | – | ∅140 | 221.5 | 169.0 | ∅140 | 221.5 | 169.0 | ∅160 | 231.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 219.5 | 196.0 | □145 | 221.5 | 196.0 | □190 | 224.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 262.5 | 196.0 | – | – | – | – | – | – |

## 8.3.5 V shaft design (solid shaft), F housing design (round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b1 | B | c1 | ∅d | ∅e1 | f1 | h | H | i3 | l | l1 | ∅s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 160 | $110_{j6}$ | 145 | 10 | $25_{k6}$ | 130 | 3.5 | 74 | 238.0 | 44.5 | 50 | 5 | 9 | M10 | 28.0 | A8×7×40 |
| F2 | 200 | $130_{j6}$ | 180 | 14 | $30_{k6}$ | 165 | 3.5 | 93 | 299.0 | 53.0 | 60 | 5 | 11 | M10 | 33.0 | A8×7×50 |
| F3 | 250 | $180_{j6}$ | 206 | 15 | $35_{k6}$ | 215 | 4.0 | 106 | 335.5 | 56.5 | 70 | 5 | 14 | M12 | 38.0 | A10×8×60 |
| F4 | 250 | $180_{j6}$ | 230 | 15 | $40_{k6}$ | 215 | 4.0 | 116 | 370.0 | 56.5 | 80 | 5 | 14 | M16 | 43.0 | A12×8×70 |
| F6 | 300 | $230_{j6}$ | 265 | 17 | $50_{k6}$ | 265 | 4.0 | 137 | 433.0 | 60.5 | 100 | 5 | 14 | M16 | 53.5 | A14×9×90 |

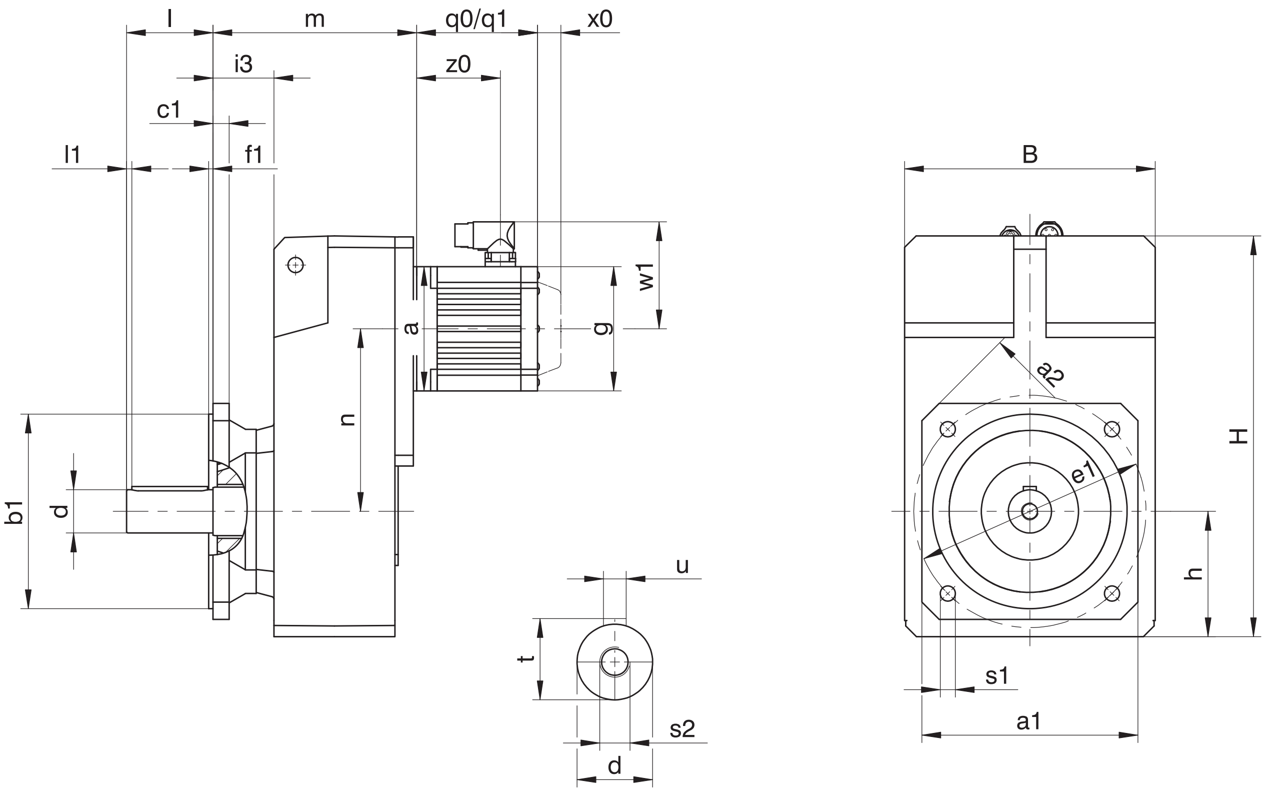
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 129.5 | 102.0 | □72 | 129.5 | 102.0 | □98 | 129.5 | 102.0 | □115 | 133.5 | 102.0 | □145 | 135.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 153.0 | 131.0 | □98 | 153.0 | 131.0 | □115 | 157.0 | 131.0 | □145 | 159.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 190.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 169.5 | 149.5 | ∅140 | 169.5 | 149.5 | □115 | 173.5 | 149.5 | □145 | 175.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 206.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 188.5 | 169.0 | □145 | 190.5 | 169.0 | □190 | 193.5 | 169.0 |
| F403 | – | – | – | ∅140 | 221.5 | 169.0 | ∅140 | 221.5 | 169.0 | ∅160 | 231.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 219.5 | 196.0 | □145 | 221.5 | 196.0 | □190 | 224.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 262.5 | 196.0 | – | – | – | – | – | – |

## 8.3.6 V shaft design (solid shaft), Q housing design (square flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [17.4] |

**Dimensions of gearboxes**

| Type | □a1 | □a2 | ∅b1 | c1 | B | ∅d | ∅e1 | f1 | h | H | i3 | l | l1 | ∅s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 125 | 160 | $110_{j6}$ | 10 | 145 | $25_{k6}$ | 130 | 3.5 | 74 | 238.0 | 44.5 | 50 | 5 | 9 | M10 | 28.0 | A8×7×40 |
| F2 | 150 | 195 | $130_{j6}$ | 14 | 180 | $30_{k6}$ | 165 | 3.5 | 93 | 299.0 | 53.0 | 60 | 5 | 11 | M10 | 33.0 | A8×7×50 |
| F3 | 200 | 260 | $180_{j6}$ | 15 | 206 | $35_{k6}$ | 215 | 4.0 | 106 | 335.5 | 56.5 | 70 | 5 | 14 | M12 | 38.0 | A10×8×60 |
| F4 | 200 | 260 | $180_{j6}$ | 15 | 230 | $40_{k6}$ | 215 | 4.0 | 116 | 370.0 | 56.5 | 80 | 5 | 14 | M16 | 43.0 | A12×8×70 |
| F6 | 250 | 325 | $230_{j6}$ | 17 | 265 | $50_{k6}$ | 265 | 4.0 | 137 | 433.0 | 60.5 | 100 | 5 | 14 | M16 | 53.5 | A14×9×90 |

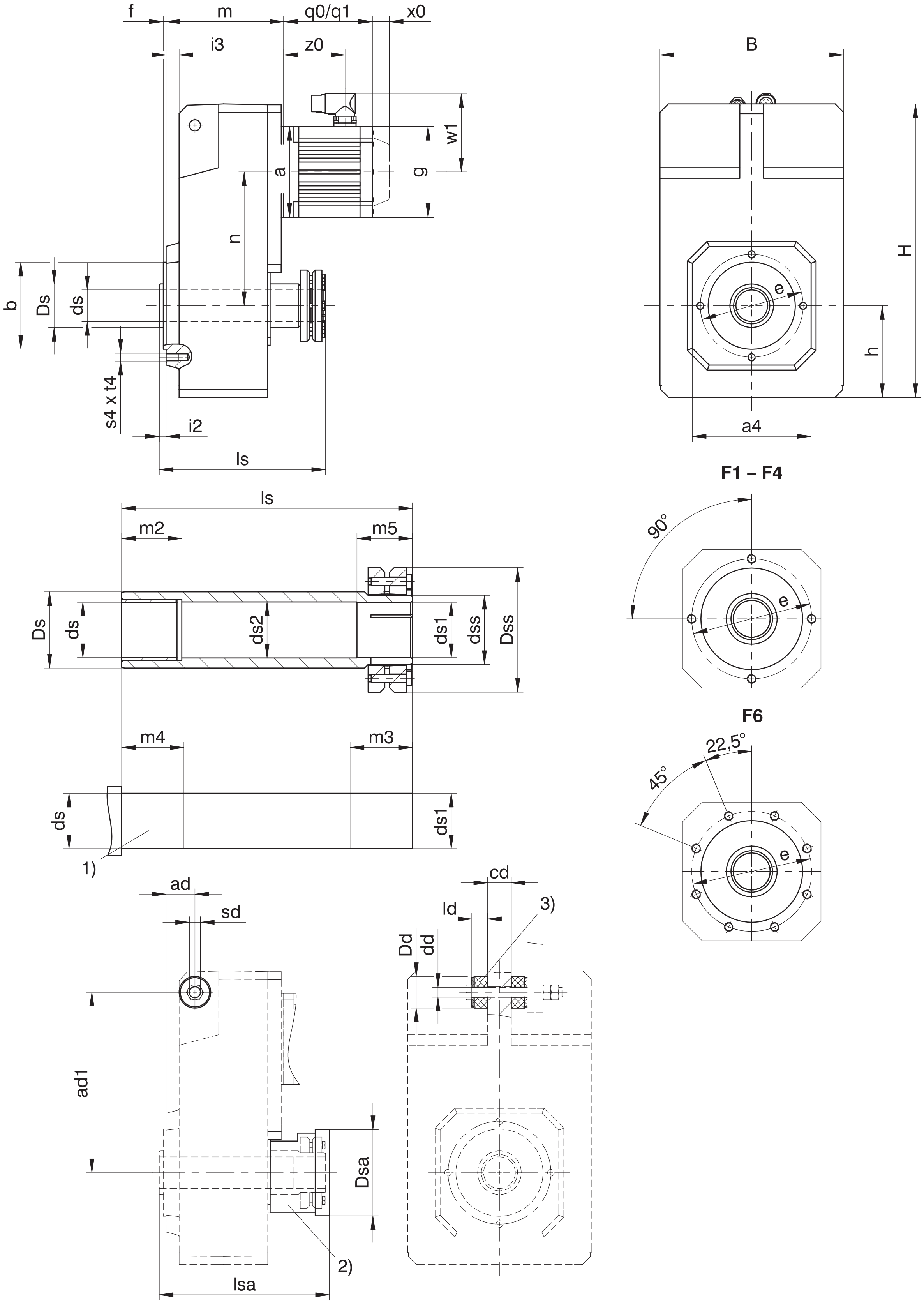
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 129.5 | 102.0 | □72 | 129.5 | 102.0 | □98 | 129.5 | 102.0 | □115 | 133.5 | 102.0 | □145 | 135.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 153.0 | 131.0 | □98 | 153.0 | 131.0 | □115 | 157.0 | 131.0 | □145 | 159.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 190.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 169.5 | 149.5 | ∅140 | 169.5 | 149.5 | □115 | 173.5 | 149.5 | □145 | 175.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 206.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 188.5 | 169.0 | □145 | 190.5 | 169.0 | □190 | 193.5 | 169.0 |
| F403 | – | – | – | ∅140 | 221.5 | 169.0 | ∅140 | 221.5 | 169.0 | ∅160 | 231.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 219.5 | 196.0 | □145 | 221.5 | 196.0 | □190 | 224.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 262.5 | 196.0 | – | – | – | – | – | – |

## 8.3.7 S shaft design (hollow shaft with shrink disk), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

3) Rubber buffer for torque arm bracket (optional). Dimension ∅Dd = outer diameter of the rubber buffer when not tensioned.

**Dimensions of gearboxes**

| Type | □a4 | ad | ad1 | ∅b | B | cd | ∅dd | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Dd | ∅Ds | ∅Dsa | ∅Dss | ∅e | f | h | H | i2 | i3 | ld | ls | lsa | m2 | m3 | m4 | m5 | s4 | sd | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 100 | 28.5 | 150 | $70_{j6}$ | 145 | 20 | $11.0^{+0,5}$ | $20_{h9}$ | $20_{h9}^{H7}$ | 20.5 | 24 | 30 | 35 | 63 | 50 | 85 | 2.5 | 74 | 238.0 | 6.5 | 12.5 | 15 | 146 | 150 | 20 | 31 | 25 | 26 | M8 | M10 | 13 |
| F2 | 130 | 32.0 | 181 | $95_{j6}$ | 180 | 22 | $11.0^{+0,5}$ | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 30 | 45 | 73 | 60 | 115 | 3.0 | 93 | 299.0 | 8.0 | 15.0 | 15 | 175 | 180 | 20 | 37 | 25 | 32 | M8 | M10 | 13 |
| F3 | 150 | 36.5 | 205 | $110_{j6}$ | 206 | 30 | $14.0^{+0,5}$ | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 37 | 50 | 83 | 72 | 130 | 3.5 | 106 | 335.5 | 8.5 | 16.5 | 20 | 192 | 196 | 25 | 37 | 30 | 32 | M10 | M12 | 16 |
| F4 | 150 | 36.5 | 228 | $110_{j6}$ | 230 | 30 | $14.0^{+0,5}$ | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 37 | 55 | 108 | 90 | 130 | 3.5 | 116 | 370.0 | 8.5 | 16.5 | 20 | 210 | 215 | 40 | 45 | 45 | 40 | M10 | M12 | 16 |
| F6 | 180 | 44.5 | 270 | $130_{j6}$ | 265 | 35 | $22.0^{+0,5}$ | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 60 | 70 | 128 | 106 | 165 | 3.5 | 137 | 433.0 | 10.5 | 20.5 | 30 | 248 | 251 | 40 | 47 | 45 | 42 | M10 | M20 | 16 |

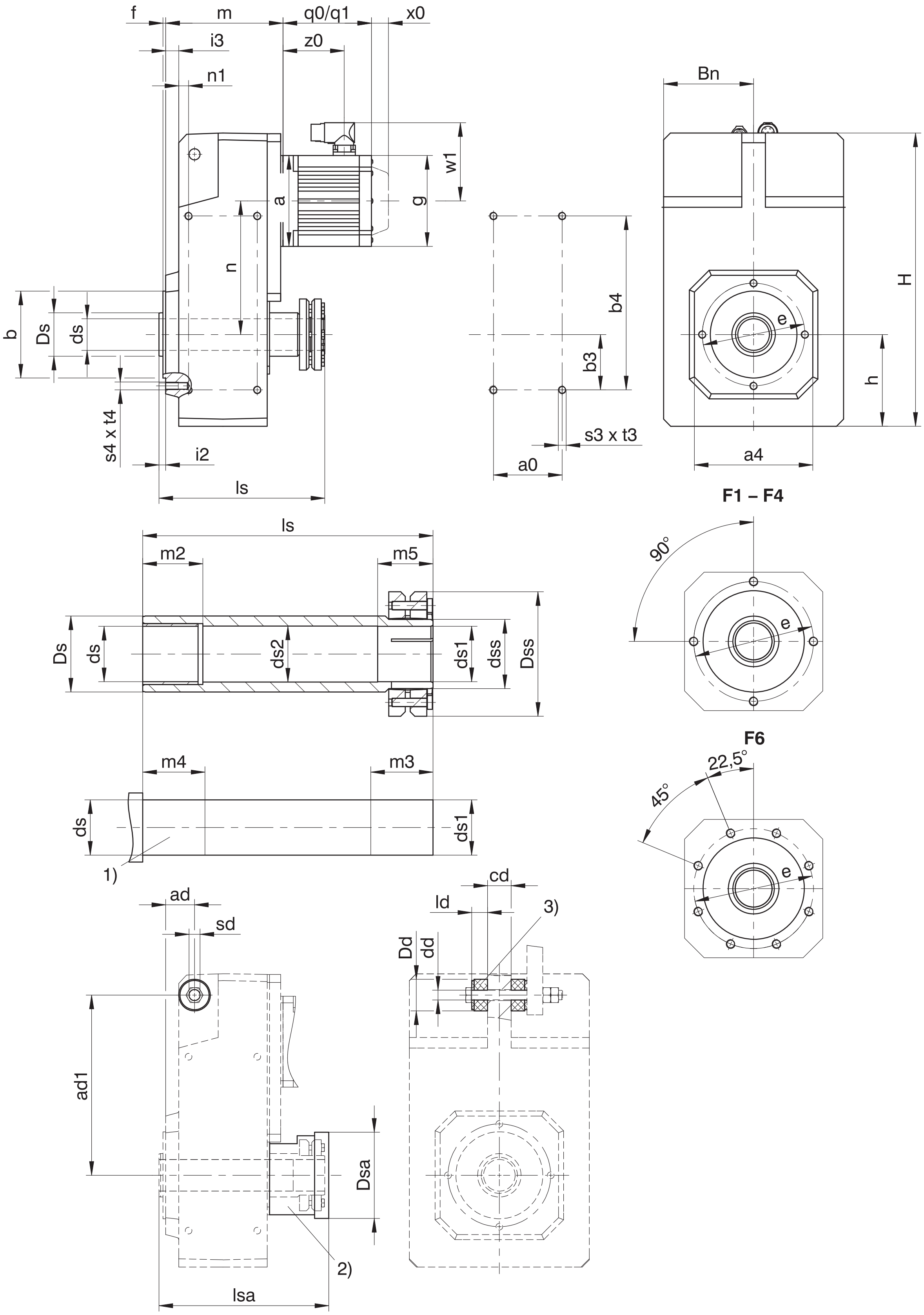
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 97.5 | 102.0 | □72 | 97.5 | 102.0 | □98 | 97.5 | 102.0 | □115 | 101.5 | 102.0 | □145 | 103.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 115.0 | 131.0 | □98 | 115.0 | 131.0 | □115 | 119.0 | 131.0 | □145 | 121.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 152.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 129.5 | 149.5 | ∅140 | 129.5 | 149.5 | □115 | 133.5 | 149.5 | □145 | 135.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 166.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 148.5 | 169.0 | □145 | 150.5 | 169.0 | □190 | 153.5 | 169.0 |
| F403 | – | – | – | ∅140 | 181.5 | 169.0 | ∅140 | 181.5 | 169.0 | ∅160 | 191.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 179.5 | 196.0 | □145 | 181.5 | 196.0 | □190 | 184.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 222.5 | 196.0 | – | – | – | – | – | – |

## 8.3.8 S shaft design (hollow shaft with shrink disk), GN housing design (pitch circle diameter + side fastening)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

3) Rubber buffer for torque arm bracket (optional). Dimension ∅Dd = outer diameter of the rubber buffer when not tensioned.

**Dimensions of gearboxes**

| Type | a0 | □a4 | ad | ad1 | ∅b | b3 | b4 | Bn | cd | ∅dd | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Dd | ∅Ds | ∅Dsa | ∅Dss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 50 | 100 | 29.5 | 150 | $70_{j6}$ | 40 | 140 | 71 | 20 | $11.0^{+0.5}$ | $20_{h9}$ | $20_{h9}^{H7}$ | 20.5 | 24 | 30 | 63 | 63 | 50 |
| F2 | 64 | 130 | 33.0 | 181 | $95_{j6}$ | 55 | 175 | 88 | 22 | $11.0^{+0.5}$ | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 30 | 73 | 73 | 60 |
| F3 | 72 | 150 | 38.5 | 205 | $110_{j6}$ | 60 | 200 | 102 | 30 | $14.0^{+0.5}$ | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 37 | 83 | 83 | 72 |
| F4 | 87 | 150 | 38.5 | 228 | $110_{j6}$ | 70 | 220 | 114 | 30 | $14.0^{+0.5}$ | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 37 | 108 | 108 | 90 |
| F6 | 108 | 180 | 44.5 | 270 | $130_{j6}$ | 85 | 270 | 131 | 35 | $22.0^{+0.5}$ | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 60 | 128 | 128 | 106 |

| Type | ∅e | f | h | H | i2 | i3 | ld | ls | lsa | n1 | m2 | m3 | m4 | m5 | s3 | s4 | sd | t3 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 85 | 2.5 | 74 | 238.0 | 6.5 | 12.5 | 15 | 146 | 150 | 10 | 20 | 31 | 25 | 26 | M6 | M8 | M10 | 11 | 13 |
| F2 | 115 | 3.0 | 93 | 299.0 | 8.0 | 15.0 | 15 | 175 | 180 | 10.5 | 20 | 37 | 25 | 32 | M8 | M8 | M10 | 13 | 13 |
| F3 | 130 | 3.5 | 106 | 335.5 | 8.5 | 16.5 | 20 | 192 | 196 | 12.5 | 25 | 37 | 30 | 32 | M10 | M10 | M12 | 16 | 16 |
| F4 | 130 | 3.5 | 116 | 370.0 | 8.5 | 16.5 | 20 | 210 | 215 | 12.5 | 40 | 45 | 45 | 40 | M10 | M10 | M12 | 16 | 16 |
| F6 | 165 | 3.5 | 137 | 433.0 | 10.5 | 20.5 | 30 | 248 | 251 | 15.5 | 40 | 47 | 45 | 42 | M12 | M10 | M20 | 19 | 16 |

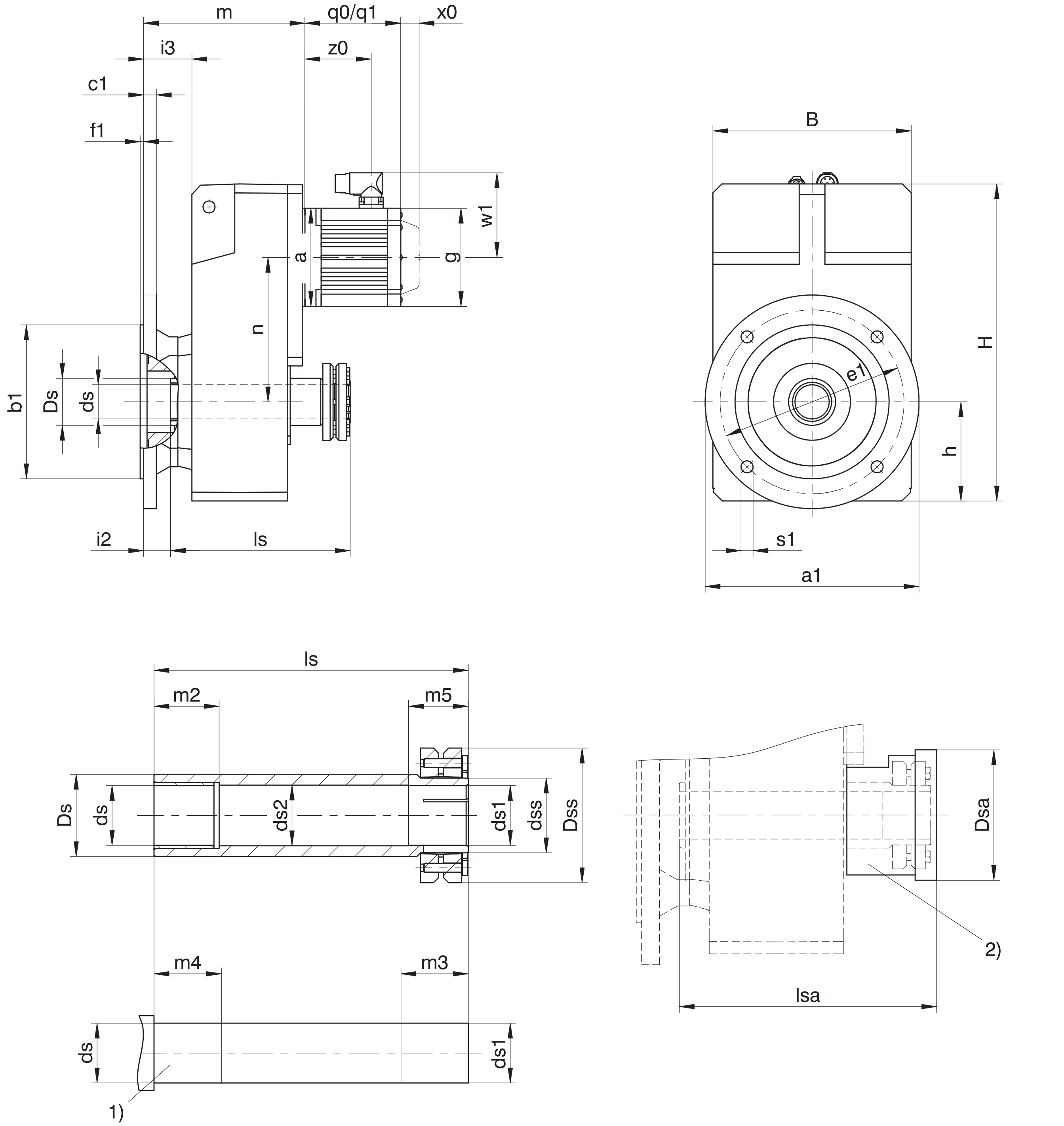
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 97.5 | 102.0 | □72 | 97.5 | 102.0 | □98 | 97.5 | 102.0 | □115 | 101.5 | 102.0 | □145 | 103.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 115.0 | 131.0 | □98 | 115.0 | 131.0 | □115 | 119.0 | 131.0 | □145 | 121.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 152.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 129.5 | 149.5 | ∅140 | 129.5 | 149.5 | □115 | 133.5 | 149.5 | □145 | 135.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 166.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 148.5 | 169.0 | □145 | 150.5 | 169.0 | □190 | 153.5 | 169.0 |
| F403 | – | – | – | ∅140 | 181.5 | 169.0 | ∅140 | 181.5 | 169.0 | ∅160 | 191.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 179.5 | 196.0 | □145 | 181.5 | 196.0 | □190 | 184.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 222.5 | 196.0 | – | – | – | – | – | – |

## 8.3.9 S shaft design (hollow shaft with shrink disk), F housing design (round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

## Dimensions of gearboxes

| Type | ∅a1 | ∅b1 | B | c1 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e1 | f1 | h | H | i2 | i3 | ls | lsa | m2 | m3 | m4 | m5 | ∅s1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 160 | $110_{j6}$ | 145 | 10 | $20_{h9}$ | $20_{h9}^{H7}$ | 20.5 | 24 | 35 | 63 | 50 | 130 | 3.5 | 74 | 238.0 | 25.5 | 44.5 | 146 | 150 | 20 | 31 | 25 | 26 | 9 |
| F2 | 200 | $130_{j6}$ | 180 | 14 | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 45 | 73 | 60 | 165 | 3.5 | 93 | 299.0 | 30.0 | 53.0 | 175 | 180 | 20 | 37 | 25 | 32 | 11 |
| F3 | 250 | $180_{j6}$ | 206 | 15 | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 50 | 83 | 72 | 215 | 4.0 | 106 | 335.5 | 31.5 | 56.5 | 192 | 196 | 25 | 37 | 30 | 32 | 14 |
| F4 | 250 | $180_{j6}$ | 230 | 15 | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 55 | 108 | 90 | 215 | 4.0 | 116 | 370.0 | 31.5 | 56.5 | 210 | 215 | 40 | 45 | 45 | 40 | 14 |
| F6 | 300 | $230_{j6}$ | 265 | 17 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 70 | 128 | 106 | 265 | 4.0 | 137 | 433.0 | 29.5 | 60.5 | 248 | 251 | 40 | 47 | 45 | 42 | 14 |

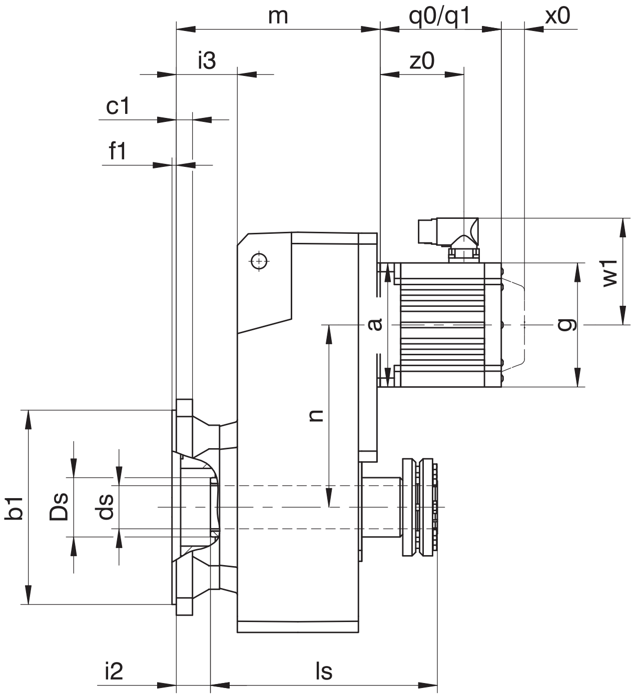
## Dimensions of motors

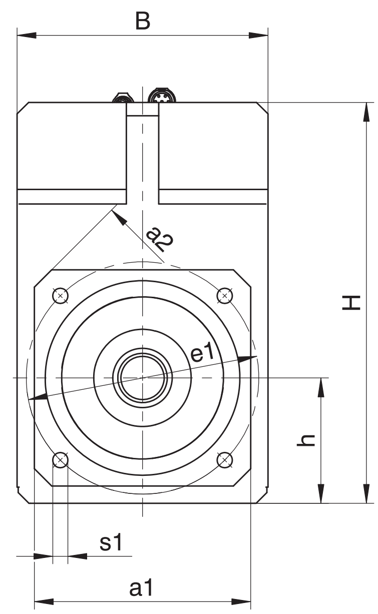
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

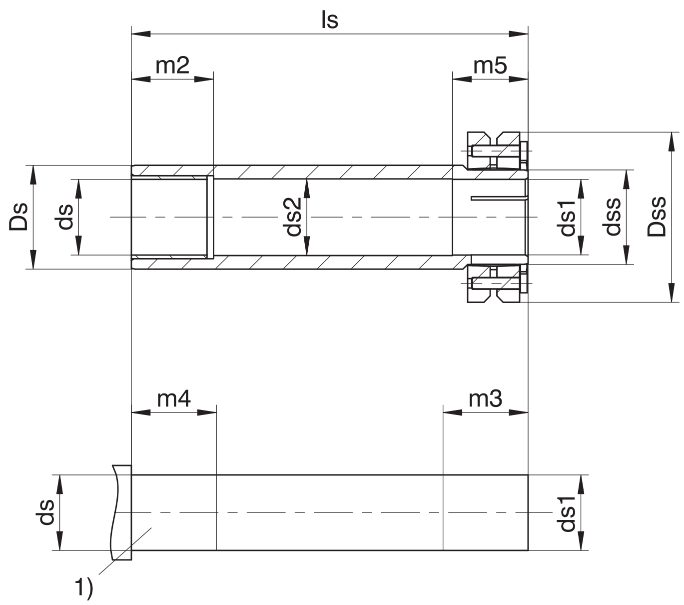
## Dimensions of geared motors

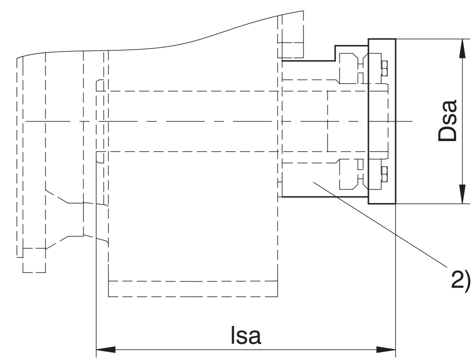
| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 129.5 | 102.0 | □72 | 129.5 | 102.0 | □98 | 129.5 | 102.0 | □115 | 133.5 | 102.0 | □145 | 135.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 153.0 | 131.0 | □98 | 153.0 | 131.0 | □115 | 157.0 | 131.0 | □145 | 159.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 190.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 169.5 | 149.5 | ∅140 | 169.5 | 149.5 | □115 | 173.5 | 149.5 | □145 | 175.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 206.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 188.5 | 169.0 | □145 | 190.5 | 169.0 | □190 | 193.5 | 169.0 |
| F403 | – | – | – | ∅140 | 221.5 | 169.0 | ∅140 | 221.5 | 169.0 | ∅160 | 231.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 219.5 | 196.0 | □145 | 221.5 | 196.0 | □190 | 224.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 262.5 | 196.0 | – | – | – | – | – | – |

## 8.3.10 S shaft design (hollow shaft with shrink disk), Q housing design (square flange)




q0 Applies to motors without brake.

q1 Applies to motors with brake.

x0 EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method
EZ3 – EZ8: Applies to encoders using an optical measuring method

w1 Different for the One Cable Solution (OCS), see the chapter [▷ 17.4]

1) Machine shaft: The dimension ls must meet or exceed the specified value.

2) Cover (optional)

**Dimensions of gearboxes**

| Type | □a1 | □a2 | ∅b1 | B | c1 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e1 | f1 | h | H | i2 | i3 | ls | lsa | m2 | m3 | m4 | m5 | ∅s1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 125 | 160 | $110_{j6}$ | 145 | 10 | $20_{h9}$ | $20_{h9}^{H7}$ | 20.5 | 24 | 35 | 63 | 50 | 130 | 3.5 | 74 | 238.0 | 25.5 | 44.5 | 146 | 150 | 20 | 31 | 25 | 26 | 9 |
| F2 | 150 | 195 | $130_{j6}$ | 180 | 14 | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 45 | 73 | 60 | 165 | 3.5 | 93 | 299.0 | 30.0 | 53.0 | 175 | 180 | 20 | 37 | 25 | 32 | 11 |
| F3 | 200 | 260 | $180_{j6}$ | 206 | 15 | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 50 | 83 | 72 | 215 | 4.0 | 106 | 335.5 | 31.5 | 56.5 | 192 | 196 | 25 | 37 | 30 | 32 | 14 |
| F4 | 200 | 260 | $180_{j6}$ | 230 | 15 | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 55 | 108 | 90 | 215 | 4.0 | 116 | 370.0 | 31.5 | 56.5 | 210 | 215 | 40 | 45 | 45 | 40 | 14 |
| F6 | 250 | 325 | $230_{j6}$ | 265 | 17 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 70 | 128 | 106 | 265 | 4.0 | 137 | 433.0 | 29.5 | 60.5 | 248 | 251 | 40 | 47 | 45 | 42 | 14 |

### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ203U | 55 | 166.0 | 175.0 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ2 | | | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| F102 | □55 | 129.5 | 102.0 | □72 | 129.5 | 102.0 | □98 | 129.5 | 102.0 | □115 | 133.5 | 102.0 | □145 | 135.5 | 102.0 | – | – | – |
| F202 | – | – | – | □72 | 153.0 | 131.0 | □98 | 153.0 | 131.0 | □115 | 157.0 | 131.0 | □145 | 159.0 | 131.0 | – | – | – |
| F203 | – | – | – | ∅140 | 190.0 | 131.0 | – | – | – | – | – | – | – | – | – | – | – | – |
| F302 | – | – | – | ∅140 | 169.5 | 149.5 | ∅140 | 169.5 | 149.5 | □115 | 173.5 | 149.5 | □145 | 175.5 | 149.5 | – | – | – |
| F303 | – | – | – | ∅140 | 206.5 | 149.5 | – | – | – | – | – | – | – | – | – | – | – | – |
| F402 | – | – | – | – | – | – | – | – | – | ∅160 | 188.5 | 169.0 | □145 | 190.5 | 169.0 | □190 | 193.5 | 169.0 |
| F403 | – | – | – | ∅140 | 221.5 | 169.0 | ∅140 | 221.5 | 169.0 | ∅160 | 231.5 | 132.0 | – | – | – | – | – | – |
| F602 | – | – | – | – | – | – | – | – | – | ∅160 | 219.5 | 196.0 | □145 | 221.5 | 196.0 | □190 | 224.5 | 196.0 |
| F603 | – | – | – | – | – | – | – | – | – | ∅160 | 262.5 | 196.0 | – | – | – | – | – | – |

# 8.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| F | 2 | 0 | 2 | A | G | 0700 | EZ401U |
|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **F** | Type | Offset helical gearbox |
| **2** | Size | 2 (example) |
| **0** | Generation | Generation 0 |
| **2** | Stages | Two-stage |
| 3 | | Three-stage |
| **A** | Shaft | Hollow shaft with keyway |
| S | | Hollow shaft with shrink ring |
| V | | Solid shaft |
| **G** | Housing | Pitch circle diameter |
| F | | Round flange |
| Q | | Square flange |
| GN | | Pitch circle diameter + side fastening |
| **/0700** | Transmission ratio (i x 10 rounded) | i = 70.13 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▷ 17.5]
- Mounting position, see the chapter [▷ 8.5.5]
- Position of the plug connectors, see the chapter [▷ 8.5.7]

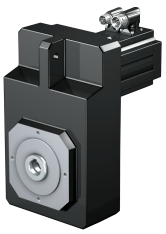
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▷ 17.5.1].

# 8.5 Product description

## 8.5.1 Input options

EZ synchronous servo motor



Catalog ID 442437_en

MB motor adapter + EZ synchronous servo motor

Catalog ID 443311_en

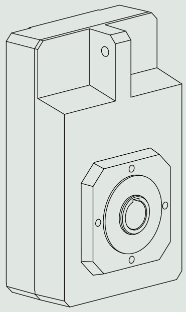
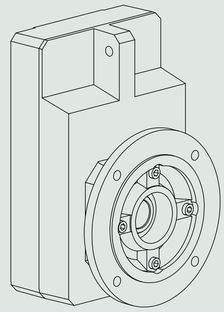
LM Lean motor

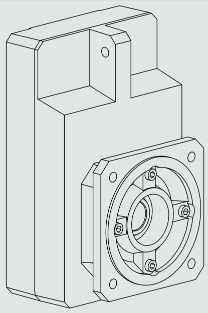
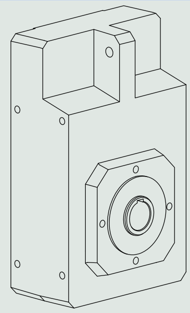
Catalog ID 443016_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 8.5.2 Housing design

| Pitch circle diameter G | Round flange F |
|---|---|
|  |  |

| Square flange Q | Pitch circle diameter + side fastening GN |
|---|---|
|  |  |

| | G | F | Q | GN |
|---|---|---|---|---|
| F1 | ✓ | ✓ | ✓ | ✓ |
| F2 | ✓ | ✓ | ✓ | ✓ |
| F3 | ✓ | ✓ | ✓ | ✓ |
| F4 | ✓ | ✓ | ✓ | ✓ |
| F6 | ✓ | ✓ | ✓ | ✓ |

### 8.5.3 Combinatorial shaft/housing design

| | Housing design | | | | |
|---|---|---|---|---|---|
| **Shaft design** | **Code** | **G** | **F** | **Q** | **GN** |
| Hollow shaft with keyway | **A** | AG | AF | AQ | AGN |
| Hollow shaft with shrink ring | **S** | SG | SF | SQ | SGN |
| Solid shaft | **V** | – | VF | VQ | – |

### 8.5.4 Installation conditions

**Hollow shaft**

The hollow shaft hole tolerance is ISO H7. The tolerance of the machine shaft must be ISO k6.

Take care to align the machine shaft with the gearbox hollow shaft when attaching the gearbox.

Maximum deviation ≤ 0.03 mm.

For simpler assembly and disassembly of the machine shaft, the hollow shafts are equipped with a spiral groove (as a grease deposit).

A hardened, threaded keeper plate is included in the scope of delivery. You also have the option to order the hollow shaft without a keeper plate.

**Hollow shaft with shrink ring**

The tolerance of the hollow shaft hole is ISO H7.

The machine shaft must be ISO h9.

Select a material for the machine shaft with a permitted surface pressure of p ≥ 325 N/mm$^2$.

Possible materials:

- C45E +QT
- 42CrMo4

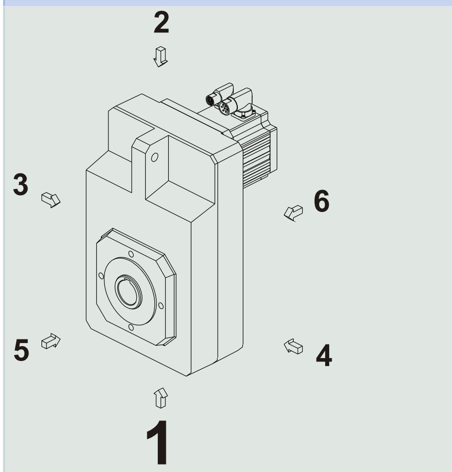
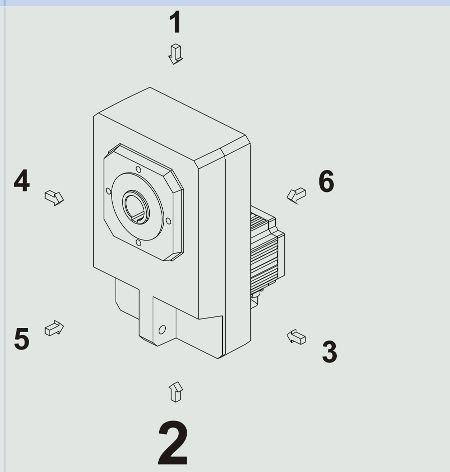
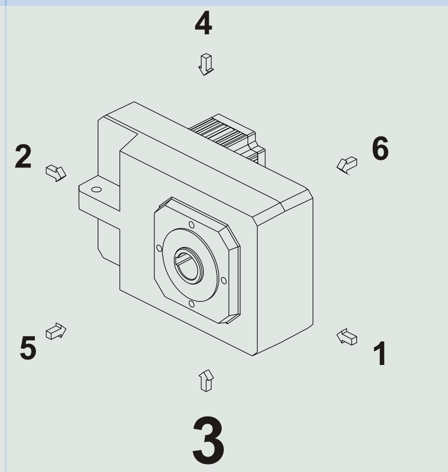
**Fastening the gearboxes on the machine side using the pitch circle diameter**

The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 10.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

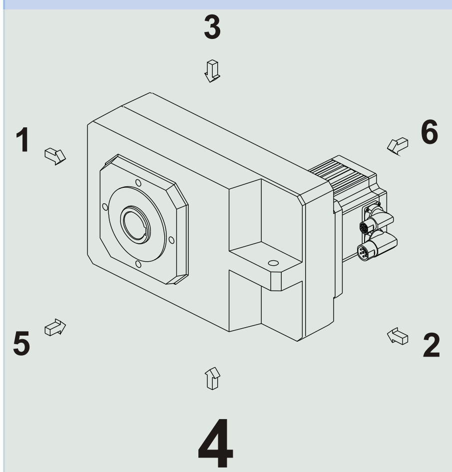
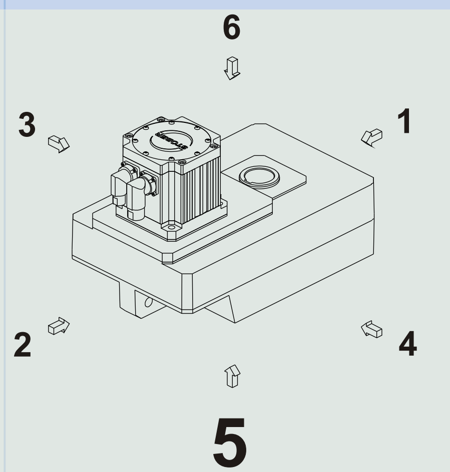
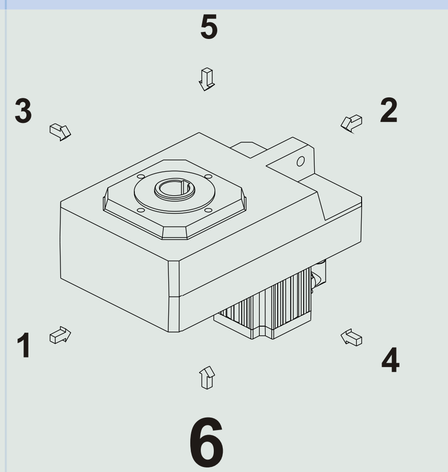
## 8.5.5 Mounting positions

The following table shows the standard mounting positions.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

| EL1 | EL2 | EL3 |
|---|---|---|
|  |  |  |



| EL4 | EL5 | EL6 |
|---|---|---|
|  |  |  |



Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

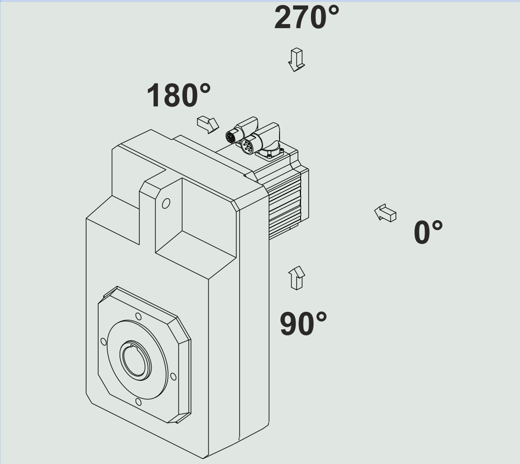
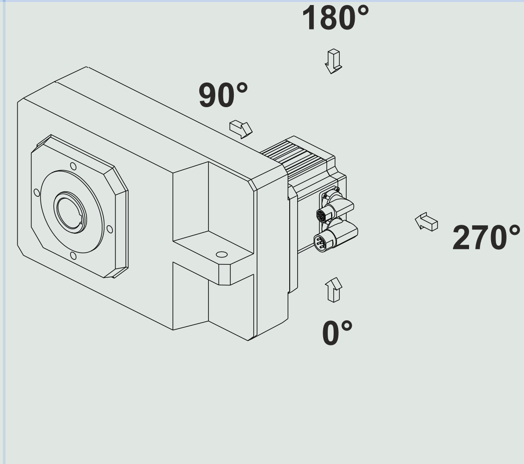
## 8.5.6 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 8.5.7 Position of the plug connectors

<table>
<tr><th>Mounting position EL1<br>Plug connector in 270° position (standard)</th><th>Mounting position EL4<br>Plug connector in 270° position (standard)</th></tr>
<tr><td>
</td><td>
</td></tr>
</table>

Indicate variations for your geared motor in the order.

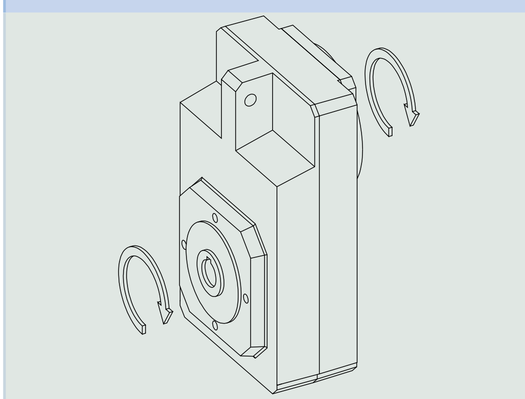
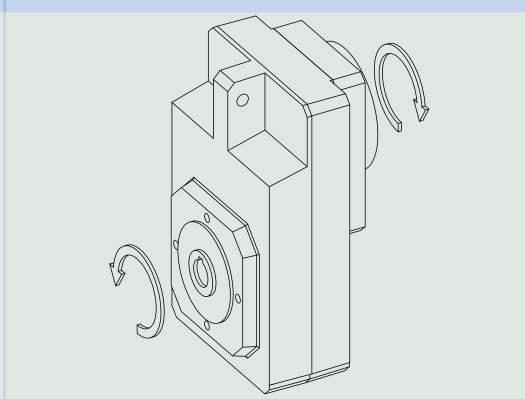
Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

## 8.5.8 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 80 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ two-stage | 97% |
| $\eta_{get}$ three-stage | 96% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 8.5.9 Direction of rotation

**Solid shaft (V), hollow shaft with keyway (A), hollow shaft with shrink ring (S)**

| F102 – F602 | F203 – F603 |
|---|---|
|  |  |
| The input and output rotate in the same direction. | The input and output rotate in opposite directions. |

The pictures show mounting position EL1.

[1] Observe the protection class of all the components.

## 8.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

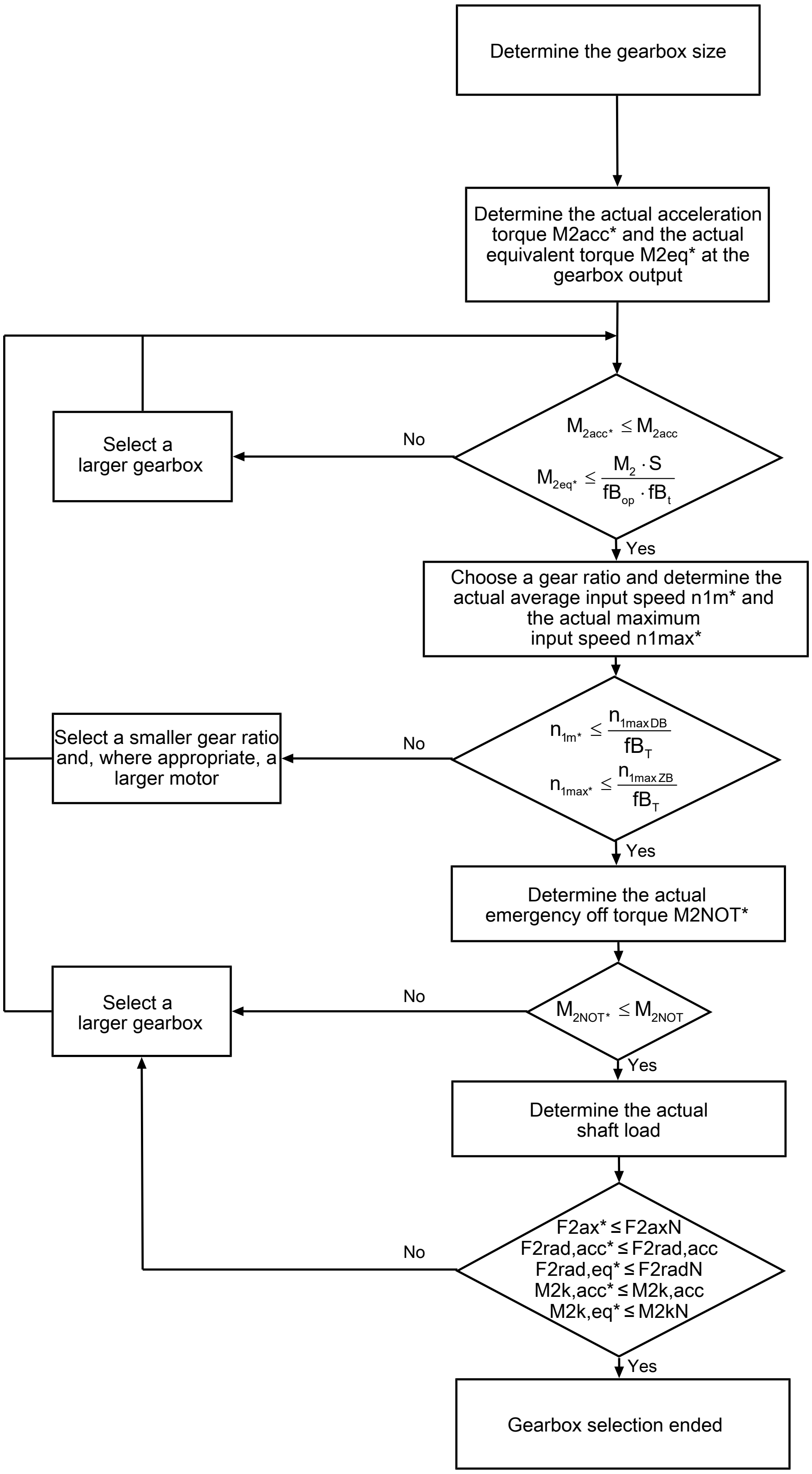
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▶ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 8.6.1 Drive selection

**Drive selection for gearboxes**

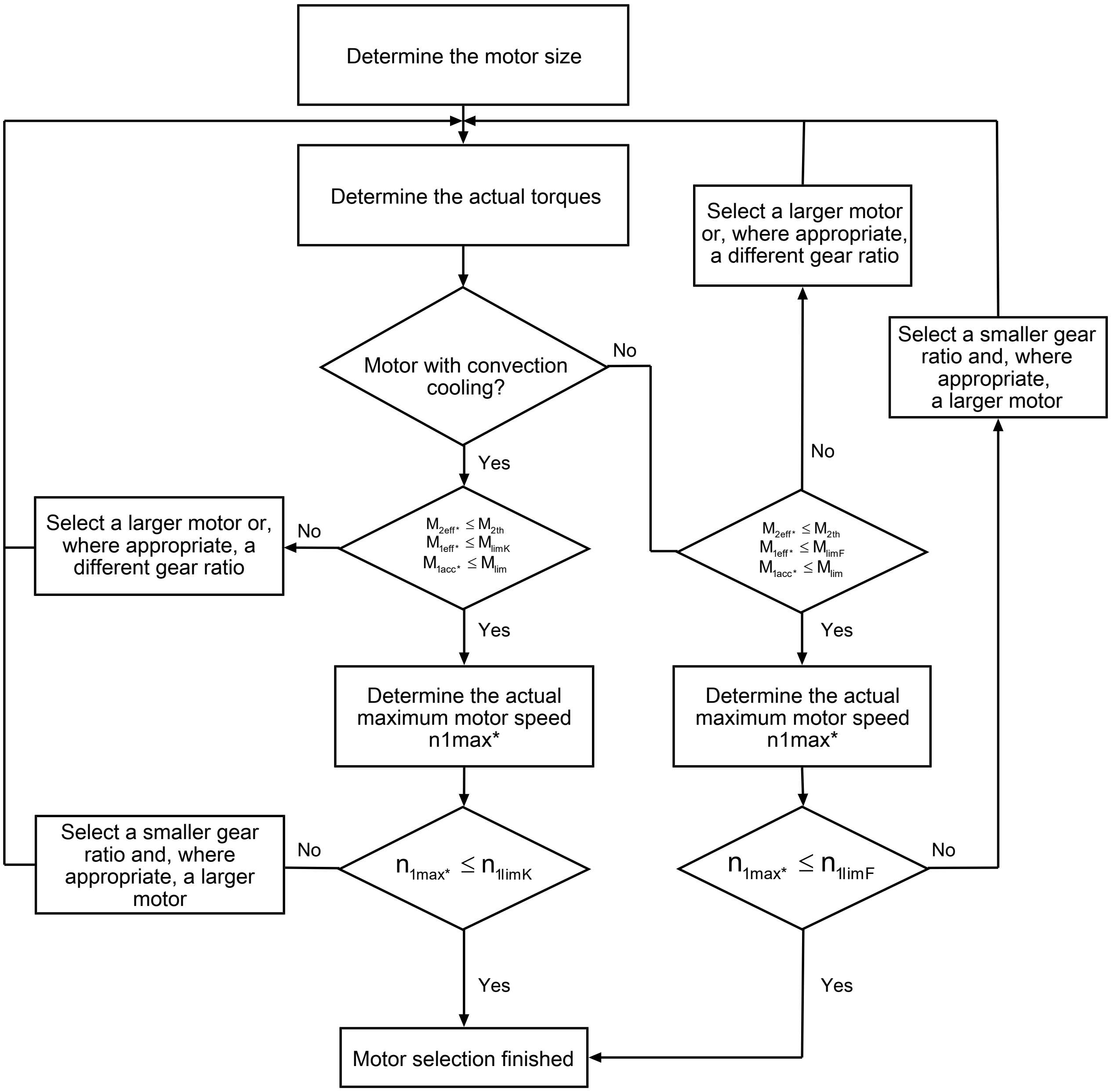



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$, $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$ and $fB_t$ can be found in the corresponding tables in this chapter.

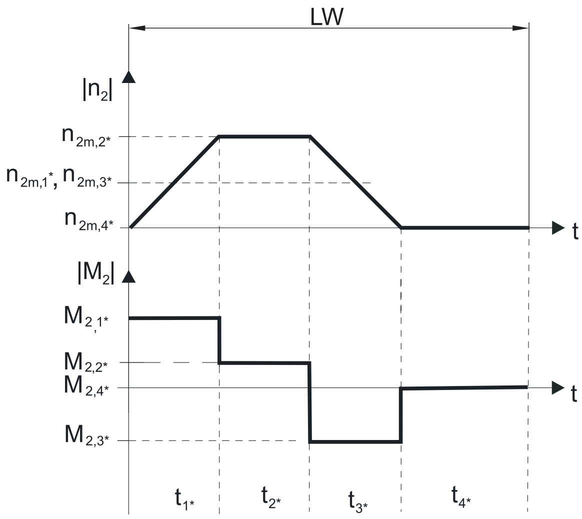
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc^*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L^*}$$

$$M_{1acc^*} = \frac{M_{2acc^*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m^*} = n_{2m^*} \cdot i$$

$$n_{2m^*} = \frac{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}{t_{1^*} + \ldots + t_{n^*}}$$

If $t_{1^*} + \ldots + t_{3^*} \geq 6$ min, calculate $n_{2m^*}$ without the rest phase $t_{4^*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff^*} = \sqrt{\frac{t_{1^*} \cdot M_{2,1^*}{}^2 + \ldots + t_{n^*} \cdot M_{2,n^*}{}^2}{t_{1^*} + \ldots + t_{n^*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT^*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L^*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m^*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m^*}$ accordingly or select another geared motor size.)

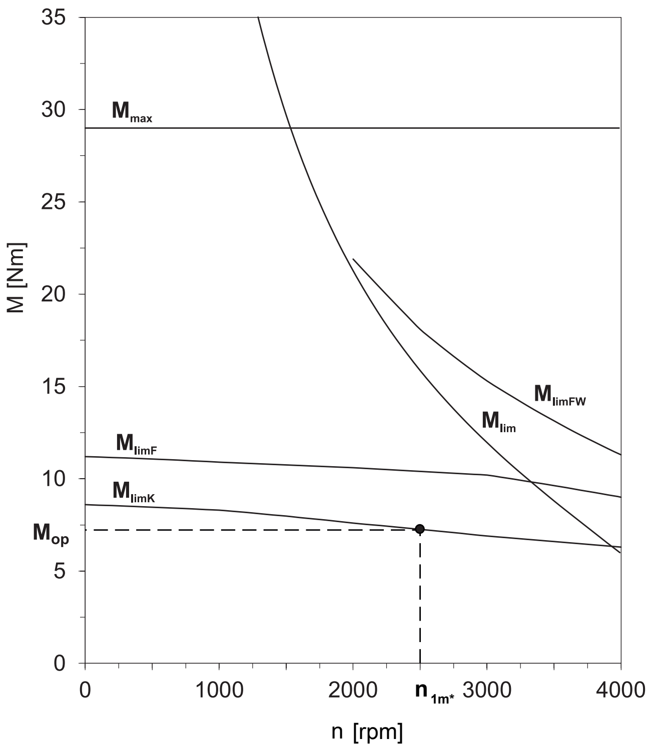
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}95 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m^*}}{1000}\right)^3$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

**Parameter $a_{thEL}$**

| Mounting position | $a_{thEL}$ |
|---|---|
| EL1, 2, 5, 6 | 1.0 |
| EL3, 4 | 1.1 |

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 8.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 20$ rpm ($F_{2axN} = F_{2ax20}$; $F_{2radN} = F_{2rad20}$; $M_{2kN} = M_{2k20}$)
- Only if radial forces on the gearbox are stabilized by its pilots for the pitch circle diameter and flange housing design

### 8.6.2.1 V shaft design

**Permitted shaft loads for V shaft design (solid shaft)**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| F1 | 35.0 | 1100 | 4200 | 4200 | 260 | 260 |
| F2 | 41.0 | 1400 | 5400 | 5400 | 400 | 400 |
| F3 | 43.0 | 1900 | 7500 | 7500 | 600 | 600 |
| F4 | 44.0 | 2350 | 9250 | 9250 | 800 | 800 |
| F6 | 44.0 | 3100 | 12500 | 12500 | 1200 | 1200 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 20$ rpm:**

$$F_{2axN} = \frac{F_{2ax20}}{\sqrt[3]{\frac{n_{2m*}}{20\,\text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad20}}{\sqrt[3]{\frac{n_{2m*}}{20\,\text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k20}}{\sqrt[3]{\frac{n_{2m*}}{20\,\text{rpm}}}}$$

The values for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ can be found in the table "Permitted shaft loads" in this chapter.

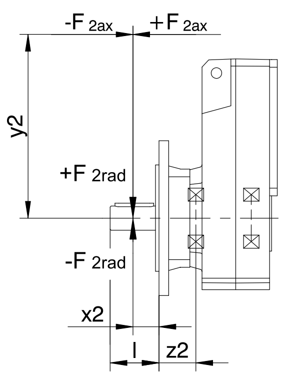



*Fig. 1:* Force application points for solid shaft

The specified values for $F_{2rad20}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

### 8.6.2.2 A and S shaft design

**Permitted shaft loads for A shaft design (hollow shaft with keyway)**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| F1 | 30.0 | 900 | 4200 | 4200 | 175 | 175 |
| F2 | 33.0 | 1200 | 5400 | 5400 | 250 | 250 |
| F3 | 33.0 | 1350 | 7500 | 7500 | 375 | 375 |
| F4 | 39.0 | 1900 | 9250 | 9250 | 550 | 550 |
| F6 | 45.0 | 2200 | 12500 | 12500 | 800 | 800 |

**Permitted shaft loads for S shaft design (hollow shaft with shrink ring)**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| F1 | 30.0 | 900 | 4200 | 4200 | 175 | 175 |
| F2 | 33.0 | 1200 | 5400 | 5400 | 250 | 250 |
| F3 | 33.0 | 1350 | 7500 | 7500 | 375 | 375 |
| F4 | 39.0 | 1900 | 9250 | 9250 | 550 | 550 |
| F6 | 45.0 | 2200 | 12500 | 12500 | 800 | 800 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 20 rpm:**

$$F_{2axN} = \frac{F_{2ax20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}}$$

The values for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ can be found in the table "Permitted shaft loads" in this chapter.

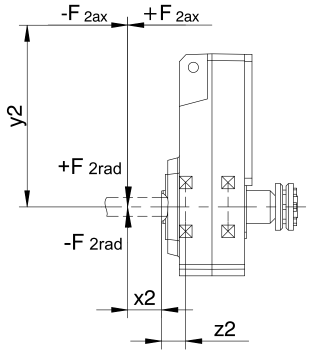



*Fig. 2:* Force application points for hollow shaft

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

### 8.6.3 Radial shaft seal rings

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

## 8.7 Additional documentation

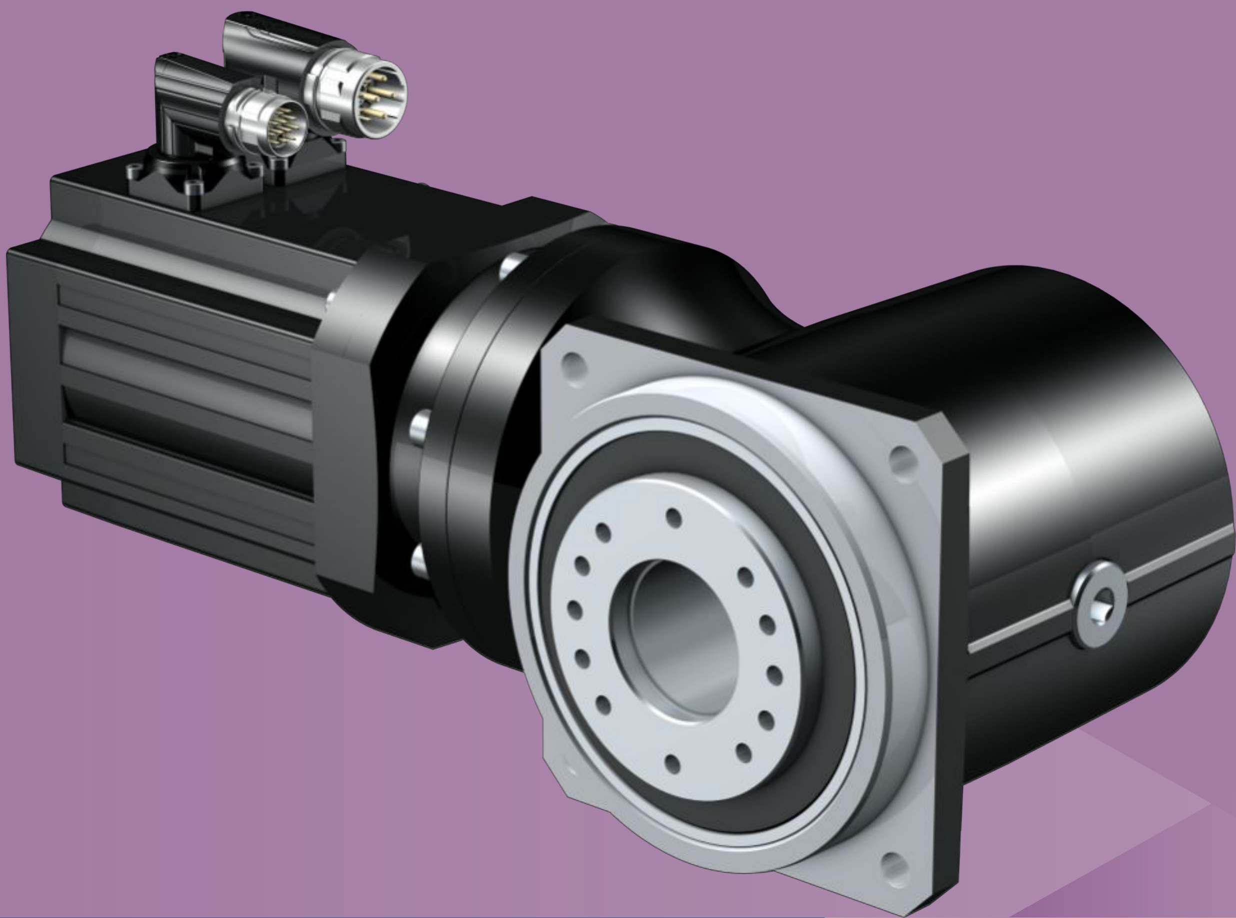
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors F | 443366_en |

# 9 KS right-angle servo geared motors

## Table of contents



9

# Right-angle servo geared motors

# KS

## 9.1 Overview

Precision right-angle servo geared motors

**Features**

| | |
|---|---|
| Power density | ★★★☆☆ |
| Backlash | ★★★☆☆ |
| Price category | €€€ |
| Shaft load | ★★★★★ |
| Smooth operation | ★★★★☆ |
| Torsional stiffness | ★★★☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| FKM seal ring at the input | ✓ |
| Stiff output bearings due to pretension | ✓ |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 2 – 100 |
| $M_{2acc}$ | 9.7 – 400 Nm |
| $\Delta\phi_2$ | 3 – 7 arcmin |
| $\eta_{get}$ | 93 – 97 % |

# 9.2 Selection tables

The technical data specified in the selection tables applies to:

- Hollow shaft design with shrink ring (S)
- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**) as well as all other technical data, refer to
https://configurator.stoeber.de/en-US/

An explanation of the formula symbols can be found in Chapter [▶ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **KS3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 45 Nm)** | | | | | | | | | | | | | | | |
| 1500 | 4.0 | 4.2 | 56 | 4.5 | KS311_0020 MF EZ303U | 14 | 40 | 2.000 | 2/1 | 3200 | 6000 | 1.5 | 6.0 | 2.3 | 6.5 |
| 1500 | 5.4 | 5.8 | 76 | 3.4 | KS311_0020 MF EZ401U | 16 | 40 | 2.000 | 2/1 | 3200 | 6000 | 2.0 | 6.0 | 2.3 | 7.9 |
| 1500 | 9.1 | 10 | 128 | 2.0 | KS311_0020 MF EZ402U | 31 | 40 | 2.000 | 2/1 | 3200 | 6000 | 2.7 | 6.0 | 2.3 | 9.0 |
| 1500 | 13 | 17 | 187 | 1.4 | KS311_0020 MF EZ404U | 32 | 40 | 2.000 | 2/1 | 3200 | 6000 | 4.1 | 6.0 | 2.3 | 11 |
| 750 | 6.2 | 6.5 | 86 | 3.0 | KS311_0040 MF EZ302U | 19 | 64 | 4.000 | 4/1 | 4000 | 6000 | 0.96 | 6.0 | 3.0 | 6.0 |
| 750 | 8.0 | 8.5 | 112 | 2.3 | KS311_0040 MF EZ303U | 27 | 64 | 4.000 | 4/1 | 4000 | 6000 | 1.1 | 6.0 | 3.0 | 6.5 |
| 750 | 11 | 12 | 152 | 1.7 | KS311_0040 MF EZ401U | 32 | 64 | 4.000 | 4/1 | 4000 | 6000 | 1.6 | 6.0 | 3.0 | 7.9 |
| 750 | 18 | 20 | 255 | 1.0 | KS311_0040 MF EZ402U | 32 | 64 | 4.000 | 4/1 | 4000 | 6000 | 2.3 | 6.0 | 3.0 | 9.0 |
| 3000 | 2.9 | 3.3 | 51 | 5.0 | KS311_0020 MF EZ302U | 9.7 | 40 | 2.000 | 2/1 | 3200 | 6000 | 1.4 | 6.0 | 2.3 | 6.0 |
| 3000 | 3.8 | 4.4 | 67 | 3.8 | KS311_0020 MF EZ303U | 14 | 40 | 2.000 | 2/1 | 3200 | 6000 | 1.5 | 6.0 | 2.3 | 6.5 |
| 3000 | 4.5 | 5.4 | 79 | 3.2 | KS311_0020 MF EZ401U | 16 | 40 | 2.000 | 2/1 | 3200 | 6000 | 2.0 | 6.0 | 2.3 | 7.9 |
| 3000 | 6.8 | 9.5 | 120 | 2.1 | KS311_0020 MF EZ402U | 31 | 40 | 2.000 | 2/1 | 3200 | 6000 | 2.7 | 6.0 | 2.3 | 9.0 |
| 3000 | 11 | 16 | 198 | 1.3 | KS311_0020 MF EZ404U | 32 | 40 | 2.000 | 2/1 | 3200 | 6000 | 4.1 | 6.0 | 2.3 | 11 |
| 1500 | 3.5 | 3.7 | 61 | 4.2 | KS311_0040 MF EZ301U | 11 | 64 | 4.000 | 4/1 | 4000 | 6000 | 0.86 | 6.0 | 3.0 | 5.4 |
| 1500 | 5.8 | 6.5 | 103 | 2.5 | KS311_0040 MF EZ302U | 19 | 64 | 4.000 | 4/1 | 4000 | 6000 | 0.96 | 6.0 | 3.0 | 6.0 |
| 1500 | 7.6 | 8.7 | 134 | 1.9 | KS311_0040 MF EZ303U | 27 | 64 | 4.000 | 4/1 | 4000 | 6000 | 1.1 | 6.0 | 3.0 | 6.5 |
| 1500 | 8.9 | 11 | 157 | 1.6 | KS311_0040 MF EZ401U | 32 | 64 | 4.000 | 4/1 | 4000 | 6000 | 1.6 | 6.0 | 3.0 | 7.9 |
| 1500 | 14 | 19 | 239 | 1.1 | KS311_0040 MF EZ402U | 32 | 64 | 4.000 | 4/1 | 4000 | 6000 | 2.3 | 6.0 | 3.0 | 9.0 |
| **KS3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 45 Nm)** | | | | | | | | | | | | | | | |
| 1500 | 9.1 | 10 | 72 | 4.4 | KS411_0020 MF EZ402U | 31 | 100 | 2.000 | 2/1 | 2500 | 5000 | 5.4 | 5.0 | 5.2 | 13 |
| 1500 | 13 | 17 | 105 | 3.0 | KS411_0020 MF EZ404U | 56 | 100 | 2.000 | 2/1 | 2500 | 5000 | 6.7 | 5.0 | 5.2 | 15 |
| 1500 | 8.3 | 9.1 | 65 | 4.8 | KS411_0020 MF EZ501U | 31 | 100 | 2.000 | 2/1 | 2500 | 5000 | 6.6 | 5.0 | 5.2 | 13 |
| 1500 | 14 | 16 | 113 | 2.8 | KS411_0020 MF EZ502U | 60 | 100 | 2.000 | 2/1 | 2500 | 5000 | 8.9 | 5.0 | 5.2 | 14 |
| 1500 | 19 | 22 | 148 | 2.1 | KS411_0020 MF EZ503U | 80 | 100 | 2.000 | 2/1 | 2500 | 5000 | 11 | 5.0 | 5.2 | 16 |
| 1500 | 26 | 31 | 206 | 1.5 | KS411_0020 MF EZ505U | 80 | 100 | 2.000 | 2/1 | 2500 | 5000 | 16 | 5.0 | 5.2 | 19 |
| 750 | 11 | 12 | 85 | 3.7 | KS411_0040 MF EZ401U | 33 | 130 | 4.000 | 4/1 | 3500 | 6000 | 2.9 | 5.0 | 7.2 | 12 |
| 750 | 18 | 20 | 143 | 2.2 | KS411_0040 MF EZ402U | 62 | 130 | 4.000 | 4/1 | 3500 | 6000 | 3.6 | 5.0 | 7.2 | 13 |
| 750 | 27 | 33 | 210 | 1.5 | KS411_0040 MF EZ404U | 65 | 130 | 4.000 | 4/1 | 3500 | 6000 | 5.0 | 5.0 | 7.2 | 15 |
| 750 | 17 | 18 | 131 | 2.4 | KS411_0040 MF EZ501U | 62 | 130 | 4.000 | 4/1 | 3500 | 6000 | 4.9 | 5.0 | 7.2 | 13 |
| 750 | 29 | 31 | 225 | 1.4 | KS411_0040 MF EZ502U | 65 | 130 | 4.000 | 4/1 | 3500 | 6000 | 7.2 | 5.0 | 7.2 | 14 |
| 750 | 38 | 43 | 296 | 1.1 | KS411_0040 MF EZ503U | 65 | 130 | 4.000 | 4/1 | 3500 | 6000 | 9.6 | 5.0 | 7.2 | 16 |
| 1500 | 8.9 | 11 | 88 | 3.5 | KS411_0040 MF EZ401U | 33 | 130 | 4.000 | 4/1 | 3500 | 6000 | 2.9 | 5.0 | 7.2 | 12 |
| 1500 | 14 | 19 | 134 | 2.3 | KS411_0040 MF EZ402U | 62 | 130 | 4.000 | 4/1 | 3500 | 6000 | 3.6 | 5.0 | 7.2 | 13 |
| 1500 | 23 | 33 | 223 | 1.4 | KS411_0040 MF EZ404U | 65 | 130 | 4.000 | 4/1 | 3500 | 6000 | 5.0 | 5.0 | 7.2 | 15 |
| 1500 | 13 | 17 | 130 | 2.4 | KS411_0040 MF EZ501U | 62 | 130 | 4.000 | 4/1 | 3500 | 6000 | 4.9 | 5.0 | 7.2 | 13 |
| 1500 | 20 | 30 | 200 | 1.6 | KS411_0040 MF EZ502U | 65 | 130 | 4.000 | 4/1 | 3500 | 6000 | 7.2 | 5.0 | 7.2 | 14 |
| 1500 | 24 | 41 | 238 | 1.3 | KS411_0040 MF EZ503U | 65 | 130 | 4.000 | 4/1 | 3500 | 6000 | 9.6 | 5.0 | 7.2 | 16 |
| 1500 | 19 | 22 | 87 | 4.2 | KS511_0020 MF EZ503U | 83 | 225 | 2.000 | 2/1 | 2000 | 4600 | 19 | 4.0 | 21 | 22 |
| 1500 | 26 | 31 | 121 | 3.0 | KS511_0020 MF EZ505U | 130 | 225 | 2.000 | 2/1 | 2000 | 4600 | 24 | 4.0 | 21 | 25 |
| 1500 | 23 | 28 | 108 | 3.4 | KS511_0020 MF EZ702U | 80 | 225 | 2.000 | 2/1 | 2000 | 4600 | 25 | 4.0 | 21 | 25 |
| 1500 | 32 | 40 | 148 | 2.5 | KS511_0020 MF EZ703U | 126 | 225 | 2.000 | 2/1 | 2000 | 4600 | 33 | 4.0 | 21 | 27 |
| 1500 | 41 | 59 | 191 | 1.9 | KS511_0020 MF EZ705U | 180 | 225 | 2.000 | 2/1 | 2000 | 4600 | 45 | 4.0 | 21 | 32 |
| 750 | 17 | 18 | 77 | 4.8 | KS511_0040 MF EZ501U | 62 | 280 | 4.000 | 4/1 | 2500 | 6000 | 9.5 | 4.0 | 19 | 19 |
| 750 | 29 | 31 | 133 | 2.8 | KS511_0040 MF EZ502U | 120 | 280 | 4.000 | 4/1 | 2500 | 6000 | 12 | 4.0 | 19 | 20 |
| 750 | 38 | 43 | 174 | 2.1 | KS511_0040 MF EZ503U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 14 | 4.0 | 19 | 22 |
| 750 | 52 | 62 | 243 | 1.5 | KS511_0040 MF EZ505U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 19 | 4.0 | 19 | 25 |
| 750 | 29 | 32 | 133 | 2.8 | KS511_0040 MF EZ701U | 78 | 280 | 4.000 | 4/1 | 2500 | 6000 | 15 | 4.0 | 19 | 22 |
| 750 | 47 | 56 | 216 | 1.7 | KS511_0040 MF EZ702U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 20 | 4.0 | 19 | 25 |
| 750 | 64 | 81 | 296 | 1.2 | KS511_0040 MF EZ703U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 28 | 4.0 | 19 | 27 |
| 2250 | 18 | 30 | 98 | 3.8 | KS511_0020 MF EZ505U | 130 | 225 | 2.000 | 2/1 | 2000 | 4600 | 24 | 4.0 | 21 | 25 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 45 Nm) | | | | | | | | | | | | | | | |
| 2250 | 23 | 39 | 124 | 3.0 | KS511_0020 MF EZ703U | 126 | 225 | 2.000 | 2/1 | 2000 | 4600 | 33 | 4.0 | 21 | 27 |
| 2250 | 32 | 58 | 169 | 2.2 | KS511_0020 MF EZ705U | 180 | 225 | 2.000 | 2/1 | 2000 | 4600 | 45 | 4.0 | 21 | 32 |
| KS4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 90 Nm) | | | | | | | | | | | | | | | |
| 1125 | 37 | 59 | 195 | 1.9 | KS511_0040 MF EZ505U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 19 | 4.0 | 19 | 25 |
| 1125 | 47 | 78 | 249 | 1.5 | KS511_0040 MF EZ703U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 28 | 4.0 | 19 | 27 |
| 1125 | 64 | 116 | 337 | 1.1 | KS511_0040 MF EZ705U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 41 | 4.0 | 19 | 32 |
| 1500 | 13 | 17 | 77 | 4.8 | KS511_0040 MF EZ501U | 62 | 280 | 4.000 | 4/1 | 2500 | 6000 | 9.5 | 4.0 | 19 | 19 |
| 1500 | 20 | 30 | 118 | 3.1 | KS511_0040 MF EZ502U | 120 | 280 | 4.000 | 4/1 | 2500 | 6000 | 12 | 4.0 | 19 | 20 |
| 1500 | 24 | 41 | 140 | 2.6 | KS511_0040 MF EZ503U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 14 | 4.0 | 19 | 22 |
| 1500 | 20 | 31 | 118 | 3.1 | KS511_0040 MF EZ701U | 78 | 280 | 4.000 | 4/1 | 2500 | 6000 | 15 | 4.0 | 19 | 22 |
| 1500 | 28 | 55 | 163 | 2.3 | KS511_0040 MF EZ702U | 140 | 280 | 4.000 | 4/1 | 2500 | 6000 | 20 | 4.0 | 19 | 25 |
| 1000 | 76 | 85 | 425 | 2.4 | KS711_0020 MF EZ813U | 272 | 400 | 2.000 | 2/1 | 1600 | 3500 | 140 | 3.0 | 33 | 61 |
| 1000 | 112 | 133 | 629 | 1.6 | KS711_0020 MF EZ815U | 320 | 400 | 2.000 | 2/1 | 1600 | 3500 | 203 | 3.0 | 33 | 74 |
| 500 | 151 | 170 | 849 | 1.2 | KS711_0040 MF EZ813U | 285 | 570 | 4.000 | 4/1 | 2200 | 4000 | 123 | 3.0 | 36 | 61 |
| 1500 | 32 | 40 | 206 | 5.0 | KS711_0020 MF EZ703U | 126 | 400 | 2.000 | 2/1 | 1600 | 3500 | 58 | 3.0 | 33 | 38 |
| 1500 | 41 | 59 | 265 | 3.8 | KS711_0020 MF EZ705U | 202 | 400 | 2.000 | 2/1 | 1600 | 3500 | 70 | 3.0 | 33 | 44 |
| 750 | 47 | 56 | 299 | 3.4 | KS711_0040 MF EZ702U | 159 | 570 | 4.000 | 4/1 | 2200 | 4000 | 32 | 3.0 | 36 | 36 |
| 750 | 64 | 81 | 411 | 2.5 | KS711_0040 MF EZ703U | 252 | 570 | 4.000 | 4/1 | 2200 | 4000 | 40 | 3.0 | 36 | 38 |
| 750 | 83 | 117 | 531 | 1.9 | KS711_0040 MF EZ705U | 285 | 570 | 4.000 | 4/1 | 2200 | 4000 | 52 | 3.0 | 36 | 44 |
| 1000 | 98 | 170 | 692 | 1.5 | KS711_0040 MF EZ813U | 285 | 570 | 4.000 | 4/1 | 2200 | 4000 | 123 | 3.0 | 36 | 61 |
| 1000 | 101 | 261 | 716 | 1.4 | KS711_0040 MF EZ815U | 285 | 570 | 4.000 | 4/1 | 2200 | 4000 | 186 | 3.0 | 36 | 74 |
| 375 | 7.1 | 7.2 | 3.6 | 3.4 | KS312_0080 EZ301U | 21 | 70 | 8.000 | 8/1 | 6000 | 8000 | 0.27 | 7.0 | 2.8 | 5.1 |
| 375 | 12 | 13 | 6.1 | 2.0 | KS312_0080 EZ302U | 38 | 70 | 8.000 | 8/1 | 6000 | 8000 | 0.37 | 7.0 | 2.8 | 5.7 |
| 375 | 16 | 17 | 8.0 | 1.5 | KS312_0080 EZ303U | 45 | 70 | 8.000 | 8/1 | 6000 | 8000 | 0.48 | 7.0 | 2.8 | 6.2 |
| 300 | 8.8 | 9.0 | 2.7 | 2.7 | KS312_0100 EZ301U | 27 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.24 | 7.0 | 2.8 | 5.1 |
| 300 | 15 | 16 | 4.7 | 1.6 | KS312_0100 EZ302U | 45 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.34 | 7.0 | 2.8 | 5.7 |
| 300 | 20 | 21 | 6.1 | 1.2 | KS312_0100 EZ303U | 45 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.45 | 7.0 | 2.8 | 6.2 |
| 214 | 12 | 13 | 2.0 | 1.8 | KS312_0140 EZ301U | 37 | 70 | 14.00 | 14/1 | 6000 | 8000 | 0.22 | 7.0 | 2.7 | 5.1 |
| 214 | 21 | 22 | 3.4 | 1.1 | KS312_0140 EZ302U | 45 | 70 | 14.00 | 14/1 | 6000 | 8000 | 0.32 | 7.0 | 2.7 | 5.7 |
| 188 | 14 | 14 | 7.2 | 1.7 | KS312_0160 EZ301U | 32 | 64 | 16.00 | 16/1 | 6000 | 8000 | 0.25 | 7.0 | 3.6 | 5.1 |
| 150 | 18 | 18 | 1.4 | 1.2 | KS312_0200 EZ301U | 41 | 70 | 20.00 | 20/1 | 6000 | 8000 | 0.20 | 7.0 | 2.6 | 5.1 |
| 750 | 4.6 | 5.2 | 3.0 | 4.1 | KS312_0080 EZ203U | 21 | 70 | 8.000 | 8/1 | 6000 | 8000 | 0.25 | 7.0 | 2.8 | 5.3 |
| 750 | 6.8 | 7.2 | 4.3 | 2.8 | KS312_0080 EZ301U | 21 | 70 | 8.000 | 8/1 | 6000 | 8000 | 0.27 | 7.0 | 2.8 | 5.1 |
| 750 | 11 | 13 | 7.3 | 1.7 | KS312_0080 EZ302U | 38 | 70 | 8.000 | 8/1 | 6000 | 8000 | 0.37 | 7.0 | 2.8 | 5.7 |
| 750 | 15 | 17 | 9.5 | 1.3 | KS312_0080 EZ303U | 45 | 70 | 8.000 | 8/1 | 6000 | 8000 | 0.48 | 7.0 | 2.8 | 6.2 |
| 600 | 3.8 | 4.2 | 1.5 | 5.0 | KS312_0100 EZ202U | 14 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.18 | 7.0 | 2.8 | 5.0 |
| 600 | 5.8 | 6.6 | 2.3 | 3.3 | KS312_0100 EZ203U | 26 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.22 | 7.0 | 2.8 | 5.3 |
| 600 | 8.5 | 9.0 | 3.3 | 2.2 | KS312_0100 EZ301U | 27 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.24 | 7.0 | 2.8 | 5.1 |
| 600 | 14 | 16 | 5.6 | 1.3 | KS312_0100 EZ302U | 45 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.34 | 7.0 | 2.8 | 5.7 |
| 600 | 19 | 21 | 7.3 | 1.0 | KS312_0100 EZ303U | 45 | 70 | 10.00 | 10/1 | 6000 | 8000 | 0.45 | 7.0 | 2.8 | 6.2 |
| 429 | 5.3 | 5.9 | 1.1 | 3.3 | KS312_0140 EZ202U | 20 | 70 | 14.00 | 14/1 | 6000 | 8000 | 0.15 | 7.0 | 2.7 | 5.0 |
| 429 | 8.1 | 9.2 | 1.6 | 2.2 | KS312_0140 EZ203U | 36 | 70 | 14.00 | 14/1 | 6000 | 8000 | 0.19 | 7.0 | 2.7 | 5.3 |
| 429 | 12 | 13 | 2.4 | 1.5 | KS312_0140 EZ301U | 37 | 70 | 14.00 | 14/1 | 6000 | 8000 | 0.22 | 7.0 | 2.7 | 5.1 |
| 375 | 6.1 | 6.7 | 3.9 | 3.1 | KS312_0160 EZ202U | 22 | 64 | 16.00 | 16/1 | 6000 | 8000 | 0.18 | 7.0 | 3.6 | 5.0 |
| 375 | 9.3 | 10 | 5.9 | 2.0 | KS312_0160 EZ203U | 32 | 64 | 16.00 | 16/1 | 6000 | 8000 | 0.22 | 7.0 | 3.6 | 5.3 |
| 375 | 14 | 14 | 8.7 | 1.4 | KS312_0160 EZ301U | 32 | 64 | 16.00 | 16/1 | 6000 | 8000 | 0.25 | 7.0 | 3.6 | 5.1 |
| 300 | 7.6 | 8.4 | 0.7 | 2.2 | KS312_0200 EZ202U | 28 | 70 | 20.00 | 20/1 | 6000 | 8000 | 0.14 | 7.0 | 2.6 | 5.0 |
| KS4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 90 Nm) | | | | | | | | | | | | | | | |
| 300 | 12 | 13 | 1.1 | 1.4 | KS312_0200 EZ203U | 41 | 70 | 20.00 | 20/1 | 6000 | 8000 | 0.18 | 7.0 | 2.6 | 5.3 |
| 214 | 11 | 12 | 2.0 | 1.8 | KS312_0280 EZ202U | 32 | 64 | 28.00 | 28/1 | 6000 | 8000 | 0.14 | 7.0 | 3.4 | 5.0 |
| 214 | 16 | 18 | 3.0 | 1.2 | KS312_0280 EZ203U | 32 | 64 | 28.00 | 28/1 | 6000 | 8000 | 0.18 | 7.0 | 3.4 | 5.3 |
| 150 | 15 | 17 | 1.3 | 1.2 | KS312_0400 EZ202U | 32 | 64 | 40.00 | 40/1 | 6000 | 8000 | 0.14 | 7.0 | 3.3 | 5.0 |
| 188 | 12 | 13 | 0.4 | 1.6 | KS313_0320 EZ202U | 44 | 70 | 32.00 | 32/1 | 6000 | 8000 | 0.16 | 7.0 | 2.8 | 5.5 |
| 188 | 18 | 21 | 0.6 | 1.0 | KS313_0320 EZ203U | 45 | 70 | 32.00 | 32/1 | 6000 | 8000 | 0.20 | 7.0 | 2.8 | 5.8 |
| 120 | 19 | 20 | 0.2 | 1.1 | KS313_0500 EZ202U | 45 | 70 | 50.00 | 50/1 | 6000 | 8000 | 0.15 | 7.0 | 2.8 | 5.5 |
| 500 | 12 | 12 | 6.9 | 4.0 | KS412_0060 EZ303U | 40 | 140 | 6.000 | 6/1 | 3500 | 6000 | 0.91 | 6.0 | 7.5 | 10 |
| 500 | 16 | 17 | 9.3 | 3.0 | KS412_0060 EZ401U | 48 | 140 | 6.000 | 6/1 | 3500 | 6000 | 1.4 | 6.0 | 7.5 | 12 |
| 500 | 27 | 30 | 16 | 1.8 | KS412_0060 EZ402U | 90 | 140 | 6.000 | 6/1 | 3500 | 6000 | 2.1 | 6.0 | 7.5 | 13 |
| 375 | 12 | 13 | 3.5 | 4.3 | KS412_0080 EZ302U | 38 | 140 | 8.000 | 8/1 | 4000 | 6000 | 0.56 | 6.0 | 7.4 | 9.7 |
| 375 | 16 | 17 | 4.5 | 3.3 | KS412_0080 EZ303U | 53 | 140 | 8.000 | 8/1 | 4000 | 6000 | 0.67 | 6.0 | 7.4 | 10 |
| 375 | 21 | 23 | 6.1 | 2.4 | KS412_0080 EZ401U | 65 | 140 | 8.000 | 8/1 | 4000 | 6000 | 1.2 | 6.0 | 7.4 | 12 |
| 375 | 36 | 40 | 10 | 1.4 | KS412_0080 EZ402U | 90 | 140 | 8.000 | 8/1 | 4000 | 6000 | 1.9 | 6.0 | 7.4 | 13 |
| 300 | 15 | 16 | 2.6 | 3.4 | KS412_0100 EZ302U | 48 | 140 | 10.00 | 10/1 | 4500 | 6000 | 0.46 | 6.0 | 7.3 | 9.7 |
| 300 | 20 | 21 | 3.4 | 2.6 | KS412_0100 EZ303U | 67 | 140 | 10.00 | 10/1 | 4500 | 6000 | 0.57 | 6.0 | 7.3 | 10 |
| 300 | 27 | 29 | 4.7 | 1.9 | KS412_0100 EZ401U | 81 | 140 | 10.00 | 10/1 | 4500 | 6000 | 1.1 | 6.0 | 7.3 | 12 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS4 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 90 Nm) | | | | | | | | | | | | | | | |
| 300 | 45 | 49 | 7.8 | 1.2 | KS412_0100 EZ402U | 90 | 140 | 10.00 | 10/1 | 4500 | 6000 | 1.8 | 6.0 | 7.3 | 13 |
| 250 | 11 | 11 | 5.7 | 4.9 | KS412_0120 EZ301U | 32 | 140 | 12.00 | 12/1 | 4000 | 6000 | 0.51 | 6.0 | 10 | 9.1 |
| 250 | 18 | 19 | 9.8 | 2.8 | KS412_0120 EZ302U | 57 | 140 | 12.00 | 12/1 | 4000 | 6000 | 0.61 | 6.0 | 10 | 9.7 |
| 250 | 24 | 25 | 13 | 2.2 | KS412_0120 EZ303U | 65 | 140 | 12.00 | 12/1 | 4000 | 6000 | 0.72 | 6.0 | 10 | 10 |
| 250 | 32 | 34 | 17 | 1.6 | KS412_0120 EZ401U | 65 | 140 | 12.00 | 12/1 | 4000 | 6000 | 1.2 | 6.0 | 10 | 12 |
| 214 | 12 | 13 | 1.0 | 4.2 | KS412_0140 EZ301U | 37 | 140 | 14.00 | 14/1 | 4500 | 6000 | 0.28 | 6.0 | 7.1 | 9.1 |
| 214 | 21 | 22 | 1.8 | 2.4 | KS412_0140 EZ302U | 67 | 140 | 14.00 | 14/1 | 4500 | 6000 | 0.38 | 6.0 | 7.1 | 9.7 |
| 214 | 28 | 29 | 2.3 | 1.9 | KS412_0140 EZ303U | 90 | 140 | 14.00 | 14/1 | 4500 | 6000 | 0.49 | 6.0 | 7.1 | 10 |
| 214 | 37 | 40 | 3.1 | 1.4 | KS412_0140 EZ401U | 90 | 140 | 14.00 | 14/1 | 4500 | 6000 | 1.0 | 6.0 | 7.1 | 12 |
| 188 | 14 | 14 | 4.0 | 3.7 | KS412_0160 EZ301U | 43 | 140 | 16.00 | 16/1 | 4000 | 6000 | 0.35 | 6.0 | 10 | 9.1 |
| 188 | 24 | 26 | 6.9 | 2.1 | KS412_0160 EZ302U | 65 | 140 | 16.00 | 16/1 | 4000 | 6000 | 0.45 | 6.0 | 10 | 9.7 |
| 188 | 31 | 33 | 9.0 | 1.6 | KS412_0160 EZ303U | 65 | 140 | 16.00 | 16/1 | 4000 | 6000 | 0.56 | 6.0 | 10 | 10 |
| 188 | 43 | 46 | 12 | 1.2 | KS412_0160 EZ401U | 65 | 140 | 16.00 | 16/1 | 4000 | 6000 | 1.1 | 6.0 | 10 | 12 |
| 150 | 18 | 18 | 0.7 | 2.9 | KS412_0200 EZ301U | 53 | 140 | 20.00 | 20/1 | 5000 | 6000 | 0.23 | 6.0 | 7.0 | 9.1 |
| 150 | 30 | 32 | 1.2 | 1.7 | KS412_0200 EZ302U | 90 | 140 | 20.00 | 20/1 | 5000 | 6000 | 0.33 | 6.0 | 7.0 | 9.7 |
| 150 | 39 | 42 | 1.5 | 1.3 | KS412_0200 EZ303U | 90 | 140 | 20.00 | 20/1 | 5000 | 6000 | 0.44 | 6.0 | 7.0 | 10 |
| 107 | 25 | 25 | 2.1 | 2.1 | KS412_0280 EZ301U | 65 | 140 | 28.00 | 28/1 | 4500 | 6000 | 0.24 | 6.0 | 9.6 | 9.1 |
| 107 | 42 | 45 | 3.5 | 1.2 | KS412_0280 EZ302U | 65 | 140 | 28.00 | 28/1 | 4500 | 6000 | 0.34 | 6.0 | 9.6 | 9.7 |
| 75 | 35 | 36 | 1.3 | 1.5 | KS412_0400 EZ301U | 65 | 140 | 40.00 | 40/1 | 5000 | 6000 | 0.22 | 6.0 | 9.5 | 9.1 |
| 94 | 28 | 28 | 0.3 | 2.2 | KS413_0320 EZ301U | 83 | 140 | 32.00 | 32/1 | 4000 | 6000 | 0.24 | 6.0 | 7.4 | 9.6 |
| 94 | 47 | 50 | 0.6 | 1.3 | KS413_0320 EZ302U | 90 | 140 | 32.00 | 32/1 | 4000 | 6000 | 0.34 | 6.0 | 7.4 | 10 |
| 60 | 43 | 44 | 0.2 | 1.4 | KS413_0500 EZ301U | 90 | 140 | 50.00 | 50/1 | 4500 | 6000 | 0.22 | 6.0 | 7.3 | 9.6 |
| 1000 | 8.6 | 9.6 | 6.3 | 4.4 | KS412_0060 EZ302U | 29 | 140 | 6.000 | 6/1 | 3500 | 6000 | 0.80 | 6.0 | 7.5 | 9.7 |
| 1000 | 11 | 13 | 8.2 | 3.4 | KS412_0060 EZ303U | 40 | 140 | 6.000 | 6/1 | 3500 | 6000 | 0.91 | 6.0 | 7.5 | 10 |
| 1000 | 13 | 16 | 9.6 | 2.9 | KS412_0060 EZ401U | 48 | 140 | 6.000 | 6/1 | 3500 | 6000 | 1.4 | 6.0 | 7.5 | 12 |
| 1000 | 20 | 28 | 15 | 1.9 | KS412_0060 EZ402U | 90 | 140 | 6.000 | 6/1 | 3500 | 6000 | 2.1 | 6.0 | 7.5 | 13 |
| 750 | 11 | 13 | 4.1 | 3.6 | KS412_0080 EZ302U | 38 | 140 | 8.000 | 8/1 | 4000 | 6000 | 0.56 | 6.0 | 7.4 | 9.7 |
| 750 | 15 | 17 | 5.4 | 2.7 | KS412_0080 EZ303U | 53 | 140 | 8.000 | 8/1 | 4000 | 6000 | 0.67 | 6.0 | 7.4 | 10 |
| 750 | 17 | 21 | 6.3 | 2.3 | KS412_0080 EZ401U | 65 | 140 | 8.000 | 8/1 | 4000 | 6000 | 1.2 | 6.0 | 7.4 | 12 |
| 750 | 27 | 37 | 9.6 | 1.5 | KS412_0080 EZ402U | 90 | 140 | 8.000 | 8/1 | 4000 | 6000 | 1.9 | 6.0 | 7.4 | 13 |
| 600 | 8.5 | 9.0 | 1.9 | 4.8 | KS412_0100 EZ301U | 27 | 140 | 10.00 | 10/1 | 4500 | 6000 | 0.36 | 6.0 | 7.3 | 9.1 |
| 600 | 14 | 16 | 3.1 | 2.9 | KS412_0100 EZ302U | 48 | 140 | 10.00 | 10/1 | 4500 | 6000 | 0.46 | 6.0 | 7.3 | 9.7 |
| 600 | 19 | 21 | 4.1 | 2.2 | KS412_0100 EZ303U | 67 | 140 | 10.00 | 10/1 | 4500 | 6000 | 0.57 | 6.0 | 7.3 | 10 |
| 600 | 22 | 27 | 4.8 | 1.9 | KS412_0100 EZ401U | 81 | 140 | 10.00 | 10/1 | 4500 | 6000 | 1.1 | 6.0 | 7.3 | 12 |
| 600 | 33 | 47 | 7.3 | 1.2 | KS412_0100 EZ402U | 90 | 140 | 10.00 | 10/1 | 4500 | 6000 | 1.8 | 6.0 | 7.3 | 13 |
| KS5 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 200 Nm) | | | | | | | | | | | | | | | |
| 500 | 10 | 11 | 6.9 | 4.0 | KS412_0120 EZ301U | 32 | 140 | 12.00 | 12/1 | 4000 | 6000 | 0.51 | 6.0 | 10 | 9.1 |
| 500 | 17 | 19 | 12 | 2.4 | KS412_0120 EZ302U | 57 | 140 | 12.00 | 12/1 | 4000 | 6000 | 0.61 | 6.0 | 10 | 9.7 |
| 500 | 22 | 26 | 15 | 1.8 | KS412_0120 EZ303U | 65 | 140 | 12.00 | 12/1 | 4000 | 6000 | 0.72 | 6.0 | 10 | 10 |
| 500 | 26 | 32 | 18 | 1.6 | KS412_0120 EZ401U | 65 | 140 | 12.00 | 12/1 | 4000 | 6000 | 1.2 | 6.0 | 10 | 12 |
| 500 | 40 | 56 | 27 | 1.0 | KS412_0120 EZ402U | 65 | 140 | 12.00 | 12/1 | 4000 | 6000 | 1.9 | 6.0 | 10 | 13 |
| 429 | 12 | 13 | 1.2 | 3.5 | KS412_0140 EZ301U | 37 | 140 | 14.00 | 14/1 | 4500 | 6000 | 0.28 | 6.0 | 7.1 | 9.1 |
| 429 | 20 | 22 | 2.1 | 2.1 | KS412_0140 EZ302U | 67 | 140 | 14.00 | 14/1 | 4500 | 6000 | 0.38 | 6.0 | 7.1 | 9.7 |
| 429 | 26 | 30 | 2.7 | 1.6 | KS412_0140 EZ303U | 90 | 140 | 14.00 | 14/1 | 4500 | 6000 | 0.49 | 6.0 | 7.1 | 10 |
| 429 | 31 | 37 | 3.2 | 1.3 | KS412_0140 EZ401U | 90 | 140 | 14.00 | 14/1 | 4500 | 6000 | 1.0 | 6.0 | 7.1 | 12 |
| 375 | 14 | 14 | 4.9 | 3.0 | KS412_0160 EZ301U | 43 | 140 | 16.00 | 16/1 | 4000 | 6000 | 0.35 | 6.0 | 10 | 9.1 |
| 375 | 23 | 26 | 8.2 | 1.8 | KS412_0160 EZ302U | 65 | 140 | 16.00 | 16/1 | 4000 | 6000 | 0.45 | 6.0 | 10 | 9.7 |
| 375 | 30 | 34 | 11 | 1.4 | KS412_0160 EZ303U | 65 | 140 | 16.00 | 16/1 | 4000 | 6000 | 0.56 | 6.0 | 10 | 10 |
| 375 | 35 | 43 | 13 | 1.2 | KS412_0160 EZ401U | 65 | 140 | 16.00 | 16/1 | 4000 | 6000 | 1.1 | 6.0 | 10 | 12 |
| 300 | 17 | 18 | 0.8 | 2.4 | KS412_0200 EZ301U | 53 | 140 | 20.00 | 20/1 | 5000 | 6000 | 0.23 | 6.0 | 7.0 | 9.1 |
| 300 | 29 | 32 | 1.4 | 1.4 | KS412_0200 EZ302U | 90 | 140 | 20.00 | 20/1 | 5000 | 6000 | 0.33 | 6.0 | 7.0 | 9.7 |
| 300 | 37 | 43 | 1.8 | 1.1 | KS412_0200 EZ303U | 90 | 140 | 20.00 | 20/1 | 5000 | 6000 | 0.44 | 6.0 | 7.0 | 10 |
| 214 | 24 | 25 | 2.5 | 1.7 | KS412_0280 EZ301U | 65 | 140 | 28.00 | 28/1 | 4500 | 6000 | 0.24 | 6.0 | 9.6 | 9.1 |
| 214 | 40 | 45 | 4.2 | 1.0 | KS412_0280 EZ302U | 65 | 140 | 28.00 | 28/1 | 4500 | 6000 | 0.34 | 6.0 | 9.6 | 9.7 |
| 150 | 34 | 36 | 1.6 | 1.2 | KS412_0400 EZ301U | 65 | 140 | 40.00 | 40/1 | 5000 | 6000 | 0.22 | 6.0 | 9.5 | 9.1 |
| 188 | 12 | 13 | 0.2 | 4.0 | KS413_0320 EZ202U | 44 | 140 | 32.00 | 32/1 | 4000 | 6000 | 0.18 | 6.0 | 7.4 | 9.6 |
| 188 | 18 | 21 | 0.3 | 2.6 | KS413_0320 EZ203U | 80 | 140 | 32.00 | 32/1 | 4000 | 6000 | 0.22 | 6.0 | 7.4 | 9.8 |
| 188 | 26 | 28 | 0.4 | 1.8 | KS413_0320 EZ301U | 83 | 140 | 32.00 | 32/1 | 4000 | 6000 | 0.24 | 6.0 | 7.4 | 9.6 |
| 188 | 45 | 50 | 0.7 | 1.1 | KS413_0320 EZ302U | 90 | 140 | 32.00 | 32/1 | 4000 | 6000 | 0.34 | 6.0 | 7.4 | 10 |
| 120 | 19 | 20 | 0.1 | 2.5 | KS413_0500 EZ202U | 69 | 140 | 50.00 | 50/1 | 4500 | 6000 | 0.15 | 6.0 | 7.3 | 9.6 |
| 120 | 28 | 32 | 0.2 | 1.7 | KS413_0500 EZ203U | 90 | 140 | 50.00 | 50/1 | 4500 | 6000 | 0.19 | 6.0 | 7.3 | 9.8 |
| 120 | 41 | 44 | 0.2 | 1.1 | KS413_0500 EZ301U | 90 | 140 | 50.00 | 50/1 | 4500 | 6000 | 0.22 | 6.0 | 7.3 | 9.6 |
| 94 | 24 | 26 | 0.4 | 1.7 | KS413_0640 EZ202U | 65 | 140 | 64.00 | 64/1 | 4000 | 6000 | 0.17 | 6.0 | 10 | 9.6 |
| 94 | 36 | 41 | 0.6 | 1.1 | KS413_0640 EZ203U | 65 | 140 | 64.00 | 64/1 | 4000 | 6000 | 0.21 | 6.0 | 10 | 9.8 |
| 86 | 26 | 29 | 0.1 | 1.8 | KS413_0700 EZ202U | 90 | 140 | 70.00 | 70/1 | 4500 | 6000 | 0.14 | 6.0 | 7.3 | 9.6 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS5 ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 200 Nm) | | | | | | | | | | | | | | | |
| 86 | 40 | 45 | 0.1 | 1.2 | KS413_0700 EZ203U | 90 | 140 | 70.00 | 70/1 | 4500 | 6000 | 0.18 | 6.0 | 7.3 | 9.8 |
| 75 | 30 | 33 | 0.1 | 1.6 | KS413_0800 EZ202U | 90 | 140 | 80.00 | 80/1 | 5000 | 6000 | 0.13 | 6.0 | 9.9 | 9.6 |
| 75 | 45 | 51 | 0.1 | 1.0 | KS413_0800 EZ203U | 90 | 140 | 80.00 | 80/1 | 5000 | 6000 | 0.17 | 6.0 | 9.9 | 9.8 |
| 60 | 37 | 41 | – | 1.3 | KS413_1000 EZ202U | 90 | 140 | 100.0 | 100/1 | 5000 | 6000 | 0.13 | 6.0 | 7.3 | 9.6 |
| 500 | 16 | 17 | 6.6 | 5.0 | KS512_0060 EZ401U | 48 | 300 | 6.000 | 6/1 | 2500 | 5500 | 2.5 | 5.0 | 19 | 18 |
| 500 | 27 | 30 | 11 | 3.0 | KS512_0060 EZ402U | 91 | 300 | 6.000 | 6/1 | 2500 | 5500 | 3.2 | 5.0 | 19 | 19 |
| 500 | 39 | 49 | 16 | 2.0 | KS512_0060 EZ404U | 165 | 300 | 6.000 | 6/1 | 2500 | 5500 | 4.5 | 5.0 | 19 | 21 |
| 500 | 25 | 27 | 10 | 3.2 | KS512_0060 EZ501U | 91 | 300 | 6.000 | 6/1 | 2500 | 5500 | 4.4 | 5.0 | 19 | 19 |
| 500 | 42 | 46 | 17 | 1.9 | KS512_0060 EZ502U | 177 | 300 | 6.000 | 6/1 | 2500 | 5500 | 6.7 | 5.0 | 19 | 20 |
| 500 | 55 | 63 | 23 | 1.4 | KS512_0060 EZ503U | 200 | 300 | 6.000 | 6/1 | 2500 | 5500 | 9.1 | 5.0 | 19 | 22 |
| 500 | 77 | 91 | 32 | 1.0 | KS512_0060 EZ505U | 200 | 300 | 6.000 | 6/1 | 2500 | 5500 | 14 | 5.0 | 19 | 25 |
| 375 | 21 | 23 | 3.7 | 4.7 | KS512_0080 EZ401U | 65 | 300 | 8.000 | 8/1 | 3300 | 6000 | 1.7 | 5.0 | 18 | 18 |
| 375 | 36 | 40 | 6.3 | 2.8 | KS512_0080 EZ402U | 122 | 300 | 8.000 | 8/1 | 3300 | 6000 | 2.4 | 5.0 | 18 | 19 |
| 375 | 52 | 65 | 9.2 | 1.9 | KS512_0080 EZ404U | 200 | 300 | 8.000 | 8/1 | 3300 | 6000 | 3.8 | 5.0 | 18 | 21 |
| 375 | 33 | 36 | 5.7 | 3.0 | KS512_0080 EZ501U | 122 | 300 | 8.000 | 8/1 | 3300 | 6000 | 3.7 | 5.0 | 18 | 19 |
| 375 | 56 | 61 | 9.9 | 1.8 | KS512_0080 EZ502U | 200 | 300 | 8.000 | 8/1 | 3300 | 6000 | 6.0 | 5.0 | 18 | 20 |
| 375 | 74 | 84 | 13 | 1.3 | KS512_0080 EZ503U | 200 | 300 | 8.000 | 8/1 | 3300 | 6000 | 8.4 | 5.0 | 18 | 22 |
| 300 | 27 | 29 | 2.9 | 3.7 | KS512_0100 EZ401U | 81 | 300 | 10.00 | 10/1 | 3500 | 6000 | 1.4 | 5.0 | 17 | 18 |
| 300 | 45 | 49 | 4.8 | 2.2 | KS512_0100 EZ402U | 152 | 300 | 10.00 | 10/1 | 3500 | 6000 | 2.1 | 5.0 | 17 | 19 |
| 300 | 66 | 82 | 7.0 | 1.5 | KS512_0100 EZ404U | 200 | 300 | 10.00 | 10/1 | 3500 | 6000 | 3.5 | 5.0 | 17 | 21 |
| 300 | 41 | 45 | 4.4 | 2.4 | KS512_0100 EZ501U | 152 | 300 | 10.00 | 10/1 | 3500 | 6000 | 3.4 | 5.0 | 17 | 19 |
| 300 | 70 | 76 | 7.6 | 1.4 | KS512_0100 EZ502U | 200 | 300 | 10.00 | 10/1 | 3500 | 6000 | 5.7 | 5.0 | 17 | 20 |
| 300 | 92 | 105 | 9.9 | 1.1 | KS512_0100 EZ503U | 200 | 300 | 10.00 | 10/1 | 3500 | 6000 | 8.1 | 5.0 | 17 | 22 |
| 250 | 32 | 34 | 11 | 3.1 | KS512_0120 EZ401U | 97 | 280 | 12.00 | 12/1 | 2500 | 5500 | 1.9 | 5.0 | 17 | 18 |
| 250 | 54 | 59 | 18 | 1.9 | KS512_0120 EZ402U | 140 | 280 | 12.00 | 12/1 | 2500 | 5500 | 2.6 | 5.0 | 17 | 19 |
| 250 | 79 | 98 | 26 | 1.3 | KS512_0120 EZ404U | 140 | 280 | 12.00 | 12/1 | 2500 | 5500 | 4.0 | 5.0 | 17 | 21 |
| 250 | 49 | 54 | 16 | 2.0 | KS512_0120 EZ501U | 140 | 280 | 12.00 | 12/1 | 2500 | 5500 | 3.9 | 5.0 | 17 | 19 |
| 250 | 84 | 91 | 28 | 1.2 | KS512_0120 EZ502U | 140 | 280 | 12.00 | 12/1 | 2500 | 5500 | 6.2 | 5.0 | 17 | 20 |
| 214 | 37 | 40 | 1.9 | 2.7 | KS512_0140 EZ401U | 113 | 300 | 14.00 | 14/1 | 3700 | 6000 | 1.2 | 5.0 | 17 | 18 |
| 214 | 63 | 69 | 3.2 | 1.6 | KS512_0140 EZ402U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 1.9 | 5.0 | 17 | 19 |
| 214 | 92 | 114 | 4.7 | 1.1 | KS512_0140 EZ404U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 3.2 | 5.0 | 17 | 21 |
| 214 | 57 | 63 | 2.9 | 1.7 | KS512_0140 EZ501U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 3.2 | 5.0 | 17 | 19 |
| 214 | 98 | 106 | 5.0 | 1.0 | KS512_0140 EZ502U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 5.5 | 5.0 | 17 | 20 |
| KS5 ($n_{1N}$ = 4500 min⁻¹, $M_{2acc,max}$ = 200 Nm) | | | | | | | | | | | | | | | |
| 188 | 43 | 46 | 7.5 | 2.3 | KS512_0160 EZ401U | 129 | 280 | 16.00 | 16/1 | 3300 | 6000 | 1.4 | 5.0 | 17 | 18 |
| 188 | 71 | 79 | 13 | 1.4 | KS512_0160 EZ402U | 140 | 280 | 16.00 | 16/1 | 3300 | 6000 | 2.1 | 5.0 | 17 | 19 |
| 188 | 65 | 71 | 11 | 1.5 | KS512_0160 EZ501U | 140 | 280 | 16.00 | 16/1 | 3300 | 6000 | 3.4 | 5.0 | 17 | 19 |
| 150 | 53 | 57 | 1.2 | 1.9 | KS512_0200 EZ401U | 162 | 300 | 20.00 | 20/1 | 3700 | 6000 | 1.1 | 5.0 | 16 | 18 |
| 150 | 89 | 99 | 2.1 | 1.1 | KS512_0200 EZ402U | 200 | 300 | 20.00 | 20/1 | 3700 | 6000 | 1.8 | 5.0 | 16 | 19 |
| 150 | 82 | 89 | 1.9 | 1.2 | KS512_0200 EZ501U | 200 | 300 | 20.00 | 20/1 | 3700 | 6000 | 3.0 | 5.0 | 16 | 19 |
| 107 | 74 | 80 | 3.8 | 1.3 | KS512_0280 EZ401U | 140 | 280 | 28.00 | 28/1 | 3700 | 6000 | 1.1 | 5.0 | 15 | 18 |
| 94 | 28 | 28 | 0.2 | 4.3 | KS513_0320 EZ301U | 83 | 300 | 32.00 | 32/1 | 3500 | 6000 | 0.34 | 5.0 | 18 | 16 |
| KS5 ($n_{1N}$ = 6000 min⁻¹, $M_{2acc,max}$ = 200 Nm) | | | | | | | | | | | | | | | |
| 94 | 47 | 50 | 0.3 | 2.5 | KS513_0320 EZ302U | 149 | 300 | 32.00 | 32/1 | 3500 | 6000 | 0.44 | 5.0 | 18 | 17 |
| 94 | 62 | 65 | 0.4 | 1.9 | KS513_0320 EZ303U | 200 | 300 | 32.00 | 32/1 | 3500 | 6000 | 0.55 | 5.0 | 18 | 17 |
| 94 | 83 | 89 | 0.6 | 1.4 | KS513_0320 EZ401U | 200 | 300 | 32.00 | 32/1 | 3500 | 6000 | 1.1 | 5.0 | 18 | 19 |
| 60 | 43 | 44 | 0.1 | 2.8 | KS513_0500 EZ301U | 130 | 300 | 50.00 | 50/1 | 3500 | 6000 | 0.27 | 5.0 | 17 | 16 |
| 60 | 74 | 78 | 0.2 | 1.6 | KS513_0500 EZ302U | 200 | 300 | 50.00 | 50/1 | 3500 | 6000 | 0.37 | 5.0 | 17 | 17 |
| 60 | 96 | 102 | 0.3 | 1.2 | KS513_0500 EZ303U | 200 | 300 | 50.00 | 50/1 | 3500 | 6000 | 0.48 | 5.0 | 17 | 17 |
| 47 | 55 | 57 | 0.5 | 1.8 | KS513_0640 EZ301U | 140 | 280 | 64.00 | 64/1 | 3300 | 6000 | 0.32 | 5.0 | 17 | 16 |
| 47 | 95 | 100 | 0.8 | 1.0 | KS513_0640 EZ302U | 140 | 280 | 64.00 | 64/1 | 3300 | 6000 | 0.42 | 5.0 | 17 | 17 |
| 43 | 61 | 62 | 0.1 | 2.0 | KS513_0700 EZ301U | 182 | 300 | 70.00 | 70/1 | 4200 | 6000 | 0.23 | 5.0 | 17 | 16 |
| 43 | 104 | 109 | 0.1 | 1.2 | KS513_0700 EZ302U | 200 | 300 | 70.00 | 70/1 | 4200 | 6000 | 0.33 | 5.0 | 17 | 17 |
| 38 | 69 | 71 | 0.1 | 1.7 | KS513_0800 EZ301U | 200 | 300 | 80.00 | 80/1 | 4200 | 6000 | 0.21 | 5.0 | 18 | 16 |
| 38 | 118 | 125 | 0.1 | 1.0 | KS513_0800 EZ302U | 200 | 300 | 80.00 | 80/1 | 4200 | 6000 | 0.31 | 5.0 | 18 | 17 |
| 30 | 86 | 88 | – | 1.4 | KS513_1000 EZ301U | 200 | 300 | 100.0 | 100/1 | 4200 | 6000 | 0.21 | 5.0 | 17 | 16 |
| 750 | 54 | 87 | 26 | 1.3 | KS512_0060 EZ505U | 200 | 300 | 6.000 | 6/1 | 2500 | 5500 | 14 | 5.0 | 19 | 25 |
| 563 | 72 | 116 | 15 | 1.2 | KS512_0080 EZ505U | 200 | 300 | 8.000 | 8/1 | 3300 | 6000 | 13 | 5.0 | 18 | 25 |
| 750 | 17 | 21 | 3.9 | 4.5 | KS512_0080 EZ401U | 65 | 300 | 8.000 | 8/1 | 3300 | 6000 | 1.7 | 5.0 | 18 | 18 |
| 750 | 27 | 37 | 5.9 | 3.0 | KS512_0080 EZ402U | 122 | 300 | 8.000 | 8/1 | 3300 | 6000 | 2.4 | 5.0 | 18 | 19 |
| 750 | 44 | 64 | 9.7 | 1.8 | KS512_0080 EZ404U | 200 | 300 | 8.000 | 8/1 | 3300 | 6000 | 3.8 | 5.0 | 18 | 21 |
| 750 | 26 | 33 | 5.7 | 3.0 | KS512_0080 EZ501U | 122 | 300 | 8.000 | 8/1 | 3300 | 6000 | 3.7 | 5.0 | 18 | 19 |
| 750 | 40 | 59 | 8.7 | 2.0 | KS512_0080 EZ502U | 200 | 300 | 8.000 | 8/1 | 3300 | 6000 | 6.0 | 5.0 | 18 | 20 |
| 750 | 47 | 81 | 10 | 1.7 | KS512_0080 EZ503U | 200 | 300 | 8.000 | 8/1 | 3300 | 6000 | 8.4 | 5.0 | 18 | 22 |
| 600 | 22 | 27 | 3.0 | 3.6 | KS512_0100 EZ401U | 81 | 300 | 10.00 | 10/1 | 3500 | 6000 | 1.4 | 5.0 | 17 | 18 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS5 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 200 Nm) | | | | | | | | | | | | | | | |
| 600 | 33 | 47 | 4.5 | 2.4 | KS512_0100 EZ402U | 152 | 300 | 10.00 | 10/1 | 3500 | 6000 | 2.1 | 5.0 | 17 | 19 |
| 600 | 55 | 80 | 7.5 | 1.4 | KS512_0100 EZ404U | 200 | 300 | 10.00 | 10/1 | 3500 | 6000 | 3.5 | 5.0 | 17 | 21 |
| 600 | 32 | 42 | 4.4 | 2.4 | KS512_0100 EZ501U | 152 | 300 | 10.00 | 10/1 | 3500 | 6000 | 3.4 | 5.0 | 17 | 19 |
| 600 | 49 | 74 | 6.7 | 1.6 | KS512_0100 EZ502U | 200 | 300 | 10.00 | 10/1 | 3500 | 6000 | 5.7 | 5.0 | 17 | 20 |
| 600 | 59 | 101 | 8.0 | 1.3 | KS512_0100 EZ503U | 200 | 300 | 10.00 | 10/1 | 3500 | 6000 | 8.1 | 5.0 | 17 | 22 |
| 429 | 31 | 37 | 2.0 | 2.6 | KS512_0140 EZ401U | 113 | 300 | 14.00 | 14/1 | 3700 | 6000 | 1.2 | 5.0 | 17 | 18 |
| 429 | 47 | 65 | 3.0 | 1.7 | KS512_0140 EZ402U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 1.9 | 5.0 | 17 | 19 |
| 429 | 77 | 112 | 5.0 | 1.0 | KS512_0140 EZ404U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 3.2 | 5.0 | 17 | 21 |
| 429 | 45 | 59 | 2.9 | 1.7 | KS512_0140 EZ501U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 3.2 | 5.0 | 17 | 19 |
| 429 | 69 | 104 | 4.5 | 1.1 | KS512_0140 EZ502U | 200 | 300 | 14.00 | 14/1 | 3700 | 6000 | 5.5 | 5.0 | 17 | 20 |
| 375 | 35 | 43 | 7.7 | 2.3 | KS512_0160 EZ401U | 129 | 280 | 16.00 | 16/1 | 3300 | 6000 | 1.4 | 5.0 | 17 | 18 |
| 375 | 53 | 74 | 12 | 1.5 | KS512_0160 EZ402U | 140 | 280 | 16.00 | 16/1 | 3300 | 6000 | 2.1 | 5.0 | 17 | 19 |
| 375 | 52 | 67 | 11 | 1.5 | KS512_0160 EZ501U | 140 | 280 | 16.00 | 16/1 | 3300 | 6000 | 3.4 | 5.0 | 17 | 19 |
| 300 | 44 | 53 | 1.3 | 1.8 | KS512_0200 EZ401U | 162 | 300 | 20.00 | 20/1 | 3700 | 6000 | 1.1 | 5.0 | 16 | 18 |
| 300 | 67 | 93 | 2.0 | 1.2 | KS512_0200 EZ402U | 200 | 300 | 20.00 | 20/1 | 3700 | 6000 | 1.8 | 5.0 | 16 | 19 |
| 300 | 65 | 84 | 1.9 | 1.2 | KS512_0200 EZ501U | 200 | 300 | 20.00 | 20/1 | 3700 | 6000 | 3.0 | 5.0 | 16 | 19 |
| 214 | 61 | 74 | 3.9 | 1.3 | KS512_0280 EZ401U | 140 | 280 | 28.00 | 28/1 | 3700 | 6000 | 1.1 | 5.0 | 15 | 18 |
| 188 | 26 | 28 | 0.2 | 3.6 | KS513_0320 EZ301U | 83 | 300 | 32.00 | 32/1 | 3500 | 6000 | 0.34 | 5.0 | 18 | 16 |
| KS7 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 320 Nm) | | | | | | | | | | | | | | | |
| 188 | 45 | 50 | 0.4 | 2.1 | KS513_0320 EZ302U | 149 | 300 | 32.00 | 32/1 | 3500 | 6000 | 0.44 | 5.0 | 18 | 17 |
| 188 | 58 | 67 | 0.5 | 1.6 | KS513_0320 EZ303U | 200 | 300 | 32.00 | 32/1 | 3500 | 6000 | 0.55 | 5.0 | 18 | 17 |
| 188 | 68 | 83 | 0.6 | 1.4 | KS513_0320 EZ401U | 200 | 300 | 32.00 | 32/1 | 3500 | 6000 | 1.1 | 5.0 | 18 | 19 |
| KS7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm) | | | | | | | | | | | | | | | |
| 120 | 41 | 44 | 0.1 | 2.3 | KS513_0500 EZ301U | 130 | 300 | 50.00 | 50/1 | 3500 | 6000 | 0.27 | 5.0 | 17 | 16 |
| 120 | 70 | 78 | 0.2 | 1.4 | KS513_0500 EZ302U | 200 | 300 | 50.00 | 50/1 | 3500 | 6000 | 0.37 | 5.0 | 17 | 17 |
| 120 | 91 | 105 | 0.3 | 1.0 | KS513_0500 EZ303U | 200 | 300 | 50.00 | 50/1 | 3500 | 6000 | 0.48 | 5.0 | 17 | 17 |
| 94 | 53 | 57 | 0.6 | 1.5 | KS513_0640 EZ301U | 140 | 280 | 64.00 | 64/1 | 3300 | 6000 | 0.32 | 5.0 | 17 | 16 |
| 86 | 58 | 62 | 0.1 | 1.6 | KS513_0700 EZ301U | 182 | 300 | 70.00 | 70/1 | 4200 | 6000 | 0.23 | 5.0 | 17 | 16 |
| 75 | 66 | 71 | 0.1 | 1.4 | KS513_0800 EZ301U | 200 | 300 | 80.00 | 80/1 | 4200 | 6000 | 0.21 | 5.0 | 18 | 16 |
| 60 | 83 | 88 | 0.1 | 1.1 | KS513_1000 EZ301U | 200 | 300 | 100.0 | 100/1 | 4200 | 6000 | 0.21 | 5.0 | 17 | 16 |
| 500 | 42 | 46 | 24 | 3.8 | KS712_0060 EZ502U | 177 | 600 | 6.000 | 6/1 | 2200 | 5000 | 10 | 4.0 | 38 | 33 |
| 500 | 55 | 63 | 32 | 2.9 | KS712_0060 EZ503U | 245 | 600 | 6.000 | 6/1 | 2200 | 5000 | 13 | 4.0 | 38 | 34 |
| 500 | 77 | 91 | 44 | 2.1 | KS712_0060 EZ505U | 382 | 600 | 6.000 | 6/1 | 2200 | 5000 | 17 | 4.0 | 38 | 37 |
| 500 | 42 | 47 | 24 | 3.8 | KS712_0060 EZ701U | 114 | 600 | 6.000 | 6/1 | 2200 | 5000 | 13 | 4.0 | 38 | 34 |
| 500 | 68 | 82 | 39 | 2.3 | KS712_0060 EZ702U | 234 | 600 | 6.000 | 6/1 | 2200 | 5000 | 19 | 4.0 | 38 | 37 |
| 500 | 94 | 119 | 54 | 1.7 | KS712_0060 EZ703U | 371 | 600 | 6.000 | 6/1 | 2200 | 5000 | 27 | 4.0 | 38 | 39 |
| 500 | 121 | 172 | 70 | 1.3 | KS712_0060 EZ705U | 400 | 600 | 6.000 | 6/1 | 2200 | 5000 | 39 | 4.0 | 38 | 44 |
| 375 | 56 | 61 | 14 | 3.5 | KS712_0080 EZ502U | 236 | 600 | 8.000 | 8/1 | 3000 | 6000 | 7.8 | 4.0 | 38 | 33 |
| 375 | 74 | 84 | 18 | 2.7 | KS712_0080 EZ503U | 327 | 600 | 8.000 | 8/1 | 3000 | 6000 | 10 | 4.0 | 38 | 34 |
| 375 | 103 | 122 | 25 | 1.9 | KS712_0080 EZ505U | 400 | 600 | 8.000 | 8/1 | 3000 | 6000 | 15 | 4.0 | 38 | 37 |
| 375 | 56 | 63 | 14 | 3.5 | KS712_0080 EZ701U | 152 | 600 | 8.000 | 8/1 | 3000 | 6000 | 11 | 4.0 | 38 | 34 |
| 375 | 91 | 109 | 22 | 2.2 | KS712_0080 EZ702U | 312 | 600 | 8.000 | 8/1 | 3000 | 6000 | 16 | 4.0 | 38 | 37 |
| 375 | 125 | 158 | 31 | 1.6 | KS712_0080 EZ703U | 400 | 600 | 8.000 | 8/1 | 3000 | 6000 | 24 | 4.0 | 38 | 39 |
| 375 | 162 | 230 | 39 | 1.2 | KS712_0080 EZ705U | 400 | 600 | 8.000 | 8/1 | 3000 | 6000 | 37 | 4.0 | 38 | 44 |
| 300 | 41 | 45 | 6.1 | 4.9 | KS712_0100 EZ501U | 152 | 600 | 10.00 | 10/1 | 3000 | 6000 | 4.6 | 4.0 | 38 | 31 |
| 300 | 70 | 76 | 10 | 2.8 | KS712_0100 EZ502U | 295 | 600 | 10.00 | 10/1 | 3000 | 6000 | 6.9 | 4.0 | 38 | 33 |
| 300 | 92 | 105 | 14 | 2.2 | KS712_0100 EZ503U | 400 | 600 | 10.00 | 10/1 | 3000 | 6000 | 9.2 | 4.0 | 38 | 34 |
| 300 | 128 | 152 | 19 | 1.5 | KS712_0100 EZ505U | 400 | 600 | 10.00 | 10/1 | 3000 | 6000 | 14 | 4.0 | 38 | 37 |
| 300 | 70 | 79 | 10 | 2.8 | KS712_0100 EZ701U | 190 | 600 | 10.00 | 10/1 | 3000 | 6000 | 10 | 4.0 | 38 | 34 |
| 300 | 114 | 137 | 17 | 1.7 | KS712_0100 EZ702U | 390 | 600 | 10.00 | 10/1 | 3000 | 6000 | 15 | 4.0 | 38 | 37 |
| 300 | 157 | 198 | 23 | 1.3 | KS712_0100 EZ703U | 400 | 600 | 10.00 | 10/1 | 3000 | 6000 | 23 | 4.0 | 38 | 39 |
| 250 | 49 | 54 | 22 | 4.0 | KS712_0120 EZ501U | 182 | 570 | 12.00 | 12/1 | 2200 | 5000 | 5.9 | 4.0 | 40 | 31 |
| 250 | 84 | 91 | 39 | 2.4 | KS712_0120 EZ502U | 285 | 570 | 12.00 | 12/1 | 2200 | 5000 | 8.2 | 4.0 | 40 | 33 |
| 250 | 111 | 127 | 51 | 1.8 | KS712_0120 EZ503U | 285 | 570 | 12.00 | 12/1 | 2200 | 5000 | 11 | 4.0 | 40 | 34 |
| 250 | 154 | 182 | 71 | 1.3 | KS712_0120 EZ505U | 285 | 570 | 12.00 | 12/1 | 2200 | 5000 | 15 | 4.0 | 40 | 37 |
| 250 | 84 | 95 | 39 | 2.4 | KS712_0120 EZ701U | 228 | 570 | 12.00 | 12/1 | 2200 | 5000 | 11 | 4.0 | 40 | 34 |
| 250 | 137 | 164 | 63 | 1.5 | KS712_0120 EZ702U | 285 | 570 | 12.00 | 12/1 | 2200 | 5000 | 17 | 4.0 | 40 | 37 |
| 250 | 188 | 237 | 86 | 1.1 | KS712_0120 EZ703U | 285 | 570 | 12.00 | 12/1 | 2200 | 5000 | 25 | 4.0 | 40 | 39 |
| 214 | 57 | 63 | 4.1 | 3.5 | KS712_0140 EZ501U | 213 | 600 | 14.00 | 14/1 | 3200 | 6000 | 3.8 | 4.0 | 38 | 31 |
| 214 | 98 | 106 | 7.0 | 2.0 | KS712_0140 EZ502U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 6.1 | 4.0 | 38 | 33 |
| 214 | 129 | 148 | 9.2 | 1.5 | KS712_0140 EZ503U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 8.4 | 4.0 | 38 | 34 |
| 214 | 180 | 213 | 13 | 1.1 | KS712_0140 EZ505U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 13 | 4.0 | 38 | 37 |
| 214 | 98 | 110 | 7.0 | 2.0 | KS712_0140 EZ701U | 266 | 600 | 14.00 | 14/1 | 3200 | 6000 | 9.4 | 4.0 | 38 | 34 |
| 214 | 160 | 192 | 11 | 1.2 | KS712_0140 EZ702U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 15 | 4.0 | 38 | 37 |
| 188 | 65 | 71 | 16 | 3.0 | KS712_0160 EZ501U | 243 | 570 | 16.00 | 16/1 | 3000 | 6000 | 4.4 | 4.0 | 40 | 31 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **KS7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | |
| 188 | 112 | 122 | 27 | 1.8 | KS712_0160 EZ502U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 6.7 | 4.0 | 40 | 33 |
| 188 | 147 | 169 | 36 | 1.3 | KS712_0160 EZ503U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 9.1 | 4.0 | 40 | 34 |
| 188 | 112 | 126 | 27 | 1.8 | KS712_0160 EZ701U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 10 | 4.0 | 40 | 34 |
| 188 | 182 | 219 | 44 | 1.1 | KS712_0160 EZ702U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 15 | 4.0 | 40 | 37 |
| 150 | 82 | 89 | 2.7 | 2.4 | KS712_0200 EZ501U | 304 | 600 | 20.00 | 20/1 | 3300 | 6000 | 3.3 | 4.0 | 38 | 31 |
| 150 | 141 | 152 | 4.6 | 1.4 | KS712_0200 EZ502U | 400 | 600 | 20.00 | 20/1 | 3300 | 6000 | 5.6 | 4.0 | 38 | 33 |
| 150 | 184 | 211 | 6.0 | 1.1 | KS712_0200 EZ503U | 400 | 600 | 20.00 | 20/1 | 3300 | 6000 | 8.0 | 4.0 | 38 | 34 |
| 150 | 141 | 158 | 4.6 | 1.4 | KS712_0200 EZ701U | 380 | 600 | 20.00 | 20/1 | 3300 | 6000 | 8.9 | 4.0 | 38 | 34 |
| 107 | 114 | 125 | 8.1 | 1.7 | KS712_0280 EZ501U | 285 | 570 | 28.00 | 28/1 | 3300 | 6000 | 3.4 | 4.0 | 40 | 31 |
| 107 | 197 | 213 | 14 | 1.0 | KS712_0280 EZ502U | 285 | 570 | 28.00 | 28/1 | 3300 | 6000 | 5.7 | 4.0 | 40 | 33 |
| 107 | 197 | 221 | 14 | 1.0 | KS712_0280 EZ701U | 285 | 570 | 28.00 | 28/1 | 3300 | 6000 | 9.0 | 4.0 | 40 | 34 |
| 75 | 163 | 179 | 5.3 | 1.2 | KS712_0400 EZ501U | 285 | 570 | 40.00 | 40/1 | 3300 | 6000 | 3.2 | 4.0 | 40 | 31 |
| 94 | 83 | 89 | 0.4 | 2.9 | KS713_0320 EZ401U | 253 | 600 | 32.00 | 32/1 | 3000 | 6000 | 1.4 | 4.0 | 38 | 32 |
| 94 | 140 | 155 | 0.6 | 1.7 | KS713_0320 EZ402U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 2.1 | 4.0 | 38 | 33 |
| 94 | 205 | 256 | 0.9 | 1.2 | KS713_0320 EZ404U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 3.4 | 4.0 | 38 | 35 |
| 94 | 128 | 140 | 0.6 | 1.9 | KS713_0320 EZ501U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 3.3 | 4.0 | 38 | 33 |
| 94 | 220 | 238 | 1.0 | 1.1 | KS713_0320 EZ502U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 5.6 | 4.0 | 38 | 35 |
| 60 | 130 | 140 | 0.2 | 1.8 | KS713_0500 EZ401U | 395 | 600 | 50.00 | 50/1 | 3500 | 6000 | 1.2 | 4.0 | 38 | 32 |
| 60 | 219 | 242 | 0.4 | 1.1 | KS713_0500 EZ402U | 400 | 600 | 50.00 | 50/1 | 3500 | 6000 | 1.9 | 4.0 | 38 | 33 |
| 60 | 200 | 219 | 0.3 | 1.2 | KS713_0500 EZ501U | 400 | 600 | 50.00 | 50/1 | 3500 | 6000 | 3.1 | 4.0 | 38 | 33 |
| 47 | 167 | 179 | 0.9 | 1.2 | KS713_0640 EZ401U | 285 | 570 | 64.00 | 64/1 | 3000 | 6000 | 1.3 | 4.0 | 40 | 32 |
| **KS7 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 290 Nm)** | | | | | | | | | | | | | | | |
| 43 | 182 | 195 | 0.1 | 1.3 | KS713_0700 EZ401U | 400 | 600 | 70.00 | 70/1 | 3500 | 6000 | 1.1 | 4.0 | 38 | 32 |
| 38 | 208 | 223 | 0.1 | 1.1 | KS713_0800 EZ401U | 400 | 600 | 80.00 | 80/1 | 4000 | 6000 | 1.0 | 4.0 | 38 | 32 |
| **KS7 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | |
| 750 | 54 | 87 | 36 | 2.6 | KS712_0060 EZ505U | 382 | 600 | 6.000 | 6/1 | 2200 | 5000 | 17 | 4.0 | 38 | 37 |
| 750 | 69 | 114 | 45 | 2.0 | KS712_0060 EZ703U | 371 | 600 | 6.000 | 6/1 | 2200 | 5000 | 27 | 4.0 | 38 | 39 |
| 750 | 93 | 171 | 61 | 1.5 | KS712_0060 EZ705U | 400 | 600 | 6.000 | 6/1 | 2200 | 5000 | 39 | 4.0 | 38 | 44 |
| 563 | 72 | 116 | 20 | 2.4 | KS712_0080 EZ505U | 400 | 600 | 8.000 | 8/1 | 3000 | 6000 | 15 | 4.0 | 38 | 37 |
| 563 | 92 | 152 | 26 | 1.9 | KS712_0080 EZ703U | 400 | 600 | 8.000 | 8/1 | 3000 | 6000 | 24 | 4.0 | 38 | 39 |
| 563 | 125 | 228 | 35 | 1.4 | KS712_0080 EZ705U | 400 | 600 | 8.000 | 8/1 | 3000 | 6000 | 37 | 4.0 | 38 | 44 |
| 450 | 90 | 145 | 15 | 1.9 | KS712_0100 EZ505U | 400 | 600 | 10.00 | 10/1 | 3000 | 6000 | 14 | 4.0 | 38 | 37 |
| 450 | 115 | 190 | 20 | 1.5 | KS712_0100 EZ703U | 400 | 600 | 10.00 | 10/1 | 3000 | 6000 | 23 | 4.0 | 38 | 39 |
| 450 | 156 | 285 | 27 | 1.1 | KS712_0100 EZ705U | 400 | 600 | 10.00 | 10/1 | 3000 | 6000 | 36 | 4.0 | 38 | 44 |
| 375 | 108 | 174 | 57 | 1.6 | KS712_0120 EZ505U | 285 | 570 | 12.00 | 12/1 | 2200 | 5000 | 15 | 4.0 | 40 | 37 |
| 375 | 138 | 228 | 72 | 1.3 | KS712_0120 EZ703U | 285 | 570 | 12.00 | 12/1 | 2200 | 5000 | 25 | 4.0 | 40 | 39 |
| 321 | 126 | 203 | 10 | 1.4 | KS712_0140 EZ505U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 13 | 4.0 | 38 | 37 |
| 321 | 161 | 266 | 13 | 1.1 | KS712_0140 EZ703U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 22 | 4.0 | 38 | 39 |
| 281 | 144 | 233 | 40 | 1.2 | KS712_0160 EZ505U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 14 | 4.0 | 40 | 37 |
| **KS7 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | |
| 750 | 40 | 59 | 12 | 4.0 | KS712_0080 EZ502U | 236 | 600 | 8.000 | 8/1 | 3000 | 6000 | 7.8 | 4.0 | 38 | 33 |
| 750 | 47 | 81 | 14 | 3.3 | KS712_0080 EZ503U | 327 | 600 | 8.000 | 8/1 | 3000 | 6000 | 10 | 4.0 | 38 | 34 |
| 750 | 40 | 60 | 12 | 4.0 | KS712_0080 EZ701U | 152 | 600 | 8.000 | 8/1 | 3000 | 6000 | 11 | 4.0 | 38 | 34 |
| 750 | 55 | 109 | 17 | 2.9 | KS712_0080 EZ702U | 312 | 600 | 8.000 | 8/1 | 3000 | 6000 | 16 | 4.0 | 38 | 37 |
| 600 | 32 | 42 | 6.1 | 4.9 | KS712_0100 EZ501U | 152 | 600 | 10.00 | 10/1 | 3000 | 6000 | 4.6 | 4.0 | 38 | 31 |
| 600 | 49 | 74 | 9.3 | 3.2 | KS712_0100 EZ502U | 295 | 600 | 10.00 | 10/1 | 3000 | 6000 | 6.9 | 4.0 | 38 | 33 |
| 600 | 59 | 101 | 11 | 2.7 | KS712_0100 EZ503U | 400 | 600 | 10.00 | 10/1 | 3000 | 6000 | 9.2 | 4.0 | 38 | 34 |
| 600 | 49 | 75 | 9.3 | 3.2 | KS712_0100 EZ701U | 190 | 600 | 10.00 | 10/1 | 3000 | 6000 | 10 | 4.0 | 38 | 34 |
| 600 | 68 | 136 | 13 | 2.3 | KS712_0100 EZ702U | 390 | 600 | 10.00 | 10/1 | 3000 | 6000 | 15 | 4.0 | 38 | 37 |
| 429 | 45 | 59 | 4.1 | 3.5 | KS712_0140 EZ501U | 213 | 600 | 14.00 | 14/1 | 3200 | 6000 | 3.8 | 4.0 | 38 | 31 |
| 429 | 69 | 104 | 6.2 | 2.3 | KS712_0140 EZ502U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 6.1 | 4.0 | 38 | 33 |
| 429 | 82 | 141 | 7.4 | 1.9 | KS712_0140 EZ503U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 8.4 | 4.0 | 38 | 34 |
| 429 | 69 | 105 | 6.2 | 2.3 | KS712_0140 EZ701U | 266 | 600 | 14.00 | 14/1 | 3200 | 6000 | 9.4 | 4.0 | 38 | 34 |
| 429 | 96 | 190 | 8.6 | 1.6 | KS712_0140 EZ702U | 400 | 600 | 14.00 | 14/1 | 3200 | 6000 | 15 | 4.0 | 38 | 37 |
| 375 | 52 | 67 | 16 | 3.0 | KS712_0160 EZ501U | 243 | 570 | 16.00 | 16/1 | 3000 | 6000 | 4.4 | 4.0 | 40 | 31 |
| 375 | 79 | 119 | 24 | 2.0 | KS712_0160 EZ502U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 6.7 | 4.0 | 40 | 33 |
| 375 | 94 | 161 | 29 | 1.7 | KS712_0160 EZ503U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 9.1 | 4.0 | 40 | 34 |
| 375 | 79 | 120 | 24 | 2.0 | KS712_0160 EZ701U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 10 | 4.0 | 40 | 34 |
| 375 | 109 | 217 | 34 | 1.4 | KS712_0160 EZ702U | 285 | 570 | 16.00 | 16/1 | 3000 | 6000 | 15 | 4.0 | 40 | 37 |
| 300 | 65 | 84 | 2.6 | 2.4 | KS712_0200 EZ501U | 304 | 600 | 20.00 | 20/1 | 3300 | 6000 | 3.3 | 4.0 | 38 | 31 |
| 300 | 99 | 148 | 4.0 | 1.6 | KS712_0200 EZ502U | 400 | 600 | 20.00 | 20/1 | 3300 | 6000 | 5.6 | 4.0 | 38 | 33 |
| 300 | 118 | 201 | 4.8 | 1.3 | KS712_0200 EZ503U | 400 | 600 | 20.00 | 20/1 | 3300 | 6000 | 8.0 | 4.0 | 38 | 34 |
| 300 | 99 | 150 | 4.0 | 1.6 | KS712_0200 EZ701U | 380 | 600 | 20.00 | 20/1 | 3300 | 6000 | 8.9 | 4.0 | 38 | 34 |
| 300 | 137 | 272 | 5.6 | 1.2 | KS712_0200 EZ702U | 400 | 600 | 20.00 | 20/1 | 3300 | 6000 | 14 | 4.0 | 38 | 37 |
| 214 | 90 | 117 | 8.1 | 1.7 | KS712_0280 EZ501U | 285 | 570 | 28.00 | 28/1 | 3300 | 6000 | 3.4 | 4.0 | 40 | 31 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **KS7 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 400 Nm)** | | | | | | | | | | | | | | | |
| 214 | 138 | 207 | 12 | 1.1 | KS712_0280 EZ502U | 285 | 570 | 28.00 | 28/1 | 3300 | 6000 | 5.7 | 4.0 | 40 | 33 |
| 214 | 138 | 210 | 12 | 1.1 | KS712_0280 EZ701U | 285 | 570 | 28.00 | 28/1 | 3300 | 6000 | 9.0 | 4.0 | 40 | 34 |
| 150 | 129 | 167 | 5.3 | 1.2 | KS712_0400 EZ501U | 285 | 570 | 40.00 | 40/1 | 3300 | 6000 | 3.2 | 4.0 | 40 | 31 |
| 188 | 68 | 83 | 0.4 | 2.8 | KS713_0320 EZ401U | 253 | 600 | 32.00 | 32/1 | 3000 | 6000 | 1.4 | 4.0 | 38 | 32 |
| 188 | 104 | 146 | 0.6 | 1.8 | KS713_0320 EZ402U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 2.1 | 4.0 | 38 | 33 |
| 188 | 173 | 250 | 1.0 | 1.1 | KS713_0320 EZ404U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 3.4 | 4.0 | 38 | 35 |
| 188 | 101 | 131 | 0.6 | 1.9 | KS713_0320 EZ501U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 3.3 | 4.0 | 38 | 33 |
| 188 | 155 | 232 | 0.9 | 1.2 | KS713_0320 EZ502U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 5.6 | 4.0 | 38 | 35 |
| 188 | 185 | 315 | 1.1 | 1.0 | KS713_0320 EZ503U | 400 | 600 | 32.00 | 32/1 | 3000 | 6000 | 8.0 | 4.0 | 38 | 36 |
| 120 | 107 | 130 | 0.2 | 1.8 | KS713_0500 EZ401U | 395 | 600 | 50.00 | 50/1 | 3500 | 6000 | 1.2 | 4.0 | 38 | 32 |
| 120 | 163 | 228 | 0.3 | 1.2 | KS713_0500 EZ402U | 400 | 600 | 50.00 | 50/1 | 3500 | 6000 | 1.9 | 4.0 | 38 | 33 |
| 120 | 158 | 205 | 0.3 | 1.2 | KS713_0500 EZ501U | 400 | 600 | 50.00 | 50/1 | 3500 | 6000 | 3.1 | 4.0 | 38 | 33 |
| 94 | 137 | 167 | 0.9 | 1.2 | KS713_0640 EZ401U | 285 | 570 | 64.00 | 64/1 | 3000 | 6000 | 1.3 | 4.0 | 40 | 32 |
| 86 | 150 | 182 | 0.2 | 1.3 | KS713_0700 EZ401U | 400 | 600 | 70.00 | 70/1 | 3500 | 6000 | 1.1 | 4.0 | 38 | 32 |
| 75 | 171 | 208 | 0.1 | 1.1 | KS713_0800 EZ401U | 400 | 600 | 80.00 | 80/1 | 4000 | 6000 | 1.0 | 4.0 | 38 | 32 |

## 9.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

**Tolerances**

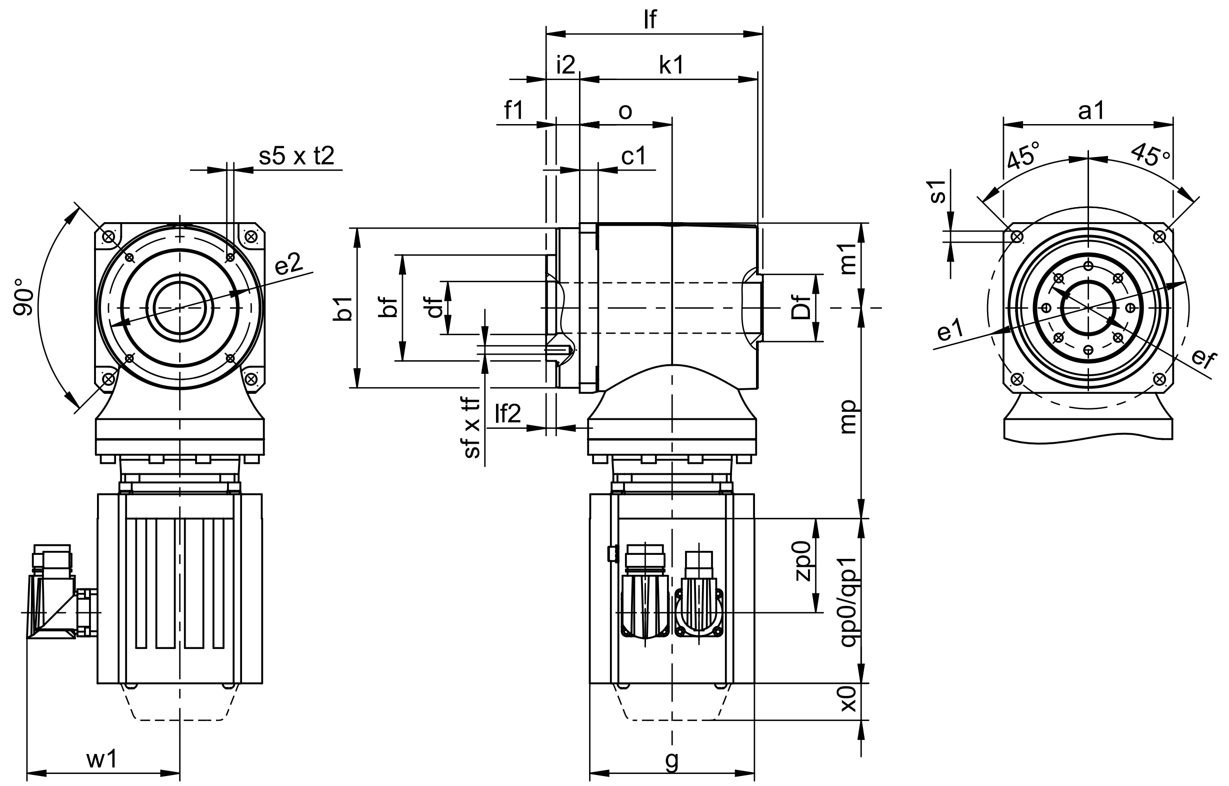
| Solid shaft | Tolerance |
|---|---|
| Shaft ∅ fit ≤ 50 mm | DIN 748-1, ISO k6 |
| Shaft ∅ fit > 50 mm | DIN 748-1, ISO m6 |
| Feather keys | DIN 6885-1, high form A |

| Hollow shaft | Tolerance |
|---|---|
| Hollow shaft hole fit | ISO H7 |
| Feather keys | DIN 6885-1, high form |

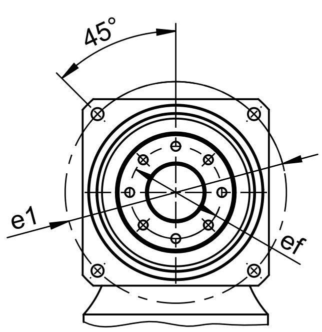
**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| | | | |
|---|---|---|---|
| **Thread size** | M8 | M12 | M16 |
| **Thread depth** | 19 | 28 | 36 |

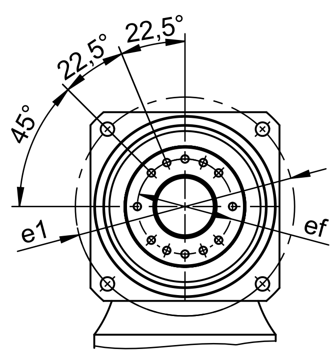
# 9.3.1 F shaft design (flange hollow shaft)



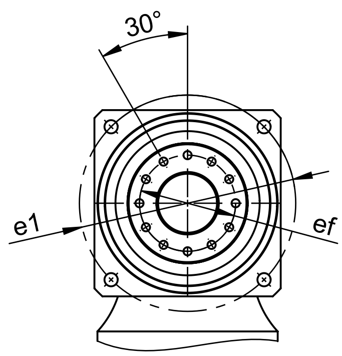

KS3/KS4




KS5




KS7




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |

**Dimensions of gearboxes**

| Type | □a1 | ∅b1 | bf | c1 | ∅df | ∅df1 | ∅Df | ∅e1 | ∅e2 | ef | f1 | i2 | k1 | lf | lf2 | m1 | o | ∅s1 | s5 | sf | t2 | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS311 | 80 | $75_{h6}$ | $40_{h7}$ | 8 | $20.0^{H7}$ | 19 | $25_{d9}$ | 90 | 68 | 31.5 | 13.0 | 16.5 | 88.5 | 107 | 3.5 | 40.0 | 43 | 6.6 | M4 | M5 | 8 | 9 |
| KS312 | 80 | $75_{h6}$ | $40_{h7}$ | 8 | $20.0^{H7}$ | 19 | $25_{d9}$ | 90 | 68 | 31.5 | 13.0 | 16.5 | 88.5 | 107 | 3.5 | 40.0 | 43 | 6.6 | M4 | M5 | 8 | 9 |
| KS313 | 80 | $75_{h6}$ | $40_{h7}$ | 8 | $20.0^{H7}$ | 19 | $25_{d9}$ | 90 | 68 | 31.5 | 13.0 | 16.5 | 88.5 | 107 | 3.5 | 40.0 | 43 | 6.6 | M4 | M5 | 8 | 9 |
| KS411 | 101 | $95_{h6}$ | $63_{h7}$ | 10 | $31.5^{H7}$ | 30 | $40_{d9}$ | 120 | 85 | 50.0 | 14.0 | 20.0 | 106.0 | 129 | 6.0 | 50.5 | 55 | 6.6 | M5 | M6 | 9 | 11 |
| KS412 | 101 | $95_{h6}$ | $63_{h7}$ | 10 | $31.5^{H7}$ | 30 | $40_{d9}$ | 120 | 85 | 50.0 | 14.0 | 20.0 | 106.0 | 129 | 6.0 | 50.5 | 55 | 6.6 | M5 | M6 | 9 | 11 |
| KS413 | 101 | $95_{h6}$ | $63_{h7}$ | 10 | $31.5^{H7}$ | 30 | $40_{d9}$ | 120 | 85 | 50.0 | 14.0 | 20.0 | 106.0 | 129 | 6.0 | 50.5 | 55 | 6.6 | M5 | M6 | 9 | 11 |
| KS511 | 125 | $120_{h6}$ | $80_{h7}$ | 10 | $40.0^{H7}$ | 38 | $50_{d9}$ | 145 | 105 | 63.0 | 15.5 | 22.0 | 125.0 | 150 | 6.5 | 62.5 | 65 | 9.0 | M6 | M6 | 12 | 12 |
| KS512 | 125 | $120_{h6}$ | $80_{h7}$ | 10 | $40.0^{H7}$ | 38 | $50_{d9}$ | 145 | 105 | 63.0 | 15.5 | 22.0 | 125.0 | 150 | 6.5 | 62.5 | 65 | 9.0 | M6 | M6 | 12 | 12 |
| KS513 | 125 | $120_{h6}$ | $80_{h7}$ | 10 | $40.0^{H7}$ | 38 | $50_{d9}$ | 145 | 105 | 63.0 | 15.5 | 22.0 | 125.0 | 150 | 6.5 | 62.5 | 65 | 9.0 | M6 | M6 | 12 | 12 |
| KS711 | 155 | $150_{h6}$ | $100_{h7}$ | 15 | $50.0^{H7}$ | 49 | $65_{d9}$ | 180 | 126 | 80.0 | 20.0 | 27.0 | 150.0 | 180 | 7.0 | 77.5 | 80 | 11.0 | M8 | M8 | 14 | 16 |
| KS712 | 155 | $150_{h6}$ | $100_{h7}$ | 15 | $50.0^{H7}$ | 49 | $65_{d9}$ | 180 | 126 | 80.0 | 20.0 | 27.0 | 150.0 | 180 | 7.0 | 77.5 | 80 | 11.0 | M8 | M8 | 14 | 16 |
| KS713 | 155 | $150_{h6}$ | $100_{h7}$ | 15 | $50.0^{H7}$ | 49 | $65_{d9}$ | 180 | 126 | 80.0 | 20.0 | 27.0 | 150.0 | 180 | 7.0 | 77.5 | 80 | 11.0 | M8 | M8 | 14 | 16 |

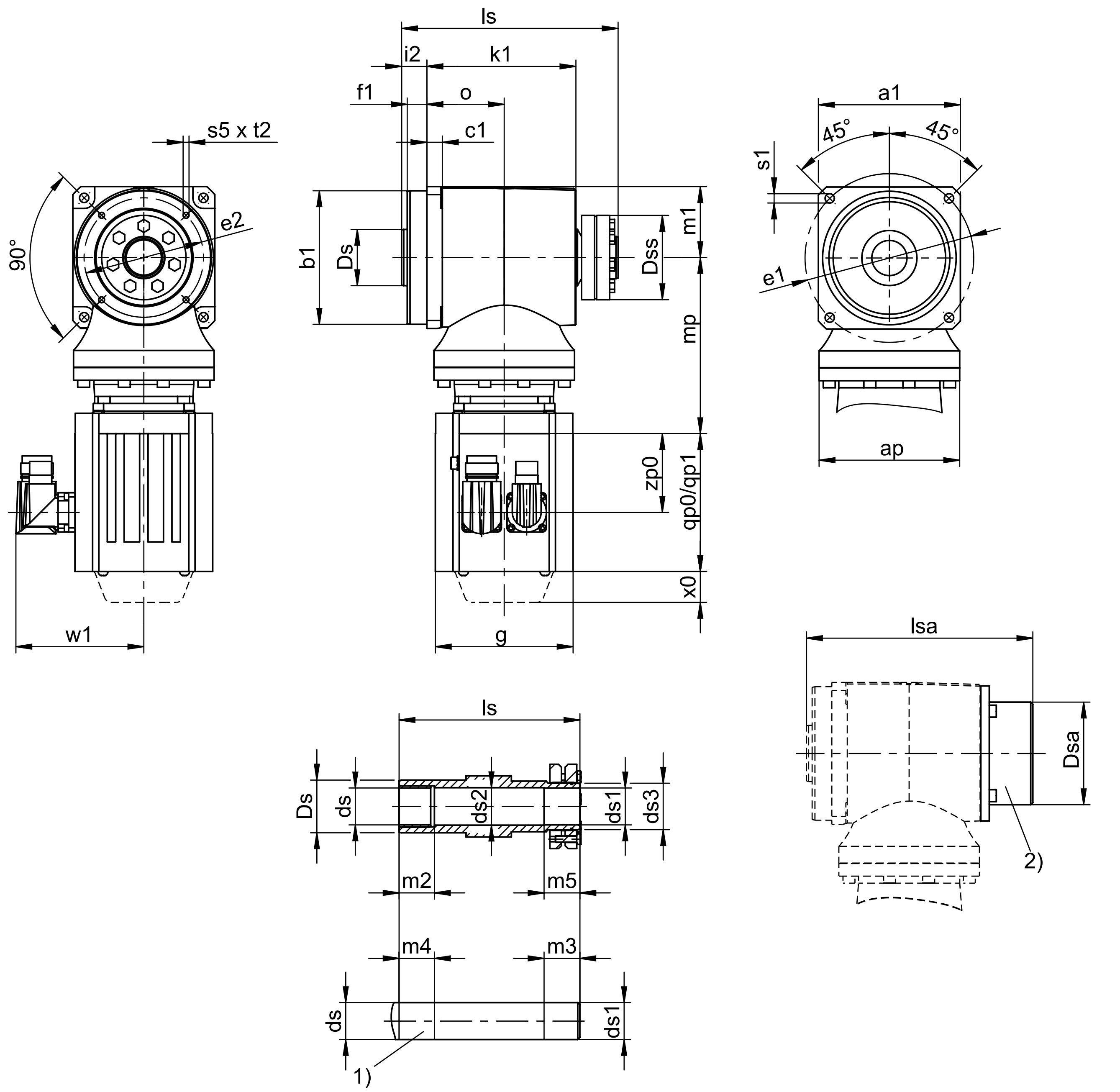
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 | EZ5 | EZ7 | EZ8 |
|---|---|---|---|---|---|---|
| | mp | mp | mp | mp | mp | mp |
| KS311 | – | 151.5 | 146.0 | – | – | – |
| KS312 | 99.0 | 112.5 | – | – | – | – |
| KS313 | 131.0 | – | – | – | – | – |
| KS411 | – | – | 165.8 | 170.3 | – | – |
| KS412 | – | 128.8 | 125.3 | – | – | – |
| KS413 | 149.8 | 163.3 | – | – | – | – |
| KS511 | – | – | – | 196.0 | 199.0 | – |
| KS512 | – | – | 154.0 | 153.5 | – | – |
| KS513 | – | 191.0 | 187.5 | – | – | – |
| KS711 | – | – | – | – | 236.0 | 242.0 |
| KS712 | – | – | – | 185.0 | 188.0 | – |
| KS713 | – | – | 227.0 | 226.5 | – | – |

## 9.3.2 S shaft design (hollow shaft with shrink disk)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [ 17.4] |
| 1) | Machine shaft: The dimension ls must be met. | 2) | Cover (optional) |

**Dimensions of gearboxes**

| Type | □a1 | Øb1 | c1 | Øds | Øds1 | Øds2 | Øds3 | ØDs | ØDsa | ØDss | Øe1 | Øe2 | f1 | i2 | k1 | ls | lsa | m1 | m2 | m3 | m4 | m5 | o | Øs1 | s5 | t2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS311 | 80 | $75_{h6}$ | 8 | $16_{h6}$ | $16_{h6}^{H7}$ | 17.5 | 20 | 25 | 59 | 47 | 90 | 68 | 13.0 | 15.0 | 88.5 | 127.5 | 133.5 | 40.0 | 16 | 32 | 20 | 27 | 43 | 6.6 | M4 | 8 |
| KS312 | 80 | $75_{h6}$ | 8 | $16_{h6}$ | $16_{h6}^{H7}$ | 17.5 | 20 | 25 | 59 | 47 | 90 | 68 | 13.0 | 15.0 | 88.5 | 127.5 | 133.5 | 40.0 | 16 | 32 | 20 | 27 | 43 | 6.6 | M4 | 8 |
| KS313 | 80 | $75_{h6}$ | 8 | $16_{h6}$ | $16_{h6}^{H7}$ | 17.5 | 20 | 25 | 59 | 47 | 90 | 68 | 13.0 | 15.0 | 88.5 | 127.5 | 133.5 | 40.0 | 16 | 32 | 20 | 27 | 43 | 6.6 | M4 | 8 |
| KS411 | 101 | $95_{h6}$ | 10 | $25_{h6}$ | $25_{h6}^{H7}$ | 25.5 | 30 | 40 | 73 | 60 | 120 | 85 | 14.0 | 18.0 | 106.0 | 154.0 | 161.0 | 50.5 | 20 | 34 | 25 | 29 | 55 | 6.6 | M5 | 9 |
| KS412 | 101 | $95_{h6}$ | 10 | $25_{h6}$ | $25_{h6}^{H7}$ | 25.5 | 30 | 40 | 73 | 60 | 120 | 85 | 14.0 | 18.0 | 106.0 | 154.0 | 161.0 | 50.5 | 20 | 34 | 25 | 29 | 55 | 6.6 | M5 | 9 |
| KS413 | 101 | $95_{h6}$ | 10 | $25_{h6}$ | $25_{h6}^{H7}$ | 25.5 | 30 | 40 | 73 | 60 | 120 | 85 | 14.0 | 18.0 | 106.0 | 154.0 | 161.0 | 50.5 | 20 | 34 | 25 | 29 | 55 | 6.6 | M5 | 9 |
| KS511 | 125 | $120_{h6}$ | 10 | $35_{h6}$ | $35_{h6}^{H7}$ | 35.5 | 44 | 50 | 92 | 80 | 145 | 105 | 15.5 | 19.5 | 125.0 | 178.5 | 185.5 | 62.5 | 30 | 39 | 35 | 34 | 65 | 9.0 | M6 | 12 |
| KS512 | 125 | $120_{h6}$ | 10 | $35_{h6}$ | $35_{h6}^{H7}$ | 35.5 | 44 | 50 | 92 | 80 | 145 | 105 | 15.5 | 19.5 | 125.0 | 178.5 | 185.5 | 62.5 | 30 | 39 | 35 | 34 | 65 | 9.0 | M6 | 12 |
| KS513 | 125 | $120_{h6}$ | 10 | $35_{h6}$ | $35_{h6}^{H7}$ | 35.5 | 44 | 50 | 92 | 80 | 145 | 105 | 15.5 | 19.5 | 125.0 | 178.5 | 185.5 | 62.5 | 30 | 39 | 35 | 34 | 65 | 9.0 | M6 | 12 |
| KS711 | 155 | $150_{h6}$ | 15 | $45_{h6}$ | $45_{h6}^{H7}$ | 45.5 | 55 | 65 | 113 | 100 | 180 | 126 | 20.0 | 24.0 | 150.0 | 214.0 | 221.0 | 77.5 | 40 | 42 | 45 | 37 | 80 | 11.0 | M8 | 14 |

| Type | □a1 | ∅b1 | c1 | ∅ds | ∅ds1 | ∅ds2 | ∅ds3 | ∅Ds | ∅Dsa | ∅Dss | ∅e1 | ∅e2 | f1 | i2 | k1 | ls | lsa | m1 | m2 | m3 | m4 | m5 | o | ∅s1 | s5 | t2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS712 | 155 | $150_{h6}$ | 15 | $45_{h6}$ | $45_{h6}^{H7}$ | 45.5 | 55 | 65 | 113 | 100 | 180 | 126 | 20.0 | 24.0 | 150.0 | 214.0 | 221.0 | 77.5 | 40 | 42 | 45 | 37 | 80 | 11.0 | M8 | 14 |
| KS713 | 155 | $150_{h6}$ | 15 | $45_{h6}$ | $45_{h6}^{H7}$ | 45.5 | 55 | 65 | 113 | 100 | 180 | 126 | 20.0 | 24.0 | 150.0 | 214.0 | 221.0 | 77.5 | 40 | 42 | 45 | 37 | 80 | 11.0 | M8 | 14 |

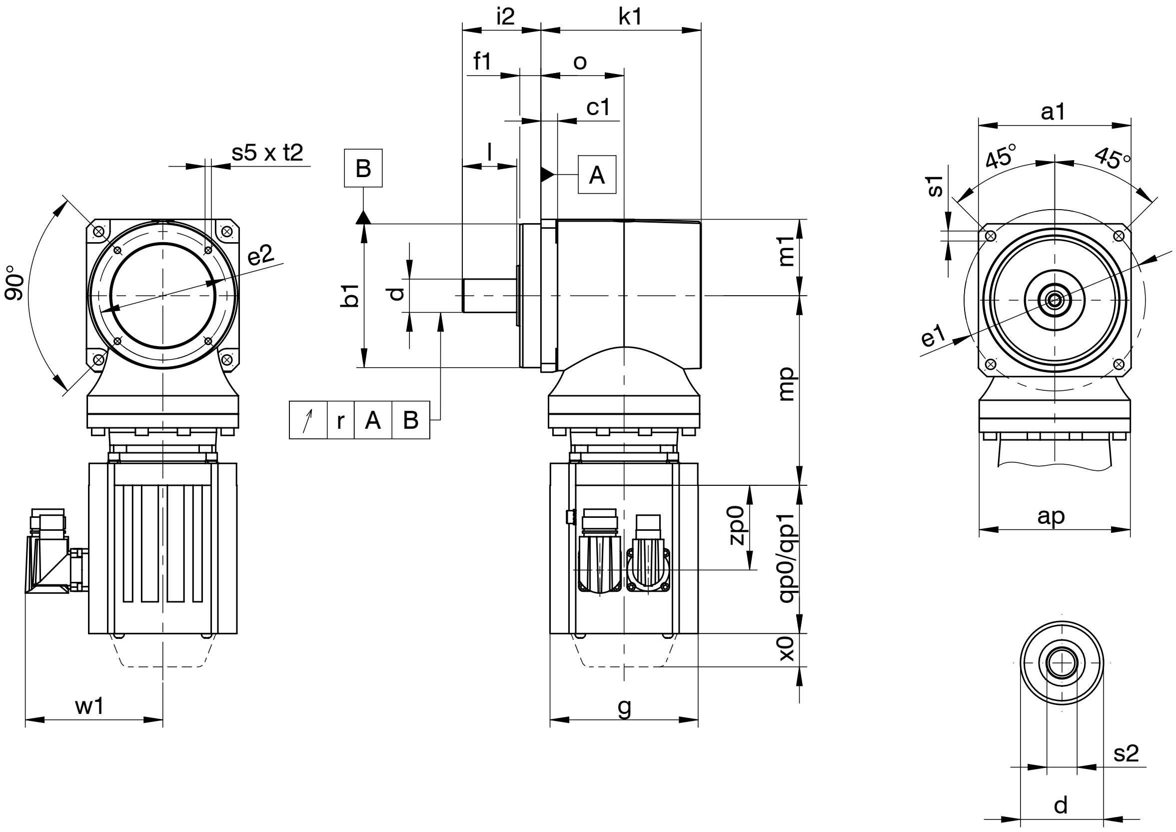
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 | EZ5 | EZ7 | EZ8 |
|---|---|---|---|---|---|---|
| | mp | mp | mp | mp | mp | mp |
| KS311 | – | 151.5 | 146.0 | – | – | – |
| KS312 | 99.0 | 112.5 | – | – | – | – |
| KS313 | 131.0 | – | – | – | – | – |
| KS411 | – | – | 165.8 | 170.3 | – | – |
| KS412 | – | 128.8 | 125.3 | – | – | – |
| KS413 | 149.8 | 163.3 | – | – | – | – |
| KS511 | – | – | – | 196.0 | 199.0 | – |
| KS512 | – | – | 154.0 | 153.5 | – | – |
| KS513 | – | 191.0 | 187.5 | – | – | – |
| KS711 | – | – | – | – | 236.0 | 242.0 |
| KS712 | – | – | – | 185.0 | 188.0 | – |
| KS713 | – | – | 227.0 | 226.5 | – | – |

## 9.3.3 G shaft design (solid shaft without feather key)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |

**Dimensions of gearboxes**

| Type | □a1 | Øb1 | c1 | Ød | Øe1 | Øe2 | f1 | i2 | l | k1 | m1 | o | r | Øs1 | s2 | s5 | t2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS311 | 80 | $75_{h6}$ | 8 | $16_{k6}$ | 90 | 68 | 13.0 | 43.0 | 28 | 88.5 | 40.0 | 43 | 0.020 | 6.6 | M5 | M4 | 8 |
| KS312 | 80 | $75_{h6}$ | 8 | $16_{k6}$ | 90 | 68 | 13.0 | 43.0 | 28 | 88.5 | 40.0 | 43 | 0.020 | 6.6 | M5 | M4 | 8 |
| KS313 | 80 | $75_{h6}$ | 8 | $16_{k6}$ | 90 | 68 | 13.0 | 43.0 | 28 | 88.5 | 40.0 | 43 | 0.020 | 6.6 | M5 | M4 | 8 |
| KS411 | 101 | $95_{h6}$ | 10 | $22_{k6}$ | 120 | 85 | 14.0 | 52.0 | 36 | 106.0 | 50.5 | 55 | 0.020 | 6.6 | M8 | M5 | 9 |
| KS412 | 101 | $95_{h6}$ | 10 | $22_{k6}$ | 120 | 85 | 14.0 | 52.0 | 36 | 106.0 | 50.5 | 55 | 0.020 | 6.6 | M8 | M5 | 9 |
| KS413 | 101 | $95_{h6}$ | 10 | $22_{k6}$ | 120 | 85 | 14.0 | 52.0 | 36 | 106.0 | 50.5 | 55 | 0.020 | 6.6 | M8 | M5 | 9 |
| KS511 | 125 | $120_{h6}$ | 10 | $32_{k6}$ | 145 | 105 | 15.5 | 75.5 | 58 | 125.0 | 62.5 | 65 | 0.020 | 9.0 | M12 | M6 | 12 |
| KS512 | 125 | $120_{h6}$ | 10 | $32_{k6}$ | 145 | 105 | 15.5 | 75.5 | 58 | 125.0 | 62.5 | 65 | 0.020 | 9.0 | M12 | M6 | 12 |
| KS513 | 125 | $120_{h6}$ | 10 | $32_{k6}$ | 145 | 105 | 15.5 | 75.5 | 58 | 125.0 | 62.5 | 65 | 0.020 | 9.0 | M12 | M6 | 12 |
| KS711 | 155 | $150_{h6}$ | 15 | $40_{k6}$ | 180 | 126 | 20.0 | 105.0 | 82 | 150.0 | 77.5 | 80 | 0.025 | 11.0 | M16 | M8 | 14 |
| KS712 | 155 | $150_{h6}$ | 15 | $40_{k6}$ | 180 | 126 | 20.0 | 105.0 | 82 | 150.0 | 77.5 | 80 | 0.025 | 11.0 | M16 | M8 | 14 |
| KS713 | 155 | $150_{h6}$ | 15 | $40_{k6}$ | 180 | 126 | 20.0 | 105.0 | 82 | 150.0 | 77.5 | 80 | 0.025 | 11.0 | M16 | M8 | 14 |

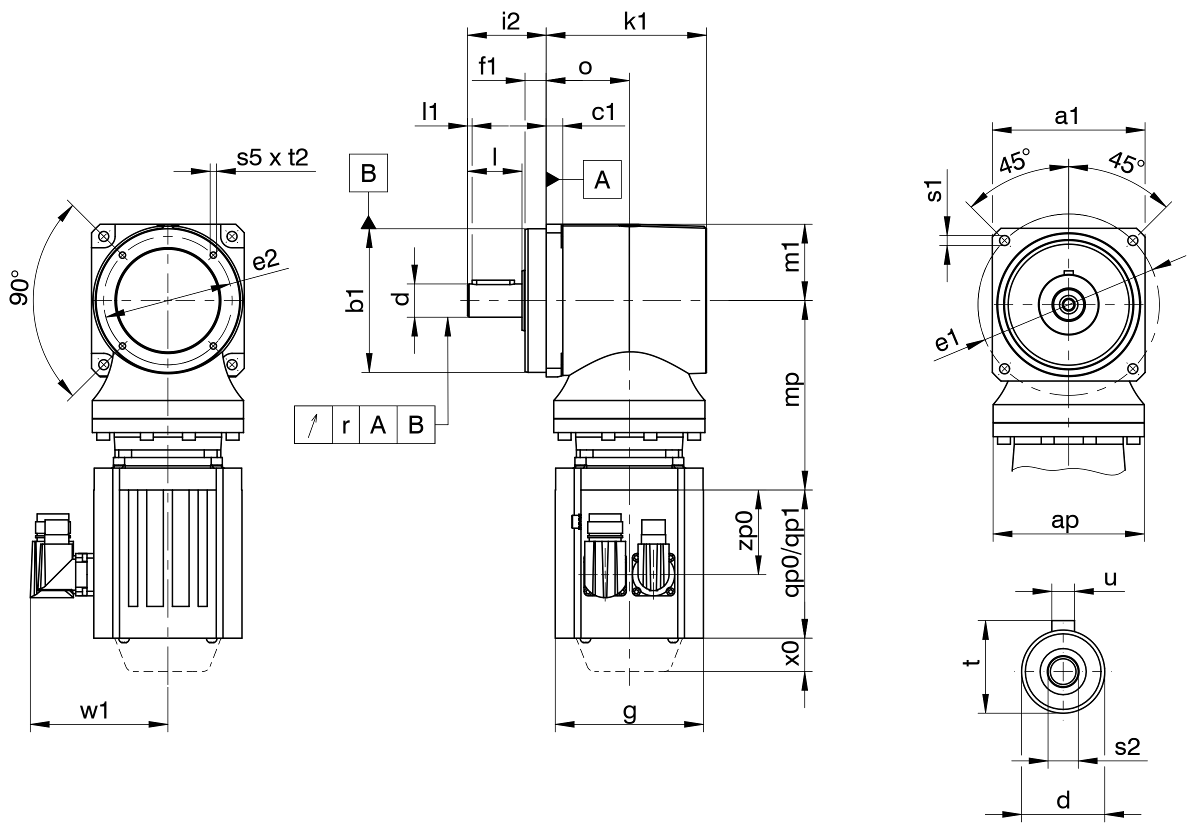
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 | EZ5 | EZ7 | EZ8 |
|---|---|---|---|---|---|---|
| | mp | mp | mp | mp | mp | mp |
| KS311 | – | 151.5 | 146.0 | – | – | – |
| KS312 | 99.0 | 112.5 | – | – | – | – |
| KS313 | 131.0 | – | – | – | – | – |
| KS411 | – | – | 165.8 | 170.3 | – | – |
| KS412 | – | 128.8 | 125.3 | – | – | – |
| KS413 | 149.8 | 163.3 | – | – | – | – |
| KS511 | – | – | – | 196.0 | 199.0 | – |
| KS512 | – | – | 154.0 | 153.5 | – | – |
| KS513 | – | 191.0 | 187.5 | – | – | – |
| KS711 | – | – | – | – | 236.0 | 242.0 |
| KS712 | – | – | – | 185.0 | 188.0 | – |
| KS713 | – | – | 227.0 | 226.5 | – | – |

## 9.3.4 P shaft design (solid shaft with feather key)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▶ 17.4] |

**Dimensions of gearboxes**

| Type | □a1 | Øb1 | c1 | Ød | Øe1 | Øe2 | f1 | i2 | l | l1 | k1 | m1 | o | r | Øs1 | s2 | s5 | t | t2 | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KS311 | 80 | $75_{h6}$ | 8 | $16_{k6}$ | 90 | 68 | 13.0 | 43.0 | 28 | 2 | 88.5 | 40.0 | 43 | 0.020 | 6.6 | M5 | M4 | 18.0 | 8 | A5×5×22 |
| KS312 | 80 | $75_{h6}$ | 8 | $16_{k6}$ | 90 | 68 | 13.0 | 43.0 | 28 | 2 | 88.5 | 40.0 | 43 | 0.020 | 6.6 | M5 | M4 | 18.0 | 8 | A5×5×22 |
| KS313 | 80 | $75_{h6}$ | 8 | $16_{k6}$ | 90 | 68 | 13.0 | 43.0 | 28 | 2 | 88.5 | 40.0 | 43 | 0.020 | 6.6 | M5 | M4 | 18.0 | 8 | A5×5×22 |
| KS411 | 101 | $95_{h6}$ | 10 | $22_{k6}$ | 120 | 85 | 14.0 | 52.0 | 36 | 3 | 106.0 | 50.5 | 55 | 0.020 | 6.6 | M8 | M5 | 24.5 | 9 | A6×6×28 |
| KS412 | 101 | $95_{h6}$ | 10 | $22_{k6}$ | 120 | 85 | 14.0 | 52.0 | 36 | 3 | 106.0 | 50.5 | 55 | 0.020 | 6.6 | M8 | M5 | 24.5 | 9 | A6×6×28 |
| KS413 | 101 | $95_{h6}$ | 10 | $22_{k6}$ | 120 | 85 | 14.0 | 52.0 | 36 | 3 | 106.0 | 50.5 | 55 | 0.020 | 6.6 | M8 | M5 | 24.5 | 9 | A6×6×28 |
| KS511 | 125 | $120_{h6}$ | 10 | $32_{k6}$ | 145 | 105 | 15.5 | 75.5 | 58 | 3 | 125.0 | 62.5 | 65 | 0.020 | 9.0 | M12 | M6 | 35.0 | 12 | A10×8×50 |
| KS512 | 125 | $120_{h6}$ | 10 | $32_{k6}$ | 145 | 105 | 15.5 | 75.5 | 58 | 3 | 125.0 | 62.5 | 65 | 0.020 | 9.0 | M12 | M6 | 35.0 | 12 | A10×8×50 |
| KS513 | 125 | $120_{h6}$ | 10 | $32_{k6}$ | 145 | 105 | 15.5 | 75.5 | 58 | 3 | 125.0 | 62.5 | 65 | 0.020 | 9.0 | M12 | M6 | 35.0 | 12 | A10×8×50 |
| KS711 | 155 | $150_{h6}$ | 15 | $40_{k6}$ | 180 | 126 | 20.0 | 105.0 | 82 | 4 | 150.0 | 77.5 | 80 | 0.025 | 11.0 | M16 | M8 | 43.0 | 14 | A12×8×70 |
| KS712 | 155 | $150_{h6}$ | 15 | $40_{k6}$ | 180 | 126 | 20.0 | 105.0 | 82 | 4 | 150.0 | 77.5 | 80 | 0.025 | 11.0 | M16 | M8 | 43.0 | 14 | A12×8×70 |
| KS713 | 155 | $150_{h6}$ | 15 | $40_{k6}$ | 180 | 126 | 20.0 | 105.0 | 82 | 4 | 150.0 | 77.5 | 80 | 0.025 | 11.0 | M16 | M8 | 43.0 | 14 | A12×8×70 |

### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 | EZ5 | EZ7 | EZ8 |
|---|---|---|---|---|---|---|
| | mp | mp | mp | mp | mp | mp |
| KS311 | – | 151.5 | 146.0 | – | – | – |
| KS312 | 99.0 | 112.5 | – | – | – | – |
| KS313 | 131.0 | – | – | – | – | – |
| KS411 | – | – | 165.8 | 170.3 | – | – |
| KS412 | – | 128.8 | 125.3 | – | – | – |
| KS413 | 149.8 | 163.3 | – | – | – | – |
| KS511 | – | – | – | 196.0 | 199.0 | – |
| KS512 | – | – | 154.0 | 153.5 | – | – |
| KS513 | – | 191.0 | 187.5 | – | – | – |
| KS711 | – | – | – | – | 236.0 | 242.0 |
| KS712 | – | – | – | 185.0 | 188.0 | – |
| KS713 | – | – | 227.0 | 226.5 | – | – |

# 9.4 Type designation

In this chapter, you will find an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| KS | 5 | 1 | 2 | S | G | S | R | 0200 | EZ401U |
|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **KS** | Type | Right-angle servo gearbox |
| **5** | Size | 5 (example) |
| **1** | Generation | Generation 1 |
| 1 | Stages | Single-stage |
| **2** | | Two-stage |
| 3 | | Three-stage |
| **S** | Housing | Standard |
| F | Shaft | Flange hollow shaft |
| S | | Hollow shaft with shrink ring |
| **G** | | Solid shaft without feather key |
| P | | Solid shaft with feather key |
| **S** | Bearing | Standard bearing |
| **R** | Backlash | Reduced |
| **0200** | Transmission ratio (i x 10) | i = 20 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▹ 17.5]
- Mounting position, see the chapter [▹ 9.5.3]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▹ 9.6.3]
- Position of the plug connectors, see the chapter [▹ 9.5.5]

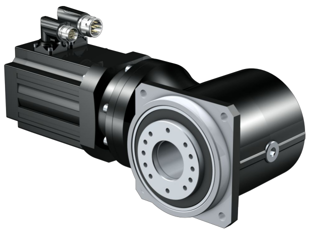
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▹ 17.5.1].

# 9.5 Product description

## 9.5.1 Input options

EZ synchronous servo motor



Catalog ID 442437_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 9.5.2 Installation conditions

Take care to align the machine shaft with the gearbox hollow shaft when attaching the gearbox.

Maximum deviation ≤ 0.03 mm.

**Hollow shaft with shrink ring**

The tolerance of the hollow shaft hole is ISO H7.

The machine shaft must be ISO h6.

Select a material for the machine shaft with a permitted surface pressure of $p \geq 325$ N/mm$^2$.

Possible materials:

- C45E +QT
- 42CrMo4

The torque and force values listed in this catalog are valid under the following conditions:

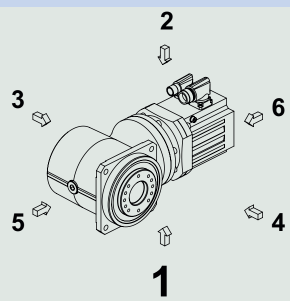
- When the gear housing is fastened on the machine side using screws of strength class 12.9
- When the gear housing is adjusted at pilot øb1. The machine-side fit must be H7.
- For the flange hollow shaft design: If the connecting element is fitted to pilot øbf or ødf of the flange hollow shaft and fastened using screws of strength class 12.9.

## 9.5.3 Mounting positions

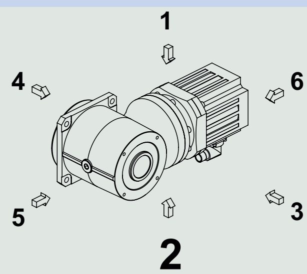
The following table shows the standard mounting positions for two- and three-stage gearboxes. Single-stage gearboxes can be used in any mounting position.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

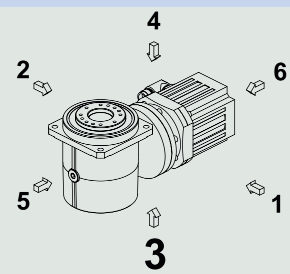
**EL1**



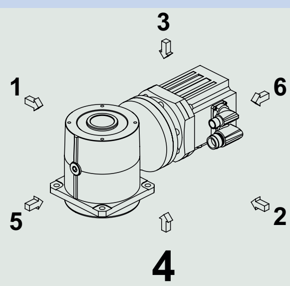

**EL2**



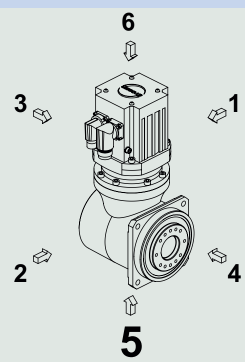

**EL3**



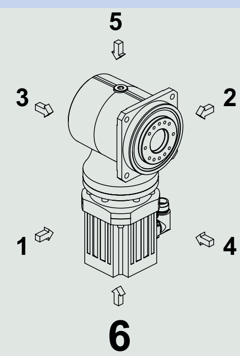

**EL4**




**EL5**




**EL6**




Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position for two- and three-stage gearboxes must be specified when ordering.

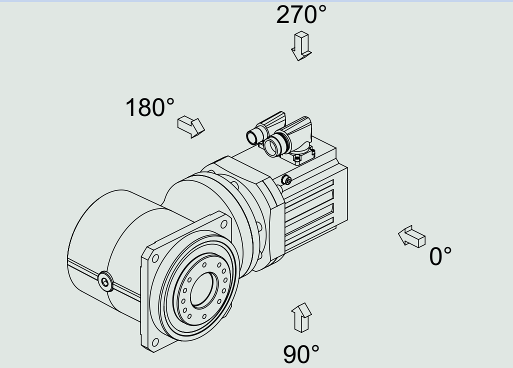
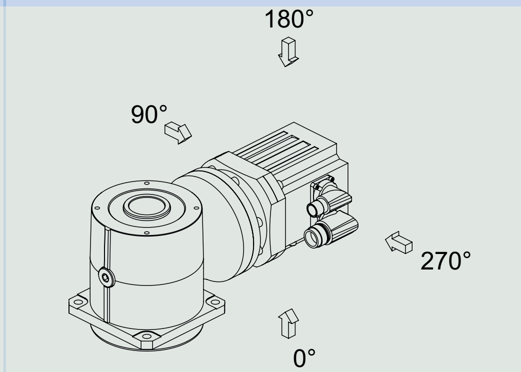
## 9.5.4 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 9.5.5 Position of the plug connectors

| **Mounting position EL1**<br>Plug connector in 270° position (standard) | **Mounting position EL4**<br>Plug connector in 270° position (standard) |
|---|---|
|  |  |

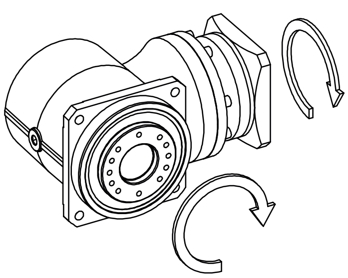
Indicate variations for your geared motor in the order.

Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

## 9.5.6 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ single-stage | 97% |
| $\eta_{get}$ two-stage | 95% |
| $\eta_{get}$ three-stage | 93% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 9.5.7 Direction of rotation



The figure shows the EL1 mounting position.

[1] Observe the protection class of all the components.

## 9.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

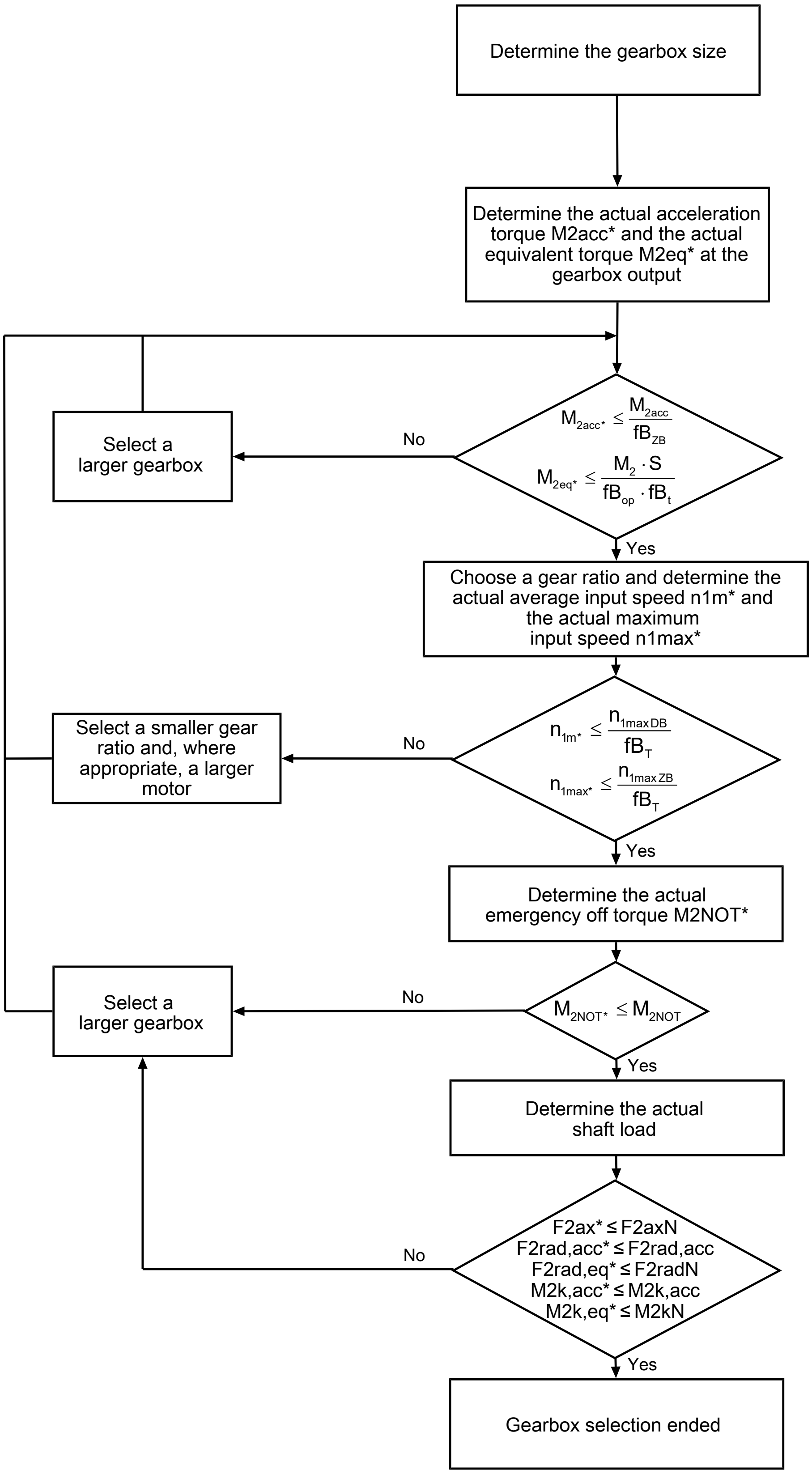
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 9.6.1 Drive selection

**Drive selection for gearboxes**

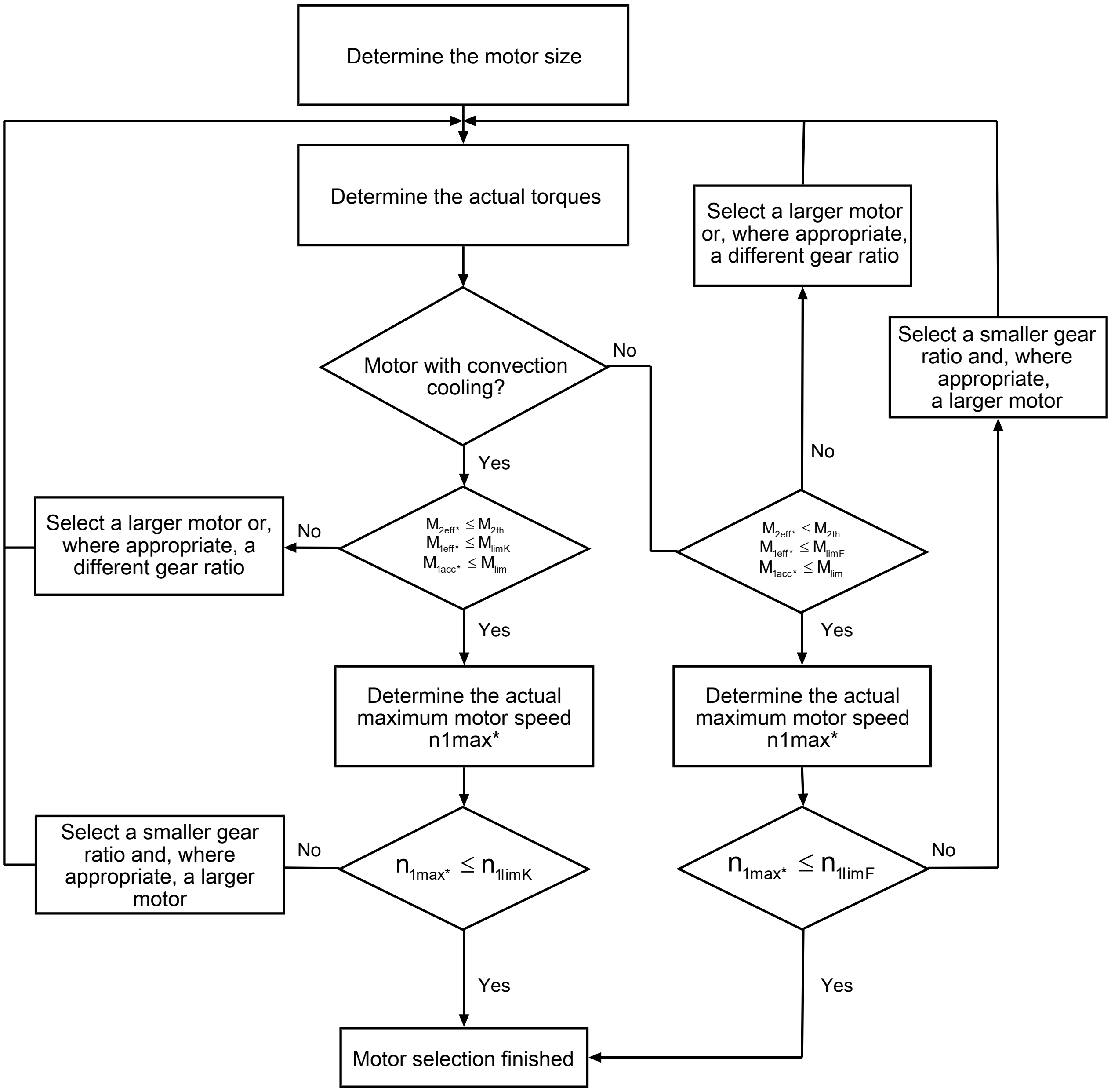



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$, $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

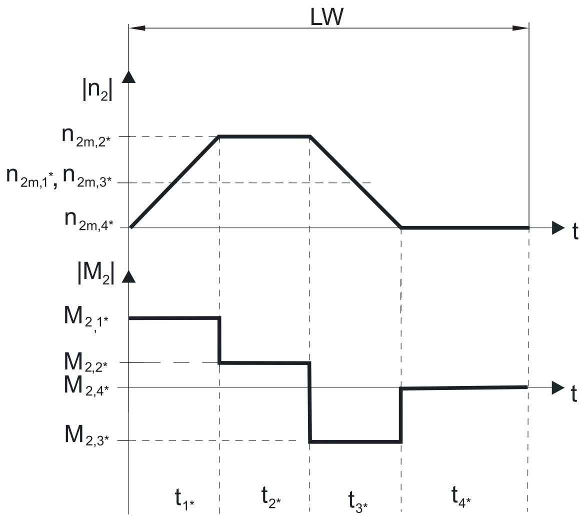
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*} + \ldots + t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}^{\;2} + \ldots + t_{n*} \cdot M_{2,n*}^{\;2}}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2,1*}^{\;3}| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2,n*}^{\;3}|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

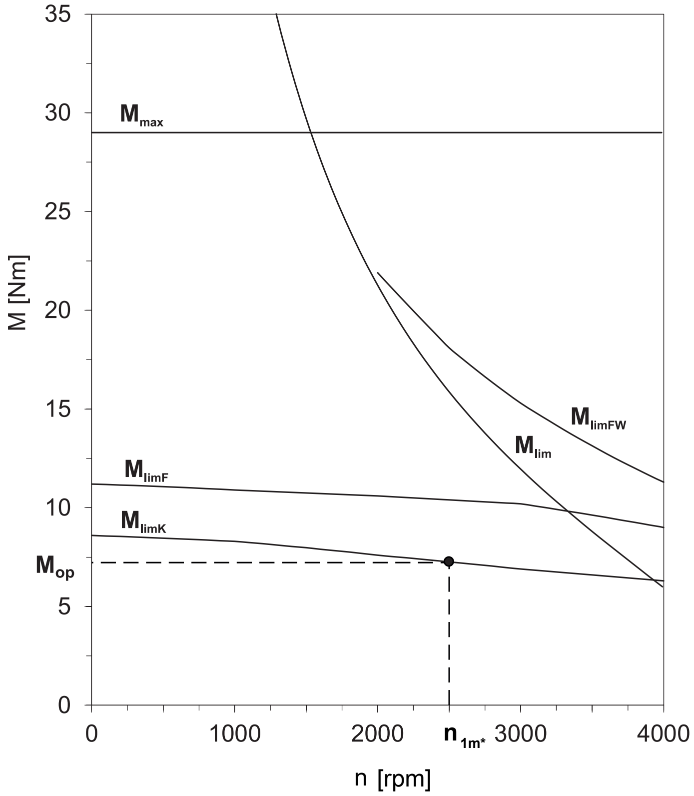
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}93 - \frac{a_{th}}{1000} \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^3$$

Refer to the selection tables for the values of i and $a_{th}$.

The values for $fB_T$ can be found in the corresponding table in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.00 |
| Reversing load cyclic operation | 1.00 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 9.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 100$ rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

### 9.6.2.1 F shaft design

**Permitted shaft loads for F shaft design (flange hollow shaft)**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| KS3 | 32.5 | 2500 | 4500 | 5000 | 146 | 163 |
| KS4 | 40.5 | 4000 | 7500 | 10300 | 304 | 417 |
| KS5 | 47.0 | 6000 | 13700 | 18500 | 644 | 870 |
| KS7 | 55.5 | 10000 | 18400 | 25100 | 1020 | 1400 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 100$ rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

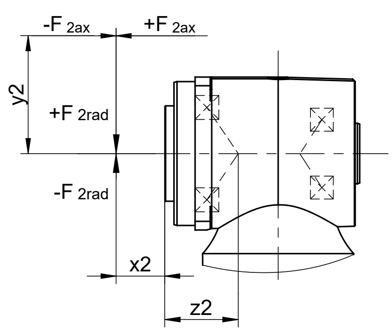



*Fig. 1:* Force application points for flange hollow shaft

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc*} = \frac{F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

### 9.6.2.2 S shaft design

**Permitted shaft loads for S shaft design (hollow shaft with shrink ring)**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| KS3 | 31.0 | 2500 | 2750 | 2750 | 124 | 124 |
| KS4 | 38.5 | 4000 | 5000 | 5000 | 283 | 283 |
| KS5 | 44.5 | 6000 | 9000 | 9000 | 662 | 662 |
| KS7 | 52.5 | 10000 | 11000 | 11000 | 1030 | 1030 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

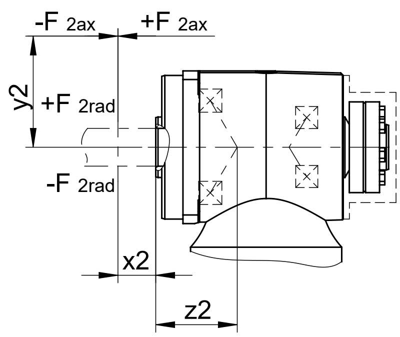



*Fig. 2:* Force application points for the hollow shaft with shrink ring

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

### 9.6.2.3 G and P shaft designs

**Permitted shaft loads for G and P shaft designs (solid shaft)**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| KS3 | 31.0 | 2500 | 2750 | 2750 | 124 | 124 |
| KS4 | 36.5 | 4000 | 5000 | 5000 | 273 | 273 |
| KS5 | 42.5 | 6000 | 9000 | 9000 | 644 | 644 |
| KS7 | 51.5 | 10000 | 11000 | 11000 | 1020 | 1020 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

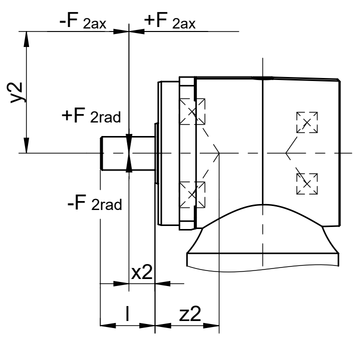



*Fig. 3:* Force application points for solid shaft

The specified values for $F_{2rad100}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

### 9.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

## 9.7 Additional documentation

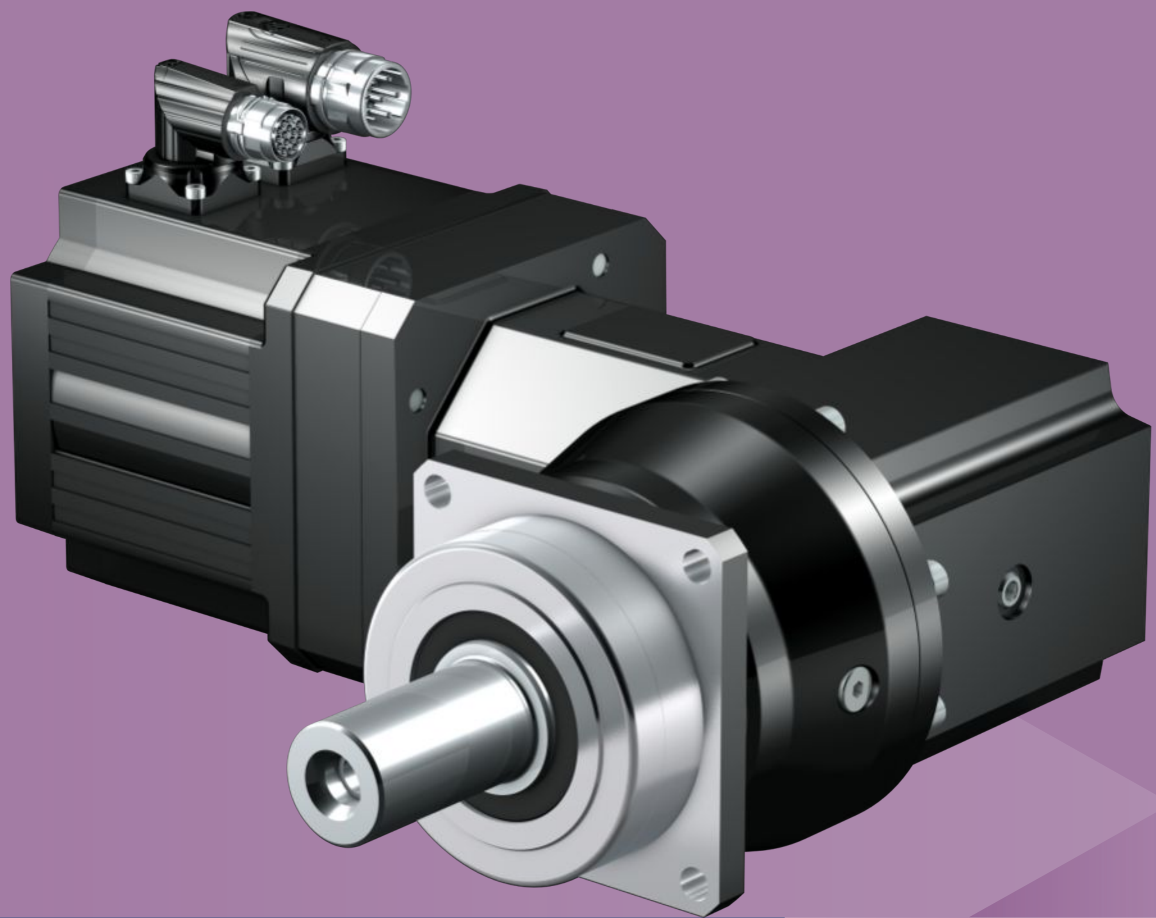
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual for gearboxes, geared motors KS31 – KS71 | 443506_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 10 PKX right-angle planetary geared motors

## Table of contents



10

# Right-angle planetary geared motors

# PKX

## 10.1 Overview

Helical-geared precision right-angle planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★★☆ |
| Backlash | ★★★★★ |
| Price category | €€€ |
| Shaft load | ★★★★☆ |
| Smooth operation | ★★☆☆☆ |
| Torsional stiffness | ★★★☆☆ |
| Mass moment of inertia | ★★★☆☆ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Small installation space | ✓ |
| Continuous operation without cooling | ✓ |
| Reinforced output bearing | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| $i$ | 3 – 300 |
| $M_{2acc}$ | 11 – 3300 Nm |
| $\Delta\phi_2$ | 2 – 8.5 arcmin |
| $\eta_{get}$ | 94 – 96 % |

## 10.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)
- $M_{2acc}$, $M_{2accHT}$: Solid shaft design without feather key (we generally recommend this shaft design for cyclic operation)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [20.1].

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/arcmin] | [kg] |
| **P231KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 25 Nm)** | | | | | | | | | | | | | | | | | | |
| 200 | 13 | 14 | 35 | 1.2 | P231_0050KX301_0030 MF EZ301U | 25 | – | 51 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 0.94 | 8.0 | – | 1.6 | 4.5 |
| 250 | 11 | 11 | 28 | 1.5 | P231_0040KX301_0030 MF EZ301U | 25 | – | 51 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 0.94 | 8.5 | – | 1.5 | 4.5 |
| 300 | 8.9 | 9.1 | 32 | 1.8 | P231_0050KX301_0020 MF EZ301U | 25 | – | 51 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.0 | 8.0 | – | 1.6 | 4.5 |
| 300 | 15 | 16 | 54 | 1.1 | P231_0050KX301_0020 MF EZ302U | 25 | – | 51 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.1 | 8.0 | – | 1.6 | 5.1 |
| 375 | 7.1 | 7.3 | 25 | 2.3 | P231_0040KX301_0020 MF EZ301U | 21 | – | 51 | 8.000 | 8/1 | 3500 | 3000 | 5500 | 1.0 | 8.5 | – | 1.5 | 4.5 |
| 375 | 12 | 13 | 43 | 1.3 | P231_0040KX301_0020 MF EZ302U | 25 | – | 51 | 8.000 | 8/1 | 3500 | 3000 | 5500 | 1.1 | 8.5 | – | 1.5 | 5.1 |
| 375 | 16 | 17 | 56 | 1.0 | P231_0040KX301_0020 MF EZ303U | 25 | – | 51 | 8.000 | 8/1 | 3500 | 3000 | 5500 | 1.2 | 8.5 | – | 1.5 | 5.6 |
| 429 | 6.2 | 6.4 | 44 | 2.2 | P231_0070KX301_0010 MF EZ301U | 19 | – | 46 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 1.2 | 7.5 | – | 1.7 | 4.5 |
| 429 | 11 | 11 | 76 | 1.3 | P231_0070KX301_0010 MF EZ302U | 23 | – | 46 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 1.3 | 7.5 | – | 1.7 | 5.1 |
| 600 | 4.4 | 4.5 | 32 | 3.0 | P231_0050KX301_0010 MF EZ301U | 13 | – | 51 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 1.2 | 8.0 | – | 1.6 | 4.5 |
| 600 | 7.6 | 8.0 | 54 | 1.8 | P231_0050KX301_0010 MF EZ302U | 24 | – | 51 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 1.3 | 8.0 | – | 1.6 | 5.1 |
| 600 | 9.9 | 10 | 70 | 1.4 | P231_0050KX301_0010 MF EZ303U | 25 | – | 51 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 1.4 | 8.0 | – | 1.6 | 5.6 |
| 600 | 13 | 14 | 95 | 1.0 | P231_0050KX301_0010 MF EZ401U | 25 | – | 51 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 2.0 | 8.0 | – | 1.6 | 7.0 |
| 750 | 3.6 | 3.6 | 25 | 3.8 | P231_0040KX301_0010 MF EZ301U | 11 | – | 51 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 1.2 | 8.5 | – | 1.5 | 4.5 |
| 750 | 6.1 | 6.4 | 43 | 2.2 | P231_0040KX301_0010 MF EZ302U | 19 | – | 51 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 1.3 | 8.5 | – | 1.5 | 5.1 |
| 750 | 7.9 | 8.4 | 56 | 1.7 | P231_0040KX301_0010 MF EZ303U | 25 | – | 51 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 1.5 | 8.5 | – | 1.5 | 5.6 |
| 750 | 11 | 11 | 76 | 1.3 | P231_0040KX301_0010 MF EZ401U | 25 | – | 51 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 2.0 | 8.5 | – | 1.5 | 7.0 |
| **P231KX ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 25 Nm)** | | | | | | | | | | | | | | | | | | |
| 400 | 13 | 14 | 35 | 1.2 | P231_0050KX301_0030 MF EZ301U | 25 | – | 51 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 0.94 | 8.0 | – | 1.6 | 4.5 |
| 500 | 10 | 11 | 28 | 1.5 | P231_0040KX301_0030 MF EZ301U | 25 | – | 51 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 0.94 | 8.5 | – | 1.5 | 4.5 |
| **P331KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 69 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 27 | 27 | 31 | 1.4 | P331_0100KX301_0030 MF EZ301U | 60 | 60 | 120 | 30.00 | 30/1 | 3500 | 3500 | 6000 | 0.94 | 5.0 | 3.0 | 4.0 | 5.3 |
| 125 | 21 | 22 | 22 | 1.9 | P331_0080KX301_0030 MF EZ301U | 63 | 64 | 126 | 24.00 | 24/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 4.1 | 5.3 |
| 125 | 36 | 39 | 38 | 1.1 | P331_0080KX301_0030 MF EZ302U | 63 | 65 | 126 | 24.00 | 24/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 4.1 | 5.9 |
| 143 | 19 | 19 | 17 | 2.4 | P331_0070KX301_0030 MF EZ301U | 56 | 56 | 138 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 4.2 | 5.3 |
| 143 | 32 | 34 | 30 | 1.4 | P331_0070KX301_0030 MF EZ302U | 69 | 75 | 138 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 4.2 | 5.9 |
| 143 | 42 | 44 | 39 | 1.1 | P331_0070KX301_0030 MF EZ303U | 69 | 75 | 138 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.1 | 5.5 | 3.5 | 4.2 | 6.4 |
| 150 | 18 | 18 | 28 | 2.0 | P331_0100KX301_0020 MF EZ301U | 54 | 54 | 120 | 20.00 | 20/1 | 3500 | 3000 | 5500 | 1.0 | 5.0 | 3.0 | 4.0 | 5.3 |
| 150 | 30 | 32 | 48 | 1.2 | P331_0100KX301_0020 MF EZ302U | 60 | 60 | 120 | 20.00 | 20/1 | 3500 | 3000 | 5500 | 1.1 | 5.0 | 3.0 | 4.0 | 5.9 |
| 188 | 14 | 15 | 20 | 2.8 | P331_0080KX301_0020 MF EZ301U | 43 | 43 | 126 | 16.00 | 16/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 4.1 | 5.3 |
| 188 | 24 | 26 | 35 | 1.6 | P331_0080KX301_0020 MF EZ302U | 63 | 65 | 126 | 16.00 | 16/1 | 3500 | 3000 | 5500 | 1.1 | 5.5 | 3.5 | 4.1 | 5.9 |
| 188 | 32 | 33 | 45 | 1.3 | P331_0080KX301_0020 MF EZ303U | 63 | 65 | 126 | 16.00 | 16/1 | 3500 | 3000 | 5500 | 1.2 | 5.5 | 3.5 | 4.1 | 6.4 |
| 200 | 13 | 14 | 13 | 3.2 | P331_0050KX301_0030 MF EZ301U | 40 | 40 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 0.94 | 6.0 | 4.0 | 3.8 | 5.3 |
| 200 | 23 | 24 | 23 | 1.9 | P331_0050KX301_0030 MF EZ302U | 63 | 63 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.0 | 6.0 | 4.0 | 3.8 | 5.9 |
| 200 | 30 | 31 | 29 | 1.4 | P331_0050KX301_0030 MF EZ303U | 63 | 63 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.2 | 6.0 | 4.0 | 3.8 | 6.4 |
| 200 | 40 | 43 | 40 | 1.1 | P331_0050KX301_0030 MF EZ401U | 63 | 63 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.7 | 6.0 | 4.0 | 3.8 | 7.8 |
| 214 | 12 | 13 | 16 | 3.6 | P331_0070KX301_0020 MF EZ301U | 37 | 37 | 138 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 4.2 | 5.3 |
| 214 | 21 | 22 | 27 | 2.1 | P331_0070KX301_0020 MF EZ302U | 67 | 67 | 138 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.1 | 5.5 | 3.5 | 4.2 | 5.9 |
| 214 | 28 | 29 | 35 | 1.6 | P331_0070KX301_0020 MF EZ303U | 69 | 75 | 138 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.2 | 5.5 | 3.5 | 4.2 | 6.4 |
| 214 | 37 | 40 | 48 | 1.2 | P331_0070KX301_0020 MF EZ401U | 69 | 75 | 138 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.7 | 5.5 | 3.5 | 4.2 | 7.8 |
| 250 | 11 | 11 | 13 | 3.2 | P331_0040KX301_0030 MF EZ301U | 32 | 32 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 0.95 | 6.5 | 4.5 | 3.3 | 5.3 |
| 250 | 18 | 19 | 23 | 1.9 | P331_0040KX301_0030 MF EZ302U | 50 | 50 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 1.0 | 6.5 | 4.5 | 3.3 | 5.9 |
| 250 | 24 | 25 | 29 | 1.4 | P331_0040KX301_0030 MF EZ303U | 50 | 50 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 1.2 | 6.5 | 4.5 | 3.3 | 6.4 |
| 250 | 32 | 34 | 40 | 1.1 | P331_0040KX301_0030 MF EZ401U | 50 | 50 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 1.7 | 6.5 | 4.5 | 3.3 | 7.8 |
| 300 | 8.9 | 9.1 | 12 | 4.8 | P331_0050KX301_0020 MF EZ301U | 27 | 27 | 129 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.0 | 6.0 | 4.0 | 3.8 | 5.3 |
| 300 | 15 | 16 | 20 | 2.8 | P331_0050KX301_0020 MF EZ302U | 48 | 48 | 129 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.1 | 6.0 | 4.0 | 3.8 | 5.9 |
| 300 | 20 | 21 | 27 | 2.1 | P331_0050KX301_0020 MF EZ303U | 63 | 63 | 129 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.2 | 6.0 | 4.0 | 3.8 | 6.4 |
| 300 | 27 | 29 | 36 | 1.6 | P331_0050KX301_0020 MF EZ401U | 63 | 63 | 129 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.8 | 6.0 | 4.0 | 3.8 | 7.8 |
| 375 | 7.1 | 7.3 | 12 | 4.8 | P331_0040KX301_0020 MF EZ301U | 21 | 21 | 103 | 8.000 | 8/1 | 3500 | 3000 | 5500 | 1.0 | 6.5 | 4.5 | 3.3 | 5.3 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ |  | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |  | EL1,2,5,6 | EL3,4 |  |  |  |  |  |  |
| [rpm] | [Nm] | [Nm] |  |  |  | [Nm] | [Nm] | [Nm] |  |  | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P331KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 69 Nm)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 375 | 12 | 13 | 20 | 2.8 | P331_0040KX301_0020 MF EZ302U | 38 | 38 | 103 | 8.000 | 8/1 | 3500 | 3000 | 5500 | 1.1 | 6.5 | 4.5 | 3.3 | 5.9 |
| 375 | 16 | 17 | 27 | 2.1 | P331_0040KX301_0020 MF EZ303U | 50 | 50 | 103 | 8.000 | 8/1 | 3500 | 3000 | 5500 | 1.2 | 6.5 | 4.5 | 3.3 | 6.4 |
| 375 | 21 | 23 | 36 | 1.6 | P331_0040KX301_0020 MF EZ401U | 50 | 50 | 103 | 8.000 | 8/1 | 3500 | 3000 | 5500 | 1.8 | 6.5 | 4.5 | 3.3 | 7.8 |
| 429 | 11 | 11 | 26 | 3.7 | P331_0070KX301_0010 MF EZ302U | 33 | 33 | 138 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 1.3 | 5.5 | 3.5 | 4.2 | 5.9 |
| 429 | 14 | 15 | 34 | 2.8 | P331_0070KX301_0010 MF EZ303U | 47 | 47 | 138 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 1.4 | 5.5 | 3.5 | 4.2 | 6.4 |
| 429 | 19 | 20 | 46 | 2.1 | P331_0070KX301_0010 MF EZ401U | 57 | 57 | 138 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 2.0 | 5.5 | 3.5 | 4.2 | 7.8 |
| 429 | 31 | 35 | 77 | 1.3 | P331_0070KX301_0010 MF EZ402U | 69 | 75 | 138 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 2.7 | 5.5 | 3.5 | 4.2 | 8.9 |
| 500 | 5.3 | 5.4 | 12 | 4.8 | P331_0030KX301_0020 MF EZ301U | 16 | 16 | 77 | 6.000 | 6/1 | 3500 | 3000 | 5500 | 1.1 | 7.5 | 5.5 | 2.4 | 5.3 |
| 500 | 9.1 | 9.6 | 20 | 2.8 | P331_0030KX301_0020 MF EZ302U | 29 | 29 | 77 | 6.000 | 6/1 | 3500 | 3000 | 5500 | 1.2 | 7.5 | 5.5 | 2.4 | 5.9 |
| 500 | 12 | 13 | 27 | 2.1 | P331_0030KX301_0020 MF EZ303U | 38 | 38 | 77 | 6.000 | 6/1 | 3500 | 3000 | 5500 | 1.3 | 7.5 | 5.5 | 2.4 | 6.4 |
| 500 | 16 | 17 | 36 | 1.6 | P331_0030KX301_0020 MF EZ401U | 38 | 38 | 77 | 6.000 | 6/1 | 3500 | 3000 | 5500 | 1.8 | 7.5 | 5.5 | 2.4 | 7.8 |
| 600 | 9.9 | 10 | 24 | 4.0 | P331_0050KX301_0010 MF EZ303U | 33 | 33 | 113 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 1.5 | 6.0 | 4.0 | 3.8 | 6.4 |
| 600 | 13 | 14 | 33 | 2.9 | P331_0050KX301_0010 MF EZ401U | 41 | 41 | 113 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 2.0 | 6.0 | 4.0 | 3.8 | 7.8 |
| 600 | 22 | 25 | 55 | 1.8 | P331_0050KX301_0010 MF EZ402U | 63 | 63 | 113 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 2.7 | 6.0 | 4.0 | 3.8 | 8.9 |
| 600 | 33 | 41 | 80 | 1.2 | P331_0050KX301_0010 MF EZ404U | 63 | 63 | 113 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 4.1 | 6.0 | 4.0 | 3.8 | 11 |
| 750 | 7.9 | 8.4 | 22 | 4.3 | P331_0040KX301_0010 MF EZ303U | 27 | 27 | 91 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 1.5 | 6.5 | 4.5 | 3.3 | 6.4 |
| 750 | 11 | 11 | 30 | 3.2 | P331_0040KX301_0010 MF EZ401U | 32 | 32 | 91 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 2.1 | 6.5 | 4.5 | 3.3 | 7.8 |
| 750 | 18 | 20 | 51 | 1.9 | P331_0040KX301_0010 MF EZ402U | 50 | 50 | 91 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 2.8 | 6.5 | 4.5 | 3.3 | 8.9 |
| 750 | 26 | 33 | 75 | 1.3 | P331_0040KX301_0010 MF EZ404U | 50 | 50 | 91 | 4.000 | 4/1 | 3000 | 2500 | 4500 | 4.1 | 6.5 | 4.5 | 3.3 | 11 |
| 1000 | 5.9 | 6.3 | 22 | 4.3 | P331_0030KX301_0010 MF EZ303U | 20 | 20 | 68 | 3.000 | 3/1 | 3000 | 2500 | 4500 | 1.7 | 7.5 | 5.5 | 2.4 | 6.4 |
| 1000 | 8.0 | 8.6 | 30 | 3.2 | P331_0030KX301_0010 MF EZ401U | 24 | 24 | 68 | 3.000 | 3/1 | 3000 | 2500 | 4500 | 2.2 | 7.5 | 5.5 | 2.4 | 7.8 |
| 1000 | 13 | 15 | 51 | 1.9 | P331_0030KX301_0010 MF EZ402U | 38 | 38 | 68 | 3.000 | 3/1 | 3000 | 2500 | 4500 | 2.9 | 7.5 | 5.5 | 2.4 | 8.9 |
| 1000 | 20 | 25 | 75 | 1.3 | P331_0030KX301_0010 MF EZ404U | 38 | 38 | 68 | 3.000 | 3/1 | 3000 | 2500 | 4500 | 4.3 | 7.5 | 5.5 | 2.4 | 11 |
| **P331KX ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 69 Nm)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 200 | 26 | 27 | 33 | 1.3 | P331_0100KX301_0030 MF EZ301U | 60 | 60 | 120 | 30.00 | 30/1 | 3500 | 3500 | 6000 | 0.94 | 5.0 | 3.0 | 4.0 | 5.3 |
| 250 | 20 | 22 | 21 | 2.0 | P331_0080KX301_0030 MF EZ301U | 63 | 64 | 126 | 24.00 | 24/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 4.1 | 5.3 |
| 250 | 34 | 39 | 36 | 1.2 | P331_0080KX301_0030 MF EZ302U | 63 | 65 | 126 | 24.00 | 24/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 4.1 | 5.9 |
| 286 | 18 | 19 | 17 | 2.5 | P331_0070KX301_0030 MF EZ301U | 56 | 56 | 138 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 4.2 | 5.3 |
| 286 | 30 | 34 | 28 | 1.5 | P331_0070KX301_0030 MF EZ302U | 69 | 75 | 138 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 4.2 | 5.9 |
| 286 | 39 | 45 | 37 | 1.1 | P331_0070KX301_0030 MF EZ303U | 69 | 75 | 138 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.1 | 5.5 | 3.5 | 4.2 | 6.4 |
| 400 | 13 | 14 | 16 | 2.6 | P331_0050KX301_0030 MF EZ301U | 40 | 40 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 0.94 | 6.0 | 4.0 | 3.8 | 5.3 |
| 400 | 21 | 24 | 27 | 1.6 | P331_0050KX301_0030 MF EZ302U | 63 | 63 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.0 | 6.0 | 4.0 | 3.8 | 5.9 |
| 400 | 28 | 32 | 35 | 1.2 | P331_0050KX301_0030 MF EZ303U | 63 | 63 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.2 | 6.0 | 4.0 | 3.8 | 6.4 |
| 400 | 33 | 40 | 41 | 1.0 | P331_0050KX301_0030 MF EZ401U | 63 | 63 | 129 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.7 | 6.0 | 4.0 | 3.8 | 7.8 |
| 500 | 10 | 11 | 16 | 2.6 | P331_0040KX301_0030 MF EZ301U | 32 | 32 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 0.95 | 6.5 | 4.5 | 3.3 | 5.3 |
| 500 | 17 | 19 | 27 | 1.6 | P331_0040KX301_0030 MF EZ302U | 50 | 50 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 1.0 | 6.5 | 4.5 | 3.3 | 5.9 |
| 500 | 22 | 26 | 35 | 1.2 | P331_0040KX301_0030 MF EZ303U | 50 | 50 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 1.2 | 6.5 | 4.5 | 3.3 | 6.4 |
| 500 | 26 | 32 | 41 | 1.0 | P331_0040KX301_0030 MF EZ401U | 50 | 50 | 103 | 12.00 | 12/1 | 3500 | 3500 | 6000 | 1.7 | 6.5 | 4.5 | 3.3 | 7.8 |
| **P332KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 75 Nm)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60 | 44 | 44 | 50 | 1.1 | P332_0250KX301_0020 MF EZ301U | 75 | 75 | 150 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 5.1 | 5.6 |
| 75 | 35 | 36 | 40 | 1.4 | P332_0200KX301_0020 MF EZ301U | 75 | 75 | 150 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 5.1 | 5.6 |
| 86 | 30 | 31 | 58 | 1.6 | P332_0350KX301_0010 MF EZ301U | 75 | 75 | 150 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.2 | 5.5 | 3.5 | 5.2 | 5.6 |
| 94 | 28 | 28 | 35 | 1.6 | P332_0160KX301_0020 MF EZ301U | 65 | 65 | 130 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 5.0 | 5.6 |
| **P332KX ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 75 Nm)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 | 50 | 53 | 42 | 1.0 | P332_0200KX301_0030 MF EZ301U | 75 | 75 | 150 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 5.1 | 5.6 |
| **P431KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 | 27 | 27 | 17 | 2.8 | P431_0100KX401_0030 MF EZ301U | 80 | 80 | 230 | 30.00 | 30/1 | 3000 | 3000 | 5500 | 1.6 | 5.0 | 3.0 | 8.4 | 8.9 |
| 100 | 46 | 48 | 29 | 1.6 | P431_0100KX401_0030 MF EZ302U | 115 | 115 | 230 | 30.00 | 30/1 | 3000 | 3000 | 5500 | 1.7 | 5.0 | 3.0 | 8.4 | 9.5 |
| 100 | 59 | 63 | 37 | 1.3 | P431_0100KX401_0030 MF EZ303U | 115 | 115 | 230 | 30.00 | 30/1 | 3000 | 3000 | 5500 | 1.8 | 5.0 | 3.0 | 8.4 | 10 |
| 125 | 21 | 22 | 13 | 3.8 | P431_0080KX401_0030 MF EZ301U | 64 | 64 | 239 | 24.00 | 24/1 | 3000 | 3000 | 5500 | 1.6 | 5.5 | 3.5 | 8.5 | 8.9 |
| 125 | 36 | 39 | 22 | 2.2 | P431_0080KX401_0030 MF EZ302U | 115 | 115 | 239 | 24.00 | 24/1 | 3000 | 3000 | 5500 | 1.7 | 5.5 | 3.5 | 8.5 | 9.5 |
| 125 | 47 | 50 | 28 | 1.7 | P431_0080KX401_0030 MF EZ303U | 120 | 125 | 239 | 24.00 | 24/1 | 3000 | 3000 | 5500 | 1.8 | 5.5 | 3.5 | 8.5 | 10 |
| 125 | 64 | 69 | 38 | 1.2 | P431_0080KX401_0030 MF EZ401U | 120 | 125 | 239 | 24.00 | 24/1 | 3000 | 3000 | 5500 | 2.4 | 5.5 | 3.5 | 8.5 | 11 |
| 143 | 19 | 19 | 9.8 | 4.8 | P431_0070KX401_0030 MF EZ301U | 56 | 56 | 271 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 1.6 | 5.5 | 3.5 | 9.2 | 8.9 |
| 143 | 32 | 34 | 17 | 2.8 | P431_0070KX401_0030 MF EZ302U | 100 | 100 | 271 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 1.7 | 5.5 | 3.5 | 9.2 | 9.5 |
| 143 | 42 | 44 | 22 | 2.2 | P431_0070KX401_0030 MF EZ303U | 135 | 140 | 271 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 1.8 | 5.5 | 3.5 | 9.2 | 10 |
| 143 | 56 | 60 | 30 | 1.6 | P431_0070KX401_0030 MF EZ401U | 135 | 143 | 271 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 2.4 | 5.5 | 3.5 | 9.2 | 11 |
| 143 | 86 | 94 | 45 | 1.0 | P431_0070KX401_0030 MF EZ501U | 135 | 143 | 271 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 4.3 | 5.5 | 3.5 | 9.2 | 12 |
| 150 | 18 | 18 | 15 | 4.2 | P431_0100KX401_0020 MF EZ301U | 54 | 54 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 1.8 | 5.0 | 3.0 | 8.4 | 8.9 |
| 150 | 30 | 32 | 26 | 2.5 | P431_0100KX401_0020 MF EZ302U | 96 | 96 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 1.9 | 5.0 | 3.0 | 8.4 | 9.5 |
| 150 | 40 | 42 | 34 | 1.9 | P431_0100KX401_0020 MF EZ303U | 115 | 115 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 2.0 | 5.0 | 3.0 | 8.4 | 10 |
| 150 | 54 | 57 | 46 | 1.4 | P431_0100KX401_0020 MF EZ401U | 115 | 115 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 2.6 | 5.0 | 3.0 | 8.4 | 11 |
| 188 | 24 | 26 | 20 | 3.3 | P431_0080KX401_0020 MF EZ302U | 76 | 76 | 239 | 16.00 | 16/1 | 2500 | 2500 | 5000 | 1.9 | 5.5 | 3.5 | 8.5 | 9.5 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P431KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | | | |
| 188 | 32 | 33 | 25 | 2.5 | P431_0080KX401_0020 MF EZ303U | 107 | 107 | 239 | 16.00 | 16/1 | 2500 | 2500 | 5000 | 2.0 | 5.5 | 3.5 | 8.5 | 10 |
| 188 | 43 | 46 | 34 | 1.9 | P431_0080KX401_0020 MF EZ401U | 120 | 125 | 239 | 16.00 | 16/1 | 2500 | 2500 | 5000 | 2.6 | 5.5 | 3.5 | 8.5 | 11 |
| 188 | 66 | 72 | 53 | 1.2 | P431_0080KX401_0020 MF EZ501U | 120 | 125 | 239 | 16.00 | 16/1 | 2500 | 2500 | 5000 | 4.5 | 5.5 | 3.5 | 8.5 | 12 |
| 188 | 72 | 79 | 58 | 1.1 | P431_0080KX401_0020 MF EZ402U | 120 | 125 | 239 | 16.00 | 16/1 | 2500 | 2500 | 5000 | 3.3 | 5.5 | 3.5 | 8.5 | 12 |
| 200 | 23 | 24 | 13 | 3.7 | P431_0050KX401_0030 MF EZ302U | 72 | 72 | 258 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 1.7 | 6.0 | 4.0 | 8.6 | 9.5 |
| 200 | 30 | 31 | 17 | 2.9 | P431_0050KX401_0030 MF EZ303U | 100 | 100 | 258 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 1.9 | 6.0 | 4.0 | 8.6 | 10 |
| 200 | 40 | 43 | 22 | 2.1 | P431_0050KX401_0030 MF EZ401U | 121 | 121 | 258 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 2.4 | 6.0 | 4.0 | 8.6 | 11 |
| 200 | 62 | 67 | 34 | 1.4 | P431_0050KX401_0030 MF EZ501U | 121 | 121 | 258 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 4.4 | 6.0 | 4.0 | 8.6 | 12 |
| 200 | 67 | 75 | 38 | 1.3 | P431_0050KX401_0030 MF EZ402U | 121 | 121 | 258 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 3.1 | 6.0 | 4.0 | 8.6 | 12 |
| 214 | 21 | 22 | 15 | 4.2 | P431_0070KX401_0020 MF EZ302U | 67 | 67 | 271 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 1.9 | 5.5 | 3.5 | 9.2 | 9.5 |
| 214 | 28 | 29 | 20 | 3.3 | P431_0070KX401_0020 MF EZ303U | 94 | 94 | 271 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 2.0 | 5.5 | 3.5 | 9.2 | 10 |
| 214 | 37 | 40 | 27 | 2.4 | P431_0070KX401_0020 MF EZ401U | 114 | 114 | 271 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 2.6 | 5.5 | 3.5 | 9.2 | 11 |
| 214 | 58 | 63 | 41 | 1.6 | P431_0070KX401_0020 MF EZ501U | 135 | 143 | 271 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 4.5 | 5.5 | 3.5 | 9.2 | 12 |
| 214 | 63 | 70 | 45 | 1.4 | P431_0070KX401_0020 MF EZ402U | 135 | 143 | 271 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 3.3 | 5.5 | 3.5 | 9.2 | 12 |
| 250 | 18 | 19 | 13 | 3.7 | P431_0040KX401_0030 MF EZ302U | 57 | 57 | 206 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 1.8 | 6.5 | 4.5 | 7.3 | 9.5 |
| 250 | 24 | 25 | 17 | 2.9 | P431_0040KX401_0030 MF EZ303U | 80 | 80 | 206 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 1.9 | 6.5 | 4.5 | 7.3 | 10 |
| 250 | 32 | 34 | 22 | 2.1 | P431_0040KX401_0030 MF EZ401U | 97 | 97 | 206 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 2.4 | 6.5 | 4.5 | 7.3 | 11 |
| 250 | 49 | 54 | 34 | 1.4 | P431_0040KX401_0030 MF EZ501U | 97 | 97 | 206 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 4.4 | 6.5 | 4.5 | 7.3 | 12 |
| 250 | 54 | 60 | 38 | 1.3 | P431_0040KX401_0030 MF EZ402U | 97 | 97 | 206 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 3.1 | 6.5 | 4.5 | 7.3 | 12 |
| 300 | 20 | 21 | 15 | 4.3 | P431_0050KX401_0020 MF EZ303U | 67 | 67 | 258 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 2.1 | 6.0 | 4.0 | 8.6 | 10 |
| 300 | 27 | 29 | 20 | 3.2 | P431_0050KX401_0020 MF EZ401U | 81 | 81 | 258 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 2.6 | 6.0 | 4.0 | 8.6 | 11 |
| 300 | 41 | 45 | 31 | 2.1 | P431_0050KX401_0020 MF EZ501U | 121 | 121 | 258 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 4.6 | 6.0 | 4.0 | 8.6 | 12 |
| 300 | 45 | 50 | 34 | 1.9 | P431_0050KX401_0020 MF EZ402U | 121 | 121 | 258 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 3.3 | 6.0 | 4.0 | 8.6 | 12 |
| 300 | 66 | 82 | 50 | 1.3 | P431_0050KX401_0020 MF EZ404U | 121 | 121 | 258 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 4.7 | 6.0 | 4.0 | 8.6 | 15 |
| 300 | 71 | 76 | 54 | 1.2 | P431_0050KX401_0020 MF EZ502U | 121 | 121 | 258 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 6.9 | 6.0 | 4.0 | 8.6 | 14 |
| 300 | 71 | 79 | 54 | 1.2 | P431_0050KX401_0020 MF EZ701U | 121 | 121 | 258 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 10 | 6.0 | 4.0 | 8.6 | 16 |
| 375 | 16 | 17 | 15 | 4.3 | P431_0040KX401_0020 MF EZ303U | 54 | 54 | 206 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 2.1 | 6.5 | 4.5 | 7.3 | 10 |
| 375 | 21 | 23 | 20 | 3.2 | P431_0040KX401_0020 MF EZ401U | 65 | 65 | 206 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 2.6 | 6.5 | 4.5 | 7.3 | 11 |
| 375 | 33 | 36 | 31 | 2.1 | P431_0040KX401_0020 MF EZ501U | 97 | 97 | 206 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 4.6 | 6.5 | 4.5 | 7.3 | 12 |
| 375 | 36 | 40 | 34 | 1.9 | P431_0040KX401_0020 MF EZ402U | 97 | 97 | 206 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 3.3 | 6.5 | 4.5 | 7.3 | 12 |
| 375 | 53 | 66 | 50 | 1.3 | P431_0040KX401_0020 MF EZ404U | 97 | 97 | 206 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 4.7 | 6.5 | 4.5 | 7.3 | 15 |
| 375 | 57 | 61 | 54 | 1.2 | P431_0040KX401_0020 MF EZ502U | 97 | 97 | 206 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 6.9 | 6.5 | 4.5 | 7.3 | 14 |
| 375 | 57 | 63 | 54 | 1.2 | P431_0040KX401_0020 MF EZ701U | 97 | 97 | 206 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 10 | 6.5 | 4.5 | 7.3 | 16 |
| 429 | 19 | 20 | 27 | 4.0 | P431_0070KX401_0010 MF EZ401U | 57 | 57 | 271 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 3.4 | 5.5 | 3.5 | 9.2 | 11 |
| 429 | 29 | 31 | 42 | 2.6 | P431_0070KX401_0010 MF EZ501U | 107 | 107 | 271 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 5.3 | 5.5 | 3.5 | 9.2 | 12 |
| 429 | 31 | 35 | 46 | 2.4 | P431_0070KX401_0010 MF EZ402U | 107 | 107 | 271 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 4.1 | 5.5 | 3.5 | 9.2 | 12 |
| 429 | 46 | 58 | 67 | 1.6 | P431_0070KX401_0010 MF EZ404U | 135 | 143 | 271 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 5.4 | 5.5 | 3.5 | 9.2 | 15 |
| 429 | 49 | 54 | 72 | 1.5 | P431_0070KX401_0010 MF EZ502U | 135 | 143 | 271 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 7.6 | 5.5 | 3.5 | 9.2 | 14 |
| 429 | 49 | 56 | 72 | 1.5 | P431_0070KX401_0010 MF EZ701U | 134 | 134 | 271 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 11 | 5.5 | 3.5 | 9.2 | 16 |
| 429 | 65 | 74 | 94 | 1.1 | P431_0070KX401_0010 MF EZ503U | 135 | 143 | 271 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 10 | 5.5 | 3.5 | 9.2 | 15 |
| 500 | 12 | 13 | 15 | 4.2 | P431_0030KX401_0020 MF EZ303U | 40 | 40 | 155 | 6.000 | 6/1 | 2500 | 2500 | 5000 | 2.2 | 7.5 | 5.5 | 5.3 | 10 |
| 500 | 16 | 17 | 21 | 3.1 | P431_0030KX401_0020 MF EZ401U | 49 | 49 | 155 | 6.000 | 6/1 | 2500 | 2500 | 5000 | 2.7 | 7.5 | 5.5 | 5.3 | 11 |
| 500 | 25 | 27 | 32 | 2.0 | P431_0030KX401_0020 MF EZ501U | 73 | 73 | 155 | 6.000 | 6/1 | 2500 | 2500 | 5000 | 4.7 | 7.5 | 5.5 | 5.3 | 12 |
| 500 | 27 | 30 | 35 | 1.9 | P431_0030KX401_0020 MF EZ402U | 73 | 73 | 155 | 6.000 | 6/1 | 2500 | 2500 | 5000 | 3.4 | 7.5 | 5.5 | 5.3 | 12 |
| 500 | 40 | 49 | 51 | 1.3 | P431_0030KX401_0020 MF EZ404U | 73 | 73 | 155 | 6.000 | 6/1 | 2500 | 2500 | 5000 | 4.8 | 7.5 | 5.5 | 5.3 | 15 |
| 500 | 42 | 46 | 54 | 1.2 | P431_0030KX401_0020 MF EZ502U | 73 | 73 | 155 | 6.000 | 6/1 | 2500 | 2500 | 5000 | 7.0 | 7.5 | 5.5 | 5.3 | 14 |
| 500 | 42 | 48 | 54 | 1.2 | P431_0030KX401_0020 MF EZ701U | 73 | 73 | 155 | 6.000 | 6/1 | 2500 | 2500 | 5000 | 10 | 7.5 | 5.5 | 5.3 | 16 |
| 600 | 21 | 22 | 30 | 3.6 | P431_0050KX401_0010 MF EZ501U | 76 | 76 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 5.5 | 6.0 | 4.0 | 8.6 | 12 |
| 600 | 22 | 25 | 33 | 3.3 | P431_0050KX401_0010 MF EZ402U | 76 | 76 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 4.2 | 6.0 | 4.0 | 8.6 | 12 |
| 600 | 33 | 41 | 48 | 2.3 | P431_0050KX401_0010 MF EZ404U | 121 | 121 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 5.6 | 6.0 | 4.0 | 8.6 | 15 |
| 600 | 35 | 38 | 51 | 2.1 | P431_0050KX401_0010 MF EZ502U | 121 | 121 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 7.8 | 6.0 | 4.0 | 8.6 | 14 |
| 600 | 35 | 40 | 51 | 2.1 | P431_0050KX401_0010 MF EZ701U | 96 | 96 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 11 | 6.0 | 4.0 | 8.6 | 16 |
| 600 | 46 | 53 | 67 | 1.6 | P431_0050KX401_0010 MF EZ503U | 121 | 121 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 10 | 6.0 | 4.0 | 8.6 | 15 |
| 600 | 57 | 69 | 83 | 1.3 | P431_0050KX401_0010 MF EZ702U | 121 | 121 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 16 | 6.0 | 4.0 | 8.6 | 18 |
| 600 | 64 | 76 | 94 | 1.2 | P431_0050KX401_0010 MF EZ505U | 121 | 121 | 258 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 15 | 6.0 | 4.0 | 8.6 | 18 |
| 750 | 16 | 18 | 26 | 4.1 | P431_0040KX401_0010 MF EZ501U | 61 | 61 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 5.6 | 6.5 | 4.5 | 7.3 | 12 |
| 750 | 18 | 20 | 29 | 3.8 | P431_0040KX401_0010 MF EZ402U | 61 | 61 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 4.3 | 6.5 | 4.5 | 7.3 | 12 |
| 750 | 26 | 33 | 42 | 2.6 | P431_0040KX401_0010 MF EZ404U | 97 | 97 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 5.7 | 6.5 | 4.5 | 7.3 | 15 |
| 750 | 28 | 31 | 45 | 2.4 | P431_0040KX401_0010 MF EZ502U | 97 | 97 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 7.9 | 6.5 | 4.5 | 7.3 | 14 |
| 750 | 28 | 32 | 45 | 2.4 | P431_0040KX401_0010 MF EZ701U | 76 | 76 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 11 | 6.5 | 4.5 | 7.3 | 16 |
| 750 | 37 | 42 | 59 | 1.8 | P431_0040KX401_0010 MF EZ503U | 97 | 97 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 10 | 6.5 | 4.5 | 7.3 | 15 |
| 750 | 46 | 55 | 73 | 1.5 | P431_0040KX401_0010 MF EZ702U | 97 | 97 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 16 | 6.5 | 4.5 | 7.3 | 18 |
| 750 | 52 | 61 | 82 | 1.3 | P431_0040KX401_0010 MF EZ505U | 97 | 97 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 15 | 6.5 | 4.5 | 7.3 | 18 |
| 750 | 63 | 79 | 100 | 1.1 | P431_0040KX401_0010 MF EZ703U | 97 | 97 | 206 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 24 | 6.5 | 4.5 | 7.3 | 20 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/arcmin] | [kg] |
| **P431KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | | | |
| 1000 | 12 | 13 | 30 | 3.5 | P431_0030KX401_0010 MF EZ501U | 46 | 46 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 6.0 | 7.5 | 5.5 | 5.3 | 12 |
| 1000 | 13 | 15 | 33 | 3.2 | P431_0030KX401_0010 MF EZ402U | 46 | 46 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 4.8 | 7.5 | 5.5 | 5.3 | 12 |
| 1000 | 20 | 25 | 49 | 2.2 | P431_0030KX401_0010 MF EZ404U | 73 | 73 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 6.1 | 7.5 | 5.5 | 5.3 | 15 |
| 1000 | 21 | 23 | 52 | 2.1 | P431_0030KX401_0010 MF EZ502U | 73 | 73 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 8.3 | 7.5 | 5.5 | 5.3 | 14 |
| 1000 | 21 | 24 | 52 | 2.1 | P431_0030KX401_0010 MF EZ701U | 57 | 57 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 12 | 7.5 | 5.5 | 5.3 | 16 |
| 1000 | 28 | 32 | 69 | 1.6 | P431_0030KX401_0010 MF EZ503U | 73 | 73 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 11 | 7.5 | 5.5 | 5.3 | 15 |
| 1000 | 34 | 41 | 85 | 1.3 | P431_0030KX401_0010 MF EZ702U | 73 | 73 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 17 | 7.5 | 5.5 | 5.3 | 18 |
| 1000 | 39 | 46 | 96 | 1.1 | P431_0030KX401_0010 MF EZ505U | 73 | 73 | 155 | 3.000 | 3/1 | 2500 | 2000 | 4000 | 15 | 7.5 | 5.5 | 5.3 | 18 |
| **P432KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 130 Nm)** | | | | | | | | | | | | | | | | | | |
| 29 | 91 | 93 | 38 | 1.1 | P432_0350KX301_0030 MF EZ301U | 133 | 138 | 266 | 105.0 | 105/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 12 | 7.6 |
| 30 | 87 | 89 | 49 | 1.2 | P432_0500KX301_0020 MF EZ301U | 132 | 138 | 264 | 100.0 | 100/1 | 3500 | 3000 | 5500 | 1.0 | 5.0 | 3.0 | 12 | 7.6 |
| 36 | 73 | 75 | 32 | 1.3 | P432_0280KX301_0030 MF EZ301U | 130 | 130 | 260 | 84.00 | 84/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 12 | 7.6 |
| 38 | 70 | 71 | 46 | 1.3 | P432_0400KX301_0020 MF EZ301U | 130 | 130 | 260 | 80.00 | 80/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 12 | 7.6 |
| 40 | 65 | 67 | 27 | 1.5 | P432_0250KX301_0030 MF EZ301U | 134 | 139 | 268 | 75.00 | 75/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 12 | 7.6 |
| 43 | 61 | 62 | 34 | 1.7 | P432_0350KX301_0020 MF EZ301U | 133 | 138 | 266 | 70.00 | 70/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 12 | 7.6 |
| 47 | 56 | 57 | 35 | 1.6 | P432_0320KX301_0020 MF EZ301U | 126 | 131 | 253 | 64.00 | 64/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 9.4 | 7.6 |
| 50 | 52 | 53 | 23 | 1.8 | P432_0200KX301_0030 MF EZ301U | 134 | 139 | 268 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 0.95 | 5.5 | 3.5 | 12 | 7.6 |
| 50 | 89 | 94 | 40 | 1.1 | P432_0200KX301_0030 MF EZ302U | 134 | 139 | 268 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 12 | 8.2 |
| 54 | 49 | 50 | 29 | 1.9 | P432_0280KX301_0020 MF EZ301U | 130 | 130 | 260 | 56.00 | 56/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 12 | 7.6 |
| 54 | 83 | 88 | 50 | 1.1 | P432_0280KX301_0020 MF EZ302U | 130 | 130 | 260 | 56.00 | 56/1 | 3500 | 3000 | 5500 | 1.1 | 5.5 | 3.5 | 12 | 8.2 |
| 60 | 44 | 44 | 25 | 2.3 | P432_0250KX301_0020 MF EZ301U | 131 | 131 | 268 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 12 | 7.6 |
| 60 | 74 | 79 | 42 | 1.3 | P432_0250KX301_0020 MF EZ302U | 134 | 139 | 268 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.1 | 5.5 | 3.5 | 12 | 8.2 |
| 60 | 97 | 102 | 55 | 1.0 | P432_0250KX301_0020 MF EZ303U | 134 | 139 | 268 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.2 | 5.5 | 3.5 | 12 | 8.7 |
| 75 | 35 | 36 | 21 | 2.7 | P432_0200KX301_0020 MF EZ301U | 105 | 105 | 268 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 12 | 7.6 |
| 75 | 60 | 63 | 36 | 1.6 | P432_0200KX301_0020 MF EZ302U | 134 | 139 | 268 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.1 | 5.5 | 3.5 | 12 | 8.2 |
| 75 | 77 | 82 | 47 | 1.2 | P432_0200KX301_0020 MF EZ303U | 134 | 139 | 268 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.2 | 5.5 | 3.5 | 12 | 8.7 |
| 86 | 30 | 31 | 29 | 3.4 | P432_0350KX301_0010 MF EZ301U | 92 | 92 | 266 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.2 | 5.5 | 3.5 | 12 | 7.6 |
| 86 | 52 | 55 | 49 | 2.0 | P432_0350KX301_0010 MF EZ302U | 133 | 138 | 266 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.3 | 5.5 | 3.5 | 12 | 8.2 |
| 86 | 68 | 72 | 64 | 1.5 | P432_0350KX301_0010 MF EZ303U | 133 | 138 | 266 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.4 | 5.5 | 3.5 | 12 | 8.7 |
| 86 | 92 | 98 | 86 | 1.1 | P432_0350KX301_0010 MF EZ401U | 133 | 138 | 266 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 2.0 | 5.5 | 3.5 | 12 | 10 |
| 94 | 28 | 28 | 18 | 3.2 | P432_0160KX301_0020 MF EZ301U | 84 | 84 | 260 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 11 | 7.6 |
| 94 | 48 | 50 | 31 | 1.9 | P432_0160KX301_0020 MF EZ302U | 130 | 130 | 260 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.1 | 5.5 | 3.5 | 11 | 8.2 |
| 94 | 62 | 66 | 40 | 1.4 | P432_0160KX301_0020 MF EZ303U | 130 | 130 | 260 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.2 | 5.5 | 3.5 | 11 | 8.7 |
| 94 | 84 | 90 | 54 | 1.1 | P432_0160KX301_0020 MF EZ401U | 130 | 130 | 260 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.8 | 5.5 | 3.5 | 11 | 10 |
| **P432KX ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 130 Nm)** | | | | | | | | | | | | | | | | | | |
| 57 | 87 | 93 | 36 | 1.2 | P432_0350KX301_0030 MF EZ301U | 133 | 138 | 266 | 105.0 | 105/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 12 | 7.6 |
| 71 | 70 | 75 | 31 | 1.4 | P432_0280KX301_0030 MF EZ301U | 130 | 130 | 260 | 84.00 | 84/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 12 | 7.6 |
| 80 | 62 | 67 | 26 | 1.6 | P432_0250KX301_0030 MF EZ301U | 134 | 139 | 268 | 75.00 | 75/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 12 | 7.6 |
| 100 | 50 | 53 | 22 | 1.9 | P432_0200KX301_0030 MF EZ301U | 134 | 139 | 268 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 0.95 | 5.5 | 3.5 | 12 | 7.6 |
| 100 | 84 | 94 | 37 | 1.1 | P432_0200KX301_0030 MF EZ302U | 134 | 139 | 268 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 12 | 8.2 |
| **P531KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 330 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 80 | 86 | 23 | 2.2 | P531_0100KX501_0030 MF EZ401U | 244 | 244 | 575 | 30.00 | 30/1 | 3000 | 3000 | 5000 | 5.7 | 4.0 | 2.0 | 24 | 17 |
| 100 | 123 | 135 | 36 | 1.5 | P531_0100KX501_0030 MF EZ501U | 288 | 288 | 575 | 30.00 | 30/1 | 3000 | 3000 | 5000 | 7.7 | 4.0 | 2.0 | 24 | 18 |
| 100 | 135 | 149 | 39 | 1.3 | P531_0100KX501_0030 MF EZ402U | 288 | 288 | 575 | 30.00 | 30/1 | 3000 | 3000 | 5000 | 6.4 | 4.0 | 2.0 | 24 | 18 |
| 125 | 64 | 69 | 17 | 3.1 | P531_0080KX501_0030 MF EZ401U | 195 | 195 | 592 | 24.00 | 24/1 | 3000 | 3000 | 5000 | 5.7 | 4.5 | 2.5 | 21 | 17 |
| 125 | 99 | 108 | 26 | 2.0 | P531_0080KX501_0030 MF EZ501U | 296 | 300 | 592 | 24.00 | 24/1 | 3000 | 3000 | 5000 | 7.7 | 4.5 | 2.5 | 21 | 18 |
| 125 | 108 | 119 | 28 | 1.9 | P531_0080KX501_0030 MF EZ402U | 296 | 300 | 592 | 24.00 | 24/1 | 3000 | 3000 | 5000 | 6.4 | 4.5 | 2.5 | 21 | 18 |
| 125 | 158 | 197 | 42 | 1.3 | P531_0080KX501_0030 MF EZ404U | 296 | 300 | 592 | 24.00 | 24/1 | 3000 | 3000 | 5000 | 7.8 | 4.5 | 2.5 | 21 | 20 |
| 125 | 170 | 183 | 45 | 1.2 | P531_0080KX501_0030 MF EZ502U | 296 | 300 | 592 | 24.00 | 24/1 | 3000 | 3000 | 5000 | 10 | 4.5 | 2.5 | 21 | 20 |
| 125 | 170 | 190 | 45 | 1.2 | P531_0080KX501_0030 MF EZ701U | 296 | 300 | 592 | 24.00 | 24/1 | 3000 | 3000 | 5000 | 13 | 4.5 | 2.5 | 21 | 21 |
| 143 | 56 | 60 | 14 | 3.7 | P531_0070KX501_0030 MF EZ401U | 171 | 171 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 5.7 | 4.5 | 2.5 | 25 | 17 |
| 143 | 86 | 94 | 22 | 2.4 | P531_0070KX501_0030 MF EZ501U | 321 | 321 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 7.7 | 4.5 | 2.5 | 25 | 18 |
| 143 | 94 | 104 | 24 | 2.2 | P531_0070KX501_0030 MF EZ402U | 321 | 321 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 6.4 | 4.5 | 2.5 | 25 | 18 |
| 143 | 138 | 173 | 35 | 1.5 | P531_0070KX501_0030 MF EZ404U | 333 | 380 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 7.8 | 4.5 | 2.5 | 25 | 20 |
| 143 | 148 | 161 | 37 | 1.4 | P531_0070KX501_0030 MF EZ502U | 333 | 380 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 10 | 4.5 | 2.5 | 25 | 20 |
| 143 | 148 | 167 | 37 | 1.4 | P531_0070KX501_0030 MF EZ701U | 333 | 380 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 13 | 4.5 | 2.5 | 25 | 21 |
| 143 | 195 | 223 | 49 | 1.1 | P531_0070KX501_0030 MF EZ503U | 333 | 380 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 12 | 4.5 | 2.5 | 25 | 21 |
| 150 | 54 | 57 | 21 | 3.4 | P531_0100KX501_0020 MF EZ401U | 162 | 162 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 6.2 | 4.0 | 2.0 | 24 | 17 |
| 150 | 82 | 90 | 33 | 2.2 | P531_0100KX501_0020 MF EZ501U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 8.2 | 4.0 | 2.0 | 24 | 18 |
| 150 | 90 | 99 | 36 | 2.0 | P531_0100KX501_0020 MF EZ402U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 6.9 | 4.0 | 2.0 | 24 | 18 |
| 150 | 132 | 164 | 52 | 1.4 | P531_0100KX501_0020 MF EZ404U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 8.3 | 4.0 | 2.0 | 24 | 20 |
| 150 | 141 | 153 | 56 | 1.3 | P531_0100KX501_0020 MF EZ502U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 11 | 4.0 | 2.0 | 24 | 20 |
| 150 | 141 | 159 | 56 | 1.3 | P531_0100KX501_0020 MF EZ701U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 14 | 4.0 | 2.0 | 24 | 21 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2,5,6 | EL3,4 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P531KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 330 Nm)** | | | | | | | | | | | | | | | | | | |
| 188 | 43 | 46 | 15 | 4.7 | P531_0080KX501_0020 MF EZ401U | 130 | 130 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 6.3 | 4.5 | 2.5 | 21 | 17 |
| 188 | 66 | 72 | 23 | 3.0 | P531_0080KX501_0020 MF EZ501U | 245 | 245 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 8.2 | 4.5 | 2.5 | 21 | 18 |
| 188 | 72 | 79 | 26 | 2.8 | P531_0080KX501_0020 MF EZ402U | 245 | 245 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 7.0 | 4.5 | 2.5 | 21 | 18 |
| 188 | 105 | 131 | 38 | 1.9 | P531_0080KX501_0020 MF EZ404U | 296 | 300 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 21 | 20 |
| 188 | 113 | 122 | 40 | 1.8 | P531_0080KX501_0020 MF EZ502U | 296 | 300 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 21 | 20 |
| 188 | 113 | 127 | 40 | 1.8 | P531_0080KX501_0020 MF EZ701U | 296 | 300 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 21 | 21 |
| 188 | 148 | 170 | 53 | 1.3 | P531_0080KX501_0020 MF EZ503U | 296 | 300 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 13 | 4.5 | 2.5 | 21 | 21 |
| 188 | 183 | 220 | 65 | 1.1 | P531_0080KX501_0020 MF EZ702U | 296 | 300 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 19 | 4.5 | 2.5 | 21 | 24 |
| 200 | 62 | 67 | 15 | 3.4 | P531_0050KX501_0030 MF EZ501U | 229 | 229 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 7.8 | 5.0 | 3.0 | 22 | 18 |
| 200 | 67 | 75 | 17 | 3.1 | P531_0050KX501_0030 MF EZ402U | 229 | 229 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 6.5 | 5.0 | 3.0 | 22 | 18 |
| 200 | 99 | 123 | 25 | 2.1 | P531_0050KX501_0030 MF EZ404U | 306 | 306 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 7.8 | 5.0 | 3.0 | 22 | 20 |
| 200 | 106 | 115 | 26 | 2.0 | P531_0050KX501_0030 MF EZ502U | 306 | 306 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 10 | 5.0 | 3.0 | 22 | 20 |
| 200 | 106 | 119 | 26 | 2.0 | P531_0050KX501_0030 MF EZ701U | 287 | 287 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 13 | 5.0 | 3.0 | 22 | 21 |
| 200 | 139 | 159 | 35 | 1.5 | P531_0050KX501_0030 MF EZ503U | 306 | 306 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 12 | 5.0 | 3.0 | 22 | 21 |
| 200 | 172 | 206 | 43 | 1.2 | P531_0050KX501_0030 MF EZ702U | 306 | 306 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 19 | 5.0 | 3.0 | 22 | 24 |
| 200 | 193 | 229 | 48 | 1.1 | P531_0050KX501_0030 MF EZ505U | 306 | 306 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 17 | 5.0 | 3.0 | 22 | 24 |
| 214 | 58 | 63 | 20 | 3.7 | P531_0070KX501_0020 MF EZ501U | 214 | 214 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 25 | 18 |
| 214 | 63 | 70 | 21 | 3.3 | P531_0070KX501_0020 MF EZ402U | 214 | 214 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 7.0 | 4.5 | 2.5 | 25 | 18 |
| 214 | 92 | 115 | 31 | 2.3 | P531_0070KX501_0020 MF EZ404U | 333 | 380 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 25 | 20 |
| 214 | 99 | 107 | 34 | 2.1 | P531_0070KX501_0020 MF EZ502U | 333 | 380 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 25 | 20 |
| 214 | 99 | 111 | 34 | 2.1 | P531_0070KX501_0020 MF EZ701U | 268 | 268 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 25 | 21 |
| 214 | 130 | 148 | 44 | 1.6 | P531_0070KX501_0020 MF EZ503U | 333 | 380 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 13 | 4.5 | 2.5 | 25 | 21 |
| 214 | 161 | 193 | 55 | 1.3 | P531_0070KX501_0020 MF EZ702U | 333 | 380 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 19 | 4.5 | 2.5 | 25 | 24 |
| 214 | 181 | 214 | 61 | 1.2 | P531_0070KX501_0020 MF EZ505U | 333 | 380 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 25 | 24 |
| 250 | 49 | 54 | 15 | 3.4 | P531_0040KX501_0030 MF EZ501U | 183 | 183 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 7.8 | 5.5 | 3.5 | 18 | 18 |
| 250 | 54 | 60 | 17 | 3.1 | P531_0040KX501_0030 MF EZ402U | 183 | 183 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 6.5 | 5.5 | 3.5 | 18 | 18 |
| 250 | 79 | 99 | 25 | 2.1 | P531_0040KX501_0030 MF EZ404U | 244 | 244 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 7.9 | 5.5 | 3.5 | 18 | 20 |
| 250 | 85 | 92 | 26 | 2.0 | P531_0040KX501_0030 MF EZ502U | 244 | 244 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 10 | 5.5 | 3.5 | 18 | 20 |
| 250 | 85 | 95 | 26 | 2.0 | P531_0040KX501_0030 MF EZ701U | 229 | 229 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 13 | 5.5 | 3.5 | 18 | 21 |
| 250 | 111 | 127 | 35 | 1.5 | P531_0040KX501_0030 MF EZ503U | 244 | 244 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 12 | 5.5 | 3.5 | 18 | 21 |
| 250 | 138 | 165 | 43 | 1.2 | P531_0040KX501_0030 MF EZ702U | 244 | 244 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 19 | 5.5 | 3.5 | 18 | 24 |
| 250 | 155 | 183 | 48 | 1.1 | P531_0040KX501_0030 MF EZ505U | 244 | 244 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 17 | 5.5 | 3.5 | 18 | 24 |
| 300 | 45 | 50 | 15 | 4.7 | P531_0050KX501_0020 MF EZ402U | 153 | 153 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 7.1 | 5.0 | 3.0 | 22 | 18 |
| 300 | 66 | 82 | 22 | 3.2 | P531_0050KX501_0020 MF EZ404U | 277 | 277 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 8.4 | 5.0 | 3.0 | 22 | 20 |
| 300 | 71 | 76 | 24 | 3.0 | P531_0050KX501_0020 MF EZ502U | 296 | 296 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 11 | 5.0 | 3.0 | 22 | 20 |
| 300 | 71 | 79 | 24 | 3.0 | P531_0050KX501_0020 MF EZ701U | 191 | 191 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 14 | 5.0 | 3.0 | 22 | 21 |
| 300 | 93 | 106 | 31 | 2.3 | P531_0050KX501_0020 MF EZ503U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 13 | 5.0 | 3.0 | 22 | 21 |
| 300 | 115 | 138 | 39 | 1.8 | P531_0050KX501_0020 MF EZ702U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 19 | 5.0 | 3.0 | 22 | 24 |
| 300 | 129 | 153 | 43 | 1.6 | P531_0050KX501_0020 MF EZ505U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 18 | 5.0 | 3.0 | 22 | 24 |
| 300 | 158 | 199 | 53 | 1.3 | P531_0050KX501_0020 MF EZ703U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 27 | 5.0 | 3.0 | 22 | 26 |
| 300 | 204 | 289 | 69 | 1.0 | P531_0050KX501_0020 MF EZ705U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 39 | 5.0 | 3.0 | 22 | 31 |
| 375 | 36 | 40 | 15 | 4.7 | P531_0040KX501_0020 MF EZ402U | 122 | 122 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 7.2 | 5.5 | 3.5 | 18 | 18 |
| 375 | 53 | 66 | 22 | 3.2 | P531_0040KX501_0020 MF EZ404U | 222 | 222 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 8.5 | 5.5 | 3.5 | 18 | 20 |
| 375 | 57 | 61 | 24 | 3.0 | P531_0040KX501_0020 MF EZ502U | 237 | 237 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 11 | 5.5 | 3.5 | 18 | 20 |
| 375 | 57 | 63 | 24 | 3.0 | P531_0040KX501_0020 MF EZ701U | 153 | 153 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 14 | 5.5 | 3.5 | 18 | 21 |
| 375 | 74 | 85 | 31 | 2.3 | P531_0040KX501_0020 MF EZ503U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 13 | 5.5 | 3.5 | 18 | 21 |
| 375 | 92 | 110 | 39 | 1.8 | P531_0040KX501_0020 MF EZ702U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 19 | 5.5 | 3.5 | 18 | 24 |
| 375 | 103 | 122 | 43 | 1.6 | P531_0040KX501_0020 MF EZ505U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 18 | 5.5 | 3.5 | 18 | 24 |
| 375 | 126 | 159 | 53 | 1.3 | P531_0040KX501_0020 MF EZ703U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 27 | 5.5 | 3.5 | 18 | 26 |
| 375 | 163 | 231 | 69 | 1.0 | P531_0040KX501_0020 MF EZ705U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 40 | 5.5 | 3.5 | 18 | 31 |
| 429 | 46 | 58 | 30 | 4.0 | P531_0070KX501_0010 MF EZ404U | 194 | 194 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 11 | 4.5 | 2.5 | 25 | 20 |
| 429 | 49 | 54 | 32 | 3.7 | P531_0070KX501_0010 MF EZ502U | 207 | 207 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 13 | 4.5 | 2.5 | 25 | 20 |
| 429 | 49 | 56 | 32 | 3.7 | P531_0070KX501_0010 MF EZ701U | 134 | 134 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 16 | 4.5 | 2.5 | 25 | 21 |
| 429 | 65 | 74 | 42 | 2.8 | P531_0070KX501_0010 MF EZ503U | 288 | 288 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 15 | 4.5 | 2.5 | 25 | 21 |
| 429 | 80 | 96 | 52 | 2.3 | P531_0070KX501_0010 MF EZ702U | 274 | 274 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 22 | 4.5 | 2.5 | 25 | 24 |
| 429 | 90 | 107 | 59 | 2.0 | P531_0070KX501_0010 MF EZ505U | 333 | 380 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 20 | 4.5 | 2.5 | 25 | 24 |
| 429 | 110 | 139 | 72 | 1.7 | P531_0070KX501_0010 MF EZ703U | 333 | 380 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 29 | 4.5 | 2.5 | 25 | 26 |
| 429 | 142 | 202 | 93 | 1.3 | P531_0070KX501_0010 MF EZ705U | 333 | 380 | 667 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 42 | 4.5 | 2.5 | 25 | 31 |
| 500 | 25 | 27 | 15 | 4.9 | P531_0030KX501_0020 MF EZ501U | 92 | 92 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 8.9 | 6.5 | 4.5 | 13 | 18 |
| 500 | 27 | 30 | 16 | 4.5 | P531_0030KX501_0020 MF EZ402U | 92 | 92 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 7.6 | 6.5 | 4.5 | 13 | 18 |
| 500 | 40 | 49 | 24 | 3.0 | P531_0030KX501_0020 MF EZ404U | 166 | 166 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 8.9 | 6.5 | 4.5 | 13 | 20 |
| 500 | 42 | 46 | 25 | 2.8 | P531_0030KX501_0020 MF EZ502U | 178 | 178 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 11 | 6.5 | 4.5 | 13 | 20 |
| 500 | 42 | 48 | 25 | 2.8 | P531_0030KX501_0020 MF EZ701U | 115 | 115 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 14 | 6.5 | 4.5 | 13 | 21 |
| 500 | 56 | 64 | 33 | 2.2 | P531_0030KX501_0020 MF EZ503U | 183 | 183 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 14 | 6.5 | 4.5 | 13 | 21 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P531KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 330 Nm)** | | | | | | | | | | | | | | | | | | |
| 500 | 69 | 83 | 41 | 1.7 | P531_0030KX501_0020 MF EZ702U | 183 | 183 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 20 | 6.5 | 4.5 | 13 | 24 |
| 500 | 77 | 92 | 46 | 1.6 | P531_0030KX501_0020 MF EZ505U | 183 | 183 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 18 | 6.5 | 4.5 | 13 | 24 |
| 500 | 95 | 119 | 56 | 1.3 | P531_0030KX501_0020 MF EZ703U | 183 | 183 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 28 | 6.5 | 4.5 | 13 | 26 |
| 600 | 46 | 53 | 30 | 4.0 | P531_0050KX501_0010 MF EZ503U | 205 | 205 | 644 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 16 | 5.0 | 3.0 | 22 | 21 |
| 600 | 57 | 69 | 38 | 3.2 | P531_0050KX501_0010 MF EZ702U | 196 | 196 | 644 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 22 | 5.0 | 3.0 | 22 | 24 |
| 600 | 64 | 76 | 42 | 2.8 | P531_0050KX501_0010 MF EZ505U | 306 | 306 | 644 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 20 | 5.0 | 3.0 | 22 | 24 |
| 600 | 79 | 99 | 52 | 2.3 | P531_0050KX501_0010 MF EZ703U | 306 | 306 | 644 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 30 | 5.0 | 3.0 | 22 | 26 |
| 600 | 102 | 144 | 67 | 1.8 | P531_0050KX501_0010 MF EZ705U | 306 | 306 | 644 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 42 | 5.0 | 3.0 | 22 | 31 |
| 750 | 37 | 42 | 26 | 4.6 | P531_0040KX501_0010 MF EZ503U | 164 | 164 | 515 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 16 | 5.5 | 3.5 | 18 | 21 |
| 750 | 46 | 55 | 32 | 3.7 | P531_0040KX501_0010 MF EZ702U | 157 | 157 | 515 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 22 | 5.5 | 3.5 | 18 | 24 |
| 750 | 52 | 61 | 37 | 3.3 | P531_0040KX501_0010 MF EZ505U | 244 | 244 | 515 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 21 | 5.5 | 3.5 | 18 | 24 |
| 750 | 63 | 79 | 45 | 2.7 | P531_0040KX501_0010 MF EZ703U | 244 | 244 | 515 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 30 | 5.5 | 3.5 | 18 | 26 |
| 750 | 81 | 115 | 58 | 2.1 | P531_0040KX501_0010 MF EZ705U | 244 | 244 | 515 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 43 | 5.5 | 3.5 | 18 | 31 |
| 1000 | 21 | 23 | 24 | 4.9 | P531_0030KX501_0010 MF EZ502U | 89 | 89 | 387 | 3.000 | 3/1 | 2500 | 2000 | 3500 | 15 | 6.5 | 4.5 | 13 | 20 |
| 1000 | 21 | 24 | 24 | 4.9 | P531_0030KX501_0010 MF EZ701U | 57 | 57 | 387 | 3.000 | 3/1 | 2500 | 2000 | 3500 | 19 | 6.5 | 4.5 | 13 | 21 |
| 1000 | 28 | 32 | 32 | 3.8 | P531_0030KX501_0010 MF EZ503U | 123 | 123 | 387 | 3.000 | 3/1 | 2500 | 2000 | 3500 | 18 | 6.5 | 4.5 | 13 | 21 |
| 1000 | 34 | 41 | 39 | 3.0 | P531_0030KX501_0010 MF EZ702U | 118 | 118 | 387 | 3.000 | 3/1 | 2500 | 2000 | 3500 | 24 | 6.5 | 4.5 | 13 | 24 |
| 1000 | 39 | 46 | 44 | 2.7 | P531_0030KX501_0010 MF EZ505U | 183 | 183 | 387 | 3.000 | 3/1 | 2500 | 2000 | 3500 | 22 | 6.5 | 4.5 | 13 | 24 |
| 1000 | 47 | 60 | 54 | 2.2 | P531_0030KX501_0010 MF EZ703U | 183 | 183 | 387 | 3.000 | 3/1 | 2500 | 2000 | 3500 | 32 | 6.5 | 4.5 | 13 | 26 |
| 1000 | 61 | 87 | 70 | 1.7 | P531_0030KX501_0010 MF EZ705U | 183 | 183 | 387 | 3.000 | 3/1 | 2500 | 2000 | 3500 | 44 | 6.5 | 4.5 | 13 | 31 |
| **P531KX ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 330 Nm)** | | | | | | | | | | | | | | | | | | |
| 214 | 191 | 307 | 48 | 1.1 | P531_0070KX501_0030 MF EZ505U | 333 | 380 | 667 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 17 | 4.5 | 2.5 | 25 | 24 |
| 281 | 145 | 234 | 54 | 1.3 | P531_0080KX501_0020 MF EZ505U | 296 | 300 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 17 | 4.5 | 2.5 | 21 | 24 |
| 281 | 185 | 306 | 69 | 1.0 | P531_0080KX501_0020 MF EZ703U | 296 | 300 | 592 | 16.00 | 16/1 | 2500 | 2500 | 4500 | 27 | 4.5 | 2.5 | 21 | 26 |
| 300 | 136 | 219 | 39 | 1.4 | P531_0050KX501_0030 MF EZ505U | 306 | 306 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 17 | 5.0 | 3.0 | 22 | 24 |
| 300 | 173 | 287 | 49 | 1.1 | P531_0050KX501_0030 MF EZ703U | 306 | 306 | 644 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 26 | 5.0 | 3.0 | 22 | 26 |
| 321 | 127 | 205 | 45 | 1.6 | P531_0070KX501_0020 MF EZ505U | 333 | 380 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 25 | 24 |
| 321 | 162 | 268 | 57 | 1.2 | P531_0070KX501_0020 MF EZ703U | 333 | 380 | 667 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 27 | 4.5 | 2.5 | 25 | 26 |
| 375 | 109 | 175 | 39 | 1.4 | P531_0040KX501_0030 MF EZ505U | 244 | 244 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 17 | 5.5 | 3.5 | 18 | 24 |
| 375 | 139 | 229 | 49 | 1.1 | P531_0040KX501_0030 MF EZ703U | 244 | 244 | 515 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 27 | 5.5 | 3.5 | 18 | 26 |
| 450 | 91 | 146 | 35 | 2.0 | P531_0050KX501_0020 MF EZ505U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 18 | 5.0 | 3.0 | 22 | 24 |
| 450 | 116 | 191 | 45 | 1.6 | P531_0050KX501_0020 MF EZ703U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 27 | 5.0 | 3.0 | 22 | 26 |
| 450 | 157 | 287 | 60 | 1.2 | P531_0050KX501_0020 MF EZ705U | 306 | 306 | 644 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 39 | 5.0 | 3.0 | 22 | 31 |
| 563 | 73 | 117 | 35 | 2.0 | P531_0040KX501_0020 MF EZ505U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 18 | 5.5 | 3.5 | 18 | 24 |
| 563 | 92 | 153 | 45 | 1.6 | P531_0040KX501_0020 MF EZ703U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 27 | 5.5 | 3.5 | 18 | 26 |
| 563 | 125 | 229 | 60 | 1.2 | P531_0040KX501_0020 MF EZ705U | 244 | 244 | 515 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 40 | 5.5 | 3.5 | 18 | 31 |
| 750 | 54 | 88 | 35 | 2.0 | P531_0030KX501_0020 MF EZ505U | 183 | 183 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 18 | 6.5 | 4.5 | 13 | 24 |
| 750 | 69 | 115 | 45 | 1.6 | P531_0030KX501_0020 MF EZ703U | 183 | 183 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 28 | 6.5 | 4.5 | 13 | 26 |
| 750 | 94 | 172 | 60 | 1.2 | P531_0030KX501_0020 MF EZ705U | 183 | 183 | 387 | 6.000 | 6/1 | 2500 | 2500 | 4500 | 40 | 6.5 | 4.5 | 13 | 31 |
| **P532KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 360 Nm)** | | | | | | | | | | | | | | | | | | |
| 14 | 183 | 187 | 33 | 1.4 | P532_0700KX401_0030 MF EZ301U | 345 | 357 | 690 | 210.0 | 210/1 | 3000 | 3000 | 5500 | 1.6 | 4.0 | 2.0 | 30 | 13 |
| 15 | 174 | 178 | 51 | 1.3 | P532_1000KX401_0020 MF EZ301U | 288 | 288 | 575 | 200.0 | 200/1 | 2500 | 2500 | 5000 | 1.8 | 4.0 | 2.0 | 26 | 13 |
| 20 | 131 | 133 | 23 | 2.1 | P532_0500KX401_0030 MF EZ301U | 352 | 352 | 704 | 150.0 | 150/1 | 3000 | 3000 | 5500 | 1.6 | 4.0 | 2.0 | 32 | 13 |
| 20 | 223 | 236 | 39 | 1.2 | P532_0500KX401_0030 MF EZ302U | 352 | 352 | 704 | 150.0 | 150/1 | 3000 | 3000 | 5500 | 1.7 | 4.0 | 2.0 | 32 | 14 |
| 21 | 122 | 124 | 30 | 2.2 | P532_0700KX401_0020 MF EZ301U | 345 | 357 | 690 | 140.0 | 140/1 | 2500 | 2500 | 5000 | 1.8 | 4.0 | 2.0 | 30 | 13 |
| 21 | 208 | 220 | 51 | 1.3 | P532_0700KX401_0020 MF EZ302U | 345 | 357 | 690 | 140.0 | 140/1 | 2500 | 2500 | 5000 | 1.9 | 4.0 | 2.0 | 30 | 14 |
| 25 | 104 | 107 | 23 | 2.0 | P532_0400KX401_0030 MF EZ301U | 300 | 300 | 600 | 120.0 | 120/1 | 3000 | 3000 | 5500 | 1.6 | 4.5 | 2.5 | 31 | 13 |
| 25 | 179 | 189 | 40 | 1.2 | P532_0400KX401_0030 MF EZ302U | 300 | 300 | 600 | 120.0 | 120/1 | 3000 | 3000 | 5500 | 1.7 | 4.5 | 2.5 | 31 | 14 |
| 29 | 91 | 93 | 16 | 3.0 | P532_0350KX401_0030 MF EZ301U | 275 | 275 | 704 | 105.0 | 105/1 | 3000 | 3000 | 5500 | 1.6 | 4.5 | 2.5 | 32 | 13 |
| 29 | 156 | 165 | 27 | 1.7 | P532_0350KX401_0030 MF EZ302U | 352 | 352 | 704 | 105.0 | 105/1 | 3000 | 3000 | 5500 | 1.7 | 4.5 | 2.5 | 32 | 14 |
| 29 | 203 | 215 | 36 | 1.3 | P532_0350KX401_0030 MF EZ303U | 352 | 352 | 704 | 105.0 | 105/1 | 3000 | 3000 | 5500 | 1.8 | 4.5 | 2.5 | 32 | 14 |
| 30 | 87 | 89 | 21 | 3.1 | P532_0500KX401_0020 MF EZ301U | 262 | 262 | 704 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 1.8 | 4.0 | 2.0 | 32 | 13 |
| 30 | 149 | 157 | 36 | 1.8 | P532_0500KX401_0020 MF EZ302U | 352 | 352 | 704 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 1.9 | 4.0 | 2.0 | 32 | 14 |
| 30 | 194 | 205 | 46 | 1.4 | P532_0500KX401_0020 MF EZ303U | 352 | 352 | 704 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 2.0 | 4.0 | 2.0 | 32 | 14 |
| 30 | 262 | 281 | 63 | 1.0 | P532_0500KX401_0020 MF EZ401U | 352 | 352 | 704 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 2.6 | 4.0 | 2.0 | 32 | 16 |
| 36 | 73 | 75 | 15 | 3.2 | P532_0280KX401_0030 MF EZ301U | 220 | 220 | 600 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 1.6 | 4.5 | 2.5 | 31 | 13 |
| 36 | 125 | 132 | 26 | 1.8 | P532_0280KX401_0030 MF EZ302U | 300 | 300 | 600 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 1.7 | 4.5 | 2.5 | 31 | 14 |
| 36 | 163 | 172 | 33 | 1.4 | P532_0280KX401_0030 MF EZ303U | 300 | 300 | 600 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 1.8 | 4.5 | 2.5 | 31 | 14 |
| 36 | 220 | 236 | 45 | 1.0 | P532_0280KX401_0030 MF EZ401U | 300 | 300 | 600 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 2.4 | 4.5 | 2.5 | 31 | 16 |
| 38 | 70 | 71 | 21 | 3.1 | P532_0400KX401_0020 MF EZ301U | 210 | 210 | 600 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 1.8 | 4.5 | 2.5 | 31 | 13 |
| 38 | 119 | 126 | 36 | 1.8 | P532_0400KX401_0020 MF EZ302U | 300 | 300 | 600 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 1.9 | 4.5 | 2.5 | 31 | 14 |
| 38 | 155 | 164 | 47 | 1.4 | P532_0400KX401_0020 MF EZ303U | 300 | 300 | 600 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 31 | 14 |
| 38 | 210 | 225 | 63 | 1.0 | P532_0400KX401_0020 MF EZ401U | 300 | 300 | 600 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 31 | 16 |
| 40 | 65 | 67 | 12 | 4.0 | P532_0250KX401_0030 MF EZ301U | 197 | 197 | 710 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 1.6 | 4.5 | 2.5 | 31 | 13 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P532KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 360 Nm)** | | | | | | | | | | | | | | | | | | |
| 40 | 112 | 118 | 20 | 2.3 | P532_0250KX401_0030 MF EZ302U | 351 | 351 | 710 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 1.7 | 4.5 | 2.5 | 31 | 14 |
| 40 | 145 | 154 | 26 | 1.8 | P532_0250KX401_0030 MF EZ303U | 355 | 357 | 710 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 1.9 | 4.5 | 2.5 | 31 | 14 |
| 40 | 197 | 211 | 36 | 1.3 | P532_0250KX401_0030 MF EZ401U | 355 | 357 | 710 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 2.4 | 4.5 | 2.5 | 31 | 16 |
| 43 | 61 | 62 | 14 | 4.4 | P532_0350KX401_0020 MF EZ301U | 183 | 183 | 704 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 1.8 | 4.5 | 2.5 | 32 | 13 |
| 43 | 104 | 110 | 25 | 2.6 | P532_0350KX401_0020 MF EZ302U | 328 | 328 | 704 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 1.9 | 4.5 | 2.5 | 32 | 14 |
| 43 | 136 | 143 | 32 | 2.0 | P532_0350KX401_0020 MF EZ303U | 352 | 352 | 704 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 32 | 14 |
| 43 | 183 | 197 | 44 | 1.5 | P532_0350KX401_0020 MF EZ401U | 352 | 352 | 704 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 32 | 16 |
| 47 | 56 | 57 | 15 | 4.3 | P532_0320KX401_0020 MF EZ301U | 168 | 168 | 624 | 64.00 | 64/1 | 2500 | 2500 | 5000 | 1.9 | 4.5 | 2.5 | 25 | 13 |
| 47 | 95 | 101 | 25 | 2.5 | P532_0320KX401_0020 MF EZ302U | 299 | 299 | 624 | 64.00 | 64/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 25 | 14 |
| 47 | 124 | 131 | 33 | 1.9 | P532_0320KX401_0020 MF EZ303U | 312 | 363 | 624 | 64.00 | 64/1 | 2500 | 2500 | 5000 | 2.1 | 4.5 | 2.5 | 25 | 14 |
| 47 | 168 | 180 | 45 | 1.4 | P532_0320KX401_0020 MF EZ401U | 312 | 363 | 624 | 64.00 | 64/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 25 | 16 |
| 50 | 52 | 53 | 9.9 | 4.8 | P532_0200KX401_0030 MF EZ301U | 157 | 157 | 710 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 1.7 | 4.5 | 2.5 | 31 | 13 |
| 50 | 89 | 94 | 17 | 2.8 | P532_0200KX401_0030 MF EZ302U | 281 | 281 | 710 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 1.8 | 4.5 | 2.5 | 31 | 14 |
| 50 | 116 | 123 | 22 | 2.2 | P532_0200KX401_0030 MF EZ303U | 355 | 364 | 710 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 1.9 | 4.5 | 2.5 | 31 | 14 |
| 50 | 157 | 168 | 30 | 1.6 | P532_0200KX401_0030 MF EZ401U | 355 | 364 | 710 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 2.4 | 4.5 | 2.5 | 31 | 16 |
| 50 | 241 | 264 | 46 | 1.0 | P532_0200KX401_0030 MF EZ501U | 355 | 364 | 710 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 4.4 | 4.5 | 2.5 | 31 | 17 |
| 54 | 49 | 50 | 14 | 4.7 | P532_0280KX401_0020 MF EZ301U | 147 | 147 | 600 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 1.8 | 4.5 | 2.5 | 31 | 13 |
| 54 | 83 | 88 | 23 | 2.8 | P532_0280KX401_0020 MF EZ302U | 262 | 262 | 600 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 1.9 | 4.5 | 2.5 | 31 | 14 |
| 54 | 108 | 115 | 30 | 2.1 | P532_0280KX401_0020 MF EZ303U | 300 | 300 | 600 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 31 | 14 |
| 54 | 147 | 157 | 41 | 1.6 | P532_0280KX401_0020 MF EZ401U | 300 | 300 | 600 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 31 | 16 |
| 54 | 225 | 246 | 63 | 1.0 | P532_0280KX401_0020 MF EZ501U | 300 | 300 | 600 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 4.5 | 4.5 | 2.5 | 31 | 17 |
| 60 | 74 | 79 | 18 | 3.5 | P532_0250KX401_0020 MF EZ302U | 234 | 234 | 710 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 31 | 14 |
| 60 | 97 | 102 | 24 | 2.7 | P532_0250KX401_0020 MF EZ303U | 328 | 328 | 710 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 2.1 | 4.5 | 2.5 | 31 | 14 |
| 60 | 131 | 140 | 32 | 2.0 | P532_0250KX401_0020 MF EZ401U | 355 | 357 | 710 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 31 | 16 |
| 60 | 201 | 220 | 50 | 1.3 | P532_0250KX401_0020 MF EZ501U | 355 | 357 | 710 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 4.6 | 4.5 | 2.5 | 31 | 17 |
| 60 | 220 | 243 | 54 | 1.2 | P532_0250KX401_0020 MF EZ402U | 355 | 357 | 710 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 3.3 | 4.5 | 2.5 | 31 | 17 |
| 75 | 60 | 63 | 15 | 4.2 | P532_0200KX401_0020 MF EZ302U | 187 | 187 | 710 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 31 | 14 |
| 75 | 77 | 82 | 20 | 3.2 | P532_0200KX401_0020 MF EZ303U | 262 | 262 | 710 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 2.1 | 4.5 | 2.5 | 31 | 14 |
| 75 | 105 | 112 | 27 | 2.4 | P532_0200KX401_0020 MF EZ401U | 318 | 318 | 710 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 31 | 16 |
| 75 | 161 | 176 | 41 | 1.6 | P532_0200KX401_0020 MF EZ501U | 355 | 364 | 710 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 4.6 | 4.5 | 2.5 | 31 | 17 |
| 75 | 176 | 195 | 45 | 1.4 | P532_0200KX401_0020 MF EZ402U | 355 | 364 | 710 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 3.3 | 4.5 | 2.5 | 31 | 17 |
| 86 | 68 | 72 | 28 | 3.9 | P532_0350KX401_0010 MF EZ303U | 229 | 229 | 704 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 2.8 | 4.5 | 2.5 | 32 | 14 |
| 86 | 92 | 98 | 37 | 2.9 | P532_0350KX401_0010 MF EZ401U | 278 | 278 | 704 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 3.4 | 4.5 | 2.5 | 32 | 16 |
| 86 | 141 | 154 | 58 | 1.9 | P532_0350KX401_0010 MF EZ501U | 352 | 352 | 704 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 5.3 | 4.5 | 2.5 | 32 | 17 |
| 86 | 154 | 170 | 63 | 1.7 | P532_0350KX401_0010 MF EZ402U | 352 | 352 | 704 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 4.1 | 4.5 | 2.5 | 32 | 17 |
| 86 | 226 | 282 | 92 | 1.2 | P532_0350KX401_0010 MF EZ404U | 352 | 352 | 704 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 5.4 | 4.5 | 2.5 | 32 | 19 |
| 86 | 242 | 262 | 99 | 1.1 | P532_0350KX401_0010 MF EZ502U | 352 | 352 | 704 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 7.6 | 4.5 | 2.5 | 32 | 18 |
| 86 | 242 | 272 | 99 | 1.1 | P532_0350KX401_0010 MF EZ701U | 352 | 352 | 704 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 11 | 4.5 | 2.5 | 32 | 20 |
| 94 | 48 | 50 | 14 | 4.6 | P532_0160KX401_0020 MF EZ302U | 150 | 150 | 600 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 29 | 14 |
| 94 | 62 | 66 | 18 | 3.5 | P532_0160KX401_0020 MF EZ303U | 210 | 210 | 600 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 2.1 | 4.5 | 2.5 | 29 | 14 |
| 94 | 84 | 90 | 24 | 2.6 | P532_0160KX401_0020 MF EZ401U | 255 | 255 | 600 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 29 | 16 |
| 94 | 129 | 141 | 38 | 1.7 | P532_0160KX401_0020 MF EZ501U | 300 | 300 | 600 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 4.6 | 4.5 | 2.5 | 29 | 17 |
| 94 | 141 | 156 | 41 | 1.6 | P532_0160KX401_0020 MF EZ402U | 300 | 300 | 600 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 3.3 | 4.5 | 2.5 | 29 | 17 |
| 94 | 207 | 258 | 60 | 1.1 | P532_0160KX401_0020 MF EZ404U | 300 | 300 | 600 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 4.7 | 4.5 | 2.5 | 29 | 19 |
| **P731KX ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 200 | 373 | 418 | 181 | 1.2 | P731_0050KX701_0020 MF EZ813U | 606 | 606 | 1289 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 120 | 5.0 | 3.0 | 52 | 62 |
| 250 | 298 | 334 | 164 | 1.3 | P731_0040KX701_0020 MF EZ813U | 485 | 485 | 1031 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 120 | 5.5 | 3.5 | 47 | 62 |
| 286 | 261 | 292 | 213 | 1.7 | P731_0070KX701_0010 MF EZ813U | 805 | 840 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 131 | 4.5 | 2.5 | 54 | 62 |
| 286 | 386 | 460 | 316 | 1.1 | P731_0070KX701_0010 MF EZ815U | 805 | 840 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 194 | 4.5 | 2.5 | 54 | 75 |
| 333 | 224 | 251 | 164 | 1.3 | P731_0030KX701_0020 MF EZ813U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 121 | 6.5 | 4.5 | 38 | 62 |
| 400 | 186 | 209 | 152 | 2.4 | P731_0050KX701_0010 MF EZ813U | 606 | 606 | 1134 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 132 | 5.0 | 3.0 | 52 | 62 |
| 400 | 276 | 328 | 226 | 1.6 | P731_0050KX701_0010 MF EZ815U | 606 | 606 | 1134 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 195 | 5.0 | 3.0 | 52 | 75 |
| 500 | 149 | 167 | 138 | 2.6 | P731_0040KX701_0010 MF EZ813U | 485 | 485 | 907 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 133 | 5.5 | 3.5 | 47 | 62 |
| 500 | 221 | 263 | 205 | 1.8 | P731_0040KX701_0010 MF EZ815U | 485 | 485 | 907 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 196 | 5.5 | 3.5 | 47 | 75 |
| 667 | 112 | 125 | 144 | 2.5 | P731_0030KX701_0010 MF EZ813U | 364 | 364 | 680 | 3.000 | 3/1 | 1800 | 1600 | 3000 | 138 | 6.5 | 4.5 | 38 | 62 |
| 667 | 166 | 197 | 213 | 1.7 | P731_0030KX701_0010 MF EZ815U | 364 | 364 | 680 | 3.000 | 3/1 | 1800 | 1600 | 3000 | 201 | 6.5 | 4.5 | 38 | 75 |
| **P731KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 123 | 135 | 56 | 2.8 | P731_0100KX701_0030 MF EZ501U | 459 | 459 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 15 | 4.0 | 2.0 | 52 | 32 |
| 100 | 212 | 229 | 96 | 1.7 | P731_0100KX701_0030 MF EZ502U | 575 | 575 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 18 | 4.0 | 2.0 | 52 | 33 |
| 100 | 212 | 238 | 96 | 1.7 | P731_0100KX701_0030 MF EZ701U | 573 | 573 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 21 | 4.0 | 2.0 | 52 | 35 |
| 100 | 278 | 318 | 125 | 1.3 | P731_0100KX701_0030 MF EZ503U | 575 | 575 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 20 | 4.0 | 2.0 | 52 | 35 |
| 100 | 344 | 413 | 155 | 1.0 | P731_0100KX701_0030 MF EZ702U | 575 | 575 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 26 | 4.0 | 2.0 | 52 | 37 |
| 125 | 99 | 108 | 39 | 4.1 | P731_0080KX701_0030 MF EZ501U | 367 | 367 | 1336 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 15 | 4.5 | 2.5 | 53 | 32 |
| 125 | 170 | 183 | 67 | 2.4 | P731_0080KX701_0030 MF EZ502U | 668 | 700 | 1336 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 53 | 33 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P731KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 125 | 170 | 190 | 67 | 2.4 | P731_0080KX701_0030 MF EZ701U | 459 | 459 | 1336 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 53 | 35 |
| 125 | 222 | 255 | 88 | 1.8 | P731_0080KX701_0030 MF EZ503U | 668 | 700 | 1336 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 53 | 35 |
| 125 | 275 | 330 | 109 | 1.5 | P731_0080KX701_0030 MF EZ702U | 668 | 700 | 1336 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 26 | 4.5 | 2.5 | 53 | 37 |
| 125 | 310 | 367 | 122 | 1.3 | P731_0080KX701_0030 MF EZ505U | 668 | 700 | 1336 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 53 | 37 |
| 125 | 378 | 477 | 149 | 1.1 | P731_0080KX701_0030 MF EZ703U | 668 | 700 | 1336 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 34 | 4.5 | 2.5 | 53 | 39 |
| 143 | 148 | 161 | 53 | 3.0 | P731_0070KX701_0030 MF EZ502U | 622 | 622 | 1610 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 54 | 33 |
| 143 | 148 | 167 | 53 | 3.0 | P731_0070KX701_0030 MF EZ701U | 401 | 401 | 1610 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 54 | 35 |
| 143 | 195 | 223 | 70 | 2.3 | P731_0070KX701_0030 MF EZ503U | 805 | 840 | 1610 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 54 | 35 |
| 143 | 241 | 289 | 86 | 1.8 | P731_0070KX701_0030 MF EZ702U | 805 | 823 | 1610 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 26 | 4.5 | 2.5 | 54 | 37 |
| 143 | 271 | 321 | 97 | 1.6 | P731_0070KX701_0030 MF EZ505U | 805 | 840 | 1610 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 54 | 37 |
| 143 | 331 | 417 | 119 | 1.3 | P731_0070KX701_0030 MF EZ703U | 805 | 840 | 1610 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 34 | 4.5 | 2.5 | 54 | 39 |
| 143 | 427 | 606 | 153 | 1.0 | P731_0070KX701_0030 MF EZ705U | 805 | 840 | 1610 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 47 | 4.5 | 2.5 | 54 | 45 |
| 150 | 82 | 90 | 50 | 4.3 | P731_0100KX701_0020 MF EZ501U | 306 | 306 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 18 | 4.0 | 2.0 | 52 | 32 |
| 150 | 141 | 153 | 86 | 2.5 | P731_0100KX701_0020 MF EZ502U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 20 | 4.0 | 2.0 | 52 | 33 |
| 150 | 141 | 159 | 86 | 2.5 | P731_0100KX701_0020 MF EZ701U | 382 | 382 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 23 | 4.0 | 2.0 | 52 | 35 |
| 150 | 185 | 212 | 113 | 1.9 | P731_0100KX701_0020 MF EZ503U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 22 | 4.0 | 2.0 | 52 | 35 |
| 150 | 229 | 275 | 140 | 1.5 | P731_0100KX701_0020 MF EZ702U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 29 | 4.0 | 2.0 | 52 | 37 |
| 150 | 258 | 306 | 158 | 1.4 | P731_0100KX701_0020 MF EZ505U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 27 | 4.0 | 2.0 | 52 | 37 |
| 150 | 315 | 397 | 193 | 1.1 | P731_0100KX701_0020 MF EZ703U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 36 | 4.0 | 2.0 | 52 | 39 |
| 188 | 113 | 122 | 61 | 3.5 | P731_0080KX701_0020 MF EZ502U | 474 | 474 | 1336 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 20 | 4.5 | 2.5 | 53 | 33 |
| 188 | 113 | 127 | 61 | 3.5 | P731_0080KX701_0020 MF EZ701U | 306 | 306 | 1336 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 53 | 35 |
| 188 | 148 | 170 | 79 | 2.7 | P731_0080KX701_0020 MF EZ503U | 657 | 657 | 1336 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 53 | 35 |
| 188 | 183 | 220 | 98 | 2.2 | P731_0080KX701_0020 MF EZ702U | 627 | 627 | 1336 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 53 | 37 |
| 188 | 206 | 245 | 110 | 1.9 | P731_0080KX701_0020 MF EZ505U | 668 | 700 | 1336 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 27 | 4.5 | 2.5 | 53 | 37 |
| 188 | 252 | 318 | 135 | 1.6 | P731_0080KX701_0020 MF EZ703U | 668 | 700 | 1336 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 53 | 39 |
| 188 | 326 | 462 | 174 | 1.2 | P731_0080KX701_0020 MF EZ705U | 668 | 700 | 1336 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 49 | 4.5 | 2.5 | 53 | 45 |
| 200 | 106 | 115 | 40 | 4.0 | P731_0050KX701_0030 MF EZ502U | 444 | 444 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 18 | 5.0 | 3.0 | 52 | 33 |
| 200 | 106 | 119 | 40 | 4.0 | P731_0050KX701_0030 MF EZ701U | 287 | 287 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 21 | 5.0 | 3.0 | 52 | 35 |
| 200 | 139 | 159 | 52 | 3.0 | P731_0050KX701_0030 MF EZ503U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 20 | 5.0 | 3.0 | 52 | 35 |
| 200 | 172 | 206 | 64 | 2.5 | P731_0050KX701_0030 MF EZ702U | 588 | 588 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 26 | 5.0 | 3.0 | 52 | 37 |
| 200 | 193 | 229 | 72 | 2.2 | P731_0050KX701_0030 MF EZ505U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 25 | 5.0 | 3.0 | 52 | 37 |
| 200 | 236 | 298 | 88 | 1.8 | P731_0050KX701_0030 MF EZ703U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 34 | 5.0 | 3.0 | 52 | 39 |
| 200 | 305 | 433 | 114 | 1.4 | P731_0050KX701_0030 MF EZ705U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 47 | 5.0 | 3.0 | 52 | 45 |
| 214 | 99 | 107 | 48 | 4.4 | P731_0070KX701_0020 MF EZ502U | 415 | 415 | 1610 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 20 | 4.5 | 2.5 | 54 | 33 |
| 214 | 99 | 111 | 48 | 4.4 | P731_0070KX701_0020 MF EZ701U | 268 | 268 | 1610 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 54 | 35 |
| 214 | 130 | 148 | 63 | 3.4 | P731_0070KX701_0020 MF EZ503U | 575 | 575 | 1610 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 54 | 35 |
| 214 | 161 | 193 | 78 | 2.7 | P731_0070KX701_0020 MF EZ702U | 548 | 548 | 1610 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 54 | 37 |
| 214 | 181 | 214 | 88 | 2.4 | P731_0070KX701_0020 MF EZ505U | 805 | 840 | 1610 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 27 | 4.5 | 2.5 | 54 | 37 |
| 214 | 221 | 278 | 107 | 2.0 | P731_0070KX701_0020 MF EZ703U | 805 | 840 | 1610 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 54 | 39 |
| 214 | 285 | 404 | 139 | 1.5 | P731_0070KX701_0020 MF EZ705U | 805 | 840 | 1610 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 49 | 4.5 | 2.5 | 54 | 45 |
| 250 | 85 | 92 | 40 | 4.0 | P731_0040KX701_0030 MF EZ502U | 355 | 355 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 18 | 5.5 | 3.5 | 47 | 33 |
| 250 | 85 | 95 | 40 | 4.0 | P731_0040KX701_0030 MF EZ701U | 229 | 229 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 21 | 5.5 | 3.5 | 47 | 35 |
| 250 | 111 | 127 | 52 | 3.0 | P731_0040KX701_0030 MF EZ503U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 20 | 5.5 | 3.5 | 47 | 35 |
| 250 | 138 | 165 | 64 | 2.5 | P731_0040KX701_0030 MF EZ702U | 470 | 470 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 27 | 5.5 | 3.5 | 47 | 37 |
| 250 | 155 | 183 | 72 | 2.2 | P731_0040KX701_0030 MF EZ505U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 25 | 5.5 | 3.5 | 47 | 37 |
| 250 | 189 | 238 | 88 | 1.8 | P731_0040KX701_0030 MF EZ703U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 34 | 5.5 | 3.5 | 47 | 39 |
| 250 | 244 | 346 | 114 | 1.4 | P731_0040KX701_0030 MF EZ705U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 47 | 5.5 | 3.5 | 47 | 45 |
| 300 | 93 | 106 | 47 | 4.6 | P731_0050KX701_0020 MF EZ503U | 411 | 411 | 1289 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 23 | 5.0 | 3.0 | 52 | 35 |
| 300 | 115 | 138 | 58 | 3.7 | P731_0050KX701_0020 MF EZ702U | 392 | 392 | 1289 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 29 | 5.0 | 3.0 | 52 | 37 |
| 300 | 129 | 153 | 65 | 3.3 | P731_0050KX701_0020 MF EZ505U | 606 | 606 | 1289 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 27 | 5.0 | 3.0 | 52 | 37 |
| 300 | 158 | 199 | 80 | 2.7 | P731_0050KX701_0020 MF EZ703U | 606 | 606 | 1289 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 37 | 5.0 | 3.0 | 52 | 39 |
| 300 | 204 | 289 | 103 | 2.1 | P731_0050KX701_0020 MF EZ705U | 606 | 606 | 1289 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 49 | 5.0 | 3.0 | 52 | 45 |
| 375 | 74 | 85 | 47 | 4.6 | P731_0040KX701_0020 MF EZ503U | 329 | 329 | 1031 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 23 | 5.5 | 3.5 | 47 | 35 |
| 375 | 92 | 110 | 58 | 3.7 | P731_0040KX701_0020 MF EZ702U | 313 | 313 | 1031 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 29 | 5.5 | 3.5 | 47 | 37 |
| 375 | 103 | 122 | 65 | 3.3 | P731_0040KX701_0020 MF EZ505U | 485 | 485 | 1031 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 28 | 5.5 | 3.5 | 47 | 37 |
| 375 | 126 | 159 | 80 | 2.7 | P731_0040KX701_0020 MF EZ703U | 485 | 485 | 1031 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 37 | 5.5 | 3.5 | 47 | 39 |
| 375 | 163 | 231 | 103 | 2.1 | P731_0040KX701_0020 MF EZ705U | 485 | 485 | 1031 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 50 | 5.5 | 3.5 | 47 | 45 |
| 429 | 80 | 96 | 75 | 4.8 | P731_0070KX701_0010 MF EZ702U | 274 | 274 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 40 | 4.5 | 2.5 | 54 | 37 |
| 429 | 90 | 107 | 85 | 4.3 | P731_0070KX701_0010 MF EZ505U | 448 | 448 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 38 | 4.5 | 2.5 | 54 | 37 |
| 429 | 110 | 139 | 103 | 3.5 | P731_0070KX701_0010 MF EZ703U | 435 | 435 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 48 | 4.5 | 2.5 | 54 | 39 |
| 429 | 142 | 202 | 133 | 2.7 | P731_0070KX701_0010 MF EZ705U | 696 | 696 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 60 | 4.5 | 2.5 | 54 | 45 |
| 500 | 56 | 64 | 47 | 4.6 | P731_0030KX701_0020 MF EZ503U | 247 | 247 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 25 | 6.5 | 4.5 | 38 | 35 |
| 500 | 69 | 83 | 58 | 3.7 | P731_0030KX701_0020 MF EZ702U | 235 | 235 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 31 | 6.5 | 4.5 | 38 | 37 |
| 500 | 77 | 92 | 65 | 3.3 | P731_0030KX701_0020 MF EZ505U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 29 | 6.5 | 4.5 | 38 | 37 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P731KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 500 | 95 | 119 | 80 | 2.7 | P731_0030KX701_0020 MF EZ703U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 39 | 6.5 | 4.5 | 38 | 39 |
| 500 | 122 | 173 | 103 | 2.1 | P731_0030KX701_0020 MF EZ705U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 51 | 6.5 | 4.5 | 38 | 45 |
| 600 | 79 | 99 | 74 | 4.9 | P731_0050KX701_0010 MF EZ703U | 311 | 311 | 1134 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 49 | 5.0 | 3.0 | 52 | 39 |
| 600 | 102 | 144 | 95 | 3.8 | P731_0050KX701_0010 MF EZ705U | 497 | 497 | 1134 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 61 | 5.0 | 3.0 | 52 | 45 |
| 750 | 81 | 115 | 86 | 4.2 | P731_0040KX701_0010 MF EZ705U | 397 | 397 | 907 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 63 | 5.5 | 3.5 | 47 | 45 |
| 1000 | 61 | 87 | 90 | 4.0 | P731_0030KX701_0010 MF EZ705U | 298 | 298 | 680 | 3.000 | 3/1 | 1800 | 1600 | 3000 | 68 | 6.5 | 4.5 | 38 | 45 |
| **P731KX ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 610 Nm)** | | | | | | | | | | | | | | | | | | |
| 267 | 361 | 626 | 148 | 1.1 | P731_0050KX701_0030 MF EZ813U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 117 | 5.0 | 3.0 | 52 | 62 |
| 267 | 374 | 962 | 153 | 1.0 | P731_0050KX701_0030 MF EZ815U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 180 | 5.0 | 3.0 | 52 | 75 |
| 333 | 289 | 501 | 148 | 1.1 | P731_0040KX701_0030 MF EZ813U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 117 | 5.5 | 3.5 | 47 | 62 |
| 333 | 299 | 770 | 153 | 1.0 | P731_0040KX701_0030 MF EZ815U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 180 | 5.5 | 3.5 | 47 | 75 |
| **P732KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 14 | 550 | 590 | 50 | 1.1 | P732_0700KX501_0030 MF EZ401U | 762 | 799 | 1525 | 210.0 | 210/1 | 3000 | 3000 | 5000 | 5.7 | 4.0 | 2.0 | 59 | 26 |
| 20 | 393 | 421 | 37 | 1.4 | P732_0500KX501_0030 MF EZ401U | 770 | 805 | 1540 | 150.0 | 150/1 | 3000 | 3000 | 5000 | 5.7 | 4.0 | 2.0 | 62 | 26 |
| 21 | 367 | 393 | 45 | 1.6 | P732_0700KX501_0020 MF EZ401U | 762 | 799 | 1525 | 140.0 | 140/1 | 2500 | 2500 | 4500 | 6.2 | 4.0 | 2.0 | 59 | 26 |
| 21 | 563 | 616 | 69 | 1.0 | P732_0700KX501_0020 MF EZ501U | 762 | 799 | 1525 | 140.0 | 140/1 | 2500 | 2500 | 4500 | 8.2 | 4.0 | 2.0 | 59 | 27 |
| 25 | 314 | 337 | 36 | 1.4 | P732_0400KX501_0030 MF EZ401U | 700 | 700 | 1400 | 120.0 | 120/1 | 3000 | 3000 | 5000 | 5.7 | 4.5 | 2.5 | 62 | 26 |
| 29 | 275 | 295 | 27 | 2.0 | P732_0350KX501_0030 MF EZ401U | 770 | 805 | 1540 | 105.0 | 105/1 | 3000 | 3000 | 5000 | 5.7 | 4.5 | 2.5 | 62 | 26 |
| 29 | 422 | 462 | 41 | 1.3 | P732_0350KX501_0030 MF EZ501U | 770 | 805 | 1540 | 105.0 | 105/1 | 3000 | 3000 | 5000 | 7.7 | 4.5 | 2.5 | 62 | 27 |
| 29 | 462 | 511 | 45 | 1.2 | P732_0350KX501_0030 MF EZ402U | 770 | 805 | 1540 | 105.0 | 105/1 | 3000 | 3000 | 5000 | 6.4 | 4.5 | 2.5 | 62 | 27 |
| 30 | 262 | 281 | 33 | 2.2 | P732_0500KX501_0020 MF EZ401U | 770 | 795 | 1540 | 100.0 | 100/1 | 2500 | 2500 | 4500 | 6.2 | 4.0 | 2.0 | 62 | 26 |
| 30 | 402 | 440 | 51 | 1.4 | P732_0500KX501_0020 MF EZ501U | 770 | 805 | 1540 | 100.0 | 100/1 | 2500 | 2500 | 4500 | 8.2 | 4.0 | 2.0 | 62 | 27 |
| 30 | 440 | 487 | 56 | 1.3 | P732_0500KX501_0020 MF EZ402U | 770 | 805 | 1540 | 100.0 | 100/1 | 2500 | 2500 | 4500 | 6.9 | 4.0 | 2.0 | 62 | 27 |
| 36 | 220 | 236 | 22 | 2.4 | P732_0280KX501_0030 MF EZ401U | 668 | 668 | 1400 | 84.00 | 84/1 | 3000 | 3000 | 5000 | 5.7 | 4.5 | 2.5 | 62 | 26 |
| 36 | 338 | 369 | 33 | 1.6 | P732_0280KX501_0030 MF EZ501U | 700 | 700 | 1400 | 84.00 | 84/1 | 3000 | 3000 | 5000 | 7.7 | 4.5 | 2.5 | 62 | 27 |
| 36 | 369 | 409 | 36 | 1.5 | P732_0280KX501_0030 MF EZ402U | 700 | 700 | 1400 | 84.00 | 84/1 | 3000 | 3000 | 5000 | 6.4 | 4.5 | 2.5 | 62 | 27 |
| 38 | 210 | 225 | 33 | 2.2 | P732_0400KX501_0020 MF EZ401U | 636 | 636 | 1400 | 80.00 | 80/1 | 2500 | 2500 | 4500 | 6.2 | 4.5 | 2.5 | 62 | 26 |
| 38 | 322 | 352 | 51 | 1.4 | P732_0400KX501_0020 MF EZ501U | 700 | 700 | 1400 | 80.00 | 80/1 | 2500 | 2500 | 4500 | 8.2 | 4.5 | 2.5 | 62 | 27 |
| 38 | 352 | 389 | 55 | 1.3 | P732_0400KX501_0020 MF EZ402U | 700 | 700 | 1400 | 80.00 | 80/1 | 2500 | 2500 | 4500 | 6.9 | 4.5 | 2.5 | 62 | 27 |
| 40 | 197 | 211 | 21 | 2.5 | P732_0250KX501_0030 MF EZ401U | 597 | 597 | 1610 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 5.8 | 4.5 | 2.5 | 62 | 26 |
| 40 | 302 | 330 | 32 | 1.7 | P732_0250KX501_0030 MF EZ501U | 805 | 805 | 1610 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 7.7 | 4.5 | 2.5 | 62 | 27 |
| 40 | 330 | 365 | 35 | 1.5 | P732_0250KX501_0030 MF EZ402U | 805 | 805 | 1610 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 6.5 | 4.5 | 2.5 | 62 | 27 |
| 40 | 484 | 604 | 51 | 1.0 | P732_0250KX501_0030 MF EZ404U | 805 | 805 | 1610 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 7.8 | 4.5 | 2.5 | 62 | 29 |
| 43 | 183 | 197 | 24 | 2.9 | P732_0350KX501_0020 MF EZ401U | 557 | 557 | 1540 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 6.3 | 4.5 | 2.5 | 62 | 26 |
| 43 | 282 | 308 | 37 | 1.9 | P732_0350KX501_0020 MF EZ501U | 770 | 805 | 1540 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 8.2 | 4.5 | 2.5 | 62 | 27 |
| 43 | 308 | 341 | 41 | 1.8 | P732_0350KX501_0020 MF EZ402U | 770 | 805 | 1540 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 7.0 | 4.5 | 2.5 | 62 | 27 |
| 43 | 452 | 563 | 60 | 1.2 | P732_0350KX501_0020 MF EZ404U | 770 | 805 | 1540 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 62 | 29 |
| 43 | 485 | 524 | 64 | 1.1 | P732_0350KX501_0020 MF EZ502U | 770 | 805 | 1540 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 62 | 29 |
| 43 | 485 | 544 | 64 | 1.1 | P732_0350KX501_0020 MF EZ701U | 770 | 805 | 1540 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 62 | 31 |
| 47 | 168 | 180 | 25 | 2.8 | P732_0320KX501_0020 MF EZ401U | 509 | 509 | 1460 | 64.00 | 64/1 | 2500 | 2500 | 4500 | 6.4 | 4.5 | 2.5 | 56 | 26 |
| 47 | 258 | 281 | 39 | 1.8 | P732_0320KX501_0020 MF EZ501U | 730 | 730 | 1460 | 64.00 | 64/1 | 2500 | 2500 | 4500 | 8.4 | 4.5 | 2.5 | 56 | 27 |
| 47 | 281 | 311 | 43 | 1.7 | P732_0320KX501_0020 MF EZ402U | 730 | 730 | 1460 | 64.00 | 64/1 | 2500 | 2500 | 4500 | 7.1 | 4.5 | 2.5 | 56 | 27 |
| 47 | 413 | 515 | 63 | 1.1 | P732_0320KX501_0020 MF EZ404U | 730 | 730 | 1460 | 64.00 | 64/1 | 2500 | 2500 | 4500 | 8.5 | 4.5 | 2.5 | 56 | 29 |
| 47 | 443 | 479 | 67 | 1.1 | P732_0320KX501_0020 MF EZ502U | 730 | 730 | 1460 | 64.00 | 64/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 56 | 29 |
| 47 | 443 | 497 | 67 | 1.1 | P732_0320KX501_0020 MF EZ701U | 730 | 730 | 1460 | 64.00 | 64/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 56 | 31 |
| 50 | 157 | 168 | 18 | 2.9 | P732_0200KX501_0030 MF EZ401U | 477 | 477 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 5.8 | 4.5 | 2.5 | 60 | 26 |
| 50 | 241 | 264 | 28 | 1.9 | P732_0200KX501_0030 MF EZ501U | 805 | 805 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 7.8 | 4.5 | 2.5 | 60 | 27 |
| 50 | 264 | 292 | 30 | 1.7 | P732_0200KX501_0030 MF EZ402U | 805 | 805 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 6.5 | 4.5 | 2.5 | 60 | 27 |
| 50 | 387 | 483 | 44 | 1.2 | P732_0200KX501_0030 MF EZ404U | 805 | 805 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 7.9 | 4.5 | 2.5 | 60 | 29 |
| 50 | 415 | 449 | 48 | 1.1 | P732_0200KX501_0030 MF EZ502U | 805 | 805 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 10 | 4.5 | 2.5 | 60 | 29 |
| 50 | 415 | 466 | 48 | 1.1 | P732_0200KX501_0030 MF EZ701U | 805 | 805 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 13 | 4.5 | 2.5 | 60 | 31 |
| 54 | 147 | 157 | 19 | 3.7 | P732_0280KX501_0020 MF EZ401U | 445 | 445 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 6.3 | 4.5 | 2.5 | 62 | 26 |
| 54 | 225 | 246 | 30 | 2.4 | P732_0280KX501_0020 MF EZ501U | 700 | 700 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 62 | 27 |
| 54 | 246 | 272 | 33 | 2.2 | P732_0280KX501_0020 MF EZ402U | 700 | 700 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 7.0 | 4.5 | 2.5 | 62 | 27 |
| 54 | 362 | 451 | 48 | 1.5 | P732_0280KX501_0020 MF EZ404U | 700 | 700 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 62 | 29 |
| 54 | 388 | 419 | 51 | 1.4 | P732_0280KX501_0020 MF EZ502U | 700 | 700 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 62 | 29 |
| 54 | 388 | 435 | 51 | 1.4 | P732_0280KX501_0020 MF EZ701U | 700 | 700 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 62 | 31 |
| 54 | 508 | 582 | 67 | 1.1 | P732_0280KX501_0020 MF EZ503U | 700 | 700 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 13 | 4.5 | 2.5 | 62 | 30 |
| 60 | 131 | 140 | 19 | 3.8 | P732_0250KX501_0020 MF EZ401U | 398 | 398 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 6.3 | 4.5 | 2.5 | 62 | 26 |
| 60 | 201 | 220 | 29 | 2.5 | P732_0250KX501_0020 MF EZ501U | 749 | 749 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 62 | 27 |
| 60 | 220 | 243 | 31 | 2.3 | P732_0250KX501_0020 MF EZ402U | 749 | 749 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 7.0 | 4.5 | 2.5 | 62 | 27 |
| 60 | 323 | 402 | 46 | 1.5 | P732_0250KX501_0020 MF EZ404U | 805 | 805 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 8.4 | 4.5 | 2.5 | 62 | 29 |
| 60 | 346 | 374 | 49 | 1.4 | P732_0250KX501_0020 MF EZ502U | 805 | 805 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 62 | 29 |
| 60 | 346 | 388 | 49 | 1.4 | P732_0250KX501_0020 MF EZ701U | 805 | 805 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 62 | 31 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/arcmin] | [kg] |
| **P732KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 60 | 454 | 519 | 65 | 1.1 | P732_0250KX501_0020 MF EZ503U | 805 | 805 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 13 | 4.5 | 2.5 | 62 | 30 |
| 75 | 105 | 112 | 16 | 4.4 | P732_0200KX501_0020 MF EZ401U | 318 | 318 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 6.4 | 4.5 | 2.5 | 60 | 26 |
| 75 | 161 | 176 | 25 | 2.9 | P732_0200KX501_0020 MF EZ501U | 599 | 599 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 8.4 | 4.5 | 2.5 | 60 | 27 |
| 75 | 176 | 195 | 27 | 2.6 | P732_0200KX501_0020 MF EZ402U | 599 | 599 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 7.1 | 4.5 | 2.5 | 60 | 27 |
| 75 | 258 | 322 | 40 | 1.8 | P732_0200KX501_0020 MF EZ404U | 805 | 805 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 8.5 | 4.5 | 2.5 | 60 | 29 |
| 75 | 277 | 299 | 43 | 1.7 | P732_0200KX501_0020 MF EZ502U | 805 | 805 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 60 | 29 |
| 75 | 277 | 311 | 43 | 1.7 | P732_0200KX501_0020 MF EZ701U | 749 | 749 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 60 | 31 |
| 75 | 363 | 415 | 56 | 1.3 | P732_0200KX501_0020 MF EZ503U | 805 | 805 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 13 | 4.5 | 2.5 | 60 | 30 |
| 75 | 449 | 539 | 70 | 1.0 | P732_0200KX501_0020 MF EZ702U | 805 | 805 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 19 | 4.5 | 2.5 | 60 | 33 |
| 86 | 141 | 154 | 31 | 3.8 | P732_0350KX501_0010 MF EZ501U | 524 | 524 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 11 | 4.5 | 2.5 | 62 | 27 |
| 86 | 154 | 170 | 34 | 3.5 | P732_0350KX501_0010 MF EZ402U | 524 | 524 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 9.4 | 4.5 | 2.5 | 62 | 27 |
| 86 | 226 | 282 | 50 | 2.4 | P732_0350KX501_0010 MF EZ404U | 770 | 805 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 11 | 4.5 | 2.5 | 62 | 29 |
| 86 | 242 | 262 | 54 | 2.2 | P732_0350KX501_0010 MF EZ502U | 770 | 805 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 13 | 4.5 | 2.5 | 62 | 29 |
| 86 | 242 | 272 | 54 | 2.2 | P732_0350KX501_0010 MF EZ701U | 655 | 655 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 16 | 4.5 | 2.5 | 62 | 31 |
| 86 | 318 | 364 | 71 | 1.7 | P732_0350KX501_0010 MF EZ503U | 770 | 805 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 15 | 4.5 | 2.5 | 62 | 30 |
| 86 | 393 | 472 | 87 | 1.4 | P732_0350KX501_0010 MF EZ702U | 770 | 805 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 22 | 4.5 | 2.5 | 62 | 33 |
| 86 | 442 | 524 | 98 | 1.2 | P732_0350KX501_0010 MF EZ505U | 770 | 805 | 1540 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 20 | 4.5 | 2.5 | 62 | 33 |
| 94 | 129 | 141 | 20 | 3.5 | P732_0160KX501_0020 MF EZ501U | 479 | 479 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 8.4 | 4.5 | 2.5 | 59 | 27 |
| 94 | 141 | 156 | 22 | 3.2 | P732_0160KX501_0020 MF EZ402U | 479 | 479 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 7.2 | 4.5 | 2.5 | 59 | 27 |
| 94 | 207 | 258 | 33 | 2.2 | P732_0160KX501_0020 MF EZ404U | 700 | 700 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 8.5 | 4.5 | 2.5 | 59 | 29 |
| 94 | 222 | 240 | 35 | 2.0 | P732_0160KX501_0020 MF EZ502U | 700 | 700 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 59 | 29 |
| 94 | 222 | 249 | 35 | 2.0 | P732_0160KX501_0020 MF EZ701U | 599 | 599 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 59 | 31 |
| 94 | 290 | 332 | 46 | 1.5 | P732_0160KX501_0020 MF EZ503U | 700 | 700 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 13 | 4.5 | 2.5 | 59 | 30 |
| 94 | 359 | 431 | 57 | 1.3 | P732_0160KX501_0020 MF EZ702U | 700 | 700 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 19 | 4.5 | 2.5 | 59 | 33 |
| 94 | 404 | 479 | 64 | 1.1 | P732_0160KX501_0020 MF EZ505U | 700 | 700 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 59 | 33 |
| **P732KX ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 80 | 498 | 802 | 66 | 1.1 | P732_0280KX501_0020 MF EZ505U | 700 | 700 | 1400 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 62 | 33 |
| 90 | 444 | 716 | 63 | 1.1 | P732_0250KX501_0020 MF EZ505U | 805 | 805 | 1610 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 62 | 33 |
| 113 | 356 | 573 | 55 | 1.3 | P732_0200KX501_0020 MF EZ505U | 805 | 805 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 60 | 33 |
| 113 | 453 | 749 | 70 | 1.0 | P732_0200KX501_0020 MF EZ703U | 805 | 805 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 27 | 4.5 | 2.5 | 60 | 35 |
| 141 | 284 | 458 | 45 | 1.6 | P732_0160KX501_0020 MF EZ505U | 700 | 700 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 59 | 33 |
| 141 | 362 | 599 | 57 | 1.2 | P732_0160KX501_0020 MF EZ703U | 700 | 700 | 1400 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 27 | 4.5 | 2.5 | 59 | 35 |
| **P831KX ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1210 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 745 | 836 | 188 | 1.1 | P831_0100KX701_0020 MF EZ813U | 1213 | 1213 | 2577 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 120 | 4.0 | 2.0 | 130 | 78 |
| 125 | 596 | 669 | 164 | 1.3 | P831_0080KX701_0020 MF EZ813U | 970 | 970 | 2062 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 120 | 4.5 | 2.5 | 128 | 78 |
| 143 | 522 | 585 | 164 | 1.3 | P831_0070KX701_0020 MF EZ813U | 849 | 849 | 1804 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 121 | 4.5 | 2.5 | 125 | 78 |
| 200 | 373 | 418 | 174 | 2.1 | P831_0100KX701_0010 MF EZ813U | 1213 | 1213 | 2268 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 132 | 4.0 | 2.0 | 130 | 78 |
| 200 | 552 | 657 | 257 | 1.4 | P831_0100KX701_0010 MF EZ815U | 1213 | 1213 | 2268 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 195 | 4.0 | 2.0 | 130 | 90 |
| 250 | 298 | 334 | 138 | 2.6 | P831_0080KX701_0010 MF EZ813U | 970 | 970 | 1814 | 8.000 | 8/1 | 1800 | 1600 | 3000 | 133 | 4.5 | 2.5 | 128 | 78 |
| 250 | 441 | 526 | 205 | 1.8 | P831_0080KX701_0010 MF EZ815U | 970 | 970 | 1814 | 8.000 | 8/1 | 1800 | 1600 | 3000 | 197 | 4.5 | 2.5 | 128 | 90 |
| 286 | 261 | 292 | 138 | 2.6 | P831_0070KX701_0010 MF EZ813U | 849 | 849 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 135 | 4.5 | 2.5 | 125 | 78 |
| 286 | 386 | 460 | 205 | 1.8 | P831_0070KX701_0010 MF EZ815U | 849 | 849 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 198 | 4.5 | 2.5 | 125 | 90 |
| 333 | 224 | 251 | 164 | 1.3 | P831_0030KX701_0020 MF EZ813U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 130 | 6.5 | 4.5 | 59 | 78 |
| 400 | 186 | 209 | 138 | 2.6 | P831_0050KX701_0010 MF EZ813U | 606 | 606 | 1134 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 140 | 5.0 | 3.0 | 104 | 78 |
| 400 | 276 | 328 | 205 | 1.8 | P831_0050KX701_0010 MF EZ815U | 606 | 606 | 1134 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 203 | 5.0 | 3.0 | 104 | 90 |
| 500 | 149 | 167 | 138 | 2.6 | P831_0040KX701_0010 MF EZ813U | 485 | 485 | 907 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 148 | 5.5 | 3.5 | 84 | 78 |
| 500 | 221 | 263 | 205 | 1.8 | P831_0040KX701_0010 MF EZ815U | 485 | 485 | 907 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 211 | 5.5 | 3.5 | 84 | 90 |
| 667 | 112 | 125 | 138 | 2.6 | P831_0030KX701_0010 MF EZ813U | 364 | 364 | 680 | 3.000 | 3/1 | 1800 | 1600 | 3000 | 171 | 6.5 | 4.5 | 59 | 78 |
| 667 | 166 | 197 | 205 | 1.8 | P831_0030KX701_0010 MF EZ815U | 364 | 364 | 680 | 3.000 | 3/1 | 1800 | 1600 | 3000 | 234 | 6.5 | 4.5 | 59 | 90 |
| **P831KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1210 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 212 | 229 | 40 | 4.0 | P831_0100KX701_0030 MF EZ502U | 889 | 889 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 18 | 4.0 | 2.0 | 130 | 49 |
| 100 | 212 | 238 | 40 | 4.0 | P831_0100KX701_0030 MF EZ701U | 573 | 573 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 21 | 4.0 | 2.0 | 130 | 50 |
| 100 | 278 | 318 | 52 | 3.0 | P831_0100KX701_0030 MF EZ503U | 1213 | 1213 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 20 | 4.0 | 2.0 | 130 | 50 |
| 100 | 344 | 413 | 64 | 2.5 | P831_0100KX701_0030 MF EZ702U | 1175 | 1175 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 26 | 4.0 | 2.0 | 130 | 53 |
| 100 | 387 | 459 | 72 | 2.2 | P831_0100KX701_0030 MF EZ505U | 1213 | 1213 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 25 | 4.0 | 2.0 | 130 | 53 |
| 100 | 473 | 596 | 88 | 1.8 | P831_0100KX701_0030 MF EZ703U | 1213 | 1213 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 34 | 4.0 | 2.0 | 130 | 55 |
| 100 | 611 | 866 | 114 | 1.4 | P831_0100KX701_0030 MF EZ705U | 1213 | 1213 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 47 | 4.0 | 2.0 | 130 | 60 |
| 125 | 170 | 183 | 40 | 4.0 | P831_0080KX701_0030 MF EZ502U | 711 | 711 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 128 | 49 |
| 125 | 170 | 190 | 40 | 4.0 | P831_0080KX701_0030 MF EZ701U | 459 | 459 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 128 | 50 |
| 125 | 222 | 255 | 52 | 3.0 | P831_0080KX701_0030 MF EZ503U | 970 | 970 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 128 | 50 |
| 125 | 275 | 330 | 64 | 2.5 | P831_0080KX701_0030 MF EZ702U | 940 | 940 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 27 | 4.5 | 2.5 | 128 | 53 |
| 125 | 310 | 367 | 72 | 2.2 | P831_0080KX701_0030 MF EZ505U | 970 | 970 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 128 | 53 |
| 125 | 378 | 477 | 88 | 1.8 | P831_0080KX701_0030 MF EZ703U | 970 | 970 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 35 | 4.5 | 2.5 | 128 | 55 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P831KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1210 Nm)** | | | | | | | | | | | | | | | | | | |
| 125 | 488 | 693 | 114 | 1.4 | P831_0080KX701_0030 MF EZ705U | 970 | 970 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 47 | 4.5 | 2.5 | 128 | 60 |
| 143 | 148 | 161 | 40 | 4.0 | P831_0070KX701_0030 MF EZ502U | 622 | 622 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 125 | 49 |
| 143 | 148 | 167 | 40 | 4.0 | P831_0070KX701_0030 MF EZ701U | 401 | 401 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 22 | 4.5 | 2.5 | 125 | 50 |
| 143 | 195 | 223 | 52 | 3.0 | P831_0070KX701_0030 MF EZ503U | 849 | 849 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 125 | 50 |
| 143 | 241 | 289 | 64 | 2.5 | P831_0070KX701_0030 MF EZ702U | 823 | 823 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 27 | 4.5 | 2.5 | 125 | 53 |
| 143 | 271 | 321 | 72 | 2.2 | P831_0070KX701_0030 MF EZ505U | 849 | 849 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 125 | 53 |
| 143 | 331 | 417 | 88 | 1.8 | P831_0070KX701_0030 MF EZ703U | 849 | 849 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 35 | 4.5 | 2.5 | 125 | 55 |
| 143 | 427 | 606 | 114 | 1.4 | P831_0070KX701_0030 MF EZ705U | 849 | 849 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 47 | 4.5 | 2.5 | 125 | 60 |
| 150 | 185 | 212 | 47 | 4.6 | P831_0100KX701_0020 MF EZ503U | 822 | 822 | 2577 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 23 | 4.0 | 2.0 | 130 | 50 |
| 150 | 229 | 275 | 58 | 3.7 | P831_0100KX701_0020 MF EZ702U | 783 | 783 | 2577 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 29 | 4.0 | 2.0 | 130 | 53 |
| 150 | 258 | 306 | 65 | 3.3 | P831_0100KX701_0020 MF EZ505U | 1213 | 1213 | 2577 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 28 | 4.0 | 2.0 | 130 | 53 |
| 150 | 315 | 397 | 80 | 2.7 | P831_0100KX701_0020 MF EZ703U | 1213 | 1213 | 2577 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 37 | 4.0 | 2.0 | 130 | 55 |
| 150 | 407 | 577 | 103 | 2.1 | P831_0100KX701_0020 MF EZ705U | 1213 | 1213 | 2577 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 49 | 4.0 | 2.0 | 130 | 60 |
| 188 | 148 | 170 | 47 | 4.6 | P831_0080KX701_0020 MF EZ503U | 657 | 657 | 2062 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 128 | 50 |
| 188 | 183 | 220 | 58 | 3.7 | P831_0080KX701_0020 MF EZ702U | 627 | 627 | 2062 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 128 | 53 |
| 188 | 206 | 245 | 65 | 3.3 | P831_0080KX701_0020 MF EZ505U | 970 | 970 | 2062 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 28 | 4.5 | 2.5 | 128 | 53 |
| 188 | 252 | 318 | 80 | 2.7 | P831_0080KX701_0020 MF EZ703U | 970 | 970 | 2062 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 128 | 55 |
| 188 | 326 | 462 | 103 | 2.1 | P831_0080KX701_0020 MF EZ705U | 970 | 970 | 2062 | 16.00 | 16/1 | 1800 | 1800 | 3500 | 50 | 4.5 | 2.5 | 128 | 60 |
| 200 | 106 | 115 | 40 | 4.0 | P831_0050KX701_0030 MF EZ502U | 444 | 444 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 19 | 5.0 | 3.0 | 104 | 49 |
| 200 | 106 | 119 | 40 | 4.0 | P831_0050KX701_0030 MF EZ701U | 287 | 287 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 22 | 5.0 | 3.0 | 104 | 50 |
| 200 | 139 | 159 | 52 | 3.0 | P831_0050KX701_0030 MF EZ503U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 21 | 5.0 | 3.0 | 104 | 50 |
| 200 | 172 | 206 | 64 | 2.5 | P831_0050KX701_0030 MF EZ702U | 588 | 588 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 27 | 5.0 | 3.0 | 104 | 53 |
| 200 | 193 | 229 | 72 | 2.2 | P831_0050KX701_0030 MF EZ505U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 26 | 5.0 | 3.0 | 104 | 53 |
| 200 | 236 | 298 | 88 | 1.8 | P831_0050KX701_0030 MF EZ703U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 35 | 5.0 | 3.0 | 104 | 55 |
| 200 | 305 | 433 | 114 | 1.4 | P831_0050KX701_0030 MF EZ705U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 48 | 5.0 | 3.0 | 104 | 60 |
| 214 | 130 | 148 | 47 | 4.6 | P831_0070KX701_0020 MF EZ503U | 575 | 575 | 1804 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 125 | 50 |
| 214 | 161 | 193 | 58 | 3.7 | P831_0070KX701_0020 MF EZ702U | 548 | 548 | 1804 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 30 | 4.5 | 2.5 | 125 | 53 |
| 214 | 181 | 214 | 65 | 3.3 | P831_0070KX701_0020 MF EZ505U | 849 | 849 | 1804 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 28 | 4.5 | 2.5 | 125 | 53 |
| 214 | 221 | 278 | 80 | 2.7 | P831_0070KX701_0020 MF EZ703U | 849 | 849 | 1804 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 38 | 4.5 | 2.5 | 125 | 55 |
| 214 | 285 | 404 | 103 | 2.1 | P831_0070KX701_0020 MF EZ705U | 849 | 849 | 1804 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 50 | 4.5 | 2.5 | 125 | 60 |
| 250 | 85 | 92 | 40 | 4.0 | P831_0040KX701_0030 MF EZ502U | 355 | 355 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 20 | 5.5 | 3.5 | 84 | 49 |
| 250 | 85 | 95 | 40 | 4.0 | P831_0040KX701_0030 MF EZ701U | 229 | 229 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 23 | 5.5 | 3.5 | 84 | 50 |
| 250 | 111 | 127 | 52 | 3.0 | P831_0040KX701_0030 MF EZ503U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 22 | 5.5 | 3.5 | 84 | 50 |
| 250 | 138 | 165 | 64 | 2.5 | P831_0040KX701_0030 MF EZ702U | 470 | 470 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 28 | 5.5 | 3.5 | 84 | 53 |
| 250 | 155 | 183 | 72 | 2.2 | P831_0040KX701_0030 MF EZ505U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 27 | 5.5 | 3.5 | 84 | 53 |
| 250 | 189 | 238 | 88 | 1.8 | P831_0040KX701_0030 MF EZ703U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 36 | 5.5 | 3.5 | 84 | 55 |
| 250 | 244 | 346 | 114 | 1.4 | P831_0040KX701_0030 MF EZ705U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 48 | 5.5 | 3.5 | 84 | 60 |
| 300 | 158 | 199 | 84 | 4.3 | P831_0100KX701_0010 MF EZ703U | 621 | 621 | 2268 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 49 | 4.0 | 2.0 | 130 | 55 |
| 300 | 204 | 289 | 109 | 3.3 | P831_0100KX701_0010 MF EZ705U | 994 | 994 | 2268 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 62 | 4.0 | 2.0 | 130 | 60 |
| 375 | 163 | 231 | 86 | 4.2 | P831_0080KX701_0010 MF EZ705U | 795 | 795 | 1814 | 8.000 | 8/1 | 1800 | 1600 | 3000 | 63 | 4.5 | 2.5 | 128 | 60 |
| 429 | 142 | 202 | 86 | 4.2 | P831_0070KX701_0010 MF EZ705U | 696 | 696 | 1588 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 65 | 4.5 | 2.5 | 125 | 60 |
| 500 | 56 | 64 | 47 | 4.6 | P831_0030KX701_0020 MF EZ503U | 247 | 247 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 33 | 6.5 | 4.5 | 59 | 50 |
| 500 | 69 | 83 | 58 | 3.7 | P831_0030KX701_0020 MF EZ702U | 235 | 235 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 39 | 6.5 | 4.5 | 59 | 53 |
| 500 | 77 | 92 | 65 | 3.3 | P831_0030KX701_0020 MF EZ505U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 37 | 6.5 | 4.5 | 59 | 53 |
| 500 | 95 | 119 | 80 | 2.7 | P831_0030KX701_0020 MF EZ703U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 47 | 6.5 | 4.5 | 59 | 55 |
| 500 | 122 | 173 | 103 | 2.1 | P831_0030KX701_0020 MF EZ705U | 364 | 364 | 773 | 6.000 | 6/1 | 1800 | 1800 | 3500 | 59 | 6.5 | 4.5 | 59 | 60 |
| 600 | 102 | 144 | 86 | 4.2 | P831_0050KX701_0010 MF EZ705U | 497 | 497 | 1134 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 70 | 5.0 | 3.0 | 104 | 60 |
| 750 | 81 | 115 | 86 | 4.2 | P831_0040KX701_0010 MF EZ705U | 397 | 397 | 907 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 77 | 5.5 | 3.5 | 84 | 60 |
| 1000 | 61 | 87 | 86 | 4.2 | P831_0030KX701_0010 MF EZ705U | 298 | 298 | 680 | 3.000 | 3/1 | 1800 | 1600 | 3000 | 101 | 6.5 | 4.5 | 59 | 60 |
| **P831KX ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 1210 Nm)** | | | | | | | | | | | | | | | | | | |
| 133 | 722 | 1253 | 148 | 1.1 | P831_0100KX701_0030 MF EZ813U | 1213 | 1213 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 117 | 4.0 | 2.0 | 130 | 78 |
| 133 | 748 | 1924 | 153 | 1.0 | P831_0100KX701_0030 MF EZ815U | 1213 | 1213 | 2577 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 180 | 4.0 | 2.0 | 130 | 90 |
| 167 | 578 | 1002 | 148 | 1.1 | P831_0080KX701_0030 MF EZ813U | 970 | 970 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 117 | 4.5 | 2.5 | 128 | 78 |
| 167 | 599 | 1540 | 153 | 1.0 | P831_0080KX701_0030 MF EZ815U | 970 | 970 | 2062 | 24.00 | 24/1 | 2100 | 2100 | 4000 | 180 | 4.5 | 2.5 | 128 | 90 |
| 190 | 506 | 877 | 148 | 1.1 | P831_0070KX701_0030 MF EZ813U | 849 | 849 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 117 | 4.5 | 2.5 | 125 | 78 |
| 190 | 524 | 1347 | 153 | 1.0 | P831_0070KX701_0030 MF EZ815U | 849 | 849 | 1804 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 181 | 4.5 | 2.5 | 125 | 90 |
| 267 | 361 | 626 | 148 | 1.1 | P831_0050KX701_0030 MF EZ813U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 118 | 5.0 | 3.0 | 104 | 78 |
| 267 | 374 | 962 | 153 | 1.0 | P831_0050KX701_0030 MF EZ815U | 606 | 606 | 1289 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 181 | 5.0 | 3.0 | 104 | 90 |
| 333 | 289 | 501 | 148 | 1.1 | P831_0040KX701_0030 MF EZ813U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 119 | 5.5 | 3.5 | 84 | 78 |
| 333 | 299 | 770 | 153 | 1.0 | P831_0040KX701_0030 MF EZ815U | 485 | 485 | 1031 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 182 | 5.5 | 3.5 | 84 | 90 |
| **P832KX ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 57 | 1277 | 1432 | 325 | 1.1 | P832_0350KX701_0010 MF EZ813U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 131 | 4.5 | 2.5 | 173 | 83 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2,5,6 | EL3,4 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P832KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 14 | 845 | 924 | 108 | 1.5 | P832_0700KX701_0030 MF EZ501U | 1610 | 1610 | 3220 | 210.0 | 210/1 | 2100 | 2100 | 4000 | 15 | 4.0 | 2.0 | 163 | 52 |
| 15 | 805 | 880 | 170 | 1.3 | P832_1000KX701_0020 MF EZ501U | 1320 | 1320 | 2640 | 200.0 | 200/1 | 1800 | 1800 | 3500 | 18 | 4.0 | 2.0 | 148 | 52 |
| 20 | 604 | 660 | 67 | 2.3 | P832_0500KX701_0030 MF EZ501U | 1840 | 2000 | 3230 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 15 | 4.0 | 2.0 | 172 | 52 |
| 20 | 1039 | 1123 | 116 | 1.4 | P832_0500KX701_0030 MF EZ502U | 1840 | 2000 | 3230 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 18 | 4.0 | 2.0 | 172 | 53 |
| 20 | 1039 | 1165 | 116 | 1.4 | P832_0500KX701_0030 MF EZ701U | 1840 | 2000 | 3230 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 21 | 4.0 | 2.0 | 172 | 55 |
| 20 | 1362 | 1558 | 152 | 1.0 | P832_0500KX701_0030 MF EZ503U | 1840 | 2000 | 3230 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 20 | 4.0 | 2.0 | 172 | 55 |
| 21 | 563 | 616 | 97 | 2.2 | P832_0700KX701_0020 MF EZ501U | 1610 | 1610 | 3220 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 18 | 4.0 | 2.0 | 163 | 52 |
| 21 | 969 | 1048 | 167 | 1.3 | P832_0700KX701_0020 MF EZ502U | 1610 | 1610 | 3220 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 20 | 4.0 | 2.0 | 163 | 53 |
| 21 | 969 | 1087 | 167 | 1.3 | P832_0700KX701_0020 MF EZ701U | 1610 | 1610 | 3220 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 23 | 4.0 | 2.0 | 163 | 55 |
| 25 | 483 | 528 | 70 | 2.3 | P832_0400KX701_0030 MF EZ501U | 1600 | 1600 | 3200 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 15 | 4.5 | 2.5 | 166 | 52 |
| 25 | 831 | 898 | 120 | 1.3 | P832_0400KX701_0030 MF EZ502U | 1600 | 1600 | 3200 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 166 | 53 |
| 25 | 831 | 932 | 120 | 1.3 | P832_0400KX701_0030 MF EZ701U | 1600 | 1600 | 3200 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 166 | 55 |
| 25 | 1089 | 1246 | 157 | 1.0 | P832_0400KX701_0030 MF EZ503U | 1600 | 1600 | 3200 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 166 | 55 |
| 29 | 422 | 462 | 47 | 3.4 | P832_0350KX701_0030 MF EZ501U | 1572 | 1572 | 3230 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 15 | 4.5 | 2.5 | 173 | 52 |
| 29 | 727 | 786 | 81 | 1.9 | P832_0350KX701_0030 MF EZ502U | 1840 | 2000 | 3230 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 173 | 53 |
| 29 | 727 | 816 | 81 | 1.9 | P832_0350KX701_0030 MF EZ701U | 1840 | 1965 | 3230 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 173 | 55 |
| 29 | 953 | 1091 | 106 | 1.5 | P832_0350KX701_0030 MF EZ503U | 1840 | 2000 | 3230 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 173 | 55 |
| 29 | 1179 | 1415 | 132 | 1.2 | P832_0350KX701_0030 MF EZ702U | 1840 | 2000 | 3230 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 26 | 4.5 | 2.5 | 173 | 58 |
| 29 | 1326 | 1572 | 148 | 1.1 | P832_0350KX701_0030 MF EZ505U | 1840 | 2000 | 3230 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 173 | 58 |
| 30 | 402 | 440 | 61 | 3.5 | P832_0500KX701_0020 MF EZ501U | 1497 | 1497 | 3230 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 18 | 4.0 | 2.0 | 172 | 52 |
| 30 | 692 | 749 | 105 | 2.0 | P832_0500KX701_0020 MF EZ502U | 1840 | 2000 | 3230 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 20 | 4.0 | 2.0 | 172 | 53 |
| 30 | 692 | 777 | 105 | 2.0 | P832_0500KX701_0020 MF EZ701U | 1840 | 1872 | 3230 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 23 | 4.0 | 2.0 | 172 | 55 |
| 30 | 908 | 1039 | 137 | 1.6 | P832_0500KX701_0020 MF EZ503U | 1840 | 2000 | 3230 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 22 | 4.0 | 2.0 | 172 | 55 |
| 30 | 1123 | 1347 | 170 | 1.3 | P832_0500KX701_0020 MF EZ702U | 1840 | 2000 | 3230 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 29 | 4.0 | 2.0 | 172 | 58 |
| 30 | 1263 | 1497 | 191 | 1.1 | P832_0500KX701_0020 MF EZ505U | 1840 | 2000 | 3230 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 27 | 4.0 | 2.0 | 172 | 58 |
| 36 | 338 | 369 | 49 | 3.3 | P832_0280KX701_0030 MF EZ501U | 1258 | 1258 | 3200 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 15 | 4.5 | 2.5 | 168 | 52 |
| 36 | 582 | 629 | 84 | 1.9 | P832_0280KX701_0030 MF EZ502U | 1600 | 1600 | 3200 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 168 | 53 |
| 36 | 582 | 652 | 84 | 1.9 | P832_0280KX701_0030 MF EZ701U | 1572 | 1572 | 3200 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 168 | 55 |
| 36 | 762 | 872 | 109 | 1.4 | P832_0280KX701_0030 MF EZ503U | 1600 | 1600 | 3200 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 168 | 55 |
| 36 | 943 | 1132 | 135 | 1.2 | P832_0280KX701_0030 MF EZ702U | 1600 | 1600 | 3200 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 26 | 4.5 | 2.5 | 168 | 58 |
| 36 | 1061 | 1258 | 152 | 1.0 | P832_0280KX701_0030 MF EZ505U | 1600 | 1600 | 3200 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 168 | 58 |
| 38 | 322 | 352 | 63 | 3.4 | P832_0400KX701_0020 MF EZ501U | 1198 | 1198 | 3200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 18 | 4.5 | 2.5 | 166 | 52 |
| 38 | 554 | 599 | 108 | 2.0 | P832_0400KX701_0020 MF EZ502U | 1600 | 1600 | 3200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 20 | 4.5 | 2.5 | 166 | 53 |
| 38 | 554 | 621 | 108 | 2.0 | P832_0400KX701_0020 MF EZ701U | 1497 | 1497 | 3200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 166 | 55 |
| 38 | 726 | 831 | 142 | 1.5 | P832_0400KX701_0020 MF EZ503U | 1600 | 1600 | 3200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 22 | 4.5 | 2.5 | 166 | 55 |
| 38 | 898 | 1078 | 175 | 1.2 | P832_0400KX701_0020 MF EZ702U | 1600 | 1600 | 3200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 166 | 58 |
| 38 | 1011 | 1198 | 197 | 1.1 | P832_0400KX701_0020 MF EZ505U | 1600 | 1600 | 3200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 27 | 4.5 | 2.5 | 166 | 58 |
| 40 | 302 | 330 | 37 | 4.3 | P832_0250KX701_0030 MF EZ501U | 1123 | 1123 | 3230 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 16 | 4.5 | 2.5 | 172 | 52 |
| 40 | 519 | 561 | 63 | 2.5 | P832_0250KX701_0030 MF EZ502U | 1840 | 2000 | 3230 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 172 | 53 |
| 40 | 519 | 583 | 63 | 2.5 | P832_0250KX701_0030 MF EZ701U | 1404 | 1404 | 3230 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 172 | 55 |
| 40 | 681 | 779 | 83 | 1.9 | P832_0250KX701_0030 MF EZ503U | 1840 | 2000 | 3230 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 172 | 55 |
| 40 | 842 | 1011 | 102 | 1.5 | P832_0250KX701_0030 MF EZ702U | 1840 | 2000 | 3230 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 26 | 4.5 | 2.5 | 172 | 58 |
| 40 | 947 | 1123 | 115 | 1.4 | P832_0250KX701_0030 MF EZ505U | 1840 | 2000 | 3230 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 172 | 58 |
| 40 | 1158 | 1460 | 141 | 1.1 | P832_0250KX701_0030 MF EZ703U | 1840 | 2000 | 3230 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 34 | 4.5 | 2.5 | 172 | 60 |
| 43 | 485 | 524 | 73 | 2.9 | P832_0350KX701_0020 MF EZ502U | 1840 | 2000 | 3230 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 20 | 4.5 | 2.5 | 173 | 53 |
| 43 | 485 | 544 | 73 | 2.9 | P832_0350KX701_0020 MF EZ701U | 1310 | 1310 | 3230 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 173 | 55 |
| 43 | 635 | 727 | 96 | 2.2 | P832_0350KX701_0020 MF EZ503U | 1840 | 2000 | 3230 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 173 | 55 |
| 43 | 786 | 943 | 119 | 1.8 | P832_0350KX701_0020 MF EZ702U | 1840 | 2000 | 3230 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 173 | 58 |
| 43 | 884 | 1048 | 134 | 1.6 | P832_0350KX701_0020 MF EZ505U | 1840 | 2000 | 3230 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 27 | 4.5 | 2.5 | 173 | 58 |
| 43 | 1081 | 1362 | 163 | 1.3 | P832_0350KX701_0020 MF EZ703U | 1840 | 2000 | 3230 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 173 | 60 |
| 43 | 1395 | 1978 | 211 | 1.0 | P832_0350KX701_0020 MF EZ705U | 1840 | 2000 | 3230 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 49 | 4.5 | 2.5 | 173 | 65 |
| 47 | 258 | 281 | 47 | 4.6 | P832_0320KX701_0020 MF EZ501U | 958 | 958 | 3049 | 64.00 | 64/1 | 1800 | 1800 | 3500 | 19 | 4.5 | 2.5 | 157 | 52 |
| 47 | 443 | 479 | 81 | 2.6 | P832_0320KX701_0020 MF EZ502U | 1525 | 1595 | 3049 | 64.00 | 64/1 | 1800 | 1800 | 3500 | 21 | 4.5 | 2.5 | 157 | 53 |
| 47 | 443 | 497 | 81 | 2.6 | P832_0320KX701_0020 MF EZ701U | 1198 | 1198 | 3049 | 64.00 | 64/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 157 | 55 |
| 47 | 581 | 665 | 106 | 2.0 | P832_0320KX701_0020 MF EZ503U | 1525 | 1595 | 3049 | 64.00 | 64/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 157 | 55 |
| 47 | 719 | 862 | 131 | 1.6 | P832_0320KX701_0020 MF EZ702U | 1525 | 1595 | 3049 | 64.00 | 64/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 157 | 58 |
| 47 | 808 | 958 | 148 | 1.5 | P832_0320KX701_0020 MF EZ505U | 1525 | 1595 | 3049 | 64.00 | 64/1 | 1800 | 1800 | 3500 | 28 | 4.5 | 2.5 | 157 | 58 |
| 47 | 988 | 1246 | 180 | 1.2 | P832_0320KX701_0020 MF EZ703U | 1525 | 1595 | 3049 | 64.00 | 64/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 157 | 60 |
| 50 | 415 | 449 | 52 | 3.0 | P832_0200KX701_0030 MF EZ502U | 1740 | 1740 | 3230 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 169 | 53 |
| 50 | 415 | 466 | 52 | 3.0 | P832_0200KX701_0030 MF EZ701U | 1123 | 1123 | 3230 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 169 | 55 |
| 50 | 545 | 623 | 69 | 2.3 | P832_0200KX701_0030 MF EZ503U | 1840 | 2000 | 3230 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 169 | 55 |
| 50 | 674 | 808 | 85 | 1.9 | P832_0200KX701_0030 MF EZ702U | 1840 | 2000 | 3230 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 27 | 4.5 | 2.5 | 169 | 58 |
| 50 | 758 | 898 | 96 | 1.6 | P832_0200KX701_0030 MF EZ505U | 1840 | 2000 | 3230 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 169 | 58 |
| 50 | 926 | 1168 | 117 | 1.3 | P832_0200KX701_0030 MF EZ703U | 1840 | 2000 | 3230 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 34 | 4.5 | 2.5 | 169 | 60 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/arcmin] | [kg] |
| P832KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm) | | | | | | | | | | | | | | | | | | |
| 50 | 1196 | 1696 | 151 | 1.0 | P832_0200KX701_0030 MF EZ705U | 1840 | 2000 | 3230 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 47 | 4.5 | 2.5 | 169 | 65 |
| 54 | 225 | 246 | 44 | 4.9 | P832_0280KX701_0020 MF EZ501U | 838 | 838 | 3200 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 18 | 4.5 | 2.5 | 168 | 52 |
| 54 | 388 | 419 | 75 | 2.8 | P832_0280KX701_0020 MF EZ502U | 1600 | 1600 | 3200 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 20 | 4.5 | 2.5 | 168 | 53 |
| 54 | 388 | 435 | 75 | 2.8 | P832_0280KX701_0020 MF EZ701U | 1048 | 1048 | 3200 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 168 | 55 |
| 54 | 508 | 582 | 99 | 2.2 | P832_0280KX701_0020 MF EZ503U | 1600 | 1600 | 3200 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 168 | 55 |
| 54 | 629 | 755 | 122 | 1.7 | P832_0280KX701_0020 MF EZ702U | 1600 | 1600 | 3200 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 168 | 58 |
| 54 | 707 | 838 | 138 | 1.6 | P832_0280KX701_0020 MF EZ505U | 1600 | 1600 | 3200 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 27 | 4.5 | 2.5 | 168 | 58 |
| 54 | 865 | 1090 | 168 | 1.3 | P832_0280KX701_0020 MF EZ703U | 1600 | 1600 | 3200 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 168 | 60 |
| 60 | 346 | 374 | 57 | 3.8 | P832_0250KX701_0020 MF EZ502U | 1450 | 1450 | 3230 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 21 | 4.5 | 2.5 | 172 | 53 |
| 60 | 346 | 388 | 57 | 3.8 | P832_0250KX701_0020 MF EZ701U | 936 | 936 | 3230 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 172 | 55 |
| 60 | 454 | 519 | 75 | 2.9 | P832_0250KX701_0020 MF EZ503U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 172 | 55 |
| 60 | 561 | 674 | 92 | 2.3 | P832_0250KX701_0020 MF EZ702U | 1840 | 1918 | 3230 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 172 | 58 |
| 60 | 632 | 749 | 104 | 2.1 | P832_0250KX701_0020 MF EZ505U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 27 | 4.5 | 2.5 | 172 | 58 |
| 60 | 772 | 973 | 127 | 1.7 | P832_0250KX701_0020 MF EZ703U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 172 | 60 |
| 60 | 997 | 1413 | 164 | 1.3 | P832_0250KX701_0020 MF EZ705U | 1840 | 2000 | 3230 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 49 | 4.5 | 2.5 | 172 | 65 |
| 75 | 277 | 299 | 47 | 4.5 | P832_0200KX701_0020 MF EZ502U | 1160 | 1160 | 3230 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 21 | 4.5 | 2.5 | 169 | 53 |
| 75 | 277 | 311 | 47 | 4.5 | P832_0200KX701_0020 MF EZ701U | 749 | 749 | 3230 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 169 | 55 |
| 75 | 363 | 415 | 62 | 3.4 | P832_0200KX701_0020 MF EZ503U | 1609 | 1609 | 3230 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 169 | 55 |
| 75 | 449 | 539 | 77 | 2.8 | P832_0200KX701_0020 MF EZ702U | 1535 | 1535 | 3230 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 169 | 58 |
| 75 | 505 | 599 | 87 | 2.5 | P832_0200KX701_0020 MF EZ505U | 1840 | 2000 | 3230 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 28 | 4.5 | 2.5 | 169 | 58 |
| 75 | 618 | 779 | 106 | 2.0 | P832_0200KX701_0020 MF EZ703U | 1840 | 2000 | 3230 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 169 | 60 |
| 75 | 797 | 1130 | 137 | 1.6 | P832_0200KX701_0020 MF EZ705U | 1840 | 2000 | 3230 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 50 | 4.5 | 2.5 | 169 | 65 |
| 86 | 318 | 364 | 91 | 4.0 | P832_0350KX701_0010 MF EZ503U | 1408 | 1408 | 3230 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 34 | 4.5 | 2.5 | 173 | 55 |
| 86 | 393 | 472 | 112 | 3.2 | P832_0350KX701_0010 MF EZ702U | 1343 | 1343 | 3230 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 40 | 4.5 | 2.5 | 173 | 58 |
| 86 | 442 | 524 | 126 | 2.8 | P832_0350KX701_0010 MF EZ505U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 38 | 4.5 | 2.5 | 173 | 58 |
| 86 | 540 | 681 | 155 | 2.3 | P832_0350KX701_0010 MF EZ703U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 48 | 4.5 | 2.5 | 173 | 60 |
| 86 | 698 | 989 | 199 | 1.8 | P832_0350KX701_0010 MF EZ705U | 1840 | 2000 | 3230 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 60 | 4.5 | 2.5 | 173 | 65 |
| 94 | 222 | 240 | 43 | 5.0 | P832_0160KX701_0020 MF EZ502U | 928 | 928 | 3200 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 21 | 4.5 | 2.5 | 163 | 53 |
| 94 | 222 | 249 | 43 | 5.0 | P832_0160KX701_0020 MF EZ701U | 599 | 599 | 3200 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 163 | 55 |
| 94 | 290 | 332 | 57 | 3.8 | P832_0160KX701_0020 MF EZ503U | 1288 | 1288 | 3200 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 163 | 55 |
| 94 | 359 | 431 | 70 | 3.1 | P832_0160KX701_0020 MF EZ702U | 1228 | 1228 | 3200 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 30 | 4.5 | 2.5 | 163 | 58 |
| 94 | 404 | 479 | 79 | 2.7 | P832_0160KX701_0020 MF EZ505U | 1600 | 1600 | 3200 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 28 | 4.5 | 2.5 | 163 | 58 |
| 94 | 494 | 623 | 96 | 2.2 | P832_0160KX701_0020 MF EZ703U | 1600 | 1600 | 3200 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 163 | 60 |
| 94 | 638 | 904 | 124 | 1.7 | P832_0160KX701_0020 MF EZ705U | 1600 | 1600 | 3200 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 50 | 4.5 | 2.5 | 163 | 65 |
| P932KX ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 3300 Nm) | | | | | | | | | | | | | | | | | | |
| 36 | 2043 | 2292 | 192 | 1.1 | P932_0280KX701_0020 MF EZ813U | 3000 | – | 6000 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 121 | 4.5 | – | 381 | 108 |
| 40 | 1824 | 2046 | 164 | 1.3 | P932_0250KX701_0020 MF EZ813U | 2969 | – | 6579 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 122 | 4.5 | – | 381 | 108 |
| 50 | 1459 | 1637 | 164 | 1.3 | P932_0200KX701_0020 MF EZ813U | 2375 | – | 5263 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 124 | 4.5 | – | 368 | 108 |
| 57 | 1277 | 1432 | 193 | 1.9 | P932_0350KX701_0010 MF EZ813U | 3300 | – | 6600 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 135 | 4.5 | – | 391 | 108 |
| 57 | 1891 | 2252 | 287 | 1.3 | P932_0350KX701_0010 MF EZ815U | 3300 | – | 6600 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 198 | 4.5 | – | 391 | 120 |
| 63 | 1168 | 1309 | 164 | 1.3 | P932_0160KX701_0020 MF EZ813U | 1900 | – | 4211 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 124 | 4.5 | – | 348 | 108 |
| 71 | 1022 | 1146 | 161 | 2.2 | P932_0280KX701_0010 MF EZ813U | 3000 | – | 6000 | 28.00 | 28/1 | 1800 | 1600 | 3000 | 135 | 4.5 | – | 381 | 108 |
| 71 | 1513 | 1802 | 239 | 1.5 | P932_0280KX701_0010 MF EZ815U | 3000 | – | 6000 | 28.00 | 28/1 | 1800 | 1600 | 3000 | 198 | 4.5 | – | 381 | 120 |
| 80 | 912 | 1023 | 138 | 2.6 | P932_0250KX701_0010 MF EZ813U | 2969 | – | 5789 | 25.00 | 25/1 | 1800 | 1600 | 3000 | 140 | 4.5 | – | 381 | 108 |
| 80 | 1351 | 1609 | 205 | 1.8 | P932_0250KX701_0010 MF EZ815U | 2969 | – | 5789 | 25.00 | 25/1 | 1800 | 1600 | 3000 | 203 | 4.5 | – | 381 | 120 |
| 100 | 730 | 818 | 138 | 2.6 | P932_0200KX701_0010 MF EZ813U | 2375 | – | 4632 | 20.00 | 20/1 | 1800 | 1600 | 3000 | 148 | 4.5 | – | 368 | 108 |
| 100 | 1081 | 1287 | 205 | 1.8 | P932_0200KX701_0010 MF EZ815U | 2375 | – | 4632 | 20.00 | 20/1 | 1800 | 1600 | 3000 | 211 | 4.5 | – | 368 | 120 |
| 125 | 584 | 655 | 138 | 2.6 | P932_0160KX701_0010 MF EZ813U | 1900 | – | 3705 | 16.00 | 16/1 | 1800 | 1600 | 3000 | 149 | 4.5 | – | 348 | 108 |
| 125 | 865 | 1029 | 205 | 1.8 | P932_0160KX701_0010 MF EZ815U | 1900 | – | 3705 | 16.00 | 16/1 | 1800 | 1600 | 3000 | 212 | 4.5 | – | 348 | 120 |
| P932KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 3300 Nm) | | | | | | | | | | | | | | | | | | |
| 10 | 1207 | 1319 | 113 | 1.4 | P932_1000KX701_0030 MF EZ501U | 2200 | – | 4400 | 300.0 | 300/1 | 2100 | 2100 | 4000 | 16 | 4.0 | – | 320 | 77 |
| 14 | 845 | 924 | 56 | 2.8 | P932_0700KX701_0030 MF EZ501U | 3144 | – | 6312 | 210.0 | 210/1 | 2100 | 2100 | 4000 | 16 | 4.0 | – | 369 | 77 |
| 14 | 1454 | 1572 | 96 | 1.6 | P932_0700KX701_0030 MF EZ502U | 3156 | – | 6312 | 210.0 | 210/1 | 2100 | 2100 | 4000 | 18 | 4.0 | – | 369 | 78 |
| 14 | 1454 | 1631 | 96 | 1.6 | P932_0700KX701_0030 MF EZ701U | 3156 | – | 6312 | 210.0 | 210/1 | 2100 | 2100 | 4000 | 21 | 4.0 | – | 369 | 80 |
| 14 | 1906 | 2181 | 126 | 1.3 | P932_0700KX701_0030 MF EZ503U | 3156 | – | 6312 | 210.0 | 210/1 | 2100 | 2100 | 4000 | 20 | 4.0 | – | 369 | 80 |
| 14 | 2358 | 2830 | 156 | 1.0 | P932_0700KX701_0030 MF EZ702U | 3156 | – | 6312 | 210.0 | 210/1 | 2100 | 2100 | 4000 | 26 | 4.0 | – | 369 | 83 |
| 15 | 805 | 880 | 102 | 2.1 | P932_1000KX701_0020 MF EZ501U | 2200 | – | 4400 | 200.0 | 200/1 | 1800 | 1800 | 3500 | 18 | 4.0 | – | 320 | 77 |
| 15 | 1385 | 1497 | 175 | 1.2 | P932_1000KX701_0020 MF EZ502U | 2200 | – | 4400 | 200.0 | 200/1 | 1800 | 1800 | 3500 | 21 | 4.0 | – | 320 | 78 |
| 15 | 1385 | 1553 | 175 | 1.2 | P932_1000KX701_0020 MF EZ701U | 2200 | – | 4400 | 200.0 | 200/1 | 1800 | 1800 | 3500 | 24 | 4.0 | – | 320 | 80 |
| 20 | 604 | 660 | 42 | 3.8 | P932_0500KX701_0030 MF EZ501U | 2246 | – | 6400 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 16 | 4.0 | – | 393 | 77 |
| 20 | 1039 | 1123 | 71 | 2.2 | P932_0500KX701_0030 MF EZ502U | 3200 | – | 6400 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 18 | 4.0 | – | 393 | 78 |
| 20 | 1039 | 1165 | 71 | 2.2 | P932_0500KX701_0030 MF EZ701U | 2807 | – | 6400 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 21 | 4.0 | – | 393 | 80 |
| 20 | 1362 | 1558 | 94 | 1.7 | P932_0500KX701_0030 MF EZ503U | 3200 | – | 6400 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 20 | 4.0 | – | 393 | 80 |
| 20 | 1684 | 2021 | 116 | 1.4 | P932_0500KX701_0030 MF EZ702U | 3200 | – | 6400 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 26 | 4.0 | – | 393 | 83 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P932KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 3300 Nm)** | | | | | | | | | | | | | | | | | | |
| 20 | 1895 | 2246 | 130 | 1.2 | P932_0500KX701_0030 MF EZ505U | 3200 | – | 6400 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 25 | 4.0 | – | 393 | 83 |
| 21 | 563 | 616 | 51 | 4.2 | P932_0700KX701_0020 MF EZ501U | 2096 | – | 6312 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 18 | 4.0 | – | 369 | 77 |
| 21 | 969 | 1048 | 87 | 2.5 | P932_0700KX701_0020 MF EZ502U | 3156 | – | 6312 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 21 | 4.0 | – | 369 | 78 |
| 21 | 969 | 1087 | 87 | 2.5 | P932_0700KX701_0020 MF EZ701U | 2620 | – | 6312 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 24 | 4.0 | – | 369 | 80 |
| 21 | 1271 | 1454 | 114 | 1.9 | P932_0700KX701_0020 MF EZ503U | 3156 | – | 6312 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 23 | 4.0 | – | 369 | 80 |
| 21 | 1572 | 1886 | 141 | 1.5 | P932_0700KX701_0020 MF EZ702U | 3156 | – | 6312 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 29 | 4.0 | – | 369 | 83 |
| 21 | 1769 | 2096 | 159 | 1.4 | P932_0700KX701_0020 MF EZ505U | 3156 | – | 6312 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 28 | 4.0 | – | 369 | 83 |
| 21 | 2162 | 2725 | 194 | 1.1 | P932_0700KX701_0020 MF EZ703U | 3156 | – | 6312 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 37 | 4.0 | – | 369 | 85 |
| 25 | 483 | 528 | 38 | 4.1 | P932_0400KX701_0030 MF EZ501U | 1797 | – | 6000 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 16 | 4.5 | – | 384 | 77 |
| 25 | 831 | 898 | 66 | 2.4 | P932_0400KX701_0030 MF EZ502U | 3000 | – | 6000 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 18 | 4.5 | – | 384 | 78 |
| 25 | 831 | 932 | 66 | 2.4 | P932_0400KX701_0030 MF EZ701U | 2246 | – | 6000 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 21 | 4.5 | – | 384 | 80 |
| 25 | 1089 | 1246 | 86 | 1.8 | P932_0400KX701_0030 MF EZ503U | 3000 | – | 6000 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 20 | 4.5 | – | 384 | 80 |
| 25 | 1347 | 1617 | 106 | 1.5 | P932_0400KX701_0030 MF EZ702U | 3000 | – | 6000 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 26 | 4.5 | – | 384 | 83 |
| 25 | 1516 | 1797 | 120 | 1.3 | P932_0400KX701_0030 MF EZ505U | 3000 | – | 6000 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 25 | 4.5 | – | 384 | 83 |
| 25 | 1853 | 2336 | 146 | 1.1 | P932_0400KX701_0030 MF EZ703U | 3000 | – | 6000 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 34 | 4.5 | – | 384 | 85 |
| 29 | 727 | 786 | 48 | 3.3 | P932_0350KX701_0030 MF EZ502U | 3046 | – | 6600 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 18 | 4.5 | – | 391 | 78 |
| 29 | 727 | 816 | 48 | 3.3 | P932_0350KX701_0030 MF EZ701U | 1965 | – | 6600 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 22 | 4.5 | – | 391 | 80 |
| 29 | 953 | 1091 | 63 | 2.5 | P932_0350KX701_0030 MF EZ503U | 3300 | – | 6600 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 21 | 4.5 | – | 391 | 80 |
| 29 | 1179 | 1415 | 78 | 2.0 | P932_0350KX701_0030 MF EZ702U | 3300 | – | 6600 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 27 | 4.5 | – | 391 | 83 |
| 29 | 1326 | 1572 | 88 | 1.8 | P932_0350KX701_0030 MF EZ505U | 3300 | – | 6600 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 25 | 4.5 | – | 391 | 83 |
| 29 | 1621 | 2044 | 108 | 1.5 | P932_0350KX701_0030 MF EZ703U | 3300 | – | 6600 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 35 | 4.5 | – | 391 | 85 |
| 29 | 2093 | 2967 | 139 | 1.1 | P932_0350KX701_0030 MF EZ705U | 3300 | – | 6600 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 47 | 4.5 | – | 391 | 90 |
| 30 | 692 | 749 | 65 | 3.3 | P932_0500KX701_0020 MF EZ502U | 2901 | – | 6400 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 21 | 4.0 | – | 393 | 78 |
| 30 | 692 | 777 | 65 | 3.3 | P932_0500KX701_0020 MF EZ701U | 1872 | – | 6400 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 24 | 4.0 | – | 393 | 80 |
| 30 | 908 | 1039 | 85 | 2.5 | P932_0500KX701_0020 MF EZ503U | 3200 | – | 6400 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 23 | 4.0 | – | 393 | 80 |
| 30 | 1123 | 1347 | 105 | 2.0 | P932_0500KX701_0020 MF EZ702U | 3200 | – | 6400 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 29 | 4.0 | – | 393 | 83 |
| 30 | 1263 | 1497 | 118 | 1.8 | P932_0500KX701_0020 MF EZ505U | 3200 | – | 6400 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 28 | 4.0 | – | 393 | 83 |
| 30 | 1544 | 1946 | 144 | 1.5 | P932_0500KX701_0020 MF EZ703U | 3200 | – | 6400 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 37 | 4.0 | – | 393 | 85 |
| 30 | 1993 | 2826 | 186 | 1.2 | P932_0500KX701_0020 MF EZ705U | 3200 | – | 6400 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 49 | 4.0 | – | 393 | 90 |
| 36 | 582 | 629 | 40 | 3.9 | P932_0280KX701_0030 MF EZ502U | 2437 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 18 | 4.5 | – | 381 | 78 |
| 36 | 582 | 652 | 40 | 3.9 | P932_0280KX701_0030 MF EZ701U | 1572 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 22 | 4.5 | – | 381 | 80 |
| 36 | 762 | 872 | 53 | 3.0 | P932_0280KX701_0030 MF EZ503U | 3000 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 21 | 4.5 | – | 381 | 80 |
| 36 | 943 | 1132 | 65 | 2.4 | P932_0280KX701_0030 MF EZ702U | 3000 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 27 | 4.5 | – | 381 | 83 |
| 36 | 1061 | 1258 | 73 | 2.1 | P932_0280KX701_0030 MF EZ505U | 3000 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 25 | 4.5 | – | 381 | 83 |
| 36 | 1297 | 1635 | 90 | 1.8 | P932_0280KX701_0030 MF EZ703U | 3000 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 35 | 4.5 | – | 381 | 85 |
| 36 | 1674 | 2374 | 116 | 1.4 | P932_0280KX701_0030 MF EZ705U | 3000 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 47 | 4.5 | – | 381 | 90 |
| 38 | 554 | 599 | 59 | 3.6 | P932_0400KX701_0020 MF EZ502U | 2321 | – | 6000 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 21 | 4.5 | – | 384 | 78 |
| 38 | 554 | 621 | 59 | 3.6 | P932_0400KX701_0020 MF EZ701U | 1497 | – | 6000 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 24 | 4.5 | – | 384 | 80 |
| 38 | 726 | 831 | 78 | 2.8 | P932_0400KX701_0020 MF EZ503U | 3000 | – | 6000 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 23 | 4.5 | – | 384 | 80 |
| 38 | 898 | 1078 | 96 | 2.2 | P932_0400KX701_0020 MF EZ702U | 3000 | – | 6000 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 29 | 4.5 | – | 384 | 83 |
| 38 | 1011 | 1198 | 108 | 2.0 | P932_0400KX701_0020 MF EZ505U | 3000 | – | 6000 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 28 | 4.5 | – | 384 | 83 |
| 38 | 1235 | 1557 | 132 | 1.6 | P932_0400KX701_0020 MF EZ703U | 3000 | – | 6000 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 37 | 4.5 | – | 384 | 85 |
| 38 | 1595 | 2261 | 171 | 1.3 | P932_0400KX701_0020 MF EZ705U | 3000 | – | 6000 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 49 | 4.5 | – | 384 | 90 |
| 40 | 519 | 561 | 40 | 4.0 | P932_0250KX701_0030 MF EZ502U | 2176 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 19 | 4.5 | – | 381 | 78 |
| 40 | 519 | 583 | 40 | 4.0 | P932_0250KX701_0030 MF EZ701U | 1404 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 22 | 4.5 | – | 381 | 80 |
| 40 | 681 | 779 | 52 | 3.0 | P932_0250KX701_0030 MF EZ503U | 2969 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 21 | 4.5 | – | 381 | 80 |
| 40 | 842 | 1011 | 64 | 2.5 | P932_0250KX701_0030 MF EZ702U | 2877 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 27 | 4.5 | – | 381 | 83 |
| 40 | 947 | 1123 | 72 | 2.2 | P932_0250KX701_0030 MF EZ505U | 2969 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 26 | 4.5 | – | 381 | 83 |
| 40 | 1158 | 1460 | 88 | 1.8 | P932_0250KX701_0030 MF EZ703U | 2969 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 35 | 4.5 | – | 381 | 85 |
| 40 | 1495 | 2119 | 114 | 1.4 | P932_0250KX701_0030 MF EZ705U | 2969 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 48 | 4.5 | – | 381 | 90 |
| 43 | 485 | 524 | 44 | 4.9 | P932_0350KX701_0020 MF EZ502U | 2031 | – | 6600 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 21 | 4.5 | – | 391 | 78 |
| 43 | 485 | 544 | 44 | 4.9 | P932_0350KX701_0020 MF EZ701U | 1310 | – | 6600 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 25 | 4.5 | – | 391 | 80 |
| 43 | 635 | 727 | 57 | 3.7 | P932_0350KX701_0020 MF EZ503U | 2817 | – | 6600 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 24 | 4.5 | – | 391 | 80 |
| 43 | 786 | 943 | 71 | 3.0 | P932_0350KX701_0020 MF EZ702U | 2686 | – | 6600 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 30 | 4.5 | – | 391 | 83 |
| 43 | 884 | 1048 | 80 | 2.7 | P932_0350KX701_0020 MF EZ505U | 3300 | – | 6600 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 28 | 4.5 | – | 391 | 83 |
| 43 | 1081 | 1362 | 97 | 2.2 | P932_0350KX701_0020 MF EZ703U | 3300 | – | 6600 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 38 | 4.5 | – | 391 | 85 |
| 43 | 1395 | 1978 | 126 | 1.7 | P932_0350KX701_0020 MF EZ705U | 3300 | – | 6600 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 50 | 4.5 | – | 391 | 90 |
| 50 | 415 | 449 | 40 | 4.0 | P932_0200KX701_0030 MF EZ502U | 1740 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 20 | 4.5 | – | 368 | 78 |
| 50 | 415 | 466 | 40 | 4.0 | P932_0200KX701_0030 MF EZ701U | 1123 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 23 | 4.5 | – | 368 | 80 |
| 50 | 545 | 623 | 52 | 3.0 | P932_0200KX701_0030 MF EZ503U | 2375 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 22 | 4.5 | – | 368 | 80 |
| 50 | 674 | 808 | 64 | 2.5 | P932_0200KX701_0030 MF EZ702U | 2302 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 28 | 4.5 | – | 368 | 83 |
| 50 | 758 | 898 | 72 | 2.2 | P932_0200KX701_0030 MF EZ505U | 2375 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 27 | 4.5 | – | 368 | 83 |
| 50 | 926 | 1168 | 88 | 1.8 | P932_0200KX701_0030 MF EZ703U | 2375 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 36 | 4.5 | – | 368 | 85 |
| 50 | 1196 | 1696 | 114 | 1.4 | P932_0200KX701_0030 MF EZ705U | 2375 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 48 | 4.5 | – | 368 | 90 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P932KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 3300 Nm)** | | | | | | | | | | | | | | | | | | |
| 54 | 508 | 582 | 48 | 4.5 | P932_0280KX701_0020 MF EZ503U | 2253 | – | 6000 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 24 | 4.5 | – | 381 | 80 |
| 54 | 629 | 755 | 59 | 3.6 | P932_0280KX701_0020 MF EZ702U | 2148 | – | 6000 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 30 | 4.5 | – | 381 | 83 |
| 54 | 707 | 838 | 66 | 3.2 | P932_0280KX701_0020 MF EZ505U | 3000 | – | 6000 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 28 | 4.5 | – | 381 | 83 |
| 54 | 865 | 1090 | 81 | 2.6 | P932_0280KX701_0020 MF EZ703U | 3000 | – | 6000 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 38 | 4.5 | – | 381 | 85 |
| 54 | 1116 | 1583 | 105 | 2.0 | P932_0280KX701_0020 MF EZ705U | 3000 | – | 6000 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 50 | 4.5 | – | 381 | 90 |
| 60 | 454 | 519 | 47 | 4.6 | P932_0250KX701_0020 MF EZ503U | 2012 | – | 6579 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 25 | 4.5 | – | 381 | 80 |
| 60 | 561 | 674 | 58 | 3.7 | P932_0250KX701_0020 MF EZ702U | 1918 | – | 6579 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 31 | 4.5 | – | 381 | 83 |
| 60 | 632 | 749 | 65 | 3.3 | P932_0250KX701_0020 MF EZ505U | 2969 | – | 6579 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 30 | 4.5 | – | 381 | 83 |
| 60 | 772 | 973 | 80 | 2.7 | P932_0250KX701_0020 MF EZ703U | 2969 | – | 6579 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 39 | 4.5 | – | 381 | 85 |
| 60 | 997 | 1413 | 103 | 2.1 | P932_0250KX701_0020 MF EZ705U | 2969 | – | 6579 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 51 | 4.5 | – | 381 | 90 |
| 75 | 363 | 415 | 47 | 4.6 | P932_0200KX701_0020 MF EZ503U | 1609 | – | 5263 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 27 | 4.5 | – | 368 | 80 |
| 75 | 449 | 539 | 58 | 3.7 | P932_0200KX701_0020 MF EZ702U | 1535 | – | 5263 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 33 | 4.5 | – | 368 | 83 |
| 75 | 505 | 599 | 65 | 3.3 | P932_0200KX701_0020 MF EZ505U | 2375 | – | 5263 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 31 | 4.5 | – | 368 | 83 |
| 75 | 618 | 779 | 80 | 2.7 | P932_0200KX701_0020 MF EZ703U | 2375 | – | 5263 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 41 | 4.5 | – | 368 | 85 |
| 75 | 797 | 1130 | 103 | 2.1 | P932_0200KX701_0020 MF EZ705U | 2375 | – | 5263 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 53 | 4.5 | – | 368 | 90 |
| 86 | 540 | 681 | 82 | 4.4 | P932_0350KX701_0010 MF EZ703U | 2129 | – | 6600 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 52 | 4.5 | – | 391 | 85 |
| 86 | 698 | 989 | 106 | 3.4 | P932_0350KX701_0010 MF EZ705U | 3300 | – | 6600 | 35.00 | 35/1 | 1800 | 1600 | 3000 | 64 | 4.5 | – | 391 | 90 |
| 94 | 290 | 332 | 47 | 4.6 | P932_0160KX701_0020 MF EZ503U | 1288 | – | 4211 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 27 | 4.5 | – | 348 | 80 |
| 94 | 359 | 431 | 58 | 3.7 | P932_0160KX701_0020 MF EZ702U | 1228 | – | 4211 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 33 | 4.5 | – | 348 | 83 |
| 94 | 404 | 479 | 65 | 3.3 | P932_0160KX701_0020 MF EZ505U | 1900 | – | 4211 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 32 | 4.5 | – | 348 | 83 |
| 94 | 494 | 623 | 80 | 2.7 | P932_0160KX701_0020 MF EZ703U | 1900 | – | 4211 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 41 | 4.5 | – | 348 | 85 |
| 94 | 638 | 904 | 103 | 2.1 | P932_0160KX701_0020 MF EZ705U | 1900 | – | 4211 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 54 | 4.5 | – | 348 | 90 |
| 107 | 558 | 791 | 88 | 4.1 | P932_0280KX701_0010 MF EZ705U | 2725 | – | 6000 | 28.00 | 28/1 | 1800 | 1600 | 3000 | 65 | 4.5 | – | 381 | 90 |
| 120 | 498 | 706 | 86 | 4.2 | P932_0250KX701_0010 MF EZ705U | 2433 | – | 5789 | 25.00 | 25/1 | 1800 | 1600 | 3000 | 70 | 4.5 | – | 381 | 90 |
| 150 | 399 | 565 | 86 | 4.2 | P932_0200KX701_0010 MF EZ705U | 1946 | – | 4632 | 20.00 | 20/1 | 1800 | 1600 | 3000 | 77 | 4.5 | – | 368 | 90 |
| 188 | 319 | 452 | 86 | 4.2 | P932_0160KX701_0010 MF EZ705U | 1557 | – | 3705 | 16.00 | 16/1 | 1800 | 1600 | 3000 | 78 | 4.5 | – | 348 | 90 |
| **P932KX ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 3000 Nm)** | | | | | | | | | | | | | | | | | | |
| 48 | 1981 | 3435 | 148 | 1.1 | P932_0280KX701_0030 MF EZ813U | 3000 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 118 | 4.5 | – | 381 | 108 |
| 48 | 2052 | 5277 | 153 | 1.0 | P932_0280KX701_0030 MF EZ815U | 3000 | – | 6000 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 181 | 4.5 | – | 381 | 120 |
| 53 | 1769 | 3067 | 148 | 1.1 | P932_0250KX701_0030 MF EZ813U | 2969 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 118 | 4.5 | – | 381 | 108 |
| 53 | 1832 | 4712 | 153 | 1.0 | P932_0250KX701_0030 MF EZ815U | 2969 | – | 6579 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 181 | 4.5 | – | 381 | 120 |
| 67 | 1415 | 2454 | 148 | 1.1 | P932_0200KX701_0030 MF EZ813U | 2375 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 119 | 4.5 | – | 368 | 108 |
| 67 | 1466 | 3770 | 153 | 1.0 | P932_0200KX701_0030 MF EZ815U | 2375 | – | 5263 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 182 | 4.5 | – | 368 | 120 |

## 10.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

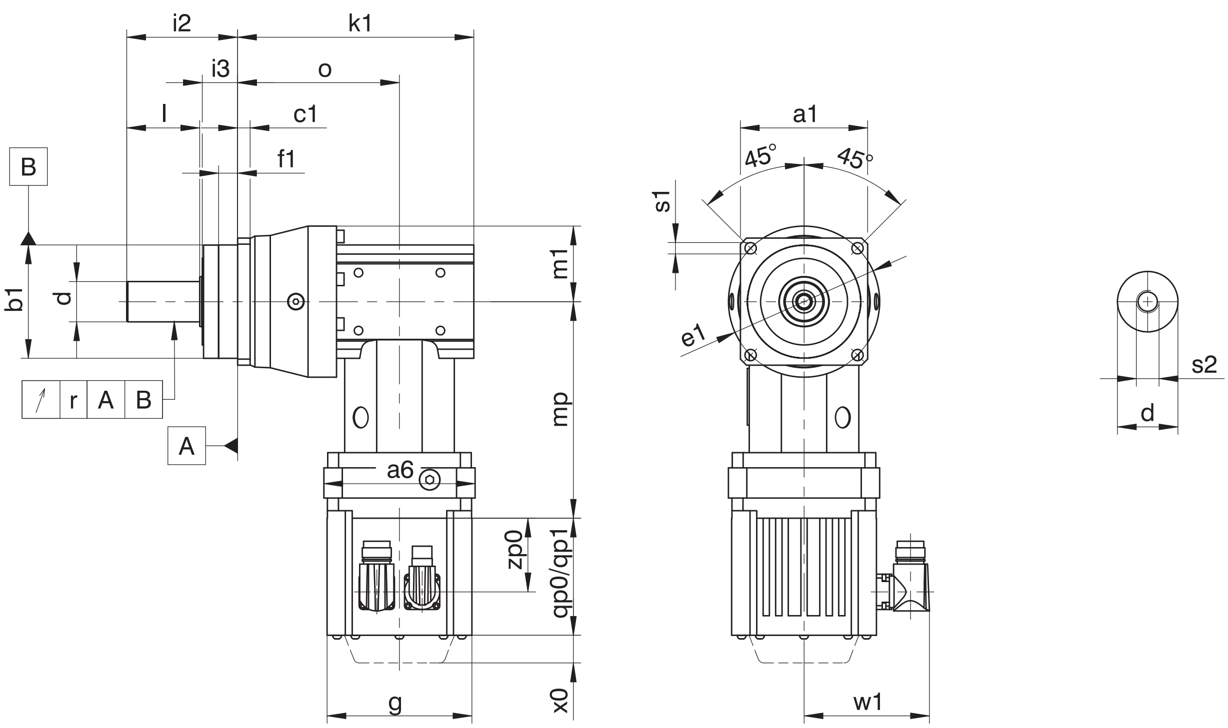
**Tolerances**

| Solid shaft | Tolerance |
|---|---|
| Fit | ISO k6 |
| Feather keys | DIN 6885-1, high form A |
| Balancing | With half feather key |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 10.3.1 G shaft design (solid shaft without feather key)




| | |
|---|---|
| qp0 | Applies to motors without brake. |
| qp1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. |
| w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| – | The radial runout specification applies only to the reinforced bearing D. |

**Dimensions of gearboxes**

| Type | □a1 | ∅b1 | c1 | ∅d | ∅e1 | f1 | i2 | i3 | k1 | l | m1 | o | r | ∅s1 | s2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P231_KX301_ | 55 | $50_{h6}$ | 6 | $12_{k6}$ | 63 | 7.0 | 36 | 12 | 124.0 | 22 | 31 | 84.0 | – | 5.5 | M4 |
| P331_KX301_ | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 131.0 | 28 | 36 | 91.0 | 0.025 | 5.5 | M5 |
| P332_KX301_ | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 165.5 | 28 | 38 | 125.5 | 0.025 | 5.5 | M5 |
| P431_KX401_ | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 165.0 | 36 | 49 | 115.0 | 0.025 | 6.6 | M8 |
| P432_KX301_ | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 180.0 | 36 | 50 | 140.0 | 0.025 | 6.6 | M8 |
| P531_KX501_ | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 187.5 | 58 | 58 | 128.5 | 0.030 | 9.0 | M12 |
| P532_KX401_ | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 207.0 | 58 | 60 | 157.0 | 0.030 | 9.0 | M12 |
| P731_KX701_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 232.5 | 82 | 75 | 158.5 | 0.035 | 11.0 | M16 |
| P732_KX501_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 255.5 | 82 | 75 | 196.5 | 0.035 | 11.0 | M16 |
| P831_KX701_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 267.0 | 82 | 102 | 193.0 | 0.035 | 13.5 | M20 |
| P832_KX701_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 324.5 | 82 | 102 | 250.5 | 0.035 | 13.5 | M20 |
| P932_KX701_ | 212 | $180_{h6}$ | 17 | $75_{k6}$ | 250 | 10.0 | 143 | 34 | 388.0 | 105 | 115 | 314.0 | 0.040 | 17.5 | M20 |

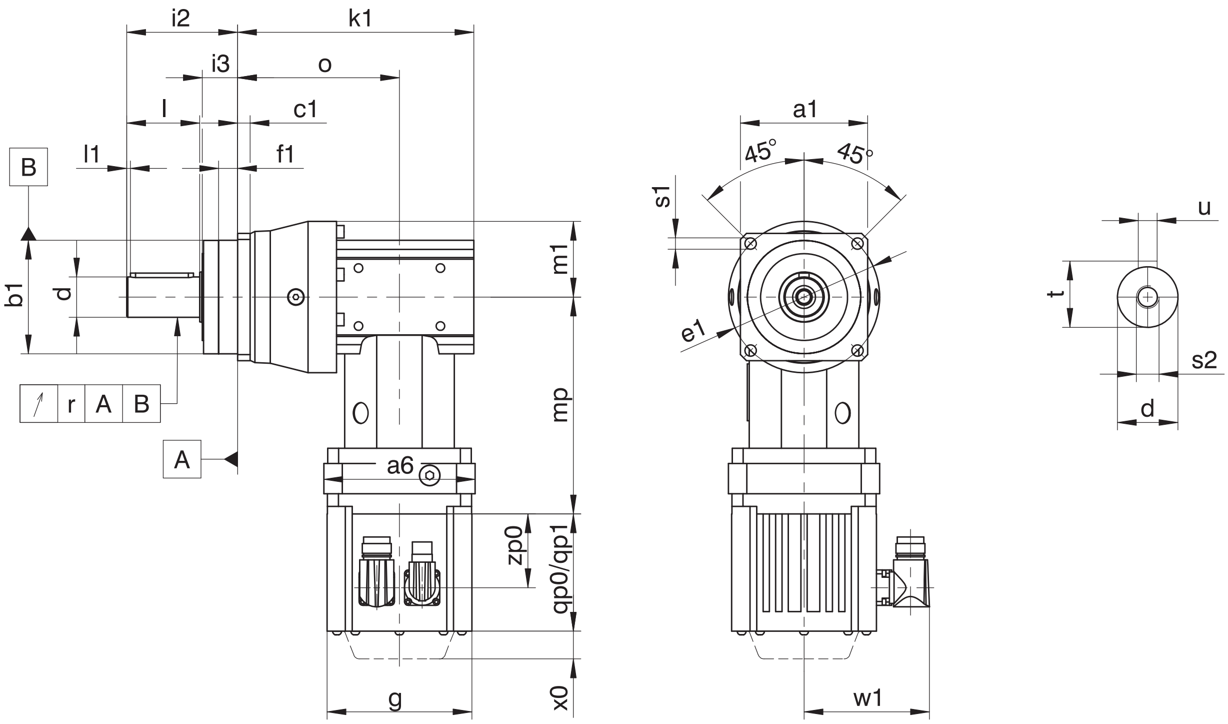
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | □a6 | mp | □a6 | mp | □a6 | mp | □a6 | mp | □a6 | mp |
| P231_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| P331_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| P332_KX301_ | 75 | 139.5 | – | – | – | – | – | – | – | – |
| P431_KX401_ | 100 | 151.0 | 100 | 145.5 | 115 | 150.0 | 140 | 153.0 | – | – |
| P432_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| P531_KX501_ | – | – | 120 | 176.5 | 120 | 172.0 | 140 | 183.0 | – | – |
| P532_KX401_ | 100 | 151.0 | 100 | 145.5 | 115 | 150.0 | 140 | 153.0 | – | – |
| P731_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| P732_KX501_ | – | – | 120 | 176.5 | 120 | 172.0 | 140 | 183.0 | – | – |
| P831_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| P832_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| P932_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |

## 10.3.2 P shaft design (solid shaft with feather key)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| – | The radial runout specification applies only to the reinforced bearing D. | | |

**Dimensions of gearboxes**

| Type | □a1 | ∅b1 | c1 | ∅d | ∅e1 | f1 | i2 | i3 | k1 | l | l1 | m1 | o | r | ∅s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P231_KX301_ | 55 | $50_{h6}$ | 6 | $12_{k6}$ | 63 | 7.0 | 36 | 12 | 124.0 | 22 | 2 | 31 | 84.0 | – | 5.5 | M4 | 13.5 | A4×4×18 |
| P331_KX301_ | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 131.0 | 28 | 2 | 36 | 91.0 | 0.025 | 5.5 | M5 | 18.0 | A5×5×22 |
| P332_KX301_ | 72 | $60_{h6}$ | 7 | $16_{k6}$ | 75 | 7.5 | 48 | 18 | 165.5 | 28 | 2 | 37.5 | 125.5 | 0.025 | 5.5 | M5 | 18.0 | A5×5×22 |
| P431_KX401_ | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 165.0 | 36 | 3 | 49 | 115.0 | 0.025 | 6.6 | M8 | 24.5 | A6×6×28 |
| P432_KX301_ | 76 | $70_{h6}$ | 9 | $22_{k6}$ | 85 | 7.5 | 56 | 18 | 180.0 | 36 | 3 | 50 | 140.0 | 0.025 | 6.6 | M8 | 24.5 | A6×6×28 |
| P531_KX501_ | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 187.5 | 58 | 3 | 57.5 | 128.5 | 0.030 | 9.0 | M12 | 35.0 | A10×8×50 |
| P532_KX401_ | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 88 | 28 | 207.0 | 58 | 3 | 60 | 157.0 | 0.030 | 9.0 | M12 | 35.0 | A10×8×50 |
| P731_KX701_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 232.5 | 82 | 4 | 75 | 158.5 | 0.035 | 11.0 | M16 | 43.0 | A12×8×70 |
| P732_KX501_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 112 | 27 | 255.5 | 82 | 4 | 75 | 196.5 | 0.035 | 11.0 | M16 | 43.0 | A12×8×70 |
| P831_KX701_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 267.0 | 82 | 6 | 102 | 193.0 | 0.035 | 13.5 | M20 | 59.0 | A16×10×70 |
| P832_KX701_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 112 | 27 | 324.5 | 82 | 6 | 102 | 250.5 | 0.035 | 13.5 | M20 | 59.0 | A16×10×70 |
| P932_KX701_ | 212 | $180_{h6}$ | 17 | $75_{k6}$ | 250 | 10.0 | 143 | 34 | 388.0 | 105 | 7 | 115 | 314.0 | 0.040 | 17.5 | M20 | 79.5 | A20×12×90 |

### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | □a6 | mp | □a6 | mp | □a6 | mp | □a6 | mp | □a6 | mp |
| P231_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| P331_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| P332_KX301_ | 75 | 139.5 | – | – | – | – | – | – | – | – |
| P431_KX401_ | 100 | 151.0 | 100 | 145.5 | 115 | 150.0 | 140 | 153.0 | – | – |
| P432_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| P531_KX501_ | – | – | 120 | 176.5 | 120 | 172.0 | 140 | 183.0 | – | – |
| P532_KX401_ | 100 | 151.0 | 100 | 145.5 | 115 | 150.0 | 140 | 153.0 | – | – |
| P731_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| P732_KX501_ | – | – | 120 | 176.5 | 120 | 172.0 | 140 | 183.0 | – | – |
| P831_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| P832_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| P932_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |

## 10.4 Type designation

In this chapter, you can find an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| P | 7 | 3 | 1 | S | G | S | S | 0050 | KX701VF | 0030 | MF | EZ703U |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **P** | Type | Planetary gearbox |
| **7** | Size | 7 (example) |
| **3** | Generation | Generation 3 |
| **1** | Stages | Single-stage |
| 2 | | Two-stage |
| **S** | Housing | Standard |
| **G** | Shaft | Solid shaft without feather key |
| P | | Solid shaft with feather key |
| **S** | Bearing | Standard bearing |
| D | | Axially reinforced bearing (P3 – P9) |
| Z | | Radially reinforced bearing (P3 – P9)[1] |
| **S** | Backlash | Standard |
| R | | Reduced |
| **0050** | Transmission ratio of output (i x 10) | i = 5 (example) |
| **KX701 VF** | Input | KX7 right-angle geared motor (example) |
| **0030** | Transmission ratio of input (i x 10) | i = 3 (example) |
| **MF** | Motor adapter | Motor adapter with FlexiAdapt coupling |
| **EZ703U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▹ 17.5]
- Mounting position, see the chapter [▹ 10.5.3]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▹ 10.6.3]
- Position of the plug connectors, see the chapter [▹ 10.5.5]
- Reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▹ 10.6.4]

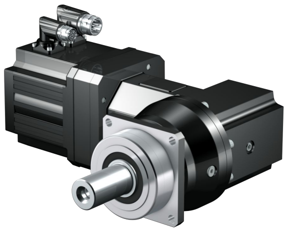
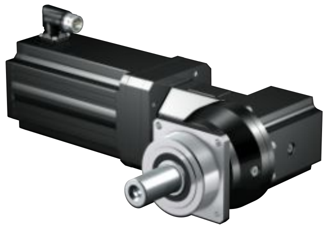
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▹ 17.5.1].

[1] Not for reduced-backlash option.

# 10.5 Product description

## 10.5.1 Input options

| EZ synchronous servo motor | LM Lean motor |
|---|---|
|  |  |
| Catalog ID 442437_en | Catalog ID 443016_en |

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

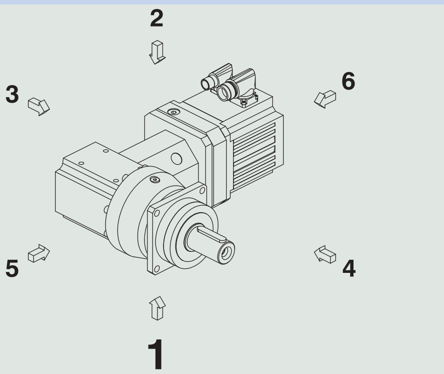
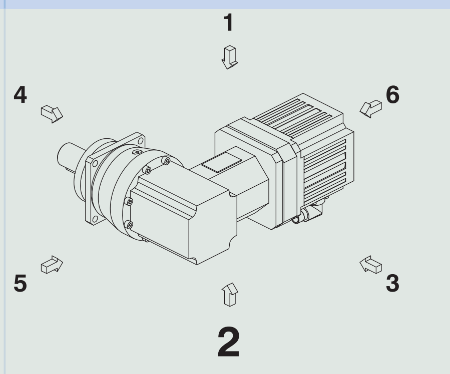
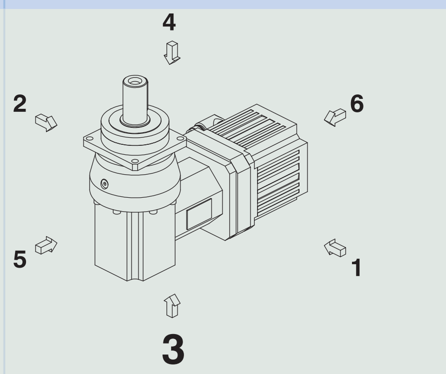
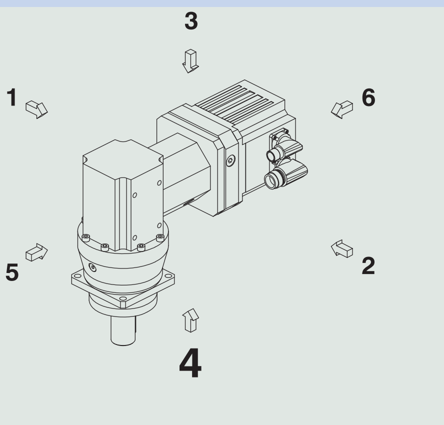
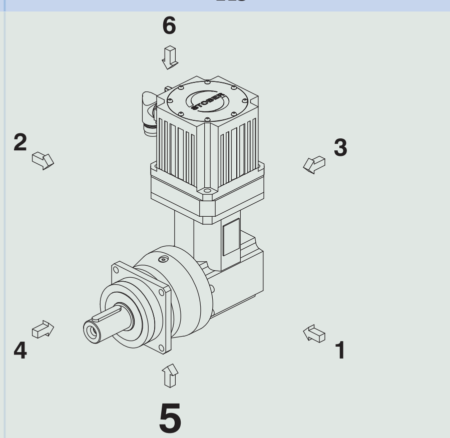
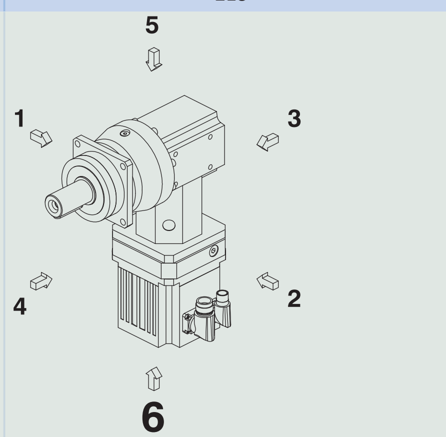
## 10.5.2 Installation conditions

The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 12.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

## 10.5.3 Mounting positions

The following table shows the standard mounting positions.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

| EL1 | EL2 | EL3 |
|---|---|---|
|  |  |  |
| **EL4** | **EL5** | **EL6** |
|  |  |  |

Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

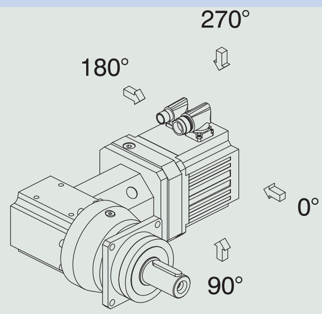
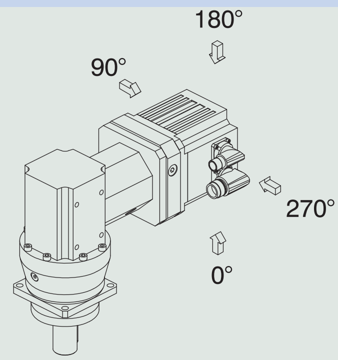
## 10.5.4 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 10.5.5 Position of the plug connectors

<table>
<tr><th>Mounting position EL1<br>Plug connector in 270° position (standard)</th><th>Mounting position EL4<br>Plug connector in 270° position (standard)</th></tr>
<tr><td>
</td><td>
</td></tr>
</table>

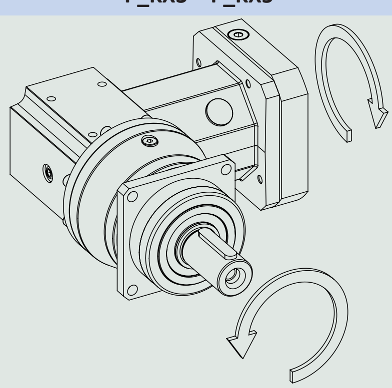
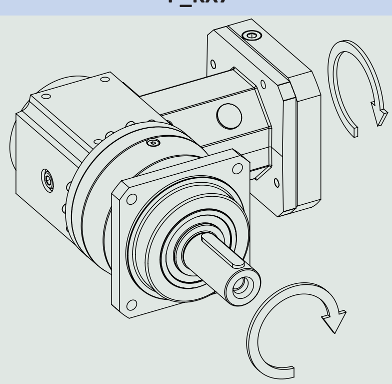
Indicate variations for your geared motor in the order.

Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

## 10.5.6 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ two-stage | 96% |
| $\eta_{get}$ three-stage | 94% |
| **Protection class:**[2] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 10.5.7 Direction of rotation

| P_KX3 – P_KX5 | P_KX7 |
|---|---|
|  |  |

The figures show mounting position EL1.

[2] Observe the protection class of all the components.

# 10.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

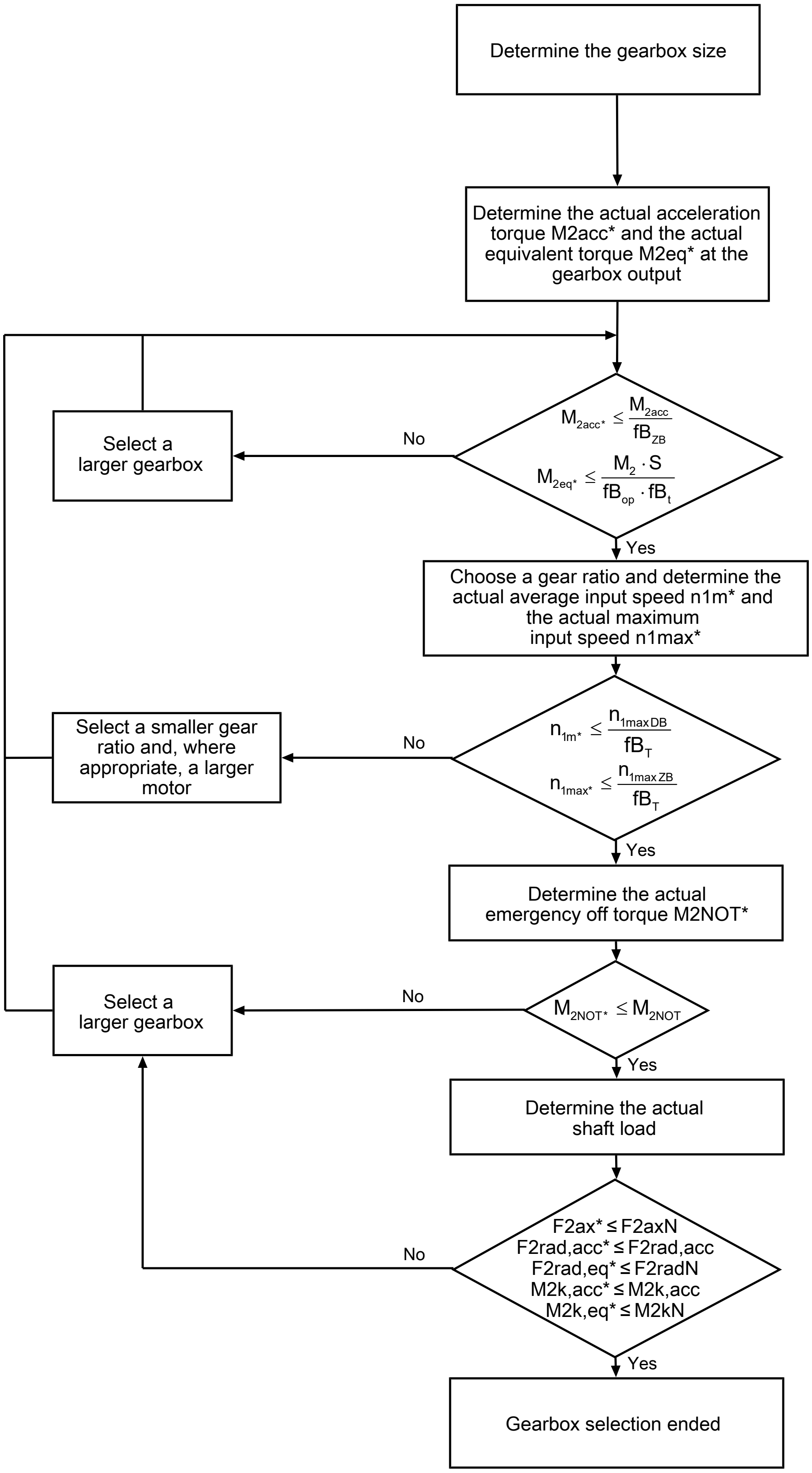
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 10.6.1 Drive selection

**Drive selection for gearboxes**

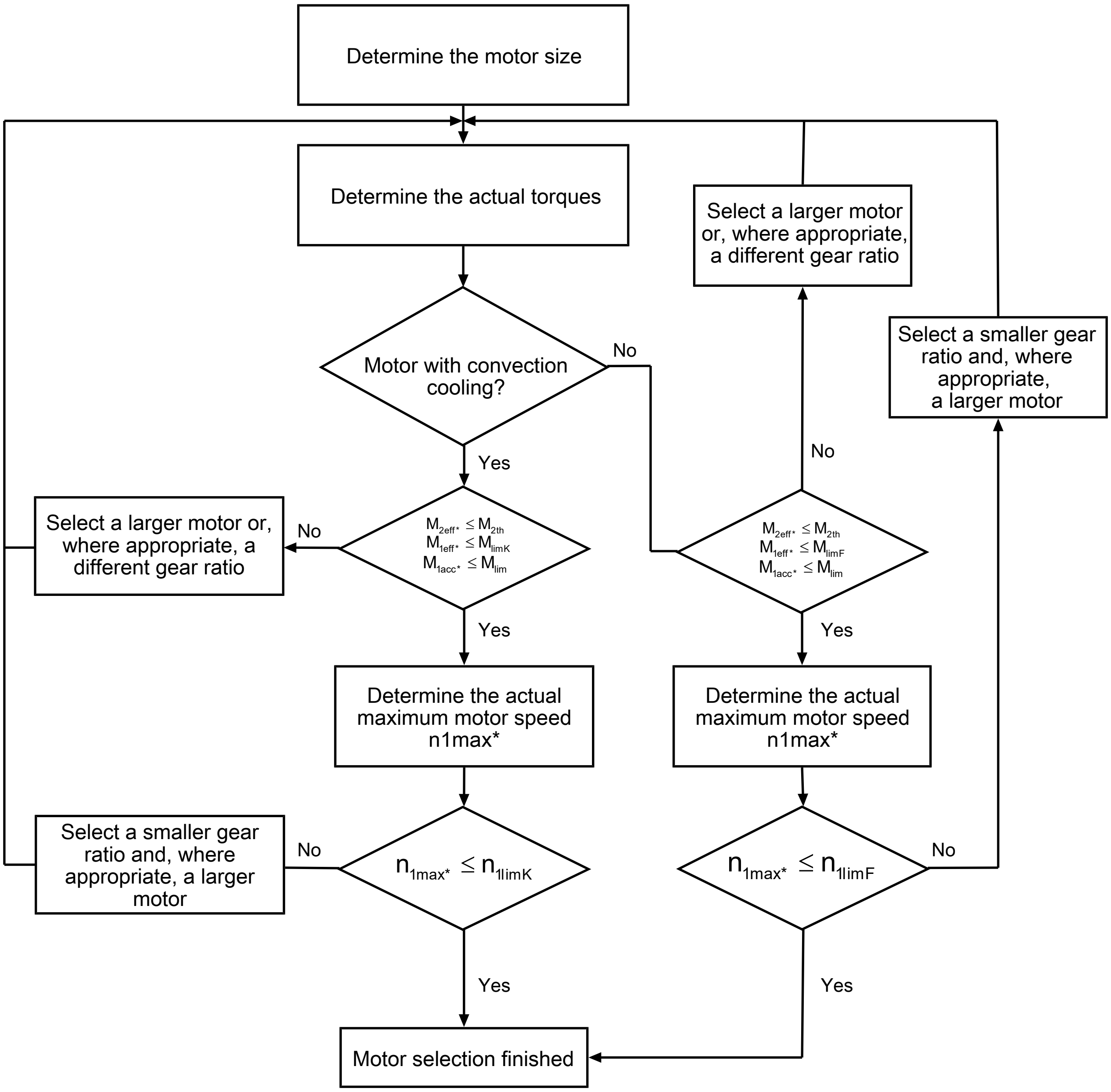



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

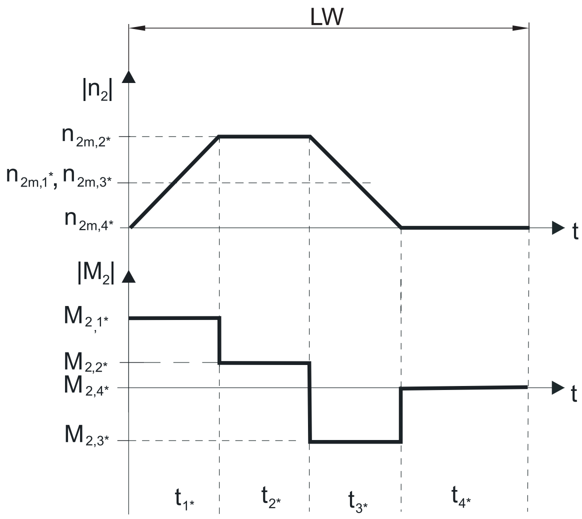
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*}$ + ... + $t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}{}^2 + \ldots + t_{n*} \cdot M_{2,n*}{}^2}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

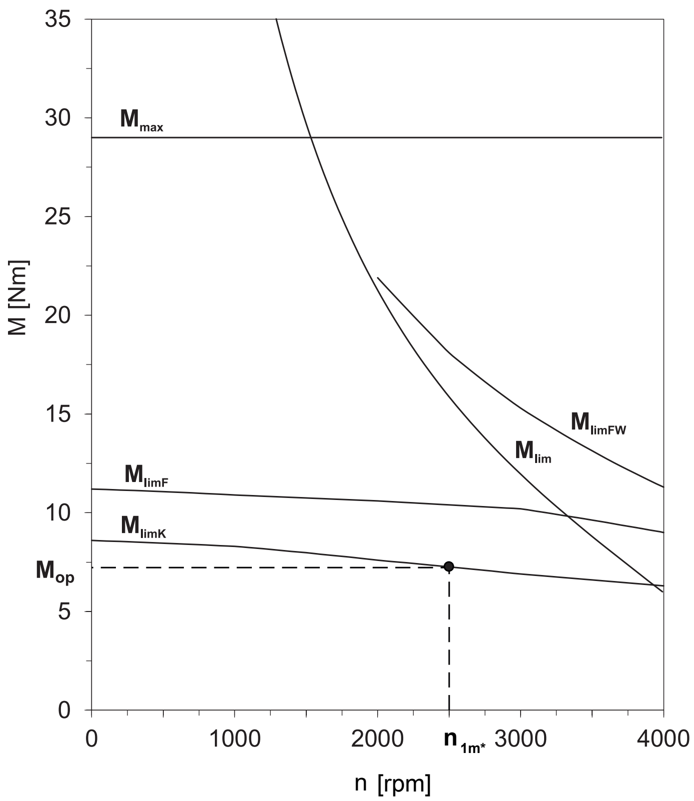
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}9 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^3$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

**Parameter $a_{thEL}$**

| Mounting position | $a_{thEL}$ |
|---|---|
| EL1, 2, 5, 6 | 1.0 |
| EL3, 4 | 1.1 |

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 10.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*}$ ≤ 100 rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| P2 | 17.0 | 500 | 1200 | 1300 | 34 | 36 |
| P3 | 17.5 | 1000 | 2500 | 2500 | 79 | 79 |
| P4 | 18.5 | 1500 | 4000 | 4500 | 146 | 164 |
| P5 | 19.5 | 2300 | 6500 | 7000 | 315 | 340 |
| P7 | 23.0 | 2900 | 8500 | 9000 | 544 | 576 |
| P8 | 24.5 | 4700 | 13000 | 18000 | 852 | 1179 |
| P9 | 33.0 | 6000 | 18000 | 27000 | 1539 | 2309 |

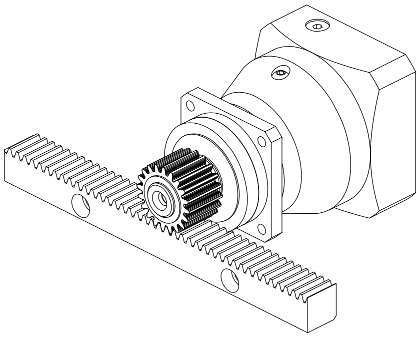


*Fig. 1:* Recommendation for bearing assignment S (e.g. for straight-cut gearing)

**Permitted shaft loads for axially reinforced bearing D**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| P3 | 20.0 | 2500 | 2750 | 2750 | 94 | 94 |
| P4 | 22.5 | 4000 | 4500 | 5000 | 182 | 203 |
| P5 | 25.5 | 6000 | 7000 | 8000 | 382 | 436 |
| P7 | 29.0 | 10000 | 9500 | 10000 | 665 | 700 |
| P8 | 32.0 | 15500 | 15000 | 18000 | 1095 | 1314 |
| P9 | 44.0 | 25000 | 20000 | 30000 | 1930 | 2895 |

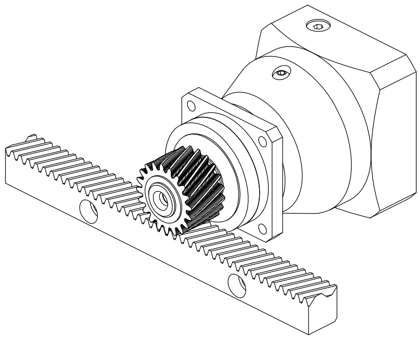


*Fig. 2:* Recommendation for bearing assignment D (e.g. for helical gearing)

**Permitted shaft loads for radially reinforced bearing Z**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| P3 | 17.5 | 600 | 3000 | 3000 | 95 | 95 |
| P4 | 18.5 | 1000 | 5000 | 5000 | 183 | 183 |
| P5 | 19.5 | 1600 | 8000 | 8000 | 388 | 388 |
| P7 | 23.0 | 2000 | 10000 | 10000 | 640 | 640 |
| P8 | 24.5 | 3600 | 18000 | 18000 | 1179 | 1179 |
| P9 | 33.0 | 5000 | 27000 | 35000 | 2309 | 2993 |

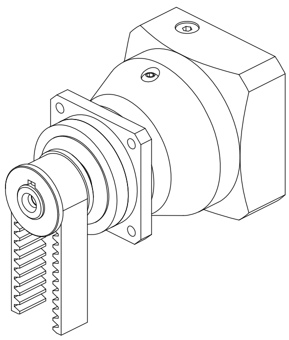


*Fig. 3:* Recommendation for bearing assignment Z (e.g. for belt drives)

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

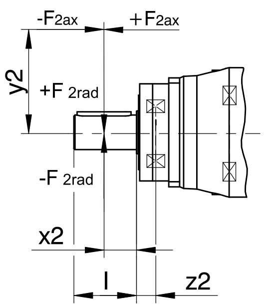



*Fig. 4:* Force application points

The specified values for $F_{2rad100}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2$ = l/2.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc^*} = \frac{2 \cdot F_{2ax^*} \cdot y_2 + F_{2rad,acc^*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2k,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2k,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |F_{2rad,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |F_{2rad,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10} \leq 40\%$):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k^*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k^*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k^*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 10.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

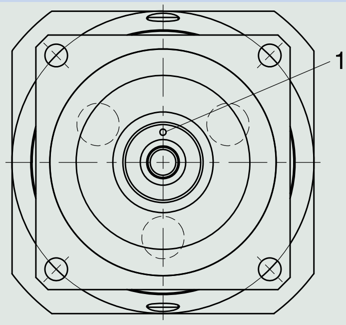
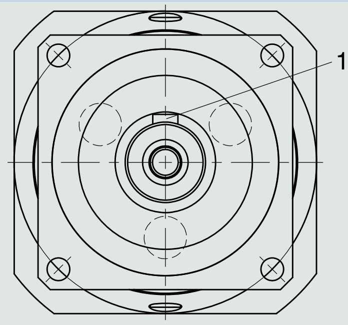
- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

### 10.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below. The images show the center position of reverse operation. Cyclic reverse operation ≤ ± 20° on request.

| Solid shaft without feather key | Solid shaft with feather key |
| --- | --- |
|  |  |
| 1 Position of the mark: top | 1 Position of the feather key: top |

**Notes**

- If you use the solid shaft without a feather key (G), you must note the position of the mark during assembly.
- As an alternative, you can use the solid shaft with a feather key (P). In that case, the feather key functions for position orientation. For a backlash-free connection, also use a clamp.

## 10.7 Additional documentation

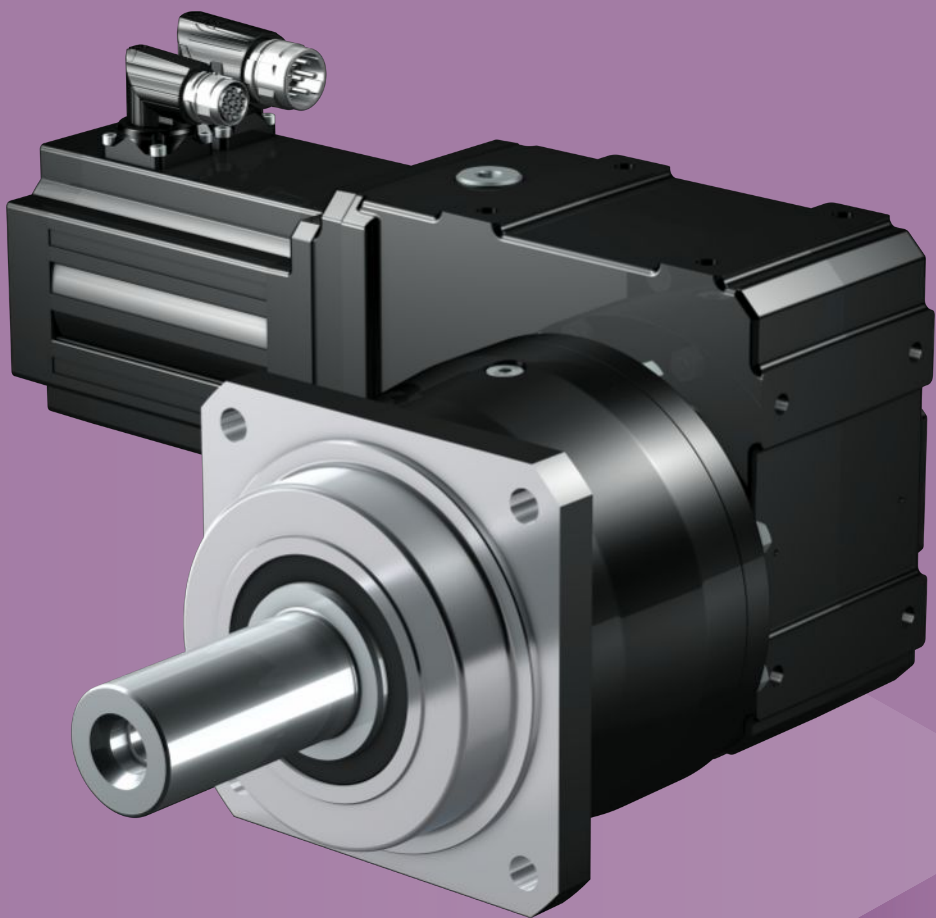
Additional documentation related to the product can be found at
http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
| --- | --- |
| Operating manual gearboxes, geared motors P23KX – P93KX | 443361_en |

# 11 PK right-angle planetary geared motors

## Table of contents



11

# Right-angle planetary geared motors

PK

## 11.1 Overview

Helical-geared precision right-angle planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★☆☆ |
| Backlash | ★★★★★ |
| Price category | €€€ |
| Shaft load | ★★★★☆ |
| Smooth operation | ★★★☆☆ |
| Torsional stiffness | ★★★☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Continuous operation without cooling | ✓ |
| Reinforced output bearing | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 12 – 555 |
| $M_{2acc}$ | 68 – 3105 Nm |
| $\Delta\phi_2$ | 1.5 – 5 arcmin |
| $\eta_{get}$ | 94 % |

# 11.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)
- $M_{2acc}$, $M_{2accHT}$: Solid shaft design without feather key (we generally recommend this shaft design for cyclic operation)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [▶ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P531K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 350 Nm)** | | | | | | | | | | | | | | | | | | |
| 13 | 205 | 210 | 12 | 1.1 | P531_0050K102_0470 EZ301U | 350 | 385 | 700 | 234.6 | 11495/49 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 29 | 17 |
| 17 | 154 | 157 | 11 | 1.4 | P531_0050K102_0350 EZ301U | 350 | 385 | 700 | 175.5 | 3686/21 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 29 | 17 |
| 21 | 123 | 125 | 10 | 1.8 | P531_0050K102_0280 EZ301U | 350 | 369 | 700 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 29 | 17 |
| 21 | 210 | 222 | 18 | 1.0 | P531_0050K102_0280 EZ302U | 350 | 385 | 700 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 29 | 17 |
| 26 | 102 | 104 | 9.8 | 2.2 | P531_0050K102_0230 EZ301U | 306 | 306 | 700 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 29 | 17 |
| 26 | 174 | 184 | 17 | 1.3 | P531_0050K102_0230 EZ302U | 350 | 385 | 700 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 29 | 17 |
| 34 | 77 | 78 | 9.2 | 2.9 | P531_0050K102_0175 EZ301U | 231 | 231 | 659 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.32 | 2.0 | 29 | 17 |
| 34 | 131 | 139 | 16 | 1.7 | P531_0050K102_0175 EZ302U | 350 | 385 | 659 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.42 | 2.0 | 29 | 17 |
| 34 | 171 | 181 | 20 | 1.3 | P531_0050K102_0175 EZ303U | 350 | 385 | 659 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.53 | 2.0 | 29 | 18 |
| 43 | 62 | 63 | 8.7 | 3.6 | P531_0050K102_0140 EZ301U | 186 | 186 | 529 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.37 | 2.0 | 29 | 17 |
| 43 | 106 | 112 | 15 | 2.1 | P531_0050K102_0140 EZ302U | 332 | 332 | 529 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.47 | 2.0 | 29 | 17 |
| 43 | 137 | 145 | 19 | 1.6 | P531_0050K102_0140 EZ303U | 350 | 385 | 529 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.58 | 2.0 | 29 | 18 |
| 43 | 186 | 199 | 26 | 1.2 | P531_0050K102_0140 EZ401U | 350 | 385 | 700 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 29 | 19 |
| 52 | 51 | 52 | 8.3 | 4.3 | P531_0050K102_0115 EZ301U | 152 | 152 | 434 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 0.43 | 2.0 | 29 | 17 |
| 52 | 87 | 91 | 14 | 2.5 | P531_0050K102_0115 EZ302U | 272 | 272 | 434 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 0.53 | 2.0 | 29 | 17 |
| 52 | 113 | 119 | 18 | 2.0 | P531_0050K102_0115 EZ303U | 326 | 326 | 434 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 0.64 | 2.0 | 29 | 18 |
| 52 | 152 | 163 | 25 | 1.4 | P531_0050K102_0115 EZ401U | 350 | 385 | 700 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 29 | 19 |
| 65 | 69 | 73 | 13 | 3.2 | P531_0050K102_0092 EZ302U | 218 | 218 | 347 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 0.62 | 2.0 | 29 | 17 |
| 65 | 90 | 95 | 17 | 2.4 | P531_0050K102_0092 EZ303U | 261 | 261 | 347 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 0.73 | 2.0 | 29 | 18 |
| 65 | 122 | 131 | 23 | 1.8 | P531_0050K102_0092 EZ401U | 350 | 370 | 700 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 1.3 | 2.0 | 29 | 19 |
| 65 | 187 | 205 | 36 | 1.2 | P531_0050K102_0092 EZ501U | 350 | 385 | 700 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 29 | 20 |
| 65 | 205 | 226 | 39 | 1.1 | P531_0050K102_0092 EZ402U | 350 | 385 | 700 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 2.0 | 2.0 | 29 | 20 |
| 72 | 62 | 66 | 13 | 3.5 | P531_0050K102_0083 EZ302U | 195 | 195 | 312 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 0.59 | 2.0 | 29 | 17 |
| 72 | 81 | 86 | 17 | 2.7 | P531_0050K102_0083 EZ303U | 235 | 235 | 312 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 0.70 | 2.0 | 29 | 18 |
| 72 | 109 | 117 | 23 | 2.0 | P531_0050K102_0083 EZ401U | 332 | 332 | 700 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 29 | 19 |
| 72 | 168 | 184 | 35 | 1.3 | P531_0050K102_0083 EZ501U | 350 | 385 | 700 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 29 | 20 |
| 72 | 184 | 203 | 38 | 1.2 | P531_0050K102_0083 EZ402U | 350 | 385 | 700 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 29 | 20 |
| 90 | 50 | 53 | 14 | 3.8 | P531_0050K102_0066 EZ302U | 156 | 156 | 249 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 0.71 | 2.0 | 29 | 17 |
| 90 | 65 | 68 | 19 | 2.9 | P531_0050K102_0066 EZ303U | 188 | 188 | 249 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 0.82 | 2.0 | 29 | 18 |
| 90 | 88 | 94 | 22 | 2.5 | P531_0050K102_0066 EZ401U | 266 | 266 | 700 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 1.3 | 2.0 | 29 | 19 |
| 90 | 134 | 147 | 33 | 1.6 | P531_0050K102_0066 EZ501U | 350 | 385 | 700 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 29 | 20 |
| 90 | 147 | 163 | 36 | 1.5 | P531_0050K102_0066 EZ402U | 350 | 385 | 700 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 2.0 | 2.0 | 29 | 20 |
| 90 | 216 | 269 | 53 | 1.0 | P531_0050K102_0066 EZ404U | 350 | 385 | 700 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 3.4 | 2.0 | 29 | 22 |
| 100 | 79 | 85 | 21 | 2.8 | P531_0050K102_0060 EZ401U | 240 | 240 | 700 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 1.4 | 2.0 | 29 | 19 |
| 100 | 121 | 133 | 32 | 1.8 | P531_0050K102_0060 EZ501U | 350 | 385 | 700 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 3.4 | 2.0 | 29 | 20 |
| 100 | 133 | 147 | 35 | 1.7 | P531_0050K102_0060 EZ402U | 350 | 385 | 700 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 2.1 | 2.0 | 29 | 20 |
| 100 | 195 | 243 | 52 | 1.1 | P531_0050K102_0060 EZ404U | 350 | 385 | 700 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 3.5 | 2.0 | 29 | 22 |
| 100 | 209 | 226 | 56 | 1.1 | P531_0050K102_0060 EZ502U | 350 | 385 | 700 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 5.7 | 2.0 | 29 | 22 |
| 100 | 209 | 234 | 56 | 1.1 | P531_0050K102_0060 EZ701U | 350 | 385 | 700 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 9.0 | 2.0 | 29 | 23 |
| 108 | 42 | 44 | 16 | 3.8 | P531_0050K102_0056 EZ302U | 131 | 131 | 209 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 0.97 | 2.0 | 29 | 17 |
| 108 | 54 | 57 | 21 | 2.9 | P531_0050K102_0056 EZ303U | 157 | 157 | 209 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 1.1 | 2.0 | 29 | 18 |
| 108 | 73 | 79 | 21 | 3.0 | P531_0050K102_0056 EZ401U | 223 | 223 | 700 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 1.6 | 2.0 | 29 | 19 |
| 108 | 113 | 123 | 32 | 2.0 | P531_0050K102_0056 EZ501U | 350 | 385 | 700 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 3.6 | 2.0 | 29 | 20 |
| 108 | 123 | 136 | 35 | 1.8 | P531_0050K102_0056 EZ402U | 350 | 385 | 700 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 2.3 | 2.0 | 29 | 20 |
| 108 | 181 | 225 | 51 | 1.2 | P531_0050K102_0056 EZ404U | 350 | 385 | 700 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 3.7 | 2.0 | 29 | 22 |
| 108 | 194 | 210 | 55 | 1.1 | P531_0050K102_0056 EZ502U | 350 | 385 | 700 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 5.9 | 2.0 | 29 | 22 |
| 108 | 194 | 217 | 55 | 1.1 | P531_0050K102_0056 EZ701U | 350 | 385 | 700 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 9.2 | 2.0 | 29 | 23 |
| 150 | 39 | 41 | 27 | 2.9 | P531_0050K102_0040 EZ303U | 113 | 113 | 150 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 1.3 | 2.0 | 29 | 18 |
| 150 | 53 | 56 | 19 | 4.2 | P531_0050K102_0040 EZ401U | 160 | 160 | 600 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 1.8 | 2.0 | 29 | 19 |
| 150 | 81 | 88 | 29 | 2.7 | P531_0050K102_0040 EZ501U | 301 | 301 | 600 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 3.8 | 2.0 | 29 | 20 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P531K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 350 Nm)** | | | | | | | | | | | | | | | | | | |
| 150 | 88 | 98 | 32 | 2.5 | P531_0050K102_0040 EZ402U | 301 | 301 | 600 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 2.5 | 2.0 | 29 | 20 |
| 150 | 130 | 162 | 47 | 1.7 | P531_0050K102_0040 EZ404U | 350 | 385 | 600 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 3.9 | 2.0 | 29 | 22 |
| 150 | 139 | 151 | 50 | 1.6 | P531_0050K102_0040 EZ502U | 350 | 385 | 600 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 6.1 | 2.0 | 29 | 22 |
| 150 | 139 | 156 | 50 | 1.6 | P531_0050K102_0040 EZ701U | 350 | 376 | 600 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 9.4 | 2.0 | 29 | 23 |
| 150 | 183 | 209 | 66 | 1.2 | P531_0050K102_0040 EZ503U | 350 | 385 | 600 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 8.5 | 2.0 | 29 | 23 |
| 188 | 31 | 33 | 27 | 2.9 | P531_0040K102_0040 EZ303U | 90 | 90 | 120 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 1.3 | 2.5 | 27 | 18 |
| 188 | 42 | 45 | 17 | 4.8 | P531_0040K102_0040 EZ401U | 128 | 128 | 480 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 1.9 | 2.5 | 27 | 19 |
| 188 | 65 | 71 | 26 | 3.1 | P531_0040K102_0040 EZ501U | 241 | 241 | 480 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 3.8 | 2.5 | 27 | 20 |
| 188 | 71 | 78 | 28 | 2.8 | P531_0040K102_0040 EZ402U | 241 | 241 | 480 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 2.6 | 2.5 | 27 | 20 |
| 188 | 104 | 129 | 41 | 1.9 | P531_0040K102_0040 EZ404U | 300 | 320 | 480 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 3.9 | 2.5 | 27 | 22 |
| 188 | 111 | 120 | 44 | 1.8 | P531_0040K102_0040 EZ502U | 300 | 320 | 480 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 6.1 | 2.5 | 27 | 22 |
| 188 | 111 | 125 | 44 | 1.8 | P531_0040K102_0040 EZ701U | 300 | 301 | 480 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 9.4 | 2.5 | 27 | 23 |
| 188 | 146 | 167 | 58 | 1.4 | P531_0040K102_0040 EZ503U | 300 | 320 | 480 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 8.5 | 2.5 | 27 | 23 |
| 250 | 23 | 25 | 27 | 2.9 | P531_0030K102_0040 EZ303U | 68 | 68 | 90 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 1.4 | 3.0 | 22 | 18 |
| 250 | 32 | 34 | 21 | 3.8 | P531_0030K102_0040 EZ401U | 96 | 96 | 360 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 2.0 | 3.0 | 22 | 19 |
| 250 | 49 | 53 | 32 | 2.5 | P531_0030K102_0040 EZ501U | 181 | 181 | 360 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 3.9 | 3.0 | 22 | 20 |
| 250 | 53 | 59 | 35 | 2.3 | P531_0030K102_0040 EZ402U | 181 | 181 | 360 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 2.7 | 3.0 | 22 | 20 |
| 250 | 78 | 97 | 52 | 1.5 | P531_0030K102_0040 EZ404U | 200 | 200 | 360 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 4.0 | 3.0 | 22 | 22 |
| 250 | 84 | 90 | 55 | 1.4 | P531_0030K102_0040 EZ502U | 200 | 200 | 360 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 6.2 | 3.0 | 22 | 22 |
| 250 | 84 | 94 | 55 | 1.4 | P531_0030K102_0040 EZ701U | 200 | 200 | 360 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 9.5 | 3.0 | 22 | 23 |
| 250 | 110 | 125 | 73 | 1.1 | P531_0030K102_0040 EZ503U | 200 | 200 | 360 | 12.00 | 12/1 | 3300 | 3300 | 5000 | 5.0 | 8.6 | 3.0 | 22 | 23 |
| **P531K ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 350 Nm)** | | | | | | | | | | | | | | | | | | |
| 26 | 196 | 210 | 11 | 1.1 | P531_0050K102_0470 EZ301U | 350 | 385 | 700 | 234.6 | 11495/49 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 29 | 17 |
| 34 | 147 | 157 | 10 | 1.5 | P531_0050K102_0350 EZ301U | 350 | 385 | 700 | 175.5 | 3686/21 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 29 | 17 |
| 43 | 117 | 125 | 9.9 | 1.9 | P531_0050K102_0280 EZ301U | 350 | 369 | 700 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 29 | 17 |
| 43 | 198 | 222 | 17 | 1.1 | P531_0050K102_0280 EZ302U | 350 | 385 | 700 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 29 | 17 |
| 52 | 97 | 104 | 9.4 | 2.3 | P531_0050K102_0230 EZ301U | 306 | 306 | 700 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 29 | 17 |
| 52 | 164 | 184 | 16 | 1.3 | P531_0050K102_0230 EZ302U | 350 | 385 | 700 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 29 | 17 |
| 52 | 215 | 246 | 21 | 1.0 | P531_0050K102_0230 EZ303U | 350 | 385 | 700 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 29 | 18 |
| 68 | 74 | 78 | 8.8 | 3.0 | P531_0050K102_0175 EZ301U | 231 | 231 | 659 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.32 | 2.0 | 29 | 17 |
| 68 | 124 | 139 | 15 | 1.8 | P531_0050K102_0175 EZ302U | 350 | 385 | 659 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.42 | 2.0 | 29 | 17 |
| 68 | 162 | 186 | 19 | 1.4 | P531_0050K102_0175 EZ303U | 350 | 385 | 659 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.53 | 2.0 | 29 | 18 |
| 68 | 190 | 231 | 23 | 1.2 | P531_0050K102_0175 EZ401U | 350 | 385 | 700 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 29 | 19 |
| 85 | 59 | 63 | 8.3 | 3.7 | P531_0050K102_0140 EZ301U | 186 | 186 | 529 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.37 | 2.0 | 29 | 17 |
| 85 | 100 | 112 | 14 | 2.2 | P531_0050K102_0140 EZ302U | 332 | 332 | 529 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.47 | 2.0 | 29 | 17 |
| 85 | 130 | 149 | 18 | 1.7 | P531_0050K102_0140 EZ303U | 350 | 385 | 529 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.58 | 2.0 | 29 | 18 |
| 85 | 153 | 186 | 21 | 1.4 | P531_0050K102_0140 EZ401U | 350 | 385 | 700 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 29 | 19 |
| **P731K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 6.1 | 429 | 438 | 9.1 | 1.0 | P731_0070K102_0700 EZ301U | 566 | 566 | 1003 | 490.2 | 2451/5 | 4000 | 4000 | 7000 | 4.0 | 0.20 | 2.0 | 52 | 23 |
| 7.6 | 344 | 351 | 8.6 | 1.3 | P731_0070K102_0560 EZ301U | 697 | 697 | 1235 | 392.7 | 1178/3 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 52 | 23 |
| 8.5 | 308 | 315 | 11 | 1.1 | P731_0070K102_0500 EZ301U | 407 | 407 | 721 | 352.2 | 35217/100 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 52 | 23 |
| 8.5 | 307 | 314 | 14 | 1.1 | P731_0100K102_0350 EZ301U | 575 | 575 | 1150 | 351.1 | 7372/21 | 4000 | 4000 | 7000 | 3.5 | 0.23 | 1.5 | 50 | 23 |
| 9.1 | 287 | 294 | 8.2 | 1.5 | P731_0070K102_0470 EZ301U | 805 | 828 | 1466 | 328.4 | 2299/7 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 52 | 23 |
| 11 | 247 | 252 | 8.3 | 1.7 | P731_0070K102_0400 EZ301U | 501 | 501 | 887 | 282.1 | 2821/10 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 52 | 23 |
| 11 | 245 | 251 | 13 | 1.4 | P731_0100K102_0280 EZ301U | 575 | 575 | 1150 | 280.5 | 5890/21 | 4000 | 4000 | 7000 | 3.5 | 0.26 | 1.5 | 50 | 23 |
| 11 | 415 | 439 | 12 | 1.1 | P731_0050K202_0560 EZ302U | 805 | 840 | 1392 | 277.7 | 6665/24 | 4000 | 4000 | 6500 | 4.0 | 0.34 | 2.0 | 53 | 31 |
| 12 | 215 | 220 | 7.6 | 2.0 | P731_0070K102_0350 EZ301U | 647 | 647 | 1413 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 52 | 23 |
| 12 | 368 | 388 | 13 | 1.2 | P731_0070K102_0350 EZ302U | 805 | 840 | 1413 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.33 | 2.0 | 52 | 24 |
| 13 | 206 | 211 | 7.5 | 2.1 | P731_0070K102_0340 EZ301U | 595 | 595 | 1053 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 52 | 23 |
| 13 | 353 | 373 | 13 | 1.2 | P731_0070K102_0340 EZ302U | 595 | 595 | 1053 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.32 | 2.0 | 52 | 24 |
| 13 | 204 | 208 | 12 | 1.7 | P731_0100K102_0230 EZ301U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.28 | 1.5 | 50 | 23 |
| 13 | 348 | 368 | 21 | 1.0 | P731_0100K102_0230 EZ302U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.38 | 1.5 | 50 | 24 |
| 13 | 346 | 365 | 11 | 1.3 | P731_0050K202_0460 EZ302U | 805 | 840 | 1329 | 231.1 | 1849/8 | 4000 | 4000 | 6500 | 4.0 | 0.36 | 2.0 | 53 | 31 |
| 15 | 172 | 175 | 7.2 | 2.6 | P731_0070K102_0280 EZ301U | 517 | 517 | 1217 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 52 | 23 |
| 15 | 294 | 310 | 12 | 1.5 | P731_0070K102_0280 EZ302U | 805 | 840 | 1217 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 52 | 24 |
| 15 | 382 | 405 | 16 | 1.2 | P731_0070K102_0280 EZ303U | 805 | 840 | 1217 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.47 | 2.0 | 52 | 24 |
| 17 | 154 | 158 | 7.0 | 2.8 | P731_0070K102_0250 EZ301U | 465 | 465 | 1015 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.24 | 2.0 | 52 | 23 |
| 17 | 264 | 279 | 12 | 1.7 | P731_0070K102_0250 EZ302U | 764 | 764 | 1015 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.34 | 2.0 | 52 | 24 |
| 17 | 344 | 364 | 16 | 1.3 | P731_0070K102_0250 EZ303U | 764 | 764 | 1015 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.45 | 2.0 | 52 | 24 |
| 17 | 258 | 273 | 10 | 1.7 | P731_0050K202_0350 EZ302U | 805 | 813 | 1104 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.41 | 2.0 | 53 | 31 |
| 17 | 336 | 356 | 13 | 1.3 | P731_0050K202_0350 EZ303U | 805 | 831 | 1104 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.52 | 2.0 | 53 | 32 |
| 18 | 143 | 146 | 6.9 | 3.1 | P731_0070K102_0230 EZ301U | 429 | 429 | 1148 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 52 | 23 |
| 18 | 244 | 257 | 12 | 1.8 | P731_0070K102_0230 EZ302U | 766 | 766 | 1148 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 52 | 24 |
| 18 | 317 | 336 | 15 | 1.4 | P731_0070K102_0230 EZ303U | 805 | 840 | 1148 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 52 | 24 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| P731K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm) | | | | | | | | | | | | | | | | | | |
| 18 | 429 | 460 | 21 | 1.0 | P731_0070K102_0230 EZ401U | 805 | 840 | 1610 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 52 | 26 |
| 21 | 123 | 126 | 6.6 | 3.6 | P731_0070K102_0200 EZ301U | 372 | 372 | 874 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.27 | 2.0 | 52 | 23 |
| 21 | 211 | 223 | 11 | 2.1 | P731_0070K102_0200 EZ302U | 658 | 658 | 874 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.37 | 2.0 | 52 | 24 |
| 21 | 275 | 291 | 15 | 1.6 | P731_0070K102_0200 EZ303U | 658 | 658 | 874 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.48 | 2.0 | 52 | 24 |
| 21 | 372 | 398 | 20 | 1.2 | P731_0070K102_0200 EZ401U | 805 | 840 | 1588 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 52 | 26 |
| 21 | 368 | 394 | 17 | 1.2 | P731_0050K202_0280 EZ401U | 805 | 840 | 1610 | 139.8 | 559/4 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 53 | 33 |
| 24 | 108 | 110 | 6.4 | 4.1 | P731_0070K102_0175 EZ301U | 324 | 324 | 922 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.33 | 2.0 | 52 | 23 |
| 24 | 184 | 194 | 11 | 2.4 | P731_0070K102_0175 EZ302U | 578 | 578 | 922 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.43 | 2.0 | 52 | 24 |
| 24 | 239 | 253 | 14 | 1.8 | P731_0070K102_0175 EZ303U | 694 | 694 | 922 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.54 | 2.0 | 52 | 24 |
| 24 | 324 | 347 | 19 | 1.4 | P731_0070K102_0175 EZ401U | 805 | 840 | 1610 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 52 | 26 |
| 26 | 102 | 105 | 6.3 | 4.3 | P731_0070K102_0165 EZ301U | 308 | 308 | 825 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.29 | 2.0 | 52 | 23 |
| 26 | 175 | 185 | 11 | 2.5 | P731_0070K102_0165 EZ302U | 550 | 550 | 825 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.39 | 2.0 | 52 | 24 |
| 26 | 228 | 241 | 14 | 1.9 | P731_0070K102_0165 EZ303U | 621 | 621 | 825 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.50 | 2.0 | 52 | 24 |
| 26 | 308 | 330 | 19 | 1.4 | P731_0070K102_0165 EZ401U | 805 | 840 | 1588 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 52 | 26 |
| 26 | 173 | 183 | 9.3 | 2.5 | P731_0050K202_0230 EZ302U | 545 | 545 | 870 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 53 | 31 |
| 26 | 226 | 239 | 12 | 1.9 | P731_0050K202_0230 EZ303U | 655 | 655 | 870 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.64 | 2.0 | 53 | 32 |
| 26 | 305 | 327 | 16 | 1.4 | P731_0050K202_0230 EZ401U | 805 | 840 | 1610 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 53 | 33 |
| 26 | 101 | 103 | 10 | 3.5 | P731_0100K102_0115 EZ301U | 305 | 305 | 867 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 0.43 | 1.5 | 50 | 23 |
| 26 | 173 | 183 | 18 | 2.0 | P731_0100K102_0115 EZ302U | 544 | 544 | 867 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 0.53 | 1.5 | 50 | 24 |
| 26 | 225 | 238 | 23 | 1.6 | P731_0100K102_0115 EZ303U | 575 | 575 | 867 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 0.64 | 1.5 | 50 | 24 |
| 26 | 305 | 326 | 31 | 1.1 | P731_0100K102_0115 EZ401U | 575 | 575 | 1150 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 1.2 | 1.5 | 50 | 26 |
| 30 | 148 | 156 | 10 | 3.0 | P731_0070K102_0140 EZ302U | 465 | 465 | 741 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.48 | 2.0 | 52 | 24 |
| 30 | 192 | 204 | 14 | 2.3 | P731_0070K102_0140 EZ303U | 558 | 558 | 741 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.59 | 2.0 | 52 | 24 |
| 30 | 260 | 279 | 18 | 1.7 | P731_0070K102_0140 EZ401U | 790 | 790 | 1610 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 52 | 26 |
| 30 | 400 | 437 | 28 | 1.1 | P731_0070K102_0140 EZ501U | 805 | 840 | 1610 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 52 | 27 |
| 30 | 437 | 483 | 31 | 1.0 | P731_0070K102_0140 EZ402U | 805 | 840 | 1610 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 52 | 27 |
| 32 | 138 | 146 | 17 | 2.5 | P731_0100K102_0092 EZ302U | 435 | 435 | 694 | 92.49 | 17480/189 | 3600 | 3600 | 5500 | 3.5 | 0.62 | 1.5 | 50 | 24 |
| 32 | 180 | 191 | 22 | 1.9 | P731_0100K102_0092 EZ303U | 522 | 522 | 694 | 92.49 | 17480/189 | 3600 | 3600 | 5500 | 3.5 | 0.73 | 1.5 | 50 | 24 |
| 32 | 244 | 261 | 30 | 1.4 | P731_0100K102_0092 EZ401U | 575 | 575 | 1150 | 92.49 | 17480/189 | 3600 | 3600 | 5500 | 3.5 | 1.3 | 1.5 | 50 | 26 |
| 34 | 132 | 140 | 10 | 3.3 | P731_0070K102_0125 EZ302U | 416 | 416 | 663 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.45 | 2.0 | 52 | 24 |
| 34 | 172 | 182 | 13 | 2.6 | P731_0070K102_0125 EZ303U | 499 | 499 | 663 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.56 | 2.0 | 52 | 24 |
| 34 | 233 | 249 | 18 | 1.9 | P731_0070K102_0125 EZ401U | 706 | 706 | 1588 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 52 | 26 |
| 34 | 357 | 391 | 27 | 1.2 | P731_0070K102_0125 EZ501U | 805 | 840 | 1588 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 52 | 27 |
| 34 | 391 | 432 | 30 | 1.1 | P731_0070K102_0125 EZ402U | 805 | 840 | 1588 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 52 | 27 |
| 34 | 131 | 138 | 8.7 | 3.4 | P731_0050K202_0175 EZ302U | 411 | 411 | 655 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 0.66 | 2.0 | 53 | 31 |
| 34 | 170 | 180 | 11 | 2.6 | P731_0050K202_0175 EZ303U | 493 | 493 | 655 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 0.77 | 2.0 | 53 | 32 |
| 34 | 230 | 247 | 15 | 1.9 | P731_0050K202_0175 EZ401U | 699 | 699 | 1610 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 1.3 | 2.0 | 53 | 33 |
| 34 | 353 | 386 | 24 | 1.2 | P731_0050K202_0175 EZ501U | 805 | 840 | 1610 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 3.3 | 2.0 | 53 | 34 |
| 34 | 386 | 427 | 26 | 1.1 | P731_0050K202_0175 EZ402U | 805 | 840 | 1610 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 2.0 | 2.0 | 53 | 34 |
| 36 | 124 | 131 | 16 | 2.8 | P731_0100K102_0083 EZ302U | 391 | 391 | 623 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 0.59 | 1.5 | 50 | 24 |
| 36 | 162 | 171 | 21 | 2.2 | P731_0100K102_0083 EZ303U | 469 | 469 | 623 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 0.70 | 1.5 | 50 | 24 |
| 36 | 219 | 235 | 29 | 1.6 | P731_0100K102_0083 EZ401U | 575 | 575 | 1150 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 1.2 | 1.5 | 50 | 26 |
| 36 | 336 | 367 | 44 | 1.0 | P731_0100K102_0083 EZ501U | 575 | 575 | 1150 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 3.2 | 1.5 | 50 | 27 |
| 37 | 121 | 128 | 9.9 | 3.6 | P731_0070K102_0115 EZ302U | 381 | 381 | 607 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 0.54 | 2.0 | 52 | 24 |
| 37 | 158 | 167 | 13 | 2.8 | P731_0070K102_0115 EZ303U | 457 | 457 | 607 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 0.65 | 2.0 | 52 | 24 |
| 37 | 213 | 229 | 17 | 2.1 | P731_0070K102_0115 EZ401U | 647 | 647 | 1610 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 52 | 26 |
| 37 | 328 | 358 | 27 | 1.3 | P731_0070K102_0115 EZ501U | 805 | 840 | 1610 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 3.1 | 2.0 | 52 | 27 |
| 37 | 358 | 396 | 29 | 1.2 | P731_0070K102_0115 EZ402U | 805 | 840 | 1610 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 52 | 27 |
| 42 | 106 | 112 | 10 | 3.8 | P731_0070K102_0100 EZ302U | 334 | 334 | 532 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.51 | 2.0 | 52 | 24 |
| 42 | 138 | 146 | 14 | 2.9 | P731_0070K102_0100 EZ303U | 401 | 401 | 532 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.62 | 2.0 | 52 | 24 |
| 42 | 187 | 200 | 17 | 2.4 | P731_0070K102_0100 EZ401U | 568 | 568 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.2 | 2.0 | 52 | 26 |
| 42 | 287 | 314 | 26 | 1.5 | P731_0070K102_0100 EZ501U | 805 | 840 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 52 | 27 |
| 42 | 314 | 347 | 28 | 1.4 | P731_0070K102_0100 EZ402U | 805 | 840 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.9 | 2.0 | 52 | 27 |
| 43 | 182 | 195 | 14 | 2.4 | P731_0050K202_0140 EZ401U | 554 | 554 | 1610 | 69.26 | 14405/208 | 3900 | 3900 | 5500 | 4.0 | 1.4 | 2.0 | 53 | 33 |
| 43 | 280 | 306 | 22 | 1.6 | P731_0050K202_0140 EZ501U | 805 | 840 | 1610 | 69.26 | 14405/208 | 3900 | 3900 | 5500 | 4.0 | 3.4 | 2.0 | 53 | 34 |
| 43 | 306 | 339 | 24 | 1.4 | P731_0050K202_0140 EZ402U | 805 | 840 | 1610 | 69.26 | 14405/208 | 3900 | 3900 | 5500 | 4.0 | 2.1 | 2.0 | 53 | 34 |
| 45 | 99 | 105 | 15 | 3.5 | P731_0100K102_0066 EZ302U | 313 | 313 | 499 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 0.71 | 1.5 | 50 | 24 |
| 45 | 129 | 137 | 20 | 2.7 | P731_0100K102_0066 EZ303U | 375 | 375 | 499 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 0.82 | 1.5 | 50 | 24 |
| 45 | 175 | 188 | 27 | 2.0 | P731_0100K102_0066 EZ401U | 531 | 531 | 1150 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 1.3 | 1.5 | 50 | 26 |
| 45 | 269 | 294 | 42 | 1.3 | P731_0100K102_0066 EZ501U | 575 | 575 | 1150 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 3.3 | 1.5 | 50 | 27 |
| 45 | 294 | 325 | 46 | 1.2 | P731_0100K102_0066 EZ402U | 575 | 575 | 1150 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 2.0 | 1.5 | 50 | 27 |
| 46 | 97 | 102 | 11 | 3.8 | P731_0070K102_0092 EZ302U | 305 | 305 | 486 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 0.63 | 2.0 | 52 | 24 |
| 46 | 126 | 133 | 15 | 2.9 | P731_0070K102_0092 EZ303U | 366 | 366 | 486 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 0.74 | 2.0 | 52 | 24 |
| 46 | 171 | 183 | 16 | 2.6 | P731_0070K102_0092 EZ401U | 518 | 518 | 1610 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 1.3 | 2.0 | 52 | 26 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P731K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 46 | 262 | 286 | 25 | 1.7 | P731_0070K102_0092 EZ501U | 805 | 840 | 1610 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 52 | 27 |
| 46 | 286 | 317 | 28 | 1.5 | P731_0070K102_0092 EZ402U | 805 | 840 | 1610 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 2.0 | 2.0 | 52 | 27 |
| 46 | 420 | 524 | 41 | 1.0 | P731_0070K102_0092 EZ404U | 805 | 840 | 1610 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 52 | 29 |
| 50 | 158 | 169 | 27 | 2.2 | P731_0100K102_0060 EZ401U | 480 | 480 | 1150 | 60.00 | 60/1 | 3300 | 3300 | 5000 | 3.5 | 1.4 | 1.5 | 50 | 26 |
| 50 | 243 | 265 | 41 | 1.4 | P731_0100K102_0060 EZ501U | 575 | 575 | 1150 | 60.00 | 60/1 | 3300 | 3300 | 5000 | 3.5 | 3.4 | 1.5 | 50 | 27 |
| 50 | 265 | 294 | 44 | 1.3 | P731_0100K102_0060 EZ402U | 575 | 575 | 1150 | 60.00 | 60/1 | 3300 | 3300 | 5000 | 3.5 | 2.1 | 1.5 | 50 | 27 |
| 52 | 87 | 92 | 12 | 3.8 | P731_0070K102_0083 EZ302U | 274 | 274 | 436 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 0.59 | 2.0 | 52 | 24 |
| 52 | 113 | 120 | 16 | 2.9 | P731_0070K102_0083 EZ303U | 328 | 328 | 436 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 0.70 | 2.0 | 52 | 24 |
| 52 | 153 | 164 | 16 | 2.9 | P731_0070K102_0083 EZ401U | 465 | 465 | 1588 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 52 | 26 |
| 52 | 235 | 257 | 25 | 1.9 | P731_0070K102_0083 EZ501U | 805 | 840 | 1588 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 52 | 27 |
| 52 | 257 | 285 | 27 | 1.7 | P731_0070K102_0083 EZ402U | 805 | 840 | 1588 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 52 | 27 |
| 52 | 378 | 471 | 39 | 1.2 | P731_0070K102_0083 EZ404U | 805 | 840 | 1588 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 52 | 29 |
| 52 | 405 | 438 | 42 | 1.1 | P731_0070K102_0083 EZ502U | 805 | 840 | 1588 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 5.5 | 2.0 | 52 | 28 |
| 52 | 405 | 454 | 42 | 1.1 | P731_0070K102_0083 EZ701U | 805 | 840 | 1588 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 8.8 | 2.0 | 52 | 30 |
| 52 | 86 | 91 | 11 | 3.8 | P731_0050K202_0115 EZ302U | 272 | 272 | 433 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 0.97 | 2.0 | 53 | 31 |
| 52 | 112 | 119 | 14 | 2.9 | P731_0050K202_0115 EZ303U | 326 | 326 | 433 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 1.1 | 2.0 | 53 | 32 |
| 52 | 152 | 163 | 14 | 2.9 | P731_0050K202_0115 EZ401U | 462 | 462 | 1610 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 1.6 | 2.0 | 53 | 33 |
| 52 | 234 | 255 | 21 | 1.9 | P731_0050K202_0115 EZ501U | 805 | 840 | 1610 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 3.6 | 2.0 | 53 | 34 |
| 52 | 255 | 282 | 23 | 1.7 | P731_0050K202_0115 EZ402U | 805 | 840 | 1610 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 2.3 | 2.0 | 53 | 34 |
| 52 | 375 | 467 | 34 | 1.2 | P731_0050K202_0115 EZ404U | 805 | 840 | 1610 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 53 | 36 |
| 52 | 402 | 435 | 36 | 1.1 | P731_0050K202_0115 EZ502U | 805 | 840 | 1610 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 5.9 | 2.0 | 53 | 36 |
| 52 | 402 | 451 | 36 | 1.1 | P731_0050K202_0115 EZ701U | 805 | 840 | 1610 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 9.2 | 2.0 | 53 | 38 |
| 54 | 83 | 88 | 16 | 3.8 | P731_0100K102_0056 EZ302U | 262 | 262 | 418 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 0.97 | 1.5 | 50 | 24 |
| 54 | 108 | 115 | 21 | 2.9 | P731_0100K102_0056 EZ303U | 315 | 315 | 418 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 1.1 | 1.5 | 50 | 24 |
| 54 | 147 | 157 | 26 | 2.4 | P731_0100K102_0056 EZ401U | 445 | 445 | 1150 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 1.6 | 1.5 | 50 | 26 |
| 54 | 225 | 246 | 40 | 1.6 | P731_0100K102_0056 EZ501U | 575 | 575 | 1150 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 3.6 | 1.5 | 50 | 27 |
| 54 | 246 | 272 | 44 | 1.4 | P731_0100K102_0056 EZ402U | 575 | 575 | 1150 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 2.3 | 1.5 | 50 | 27 |
| 65 | 70 | 74 | 14 | 3.8 | P731_0070K102_0066 EZ302U | 219 | 219 | 349 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 0.72 | 2.0 | 52 | 24 |
| 65 | 91 | 96 | 19 | 2.9 | P731_0070K102_0066 EZ303U | 263 | 263 | 349 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 0.83 | 2.0 | 52 | 24 |
| 65 | 123 | 131 | 16 | 3.4 | P731_0070K102_0066 EZ401U | 372 | 372 | 1396 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 1.4 | 2.0 | 52 | 26 |
| 65 | 188 | 206 | 25 | 2.2 | P731_0070K102_0066 EZ501U | 700 | 700 | 1396 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 52 | 27 |
| 65 | 206 | 228 | 27 | 2.0 | P731_0070K102_0066 EZ402U | 700 | 700 | 1396 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 2.1 | 2.0 | 52 | 27 |
| 65 | 302 | 376 | 39 | 1.4 | P731_0070K102_0066 EZ404U | 786 | 786 | 1396 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 3.4 | 2.0 | 52 | 29 |
| 65 | 324 | 350 | 42 | 1.3 | P731_0070K102_0066 EZ502U | 786 | 786 | 1396 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 5.6 | 2.0 | 52 | 28 |
| 65 | 324 | 363 | 42 | 1.3 | P731_0070K102_0066 EZ701U | 786 | 786 | 1396 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 8.9 | 2.0 | 52 | 30 |
| 65 | 121 | 130 | 13 | 3.6 | P731_0050K202_0092 EZ401U | 367 | 367 | 1379 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 1.9 | 2.0 | 53 | 33 |
| 65 | 186 | 203 | 20 | 2.4 | P731_0050K202_0092 EZ501U | 692 | 692 | 1379 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 3.8 | 2.0 | 53 | 34 |
| 65 | 203 | 225 | 22 | 2.2 | P731_0050K202_0092 EZ402U | 692 | 692 | 1379 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 2.6 | 2.0 | 53 | 34 |
| 65 | 298 | 372 | 32 | 1.5 | P731_0050K202_0092 EZ404U | 805 | 840 | 1379 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 3.9 | 2.0 | 53 | 36 |
| 65 | 320 | 346 | 34 | 1.4 | P731_0050K202_0092 EZ502U | 805 | 840 | 1379 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 6.1 | 2.0 | 53 | 36 |
| 65 | 320 | 359 | 34 | 1.4 | P731_0050K202_0092 EZ701U | 805 | 840 | 1610 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 9.4 | 2.0 | 53 | 38 |
| 65 | 419 | 480 | 45 | 1.0 | P731_0050K202_0092 EZ503U | 805 | 840 | 1379 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 8.5 | 2.0 | 53 | 37 |
| 71 | 111 | 119 | 16 | 3.6 | P731_0070K102_0060 EZ401U | 336 | 336 | 1260 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 1.4 | 2.0 | 52 | 26 |
| 71 | 170 | 186 | 25 | 2.4 | P731_0070K102_0060 EZ501U | 632 | 632 | 1260 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 3.4 | 2.0 | 52 | 27 |
| 71 | 186 | 205 | 27 | 2.2 | P731_0070K102_0060 EZ402U | 632 | 632 | 1260 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 2.1 | 2.0 | 52 | 27 |
| 71 | 273 | 340 | 40 | 1.5 | P731_0070K102_0060 EZ404U | 760 | 760 | 1260 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 3.5 | 2.0 | 52 | 29 |
| 71 | 292 | 316 | 43 | 1.4 | P731_0070K102_0060 EZ502U | 760 | 760 | 1260 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 5.7 | 2.0 | 52 | 28 |
| 71 | 292 | 328 | 43 | 1.4 | P731_0070K102_0060 EZ701U | 760 | 760 | 1260 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 9.0 | 2.0 | 52 | 30 |
| 71 | 383 | 439 | 56 | 1.0 | P731_0070K102_0060 EZ503U | 760 | 760 | 1260 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 8.1 | 2.0 | 52 | 30 |
| 71 | 82 | 87 | 17 | 2.9 | P731_0050K202_0084 EZ303U | 237 | 237 | 315 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 1.2 | 2.0 | 53 | 32 |
| 71 | 111 | 119 | 13 | 4.0 | P731_0050K202_0084 EZ401U | 336 | 336 | 1260 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 1.7 | 2.0 | 53 | 33 |
| 71 | 170 | 186 | 20 | 2.6 | P731_0050K202_0084 EZ501U | 632 | 632 | 1260 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 53 | 34 |
| 71 | 186 | 205 | 21 | 2.4 | P731_0050K202_0084 EZ402U | 632 | 632 | 1260 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 2.4 | 2.0 | 53 | 34 |
| 71 | 273 | 340 | 31 | 1.6 | P731_0050K202_0084 EZ404U | 805 | 840 | 1260 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 3.8 | 2.0 | 53 | 36 |
| 71 | 292 | 316 | 34 | 1.5 | P731_0050K202_0084 EZ502U | 805 | 840 | 1260 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 6.0 | 2.0 | 53 | 36 |
| 71 | 292 | 328 | 34 | 1.5 | P731_0050K202_0084 EZ701U | 790 | 790 | 1610 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 9.3 | 2.0 | 53 | 38 |
| 71 | 383 | 438 | 44 | 1.1 | P731_0050K202_0084 EZ503U | 805 | 840 | 1260 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 8.4 | 2.0 | 53 | 37 |
| 75 | 78 | 82 | 27 | 2.9 | P731_0100K102_0040 EZ303U | 226 | 226 | 300 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 1.3 | 1.5 | 50 | 24 |
| 75 | 105 | 113 | 24 | 3.3 | P731_0100K102_0040 EZ401U | 320 | 320 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 1.8 | 1.5 | 50 | 26 |
| 75 | 162 | 177 | 37 | 2.2 | P731_0100K102_0040 EZ501U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 3.8 | 1.5 | 50 | 27 |
| 75 | 177 | 196 | 40 | 2.0 | P731_0100K102_0040 EZ402U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 2.5 | 1.5 | 50 | 27 |
| 75 | 260 | 324 | 59 | 1.3 | P731_0100K102_0040 EZ404U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 3.9 | 1.5 | 50 | 29 |
| 75 | 279 | 301 | 63 | 1.3 | P731_0100K102_0040 EZ502U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 6.1 | 1.5 | 50 | 28 |
| 75 | 279 | 312 | 63 | 1.3 | P731_0100K102_0040 EZ701U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 9.4 | 1.5 | 50 | 30 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P731K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 77 | 58 | 62 | 16 | 3.8 | P731_0070K102_0056 EZ302U | 183 | 183 | 293 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 0.99 | 2.0 | 52 | 24 |
| 77 | 76 | 80 | 21 | 2.9 | P731_0070K102_0056 EZ303U | 220 | 220 | 293 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 1.1 | 2.0 | 52 | 24 |
| 77 | 103 | 110 | 16 | 3.8 | P731_0070K102_0056 EZ401U | 312 | 312 | 1170 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 1.6 | 2.0 | 52 | 26 |
| 77 | 158 | 172 | 25 | 2.5 | P731_0070K102_0056 EZ501U | 587 | 587 | 1170 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 3.6 | 2.0 | 52 | 27 |
| 77 | 172 | 191 | 27 | 2.3 | P731_0070K102_0056 EZ402U | 587 | 587 | 1170 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 2.3 | 2.0 | 52 | 27 |
| 77 | 253 | 315 | 40 | 1.5 | P731_0070K102_0056 EZ404U | 741 | 741 | 1170 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 3.7 | 2.0 | 52 | 29 |
| 77 | 271 | 293 | 43 | 1.4 | P731_0070K102_0056 EZ502U | 741 | 741 | 1170 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 5.9 | 2.0 | 52 | 28 |
| 77 | 271 | 304 | 43 | 1.4 | P731_0070K102_0056 EZ701U | 733 | 733 | 1170 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 9.2 | 2.0 | 52 | 30 |
| 77 | 356 | 407 | 56 | 1.1 | P731_0070K102_0056 EZ503U | 741 | 741 | 1170 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 8.3 | 2.0 | 52 | 30 |
| 90 | 88 | 94 | 12 | 5.0 | P731_0050K202_0067 EZ401U | 267 | 267 | 1003 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 2.1 | 2.0 | 53 | 33 |
| 90 | 135 | 148 | 18 | 3.3 | P731_0050K202_0067 EZ501U | 503 | 503 | 1003 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 4.0 | 2.0 | 53 | 34 |
| 90 | 148 | 163 | 20 | 3.0 | P731_0050K202_0067 EZ402U | 503 | 503 | 1003 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 2.8 | 2.0 | 53 | 34 |
| 90 | 217 | 270 | 30 | 2.0 | P731_0050K202_0067 EZ404U | 755 | 755 | 1003 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 4.1 | 2.0 | 53 | 36 |
| 90 | 233 | 252 | 32 | 1.9 | P731_0050K202_0067 EZ502U | 755 | 755 | 1003 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 6.3 | 2.0 | 53 | 36 |
| 90 | 233 | 261 | 32 | 1.9 | P731_0050K202_0067 EZ701U | 629 | 629 | 1610 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 9.6 | 2.0 | 53 | 38 |
| 90 | 305 | 349 | 42 | 1.4 | P731_0050K202_0067 EZ503U | 755 | 755 | 1003 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 8.7 | 2.0 | 53 | 37 |
| 90 | 377 | 453 | 52 | 1.2 | P731_0050K202_0067 EZ702U | 805 | 840 | 1610 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 15 | 2.0 | 53 | 40 |
| 90 | 424 | 503 | 58 | 1.0 | P731_0050K202_0067 EZ505U | 805 | 840 | 1610 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 53 | 40 |
| 100 | 121 | 133 | 18 | 3.6 | P731_0050K202_0060 EZ501U | 452 | 452 | 900 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 4.6 | 2.0 | 53 | 34 |
| 100 | 133 | 147 | 20 | 3.3 | P731_0050K202_0060 EZ402U | 452 | 452 | 900 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 3.4 | 2.0 | 53 | 34 |
| 100 | 195 | 243 | 29 | 2.3 | P731_0050K202_0060 EZ404U | 677 | 677 | 900 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 4.7 | 2.0 | 53 | 36 |
| 100 | 209 | 226 | 31 | 2.1 | P731_0050K202_0060 EZ502U | 677 | 677 | 900 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 6.9 | 2.0 | 53 | 36 |
| 100 | 209 | 234 | 31 | 2.1 | P731_0050K202_0060 EZ701U | 565 | 565 | 1610 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 10 | 2.0 | 53 | 38 |
| 100 | 274 | 313 | 41 | 1.6 | P731_0050K202_0060 EZ503U | 677 | 677 | 900 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 9.3 | 2.0 | 53 | 37 |
| 100 | 339 | 406 | 50 | 1.3 | P731_0050K202_0060 EZ702U | 805 | 840 | 1610 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 53 | 40 |
| 100 | 381 | 452 | 56 | 1.2 | P731_0050K202_0060 EZ505U | 805 | 840 | 1610 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 53 | 40 |
| 107 | 55 | 58 | 27 | 2.9 | P731_0070K102_0040 EZ303U | 158 | 158 | 210 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 1.3 | 2.0 | 52 | 24 |
| 107 | 74 | 79 | 17 | 4.8 | P731_0070K102_0040 EZ401U | 224 | 224 | 841 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 1.9 | 2.0 | 52 | 26 |
| 107 | 113 | 124 | 26 | 3.1 | P731_0070K102_0040 EZ501U | 422 | 422 | 841 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 3.8 | 2.0 | 52 | 27 |
| 107 | 124 | 137 | 28 | 2.8 | P731_0070K102_0040 EZ402U | 422 | 422 | 841 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 2.6 | 2.0 | 52 | 27 |
| 107 | 182 | 227 | 41 | 1.9 | P731_0070K102_0040 EZ404U | 633 | 633 | 841 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 3.9 | 2.0 | 52 | 29 |
| 107 | 195 | 211 | 44 | 1.8 | P731_0070K102_0040 EZ502U | 633 | 633 | 841 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 6.1 | 2.0 | 52 | 28 |
| 107 | 195 | 219 | 44 | 1.8 | P731_0070K102_0040 EZ701U | 527 | 527 | 841 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 9.4 | 2.0 | 52 | 30 |
| 107 | 256 | 292 | 58 | 1.4 | P731_0070K102_0040 EZ503U | 633 | 633 | 841 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 8.5 | 2.0 | 52 | 30 |
| 116 | 180 | 202 | 30 | 2.4 | P731_0050K202_0052 EZ701U | 487 | 487 | 1610 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 10 | 2.0 | 53 | 38 |
| 116 | 292 | 351 | 48 | 1.5 | P731_0050K202_0052 EZ702U | 805 | 840 | 1610 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 53 | 40 |
| 116 | 329 | 390 | 54 | 1.3 | P731_0050K202_0052 EZ505U | 805 | 840 | 1610 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 53 | 40 |
| 116 | 402 | 507 | 67 | 1.1 | P731_0050K202_0052 EZ703U | 805 | 840 | 1610 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 53 | 42 |
| 150 | 139 | 156 | 28 | 3.2 | P731_0050K202_0040 EZ701U | 376 | 376 | 1500 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 11 | 2.0 | 53 | 38 |
| 150 | 226 | 271 | 45 | 1.9 | P731_0050K202_0040 EZ702U | 772 | 772 | 1500 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 16 | 2.0 | 53 | 40 |
| 150 | 254 | 301 | 51 | 1.7 | P731_0050K202_0040 EZ505U | 805 | 840 | 1500 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 53 | 40 |
| 150 | 310 | 391 | 62 | 1.4 | P731_0050K202_0040 EZ703U | 805 | 840 | 1500 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 53 | 42 |
| 188 | 111 | 125 | 27 | 3.2 | P731_0040K202_0040 EZ701U | 301 | 301 | 1200 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 11 | 2.5 | 49 | 38 |
| 188 | 181 | 217 | 45 | 2.0 | P731_0040K202_0040 EZ702U | 617 | 617 | 1200 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 16 | 2.5 | 49 | 40 |
| 188 | 203 | 241 | 50 | 1.8 | P731_0040K202_0040 EZ505U | 677 | 677 | 1200 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 15 | 2.5 | 49 | 40 |
| 188 | 248 | 313 | 61 | 1.4 | P731_0040K202_0040 EZ703U | 677 | 677 | 1200 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 24 | 2.5 | 49 | 42 |
| 250 | 84 | 94 | 27 | 3.2 | P731_0030K202_0040 EZ701U | 226 | 226 | 900 | 12.00 | 12/1 | 3000 | 3000 | 4500 | 4.5 | 11 | 2.5 | 40 | 38 |
| 250 | 135 | 163 | 45 | 2.0 | P731_0030K202_0040 EZ702U | 463 | 463 | 900 | 12.00 | 12/1 | 3000 | 3000 | 4500 | 4.5 | 17 | 2.5 | 40 | 40 |
| 250 | 152 | 181 | 50 | 1.8 | P731_0030K202_0040 EZ505U | 500 | 500 | 900 | 12.00 | 12/1 | 3000 | 3000 | 4500 | 4.5 | 15 | 2.5 | 40 | 40 |
| 250 | 186 | 235 | 61 | 1.4 | P731_0030K202_0040 EZ703U | 500 | 500 | 900 | 12.00 | 12/1 | 3000 | 3000 | 4500 | 4.5 | 25 | 2.5 | 40 | 42 |
| **P731K ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 98 | 411 | 661 | 44 | 1.1 | P731_0050K202_0092 EZ505U | 805 | 840 | 1610 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 53 | 40 |
| 107 | 375 | 604 | 43 | 1.2 | P731_0050K202_0084 EZ505U | 805 | 840 | 1610 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 53 | 40 |
| 135 | 299 | 481 | 41 | 1.5 | P731_0050K202_0067 EZ505U | 805 | 840 | 1610 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 53 | 40 |
| 135 | 380 | 629 | 52 | 1.2 | P731_0050K202_0067 EZ703U | 805 | 840 | 1610 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 23 | 2.0 | 53 | 42 |
| 150 | 268 | 432 | 40 | 1.6 | P731_0050K202_0060 EZ505U | 805 | 840 | 1610 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 53 | 40 |
| 150 | 342 | 565 | 51 | 1.3 | P731_0050K202_0060 EZ703U | 805 | 840 | 1610 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 53 | 42 |
| 174 | 231 | 373 | 40 | 1.8 | P731_0050K202_0052 EZ505U | 805 | 840 | 1610 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 53 | 40 |
| 174 | 295 | 487 | 50 | 1.4 | P731_0050K202_0052 EZ703U | 805 | 840 | 1610 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 53 | 42 |
| 225 | 179 | 288 | 40 | 2.2 | P731_0050K202_0040 EZ505U | 805 | 840 | 1500 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 53 | 40 |
| 225 | 228 | 376 | 51 | 1.7 | P731_0050K202_0040 EZ703U | 805 | 840 | 1500 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 53 | 42 |
| 281 | 143 | 230 | 40 | 2.2 | P731_0040K202_0040 EZ505U | 677 | 677 | 1200 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 15 | 2.5 | 49 | 40 |
| 281 | 182 | 301 | 51 | 1.7 | P731_0040K202_0040 EZ703U | 677 | 677 | 1200 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 24 | 2.5 | 49 | 42 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P731K ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 375 | 107 | 173 | 40 | 2.2 | P731_0030K202_0040 EZ505U | 500 | 500 | 900 | 12.00 | 12/1 | 3000 | 3000 | 4500 | 4.5 | 15 | 2.5 | 40 | 40 |
| 375 | 137 | 226 | 51 | 1.7 | P731_0030K202_0040 EZ703U | 500 | 500 | 900 | 12.00 | 12/1 | 3000 | 3000 | 4500 | 4.5 | 25 | 2.5 | 40 | 42 |
| **P731K ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 12 | 410 | 438 | 8.7 | 1.1 | P731_0070K102_0700 EZ301U | 566 | 566 | 1003 | 490.2 | 2451/5 | 4000 | 4000 | 7000 | 4.0 | 0.20 | 2.0 | 52 | 23 |
| 15 | 329 | 351 | 8.2 | 1.3 | P731_0070K102_0560 EZ301U | 697 | 697 | 1235 | 392.7 | 1178/3 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 52 | 23 |
| 17 | 295 | 315 | 10 | 1.2 | P731_0070K102_0500 EZ301U | 407 | 407 | 721 | 352.2 | 35217/100 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 52 | 23 |
| 17 | 294 | 314 | 13 | 1.2 | P731_0100K102_0350 EZ301U | 575 | 575 | 1150 | 351.1 | 7372/21 | 4000 | 4000 | 7000 | 3.5 | 0.23 | 1.5 | 50 | 23 |
| 18 | 275 | 294 | 7.8 | 1.6 | P731_0070K102_0470 EZ301U | 805 | 828 | 1466 | 328.4 | 2299/7 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 52 | 23 |
| 21 | 236 | 252 | 8.0 | 1.8 | P731_0070K102_0400 EZ301U | 501 | 501 | 887 | 282.1 | 2821/10 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 52 | 23 |
| 21 | 398 | 446 | 13 | 1.0 | P731_0070K102_0400 EZ302U | 501 | 501 | 887 | 282.1 | 2821/10 | 4000 | 4000 | 7000 | 4.0 | 0.31 | 2.0 | 52 | 24 |
| 21 | 235 | 251 | 12 | 1.5 | P731_0100K102_0280 EZ301U | 575 | 575 | 1150 | 280.5 | 5890/21 | 4000 | 4000 | 7000 | 3.5 | 0.26 | 1.5 | 50 | 23 |
| 22 | 392 | 439 | 11 | 1.1 | P731_0050K202_0560 EZ302U | 805 | 840 | 1392 | 277.7 | 6665/24 | 4000 | 4000 | 6500 | 4.0 | 0.34 | 2.0 | 53 | 31 |
| 24 | 206 | 220 | 7.3 | 2.1 | P731_0070K102_0350 EZ301U | 647 | 647 | 1413 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 52 | 23 |
| 24 | 347 | 388 | 12 | 1.3 | P731_0070K102_0350 EZ302U | 805 | 840 | 1413 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.33 | 2.0 | 52 | 24 |
| 25 | 198 | 211 | 7.2 | 2.2 | P731_0070K102_0340 EZ301U | 595 | 595 | 1053 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 52 | 23 |
| 25 | 333 | 373 | 12 | 1.3 | P731_0070K102_0340 EZ302U | 595 | 595 | 1053 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.32 | 2.0 | 52 | 24 |
| 25 | 435 | 500 | 16 | 1.0 | P731_0070K102_0340 EZ303U | 595 | 595 | 1053 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.43 | 2.0 | 52 | 24 |
| 26 | 195 | 208 | 12 | 1.8 | P731_0100K102_0230 EZ301U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.28 | 1.5 | 50 | 23 |
| 26 | 328 | 368 | 20 | 1.1 | P731_0100K102_0230 EZ302U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.38 | 1.5 | 50 | 24 |
| 26 | 326 | 365 | 10 | 1.3 | P731_0050K202_0460 EZ302U | 805 | 840 | 1329 | 231.1 | 1849/8 | 4000 | 4000 | 6500 | 4.0 | 0.36 | 2.0 | 53 | 31 |
| 26 | 426 | 489 | 14 | 1.0 | P731_0050K202_0460 EZ303U | 805 | 840 | 1329 | 231.1 | 1849/8 | 4000 | 4000 | 6500 | 4.0 | 0.47 | 2.0 | 53 | 32 |
| 31 | 164 | 175 | 6.9 | 2.7 | P731_0070K102_0280 EZ301U | 517 | 517 | 1217 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 52 | 23 |
| 31 | 277 | 310 | 12 | 1.6 | P731_0070K102_0280 EZ302U | 805 | 840 | 1217 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 52 | 24 |
| 31 | 362 | 416 | 15 | 1.2 | P731_0070K102_0280 EZ303U | 805 | 840 | 1217 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.47 | 2.0 | 52 | 24 |
| 31 | 425 | 517 | 18 | 1.0 | P731_0070K102_0280 EZ401U | 805 | 840 | 1610 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 52 | 26 |
| 34 | 148 | 158 | 6.7 | 3.0 | P731_0070K102_0250 EZ301U | 465 | 465 | 1015 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.24 | 2.0 | 52 | 23 |
| 34 | 249 | 279 | 11 | 1.8 | P731_0070K102_0250 EZ302U | 764 | 764 | 1015 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.34 | 2.0 | 52 | 24 |
| 34 | 326 | 374 | 15 | 1.4 | P731_0070K102_0250 EZ303U | 764 | 764 | 1015 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.45 | 2.0 | 52 | 24 |
| 34 | 382 | 465 | 17 | 1.2 | P731_0070K102_0250 EZ401U | 783 | 783 | 1386 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.98 | 2.0 | 52 | 26 |
| 35 | 244 | 273 | 9.7 | 1.8 | P731_0050K202_0350 EZ302U | 805 | 813 | 1104 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.41 | 2.0 | 53 | 31 |
| 35 | 319 | 366 | 13 | 1.4 | P731_0050K202_0350 EZ303U | 805 | 831 | 1104 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.52 | 2.0 | 53 | 32 |
| 35 | 374 | 455 | 15 | 1.2 | P731_0050K202_0350 EZ401U | 805 | 840 | 1610 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 53 | 33 |
| 37 | 136 | 146 | 6.6 | 3.2 | P731_0070K102_0230 EZ301U | 429 | 429 | 1148 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 52 | 23 |
| 37 | 230 | 257 | 11 | 1.9 | P731_0070K102_0230 EZ302U | 766 | 766 | 1148 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 52 | 24 |
| 37 | 300 | 345 | 14 | 1.5 | P731_0070K102_0230 EZ303U | 805 | 840 | 1148 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 52 | 24 |
| 37 | 352 | 429 | 17 | 1.2 | P731_0070K102_0230 EZ401U | 805 | 840 | 1610 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 52 | 26 |
| 43 | 118 | 126 | 6.4 | 3.7 | P731_0070K102_0200 EZ301U | 372 | 372 | 874 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.27 | 2.0 | 52 | 23 |
| 43 | 199 | 223 | 11 | 2.2 | P731_0070K102_0200 EZ302U | 658 | 658 | 874 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.37 | 2.0 | 52 | 24 |
| 43 | 260 | 299 | 14 | 1.7 | P731_0070K102_0200 EZ303U | 658 | 658 | 874 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.48 | 2.0 | 52 | 24 |
| 43 | 305 | 372 | 16 | 1.4 | P731_0070K102_0200 EZ401U | 805 | 840 | 1588 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 52 | 26 |
| 43 | 302 | 368 | 14 | 1.5 | P731_0050K202_0280 EZ401U | 805 | 840 | 1610 | 139.8 | 559/4 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 53 | 33 |
| 49 | 103 | 110 | 6.1 | 4.3 | P731_0070K102_0175 EZ301U | 324 | 324 | 922 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.33 | 2.0 | 52 | 23 |
| 49 | 174 | 194 | 10 | 2.5 | P731_0070K102_0175 EZ302U | 578 | 578 | 922 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.43 | 2.0 | 52 | 24 |
| 49 | 227 | 260 | 14 | 1.9 | P731_0070K102_0175 EZ303U | 694 | 694 | 922 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.54 | 2.0 | 52 | 24 |
| 49 | 266 | 324 | 16 | 1.7 | P731_0070K102_0175 EZ401U | 805 | 840 | 1610 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 52 | 26 |
| 49 | 393 | 509 | 23 | 1.1 | P731_0070K102_0175 EZ501U | 805 | 840 | 1610 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 3.0 | 2.0 | 52 | 27 |
| 49 | 405 | 567 | 24 | 1.1 | P731_0070K102_0175 EZ402U | 805 | 840 | 1610 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 52 | 27 |
| 51 | 98 | 105 | 6.1 | 4.5 | P731_0070K102_0165 EZ301U | 308 | 308 | 825 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.29 | 2.0 | 52 | 23 |
| 51 | 165 | 185 | 10 | 2.7 | P731_0070K102_0165 EZ302U | 550 | 550 | 825 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.39 | 2.0 | 52 | 24 |
| 51 | 216 | 248 | 13 | 2.0 | P731_0070K102_0165 EZ303U | 621 | 621 | 825 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.50 | 2.0 | 52 | 24 |
| 51 | 253 | 308 | 16 | 1.7 | P731_0070K102_0165 EZ401U | 805 | 840 | 1588 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 52 | 26 |
| 51 | 374 | 484 | 23 | 1.2 | P731_0070K102_0165 EZ501U | 805 | 840 | 1588 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 3.0 | 2.0 | 52 | 27 |
| 51 | 385 | 539 | 24 | 1.1 | P731_0070K102_0165 EZ402U | 805 | 840 | 1588 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 1.7 | 2.0 | 52 | 27 |
| 52 | 164 | 183 | 8.8 | 2.7 | P731_0050K202_0230 EZ302U | 545 | 545 | 870 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 53 | 31 |
| 52 | 214 | 245 | 11 | 2.1 | P731_0050K202_0230 EZ303U | 655 | 655 | 870 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.64 | 2.0 | 53 | 32 |
| 52 | 251 | 305 | 13 | 1.8 | P731_0050K202_0230 EZ401U | 805 | 840 | 1610 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 53 | 33 |
| 52 | 371 | 480 | 20 | 1.2 | P731_0050K202_0230 EZ501U | 805 | 840 | 1610 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 3.1 | 2.0 | 53 | 34 |
| 52 | 382 | 534 | 21 | 1.2 | P731_0050K202_0230 EZ402U | 805 | 840 | 1610 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 1.9 | 2.0 | 53 | 34 |
| 61 | 139 | 156 | 10 | 3.0 | P731_0070K102_0140 EZ302U | 465 | 465 | 741 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.48 | 2.0 | 52 | 24 |
| 61 | 182 | 209 | 13 | 2.3 | P731_0070K102_0140 EZ303U | 558 | 558 | 741 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.59 | 2.0 | 52 | 24 |
| 61 | 214 | 260 | 16 | 2.0 | P731_0070K102_0140 EZ401U | 790 | 790 | 1610 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 52 | 26 |
| 61 | 316 | 409 | 23 | 1.3 | P731_0070K102_0140 EZ501U | 805 | 840 | 1610 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 52 | 27 |
| 61 | 325 | 455 | 24 | 1.3 | P731_0070K102_0140 EZ402U | 805 | 840 | 1610 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 52 | 27 |
| 68 | 125 | 140 | 10 | 3.3 | P731_0070K102_0125 EZ302U | 416 | 416 | 663 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.45 | 2.0 | 52 | 24 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P731K ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 810 Nm)** | | | | | | | | | | | | | | | | | | |
| 68 | 163 | 187 | 13 | 2.5 | P731_0070K102_0125 EZ303U | 499 | 499 | 663 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.56 | 2.0 | 52 | 24 |
| 68 | 191 | 233 | 16 | 2.1 | P731_0070K102_0125 EZ401U | 706 | 706 | 1588 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 52 | 26 |
| 68 | 283 | 366 | 23 | 1.4 | P731_0070K102_0125 EZ501U | 805 | 840 | 1588 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 52 | 27 |
| 68 | 291 | 407 | 24 | 1.4 | P731_0070K102_0125 EZ402U | 805 | 840 | 1588 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 52 | 27 |
| 85 | 100 | 112 | 10 | 3.8 | P731_0070K102_0100 EZ302U | 334 | 334 | 532 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.51 | 2.0 | 52 | 24 |
| 85 | 131 | 150 | 14 | 2.9 | P731_0070K102_0100 EZ303U | 401 | 401 | 532 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.62 | 2.0 | 52 | 24 |
| 85 | 154 | 187 | 16 | 2.5 | P731_0070K102_0100 EZ401U | 568 | 568 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.2 | 2.0 | 52 | 26 |
| 85 | 227 | 294 | 24 | 1.7 | P731_0070K102_0100 EZ501U | 805 | 840 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 52 | 27 |
| 85 | 234 | 327 | 24 | 1.6 | P731_0070K102_0100 EZ402U | 805 | 840 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.9 | 2.0 | 52 | 27 |
| 85 | 347 | 521 | 36 | 1.1 | P731_0070K102_0100 EZ502U | 805 | 840 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 5.4 | 2.0 | 52 | 28 |
| 85 | 347 | 528 | 36 | 1.1 | P731_0070K102_0100 EZ701U | 805 | 840 | 1588 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 8.7 | 2.0 | 52 | 30 |
| **P831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 5.4 | 831 | 878 | 12 | 1.0 | P831_0100K202_0560 EZ302U | 1380 | 1380 | 2760 | 555.4 | 6665/12 | 4000 | 4000 | 6500 | 3.5 | 0.34 | 1.5 | 132 | 47 |
| 6.2 | 727 | 768 | 8.4 | 1.2 | P831_0070K202_0690 EZ302U | 1078 | 1078 | 1828 | 486.0 | 46655/96 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 128 | 47 |
| 6.5 | 692 | 731 | 11 | 1.2 | P831_0100K202_0460 EZ302U | 1380 | 1380 | 2659 | 462.3 | 1849/4 | 4000 | 4000 | 6500 | 3.5 | 0.36 | 1.5 | 132 | 47 |
| 7.7 | 582 | 615 | 7.1 | 1.7 | P831_0070K202_0560 EZ302U | 1294 | 1294 | 1949 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 128 | 47 |
| 7.7 | 757 | 801 | 9.3 | 1.3 | P831_0070K202_0560 EZ303U | 1294 | 1294 | 1949 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 128 | 47 |
| 8.5 | 529 | 559 | 11 | 1.2 | P831_0070K202_0500 EZ302U | 784 | 784 | 1329 | 353.4 | 46655/132 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 128 | 47 |
| 8.7 | 517 | 546 | 11 | 1.6 | P831_0100K202_0350 EZ302U | 1380 | 1380 | 2209 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.41 | 1.5 | 132 | 47 |
| 8.7 | 673 | 712 | 14 | 1.3 | P831_0100K202_0350 EZ303U | 1380 | 1380 | 2209 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.52 | 1.5 | 132 | 47 |
| 9.3 | 484 | 511 | 6.8 | 2.1 | P831_0070K202_0460 EZ302U | 1401 | 1401 | 1861 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.37 | 1.5 | 128 | 47 |
| 9.3 | 630 | 667 | 8.9 | 1.6 | P831_0070K202_0460 EZ303U | 1401 | 1401 | 1861 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.48 | 1.5 | 128 | 47 |
| 9.3 | 852 | 913 | 12 | 1.2 | P831_0070K202_0460 EZ401U | 1494 | 1494 | 2887 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 128 | 49 |
| 11 | 423 | 447 | 8.4 | 1.9 | P831_0070K202_0400 EZ302U | 941 | 941 | 1418 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 128 | 47 |
| 11 | 551 | 583 | 11 | 1.4 | P831_0070K202_0400 EZ303U | 941 | 941 | 1418 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 128 | 47 |
| 11 | 745 | 798 | 15 | 1.1 | P831_0070K202_0400 EZ401U | 941 | 941 | 1418 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.99 | 1.5 | 128 | 49 |
| 11 | 736 | 789 | 18 | 1.2 | P831_0100K202_0280 EZ401U | 1380 | 1380 | 2760 | 279.5 | 559/2 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 132 | 49 |
| 11 | 734 | 786 | 9.0 | 1.5 | P831_0050K302_0560 EZ401U | 1541 | 1541 | 2729 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 1.0 | 2.0 | 128 | 54 |
| 12 | 362 | 382 | 6.3 | 2.8 | P831_0070K202_0350 EZ302U | 1138 | 1138 | 1546 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.42 | 1.5 | 128 | 47 |
| 12 | 471 | 498 | 8.3 | 2.1 | P831_0070K202_0350 EZ303U | 1164 | 1164 | 1546 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 128 | 47 |
| 12 | 637 | 683 | 11 | 1.6 | P831_0070K202_0350 EZ401U | 1494 | 1494 | 2887 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |
| 12 | 979 | 1070 | 17 | 1.0 | P831_0070K202_0350 EZ501U | 1494 | 1494 | 2887 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 128 | 50 |
| 13 | 352 | 372 | 6.3 | 2.8 | P831_0070K202_0340 EZ302U | 1019 | 1019 | 1353 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.38 | 1.5 | 128 | 47 |
| 13 | 458 | 485 | 8.2 | 2.2 | P831_0070K202_0340 EZ303U | 1019 | 1019 | 1353 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.49 | 1.5 | 128 | 47 |
| 13 | 620 | 664 | 11 | 1.6 | P831_0070K202_0340 EZ401U | 1255 | 1255 | 2223 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 128 | 49 |
| 13 | 952 | 1041 | 17 | 1.1 | P831_0070K202_0340 EZ501U | 1255 | 1255 | 2223 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 128 | 50 |
| 13 | 347 | 366 | 9.7 | 2.5 | P831_0100K202_0230 EZ302U | 1091 | 1091 | 1739 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 132 | 47 |
| 13 | 451 | 478 | 13 | 1.9 | P831_0100K202_0230 EZ303U | 1309 | 1309 | 1739 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.64 | 1.5 | 132 | 47 |
| 13 | 611 | 654 | 17 | 1.4 | P831_0100K202_0230 EZ401U | 1380 | 1380 | 2760 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 132 | 49 |
| 13 | 609 | 652 | 8.6 | 1.8 | P831_0050K302_0460 EZ401U | 1840 | 1848 | 3230 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.1 | 2.0 | 128 | 54 |
| 13 | 935 | 1022 | 13 | 1.2 | P831_0050K302_0460 EZ501U | 1840 | 1867 | 3230 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 3.1 | 2.0 | 128 | 55 |
| 13 | 1022 | 1131 | 14 | 1.1 | P831_0050K302_0460 EZ402U | 1840 | 1867 | 3230 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.8 | 2.0 | 128 | 55 |
| 15 | 515 | 552 | 11 | 1.9 | P831_0070K202_0280 EZ401U | 1494 | 1494 | 2887 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |
| 15 | 792 | 865 | 16 | 1.3 | P831_0070K202_0280 EZ501U | 1494 | 1494 | 2887 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 128 | 50 |
| 15 | 865 | 957 | 18 | 1.2 | P831_0070K202_0280 EZ402U | 1494 | 1494 | 2887 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 128 | 50 |
| 17 | 263 | 278 | 6.9 | 3.2 | P831_0070K202_0250 EZ302U | 828 | 828 | 1125 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.43 | 1.5 | 128 | 47 |
| 17 | 343 | 362 | 9.0 | 2.5 | P831_0070K202_0250 EZ303U | 846 | 846 | 1125 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.54 | 1.5 | 128 | 47 |
| 17 | 463 | 497 | 10 | 2.2 | P831_0070K202_0250 EZ401U | 1407 | 1407 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |
| 17 | 712 | 778 | 16 | 1.4 | P831_0070K202_0250 EZ501U | 1494 | 1494 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 128 | 50 |
| 17 | 778 | 861 | 17 | 1.3 | P831_0070K202_0250 EZ402U | 1494 | 1494 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 128 | 50 |
| 17 | 261 | 276 | 9.0 | 3.3 | P831_0100K202_0175 EZ302U | 822 | 822 | 1310 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 0.66 | 1.5 | 132 | 47 |
| 17 | 340 | 360 | 12 | 2.5 | P831_0100K202_0175 EZ303U | 986 | 986 | 1310 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 0.77 | 1.5 | 132 | 47 |
| 17 | 460 | 493 | 16 | 1.8 | P831_0100K202_0175 EZ401U | 1380 | 1380 | 2760 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 1.3 | 1.5 | 132 | 49 |
| 17 | 707 | 773 | 24 | 1.2 | P831_0100K202_0175 EZ501U | 1380 | 1380 | 2760 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 3.3 | 1.5 | 132 | 50 |
| 17 | 773 | 855 | 27 | 1.1 | P831_0100K202_0175 EZ402U | 1380 | 1380 | 2760 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 2.0 | 1.5 | 132 | 50 |
| 17 | 457 | 490 | 8.0 | 2.4 | P831_0050K302_0350 EZ401U | 1389 | 1389 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.2 | 2.0 | 128 | 54 |
| 17 | 703 | 768 | 12 | 1.6 | P831_0050K302_0350 EZ501U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 3.2 | 2.0 | 128 | 55 |
| 17 | 768 | 850 | 13 | 1.4 | P831_0050K302_0350 EZ402U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.9 | 2.0 | 128 | 55 |
| 18 | 243 | 256 | 6.3 | 3.8 | P831_0070K202_0230 EZ302U | 763 | 763 | 1217 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 128 | 47 |
| 18 | 316 | 334 | 8.2 | 2.9 | P831_0070K202_0230 EZ303U | 916 | 916 | 1217 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.64 | 1.5 | 128 | 47 |
| 18 | 427 | 458 | 10 | 2.3 | P831_0070K202_0230 EZ401U | 1298 | 1298 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 128 | 49 |
| 18 | 656 | 718 | 16 | 1.5 | P831_0070K202_0230 EZ501U | 1494 | 1494 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 128 | 50 |
| 18 | 718 | 794 | 17 | 1.4 | P831_0070K202_0230 EZ402U | 1494 | 1494 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 128 | 50 |
| 21 | 375 | 402 | 9.8 | 2.7 | P831_0070K202_0200 EZ401U | 1138 | 1138 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P831K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 21 | 576 | 629 | 15 | 1.7 | P831_0070K202_0200 EZ501U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 128 | 50 |
| 21 | 629 | 696 | 16 | 1.6 | P831_0070K202_0200 EZ402U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 128 | 50 |
| 21 | 924 | 1151 | 24 | 1.1 | P831_0070K202_0200 EZ404U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 128 | 52 |
| 21 | 991 | 1071 | 26 | 1.0 | P831_0070K202_0200 EZ502U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 5.4 | 1.5 | 128 | 51 |
| 21 | 991 | 1111 | 26 | 1.0 | P831_0070K202_0200 EZ701U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 8.7 | 1.5 | 128 | 53 |
| 22 | 367 | 394 | 7.6 | 3.0 | P831_0050K302_0280 EZ401U | 1115 | 1115 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 1.3 | 2.0 | 128 | 54 |
| 22 | 564 | 617 | 12 | 2.0 | P831_0050K302_0280 EZ501U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.3 | 2.0 | 128 | 55 |
| 22 | 617 | 682 | 13 | 1.8 | P831_0050K302_0280 EZ402U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 2.0 | 2.0 | 128 | 55 |
| 22 | 905 | 1128 | 19 | 1.2 | P831_0050K302_0280 EZ404U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 128 | 57 |
| 22 | 971 | 1049 | 20 | 1.1 | P831_0050K302_0280 EZ502U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 5.6 | 2.0 | 128 | 56 |
| 22 | 971 | 1089 | 20 | 1.1 | P831_0050K302_0280 EZ701U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 8.9 | 2.0 | 128 | 58 |
| 22 | 365 | 391 | 15 | 2.3 | P831_0100K202_0140 EZ401U | 1108 | 1108 | 2760 | 138.5 | 14405/104 | 3900 | 3900 | 5500 | 3.5 | 1.4 | 1.5 | 132 | 49 |
| 22 | 560 | 613 | 23 | 1.5 | P831_0100K202_0140 EZ501U | 1380 | 1380 | 2760 | 138.5 | 14405/104 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 132 | 50 |
| 22 | 613 | 678 | 25 | 1.4 | P831_0100K202_0140 EZ402U | 1380 | 1380 | 2760 | 138.5 | 14405/104 | 3900 | 3900 | 5500 | 3.5 | 2.1 | 1.5 | 132 | 50 |
| 25 | 183 | 193 | 7.8 | 3.8 | P831_0070K202_0175 EZ302U | 575 | 575 | 917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 0.67 | 1.5 | 128 | 47 |
| 25 | 238 | 252 | 10 | 2.9 | P831_0070K202_0175 EZ303U | 691 | 691 | 917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 0.78 | 1.5 | 128 | 47 |
| 25 | 322 | 345 | 9.4 | 3.1 | P831_0070K202_0175 EZ401U | 978 | 978 | 2887 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 1.3 | 1.5 | 128 | 49 |
| 25 | 495 | 541 | 14 | 2.0 | P831_0070K202_0175 EZ501U | 1494 | 1494 | 2887 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 3.3 | 1.5 | 128 | 50 |
| 25 | 541 | 598 | 16 | 1.8 | P831_0070K202_0175 EZ402U | 1494 | 1494 | 2887 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 2.0 | 1.5 | 128 | 50 |
| 25 | 794 | 989 | 23 | 1.3 | P831_0070K202_0175 EZ404U | 1494 | 1494 | 2887 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 128 | 52 |
| 25 | 851 | 920 | 25 | 1.2 | P831_0070K202_0175 EZ502U | 1494 | 1494 | 2887 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 5.6 | 1.5 | 128 | 51 |
| 25 | 851 | 955 | 25 | 1.2 | P831_0070K202_0175 EZ701U | 1494 | 1494 | 2887 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 8.9 | 1.5 | 128 | 53 |
| 25 | 177 | 187 | 8.0 | 3.8 | P831_0070K202_0170 EZ302U | 555 | 555 | 885 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.57 | 1.5 | 128 | 47 |
| 25 | 230 | 243 | 10 | 2.9 | P831_0070K202_0170 EZ303U | 666 | 666 | 885 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.68 | 1.5 | 128 | 47 |
| 25 | 311 | 333 | 9.3 | 3.2 | P831_0070K202_0170 EZ401U | 944 | 944 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 128 | 49 |
| 25 | 477 | 522 | 14 | 2.1 | P831_0070K202_0170 EZ501U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 128 | 50 |
| 25 | 522 | 577 | 16 | 1.9 | P831_0070K202_0170 EZ402U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 128 | 50 |
| 25 | 766 | 955 | 23 | 1.3 | P831_0070K202_0170 EZ404U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.3 | 1.5 | 128 | 52 |
| 25 | 822 | 888 | 25 | 1.2 | P831_0070K202_0170 EZ502U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 5.5 | 1.5 | 128 | 51 |
| 25 | 822 | 922 | 25 | 1.2 | P831_0070K202_0170 EZ701U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 8.8 | 1.5 | 128 | 53 |
| 26 | 307 | 329 | 7.2 | 3.6 | P831_0050K302_0230 EZ401U | 931 | 931 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 1.4 | 2.0 | 128 | 54 |
| 26 | 471 | 515 | 11 | 2.3 | P831_0050K302_0230 EZ501U | 1753 | 1753 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 128 | 55 |
| 26 | 515 | 570 | 12 | 2.1 | P831_0050K302_0230 EZ402U | 1753 | 1753 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 2.1 | 2.0 | 128 | 55 |
| 26 | 756 | 942 | 18 | 1.5 | P831_0050K302_0230 EZ404U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.5 | 2.0 | 128 | 57 |
| 26 | 811 | 877 | 19 | 1.4 | P831_0050K302_0230 EZ502U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 5.7 | 2.0 | 128 | 56 |
| 26 | 811 | 909 | 19 | 1.4 | P831_0050K302_0230 EZ701U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 9.0 | 2.0 | 128 | 58 |
| 26 | 1063 | 1216 | 25 | 1.0 | P831_0050K302_0230 EZ503U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 8.1 | 2.0 | 128 | 58 |
| 26 | 173 | 183 | 11 | 3.8 | P831_0100K202_0115 EZ302U | 543 | 543 | 866 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 0.97 | 1.5 | 132 | 47 |
| 26 | 225 | 238 | 14 | 2.9 | P831_0100K202_0115 EZ303U | 652 | 652 | 866 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 1.1 | 1.5 | 132 | 47 |
| 26 | 304 | 326 | 14 | 2.8 | P831_0100K202_0115 EZ401U | 923 | 923 | 2760 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 1.6 | 1.5 | 132 | 49 |
| 26 | 467 | 511 | 22 | 1.8 | P831_0100K202_0115 EZ501U | 1380 | 1380 | 2760 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 3.6 | 1.5 | 132 | 50 |
| 26 | 511 | 565 | 24 | 1.7 | P831_0100K202_0115 EZ402U | 1380 | 1380 | 2760 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 2.3 | 1.5 | 132 | 50 |
| 26 | 750 | 934 | 35 | 1.1 | P831_0100K202_0115 EZ404U | 1380 | 1380 | 2760 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 3.7 | 1.5 | 132 | 52 |
| 26 | 804 | 869 | 38 | 1.1 | P831_0100K202_0115 EZ502U | 1380 | 1380 | 2760 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 5.9 | 1.5 | 132 | 51 |
| 26 | 804 | 902 | 38 | 1.1 | P831_0100K202_0115 EZ701U | 1380 | 1380 | 2760 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 9.2 | 1.5 | 132 | 53 |
| 31 | 255 | 274 | 9.4 | 3.7 | P831_0070K202_0140 EZ401U | 775 | 775 | 2887 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 1.5 | 1.5 | 128 | 49 |
| 31 | 392 | 429 | 14 | 2.4 | P831_0070K202_0140 EZ501U | 1460 | 1460 | 2887 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 128 | 50 |
| 31 | 429 | 474 | 16 | 2.2 | P831_0070K202_0140 EZ402U | 1460 | 1460 | 2887 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 2.2 | 1.5 | 128 | 50 |
| 31 | 629 | 785 | 23 | 1.5 | P831_0070K202_0140 EZ404U | 1494 | 1494 | 2887 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 3.5 | 1.5 | 128 | 52 |
| 31 | 675 | 730 | 25 | 1.4 | P831_0070K202_0140 EZ502U | 1494 | 1494 | 2887 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 5.7 | 1.5 | 128 | 51 |
| 31 | 675 | 757 | 25 | 1.4 | P831_0070K202_0140 EZ701U | 1494 | 1494 | 2887 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 9.0 | 1.5 | 128 | 53 |
| 31 | 885 | 1013 | 32 | 1.1 | P831_0070K202_0140 EZ503U | 1494 | 1494 | 2887 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 8.1 | 1.5 | 128 | 53 |
| 33 | 242 | 259 | 13 | 3.5 | P831_0100K202_0092 EZ401U | 735 | 735 | 2758 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 1.9 | 1.5 | 132 | 49 |
| 33 | 372 | 406 | 21 | 2.3 | P831_0100K202_0092 EZ501U | 1380 | 1380 | 2758 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 3.9 | 1.5 | 132 | 50 |
| 33 | 406 | 450 | 23 | 2.1 | P831_0100K202_0092 EZ402U | 1380 | 1380 | 2758 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 2.6 | 1.5 | 132 | 50 |
| 33 | 597 | 744 | 33 | 1.4 | P831_0100K202_0092 EZ404U | 1380 | 1380 | 2758 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 3.9 | 1.5 | 132 | 52 |
| 33 | 640 | 692 | 36 | 1.3 | P831_0100K202_0092 EZ502U | 1380 | 1380 | 2758 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 6.2 | 1.5 | 132 | 51 |
| 33 | 640 | 718 | 36 | 1.3 | P831_0100K202_0092 EZ701U | 1380 | 1380 | 2760 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 9.5 | 1.5 | 132 | 53 |
| 33 | 839 | 960 | 47 | 1.0 | P831_0100K202_0092 EZ503U | 1380 | 1380 | 2758 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 8.5 | 1.5 | 132 | 53 |
| 34 | 133 | 141 | 9.8 | 3.8 | P831_0070K202_0125 EZ302U | 418 | 418 | 667 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 0.73 | 1.5 | 128 | 47 |
| 34 | 173 | 183 | 13 | 2.9 | P831_0070K202_0125 EZ303U | 502 | 502 | 667 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 0.84 | 1.5 | 128 | 47 |
| 34 | 234 | 251 | 9.4 | 3.9 | P831_0070K202_0125 EZ401U | 711 | 711 | 2669 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 1.4 | 1.5 | 128 | 49 |
| 34 | 360 | 393 | 15 | 2.6 | P831_0070K202_0125 EZ501U | 1339 | 1339 | 2669 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 3.3 | 1.5 | 128 | 50 |
| 34 | 393 | 435 | 16 | 2.3 | P831_0070K202_0125 EZ402U | 1339 | 1339 | 2669 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 2.1 | 1.5 | 128 | 50 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 34 | 577 | 720 | 23 | 1.6 | P831_0070K202_0125 EZ404U | 1494 | 1494 | 2669 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 128 | 52 |
| 34 | 619 | 669 | 25 | 1.5 | P831_0070K202_0125 EZ502U | 1494 | 1494 | 2669 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 5.6 | 1.5 | 128 | 51 |
| 34 | 619 | 695 | 25 | 1.5 | P831_0070K202_0125 EZ701U | 1494 | 1494 | 2887 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 8.9 | 1.5 | 128 | 53 |
| 34 | 812 | 929 | 33 | 1.1 | P831_0070K202_0125 EZ503U | 1494 | 1494 | 2669 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 8.0 | 1.5 | 128 | 53 |
| 35 | 228 | 244 | 6.7 | 4.8 | P831_0050K302_0175 EZ401U | 692 | 692 | 2594 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 1.7 | 2.0 | 128 | 54 |
| 35 | 350 | 382 | 10 | 3.1 | P831_0050K302_0175 EZ501U | 1302 | 1302 | 2594 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 128 | 55 |
| 35 | 382 | 423 | 11 | 2.9 | P831_0050K302_0175 EZ402U | 1302 | 1302 | 2594 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 2.4 | 2.0 | 128 | 55 |
| 35 | 561 | 700 | 17 | 2.0 | P831_0050K302_0175 EZ404U | 1840 | 1867 | 2594 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 3.8 | 2.0 | 128 | 57 |
| 35 | 602 | 651 | 18 | 1.8 | P831_0050K302_0175 EZ502U | 1840 | 1867 | 2594 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 6.0 | 2.0 | 128 | 56 |
| 35 | 602 | 675 | 18 | 1.8 | P831_0050K302_0175 EZ701U | 1627 | 1627 | 3230 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 9.3 | 2.0 | 128 | 58 |
| 35 | 789 | 903 | 23 | 1.4 | P831_0050K302_0175 EZ503U | 1840 | 1867 | 2594 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 8.4 | 2.0 | 128 | 58 |
| 35 | 976 | 1172 | 29 | 1.1 | P831_0050K302_0175 EZ702U | 1840 | 1867 | 3230 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 15 | 2.0 | 128 | 61 |
| 35 | 1098 | 1302 | 32 | 1.0 | P831_0050K302_0175 EZ505U | 1840 | 1867 | 3230 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 128 | 61 |
| 36 | 164 | 173 | 17 | 2.9 | P831_0100K202_0084 EZ303U | 474 | 474 | 630 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 1.2 | 1.5 | 132 | 47 |
| 36 | 221 | 237 | 13 | 3.8 | P831_0100K202_0084 EZ401U | 672 | 672 | 2520 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 1.7 | 1.5 | 132 | 49 |
| 36 | 340 | 371 | 20 | 2.5 | P831_0100K202_0084 EZ501U | 1264 | 1264 | 2520 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 3.7 | 1.5 | 132 | 50 |
| 36 | 371 | 411 | 22 | 2.3 | P831_0100K202_0084 EZ402U | 1264 | 1264 | 2520 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 2.4 | 1.5 | 132 | 50 |
| 36 | 545 | 679 | 33 | 1.6 | P831_0100K202_0084 EZ404U | 1380 | 1380 | 2520 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 3.8 | 1.5 | 132 | 52 |
| 36 | 585 | 632 | 35 | 1.5 | P831_0100K202_0084 EZ502U | 1380 | 1380 | 2520 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 6.0 | 1.5 | 132 | 51 |
| 36 | 585 | 656 | 35 | 1.5 | P831_0100K202_0084 EZ701U | 1380 | 1380 | 2760 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 9.3 | 1.5 | 132 | 53 |
| 36 | 766 | 877 | 46 | 1.1 | P831_0100K202_0084 EZ503U | 1380 | 1380 | 2520 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 8.4 | 1.5 | 132 | 53 |
| 37 | 121 | 128 | 11 | 3.8 | P831_0070K202_0115 EZ302U | 380 | 380 | 606 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 0.99 | 1.5 | 128 | 47 |
| 37 | 157 | 167 | 14 | 2.9 | P831_0070K202_0115 EZ303U | 456 | 456 | 606 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 1.1 | 1.5 | 128 | 47 |
| 37 | 213 | 228 | 9.5 | 4.2 | P831_0070K202_0115 EZ401U | 646 | 646 | 2425 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 1.6 | 1.5 | 128 | 49 |
| 37 | 327 | 357 | 15 | 2.7 | P831_0070K202_0115 EZ501U | 1217 | 1217 | 2425 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 3.6 | 1.5 | 128 | 50 |
| 37 | 357 | 395 | 16 | 2.5 | P831_0070K202_0115 EZ402U | 1217 | 1217 | 2425 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 2.3 | 1.5 | 128 | 50 |
| 37 | 525 | 654 | 23 | 1.7 | P831_0070K202_0115 EZ404U | 1494 | 1494 | 2425 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 3.7 | 1.5 | 128 | 52 |
| 37 | 563 | 608 | 25 | 1.6 | P831_0070K202_0115 EZ502U | 1494 | 1494 | 2425 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 5.9 | 1.5 | 128 | 51 |
| 37 | 563 | 631 | 25 | 1.6 | P831_0070K202_0115 EZ701U | 1494 | 1494 | 2887 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 9.2 | 1.5 | 128 | 53 |
| 37 | 738 | 844 | 33 | 1.2 | P831_0070K202_0115 EZ503U | 1494 | 1494 | 2425 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 8.3 | 1.5 | 128 | 53 |
| 43 | 186 | 199 | 9.6 | 4.6 | P831_0070K202_0100 EZ401U | 564 | 564 | 2116 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 1.6 | 1.5 | 128 | 49 |
| 43 | 285 | 312 | 15 | 3.0 | P831_0070K202_0100 EZ501U | 1062 | 1062 | 2116 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 3.5 | 1.5 | 128 | 50 |
| 43 | 312 | 345 | 16 | 2.7 | P831_0070K202_0100 EZ402U | 1062 | 1062 | 2116 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 2.3 | 1.5 | 128 | 50 |
| 43 | 458 | 571 | 24 | 1.9 | P831_0070K202_0100 EZ404U | 1494 | 1494 | 2116 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 3.6 | 1.5 | 128 | 52 |
| 43 | 491 | 531 | 25 | 1.7 | P831_0070K202_0100 EZ502U | 1494 | 1494 | 2116 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 5.8 | 1.5 | 128 | 51 |
| 43 | 491 | 551 | 25 | 1.7 | P831_0070K202_0100 EZ701U | 1327 | 1327 | 2887 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 9.1 | 1.5 | 128 | 53 |
| 43 | 644 | 736 | 33 | 1.3 | P831_0070K202_0100 EZ503U | 1494 | 1494 | 2116 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 8.2 | 1.5 | 128 | 53 |
| 43 | 796 | 955 | 41 | 1.1 | P831_0070K202_0100 EZ702U | 1494 | 1494 | 2887 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 43 | 282 | 308 | 9.8 | 3.9 | P831_0050K302_0140 EZ501U | 1049 | 1049 | 2091 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 4.0 | 2.0 | 128 | 55 |
| 43 | 308 | 341 | 11 | 3.6 | P831_0050K302_0140 EZ402U | 1049 | 1049 | 2091 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 2.7 | 2.0 | 128 | 55 |
| 43 | 452 | 564 | 16 | 2.4 | P831_0050K302_0140 EZ404U | 1574 | 1574 | 2091 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 4.1 | 2.0 | 128 | 57 |
| 43 | 485 | 524 | 17 | 2.3 | P831_0050K302_0140 EZ502U | 1574 | 1574 | 2091 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 6.3 | 2.0 | 128 | 56 |
| 43 | 485 | 544 | 17 | 2.3 | P831_0050K302_0140 EZ701U | 1311 | 1311 | 3230 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 9.6 | 2.0 | 128 | 58 |
| 43 | 636 | 728 | 22 | 1.7 | P831_0050K302_0140 EZ503U | 1574 | 1574 | 2091 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 8.7 | 2.0 | 128 | 58 |
| 43 | 787 | 944 | 27 | 1.4 | P831_0050K302_0140 EZ702U | 1840 | 1867 | 3230 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 15 | 2.0 | 128 | 61 |
| 43 | 885 | 1049 | 31 | 1.2 | P831_0050K302_0140 EZ505U | 1840 | 1867 | 3230 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 128 | 61 |
| 43 | 1082 | 1364 | 37 | 1.0 | P831_0050K302_0140 EZ703U | 1840 | 1867 | 3230 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 23 | 2.0 | 128 | 63 |
| 45 | 176 | 189 | 12 | 4.8 | P831_0100K202_0067 EZ401U | 534 | 534 | 2006 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 2.1 | 1.5 | 132 | 49 |
| 45 | 270 | 296 | 19 | 3.1 | P831_0100K202_0067 EZ501U | 1006 | 1006 | 2006 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 4.1 | 1.5 | 132 | 50 |
| 45 | 296 | 327 | 21 | 2.9 | P831_0100K202_0067 EZ402U | 1006 | 1006 | 2006 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 2.8 | 1.5 | 132 | 50 |
| 45 | 434 | 541 | 31 | 2.0 | P831_0100K202_0067 EZ404U | 1380 | 1380 | 2006 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 4.1 | 1.5 | 132 | 52 |
| 45 | 465 | 503 | 33 | 1.8 | P831_0100K202_0067 EZ502U | 1380 | 1380 | 2006 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 6.4 | 1.5 | 132 | 51 |
| 45 | 465 | 522 | 33 | 1.8 | P831_0100K202_0067 EZ701U | 1258 | 1258 | 2760 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 9.7 | 1.5 | 132 | 53 |
| 45 | 610 | 698 | 43 | 1.4 | P831_0100K202_0067 EZ503U | 1380 | 1380 | 2006 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 8.7 | 1.5 | 132 | 53 |
| 45 | 755 | 905 | 53 | 1.1 | P831_0100K202_0067 EZ702U | 1380 | 1380 | 2760 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 132 | 56 |
| 45 | 849 | 1006 | 60 | 1.0 | P831_0100K202_0067 EZ505U | 1380 | 1380 | 2760 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 132 | 56 |
| 47 | 169 | 182 | 9.7 | 4.9 | P831_0070K202_0092 EZ401U | 514 | 514 | 1931 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 1.9 | 1.5 | 128 | 49 |
| 47 | 260 | 284 | 15 | 3.2 | P831_0070K202_0092 EZ501U | 968 | 968 | 1931 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 3.9 | 1.5 | 128 | 50 |
| 47 | 284 | 315 | 16 | 2.9 | P831_0070K202_0092 EZ402U | 968 | 968 | 1931 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 2.6 | 1.5 | 128 | 50 |
| 47 | 418 | 521 | 24 | 2.0 | P831_0070K202_0092 EZ404U | 1453 | 1453 | 1931 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 4.0 | 1.5 | 128 | 52 |
| 47 | 448 | 484 | 26 | 1.8 | P831_0070K202_0092 EZ502U | 1453 | 1453 | 1931 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 6.2 | 1.5 | 128 | 51 |
| 47 | 448 | 502 | 26 | 1.8 | P831_0070K202_0092 EZ701U | 1211 | 1211 | 2887 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 9.5 | 1.5 | 128 | 53 |
| 47 | 587 | 672 | 34 | 1.4 | P831_0070K202_0092 EZ503U | 1453 | 1453 | 1931 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 8.6 | 1.5 | 128 | 53 |
| 47 | 726 | 872 | 42 | 1.1 | P831_0070K202_0092 EZ702U | 1494 | 1494 | 2887 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 128 | 56 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P831K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 47 | 817 | 968 | 47 | 1.0 | P831_0070K202_0092 EZ505U | 1494 | 1494 | 2887 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 128 | 56 |
| 50 | 243 | 265 | 19 | 3.5 | P831_0100K202_0060 EZ501U | 903 | 903 | 1800 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 4.7 | 1.5 | 132 | 50 |
| 50 | 265 | 294 | 20 | 3.2 | P831_0100K202_0060 EZ402U | 903 | 903 | 1800 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 3.4 | 1.5 | 132 | 50 |
| 50 | 390 | 486 | 30 | 2.2 | P831_0100K202_0060 EZ404U | 1355 | 1355 | 1800 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 4.7 | 1.5 | 132 | 52 |
| 50 | 418 | 452 | 32 | 2.0 | P831_0100K202_0060 EZ502U | 1355 | 1355 | 1800 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 7.0 | 1.5 | 132 | 51 |
| 50 | 418 | 469 | 32 | 2.0 | P831_0100K202_0060 EZ701U | 1129 | 1129 | 2760 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 132 | 53 |
| 50 | 548 | 627 | 42 | 1.6 | P831_0100K202_0060 EZ503U | 1355 | 1355 | 1800 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 9.3 | 1.5 | 132 | 53 |
| 50 | 677 | 813 | 52 | 1.3 | P831_0100K202_0060 EZ702U | 1380 | 1380 | 2760 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 132 | 56 |
| 50 | 762 | 903 | 58 | 1.1 | P831_0100K202_0060 EZ505U | 1380 | 1380 | 2760 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 132 | 56 |
| 51 | 114 | 121 | 17 | 2.9 | P831_0070K202_0084 EZ303U | 332 | 332 | 441 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 1.2 | 1.5 | 128 | 47 |
| 51 | 238 | 260 | 15 | 3.4 | P831_0070K202_0084 EZ501U | 885 | 885 | 1764 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 3.7 | 1.5 | 128 | 50 |
| 51 | 260 | 288 | 16 | 3.1 | P831_0070K202_0084 EZ402U | 885 | 885 | 1764 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 2.5 | 1.5 | 128 | 50 |
| 51 | 382 | 476 | 24 | 2.1 | P831_0070K202_0084 EZ404U | 1328 | 1328 | 1764 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 3.8 | 1.5 | 128 | 52 |
| 51 | 409 | 442 | 26 | 2.0 | P831_0070K202_0084 EZ502U | 1328 | 1328 | 1764 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 6.0 | 1.5 | 128 | 51 |
| 51 | 409 | 459 | 26 | 2.0 | P831_0070K202_0084 EZ701U | 1106 | 1106 | 2887 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 9.3 | 1.5 | 128 | 53 |
| 51 | 536 | 614 | 34 | 1.5 | P831_0070K202_0084 EZ503U | 1328 | 1328 | 1764 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 8.4 | 1.5 | 128 | 53 |
| 51 | 664 | 796 | 42 | 1.2 | P831_0070K202_0084 EZ702U | 1494 | 1494 | 2887 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 128 | 56 |
| 51 | 747 | 885 | 47 | 1.1 | P831_0070K202_0084 EZ505U | 1494 | 1494 | 2887 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 128 | 56 |
| 52 | 235 | 257 | 9.3 | 4.7 | P831_0050K302_0115 EZ501U | 874 | 874 | 1742 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 4.4 | 2.0 | 128 | 55 |
| 52 | 257 | 284 | 10 | 4.3 | P831_0050K302_0115 EZ402U | 874 | 874 | 1742 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 3.1 | 2.0 | 128 | 55 |
| 52 | 377 | 470 | 15 | 2.9 | P831_0050K302_0115 EZ404U | 1311 | 1311 | 1742 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 4.4 | 2.0 | 128 | 57 |
| 52 | 404 | 437 | 16 | 2.7 | P831_0050K302_0115 EZ502U | 1311 | 1311 | 1742 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 6.7 | 2.0 | 128 | 56 |
| 52 | 404 | 453 | 16 | 2.7 | P831_0050K302_0115 EZ701U | 1092 | 1092 | 3230 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 10 | 2.0 | 128 | 58 |
| 52 | 530 | 606 | 21 | 2.1 | P831_0050K302_0115 EZ503U | 1311 | 1311 | 1742 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 9.0 | 2.0 | 128 | 58 |
| 52 | 655 | 787 | 26 | 1.7 | P831_0050K302_0115 EZ702U | 1840 | 1867 | 3230 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 15 | 2.0 | 128 | 61 |
| 52 | 737 | 874 | 29 | 1.5 | P831_0050K302_0115 EZ505U | 1840 | 1867 | 3230 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 128 | 61 |
| 52 | 901 | 1136 | 36 | 1.2 | P831_0050K302_0115 EZ703U | 1840 | 1867 | 3230 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 23 | 2.0 | 128 | 63 |
| 58 | 360 | 404 | 31 | 2.4 | P831_0100K202_0052 EZ701U | 974 | 974 | 2760 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 132 | 53 |
| 58 | 585 | 701 | 50 | 1.5 | P831_0100K202_0052 EZ702U | 1380 | 1380 | 2760 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 132 | 56 |
| 58 | 658 | 779 | 56 | 1.3 | P831_0100K202_0052 EZ505U | 1380 | 1380 | 2760 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 132 | 56 |
| 58 | 804 | 1013 | 69 | 1.1 | P831_0100K202_0052 EZ703U | 1380 | 1380 | 2760 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 132 | 58 |
| 60 | 347 | 389 | 26 | 2.2 | P831_0070K202_0071 EZ701U | 938 | 938 | 2887 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 128 | 53 |
| 60 | 563 | 675 | 42 | 1.4 | P831_0070K202_0071 EZ702U | 1436 | 1436 | 2887 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 128 | 56 |
| 60 | 633 | 750 | 48 | 1.2 | P831_0070K202_0071 EZ505U | 1436 | 1436 | 2887 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 64 | 189 | 207 | 15 | 3.9 | P831_0070K202_0067 EZ501U | 704 | 704 | 1404 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 4.1 | 1.5 | 128 | 50 |
| 64 | 207 | 229 | 17 | 3.6 | P831_0070K202_0067 EZ402U | 704 | 704 | 1404 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 2.8 | 1.5 | 128 | 50 |
| 64 | 304 | 379 | 25 | 2.4 | P831_0070K202_0067 EZ404U | 1057 | 1057 | 1404 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 4.2 | 1.5 | 128 | 52 |
| 64 | 326 | 352 | 26 | 2.3 | P831_0070K202_0067 EZ502U | 1057 | 1057 | 1404 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 6.4 | 1.5 | 128 | 51 |
| 64 | 326 | 365 | 26 | 2.3 | P831_0070K202_0067 EZ701U | 880 | 880 | 2887 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 9.7 | 1.5 | 128 | 53 |
| 64 | 427 | 489 | 35 | 1.7 | P831_0070K202_0067 EZ503U | 1057 | 1057 | 1404 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 8.8 | 1.5 | 128 | 53 |
| 64 | 528 | 634 | 43 | 1.4 | P831_0070K202_0067 EZ702U | 1406 | 1406 | 2887 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 128 | 56 |
| 64 | 594 | 704 | 48 | 1.3 | P831_0070K202_0067 EZ505U | 1406 | 1406 | 2887 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 128 | 56 |
| 64 | 726 | 916 | 59 | 1.0 | P831_0070K202_0067 EZ703U | 1406 | 1406 | 2887 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 23 | 1.5 | 128 | 58 |
| 65 | 323 | 362 | 16 | 3.2 | P831_0050K302_0093 EZ701U | 872 | 872 | 3230 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 11 | 2.0 | 128 | 58 |
| 65 | 523 | 628 | 26 | 2.0 | P831_0050K302_0093 EZ702U | 1787 | 1787 | 3230 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 16 | 2.0 | 128 | 61 |
| 65 | 589 | 698 | 29 | 1.8 | P831_0050K302_0093 EZ505U | 1840 | 1867 | 3230 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 128 | 61 |
| 65 | 719 | 907 | 36 | 1.4 | P831_0050K302_0093 EZ703U | 1840 | 1867 | 3230 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 24 | 2.0 | 128 | 63 |
| 71 | 170 | 186 | 15 | 4.2 | P831_0070K202_0060 EZ501U | 632 | 632 | 1260 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 4.7 | 1.5 | 128 | 50 |
| 71 | 186 | 205 | 17 | 3.9 | P831_0070K202_0060 EZ402U | 632 | 632 | 1260 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 3.5 | 1.5 | 128 | 50 |
| 71 | 273 | 340 | 25 | 2.6 | P831_0070K202_0060 EZ404U | 948 | 948 | 1260 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 4.8 | 1.5 | 128 | 52 |
| 71 | 292 | 316 | 27 | 2.5 | P831_0070K202_0060 EZ502U | 948 | 948 | 1260 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 7.0 | 1.5 | 128 | 51 |
| 71 | 292 | 328 | 27 | 2.5 | P831_0070K202_0060 EZ701U | 790 | 790 | 2887 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 128 | 53 |
| 71 | 383 | 439 | 35 | 1.9 | P831_0070K202_0060 EZ503U | 948 | 948 | 1260 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 9.4 | 1.5 | 128 | 53 |
| 71 | 474 | 569 | 43 | 1.5 | P831_0070K202_0060 EZ702U | 1356 | 1356 | 2887 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 128 | 56 |
| 71 | 533 | 632 | 48 | 1.3 | P831_0070K202_0060 EZ505U | 1356 | 1356 | 2887 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 71 | 652 | 822 | 59 | 1.1 | P831_0070K202_0060 EZ703U | 1356 | 1356 | 2887 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 128 | 58 |
| 75 | 279 | 312 | 29 | 3.1 | P831_0100K202_0040 EZ701U | 753 | 753 | 2760 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 11 | 1.5 | 132 | 53 |
| 75 | 452 | 542 | 47 | 1.9 | P831_0100K202_0040 EZ702U | 1380 | 1380 | 2760 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 132 | 56 |
| 75 | 508 | 602 | 53 | 1.7 | P831_0100K202_0040 EZ505U | 1380 | 1380 | 2760 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 132 | 56 |
| 75 | 621 | 783 | 65 | 1.4 | P831_0100K202_0040 EZ703U | 1380 | 1380 | 2760 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 132 | 58 |
| 81 | 257 | 289 | 16 | 3.7 | P831_0050K302_0074 EZ701U | 695 | 695 | 2772 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 11 | 2.0 | 128 | 58 |
| 81 | 417 | 501 | 27 | 2.3 | P831_0050K302_0074 EZ702U | 1426 | 1426 | 2772 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 17 | 2.0 | 128 | 61 |
| 81 | 469 | 556 | 30 | 2.1 | P831_0050K302_0074 EZ505U | 1819 | 1819 | 2772 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 15 | 2.0 | 128 | 61 |
| 81 | 574 | 723 | 37 | 1.7 | P831_0050K302_0074 EZ703U | 1819 | 1819 | 2772 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 24 | 2.0 | 128 | 63 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [$kgcm^2$] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 83 | 252 | 283 | 27 | 2.7 | P831_0070K202_0052 EZ701U | 682 | 682 | 2718 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 128 | 53 |
| 83 | 409 | 491 | 44 | 1.7 | P831_0070K202_0052 EZ702U | 1291 | 1291 | 2718 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 128 | 56 |
| 83 | 460 | 546 | 49 | 1.5 | P831_0070K202_0052 EZ505U | 1291 | 1291 | 2718 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 83 | 563 | 709 | 60 | 1.2 | P831_0070K202_0052 EZ703U | 1291 | 1291 | 2718 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 128 | 58 |
| 98 | 135 | 149 | 17 | 4.8 | P831_0070K202_0044 EZ402U | 460 | 460 | 916 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 4.0 | 1.5 | 128 | 50 |
| 98 | 198 | 247 | 25 | 3.3 | P831_0070K202_0044 EZ404U | 690 | 690 | 916 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 5.4 | 1.5 | 128 | 52 |
| 98 | 213 | 230 | 27 | 3.0 | P831_0070K202_0044 EZ502U | 690 | 690 | 916 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 7.6 | 1.5 | 128 | 51 |
| 98 | 213 | 239 | 27 | 3.0 | P831_0070K202_0044 EZ701U | 575 | 575 | 2291 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 11 | 1.5 | 128 | 53 |
| 98 | 279 | 319 | 36 | 2.3 | P831_0070K202_0044 EZ503U | 690 | 690 | 916 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 128 | 53 |
| 98 | 345 | 414 | 44 | 1.9 | P831_0070K202_0044 EZ702U | 1178 | 1178 | 2291 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 128 | 56 |
| 98 | 388 | 460 | 50 | 1.7 | P831_0070K202_0044 EZ505U | 1220 | 1220 | 2291 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 128 | 56 |
| 98 | 474 | 598 | 61 | 1.4 | P831_0070K202_0044 EZ703U | 1220 | 1220 | 2291 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 128 | 58 |
| 100 | 209 | 234 | 17 | 4.3 | P831_0050K302_0060 EZ701U | 565 | 565 | 2250 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 12 | 2.0 | 128 | 58 |
| 100 | 339 | 406 | 27 | 2.7 | P831_0050K302_0060 EZ702U | 1157 | 1157 | 2250 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 18 | 2.0 | 128 | 61 |
| 100 | 381 | 452 | 30 | 2.4 | P831_0050K302_0060 EZ505U | 1694 | 1694 | 2250 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 16 | 2.0 | 128 | 61 |
| 100 | 466 | 587 | 37 | 1.9 | P831_0050K302_0060 EZ703U | 1694 | 1694 | 2250 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 25 | 2.0 | 128 | 63 |
| 100 | 601 | 852 | 48 | 1.5 | P831_0050K302_0060 EZ705U | 1697 | 1697 | 3230 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 38 | 2.0 | 128 | 68 |
| 107 | 195 | 219 | 27 | 3.2 | P831_0070K202_0040 EZ701U | 527 | 527 | 2100 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 11 | 1.5 | 128 | 53 |
| 107 | 316 | 379 | 45 | 2.0 | P831_0070K202_0040 EZ702U | 1080 | 1080 | 2100 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 128 | 56 |
| 107 | 356 | 422 | 50 | 1.8 | P831_0070K202_0040 EZ505U | 1185 | 1185 | 2100 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 128 | 56 |
| 107 | 435 | 548 | 61 | 1.4 | P831_0070K202_0040 EZ703U | 1185 | 1185 | 2100 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 128 | 58 |
| 112 | 187 | 210 | 17 | 4.6 | P831_0050K302_0054 EZ701U | 506 | 506 | 2016 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 12 | 2.0 | 128 | 58 |
| 112 | 303 | 364 | 27 | 2.9 | P831_0050K302_0054 EZ702U | 1037 | 1037 | 2016 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 17 | 2.0 | 128 | 61 |
| 112 | 341 | 405 | 31 | 2.5 | P831_0050K302_0054 EZ505U | 1518 | 1518 | 2016 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 16 | 2.0 | 128 | 61 |
| 112 | 417 | 526 | 38 | 2.1 | P831_0050K302_0054 EZ703U | 1518 | 1518 | 2016 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 25 | 2.0 | 128 | 63 |
| 150 | 226 | 271 | 28 | 3.5 | P831_0050K302_0040 EZ702U | 772 | 772 | 1500 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 19 | 2.0 | 128 | 61 |
| 150 | 254 | 301 | 31 | 3.1 | P831_0050K302_0040 EZ505U | 1129 | 1129 | 1500 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 18 | 2.0 | 128 | 61 |
| 150 | 310 | 391 | 38 | 2.5 | P831_0050K302_0040 EZ703U | 1129 | 1129 | 1500 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 27 | 2.0 | 128 | 63 |
| 150 | 401 | 568 | 50 | 2.0 | P831_0050K302_0040 EZ705U | 1482 | 1482 | 3230 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 40 | 2.0 | 128 | 68 |
| 188 | 181 | 217 | 28 | 3.5 | P831_0040K302_0040 EZ702U | 617 | 617 | 1200 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 20 | 2.0 | 109 | 61 |
| 188 | 203 | 241 | 31 | 3.1 | P831_0040K302_0040 EZ505U | 903 | 903 | 1200 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 18 | 2.0 | 109 | 61 |
| 188 | 248 | 313 | 38 | 2.5 | P831_0040K302_0040 EZ703U | 903 | 903 | 1200 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 28 | 2.0 | 109 | 63 |
| 188 | 321 | 455 | 50 | 2.0 | P831_0040K302_0040 EZ705U | 1186 | 1186 | 2887 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 40 | 2.0 | 109 | 68 |
| 250 | 135 | 163 | 28 | 3.5 | P831_0030K302_0040 EZ702U | 463 | 463 | 900 | 12.00 | 12/1 | 2700 | 2700 | 4000 | 4.5 | 21 | 2.5 | 83 | 61 |
| 250 | 152 | 181 | 31 | 3.1 | P831_0030K302_0040 EZ505U | 677 | 677 | 900 | 12.00 | 12/1 | 2700 | 2700 | 4000 | 4.5 | 20 | 2.5 | 83 | 61 |
| 250 | 186 | 235 | 38 | 2.5 | P831_0030K302_0040 EZ703U | 677 | 677 | 900 | 12.00 | 12/1 | 2700 | 2700 | 4000 | 4.5 | 29 | 2.5 | 83 | 63 |
| 250 | 240 | 341 | 50 | 2.0 | P831_0030K302_0040 EZ705U | 889 | 889 | 2165 | 12.00 | 12/1 | 2700 | 2700 | 4000 | 4.5 | 42 | 2.5 | 83 | 68 |
| **P831K ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 39 | 1041 | 1677 | 25 | 1.1 | P831_0050K302_0230 EZ505U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 13 | 2.0 | 128 | 61 |
| 49 | 821 | 1323 | 46 | 1.0 | P831_0100K202_0092 EZ505U | 1380 | 1380 | 2760 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 132 | 56 |
| 51 | 795 | 1280 | 37 | 1.0 | P831_0070K202_0125 EZ505U | 1494 | 1494 | 2887 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 13 | 1.5 | 128 | 56 |
| 52 | 773 | 1245 | 23 | 1.4 | P831_0050K302_0175 EZ505U | 1840 | 1867 | 3230 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 128 | 61 |
| 52 | 984 | 1627 | 29 | 1.1 | P831_0050K302_0175 EZ703U | 1840 | 1867 | 3230 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 22 | 2.0 | 128 | 63 |
| 54 | 751 | 1209 | 45 | 1.1 | P831_0100K202_0084 EZ505U | 1380 | 1380 | 2760 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 132 | 56 |
| 56 | 722 | 1163 | 37 | 1.1 | P831_0070K202_0115 EZ505U | 1494 | 1494 | 2887 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 128 | 56 |
| 64 | 630 | 1015 | 37 | 1.2 | P831_0070K202_0100 EZ505U | 1494 | 1494 | 2887 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 13 | 1.5 | 128 | 56 |
| 65 | 623 | 1003 | 23 | 1.7 | P831_0050K302_0140 EZ505U | 1840 | 1867 | 3230 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 128 | 61 |
| 65 | 793 | 1311 | 29 | 1.3 | P831_0050K302_0140 EZ703U | 1840 | 1867 | 3230 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 23 | 2.0 | 128 | 63 |
| 67 | 597 | 962 | 42 | 1.4 | P831_0100K202_0067 EZ505U | 1380 | 1380 | 2760 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 132 | 56 |
| 67 | 761 | 1258 | 54 | 1.1 | P831_0100K202_0067 EZ703U | 1380 | 1380 | 2760 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 23 | 1.5 | 132 | 58 |
| 70 | 575 | 926 | 38 | 1.3 | P831_0070K202_0092 EZ505U | 1494 | 1494 | 2887 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 128 | 56 |
| 75 | 536 | 864 | 41 | 1.6 | P831_0100K202_0060 EZ505U | 1380 | 1380 | 2760 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 132 | 56 |
| 75 | 683 | 1129 | 52 | 1.2 | P831_0100K202_0060 EZ703U | 1380 | 1380 | 2760 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 132 | 58 |
| 77 | 525 | 846 | 38 | 1.3 | P831_0070K202_0084 EZ505U | 1494 | 1494 | 2887 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 128 | 56 |
| 77 | 669 | 1106 | 48 | 1.0 | P831_0070K202_0084 EZ703U | 1494 | 1494 | 2887 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 22 | 1.5 | 128 | 58 |
| 78 | 519 | 836 | 23 | 1.9 | P831_0050K302_0115 EZ505U | 1840 | 1867 | 3230 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 128 | 61 |
| 78 | 661 | 1092 | 30 | 1.5 | P831_0050K302_0115 EZ703U | 1840 | 1867 | 3230 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 23 | 2.0 | 128 | 63 |
| 87 | 463 | 745 | 40 | 1.8 | P831_0100K202_0052 EZ505U | 1380 | 1380 | 2760 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 132 | 56 |
| 87 | 589 | 974 | 51 | 1.4 | P831_0100K202_0052 EZ703U | 1380 | 1380 | 2760 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 132 | 58 |
| 90 | 445 | 717 | 39 | 1.5 | P831_0070K202_0071 EZ505U | 1436 | 1436 | 2887 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 90 | 567 | 938 | 49 | 1.2 | P831_0070K202_0071 EZ703U | 1436 | 1436 | 2887 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 128 | 58 |
| 96 | 418 | 673 | 39 | 1.6 | P831_0070K202_0067 EZ505U | 1406 | 1406 | 2887 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 128 | 56 |
| 96 | 533 | 880 | 49 | 1.2 | P831_0070K202_0067 EZ703U | 1406 | 1406 | 2887 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 23 | 1.5 | 128 | 58 |
| 97 | 414 | 667 | 24 | 2.2 | P831_0050K302_0093 EZ505U | 1840 | 1867 | 3230 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 128 | 61 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P831K ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 97 | 528 | 872 | 30 | 1.7 | P831_0050K302_0093 EZ703U | 1840 | 1867 | 3230 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 24 | 2.0 | 128 | 63 |
| 107 | 375 | 605 | 39 | 1.7 | P831_0070K202_0060 EZ505U | 1356 | 1356 | 2887 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 107 | 478 | 790 | 50 | 1.3 | P831_0070K202_0060 EZ703U | 1356 | 1356 | 2887 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 128 | 58 |
| 113 | 358 | 576 | 40 | 2.2 | P831_0100K202_0040 EZ505U | 1380 | 1380 | 2760 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 132 | 56 |
| 113 | 455 | 753 | 51 | 1.7 | P831_0100K202_0040 EZ703U | 1380 | 1380 | 2760 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 132 | 58 |
| 124 | 324 | 522 | 40 | 1.8 | P831_0070K202_0052 EZ505U | 1291 | 1291 | 2718 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 124 | 413 | 682 | 50 | 1.4 | P831_0070K202_0052 EZ703U | 1291 | 1291 | 2718 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 128 | 58 |
| 147 | 273 | 440 | 40 | 2.1 | P831_0070K202_0044 EZ505U | 1220 | 1220 | 2291 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 128 | 56 |
| 147 | 348 | 575 | 51 | 1.6 | P831_0070K202_0044 EZ703U | 1220 | 1220 | 2291 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 128 | 58 |
| 161 | 250 | 403 | 40 | 2.2 | P831_0070K202_0040 EZ505U | 1185 | 1185 | 2100 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 128 | 56 |
| 161 | 319 | 527 | 51 | 1.7 | P831_0070K202_0040 EZ703U | 1185 | 1185 | 2100 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 128 | 58 |
| **P831K ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 11 | 784 | 878 | 11 | 1.1 | P831_0100K202_0560 EZ302U | 1380 | 1380 | 2760 | 555.4 | 6665/12 | 4000 | 4000 | 6500 | 3.5 | 0.34 | 1.5 | 132 | 47 |
| 12 | 686 | 768 | 7.9 | 1.3 | P831_0070K202_0690 EZ302U | 1078 | 1078 | 1828 | 486.0 | 46655/96 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 128 | 47 |
| 12 | 896 | 1029 | 10 | 1.0 | P831_0070K202_0690 EZ303U | 1078 | 1078 | 1828 | 486.0 | 46655/96 | 4000 | 4000 | 6500 | 3.5 | 0.44 | 1.5 | 128 | 47 |
| 13 | 652 | 731 | 11 | 1.3 | P831_0100K202_0460 EZ302U | 1380 | 1380 | 2659 | 462.3 | 1849/4 | 4000 | 4000 | 6500 | 3.5 | 0.36 | 1.5 | 132 | 47 |
| 15 | 549 | 615 | 6.7 | 1.8 | P831_0070K202_0560 EZ302U | 1294 | 1294 | 1949 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 128 | 47 |
| 15 | 717 | 823 | 8.8 | 1.4 | P831_0070K202_0560 EZ303U | 1294 | 1294 | 1949 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 128 | 47 |
| 15 | 841 | 1024 | 10 | 1.2 | P831_0070K202_0560 EZ401U | 1294 | 1294 | 1949 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.99 | 1.5 | 128 | 49 |
| 17 | 499 | 559 | 10 | 1.3 | P831_0070K202_0500 EZ302U | 784 | 784 | 1329 | 353.4 | 46655/132 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 128 | 47 |
| 17 | 652 | 748 | 13 | 1.0 | P831_0070K202_0500 EZ303U | 784 | 784 | 1329 | 353.4 | 46655/132 | 4000 | 4000 | 6500 | 3.5 | 0.44 | 1.5 | 128 | 47 |
| 17 | 488 | 546 | 10 | 1.7 | P831_0100K202_0350 EZ302U | 1380 | 1380 | 2209 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.41 | 1.5 | 132 | 47 |
| 17 | 637 | 732 | 13 | 1.3 | P831_0100K202_0350 EZ303U | 1380 | 1380 | 2209 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.52 | 1.5 | 132 | 47 |
| 17 | 748 | 910 | 15 | 1.1 | P831_0100K202_0350 EZ401U | 1380 | 1380 | 2760 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 132 | 49 |
| 19 | 457 | 511 | 6.4 | 2.2 | P831_0070K202_0460 EZ302U | 1401 | 1401 | 1861 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.37 | 1.5 | 128 | 47 |
| 19 | 597 | 685 | 8.4 | 1.7 | P831_0070K202_0460 EZ303U | 1401 | 1401 | 1861 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.48 | 1.5 | 128 | 47 |
| 19 | 700 | 852 | 9.9 | 1.4 | P831_0070K202_0460 EZ401U | 1494 | 1494 | 2887 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 128 | 49 |
| 21 | 399 | 447 | 7.9 | 2.0 | P831_0070K202_0400 EZ302U | 941 | 941 | 1418 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 128 | 47 |
| 21 | 521 | 599 | 10 | 1.5 | P831_0070K202_0400 EZ303U | 941 | 941 | 1418 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 128 | 47 |
| 21 | 612 | 745 | 12 | 1.3 | P831_0070K202_0400 EZ401U | 941 | 941 | 1418 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.99 | 1.5 | 128 | 49 |
| 21 | 605 | 736 | 15 | 1.4 | P831_0100K202_0280 EZ401U | 1380 | 1380 | 2760 | 279.5 | 559/2 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 132 | 49 |
| 22 | 603 | 734 | 7.4 | 1.8 | P831_0050K302_0560 EZ401U | 1541 | 1541 | 2729 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 1.0 | 2.0 | 128 | 54 |
| 22 | 891 | 1153 | 11 | 1.2 | P831_0050K302_0560 EZ501U | 1541 | 1541 | 2729 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 3.0 | 2.0 | 128 | 55 |
| 22 | 917 | 1284 | 11 | 1.2 | P831_0050K302_0560 EZ402U | 1541 | 1541 | 2729 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 1.7 | 2.0 | 128 | 55 |
| 25 | 341 | 382 | 6.0 | 2.9 | P831_0070K202_0350 EZ302U | 1138 | 1138 | 1546 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.42 | 1.5 | 128 | 47 |
| 25 | 446 | 512 | 7.8 | 2.2 | P831_0070K202_0350 EZ303U | 1164 | 1164 | 1546 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 128 | 47 |
| 25 | 523 | 637 | 9.2 | 1.9 | P831_0070K202_0350 EZ401U | 1494 | 1494 | 2887 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |
| 25 | 774 | 1001 | 14 | 1.3 | P831_0070K202_0350 EZ501U | 1494 | 1494 | 2887 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 128 | 50 |
| 25 | 797 | 1115 | 14 | 1.3 | P831_0070K202_0350 EZ402U | 1494 | 1494 | 2887 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 128 | 50 |
| 25 | 332 | 372 | 5.9 | 3.0 | P831_0070K202_0340 EZ302U | 1019 | 1019 | 1353 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.38 | 1.5 | 128 | 47 |
| 25 | 434 | 498 | 7.8 | 2.3 | P831_0070K202_0340 EZ303U | 1019 | 1019 | 1353 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.49 | 1.5 | 128 | 47 |
| 25 | 509 | 620 | 9.1 | 2.0 | P831_0070K202_0340 EZ401U | 1255 | 1255 | 2223 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 128 | 49 |
| 25 | 753 | 974 | 13 | 1.3 | P831_0070K202_0340 EZ501U | 1255 | 1255 | 2223 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 128 | 50 |
| 25 | 775 | 1085 | 14 | 1.3 | P831_0070K202_0340 EZ402U | 1255 | 1255 | 2223 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 1.7 | 1.5 | 128 | 50 |
| 26 | 327 | 366 | 9.1 | 2.6 | P831_0100K202_0230 EZ302U | 1091 | 1091 | 1739 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 132 | 47 |
| 26 | 427 | 491 | 12 | 2.0 | P831_0100K202_0230 EZ303U | 1309 | 1309 | 1739 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.64 | 1.5 | 132 | 47 |
| 26 | 502 | 611 | 14 | 1.7 | P831_0100K202_0230 EZ401U | 1380 | 1380 | 2760 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 132 | 49 |
| 26 | 742 | 960 | 21 | 1.1 | P831_0100K202_0230 EZ501U | 1380 | 1380 | 2760 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 132 | 50 |
| 26 | 763 | 1069 | 21 | 1.1 | P831_0100K202_0230 EZ402U | 1380 | 1380 | 2760 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 132 | 50 |
| 26 | 500 | 609 | 7.1 | 2.2 | P831_0050K302_0460 EZ401U | 1840 | 1848 | 3230 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.1 | 2.0 | 128 | 54 |
| 26 | 739 | 957 | 10 | 1.5 | P831_0050K302_0460 EZ501U | 1840 | 1867 | 3230 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 3.1 | 2.0 | 128 | 55 |
| 26 | 761 | 1066 | 11 | 1.4 | P831_0050K302_0460 EZ402U | 1840 | 1867 | 3230 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.8 | 2.0 | 128 | 55 |
| 31 | 423 | 515 | 9.2 | 2.2 | P831_0070K202_0280 EZ401U | 1494 | 1494 | 2887 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |
| 31 | 626 | 810 | 14 | 1.5 | P831_0070K202_0280 EZ501U | 1494 | 1494 | 2887 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 128 | 50 |
| 31 | 644 | 902 | 14 | 1.5 | P831_0070K202_0280 EZ402U | 1494 | 1494 | 2887 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 128 | 50 |
| 34 | 248 | 278 | 6.5 | 3.4 | P831_0070K202_0250 EZ302U | 828 | 828 | 1125 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.43 | 1.5 | 128 | 47 |
| 34 | 324 | 372 | 8.5 | 2.6 | P831_0070K202_0250 EZ303U | 846 | 846 | 1125 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.54 | 1.5 | 128 | 47 |
| 34 | 381 | 463 | 9.2 | 2.4 | P831_0070K202_0250 EZ401U | 1407 | 1407 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |
| 34 | 563 | 728 | 14 | 1.6 | P831_0070K202_0250 EZ501U | 1494 | 1494 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 128 | 50 |
| 34 | 579 | 811 | 14 | 1.6 | P831_0070K202_0250 EZ402U | 1494 | 1494 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 128 | 50 |
| 34 | 861 | 1291 | 21 | 1.1 | P831_0070K202_0250 EZ502U | 1494 | 1494 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 5.3 | 1.5 | 128 | 51 |
| 34 | 861 | 1308 | 21 | 1.1 | P831_0070K202_0250 EZ701U | 1494 | 1494 | 2887 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 8.6 | 1.5 | 128 | 53 |
| 35 | 376 | 457 | 6.6 | 2.9 | P831_0050K302_0350 EZ401U | 1389 | 1389 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.2 | 2.0 | 128 | 54 |
| 35 | 556 | 719 | 9.7 | 2.0 | P831_0050K302_0350 EZ501U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 3.2 | 2.0 | 128 | 55 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| **P831K ($n_{1N}$ = 6000 min⁻¹, $M_{2acc,max}$ = 1840 Nm)** | | | | | | | | | | | | | | | | | | |
| 35 | 572 | 801 | 10 | 1.9 | P831_0050K302_0350 EZ402U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.9 | 2.0 | 128 | 55 |
| 35 | 850 | 1274 | 15 | 1.3 | P831_0050K302_0350 EZ502U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 5.5 | 2.0 | 128 | 56 |
| 35 | 850 | 1291 | 15 | 1.3 | P831_0050K302_0350 EZ701U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 8.8 | 2.0 | 128 | 58 |
| 35 | 948 | 1372 | 17 | 1.2 | P831_0050K302_0350 EZ404U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 3.2 | 2.0 | 128 | 57 |
| 35 | 1013 | 1732 | 18 | 1.1 | P831_0050K302_0350 EZ503U | 1840 | 1867 | 3230 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 7.8 | 2.0 | 128 | 58 |
| 37 | 229 | 256 | 6.1 | 3.9 | P831_0070K202_0230 EZ302U | 763 | 763 | 1217 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 128 | 47 |
| 37 | 299 | 344 | 7.9 | 3.0 | P831_0070K202_0230 EZ303U | 916 | 916 | 1217 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.64 | 1.5 | 128 | 47 |
| 37 | 351 | 427 | 9.3 | 2.5 | P831_0070K202_0230 EZ401U | 1298 | 1298 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 128 | 49 |
| 37 | 519 | 672 | 14 | 1.7 | P831_0070K202_0230 EZ501U | 1494 | 1494 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 128 | 50 |
| 37 | 534 | 748 | 14 | 1.7 | P831_0070K202_0230 EZ402U | 1494 | 1494 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 128 | 50 |
| 37 | 794 | 1191 | 21 | 1.1 | P831_0070K202_0230 EZ502U | 1494 | 1494 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 5.4 | 1.5 | 128 | 51 |
| 37 | 794 | 1206 | 21 | 1.1 | P831_0070K202_0230 EZ701U | 1494 | 1494 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 8.7 | 1.5 | 128 | 53 |
| 37 | 885 | 1282 | 23 | 1.0 | P831_0070K202_0230 EZ404U | 1494 | 1494 | 2887 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 128 | 52 |
| 42 | 308 | 375 | 9.4 | 2.8 | P831_0070K202_0200 EZ401U | 1138 | 1138 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 128 | 49 |
| 42 | 455 | 589 | 14 | 1.9 | P831_0070K202_0200 EZ501U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 128 | 50 |
| 42 | 469 | 656 | 14 | 1.8 | P831_0070K202_0200 EZ402U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 128 | 50 |
| 42 | 696 | 1044 | 21 | 1.2 | P831_0070K202_0200 EZ502U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 5.4 | 1.5 | 128 | 51 |
| 42 | 696 | 1058 | 21 | 1.2 | P831_0070K202_0200 EZ701U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 8.7 | 1.5 | 128 | 53 |
| 42 | 777 | 1125 | 24 | 1.1 | P831_0070K202_0200 EZ404U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 128 | 52 |
| 42 | 830 | 1419 | 25 | 1.0 | P831_0070K202_0200 EZ503U | 1494 | 1494 | 2887 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 7.8 | 1.5 | 128 | 53 |
| 43 | 302 | 367 | 6.2 | 3.6 | P831_0050K302_0280 EZ401U | 1115 | 1115 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 1.3 | 2.0 | 128 | 54 |
| 43 | 446 | 577 | 9.2 | 2.5 | P831_0050K302_0280 EZ501U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.3 | 2.0 | 128 | 55 |
| 43 | 459 | 643 | 9.5 | 2.4 | P831_0050K302_0280 EZ402U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 2.0 | 2.0 | 128 | 55 |
| 43 | 682 | 1023 | 14 | 1.6 | P831_0050K302_0280 EZ502U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 5.6 | 2.0 | 128 | 56 |
| 43 | 682 | 1036 | 14 | 1.6 | P831_0050K302_0280 EZ701U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 8.9 | 2.0 | 128 | 58 |
| 43 | 761 | 1102 | 16 | 1.4 | P831_0050K302_0280 EZ404U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 128 | 57 |
| 43 | 813 | 1390 | 17 | 1.4 | P831_0050K302_0280 EZ503U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 8.0 | 2.0 | 128 | 58 |
| 43 | 944 | 1876 | 19 | 1.2 | P831_0050K302_0280 EZ702U | 1840 | 1867 | 3230 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 14 | 2.0 | 128 | 61 |
| 51 | 167 | 187 | 7.5 | 4.0 | P831_0070K202_0170 EZ302U | 555 | 555 | 885 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.57 | 1.5 | 128 | 47 |
| 51 | 218 | 250 | 9.8 | 3.1 | P831_0070K202_0170 EZ303U | 666 | 666 | 885 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.68 | 1.5 | 128 | 47 |
| 51 | 255 | 311 | 9.5 | 3.1 | P831_0070K202_0170 EZ401U | 944 | 944 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 128 | 49 |
| 51 | 378 | 489 | 14 | 2.1 | P831_0070K202_0170 EZ501U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 128 | 50 |
| 51 | 389 | 544 | 15 | 2.1 | P831_0070K202_0170 EZ402U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 128 | 50 |
| 51 | 577 | 866 | 22 | 1.4 | P831_0070K202_0170 EZ502U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 5.5 | 1.5 | 128 | 51 |
| 51 | 577 | 877 | 22 | 1.4 | P831_0070K202_0170 EZ701U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 8.8 | 1.5 | 128 | 53 |
| 51 | 644 | 933 | 24 | 1.2 | P831_0070K202_0170 EZ404U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.3 | 1.5 | 128 | 52 |
| 51 | 688 | 1177 | 26 | 1.2 | P831_0070K202_0170 EZ503U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 7.9 | 1.5 | 128 | 53 |
| 51 | 799 | 1588 | 30 | 1.0 | P831_0070K202_0170 EZ702U | 1494 | 1494 | 2887 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 14 | 1.5 | 128 | 56 |
| 52 | 252 | 307 | 5.9 | 4.4 | P831_0050K302_0230 EZ401U | 931 | 931 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 1.4 | 2.0 | 128 | 54 |
| 52 | 373 | 482 | 8.8 | 3.0 | P831_0050K302_0230 EZ501U | 1753 | 1753 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 128 | 55 |
| 52 | 384 | 537 | 9.0 | 2.9 | P831_0050K302_0230 EZ402U | 1753 | 1753 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 2.1 | 2.0 | 128 | 55 |
| 52 | 570 | 855 | 13 | 1.9 | P831_0050K302_0230 EZ502U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 5.7 | 2.0 | 128 | 56 |
| 52 | 570 | 866 | 13 | 1.9 | P831_0050K302_0230 EZ701U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 9.0 | 2.0 | 128 | 58 |
| 52 | 636 | 920 | 15 | 1.7 | P831_0050K302_0230 EZ404U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.5 | 2.0 | 128 | 57 |
| 52 | 679 | 1162 | 16 | 1.6 | P831_0050K302_0230 EZ503U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 8.1 | 2.0 | 128 | 58 |
| 52 | 789 | 1567 | 19 | 1.4 | P831_0050K302_0230 EZ702U | 1840 | 1867 | 3230 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 14 | 2.0 | 128 | 61 |
| **P931K ($n_{1N}$ = 2000 min⁻¹, $M_{2acc,max}$ = 3110 Nm)** | | | | | | | | | | | | | | | | | | |
| 38 | 1915 | 2147 | 61 | 1.1 | P931_0070K402_0075 EZ813U | 3105 | – | 6210 | 52.19 | 12943/248 | 2600 | 2600 | 3800 | 3.5 | 110 | – | 305 | 111 |
| 43 | 1725 | 1935 | 59 | 1.2 | P931_0070K402_0067 EZ813U | 3105 | – | 6210 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 109 | – | 305 | 111 |
| 48 | 1541 | 1728 | 57 | 1.4 | P931_0070K402_0060 EZ813U | 3105 | – | 6210 | 42.00 | 42/1 | 2600 | 2600 | 3800 | 3.5 | 112 | – | 305 | 111 |
| 53 | 1392 | 1562 | 56 | 1.5 | P931_0070K402_0054 EZ813U | 3105 | – | 6210 | 37.95 | 12943/341 | 2600 | 2600 | 3800 | 3.5 | 111 | – | 305 | 111 |
| 53 | 2062 | 2455 | 83 | 1.0 | P931_0070K402_0054 EZ815U | 3105 | – | 6210 | 37.95 | 12943/341 | 2600 | 2600 | 3800 | 3.5 | 174 | – | 305 | 124 |
| 65 | 1121 | 1257 | 57 | 1.7 | P931_0070K402_0044 EZ813U | 3105 | – | 6109 | 30.55 | 336/11 | 2600 | 2600 | 3800 | 3.5 | 114 | – | 305 | 111 |
| 65 | 1660 | 1976 | 85 | 1.2 | P931_0070K402_0044 EZ815U | 3105 | – | 6109 | 30.55 | 336/11 | 2600 | 2600 | 3800 | 3.5 | 177 | – | 305 | 124 |
| 71 | 1027 | 1152 | 58 | 1.8 | P931_0070K402_0040 EZ813U | 3105 | – | 5600 | 28.00 | 28/1 | 2600 | 2600 | 3800 | 3.5 | 115 | – | 305 | 111 |
| 71 | 1521 | 1811 | 86 | 1.2 | P931_0070K402_0040 EZ815U | 3105 | – | 5600 | 28.00 | 28/1 | 2600 | 2600 | 3800 | 3.5 | 178 | – | 305 | 124 |
| **P931K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 3110 Nm)** | | | | | | | | | | | | | | | | | | |
| 6.2 | 1964 | 2146 | 12 | 1.1 | P931_0070K402_0690 EZ501U | 3020 | – | 5349 | 485.4 | 38829/80 | 3600 | 3600 | 5500 | 3.5 | 3.0 | – | 305 | 80 |
| 7.7 | 1578 | 1724 | 11 | 1.3 | P931_0070K402_0560 EZ501U | 3105 | – | 6113 | 389.9 | 17157/44 | 3600 | 3600 | 5500 | 3.5 | 3.1 | – | 305 | 80 |
| 8.5 | 1428 | 1561 | 12 | 1.3 | P931_0070K402_0500 EZ501U | 2196 | – | 3890 | 353.0 | 38829/110 | 3600 | 3600 | 5500 | 3.5 | 3.1 | – | 305 | 80 |
| 9.3 | 1311 | 1433 | 11 | 1.6 | P931_0070K402_0460 EZ501U | 3105 | – | 6210 | 324.2 | 4214/13 | 3600 | 3600 | 5500 | 3.5 | 3.2 | – | 305 | 80 |
| 11 | 1147 | 1254 | 10 | 1.8 | P931_0070K402_0410 EZ501U | 2510 | – | 4446 | 283.6 | 34314/121 | 3600 | 3600 | 5500 | 3.5 | 3.1 | – | 305 | 80 |
| 11 | 1974 | 2135 | 18 | 1.1 | P931_0070K402_0410 EZ502U | 2510 | – | 4446 | 283.6 | 34314/121 | 3600 | 3600 | 5500 | 3.5 | 5.4 | – | 305 | 82 |
| 11 | 1974 | 2215 | 18 | 1.1 | P931_0070K402_0410 EZ701U | 2510 | – | 4446 | 283.6 | 34314/121 | 3600 | 3600 | 5500 | 3.5 | 8.7 | – | 305 | 84 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **P931K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 3110 Nm)** | | | | | | | | | | | | | | | | | | |
| 12 | 984 | 1076 | 9.8 | 2.1 | P931_0070K402_0350 EZ501U | 3105 | – | 5849 | 243.3 | 29197/120 | 3600 | 3600 | 5500 | 3.5 | 3.4 | – | 305 | 80 |
| 12 | 1694 | 1831 | 17 | 1.2 | P931_0070K402_0350 EZ502U | 3105 | – | 5849 | 243.3 | 29197/120 | 3600 | 3600 | 5500 | 3.5 | 5.7 | – | 305 | 82 |
| 12 | 1694 | 1900 | 17 | 1.2 | P931_0070K402_0350 EZ701U | 3105 | – | 6210 | 243.3 | 29197/120 | 3600 | 3600 | 5500 | 3.5 | 9.0 | – | 305 | 84 |
| 13 | 954 | 1043 | 9.7 | 2.2 | P931_0070K402_0340 EZ501U | 3105 | – | 5125 | 235.7 | 33712/143 | 3600 | 3600 | 5500 | 3.5 | 3.2 | – | 305 | 80 |
| 13 | 1641 | 1775 | 17 | 1.3 | P931_0070K402_0340 EZ502U | 3105 | – | 5125 | 235.7 | 33712/143 | 3600 | 3600 | 5500 | 3.5 | 5.5 | – | 305 | 82 |
| 13 | 1641 | 1841 | 17 | 1.3 | P931_0070K402_0340 EZ701U | 3105 | – | 5125 | 235.7 | 33712/143 | 3600 | 3600 | 5500 | 3.5 | 8.8 | – | 305 | 84 |
| 15 | 787 | 860 | 9.3 | 2.7 | P931_0070K402_0280 EZ501U | 2927 | – | 5382 | 194.4 | 9331/48 | 3600 | 3600 | 5500 | 3.5 | 3.6 | – | 305 | 80 |
| 15 | 1354 | 1463 | 16 | 1.6 | P931_0070K402_0280 EZ502U | 3105 | – | 5382 | 194.4 | 9331/48 | 3600 | 3600 | 5500 | 3.5 | 5.9 | – | 305 | 82 |
| 15 | 1354 | 1518 | 16 | 1.6 | P931_0070K402_0280 EZ701U | 3105 | – | 6210 | 194.4 | 9331/48 | 3600 | 3600 | 5500 | 3.5 | 9.2 | – | 305 | 84 |
| 15 | 1774 | 2030 | 21 | 1.2 | P931_0070K402_0280 EZ503U | 3105 | – | 5382 | 194.4 | 9331/48 | 3600 | 3600 | 5500 | 3.5 | 8.2 | – | 305 | 83 |
| 17 | 716 | 783 | 9.1 | 2.9 | P931_0070K402_0250 EZ501U | 2664 | – | 4254 | 177.0 | 29197/165 | 3600 | 3600 | 5500 | 3.5 | 3.4 | – | 305 | 80 |
| 17 | 1232 | 1332 | 16 | 1.7 | P931_0070K402_0250 EZ502U | 3105 | – | 4254 | 177.0 | 29197/165 | 3600 | 3600 | 5500 | 3.5 | 5.7 | – | 305 | 82 |
| 17 | 1232 | 1382 | 16 | 1.7 | P931_0070K402_0250 EZ701U | 3105 | – | 6210 | 177.0 | 29197/165 | 3600 | 3600 | 5500 | 3.5 | 9.0 | – | 305 | 84 |
| 17 | 1615 | 1848 | 20 | 1.3 | P931_0070K402_0250 EZ503U | 3105 | – | 4254 | 177.0 | 29197/165 | 3600 | 3600 | 5500 | 3.5 | 8.1 | – | 305 | 83 |
| 17 | 1998 | 2398 | 25 | 1.1 | P931_0070K402_0250 EZ702U | 3105 | – | 6210 | 177.0 | 29197/165 | 3600 | 3600 | 5500 | 3.5 | 14 | – | 305 | 86 |
| 18 | 660 | 721 | 8.9 | 3.2 | P931_0070K402_0230 EZ501U | 2455 | – | 4892 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 3.8 | – | 305 | 80 |
| 18 | 1135 | 1227 | 15 | 1.9 | P931_0070K402_0230 EZ502U | 3105 | – | 4892 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 6.1 | – | 305 | 82 |
| 18 | 1135 | 1273 | 15 | 1.9 | P931_0070K402_0230 EZ701U | 3068 | – | 6210 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 9.4 | – | 305 | 84 |
| 18 | 1488 | 1703 | 20 | 1.4 | P931_0070K402_0230 EZ503U | 3105 | – | 4892 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 8.5 | – | 305 | 83 |
| 18 | 1841 | 2209 | 25 | 1.1 | P931_0070K402_0230 EZ702U | 3105 | – | 6210 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 15 | – | 305 | 86 |
| 18 | 2071 | 2455 | 28 | 1.0 | P931_0070K402_0230 EZ505U | 3105 | – | 6210 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 21 | 572 | 625 | 8.6 | 3.7 | P931_0070K402_0200 EZ501U | 2128 | – | 3914 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 3.7 | – | 305 | 80 |
| 21 | 984 | 1064 | 15 | 2.1 | P931_0070K402_0200 EZ502U | 2946 | – | 3914 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 6.0 | – | 305 | 82 |
| 21 | 984 | 1104 | 15 | 2.1 | P931_0070K402_0200 EZ701U | 2660 | – | 6210 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 9.3 | – | 305 | 84 |
| 21 | 1290 | 1477 | 19 | 1.6 | P931_0070K402_0200 EZ503U | 2946 | – | 3914 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 8.3 | – | 305 | 83 |
| 21 | 1596 | 1916 | 24 | 1.3 | P931_0070K402_0200 EZ702U | 3105 | – | 6210 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 14 | – | 305 | 86 |
| 21 | 1796 | 2128 | 27 | 1.2 | P931_0070K402_0200 EZ505U | 3105 | – | 6210 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 25 | 848 | 951 | 14 | 2.5 | P931_0070K402_0175 EZ701U | 2293 | – | 6210 | 121.8 | 731/6 | 3400 | 3400 | 5000 | 3.5 | 9.9 | – | 305 | 84 |
| 25 | 1376 | 1651 | 23 | 1.5 | P931_0070K402_0175 EZ702U | 3105 | – | 6210 | 121.8 | 731/6 | 3400 | 3400 | 5000 | 3.5 | 15 | – | 305 | 86 |
| 25 | 1548 | 1834 | 26 | 1.4 | P931_0070K402_0175 EZ505U | 3105 | – | 6210 | 121.8 | 731/6 | 3400 | 3400 | 5000 | 3.5 | 14 | – | 305 | 86 |
| 25 | 1891 | 2384 | 32 | 1.1 | P931_0070K402_0175 EZ703U | 3105 | – | 6210 | 121.8 | 731/6 | 3400 | 3400 | 5000 | 3.5 | 23 | – | 305 | 88 |
| 25 | 480 | 524 | 8.2 | 4.4 | P931_0070K402_0170 EZ501U | 1785 | – | 3558 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 3.9 | – | 305 | 80 |
| 25 | 826 | 893 | 14 | 2.5 | P931_0070K402_0170 EZ502U | 2678 | – | 3558 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 6.2 | – | 305 | 82 |
| 25 | 826 | 926 | 14 | 2.5 | P931_0070K402_0170 EZ701U | 2231 | – | 6210 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 9.5 | – | 305 | 84 |
| 25 | 1082 | 1238 | 19 | 1.9 | P931_0070K402_0170 EZ503U | 2678 | – | 3558 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 8.6 | – | 305 | 83 |
| 25 | 1339 | 1607 | 23 | 1.6 | P931_0070K402_0170 EZ702U | 3105 | – | 6210 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 15 | – | 305 | 86 |
| 25 | 1506 | 1785 | 26 | 1.4 | P931_0070K402_0170 EZ505U | 3105 | – | 6210 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 25 | 1841 | 2321 | 31 | 1.1 | P931_0070K402_0170 EZ703U | 3105 | – | 6210 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 23 | – | 305 | 88 |
| 31 | 677 | 759 | 13 | 3.1 | P931_0070K402_0140 EZ701U | 1829 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 11 | – | 305 | 84 |
| 31 | 1097 | 1317 | 22 | 1.9 | P931_0070K402_0140 EZ702U | 3105 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 16 | – | 305 | 86 |
| 31 | 1235 | 1463 | 25 | 1.7 | P931_0070K402_0140 EZ505U | 3105 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 14 | – | 305 | 86 |
| 31 | 1509 | 1902 | 30 | 1.4 | P931_0070K402_0140 EZ703U | 3105 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 24 | – | 305 | 88 |
| 31 | 1948 | 2762 | 39 | 1.1 | P931_0070K402_0140 EZ705U | 3105 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 36 | – | 305 | 94 |
| 34 | 617 | 692 | 13 | 3.4 | P931_0070K402_0125 EZ701U | 1667 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 10 | – | 305 | 84 |
| 34 | 1000 | 1201 | 21 | 2.1 | P931_0070K402_0125 EZ702U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 15 | – | 305 | 86 |
| 34 | 1125 | 1334 | 24 | 1.9 | P931_0070K402_0125 EZ505U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 14 | – | 305 | 86 |
| 34 | 1376 | 1734 | 29 | 1.5 | P931_0070K402_0125 EZ703U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 23 | – | 305 | 88 |
| 34 | 1776 | 2518 | 38 | 1.2 | P931_0070K402_0125 EZ705U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 36 | – | 305 | 94 |
| 37 | 561 | 630 | 13 | 3.7 | P931_0070K402_0115 EZ701U | 1517 | – | 6049 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 11 | – | 305 | 84 |
| 37 | 910 | 1092 | 21 | 2.3 | P931_0070K402_0115 EZ702U | 3105 | – | 6049 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 16 | – | 305 | 86 |
| 37 | 1024 | 1214 | 23 | 2.1 | P931_0070K402_0115 EZ505U | 3105 | – | 6049 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 15 | – | 305 | 86 |
| 37 | 1252 | 1578 | 29 | 1.7 | P931_0070K402_0115 EZ703U | 3105 | – | 6049 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 24 | – | 305 | 88 |
| 37 | 1616 | 2291 | 37 | 1.3 | P931_0070K402_0115 EZ705U | 3105 | – | 6210 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 37 | – | 305 | 94 |
| 42 | 492 | 552 | 12 | 4.3 | P931_0070K402_0100 EZ701U | 1330 | – | 5302 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 11 | – | 305 | 84 |
| 42 | 798 | 958 | 20 | 2.6 | P931_0070K402_0100 EZ702U | 2727 | – | 5302 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 16 | – | 305 | 86 |
| 42 | 898 | 1064 | 23 | 2.3 | P931_0070K402_0100 EZ505U | 3105 | – | 5302 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 15 | – | 305 | 86 |
| 42 | 1097 | 1383 | 28 | 1.9 | P931_0070K402_0100 EZ703U | 3105 | – | 5302 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 24 | – | 305 | 88 |
| 42 | 1417 | 2009 | 36 | 1.5 | P931_0070K402_0100 EZ705U | 3105 | – | 6210 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 36 | – | 305 | 94 |
| 46 | 450 | 505 | 12 | 4.7 | P931_0070K402_0092 EZ701U | 1217 | – | 4852 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 12 | – | 305 | 84 |
| 46 | 730 | 876 | 20 | 2.9 | P931_0070K402_0092 EZ702U | 2495 | – | 4852 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 17 | – | 305 | 86 |
| 46 | 821 | 974 | 22 | 2.6 | P931_0070K402_0092 EZ505U | 3105 | – | 4852 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 16 | – | 305 | 86 |
| 46 | 1004 | 1266 | 27 | 2.1 | P931_0070K402_0092 EZ703U | 3105 | – | 4852 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 25 | – | 305 | 88 |
| 46 | 1296 | 1837 | 35 | 1.6 | P931_0070K402_0092 EZ705U | 3105 | – | 6210 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 38 | – | 305 | 94 |
| 51 | 662 | 794 | 19 | 3.2 | P931_0070K402_0084 EZ702U | 2262 | – | 4399 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 17 | – | 305 | 86 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| **P931K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 3110 Nm)** | | | | | | | | | | | | | | | | | | |
| 51 | 745 | 883 | 22 | 2.8 | P931_0070K402_0084 EZ505U | 3105 | – | 4399 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 15 | – | 305 | 86 |
| 51 | 910 | 1148 | 26 | 2.3 | P931_0070K402_0084 EZ703U | 3105 | – | 4399 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 25 | – | 305 | 88 |
| 51 | 1175 | 1666 | 34 | 1.8 | P931_0070K402_0084 EZ705U | 3105 | – | 6210 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 37 | – | 305 | 94 |
| 57 | 1046 | 1483 | 34 | 1.9 | P931_0070K402_0075 EZ705U | 3105 | – | 6210 | 52.19 | 12943/248 | 2600 | 2600 | 3800 | 3.5 | 39 | – | 305 | 94 |
| 64 | 531 | 637 | 19 | 3.7 | P931_0070K402_0067 EZ702U | 1814 | – | 3529 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 18 | – | 305 | 86 |
| 64 | 597 | 708 | 22 | 3.3 | P931_0070K402_0067 EZ505U | 2656 | – | 3529 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 17 | – | 305 | 86 |
| 64 | 730 | 920 | 27 | 2.7 | P931_0070K402_0067 EZ703U | 2656 | – | 3529 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 26 | – | 305 | 88 |
| 64 | 943 | 1336 | 35 | 2.1 | P931_0070K402_0067 EZ705U | 3105 | – | 6210 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 39 | – | 305 | 94 |
| 71 | 842 | 1193 | 35 | 2.2 | P931_0070K402_0060 EZ705U | 3105 | – | 6210 | 42.00 | 42/1 | 2600 | 2600 | 3800 | 3.5 | 41 | – | 305 | 94 |
| 79 | 761 | 1078 | 35 | 2.4 | P931_0070K402_0054 EZ705U | 3105 | – | 6210 | 37.95 | 12943/341 | 2600 | 2600 | 3800 | 3.5 | 41 | – | 305 | 94 |
| 98 | 612 | 868 | 36 | 2.8 | P931_0070K402_0044 EZ705U | 2989 | – | 6109 | 30.55 | 336/11 | 2600 | 2600 | 3800 | 3.5 | 43 | – | 305 | 94 |
| 107 | 561 | 796 | 36 | 2.9 | P931_0070K402_0040 EZ705U | 2740 | – | 5600 | 28.00 | 28/1 | 2600 | 2600 | 3800 | 3.5 | 45 | – | 305 | 94 |
| **P931K ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 3110 Nm)** | | | | | | | | | | | | | | | | | | |
| 45 | 2101 | 3643 | 45 | 1.0 | P931_0070K402_0125 EZ813U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 106 | – | 305 | 111 |
| 50 | 1912 | 3315 | 44 | 1.1 | P931_0070K402_0115 EZ813U | 3105 | – | 6210 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 107 | – | 305 | 111 |
| 50 | 1981 | 5093 | 45 | 1.1 | P931_0070K402_0115 EZ815U | 3105 | – | 6210 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 170 | – | 305 | 124 |
| 57 | 1676 | 2906 | 44 | 1.2 | P931_0070K402_0100 EZ813U | 3105 | – | 6210 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 107 | – | 305 | 111 |
| 57 | 1737 | 4465 | 45 | 1.2 | P931_0070K402_0100 EZ815U | 3105 | – | 6210 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 170 | – | 305 | 124 |
| 62 | 1533 | 2659 | 44 | 1.3 | P931_0070K402_0092 EZ813U | 3105 | – | 6210 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 108 | – | 305 | 111 |
| 62 | 1589 | 4085 | 45 | 1.2 | P931_0070K402_0092 EZ815U | 3105 | – | 6210 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 171 | – | 305 | 124 |
| 68 | 1390 | 2411 | 44 | 1.4 | P931_0070K402_0084 EZ813U | 3105 | – | 6210 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 108 | – | 305 | 111 |
| 68 | 1441 | 3704 | 46 | 1.3 | P931_0070K402_0084 EZ815U | 3105 | – | 6210 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 171 | – | 305 | 124 |
| 85 | 1115 | 1934 | 45 | 1.6 | P931_0070K402_0067 EZ813U | 3105 | – | 6210 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 109 | – | 305 | 111 |
| 85 | 1155 | 2971 | 47 | 1.5 | P931_0070K402_0067 EZ815U | 3105 | – | 6210 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 172 | – | 305 | 124 |
| **P931K ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 3110 Nm)** | | | | | | | | | | | | | | | | | | |
| 23 | 1738 | 2798 | 21 | 1.2 | P931_0070K402_0280 EZ505U | 3105 | – | 6210 | 194.4 | 9331/48 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 25 | 1582 | 2547 | 20 | 1.3 | P931_0070K402_0250 EZ505U | 3105 | – | 6210 | 177.0 | 29197/165 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 25 | 2015 | 3330 | 26 | 1.0 | P931_0070K402_0250 EZ703U | 3105 | – | 6210 | 177.0 | 29197/165 | 3600 | 3600 | 5500 | 3.5 | 22 | – | 305 | 88 |
| 28 | 1457 | 2347 | 20 | 1.4 | P931_0070K402_0230 EZ505U | 3105 | – | 6210 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 28 | 1856 | 3068 | 25 | 1.1 | P931_0070K402_0230 EZ703U | 3105 | – | 6210 | 163.0 | 3913/24 | 3600 | 3600 | 5500 | 3.5 | 23 | – | 305 | 88 |
| 32 | 1264 | 2035 | 19 | 1.7 | P931_0070K402_0200 EZ505U | 3105 | – | 6210 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 32 | 1610 | 2660 | 24 | 1.3 | P931_0070K402_0200 EZ703U | 3105 | – | 6210 | 141.4 | 9331/66 | 3600 | 3600 | 5500 | 3.5 | 22 | – | 305 | 88 |
| 37 | 1089 | 1754 | 18 | 1.9 | P931_0070K402_0175 EZ505U | 3105 | – | 6210 | 121.8 | 731/6 | 3400 | 3400 | 5000 | 3.5 | 14 | – | 305 | 86 |
| 37 | 1387 | 2293 | 23 | 1.5 | P931_0070K402_0175 EZ703U | 3105 | – | 6210 | 121.8 | 731/6 | 3400 | 3400 | 5000 | 3.5 | 23 | – | 305 | 88 |
| 37 | 1880 | 3439 | 32 | 1.1 | P931_0070K402_0175 EZ705U | 3105 | – | 6210 | 121.8 | 731/6 | 3400 | 3400 | 5000 | 3.5 | 35 | – | 305 | 94 |
| 38 | 1060 | 1707 | 18 | 2.0 | P931_0070K402_0170 EZ505U | 3105 | – | 6210 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 13 | – | 305 | 86 |
| 38 | 1350 | 2231 | 23 | 1.6 | P931_0070K402_0170 EZ703U | 3105 | – | 6210 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 23 | – | 305 | 88 |
| 38 | 1830 | 3347 | 31 | 1.1 | P931_0070K402_0170 EZ705U | 3105 | – | 6210 | 118.6 | 3913/33 | 3600 | 3600 | 5500 | 3.5 | 35 | – | 305 | 94 |
| 46 | 869 | 1399 | 17 | 2.4 | P931_0070K402_0140 EZ505U | 3105 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 14 | – | 305 | 86 |
| 46 | 1107 | 1829 | 22 | 1.9 | P931_0070K402_0140 EZ703U | 3105 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 24 | – | 305 | 88 |
| 46 | 1500 | 2744 | 30 | 1.4 | P931_0070K402_0140 EZ705U | 3105 | – | 6210 | 97.20 | 9331/96 | 3400 | 3400 | 5000 | 3.5 | 36 | – | 305 | 94 |
| 51 | 792 | 1276 | 17 | 2.7 | P931_0070K402_0125 EZ505U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 14 | – | 305 | 86 |
| 51 | 1009 | 1667 | 21 | 2.1 | P931_0070K402_0125 EZ703U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 23 | – | 305 | 88 |
| 51 | 1367 | 2501 | 29 | 1.5 | P931_0070K402_0125 EZ705U | 3105 | – | 6210 | 88.61 | 2924/33 | 3400 | 3400 | 5000 | 3.5 | 36 | – | 305 | 94 |
| 56 | 721 | 1161 | 17 | 2.8 | P931_0070K402_0115 EZ505U | 3105 | – | 6049 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 15 | – | 305 | 86 |
| 56 | 918 | 1517 | 22 | 2.2 | P931_0070K402_0115 EZ703U | 3105 | – | 6049 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 24 | – | 305 | 88 |
| 56 | 1244 | 2276 | 29 | 1.6 | P931_0070K402_0115 EZ705U | 3105 | – | 6210 | 80.63 | 645/8 | 3000 | 3000 | 4500 | 3.5 | 37 | – | 305 | 94 |
| 64 | 632 | 1018 | 17 | 3.1 | P931_0070K402_0100 EZ505U | 3105 | – | 5302 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 15 | – | 305 | 86 |
| 64 | 805 | 1330 | 22 | 2.4 | P931_0070K402_0100 EZ703U | 3105 | – | 5302 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 24 | – | 305 | 88 |
| 64 | 1091 | 1995 | 29 | 1.8 | P931_0070K402_0100 EZ705U | 3105 | – | 6210 | 70.69 | 9331/132 | 3400 | 3400 | 5000 | 3.5 | 36 | – | 305 | 94 |
| 70 | 578 | 931 | 17 | 3.3 | P931_0070K402_0092 EZ505U | 3105 | – | 4852 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 16 | – | 305 | 86 |
| 70 | 736 | 1217 | 22 | 2.6 | P931_0070K402_0092 EZ703U | 3105 | – | 4852 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 25 | – | 305 | 88 |
| 70 | 998 | 1825 | 30 | 1.9 | P931_0070K402_0092 EZ705U | 3105 | – | 6210 | 64.67 | 16555/256 | 3000 | 3000 | 4500 | 3.5 | 38 | – | 305 | 94 |
| 77 | 524 | 844 | 17 | 3.5 | P931_0070K402_0084 EZ505U | 3105 | – | 4399 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 15 | – | 305 | 86 |
| 77 | 668 | 1103 | 22 | 2.8 | P931_0070K402_0084 EZ703U | 3105 | – | 4399 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 25 | – | 305 | 88 |
| 77 | 905 | 1655 | 30 | 2.0 | P931_0070K402_0084 EZ705U | 3105 | – | 6210 | 58.64 | 645/11 | 3000 | 3000 | 4500 | 3.5 | 37 | – | 305 | 94 |
| 96 | 420 | 677 | 18 | 4.1 | P931_0070K402_0067 EZ505U | 2656 | – | 3529 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 17 | – | 305 | 86 |
| 96 | 535 | 885 | 23 | 3.2 | P931_0070K402_0067 EZ703U | 2656 | – | 3529 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 26 | – | 305 | 88 |
| 96 | 726 | 1328 | 30 | 2.4 | P931_0070K402_0067 EZ705U | 3105 | – | 6210 | 47.03 | 1505/32 | 3000 | 3000 | 4500 | 3.5 | 39 | – | 305 | 94 |

# 11.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

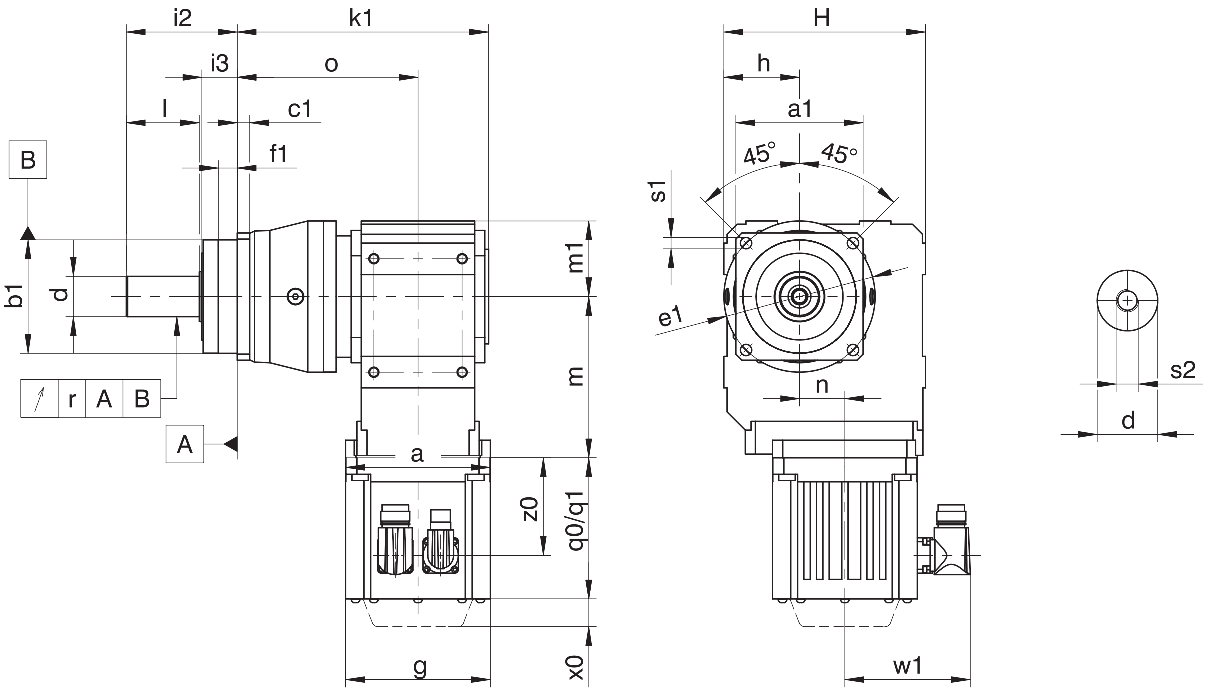
**Tolerances**

| Solid shaft | Tolerance |
|---|---|
| Fit | ISO k6 |
| Feather keys | DIN 6885-1, high form A |
| Balancing | With half feather key |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 11.3.1 G shaft design (solid shaft without feather key)




q0 Applies to motors without brake.

x0 Applies to encoders using an optical measuring method.

– The radial runout specification applies only to the reinforced bearing D.

q1 Applies to motors with brake.

w1 Different for the One Cable Solution (OCS), see the chapter [▸ 17.4]

**Dimensions of gearboxes**

| Type | □a1 | ∅b1 | c1 | ∅d | ∅e1 | f1 | h | H | i2 | i3 | k1 | l | m1 | o | r | ∅s1 | s2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P531_K102_ | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 60 | 160 | 88 | 28 | 199.5 | 58 | 60.0 | 143.5 | 0.030 | 9.0 | M12 |
| P731_K102_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 60 | 160 | 112 | 27 | 212.5 | 82 | 75.0 | 156.5 | 0.035 | 11.0 | M16 |
| P731_K202_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 65 | 190 | 112 | 27 | 240.5 | 82 | 75.0 | 170.5 | 0.035 | 11.0 | M16 |
| P831_K202_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 65 | 190 | 112 | 27 | 277.5 | 82 | 102.0 | 207.5 | 0.035 | 13.5 | M20 |
| P831_K302_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 75 | 213 | 112 | 27 | 291.0 | 82 | 102.0 | 215.0 | 0.035 | 13.5 | M20 |
| P931_K402_ | 212 | $180_{h6}$ | 17 | $75_{k6}$ | 250 | 10.0 | 90 | 240 | 143 | 34 | 350.5 | 105 | 115.0 | 260.5 | 0.040 | 17.5 | M20 |

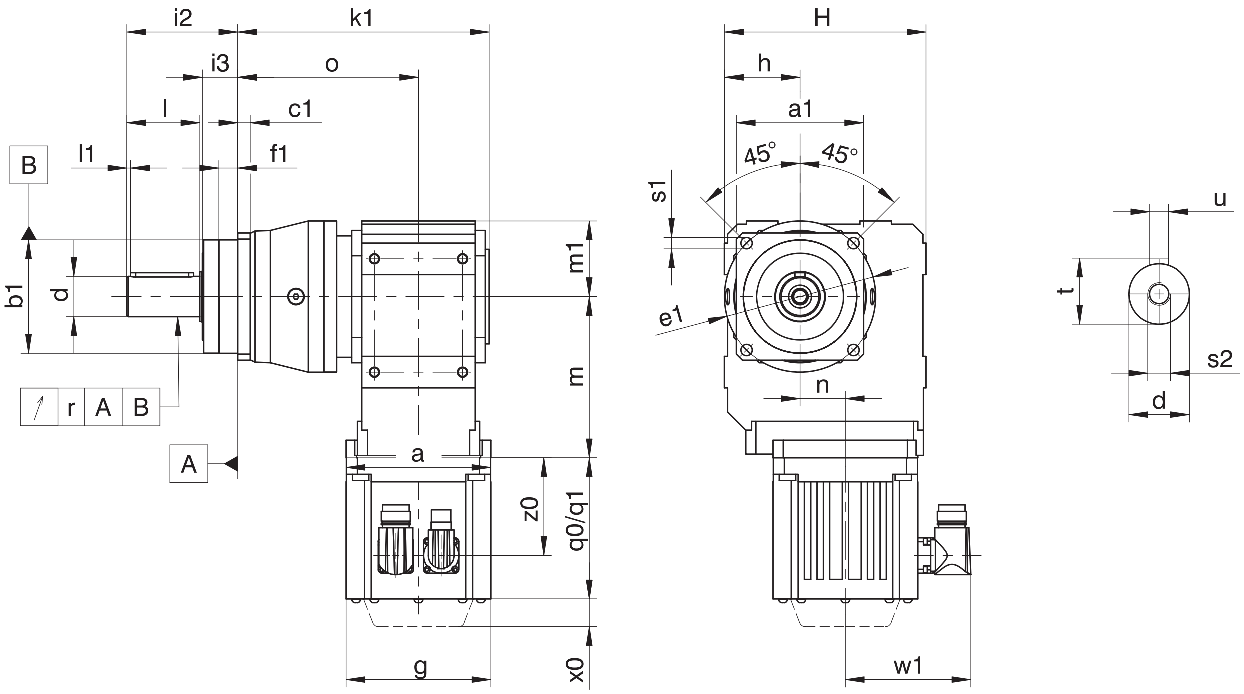
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| P531_K102_ | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| P731_K102_ | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| P731_K202_ | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| P831_K202_ | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| P831_K302_ | – | – | – | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| P931_K402_ | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |

## 11.3.2 P shaft design (solid shaft with feather key)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▶ 17.4] |
| – | The radial runout specification applies only to the reinforced bearing D. | | |

**Dimensions of gearboxes**

| Type | □a1 | ∅b1 | c1 | ∅d | ∅e1 | f1 | h | H | i2 | i3 | k1 | l | l1 | m1 | o | r | ∅s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P531_K102_ | 101 | $90_{h6}$ | 10 | $32_{k6}$ | 120 | 15.0 | 60 | 160 | 88 | 28 | 199.5 | 58 | 3 | 60.0 | 143.5 | 0.030 | 9.0 | M12 | 35.0 | A10×8×50 |
| P731_K102_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 60 | 160 | 112 | 27 | 212.5 | 82 | 4 | 75.0 | 156.5 | 0.035 | 11.0 | M16 | 43.0 | A12×8×70 |
| P731_K202_ | 144 | $130_{h6}$ | 15 | $40_{k6}$ | 165 | 3.5 | 65 | 190 | 112 | 27 | 240.5 | 82 | 4 | 75.0 | 170.5 | 0.035 | 11.0 | M16 | 43.0 | A12×8×70 |
| P831_K202_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 65 | 190 | 112 | 27 | 277.5 | 82 | 6 | 102.0 | 207.5 | 0.035 | 13.5 | M20 | 59.0 | A16×10×70 |
| P831_K302_ | 190 | $160_{h6}$ | 15 | $55_{k6}$ | 215 | 10.0 | 75 | 213 | 112 | 27 | 291.0 | 82 | 6 | 102.0 | 215.0 | 0.035 | 13.5 | M20 | 59.0 | A16×10×70 |
| P931_K402_ | 212 | $180_{h6}$ | 17 | $75_{k6}$ | 250 | 10.0 | 90 | 240 | 143 | 34 | 350.5 | 105 | 7 | 115.0 | 260.5 | 0.040 | 17.5 | M20 | 79.5 | A20×12×90 |

**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| P531_K102_ | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| P731_K102_ | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| P731_K202_ | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| P831_K202_ | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| P831_K302_ | – | – | – | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| P931_K402_ | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |

# 11.4 Type designation

In this chapter, you can find an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| P | 5 | 3 | 1 | S | G | S | S | 0050 | K102VF | 0060 | EZ401U |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **P** | Type | Planetary gearbox |
| **5** | Size | 5 (example) |
| **3** | Generation | Generation 3 |
| **1** | Stages | Single-stage |
| **S** | Housing | Standard |
| **G** | Shaft | Solid shaft without feather key |
| P | | Solid shaft with feather key |
| **S** | Bearing | Standard bearing |
| D | | Axially reinforced bearing (P3 – P9) |
| Z | | Radially reinforced bearing (P3 – P9)[1] |
| **S** | Backlash | Standard |
| R | | Reduced |
| **0050** | Transmission ratio of output (i x 10) | i = 5 (example) |
| **K102VF** | Input | K1 right-angle geared motor (example) |
| **0060** | Transmission ratio of input (i x 10) | i = 6 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- For a detailed type designation of the motor, see the chapter [▷ 17.5]
- For the mounting position, see the chapter [▷ 11.5.3]
- Output gearbox side 3 or 4, see the chapter [▷ 11.5.3]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▷ 11.6.3]
- Position of the plug connectors, see the chapter [▷ 11.5.5]
- Reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▷ 11.6.4]

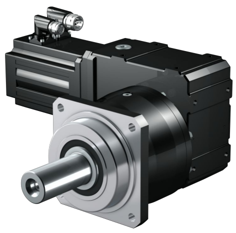
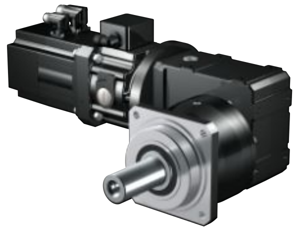
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▷ 17.5.1].

[1] Not for reduced-backlash option.

# 11.5 Product description

## 11.5.1 Input options

| EZ synchronous servo motor | MB motor adapter + EZ synchronous servo motor |
|---|---|
|  |  |
| Catalog ID 442437_en | Catalog ID 443311_en |

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 11.5.2 Installation conditions

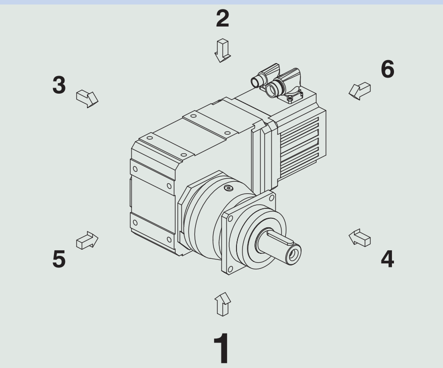
The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 12.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

## 11.5.3 Mounting positions

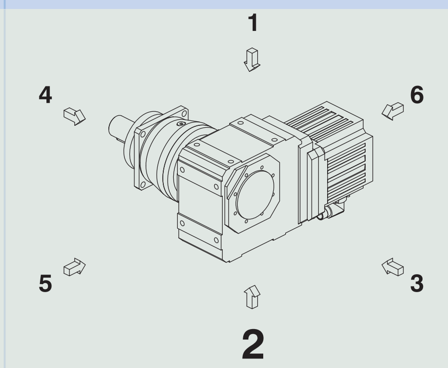
The following table shows the standard mounting positions.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

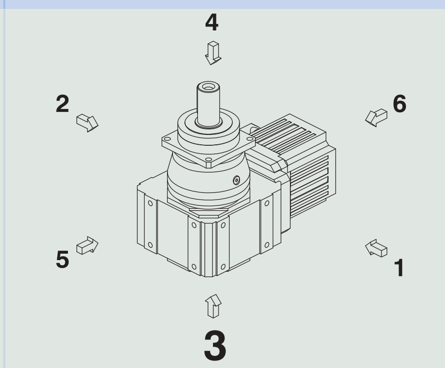
**EL1**



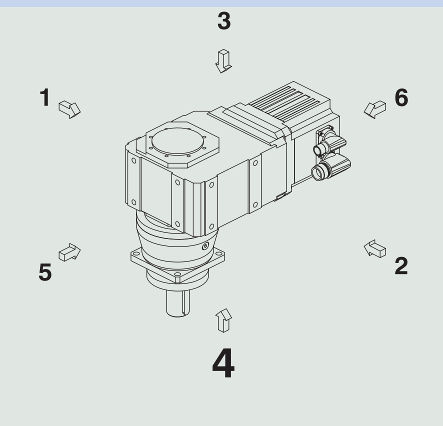

**EL2**



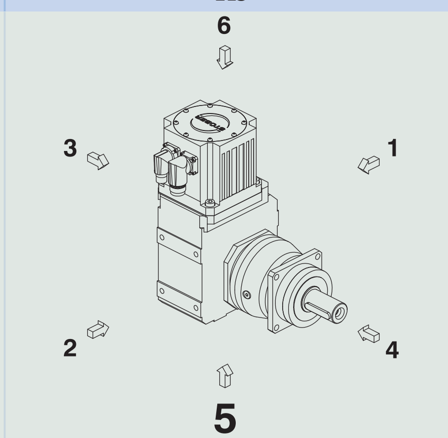

**EL3**



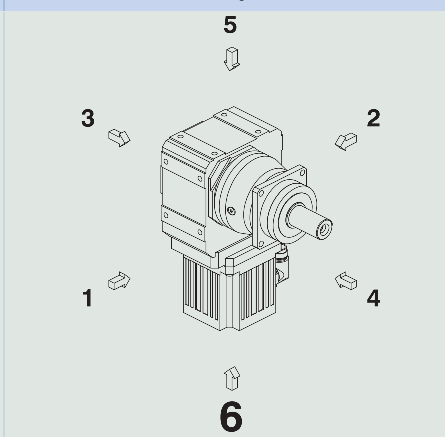

**EL4**




**EL5**




**EL6**




Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

## 11.5.4 Lubricants

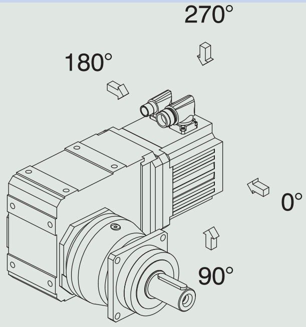
STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

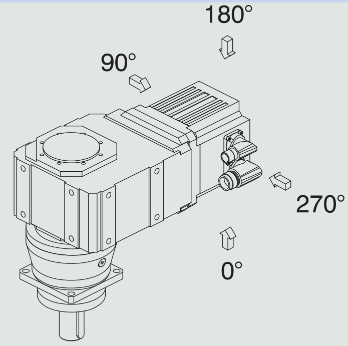
Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 11.5.5 Position of the plug connectors

| Mounting position EL1<br>Plug connector in 270° position (standard) | Mounting position EL4<br>Plug connector in 270° position (standard) |
|---|---|




Indicate variations for your geared motor in the order.

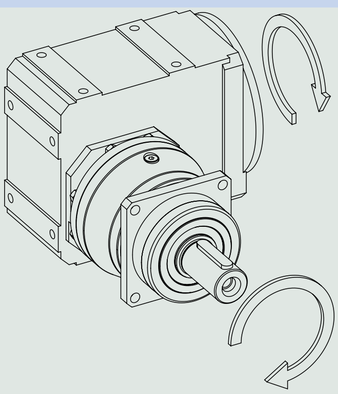
Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

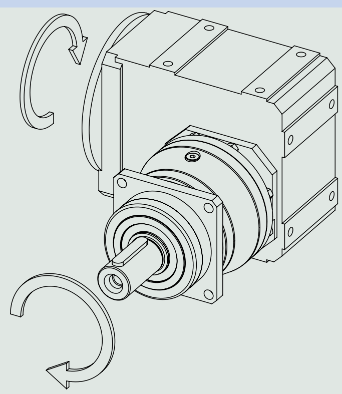
## 11.5.6 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ three-stage | 94% |
| **Protection class:**[2] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 11.5.7 Direction of rotation

| Output side 4 | Output side 3 |
|---|---|





The pictures show mounting position EL1.

[2] Observe the protection class of all the components.

## 11.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

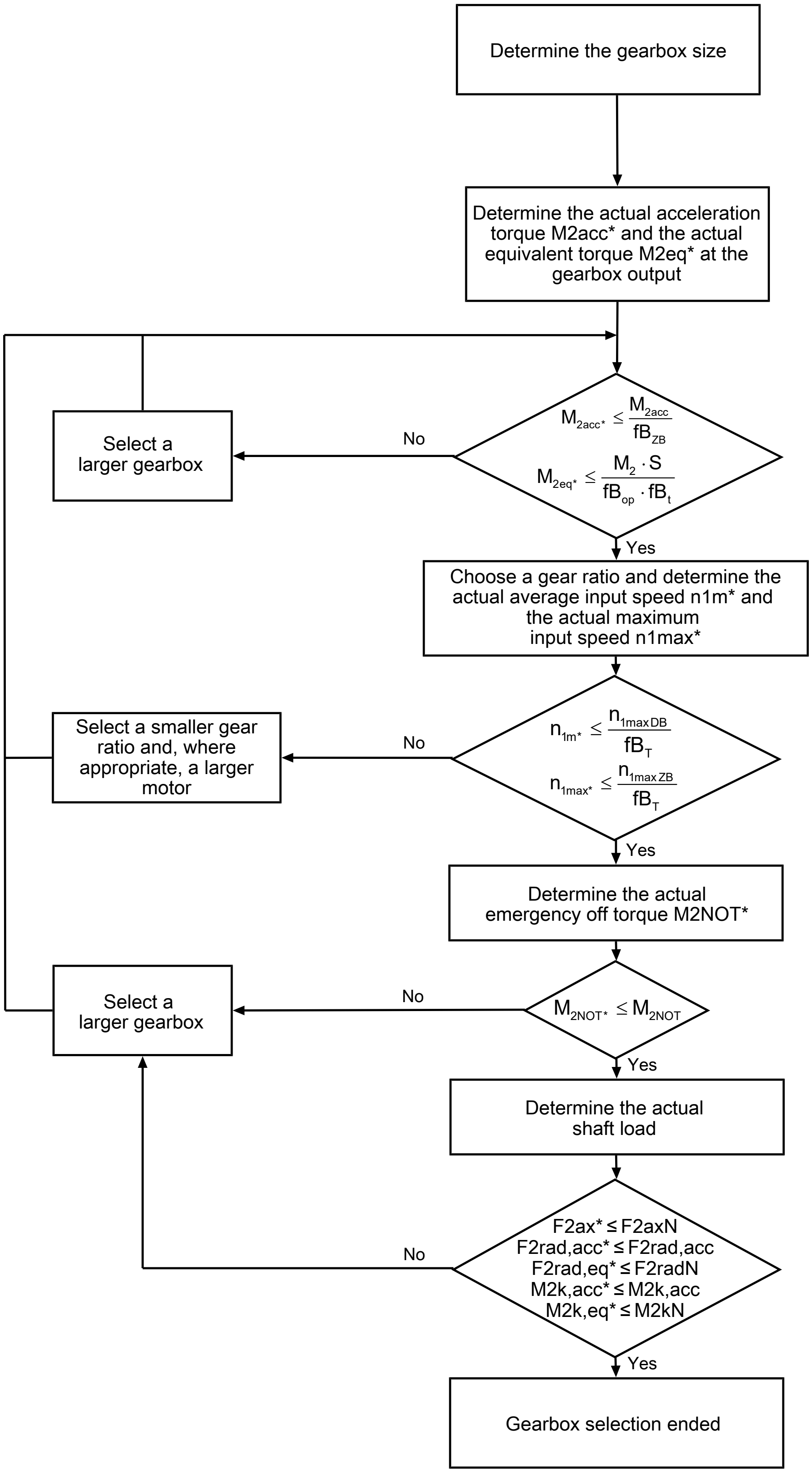
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [ 20.1].

The formula symbols for values actually present in the application are marked with *.

### 11.6.1 Drive selection

**Drive selection for gearboxes**

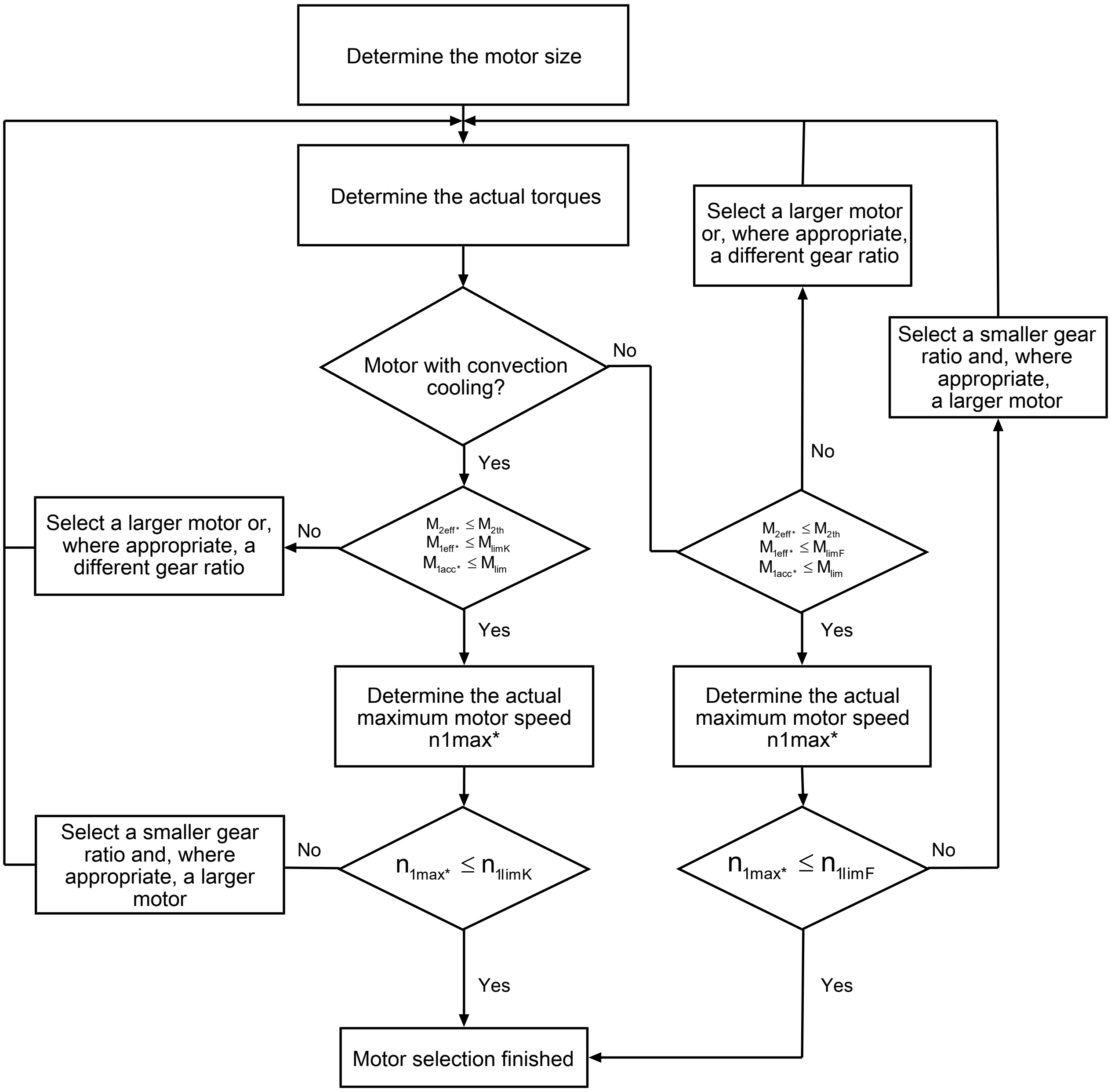



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

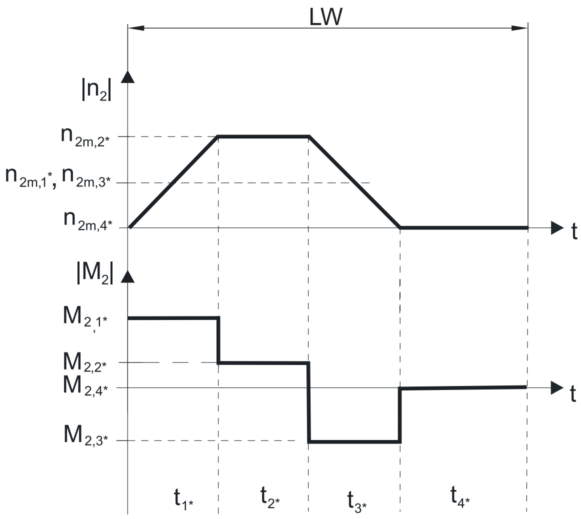
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc^*} = J_{tot} \cdot \frac{\Delta n_2}{9,55 \cdot \Delta t} + M_{L^*}$$

$$M_{1acc^*} = \frac{M_{2acc^*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9,55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m^*} = n_{2m^*} \cdot i$$

$$n_{2m^*} = \frac{|n_{2m,1^*}| \cdot t_{1^*} + ... + |n_{2m,n^*}| \cdot t_{n^*}}{t_{1^*} + ... + t_{n^*}}$$

If $t_{1^*}$ + ... + $t_{3^*}$ ≥ 6 min, calculate $n_{2m^*}$ without the rest phase $t_{4^*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff^*} = \sqrt{\frac{t_{1^*} \cdot M_{2,1^*}{}^2 + ... + t_{n^*} \cdot M_{2,n^*}{}^2}{t_{1^*} + ... + t_{n^*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT^*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L^*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2,1^*}{}^3| + ... + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + ... + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m^*}$. (At $K_{mot,th}$ ≤ 0 you must reduce the average input speed $n_{1m^*}$ accordingly or select another geared motor size.)

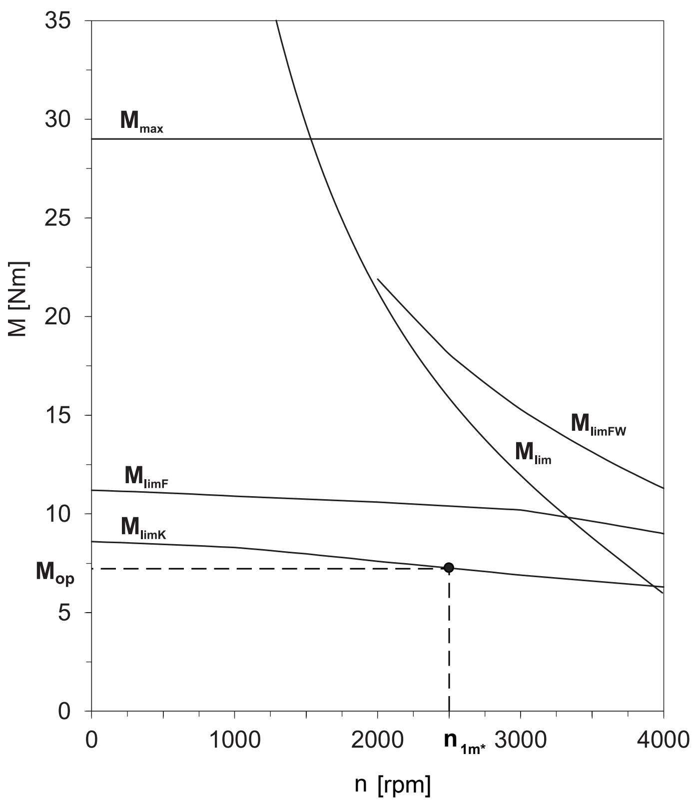
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0,95 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m^*}}{1000}\right)^2$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▶ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




## Operating factors

### Parameter $a_{thEL}$

| Mounting position | $a_{thEL}$ |
|---|---|
| EL1, 2 | 1.0 |
| EL3, 4, 5, 6 | 1.1 |

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 11.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*}$ ≤ 100 rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| P2 | 17.0 | 500 | 1200 | 1300 | 34 | 36 |
| P3 | 17.5 | 1000 | 2500 | 2500 | 79 | 79 |
| P4 | 18.5 | 1500 | 4000 | 4500 | 146 | 164 |
| P5 | 19.5 | 2300 | 6500 | 7000 | 315 | 340 |
| P7 | 23.0 | 2900 | 8500 | 9000 | 544 | 576 |
| P8 | 24.5 | 4700 | 13000 | 18000 | 852 | 1179 |
| P9 | 33.0 | 6000 | 18000 | 27000 | 1539 | 2309 |

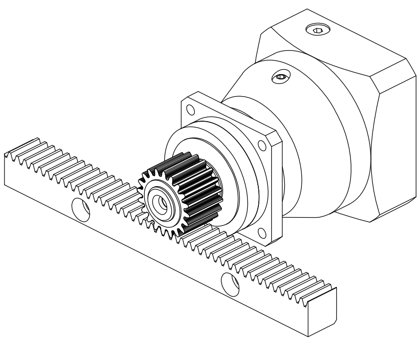


*Fig. 1:* Recommendation for bearing assignment S (e.g. for straight-cut gearing)

**Permitted shaft loads for axially reinforced bearing D**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| P3 | 20.0 | 2500 | 2750 | 2750 | 94 | 94 |
| P4 | 22.5 | 4000 | 4500 | 5000 | 182 | 203 |
| P5 | 25.5 | 6000 | 7000 | 8000 | 382 | 436 |
| P7 | 29.0 | 10000 | 9500 | 10000 | 665 | 700 |
| P8 | 32.0 | 15500 | 15000 | 18000 | 1095 | 1314 |
| P9 | 44.0 | 25000 | 20000 | 30000 | 1930 | 2895 |

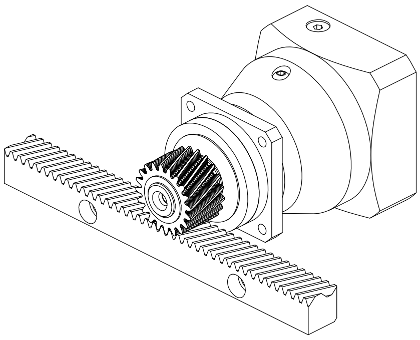


*Fig. 2:* Recommendation for bearing assignment D (e.g. for helical gearing)

**Permitted shaft loads for radially reinforced bearing Z**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| P3 | 17.5 | 600 | 3000 | 3000 | 95 | 95 |
| P4 | 18.5 | 1000 | 5000 | 5000 | 183 | 183 |
| P5 | 19.5 | 1600 | 8000 | 8000 | 388 | 388 |
| P7 | 23.0 | 2000 | 10000 | 10000 | 640 | 640 |
| P8 | 24.5 | 3600 | 18000 | 18000 | 1179 | 1179 |
| P9 | 33.0 | 5000 | 27000 | 35000 | 2309 | 2993 |

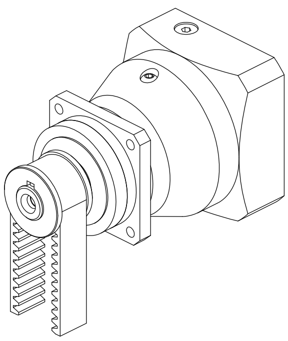


*Fig. 3:* Recommendation for bearing assignment Z (e.g. for belt drives)

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m^*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

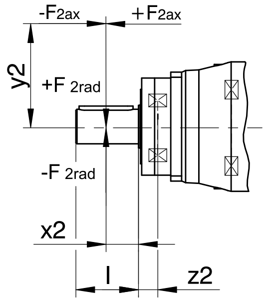



*Fig. 4:* Force application points

The specified values for $F_{2rad100}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10} \leq 40\%$):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 11.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

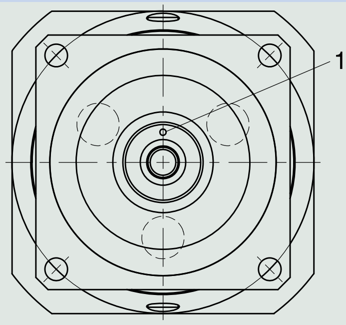
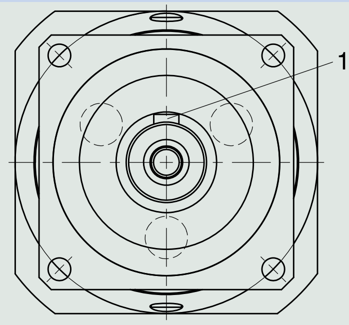
- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

## 11.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below. The images show the center position of reverse operation. Cyclic reverse operation ≤ ± 20° on request.

| Solid shaft without feather key | Solid shaft with feather key |
| --- | --- |
|   |   |
| 1 Position of the mark: top | 1 Position of the feather key: top |

**Notes**

- If you use the solid shaft without a feather key (G), you must note the position of the mark during assembly.
- As an alternative, you can use the solid shaft with a feather key (P). In that case, the feather key functions for position orientation. For a backlash-free connection, also use a clamp.

# 11.7 Additional documentation

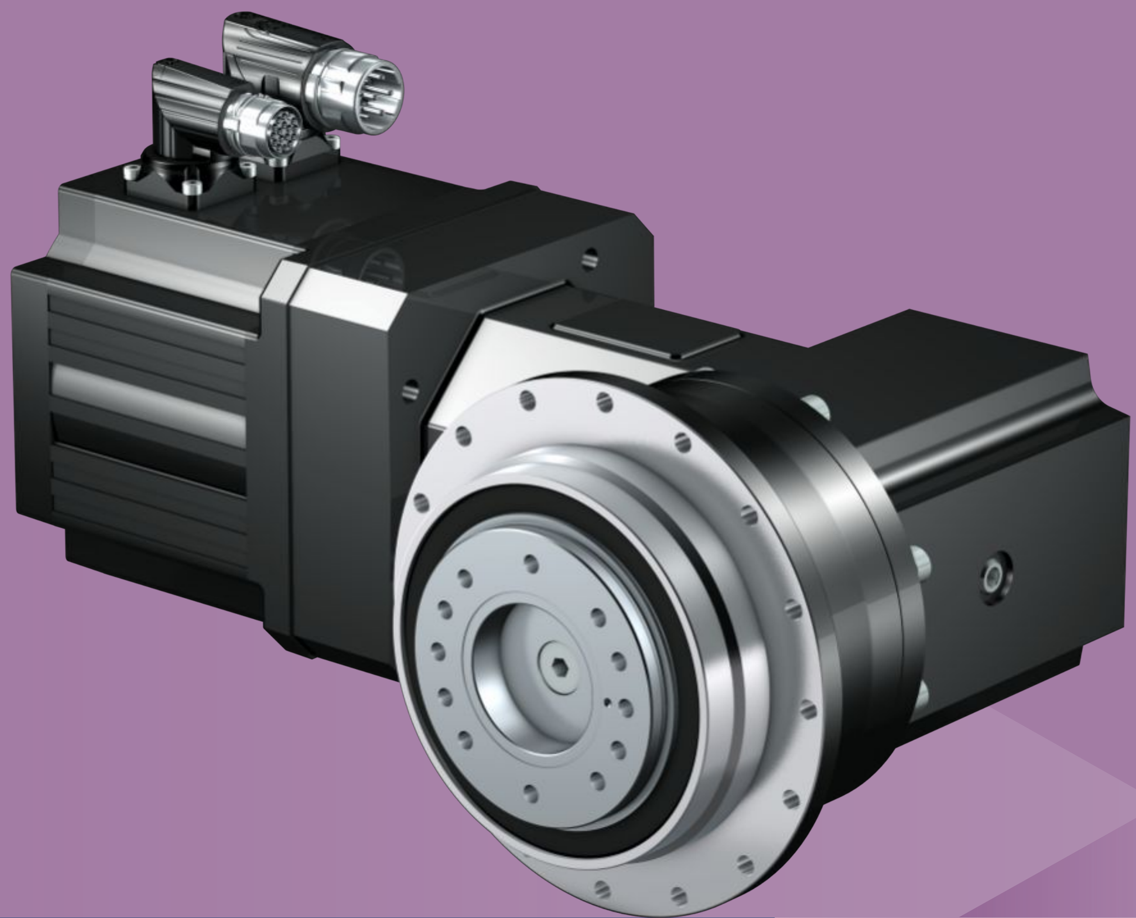
Additional documentation related to the product can be found at
http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
| --- | --- |
| Operating manual gearboxes, geared motors P53K – P93K | 443360_en |

# 12 PHKX right-angle planetary geared motors

## Table of contents



12

# Right-angle planetary geared motors

# PHKX

## 12.1 Overview

High-performance precision right-angle planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★★★ |
| Backlash | ★★★★★ |
| Price category | €€€€ |
| Shaft load | ★★★★★ |
| Smooth operation | ★★☆☆☆ |
| Torsional stiffness | ★★★★☆ |
| Mass moment of inertia | ★★★☆☆ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Small installation space | ✓ |
| Continuous operation without cooling | ✓ |
| Stiff output bearings due to pretension | ✓ |
| Reinforced output bearing (PH3 – PH5) | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 4 – 210 |
| $M_{2acc}$ | 26 – 6975 Nm |
| $\Delta\phi_2$ | 1 – 6 arcmin |
| $\eta_{get}$ | 92 – 95 % |

# 12.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

In the case of the version with a reinforced bearing and gear ratios ≤ 5, the maximum permitted input speed $n_{1maxZB}$ is reduced. You can find values at https://configurator.stoeber.de/en-US/

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2,5,6 | EL3,4 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH331KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 75 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 26 | 27 | 31 | 1.4 | PH331_0100KX301_0030 MF EZ301U | 60 | 60 | 120 | 30.00 | 30/1 | 3500 | 3500 | 6000 | 0.94 | 5.0 | 3.0 | 7.8 | 5.0 |
| 143 | 18 | 19 | 17 | 2.4 | PH331_0070KX301_0030 MF EZ301U | 56 | 56 | 150 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 8.4 | 5.0 |
| 143 | 32 | 33 | 30 | 1.4 | PH331_0070KX301_0030 MF EZ302U | 75 | 77 | 150 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 8.4 | 5.6 |
| 143 | 41 | 43 | 38 | 1.1 | PH331_0070KX301_0030 MF EZ303U | 75 | 77 | 150 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.1 | 5.5 | 3.5 | 8.4 | 6.1 |
| 150 | 18 | 18 | 28 | 2.0 | PH331_0100KX301_0020 MF EZ301U | 53 | 53 | 120 | 20.00 | 20/1 | 3500 | 3000 | 5500 | 1.0 | 5.0 | 3.0 | 7.8 | 5.0 |
| 150 | 30 | 32 | 48 | 1.2 | PH331_0100KX301_0020 MF EZ302U | 60 | 60 | 120 | 20.00 | 20/1 | 3500 | 3000 | 5500 | 1.1 | 5.0 | 3.0 | 7.8 | 5.6 |
| 200 | 13 | 13 | 13 | 3.2 | PH331_0050KX301_0030 MF EZ301U | 40 | 40 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 0.94 | 6.0 | 4.0 | 6.9 | 5.0 |
| 200 | 23 | 24 | 23 | 1.9 | PH331_0050KX301_0030 MF EZ302U | 62 | 62 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.0 | 6.0 | 4.0 | 6.9 | 5.6 |
| 200 | 29 | 31 | 29 | 1.4 | PH331_0050KX301_0030 MF EZ303U | 62 | 62 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.2 | 6.0 | 4.0 | 6.9 | 6.1 |
| 200 | 40 | 43 | 40 | 1.1 | PH331_0050KX301_0030 MF EZ401U | 62 | 62 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.7 | 6.0 | 4.0 | 6.9 | 7.5 |
| 214 | 12 | 13 | 16 | 3.7 | PH331_0070KX301_0020 MF EZ301U | 37 | 37 | 150 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.0 | 5.5 | 3.5 | 8.4 | 5.0 |
| 214 | 21 | 22 | 27 | 2.1 | PH331_0070KX301_0020 MF EZ302U | 66 | 66 | 150 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.1 | 5.5 | 3.5 | 8.4 | 5.6 |
| 214 | 27 | 29 | 35 | 1.6 | PH331_0070KX301_0020 MF EZ303U | 75 | 77 | 150 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.2 | 5.5 | 3.5 | 8.4 | 6.1 |
| 214 | 37 | 40 | 47 | 1.2 | PH331_0070KX301_0020 MF EZ401U | 75 | 77 | 150 | 14.00 | 14/1 | 3500 | 3000 | 5500 | 1.7 | 5.5 | 3.5 | 8.4 | 7.5 |
| 300 | 8.8 | 9.0 | 12 | 4.8 | PH331_0050KX301_0020 MF EZ301U | 26 | 26 | 130 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.0 | 6.0 | 4.0 | 6.9 | 5.0 |
| 300 | 15 | 16 | 20 | 2.8 | PH331_0050KX301_0020 MF EZ302U | 47 | 47 | 130 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.1 | 6.0 | 4.0 | 6.9 | 5.6 |
| 300 | 20 | 21 | 27 | 2.1 | PH331_0050KX301_0020 MF EZ303U | 62 | 62 | 130 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.2 | 6.0 | 4.0 | 6.9 | 6.1 |
| 300 | 26 | 28 | 36 | 1.6 | PH331_0050KX301_0020 MF EZ401U | 62 | 62 | 130 | 10.00 | 10/1 | 3500 | 3000 | 5500 | 1.8 | 6.0 | 4.0 | 6.9 | 7.5 |
| 429 | 11 | 11 | 26 | 3.7 | PH331_0070KX301_0010 MF EZ302U | 33 | 33 | 150 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 1.3 | 5.5 | 3.5 | 8.4 | 5.6 |
| 429 | 14 | 14 | 33 | 2.9 | PH331_0070KX301_0010 MF EZ303U | 46 | 46 | 150 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 1.4 | 5.5 | 3.5 | 8.4 | 6.1 |
| 429 | 19 | 20 | 45 | 2.1 | PH331_0070KX301_0010 MF EZ401U | 56 | 56 | 150 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 2.0 | 5.5 | 3.5 | 8.4 | 7.5 |
| 429 | 31 | 34 | 76 | 1.3 | PH331_0070KX301_0010 MF EZ402U | 75 | 77 | 150 | 7.000 | 7/1 | 3000 | 2500 | 4500 | 2.7 | 5.5 | 3.5 | 8.4 | 8.6 |
| 600 | 9.8 | 10 | 24 | 4.0 | PH331_0050KX301_0010 MF EZ303U | 33 | 33 | 115 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 1.5 | 6.0 | 4.0 | 6.9 | 6.1 |
| 600 | 13 | 14 | 32 | 3.0 | PH331_0050KX301_0010 MF EZ401U | 40 | 40 | 115 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 2.0 | 6.0 | 4.0 | 6.9 | 7.5 |
| 600 | 22 | 25 | 54 | 1.8 | PH331_0050KX301_0010 MF EZ402U | 62 | 62 | 115 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 2.7 | 6.0 | 4.0 | 6.9 | 8.6 |
| 600 | 33 | 41 | 80 | 1.2 | PH331_0050KX301_0010 MF EZ404U | 62 | 62 | 115 | 5.000 | 5/1 | 3000 | 2500 | 4500 | 4.1 | 6.0 | 4.0 | 6.9 | 11 |
| **PH331KX ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 75 Nm)** | | | | | | | | | | | | | | | | | | |
| 200 | 25 | 27 | 33 | 1.3 | PH331_0100KX301_0030 MF EZ301U | 60 | 60 | 120 | 30.00 | 30/1 | 3500 | 3500 | 6000 | 0.94 | 5.0 | 3.0 | 7.8 | 5.0 |
| 286 | 18 | 19 | 17 | 2.5 | PH331_0070KX301_0030 MF EZ301U | 56 | 56 | 150 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 0.94 | 5.5 | 3.5 | 8.4 | 5.0 |
| 286 | 30 | 33 | 28 | 1.5 | PH331_0070KX301_0030 MF EZ302U | 75 | 77 | 150 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.0 | 5.5 | 3.5 | 8.4 | 5.6 |
| 286 | 39 | 45 | 36 | 1.2 | PH331_0070KX301_0030 MF EZ303U | 75 | 77 | 150 | 21.00 | 21/1 | 3500 | 3500 | 6000 | 1.1 | 5.5 | 3.5 | 8.4 | 6.1 |
| 400 | 13 | 13 | 16 | 2.6 | PH331_0050KX301_0030 MF EZ301U | 40 | 40 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 0.94 | 6.0 | 4.0 | 6.9 | 5.0 |
| 400 | 21 | 24 | 27 | 1.6 | PH331_0050KX301_0030 MF EZ302U | 62 | 62 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.0 | 6.0 | 4.0 | 6.9 | 5.6 |
| 400 | 28 | 32 | 35 | 1.2 | PH331_0050KX301_0030 MF EZ303U | 62 | 62 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.2 | 6.0 | 4.0 | 6.9 | 6.1 |
| 400 | 33 | 40 | 41 | 1.0 | PH331_0050KX301_0030 MF EZ401U | 62 | 62 | 130 | 15.00 | 15/1 | 3500 | 3500 | 6000 | 1.7 | 6.0 | 4.0 | 6.9 | 7.5 |
| **PH332KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 80 Nm)** | | | | | | | | | | | | | | | | | | |
| 54 | 48 | 49 | 54 | 1.0 | PH332_0280KX301_0020 MF EZ301U | 75 | 75 | 150 | 56.00 | 56/1 | 3500 | 3000 | 5500 | 1.0 | 4.5 | 2.5 | 12 | 5.4 |
| 60 | 43 | 44 | 49 | 1.2 | PH332_0250KX301_0020 MF EZ301U | 80 | 85 | 160 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.0 | 4.5 | 2.5 | 13 | 5.4 |
| 75 | 34 | 35 | 43 | 1.3 | PH332_0200KX301_0020 MF EZ301U | 80 | 85 | 160 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.0 | 4.5 | 2.5 | 13 | 5.4 |
| 86 | 30 | 30 | 57 | 1.7 | PH332_0350KX301_0010 MF EZ301U | 80 | 85 | 160 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.2 | 4.5 | 2.5 | 13 | 5.4 |
| **PH431KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 160 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 26 | 27 | 17 | 2.8 | PH431_0100KX401_0030 MF EZ301U | 79 | 79 | 230 | 30.00 | 30/1 | 3000 | 3000 | 5500 | 1.6 | 4.0 | 2.0 | 18 | 9.4 |
| 100 | 45 | 48 | 28 | 1.7 | PH431_0100KX401_0030 MF EZ302U | 115 | 115 | 230 | 30.00 | 30/1 | 3000 | 3000 | 5500 | 1.7 | 4.0 | 2.0 | 18 | 10 |
| 100 | 59 | 62 | 37 | 1.3 | PH431_0100KX401_0030 MF EZ303U | 115 | 115 | 230 | 30.00 | 30/1 | 3000 | 3000 | 5500 | 1.8 | 4.0 | 2.0 | 18 | 10 |
| 143 | 18 | 19 | 9.7 | 4.9 | PH431_0070KX401_0030 MF EZ301U | 56 | 56 | 320 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 1.6 | 4.5 | 2.5 | 19 | 9.4 |
| 143 | 32 | 33 | 17 | 2.9 | PH431_0070KX401_0030 MF EZ302U | 99 | 99 | 320 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 1.7 | 4.5 | 2.5 | 19 | 10 |
| 143 | 41 | 43 | 22 | 2.2 | PH431_0070KX401_0030 MF EZ303U | 139 | 139 | 320 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 1.9 | 4.5 | 2.5 | 19 | 10 |
| 143 | 56 | 60 | 29 | 1.6 | PH431_0070KX401_0030 MF EZ401U | 160 | 168 | 320 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 2.4 | 4.5 | 2.5 | 19 | 12 |
| 143 | 85 | 93 | 45 | 1.1 | PH431_0070KX401_0030 MF EZ501U | 160 | 168 | 320 | 21.00 | 21/1 | 3000 | 3000 | 5500 | 4.4 | 4.5 | 2.5 | 19 | 13 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH431KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 160 Nm)** | | | | | | | | | | | | | | | | | | |
| 150 | 18 | 18 | 15 | 4.3 | PH431_0100KX401_0020 MF EZ301U | 53 | 53 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 1.8 | 4.0 | 2.0 | 18 | 9.4 |
| 150 | 30 | 32 | 26 | 2.5 | PH431_0100KX401_0020 MF EZ302U | 95 | 95 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 1.9 | 4.0 | 2.0 | 18 | 10 |
| 150 | 39 | 41 | 34 | 1.9 | PH431_0100KX401_0020 MF EZ303U | 115 | 115 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 2.0 | 4.0 | 2.0 | 18 | 10 |
| 150 | 53 | 57 | 45 | 1.4 | PH431_0100KX401_0020 MF EZ401U | 115 | 115 | 230 | 20.00 | 20/1 | 2500 | 2500 | 5000 | 2.6 | 4.0 | 2.0 | 18 | 12 |
| 200 | 23 | 24 | 13 | 3.7 | PH431_0050KX401_0030 MF EZ302U | 71 | 71 | 260 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 1.8 | 5.0 | 3.0 | 15 | 10 |
| 200 | 29 | 31 | 17 | 2.9 | PH431_0050KX401_0030 MF EZ303U | 99 | 99 | 260 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 1.9 | 5.0 | 3.0 | 15 | 10 |
| 200 | 40 | 43 | 22 | 2.1 | PH431_0050KX401_0030 MF EZ401U | 120 | 120 | 260 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 2.4 | 5.0 | 3.0 | 15 | 12 |
| 200 | 61 | 67 | 34 | 1.4 | PH431_0050KX401_0030 MF EZ501U | 120 | 120 | 260 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 4.4 | 5.0 | 3.0 | 15 | 13 |
| 200 | 67 | 74 | 38 | 1.3 | PH431_0050KX401_0030 MF EZ402U | 120 | 120 | 260 | 15.00 | 15/1 | 3000 | 3000 | 5500 | 3.1 | 5.0 | 3.0 | 15 | 13 |
| 214 | 21 | 22 | 15 | 4.3 | PH431_0070KX401_0020 MF EZ302U | 66 | 66 | 320 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 2.0 | 4.5 | 2.5 | 19 | 10 |
| 214 | 27 | 29 | 20 | 3.3 | PH431_0070KX401_0020 MF EZ303U | 93 | 93 | 320 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 2.1 | 4.5 | 2.5 | 19 | 10 |
| 214 | 37 | 40 | 26 | 2.4 | PH431_0070KX401_0020 MF EZ401U | 113 | 113 | 320 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 2.6 | 4.5 | 2.5 | 19 | 12 |
| 214 | 57 | 62 | 41 | 1.6 | PH431_0070KX401_0020 MF EZ501U | 160 | 168 | 320 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 4.6 | 4.5 | 2.5 | 19 | 13 |
| 214 | 62 | 69 | 44 | 1.4 | PH431_0070KX401_0020 MF EZ402U | 160 | 168 | 320 | 14.00 | 14/1 | 2500 | 2500 | 5000 | 3.3 | 4.5 | 2.5 | 19 | 13 |
| 250 | 18 | 19 | 13 | 3.7 | PH431_0040KX401_0030 MF EZ302U | 57 | 57 | 208 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 1.8 | 5.5 | 3.5 | 11 | 10 |
| 250 | 23 | 25 | 17 | 2.9 | PH431_0040KX401_0030 MF EZ303U | 79 | 79 | 208 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 1.9 | 5.5 | 3.5 | 11 | 10 |
| 250 | 32 | 34 | 22 | 2.1 | PH431_0040KX401_0030 MF EZ401U | 96 | 96 | 208 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 2.4 | 5.5 | 3.5 | 11 | 12 |
| 250 | 49 | 53 | 34 | 1.4 | PH431_0040KX401_0030 MF EZ501U | 96 | 96 | 208 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 4.4 | 5.5 | 3.5 | 11 | 13 |
| 250 | 53 | 59 | 38 | 1.3 | PH431_0040KX401_0030 MF EZ402U | 96 | 96 | 208 | 12.00 | 12/1 | 3000 | 3000 | 5500 | 3.1 | 5.5 | 3.5 | 11 | 13 |
| 300 | 20 | 21 | 15 | 4.3 | PH431_0050KX401_0020 MF EZ303U | 66 | 66 | 260 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 2.1 | 5.0 | 3.0 | 15 | 10 |
| 300 | 26 | 28 | 20 | 3.2 | PH431_0050KX401_0020 MF EZ401U | 80 | 80 | 260 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 2.6 | 5.0 | 3.0 | 15 | 12 |
| 300 | 41 | 44 | 31 | 2.1 | PH431_0050KX401_0020 MF EZ501U | 120 | 120 | 260 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 4.6 | 5.0 | 3.0 | 15 | 13 |
| 300 | 44 | 49 | 34 | 1.9 | PH431_0050KX401_0020 MF EZ402U | 120 | 120 | 260 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 3.3 | 5.0 | 3.0 | 15 | 13 |
| 300 | 65 | 81 | 50 | 1.3 | PH431_0050KX401_0020 MF EZ404U | 120 | 120 | 260 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 4.7 | 5.0 | 3.0 | 15 | 15 |
| 300 | 70 | 76 | 54 | 1.2 | PH431_0050KX401_0020 MF EZ502U | 120 | 120 | 260 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 6.9 | 5.0 | 3.0 | 15 | 14 |
| 300 | 70 | 78 | 54 | 1.2 | PH431_0050KX401_0020 MF EZ701U | 120 | 120 | 260 | 10.00 | 10/1 | 2500 | 2500 | 5000 | 10 | 5.0 | 3.0 | 15 | 16 |
| 375 | 16 | 17 | 15 | 4.3 | PH431_0040KX401_0020 MF EZ303U | 53 | 53 | 208 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 2.1 | 5.5 | 3.5 | 11 | 10 |
| 375 | 21 | 23 | 20 | 3.2 | PH431_0040KX401_0020 MF EZ401U | 64 | 64 | 208 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 2.7 | 5.5 | 3.5 | 11 | 12 |
| 375 | 33 | 36 | 31 | 2.1 | PH431_0040KX401_0020 MF EZ501U | 96 | 96 | 208 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 4.6 | 5.5 | 3.5 | 11 | 13 |
| 375 | 36 | 39 | 34 | 1.9 | PH431_0040KX401_0020 MF EZ402U | 96 | 96 | 208 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 3.4 | 5.5 | 3.5 | 11 | 13 |
| 375 | 52 | 65 | 50 | 1.3 | PH431_0040KX401_0020 MF EZ404U | 96 | 96 | 208 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 4.7 | 5.5 | 3.5 | 11 | 15 |
| 375 | 56 | 61 | 54 | 1.2 | PH431_0040KX401_0020 MF EZ502U | 96 | 96 | 208 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 6.9 | 5.5 | 3.5 | 11 | 14 |
| 375 | 56 | 63 | 54 | 1.2 | PH431_0040KX401_0020 MF EZ701U | 96 | 96 | 208 | 8.000 | 8/1 | 2500 | 2500 | 5000 | 10 | 5.5 | 3.5 | 11 | 16 |
| 429 | 19 | 20 | 27 | 4.0 | PH431_0070KX401_0010 MF EZ401U | 56 | 56 | 320 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 3.4 | 4.5 | 2.5 | 19 | 12 |
| 429 | 28 | 31 | 41 | 2.6 | PH431_0070KX401_0010 MF EZ501U | 106 | 106 | 320 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 5.4 | 4.5 | 2.5 | 19 | 13 |
| 429 | 31 | 34 | 45 | 2.4 | PH431_0070KX401_0010 MF EZ402U | 106 | 106 | 320 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 4.1 | 4.5 | 2.5 | 19 | 13 |
| 429 | 46 | 57 | 66 | 1.6 | PH431_0070KX401_0010 MF EZ404U | 160 | 168 | 320 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 5.5 | 4.5 | 2.5 | 19 | 15 |
| 429 | 49 | 53 | 71 | 1.5 | PH431_0070KX401_0010 MF EZ502U | 160 | 168 | 320 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 7.7 | 4.5 | 2.5 | 19 | 14 |
| 429 | 49 | 55 | 71 | 1.5 | PH431_0070KX401_0010 MF EZ701U | 132 | 132 | 320 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 11 | 4.5 | 2.5 | 19 | 16 |
| 429 | 64 | 73 | 93 | 1.2 | PH431_0070KX401_0010 MF EZ503U | 160 | 168 | 320 | 7.000 | 7/1 | 2500 | 2000 | 4000 | 10 | 4.5 | 2.5 | 19 | 16 |
| 600 | 20 | 22 | 30 | 3.7 | PH431_0050KX401_0010 MF EZ501U | 76 | 76 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 5.6 | 5.0 | 3.0 | 15 | 13 |
| 600 | 22 | 25 | 32 | 3.3 | PH431_0050KX401_0010 MF EZ402U | 76 | 76 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 4.3 | 5.0 | 3.0 | 15 | 13 |
| 600 | 33 | 41 | 47 | 2.3 | PH431_0050KX401_0010 MF EZ404U | 120 | 120 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 5.6 | 5.0 | 3.0 | 15 | 15 |
| 600 | 35 | 38 | 51 | 2.1 | PH431_0050KX401_0010 MF EZ502U | 120 | 120 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 7.9 | 5.0 | 3.0 | 15 | 14 |
| 600 | 35 | 39 | 51 | 2.1 | PH431_0050KX401_0010 MF EZ701U | 95 | 95 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 11 | 5.0 | 3.0 | 15 | 16 |
| 600 | 46 | 52 | 67 | 1.6 | PH431_0050KX401_0010 MF EZ503U | 120 | 120 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 10 | 5.0 | 3.0 | 15 | 16 |
| 600 | 57 | 68 | 83 | 1.3 | PH431_0050KX401_0010 MF EZ702U | 120 | 120 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 16 | 5.0 | 3.0 | 15 | 19 |
| 600 | 64 | 76 | 93 | 1.2 | PH431_0050KX401_0010 MF EZ505U | 120 | 120 | 260 | 5.000 | 5/1 | 2500 | 2000 | 4000 | 15 | 5.0 | 3.0 | 15 | 19 |
| 750 | 16 | 18 | 26 | 4.1 | PH431_0040KX401_0010 MF EZ501U | 61 | 61 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 5.8 | 5.5 | 3.5 | 11 | 13 |
| 750 | 18 | 20 | 29 | 3.8 | PH431_0040KX401_0010 MF EZ402U | 61 | 61 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 4.5 | 5.5 | 3.5 | 11 | 13 |
| 750 | 26 | 33 | 42 | 2.6 | PH431_0040KX401_0010 MF EZ404U | 96 | 96 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 5.8 | 5.5 | 3.5 | 11 | 15 |
| 750 | 28 | 30 | 45 | 2.4 | PH431_0040KX401_0010 MF EZ502U | 96 | 96 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 8.1 | 5.5 | 3.5 | 11 | 14 |
| 750 | 28 | 31 | 45 | 2.4 | PH431_0040KX401_0010 MF EZ701U | 76 | 76 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 11 | 5.5 | 3.5 | 11 | 16 |
| 750 | 37 | 42 | 59 | 1.8 | PH431_0040KX401_0010 MF EZ503U | 96 | 96 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 10 | 5.5 | 3.5 | 11 | 16 |
| 750 | 45 | 54 | 73 | 1.5 | PH431_0040KX401_0010 MF EZ702U | 96 | 96 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 17 | 5.5 | 3.5 | 11 | 19 |
| 750 | 51 | 61 | 82 | 1.3 | PH431_0040KX401_0010 MF EZ505U | 96 | 96 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 15 | 5.5 | 3.5 | 11 | 19 |
| 750 | 62 | 79 | 100 | 1.1 | PH431_0040KX401_0010 MF EZ703U | 96 | 96 | 208 | 4.000 | 4/1 | 2500 | 2000 | 4000 | 24 | 5.5 | 3.5 | 11 | 21 |
| **PH432KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 160 Nm)** | | | | | | | | | | | | | | | | | | |
| 21 | 119 | 122 | 57 | 1.0 | PH432_0700KX301_0020 MF EZ301U | 158 | 164 | 316 | 140.0 | 140/1 | 3500 | 3000 | 5500 | 1.0 | 3.0 | 1.0 | 27 | 8.0 |
| 25 | 102 | 104 | 39 | 1.1 | PH432_0400KX301_0030 MF EZ301U | 155 | 169 | 310 | 120.0 | 120/1 | 3500 | 3500 | 6000 | 0.95 | 3.5 | 1.5 | 29 | 8.0 |
| 29 | 89 | 91 | 34 | 1.2 | PH432_0350KX301_0030 MF EZ301U | 160 | 174 | 320 | 105.0 | 105/1 | 3500 | 3500 | 6000 | 0.94 | 3.5 | 1.5 | 30 | 8.0 |
| 30 | 85 | 87 | 41 | 1.4 | PH432_0500KX301_0020 MF EZ301U | 159 | 174 | 318 | 100.0 | 100/1 | 3500 | 3000 | 5500 | 1.0 | 3.0 | 1.0 | 30 | 8.0 |
| 36 | 72 | 73 | 32 | 1.3 | PH432_0280KX301_0030 MF EZ301U | 160 | 173 | 312 | 84.00 | 84/1 | 3500 | 3500 | 6000 | 0.95 | 3.5 | 1.5 | 29 | 8.0 |
| 38 | 68 | 70 | 35 | 1.6 | PH432_0400KX301_0020 MF EZ301U | 155 | 169 | 310 | 80.00 | 80/1 | 3500 | 3000 | 5500 | 1.0 | 3.5 | 1.5 | 29 | 8.0 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH432KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 160 Nm)** | | | | | | | | | | | | | | | | | | |
| 40 | 64 | 65 | 27 | 1.6 | PH432_0250KX301_0030 MF EZ301U | 161 | 174 | 322 | 75.00 | 75/1 | 3500 | 3500 | 6000 | 0.94 | 3.5 | 1.5 | 29 | 8.0 |
| 43 | 60 | 61 | 31 | 1.8 | PH432_0350KX301_0020 MF EZ301U | 160 | 174 | 320 | 70.00 | 70/1 | 3500 | 3000 | 5500 | 1.0 | 3.5 | 1.5 | 30 | 8.0 |
| 43 | 102 | 108 | 53 | 1.1 | PH432_0350KX301_0020 MF EZ302U | 160 | 174 | 320 | 70.00 | 70/1 | 3500 | 3000 | 5500 | 1.1 | 3.5 | 1.5 | 30 | 8.6 |
| 50 | 51 | 52 | 23 | 1.9 | PH432_0200KX301_0030 MF EZ301U | 150 | 150 | 299 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 0.94 | 3.5 | 1.5 | 27 | 8.0 |
| 50 | 87 | 92 | 39 | 1.1 | PH432_0200KX301_0030 MF EZ302U | 150 | 150 | 299 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 1.0 | 3.5 | 1.5 | 27 | 8.6 |
| 54 | 48 | 49 | 29 | 2.0 | PH432_0280KX301_0020 MF EZ301U | 144 | 144 | 312 | 56.00 | 56/1 | 3500 | 3000 | 5500 | 1.0 | 3.5 | 1.5 | 29 | 8.0 |
| 54 | 82 | 86 | 49 | 1.2 | PH432_0280KX301_0020 MF EZ302U | 160 | 173 | 312 | 56.00 | 56/1 | 3500 | 3000 | 5500 | 1.1 | 3.5 | 1.5 | 29 | 8.6 |
| 60 | 43 | 44 | 24 | 2.3 | PH432_0250KX301_0020 MF EZ301U | 128 | 128 | 322 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.0 | 3.5 | 1.5 | 29 | 8.0 |
| 60 | 73 | 77 | 42 | 1.4 | PH432_0250KX301_0020 MF EZ302U | 161 | 174 | 322 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.1 | 3.5 | 1.5 | 29 | 8.6 |
| 60 | 95 | 100 | 54 | 1.1 | PH432_0250KX301_0020 MF EZ303U | 161 | 174 | 322 | 50.00 | 50/1 | 3500 | 3000 | 5500 | 1.2 | 3.5 | 1.5 | 29 | 9.1 |
| 63 | 41 | 42 | 19 | 2.2 | PH432_0160KX301_0030 MF EZ301U | 123 | 123 | 312 | 48.00 | 48/1 | 3500 | 3500 | 6000 | 0.95 | 3.5 | 1.5 | 25 | 8.0 |
| 63 | 70 | 74 | 33 | 1.3 | PH432_0160KX301_0030 MF EZ302U | 160 | 173 | 312 | 48.00 | 48/1 | 3500 | 3500 | 6000 | 1.0 | 3.5 | 1.5 | 25 | 8.6 |
| 75 | 34 | 35 | 20 | 2.8 | PH432_0200KX301_0020 MF EZ301U | 103 | 103 | 299 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.0 | 3.5 | 1.5 | 27 | 8.0 |
| 75 | 58 | 62 | 35 | 1.6 | PH432_0200KX301_0020 MF EZ302U | 150 | 150 | 299 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.1 | 3.5 | 1.5 | 27 | 8.6 |
| 75 | 76 | 80 | 46 | 1.3 | PH432_0200KX301_0020 MF EZ303U | 150 | 150 | 299 | 40.00 | 40/1 | 3500 | 3000 | 5500 | 1.2 | 3.5 | 1.5 | 27 | 9.1 |
| 86 | 30 | 30 | 27 | 3.6 | PH432_0350KX301_0010 MF EZ301U | 90 | 90 | 320 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.3 | 3.5 | 1.5 | 30 | 8.0 |
| 86 | 51 | 54 | 46 | 2.1 | PH432_0350KX301_0010 MF EZ302U | 160 | 160 | 320 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.4 | 3.5 | 1.5 | 30 | 8.6 |
| 86 | 66 | 70 | 60 | 1.6 | PH432_0350KX301_0010 MF EZ303U | 160 | 174 | 320 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 1.5 | 3.5 | 1.5 | 30 | 9.1 |
| 86 | 90 | 96 | 81 | 1.2 | PH432_0350KX301_0010 MF EZ401U | 160 | 174 | 320 | 35.00 | 35/1 | 3000 | 2500 | 4500 | 2.0 | 3.5 | 1.5 | 30 | 10 |
| 94 | 27 | 28 | 17 | 3.3 | PH432_0160KX301_0020 MF EZ301U | 82 | 82 | 312 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.0 | 3.5 | 1.5 | 25 | 8.0 |
| 94 | 47 | 49 | 30 | 1.9 | PH432_0160KX301_0020 MF EZ302U | 147 | 147 | 312 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.1 | 3.5 | 1.5 | 25 | 8.6 |
| 94 | 61 | 64 | 38 | 1.5 | PH432_0160KX301_0020 MF EZ303U | 160 | 173 | 312 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.2 | 3.5 | 1.5 | 25 | 9.1 |
| 94 | 82 | 88 | 52 | 1.1 | PH432_0160KX301_0020 MF EZ401U | 160 | 173 | 312 | 32.00 | 32/1 | 3500 | 3000 | 5500 | 1.8 | 3.5 | 1.5 | 25 | 10 |
| **PH432KX ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 160 Nm)** | | | | | | | | | | | | | | | | | | |
| 50 | 98 | 104 | 37 | 1.1 | PH432_0400KX301_0030 MF EZ301U | 155 | 169 | 310 | 120.0 | 120/1 | 3500 | 3500 | 6000 | 0.95 | 3.5 | 1.5 | 29 | 8.0 |
| 57 | 86 | 91 | 33 | 1.3 | PH432_0350KX301_0030 MF EZ301U | 160 | 174 | 320 | 105.0 | 105/1 | 3500 | 3500 | 6000 | 0.94 | 3.5 | 1.5 | 30 | 8.0 |
| 71 | 68 | 73 | 30 | 1.4 | PH432_0280KX301_0030 MF EZ301U | 160 | 173 | 312 | 84.00 | 84/1 | 3500 | 3500 | 6000 | 0.95 | 3.5 | 1.5 | 29 | 8.0 |
| 80 | 61 | 65 | 26 | 1.6 | PH432_0250KX301_0030 MF EZ301U | 161 | 174 | 322 | 75.00 | 75/1 | 3500 | 3500 | 6000 | 0.94 | 3.5 | 1.5 | 29 | 8.0 |
| 100 | 49 | 52 | 22 | 1.9 | PH432_0200KX301_0030 MF EZ301U | 150 | 150 | 299 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 0.94 | 3.5 | 1.5 | 27 | 8.0 |
| 100 | 82 | 92 | 37 | 1.2 | PH432_0200KX301_0030 MF EZ302U | 150 | 150 | 299 | 60.00 | 60/1 | 3500 | 3500 | 6000 | 1.0 | 3.5 | 1.5 | 27 | 8.6 |
| 125 | 39 | 42 | 18 | 2.3 | PH432_0160KX301_0030 MF EZ301U | 123 | 123 | 312 | 48.00 | 48/1 | 3500 | 3500 | 6000 | 0.95 | 3.5 | 1.5 | 25 | 8.0 |
| 125 | 66 | 74 | 31 | 1.4 | PH432_0160KX301_0030 MF EZ302U | 160 | 173 | 312 | 48.00 | 48/1 | 3500 | 3500 | 6000 | 1.0 | 3.5 | 1.5 | 25 | 8.6 |
| 125 | 86 | 99 | 40 | 1.0 | PH432_0160KX301_0030 MF EZ303U | 160 | 173 | 312 | 48.00 | 48/1 | 3500 | 3500 | 6000 | 1.2 | 3.5 | 1.5 | 25 | 9.1 |
| **PH531KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 370 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 79 | 85 | 23 | 2.3 | PH531_0100KX501_0030 MF EZ401U | 241 | 241 | 575 | 30.00 | 30/1 | 3000 | 3000 | 5000 | 5.7 | 4.0 | 2.0 | 44 | 18 |
| 100 | 122 | 133 | 36 | 1.5 | PH531_0100KX501_0030 MF EZ501U | 288 | 288 | 575 | 30.00 | 30/1 | 3000 | 3000 | 5000 | 7.7 | 4.0 | 2.0 | 44 | 19 |
| 100 | 133 | 148 | 39 | 1.4 | PH531_0100KX501_0030 MF EZ402U | 288 | 288 | 575 | 30.00 | 30/1 | 3000 | 3000 | 5000 | 6.4 | 4.0 | 2.0 | 44 | 19 |
| 143 | 56 | 60 | 14 | 3.8 | PH531_0070KX501_0030 MF EZ401U | 169 | 169 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 5.8 | 4.5 | 2.5 | 46 | 18 |
| 143 | 85 | 93 | 21 | 2.5 | PH531_0070KX501_0030 MF EZ501U | 318 | 318 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 7.7 | 4.5 | 2.5 | 46 | 19 |
| 143 | 93 | 103 | 23 | 2.3 | PH531_0070KX501_0030 MF EZ402U | 318 | 318 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 6.5 | 4.5 | 2.5 | 46 | 19 |
| 143 | 137 | 171 | 34 | 1.5 | PH531_0070KX501_0030 MF EZ404U | 370 | 387 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 7.8 | 4.5 | 2.5 | 46 | 21 |
| 143 | 147 | 159 | 37 | 1.4 | PH531_0070KX501_0030 MF EZ502U | 370 | 387 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 10 | 4.5 | 2.5 | 46 | 20 |
| 143 | 147 | 165 | 37 | 1.4 | PH531_0070KX501_0030 MF EZ701U | 370 | 387 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 13 | 4.5 | 2.5 | 46 | 22 |
| 143 | 193 | 220 | 48 | 1.1 | PH531_0070KX501_0030 MF EZ503U | 370 | 387 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 12 | 4.5 | 2.5 | 46 | 22 |
| 150 | 53 | 57 | 21 | 3.4 | PH531_0100KX501_0020 MF EZ401U | 161 | 161 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 6.3 | 4.0 | 2.0 | 44 | 18 |
| 150 | 81 | 89 | 32 | 2.2 | PH531_0100KX501_0020 MF EZ501U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 8.2 | 4.0 | 2.0 | 44 | 19 |
| 150 | 89 | 98 | 35 | 2.0 | PH531_0100KX501_0020 MF EZ402U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 7.0 | 4.0 | 2.0 | 44 | 19 |
| 150 | 130 | 163 | 52 | 1.4 | PH531_0100KX501_0020 MF EZ404U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 8.3 | 4.0 | 2.0 | 44 | 21 |
| 150 | 140 | 151 | 55 | 1.3 | PH531_0100KX501_0020 MF EZ502U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 11 | 4.0 | 2.0 | 44 | 20 |
| 150 | 140 | 157 | 55 | 1.3 | PH531_0100KX501_0020 MF EZ701U | 288 | 288 | 575 | 20.00 | 20/1 | 2500 | 2500 | 4500 | 14 | 4.0 | 2.0 | 44 | 22 |
| 200 | 61 | 67 | 15 | 3.4 | PH531_0050KX501_0030 MF EZ501U | 227 | 227 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 7.8 | 5.0 | 3.0 | 37 | 19 |
| 200 | 67 | 74 | 17 | 3.1 | PH531_0050KX501_0030 MF EZ402U | 227 | 227 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 6.5 | 5.0 | 3.0 | 37 | 19 |
| 200 | 98 | 122 | 25 | 2.1 | PH531_0050KX501_0030 MF EZ404U | 302 | 302 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 7.9 | 5.0 | 3.0 | 37 | 21 |
| 200 | 105 | 113 | 26 | 2.0 | PH531_0050KX501_0030 MF EZ502U | 302 | 302 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 10 | 5.0 | 3.0 | 37 | 20 |
| 200 | 105 | 118 | 26 | 2.0 | PH531_0050KX501_0030 MF EZ701U | 284 | 284 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 13 | 5.0 | 3.0 | 37 | 22 |
| 200 | 138 | 157 | 35 | 1.5 | PH531_0050KX501_0030 MF EZ503U | 302 | 302 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 12 | 5.0 | 3.0 | 37 | 22 |
| 200 | 170 | 204 | 43 | 1.2 | PH531_0050KX501_0030 MF EZ702U | 302 | 302 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 19 | 5.0 | 3.0 | 37 | 24 |
| 200 | 191 | 227 | 48 | 1.1 | PH531_0050KX501_0030 MF EZ505U | 302 | 302 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 17 | 5.0 | 3.0 | 37 | 24 |
| 214 | 57 | 62 | 19 | 3.7 | PH531_0070KX501_0020 MF EZ501U | 212 | 212 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 8.3 | 4.5 | 2.5 | 46 | 19 |
| 214 | 62 | 69 | 21 | 3.4 | PH531_0070KX501_0020 MF EZ402U | 212 | 212 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 7.0 | 4.5 | 2.5 | 46 | 19 |
| 214 | 91 | 114 | 31 | 2.3 | PH531_0070KX501_0020 MF EZ404U | 370 | 384 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 8.4 | 4.5 | 2.5 | 46 | 21 |
| 214 | 98 | 106 | 33 | 2.1 | PH531_0070KX501_0020 MF EZ502U | 370 | 387 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 11 | 4.5 | 2.5 | 46 | 20 |
| 214 | 98 | 110 | 33 | 2.1 | PH531_0070KX501_0020 MF EZ701U | 265 | 265 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 14 | 4.5 | 2.5 | 46 | 22 |
| 214 | 128 | 147 | 44 | 1.6 | PH531_0070KX501_0020 MF EZ503U | 370 | 387 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 13 | 4.5 | 2.5 | 46 | 22 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH531KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 370 Nm)** | | | | | | | | | | | | | | | | | | |
| 214 | 159 | 191 | 54 | 1.3 | PH531_0070KX501_0020 MF EZ702U | 370 | 387 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 19 | 4.5 | 2.5 | 46 | 24 |
| 214 | 179 | 212 | 61 | 1.2 | PH531_0070KX501_0020 MF EZ505U | 370 | 387 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 46 | 24 |
| 250 | 49 | 53 | 15 | 3.4 | PH531_0040KX501_0030 MF EZ501U | 182 | 182 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 7.9 | 5.5 | 3.5 | 28 | 19 |
| 250 | 53 | 59 | 17 | 3.1 | PH531_0040KX501_0030 MF EZ402U | 182 | 182 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 6.6 | 5.5 | 3.5 | 28 | 19 |
| 250 | 78 | 98 | 25 | 2.1 | PH531_0040KX501_0030 MF EZ404U | 242 | 242 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 7.9 | 5.5 | 3.5 | 28 | 21 |
| 250 | 84 | 91 | 26 | 2.0 | PH531_0040KX501_0030 MF EZ502U | 242 | 242 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 10 | 5.5 | 3.5 | 28 | 20 |
| 250 | 84 | 94 | 26 | 2.0 | PH531_0040KX501_0030 MF EZ701U | 227 | 227 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 13 | 5.5 | 3.5 | 28 | 22 |
| 250 | 110 | 126 | 35 | 1.5 | PH531_0040KX501_0030 MF EZ503U | 242 | 242 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 13 | 5.5 | 3.5 | 28 | 22 |
| 250 | 136 | 163 | 43 | 1.2 | PH531_0040KX501_0030 MF EZ702U | 242 | 242 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 19 | 5.5 | 3.5 | 28 | 24 |
| 250 | 153 | 182 | 48 | 1.1 | PH531_0040KX501_0030 MF EZ505U | 242 | 242 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 17 | 5.5 | 3.5 | 28 | 24 |
| 300 | 44 | 49 | 15 | 4.7 | PH531_0050KX501_0020 MF EZ402U | 151 | 151 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 7.2 | 5.0 | 3.0 | 37 | 19 |
| 300 | 65 | 81 | 22 | 3.2 | PH531_0050KX501_0020 MF EZ404U | 274 | 274 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 8.5 | 5.0 | 3.0 | 37 | 21 |
| 300 | 70 | 76 | 24 | 3.0 | PH531_0050KX501_0020 MF EZ502U | 293 | 293 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 11 | 5.0 | 3.0 | 37 | 20 |
| 300 | 70 | 78 | 24 | 3.0 | PH531_0050KX501_0020 MF EZ701U | 189 | 189 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 14 | 5.0 | 3.0 | 37 | 22 |
| 300 | 92 | 105 | 31 | 2.3 | PH531_0050KX501_0020 MF EZ503U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 13 | 5.0 | 3.0 | 37 | 22 |
| 300 | 113 | 136 | 39 | 1.8 | PH531_0050KX501_0020 MF EZ702U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 19 | 5.0 | 3.0 | 37 | 24 |
| 300 | 128 | 151 | 43 | 1.6 | PH531_0050KX501_0020 MF EZ505U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 18 | 5.0 | 3.0 | 37 | 24 |
| 300 | 156 | 197 | 53 | 1.3 | PH531_0050KX501_0020 MF EZ703U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 27 | 5.0 | 3.0 | 37 | 26 |
| 300 | 201 | 286 | 69 | 1.0 | PH531_0050KX501_0020 MF EZ705U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 40 | 5.0 | 3.0 | 37 | 32 |
| 375 | 36 | 39 | 15 | 4.7 | PH531_0040KX501_0020 MF EZ402U | 121 | 121 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 7.3 | 5.5 | 3.5 | 28 | 19 |
| 375 | 52 | 65 | 22 | 3.2 | PH531_0040KX501_0020 MF EZ404U | 219 | 219 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 8.7 | 5.5 | 3.5 | 28 | 21 |
| 375 | 56 | 61 | 24 | 3.0 | PH531_0040KX501_0020 MF EZ502U | 235 | 235 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 11 | 5.5 | 3.5 | 28 | 20 |
| 375 | 56 | 63 | 24 | 3.0 | PH531_0040KX501_0020 MF EZ701U | 151 | 151 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 14 | 5.5 | 3.5 | 28 | 22 |
| 375 | 73 | 84 | 31 | 2.3 | PH531_0040KX501_0020 MF EZ503U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 13 | 5.5 | 3.5 | 28 | 22 |
| 375 | 91 | 109 | 39 | 1.8 | PH531_0040KX501_0020 MF EZ702U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 19 | 5.5 | 3.5 | 28 | 24 |
| 375 | 102 | 121 | 43 | 1.6 | PH531_0040KX501_0020 MF EZ505U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 18 | 5.5 | 3.5 | 28 | 24 |
| 375 | 125 | 157 | 53 | 1.3 | PH531_0040KX501_0020 MF EZ703U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 27 | 5.5 | 3.5 | 28 | 26 |
| 375 | 161 | 228 | 69 | 1.0 | PH531_0040KX501_0020 MF EZ705U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 40 | 5.5 | 3.5 | 28 | 32 |
| 429 | 46 | 57 | 30 | 4.0 | PH531_0070KX501_0010 MF EZ404U | 192 | 192 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 11 | 4.5 | 2.5 | 46 | 21 |
| 429 | 49 | 53 | 32 | 3.7 | PH531_0070KX501_0010 MF EZ502U | 205 | 205 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 13 | 4.5 | 2.5 | 46 | 20 |
| 429 | 49 | 55 | 32 | 3.7 | PH531_0070KX501_0010 MF EZ701U | 132 | 132 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 17 | 4.5 | 2.5 | 46 | 22 |
| 429 | 64 | 73 | 42 | 2.9 | PH531_0070KX501_0010 MF EZ503U | 285 | 285 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 16 | 4.5 | 2.5 | 46 | 22 |
| 429 | 79 | 95 | 52 | 2.3 | PH531_0070KX501_0010 MF EZ702U | 271 | 271 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 22 | 4.5 | 2.5 | 46 | 24 |
| 429 | 89 | 106 | 58 | 2.1 | PH531_0070KX501_0010 MF EZ505U | 370 | 387 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 20 | 4.5 | 2.5 | 46 | 24 |
| 429 | 109 | 138 | 71 | 1.7 | PH531_0070KX501_0010 MF EZ703U | 370 | 387 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 30 | 4.5 | 2.5 | 46 | 26 |
| 429 | 141 | 200 | 92 | 1.3 | PH531_0070KX501_0010 MF EZ705U | 370 | 387 | 705 | 7.000 | 7/1 | 2500 | 2000 | 3500 | 42 | 4.5 | 2.5 | 46 | 32 |
| 600 | 46 | 52 | 30 | 4.0 | PH531_0050KX501_0010 MF EZ503U | 203 | 203 | 651 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 16 | 5.0 | 3.0 | 37 | 22 |
| 600 | 57 | 68 | 37 | 3.2 | PH531_0050KX501_0010 MF EZ702U | 194 | 194 | 651 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 22 | 5.0 | 3.0 | 37 | 24 |
| 600 | 64 | 76 | 42 | 2.9 | PH531_0050KX501_0010 MF EZ505U | 302 | 302 | 651 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 21 | 5.0 | 3.0 | 37 | 24 |
| 600 | 78 | 98 | 51 | 2.4 | PH531_0050KX501_0010 MF EZ703U | 302 | 302 | 651 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 30 | 5.0 | 3.0 | 37 | 26 |
| 600 | 101 | 143 | 66 | 1.8 | PH531_0050KX501_0010 MF EZ705U | 302 | 302 | 651 | 5.000 | 5/1 | 2500 | 2000 | 3500 | 42 | 5.0 | 3.0 | 37 | 32 |
| 750 | 37 | 42 | 26 | 4.6 | PH531_0040KX501_0010 MF EZ503U | 163 | 163 | 521 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 17 | 5.5 | 3.5 | 28 | 22 |
| 750 | 45 | 54 | 32 | 3.7 | PH531_0040KX501_0010 MF EZ702U | 155 | 155 | 521 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 23 | 5.5 | 3.5 | 28 | 24 |
| 750 | 51 | 61 | 37 | 3.3 | PH531_0040KX501_0010 MF EZ505U | 242 | 242 | 521 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 21 | 5.5 | 3.5 | 28 | 24 |
| 750 | 62 | 79 | 45 | 2.7 | PH531_0040KX501_0010 MF EZ703U | 242 | 242 | 521 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 31 | 5.5 | 3.5 | 28 | 26 |
| 750 | 81 | 114 | 58 | 2.1 | PH531_0040KX501_0010 MF EZ705U | 242 | 242 | 521 | 4.000 | 4/1 | 2500 | 2000 | 3500 | 43 | 5.5 | 3.5 | 28 | 32 |
| **PH531KX ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 370 Nm)** | | | | | | | | | | | | | | | | | | |
| 214 | 189 | 304 | 47 | 1.1 | PH531_0070KX501_0030 MF EZ505U | 370 | 387 | 705 | 21.00 | 21/1 | 3000 | 3000 | 5000 | 17 | 4.5 | 2.5 | 46 | 24 |
| 300 | 135 | 217 | 39 | 1.4 | PH531_0050KX501_0030 MF EZ505U | 302 | 302 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 17 | 5.0 | 3.0 | 37 | 24 |
| 300 | 172 | 284 | 49 | 1.1 | PH531_0050KX501_0030 MF EZ703U | 302 | 302 | 651 | 15.00 | 15/1 | 3000 | 3000 | 5000 | 27 | 5.0 | 3.0 | 37 | 26 |
| 321 | 126 | 203 | 44 | 1.6 | PH531_0070KX501_0020 MF EZ505U | 370 | 387 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 18 | 4.5 | 2.5 | 46 | 24 |
| 321 | 160 | 265 | 57 | 1.3 | PH531_0070KX501_0020 MF EZ703U | 370 | 387 | 705 | 14.00 | 14/1 | 2500 | 2500 | 4500 | 27 | 4.5 | 2.5 | 46 | 26 |
| 375 | 108 | 174 | 39 | 1.4 | PH531_0040KX501_0030 MF EZ505U | 242 | 242 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 17 | 5.5 | 3.5 | 28 | 24 |
| 375 | 137 | 227 | 49 | 1.1 | PH531_0040KX501_0030 MF EZ703U | 242 | 242 | 521 | 12.00 | 12/1 | 3000 | 3000 | 5000 | 27 | 5.5 | 3.5 | 28 | 26 |
| 450 | 90 | 145 | 35 | 2.0 | PH531_0050KX501_0020 MF EZ505U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 18 | 5.0 | 3.0 | 37 | 24 |
| 450 | 114 | 189 | 45 | 1.6 | PH531_0050KX501_0020 MF EZ703U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 27 | 5.0 | 3.0 | 37 | 26 |
| 450 | 155 | 284 | 60 | 1.2 | PH531_0050KX501_0020 MF EZ705U | 302 | 302 | 651 | 10.00 | 10/1 | 2500 | 2500 | 4500 | 40 | 5.0 | 3.0 | 37 | 32 |
| 563 | 72 | 116 | 35 | 2.0 | PH531_0040KX501_0020 MF EZ505U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 18 | 5.5 | 3.5 | 28 | 24 |
| 563 | 92 | 151 | 45 | 1.6 | PH531_0040KX501_0020 MF EZ703U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 27 | 5.5 | 3.5 | 28 | 26 |
| 563 | 124 | 227 | 60 | 1.2 | PH531_0040KX501_0020 MF EZ705U | 242 | 242 | 521 | 8.000 | 8/1 | 2500 | 2500 | 4500 | 40 | 5.5 | 3.5 | 28 | 32 |
| **PH532KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 14 | 179 | 183 | 30 | 1.6 | PH532_0700KX401_0030 MF EZ301U | 370 | 387 | 705 | 210.0 | 210/1 | 3000 | 3000 | 5500 | 1.6 | 3.0 | 1.0 | 69 | 13 |
| 15 | 170 | 174 | 49 | 1.3 | PH532_1000KX401_0020 MF EZ301U | 288 | 288 | 575 | 200.0 | 200/1 | 2500 | 2500 | 5000 | 1.8 | 3.0 | 1.0 | 52 | 13 |
| 20 | 128 | 131 | 20 | 2.3 | PH532_0500KX401_0030 MF EZ301U | 385 | 385 | 705 | 150.0 | 150/1 | 3000 | 3000 | 5500 | 1.6 | 3.0 | 1.0 | 77 | 13 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH532KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 20 | 218 | 231 | 35 | 1.4 | PH532_0500KX401_0030 MF EZ302U | 385 | 400 | 705 | 150.0 | 150/1 | 3000 | 3000 | 5500 | 1.7 | 3.0 | 1.0 | 77 | 14 |
| 20 | 284 | 301 | 46 | 1.0 | PH532_0500KX401_0030 MF EZ303U | 385 | 400 | 705 | 150.0 | 150/1 | 3000 | 3000 | 5500 | 1.8 | 3.0 | 1.0 | 77 | 14 |
| 21 | 119 | 122 | 27 | 2.4 | PH532_0700KX401_0020 MF EZ301U | 359 | 359 | 705 | 140.0 | 140/1 | 2500 | 2500 | 5000 | 1.8 | 3.0 | 1.0 | 69 | 13 |
| 21 | 204 | 215 | 46 | 1.4 | PH532_0700KX401_0020 MF EZ302U | 370 | 387 | 705 | 140.0 | 140/1 | 2500 | 2500 | 5000 | 1.9 | 3.0 | 1.0 | 69 | 14 |
| 21 | 265 | 281 | 60 | 1.1 | PH532_0700KX401_0020 MF EZ303U | 370 | 387 | 705 | 140.0 | 140/1 | 2500 | 2500 | 5000 | 2.0 | 3.0 | 1.0 | 69 | 14 |
| 25 | 102 | 104 | 19 | 2.5 | PH532_0400KX401_0030 MF EZ301U | 308 | 308 | 696 | 120.0 | 120/1 | 3000 | 3000 | 5500 | 1.6 | 3.5 | 1.5 | 71 | 13 |
| 25 | 175 | 185 | 32 | 1.5 | PH532_0400KX401_0030 MF EZ302U | 355 | 356 | 696 | 120.0 | 120/1 | 3000 | 3000 | 5500 | 1.7 | 3.5 | 1.5 | 71 | 14 |
| 25 | 228 | 241 | 41 | 1.1 | PH532_0400KX401_0030 MF EZ303U | 355 | 356 | 696 | 120.0 | 120/1 | 3000 | 3000 | 5500 | 1.9 | 3.5 | 1.5 | 71 | 14 |
| 29 | 89 | 91 | 15 | 3.2 | PH532_0350KX401_0030 MF EZ301U | 269 | 269 | 705 | 105.0 | 105/1 | 3000 | 3000 | 5500 | 1.6 | 3.5 | 1.5 | 78 | 13 |
| 29 | 153 | 162 | 25 | 1.9 | PH532_0350KX401_0030 MF EZ302U | 385 | 400 | 705 | 105.0 | 105/1 | 3000 | 3000 | 5500 | 1.7 | 3.5 | 1.5 | 78 | 14 |
| 29 | 199 | 211 | 33 | 1.5 | PH532_0350KX401_0030 MF EZ303U | 385 | 400 | 705 | 105.0 | 105/1 | 3000 | 3000 | 5500 | 1.8 | 3.5 | 1.5 | 78 | 14 |
| 29 | 269 | 289 | 44 | 1.1 | PH532_0350KX401_0030 MF EZ401U | 385 | 400 | 705 | 105.0 | 105/1 | 3000 | 3000 | 5500 | 2.4 | 3.5 | 1.5 | 78 | 16 |
| 30 | 85 | 87 | 18 | 3.5 | PH532_0500KX401_0020 MF EZ301U | 256 | 256 | 705 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 1.8 | 3.0 | 1.0 | 77 | 13 |
| 30 | 146 | 154 | 32 | 2.0 | PH532_0500KX401_0020 MF EZ302U | 385 | 400 | 705 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 1.9 | 3.0 | 1.0 | 77 | 14 |
| 30 | 190 | 201 | 41 | 1.6 | PH532_0500KX401_0020 MF EZ303U | 385 | 400 | 705 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 2.1 | 3.0 | 1.0 | 77 | 14 |
| 30 | 256 | 275 | 56 | 1.2 | PH532_0500KX401_0020 MF EZ401U | 385 | 400 | 705 | 100.0 | 100/1 | 2500 | 2500 | 5000 | 2.6 | 3.0 | 1.0 | 77 | 16 |
| 36 | 72 | 73 | 14 | 3.4 | PH532_0280KX401_0030 MF EZ301U | 215 | 215 | 696 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 1.7 | 3.5 | 1.5 | 72 | 13 |
| 36 | 122 | 129 | 24 | 2.0 | PH532_0280KX401_0030 MF EZ302U | 355 | 385 | 696 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 1.8 | 3.5 | 1.5 | 72 | 14 |
| 36 | 159 | 169 | 31 | 1.5 | PH532_0280KX401_0030 MF EZ303U | 355 | 387 | 696 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 1.9 | 3.5 | 1.5 | 72 | 14 |
| 36 | 215 | 231 | 43 | 1.1 | PH532_0280KX401_0030 MF EZ401U | 355 | 387 | 696 | 84.00 | 84/1 | 3000 | 3000 | 5500 | 2.4 | 3.5 | 1.5 | 72 | 16 |
| 38 | 68 | 70 | 17 | 3.8 | PH532_0400KX401_0020 MF EZ301U | 205 | 205 | 696 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 1.9 | 3.5 | 1.5 | 71 | 13 |
| 38 | 117 | 123 | 29 | 2.2 | PH532_0400KX401_0020 MF EZ302U | 355 | 356 | 696 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 2.0 | 3.5 | 1.5 | 71 | 14 |
| 38 | 152 | 160 | 37 | 1.7 | PH532_0400KX401_0020 MF EZ303U | 355 | 356 | 696 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 2.1 | 3.5 | 1.5 | 71 | 14 |
| 38 | 205 | 220 | 51 | 1.3 | PH532_0400KX401_0020 MF EZ401U | 355 | 356 | 696 | 80.00 | 80/1 | 2500 | 2500 | 5000 | 2.6 | 3.5 | 1.5 | 71 | 16 |
| 40 | 64 | 65 | 12 | 4.1 | PH532_0250KX401_0030 MF EZ301U | 192 | 192 | 705 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 1.6 | 3.5 | 1.5 | 75 | 13 |
| 40 | 109 | 115 | 20 | 2.4 | PH532_0250KX401_0030 MF EZ302U | 344 | 344 | 705 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 1.7 | 3.5 | 1.5 | 75 | 14 |
| 40 | 142 | 150 | 26 | 1.8 | PH532_0250KX401_0030 MF EZ303U | 385 | 400 | 705 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 1.9 | 3.5 | 1.5 | 75 | 14 |
| 40 | 192 | 206 | 35 | 1.4 | PH532_0250KX401_0030 MF EZ401U | 385 | 400 | 705 | 75.00 | 75/1 | 3000 | 3000 | 5500 | 2.4 | 3.5 | 1.5 | 75 | 16 |
| 43 | 60 | 61 | 13 | 4.9 | PH532_0350KX401_0020 MF EZ301U | 180 | 180 | 705 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 1.9 | 3.5 | 1.5 | 78 | 13 |
| 43 | 102 | 108 | 23 | 2.8 | PH532_0350KX401_0020 MF EZ302U | 321 | 321 | 705 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 2.0 | 3.5 | 1.5 | 78 | 14 |
| 43 | 133 | 140 | 29 | 2.2 | PH532_0350KX401_0020 MF EZ303U | 385 | 400 | 705 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 2.1 | 3.5 | 1.5 | 78 | 14 |
| 43 | 180 | 192 | 40 | 1.6 | PH532_0350KX401_0020 MF EZ401U | 385 | 400 | 705 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 2.6 | 3.5 | 1.5 | 78 | 16 |
| 43 | 276 | 301 | 61 | 1.1 | PH532_0350KX401_0020 MF EZ501U | 385 | 400 | 705 | 70.00 | 70/1 | 2500 | 2500 | 5000 | 4.6 | 3.5 | 1.5 | 78 | 17 |
| 50 | 51 | 52 | 9.7 | 4.9 | PH532_0200KX401_0030 MF EZ301U | 154 | 154 | 705 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 1.6 | 3.5 | 1.5 | 71 | 13 |
| 50 | 87 | 92 | 17 | 2.9 | PH532_0200KX401_0030 MF EZ302U | 275 | 275 | 705 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 1.7 | 3.5 | 1.5 | 71 | 14 |
| 50 | 114 | 120 | 22 | 2.2 | PH532_0200KX401_0030 MF EZ303U | 370 | 385 | 705 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 1.9 | 3.5 | 1.5 | 71 | 14 |
| 50 | 154 | 165 | 29 | 1.6 | PH532_0200KX401_0030 MF EZ401U | 370 | 387 | 705 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 2.4 | 3.5 | 1.5 | 71 | 16 |
| 50 | 236 | 258 | 45 | 1.1 | PH532_0200KX401_0030 MF EZ501U | 370 | 387 | 705 | 60.00 | 60/1 | 3000 | 3000 | 5500 | 4.4 | 3.5 | 1.5 | 71 | 17 |
| 54 | 82 | 86 | 22 | 2.9 | PH532_0280KX401_0020 MF EZ302U | 256 | 256 | 696 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 2.0 | 3.5 | 1.5 | 72 | 14 |
| 54 | 106 | 112 | 28 | 2.3 | PH532_0280KX401_0020 MF EZ303U | 355 | 359 | 696 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 2.1 | 3.5 | 1.5 | 72 | 14 |
| 54 | 144 | 154 | 38 | 1.7 | PH532_0280KX401_0020 MF EZ401U | 355 | 387 | 696 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 2.6 | 3.5 | 1.5 | 72 | 16 |
| 54 | 221 | 241 | 59 | 1.1 | PH532_0280KX401_0020 MF EZ501U | 355 | 387 | 696 | 56.00 | 56/1 | 2500 | 2500 | 5000 | 4.6 | 3.5 | 1.5 | 72 | 17 |
| 60 | 73 | 77 | 18 | 3.6 | PH532_0250KX401_0020 MF EZ302U | 229 | 229 | 705 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 2.0 | 3.5 | 1.5 | 75 | 14 |
| 60 | 95 | 100 | 23 | 2.7 | PH532_0250KX401_0020 MF EZ303U | 321 | 321 | 705 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 2.1 | 3.5 | 1.5 | 75 | 14 |
| 60 | 128 | 137 | 32 | 2.0 | PH532_0250KX401_0020 MF EZ401U | 385 | 389 | 705 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 2.6 | 3.5 | 1.5 | 75 | 16 |
| 60 | 197 | 215 | 49 | 1.3 | PH532_0250KX401_0020 MF EZ501U | 385 | 400 | 705 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 4.6 | 3.5 | 1.5 | 75 | 17 |
| 60 | 215 | 238 | 53 | 1.2 | PH532_0250KX401_0020 MF EZ402U | 385 | 400 | 705 | 50.00 | 50/1 | 2500 | 2500 | 5000 | 3.3 | 3.5 | 1.5 | 75 | 17 |
| 63 | 70 | 74 | 14 | 3.3 | PH532_0160KX401_0030 MF EZ302U | 220 | 220 | 696 | 48.00 | 48/1 | 3000 | 3000 | 5500 | 1.8 | 3.5 | 1.5 | 63 | 14 |
| 63 | 91 | 96 | 19 | 2.5 | PH532_0160KX401_0030 MF EZ303U | 308 | 308 | 696 | 48.00 | 48/1 | 3000 | 3000 | 5500 | 1.9 | 3.5 | 1.5 | 63 | 14 |
| 63 | 123 | 132 | 25 | 1.9 | PH532_0160KX401_0030 MF EZ401U | 355 | 355 | 696 | 48.00 | 48/1 | 3000 | 3000 | 5500 | 2.4 | 3.5 | 1.5 | 63 | 16 |
| 63 | 189 | 207 | 39 | 1.2 | PH532_0160KX401_0030 MF EZ501U | 355 | 355 | 696 | 48.00 | 48/1 | 3000 | 3000 | 5500 | 4.4 | 3.5 | 1.5 | 63 | 17 |
| 63 | 207 | 229 | 43 | 1.1 | PH532_0160KX401_0030 MF EZ402U | 355 | 355 | 696 | 48.00 | 48/1 | 3000 | 3000 | 5500 | 3.1 | 3.5 | 1.5 | 63 | 17 |
| 75 | 58 | 62 | 15 | 4.3 | PH532_0200KX401_0020 MF EZ302U | 183 | 183 | 705 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 2.0 | 3.5 | 1.5 | 71 | 14 |
| 75 | 76 | 80 | 19 | 3.3 | PH532_0200KX401_0020 MF EZ303U | 256 | 256 | 705 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 2.1 | 3.5 | 1.5 | 71 | 14 |
| 75 | 103 | 110 | 26 | 2.4 | PH532_0200KX401_0020 MF EZ401U | 311 | 311 | 705 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 2.6 | 3.5 | 1.5 | 71 | 16 |
| 75 | 158 | 172 | 40 | 1.6 | PH532_0200KX401_0020 MF EZ501U | 370 | 387 | 705 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 4.6 | 3.5 | 1.5 | 71 | 17 |
| 75 | 172 | 191 | 44 | 1.5 | PH532_0200KX401_0020 MF EZ402U | 370 | 387 | 705 | 40.00 | 40/1 | 2500 | 2500 | 5000 | 3.3 | 3.5 | 1.5 | 71 | 17 |
| 86 | 66 | 70 | 27 | 4.0 | PH532_0350KX401_0010 MF EZ303U | 224 | 224 | 705 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 2.9 | 3.5 | 1.5 | 78 | 14 |
| 86 | 90 | 96 | 37 | 2.9 | PH532_0350KX401_0010 MF EZ401U | 273 | 273 | 705 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 3.4 | 3.5 | 1.5 | 78 | 16 |
| 86 | 138 | 151 | 56 | 1.9 | PH532_0350KX401_0010 MF EZ501U | 385 | 400 | 705 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 5.4 | 3.5 | 1.5 | 78 | 17 |
| 86 | 151 | 167 | 62 | 1.8 | PH532_0350KX401_0010 MF EZ402U | 385 | 400 | 705 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 4.1 | 3.5 | 1.5 | 78 | 17 |
| 86 | 221 | 276 | 90 | 1.2 | PH532_0350KX401_0010 MF EZ404U | 385 | 400 | 705 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 5.5 | 3.5 | 1.5 | 78 | 19 |
| 86 | 237 | 256 | 97 | 1.1 | PH532_0350KX401_0010 MF EZ502U | 385 | 400 | 705 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 7.7 | 3.5 | 1.5 | 78 | 18 |
| 86 | 237 | 266 | 97 | 1.1 | PH532_0350KX401_0010 MF EZ701U | 385 | 400 | 705 | 35.00 | 35/1 | 2500 | 2000 | 4000 | 11 | 3.5 | 1.5 | 78 | 20 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH532KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 94 | 47 | 49 | 13 | 4.9 | PH532_0160KX401_0020 MF EZ302U | 147 | 147 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 2.0 | 3.5 | 1.5 | 63 | 14 |
| 94 | 61 | 64 | 17 | 3.8 | PH532_0160KX401_0020 MF EZ303U | 205 | 205 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 2.1 | 3.5 | 1.5 | 63 | 14 |
| 94 | 82 | 88 | 23 | 2.8 | PH532_0160KX401_0020 MF EZ401U | 249 | 249 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 2.6 | 3.5 | 1.5 | 63 | 16 |
| 94 | 126 | 138 | 35 | 1.8 | PH532_0160KX401_0020 MF EZ501U | 355 | 355 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 4.6 | 3.5 | 1.5 | 63 | 17 |
| 94 | 138 | 152 | 38 | 1.7 | PH532_0160KX401_0020 MF EZ402U | 355 | 355 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 3.3 | 3.5 | 1.5 | 63 | 17 |
| 94 | 202 | 252 | 56 | 1.1 | PH532_0160KX401_0020 MF EZ404U | 355 | 355 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 4.7 | 3.5 | 1.5 | 63 | 19 |
| 94 | 217 | 235 | 61 | 1.1 | PH532_0160KX401_0020 MF EZ502U | 355 | 355 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 6.9 | 3.5 | 1.5 | 63 | 18 |
| 94 | 217 | 243 | 61 | 1.1 | PH532_0160KX401_0020 MF EZ701U | 355 | 355 | 696 | 32.00 | 32/1 | 2500 | 2500 | 5000 | 10 | 3.5 | 1.5 | 63 | 20 |
| **PH731KX ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 840 Nm)** | | | | | | | | | | | | | | | | | | |
| 200 | 369 | 414 | 179 | 1.2 | PH731_0050KX701_0020 MF EZ813U | 600 | 600 | 1302 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 120 | 5.0 | 3.0 | 111 | 61 |
| 250 | 295 | 331 | 164 | 1.3 | PH731_0040KX701_0020 MF EZ813U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 120 | 5.5 | 3.5 | 94 | 61 |
| 286 | 258 | 289 | 211 | 1.7 | PH731_0070KX701_0010 MF EZ813U | 840 | 840 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 131 | 4.5 | 2.5 | 122 | 61 |
| 286 | 382 | 455 | 313 | 1.2 | PH731_0070KX701_0010 MF EZ815U | 840 | 840 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 194 | 4.5 | 2.5 | 122 | 74 |
| 400 | 184 | 207 | 151 | 2.4 | PH731_0050KX701_0010 MF EZ813U | 600 | 600 | 1146 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 132 | 5.0 | 3.0 | 111 | 61 |
| 400 | 273 | 325 | 223 | 1.6 | PH731_0050KX701_0010 MF EZ815U | 600 | 600 | 1146 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 195 | 5.0 | 3.0 | 111 | 74 |
| 500 | 147 | 165 | 138 | 2.6 | PH731_0040KX701_0010 MF EZ813U | 480 | 480 | 917 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 135 | 5.5 | 3.5 | 94 | 61 |
| 500 | 218 | 260 | 205 | 1.8 | PH731_0040KX701_0010 MF EZ815U | 480 | 480 | 917 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 198 | 5.5 | 3.5 | 94 | 74 |
| **PH731KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 840 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 122 | 133 | 55 | 2.9 | PH731_0100KX701_0030 MF EZ501U | 454 | 454 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 15 | 4.0 | 2.0 | 110 | 31 |
| 100 | 210 | 227 | 95 | 1.7 | PH731_0100KX701_0030 MF EZ502U | 575 | 575 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 18 | 4.0 | 2.0 | 110 | 32 |
| 100 | 210 | 235 | 95 | 1.7 | PH731_0100KX701_0030 MF EZ701U | 567 | 567 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 21 | 4.0 | 2.0 | 110 | 34 |
| 100 | 275 | 315 | 124 | 1.3 | PH731_0100KX701_0030 MF EZ503U | 575 | 575 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 20 | 4.0 | 2.0 | 110 | 34 |
| 100 | 340 | 408 | 154 | 1.0 | PH731_0100KX701_0030 MF EZ702U | 575 | 575 | 1150 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 26 | 4.0 | 2.0 | 110 | 36 |
| 143 | 147 | 159 | 53 | 3.0 | PH731_0070KX701_0030 MF EZ502U | 616 | 616 | 1720 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 18 | 4.5 | 2.5 | 122 | 32 |
| 143 | 147 | 165 | 53 | 3.0 | PH731_0070KX701_0030 MF EZ701U | 397 | 397 | 1720 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 122 | 34 |
| 143 | 193 | 220 | 69 | 2.3 | PH731_0070KX701_0030 MF EZ503U | 840 | 840 | 1720 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 20 | 4.5 | 2.5 | 122 | 34 |
| 143 | 238 | 286 | 86 | 1.8 | PH731_0070KX701_0030 MF EZ702U | 814 | 814 | 1720 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 26 | 4.5 | 2.5 | 122 | 36 |
| 143 | 268 | 318 | 96 | 1.6 | PH731_0070KX701_0030 MF EZ505U | 840 | 840 | 1720 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 25 | 4.5 | 2.5 | 122 | 36 |
| 143 | 328 | 413 | 118 | 1.3 | PH731_0070KX701_0030 MF EZ703U | 840 | 840 | 1720 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 34 | 4.5 | 2.5 | 122 | 38 |
| 143 | 423 | 600 | 152 | 1.0 | PH731_0070KX701_0030 MF EZ705U | 840 | 840 | 1720 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 47 | 4.5 | 2.5 | 122 | 44 |
| 150 | 81 | 89 | 50 | 4.3 | PH731_0100KX701_0020 MF EZ501U | 303 | 303 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 18 | 4.0 | 2.0 | 110 | 31 |
| 150 | 140 | 151 | 86 | 2.5 | PH731_0100KX701_0020 MF EZ502U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 20 | 4.0 | 2.0 | 110 | 32 |
| 150 | 140 | 157 | 86 | 2.5 | PH731_0100KX701_0020 MF EZ701U | 378 | 378 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 23 | 4.0 | 2.0 | 110 | 34 |
| 150 | 183 | 210 | 112 | 1.9 | PH731_0100KX701_0020 MF EZ503U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 23 | 4.0 | 2.0 | 110 | 34 |
| 150 | 227 | 272 | 139 | 1.5 | PH731_0100KX701_0020 MF EZ702U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 29 | 4.0 | 2.0 | 110 | 36 |
| 150 | 255 | 303 | 156 | 1.4 | PH731_0100KX701_0020 MF EZ505U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 27 | 4.0 | 2.0 | 110 | 36 |
| 150 | 312 | 393 | 191 | 1.1 | PH731_0100KX701_0020 MF EZ703U | 575 | 575 | 1150 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 37 | 4.0 | 2.0 | 110 | 38 |
| 200 | 105 | 113 | 40 | 4.0 | PH731_0050KX701_0030 MF EZ502U | 440 | 440 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 18 | 5.0 | 3.0 | 111 | 32 |
| 200 | 105 | 118 | 40 | 4.0 | PH731_0050KX701_0030 MF EZ701U | 284 | 284 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 21 | 5.0 | 3.0 | 111 | 34 |
| 200 | 138 | 157 | 52 | 3.0 | PH731_0050KX701_0030 MF EZ503U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 20 | 5.0 | 3.0 | 111 | 34 |
| 200 | 170 | 204 | 64 | 2.5 | PH731_0050KX701_0030 MF EZ702U | 582 | 582 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 26 | 5.0 | 3.0 | 111 | 36 |
| 200 | 191 | 227 | 72 | 2.2 | PH731_0050KX701_0030 MF EZ505U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 25 | 5.0 | 3.0 | 111 | 36 |
| 200 | 234 | 295 | 88 | 1.8 | PH731_0050KX701_0030 MF EZ703U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 34 | 5.0 | 3.0 | 111 | 38 |
| 200 | 302 | 428 | 114 | 1.4 | PH731_0050KX701_0030 MF EZ705U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 47 | 5.0 | 3.0 | 111 | 44 |
| 214 | 98 | 106 | 48 | 4.5 | PH731_0070KX701_0020 MF EZ502U | 410 | 410 | 1720 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 20 | 4.5 | 2.5 | 122 | 32 |
| 214 | 98 | 110 | 48 | 4.5 | PH731_0070KX701_0020 MF EZ701U | 265 | 265 | 1720 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 24 | 4.5 | 2.5 | 122 | 34 |
| 214 | 128 | 147 | 62 | 3.4 | PH731_0070KX701_0020 MF EZ503U | 569 | 569 | 1720 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 23 | 4.5 | 2.5 | 122 | 34 |
| 214 | 159 | 191 | 77 | 2.8 | PH731_0070KX701_0020 MF EZ702U | 543 | 543 | 1720 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 122 | 36 |
| 214 | 179 | 212 | 87 | 2.5 | PH731_0070KX701_0020 MF EZ505U | 840 | 840 | 1720 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 27 | 4.5 | 2.5 | 122 | 36 |
| 214 | 218 | 275 | 106 | 2.0 | PH731_0070KX701_0020 MF EZ703U | 840 | 840 | 1720 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 37 | 4.5 | 2.5 | 122 | 38 |
| 214 | 282 | 400 | 137 | 1.6 | PH731_0070KX701_0020 MF EZ705U | 840 | 840 | 1720 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 49 | 4.5 | 2.5 | 122 | 44 |
| 250 | 84 | 91 | 40 | 4.0 | PH731_0040KX701_0030 MF EZ502U | 352 | 352 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 18 | 5.5 | 3.5 | 94 | 32 |
| 250 | 84 | 94 | 40 | 4.0 | PH731_0040KX701_0030 MF EZ701U | 227 | 227 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 22 | 5.5 | 3.5 | 94 | 34 |
| 250 | 110 | 126 | 52 | 3.0 | PH731_0040KX701_0030 MF EZ503U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 21 | 5.5 | 3.5 | 94 | 34 |
| 250 | 136 | 163 | 64 | 2.5 | PH731_0040KX701_0030 MF EZ702U | 465 | 465 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 27 | 5.5 | 3.5 | 94 | 36 |
| 250 | 153 | 182 | 72 | 2.2 | PH731_0040KX701_0030 MF EZ505U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 25 | 5.5 | 3.5 | 94 | 36 |
| 250 | 187 | 236 | 88 | 1.8 | PH731_0040KX701_0030 MF EZ703U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 35 | 5.5 | 3.5 | 94 | 38 |
| 250 | 242 | 343 | 114 | 1.4 | PH731_0040KX701_0030 MF EZ705U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 47 | 5.5 | 3.5 | 94 | 44 |
| 300 | 92 | 105 | 47 | 4.6 | PH731_0050KX701_0020 MF EZ503U | 407 | 407 | 1302 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 23 | 5.0 | 3.0 | 111 | 34 |
| 300 | 113 | 136 | 58 | 3.7 | PH731_0050KX701_0020 MF EZ702U | 388 | 388 | 1302 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 29 | 5.0 | 3.0 | 111 | 36 |
| 300 | 128 | 151 | 65 | 3.3 | PH731_0050KX701_0020 MF EZ505U | 600 | 600 | 1302 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 28 | 5.0 | 3.0 | 111 | 36 |
| 300 | 156 | 197 | 80 | 2.7 | PH731_0050KX701_0020 MF EZ703U | 600 | 600 | 1302 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 37 | 5.0 | 3.0 | 111 | 38 |
| 300 | 201 | 286 | 103 | 2.1 | PH731_0050KX701_0020 MF EZ705U | 600 | 600 | 1302 | 10.00 | 10/1 | 1800 | 1800 | 3500 | 49 | 5.0 | 3.0 | 111 | 44 |
| 375 | 73 | 84 | 47 | 4.6 | PH731_0040KX701_0020 MF EZ503U | 325 | 325 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 24 | 5.5 | 3.5 | 94 | 34 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH731KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 840 Nm)** | | | | | | | | | | | | | | | | | | |
| 375 | 91 | 109 | 58 | 3.7 | PH731_0040KX701_0020 MF EZ702U | 310 | 310 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 30 | 5.5 | 3.5 | 94 | 36 |
| 375 | 102 | 121 | 65 | 3.3 | PH731_0040KX701_0020 MF EZ505U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 28 | 5.5 | 3.5 | 94 | 36 |
| 375 | 125 | 157 | 80 | 2.7 | PH731_0040KX701_0020 MF EZ703U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 38 | 5.5 | 3.5 | 94 | 38 |
| 375 | 161 | 228 | 103 | 2.1 | PH731_0040KX701_0020 MF EZ705U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 50 | 5.5 | 3.5 | 94 | 44 |
| 429 | 79 | 95 | 74 | 4.8 | PH731_0070KX701_0010 MF EZ702U | 271 | 271 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 40 | 4.5 | 2.5 | 122 | 36 |
| 429 | 89 | 106 | 84 | 4.3 | PH731_0070KX701_0010 MF EZ505U | 443 | 443 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 39 | 4.5 | 2.5 | 122 | 36 |
| 429 | 109 | 138 | 102 | 3.5 | PH731_0070KX701_0010 MF EZ703U | 430 | 430 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 48 | 4.5 | 2.5 | 122 | 38 |
| 429 | 141 | 200 | 132 | 2.7 | PH731_0070KX701_0010 MF EZ705U | 688 | 688 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 60 | 4.5 | 2.5 | 122 | 44 |
| 600 | 78 | 98 | 73 | 4.9 | PH731_0050KX701_0010 MF EZ703U | 307 | 307 | 1146 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 50 | 5.0 | 3.0 | 111 | 38 |
| 600 | 101 | 143 | 94 | 3.8 | PH731_0050KX701_0010 MF EZ705U | 492 | 492 | 1146 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 62 | 5.0 | 3.0 | 111 | 44 |
| 750 | 81 | 114 | 86 | 4.2 | PH731_0040KX701_0010 MF EZ705U | 393 | 393 | 917 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 64 | 5.5 | 3.5 | 94 | 44 |
| **PH731KX ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | | | |
| 267 | 357 | 620 | 148 | 1.1 | PH731_0050KX701_0030 MF EZ813U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 117 | 5.0 | 3.0 | 111 | 61 |
| 267 | 370 | 952 | 153 | 1.0 | PH731_0050KX701_0030 MF EZ815U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 180 | 5.0 | 3.0 | 111 | 74 |
| 333 | 286 | 496 | 148 | 1.1 | PH731_0040KX701_0030 MF EZ813U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 117 | 5.5 | 3.5 | 94 | 61 |
| 333 | 296 | 762 | 153 | 1.0 | PH731_0040KX701_0030 MF EZ815U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 180 | 5.5 | 3.5 | 94 | 74 |
| **PH732KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 870 Nm)** | | | | | | | | | | | | | | | | | | |
| 14 | 539 | 577 | 47 | 1.1 | PH732_0700KX501_0030 MF EZ401U | 809 | 847 | 1617 | 210.0 | 210/1 | 3000 | 3000 | 5000 | 5.7 | 3.0 | 1.0 | 152 | 26 |
| 20 | 385 | 412 | 34 | 1.6 | PH732_0500KX501_0030 MF EZ401U | 830 | 834 | 1660 | 150.0 | 150/1 | 3000 | 3000 | 5000 | 5.8 | 3.0 | 1.0 | 171 | 26 |
| 20 | 591 | 646 | 52 | 1.0 | PH732_0500KX501_0030 MF EZ501U | 830 | 834 | 1660 | 150.0 | 150/1 | 3000 | 3000 | 5000 | 7.7 | 3.0 | 1.0 | 171 | 27 |
| 21 | 359 | 385 | 43 | 1.7 | PH732_0700KX501_0020 MF EZ401U | 809 | 847 | 1617 | 140.0 | 140/1 | 2500 | 2500 | 4500 | 6.3 | 3.0 | 1.0 | 152 | 26 |
| 21 | 551 | 603 | 66 | 1.1 | PH732_0700KX501_0020 MF EZ501U | 809 | 847 | 1617 | 140.0 | 140/1 | 2500 | 2500 | 4500 | 8.2 | 3.0 | 1.0 | 152 | 27 |
| 25 | 308 | 330 | 30 | 1.8 | PH732_0400KX501_0030 MF EZ401U | 770 | 770 | 1540 | 120.0 | 120/1 | 3000 | 3000 | 5000 | 5.8 | 3.5 | 1.5 | 174 | 26 |
| 25 | 473 | 517 | 46 | 1.1 | PH732_0400KX501_0030 MF EZ501U | 770 | 770 | 1540 | 120.0 | 120/1 | 3000 | 3000 | 5000 | 7.8 | 3.5 | 1.5 | 174 | 27 |
| 25 | 517 | 572 | 50 | 1.0 | PH732_0400KX501_0030 MF EZ402U | 770 | 770 | 1540 | 120.0 | 120/1 | 3000 | 3000 | 5000 | 6.5 | 3.5 | 1.5 | 174 | 27 |
| 29 | 269 | 289 | 26 | 2.0 | PH732_0350KX501_0030 MF EZ401U | 818 | 818 | 1720 | 105.0 | 105/1 | 3000 | 3000 | 5000 | 5.8 | 3.5 | 1.5 | 172 | 26 |
| 29 | 414 | 452 | 40 | 1.3 | PH732_0350KX501_0030 MF EZ501U | 866 | 908 | 1720 | 105.0 | 105/1 | 3000 | 3000 | 5000 | 7.7 | 3.5 | 1.5 | 172 | 27 |
| 29 | 452 | 500 | 44 | 1.2 | PH732_0350KX501_0030 MF EZ402U | 866 | 908 | 1720 | 105.0 | 105/1 | 3000 | 3000 | 5000 | 6.5 | 3.5 | 1.5 | 172 | 27 |
| 30 | 256 | 275 | 31 | 2.3 | PH732_0500KX501_0020 MF EZ401U | 779 | 779 | 1660 | 100.0 | 100/1 | 2500 | 2500 | 4500 | 6.3 | 3.0 | 1.0 | 171 | 26 |
| 30 | 394 | 431 | 47 | 1.5 | PH732_0500KX501_0020 MF EZ501U | 830 | 834 | 1660 | 100.0 | 100/1 | 2500 | 2500 | 4500 | 8.3 | 3.0 | 1.0 | 171 | 27 |
| 30 | 431 | 476 | 51 | 1.4 | PH732_0500KX501_0020 MF EZ402U | 830 | 834 | 1660 | 100.0 | 100/1 | 2500 | 2500 | 4500 | 7.0 | 3.0 | 1.0 | 171 | 27 |
| 36 | 215 | 231 | 21 | 2.5 | PH732_0280KX501_0030 MF EZ401U | 654 | 654 | 1540 | 84.00 | 84/1 | 3000 | 3000 | 5000 | 5.8 | 3.5 | 1.5 | 176 | 26 |
| 36 | 331 | 362 | 32 | 1.6 | PH732_0280KX501_0030 MF EZ501U | 770 | 880 | 1540 | 84.00 | 84/1 | 3000 | 3000 | 5000 | 7.8 | 3.5 | 1.5 | 176 | 27 |
| 36 | 362 | 400 | 35 | 1.5 | PH732_0280KX501_0030 MF EZ402U | 770 | 880 | 1540 | 84.00 | 84/1 | 3000 | 3000 | 5000 | 6.5 | 3.5 | 1.5 | 176 | 27 |
| 36 | 531 | 662 | 52 | 1.0 | PH732_0280KX501_0030 MF EZ404U | 770 | 880 | 1540 | 84.00 | 84/1 | 3000 | 3000 | 5000 | 7.9 | 3.5 | 1.5 | 176 | 29 |
| 38 | 205 | 220 | 27 | 2.6 | PH732_0400KX501_0020 MF EZ401U | 623 | 623 | 1540 | 80.00 | 80/1 | 2500 | 2500 | 4500 | 6.4 | 3.5 | 1.5 | 174 | 26 |
| 38 | 315 | 344 | 42 | 1.7 | PH732_0400KX501_0020 MF EZ501U | 770 | 770 | 1540 | 80.00 | 80/1 | 2500 | 2500 | 4500 | 8.4 | 3.5 | 1.5 | 174 | 27 |
| 38 | 344 | 381 | 46 | 1.6 | PH732_0400KX501_0020 MF EZ402U | 770 | 770 | 1540 | 80.00 | 80/1 | 2500 | 2500 | 4500 | 7.1 | 3.5 | 1.5 | 174 | 27 |
| 38 | 506 | 630 | 67 | 1.1 | PH732_0400KX501_0020 MF EZ404U | 770 | 770 | 1540 | 80.00 | 80/1 | 2500 | 2500 | 4500 | 8.5 | 3.5 | 1.5 | 174 | 29 |
| 40 | 192 | 206 | 20 | 2.6 | PH732_0250KX501_0030 MF EZ401U | 584 | 584 | 1720 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 5.8 | 3.5 | 1.5 | 166 | 26 |
| 40 | 295 | 323 | 31 | 1.7 | PH732_0250KX501_0030 MF EZ501U | 866 | 908 | 1720 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 7.7 | 3.5 | 1.5 | 166 | 27 |
| 40 | 323 | 357 | 34 | 1.5 | PH732_0250KX501_0030 MF EZ402U | 866 | 908 | 1720 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 6.5 | 3.5 | 1.5 | 166 | 27 |
| 40 | 474 | 591 | 50 | 1.1 | PH732_0250KX501_0030 MF EZ404U | 866 | 908 | 1720 | 75.00 | 75/1 | 3000 | 3000 | 5000 | 7.8 | 3.5 | 1.5 | 166 | 29 |
| 43 | 180 | 192 | 24 | 3.0 | PH732_0350KX501_0020 MF EZ401U | 545 | 545 | 1720 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 6.3 | 3.5 | 1.5 | 172 | 26 |
| 43 | 276 | 301 | 36 | 2.0 | PH732_0350KX501_0020 MF EZ501U | 866 | 908 | 1720 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 8.3 | 3.5 | 1.5 | 172 | 27 |
| 43 | 301 | 333 | 40 | 1.8 | PH732_0350KX501_0020 MF EZ402U | 866 | 908 | 1720 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 7.0 | 3.5 | 1.5 | 172 | 27 |
| 43 | 442 | 551 | 58 | 1.2 | PH732_0350KX501_0020 MF EZ404U | 866 | 908 | 1720 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 8.4 | 3.5 | 1.5 | 172 | 29 |
| 43 | 475 | 513 | 63 | 1.1 | PH732_0350KX501_0020 MF EZ502U | 866 | 908 | 1720 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 11 | 3.5 | 1.5 | 172 | 28 |
| 43 | 475 | 532 | 63 | 1.1 | PH732_0350KX501_0020 MF EZ701U | 866 | 908 | 1720 | 70.00 | 70/1 | 2500 | 2500 | 4500 | 14 | 3.5 | 1.5 | 172 | 30 |
| 50 | 154 | 165 | 18 | 3.0 | PH732_0200KX501_0030 MF EZ401U | 467 | 467 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 5.8 | 3.5 | 1.5 | 157 | 26 |
| 50 | 236 | 258 | 27 | 1.9 | PH732_0200KX501_0030 MF EZ501U | 805 | 845 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 7.8 | 3.5 | 1.5 | 157 | 27 |
| 50 | 258 | 286 | 30 | 1.8 | PH732_0200KX501_0030 MF EZ402U | 805 | 845 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 6.5 | 3.5 | 1.5 | 157 | 27 |
| 50 | 379 | 473 | 43 | 1.2 | PH732_0200KX501_0030 MF EZ404U | 805 | 845 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 7.8 | 3.5 | 1.5 | 157 | 29 |
| 50 | 407 | 440 | 47 | 1.1 | PH732_0200KX501_0030 MF EZ502U | 805 | 845 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 10 | 3.5 | 1.5 | 157 | 28 |
| 50 | 407 | 456 | 47 | 1.1 | PH732_0200KX501_0030 MF EZ701U | 805 | 845 | 1610 | 60.00 | 60/1 | 3000 | 3000 | 5000 | 13 | 3.5 | 1.5 | 157 | 30 |
| 54 | 144 | 154 | 19 | 3.8 | PH732_0280KX501_0020 MF EZ401U | 436 | 436 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 6.4 | 3.5 | 1.5 | 176 | 26 |
| 54 | 221 | 241 | 29 | 2.4 | PH732_0280KX501_0020 MF EZ501U | 770 | 821 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 8.4 | 3.5 | 1.5 | 176 | 27 |
| 54 | 241 | 267 | 32 | 2.2 | PH732_0280KX501_0020 MF EZ402U | 770 | 821 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 7.1 | 3.5 | 1.5 | 176 | 27 |
| 54 | 354 | 441 | 47 | 1.5 | PH732_0280KX501_0020 MF EZ404U | 770 | 880 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 8.5 | 3.5 | 1.5 | 176 | 29 |
| 54 | 380 | 410 | 50 | 1.4 | PH732_0280KX501_0020 MF EZ502U | 770 | 880 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 11 | 3.5 | 1.5 | 176 | 28 |
| 54 | 380 | 426 | 50 | 1.4 | PH732_0280KX501_0020 MF EZ701U | 770 | 880 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 14 | 3.5 | 1.5 | 176 | 30 |
| 54 | 498 | 569 | 66 | 1.1 | PH732_0280KX501_0020 MF EZ503U | 770 | 880 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 13 | 3.5 | 1.5 | 176 | 30 |
| 60 | 128 | 137 | 18 | 3.9 | PH732_0250KX501_0020 MF EZ401U | 389 | 389 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 6.4 | 3.5 | 1.5 | 166 | 26 |
| 60 | 197 | 215 | 28 | 2.5 | PH732_0250KX501_0020 MF EZ501U | 733 | 733 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 8.3 | 3.5 | 1.5 | 166 | 27 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| PH732KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 870 Nm) | | | | | | | | | | | | | | | | | | |
| 60 | 215 | 238 | 31 | 2.3 | PH732_0250KX501_0020 MF EZ402U | 733 | 733 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 7.1 | 3.5 | 1.5 | 166 | 27 |
| 60 | 316 | 394 | 45 | 1.6 | PH732_0250KX501_0020 MF EZ404U | 866 | 908 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 8.4 | 3.5 | 1.5 | 166 | 29 |
| 60 | 339 | 366 | 48 | 1.5 | PH732_0250KX501_0020 MF EZ502U | 866 | 908 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 11 | 3.5 | 1.5 | 166 | 28 |
| 60 | 339 | 380 | 48 | 1.5 | PH732_0250KX501_0020 MF EZ701U | 866 | 908 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 14 | 3.5 | 1.5 | 166 | 30 |
| 60 | 444 | 508 | 63 | 1.1 | PH732_0250KX501_0020 MF EZ503U | 866 | 908 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 13 | 3.5 | 1.5 | 166 | 30 |
| 63 | 123 | 132 | 14 | 3.7 | PH732_0160KX501_0030 MF EZ401U | 374 | 374 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 5.8 | 3.5 | 1.5 | 152 | 26 |
| 63 | 189 | 207 | 22 | 2.4 | PH732_0160KX501_0030 MF EZ501U | 704 | 704 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 7.8 | 3.5 | 1.5 | 152 | 27 |
| 63 | 207 | 229 | 24 | 2.2 | PH732_0160KX501_0030 MF EZ402U | 704 | 704 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 6.5 | 3.5 | 1.5 | 152 | 27 |
| 63 | 303 | 378 | 35 | 1.5 | PH732_0160KX501_0030 MF EZ404U | 740 | 740 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 7.9 | 3.5 | 1.5 | 152 | 29 |
| 63 | 325 | 352 | 38 | 1.4 | PH732_0160KX501_0030 MF EZ502U | 740 | 740 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 10 | 3.5 | 1.5 | 152 | 28 |
| 63 | 325 | 365 | 38 | 1.4 | PH732_0160KX501_0030 MF EZ701U | 740 | 740 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 13 | 3.5 | 1.5 | 152 | 30 |
| 63 | 427 | 488 | 50 | 1.1 | PH732_0160KX501_0030 MF EZ503U | 740 | 740 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 12 | 3.5 | 1.5 | 152 | 30 |
| 75 | 103 | 110 | 16 | 4.5 | PH732_0200KX501_0020 MF EZ401U | 311 | 311 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 6.4 | 3.5 | 1.5 | 157 | 26 |
| 75 | 158 | 172 | 24 | 2.9 | PH732_0200KX501_0020 MF EZ501U | 586 | 586 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 8.3 | 3.5 | 1.5 | 157 | 27 |
| 75 | 172 | 191 | 27 | 2.7 | PH732_0200KX501_0020 MF EZ402U | 586 | 586 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 7.1 | 3.5 | 1.5 | 157 | 27 |
| 75 | 253 | 315 | 39 | 1.8 | PH732_0200KX501_0020 MF EZ404U | 805 | 845 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 8.4 | 3.5 | 1.5 | 157 | 29 |
| 75 | 271 | 293 | 42 | 1.7 | PH732_0200KX501_0020 MF EZ502U | 805 | 845 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 11 | 3.5 | 1.5 | 157 | 28 |
| 75 | 271 | 304 | 42 | 1.7 | PH732_0200KX501_0020 MF EZ701U | 733 | 733 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 14 | 3.5 | 1.5 | 157 | 30 |
| 75 | 355 | 407 | 55 | 1.3 | PH732_0200KX501_0020 MF EZ503U | 805 | 845 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 13 | 3.5 | 1.5 | 157 | 30 |
| 75 | 440 | 528 | 68 | 1.0 | PH732_0200KX501_0020 MF EZ702U | 805 | 845 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 19 | 3.5 | 1.5 | 157 | 33 |
| 86 | 138 | 151 | 31 | 3.9 | PH732_0350KX501_0010 MF EZ501U | 513 | 513 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 11 | 3.5 | 1.5 | 172 | 27 |
| 86 | 151 | 167 | 33 | 3.6 | PH732_0350KX501_0010 MF EZ402U | 513 | 513 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 9.7 | 3.5 | 1.5 | 172 | 27 |
| 86 | 221 | 276 | 49 | 2.4 | PH732_0350KX501_0010 MF EZ404U | 866 | 908 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 11 | 3.5 | 1.5 | 172 | 29 |
| 86 | 237 | 256 | 53 | 2.3 | PH732_0350KX501_0010 MF EZ502U | 866 | 908 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 13 | 3.5 | 1.5 | 172 | 28 |
| 86 | 237 | 266 | 53 | 2.3 | PH732_0350KX501_0010 MF EZ701U | 641 | 641 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 17 | 3.5 | 1.5 | 172 | 30 |
| 86 | 311 | 356 | 69 | 1.7 | PH732_0350KX501_0010 MF EZ503U | 866 | 908 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 16 | 3.5 | 1.5 | 172 | 30 |
| 86 | 385 | 462 | 85 | 1.4 | PH732_0350KX501_0010 MF EZ702U | 866 | 908 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 22 | 3.5 | 1.5 | 172 | 33 |
| 86 | 433 | 513 | 96 | 1.2 | PH732_0350KX501_0010 MF EZ505U | 866 | 908 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 20 | 3.5 | 1.5 | 172 | 33 |
| 86 | 529 | 667 | 118 | 1.0 | PH732_0350KX501_0010 MF EZ703U | 866 | 908 | 1720 | 35.00 | 35/1 | 2500 | 2000 | 3500 | 30 | 3.5 | 1.5 | 172 | 35 |
| 94 | 126 | 138 | 20 | 3.6 | PH732_0160KX501_0020 MF EZ501U | 469 | 469 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 8.5 | 3.5 | 1.5 | 152 | 27 |
| 94 | 138 | 152 | 22 | 3.3 | PH732_0160KX501_0020 MF EZ402U | 469 | 469 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 7.2 | 3.5 | 1.5 | 152 | 27 |
| 94 | 202 | 252 | 32 | 2.2 | PH732_0160KX501_0020 MF EZ404U | 740 | 740 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 8.5 | 3.5 | 1.5 | 152 | 29 |
| 94 | 217 | 235 | 34 | 2.1 | PH732_0160KX501_0020 MF EZ502U | 740 | 740 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 11 | 3.5 | 1.5 | 152 | 28 |
| 94 | 217 | 243 | 34 | 2.1 | PH732_0160KX501_0020 MF EZ701U | 586 | 586 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 14 | 3.5 | 1.5 | 152 | 30 |
| 94 | 284 | 325 | 45 | 1.6 | PH732_0160KX501_0020 MF EZ503U | 740 | 740 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 13 | 3.5 | 1.5 | 152 | 30 |
| 94 | 352 | 422 | 56 | 1.3 | PH732_0160KX501_0020 MF EZ702U | 740 | 740 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 19 | 3.5 | 1.5 | 152 | 33 |
| 94 | 396 | 469 | 63 | 1.1 | PH732_0160KX501_0020 MF EZ505U | 740 | 740 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 18 | 3.5 | 1.5 | 152 | 33 |
| PH732KX ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 870 Nm) | | | | | | | | | | | | | | | | | | |
| 80 | 487 | 785 | 64 | 1.1 | PH732_0280KX501_0020 MF EZ505U | 770 | 880 | 1540 | 56.00 | 56/1 | 2500 | 2500 | 4500 | 18 | 3.5 | 1.5 | 176 | 33 |
| 90 | 435 | 701 | 62 | 1.1 | PH732_0250KX501_0020 MF EZ505U | 866 | 908 | 1720 | 50.00 | 50/1 | 2500 | 2500 | 4500 | 18 | 3.5 | 1.5 | 166 | 33 |
| 94 | 418 | 673 | 49 | 1.1 | PH732_0160KX501_0030 MF EZ505U | 740 | 740 | 1480 | 48.00 | 48/1 | 3000 | 3000 | 5000 | 17 | 3.5 | 1.5 | 152 | 33 |
| 113 | 348 | 561 | 54 | 1.3 | PH732_0200KX501_0020 MF EZ505U | 805 | 845 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 18 | 3.5 | 1.5 | 157 | 33 |
| 113 | 443 | 733 | 69 | 1.0 | PH732_0200KX501_0020 MF EZ703U | 805 | 845 | 1610 | 40.00 | 40/1 | 2500 | 2500 | 4500 | 27 | 3.5 | 1.5 | 157 | 35 |
| 141 | 278 | 448 | 44 | 1.6 | PH732_0160KX501_0020 MF EZ505U | 740 | 740 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 18 | 3.5 | 1.5 | 152 | 33 |
| 141 | 355 | 586 | 56 | 1.3 | PH732_0160KX501_0020 MF EZ703U | 740 | 740 | 1480 | 32.00 | 32/1 | 2500 | 2500 | 4500 | 27 | 3.5 | 1.5 | 152 | 35 |
| PH831KX ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1200 Nm) | | | | | | | | | | | | | | | | | | |
| 100 | 737 | 827 | 186 | 1.2 | PH831_0100KX701_0020 MF EZ813U | 1200 | 1200 | 2604 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 120 | 4.0 | 2.0 | 253 | 80 |
| 143 | 516 | 579 | 164 | 1.3 | PH831_0070KX701_0020 MF EZ813U | 840 | 840 | 1823 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 121 | 4.5 | 2.5 | 232 | 80 |
| 200 | 369 | 414 | 172 | 2.1 | PH831_0100KX701_0010 MF EZ813U | 1200 | 1200 | 2292 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 134 | 4.0 | 2.0 | 253 | 80 |
| 200 | 546 | 650 | 255 | 1.4 | PH831_0100KX701_0010 MF EZ815U | 1200 | 1200 | 2292 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 197 | 4.0 | 2.0 | 253 | 92 |
| 250 | 295 | 331 | 164 | 1.3 | PH831_0040KX701_0020 MF EZ813U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 126 | 5.5 | 3.5 | 122 | 80 |
| 286 | 258 | 289 | 138 | 2.6 | PH831_0070KX701_0010 MF EZ813U | 840 | 840 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 138 | 4.5 | 2.5 | 232 | 80 |
| 286 | 382 | 455 | 205 | 1.8 | PH831_0070KX701_0010 MF EZ815U | 840 | 840 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 201 | 4.5 | 2.5 | 232 | 92 |
| 400 | 184 | 207 | 138 | 2.6 | PH831_0050KX701_0010 MF EZ813U | 600 | 600 | 1146 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 146 | 5.0 | 3.0 | 170 | 80 |
| 400 | 273 | 325 | 205 | 1.8 | PH831_0050KX701_0010 MF EZ815U | 600 | 600 | 1146 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 209 | 5.0 | 3.0 | 170 | 92 |
| 500 | 147 | 165 | 138 | 2.6 | PH831_0040KX701_0010 MF EZ813U | 480 | 480 | 917 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 156 | 5.5 | 3.5 | 122 | 80 |
| 500 | 218 | 260 | 205 | 1.8 | PH831_0040KX701_0010 MF EZ815U | 480 | 480 | 917 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 219 | 5.5 | 3.5 | 122 | 92 |
| PH831KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1200 Nm) | | | | | | | | | | | | | | | | | | |
| 100 | 210 | 227 | 40 | 4.0 | PH831_0100KX701_0030 MF EZ502U | 879 | 879 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 18 | 4.0 | 2.0 | 253 | 50 |
| 100 | 210 | 235 | 40 | 4.0 | PH831_0100KX701_0030 MF EZ701U | 567 | 567 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 21 | 4.0 | 2.0 | 253 | 52 |
| 100 | 275 | 315 | 52 | 3.0 | PH831_0100KX701_0030 MF EZ503U | 1200 | 1200 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 20 | 4.0 | 2.0 | 253 | 52 |
| 100 | 340 | 408 | 64 | 2.5 | PH831_0100KX701_0030 MF EZ702U | 1163 | 1163 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 27 | 4.0 | 2.0 | 253 | 55 |
| 100 | 383 | 454 | 72 | 2.2 | PH831_0100KX701_0030 MF EZ505U | 1200 | 1200 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 25 | 4.0 | 2.0 | 253 | 55 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH831KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1200 Nm)** | | | | | | | | | | | | | | | | | | |
| 100 | 468 | 590 | 88 | 1.8 | PH831_0100KX701_0030 MF EZ703U | 1200 | 1200 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 35 | 4.0 | 2.0 | 253 | 57 |
| 100 | 604 | 857 | 114 | 1.4 | PH831_0100KX701_0030 MF EZ705U | 1200 | 1200 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 47 | 4.0 | 2.0 | 253 | 62 |
| 143 | 147 | 159 | 40 | 4.0 | PH831_0070KX701_0030 MF EZ502U | 616 | 616 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 19 | 4.5 | 2.5 | 232 | 50 |
| 143 | 147 | 165 | 40 | 4.0 | PH831_0070KX701_0030 MF EZ701U | 397 | 397 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 22 | 4.5 | 2.5 | 232 | 52 |
| 143 | 193 | 220 | 52 | 3.0 | PH831_0070KX701_0030 MF EZ503U | 840 | 840 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 21 | 4.5 | 2.5 | 232 | 52 |
| 143 | 238 | 286 | 64 | 2.5 | PH831_0070KX701_0030 MF EZ702U | 814 | 814 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 27 | 4.5 | 2.5 | 232 | 55 |
| 143 | 268 | 318 | 72 | 2.2 | PH831_0070KX701_0030 MF EZ505U | 840 | 840 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 26 | 4.5 | 2.5 | 232 | 55 |
| 143 | 328 | 413 | 88 | 1.8 | PH831_0070KX701_0030 MF EZ703U | 840 | 840 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 35 | 4.5 | 2.5 | 232 | 57 |
| 143 | 423 | 600 | 114 | 1.4 | PH831_0070KX701_0030 MF EZ705U | 840 | 840 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 47 | 4.5 | 2.5 | 232 | 62 |
| 150 | 183 | 210 | 47 | 4.6 | PH831_0100KX701_0020 MF EZ503U | 813 | 813 | 2604 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 23 | 4.0 | 2.0 | 253 | 52 |
| 150 | 227 | 272 | 58 | 3.7 | PH831_0100KX701_0020 MF EZ702U | 775 | 775 | 2604 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 30 | 4.0 | 2.0 | 253 | 55 |
| 150 | 255 | 303 | 65 | 3.3 | PH831_0100KX701_0020 MF EZ505U | 1200 | 1200 | 2604 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 28 | 4.0 | 2.0 | 253 | 55 |
| 150 | 312 | 393 | 80 | 2.7 | PH831_0100KX701_0020 MF EZ703U | 1200 | 1200 | 2604 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 37 | 4.0 | 2.0 | 253 | 57 |
| 150 | 403 | 571 | 103 | 2.1 | PH831_0100KX701_0020 MF EZ705U | 1200 | 1200 | 2604 | 20.00 | 20/1 | 1800 | 1800 | 3500 | 50 | 4.0 | 2.0 | 253 | 62 |
| 200 | 105 | 113 | 40 | 4.0 | PH831_0050KX701_0030 MF EZ502U | 440 | 440 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 19 | 5.0 | 3.0 | 170 | 50 |
| 200 | 105 | 118 | 40 | 4.0 | PH831_0050KX701_0030 MF EZ701U | 284 | 284 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 23 | 5.0 | 3.0 | 170 | 52 |
| 200 | 138 | 157 | 52 | 3.0 | PH831_0050KX701_0030 MF EZ503U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 22 | 5.0 | 3.0 | 170 | 52 |
| 200 | 170 | 204 | 64 | 2.5 | PH831_0050KX701_0030 MF EZ702U | 582 | 582 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 28 | 5.0 | 3.0 | 170 | 55 |
| 200 | 191 | 227 | 72 | 2.2 | PH831_0050KX701_0030 MF EZ505U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 26 | 5.0 | 3.0 | 170 | 55 |
| 200 | 234 | 295 | 88 | 1.8 | PH831_0050KX701_0030 MF EZ703U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 36 | 5.0 | 3.0 | 170 | 57 |
| 200 | 302 | 428 | 114 | 1.4 | PH831_0050KX701_0030 MF EZ705U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 48 | 5.0 | 3.0 | 170 | 62 |
| 214 | 128 | 147 | 47 | 4.6 | PH831_0070KX701_0020 MF EZ503U | 569 | 569 | 1823 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 25 | 4.5 | 2.5 | 232 | 52 |
| 214 | 159 | 191 | 58 | 3.7 | PH831_0070KX701_0020 MF EZ702U | 543 | 543 | 1823 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 31 | 4.5 | 2.5 | 232 | 55 |
| 214 | 179 | 212 | 65 | 3.3 | PH831_0070KX701_0020 MF EZ505U | 840 | 840 | 1823 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 29 | 4.5 | 2.5 | 232 | 55 |
| 214 | 218 | 275 | 80 | 2.7 | PH831_0070KX701_0020 MF EZ703U | 840 | 840 | 1823 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 39 | 4.5 | 2.5 | 232 | 57 |
| 214 | 282 | 400 | 103 | 2.1 | PH831_0070KX701_0020 MF EZ705U | 840 | 840 | 1823 | 14.00 | 14/1 | 1800 | 1800 | 3500 | 51 | 4.5 | 2.5 | 232 | 62 |
| 250 | 84 | 91 | 40 | 4.0 | PH831_0040KX701_0030 MF EZ502U | 352 | 352 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 21 | 5.5 | 3.5 | 122 | 50 |
| 250 | 84 | 94 | 40 | 4.0 | PH831_0040KX701_0030 MF EZ701U | 227 | 227 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 24 | 5.5 | 3.5 | 122 | 52 |
| 250 | 110 | 126 | 52 | 3.0 | PH831_0040KX701_0030 MF EZ503U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 23 | 5.5 | 3.5 | 122 | 52 |
| 250 | 136 | 163 | 64 | 2.5 | PH831_0040KX701_0030 MF EZ702U | 465 | 465 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 29 | 5.5 | 3.5 | 122 | 55 |
| 250 | 153 | 182 | 72 | 2.2 | PH831_0040KX701_0030 MF EZ505U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 28 | 5.5 | 3.5 | 122 | 55 |
| 250 | 187 | 236 | 88 | 1.8 | PH831_0040KX701_0030 MF EZ703U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 37 | 5.5 | 3.5 | 122 | 57 |
| 250 | 242 | 343 | 114 | 1.4 | PH831_0040KX701_0030 MF EZ705U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 49 | 5.5 | 3.5 | 122 | 62 |
| 300 | 156 | 197 | 83 | 4.3 | PH831_0100KX701_0010 MF EZ703U | 615 | 615 | 2292 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 51 | 4.0 | 2.0 | 253 | 57 |
| 300 | 201 | 286 | 107 | 3.4 | PH831_0100KX701_0010 MF EZ705U | 983 | 983 | 2292 | 10.00 | 10/1 | 1800 | 1600 | 3000 | 63 | 4.0 | 2.0 | 253 | 62 |
| 375 | 73 | 84 | 47 | 4.6 | PH831_0040KX701_0020 MF EZ503U | 325 | 325 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 29 | 5.5 | 3.5 | 122 | 52 |
| 375 | 91 | 109 | 58 | 3.7 | PH831_0040KX701_0020 MF EZ702U | 310 | 310 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 35 | 5.5 | 3.5 | 122 | 55 |
| 375 | 102 | 121 | 65 | 3.3 | PH831_0040KX701_0020 MF EZ505U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 34 | 5.5 | 3.5 | 122 | 55 |
| 375 | 125 | 157 | 80 | 2.7 | PH831_0040KX701_0020 MF EZ703U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 43 | 5.5 | 3.5 | 122 | 57 |
| 375 | 161 | 228 | 103 | 2.1 | PH831_0040KX701_0020 MF EZ705U | 480 | 480 | 1042 | 8.000 | 8/1 | 1800 | 1800 | 3500 | 55 | 5.5 | 3.5 | 122 | 62 |
| 429 | 141 | 200 | 86 | 4.2 | PH831_0070KX701_0010 MF EZ705U | 688 | 688 | 1604 | 7.000 | 7/1 | 1800 | 1600 | 3000 | 68 | 4.5 | 2.5 | 232 | 62 |
| 600 | 101 | 143 | 86 | 4.2 | PH831_0050KX701_0010 MF EZ705U | 492 | 492 | 1146 | 5.000 | 5/1 | 1800 | 1600 | 3000 | 75 | 5.0 | 3.0 | 170 | 62 |
| 750 | 81 | 114 | 86 | 4.2 | PH831_0040KX701_0010 MF EZ705U | 393 | 393 | 917 | 4.000 | 4/1 | 1800 | 1600 | 3000 | 86 | 5.5 | 3.5 | 122 | 62 |
| **PH831KX ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 1200 Nm)** | | | | | | | | | | | | | | | | | | |
| 133 | 715 | 1240 | 148 | 1.1 | PH831_0100KX701_0030 MF EZ813U | 1200 | 1200 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 117 | 4.0 | 2.0 | 253 | 80 |
| 133 | 741 | 1905 | 153 | 1.0 | PH831_0100KX701_0030 MF EZ815U | 1200 | 1200 | 2604 | 30.00 | 30/1 | 2100 | 2100 | 4000 | 180 | 4.0 | 2.0 | 253 | 92 |
| 190 | 500 | 868 | 148 | 1.1 | PH831_0070KX701_0030 MF EZ813U | 840 | 840 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 118 | 4.5 | 2.5 | 232 | 80 |
| 190 | 518 | 1333 | 153 | 1.0 | PH831_0070KX701_0030 MF EZ815U | 840 | 840 | 1823 | 21.00 | 21/1 | 2100 | 2100 | 4000 | 181 | 4.5 | 2.5 | 232 | 92 |
| 267 | 357 | 620 | 148 | 1.1 | PH831_0050KX701_0030 MF EZ813U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 119 | 5.0 | 3.0 | 170 | 80 |
| 267 | 370 | 952 | 153 | 1.0 | PH831_0050KX701_0030 MF EZ815U | 600 | 600 | 1302 | 15.00 | 15/1 | 2100 | 2100 | 4000 | 182 | 5.0 | 3.0 | 170 | 92 |
| 333 | 286 | 496 | 148 | 1.1 | PH831_0040KX701_0030 MF EZ813U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 120 | 5.5 | 3.5 | 122 | 80 |
| 333 | 296 | 762 | 153 | 1.0 | PH831_0040KX701_0030 MF EZ815U | 480 | 480 | 1042 | 12.00 | 12/1 | 2100 | 2100 | 4000 | 183 | 5.5 | 3.5 | 122 | 92 |
| **PH832KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2100 Nm)** | | | | | | | | | | | | | | | | | | |
| 14 | 827 | 904 | 92 | 1.7 | PH832_0700KX701_0030 MF EZ501U | 1848 | 1936 | 3696 | 210.0 | 210/1 | 2100 | 2100 | 4000 | 15 | 3.0 | 1.0 | 421 | 54 |
| 15 | 788 | 861 | 159 | 1.3 | PH832_1000KX701_0020 MF EZ501U | 1380 | 1380 | 2760 | 200.0 | 200/1 | 1800 | 1800 | 3500 | 18 | 3.0 | 1.0 | 332 | 54 |
| 20 | 591 | 646 | 60 | 2.6 | PH832_0500KX701_0030 MF EZ501U | 2100 | 2199 | 4200 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 16 | 3.0 | 1.0 | 481 | 54 |
| 20 | 1017 | 1099 | 103 | 1.5 | PH832_0500KX701_0030 MF EZ502U | 2100 | 2300 | 4200 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 18 | 3.0 | 1.0 | 481 | 56 |
| 20 | 1017 | 1140 | 103 | 1.5 | PH832_0500KX701_0030 MF EZ701U | 2100 | 2300 | 4200 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 21 | 3.0 | 1.0 | 481 | 58 |
| 20 | 1333 | 1525 | 135 | 1.2 | PH832_0500KX701_0030 MF EZ503U | 2100 | 2300 | 4200 | 150.0 | 150/1 | 2100 | 2100 | 4000 | 20 | 3.0 | 1.0 | 481 | 57 |
| 21 | 551 | 603 | 83 | 2.6 | PH832_0700KX701_0020 MF EZ501U | 1848 | 1936 | 3696 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 18 | 3.0 | 1.0 | 421 | 54 |
| 21 | 949 | 1026 | 143 | 1.5 | PH832_0700KX701_0020 MF EZ502U | 1848 | 1936 | 3696 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 20 | 3.0 | 1.0 | 421 | 56 |
| 21 | 949 | 1064 | 143 | 1.5 | PH832_0700KX701_0020 MF EZ701U | 1848 | 1936 | 3696 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 23 | 3.0 | 1.0 | 421 | 58 |
| 21 | 1244 | 1424 | 187 | 1.1 | PH832_0700KX701_0020 MF EZ503U | 1848 | 1936 | 3696 | 140.0 | 140/1 | 1800 | 1800 | 3500 | 23 | 3.0 | 1.0 | 421 | 57 |
| 25 | 473 | 517 | 68 | 2.3 | PH832_0400KX701_0030 MF EZ501U | 1759 | 1759 | 3840 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 16 | 3.5 | 1.5 | 440 | 54 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH832KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2100 Nm)** | | | | | | | | | | | | | | | | | | |
| 25 | 813 | 879 | 117 | 1.4 | PH832_0400KX701_0030 MF EZ502U | 1920 | 1936 | 3840 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 18 | 3.5 | 1.5 | 440 | 56 |
| 25 | 813 | 912 | 117 | 1.4 | PH832_0400KX701_0030 MF EZ701U | 1920 | 1936 | 3840 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 440 | 58 |
| 25 | 1066 | 1220 | 153 | 1.0 | PH832_0400KX701_0030 MF EZ503U | 1920 | 1936 | 3840 | 120.0 | 120/1 | 2100 | 2100 | 4000 | 20 | 3.5 | 1.5 | 440 | 57 |
| 29 | 414 | 452 | 45 | 3.5 | PH832_0350KX701_0030 MF EZ501U | 1539 | 1539 | 4200 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 16 | 3.5 | 1.5 | 489 | 54 |
| 29 | 712 | 769 | 78 | 2.0 | PH832_0350KX701_0030 MF EZ502U | 2100 | 2300 | 4200 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 18 | 3.5 | 1.5 | 489 | 56 |
| 29 | 712 | 798 | 78 | 2.0 | PH832_0350KX701_0030 MF EZ701U | 1924 | 1924 | 4200 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 489 | 58 |
| 29 | 933 | 1068 | 102 | 1.6 | PH832_0350KX701_0030 MF EZ503U | 2100 | 2300 | 4200 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 20 | 3.5 | 1.5 | 489 | 57 |
| 29 | 1154 | 1385 | 126 | 1.3 | PH832_0350KX701_0030 MF EZ702U | 2100 | 2300 | 4200 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 26 | 3.5 | 1.5 | 489 | 60 |
| 29 | 1299 | 1539 | 141 | 1.1 | PH832_0350KX701_0030 MF EZ505U | 2100 | 2300 | 4200 | 105.0 | 105/1 | 2100 | 2100 | 4000 | 25 | 3.5 | 1.5 | 489 | 60 |
| 30 | 394 | 431 | 54 | 4.0 | PH832_0500KX701_0020 MF EZ501U | 1466 | 1466 | 4200 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 18 | 3.0 | 1.0 | 481 | 54 |
| 30 | 678 | 733 | 93 | 2.3 | PH832_0500KX701_0020 MF EZ502U | 2100 | 2300 | 4200 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 20 | 3.0 | 1.0 | 481 | 56 |
| 30 | 678 | 760 | 93 | 2.3 | PH832_0500KX701_0020 MF EZ701U | 1832 | 1832 | 4200 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 24 | 3.0 | 1.0 | 481 | 58 |
| 30 | 889 | 1017 | 122 | 1.8 | PH832_0500KX701_0020 MF EZ503U | 2100 | 2300 | 4200 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 23 | 3.0 | 1.0 | 481 | 57 |
| 30 | 1099 | 1319 | 151 | 1.4 | PH832_0500KX701_0020 MF EZ702U | 2100 | 2300 | 4200 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 29 | 3.0 | 1.0 | 481 | 60 |
| 30 | 1237 | 1466 | 170 | 1.3 | PH832_0500KX701_0020 MF EZ505U | 2100 | 2300 | 4200 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 27 | 3.0 | 1.0 | 481 | 60 |
| 30 | 1511 | 1905 | 208 | 1.0 | PH832_0500KX701_0020 MF EZ703U | 2100 | 2300 | 4200 | 100.0 | 100/1 | 1800 | 1800 | 3500 | 37 | 3.0 | 1.0 | 481 | 62 |
| 36 | 331 | 362 | 48 | 3.3 | PH832_0280KX701_0030 MF EZ501U | 1231 | 1231 | 3929 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 16 | 3.5 | 1.5 | 451 | 54 |
| 36 | 569 | 616 | 82 | 1.9 | PH832_0280KX701_0030 MF EZ502U | 2000 | 2000 | 3929 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 18 | 3.5 | 1.5 | 451 | 56 |
| 36 | 569 | 639 | 82 | 1.9 | PH832_0280KX701_0030 MF EZ701U | 1539 | 1539 | 3929 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 451 | 58 |
| 36 | 746 | 854 | 107 | 1.5 | PH832_0280KX701_0030 MF EZ503U | 2000 | 2000 | 3929 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 20 | 3.5 | 1.5 | 451 | 57 |
| 36 | 923 | 1108 | 133 | 1.2 | PH832_0280KX701_0030 MF EZ702U | 2000 | 2000 | 3929 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 27 | 3.5 | 1.5 | 451 | 60 |
| 36 | 1039 | 1231 | 149 | 1.1 | PH832_0280KX701_0030 MF EZ505U | 2000 | 2000 | 3929 | 84.00 | 84/1 | 2100 | 2100 | 4000 | 25 | 3.5 | 1.5 | 451 | 60 |
| 38 | 315 | 344 | 61 | 3.5 | PH832_0400KX701_0020 MF EZ501U | 1173 | 1173 | 3840 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 19 | 3.5 | 1.5 | 440 | 54 |
| 38 | 542 | 586 | 106 | 2.0 | PH832_0400KX701_0020 MF EZ502U | 1920 | 1936 | 3840 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 21 | 3.5 | 1.5 | 440 | 56 |
| 38 | 542 | 608 | 106 | 2.0 | PH832_0400KX701_0020 MF EZ701U | 1466 | 1466 | 3840 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 24 | 3.5 | 1.5 | 440 | 58 |
| 38 | 711 | 813 | 138 | 1.5 | PH832_0400KX701_0020 MF EZ503U | 1920 | 1936 | 3840 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 23 | 3.5 | 1.5 | 440 | 57 |
| 38 | 879 | 1055 | 171 | 1.3 | PH832_0400KX701_0020 MF EZ702U | 1920 | 1936 | 3840 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 29 | 3.5 | 1.5 | 440 | 60 |
| 38 | 989 | 1173 | 192 | 1.1 | PH832_0400KX701_0020 MF EZ505U | 1920 | 1936 | 3840 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 28 | 3.5 | 1.5 | 440 | 60 |
| 40 | 295 | 323 | 36 | 4.4 | PH832_0250KX701_0030 MF EZ501U | 1099 | 1099 | 4200 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 16 | 3.5 | 1.5 | 479 | 54 |
| 40 | 508 | 550 | 62 | 2.6 | PH832_0250KX701_0030 MF EZ502U | 2100 | 2130 | 4200 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 18 | 3.5 | 1.5 | 479 | 56 |
| 40 | 508 | 570 | 62 | 2.6 | PH832_0250KX701_0030 MF EZ701U | 1374 | 1374 | 4200 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 479 | 58 |
| 40 | 666 | 763 | 81 | 2.0 | PH832_0250KX701_0030 MF EZ503U | 2100 | 2300 | 4200 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 20 | 3.5 | 1.5 | 479 | 57 |
| 40 | 824 | 989 | 100 | 1.6 | PH832_0250KX701_0030 MF EZ702U | 2100 | 2300 | 4200 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 26 | 3.5 | 1.5 | 479 | 60 |
| 40 | 928 | 1099 | 113 | 1.4 | PH832_0250KX701_0030 MF EZ505U | 2100 | 2300 | 4200 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 25 | 3.5 | 1.5 | 479 | 60 |
| 40 | 1134 | 1429 | 138 | 1.1 | PH832_0250KX701_0030 MF EZ703U | 2100 | 2300 | 4200 | 75.00 | 75/1 | 2100 | 2100 | 4000 | 34 | 3.5 | 1.5 | 479 | 62 |
| 43 | 475 | 513 | 70 | 3.1 | PH832_0350KX701_0020 MF EZ502U | 1988 | 1988 | 4200 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 21 | 3.5 | 1.5 | 489 | 56 |
| 43 | 475 | 532 | 70 | 3.1 | PH832_0350KX701_0020 MF EZ701U | 1282 | 1282 | 4200 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 24 | 3.5 | 1.5 | 489 | 58 |
| 43 | 622 | 712 | 92 | 2.3 | PH832_0350KX701_0020 MF EZ503U | 2100 | 2300 | 4200 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 23 | 3.5 | 1.5 | 489 | 57 |
| 43 | 769 | 923 | 114 | 1.9 | PH832_0350KX701_0020 MF EZ702U | 2100 | 2300 | 4200 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 29 | 3.5 | 1.5 | 489 | 60 |
| 43 | 866 | 1026 | 128 | 1.7 | PH832_0350KX701_0020 MF EZ505U | 2100 | 2300 | 4200 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 27 | 3.5 | 1.5 | 489 | 60 |
| 43 | 1058 | 1334 | 156 | 1.4 | PH832_0350KX701_0020 MF EZ703U | 2100 | 2300 | 4200 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 37 | 3.5 | 1.5 | 489 | 62 |
| 43 | 1366 | 1937 | 202 | 1.1 | PH832_0350KX701_0020 MF EZ705U | 2100 | 2300 | 4200 | 70.00 | 70/1 | 1800 | 1800 | 3500 | 49 | 3.5 | 1.5 | 489 | 68 |
| 50 | 407 | 440 | 51 | 3.1 | PH832_0200KX701_0030 MF EZ502U | 1704 | 1704 | 4200 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 18 | 3.5 | 1.5 | 462 | 56 |
| 50 | 407 | 456 | 51 | 3.1 | PH832_0200KX701_0030 MF EZ701U | 1099 | 1099 | 4200 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 462 | 58 |
| 50 | 533 | 610 | 67 | 2.3 | PH832_0200KX701_0030 MF EZ503U | 2100 | 2300 | 4200 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 20 | 3.5 | 1.5 | 462 | 57 |
| 50 | 660 | 791 | 83 | 1.9 | PH832_0200KX701_0030 MF EZ702U | 2100 | 2253 | 4200 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 26 | 3.5 | 1.5 | 462 | 60 |
| 50 | 742 | 879 | 94 | 1.7 | PH832_0200KX701_0030 MF EZ505U | 2100 | 2300 | 4200 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 25 | 3.5 | 1.5 | 462 | 60 |
| 50 | 907 | 1143 | 115 | 1.4 | PH832_0200KX701_0030 MF EZ703U | 2100 | 2300 | 4200 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 34 | 3.5 | 1.5 | 462 | 62 |
| 50 | 1171 | 1660 | 148 | 1.1 | PH832_0200KX701_0030 MF EZ705U | 2100 | 2300 | 4200 | 60.00 | 60/1 | 2100 | 2100 | 4000 | 47 | 3.5 | 1.5 | 462 | 68 |
| 54 | 221 | 241 | 43 | 5.0 | PH832_0280KX701_0020 MF EZ501U | 821 | 821 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 19 | 3.5 | 1.5 | 451 | 54 |
| 54 | 380 | 410 | 74 | 2.9 | PH832_0280KX701_0020 MF EZ502U | 1590 | 1590 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 21 | 3.5 | 1.5 | 451 | 56 |
| 54 | 380 | 426 | 74 | 2.9 | PH832_0280KX701_0020 MF EZ701U | 1026 | 1026 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 24 | 3.5 | 1.5 | 451 | 58 |
| 54 | 498 | 569 | 97 | 2.2 | PH832_0280KX701_0020 MF EZ503U | 2000 | 2000 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 23 | 3.5 | 1.5 | 451 | 57 |
| 54 | 616 | 739 | 120 | 1.8 | PH832_0280KX701_0020 MF EZ702U | 2000 | 2000 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 29 | 3.5 | 1.5 | 451 | 60 |
| 54 | 693 | 821 | 135 | 1.6 | PH832_0280KX701_0020 MF EZ505U | 2000 | 2000 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 28 | 3.5 | 1.5 | 451 | 60 |
| 54 | 846 | 1067 | 165 | 1.3 | PH832_0280KX701_0020 MF EZ703U | 2000 | 2000 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 37 | 3.5 | 1.5 | 451 | 62 |
| 54 | 1093 | 1549 | 213 | 1.0 | PH832_0280KX701_0020 MF EZ705U | 2000 | 2000 | 3929 | 56.00 | 56/1 | 1800 | 1800 | 3500 | 50 | 3.5 | 1.5 | 451 | 68 |
| 60 | 339 | 366 | 56 | 3.8 | PH832_0250KX701_0020 MF EZ502U | 1420 | 1420 | 4200 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 21 | 3.5 | 1.5 | 479 | 56 |
| 60 | 339 | 380 | 56 | 3.8 | PH832_0250KX701_0020 MF EZ701U | 916 | 916 | 4200 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 24 | 3.5 | 1.5 | 479 | 58 |
| 60 | 444 | 508 | 73 | 2.9 | PH832_0250KX701_0020 MF EZ503U | 1970 | 1970 | 4200 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 23 | 3.5 | 1.5 | 479 | 57 |
| 60 | 550 | 660 | 91 | 2.4 | PH832_0250KX701_0020 MF EZ702U | 1878 | 1878 | 4200 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 29 | 3.5 | 1.5 | 479 | 60 |
| 60 | 618 | 733 | 102 | 2.1 | PH832_0250KX701_0020 MF EZ505U | 2100 | 2300 | 4200 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 28 | 3.5 | 1.5 | 479 | 60 |
| 60 | 756 | 953 | 124 | 1.7 | PH832_0250KX701_0020 MF EZ703U | 2100 | 2300 | 4200 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 37 | 3.5 | 1.5 | 479 | 62 |
| 60 | 976 | 1383 | 161 | 1.3 | PH832_0250KX701_0020 MF EZ705U | 2100 | 2300 | 4200 | 50.00 | 50/1 | 1800 | 1800 | 3500 | 49 | 3.5 | 1.5 | 479 | 68 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH832KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 2100 Nm)** | | | | | | | | | | | | | | | | | | |
| 63 | 325 | 352 | 47 | 3.4 | PH832_0160KX701_0030 MF EZ502U | 1363 | 1363 | 3929 | 48.00 | 48/1 | 2100 | 2100 | 4000 | 18 | 3.5 | 1.5 | 415 | 56 |
| 63 | 325 | 365 | 47 | 3.4 | PH832_0160KX701_0030 MF EZ701U | 879 | 879 | 3929 | 48.00 | 48/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 415 | 58 |
| 63 | 427 | 488 | 61 | 2.6 | PH832_0160KX701_0030 MF EZ503U | 1860 | 1860 | 3929 | 48.00 | 48/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 415 | 57 |
| 63 | 528 | 633 | 76 | 2.1 | PH832_0160KX701_0030 MF EZ702U | 1803 | 1803 | 3929 | 48.00 | 48/1 | 2100 | 2100 | 4000 | 27 | 3.5 | 1.5 | 415 | 60 |
| 63 | 594 | 704 | 85 | 1.9 | PH832_0160KX701_0030 MF EZ505U | 1860 | 1860 | 3929 | 48.00 | 48/1 | 2100 | 2100 | 4000 | 25 | 3.5 | 1.5 | 415 | 60 |
| 63 | 726 | 915 | 104 | 1.5 | PH832_0160KX701_0030 MF EZ703U | 1860 | 1860 | 3929 | 48.00 | 48/1 | 2100 | 2100 | 4000 | 35 | 3.5 | 1.5 | 415 | 62 |
| 63 | 937 | 1328 | 135 | 1.2 | PH832_0160KX701_0030 MF EZ705U | 1860 | 1860 | 3929 | 48.00 | 48/1 | 2100 | 2100 | 4000 | 47 | 3.5 | 1.5 | 415 | 68 |
| 75 | 271 | 293 | 46 | 4.6 | PH832_0200KX701_0020 MF EZ502U | 1136 | 1136 | 4200 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 21 | 3.5 | 1.5 | 462 | 56 |
| 75 | 271 | 304 | 46 | 4.6 | PH832_0200KX701_0020 MF EZ701U | 733 | 733 | 4200 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 24 | 3.5 | 1.5 | 462 | 58 |
| 75 | 355 | 407 | 61 | 3.5 | PH832_0200KX701_0020 MF EZ503U | 1576 | 1576 | 4200 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 23 | 3.5 | 1.5 | 462 | 57 |
| 75 | 440 | 528 | 75 | 2.8 | PH832_0200KX701_0020 MF EZ702U | 1502 | 1502 | 4200 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 29 | 3.5 | 1.5 | 462 | 60 |
| 75 | 495 | 586 | 85 | 2.5 | PH832_0200KX701_0020 MF EZ505U | 2100 | 2300 | 4200 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 28 | 3.5 | 1.5 | 462 | 60 |
| 75 | 605 | 762 | 104 | 2.1 | PH832_0200KX701_0020 MF EZ703U | 2100 | 2300 | 4200 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 37 | 3.5 | 1.5 | 462 | 62 |
| 75 | 780 | 1107 | 134 | 1.6 | PH832_0200KX701_0020 MF EZ705U | 2100 | 2300 | 4200 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 49 | 3.5 | 1.5 | 462 | 68 |
| 94 | 284 | 325 | 55 | 3.9 | PH832_0160KX701_0020 MF EZ503U | 1260 | 1260 | 3929 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 24 | 3.5 | 1.5 | 415 | 57 |
| 94 | 352 | 422 | 68 | 3.1 | PH832_0160KX701_0020 MF EZ702U | 1202 | 1202 | 3929 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 30 | 3.5 | 1.5 | 415 | 60 |
| 94 | 396 | 469 | 77 | 2.8 | PH832_0160KX701_0020 MF EZ505U | 1860 | 1860 | 3929 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 28 | 3.5 | 1.5 | 415 | 60 |
| 94 | 484 | 610 | 94 | 2.3 | PH832_0160KX701_0020 MF EZ703U | 1860 | 1860 | 3929 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 38 | 3.5 | 1.5 | 415 | 62 |
| 94 | 624 | 885 | 121 | 1.8 | PH832_0160KX701_0020 MF EZ705U | 1860 | 1860 | 3929 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 50 | 3.5 | 1.5 | 415 | 68 |
| **PH942KX ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 21 | 3429 | 3846 | 210 | 1.0 | PH942_0480KX701_0020 MF EZ813U | 5000 | 5000 | 10000 | 96.00 | 96/1 | 1800 | 1800 | 3500 | 120 | 3.0 | 1.0 | 1033 | 113 |
| 24 | 3000 | 3365 | 183 | 1.2 | PH942_0420KX701_0020 MF EZ813U | 4883 | 4883 | 10000 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 121 | 3.0 | 1.0 | 1035 | 113 |
| 25 | 2857 | 3205 | 191 | 1.1 | PH942_0400KX701_0020 MF EZ813U | 4600 | 4600 | 9200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 120 | 3.5 | 1.5 | 998 | 113 |
| 33 | 2143 | 2404 | 164 | 1.3 | PH942_0300KX701_0020 MF EZ813U | 3488 | 3488 | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 122 | 3.5 | 1.5 | 988 | 113 |
| 42 | 1714 | 1923 | 164 | 1.3 | PH942_0240KX701_0020 MF EZ813U | 2790 | 2790 | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 124 | 3.5 | 1.5 | 932 | 113 |
| 48 | 1500 | 1682 | 154 | 2.3 | PH942_0420KX701_0010 MF EZ813U | 4883 | 4883 | 9935 | 42.00 | 42/1 | 1800 | 1600 | 3000 | 136 | 3.0 | 1.0 | 1035 | 113 |
| 48 | 2222 | 2645 | 229 | 1.6 | PH942_0420KX701_0010 MF EZ815U | 4883 | 4883 | 9935 | 42.00 | 42/1 | 1800 | 1600 | 3000 | 199 | 3.0 | 1.0 | 1035 | 126 |
| 50 | 1429 | 1602 | 164 | 1.3 | PH942_0200KX701_0020 MF EZ813U | 2325 | 2325 | 5376 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 123 | 3.5 | 1.5 | 908 | 113 |
| 56 | 1286 | 1442 | 164 | 1.3 | PH942_0180KX701_0020 MF EZ813U | 2093 | 2093 | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 130 | 3.5 | 1.5 | 832 | 113 |
| 63 | 1143 | 1282 | 164 | 1.3 | PH942_0160KX701_0020 MF EZ813U | 1860 | 1860 | 4301 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 125 | 3.5 | 1.5 | 808 | 113 |
| 67 | 1072 | 1202 | 138 | 2.6 | PH942_0300KX701_0010 MF EZ813U | 3488 | 3488 | 7097 | 30.00 | 30/1 | 1800 | 1600 | 3000 | 141 | 3.5 | 1.5 | 988 | 113 |
| 67 | 1587 | 1890 | 205 | 1.8 | PH942_0300KX701_0010 MF EZ815U | 3488 | 3488 | 7097 | 30.00 | 30/1 | 1800 | 1600 | 3000 | 204 | 3.5 | 1.5 | 988 | 126 |
| 83 | 857 | 961 | 164 | 1.3 | PH942_0120KX701_0020 MF EZ813U | 1395 | 1395 | 3226 | 24.00 | 24/1 | 1800 | 1800 | 3500 | 132 | 4.0 | 2.0 | 655 | 113 |
| 100 | 714 | 801 | 138 | 2.6 | PH942_0200KX701_0010 MF EZ813U | 2325 | 2325 | 4731 | 20.00 | 20/1 | 1800 | 1600 | 3000 | 143 | 3.5 | 1.5 | 908 | 113 |
| 100 | 1058 | 1260 | 205 | 1.8 | PH942_0200KX701_0010 MF EZ815U | 2325 | 2325 | 4731 | 20.00 | 20/1 | 1800 | 1600 | 3000 | 206 | 3.5 | 1.5 | 908 | 126 |
| 111 | 643 | 721 | 138 | 2.6 | PH942_0180KX701_0010 MF EZ813U | 2093 | 2093 | 4258 | 18.00 | 18/1 | 1800 | 1600 | 3000 | 174 | 3.5 | 1.5 | 832 | 113 |
| 111 | 952 | 1134 | 205 | 1.8 | PH942_0180KX701_0010 MF EZ815U | 2093 | 2093 | 4258 | 18.00 | 18/1 | 1800 | 1600 | 3000 | 237 | 3.5 | 1.5 | 832 | 126 |
| 125 | 571 | 641 | 138 | 2.6 | PH942_0160KX701_0010 MF EZ813U | 1860 | 1860 | 3785 | 16.00 | 16/1 | 1800 | 1600 | 3000 | 152 | 3.5 | 1.5 | 808 | 113 |
| 125 | 846 | 1008 | 205 | 1.8 | PH942_0160KX701_0010 MF EZ815U | 1860 | 1860 | 3785 | 16.00 | 16/1 | 1800 | 1600 | 3000 | 215 | 3.5 | 1.5 | 808 | 126 |
| 167 | 429 | 481 | 138 | 2.6 | PH942_0120KX701_0010 MF EZ813U | 1395 | 1395 | 2839 | 12.00 | 12/1 | 1800 | 1600 | 3000 | 180 | 4.0 | 2.0 | 655 | 113 |
| 167 | 635 | 756 | 205 | 1.8 | PH942_0120KX701_0010 MF EZ815U | 1395 | 1395 | 2839 | 12.00 | 12/1 | 1800 | 1600 | 3000 | 243 | 4.0 | 2.0 | 655 | 126 |
| **PH942KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 17 | 709 | 775 | 32 | 4.9 | PH942_0600KX701_0030 MF EZ501U | 2638 | 2638 | 10000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 16 | 3.0 | 1.0 | 1033 | 82 |
| 17 | 1220 | 1319 | 55 | 2.9 | PH942_0600KX701_0030 MF EZ502U | 5000 | 5000 | 10000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 18 | 3.0 | 1.0 | 1033 | 84 |
| 17 | 1220 | 1369 | 55 | 2.9 | PH942_0600KX701_0030 MF EZ701U | 3298 | 3298 | 10000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 21 | 3.0 | 1.0 | 1033 | 86 |
| 17 | 1599 | 1830 | 72 | 2.2 | PH942_0600KX701_0030 MF EZ503U | 5000 | 5000 | 10000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 20 | 3.0 | 1.0 | 1033 | 85 |
| 17 | 1979 | 2374 | 89 | 1.8 | PH942_0600KX701_0030 MF EZ702U | 5000 | 5000 | 10000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 27 | 3.0 | 1.0 | 1033 | 88 |
| 17 | 2226 | 2638 | 100 | 1.6 | PH942_0600KX701_0030 MF EZ505U | 5000 | 5000 | 10000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 25 | 3.0 | 1.0 | 1033 | 88 |
| 17 | 2721 | 3430 | 123 | 1.3 | PH942_0600KX701_0030 MF EZ703U | 5000 | 5000 | 10000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 34 | 3.0 | 1.0 | 1033 | 90 |
| 21 | 976 | 1055 | 44 | 3.6 | PH942_0480KX701_0030 MF EZ502U | 4089 | 4089 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 18 | 3.0 | 1.0 | 1033 | 84 |
| 21 | 976 | 1095 | 44 | 3.6 | PH942_0480KX701_0030 MF EZ701U | 2638 | 2638 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 21 | 3.0 | 1.0 | 1033 | 86 |
| 21 | 1280 | 1464 | 58 | 2.7 | PH942_0480KX701_0030 MF EZ503U | 5000 | 5000 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 21 | 3.0 | 1.0 | 1033 | 85 |
| 21 | 1583 | 1900 | 71 | 2.2 | PH942_0480KX701_0030 MF EZ702U | 5000 | 5000 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 27 | 3.0 | 1.0 | 1033 | 88 |
| 21 | 1781 | 2111 | 80 | 2.0 | PH942_0480KX701_0030 MF EZ505U | 5000 | 5000 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 25 | 3.0 | 1.0 | 1033 | 88 |
| 21 | 2177 | 2744 | 98 | 1.6 | PH942_0480KX701_0030 MF EZ703U | 5000 | 5000 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 35 | 3.0 | 1.0 | 1033 | 90 |
| 21 | 2810 | 3984 | 127 | 1.2 | PH942_0480KX701_0030 MF EZ705U | 5000 | 5000 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 47 | 3.0 | 1.0 | 1033 | 96 |
| 24 | 854 | 923 | 40 | 4.0 | PH942_0420KX701_0030 MF EZ502U | 3578 | 3578 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 18 | 3.0 | 1.0 | 1035 | 84 |
| 24 | 854 | 958 | 40 | 4.0 | PH942_0420KX701_0030 MF EZ701U | 2308 | 2308 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 22 | 3.0 | 1.0 | 1035 | 86 |
| 24 | 1120 | 1281 | 52 | 3.0 | PH942_0420KX701_0030 MF EZ503U | 4883 | 4883 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 21 | 3.0 | 1.0 | 1035 | 85 |
| 24 | 1385 | 1662 | 64 | 2.5 | PH942_0420KX701_0030 MF EZ702U | 4732 | 4732 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 27 | 3.0 | 1.0 | 1035 | 88 |
| 24 | 1558 | 1847 | 72 | 2.2 | PH942_0420KX701_0030 MF EZ505U | 4883 | 4883 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 25 | 3.0 | 1.0 | 1035 | 88 |
| 24 | 1904 | 2401 | 88 | 1.8 | PH942_0420KX701_0030 MF EZ703U | 4883 | 4883 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 35 | 3.0 | 1.0 | 1035 | 90 |
| 24 | 2458 | 3486 | 114 | 1.4 | PH942_0420KX701_0030 MF EZ705U | 4883 | 4883 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 47 | 3.0 | 1.0 | 1035 | 96 |
| 25 | 813 | 879 | 50 | 4.3 | PH942_0600KX701_0020 MF EZ502U | 3408 | 3408 | 10000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 21 | 3.0 | 1.0 | 1033 | 84 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 | $n_{1maxDB}$ EL3,4 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| PH942KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 5000 Nm) | | | | | | | | | | | | | | | | | | |
| 25 | 813 | 912 | 50 | 4.3 | PH942_0600KX701_0020 MF EZ701U | 2199 | 2199 | 10000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 24 | 3.0 | 1.0 | 1033 | 86 |
| 25 | 1066 | 1220 | 65 | 3.3 | PH942_0600KX701_0020 MF EZ503U | 4727 | 4727 | 10000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 23 | 3.0 | 1.0 | 1033 | 85 |
| 25 | 1319 | 1583 | 81 | 2.7 | PH942_0600KX701_0020 MF EZ702U | 4507 | 4507 | 10000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 29 | 3.0 | 1.0 | 1033 | 88 |
| 25 | 1484 | 1759 | 91 | 2.4 | PH942_0600KX701_0020 MF EZ505U | 5000 | 5000 | 10000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 28 | 3.0 | 1.0 | 1033 | 88 |
| 25 | 1814 | 2286 | 111 | 1.9 | PH942_0600KX701_0020 MF EZ703U | 5000 | 5000 | 10000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 37 | 3.0 | 1.0 | 1033 | 90 |
| 25 | 2341 | 3320 | 143 | 1.5 | PH942_0600KX701_0020 MF EZ705U | 5000 | 5000 | 10000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 50 | 3.0 | 1.0 | 1033 | 96 |
| 31 | 853 | 976 | 52 | 4.1 | PH942_0480KX701_0020 MF EZ503U | 3781 | 3781 | 10000 | 96.00 | 96/1 | 1800 | 1800 | 3500 | 24 | 3.0 | 1.0 | 1033 | 85 |
| 31 | 1055 | 1266 | 65 | 3.3 | PH942_0480KX701_0020 MF EZ702U | 3606 | 3606 | 10000 | 96.00 | 96/1 | 1800 | 1800 | 3500 | 30 | 3.0 | 1.0 | 1033 | 88 |
| 31 | 1187 | 1407 | 73 | 2.9 | PH942_0480KX701_0020 MF EZ505U | 5000 | 5000 | 10000 | 96.00 | 96/1 | 1800 | 1800 | 3500 | 28 | 3.0 | 1.0 | 1033 | 88 |
| 31 | 1451 | 1829 | 89 | 2.4 | PH942_0480KX701_0020 MF EZ703U | 5000 | 5000 | 10000 | 96.00 | 96/1 | 1800 | 1800 | 3500 | 38 | 3.0 | 1.0 | 1033 | 90 |
| 31 | 1873 | 2656 | 115 | 1.9 | PH942_0480KX701_0020 MF EZ705U | 5000 | 5000 | 10000 | 96.00 | 96/1 | 1800 | 1800 | 3500 | 50 | 3.0 | 1.0 | 1033 | 96 |
| 33 | 610 | 660 | 40 | 4.0 | PH942_0300KX701_0030 MF EZ502U | 2556 | 2556 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 19 | 3.5 | 1.5 | 988 | 84 |
| 33 | 610 | 684 | 40 | 4.0 | PH942_0300KX701_0030 MF EZ701U | 1649 | 1649 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 22 | 3.5 | 1.5 | 988 | 86 |
| 33 | 800 | 915 | 52 | 3.0 | PH942_0300KX701_0030 MF EZ503U | 3488 | 3488 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 21 | 3.5 | 1.5 | 988 | 85 |
| 33 | 989 | 1187 | 64 | 2.5 | PH942_0300KX701_0030 MF EZ702U | 3380 | 3380 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 27 | 3.5 | 1.5 | 988 | 88 |
| 33 | 1113 | 1319 | 72 | 2.2 | PH942_0300KX701_0030 MF EZ505U | 3488 | 3488 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 26 | 3.5 | 1.5 | 988 | 88 |
| 33 | 1360 | 1715 | 88 | 1.8 | PH942_0300KX701_0030 MF EZ703U | 3488 | 3488 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 35 | 3.5 | 1.5 | 988 | 90 |
| 33 | 1756 | 2490 | 114 | 1.4 | PH942_0300KX701_0030 MF EZ705U | 3488 | 3488 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 48 | 3.5 | 1.5 | 988 | 96 |
| 36 | 746 | 854 | 47 | 4.6 | PH942_0420KX701_0020 MF EZ503U | 3309 | 3309 | 10000 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 24 | 3.0 | 1.0 | 1035 | 85 |
| 36 | 923 | 1108 | 58 | 3.7 | PH942_0420KX701_0020 MF EZ702U | 3155 | 3155 | 10000 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 30 | 3.0 | 1.0 | 1035 | 88 |
| 36 | 1039 | 1231 | 65 | 3.3 | PH942_0420KX701_0020 MF EZ505U | 4883 | 4883 | 10000 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 28 | 3.0 | 1.0 | 1035 | 88 |
| 36 | 1270 | 1601 | 80 | 2.7 | PH942_0420KX701_0020 MF EZ703U | 4883 | 4883 | 10000 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 38 | 3.0 | 1.0 | 1035 | 90 |
| 36 | 1639 | 2324 | 103 | 2.1 | PH942_0420KX701_0020 MF EZ705U | 4883 | 4883 | 10000 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 50 | 3.0 | 1.0 | 1035 | 96 |
| 38 | 711 | 813 | 48 | 4.5 | PH942_0400KX701_0020 MF EZ503U | 3151 | 3151 | 9200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 23 | 3.5 | 1.5 | 998 | 85 |
| 38 | 879 | 1055 | 59 | 3.6 | PH942_0400KX701_0020 MF EZ702U | 3005 | 3005 | 9200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 29 | 3.5 | 1.5 | 998 | 88 |
| 38 | 989 | 1173 | 66 | 3.2 | PH942_0400KX701_0020 MF EZ505U | 4600 | 4600 | 9200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 28 | 3.5 | 1.5 | 998 | 88 |
| 38 | 1209 | 1524 | 81 | 2.6 | PH942_0400KX701_0020 MF EZ703U | 4600 | 4600 | 9200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 37 | 3.5 | 1.5 | 998 | 90 |
| 38 | 1561 | 2213 | 104 | 2.1 | PH942_0400KX701_0020 MF EZ705U | 4600 | 4600 | 9200 | 80.00 | 80/1 | 1800 | 1800 | 3500 | 50 | 3.5 | 1.5 | 998 | 96 |
| 42 | 488 | 528 | 40 | 4.0 | PH942_0240KX701_0030 MF EZ502U | 2045 | 2045 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 20 | 3.5 | 1.5 | 932 | 84 |
| 42 | 488 | 547 | 40 | 4.0 | PH942_0240KX701_0030 MF EZ701U | 1319 | 1319 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 23 | 3.5 | 1.5 | 932 | 86 |
| 42 | 640 | 732 | 52 | 3.0 | PH942_0240KX701_0030 MF EZ503U | 2790 | 2790 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 22 | 3.5 | 1.5 | 932 | 85 |
| 42 | 791 | 950 | 64 | 2.5 | PH942_0240KX701_0030 MF EZ702U | 2704 | 2704 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 28 | 3.5 | 1.5 | 932 | 88 |
| 42 | 890 | 1055 | 72 | 2.2 | PH942_0240KX701_0030 MF EZ505U | 2790 | 2790 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 27 | 3.5 | 1.5 | 932 | 88 |
| 42 | 1088 | 1372 | 88 | 1.8 | PH942_0240KX701_0030 MF EZ703U | 2790 | 2790 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 36 | 3.5 | 1.5 | 932 | 90 |
| 42 | 1405 | 1992 | 114 | 1.4 | PH942_0240KX701_0030 MF EZ705U | 2790 | 2790 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 49 | 3.5 | 1.5 | 932 | 96 |
| 50 | 533 | 610 | 47 | 4.6 | PH942_0300KX701_0020 MF EZ503U | 2363 | 2363 | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 25 | 3.5 | 1.5 | 988 | 85 |
| 50 | 660 | 791 | 58 | 3.7 | PH942_0300KX701_0020 MF EZ702U | 2253 | 2253 | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 31 | 3.5 | 1.5 | 988 | 88 |
| 50 | 742 | 879 | 65 | 3.3 | PH942_0300KX701_0020 MF EZ505U | 3488 | 3488 | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 30 | 3.5 | 1.5 | 988 | 88 |
| 50 | 907 | 1143 | 80 | 2.7 | PH942_0300KX701_0020 MF EZ703U | 3488 | 3488 | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 39 | 3.5 | 1.5 | 988 | 90 |
| 50 | 1171 | 1660 | 103 | 2.1 | PH942_0300KX701_0020 MF EZ705U | 3488 | 3488 | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 52 | 3.5 | 1.5 | 988 | 96 |
| 56 | 366 | 396 | 40 | 4.0 | PH942_0180KX701_0030 MF EZ502U | 1533 | 1533 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 23 | 3.5 | 1.5 | 832 | 84 |
| 56 | 366 | 411 | 40 | 4.0 | PH942_0180KX701_0030 MF EZ701U | 989 | 989 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 26 | 3.5 | 1.5 | 832 | 86 |
| 56 | 480 | 549 | 52 | 3.0 | PH942_0180KX701_0030 MF EZ503U | 2093 | 2093 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 25 | 3.5 | 1.5 | 832 | 85 |
| 56 | 594 | 712 | 64 | 2.5 | PH942_0180KX701_0030 MF EZ702U | 2028 | 2028 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 31 | 3.5 | 1.5 | 832 | 88 |
| 56 | 668 | 791 | 72 | 2.2 | PH942_0180KX701_0030 MF EZ505U | 2093 | 2093 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 30 | 3.5 | 1.5 | 832 | 88 |
| 56 | 816 | 1029 | 88 | 1.8 | PH942_0180KX701_0030 MF EZ703U | 2093 | 2093 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 39 | 3.5 | 1.5 | 832 | 90 |
| 56 | 1054 | 1494 | 114 | 1.4 | PH942_0180KX701_0030 MF EZ705U | 2093 | 2093 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 51 | 3.5 | 1.5 | 832 | 96 |
| 63 | 427 | 488 | 47 | 4.6 | PH942_0240KX701_0020 MF EZ503U | 1891 | 1891 | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 27 | 3.5 | 1.5 | 932 | 85 |
| 63 | 528 | 633 | 58 | 3.7 | PH942_0240KX701_0020 MF EZ702U | 1803 | 1803 | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 33 | 3.5 | 1.5 | 932 | 88 |
| 63 | 594 | 704 | 65 | 3.3 | PH942_0240KX701_0020 MF EZ505U | 2790 | 2790 | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 32 | 3.5 | 1.5 | 932 | 88 |
| 63 | 726 | 915 | 80 | 2.7 | PH942_0240KX701_0020 MF EZ703U | 2790 | 2790 | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 41 | 3.5 | 1.5 | 932 | 90 |
| 63 | 937 | 1328 | 103 | 2.1 | PH942_0240KX701_0020 MF EZ705U | 2790 | 2790 | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 54 | 3.5 | 1.5 | 932 | 96 |
| 71 | 819 | 1162 | 86 | 4.2 | PH942_0420KX701_0010 MF EZ705U | 4001 | 4001 | 9935 | 42.00 | 42/1 | 1800 | 1600 | 3000 | 65 | 3.0 | 1.0 | 1035 | 96 |
| 75 | 355 | 407 | 47 | 4.6 | PH942_0200KX701_0020 MF EZ503U | 1576 | 1576 | 5376 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 26 | 3.5 | 1.5 | 908 | 85 |
| 75 | 440 | 528 | 58 | 3.7 | PH942_0200KX701_0020 MF EZ702U | 1502 | 1502 | 5376 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 32 | 3.5 | 1.5 | 908 | 88 |
| 75 | 495 | 586 | 65 | 3.3 | PH942_0200KX701_0020 MF EZ505U | 2325 | 2325 | 5376 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 30 | 3.5 | 1.5 | 908 | 88 |
| 75 | 605 | 762 | 80 | 2.7 | PH942_0200KX701_0020 MF EZ703U | 2325 | 2325 | 5376 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 40 | 3.5 | 1.5 | 908 | 90 |
| 75 | 780 | 1107 | 103 | 2.1 | PH942_0200KX701_0020 MF EZ705U | 2325 | 2325 | 5376 | 40.00 | 40/1 | 1800 | 1800 | 3500 | 52 | 3.5 | 1.5 | 908 | 96 |
| 83 | 320 | 366 | 47 | 4.6 | PH942_0180KX701_0020 MF EZ503U | 1418 | 1418 | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 34 | 3.5 | 1.5 | 832 | 85 |
| 83 | 396 | 475 | 58 | 3.7 | PH942_0180KX701_0020 MF EZ702U | 1352 | 1352 | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 40 | 3.5 | 1.5 | 832 | 88 |
| 83 | 445 | 528 | 65 | 3.3 | PH942_0180KX701_0020 MF EZ505U | 2093 | 2093 | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 38 | 3.5 | 1.5 | 832 | 88 |
| 83 | 544 | 686 | 80 | 2.7 | PH942_0180KX701_0020 MF EZ703U | 2093 | 2093 | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 48 | 3.5 | 1.5 | 832 | 90 |
| 83 | 702 | 996 | 103 | 2.1 | PH942_0180KX701_0020 MF EZ705U | 2093 | 2093 | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 60 | 3.5 | 1.5 | 832 | 96 |
| 94 | 284 | 325 | 47 | 4.6 | PH942_0160KX701_0020 MF EZ503U | 1260 | 1260 | 4301 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 28 | 3.5 | 1.5 | 808 | 85 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2,5,6 [rpm] | $n_{1maxDB}$ EL3,4 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH942KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 94 | 352 | 422 | 58 | 3.7 | PH942_0160KX701_0020 MF EZ702U | 1202 | 1202 | 4301 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 34 | 3.5 | 1.5 | 808 | 88 |
| 94 | 396 | 469 | 65 | 3.3 | PH942_0160KX701_0020 MF EZ505U | 1860 | 1860 | 4301 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 33 | 3.5 | 1.5 | 808 | 88 |
| 94 | 484 | 610 | 80 | 2.7 | PH942_0160KX701_0020 MF EZ703U | 1860 | 1860 | 4301 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 42 | 3.5 | 1.5 | 808 | 90 |
| 94 | 624 | 885 | 103 | 2.1 | PH942_0160KX701_0020 MF EZ705U | 1860 | 1860 | 4301 | 32.00 | 32/1 | 1800 | 1800 | 3500 | 54 | 3.5 | 1.5 | 808 | 96 |
| 100 | 585 | 830 | 86 | 4.2 | PH942_0300KX701_0010 MF EZ705U | 2858 | 2858 | 7097 | 30.00 | 30/1 | 1800 | 1600 | 3000 | 71 | 3.5 | 1.5 | 988 | 96 |
| 125 | 213 | 244 | 47 | 4.6 | PH942_0120KX701_0020 MF EZ503U | 945 | 945 | 3226 | 24.00 | 24/1 | 1800 | 1800 | 3500 | 35 | 4.0 | 2.0 | 655 | 85 |
| 125 | 264 | 317 | 58 | 3.7 | PH942_0120KX701_0020 MF EZ702U | 901 | 901 | 3226 | 24.00 | 24/1 | 1800 | 1800 | 3500 | 41 | 4.0 | 2.0 | 655 | 88 |
| 125 | 297 | 352 | 65 | 3.3 | PH942_0120KX701_0020 MF EZ505U | 1395 | 1395 | 3226 | 24.00 | 24/1 | 1800 | 1800 | 3500 | 40 | 4.0 | 2.0 | 655 | 88 |
| 125 | 363 | 457 | 80 | 2.7 | PH942_0120KX701_0020 MF EZ703U | 1395 | 1395 | 3226 | 24.00 | 24/1 | 1800 | 1800 | 3500 | 49 | 4.0 | 2.0 | 655 | 90 |
| 125 | 468 | 664 | 103 | 2.1 | PH942_0120KX701_0020 MF EZ705U | 1395 | 1395 | 3226 | 24.00 | 24/1 | 1800 | 1800 | 3500 | 61 | 4.0 | 2.0 | 655 | 96 |
| 150 | 390 | 553 | 86 | 4.2 | PH942_0200KX701_0010 MF EZ705U | 1905 | 1905 | 4731 | 20.00 | 20/1 | 1800 | 1600 | 3000 | 73 | 3.5 | 1.5 | 908 | 96 |
| 167 | 351 | 498 | 86 | 4.2 | PH942_0180KX701_0010 MF EZ705U | 1715 | 1715 | 4258 | 18.00 | 18/1 | 1800 | 1600 | 3000 | 104 | 3.5 | 1.5 | 832 | 96 |
| 188 | 312 | 443 | 86 | 4.2 | PH942_0160KX701_0010 MF EZ705U | 1524 | 1524 | 3785 | 16.00 | 16/1 | 1800 | 1600 | 3000 | 82 | 3.5 | 1.5 | 808 | 96 |
| 250 | 234 | 332 | 86 | 4.2 | PH942_0120KX701_0010 MF EZ705U | 1143 | 1143 | 2839 | 12.00 | 12/1 | 1800 | 1600 | 3000 | 110 | 4.0 | 2.0 | 655 | 96 |
| **PH942KX ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 28 | 3324 | 5765 | 150 | 1.1 | PH942_0480KX701_0030 MF EZ813U | 5000 | 5000 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 117 | 3.0 | 1.0 | 1033 | 113 |
| 28 | 3444 | 8857 | 155 | 1.0 | PH942_0480KX701_0030 MF EZ815U | 5000 | 5000 | 10000 | 144.0 | 144/1 | 2100 | 2100 | 4000 | 180 | 3.0 | 1.0 | 1033 | 126 |
| 32 | 2909 | 5044 | 148 | 1.1 | PH942_0420KX701_0030 MF EZ813U | 4883 | 4883 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 118 | 3.0 | 1.0 | 1035 | 113 |
| 32 | 3014 | 7749 | 153 | 1.0 | PH942_0420KX701_0030 MF EZ815U | 4883 | 4883 | 10000 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 181 | 3.0 | 1.0 | 1035 | 126 |
| 44 | 2078 | 3603 | 148 | 1.1 | PH942_0300KX701_0030 MF EZ813U | 3488 | 3488 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 118 | 3.5 | 1.5 | 988 | 113 |
| 44 | 2153 | 5535 | 153 | 1.0 | PH942_0300KX701_0030 MF EZ815U | 3488 | 3488 | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 181 | 3.5 | 1.5 | 988 | 126 |
| 56 | 1662 | 2882 | 148 | 1.1 | PH942_0240KX701_0030 MF EZ813U | 2790 | 2790 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 119 | 3.5 | 1.5 | 932 | 113 |
| 56 | 1722 | 4428 | 153 | 1.0 | PH942_0240KX701_0030 MF EZ815U | 2790 | 2790 | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 182 | 3.5 | 1.5 | 932 | 126 |
| 74 | 1247 | 2162 | 148 | 1.1 | PH942_0180KX701_0030 MF EZ813U | 2093 | 2093 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 122 | 3.5 | 1.5 | 832 | 113 |
| 74 | 1292 | 3321 | 153 | 1.0 | PH942_0180KX701_0030 MF EZ815U | 2093 | 2093 | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 185 | 3.5 | 1.5 | 832 | 126 |
| **PH1042KX ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 6980 Nm)** | | | | | | | | | | | | | | | | | | |
| 17 | 4286 | 4807 | 187 | 1.1 | PH1042_0600KX701_0020 MF EZ813U | 6975 | – | 14000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 120 | 3.0 | – | 1542 | 129 |
| 24 | 3000 | 3365 | 164 | 1.3 | PH1042_0420KX701_0020 MF EZ813U | 4883 | – | 11290 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 121 | 3.0 | – | 1545 | 129 |
| 33 | 2143 | 2404 | 164 | 1.3 | PH1042_0300KX701_0020 MF EZ813U | 3488 | – | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 122 | 3.5 | – | 1444 | 129 |
| 42 | 1714 | 1923 | 164 | 1.3 | PH1042_0240KX701_0020 MF EZ813U | 2790 | – | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 124 | 3.5 | – | 1328 | 129 |
| 48 | 1500 | 1682 | 138 | 2.6 | PH1042_0420KX701_0010 MF EZ813U | 4883 | – | 9935 | 42.00 | 42/1 | 1800 | 1600 | 3000 | 136 | 3.0 | – | 1545 | 129 |
| 48 | 2222 | 2645 | 205 | 1.8 | PH1042_0420KX701_0010 MF EZ815U | 4883 | – | 9935 | 42.00 | 42/1 | 1800 | 1600 | 3000 | 199 | 3.0 | – | 1545 | 141 |
| 56 | 1286 | 1442 | 164 | 1.3 | PH1042_0180KX701_0020 MF EZ813U | 2093 | – | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 131 | 3.5 | – | 1127 | 129 |
| 67 | 1072 | 1202 | 138 | 2.6 | PH1042_0300KX701_0010 MF EZ813U | 3488 | – | 7097 | 30.00 | 30/1 | 1800 | 1600 | 3000 | 142 | 3.5 | – | 1444 | 129 |
| 67 | 1587 | 1890 | 205 | 1.8 | PH1042_0300KX701_0010 MF EZ815U | 3488 | – | 7097 | 30.00 | 30/1 | 1800 | 1600 | 3000 | 205 | 3.5 | – | 1444 | 141 |
| 83 | 857 | 961 | 138 | 2.6 | PH1042_0240KX701_0010 MF EZ813U | 2790 | – | 5677 | 24.00 | 24/1 | 1800 | 1600 | 3000 | 150 | 3.5 | – | 1328 | 129 |
| 83 | 1270 | 1512 | 205 | 1.8 | PH1042_0240KX701_0010 MF EZ815U | 2790 | – | 5677 | 24.00 | 24/1 | 1800 | 1600 | 3000 | 213 | 3.5 | – | 1328 | 141 |
| 111 | 643 | 721 | 138 | 2.6 | PH1042_0180KX701_0010 MF EZ813U | 2093 | – | 4258 | 18.00 | 18/1 | 1800 | 1600 | 3000 | 176 | 3.5 | – | 1127 | 129 |
| 111 | 952 | 1134 | 205 | 1.8 | PH1042_0180KX701_0010 MF EZ815U | 2093 | – | 4258 | 18.00 | 18/1 | 1800 | 1600 | 3000 | 239 | 3.5 | – | 1127 | 141 |
| **PH1042KX ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 6980 Nm)** | | | | | | | | | | | | | | | | | | |
| 17 | 1220 | 1319 | 40 | 4.0 | PH1042_0600KX701_0030 MF EZ502U | 5112 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 18 | 3.0 | – | 1542 | 99 |
| 17 | 1220 | 1369 | 40 | 4.0 | PH1042_0600KX701_0030 MF EZ701U | 3298 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 21 | 3.0 | – | 1542 | 101 |
| 17 | 1599 | 1830 | 52 | 3.0 | PH1042_0600KX701_0030 MF EZ503U | 6975 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 20 | 3.0 | – | 1542 | 101 |
| 17 | 1979 | 2374 | 64 | 2.5 | PH1042_0600KX701_0030 MF EZ702U | 6760 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 27 | 3.0 | – | 1542 | 104 |
| 17 | 2226 | 2638 | 72 | 2.2 | PH1042_0600KX701_0030 MF EZ505U | 6975 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 25 | 3.0 | – | 1542 | 104 |
| 17 | 2721 | 3430 | 88 | 1.8 | PH1042_0600KX701_0030 MF EZ703U | 6975 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 34 | 3.0 | – | 1542 | 106 |
| 17 | 3512 | 4980 | 114 | 1.4 | PH1042_0600KX701_0030 MF EZ705U | 6975 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 47 | 3.0 | – | 1542 | 111 |
| 24 | 854 | 923 | 40 | 4.0 | PH1042_0420KX701_0030 MF EZ502U | 3578 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 18 | 3.0 | – | 1545 | 99 |
| 24 | 854 | 958 | 40 | 4.0 | PH1042_0420KX701_0030 MF EZ701U | 2308 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 22 | 3.0 | – | 1545 | 101 |
| 24 | 1120 | 1281 | 52 | 3.0 | PH1042_0420KX701_0030 MF EZ503U | 4883 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 21 | 3.0 | – | 1545 | 101 |
| 24 | 1385 | 1662 | 64 | 2.5 | PH1042_0420KX701_0030 MF EZ702U | 4732 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 27 | 3.0 | – | 1545 | 104 |
| 24 | 1558 | 1847 | 72 | 2.2 | PH1042_0420KX701_0030 MF EZ505U | 4883 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 25 | 3.0 | – | 1545 | 104 |
| 24 | 1904 | 2401 | 88 | 1.8 | PH1042_0420KX701_0030 MF EZ703U | 4883 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 35 | 3.0 | – | 1545 | 106 |
| 24 | 2458 | 3486 | 114 | 1.4 | PH1042_0420KX701_0030 MF EZ705U | 4883 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 47 | 3.0 | – | 1545 | 111 |
| 25 | 1066 | 1220 | 47 | 4.6 | PH1042_0600KX701_0020 MF EZ503U | 4727 | – | 14000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 23 | 3.0 | – | 1542 | 101 |
| 25 | 1319 | 1583 | 58 | 3.7 | PH1042_0600KX701_0020 MF EZ702U | 4507 | – | 14000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 29 | 3.0 | – | 1542 | 104 |
| 25 | 1484 | 1759 | 65 | 3.3 | PH1042_0600KX701_0020 MF EZ505U | 6975 | – | 14000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 28 | 3.0 | – | 1542 | 104 |
| 25 | 1814 | 2286 | 80 | 2.7 | PH1042_0600KX701_0020 MF EZ703U | 6975 | – | 14000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 37 | 3.0 | – | 1542 | 106 |
| 25 | 2341 | 3320 | 103 | 2.1 | PH1042_0600KX701_0020 MF EZ705U | 6975 | – | 14000 | 120.0 | 120/1 | 1800 | 1800 | 3500 | 50 | 3.0 | – | 1542 | 111 |
| 33 | 610 | 660 | 40 | 4.0 | PH1042_0300KX701_0030 MF EZ502U | 2556 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 19 | 3.5 | – | 1444 | 99 |
| 33 | 610 | 684 | 40 | 4.0 | PH1042_0300KX701_0030 MF EZ701U | 1649 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 22 | 3.5 | – | 1444 | 101 |
| 33 | 800 | 915 | 52 | 3.0 | PH1042_0300KX701_0030 MF EZ503U | 3488 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 21 | 3.5 | – | 1444 | 101 |
| 33 | 989 | 1187 | 64 | 2.5 | PH1042_0300KX701_0030 MF EZ702U | 3380 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 28 | 3.5 | – | 1444 | 104 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2,5,6 | EL3,4 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| PH1042KX ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 6980 Nm) | | | | | | | | | | | | | | | | | | |
| 33 | 1113 | 1319 | 72 | 2.2 | PH1042_0300KX701_0030 MF EZ505U | 3488 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 26 | 3.5 | – | 1444 | 104 |
| 33 | 1360 | 1715 | 88 | 1.8 | PH1042_0300KX701_0030 MF EZ703U | 3488 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 35 | 3.5 | – | 1444 | 106 |
| 33 | 1756 | 2490 | 114 | 1.4 | PH1042_0300KX701_0030 MF EZ705U | 3488 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 48 | 3.5 | – | 1444 | 111 |
| 36 | 746 | 854 | 47 | 4.6 | PH1042_0420KX701_0020 MF EZ503U | 3309 | – | 11290 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 24 | 3.0 | – | 1545 | 101 |
| 36 | 923 | 1108 | 58 | 3.7 | PH1042_0420KX701_0020 MF EZ702U | 3155 | – | 11290 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 30 | 3.0 | – | 1545 | 104 |
| 36 | 1039 | 1231 | 65 | 3.3 | PH1042_0420KX701_0020 MF EZ505U | 4883 | – | 11290 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 29 | 3.0 | – | 1545 | 104 |
| 36 | 1270 | 1601 | 80 | 2.7 | PH1042_0420KX701_0020 MF EZ703U | 4883 | – | 11290 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 38 | 3.0 | – | 1545 | 106 |
| 36 | 1639 | 2324 | 103 | 2.1 | PH1042_0420KX701_0020 MF EZ705U | 4883 | – | 11290 | 84.00 | 84/1 | 1800 | 1800 | 3500 | 50 | 3.0 | – | 1545 | 111 |
| 42 | 488 | 528 | 40 | 4.0 | PH1042_0240KX701_0030 MF EZ502U | 2045 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 20 | 3.5 | – | 1328 | 99 |
| 42 | 488 | 547 | 40 | 4.0 | PH1042_0240KX701_0030 MF EZ701U | 1319 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 23 | 3.5 | – | 1328 | 101 |
| 42 | 640 | 732 | 52 | 3.0 | PH1042_0240KX701_0030 MF EZ503U | 2790 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 22 | 3.5 | – | 1328 | 101 |
| 42 | 791 | 950 | 64 | 2.5 | PH1042_0240KX701_0030 MF EZ702U | 2704 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 28 | 3.5 | – | 1328 | 104 |
| 42 | 890 | 1055 | 72 | 2.2 | PH1042_0240KX701_0030 MF EZ505U | 2790 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 27 | 3.5 | – | 1328 | 104 |
| 42 | 1088 | 1372 | 88 | 1.8 | PH1042_0240KX701_0030 MF EZ703U | 2790 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 36 | 3.5 | – | 1328 | 106 |
| 42 | 1405 | 1992 | 114 | 1.4 | PH1042_0240KX701_0030 MF EZ705U | 2790 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 49 | 3.5 | – | 1328 | 111 |
| 50 | 533 | 610 | 47 | 4.6 | PH1042_0300KX701_0020 MF EZ503U | 2363 | – | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 25 | 3.5 | – | 1444 | 101 |
| 50 | 660 | 791 | 58 | 3.7 | PH1042_0300KX701_0020 MF EZ702U | 2253 | – | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 32 | 3.5 | – | 1444 | 104 |
| 50 | 742 | 879 | 65 | 3.3 | PH1042_0300KX701_0020 MF EZ505U | 3488 | – | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 30 | 3.5 | – | 1444 | 104 |
| 50 | 907 | 1143 | 80 | 2.7 | PH1042_0300KX701_0020 MF EZ703U | 3488 | – | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 39 | 3.5 | – | 1444 | 106 |
| 50 | 1171 | 1660 | 103 | 2.1 | PH1042_0300KX701_0020 MF EZ705U | 3488 | – | 8065 | 60.00 | 60/1 | 1800 | 1800 | 3500 | 52 | 3.5 | – | 1444 | 111 |
| 56 | 366 | 396 | 40 | 4.0 | PH1042_0180KX701_0030 MF EZ502U | 1533 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 23 | 3.5 | – | 1127 | 99 |
| 56 | 366 | 411 | 40 | 4.0 | PH1042_0180KX701_0030 MF EZ701U | 989 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 26 | 3.5 | – | 1127 | 101 |
| 56 | 480 | 549 | 52 | 3.0 | PH1042_0180KX701_0030 MF EZ503U | 2093 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 25 | 3.5 | – | 1127 | 101 |
| 56 | 594 | 712 | 64 | 2.5 | PH1042_0180KX701_0030 MF EZ702U | 2028 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 31 | 3.5 | – | 1127 | 104 |
| 56 | 668 | 791 | 72 | 2.2 | PH1042_0180KX701_0030 MF EZ505U | 2093 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 30 | 3.5 | – | 1127 | 104 |
| 56 | 816 | 1029 | 88 | 1.8 | PH1042_0180KX701_0030 MF EZ703U | 2093 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 39 | 3.5 | – | 1127 | 106 |
| 56 | 1054 | 1494 | 114 | 1.4 | PH1042_0180KX701_0030 MF EZ705U | 2093 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 52 | 3.5 | – | 1127 | 111 |
| 63 | 427 | 488 | 47 | 4.6 | PH1042_0240KX701_0020 MF EZ503U | 1891 | – | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 27 | 3.5 | – | 1328 | 101 |
| 63 | 528 | 633 | 58 | 3.7 | PH1042_0240KX701_0020 MF EZ702U | 1803 | – | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 34 | 3.5 | – | 1328 | 104 |
| 63 | 594 | 704 | 65 | 3.3 | PH1042_0240KX701_0020 MF EZ505U | 2790 | – | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 32 | 3.5 | – | 1328 | 104 |
| 63 | 726 | 915 | 80 | 2.7 | PH1042_0240KX701_0020 MF EZ703U | 2790 | – | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 41 | 3.5 | – | 1328 | 106 |
| 63 | 937 | 1328 | 103 | 2.1 | PH1042_0240KX701_0020 MF EZ705U | 2790 | – | 6452 | 48.00 | 48/1 | 1800 | 1800 | 3500 | 54 | 3.5 | – | 1328 | 111 |
| 71 | 819 | 1162 | 86 | 4.2 | PH1042_0420KX701_0010 MF EZ705U | 4001 | – | 9935 | 42.00 | 42/1 | 1800 | 1600 | 3000 | 65 | 3.0 | – | 1545 | 111 |
| 83 | 320 | 366 | 47 | 4.6 | PH1042_0180KX701_0020 MF EZ503U | 1418 | – | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 34 | 3.5 | – | 1127 | 101 |
| 83 | 396 | 475 | 58 | 3.7 | PH1042_0180KX701_0020 MF EZ702U | 1352 | – | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 40 | 3.5 | – | 1127 | 104 |
| 83 | 445 | 528 | 65 | 3.3 | PH1042_0180KX701_0020 MF EZ505U | 2093 | – | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 39 | 3.5 | – | 1127 | 104 |
| 83 | 544 | 686 | 80 | 2.7 | PH1042_0180KX701_0020 MF EZ703U | 2093 | – | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 48 | 3.5 | – | 1127 | 106 |
| 83 | 702 | 996 | 103 | 2.1 | PH1042_0180KX701_0020 MF EZ705U | 2093 | – | 4839 | 36.00 | 36/1 | 1800 | 1800 | 3500 | 60 | 3.5 | – | 1127 | 111 |
| 100 | 585 | 830 | 86 | 4.2 | PH1042_0300KX701_0010 MF EZ705U | 2858 | – | 7097 | 30.00 | 30/1 | 1800 | 1600 | 3000 | 72 | 3.5 | – | 1444 | 111 |
| 125 | 468 | 664 | 86 | 4.2 | PH1042_0240KX701_0010 MF EZ705U | 2286 | – | 5677 | 24.00 | 24/1 | 1800 | 1600 | 3000 | 79 | 3.5 | – | 1328 | 111 |
| 167 | 351 | 498 | 86 | 4.2 | PH1042_0180KX701_0010 MF EZ705U | 1715 | – | 4258 | 18.00 | 18/1 | 1800 | 1600 | 3000 | 106 | 3.5 | – | 1127 | 111 |
| PH1042KX ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 6980 Nm) | | | | | | | | | | | | | | | | | | |
| 22 | 4155 | 7206 | 148 | 1.1 | PH1042_0600KX701_0030 MF EZ813U | 6975 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 117 | 3.0 | – | 1542 | 129 |
| 22 | 4305 | 11071 | 153 | 1.0 | PH1042_0600KX701_0030 MF EZ815U | 6975 | – | 14000 | 180.0 | 180/1 | 2100 | 2100 | 4000 | 180 | 3.0 | – | 1542 | 141 |
| 32 | 2909 | 5044 | 148 | 1.1 | PH1042_0420KX701_0030 MF EZ813U | 4883 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 118 | 3.0 | – | 1545 | 129 |
| 32 | 3014 | 7749 | 153 | 1.0 | PH1042_0420KX701_0030 MF EZ815U | 4883 | – | 11290 | 126.0 | 126/1 | 2100 | 2100 | 4000 | 181 | 3.0 | – | 1545 | 141 |
| 44 | 2078 | 3603 | 148 | 1.1 | PH1042_0300KX701_0030 MF EZ813U | 3488 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 118 | 3.5 | – | 1444 | 129 |
| 44 | 2153 | 5535 | 153 | 1.0 | PH1042_0300KX701_0030 MF EZ815U | 3488 | – | 8065 | 90.00 | 90/1 | 2100 | 2100 | 4000 | 181 | 3.5 | – | 1444 | 141 |
| 56 | 1662 | 2882 | 148 | 1.1 | PH1042_0240KX701_0030 MF EZ813U | 2790 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 119 | 3.5 | – | 1328 | 129 |
| 56 | 1722 | 4428 | 153 | 1.0 | PH1042_0240KX701_0030 MF EZ815U | 2790 | – | 6452 | 72.00 | 72/1 | 2100 | 2100 | 4000 | 182 | 3.5 | – | 1328 | 141 |
| 74 | 1247 | 2162 | 148 | 1.1 | PH1042_0180KX701_0030 MF EZ813U | 2093 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 122 | 3.5 | – | 1127 | 129 |
| 74 | 1292 | 3321 | 153 | 1.0 | PH1042_0180KX701_0030 MF EZ815U | 2093 | – | 4839 | 54.00 | 54/1 | 2100 | 2100 | 4000 | 185 | 3.5 | – | 1127 | 141 |

## 12.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

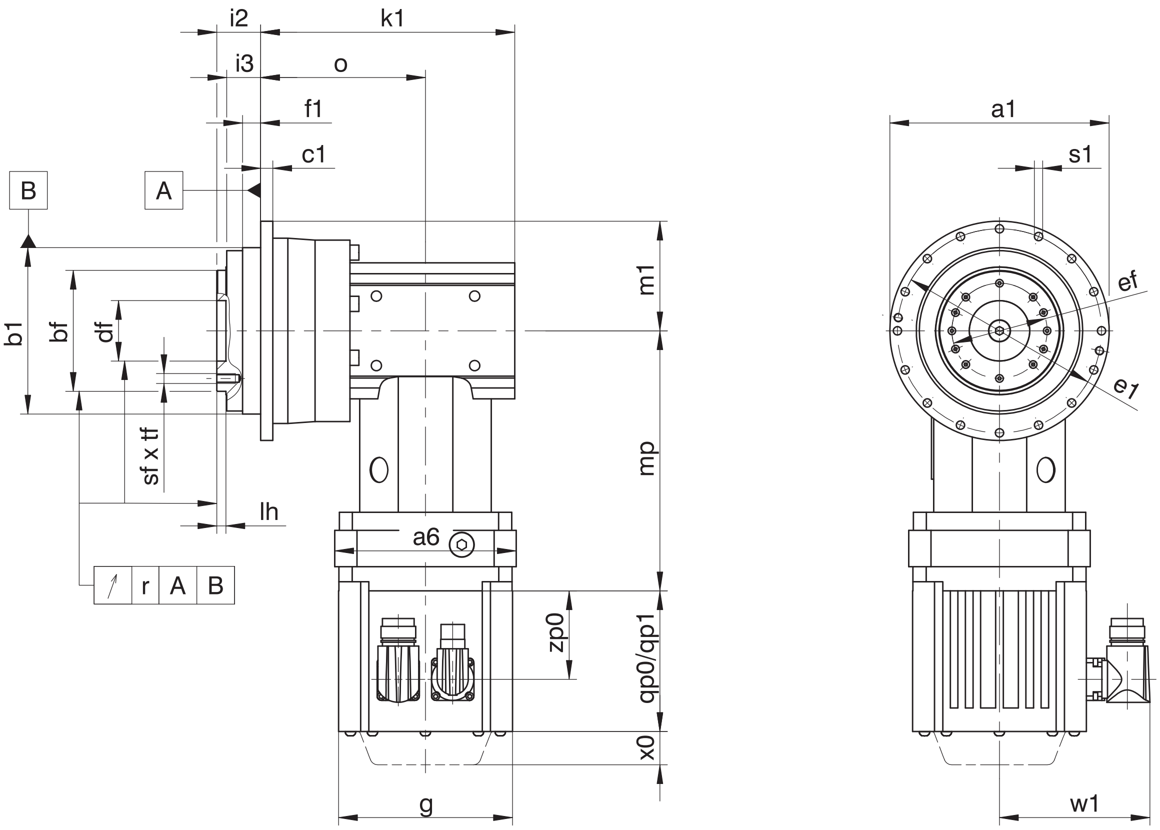
Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

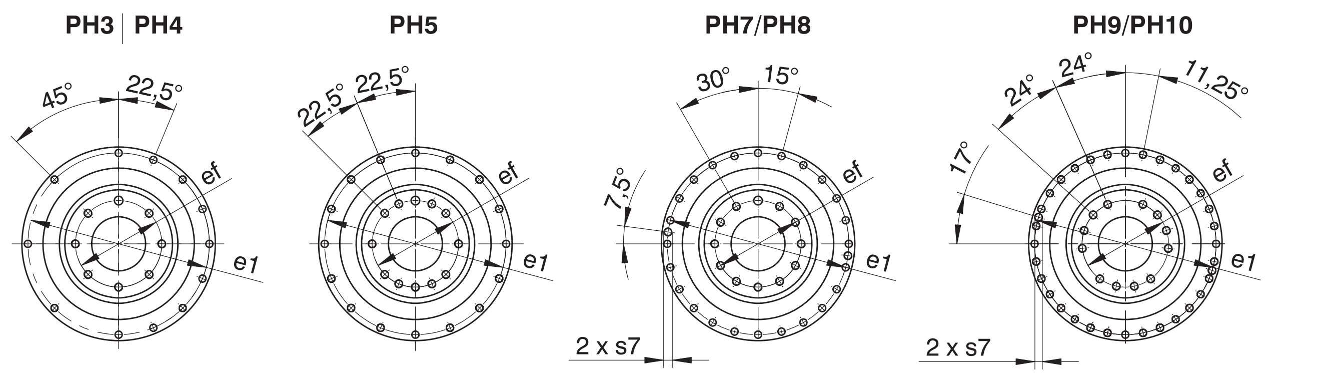
We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

## 12.3.1 F shaft design (flange shaft)




qp0 Applies to motors without brake.

qp1 Applies to motors with brake.

x0 Applies to encoders using an optical measuring method

w1 Different for the One Cable Solution (OCS), see the chapter [▷ 17.4]

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b1 | ∅bf | c1 | ∅df | ∅e1 | ∅ef | f1 | i2 | i3 | k1 | lh | m1 | o | r | ∅s1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH331_KX301_ | 86 | $64_{h7}$ | $40_{h7}$ | 4 | $20.0^{H6}$ | 79 | 32 | 7 | 19.5 | 16.5 | 113.5 | 4 | 43.0 | 73.5 | 0.020 | 4.5 | – | M5 | 7 |
| PH332_KX301_ | 86 | $64_{h7}$ | $40_{h7}$ | 4 | $20.0^{H6}$ | 79 | 32 | 7 | 19.5 | 16.5 | 147.0 | 4 | 43.0 | 107.0 | 0.020 | 4.5 | – | M5 | 7 |
| PH431_KX401_ | 118 | $90_{h7}$ | $63_{h7}$ | 7 | $31.5^{H6}$ | 109 | 50 | 10 | 30.0 | 24.0 | 139.0 | 6 | 59.0 | 89.0 | 0.020 | 5.5 | – | M6 | 11 |
| PH432_KX301_ | 118 | $90_{h7}$ | $63_{h7}$ | 7 | $31.5^{H6}$ | 109 | 50 | 10 | 30.0 | 24.0 | 161.5 | 6 | 59.0 | 121.5 | 0.020 | 5.5 | – | M6 | 11 |
| PH531_KX501_ | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40.0^{H6}$ | 135 | 63 | 12 | 29.0 | 23.0 | 168.0 | 6 | 72.5 | 109.0 | 0.020 | 5.5 | – | M6 | 11 |
| PH532_KX401_ | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40.0^{H6}$ | 135 | 63 | 12 | 29.0 | 23.0 | 187.5 | 6 | 72.5 | 137.5 | 0.020 | 5.5 | – | M6 | 11 |
| PH731_KX701_ | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50.0^{H6}$ | 168 | 80 | 12 | 38.0 | 32.0 | 203.0 | 6 | 89.5 | 129.0 | 0.025 | 6.6 | – | M8 | 14 |
| PH732_KX501_ | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50.0^{H6}$ | 168 | 80 | 12 | 38.0 | 32.0 | 226.0 | 6 | 89.5 | 167.0 | 0.025 | 6.6 | – | M8 | 14 |
| PH831_KX701_ | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80.0^{H6}$ | 233 | 125 | 15 | 50.0 | 42.0 | 235.5 | 8 | 123.5 | 161.5 | 0.030 | 9.0 | M10 | M10 | 18 |
| PH832_KX701_ | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80.0^{H6}$ | 233 | 125 | 15 | 50.0 | 42.0 | 293.0 | 8 | 123.5 | 219.0 | 0.030 | 9.0 | M10 | M10 | 18 |
| PH942_KX701_ | 300 | $255_{h7}$ | $180_{h7}$ | 18 | $90.0^{H6}$ | 280 | 140 | 20 | 66.0 | 55.0 | 336.0 | 12 | 150.0 | 262.0 | 0.030 | 13.5 | M8 | M16 | 24 |
| PH1042_KX701_ | 330 | $285_{h7}$ | $200_{h7}$ | 20 | $95.0^{H6}$ | 310 | 160 | 20 | 75.0 | 60.0 | 343.0 | 10 | 165.0 | 269.0 | 0.040 | 13.5 | M10 | M20 | 28 |

### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |
| EZ501U | 115 | 93 | 147.5 | 100.0 | 22 | 58.5 |
| EZ502U | 115 | 118 | 172.5 | 100.0 | 22 | 83.5 |
| EZ503U | 115 | 143 | 197.5 | 100.0 | 22 | 108.5 |
| EZ505U | 115 | 193 | 247.5 | 100.0 | 22 | 158.5 |
| EZ701U | 145 | 102 | 161.0 | 115.0 | 22 | 64.0 |
| EZ702U | 145 | 127 | 186.0 | 115.0 | 22 | 89.0 |
| EZ703U | 145 | 152 | 211.0 | 115.0 | 22 | 114.0 |
| EZ705U | 145 | 207 | 266.0 | 134.0 | 22 | 165.0 |
| EZ813U | 190 | 238 | 315.0 | 156.5 | 22 | 184.0 |
| EZ815U | 190 | 320 | 397.0 | 156.5 | 22 | 266.0 |

### Dimensions of geared motors

| Type | EZ3 | | EZ4 | | EZ5 | | EZ7 | | EZ8 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | □a6 | mp | □a6 | mp | □a6 | mp | □a6 | mp | □a6 | mp |
| PH331_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| PH332_KX301_ | 75 | 139.5 | – | – | – | – | – | – | – | – |
| PH431_KX401_ | 100 | 151.0 | 100 | 145.5 | 115 | 150.0 | 140 | 153.0 | – | – |
| PH432_KX301_ | 75 | 139.5 | 100 | 134.0 | – | – | – | – | – | – |
| PH531_KX501_ | – | – | 120 | 176.5 | 120 | 172.0 | 140 | 183.0 | – | – |
| PH532_KX401_ | 100 | 151.0 | 100 | 145.5 | 115 | 150.0 | 140 | 153.0 | – | – |
| PH731_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| PH732_KX501_ | – | – | 120 | 176.5 | 120 | 172.0 | 140 | 183.0 | – | – |
| PH831_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| PH832_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | – | – |
| PH942_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |
| PH1042_KX701_ | – | – | – | – | 150 | 214.5 | 150 | 217.5 | 190 | 242.5 |

# 12.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| PH | 7 | 3 | 1 | S | F | S | S | 0050 | KX701VF | 0010 | MF | EZ703U |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **PH** | Type | Planetary gearbox |
| **7** | Size | 7 (example) |
| **3** | Generation | Generation 3 |
| 4 | | Generation 4 |
| **1** | Stages | Single-stage |
| 2 | | Two-stage |
| **S** | Housing | Standard |
| **F** | Shaft | Flange shaft |
| **S** | Bearing | Standard bearing |
| V | | Reinforced bearing (PH3 – PH5) |
| **S** | Backlash | Standard |
| R | | Reduced (PH3 – PH9) |
| **0050** | Transmission ratio of output (i x 10) | i = 5 (example) |
| **KX701 VF** | Input | KX7 right-angle geared motor (example) |
| **0010** | Transmission ratio of input (i x 10) | i = 1 (example) |
| **MF** | Motor adapter | Motor adapter with FlexiAdapt coupling |
| **EZ703U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▹ 17.5]
- Mounting position, see the chapter [▹ 12.5.3]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▹ 12.6.3]
- Position of the plug connectors, see the chapter [▹ 12.5.5]
- For reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▹ 12.6.4]

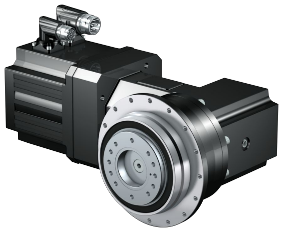
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▹ 17.5.1].

# 12.5 Product description

## 12.5.1 Input options

EZ synchronous servo motor



Catalog ID 442437_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 12.5.2 Installation conditions

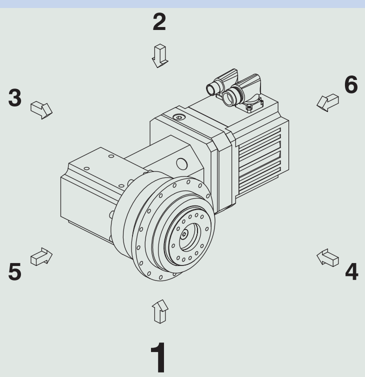
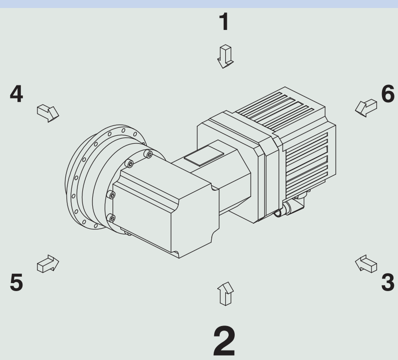
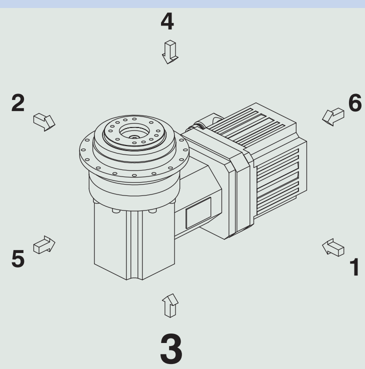
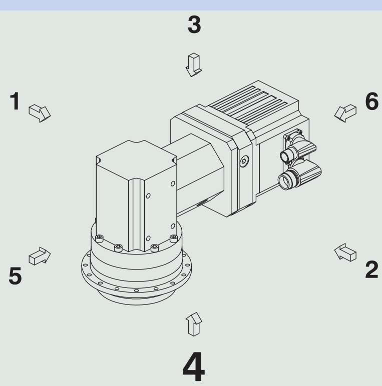
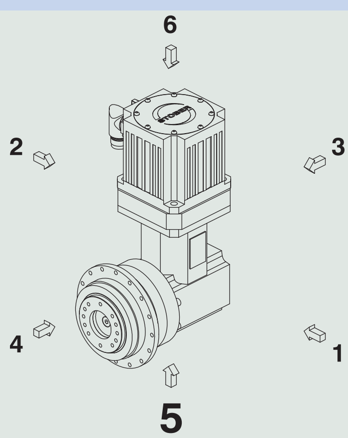
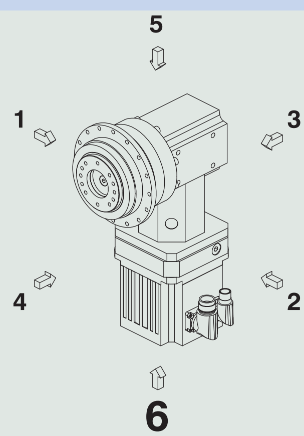
The torque and force values listed in this catalog are valid under the following conditions:

- When the flange shaft and gear housing are fastened on the machine side using screws of strength class 12.9
- When the gear housings are adjusted at pilot øb1. The machine-side fit must be H7.
- When the flange shaft is adjusted using the connecting element at pilot øbf or ødf

## 12.5.3 Mounting positions

The following table shows the standard mounting positions.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

| EL1 | EL2 | EL3 |
|---|---|---|
|  |  |  |
| **EL4** | **EL5** | **EL6** |
|  |  |  |

Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

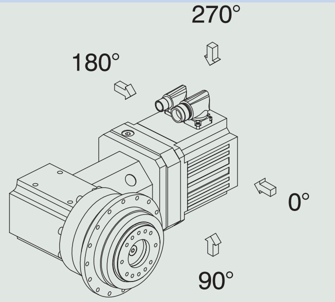
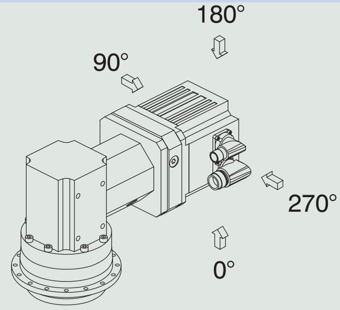
## 12.5.4 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 12.5.5 Position of the plug connectors

| **Mounting position EL1**<br>Plug connector in 270° position (standard) | **Mounting position EL4**<br>Plug connector in 270° position (standard) |
|---|---|
|  |  |

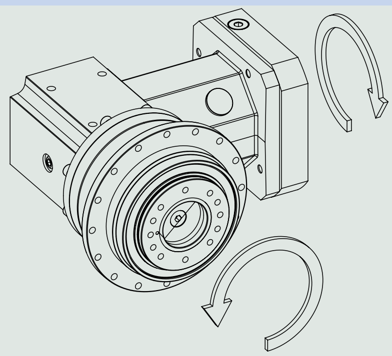
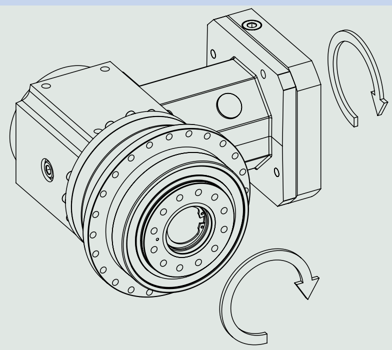
Indicate variations for your geared motor in the order.

Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

## 12.5.6 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ two-stage | 95% |
| $\eta_{get}$ three-stage | 92% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 12.5.7 Direction of rotation

| PH_KX3 – PH_KX5 | PH_KX7 |
|---|---|
|  |  |

The figures show mounting position EL1.

[1] Observe the protection class of all the components.

## 12.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

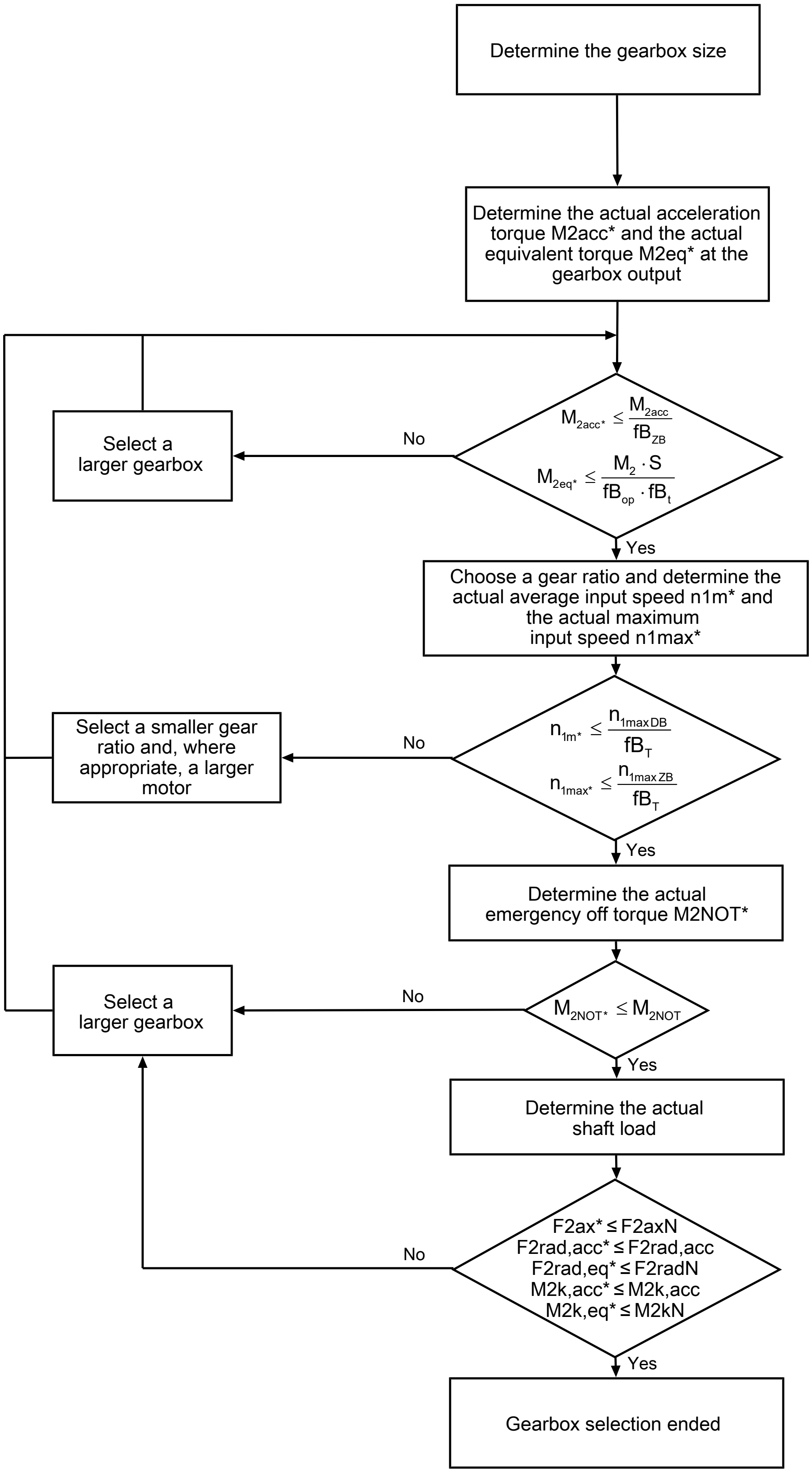
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 12.6.1 Drive selection

**Drive selection for gearboxes**

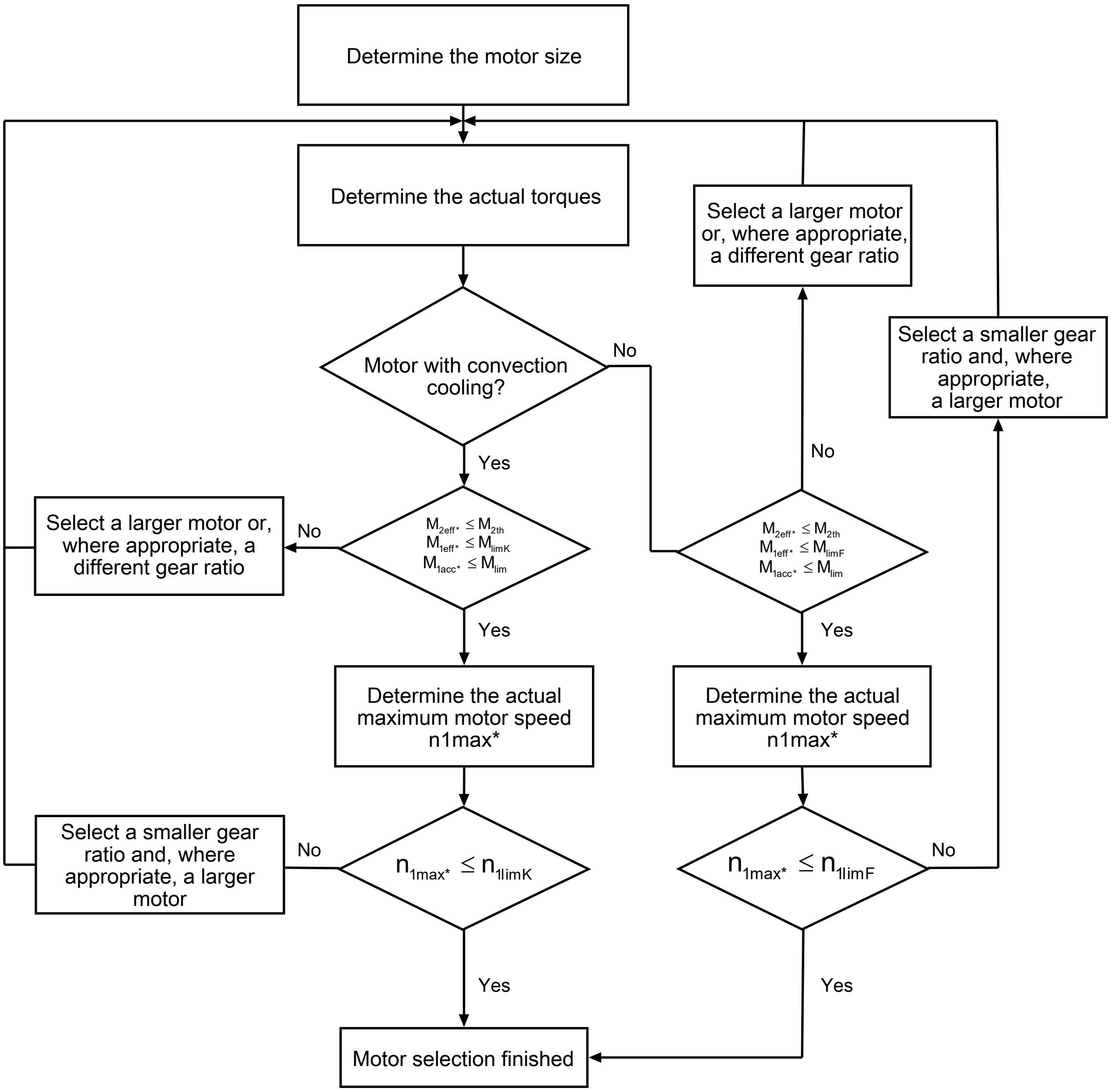



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

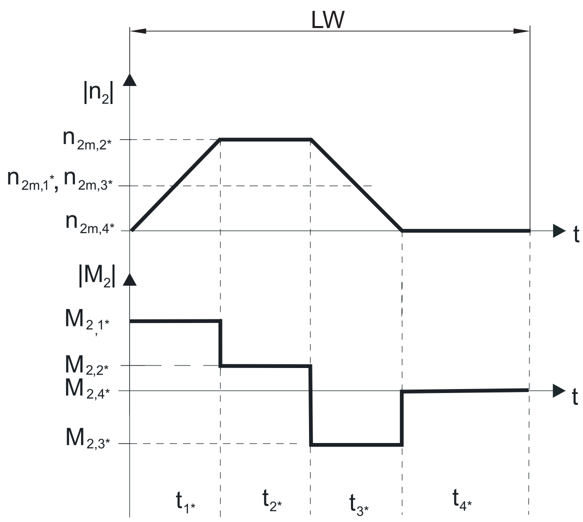
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc^*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L^*}$$

$$M_{1acc^*} = \frac{M_{2acc^*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m^*} = n_{2m^*} \cdot i$$

$$n_{2m^*} = \frac{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}{t_{1^*} + \ldots + t_{n^*}}$$

If $t_{1*}$ + ... + $t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff^*} = \sqrt{\frac{t_{1^*} \cdot M_{2,1^*}{}^2 + \ldots + t_{n^*} \cdot M_{2,n^*}{}^2}{t_{1^*} + \ldots + t_{n^*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT^*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L^*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

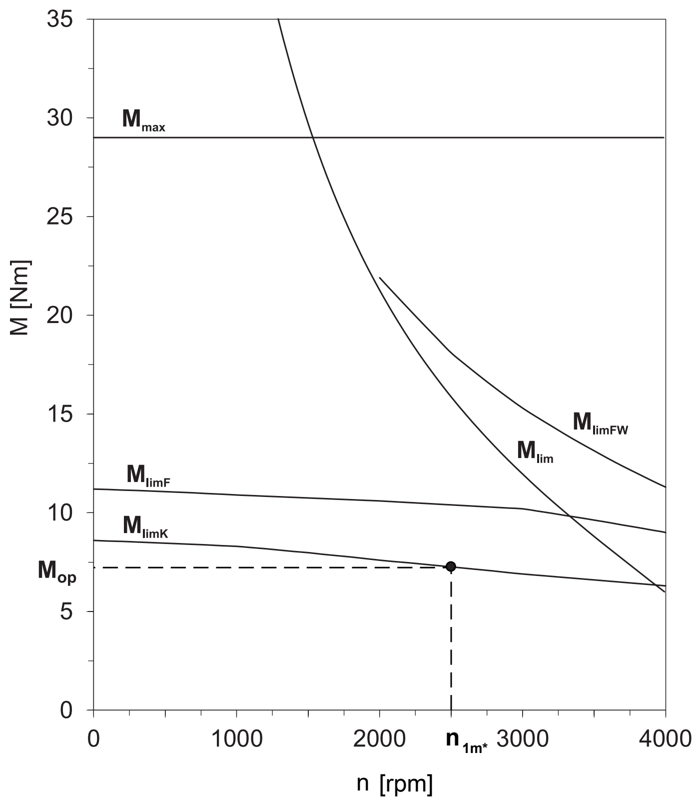
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}93 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m^*}}{1000}\right)^3$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

**Parameter $a_{thEL}$**

| **Mounting position** | **$a_{thEL}$** |
|---|---|
| EL1, 2, 5, 6 | 1.0 |
| EL3, 4 | 1.1 |

| **Operating mode** | **$fB_{op}$** |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| **Run time** | **$fB_t$** |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| **Cyclic operation** | **$fB_{ZB}$** |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 12.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*}$ ≤ 100 rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PH3 | 62.5 | 1650 | 1613 | 1613 | 101 | 101 | 75 |
| PH4 | 83.0 | 2150 | 3095 | 3571 | 257 | 296 | 192 |
| PH5 | 97.0 | 4150 | 4536 | 4897 | 440 | 475 | 429 |
| PH7 | 86.0 | 6150 | 17045 | 17045 | 1466 | 1466 | 500 |
| PH8 | 125.5 | 10050 | 27778 | 27778 | 3486 | 3486 | 1550 |
| PH9 | 155.0 | 33000 | 48387 | 70968 | 7500 | 11000 | 7500 |
| PH10 | 171.0 | 50000 | 51462 | 73099 | 8800 | 12500 | 9500 |

**Permitted shaft loads for reinforced bearing V**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PH3 | 66.5 | 2200 | 2250 | 2250 | 150 | 150 | 80 |
| PH4 | 88.5 | 2900 | 4000 | 4000 | 354 | 354 | 217 |
| PH5 | 104.0 | 5000 | 5500 | 5500 | 572 | 572 | 478 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\text{ rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

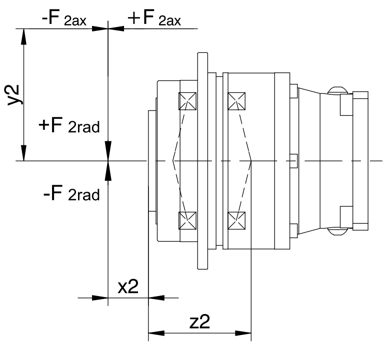



*Fig. 1:* Force application points

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc^*} = \frac{2 \cdot F_{2ax^*} \cdot y_2 + F_{2rad,acc^*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2k,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2k,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |F_{2rad,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |F_{2rad,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10} \leq 40\%$):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k^*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k^*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k^*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 12.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

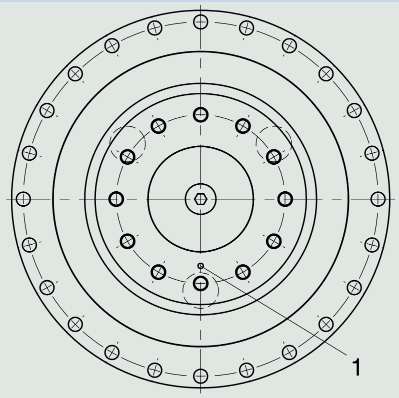
Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

### 12.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below.

The images show the center position of reverse operation.

Cyclic reverse operation ≤ ± 20° on request.

| Size 3 – 10 |
|---|
|  |
| 1 Position of the mark: bottom |

Please note that the hole pattern may be different, depending on the size of the planetary gearbox.

## 12.7 Additional documentation

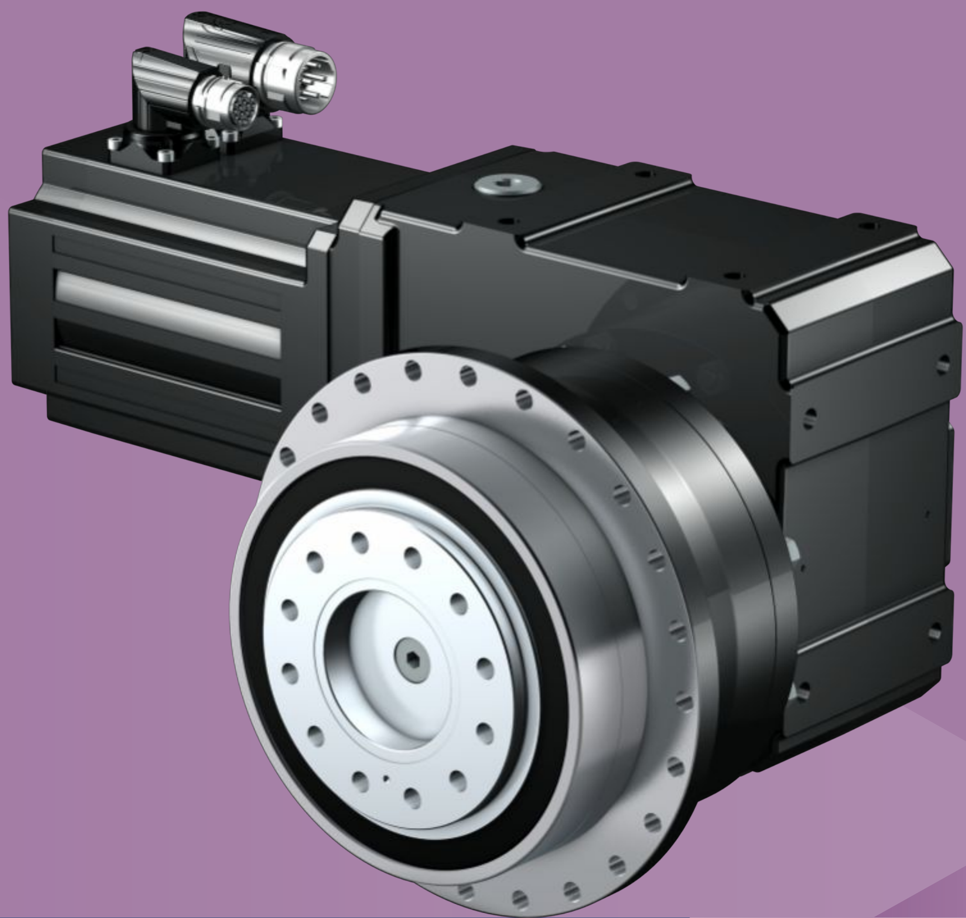
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors PH33KX – PH83KX, PH94KX – PH104KX | 443359_en |

# 13 PHK right-angle planetary geared motors

## Table of contents



13

# Right-angle planetary geared motors

# PHK

## 13.1 Overview

High-performance precision right-angle planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★★☆ |
| Backlash | ★★★★★ |
| Price category | €€€€ |
| Shaft load | ★★★★★ |
| Smooth operation | ★★★☆☆ |
| Torsional stiffness | ★★★★☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Continuous operation without cooling | ✓ |
| Stiff output bearings due to pretension | ✓ |
| Reinforced output bearing (PH3 – PH5) | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| $i$ | 16 – 555 |
| $M_{2acc}$ | 89 – 7500 Nm |
| $\Delta\phi_2$ | 1.5 – 4.5 arcmin |
| $\eta_{get}$ | 92 – 93 % |

# 13.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [20.1].

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| **PH531K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 13 | 203 | 208 | 12 | 1.1 | PH531_0050K102_0470 EZ301U | 385 | 400 | 705 | 234.6 | 11495/49 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 62 | 17 |
| 17 | 152 | 155 | 11 | 1.4 | PH531_0050K102_0350 EZ301U | 385 | 400 | 705 | 175.5 | 3686/21 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 62 | 17 |
| 21 | 121 | 124 | 10 | 1.8 | PH531_0050K102_0280 EZ301U | 366 | 366 | 705 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 62 | 17 |
| 21 | 208 | 219 | 17 | 1.1 | PH531_0050K102_0280 EZ302U | 385 | 400 | 705 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 62 | 18 |
| 26 | 101 | 103 | 9.7 | 2.2 | PH531_0050K102_0230 EZ301U | 303 | 303 | 705 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 62 | 17 |
| 26 | 172 | 182 | 17 | 1.3 | PH531_0050K102_0230 EZ302U | 385 | 400 | 705 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 62 | 18 |
| 34 | 76 | 78 | 9.1 | 2.9 | PH531_0050K102_0175 EZ301U | 229 | 229 | 666 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.32 | 2.0 | 62 | 17 |
| 34 | 130 | 137 | 16 | 1.7 | PH531_0050K102_0175 EZ302U | 385 | 400 | 666 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.42 | 2.0 | 62 | 18 |
| 34 | 169 | 179 | 20 | 1.3 | PH531_0050K102_0175 EZ303U | 385 | 400 | 666 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.53 | 2.0 | 62 | 18 |
| 43 | 61 | 62 | 8.6 | 3.6 | PH531_0050K102_0140 EZ301U | 184 | 184 | 535 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.37 | 2.0 | 62 | 17 |
| 43 | 104 | 110 | 15 | 2.1 | PH531_0050K102_0140 EZ302U | 329 | 329 | 535 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.47 | 2.0 | 62 | 18 |
| 43 | 136 | 144 | 19 | 1.6 | PH531_0050K102_0140 EZ303U | 385 | 394 | 535 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.58 | 2.0 | 62 | 18 |
| 43 | 184 | 197 | 26 | 1.2 | PH531_0050K102_0140 EZ401U | 385 | 400 | 705 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 62 | 20 |
| 52 | 50 | 51 | 8.2 | 4.4 | PH531_0050K102_0115 EZ301U | 151 | 151 | 438 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 0.44 | 2.0 | 62 | 17 |
| 52 | 86 | 90 | 14 | 2.6 | PH531_0050K102_0115 EZ302U | 269 | 269 | 438 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 0.54 | 2.0 | 62 | 18 |
| 52 | 111 | 118 | 18 | 2.0 | PH531_0050K102_0115 EZ303U | 323 | 323 | 438 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 0.65 | 2.0 | 62 | 18 |
| 52 | 151 | 162 | 25 | 1.5 | PH531_0050K102_0115 EZ401U | 385 | 400 | 705 | 57.83 | 1330/23 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 62 | 20 |
| 65 | 68 | 72 | 13 | 3.2 | PH531_0050K102_0092 EZ302U | 215 | 215 | 351 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 0.63 | 2.0 | 62 | 18 |
| 65 | 89 | 94 | 17 | 2.5 | PH531_0050K102_0092 EZ303U | 259 | 259 | 351 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 0.74 | 2.0 | 62 | 18 |
| 65 | 121 | 129 | 23 | 1.8 | PH531_0050K102_0092 EZ401U | 366 | 366 | 705 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 1.3 | 2.0 | 62 | 20 |
| 65 | 185 | 202 | 36 | 1.2 | PH531_0050K102_0092 EZ501U | 385 | 400 | 705 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 62 | 21 |
| 65 | 202 | 224 | 39 | 1.1 | PH531_0050K102_0092 EZ402U | 385 | 400 | 705 | 46.25 | 8740/189 | 3600 | 3600 | 5500 | 4.0 | 2.0 | 2.0 | 62 | 21 |
| 72 | 62 | 65 | 13 | 3.6 | PH531_0050K102_0083 EZ302U | 193 | 193 | 315 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 0.59 | 2.0 | 62 | 18 |
| 72 | 80 | 85 | 17 | 2.7 | PH531_0050K102_0083 EZ303U | 232 | 232 | 315 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 0.70 | 2.0 | 62 | 18 |
| 72 | 108 | 116 | 23 | 2.0 | PH531_0050K102_0083 EZ401U | 329 | 329 | 705 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 62 | 20 |
| 72 | 166 | 182 | 35 | 1.3 | PH531_0050K102_0083 EZ501U | 385 | 400 | 705 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 62 | 21 |
| 72 | 182 | 201 | 38 | 1.2 | PH531_0050K102_0083 EZ402U | 385 | 400 | 705 | 41.55 | 1911/46 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 62 | 21 |
| 90 | 49 | 52 | 14 | 3.8 | PH531_0050K102_0066 EZ302U | 155 | 155 | 252 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 0.71 | 2.0 | 62 | 18 |
| 90 | 64 | 68 | 19 | 2.9 | PH531_0050K102_0066 EZ303U | 186 | 186 | 252 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 0.82 | 2.0 | 62 | 18 |
| 90 | 87 | 93 | 21 | 2.5 | PH531_0050K102_0066 EZ401U | 263 | 263 | 705 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 1.4 | 2.0 | 62 | 20 |
| 90 | 133 | 145 | 33 | 1.7 | PH531_0050K102_0066 EZ501U | 385 | 400 | 705 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 62 | 21 |
| 90 | 145 | 161 | 36 | 1.5 | PH531_0050K102_0066 EZ402U | 385 | 400 | 705 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 2.1 | 2.0 | 62 | 21 |
| 90 | 213 | 266 | 53 | 1.0 | PH531_0050K102_0066 EZ404U | 385 | 400 | 705 | 33.22 | 299/9 | 3600 | 3600 | 5500 | 4.0 | 3.4 | 2.0 | 62 | 23 |
| 100 | 78 | 84 | 21 | 2.8 | PH531_0050K102_0060 EZ401U | 237 | 237 | 705 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 1.4 | 2.0 | 62 | 20 |
| 100 | 120 | 131 | 32 | 1.8 | PH531_0050K102_0060 EZ501U | 385 | 400 | 705 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 3.4 | 2.0 | 62 | 21 |
| 100 | 131 | 145 | 35 | 1.7 | PH531_0050K102_0060 EZ402U | 385 | 400 | 705 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 2.1 | 2.0 | 62 | 21 |
| 100 | 193 | 240 | 51 | 1.1 | PH531_0050K102_0060 EZ404U | 385 | 400 | 705 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 3.5 | 2.0 | 62 | 23 |
| 100 | 207 | 223 | 55 | 1.1 | PH531_0050K102_0060 EZ502U | 385 | 400 | 705 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 5.7 | 2.0 | 62 | 22 |
| 100 | 207 | 232 | 55 | 1.1 | PH531_0050K102_0060 EZ701U | 385 | 400 | 705 | 30.00 | 30/1 | 3300 | 3300 | 5000 | 4.0 | 9.0 | 2.0 | 62 | 24 |
| 108 | 41 | 44 | 16 | 3.8 | PH531_0050K102_0056 EZ302U | 130 | 130 | 211 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 0.98 | 2.0 | 62 | 18 |
| 108 | 54 | 57 | 21 | 2.9 | PH531_0050K102_0056 EZ303U | 156 | 156 | 211 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 1.1 | 2.0 | 62 | 18 |
| 108 | 73 | 78 | 20 | 3.0 | PH531_0050K102_0056 EZ401U | 220 | 220 | 705 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 1.6 | 2.0 | 62 | 20 |
| 108 | 111 | 122 | 31 | 2.0 | PH531_0050K102_0056 EZ501U | 385 | 400 | 705 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 3.6 | 2.0 | 62 | 21 |
| 108 | 122 | 135 | 34 | 1.8 | PH531_0050K102_0056 EZ402U | 385 | 400 | 705 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 2.3 | 2.0 | 62 | 21 |
| 108 | 179 | 223 | 50 | 1.2 | PH531_0050K102_0056 EZ404U | 385 | 400 | 705 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 3.7 | 2.0 | 62 | 23 |
| 108 | 192 | 207 | 54 | 1.1 | PH531_0050K102_0056 EZ502U | 385 | 400 | 705 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 5.9 | 2.0 | 62 | 22 |
| 108 | 192 | 215 | 54 | 1.1 | PH531_0050K102_0056 EZ701U | 385 | 400 | 705 | 27.84 | 7600/273 | 3300 | 3300 | 5000 | 4.0 | 9.2 | 2.0 | 62 | 24 |
| 150 | 39 | 41 | 27 | 2.9 | PH531_0050K102_0040 EZ303U | 112 | 112 | 152 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 1.3 | 2.0 | 62 | 18 |
| 150 | 52 | 56 | 19 | 4.2 | PH531_0050K102_0040 EZ401U | 158 | 158 | 607 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 1.9 | 2.0 | 62 | 20 |
| 150 | 80 | 88 | 29 | 2.7 | PH531_0050K102_0040 EZ501U | 298 | 298 | 607 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 3.8 | 2.0 | 62 | 21 |
| 150 | 88 | 97 | 32 | 2.5 | PH531_0050K102_0040 EZ402U | 298 | 298 | 607 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 2.6 | 2.0 | 62 | 21 |
| 150 | 129 | 160 | 46 | 1.7 | PH531_0050K102_0040 EZ404U | 385 | 400 | 607 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 3.9 | 2.0 | 62 | 23 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH531K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 150 | 138 | 149 | 50 | 1.6 | PH531_0050K102_0040 EZ502U | 385 | 400 | 607 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 6.1 | 2.0 | 62 | 22 |
| 150 | 138 | 155 | 50 | 1.6 | PH531_0050K102_0040 EZ701U | 372 | 372 | 607 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 9.4 | 2.0 | 62 | 24 |
| 150 | 181 | 207 | 65 | 1.2 | PH531_0050K102_0040 EZ503U | 385 | 400 | 607 | 20.00 | 20/1 | 3300 | 3300 | 5000 | 4.0 | 8.5 | 2.0 | 62 | 24 |
| 188 | 31 | 33 | 27 | 2.9 | PH531_0040K102_0040 EZ303U | 89 | 89 | 121 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 1.4 | 2.5 | 52 | 18 |
| 188 | 42 | 45 | 17 | 4.8 | PH531_0040K102_0040 EZ401U | 127 | 127 | 485 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 1.9 | 2.5 | 52 | 20 |
| 188 | 64 | 70 | 26 | 3.1 | PH531_0040K102_0040 EZ501U | 238 | 238 | 485 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 3.9 | 2.5 | 52 | 21 |
| 188 | 70 | 77 | 28 | 2.8 | PH531_0040K102_0040 EZ402U | 238 | 238 | 485 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 2.6 | 2.5 | 52 | 21 |
| 188 | 103 | 128 | 41 | 1.9 | PH531_0040K102_0040 EZ404U | 355 | 358 | 485 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 3.9 | 2.5 | 52 | 23 |
| 188 | 110 | 119 | 44 | 1.8 | PH531_0040K102_0040 EZ502U | 355 | 358 | 485 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 6.2 | 2.5 | 52 | 22 |
| 188 | 110 | 124 | 44 | 1.8 | PH531_0040K102_0040 EZ701U | 298 | 298 | 485 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 9.5 | 2.5 | 52 | 24 |
| 188 | 145 | 165 | 58 | 1.4 | PH531_0040K102_0040 EZ503U | 355 | 358 | 485 | 16.00 | 16/1 | 3300 | 3300 | 5000 | 4.5 | 8.5 | 2.5 | 52 | 24 |
| **PH531K ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 26 | 194 | 208 | 11 | 1.1 | PH531_0050K102_0470 EZ301U | 385 | 400 | 705 | 234.6 | 11495/49 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 62 | 17 |
| 34 | 145 | 155 | 10 | 1.5 | PH531_0050K102_0350 EZ301U | 385 | 400 | 705 | 175.5 | 3686/21 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 62 | 17 |
| 43 | 116 | 124 | 9.8 | 1.9 | PH531_0050K102_0280 EZ301U | 366 | 366 | 705 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 62 | 17 |
| 43 | 196 | 219 | 16 | 1.1 | PH531_0050K102_0280 EZ302U | 385 | 400 | 705 | 140.2 | 2945/21 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 62 | 18 |
| 52 | 96 | 103 | 9.3 | 2.3 | PH531_0050K102_0230 EZ301U | 303 | 303 | 705 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 62 | 17 |
| 52 | 162 | 182 | 16 | 1.4 | PH531_0050K102_0230 EZ302U | 385 | 400 | 705 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 62 | 18 |
| 52 | 212 | 244 | 21 | 1.0 | PH531_0050K102_0230 EZ303U | 385 | 400 | 705 | 116.3 | 5700/49 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 62 | 18 |
| 68 | 73 | 78 | 8.7 | 3.0 | PH531_0050K102_0175 EZ301U | 229 | 229 | 666 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.32 | 2.0 | 62 | 17 |
| 68 | 123 | 137 | 15 | 1.8 | PH531_0050K102_0175 EZ302U | 385 | 400 | 666 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.42 | 2.0 | 62 | 18 |
| 68 | 160 | 184 | 19 | 1.4 | PH531_0050K102_0175 EZ303U | 385 | 400 | 666 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 0.53 | 2.0 | 62 | 18 |
| 68 | 188 | 229 | 22 | 1.2 | PH531_0050K102_0175 EZ401U | 385 | 400 | 705 | 87.82 | 10450/119 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 62 | 20 |
| 85 | 58 | 62 | 8.2 | 3.8 | PH531_0050K102_0140 EZ301U | 184 | 184 | 535 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.37 | 2.0 | 62 | 17 |
| 85 | 99 | 110 | 14 | 2.2 | PH531_0050K102_0140 EZ302U | 329 | 329 | 535 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.47 | 2.0 | 62 | 18 |
| 85 | 129 | 148 | 18 | 1.7 | PH531_0050K102_0140 EZ303U | 385 | 394 | 535 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 0.58 | 2.0 | 62 | 18 |
| 85 | 151 | 184 | 21 | 1.5 | PH531_0050K102_0140 EZ401U | 385 | 400 | 705 | 70.57 | 494/7 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 62 | 20 |
| **PH731K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | | |
| 6.1 | 425 | 434 | 9.0 | 1.0 | PH731_0070K102_0700 EZ301U | 561 | 561 | 1014 | 490.2 | 2451/5 | 4000 | 4000 | 7000 | 4.0 | 0.20 | 2.0 | 111 | 22 |
| 7.6 | 340 | 347 | 8.5 | 1.3 | PH731_0070K102_0560 EZ301U | 690 | 690 | 1248 | 392.7 | 1178/3 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 111 | 22 |
| 8.5 | 305 | 312 | 11 | 1.1 | PH731_0070K102_0500 EZ301U | 403 | 403 | 728 | 352.2 | 35217/100 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 111 | 22 |
| 8.5 | 304 | 311 | 14 | 1.2 | PH731_0100K102_0350 EZ301U | 575 | 575 | 1150 | 351.1 | 7372/21 | 4000 | 4000 | 7000 | 3.5 | 0.23 | 1.5 | 105 | 22 |
| 9.1 | 284 | 291 | 8.1 | 1.5 | PH731_0070K102_0470 EZ301U | 819 | 819 | 1482 | 328.4 | 2299/7 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 111 | 22 |
| 11 | 244 | 250 | 8.3 | 1.7 | PH731_0070K102_0400 EZ301U | 496 | 496 | 896 | 282.1 | 2821/10 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 111 | 22 |
| 11 | 243 | 248 | 13 | 1.4 | PH731_0100K102_0280 EZ301U | 575 | 575 | 1150 | 280.5 | 5890/21 | 4000 | 4000 | 7000 | 3.5 | 0.26 | 1.5 | 105 | 22 |
| 11 | 411 | 434 | 11 | 1.1 | PH731_0050K202_0560 EZ302U | 882 | 915 | 1407 | 277.7 | 6665/24 | 4000 | 4000 | 6500 | 4.0 | 0.34 | 2.0 | 117 | 30 |
| 12 | 213 | 217 | 7.5 | 2.1 | PH731_0070K102_0350 EZ301U | 641 | 641 | 1428 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 111 | 22 |
| 12 | 364 | 384 | 13 | 1.2 | PH731_0070K102_0350 EZ302U | 869 | 869 | 1428 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.33 | 2.0 | 111 | 23 |
| 13 | 204 | 209 | 7.5 | 2.2 | PH731_0070K102_0340 EZ301U | 589 | 589 | 1064 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 111 | 22 |
| 13 | 349 | 369 | 13 | 1.3 | PH731_0070K102_0340 EZ302U | 589 | 589 | 1064 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.32 | 2.0 | 111 | 23 |
| 13 | 201 | 206 | 12 | 1.7 | PH731_0100K102_0230 EZ301U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.28 | 1.5 | 105 | 22 |
| 13 | 344 | 364 | 21 | 1.0 | PH731_0100K102_0230 EZ302U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.38 | 1.5 | 105 | 23 |
| 13 | 342 | 362 | 11 | 1.3 | PH731_0050K202_0460 EZ302U | 882 | 924 | 1343 | 231.1 | 1849/8 | 4000 | 4000 | 6500 | 4.0 | 0.36 | 2.0 | 117 | 30 |
| 15 | 170 | 174 | 7.1 | 2.6 | PH731_0070K102_0280 EZ301U | 512 | 512 | 1230 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 111 | 22 |
| 15 | 291 | 307 | 12 | 1.5 | PH731_0070K102_0280 EZ302U | 869 | 869 | 1230 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 111 | 23 |
| 15 | 378 | 400 | 16 | 1.2 | PH731_0070K102_0280 EZ303U | 869 | 869 | 1230 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.47 | 2.0 | 111 | 23 |
| 17 | 153 | 156 | 6.9 | 2.9 | PH731_0070K102_0250 EZ301U | 460 | 460 | 1026 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.24 | 2.0 | 111 | 22 |
| 17 | 261 | 276 | 12 | 1.7 | PH731_0070K102_0250 EZ302U | 756 | 756 | 1026 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.34 | 2.0 | 111 | 23 |
| 17 | 340 | 360 | 15 | 1.3 | PH731_0070K102_0250 EZ303U | 756 | 756 | 1026 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.45 | 2.0 | 111 | 23 |
| 17 | 256 | 270 | 10 | 1.7 | PH731_0050K202_0350 EZ302U | 804 | 804 | 1116 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.42 | 2.0 | 117 | 30 |
| 17 | 333 | 352 | 13 | 1.3 | PH731_0050K202_0350 EZ303U | 823 | 823 | 1116 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 117 | 31 |
| 18 | 141 | 144 | 6.8 | 3.1 | PH731_0070K102_0230 EZ301U | 425 | 425 | 1160 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 111 | 22 |
| 18 | 241 | 255 | 12 | 1.8 | PH731_0070K102_0230 EZ302U | 758 | 758 | 1160 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 111 | 23 |
| 18 | 314 | 332 | 15 | 1.4 | PH731_0070K102_0230 EZ303U | 855 | 855 | 1160 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 111 | 23 |
| 18 | 425 | 455 | 21 | 1.0 | PH731_0070K102_0230 EZ401U | 869 | 869 | 1720 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 111 | 25 |
| 21 | 122 | 125 | 6.6 | 3.6 | PH731_0070K102_0200 EZ301U | 368 | 368 | 884 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.27 | 2.0 | 111 | 22 |
| 21 | 209 | 221 | 11 | 2.1 | PH731_0070K102_0200 EZ302U | 651 | 651 | 884 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.37 | 2.0 | 111 | 23 |
| 21 | 272 | 288 | 15 | 1.6 | PH731_0070K102_0200 EZ303U | 651 | 651 | 884 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.48 | 2.0 | 111 | 23 |
| 21 | 368 | 394 | 20 | 1.2 | PH731_0070K102_0200 EZ401U | 840 | 840 | 1604 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 111 | 25 |
| 21 | 364 | 390 | 17 | 1.2 | PH731_0050K202_0280 EZ401U | 882 | 924 | 1720 | 139.8 | 559/4 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 117 | 32 |
| 24 | 106 | 109 | 6.3 | 4.1 | PH731_0070K102_0175 EZ301U | 321 | 321 | 932 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.33 | 2.0 | 111 | 22 |
| 24 | 182 | 192 | 11 | 2.4 | PH731_0070K102_0175 EZ302U | 572 | 572 | 932 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.43 | 2.0 | 111 | 23 |
| 24 | 237 | 251 | 14 | 1.9 | PH731_0070K102_0175 EZ303U | 687 | 687 | 932 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.54 | 2.0 | 111 | 23 |
| 24 | 321 | 343 | 19 | 1.4 | PH731_0070K102_0175 EZ401U | 869 | 869 | 1720 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 111 | 25 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH731K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | | |
| 26 | 101 | 104 | 6.3 | 4.3 | PH731_0070K102_0165 EZ301U | 305 | 305 | 833 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.29 | 2.0 | 111 | 22 |
| 26 | 173 | 183 | 11 | 2.5 | PH731_0070K102_0165 EZ302U | 545 | 545 | 833 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.39 | 2.0 | 111 | 23 |
| 26 | 226 | 239 | 14 | 2.0 | PH731_0070K102_0165 EZ303U | 614 | 614 | 833 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.50 | 2.0 | 111 | 23 |
| 26 | 305 | 327 | 19 | 1.4 | PH731_0070K102_0165 EZ401U | 840 | 840 | 1604 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 111 | 25 |
| 26 | 172 | 181 | 9.2 | 2.6 | PH731_0050K202_0230 EZ302U | 540 | 540 | 879 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 117 | 30 |
| 26 | 223 | 236 | 12 | 2.0 | PH731_0050K202_0230 EZ303U | 648 | 648 | 879 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.64 | 2.0 | 117 | 31 |
| 26 | 302 | 324 | 16 | 1.5 | PH731_0050K202_0230 EZ401U | 882 | 917 | 1720 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 117 | 32 |
| 26 | 100 | 102 | 10 | 3.5 | PH731_0100K102_0115 EZ301U | 302 | 302 | 877 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 0.43 | 1.5 | 105 | 22 |
| 26 | 171 | 181 | 18 | 2.0 | PH731_0100K102_0115 EZ302U | 538 | 538 | 877 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 0.53 | 1.5 | 105 | 23 |
| 26 | 223 | 236 | 23 | 1.6 | PH731_0100K102_0115 EZ303U | 575 | 575 | 877 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 0.64 | 1.5 | 105 | 23 |
| 26 | 302 | 323 | 31 | 1.2 | PH731_0100K102_0115 EZ401U | 575 | 575 | 1150 | 115.7 | 2660/23 | 3600 | 3600 | 5500 | 3.5 | 1.2 | 1.5 | 105 | 25 |
| 30 | 146 | 155 | 10 | 3.0 | PH731_0070K102_0140 EZ302U | 460 | 460 | 749 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.48 | 2.0 | 111 | 23 |
| 30 | 190 | 201 | 13 | 2.3 | PH731_0070K102_0140 EZ303U | 552 | 552 | 749 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.59 | 2.0 | 111 | 23 |
| 30 | 258 | 276 | 18 | 1.7 | PH731_0070K102_0140 EZ401U | 782 | 782 | 1720 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 111 | 25 |
| 30 | 396 | 432 | 28 | 1.1 | PH731_0070K102_0140 EZ501U | 869 | 869 | 1720 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 111 | 26 |
| 30 | 432 | 478 | 30 | 1.0 | PH731_0070K102_0140 EZ402U | 869 | 869 | 1720 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 111 | 26 |
| 32 | 137 | 145 | 17 | 2.6 | PH731_0100K102_0092 EZ302U | 431 | 431 | 701 | 92.49 | 17480/189 | 3600 | 3600 | 5500 | 3.5 | 0.63 | 1.5 | 105 | 23 |
| 32 | 178 | 189 | 22 | 2.0 | PH731_0100K102_0092 EZ303U | 517 | 517 | 701 | 92.49 | 17480/189 | 3600 | 3600 | 5500 | 3.5 | 0.74 | 1.5 | 105 | 23 |
| 32 | 241 | 258 | 29 | 1.5 | PH731_0100K102_0092 EZ401U | 575 | 575 | 1150 | 92.49 | 17480/189 | 3600 | 3600 | 5500 | 3.5 | 1.3 | 1.5 | 105 | 25 |
| 34 | 131 | 138 | 10 | 3.4 | PH731_0070K102_0125 EZ302U | 411 | 411 | 669 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.45 | 2.0 | 111 | 23 |
| 34 | 170 | 180 | 13 | 2.6 | PH731_0070K102_0125 EZ303U | 494 | 494 | 669 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.56 | 2.0 | 111 | 23 |
| 34 | 230 | 247 | 18 | 1.9 | PH731_0070K102_0125 EZ401U | 699 | 699 | 1604 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 111 | 25 |
| 34 | 354 | 387 | 27 | 1.2 | PH731_0070K102_0125 EZ501U | 840 | 840 | 1604 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 111 | 26 |
| 34 | 387 | 428 | 30 | 1.1 | PH731_0070K102_0125 EZ402U | 840 | 840 | 1604 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 111 | 26 |
| 34 | 129 | 137 | 8.6 | 3.4 | PH731_0050K202_0175 EZ302U | 407 | 407 | 662 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 0.66 | 2.0 | 117 | 30 |
| 34 | 168 | 178 | 11 | 2.6 | PH731_0050K202_0175 EZ303U | 488 | 488 | 662 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 0.77 | 2.0 | 117 | 31 |
| 34 | 228 | 244 | 15 | 1.9 | PH731_0050K202_0175 EZ401U | 691 | 691 | 1720 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 1.3 | 2.0 | 117 | 32 |
| 34 | 350 | 382 | 23 | 1.3 | PH731_0050K202_0175 EZ501U | 882 | 924 | 1720 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 3.3 | 2.0 | 117 | 33 |
| 34 | 382 | 423 | 25 | 1.2 | PH731_0050K202_0175 EZ402U | 882 | 924 | 1720 | 87.35 | 2795/32 | 3900 | 3900 | 5500 | 4.0 | 2.0 | 2.0 | 117 | 33 |
| 36 | 123 | 130 | 16 | 2.8 | PH731_0100K102_0083 EZ302U | 387 | 387 | 630 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 0.59 | 1.5 | 105 | 23 |
| 36 | 160 | 169 | 21 | 2.2 | PH731_0100K102_0083 EZ303U | 464 | 464 | 630 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 0.70 | 1.5 | 105 | 23 |
| 36 | 217 | 232 | 28 | 1.6 | PH731_0100K102_0083 EZ401U | 575 | 575 | 1150 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 1.2 | 1.5 | 105 | 25 |
| 36 | 333 | 364 | 44 | 1.1 | PH731_0100K102_0083 EZ501U | 575 | 575 | 1150 | 83.09 | 1911/23 | 3600 | 3600 | 5500 | 3.5 | 3.2 | 1.5 | 105 | 26 |
| 37 | 120 | 127 | 9.8 | 3.7 | PH731_0070K102_0115 EZ302U | 377 | 377 | 614 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 0.54 | 2.0 | 111 | 23 |
| 37 | 156 | 165 | 13 | 2.8 | PH731_0070K102_0115 EZ303U | 452 | 452 | 614 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 0.65 | 2.0 | 111 | 23 |
| 37 | 211 | 226 | 17 | 2.1 | PH731_0070K102_0115 EZ401U | 641 | 641 | 1720 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 111 | 25 |
| 37 | 324 | 354 | 26 | 1.4 | PH731_0070K102_0115 EZ501U | 869 | 869 | 1720 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 3.1 | 2.0 | 111 | 26 |
| 37 | 354 | 392 | 29 | 1.2 | PH731_0070K102_0115 EZ402U | 869 | 869 | 1720 | 80.96 | 1862/23 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 111 | 26 |
| 42 | 105 | 111 | 10 | 3.8 | PH731_0070K102_0100 EZ302U | 330 | 330 | 538 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.52 | 2.0 | 111 | 23 |
| 42 | 137 | 145 | 14 | 2.9 | PH731_0070K102_0100 EZ303U | 397 | 397 | 538 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.63 | 2.0 | 111 | 23 |
| 42 | 185 | 198 | 17 | 2.4 | PH731_0070K102_0100 EZ401U | 562 | 562 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.2 | 2.0 | 111 | 25 |
| 42 | 284 | 311 | 26 | 1.5 | PH731_0070K102_0100 EZ501U | 840 | 840 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 111 | 26 |
| 42 | 311 | 344 | 28 | 1.4 | PH731_0070K102_0100 EZ402U | 840 | 840 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.9 | 2.0 | 111 | 26 |
| 43 | 181 | 193 | 14 | 2.4 | PH731_0050K202_0140 EZ401U | 548 | 548 | 1720 | 69.26 | 14405/208 | 3900 | 3900 | 5500 | 4.0 | 1.4 | 2.0 | 117 | 32 |
| 43 | 277 | 303 | 22 | 1.6 | PH731_0050K202_0140 EZ501U | 882 | 924 | 1720 | 69.26 | 14405/208 | 3900 | 3900 | 5500 | 4.0 | 3.4 | 2.0 | 117 | 33 |
| 43 | 303 | 335 | 24 | 1.5 | PH731_0050K202_0140 EZ402U | 882 | 924 | 1720 | 69.26 | 14405/208 | 3900 | 3900 | 5500 | 4.0 | 2.1 | 2.0 | 117 | 33 |
| 45 | 98 | 104 | 15 | 3.6 | PH731_0100K102_0066 EZ302U | 309 | 309 | 504 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 0.71 | 1.5 | 105 | 23 |
| 45 | 128 | 135 | 20 | 2.7 | PH731_0100K102_0066 EZ303U | 371 | 371 | 504 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 0.82 | 1.5 | 105 | 23 |
| 45 | 173 | 186 | 27 | 2.0 | PH731_0100K102_0066 EZ401U | 526 | 526 | 1150 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 1.4 | 1.5 | 105 | 25 |
| 45 | 266 | 291 | 41 | 1.3 | PH731_0100K102_0066 EZ501U | 575 | 575 | 1150 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 3.3 | 1.5 | 105 | 26 |
| 45 | 291 | 322 | 45 | 1.2 | PH731_0100K102_0066 EZ402U | 575 | 575 | 1150 | 66.44 | 598/9 | 3600 | 3600 | 5500 | 3.5 | 2.1 | 1.5 | 105 | 26 |
| 46 | 96 | 101 | 11 | 3.8 | PH731_0070K102_0092 EZ302U | 301 | 301 | 491 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 0.63 | 2.0 | 111 | 23 |
| 46 | 125 | 132 | 15 | 2.9 | PH731_0070K102_0092 EZ303U | 362 | 362 | 491 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 0.74 | 2.0 | 111 | 23 |
| 46 | 169 | 181 | 16 | 2.6 | PH731_0070K102_0092 EZ401U | 512 | 512 | 1720 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 1.3 | 2.0 | 111 | 25 |
| 46 | 259 | 283 | 25 | 1.7 | PH731_0070K102_0092 EZ501U | 868 | 868 | 1720 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 111 | 26 |
| 46 | 283 | 314 | 27 | 1.6 | PH731_0070K102_0092 EZ402U | 868 | 868 | 1720 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 2.0 | 2.0 | 111 | 26 |
| 46 | 416 | 518 | 40 | 1.1 | PH731_0070K102_0092 EZ404U | 868 | 868 | 1720 | 64.74 | 1748/27 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 111 | 28 |
| 50 | 156 | 168 | 26 | 2.2 | PH731_0100K102_0060 EZ401U | 475 | 475 | 1150 | 60.00 | 60/1 | 3300 | 3300 | 5000 | 3.5 | 1.4 | 1.5 | 105 | 25 |
| 50 | 240 | 263 | 40 | 1.5 | PH731_0100K102_0060 EZ501U | 575 | 575 | 1150 | 60.00 | 60/1 | 3300 | 3300 | 5000 | 3.5 | 3.4 | 1.5 | 105 | 26 |
| 50 | 263 | 291 | 44 | 1.3 | PH731_0100K102_0060 EZ402U | 575 | 575 | 1150 | 60.00 | 60/1 | 3300 | 3300 | 5000 | 3.5 | 2.1 | 1.5 | 105 | 26 |
| 52 | 86 | 91 | 12 | 3.8 | PH731_0070K102_0083 EZ302U | 271 | 271 | 441 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 0.60 | 2.0 | 111 | 23 |
| 52 | 112 | 119 | 16 | 2.9 | PH731_0070K102_0083 EZ303U | 325 | 325 | 441 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 0.71 | 2.0 | 111 | 23 |
| 52 | 152 | 162 | 16 | 2.9 | PH731_0070K102_0083 EZ401U | 460 | 460 | 1604 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 111 | 25 |
| 52 | 233 | 255 | 24 | 1.9 | PH731_0070K102_0083 EZ501U | 838 | 838 | 1604 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 111 | 26 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH731K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | | |
| 52 | 255 | 282 | 27 | 1.7 | PH731_0070K102_0083 EZ402U | 838 | 838 | 1604 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 111 | 26 |
| 52 | 374 | 466 | 39 | 1.2 | PH731_0070K102_0083 EZ404U | 838 | 838 | 1604 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 111 | 28 |
| 52 | 401 | 433 | 42 | 1.1 | PH731_0070K102_0083 EZ502U | 838 | 838 | 1604 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 5.5 | 2.0 | 111 | 27 |
| 52 | 401 | 450 | 42 | 1.1 | PH731_0070K102_0083 EZ701U | 838 | 838 | 1604 | 58.16 | 13377/230 | 3600 | 3600 | 5500 | 4.0 | 8.8 | 2.0 | 111 | 29 |
| 52 | 85 | 90 | 11 | 3.8 | PH731_0050K202_0115 EZ302U | 269 | 269 | 438 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 0.97 | 2.0 | 117 | 30 |
| 52 | 111 | 118 | 14 | 2.9 | PH731_0050K202_0115 EZ303U | 323 | 323 | 438 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 1.1 | 2.0 | 117 | 31 |
| 52 | 151 | 161 | 14 | 2.9 | PH731_0050K202_0115 EZ401U | 457 | 457 | 1720 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 1.6 | 2.0 | 117 | 32 |
| 52 | 231 | 253 | 21 | 1.9 | PH731_0050K202_0115 EZ501U | 860 | 860 | 1720 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 3.6 | 2.0 | 117 | 33 |
| 52 | 253 | 280 | 23 | 1.7 | PH731_0050K202_0115 EZ402U | 860 | 860 | 1720 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 2.3 | 2.0 | 117 | 33 |
| 52 | 371 | 462 | 34 | 1.2 | PH731_0050K202_0115 EZ404U | 882 | 924 | 1720 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 117 | 35 |
| 52 | 398 | 430 | 36 | 1.1 | PH731_0050K202_0115 EZ502U | 882 | 924 | 1720 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 5.9 | 2.0 | 117 | 35 |
| 52 | 398 | 446 | 36 | 1.1 | PH731_0050K202_0115 EZ701U | 882 | 924 | 1720 | 57.73 | 6235/108 | 3500 | 3500 | 5000 | 4.0 | 9.2 | 2.0 | 117 | 37 |
| 54 | 82 | 87 | 16 | 3.8 | PH731_0100K102_0056 EZ302U | 259 | 259 | 422 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 0.97 | 1.5 | 105 | 23 |
| 54 | 107 | 114 | 21 | 2.9 | PH731_0100K102_0056 EZ303U | 311 | 311 | 422 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 1.1 | 1.5 | 105 | 23 |
| 54 | 145 | 156 | 26 | 2.4 | PH731_0100K102_0056 EZ401U | 441 | 441 | 1150 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 1.6 | 1.5 | 105 | 25 |
| 54 | 223 | 244 | 40 | 1.6 | PH731_0100K102_0056 EZ501U | 575 | 575 | 1150 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 3.6 | 1.5 | 105 | 26 |
| 54 | 244 | 270 | 43 | 1.4 | PH731_0100K102_0056 EZ402U | 575 | 575 | 1150 | 55.68 | 15200/273 | 3300 | 3300 | 5000 | 3.5 | 2.3 | 1.5 | 105 | 26 |
| 65 | 69 | 73 | 14 | 3.8 | PH731_0070K102_0066 EZ302U | 217 | 217 | 353 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 0.73 | 2.0 | 111 | 23 |
| 65 | 90 | 95 | 19 | 2.9 | PH731_0070K102_0066 EZ303U | 260 | 260 | 353 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 0.84 | 2.0 | 111 | 23 |
| 65 | 121 | 130 | 16 | 3.4 | PH731_0070K102_0066 EZ401U | 368 | 368 | 1410 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 1.4 | 2.0 | 111 | 25 |
| 65 | 186 | 204 | 25 | 2.2 | PH731_0070K102_0066 EZ501U | 693 | 693 | 1410 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 111 | 26 |
| 65 | 204 | 225 | 27 | 2.0 | PH731_0070K102_0066 EZ402U | 693 | 693 | 1410 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 2.1 | 2.0 | 111 | 26 |
| 65 | 299 | 372 | 39 | 1.4 | PH731_0070K102_0066 EZ404U | 778 | 778 | 1410 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 3.4 | 2.0 | 111 | 28 |
| 65 | 320 | 346 | 42 | 1.3 | PH731_0070K102_0066 EZ502U | 778 | 778 | 1410 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 5.6 | 2.0 | 111 | 27 |
| 65 | 320 | 359 | 42 | 1.3 | PH731_0070K102_0066 EZ701U | 778 | 778 | 1410 | 46.51 | 2093/45 | 3600 | 3600 | 5500 | 4.0 | 8.9 | 2.0 | 111 | 29 |
| 65 | 120 | 128 | 13 | 3.7 | PH731_0050K202_0092 EZ401U | 364 | 364 | 1393 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 1.9 | 2.0 | 117 | 32 |
| 65 | 184 | 201 | 20 | 2.4 | PH731_0050K202_0092 EZ501U | 685 | 685 | 1393 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 3.9 | 2.0 | 117 | 33 |
| 65 | 201 | 223 | 22 | 2.2 | PH731_0050K202_0092 EZ402U | 685 | 685 | 1393 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 2.6 | 2.0 | 117 | 33 |
| 65 | 295 | 368 | 32 | 1.5 | PH731_0050K202_0092 EZ404U | 882 | 924 | 1393 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 3.9 | 2.0 | 117 | 35 |
| 65 | 317 | 342 | 34 | 1.4 | PH731_0050K202_0092 EZ502U | 882 | 924 | 1393 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 6.2 | 2.0 | 117 | 35 |
| 65 | 317 | 355 | 34 | 1.4 | PH731_0050K202_0092 EZ701U | 856 | 856 | 1720 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 9.5 | 2.0 | 117 | 37 |
| 65 | 415 | 475 | 45 | 1.1 | PH731_0050K202_0092 EZ503U | 882 | 924 | 1393 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 8.5 | 2.0 | 117 | 36 |
| 71 | 110 | 117 | 16 | 3.6 | PH731_0070K102_0060 EZ401U | 332 | 332 | 1273 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 1.4 | 2.0 | 111 | 25 |
| 71 | 168 | 184 | 25 | 2.4 | PH731_0070K102_0060 EZ501U | 626 | 626 | 1273 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 3.4 | 2.0 | 111 | 26 |
| 71 | 184 | 203 | 27 | 2.2 | PH731_0070K102_0060 EZ402U | 626 | 626 | 1273 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 2.1 | 2.0 | 111 | 26 |
| 71 | 270 | 336 | 40 | 1.5 | PH731_0070K102_0060 EZ404U | 752 | 752 | 1273 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 3.5 | 2.0 | 111 | 28 |
| 71 | 289 | 313 | 43 | 1.4 | PH731_0070K102_0060 EZ502U | 752 | 752 | 1273 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 5.7 | 2.0 | 111 | 27 |
| 71 | 289 | 325 | 43 | 1.4 | PH731_0070K102_0060 EZ701U | 752 | 752 | 1273 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 9.0 | 2.0 | 111 | 29 |
| 71 | 379 | 434 | 56 | 1.0 | PH731_0070K102_0060 EZ503U | 752 | 752 | 1273 | 42.00 | 42/1 | 3300 | 3300 | 5000 | 4.0 | 8.1 | 2.0 | 111 | 29 |
| 71 | 81 | 86 | 17 | 2.9 | PH731_0050K202_0084 EZ303U | 235 | 235 | 318 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 1.2 | 2.0 | 117 | 31 |
| 71 | 109 | 117 | 13 | 4.0 | PH731_0050K202_0084 EZ401U | 332 | 332 | 1273 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 1.7 | 2.0 | 117 | 32 |
| 71 | 168 | 184 | 19 | 2.6 | PH731_0050K202_0084 EZ501U | 626 | 626 | 1273 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 117 | 33 |
| 71 | 184 | 203 | 21 | 2.4 | PH731_0050K202_0084 EZ402U | 626 | 626 | 1273 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 2.4 | 2.0 | 117 | 33 |
| 71 | 270 | 336 | 31 | 1.6 | PH731_0050K202_0084 EZ404U | 882 | 924 | 1273 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 3.8 | 2.0 | 117 | 35 |
| 71 | 289 | 313 | 33 | 1.5 | PH731_0050K202_0084 EZ502U | 882 | 924 | 1273 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 6.0 | 2.0 | 117 | 35 |
| 71 | 289 | 325 | 33 | 1.5 | PH731_0050K202_0084 EZ701U | 782 | 782 | 1720 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 9.3 | 2.0 | 117 | 37 |
| 71 | 379 | 434 | 44 | 1.2 | PH731_0050K202_0084 EZ503U | 882 | 924 | 1273 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 8.4 | 2.0 | 117 | 36 |
| 75 | 77 | 82 | 27 | 2.9 | PH731_0100K102_0040 EZ303U | 224 | 224 | 303 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 1.3 | 1.5 | 105 | 23 |
| 75 | 104 | 112 | 24 | 3.4 | PH731_0100K102_0040 EZ401U | 317 | 317 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 1.8 | 1.5 | 105 | 25 |
| 75 | 160 | 175 | 36 | 2.2 | PH731_0100K102_0040 EZ501U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 3.8 | 1.5 | 105 | 26 |
| 75 | 175 | 194 | 40 | 2.0 | PH731_0100K102_0040 EZ402U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 2.5 | 1.5 | 105 | 26 |
| 75 | 257 | 320 | 58 | 1.4 | PH731_0100K102_0040 EZ404U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 3.9 | 1.5 | 105 | 28 |
| 75 | 276 | 298 | 63 | 1.3 | PH731_0100K102_0040 EZ502U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 6.1 | 1.5 | 105 | 27 |
| 75 | 276 | 309 | 63 | 1.3 | PH731_0100K102_0040 EZ701U | 575 | 575 | 1150 | 40.00 | 40/1 | 3300 | 3300 | 5000 | 3.5 | 9.4 | 1.5 | 105 | 29 |
| 77 | 58 | 61 | 16 | 3.8 | PH731_0070K102_0056 EZ302U | 181 | 181 | 296 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 1.0 | 2.0 | 111 | 23 |
| 77 | 75 | 79 | 21 | 2.9 | PH731_0070K102_0056 EZ303U | 218 | 218 | 296 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 1.1 | 2.0 | 111 | 23 |
| 77 | 102 | 109 | 16 | 3.8 | PH731_0070K102_0056 EZ401U | 309 | 309 | 1182 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 1.6 | 2.0 | 111 | 25 |
| 77 | 156 | 171 | 25 | 2.5 | PH731_0070K102_0056 EZ501U | 581 | 581 | 1182 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 3.6 | 2.0 | 111 | 26 |
| 77 | 171 | 189 | 27 | 2.3 | PH731_0070K102_0056 EZ402U | 581 | 581 | 1182 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 2.3 | 2.0 | 111 | 26 |
| 77 | 250 | 312 | 40 | 1.5 | PH731_0070K102_0056 EZ404U | 733 | 733 | 1182 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 3.7 | 2.0 | 111 | 28 |
| 77 | 269 | 290 | 43 | 1.4 | PH731_0070K102_0056 EZ502U | 733 | 733 | 1182 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 5.9 | 2.0 | 111 | 27 |
| 77 | 269 | 301 | 43 | 1.4 | PH731_0070K102_0056 EZ701U | 726 | 726 | 1182 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 9.2 | 2.0 | 111 | 29 |
| 77 | 352 | 403 | 56 | 1.1 | PH731_0070K102_0056 EZ503U | 733 | 733 | 1182 | 38.98 | 1520/39 | 3300 | 3300 | 5000 | 4.0 | 8.3 | 2.0 | 111 | 29 |
| 90 | 134 | 146 | 18 | 3.3 | PH731_0050K202_0067 EZ501U | 498 | 498 | 1013 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 4.1 | 2.0 | 117 | 33 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH731K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | | |
| 90 | 146 | 162 | 20 | 3.0 | PH731_0050K202_0067 EZ402U | 498 | 498 | 1013 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 2.8 | 2.0 | 117 | 33 |
| 90 | 215 | 268 | 29 | 2.0 | PH731_0050K202_0067 EZ404U | 747 | 747 | 1013 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 4.1 | 2.0 | 117 | 35 |
| 90 | 230 | 249 | 31 | 1.9 | PH731_0050K202_0067 EZ502U | 747 | 747 | 1013 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 6.4 | 2.0 | 117 | 35 |
| 90 | 230 | 258 | 31 | 1.9 | PH731_0050K202_0067 EZ701U | 622 | 622 | 1720 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 9.7 | 2.0 | 117 | 37 |
| 90 | 302 | 345 | 41 | 1.5 | PH731_0050K202_0067 EZ503U | 747 | 747 | 1013 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 8.7 | 2.0 | 117 | 36 |
| 90 | 373 | 448 | 51 | 1.2 | PH731_0050K202_0067 EZ702U | 882 | 924 | 1720 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 15 | 2.0 | 117 | 39 |
| 90 | 420 | 498 | 57 | 1.0 | PH731_0050K202_0067 EZ505U | 882 | 924 | 1720 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 117 | 39 |
| 100 | 120 | 131 | 18 | 3.7 | PH731_0050K202_0060 EZ501U | 447 | 447 | 909 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 4.7 | 2.0 | 117 | 33 |
| 100 | 131 | 145 | 19 | 3.4 | PH731_0050K202_0060 EZ402U | 447 | 447 | 909 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 3.4 | 2.0 | 117 | 33 |
| 100 | 193 | 240 | 29 | 2.3 | PH731_0050K202_0060 EZ404U | 670 | 670 | 909 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 4.7 | 2.0 | 117 | 35 |
| 100 | 207 | 223 | 31 | 2.1 | PH731_0050K202_0060 EZ502U | 670 | 670 | 909 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 7.0 | 2.0 | 117 | 35 |
| 100 | 207 | 232 | 31 | 2.1 | PH731_0050K202_0060 EZ701U | 559 | 559 | 1720 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 10 | 2.0 | 117 | 37 |
| 100 | 271 | 310 | 40 | 1.6 | PH731_0050K202_0060 EZ503U | 670 | 670 | 909 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 9.3 | 2.0 | 117 | 36 |
| 100 | 335 | 402 | 50 | 1.3 | PH731_0050K202_0060 EZ702U | 882 | 924 | 1720 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 117 | 39 |
| 100 | 377 | 447 | 56 | 1.2 | PH731_0050K202_0060 EZ505U | 882 | 924 | 1720 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 117 | 39 |
| 107 | 54 | 57 | 27 | 2.9 | PH731_0070K102_0040 EZ303U | 157 | 157 | 212 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 1.4 | 2.0 | 111 | 23 |
| 107 | 73 | 78 | 17 | 4.8 | PH731_0070K102_0040 EZ401U | 222 | 222 | 849 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 1.9 | 2.0 | 111 | 25 |
| 107 | 112 | 123 | 26 | 3.1 | PH731_0070K102_0040 EZ501U | 417 | 417 | 849 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 3.9 | 2.0 | 111 | 26 |
| 107 | 123 | 136 | 28 | 2.8 | PH731_0070K102_0040 EZ402U | 417 | 417 | 849 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 2.6 | 2.0 | 111 | 26 |
| 107 | 180 | 224 | 41 | 1.9 | PH731_0070K102_0040 EZ404U | 626 | 626 | 849 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 3.9 | 2.0 | 111 | 28 |
| 107 | 193 | 209 | 44 | 1.8 | PH731_0070K102_0040 EZ502U | 626 | 626 | 849 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 6.2 | 2.0 | 111 | 27 |
| 107 | 193 | 216 | 44 | 1.8 | PH731_0070K102_0040 EZ701U | 521 | 521 | 849 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 9.5 | 2.0 | 111 | 29 |
| 107 | 253 | 289 | 58 | 1.4 | PH731_0070K102_0040 EZ503U | 626 | 626 | 849 | 28.00 | 28/1 | 3300 | 3300 | 5000 | 4.0 | 8.5 | 2.0 | 111 | 29 |
| 116 | 178 | 200 | 30 | 2.5 | PH731_0050K202_0052 EZ701U | 482 | 482 | 1720 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 10 | 2.0 | 117 | 37 |
| 116 | 289 | 347 | 48 | 1.5 | PH731_0050K202_0052 EZ702U | 882 | 913 | 1720 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 117 | 39 |
| 116 | 325 | 386 | 54 | 1.4 | PH731_0050K202_0052 EZ505U | 882 | 913 | 1720 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 117 | 39 |
| 116 | 398 | 501 | 66 | 1.1 | PH731_0050K202_0052 EZ703U | 882 | 913 | 1720 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 117 | 41 |
| 150 | 138 | 155 | 28 | 3.2 | PH731_0050K202_0040 EZ701U | 372 | 372 | 1516 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 11 | 2.0 | 117 | 37 |
| 150 | 223 | 268 | 45 | 2.0 | PH731_0050K202_0040 EZ702U | 764 | 764 | 1516 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 16 | 2.0 | 117 | 39 |
| 150 | 251 | 298 | 51 | 1.8 | PH731_0050K202_0040 EZ505U | 838 | 838 | 1516 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 117 | 39 |
| 150 | 307 | 387 | 62 | 1.4 | PH731_0050K202_0040 EZ703U | 838 | 838 | 1516 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 117 | 41 |
| 188 | 110 | 124 | 27 | 3.2 | PH731_0040K202_0040 EZ701U | 298 | 298 | 1212 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 11 | 2.5 | 100 | 37 |
| 188 | 179 | 215 | 45 | 2.0 | PH731_0040K202_0040 EZ702U | 611 | 611 | 1212 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 16 | 2.5 | 100 | 39 |
| 188 | 201 | 238 | 50 | 1.8 | PH731_0040K202_0040 EZ505U | 670 | 670 | 1212 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 15 | 2.5 | 100 | 39 |
| 188 | 246 | 310 | 61 | 1.4 | PH731_0040K202_0040 EZ703U | 670 | 670 | 1212 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 24 | 2.5 | 100 | 41 |
| **PH731K ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | | |
| 98 | 406 | 655 | 44 | 1.1 | PH731_0050K202_0092 EZ505U | 882 | 924 | 1720 | 45.95 | 11395/248 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 117 | 39 |
| 107 | 371 | 598 | 43 | 1.2 | PH731_0050K202_0084 EZ505U | 882 | 924 | 1720 | 41.99 | 12470/297 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 117 | 39 |
| 135 | 296 | 476 | 40 | 1.5 | PH731_0050K202_0067 EZ505U | 882 | 924 | 1720 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 117 | 39 |
| 135 | 377 | 622 | 51 | 1.2 | PH731_0050K202_0067 EZ703U | 882 | 924 | 1720 | 33.42 | 11395/341 | 3500 | 3500 | 5000 | 4.0 | 23 | 2.0 | 117 | 41 |
| 150 | 265 | 427 | 39 | 1.7 | PH731_0050K202_0060 EZ505U | 882 | 924 | 1720 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 117 | 39 |
| 150 | 338 | 559 | 50 | 1.3 | PH731_0050K202_0060 EZ703U | 882 | 924 | 1720 | 30.00 | 30/1 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 117 | 41 |
| 174 | 229 | 369 | 40 | 1.8 | PH731_0050K202_0052 EZ505U | 882 | 913 | 1720 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 117 | 39 |
| 174 | 292 | 482 | 50 | 1.4 | PH731_0050K202_0052 EZ703U | 882 | 913 | 1720 | 25.89 | 10535/407 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 117 | 41 |
| 225 | 177 | 285 | 40 | 2.2 | PH731_0050K202_0040 EZ505U | 838 | 838 | 1516 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 117 | 39 |
| 225 | 225 | 372 | 51 | 1.7 | PH731_0050K202_0040 EZ703U | 838 | 838 | 1516 | 20.00 | 20/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 117 | 41 |
| 281 | 142 | 228 | 40 | 2.2 | PH731_0040K202_0040 EZ505U | 670 | 670 | 1212 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 15 | 2.5 | 100 | 39 |
| 281 | 180 | 298 | 51 | 1.7 | PH731_0040K202_0040 EZ703U | 670 | 670 | 1212 | 16.00 | 16/1 | 3000 | 3000 | 4500 | 4.5 | 24 | 2.5 | 100 | 41 |
| **PH731K ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | | |
| 12 | 406 | 434 | 8.6 | 1.1 | PH731_0070K102_0700 EZ301U | 561 | 561 | 1014 | 490.2 | 2451/5 | 4000 | 4000 | 7000 | 4.0 | 0.20 | 2.0 | 111 | 22 |
| 15 | 325 | 347 | 8.1 | 1.4 | PH731_0070K102_0560 EZ301U | 690 | 690 | 1248 | 392.7 | 1178/3 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 111 | 22 |
| 17 | 292 | 312 | 10 | 1.2 | PH731_0070K102_0500 EZ301U | 403 | 403 | 728 | 352.2 | 35217/100 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 111 | 22 |
| 17 | 291 | 311 | 13 | 1.2 | PH731_0100K102_0350 EZ301U | 575 | 575 | 1150 | 351.1 | 7372/21 | 4000 | 4000 | 7000 | 3.5 | 0.23 | 1.5 | 105 | 22 |
| 18 | 272 | 291 | 7.8 | 1.6 | PH731_0070K102_0470 EZ301U | 819 | 819 | 1482 | 328.4 | 2299/7 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 111 | 22 |
| 21 | 234 | 250 | 8.0 | 1.8 | PH731_0070K102_0400 EZ301U | 496 | 496 | 896 | 282.1 | 2821/10 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 111 | 22 |
| 21 | 394 | 441 | 13 | 1.0 | PH731_0070K102_0400 EZ302U | 496 | 496 | 896 | 282.1 | 2821/10 | 4000 | 4000 | 7000 | 4.0 | 0.31 | 2.0 | 111 | 23 |
| 21 | 232 | 248 | 12 | 1.5 | PH731_0100K102_0280 EZ301U | 575 | 575 | 1150 | 280.5 | 5890/21 | 4000 | 4000 | 7000 | 3.5 | 0.26 | 1.5 | 105 | 22 |
| 22 | 388 | 434 | 11 | 1.1 | PH731_0050K202_0560 EZ302U | 882 | 915 | 1407 | 277.7 | 6665/24 | 4000 | 4000 | 6500 | 4.0 | 0.34 | 2.0 | 117 | 30 |
| 24 | 204 | 217 | 7.2 | 2.2 | PH731_0070K102_0350 EZ301U | 641 | 641 | 1428 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 111 | 22 |
| 24 | 343 | 384 | 12 | 1.3 | PH731_0070K102_0350 EZ302U | 869 | 869 | 1428 | 245.7 | 3686/15 | 4000 | 4000 | 7000 | 4.0 | 0.33 | 2.0 | 111 | 23 |
| 25 | 196 | 209 | 7.1 | 2.3 | PH731_0070K102_0340 EZ301U | 589 | 589 | 1064 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 111 | 22 |
| 25 | 330 | 369 | 12 | 1.3 | PH731_0070K102_0340 EZ302U | 589 | 589 | 1064 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.32 | 2.0 | 111 | 23 |
| 25 | 431 | 494 | 16 | 1.0 | PH731_0070K102_0340 EZ303U | 589 | 589 | 1064 | 235.9 | 4719/20 | 4000 | 4000 | 7000 | 4.0 | 0.43 | 2.0 | 111 | 23 |
| 26 | 193 | 206 | 12 | 1.8 | PH731_0100K102_0230 EZ301U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.28 | 1.5 | 105 | 22 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH731K ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 880 Nm)** | | | | | | | | | | | | | | | | | | |
| 26 | 325 | 364 | 20 | 1.1 | PH731_0100K102_0230 EZ302U | 575 | 575 | 1150 | 232.7 | 11400/49 | 4000 | 4000 | 7000 | 3.5 | 0.38 | 1.5 | 105 | 23 |
| 26 | 323 | 362 | 10 | 1.4 | PH731_0050K202_0460 EZ302U | 882 | 924 | 1343 | 231.1 | 1849/8 | 4000 | 4000 | 6500 | 4.0 | 0.36 | 2.0 | 117 | 30 |
| 26 | 422 | 484 | 14 | 1.0 | PH731_0050K202_0460 EZ303U | 882 | 924 | 1343 | 231.1 | 1849/8 | 4000 | 4000 | 6500 | 4.0 | 0.47 | 2.0 | 117 | 31 |
| 31 | 163 | 174 | 6.8 | 2.7 | PH731_0070K102_0280 EZ301U | 512 | 512 | 1230 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 111 | 22 |
| 31 | 274 | 307 | 12 | 1.6 | PH731_0070K102_0280 EZ302U | 869 | 869 | 1230 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 111 | 23 |
| 31 | 358 | 411 | 15 | 1.2 | PH731_0070K102_0280 EZ303U | 869 | 869 | 1230 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 0.47 | 2.0 | 111 | 23 |
| 31 | 421 | 512 | 18 | 1.0 | PH731_0070K102_0280 EZ401U | 869 | 869 | 1720 | 196.3 | 589/3 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 111 | 25 |
| 34 | 146 | 156 | 6.6 | 3.0 | PH731_0070K102_0250 EZ301U | 460 | 460 | 1026 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.24 | 2.0 | 111 | 22 |
| 34 | 247 | 276 | 11 | 1.8 | PH731_0070K102_0250 EZ302U | 756 | 756 | 1026 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.34 | 2.0 | 111 | 23 |
| 34 | 322 | 370 | 15 | 1.4 | PH731_0070K102_0250 EZ303U | 756 | 756 | 1026 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.45 | 2.0 | 111 | 23 |
| 34 | 378 | 460 | 17 | 1.2 | PH731_0070K102_0250 EZ401U | 774 | 774 | 1401 | 176.5 | 8827/50 | 4000 | 4000 | 7000 | 4.0 | 0.98 | 2.0 | 111 | 25 |
| 35 | 241 | 270 | 9.6 | 1.8 | PH731_0050K202_0350 EZ302U | 804 | 804 | 1116 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.42 | 2.0 | 117 | 30 |
| 35 | 315 | 362 | 13 | 1.4 | PH731_0050K202_0350 EZ303U | 823 | 823 | 1116 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 117 | 31 |
| 35 | 370 | 450 | 15 | 1.2 | PH731_0050K202_0350 EZ401U | 882 | 924 | 1720 | 172.8 | 9675/56 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 117 | 32 |
| 37 | 135 | 144 | 6.5 | 3.3 | PH731_0070K102_0230 EZ301U | 425 | 425 | 1160 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 111 | 22 |
| 37 | 227 | 255 | 11 | 1.9 | PH731_0070K102_0230 EZ302U | 758 | 758 | 1160 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 111 | 23 |
| 37 | 297 | 341 | 14 | 1.5 | PH731_0070K102_0230 EZ303U | 855 | 855 | 1160 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 111 | 23 |
| 37 | 349 | 425 | 17 | 1.3 | PH731_0070K102_0230 EZ401U | 869 | 869 | 1720 | 162.9 | 1140/7 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 111 | 25 |
| 43 | 117 | 125 | 6.3 | 3.8 | PH731_0070K102_0200 EZ301U | 368 | 368 | 884 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.27 | 2.0 | 111 | 22 |
| 43 | 197 | 221 | 11 | 2.2 | PH731_0070K102_0200 EZ302U | 651 | 651 | 884 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.37 | 2.0 | 111 | 23 |
| 43 | 257 | 296 | 14 | 1.7 | PH731_0070K102_0200 EZ303U | 651 | 651 | 884 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 0.48 | 2.0 | 111 | 23 |
| 43 | 302 | 368 | 16 | 1.5 | PH731_0070K102_0200 EZ401U | 840 | 840 | 1604 | 141.1 | 2821/20 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 111 | 25 |
| 43 | 299 | 364 | 14 | 1.5 | PH731_0050K202_0280 EZ401U | 882 | 924 | 1720 | 139.8 | 559/4 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 117 | 32 |
| 49 | 102 | 109 | 6.1 | 4.3 | PH731_0070K102_0175 EZ301U | 321 | 321 | 932 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.33 | 2.0 | 111 | 22 |
| 49 | 172 | 192 | 10 | 2.6 | PH731_0070K102_0175 EZ302U | 572 | 572 | 932 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.43 | 2.0 | 111 | 23 |
| 49 | 224 | 258 | 13 | 2.0 | PH731_0070K102_0175 EZ303U | 687 | 687 | 932 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 0.54 | 2.0 | 111 | 23 |
| 49 | 263 | 321 | 16 | 1.7 | PH731_0070K102_0175 EZ401U | 869 | 869 | 1720 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 111 | 25 |
| 49 | 389 | 504 | 23 | 1.1 | PH731_0070K102_0175 EZ501U | 869 | 869 | 1720 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 3.0 | 2.0 | 111 | 26 |
| 49 | 401 | 561 | 24 | 1.1 | PH731_0070K102_0175 EZ402U | 869 | 869 | 1720 | 122.9 | 2090/17 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 111 | 26 |
| 51 | 97 | 104 | 6.0 | 4.5 | PH731_0070K102_0165 EZ301U | 305 | 305 | 833 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.29 | 2.0 | 111 | 22 |
| 51 | 163 | 183 | 10 | 2.7 | PH731_0070K102_0165 EZ302U | 545 | 545 | 833 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.39 | 2.0 | 111 | 23 |
| 51 | 214 | 245 | 13 | 2.1 | PH731_0070K102_0165 EZ303U | 614 | 614 | 833 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 0.50 | 2.0 | 111 | 23 |
| 51 | 251 | 305 | 16 | 1.8 | PH731_0070K102_0165 EZ401U | 840 | 840 | 1604 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 111 | 25 |
| 51 | 370 | 479 | 23 | 1.2 | PH731_0070K102_0165 EZ501U | 840 | 840 | 1604 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 3.0 | 2.0 | 111 | 26 |
| 51 | 381 | 534 | 24 | 1.2 | PH731_0070K102_0165 EZ402U | 840 | 840 | 1604 | 117.0 | 117/1 | 4000 | 4000 | 7000 | 4.0 | 1.7 | 2.0 | 111 | 26 |
| 52 | 162 | 181 | 8.7 | 2.7 | PH731_0050K202_0230 EZ302U | 540 | 540 | 879 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 117 | 30 |
| 52 | 212 | 243 | 11 | 2.1 | PH731_0050K202_0230 EZ303U | 648 | 648 | 879 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 0.64 | 2.0 | 117 | 31 |
| 52 | 248 | 302 | 13 | 1.8 | PH731_0050K202_0230 EZ401U | 882 | 917 | 1720 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 117 | 32 |
| 52 | 367 | 475 | 20 | 1.2 | PH731_0050K202_0230 EZ501U | 882 | 924 | 1720 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 3.1 | 2.0 | 117 | 33 |
| 52 | 378 | 529 | 20 | 1.2 | PH731_0050K202_0230 EZ402U | 882 | 924 | 1720 | 115.9 | 14835/128 | 4000 | 4000 | 6500 | 4.0 | 1.9 | 2.0 | 117 | 33 |
| 61 | 138 | 155 | 10 | 3.0 | PH731_0070K102_0140 EZ302U | 460 | 460 | 749 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.48 | 2.0 | 111 | 23 |
| 61 | 180 | 207 | 13 | 2.3 | PH731_0070K102_0140 EZ303U | 552 | 552 | 749 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 0.59 | 2.0 | 111 | 23 |
| 61 | 212 | 258 | 16 | 2.0 | PH731_0070K102_0140 EZ401U | 782 | 782 | 1720 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 111 | 25 |
| 61 | 313 | 405 | 23 | 1.3 | PH731_0070K102_0140 EZ501U | 869 | 869 | 1720 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 111 | 26 |
| 61 | 322 | 451 | 24 | 1.3 | PH731_0070K102_0140 EZ402U | 869 | 869 | 1720 | 98.80 | 494/5 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 111 | 26 |
| 68 | 123 | 138 | 10 | 3.3 | PH731_0070K102_0125 EZ302U | 411 | 411 | 669 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.45 | 2.0 | 111 | 23 |
| 68 | 161 | 185 | 13 | 2.5 | PH731_0070K102_0125 EZ303U | 494 | 494 | 669 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 0.56 | 2.0 | 111 | 23 |
| 68 | 189 | 230 | 16 | 2.1 | PH731_0070K102_0125 EZ401U | 699 | 699 | 1604 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 111 | 25 |
| 68 | 280 | 362 | 23 | 1.4 | PH731_0070K102_0125 EZ501U | 840 | 840 | 1604 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 111 | 26 |
| 68 | 288 | 403 | 24 | 1.4 | PH731_0070K102_0125 EZ402U | 840 | 840 | 1604 | 88.33 | 3003/34 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 111 | 26 |
| 85 | 99 | 111 | 10 | 3.8 | PH731_0070K102_0100 EZ302U | 330 | 330 | 538 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.52 | 2.0 | 111 | 23 |
| 85 | 130 | 149 | 14 | 2.9 | PH731_0070K102_0100 EZ303U | 397 | 397 | 538 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 0.63 | 2.0 | 111 | 23 |
| 85 | 152 | 185 | 16 | 2.5 | PH731_0070K102_0100 EZ401U | 562 | 562 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.2 | 2.0 | 111 | 25 |
| 85 | 225 | 291 | 24 | 1.7 | PH731_0070K102_0100 EZ501U | 840 | 840 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 111 | 26 |
| 85 | 231 | 324 | 24 | 1.6 | PH731_0070K102_0100 EZ402U | 840 | 840 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 1.9 | 2.0 | 111 | 26 |
| 85 | 344 | 516 | 36 | 1.1 | PH731_0070K102_0100 EZ502U | 840 | 840 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 5.4 | 2.0 | 111 | 27 |
| 85 | 344 | 522 | 36 | 1.1 | PH731_0070K102_0100 EZ701U | 840 | 840 | 1604 | 70.98 | 3549/50 | 4000 | 4000 | 6000 | 4.0 | 8.7 | 2.0 | 111 | 29 |
| **PH831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 5.4 | 822 | 869 | 12 | 1.0 | PH831_0100K202_0560 EZ302U | 1392 | 1392 | 2784 | 555.4 | 6665/12 | 4000 | 4000 | 6500 | 3.5 | 0.34 | 1.5 | 260 | 49 |
| 6.2 | 720 | 760 | 8.4 | 1.2 | PH831_0070K202_0690 EZ302U | 1067 | 1067 | 1847 | 486.0 | 46655/96 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 245 | 49 |
| 6.5 | 684 | 723 | 11 | 1.2 | PH831_0100K202_0460 EZ302U | 1392 | 1392 | 2686 | 462.3 | 1849/4 | 4000 | 4000 | 6500 | 3.5 | 0.37 | 1.5 | 260 | 49 |
| 7.7 | 576 | 608 | 7.1 | 1.7 | PH831_0070K202_0560 EZ302U | 1281 | 1281 | 1970 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 245 | 49 |
| 7.7 | 749 | 793 | 9.2 | 1.3 | PH831_0070K202_0560 EZ303U | 1281 | 1281 | 1970 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 245 | 49 |
| 8.5 | 523 | 553 | 11 | 1.2 | PH831_0070K202_0500 EZ302U | 776 | 776 | 1343 | 353.4 | 46655/132 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 245 | 49 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 8.7 | 512 | 541 | 11 | 1.7 | PH831_0100K202_0350 EZ302U | 1392 | 1392 | 2232 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.42 | 1.5 | 260 | 49 |
| 8.7 | 666 | 705 | 14 | 1.3 | PH831_0100K202_0350 EZ303U | 1392 | 1392 | 2232 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 260 | 49 |
| 9.3 | 479 | 506 | 6.8 | 2.1 | PH831_0070K202_0460 EZ302U | 1386 | 1386 | 1880 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.37 | 1.5 | 245 | 49 |
| 9.3 | 624 | 660 | 8.8 | 1.6 | PH831_0070K202_0460 EZ303U | 1386 | 1386 | 1880 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.48 | 1.5 | 245 | 49 |
| 9.3 | 844 | 904 | 12 | 1.2 | PH831_0070K202_0460 EZ401U | 1478 | 1478 | 2917 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 245 | 51 |
| 11 | 419 | 442 | 8.4 | 1.9 | PH831_0070K202_0400 EZ302U | 931 | 931 | 1432 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 245 | 49 |
| 11 | 545 | 577 | 11 | 1.4 | PH831_0070K202_0400 EZ303U | 931 | 931 | 1432 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 245 | 49 |
| 11 | 737 | 790 | 15 | 1.1 | PH831_0070K202_0400 EZ401U | 931 | 931 | 1432 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.99 | 1.5 | 245 | 51 |
| 11 | 729 | 781 | 18 | 1.2 | PH831_0100K202_0280 EZ401U | 1392 | 1392 | 2784 | 279.5 | 559/2 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 260 | 51 |
| 11 | 726 | 778 | 8.9 | 1.5 | PH831_0050K302_0560 EZ401U | 1525 | 1525 | 2757 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 1.0 | 2.0 | 245 | 56 |
| 12 | 358 | 378 | 6.3 | 2.8 | PH831_0070K202_0350 EZ302U | 1126 | 1126 | 1562 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.42 | 1.5 | 245 | 49 |
| 12 | 466 | 493 | 8.2 | 2.1 | PH831_0070K202_0350 EZ303U | 1152 | 1152 | 1562 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 245 | 49 |
| 12 | 631 | 676 | 11 | 1.6 | PH831_0070K202_0350 EZ401U | 1478 | 1478 | 2917 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 12 | 969 | 1059 | 17 | 1.0 | PH831_0070K202_0350 EZ501U | 1478 | 1478 | 2917 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 245 | 52 |
| 13 | 348 | 368 | 6.2 | 2.9 | PH831_0070K202_0340 EZ302U | 1008 | 1008 | 1368 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.38 | 1.5 | 245 | 49 |
| 13 | 454 | 480 | 8.1 | 2.2 | PH831_0070K202_0340 EZ303U | 1008 | 1008 | 1368 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.49 | 1.5 | 245 | 49 |
| 13 | 614 | 657 | 11 | 1.6 | PH831_0070K202_0340 EZ401U | 1242 | 1242 | 2246 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 245 | 51 |
| 13 | 942 | 1030 | 17 | 1.1 | PH831_0070K202_0340 EZ501U | 1242 | 1242 | 2246 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 245 | 52 |
| 13 | 343 | 363 | 9.6 | 2.5 | PH831_0100K202_0230 EZ302U | 1079 | 1079 | 1757 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 260 | 49 |
| 13 | 447 | 473 | 12 | 1.9 | PH831_0100K202_0230 EZ303U | 1296 | 1296 | 1757 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.64 | 1.5 | 260 | 49 |
| 13 | 604 | 648 | 17 | 1.4 | PH831_0100K202_0230 EZ401U | 1392 | 1392 | 2784 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 260 | 51 |
| 13 | 603 | 646 | 8.5 | 1.8 | PH831_0050K302_0460 EZ401U | 1829 | 1829 | 3585 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.1 | 2.0 | 245 | 56 |
| 13 | 925 | 1012 | 13 | 1.2 | PH831_0050K302_0460 EZ501U | 1848 | 1848 | 3585 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 3.1 | 2.0 | 245 | 57 |
| 13 | 1012 | 1119 | 14 | 1.1 | PH831_0050K302_0460 EZ402U | 1848 | 1848 | 3585 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.8 | 2.0 | 245 | 57 |
| 15 | 510 | 547 | 10 | 2.0 | PH831_0070K202_0280 EZ401U | 1478 | 1478 | 2917 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 15 | 783 | 856 | 16 | 1.3 | PH831_0070K202_0280 EZ501U | 1478 | 1478 | 2917 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 245 | 52 |
| 15 | 856 | 947 | 18 | 1.2 | PH831_0070K202_0280 EZ402U | 1478 | 1478 | 2917 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 245 | 52 |
| 17 | 260 | 275 | 6.9 | 3.2 | PH831_0070K202_0250 EZ302U | 819 | 819 | 1136 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.44 | 1.5 | 245 | 49 |
| 17 | 339 | 359 | 9.0 | 2.5 | PH831_0070K202_0250 EZ303U | 838 | 838 | 1136 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.55 | 1.5 | 245 | 49 |
| 17 | 459 | 491 | 10 | 2.2 | PH831_0070K202_0250 EZ401U | 1392 | 1392 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 17 | 704 | 770 | 16 | 1.4 | PH831_0070K202_0250 EZ501U | 1478 | 1478 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 245 | 52 |
| 17 | 770 | 852 | 17 | 1.3 | PH831_0070K202_0250 EZ402U | 1478 | 1478 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 245 | 52 |
| 17 | 259 | 273 | 8.9 | 3.3 | PH831_0100K202_0175 EZ302U | 813 | 813 | 1324 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 0.66 | 1.5 | 260 | 49 |
| 17 | 337 | 356 | 12 | 2.5 | PH831_0100K202_0175 EZ303U | 976 | 976 | 1324 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 0.77 | 1.5 | 260 | 49 |
| 17 | 455 | 488 | 16 | 1.9 | PH831_0100K202_0175 EZ401U | 1383 | 1383 | 2784 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 1.3 | 1.5 | 260 | 51 |
| 17 | 699 | 765 | 24 | 1.2 | PH831_0100K202_0175 EZ501U | 1392 | 1392 | 2784 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 3.3 | 1.5 | 260 | 52 |
| 17 | 765 | 846 | 26 | 1.1 | PH831_0100K202_0175 EZ402U | 1392 | 1392 | 2784 | 174.7 | 2795/16 | 3900 | 3900 | 5500 | 3.5 | 2.0 | 1.5 | 260 | 52 |
| 17 | 453 | 485 | 7.9 | 2.4 | PH831_0050K302_0350 EZ401U | 1375 | 1375 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.2 | 2.0 | 245 | 56 |
| 17 | 695 | 760 | 12 | 1.6 | PH831_0050K302_0350 EZ501U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 3.2 | 2.0 | 245 | 57 |
| 17 | 760 | 841 | 13 | 1.4 | PH831_0050K302_0350 EZ402U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.9 | 2.0 | 245 | 57 |
| 18 | 240 | 254 | 6.3 | 3.8 | PH831_0070K202_0230 EZ302U | 755 | 755 | 1230 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.54 | 1.5 | 245 | 49 |
| 18 | 313 | 331 | 8.2 | 2.9 | PH831_0070K202_0230 EZ303U | 907 | 907 | 1230 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.65 | 1.5 | 245 | 49 |
| 18 | 423 | 453 | 10 | 2.4 | PH831_0070K202_0230 EZ401U | 1284 | 1284 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 245 | 51 |
| 18 | 650 | 710 | 15 | 1.5 | PH831_0070K202_0230 EZ501U | 1478 | 1478 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 245 | 52 |
| 18 | 710 | 786 | 17 | 1.4 | PH831_0070K202_0230 EZ402U | 1478 | 1478 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 245 | 52 |
| 21 | 371 | 397 | 9.7 | 2.7 | PH831_0070K202_0200 EZ401U | 1126 | 1126 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 21 | 570 | 623 | 15 | 1.8 | PH831_0070K202_0200 EZ501U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 245 | 52 |
| 21 | 623 | 689 | 16 | 1.6 | PH831_0070K202_0200 EZ402U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 245 | 52 |
| 21 | 914 | 1139 | 24 | 1.1 | PH831_0070K202_0200 EZ404U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 245 | 54 |
| 21 | 980 | 1060 | 26 | 1.0 | PH831_0070K202_0200 EZ502U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 5.4 | 1.5 | 245 | 53 |
| 21 | 980 | 1100 | 26 | 1.0 | PH831_0070K202_0200 EZ701U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 8.7 | 1.5 | 245 | 55 |
| 22 | 364 | 389 | 7.5 | 3.0 | PH831_0050K302_0280 EZ401U | 1103 | 1103 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 1.3 | 2.0 | 245 | 56 |
| 22 | 558 | 610 | 12 | 2.0 | PH831_0050K302_0280 EZ501U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.3 | 2.0 | 245 | 57 |
| 22 | 610 | 675 | 13 | 1.8 | PH831_0050K302_0280 EZ402U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 2.0 | 2.0 | 245 | 57 |
| 22 | 896 | 1116 | 18 | 1.2 | PH831_0050K302_0280 EZ404U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 245 | 59 |
| 22 | 961 | 1039 | 20 | 1.1 | PH831_0050K302_0280 EZ502U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 5.6 | 2.0 | 245 | 58 |
| 22 | 961 | 1078 | 20 | 1.1 | PH831_0050K302_0280 EZ701U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 8.9 | 2.0 | 245 | 60 |
| 22 | 361 | 387 | 15 | 2.4 | PH831_0100K202_0140 EZ401U | 1096 | 1096 | 2784 | 138.5 | 14405/104 | 3900 | 3900 | 5500 | 3.5 | 1.5 | 1.5 | 260 | 51 |
| 22 | 555 | 606 | 23 | 1.5 | PH831_0100K202_0140 EZ501U | 1392 | 1392 | 2784 | 138.5 | 14405/104 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 260 | 52 |
| 22 | 606 | 671 | 25 | 1.4 | PH831_0100K202_0140 EZ402U | 1392 | 1392 | 2784 | 138.5 | 14405/104 | 3900 | 3900 | 5500 | 3.5 | 2.2 | 1.5 | 260 | 52 |
| 25 | 181 | 191 | 7.8 | 3.8 | PH831_0070K202_0175 EZ302U | 569 | 569 | 927 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 0.68 | 1.5 | 245 | 49 |
| 25 | 236 | 249 | 10 | 2.9 | PH831_0070K202_0175 EZ303U | 683 | 683 | 927 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 0.79 | 1.5 | 245 | 49 |
| 25 | 319 | 342 | 9.3 | 3.1 | PH831_0070K202_0175 EZ401U | 968 | 968 | 2917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 1.3 | 1.5 | 245 | 51 |
| 25 | 490 | 535 | 14 | 2.0 | PH831_0070K202_0175 EZ501U | 1478 | 1478 | 2917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 3.3 | 1.5 | 245 | 52 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 25 | 535 | 592 | 16 | 1.9 | PH831_0070K202_0175 EZ402U | 1478 | 1478 | 2917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 2.0 | 1.5 | 245 | 52 |
| 25 | 786 | 979 | 23 | 1.3 | PH831_0070K202_0175 EZ404U | 1478 | 1478 | 2917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 245 | 54 |
| 25 | 843 | 911 | 25 | 1.2 | PH831_0070K202_0175 EZ502U | 1478 | 1478 | 2917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 5.6 | 1.5 | 245 | 53 |
| 25 | 843 | 945 | 25 | 1.2 | PH831_0070K202_0175 EZ701U | 1478 | 1478 | 2917 | 122.3 | 3913/32 | 3900 | 3900 | 5500 | 3.5 | 8.9 | 1.5 | 245 | 55 |
| 25 | 175 | 185 | 8.0 | 3.8 | PH831_0070K202_0170 EZ302U | 549 | 549 | 895 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.58 | 1.5 | 245 | 49 |
| 25 | 227 | 241 | 10 | 2.9 | PH831_0070K202_0170 EZ303U | 660 | 660 | 895 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.69 | 1.5 | 245 | 49 |
| 25 | 308 | 330 | 9.2 | 3.3 | PH831_0070K202_0170 EZ401U | 934 | 934 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 245 | 51 |
| 25 | 473 | 516 | 14 | 2.1 | PH831_0070K202_0170 EZ501U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 245 | 52 |
| 25 | 516 | 571 | 16 | 1.9 | PH831_0070K202_0170 EZ402U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 245 | 52 |
| 25 | 758 | 945 | 23 | 1.3 | PH831_0070K202_0170 EZ404U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.3 | 1.5 | 245 | 54 |
| 25 | 813 | 879 | 24 | 1.2 | PH831_0070K202_0170 EZ502U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 5.5 | 1.5 | 245 | 53 |
| 25 | 813 | 912 | 24 | 1.2 | PH831_0070K202_0170 EZ701U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 8.8 | 1.5 | 245 | 55 |
| 26 | 304 | 325 | 7.2 | 3.6 | PH831_0050K302_0230 EZ401U | 922 | 922 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 1.4 | 2.0 | 245 | 56 |
| 26 | 466 | 510 | 11 | 2.4 | PH831_0050K302_0230 EZ501U | 1735 | 1735 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 245 | 57 |
| 26 | 510 | 564 | 12 | 2.2 | PH831_0050K302_0230 EZ402U | 1735 | 1735 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 2.1 | 2.0 | 245 | 57 |
| 26 | 748 | 933 | 18 | 1.5 | PH831_0050K302_0230 EZ404U | 1848 | 1848 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.5 | 2.0 | 245 | 59 |
| 26 | 803 | 868 | 19 | 1.4 | PH831_0050K302_0230 EZ502U | 1848 | 1848 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 5.7 | 2.0 | 245 | 58 |
| 26 | 803 | 900 | 19 | 1.4 | PH831_0050K302_0230 EZ701U | 1848 | 1848 | 3646 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 9.0 | 2.0 | 245 | 60 |
| 26 | 1052 | 1204 | 25 | 1.0 | PH831_0050K302_0230 EZ503U | 1848 | 1848 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 8.1 | 2.0 | 245 | 60 |
| 26 | 171 | 181 | 11 | 3.8 | PH831_0100K202_0115 EZ302U | 538 | 538 | 875 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 0.98 | 1.5 | 260 | 49 |
| 26 | 223 | 235 | 14 | 2.9 | PH831_0100K202_0115 EZ303U | 645 | 645 | 875 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 1.1 | 1.5 | 260 | 49 |
| 26 | 301 | 323 | 14 | 2.8 | PH831_0100K202_0115 EZ401U | 914 | 914 | 2784 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 1.6 | 1.5 | 260 | 51 |
| 26 | 462 | 505 | 22 | 1.8 | PH831_0100K202_0115 EZ501U | 1392 | 1392 | 2784 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 3.6 | 1.5 | 260 | 52 |
| 26 | 505 | 559 | 24 | 1.7 | PH831_0100K202_0115 EZ402U | 1392 | 1392 | 2784 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 2.3 | 1.5 | 260 | 52 |
| 26 | 742 | 925 | 35 | 1.1 | PH831_0100K202_0115 EZ404U | 1392 | 1392 | 2784 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 3.7 | 1.5 | 260 | 54 |
| 26 | 796 | 860 | 37 | 1.1 | PH831_0100K202_0115 EZ502U | 1392 | 1392 | 2784 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 5.9 | 1.5 | 260 | 53 |
| 26 | 796 | 892 | 37 | 1.1 | PH831_0100K202_0115 EZ701U | 1392 | 1392 | 2784 | 115.5 | 6235/54 | 3500 | 3500 | 5000 | 3.5 | 9.2 | 1.5 | 260 | 55 |
| 31 | 253 | 271 | 9.4 | 3.7 | PH831_0070K202_0140 EZ401U | 767 | 767 | 2917 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 1.5 | 1.5 | 245 | 51 |
| 31 | 388 | 424 | 14 | 2.4 | PH831_0070K202_0140 EZ501U | 1445 | 1445 | 2917 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 245 | 52 |
| 31 | 424 | 469 | 16 | 2.2 | PH831_0070K202_0140 EZ402U | 1445 | 1445 | 2917 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 2.2 | 1.5 | 245 | 52 |
| 31 | 623 | 776 | 23 | 1.5 | PH831_0070K202_0140 EZ404U | 1478 | 1478 | 2917 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 3.5 | 1.5 | 245 | 54 |
| 31 | 668 | 722 | 25 | 1.4 | PH831_0070K202_0140 EZ502U | 1478 | 1478 | 2917 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 5.7 | 1.5 | 245 | 53 |
| 31 | 668 | 749 | 25 | 1.4 | PH831_0070K202_0140 EZ701U | 1478 | 1478 | 2917 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 9.0 | 1.5 | 245 | 55 |
| 31 | 876 | 1002 | 32 | 1.1 | PH831_0070K202_0140 EZ503U | 1478 | 1478 | 2917 | 96.96 | 20167/208 | 3900 | 3900 | 5500 | 3.5 | 8.1 | 1.5 | 245 | 55 |
| 33 | 240 | 257 | 13 | 3.5 | PH831_0100K202_0092 EZ401U | 727 | 727 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 1.9 | 1.5 | 260 | 51 |
| 33 | 368 | 402 | 21 | 2.3 | PH831_0100K202_0092 EZ501U | 1369 | 1369 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 3.9 | 1.5 | 260 | 52 |
| 33 | 402 | 445 | 22 | 2.1 | PH831_0100K202_0092 EZ402U | 1369 | 1369 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 2.6 | 1.5 | 260 | 52 |
| 33 | 590 | 736 | 33 | 1.4 | PH831_0100K202_0092 EZ404U | 1392 | 1392 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 3.9 | 1.5 | 260 | 54 |
| 33 | 633 | 685 | 35 | 1.3 | PH831_0100K202_0092 EZ502U | 1392 | 1392 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 6.2 | 1.5 | 260 | 53 |
| 33 | 633 | 710 | 35 | 1.3 | PH831_0100K202_0092 EZ701U | 1392 | 1392 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 9.5 | 1.5 | 260 | 55 |
| 33 | 830 | 950 | 46 | 1.0 | PH831_0100K202_0092 EZ503U | 1392 | 1392 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 8.5 | 1.5 | 260 | 55 |
| 34 | 132 | 139 | 9.8 | 3.8 | PH831_0070K202_0125 EZ302U | 414 | 414 | 674 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 0.75 | 1.5 | 245 | 49 |
| 34 | 171 | 181 | 13 | 2.9 | PH831_0070K202_0125 EZ303U | 497 | 497 | 674 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 0.86 | 1.5 | 245 | 49 |
| 34 | 232 | 248 | 9.4 | 3.9 | PH831_0070K202_0125 EZ401U | 704 | 704 | 2696 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 1.4 | 1.5 | 245 | 51 |
| 34 | 356 | 389 | 15 | 2.6 | PH831_0070K202_0125 EZ501U | 1325 | 1325 | 2696 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 245 | 52 |
| 34 | 389 | 431 | 16 | 2.3 | PH831_0070K202_0125 EZ402U | 1325 | 1325 | 2696 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 2.1 | 1.5 | 245 | 52 |
| 34 | 571 | 712 | 23 | 1.6 | PH831_0070K202_0125 EZ404U | 1478 | 1478 | 2696 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 3.4 | 1.5 | 245 | 54 |
| 34 | 613 | 663 | 25 | 1.5 | PH831_0070K202_0125 EZ502U | 1478 | 1478 | 2696 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 5.7 | 1.5 | 245 | 53 |
| 34 | 613 | 687 | 25 | 1.5 | PH831_0070K202_0125 EZ701U | 1478 | 1478 | 2917 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 9.0 | 1.5 | 245 | 55 |
| 34 | 803 | 919 | 33 | 1.1 | PH831_0070K202_0125 EZ503U | 1478 | 1478 | 2696 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 8.0 | 1.5 | 245 | 55 |
| 35 | 225 | 242 | 6.6 | 4.9 | PH831_0050K302_0175 EZ401U | 684 | 684 | 2621 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 1.7 | 2.0 | 245 | 56 |
| 35 | 346 | 378 | 10 | 3.2 | PH831_0050K302_0175 EZ501U | 1288 | 1288 | 2621 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 245 | 57 |
| 35 | 378 | 419 | 11 | 2.9 | PH831_0050K302_0175 EZ402U | 1288 | 1288 | 2621 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 2.4 | 2.0 | 245 | 57 |
| 35 | 556 | 692 | 16 | 2.0 | PH831_0050K302_0175 EZ404U | 1848 | 1848 | 2621 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 3.8 | 2.0 | 245 | 59 |
| 35 | 596 | 644 | 18 | 1.8 | PH831_0050K302_0175 EZ502U | 1848 | 1848 | 2621 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 6.0 | 2.0 | 245 | 58 |
| 35 | 596 | 668 | 18 | 1.8 | PH831_0050K302_0175 EZ701U | 1610 | 1610 | 3646 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 9.3 | 2.0 | 245 | 60 |
| 35 | 781 | 894 | 23 | 1.4 | PH831_0050K302_0175 EZ503U | 1848 | 1848 | 2621 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 8.4 | 2.0 | 245 | 60 |
| 35 | 966 | 1159 | 28 | 1.1 | PH831_0050K302_0175 EZ702U | 1848 | 1848 | 3646 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 15 | 2.0 | 245 | 62 |
| 35 | 1087 | 1288 | 32 | 1.0 | PH831_0050K302_0175 EZ505U | 1848 | 1848 | 3646 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 245 | 63 |
| 36 | 162 | 171 | 17 | 2.9 | PH831_0100K202_0084 EZ303U | 469 | 469 | 636 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 1.2 | 1.5 | 260 | 49 |
| 36 | 219 | 235 | 13 | 3.9 | PH831_0100K202_0084 EZ401U | 665 | 665 | 2546 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 1.8 | 1.5 | 260 | 51 |
| 36 | 336 | 368 | 20 | 2.5 | PH831_0100K202_0084 EZ501U | 1251 | 1251 | 2546 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 3.7 | 1.5 | 260 | 52 |
| 36 | 368 | 407 | 22 | 2.3 | PH831_0100K202_0084 EZ402U | 1251 | 1251 | 2546 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 2.5 | 1.5 | 260 | 52 |
| 36 | 540 | 672 | 32 | 1.6 | PH831_0100K202_0084 EZ404U | 1392 | 1392 | 2546 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 3.8 | 1.5 | 260 | 54 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| PH831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm) | | | | | | | | | | | | | | | | | | |
| 36 | 579 | 626 | 35 | 1.5 | PH831_0100K202_0084 EZ502U | 1392 | 1392 | 2546 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 6.0 | 1.5 | 260 | 53 |
| 36 | 579 | 649 | 35 | 1.5 | PH831_0100K202_0084 EZ701U | 1392 | 1392 | 2784 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 9.3 | 1.5 | 260 | 55 |
| 36 | 758 | 868 | 45 | 1.1 | PH831_0100K202_0084 EZ503U | 1392 | 1392 | 2546 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 8.4 | 1.5 | 260 | 55 |
| 37 | 120 | 126 | 11 | 3.8 | PH831_0070K202_0115 EZ302U | 376 | 376 | 613 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 1.0 | 1.5 | 245 | 49 |
| 37 | 156 | 165 | 14 | 2.9 | PH831_0070K202_0115 EZ303U | 452 | 452 | 613 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 1.1 | 1.5 | 245 | 49 |
| 37 | 211 | 226 | 9.5 | 4.2 | PH831_0070K202_0115 EZ401U | 640 | 640 | 2450 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 1.7 | 1.5 | 245 | 51 |
| 37 | 324 | 354 | 15 | 2.7 | PH831_0070K202_0115 EZ501U | 1204 | 1204 | 2450 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 3.6 | 1.5 | 245 | 52 |
| 37 | 354 | 391 | 16 | 2.5 | PH831_0070K202_0115 EZ402U | 1204 | 1204 | 2450 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 2.4 | 1.5 | 245 | 52 |
| 37 | 519 | 647 | 23 | 1.7 | PH831_0070K202_0115 EZ404U | 1478 | 1478 | 2450 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 3.7 | 1.5 | 245 | 54 |
| 37 | 557 | 602 | 25 | 1.6 | PH831_0070K202_0115 EZ502U | 1478 | 1478 | 2450 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 5.9 | 1.5 | 245 | 53 |
| 37 | 557 | 625 | 25 | 1.6 | PH831_0070K202_0115 EZ701U | 1478 | 1478 | 2917 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 9.2 | 1.5 | 245 | 55 |
| 37 | 730 | 835 | 33 | 1.2 | PH831_0070K202_0115 EZ503U | 1478 | 1478 | 2450 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 8.3 | 1.5 | 245 | 55 |
| 43 | 184 | 197 | 9.6 | 4.6 | PH831_0070K202_0100 EZ401U | 558 | 558 | 2138 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 1.6 | 1.5 | 245 | 51 |
| 43 | 282 | 309 | 15 | 3.0 | PH831_0070K202_0100 EZ501U | 1051 | 1051 | 2138 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 3.6 | 1.5 | 245 | 52 |
| 43 | 309 | 341 | 16 | 2.7 | PH831_0070K202_0100 EZ402U | 1051 | 1051 | 2138 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 2.3 | 1.5 | 245 | 52 |
| 43 | 453 | 565 | 24 | 1.9 | PH831_0070K202_0100 EZ404U | 1478 | 1478 | 2138 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 3.6 | 1.5 | 245 | 54 |
| 43 | 486 | 525 | 25 | 1.7 | PH831_0070K202_0100 EZ502U | 1478 | 1478 | 2138 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 5.9 | 1.5 | 245 | 53 |
| 43 | 486 | 545 | 25 | 1.7 | PH831_0070K202_0100 EZ701U | 1313 | 1313 | 2917 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 9.2 | 1.5 | 245 | 55 |
| 43 | 637 | 729 | 33 | 1.3 | PH831_0070K202_0100 EZ503U | 1478 | 1478 | 2138 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 8.2 | 1.5 | 245 | 55 |
| 43 | 788 | 946 | 41 | 1.1 | PH831_0070K202_0100 EZ702U | 1478 | 1478 | 2917 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 14 | 1.5 | 245 | 57 |
| 43 | 279 | 305 | 9.7 | 3.9 | PH831_0050K302_0140 EZ501U | 1038 | 1038 | 2113 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 4.0 | 2.0 | 245 | 57 |
| 43 | 305 | 337 | 11 | 3.6 | PH831_0050K302_0140 EZ402U | 1038 | 1038 | 2113 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 2.7 | 2.0 | 245 | 57 |
| 43 | 448 | 558 | 16 | 2.5 | PH831_0050K302_0140 EZ404U | 1558 | 1558 | 2113 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 4.1 | 2.0 | 245 | 59 |
| 43 | 480 | 519 | 17 | 2.3 | PH831_0050K302_0140 EZ502U | 1558 | 1558 | 2113 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 6.3 | 2.0 | 245 | 58 |
| 43 | 480 | 539 | 17 | 2.3 | PH831_0050K302_0140 EZ701U | 1298 | 1298 | 3646 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 9.6 | 2.0 | 245 | 60 |
| 43 | 629 | 720 | 22 | 1.7 | PH831_0050K302_0140 EZ503U | 1558 | 1558 | 2113 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 8.7 | 2.0 | 245 | 60 |
| 43 | 779 | 934 | 27 | 1.4 | PH831_0050K302_0140 EZ702U | 1848 | 1848 | 3646 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 15 | 2.0 | 245 | 62 |
| 43 | 876 | 1038 | 30 | 1.3 | PH831_0050K302_0140 EZ505U | 1848 | 1848 | 3646 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 245 | 63 |
| 43 | 1071 | 1350 | 37 | 1.0 | PH831_0050K302_0140 EZ703U | 1848 | 1848 | 3646 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 23 | 2.0 | 245 | 64 |
| 45 | 174 | 187 | 12 | 4.9 | PH831_0100K202_0067 EZ401U | 529 | 529 | 2027 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 2.1 | 1.5 | 260 | 51 |
| 45 | 268 | 292 | 19 | 3.2 | PH831_0100K202_0067 EZ501U | 996 | 996 | 2027 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 4.1 | 1.5 | 260 | 52 |
| 45 | 292 | 324 | 21 | 2.9 | PH831_0100K202_0067 EZ402U | 996 | 996 | 2027 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 2.8 | 1.5 | 260 | 52 |
| 45 | 429 | 535 | 30 | 2.0 | PH831_0100K202_0067 EZ404U | 1392 | 1392 | 2027 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 4.2 | 1.5 | 260 | 54 |
| 45 | 461 | 498 | 33 | 1.8 | PH831_0100K202_0067 EZ502U | 1392 | 1392 | 2027 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 6.4 | 1.5 | 260 | 53 |
| 45 | 461 | 517 | 33 | 1.8 | PH831_0100K202_0067 EZ701U | 1245 | 1245 | 2784 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 9.7 | 1.5 | 260 | 55 |
| 45 | 604 | 691 | 43 | 1.4 | PH831_0100K202_0067 EZ503U | 1392 | 1392 | 2027 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 8.8 | 1.5 | 260 | 55 |
| 45 | 747 | 896 | 53 | 1.1 | PH831_0100K202_0067 EZ702U | 1392 | 1392 | 2784 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 260 | 57 |
| 45 | 840 | 996 | 59 | 1.0 | PH831_0100K202_0067 EZ505U | 1392 | 1392 | 2784 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 260 | 58 |
| 47 | 168 | 180 | 9.7 | 4.9 | PH831_0070K202_0092 EZ401U | 509 | 509 | 1951 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 2.0 | 1.5 | 245 | 51 |
| 47 | 258 | 282 | 15 | 3.2 | PH831_0070K202_0092 EZ501U | 958 | 958 | 1951 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 3.9 | 1.5 | 245 | 52 |
| 47 | 282 | 312 | 16 | 2.9 | PH831_0070K202_0092 EZ402U | 958 | 958 | 1951 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 2.7 | 1.5 | 245 | 52 |
| 47 | 413 | 515 | 24 | 2.0 | PH831_0070K202_0092 EZ404U | 1438 | 1438 | 1951 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 4.0 | 1.5 | 245 | 54 |
| 47 | 443 | 479 | 26 | 1.8 | PH831_0070K202_0092 EZ502U | 1438 | 1438 | 1951 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 6.2 | 1.5 | 245 | 53 |
| 47 | 443 | 497 | 26 | 1.8 | PH831_0070K202_0092 EZ701U | 1198 | 1198 | 2917 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 9.5 | 1.5 | 245 | 55 |
| 47 | 581 | 665 | 34 | 1.4 | PH831_0070K202_0092 EZ503U | 1438 | 1438 | 1951 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 8.6 | 1.5 | 245 | 55 |
| 47 | 719 | 863 | 42 | 1.1 | PH831_0070K202_0092 EZ702U | 1478 | 1478 | 2917 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 245 | 57 |
| 47 | 809 | 958 | 47 | 1.0 | PH831_0070K202_0092 EZ505U | 1478 | 1478 | 2917 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 245 | 58 |
| 50 | 240 | 263 | 18 | 3.5 | PH831_0100K202_0060 EZ501U | 894 | 894 | 1819 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 4.7 | 1.5 | 260 | 52 |
| 50 | 263 | 291 | 20 | 3.2 | PH831_0100K202_0060 EZ402U | 894 | 894 | 1819 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 3.4 | 1.5 | 260 | 52 |
| 50 | 386 | 480 | 30 | 2.2 | PH831_0100K202_0060 EZ404U | 1341 | 1341 | 1819 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 4.8 | 1.5 | 260 | 54 |
| 50 | 413 | 447 | 32 | 2.1 | PH831_0100K202_0060 EZ502U | 1341 | 1341 | 1819 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 7.0 | 1.5 | 260 | 53 |
| 50 | 413 | 464 | 32 | 2.1 | PH831_0100K202_0060 EZ701U | 1117 | 1117 | 2784 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 260 | 55 |
| 50 | 542 | 620 | 42 | 1.6 | PH831_0100K202_0060 EZ503U | 1341 | 1341 | 1819 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 9.4 | 1.5 | 260 | 55 |
| 50 | 670 | 805 | 51 | 1.3 | PH831_0100K202_0060 EZ702U | 1392 | 1392 | 2784 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 260 | 57 |
| 50 | 754 | 894 | 58 | 1.1 | PH831_0100K202_0060 EZ505U | 1392 | 1392 | 2784 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 260 | 58 |
| 51 | 113 | 120 | 17 | 2.9 | PH831_0070K202_0084 EZ303U | 328 | 328 | 446 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 1.3 | 1.5 | 245 | 49 |
| 51 | 235 | 257 | 15 | 3.4 | PH831_0070K202_0084 EZ501U | 876 | 876 | 1782 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 3.8 | 1.5 | 245 | 52 |
| 51 | 257 | 285 | 16 | 3.1 | PH831_0070K202_0084 EZ402U | 876 | 876 | 1782 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 2.5 | 1.5 | 245 | 52 |
| 51 | 378 | 471 | 24 | 2.1 | PH831_0070K202_0084 EZ404U | 1314 | 1314 | 1782 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 3.9 | 1.5 | 245 | 54 |
| 51 | 405 | 438 | 26 | 2.0 | PH831_0070K202_0084 EZ502U | 1314 | 1314 | 1782 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 6.1 | 1.5 | 245 | 53 |
| 51 | 405 | 454 | 26 | 2.0 | PH831_0070K202_0084 EZ701U | 1095 | 1095 | 2917 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 9.4 | 1.5 | 245 | 55 |
| 51 | 531 | 608 | 34 | 1.5 | PH831_0070K202_0084 EZ503U | 1314 | 1314 | 1782 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 8.5 | 1.5 | 245 | 55 |
| 51 | 657 | 788 | 42 | 1.2 | PH831_0070K202_0084 EZ702U | 1478 | 1478 | 2917 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 245 | 57 |
| 51 | 739 | 876 | 47 | 1.1 | PH831_0070K202_0084 EZ505U | 1478 | 1478 | 2917 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 245 | 58 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH831K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 52 | 232 | 254 | 9.2 | 4.7 | PH831_0050K302_0115 EZ501U | 865 | 865 | 1760 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 4.4 | 2.0 | 245 | 57 |
| 52 | 254 | 281 | 10 | 4.3 | PH831_0050K302_0115 EZ402U | 865 | 865 | 1760 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 3.1 | 2.0 | 245 | 57 |
| 52 | 373 | 465 | 15 | 2.9 | PH831_0050K302_0115 EZ404U | 1298 | 1298 | 1760 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 4.5 | 2.0 | 245 | 59 |
| 52 | 400 | 432 | 16 | 2.8 | PH831_0050K302_0115 EZ502U | 1298 | 1298 | 1760 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 6.7 | 2.0 | 245 | 58 |
| 52 | 400 | 449 | 16 | 2.8 | PH831_0050K302_0115 EZ701U | 1081 | 1081 | 3646 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 10 | 2.0 | 245 | 60 |
| 52 | 524 | 600 | 21 | 2.1 | PH831_0050K302_0115 EZ503U | 1298 | 1298 | 1760 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 9.1 | 2.0 | 245 | 60 |
| 52 | 649 | 778 | 26 | 1.7 | PH831_0050K302_0115 EZ702U | 1848 | 1848 | 3646 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 15 | 2.0 | 245 | 62 |
| 52 | 730 | 865 | 29 | 1.5 | PH831_0050K302_0115 EZ505U | 1848 | 1848 | 3646 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 245 | 63 |
| 52 | 892 | 1124 | 35 | 1.2 | PH831_0050K302_0115 EZ703U | 1848 | 1848 | 3646 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 23 | 2.0 | 245 | 64 |
| 58 | 357 | 400 | 31 | 2.4 | PH831_0100K202_0052 EZ701U | 964 | 964 | 2784 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 260 | 55 |
| 58 | 578 | 694 | 50 | 1.5 | PH831_0100K202_0052 EZ702U | 1392 | 1392 | 2784 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 260 | 57 |
| 58 | 651 | 771 | 56 | 1.3 | PH831_0100K202_0052 EZ505U | 1392 | 1392 | 2784 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 260 | 58 |
| 58 | 795 | 1003 | 68 | 1.1 | PH831_0100K202_0052 EZ703U | 1392 | 1392 | 2784 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 260 | 59 |
| 60 | 343 | 385 | 26 | 2.2 | PH831_0070K202_0071 EZ701U | 928 | 928 | 2917 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 245 | 55 |
| 60 | 557 | 668 | 42 | 1.4 | PH831_0070K202_0071 EZ702U | 1421 | 1421 | 2917 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 245 | 57 |
| 60 | 626 | 742 | 48 | 1.2 | PH831_0070K202_0071 EZ505U | 1421 | 1421 | 2917 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 245 | 58 |
| 64 | 187 | 205 | 15 | 3.9 | PH831_0070K202_0067 EZ501U | 697 | 697 | 1419 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 4.2 | 1.5 | 245 | 52 |
| 64 | 205 | 227 | 17 | 3.6 | PH831_0070K202_0067 EZ402U | 697 | 697 | 1419 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 2.9 | 1.5 | 245 | 52 |
| 64 | 301 | 375 | 25 | 2.4 | PH831_0070K202_0067 EZ404U | 1046 | 1046 | 1419 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 4.3 | 1.5 | 245 | 54 |
| 64 | 322 | 349 | 26 | 2.3 | PH831_0070K202_0067 EZ502U | 1046 | 1046 | 1419 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 6.5 | 1.5 | 245 | 53 |
| 64 | 322 | 362 | 26 | 2.3 | PH831_0070K202_0067 EZ701U | 871 | 871 | 2917 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 9.8 | 1.5 | 245 | 55 |
| 64 | 423 | 484 | 35 | 1.7 | PH831_0070K202_0067 EZ503U | 1046 | 1046 | 1419 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 8.9 | 1.5 | 245 | 55 |
| 64 | 523 | 627 | 43 | 1.4 | PH831_0070K202_0067 EZ702U | 1391 | 1391 | 2917 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 15 | 1.5 | 245 | 57 |
| 64 | 588 | 697 | 48 | 1.3 | PH831_0070K202_0067 EZ505U | 1391 | 1391 | 2917 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 245 | 58 |
| 64 | 719 | 906 | 59 | 1.0 | PH831_0070K202_0067 EZ703U | 1391 | 1391 | 2917 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 23 | 1.5 | 245 | 59 |
| 65 | 319 | 358 | 16 | 3.2 | PH831_0050K302_0093 EZ701U | 863 | 863 | 3512 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 11 | 2.0 | 245 | 60 |
| 65 | 518 | 621 | 26 | 2.0 | PH831_0050K302_0093 EZ702U | 1769 | 1769 | 3512 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 16 | 2.0 | 245 | 62 |
| 65 | 582 | 690 | 29 | 1.8 | PH831_0050K302_0093 EZ505U | 1848 | 1848 | 3512 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 245 | 63 |
| 65 | 712 | 897 | 36 | 1.4 | PH831_0050K302_0093 EZ703U | 1848 | 1848 | 3512 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 24 | 2.0 | 245 | 64 |
| 71 | 168 | 184 | 15 | 4.2 | PH831_0070K202_0060 EZ501U | 626 | 626 | 1273 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 4.8 | 1.5 | 245 | 52 |
| 71 | 184 | 203 | 17 | 3.9 | PH831_0070K202_0060 EZ402U | 626 | 626 | 1273 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 3.6 | 1.5 | 245 | 52 |
| 71 | 270 | 336 | 25 | 2.6 | PH831_0070K202_0060 EZ404U | 939 | 939 | 1273 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 4.9 | 1.5 | 245 | 54 |
| 71 | 289 | 313 | 27 | 2.5 | PH831_0070K202_0060 EZ502U | 939 | 939 | 1273 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 7.1 | 1.5 | 245 | 53 |
| 71 | 289 | 325 | 27 | 2.5 | PH831_0070K202_0060 EZ701U | 782 | 782 | 2917 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 245 | 55 |
| 71 | 379 | 434 | 35 | 1.9 | PH831_0070K202_0060 EZ503U | 939 | 939 | 1273 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 9.5 | 1.5 | 245 | 55 |
| 71 | 469 | 563 | 43 | 1.5 | PH831_0070K202_0060 EZ702U | 1342 | 1342 | 2917 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 245 | 57 |
| 71 | 528 | 626 | 48 | 1.3 | PH831_0070K202_0060 EZ505U | 1342 | 1342 | 2917 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 245 | 58 |
| 71 | 645 | 813 | 59 | 1.1 | PH831_0070K202_0060 EZ703U | 1342 | 1342 | 2917 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 245 | 59 |
| 75 | 276 | 309 | 29 | 3.1 | PH831_0100K202_0040 EZ701U | 745 | 745 | 2784 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 11 | 1.5 | 260 | 55 |
| 75 | 447 | 536 | 46 | 1.9 | PH831_0100K202_0040 EZ702U | 1392 | 1392 | 2784 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 260 | 57 |
| 75 | 503 | 596 | 52 | 1.7 | PH831_0100K202_0040 EZ505U | 1392 | 1392 | 2784 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 260 | 58 |
| 75 | 615 | 775 | 64 | 1.4 | PH831_0100K202_0040 EZ703U | 1392 | 1392 | 2784 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 260 | 59 |
| 81 | 255 | 286 | 16 | 3.7 | PH831_0050K302_0074 EZ701U | 688 | 688 | 2801 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 11 | 2.0 | 245 | 60 |
| 81 | 413 | 496 | 27 | 2.3 | PH831_0050K302_0074 EZ702U | 1411 | 1411 | 2801 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 17 | 2.0 | 245 | 62 |
| 81 | 465 | 551 | 30 | 2.1 | PH831_0050K302_0074 EZ505U | 1800 | 1800 | 2801 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 15 | 2.0 | 245 | 63 |
| 81 | 568 | 716 | 37 | 1.7 | PH831_0050K302_0074 EZ703U | 1800 | 1800 | 2801 | 36.96 | 2365/64 | 2700 | 2700 | 4000 | 4.0 | 25 | 2.0 | 245 | 64 |
| 83 | 250 | 280 | 27 | 2.7 | PH831_0070K202_0052 EZ701U | 675 | 675 | 2746 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 245 | 55 |
| 83 | 405 | 486 | 44 | 1.7 | PH831_0070K202_0052 EZ702U | 1278 | 1278 | 2746 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 245 | 57 |
| 83 | 456 | 540 | 49 | 1.5 | PH831_0070K202_0052 EZ505U | 1278 | 1278 | 2746 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 245 | 58 |
| 83 | 557 | 702 | 60 | 1.2 | PH831_0070K202_0052 EZ703U | 1278 | 1278 | 2746 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 245 | 59 |
| 98 | 134 | 148 | 17 | 4.8 | PH831_0070K202_0044 EZ402U | 455 | 455 | 926 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 4.2 | 1.5 | 245 | 52 |
| 98 | 196 | 245 | 25 | 3.3 | PH831_0070K202_0044 EZ404U | 683 | 683 | 926 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 5.5 | 1.5 | 245 | 54 |
| 98 | 211 | 228 | 27 | 3.0 | PH831_0070K202_0044 EZ502U | 683 | 683 | 926 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 7.8 | 1.5 | 245 | 53 |
| 98 | 211 | 236 | 27 | 3.0 | PH831_0070K202_0044 EZ701U | 569 | 569 | 2315 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 11 | 1.5 | 245 | 55 |
| 98 | 276 | 316 | 36 | 2.3 | PH831_0070K202_0044 EZ503U | 683 | 683 | 926 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 10 | 1.5 | 245 | 55 |
| 98 | 341 | 410 | 44 | 1.9 | PH831_0070K202_0044 EZ702U | 1166 | 1166 | 2315 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 245 | 57 |
| 98 | 384 | 455 | 50 | 1.7 | PH831_0070K202_0044 EZ505U | 1207 | 1207 | 2315 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 245 | 58 |
| 98 | 469 | 592 | 61 | 1.4 | PH831_0070K202_0044 EZ703U | 1207 | 1207 | 2315 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 245 | 59 |
| 100 | 207 | 232 | 17 | 4.3 | PH831_0050K302_0060 EZ701U | 559 | 559 | 2273 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 12 | 2.0 | 245 | 60 |
| 100 | 335 | 402 | 27 | 2.7 | PH831_0050K302_0060 EZ702U | 1145 | 1145 | 2273 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 18 | 2.0 | 245 | 62 |
| 100 | 377 | 447 | 30 | 2.4 | PH831_0050K302_0060 EZ505U | 1676 | 1676 | 2273 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 16 | 2.0 | 245 | 63 |
| 100 | 461 | 581 | 37 | 1.9 | PH831_0050K302_0060 EZ703U | 1676 | 1676 | 2273 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 26 | 2.0 | 245 | 64 |
| 100 | 595 | 844 | 48 | 1.5 | PH831_0050K302_0060 EZ705U | 1679 | 1679 | 3646 | 30.00 | 30/1 | 2700 | 2700 | 4000 | 4.0 | 38 | 2.0 | 245 | 70 |
| 107 | 193 | 216 | 27 | 3.2 | PH831_0070K202_0040 EZ701U | 521 | 521 | 2122 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 11 | 1.5 | 245 | 55 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 107 | 313 | 375 | 45 | 2.0 | PH831_0070K202_0040 EZ702U | 1069 | 1069 | 2122 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 17 | 1.5 | 245 | 57 |
| 107 | 352 | 417 | 50 | 1.8 | PH831_0070K202_0040 EZ505U | 1173 | 1173 | 2122 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 245 | 58 |
| 107 | 430 | 542 | 61 | 1.4 | PH831_0070K202_0040 EZ703U | 1173 | 1173 | 2122 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 25 | 1.5 | 245 | 59 |
| 112 | 185 | 208 | 17 | 4.6 | PH831_0050K302_0054 EZ701U | 501 | 501 | 2037 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 12 | 2.0 | 245 | 60 |
| 112 | 300 | 360 | 27 | 2.9 | PH831_0050K302_0054 EZ702U | 1026 | 1026 | 2037 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 17 | 2.0 | 245 | 62 |
| 112 | 338 | 400 | 31 | 2.5 | PH831_0050K302_0054 EZ505U | 1502 | 1502 | 2037 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 16 | 2.0 | 245 | 63 |
| 112 | 413 | 521 | 38 | 2.1 | PH831_0050K302_0054 EZ703U | 1502 | 1502 | 2037 | 26.88 | 215/8 | 2700 | 2700 | 4000 | 4.0 | 25 | 2.0 | 245 | 64 |
| 150 | 223 | 268 | 28 | 3.5 | PH831_0050K302_0040 EZ702U | 764 | 764 | 1516 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 20 | 2.0 | 245 | 62 |
| 150 | 251 | 298 | 31 | 3.1 | PH831_0050K302_0040 EZ505U | 1117 | 1117 | 1516 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 18 | 2.0 | 245 | 63 |
| 150 | 307 | 387 | 38 | 2.5 | PH831_0050K302_0040 EZ703U | 1117 | 1117 | 1516 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 28 | 2.0 | 245 | 64 |
| 150 | 397 | 562 | 50 | 2.0 | PH831_0050K302_0040 EZ705U | 1467 | 1467 | 3646 | 20.00 | 20/1 | 2700 | 2700 | 4000 | 4.0 | 40 | 2.0 | 245 | 70 |
| 188 | 179 | 215 | 28 | 3.5 | PH831_0040K302_0040 EZ702U | 611 | 611 | 1212 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 20 | 2.0 | 185 | 62 |
| 188 | 201 | 238 | 31 | 3.1 | PH831_0040K302_0040 EZ505U | 894 | 894 | 1212 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 19 | 2.0 | 185 | 63 |
| 188 | 246 | 310 | 38 | 2.5 | PH831_0040K302_0040 EZ703U | 894 | 894 | 1212 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 28 | 2.0 | 185 | 64 |
| 188 | 317 | 450 | 50 | 2.0 | PH831_0040K302_0040 EZ705U | 1174 | 1174 | 2917 | 16.00 | 16/1 | 2700 | 2700 | 4000 | 4.0 | 41 | 2.0 | 185 | 70 |
| **PH831K ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 39 | 1030 | 1659 | 24 | 1.1 | PH831_0050K302_0230 EZ505U | 1848 | 1848 | 3646 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 13 | 2.0 | 245 | 63 |
| 49 | 813 | 1309 | 45 | 1.0 | PH831_0100K202_0092 EZ505U | 1392 | 1392 | 2784 | 91.90 | 11395/124 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 260 | 58 |
| 51 | 787 | 1267 | 37 | 1.0 | PH831_0070K202_0125 EZ505U | 1478 | 1478 | 2917 | 88.94 | 3913/44 | 3900 | 3900 | 5500 | 3.5 | 13 | 1.5 | 245 | 58 |
| 52 | 765 | 1232 | 23 | 1.4 | PH831_0050K302_0175 EZ505U | 1848 | 1848 | 3646 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 245 | 63 |
| 52 | 974 | 1610 | 29 | 1.1 | PH831_0050K302_0175 EZ703U | 1848 | 1848 | 3646 | 86.47 | 7955/92 | 3500 | 3500 | 5000 | 4.0 | 22 | 2.0 | 245 | 64 |
| 54 | 743 | 1196 | 44 | 1.1 | PH831_0100K202_0084 EZ505U | 1392 | 1392 | 2784 | 83.97 | 24940/297 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 260 | 58 |
| 56 | 715 | 1152 | 37 | 1.1 | PH831_0070K202_0115 EZ505U | 1478 | 1478 | 2917 | 80.82 | 8729/108 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 245 | 58 |
| 64 | 624 | 1005 | 37 | 1.2 | PH831_0070K202_0100 EZ505U | 1478 | 1478 | 2917 | 70.51 | 20167/286 | 3900 | 3900 | 5500 | 3.5 | 13 | 1.5 | 245 | 58 |
| 65 | 616 | 993 | 23 | 1.7 | PH831_0050K302_0140 EZ505U | 1848 | 1848 | 3646 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 245 | 63 |
| 65 | 785 | 1298 | 29 | 1.3 | PH831_0050K302_0140 EZ703U | 1848 | 1848 | 3646 | 69.68 | 7525/108 | 3500 | 3500 | 5000 | 4.0 | 23 | 2.0 | 245 | 64 |
| 67 | 591 | 952 | 42 | 1.4 | PH831_0100K202_0067 EZ505U | 1392 | 1392 | 2784 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 260 | 58 |
| 67 | 753 | 1245 | 53 | 1.1 | PH831_0100K202_0067 EZ703U | 1392 | 1392 | 2784 | 66.83 | 22790/341 | 3500 | 3500 | 5000 | 3.5 | 23 | 1.5 | 260 | 59 |
| 70 | 569 | 917 | 38 | 1.3 | PH831_0070K202_0092 EZ505U | 1478 | 1478 | 2917 | 64.33 | 15953/248 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 245 | 58 |
| 75 | 531 | 855 | 41 | 1.6 | PH831_0100K202_0060 EZ505U | 1392 | 1392 | 2784 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 260 | 58 |
| 75 | 676 | 1117 | 52 | 1.3 | PH831_0100K202_0060 EZ703U | 1392 | 1392 | 2784 | 60.00 | 60/1 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 260 | 59 |
| 77 | 520 | 837 | 38 | 1.3 | PH831_0070K202_0084 EZ505U | 1478 | 1478 | 2917 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 245 | 58 |
| 77 | 662 | 1095 | 48 | 1.0 | PH831_0070K202_0084 EZ703U | 1478 | 1478 | 2917 | 58.78 | 17458/297 | 3500 | 3500 | 5000 | 3.5 | 23 | 1.5 | 245 | 59 |
| 78 | 514 | 827 | 23 | 1.9 | PH831_0050K302_0115 EZ505U | 1848 | 1848 | 3646 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 245 | 63 |
| 78 | 654 | 1081 | 30 | 1.5 | PH831_0050K302_0115 EZ703U | 1848 | 1848 | 3646 | 58.05 | 1161/20 | 3200 | 3200 | 4500 | 4.0 | 23 | 2.0 | 245 | 64 |
| 87 | 458 | 738 | 40 | 1.8 | PH831_0100K202_0052 EZ505U | 1392 | 1392 | 2784 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 260 | 58 |
| 87 | 583 | 964 | 50 | 1.4 | PH831_0100K202_0052 EZ703U | 1392 | 1392 | 2784 | 51.77 | 21070/407 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 260 | 59 |
| 90 | 441 | 710 | 39 | 1.5 | PH831_0070K202_0071 EZ505U | 1421 | 1421 | 2917 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 245 | 58 |
| 90 | 561 | 928 | 49 | 1.2 | PH831_0070K202_0071 EZ703U | 1421 | 1421 | 2917 | 49.83 | 14749/296 | 3000 | 3000 | 4500 | 3.5 | 23 | 1.5 | 245 | 59 |
| 96 | 414 | 667 | 39 | 1.6 | PH831_0070K202_0067 EZ505U | 1391 | 1391 | 2917 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 13 | 1.5 | 245 | 58 |
| 96 | 527 | 871 | 49 | 1.2 | PH831_0070K202_0067 EZ703U | 1391 | 1391 | 2917 | 46.78 | 15953/341 | 3500 | 3500 | 5000 | 3.5 | 23 | 1.5 | 245 | 59 |
| 97 | 410 | 660 | 24 | 2.2 | PH831_0050K302_0093 EZ505U | 1848 | 1848 | 3512 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 14 | 2.0 | 245 | 63 |
| 97 | 522 | 863 | 30 | 1.7 | PH831_0050K302_0093 EZ703U | 1848 | 1848 | 3512 | 46.34 | 5375/116 | 3200 | 3200 | 4500 | 4.0 | 24 | 2.0 | 245 | 64 |
| 107 | 372 | 598 | 39 | 1.7 | PH831_0070K202_0060 EZ505U | 1342 | 1342 | 2917 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 245 | 58 |
| 107 | 473 | 782 | 50 | 1.3 | PH831_0070K202_0060 EZ703U | 1342 | 1342 | 2917 | 42.00 | 42/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 245 | 59 |
| 113 | 354 | 570 | 40 | 2.2 | PH831_0100K202_0040 EZ505U | 1392 | 1392 | 2784 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 260 | 58 |
| 113 | 451 | 745 | 51 | 1.7 | PH831_0100K202_0040 EZ703U | 1392 | 1392 | 2784 | 40.00 | 40/1 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 260 | 59 |
| 124 | 321 | 516 | 40 | 1.8 | PH831_0070K202_0052 EZ505U | 1278 | 1278 | 2746 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 14 | 1.5 | 245 | 58 |
| 124 | 408 | 675 | 50 | 1.4 | PH831_0070K202_0052 EZ703U | 1278 | 1278 | 2746 | 36.24 | 14749/407 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 245 | 59 |
| 147 | 270 | 435 | 40 | 2.1 | PH831_0070K202_0044 EZ505U | 1207 | 1207 | 2315 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 245 | 58 |
| 147 | 344 | 569 | 51 | 1.6 | PH831_0070K202_0044 EZ703U | 1207 | 1207 | 2315 | 30.55 | 336/11 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 245 | 59 |
| 161 | 248 | 399 | 40 | 2.2 | PH831_0070K202_0040 EZ505U | 1173 | 1173 | 2122 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 245 | 58 |
| 161 | 315 | 521 | 51 | 1.7 | PH831_0070K202_0040 EZ703U | 1173 | 1173 | 2122 | 28.00 | 28/1 | 3000 | 3000 | 4500 | 3.5 | 25 | 1.5 | 245 | 59 |
| **PH831K ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 11 | 776 | 869 | 11 | 1.1 | PH831_0100K202_0560 EZ302U | 1392 | 1392 | 2784 | 555.4 | 6665/12 | 4000 | 4000 | 6500 | 3.5 | 0.34 | 1.5 | 260 | 49 |
| 12 | 679 | 760 | 7.9 | 1.3 | PH831_0070K202_0690 EZ302U | 1067 | 1067 | 1847 | 486.0 | 46655/96 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 245 | 49 |
| 12 | 887 | 1018 | 10 | 1.0 | PH831_0070K202_0690 EZ303U | 1067 | 1067 | 1847 | 486.0 | 46655/96 | 4000 | 4000 | 6500 | 3.5 | 0.44 | 1.5 | 245 | 49 |
| 13 | 646 | 723 | 11 | 1.3 | PH831_0100K202_0460 EZ302U | 1392 | 1392 | 2686 | 462.3 | 1849/4 | 4000 | 4000 | 6500 | 3.5 | 0.37 | 1.5 | 260 | 49 |
| 13 | 844 | 969 | 14 | 1.0 | PH831_0100K202_0460 EZ303U | 1392 | 1392 | 2686 | 462.3 | 1849/4 | 4000 | 4000 | 6500 | 3.5 | 0.48 | 1.5 | 260 | 49 |
| 15 | 543 | 608 | 6.7 | 1.8 | PH831_0070K202_0560 EZ302U | 1281 | 1281 | 1970 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 245 | 49 |
| 15 | 710 | 815 | 8.7 | 1.4 | PH831_0070K202_0560 EZ303U | 1281 | 1281 | 1970 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 245 | 49 |
| 15 | 833 | 1014 | 10 | 1.2 | PH831_0070K202_0560 EZ401U | 1281 | 1281 | 1970 | 388.8 | 9331/24 | 4000 | 4000 | 6500 | 3.5 | 0.99 | 1.5 | 245 | 51 |
| 17 | 494 | 553 | 10 | 1.3 | PH831_0070K202_0500 EZ302U | 776 | 776 | 1343 | 353.4 | 46655/132 | 4000 | 4000 | 6500 | 3.5 | 0.33 | 1.5 | 245 | 49 |
| 17 | 645 | 741 | 13 | 1.0 | PH831_0070K202_0500 EZ303U | 776 | 776 | 1343 | 353.4 | 46655/132 | 4000 | 4000 | 6500 | 3.5 | 0.44 | 1.5 | 245 | 49 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH831K ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 17 | 483 | 541 | 10 | 1.8 | PH831_0100K202_0350 EZ302U | 1392 | 1392 | 2232 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.42 | 1.5 | 260 | 49 |
| 17 | 631 | 724 | 13 | 1.3 | PH831_0100K202_0350 EZ303U | 1392 | 1392 | 2232 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 260 | 49 |
| 17 | 740 | 901 | 15 | 1.1 | PH831_0100K202_0350 EZ401U | 1392 | 1392 | 2784 | 345.5 | 9675/28 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 260 | 51 |
| 19 | 452 | 506 | 6.4 | 2.2 | PH831_0070K202_0460 EZ302U | 1386 | 1386 | 1880 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.37 | 1.5 | 245 | 49 |
| 19 | 591 | 678 | 8.3 | 1.7 | PH831_0070K202_0460 EZ303U | 1386 | 1386 | 1880 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 0.48 | 1.5 | 245 | 49 |
| 19 | 693 | 844 | 9.8 | 1.4 | PH831_0070K202_0460 EZ401U | 1478 | 1478 | 2917 | 323.6 | 12943/40 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 245 | 51 |
| 21 | 395 | 442 | 7.9 | 2.0 | PH831_0070K202_0400 EZ302U | 931 | 931 | 1432 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.35 | 1.5 | 245 | 49 |
| 21 | 516 | 592 | 10 | 1.5 | PH831_0070K202_0400 EZ303U | 931 | 931 | 1432 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.46 | 1.5 | 245 | 49 |
| 21 | 606 | 737 | 12 | 1.3 | PH831_0070K202_0400 EZ401U | 931 | 931 | 1432 | 282.8 | 9331/33 | 4000 | 4000 | 6500 | 3.5 | 0.99 | 1.5 | 245 | 51 |
| 21 | 599 | 729 | 14 | 1.4 | PH831_0100K202_0280 EZ401U | 1392 | 1392 | 2784 | 279.5 | 559/2 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 260 | 51 |
| 22 | 597 | 726 | 7.3 | 1.8 | PH831_0050K302_0560 EZ401U | 1525 | 1525 | 2757 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 1.0 | 2.0 | 245 | 56 |
| 22 | 882 | 1141 | 11 | 1.2 | PH831_0050K302_0560 EZ501U | 1525 | 1525 | 2757 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 3.0 | 2.0 | 245 | 57 |
| 22 | 908 | 1271 | 11 | 1.2 | PH831_0050K302_0560 EZ402U | 1525 | 1525 | 2757 | 278.5 | 12255/44 | 3800 | 3800 | 6000 | 4.0 | 1.7 | 2.0 | 245 | 57 |
| 25 | 338 | 378 | 5.9 | 3.0 | PH831_0070K202_0350 EZ302U | 1126 | 1126 | 1562 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.42 | 1.5 | 245 | 49 |
| 25 | 441 | 507 | 7.7 | 2.3 | PH831_0070K202_0350 EZ303U | 1152 | 1152 | 1562 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 245 | 49 |
| 25 | 518 | 631 | 9.1 | 1.9 | PH831_0070K202_0350 EZ401U | 1478 | 1478 | 2917 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 25 | 766 | 991 | 13 | 1.3 | PH831_0070K202_0350 EZ501U | 1478 | 1478 | 2917 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 245 | 52 |
| 25 | 788 | 1104 | 14 | 1.3 | PH831_0070K202_0350 EZ402U | 1478 | 1478 | 2917 | 241.9 | 1935/8 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 245 | 52 |
| 25 | 329 | 368 | 5.9 | 3.0 | PH831_0070K202_0340 EZ302U | 1008 | 1008 | 1368 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.38 | 1.5 | 245 | 49 |
| 25 | 430 | 493 | 7.7 | 2.3 | PH831_0070K202_0340 EZ303U | 1008 | 1008 | 1368 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 0.49 | 1.5 | 245 | 49 |
| 25 | 504 | 614 | 9.0 | 2.0 | PH831_0070K202_0340 EZ401U | 1242 | 1242 | 2246 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 1.0 | 1.5 | 245 | 51 |
| 25 | 745 | 964 | 13 | 1.3 | PH831_0070K202_0340 EZ501U | 1242 | 1242 | 2246 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 245 | 52 |
| 25 | 767 | 1074 | 14 | 1.3 | PH831_0070K202_0340 EZ402U | 1242 | 1242 | 2246 | 235.3 | 12943/55 | 4000 | 4000 | 6500 | 3.5 | 1.7 | 1.5 | 245 | 52 |
| 26 | 324 | 363 | 9.0 | 2.6 | PH831_0100K202_0230 EZ302U | 1079 | 1079 | 1757 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.53 | 1.5 | 260 | 49 |
| 26 | 423 | 486 | 12 | 2.0 | PH831_0100K202_0230 EZ303U | 1296 | 1296 | 1757 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 0.64 | 1.5 | 260 | 49 |
| 26 | 496 | 604 | 14 | 1.7 | PH831_0100K202_0230 EZ401U | 1392 | 1392 | 2784 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 260 | 51 |
| 26 | 734 | 950 | 20 | 1.2 | PH831_0100K202_0230 EZ501U | 1392 | 1392 | 2784 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 260 | 52 |
| 26 | 755 | 1058 | 21 | 1.1 | PH831_0100K202_0230 EZ402U | 1392 | 1392 | 2784 | 231.8 | 14835/64 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 260 | 52 |
| 26 | 495 | 603 | 7.0 | 2.2 | PH831_0050K302_0460 EZ401U | 1829 | 1829 | 3585 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.1 | 2.0 | 245 | 56 |
| 26 | 732 | 947 | 10 | 1.5 | PH831_0050K302_0460 EZ501U | 1848 | 1848 | 3585 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 3.1 | 2.0 | 245 | 57 |
| 26 | 753 | 1055 | 11 | 1.5 | PH831_0050K302_0460 EZ402U | 1848 | 1848 | 3585 | 231.1 | 1849/8 | 3800 | 3800 | 6000 | 4.0 | 1.8 | 2.0 | 245 | 57 |
| 31 | 419 | 510 | 9.2 | 2.2 | PH831_0070K202_0280 EZ401U | 1478 | 1478 | 2917 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 31 | 619 | 802 | 14 | 1.5 | PH831_0070K202_0280 EZ501U | 1478 | 1478 | 2917 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 245 | 52 |
| 31 | 638 | 893 | 14 | 1.5 | PH831_0070K202_0280 EZ402U | 1478 | 1478 | 2917 | 195.7 | 3913/20 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 245 | 52 |
| 34 | 246 | 275 | 6.5 | 3.4 | PH831_0070K202_0250 EZ302U | 819 | 819 | 1136 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.44 | 1.5 | 245 | 49 |
| 34 | 321 | 369 | 8.5 | 2.6 | PH831_0070K202_0250 EZ303U | 838 | 838 | 1136 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 0.55 | 1.5 | 245 | 49 |
| 34 | 377 | 459 | 9.2 | 2.4 | PH831_0070K202_0250 EZ401U | 1392 | 1392 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 34 | 557 | 721 | 14 | 1.6 | PH831_0070K202_0250 EZ501U | 1478 | 1478 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 3.0 | 1.5 | 245 | 52 |
| 34 | 573 | 803 | 14 | 1.6 | PH831_0070K202_0250 EZ402U | 1478 | 1478 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 245 | 52 |
| 34 | 852 | 1278 | 21 | 1.1 | PH831_0070K202_0250 EZ502U | 1478 | 1478 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 5.3 | 1.5 | 245 | 53 |
| 34 | 852 | 1294 | 21 | 1.1 | PH831_0070K202_0250 EZ701U | 1478 | 1478 | 2917 | 175.9 | 1935/11 | 4000 | 4000 | 6500 | 3.5 | 8.6 | 1.5 | 245 | 55 |
| 35 | 372 | 453 | 6.5 | 3.0 | PH831_0050K302_0350 EZ401U | 1375 | 1375 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.2 | 2.0 | 245 | 56 |
| 35 | 550 | 712 | 9.6 | 2.0 | PH831_0050K302_0350 EZ501U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 3.2 | 2.0 | 245 | 57 |
| 35 | 566 | 792 | 9.9 | 1.9 | PH831_0050K302_0350 EZ402U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 1.9 | 2.0 | 245 | 57 |
| 35 | 841 | 1261 | 15 | 1.3 | PH831_0050K302_0350 EZ502U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 5.5 | 2.0 | 245 | 58 |
| 35 | 841 | 1277 | 15 | 1.3 | PH831_0050K302_0350 EZ701U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 8.8 | 2.0 | 245 | 60 |
| 35 | 938 | 1358 | 16 | 1.2 | PH831_0050K302_0350 EZ404U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 3.2 | 2.0 | 245 | 59 |
| 35 | 1003 | 1714 | 18 | 1.1 | PH831_0050K302_0350 EZ503U | 1848 | 1848 | 3646 | 173.7 | 4515/26 | 3800 | 3800 | 6000 | 4.0 | 7.8 | 2.0 | 245 | 60 |
| 37 | 227 | 254 | 6.1 | 3.9 | PH831_0070K202_0230 EZ302U | 755 | 755 | 1230 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.54 | 1.5 | 245 | 49 |
| 37 | 296 | 340 | 7.9 | 3.0 | PH831_0070K202_0230 EZ303U | 907 | 907 | 1230 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 0.65 | 1.5 | 245 | 49 |
| 37 | 348 | 423 | 9.3 | 2.5 | PH831_0070K202_0230 EZ401U | 1284 | 1284 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 245 | 51 |
| 37 | 514 | 665 | 14 | 1.7 | PH831_0070K202_0230 EZ501U | 1478 | 1478 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 245 | 52 |
| 37 | 529 | 740 | 14 | 1.7 | PH831_0070K202_0230 EZ402U | 1478 | 1478 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 245 | 52 |
| 37 | 786 | 1179 | 21 | 1.1 | PH831_0070K202_0230 EZ502U | 1478 | 1478 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 5.5 | 1.5 | 245 | 53 |
| 37 | 786 | 1194 | 21 | 1.1 | PH831_0070K202_0230 EZ701U | 1478 | 1478 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 8.8 | 1.5 | 245 | 55 |
| 37 | 876 | 1269 | 23 | 1.0 | PH831_0070K202_0230 EZ404U | 1478 | 1478 | 2917 | 162.3 | 20769/128 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 245 | 54 |
| 42 | 305 | 371 | 9.4 | 2.8 | PH831_0070K202_0200 EZ401U | 1126 | 1126 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.1 | 1.5 | 245 | 51 |
| 42 | 450 | 583 | 14 | 1.9 | PH831_0070K202_0200 EZ501U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.1 | 1.5 | 245 | 52 |
| 42 | 464 | 649 | 14 | 1.8 | PH831_0070K202_0200 EZ402U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 1.8 | 1.5 | 245 | 52 |
| 42 | 689 | 1033 | 21 | 1.2 | PH831_0070K202_0200 EZ502U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 5.4 | 1.5 | 245 | 53 |
| 42 | 689 | 1047 | 21 | 1.2 | PH831_0070K202_0200 EZ701U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 8.7 | 1.5 | 245 | 55 |
| 42 | 768 | 1113 | 24 | 1.1 | PH831_0070K202_0200 EZ404U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 245 | 54 |
| 42 | 821 | 1404 | 25 | 1.0 | PH831_0070K202_0200 EZ503U | 1478 | 1478 | 2917 | 142.3 | 7826/55 | 4000 | 4000 | 6500 | 3.5 | 7.8 | 1.5 | 245 | 55 |
| 43 | 299 | 364 | 6.2 | 3.7 | PH831_0050K302_0280 EZ401U | 1103 | 1103 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 1.3 | 2.0 | 245 | 56 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH831K ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 1850 Nm)** | | | | | | | | | | | | | | | | | | |
| 43 | 441 | 571 | 9.1 | 2.5 | PH831_0050K302_0280 EZ501U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.3 | 2.0 | 245 | 57 |
| 43 | 454 | 636 | 9.4 | 2.4 | PH831_0050K302_0280 EZ402U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 2.0 | 2.0 | 245 | 57 |
| 43 | 675 | 1013 | 14 | 1.6 | PH831_0050K302_0280 EZ502U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 5.6 | 2.0 | 245 | 58 |
| 43 | 675 | 1026 | 14 | 1.6 | PH831_0050K302_0280 EZ701U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 8.9 | 2.0 | 245 | 60 |
| 43 | 753 | 1091 | 16 | 1.5 | PH831_0050K302_0280 EZ404U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 245 | 59 |
| 43 | 805 | 1376 | 17 | 1.4 | PH831_0050K302_0280 EZ503U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 8.0 | 2.0 | 245 | 60 |
| 43 | 935 | 1856 | 19 | 1.2 | PH831_0050K302_0280 EZ702U | 1848 | 1848 | 3646 | 139.4 | 17845/128 | 3800 | 3800 | 6000 | 4.0 | 14 | 2.0 | 245 | 62 |
| 51 | 165 | 185 | 7.5 | 4.0 | PH831_0070K202_0170 EZ302U | 549 | 549 | 895 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.58 | 1.5 | 245 | 49 |
| 51 | 215 | 247 | 9.8 | 3.1 | PH831_0070K202_0170 EZ303U | 660 | 660 | 895 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 0.69 | 1.5 | 245 | 49 |
| 51 | 253 | 308 | 9.5 | 3.1 | PH831_0070K202_0170 EZ401U | 934 | 934 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.2 | 1.5 | 245 | 51 |
| 51 | 374 | 484 | 14 | 2.1 | PH831_0070K202_0170 EZ501U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.2 | 1.5 | 245 | 52 |
| 51 | 385 | 538 | 15 | 2.1 | PH831_0070K202_0170 EZ402U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 1.9 | 1.5 | 245 | 52 |
| 51 | 571 | 857 | 22 | 1.4 | PH831_0070K202_0170 EZ502U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 5.5 | 1.5 | 245 | 53 |
| 51 | 571 | 868 | 22 | 1.4 | PH831_0070K202_0170 EZ701U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 8.8 | 1.5 | 245 | 55 |
| 51 | 637 | 923 | 24 | 1.2 | PH831_0070K202_0170 EZ404U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 3.3 | 1.5 | 245 | 54 |
| 51 | 681 | 1165 | 26 | 1.2 | PH831_0070K202_0170 EZ503U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 7.9 | 1.5 | 245 | 55 |
| 51 | 791 | 1571 | 30 | 1.0 | PH831_0070K202_0170 EZ702U | 1478 | 1478 | 2917 | 118.0 | 20769/176 | 4000 | 4000 | 6500 | 3.5 | 14 | 1.5 | 245 | 57 |
| 52 | 249 | 304 | 5.9 | 4.4 | PH831_0050K302_0230 EZ401U | 922 | 922 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 1.4 | 2.0 | 245 | 56 |
| 52 | 369 | 477 | 8.7 | 3.0 | PH831_0050K302_0230 EZ501U | 1735 | 1735 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.4 | 2.0 | 245 | 57 |
| 52 | 380 | 531 | 9.0 | 2.9 | PH831_0050K302_0230 EZ402U | 1735 | 1735 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 2.1 | 2.0 | 245 | 57 |
| 52 | 564 | 846 | 13 | 2.0 | PH831_0050K302_0230 EZ502U | 1848 | 1848 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 5.7 | 2.0 | 245 | 58 |
| 52 | 564 | 857 | 13 | 2.0 | PH831_0050K302_0230 EZ701U | 1848 | 1848 | 3646 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 9.0 | 2.0 | 245 | 60 |
| 52 | 629 | 911 | 15 | 1.7 | PH831_0050K302_0230 EZ404U | 1848 | 1848 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 3.5 | 2.0 | 245 | 59 |
| 52 | 672 | 1150 | 16 | 1.6 | PH831_0050K302_0230 EZ503U | 1848 | 1848 | 3358 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 8.1 | 2.0 | 245 | 60 |
| 52 | 781 | 1551 | 18 | 1.4 | PH831_0050K302_0230 EZ702U | 1848 | 1848 | 3646 | 116.5 | 2795/24 | 3800 | 3800 | 6000 | 4.0 | 14 | 2.0 | 245 | 62 |
| **PH941K ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 26 | 2750 | 3084 | 62 | 1.1 | PH941_0060K513_0130 EZ813U | 5000 | 5000 | 10000 | 76.85 | 1537/20 | 2300 | 2300 | 3600 | 4.0 | 112 | 2.0 | 730 | 122 |
| 33 | 2179 | 2444 | 57 | 1.4 | PH941_0060K513_0100 EZ813U | 5000 | 5000 | 10000 | 60.90 | 609/10 | 1900 | 1900 | 3200 | 4.0 | 115 | 2.0 | 730 | 122 |
| 41 | 1746 | 1959 | 54 | 1.7 | PH941_0060K513_0081 EZ813U | 5000 | 5000 | 9720 | 48.80 | 17081/350 | 1900 | 1900 | 3200 | 4.0 | 119 | 2.0 | 730 | 122 |
| 41 | 2587 | 3080 | 80 | 1.2 | PH941_0060K513_0081 EZ815U | 5000 | 5000 | 9720 | 48.80 | 17081/350 | 1900 | 1900 | 3200 | 4.0 | 182 | 2.0 | 730 | 135 |
| 49 | 1453 | 1629 | 43 | 1.9 | PH941_0040K513_0100 EZ813U | 3840 | 3840 | 7500 | 40.60 | 203/5 | 1900 | 1900 | 3200 | 4.5 | 116 | 2.5 | 525 | 122 |
| 49 | 2152 | 2562 | 63 | 1.3 | PH941_0040K513_0100 EZ815U | 3840 | 3840 | 7500 | 40.60 | 203/5 | 1900 | 1900 | 3200 | 4.5 | 179 | 2.5 | 525 | 135 |
| 61 | 1164 | 1306 | 43 | 2.2 | PH941_0040K513_0081 EZ813U | 3840 | 3840 | 6480 | 32.54 | 17081/525 | 1900 | 1900 | 3200 | 4.5 | 120 | 2.5 | 525 | 122 |
| 61 | 1724 | 2053 | 63 | 1.5 | PH941_0040K513_0081 EZ815U | 3840 | 3840 | 6480 | 32.54 | 17081/525 | 1900 | 1900 | 3200 | 4.5 | 183 | 2.5 | 525 | 135 |
| **PH941K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 6.4 | 1837 | 2008 | 12 | 1.6 | PH941_0060K513_0780 EZ501U | 5000 | 5000 | 8724 | 465.6 | 26071/56 | 3400 | 3400 | 5000 | 4.0 | 3.3 | 2.0 | 730 | 91 |
| 7.7 | 1528 | 1670 | 11 | 2.0 | PH941_0060K513_0650 EZ501U | 5000 | 5000 | 7950 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 3.5 | 2.0 | 730 | 91 |
| 7.7 | 2630 | 2843 | 19 | 1.1 | PH941_0060K513_0650 EZ502U | 5000 | 5000 | 7950 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 5.8 | 2.0 | 730 | 93 |
| 7.7 | 2630 | 2950 | 19 | 1.1 | PH941_0060K513_0650 EZ701U | 5000 | 5000 | 10000 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 9.1 | 2.0 | 730 | 95 |
| 10 | 1140 | 1246 | 10 | 2.6 | PH941_0060K513_0480 EZ501U | 4243 | 4243 | 6763 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 3.9 | 2.0 | 730 | 91 |
| 10 | 1962 | 2122 | 17 | 1.5 | PH941_0060K513_0480 EZ502U | 4986 | 4986 | 6763 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 6.2 | 2.0 | 730 | 93 |
| 10 | 1962 | 2201 | 17 | 1.5 | PH941_0060K513_0480 EZ701U | 5000 | 5000 | 10000 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 9.5 | 2.0 | 730 | 95 |
| 10 | 2572 | 2944 | 23 | 1.2 | PH941_0060K513_0480 EZ503U | 4986 | 4986 | 6763 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 8.6 | 2.0 | 730 | 94 |
| 13 | 1570 | 1761 | 16 | 1.9 | PH941_0060K513_0390 EZ701U | 4243 | 4243 | 10000 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 10 | 2.0 | 730 | 95 |
| 13 | 2546 | 3055 | 26 | 1.2 | PH941_0060K513_0390 EZ702U | 5000 | 5000 | 10000 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 15 | 2.0 | 730 | 97 |
| 13 | 2864 | 3395 | 30 | 1.0 | PH941_0060K513_0390 EZ505U | 5000 | 5000 | 10000 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 730 | 97 |
| 15 | 1317 | 1477 | 15 | 2.3 | PH941_0060K513_0320 EZ701U | 3558 | 3558 | 10000 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 10 | 2.0 | 730 | 95 |
| 15 | 2135 | 2562 | 25 | 1.4 | PH941_0060K513_0320 EZ702U | 5000 | 5000 | 10000 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 16 | 2.0 | 730 | 97 |
| 15 | 2402 | 2846 | 28 | 1.2 | PH941_0060K513_0320 EZ505U | 5000 | 5000 | 10000 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 730 | 97 |
| 15 | 2935 | 3700 | 34 | 1.0 | PH941_0060K513_0320 EZ703U | 5000 | 5000 | 10000 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 24 | 2.0 | 730 | 99 |
| 21 | 992 | 1113 | 14 | 3.0 | PH941_0060K513_0240 EZ701U | 2681 | 2681 | 10000 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 11 | 2.0 | 730 | 95 |
| 21 | 1609 | 1931 | 23 | 1.9 | PH941_0060K513_0240 EZ702U | 5000 | 5000 | 10000 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 17 | 2.0 | 730 | 97 |
| 21 | 1810 | 2145 | 26 | 1.7 | PH941_0060K513_0240 EZ505U | 5000 | 5000 | 10000 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 15 | 2.0 | 730 | 97 |
| 21 | 2212 | 2789 | 32 | 1.4 | PH941_0060K513_0240 EZ703U | 5000 | 5000 | 10000 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 25 | 2.0 | 730 | 99 |
| 21 | 2856 | 4049 | 41 | 1.1 | PH941_0060K513_0240 EZ705U | 5000 | 5000 | 10000 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 37 | 2.0 | 730 | 105 |
| 26 | 789 | 885 | 13 | 3.8 | PH941_0060K513_0195 EZ701U | 2131 | 2131 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 13 | 2.0 | 730 | 95 |
| 26 | 1279 | 1535 | 21 | 2.3 | PH941_0060K513_0195 EZ702U | 4369 | 4369 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 18 | 2.0 | 730 | 97 |
| 26 | 1439 | 1705 | 24 | 2.1 | PH941_0060K513_0195 EZ505U | 5000 | 5000 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 16 | 2.0 | 730 | 97 |
| 26 | 1758 | 2217 | 29 | 1.7 | PH941_0060K513_0195 EZ703U | 5000 | 5000 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 26 | 2.0 | 730 | 99 |
| 26 | 2270 | 3218 | 38 | 1.3 | PH941_0060K513_0195 EZ705U | 5000 | 5000 | 10000 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 38 | 2.0 | 730 | 105 |
| 31 | 656 | 736 | 13 | 4.6 | PH941_0060K513_0160 EZ701U | 1772 | 1772 | 7209 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 14 | 2.0 | 730 | 95 |
| 31 | 1063 | 1276 | 20 | 2.8 | PH941_0060K513_0160 EZ702U | 3633 | 3633 | 7209 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 19 | 2.0 | 730 | 97 |
| 31 | 1196 | 1418 | 23 | 2.5 | PH941_0060K513_0160 EZ505U | 5000 | 5000 | 7209 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 18 | 2.0 | 730 | 97 |
| 31 | 1462 | 1843 | 28 | 2.1 | PH941_0060K513_0160 EZ703U | 5000 | 5000 | 7209 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 27 | 2.0 | 730 | 99 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/ arcmin] | [kg] |
| **PH941K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 31 | 1888 | 2676 | 36 | 1.6 | PH941_0060K513_0160 EZ705U | 5000 | 5000 | 10000 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 39 | 2.0 | 730 | 105 |
| 39 | 1502 | 2130 | 34 | 2.0 | PH941_0060K513_0130 EZ705U | 5000 | 5000 | 10000 | 76.85 | 1537/20 | 2300 | 2300 | 3600 | 4.0 | 42 | 2.0 | 730 | 105 |
| 49 | 1190 | 1688 | 31 | 2.5 | PH941_0060K513_0100 EZ705U | 5000 | 5000 | 10000 | 60.90 | 609/10 | 1900 | 1900 | 3200 | 4.0 | 45 | 2.0 | 730 | 105 |
| 61 | 954 | 1353 | 29 | 3.1 | PH941_0060K513_0081 EZ705U | 4658 | 4658 | 9720 | 48.80 | 17081/350 | 1900 | 1900 | 3200 | 4.0 | 49 | 2.0 | 730 | 105 |
| 74 | 794 | 1125 | 27 | 3.0 | PH941_0040K513_0100 EZ705U | 3840 | 3840 | 7500 | 40.60 | 203/5 | 1900 | 1900 | 3200 | 4.5 | 45 | 2.5 | 525 | 105 |
| 92 | 636 | 902 | 27 | 3.4 | PH941_0040K513_0081 EZ705U | 3105 | 3105 | 6480 | 32.54 | 17081/525 | 1900 | 1900 | 3200 | 4.5 | 50 | 2.5 | 525 | 105 |
| **PH941K ($n_{1N}$ = 4000 min⁻¹, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 34 | 2686 | 4657 | 45 | 1.1 | PH941_0060K513_0195 EZ813U | 5000 | 5000 | 10000 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 109 | 2.0 | 730 | 122 |
| 34 | 2783 | 7155 | 47 | 1.1 | PH941_0060K513_0195 EZ815U | 5000 | 5000 | 10000 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 172 | 2.0 | 730 | 135 |
| **PH941K ($n_{1N}$ = 4500 min⁻¹, $M_{2acc,max}$ = 5000 Nm)** | | | | | | | | | | | | | | | | | | |
| 16 | 2519 | 4058 | 22 | 1.2 | PH941_0060K513_0480 EZ505U | 5000 | 5000 | 10000 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 13 | 2.0 | 730 | 97 |
| 19 | 2016 | 3246 | 21 | 1.5 | PH941_0060K513_0390 EZ505U | 5000 | 5000 | 10000 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 730 | 97 |
| 19 | 2567 | 4243 | 27 | 1.2 | PH941_0060K513_0390 EZ703U | 5000 | 5000 | 10000 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 23 | 2.0 | 730 | 99 |
| 23 | 1690 | 2722 | 20 | 1.8 | PH941_0060K513_0320 EZ505U | 5000 | 5000 | 10000 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 730 | 97 |
| 23 | 2153 | 3558 | 25 | 1.4 | PH941_0060K513_0320 EZ703U | 5000 | 5000 | 10000 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 24 | 2.0 | 730 | 99 |
| 23 | 2918 | 5337 | 34 | 1.0 | PH941_0060K513_0320 EZ705U | 5000 | 5000 | 10000 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 36 | 2.0 | 730 | 105 |
| **PH1041K ($n_{1N}$ = 2000 min⁻¹, $M_{2acc,max}$ = 7500 Nm)** | | | | | | | | | | | | | | | | | | |
| 18 | 4078 | 4574 | 46 | 1.2 | PH1041_0060K613_0190 EZ813U | 7500 | – | 15000 | 114.0 | 51057/448 | 2600 | 2600 | 4000 | 4.0 | 112 | – | 1210 | 167 |
| 21 | 3407 | 3821 | 43 | 1.5 | PH1041_0060K613_0160 EZ813U | 7500 | – | 15000 | 95.21 | 54839/576 | 2200 | 2200 | 3500 | 4.0 | 115 | – | 1210 | 167 |
| 26 | 2711 | 3041 | 40 | 1.8 | PH1041_0060K613_0125 EZ813U | 7500 | – | 15000 | 75.77 | 9699/128 | 2200 | 2200 | 3500 | 4.0 | 119 | – | 1210 | 167 |
| 26 | 4016 | 4782 | 60 | 1.2 | PH1041_0060K613_0125 EZ815U | 7500 | – | 15000 | 75.77 | 9699/128 | 2200 | 2200 | 3500 | 4.0 | 182 | – | 1210 | 179 |
| 41 | 1741 | 1952 | 36 | 2.9 | PH1041_0060K613_0081 EZ813U | 6250 | – | 15000 | 48.64 | 255285/5248 | 1800 | 1800 | 3000 | 4.0 | 132 | – | 1210 | 167 |
| 41 | 2578 | 3070 | 53 | 1.9 | PH1041_0060K613_0081 EZ815U | 7500 | – | 15000 | 48.64 | 255285/5248 | 1800 | 1800 | 3000 | 4.0 | 195 | – | 1210 | 179 |
| **PH1041K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 7500 Nm)** | | | | | | | | | | | | | | | | | | |
| 6.6 | 1803 | 1971 | 7.6 | 2.8 | PH1041_0060K613_0760 EZ501U | 6708 | – | 9379 | 456.8 | 380091/832 | 3100 | 3100 | 4500 | 4.0 | 3.7 | – | 1210 | 136 |
| 6.6 | 3103 | 3354 | 13 | 1.6 | PH1041_0060K613_0760 EZ502U | 6915 | – | 9379 | 456.8 | 380091/832 | 3100 | 3100 | 4500 | 4.0 | 6.0 | – | 1210 | 137 |
| 6.6 | 3103 | 3480 | 13 | 1.6 | PH1041_0060K613_0760 EZ701U | 7500 | – | 15000 | 456.8 | 380091/832 | 3100 | 3100 | 4500 | 4.0 | 9.3 | – | 1210 | 139 |
| 6.6 | 4067 | 4654 | 17 | 1.2 | PH1041_0060K613_0760 EZ503U | 6915 | – | 9379 | 456.8 | 380091/832 | 3100 | 3100 | 4500 | 4.0 | 8.4 | – | 1210 | 139 |
| 7.8 | 2596 | 2912 | 12 | 1.9 | PH1041_0060K613_0640 EZ701U | 7016 | – | 15000 | 382.3 | 391437/1024 | 3100 | 3100 | 4500 | 4.0 | 9.6 | – | 1210 | 139 |
| 7.8 | 4210 | 5052 | 20 | 1.2 | PH1041_0060K613_0640 EZ702U | 7500 | – | 15000 | 382.3 | 391437/1024 | 3100 | 3100 | 4500 | 4.0 | 15 | – | 1210 | 142 |
| 7.8 | 4736 | 5613 | 23 | 1.1 | PH1041_0060K613_0640 EZ505U | 7500 | – | 15000 | 382.3 | 391437/1024 | 3100 | 3100 | 4500 | 4.0 | 13 | – | 1210 | 142 |
| 10 | 1945 | 2181 | 11 | 2.6 | PH1041_0060K613_0480 EZ701U | 5257 | – | 14337 | 286.4 | 119133/416 | 3100 | 3100 | 4500 | 4.0 | 10 | – | 1210 | 139 |
| 10 | 3154 | 3785 | 19 | 1.6 | PH1041_0060K613_0480 EZ702U | 7500 | – | 14337 | 286.4 | 119133/416 | 3100 | 3100 | 4500 | 4.0 | 16 | – | 1210 | 142 |
| 10 | 3548 | 4205 | 21 | 1.4 | PH1041_0060K613_0480 EZ505U | 7500 | – | 14337 | 286.4 | 119133/416 | 3100 | 3100 | 4500 | 4.0 | 14 | – | 1210 | 142 |
| 10 | 4337 | 5467 | 25 | 1.2 | PH1041_0060K613_0480 EZ703U | 7500 | – | 14337 | 286.4 | 119133/416 | 3100 | 3100 | 4500 | 4.0 | 23 | – | 1210 | 144 |
| 13 | 1561 | 1751 | 11 | 3.2 | PH1041_0060K613_0380 EZ701U | 4220 | – | 13589 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 11 | – | 1210 | 139 |
| 13 | 2532 | 3038 | 17 | 2.0 | PH1041_0060K613_0380 EZ702U | 7500 | – | 13589 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 16 | – | 1210 | 142 |
| 13 | 2849 | 3376 | 20 | 1.8 | PH1041_0060K613_0380 EZ505U | 7500 | – | 13589 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 15 | – | 1210 | 142 |
| 13 | 3482 | 4389 | 24 | 1.4 | PH1041_0060K613_0380 EZ703U | 7500 | – | 13589 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 24 | – | 1210 | 144 |
| 13 | 4494 | 6372 | 31 | 1.1 | PH1041_0060K613_0380 EZ705U | 7500 | – | 15000 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 37 | – | 1210 | 149 |
| 16 | 1298 | 1456 | 10 | 3.9 | PH1041_0060K613_0320 EZ701U | 3508 | – | 12521 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 12 | – | 1210 | 139 |
| 16 | 2105 | 2526 | 16 | 2.4 | PH1041_0060K613_0320 EZ702U | 7192 | – | 12521 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 17 | – | 1210 | 142 |
| 16 | 2368 | 2807 | 18 | 2.1 | PH1041_0060K613_0320 EZ505U | 7500 | – | 12521 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 16 | – | 1210 | 142 |
| 16 | 2894 | 3649 | 23 | 1.7 | PH1041_0060K613_0320 EZ703U | 7500 | – | 12521 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 25 | – | 1210 | 144 |
| 16 | 3736 | 5297 | 29 | 1.3 | PH1041_0060K613_0320 EZ705U | 7500 | – | 15000 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 38 | – | 1210 | 149 |
| 21 | 2816 | 3992 | 27 | 1.8 | PH1041_0060K613_0240 EZ705U | 7500 | – | 15000 | 144.0 | 73749/512 | 2600 | 2600 | 4000 | 4.0 | 40 | – | 1210 | 149 |
| 26 | 1255 | 1506 | 14 | 4.0 | PH1041_0060K613_0190 EZ702U | 4288 | – | 8508 | 114.0 | 51057/448 | 2600 | 2600 | 4000 | 4.0 | 22 | – | 1210 | 142 |
| 26 | 1412 | 1673 | 16 | 3.5 | PH1041_0060K613_0190 EZ505U | 6273 | – | 8508 | 114.0 | 51057/448 | 2600 | 2600 | 4000 | 4.0 | 20 | – | 1210 | 142 |
| 26 | 1726 | 2176 | 19 | 2.9 | PH1041_0060K613_0190 EZ703U | 6273 | – | 8508 | 114.0 | 51057/448 | 2600 | 2600 | 4000 | 4.0 | 29 | – | 1210 | 144 |
| 26 | 2228 | 3159 | 25 | 2.2 | PH1041_0060K613_0190 EZ705U | 7500 | – | 15000 | 114.0 | 51057/448 | 2600 | 2600 | 4000 | 4.0 | 42 | – | 1210 | 149 |
| 32 | 1861 | 2639 | 24 | 2.7 | PH1041_0060K613_0160 EZ705U | 7500 | – | 15000 | 95.21 | 54839/576 | 2200 | 2200 | 3500 | 4.0 | 44 | – | 1210 | 149 |
| 40 | 1481 | 2100 | 22 | 3.4 | PH1041_0060K613_0125 EZ705U | 7232 | – | 15000 | 75.77 | 9699/128 | 2200 | 2200 | 3500 | 4.0 | 48 | – | 1210 | 149 |
| 62 | 951 | 1348 | 22 | 4.6 | PH1041_0060K613_0081 EZ705U | 4643 | – | 9689 | 48.64 | 255285/5248 | 1800 | 1800 | 3000 | 4.0 | 62 | – | 1210 | 149 |
| **PH1041K ($n_{1N}$ = 4000 min⁻¹, $M_{2acc,max}$ = 7500 Nm)** | | | | | | | | | | | | | | | | | | |
| 21 | 4420 | 7665 | 34 | 1.1 | PH1041_0060K613_0320 EZ813U | 7500 | – | 15000 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 108 | – | 1210 | 167 |
| 21 | 4580 | 11777 | 36 | 1.1 | PH1041_0060K613_0320 EZ815U | 7500 | – | 15000 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 171 | – | 1210 | 179 |
| 28 | 3331 | 5777 | 32 | 1.5 | PH1041_0060K613_0240 EZ813U | 7500 | – | 15000 | 144.0 | 73749/512 | 2600 | 2600 | 4000 | 4.0 | 110 | – | 1210 | 167 |
| 28 | 3452 | 8876 | 33 | 1.4 | PH1041_0060K613_0240 EZ815U | 7500 | – | 15000 | 144.0 | 73749/512 | 2600 | 2600 | 4000 | 4.0 | 173 | – | 1210 | 179 |
| 35 | 2636 | 4571 | 30 | 1.9 | PH1041_0060K613_0190 EZ813U | 7500 | – | 15000 | 114.0 | 51057/448 | 2600 | 2600 | 4000 | 4.0 | 112 | – | 1210 | 167 |
| 35 | 2731 | 7022 | 31 | 1.8 | PH1041_0060K613_0190 EZ815U | 7500 | – | 15000 | 114.0 | 51057/448 | 2600 | 2600 | 4000 | 4.0 | 175 | – | 1210 | 179 |
| **PH1041K ($n_{1N}$ = 4500 min⁻¹, $M_{2acc,max}$ = 7500 Nm)** | | | | | | | | | | | | | | | | | | |
| 9.9 | 3983 | 6415 | 17 | 1.3 | PH1041_0060K613_0760 EZ505U | 7500 | – | 15000 | 456.8 | 380091/832 | 3100 | 3100 | 4500 | 4.0 | 13 | – | 1210 | 142 |
| 12 | 3333 | 5368 | 16 | 1.5 | PH1041_0060K613_0640 EZ505U | 7500 | – | 15000 | 382.3 | 391437/1024 | 3100 | 3100 | 4500 | 4.0 | 13 | – | 1210 | 142 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| **PH1041K ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 7500 Nm)** | | | | | | | | | | | | | | | | | | |
| 12 | 4245 | 7016 | 20 | 1.2 | PH1041_0060K613_0640 EZ703U | 7500 | – | 15000 | 382.3 | 391437/1024 | 3100 | 3100 | 4500 | 4.0 | 23 | – | 1210 | 144 |
| 16 | 2497 | 4021 | 15 | 2.0 | PH1041_0060K613_0480 EZ505U | 7500 | – | 14337 | 286.4 | 119133/416 | 3100 | 3100 | 4500 | 4.0 | 14 | – | 1210 | 142 |
| 16 | 3180 | 5257 | 19 | 1.6 | PH1041_0060K613_0480 EZ703U | 7500 | – | 14337 | 286.4 | 119133/416 | 3100 | 3100 | 4500 | 4.0 | 23 | – | 1210 | 144 |
| 20 | 2005 | 3228 | 14 | 2.5 | PH1041_0060K613_0380 EZ505U | 7500 | – | 13589 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 15 | – | 1210 | 142 |
| 20 | 2553 | 4220 | 18 | 2.0 | PH1041_0060K613_0380 EZ703U | 7500 | – | 13589 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 24 | – | 1210 | 144 |
| 20 | 3460 | 6330 | 24 | 1.4 | PH1041_0060K613_0380 EZ705U | 7500 | – | 15000 | 229.9 | 470859/2048 | 3100 | 3100 | 4500 | 4.0 | 37 | – | 1210 | 149 |
| 24 | 1666 | 2684 | 13 | 3.0 | PH1041_0060K613_0320 EZ505U | 7500 | – | 12521 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 16 | – | 1210 | 142 |
| 24 | 2122 | 3508 | 17 | 2.4 | PH1041_0060K613_0320 EZ703U | 7500 | – | 12521 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 25 | – | 1210 | 144 |
| 24 | 2877 | 5262 | 22 | 1.7 | PH1041_0060K613_0320 EZ705U | 7500 | – | 15000 | 191.1 | 391437/2048 | 3100 | 3100 | 4500 | 4.0 | 38 | – | 1210 | 149 |

## 13.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

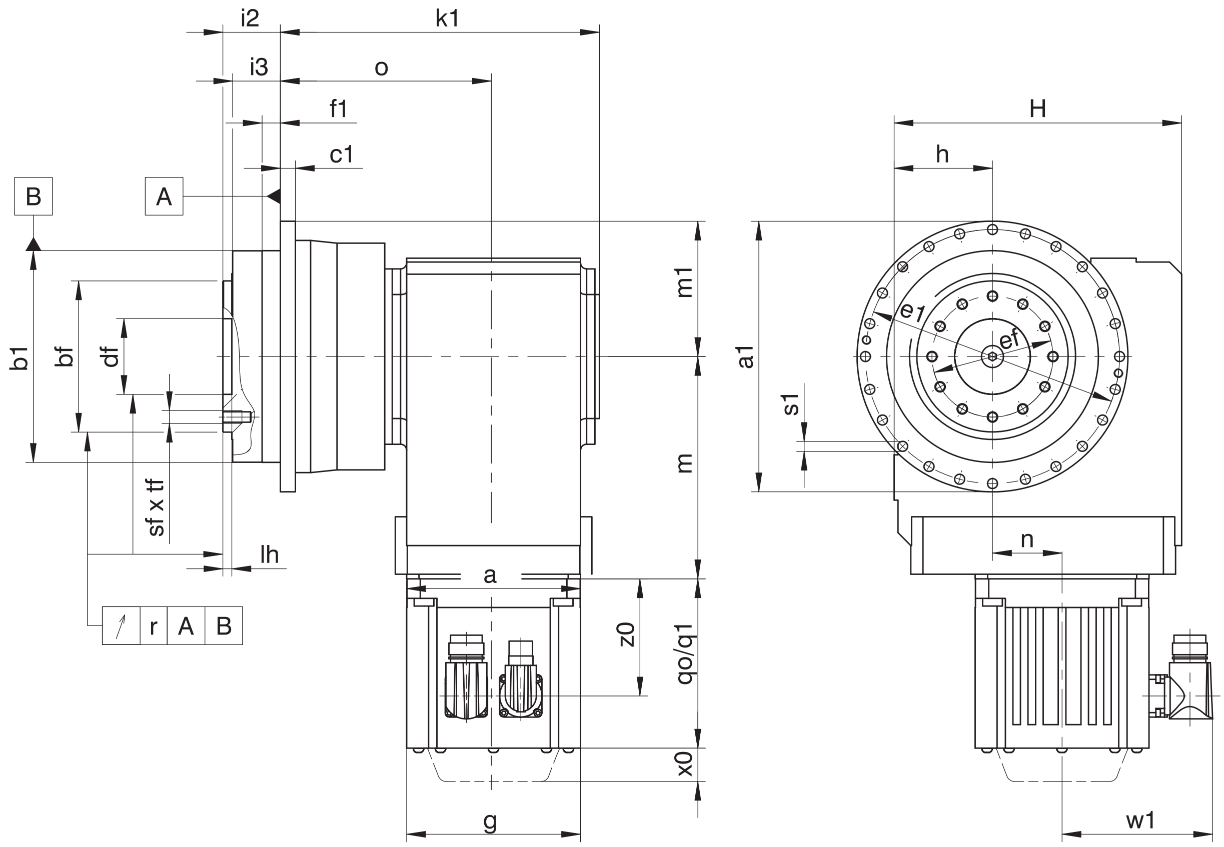
Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

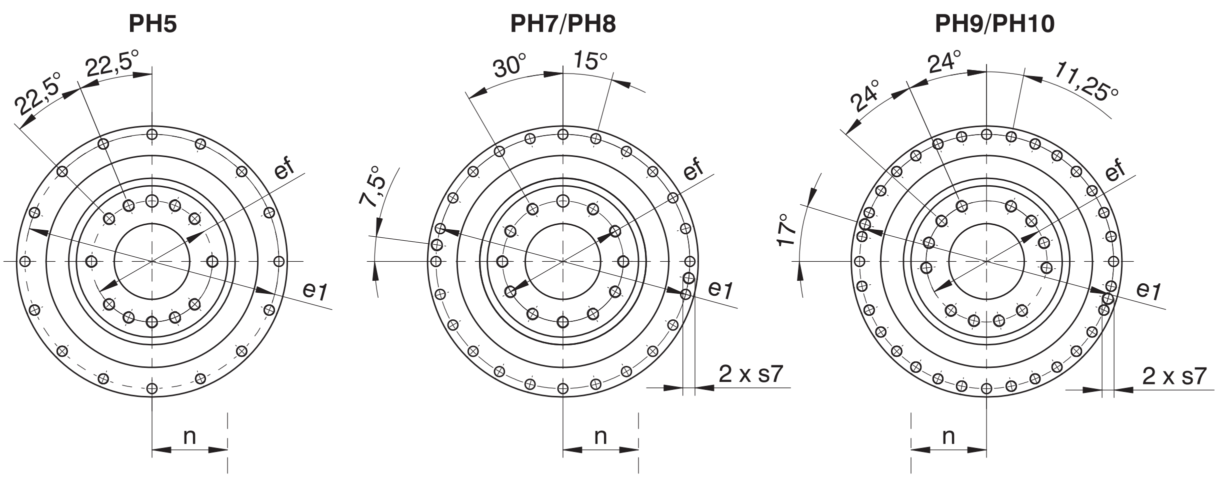
We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

## 13.3.1 F shaft design (flange shaft)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b1 | ∅bf | c1 | ∅df | ∅e1 | ∅ef | f1 | h | H | i2 | i3 | k1 | lh | m1 | o | r | ∅s1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH531_K102_ | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40^{H6}$ | 135 | 63 | 12 | 60 | 160 | 29 | 23 | 180.0 | 6 | 72.5 | 124.0 | 0.020 | 5.5 | – | M6 | 11 |
| PH731_K102_ | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50^{H6}$ | 168 | 80 | 12 | 60 | 160 | 38 | 32 | 183.0 | 6 | 89.5 | 127.0 | 0.025 | 6.6 | – | M8 | 14 |
| PH731_K202_ | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50^{H6}$ | 168 | 80 | 12 | 65 | 190 | 38 | 32 | 211.0 | 6 | 89.5 | 141.0 | 0.025 | 6.6 | – | M8 | 14 |
| PH831_K202_ | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80^{H6}$ | 233 | 125 | 15 | 65 | 190 | 50 | 42 | 246.0 | 8 | 123.5 | 176.0 | 0.030 | 9.0 | M10 | M10 | 18 |
| PH831_K302_ | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80^{H6}$ | 233 | 125 | 15 | 75 | 213 | 50 | 42 | 259.5 | 8 | 123.5 | 183.5 | 0.030 | 9.0 | M10 | M10 | 18 |
| PH941_K513_ | 300 | $255_{h7}$ | $180_{h7}$ | 18 | $90^{H6}$ | 280 | 140 | 20 | 160 | 260 | 66 | 55 | 292.5 | 12 | 150.0 | 196.5 | 0.030 | 13.5 | M8 | M16 | 24 |
| PH1041_K613_ | 330 | $285_{h7}$ | $200_{h7}$ | 20 | $95^{H6}$ | 310 | 160 | 20 | 190 | 310 | 75 | 60 | 318.5 | 10 | 165.0 | 215.0 | 0.040 | 13.5 | M10 | M20 | 28 |

### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| PH531_K102_ | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| PH731_K102_ | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| PH731_K202_ | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| PH831_K202_ | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| PH831_K302_ | – | – | – | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| PH941_K513_ | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| PH1041_K613_ | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |

# 13.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| PH | 7 | 3 | 1 | S | F | S | S | 0100 | K102VF | 0115 | EZ302U |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **PH** | Type | Planetary gearbox |
| **7** | Size | 7 (example) |
| **3** | Generation | Generation 3 |
| 4 | | Generation 4 |
| **1** | Stages | Single-stage |
| **S** | Housing | Standard |
| **F** | Shaft | Flange shaft |
| **S** | Bearing | Standard bearing |
| V | | Reinforced bearing (PH3 – PH5) |
| **S** | Backlash | Standard |
| R | | Reduced (PH3 – PH9) |
| **0100** | Transmission ratio of output (i x 10) | i = 10 (example) |
| **K102VF** | Input | K1 right-angle geared motor (example) |
| **0115** | Transmission ratio of input (i x 10 rounded) | i = 11.57 (example) |
| **EZ302U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- For a detailed type designation of the motor, see the chapter [▹ 17.5]
- For the mounting position, see the chapter [▹ 13.5.3]
- Output gearbox side 3 or 4, see the chapter [▹ 13.5.3]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▹ 13.6.3]
- Position of the plug connectors, see the chapter [▹ 13.5.5]
- Reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▹ 13.6.4]

To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▹ 17.5.1].

# 13.5 Product description

## 13.5.1 Input options

EZ synchronous servo motor

Catalog ID 442437_en

MB motor adapter +
EZ synchronous servo motor

Catalog ID 443311_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 13.5.2 Installation conditions

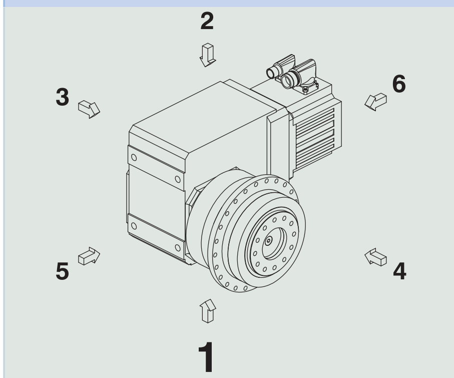
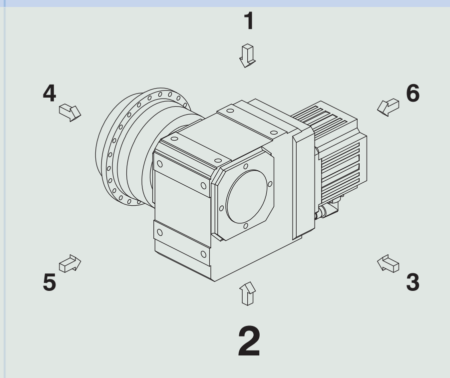
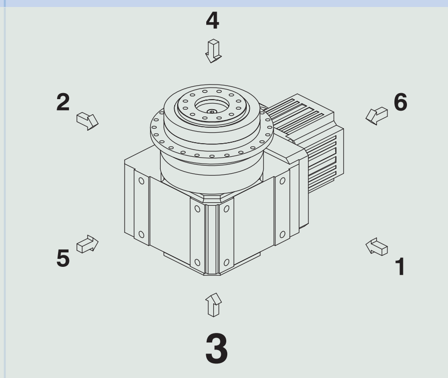
The torque and force values listed in this catalog are valid under the following conditions:

- When the flange shaft and gear housing are fastened on the machine side using screws of strength class 12.9
- When the gear housings are adjusted at pilot øb1. The machine-side fit must be H7.
- When the flange shaft is adjusted using the connecting element at pilot øbf or ødf

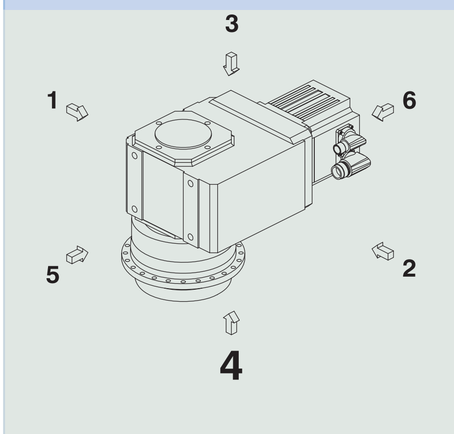
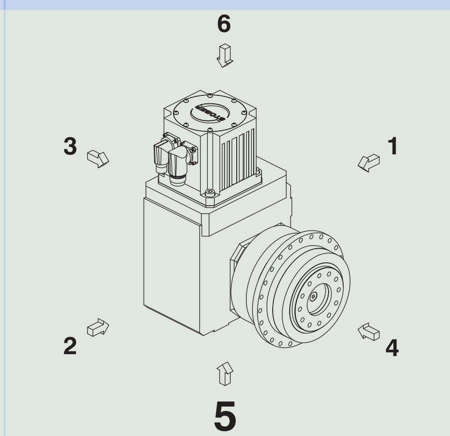
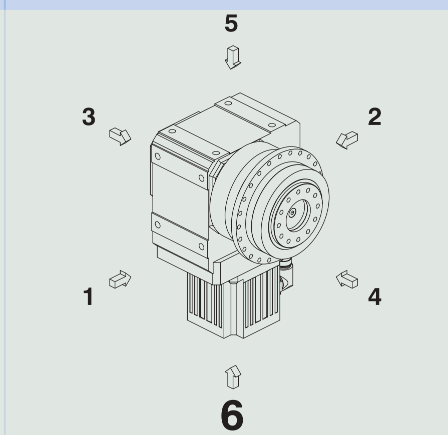
## 13.5.3 Mounting positions

The following table shows the standard mounting positions.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

| EL1 | EL2 | EL3 |
|---|---|---|
|  |  |  |



| EL4 | EL5 | EL6 |
|---|---|---|
|  |  |  |



Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

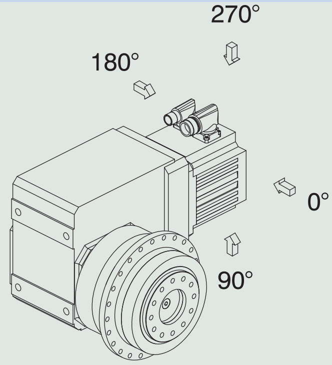
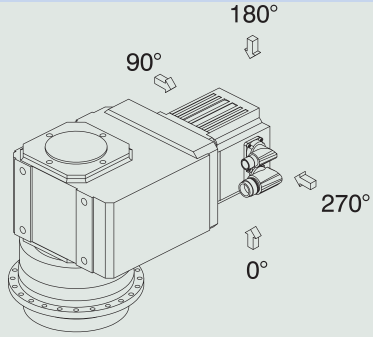
## 13.5.4 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 13.5.5 Position of the plug connectors

| Mounting position EL1<br>Plug connector in 270° position (standard) | Mounting position EL4<br>Plug connector in 270° position (standard) |
|---|---|
|  |  |





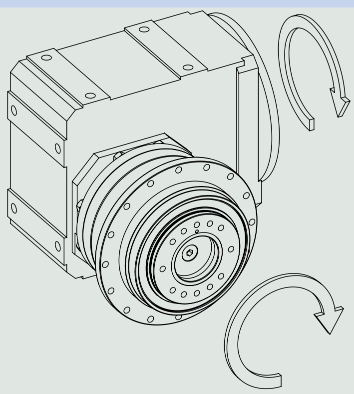
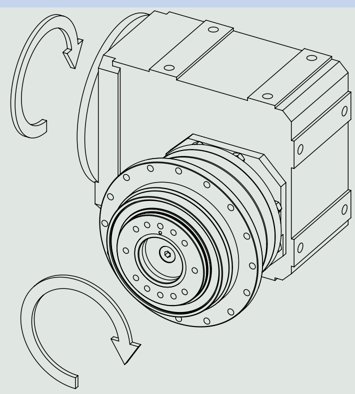
Indicate variations for your geared motor in the order.

Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

## 13.5.6 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ three-stage | 93% |
| $\eta_{get}$ four-stage | 92% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 13.5.7 Direction of rotation

| Output side 4 | Output side 3 |
|---|---|
|  |  |

The pictures show mounting position EL1.

[1] Observe the protection class of all the components.

## 13.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

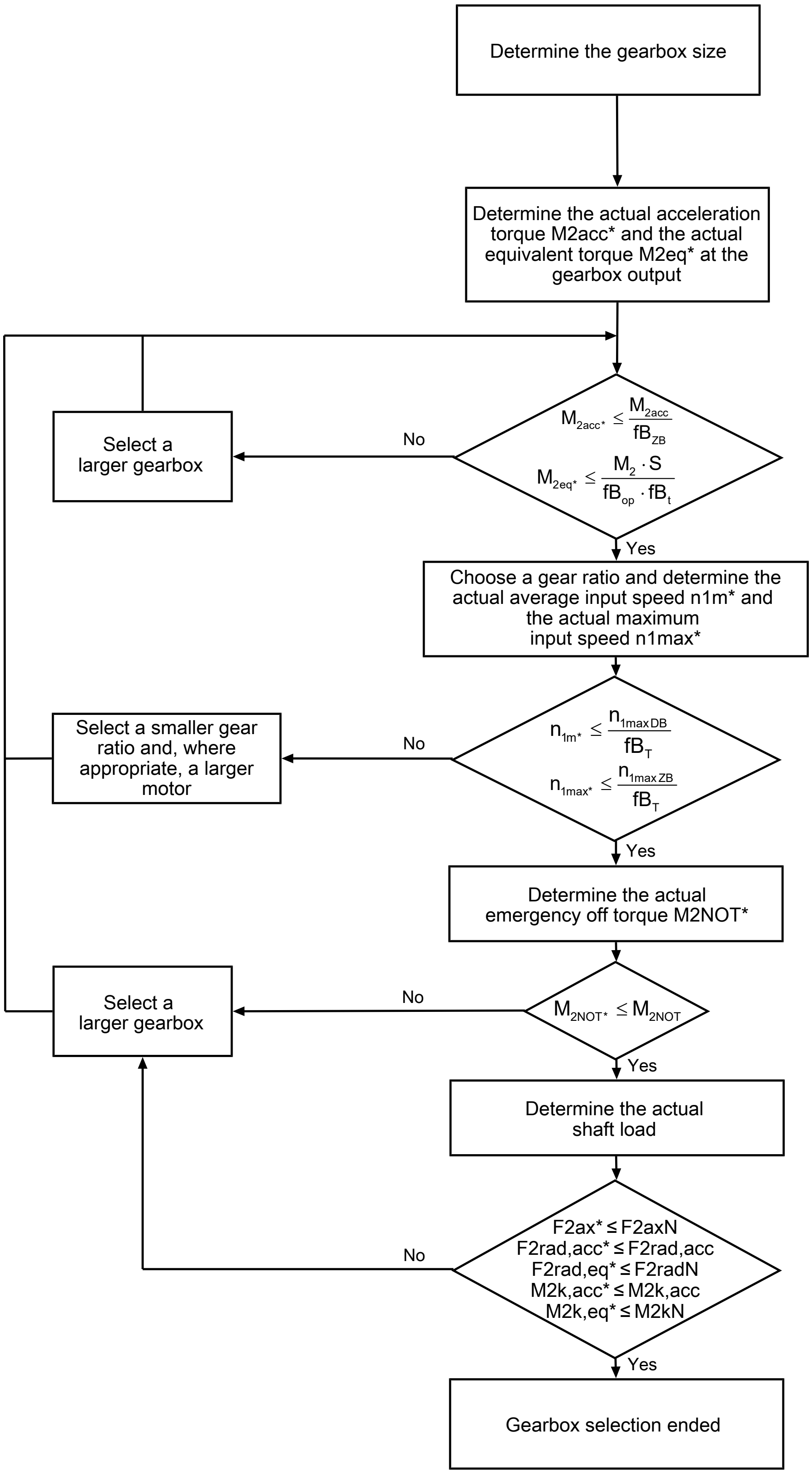
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 13.6.1 Drive selection

**Drive selection for gearboxes**

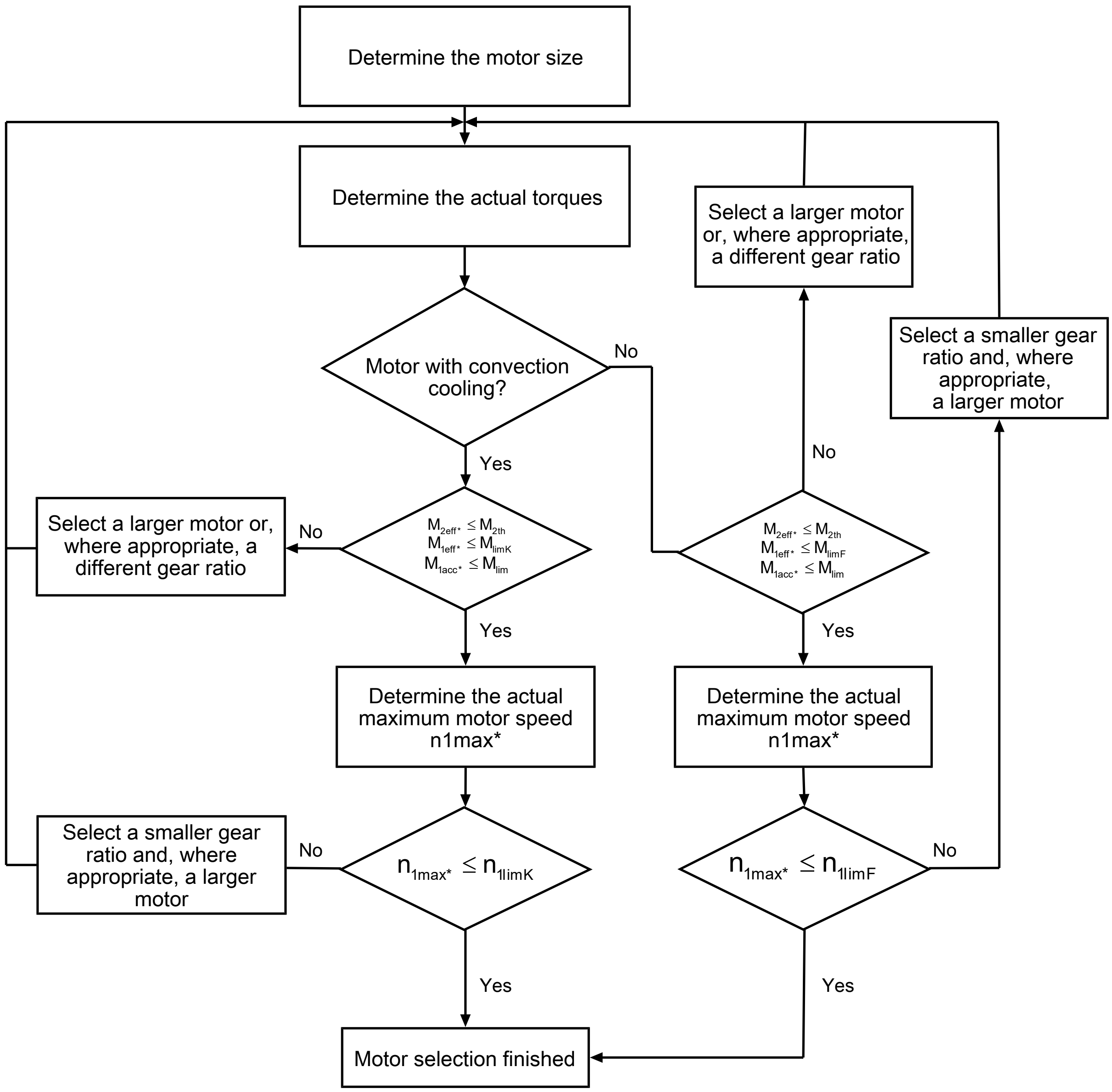



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

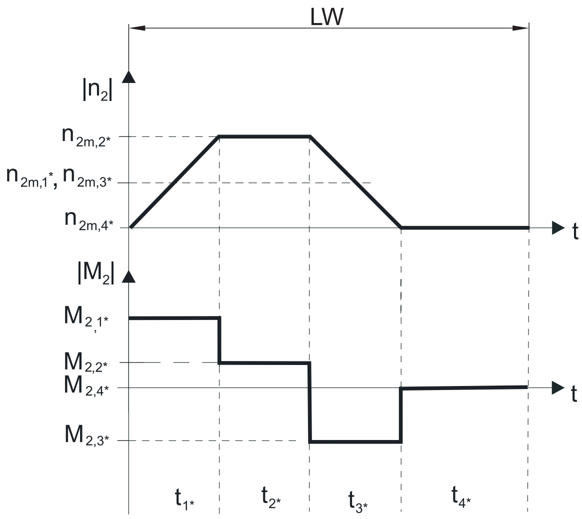
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▹ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9,55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9,55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*}$ + ... + $t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}^2 + \ldots + t_{n*} \cdot M_{2,n*}^2}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2,1*}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2,n*}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

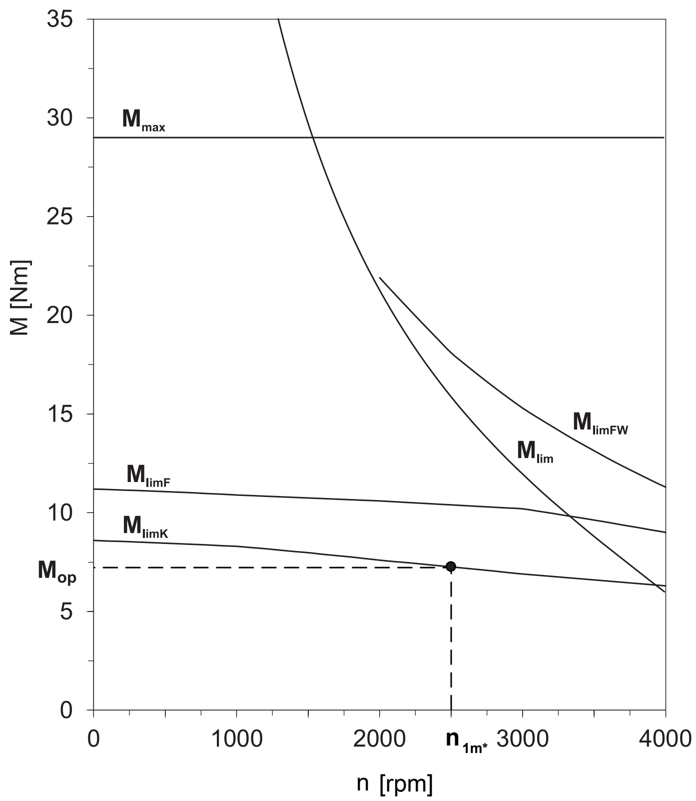
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0,93 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^2$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▹ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




### Operating factors

#### Parameter $a_{thEL}$

| Mounting position | $a_{thEL}$ |
|---|---|
| EL1, 2 | 1.0 |
| EL3, 4, 5, 6 | 1.1 |

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 13.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m^*}$ ≤ 100 rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/arcmin] |
|---|---|---|---|---|---|---|---|
| PH3 | 62.5 | 1650 | 1613 | 1613 | 101 | 101 | 75 |
| PH4 | 83.0 | 2150 | 3095 | 3571 | 257 | 296 | 192 |
| PH5 | 97.0 | 4150 | 4536 | 4897 | 440 | 475 | 429 |
| PH7 | 86.0 | 6150 | 17045 | 17045 | 1466 | 1466 | 500 |
| PH8 | 125.5 | 10050 | 27778 | 27778 | 3486 | 3486 | 1550 |
| PH9 | 155.0 | 33000 | 48387 | 70968 | 7500 | 11000 | 7500 |
| PH10 | 171.0 | 50000 | 51462 | 73099 | 8800 | 12500 | 9500 |

**Permitted shaft loads for reinforced bearing V**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/arcmin] |
|---|---|---|---|---|---|---|---|
| PH3 | 66.5 | 2200 | 2250 | 2250 | 150 | 150 | 80 |
| PH4 | 88.5 | 2900 | 4000 | 4000 | 354 | 354 | 217 |
| PH5 | 104.0 | 5000 | 5500 | 5500 | 572 | 572 | 478 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m^*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

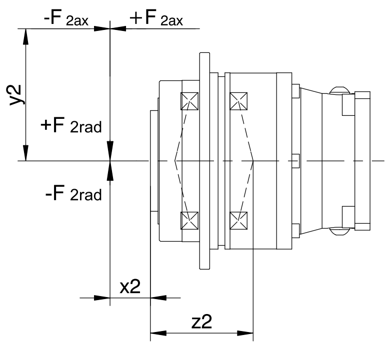



*Fig. 1:* Force application points

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc^*} = \frac{2 \cdot F_{2ax^*} \cdot y_2 + F_{2rad,acc^*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2k,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2k,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |F_{2rad,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |F_{2rad,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10} \leq 40\%$):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k^*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k^*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k^*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 13.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

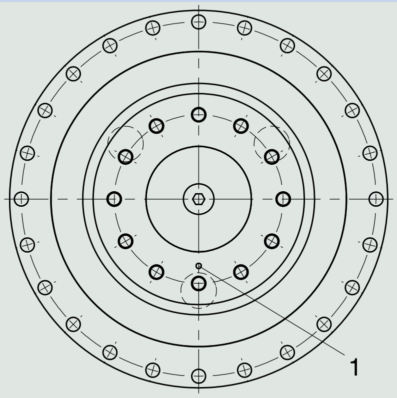
### 13.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below.

The images show the center position of reverse operation.

Cyclic reverse operation ≤ ± 20° on request.

**Size 3 – 10**




1 Position of the mark: bottom

Please note that the hole pattern may be different, depending on the size of the planetary gearbox.

## 13.7 Additional documentation

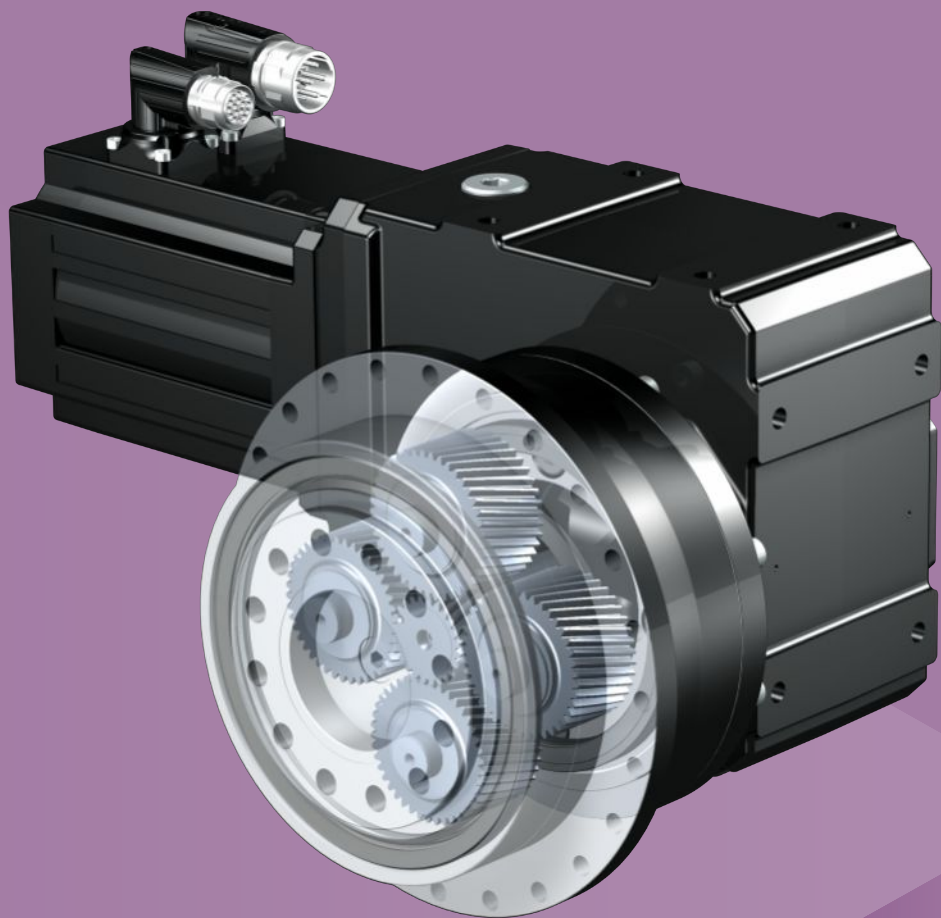
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors PH53K – PH83K, PH94K – PH104K | 443358_en |

# 14 PHQK right-angle planetary geared motors

## Table of contents



14

# Right-angle planetary geared motors

# PHQK

## 14.1 Overview

Quattro-Power precision right-angle planetary geared motors

**Features**

| | |
|---|---|
| Power density | ★★★★★ |
| Backlash | ★★★★★ |
| Price category | €€€€€ |
| Shaft load | ★★★★★ |
| Smooth operation | ★★★☆☆ |
| Torsional stiffness | ★★★★★ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| High power density | ✓ |
| Continuous operation without cooling | ✓ |
| Stiff output bearings due to pretension | ✓ |
| Reinforced output bearing (PHQ4 – PHQ5) | ✓ (optional) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 22 – 2242 |
| $M_{2acc}$ | 123 – 43000 Nm |
| $\Delta\phi_2$ | 1.5 – 4 arcmin |
| $\eta_{get}$ | 90 – 93 % |

# 14.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [ 20.1].

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arcmin] | [kgcm²] | [arcmin] | [Nm/arcmin] | [kg] |
| **PHQ531K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 550 Nm)** | | | | | | | | | | | | | | | | | | |
| 9.7 | 267 | 273 | 10 | 1.0 | PHQ531_0055K102_0560 EZ301U | 542 | 542 | 948 | 308.5 | 6479/21 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 70 | 17 |
| 11 | 240 | 245 | 11 | 1.1 | PHQ531_0055K102_0500 EZ301U | 316 | 316 | 572 | 276.7 | 55341/200 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 70 | 17 |
| 12 | 223 | 228 | 10 | 1.3 | PHQ531_0055K102_0470 EZ301U | 550 | 550 | 948 | 258.0 | 25289/98 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 70 | 17 |
| 14 | 192 | 196 | 9.6 | 1.5 | PHQ531_0055K102_0400 EZ301U | 389 | 389 | 704 | 221.7 | 4433/20 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 70 | 17 |
| 16 | 167 | 171 | 9.3 | 1.7 | PHQ531_0055K102_0350 EZ301U | 503 | 503 | 948 | 193.1 | 20273/105 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 70 | 17 |
| 16 | 161 | 164 | 9.2 | 1.7 | PHQ531_0055K102_0340 EZ301U | 462 | 462 | 836 | 185.4 | 51909/280 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 70 | 17 |
| 16 | 274 | 290 | 16 | 1.0 | PHQ531_0055K102_0340 EZ302U | 462 | 462 | 836 | 185.4 | 51909/280 | 4000 | 4000 | 7000 | 4.0 | 0.32 | 2.0 | 70 | 18 |
| 19 | 134 | 136 | 8.8 | 2.1 | PHQ531_0055K102_0280 EZ301U | 402 | 402 | 948 | 154.3 | 6479/42 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 70 | 17 |
| 19 | 228 | 241 | 15 | 1.2 | PHQ531_0055K102_0280 EZ302U | 550 | 550 | 948 | 154.3 | 6479/42 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 70 | 18 |
| 22 | 120 | 123 | 8.6 | 2.3 | PHQ531_0055K102_0250 EZ301U | 362 | 362 | 806 | 138.7 | 13871/100 | 4000 | 4000 | 7000 | 4.0 | 0.24 | 2.0 | 70 | 17 |
| 22 | 205 | 217 | 15 | 1.4 | PHQ531_0055K102_0250 EZ302U | 550 | 550 | 806 | 138.7 | 13871/100 | 4000 | 4000 | 7000 | 4.0 | 0.34 | 2.0 | 70 | 18 |
| 22 | 267 | 283 | 19 | 1.0 | PHQ531_0055K102_0250 EZ303U | 550 | 550 | 806 | 138.7 | 13871/100 | 4000 | 4000 | 7000 | 4.0 | 0.45 | 2.0 | 70 | 18 |
| 23 | 111 | 113 | 8.4 | 2.5 | PHQ531_0055K102_0230 EZ301U | 334 | 334 | 911 | 128.0 | 6270/49 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 70 | 17 |
| 23 | 189 | 200 | 14 | 1.5 | PHQ531_0055K102_0230 EZ302U | 550 | 550 | 911 | 128.0 | 6270/49 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 70 | 18 |
| 23 | 247 | 261 | 19 | 1.1 | PHQ531_0055K102_0230 EZ303U | 550 | 550 | 911 | 128.0 | 6270/49 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 70 | 18 |
| 27 | 96 | 98 | 8.1 | 2.9 | PHQ531_0055K102_0200 EZ301U | 289 | 289 | 694 | 110.8 | 4433/40 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 70 | 17 |
| 27 | 164 | 173 | 14 | 1.7 | PHQ531_0055K102_0200 EZ302U | 512 | 512 | 694 | 110.8 | 4433/40 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 70 | 18 |
| 27 | 214 | 226 | 18 | 1.3 | PHQ531_0055K102_0200 EZ303U | 512 | 512 | 694 | 110.8 | 4433/40 | 4000 | 4000 | 7000 | 4.0 | 0.47 | 2.0 | 70 | 18 |
| 31 | 84 | 85 | 7.8 | 3.3 | PHQ531_0055K102_0175 EZ301U | 252 | 252 | 732 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 0.32 | 2.0 | 70 | 17 |
| 31 | 143 | 151 | 13 | 2.0 | PHQ531_0055K102_0175 EZ302U | 450 | 450 | 732 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 0.42 | 2.0 | 70 | 18 |
| 31 | 186 | 197 | 17 | 1.5 | PHQ531_0055K102_0175 EZ303U | 540 | 540 | 732 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 0.53 | 2.0 | 70 | 18 |
| 31 | 252 | 270 | 24 | 1.1 | PHQ531_0055K102_0175 EZ401U | 550 | 550 | 948 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 70 | 20 |
| 33 | 80 | 81 | 7.7 | 3.5 | PHQ531_0055K102_0165 EZ301U | 240 | 240 | 655 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 0.29 | 2.0 | 70 | 17 |
| 33 | 136 | 144 | 13 | 2.1 | PHQ531_0055K102_0165 EZ302U | 428 | 428 | 655 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 0.39 | 2.0 | 70 | 18 |
| 33 | 177 | 187 | 17 | 1.6 | PHQ531_0055K102_0165 EZ303U | 483 | 483 | 655 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 0.50 | 2.0 | 70 | 18 |
| 33 | 240 | 257 | 23 | 1.2 | PHQ531_0055K102_0165 EZ401U | 550 | 550 | 948 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 70 | 20 |
| 39 | 67 | 69 | 7.4 | 4.2 | PHQ531_0055K102_0140 EZ301U | 202 | 202 | 588 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 0.37 | 2.0 | 70 | 17 |
| 39 | 115 | 121 | 13 | 2.4 | PHQ531_0055K102_0140 EZ302U | 361 | 361 | 588 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 0.47 | 2.0 | 70 | 18 |
| 39 | 150 | 158 | 17 | 1.9 | PHQ531_0055K102_0140 EZ303U | 434 | 434 | 588 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 0.58 | 2.0 | 70 | 18 |
| 39 | 202 | 217 | 22 | 1.4 | PHQ531_0055K102_0140 EZ401U | 550 | 550 | 948 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 70 | 20 |
| 43 | 60 | 61 | 7.2 | 4.7 | PHQ531_0055K102_0125 EZ301U | 181 | 181 | 526 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 0.35 | 2.0 | 70 | 17 |
| 43 | 103 | 109 | 12 | 2.7 | PHQ531_0055K102_0125 EZ302U | 323 | 323 | 526 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 0.45 | 2.0 | 70 | 18 |
| 43 | 134 | 142 | 16 | 2.1 | PHQ531_0055K102_0125 EZ303U | 388 | 388 | 526 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 0.56 | 2.0 | 70 | 18 |
| 43 | 181 | 194 | 22 | 1.5 | PHQ531_0055K102_0125 EZ401U | 549 | 549 | 948 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 70 | 20 |
| 43 | 278 | 304 | 33 | 1.0 | PHQ531_0055K102_0125 EZ501U | 550 | 550 | 948 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 70 | 21 |
| 47 | 94 | 100 | 12 | 3.0 | PHQ531_0055K102_0115 EZ302U | 296 | 296 | 482 | 63.61 | 1463/23 | 3600 | 3600 | 5500 | 4.0 | 0.53 | 2.0 | 70 | 18 |
| 47 | 123 | 130 | 16 | 2.3 | PHQ531_0055K102_0115 EZ303U | 355 | 355 | 482 | 63.61 | 1463/23 | 3600 | 3600 | 5500 | 4.0 | 0.64 | 2.0 | 70 | 18 |
| 47 | 166 | 178 | 21 | 1.7 | PHQ531_0055K102_0115 EZ401U | 503 | 503 | 948 | 63.61 | 1463/23 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 70 | 20 |
| 47 | 255 | 278 | 33 | 1.1 | PHQ531_0055K102_0115 EZ501U | 550 | 550 | 948 | 63.61 | 1463/23 | 3600 | 3600 | 5500 | 4.0 | 3.1 | 2.0 | 70 | 21 |
| 47 | 278 | 308 | 36 | 1.0 | PHQ531_0055K102_0115 EZ402U | 550 | 550 | 948 | 63.61 | 1463/23 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 70 | 21 |
| 54 | 83 | 87 | 12 | 3.4 | PHQ531_0055K102_0100 EZ302U | 260 | 260 | 423 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 0.51 | 2.0 | 70 | 18 |
| 54 | 108 | 114 | 15 | 2.6 | PHQ531_0055K102_0100 EZ303U | 312 | 312 | 423 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 0.62 | 2.0 | 70 | 18 |
| 54 | 145 | 156 | 21 | 1.9 | PHQ531_0055K102_0100 EZ401U | 441 | 441 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 1.2 | 2.0 | 70 | 20 |
| 54 | 223 | 244 | 32 | 1.3 | PHQ531_0055K102_0100 EZ501U | 550 | 550 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 70 | 21 |
| 54 | 244 | 270 | 35 | 1.1 | PHQ531_0055K102_0100 EZ402U | 550 | 550 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 1.9 | 2.0 | 70 | 21 |
| 59 | 75 | 80 | 11 | 3.7 | PHQ531_0055K102_0092 EZ302U | 237 | 237 | 386 | 50.87 | 9614/189 | 3600 | 3600 | 5500 | 4.0 | 0.63 | 2.0 | 70 | 18 |
| 59 | 98 | 104 | 15 | 2.9 | PHQ531_0055K102_0092 EZ303U | 284 | 284 | 386 | 50.87 | 9614/189 | 3600 | 3600 | 5500 | 4.0 | 0.74 | 2.0 | 70 | 18 |
| 59 | 133 | 142 | 20 | 2.1 | PHQ531_0055K102_0092 EZ401U | 403 | 403 | 948 | 50.87 | 9614/189 | 3600 | 3600 | 5500 | 4.0 | 1.3 | 2.0 | 70 | 20 |
| 59 | 204 | 223 | 31 | 1.4 | PHQ531_0055K102_0092 EZ501U | 550 | 550 | 948 | 50.87 | 9614/189 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 70 | 21 |
| 59 | 223 | 246 | 34 | 1.3 | PHQ531_0055K102_0092 EZ402U | 550 | 550 | 948 | 50.87 | 9614/189 | 3600 | 3600 | 5500 | 4.0 | 2.0 | 2.0 | 70 | 21 |
| 66 | 68 | 71 | 12 | 3.8 | PHQ531_0055K102_0083 EZ302U | 213 | 213 | 346 | 45.70 | 21021/460 | 3600 | 3600 | 5500 | 4.0 | 0.59 | 2.0 | 70 | 18 |
| 66 | 88 | 93 | 16 | 2.9 | PHQ531_0055K102_0083 EZ303U | 255 | 255 | 346 | 45.70 | 21021/460 | 3600 | 3600 | 5500 | 4.0 | 0.70 | 2.0 | 70 | 18 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arc min] | [kgcm²] | [arc min] | [Nm/ arcmin] | [kg] |
| PHQ531K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 550 Nm) | | | | | | | | | | | | | | | | | | |
| 66 | 119 | 128 | 20 | 2.4 | PHQ531_0055K102_0083 EZ401U | 362 | 362 | 948 | 45.70 | 21021/460 | 3600 | 3600 | 5500 | 4.0 | 1.2 | 2.0 | 70 | 20 |
| 66 | 183 | 200 | 30 | 1.5 | PHQ531_0055K102_0083 EZ501U | 550 | 550 | 948 | 45.70 | 21021/460 | 3600 | 3600 | 5500 | 4.0 | 3.2 | 2.0 | 70 | 21 |
| 66 | 200 | 221 | 33 | 1.4 | PHQ531_0055K102_0083 EZ402U | 550 | 550 | 948 | 45.70 | 21021/460 | 3600 | 3600 | 5500 | 4.0 | 1.9 | 2.0 | 70 | 21 |
| 82 | 54 | 57 | 14 | 3.8 | PHQ531_0055K102_0066 EZ302U | 170 | 170 | 277 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 0.71 | 2.0 | 70 | 18 |
| 82 | 70 | 75 | 19 | 2.9 | PHQ531_0055K102_0066 EZ303U | 204 | 204 | 277 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 0.82 | 2.0 | 70 | 18 |
| 82 | 95 | 102 | 18 | 2.9 | PHQ531_0055K102_0066 EZ401U | 289 | 289 | 948 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 1.4 | 2.0 | 70 | 20 |
| 82 | 146 | 160 | 28 | 1.9 | PHQ531_0055K102_0066 EZ501U | 544 | 544 | 948 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 3.3 | 2.0 | 70 | 21 |
| 82 | 160 | 177 | 31 | 1.8 | PHQ531_0055K102_0066 EZ402U | 544 | 544 | 948 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 2.1 | 2.0 | 70 | 21 |
| 82 | 235 | 293 | 46 | 1.2 | PHQ531_0055K102_0066 EZ404U | 550 | 550 | 948 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 3.4 | 2.0 | 70 | 23 |
| 82 | 252 | 272 | 49 | 1.1 | PHQ531_0055K102_0066 EZ502U | 550 | 550 | 948 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 5.6 | 2.0 | 70 | 22 |
| 82 | 252 | 282 | 49 | 1.1 | PHQ531_0055K102_0066 EZ701U | 550 | 550 | 948 | 36.54 | 3289/90 | 3600 | 3600 | 5500 | 4.0 | 8.9 | 2.0 | 70 | 24 |
| 91 | 86 | 92 | 18 | 3.3 | PHQ531_0055K102_0060 EZ401U | 261 | 261 | 948 | 33.00 | 33/1 | 3300 | 3300 | 5000 | 4.0 | 1.4 | 2.0 | 70 | 20 |
| 91 | 132 | 144 | 28 | 2.1 | PHQ531_0055K102_0060 EZ501U | 492 | 492 | 948 | 33.00 | 33/1 | 3300 | 3300 | 5000 | 4.0 | 3.4 | 2.0 | 70 | 21 |
| 91 | 144 | 160 | 30 | 1.9 | PHQ531_0055K102_0060 EZ402U | 492 | 492 | 948 | 33.00 | 33/1 | 3300 | 3300 | 5000 | 4.0 | 2.1 | 2.0 | 70 | 21 |
| 91 | 212 | 264 | 44 | 1.3 | PHQ531_0055K102_0060 EZ404U | 550 | 550 | 948 | 33.00 | 33/1 | 3300 | 3300 | 5000 | 4.0 | 3.5 | 2.0 | 70 | 23 |
| 91 | 227 | 246 | 48 | 1.2 | PHQ531_0055K102_0060 EZ502U | 550 | 550 | 948 | 33.00 | 33/1 | 3300 | 3300 | 5000 | 4.0 | 5.7 | 2.0 | 70 | 22 |
| 91 | 227 | 255 | 48 | 1.2 | PHQ531_0055K102_0060 EZ701U | 550 | 550 | 948 | 33.00 | 33/1 | 3300 | 3300 | 5000 | 4.0 | 9.0 | 2.0 | 70 | 24 |
| 98 | 45 | 48 | 16 | 3.8 | PHQ531_0055K102_0056 EZ302U | 143 | 143 | 232 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 0.97 | 2.0 | 70 | 18 |
| 98 | 59 | 62 | 21 | 2.9 | PHQ531_0055K102_0056 EZ303U | 171 | 171 | 232 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 1.1 | 2.0 | 70 | 18 |
| 98 | 80 | 86 | 18 | 3.5 | PHQ531_0055K102_0056 EZ401U | 242 | 242 | 929 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 1.6 | 2.0 | 70 | 20 |
| 98 | 123 | 134 | 27 | 2.3 | PHQ531_0055K102_0056 EZ501U | 456 | 456 | 929 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 3.6 | 2.0 | 70 | 21 |
| 98 | 134 | 148 | 30 | 2.1 | PHQ531_0055K102_0056 EZ402U | 456 | 456 | 929 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 2.3 | 2.0 | 70 | 21 |
| 98 | 197 | 245 | 44 | 1.4 | PHQ531_0055K102_0056 EZ404U | 550 | 550 | 929 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 3.7 | 2.0 | 70 | 23 |
| 98 | 211 | 228 | 47 | 1.3 | PHQ531_0055K102_0056 EZ502U | 550 | 550 | 929 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 5.9 | 2.0 | 70 | 22 |
| 98 | 211 | 237 | 47 | 1.3 | PHQ531_0055K102_0056 EZ701U | 550 | 550 | 929 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 9.2 | 2.0 | 70 | 24 |
| 98 | 277 | 317 | 61 | 1.0 | PHQ531_0055K102_0056 EZ503U | 550 | 550 | 929 | 30.62 | 8360/273 | 3300 | 3300 | 5000 | 4.0 | 8.3 | 2.0 | 70 | 24 |
| 136 | 42 | 45 | 27 | 2.9 | PHQ531_0055K102_0040 EZ303U | 123 | 123 | 167 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 1.3 | 2.0 | 70 | 18 |
| 136 | 57 | 61 | 17 | 4.8 | PHQ531_0055K102_0040 EZ401U | 174 | 174 | 667 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 1.8 | 2.0 | 70 | 20 |
| 136 | 88 | 96 | 26 | 3.1 | PHQ531_0055K102_0040 EZ501U | 328 | 328 | 667 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 3.8 | 2.0 | 70 | 21 |
| 136 | 96 | 107 | 28 | 2.8 | PHQ531_0055K102_0040 EZ402U | 328 | 328 | 667 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 2.5 | 2.0 | 70 | 21 |
| 136 | 141 | 176 | 41 | 1.9 | PHQ531_0055K102_0040 EZ404U | 492 | 492 | 667 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 3.9 | 2.0 | 70 | 23 |
| 136 | 152 | 164 | 44 | 1.8 | PHQ531_0055K102_0040 EZ502U | 492 | 492 | 667 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 6.1 | 2.0 | 70 | 22 |
| 136 | 152 | 170 | 44 | 1.8 | PHQ531_0055K102_0040 EZ701U | 410 | 410 | 667 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 9.4 | 2.0 | 70 | 24 |
| 136 | 199 | 227 | 58 | 1.4 | PHQ531_0055K102_0040 EZ503U | 492 | 492 | 667 | 22.00 | 22/1 | 3300 | 3300 | 5000 | 4.0 | 8.5 | 2.0 | 70 | 24 |
| PHQ531K ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 550 Nm) | | | | | | | | | | | | | | | | | | |
| 19 | 256 | 273 | 10 | 1.1 | PHQ531_0055K102_0560 EZ301U | 542 | 542 | 948 | 308.5 | 6479/21 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 70 | 17 |
| 22 | 229 | 245 | 10 | 1.2 | PHQ531_0055K102_0500 EZ301U | 316 | 316 | 572 | 276.7 | 55341/200 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 70 | 17 |
| 23 | 214 | 228 | 9.6 | 1.3 | PHQ531_0055K102_0470 EZ301U | 550 | 550 | 948 | 258.0 | 25289/98 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 70 | 17 |
| 27 | 184 | 196 | 9.2 | 1.5 | PHQ531_0055K102_0400 EZ301U | 389 | 389 | 704 | 221.7 | 4433/20 | 4000 | 4000 | 7000 | 4.0 | 0.21 | 2.0 | 70 | 17 |
| 31 | 160 | 171 | 8.9 | 1.8 | PHQ531_0055K102_0350 EZ301U | 503 | 503 | 948 | 193.1 | 20273/105 | 4000 | 4000 | 7000 | 4.0 | 0.23 | 2.0 | 70 | 17 |
| 31 | 270 | 302 | 15 | 1.0 | PHQ531_0055K102_0350 EZ302U | 550 | 550 | 948 | 193.1 | 20273/105 | 4000 | 4000 | 7000 | 4.0 | 0.33 | 2.0 | 70 | 18 |
| 32 | 154 | 164 | 8.8 | 1.8 | PHQ531_0055K102_0340 EZ301U | 462 | 462 | 836 | 185.4 | 51909/280 | 4000 | 4000 | 7000 | 4.0 | 0.22 | 2.0 | 70 | 17 |
| 32 | 259 | 290 | 15 | 1.1 | PHQ531_0055K102_0340 EZ302U | 462 | 462 | 836 | 185.4 | 51909/280 | 4000 | 4000 | 7000 | 4.0 | 0.32 | 2.0 | 70 | 18 |
| 39 | 128 | 136 | 8.4 | 2.2 | PHQ531_0055K102_0280 EZ301U | 402 | 402 | 948 | 154.3 | 6479/42 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 70 | 17 |
| 39 | 215 | 241 | 14 | 1.3 | PHQ531_0055K102_0280 EZ302U | 550 | 550 | 948 | 154.3 | 6479/42 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 70 | 18 |
| 43 | 115 | 123 | 8.2 | 2.4 | PHQ531_0055K102_0250 EZ301U | 362 | 362 | 806 | 138.7 | 13871/100 | 4000 | 4000 | 7000 | 4.0 | 0.24 | 2.0 | 70 | 17 |
| 43 | 194 | 217 | 14 | 1.4 | PHQ531_0055K102_0250 EZ302U | 550 | 550 | 806 | 138.7 | 13871/100 | 4000 | 4000 | 7000 | 4.0 | 0.34 | 2.0 | 70 | 18 |
| 43 | 253 | 291 | 18 | 1.1 | PHQ531_0055K102_0250 EZ303U | 550 | 550 | 806 | 138.7 | 13871/100 | 4000 | 4000 | 7000 | 4.0 | 0.45 | 2.0 | 70 | 18 |
| 47 | 106 | 113 | 8.0 | 2.6 | PHQ531_0055K102_0230 EZ301U | 334 | 334 | 911 | 128.0 | 6270/49 | 4000 | 4000 | 7000 | 4.0 | 0.28 | 2.0 | 70 | 17 |
| 47 | 179 | 200 | 14 | 1.6 | PHQ531_0055K102_0230 EZ302U | 550 | 550 | 911 | 128.0 | 6270/49 | 4000 | 4000 | 7000 | 4.0 | 0.38 | 2.0 | 70 | 18 |
| 47 | 234 | 268 | 18 | 1.2 | PHQ531_0055K102_0230 EZ303U | 550 | 550 | 911 | 128.0 | 6270/49 | 4000 | 4000 | 7000 | 4.0 | 0.49 | 2.0 | 70 | 18 |
| 47 | 274 | 334 | 21 | 1.0 | PHQ531_0055K102_0230 EZ401U | 550 | 550 | 948 | 128.0 | 6270/49 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 70 | 20 |
| 54 | 92 | 98 | 7.8 | 3.0 | PHQ531_0055K102_0200 EZ301U | 289 | 289 | 694 | 110.8 | 4433/40 | 4000 | 4000 | 7000 | 4.0 | 0.26 | 2.0 | 70 | 17 |
| 54 | 155 | 173 | 13 | 1.8 | PHQ531_0055K102_0200 EZ302U | 512 | 512 | 694 | 110.8 | 4433/40 | 4000 | 4000 | 7000 | 4.0 | 0.36 | 2.0 | 70 | 18 |
| 54 | 202 | 232 | 17 | 1.4 | PHQ531_0055K102_0200 EZ303U | 512 | 512 | 694 | 110.8 | 4433/40 | 4000 | 4000 | 7000 | 4.0 | 0.47 | 2.0 | 70 | 18 |
| 54 | 237 | 289 | 20 | 1.2 | PHQ531_0055K102_0200 EZ401U | 550 | 550 | 948 | 110.8 | 4433/40 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 70 | 20 |
| 62 | 80 | 85 | 7.5 | 3.5 | PHQ531_0055K102_0175 EZ301U | 252 | 252 | 732 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 0.32 | 2.0 | 70 | 17 |
| 62 | 135 | 151 | 13 | 2.1 | PHQ531_0055K102_0175 EZ302U | 450 | 450 | 732 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 0.42 | 2.0 | 70 | 18 |
| 62 | 176 | 202 | 17 | 1.6 | PHQ531_0055K102_0175 EZ303U | 540 | 540 | 732 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 0.53 | 2.0 | 70 | 18 |
| 62 | 207 | 252 | 19 | 1.4 | PHQ531_0055K102_0175 EZ401U | 550 | 550 | 948 | 96.60 | 11495/119 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 70 | 20 |
| 65 | 76 | 81 | 7.4 | 3.7 | PHQ531_0055K102_0165 EZ301U | 240 | 240 | 655 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 0.29 | 2.0 | 70 | 17 |
| 65 | 128 | 144 | 12 | 2.2 | PHQ531_0055K102_0165 EZ302U | 428 | 428 | 655 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 0.39 | 2.0 | 70 | 18 |
| 65 | 168 | 193 | 16 | 1.7 | PHQ531_0055K102_0165 EZ303U | 483 | 483 | 655 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 0.50 | 2.0 | 70 | 18 |
| 65 | 197 | 240 | 19 | 1.4 | PHQ531_0055K102_0165 EZ401U | 550 | 550 | 948 | 91.93 | 1287/14 | 4000 | 4000 | 7000 | 4.0 | 1.0 | 2.0 | 70 | 20 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arc min] | [kgcm²] | [arc min] | [Nm/ arcmin] | [kg] |
| **PHQ531K ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 550 Nm)** | | | | | | | | | | | | | | | | | | |
| 77 | 64 | 69 | 7.1 | 4.4 | PHQ531_0055K102_0140 EZ301U | 202 | 202 | 588 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 0.37 | 2.0 | 70 | 17 |
| 77 | 108 | 121 | 12 | 2.6 | PHQ531_0055K102_0140 EZ302U | 361 | 361 | 588 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 0.47 | 2.0 | 70 | 18 |
| 77 | 142 | 163 | 16 | 2.0 | PHQ531_0055K102_0140 EZ303U | 434 | 434 | 588 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 0.58 | 2.0 | 70 | 18 |
| 77 | 166 | 202 | 18 | 1.7 | PHQ531_0055K102_0140 EZ401U | 550 | 550 | 948 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 70 | 20 |
| 77 | 246 | 318 | 27 | 1.1 | PHQ531_0055K102_0140 EZ501U | 550 | 550 | 948 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 70 | 21 |
| 77 | 253 | 354 | 28 | 1.1 | PHQ531_0055K102_0140 EZ402U | 550 | 550 | 948 | 77.63 | 2717/35 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 70 | 21 |
| 86 | 97 | 109 | 12 | 2.9 | PHQ531_0055K102_0125 EZ302U | 323 | 323 | 526 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 0.45 | 2.0 | 70 | 18 |
| 86 | 127 | 145 | 15 | 2.2 | PHQ531_0055K102_0125 EZ303U | 388 | 388 | 526 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 0.56 | 2.0 | 70 | 18 |
| 86 | 149 | 181 | 18 | 1.9 | PHQ531_0055K102_0125 EZ401U | 549 | 549 | 948 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 1.1 | 2.0 | 70 | 20 |
| 86 | 220 | 284 | 26 | 1.3 | PHQ531_0055K102_0125 EZ501U | 550 | 550 | 948 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 70 | 21 |
| 86 | 226 | 317 | 27 | 1.2 | PHQ531_0055K102_0125 EZ402U | 550 | 550 | 948 | 69.40 | 4719/68 | 4000 | 4000 | 6000 | 4.0 | 1.8 | 2.0 | 70 | 21 |
| 108 | 78 | 87 | 11 | 3.6 | PHQ531_0055K102_0100 EZ302U | 260 | 260 | 423 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 0.51 | 2.0 | 70 | 18 |
| 108 | 102 | 117 | 14 | 2.8 | PHQ531_0055K102_0100 EZ303U | 312 | 312 | 423 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 0.62 | 2.0 | 70 | 18 |
| 108 | 119 | 145 | 17 | 2.3 | PHQ531_0055K102_0100 EZ401U | 441 | 441 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 1.2 | 2.0 | 70 | 20 |
| 108 | 177 | 229 | 25 | 1.6 | PHQ531_0055K102_0100 EZ501U | 550 | 550 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 3.1 | 2.0 | 70 | 21 |
| 108 | 182 | 254 | 26 | 1.5 | PHQ531_0055K102_0100 EZ402U | 550 | 550 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 1.9 | 2.0 | 70 | 21 |
| 108 | 270 | 405 | 38 | 1.0 | PHQ531_0055K102_0100 EZ502U | 550 | 550 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 5.4 | 2.0 | 70 | 22 |
| 108 | 270 | 410 | 38 | 1.0 | PHQ531_0055K102_0100 EZ701U | 550 | 550 | 948 | 55.77 | 5577/100 | 4000 | 4000 | 6000 | 4.0 | 8.7 | 2.0 | 70 | 24 |
| **PHQ731K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | | |
| 9.8 | 452 | 478 | 11 | 1.1 | PHQ731_0055K202_0560 EZ302U | 1006 | 1006 | 1548 | 305.5 | 14663/48 | 4000 | 4000 | 6500 | 4.0 | 0.34 | 2.0 | 136 | 30 |
| 11 | 411 | 434 | 11 | 1.2 | PHQ731_0055K202_0500 EZ302U | 610 | 610 | 1055 | 277.7 | 6665/24 | 4000 | 4000 | 6500 | 4.0 | 0.33 | 2.0 | 136 | 30 |
| 12 | 376 | 398 | 11 | 1.3 | PHQ731_0055K202_0460 EZ302U | 1050 | 1050 | 1477 | 254.2 | 20339/80 | 4000 | 4000 | 6500 | 4.0 | 0.36 | 2.0 | 136 | 30 |
| 12 | 490 | 518 | 14 | 1.0 | PHQ731_0055K202_0460 EZ303U | 1050 | 1050 | 1477 | 254.2 | 20339/80 | 4000 | 4000 | 6500 | 4.0 | 0.47 | 2.0 | 136 | 31 |
| 14 | 329 | 348 | 10 | 1.5 | PHQ731_0055K202_0400 EZ302U | 732 | 732 | 1126 | 222.2 | 1333/6 | 4000 | 4000 | 6500 | 4.0 | 0.35 | 2.0 | 136 | 30 |
| 14 | 428 | 453 | 13 | 1.2 | PHQ731_0055K202_0400 EZ303U | 732 | 732 | 1126 | 222.2 | 1333/6 | 4000 | 4000 | 6500 | 4.0 | 0.46 | 2.0 | 136 | 31 |
| 16 | 281 | 297 | 9.9 | 1.8 | PHQ731_0055K202_0350 EZ302U | 885 | 885 | 1228 | 190.0 | 21285/112 | 4000 | 4000 | 6500 | 4.0 | 0.41 | 2.0 | 136 | 30 |
| 16 | 366 | 388 | 13 | 1.4 | PHQ731_0055K202_0350 EZ303U | 905 | 905 | 1228 | 190.0 | 21285/112 | 4000 | 4000 | 6500 | 4.0 | 0.52 | 2.0 | 136 | 31 |
| 16 | 496 | 531 | 17 | 1.0 | PHQ731_0055K202_0350 EZ401U | 1050 | 1050 | 2100 | 190.0 | 21285/112 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 16 | 274 | 289 | 9.8 | 1.8 | PHQ731_0055K202_0340 EZ302U | 792 | 792 | 1074 | 184.9 | 1849/10 | 4000 | 4000 | 6500 | 4.0 | 0.37 | 2.0 | 136 | 30 |
| 16 | 356 | 377 | 13 | 1.4 | PHQ731_0055K202_0340 EZ303U | 792 | 792 | 1074 | 184.9 | 1849/10 | 4000 | 4000 | 6500 | 4.0 | 0.48 | 2.0 | 136 | 31 |
| 16 | 482 | 517 | 17 | 1.0 | PHQ731_0055K202_0340 EZ401U | 976 | 976 | 1765 | 184.9 | 1849/10 | 4000 | 4000 | 6500 | 4.0 | 1.0 | 2.0 | 136 | 32 |
| 20 | 401 | 429 | 16 | 1.2 | PHQ731_0055K202_0280 EZ401U | 1050 | 1050 | 2100 | 153.7 | 6149/40 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 22 | 205 | 216 | 9.1 | 2.4 | PHQ731_0055K202_0250 EZ302U | 644 | 644 | 893 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 0.43 | 2.0 | 136 | 30 |
| 22 | 266 | 282 | 12 | 1.9 | PHQ731_0055K202_0250 EZ303U | 658 | 658 | 893 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 0.54 | 2.0 | 136 | 31 |
| 22 | 360 | 386 | 16 | 1.4 | PHQ731_0055K202_0250 EZ401U | 1050 | 1050 | 2100 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 24 | 189 | 199 | 8.9 | 2.6 | PHQ731_0055K202_0230 EZ302U | 594 | 594 | 966 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 136 | 30 |
| 24 | 246 | 260 | 12 | 2.0 | PHQ731_0055K202_0230 EZ303U | 713 | 713 | 966 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 0.64 | 2.0 | 136 | 31 |
| 24 | 332 | 356 | 16 | 1.5 | PHQ731_0055K202_0230 EZ401U | 1009 | 1009 | 2100 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 136 | 32 |
| 27 | 291 | 312 | 15 | 1.7 | PHQ731_0055K202_0200 EZ401U | 885 | 885 | 2100 | 111.8 | 559/5 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 27 | 448 | 489 | 23 | 1.1 | PHQ731_0055K202_0200 EZ501U | 1050 | 1050 | 2100 | 111.8 | 559/5 | 4000 | 4000 | 6500 | 4.0 | 3.1 | 2.0 | 136 | 33 |
| 27 | 489 | 541 | 26 | 1.0 | PHQ731_0055K202_0200 EZ402U | 1050 | 1050 | 2100 | 111.8 | 559/5 | 4000 | 4000 | 6500 | 4.0 | 1.8 | 2.0 | 136 | 33 |
| 31 | 142 | 150 | 8.3 | 3.5 | PHQ731_0055K202_0175 EZ302U | 447 | 447 | 728 | 96.08 | 6149/64 | 3900 | 3900 | 5500 | 4.0 | 0.66 | 2.0 | 136 | 30 |
| 31 | 185 | 196 | 11 | 2.7 | PHQ731_0055K202_0175 EZ303U | 537 | 537 | 728 | 96.08 | 6149/64 | 3900 | 3900 | 5500 | 4.0 | 0.77 | 2.0 | 136 | 31 |
| 31 | 251 | 268 | 15 | 2.0 | PHQ731_0055K202_0175 EZ401U | 760 | 760 | 2100 | 96.08 | 6149/64 | 3900 | 3900 | 5500 | 4.0 | 1.3 | 2.0 | 136 | 32 |
| 31 | 385 | 421 | 23 | 1.3 | PHQ731_0055K202_0175 EZ501U | 1050 | 1050 | 2100 | 96.08 | 6149/64 | 3900 | 3900 | 5500 | 4.0 | 3.3 | 2.0 | 136 | 33 |
| 31 | 421 | 465 | 25 | 1.2 | PHQ731_0055K202_0175 EZ402U | 1050 | 1050 | 2100 | 96.08 | 6149/64 | 3900 | 3900 | 5500 | 4.0 | 2.0 | 2.0 | 136 | 33 |
| 32 | 137 | 145 | 8.3 | 3.6 | PHQ731_0055K202_0170 EZ302U | 432 | 432 | 703 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 0.56 | 2.0 | 136 | 30 |
| 32 | 179 | 189 | 11 | 2.8 | PHQ731_0055K202_0170 EZ303U | 518 | 518 | 703 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 0.67 | 2.0 | 136 | 31 |
| 32 | 242 | 259 | 15 | 2.1 | PHQ731_0055K202_0170 EZ401U | 734 | 734 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 136 | 32 |
| 32 | 371 | 406 | 22 | 1.3 | PHQ731_0055K202_0170 EZ501U | 1050 | 1050 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 3.2 | 2.0 | 136 | 33 |
| 32 | 406 | 449 | 24 | 1.2 | PHQ731_0055K202_0170 EZ402U | 1050 | 1050 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 1.9 | 2.0 | 136 | 33 |
| 39 | 199 | 213 | 14 | 2.5 | PHQ731_0055K202_0140 EZ401U | 603 | 603 | 2100 | 76.18 | 31691/416 | 3900 | 3900 | 5500 | 4.0 | 1.4 | 2.0 | 136 | 32 |
| 39 | 305 | 333 | 21 | 1.6 | PHQ731_0055K202_0140 EZ501U | 1050 | 1050 | 2100 | 76.18 | 31691/416 | 3900 | 3900 | 5500 | 4.0 | 3.4 | 2.0 | 136 | 33 |
| 39 | 333 | 369 | 23 | 1.5 | PHQ731_0055K202_0140 EZ402U | 1050 | 1050 | 2100 | 76.18 | 31691/416 | 3900 | 3900 | 5500 | 4.0 | 2.1 | 2.0 | 136 | 33 |
| 39 | 489 | 610 | 34 | 1.0 | PHQ731_0055K202_0140 EZ404U | 1050 | 1050 | 2100 | 76.18 | 31691/416 | 3900 | 3900 | 5500 | 4.0 | 3.5 | 2.0 | 136 | 35 |
| 43 | 103 | 109 | 9.8 | 3.8 | PHQ731_0055K202_0125 EZ302U | 325 | 325 | 530 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 0.71 | 2.0 | 136 | 30 |
| 43 | 135 | 143 | 13 | 2.9 | PHQ731_0055K202_0125 EZ303U | 390 | 390 | 530 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 0.82 | 2.0 | 136 | 31 |
| 43 | 182 | 195 | 14 | 2.7 | PHQ731_0055K202_0125 EZ401U | 553 | 553 | 2100 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 1.4 | 2.0 | 136 | 32 |
| 43 | 280 | 306 | 21 | 1.8 | PHQ731_0055K202_0125 EZ501U | 1041 | 1041 | 2100 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 3.3 | 2.0 | 136 | 33 |
| 43 | 306 | 338 | 23 | 1.6 | PHQ731_0055K202_0125 EZ402U | 1041 | 1041 | 2100 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 2.1 | 2.0 | 136 | 33 |
| 43 | 449 | 560 | 33 | 1.1 | PHQ731_0055K202_0125 EZ404U | 1050 | 1050 | 2100 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 3.4 | 2.0 | 136 | 35 |
| 43 | 482 | 521 | 36 | 1.0 | PHQ731_0055K202_0125 EZ502U | 1050 | 1050 | 2100 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 5.6 | 2.0 | 136 | 35 |
| 43 | 482 | 540 | 36 | 1.0 | PHQ731_0055K202_0125 EZ701U | 1050 | 1050 | 2100 | 69.88 | 559/8 | 3900 | 3900 | 5500 | 4.0 | 8.9 | 2.0 | 136 | 37 |
| 47 | 94 | 99 | 11 | 3.8 | PHQ731_0055K202_0115 EZ302U | 296 | 296 | 481 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 0.97 | 2.0 | 136 | 30 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arc min] | [kgcm²] | [arc min] | [Nm/ arcmin] | [kg] |
| **PHQ731K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | | |
| 47 | 122 | 130 | 14 | 2.9 | PHQ731_0055K202_0115 EZ303U | 355 | 355 | 481 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 1.1 | 2.0 | 136 | 31 |
| 47 | 166 | 177 | 13 | 3.0 | PHQ731_0055K202_0115 EZ401U | 503 | 503 | 1925 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 1.6 | 2.0 | 136 | 32 |
| 47 | 254 | 278 | 20 | 2.0 | PHQ731_0055K202_0115 EZ501U | 946 | 946 | 1925 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 3.6 | 2.0 | 136 | 33 |
| 47 | 278 | 307 | 22 | 1.8 | PHQ731_0055K202_0115 EZ402U | 946 | 946 | 1925 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 2.3 | 2.0 | 136 | 33 |
| 47 | 408 | 509 | 33 | 1.2 | PHQ731_0055K202_0115 EZ404U | 1050 | 1050 | 1925 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 136 | 35 |
| 47 | 438 | 473 | 35 | 1.1 | PHQ731_0055K202_0115 EZ502U | 1050 | 1050 | 1925 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 5.9 | 2.0 | 136 | 35 |
| 47 | 438 | 491 | 35 | 1.1 | PHQ731_0055K202_0115 EZ701U | 1050 | 1050 | 2100 | 63.50 | 13717/216 | 3500 | 3500 | 5000 | 4.0 | 9.2 | 2.0 | 136 | 37 |
| 54 | 144 | 155 | 13 | 3.5 | PHQ731_0055K202_0100 EZ401U | 439 | 439 | 1680 | 55.40 | 2881/52 | 3900 | 3900 | 5500 | 4.0 | 1.5 | 2.0 | 136 | 32 |
| 54 | 222 | 242 | 20 | 2.3 | PHQ731_0055K202_0100 EZ501U | 825 | 825 | 1680 | 55.40 | 2881/52 | 3900 | 3900 | 5500 | 4.0 | 3.5 | 2.0 | 136 | 33 |
| 54 | 242 | 268 | 21 | 2.1 | PHQ731_0055K202_0100 EZ402U | 825 | 825 | 1680 | 55.40 | 2881/52 | 3900 | 3900 | 5500 | 4.0 | 2.2 | 2.0 | 136 | 33 |
| 54 | 356 | 444 | 31 | 1.4 | PHQ731_0055K202_0100 EZ404U | 1050 | 1050 | 1680 | 55.40 | 2881/52 | 3900 | 3900 | 5500 | 4.0 | 3.6 | 2.0 | 136 | 35 |
| 54 | 382 | 413 | 34 | 1.3 | PHQ731_0055K202_0100 EZ502U | 1050 | 1050 | 1680 | 55.40 | 2881/52 | 3900 | 3900 | 5500 | 4.0 | 5.8 | 2.0 | 136 | 35 |
| 54 | 382 | 428 | 34 | 1.3 | PHQ731_0055K202_0100 EZ701U | 1032 | 1032 | 2100 | 55.40 | 2881/52 | 3900 | 3900 | 5500 | 4.0 | 9.1 | 2.0 | 136 | 37 |
| 59 | 132 | 141 | 12 | 3.8 | PHQ731_0055K202_0092 EZ401U | 400 | 400 | 1533 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 1.9 | 2.0 | 136 | 32 |
| 59 | 202 | 221 | 19 | 2.5 | PHQ731_0055K202_0092 EZ501U | 753 | 753 | 1533 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 3.8 | 2.0 | 136 | 33 |
| 59 | 221 | 245 | 21 | 2.3 | PHQ731_0055K202_0092 EZ402U | 753 | 753 | 1533 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 2.6 | 2.0 | 136 | 33 |
| 59 | 325 | 405 | 31 | 1.5 | PHQ731_0055K202_0092 EZ404U | 1050 | 1050 | 1533 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 3.9 | 2.0 | 136 | 35 |
| 59 | 348 | 377 | 33 | 1.4 | PHQ731_0055K202_0092 EZ502U | 1050 | 1050 | 1533 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 6.1 | 2.0 | 136 | 35 |
| 59 | 348 | 391 | 33 | 1.4 | PHQ731_0055K202_0092 EZ701U | 941 | 941 | 2100 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 9.4 | 2.0 | 136 | 37 |
| 59 | 457 | 522 | 43 | 1.1 | PHQ731_0055K202_0092 EZ503U | 1050 | 1050 | 1533 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 8.5 | 2.0 | 136 | 36 |
| 65 | 89 | 94 | 17 | 2.9 | PHQ731_0055K202_0084 EZ303U | 258 | 258 | 350 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 1.2 | 2.0 | 136 | 31 |
| 65 | 120 | 129 | 12 | 4.2 | PHQ731_0055K202_0084 EZ401U | 366 | 366 | 1400 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 1.7 | 2.0 | 136 | 32 |
| 65 | 185 | 202 | 19 | 2.7 | PHQ731_0055K202_0084 EZ501U | 688 | 688 | 1400 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 3.7 | 2.0 | 136 | 33 |
| 65 | 202 | 224 | 20 | 2.5 | PHQ731_0055K202_0084 EZ402U | 688 | 688 | 1400 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 2.4 | 2.0 | 136 | 33 |
| 65 | 297 | 370 | 30 | 1.7 | PHQ731_0055K202_0084 EZ404U | 1032 | 1032 | 1400 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 3.8 | 2.0 | 136 | 35 |
| 65 | 318 | 344 | 32 | 1.6 | PHQ731_0055K202_0084 EZ502U | 1032 | 1032 | 1400 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 6.0 | 2.0 | 136 | 35 |
| 65 | 318 | 357 | 32 | 1.6 | PHQ731_0055K202_0084 EZ701U | 860 | 860 | 2100 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 9.3 | 2.0 | 136 | 37 |
| 65 | 417 | 477 | 42 | 1.2 | PHQ731_0055K202_0084 EZ503U | 1032 | 1032 | 1400 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 8.4 | 2.0 | 136 | 36 |
| 77 | 270 | 303 | 31 | 1.9 | PHQ731_0055K202_0071 EZ701U | 729 | 729 | 2100 | 39.15 | 23177/592 | 3000 | 3000 | 4500 | 4.0 | 9.9 | 2.0 | 136 | 37 |
| 77 | 437 | 525 | 50 | 1.1 | PHQ731_0055K202_0071 EZ702U | 1050 | 1050 | 2100 | 39.15 | 23177/592 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 136 | 39 |
| 77 | 492 | 583 | 56 | 1.0 | PHQ731_0055K202_0071 EZ505U | 1050 | 1050 | 2100 | 39.15 | 23177/592 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 82 | 147 | 161 | 18 | 3.4 | PHQ731_0055K202_0067 EZ501U | 548 | 548 | 1115 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 4.0 | 2.0 | 136 | 33 |
| 82 | 161 | 178 | 19 | 3.1 | PHQ731_0055K202_0067 EZ402U | 548 | 548 | 1115 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 2.8 | 2.0 | 136 | 33 |
| 82 | 236 | 294 | 28 | 2.1 | PHQ731_0055K202_0067 EZ404U | 822 | 822 | 1115 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 4.1 | 2.0 | 136 | 35 |
| 82 | 253 | 274 | 30 | 2.0 | PHQ731_0055K202_0067 EZ502U | 822 | 822 | 1115 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 6.3 | 2.0 | 136 | 35 |
| 82 | 253 | 284 | 30 | 2.0 | PHQ731_0055K202_0067 EZ701U | 685 | 685 | 2100 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 9.6 | 2.0 | 136 | 37 |
| 82 | 332 | 380 | 40 | 1.5 | PHQ731_0055K202_0067 EZ503U | 822 | 822 | 1115 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 8.7 | 2.0 | 136 | 36 |
| 82 | 411 | 493 | 49 | 1.2 | PHQ731_0055K202_0067 EZ702U | 1050 | 1050 | 2100 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 15 | 2.0 | 136 | 39 |
| 82 | 462 | 548 | 56 | 1.1 | PHQ731_0055K202_0067 EZ505U | 1050 | 1050 | 2100 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 136 | 39 |
| 91 | 132 | 144 | 17 | 3.8 | PHQ731_0055K202_0060 EZ501U | 492 | 492 | 1000 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 4.7 | 2.0 | 136 | 33 |
| 91 | 144 | 160 | 19 | 3.5 | PHQ731_0055K202_0060 EZ402U | 492 | 492 | 1000 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 3.4 | 2.0 | 136 | 33 |
| 91 | 212 | 264 | 28 | 2.4 | PHQ731_0055K202_0060 EZ404U | 737 | 737 | 1000 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 4.7 | 2.0 | 136 | 35 |
| 91 | 227 | 246 | 30 | 2.2 | PHQ731_0055K202_0060 EZ502U | 737 | 737 | 1000 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 7.0 | 2.0 | 136 | 35 |
| 91 | 227 | 255 | 30 | 2.2 | PHQ731_0055K202_0060 EZ701U | 615 | 615 | 2100 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 10 | 2.0 | 136 | 37 |
| 91 | 298 | 341 | 39 | 1.7 | PHQ731_0055K202_0060 EZ503U | 737 | 737 | 1000 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 9.3 | 2.0 | 136 | 36 |
| 91 | 369 | 443 | 48 | 1.4 | PHQ731_0055K202_0060 EZ702U | 1050 | 1050 | 2100 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 136 | 39 |
| 91 | 415 | 492 | 54 | 1.2 | PHQ731_0055K202_0060 EZ505U | 1050 | 1050 | 2100 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 105 | 196 | 220 | 29 | 2.5 | PHQ731_0055K202_0052 EZ701U | 530 | 530 | 2100 | 28.47 | 2107/74 | 3000 | 3000 | 4500 | 4.0 | 10 | 2.0 | 136 | 37 |
| 105 | 318 | 382 | 46 | 1.6 | PHQ731_0055K202_0052 EZ702U | 1004 | 1004 | 2100 | 28.47 | 2107/74 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 136 | 39 |
| 105 | 358 | 424 | 52 | 1.4 | PHQ731_0055K202_0052 EZ505U | 1004 | 1004 | 2100 | 28.47 | 2107/74 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 105 | 437 | 552 | 64 | 1.1 | PHQ731_0055K202_0052 EZ703U | 1004 | 1004 | 2100 | 28.47 | 2107/74 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 136 | 41 |
| 125 | 105 | 116 | 17 | 4.8 | PHQ731_0055K202_0044 EZ402U | 358 | 358 | 727 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 3.8 | 2.0 | 136 | 33 |
| 125 | 154 | 192 | 26 | 3.2 | PHQ731_0055K202_0044 EZ404U | 536 | 536 | 727 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 5.2 | 2.0 | 136 | 35 |
| 125 | 165 | 179 | 27 | 3.0 | PHQ731_0055K202_0044 EZ502U | 536 | 536 | 727 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 7.4 | 2.0 | 136 | 35 |
| 125 | 165 | 186 | 27 | 3.0 | PHQ731_0055K202_0044 EZ701U | 447 | 447 | 1819 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 11 | 2.0 | 136 | 37 |
| 125 | 217 | 248 | 36 | 2.3 | PHQ731_0055K202_0044 EZ503U | 536 | 536 | 727 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 9.8 | 2.0 | 136 | 36 |
| 125 | 268 | 322 | 44 | 1.9 | PHQ731_0055K202_0044 EZ702U | 916 | 916 | 1819 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 16 | 2.0 | 136 | 39 |
| 125 | 302 | 358 | 50 | 1.7 | PHQ731_0055K202_0044 EZ505U | 948 | 948 | 1819 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 125 | 369 | 465 | 61 | 1.4 | PHQ731_0055K202_0044 EZ703U | 948 | 948 | 1819 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 136 | 41 |
| 136 | 152 | 170 | 27 | 3.2 | PHQ731_0055K202_0040 EZ701U | 410 | 410 | 1667 | 22.00 | 22/1 | 3000 | 3000 | 4500 | 4.0 | 11 | 2.0 | 136 | 37 |
| 136 | 246 | 295 | 45 | 2.0 | PHQ731_0055K202_0040 EZ702U | 840 | 840 | 1667 | 22.00 | 22/1 | 3000 | 3000 | 4500 | 4.0 | 16 | 2.0 | 136 | 39 |
| 136 | 277 | 328 | 50 | 1.8 | PHQ731_0055K202_0040 EZ505U | 921 | 921 | 1667 | 22.00 | 22/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 136 | 39 |
| 136 | 338 | 426 | 61 | 1.4 | PHQ731_0055K202_0040 EZ703U | 921 | 921 | 1667 | 22.00 | 22/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 136 | 41 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arc min] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arc min] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ731K ($n_{1N}$ = 4500 min⁻¹, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | | |
| 81 | 490 | 789 | 43 | 1.0 | PHQ731_0055K202_0100 EZ505U | 1050 | 1050 | 2100 | 55.40 | 2881/52 | 3900 | 3900 | 5500 | 4.0 | 13 | 2.0 | 136 | 39 |
| 89 | 447 | 720 | 42 | 1.1 | PHQ731_0055K202_0092 EZ505U | 1050 | 1050 | 2100 | 50.55 | 25069/496 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 136 | 39 |
| 97 | 409 | 658 | 41 | 1.2 | PHQ731_0055K202_0084 EZ505U | 1050 | 1050 | 2100 | 46.18 | 1247/27 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 136 | 39 |
| 115 | 346 | 558 | 40 | 1.4 | PHQ731_0055K202_0071 EZ505U | 1050 | 1050 | 2100 | 39.15 | 23177/592 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 115 | 441 | 729 | 51 | 1.1 | PHQ731_0055K202_0071 EZ703U | 1050 | 1050 | 2100 | 39.15 | 23177/592 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 136 | 41 |
| 122 | 325 | 524 | 39 | 1.5 | PHQ731_0055K202_0067 EZ505U | 1050 | 1050 | 2100 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 13 | 2.0 | 136 | 39 |
| 122 | 414 | 685 | 50 | 1.2 | PHQ731_0055K202_0067 EZ703U | 1050 | 1050 | 2100 | 36.76 | 2279/62 | 3500 | 3500 | 5000 | 4.0 | 23 | 2.0 | 136 | 41 |
| 136 | 292 | 470 | 39 | 1.7 | PHQ731_0055K202_0060 EZ505U | 1050 | 1050 | 2100 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 136 | 372 | 615 | 50 | 1.3 | PHQ731_0055K202_0060 EZ703U | 1050 | 1050 | 2100 | 33.00 | 33/1 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 136 | 41 |
| 158 | 252 | 406 | 40 | 1.8 | PHQ731_0055K202_0052 EZ505U | 1004 | 1004 | 2100 | 28.47 | 2107/74 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 158 | 321 | 530 | 50 | 1.4 | PHQ731_0055K202_0052 EZ703U | 1004 | 1004 | 2100 | 28.47 | 2107/74 | 3000 | 3000 | 4500 | 4.0 | 23 | 2.0 | 136 | 41 |
| 187 | 212 | 342 | 40 | 2.1 | PHQ731_0055K202_0044 EZ505U | 948 | 948 | 1819 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 14 | 2.0 | 136 | 39 |
| 187 | 270 | 447 | 51 | 1.6 | PHQ731_0055K202_0044 EZ703U | 948 | 948 | 1819 | 24.00 | 24/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 136 | 41 |
| 205 | 195 | 313 | 40 | 2.2 | PHQ731_0055K202_0040 EZ505U | 921 | 921 | 1667 | 22.00 | 22/1 | 3000 | 3000 | 4500 | 4.0 | 15 | 2.0 | 136 | 39 |
| 205 | 248 | 410 | 51 | 1.7 | PHQ731_0055K202_0040 EZ703U | 921 | 921 | 1667 | 22.00 | 22/1 | 3000 | 3000 | 4500 | 4.0 | 24 | 2.0 | 136 | 41 |
| **PHQ731K ($n_{1N}$ = 6000 min⁻¹, $M_{2acc,max}$ = 1050 Nm)** | | | | | | | | | | | | | | | | | | |
| 20 | 427 | 478 | 10 | 1.2 | PHQ731_0055K202_0560 EZ302U | 1006 | 1006 | 1548 | 305.5 | 14663/48 | 4000 | 4000 | 6500 | 4.0 | 0.34 | 2.0 | 136 | 30 |
| 22 | 388 | 434 | 10 | 1.3 | PHQ731_0055K202_0500 EZ302U | 610 | 610 | 1055 | 277.7 | 6665/24 | 4000 | 4000 | 6500 | 4.0 | 0.33 | 2.0 | 136 | 30 |
| 24 | 355 | 398 | 10 | 1.4 | PHQ731_0055K202_0460 EZ302U | 1050 | 1050 | 1477 | 254.2 | 20339/80 | 4000 | 4000 | 6500 | 4.0 | 0.36 | 2.0 | 136 | 30 |
| 24 | 464 | 533 | 13 | 1.1 | PHQ731_0055K202_0460 EZ303U | 1050 | 1050 | 1477 | 254.2 | 20339/80 | 4000 | 4000 | 6500 | 4.0 | 0.47 | 2.0 | 136 | 31 |
| 27 | 310 | 348 | 9.7 | 1.6 | PHQ731_0055K202_0400 EZ302U | 732 | 732 | 1126 | 222.2 | 1333/6 | 4000 | 4000 | 6500 | 4.0 | 0.35 | 2.0 | 136 | 30 |
| 27 | 405 | 465 | 13 | 1.2 | PHQ731_0055K202_0400 EZ303U | 732 | 732 | 1126 | 222.2 | 1333/6 | 4000 | 4000 | 6500 | 4.0 | 0.46 | 2.0 | 136 | 31 |
| 27 | 476 | 579 | 15 | 1.1 | PHQ731_0055K202_0400 EZ401U | 732 | 732 | 1126 | 222.2 | 1333/6 | 4000 | 4000 | 6500 | 4.0 | 0.99 | 2.0 | 136 | 32 |
| 32 | 265 | 297 | 9.3 | 1.9 | PHQ731_0055K202_0350 EZ302U | 885 | 885 | 1228 | 190.0 | 21285/112 | 4000 | 4000 | 6500 | 4.0 | 0.41 | 2.0 | 136 | 30 |
| 32 | 347 | 398 | 12 | 1.4 | PHQ731_0055K202_0350 EZ303U | 905 | 905 | 1228 | 190.0 | 21285/112 | 4000 | 4000 | 6500 | 4.0 | 0.52 | 2.0 | 136 | 31 |
| 32 | 407 | 496 | 14 | 1.2 | PHQ731_0055K202_0350 EZ401U | 1050 | 1050 | 2100 | 190.0 | 21285/112 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 32 | 258 | 289 | 9.2 | 1.9 | PHQ731_0055K202_0340 EZ302U | 792 | 792 | 1074 | 184.9 | 1849/10 | 4000 | 4000 | 6500 | 4.0 | 0.37 | 2.0 | 136 | 30 |
| 32 | 337 | 387 | 12 | 1.5 | PHQ731_0055K202_0340 EZ303U | 792 | 792 | 1074 | 184.9 | 1849/10 | 4000 | 4000 | 6500 | 4.0 | 0.48 | 2.0 | 136 | 31 |
| 32 | 396 | 482 | 14 | 1.3 | PHQ731_0055K202_0340 EZ401U | 976 | 976 | 1765 | 184.9 | 1849/10 | 4000 | 4000 | 6500 | 4.0 | 1.0 | 2.0 | 136 | 32 |
| 39 | 329 | 401 | 14 | 1.5 | PHQ731_0055K202_0280 EZ401U | 1050 | 1050 | 2100 | 153.7 | 6149/40 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 39 | 487 | 630 | 20 | 1.0 | PHQ731_0055K202_0280 EZ501U | 1050 | 1050 | 2100 | 153.7 | 6149/40 | 4000 | 4000 | 6500 | 4.0 | 3.1 | 2.0 | 136 | 33 |
| 43 | 193 | 216 | 8.6 | 2.6 | PHQ731_0055K202_0250 EZ302U | 644 | 644 | 893 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 0.43 | 2.0 | 136 | 30 |
| 43 | 252 | 290 | 11 | 2.0 | PHQ731_0055K202_0250 EZ303U | 658 | 658 | 893 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 0.54 | 2.0 | 136 | 31 |
| 43 | 296 | 360 | 13 | 1.7 | PHQ731_0055K202_0250 EZ401U | 1050 | 1050 | 2100 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 43 | 438 | 566 | 19 | 1.1 | PHQ731_0055K202_0250 EZ501U | 1050 | 1050 | 2100 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 3.0 | 2.0 | 136 | 33 |
| 43 | 450 | 631 | 20 | 1.1 | PHQ731_0055K202_0250 EZ402U | 1050 | 1050 | 2100 | 138.2 | 1935/14 | 4000 | 4000 | 6500 | 4.0 | 1.8 | 2.0 | 136 | 33 |
| 47 | 178 | 199 | 8.4 | 2.8 | PHQ731_0055K202_0230 EZ302U | 594 | 594 | 966 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 0.53 | 2.0 | 136 | 30 |
| 47 | 233 | 267 | 11 | 2.1 | PHQ731_0055K202_0230 EZ303U | 713 | 713 | 966 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 0.64 | 2.0 | 136 | 31 |
| 47 | 273 | 332 | 13 | 1.8 | PHQ731_0055K202_0230 EZ401U | 1009 | 1009 | 2100 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 136 | 32 |
| 47 | 404 | 522 | 19 | 1.2 | PHQ731_0055K202_0230 EZ501U | 1050 | 1050 | 2100 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 3.1 | 2.0 | 136 | 33 |
| 47 | 416 | 582 | 20 | 1.2 | PHQ731_0055K202_0230 EZ402U | 1050 | 1050 | 2100 | 127.5 | 32637/256 | 4000 | 4000 | 6500 | 4.0 | 1.9 | 2.0 | 136 | 33 |
| 54 | 239 | 291 | 13 | 2.1 | PHQ731_0055K202_0200 EZ401U | 885 | 885 | 2100 | 111.8 | 559/5 | 4000 | 4000 | 6500 | 4.0 | 1.1 | 2.0 | 136 | 32 |
| 54 | 354 | 458 | 18 | 1.4 | PHQ731_0055K202_0200 EZ501U | 1050 | 1050 | 2100 | 111.8 | 559/5 | 4000 | 4000 | 6500 | 4.0 | 3.1 | 2.0 | 136 | 33 |
| 54 | 364 | 510 | 19 | 1.4 | PHQ731_0055K202_0200 EZ402U | 1050 | 1050 | 2100 | 111.8 | 559/5 | 4000 | 4000 | 6500 | 4.0 | 1.8 | 2.0 | 136 | 33 |
| 65 | 130 | 145 | 7.8 | 3.9 | PHQ731_0055K202_0170 EZ302U | 432 | 432 | 703 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 0.56 | 2.0 | 136 | 30 |
| 65 | 169 | 194 | 10 | 3.0 | PHQ731_0055K202_0170 EZ303U | 518 | 518 | 703 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 0.67 | 2.0 | 136 | 31 |
| 65 | 199 | 242 | 12 | 2.5 | PHQ731_0055K202_0170 EZ401U | 734 | 734 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 1.2 | 2.0 | 136 | 32 |
| 65 | 294 | 380 | 18 | 1.7 | PHQ731_0055K202_0170 EZ501U | 1050 | 1050 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 3.2 | 2.0 | 136 | 33 |
| 65 | 302 | 423 | 18 | 1.7 | PHQ731_0055K202_0170 EZ402U | 1050 | 1050 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 1.9 | 2.0 | 136 | 33 |
| 65 | 449 | 673 | 27 | 1.1 | PHQ731_0055K202_0170 EZ502U | 1050 | 1050 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 5.5 | 2.0 | 136 | 35 |
| 65 | 449 | 682 | 27 | 1.1 | PHQ731_0055K202_0170 EZ701U | 1050 | 1050 | 2100 | 92.72 | 2967/32 | 4000 | 4000 | 6500 | 4.0 | 8.8 | 2.0 | 136 | 37 |
| **PHQ831K ($n_{1N}$ = 2000 min⁻¹, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | | |
| 54 | 1342 | 1505 | 69 | 1.0 | PHQ831_0055K402_0067 EZ813U | 2800 | 2878 | 4964 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 109 | 1.5 | 400 | 101 |
| 61 | 1198 | 1344 | 67 | 1.2 | PHQ831_0055K402_0060 EZ813U | 2772 | 2772 | 4964 | 33.00 | 33/1 | 2600 | 2600 | 3800 | 3.5 | 112 | 1.5 | 400 | 101 |
| 67 | 1083 | 1214 | 65 | 1.3 | PHQ831_0055K402_0054 EZ813U | 2680 | 2680 | 4964 | 29.82 | 1849/62 | 2600 | 2600 | 3800 | 3.5 | 111 | 1.5 | 400 | 101 |
| 83 | 871 | 977 | 62 | 1.6 | PHQ831_0055K402_0044 EZ813U | 2493 | 2493 | 4850 | 24.00 | 24/1 | 2600 | 2600 | 3800 | 3.5 | 113 | 1.5 | 400 | 101 |
| 83 | 1291 | 1537 | 92 | 1.1 | PHQ831_0055K402_0044 EZ815U | 2493 | 2493 | 4850 | 24.00 | 24/1 | 2600 | 2600 | 3800 | 3.5 | 177 | 1.5 | 400 | 114 |
| 91 | 799 | 896 | 61 | 1.8 | PHQ831_0055K402_0040 EZ813U | 2421 | 2421 | 4446 | 22.00 | 22/1 | 2600 | 2600 | 3800 | 3.5 | 115 | 1.5 | 400 | 101 |
| 91 | 1183 | 1409 | 90 | 1.2 | PHQ831_0055K402_0040 EZ815U | 2421 | 2421 | 4446 | 22.00 | 22/1 | 2600 | 2600 | 3800 | 3.5 | 178 | 1.5 | 400 | 114 |
| **PHQ831K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | | |
| 9.8 | 1227 | 1341 | 13 | 1.1 | PHQ831_0055K402_0560 EZ501U | 2684 | 2684 | 4853 | 306.4 | 2451/8 | 3600 | 3600 | 5500 | 3.5 | 3.1 | 1.5 | 400 | 70 |
| 11 | 1111 | 1214 | 13 | 1.3 | PHQ831_0055K402_0500 EZ501U | 1708 | 1708 | 3088 | 277.3 | 5547/20 | 3600 | 3600 | 5500 | 3.5 | 3.1 | 1.5 | 400 | 70 |
| 12 | 1020 | 1115 | 12 | 1.4 | PHQ831_0055K402_0460 EZ501U | 2800 | 3168 | 4964 | 254.7 | 3311/13 | 3600 | 3600 | 5500 | 3.5 | 3.2 | 1.5 | 400 | 70 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | | |
| 13 | 892 | 975 | 12 | 1.6 | PHQ831_0055K402_0410 EZ501U | 1952 | 1952 | 3529 | 222.8 | 2451/11 | 3600 | 3600 | 5500 | 3.5 | 3.1 | 1.5 | 400 | 70 |
| 16 | 765 | 837 | 11 | 1.8 | PHQ831_0055K402_0350 EZ501U | 2800 | 2848 | 4644 | 191.2 | 45881/240 | 3600 | 3600 | 5500 | 3.5 | 3.4 | 1.5 | 400 | 70 |
| 16 | 1317 | 1424 | 20 | 1.1 | PHQ831_0055K402_0350 EZ502U | 2800 | 3168 | 4644 | 191.2 | 45881/240 | 3600 | 3600 | 5500 | 3.5 | 5.7 | 1.5 | 400 | 72 |
| 16 | 1317 | 1478 | 20 | 1.1 | PHQ831_0055K402_0350 EZ701U | 2800 | 3168 | 4964 | 191.2 | 45881/240 | 3600 | 3600 | 5500 | 3.5 | 9.0 | 1.5 | 400 | 74 |
| 16 | 742 | 811 | 11 | 1.9 | PHQ831_0055K402_0340 EZ501U | 2464 | 2464 | 4069 | 185.2 | 2408/13 | 3600 | 3600 | 5500 | 3.5 | 3.2 | 1.5 | 400 | 70 |
| 16 | 1276 | 1380 | 20 | 1.1 | PHQ831_0055K402_0340 EZ502U | 2464 | 2464 | 4069 | 185.2 | 2408/13 | 3600 | 3600 | 5500 | 3.5 | 5.5 | 1.5 | 400 | 72 |
| 16 | 1276 | 1432 | 20 | 1.1 | PHQ831_0055K402_0340 EZ701U | 2464 | 2464 | 4069 | 185.2 | 2408/13 | 3600 | 3600 | 5500 | 3.5 | 8.8 | 1.5 | 400 | 74 |
| 20 | 612 | 668 | 11 | 2.3 | PHQ831_0055K402_0280 EZ501U | 2276 | 2276 | 4273 | 152.7 | 14663/96 | 3600 | 3600 | 5500 | 3.5 | 3.6 | 1.5 | 400 | 70 |
| 20 | 1053 | 1138 | 19 | 1.3 | PHQ831_0055K402_0280 EZ502U | 2800 | 3150 | 4273 | 152.7 | 14663/96 | 3600 | 3600 | 5500 | 3.5 | 5.9 | 1.5 | 400 | 72 |
| 20 | 1053 | 1181 | 19 | 1.3 | PHQ831_0055K402_0280 EZ701U | 2800 | 2845 | 4964 | 152.7 | 14663/96 | 3600 | 3600 | 5500 | 3.5 | 9.2 | 1.5 | 400 | 74 |
| 20 | 1380 | 1579 | 24 | 1.0 | PHQ831_0055K402_0280 EZ503U | 2800 | 3150 | 4273 | 152.7 | 14663/96 | 3600 | 3600 | 5500 | 3.5 | 8.2 | 1.5 | 400 | 73 |
| 22 | 557 | 609 | 11 | 2.5 | PHQ831_0055K402_0250 EZ501U | 2072 | 2072 | 3377 | 139.0 | 4171/30 | 3600 | 3600 | 5500 | 3.5 | 3.4 | 1.5 | 400 | 70 |
| 22 | 958 | 1036 | 18 | 1.5 | PHQ831_0055K402_0250 EZ502U | 2490 | 2490 | 3377 | 139.0 | 4171/30 | 3600 | 3600 | 5500 | 3.5 | 5.7 | 1.5 | 400 | 72 |
| 22 | 958 | 1075 | 18 | 1.5 | PHQ831_0055K402_0250 EZ701U | 2589 | 2589 | 4964 | 139.0 | 4171/30 | 3600 | 3600 | 5500 | 3.5 | 9.0 | 1.5 | 400 | 74 |
| 22 | 1256 | 1437 | 24 | 1.1 | PHQ831_0055K402_0250 EZ503U | 2490 | 2490 | 3377 | 139.0 | 4171/30 | 3600 | 3600 | 5500 | 3.5 | 8.1 | 1.5 | 400 | 73 |
| 23 | 513 | 561 | 10 | 2.7 | PHQ831_0055K402_0230 EZ501U | 1909 | 1909 | 3884 | 128.1 | 6149/48 | 3600 | 3600 | 5500 | 3.5 | 3.8 | 1.5 | 400 | 70 |
| 23 | 883 | 954 | 18 | 1.6 | PHQ831_0055K402_0230 EZ502U | 2800 | 2863 | 3884 | 128.1 | 6149/48 | 3600 | 3600 | 5500 | 3.5 | 6.1 | 1.5 | 400 | 72 |
| 23 | 883 | 990 | 18 | 1.6 | PHQ831_0055K402_0230 EZ701U | 2386 | 2386 | 4964 | 128.1 | 6149/48 | 3600 | 3600 | 5500 | 3.5 | 9.4 | 1.5 | 400 | 74 |
| 23 | 1157 | 1324 | 23 | 1.2 | PHQ831_0055K402_0230 EZ503U | 2800 | 2863 | 3884 | 128.1 | 6149/48 | 3600 | 3600 | 5500 | 3.5 | 8.5 | 1.5 | 400 | 73 |
| 27 | 445 | 486 | 10 | 3.1 | PHQ831_0055K402_0200 EZ501U | 1655 | 1655 | 3107 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 3.7 | 1.5 | 400 | 70 |
| 27 | 765 | 828 | 17 | 1.8 | PHQ831_0055K402_0200 EZ502U | 2291 | 2291 | 3107 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 6.0 | 1.5 | 400 | 72 |
| 27 | 765 | 859 | 17 | 1.8 | PHQ831_0055K402_0200 EZ701U | 2069 | 2069 | 4964 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 9.3 | 1.5 | 400 | 74 |
| 27 | 1003 | 1148 | 23 | 1.4 | PHQ831_0055K402_0200 EZ503U | 2291 | 2291 | 3107 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 8.3 | 1.5 | 400 | 73 |
| 27 | 1241 | 1490 | 28 | 1.1 | PHQ831_0055K402_0200 EZ702U | 2800 | 3168 | 4964 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 14 | 1.5 | 400 | 76 |
| 27 | 1396 | 1655 | 31 | 1.0 | PHQ831_0055K402_0200 EZ505U | 2800 | 3168 | 4964 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 13 | 1.5 | 400 | 76 |
| 31 | 660 | 740 | 17 | 2.1 | PHQ831_0055K402_0175 EZ701U | 1783 | 1783 | 4964 | 95.73 | 8041/84 | 3400 | 3400 | 5000 | 3.5 | 9.9 | 1.5 | 400 | 74 |
| 31 | 1070 | 1284 | 27 | 1.3 | PHQ831_0055K402_0175 EZ702U | 2800 | 3168 | 4964 | 95.73 | 8041/84 | 3400 | 3400 | 5000 | 3.5 | 15 | 1.5 | 400 | 76 |
| 31 | 1203 | 1426 | 30 | 1.2 | PHQ831_0055K402_0175 EZ505U | 2800 | 3168 | 4964 | 95.73 | 8041/84 | 3400 | 3400 | 5000 | 3.5 | 14 | 1.5 | 400 | 76 |
| 32 | 373 | 408 | 9.6 | 3.8 | PHQ831_0055K402_0170 EZ501U | 1388 | 1388 | 2824 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 3.9 | 1.5 | 400 | 70 |
| 32 | 642 | 694 | 16 | 2.2 | PHQ831_0055K402_0170 EZ502U | 2082 | 2082 | 2824 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 6.2 | 1.5 | 400 | 72 |
| 32 | 642 | 720 | 16 | 2.2 | PHQ831_0055K402_0170 EZ701U | 1735 | 1735 | 4964 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 9.5 | 1.5 | 400 | 74 |
| 32 | 842 | 963 | 22 | 1.7 | PHQ831_0055K402_0170 EZ503U | 2082 | 2082 | 2824 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 8.6 | 1.5 | 400 | 73 |
| 32 | 1041 | 1249 | 27 | 1.3 | PHQ831_0055K402_0170 EZ702U | 2800 | 3168 | 4964 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 15 | 1.5 | 400 | 76 |
| 32 | 1171 | 1388 | 30 | 1.2 | PHQ831_0055K402_0170 EZ505U | 2800 | 3168 | 4964 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 13 | 1.5 | 400 | 76 |
| 39 | 526 | 590 | 16 | 2.7 | PHQ831_0055K402_0140 EZ701U | 1422 | 1422 | 4964 | 76.37 | 14663/192 | 3400 | 3400 | 5000 | 3.5 | 11 | 1.5 | 400 | 74 |
| 39 | 853 | 1024 | 25 | 1.6 | PHQ831_0055K402_0140 EZ702U | 2800 | 2916 | 4964 | 76.37 | 14663/192 | 3400 | 3400 | 5000 | 3.5 | 16 | 1.5 | 400 | 76 |
| 39 | 960 | 1138 | 29 | 1.5 | PHQ831_0055K402_0140 EZ505U | 2800 | 3168 | 4964 | 76.37 | 14663/192 | 3400 | 3400 | 5000 | 3.5 | 14 | 1.5 | 400 | 76 |
| 39 | 1173 | 1479 | 35 | 1.2 | PHQ831_0055K402_0140 EZ703U | 2800 | 3168 | 4964 | 76.37 | 14663/192 | 3400 | 3400 | 5000 | 3.5 | 24 | 1.5 | 400 | 78 |
| 43 | 480 | 538 | 15 | 2.9 | PHQ831_0055K402_0125 EZ701U | 1297 | 1297 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 10 | 1.5 | 400 | 74 |
| 43 | 778 | 934 | 25 | 1.8 | PHQ831_0055K402_0125 EZ702U | 2658 | 2658 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 15 | 1.5 | 400 | 76 |
| 43 | 875 | 1037 | 28 | 1.6 | PHQ831_0055K402_0125 EZ505U | 2800 | 3168 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 14 | 1.5 | 400 | 76 |
| 43 | 1070 | 1348 | 34 | 1.3 | PHQ831_0055K402_0125 EZ703U | 2800 | 3168 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 23 | 1.5 | 400 | 78 |
| 43 | 1381 | 1958 | 44 | 1.0 | PHQ831_0055K402_0125 EZ705U | 2800 | 3168 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 36 | 1.5 | 400 | 84 |
| 47 | 437 | 490 | 15 | 3.2 | PHQ831_0055K402_0115 EZ701U | 1180 | 1180 | 4802 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 11 | 1.5 | 400 | 74 |
| 47 | 708 | 849 | 24 | 2.0 | PHQ831_0055K402_0115 EZ702U | 2419 | 2419 | 4802 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 400 | 76 |
| 47 | 796 | 944 | 27 | 1.8 | PHQ831_0055K402_0115 EZ505U | 2800 | 3168 | 4802 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 400 | 76 |
| 47 | 973 | 1227 | 33 | 1.4 | PHQ831_0055K402_0115 EZ703U | 2800 | 3168 | 4802 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 400 | 78 |
| 47 | 1257 | 1782 | 43 | 1.1 | PHQ831_0055K402_0115 EZ705U | 2800 | 3168 | 4964 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 37 | 1.5 | 400 | 84 |
| 54 | 383 | 429 | 14 | 3.7 | PHQ831_0055K402_0100 EZ701U | 1034 | 1034 | 4209 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 11 | 1.5 | 400 | 74 |
| 54 | 621 | 745 | 23 | 2.3 | PHQ831_0055K402_0100 EZ702U | 2120 | 2120 | 4209 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 16 | 1.5 | 400 | 76 |
| 54 | 698 | 827 | 26 | 2.0 | PHQ831_0055K402_0100 EZ505U | 2800 | 3103 | 4209 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 15 | 1.5 | 400 | 76 |
| 54 | 853 | 1076 | 32 | 1.6 | PHQ831_0055K402_0100 EZ703U | 2800 | 3103 | 4209 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 24 | 1.5 | 400 | 78 |
| 54 | 1102 | 1562 | 42 | 1.3 | PHQ831_0055K402_0100 EZ705U | 2800 | 3168 | 4964 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 36 | 1.5 | 400 | 84 |
| 59 | 350 | 393 | 14 | 4.0 | PHQ831_0055K402_0092 EZ701U | 946 | 946 | 3852 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 12 | 1.5 | 400 | 74 |
| 59 | 568 | 681 | 23 | 2.5 | PHQ831_0055K402_0092 EZ702U | 1940 | 1940 | 3852 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 17 | 1.5 | 400 | 76 |
| 59 | 639 | 757 | 26 | 2.2 | PHQ831_0055K402_0092 EZ505U | 2800 | 2840 | 3852 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 400 | 76 |
| 59 | 781 | 984 | 32 | 1.8 | PHQ831_0055K402_0092 EZ703U | 2800 | 2840 | 3852 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 25 | 1.5 | 400 | 78 |
| 59 | 1008 | 1429 | 41 | 1.4 | PHQ831_0055K402_0092 EZ705U | 2800 | 3168 | 4964 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 38 | 1.5 | 400 | 84 |
| 65 | 317 | 356 | 14 | 4.4 | PHQ831_0055K402_0084 EZ701U | 858 | 858 | 3492 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 12 | 1.5 | 400 | 74 |
| 65 | 515 | 618 | 22 | 2.7 | PHQ831_0055K402_0084 EZ702U | 1759 | 1759 | 3492 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 17 | 1.5 | 400 | 76 |
| 65 | 579 | 686 | 25 | 2.4 | PHQ831_0055K402_0084 EZ505U | 2575 | 2575 | 3492 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 400 | 76 |
| 65 | 708 | 892 | 31 | 2.0 | PHQ831_0055K402_0084 EZ703U | 2575 | 2575 | 3492 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 25 | 1.5 | 400 | 78 |
| 65 | 914 | 1296 | 40 | 1.5 | PHQ831_0055K402_0084 EZ705U | 2800 | 3098 | 4964 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 37 | 1.5 | 400 | 84 |
| 73 | 813 | 1153 | 39 | 1.7 | PHQ831_0055K402_0075 EZ705U | 2800 | 2980 | 4964 | 41.01 | 20339/496 | 2600 | 2600 | 3800 | 3.5 | 39 | 1.5 | 400 | 84 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arc min] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arc min] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ831K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | | |
| 81 | 413 | 496 | 21 | 3.4 | PHQ831_0055K402_0067 EZ702U | 1411 | 1411 | 2801 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 18 | 1.5 | 400 | 76 |
| 81 | 465 | 551 | 24 | 3.0 | PHQ831_0055K402_0067 EZ505U | 2065 | 2065 | 2801 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 17 | 1.5 | 400 | 76 |
| 81 | 568 | 716 | 29 | 2.5 | PHQ831_0055K402_0067 EZ703U | 2065 | 2065 | 2801 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 26 | 1.5 | 400 | 78 |
| 81 | 733 | 1039 | 38 | 1.9 | PHQ831_0055K402_0067 EZ705U | 2800 | 2878 | 4964 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 39 | 1.5 | 400 | 84 |
| 91 | 655 | 928 | 37 | 2.1 | PHQ831_0055K402_0060 EZ705U | 2772 | 2772 | 4964 | 33.00 | 33/1 | 2600 | 2600 | 3800 | 3.5 | 41 | 1.5 | 400 | 84 |
| 101 | 591 | 839 | 36 | 2.4 | PHQ831_0055K402_0054 EZ705U | 2680 | 2680 | 4964 | 29.82 | 1849/62 | 2600 | 2600 | 3800 | 3.5 | 40 | 1.5 | 400 | 84 |
| 125 | 476 | 675 | 36 | 2.8 | PHQ831_0055K402_0044 EZ705U | 2324 | 2324 | 4850 | 24.00 | 24/1 | 2600 | 2600 | 3800 | 3.5 | 43 | 1.5 | 400 | 84 |
| 136 | 436 | 619 | 36 | 2.9 | PHQ831_0055K402_0040 EZ705U | 2131 | 2131 | 4446 | 22.00 | 22/1 | 2600 | 2600 | 3800 | 3.5 | 44 | 1.5 | 400 | 84 |
| **PHQ831K ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | | |
| 72 | 1303 | 2260 | 49 | 1.1 | PHQ831_0055K402_0100 EZ813U | 2800 | 3168 | 4964 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 107 | 1.5 | 400 | 101 |
| 72 | 1350 | 3472 | 51 | 1.0 | PHQ831_0055K402_0100 EZ815U | 2800 | 3168 | 4964 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 170 | 1.5 | 400 | 114 |
| 79 | 1192 | 2068 | 48 | 1.2 | PHQ831_0055K402_0092 EZ813U | 2800 | 3168 | 4964 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 108 | 1.5 | 400 | 101 |
| 79 | 1235 | 3177 | 50 | 1.1 | PHQ831_0055K402_0092 EZ815U | 2800 | 3168 | 4964 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 171 | 1.5 | 400 | 114 |
| 87 | 1081 | 1875 | 47 | 1.3 | PHQ831_0055K402_0084 EZ813U | 2800 | 3098 | 4964 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 108 | 1.5 | 400 | 101 |
| 87 | 1120 | 2881 | 49 | 1.3 | PHQ831_0055K402_0084 EZ815U | 2800 | 3098 | 4964 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 171 | 1.5 | 400 | 114 |
| 108 | 867 | 1504 | 45 | 1.6 | PHQ831_0055K402_0067 EZ813U | 2800 | 2878 | 4964 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 109 | 1.5 | 400 | 101 |
| 108 | 898 | 2310 | 47 | 1.5 | PHQ831_0055K402_0067 EZ815U | 2800 | 2878 | 4964 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 172 | 1.5 | 400 | 114 |
| **PHQ831K ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 2800 Nm)** | | | | | | | | | | | | | | | | | | |
| 29 | 1351 | 2176 | 24 | 1.0 | PHQ831_0055K402_0280 EZ505U | 2800 | 3168 | 4964 | 152.7 | 14663/96 | 3600 | 3600 | 5500 | 3.5 | 13 | 1.5 | 400 | 76 |
| 32 | 1230 | 1981 | 23 | 1.1 | PHQ831_0055K402_0250 EZ505U | 2800 | 3168 | 4964 | 139.0 | 4171/30 | 3600 | 3600 | 5500 | 3.5 | 13 | 1.5 | 400 | 76 |
| 35 | 1133 | 1825 | 23 | 1.2 | PHQ831_0055K402_0230 EZ505U | 2800 | 3168 | 4964 | 128.1 | 6149/48 | 3600 | 3600 | 5500 | 3.5 | 13 | 1.5 | 400 | 76 |
| 41 | 983 | 1583 | 22 | 1.4 | PHQ831_0055K402_0200 EZ505U | 2800 | 3168 | 4964 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 13 | 1.5 | 400 | 76 |
| 41 | 1252 | 2069 | 28 | 1.1 | PHQ831_0055K402_0200 EZ703U | 2800 | 3168 | 4964 | 111.1 | 1333/12 | 3600 | 3600 | 5500 | 3.5 | 22 | 1.5 | 400 | 78 |
| 47 | 847 | 1364 | 21 | 1.7 | PHQ831_0055K402_0175 EZ505U | 2800 | 3168 | 4964 | 95.73 | 8041/84 | 3400 | 3400 | 5000 | 3.5 | 14 | 1.5 | 400 | 76 |
| 47 | 1079 | 1783 | 27 | 1.3 | PHQ831_0055K402_0175 EZ703U | 2800 | 3168 | 4964 | 95.73 | 8041/84 | 3400 | 3400 | 5000 | 3.5 | 23 | 1.5 | 400 | 78 |
| 48 | 824 | 1327 | 21 | 1.7 | PHQ831_0055K402_0170 EZ505U | 2800 | 3168 | 4964 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 13 | 1.5 | 400 | 76 |
| 48 | 1050 | 1735 | 27 | 1.3 | PHQ831_0055K402_0170 EZ703U | 2800 | 3168 | 4964 | 93.16 | 559/6 | 3600 | 3600 | 5500 | 3.5 | 23 | 1.5 | 400 | 78 |
| 59 | 676 | 1088 | 20 | 2.1 | PHQ831_0055K402_0140 EZ505U | 2800 | 3168 | 4964 | 76.37 | 14663/192 | 3400 | 3400 | 5000 | 3.5 | 14 | 1.5 | 400 | 76 |
| 59 | 860 | 1422 | 26 | 1.6 | PHQ831_0055K402_0140 EZ703U | 2800 | 3168 | 4964 | 76.37 | 14663/192 | 3400 | 3400 | 5000 | 3.5 | 24 | 1.5 | 400 | 78 |
| 59 | 1166 | 2133 | 35 | 1.2 | PHQ831_0055K402_0140 EZ705U | 2800 | 3168 | 4964 | 76.37 | 14663/192 | 3400 | 3400 | 5000 | 3.5 | 36 | 1.5 | 400 | 84 |
| 65 | 616 | 992 | 20 | 2.3 | PHQ831_0055K402_0125 EZ505U | 2800 | 3168 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 14 | 1.5 | 400 | 76 |
| 65 | 784 | 1297 | 25 | 1.8 | PHQ831_0055K402_0125 EZ703U | 2800 | 3168 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 23 | 1.5 | 400 | 78 |
| 65 | 1063 | 1945 | 34 | 1.3 | PHQ831_0055K402_0125 EZ705U | 2800 | 3168 | 4964 | 69.62 | 1462/21 | 3400 | 3400 | 5000 | 3.5 | 36 | 1.5 | 400 | 84 |
| 71 | 560 | 903 | 19 | 2.5 | PHQ831_0055K402_0115 EZ505U | 2800 | 3168 | 4802 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 400 | 76 |
| 71 | 714 | 1180 | 24 | 2.0 | PHQ831_0055K402_0115 EZ703U | 2800 | 3168 | 4802 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 24 | 1.5 | 400 | 78 |
| 71 | 967 | 1770 | 33 | 1.4 | PHQ831_0055K402_0115 EZ705U | 2800 | 3168 | 4964 | 63.35 | 7095/112 | 3000 | 3000 | 4500 | 3.5 | 37 | 1.5 | 400 | 84 |
| 81 | 491 | 791 | 19 | 2.8 | PHQ831_0055K402_0100 EZ505U | 2800 | 3103 | 4209 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 15 | 1.5 | 400 | 76 |
| 81 | 626 | 1034 | 24 | 2.2 | PHQ831_0055K402_0100 EZ703U | 2800 | 3103 | 4209 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 24 | 1.5 | 400 | 78 |
| 81 | 848 | 1552 | 32 | 1.7 | PHQ831_0055K402_0100 EZ705U | 2800 | 3168 | 4964 | 55.54 | 1333/24 | 3400 | 3400 | 5000 | 3.5 | 36 | 1.5 | 400 | 84 |
| 89 | 449 | 724 | 18 | 3.1 | PHQ831_0055K402_0092 EZ505U | 2800 | 2840 | 3852 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 16 | 1.5 | 400 | 76 |
| 89 | 572 | 946 | 23 | 2.4 | PHQ831_0055K402_0092 EZ703U | 2800 | 2840 | 3852 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 25 | 1.5 | 400 | 78 |
| 89 | 776 | 1419 | 31 | 1.8 | PHQ831_0055K402_0092 EZ705U | 2800 | 3168 | 4964 | 50.81 | 26015/512 | 3000 | 3000 | 4500 | 3.5 | 38 | 1.5 | 400 | 84 |
| 98 | 408 | 656 | 18 | 3.4 | PHQ831_0055K402_0084 EZ505U | 2575 | 2575 | 3492 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 15 | 1.5 | 400 | 76 |
| 98 | 519 | 858 | 23 | 2.7 | PHQ831_0055K402_0084 EZ703U | 2575 | 2575 | 3492 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 25 | 1.5 | 400 | 78 |
| 98 | 704 | 1287 | 31 | 2.0 | PHQ831_0055K402_0084 EZ705U | 2800 | 3098 | 4964 | 46.07 | 645/14 | 3000 | 3000 | 4500 | 3.5 | 37 | 1.5 | 400 | 84 |
| 122 | 327 | 527 | 18 | 4.1 | PHQ831_0055K402_0067 EZ505U | 2065 | 2065 | 2801 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 17 | 1.5 | 400 | 76 |
| 122 | 416 | 688 | 23 | 3.2 | PHQ831_0055K402_0067 EZ703U | 2065 | 2065 | 2801 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 26 | 1.5 | 400 | 78 |
| 122 | 564 | 1032 | 30 | 2.4 | PHQ831_0055K402_0067 EZ705U | 2800 | 2878 | 4964 | 36.95 | 2365/64 | 3000 | 3000 | 4500 | 3.5 | 39 | 1.5 | 400 | 84 |
| **PHQ941K ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 5760 Nm)** | | | | | | | | | | | | | | | | | | |
| 19 | 3753 | 4209 | 53 | 1.0 | PHQ941_0060K513_0175 EZ813U | 5760 | 5760 | 11250 | 104.9 | 6293/60 | 2800 | 2800 | 4200 | 4.0 | 109 | 2.0 | 771 | 123 |
| 21 | 3455 | 3875 | 52 | 1.1 | PHQ941_0060K513_0160 EZ813U | 5760 | 5760 | 11250 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 110 | 2.0 | 771 | 123 |
| 23 | 3121 | 3500 | 50 | 1.2 | PHQ941_0060K513_0145 EZ813U | 5760 | 5760 | 11250 | 87.22 | 11774/135 | 2300 | 2300 | 3600 | 4.0 | 110 | 2.0 | 771 | 123 |
| 26 | 2750 | 3084 | 49 | 1.4 | PHQ941_0060K513_0130 EZ813U | 5760 | 5760 | 11250 | 76.85 | 1537/20 | 2300 | 2300 | 3600 | 4.0 | 112 | 2.0 | 771 | 123 |
| 29 | 2484 | 2786 | 47 | 1.5 | PHQ941_0060K513_0115 EZ813U | 5760 | 5760 | 11250 | 69.41 | 10759/155 | 2300 | 2300 | 3600 | 4.0 | 113 | 2.0 | 771 | 123 |
| 29 | 3679 | 4380 | 70 | 1.0 | PHQ941_0060K513_0115 EZ815U | 5760 | 5760 | 11250 | 69.41 | 10759/155 | 2300 | 2300 | 3600 | 4.0 | 176 | 2.0 | 771 | 136 |
| 33 | 2179 | 2444 | 45 | 1.7 | PHQ941_0060K513_0100 EZ813U | 5760 | 5760 | 11250 | 60.90 | 609/10 | 1900 | 1900 | 3200 | 4.0 | 115 | 2.0 | 771 | 123 |
| 33 | 3228 | 3843 | 67 | 1.2 | PHQ941_0060K513_0100 EZ815U | 5760 | 5760 | 11250 | 60.90 | 609/10 | 1900 | 1900 | 3200 | 4.0 | 178 | 2.0 | 771 | 136 |
| 36 | 1968 | 2208 | 44 | 1.9 | PHQ941_0060K513_0092 EZ813U | 5760 | 5760 | 10954 | 55.01 | 8526/155 | 1900 | 1900 | 3200 | 4.0 | 116 | 2.0 | 771 | 123 |
| 36 | 2915 | 3471 | 65 | 1.3 | PHQ941_0060K513_0092 EZ815U | 5760 | 5760 | 10954 | 55.01 | 8526/155 | 1900 | 1900 | 3200 | 4.0 | 179 | 2.0 | 771 | 136 |
| 41 | 1746 | 1959 | 43 | 2.2 | PHQ941_0060K513_0081 EZ813U | 5760 | 5760 | 9720 | 48.80 | 17081/350 | 1900 | 1900 | 3200 | 4.0 | 119 | 2.0 | 771 | 123 |
| 41 | 2587 | 3080 | 63 | 1.5 | PHQ941_0060K513_0081 EZ815U | 5760 | 5760 | 9720 | 48.80 | 17081/350 | 1900 | 1900 | 3200 | 4.0 | 182 | 2.0 | 771 | 136 |
| 45 | 1577 | 1769 | 43 | 2.3 | PHQ941_0060K513_0073 EZ813U | 5664 | 5664 | 8779 | 44.08 | 1102/25 | 1900 | 1900 | 3200 | 4.0 | 121 | 2.0 | 771 | 123 |
| 45 | 2336 | 2782 | 64 | 1.6 | PHQ941_0060K513_0073 EZ815U | 5760 | 5760 | 8779 | 44.08 | 1102/25 | 1900 | 1900 | 3200 | 4.0 | 184 | 2.0 | 771 | 136 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2accHT}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $\Delta\varphi_2$ [arcmin] | $J_1$ [kgcm²] | $\Delta\varphi_{2red}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PHQ941K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 5760 Nm)** | | | | | | | | | | | | | | | | | | |
| 5.2 | 2288 | 2501 | 9.8 | 1.7 | PHQ941_0060K513_0970 EZ501U | 5275 | 5275 | 8701 | 579.9 | 115971/200 | 3400 | 3400 | 5000 | 4.0 | 3.2 | 2.0 | 771 | 93 |
| 5.7 | 2067 | 2259 | 9.5 | 1.8 | PHQ941_0060K513_0870 EZ501U | 4765 | 4765 | 7859 | 523.7 | 26187/50 | 3400 | 3400 | 5000 | 4.0 | 3.2 | 2.0 | 771 | 93 |
| 5.7 | 3557 | 3845 | 16 | 1.1 | PHQ941_0060K513_0870 EZ502U | 4765 | 4765 | 7859 | 523.7 | 26187/50 | 3400 | 3400 | 5000 | 4.0 | 5.5 | 2.0 | 771 | 94 |
| 5.7 | 3557 | 3990 | 16 | 1.1 | PHQ941_0060K513_0870 EZ701U | 4765 | 4765 | 7859 | 523.7 | 26187/50 | 3400 | 3400 | 5000 | 4.0 | 8.8 | 2.0 | 771 | 96 |
| 6.4 | 1837 | 2008 | 9.2 | 2.1 | PHQ941_0060K513_0780 EZ501U | 5760 | 5760 | 8724 | 465.6 | 26071/56 | 3400 | 3400 | 5000 | 4.0 | 3.3 | 2.0 | 771 | 93 |
| 6.4 | 3162 | 3418 | 16 | 1.2 | PHQ941_0060K513_0780 EZ502U | 5760 | 5760 | 8724 | 465.6 | 26071/56 | 3400 | 3400 | 5000 | 4.0 | 5.6 | 2.0 | 771 | 94 |
| 6.4 | 3162 | 3546 | 16 | 1.2 | PHQ941_0060K513_0780 EZ701U | 5760 | 5760 | 8724 | 465.6 | 26071/56 | 3400 | 3400 | 5000 | 4.0 | 8.9 | 2.0 | 771 | 96 |
| 7.1 | 1659 | 1814 | 8.9 | 2.3 | PHQ941_0060K513_0700 EZ501U | 5673 | 5673 | 7880 | 420.5 | 841/2 | 3400 | 3400 | 5000 | 4.0 | 3.4 | 2.0 | 771 | 93 |
| 7.1 | 2856 | 3087 | 15 | 1.3 | PHQ941_0060K513_0700 EZ502U | 5673 | 5673 | 7880 | 420.5 | 841/2 | 3400 | 3400 | 5000 | 4.0 | 5.7 | 2.0 | 771 | 94 |
| 7.1 | 2856 | 3203 | 15 | 1.3 | PHQ941_0060K513_0700 EZ701U | 5673 | 5673 | 7880 | 420.5 | 841/2 | 3400 | 3400 | 5000 | 4.0 | 9.0 | 2.0 | 771 | 96 |
| 7.1 | 3743 | 4284 | 20 | 1.0 | PHQ941_0060K513_0700 EZ503U | 5673 | 5673 | 7880 | 420.5 | 841/2 | 3400 | 3400 | 5000 | 4.0 | 8.0 | 2.0 | 771 | 96 |
| 7.7 | 1528 | 1670 | 8.7 | 2.5 | PHQ941_0060K513_0650 EZ501U | 5687 | 5687 | 7950 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 3.5 | 2.0 | 771 | 93 |
| 7.7 | 2630 | 2843 | 15 | 1.4 | PHQ941_0060K513_0650 EZ502U | 5760 | 5760 | 7950 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 5.8 | 2.0 | 771 | 94 |
| 7.7 | 2630 | 2950 | 15 | 1.4 | PHQ941_0060K513_0650 EZ701U | 5760 | 5760 | 11250 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 9.1 | 2.0 | 771 | 96 |
| 7.7 | 3448 | 3945 | 20 | 1.1 | PHQ941_0060K513_0650 EZ503U | 5760 | 5760 | 7950 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 8.2 | 2.0 | 771 | 96 |
| 8.6 | 1380 | 1509 | 8.4 | 2.8 | PHQ941_0060K513_0580 EZ501U | 5136 | 5136 | 7180 | 349.8 | 22736/65 | 3400 | 3400 | 5000 | 4.0 | 3.5 | 2.0 | 771 | 93 |
| 8.6 | 2376 | 2568 | 15 | 1.6 | PHQ941_0060K513_0580 EZ502U | 5294 | 5294 | 7180 | 349.8 | 22736/65 | 3400 | 3400 | 5000 | 4.0 | 5.8 | 2.0 | 771 | 94 |
| 8.6 | 2376 | 2664 | 15 | 1.6 | PHQ941_0060K513_0580 EZ701U | 5760 | 5760 | 11250 | 349.8 | 22736/65 | 3400 | 3400 | 5000 | 4.0 | 9.1 | 2.0 | 771 | 96 |
| 8.6 | 3114 | 3563 | 19 | 1.2 | PHQ941_0060K513_0580 EZ503U | 5294 | 5294 | 7180 | 349.8 | 22736/65 | 3400 | 3400 | 5000 | 4.0 | 8.2 | 2.0 | 771 | 96 |
| 10 | 1140 | 1246 | 8.0 | 3.3 | PHQ941_0060K513_0480 EZ501U | 4243 | 4243 | 6763 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 3.9 | 2.0 | 771 | 93 |
| 10 | 1962 | 2122 | 14 | 1.9 | PHQ941_0060K513_0480 EZ502U | 4986 | 4986 | 6763 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 6.2 | 2.0 | 771 | 94 |
| 10 | 1962 | 2201 | 14 | 1.9 | PHQ941_0060K513_0480 EZ701U | 5304 | 5304 | 11250 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 9.5 | 2.0 | 771 | 96 |
| 10 | 2572 | 2944 | 18 | 1.5 | PHQ941_0060K513_0480 EZ503U | 4986 | 4986 | 6763 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 8.6 | 2.0 | 771 | 96 |
| 10 | 3182 | 3819 | 22 | 1.2 | PHQ941_0060K513_0480 EZ702U | 5760 | 5760 | 11250 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 15 | 2.0 | 771 | 98 |
| 10 | 3580 | 4243 | 25 | 1.1 | PHQ941_0060K513_0480 EZ505U | 5760 | 5760 | 11250 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 13 | 2.0 | 771 | 98 |
| 11 | 1030 | 1126 | 7.7 | 3.7 | PHQ941_0060K513_0440 EZ501U | 3833 | 3833 | 6108 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 4.0 | 2.0 | 771 | 93 |
| 11 | 1773 | 1916 | 13 | 2.1 | PHQ941_0060K513_0440 EZ502U | 4504 | 4504 | 6108 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 6.3 | 2.0 | 771 | 94 |
| 11 | 1773 | 1988 | 13 | 2.1 | PHQ941_0060K513_0440 EZ701U | 4791 | 4791 | 11250 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 9.6 | 2.0 | 771 | 96 |
| 11 | 2323 | 2659 | 17 | 1.6 | PHQ941_0060K513_0440 EZ503U | 4504 | 4504 | 6108 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 8.6 | 2.0 | 771 | 96 |
| 11 | 2874 | 3449 | 22 | 1.3 | PHQ941_0060K513_0440 EZ702U | 5760 | 5760 | 11250 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 15 | 2.0 | 771 | 98 |
| 11 | 3234 | 3833 | 24 | 1.2 | PHQ941_0060K513_0440 EZ505U | 5760 | 5760 | 11250 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 13 | 2.0 | 771 | 98 |
| 13 | 1570 | 1761 | 13 | 2.4 | PHQ941_0060K513_0390 EZ701U | 4243 | 4243 | 11250 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 10 | 2.0 | 771 | 96 |
| 13 | 2546 | 3055 | 21 | 1.5 | PHQ941_0060K513_0390 EZ702U | 5760 | 5760 | 11250 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 15 | 2.0 | 771 | 98 |
| 13 | 2864 | 3395 | 23 | 1.3 | PHQ941_0060K513_0390 EZ505U | 5760 | 5760 | 11250 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 13 | 3501 | 4413 | 29 | 1.1 | PHQ941_0060K513_0390 EZ703U | 5760 | 5760 | 11250 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 23 | 2.0 | 771 | 100 |
| 14 | 1418 | 1591 | 12 | 2.7 | PHQ941_0060K513_0350 EZ701U | 3833 | 3833 | 11129 | 208.8 | 1044/5 | 3400 | 3400 | 5000 | 4.0 | 10 | 2.0 | 771 | 96 |
| 14 | 2300 | 2759 | 20 | 1.7 | PHQ941_0060K513_0350 EZ702U | 5760 | 5760 | 11129 | 208.8 | 1044/5 | 3400 | 3400 | 5000 | 4.0 | 15 | 2.0 | 771 | 98 |
| 14 | 2587 | 3066 | 23 | 1.5 | PHQ941_0060K513_0350 EZ505U | 5760 | 5760 | 11129 | 208.8 | 1044/5 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 14 | 3162 | 3986 | 28 | 1.2 | PHQ941_0060K513_0350 EZ703U | 5760 | 5760 | 11129 | 208.8 | 1044/5 | 3400 | 3400 | 5000 | 4.0 | 23 | 2.0 | 771 | 100 |
| 15 | 1317 | 1477 | 12 | 2.9 | PHQ941_0060K513_0320 EZ701U | 3558 | 3558 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 10 | 2.0 | 771 | 96 |
| 15 | 2135 | 2562 | 20 | 1.8 | PHQ941_0060K513_0320 EZ702U | 5760 | 5760 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 16 | 2.0 | 771 | 98 |
| 15 | 2402 | 2846 | 22 | 1.6 | PHQ941_0060K513_0320 EZ505U | 5760 | 5760 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 15 | 2935 | 3700 | 27 | 1.3 | PHQ941_0060K513_0320 EZ703U | 5760 | 5760 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 24 | 2.0 | 771 | 100 |
| 15 | 3789 | 5373 | 35 | 1.0 | PHQ941_0060K513_0320 EZ705U | 5760 | 5760 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 36 | 2.0 | 771 | 106 |
| 17 | 1189 | 1334 | 12 | 3.2 | PHQ941_0060K513_0290 EZ701U | 3214 | 3214 | 10349 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 11 | 2.0 | 771 | 96 |
| 17 | 1928 | 2314 | 19 | 2.0 | PHQ941_0060K513_0290 EZ702U | 5760 | 5760 | 10349 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 16 | 2.0 | 771 | 98 |
| 17 | 2169 | 2571 | 22 | 1.8 | PHQ941_0060K513_0290 EZ505U | 5760 | 5760 | 10349 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 17 | 2651 | 3342 | 26 | 1.4 | PHQ941_0060K513_0290 EZ703U | 5760 | 5760 | 10349 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 24 | 2.0 | 771 | 100 |
| 17 | 3423 | 4853 | 34 | 1.1 | PHQ941_0060K513_0290 EZ705U | 5760 | 5760 | 11250 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 36 | 2.0 | 771 | 106 |
| 21 | 992 | 1113 | 11 | 3.8 | PHQ941_0060K513_0240 EZ701U | 2681 | 2681 | 10139 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 11 | 2.0 | 771 | 96 |
| 21 | 1609 | 1931 | 18 | 2.4 | PHQ941_0060K513_0240 EZ702U | 5497 | 5497 | 10139 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 17 | 2.0 | 771 | 98 |
| 21 | 1810 | 2145 | 20 | 2.1 | PHQ941_0060K513_0240 EZ505U | 5760 | 5760 | 10139 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 15 | 2.0 | 771 | 98 |
| 21 | 2212 | 2789 | 25 | 1.7 | PHQ941_0060K513_0240 EZ703U | 5760 | 5760 | 10139 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 25 | 2.0 | 771 | 100 |
| 21 | 2856 | 4049 | 32 | 1.3 | PHQ941_0060K513_0240 EZ705U | 5760 | 5760 | 11250 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 37 | 2.0 | 771 | 106 |
| 23 | 896 | 1005 | 11 | 4.2 | PHQ941_0060K513_0220 EZ701U | 2422 | 2422 | 9158 | 132.0 | 2639/20 | 2800 | 2800 | 4200 | 4.0 | 12 | 2.0 | 771 | 96 |
| 23 | 1453 | 1744 | 18 | 2.6 | PHQ941_0060K513_0220 EZ702U | 4965 | 4965 | 9158 | 132.0 | 2639/20 | 2800 | 2800 | 4200 | 4.0 | 17 | 2.0 | 771 | 98 |
| 23 | 1635 | 1938 | 20 | 2.3 | PHQ941_0060K513_0220 EZ505U | 5760 | 5760 | 9158 | 132.0 | 2639/20 | 2800 | 2800 | 4200 | 4.0 | 15 | 2.0 | 771 | 98 |
| 23 | 1998 | 2519 | 24 | 1.9 | PHQ941_0060K513_0220 EZ703U | 5760 | 5760 | 9158 | 132.0 | 2639/20 | 2800 | 2800 | 4200 | 4.0 | 25 | 2.0 | 771 | 100 |
| 23 | 2579 | 3657 | 31 | 1.5 | PHQ941_0060K513_0220 EZ705U | 5760 | 5760 | 11250 | 132.0 | 2639/20 | 2800 | 2800 | 4200 | 4.0 | 37 | 2.0 | 771 | 106 |
| 26 | 789 | 885 | 10 | 4.8 | PHQ941_0060K513_0195 EZ701U | 2131 | 2131 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 13 | 2.0 | 771 | 96 |
| 26 | 1279 | 1535 | 17 | 3.0 | PHQ941_0060K513_0195 EZ702U | 4369 | 4369 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 18 | 2.0 | 771 | 98 |
| 26 | 1439 | 1705 | 19 | 2.6 | PHQ941_0060K513_0195 EZ505U | 5760 | 5760 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 16 | 2.0 | 771 | 98 |
| 26 | 1758 | 2217 | 23 | 2.2 | PHQ941_0060K513_0195 EZ703U | 5760 | 5760 | 8669 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 26 | 2.0 | 771 | 100 |
| 26 | 2270 | 3218 | 30 | 1.7 | PHQ941_0060K513_0195 EZ705U | 5760 | 5760 | 11250 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 38 | 2.0 | 771 | 106 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arc min] | [kgcm²] | [arc min] | [Nm/ arcmin] | [kg] |
| PHQ941K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 5760 Nm) | | | | | | | | | | | | | | | | | | |
| 29 | 1155 | 1386 | 16 | 3.3 | PHQ941_0060K513_0175 EZ702U | 3947 | 3947 | 7830 | 104.9 | 6293/60 | 2800 | 2800 | 4200 | 4.0 | 18 | 2.0 | 771 | 98 |
| 29 | 1300 | 1540 | 18 | 2.9 | PHQ941_0060K513_0175 EZ505U | 5760 | 5760 | 7830 | 104.9 | 6293/60 | 2800 | 2800 | 4200 | 4.0 | 17 | 2.0 | 771 | 98 |
| 29 | 1588 | 2002 | 23 | 2.4 | PHQ941_0060K513_0175 EZ703U | 5760 | 5760 | 7830 | 104.9 | 6293/60 | 2800 | 2800 | 4200 | 4.0 | 26 | 2.0 | 771 | 100 |
| 29 | 2050 | 2907 | 29 | 1.9 | PHQ941_0060K513_0175 EZ705U | 5760 | 5760 | 11250 | 104.9 | 6293/60 | 2800 | 2800 | 4200 | 4.0 | 38 | 2.0 | 771 | 106 |
| 31 | 1063 | 1276 | 16 | 3.6 | PHQ941_0060K513_0160 EZ702U | 3633 | 3633 | 7209 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 19 | 2.0 | 771 | 98 |
| 31 | 1196 | 1418 | 18 | 3.2 | PHQ941_0060K513_0160 EZ505U | 5315 | 5315 | 7209 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 18 | 2.0 | 771 | 98 |
| 31 | 1462 | 1843 | 22 | 2.6 | PHQ941_0060K513_0160 EZ703U | 5315 | 5315 | 7209 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 27 | 2.0 | 771 | 100 |
| 31 | 1888 | 2676 | 28 | 2.0 | PHQ941_0060K513_0160 EZ705U | 5760 | 5760 | 11250 | 96.56 | 26071/270 | 2300 | 2300 | 3600 | 4.0 | 39 | 2.0 | 771 | 106 |
| 34 | 961 | 1153 | 16 | 4.0 | PHQ941_0060K513_0145 EZ702U | 3282 | 3282 | 6512 | 87.22 | 11774/135 | 2300 | 2300 | 3600 | 4.0 | 20 | 2.0 | 771 | 98 |
| 34 | 1081 | 1281 | 17 | 3.5 | PHQ941_0060K513_0145 EZ505U | 4801 | 4801 | 6512 | 87.22 | 11774/135 | 2300 | 2300 | 3600 | 4.0 | 18 | 2.0 | 771 | 98 |
| 34 | 1321 | 1665 | 21 | 2.9 | PHQ941_0060K513_0145 EZ703U | 4801 | 4801 | 6512 | 87.22 | 11774/135 | 2300 | 2300 | 3600 | 4.0 | 28 | 2.0 | 771 | 100 |
| 34 | 1705 | 2417 | 28 | 2.2 | PHQ941_0060K513_0145 EZ705U | 5760 | 5760 | 11250 | 87.22 | 11774/135 | 2300 | 2300 | 3600 | 4.0 | 40 | 2.0 | 771 | 106 |
| 39 | 1502 | 2130 | 27 | 2.5 | PHQ941_0060K513_0130 EZ705U | 5760 | 5760 | 11250 | 76.85 | 1537/20 | 2300 | 2300 | 3600 | 4.0 | 42 | 2.0 | 771 | 106 |
| 43 | 1357 | 1924 | 26 | 2.7 | PHQ941_0060K513_0115 EZ705U | 5760 | 5760 | 11250 | 69.41 | 10759/155 | 2300 | 2300 | 3600 | 4.0 | 42 | 2.0 | 771 | 106 |
| 49 | 1190 | 1688 | 27 | 3.0 | PHQ941_0060K513_0100 EZ705U | 5760 | 5760 | 11250 | 60.90 | 609/10 | 1900 | 1900 | 3200 | 4.0 | 45 | 2.0 | 771 | 106 |
| 55 | 1075 | 1525 | 27 | 3.2 | PHQ941_0060K513_0092 EZ705U | 5250 | 5250 | 10954 | 55.01 | 8526/155 | 1900 | 1900 | 3200 | 4.0 | 46 | 2.0 | 771 | 106 |
| 61 | 954 | 1353 | 27 | 3.4 | PHQ941_0060K513_0081 EZ705U | 4658 | 4658 | 9720 | 48.80 | 17081/350 | 1900 | 1900 | 3200 | 4.0 | 49 | 2.0 | 771 | 106 |
| 68 | 862 | 1222 | 27 | 3.7 | PHQ941_0060K513_0073 EZ705U | 4207 | 4207 | 8779 | 44.08 | 1102/25 | 1900 | 1900 | 3200 | 4.0 | 51 | 2.0 | 771 | 106 |
| PHQ941K ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 5760 Nm) | | | | | | | | | | | | | | | | | | |
| 27 | 3379 | 5859 | 38 | 1.1 | PHQ941_0060K513_0240 EZ813U | 5760 | 5760 | 11250 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 107 | 2.0 | 771 | 123 |
| 27 | 3501 | 9002 | 39 | 1.1 | PHQ941_0060K513_0240 EZ815U | 5760 | 5760 | 11250 | 146.1 | 11687/80 | 2800 | 2800 | 4200 | 4.0 | 170 | 2.0 | 771 | 136 |
| 30 | 3052 | 5292 | 37 | 1.2 | PHQ941_0060K513_0220 EZ813U | 5760 | 5760 | 11250 | 132.0 | 2639/20 | 2800 | 2800 | 4200 | 4.0 | 108 | 2.0 | 771 | 123 |
| 30 | 3162 | 8131 | 38 | 1.2 | PHQ941_0060K513_0220 EZ815U | 5760 | 5760 | 11250 | 132.0 | 2639/20 | 2800 | 2800 | 4200 | 4.0 | 171 | 2.0 | 771 | 136 |
| 34 | 2686 | 4657 | 36 | 1.4 | PHQ941_0060K513_0195 EZ813U | 5760 | 5760 | 11250 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 109 | 2.0 | 771 | 123 |
| 34 | 2783 | 7155 | 37 | 1.4 | PHQ941_0060K513_0195 EZ815U | 5760 | 5760 | 11250 | 116.1 | 27869/240 | 2800 | 2800 | 4200 | 4.0 | 172 | 2.0 | 771 | 136 |
| 38 | 2426 | 4207 | 34 | 1.6 | PHQ941_0060K513_0175 EZ813U | 5760 | 5760 | 11250 | 104.9 | 6293/60 | 2800 | 2800 | 4200 | 4.0 | 109 | 2.0 | 771 | 123 |
| 38 | 2513 | 6463 | 36 | 1.5 | PHQ941_0060K513_0175 EZ815U | 5760 | 5760 | 11250 | 104.9 | 6293/60 | 2800 | 2800 | 4200 | 4.0 | 172 | 2.0 | 771 | 136 |
| PHQ941K ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 5760 Nm) | | | | | | | | | | | | | | | | | | |
| 12 | 3376 | 5438 | 19 | 1.1 | PHQ941_0060K513_0650 EZ505U | 5760 | 5760 | 11250 | 387.3 | 25172/65 | 3400 | 3400 | 5000 | 4.0 | 13 | 2.0 | 771 | 98 |
| 13 | 3050 | 4912 | 19 | 1.2 | PHQ941_0060K513_0580 EZ505U | 5760 | 5760 | 11250 | 349.8 | 22736/65 | 3400 | 3400 | 5000 | 4.0 | 13 | 2.0 | 771 | 98 |
| 16 | 2519 | 4058 | 18 | 1.5 | PHQ941_0060K513_0480 EZ505U | 5760 | 5760 | 11250 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 13 | 2.0 | 771 | 98 |
| 16 | 3209 | 5304 | 22 | 1.2 | PHQ941_0060K513_0480 EZ703U | 5760 | 5760 | 11250 | 289.0 | 8091/28 | 3400 | 3400 | 5000 | 4.0 | 23 | 2.0 | 771 | 100 |
| 17 | 2276 | 3665 | 17 | 1.7 | PHQ941_0060K513_0440 EZ505U | 5760 | 5760 | 11250 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 13 | 2.0 | 771 | 98 |
| 17 | 2898 | 4791 | 22 | 1.3 | PHQ941_0060K513_0440 EZ703U | 5760 | 5760 | 11250 | 261.0 | 261/1 | 3400 | 3400 | 5000 | 4.0 | 23 | 2.0 | 771 | 100 |
| 19 | 2016 | 3246 | 16 | 1.9 | PHQ941_0060K513_0390 EZ505U | 5760 | 5760 | 11250 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 19 | 2567 | 4243 | 21 | 1.5 | PHQ941_0060K513_0390 EZ703U | 5760 | 5760 | 11250 | 231.2 | 8091/35 | 3400 | 3400 | 5000 | 4.0 | 23 | 2.0 | 771 | 100 |
| 22 | 1820 | 2932 | 16 | 2.1 | PHQ941_0060K513_0350 EZ505U | 5760 | 5760 | 11129 | 208.8 | 1044/5 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 22 | 2319 | 3833 | 20 | 1.6 | PHQ941_0060K513_0350 EZ703U | 5760 | 5760 | 11129 | 208.8 | 1044/5 | 3400 | 3400 | 5000 | 4.0 | 23 | 2.0 | 771 | 100 |
| 23 | 1690 | 2722 | 16 | 2.2 | PHQ941_0060K513_0320 EZ505U | 5760 | 5760 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 23 | 2153 | 3558 | 20 | 1.8 | PHQ941_0060K513_0320 EZ703U | 5760 | 5760 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 24 | 2.0 | 771 | 100 |
| 23 | 2918 | 5337 | 27 | 1.3 | PHQ941_0060K513_0320 EZ705U | 5760 | 5760 | 11250 | 193.8 | 62031/320 | 3400 | 3400 | 5000 | 4.0 | 36 | 2.0 | 771 | 106 |
| 26 | 1527 | 2459 | 15 | 2.5 | PHQ941_0060K513_0290 EZ505U | 5760 | 5760 | 10349 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 14 | 2.0 | 771 | 98 |
| 26 | 1944 | 3214 | 19 | 2.0 | PHQ941_0060K513_0290 EZ703U | 5760 | 5760 | 10349 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 24 | 2.0 | 771 | 100 |
| 26 | 2635 | 4821 | 26 | 1.4 | PHQ941_0060K513_0290 EZ705U | 5760 | 5760 | 11250 | 175.1 | 14007/80 | 3400 | 3400 | 5000 | 4.0 | 36 | 2.0 | 771 | 106 |
| PHQ1041K ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 10000 Nm) | | | | | | | | | | | | | | | | | | |
| 11 | 6288 | 7052 | 44 | 1.0 | PHQ1041_0060K713_0290 EZ813U | 10000 | – | 20000 | 175.7 | 22491/128 | 2900 | 2900 | 4200 | 4.0 | 113 | – | 1561 | 183 |
| 13 | 5405 | 6062 | 42 | 1.2 | PHQ1041_0060K713_0250 EZ813U | 10000 | – | 20000 | 151.1 | 193347/1280 | 2400 | 2400 | 3600 | 4.0 | 116 | – | 1561 | 183 |
| 15 | 4882 | 5476 | 40 | 1.3 | PHQ1041_0060K713_0230 EZ813U | 10000 | – | 20000 | 136.4 | 43659/320 | 2400 | 2400 | 3600 | 4.0 | 117 | – | 1561 | 183 |
| 16 | 4344 | 4872 | 39 | 1.5 | PHQ1041_0060K713_0200 EZ813U | 10000 | – | 20000 | 121.4 | 357399/2944 | 2400 | 2400 | 3600 | 4.0 | 121 | – | 1561 | 183 |
| 16 | 6434 | 7661 | 58 | 1.0 | PHQ1041_0060K713_0200 EZ815U | 10000 | – | 20000 | 121.4 | 357399/2944 | 2400 | 2400 | 3600 | 4.0 | 184 | – | 1561 | 196 |
| 18 | 3924 | 4401 | 38 | 1.7 | PHQ1041_0060K713_0185 EZ813U | 10000 | – | 20000 | 109.7 | 80703/736 | 2400 | 2400 | 3600 | 4.0 | 121 | – | 1561 | 183 |
| 18 | 5812 | 6919 | 56 | 1.1 | PHQ1041_0060K713_0185 EZ815U | 10000 | – | 20000 | 109.7 | 80703/736 | 2400 | 2400 | 3600 | 4.0 | 184 | – | 1561 | 196 |
| 20 | 3519 | 3946 | 37 | 1.8 | PHQ1041_0060K713_0165 EZ813U | 10000 | – | 20000 | 98.33 | 6293/64 | 2000 | 2000 | 3200 | 4.0 | 126 | – | 1561 | 183 |
| 20 | 5211 | 6205 | 54 | 1.2 | PHQ1041_0060K713_0165 EZ815U | 10000 | – | 20000 | 98.33 | 6293/64 | 2000 | 2000 | 3200 | 4.0 | 189 | – | 1561 | 196 |
| 23 | 3178 | 3564 | 36 | 2.0 | PHQ1041_0060K713_0150 EZ813U | 10000 | – | 20000 | 88.81 | 1421/16 | 2000 | 2000 | 3200 | 4.0 | 127 | – | 1561 | 183 |
| 23 | 4707 | 5604 | 53 | 1.4 | PHQ1041_0060K713_0150 EZ815U | 10000 | – | 20000 | 88.81 | 1421/16 | 2000 | 2000 | 3200 | 4.0 | 190 | – | 1561 | 196 |
| 26 | 2800 | 3141 | 34 | 2.3 | PHQ1041_0060K713_0130 EZ813U | 10000 | – | 20000 | 78.26 | 10017/128 | 2000 | 2000 | 3200 | 4.0 | 134 | – | 1561 | 183 |
| 26 | 4148 | 4938 | 51 | 1.6 | PHQ1041_0060K713_0130 EZ815U | 10000 | – | 20000 | 78.26 | 10017/128 | 2000 | 2000 | 3200 | 4.0 | 197 | – | 1561 | 196 |
| 28 | 2529 | 2837 | 33 | 2.6 | PHQ1041_0060K713_0120 EZ813U | 9082 | – | 20000 | 70.69 | 70119/992 | 2000 | 2000 | 3200 | 4.0 | 136 | – | 1561 | 183 |
| 28 | 3746 | 4461 | 49 | 1.7 | PHQ1041_0060K713_0120 EZ815U | 10000 | – | 20000 | 70.69 | 70119/992 | 2000 | 2000 | 3200 | 4.0 | 199 | – | 1561 | 196 |
| 33 | 2184 | 2449 | 32 | 3.0 | PHQ1041_0060K713_0100 EZ813U | 7842 | – | 20000 | 61.03 | 1953/32 | 1700 | 1700 | 2700 | 4.0 | 147 | – | 1561 | 183 |
| 33 | 3235 | 3851 | 47 | 2.0 | PHQ1041_0060K713_0100 EZ815U | 10000 | – | 20000 | 61.03 | 1953/32 | 1700 | 1700 | 2700 | 4.0 | 210 | – | 1561 | 196 |
| 36 | 1973 | 2212 | 31 | 3.3 | PHQ1041_0060K713_0092 EZ813U | 7083 | – | 20000 | 55.13 | 441/8 | 1700 | 1700 | 2700 | 4.0 | 150 | – | 1561 | 183 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arc min] | [kgcm²] | [arc min] | [Nm/ arcmin] | [kg] |
| **PHQ1041K ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 10000 Nm)** | | | | | | | | | | | | | | | | | | |
| 36 | 2922 | 3479 | 46 | 2.2 | PHQ1041_0060K713_0092 EZ815U | 10000 | – | 20000 | 55.13 | 441/8 | 1700 | 1700 | 2700 | 4.0 | 213 | – | 1561 | 196 |
| 40 | 1798 | 2016 | 30 | 3.6 | PHQ1041_0060K713_0084 EZ813U | 6455 | – | 18762 | 50.24 | 263655/5248 | 1700 | 1700 | 2700 | 4.0 | 160 | – | 1561 | 183 |
| 40 | 2663 | 3170 | 44 | 2.4 | PHQ1041_0060K713_0084 EZ815U | 9221 | – | 18762 | 50.24 | 263655/5248 | 1700 | 1700 | 2700 | 4.0 | 224 | – | 1561 | 196 |
| 44 | 1624 | 1821 | 29 | 4.0 | PHQ1041_0060K713_0076 EZ813U | 5830 | – | 16947 | 45.38 | 59535/1312 | 1700 | 1700 | 2700 | 4.0 | 165 | – | 1561 | 183 |
| 44 | 2405 | 2864 | 43 | 2.7 | PHQ1041_0060K713_0076 EZ815U | 8329 | – | 16947 | 45.38 | 59535/1312 | 1700 | 1700 | 2700 | 4.0 | 228 | – | 1561 | 196 |
| **PHQ1041K ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 10000 Nm)** | | | | | | | | | | | | | | | | | | |
| 5.1 | 4015 | 4504 | 12 | 1.6 | PHQ1041_0060K713_0990 EZ701U | 10000 | – | 20000 | 591.2 | 302715/512 | 2900 | 2900 | 4200 | 4.0 | 9.7 | – | 1561 | 156 |
| 5.6 | 3627 | 4068 | 12 | 1.8 | PHQ1041_0060K713_0890 EZ701U | 9802 | – | 18207 | 534.0 | 68355/128 | 2900 | 2900 | 4200 | 4.0 | 9.7 | – | 1561 | 156 |
| 5.6 | 5881 | 7058 | 19 | 1.1 | PHQ1041_0060K713_0890 EZ702U | 10000 | – | 18207 | 534.0 | 68355/128 | 2900 | 2900 | 4200 | 4.0 | 15 | – | 1561 | 158 |
| 6.3 | 3212 | 3603 | 11 | 2.0 | PHQ1041_0060K713_0790 EZ701U | 8682 | – | 19642 | 473.0 | 60543/128 | 2900 | 2900 | 4200 | 4.0 | 10 | – | 1561 | 156 |
| 6.3 | 5209 | 6251 | 18 | 1.2 | PHQ1041_0060K713_0790 EZ702U | 10000 | – | 19642 | 473.0 | 60543/128 | 2900 | 2900 | 4200 | 4.0 | 16 | – | 1561 | 158 |
| 7.0 | 2901 | 3254 | 11 | 2.2 | PHQ1041_0060K713_0710 EZ701U | 7842 | – | 17742 | 427.2 | 13671/32 | 2900 | 2900 | 4200 | 4.0 | 10 | – | 1561 | 156 |
| 7.0 | 4705 | 5646 | 18 | 1.4 | PHQ1041_0060K713_0710 EZ702U | 10000 | – | 17742 | 427.2 | 13671/32 | 2900 | 2900 | 4200 | 4.0 | 16 | – | 1561 | 158 |
| 7.0 | 6469 | 8155 | 24 | 1.0 | PHQ1041_0060K713_0710 EZ703U | 10000 | – | 17742 | 427.2 | 13671/32 | 2900 | 2900 | 4200 | 4.0 | 23 | – | 1561 | 160 |
| 7.7 | 2642 | 2964 | 11 | 2.5 | PHQ1041_0060K713_0650 EZ701U | 7142 | – | 17542 | 389.1 | 99603/256 | 2900 | 2900 | 4200 | 4.0 | 11 | – | 1561 | 156 |
| 7.7 | 4285 | 5142 | 17 | 1.5 | PHQ1041_0060K713_0650 EZ702U | 10000 | – | 17542 | 389.1 | 99603/256 | 2900 | 2900 | 4200 | 4.0 | 16 | – | 1561 | 158 |
| 7.7 | 5892 | 7427 | 23 | 1.1 | PHQ1041_0060K713_0650 EZ703U | 10000 | – | 17542 | 389.1 | 99603/256 | 2900 | 2900 | 4200 | 4.0 | 24 | – | 1561 | 160 |
| 8.5 | 2387 | 2677 | 10 | 2.7 | PHQ1041_0060K713_0590 EZ701U | 6450 | – | 15845 | 351.4 | 22491/64 | 2900 | 2900 | 4200 | 4.0 | 11 | – | 1561 | 156 |
| 8.5 | 3870 | 4644 | 17 | 1.7 | PHQ1041_0060K713_0590 EZ702U | 10000 | – | 15845 | 351.4 | 22491/64 | 2900 | 2900 | 4200 | 4.0 | 16 | – | 1561 | 158 |
| 8.5 | 5322 | 6708 | 23 | 1.2 | PHQ1041_0060K713_0590 EZ703U | 10000 | – | 15845 | 351.4 | 22491/64 | 2900 | 2900 | 4200 | 4.0 | 24 | – | 1561 | 160 |
| 10 | 2033 | 2280 | 9.7 | 3.2 | PHQ1041_0060K713_0500 EZ701U | 5493 | – | 15144 | 299.3 | 498015/1664 | 2900 | 2900 | 4200 | 4.0 | 12 | – | 1561 | 156 |
| 10 | 3296 | 3955 | 16 | 2.0 | PHQ1041_0060K713_0500 EZ702U | 10000 | – | 15144 | 299.3 | 498015/1664 | 2900 | 2900 | 4200 | 4.0 | 18 | – | 1561 | 158 |
| 10 | 4532 | 5713 | 22 | 1.4 | PHQ1041_0060K713_0500 EZ703U | 10000 | – | 15144 | 299.3 | 498015/1664 | 2900 | 2900 | 4200 | 4.0 | 26 | – | 1561 | 160 |
| 10 | 5851 | 8295 | 28 | 1.1 | PHQ1041_0060K713_0500 EZ705U | 10000 | – | 20000 | 299.3 | 498015/1664 | 2900 | 2900 | 4200 | 4.0 | 38 | – | 1561 | 166 |
| 11 | 1836 | 2059 | 9.4 | 3.5 | PHQ1041_0060K713_0450 EZ701U | 4962 | – | 13679 | 270.3 | 112455/416 | 2900 | 2900 | 4200 | 4.0 | 13 | – | 1561 | 156 |
| 11 | 2977 | 3573 | 15 | 2.2 | PHQ1041_0060K713_0450 EZ702U | 10000 | – | 13679 | 270.3 | 112455/416 | 2900 | 2900 | 4200 | 4.0 | 18 | – | 1561 | 158 |
| 11 | 4094 | 5160 | 21 | 1.6 | PHQ1041_0060K713_0450 EZ703U | 10000 | – | 13679 | 270.3 | 112455/416 | 2900 | 2900 | 4200 | 4.0 | 26 | – | 1561 | 160 |
| 11 | 5284 | 7492 | 27 | 1.2 | PHQ1041_0060K713_0450 EZ705U | 10000 | – | 20000 | 270.3 | 112455/416 | 2900 | 2900 | 4200 | 4.0 | 38 | – | 1561 | 166 |
| 13 | 1599 | 1793 | 9.0 | 4.1 | PHQ1041_0060K713_0390 EZ701U | 4321 | – | 14060 | 235.4 | 7533/32 | 2900 | 2900 | 4200 | 4.0 | 14 | – | 1561 | 156 |
| 13 | 2593 | 3111 | 15 | 2.5 | PHQ1041_0060K713_0390 EZ702U | 8858 | – | 14060 | 235.4 | 7533/32 | 2900 | 2900 | 4200 | 4.0 | 20 | – | 1561 | 158 |
| 13 | 3565 | 4494 | 20 | 1.8 | PHQ1041_0060K713_0390 EZ703U | 10000 | – | 14060 | 235.4 | 7533/32 | 2900 | 2900 | 4200 | 4.0 | 27 | – | 1561 | 160 |
| 13 | 4602 | 6525 | 26 | 1.4 | PHQ1041_0060K713_0390 EZ705U | 10000 | – | 20000 | 235.4 | 7533/32 | 2900 | 2900 | 4200 | 4.0 | 40 | – | 1561 | 166 |
| 14 | 1444 | 1620 | 8.8 | 4.5 | PHQ1041_0060K713_0350 EZ701U | 3903 | – | 12700 | 212.6 | 1701/8 | 2900 | 2900 | 4200 | 4.0 | 15 | – | 1561 | 156 |
| 14 | 2342 | 2810 | 14 | 2.8 | PHQ1041_0060K713_0350 EZ702U | 8001 | – | 12700 | 212.6 | 1701/8 | 2900 | 2900 | 4200 | 4.0 | 20 | – | 1561 | 158 |
| 14 | 3220 | 4059 | 20 | 2.0 | PHQ1041_0060K713_0350 EZ703U | 9363 | – | 12700 | 212.6 | 1701/8 | 2900 | 2900 | 4200 | 4.0 | 28 | – | 1561 | 160 |
| 14 | 4157 | 5893 | 25 | 1.6 | PHQ1041_0060K713_0350 EZ705U | 10000 | – | 20000 | 212.6 | 1701/8 | 2900 | 2900 | 4200 | 4.0 | 40 | – | 1561 | 166 |
| 15 | 3803 | 5392 | 25 | 1.7 | PHQ1041_0060K713_0320 EZ705U | 10000 | – | 20000 | 194.5 | 99603/512 | 2900 | 2900 | 4200 | 4.0 | 42 | – | 1561 | 166 |
| 17 | 3435 | 4870 | 24 | 1.9 | PHQ1041_0060K713_0290 EZ705U | 10000 | – | 20000 | 175.7 | 22491/128 | 2900 | 2900 | 4200 | 4.0 | 42 | – | 1561 | 166 |
| 20 | 2953 | 4187 | 23 | 2.2 | PHQ1041_0060K713_0250 EZ705U | 10000 | – | 20000 | 151.1 | 193347/1280 | 2400 | 2400 | 3600 | 4.0 | 46 | – | 1561 | 166 |
| 22 | 2667 | 3781 | 22 | 2.4 | PHQ1041_0060K713_0230 EZ705U | 10000 | – | 20000 | 136.4 | 43659/320 | 2400 | 2400 | 3600 | 4.0 | 46 | – | 1561 | 166 |
| 25 | 2373 | 3365 | 21 | 2.7 | PHQ1041_0060K713_0200 EZ705U | 10000 | – | 20000 | 121.4 | 357399/2944 | 2400 | 2400 | 3600 | 4.0 | 50 | – | 1561 | 166 |
| 27 | 2143 | 3039 | 21 | 3.0 | PHQ1041_0060K713_0185 EZ705U | 10000 | – | 20000 | 109.7 | 80703/736 | 2400 | 2400 | 3600 | 4.0 | 51 | – | 1561 | 166 |
| 31 | 1922 | 2725 | 20 | 3.4 | PHQ1041_0060K713_0165 EZ705U | 9385 | – | 19525 | 98.33 | 6293/64 | 2000 | 2000 | 3200 | 4.0 | 55 | – | 1561 | 166 |
| 34 | 1736 | 2462 | 19 | 3.7 | PHQ1041_0060K713_0150 EZ705U | 8477 | – | 17637 | 88.81 | 1421/16 | 2000 | 2000 | 3200 | 4.0 | 57 | – | 1561 | 166 |
| 38 | 1530 | 2169 | 19 | 4.2 | PHQ1041_0060K713_0130 EZ705U | 7469 | – | 15584 | 78.26 | 10017/128 | 2000 | 2000 | 3200 | 4.0 | 63 | – | 1561 | 166 |
| 42 | 1382 | 1959 | 18 | 4.7 | PHQ1041_0060K713_0120 EZ705U | 6747 | – | 14077 | 70.69 | 70119/992 | 2000 | 2000 | 3200 | 4.0 | 65 | – | 1561 | 166 |
| **PHQ1041K ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 10000 Nm)** | | | | | | | | | | | | | | | | | | |
| 15 | 6252 | 10842 | 32 | 1.0 | PHQ1041_0060K713_0450 EZ813U | 10000 | – | 20000 | 270.3 | 112455/416 | 2900 | 2900 | 4200 | 4.0 | 108 | – | 1561 | 183 |
| 15 | 6478 | 16657 | 33 | 1.0 | PHQ1041_0060K713_0450 EZ815U | 10000 | – | 20000 | 270.3 | 112455/416 | 2900 | 2900 | 4200 | 4.0 | 172 | – | 1561 | 196 |
| 17 | 5444 | 9441 | 31 | 1.2 | PHQ1041_0060K713_0390 EZ813U | 10000 | – | 20000 | 235.4 | 7533/32 | 2900 | 2900 | 4200 | 4.0 | 110 | – | 1561 | 183 |
| 17 | 5641 | 14505 | 32 | 1.2 | PHQ1041_0060K713_0390 EZ815U | 10000 | – | 20000 | 235.4 | 7533/32 | 2900 | 2900 | 4200 | 4.0 | 173 | – | 1561 | 196 |
| 19 | 4918 | 8528 | 30 | 1.3 | PHQ1041_0060K713_0350 EZ813U | 10000 | – | 20000 | 212.6 | 1701/8 | 2900 | 2900 | 4200 | 4.0 | 110 | – | 1561 | 183 |
| 19 | 5095 | 13102 | 31 | 1.3 | PHQ1041_0060K713_0350 EZ815U | 10000 | – | 20000 | 212.6 | 1701/8 | 2900 | 2900 | 4200 | 4.0 | 173 | – | 1561 | 196 |
| 21 | 4499 | 7802 | 29 | 1.4 | PHQ1041_0060K713_0320 EZ813U | 10000 | – | 20000 | 194.5 | 99603/512 | 2900 | 2900 | 4200 | 4.0 | 112 | – | 1561 | 183 |
| 21 | 4662 | 11987 | 30 | 1.4 | PHQ1041_0060K713_0320 EZ815U | 10000 | – | 20000 | 194.5 | 99603/512 | 2900 | 2900 | 4200 | 4.0 | 175 | – | 1561 | 196 |
| 23 | 4064 | 7047 | 28 | 1.6 | PHQ1041_0060K713_0290 EZ813U | 10000 | – | 20000 | 175.7 | 22491/128 | 2900 | 2900 | 4200 | 4.0 | 113 | – | 1561 | 183 |
| 23 | 4210 | 10827 | 29 | 1.5 | PHQ1041_0060K713_0290 EZ815U | 10000 | – | 20000 | 175.7 | 22491/128 | 2900 | 2900 | 4200 | 4.0 | 176 | – | 1561 | 196 |
| **PHQ1141K ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 22000 Nm)** | | | | | | | | | | | | | | | | | | |
| 5.6 | 12685 | 14227 | 29 | 1.0 | PHQ1141_0060K813_0590 EZ813U | 22000 | – | 39925 | 354.5 | 42539/120 | 2800 | 2800 | 4000 | 4.0 | 110 | – | 2623 | 323 |
| 6.8 | 10518 | 11797 | 28 | 1.2 | PHQ1141_0060K813_0490 EZ813U | 22000 | – | 37770 | 293.9 | 16461/56 | 2800 | 2800 | 4000 | 4.0 | 113 | – | 2623 | 323 |
| 7.5 | 9501 | 10655 | 27 | 1.4 | PHQ1141_0060K813_0440 EZ813U | 22000 | – | 34112 | 265.5 | 531/2 | 2800 | 2800 | 4000 | 4.0 | 114 | – | 2623 | 323 |
| 8.3 | 8590 | 9634 | 26 | 1.5 | PHQ1141_0060K813_0400 EZ813U | 22000 | – | 44000 | 240.1 | 38409/160 | 2800 | 2800 | 4000 | 4.0 | 117 | – | 2623 | 323 |
| 8.3 | 12723 | 15149 | 38 | 1.0 | PHQ1141_0060K813_0400 EZ815U | 22000 | – | 44000 | 240.1 | 38409/160 | 2800 | 2800 | 4000 | 4.0 | 180 | – | 2623 | 336 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arc min] | [kgcm²] | [arc min] | [Nm/ arcmin] | [kg] |
| **PHQ1141K ($n_{1N}$ = 2000 min⁻¹, $M_{2acc,max}$ = 22000 Nm)** | | | | | | | | | | | | | | | | | | |
| 9.2 | 7759 | 8702 | 25 | 1.7 | PHQ1141_0060K813_0360 EZ813U | 22000 | – | 44000 | 216.8 | 8673/40 | 2800 | 2800 | 4000 | 4.0 | 117 | – | 2623 | 323 |
| 9.2 | 11492 | 13683 | 37 | 1.1 | PHQ1141_0060K813_0360 EZ815U | 22000 | – | 44000 | 216.8 | 8673/40 | 2800 | 2800 | 4000 | 4.0 | 181 | – | 2623 | 336 |
| 10 | 6954 | 7799 | 24 | 1.9 | PHQ1141_0060K813_0320 EZ813U | 22000 | – | 44000 | 194.3 | 31093/160 | 2800 | 2800 | 4000 | 4.0 | 122 | – | 2623 | 323 |
| 10 | 10300 | 12263 | 36 | 1.3 | PHQ1141_0060K813_0320 EZ815U | 22000 | – | 44000 | 194.3 | 31093/160 | 2800 | 2800 | 4000 | 4.0 | 185 | – | 2623 | 336 |
| 11 | 6281 | 7044 | 24 | 2.1 | PHQ1141_0060K813_0290 EZ813U | 22000 | – | 44000 | 175.5 | 7021/40 | 2800 | 2800 | 4000 | 4.0 | 123 | – | 2623 | 323 |
| 11 | 9303 | 11076 | 35 | 1.4 | PHQ1141_0060K813_0290 EZ815U | 22000 | – | 44000 | 175.5 | 7021/40 | 2800 | 2800 | 4000 | 4.0 | 186 | – | 2623 | 336 |
| 13 | 5478 | 6144 | 23 | 2.4 | PHQ1141_0060K813_0260 EZ813U | 19668 | – | 44000 | 153.1 | 140833/920 | 2300 | 2300 | 3500 | 4.0 | 130 | – | 2623 | 323 |
| 13 | 8113 | 9660 | 34 | 1.6 | PHQ1141_0060K813_0260 EZ815U | 22000 | – | 44000 | 153.1 | 140833/920 | 2300 | 2300 | 3500 | 4.0 | 193 | – | 2623 | 336 |
| 14 | 4948 | 5549 | 22 | 2.6 | PHQ1141_0060K813_0230 EZ813U | 17765 | – | 44000 | 138.3 | 31801/230 | 2300 | 2300 | 3500 | 4.0 | 131 | – | 2623 | 323 |
| 14 | 7328 | 8725 | 33 | 1.8 | PHQ1141_0060K813_0230 EZ815U | 22000 | – | 44000 | 138.3 | 31801/230 | 2300 | 2300 | 3500 | 4.0 | 194 | – | 2623 | 336 |
| 17 | 4119 | 4619 | 21 | 3.2 | PHQ1141_0060K813_0190 EZ813U | 14789 | – | 42965 | 115.1 | 133517/1160 | 2300 | 2300 | 3500 | 4.0 | 143 | – | 2623 | 323 |
| 17 | 6100 | 7263 | 31 | 2.1 | PHQ1141_0060K813_0190 EZ815U | 21126 | – | 42965 | 115.1 | 133517/1160 | 2300 | 2300 | 3500 | 4.0 | 206 | – | 2623 | 336 |
| 19 | 3720 | 4172 | 20 | 3.5 | PHQ1141_0060K813_0175 EZ813U | 13358 | – | 38804 | 104.0 | 30149/290 | 2300 | 2300 | 3500 | 4.0 | 145 | – | 2623 | 323 |
| 19 | 5510 | 6561 | 30 | 2.4 | PHQ1141_0060K813_0175 EZ815U | 19082 | – | 38804 | 104.0 | 30149/290 | 2300 | 2300 | 3500 | 4.0 | 208 | – | 2623 | 336 |
| 20 | 3528 | 3957 | 20 | 3.7 | PHQ1141_0060K813_0165 EZ813U | 12668 | – | 36803 | 98.59 | 126201/1280 | 1900 | 1900 | 3000 | 4.0 | 152 | – | 2623 | 323 |
| 20 | 5225 | 6222 | 29 | 2.5 | PHQ1141_0060K813_0165 EZ815U | 18097 | – | 36803 | 98.59 | 126201/1280 | 1900 | 1900 | 3000 | 4.0 | 215 | – | 2623 | 336 |
| 22 | 3187 | 3574 | 19 | 4.1 | PHQ1141_0060K813_0150 EZ813U | 11442 | – | 33239 | 89.05 | 28497/320 | 1900 | 1900 | 3000 | 4.0 | 155 | – | 2623 | 323 |
| 22 | 4720 | 5620 | 29 | 2.8 | PHQ1141_0060K813_0150 EZ815U | 16346 | – | 33239 | 89.05 | 28497/320 | 1900 | 1900 | 3000 | 4.0 | 218 | – | 2623 | 336 |
| 32 | 3269 | 3892 | 26 | 4.0 | PHQ1141_0060K813_0105 EZ815U | 11320 | – | 23027 | 61.67 | 53041/860 | 1600 | 1600 | 2600 | 4.0 | 262 | – | 2623 | 336 |
| 36 | 2952 | 3515 | 25 | 4.4 | PHQ1141_0060K813_0093 EZ815U | 10225 | – | 20797 | 55.70 | 11977/215 | 1600 | 1600 | 2600 | 4.0 | 271 | – | 2623 | 336 |
| 40 | 2621 | 3121 | 24 | 5.0 | PHQ1141_0060K813_0082 EZ815U | 9078 | – | 18470 | 49.46 | 96937/1960 | 1600 | 1600 | 2600 | 4.0 | 299 | – | 2623 | 336 |
| **PHQ1141K ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 22000 Nm)** | | | | | | | | | | | | | | | | | | |
| 5.1 | 3959 | 4441 | 6.4 | 3.3 | PHQ1141_0060K813_0970 EZ701U | 10701 | – | 22754 | 583.0 | 93279/160 | 2800 | 2800 | 4000 | 4.0 | 11 | – | 2623 | 296 |
| 5.1 | 6421 | 7705 | 10 | 2.0 | PHQ1141_0060K813_0970 EZ702U | 16776 | – | 22754 | 583.0 | 93279/160 | 2800 | 2800 | 4000 | 4.0 | 16 | – | 2623 | 299 |
| 5.1 | 8828 | 11129 | 14 | 1.5 | PHQ1141_0060K813_0970 EZ703U | 16776 | – | 22754 | 583.0 | 93279/160 | 2800 | 2800 | 4000 | 4.0 | 24 | – | 2623 | 301 |
| 5.7 | 3576 | 4011 | 6.2 | 3.6 | PHQ1141_0060K813_0880 EZ701U | 9665 | – | 20551 | 526.6 | 21063/40 | 2800 | 2800 | 4000 | 4.0 | 11 | – | 2623 | 296 |
| 5.7 | 5799 | 6959 | 10 | 2.2 | PHQ1141_0060K813_0880 EZ702U | 15152 | – | 20551 | 526.6 | 21063/40 | 2800 | 2800 | 4000 | 4.0 | 17 | – | 2623 | 299 |
| 5.7 | 7974 | 10052 | 14 | 1.6 | PHQ1141_0060K813_0880 EZ703U | 15152 | – | 20551 | 526.6 | 21063/40 | 2800 | 2800 | 4000 | 4.0 | 24 | – | 2623 | 301 |
| 6.3 | 3235 | 3628 | 6.1 | 4.0 | PHQ1141_0060K813_0790 EZ701U | 8743 | – | 20421 | 476.3 | 45725/96 | 2800 | 2800 | 4000 | 4.0 | 12 | – | 2623 | 296 |
| 6.3 | 5246 | 6295 | 9.8 | 2.5 | PHQ1141_0060K813_0790 EZ702U | 15056 | – | 20421 | 476.3 | 45725/96 | 2800 | 2800 | 4000 | 4.0 | 18 | – | 2623 | 299 |
| 6.3 | 7213 | 9092 | 14 | 1.8 | PHQ1141_0060K813_0790 EZ703U | 15056 | – | 20421 | 476.3 | 45725/96 | 2800 | 2800 | 4000 | 4.0 | 25 | – | 2623 | 301 |
| 6.3 | 9311 | 13201 | 17 | 1.4 | PHQ1141_0060K813_0790 EZ705U | 22000 | – | 44000 | 476.3 | 45725/96 | 2800 | 2800 | 4000 | 4.0 | 38 | – | 2623 | 306 |
| 7.0 | 2922 | 3277 | 5.9 | 4.4 | PHQ1141_0060K813_0720 EZ701U | 7897 | – | 18443 | 430.2 | 10325/24 | 2800 | 2800 | 4000 | 4.0 | 13 | – | 2623 | 296 |
| 7.0 | 4738 | 5685 | 9.5 | 2.7 | PHQ1141_0060K813_0720 EZ702U | 13598 | – | 18443 | 430.2 | 10325/24 | 2800 | 2800 | 4000 | 4.0 | 18 | – | 2623 | 299 |
| 7.0 | 6515 | 8212 | 13 | 2.0 | PHQ1141_0060K813_0720 EZ703U | 13598 | – | 18443 | 430.2 | 10325/24 | 2800 | 2800 | 4000 | 4.0 | 26 | – | 2623 | 301 |
| 7.0 | 8410 | 11924 | 17 | 1.5 | PHQ1141_0060K813_0720 EZ705U | 22000 | – | 43110 | 430.2 | 10325/24 | 2800 | 2800 | 4000 | 4.0 | 38 | – | 2623 | 306 |
| 7.6 | 7672 | 10878 | 16 | 1.7 | PHQ1141_0060K813_0650 EZ705U | 22000 | – | 44000 | 392.5 | 188387/480 | 2800 | 2800 | 4000 | 4.0 | 39 | – | 2623 | 306 |
| 8.5 | 6930 | 9825 | 16 | 1.9 | PHQ1141_0060K813_0590 EZ705U | 22000 | – | 39925 | 354.5 | 42539/120 | 2800 | 2800 | 4000 | 4.0 | 40 | – | 2623 | 306 |
| 10 | 3237 | 3885 | 8.9 | 3.8 | PHQ1141_0060K813_0490 EZ702U | 11061 | – | 16837 | 293.9 | 16461/56 | 2800 | 2800 | 4000 | 4.0 | 23 | – | 2623 | 299 |
| 10 | 4451 | 5611 | 12 | 2.8 | PHQ1141_0060K813_0490 EZ703U | 12414 | – | 16837 | 293.9 | 16461/56 | 2800 | 2800 | 4000 | 4.0 | 30 | – | 2623 | 301 |
| 10 | 5746 | 8147 | 15 | 2.3 | PHQ1141_0060K813_0490 EZ705U | 22000 | – | 37770 | 293.9 | 16461/56 | 2800 | 2800 | 4000 | 4.0 | 43 | – | 2623 | 306 |
| 11 | 2924 | 3509 | 9.6 | 3.8 | PHQ1141_0060K813_0440 EZ702U | 9990 | – | 15206 | 265.5 | 531/2 | 2800 | 2800 | 4000 | 4.0 | 23 | – | 2623 | 299 |
| 11 | 4020 | 5068 | 13 | 2.8 | PHQ1141_0060K813_0440 EZ703U | 11211 | – | 15206 | 265.5 | 531/2 | 2800 | 2800 | 4000 | 4.0 | 31 | – | 2623 | 301 |
| 11 | 5190 | 7359 | 15 | 2.5 | PHQ1141_0060K813_0440 EZ705U | 22000 | – | 34112 | 265.5 | 531/2 | 2800 | 2800 | 4000 | 4.0 | 43 | – | 2623 | 306 |
| 12 | 4693 | 6653 | 14 | 2.8 | PHQ1141_0060K813_0400 EZ705U | 22000 | – | 33607 | 240.1 | 38409/160 | 2800 | 2800 | 4000 | 4.0 | 46 | – | 2623 | 306 |
| 14 | 4239 | 6010 | 14 | 3.1 | PHQ1141_0060K813_0360 EZ705U | 20696 | – | 30353 | 216.8 | 8673/40 | 2800 | 2800 | 4000 | 4.0 | 47 | – | 2623 | 306 |
| 15 | 3799 | 5386 | 13 | 3.4 | PHQ1141_0060K813_0320 EZ705U | 18549 | – | 32424 | 194.3 | 31093/160 | 2800 | 2800 | 4000 | 4.0 | 51 | – | 2623 | 306 |
| 17 | 3431 | 4865 | 13 | 3.8 | PHQ1141_0060K813_0290 EZ705U | 16753 | – | 29284 | 175.5 | 7021/40 | 2800 | 2800 | 4000 | 4.0 | 52 | – | 2623 | 306 |
| 20 | 2992 | 4243 | 12 | 4.3 | PHQ1141_0060K813_0260 EZ705U | 14611 | – | 27103 | 153.1 | 140833/920 | 2300 | 2300 | 3500 | 4.0 | 59 | – | 2623 | 306 |
| 22 | 2703 | 3832 | 12 | 4.8 | PHQ1141_0060K813_0230 EZ705U | 13197 | – | 24479 | 138.3 | 31801/230 | 2300 | 2300 | 3500 | 4.0 | 61 | – | 2623 | 306 |
| **PHQ1141K ($n_{1N}$ = 4000 min⁻¹, $M_{2acc,max}$ = 22000 Nm)** | | | | | | | | | | | | | | | | | | |
| 8.4 | 11016 | 19103 | 21 | 1.2 | PHQ1141_0060K813_0790 EZ813U | 22000 | – | 44000 | 476.3 | 45725/96 | 2800 | 2800 | 4000 | 4.0 | 108 | – | 2623 | 323 |
| 8.4 | 11414 | 29349 | 21 | 1.1 | PHQ1141_0060K813_0790 EZ815U | 22000 | – | 44000 | 476.3 | 45725/96 | 2800 | 2800 | 4000 | 4.0 | 171 | – | 2623 | 336 |
| 9.3 | 9950 | 17254 | 20 | 1.3 | PHQ1141_0060K813_0720 EZ813U | 22000 | – | 43110 | 430.2 | 10325/24 | 2800 | 2800 | 4000 | 4.0 | 108 | – | 2623 | 323 |
| 9.3 | 10309 | 26509 | 21 | 1.3 | PHQ1141_0060K813_0720 EZ815U | 22000 | – | 43110 | 430.2 | 10325/24 | 2800 | 2800 | 4000 | 4.0 | 171 | – | 2623 | 336 |
| 10 | 9077 | 15741 | 19 | 1.4 | PHQ1141_0060K813_0650 EZ813U | 22000 | – | 44000 | 392.5 | 188387/480 | 2800 | 2800 | 4000 | 4.0 | 110 | – | 2623 | 323 |
| 10 | 9405 | 24183 | 20 | 1.4 | PHQ1141_0060K813_0650 EZ815U | 22000 | – | 44000 | 392.5 | 188387/480 | 2800 | 2800 | 4000 | 4.0 | 173 | – | 2623 | 336 |
| 11 | 8199 | 14217 | 19 | 1.6 | PHQ1141_0060K813_0590 EZ813U | 22000 | – | 39925 | 354.5 | 42539/120 | 2800 | 2800 | 4000 | 4.0 | 110 | – | 2623 | 323 |
| 11 | 8495 | 21843 | 20 | 1.5 | PHQ1141_0060K813_0590 EZ815U | 22000 | – | 39925 | 354.5 | 42539/120 | 2800 | 2800 | 4000 | 4.0 | 173 | – | 2623 | 336 |
| 14 | 6798 | 11789 | 18 | 1.9 | PHQ1141_0060K813_0490 EZ813U | 22000 | – | 37770 | 293.9 | 16461/56 | 2800 | 2800 | 4000 | 4.0 | 113 | – | 2623 | 323 |
| 14 | 7044 | 18112 | 18 | 1.8 | PHQ1141_0060K813_0490 EZ815U | 22000 | – | 37770 | 293.9 | 16461/56 | 2800 | 2800 | 4000 | 4.0 | 176 | – | 2623 | 336 |
| 15 | 6140 | 10648 | 17 | 2.1 | PHQ1141_0060K813_0440 EZ813U | 22000 | – | 34112 | 265.5 | 531/2 | 2800 | 2800 | 4000 | 4.0 | 114 | – | 2623 | 323 |
| 15 | 6362 | 16360 | 18 | 2.0 | PHQ1141_0060K813_0440 EZ815U | 22000 | – | 34112 | 265.5 | 531/2 | 2800 | 2800 | 4000 | 4.0 | 177 | – | 2623 | 336 |
| 17 | 5552 | 9628 | 17 | 2.3 | PHQ1141_0060K813_0400 EZ813U | 22000 | – | 44000 | 240.1 | 38409/160 | 2800 | 2800 | 4000 | 4.0 | 117 | – | 2623 | 323 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2accHT}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $\Delta\varphi_2$ | $J_1$ | $\Delta\varphi_{2red}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [arc min] | [kgcm²] | [arc min] | [Nm/ arcmin] | [kg] |
| PHQ1141K ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 22000 Nm) | | | | | | | | | | | | | | | | | | |
| 17 | 5752 | 14792 | 17 | 2.3 | PHQ1141_0060K813_0400 EZ815U | 22000 | – | 44000 | 240.1 | 38409/160 | 2800 | 2800 | 4000 | 4.0 | 180 | – | 2623 | 336 |
| 18 | 5015 | 8696 | 16 | 2.6 | PHQ1141_0060K813_0360 EZ813U | 22000 | – | 44000 | 216.8 | 8673/40 | 2800 | 2800 | 4000 | 4.0 | 117 | – | 2623 | 323 |
| 18 | 5196 | 13361 | 17 | 2.5 | PHQ1141_0060K813_0360 EZ815U | 22000 | – | 44000 | 216.8 | 8673/40 | 2800 | 2800 | 4000 | 4.0 | 181 | – | 2623 | 336 |
| 21 | 4494 | 7794 | 16 | 2.9 | PHQ1141_0060K813_0320 EZ813U | 22000 | – | 44000 | 194.3 | 31093/160 | 2800 | 2800 | 4000 | 4.0 | 122 | – | 2623 | 323 |
| 21 | 4657 | 11975 | 16 | 2.8 | PHQ1141_0060K813_0320 EZ815U | 22000 | – | 44000 | 194.3 | 31093/160 | 2800 | 2800 | 4000 | 4.0 | 185 | – | 2623 | 336 |
| 23 | 4059 | 7040 | 15 | 3.2 | PHQ1141_0060K813_0290 EZ813U | 22000 | – | 44000 | 175.5 | 7021/40 | 2800 | 2800 | 4000 | 4.0 | 123 | – | 2623 | 323 |
| 23 | 4206 | 10816 | 16 | 3.1 | PHQ1141_0060K813_0290 EZ815U | 22000 | – | 44000 | 175.5 | 7021/40 | 2800 | 2800 | 4000 | 4.0 | 186 | – | 2623 | 336 |
| PHQ1241K ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 43000 Nm) | | | | | | | | | | | | | | | | | | |
| 3.5 | 20485 | 22975 | 19 | 1.2 | PHQ1241_0060K913_0950 EZ813U | 37154 | – | 56722 | 572.5 | 293105/512 | 2600 | 2600 | 3800 | 4.0 | 111 | – | 4665 | 570 |
| 3.6 | 19517 | 21890 | 18 | 1.3 | PHQ1241_0060K914_0920 EZ813U | 39537 | – | 53625 | 554.1 | 7199037/12992 | 2600 | 2600 | 3800 | 4.0 | 110 | – | 4665 | 583 |
| 4.4 | 16103 | 18061 | 18 | 1.6 | PHQ1241_0060K913_0750 EZ813U | 39283 | – | 53281 | 450.0 | 187209/416 | 2600 | 2600 | 3800 | 4.0 | 114 | – | 4665 | 570 |
| 4.4 | 23852 | 28399 | 26 | 1.0 | PHQ1241_0060K913_0750 EZ815U | 39283 | – | 53281 | 450.0 | 187209/416 | 2600 | 2600 | 3800 | 4.0 | 177 | – | 4665 | 583 |
| 5.3 | 13541 | 15188 | 17 | 1.8 | PHQ1241_0060K913_0630 EZ813U | 43000 | – | 80000 | 378.4 | 629703/1664 | 2600 | 2600 | 3800 | 4.0 | 118 | – | 4665 | 570 |
| 5.3 | 20057 | 23881 | 25 | 1.2 | PHQ1241_0060K913_0630 EZ815U | 43000 | – | 80000 | 378.4 | 629703/1664 | 2600 | 2600 | 3800 | 4.0 | 181 | – | 4665 | 583 |
| 6.8 | 10507 | 11784 | 15 | 2.4 | PHQ1241_0060K913_0490 EZ813U | 37726 | – | 80000 | 293.6 | 300669/1024 | 2600 | 2600 | 3800 | 4.0 | 125 | – | 4665 | 570 |
| 6.8 | 15562 | 18529 | 23 | 1.6 | PHQ1241_0060K913_0490 EZ815U | 43000 | – | 80000 | 293.6 | 300669/1024 | 2600 | 2600 | 3800 | 4.0 | 188 | – | 4665 | 583 |
| 8.8 | 8168 | 9161 | 14 | 3.1 | PHQ1241_0060K913_0380 EZ813U | 29327 | – | 78148 | 228.3 | 584319/2560 | 2600 | 2600 | 3800 | 4.0 | 135 | – | 4665 | 570 |
| 8.8 | 12098 | 14404 | 21 | 2.1 | PHQ1241_0060K913_0380 EZ815U | 41896 | – | 78148 | 228.3 | 584319/2560 | 2600 | 2600 | 3800 | 4.0 | 198 | – | 4665 | 583 |
| 10 | 6895 | 7734 | 14 | 3.6 | PHQ1241_0060K913_0320 EZ813U | 24759 | – | 71941 | 192.7 | 141825/736 | 2600 | 2600 | 3800 | 4.0 | 144 | – | 4665 | 570 |
| 10 | 10213 | 12160 | 20 | 2.4 | PHQ1241_0060K913_0320 EZ815U | 35370 | – | 71941 | 192.7 | 141825/736 | 2600 | 2600 | 3800 | 4.0 | 207 | – | 4665 | 583 |
| 14 | 5141 | 5766 | 12 | 4.9 | PHQ1241_0060K913_0240 EZ813U | 18458 | – | 53625 | 143.7 | 266631/1856 | 2200 | 2200 | 3300 | 4.0 | 166 | – | 4665 | 570 |
| 14 | 7614 | 9066 | 18 | 3.3 | PHQ1241_0060K913_0240 EZ815U | 26369 | – | 53625 | 143.7 | 266631/1856 | 2200 | 2200 | 3300 | 4.0 | 230 | – | 4665 | 583 |
| 17 | 6062 | 7218 | 17 | 4.1 | PHQ1241_0060K913_0190 EZ815U | 20994 | – | 42705 | 114.4 | 915/8 | 2200 | 2200 | 3300 | 4.0 | 255 | – | 4665 | 583 |
| PHQ1241K ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 39280 Nm) | | | | | | | | | | | | | | | | | | |
| 1.3 | 14989 | 16812 | 5.3 | 1.7 | PHQ1241_0060K914_3740 EZ701U | 37154 | – | 56722 | 2242 | 13775935/6144 | 2600 | 2600 | 3800 | 4.0 | 9.4 | – | 4665 | 555 |
| 1.3 | 24306 | 29167 | 8.6 | 1.0 | PHQ1241_0060K914_3740 EZ702U | 37154 | – | 56722 | 2242 | 13775935/6144 | 2600 | 2600 | 3800 | 4.0 | 15 | – | 4665 | 558 |
| 1.7 | 11783 | 13216 | 4.9 | 2.1 | PHQ1241_0060K914_2940 EZ701U | 31845 | – | 53281 | 1763 | 2932941/1664 | 2600 | 2600 | 3800 | 4.0 | 9.6 | – | 4665 | 555 |
| 1.7 | 19107 | 22928 | 8.0 | 1.3 | PHQ1241_0060K914_2940 EZ702U | 39283 | – | 53281 | 1763 | 2932941/1664 | 2600 | 2600 | 3800 | 4.0 | 15 | – | 4665 | 558 |
| 2.0 | 9908 | 11113 | 4.7 | 2.5 | PHQ1241_0060K914_2470 EZ701U | 26779 | – | 44775 | 1482 | 9865347/6656 | 2600 | 2600 | 3800 | 4.0 | 9.9 | – | 4665 | 555 |
| 2.0 | 16067 | 19281 | 7.6 | 1.6 | PHQ1241_0060K914_2470 EZ702U | 33011 | – | 44775 | 1482 | 9865347/6656 | 2600 | 2600 | 3800 | 4.0 | 15 | – | 4665 | 558 |
| 2.0 | 22092 | 27850 | 10 | 1.1 | PHQ1241_0060K914_2470 EZ703U | 33011 | – | 44775 | 1482 | 9865347/6656 | 2600 | 2600 | 3800 | 4.0 | 23 | – | 4665 | 560 |
| 2.6 | 7688 | 8623 | 4.6 | 3.1 | PHQ1241_0060K914_1920 EZ701U | 20778 | – | 39634 | 1150 | 4710481/4096 | 2600 | 2600 | 3800 | 4.0 | 10 | – | 4665 | 555 |
| 2.6 | 12467 | 14960 | 7.4 | 1.9 | PHQ1241_0060K914_1920 EZ702U | 29221 | – | 39634 | 1150 | 4710481/4096 | 2600 | 2600 | 3800 | 4.0 | 16 | – | 4665 | 558 |
| 2.6 | 17142 | 21609 | 10 | 1.4 | PHQ1241_0060K914_1920 EZ703U | 29221 | – | 39634 | 1150 | 4710481/4096 | 2600 | 2600 | 3800 | 4.0 | 23 | – | 4665 | 560 |
| 3.4 | 5976 | 6703 | 4.5 | 3.8 | PHQ1241_0060K914_1490 EZ701U | 16152 | – | 35937 | 894.0 | 9154331/10240 | 2600 | 2600 | 3800 | 4.0 | 11 | – | 4665 | 555 |
| 3.4 | 9691 | 11629 | 7.3 | 2.3 | PHQ1241_0060K914_1490 EZ702U | 26496 | – | 35937 | 894.0 | 9154331/10240 | 2600 | 2600 | 3800 | 4.0 | 16 | – | 4665 | 558 |
| 3.4 | 13325 | 16798 | 10 | 1.7 | PHQ1241_0060K914_1490 EZ703U | 26496 | – | 35937 | 894.0 | 9154331/10240 | 2600 | 2600 | 3800 | 4.0 | 24 | – | 4665 | 560 |
| 4.0 | 5045 | 5659 | 4.4 | 4.3 | PHQ1241_0060K914_1260 EZ701U | 13636 | – | 30340 | 754.7 | 2221925/2944 | 2600 | 2600 | 3800 | 4.0 | 12 | – | 4665 | 555 |
| 4.0 | 8181 | 9818 | 7.2 | 2.6 | PHQ1241_0060K914_1260 EZ702U | 22369 | – | 30340 | 754.7 | 2221925/2944 | 2600 | 2600 | 3800 | 4.0 | 17 | – | 4665 | 558 |
| 4.0 | 11250 | 14181 | 9.9 | 1.9 | PHQ1241_0060K914_1260 EZ703U | 22369 | – | 30340 | 754.7 | 2221925/2944 | 2600 | 2600 | 3800 | 4.0 | 25 | – | 4665 | 560 |
| 5.3 | 6099 | 7319 | 8.6 | 2.7 | PHQ1241_0060K914_0940 EZ702U | 16676 | – | 22618 | 562.7 | 4177219/7424 | 2600 | 2600 | 3800 | 4.0 | 18 | – | 4665 | 558 |
| 5.3 | 8387 | 10572 | 12 | 2.0 | PHQ1241_0060K914_0940 EZ703U | 16676 | – | 22618 | 562.7 | 4177219/7424 | 2600 | 2600 | 3800 | 4.0 | 26 | – | 4665 | 560 |

## 14.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

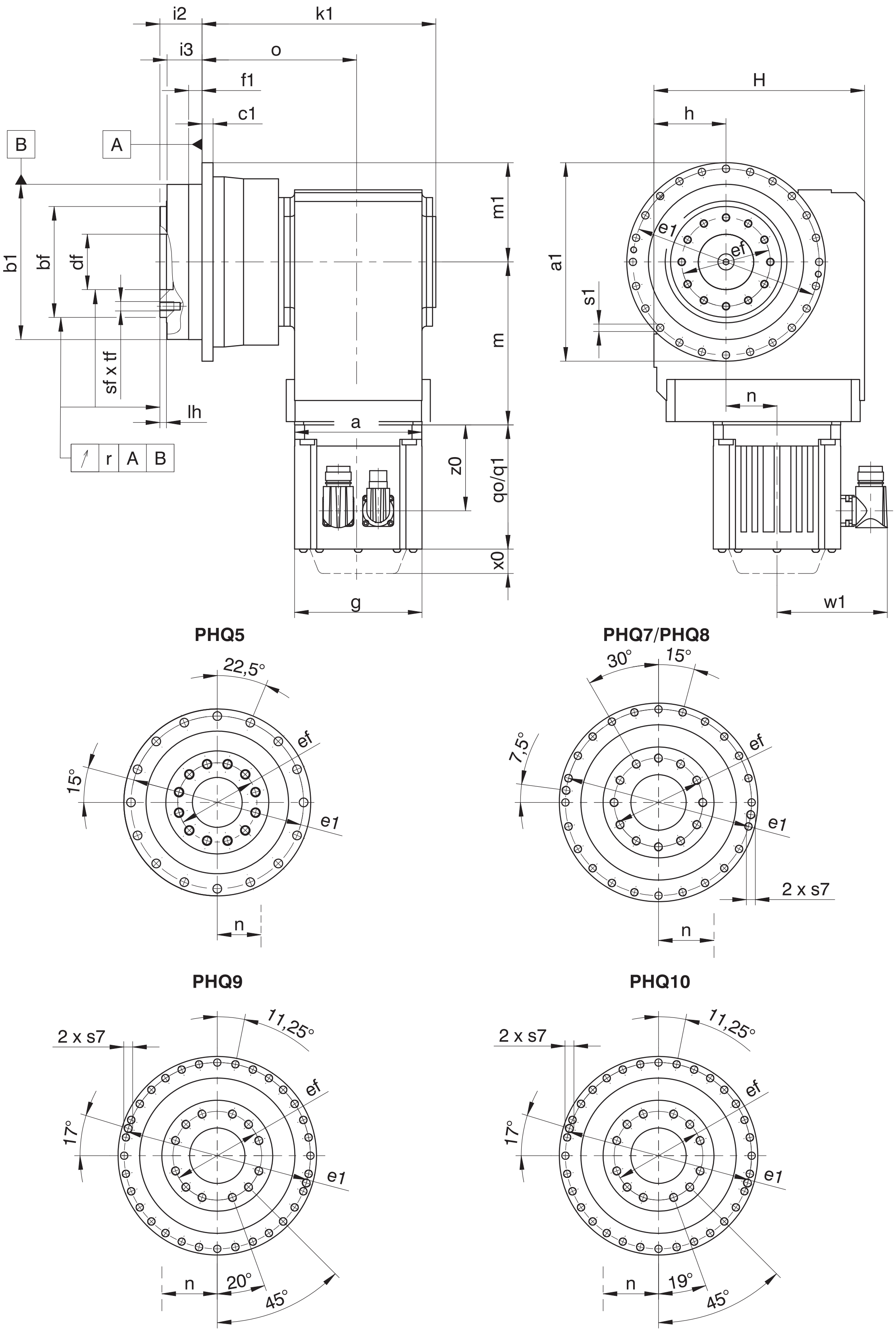
Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

## 14.3.1 PHQ5 – PHQ10 F shaft design (flange shaft)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |

### Dimensions of gearboxes

| Type | ∅a1 | ∅b1 | ∅bf | c1 | ∅df | ∅e1 | ∅ef | f1 | h | H | i2 | i3 | k1 | lh | m1 | o | r | ∅s1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHQ531_K102_ | 145 | $110_{h7}$ | $80_{h7}$ | 8 | $40^{H6}$ | 135 | 63 | 12 | 60 | 160 | 29 | 23 | 180.0 | 6 | 72.5 | 124.0 | 0.020 | 5.5 | – | M8 | 12.0 |
| PHQ731_K202_ | 179 | $140_{h7}$ | $100_{h7}$ | 10 | $50^{H6}$ | 168 | 80 | 12 | 65 | 190 | 38 | 32 | 211.0 | 6 | 89.5 | 141.0 | 0.025 | 6.6 | – | M10 | 16.0 |
| PHQ831_K402_ | 247 | $200_{h7}$ | $160_{h7}$ | 12 | $80^{H6}$ | 233 | 125 | 15 | 90 | 240 | 50 | 42 | 289.0 | 8 | 123.5 | 199.0 | 0.030 | 9.0 | M10 | M12 | 17.0 |
| PHQ941_K513_ | 300 | $255_{h7}$ | $180_{h7}$ | 18 | $90^{H6}$ | 280 | 145 | 20 | 160 | 260 | 66 | 55 | 292.5 | 12 | 150.0 | 196.5 | 0.030 | 13.5 | M8 | M20 | 28.0 |
| PHQ1041_K713_ | 330 | $285_{h7}$ | $200_{h7}$ | 20 | $95^{H6}$ | 310 | 166 | 20 | 212 | 342 | 75 | 60 | 354.5 | 10 | 165.0 | 238.0 | 0.040 | 13.5 | M10 | M24 | 35.0 |

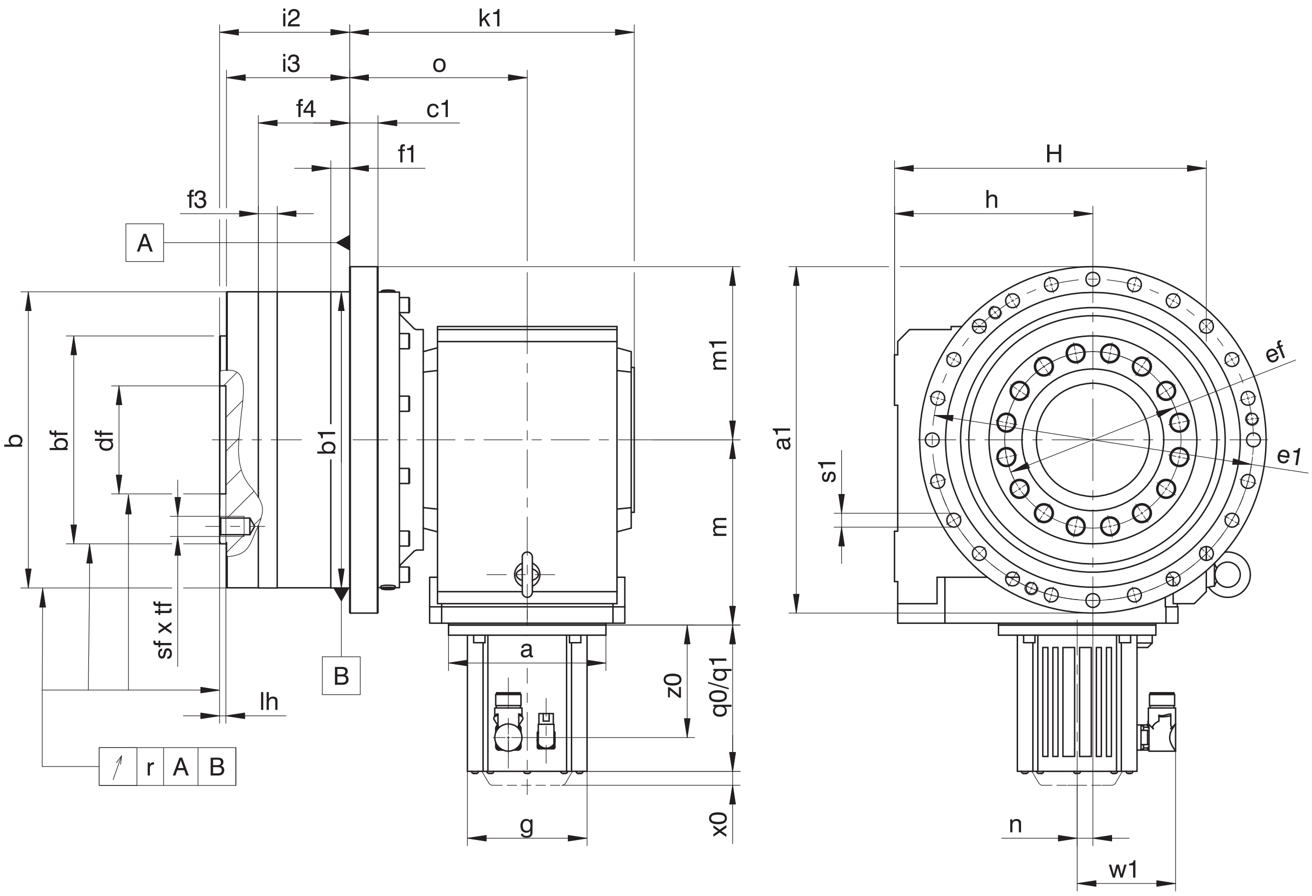
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

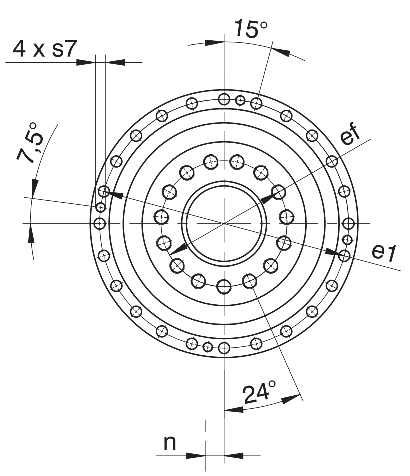
### Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| PHQ531_K102_ | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| PHQ731_K202_ | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| PHQ831_K402_ | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| PHQ941_K513_ | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| PHQ1041_K713_ | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |

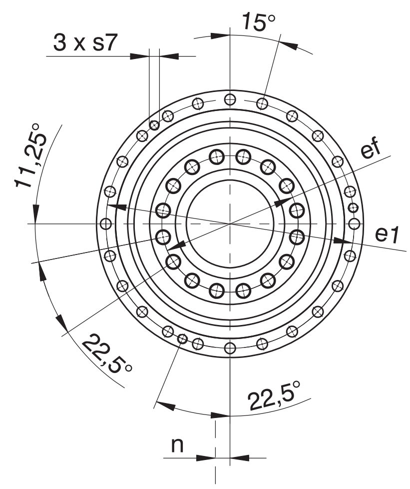
## 14.3.2 PHQ11 – PHQ12 F shaft design (flange shaft)




PHQ11




PHQ12




| | |
|---|---|
| q0 | Applies to motors without brake. |
| x0 | Applies to encoders using an optical measuring method |
| q1 | Applies to motors with brake. |
| w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |

**Dimensions of gearboxes**

| Type | ∅a1 | ∅b | ∅b1 | ∅bf | c1 | ∅df | ∅e1 | ∅ef | f1 | f3 | f4 | h | H | i2 | i3 | k1 | lh | m1 | o | r | ∅s1 | s7 | sf | tf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHQ1141_K813_ | 425 | $365_{g6}$ | $365_{h6}$ | $260_{h7}$ | 32 | $120^{H6}$ | 395 | 200 | 30 | 30 | 120 | 265 | 410 | 190 | 180 | 381.5 | 10 | 212.5 | 236.5 | 0.040 | 17.5 | M16 | M24 | 35.5 |
| PHQ1241_K913_ | 550 | $470_{g6}$ | $470_{h6}$ | $330_{h7}$ | 45 | $180^{H7}$ | 510 | 280 | 30 | 30 | 145 | 315 | 495 | 206.5 | 195.5 | 452.0 | 10 | 275.0 | 282.0 | 0.040 | 22.0 | M16 | M30 | 47.0 |
| PHQ1241_K914_ | 550 | $470_{g6}$ | $470_{h6}$ | $330_{h7}$ | 45 | $180^{H7}$ | 510 | 280 | 30 | 30 | 145 | 315 | 495 | 206.5 | 195.5 | 452.0 | 10 | 275.0 | 282.0 | 0.040 | 22.0 | M16 | M30 | 47.0 |

### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|
| | a | m | n | a | m | n |
| PHQ1141_K813_ | ∅200 | 247 | 24 | ∅250 | 249 | 24 |
| PHQ1241_K913_ | – | – | – | ∅250 | 294 | 25 |
| PHQ1241_K914_ | ∅200 | 353 | 25 | ∅250 | 365 | 25 |

# 14.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PHQ | 7 | 3 | 1 | S | F | S | S | 0055 | K202VF | 0115 | EZ401U |

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **PHQ** | Type | Planetary gearbox |
| **7** | Size | 7 (example) |
| **3** | Generation | Generation 3 |
| 4 | | Generation 4 |
| **1** | Stages | Single-stage |
| **S** | Housing | Standard |
| **F** | Shaft | Flange shaft |
| **S** | Bearing | Standard bearing |
| V | | Reinforced bearing (PHQ4 – PHQ5) |
| **S** | Backlash | Standard |
| R | | Reduced (PHQ4 – PHQ9) |
| **0055** | Transmission ratio of output (i x 10) | i = 5.5 (example) |
| **K202VF** | Input | K2 right-angle geared motor (example) |
| **0115** | Transmission ratio of input (i x 10 rounded) | i = 11.57 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- For a detailed type designation of the motor, see the chapter [▸ 17.5]
- For the mounting position, see the chapter [▸ 14.5.3]
- Output gearbox side 3 or 4, see the chapter [▸ 14.5.3]
- Radial shaft seal rings at the output made of NBR or FKM (option), see the chapter [▸ 14.6.3]
- Position of the plug connectors, see the chapter [▸ 14.5.5]
- Reverse operation of the output shaft from ±20° to ±90° and horizontal installation, see the chapter [▸ 14.6.4]

To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▸ 17.5.1].

# 14.5 Product description

## 14.5.1 Input options

EZ synchronous servo motor

Catalog ID 442437_en

MB motor adapter + EZ synchronous servo motor

Catalog ID 443311_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the catalog in the Search term field.

## 14.5.2 Installation conditions

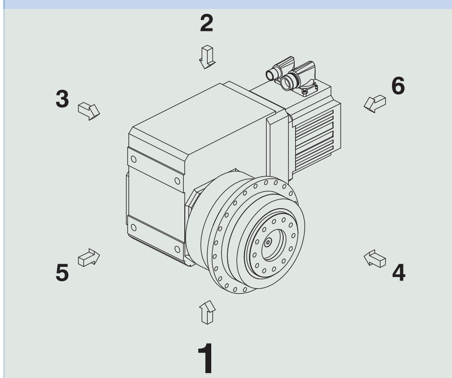
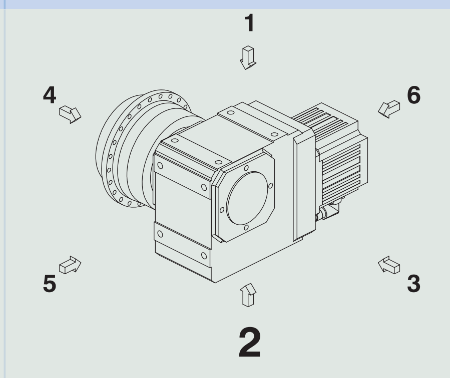
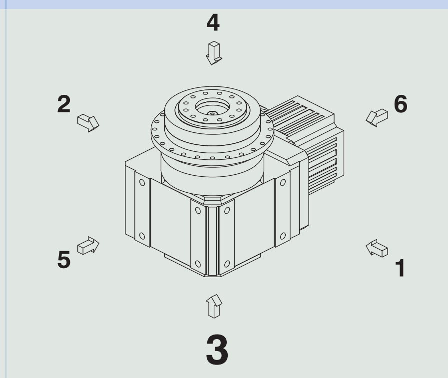
The torque and force values listed in this catalog are valid under the following conditions:

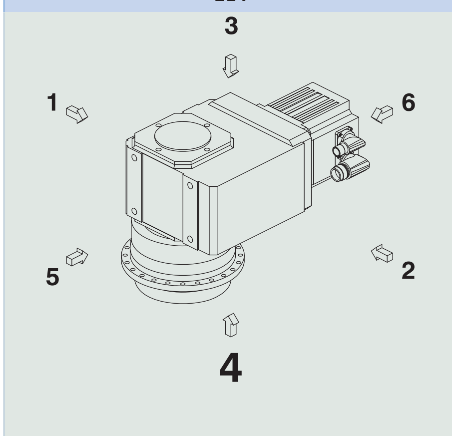
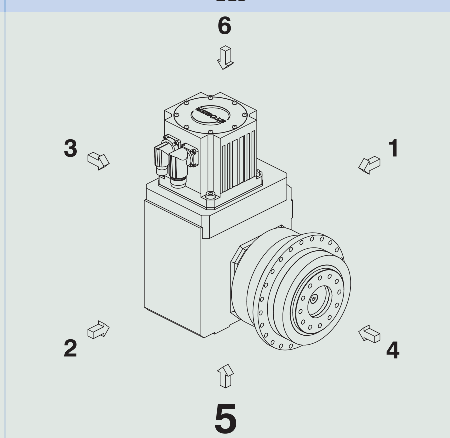
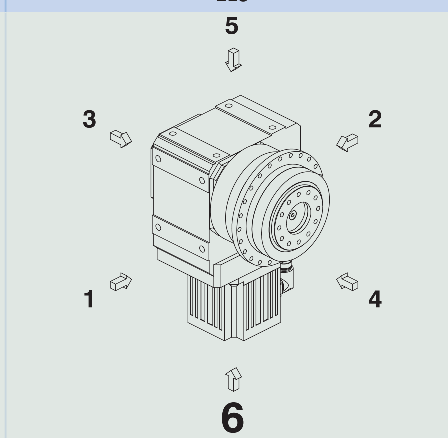
- When the flange shaft and gear housing are fastened on the machine side using screws of strength class 12.9
- When the gear housings are adjusted at pilot øb1, and also at pilot Øb for sizes PHQ11 and PHQ12. The machine-side fit must be H7.
- When the flange shaft is adjusted using the connecting element at pilot øbf or ødf

## 14.5.3 Mounting positions

The following table shows the standard mounting positions.

The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

| EL1 | EL2 | EL3 |
|---|---|---|
|  |  |  |

| EL4 | EL5 | EL6 |
|---|---|---|
|  |  |  |

Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

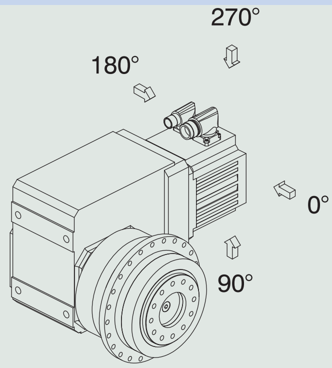
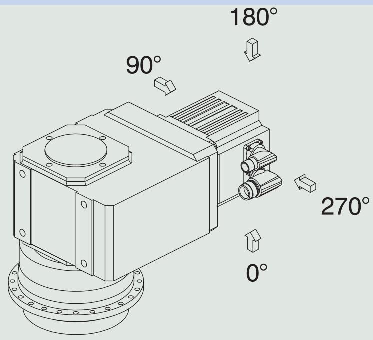
## 14.5.4 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 14.5.5 Position of the plug connectors

| Mounting position EL1<br>Plug connector in 270° position (standard) | Mounting position EL4<br>Plug connector in 270° position (standard) |
|---|---|
|  |  |

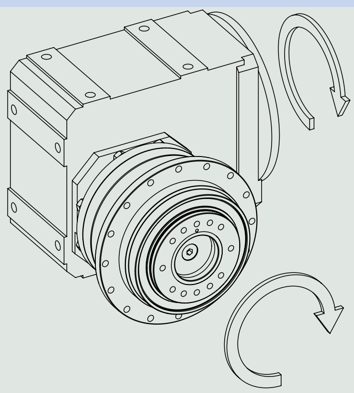
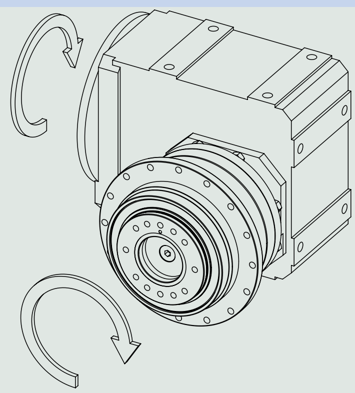
Indicate variations for your geared motor in the order.

Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

## 14.5.6 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 90 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ three-stage | 93% |
| $\eta_{get}$ four-stage | 92% |
| $\eta_{get}$ five-stage | 90% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 14.5.7 Direction of rotation

| Output side 4 | Output side 3 |
|---|---|
|  |  |

The pictures show mounting position EL1.

[1] Observe the protection class of all the components.

## 14.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

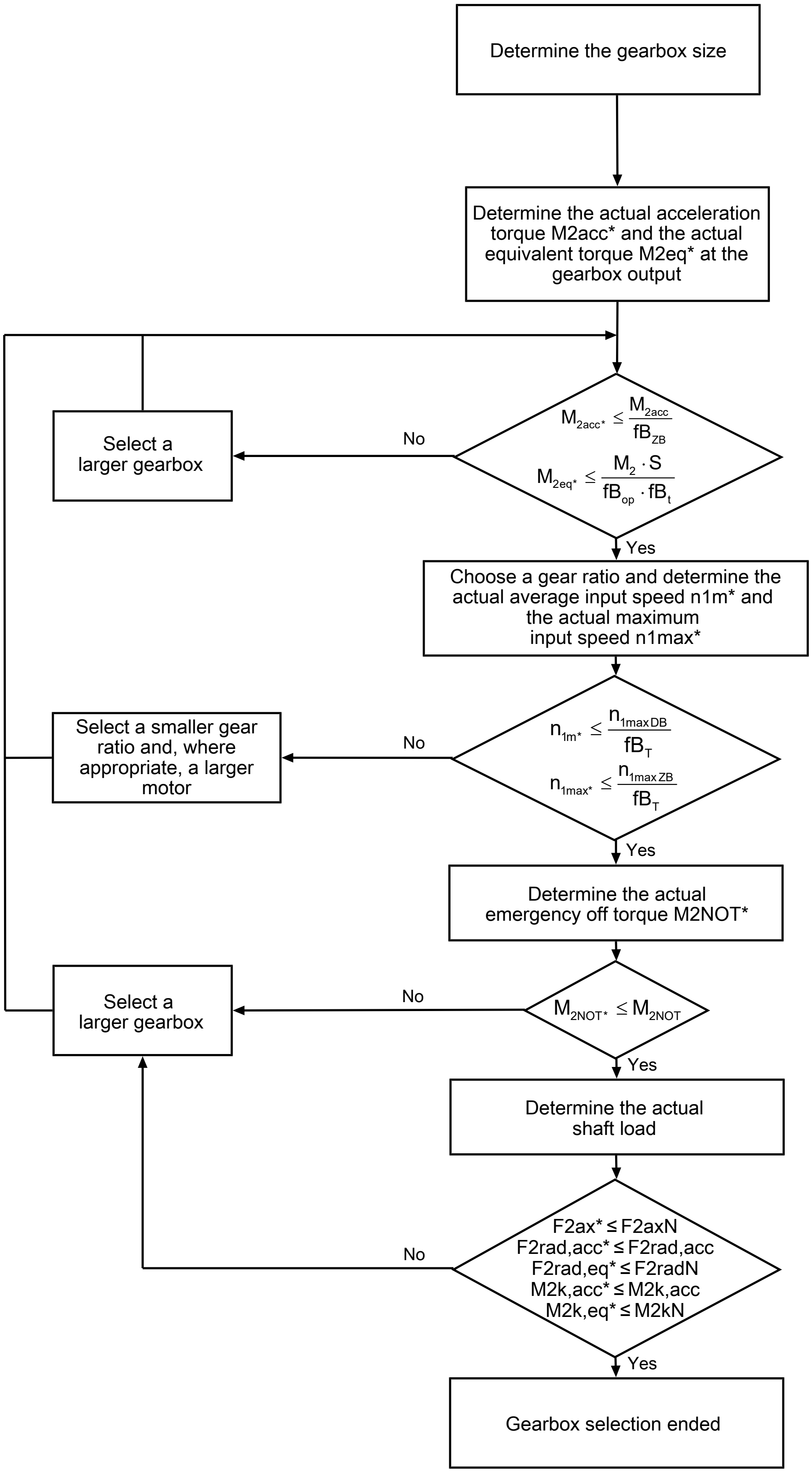
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▶ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 14.6.1 Drive selection

**Drive selection for gearboxes**

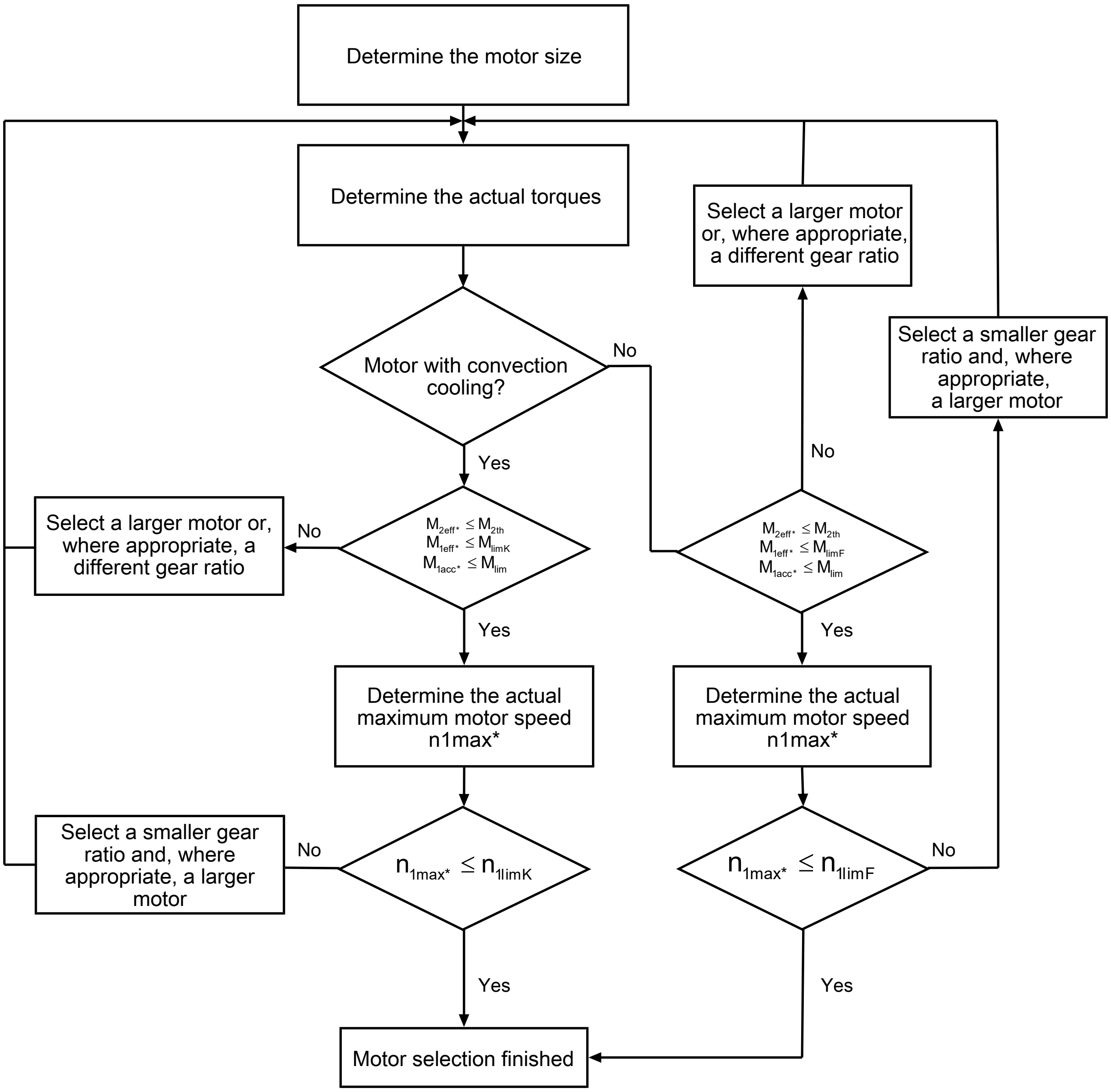



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$ ($M_{2accHT}$ for reduced backlash), $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

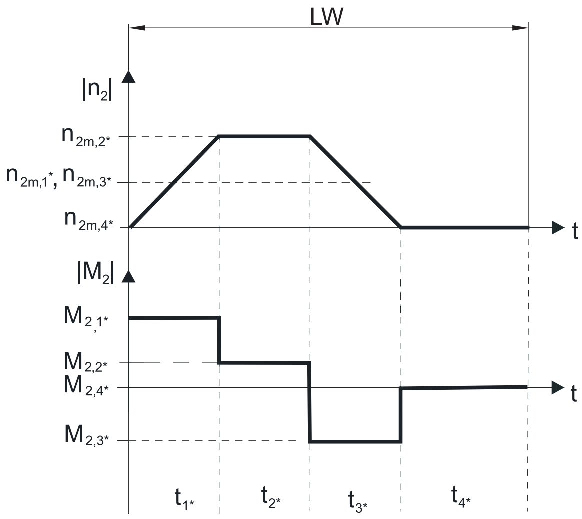
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{\left|n_{2m,1*}\right| \cdot t_{1*} + \ldots + \left|n_{2m,n*}\right| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*}$ + ... + $t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}{}^2 + \ldots + t_{n*} \cdot M_{2,n*}{}^2}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{\left|n_{2m,1*}\right| \cdot t_{1*} \cdot \left|M_{2,1*}{}^3\right| + \ldots + \left|n_{2m,n*}\right| \cdot t_{n*} \cdot \left|M_{2,n*}{}^3\right|}{\left|n_{2m,1*}\right| \cdot t_{1*} + \ldots + \left|n_{2m,n*}\right| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

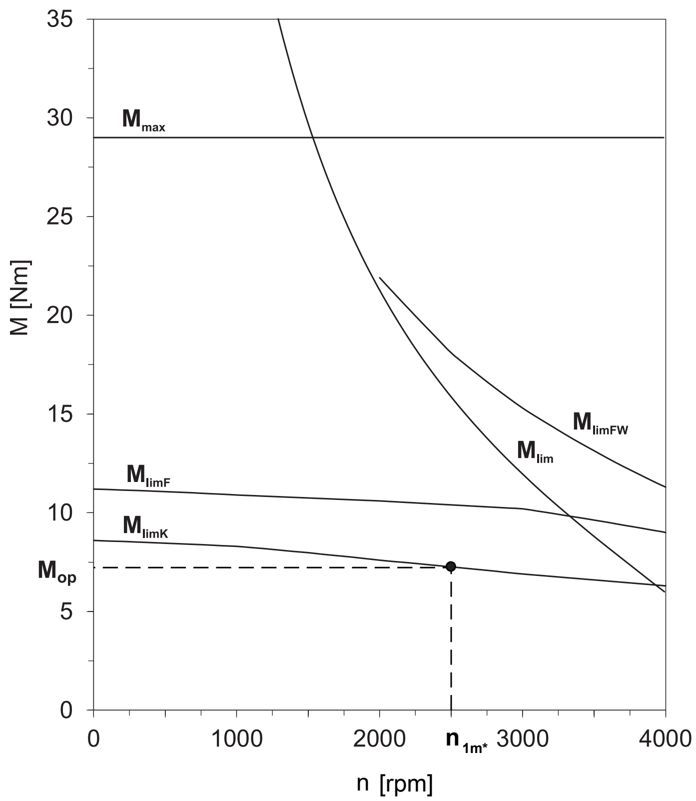
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}93 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^2$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




### Operating factors

**Parameter $a_{thEL}$**

| Mounting position | $a_{thEL}$ |
|---|---|
| EL1, 2 | 1.0 |
| EL3, 4, 5, 6 | 1.1 |

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 14.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*}$ ≤ 100 rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots (housing, flange shaft)

**Permitted shaft loads for standard bearing S**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PHQ4 | 83.0 | 2150 | 3095 | 3929 | 257 | 326 | 192 |
| PHQ5 | 97.0 | 4150 | 4536 | 4897 | 440 | 475 | 429 |
| PHQ7 | 86.0 | 6150 | 17045 | 17045 | 1466 | 1466 | 500 |
| PHQ8 | 125.5 | 10050 | 27778 | 33333 | 3486 | 4183 | 1550 |
| PHQ9 | 155.0 | 33000 | 48387 | 70968 | 7500 | 11000 | 7500 |
| PHQ10 | 171.0 | 50000 | 51462 | 73099 | 8800 | 12500 | 9500 |
| PHQ11 | 231.0 | 60000 | 47619 | 69264 | 11000 | 16000 | 11500 |
| PHQ12 | 281.0 | 70000 | 64057 | 106761 | 18000 | 30000 | 14000 |

**Permitted shaft loads for reinforced bearing V**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] | $C_{2k}$ [Nm/ arcmin] |
|---|---|---|---|---|---|---|---|
| PHQ4 | 88.5 | 2900 | 4000 | 4000 | 354 | 354 | 217 |
| PHQ5 | 104.0 | 5000 | 5500 | 5500 | 572 | 572 | 478 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\,\text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\,\text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\,\text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

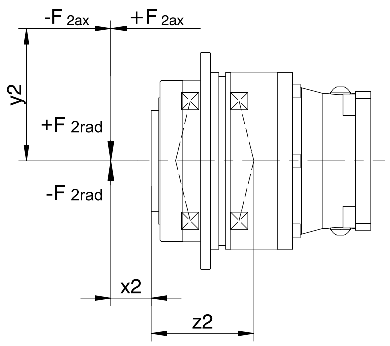



*Fig. 1:* Force application points

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**The following apply to the bearing service life $L_{10h}$ ($ED_{10}$ ≤ 40%):**

$L_{10h}$ > 10000 h with 1 < $M_{2kN}/M_{2k*}$ < 1.25

$L_{10h}$ > 20000 h with 1.25 < $M_{2kN}/M_{2k*}$ < 1.5

$L_{10h}$ > 30000 h with 1.5 < $M_{2kN}/M_{2k*}$

**For different duty cycles:**

$$L_{10h} > L_{10h(ED_{10}=40\%)} \cdot \frac{40\%}{ED_{10}}$$

## 14.6.3 Recommendation for radial shaft seal rings

For a duty cycle > 60% and higher surrounding temperatures, we recommend radial shaft seal rings made of FKM at the output.

Properties:

- Excellent temperature resistance
- High chemical stability
- Very good resistance to aging
- Excellent resistance in oils and greases
- For use in the food, beverage and pharmaceutical industries

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

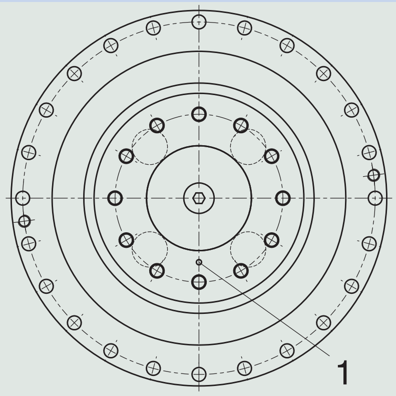
### 14.6.4 Reverse operation

To ensure lubrication for circulating gearing parts during cyclic reverse operation from ± 20° to ± 90° at the output, pay careful attention to the position of the output shaft for the horizontal mounting of the gearbox, as shown in the diagrams below.

The images show the center position of reverse operation.

Cyclic reverse operation ≤ ± 20° on request.

**PHQ4 – PHQ12**




1 Position of the mark: bottom

Please note that the hole pattern may be different, depending on the size of the planetary gearbox.

## 14.7 Additional documentation

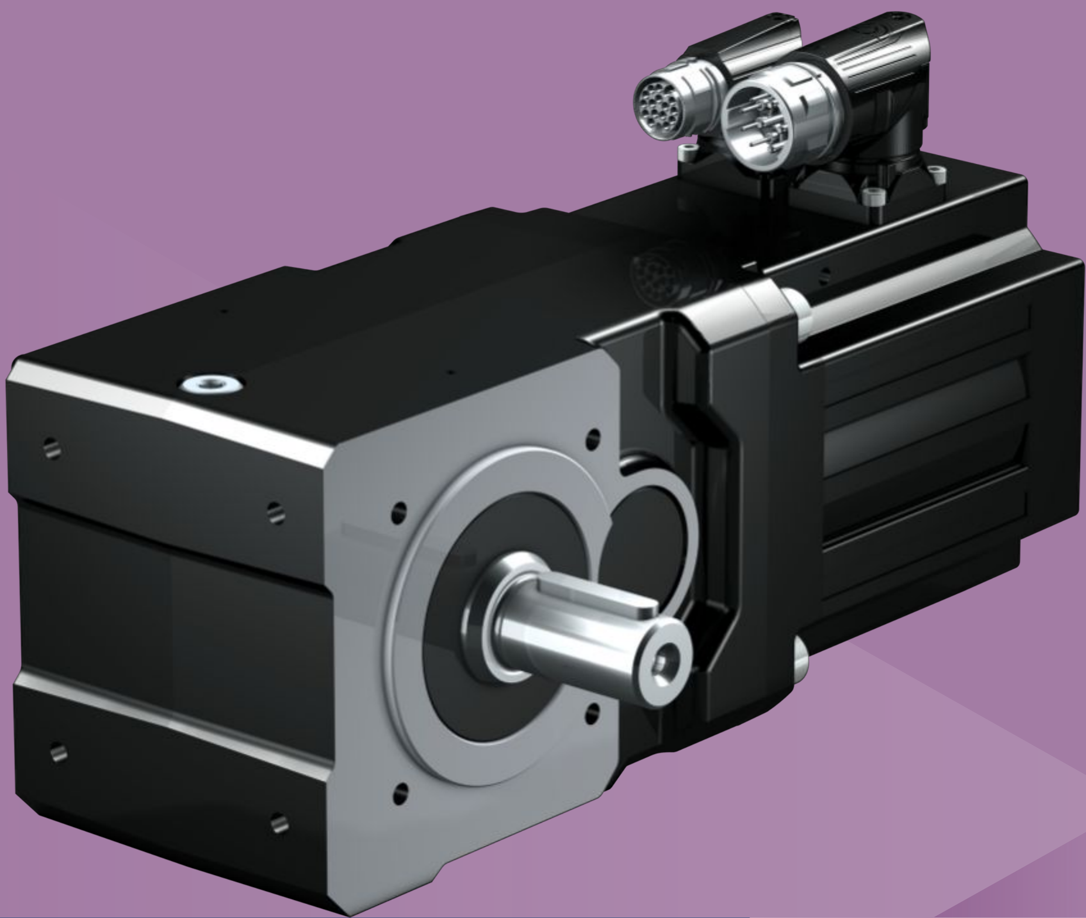
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors PHQ53K – PHQ83K, PHQ94K – PHQ124K | 443357_en |

# 15 KL helical bevel geared motors

## Table of contents



15 **Helical bevel geared motors** KL

## 15.1 Overview

Compact helical-geared right-angle geared motors

**Features**

| | |
|---|---|
| Power density | ★★☆☆☆ |
| Backlash | ★☆☆☆☆ |
| Price category | € |
| Shaft load | ★★☆☆☆ |
| Smooth operation | ★★☆☆☆ |
| Torsional stiffness | ★★☆☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free | ✓ |
| Any mounting position | ✓ |
| Small installation space | ✓ |
| FKM seal ring at the input | ✓ |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 4 – 32 |
| $M_{2acc}$ | 10 – 65 Nm |
| $\Delta\phi_2$ | 16 – 25 arcmin |
| $\eta_{get}$ | 97 % |

# 15.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **KL1 ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 30 Nm)** | | | | | | | | | | | | | | | |
| 188 | 14 | 15 | 16 | 1.7 | KL102_0160 EZ301U | 30 | 60 | 16.00 | 16/1 | 4000 | 6000 | 0.22 | 20.0 | 1.8 | 6.6 |
| 188 | 25 | 26 | 28 | 1.0 | KL102_0160 EZ302U | 30 | 60 | 16.00 | 16/1 | 4000 | 6000 | 0.32 | 20.0 | 1.8 | 7.2 |
| 375 | 7.2 | 7.4 | 17 | 2.7 | KL102_0080 EZ301U | 22 | 59 | 8.000 | 8/1 | 3500 | 6000 | 0.28 | 20.0 | 1.8 | 6.6 |
| 375 | 12 | 13 | 29 | 1.6 | KL102_0080 EZ302U | 30 | 59 | 8.000 | 8/1 | 3500 | 6000 | 0.38 | 20.0 | 1.8 | 7.2 |
| 375 | 16 | 17 | 38 | 1.2 | KL102_0080 EZ303U | 30 | 59 | 8.000 | 8/1 | 3500 | 6000 | 0.49 | 20.0 | 1.8 | 7.7 |
| 750 | 3.6 | 3.7 | 22 | 3.6 | KL102_0040 EZ301U | 11 | 30 | 4.000 | 4/1 | 3500 | 6000 | 0.31 | 25.0 | 1.3 | 6.6 |
| 750 | 6.2 | 6.5 | 37 | 2.1 | KL102_0040 EZ302U | 19 | 30 | 4.000 | 4/1 | 3500 | 6000 | 0.41 | 25.0 | 1.3 | 7.2 |
| 750 | 8.0 | 8.5 | 49 | 1.6 | KL102_0040 EZ303U | 22 | 30 | 4.000 | 4/1 | 3500 | 6000 | 0.52 | 25.0 | 1.3 | 7.7 |
| **KL1 ($n_{1N}$ = 6000 min⁻¹, $M_{2acc,max}$ = 32 Nm)** | | | | | | | | | | | | | | | |
| 188 | 12 | 14 | 11 | 1.5 | KL102_0320 EZ202U | 32 | 64 | 32.00 | 32/1 | 4000 | 6000 | 0.15 | 20.0 | 1.7 | 6.5 |
| 188 | 19 | 21 | 17 | 1.0 | KL102_0320 EZ203U | 32 | 64 | 32.00 | 32/1 | 4000 | 6000 | 0.19 | 20.0 | 1.7 | 6.8 |
| 375 | 6.2 | 6.8 | 8.8 | 3.2 | KL102_0160 EZ202U | 23 | 60 | 16.00 | 16/1 | 4000 | 6000 | 0.15 | 20.0 | 1.8 | 6.5 |
| 375 | 9.5 | 11 | 13 | 2.1 | KL102_0160 EZ203U | 30 | 60 | 16.00 | 16/1 | 4000 | 6000 | 0.19 | 20.0 | 1.8 | 6.8 |
| 375 | 14 | 15 | 20 | 1.4 | KL102_0160 EZ301U | 30 | 60 | 16.00 | 16/1 | 4000 | 6000 | 0.22 | 20.0 | 1.8 | 6.6 |
| 750 | 4.7 | 5.4 | 14 | 3.3 | KL102_0080 EZ203U | 21 | 59 | 8.000 | 8/1 | 3500 | 6000 | 0.25 | 20.0 | 1.8 | 6.8 |
| 750 | 6.9 | 7.4 | 21 | 2.3 | KL102_0080 EZ301U | 22 | 59 | 8.000 | 8/1 | 3500 | 6000 | 0.28 | 20.0 | 1.8 | 6.6 |
| 750 | 12 | 13 | 35 | 1.4 | KL102_0080 EZ302U | 30 | 59 | 8.000 | 8/1 | 3500 | 6000 | 0.38 | 20.0 | 1.8 | 7.2 |
| 750 | 15 | 17 | 46 | 1.0 | KL102_0080 EZ303U | 30 | 59 | 8.000 | 8/1 | 3500 | 6000 | 0.49 | 20.0 | 1.8 | 7.7 |
| 1500 | 2.4 | 2.7 | 18 | 4.4 | KL102_0040 EZ203U | 10 | 30 | 4.000 | 4/1 | 3500 | 6000 | 0.29 | 25.0 | 1.3 | 6.8 |
| 1500 | 3.5 | 3.7 | 26 | 3.0 | KL102_0040 EZ301U | 11 | 30 | 4.000 | 4/1 | 3500 | 6000 | 0.31 | 25.0 | 1.3 | 6.6 |
| 1500 | 5.8 | 6.5 | 45 | 1.8 | KL102_0040 EZ302U | 19 | 30 | 4.000 | 4/1 | 3500 | 6000 | 0.41 | 25.0 | 1.3 | 7.2 |
| 1500 | 7.6 | 8.7 | 58 | 1.4 | KL102_0040 EZ303U | 22 | 30 | 4.000 | 4/1 | 3500 | 6000 | 0.52 | 25.0 | 1.3 | 7.7 |
| **KL2 ($n_{1N}$ = 3000 min⁻¹, $M_{2acc,max}$ = 65 Nm)** | | | | | | | | | | | | | | | |
| 94 | 29 | 29 | 11 | 1.6 | KL202_0320 EZ301U | 65 | 130 | 32.00 | 32/1 | 4000 | 6000 | 0.26 | 16.0 | 3.2 | 9.1 |
| 188 | 14 | 15 | 9.0 | 3.5 | KL202_0160 EZ301U | 43 | 118 | 16.00 | 16/1 | 4000 | 6000 | 0.28 | 16.0 | 4.0 | 9.1 |
| 188 | 25 | 26 | 15 | 2.0 | KL202_0160 EZ302U | 60 | 118 | 16.00 | 16/1 | 4000 | 6000 | 0.38 | 16.0 | 4.0 | 9.7 |
| 188 | 32 | 34 | 20 | 1.6 | KL202_0160 EZ303U | 60 | 118 | 16.00 | 16/1 | 4000 | 6000 | 0.49 | 16.0 | 4.0 | 10 |
| 188 | 43 | 47 | 27 | 1.2 | KL202_0160 EZ401U | 60 | 120 | 16.00 | 16/1 | 4000 | 6000 | 1.0 | 16.0 | 4.0 | 12 |
| 375 | 7.2 | 7.4 | 15 | 3.5 | KL202_0080 EZ301U | 22 | 59 | 8.000 | 8/1 | 4000 | 6000 | 0.31 | 20.0 | 2.4 | 9.1 |
| 375 | 12 | 13 | 26 | 2.0 | KL202_0080 EZ302U | 35 | 59 | 8.000 | 8/1 | 4000 | 6000 | 0.41 | 20.0 | 2.4 | 9.7 |
| 375 | 16 | 17 | 33 | 1.6 | KL202_0080 EZ303U | 35 | 59 | 8.000 | 8/1 | 4000 | 6000 | 0.52 | 20.0 | 2.4 | 10 |
| 375 | 22 | 23 | 29 | 1.8 | KL202_0080 EZ401U | 60 | 120 | 8.000 | 8/1 | 3500 | 6000 | 1.2 | 16.0 | 4.0 | 12 |
| 375 | 36 | 40 | 48 | 1.1 | KL202_0080 EZ402U | 60 | 120 | 8.000 | 8/1 | 3500 | 6000 | 1.9 | 16.0 | 4.0 | 13 |
| 750 | 11 | 12 | 34 | 2.6 | KL202_0040 EZ401U | 33 | 108 | 4.000 | 4/1 | 3500 | 6000 | 1.4 | 20.0 | 2.4 | 12 |
| 750 | 18 | 20 | 57 | 1.5 | KL202_0040 EZ402U | 53 | 108 | 4.000 | 4/1 | 3500 | 6000 | 2.1 | 20.0 | 2.4 | 13 |
| 750 | 27 | 33 | 84 | 1.0 | KL202_0040 EZ404U | 53 | 108 | 4.000 | 4/1 | 3500 | 6000 | 3.4 | 20.0 | 2.4 | 15 |
| **KL2 ($n_{1N}$ = 6000 min⁻¹, $M_{2acc,max}$ = 65 Nm)** | | | | | | | | | | | | | | | |
| 188 | 28 | 29 | 14 | 1.4 | KL202_0320 EZ301U | 65 | 130 | 32.00 | 32/1 | 4000 | 6000 | 0.26 | 16.0 | 3.2 | 9.1 |
| 375 | 14 | 15 | 11 | 2.9 | KL202_0160 EZ301U | 43 | 118 | 16.00 | 16/1 | 4000 | 6000 | 0.28 | 16.0 | 4.0 | 9.1 |
| 375 | 23 | 26 | 18 | 1.7 | KL202_0160 EZ302U | 60 | 118 | 16.00 | 16/1 | 4000 | 6000 | 0.38 | 16.0 | 4.0 | 9.7 |
| 375 | 30 | 35 | 24 | 1.3 | KL202_0160 EZ303U | 60 | 118 | 16.00 | 16/1 | 4000 | 6000 | 0.49 | 16.0 | 4.0 | 10 |
| 375 | 36 | 43 | 28 | 1.1 | KL202_0160 EZ401U | 60 | 120 | 16.00 | 16/1 | 4000 | 6000 | 1.0 | 16.0 | 4.0 | 12 |
| 750 | 6.9 | 7.4 | 14 | 3.7 | KL202_0080 EZ301U | 22 | 59 | 8.000 | 8/1 | 4000 | 6000 | 0.31 | 20.0 | 2.4 | 9.1 |
| 750 | 12 | 13 | 24 | 2.2 | KL202_0080 EZ302U | 35 | 59 | 8.000 | 8/1 | 4000 | 6000 | 0.41 | 20.0 | 2.4 | 9.7 |
| 750 | 15 | 17 | 32 | 1.7 | KL202_0080 EZ303U | 35 | 59 | 8.000 | 8/1 | 4000 | 6000 | 0.52 | 20.0 | 2.4 | 10 |
| 750 | 18 | 22 | 30 | 1.8 | KL202_0080 EZ401U | 60 | 120 | 8.000 | 8/1 | 3500 | 6000 | 1.2 | 16.0 | 4.0 | 12 |
| 750 | 27 | 38 | 45 | 1.2 | KL202_0080 EZ402U | 60 | 120 | 8.000 | 8/1 | 3500 | 6000 | 1.9 | 16.0 | 4.0 | 13 |
| 1500 | 8.9 | 11 | 35 | 2.5 | KL202_0040 EZ401U | 33 | 108 | 4.000 | 4/1 | 3500 | 6000 | 1.4 | 20.0 | 2.4 | 12 |
| 1500 | 14 | 19 | 54 | 1.6 | KL202_0040 EZ402U | 53 | 108 | 4.000 | 4/1 | 3500 | 6000 | 2.1 | 20.0 | 2.4 | 13 |

# 15.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

**Tolerances**

| Axis height in accordance with DIN 747 | Tolerance |
|---|---|
| Up to 50 mm | -0.4 mm |
| Up to 250 mm | -0.5 mm |
| Up to 630 mm | -0.6 mm |

| Solid shaft | Tolerance |
|---|---|
| Shaft ∅ fit ≤ 50 mm | DIN 748-1, ISO k6 |
| Shaft ∅ fit > 50 mm | DIN 748-1, ISO m6 |
| Feather keys | DIN 6885-1, high form A |

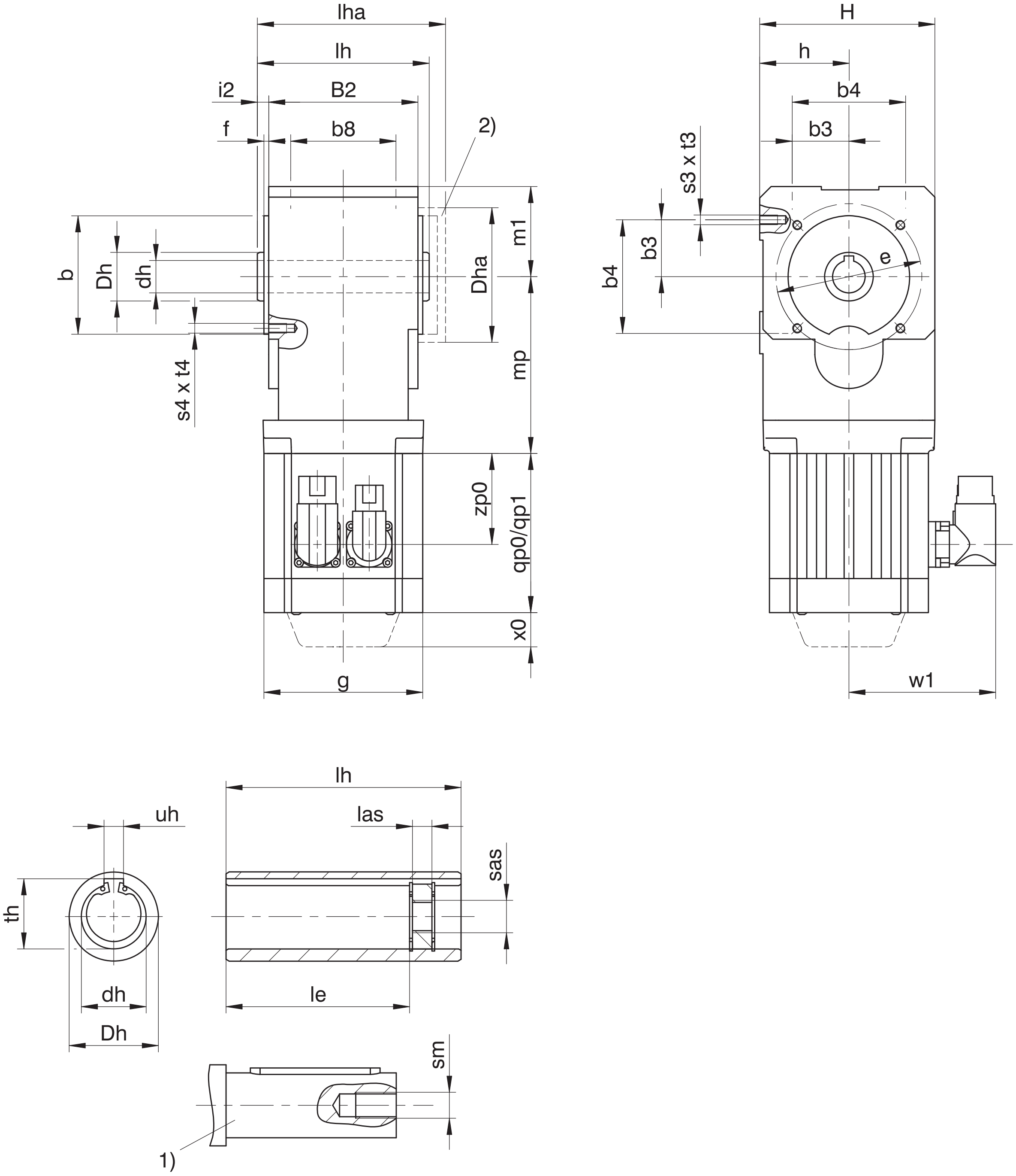
**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|---|
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

| Hollow shaft | Tolerance |
|---|---|
| Hollow shaft hole fit | ISO G7 |
| Feather keys | DIN 6885-1, high form |

| Flange | Pilot tolerance |
|---|---|
| Up to 300 mm | ISO j6 |
| Starting at 350 mm | ISO h6 |

## 15.3.1 A shaft design (hollow shaft), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | ∅b | b3 | b4 | b8 | B2 | ∅dh | Dh | Dha | ∅e | f | h | H | i2 | le | lh | las | lha | m1 | s3 | s4 | sm | sas | t3 | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 27.5 | 55 | 50 | 75 | $16^{H7}$ | 25 | 70 | 75 | 3 | 46 | 90 | 6 | 60.5 | 87 | 12 | 91 | 46 | M6 | M6 | M5 | M6 | 11 | 11 | 18.3 | $5^{JS9}$ |
| KL2 | $75_{j6}$ | 35.0 | 70 | 65 | 92 | $20^{H7}$ | 30 | 80 | 90 | 3 | 55 | 108 | 7 | 79.5 | 106 | 12 | 110 | 55 | M6 | M6 | M6 | M8 | 13 | 13 | 22.8 | $6^{JS9}$ |

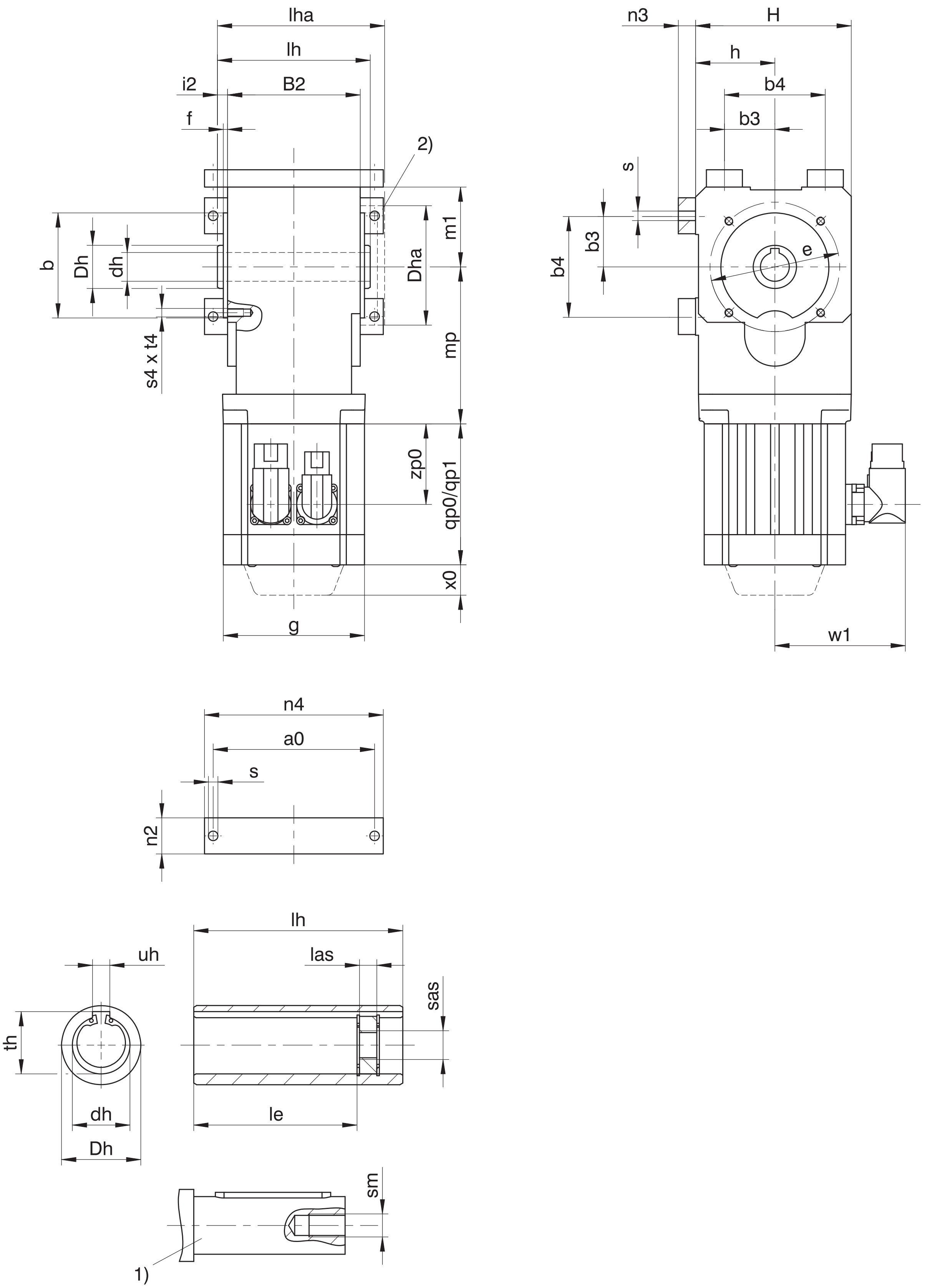
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

## 15.3.2 A shaft design (hollow shaft), NG housing design (base + pitch circle diameter)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

## Dimensions of gearboxes

| Type | a0 | ∅b | b3 | b4 | B2 | ∅dh | Dh | Dha | ∅e | f | h | H | i2 | le | lh | las | lha | m1 | n2 | n3 | n4 | ∅s | s4 | sm | sas | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | 95 | $60_{j6}$ | 27.5 | 55 | 75 | $16^{H7}$ | 25 | 70 | 75 | 3 | 46 | 90 | 6 | 60.5 | 87 | 12 | 91 | 46 | 20 | 12 | 107 | 6.6 | M6 | M5 | M6 | 11 | 18.3 | $5^{JS9}$ |
| KL2 | 112 | $75_{j6}$ | 35.0 | 70 | 92 | $20^{H7}$ | 30 | 80 | 90 | 3 | 55 | 108 | 7 | 79.5 | 106 | 12 | 110 | 55 | 25 | 12 | 124 | 6.6 | M6 | M6 | M8 | 13 | 22.8 | $6^{JS9}$ |

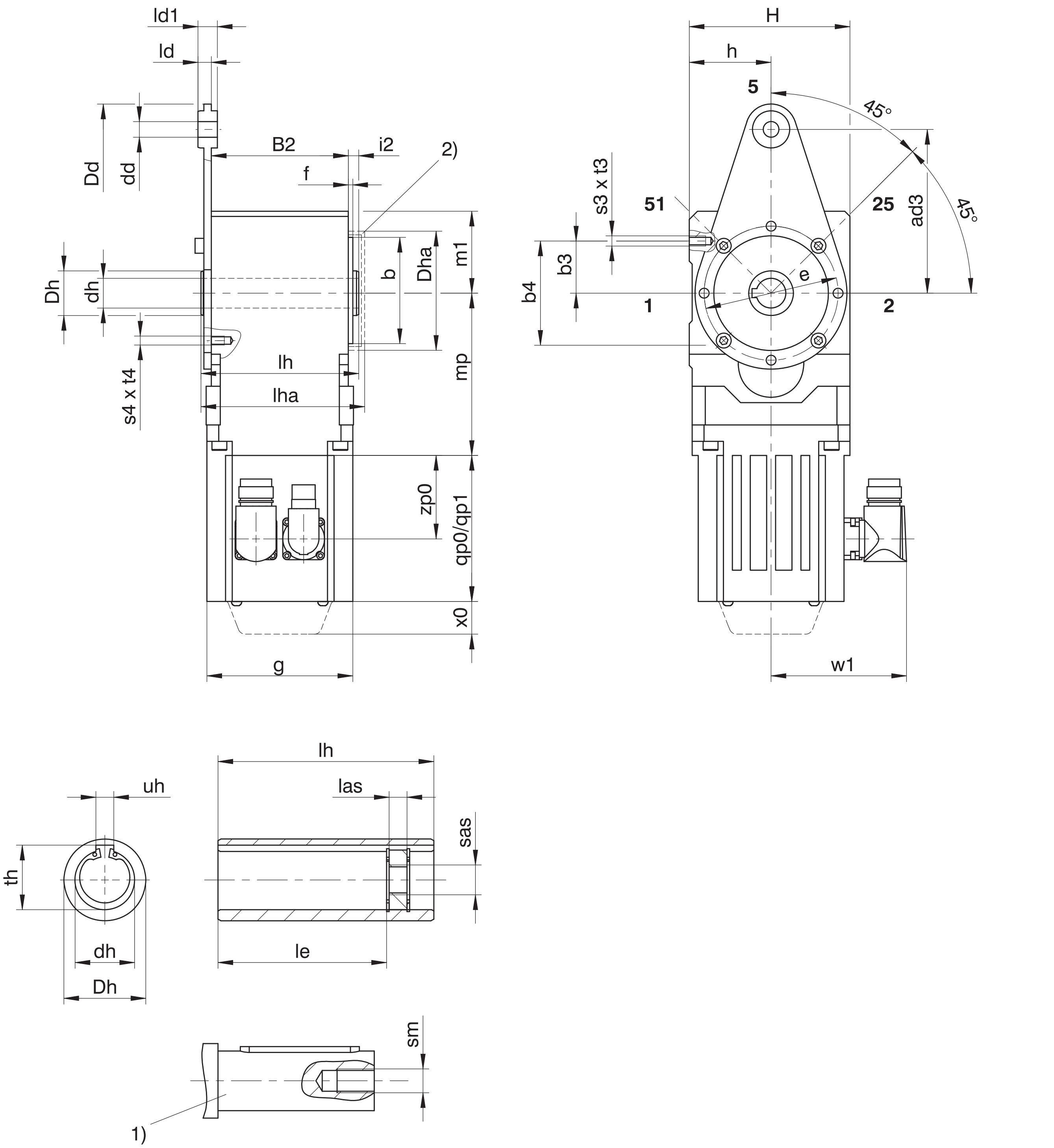
## Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

## Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

### 15.3.3 Shaft design A (hollow shaft), housing design GD (pitch circle diameter + torque arm bracket)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | ad3 | ∅b | b3 | b4 | B2 | ∅dd | ∅dh | ∅Dd | ∅Dh | ∅Dha | ∅e | f | h | H | i2 | le | lh | las | ld | ld1 | lha | m1 | s3 | s4 | sm | sas | t3 | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL2 | 110 | $75_{j6}$ | 35 | 70 | 92 | 10.5 | $20^{H7}$ | 34 | 30 | 80 | 90 | 3 | 55 | 108 | 7 | 79.5 | 106 | 12 | 9 | 13 | 110 | 55 | M6 | M6 | M6 | M8 | 13 | 13 | 22.8 | $6^{JS9}$ |

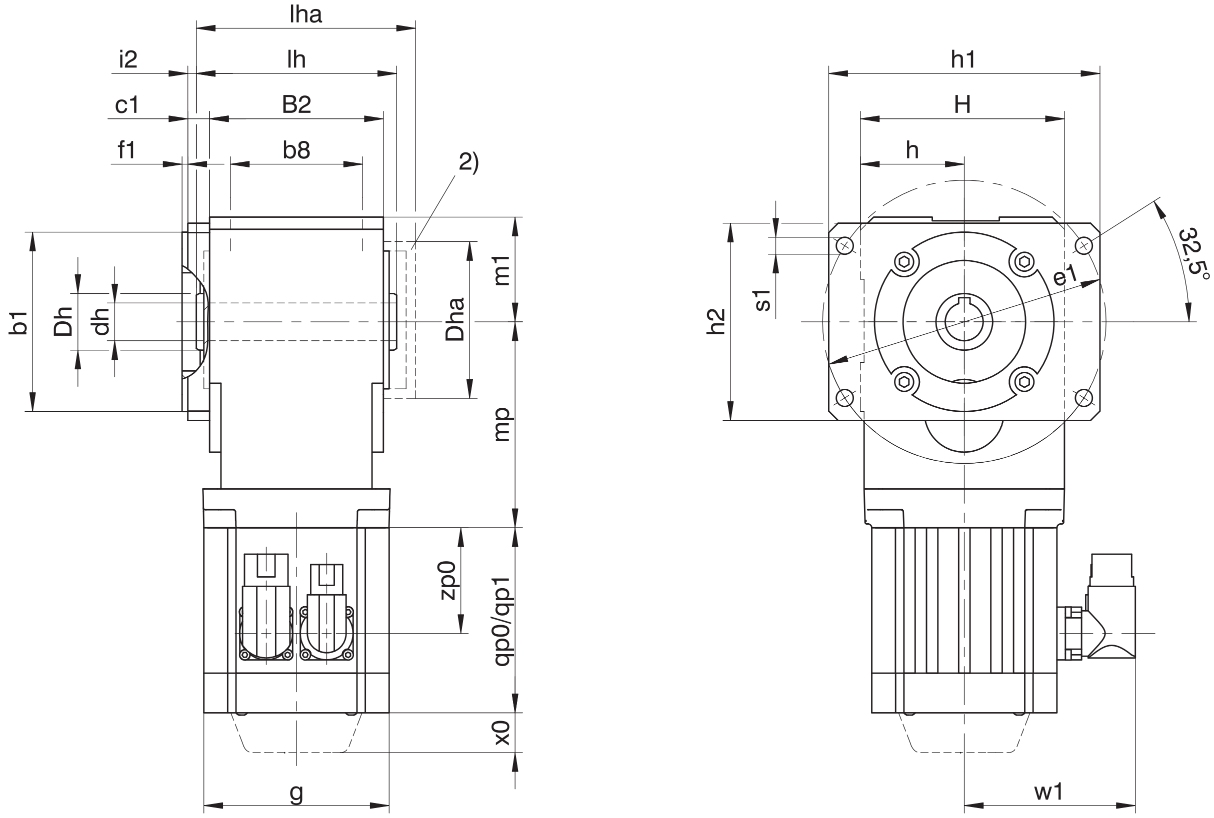
### Dimensions of motors

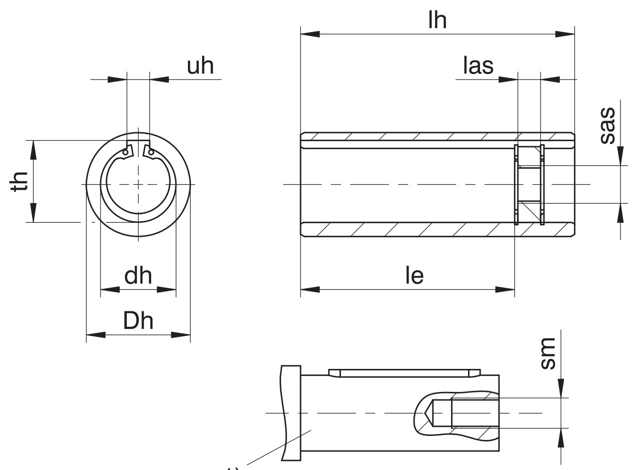
| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

### Dimensions of geared motors

| Type | EZ3 | EZ4 |
|---|---|---|
| | mp | mp |
| KL202 | 112.5 | 109.0 |

## 15.3.4 A shaft design (hollow shaft), F housing design (flange)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | ∅b1 | b8 | B2 | c1 | ∅dh | Dh | Dha | ∅e1 | f1 | h | h1 | h2 | H | i2 | le | lh | las | lha | m1 | ∅s1 | sm | sas | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 50 | 75 | 11.5 | $16^{H7}$ | 25 | 70 | 130 | 3 | 46 | 128.5 | 88.5 | 90 | 5.5 | 60.5 | 87 | 12 | 91 | 46 | 9 | M5 | M6 | 18.3 | $5^{JS9}$ |
| KL2 | $95_{j6}$ | 65 | 92 | 11.5 | $20^{H7}$ | 30 | 80 | 150 | 3 | 55 | 143.5 | 104.5 | 108 | 4.5 | 79.5 | 106 | 12 | 110 | 55 | 9 | M6 | M8 | 22.8 | $6^{JS9}$ |

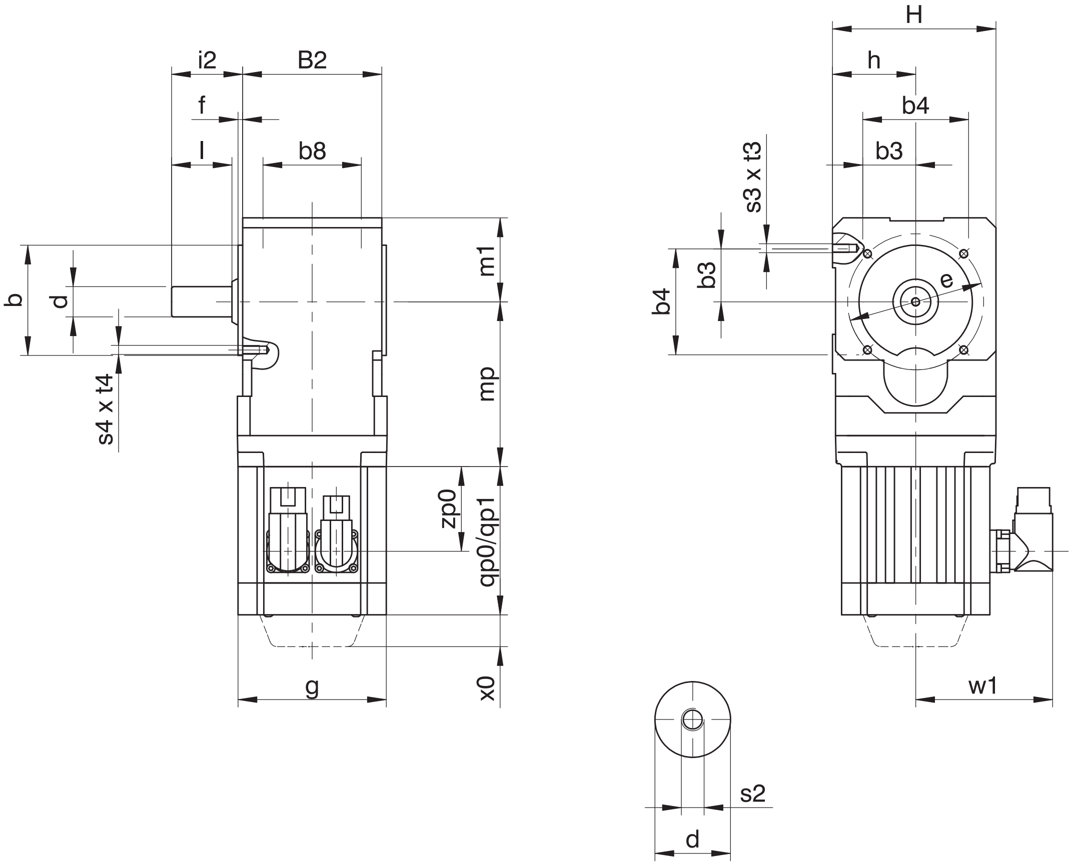
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

### 15.3.5 G shaft design (solid shaft without feather key), G housing design (pitch circle diameter)




| | |
|---|---|
| qp0 | Applies to motors without brake. |
| qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method |
| w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |

**Dimensions of gearboxes**

| Type | ∅b | b3 | b4 | b8 | B2 | ∅d | ∅e | f | h | H | i2 | l | m1 | s2 | s3 | s4 | t3 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 27.5 | 55 | 50 | 75 | $16_{k6}$ | 75 | 3 | 46 | 90 | 38 | 32 | 46 | M5 | M6 | M6 | 11 | 11 |
| KL2 | $75_{j6}$ | 35.0 | 70 | 65 | 92 | $20_{k6}$ | 90 | 3 | 55 | 108 | 47 | 40 | 55 | M6 | M6 | M6 | 13 | 13 |

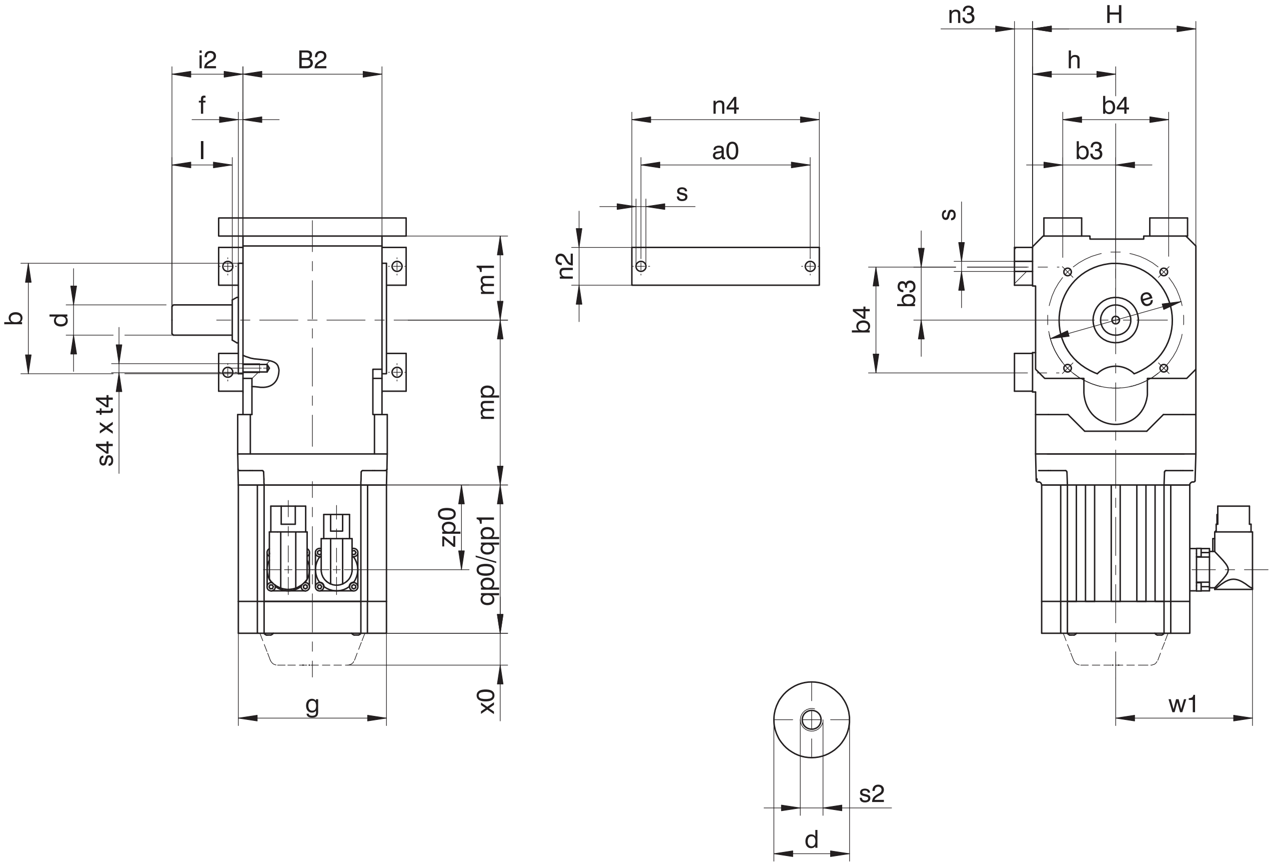
**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

**Dimensions of geared motors**

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

## 15.3.6 G shaft design (solid shaft without feather key), NG housing design (base + pitch circle diameter)




qp0 Applies to motors without brake.

x0 EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method
EZ3 – EZ8: Applies to encoders using an optical measuring method

qp1 Applies to motors with brake.

w1 Different for the One Cable Solution (OCS), see the chapter [▷ 17.4]

**Dimensions of gearboxes**

| Type | a0 | Øb | b3 | b4 | B2 | Ød | Øe | f | h | H | i2 | l | m1 | n2 | n3 | n4 | Øs | s2 | s4 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | 95 | $60_{j6}$ | 27.5 | 55 | 75 | $16_{k6}$ | 75 | 3 | 46 | 90 | 38 | 32 | 46 | 20 | 12 | 107 | 6.6 | M5 | M6 | 11 |
| KL2 | 112 | $75_{j6}$ | 35.0 | 70 | 92 | $20_{k6}$ | 90 | 3 | 55 | 108 | 47 | 40 | 55 | 25 | 12 | 124 | 6.6 | M6 | M6 | 13 |

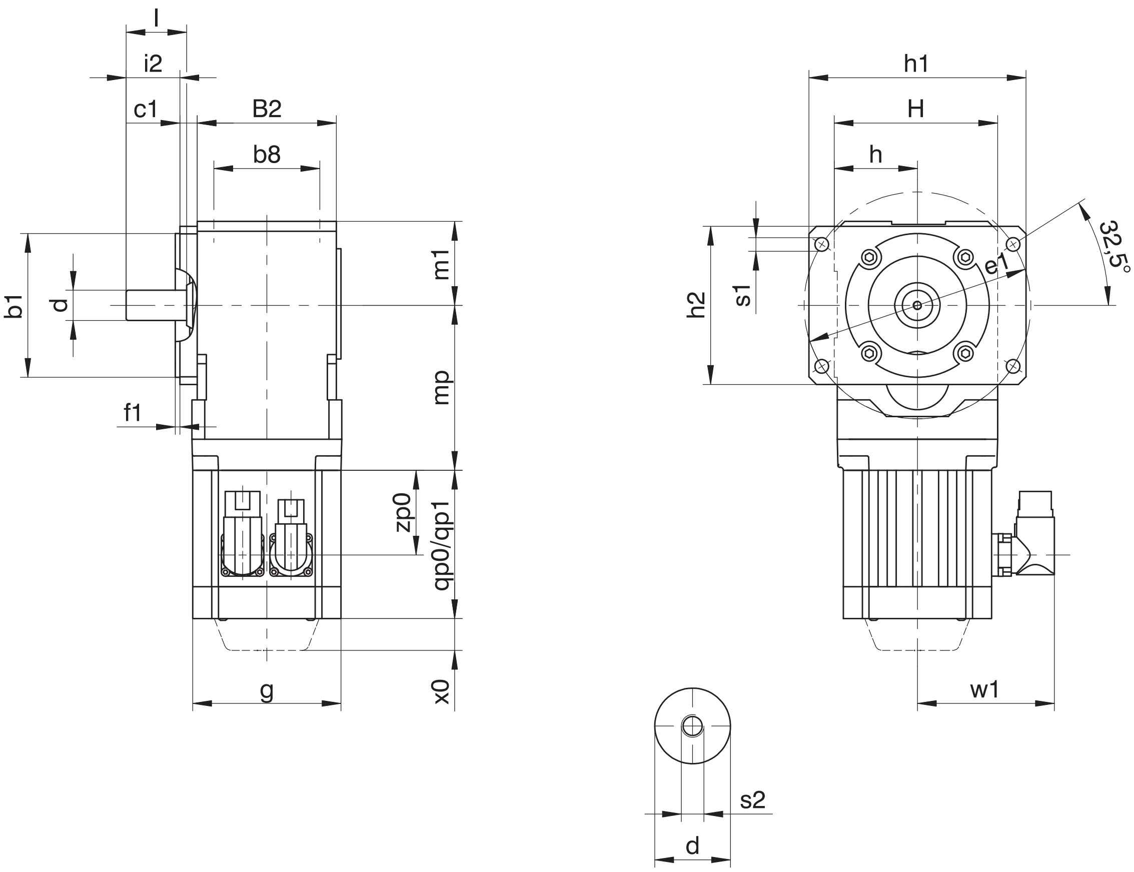
**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

**Dimensions of geared motors**

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

## 15.3.7 G shaft design (solid shaft without feather key), F housing design (flange)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |

**Dimensions of gearboxes**

| Type | Øb1 | b8 | B2 | c1 | Ød | Øe1 | f1 | h | h1 | h2 | H | i2 | l | m1 | Øs1 | s2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 50 | 75 | 11.5 | $16_{k6}$ | 130 | 3 | 46 | 128.5 | 88.5 | 90 | 26.5 | 32 | 46 | 9 | M5 |
| KL2 | $95_{j6}$ | 65 | 92 | 11.5 | $20_{k6}$ | 150 | 3 | 55 | 143.5 | 104.5 | 108 | 35.5 | 40 | 55 | 9 | M6 |

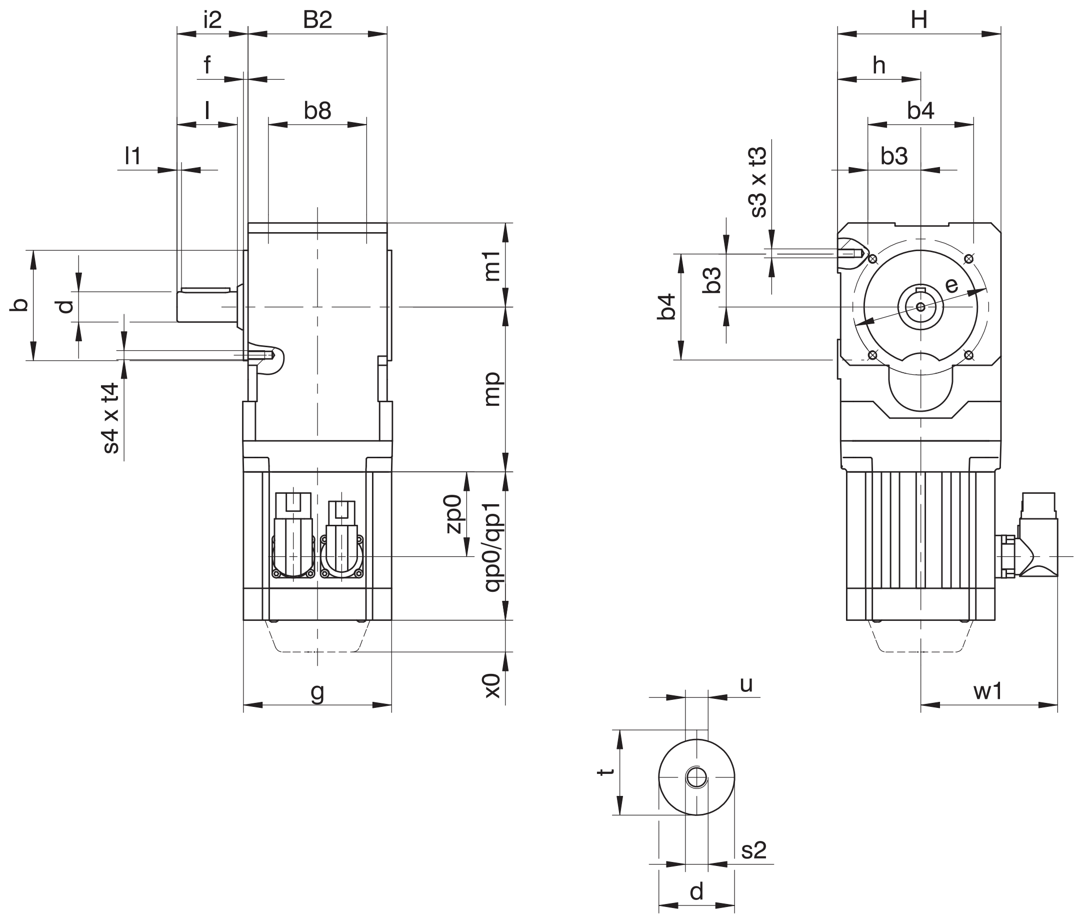
**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

**Dimensions of geared motors**

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

### 15.3.8 P shaft design (solid shaft with feather key), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |

**Dimensions of gearboxes**

| Type | ∅b | b3 | b4 | b8 | B2 | ∅d | ∅e | f | h | H | i2 | l | l1 | m1 | s2 | s3 | s4 | t | t3 | t4 | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 27.5 | 55 | 50 | 75 | $16_{k6}$ | 75 | 3 | 46 | 90 | 38 | 32 | 3 | 46 | M5 | M6 | M6 | 18 | 11 | 11 | A5×5×22 |
| KL2 | $75_{j6}$ | 35.0 | 70 | 65 | 92 | $20_{k6}$ | 90 | 3 | 55 | 108 | 47 | 40 | 3 | 55 | M6 | M6 | M6 | 22.5 | 13 | 13 | A6×6×32 |

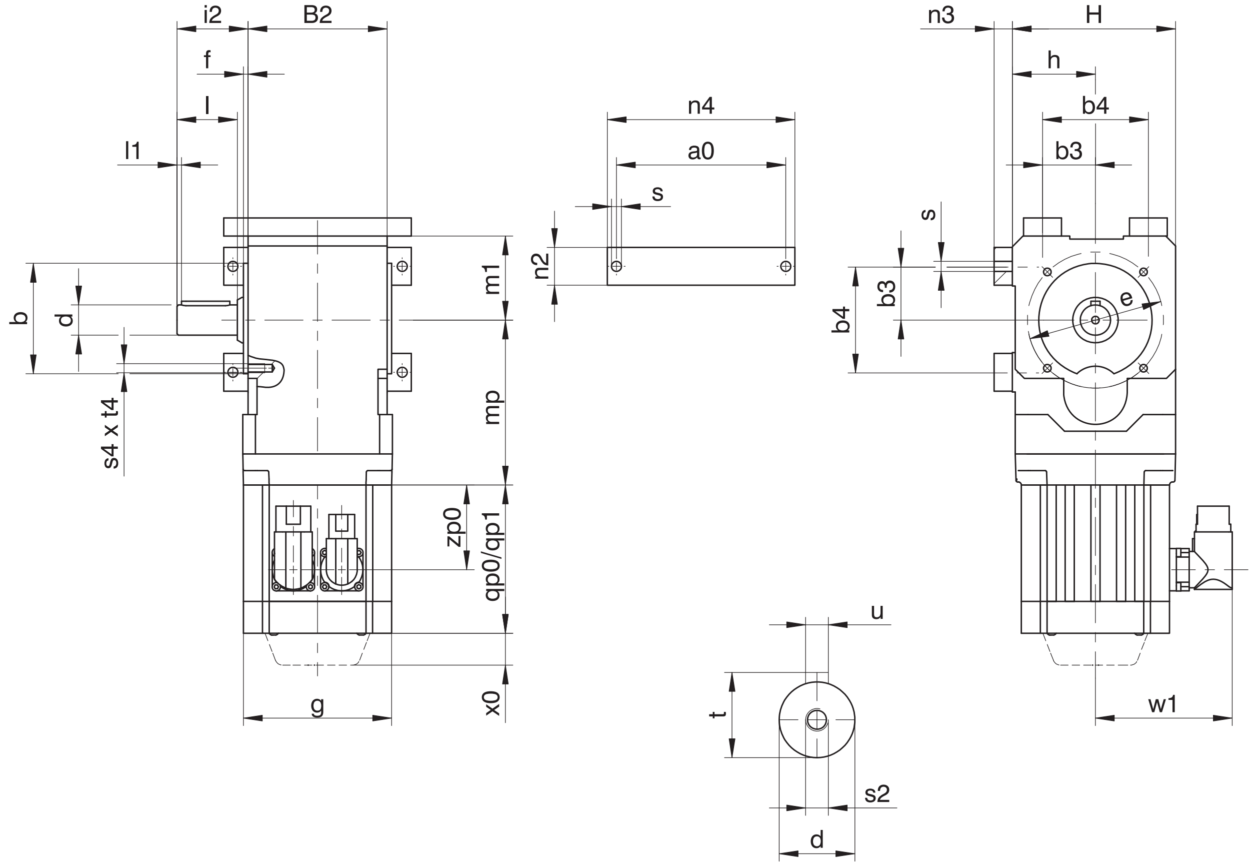
**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

**Dimensions of geared motors**

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

## 15.3.9 P shaft design (solid shaft with feather key), NG housing design (base + pitch circle diameter)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |

**Dimensions of gearboxes**

| Type | a0 | ∅b | b3 | b4 | B2 | ∅d | ∅e | f | h | H | i2 | l | l1 | m1 | n2 | n3 | n4 | ∅s | s2 | s4 | t | t4 | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | 95 | $60_{j6}$ | 27.5 | 55 | 75 | $16_{k6}$ | 75 | 3 | 46 | 90 | 38 | 32 | 3 | 46 | 20 | 12 | 107 | 6.6 | M5 | M6 | 18.0 | 11 | A5×5×22 |
| KL2 | 112 | $75_{j6}$ | 35.0 | 70 | 92 | $20_{k6}$ | 90 | 3 | 55 | 108 | 47 | 40 | 3 | 55 | 25 | 12 | 124 | 6.6 | M6 | M6 | 22.5 | 13 | A6×6×32 |

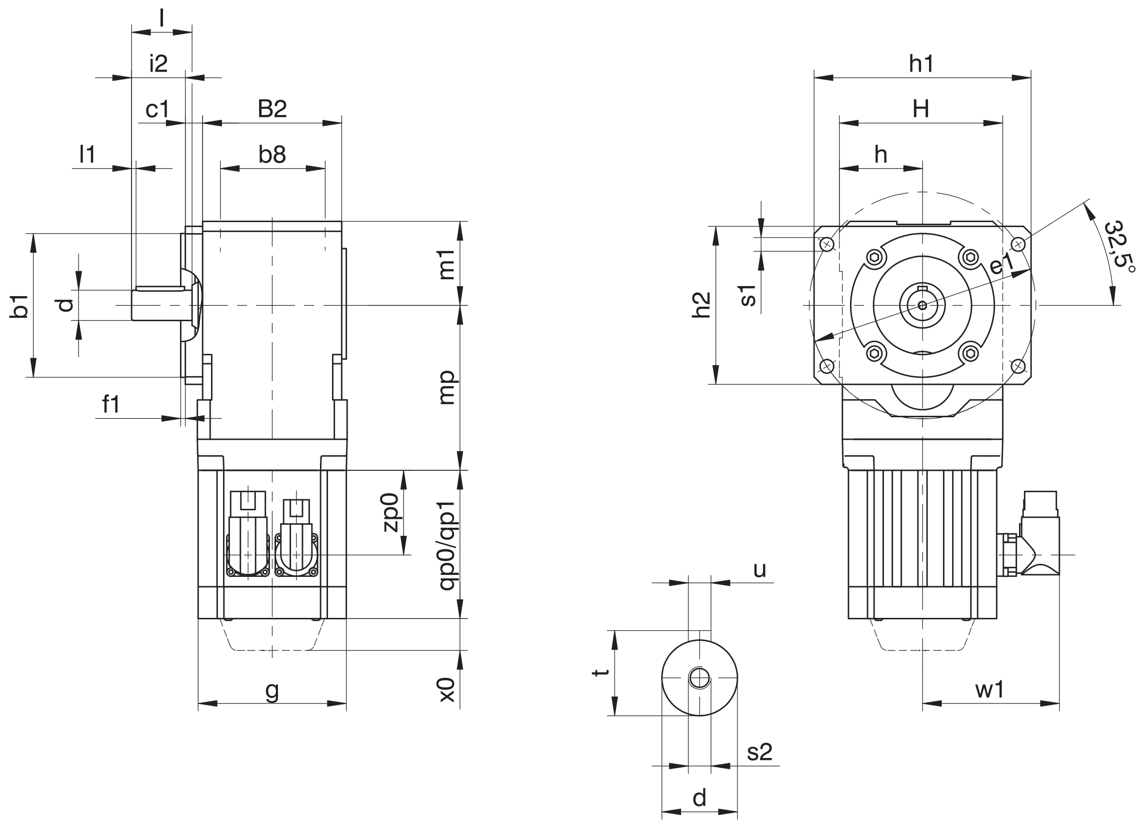
**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

**Dimensions of geared motors**

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

### 15.3.10 P shaft design (solid shaft with feather key), F housing design (flange)




qp0 Applies to motors without brake.

x0 EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method
EZ3 – EZ8: Applies to encoders using an optical measuring method

qp1 Applies to motors with brake.

w1 Different for the One Cable Solution (OCS), see the chapter [▷ 17.4]

**Dimensions of gearboxes**

| Type | ∅b1 | b8 | B2 | c1 | ∅d | ∅e1 | f1 | h | h1 | h2 | H | i2 | l | l1 | m1 | ∅s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 50 | 75 | 11.5 | $16_{k6}$ | 130 | 3 | 46 | 128.5 | 88.5 | 90 | 26.5 | 32 | 3 | 46 | 9 | M5 | 18.0 | A5×5×22 |
| KL2 | $95_{j6}$ | 65 | 92 | 11.5 | $20_{k6}$ | 150 | 3 | 55 | 143.5 | 104.5 | 108 | 35.5 | 40 | 3 | 55 | 9 | M6 | 22.5 | A6×6×32 |

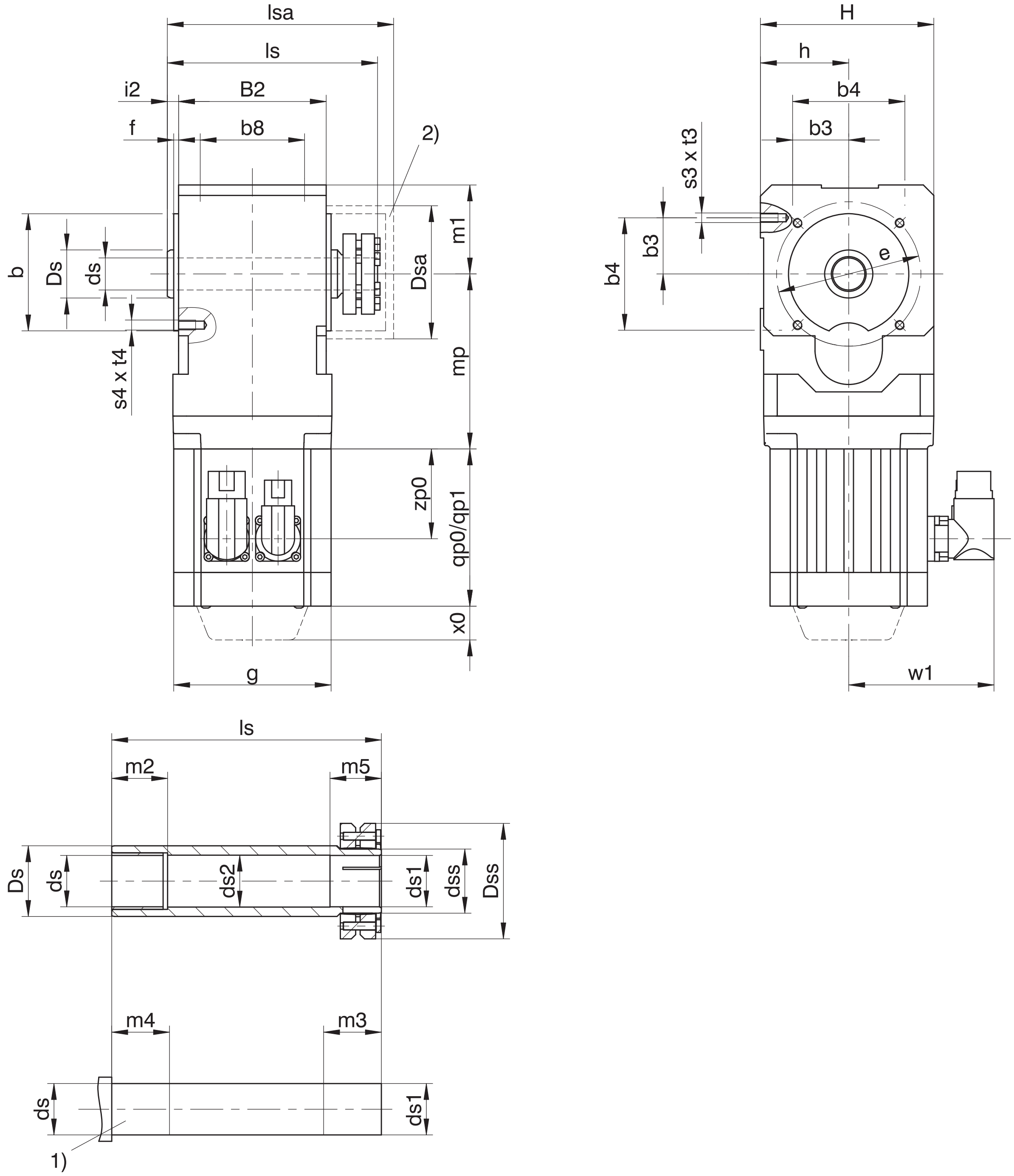
**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

**Dimensions of geared motors**

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

## 15.3.11 S shaft design (hollow shaft with shrink disk), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | ∅b | b3 | b4 | b8 | B2 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e | f | h | H | i2 | ls | lsa | m1 | m2 | m3 | m4 | m5 | s3 | s4 | t3 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 27.5 | 55 | 50 | 75 | $16^{H7}$ | $16_{h6}^{H7}$ | 17.5 | 20 | 25 | 64 | 47 | 75 | 3 | 46 | 90 | 6 | 109 | 114.5 | 46 | 17 | 22 | 28 | 23 | M6 | M6 | 11 | 11 |
| KL2 | $75_{j6}$ | 35.0 | 70 | 65 | 92 | $20^{H7}$ | $20_{h6}^{H7}$ | 21.5 | 24 | 30 | 79 | 50 | 90 | 3 | 55 | 108 | 7 | 131 | 139.0 | 55 | 22 | 27 | 31 | 26 | M6 | M6 | 13 | 13 |

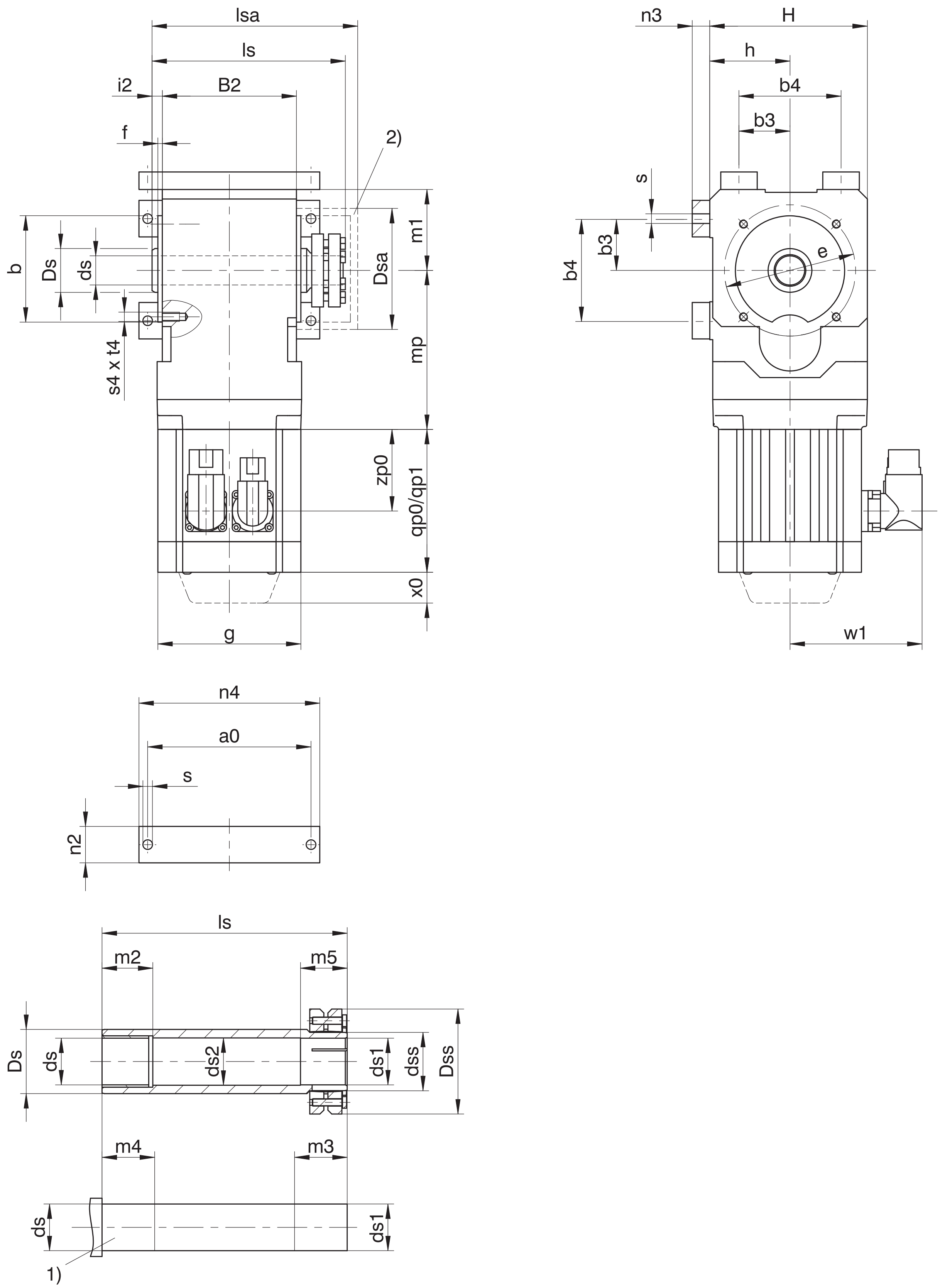
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

## 15.3.12 S shaft design (hollow shaft with shrink disk), NG housing design (base + pitch circle diameter)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | a0 | ∅b | b3 | b4 | B2 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e | f | h | H | i2 | ls | lsa | m1 | m2 | m3 | m4 | m5 | n2 | n3 | n4 | ∅s | s4 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | 95 | $60_{j6}$ | 27.5 | 55 | 75 | $16^{H7}$ | $16_{h6}^{H7}$ | 17.5 | 20 | 25 | 64 | 47 | 75 | 3 | 46 | 90 | 6 | 109 | 114.5 | 46 | 17 | 22 | 28 | 23 | 20 | 12 | 107 | 6.6 | M6 | 11 |
| KL2 | 112 | $75_{j6}$ | 35.0 | 70 | 92 | $20^{H7}$ | $20_{h6}^{H7}$ | 21.5 | 24 | 30 | 79 | 50 | 90 | 3 | 55 | 108 | 7 | 131 | 139.0 | 55 | 22 | 27 | 31 | 26 | 25 | 12 | 124 | 6.6 | M6 | 13 |

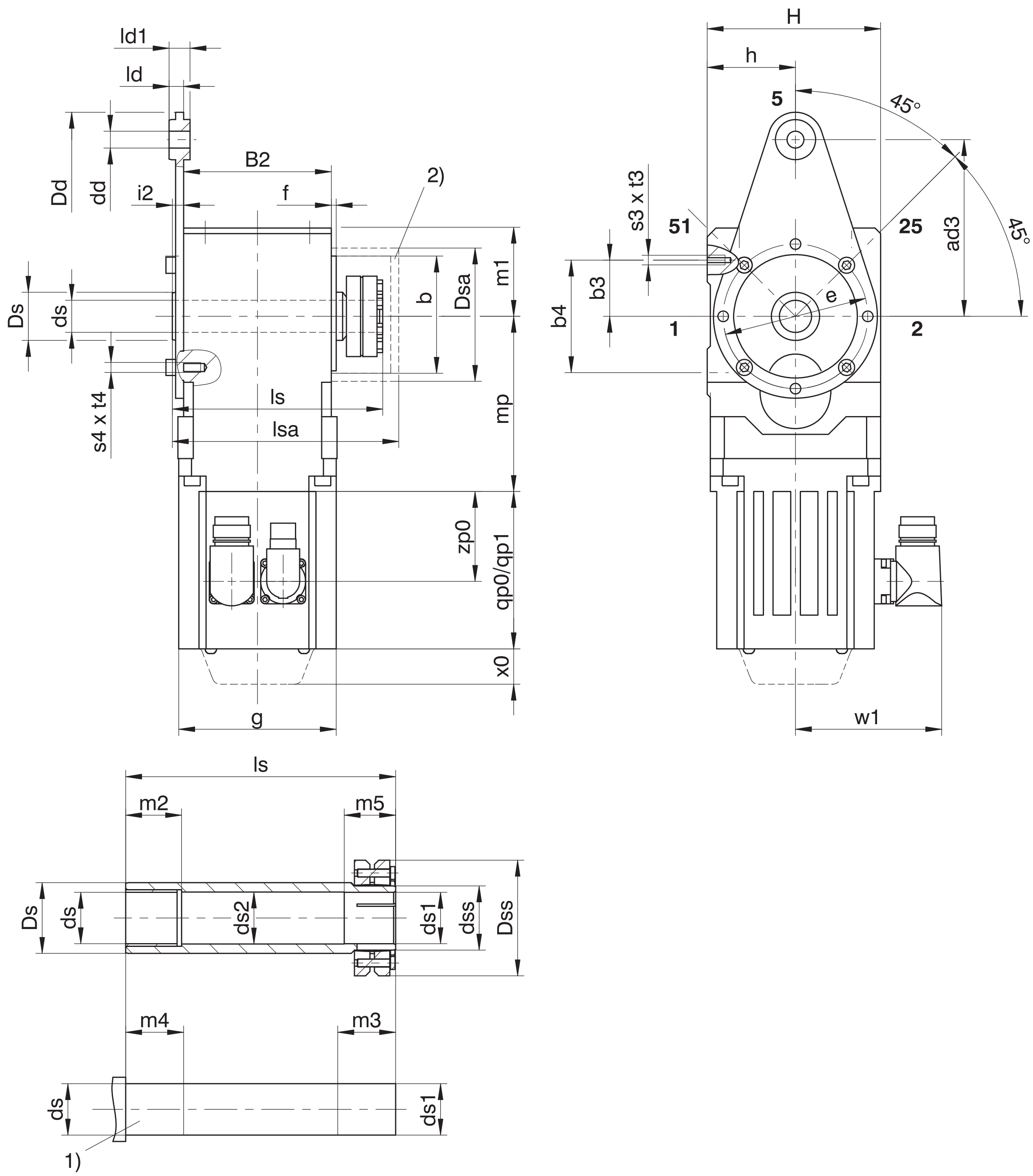
### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

## 15.3.13 Shaft design S (hollow shaft with shrink ring), housing design GD (pitch circle diameter + torque arm bracket)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

**Dimensions of gearboxes**

| Type | ad3 | ∅b | b3 | b4 | B2 | ∅dd | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e | f | h | H | i2 | ld | ld1 | ls | lsa | m1 | m2 | m3 | m4 | m5 | s3 | s4 | t3 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL2 | 110 | $75_{j6}$ | 35 | 70 | 92 | 10.5 | $20^{H7}$ | $20_{h6}^{H7}$ | 21.5 | 24 | 30 | 79 | 50 | 90 | 3 | 55 | 108 | 7 | 9 | 13 | 131 | 139.0 | 55 | 22 | 27 | 31 | 26 | M6 | M6 | 13 | 13 |

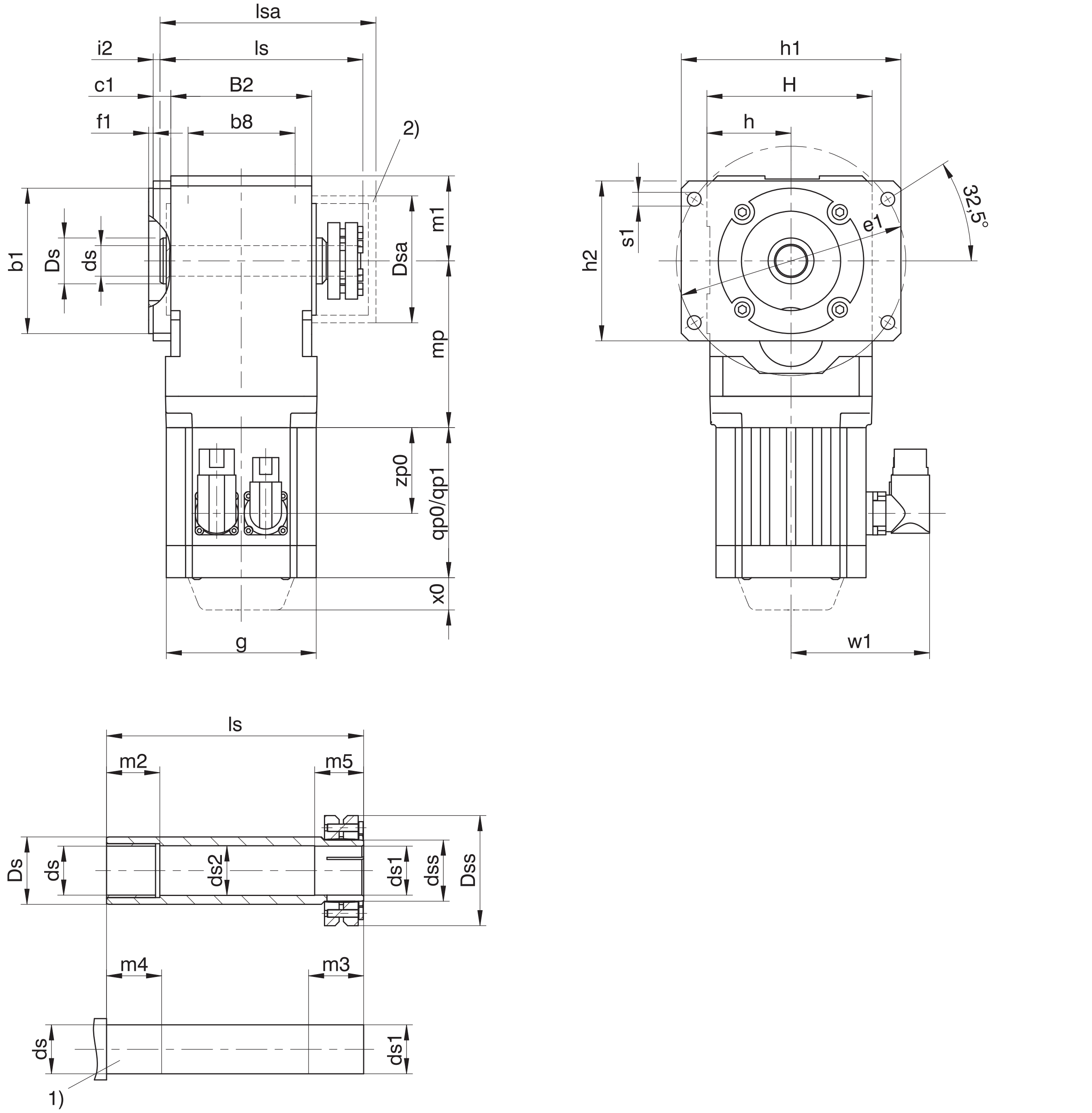
**Dimensions of motors**

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

**Dimensions of geared motors**

| Type | EZ3 | EZ4 |
|---|---|---|
| | mp | mp |
| KL202 | 112.5 | 109.0 |

### 15.3.14 S shaft design (hollow shaft with shrink disk), F housing design (flange)




| | | | |
|---|---|---|---|
| qp0 | Applies to motors without brake. | qp1 | Applies to motors with brake. |
| x0 | EZ2: Applies only to motors with brake and encoders using an optical or inductive measuring method<br>EZ3 – EZ8: Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | ∅b1 | b8 | B2 | c1 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e1 | f1 | h | h1 | h2 | H | i2 | ls | lsa | m1 | m2 | m3 | m4 | m5 | ∅s1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KL1 | $60_{j6}$ | 50 | 75 | 11.5 | $16^{H7}$ | $16_{h6}^{H7}$ | 17.5 | 20 | 25 | 64 | 47 | 130 | 3 | 46 | 128.5 | 88.5 | 90 | 5.5 | 109 | 114.5 | 46 | 17 | 22 | 28 | 23 | 9 |
| KL2 | $95_{j6}$ | 65 | 92 | 11.5 | $20^{H7}$ | $20_{h6}^{H7}$ | 21.5 | 24 | 30 | 79 | 50 | 150 | 3 | 55 | 143.5 | 104.5 | 108 | 4.5 | 131 | 139.0 | 55 | 22 | 27 | 31 | 26 | 9 |

### Dimensions of motors

| Type | □g | qp0 | qp1 | w1 | x0 | zp0 |
|---|---|---|---|---|---|---|
| EZ202U | 55 | 141 | 150.0 | 47.0 | 25 | 86.0 |
| EZ203U | 55 | 159 | 168.0 | 47.0 | 25 | 104.0 |
| EZ301U | 72 | 90 | 130.0 | 55.5 | 21 | 54.5 |
| EZ302U | 72 | 112 | 152.0 | 55.5 | 21 | 76.5 |
| EZ303U | 72 | 134 | 174.0 | 55.5 | 21 | 98.5 |
| EZ401U | 98 | 98 | 146.5 | 91.0 | 22 | 56.0 |
| EZ402U | 98 | 123 | 171.5 | 91.0 | 22 | 81.0 |
| EZ404U | 98 | 173 | 221.5 | 91.0 | 22 | 131.0 |

### Dimensions of geared motors

| Type | EZ2 | EZ3 | EZ4 |
|---|---|---|---|
| | mp | mp | mp |
| KL102 | 78.5 | 95.5 | – |
| KL202 | – | 112.5 | 109.0 |

# 15.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| KL | 2 | 0 | 2 | P | G | 0080 | EZ401U |
|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **KL** | Type | Helical bevel gearbox |
| **2** | Size | 2 (example) |
| **0** | Generation | Generation 0 |
| **2** | Stages | Two-stage |
| A | Shaft | Hollow shaft with keyway |
| S | | Hollow shaft with shrink ring |
| G | | Solid shaft without feather key |
| **P** | | Solid shaft with feather key |
| **G** | Housing | Pitch circle diameter |
| F | | Flange |
| NG | | Foot + pitch circle diameter |
| GD | | Pitch circle diameter + torque arm bracket |
| **0080** | Transmission ratio (i x 10) | i = 8 (example) |
| **EZ401U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▹ 17.5]
- Attachment of solid shaft: gearbox side 3 or 4; solid shaft on both sides
- Attachment of hollow shaft with keyway: insertion side 3 or 4
- Attachment of hollow shaft with shrink ring: shrink ring on gearbox side 3 or 4
- Attachment of foot plates: gearbox side 1 or 5
- Attachment of flange: gearbox side 3 or 4
- Pitch circle diameter: gearbox side 3 or 4
- The position of the plug connectors, see the chapter [▹ 15.5.7]

An explanation of the gearbox sides can be found in the chapter [▹ 15.5.5].

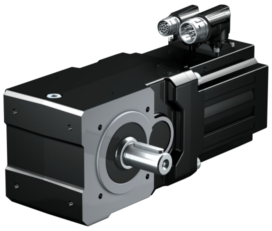
To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▹ 17.5.1].

# 15.5 Product description

## 15.5.1 Input options

EZ synchronous servo motor



Catalog ID 442437_en

LM Lean motor

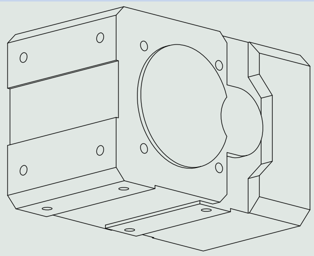
Catalog ID 443016_en

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

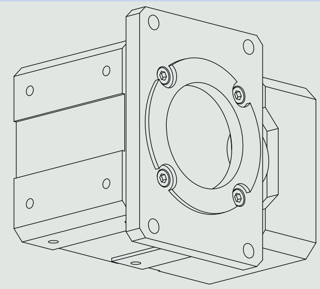
Enter the ID of the catalog in the Search term field.

## 15.5.2 Housing design

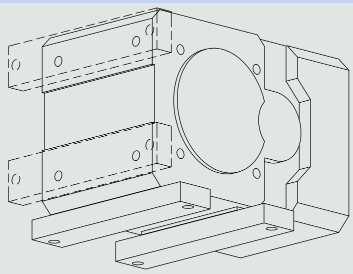
**Pitch circle diameter G**



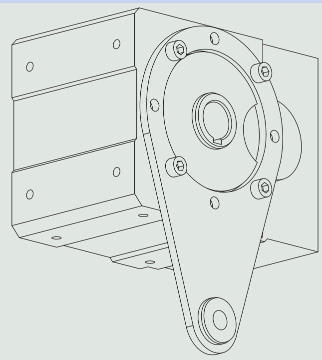
**Flange F**



**Foot + pitch circle diameter NG**



**Pitch circle diameter + torque arm bracket GD**



| | G | F | NG | GD |
|---|---|---|---|---|
| KL1 | ✓ | ✓ | ✓ | – |
| KL2 | ✓ | ✓ | ✓ | ✓ |

## 15.5.3 Combinatorial shaft/housing design

| | | Housing design | | | |
|---|---|---|---|---|---|
| **Shaft design** | **Code** | **G** | **F** | **NG** | **GD** |
| Hollow shaft with keyway | **A** | AG | AF | ANG | AGD |
| Hollow shaft with shrink ring | **S** | SG | SF | SNG | SGD |
| Solid shaft without feather key | **G** | GG | GF | GNG | – |
| Solid shaft with feather key | **P** | PG | PF | PNG | – |

## 15.5.4 Installation conditions

**Hollow shaft**

The hollow shaft hole tolerance is ISO H7. The tolerance of the machine shaft must be ISO k6.

Take care to align the machine shaft with the gearbox hollow shaft when attaching the gearbox.

Maximum deviation ≤ 0.03 mm.

For simpler assembly and disassembly of the machine shaft, the hollow shafts are equipped with a spiral groove (as a grease deposit).

A hardened, threaded keeper plate is included in the scope of delivery. You also have the option to order the hollow shaft without a keeper plate.

**Hollow shaft with shrink ring**

The tolerance of the hollow shaft hole is ISO H7.

The machine shaft must be ISO h9.

Select a material for the machine shaft with a permitted surface pressure of p ≥ 325 N/mm$^2$.

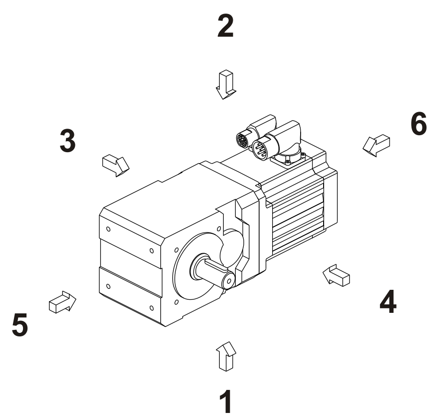
Possible materials:

- C45E +QT
- 42CrMo4

**Fastening the gearboxes on the machine side using the pitch circle diameter**

The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 10.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

## 15.5.5 Gearbox sides



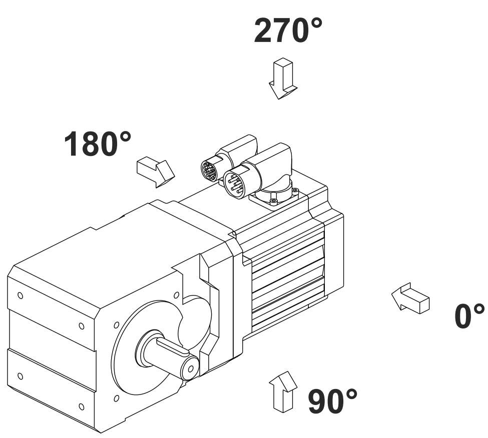

The numbers identify the gearbox sides.

## 15.5.6 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate.

You will receive lubricants for use in the food industry upon request.

## 15.5.7 Position of the plug connectors




In the standard version, the plug connectors are attached in the 270° position.

Indicate variations for your geared motor in the order.

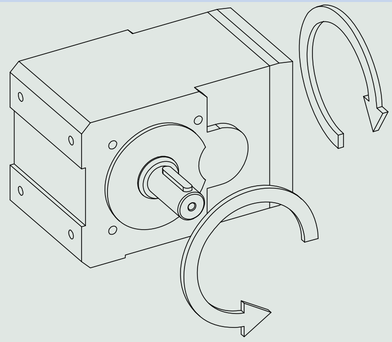
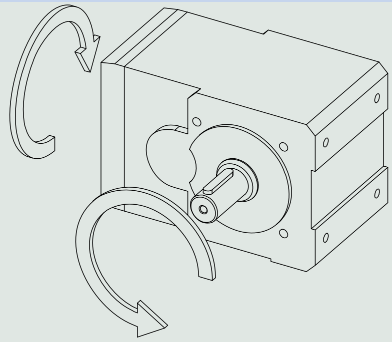
## 15.5.8 Other product features

| Feature | Value |
|---|---|
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 80 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ two-stage | 97% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

[1] Observe the protection class of all the components.

### 15.5.9 Direction of rotation

**Solid shaft (P and G), solid shaft on both sides (P and G), hollow shaft with keyway (A)**

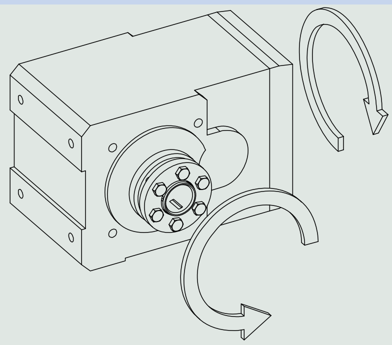
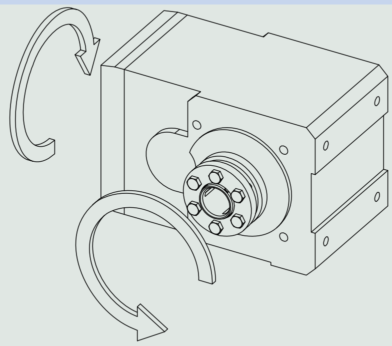
| Output side 4 | Output side 3 |
|---|---|
|  |  |

The specified directions of rotation also apply to gearboxes with hollow shaft (A) if the entry side of the machine shaft corresponds to the side of the solid shaft that is shown.

The direction of rotation for the shaft design of a solid shaft on both sides corresponds to the direction of rotation for output side 4.

The pictures show mounting position EL1.

**Hollow shaft with shrink ring (S)**

| Shrink ring side 4 | Shrink ring side 3 |
|---|---|
|  |  |

The pictures show mounting position EL1.

## 15.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

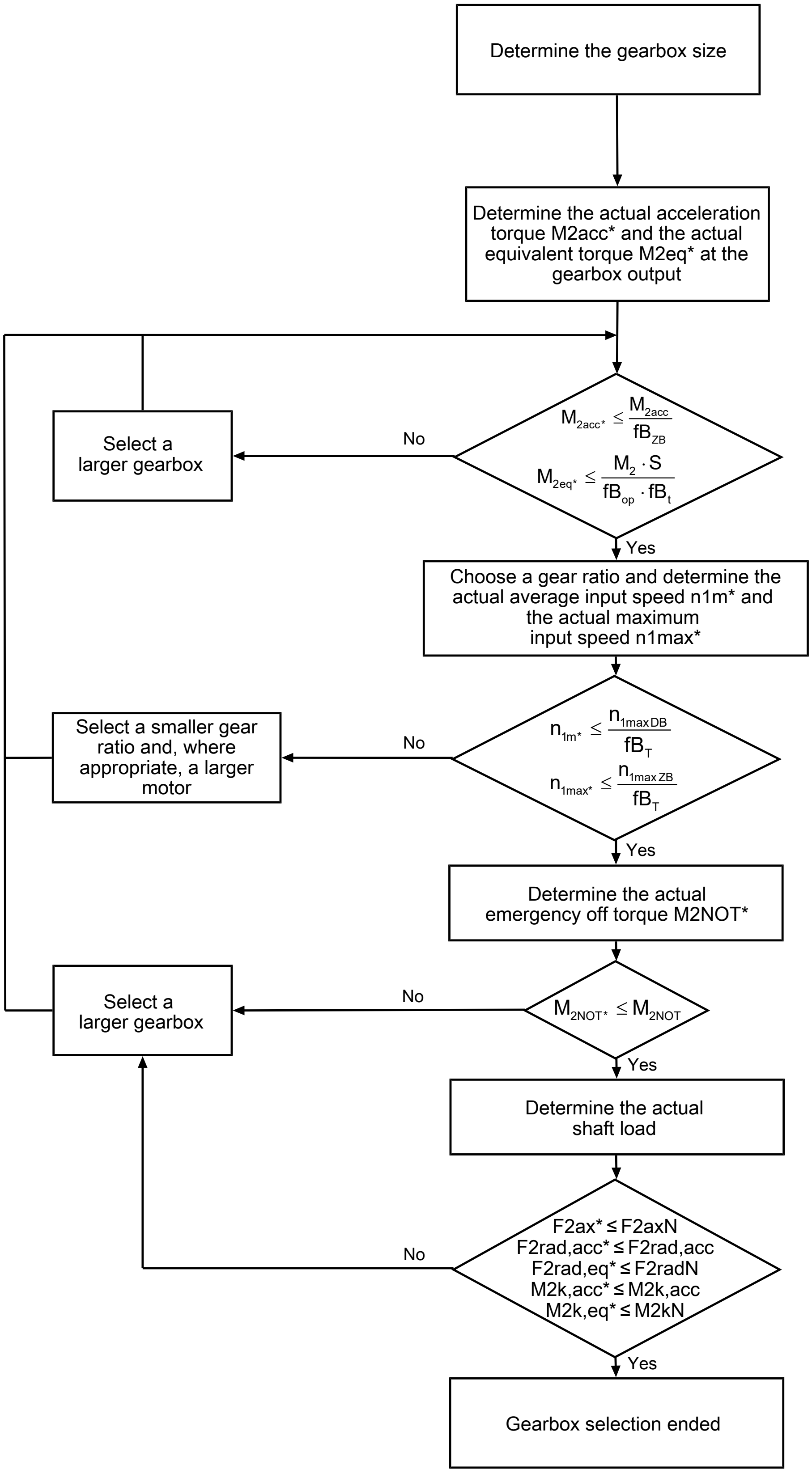
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 15.6.1 Drive selection

**Drive selection for gearboxes**

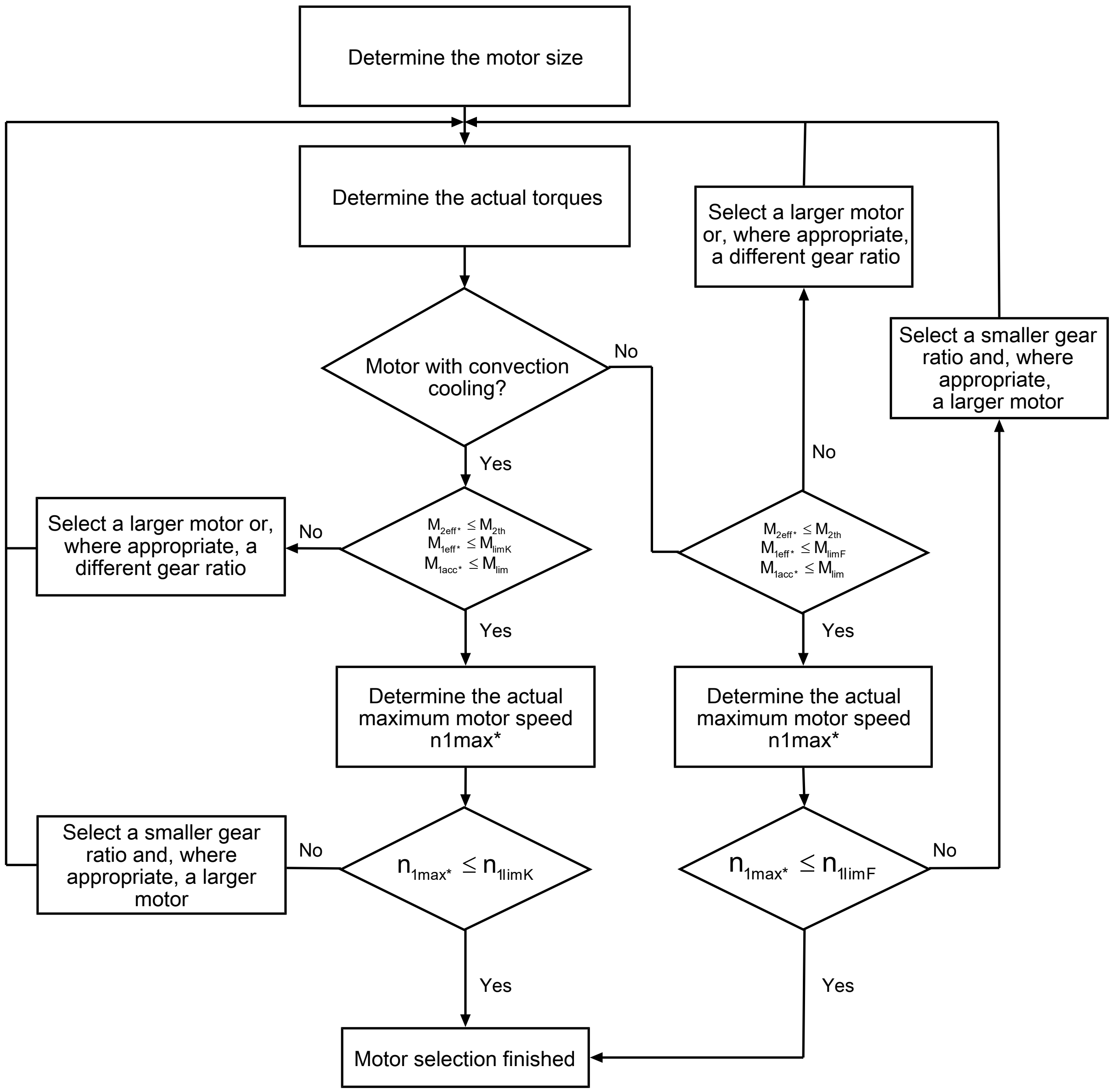



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$, $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$, $fB_t$ and $fB_{ZB}$ can be found in the corresponding tables in this chapter.

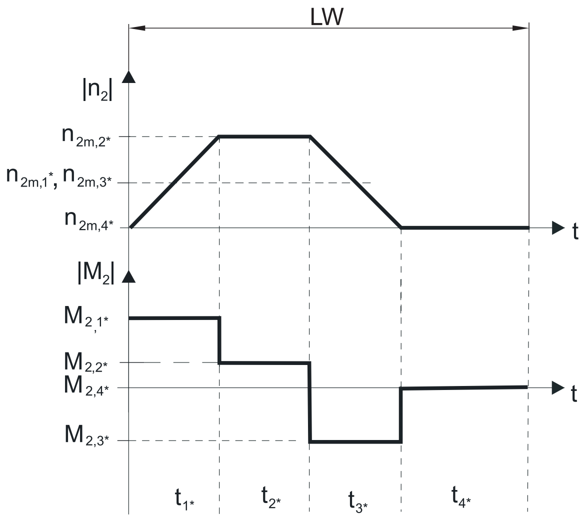
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▷ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L*}$$

$$M_{1acc*} = \frac{M_{2acc*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m*} = n_{2m*} \cdot i$$

$$n_{2m*} = \frac{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

If $t_{1*} + \ldots + t_{3*} \geq 6$ min, calculate $n_{2m*}$ without the rest phase $t_{4*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff*} = \sqrt{\frac{t_{1*} \cdot M_{2,1*}^2 + \ldots + t_{n*} \cdot M_{2,n*}^2}{t_{1*} + \ldots + t_{n*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2,1*}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2,n*}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m*}$ accordingly or select another geared motor size.)

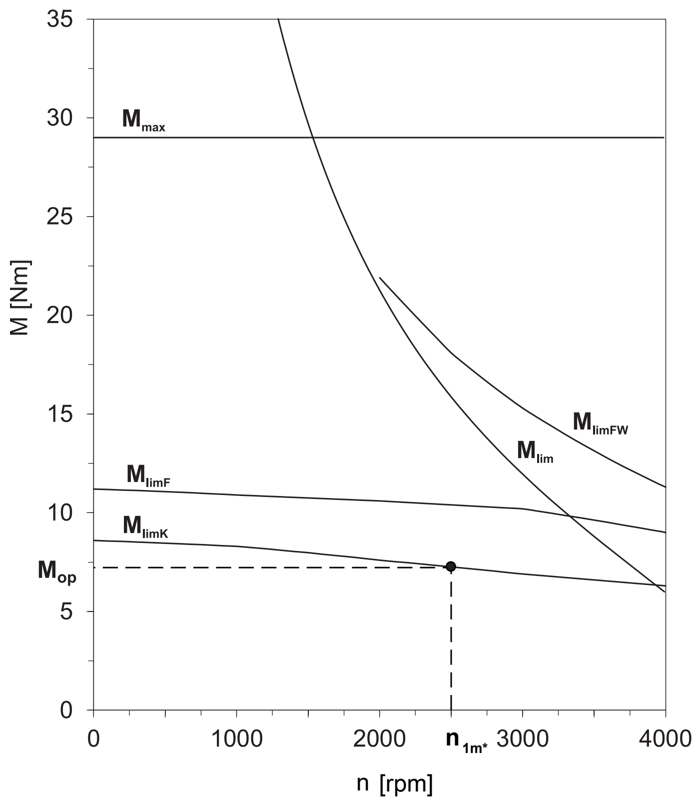
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}9 - \frac{a_{th}}{1000} \cdot fB_T \cdot \left(\frac{n_{1m*}}{1000}\right)^2$$

Refer to the selection tables for the values of i and $a_{th}$.

The values for $fB_T$ can be found in the corresponding table in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▷ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Cyclic operation | $fB_{ZB}$ |
|---|---|
| ≤ 1000 load changes/hour (LW/h) | 1.00 |
| > 1000 load changes/hour (LW/h) | 1.15 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 15.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 100$ rpm ($F^{2axN} = F_{2ax100}$; $F_{2radN} = F_{2rad100}$; $M_{2kN} = M_{2k100}$)
- Only if radial forces on the gearbox are stabilized by its pilots for the pitch circle diameter and flange housing design

### 15.6.2.1 G and P shaft designs

**Permitted shaft loads for G and P shaft designs (solid shaft)**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| KL1 | 20.0 | 380 | 1900 | 1900 | 68 | 68 |
| KL2 | 22.0 | 560 | 2800 | 2800 | 118 | 118 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 100$ rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m*}}{100\ \text{rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

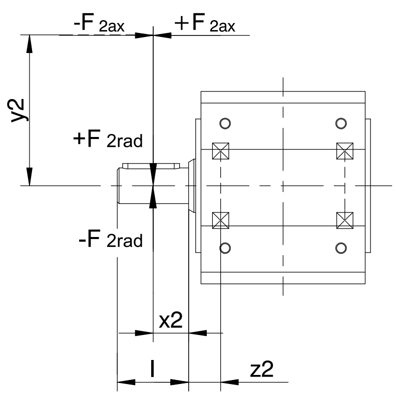



*Fig. 1:* Force application points for solid shaft

The specified values for $F_{2rad100}$ refer to force application on the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}|^3 + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}|^3}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

### 15.6.2.2 A and S shaft design

**Permitted shaft loads for A shaft design (hollow shaft with keyway)**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| KL1 | 18.5 | 250 | 1250 | 1250 | 43 | 43 |
| KL2 | 22.0 | 560 | 2800 | 2800 | 118 | 118 |

**Permitted shaft loads for S shaft design (hollow shaft with shrink ring)**

| Type | $z_2$ [mm] | $F_{2ax100}$ [N] | $F_{2rad100}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k100}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| KL1 | 18.5 | 250 | 1250 | 1250 | 43 | 43 |
| KL2 | 22.0 | 560 | 2800 | 2800 | 118 | 118 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m^*}$ > 100 rpm:**

$$F_{2axN} = \frac{F_{2ax100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}} \qquad F_{2radN} = \frac{F_{2rad100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}} \qquad M_{2kN} = \frac{M_{2k100}}{\sqrt[3]{\frac{n_{2m^*}}{100\text{ rpm}}}}$$

The values for $F_{2ax100}$, $F_{2rad100}$ and $M_{2k100}$ can be found in the table "Permitted shaft loads" in this chapter.

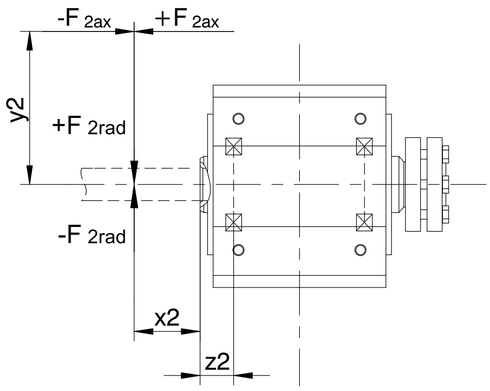



*Fig. 2:* Force application points for hollow shaft

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc^*} = \frac{2 \cdot F_{2ax^*} \cdot y_2 + F_{2rad,acc^*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2k,acc,1^*}|^3 + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2k,acc,n^*}|^3}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |F_{2rad,acc,1^*}|^3 + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |F_{2rad,acc,n^*}|^3}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

### 15.6.3 Radial shaft seal rings

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

## 15.7 Additional documentation

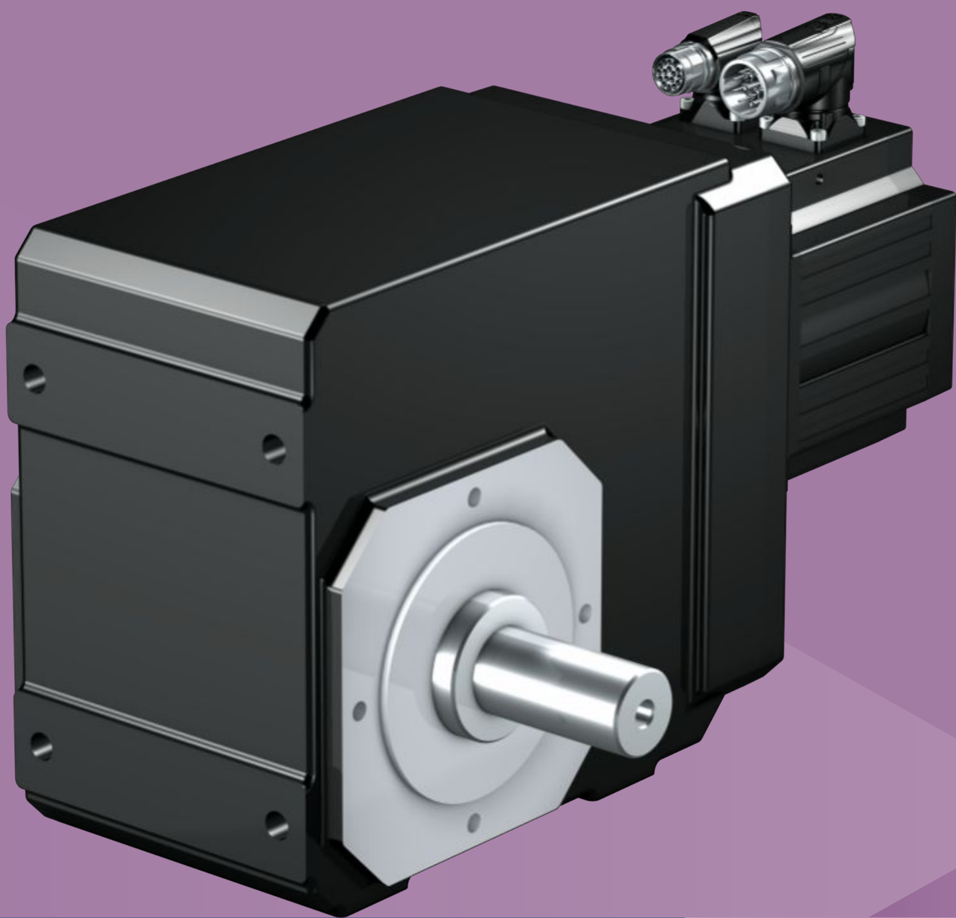
Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors KL | 443363_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 16 K helical bevel geared motors

## Table of contents



# 16 Helical bevel geared motors K

## 16.1 Overview

Highly rigid helical-geared right-angle geared motor

**Features**

| | |
|---|---|
| Power density | ★★☆☆☆ |
| Backlash | ★★★☆☆ |
| Price category | €€ |
| Shaft load | ★★★☆☆ |
| Smooth operation | ★★★☆☆ |
| Torsional stiffness | ★★☆☆☆ |
| Mass moment of inertia | ★★★★★ |
| Helical gearing | ✓ |
| Maintenance-free (K1 – K4) | ✓ |
| FKM seal ring at the input | ✓ |
| Reinforced output bearing (K5 – K8) | ✓ (on request) |
| Compact and highly dynamic due to direct motor attachment | ✓ |

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

**Technical data**

| | |
|---|---|
| i | 4 – 381 |
| $M_{2acc}$ | 23 – 12750 Nm |
| $\Delta\phi_2$ | 1.5 – 12 arcmin |
| $\eta_{get}$ | 94 – 97 % |

# 16.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)
- Weight specification for mounting position EL1, housing design G

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| K1 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 140 Nm) | | | | | | | | | | | | | | | | | | |
| 43 | 63 | 65 | 8.4 | 1.1 | K102_0700 EZ301U | 83 | 139 | 70.03 | 2451/35 | 4000 | 4000 | 7000 | 0.20 | 12.0 | 6.0 | – | 6.8 | 11 |
| 53 | 51 | 52 | 6.5 | 1.7 | K102_0560 EZ301U | 103 | 171 | 56.10 | 1178/21 | 4000 | 4000 | 7000 | 0.21 | 12.0 | 6.0 | – | 6.8 | 11 |
| 60 | 45 | 46 | 11 | 1.1 | K102_0500 EZ301U | 60 | 100 | 50.31 | 5031/100 | 4000 | 4000 | 7000 | 0.21 | 12.0 | 6.0 | – | 6.8 | 11 |
| 64 | 42 | 43 | 5.2 | 2.4 | K102_0470 EZ301U | 122 | 203 | 46.92 | 2299/49 | 4000 | 4000 | 7000 | 0.22 | 12.0 | 6.0 | – | 6.8 | 11 |
| 64 | 72 | 76 | 8.9 | 1.4 | K102_0470 EZ302U | 122 | 203 | 46.92 | 2299/49 | 4000 | 4000 | 7000 | 0.32 | 12.0 | 6.0 | – | 6.8 | 12 |
| 64 | 94 | 100 | 12 | 1.1 | K102_0470 EZ303U | 122 | 203 | 46.92 | 2299/49 | 4000 | 4000 | 7000 | 0.43 | 12.0 | 6.0 | – | 6.8 | 12 |
| 74 | 36 | 37 | 8.3 | 1.7 | K102_0400 EZ301U | 74 | 123 | 40.30 | 403/10 | 4000 | 4000 | 7000 | 0.21 | 12.0 | 6.0 | – | 6.8 | 11 |
| 85 | 32 | 32 | 4.6 | 3.4 | K102_0350 EZ301U | 95 | 196 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.23 | 12.0 | 6.0 | – | 6.8 | 11 |
| 85 | 54 | 57 | 7.9 | 2.0 | K102_0350 EZ302U | 135 | 196 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.33 | 12.0 | 6.0 | – | 6.8 | 12 |
| 85 | 70 | 75 | 10 | 1.5 | K102_0350 EZ303U | 135 | 196 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.44 | 12.0 | 6.0 | – | 6.8 | 12 |
| 85 | 95 | 102 | 14 | 1.1 | K102_0350 EZ401U | 135 | 240 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.97 | 12.0 | 6.0 | – | 6.8 | 14 |
| 89 | 30 | 31 | 6.7 | 2.4 | K102_0340 EZ301U | 88 | 146 | 33.71 | 4719/140 | 4000 | 4000 | 7000 | 0.22 | 12.0 | 6.0 | – | 6.8 | 11 |
| 89 | 52 | 55 | 11 | 1.4 | K102_0340 EZ302U | 88 | 146 | 33.71 | 4719/140 | 4000 | 4000 | 7000 | 0.32 | 12.0 | 6.0 | – | 6.8 | 12 |
| 89 | 68 | 72 | 15 | 1.1 | K102_0340 EZ303U | 88 | 146 | 33.71 | 4719/140 | 4000 | 4000 | 7000 | 0.43 | 12.0 | 6.0 | – | 6.8 | 12 |
| 107 | 25 | 26 | 4.7 | 3.9 | K102_0280 EZ301U | 76 | 169 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.25 | 12.0 | 6.0 | – | 6.8 | 11 |
| 107 | 43 | 46 | 8.1 | 2.3 | K102_0280 EZ302U | 135 | 169 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.35 | 12.0 | 6.0 | – | 6.8 | 12 |
| 107 | 56 | 60 | 11 | 1.8 | K102_0280 EZ303U | 135 | 169 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.46 | 12.0 | 6.0 | – | 6.8 | 12 |
| 107 | 76 | 82 | 14 | 1.3 | K102_0280 EZ401U | 135 | 240 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.99 | 12.0 | 6.0 | – | 6.8 | 14 |
| 119 | 23 | 23 | 4.8 | 4.2 | K102_0250 EZ301U | 68 | 141 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.24 | 12.0 | 6.0 | – | 6.8 | 11 |
| 119 | 39 | 41 | 8.1 | 2.5 | K102_0250 EZ302U | 113 | 141 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.34 | 12.0 | 6.0 | – | 6.8 | 12 |
| 119 | 51 | 54 | 11 | 1.9 | K102_0250 EZ303U | 113 | 141 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.45 | 12.0 | 6.0 | – | 6.8 | 12 |
| 119 | 68 | 73 | 14 | 1.4 | K102_0250 EZ401U | 115 | 192 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.98 | 12.0 | 6.0 | – | 6.8 | 14 |
| 129 | 21 | 21 | 4.8 | 4.4 | K102_0230 EZ301U | 63 | 159 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 0.28 | 12.0 | 6.0 | – | 6.8 | 11 |
| 129 | 36 | 38 | 8.2 | 2.6 | K102_0230 EZ302U | 113 | 159 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 0.38 | 12.0 | 6.0 | – | 6.8 | 12 |
| 129 | 47 | 49 | 11 | 2.0 | K102_0230 EZ303U | 127 | 159 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 0.49 | 12.0 | 6.0 | – | 6.8 | 12 |
| 129 | 63 | 68 | 14 | 1.5 | K102_0230 EZ401U | 135 | 240 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 1.0 | 12.0 | 6.0 | – | 6.8 | 14 |
| 149 | 18 | 19 | 4.9 | 4.9 | K102_0200 EZ301U | 55 | 121 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 0.26 | 12.0 | 6.0 | – | 6.8 | 11 |
| 149 | 31 | 33 | 8.3 | 2.9 | K102_0200 EZ302U | 97 | 121 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 0.36 | 12.0 | 6.0 | – | 6.8 | 12 |
| 149 | 40 | 43 | 11 | 2.2 | K102_0200 EZ303U | 97 | 121 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 0.47 | 12.0 | 6.0 | – | 6.8 | 12 |
| 149 | 55 | 59 | 15 | 1.6 | K102_0200 EZ401U | 125 | 220 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 1.0 | 12.0 | 6.0 | – | 6.8 | 14 |
| 149 | 84 | 92 | 22 | 1.1 | K102_0200 EZ501U | 125 | 220 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 3.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 171 | 27 | 29 | 8.4 | 3.1 | K102_0175 EZ302U | 85 | 128 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 0.42 | 12.0 | 6.0 | – | 6.8 | 12 |
| 171 | 35 | 37 | 11 | 2.4 | K102_0175 EZ303U | 102 | 128 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 0.53 | 12.0 | 6.0 | – | 6.8 | 12 |
| 171 | 48 | 51 | 15 | 1.8 | K102_0175 EZ401U | 135 | 240 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 171 | 73 | 80 | 23 | 1.2 | K102_0175 EZ501U | 135 | 240 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 3.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 171 | 80 | 89 | 25 | 1.1 | K102_0175 EZ402U | 135 | 240 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 179 | 26 | 27 | 8.4 | 3.2 | K102_0165 EZ302U | 81 | 114 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 0.39 | 12.0 | 6.0 | – | 6.8 | 12 |
| 179 | 34 | 36 | 11 | 2.5 | K102_0165 EZ303U | 91 | 114 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 0.50 | 12.0 | 6.0 | – | 6.8 | 12 |
| 179 | 45 | 49 | 15 | 1.8 | K102_0165 EZ401U | 125 | 220 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 1.0 | 12.0 | 6.0 | – | 6.8 | 14 |
| 179 | 70 | 76 | 23 | 1.2 | K102_0165 EZ501U | 125 | 220 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 3.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 179 | 76 | 84 | 25 | 1.1 | K102_0165 EZ402U | 125 | 220 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 1.7 | 12.0 | 6.0 | – | 6.8 | 15 |
| 213 | 22 | 23 | 8.5 | 3.6 | K102_0140 EZ302U | 68 | 103 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 0.47 | 12.0 | 6.0 | – | 6.8 | 12 |
| 213 | 28 | 30 | 11 | 2.8 | K102_0140 EZ303U | 82 | 103 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 0.58 | 12.0 | 6.0 | – | 6.8 | 12 |
| 213 | 38 | 41 | 15 | 2.1 | K102_0140 EZ401U | 116 | 240 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 213 | 59 | 64 | 23 | 1.3 | K102_0140 EZ501U | 135 | 240 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 3.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 213 | 64 | 71 | 25 | 1.2 | K102_0140 EZ402U | 135 | 240 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 238 | 19 | 21 | 8.9 | 3.8 | K102_0125 EZ302U | 61 | 92 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 0.44 | 12.0 | 6.0 | – | 6.8 | 12 |
| 238 | 25 | 27 | 12 | 2.9 | K102_0125 EZ303U | 73 | 92 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 0.55 | 12.0 | 6.0 | – | 6.8 | 12 |
| 238 | 34 | 37 | 15 | 2.2 | K102_0125 EZ401U | 104 | 220 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 238 | 53 | 58 | 23 | 1.4 | K102_0125 EZ501U | 125 | 220 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 3.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 238 | 58 | 64 | 25 | 1.3 | K102_0125 EZ402U | 125 | 220 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K1 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | | | |
| 259 | 18 | 19 | 9.5 | 3.8 | K102_0115 EZ302U | 56 | 84 | 11.57 | 266/23 | 3600 | 3300 | 5500 | 0.53 | 12.0 | 6.0 | – | 6.8 | 12 |
| 259 | 23 | 25 | 12 | 2.9 | K102_0115 EZ303U | 67 | 84 | 11.57 | 266/23 | 3600 | 3300 | 5500 | 0.64 | 12.0 | 6.0 | – | 6.8 | 12 |
| 259 | 31 | 34 | 15 | 2.3 | K102_0115 EZ401U | 95 | 240 | 11.57 | 266/23 | 3600 | 3300 | 5500 | 1.2 | 12.0 | 6.0 | – | 6.8 | 14 |
| 259 | 48 | 53 | 23 | 1.5 | K102_0115 EZ501U | 135 | 240 | 11.57 | 266/23 | 3600 | 3300 | 5500 | 3.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 259 | 53 | 58 | 26 | 1.4 | K102_0115 EZ402U | 135 | 240 | 11.57 | 266/23 | 3600 | 3300 | 5500 | 1.9 | 12.0 | 6.0 | – | 6.8 | 15 |
| 296 | 16 | 17 | 10 | 3.8 | K102_0100 EZ302U | 49 | 74 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 0.50 | 12.0 | 6.0 | – | 6.8 | 12 |
| 296 | 20 | 22 | 14 | 2.9 | K102_0100 EZ303U | 59 | 74 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 0.61 | 12.0 | 6.0 | – | 6.8 | 12 |
| 296 | 28 | 30 | 15 | 2.6 | K102_0100 EZ401U | 84 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 296 | 42 | 46 | 24 | 1.7 | K102_0100 EZ501U | 125 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 3.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 296 | 46 | 51 | 26 | 1.5 | K102_0100 EZ402U | 125 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 296 | 68 | 85 | 38 | 1.0 | K102_0100 EZ404U | 125 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 3.2 | 12.0 | 6.0 | – | 6.8 | 17 |
| 324 | 14 | 15 | 11 | 3.8 | K102_0092 EZ302U | 45 | 67 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 0.62 | 12.0 | 6.0 | – | 6.8 | 12 |
| 324 | 19 | 20 | 15 | 2.9 | K102_0092 EZ303U | 54 | 67 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 0.73 | 12.0 | 6.0 | – | 6.8 | 12 |
| 324 | 25 | 27 | 16 | 2.7 | K102_0092 EZ401U | 76 | 240 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 1.3 | 12.0 | 6.0 | – | 6.8 | 14 |
| 324 | 39 | 42 | 24 | 1.8 | K102_0092 EZ501U | 129 | 240 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 3.2 | 12.0 | 6.0 | – | 6.8 | 15 |
| 324 | 42 | 47 | 26 | 1.6 | K102_0092 EZ402U | 129 | 240 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 2.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 324 | 62 | 77 | 38 | 1.1 | K102_0092 EZ404U | 129 | 240 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 3.3 | 12.0 | 6.0 | – | 6.8 | 17 |
| 324 | 66 | 72 | 41 | 1.0 | K102_0092 EZ502U | 129 | 240 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 5.5 | 12.0 | 6.0 | – | 6.8 | 16 |
| 324 | 66 | 74 | 41 | 1.0 | K102_0092 EZ701U | 129 | 240 | 9.249 | 1748/189 | 3600 | 3300 | 5500 | 8.8 | 12.0 | 6.0 | – | 6.8 | 18 |
| 361 | 13 | 14 | 12 | 3.8 | K102_0083 EZ302U | 40 | 60 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 0.58 | 12.0 | 6.0 | – | 6.8 | 12 |
| 361 | 17 | 18 | 16 | 2.9 | K102_0083 EZ303U | 48 | 60 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 0.69 | 12.0 | 6.0 | – | 6.8 | 12 |
| 361 | 23 | 24 | 16 | 2.9 | K102_0083 EZ401U | 69 | 220 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 1.2 | 12.0 | 6.0 | – | 6.8 | 14 |
| 361 | 35 | 38 | 24 | 1.9 | K102_0083 EZ501U | 125 | 220 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 3.2 | 12.0 | 6.0 | – | 6.8 | 15 |
| 361 | 38 | 42 | 26 | 1.7 | K102_0083 EZ402U | 125 | 220 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 1.9 | 12.0 | 6.0 | – | 6.8 | 15 |
| 361 | 56 | 69 | 39 | 1.2 | K102_0083 EZ404U | 125 | 220 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 3.3 | 12.0 | 6.0 | – | 6.8 | 17 |
| 361 | 60 | 64 | 42 | 1.1 | K102_0083 EZ502U | 125 | 220 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 5.5 | 12.0 | 6.0 | – | 6.8 | 16 |
| 361 | 60 | 67 | 42 | 1.1 | K102_0083 EZ701U | 125 | 220 | 8.309 | 1911/230 | 3600 | 3300 | 5500 | 8.8 | 12.0 | 6.0 | – | 6.8 | 18 |
| 452 | 10 | 11 | 14 | 3.8 | K102_0066 EZ302U | 32 | 48 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 0.69 | 12.0 | 6.0 | – | 6.8 | 12 |
| 452 | 13 | 14 | 19 | 2.9 | K102_0066 EZ303U | 39 | 48 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 0.80 | 12.0 | 6.0 | – | 6.8 | 12 |
| 452 | 18 | 19 | 16 | 3.4 | K102_0066 EZ401U | 55 | 193 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 1.3 | 12.0 | 6.0 | – | 6.8 | 14 |
| 452 | 28 | 30 | 25 | 2.2 | K102_0066 EZ501U | 103 | 193 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 3.3 | 12.0 | 6.0 | – | 6.8 | 15 |
| 452 | 30 | 34 | 27 | 2.0 | K102_0066 EZ402U | 103 | 193 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 2.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 452 | 44 | 55 | 39 | 1.4 | K102_0066 EZ404U | 116 | 193 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 3.4 | 12.0 | 6.0 | – | 6.8 | 17 |
| 452 | 48 | 52 | 42 | 1.3 | K102_0066 EZ502U | 116 | 193 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 5.6 | 12.0 | 6.0 | – | 6.8 | 16 |
| 452 | 48 | 53 | 42 | 1.3 | K102_0066 EZ701U | 116 | 193 | 6.644 | 299/45 | 3600 | 3300 | 5500 | 8.9 | 12.0 | 6.0 | – | 6.8 | 18 |
| 500 | 16 | 17 | 16 | 3.6 | K102_0060 EZ401U | 49 | 175 | 6.000 | 6/1 | 3300 | 2800 | 5000 | 1.4 | 12.0 | 6.0 | – | 6.8 | 14 |
| 500 | 25 | 27 | 25 | 2.4 | K102_0060 EZ501U | 93 | 175 | 6.000 | 6/1 | 3300 | 2800 | 5000 | 3.4 | 12.0 | 6.0 | – | 6.8 | 15 |
| 500 | 27 | 30 | 27 | 2.2 | K102_0060 EZ402U | 93 | 175 | 6.000 | 6/1 | 3300 | 2800 | 5000 | 2.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 500 | 40 | 50 | 40 | 1.5 | K102_0060 EZ404U | 112 | 175 | 6.000 | 6/1 | 3300 | 2800 | 5000 | 3.5 | 12.0 | 6.0 | – | 6.8 | 17 |
| 500 | 43 | 47 | 43 | 1.4 | K102_0060 EZ502U | 112 | 175 | 6.000 | 6/1 | 3300 | 2800 | 5000 | 5.7 | 12.0 | 6.0 | – | 6.8 | 16 |
| 500 | 43 | 48 | 43 | 1.4 | K102_0060 EZ701U | 112 | 175 | 6.000 | 6/1 | 3300 | 2800 | 5000 | 9.0 | 12.0 | 6.0 | – | 6.8 | 18 |
| 500 | 56 | 65 | 56 | 1.0 | K102_0060 EZ503U | 112 | 175 | 6.000 | 6/1 | 3300 | 2800 | 5000 | 8.1 | 12.0 | 6.0 | – | 6.8 | 18 |
| 539 | 8.6 | 9.1 | 16 | 3.8 | K102_0056 EZ302U | 27 | 41 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 0.95 | 12.0 | 6.0 | – | 6.8 | 12 |
| 539 | 11 | 12 | 21 | 2.9 | K102_0056 EZ303U | 32 | 41 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 12 |
| 539 | 15 | 16 | 16 | 3.8 | K102_0056 EZ401U | 46 | 162 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 1.6 | 12.0 | 6.0 | – | 6.8 | 14 |
| 539 | 23 | 25 | 25 | 2.5 | K102_0056 EZ501U | 86 | 162 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 3.6 | 12.0 | 6.0 | – | 6.8 | 15 |
| 539 | 25 | 28 | 27 | 2.3 | K102_0056 EZ402U | 86 | 162 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 2.3 | 12.0 | 6.0 | – | 6.8 | 15 |
| 539 | 37 | 46 | 40 | 1.5 | K102_0056 EZ404U | 109 | 162 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 3.6 | 12.0 | 6.0 | – | 6.8 | 17 |
| 539 | 40 | 43 | 43 | 1.4 | K102_0056 EZ502U | 109 | 162 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 5.9 | 12.0 | 6.0 | – | 6.8 | 16 |
| 539 | 40 | 45 | 43 | 1.4 | K102_0056 EZ701U | 108 | 162 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 9.2 | 12.0 | 6.0 | – | 6.8 | 18 |
| 539 | 52 | 60 | 56 | 1.1 | K102_0056 EZ503U | 109 | 162 | 5.568 | 1520/273 | 3300 | 2800 | 5000 | 8.2 | 12.0 | 6.0 | – | 6.8 | 18 |
| 750 | 8.0 | 8.5 | 27 | 2.9 | K102_0040 EZ303U | 23 | 29 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 1.3 | 12.0 | 6.0 | – | 6.8 | 12 |
| 750 | 11 | 12 | 17 | 4.8 | K102_0040 EZ401U | 33 | 116 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 14 |
| 750 | 17 | 18 | 26 | 3.1 | K102_0040 EZ501U | 62 | 116 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 3.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 750 | 18 | 20 | 28 | 2.8 | K102_0040 EZ402U | 62 | 116 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 2.5 | 12.0 | 6.0 | – | 6.8 | 15 |
| 750 | 27 | 33 | 41 | 1.9 | K102_0040 EZ404U | 93 | 116 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 3.8 | 12.0 | 6.0 | – | 6.8 | 17 |
| 750 | 29 | 31 | 44 | 1.8 | K102_0040 EZ502U | 93 | 116 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 6.1 | 12.0 | 6.0 | – | 6.8 | 16 |
| 750 | 29 | 32 | 44 | 1.8 | K102_0040 EZ701U | 78 | 116 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 9.4 | 12.0 | 6.0 | – | 6.8 | 18 |
| 750 | 38 | 43 | 58 | 1.4 | K102_0040 EZ503U | 93 | 116 | 4.000 | 4/1 | 3300 | 2800 | 5000 | 8.4 | 12.0 | 6.0 | – | 6.8 | 18 |
| **K1 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | | | |
| 86 | 60 | 65 | 8.1 | 1.2 | K102_0700 EZ301U | 83 | 139 | 70.03 | 2451/35 | 4000 | 4000 | 7000 | 0.20 | 12.0 | 6.0 | – | 6.8 | 11 |
| 107 | 48 | 52 | 6.2 | 1.8 | K102_0560 EZ301U | 103 | 171 | 56.10 | 1178/21 | 4000 | 4000 | 7000 | 0.21 | 12.0 | 6.0 | – | 6.8 | 11 |
| 107 | 82 | 91 | 10 | 1.0 | K102_0560 EZ302U | 103 | 171 | 56.10 | 1178/21 | 4000 | 4000 | 7000 | 0.31 | 12.0 | 6.0 | – | 6.8 | 12 |
| 119 | 43 | 46 | 10 | 1.2 | K102_0500 EZ301U | 60 | 100 | 50.31 | 5031/100 | 4000 | 4000 | 7000 | 0.21 | 12.0 | 6.0 | – | 6.8 | 11 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **K1 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 140 Nm)** | | | | | | | | | | | | | | | | | | |
| 128 | 41 | 43 | 5.5 | 2.3 | K102_0470 EZ301U | 122 | 203 | 46.92 | 2299/49 | 4000 | 4000 | 7000 | 0.22 | 12.0 | 6.0 | – | 6.8 | 11 |
| 128 | 68 | 76 | 9.2 | 1.4 | K102_0470 EZ302U | 122 | 203 | 46.92 | 2299/49 | 4000 | 4000 | 7000 | 0.32 | 12.0 | 6.0 | – | 6.8 | 12 |
| 128 | 89 | 102 | 12 | 1.0 | K102_0470 EZ303U | 122 | 203 | 46.92 | 2299/49 | 4000 | 4000 | 7000 | 0.43 | 12.0 | 6.0 | – | 6.8 | 12 |
| 149 | 35 | 37 | 8.0 | 1.8 | K102_0400 EZ301U | 74 | 123 | 40.30 | 403/10 | 4000 | 4000 | 7000 | 0.21 | 12.0 | 6.0 | – | 6.8 | 11 |
| 149 | 59 | 66 | 13 | 1.0 | K102_0400 EZ302U | 74 | 123 | 40.30 | 403/10 | 4000 | 4000 | 7000 | 0.31 | 12.0 | 6.0 | – | 6.8 | 12 |
| 171 | 30 | 32 | 5.6 | 2.8 | K102_0350 EZ301U | 95 | 196 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.23 | 12.0 | 6.0 | – | 6.8 | 11 |
| 171 | 51 | 57 | 9.4 | 1.7 | K102_0350 EZ302U | 135 | 196 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.33 | 12.0 | 6.0 | – | 6.8 | 12 |
| 171 | 67 | 77 | 12 | 1.3 | K102_0350 EZ303U | 135 | 196 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.44 | 12.0 | 6.0 | – | 6.8 | 12 |
| 171 | 78 | 95 | 14 | 1.1 | K102_0350 EZ401U | 135 | 240 | 35.11 | 3686/105 | 4000 | 4000 | 7000 | 0.97 | 12.0 | 6.0 | – | 6.8 | 14 |
| 178 | 29 | 31 | 6.4 | 2.5 | K102_0340 EZ301U | 88 | 146 | 33.71 | 4719/140 | 4000 | 4000 | 7000 | 0.22 | 12.0 | 6.0 | – | 6.8 | 11 |
| 178 | 49 | 55 | 11 | 1.5 | K102_0340 EZ302U | 88 | 146 | 33.71 | 4719/140 | 4000 | 4000 | 7000 | 0.32 | 12.0 | 6.0 | – | 6.8 | 12 |
| 178 | 64 | 74 | 14 | 1.1 | K102_0340 EZ303U | 88 | 146 | 33.71 | 4719/140 | 4000 | 4000 | 7000 | 0.43 | 12.0 | 6.0 | – | 6.8 | 12 |
| 214 | 24 | 26 | 5.7 | 3.2 | K102_0280 EZ301U | 76 | 169 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.25 | 12.0 | 6.0 | – | 6.8 | 11 |
| 214 | 41 | 46 | 9.6 | 1.9 | K102_0280 EZ302U | 135 | 169 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.35 | 12.0 | 6.0 | – | 6.8 | 12 |
| 214 | 53 | 61 | 13 | 1.5 | K102_0280 EZ303U | 135 | 169 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.46 | 12.0 | 6.0 | – | 6.8 | 12 |
| 214 | 63 | 76 | 15 | 1.3 | K102_0280 EZ401U | 135 | 240 | 28.05 | 589/21 | 4000 | 4000 | 7000 | 0.99 | 12.0 | 6.0 | – | 6.8 | 14 |
| 238 | 22 | 23 | 5.7 | 3.5 | K102_0250 EZ301U | 68 | 141 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.24 | 12.0 | 6.0 | – | 6.8 | 11 |
| 238 | 37 | 41 | 9.7 | 2.1 | K102_0250 EZ302U | 113 | 141 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.34 | 12.0 | 6.0 | – | 6.8 | 12 |
| 238 | 48 | 55 | 13 | 1.6 | K102_0250 EZ303U | 113 | 141 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.45 | 12.0 | 6.0 | – | 6.8 | 12 |
| 238 | 56 | 68 | 15 | 1.3 | K102_0250 EZ401U | 115 | 192 | 25.22 | 1261/50 | 4000 | 4000 | 7000 | 0.98 | 12.0 | 6.0 | – | 6.8 | 14 |
| 258 | 20 | 21 | 5.8 | 3.7 | K102_0230 EZ301U | 63 | 159 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 0.28 | 12.0 | 6.0 | – | 6.8 | 11 |
| 258 | 34 | 38 | 9.7 | 2.2 | K102_0230 EZ302U | 113 | 159 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 0.38 | 12.0 | 6.0 | – | 6.8 | 12 |
| 258 | 44 | 51 | 13 | 1.7 | K102_0230 EZ303U | 127 | 159 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 0.49 | 12.0 | 6.0 | – | 6.8 | 12 |
| 258 | 52 | 63 | 15 | 1.4 | K102_0230 EZ401U | 135 | 240 | 23.27 | 1140/49 | 4000 | 4000 | 7000 | 1.0 | 12.0 | 6.0 | – | 6.8 | 14 |
| 298 | 17 | 19 | 5.9 | 4.0 | K102_0200 EZ301U | 55 | 121 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 0.26 | 12.0 | 6.0 | – | 6.8 | 11 |
| 298 | 29 | 33 | 9.9 | 2.4 | K102_0200 EZ302U | 97 | 121 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 0.36 | 12.0 | 6.0 | – | 6.8 | 12 |
| 298 | 38 | 44 | 13 | 1.8 | K102_0200 EZ303U | 97 | 121 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 0.47 | 12.0 | 6.0 | – | 6.8 | 12 |
| 298 | 45 | 55 | 15 | 1.6 | K102_0200 EZ401U | 125 | 220 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 1.0 | 12.0 | 6.0 | – | 6.8 | 14 |
| 298 | 66 | 86 | 22 | 1.1 | K102_0200 EZ501U | 125 | 220 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 3.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 298 | 68 | 96 | 23 | 1.0 | K102_0200 EZ402U | 125 | 220 | 20.15 | 403/20 | 4000 | 4000 | 7000 | 1.7 | 12.0 | 6.0 | – | 6.8 | 15 |
| 342 | 15 | 16 | 5.9 | 4.4 | K102_0175 EZ301U | 48 | 128 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 0.32 | 12.0 | 6.0 | – | 6.8 | 11 |
| 342 | 26 | 29 | 10 | 2.6 | K102_0175 EZ302U | 85 | 128 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 0.42 | 12.0 | 6.0 | – | 6.8 | 12 |
| 342 | 33 | 38 | 13 | 2.0 | K102_0175 EZ303U | 102 | 128 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 0.53 | 12.0 | 6.0 | – | 6.8 | 12 |
| 342 | 39 | 48 | 15 | 1.7 | K102_0175 EZ401U | 135 | 240 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 342 | 58 | 75 | 23 | 1.2 | K102_0175 EZ501U | 135 | 240 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 3.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 342 | 60 | 83 | 23 | 1.1 | K102_0175 EZ402U | 135 | 240 | 17.56 | 2090/119 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 359 | 14 | 15 | 5.9 | 4.6 | K102_0165 EZ301U | 45 | 114 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 0.29 | 12.0 | 6.0 | – | 6.8 | 11 |
| 359 | 24 | 27 | 10 | 2.7 | K102_0165 EZ302U | 81 | 114 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 0.39 | 12.0 | 6.0 | – | 6.8 | 12 |
| 359 | 32 | 36 | 13 | 2.1 | K102_0165 EZ303U | 91 | 114 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 0.50 | 12.0 | 6.0 | – | 6.8 | 12 |
| 359 | 37 | 45 | 15 | 1.8 | K102_0165 EZ401U | 125 | 220 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 1.0 | 12.0 | 6.0 | – | 6.8 | 14 |
| 359 | 55 | 71 | 23 | 1.2 | K102_0165 EZ501U | 125 | 220 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 3.0 | 12.0 | 6.0 | – | 6.8 | 15 |
| 359 | 57 | 79 | 23 | 1.2 | K102_0165 EZ402U | 125 | 220 | 16.71 | 117/7 | 4000 | 4000 | 7000 | 1.7 | 12.0 | 6.0 | – | 6.8 | 15 |
| 425 | 21 | 23 | 10 | 3.0 | K102_0140 EZ302U | 68 | 103 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 0.47 | 12.0 | 6.0 | – | 6.8 | 12 |
| 425 | 27 | 31 | 13 | 2.3 | K102_0140 EZ303U | 82 | 103 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 0.58 | 12.0 | 6.0 | – | 6.8 | 12 |
| 425 | 31 | 38 | 16 | 2.0 | K102_0140 EZ401U | 116 | 240 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 425 | 47 | 60 | 23 | 1.3 | K102_0140 EZ501U | 135 | 240 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 3.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 425 | 48 | 67 | 24 | 1.3 | K102_0140 EZ402U | 135 | 240 | 14.11 | 494/35 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 476 | 18 | 21 | 10 | 3.3 | K102_0125 EZ302U | 61 | 92 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 0.44 | 12.0 | 6.0 | – | 6.8 | 12 |
| 476 | 24 | 28 | 13 | 2.5 | K102_0125 EZ303U | 73 | 92 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 0.55 | 12.0 | 6.0 | – | 6.8 | 12 |
| 476 | 28 | 34 | 16 | 2.1 | K102_0125 EZ401U | 104 | 220 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 476 | 42 | 54 | 23 | 1.4 | K102_0125 EZ501U | 125 | 220 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 3.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 476 | 43 | 60 | 24 | 1.4 | K102_0125 EZ402U | 125 | 220 | 12.62 | 429/34 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 592 | 15 | 17 | 10 | 3.8 | K102_0100 EZ302U | 49 | 74 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 0.50 | 12.0 | 6.0 | – | 6.8 | 12 |
| 592 | 19 | 22 | 14 | 2.9 | K102_0100 EZ303U | 59 | 74 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 0.61 | 12.0 | 6.0 | – | 6.8 | 12 |
| 592 | 23 | 28 | 16 | 2.5 | K102_0100 EZ401U | 84 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 1.1 | 12.0 | 6.0 | – | 6.8 | 14 |
| 592 | 33 | 43 | 24 | 1.7 | K102_0100 EZ501U | 125 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 3.1 | 12.0 | 6.0 | – | 6.8 | 15 |
| 592 | 34 | 48 | 24 | 1.6 | K102_0100 EZ402U | 125 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 1.8 | 12.0 | 6.0 | – | 6.8 | 15 |
| 592 | 51 | 77 | 36 | 1.1 | K102_0100 EZ502U | 125 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 5.4 | 12.0 | 6.0 | – | 6.8 | 16 |
| 592 | 51 | 78 | 36 | 1.1 | K102_0100 EZ701U | 125 | 220 | 10.14 | 507/50 | 4000 | 3800 | 6000 | 8.7 | 12.0 | 6.0 | – | 6.8 | 18 |
| **K2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 220 Nm)** | | | | | | | | | | | | | | | | | | |
| 17 | 161 | 164 | 4.1 | 1.2 | K203_1810 EZ301U | 220 | 400 | 181.0 | 86903/480 | 4000 | 3900 | 6500 | 0.24 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 22 | 120 | 123 | 3.8 | 1.7 | K203_1350 EZ301U | 220 | 400 | 135.3 | 30315/224 | 4000 | 3900 | 6500 | 0.24 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 27 | 97 | 99 | 3.6 | 2.1 | K203_1090 EZ301U | 220 | 400 | 109.5 | 26273/240 | 4000 | 3900 | 6500 | 0.25 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 27 | 166 | 176 | 6.1 | 1.2 | K203_1090 EZ302U | 220 | 400 | 109.5 | 26273/240 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 220 Nm)** | | | | | | | | | | | | | | | | | | |
| 33 | 81 | 82 | 3.4 | 2.5 | K203_0910 EZ301U | 220 | 400 | 90.79 | 46483/512 | 4000 | 3900 | 6500 | 0.25 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 33 | 138 | 146 | 5.9 | 1.4 | K203_0910 EZ302U | 220 | 400 | 90.79 | 46483/512 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 33 | 180 | 190 | 7.6 | 1.1 | K203_0910 EZ303U | 220 | 400 | 90.79 | 46483/512 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 38 | 121 | 128 | 5.7 | 1.7 | K203_0800 EZ302U | 220 | 400 | 79.62 | 26273/330 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 38 | 158 | 167 | 7.4 | 1.3 | K203_0800 EZ303U | 220 | 400 | 79.62 | 26273/330 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 43 | 107 | 113 | 8.4 | 1.2 | K202_0690 EZ302U | 159 | 253 | 69.43 | 6665/96 | 4000 | 3900 | 6500 | 0.33 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 44 | 104 | 110 | 5.5 | 1.9 | K203_0680 EZ302U | 220 | 400 | 68.42 | 26273/384 | 4000 | 3900 | 6500 | 0.36 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 44 | 135 | 143 | 7.1 | 1.5 | K203_0680 EZ303U | 220 | 400 | 68.42 | 26273/384 | 4000 | 3900 | 6500 | 0.47 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 44 | 183 | 196 | 9.6 | 1.1 | K203_0680 EZ401U | 220 | 400 | 68.42 | 26273/384 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 45 | 100 | 106 | 5.4 | 2.0 | K203_0660 EZ302U | 220 | 400 | 66.03 | 46483/704 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 45 | 131 | 138 | 7.1 | 1.5 | K203_0660 EZ303U | 220 | 400 | 66.03 | 46483/704 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 45 | 177 | 189 | 9.5 | 1.1 | K203_0660 EZ401U | 220 | 400 | 66.03 | 46483/704 | 4000 | 3900 | 6500 | 0.99 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 54 | 86 | 91 | 6.6 | 1.9 | K202_0560 EZ302U | 191 | 270 | 55.54 | 1333/24 | 4000 | 3900 | 6500 | 0.34 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 54 | 112 | 118 | 8.6 | 1.4 | K202_0560 EZ303U | 191 | 270 | 55.54 | 1333/24 | 4000 | 3900 | 6500 | 0.45 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 54 | 151 | 162 | 12 | 1.1 | K202_0560 EZ401U | 191 | 270 | 55.54 | 1333/24 | 4000 | 3900 | 6500 | 0.98 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 55 | 82 | 87 | 5.2 | 2.4 | K203_0540 EZ302U | 220 | 348 | 54.25 | 135407/2496 | 4000 | 3900 | 6500 | 0.37 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 55 | 107 | 114 | 6.7 | 1.9 | K203_0540 EZ303U | 220 | 348 | 54.25 | 135407/2496 | 4000 | 3900 | 6500 | 0.48 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 55 | 145 | 156 | 9.1 | 1.4 | K203_0540 EZ401U | 220 | 348 | 54.25 | 135407/2496 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 59 | 78 | 82 | 11 | 1.2 | K202_0500 EZ302U | 116 | 184 | 50.49 | 6665/132 | 4000 | 3900 | 6500 | 0.33 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 60 | 76 | 80 | 5.0 | 2.6 | K203_0500 EZ302U | 220 | 319 | 49.76 | 26273/528 | 4000 | 3900 | 6500 | 0.36 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 60 | 98 | 104 | 6.6 | 2.0 | K203_0500 EZ303U | 220 | 319 | 49.76 | 26273/528 | 4000 | 3900 | 6500 | 0.47 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 60 | 133 | 143 | 8.9 | 1.5 | K203_0500 EZ401U | 220 | 319 | 49.76 | 26273/528 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 65 | 71 | 75 | 5.0 | 2.8 | K202_0460 EZ302U | 206 | 258 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 0.36 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 65 | 93 | 98 | 6.5 | 2.2 | K202_0460 EZ303U | 206 | 258 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 0.47 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 65 | 126 | 135 | 8.9 | 1.6 | K202_0460 EZ401U | 220 | 400 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 65 | 193 | 211 | 14 | 1.0 | K202_0460 EZ501U | 220 | 400 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 66 | 69 | 73 | 4.9 | 2.9 | K203_0450 EZ302U | 216 | 290 | 45.22 | 58609/1296 | 4000 | 3900 | 6500 | 0.38 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 66 | 89 | 95 | 6.4 | 2.2 | K203_0450 EZ303U | 220 | 290 | 45.22 | 58609/1296 | 4000 | 3900 | 6500 | 0.49 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 66 | 121 | 130 | 8.7 | 1.7 | K203_0450 EZ401U | 220 | 290 | 45.22 | 58609/1296 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 74 | 62 | 66 | 8.4 | 1.9 | K202_0400 EZ302U | 139 | 196 | 40.39 | 1333/33 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 74 | 81 | 86 | 11 | 1.4 | K202_0400 EZ303U | 139 | 196 | 40.39 | 1333/33 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 74 | 110 | 118 | 15 | 1.1 | K202_0400 EZ401U | 139 | 196 | 40.39 | 1333/33 | 4000 | 3900 | 6500 | 0.99 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 76 | 60 | 63 | 4.8 | 3.3 | K203_0390 EZ302U | 189 | 253 | 39.45 | 135407/3432 | 4000 | 3900 | 6500 | 0.37 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 76 | 78 | 83 | 6.3 | 2.5 | K203_0390 EZ303U | 202 | 253 | 39.45 | 135407/3432 | 4000 | 3900 | 6500 | 0.48 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 76 | 106 | 113 | 8.5 | 1.9 | K203_0390 EZ401U | 202 | 253 | 39.45 | 135407/3432 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 87 | 53 | 56 | 5.5 | 3.2 | K202_0350 EZ302U | 168 | 214 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 0.41 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 87 | 69 | 73 | 7.1 | 2.5 | K202_0350 EZ303U | 171 | 214 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 0.52 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 87 | 94 | 101 | 8.7 | 2.0 | K202_0350 EZ401U | 220 | 400 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 87 | 144 | 158 | 13 | 1.3 | K202_0350 EZ501U | 220 | 400 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 87 | 158 | 174 | 15 | 1.2 | K202_0350 EZ402U | 220 | 400 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 89 | 52 | 55 | 6.2 | 2.9 | K202_0340 EZ302U | 150 | 188 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 0.37 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 89 | 68 | 71 | 8.1 | 2.2 | K202_0340 EZ303U | 150 | 188 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 0.48 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 89 | 91 | 98 | 11 | 1.7 | K202_0340 EZ401U | 185 | 308 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 89 | 140 | 153 | 16 | 1.1 | K202_0340 EZ501U | 185 | 308 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 89 | 153 | 170 | 18 | 1.0 | K202_0340 EZ402U | 185 | 308 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 1.7 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 107 | 76 | 81 | 8.8 | 2.3 | K202_0280 EZ401U | 220 | 400 | 27.95 | 559/20 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 107 | 117 | 127 | 14 | 1.5 | K202_0280 EZ501U | 220 | 400 | 27.95 | 559/20 | 4000 | 3900 | 6500 | 3.1 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 107 | 127 | 141 | 15 | 1.4 | K202_0280 EZ402U | 220 | 400 | 27.95 | 559/20 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 119 | 39 | 41 | 6.9 | 3.2 | K202_0250 EZ302U | 122 | 156 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 0.42 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 119 | 50 | 53 | 9.0 | 2.5 | K202_0250 EZ303U | 125 | 156 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 0.53 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 119 | 68 | 73 | 8.9 | 2.5 | K202_0250 EZ401U | 207 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 119 | 105 | 115 | 14 | 1.6 | K202_0250 EZ501U | 220 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 119 | 115 | 127 | 15 | 1.5 | K202_0250 EZ402U | 220 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 119 | 168 | 210 | 22 | 1.0 | K202_0250 EZ404U | 220 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 3.1 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 129 | 36 | 38 | 6.3 | 3.8 | K202_0230 EZ302U | 112 | 169 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 0.52 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 129 | 47 | 49 | 8.2 | 2.9 | K202_0230 EZ303U | 135 | 169 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 0.63 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 129 | 63 | 67 | 9.0 | 2.6 | K202_0230 EZ401U | 191 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 1.2 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 129 | 97 | 106 | 14 | 1.7 | K202_0230 EZ501U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 3.1 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 129 | 106 | 117 | 15 | 1.6 | K202_0230 EZ402U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 1.9 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 129 | 155 | 193 | 22 | 1.1 | K202_0230 EZ404U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 148 | 55 | 59 | 9.1 | 2.9 | K202_0200 EZ401U | 168 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 148 | 85 | 93 | 14 | 1.9 | K202_0200 EZ501U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 3.1 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 148 | 93 | 103 | 15 | 1.7 | K202_0200 EZ402U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 148 | 136 | 170 | 22 | 1.2 | K202_0200 EZ404U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 24 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| K2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 220 Nm) | | | | | | | | | | | | | | | | | | |
| 148 | 146 | 158 | 24 | 1.1 | K202_0200 EZ502U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 5.4 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 148 | 146 | 164 | 24 | 1.1 | K202_0200 EZ701U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 8.7 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 172 | 27 | 28 | 7.8 | 3.8 | K202_0175 EZ302U | 85 | 127 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 0.65 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 172 | 35 | 37 | 10 | 2.9 | K202_0175 EZ303U | 102 | 127 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 0.76 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 172 | 47 | 51 | 9.2 | 3.2 | K202_0175 EZ401U | 144 | 400 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 1.3 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 172 | 73 | 80 | 14 | 2.1 | K202_0175 EZ501U | 220 | 400 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 3.3 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 172 | 80 | 88 | 15 | 1.9 | K202_0175 EZ402U | 220 | 400 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 2.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 172 | 117 | 146 | 23 | 1.3 | K202_0175 EZ404U | 220 | 400 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 3.3 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 172 | 125 | 136 | 24 | 1.2 | K202_0175 EZ502U | 220 | 400 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 5.6 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 172 | 125 | 141 | 24 | 1.2 | K202_0175 EZ701U | 220 | 400 | 17.47 | 559/32 | 3900 | 3500 | 5500 | 8.9 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 178 | 26 | 27 | 8.0 | 3.8 | K202_0170 EZ302U | 82 | 123 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 0.55 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 178 | 34 | 36 | 10 | 2.9 | K202_0170 EZ303U | 98 | 123 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 0.66 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 178 | 46 | 49 | 9.2 | 3.3 | K202_0170 EZ401U | 139 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 1.2 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 178 | 70 | 77 | 14 | 2.1 | K202_0170 EZ501U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 178 | 77 | 85 | 15 | 1.9 | K202_0170 EZ402U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 1.9 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 178 | 113 | 141 | 23 | 1.3 | K202_0170 EZ404U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 178 | 121 | 131 | 24 | 1.2 | K202_0170 EZ502U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 5.5 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 178 | 121 | 136 | 24 | 1.2 | K202_0170 EZ701U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 8.8 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 217 | 38 | 40 | 9.4 | 3.7 | K202_0140 EZ401U | 114 | 400 | 13.85 | 2881/208 | 3900 | 3500 | 5500 | 1.4 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 217 | 58 | 63 | 14 | 2.4 | K202_0140 EZ501U | 215 | 400 | 13.85 | 2881/208 | 3900 | 3500 | 5500 | 3.4 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 217 | 63 | 70 | 16 | 2.2 | K202_0140 EZ402U | 215 | 400 | 13.85 | 2881/208 | 3900 | 3500 | 5500 | 2.1 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 217 | 93 | 116 | 23 | 1.5 | K202_0140 EZ404U | 220 | 400 | 13.85 | 2881/208 | 3900 | 3500 | 5500 | 3.5 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 217 | 99 | 107 | 25 | 1.4 | K202_0140 EZ502U | 220 | 400 | 13.85 | 2881/208 | 3900 | 3500 | 5500 | 5.7 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 217 | 99 | 112 | 25 | 1.4 | K202_0140 EZ701U | 220 | 400 | 13.85 | 2881/208 | 3900 | 3500 | 5500 | 9.0 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 217 | 130 | 149 | 32 | 1.1 | K202_0140 EZ503U | 220 | 400 | 13.85 | 2881/208 | 3900 | 3500 | 5500 | 8.1 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 236 | 20 | 21 | 9.8 | 3.8 | K202_0125 EZ302U | 62 | 92 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 0.70 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 236 | 26 | 27 | 13 | 2.9 | K202_0125 EZ303U | 74 | 92 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 0.81 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 236 | 35 | 37 | 9.4 | 3.9 | K202_0125 EZ401U | 105 | 370 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 1.3 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 236 | 53 | 58 | 15 | 2.6 | K202_0125 EZ501U | 197 | 370 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 3.3 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 236 | 58 | 64 | 16 | 2.3 | K202_0125 EZ402U | 197 | 370 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 2.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 236 | 85 | 106 | 23 | 1.6 | K202_0125 EZ404U | 220 | 370 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 3.4 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 236 | 91 | 99 | 25 | 1.5 | K202_0125 EZ502U | 220 | 370 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 5.6 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 236 | 91 | 102 | 25 | 1.5 | K202_0125 EZ701U | 220 | 400 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 8.9 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 236 | 120 | 137 | 33 | 1.1 | K202_0125 EZ503U | 220 | 370 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 8.0 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 260 | 18 | 19 | 11 | 3.8 | K202_0115 EZ302U | 56 | 84 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 0.95 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 260 | 23 | 25 | 14 | 2.9 | K202_0115 EZ303U | 67 | 84 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 260 | 31 | 34 | 9.5 | 4.2 | K202_0115 EZ401U | 95 | 336 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 1.6 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 260 | 48 | 53 | 15 | 2.7 | K202_0115 EZ501U | 179 | 336 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 3.6 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 260 | 53 | 58 | 16 | 2.5 | K202_0115 EZ402U | 179 | 336 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 2.3 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 260 | 77 | 96 | 23 | 1.7 | K202_0115 EZ404U | 220 | 336 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 3.6 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 260 | 83 | 90 | 25 | 1.6 | K202_0115 EZ502U | 220 | 336 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 5.9 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 260 | 83 | 93 | 25 | 1.6 | K202_0115 EZ701U | 220 | 400 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 9.2 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 260 | 109 | 124 | 33 | 1.2 | K202_0115 EZ503U | 220 | 336 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 8.2 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 298 | 27 | 29 | 9.6 | 4.6 | K202_0100 EZ401U | 83 | 293 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 1.5 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 298 | 42 | 46 | 15 | 3.0 | K202_0100 EZ501U | 156 | 293 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 3.5 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 298 | 46 | 51 | 16 | 2.7 | K202_0100 EZ402U | 156 | 293 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 2.2 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 298 | 67 | 84 | 24 | 1.9 | K202_0100 EZ404U | 220 | 293 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 3.6 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 298 | 72 | 78 | 25 | 1.7 | K202_0100 EZ502U | 220 | 293 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 5.8 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 298 | 72 | 81 | 25 | 1.7 | K202_0100 EZ701U | 195 | 400 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 9.1 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 298 | 95 | 108 | 33 | 1.3 | K202_0100 EZ503U | 220 | 293 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 8.2 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 298 | 117 | 141 | 41 | 1.1 | K202_0100 EZ702U | 220 | 400 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 326 | 25 | 27 | 9.7 | 4.9 | K202_0092 EZ401U | 76 | 268 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 326 | 38 | 42 | 15 | 3.2 | K202_0092 EZ501U | 143 | 268 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 3.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 326 | 42 | 46 | 16 | 2.9 | K202_0092 EZ402U | 143 | 268 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 2.5 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 326 | 62 | 77 | 24 | 2.0 | K202_0092 EZ404U | 214 | 268 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 3.9 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 326 | 66 | 71 | 26 | 1.8 | K202_0092 EZ502U | 214 | 268 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 6.1 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 326 | 66 | 74 | 26 | 1.8 | K202_0092 EZ701U | 178 | 400 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 9.4 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 326 | 86 | 99 | 34 | 1.4 | K202_0092 EZ503U | 214 | 268 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 8.5 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 326 | 107 | 128 | 42 | 1.1 | K202_0092 EZ702U | 220 | 400 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 15 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 326 | 120 | 143 | 47 | 1.0 | K202_0092 EZ505U | 220 | 400 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 357 | 17 | 18 | 17 | 2.9 | K202_0084 EZ303U | 49 | 61 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 1.2 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 357 | 35 | 38 | 15 | 3.4 | K202_0084 EZ501U | 130 | 244 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 3.7 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 357 | 38 | 42 | 16 | 3.1 | K202_0084 EZ402U | 130 | 244 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 2.4 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 357 | 56 | 70 | 24 | 2.1 | K202_0084 EZ404U | 196 | 244 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 3.7 | 10.0 | 5.0 | 1.5 | 11 | 24 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K2 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 220 Nm)** | | | | | | | | | | | | | | | | | | |
| 357 | 60 | 65 | 26 | 2.0 | K202_0084 EZ502U | 196 | 244 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 6.0 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 357 | 60 | 68 | 26 | 2.0 | K202_0084 EZ701U | 163 | 400 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 9.3 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 357 | 79 | 90 | 34 | 1.5 | K202_0084 EZ503U | 196 | 244 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 8.3 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 357 | 98 | 117 | 42 | 1.2 | K202_0084 EZ702U | 220 | 400 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 357 | 110 | 130 | 47 | 1.1 | K202_0084 EZ505U | 220 | 400 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 421 | 51 | 57 | 26 | 2.2 | K202_0071 EZ701U | 138 | 400 | 7.118 | 2107/296 | 3000 | 2600 | 4500 | 9.8 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 421 | 83 | 99 | 42 | 1.4 | K202_0071 EZ702U | 211 | 400 | 7.118 | 2107/296 | 3000 | 2600 | 4500 | 15 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 421 | 93 | 110 | 48 | 1.2 | K202_0071 EZ505U | 211 | 400 | 7.118 | 2107/296 | 3000 | 2600 | 4500 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 449 | 28 | 30 | 15 | 3.9 | K202_0067 EZ501U | 104 | 195 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 4.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 449 | 30 | 34 | 17 | 3.6 | K202_0067 EZ402U | 104 | 195 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 2.7 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 449 | 45 | 56 | 25 | 2.4 | K202_0067 EZ404U | 156 | 195 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 4.1 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 449 | 48 | 52 | 26 | 2.3 | K202_0067 EZ502U | 156 | 195 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 6.3 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 449 | 48 | 54 | 26 | 2.3 | K202_0067 EZ701U | 130 | 400 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 9.6 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 449 | 63 | 72 | 35 | 1.7 | K202_0067 EZ503U | 156 | 195 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 8.7 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 449 | 78 | 93 | 43 | 1.4 | K202_0067 EZ702U | 207 | 400 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 15 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 449 | 88 | 104 | 48 | 1.3 | K202_0067 EZ505U | 207 | 400 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 449 | 107 | 135 | 59 | 1.0 | K202_0067 EZ703U | 207 | 400 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 23 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 500 | 25 | 27 | 15 | 4.2 | K202_0060 EZ501U | 93 | 175 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 4.6 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 500 | 27 | 30 | 17 | 3.9 | K202_0060 EZ402U | 93 | 175 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 3.3 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 500 | 40 | 50 | 25 | 2.6 | K202_0060 EZ404U | 140 | 175 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 4.7 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 500 | 43 | 47 | 27 | 2.5 | K202_0060 EZ502U | 140 | 175 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 6.9 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 500 | 43 | 48 | 27 | 2.5 | K202_0060 EZ701U | 116 | 400 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 10 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 500 | 56 | 65 | 35 | 1.9 | K202_0060 EZ503U | 140 | 175 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 9.3 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 500 | 70 | 84 | 43 | 1.5 | K202_0060 EZ702U | 200 | 400 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 15 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 500 | 79 | 93 | 48 | 1.3 | K202_0060 EZ505U | 200 | 400 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 500 | 96 | 121 | 59 | 1.1 | K202_0060 EZ703U | 200 | 400 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 23 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 579 | 37 | 42 | 27 | 2.7 | K202_0052 EZ701U | 100 | 377 | 5.177 | 2107/407 | 3000 | 2600 | 4500 | 10 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 579 | 60 | 72 | 44 | 1.7 | K202_0052 EZ702U | 190 | 377 | 5.177 | 2107/407 | 3000 | 2600 | 4500 | 15 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 579 | 68 | 80 | 49 | 1.5 | K202_0052 EZ505U | 190 | 377 | 5.177 | 2107/407 | 3000 | 2600 | 4500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 579 | 83 | 104 | 60 | 1.2 | K202_0052 EZ703U | 190 | 377 | 5.177 | 2107/407 | 3000 | 2600 | 4500 | 23 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 687 | 20 | 22 | 17 | 4.8 | K202_0044 EZ402U | 68 | 127 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 3.7 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 687 | 29 | 36 | 25 | 3.3 | K202_0044 EZ404U | 102 | 127 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 5.1 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 687 | 31 | 34 | 27 | 3.0 | K202_0044 EZ502U | 102 | 127 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 7.3 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 687 | 31 | 35 | 27 | 3.0 | K202_0044 EZ701U | 85 | 317 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 11 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 687 | 41 | 47 | 36 | 2.3 | K202_0044 EZ503U | 102 | 127 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 9.7 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 687 | 51 | 61 | 44 | 1.9 | K202_0044 EZ702U | 174 | 317 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 16 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 687 | 57 | 68 | 50 | 1.7 | K202_0044 EZ505U | 180 | 317 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 687 | 70 | 88 | 61 | 1.4 | K202_0044 EZ703U | 180 | 317 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 24 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 750 | 29 | 32 | 27 | 3.2 | K202_0040 EZ701U | 78 | 291 | 4.000 | 4/1 | 3000 | 2600 | 4500 | 11 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 750 | 47 | 56 | 45 | 2.0 | K202_0040 EZ702U | 159 | 291 | 4.000 | 4/1 | 3000 | 2600 | 4500 | 16 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 750 | 52 | 62 | 50 | 1.8 | K202_0040 EZ505U | 174 | 291 | 4.000 | 4/1 | 3000 | 2600 | 4500 | 15 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 750 | 64 | 81 | 61 | 1.4 | K202_0040 EZ703U | 174 | 291 | 4.000 | 4/1 | 3000 | 2600 | 4500 | 24 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| **K2 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 220 Nm)** | | | | | | | | | | | | | | | | | | |
| 354 | 117 | 189 | 37 | 1.0 | K202_0125 EZ505U | 220 | 400 | 12.71 | 559/44 | 3900 | 3500 | 5500 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 390 | 106 | 171 | 37 | 1.1 | K202_0115 EZ505U | 220 | 400 | 11.55 | 1247/108 | 3500 | 3100 | 5000 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 447 | 93 | 149 | 37 | 1.2 | K202_0100 EZ505U | 220 | 400 | 10.07 | 2881/286 | 3900 | 3500 | 5500 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 490 | 85 | 136 | 38 | 1.3 | K202_0092 EZ505U | 220 | 400 | 9.190 | 2279/248 | 3500 | 3100 | 5000 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 536 | 77 | 125 | 38 | 1.3 | K202_0084 EZ505U | 220 | 400 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 536 | 99 | 163 | 48 | 1.0 | K202_0084 EZ703U | 220 | 400 | 8.397 | 2494/297 | 3500 | 3100 | 5000 | 22 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 632 | 66 | 106 | 39 | 1.5 | K202_0071 EZ505U | 211 | 400 | 7.118 | 2107/296 | 3000 | 2600 | 4500 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 632 | 84 | 138 | 49 | 1.2 | K202_0071 EZ703U | 211 | 400 | 7.118 | 2107/296 | 3000 | 2600 | 4500 | 23 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 673 | 62 | 99 | 39 | 1.6 | K202_0067 EZ505U | 207 | 400 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 13 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 673 | 78 | 130 | 49 | 1.2 | K202_0067 EZ703U | 207 | 400 | 6.683 | 2279/341 | 3500 | 3100 | 5000 | 23 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 750 | 55 | 89 | 39 | 1.7 | K202_0060 EZ505U | 200 | 400 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 750 | 70 | 116 | 50 | 1.3 | K202_0060 EZ703U | 200 | 400 | 6.000 | 6/1 | 3000 | 2600 | 4500 | 23 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 869 | 48 | 77 | 40 | 1.8 | K202_0052 EZ505U | 190 | 377 | 5.177 | 2107/407 | 3000 | 2600 | 4500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 869 | 61 | 100 | 50 | 1.4 | K202_0052 EZ703U | 190 | 377 | 5.177 | 2107/407 | 3000 | 2600 | 4500 | 23 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 1031 | 40 | 65 | 40 | 2.1 | K202_0044 EZ505U | 180 | 317 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 1031 | 51 | 85 | 51 | 1.6 | K202_0044 EZ703U | 180 | 317 | 4.364 | 48/11 | 3000 | 2600 | 4500 | 24 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| 1125 | 37 | 59 | 40 | 2.2 | K202_0040 EZ505U | 174 | 291 | 4.000 | 4/1 | 3000 | 2600 | 4500 | 15 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| 1125 | 47 | 78 | 51 | 1.7 | K202_0040 EZ703U | 174 | 291 | 4.000 | 4/1 | 3000 | 2600 | 4500 | 24 | 10.0 | 5.0 | 1.5 | 11 | 30 |
| **K2 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 220 Nm)** | | | | | | | | | | | | | | | | | | |
| 44 | 194 | 217 | 6.1 | 1.0 | K203_1350 EZ302U | 220 | 400 | 135.3 | 30315/224 | 4000 | 3900 | 6500 | 0.34 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 55 | 157 | 176 | 5.8 | 1.3 | K203_1090 EZ302U | 220 | 400 | 109.5 | 26273/240 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K2 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 220 Nm) | | | | | | | | | | | | | | | | | | |
| 66 | 130 | 146 | 5.5 | 1.5 | K203_0910 EZ302U | 220 | 400 | 90.79 | 46483/512 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 66 | 170 | 195 | 7.2 | 1.2 | K203_0910 EZ303U | 220 | 400 | 90.79 | 46483/512 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 66 | 200 | 243 | 8.5 | 1.0 | K203_0910 EZ401U | 220 | 400 | 90.79 | 46483/512 | 4000 | 3900 | 6500 | 0.99 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 75 | 114 | 128 | 5.4 | 1.7 | K203_0800 EZ302U | 220 | 400 | 79.62 | 26273/330 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 75 | 149 | 171 | 7.0 | 1.3 | K203_0800 EZ303U | 220 | 400 | 79.62 | 26273/330 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 75 | 175 | 213 | 8.3 | 1.1 | K203_0800 EZ401U | 220 | 400 | 79.62 | 26273/330 | 4000 | 3900 | 6500 | 0.99 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 86 | 101 | 113 | 7.9 | 1.3 | K202_0690 EZ302U | 159 | 253 | 69.43 | 6665/96 | 4000 | 3900 | 6500 | 0.33 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 86 | 132 | 152 | 10 | 1.0 | K202_0690 EZ303U | 159 | 253 | 69.43 | 6665/96 | 4000 | 3900 | 6500 | 0.44 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 88 | 98 | 110 | 5.5 | 1.9 | K203_0680 EZ302U | 220 | 400 | 68.42 | 26273/384 | 4000 | 3900 | 6500 | 0.36 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 88 | 128 | 147 | 7.1 | 1.5 | K203_0680 EZ303U | 220 | 400 | 68.42 | 26273/384 | 4000 | 3900 | 6500 | 0.47 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 88 | 150 | 183 | 8.4 | 1.3 | K203_0680 EZ401U | 220 | 400 | 68.42 | 26273/384 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 91 | 95 | 106 | 5.5 | 2.0 | K203_0660 EZ302U | 220 | 400 | 66.03 | 46483/704 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 91 | 124 | 142 | 7.2 | 1.5 | K203_0660 EZ303U | 220 | 400 | 66.03 | 46483/704 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 91 | 145 | 177 | 8.4 | 1.3 | K203_0660 EZ401U | 220 | 400 | 66.03 | 46483/704 | 4000 | 3900 | 6500 | 0.99 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 108 | 81 | 91 | 6.3 | 2.0 | K202_0560 EZ302U | 191 | 270 | 55.54 | 1333/24 | 4000 | 3900 | 6500 | 0.34 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 108 | 106 | 121 | 8.2 | 1.5 | K202_0560 EZ303U | 191 | 270 | 55.54 | 1333/24 | 4000 | 3900 | 6500 | 0.45 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 108 | 124 | 151 | 9.6 | 1.3 | K202_0560 EZ401U | 191 | 270 | 55.54 | 1333/24 | 4000 | 3900 | 6500 | 0.98 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 111 | 78 | 87 | 5.6 | 2.2 | K203_0540 EZ302U | 220 | 348 | 54.25 | 135407/2496 | 4000 | 3900 | 6500 | 0.37 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 111 | 102 | 117 | 7.3 | 1.7 | K203_0540 EZ303U | 220 | 348 | 54.25 | 135407/2496 | 4000 | 3900 | 6500 | 0.48 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 111 | 119 | 145 | 8.5 | 1.5 | K203_0540 EZ401U | 220 | 348 | 54.25 | 135407/2496 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 119 | 73 | 82 | 10 | 1.3 | K202_0500 EZ302U | 116 | 184 | 50.49 | 6665/132 | 4000 | 3900 | 6500 | 0.33 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 119 | 96 | 110 | 13 | 1.0 | K202_0500 EZ303U | 116 | 184 | 50.49 | 6665/132 | 4000 | 3900 | 6500 | 0.44 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 121 | 71 | 80 | 5.6 | 2.4 | K203_0500 EZ302U | 220 | 319 | 49.76 | 26273/528 | 4000 | 3900 | 6500 | 0.36 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 121 | 93 | 107 | 7.3 | 1.8 | K203_0500 EZ303U | 220 | 319 | 49.76 | 26273/528 | 4000 | 3900 | 6500 | 0.47 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 121 | 109 | 133 | 8.6 | 1.6 | K203_0500 EZ401U | 220 | 319 | 49.76 | 26273/528 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 130 | 67 | 75 | 5.7 | 2.5 | K202_0460 EZ302U | 206 | 258 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 0.36 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 130 | 88 | 101 | 7.5 | 1.9 | K202_0460 EZ303U | 206 | 258 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 0.47 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 130 | 103 | 126 | 8.8 | 1.6 | K202_0460 EZ401U | 220 | 400 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 130 | 152 | 197 | 13 | 1.1 | K202_0460 EZ501U | 220 | 400 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 130 | 157 | 220 | 13 | 1.1 | K202_0460 EZ402U | 220 | 400 | 46.23 | 1849/40 | 4000 | 3900 | 6500 | 1.7 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 133 | 65 | 73 | 5.7 | 2.5 | K203_0450 EZ302U | 216 | 290 | 45.22 | 58609/1296 | 4000 | 3900 | 6500 | 0.38 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 133 | 85 | 97 | 7.4 | 1.9 | K203_0450 EZ303U | 220 | 290 | 45.22 | 58609/1296 | 4000 | 3900 | 6500 | 0.49 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 133 | 99 | 121 | 8.7 | 1.7 | K203_0450 EZ401U | 220 | 290 | 45.22 | 58609/1296 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 149 | 59 | 66 | 7.9 | 2.0 | K202_0400 EZ302U | 139 | 196 | 40.39 | 1333/33 | 4000 | 3900 | 6500 | 0.35 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 149 | 77 | 88 | 10 | 1.5 | K202_0400 EZ303U | 139 | 196 | 40.39 | 1333/33 | 4000 | 3900 | 6500 | 0.46 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 149 | 90 | 110 | 12 | 1.3 | K202_0400 EZ401U | 139 | 196 | 40.39 | 1333/33 | 4000 | 3900 | 6500 | 0.99 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 152 | 57 | 63 | 5.7 | 2.8 | K203_0390 EZ302U | 189 | 253 | 39.45 | 135407/3432 | 4000 | 3900 | 6500 | 0.37 | 10.0 | 6.0 | 2.5 | 11 | 22 |
| 152 | 74 | 85 | 7.5 | 2.1 | K203_0390 EZ303U | 202 | 253 | 39.45 | 135407/3432 | 4000 | 3900 | 6500 | 0.48 | 10.0 | 6.0 | 2.5 | 11 | 23 |
| 152 | 87 | 106 | 8.8 | 1.8 | K203_0390 EZ401U | 202 | 253 | 39.45 | 135407/3432 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 6.0 | 2.5 | 11 | 24 |
| 174 | 50 | 56 | 5.9 | 3.0 | K202_0350 EZ302U | 168 | 214 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 0.41 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 174 | 66 | 75 | 7.7 | 2.3 | K202_0350 EZ303U | 171 | 214 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 0.52 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 174 | 77 | 94 | 9.0 | 2.0 | K202_0350 EZ401U | 220 | 400 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 174 | 114 | 147 | 13 | 1.3 | K202_0350 EZ501U | 220 | 400 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 174 | 117 | 164 | 14 | 1.3 | K202_0350 EZ402U | 220 | 400 | 34.55 | 1935/56 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 178 | 49 | 55 | 5.9 | 3.0 | K202_0340 EZ302U | 150 | 188 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 0.37 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 178 | 64 | 73 | 7.7 | 2.3 | K202_0340 EZ303U | 150 | 188 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 0.48 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 178 | 75 | 91 | 9.0 | 2.0 | K202_0340 EZ401U | 185 | 308 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 1.0 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 178 | 111 | 143 | 13 | 1.3 | K202_0340 EZ501U | 185 | 308 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 178 | 114 | 160 | 14 | 1.3 | K202_0340 EZ402U | 185 | 308 | 33.62 | 1849/55 | 4000 | 3900 | 6500 | 1.7 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 215 | 62 | 76 | 9.2 | 2.2 | K202_0280 EZ401U | 220 | 400 | 27.95 | 559/20 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 215 | 92 | 119 | 14 | 1.5 | K202_0280 EZ501U | 220 | 400 | 27.95 | 559/20 | 4000 | 3900 | 6500 | 3.1 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 215 | 95 | 133 | 14 | 1.5 | K202_0280 EZ402U | 220 | 400 | 27.95 | 559/20 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 239 | 37 | 41 | 6.5 | 3.4 | K202_0250 EZ302U | 122 | 156 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 0.42 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 239 | 48 | 55 | 8.5 | 2.6 | K202_0250 EZ303U | 125 | 156 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 0.53 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 239 | 56 | 68 | 9.2 | 2.4 | K202_0250 EZ401U | 207 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 239 | 83 | 107 | 14 | 1.6 | K202_0250 EZ501U | 220 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 3.0 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 239 | 85 | 119 | 14 | 1.6 | K202_0250 EZ402U | 220 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 239 | 127 | 190 | 21 | 1.1 | K202_0250 EZ502U | 220 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 5.3 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 239 | 127 | 193 | 21 | 1.1 | K202_0250 EZ701U | 220 | 400 | 25.13 | 1935/77 | 4000 | 3900 | 6500 | 8.6 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 259 | 34 | 38 | 6.1 | 3.9 | K202_0230 EZ302U | 112 | 169 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 0.52 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 259 | 44 | 51 | 7.9 | 3.0 | K202_0230 EZ303U | 135 | 169 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 0.63 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 259 | 52 | 63 | 9.3 | 2.5 | K202_0230 EZ401U | 191 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 1.2 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 259 | 76 | 99 | 14 | 1.7 | K202_0230 EZ501U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 3.1 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 259 | 79 | 110 | 14 | 1.7 | K202_0230 EZ402U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 1.9 | 10.0 | 5.0 | 1.5 | 11 | 22 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K2 ($n_{1N}$ = 6000 min$^{-1}$, $M_{2acc,max}$ = 220 Nm)** | | | | | | | | | | | | | | | | | | |
| 259 | 117 | 175 | 21 | 1.1 | K202_0230 EZ502U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 5.4 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 259 | 117 | 178 | 21 | 1.1 | K202_0230 EZ701U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 8.7 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 259 | 130 | 189 | 23 | 1.0 | K202_0230 EZ404U | 220 | 400 | 23.18 | 2967/128 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 295 | 45 | 55 | 9.4 | 2.8 | K202_0200 EZ401U | 168 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 1.1 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 295 | 67 | 87 | 14 | 1.9 | K202_0200 EZ501U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 3.1 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 295 | 69 | 97 | 14 | 1.8 | K202_0200 EZ402U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 1.8 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 295 | 103 | 154 | 21 | 1.2 | K202_0200 EZ502U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 5.4 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 295 | 103 | 156 | 21 | 1.2 | K202_0200 EZ701U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 8.7 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 295 | 114 | 166 | 24 | 1.1 | K202_0200 EZ404U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 295 | 122 | 209 | 25 | 1.0 | K202_0200 EZ503U | 220 | 400 | 20.33 | 1118/55 | 4000 | 3900 | 6500 | 7.8 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 356 | 25 | 27 | 7.5 | 4.0 | K202_0170 EZ302U | 82 | 123 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 0.55 | 10.0 | 5.0 | 1.5 | 11 | 19 |
| 356 | 32 | 37 | 9.8 | 3.1 | K202_0170 EZ303U | 98 | 123 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 0.66 | 10.0 | 5.0 | 1.5 | 11 | 20 |
| 356 | 38 | 46 | 9.5 | 3.1 | K202_0170 EZ401U | 139 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 1.2 | 10.0 | 5.0 | 1.5 | 11 | 21 |
| 356 | 56 | 72 | 14 | 2.1 | K202_0170 EZ501U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 356 | 57 | 80 | 15 | 2.1 | K202_0170 EZ402U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 1.9 | 10.0 | 5.0 | 1.5 | 11 | 22 |
| 356 | 85 | 128 | 22 | 1.4 | K202_0170 EZ502U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 5.5 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 356 | 85 | 129 | 22 | 1.4 | K202_0170 EZ701U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 8.8 | 10.0 | 5.0 | 1.5 | 11 | 26 |
| 356 | 95 | 137 | 24 | 1.2 | K202_0170 EZ404U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 3.2 | 10.0 | 5.0 | 1.5 | 11 | 24 |
| 356 | 101 | 173 | 26 | 1.2 | K202_0170 EZ503U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 7.8 | 10.0 | 5.0 | 1.5 | 11 | 25 |
| 356 | 118 | 234 | 30 | 1.0 | K202_0170 EZ702U | 220 | 400 | 16.86 | 2967/176 | 4000 | 3900 | 6500 | 14 | 10.0 | 5.0 | 1.5 | 11 | 28 |
| **K3 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 17 | 275 | 291 | 4.5 | 1.3 | K303_1810 EZ302U | 385 | 688 | 181.0 | 86903/480 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 22 | 207 | 218 | 4.1 | 1.7 | K303_1360 EZ302U | 385 | 700 | 136.0 | 14147/104 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 22 | 269 | 285 | 5.3 | 1.3 | K303_1360 EZ303U | 385 | 700 | 136.0 | 14147/104 | 3800 | 3500 | 6000 | 0.46 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 27 | 166 | 175 | 3.9 | 2.1 | K303_1090 EZ302U | 385 | 700 | 109.2 | 167743/1536 | 3800 | 3500 | 6000 | 0.36 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 27 | 216 | 229 | 5.0 | 1.6 | K303_1090 EZ303U | 385 | 700 | 109.2 | 167743/1536 | 3800 | 3500 | 6000 | 0.47 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 27 | 292 | 313 | 6.8 | 1.2 | K303_1090 EZ401U | 385 | 700 | 109.2 | 167743/1536 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 33 | 139 | 147 | 3.7 | 2.5 | K303_0910 EZ302U | 385 | 585 | 91.23 | 26273/288 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 33 | 181 | 191 | 4.8 | 1.9 | K303_0910 EZ303U | 385 | 585 | 91.23 | 26273/288 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 33 | 244 | 262 | 6.5 | 1.4 | K303_0910 EZ401U | 385 | 585 | 91.23 | 26273/288 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 38 | 121 | 128 | 4.4 | 2.4 | K303_0790 EZ302U | 380 | 509 | 79.42 | 167743/2112 | 3800 | 3500 | 6000 | 0.36 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 38 | 157 | 166 | 5.7 | 1.8 | K303_0790 EZ303U | 385 | 509 | 79.42 | 167743/2112 | 3800 | 3500 | 6000 | 0.47 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 38 | 213 | 228 | 7.7 | 1.3 | K303_0790 EZ401U | 385 | 509 | 79.42 | 167743/2112 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 38 | 322 | 352 | 9.6 | 1.1 | K303_0780 EZ501U | 385 | 700 | 78.41 | 103501/1320 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 43 | 107 | 113 | 5.8 | 2.0 | K302_0690 EZ302U | 238 | 298 | 69.43 | 6665/96 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 4.0 | 1.5 | 16 | 24 |
| 43 | 139 | 147 | 7.5 | 1.5 | K302_0690 EZ303U | 238 | 298 | 69.43 | 6665/96 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 4.0 | 1.5 | 16 | 25 |
| 43 | 189 | 202 | 10 | 1.1 | K302_0690 EZ401U | 238 | 298 | 69.43 | 6665/96 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 44 | 103 | 109 | 3.5 | 3.3 | K303_0680 EZ302U | 324 | 434 | 67.73 | 74777/1104 | 3800 | 3500 | 6000 | 0.38 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 44 | 134 | 142 | 4.6 | 2.6 | K303_0680 EZ303U | 347 | 434 | 67.73 | 74777/1104 | 3800 | 3500 | 6000 | 0.49 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 44 | 181 | 194 | 6.2 | 1.9 | K303_0680 EZ401U | 347 | 434 | 67.73 | 74777/1104 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 45 | 275 | 300 | 9.2 | 1.3 | K303_0670 EZ501U | 385 | 700 | 66.87 | 46139/690 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 45 | 101 | 107 | 4.4 | 2.7 | K303_0660 EZ302U | 317 | 425 | 66.35 | 26273/396 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 45 | 131 | 139 | 5.8 | 2.0 | K303_0660 EZ303U | 340 | 425 | 66.35 | 26273/396 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 45 | 178 | 190 | 7.8 | 1.5 | K303_0660 EZ401U | 340 | 425 | 66.35 | 26273/396 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 46 | 269 | 294 | 9.2 | 1.3 | K303_0650 EZ501U | 385 | 700 | 65.50 | 32422/495 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 54 | 151 | 162 | 7.7 | 1.8 | K302_0560 EZ401U | 318 | 529 | 55.71 | 2451/44 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 54 | 232 | 254 | 12 | 1.1 | K302_0560 EZ501U | 318 | 529 | 55.71 | 2451/44 | 3800 | 3500 | 6000 | 3.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 54 | 254 | 281 | 13 | 1.0 | K302_0560 EZ402U | 318 | 529 | 55.71 | 2451/44 | 3800 | 3500 | 6000 | 1.7 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 55 | 83 | 88 | 4.1 | 3.4 | K303_0550 EZ302U | 261 | 350 | 54.58 | 70735/1296 | 3800 | 3500 | 6000 | 0.40 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 55 | 108 | 114 | 5.3 | 2.6 | K303_0550 EZ303U | 280 | 350 | 54.58 | 70735/1296 | 3800 | 3500 | 6000 | 0.51 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 55 | 146 | 157 | 7.1 | 1.9 | K303_0550 EZ401U | 280 | 350 | 54.58 | 70735/1296 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 56 | 222 | 242 | 8.8 | 1.6 | K303_0540 EZ501U | 385 | 700 | 53.88 | 8729/162 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 59 | 78 | 82 | 7.3 | 2.0 | K302_0500 EZ302U | 173 | 217 | 50.49 | 6665/132 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 4.0 | 1.5 | 16 | 24 |
| 59 | 101 | 107 | 9.6 | 1.5 | K302_0500 EZ303U | 173 | 217 | 50.49 | 6665/132 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 4.0 | 1.5 | 16 | 25 |
| 59 | 137 | 147 | 13 | 1.1 | K302_0500 EZ401U | 173 | 217 | 50.49 | 6665/132 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 61 | 75 | 79 | 4.5 | 3.3 | K303_0490 EZ302U | 235 | 316 | 49.26 | 74777/1518 | 3800 | 3500 | 6000 | 0.39 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 61 | 97 | 103 | 5.8 | 2.6 | K303_0490 EZ303U | 253 | 316 | 49.26 | 74777/1518 | 3800 | 3500 | 6000 | 0.50 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 61 | 132 | 141 | 7.8 | 1.9 | K303_0490 EZ401U | 253 | 316 | 49.26 | 74777/1518 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 62 | 200 | 219 | 8.5 | 1.8 | K303_0490 EZ501U | 385 | 700 | 48.63 | 184556/3795 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 62 | 344 | 372 | 15 | 1.0 | K303_0490 EZ502U | 385 | 700 | 48.63 | 184556/3795 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 65 | 126 | 135 | 5.7 | 2.7 | K302_0460 EZ401U | 381 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 1.1 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 65 | 193 | 211 | 8.7 | 1.8 | K302_0460 EZ501U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 65 | 211 | 233 | 9.5 | 1.6 | K302_0460 EZ402U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 1.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 65 | 309 | 386 | 14 | 1.1 | K302_0460 EZ404U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 4.0 | 1.5 | 16 | 29 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 65 | 332 | 359 | 15 | 1.0 | K302_0460 EZ502U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 65 | 332 | 372 | 15 | 1.0 | K302_0460 EZ701U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 8.7 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 67 | 185 | 202 | 8.4 | 1.9 | K303_0450 EZ501U | 385 | 700 | 44.89 | 11223/250 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 67 | 318 | 343 | 14 | 1.1 | K303_0450 EZ502U | 385 | 700 | 44.89 | 11223/250 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 74 | 110 | 118 | 9.8 | 1.8 | K302_0410 EZ401U | 231 | 385 | 40.51 | 4902/121 | 3800 | 3500 | 6000 | 1.1 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 74 | 169 | 185 | 15 | 1.1 | K302_0410 EZ501U | 231 | 385 | 40.51 | 4902/121 | 3800 | 3500 | 6000 | 3.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 74 | 185 | 204 | 16 | 1.0 | K302_0410 EZ402U | 231 | 385 | 40.51 | 4902/121 | 3800 | 3500 | 6000 | 1.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 77 | 161 | 176 | 8.2 | 2.1 | K303_0390 EZ501U | 385 | 698 | 39.19 | 34916/891 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 77 | 277 | 300 | 14 | 1.2 | K303_0390 EZ502U | 385 | 698 | 39.19 | 34916/891 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 84 | 147 | 161 | 8.2 | 2.3 | K303_0360 EZ501U | 385 | 639 | 35.83 | 215/6 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 84 | 253 | 274 | 14 | 1.3 | K303_0360 EZ502U | 385 | 639 | 35.83 | 215/6 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 84 | 332 | 380 | 19 | 1.0 | K303_0360 EZ503U | 385 | 639 | 35.83 | 215/6 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 2.5 | 16 | 35 |
| 86 | 94 | 101 | 5.5 | 3.5 | K302_0350 EZ401U | 286 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 1.2 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 86 | 145 | 158 | 8.4 | 2.3 | K302_0350 EZ501U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 86 | 158 | 175 | 9.2 | 2.1 | K302_0350 EZ402U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 1.9 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 86 | 232 | 290 | 13 | 1.4 | K302_0350 EZ404U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 86 | 249 | 270 | 14 | 1.3 | K302_0350 EZ502U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 86 | 249 | 280 | 14 | 1.3 | K302_0350 EZ701U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 8.8 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 86 | 327 | 374 | 19 | 1.0 | K302_0350 EZ503U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 89 | 91 | 98 | 7.2 | 2.7 | K302_0340 EZ401U | 277 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 1.1 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 89 | 140 | 153 | 11 | 1.8 | K302_0340 EZ501U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 89 | 153 | 170 | 12 | 1.6 | K302_0340 EZ402U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 1.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 89 | 225 | 280 | 18 | 1.1 | K302_0340 EZ404U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 89 | 241 | 261 | 19 | 1.0 | K302_0340 EZ502U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 89 | 241 | 271 | 19 | 1.0 | K302_0340 EZ701U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 8.7 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 92 | 134 | 147 | 8.3 | 2.4 | K303_0330 EZ501U | 385 | 582 | 32.65 | 44892/1375 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 92 | 231 | 250 | 14 | 1.4 | K303_0330 EZ502U | 385 | 582 | 32.65 | 44892/1375 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 92 | 303 | 346 | 19 | 1.1 | K303_0330 EZ503U | 385 | 582 | 32.65 | 44892/1375 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 2.5 | 16 | 35 |
| 108 | 76 | 81 | 5.6 | 4.1 | K302_0280 EZ401U | 230 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 1.3 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 108 | 116 | 127 | 8.5 | 2.7 | K302_0280 EZ501U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 108 | 127 | 141 | 9.3 | 2.4 | K302_0280 EZ402U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 2.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 108 | 187 | 233 | 14 | 1.7 | K302_0280 EZ404U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 108 | 200 | 216 | 15 | 1.5 | K302_0280 EZ502U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 5.6 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 108 | 200 | 224 | 15 | 1.5 | K302_0280 EZ701U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 8.9 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 108 | 262 | 300 | 19 | 1.2 | K302_0280 EZ503U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 7.9 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 119 | 69 | 74 | 5.6 | 4.4 | K302_0250 EZ401U | 208 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 1.2 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 119 | 105 | 115 | 8.6 | 2.8 | K302_0250 EZ501U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 119 | 115 | 127 | 9.4 | 2.6 | K302_0250 EZ402U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 1.9 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 119 | 169 | 211 | 14 | 1.8 | K302_0250 EZ404U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 119 | 181 | 196 | 15 | 1.6 | K302_0250 EZ502U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 119 | 181 | 203 | 15 | 1.6 | K302_0250 EZ701U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 8.8 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 119 | 238 | 272 | 19 | 1.3 | K302_0250 EZ503U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 7.9 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 129 | 63 | 68 | 5.6 | 4.6 | K302_0230 EZ401U | 192 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 1.4 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 129 | 97 | 106 | 8.7 | 3.0 | K302_0230 EZ501U | 361 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 3.4 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 129 | 106 | 117 | 9.5 | 2.7 | K302_0230 EZ402U | 361 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 2.1 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 129 | 156 | 194 | 14 | 1.9 | K302_0230 EZ404U | 385 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 3.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 129 | 167 | 181 | 15 | 1.7 | K302_0230 EZ502U | 385 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 5.7 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 129 | 167 | 188 | 15 | 1.7 | K302_0230 EZ701U | 385 | 700 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 9.0 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 129 | 219 | 251 | 20 | 1.3 | K302_0230 EZ503U | 385 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 8.1 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 129 | 271 | 325 | 24 | 1.1 | K302_0230 EZ702U | 385 | 700 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 148 | 85 | 92 | 8.8 | 3.3 | K302_0200 EZ501U | 315 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 148 | 92 | 102 | 9.6 | 3.0 | K302_0200 EZ402U | 315 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 2.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 148 | 136 | 169 | 14 | 2.0 | K302_0200 EZ404U | 385 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 3.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 148 | 146 | 157 | 15 | 1.9 | K302_0200 EZ502U | 385 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 5.6 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 148 | 146 | 163 | 15 | 1.9 | K302_0200 EZ701U | 385 | 700 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 8.9 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 148 | 191 | 218 | 20 | 1.5 | K302_0200 EZ503U | 385 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 8.0 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 148 | 236 | 283 | 24 | 1.2 | K302_0200 EZ702U | 385 | 700 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 148 | 266 | 315 | 28 | 1.0 | K302_0200 EZ505U | 385 | 700 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 173 | 72 | 79 | 8.9 | 3.7 | K302_0175 EZ501U | 268 | 503 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 3.7 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 173 | 79 | 87 | 9.7 | 3.3 | K302_0175 EZ402U | 268 | 503 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 2.4 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 173 | 116 | 144 | 14 | 2.3 | K302_0175 EZ404U | 385 | 503 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 3.7 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 173 | 124 | 134 | 15 | 2.1 | K302_0175 EZ502U | 385 | 503 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 6.0 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 173 | 124 | 139 | 15 | 2.1 | K302_0175 EZ701U | 335 | 700 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 9.3 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 173 | 163 | 186 | 20 | 1.6 | K302_0175 EZ503U | 385 | 503 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 8.3 | 10.0 | 4.0 | 1.5 | 16 | 30 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| K3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm) | | | | | | | | | | | | | | | | | | |
| 173 | 201 | 242 | 25 | 1.3 | K302_0175 EZ702U | 385 | 700 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 173 | 226 | 268 | 28 | 1.2 | K302_0175 EZ505U | 385 | 700 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 177 | 71 | 77 | 8.9 | 3.7 | K302_0170 EZ501U | 263 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 3.4 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 177 | 77 | 85 | 9.7 | 3.4 | K302_0170 EZ402U | 263 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 2.2 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 177 | 113 | 141 | 14 | 2.3 | K302_0170 EZ404U | 375 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 3.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 177 | 122 | 131 | 15 | 2.2 | K302_0170 EZ502U | 375 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 5.7 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 177 | 122 | 136 | 15 | 2.2 | K302_0170 EZ701U | 329 | 700 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 9.0 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 177 | 159 | 182 | 20 | 1.6 | K302_0170 EZ503U | 375 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 8.1 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 177 | 197 | 237 | 25 | 1.3 | K302_0170 EZ702U | 385 | 700 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 177 | 222 | 263 | 28 | 1.2 | K302_0170 EZ505U | 385 | 700 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 215 | 58 | 64 | 9.0 | 4.2 | K302_0140 EZ501U | 216 | 406 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 3.9 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 215 | 64 | 70 | 9.9 | 3.9 | K302_0140 EZ402U | 216 | 406 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 2.7 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 215 | 93 | 116 | 15 | 2.6 | K302_0140 EZ404U | 325 | 406 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 4.0 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 215 | 100 | 108 | 16 | 2.5 | K302_0140 EZ502U | 325 | 406 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 6.2 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 215 | 100 | 112 | 16 | 2.5 | K302_0140 EZ701U | 270 | 700 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 9.5 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 215 | 131 | 150 | 20 | 1.9 | K302_0140 EZ503U | 325 | 406 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 8.6 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 215 | 162 | 195 | 25 | 1.5 | K302_0140 EZ702U | 385 | 700 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 15 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 215 | 182 | 216 | 28 | 1.3 | K302_0140 EZ505U | 385 | 700 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 215 | 223 | 281 | 35 | 1.1 | K302_0140 EZ703U | 385 | 700 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 239 | 52 | 57 | 9.1 | 4.5 | K302_0125 EZ501U | 195 | 366 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 3.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 239 | 57 | 63 | 10 | 4.1 | K302_0125 EZ402U | 195 | 366 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 2.5 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 239 | 84 | 105 | 15 | 2.8 | K302_0125 EZ404U | 293 | 366 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 3.8 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 239 | 90 | 98 | 16 | 2.6 | K302_0125 EZ502U | 293 | 366 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 6.1 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 239 | 90 | 101 | 16 | 2.6 | K302_0125 EZ701U | 244 | 700 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 9.4 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 239 | 118 | 135 | 21 | 2.0 | K302_0125 EZ503U | 293 | 366 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 8.4 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 239 | 146 | 176 | 25 | 1.6 | K302_0125 EZ702U | 385 | 700 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 15 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 239 | 165 | 195 | 29 | 1.4 | K302_0125 EZ505U | 385 | 700 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 239 | 201 | 254 | 35 | 1.2 | K302_0125 EZ703U | 385 | 700 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 22 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 258 | 48 | 53 | 9.2 | 4.8 | K302_0115 EZ501U | 180 | 338 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 4.3 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 258 | 53 | 59 | 10 | 4.4 | K302_0115 EZ402U | 180 | 338 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 3.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 258 | 78 | 97 | 15 | 3.0 | K302_0115 EZ404U | 270 | 338 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 4.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 258 | 83 | 90 | 16 | 2.8 | K302_0115 EZ502U | 270 | 338 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 6.6 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 258 | 83 | 93 | 16 | 2.8 | K302_0115 EZ701U | 225 | 700 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 9.9 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 258 | 109 | 125 | 21 | 2.1 | K302_0115 EZ503U | 270 | 338 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 9.0 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 258 | 135 | 162 | 26 | 1.7 | K302_0115 EZ702U | 385 | 700 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 15 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 258 | 152 | 180 | 29 | 1.5 | K302_0115 EZ505U | 385 | 700 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 258 | 186 | 234 | 35 | 1.2 | K302_0115 EZ703U | 385 | 700 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 296 | 46 | 51 | 10 | 4.8 | K302_0100 EZ402U | 157 | 295 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 2.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 296 | 68 | 85 | 15 | 3.3 | K302_0100 EZ404U | 236 | 295 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 4.2 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 296 | 73 | 79 | 16 | 3.0 | K302_0100 EZ502U | 236 | 295 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 6.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 296 | 73 | 82 | 16 | 3.0 | K302_0100 EZ701U | 197 | 700 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 9.7 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 296 | 95 | 109 | 21 | 2.3 | K302_0100 EZ503U | 236 | 295 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 8.8 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 296 | 118 | 142 | 26 | 1.9 | K302_0100 EZ702U | 385 | 700 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 15 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 296 | 133 | 157 | 29 | 1.7 | K302_0100 EZ505U | 385 | 700 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 296 | 162 | 204 | 36 | 1.4 | K302_0100 EZ703U | 385 | 700 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 324 | 67 | 75 | 16 | 3.2 | K302_0093 EZ701U | 180 | 674 | 9.267 | 1075/116 | 3200 | 2800 | 4500 | 10 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 324 | 108 | 129 | 26 | 2.0 | K302_0093 EZ702U | 369 | 674 | 9.267 | 1075/116 | 3200 | 2800 | 4500 | 16 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 324 | 121 | 144 | 29 | 1.8 | K302_0093 EZ505U | 385 | 674 | 9.267 | 1075/116 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 324 | 148 | 187 | 36 | 1.4 | K302_0093 EZ703U | 385 | 674 | 9.267 | 1075/116 | 3200 | 2800 | 4500 | 24 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 355 | 57 | 70 | 16 | 3.5 | K302_0084 EZ404U | 197 | 246 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 4.6 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 355 | 61 | 66 | 17 | 3.2 | K302_0084 EZ502U | 197 | 246 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 6.8 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 355 | 61 | 68 | 16 | 3.4 | K302_0084 EZ701U | 164 | 614 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 10 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 355 | 79 | 91 | 22 | 2.5 | K302_0084 EZ503U | 197 | 246 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 9.2 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 355 | 98 | 118 | 26 | 2.1 | K302_0084 EZ702U | 336 | 614 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 15 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 355 | 111 | 131 | 30 | 1.9 | K302_0084 EZ505U | 385 | 614 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 355 | 135 | 170 | 36 | 1.5 | K302_0084 EZ703U | 385 | 614 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 406 | 53 | 60 | 16 | 3.7 | K302_0074 EZ701U | 143 | 538 | 7.391 | 473/64 | 2700 | 2300 | 4000 | 11 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 406 | 86 | 103 | 27 | 2.3 | K302_0074 EZ702U | 294 | 538 | 7.391 | 473/64 | 2700 | 2300 | 4000 | 16 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 406 | 97 | 115 | 30 | 2.1 | K302_0074 EZ505U | 375 | 538 | 7.391 | 473/64 | 2700 | 2300 | 4000 | 15 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 406 | 118 | 149 | 37 | 1.7 | K302_0074 EZ703U | 375 | 538 | 7.391 | 473/64 | 2700 | 2300 | 4000 | 24 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 445 | 48 | 54 | 17 | 4.0 | K302_0067 EZ701U | 131 | 490 | 6.740 | 2150/319 | 3200 | 2800 | 4500 | 11 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 445 | 78 | 94 | 27 | 2.5 | K302_0067 EZ702U | 268 | 490 | 6.740 | 2150/319 | 3200 | 2800 | 4500 | 16 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 445 | 88 | 105 | 30 | 2.2 | K302_0067 EZ505U | 364 | 490 | 6.740 | 2150/319 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 445 | 108 | 136 | 37 | 1.8 | K302_0067 EZ703U | 364 | 490 | 6.740 | 2150/319 | 3200 | 2800 | 4500 | 24 | 10.0 | 4.0 | 1.5 | 16 | 35 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K3 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 500 | 43 | 48 | 17 | 4.3 | K302_0060 EZ701U | 116 | 436 | 6.000 | 6/1 | 2700 | 2300 | 4000 | 12 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 500 | 70 | 84 | 27 | 2.7 | K302_0060 EZ702U | 239 | 436 | 6.000 | 6/1 | 2700 | 2300 | 4000 | 17 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 500 | 79 | 93 | 30 | 2.4 | K302_0060 EZ505U | 349 | 436 | 6.000 | 6/1 | 2700 | 2300 | 4000 | 16 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 500 | 96 | 121 | 37 | 1.9 | K302_0060 EZ703U | 349 | 436 | 6.000 | 6/1 | 2700 | 2300 | 4000 | 25 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 500 | 124 | 176 | 48 | 1.5 | K302_0060 EZ705U | 350 | 700 | 6.000 | 6/1 | 2700 | 2300 | 4000 | 37 | 10.0 | 4.0 | 1.5 | 16 | 41 |
| 558 | 39 | 43 | 17 | 4.6 | K302_0054 EZ701U | 104 | 391 | 5.375 | 43/8 | 2700 | 2300 | 4000 | 12 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 558 | 63 | 75 | 27 | 2.9 | K302_0054 EZ702U | 214 | 391 | 5.375 | 43/8 | 2700 | 2300 | 4000 | 17 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 558 | 70 | 83 | 31 | 2.5 | K302_0054 EZ505U | 313 | 391 | 5.375 | 43/8 | 2700 | 2300 | 4000 | 15 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 558 | 86 | 108 | 38 | 2.1 | K302_0054 EZ703U | 313 | 391 | 5.375 | 43/8 | 2700 | 2300 | 4000 | 25 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 687 | 51 | 61 | 28 | 3.3 | K302_0044 EZ702U | 174 | 317 | 4.364 | 48/11 | 2700 | 2300 | 4000 | 18 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 687 | 57 | 68 | 31 | 2.9 | K302_0044 EZ505U | 254 | 317 | 4.364 | 48/11 | 2700 | 2300 | 4000 | 16 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 687 | 70 | 88 | 38 | 2.4 | K302_0044 EZ703U | 254 | 317 | 4.364 | 48/11 | 2700 | 2300 | 4000 | 26 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 687 | 90 | 128 | 49 | 1.8 | K302_0044 EZ705U | 315 | 700 | 4.364 | 48/11 | 2700 | 2300 | 4000 | 38 | 10.0 | 4.0 | 1.5 | 16 | 41 |
| 750 | 47 | 56 | 28 | 3.5 | K302_0040 EZ702U | 159 | 291 | 4.000 | 4/1 | 2700 | 2300 | 4000 | 19 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 750 | 52 | 62 | 31 | 3.1 | K302_0040 EZ505U | 233 | 291 | 4.000 | 4/1 | 2700 | 2300 | 4000 | 17 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 750 | 64 | 81 | 38 | 2.5 | K302_0040 EZ703U | 233 | 291 | 4.000 | 4/1 | 2700 | 2300 | 4000 | 27 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 750 | 83 | 117 | 50 | 2.0 | K302_0040 EZ705U | 306 | 700 | 4.000 | 4/1 | 2700 | 2300 | 4000 | 39 | 10.0 | 4.0 | 1.5 | 16 | 41 |
| **K3 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 161 | 257 | 414 | 22 | 1.1 | K302_0280 EZ505U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 193 | 215 | 346 | 22 | 1.2 | K302_0230 EZ505U | 385 | 700 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 222 | 187 | 301 | 22 | 1.3 | K302_0200 EZ505U | 385 | 700 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 222 | 238 | 393 | 28 | 1.0 | K302_0200 EZ703U | 385 | 700 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 22 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 260 | 159 | 257 | 22 | 1.4 | K302_0175 EZ505U | 385 | 700 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 260 | 203 | 335 | 29 | 1.1 | K302_0175 EZ703U | 385 | 700 | 17.29 | 1591/92 | 3500 | 3100 | 5000 | 22 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 266 | 156 | 251 | 22 | 1.5 | K302_0170 EZ505U | 385 | 700 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 266 | 199 | 329 | 29 | 1.2 | K302_0170 EZ703U | 385 | 700 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 22 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 323 | 128 | 207 | 23 | 1.7 | K302_0140 EZ505U | 385 | 700 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 323 | 164 | 270 | 29 | 1.3 | K302_0140 EZ703U | 385 | 700 | 13.94 | 1505/108 | 3500 | 3100 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 358 | 116 | 187 | 23 | 1.8 | K302_0125 EZ505U | 385 | 700 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 358 | 148 | 244 | 29 | 1.4 | K302_0125 EZ703U | 385 | 700 | 12.58 | 3182/253 | 3500 | 3100 | 5000 | 22 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 388 | 107 | 172 | 23 | 1.9 | K302_0115 EZ505U | 385 | 700 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 388 | 136 | 225 | 30 | 1.5 | K302_0115 EZ703U | 385 | 700 | 11.61 | 1161/100 | 3200 | 2800 | 4500 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 444 | 93 | 150 | 23 | 2.1 | K302_0100 EZ505U | 385 | 700 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 13 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 444 | 119 | 197 | 30 | 1.6 | K302_0100 EZ703U | 385 | 700 | 10.14 | 3010/297 | 3500 | 3100 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 486 | 85 | 138 | 24 | 2.2 | K302_0093 EZ505U | 385 | 674 | 9.267 | 1075/116 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 486 | 109 | 180 | 30 | 1.7 | K302_0093 EZ703U | 385 | 674 | 9.267 | 1075/116 | 3200 | 2800 | 4500 | 24 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 533 | 78 | 125 | 24 | 2.3 | K302_0084 EZ505U | 385 | 614 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 533 | 99 | 164 | 30 | 1.8 | K302_0084 EZ703U | 385 | 614 | 8.444 | 2322/275 | 3200 | 2800 | 4500 | 23 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| 668 | 62 | 100 | 24 | 2.7 | K302_0067 EZ505U | 364 | 490 | 6.740 | 2150/319 | 3200 | 2800 | 4500 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 668 | 79 | 131 | 31 | 2.1 | K302_0067 EZ703U | 364 | 490 | 6.740 | 2150/319 | 3200 | 2800 | 4500 | 24 | 10.0 | 4.0 | 1.5 | 16 | 35 |
| **K3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 33 | 260 | 291 | 4.2 | 1.3 | K303_1810 EZ302U | 385 | 688 | 181.0 | 86903/480 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 33 | 339 | 389 | 5.5 | 1.0 | K303_1810 EZ303U | 385 | 688 | 181.0 | 86903/480 | 3800 | 3500 | 6000 | 0.46 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 44 | 195 | 218 | 4.2 | 1.7 | K303_1360 EZ302U | 385 | 700 | 136.0 | 14147/104 | 3800 | 3500 | 6000 | 0.35 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 44 | 255 | 293 | 5.5 | 1.3 | K303_1360 EZ303U | 385 | 700 | 136.0 | 14147/104 | 3800 | 3500 | 6000 | 0.46 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 44 | 299 | 364 | 6.4 | 1.1 | K303_1360 EZ401U | 385 | 700 | 136.0 | 14147/104 | 3800 | 3500 | 6000 | 0.99 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 55 | 157 | 175 | 4.1 | 2.0 | K303_1090 EZ302U | 385 | 700 | 109.2 | 167743/1536 | 3800 | 3500 | 6000 | 0.36 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 55 | 205 | 235 | 5.3 | 1.5 | K303_1090 EZ303U | 385 | 700 | 109.2 | 167743/1536 | 3800 | 3500 | 6000 | 0.47 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 55 | 240 | 292 | 6.3 | 1.3 | K303_1090 EZ401U | 385 | 700 | 109.2 | 167743/1536 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 66 | 131 | 147 | 4.2 | 2.2 | K303_0910 EZ302U | 385 | 585 | 91.23 | 26273/288 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 66 | 171 | 196 | 5.4 | 1.7 | K303_0910 EZ303U | 385 | 585 | 91.23 | 26273/288 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 66 | 201 | 244 | 6.4 | 1.5 | K303_0910 EZ401U | 385 | 585 | 91.23 | 26273/288 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 67 | 293 | 379 | 7.9 | 1.2 | K303_0900 EZ501U | 385 | 700 | 90.06 | 16211/180 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 76 | 114 | 128 | 5.2 | 2.0 | K303_0790 EZ302U | 380 | 509 | 79.42 | 167743/2112 | 3800 | 3500 | 6000 | 0.36 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 76 | 149 | 171 | 6.8 | 1.5 | K303_0790 EZ303U | 385 | 509 | 79.42 | 167743/2112 | 3800 | 3500 | 6000 | 0.47 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 76 | 175 | 213 | 8.0 | 1.3 | K303_0790 EZ401U | 385 | 509 | 79.42 | 167743/2112 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 77 | 255 | 330 | 7.7 | 1.4 | K303_0780 EZ501U | 385 | 700 | 78.41 | 103501/1320 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 86 | 101 | 113 | 5.5 | 2.1 | K302_0690 EZ302U | 238 | 298 | 69.43 | 6665/96 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 4.0 | 1.5 | 16 | 24 |
| 86 | 132 | 152 | 7.1 | 1.6 | K302_0690 EZ303U | 238 | 298 | 69.43 | 6665/96 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 4.0 | 1.5 | 16 | 25 |
| 86 | 155 | 189 | 8.4 | 1.4 | K302_0690 EZ401U | 238 | 298 | 69.43 | 6665/96 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 89 | 97 | 109 | 4.2 | 2.8 | K303_0680 EZ302U | 324 | 434 | 67.73 | 74777/1104 | 3800 | 3500 | 6000 | 0.38 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 89 | 127 | 146 | 5.4 | 2.1 | K303_0680 EZ303U | 347 | 434 | 67.73 | 74777/1104 | 3800 | 3500 | 6000 | 0.49 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 89 | 149 | 181 | 6.4 | 1.8 | K303_0680 EZ401U | 347 | 434 | 67.73 | 74777/1104 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 90 | 217 | 281 | 7.8 | 1.5 | K303_0670 EZ501U | 385 | 700 | 66.87 | 46139/690 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **K3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm)** | | | | | | | | | | | | | | | | | | |
| 90 | 95 | 107 | 5.3 | 2.2 | K303_0660 EZ302U | 317 | 425 | 66.35 | 26273/396 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 90 | 124 | 143 | 6.9 | 1.7 | K303_0660 EZ303U | 340 | 425 | 66.35 | 26273/396 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 90 | 146 | 178 | 8.1 | 1.5 | K303_0660 EZ401U | 340 | 425 | 66.35 | 26273/396 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 92 | 213 | 276 | 7.8 | 1.5 | K303_0650 EZ501U | 385 | 700 | 65.50 | 32422/495 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 92 | 326 | 488 | 12 | 1.0 | K303_0650 EZ502U | 385 | 700 | 65.50 | 32422/495 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 108 | 124 | 151 | 6.3 | 2.1 | K302_0560 EZ401U | 318 | 529 | 55.71 | 2451/44 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 108 | 184 | 238 | 9.4 | 1.4 | K302_0560 EZ501U | 318 | 529 | 55.71 | 2451/44 | 3800 | 3500 | 6000 | 3.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 108 | 189 | 265 | 9.6 | 1.4 | K302_0560 EZ402U | 318 | 529 | 55.71 | 2451/44 | 3800 | 3500 | 6000 | 1.7 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 110 | 78 | 88 | 4.2 | 3.2 | K303_0550 EZ302U | 261 | 350 | 54.58 | 70735/1296 | 3800 | 3500 | 6000 | 0.40 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 110 | 102 | 117 | 5.5 | 2.5 | K303_0550 EZ303U | 280 | 350 | 54.58 | 70735/1296 | 3800 | 3500 | 6000 | 0.51 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 110 | 120 | 146 | 6.5 | 2.1 | K303_0550 EZ401U | 280 | 350 | 54.58 | 70735/1296 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 111 | 175 | 227 | 7.9 | 1.7 | K303_0540 EZ501U | 385 | 700 | 53.88 | 8729/162 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 111 | 268 | 402 | 12 | 1.1 | K303_0540 EZ502U | 385 | 700 | 53.88 | 8729/162 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 119 | 73 | 82 | 6.9 | 2.1 | K302_0500 EZ302U | 173 | 217 | 50.49 | 6665/132 | 3800 | 3500 | 6000 | 0.37 | 10.0 | 4.0 | 1.5 | 16 | 24 |
| 119 | 96 | 110 | 9.1 | 1.6 | K302_0500 EZ303U | 173 | 217 | 50.49 | 6665/132 | 3800 | 3500 | 6000 | 0.48 | 10.0 | 4.0 | 1.5 | 16 | 25 |
| 119 | 113 | 137 | 11 | 1.4 | K302_0500 EZ401U | 173 | 217 | 50.49 | 6665/132 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 122 | 71 | 79 | 5.3 | 2.8 | K303_0490 EZ302U | 235 | 316 | 49.26 | 74777/1518 | 3800 | 3500 | 6000 | 0.39 | 10.0 | 5.0 | 2.5 | 16 | 29 |
| 122 | 92 | 106 | 6.9 | 2.1 | K303_0490 EZ303U | 253 | 316 | 49.26 | 74777/1518 | 3800 | 3500 | 6000 | 0.50 | 10.0 | 5.0 | 2.5 | 16 | 30 |
| 122 | 108 | 132 | 8.1 | 1.8 | K303_0490 EZ401U | 253 | 316 | 49.26 | 74777/1518 | 3800 | 3500 | 6000 | 1.0 | 10.0 | 5.0 | 2.5 | 16 | 31 |
| 123 | 158 | 205 | 8.0 | 1.9 | K303_0490 EZ501U | 385 | 700 | 48.63 | 184556/3795 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 123 | 242 | 363 | 12 | 1.2 | K303_0490 EZ502U | 385 | 700 | 48.63 | 184556/3795 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 123 | 288 | 493 | 15 | 1.0 | K303_0490 EZ503U | 385 | 700 | 48.63 | 184556/3795 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 2.5 | 16 | 35 |
| 130 | 103 | 126 | 5.5 | 2.8 | K302_0460 EZ401U | 381 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 1.1 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 130 | 152 | 197 | 8.2 | 1.9 | K302_0460 EZ501U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 130 | 157 | 220 | 8.4 | 1.8 | K302_0460 EZ402U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 1.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 130 | 233 | 350 | 12 | 1.2 | K302_0460 EZ502U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 130 | 233 | 354 | 12 | 1.2 | K302_0460 EZ701U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 8.7 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 130 | 260 | 377 | 14 | 1.1 | K302_0460 EZ404U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 130 | 278 | 475 | 15 | 1.0 | K302_0460 EZ503U | 385 | 688 | 46.23 | 1849/40 | 3800 | 3500 | 6000 | 7.7 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 134 | 146 | 189 | 8.1 | 2.0 | K303_0450 EZ501U | 385 | 700 | 44.89 | 11223/250 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 134 | 223 | 335 | 12 | 1.3 | K303_0450 EZ502U | 385 | 700 | 44.89 | 11223/250 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 134 | 266 | 455 | 15 | 1.1 | K303_0450 EZ503U | 385 | 700 | 44.89 | 11223/250 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 2.5 | 16 | 35 |
| 148 | 90 | 110 | 8.0 | 2.1 | K302_0410 EZ401U | 231 | 385 | 40.51 | 4902/121 | 3800 | 3500 | 6000 | 1.1 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 148 | 134 | 173 | 12 | 1.4 | K302_0410 EZ501U | 231 | 385 | 40.51 | 4902/121 | 3800 | 3500 | 6000 | 3.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 148 | 138 | 193 | 12 | 1.4 | K302_0410 EZ402U | 231 | 385 | 40.51 | 4902/121 | 3800 | 3500 | 6000 | 1.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 153 | 127 | 165 | 8.1 | 2.2 | K303_0390 EZ501U | 385 | 698 | 39.19 | 34916/891 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 153 | 195 | 292 | 12 | 1.4 | K303_0390 EZ502U | 385 | 698 | 39.19 | 34916/891 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 153 | 232 | 397 | 15 | 1.2 | K303_0390 EZ503U | 385 | 698 | 39.19 | 34916/891 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 2.5 | 16 | 35 |
| 167 | 116 | 151 | 8.2 | 2.3 | K303_0360 EZ501U | 385 | 639 | 35.83 | 215/6 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 167 | 178 | 267 | 13 | 1.5 | K303_0360 EZ502U | 385 | 639 | 35.83 | 215/6 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 167 | 212 | 363 | 15 | 1.3 | K303_0360 EZ503U | 385 | 639 | 35.83 | 215/6 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 2.5 | 16 | 35 |
| 173 | 77 | 94 | 5.6 | 3.4 | K302_0350 EZ401U | 286 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 1.2 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 173 | 115 | 148 | 8.3 | 2.3 | K302_0350 EZ501U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 173 | 118 | 165 | 8.6 | 2.2 | K302_0350 EZ402U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 1.9 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 173 | 175 | 263 | 13 | 1.5 | K302_0350 EZ502U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 173 | 175 | 266 | 13 | 1.5 | K302_0350 EZ701U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 8.8 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 173 | 195 | 283 | 14 | 1.4 | K302_0350 EZ404U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 173 | 209 | 357 | 15 | 1.3 | K302_0350 EZ503U | 385 | 700 | 34.73 | 903/26 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 178 | 75 | 91 | 5.9 | 3.3 | K302_0340 EZ401U | 277 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 1.1 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 178 | 111 | 143 | 8.7 | 2.3 | K302_0340 EZ501U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 178 | 114 | 160 | 9.0 | 2.2 | K302_0340 EZ402U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 1.8 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 178 | 170 | 254 | 13 | 1.5 | K302_0340 EZ502U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 178 | 170 | 258 | 13 | 1.5 | K302_0340 EZ701U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 8.7 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 178 | 189 | 274 | 15 | 1.3 | K302_0340 EZ404U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 178 | 202 | 346 | 16 | 1.2 | K302_0340 EZ503U | 300 | 501 | 33.62 | 1849/55 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 184 | 106 | 137 | 8.3 | 2.4 | K303_0330 EZ501U | 385 | 582 | 32.65 | 44892/1375 | 3800 | 3500 | 6000 | 3.1 | 10.0 | 5.0 | 2.5 | 16 | 32 |
| 184 | 162 | 243 | 13 | 1.6 | K303_0330 EZ502U | 385 | 582 | 32.65 | 44892/1375 | 3800 | 3500 | 6000 | 5.4 | 10.0 | 5.0 | 2.5 | 16 | 34 |
| 184 | 194 | 331 | 15 | 1.3 | K303_0330 EZ503U | 385 | 582 | 32.65 | 44892/1375 | 3800 | 3500 | 6000 | 7.8 | 10.0 | 5.0 | 2.5 | 16 | 35 |
| 215 | 62 | 76 | 5.8 | 3.9 | K302_0280 EZ401U | 230 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 1.3 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 215 | 92 | 119 | 8.5 | 2.7 | K302_0280 EZ501U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 215 | 95 | 133 | 8.8 | 2.6 | K302_0280 EZ402U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 2.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 215 | 141 | 211 | 13 | 1.7 | K302_0280 EZ502U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 5.6 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 215 | 141 | 214 | 13 | 1.7 | K302_0280 EZ701U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 8.9 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 215 | 157 | 227 | 15 | 1.6 | K302_0280 EZ404U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 29 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ |  | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  | EL1,2 | EL3,4,5,6 |  |  |  |  |  |  |  |
| [rpm] | [Nm] | [Nm] |  |  |  | [Nm] | [Nm] |  |  | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| K3 ($n_{1N}$ = 6000 $min^{-1}$, $M_{2acc,max}$ = 390 Nm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 215 | 168 | 287 | 16 | 1.5 | K302_0280 EZ503U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 7.9 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 215 | 195 | 387 | 18 | 1.3 | K302_0280 EZ702U | 385 | 700 | 27.88 | 3569/128 | 3800 | 3500 | 6000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 238 | 56 | 69 | 5.8 | 4.2 | K302_0250 EZ401U | 208 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 1.2 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 238 | 83 | 108 | 8.6 | 2.8 | K302_0250 EZ501U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 3.2 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 238 | 86 | 120 | 8.8 | 2.8 | K302_0250 EZ402U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 1.9 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 238 | 127 | 191 | 13 | 1.9 | K302_0250 EZ502U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 5.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 238 | 127 | 194 | 13 | 1.9 | K302_0250 EZ701U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 8.8 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 238 | 142 | 206 | 15 | 1.7 | K302_0250 EZ404U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 238 | 152 | 260 | 16 | 1.6 | K302_0250 EZ503U | 385 | 602 | 25.26 | 3612/143 | 3800 | 3500 | 6000 | 7.9 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 258 | 52 | 63 | 5.8 | 4.4 | K302_0230 EZ401U | 192 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 1.4 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 258 | 77 | 99 | 8.6 | 3.0 | K302_0230 EZ501U | 361 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 3.4 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 258 | 79 | 111 | 8.9 | 2.9 | K302_0230 EZ402U | 361 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 2.1 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 258 | 117 | 176 | 13 | 2.0 | K302_0230 EZ502U | 385 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 5.7 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 258 | 117 | 178 | 13 | 2.0 | K302_0230 EZ701U | 385 | 700 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 9.0 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 258 | 131 | 190 | 15 | 1.8 | K302_0230 EZ404U | 385 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 3.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 258 | 140 | 239 | 16 | 1.6 | K302_0230 EZ503U | 385 | 645 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 8.1 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 258 | 163 | 323 | 18 | 1.4 | K302_0230 EZ702U | 385 | 700 | 23.29 | 559/24 | 3800 | 3500 | 6000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 296 | 45 | 55 | 5.9 | 4.9 | K302_0200 EZ401U | 167 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 1.3 | 10.0 | 4.0 | 1.5 | 16 | 26 |
| 296 | 67 | 87 | 8.7 | 3.3 | K302_0200 EZ501U | 315 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 3.3 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 296 | 69 | 96 | 9.0 | 3.2 | K302_0200 EZ402U | 315 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 2.0 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 296 | 102 | 153 | 13 | 2.2 | K302_0200 EZ502U | 385 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 5.6 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 296 | 102 | 155 | 13 | 2.2 | K302_0200 EZ701U | 385 | 700 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 8.9 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 296 | 114 | 165 | 15 | 1.9 | K302_0200 EZ404U | 385 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 3.4 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 296 | 122 | 208 | 16 | 1.8 | K302_0200 EZ503U | 385 | 513 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 8.0 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 296 | 142 | 281 | 18 | 1.6 | K302_0200 EZ702U | 385 | 700 | 20.28 | 3569/176 | 3800 | 3500 | 6000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| 354 | 56 | 72 | 8.9 | 3.7 | K302_0170 EZ501U | 263 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 3.4 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 354 | 58 | 81 | 9.1 | 3.6 | K302_0170 EZ402U | 263 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 2.2 | 10.0 | 4.0 | 1.5 | 16 | 27 |
| 354 | 85 | 128 | 14 | 2.4 | K302_0170 EZ502U | 375 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 5.7 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 354 | 85 | 130 | 14 | 2.4 | K302_0170 EZ701U | 329 | 700 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 9.0 | 10.0 | 4.0 | 1.5 | 16 | 31 |
| 354 | 95 | 138 | 15 | 2.2 | K302_0170 EZ404U | 375 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 3.5 | 10.0 | 4.0 | 1.5 | 16 | 29 |
| 354 | 102 | 174 | 16 | 2.0 | K302_0170 EZ503U | 375 | 469 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 8.1 | 10.0 | 4.0 | 1.5 | 16 | 30 |
| 354 | 118 | 235 | 19 | 1.8 | K302_0170 EZ702U | 385 | 700 | 16.94 | 559/33 | 3800 | 3500 | 6000 | 14 | 10.0 | 4.0 | 1.5 | 16 | 33 |
| K4 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 216 | 349 | 392 | 54 | 1.1 | K402_0092 EZ813U | 600 | 1100 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 108 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 239 | 317 | 355 | 54 | 1.1 | K402_0084 EZ813U | 587 | 1100 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 107 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 268 | 282 | 316 | 55 | 1.2 | K402_0075 EZ813U | 564 | 1100 | 7.456 | 1849/248 | 2600 | 2200 | 3800 | 109 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 298 | 254 | 285 | 55 | 1.3 | K402_0067 EZ813U | 545 | 1100 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 109 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 333 | 227 | 255 | 56 | 1.4 | K402_0060 EZ813U | 525 | 1100 | 6.000 | 6/1 | 2600 | 2200 | 3800 | 111 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 369 | 205 | 230 | 56 | 1.5 | K402_0054 EZ813U | 508 | 1052 | 5.422 | 1849/341 | 2600 | 2200 | 3800 | 110 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 369 | 304 | 362 | 83 | 1.0 | K402_0054 EZ815U | 508 | 1052 | 5.422 | 1849/341 | 2600 | 2200 | 3800 | 173 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| 458 | 165 | 185 | 57 | 1.7 | K402_0044 EZ813U | 472 | 847 | 4.364 | 48/11 | 2600 | 2200 | 3800 | 113 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 458 | 244 | 291 | 85 | 1.2 | K402_0044 EZ815U | 472 | 847 | 4.364 | 48/11 | 2600 | 2200 | 3800 | 176 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| 500 | 151 | 170 | 58 | 1.8 | K402_0040 EZ813U | 459 | 776 | 4.000 | 4/1 | 2600 | 2200 | 3800 | 114 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 500 | 224 | 267 | 86 | 1.2 | K402_0040 EZ815U | 459 | 776 | 4.000 | 4/1 | 2600 | 2200 | 3800 | 177 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| K4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | 332 | 350 | 4.1 | 1.3 | K403_2180 EZ302U | 508 | 847 | 218.2 | 38399/176 | 3600 | 3300 | 5500 | 0.35 | 10.0 | 5.0 | 2.5 | 31 | 42 |
| 17 | 276 | 291 | 3.4 | 1.8 | K403_1810 EZ302U | 600 | 977 | 181.4 | 14147/78 | 3600 | 3300 | 5500 | 0.35 | 10.0 | 5.0 | 2.5 | 31 | 42 |
| 17 | 359 | 380 | 4.4 | 1.4 | K403_1810 EZ303U | 600 | 977 | 181.4 | 14147/78 | 3600 | 3300 | 5500 | 0.46 | 10.0 | 5.0 | 2.5 | 31 | 43 |
| 17 | 485 | 520 | 6.0 | 1.0 | K403_1810 EZ401U | 600 | 977 | 181.4 | 14147/78 | 3600 | 3300 | 5500 | 0.99 | 10.0 | 5.0 | 2.5 | 31 | 44 |
| 22 | 207 | 219 | 3.4 | 2.2 | K403_1360 EZ302U | 600 | 811 | 136.1 | 196037/1440 | 3600 | 3300 | 5500 | 0.36 | 10.0 | 5.0 | 2.5 | 31 | 42 |
| 22 | 269 | 285 | 4.4 | 1.7 | K403_1360 EZ303U | 600 | 811 | 136.1 | 196037/1440 | 3600 | 3300 | 5500 | 0.47 | 10.0 | 5.0 | 2.5 | 31 | 43 |
| 22 | 364 | 390 | 5.9 | 1.3 | K403_1360 EZ401U | 600 | 811 | 136.1 | 196037/1440 | 3600 | 3300 | 5500 | 1.0 | 10.0 | 5.0 | 2.5 | 31 | 44 |
| 28 | 165 | 175 | 3.3 | 2.7 | K403_1090 EZ302U | 520 | 697 | 108.8 | 62651/576 | 3600 | 3300 | 5500 | 0.38 | 10.0 | 5.0 | 2.5 | 31 | 42 |
| 28 | 215 | 228 | 4.4 | 2.0 | K403_1090 EZ303U | 558 | 697 | 108.8 | 62651/576 | 3600 | 3300 | 5500 | 0.49 | 10.0 | 5.0 | 2.5 | 31 | 43 |
| 28 | 291 | 312 | 5.9 | 1.5 | K403_1090 EZ401U | 558 | 697 | 108.8 | 62651/576 | 3600 | 3300 | 5500 | 1.0 | 10.0 | 5.0 | 2.5 | 31 | 44 |
| 28 | 441 | 482 | 7.2 | 1.2 | K403_1070 EZ501U | 600 | 1100 | 107.4 | 38657/360 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 33 | 139 | 147 | 3.4 | 3.0 | K403_0910 EZ302U | 436 | 585 | 91.23 | 26273/288 | 3600 | 3300 | 5500 | 0.39 | 10.0 | 5.0 | 2.5 | 31 | 42 |
| 33 | 181 | 191 | 4.4 | 2.3 | K403_0910 EZ303U | 468 | 585 | 91.23 | 26273/288 | 3600 | 3300 | 5500 | 0.50 | 10.0 | 5.0 | 2.5 | 31 | 43 |
| 33 | 244 | 262 | 5.9 | 1.7 | K403_0910 EZ401U | 468 | 585 | 91.23 | 26273/288 | 3600 | 3300 | 5500 | 1.0 | 10.0 | 5.0 | 2.5 | 31 | 44 |
| 33 | 370 | 405 | 6.9 | 1.5 | K403_0900 EZ501U | 600 | 1100 | 90.06 | 16211/180 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 38 | 120 | 127 | 4.2 | 2.7 | K403_0790 EZ302U | 378 | 507 | 79.11 | 62651/792 | 3600 | 3300 | 5500 | 0.38 | 10.0 | 5.0 | 2.5 | 31 | 42 |
| 38 | 157 | 166 | 5.5 | 2.0 | K403_0790 EZ303U | 406 | 507 | 79.11 | 62651/792 | 3600 | 3300 | 5500 | 0.49 | 10.0 | 5.0 | 2.5 | 31 | 43 |
| 38 | 212 | 227 | 7.5 | 1.5 | K403_0790 EZ401U | 406 | 507 | 79.11 | 62651/792 | 3600 | 3300 | 5500 | 1.0 | 10.0 | 5.0 | 2.5 | 31 | 44 |
| 38 | 321 | 351 | 6.7 | 1.7 | K403_0780 EZ501U | 600 | 1100 | 78.10 | 38657/495 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 5.0 | 2.5 | 31 | 45 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/arcmin] | [kg] |
| K4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm) | | | | | | | | | | | | | | | | | | |
| 43 | 289 | 316 | 9.7 | 1.3 | K402_0690 EZ501U | 445 | 741 | 69.34 | 5547/80 | 3600 | 3300 | 5500 | 3.0 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 45 | 277 | 302 | 6.4 | 2.0 | K403_0670 EZ501U | 600 | 1100 | 67.30 | 21199/315 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 45 | 476 | 515 | 11 | 1.2 | K403_0670 EZ502U | 600 | 1100 | 67.30 | 21199/315 | 3600 | 3300 | 5500 | 5.4 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 45 | 101 | 107 | 4.3 | 3.0 | K403_0660 EZ302U | 317 | 425 | 66.35 | 26273/396 | 3600 | 3300 | 5500 | 0.40 | 10.0 | 5.0 | 2.5 | 31 | 42 |
| 45 | 131 | 139 | 5.6 | 2.3 | K403_0660 EZ303U | 340 | 425 | 66.35 | 26273/396 | 3600 | 3300 | 5500 | 0.51 | 10.0 | 5.0 | 2.5 | 31 | 43 |
| 45 | 178 | 190 | 7.5 | 1.7 | K403_0660 EZ401U | 340 | 425 | 66.35 | 26273/396 | 3600 | 3300 | 5500 | 1.0 | 10.0 | 5.0 | 2.5 | 31 | 44 |
| 46 | 269 | 294 | 6.4 | 2.0 | K403_0650 EZ501U | 600 | 1013 | 65.50 | 32422/495 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 46 | 463 | 501 | 11 | 1.2 | K403_0650 EZ502U | 600 | 1013 | 65.50 | 32422/495 | 3600 | 3300 | 5500 | 5.4 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 54 | 232 | 254 | 8.1 | 1.8 | K402_0560 EZ501U | 508 | 847 | 55.71 | 2451/44 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 54 | 400 | 432 | 14 | 1.1 | K402_0560 EZ502U | 508 | 847 | 55.71 | 2451/44 | 3600 | 3300 | 5500 | 5.4 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 54 | 400 | 448 | 14 | 1.1 | K402_0560 EZ701U | 508 | 847 | 55.71 | 2451/44 | 3600 | 3300 | 5500 | 8.7 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 56 | 221 | 241 | 6.1 | 2.5 | K403_0540 EZ501U | 600 | 957 | 53.69 | 38657/720 | 3600 | 3300 | 5500 | 3.2 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 56 | 380 | 411 | 10 | 1.4 | K403_0540 EZ502U | 600 | 957 | 53.69 | 38657/720 | 3600 | 3300 | 5500 | 5.5 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 56 | 498 | 570 | 14 | 1.1 | K403_0540 EZ503U | 600 | 957 | 53.69 | 38657/720 | 3600 | 3300 | 5500 | 7.9 | 10.0 | 5.0 | 2.5 | 31 | 48 |
| 59 | 210 | 230 | 12 | 1.3 | K402_0500 EZ501U | 323 | 539 | 50.43 | 5547/110 | 3600 | 3300 | 5500 | 3.0 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 61 | 201 | 220 | 5.9 | 2.7 | K403_0490 EZ501U | 600 | 869 | 48.94 | 169592/3465 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 61 | 346 | 374 | 10 | 1.6 | K403_0490 EZ502U | 600 | 869 | 48.94 | 169592/3465 | 3600 | 3300 | 5500 | 5.4 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 61 | 454 | 519 | 13 | 1.2 | K403_0490 EZ503U | 600 | 869 | 48.94 | 169592/3465 | 3600 | 3300 | 5500 | 7.8 | 10.0 | 5.0 | 2.5 | 31 | 48 |
| 65 | 193 | 211 | 6.1 | 2.8 | K402_0460 EZ501U | 600 | 977 | 46.31 | 602/13 | 3600 | 3300 | 5500 | 3.2 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 65 | 332 | 359 | 11 | 1.6 | K402_0460 EZ502U | 600 | 977 | 46.31 | 602/13 | 3600 | 3300 | 5500 | 5.5 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 65 | 332 | 373 | 11 | 1.6 | K402_0460 EZ701U | 600 | 977 | 46.31 | 602/13 | 3600 | 3300 | 5500 | 8.8 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 65 | 436 | 499 | 14 | 1.2 | K402_0460 EZ503U | 600 | 977 | 46.31 | 602/13 | 3600 | 3300 | 5500 | 7.9 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 67 | 183 | 200 | 5.9 | 3.0 | K403_0450 EZ501U | 600 | 794 | 44.54 | 1247/28 | 3600 | 3300 | 5500 | 3.2 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 67 | 315 | 341 | 10 | 1.7 | K403_0450 EZ502U | 600 | 794 | 44.54 | 1247/28 | 3600 | 3300 | 5500 | 5.5 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 67 | 413 | 473 | 13 | 1.3 | K403_0450 EZ503U | 600 | 794 | 44.54 | 1247/28 | 3600 | 3300 | 5500 | 7.9 | 10.0 | 5.0 | 2.5 | 31 | 48 |
| 74 | 169 | 185 | 10 | 1.8 | K402_0410 EZ501U | 370 | 616 | 40.51 | 4902/121 | 3600 | 3300 | 5500 | 3.1 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 74 | 291 | 314 | 18 | 1.1 | K402_0410 EZ502U | 370 | 616 | 40.51 | 4902/121 | 3600 | 3300 | 5500 | 5.4 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 74 | 291 | 326 | 18 | 1.1 | K402_0410 EZ701U | 370 | 616 | 40.51 | 4902/121 | 3600 | 3300 | 5500 | 8.7 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 77 | 161 | 175 | 6.1 | 3.1 | K403_0390 EZ501U | 557 | 696 | 39.05 | 38657/990 | 3600 | 3300 | 5500 | 3.2 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 77 | 276 | 299 | 11 | 1.8 | K403_0390 EZ502U | 557 | 696 | 39.05 | 38657/990 | 3600 | 3300 | 5500 | 5.5 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 77 | 362 | 414 | 14 | 1.4 | K403_0390 EZ503U | 557 | 696 | 39.05 | 38657/990 | 3600 | 3300 | 5500 | 7.9 | 10.0 | 5.0 | 2.5 | 31 | 48 |
| 84 | 147 | 161 | 6.0 | 3.4 | K403_0360 EZ501U | 509 | 637 | 35.72 | 13717/384 | 3600 | 3300 | 5500 | 3.3 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 84 | 253 | 273 | 10 | 2.0 | K403_0360 EZ502U | 509 | 637 | 35.72 | 13717/384 | 3600 | 3300 | 5500 | 5.6 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 84 | 331 | 379 | 14 | 1.5 | K403_0360 EZ503U | 509 | 637 | 35.72 | 13717/384 | 3600 | 3300 | 5500 | 8.0 | 10.0 | 5.0 | 2.5 | 31 | 48 |
| 86 | 145 | 158 | 6.1 | 3.4 | K402_0350 EZ501U | 539 | 811 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 3.4 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 86 | 249 | 270 | 10 | 2.0 | K402_0350 EZ502U | 600 | 811 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 5.7 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 86 | 249 | 280 | 10 | 2.0 | K402_0350 EZ701U | 600 | 1100 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 9.0 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 86 | 327 | 374 | 14 | 1.5 | K402_0350 EZ503U | 600 | 811 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 8.0 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 86 | 405 | 486 | 17 | 1.2 | K402_0350 EZ702U | 600 | 1100 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 86 | 455 | 539 | 19 | 1.1 | K402_0350 EZ505U | 600 | 1100 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 89 | 140 | 154 | 7.8 | 2.8 | K402_0340 EZ501U | 467 | 710 | 33.68 | 4816/143 | 3600 | 3300 | 5500 | 3.2 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 89 | 242 | 261 | 13 | 1.6 | K402_0340 EZ502U | 467 | 710 | 33.68 | 4816/143 | 3600 | 3300 | 5500 | 5.5 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 89 | 242 | 271 | 13 | 1.6 | K402_0340 EZ701U | 467 | 710 | 33.68 | 4816/143 | 3600 | 3300 | 5500 | 8.8 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 89 | 317 | 363 | 17 | 1.2 | K402_0340 EZ503U | 467 | 710 | 33.68 | 4816/143 | 3600 | 3300 | 5500 | 7.9 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 93 | 133 | 146 | 6.4 | 3.5 | K403_0320 EZ501U | 462 | 577 | 32.39 | 2494/77 | 3600 | 3300 | 5500 | 3.2 | 10.0 | 5.0 | 2.5 | 31 | 45 |
| 93 | 229 | 248 | 11 | 2.0 | K403_0320 EZ502U | 462 | 577 | 32.39 | 2494/77 | 3600 | 3300 | 5500 | 5.5 | 10.0 | 5.0 | 2.5 | 31 | 46 |
| 93 | 300 | 344 | 14 | 1.5 | K403_0320 EZ503U | 462 | 577 | 32.39 | 2494/77 | 3600 | 3300 | 5500 | 7.9 | 10.0 | 5.0 | 2.5 | 31 | 48 |
| 108 | 116 | 127 | 6.2 | 4.0 | K402_0280 EZ501U | 431 | 746 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 3.6 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 108 | 199 | 216 | 11 | 2.3 | K402_0280 EZ502U | 597 | 746 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 5.9 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 108 | 199 | 224 | 11 | 2.3 | K402_0280 EZ701U | 539 | 1100 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 9.2 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 108 | 261 | 299 | 14 | 1.8 | K402_0280 EZ503U | 597 | 746 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 8.2 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 108 | 323 | 388 | 17 | 1.4 | K402_0280 EZ702U | 600 | 1100 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 108 | 364 | 431 | 19 | 1.3 | K402_0280 EZ505U | 600 | 1100 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 108 | 444 | 560 | 24 | 1.0 | K402_0280 EZ703U | 600 | 1100 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 119 | 105 | 115 | 6.3 | 4.3 | K402_0250 EZ501U | 392 | 589 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 3.4 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 119 | 181 | 196 | 11 | 2.5 | K402_0250 EZ502U | 472 | 589 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 5.7 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 119 | 181 | 204 | 11 | 2.5 | K402_0250 EZ701U | 490 | 1001 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 9.0 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 119 | 238 | 272 | 14 | 1.9 | K402_0250 EZ503U | 472 | 589 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 8.1 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 119 | 294 | 353 | 17 | 1.5 | K402_0250 EZ702U | 600 | 1001 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 119 | 331 | 392 | 20 | 1.4 | K402_0250 EZ505U | 600 | 1001 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 119 | 405 | 510 | 24 | 1.1 | K402_0250 EZ703U | 600 | 1001 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 129 | 97 | 106 | 6.3 | 4.5 | K402_0230 EZ501U | 361 | 678 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 3.8 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 129 | 167 | 181 | 11 | 2.6 | K402_0230 EZ502U | 542 | 678 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 6.1 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 129 | 167 | 188 | 11 | 2.6 | K402_0230 EZ701U | 452 | 1100 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 9.4 | 10.0 | 4.0 | 1.5 | 31 | 44 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K4 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm) | | | | | | | | | | | | | | | | | | |
| 129 | 219 | 251 | 14 | 2.0 | K402_0230 EZ503U | 542 | 678 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 8.4 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 129 | 271 | 325 | 18 | 1.6 | K402_0230 EZ702U | 600 | 1100 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 129 | 305 | 361 | 20 | 1.4 | K402_0230 EZ505U | 600 | 1100 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 129 | 373 | 470 | 24 | 1.2 | K402_0230 EZ703U | 600 | 1100 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 149 | 84 | 92 | 6.4 | 4.9 | K402_0200 EZ501U | 313 | 542 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 3.6 | 10.0 | 4.0 | 1.5 | 31 | 41 |
| 149 | 145 | 157 | 11 | 2.9 | K402_0200 EZ502U | 434 | 542 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 5.9 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 149 | 145 | 163 | 11 | 2.9 | K402_0200 EZ701U | 392 | 1100 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 9.2 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 149 | 190 | 217 | 14 | 2.2 | K402_0200 EZ503U | 434 | 542 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 8.3 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 149 | 235 | 282 | 18 | 1.8 | K402_0200 EZ702U | 600 | 1100 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 149 | 264 | 313 | 20 | 1.6 | K402_0200 EZ505U | 600 | 1100 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 149 | 323 | 407 | 24 | 1.3 | K402_0200 EZ703U | 600 | 1100 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 172 | 125 | 140 | 11 | 3.2 | K402_0175 EZ701U | 338 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 9.9 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 172 | 203 | 243 | 18 | 2.0 | K402_0175 EZ702U | 600 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 172 | 228 | 270 | 20 | 1.7 | K402_0175 EZ505U | 600 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 172 | 279 | 351 | 25 | 1.4 | K402_0175 EZ703U | 600 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 172 | 360 | 510 | 32 | 1.1 | K402_0175 EZ705U | 600 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 35 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 177 | 122 | 131 | 11 | 3.2 | K402_0170 EZ502U | 394 | 493 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 6.2 | 10.0 | 4.0 | 1.5 | 31 | 42 |
| 177 | 122 | 136 | 11 | 3.2 | K402_0170 EZ701U | 329 | 1013 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 9.5 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 177 | 159 | 182 | 15 | 2.5 | K402_0170 EZ503U | 394 | 493 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 8.5 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 177 | 197 | 237 | 18 | 2.0 | K402_0170 EZ702U | 600 | 1013 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 177 | 222 | 263 | 20 | 1.8 | K402_0170 EZ505U | 600 | 1013 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 177 | 271 | 342 | 25 | 1.4 | K402_0170 EZ703U | 600 | 1013 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 23 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 177 | 350 | 496 | 32 | 1.1 | K402_0170 EZ705U | 600 | 1100 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 35 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 216 | 100 | 112 | 11 | 3.7 | K402_0140 EZ701U | 269 | 1010 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 10 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 216 | 162 | 194 | 18 | 2.3 | K402_0140 EZ702U | 552 | 1010 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 16 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 216 | 182 | 215 | 21 | 2.0 | K402_0140 EZ505U | 600 | 1010 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 216 | 222 | 280 | 25 | 1.7 | K402_0140 EZ703U | 600 | 1010 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 24 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 216 | 287 | 407 | 33 | 1.3 | K402_0140 EZ705U | 600 | 1100 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 36 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 237 | 91 | 102 | 11 | 3.9 | K402_0125 EZ701U | 246 | 869 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 10 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 237 | 147 | 177 | 18 | 2.4 | K402_0125 EZ702U | 503 | 869 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 237 | 166 | 196 | 21 | 2.1 | K402_0125 EZ505U | 600 | 869 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 237 | 203 | 255 | 25 | 1.8 | K402_0125 EZ703U | 600 | 869 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 237 | 262 | 371 | 33 | 1.4 | K402_0125 EZ705U | 600 | 1100 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 36 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 260 | 83 | 93 | 11 | 4.2 | K402_0115 EZ701U | 223 | 838 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 11 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 260 | 134 | 161 | 19 | 2.6 | K402_0115 EZ702U | 458 | 838 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 16 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 260 | 151 | 179 | 21 | 2.3 | K402_0115 EZ505U | 600 | 838 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 260 | 184 | 232 | 26 | 1.9 | K402_0115 EZ703U | 600 | 838 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 24 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 260 | 238 | 337 | 33 | 1.5 | K402_0115 EZ705U | 600 | 1100 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 37 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 297 | 72 | 81 | 12 | 4.6 | K402_0100 EZ701U | 196 | 735 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 11 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 297 | 118 | 141 | 19 | 2.8 | K402_0100 EZ702U | 402 | 735 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 16 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 297 | 132 | 157 | 21 | 2.5 | K402_0100 EZ505U | 588 | 735 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 297 | 162 | 204 | 26 | 2.0 | K402_0100 EZ703U | 588 | 735 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 24 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 297 | 209 | 296 | 33 | 1.6 | K402_0100 EZ705U | 600 | 1100 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 36 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 325 | 66 | 74 | 12 | 4.8 | K402_0092 EZ701U | 179 | 672 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 12 | 10.0 | 4.0 | 1.5 | 31 | 44 |
| 325 | 108 | 129 | 19 | 3.0 | K402_0092 EZ702U | 367 | 672 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 17 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 325 | 121 | 143 | 21 | 2.7 | K402_0092 EZ505U | 538 | 672 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 16 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 325 | 148 | 186 | 26 | 2.2 | K402_0092 EZ703U | 538 | 672 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 25 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 325 | 191 | 271 | 34 | 1.7 | K402_0092 EZ705U | 600 | 1100 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 38 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 358 | 98 | 117 | 19 | 3.2 | K402_0084 EZ702U | 333 | 610 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 17 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 358 | 110 | 130 | 22 | 2.8 | K402_0084 EZ505U | 488 | 610 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 358 | 134 | 169 | 26 | 2.3 | K402_0084 EZ703U | 488 | 610 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 25 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 358 | 173 | 245 | 34 | 1.8 | K402_0084 EZ705U | 587 | 1100 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 37 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 402 | 154 | 218 | 34 | 1.9 | K402_0075 EZ705U | 564 | 1100 | 7.456 | 1849/248 | 2600 | 2200 | 3800 | 39 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 446 | 78 | 94 | 19 | 3.7 | K402_0067 EZ702U | 267 | 489 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 18 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 446 | 88 | 104 | 22 | 3.3 | K402_0067 EZ505U | 391 | 489 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 16 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 446 | 108 | 136 | 27 | 2.7 | K402_0067 EZ703U | 391 | 489 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 26 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 446 | 139 | 197 | 35 | 2.1 | K402_0067 EZ705U | 545 | 1100 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 38 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 500 | 124 | 176 | 35 | 2.2 | K402_0060 EZ705U | 525 | 1100 | 6.000 | 6/1 | 2600 | 2200 | 3800 | 41 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 553 | 112 | 159 | 35 | 2.4 | K402_0054 EZ705U | 508 | 1052 | 5.422 | 1849/341 | 2600 | 2200 | 3800 | 40 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 687 | 90 | 128 | 36 | 2.8 | K402_0044 EZ705U | 440 | 847 | 4.364 | 48/11 | 2600 | 2200 | 3800 | 42 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 750 | 83 | 117 | 36 | 2.9 | K402_0040 EZ705U | 404 | 776 | 4.000 | 4/1 | 2600 | 2200 | 3800 | 44 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| K4 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm) | | | | | | | | | | | | | | | | | | |
| 316 | 309 | 537 | 43 | 1.0 | K402_0125 EZ813U | 600 | 1100 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 106 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 316 | 321 | 824 | 44 | 1.0 | K402_0125 EZ815U | 600 | 1100 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 169 | 10.0 | 4.0 | 1.5 | 31 | 84 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K4 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | | | |
| 347 | 282 | 488 | 43 | 1.1 | K402_0115 EZ813U | 600 | 1100 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 107 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 347 | 292 | 750 | 45 | 1.1 | K402_0115 EZ815U | 600 | 1100 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 170 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| 396 | 247 | 428 | 44 | 1.2 | K402_0100 EZ813U | 600 | 1100 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 107 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 396 | 256 | 658 | 45 | 1.2 | K402_0100 EZ815U | 600 | 1100 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 170 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| 433 | 226 | 392 | 44 | 1.3 | K402_0092 EZ813U | 600 | 1100 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 108 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 433 | 234 | 602 | 45 | 1.2 | K402_0092 EZ815U | 600 | 1100 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 171 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| 477 | 205 | 355 | 44 | 1.4 | K402_0084 EZ813U | 587 | 1100 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 107 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 477 | 212 | 546 | 46 | 1.3 | K402_0084 EZ815U | 587 | 1100 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 170 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| 595 | 164 | 285 | 45 | 1.6 | K402_0067 EZ813U | 545 | 1100 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 109 | 10.0 | 4.0 | 1.5 | 31 | 71 |
| 595 | 170 | 438 | 47 | 1.5 | K402_0067 EZ815U | 545 | 1100 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 172 | 10.0 | 4.0 | 1.5 | 31 | 84 |
| **K4 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 600 Nm)** | | | | | | | | | | | | | | | | | | |
| 129 | 320 | 516 | 15 | 1.4 | K402_0350 EZ505U | 600 | 1100 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 129 | 408 | 674 | 20 | 1.1 | K402_0350 EZ703U | 600 | 1100 | 34.76 | 4171/120 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 162 | 256 | 412 | 16 | 1.6 | K402_0280 EZ505U | 600 | 1100 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 162 | 326 | 539 | 20 | 1.2 | K402_0280 EZ703U | 600 | 1100 | 27.77 | 1333/48 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 178 | 233 | 375 | 16 | 1.7 | K402_0250 EZ505U | 600 | 1001 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 178 | 297 | 490 | 20 | 1.3 | K402_0250 EZ703U | 600 | 1001 | 25.28 | 4171/165 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 193 | 215 | 346 | 16 | 1.8 | K402_0230 EZ505U | 600 | 1100 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 193 | 273 | 452 | 20 | 1.4 | K402_0230 EZ703U | 600 | 1100 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 193 | 371 | 678 | 27 | 1.0 | K402_0230 EZ705U | 600 | 1100 | 23.29 | 559/24 | 3600 | 3300 | 5500 | 35 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 223 | 186 | 300 | 16 | 2.0 | K402_0200 EZ505U | 600 | 1100 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 223 | 237 | 392 | 21 | 1.5 | K402_0200 EZ703U | 600 | 1100 | 20.20 | 1333/66 | 3600 | 3300 | 5500 | 22 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 259 | 160 | 258 | 16 | 2.2 | K402_0175 EZ505U | 600 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 259 | 204 | 338 | 21 | 1.7 | K402_0175 EZ703U | 600 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 259 | 277 | 506 | 28 | 1.3 | K402_0175 EZ705U | 600 | 1100 | 17.41 | 731/42 | 3400 | 3000 | 5000 | 35 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 266 | 156 | 251 | 16 | 2.2 | K402_0170 EZ505U | 600 | 1013 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 13 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 266 | 199 | 329 | 21 | 1.7 | K402_0170 EZ703U | 600 | 1013 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 23 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 266 | 269 | 493 | 28 | 1.3 | K402_0170 EZ705U | 600 | 1100 | 16.94 | 559/33 | 3600 | 3300 | 5500 | 35 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 324 | 128 | 206 | 17 | 2.5 | K402_0140 EZ505U | 600 | 1010 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 324 | 163 | 269 | 21 | 2.0 | K402_0140 EZ703U | 600 | 1010 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 24 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 324 | 221 | 404 | 29 | 1.5 | K402_0140 EZ705U | 600 | 1100 | 13.89 | 1333/96 | 3400 | 3000 | 5000 | 36 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 356 | 117 | 188 | 17 | 2.7 | K402_0125 EZ505U | 600 | 869 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 356 | 149 | 246 | 21 | 2.1 | K402_0125 EZ703U | 600 | 869 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 23 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 356 | 201 | 368 | 29 | 1.5 | K402_0125 EZ705U | 600 | 1100 | 12.66 | 2924/231 | 3400 | 3000 | 5000 | 36 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 391 | 106 | 171 | 17 | 2.8 | K402_0115 EZ505U | 600 | 838 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 391 | 135 | 223 | 22 | 2.2 | K402_0115 EZ703U | 600 | 838 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 24 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 391 | 183 | 335 | 29 | 1.6 | K402_0115 EZ705U | 600 | 1100 | 11.52 | 645/56 | 3000 | 2600 | 4500 | 37 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 446 | 93 | 150 | 17 | 3.1 | K402_0100 EZ505U | 588 | 735 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 14 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 446 | 119 | 196 | 22 | 2.4 | K402_0100 EZ703U | 588 | 735 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 24 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 446 | 161 | 294 | 29 | 1.8 | K402_0100 EZ705U | 600 | 1100 | 10.10 | 1333/132 | 3400 | 3000 | 5000 | 36 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 487 | 85 | 137 | 17 | 3.3 | K402_0092 EZ505U | 538 | 672 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 16 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 487 | 108 | 179 | 22 | 2.6 | K402_0092 EZ703U | 538 | 672 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 25 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 487 | 147 | 269 | 30 | 1.9 | K402_0092 EZ705U | 600 | 1100 | 9.238 | 2365/256 | 3000 | 2600 | 4500 | 38 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 537 | 77 | 124 | 17 | 3.5 | K402_0084 EZ505U | 488 | 610 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 15 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 537 | 98 | 163 | 22 | 2.8 | K402_0084 EZ703U | 488 | 610 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 25 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 537 | 133 | 244 | 30 | 2.0 | K402_0084 EZ705U | 587 | 1100 | 8.377 | 645/77 | 3000 | 2600 | 4500 | 37 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| 670 | 62 | 100 | 18 | 4.1 | K402_0067 EZ505U | 391 | 489 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 16 | 10.0 | 4.0 | 1.5 | 31 | 47 |
| 670 | 79 | 130 | 23 | 3.2 | K402_0067 EZ703U | 391 | 489 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 26 | 10.0 | 4.0 | 1.5 | 31 | 49 |
| 670 | 107 | 196 | 30 | 2.4 | K402_0067 EZ705U | 545 | 1100 | 6.719 | 215/32 | 3000 | 2600 | 4500 | 38 | 10.0 | 4.0 | 1.5 | 31 | 54 |
| **K5 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1000 Nm)** | | | | | | | | | | | | | | | | | | |
| 91 | 820 | 919 | 42 | 1.1 | K513_0220 EZ813U | 1000 | 1800 | 21.99 | 2639/120 | 2800 | 2500 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 103 | 721 | 809 | 42 | 1.2 | K513_0195 EZ813U | 1000 | 1800 | 19.35 | 27869/1440 | 2800 | 2500 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 114 | 652 | 731 | 42 | 1.3 | K513_0175 EZ813U | 1000 | 1800 | 17.48 | 6293/360 | 2800 | 2500 | 4200 | 109 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 124 | 600 | 673 | 42 | 1.4 | K513_0160 EZ813U | 1000 | 1800 | 16.09 | 26071/1620 | 2300 | 2200 | 3600 | 110 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 138 | 542 | 608 | 42 | 1.5 | K513_0145 EZ813U | 1000 | 1800 | 14.54 | 5887/405 | 2300 | 2200 | 3600 | 110 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 156 | 477 | 535 | 42 | 1.6 | K513_0130 EZ813U | 1000 | 1800 | 12.81 | 1537/120 | 2300 | 2200 | 3600 | 112 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 156 | 707 | 842 | 62 | 1.1 | K513_0130 EZ815U | 1000 | 1800 | 12.81 | 1537/120 | 2300 | 2200 | 3600 | 175 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 173 | 431 | 484 | 42 | 1.7 | K513_0115 EZ813U | 1000 | 1800 | 11.57 | 10759/930 | 2300 | 2200 | 3600 | 112 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 173 | 639 | 760 | 63 | 1.1 | K513_0115 EZ815U | 1000 | 1800 | 11.57 | 10759/930 | 2300 | 2200 | 3600 | 175 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 197 | 378 | 424 | 43 | 1.9 | K513_0100 EZ813U | 1000 | 1800 | 10.15 | 203/20 | 1900 | 1800 | 3200 | 115 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 197 | 560 | 667 | 63 | 1.3 | K513_0100 EZ815U | 1000 | 1800 | 10.15 | 203/20 | 1900 | 1800 | 3200 | 178 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 218 | 342 | 383 | 43 | 2.0 | K513_0092 EZ813U | 1000 | 1753 | 9.168 | 1421/155 | 1900 | 1800 | 3200 | 116 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 218 | 506 | 603 | 63 | 1.3 | K513_0092 EZ815U | 1000 | 1753 | 9.168 | 1421/155 | 1900 | 1800 | 3200 | 179 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 246 | 303 | 340 | 43 | 2.2 | K513_0081 EZ813U | 1000 | 1555 | 8.134 | 17081/2100 | 1900 | 1800 | 3200 | 119 | 10.0 | 5.0 | 2.0 | 50 | 77 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| K5 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 1000 Nm) | | | | | | | | | | | | | | | | | | |
| 246 | 449 | 535 | 63 | 1.5 | K513_0081 EZ815U | 1000 | 1555 | 8.134 | 17081/2100 | 1900 | 1800 | 3200 | 182 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 272 | 274 | 307 | 43 | 2.3 | K513_0073 EZ813U | 983 | 1405 | 7.347 | 551/75 | 1900 | 1800 | 3200 | 120 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 272 | 406 | 483 | 64 | 1.6 | K513_0073 EZ815U | 1000 | 1405 | 7.347 | 551/75 | 1900 | 1800 | 3200 | 183 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| K5 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1000 Nm) | | | | | | | | | | | | | | | | | | |
| 16 | 754 | 824 | 8.6 | 1.2 | K514_1860 EZ501U | 1000 | 1800 | 186.2 | 26071/140 | 3400 | 3000 | 5000 | 3.1 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 18 | 681 | 744 | 8.4 | 1.3 | K514_1680 EZ501U | 1000 | 1800 | 168.2 | 841/5 | 3400 | 3000 | 5000 | 3.1 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 20 | 603 | 659 | 8.1 | 1.5 | K514_1490 EZ501U | 1000 | 1800 | 149.0 | 26071/175 | 3400 | 3000 | 5000 | 3.2 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 22 | 544 | 595 | 7.8 | 1.7 | K514_1350 EZ501U | 1000 | 1781 | 134.6 | 3364/25 | 3400 | 3000 | 5000 | 3.2 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 24 | 505 | 553 | 7.7 | 1.8 | K514_1250 EZ501U | 1000 | 1800 | 124.9 | 599633/4800 | 3400 | 3000 | 5000 | 3.2 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 24 | 870 | 940 | 13 | 1.0 | K514_1250 EZ502U | 1000 | 1800 | 124.9 | 599633/4800 | 3400 | 3000 | 5000 | 5.5 | 10.0 | 6.0 | 3.0 | 50 | 53 |
| 27 | 457 | 499 | 7.4 | 2.0 | K514_1130 EZ501U | 1000 | 1656 | 112.8 | 135401/1200 | 3400 | 3000 | 5000 | 3.2 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 27 | 786 | 849 | 13 | 1.1 | K514_1130 EZ502U | 1000 | 1656 | 112.8 | 135401/1200 | 3400 | 3000 | 5000 | 5.5 | 10.0 | 6.0 | 3.0 | 50 | 53 |
| 31 | 397 | 434 | 8.5 | 1.9 | K513_0970 EZ501U | 916 | 1392 | 96.64 | 38657/400 | 3400 | 3000 | 5000 | 3.2 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 31 | 684 | 739 | 15 | 1.1 | K513_0970 EZ502U | 916 | 1392 | 96.64 | 38657/400 | 3400 | 3000 | 5000 | 5.5 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 31 | 684 | 767 | 15 | 1.1 | K513_0970 EZ701U | 916 | 1392 | 96.64 | 38657/400 | 3400 | 3000 | 5000 | 8.8 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 32 | 381 | 416 | 7.0 | 2.4 | K514_0940 EZ501U | 1000 | 1622 | 94.15 | 338923/3600 | 3400 | 3000 | 5000 | 3.3 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 32 | 656 | 709 | 12 | 1.4 | K514_0940 EZ502U | 1000 | 1622 | 94.15 | 338923/3600 | 3400 | 3000 | 5000 | 5.6 | 10.0 | 6.0 | 3.0 | 50 | 53 |
| 32 | 859 | 983 | 16 | 1.0 | K514_0940 EZ503U | 1000 | 1622 | 94.15 | 338923/3600 | 3400 | 3000 | 5000 | 7.9 | 10.0 | 6.0 | 3.0 | 50 | 54 |
| 34 | 359 | 392 | 9.1 | 1.9 | K513_0870 EZ501U | 827 | 1258 | 87.29 | 8729/100 | 3400 | 3000 | 5000 | 3.2 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 34 | 618 | 668 | 16 | 1.1 | K513_0870 EZ502U | 827 | 1258 | 87.29 | 8729/100 | 3400 | 3000 | 5000 | 5.5 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 34 | 618 | 693 | 16 | 1.1 | K513_0870 EZ701U | 827 | 1258 | 87.29 | 8729/100 | 3400 | 3000 | 5000 | 8.8 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 35 | 344 | 376 | 6.8 | 2.6 | K514_0850 EZ501U | 1000 | 1465 | 85.03 | 76531/900 | 3400 | 3000 | 5000 | 3.3 | 10.0 | 6.0 | 3.0 | 50 | 51 |
| 35 | 592 | 640 | 12 | 1.5 | K514_0850 EZ502U | 1000 | 1465 | 85.03 | 76531/900 | 3400 | 3000 | 5000 | 5.6 | 10.0 | 6.0 | 3.0 | 50 | 53 |
| 35 | 776 | 888 | 15 | 1.2 | K514_0850 EZ503U | 1000 | 1465 | 85.03 | 76531/900 | 3400 | 3000 | 5000 | 8.0 | 10.0 | 6.0 | 3.0 | 50 | 54 |
| 39 | 319 | 349 | 6.7 | 2.8 | K513_0780 EZ501U | 1000 | 1396 | 77.59 | 26071/336 | 3400 | 3000 | 5000 | 3.3 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 39 | 549 | 593 | 12 | 1.6 | K513_0780 EZ502U | 1000 | 1396 | 77.59 | 26071/336 | 3400 | 3000 | 5000 | 5.6 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 39 | 549 | 616 | 12 | 1.6 | K513_0780 EZ701U | 1000 | 1396 | 77.59 | 26071/336 | 3400 | 3000 | 5000 | 8.9 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 39 | 720 | 823 | 15 | 1.3 | K513_0780 EZ503U | 1000 | 1396 | 77.59 | 26071/336 | 3400 | 3000 | 5000 | 8.0 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 43 | 288 | 315 | 7.2 | 2.8 | K513_0700 EZ501U | 985 | 1261 | 70.08 | 841/12 | 3400 | 3000 | 5000 | 3.4 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 43 | 496 | 536 | 12 | 1.7 | K513_0700 EZ502U | 985 | 1261 | 70.08 | 841/12 | 3400 | 3000 | 5000 | 5.7 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 43 | 496 | 556 | 12 | 1.7 | K513_0700 EZ701U | 985 | 1261 | 70.08 | 841/12 | 3400 | 3000 | 5000 | 9.0 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 43 | 650 | 744 | 16 | 1.3 | K513_0700 EZ503U | 985 | 1261 | 70.08 | 841/12 | 3400 | 3000 | 5000 | 8.0 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 46 | 265 | 290 | 6.4 | 3.4 | K513_0650 EZ501U | 987 | 1272 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 3.5 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 46 | 457 | 494 | 11 | 2.0 | K513_0650 EZ502U | 1000 | 1272 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 5.8 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 46 | 457 | 512 | 11 | 2.0 | K513_0650 EZ701U | 1000 | 1800 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 9.1 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 46 | 599 | 685 | 14 | 1.5 | K513_0650 EZ503U | 1000 | 1272 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 8.2 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 46 | 740 | 889 | 18 | 1.2 | K513_0650 EZ702U | 1000 | 1800 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 46 | 833 | 987 | 20 | 1.1 | K513_0650 EZ505U | 1000 | 1800 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 51 | 240 | 262 | 6.2 | 3.8 | K513_0580 EZ501U | 892 | 1149 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 3.5 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 51 | 412 | 446 | 11 | 2.2 | K513_0580 EZ502U | 919 | 1149 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 5.8 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 51 | 412 | 463 | 11 | 2.2 | K513_0580 EZ701U | 1000 | 1800 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 9.1 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 51 | 541 | 619 | 14 | 1.7 | K513_0580 EZ503U | 919 | 1149 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 8.2 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 51 | 669 | 803 | 17 | 1.3 | K513_0580 EZ702U | 1000 | 1800 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 51 | 752 | 892 | 19 | 1.2 | K513_0580 EZ505U | 1000 | 1800 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 62 | 198 | 216 | 6.1 | 4.4 | K513_0480 EZ501U | 737 | 1082 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 3.9 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 62 | 341 | 368 | 10 | 2.5 | K513_0480 EZ502U | 866 | 1082 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 6.2 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 62 | 341 | 382 | 10 | 2.6 | K513_0480 EZ701U | 921 | 1800 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 9.5 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 62 | 447 | 511 | 14 | 1.9 | K513_0480 EZ503U | 866 | 1082 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 8.6 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 62 | 553 | 663 | 16 | 1.6 | K513_0480 EZ702U | 1000 | 1800 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 15 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 62 | 622 | 737 | 18 | 1.4 | K513_0480 EZ505U | 1000 | 1800 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 62 | 760 | 958 | 22 | 1.2 | K513_0480 EZ703U | 1000 | 1800 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 69 | 179 | 195 | 6.5 | 4.4 | K513_0440 EZ501U | 665 | 977 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 3.9 | 10.0 | 5.0 | 2.0 | 50 | 47 |
| 69 | 308 | 333 | 11 | 2.5 | K513_0440 EZ502U | 782 | 977 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 6.2 | 10.0 | 5.0 | 2.0 | 50 | 48 |
| 69 | 308 | 345 | 9.8 | 2.9 | K513_0440 EZ701U | 832 | 1800 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 9.5 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 69 | 403 | 462 | 15 | 1.9 | K513_0440 EZ503U | 782 | 977 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 8.6 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 69 | 499 | 599 | 16 | 1.8 | K513_0440 EZ702U | 1000 | 1800 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 15 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 69 | 561 | 665 | 18 | 1.6 | K513_0440 EZ505U | 1000 | 1800 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 69 | 686 | 865 | 22 | 1.3 | K513_0440 EZ703U | 1000 | 1800 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 78 | 273 | 306 | 9.4 | 3.3 | K513_0390 EZ701U | 737 | 1800 | 38.53 | 2697/70 | 3400 | 3000 | 5000 | 9.9 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 78 | 442 | 530 | 15 | 2.0 | K513_0390 EZ702U | 1000 | 1800 | 38.53 | 2697/70 | 3400 | 3000 | 5000 | 15 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 78 | 497 | 589 | 17 | 1.8 | K513_0390 EZ505U | 1000 | 1800 | 38.53 | 2697/70 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 78 | 608 | 766 | 21 | 1.5 | K513_0390 EZ703U | 1000 | 1800 | 38.53 | 2697/70 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 86 | 246 | 276 | 9.1 | 3.7 | K513_0350 EZ701U | 665 | 1781 | 34.80 | 174/5 | 3400 | 3000 | 5000 | 10 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 86 | 399 | 479 | 15 | 2.3 | K513_0350 EZ702U | 1000 | 1781 | 34.80 | 174/5 | 3400 | 3000 | 5000 | 15 | 10.0 | 5.0 | 2.0 | 50 | 52 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ | | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | EL1,2 | EL3,4,5,6 | | | | | | | |
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **K5 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1000 Nm)** | | | | | | | | | | | | | | | | | | |
| 86 | 449 | 532 | 17 | 2.0 | K513_0350 EZ505U | 1000 | 1781 | 34.80 | 174/5 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 86 | 549 | 692 | 20 | 1.6 | K513_0350 EZ703U | 1000 | 1781 | 34.80 | 174/5 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 93 | 229 | 256 | 8.9 | 3.9 | K513_0320 EZ701U | 618 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 10 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 93 | 371 | 445 | 14 | 2.4 | K513_0320 EZ702U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 16 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 93 | 417 | 494 | 16 | 2.2 | K513_0320 EZ505U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 93 | 510 | 642 | 20 | 1.8 | K513_0320 EZ703U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 24 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 93 | 658 | 933 | 26 | 1.4 | K513_0320 EZ705U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 36 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 103 | 206 | 232 | 8.9 | 4.2 | K513_0290 EZ701U | 558 | 1656 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 11 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 103 | 335 | 402 | 14 | 2.6 | K513_0290 EZ702U | 1000 | 1656 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 16 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 103 | 377 | 446 | 16 | 2.3 | K513_0290 EZ505U | 1000 | 1656 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 103 | 460 | 580 | 20 | 1.9 | K513_0290 EZ703U | 1000 | 1656 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 24 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 103 | 594 | 842 | 26 | 1.5 | K513_0290 EZ705U | 1000 | 1800 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 36 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 123 | 172 | 193 | 9.0 | 4.8 | K513_0240 EZ701U | 466 | 1622 | 24.35 | 11687/480 | 2800 | 2500 | 4200 | 11 | 10.0 | 5.0 | 2.0 | 50 | 50 |
| 123 | 279 | 335 | 15 | 2.9 | K513_0240 EZ702U | 954 | 1622 | 24.35 | 11687/480 | 2800 | 2500 | 4200 | 17 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 123 | 314 | 372 | 16 | 2.6 | K513_0240 EZ505U | 1000 | 1622 | 24.35 | 11687/480 | 2800 | 2500 | 4200 | 15 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 123 | 384 | 484 | 20 | 2.1 | K513_0240 EZ703U | 1000 | 1622 | 24.35 | 11687/480 | 2800 | 2500 | 4200 | 25 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 123 | 496 | 703 | 26 | 1.7 | K513_0240 EZ705U | 1000 | 1800 | 24.35 | 11687/480 | 2800 | 2500 | 4200 | 37 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 136 | 252 | 303 | 15 | 3.1 | K513_0220 EZ702U | 862 | 1465 | 21.99 | 2639/120 | 2800 | 2500 | 4200 | 17 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 136 | 284 | 336 | 16 | 2.8 | K513_0220 EZ505U | 1000 | 1465 | 21.99 | 2639/120 | 2800 | 2500 | 4200 | 15 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 136 | 347 | 437 | 20 | 2.3 | K513_0220 EZ703U | 1000 | 1465 | 21.99 | 2639/120 | 2800 | 2500 | 4200 | 25 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 136 | 448 | 635 | 26 | 1.8 | K513_0220 EZ705U | 1000 | 1800 | 21.99 | 2639/120 | 2800 | 2500 | 4200 | 37 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 155 | 222 | 266 | 15 | 3.4 | K513_0195 EZ702U | 759 | 1387 | 19.35 | 27869/1440 | 2800 | 2500 | 4200 | 18 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 155 | 250 | 296 | 16 | 3.0 | K513_0195 EZ505U | 1000 | 1387 | 19.35 | 27869/1440 | 2800 | 2500 | 4200 | 16 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 155 | 305 | 385 | 20 | 2.5 | K513_0195 EZ703U | 1000 | 1387 | 19.35 | 27869/1440 | 2800 | 2500 | 4200 | 26 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 155 | 394 | 559 | 26 | 1.9 | K513_0195 EZ705U | 1000 | 1800 | 19.35 | 27869/1440 | 2800 | 2500 | 4200 | 38 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 172 | 201 | 241 | 15 | 3.7 | K513_0175 EZ702U | 685 | 1253 | 17.48 | 6293/360 | 2800 | 2500 | 4200 | 18 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 172 | 226 | 267 | 17 | 3.3 | K513_0175 EZ505U | 1000 | 1253 | 17.48 | 6293/360 | 2800 | 2500 | 4200 | 16 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 172 | 276 | 348 | 20 | 2.7 | K513_0175 EZ703U | 1000 | 1253 | 17.48 | 6293/360 | 2800 | 2500 | 4200 | 26 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 172 | 356 | 505 | 26 | 2.1 | K513_0175 EZ705U | 1000 | 1800 | 17.48 | 6293/360 | 2800 | 2500 | 4200 | 38 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 186 | 185 | 222 | 15 | 3.9 | K513_0160 EZ702U | 631 | 1153 | 16.09 | 26071/1620 | 2300 | 2200 | 3600 | 19 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 186 | 208 | 246 | 17 | 3.4 | K513_0160 EZ505U | 923 | 1153 | 16.09 | 26071/1620 | 2300 | 2200 | 3600 | 17 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 186 | 254 | 320 | 20 | 2.8 | K513_0160 EZ703U | 923 | 1153 | 16.09 | 26071/1620 | 2300 | 2200 | 3600 | 27 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 186 | 328 | 465 | 26 | 2.2 | K513_0160 EZ705U | 1000 | 1800 | 16.09 | 26071/1620 | 2300 | 2200 | 3600 | 39 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 206 | 167 | 200 | 15 | 4.1 | K513_0145 EZ702U | 570 | 1042 | 14.54 | 5887/405 | 2300 | 2200 | 3600 | 19 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 206 | 188 | 222 | 17 | 3.7 | K513_0145 EZ505U | 833 | 1042 | 14.54 | 5887/405 | 2300 | 2200 | 3600 | 18 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 206 | 229 | 289 | 20 | 3.0 | K513_0145 EZ703U | 833 | 1042 | 14.54 | 5887/405 | 2300 | 2200 | 3600 | 27 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 206 | 296 | 420 | 26 | 2.3 | K513_0145 EZ705U | 1000 | 1800 | 14.54 | 5887/405 | 2300 | 2200 | 3600 | 40 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 234 | 261 | 370 | 26 | 2.5 | K513_0130 EZ705U | 1000 | 1800 | 12.81 | 1537/120 | 2300 | 2200 | 3600 | 41 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 259 | 236 | 334 | 26 | 2.7 | K513_0115 EZ705U | 1000 | 1800 | 11.57 | 10759/930 | 2300 | 2200 | 3600 | 42 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 296 | 207 | 293 | 27 | 3.0 | K513_0100 EZ705U | 1000 | 1800 | 10.15 | 203/20 | 1900 | 1800 | 3200 | 44 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 327 | 187 | 265 | 27 | 3.2 | K513_0092 EZ705U | 912 | 1753 | 9.168 | 1421/155 | 1900 | 1800 | 3200 | 45 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 369 | 166 | 235 | 27 | 3.4 | K513_0081 EZ705U | 809 | 1555 | 8.134 | 17081/2100 | 1900 | 1800 | 3200 | 48 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 408 | 150 | 212 | 27 | 3.7 | K513_0073 EZ705U | 730 | 1405 | 7.347 | 551/75 | 1900 | 1800 | 3200 | 50 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| **K5 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 1000 Nm)** | | | | | | | | | | | | | | | | | | |
| 124 | 778 | 1350 | 33 | 1.1 | K513_0320 EZ813U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 106 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 124 | 806 | 2074 | 35 | 1.0 | K513_0320 EZ815U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 169 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 137 | 703 | 1219 | 33 | 1.1 | K513_0290 EZ813U | 1000 | 1800 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 106 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 137 | 728 | 1873 | 35 | 1.1 | K513_0290 EZ815U | 1000 | 1800 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 169 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 164 | 587 | 1017 | 34 | 1.3 | K513_0240 EZ813U | 1000 | 1800 | 24.35 | 11687/480 | 2800 | 2500 | 4200 | 107 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 164 | 608 | 1563 | 35 | 1.2 | K513_0240 EZ815U | 1000 | 1800 | 24.35 | 11687/480 | 2800 | 2500 | 4200 | 170 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 182 | 530 | 919 | 34 | 1.4 | K513_0220 EZ813U | 1000 | 1800 | 21.99 | 2639/120 | 2800 | 2500 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 182 | 549 | 1412 | 35 | 1.3 | K513_0220 EZ815U | 1000 | 1800 | 21.99 | 2639/120 | 2800 | 2500 | 4200 | 171 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 207 | 466 | 809 | 34 | 1.5 | K513_0195 EZ813U | 1000 | 1800 | 19.35 | 27869/1440 | 2800 | 2500 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 207 | 483 | 1242 | 35 | 1.4 | K513_0195 EZ815U | 1000 | 1800 | 19.35 | 27869/1440 | 2800 | 2500 | 4200 | 172 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| 229 | 421 | 730 | 34 | 1.6 | K513_0175 EZ813U | 1000 | 1800 | 17.48 | 6293/360 | 2800 | 2500 | 4200 | 109 | 10.0 | 5.0 | 2.0 | 50 | 77 |
| 229 | 436 | 1122 | 35 | 1.5 | K513_0175 EZ815U | 1000 | 1800 | 17.48 | 6293/360 | 2800 | 2500 | 4200 | 172 | 10.0 | 5.0 | 2.0 | 50 | 90 |
| **K5 ($n_{1N}$ = 4500 $min^{-1}$, $M_{2acc,max}$ = 1000 Nm)** | | | | | | | | | | | | | | | | | | |
| 70 | 586 | 944 | 14 | 1.5 | K513_0650 EZ505U | 1000 | 1800 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 70 | 747 | 1234 | 18 | 1.2 | K513_0650 EZ703U | 1000 | 1800 | 64.54 | 12586/195 | 3400 | 3000 | 5000 | 22 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 77 | 529 | 853 | 14 | 1.7 | K513_0580 EZ505U | 1000 | 1800 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 77 | 674 | 1115 | 17 | 1.3 | K513_0580 EZ703U | 1000 | 1800 | 58.30 | 11368/195 | 3400 | 3000 | 5000 | 22 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 93 | 437 | 704 | 13 | 2.1 | K513_0480 EZ505U | 1000 | 1800 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 93 | 557 | 921 | 16 | 1.6 | K513_0480 EZ703U | 1000 | 1800 | 48.16 | 2697/56 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 103 | 395 | 636 | 13 | 2.2 | K513_0440 EZ505U | 1000 | 1800 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 13 | 10.0 | 5.0 | 2.0 | 50 | 52 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K5 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 1000 Nm)** | | | | | | | | | | | | | | | | | | |
| 103 | 503 | 832 | 16 | 1.7 | K513_0440 EZ703U | 1000 | 1800 | 43.50 | 87/2 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 117 | 350 | 564 | 13 | 2.4 | K513_0390 EZ505U | 1000 | 1800 | 38.53 | 2697/70 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 117 | 446 | 737 | 17 | 1.9 | K513_0390 EZ703U | 1000 | 1800 | 38.53 | 2697/70 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 129 | 316 | 509 | 13 | 2.6 | K513_0350 EZ505U | 1000 | 1781 | 34.80 | 174/5 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 129 | 403 | 665 | 17 | 2.0 | K513_0350 EZ703U | 1000 | 1781 | 34.80 | 174/5 | 3400 | 3000 | 5000 | 23 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 139 | 293 | 473 | 13 | 2.7 | K513_0320 EZ505U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 139 | 374 | 618 | 17 | 2.1 | K513_0320 EZ703U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 24 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 139 | 507 | 927 | 23 | 1.6 | K513_0320 EZ705U | 1000 | 1800 | 32.31 | 20677/640 | 3400 | 3000 | 5000 | 36 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| 154 | 265 | 427 | 13 | 2.9 | K513_0290 EZ505U | 1000 | 1656 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 14 | 10.0 | 5.0 | 2.0 | 50 | 52 |
| 154 | 338 | 558 | 17 | 2.3 | K513_0290 EZ703U | 1000 | 1656 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 24 | 10.0 | 5.0 | 2.0 | 50 | 54 |
| 154 | 458 | 837 | 23 | 1.7 | K513_0290 EZ705U | 1000 | 1800 | 29.18 | 4669/160 | 3400 | 3000 | 5000 | 36 | 10.0 | 5.0 | 2.0 | 50 | 60 |
| **K6 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 1600 Nm)** | | | | | | | | | | | | | | | | | | |
| 52 | 1428 | 1602 | 34 | 1.0 | K613_0380 EZ813U | 1600 | 2900 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 107 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 58 | 1290 | 1447 | 34 | 1.1 | K613_0350 EZ813U | 1600 | 2900 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 107 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 63 | 1187 | 1332 | 34 | 1.1 | K613_0320 EZ813U | 1600 | 2900 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 108 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 70 | 1072 | 1203 | 34 | 1.2 | K613_0290 EZ813U | 1600 | 2900 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 108 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 83 | 895 | 1004 | 34 | 1.4 | K613_0240 EZ813U | 1600 | 2900 | 24.01 | 24583/1024 | 2600 | 2300 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 92 | 808 | 907 | 35 | 1.5 | K613_0220 EZ813U | 1600 | 2900 | 21.68 | 5551/256 | 2600 | 2300 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 105 | 708 | 794 | 35 | 1.6 | K613_0190 EZ813U | 1600 | 2900 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 112 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 105 | 1049 | 1249 | 51 | 1.1 | K613_0190 EZ815U | 1600 | 2900 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 175 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 117 | 639 | 717 | 35 | 1.7 | K613_0170 EZ813U | 1600 | 2900 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 112 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 117 | 947 | 1128 | 52 | 1.2 | K613_0170 EZ815U | 1600 | 2900 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 176 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 126 | 591 | 663 | 35 | 1.8 | K613_0160 EZ813U | 1600 | 2900 | 15.87 | 54839/3456 | 2200 | 2000 | 3500 | 115 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 126 | 876 | 1043 | 52 | 1.2 | K613_0160 EZ815U | 1600 | 2900 | 15.87 | 54839/3456 | 2200 | 2000 | 3500 | 178 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 140 | 534 | 599 | 35 | 2.0 | K613_0145 EZ813U | 1600 | 2739 | 14.33 | 12383/864 | 2200 | 2000 | 3500 | 115 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 140 | 791 | 942 | 52 | 1.3 | K613_0145 EZ815U | 1600 | 2739 | 14.33 | 12383/864 | 2200 | 2000 | 3500 | 178 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 158 | 471 | 528 | 35 | 2.1 | K613_0125 EZ813U | 1600 | 2414 | 12.63 | 3233/256 | 2200 | 2000 | 3500 | 118 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 158 | 697 | 830 | 52 | 1.4 | K613_0125 EZ815U | 1600 | 2414 | 12.63 | 3233/256 | 2200 | 2000 | 3500 | 182 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 175 | 425 | 477 | 35 | 2.3 | K613_0115 EZ813U | 1527 | 2181 | 11.41 | 22631/1984 | 2200 | 2000 | 3500 | 119 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 175 | 630 | 750 | 52 | 1.5 | K613_0115 EZ815U | 1594 | 2181 | 11.41 | 22631/1984 | 2200 | 2000 | 3500 | 182 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 247 | 302 | 339 | 36 | 2.9 | K613_0081 EZ813U | 1085 | 2900 | 8.107 | 85095/10496 | 1800 | 1700 | 3000 | 131 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 247 | 448 | 533 | 53 | 1.9 | K613_0081 EZ815U | 1422 | 2900 | 8.107 | 85095/10496 | 1800 | 1700 | 3000 | 194 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 273 | 273 | 306 | 36 | 3.1 | K613_0073 EZ813U | 980 | 2625 | 7.323 | 19215/2624 | 1800 | 1700 | 3000 | 134 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 273 | 404 | 481 | 53 | 2.1 | K613_0073 EZ815U | 1375 | 2625 | 7.323 | 19215/2624 | 1800 | 1700 | 3000 | 197 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| **K6 ($n_{1N}$ = 3000 min$^{-1}$, $M_{2acc,max}$ = 1600 Nm)** | | | | | | | | | | | | | | | | | | |
| 10 | 1191 | 1302 | 6.8 | 1.2 | K614_2940 EZ501U | 1600 | 2900 | 294.4 | 3674213/12480 | 3100 | 2800 | 4500 | 3.1 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 11 | 1076 | 1176 | 7.2 | 1.2 | K614_2660 EZ501U | 1577 | 2628 | 265.9 | 829661/3120 | 3100 | 2800 | 4500 | 3.1 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 12 | 997 | 1090 | 6.4 | 1.5 | K614_2460 EZ501U | 1600 | 2900 | 246.3 | 1261297/5120 | 3100 | 2800 | 4500 | 3.1 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 13 | 900 | 984 | 6.2 | 1.6 | K614_2230 EZ501U | 1600 | 2781 | 222.5 | 284809/1280 | 3100 | 2800 | 4500 | 3.1 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 16 | 747 | 816 | 5.9 | 1.9 | K614_1850 EZ501U | 1600 | 2294 | 184.6 | 383873/2080 | 3100 | 2800 | 4500 | 3.2 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 16 | 1285 | 1389 | 10 | 1.1 | K614_1850 EZ502U | 1600 | 2294 | 184.6 | 383873/2080 | 3100 | 2800 | 4500 | 5.5 | 10.0 | 6.0 | 3.0 | 83 | 73 |
| 18 | 674 | 737 | 5.7 | 2.1 | K614_1670 EZ501U | 1600 | 2072 | 166.7 | 86681/520 | 3100 | 2800 | 4500 | 3.2 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 18 | 1161 | 1255 | 9.9 | 1.2 | K614_1670 EZ502U | 1600 | 2072 | 166.7 | 86681/520 | 3100 | 2800 | 4500 | 5.5 | 10.0 | 6.0 | 3.0 | 83 | 73 |
| 20 | 600 | 655 | 5.5 | 2.4 | K614_1480 EZ501U | 1600 | 2174 | 148.2 | 4551637/30720 | 3100 | 2800 | 4500 | 3.2 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 20 | 1032 | 1115 | 9.5 | 1.4 | K614_1480 EZ502U | 1600 | 2174 | 148.2 | 4551637/30720 | 3100 | 2800 | 4500 | 5.5 | 10.0 | 6.0 | 3.0 | 83 | 73 |
| 20 | 1352 | 1548 | 12 | 1.1 | K614_1480 EZ503U | 1600 | 2174 | 148.2 | 4551637/30720 | 3100 | 2800 | 4500 | 7.9 | 10.0 | 6.0 | 3.0 | 83 | 75 |
| 22 | 542 | 592 | 5.6 | 2.5 | K614_1340 EZ501U | 1571 | 1964 | 133.8 | 1027789/7680 | 3100 | 2800 | 4500 | 3.2 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 22 | 932 | 1007 | 9.7 | 1.5 | K614_1340 EZ502U | 1571 | 1964 | 133.8 | 1027789/7680 | 3100 | 2800 | 4500 | 5.5 | 10.0 | 6.0 | 3.0 | 83 | 73 |
| 22 | 1222 | 1398 | 13 | 1.1 | K614_1340 EZ503U | 1571 | 1964 | 133.8 | 1027789/7680 | 3100 | 2800 | 4500 | 7.9 | 10.0 | 6.0 | 3.0 | 83 | 75 |
| 24 | 498 | 545 | 5.2 | 2.9 | K614_1230 EZ501U | 1600 | 2003 | 123.2 | 1261297/10240 | 3100 | 2800 | 4500 | 3.3 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 24 | 858 | 927 | 9.0 | 1.7 | K614_1230 EZ502U | 1600 | 2003 | 123.2 | 1261297/10240 | 3100 | 2800 | 4500 | 5.6 | 10.0 | 6.0 | 3.0 | 83 | 73 |
| 24 | 1124 | 1287 | 12 | 1.3 | K614_1230 EZ503U | 1600 | 2003 | 123.2 | 1261297/10240 | 3100 | 2800 | 4500 | 8.0 | 10.0 | 6.0 | 3.0 | 83 | 75 |
| 27 | 450 | 492 | 5.5 | 3.0 | K614_1110 EZ501U | 1448 | 1809 | 111.3 | 284809/2560 | 3100 | 2800 | 4500 | 3.3 | 10.0 | 6.0 | 3.0 | 83 | 72 |
| 27 | 775 | 838 | 9.5 | 1.7 | K614_1110 EZ502U | 1448 | 1809 | 111.3 | 284809/2560 | 3100 | 2800 | 4500 | 5.6 | 10.0 | 6.0 | 3.0 | 83 | 73 |
| 27 | 1015 | 1162 | 12 | 1.3 | K614_1110 EZ503U | 1448 | 1809 | 111.3 | 284809/2560 | 3100 | 2800 | 4500 | 8.0 | 10.0 | 6.0 | 3.0 | 83 | 75 |
| 31 | 392 | 429 | 6.6 | 2.7 | K613_0950 EZ501U | 1290 | 1888 | 95.41 | 293105/3072 | 3100 | 2800 | 4500 | 3.5 | 10.0 | 5.0 | 2.0 | 83 | 68 |
| 31 | 675 | 730 | 11 | 1.6 | K613_0950 EZ502U | 1290 | 1888 | 95.41 | 293105/3072 | 3100 | 2800 | 4500 | 5.8 | 10.0 | 5.0 | 2.0 | 83 | 70 |
| 31 | 675 | 757 | 11 | 1.6 | K613_0950 EZ701U | 1290 | 1888 | 95.41 | 293105/3072 | 3100 | 2800 | 4500 | 9.1 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 31 | 885 | 1012 | 15 | 1.2 | K613_0950 EZ503U | 1290 | 1888 | 95.41 | 293105/3072 | 3100 | 2800 | 4500 | 8.1 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 35 | 354 | 387 | 7.1 | 2.7 | K613_0860 EZ501U | 1165 | 1706 | 86.18 | 66185/768 | 3100 | 2800 | 4500 | 3.5 | 10.0 | 5.0 | 2.0 | 83 | 68 |
| 35 | 610 | 659 | 12 | 1.6 | K613_0860 EZ502U | 1165 | 1706 | 86.18 | 66185/768 | 3100 | 2800 | 4500 | 5.8 | 10.0 | 5.0 | 2.0 | 83 | 70 |
| 35 | 610 | 684 | 12 | 1.6 | K613_0860 EZ701U | 1165 | 1706 | 86.18 | 66185/768 | 3100 | 2800 | 4500 | 9.1 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 35 | 799 | 914 | 16 | 1.2 | K613_0860 EZ503U | 1165 | 1706 | 86.18 | 66185/768 | 3100 | 2800 | 4500 | 8.2 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 39 | 313 | 342 | 5.5 | 3.8 | K613_0760 EZ501U | 1165 | 1501 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 3.7 | 10.0 | 5.0 | 2.0 | 83 | 68 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K6 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 1600 Nm) | | | | | | | | | | | | | | | | | | |
| 39 | 539 | 582 | 9.5 | 2.2 | K613_0760 EZ502U | 1200 | 1501 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 6.0 | 10.0 | 5.0 | 2.0 | 83 | 70 |
| 39 | 539 | 604 | 7.9 | 2.7 | K613_0760 EZ701U | 1456 | 2900 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 9.3 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 39 | 706 | 808 | 12 | 1.7 | K613_0760 EZ503U | 1200 | 1501 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 8.4 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 39 | 873 | 1048 | 13 | 1.7 | K613_0760 EZ702U | 1600 | 2900 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 39 | 983 | 1165 | 14 | 1.5 | K613_0760 EZ505U | 1600 | 2900 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 39 | 1201 | 1514 | 18 | 1.2 | K613_0760 EZ703U | 1600 | 2900 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 22 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 44 | 283 | 309 | 5.9 | 3.8 | K613_0690 EZ501U | 1052 | 1355 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 3.8 | 10.0 | 5.0 | 2.0 | 83 | 68 |
| 44 | 487 | 526 | 10 | 2.2 | K613_0690 EZ502U | 1084 | 1355 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 6.1 | 10.0 | 5.0 | 2.0 | 83 | 70 |
| 44 | 487 | 546 | 8.4 | 2.7 | K613_0690 EZ701U | 1315 | 2628 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 9.4 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 44 | 638 | 730 | 13 | 1.7 | K613_0690 EZ503U | 1084 | 1355 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 8.4 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 44 | 789 | 947 | 14 | 1.7 | K613_0690 EZ702U | 1577 | 2628 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 44 | 888 | 1052 | 15 | 1.5 | K613_0690 EZ505U | 1577 | 2628 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 44 | 1085 | 1368 | 19 | 1.2 | K613_0690 EZ703U | 1577 | 2628 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 22 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 47 | 451 | 506 | 7.5 | 3.2 | K613_0640 EZ701U | 1218 | 2900 | 63.71 | 130479/2048 | 3100 | 2800 | 4500 | 9.6 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 47 | 731 | 877 | 12 | 2.0 | K613_0640 EZ702U | 1600 | 2900 | 63.71 | 130479/2048 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 47 | 822 | 975 | 14 | 1.8 | K613_0640 EZ505U | 1600 | 2900 | 63.71 | 130479/2048 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 47 | 1005 | 1267 | 17 | 1.4 | K613_0640 EZ703U | 1600 | 2900 | 63.71 | 130479/2048 | 3100 | 2800 | 4500 | 23 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 52 | 407 | 457 | 7.3 | 3.6 | K613_0580 EZ701U | 1100 | 2781 | 57.55 | 29463/512 | 3100 | 2800 | 4500 | 9.7 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 52 | 660 | 792 | 12 | 2.2 | K613_0580 EZ702U | 1600 | 2781 | 57.55 | 29463/512 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 52 | 743 | 880 | 13 | 1.9 | K613_0580 EZ505U | 1600 | 2781 | 57.55 | 29463/512 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 52 | 908 | 1144 | 16 | 1.6 | K613_0580 EZ703U | 1600 | 2781 | 57.55 | 29463/512 | 3100 | 2800 | 4500 | 23 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 63 | 338 | 379 | 7.3 | 4.0 | K613_0480 EZ701U | 913 | 2294 | 47.73 | 39711/832 | 3100 | 2800 | 4500 | 10 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 63 | 548 | 657 | 12 | 2.5 | K613_0480 EZ702U | 1600 | 2294 | 47.73 | 39711/832 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 63 | 616 | 730 | 13 | 2.2 | K613_0480 EZ505U | 1600 | 2294 | 47.73 | 39711/832 | 3100 | 2800 | 4500 | 14 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 63 | 753 | 949 | 16 | 1.8 | K613_0480 EZ703U | 1600 | 2294 | 47.73 | 39711/832 | 3100 | 2800 | 4500 | 23 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 70 | 305 | 342 | 7.3 | 4.3 | K613_0430 EZ701U | 824 | 2072 | 43.11 | 8967/208 | 3100 | 2800 | 4500 | 10 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 70 | 495 | 593 | 12 | 2.7 | K613_0430 EZ702U | 1600 | 2072 | 43.11 | 8967/208 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 70 | 556 | 659 | 13 | 2.4 | K613_0430 EZ505U | 1600 | 2072 | 43.11 | 8967/208 | 3100 | 2800 | 4500 | 14 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 70 | 680 | 857 | 16 | 1.9 | K613_0430 EZ703U | 1600 | 2072 | 43.11 | 8967/208 | 3100 | 2800 | 4500 | 24 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 78 | 271 | 304 | 7.4 | 4.7 | K613_0380 EZ701U | 733 | 2174 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 11 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 78 | 440 | 528 | 12 | 2.9 | K613_0380 EZ702U | 1502 | 2174 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 78 | 495 | 586 | 13 | 2.6 | K613_0380 EZ505U | 1600 | 2174 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 78 | 604 | 762 | 16 | 2.1 | K613_0380 EZ703U | 1600 | 2174 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 24 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 78 | 780 | 1106 | 21 | 1.6 | K613_0380 EZ705U | 1600 | 2900 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 37 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 87 | 245 | 275 | 7.4 | 5.0 | K613_0350 EZ701U | 662 | 1964 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 11 | 10.0 | 5.0 | 2.0 | 83 | 71 |
| 87 | 397 | 476 | 12 | 3.1 | K613_0350 EZ702U | 1357 | 1964 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 87 | 447 | 529 | 13 | 2.7 | K613_0350 EZ505U | 1571 | 1964 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 87 | 546 | 688 | 16 | 2.2 | K613_0350 EZ703U | 1571 | 1964 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 24 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 87 | 705 | 999 | 21 | 1.7 | K613_0350 EZ705U | 1600 | 2900 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 37 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 94 | 365 | 439 | 12 | 3.2 | K613_0320 EZ702U | 1249 | 2003 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 17 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 94 | 411 | 487 | 14 | 2.9 | K613_0320 EZ505U | 1600 | 2003 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 94 | 502 | 633 | 17 | 2.4 | K613_0320 EZ703U | 1600 | 2003 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 25 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 94 | 649 | 920 | 21 | 1.8 | K613_0320 EZ705U | 1600 | 2900 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 38 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 104 | 330 | 396 | 12 | 3.5 | K613_0290 EZ702U | 1128 | 1809 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 17 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 104 | 371 | 440 | 14 | 3.1 | K613_0290 EZ505U | 1448 | 1809 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 104 | 454 | 572 | 17 | 2.5 | K613_0290 EZ703U | 1448 | 1809 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 25 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 104 | 586 | 831 | 21 | 2.0 | K613_0290 EZ705U | 1600 | 2900 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 38 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 125 | 489 | 693 | 22 | 2.2 | K613_0240 EZ705U | 1600 | 2900 | 24.01 | 24583/1024 | 2600 | 2300 | 4000 | 40 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 138 | 442 | 626 | 22 | 2.4 | K613_0220 EZ705U | 1600 | 2900 | 21.68 | 5551/256 | 2600 | 2300 | 4000 | 40 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 158 | 218 | 261 | 12 | 4.6 | K613_0190 EZ702U | 744 | 1361 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 21 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 158 | 245 | 291 | 14 | 4.1 | K613_0190 EZ505U | 1089 | 1361 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 20 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 158 | 300 | 378 | 17 | 3.3 | K613_0190 EZ703U | 1089 | 1361 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 29 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 158 | 387 | 548 | 22 | 2.6 | K613_0190 EZ705U | 1600 | 2900 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 42 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 175 | 197 | 236 | 12 | 4.9 | K613_0170 EZ702U | 672 | 1229 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 22 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 175 | 221 | 262 | 14 | 4.4 | K613_0170 EZ505U | 984 | 1229 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 20 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 175 | 271 | 341 | 17 | 3.6 | K613_0170 EZ703U | 984 | 1229 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 30 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 175 | 349 | 495 | 22 | 2.8 | K613_0170 EZ705U | 1600 | 2900 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 42 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 189 | 323 | 458 | 22 | 2.9 | K613_0160 EZ705U | 1578 | 2900 | 15.87 | 54839/3456 | 2200 | 2000 | 3500 | 44 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 209 | 292 | 414 | 22 | 3.1 | K613_0145 EZ705U | 1425 | 2739 | 14.33 | 12383/864 | 2200 | 2000 | 3500 | 45 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 238 | 257 | 365 | 22 | 3.4 | K613_0125 EZ705U | 1256 | 2414 | 12.63 | 3233/256 | 2200 | 2000 | 3500 | 48 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 263 | 232 | 329 | 22 | 3.6 | K613_0115 EZ705U | 1134 | 2181 | 11.41 | 22631/1984 | 2200 | 2000 | 3500 | 49 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 370 | 165 | 234 | 22 | 4.6 | K613_0081 EZ705U | 806 | 1550 | 8.107 | 85095/10496 | 1800 | 1700 | 3000 | 61 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 410 | 149 | 211 | 22 | 4.9 | K613_0073 EZ705U | 728 | 1400 | 7.323 | 19215/2624 | 1800 | 1700 | 3000 | 63 | 10.0 | 5.0 | 2.0 | 83 | 81 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **K6 ($n_{1N}$ = 4000 min$^{-1}$, $M_{2acc,max}$ = 1600 Nm)** | | | | | | | | | | | | | | | | | | |
| 104 | 923 | 1601 | 28 | 1.2 | K613_0380 EZ813U | 1600 | 2900 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 107 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 104 | 956 | 2460 | 29 | 1.2 | K613_0380 EZ815U | 1600 | 2900 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 170 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 116 | 834 | 1446 | 28 | 1.3 | K613_0350 EZ813U | 1600 | 2900 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 107 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 116 | 864 | 2221 | 29 | 1.3 | K613_0350 EZ815U | 1600 | 2900 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 170 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 126 | 767 | 1331 | 28 | 1.4 | K613_0320 EZ813U | 1600 | 2900 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 108 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 126 | 795 | 2045 | 29 | 1.4 | K613_0320 EZ815U | 1600 | 2900 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 171 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 139 | 693 | 1202 | 28 | 1.5 | K613_0290 EZ813U | 1600 | 2900 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 108 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 139 | 718 | 1847 | 29 | 1.5 | K613_0290 EZ815U | 1600 | 2900 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 171 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 167 | 578 | 1003 | 28 | 1.7 | K613_0240 EZ813U | 1600 | 2900 | 24.01 | 24583/1024 | 2600 | 2300 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 167 | 599 | 1541 | 29 | 1.6 | K613_0240 EZ815U | 1600 | 2900 | 24.01 | 24583/1024 | 2600 | 2300 | 4000 | 173 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 184 | 522 | 906 | 28 | 1.8 | K613_0220 EZ813U | 1600 | 2900 | 21.68 | 5551/256 | 2600 | 2300 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 184 | 541 | 1392 | 29 | 1.8 | K613_0220 EZ815U | 1600 | 2900 | 21.68 | 5551/256 | 2600 | 2300 | 4000 | 173 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 211 | 458 | 794 | 28 | 2.0 | K613_0190 EZ813U | 1600 | 2900 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 112 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 211 | 474 | 1219 | 29 | 1.9 | K613_0190 EZ815U | 1600 | 2900 | 18.99 | 17019/896 | 2600 | 2300 | 4000 | 175 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| 233 | 413 | 717 | 28 | 2.1 | K613_0170 EZ813U | 1600 | 2900 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 112 | 10.0 | 5.0 | 2.0 | 83 | 99 |
| 233 | 428 | 1101 | 29 | 2.1 | K613_0170 EZ815U | 1600 | 2900 | 17.16 | 549/32 | 2600 | 2300 | 4000 | 176 | 10.0 | 5.0 | 2.0 | 83 | 111 |
| **K6 ($n_{1N}$ = 4500 min$^{-1}$, $M_{2acc,max}$ = 1600 Nm)** | | | | | | | | | | | | | | | | | | |
| 59 | 692 | 1114 | 11 | 2.0 | K613_0760 EZ505U | 1600 | 2900 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 59 | 881 | 1456 | 13 | 1.6 | K613_0760 EZ703U | 1600 | 2900 | 76.14 | 126697/1664 | 3100 | 2800 | 4500 | 22 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 65 | 625 | 1006 | 11 | 2.1 | K613_0690 EZ505U | 1577 | 2628 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 65 | 796 | 1315 | 14 | 1.7 | K613_0690 EZ703U | 1577 | 2628 | 68.77 | 28609/416 | 3100 | 2800 | 4500 | 22 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 71 | 579 | 932 | 11 | 2.3 | K613_0640 EZ505U | 1600 | 2900 | 63.71 | 130479/2048 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 71 | 737 | 1218 | 14 | 1.8 | K613_0640 EZ703U | 1600 | 2900 | 63.71 | 130479/2048 | 3100 | 2800 | 4500 | 23 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 78 | 523 | 842 | 11 | 2.4 | K613_0580 EZ505U | 1600 | 2781 | 57.55 | 29463/512 | 3100 | 2800 | 4500 | 13 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 78 | 666 | 1100 | 14 | 1.9 | K613_0580 EZ703U | 1600 | 2781 | 57.55 | 29463/512 | 3100 | 2800 | 4500 | 23 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 94 | 433 | 698 | 11 | 2.7 | K613_0480 EZ505U | 1600 | 2294 | 47.73 | 39711/832 | 3100 | 2800 | 4500 | 14 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 94 | 552 | 913 | 14 | 2.2 | K613_0480 EZ703U | 1600 | 2294 | 47.73 | 39711/832 | 3100 | 2800 | 4500 | 23 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 104 | 392 | 631 | 11 | 2.9 | K613_0430 EZ505U | 1600 | 2072 | 43.11 | 8967/208 | 3100 | 2800 | 4500 | 14 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 104 | 499 | 824 | 14 | 2.3 | K613_0430 EZ703U | 1600 | 2072 | 43.11 | 8967/208 | 3100 | 2800 | 4500 | 24 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 117 | 348 | 560 | 11 | 3.2 | K613_0380 EZ505U | 1600 | 2174 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 117 | 443 | 733 | 14 | 2.5 | K613_0380 EZ703U | 1600 | 2174 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 24 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 117 | 601 | 1099 | 19 | 1.8 | K613_0380 EZ705U | 1600 | 2900 | 38.32 | 156953/4096 | 3100 | 2800 | 4500 | 37 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 130 | 314 | 506 | 11 | 3.4 | K613_0350 EZ505U | 1571 | 1964 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 15 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 130 | 400 | 662 | 14 | 2.7 | K613_0350 EZ703U | 1571 | 1964 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 24 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 130 | 543 | 993 | 19 | 2.0 | K613_0350 EZ705U | 1600 | 2900 | 34.61 | 35441/1024 | 3100 | 2800 | 4500 | 37 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 141 | 289 | 466 | 11 | 3.6 | K613_0320 EZ505U | 1600 | 2003 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 141 | 368 | 609 | 14 | 2.8 | K613_0320 EZ703U | 1600 | 2003 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 25 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 141 | 499 | 914 | 19 | 2.1 | K613_0320 EZ705U | 1600 | 2900 | 31.86 | 130479/4096 | 3100 | 2800 | 4500 | 38 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| 156 | 261 | 421 | 11 | 3.8 | K613_0290 EZ505U | 1448 | 1809 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 16 | 10.0 | 5.0 | 2.0 | 83 | 74 |
| 156 | 333 | 550 | 14 | 3.0 | K613_0290 EZ703U | 1448 | 1809 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 25 | 10.0 | 5.0 | 2.0 | 83 | 76 |
| 156 | 451 | 825 | 19 | 2.2 | K613_0290 EZ705U | 1600 | 2900 | 28.77 | 29463/1024 | 3100 | 2800 | 4500 | 38 | 10.0 | 5.0 | 2.0 | 83 | 81 |
| **K7 ($n_{1N}$ = 2000 min$^{-1}$, $M_{2acc,max}$ = 2600 Nm)** | | | | | | | | | | | | | | | | | | |
| 34 | 2183 | 2449 | 25 | 1.1 | K713_0590 EZ813U | 2600 | 4800 | 58.57 | 7497/128 | 2900 | 2600 | 4200 | 107 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 40 | 1859 | 2085 | 24 | 1.3 | K713_0500 EZ813U | 2600 | 4800 | 49.88 | 166005/3328 | 2900 | 2600 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 44 | 1679 | 1884 | 23 | 1.4 | K713_0450 EZ813U | 2600 | 4800 | 45.05 | 37485/832 | 2900 | 2600 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 51 | 1462 | 1640 | 23 | 1.6 | K713_0390 EZ813U | 2600 | 4800 | 39.23 | 2511/64 | 2900 | 2600 | 4200 | 110 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 51 | 2166 | 2579 | 33 | 1.1 | K713_0390 EZ815U | 2600 | 4800 | 39.23 | 2511/64 | 2900 | 2600 | 4200 | 173 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 56 | 1321 | 1482 | 23 | 1.7 | K713_0350 EZ813U | 2600 | 4558 | 35.44 | 567/16 | 2900 | 2600 | 4200 | 110 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 56 | 1956 | 2330 | 34 | 1.2 | K713_0350 EZ815U | 2600 | 4558 | 35.44 | 567/16 | 2900 | 2600 | 4200 | 173 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 62 | 1209 | 1355 | 23 | 1.9 | K713_0320 EZ813U | 2600 | 4800 | 32.42 | 33201/1024 | 2900 | 2600 | 4200 | 112 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 62 | 1790 | 2131 | 34 | 1.3 | K713_0320 EZ815U | 2600 | 4800 | 32.42 | 33201/1024 | 2900 | 2600 | 4200 | 175 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 68 | 1092 | 1224 | 23 | 2.0 | K713_0290 EZ813U | 2600 | 4800 | 29.29 | 7497/256 | 2900 | 2600 | 4200 | 112 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 68 | 1617 | 1925 | 34 | 1.3 | K713_0290 EZ815U | 2600 | 4800 | 29.29 | 7497/256 | 2900 | 2600 | 4200 | 176 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 79 | 938 | 1052 | 23 | 2.2 | K713_0250 EZ813U | 2600 | 4800 | 25.18 | 64449/2560 | 2400 | 2200 | 3600 | 116 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 79 | 1390 | 1655 | 34 | 1.5 | K713_0250 EZ815U | 2600 | 4800 | 25.18 | 64449/2560 | 2400 | 2200 | 3600 | 179 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 88 | 848 | 951 | 23 | 2.3 | K713_0230 EZ813U | 2600 | 4800 | 22.74 | 14553/640 | 2400 | 2200 | 3600 | 117 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 88 | 1255 | 1495 | 34 | 1.6 | K713_0230 EZ815U | 2600 | 4800 | 22.74 | 14553/640 | 2400 | 2200 | 3600 | 180 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 99 | 754 | 846 | 23 | 2.5 | K713_0200 EZ813U | 2600 | 4800 | 20.23 | 119133/5888 | 2400 | 2200 | 3600 | 120 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 99 | 1117 | 1330 | 34 | 1.7 | K713_0200 EZ815U | 2600 | 4800 | 20.23 | 119133/5888 | 2400 | 2200 | 3600 | 184 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 109 | 681 | 764 | 23 | 2.7 | K713_0185 EZ813U | 2446 | 4800 | 18.28 | 26901/1472 | 2400 | 2200 | 3600 | 121 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 109 | 1009 | 1201 | 34 | 1.8 | K713_0185 EZ815U | 2600 | 4800 | 18.28 | 26901/1472 | 2400 | 2200 | 3600 | 184 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 122 | 611 | 685 | 23 | 2.9 | K713_0165 EZ813U | 2193 | 4800 | 16.39 | 6293/384 | 2000 | 1900 | 3200 | 126 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 122 | 905 | 1077 | 34 | 2.0 | K713_0165 EZ815U | 2600 | 4800 | 16.39 | 6293/384 | 2000 | 1900 | 3200 | 189 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 135 | 552 | 619 | 23 | 3.1 | K713_0150 EZ813U | 1981 | 4800 | 14.80 | 1421/96 | 2000 | 1900 | 3200 | 127 | 10.0 | 5.0 | 2.0 | 126 | 127 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/ arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K7 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 2600 Nm) | | | | | | | | | | | | | | | | | | |
| 135 | 817 | 973 | 35 | 2.1 | K713_0150 EZ815U | 2600 | 4800 | 14.80 | 1421/96 | 2000 | 1900 | 3200 | 190 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 153 | 486 | 545 | 23 | 3.4 | K713_0130 EZ813U | 1746 | 4675 | 13.04 | 3339/256 | 2000 | 1900 | 3200 | 133 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 153 | 720 | 857 | 35 | 2.3 | K713_0130 EZ815U | 2494 | 4675 | 13.04 | 3339/256 | 2000 | 1900 | 3200 | 197 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 170 | 439 | 493 | 23 | 3.6 | K713_0120 EZ813U | 1577 | 4223 | 11.78 | 23373/1984 | 2000 | 1900 | 3200 | 135 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 170 | 650 | 774 | 35 | 2.5 | K713_0120 EZ815U | 2253 | 4223 | 11.78 | 23373/1984 | 2000 | 1900 | 3200 | 198 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 197 | 379 | 425 | 24 | 4.0 | K713_0100 EZ813U | 1361 | 3645 | 10.17 | 651/64 | 1700 | 1600 | 2700 | 146 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 197 | 562 | 669 | 35 | 2.7 | K713_0100 EZ815U | 1945 | 3645 | 10.17 | 651/64 | 1700 | 1600 | 2700 | 209 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 218 | 342 | 384 | 24 | 4.3 | K713_0092 EZ813U | 1230 | 3292 | 9.188 | 147/16 | 1700 | 1600 | 2700 | 149 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 218 | 507 | 604 | 35 | 2.9 | K713_0092 EZ815U | 1757 | 3292 | 9.188 | 147/16 | 1700 | 1600 | 2700 | 212 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 239 | 312 | 350 | 24 | 4.6 | K713_0084 EZ813U | 1121 | 3002 | 8.373 | 87885/10496 | 1700 | 1600 | 2700 | 159 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 239 | 462 | 550 | 35 | 3.1 | K713_0084 EZ815U | 1601 | 3002 | 8.373 | 87885/10496 | 1700 | 1600 | 2700 | 223 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 264 | 282 | 316 | 24 | 4.9 | K713_0076 EZ813U | 1012 | 2712 | 7.563 | 19845/2624 | 1700 | 1600 | 2700 | 164 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 264 | 418 | 497 | 35 | 3.3 | K713_0076 EZ815U | 1446 | 2712 | 7.563 | 19845/2624 | 1700 | 1600 | 2700 | 227 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| K7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2600 Nm) | | | | | | | | | | | | | | | | | | |
| 7.9 | 1542 | 1685 | 6.2 | 1.2 | K714_3810 EZ501U | 2221 | 3225 | 381.0 | 195083/512 | 2900 | 2600 | 4200 | 3.1 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 8.7 | 1393 | 1522 | 6.7 | 1.2 | K714_3440 EZ501U | 2006 | 2913 | 344.1 | 44051/128 | 2900 | 2600 | 4200 | 3.1 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 9.8 | 1233 | 1348 | 5.3 | 1.7 | K714_3050 EZ501U | 2514 | 3143 | 304.8 | 195083/640 | 2900 | 2600 | 4200 | 3.2 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 11 | 1114 | 1218 | 5.7 | 1.7 | K714_2750 EZ501U | 2271 | 2839 | 275.3 | 44051/160 | 2900 | 2600 | 4200 | 3.2 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 12 | 1769 | 1984 | 7.3 | 1.4 | K714_2540 EZ701U | 2600 | 4800 | 254.0 | 520149/2048 | 2900 | 2600 | 4200 | 9.1 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 12 | 1015 | 1109 | 5.1 | 2.0 | K714_2510 EZ501U | 2245 | 2807 | 250.7 | 320943/1280 | 2900 | 2600 | 4200 | 3.2 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 12 | 1746 | 1888 | 8.8 | 1.1 | K714_2510 EZ502U | 2245 | 2807 | 250.7 | 320943/1280 | 2900 | 2600 | 4200 | 5.5 | 10.0 | 6.0 | 3.0 | 126 | 106 |
| 13 | 1597 | 1792 | 7.1 | 1.5 | K714_2290 EZ701U | 2600 | 4800 | 229.4 | 117453/512 | 2900 | 2600 | 4200 | 9.1 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 13 | 916 | 1002 | 5.5 | 2.0 | K714_2260 EZ501U | 2028 | 2535 | 226.5 | 72471/320 | 2900 | 2600 | 4200 | 3.2 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 13 | 1577 | 1705 | 9.5 | 1.1 | K714_2260 EZ502U | 2028 | 2535 | 226.5 | 72471/320 | 2900 | 2600 | 4200 | 5.5 | 10.0 | 6.0 | 3.0 | 126 | 106 |
| 15 | 1360 | 1526 | 6.8 | 1.8 | K714_1950 EZ701U | 2600 | 4800 | 195.4 | 2600745/13312 | 2900 | 2600 | 4200 | 9.2 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 15 | 2206 | 2647 | 11 | 1.1 | K714_1950 EZ702U | 2600 | 4800 | 195.4 | 2600745/13312 | 2900 | 2600 | 4200 | 14 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 16 | 780 | 853 | 5.0 | 2.4 | K714_1930 EZ501U | 1938 | 2423 | 192.9 | 320943/1664 | 2900 | 2600 | 4200 | 3.3 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 16 | 1343 | 1452 | 8.7 | 1.4 | K714_1930 EZ502U | 1938 | 2423 | 192.9 | 320943/1664 | 2900 | 2600 | 4200 | 5.6 | 10.0 | 6.0 | 3.0 | 126 | 106 |
| 16 | 1760 | 2015 | 11 | 1.1 | K714_1930 EZ503U | 1938 | 2423 | 192.9 | 320943/1664 | 2900 | 2600 | 4200 | 8.0 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 17 | 1229 | 1378 | 6.6 | 2.0 | K714_1760 EZ701U | 2600 | 4800 | 176.5 | 587265/3328 | 2900 | 2600 | 4200 | 9.2 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 17 | 1993 | 2391 | 11 | 1.2 | K714_1760 EZ702U | 2600 | 4800 | 176.5 | 587265/3328 | 2900 | 2600 | 4200 | 14 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 17 | 705 | 770 | 5.4 | 2.4 | K714_1740 EZ501U | 1751 | 2189 | 174.2 | 72471/416 | 2900 | 2600 | 4200 | 3.3 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 17 | 1213 | 1311 | 9.3 | 1.4 | K714_1740 EZ502U | 1751 | 2189 | 174.2 | 72471/416 | 2900 | 2600 | 4200 | 5.6 | 10.0 | 6.0 | 3.0 | 126 | 106 |
| 17 | 1590 | 1820 | 12 | 1.1 | K714_1740 EZ503U | 1751 | 2189 | 174.2 | 72471/416 | 2900 | 2600 | 4200 | 8.0 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 20 | 1070 | 1200 | 6.3 | 2.2 | K714_1540 EZ701U | 2600 | 4800 | 153.7 | 39339/256 | 2900 | 2600 | 4200 | 9.3 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 20 | 1735 | 2082 | 10 | 1.4 | K714_1540 EZ702U | 2600 | 4800 | 153.7 | 39339/256 | 2900 | 2600 | 4200 | 15 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 20 | 2386 | 3008 | 14 | 1.0 | K714_1540 EZ703U | 2600 | 4800 | 153.7 | 39339/256 | 2900 | 2600 | 4200 | 22 | 10.0 | 6.0 | 3.0 | 126 | 113 |
| 20 | 614 | 671 | 5.0 | 2.9 | K714_1520 EZ501U | 1800 | 2250 | 151.7 | 24273/160 | 2900 | 2600 | 4200 | 3.5 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 20 | 1056 | 1142 | 8.5 | 1.7 | K714_1520 EZ502U | 1800 | 2250 | 151.7 | 24273/160 | 2900 | 2600 | 4200 | 5.8 | 10.0 | 6.0 | 3.0 | 126 | 106 |
| 20 | 1385 | 1585 | 11 | 1.3 | K714_1520 EZ503U | 1800 | 2250 | 151.7 | 24273/160 | 2900 | 2600 | 4200 | 8.1 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 22 | 966 | 1084 | 6.1 | 2.5 | K714_1390 EZ701U | 2600 | 4558 | 138.8 | 8883/64 | 2900 | 2600 | 4200 | 9.3 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 22 | 1567 | 1881 | 9.9 | 1.5 | K714_1390 EZ702U | 2600 | 4558 | 138.8 | 8883/64 | 2900 | 2600 | 4200 | 15 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 22 | 2155 | 2717 | 14 | 1.1 | K714_1390 EZ703U | 2600 | 4558 | 138.8 | 8883/64 | 2900 | 2600 | 4200 | 22 | 10.0 | 6.0 | 3.0 | 126 | 113 |
| 22 | 554 | 606 | 5.3 | 2.9 | K714_1370 EZ501U | 1626 | 2032 | 137.0 | 5481/40 | 2900 | 2600 | 4200 | 3.5 | 10.0 | 6.0 | 3.0 | 126 | 105 |
| 22 | 954 | 1032 | 9.2 | 1.7 | K714_1370 EZ502U | 1626 | 2032 | 137.0 | 5481/40 | 2900 | 2600 | 4200 | 5.8 | 10.0 | 6.0 | 3.0 | 126 | 106 |
| 22 | 1251 | 1431 | 12 | 1.3 | K714_1370 EZ503U | 1626 | 2032 | 137.0 | 5481/40 | 2900 | 2600 | 4200 | 8.1 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 24 | 884 | 992 | 6.0 | 2.7 | K714_1270 EZ701U | 2390 | 4524 | 127.0 | 520149/4096 | 2900 | 2600 | 4200 | 9.5 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 24 | 1434 | 1721 | 9.7 | 1.7 | K714_1270 EZ702U | 2600 | 4524 | 127.0 | 520149/4096 | 2900 | 2600 | 4200 | 15 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 24 | 1972 | 2486 | 13 | 1.2 | K714_1270 EZ703U | 2600 | 4524 | 127.0 | 520149/4096 | 2900 | 2600 | 4200 | 23 | 10.0 | 6.0 | 3.0 | 126 | 113 |
| 26 | 799 | 896 | 5.8 | 3.0 | K714_1150 EZ701U | 2159 | 4087 | 114.7 | 117453/1024 | 2900 | 2600 | 4200 | 9.5 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 26 | 1295 | 1554 | 9.4 | 1.9 | K714_1150 EZ702U | 2600 | 4087 | 114.7 | 117453/1024 | 2900 | 2600 | 4200 | 15 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 26 | 1781 | 2245 | 13 | 1.3 | K714_1150 EZ703U | 2600 | 4087 | 114.7 | 117453/1024 | 2900 | 2600 | 4200 | 23 | 10.0 | 6.0 | 3.0 | 126 | 113 |
| 30 | 687 | 770 | 5.5 | 3.5 | K714_0990 EZ701U | 1856 | 3805 | 98.60 | 1009701/10240 | 2900 | 2600 | 4200 | 9.7 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 30 | 1113 | 1336 | 9.0 | 2.2 | K714_0990 EZ702U | 2600 | 3805 | 98.60 | 1009701/10240 | 2900 | 2600 | 4200 | 15 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 30 | 1531 | 1930 | 12 | 1.6 | K714_0990 EZ703U | 2600 | 3805 | 98.60 | 1009701/10240 | 2900 | 2600 | 4200 | 23 | 10.0 | 6.0 | 3.0 | 126 | 113 |
| 30 | 697 | 782 | 7.3 | 2.7 | K713_0990 EZ701U | 1884 | 3225 | 98.54 | 100905/1024 | 2900 | 2600 | 4200 | 9.7 | 10.0 | 5.0 | 2.0 | 126 | 100 |
| 30 | 1130 | 1357 | 12 | 1.6 | K713_0990 EZ702U | 2221 | 3225 | 98.54 | 100905/1024 | 2900 | 2600 | 4200 | 15 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 30 | 1554 | 1959 | 16 | 1.2 | K713_0990 EZ703U | 2221 | 3225 | 98.54 | 100905/1024 | 2900 | 2600 | 4200 | 23 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 34 | 620 | 696 | 5.6 | 3.7 | K714_0890 EZ701U | 1676 | 3437 | 89.06 | 227997/2560 | 2900 | 2600 | 4200 | 9.7 | 10.0 | 6.0 | 3.0 | 126 | 108 |
| 34 | 1006 | 1207 | 9.1 | 2.3 | K714_0890 EZ702U | 2600 | 3437 | 89.06 | 227997/2560 | 2900 | 2600 | 4200 | 15 | 10.0 | 6.0 | 3.0 | 126 | 111 |
| 34 | 1383 | 1743 | 13 | 1.6 | K714_0890 EZ703U | 2600 | 3437 | 89.06 | 227997/2560 | 2900 | 2600 | 4200 | 23 | 10.0 | 6.0 | 3.0 | 126 | 113 |
| 34 | 630 | 706 | 7.8 | 2.7 | K713_0890 EZ701U | 1702 | 2913 | 89.00 | 22785/256 | 2900 | 2600 | 4200 | 9.7 | 10.0 | 5.0 | 2.0 | 126 | 100 |
| 34 | 1021 | 1225 | 13 | 1.6 | K713_0890 EZ702U | 2006 | 2913 | 89.00 | 22785/256 | 2900 | 2600 | 4200 | 15 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 34 | 1404 | 1770 | 17 | 1.2 | K713_0890 EZ703U | 2006 | 2913 | 89.00 | 22785/256 | 2900 | 2600 | 4200 | 23 | 10.0 | 5.0 | 2.0 | 126 | 104 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **K7 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 2600 Nm)** | | | | | | | | | | | | | | | | | | |
| 38 | 558 | 626 | 5.2 | 4.3 | K713_0790 EZ701U | 1507 | 3143 | 78.83 | 20181/256 | 2900 | 2600 | 4200 | 10 | 10.0 | 5.0 | 2.0 | 126 | 100 |
| 38 | 904 | 1085 | 8.5 | 2.7 | K713_0790 EZ702U | 2514 | 3143 | 78.83 | 20181/256 | 2900 | 2600 | 4200 | 15 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 38 | 1243 | 1568 | 12 | 1.9 | K713_0790 EZ703U | 2514 | 3143 | 78.83 | 20181/256 | 2900 | 2600 | 4200 | 23 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 42 | 504 | 565 | 5.6 | 4.3 | K713_0710 EZ701U | 1361 | 2839 | 71.20 | 4557/64 | 2900 | 2600 | 4200 | 10 | 10.0 | 5.0 | 2.0 | 126 | 100 |
| 42 | 817 | 980 | 9.1 | 2.7 | K713_0710 EZ702U | 2271 | 2839 | 71.20 | 4557/64 | 2900 | 2600 | 4200 | 16 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 42 | 1123 | 1416 | 13 | 1.9 | K713_0710 EZ703U | 2271 | 2839 | 71.20 | 4557/64 | 2900 | 2600 | 4200 | 23 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 46 | 459 | 515 | 5.3 | 4.9 | K713_0650 EZ701U | 1240 | 2807 | 64.85 | 33201/512 | 2900 | 2600 | 4200 | 11 | 10.0 | 5.0 | 2.0 | 126 | 100 |
| 46 | 744 | 893 | 8.6 | 3.0 | K713_0650 EZ702U | 2245 | 2807 | 64.85 | 33201/512 | 2900 | 2600 | 4200 | 16 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 46 | 1023 | 1289 | 12 | 2.2 | K713_0650 EZ703U | 2245 | 2807 | 64.85 | 33201/512 | 2900 | 2600 | 4200 | 24 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 46 | 1320 | 1872 | 14 | 1.8 | K713_0650 EZ705U | 2600 | 4800 | 64.85 | 33201/512 | 2900 | 2600 | 4200 | 36 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 51 | 414 | 465 | 5.7 | 4.9 | K713_0590 EZ701U | 1120 | 2535 | 58.57 | 7497/128 | 2900 | 2600 | 4200 | 11 | 10.0 | 5.0 | 2.0 | 126 | 100 |
| 51 | 672 | 806 | 9.2 | 3.0 | K713_0590 EZ702U | 2028 | 2535 | 58.57 | 7497/128 | 2900 | 2600 | 4200 | 16 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 51 | 924 | 1165 | 13 | 2.2 | K713_0590 EZ703U | 2028 | 2535 | 58.57 | 7497/128 | 2900 | 2600 | 4200 | 24 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 51 | 1193 | 1691 | 14 | 2.0 | K713_0590 EZ705U | 2600 | 4800 | 58.57 | 7497/128 | 2900 | 2600 | 4200 | 37 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 60 | 572 | 687 | 9.2 | 3.4 | K713_0500 EZ702U | 1938 | 2423 | 49.88 | 166005/3328 | 2900 | 2600 | 4200 | 18 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 60 | 787 | 992 | 13 | 2.5 | K713_0500 EZ703U | 1938 | 2423 | 49.88 | 166005/3328 | 2900 | 2600 | 4200 | 26 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 60 | 1016 | 1440 | 14 | 2.2 | K713_0500 EZ705U | 2600 | 4800 | 49.88 | 166005/3328 | 2900 | 2600 | 4200 | 38 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 67 | 517 | 620 | 9.9 | 3.4 | K713_0450 EZ702U | 1751 | 2189 | 45.05 | 37485/832 | 2900 | 2600 | 4200 | 18 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 67 | 711 | 896 | 14 | 2.5 | K713_0450 EZ703U | 1751 | 2189 | 45.05 | 37485/832 | 2900 | 2600 | 4200 | 26 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 67 | 917 | 1301 | 14 | 2.4 | K713_0450 EZ705U | 2600 | 4800 | 45.05 | 37485/832 | 2900 | 2600 | 4200 | 38 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 76 | 450 | 540 | 9.2 | 4.0 | K713_0390 EZ702U | 1538 | 2250 | 39.23 | 2511/64 | 2900 | 2600 | 4200 | 20 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 76 | 619 | 780 | 13 | 2.9 | K713_0390 EZ703U | 1800 | 2250 | 39.23 | 2511/64 | 2900 | 2600 | 4200 | 27 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 76 | 799 | 1133 | 14 | 2.6 | K713_0390 EZ705U | 2600 | 4800 | 39.23 | 2511/64 | 2900 | 2600 | 4200 | 40 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 85 | 407 | 488 | 9.9 | 4.0 | K713_0350 EZ702U | 1389 | 2032 | 35.44 | 567/16 | 2900 | 2600 | 4200 | 20 | 10.0 | 5.0 | 2.0 | 126 | 102 |
| 85 | 559 | 705 | 14 | 2.9 | K713_0350 EZ703U | 1626 | 2032 | 35.44 | 567/16 | 2900 | 2600 | 4200 | 28 | 10.0 | 5.0 | 2.0 | 126 | 104 |
| 85 | 722 | 1023 | 14 | 2.8 | K713_0350 EZ705U | 2600 | 4558 | 35.44 | 567/16 | 2900 | 2600 | 4200 | 40 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 93 | 660 | 936 | 14 | 3.0 | K713_0320 EZ705U | 2600 | 4524 | 32.42 | 33201/1024 | 2900 | 2600 | 4200 | 42 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 102 | 596 | 845 | 14 | 3.2 | K713_0290 EZ705U | 2600 | 4087 | 29.29 | 7497/256 | 2900 | 2600 | 4200 | 42 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 119 | 513 | 727 | 14 | 3.5 | K713_0250 EZ705U | 2503 | 4179 | 25.18 | 64449/2560 | 2400 | 2200 | 3600 | 46 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 132 | 463 | 657 | 14 | 3.8 | K713_0230 EZ705U | 2261 | 3775 | 22.74 | 14553/640 | 2400 | 2200 | 3600 | 46 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 148 | 412 | 584 | 14 | 4.1 | K713_0200 EZ705U | 2012 | 3545 | 20.23 | 119133/5888 | 2400 | 2200 | 3600 | 50 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 164 | 372 | 528 | 14 | 4.3 | K713_0185 EZ705U | 1817 | 3202 | 18.28 | 26901/1472 | 2400 | 2200 | 3600 | 51 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 183 | 334 | 473 | 15 | 4.7 | K713_0165 EZ705U | 1629 | 3124 | 16.39 | 6293/384 | 2000 | 1900 | 3200 | 55 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| 203 | 301 | 427 | 15 | 5.0 | K713_0150 EZ705U | 1472 | 2822 | 14.80 | 1421/96 | 2000 | 1900 | 3200 | 56 | 10.0 | 5.0 | 2.0 | 126 | 110 |
| **K7 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 2600 Nm)** | | | | | | | | | | | | | | | | | | |
| 62 | 1562 | 2709 | 18 | 1.4 | K713_0650 EZ813U | 2600 | 4800 | 64.85 | 33201/512 | 2900 | 2600 | 4200 | 107 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 62 | 1619 | 4162 | 19 | 1.4 | K713_0650 EZ815U | 2600 | 4800 | 64.85 | 33201/512 | 2900 | 2600 | 4200 | 170 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 68 | 1411 | 2447 | 18 | 1.5 | K713_0590 EZ813U | 2600 | 4800 | 58.57 | 7497/128 | 2900 | 2600 | 4200 | 107 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 68 | 1462 | 3759 | 19 | 1.5 | K713_0590 EZ815U | 2600 | 4800 | 58.57 | 7497/128 | 2900 | 2600 | 4200 | 170 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 80 | 1202 | 2084 | 18 | 1.7 | K713_0500 EZ813U | 2600 | 4800 | 49.88 | 166005/3328 | 2900 | 2600 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 80 | 1245 | 3202 | 19 | 1.6 | K713_0500 EZ815U | 2600 | 4800 | 49.88 | 166005/3328 | 2900 | 2600 | 4200 | 171 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 89 | 1085 | 1882 | 18 | 1.8 | K713_0450 EZ813U | 2600 | 4800 | 45.05 | 37485/832 | 2900 | 2600 | 4200 | 108 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 89 | 1125 | 2892 | 19 | 1.8 | K713_0450 EZ815U | 2600 | 4800 | 45.05 | 37485/832 | 2900 | 2600 | 4200 | 171 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 102 | 945 | 1639 | 18 | 2.0 | K713_0390 EZ813U | 2600 | 4800 | 39.23 | 2511/64 | 2900 | 2600 | 4200 | 110 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 102 | 979 | 2518 | 19 | 1.9 | K713_0390 EZ815U | 2600 | 4800 | 39.23 | 2511/64 | 2900 | 2600 | 4200 | 173 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 113 | 854 | 1481 | 18 | 2.1 | K713_0350 EZ813U | 2600 | 4558 | 35.44 | 567/16 | 2900 | 2600 | 4200 | 110 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 113 | 885 | 2275 | 19 | 2.1 | K713_0350 EZ815U | 2600 | 4558 | 35.44 | 567/16 | 2900 | 2600 | 4200 | 173 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 123 | 781 | 1355 | 18 | 2.3 | K713_0320 EZ813U | 2600 | 4800 | 32.42 | 33201/1024 | 2900 | 2600 | 4200 | 112 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 123 | 809 | 2081 | 19 | 2.2 | K713_0320 EZ815U | 2600 | 4800 | 32.42 | 33201/1024 | 2900 | 2600 | 4200 | 175 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| 137 | 706 | 1223 | 19 | 2.4 | K713_0290 EZ813U | 2600 | 4800 | 29.29 | 7497/256 | 2900 | 2600 | 4200 | 112 | 10.0 | 5.0 | 2.0 | 126 | 127 |
| 137 | 731 | 1880 | 19 | 2.3 | K713_0290 EZ815U | 2600 | 4800 | 29.29 | 7497/256 | 2900 | 2600 | 4200 | 176 | 10.0 | 5.0 | 2.0 | 126 | 140 |
| **K8 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 4650 Nm)** | | | | | | | | | | | | | | | | | | |
| 18 | 4140 | 4643 | 19 | 1.0 | K814_1130 EZ813U | 4650 | 8400 | 112.8 | 9027/80 | 2800 | 2500 | 4000 | 107 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 20 | 3611 | 4049 | 18 | 1.2 | K814_0980 EZ813U | 4650 | 8400 | 98.41 | 181071/1840 | 2800 | 2500 | 4000 | 108 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 23 | 3261 | 3658 | 17 | 1.3 | K814_0890 EZ813U | 4650 | 8259 | 88.89 | 40887/460 | 2800 | 2500 | 4000 | 108 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 25 | 2959 | 3319 | 18 | 1.3 | K813_0790 EZ813U | 4650 | 7637 | 79.38 | 45725/576 | 2800 | 2500 | 4000 | 108 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 27 | 2715 | 3045 | 17 | 1.5 | K814_0740 EZ813U | 4650 | 6874 | 73.99 | 1201653/16240 | 2800 | 2500 | 4000 | 109 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 27 | 4021 | 4788 | 24 | 1.0 | K814_0740 EZ815U | 4650 | 6874 | 73.99 | 1201653/16240 | 2800 | 2500 | 4000 | 172 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 28 | 2673 | 2998 | 19 | 1.3 | K813_0720 EZ813U | 4327 | 6898 | 71.70 | 10325/144 | 2800 | 2500 | 4000 | 108 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 30 | 2452 | 2750 | 16 | 1.7 | K814_0670 EZ813U | 4650 | 6209 | 66.83 | 38763/580 | 2800 | 2500 | 4000 | 109 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 30 | 3632 | 4324 | 24 | 1.2 | K814_0670 EZ815U | 4650 | 6209 | 66.83 | 38763/580 | 2800 | 2500 | 4000 | 172 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 31 | 2438 | 2735 | 16 | 1.7 | K813_0650 EZ813U | 4650 | 7073 | 65.41 | 188387/2880 | 2800 | 2500 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 31 | 3611 | 4300 | 24 | 1.2 | K813_0650 EZ815U | 4650 | 7073 | 65.41 | 188387/2880 | 2800 | 2500 | 4000 | 173 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 34 | 2202 | 2470 | 16 | 1.9 | K813_0590 EZ813U | 4650 | 6388 | 59.08 | 42539/720 | 2800 | 2500 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 196 | 180 |

| $n_2$ [rpm] | $M_2$ [Nm] | $M_{2,0}$ [Nm] | $a_{th}$ | S | Type | $M_{2acc}$ [Nm] | $M_{2NOT}$ [Nm] | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 [rpm] | $n_{1maxDB}$ EL3,4,5,6 [rpm] | $n_{1maxZB}$ [rpm] | $J_1$ [kgcm²] | $\Delta\varphi_2$ [arcmin] | $\Delta\varphi_{2redII}$ [arcmin] | $\Delta\varphi_{2redI}$ [arcmin] | $C_2$ [Nm/arcmin] | m [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K8 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 4650 Nm)** | | | | | | | | | | | | | | | | | | |
| 34 | 3262 | 3884 | 23 | 1.3 | K813_0590 EZ815U | 4650 | 6388 | 59.08 | 42539/720 | 2800 | 2500 | 4000 | 173 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 41 | 1826 | 2048 | 15 | 2.3 | K813_0490 EZ813U | 4650 | 6043 | 48.99 | 5487/112 | 2800 | 2500 | 4000 | 113 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 41 | 2705 | 3220 | 22 | 1.6 | K813_0490 EZ815U | 4650 | 6043 | 48.99 | 5487/112 | 2800 | 2500 | 4000 | 176 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 45 | 1649 | 1850 | 14 | 2.5 | K813_0440 EZ813U | 4366 | 5458 | 44.25 | 177/4 | 2800 | 2500 | 4000 | 114 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 45 | 2443 | 2909 | 21 | 1.7 | K813_0440 EZ815U | 4366 | 5458 | 44.25 | 177/4 | 2800 | 2500 | 4000 | 177 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 50 | 1491 | 1673 | 14 | 2.8 | K813_0400 EZ813U | 4650 | 8400 | 40.01 | 12803/320 | 2800 | 2500 | 4000 | 117 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 50 | 2209 | 2630 | 21 | 1.9 | K813_0400 EZ815U | 4650 | 8400 | 40.01 | 12803/320 | 2800 | 2500 | 4000 | 180 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 55 | 1347 | 1511 | 14 | 3.0 | K813_0360 EZ813U | 4650 | 8400 | 36.14 | 2891/80 | 2800 | 2500 | 4000 | 117 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 55 | 1995 | 2376 | 21 | 2.0 | K813_0360 EZ815U | 4650 | 8400 | 36.14 | 2891/80 | 2800 | 2500 | 4000 | 180 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 62 | 1207 | 1354 | 14 | 3.2 | K813_0320 EZ813U | 4335 | 8400 | 32.39 | 31093/960 | 2800 | 2500 | 4000 | 122 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 62 | 1788 | 2129 | 21 | 2.2 | K813_0320 EZ815U | 4650 | 8400 | 32.39 | 31093/960 | 2800 | 2500 | 4000 | 185 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 68 | 1090 | 1223 | 14 | 3.4 | K813_0290 EZ813U | 3915 | 8400 | 29.25 | 7021/240 | 2800 | 2500 | 4000 | 122 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 68 | 1615 | 1923 | 21 | 2.3 | K813_0290 EZ815U | 4650 | 8400 | 29.25 | 7021/240 | 2800 | 2500 | 4000 | 186 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 78 | 951 | 1067 | 14 | 3.8 | K813_0260 EZ813U | 3415 | 8400 | 25.51 | 140833/5520 | 2300 | 2100 | 3500 | 129 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 78 | 1409 | 1677 | 21 | 2.5 | K813_0260 EZ815U | 4650 | 8400 | 25.51 | 140833/5520 | 2300 | 2100 | 3500 | 192 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 87 | 859 | 963 | 14 | 4.0 | K813_0230 EZ813U | 3084 | 8259 | 23.04 | 31801/1380 | 2300 | 2100 | 3500 | 131 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 87 | 1272 | 1515 | 21 | 2.7 | K813_0230 EZ815U | 4406 | 8259 | 23.04 | 31801/1380 | 2300 | 2100 | 3500 | 194 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 104 | 715 | 802 | 14 | 4.5 | K813_0190 EZ813U | 2567 | 6874 | 19.18 | 133517/6960 | 2300 | 2100 | 3500 | 142 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 104 | 1059 | 1261 | 21 | 3.1 | K813_0190 EZ815U | 3668 | 6874 | 19.18 | 133517/6960 | 2300 | 2100 | 3500 | 205 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 115 | 646 | 724 | 15 | 4.9 | K813_0175 EZ813U | 2319 | 6209 | 17.33 | 30149/1740 | 2300 | 2100 | 3500 | 144 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 115 | 957 | 1139 | 21 | 3.3 | K813_0175 EZ815U | 3313 | 6209 | 17.33 | 30149/1740 | 2300 | 2100 | 3500 | 207 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 122 | 907 | 1080 | 22 | 3.4 | K813_0165 EZ815U | 3142 | 5888 | 16.43 | 42067/2560 | 1900 | 1800 | 3000 | 214 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 135 | 819 | 976 | 22 | 3.6 | K813_0150 EZ815U | 2838 | 5318 | 14.84 | 9499/640 | 1900 | 1800 | 3000 | 217 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 195 | 567 | 676 | 22 | 4.7 | K813_0105 EZ815U | 1965 | 3684 | 10.28 | 53041/5160 | 1600 | 1500 | 2600 | 260 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 215 | 513 | 610 | 22 | 5.0 | K813_0093 EZ815U | 1775 | 3328 | 9.284 | 11977/1290 | 1600 | 1500 | 2600 | 268 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| **K8 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 4650 Nm)** | | | | | | | | | | | | | | | | | | |
| 9.6 | 2165 | 2428 | 5.2 | 1.8 | K814_3110 EZ701U | 4650 | 7637 | 310.9 | 2149075/6912 | 2800 | 2500 | 4000 | 9.2 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 9.6 | 3511 | 4213 | 8.4 | 1.1 | K814_3110 EZ702U | 4650 | 7637 | 310.9 | 2149075/6912 | 2800 | 2500 | 4000 | 14 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 11 | 1956 | 2193 | 5.5 | 1.8 | K814_2810 EZ701U | 4327 | 6898 | 280.8 | 485275/1728 | 2800 | 2500 | 4000 | 9.3 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 11 | 3171 | 3805 | 9.0 | 1.1 | K814_2810 EZ702U | 4327 | 6898 | 280.8 | 485275/1728 | 2800 | 2500 | 4000 | 14 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 12 | 1784 | 2001 | 5.1 | 2.1 | K814_2560 EZ701U | 4650 | 7073 | 256.2 | 8854189/34560 | 2800 | 2500 | 4000 | 9.3 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 12 | 2893 | 3472 | 8.2 | 1.3 | K814_2560 EZ702U | 4650 | 7073 | 256.2 | 8854189/34560 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 13 | 1611 | 1807 | 5.4 | 2.1 | K814_2310 EZ701U | 4355 | 6388 | 231.4 | 1999333/8640 | 2800 | 2500 | 4000 | 9.4 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 13 | 2613 | 3136 | 8.8 | 1.3 | K814_2310 EZ702U | 4650 | 6388 | 231.4 | 1999333/8640 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 16 | 1336 | 1499 | 4.9 | 2.7 | K814_1920 EZ701U | 3611 | 6043 | 191.9 | 85963/448 | 2800 | 2500 | 4000 | 9.6 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 16 | 2167 | 2600 | 8.0 | 1.6 | K814_1920 EZ702U | 4650 | 6043 | 191.9 | 85963/448 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 16 | 2979 | 3756 | 11 | 1.2 | K814_1920 EZ703U | 4650 | 6043 | 191.9 | 85963/448 | 2800 | 2500 | 4000 | 23 | 10.0 | 6.0 | 3.0 | 196 | 171 |
| 17 | 1207 | 1354 | 5.3 | 2.7 | K814_1730 EZ701U | 3262 | 5458 | 173.3 | 2773/16 | 2800 | 2500 | 4000 | 9.6 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 17 | 1957 | 2348 | 8.6 | 1.6 | K814_1730 EZ702U | 4366 | 5458 | 173.3 | 2773/16 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 17 | 2691 | 3392 | 12 | 1.2 | K814_1730 EZ703U | 4366 | 5458 | 173.3 | 2773/16 | 2800 | 2500 | 4000 | 23 | 10.0 | 6.0 | 3.0 | 196 | 171 |
| 19 | 1091 | 1224 | 4.9 | 3.1 | K814_1570 EZ701U | 2949 | 5377 | 156.7 | 601741/3840 | 2800 | 2500 | 4000 | 9.8 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 19 | 1769 | 2123 | 7.9 | 1.9 | K814_1570 EZ702U | 4302 | 5377 | 156.7 | 601741/3840 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 19 | 2433 | 3067 | 11 | 1.4 | K814_1570 EZ703U | 4302 | 5377 | 156.7 | 601741/3840 | 2800 | 2500 | 4000 | 23 | 10.0 | 6.0 | 3.0 | 196 | 171 |
| 21 | 986 | 1105 | 5.3 | 3.1 | K814_1420 EZ701U | 2664 | 4856 | 141.5 | 135877/960 | 2800 | 2500 | 4000 | 9.8 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 21 | 1598 | 1918 | 8.5 | 1.9 | K814_1420 EZ702U | 3885 | 4856 | 141.5 | 135877/960 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 21 | 2198 | 2770 | 12 | 1.4 | K814_1420 EZ703U | 3885 | 4856 | 141.5 | 135877/960 | 2800 | 2500 | 4000 | 23 | 10.0 | 6.0 | 3.0 | 196 | 171 |
| 24 | 883 | 991 | 4.8 | 3.7 | K814_1270 EZ701U | 2387 | 4895 | 126.9 | 1461371/11520 | 2800 | 2500 | 4000 | 10 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 24 | 1432 | 1719 | 7.7 | 2.3 | K814_1270 EZ702U | 3916 | 4895 | 126.9 | 1461371/11520 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 24 | 1970 | 2483 | 11 | 1.6 | K814_1270 EZ703U | 3916 | 4895 | 126.9 | 1461371/11520 | 2800 | 2500 | 4000 | 23 | 10.0 | 6.0 | 3.0 | 196 | 171 |
| 26 | 798 | 895 | 5.1 | 3.7 | K814_1150 EZ701U | 2156 | 4421 | 114.6 | 329987/2880 | 2800 | 2500 | 4000 | 10 | 10.0 | 6.0 | 3.0 | 196 | 166 |
| 26 | 1294 | 1553 | 8.3 | 2.3 | K814_1150 EZ702U | 3537 | 4421 | 114.6 | 329987/2880 | 2800 | 2500 | 4000 | 15 | 10.0 | 6.0 | 3.0 | 196 | 169 |
| 26 | 1779 | 2243 | 11 | 1.6 | K814_1150 EZ703U | 3537 | 4421 | 114.6 | 329987/2880 | 2800 | 2500 | 4000 | 23 | 10.0 | 6.0 | 3.0 | 196 | 171 |
| 31 | 687 | 771 | 5.0 | 4.2 | K813_0970 EZ701U | 1858 | 3641 | 97.17 | 31093/320 | 2800 | 2500 | 4000 | 11 | 10.0 | 5.0 | 2.0 | 196 | 153 |
| 31 | 1115 | 1338 | 8.1 | 2.6 | K813_0970 EZ702U | 2913 | 3641 | 97.17 | 31093/320 | 2800 | 2500 | 4000 | 16 | 10.0 | 5.0 | 2.0 | 196 | 156 |
| 31 | 1533 | 1932 | 11 | 1.9 | K813_0970 EZ703U | 2913 | 3641 | 97.17 | 31093/320 | 2800 | 2500 | 4000 | 24 | 10.0 | 5.0 | 2.0 | 196 | 158 |
| 34 | 621 | 696 | 5.4 | 4.2 | K813_0880 EZ701U | 1678 | 3288 | 87.76 | 7021/80 | 2800 | 2500 | 4000 | 11 | 10.0 | 5.0 | 2.0 | 196 | 153 |
| 34 | 1007 | 1208 | 8.7 | 2.6 | K813_0880 EZ702U | 2630 | 3288 | 87.76 | 7021/80 | 2800 | 2500 | 4000 | 16 | 10.0 | 5.0 | 2.0 | 196 | 156 |
| 34 | 1384 | 1745 | 12 | 1.9 | K813_0880 EZ703U | 2630 | 3288 | 87.76 | 7021/80 | 2800 | 2500 | 4000 | 24 | 10.0 | 5.0 | 2.0 | 196 | 158 |
| 38 | 562 | 630 | 5.2 | 4.7 | K813_0790 EZ701U | 1518 | 3267 | 79.38 | 45725/576 | 2800 | 2500 | 4000 | 12 | 10.0 | 5.0 | 2.0 | 196 | 153 |
| 38 | 911 | 1093 | 8.5 | 2.9 | K813_0790 EZ702U | 2614 | 3267 | 79.38 | 45725/576 | 2800 | 2500 | 4000 | 18 | 10.0 | 5.0 | 2.0 | 196 | 156 |
| 38 | 1252 | 1579 | 12 | 2.1 | K813_0790 EZ703U | 2614 | 3267 | 79.38 | 45725/576 | 2800 | 2500 | 4000 | 25 | 10.0 | 5.0 | 2.0 | 196 | 158 |
| 38 | 1616 | 2292 | 9.9 | 2.5 | K813_0790 EZ705U | 4650 | 7637 | 79.38 | 45725/576 | 2800 | 2500 | 4000 | 38 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| 42 | 507 | 569 | 5.6 | 4.7 | K813_0720 EZ701U | 1371 | 2951 | 71.70 | 10325/144 | 2800 | 2500 | 4000 | 12 | 10.0 | 5.0 | 2.0 | 196 | 153 |
| 42 | 823 | 987 | 9.1 | 2.9 | K813_0720 EZ702U | 2361 | 2951 | 71.70 | 10325/144 | 2800 | 2500 | 4000 | 18 | 10.0 | 5.0 | 2.0 | 196 | 156 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| **K8 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 4650 Nm)** | | | | | | | | | | | | | | | | | | |
| 42 | 1131 | 1426 | 13 | 2.1 | K813_0720 EZ703U | 2361 | 2951 | 71.70 | 10325/144 | 2800 | 2500 | 4000 | 26 | 10.0 | 5.0 | 2.0 | 196 | 158 |
| 42 | 1460 | 2070 | 11 | 2.5 | K813_0720 EZ705U | 4327 | 6898 | 71.70 | 10325/144 | 2800 | 2500 | 4000 | 38 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| 46 | 1332 | 1889 | 8.8 | 3.2 | K813_0650 EZ705U | 4650 | 7073 | 65.41 | 188387/2880 | 2800 | 2500 | 4000 | 39 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| 51 | 1203 | 1706 | 8.7 | 3.4 | K813_0590 EZ705U | 4650 | 6388 | 59.08 | 42539/720 | 2800 | 2500 | 4000 | 40 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| 61 | 562 | 674 | 8.9 | 3.8 | K813_0490 EZ702U | 1920 | 2694 | 48.99 | 5487/112 | 2800 | 2500 | 4000 | 22 | 10.0 | 5.0 | 2.0 | 196 | 156 |
| 61 | 773 | 974 | 12 | 2.8 | K813_0490 EZ703U | 2155 | 2694 | 48.99 | 5487/112 | 2800 | 2500 | 4000 | 30 | 10.0 | 5.0 | 2.0 | 196 | 158 |
| 61 | 998 | 1414 | 8.8 | 3.9 | K813_0490 EZ705U | 4650 | 6043 | 48.99 | 5487/112 | 2800 | 2500 | 4000 | 43 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| 68 | 508 | 609 | 9.6 | 3.8 | K813_0440 EZ702U | 1734 | 2433 | 44.25 | 177/4 | 2800 | 2500 | 4000 | 23 | 10.0 | 5.0 | 2.0 | 196 | 156 |
| 68 | 698 | 880 | 13 | 2.8 | K813_0440 EZ703U | 1946 | 2433 | 44.25 | 177/4 | 2800 | 2500 | 4000 | 31 | 10.0 | 5.0 | 2.0 | 196 | 158 |
| 68 | 901 | 1278 | 8.8 | 4.2 | K813_0440 EZ705U | 4366 | 5458 | 44.25 | 177/4 | 2800 | 2500 | 4000 | 43 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| 75 | 815 | 1155 | 8.8 | 4.5 | K813_0400 EZ705U | 3978 | 5377 | 40.01 | 12803/320 | 2800 | 2500 | 4000 | 46 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| 83 | 736 | 1043 | 8.9 | 4.8 | K813_0360 EZ705U | 3593 | 4856 | 36.14 | 2891/80 | 2800 | 2500 | 4000 | 47 | 10.0 | 5.0 | 2.0 | 196 | 163 |
| **K8 ($n_{1N}$ = 4000 $min^{-1}$, $M_{2acc,max}$ = 4650 Nm)** | | | | | | | | | | | | | | | | | | |
| 23 | 4047 | 7019 | 14 | 1.0 | K814_1710 EZ813U | 4366 | 5458 | 170.7 | 4779/28 | 2800 | 2500 | 4000 | 107 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 23 | 4193 | 10783 | 14 | 1.0 | K814_1710 EZ815U | 4366 | 5458 | 170.7 | 4779/28 | 2800 | 2500 | 4000 | 170 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 26 | 3659 | 6346 | 13 | 1.1 | K814_1540 EZ813U | 4650 | 8400 | 154.3 | 49383/320 | 2800 | 2500 | 4000 | 107 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 26 | 3792 | 9750 | 14 | 1.1 | K814_1540 EZ815U | 4650 | 8400 | 154.3 | 49383/320 | 2800 | 2500 | 4000 | 170 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 29 | 3305 | 5732 | 13 | 1.3 | K814_1390 EZ813U | 4650 | 8400 | 139.4 | 11151/80 | 2800 | 2500 | 4000 | 107 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 29 | 3425 | 8806 | 13 | 1.2 | K814_1390 EZ815U | 4650 | 8400 | 139.4 | 11151/80 | 2800 | 2500 | 4000 | 170 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 32 | 2962 | 5137 | 12 | 1.4 | K814_1250 EZ813U | 4650 | 8400 | 124.9 | 279837/2240 | 2800 | 2500 | 4000 | 107 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 32 | 3069 | 7893 | 13 | 1.4 | K814_1250 EZ815U | 4650 | 8400 | 124.9 | 279837/2240 | 2800 | 2500 | 4000 | 170 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 35 | 2676 | 4640 | 12 | 1.6 | K814_1130 EZ813U | 4650 | 8400 | 112.8 | 9027/80 | 2800 | 2500 | 4000 | 107 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 35 | 2772 | 7129 | 13 | 1.5 | K814_1130 EZ815U | 4650 | 8400 | 112.8 | 9027/80 | 2800 | 2500 | 4000 | 170 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 41 | 2334 | 4047 | 12 | 1.8 | K814_0980 EZ813U | 4650 | 8400 | 98.41 | 181071/1840 | 2800 | 2500 | 4000 | 108 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 41 | 2418 | 6217 | 12 | 1.7 | K814_0980 EZ815U | 4650 | 8400 | 98.41 | 181071/1840 | 2800 | 2500 | 4000 | 171 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 45 | 2108 | 3655 | 12 | 1.9 | K814_0890 EZ813U | 4650 | 8259 | 88.89 | 40887/460 | 2800 | 2500 | 4000 | 108 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 45 | 2184 | 5616 | 12 | 1.8 | K814_0890 EZ815U | 4650 | 8259 | 88.89 | 40887/460 | 2800 | 2500 | 4000 | 171 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 50 | 1912 | 3316 | 12 | 2.1 | K813_0790 EZ813U | 4650 | 7637 | 79.38 | 45725/576 | 2800 | 2500 | 4000 | 108 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 50 | 1982 | 5095 | 12 | 2.0 | K813_0790 EZ815U | 4650 | 7637 | 79.38 | 45725/576 | 2800 | 2500 | 4000 | 171 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 54 | 1755 | 3043 | 11 | 2.3 | K814_0740 EZ813U | 4650 | 6874 | 73.99 | 1201653/16240 | 2800 | 2500 | 4000 | 109 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 54 | 1818 | 4675 | 11 | 2.2 | K814_0740 EZ815U | 4650 | 6874 | 73.99 | 1201653/16240 | 2800 | 2500 | 4000 | 172 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 56 | 1727 | 2995 | 13 | 2.1 | K813_0720 EZ813U | 4327 | 6898 | 71.70 | 10325/144 | 2800 | 2500 | 4000 | 108 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 56 | 1790 | 4602 | 13 | 2.0 | K813_0720 EZ815U | 4327 | 6898 | 71.70 | 10325/144 | 2800 | 2500 | 4000 | 171 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 60 | 1585 | 2748 | 12 | 2.3 | K814_0670 EZ813U | 4650 | 6209 | 66.83 | 38763/580 | 2800 | 2500 | 4000 | 109 | 10.0 | 6.0 | 3.0 | 196 | 194 |
| 60 | 1642 | 4222 | 12 | 2.3 | K814_0670 EZ815U | 4650 | 6209 | 66.83 | 38763/580 | 2800 | 2500 | 4000 | 172 | 10.0 | 6.0 | 3.0 | 196 | 206 |
| 61 | 1576 | 2733 | 11 | 2.5 | K813_0650 EZ813U | 4650 | 7073 | 65.41 | 188387/2880 | 2800 | 2500 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 61 | 1633 | 4199 | 12 | 2.4 | K813_0650 EZ815U | 4650 | 7073 | 65.41 | 188387/2880 | 2800 | 2500 | 4000 | 173 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 68 | 1423 | 2468 | 11 | 2.6 | K813_0590 EZ813U | 4650 | 6388 | 59.08 | 42539/720 | 2800 | 2500 | 4000 | 110 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 68 | 1475 | 3792 | 12 | 2.5 | K813_0590 EZ815U | 4650 | 6388 | 59.08 | 42539/720 | 2800 | 2500 | 4000 | 173 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 82 | 1180 | 2047 | 11 | 3.0 | K813_0490 EZ813U | 4650 | 6043 | 48.99 | 5487/112 | 2800 | 2500 | 4000 | 113 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 82 | 1223 | 3145 | 12 | 2.9 | K813_0490 EZ815U | 4650 | 6043 | 48.99 | 5487/112 | 2800 | 2500 | 4000 | 176 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 90 | 1066 | 1849 | 11 | 3.2 | K813_0440 EZ813U | 4366 | 5458 | 44.25 | 177/4 | 2800 | 2500 | 4000 | 114 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 90 | 1105 | 2840 | 12 | 3.1 | K813_0440 EZ815U | 4366 | 5458 | 44.25 | 177/4 | 2800 | 2500 | 4000 | 177 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 100 | 964 | 1671 | 11 | 3.4 | K813_0400 EZ813U | 4650 | 8400 | 40.01 | 12803/320 | 2800 | 2500 | 4000 | 117 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 100 | 999 | 2568 | 12 | 3.3 | K813_0400 EZ815U | 4650 | 8400 | 40.01 | 12803/320 | 2800 | 2500 | 4000 | 180 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 111 | 871 | 1510 | 12 | 3.7 | K813_0360 EZ813U | 4650 | 8400 | 36.14 | 2891/80 | 2800 | 2500 | 4000 | 117 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 111 | 902 | 2320 | 12 | 3.5 | K813_0360 EZ815U | 4650 | 8400 | 36.14 | 2891/80 | 2800 | 2500 | 4000 | 180 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 123 | 780 | 1353 | 12 | 3.9 | K813_0320 EZ813U | 4335 | 8400 | 32.39 | 31093/960 | 2800 | 2500 | 4000 | 122 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 123 | 808 | 2079 | 12 | 3.8 | K813_0320 EZ815U | 4650 | 8400 | 32.39 | 31093/960 | 2800 | 2500 | 4000 | 185 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| 137 | 705 | 1222 | 12 | 4.2 | K813_0290 EZ813U | 3915 | 8400 | 29.25 | 7021/240 | 2800 | 2500 | 4000 | 122 | 10.0 | 5.0 | 2.0 | 196 | 180 |
| 137 | 730 | 1878 | 12 | 4.1 | K813_0290 EZ815U | 4650 | 8400 | 29.25 | 7021/240 | 2800 | 2500 | 4000 | 186 | 10.0 | 5.0 | 2.0 | 196 | 193 |
| **K9 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 7700 Nm)** | | | | | | | | | | | | | | | | | | |
| 11 | 6925 | 7767 | 14 | 1.0 | K914_1890 EZ813U | 7700 | 13787 | 188.8 | 2706021/14336 | 2600 | 2500 | 3800 | 107 | 10.0 | 5.0 | – | 379 | 308 |
| 14 | 5384 | 6038 | 13 | 1.3 | K914_1470 EZ813U | 7700 | 12504 | 146.7 | 5258871/35840 | 2600 | 2500 | 3800 | 108 | 10.0 | 5.0 | – | 379 | 308 |
| 16 | 4545 | 5098 | 12 | 1.5 | K914_1240 EZ813U | 7700 | 11511 | 123.9 | 1276425/10304 | 2600 | 2500 | 3800 | 109 | 10.0 | 5.0 | – | 379 | 308 |
| 16 | 6732 | 8015 | 18 | 1.0 | K914_1240 EZ815U | 7700 | 11511 | 123.9 | 1276425/10304 | 2600 | 2500 | 3800 | 172 | 10.0 | 5.0 | – | 379 | 320 |
| 21 | 3556 | 3989 | 15 | 1.5 | K913_0950 EZ813U | 6450 | 9076 | 95.41 | 293105/3072 | 2600 | 2500 | 3800 | 111 | 10.0 | 5.0 | – | 379 | 295 |
| 21 | 5268 | 6272 | 23 | 1.0 | K913_0950 EZ815U | 6450 | 9076 | 95.41 | 293105/3072 | 2600 | 2500 | 3800 | 174 | 10.0 | 5.0 | – | 379 | 308 |
| 22 | 3388 | 3800 | 12 | 1.9 | K914_0920 EZ813U | 6864 | 8580 | 92.35 | 2399679/25984 | 2600 | 2500 | 3800 | 110 | 10.0 | 5.0 | – | 379 | 308 |
| 22 | 5019 | 5975 | 18 | 1.3 | K914_0920 EZ815U | 6864 | 8580 | 92.35 | 2399679/25984 | 2600 | 2500 | 3800 | 173 | 10.0 | 5.0 | – | 379 | 320 |
| 27 | 2796 | 3136 | 11 | 2.4 | K913_0750 EZ813U | 6820 | 8525 | 75.00 | 62403/832 | 2600 | 2500 | 3800 | 114 | 10.0 | 5.0 | – | 379 | 295 |
| 27 | 4141 | 4930 | 17 | 1.6 | K913_0750 EZ815U | 6820 | 8525 | 75.00 | 62403/832 | 2600 | 2500 | 3800 | 177 | 10.0 | 5.0 | – | 379 | 308 |
| 32 | 2351 | 2637 | 10 | 3.0 | K913_0630 EZ813U | 7700 | 14000 | 63.07 | 209901/3328 | 2600 | 2500 | 3800 | 118 | 10.0 | 5.0 | – | 379 | 295 |
| 32 | 3482 | 4146 | 15 | 2.0 | K913_0630 EZ815U | 7700 | 14000 | 63.07 | 209901/3328 | 2600 | 2500 | 3800 | 181 | 10.0 | 5.0 | – | 379 | 308 |

| $n_2$ | $M_2$ | $M_{2,0}$ | $a_{th}$ | S | Type | $M_{2acc}$ | $M_{2NOT}$ | i | $i_{exakt}$ | $n_{1maxDB}$ EL1,2 | $n_{1maxDB}$ EL3,4,5,6 | $n_{1maxZB}$ | $J_1$ | $\Delta\varphi_2$ | $\Delta\varphi_{2redII}$ | $\Delta\varphi_{2redI}$ | $C_2$ | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [rpm] | [Nm] | [Nm] | | | | [Nm] | [Nm] | | | [rpm] | [rpm] | [rpm] | [kgcm²] | [arcmin] | [arcmin] | [arcmin] | [Nm/ arcmin] | [kg] |
| K9 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 7700 Nm) | | | | | | | | | | | | | | | | | | |
| 41 | 1824 | 2046 | 9.6 | 3.8 | K913_0490 EZ813U | 6550 | 13787 | 48.94 | 100223/2048 | 2600 | 2500 | 3800 | 124 | 10.0 | 5.0 | – | 379 | 295 |
| 41 | 2702 | 3217 | 14 | 2.6 | K913_0490 EZ815U | 7700 | 13787 | 48.94 | 100223/2048 | 2600 | 2500 | 3800 | 187 | 10.0 | 5.0 | – | 379 | 308 |
| 53 | 1418 | 1590 | 8.9 | 4.9 | K913_0380 EZ813U | 5092 | 12504 | 38.04 | 194773/5120 | 2600 | 2500 | 3800 | 134 | 10.0 | 5.0 | – | 379 | 295 |
| 53 | 2100 | 2501 | 13 | 3.3 | K913_0380 EZ815U | 7274 | 12504 | 38.04 | 194773/5120 | 2600 | 2500 | 3800 | 197 | 10.0 | 5.0 | – | 379 | 308 |
| 62 | 1773 | 2111 | 13 | 3.9 | K913_0320 EZ815U | 6141 | 11511 | 32.12 | 47275/1472 | 2600 | 2500 | 3800 | 207 | 10.0 | 5.0 | – | 379 | 308 |
| 84 | 1322 | 1574 | 13 | 4.8 | K913_0240 EZ815U | 4578 | 8580 | 23.94 | 88877/3712 | 2200 | 2100 | 3300 | 228 | 10.0 | 5.0 | – | 379 | 308 |
| K9 ($n_{1N}$ = 3000 $min^{-1}$, $M_{2acc,max}$ = 6820 Nm) | | | | | | | | | | | | | | | | | | |
| 8.0 | 2602 | 2919 | 4.9 | 1.8 | K914_3740 EZ701U | 6450 | 9076 | 373.7 | 13775935/36864 | 2600 | 2500 | 3800 | 9.4 | 10.0 | 5.0 | – | 379 | 280 |
| 8.0 | 4220 | 5064 | 7.9 | 1.1 | K914_3740 EZ702U | 6450 | 9076 | 373.7 | 13775935/36864 | 2600 | 2500 | 3800 | 15 | 10.0 | 5.0 | – | 379 | 283 |
| 10 | 2046 | 2294 | 4.7 | 2.2 | K914_2940 EZ701U | 5529 | 8525 | 293.8 | 977647/3328 | 2600 | 2500 | 3800 | 9.6 | 10.0 | 5.0 | – | 379 | 280 |
| 10 | 3317 | 3981 | 7.7 | 1.4 | K914_2940 EZ702U | 6820 | 8525 | 293.8 | 977647/3328 | 2600 | 2500 | 3800 | 15 | 10.0 | 5.0 | – | 379 | 283 |
| 12 | 1720 | 1929 | 4.7 | 2.5 | K914_2470 EZ701U | 4649 | 7164 | 247.0 | 3288449/13312 | 2600 | 2500 | 3800 | 9.9 | 10.0 | 5.0 | – | 379 | 280 |
| 12 | 2789 | 3347 | 7.6 | 1.6 | K914_2470 EZ702U | 5731 | 7164 | 247.0 | 3288449/13312 | 2600 | 2500 | 3800 | 15 | 10.0 | 5.0 | – | 379 | 283 |
| 12 | 3835 | 4835 | 10 | 1.1 | K914_2470 EZ703U | 5731 | 7164 | 247.0 | 3288449/13312 | 2600 | 2500 | 3800 | 23 | 10.0 | 5.0 | – | 379 | 285 |
| 16 | 1335 | 1497 | 4.6 | 3.1 | K914_1920 EZ701U | 3607 | 6341 | 191.7 | 4710481/24576 | 2600 | 2500 | 3800 | 10 | 10.0 | 5.0 | – | 379 | 280 |
| 16 | 2164 | 2597 | 7.4 | 1.9 | K914_1920 EZ702U | 5073 | 6341 | 191.7 | 4710481/24576 | 2600 | 2500 | 3800 | 16 | 10.0 | 5.0 | – | 379 | 283 |
| 16 | 2976 | 3752 | 10 | 1.4 | K914_1920 EZ703U | 5073 | 6341 | 191.7 | 4710481/24576 | 2600 | 2500 | 3800 | 23 | 10.0 | 5.0 | – | 379 | 285 |
| 20 | 1038 | 1164 | 4.5 | 3.8 | K914_1490 EZ701U | 2804 | 5750 | 149.0 | 9154331/61440 | 2600 | 2500 | 3800 | 11 | 10.0 | 5.0 | – | 379 | 280 |
| 20 | 1682 | 2019 | 7.3 | 2.3 | K914_1490 EZ702U | 4600 | 5750 | 149.0 | 9154331/61440 | 2600 | 2500 | 3800 | 16 | 10.0 | 5.0 | – | 379 | 283 |
| 20 | 2313 | 2916 | 10 | 1.7 | K914_1490 EZ703U | 4600 | 5750 | 149.0 | 9154331/61440 | 2600 | 2500 | 3800 | 24 | 10.0 | 5.0 | – | 379 | 285 |
| 24 | 876 | 982 | 4.4 | 4.3 | K914_1260 EZ701U | 2367 | 4854 | 125.8 | 2221925/17664 | 2600 | 2500 | 3800 | 12 | 10.0 | 5.0 | – | 379 | 280 |
| 24 | 1420 | 1704 | 7.2 | 2.6 | K914_1260 EZ702U | 3883 | 4854 | 125.8 | 2221925/17664 | 2600 | 2500 | 3800 | 17 | 10.0 | 5.0 | – | 379 | 283 |
| 24 | 1953 | 2462 | 9.9 | 1.9 | K914_1260 EZ703U | 3883 | 4854 | 125.8 | 2221925/17664 | 2600 | 2500 | 3800 | 25 | 10.0 | 5.0 | – | 379 | 285 |
| 32 | 1059 | 1271 | 8.6 | 2.7 | K914_0940 EZ702U | 2895 | 3619 | 93.78 | 4177219/44544 | 2600 | 2500 | 3800 | 18 | 10.0 | 5.0 | – | 379 | 283 |
| 32 | 1456 | 1835 | 12 | 2.0 | K914_0940 EZ703U | 2895 | 3619 | 93.78 | 4177219/44544 | 2600 | 2500 | 3800 | 26 | 10.0 | 5.0 | – | 379 | 285 |
| K10 ($n_{1N}$ = 2000 $min^{-1}$, $M_{2acc,max}$ = 12750 Nm) | | | | | | | | | | | | | | | | | | |
| 8.4 | 8711 | 9770 | 12 | 1.1 | K1014_2370 EZ813U | 12750 | 15937 | 237.4 | 49383/208 | 2500 | 2300 | 3500 | 108 | 10.0 | 5.0 | – | 725 | 517 |
| 13 | 5463 | 6127 | 12 | 1.6 | K1014_1490 EZ813U | 10621 | 13276 | 148.9 | 30969/208 | 2500 | 2300 | 3500 | 111 | 10.0 | 5.0 | – | 725 | 517 |
| 13 | 8091 | 9634 | 17 | 1.1 | K1014_1490 EZ815U | 10621 | 13276 | 148.9 | 30969/208 | 2500 | 2300 | 3500 | 174 | 10.0 | 5.0 | – | 725 | 529 |

# 16.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gearbox dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

Combination options and the dimensions of forced ventilated geared motors can also be found at https://configurator.stoeber.de/en-US/.

**Tolerances**

| Axis height in accordance with DIN 747 | Tolerance |
|---|---|
| Up to 50 mm | -0.4 mm |
| Up to 250 mm | -0.5 mm |
| Up to 630 mm | -0.6 mm |

| Solid shaft | Tolerance |
|---|---|
| Shaft ∅ fit ≤ 50 mm | DIN 748-1, ISO k6 |
| Shaft ∅ fit > 50 mm | DIN 748-1, ISO m6 |
| Feather keys | DIN 6885-1, high form A |

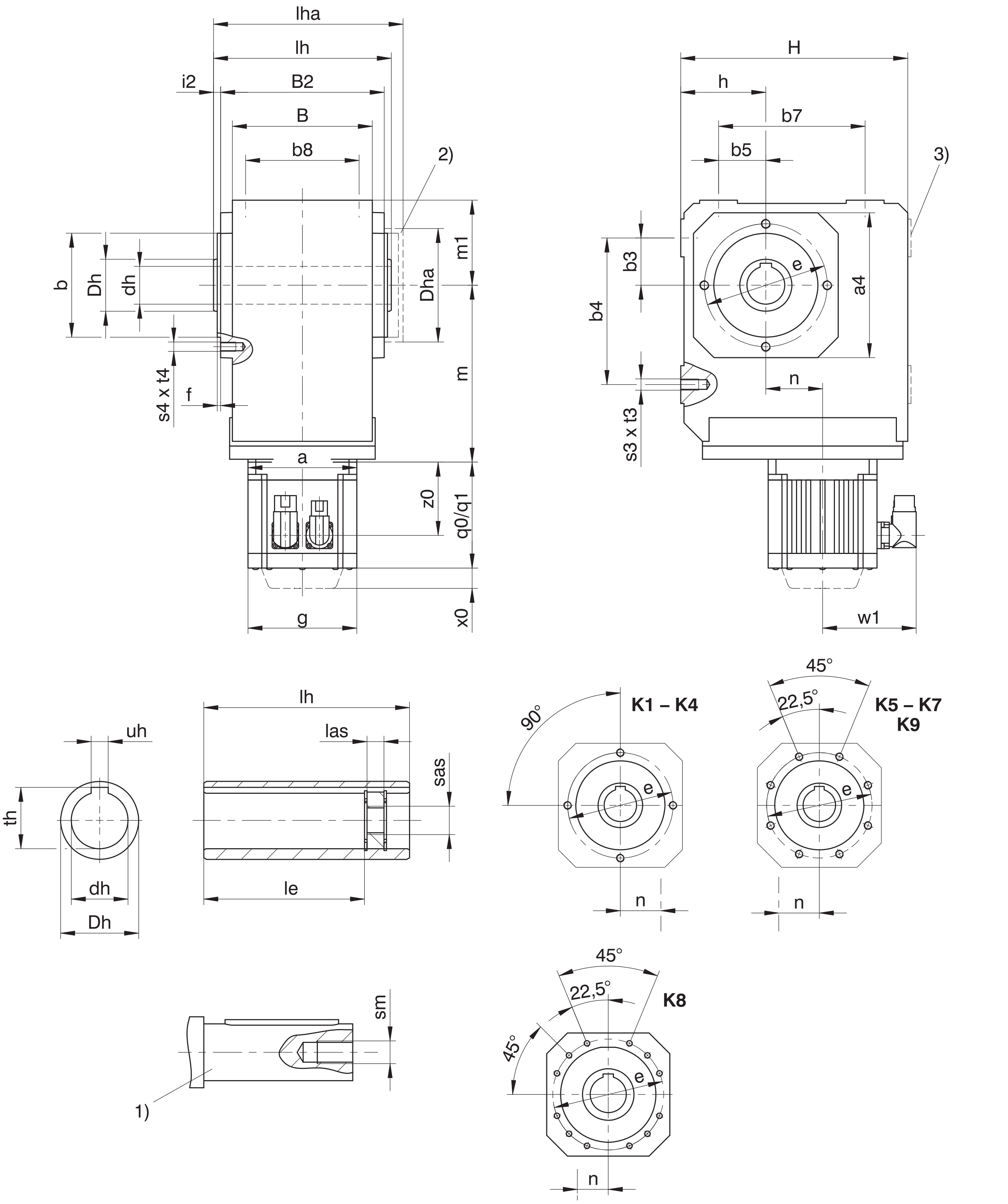
| Hollow shaft | Tolerance |
|---|---|
| Hollow shaft hole fit | ISO H7 |
| Feather keys | DIN 6885-1, high form<br>K1 ∅30: DIN 6885-3, low form |

| Flange | Pilot tolerance |
|---|---|
| Up to 300 mm | ISO j6 |
| Starting at 350 mm | ISO h6 |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 16.3.1 A shaft design (hollow shaft), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▶ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) | | |

### Dimensions of gearboxes

| Type | □a4 | ∅b | b3 | b4 | b5 | b7 | b8 | B | B2 | ∅dh | ∅Dh | Dha | ∅e | f | h | H | i2 | le | lh | las | lha | m1 | s3 | s4 | sm | sas | t3 | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 70 | 90 | 106 | $20^{H7}$ | 40 | □105 | 90 | 3.0 | 60 | 160 | 7.0 | 98.0 | 120 | 12 | 127.0 | 60 | M8 | M8 | M6 | M8 | 13 | 13 | 22.8 | $6^{JS9}$ |
| K1 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 70 | 90 | 106 | $25^{H7}$ | 40 | □105 | 90 | 3.0 | 60 | 160 | 7.0 | 98.0 | 120 | 12 | 127.0 | 60 | M8 | M8 | M10 | M12 | 13 | 13 | 28.3 | $8^{JS9}$ |
| K1 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 70 | 90 | 106 | $30^{H7}$ | 40 | □105 | 90 | 3.0 | 60 | 160 | 7.0 | 93.5 | 120 | 12 | 127.0 | 60 | M8 | M8 | M10 | M12 | 13 | 13 | 32.0 | $8^{JS9}$ |
| K2 | 116 | $82_{j6}$ | 35 | 115 | 35 | 115 | 90 | 115 | 134 | $30^{H7}$ | 45 | □116 | 100 | 3.0 | 65 | 190 | 7.0 | 121.5 | 148 | 12 | 156.0 | 65 | M10 | M8 | M10 | M12 | 16 | 13 | 33.3 | $8^{JS9}$ |
| K3 | 132 | $95_{j6}$ | 40 | 130 | 40 | 130 | 105 | 130 | 146 | $35^{H7}$ | 50 | □132 | 115 | 3.0 | 75 | 213 | 7.0 | 125.0 | 160 | 12 | 168.0 | 75 | M10 | M8 | M12 | M16 | 16 | 13 | 38.3 | $10^{JS9}$ |
| K4 | 152 | $110_{j6}$ | 50 | 155 | 50 | 155 | 120 | 148 | 173 | $40^{H7}$ | 55 | □152 | 130 | 3.5 | 90 | 240 | 7.5 | 157.0 | 188 | 12 | 197.5 | 90 | M12 | M10 | M16 | M20 | 19 | 16 | 43.3 | $12^{JS9}$ |
| K5 | 145 | $110_{j6}$ | 40 | 140 | 100 | 140 | 125 | 160 | 185 | $50^{H7}$ | 65 | □145 | 130 | 3.5 | 160 | 260 | 7.5 | 164.0 | 200 | 12 | 209.5 | 100 | M16 | M10 | M16 | M20 | 26 | 16 | 53.8 | $14^{JS9}$ |
| K6 | 180 | $140_{j6}$ | 50 | 160 | 110 | 160 | 130 | 168 | 200 | $50^{H7}$ | 70 | ∅183 | 165 | 3.5 | 190 | 310 | 7.5 | 179.0 | 215 | 12 | 224.5 | 120 | M16 | M10 | M16 | M20 | 26 | 16 | 53.8 | $14^{JS9}$ |
| K7 | 195 | $155_{j6}$ | 55 | 180 | 125 | 180 | 145 | 190 | 226 | $60^{H7}$ | 85 | ∅205 | 185 | 3.5 | 212 | 342 | 8.0 | 214.0 | 242 | 12 | 252.0 | 125 | M20 | M12 | M20 | M24 | 33 | 19 | 64.4 | $18^{JS9}$ |
| K8 | 226 | $185_{j6}$ | 75 | 240 | 165 | 240 | 185 | 235 | 282 | $70^{H7}$ | 100 | ∅184 | 215 | 4.0 | 265 | 410 | 9.0 | 263.0 | 300 | 20 | 311.0 | 145 | M24 | M12 | M20 | M24 | 38 | 19 | 74.9 | $20^{JS9}$ |
| K9 | 280 | $230_{j6}$ | 95 | 280 | 185 | 280 | 225 | 285 | 330 | $90^{H7}$ | 120 | ∅230 | 265 | 5.0 | 315 | 495 | 10.0 | 302.0 | 350 | 26 | 361.0 | 180 | M30 | M16 | M24 | M30 | 48 | 26 | 95.4 | $25^{JS9}$ |

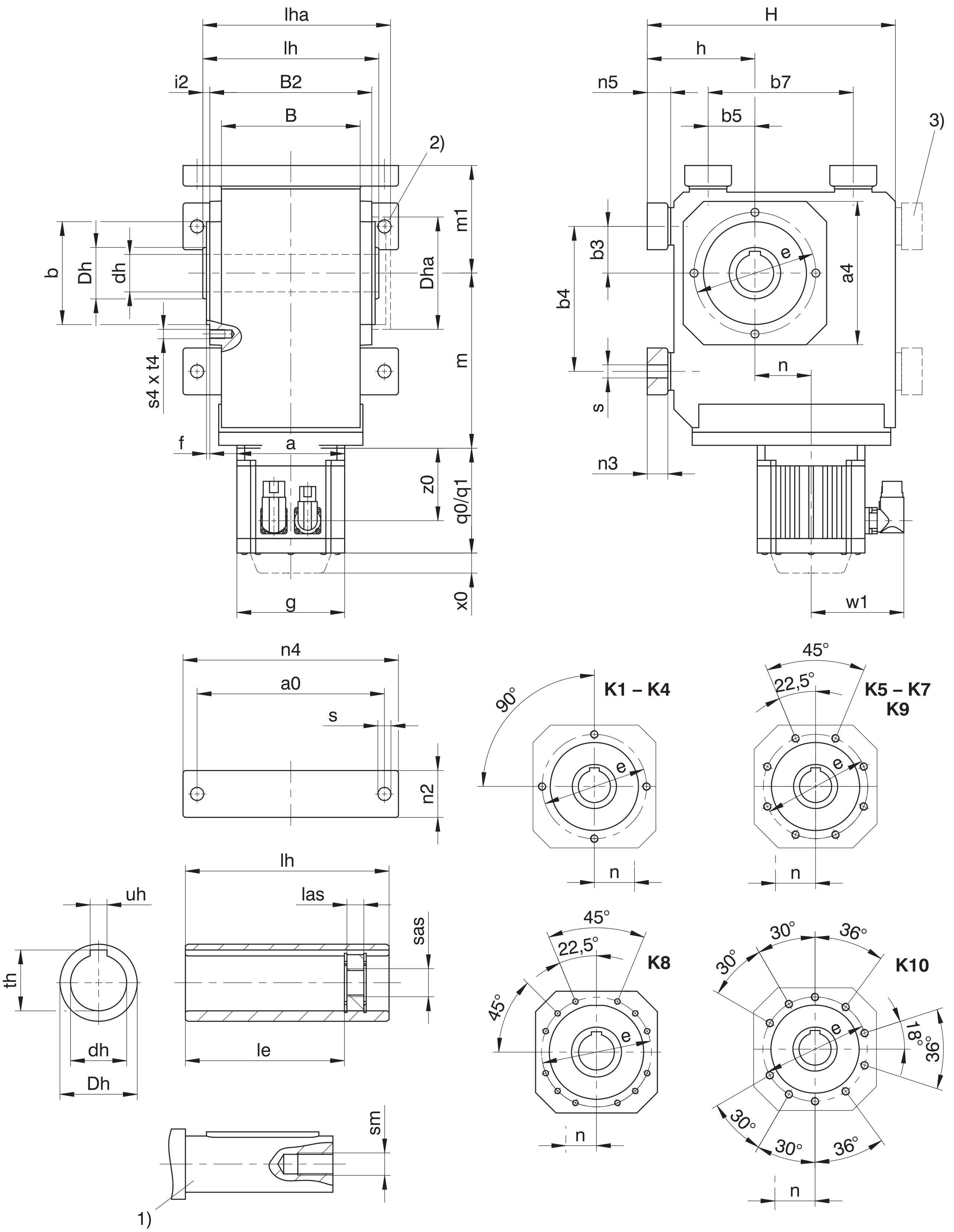
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

### 16.3.2 A shaft design (hollow shaft), NG housing design (base + pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) | | |

### Dimensions of gearboxes

| Type | a0 | □a4 | ∅b | b3 | b4 | b5 | b7 | B | B2 | ∅dh | ∅Dh | Dha | ∅e | f | h | H | i2 | le | lh | las | lha | m1 | n2 | n3 | n4 | n5 | ∅s | s4 | sm | sas | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 115 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | $20^{H7}$ | 40 | □105 | 90 | 3.0 | 75 | 175 | 7.0 | 98.0 | 120 | 12 | 127.0 | 75 | 30 | 13 | 140 | 15 | 9.0 | M8 | M6 | M8 | 13 | 22.8 | $6^{JS9}$ |
| K1 | 115 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | $25^{H7}$ | 40 | □105 | 90 | 3.0 | 75 | 175 | 7.0 | 98.0 | 120 | 12 | 127.0 | 75 | 30 | 13 | 140 | 15 | 9.0 | M8 | M10 | M12 | 13 | 28.3 | $8^{JS9}$ |
| K1 | 115 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | $30^{H7}$ | 40 | □105 | 90 | 3.0 | 75 | 175 | 7.0 | 93.5 | 120 | 12 | 127.0 | 75 | 30 | 13 | 140 | 15 | 9.0 | M8 | M10 | M12 | 13 | 32.0 | $8^{JS9}$ |
| K2 | 155 | 116 | $82_{j6}$ | 35 | 115 | 35 | 115 | 115 | 134 | $30^{H7}$ | 45 | □116 | 100 | 3.0 | 88 | 213 | 7.0 | 121.5 | 148 | 12 | 156.0 | 88 | 40 | 20 | 185 | 23 | 11.0 | M8 | M10 | M12 | 13 | 33.3 | $8^{JS9}$ |
| K3 | 170 | 132 | $95_{j6}$ | 40 | 130 | 40 | 130 | 130 | 146 | $35^{H7}$ | 50 | □132 | 115 | 3.0 | 98 | 236 | 7.0 | 125.0 | 160 | 12 | 168.0 | 98 | 45 | 20 | 200 | 23 | 11.0 | M8 | M12 | M16 | 13 | 38.3 | $10^{JS9}$ |
| K4 | 200 | 152 | $110_{j6}$ | 50 | 155 | 50 | 155 | 148 | 173 | $40^{H7}$ | 55 | □152 | 130 | 3.5 | 115 | 265 | 7.5 | 157.0 | 188 | 12 | 197.5 | 115 | 50 | 22 | 230 | 25 | 14.0 | M10 | M16 | M20 | 16 | 43.3 | $12^{JS9}$ |
| K5 | 200 | 145 | $110_{j6}$ | 40 | 140 | 100 | 140 | 160 | 185 | $50^{H7}$ | 65 | □145 | 130 | 3.5 | 190 | 290 | 7.5 | 164.0 | 200 | 12 | 209.5 | 130 | 60 | 27 | 240 | 30 | 18.0 | M10 | M16 | M20 | 16 | 53.8 | $14^{JS9}$ |
| K6 | 210 | 180 | $140_{j6}$ | 50 | 160 | 110 | 160 | 168 | 200 | $50^{H7}$ | 70 | ∅183 | 165 | 3.5 | 220 | 340 | 7.5 | 179.0 | 215 | 12 | 224.5 | 150 | 65 | 27 | 250 | 30 | 18.5 | M10 | M16 | M20 | 16 | 53.8 | $14^{JS9}$ |
| K7 | 241 | 195 | $155_{j6}$ | 55 | 180 | 125 | 180 | 190 | 226 | $60^{H7}$ | 85 | ∅205 | 185 | 3.5 | 250 | 380 | 8.0 | 214.0 | 242 | 12 | 252.0 | 163 | 70 | 35 | 290 | 38 | 23.0 | M12 | M20 | M24 | 19 | 64.4 | $18^{JS9}$ |
| K8 | 300 | 226 | $185_{j6}$ | 75 | 240 | 165 | 240 | 235 | 282 | $70^{H7}$ | 100 | ∅184 | 215 | 4.0 | 310 | 455 | 9.0 | 263.0 | 300 | 20 | 311.0 | 190 | 85 | 41 | 360 | 45 | 27.0 | M12 | M20 | M24 | 19 | 74.9 | $20^{JS9}$ |
| K9 | 360 | 280 | $230_{j6}$ | 95 | 280 | 185 | 280 | 285 | 330 | $90^{H7}$ | 120 | ∅230 | 265 | 5.0 | 365 | 545 | 10.0 | 302.0 | 350 | 26 | 361.0 | 230 | 95 | 46 | 430 | 50 | 31.0 | M16 | M24 | M30 | 26 | 95.4 | $25^{JS9}$ |
| K10 | 330 | 340 | $250_{h6}$ | 115 | 350 | 265 | 420 | 400 | 356 | $100^{H7}$ | 130 | ∅200 | 300 | 20.0 | 420 | 636 | 27.0 | 361.0 | 410 | 26 | 441.0 | 270 | 120 | – | 400 | 45 | 39.0 | M20 | M24 | M30 | 33 | 106.4 | $28^{JS9}$ |

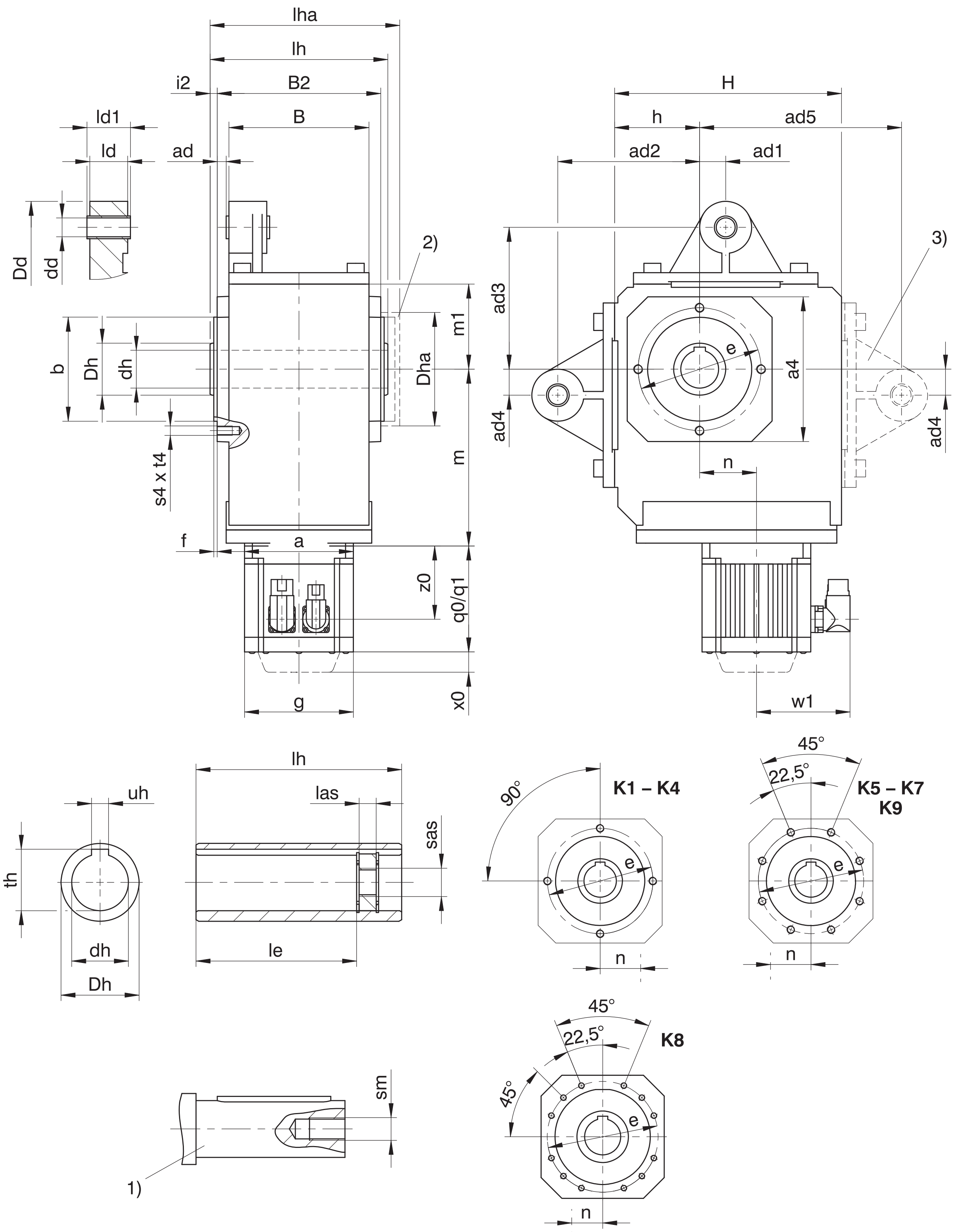
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |
| K1014 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 450 | 28.0 |

## 16.3.3 A shaft design (hollow shaft), GD housing design (pitch circle diameter + torque arm bracket)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

| | | | |
|---|---|---|---|
| 3) | Only for K1 (other sizes on request) | – | If you brace the gearboxes without the torque arm brackets provided by the manufacturer for this purpose, the dimensions for ad2 and ad3 must meet the specified value. |

**Dimensions of gearboxes**

| Type | □a4 | ad | ad1 | ad2 | ad3 | ad4 | ad5 | Øb | B | B2 | Ødd | Ødh | ØDd | ØDh | Dha | Øe | f |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 105 | 6.0 | 15.0 | 90 | 90 | 15.0 | 130 | $75_{j6}$ | 90 | 106 | $12^{H9}$ | $20^{H7}$ | 43 | 40 | □105 | 90 | 3.0 |
| K1 | 105 | 6.0 | 15.0 | 90 | 90 | 15.0 | 130 | $75_{j6}$ | 90 | 106 | $12^{H9}$ | $25^{H7}$ | 43 | 40 | □105 | 90 | 3.0 |
| K1 | 105 | 6.0 | 15.0 | 90 | 90 | 15.0 | 130 | $75_{j6}$ | 90 | 106 | $12^{H9}$ | $30^{H7}$ | 43 | 40 | □105 | 90 | 3.0 |
| K2 | 116 | 6.5 | 22.5 | 100 | 100 | 22.5 | – | $82_{j6}$ | 115 | 134 | $16^{H9}$ | $30^{H7}$ | 45 | 45 | □116 | 100 | 3.0 |
| K3 | 132 | 5.0 | 25.0 | 120 | 120 | 25.0 | – | $95_{j6}$ | 130 | 146 | $16^{H9}$ | $35^{H7}$ | 45 | 50 | □132 | 115 | 3.0 |
| K4 | 152 | 9.5 | 27.5 | 150 | 150 | 27.5 | – | $110_{j6}$ | 148 | 173 | $20^{H9}$ | $40^{H7}$ | 55 | 55 | □152 | 130 | 3.5 |
| K5 | 145 | 9.5 | 30.0 | 250 | 190 | 30.0 | – | $110_{j6}$ | 160 | 185 | $20^{H9}$ | $50^{H7}$ | 58 | 65 | □145 | 130 | 3.5 |
| K6 | 180 | 13.0 | 30.0 | 250 | 180 | 30.0 | – | $140_{j6}$ | 168 | 200 | $20^{H9}$ | $50^{H7}$ | 58 | 70 | Ø183 | 165 | 3.5 |
| K7 | 195 | 15.0 | 35.0 | 300 | 213 | 35.0 | – | $155_{j6}$ | 190 | 226 | $20^{H9}$ | $60^{H7}$ | 68 | 85 | Ø205 | 185 | 3.5 |
| K8 | 226 | 17.0 | 45.0 | 350 | 230 | 45.0 | – | $185_{j6}$ | 235 | 282 | $24^{H9}$ | $70^{H7}$ | 72 | 100 | Ø184 | 215 | 4.0 |
| K9 | 280 | 16.0 | 45.0 | 450 | 315 | 45.0 | – | $230_{j6}$ | 285 | 330 | $24^{H9}$ | $90^{H7}$ | 75 | 120 | Ø230 | 265 | 5.0 |

**Dimensions of gearboxes**

| Type | h | H | i2 | ld | ld1 | le | lh | las | lha | m1 | s4 | sm | sas | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 60 | 160 | 7.0 | 24 | 28 | 98.0 | 120 | 12 | 127.0 | 60 | M8 | M6 | M8 | 13 | 22.8 | $6^{JS9}$ |
| K1 | 60 | 160 | 7.0 | 24 | 28 | 98.0 | 120 | 12 | 127.0 | 60 | M8 | M10 | M12 | 13 | 28.3 | $8^{JS9}$ |
| K1 | 60 | 160 | 7.0 | 24 | 28 | 93.5 | 120 | 12 | 127.0 | 60 | M8 | M10 | M12 | 13 | 32.0 | $8^{JS9}$ |
| K2 | 65 | 190 | 7.0 | 32 | 38 | 121.5 | 148 | 12 | 156.0 | 65 | M8 | M10 | M12 | 13 | 33.3 | $8^{JS9}$ |
| K3 | 75 | 213 | 7.0 | 32 | 38 | 125.0 | 160 | 12 | 168.0 | 75 | M8 | M12 | M16 | 13 | 38.3 | $10^{JS9}$ |
| K4 | 90 | 240 | 7.5 | 40 | 46 | 157.0 | 188 | 12 | 197.5 | 90 | M10 | M16 | M20 | 16 | 43.3 | $12^{JS9}$ |
| K5 | 160 | 260 | 7.5 | 40 | 46 | 164.0 | 200 | 12 | 209.5 | 100 | M10 | M16 | M20 | 16 | 53.8 | $14^{JS9}$ |
| K6 | 190 | 310 | 7.5 | 40 | 46 | 179.0 | 215 | 12 | 224.5 | 120 | M10 | M16 | M20 | 16 | 53.8 | $14^{JS9}$ |
| K7 | 212 | 342 | 8.0 | 64 | 70 | 214.0 | 242 | 12 | 252.0 | 125 | M12 | M20 | M24 | 19 | 64.4 | $18^{JS9}$ |
| K8 | 265 | 410 | 9.0 | 102 | 115 | 263.0 | 300 | 20 | 311.0 | 145 | M12 | M20 | M24 | 19 | 74.9 | $20^{JS9}$ |
| K9 | 315 | 495 | 10.0 | 102 | 115 | 302.0 | 350 | 26 | 361.0 | 180 | M16 | M24 | M30 | 26 | 95.4 | $25^{JS9}$ |

**Dimensions of motors**

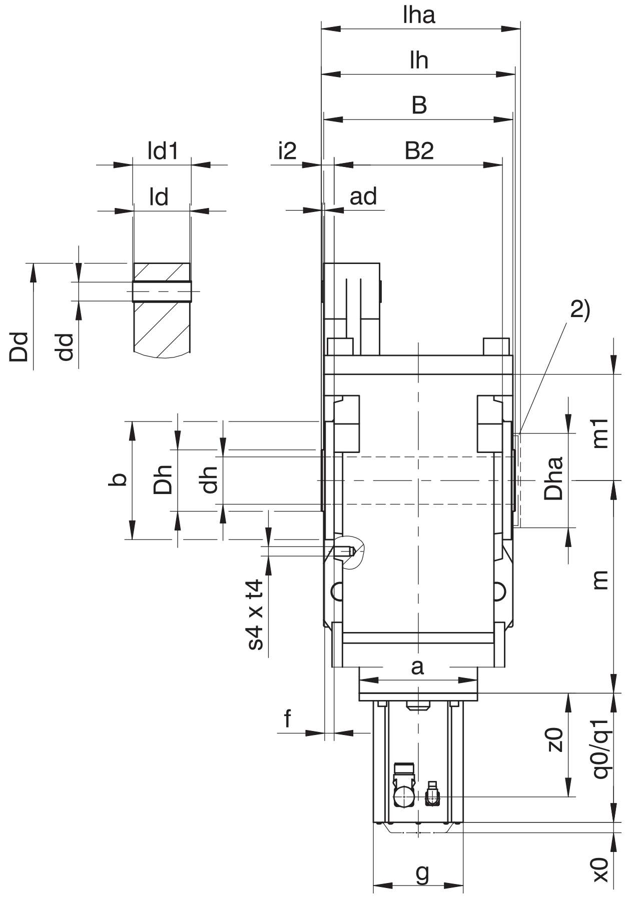
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

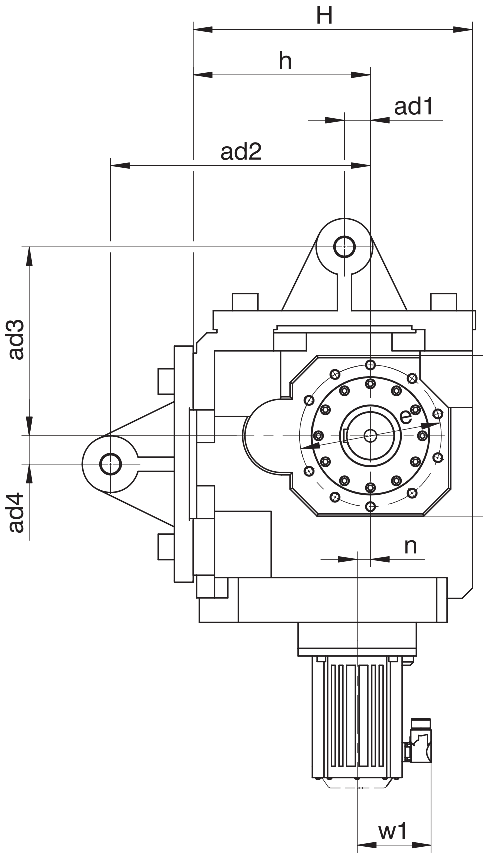
The dimensions a, m and n can be found on the next page.

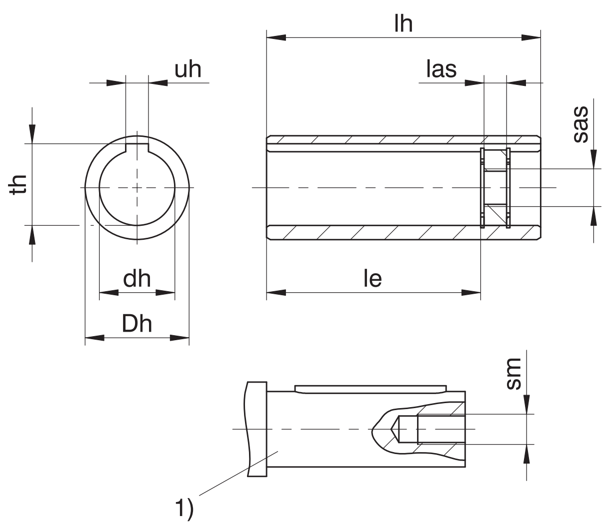
### Dimensions of geared motors

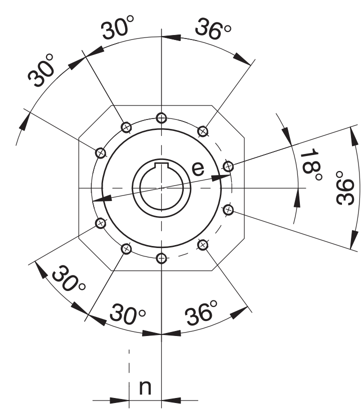
| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

## 16.3.4 A shaft design (hollow shaft), NGD housing design (foot + pitch circle diameter + torque arm bracket)




q0 Applies to motors without brake.

q1 Applies to motors with brake.

x0 Applies to encoders using an optical measuring method.

w1 Different for the One Cable Solution (OCS), see the chapter [17.4]

1) The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh.

2) Cover (optional)

– If you brace the gearboxes without the torque arm brackets provided by the manufacturer for this purpose, the dimensions for ad2 and ad3 must meet the specified value.

**Dimensions of gearboxes**

| Type | □a4 | ad | ad1 | ad2 | ad3 | ad4 | ∅b | B | B2 | ∅dd | ∅dh | ∅Dd | ∅Dh | Dha | ∅e | f |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K10 | 340 | 5 | 60 | 550 | 400 | 55 | $250_{h6}$ | 400 | 356 | $40^{H9}$ | $100^{H7}$ | 120 | 130 | ∅200 | 300 | 20 |

**Dimensions of gearboxes**

| Type | h | H | i2 | ld | ld1 | le | lh | las | lha | m1 | s4 | sm | sas | t4 | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K10 | 375 | 591 | 27 | 118 | 124 | 361 | 410 | 26 | 441 | 225 | M20 | M24 | M30 | 33 | 106.4 | $28^{JS9}$ |

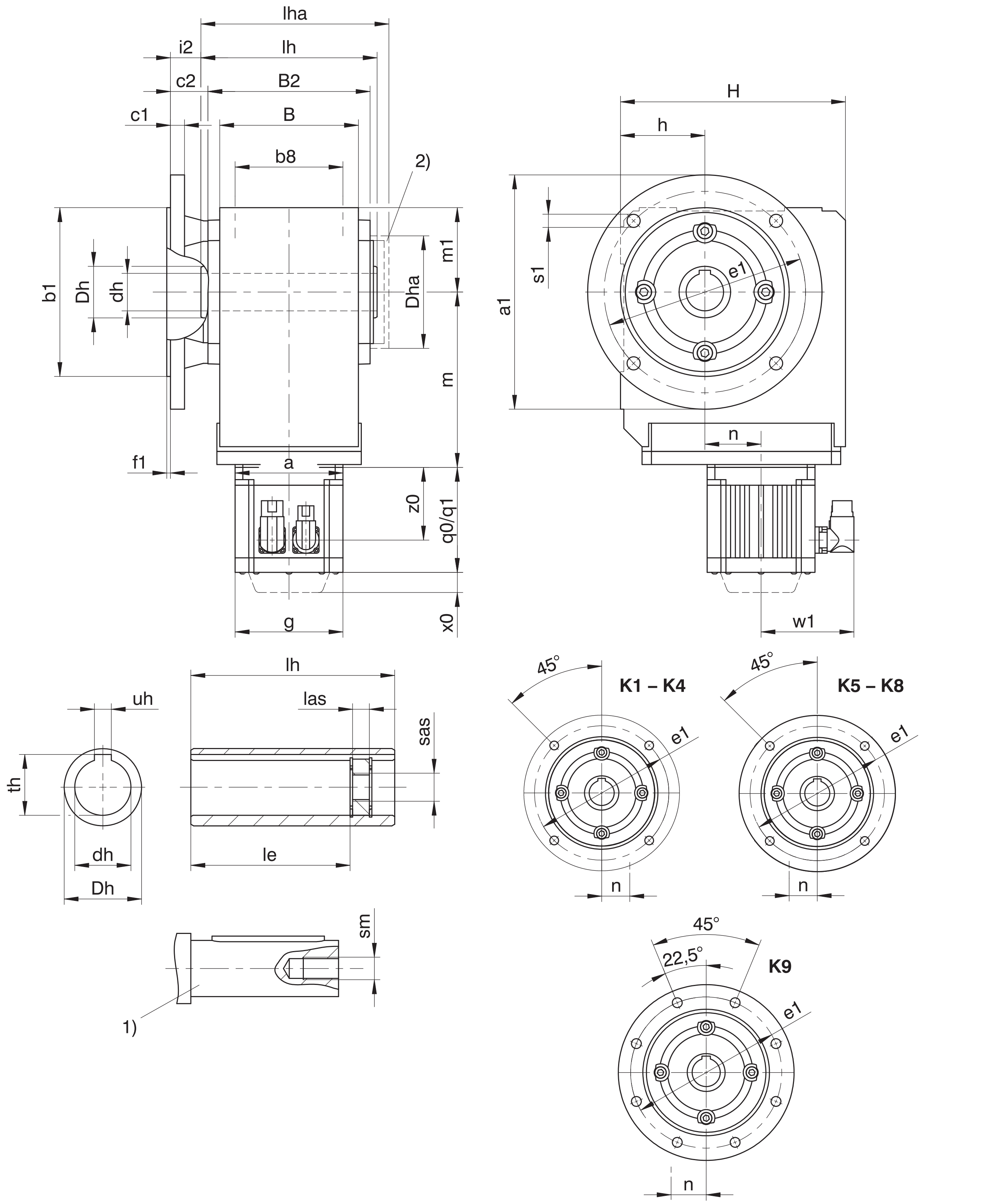
**Dimensions of motors**

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

**Dimensions of geared motors**

| Type | EZ8 | | |
|---|---|---|---|
| | a | m | n |
| K1014 | ∅250 | 450 | 28.0 |

## 16.3.5 A shaft design (hollow shaft), F housing design (round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method | w1 | Different for the One Cable Solution (OCS), see the chapter [▶ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | ∅a1 | ∅b1 | b8 | B | B2 | c1 | c2 | ∅dh | ∅Dh | Dha | ∅e1 | f1 | h | H | i2 | le | lh | las | lha | m1 | ∅s1 | sm | sas | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 160 | $110_{j6}$ | 70 | 90 | 106 | 10 | 32.0 | $20^{H7}$ | 40 | □105 | 130 | 3.5 | 60 | 160 | 25.0 | 98.0 | 120 | 12 | 127.0 | 60 | 9 | M6 | M8 | 22.8 | $6^{JS9}$ |
| K1 | 160 | $110_{j6}$ | 70 | 90 | 106 | 10 | 32.0 | $25^{H7}$ | 40 | □105 | 130 | 3.5 | 60 | 160 | 25.0 | 98.0 | 120 | 12 | 127.0 | 60 | 9 | M10 | M12 | 28.3 | $8^{JS9}$ |
| K1 | 160 | $110_{j6}$ | 70 | 90 | 106 | 10 | 32.0 | $30^{H7}$ | 40 | □105 | 130 | 3.5 | 60 | 160 | 25.0 | 93.5 | 120 | 12 | 127.0 | 60 | 9 | M10 | M12 | 32.0 | $8^{JS9}$ |
| K2 | 200 | $130_{j6}$ | 90 | 115 | 134 | 12 | 32.0 | $30^{H7}$ | 45 | □116 | 165 | 3.5 | 65 | 190 | 25.0 | 121.5 | 148 | 12 | 156.0 | 65 | 11 | M10 | M12 | 33.3 | $8^{JS9}$ |
| K3 | 200 | $130_{j6}$ | 105 | 130 | 146 | 14 | 38.0 | $35^{H7}$ | 50 | □132 | 165 | 3.5 | 75 | 213 | 31.0 | 125.0 | 160 | 12 | 168.0 | 75 | 11 | M12 | M16 | 38.3 | $10^{JS9}$ |
| K4 | 250 | $180_{j6}$ | 120 | 148 | 173 | 15 | 40.0 | $40^{H7}$ | 55 | □152 | 215 | 4.0 | 90 | 240 | 32.5 | 157.0 | 188 | 12 | 197.5 | 90 | 14 | M16 | M20 | 43.3 | $12^{JS9}$ |
| K5 | 250 | $180_{j6}$ | 125 | 160 | 185 | 15 | 39.5 | $50^{H7}$ | 65 | □145 | 215 | 4.0 | 160 | 260 | 32.0 | 164.0 | 200 | 12 | 209.5 | 100 | 14 | M16 | M20 | 53.8 | $14^{JS9}$ |
| K6 | 300 | $230_{j6}$ | 130 | 168 | 200 | 17 | 36.0 | $50^{H7}$ | 70 | ∅183 | 265 | 4.0 | 190 | 310 | 28.5 | 179.0 | 215 | 12 | 224.5 | 120 | 14 | M16 | M20 | 53.8 | $14^{JS9}$ |
| K7 | 350 | $250_{h6}$ | 145 | 190 | 226 | 18 | 44.0 | $60^{H7}$ | 85 | ∅205 | 300 | 5.0 | 212 | 342 | 36.0 | 214.0 | 242 | 12 | 252.0 | 125 | 18 | M20 | M24 | 64.4 | $18^{JS9}$ |
| K8 | 400 | $300_{h6}$ | 185 | 235 | 282 | 20 | 45.0 | $70^{H7}$ | 100 | ∅184 | 350 | 5.0 | 265 | 410 | 36.0 | 263.0 | 300 | 20 | 311.0 | 145 | 18 | M20 | M24 | 74.9 | $20^{JS9}$ |
| K9 | 450 | $350_{h6}$ | 225 | 285 | 330 | 23 | 50.0 | $90^{H7}$ | 120 | ∅230 | 400 | 5.0 | 315 | 495 | 40.0 | 302.0 | 350 | 26 | 361.0 | 180 | 18 | M24 | M30 | 95.4 | $25^{JS9}$ |

### Dimensions of additional round flanges

| Type | ∅a1 | ∅b1 | c1 | ∅e1 | f1 | ∅s1 |
|---|---|---|---|---|---|---|
| K1 | 140 | $95_{j6}$ | 10 | 115 | 3.0 | 9 |
| K2 | 160 | $110_{j6}$ | 12 | 130 | 3.5 | 9 |
| K3 | 160 | $110_{j6}$ | 14 | 130 | 3.5 | 9 |
| K3 | 250 | $180_{j6}$ | 14 | 215 | 4.0 | 14 |
| K8 | 350 | $250_{h6}$ | 18 | 300 | 5.0 | 18 |
| K8 | 450 | $350_{h6}$ | 20 | 400 | 5.0 | 18 |

### Dimensions of motors

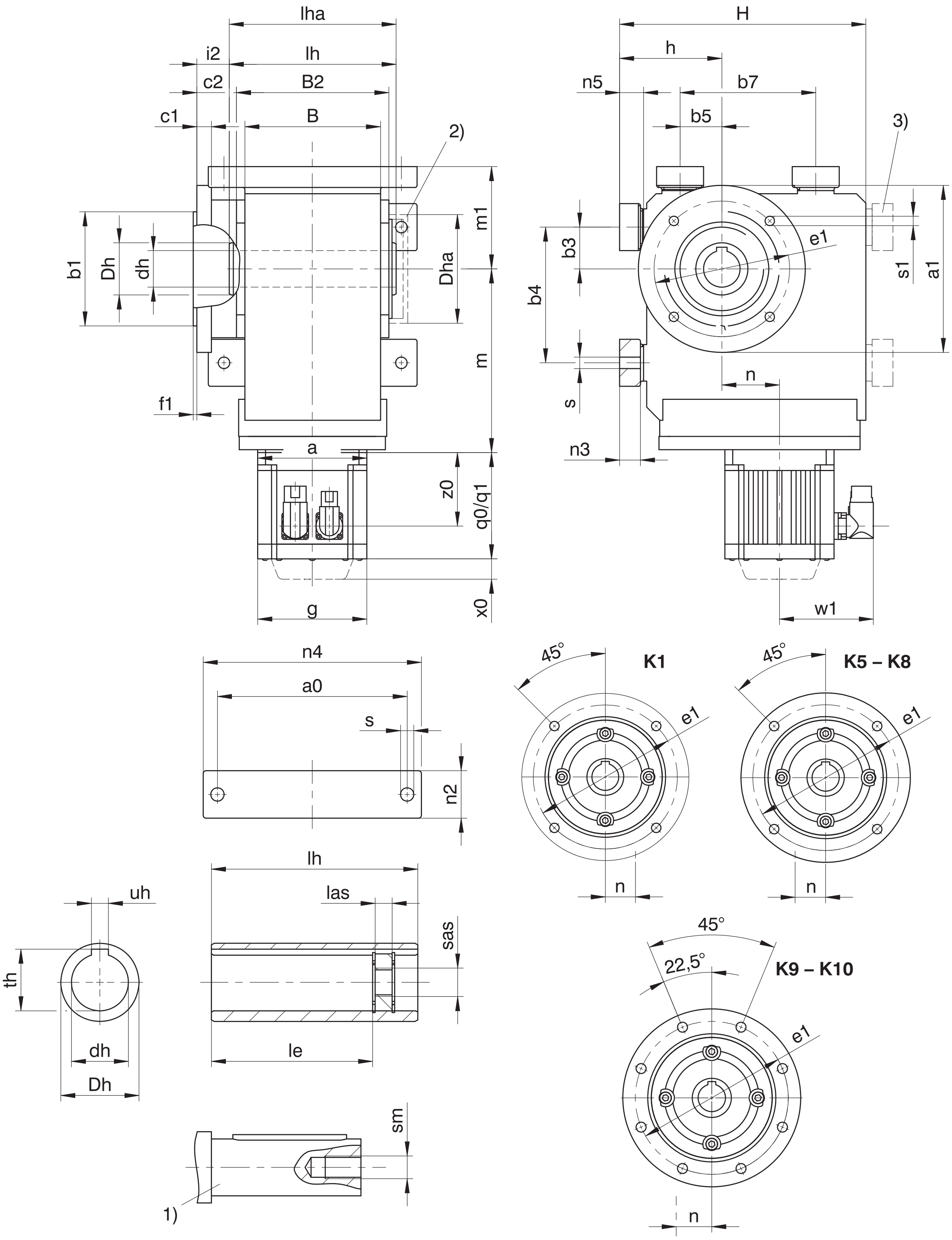
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

The dimensions a, m and n can be found on the next page.

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

## 16.3.6 A shaft design (hollow shaft), NF housing design (base + round flange)




| | |
|---|---|
| q0 | Applies to motors without brake. |
| q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method |
| w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | The length of the machine shaft must be at least 2.2 x ∅dh and the length of the feather key must be at least 2 x ∅dh. |
| 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) |

### Dimensions of gearboxes

| Type | a0 | ∅a1 | ∅b1 | b3 | b4 | b5 | b7 | B | B2 | c1 | c2 | ∅dh | ∅Dh | Dha | ∅e1 | f1 | h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 115 | 160 | $110_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | 10 | 32.0 | $20^{H7}$ | 40 | □105 | 130 | 3.5 | 75 |
| K1 | 115 | 160 | $110_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | 10 | 32.0 | $25^{H7}$ | 40 | □105 | 130 | 3.5 | 75 |
| K1 | 115 | 160 | $110_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | 10 | 32.0 | $30^{H7}$ | 40 | □105 | 130 | 3.5 | 75 |
| K5 | 200 | 250 | $180_{j6}$ | 40 | 140 | 100 | 140 | 160 | 185 | 15 | 39.5 | $50^{H7}$ | 65 | □145 | 215 | 4.0 | 190 |
| K6 | 210 | 300 | $230_{j6}$ | 50 | 160 | 110 | 160 | 168 | 200 | 17 | 36.0 | $50^{H7}$ | 70 | ∅183 | 265 | 4.0 | 220 |
| K7 | 241 | 350 | $250_{h6}$ | 55 | 180 | 125 | 180 | 190 | 226 | 18 | 44.0 | $60^{H7}$ | 85 | ∅205 | 300 | 5.0 | 250 |
| K8 | 300 | 400 | $300_{h6}$ | 75 | 240 | 165 | 240 | 235 | 282 | 20 | 45.0 | $70^{H7}$ | 100 | ∅184 | 350 | 5.0 | 310 |
| K9 | 360 | 450 | $350_{h6}$ | 95 | 280 | 185 | 280 | 285 | 330 | 23 | 50.0 | $90^{H7}$ | 120 | ∅230 | 400 | 5.0 | 365 |
| K10 | 330 | 550 | $450_{h6}$ | 115 | 350 | 265 | 420 | 400 | 356 | 25 | 78.0 | $100^{H7}$ | 130 | ∅200 | 500 | 5.0 | 420 |

### Dimensions of gearboxes

| Type | H | i2 | le | lh | las | lha | m1 | n2 | n3 | n4 | n5 | ∅s | ∅s1 | sm | sas | th | uh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 175 | 25.0 | 98.0 | 120 | 12 | 127.0 | 75 | 30 | 13 | 140 | 15 | 9.0 | 9 | M6 | M8 | 22.8 | $6^{JS9}$ |
| K1 | 175 | 25.0 | 98.0 | 120 | 12 | 127.0 | 75 | 30 | 13 | 140 | 15 | 9.0 | 9 | M10 | M12 | 28.3 | $8^{JS9}$ |
| K1 | 175 | 25.0 | 93.5 | 120 | 12 | 127.0 | 75 | 30 | 13 | 140 | 15 | 9.0 | 9 | M10 | M12 | 32.0 | $8^{JS9}$ |
| K5 | 290 | 32.0 | 164.0 | 200 | 12 | 209.5 | 130 | 60 | 27 | 240 | 30 | 18.0 | 14 | M16 | M20 | 53.8 | $14^{JS9}$ |
| K6 | 340 | 28.5 | 179.0 | 215 | 12 | 224.5 | 150 | 65 | 27 | 250 | 30 | 18.5 | 14 | M16 | M20 | 53.8 | $14^{JS9}$ |
| K7 | 380 | 36.0 | 214.0 | 242 | 12 | 252.0 | 163 | 70 | 35 | 290 | 38 | 23.0 | 18 | M20 | M24 | 64.4 | $18^{JS9}$ |
| K8 | 455 | 36.0 | 263.0 | 300 | 20 | 311.0 | 190 | 85 | 41 | 360 | 45 | 27.0 | 18 | M20 | M24 | 74.9 | $20^{JS9}$ |
| K9 | 545 | 40.0 | 302.0 | 350 | 26 | 361.0 | 230 | 95 | 46 | 430 | 50 | 31.0 | 18 | M24 | M30 | 95.4 | $25^{JS9}$ |
| K10 | 636 | 51.0 | 361.0 | 410 | 26 | 441.0 | 270 | 120 | – | 400 | 45 | 39.0 | 18 | M24 | M30 | 106.4 | $28^{JS9}$ |

### Dimensions of additional round flanges

| Type | ∅a1 | ∅b1 | c1 | ∅e1 | f1 | ∅s1 |
|---|---|---|---|---|---|---|
| K1 | 140 | $95_{j6}$ | 10 | 115 | 3.0 | 9 |
| K8 | 350 | $250_{h6}$ | 18 | 300 | 5.0 | 18 |
| K8 | 450 | $350_{h6}$ | 20 | 400 | 5.0 | 18 |

### Dimensions of motors

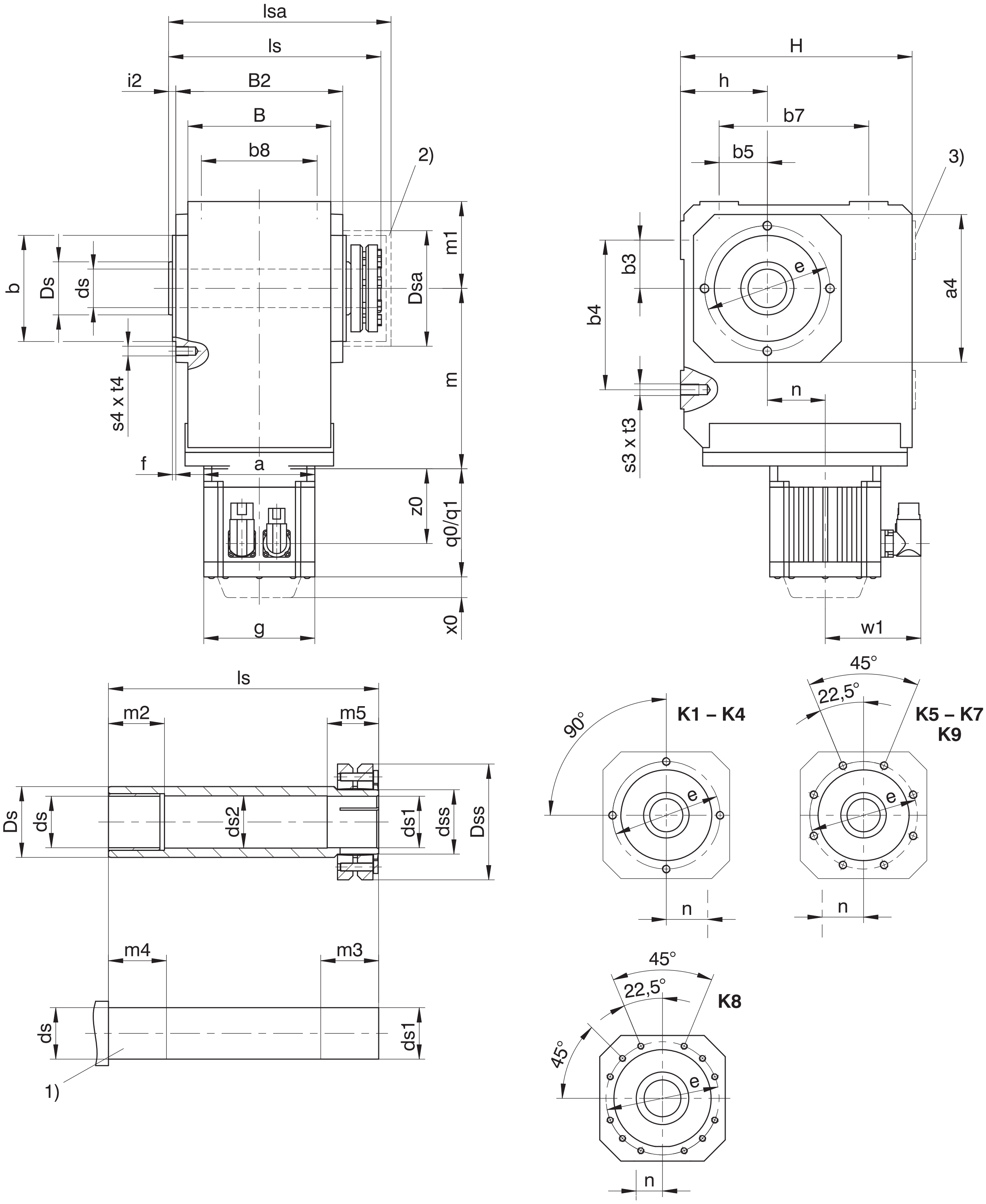
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

The dimensions a, m and n can be found on the next page.

### Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |
| K1014 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 450 | 28.0 |

## 16.3.7 S shaft design (hollow shaft with shrink disk), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) | | |

## Dimensions of gearboxes

| Type | □a4 | ∅b | b3 | b4 | b5 | b7 | b8 | B | B2 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e | f | h | H | i2 | ls | lsa | m1 | m2 | m3 | m4 | m5 | s3 | s4 | t3 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 70 | 90 | 106 | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 40 | 80.0 | 60 | 90 | 3.0 | 60 | 160 | 7.0 | 149 | 163 | 60 | 20 | 34 | 25 | 29 | M8 | M8 | 13 | 13 |
| K2 | 116 | $82_{j6}$ | 35 | 115 | 35 | 115 | 90 | 115 | 134 | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 45 | 88.0 | 72 | 100 | 3.0 | 65 | 190 | 7.0 | 178 | 193 | 65 | 25 | 39 | 30 | 34 | M10 | M8 | 16 | 13 |
| K3 | 132 | $95_{j6}$ | 40 | 130 | 40 | 130 | 105 | 130 | 146 | $35_{h9}$ | $35_{h9}^{H7}$ | 35.5 | 44 | 50 | 101.0 | 80 | 115 | 3.0 | 75 | 213 | 7.0 | 190 | 206 | 75 | 30 | 39 | 35 | 34 | M10 | M8 | 16 | 13 |
| K4 | 152 | $110_{j6}$ | 50 | 155 | 50 | 155 | 120 | 148 | 173 | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 55 | 114.0 | 88 | 130 | 3.5 | 90 | 240 | 7.5 | 220 | 243 | 90 | 40 | 39 | 45 | 34 | M12 | M10 | 19 | 16 |
| K5 | 145 | $110_{j6}$ | 40 | 140 | 100 | 140 | 125 | 160 | 185 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 65 | 116.0 | 106 | 130 | 3.5 | 160 | 260 | 7.5 | 237 | 254 | 100 | 40 | 44 | 45 | 39 | M16 | M10 | 26 | 16 |
| K6 | 180 | $140_{j6}$ | 50 | 160 | 110 | 160 | 130 | 168 | 200 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 70 | 128.0 | 106 | 165 | 3.5 | 190 | 310 | 7.5 | 254 | 276 | 120 | 40 | 45 | 45 | 40 | M16 | M10 | 26 | 16 |
| K7 | 195 | $155_{h6}$ | 55 | 180 | 125 | 180 | 145 | 190 | 226 | $60_{h6}$ | $60_{h6}^{H7}$ | 62.0 | 75 | 85 | 161.5 | 138 | 185 | 3.5 | 212 | 342 | 8.0 | 278 | 314 | 125 | 40 | 45 | 45 | 40 | M20 | M12 | 33 | 19 |
| K8 | 226 | $185_{h6}$ | 75 | 240 | 165 | 240 | 185 | 235 | 282 | $70_{h6}$ | $70_{h6}^{H7}$ | 72.0 | 90 | 100 | 193.0 | 155 | 215 | 4.0 | 265 | 410 | 9.0 | 352 | 378 | 145 | 50 | 60 | 60 | 50 | M24 | M12 | 38 | 19 |
| K9 | 280 | $230_{h6}$ | 95 | 280 | 185 | 280 | 225 | 285 | 330 | $90_{h6}$ | $90_{h6}^{H7}$ | 92.0 | 120 | 120 | 244.0 | 200 | 265 | 5.0 | 315 | 495 | 10.0 | 418 | 428 | 180 | 60 | 70 | 70 | 60 | M30 | M16 | 48 | 26 |

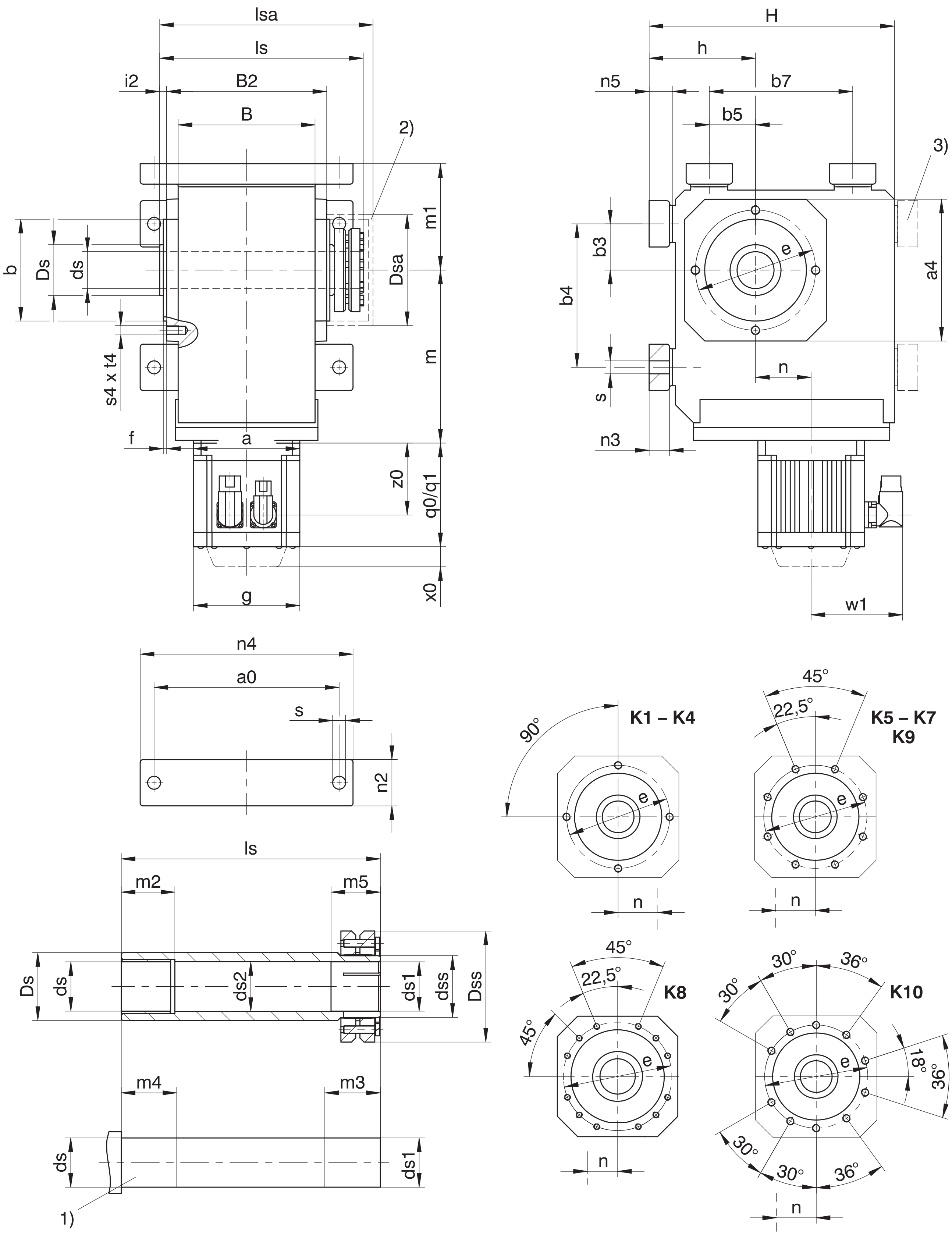
## Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

## 16.3.8 S shaft design (hollow shaft with shrink disk), NG housing design (base + pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▷ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) | | |

### Dimensions of gearboxes

| Type | a0 | a4 | ∅b | b3 | b4 | b5 | b7 | B | B2 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 115 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 40 | 80.0 |
| K2 | 155 | 116 | $82_{j6}$ | 35 | 115 | 35 | 115 | 115 | 134 | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 45 | 88.0 |
| K3 | 170 | 132 | $95_{j6}$ | 40 | 130 | 40 | 130 | 130 | 146 | $35_{h9}$ | $35_{h9}^{H7}$ | 35.5 | 44 | 50 | 101.0 |
| K4 | 200 | 152 | $110_{j6}$ | 50 | 155 | 50 | 155 | 148 | 173 | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 55 | 114.0 |
| K5 | 200 | 145 | $110_{j6}$ | 40 | 140 | 100 | 140 | 160 | 185 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 65 | 116.0 |
| K6 | 210 | 180 | $140_{j6}$ | 50 | 160 | 110 | 160 | 168 | 200 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 70 | 128.0 |
| K7 | 241 | 195 | $155_{j6}$ | 55 | 180 | 125 | 180 | 190 | 226 | $60_{h6}$ | $60_{h6}^{H7}$ | 62.0 | 75 | 85 | 161.5 |
| K8 | 300 | 226 | $185_{j6}$ | 75 | 240 | 165 | 240 | 235 | 282 | $70_{h6}$ | $70_{h6}^{H7}$ | 72.0 | 90 | 100 | 193.0 |
| K9 | 360 | 280 | $230_{j6}$ | 95 | 280 | 185 | 280 | 285 | 330 | $90_{h6}$ | $90_{h6}^{H7}$ | 92.0 | 120 | 120 | 244.0 |
| K10 | 330 | 340 | $250_{h6}$ | 115 | 350 | 265 | 420 | 400 | 356 | $100_{h6}$ | $100_{h6}^{H7}$ | 102.0 | 130 | 130 | 274.0 |

### Dimensions of gearboxes

| Type | ∅Dss | ∅e | f | h | H | i2 | ls | lsa | m1 | m2 | m3 | m4 | m5 | n2 | n3 | n4 | n5 | ∅s | s4 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 60 | 90 | 3.0 | 75 | 175 | 7.0 | 149 | 163 | 75 | 20 | 34 | 25 | 29 | 30 | 13 | 140 | 15 | 9.0 | M8 | 13 |
| K2 | 72 | 100 | 3.0 | 88 | 213 | 7.0 | 178 | 193 | 88 | 25 | 39 | 30 | 34 | 40 | 20 | 185 | 23 | 11.0 | M8 | 13 |
| K3 | 80 | 115 | 3.0 | 98 | 236 | 7.0 | 190 | 206 | 98 | 30 | 39 | 35 | 34 | 45 | 20 | 200 | 23 | 11.0 | M8 | 13 |
| K4 | 88 | 130 | 3.5 | 115 | 265 | 7.5 | 220 | 243 | 115 | 40 | 39 | 45 | 34 | 50 | 22 | 230 | 25 | 14.0 | M10 | 16 |
| K5 | 106 | 130 | 3.5 | 190 | 290 | 7.5 | 237 | 254 | 130 | 40 | 44 | 45 | 39 | 60 | 27 | 240 | 30 | 18.0 | M10 | 16 |
| K6 | 106 | 165 | 3.5 | 220 | 340 | 7.5 | 254 | 276 | 150 | 40 | 45 | 45 | 40 | 65 | 27 | 250 | 30 | 18.5 | M10 | 16 |
| K7 | 138 | 185 | 3.5 | 250 | 380 | 8.0 | 278 | 314 | 163 | 40 | 45 | 45 | 40 | 70 | 35 | 290 | 38 | 23.0 | M12 | 19 |
| K8 | 155 | 215 | 4.0 | 310 | 455 | 9.0 | 352 | 378 | 190 | 50 | 60 | 60 | 50 | 85 | 41 | 360 | 45 | 27.0 | M12 | 19 |
| K9 | 200 | 265 | 5.0 | 365 | 545 | 10.0 | 418 | 428 | 230 | 60 | 70 | 70 | 60 | 95 | 46 | 430 | 50 | 31.0 | M16 | 26 |
| K10 | 215 | 300 | 20.0 | 420 | 636 | 27.0 | 483 | 497 | 270 | 60 | 80 | 70 | 70 | 120 | – | 400 | 45 | 39.0 | M20 | 33 |

### Dimensions of motors

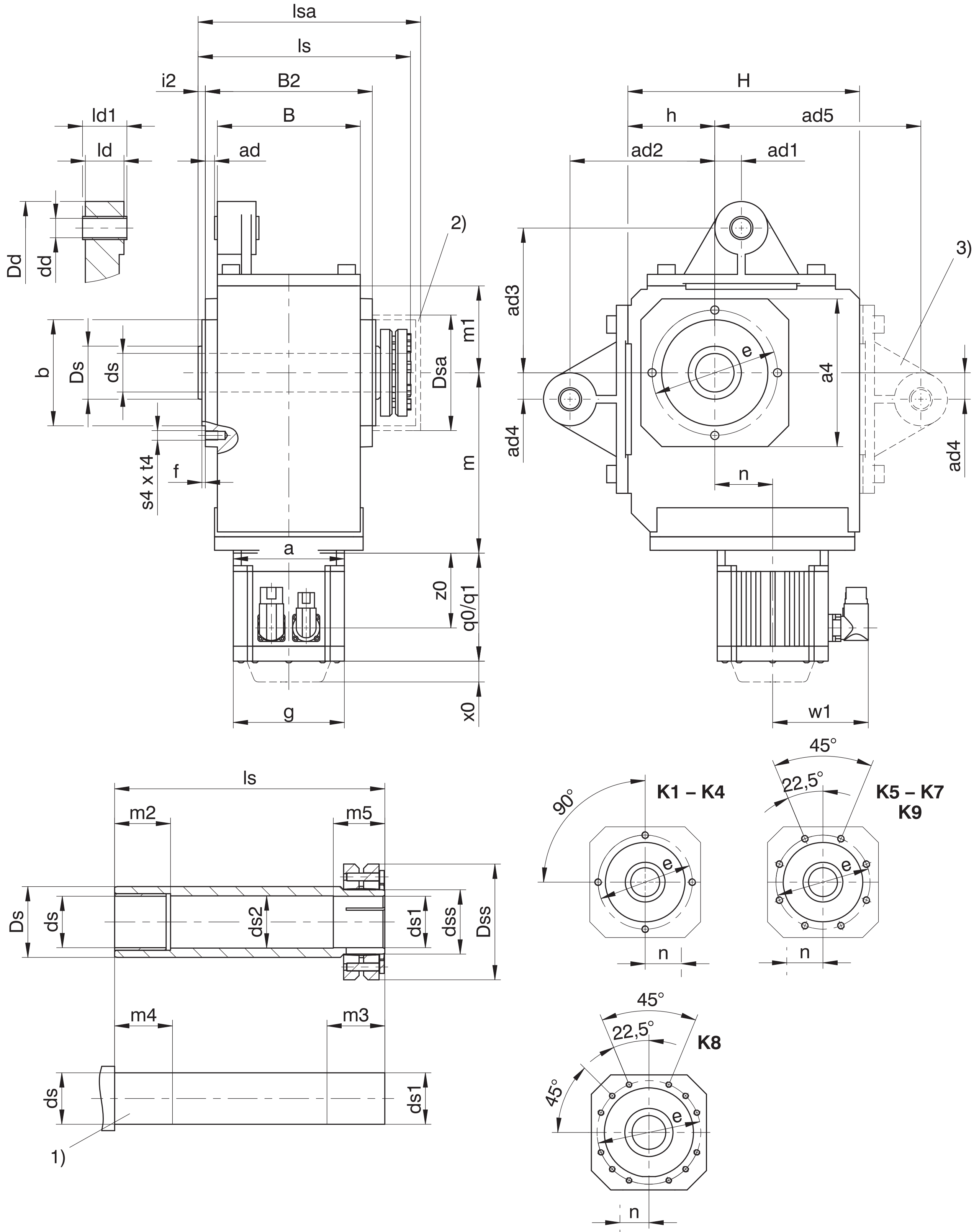
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

The dimensions a, m and n can be found on the next page.

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |
| K1014 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 450 | 28.0 |

## 16.3.9 S shaft design (hollow shaft with shrink ring), GD housing design (pitch circle diameter + torque arm bracket)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) | – | If you brace the gearboxes without the torque arm brackets provided by the manufacturer for this purpose, the dimensions for ad2 and ad3 must meet the specified value. |

### Dimensions of gearboxes

| Type | □a4 | ad | ad1 | ad2 | ad3 | ad4 | ad5 | Øb | B | B2 | Ødd | Øds | Øds1 | Øds2 | Ødss | ØDd | ØDs | ØDsa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 105 | 6.0 | 15.0 | 90 | 90 | 15.0 | 130 | $75_{j6}$ | 90 | 106 | $12^{H9}$ | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 43 | 40 | 80.0 |
| K2 | 116 | 6.5 | 22.5 | 100 | 100 | 22.5 | – | $82_{j6}$ | 115 | 134 | $16^{H9}$ | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 45 | 45 | 88.0 |
| K3 | 132 | 5.0 | 25.0 | 120 | 120 | 25.0 | – | $95_{j6}$ | 130 | 146 | $16^{H9}$ | $35_{h9}$ | $35_{h9}^{H7}$ | 35.5 | 44 | 45 | 50 | 101.0 |
| K4 | 152 | 9.5 | 27.5 | 150 | 150 | 27.5 | – | $110_{j6}$ | 148 | 173 | $20^{H9}$ | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 55 | 55 | 114.0 |
| K5 | 145 | 9.5 | 30.0 | 250 | 190 | 30.0 | – | $110_{j6}$ | 160 | 185 | $20^{H9}$ | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 58 | 65 | 116.0 |
| K6 | 180 | 13.0 | 30.0 | 250 | 180 | 30.0 | – | $140_{j6}$ | 168 | 200 | $20^{H9}$ | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 58 | 70 | 128.0 |
| K7 | 195 | 15.0 | 35.0 | 300 | 213 | 35.0 | – | $155_{h6}$ | 190 | 226 | $20^{H9}$ | $60_{h6}$ | $60_{h6}^{H7}$ | 62.0 | 75 | 68 | 85 | 161.5 |
| K8 | 226 | 17.0 | 45.0 | 350 | 230 | 45.0 | – | $185_{h6}$ | 235 | 282 | $24^{H9}$ | $70_{h6}$ | $70_{h6}^{H7}$ | 72.0 | 90 | 72 | 100 | 193.0 |
| K9 | 280 | 16.0 | 45.0 | 450 | 315 | 45.0 | – | $230_{h6}$ | 285 | 330 | $24^{H9}$ | $90_{h6}$ | $90_{h6}^{H7}$ | 92.0 | 120 | 75 | 120 | 244.0 |

### Dimensions of gearboxes

| Type | ØDss | Øe | f | h | H | i2 | ld | ld1 | ls | lsa | m1 | m2 | m3 | m4 | m5 | s4 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 60 | 90 | 3.0 | 60 | 160 | 7.0 | 24 | 28 | 149 | 163 | 60 | 20 | 34 | 25 | 29 | M8 | 13 |
| K2 | 72 | 100 | 3.0 | 65 | 190 | 7.0 | 32 | 38 | 178 | 193 | 65 | 25 | 39 | 30 | 34 | M8 | 13 |
| K3 | 80 | 115 | 3.0 | 75 | 213 | 7.0 | 32 | 38 | 190 | 206 | 75 | 30 | 39 | 35 | 34 | M8 | 13 |
| K4 | 88 | 130 | 3.5 | 90 | 240 | 7.5 | 40 | 46 | 220 | 243 | 90 | 40 | 39 | 45 | 34 | M10 | 16 |
| K5 | 106 | 130 | 3.5 | 160 | 260 | 7.5 | 40 | 46 | 237 | 254 | 100 | 40 | 44 | 45 | 39 | M10 | 16 |
| K6 | 106 | 165 | 3.5 | 190 | 310 | 7.5 | 40 | 46 | 254 | 276 | 120 | 40 | 45 | 45 | 40 | M10 | 16 |
| K7 | 138 | 185 | 3.5 | 212 | 342 | 8.0 | 64 | 70 | 278 | 314 | 125 | 40 | 45 | 45 | 40 | M12 | 19 |
| K8 | 155 | 215 | 4.0 | 265 | 410 | 9.0 | 102 | 115 | 352 | 378 | 145 | 50 | 60 | 60 | 50 | M12 | 19 |
| K9 | 200 | 265 | 5.0 | 315 | 495 | 10.0 | 102 | 115 | 418 | 428 | 180 | 60 | 70 | 70 | 60 | M16 | 26 |

### Dimensions of motors

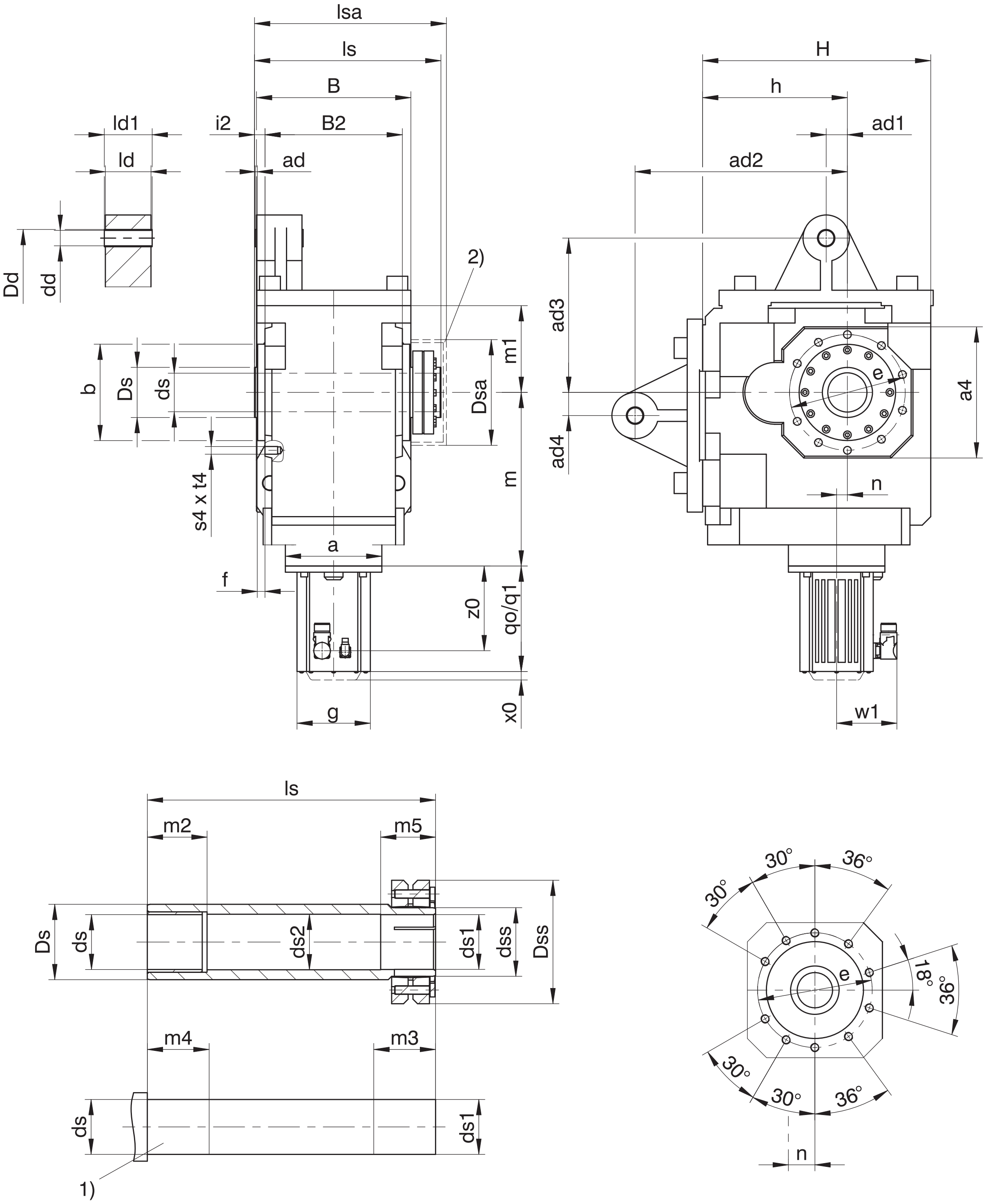
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

The dimensions a, m and n can be found on the next page.

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

## 16.3.10 S shaft design (hollow shaft with shrink ring), NGD housing design (foot + pitch circle diameter + torque arm bracket)




q0 Applies to motors without brake.

q1 Applies to motors with brake.

x0 Applies to encoders using an optical measuring method.

w1 Different for the One Cable Solution (OCS), see the chapter [ 17.4]

1) Machine shaft: The dimension ls must meet or exceed the specified value.

2) Cover (optional)

– If you brace the gearboxes without the torque arm brackets provided by the manufacturer for this purpose, the dimensions for ad2 and ad3 must meet the specified value.

### Dimensions of gearboxes

| Type | □a4 | ad | ad1 | ad2 | ad3 | ad4 | ∅b | B | B2 | ∅dd | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Dd | ∅Ds | ∅Dsa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K10 | 340 | 5 | 55 | 550 | 400 | 60 | $250_{h6}$ | 400 | 356 | $40^{H9}$ | $100_{h6}$ | $100_{h6}^{H7}$ | 102 | 130 | 120 | 130 | 274 |

### Dimensions of gearboxes

| Type | ∅Dss | ∅e | f | h | H | i2 | ld | ld1 | ls | lsa | m1 | m2 | m3 | m4 | m5 | s4 | t4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K10 | 215 | 300 | 20 | 375 | 591 | 27 | 118 | 124 | 483 | 497 | 225 | 60 | 80 | 70 | 70 | M20 | 33 |

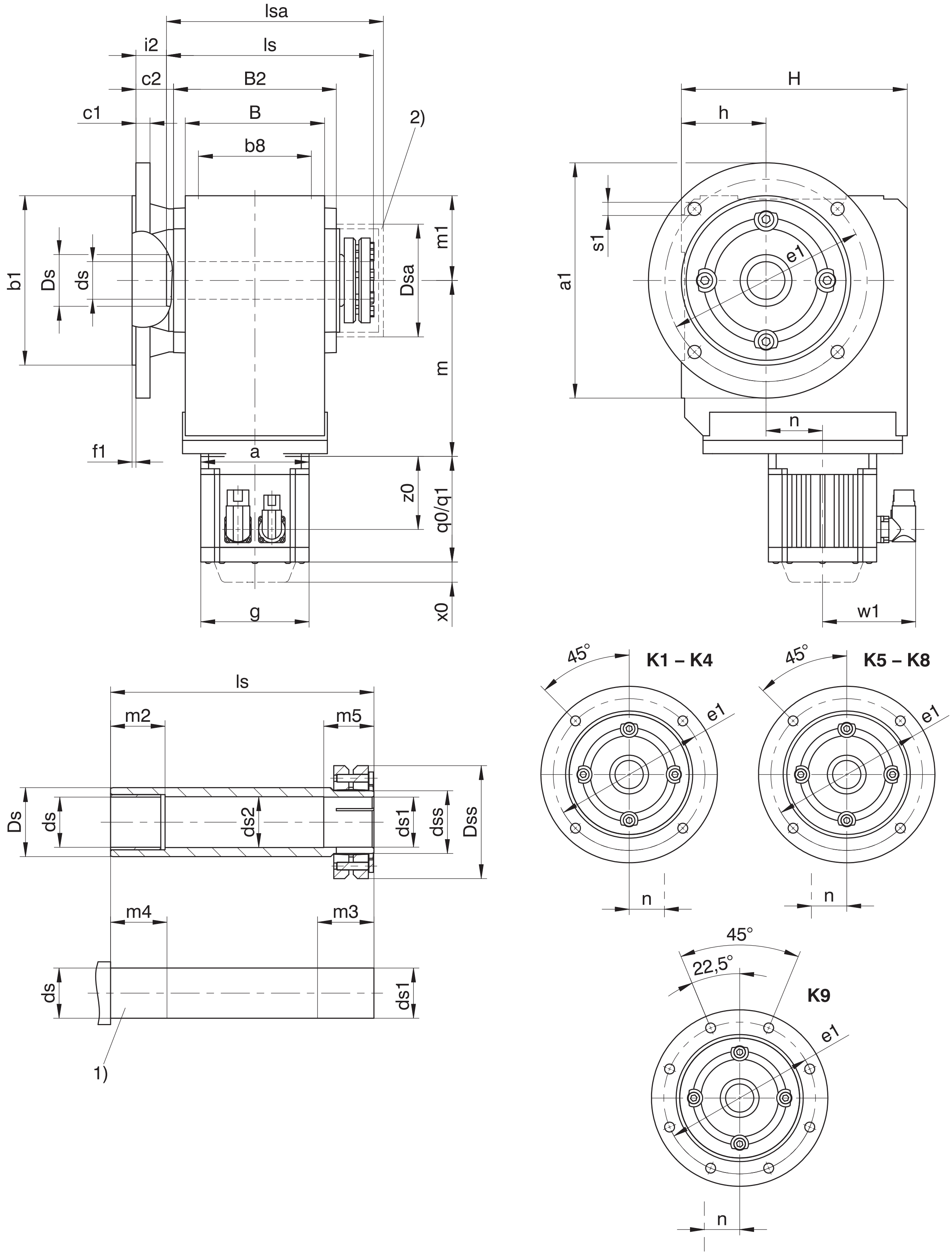
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ8 | | |
|---|---|---|---|
| | a | m | n |
| K1014 | ∅250 | 450 | 28.0 |

## 16.3.11 S shaft design (hollow shaft with shrink disk), F housing design (round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |

### Dimensions of gearboxes

| Type | ∅a1 | ∅b1 | b8 | B | B2 | c1 | c2 | ∅ds | ∅ds1 | ∅ds2 | ∅dss | ∅Ds | ∅Dsa | ∅Dss | ∅e1 | f1 | h | H | i2 | ls | lsa | m1 | m2 | m3 | m4 | m5 | ∅s1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 160 | $110_{j6}$ | 70 | 90 | 106 | 10 | 32.0 | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 40 | 80.0 | 60 | 130 | 3.5 | 60 | 160 | 25.0 | 149 | 163 | 60 | 20 | 34 | 25 | 29 | 9 |
| K2 | 200 | $130_{j6}$ | 90 | 115 | 134 | 12 | 32.0 | $30_{h9}$ | $30_{h9}^{H7}$ | 30.5 | 36 | 45 | 88.0 | 72 | 165 | 3.5 | 65 | 190 | 25.0 | 178 | 193 | 65 | 25 | 39 | 30 | 34 | 11 |
| K3 | 200 | $130_{j6}$ | 105 | 130 | 146 | 14 | 38.0 | $35_{h9}$ | $35_{h9}^{H7}$ | 35.5 | 44 | 50 | 101.0 | 80 | 165 | 3.5 | 75 | 213 | 31.0 | 190 | 206 | 75 | 30 | 39 | 35 | 34 | 11 |
| K4 | 250 | $180_{j6}$ | 120 | 148 | 173 | 15 | 40.0 | $40_{h9}$ | $40_{h9}^{H7}$ | 40.5 | 50 | 55 | 114.0 | 88 | 215 | 4.0 | 90 | 240 | 32.5 | 220 | 243 | 90 | 40 | 39 | 45 | 34 | 14 |
| K5 | 250 | $180_{j6}$ | 125 | 160 | 185 | 15 | 39.5 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 65 | 116.0 | 106 | 215 | 4.0 | 160 | 260 | 32.0 | 237 | 254 | 100 | 40 | 44 | 45 | 39 | 14 |
| K6 | 300 | $230_{j6}$ | 130 | 168 | 200 | 17 | 36.0 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 70 | 128.0 | 106 | 265 | 4.0 | 190 | 310 | 28.5 | 254 | 276 | 120 | 40 | 45 | 45 | 40 | 14 |
| K7 | 350 | $250_{h6}$ | 145 | 190 | 226 | 18 | 44.0 | $60_{h6}$ | $60_{h6}^{H7}$ | 62.0 | 75 | 85 | 161.5 | 138 | 300 | 5.0 | 212 | 342 | 36.0 | 278 | 314 | 125 | 40 | 45 | 45 | 40 | 18 |
| K8 | 400 | $300_{h6}$ | 185 | 235 | 282 | 20 | 45.0 | $70_{h6}$ | $70_{h6}^{H7}$ | 72.0 | 90 | 100 | 193.0 | 155 | 350 | 5.0 | 265 | 410 | 36.0 | 352 | 378 | 145 | 50 | 60 | 60 | 50 | 18 |
| K9 | 450 | $350_{h6}$ | 225 | 285 | 330 | 23 | 50.0 | $90_{h6}$ | $90_{h6}^{H7}$ | 92.0 | 120 | 120 | 244.0 | 200 | 400 | 5.0 | 315 | 495 | 40.0 | 418 | 428 | 180 | 60 | 70 | 70 | 60 | 18 |

### Dimensions of additional round flanges

| Type | ∅a1 | ∅b1 | c1 | ∅e1 | f1 | ∅s1 |
|---|---|---|---|---|---|---|
| K1 | 140 | $95_{j6}$ | 10 | 115 | 3.0 | 9 |
| K2 | 160 | $110_{j6}$ | 12 | 130 | 3.5 | 9 |
| K3 | 160 | $110_{j6}$ | 14 | 130 | 3.5 | 9 |
| K3 | 250 | $180_{j6}$ | 14 | 215 | 4.0 | 14 |
| K8 | 350 | $250_{h6}$ | 18 | 300 | 5.0 | 18 |
| K8 | 450 | $350_{h6}$ | 20 | 400 | 5.0 | 18 |

### Dimensions of motors

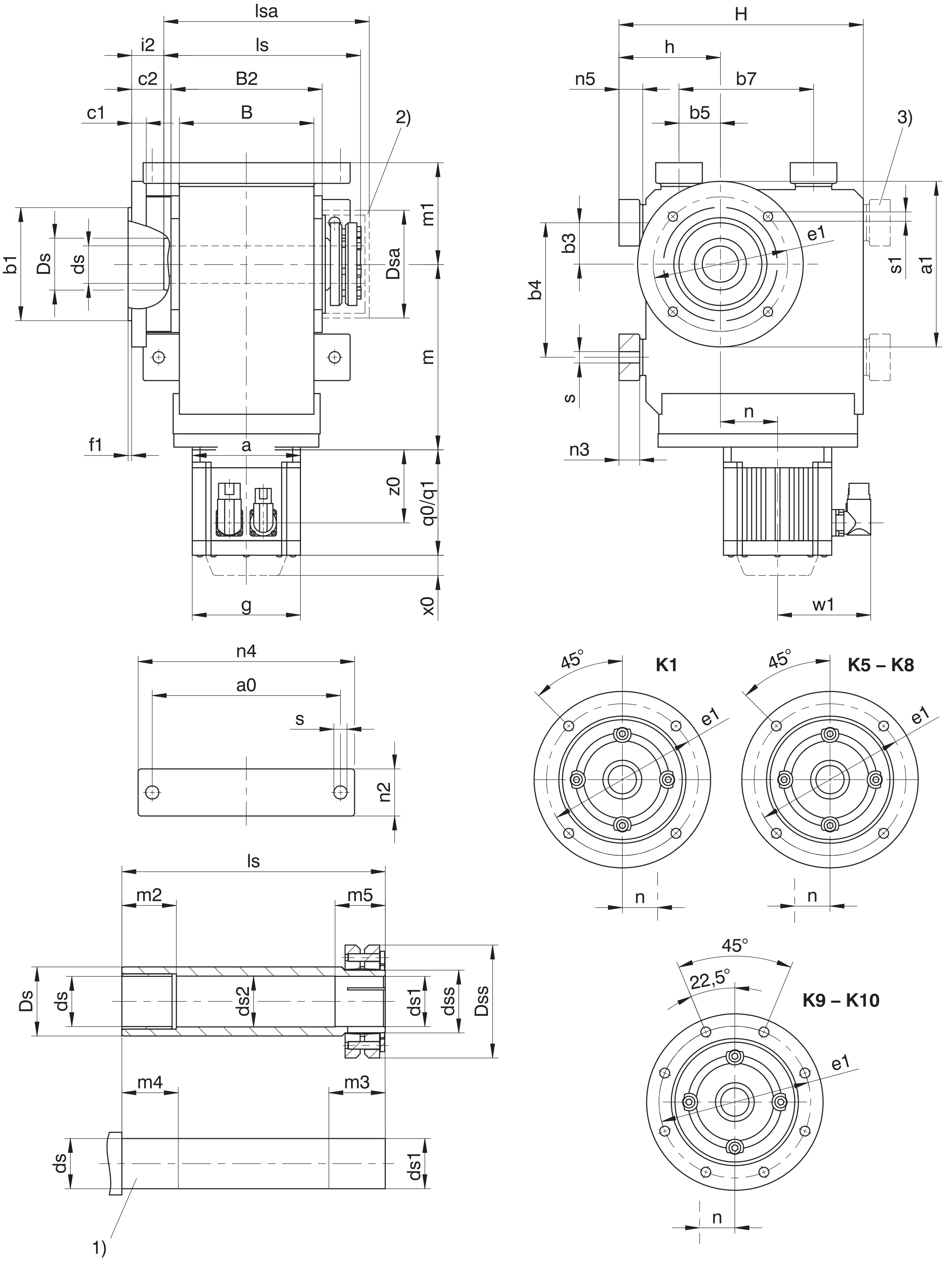
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

The dimensions a, m and n can be found on the next page.

### Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

## 16.3.12 S shaft design (hollow shaft with shrink disk), NF housing design (base + round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 1) | Machine shaft: The dimension ls must meet or exceed the specified value. | 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) | | |

**Dimensions of gearboxes**

| Type | a0 | Øa1 | Øb1 | b3 | b4 | b5 | b7 | B | B2 | c1 | Øds | Øds1 | Øds2 | Ødss | ØDs | ØDsa | ØDss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 115 | 160 | $110_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | 10 | $25_{h9}$ | $25_{h9}^{H7}$ | 25.5 | 30 | 40 | 80.0 | 60 |
| K5 | 200 | 250 | $180_{j6}$ | 40 | 140 | 100 | 140 | 160 | 185 | 15 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 65 | 116.0 | 106 |
| K6 | 210 | 300 | $230_{j6}$ | 50 | 160 | 110 | 160 | 168 | 200 | 17 | $50_{h9}$ | $50_{h9}^{H7}$ | 50.5 | 62 | 70 | 128.0 | 106 |
| K7 | 241 | 350 | $250_{h6}$ | 55 | 180 | 125 | 180 | 190 | 226 | 18 | $60_{h6}$ | $60_{h6}^{H7}$ | 62.0 | 75 | 85 | 161.5 | 138 |
| K8 | 300 | 400 | $300_{h6}$ | 75 | 240 | 165 | 240 | 235 | 282 | 20 | $70_{h6}$ | $70_{h6}^{H7}$ | 72.0 | 90 | 100 | 193.0 | 155 |
| K9 | 360 | 450 | $350_{h6}$ | 95 | 280 | 185 | 280 | 285 | 330 | 23 | $90_{h6}$ | $90_{h6}^{H7}$ | 92.0 | 120 | 120 | 244.0 | 200 |
| K10 | 330 | 550 | $450_{h6}$ | 115 | 350 | 265 | 420 | 400 | 356 | 25 | $100_{h6}$ | $100_{h6}^{H7}$ | 102.0 | 130 | 130 | 274.0 | 215 |

**Dimensions of gearboxes**

| Type | Øe1 | f1 | h | H | i2 | ls | lsa | m1 | m2 | m3 | m4 | m5 | n2 | n3 | n4 | n5 | Øs | Øs1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 130 | 3.5 | 75 | 175 | 25.0 | 149 | 163 | 75 | 20 | 34 | 25 | 29 | 30 | 13 | 140 | 15 | 9.0 | 9 |
| K5 | 215 | 4.0 | 190 | 290 | 32.0 | 237 | 254 | 130 | 40 | 44 | 45 | 39 | 60 | 27 | 240 | 30 | 18.0 | 14 |
| K6 | 265 | 4.0 | 220 | 340 | 28.5 | 254 | 276 | 150 | 40 | 45 | 45 | 40 | 65 | 27 | 250 | 30 | 18.5 | 14 |
| K7 | 300 | 5.0 | 250 | 380 | 36.0 | 278 | 314 | 163 | 40 | 45 | 45 | 40 | 70 | 35 | 290 | 38 | 23.0 | 18 |
| K8 | 350 | 5.0 | 310 | 455 | 36.0 | 352 | 378 | 190 | 50 | 60 | 60 | 50 | 85 | 41 | 360 | 45 | 27.0 | 18 |
| K9 | 400 | 5.0 | 365 | 545 | 40.0 | 418 | 428 | 230 | 60 | 70 | 70 | 60 | 95 | 46 | 430 | 50 | 31.0 | 18 |
| K10 | 500 | 5.0 | 420 | 636 | 51.0 | 483 | 497 | 270 | 60 | 80 | 70 | 70 | 120 | – | 400 | 45 | 39.0 | 18 |

**Dimensions of additional round flanges**

| Type | Øa1 | Øb1 | c1 | Øe1 | f1 | Øs1 |
|---|---|---|---|---|---|---|
| K1 | 140 | $95_{j6}$ | 10 | 115 | 3.0 | 9 |
| K8 | 350 | $250_{h6}$ | 18 | 300 | 5.0 | 18 |
| K8 | 450 | $350_{h6}$ | 20 | 400 | 5.0 | 18 |

**Dimensions of motors**

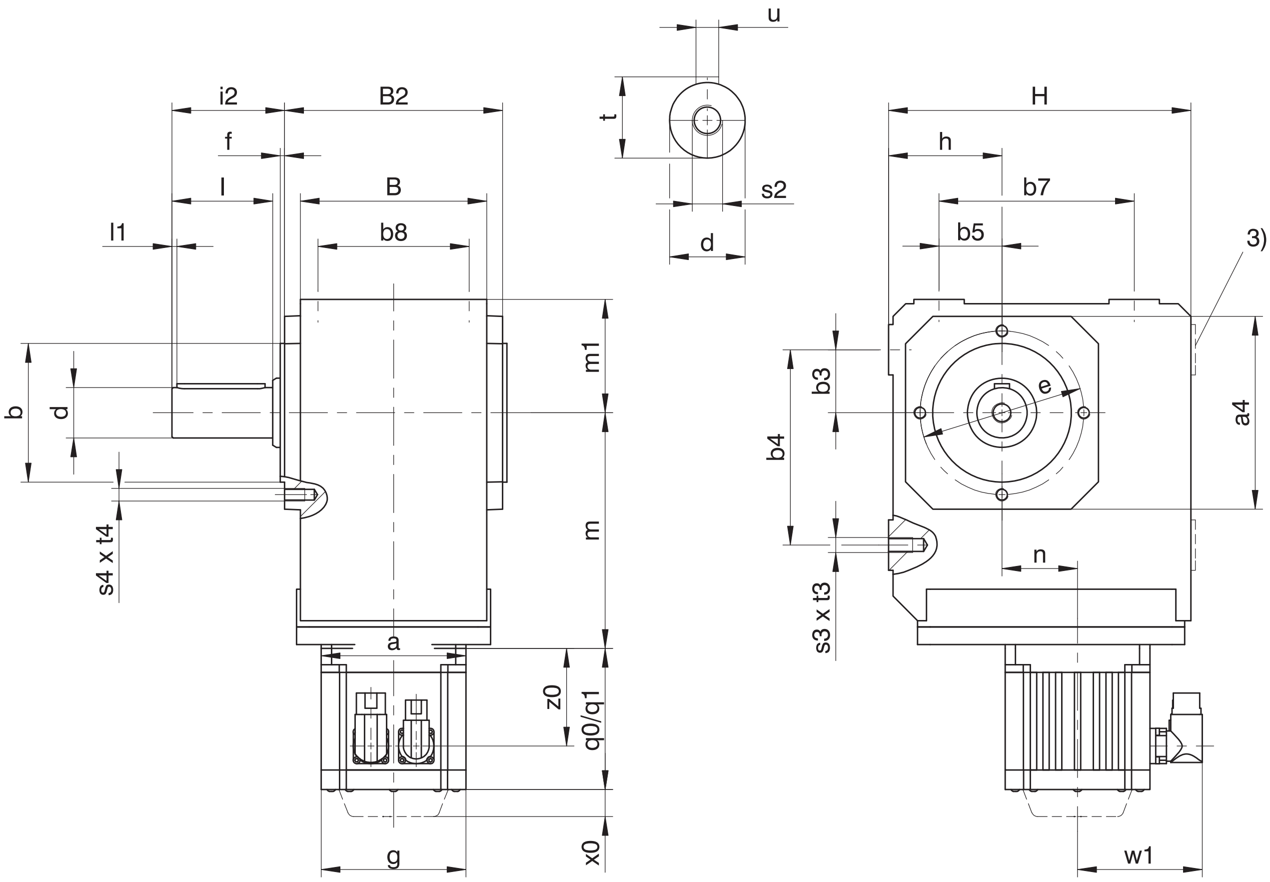
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

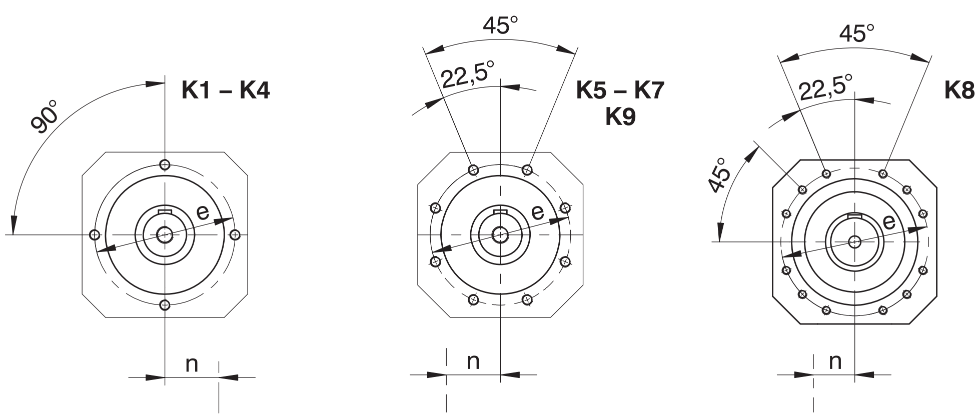
The dimensions a, m and n can be found on the next page.

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |
| K1014 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 450 | 28.0 |

## 16.3.13 V shaft design (solid shaft), G housing design (pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 3) | Only for K1 (other sizes on request) | – | K1 – K4: Solid shaft without feather key available, on request starting at K5. |
| – | K1 – K9: Solid shaft on both sides available. | | |

### Dimensions of gearboxes

| Type | □a4 | ∅b | b3 | b4 | b5 | b7 | b8 | B | B2 | ∅d | ∅e | f | h | H | i2 | l | l1 | m1 | s2 | s3 | s4 | t | t3 | t4 | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 70 | 90 | 106 | $25_{k6}$ | 90 | 3.0 | 60 | 160 | 62.0 | 50 | 4 | 60 | M10 | M8 | M8 | 28.0 | 13 | 13 | A8×7×40 |
| K2 | 116 | $82_{j6}$ | 35 | 115 | 35 | 115 | 90 | 115 | 134 | $30_{k6}$ | 100 | 3.0 | 65 | 190 | 68.0 | 60 | 4 | 65 | M10 | M10 | M8 | 33.0 | 16 | 13 | A8×7×50 |
| K3 | 132 | $95_{j6}$ | 40 | 130 | 40 | 130 | 105 | 130 | 146 | $30_{k6}$ | 115 | 3.0 | 75 | 213 | 69.0 | 60 | 4 | 75 | M10 | M10 | M8 | 33.0 | 16 | 13 | A8×7×50 |
| K4 | 152 | $110_{j6}$ | 50 | 155 | 50 | 155 | 120 | 148 | 173 | $40_{k6}$ | 130 | 3.5 | 90 | 240 | 89.5 | 80 | 4 | 90 | M16 | M12 | M10 | 43.0 | 19 | 16 | A12×8×70 |
| K5 | 145 | $110_{j6}$ | 40 | 140 | 100 | 140 | 125 | 160 | 185 | $45_{k6}$ | 130 | 3.5 | 160 | 260 | 129.5 | 90 | 4 | 100 | M16 | M16 | M10 | 48.5 | 26 | 16 | A14×9×80 |
| K6 | 180 | $140_{j6}$ | 50 | 160 | 110 | 160 | 130 | 168 | 200 | $50_{k6}$ | 165 | 3.5 | 190 | 310 | 136.0 | 100 | 4 | 120 | M16 | M16 | M10 | 53.5 | 26 | 16 | A14×9×90 |
| K7 | 195 | $155_{j6}$ | 55 | 180 | 125 | 180 | 145 | 190 | 226 | $60_{m6}$ | 185 | 3.5 | 212 | 342 | 164.0 | 120 | 4 | 125 | M20 | M20 | M12 | 64.0 | 33 | 19 | A18×11×110 |
| K8 | 226 | $185_{j6}$ | 75 | 240 | 165 | 240 | 185 | 235 | 282 | $70_{m6}$ | 215 | 4.0 | 265 | 410 | 185.0 | 140 | 5 | 145 | M20 | M24 | M12 | 74.5 | 38 | 19 | A20×12×125 |
| K9 | 280 | $230_{j6}$ | 95 | 280 | 185 | 280 | 225 | 285 | 330 | $90_{m6}$ | 265 | 5.0 | 315 | 495 | 220.0 | 170 | 8 | 180 | M24 | M30 | M16 | 95.0 | 48 | 26 | A25×14×140 |

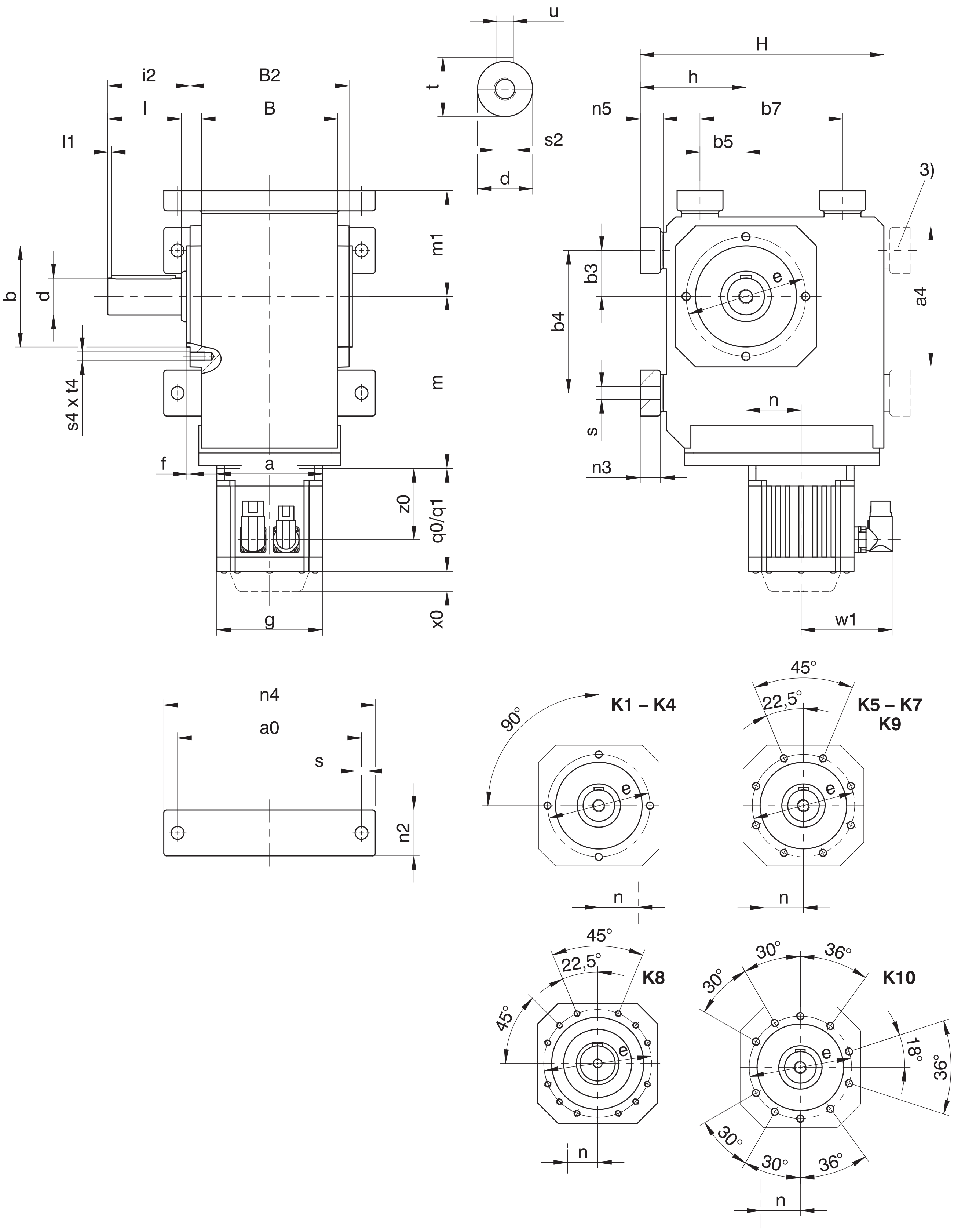
### Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

### Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

## 16.3.14 V shaft design (solid shaft), NG housing design (base + pitch circle diameter)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 3) | Only for K1 (other sizes on request) | – | K1 – K4: Solid shaft without feather key available, on request starting at K5. |
| – | K1 – K10: Solid shaft on both sides available. | | |

## Dimensions of gearboxes

| Type | a0 | □a4 | ∅b | b3 | b4 | b5 | b7 | B | B2 | ∅d | ∅e | f | h | H | i2 | l | l1 | m1 | n2 | n3 | n4 | n5 | ∅s | s2 | s4 | t | t4 | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 115 | 105 | $75_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | $25_{k6}$ | 90 | 3.0 | 75 | 175 | 62.0 | 50 | 4 | 75 | 30 | 13 | 140 | 15 | 9.0 | M10 | M8 | 28.0 | 13 | A8×7×40 |
| K2 | 155 | 116 | $82_{j6}$ | 35 | 115 | 35 | 115 | 115 | 134 | $30_{k6}$ | 100 | 3.0 | 88 | 213 | 68.0 | 60 | 4 | 88 | 40 | 20 | 185 | 23 | 11.0 | M10 | M8 | 33.0 | 13 | A8×7×50 |
| K3 | 170 | 132 | $95_{j6}$ | 40 | 130 | 40 | 130 | 130 | 146 | $30_{k6}$ | 115 | 3.0 | 98 | 236 | 69.0 | 60 | 4 | 98 | 45 | 20 | 200 | 23 | 11.0 | M10 | M8 | 33.0 | 13 | A8×7×50 |
| K4 | 200 | 152 | $110_{j6}$ | 50 | 155 | 50 | 155 | 148 | 173 | $40_{k6}$ | 130 | 3.5 | 115 | 265 | 89.5 | 80 | 4 | 115 | 50 | 22 | 230 | 25 | 14.0 | M16 | M10 | 43.0 | 16 | A12×8×70 |
| K5 | 200 | 145 | $110_{j6}$ | 40 | 140 | 100 | 140 | 160 | 185 | $45_{k6}$ | 130 | 3.5 | 190 | 290 | 129.5 | 90 | 4 | 130 | 60 | 27 | 240 | 30 | 18.0 | M16 | M10 | 48.5 | 16 | A14×9×80 |
| K6 | 210 | 180 | $140_{j6}$ | 50 | 160 | 110 | 160 | 168 | 200 | $50_{k6}$ | 165 | 3.5 | 220 | 340 | 136.0 | 100 | 4 | 150 | 65 | 27 | 250 | 30 | 18.5 | M16 | M10 | 53.5 | 16 | A14×9×90 |
| K7 | 241 | 195 | $155_{j6}$ | 55 | 180 | 125 | 180 | 190 | 226 | $60_{m6}$ | 185 | 3.5 | 250 | 380 | 164.0 | 120 | 4 | 163 | 70 | 35 | 290 | 38 | 23.0 | M20 | M12 | 64.0 | 19 | A18×11×110 |
| K8 | 300 | 226 | $185_{j6}$ | 75 | 240 | 165 | 240 | 235 | 282 | $70_{m6}$ | 215 | 4.0 | 310 | 455 | 185.0 | 140 | 5 | 190 | 85 | 41 | 360 | 45 | 27.0 | M20 | M12 | 74.5 | 19 | A20×12×125 |
| K9 | 360 | 280 | $230_{j6}$ | 95 | 280 | 185 | 280 | 285 | 330 | $90_{m6}$ | 265 | 5.0 | 365 | 545 | 220.0 | 170 | 8 | 230 | 95 | 46 | 430 | 50 | 31.0 | M24 | M16 | 95.0 | 26 | A25×14×140 |
| K10 | 330 | 340 | $250_{h6}$ | 115 | 350 | 265 | 420 | 400 | 356 | $110_{m6}$ | 300 | 20.0 | 420 | 636 | 240.0 | 210 | 15 | 270 | 120 | – | 400 | 45 | 39.0 | M24 | M20 | 116.0 | 33 | A28×16×180 |

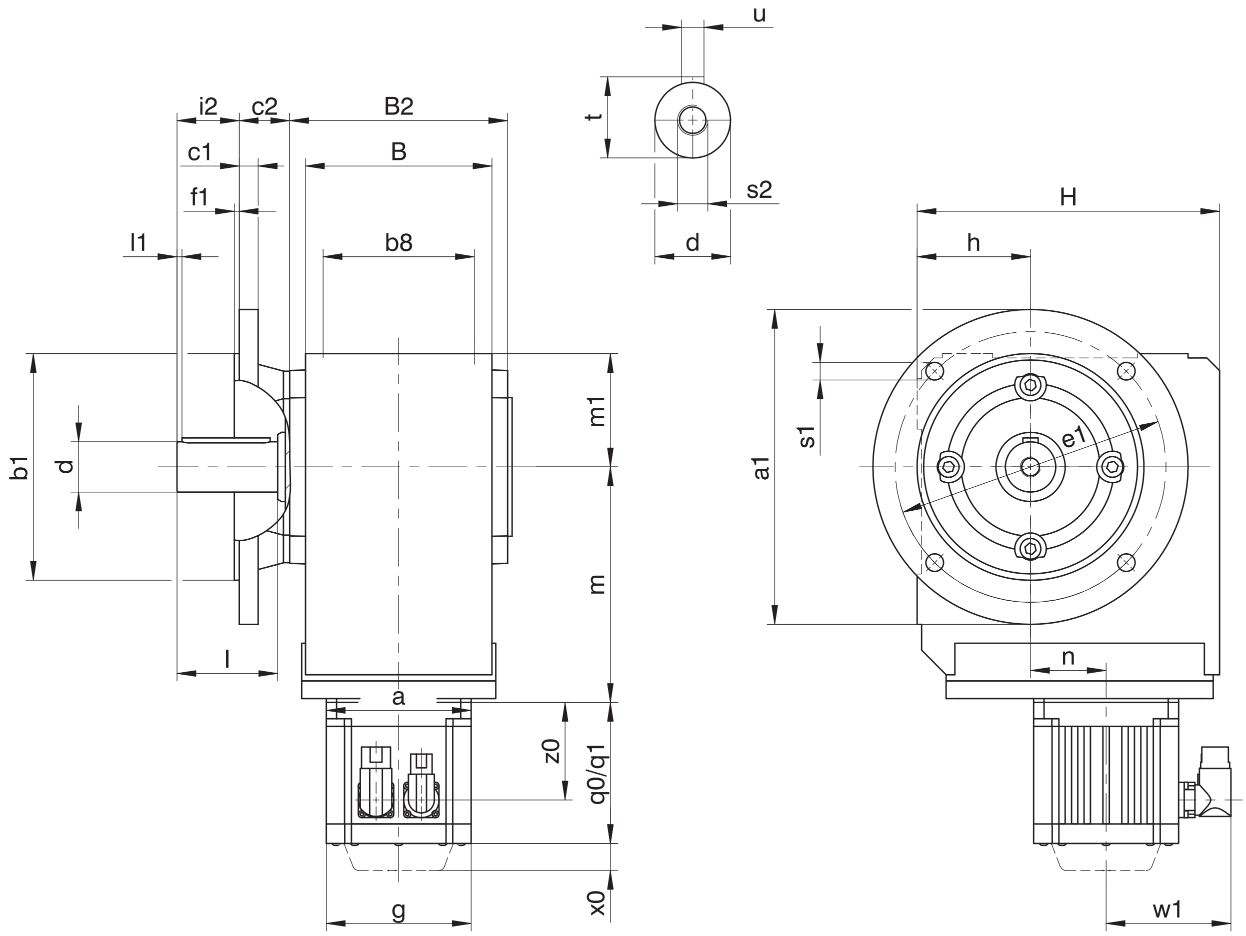
## Dimensions of motors

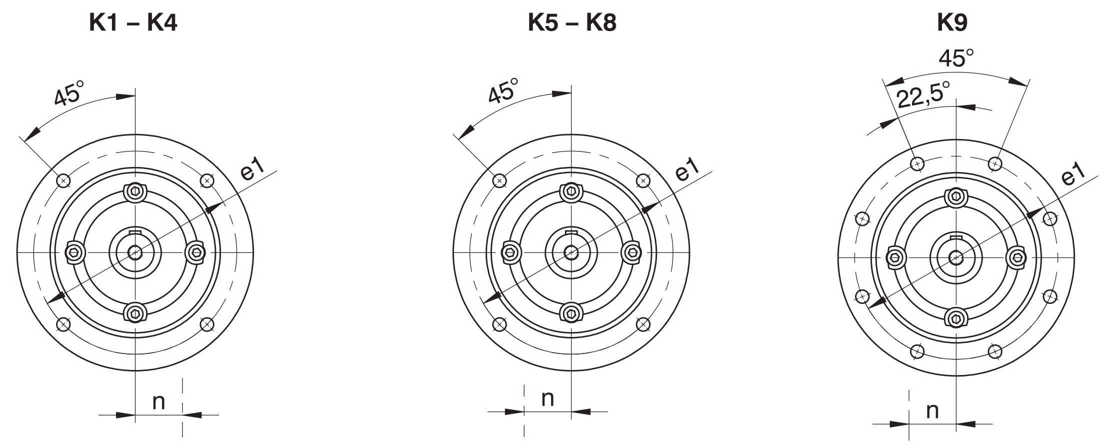
| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |
| K1014 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 450 | 28.0 |

## 16.3.15 V shaft design (solid shaft), F housing design (round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▹ 17.4] |
| – | K1 – K4: Solid shaft without feather key available, on request starting at K5. | – | K1 – K9: Solid shaft on both sides available. |

**Dimensions of gearboxes**

| Type | Øa1 | Øb1 | b8 | B | B2 | c1 | c2 | Ød | Øe1 | f1 | h | H | i2 | l | l1 | m1 | Øs1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 160 | $110_{j6}$ | 70 | 90 | 106 | 10 | 32.0 | $25_{k6}$ | 130 | 3.5 | 60 | 160 | 30.0 | 50 | 4 | 60 | 9 | M10 | 28.0 | A8×7×40 |
| K2 | 200 | $130_{j6}$ | 90 | 115 | 134 | 12 | 32.0 | $30_{k6}$ | 165 | 3.5 | 65 | 190 | 36.0 | 60 | 4 | 65 | 11 | M10 | 33.0 | A8×7×50 |
| K3 | 200 | $130_{j6}$ | 105 | 130 | 146 | 14 | 38.0 | $30_{k6}$ | 165 | 3.5 | 75 | 213 | 31.0 | 60 | 4 | 75 | 11 | M10 | 33.0 | A8×7×50 |
| K4 | 250 | $180_{j6}$ | 120 | 148 | 173 | 15 | 40.0 | $40_{k6}$ | 215 | 4.0 | 90 | 240 | 49.5 | 80 | 4 | 90 | 14 | M16 | 43.0 | A12×8×70 |
| K5 | 250 | $180_{j6}$ | 125 | 160 | 185 | 15 | 39.5 | $45_{k6}$ | 215 | 4.0 | 160 | 260 | 90.0 | 90 | 4 | 100 | 14 | M16 | 48.5 | A14×9×80 |
| K6 | 300 | $230_{j6}$ | 130 | 168 | 200 | 17 | 36.0 | $50_{k6}$ | 265 | 4.0 | 190 | 310 | 100.0 | 100 | 4 | 120 | 14 | M16 | 53.5 | A14×9×90 |
| K7 | 350 | $250_{h6}$ | 145 | 190 | 226 | 18 | 44.0 | $60_{m6}$ | 300 | 5.0 | 212 | 342 | 120.0 | 120 | 4 | 125 | 18 | M20 | 64.0 | A18×11×110 |
| K8 | 400 | $300_{h6}$ | 185 | 235 | 282 | 20 | 45.0 | $70_{m6}$ | 350 | 5.0 | 265 | 410 | 140.0 | 140 | 5 | 145 | 18 | M20 | 74.5 | A20×12×125 |
| K9 | 450 | $350_{h6}$ | 225 | 285 | 330 | 23 | 50.0 | $90_{m6}$ | 400 | 5.0 | 315 | 495 | 170.0 | 170 | 8 | 180 | 18 | M24 | 95.0 | A25×14×140 |

## Dimensions of additional round flanges

| Type | ∅a1 | ∅b1 | c1 | ∅e1 | f1 | ∅s1 |
|---|---|---|---|---|---|---|
| K1 | 140 | $95_{j6}$ | 10 | 115 | 3.0 | 9 |
| K2 | 160 | $110_{j6}$ | 12 | 130 | 3.5 | 9 |
| K3 | 160 | $110_{j6}$ | 14 | 130 | 3.5 | 9 |
| K3 | 250 | $180_{j6}$ | 14 | 215 | 4.0 | 14 |
| K8 | 350 | $250_{h6}$ | 18 | 300 | 5.0 | 18 |
| K8 | 450 | $350_{h6}$ | 20 | 400 | 5.0 | 18 |

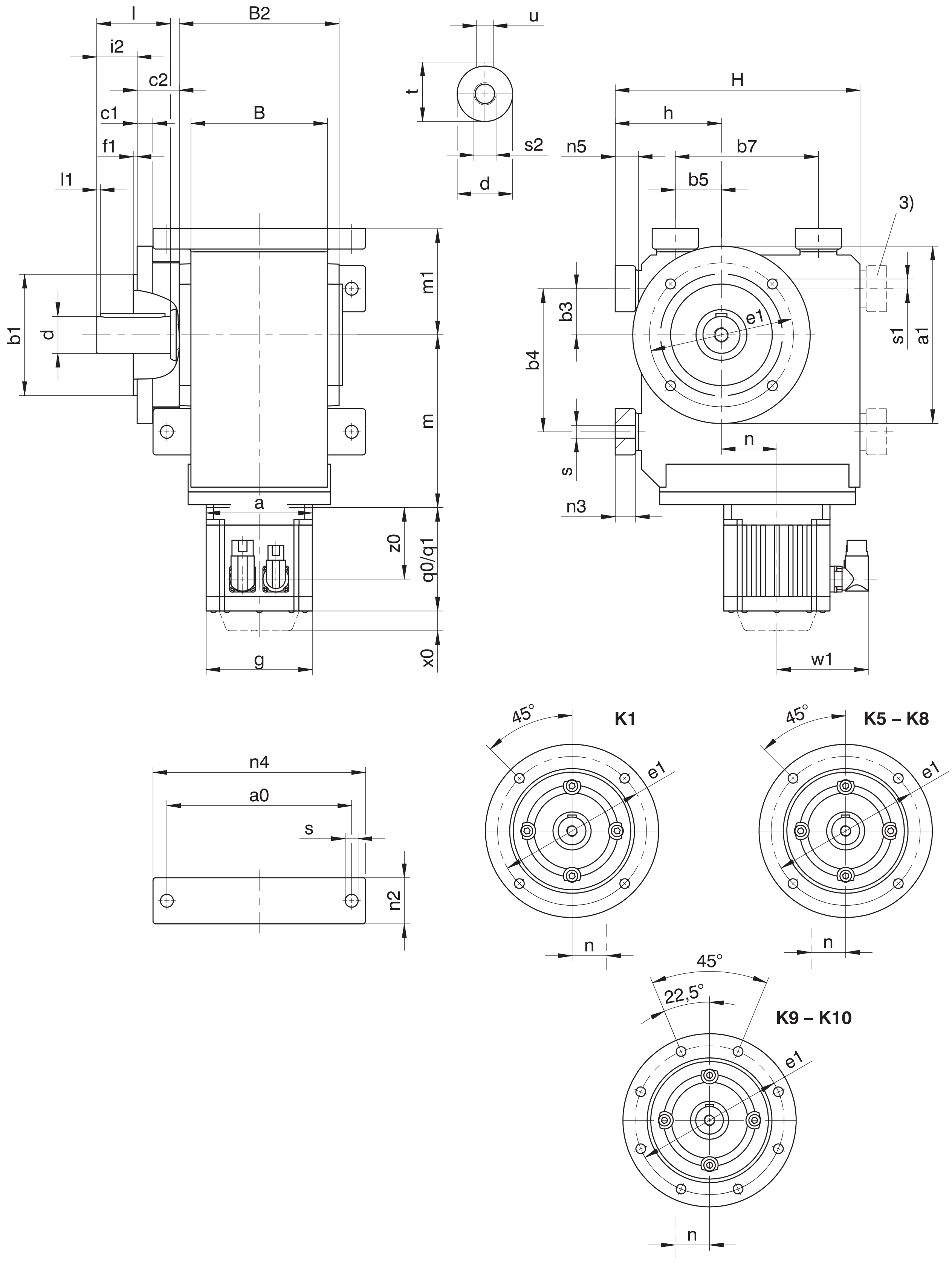
## Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K202 | □72 | 143 | 46.0 | □98 | 143 | 46.0 | □115 | 147 | 46.0 | □145 | 149 | 46.0 | – | – | – |
| K203 | ∅140 | 180 | 46.0 | ∅140 | 180 | 46.0 | – | – | – | – | – | – | – | – | – |
| K302 | ∅140 | 163 | 52.5 | ∅140 | 163 | 52.5 | □115 | 167 | 52.5 | □145 | 169 | 52.5 | – | – | – |
| K303 | ∅140 | 200 | 52.5 | ∅140 | 200 | 52.5 | ∅160 | 210 | 16.0 | – | – | – | – | – | – |
| K402 | – | – | – | – | – | – | ∅160 | 187 | 60.0 | □145 | 189 | 60.0 | □190 | 192 | 60.0 |
| K403 | ∅140 | 220 | 60.0 | ∅140 | 220 | 60.0 | ∅160 | 230 | 23.0 | – | – | – | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |

## 16.3.16 V shaft design (solid shaft), NF housing design (base + round flange)




| | | | |
|---|---|---|---|
| q0 | Applies to motors without brake. | q1 | Applies to motors with brake. |
| x0 | Applies to encoders using an optical measuring method. | w1 | Different for the One Cable Solution (OCS), see the chapter [▸ 17.4] |
| 3) | Only for K1 (other sizes on request) | – | K1 – K4: Solid shaft without feather key available, on request starting at K5. |
| – | K1 – K10: Solid shaft on both sides available. | | |

## Dimensions of gearboxes

| Type | a0 | ∅a1 | ∅b1 | b3 | b4 | b5 | b7 | B | B2 | c1 | c2 | ∅d | ∅e1 | f1 | h | H | i2 | l | l1 | m1 | n2 | n3 | n4 | n5 | ∅s | ∅s1 | s2 | t | u |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K1 | 115 | 160 | $110_{j6}$ | 30 | 90 | 30 | 90 | 90 | 106 | 10 | 32.0 | $25_{k6}$ | 130 | 3.5 | 75 | 175 | 30.0 | 50 | 4 | 75 | 30 | 13 | 140 | 15 | 9.0 | 9 | M10 | 28.0 | A8×7×40 |
| K5 | 200 | 250 | $180_{j6}$ | 40 | 140 | 100 | 140 | 160 | 185 | 15 | 39.5 | $45_{k6}$ | 215 | 4.0 | 190 | 290 | 90.0 | 90 | 4 | 130 | 60 | 27 | 240 | 30 | 18.0 | 14 | M16 | 48.5 | A14×9×80 |
| K6 | 210 | 300 | $230_{j6}$ | 50 | 160 | 110 | 160 | 168 | 200 | 17 | 36.0 | $50_{k6}$ | 265 | 4.0 | 220 | 340 | 100.0 | 100 | 4 | 150 | 65 | 27 | 250 | 30 | 18.5 | 14 | M16 | 53.5 | A14×9×90 |
| K7 | 241 | 350 | $250_{h6}$ | 55 | 180 | 125 | 180 | 190 | 226 | 18 | 44.0 | $60_{m6}$ | 300 | 5.0 | 250 | 380 | 120.0 | 120 | 4 | 163 | 70 | 35 | 290 | 38 | 23.0 | 18 | M20 | 64.0 | A18×11×110 |
| K8 | 300 | 400 | $300_{h6}$ | 75 | 240 | 165 | 240 | 235 | 282 | 20 | 45.0 | $70_{m6}$ | 350 | 5.0 | 310 | 455 | 140.0 | 140 | 5 | 190 | 85 | 41 | 360 | 45 | 27.0 | 18 | M20 | 74.5 | A20×12×125 |
| K9 | 360 | 450 | $350_{h6}$ | 95 | 280 | 185 | 280 | 285 | 330 | 23 | 50.0 | $90_{m6}$ | 400 | 5.0 | 365 | 545 | 170.0 | 170 | 8 | 230 | 95 | 46 | 430 | 50 | 31.0 | 18 | M24 | 95.0 | A25×14×140 |
| K10 | 330 | 550 | $450_{h6}$ | 115 | 350 | 265 | 420 | 400 | 356 | 25 | 78.0 | $110_{m6}$ | 500 | 5.0 | 420 | 636 | 210.0 | 210 | 15 | 270 | 120 | – | 400 | 45 | 39.0 | 18 | M24 | 116.0 | A28×16×180 |

## Dimensions of additional round flanges

| Type | ∅a1 | ∅b1 | c1 | ∅e1 | f1 | ∅s1 |
|---|---|---|---|---|---|---|
| K1 | 140 | $95_{j6}$ | 10 | 115 | 3.0 | 9 |
| K8 | 350 | $250_{h6}$ | 18 | 300 | 5.0 | 18 |
| K8 | 450 | $350_{h6}$ | 20 | 400 | 5.0 | 18 |

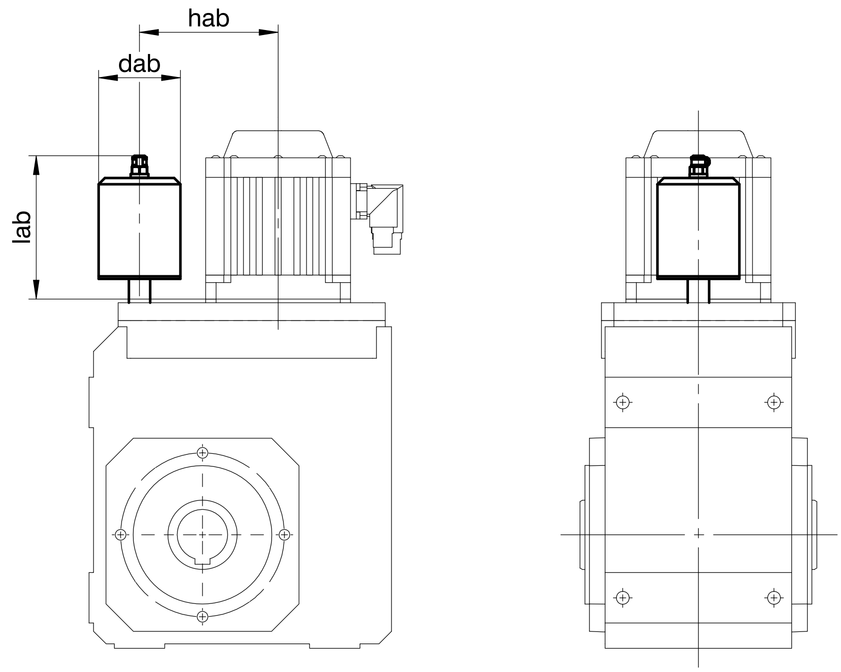
## Dimensions of motors

| Type | □g | q0 | q1 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|
| EZ301U | 72 | 114.0 | 154.0 | 55.5 | 21 | 78.5 |
| EZ302U | 72 | 136.0 | 176.0 | 55.5 | 21 | 100.5 |
| EZ303U | 72 | 158.0 | 198.0 | 55.5 | 21 | 122.5 |
| EZ401U | 98 | 118.5 | 167.0 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | 143.5 | 192.0 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | 193.5 | 242.0 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | 112.0 | 166.5 | 100.0 | 22 | 77.5 |
| EZ502U | 115 | 137.0 | 191.5 | 100.0 | 22 | 102.5 |
| EZ503U | 115 | 162.0 | 216.5 | 100.0 | 22 | 127.5 |
| EZ505U | 115 | 212.0 | 266.5 | 100.0 | 22 | 177.5 |
| EZ701U | 145 | 125.0 | 184.0 | 115.0 | 22 | 87.0 |
| EZ702U | 145 | 150.0 | 209.0 | 115.0 | 22 | 112.0 |
| EZ703U | 145 | 175.0 | 234.0 | 115.0 | 22 | 137.0 |
| EZ705U | 145 | 230.0 | 289.0 | 134.0 | 22 | 188.0 |
| EZ813U | 190 | 273.5 | 350.5 | 156.5 | 22 | 219.5 |
| EZ815U | 190 | 355.5 | 432.5 | 156.5 | 22 | 301.5 |

## Dimensions of geared motors

| Type | EZ3 | | | EZ4 | | | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | m | n | a | m | n | a | m | n | a | m | n | a | m | n |
| K102 | □72 | 124 | 36.0 | □98 | 124 | 36.0 | □115 | 128 | 36.0 | □145 | 130 | 36.0 | – | – | – |
| K513 | – | – | – | – | – | – | ∅160 | 172 | 15.0 | □145 | 174 | 15.0 | □190 | 177 | 15.0 |
| K514 | – | – | – | – | – | – | ∅160 | 215 | 15.0 | – | – | – | – | – | – |
| K613 | – | – | – | – | – | – | ∅160 | 191 | 18.0 | ∅200 | 193 | 18.0 | □190 | 196 | 18.0 |
| K614 | – | – | – | – | – | – | ∅160 | 234 | 18.0 | – | – | – | – | – | – |
| K713 | – | – | – | – | – | – | – | – | – | ∅200 | 221 | 20.0 | □190 | 224 | 20.0 |
| K714 | – | – | – | – | – | – | ∅160 | 263 | 20.0 | ∅200 | 283 | 20.0 | – | – | – |
| K813 | – | – | – | – | – | – | – | – | – | ∅200 | 247 | 24.0 | ∅250 | 249 | 24.0 |
| K814 | – | – | – | – | – | – | – | – | – | ∅200 | 308 | 24.0 | ∅250 | 320 | 5.0 |
| K913 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 294 | 25.0 |
| K914 | – | – | – | – | – | – | – | – | – | ∅200 | 353 | 25.0 | ∅250 | 365 | 25.0 |
| K1014 | – | – | – | – | – | – | – | – | – | – | – | – | ∅250 | 450 | 28.0 |

## 16.3.17 Oil expansion tank




**Dimensions**

| Type | EZ5 | | | EZ7 | | | EZ8 | | |
|---|---|---|---|---|---|---|---|---|---|
| | dab | hab | lab | dab | hab | lab | dab | hab | lab |
| K513 | 65 | 122.0 | 113.5 | 65 | 122.0 | 113.5 | 65 | 170.0 | 163.5 |
| K613 | 65 | 148.5 | 116.5 | 65 | 148.5 | 116.5 | 65 | 150.5 | 111.5 |
| K713 | – | – | – | 65 | 170.0 | 114.5 | 65 | 170.0 | 112.0 |
| K813 | – | – | – | 73 | 205.0 | 129.5 | 73 | 205.0 | 129.5 |
| K913 | – | – | – | – | – | – | 73 | 255.0 | 129.5 |

More information can be found in Chapter [▷ 16.6.4]

# 16.4 Type designation

This chapter shows you an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

**Example code**

| K | 4 | 0 | 2 | A | G | 0560 | EZ501U |
|---|---|---|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **K** | Type | Helical bevel gearbox |
| **4** | Size | 4 (example) |
| **0** | Generation | Generation 0 |
| 1 | | Generation 1 |
| **2** | Stages | Two-stage |
| 3 | | Three-stage |
| 4 | | Four-stage |
| **A** | Shaft | Hollow shaft with keyway |
| S | | Hollow shaft with shrink ring |
| V | | Solid shaft |
| **G** | Housing | Pitch circle diameter |
| F | | Round flange |
| NG | | Foot + pitch circle diameter |
| NF | | Foot + round flange |
| GD | | Pitch circle diameter + torque arm bracket |
| NGD | | Foot + pitch circle diameter + torque arm bracket |
| **0560** | Transmission ratio (i x 10 rounded) | i = 55.71 (example) |
| **EZ501U** | Motor | EZ synchronous servo motor |

**To complete the type designation, also specify the following in your order:**

- A detailed type designation of the motor, see the chapter [▶ 17.5]
- Mounting position, see the chapter [▶ 16.5.5]
- Attachment of solid shaft: gearbox side 3 or 4; solid shaft on both sides
- Attachment of hollow shaft with keyway: entry side 3 or 4
- Attachment of hollow shaft with shrink ring: shrink ring on gearbox side 3 or 4
- Attachment of foot plates: gearbox side 1 or 5 (for K1, also on gear side 2)
- Attachment of flange: gearbox side 3 or 4
- Pitch circle diameter: gearbox side 3 or 4
- Attachment of torque arm bracket: torque arm bracket on gearbox side 1 or 5 (for K1, also on gearbox side 2), eye on gearbox side 3 or 4
- Position of the plug connectors, see the chapter [▶ 16.5.7]
- Oil expansion tank (option, recommended for gearboxes in mounting position EL5), see the chapter [▶ 16.6.4]
- Backlash: Standard/class II/class I. Backlash class II and class I for an additional charge.

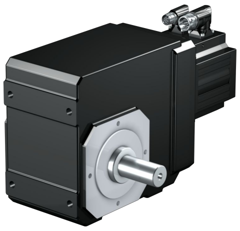
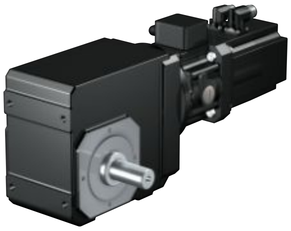
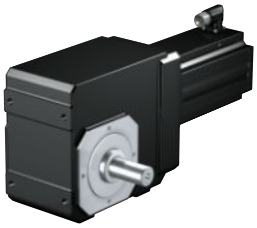
For an explanation of the gearbox sides, see the chapter [▶ 16.5.5].

To make selecting your geared motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.

You can find a detailed description of the nameplate in the chapter [▶ 17.5.1].

# 16.5 Product description

## 16.5.1 Input options

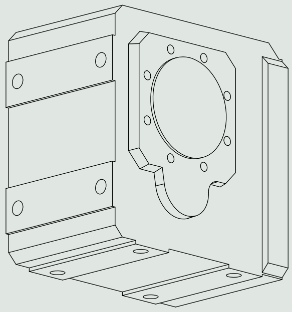
| EZ synchronous servo motor | MB motor adapter +<br>EZ synchronous servo motor | LM Lean motor |
|---|---|---|
|  |  |  |
| Catalog ID 442437_en | Catalog ID 443311_en | Catalog ID 443016_en |

The corresponding catalogs can be found at http://www.stoeber.de/en/downloads/

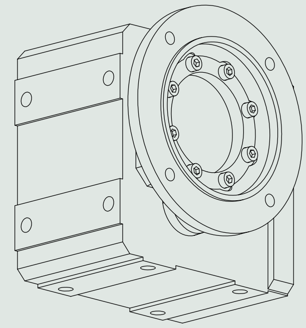
Enter the ID of the catalog in the Search term field.

## 16.5.2 Housing design

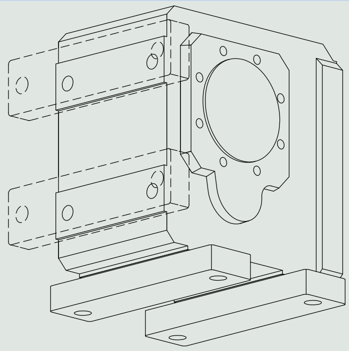
**Pitch circle diameter G**



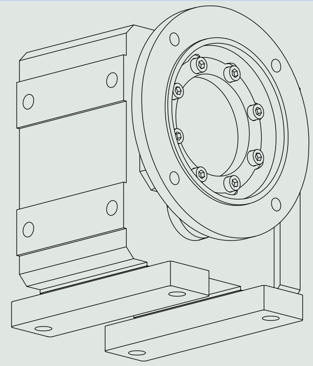
**Round flange F**



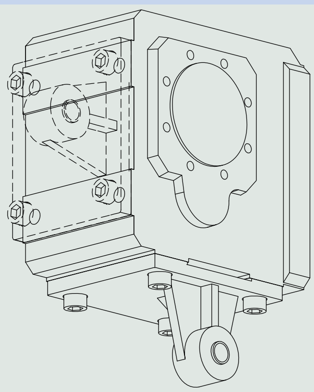
**Foot + pitch circle diameter NG**



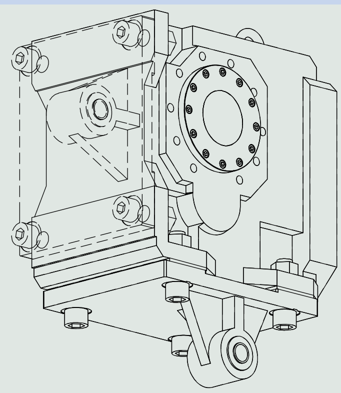
**Foot + round flange NF**



**Pitch circle diameter + torque arm bracket GD**



**Foot + pitch circle diameter + torque arm bracket NGD**



| | G | F | NG | NF | GD | NGD |
|---|---|---|---|---|---|---|
| K1 | ✓ | ✓ | ✓ | ✓ | ✓ | – |
| K2 | ✓ | ✓ | ✓ | – | ✓ | – |
| K3 | ✓ | ✓ | ✓ | – | ✓ | – |
| K4 | ✓ | ✓ | ✓ | – | ✓ | – |
| K5 | ✓ | ✓ | ✓ | ✓ | ✓ | – |
| K6 | ✓ | ✓ | ✓ | ✓ | ✓ | – |
| K7 | ✓ | ✓ | ✓ | ✓ | ✓ | – |
| K8 | ✓ | ✓ | ✓ | ✓ | ✓ | – |
| K9 | ✓ | ✓ | ✓ | ✓ | ✓ | – |
| K10 | – | – | ✓ | ✓ | – | ✓ |

## 16.5.3 Combinatorial shaft/housing design

| | Housing design | | | | | | |
|---|---|---|---|---|---|---|---|
| **Shaft design** | **Code** | **G** | **F** | **NG** | **NF** | **GD** | **NGD** |
| Hollow shaft with keyway | **A** | AG | AF | ANG | ANF | AGD | ANGD |
| Hollow shaft with shrink ring | **S** | SG | SF | SNG | SNF | SGD | SNGD |
| Solid shaft [1)] | **V** | VG | VF | VNG | VNF | – | – |

[1)] Gearboxes in sizes K1 – K10 come with a solid shaft with feather key as standard. Gearboxes in sizes K1 – K4 can be ordered with the option of a solid shaft without feather key. Only upon request starting at size K5.

## 16.5.4 Installation conditions

**Hollow shaft**

The hollow shaft hole tolerance is ISO H7. The tolerance of the machine shaft must be ISO k6.

Take care to align the machine shaft with the gearbox hollow shaft when attaching the gearbox.

Maximum deviation ≤ 0.03 mm.

For simpler assembly and disassembly of the machine shaft, the hollow shafts are equipped with a spiral groove (as a grease deposit).

A hardened, threaded keeper plate is included in the scope of delivery. You also have the option to order the hollow shaft without a keeper plate.

**Hollow shaft with shrink ring**

The tolerance of the hollow shaft hole is ISO H7.

The machine shaft must be executed as follows:

| Gearbox type | Tolerance |
|---|---|
| K1 to K6 | ISO h9 |
| K7 to K10 | ISO h6 |

Select a material for the machine shaft with a permitted surface pressure of p ≥ 325 N/mm$^2$.

Possible materials:

- C45E +QT
- 42CrMo4

**Fastening the gearboxes on the machine side using the pitch circle diameter**

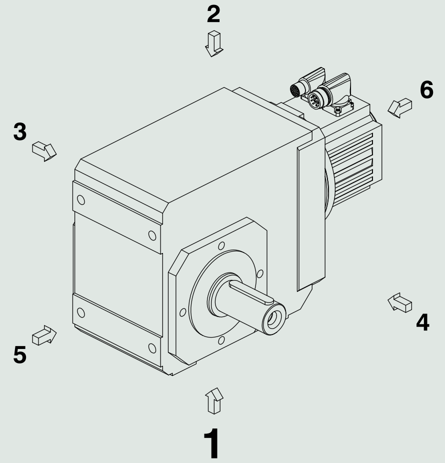
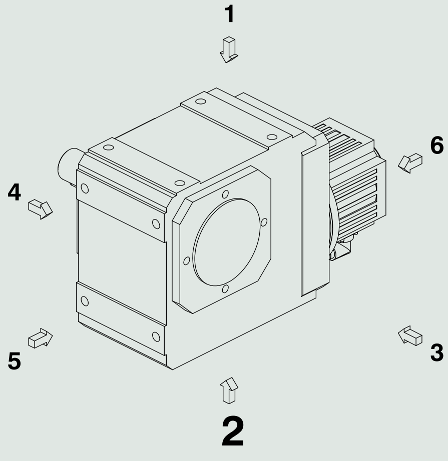
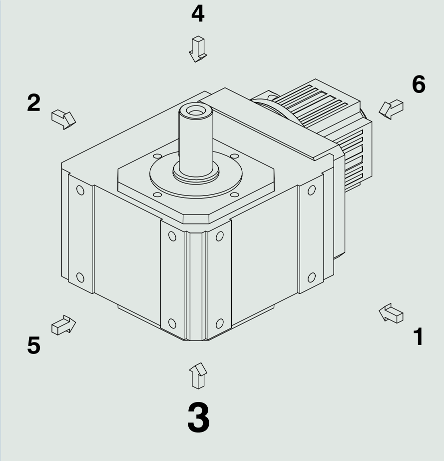
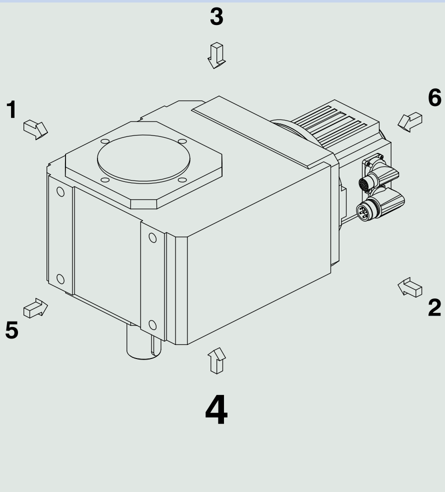
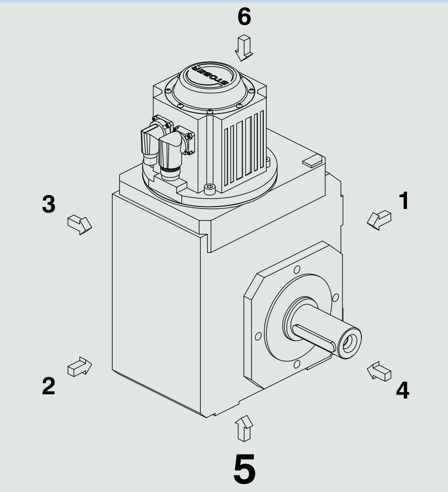
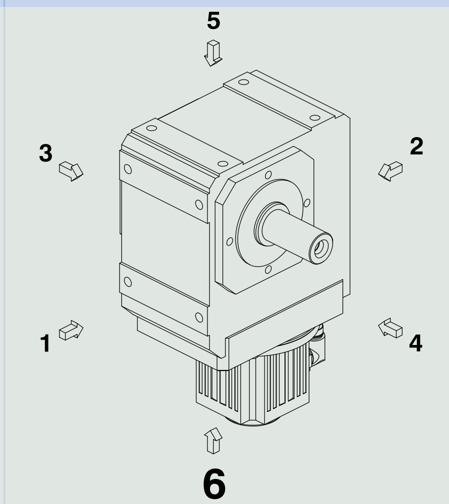
The specified torques and forces only apply when gearboxes are fastened on the machine side using screws of strength class 10.9. In addition, the gear housings must be adjusted at the pilot. The machine-side fit must be H7.

### 16.5.5 Mounting positions

The following table shows the standard mounting positions.

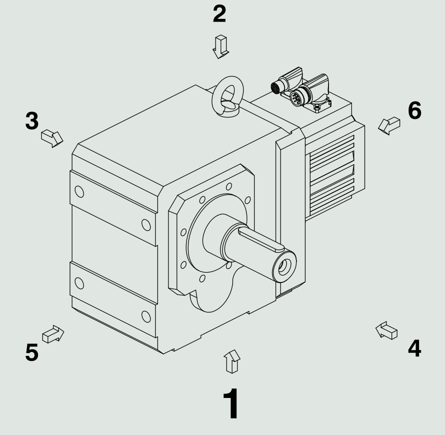
The numbers identify the gearbox sides. The mounting position is defined by the gearbox side facing downwards.

**Mounting positions for gearbox sizes K1 – K4**

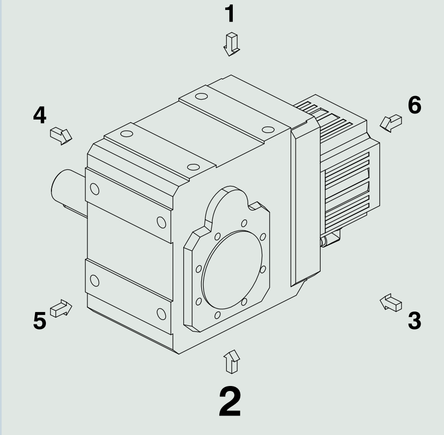
<table>
<tr><th>EL1</th><th>EL2</th><th>EL3</th></tr>
<tr>
<td>
</td>
<td>
</td>
<td>
</td>
</tr>
<tr><th>EL4</th><th>EL5</th><th>EL6</th></tr>
<tr>
<td>
</td>
<td>
</td>
<td>
</td>
</tr>
</table>

**Mounting positions for gearbox sizes K5 – K10**

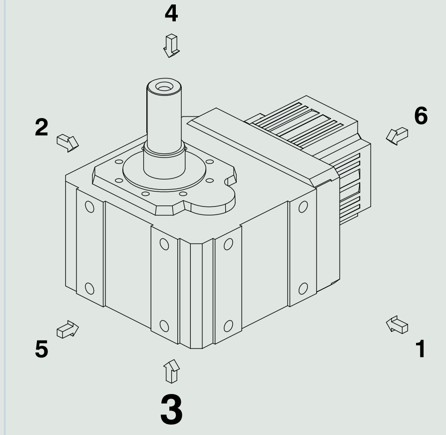
EL1



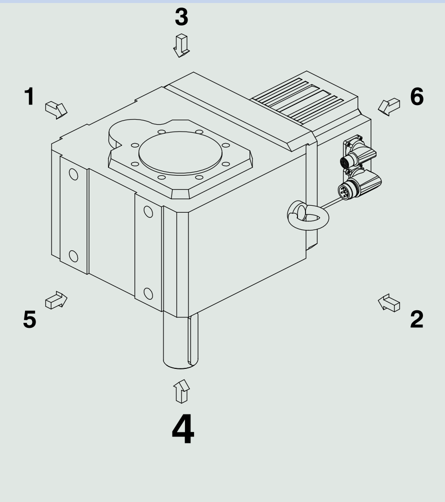

EL2



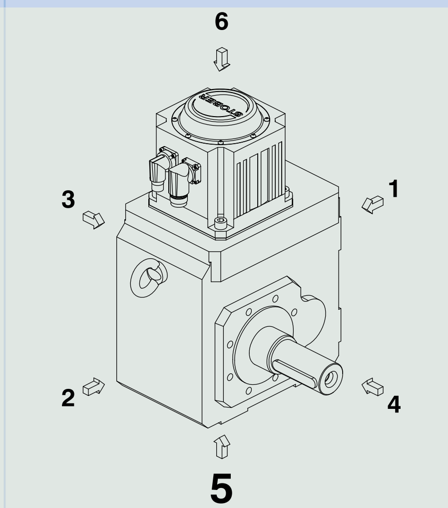

EL3



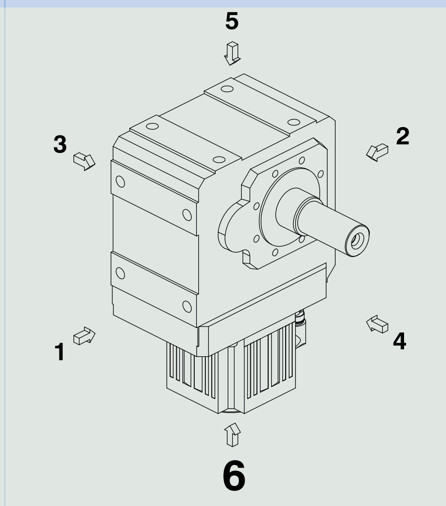

EL4




EL5




EL6




Since the lubricant filling volume of the gearbox depends on the mounting position, the mounting position must be specified when ordering.

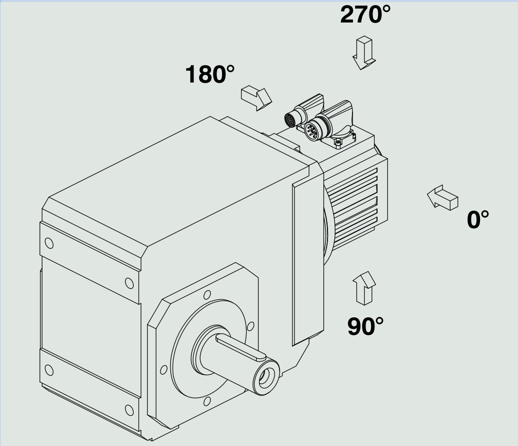
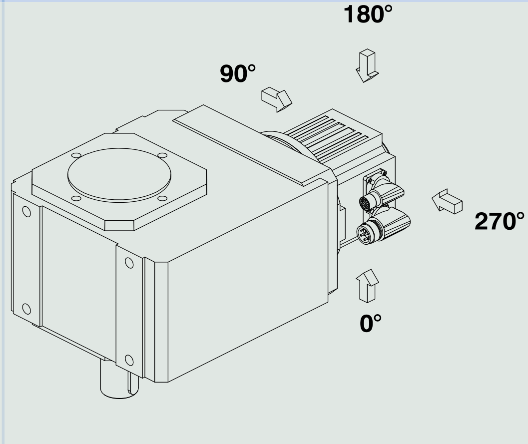
## 16.5.6 Lubricants

STOBER fills the gearboxes with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gearboxes depend on the mounting position.

Only install the gearboxes in the intended mounting position! Reposition the gearboxes only after consulting STOBER. Otherwise, STOBER assumes no liability for the gearboxes.

You will receive lubricants for use in the food industry upon request.

## 16.5.7 Position of the plug connectors

| Mounting position EL1<br>Plug connector in 270° position (standard) | Mounting position EL4<br>Plug connector in 270° position (standard) |
| --- | --- |
|   |   |

Indicate variations for your geared motor in the order.

Note that the plug connector position rotates along with the geared motor if the geared motor is in another mounting position.

## 16.5.8 Other product features

| Feature | Value |
| --- | --- |
| Max. permitted gearbox temperature (on the surface of the gearbox) | ≤ 80 °C |
| Paint | Black RAL 9005 |
| Explosion-proof design in accordance with (ATEX) Directive 2014/34/EU (optional) | Not available |
| **Efficiency:** | |
| $\eta_{get}$ two-stage | 97% |
| $\eta_{get}$ three-stage | 96% |
| $\eta_{get}$ four-stage | 94% |
| **Protection class:**[1] | |
| Gearbox | IP65 |
| Motor | IP56, optionally IP66 |

## 16.5.9 Maintenance

The instructions for maintenance can be found in the operating manual, ID 443364_en, at http://www.stoeber.de/en/downloads/. Enter the ID of the documentation in the Search... field.

**Ventilation**

Air release valves are fitted as a standard feature and independently of installation position for gearbox sizes K5 to K10.

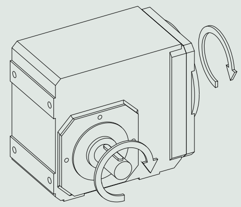
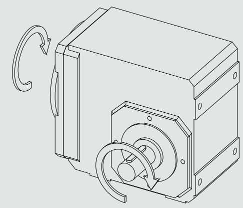
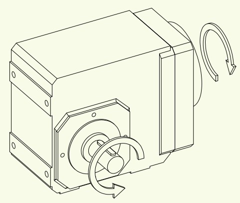
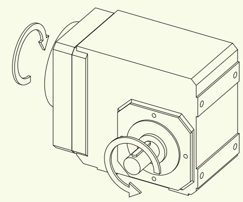
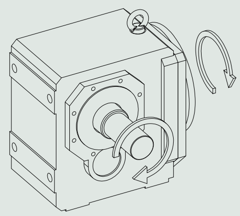
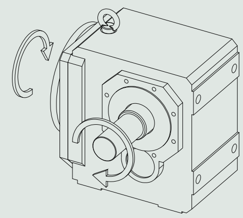
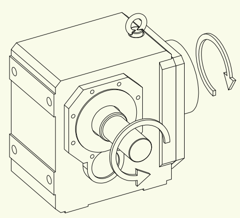
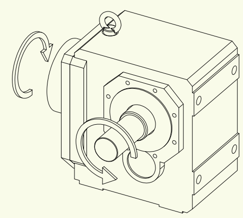
For the position and dimensions of the air release valve, refer to the 3D model.

Download the 3D model at https://configurator.stoeber.de/en-US/.

[1] Observe the protection class of all the components.

## 16.5.10 Direction of rotation

**Solid shaft (V), solid shaft on both sides (V), hollow shaft with keyway (A)**

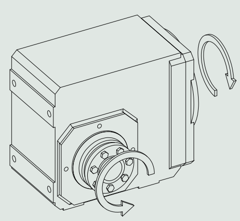
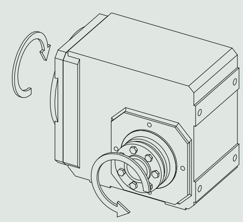
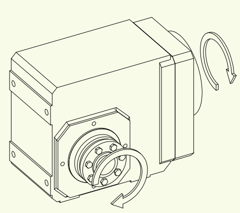
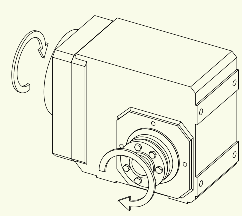
| Type | Output side 4 | Output side 3 |
|---|---|---|
| K102 – K402 |  |  |
| K203 – K403 |  |  |
| K513 – K1013 |  |  |
| K514 – K1014 |  |  |

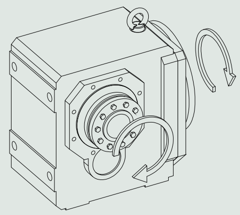
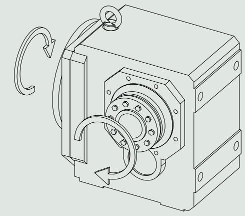
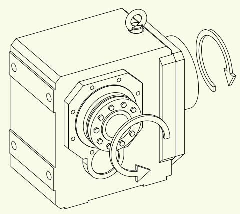
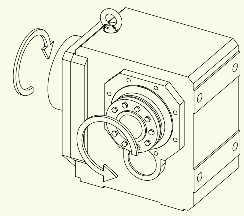
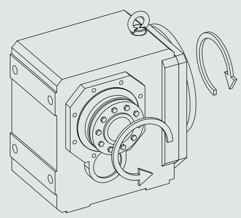
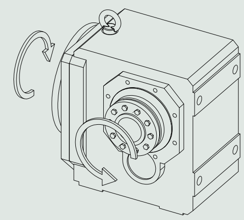
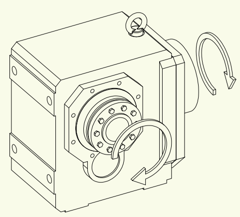
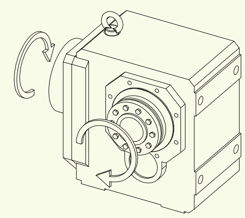
The specified directions of rotation also apply to gearboxes with hollow shaft (A) if the entry side of the machine shaft corresponds to the side of the solid shaft that is shown.

The direction of rotation for the shaft design of a solid shaft on both sides corresponds to the direction of rotation for output side 4.

The pictures show mounting position EL1.

**Hollow shaft with shrink ring (S)**

| Type | Shrink ring side 4 | Shrink ring side 3 |
|---|---|---|
| K102 – K402 |  |  |
| K203 – K403 |  |  |

| Type | Shrink ring side 4 | Shrink ring side 3 |
| --- | --- | --- |
| **K513 – K813** |  |  |
| **K514 – K814** |  |  |
| **K913 – K1013** |  |  |
| **K914 – K1014** |  |  |

The pictures show mounting position EL1.

## 16.6 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

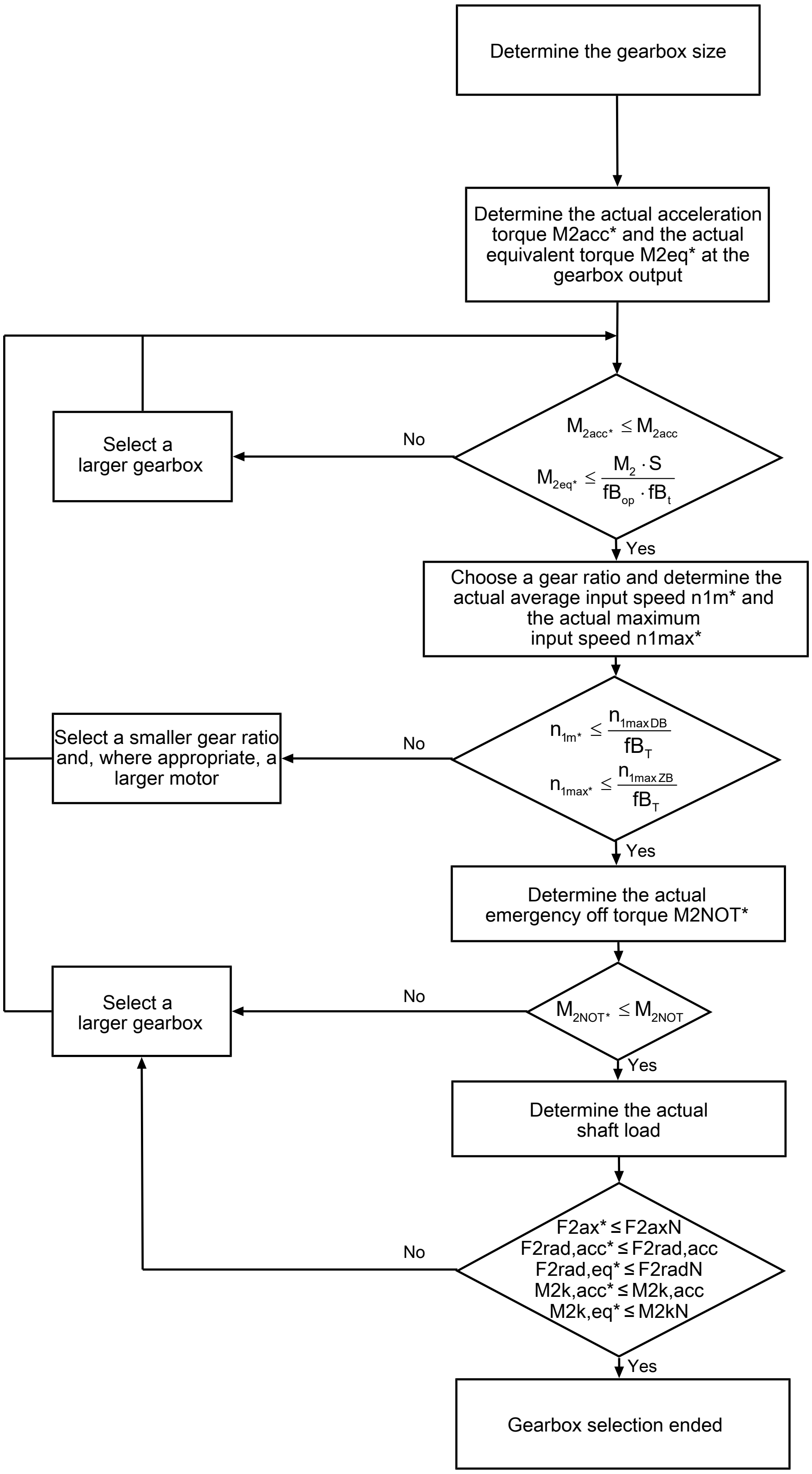
In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

## 16.6.1 Drive selection

**Drive selection for gearboxes**

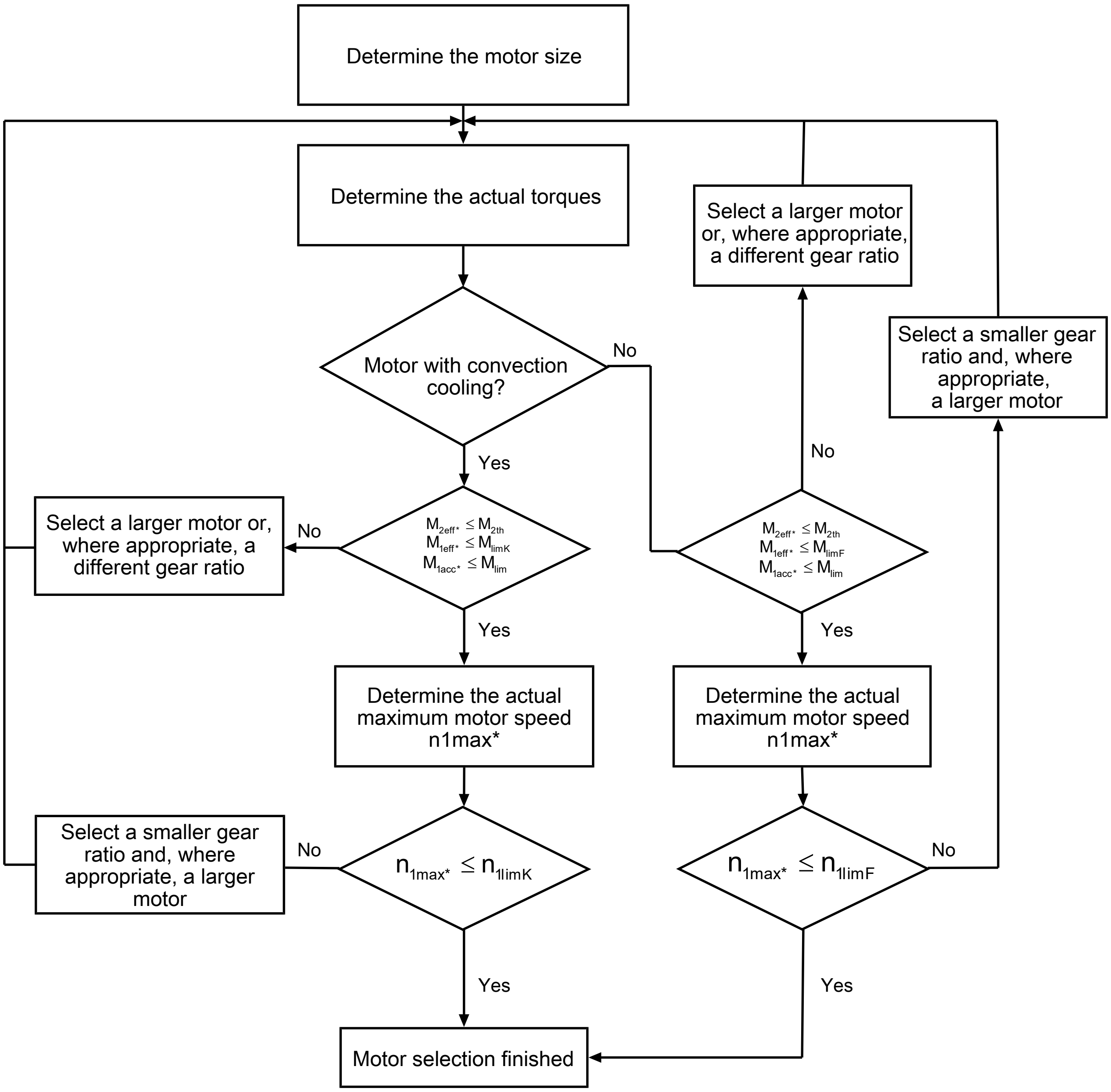



Calculate the forces and tilting torques in the chapter Permitted shaft loads.

Refer to the selection tables for the values for i, $n_{1maxDB}$, $n_{1maxZB}$, $M_{2acc}$, $M_{2NOT}$, $M_2$ and S.

The values for $fB_T$, $fB_{op}$ and $fB_t$ can be found in the corresponding tables in this chapter.

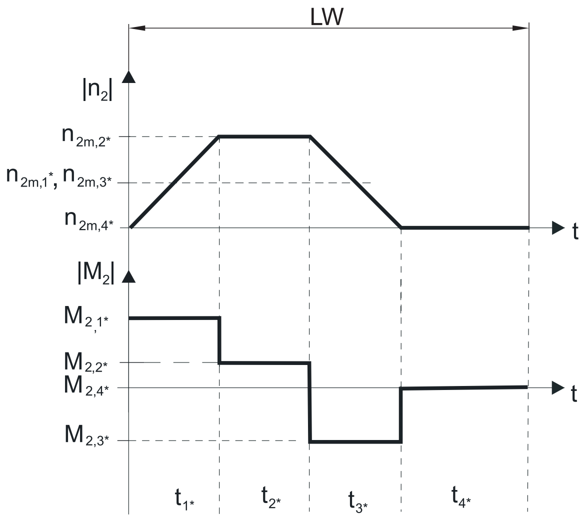
**Drive selection for motors**




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▸ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations are based on a representation of the power taken from the output based in accordance with the following example:




**Calculation of the actual maximum acceleration torques**

$$M_{2acc^*} = J_{tot} \cdot \frac{\Delta n_2}{9{,}55 \cdot \Delta t} + M_{L^*}$$

$$M_{1acc^*} = \frac{M_{2acc^*}}{i \cdot \eta_{get}} + J_1 \cdot \frac{\Delta n_1}{9{,}55 \cdot \Delta t}$$

**Calculation of the actual average input speed**

$$n_{1m^*} = n_{2m^*} \cdot i$$

$$n_{2m^*} = \frac{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}{t_{1^*} + \ldots + t_{n^*}}$$

If $t_{1^*}$ + ... + $t_{3^*} \geq 6$ min, calculate $n_{2m^*}$ without the rest phase $t_{4^*}$.

The values for the ratio i can be found in the selection tables.

**Calculation of the actual effective torque**

$$M_{2eff^*} = \sqrt{\frac{t_{1^*} \cdot M_{2,1^*}^2 + \ldots + t_{n^*} \cdot M_{2,n^*}^2}{t_{1^*} + \ldots + t_{n^*}}}$$

**Calculation of the actual emergency off torque**

$$M_{2NOT^*} = J_{tot} \cdot \frac{\Delta n_2}{9.55 \cdot \Delta t} + M_{L^*}$$

**Calculation of the actual equivalent torque**

$$M_{2eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2,1^*}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2,n^*}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

**Calculation of the thermal limit torque**

Calculate the thermal limit torque $M_{2th}$ for a duty cycle $ED_{10}$ > 50% and the actual average input speed $n_{1m^*}$. (At $K_{mot,th} \leq 0$ you must reduce the average input speed $n_{1m^*}$ accordingly or select another geared motor size.)

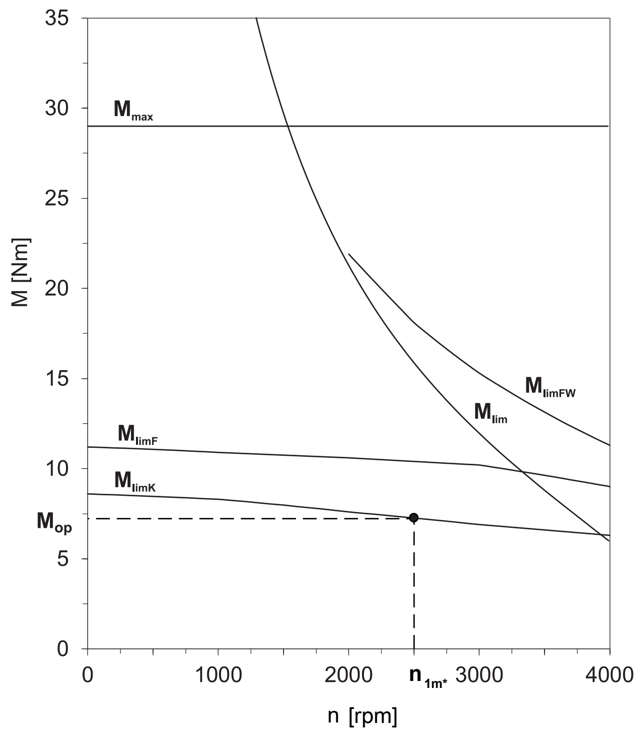
$$M_{2th} = M_{op} \cdot i \cdot K_{mot,th}$$

$$K_{mot,th} = 0{,}95 - \frac{a_{th}}{1000} \cdot athEL \cdot fB_T \cdot \left(\frac{n_{1m^*}}{1000}\right)^2$$

The values for i and $a_{th}$ can be found in the selection tables.

The values for $a_{thEL}$ and $fB_T$ can be found in the corresponding tables in this chapter.

The value for the torque of the motor at operating point $M_{op}$ with the determined average input speed $n_{1m*}$ can be found in the motor characteristic curve in the chapter [▷ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor. The figure below shows an example of reading the torque $M_{op}$ of a motor with convection cooling at the operating point.




**Operating factors**

**Parameter $a_{thEL}$**

| Mounting position | $a_{thEL}$ |
|---|---|
| EL1, 2 | 1.0 |
| EL3, 4, 5, 6 | 1.1 |

| Operating mode | $fB_{op}$ |
|---|---|
| Uniform continuous operation | 1.00 |
| Cyclic operation | 1.25 |
| Reversing load cyclic operation | 1.40 |

| Run time | $fB_t$ |
|---|---|
| Daily runtime ≤ 8 h | 1.00 |
| Daily runtime ≤ 16 h | 1.15 |
| Daily runtime ≤ 24 h | 1.20 |

| Temperature | | $fB_T$ |
|---|---|---|
| **Motor cooling** | **Surrounding temperature** | |
| Motor with forced ventilation | ≤ 20 °C | 0.9 |
| | ≤ 30 °C | 1.0 |
| | ≤ 40 °C | 1.15 |
| Motor with convection cooling | ≤ 20 °C | 1.0 |
| | ≤ 30 °C | 1.1 |
| | ≤ 40 °C | 1.25 |

**Notes**

- The maximum permitted gearbox temperature (see the "Other product features" chapter) must not be exceeded. Doing so may result in damage to the geared motor.
- For braking from full speed (for example when the power fails or when setting up the machine), note the permitted gearbox torques ($M_{2acc}$, $M_{2NOT}$) in the selection tables.

## 16.6.2 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m*} \leq 20$ rpm ($F_{2axN} = F_{2ax20}$; $F_{2radN} = F_{2rad20}$; $M_{2kN} = M_{2k20}$)
- Only if radial forces on the gearbox are stabilized by its pilots for the pitch circle diameter and flange housing design

### 16.6.2.1 V shaft design

**Permitted shaft loads for V shaft design (solid shaft)**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| K1 | 40.0 | 1900 | 5000 | 5000 | 325 | 325 |
| K2 | 42.0 | 2100 | 6000 | 6000 | 430 | 430 |
| K3 | 45.0 | 2400 | 7000 | 7000 | 525 | 525 |
| K4 | 52.0 | 3500 | 11200 | 11200 | 1050 | 1050 |
| K5 | 72.0 | 3500 | 13450 | 13450 | 1580 | 1580 |
| K6 | 72.0 | 4000 | 16000 | 16000 | 1960 | 1960 |
| K7 | 85.0 | 5500 | 22000 | 22000 | 3200 | 3200 |
| K8 | 60.0 | 7250 | 29000 | 29000 | 3800 | 3800 |
| K9 | 87.0 | 16500 | 65000 | 65000 | 11200 | 11200 |
| K10 | 84.0 | 25000 | 80000 | 80000 | 15200 | 15200 |

**Reduced values apply in the case of a V shaft design (solid shaft) in conjunction with an NF housing design (foot + round flange):**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| K10 | 132.0 | 25000 | 64000 | 64000 | 15200 | 15200 |

For the V solid shaft design on both sides, the values for $F_{2rad20}$ and $M_{2k20}$ must be multiplied by a factor of 0.7.

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*} > 20$ rpm:**

$$F_{2axN} = \frac{F_{2ax20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}}$$

The values for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ can be found in the table "Permitted shaft loads" in this chapter.

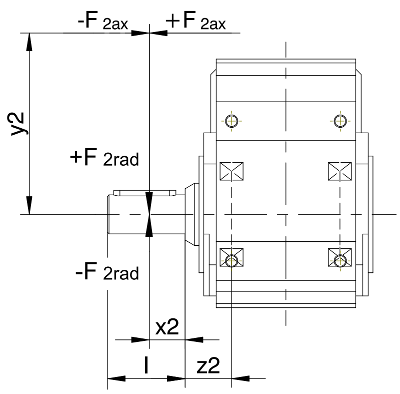



*Fig. 1:* Force application points for solid shaft

The specified values for $F_{2rad20}$ and $F_{2rad,acc}$ refer to an application of force at the center of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.

**The following applies to other force application points:**

$$M_{2k,acc*} = \frac{2 \cdot F_{2ax*} \cdot y_2 + F_{2rad,acc*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |M_{2k,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |M_{2k,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

$$F_{2rad,eq*} = \sqrt[3]{\frac{|n_{2m,1*}| \cdot t_{1*} \cdot |F_{2rad,acc,1*}{}^3| + \ldots + |n_{2m,n*}| \cdot t_{n*} \cdot |F_{2rad,acc,n*}{}^3|}{|n_{2m,1*}| \cdot t_{1*} + \ldots + |n_{2m,n*}| \cdot t_{n*}}}$$

### 16.6.2.2 A and S shaft design

**Permitted shaft loads for A shaft design (hollow shaft with keyway)**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| K1 | 40.0 | 1900 | 5000 | 5000 | 240 | 240 |
| K2 | 42.0 | 2100 | 6000 | 6000 | 310 | 310 |
| K3 | 45.0 | 2400 | 7000 | 7000 | 380 | 380 |
| K4 | 52.0 | 3500 | 11200 | 11200 | 740 | 740 |
| K5 | 39.0 | 2500 | 13450 | 13450 | 1000 | 1000 |
| K6 | 42.0 | 3000 | 16000 | 16000 | 1300 | 1300 |
| K7 | 45.0 | 4100 | 22000 | 22000 | 2100 | 2100 |
| K8 | 50.0 | 5300 | 29000 | 29000 | 2600 | 2600 |
| K9 | 56.0 | 7000 | 65000 | 65000 | 3600 | 3600 |
| K10 | 56.0 | 9000 | 80000 | 80000 | 5000 | 5000 |

**Permitted shaft loads for S shaft design (hollow shaft with shrink ring)**

| Type | $z_2$ [mm] | $F_{2ax20}$ [N] | $F_{2rad20}$ [N] | $F_{2rad,acc}$ [N] | $M_{2k20}$ [Nm] | $M_{2k,acc}$ [Nm] |
|---|---|---|---|---|---|---|
| K1 | 40.0 | 1900 | 5000 | 5000 | 240 | 240 |
| K2 | 42.0 | 2100 | 6000 | 6000 | 310 | 310 |
| K3 | 45.0 | 2400 | 7000 | 7000 | 380 | 380 |
| K4 | 52.0 | 3500 | 11200 | 11200 | 740 | 740 |
| K5 | 39.0 | 2500 | 13450 | 13450 | 1000 | 1000 |
| K6 | 42.0 | 3000 | 16000 | 16000 | 1300 | 1300 |
| K7 | 45.0 | 4100 | 22000 | 22000 | 2100 | 2100 |
| K8 | 50.0 | 5300 | 29000 | 29000 | 2600 | 2600 |
| K9 | 56.0 | 7000 | 65000 | 65000 | 3600 | 3600 |
| K10 | 56.0 | 9000 | 80000 | 80000 | 5000 | 5000 |

For other output speeds, download diagrams at https://configurator.stoeber.de/en-US/.

**The following applies to output speeds $n_{2m*}$ > 20 rpm:**

$$F_{2axN} = \frac{F_{2ax20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}} \qquad F_{2radN} = \frac{F_{2rad20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}} \qquad M_{2kN} = \frac{M_{2k20}}{\sqrt[3]{\frac{n_{2m*}}{20\ \text{rpm}}}}$$

The values for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ can be found in the table "Permitted shaft loads" in this chapter.

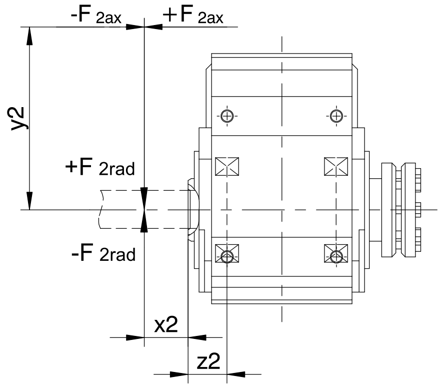



*Fig. 2:* Force application points for hollow shaft

You can determine the permitted radial forces from the permitted tilting torque $M_{2kN}$ and $M_{2k,acc}$. The actual radial forces may not exceed the permitted radial forces. The permitted radial forces pertain to the shaft end (x2 = 0).

$$M_{2k,acc^*} = \frac{2 \cdot F_{2ax^*} \cdot y_2 + F_{2rad,acc^*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

In the event of EMERGENCY OFF operation (max. 1000 load changes), you can multiply the permitted forces and torques for $F_{2ax20}$, $F_{2rad20}$ and $M_{2k20}$ by a factor of two.

**Also note the calculation for equivalent values:**

$$M_{2k,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |M_{2k,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |M_{2k,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

$$F_{2rad,eq^*} = \sqrt[3]{\frac{|n_{2m,1^*}| \cdot t_{1^*} \cdot |F_{2rad,acc,1^*}{}^3| + \ldots + |n_{2m,n^*}| \cdot t_{n^*} \cdot |F_{2rad,acc,n^*}{}^3|}{|n_{2m,1^*}| \cdot t_{1^*} + \ldots + |n_{2m,n^*}| \cdot t_{n^*}}}$$

## 16.6.3 Radial shaft seal rings

**Leak-proofness**

Our gearboxes are equipped with high-quality radial shaft seal rings and checked for leaks. However, a leak cannot be fully ruled out over the length of use of a gearbox. If you use a gearbox with goods incompatible with the lubricant, you must take measures to prevent direct contact with the gearbox lubricant in case of a leak.

## 16.6.4 Oil expansion tank

The gearboxes have a higher fill level in mounting position EL5. The oil expansion tank prevents oil from escaping out of the gearbox.

**Notes**

- We recommend using an oil expansion tank in mounting position EL5 (additional cost) for fast running gearboxes with an input speed $n_1$ > 1750 rpm and gear ratios i < 20.
- It is not possible to use an oil expansion tank if the plug connector is at 90°!
- The oil expansion tank can only be used with certain sizes; see the chapter [▷ 16.3.17]

## 16.7 Additional documentation

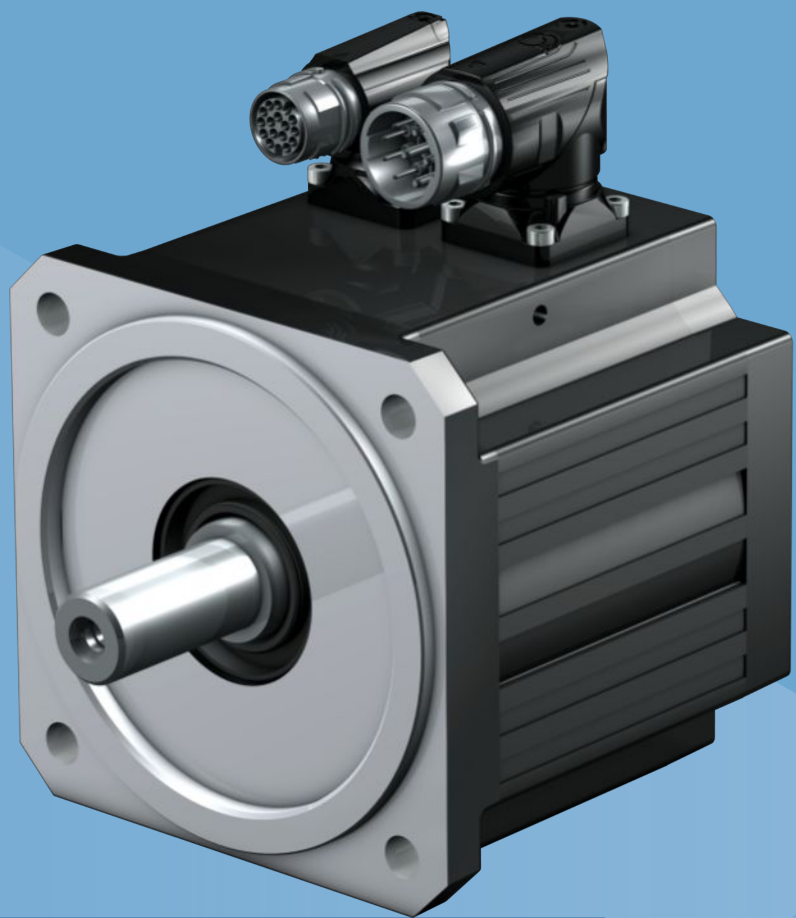
Additional documentation related to the product can be found at
http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual gearboxes, geared motors K | 443364_en |
| Operating manual for EZ synchronous servo motors | 443032_en |

# 17 EZ synchronous servo motors

## Table of contents



17 **Synchronous servo motors** **EZ**

## 17.1 Overview

Synchronous servo motors with tooth winding

**Features**

| | |
|---|---|
| High dynamics | ✓ |
| Short length | ✓ |
| Super compact due to tooth-coil winding method with the highest possible copper fill factor | ✓ |
| Backlash-free holding brake (optional) | ✓ |
| Electronic nameplate for fast and reliable commissioning | ✓ |
| Convection cooling or forced ventilation (optional) | ✓ |
| Optical, inductive EnDat absolute encoders or resolvers | ✓ |
| Elimination of referencing with multi-turn absolute encoders (optional) | ✓ |
| One Cable Solution (OCS) with EnDat 3 encoder (optional) | ✓ |
| Rotatable plug connectors[1] with quick-lock | ✓ |

[1] The plug connectors can be pivoted up to 10 times at a specific angle. They cannot be rotated repeatedly.

**Torques**

| | |
|---|---|
| $M_N$ | 0.4 – 91 Nm |
| $M_0$ | 0.44 – 100 Nm |

## 17.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from −15 °C to +40 °C
- Operation on a STOBER drive controller
- DC link voltage $U_{ZK}$ = DC 540 V
- Coating: RAL 9005 Jet black, matte

In addition, the technical data applies to an uninsulated design with the following thermal mounting conditions:

| Type | Dimensions of steel mounting flange (thickness x width x height) | Convection surface area Steel mounting flange |
|---|---|---|
| EZ2 – EZ5 | 23 x 210 x 275 mm | 0.14 $m^2$ |
| EZ7 – EZ8 | 28 x 300 x 400 mm | 0.3 $m^2$ |

Note the differing ambient conditions in Chapter [▶ 17.7.3]

**Formula symbols**

An explanation of the formula symbols can be found in Chapter [▶ 20.1].

Observe the additional information on the following formula symbols:

- $I_0$ = RMS value of the line-to-line current when stall torque $M_0$ is generated (tolerance ±5%).
- $I_{max}$ = RMS value of the short-term maximum permitted line-to-line current when maximum torque $M_{max}$ is generated (tolerance ±5%). Exceeding $I_{max}$ may lead to irreversible damage (demagnetization) of the rotor.
- $I_N$ = RMS value of the line-to-line current when nominal torque $M_N$ is generated at the nominal point (tolerance ±5%).
- $M_0$ = Torque that a motor is continuously able to deliver at a speed of 10 rpm (tolerance ±5%). At a speed of 0 rpm, a minor continuous torque has to be taken into account. Contact your STOBER customer advisor for such an application.

### 17.2.1 EZ motors with convection cooling

| Type | $K_{EM}$ [V/1000 min$^{-1}$] | $n_N$ [rpm] | $M_N$ [Nm] | $I_N$ [A] | $K_{M,N}$ [Nm/A] | $P_N$ [kW] | $M_0$ [Nm] | $I_0$ [A] | $K_{M0}$ [Nm/A] | $M_R$ [Nm] | $M_{max}$ [Nm] | $I_{max}$ [A] | $R_{U-V}$ [Ω] | $L_{U-V}$ [mH] | $T_{el}$ [ms] | $J_{dyn}$ [kgcm²] | $m_{dyn}$ [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ202U | 40 | 6000 | 0.40 | 0.99 | 0.41 | 0.25 | 0.44 | 1.03 | 0.45 | 0.03 | 1.48 | 3.48 | 26.00 | 15.80 | 0.61 | 0.13 | 1.43 |
| EZ203U | 40 | 6000 | 0.61 | 1.54 | 0.40 | 0.38 | 0.69 | 1.64 | 0.44 | 0.03 | 2.70 | 5.80 | 13.20 | 10.30 | 0.76 | 0.17 | 1.67 |
| EZ301U | 40 | 6000 | 0.89 | 1.93 | 0.46 | 0.56 | 0.95 | 2.02 | 0.49 | 0.04 | 2.80 | 12.7 | 11.70 | 39.80 | 3.40 | 0.19 | 1.50 |
| EZ301U | 40 | 3000 | 0.93 | 1.99 | 0.47 | 0.29 | 0.95 | 2.02 | 0.49 | 0.04 | 2.80 | 12.7 | 11.70 | 39.80 | 3.40 | 0.19 | 1.50 |
| EZ302U | 42 | 6000 | 1.50 | 3.18 | 0.47 | 0.94 | 1.68 | 3.48 | 0.49 | 0.04 | 5.00 | 17.8 | 4.50 | 18.70 | 4.16 | 0.29 | 2.10 |
| EZ302U | 86 | 3000 | 1.59 | 1.60 | 0.99 | 0.50 | 1.68 | 1.67 | 1.03 | 0.04 | 5.00 | 8.55 | 17.80 | 75.00 | 4.21 | 0.29 | 2.10 |
| EZ303U | 55 | 6000 | 1.96 | 3.17 | 0.62 | 1.2 | 2.25 | 3.55 | 0.65 | 0.04 | 7.00 | 16.9 | 4.90 | 21.10 | 4.31 | 0.40 | 2.60 |
| EZ303U | 109 | 3000 | 2.07 | 1.63 | 1.27 | 0.65 | 2.19 | 1.71 | 1.30 | 0.04 | 7.00 | 8.25 | 20.30 | 68.70 | 5.24 | 0.40 | 2.60 |
| EZ401U | 47 | 6000 | 2.30 | 4.56 | 0.50 | 1.4 | 2.80 | 5.36 | 0.53 | 0.04 | 8.50 | 33.0 | 1.94 | 11.52 | 5.94 | 0.93 | 4.00 |
| EZ401U | 96 | 3000 | 2.80 | 2.74 | 1.02 | 0.88 | 3.00 | 2.88 | 1.06 | 0.04 | 8.50 | 16.5 | 6.70 | 37.70 | 5.63 | 0.93 | 4.00 |
| EZ402U | 60 | 6000 | 3.50 | 5.65 | 0.62 | 2.2 | 4.90 | 7.43 | 0.66 | 0.04 | 16.0 | 43.5 | 1.20 | 8.88 | 7.40 | 1.63 | 5.10 |
| EZ402U | 94 | 3000 | 4.70 | 4.40 | 1.07 | 1.5 | 5.20 | 4.80 | 1.09 | 0.04 | 16.0 | 26.5 | 3.00 | 21.80 | 7.26 | 1.63 | 5.10 |
| EZ404U | 78 | 6000 | 5.80 | 7.18 | 0.81 | 3.6 | 8.40 | 9.78 | 0.86 | 0.04 | 29.0 | 51.0 | 0.89 | 7.07 | 7.94 | 2.98 | 7.20 |
| EZ404U | 116 | 3000 | 6.90 | 5.80 | 1.19 | 2.2 | 8.60 | 6.60 | 1.31 | 0.04 | 29.0 | 35.0 | 1.85 | 15.00 | 8.11 | 2.98 | 7.20 |
| EZ501U | 68 | 6000 | 3.40 | 4.77 | 0.71 | 2.1 | 4.40 | 5.80 | 0.77 | 0.06 | 16.0 | 31.0 | 2.10 | 12.10 | 5.76 | 2.90 | 5.00 |
| EZ501U | 97 | 3000 | 4.30 | 3.74 | 1.15 | 1.4 | 4.70 | 4.00 | 1.19 | 0.06 | 16.0 | 22.0 | 3.80 | 23.50 | 6.18 | 2.90 | 5.00 |
| EZ502U | 72 | 6000 | 5.20 | 7.35 | 0.71 | 3.3 | 7.80 | 9.80 | 0.80 | 0.06 | 31.0 | 59.0 | 0.76 | 5.60 | 7.37 | 5.20 | 6.50 |
| EZ502U | 121 | 3000 | 7.40 | 5.46 | 1.36 | 2.3 | 8.00 | 5.76 | 1.40 | 0.06 | 31.0 | 33.0 | 2.32 | 16.80 | 7.24 | 5.20 | 6.50 |
| EZ503U | 84 | 6000 | 6.20 | 7.64 | 0.81 | 3.9 | 10.6 | 11.6 | 0.92 | 0.06 | 43.0 | 63.5 | 0.62 | 5.00 | 8.06 | 7.58 | 8.00 |
| EZ503U | 119 | 3000 | 9.70 | 6.90 | 1.41 | 3.1 | 11.1 | 7.67 | 1.46 | 0.06 | 43.0 | 41.0 | 1.25 | 10.00 | 8.00 | 7.58 | 8.00 |
| EZ505U | 103 | 4500 | 9.50 | 8.94 | 1.06 | 4.5 | 15.3 | 13.4 | 1.15 | 0.06 | 67.0 | 73.0 | 0.50 | 4.47 | 8.94 | 12.2 | 10.9 |
| EZ505U | 141 | 3000 | 13.5 | 8.80 | 1.53 | 4.2 | 16.0 | 10.0 | 1.61 | 0.06 | 67.0 | 52.0 | 0.93 | 8.33 | 8.96 | 12.2 | 10.9 |
| EZ701U | 76 | 6000 | 5.20 | 6.68 | 0.78 | 3.3 | 7.90 | 9.38 | 0.87 | 0.24 | 20.0 | 31.0 | 0.87 | 8.13 | 9.34 | 8.50 | 8.30 |
| EZ701U | 95 | 3000 | 7.40 | 7.20 | 1.03 | 2.3 | 8.30 | 8.00 | 1.07 | 0.24 | 20.0 | 25.0 | 1.30 | 12.83 | 9.87 | 8.50 | 8.30 |
| EZ702U | 82 | 6000 | 7.20 | 8.96 | 0.80 | 4.5 | 14.3 | 16.5 | 0.88 | 0.24 | 41.0 | 60.5 | 0.34 | 3.90 | 11.47 | 13.7 | 10.8 |
| EZ702U | 133 | 3000 | 12.0 | 8.20 | 1.46 | 3.8 | 14.4 | 9.60 | 1.53 | 0.24 | 41.0 | 36.0 | 1.00 | 11.73 | 11.73 | 13.7 | 10.8 |
| EZ703U | 99 | 4500 | 12.1 | 11.5 | 1.05 | 5.7 | 20.0 | 17.8 | 1.14 | 0.24 | 65.0 | 78.0 | 0.36 | 4.42 | 12.28 | 21.6 | 12.8 |
| EZ703U | 122 | 3000 | 16.5 | 11.4 | 1.45 | 5.2 | 20.8 | 14.0 | 1.50 | 0.24 | 65.0 | 62.0 | 0.52 | 6.80 | 13.08 | 21.6 | 12.8 |
| EZ705U | 106 | 4500 | 16.4 | 14.8 | 1.11 | 7.7 | 30.0 | 25.2 | 1.20 | 0.24 | 104 | 114 | 0.22 | 2.76 | 12.55 | 34.0 | 18.3 |
| EZ705U | 140 | 3000 | 21.3 | 14.2 | 1.50 | 6.7 | 30.2 | 19.5 | 1.56 | 0.24 | 104 | 87.0 | 0.33 | 4.80 | 14.55 | 34.0 | 18.3 |
| EZ813U | 117 | 4000 | 25.2 | 19.8 | 1.27 | 11 | 43.7 | 32.8 | 1.34 | 0.30 | 140 | 130 | 0.13 | 1.20 | 9.09 | 104 | 35.8 |
| EZ813U | 239 | 2000 | 39.0 | 14.9 | 2.62 | 8.1 | 43.7 | 16.5 | 2.67 | 0.30 | 140 | 64.9 | 0.69 | 5.10 | 7.41 | 104 | 35.8 |
| EZ815U | 117 | 4000 | 26.1 | 20.9 | 1.25 | 11 | 67.1 | 50.3 | 1.34 | 0.30 | 200 | 169 | 0.04 | 0.72 | 18.00 | 167 | 48.4 |
| EZ815U | 239 | 2000 | 57.8 | 21.5 | 2.68 | 12 | 68.8 | 25.2 | 2.74 | 0.30 | 200 | 92.4 | 0.40 | 3.63 | 9.08 | 167 | 48.4 |

### 17.2.2 EZ motors with forced ventilation

| Type | $K_{EM}$ [V/1000 min$^{-1}$] | $n_N$ [rpm] | $M_N$ [Nm] | $I_N$ [A] | $K_{M,N}$ [Nm/A] | $P_N$ [kW] | $M_0$ [Nm] | $I_0$ [A] | $K_{M0}$ [Nm/A] | $M_R$ [Nm] | $M_{max}$ [Nm] | $I_{max}$ [A] | $R_{U-V}$ [Ω] | $L_{U-V}$ [mH] | $T_{el}$ [ms] | $J_{dyn}$ [kgcm²] | $m_{dyn}$ [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ401B | 47 | 6000 | 2.90 | 5.62 | 0.52 | 1.8 | 3.50 | 6.83 | 0.52 | 0.04 | 8.50 | 33.0 | 1.94 | 11.52 | 5.94 | 0.93 | 5.40 |
| EZ401B | 96 | 3000 | 3.40 | 3.40 | 1.00 | 1.1 | 3.70 | 3.60 | 1.04 | 0.04 | 8.50 | 16.5 | 6.70 | 37.70 | 5.63 | 0.93 | 5.40 |
| EZ402B | 60 | 6000 | 5.10 | 7.88 | 0.65 | 3.2 | 6.40 | 9.34 | 0.69 | 0.04 | 16.0 | 43.5 | 1.20 | 8.88 | 7.40 | 1.63 | 6.50 |
| EZ402B | 94 | 3000 | 5.90 | 5.50 | 1.07 | 1.9 | 6.30 | 5.80 | 1.09 | 0.04 | 16.0 | 26.5 | 3.00 | 21.80 | 7.26 | 1.63 | 6.50 |
| EZ404B | 78 | 6000 | 8.00 | 9.98 | 0.80 | 5.0 | 10.5 | 12.0 | 0.88 | 0.04 | 29.0 | 51.0 | 0.89 | 7.07 | 7.94 | 2.98 | 8.60 |
| EZ404B | 116 | 3000 | 10.2 | 8.20 | 1.24 | 3.2 | 11.2 | 8.70 | 1.29 | 0.04 | 29.0 | 35.0 | 1.85 | 15.00 | 8.11 | 2.98 | 8.60 |
| EZ501B | 68 | 6000 | 4.50 | 6.70 | 0.67 | 2.8 | 5.70 | 7.50 | 0.77 | 0.06 | 16.0 | 31.0 | 2.10 | 12.10 | 5.76 | 2.90 | 7.00 |
| EZ501B | 97 | 3000 | 5.40 | 4.70 | 1.15 | 1.7 | 5.80 | 5.00 | 1.17 | 0.06 | 16.0 | 22.0 | 3.80 | 23.50 | 6.18 | 2.90 | 7.00 |
| EZ502B | 72 | 6000 | 8.20 | 11.4 | 0.72 | 5.2 | 10.5 | 13.4 | 0.79 | 0.06 | 31.0 | 59.0 | 0.76 | 5.60 | 7.37 | 5.20 | 8.50 |
| EZ502B | 121 | 3000 | 10.3 | 7.80 | 1.32 | 3.2 | 11.2 | 8.16 | 1.38 | 0.06 | 31.0 | 33.0 | 2.32 | 16.80 | 7.24 | 5.20 | 8.50 |
| EZ503B | 84 | 6000 | 10.4 | 13.5 | 0.77 | 6.5 | 14.8 | 15.9 | 1.07 | 0.06 | 43.0 | 63.5 | 0.62 | 5.00 | 8.06 | 7.58 | 10.0 |
| EZ503B | 119 | 3000 | 14.4 | 10.9 | 1.32 | 4.5 | 15.9 | 11.8 | 1.35 | 0.06 | 43.0 | 41.0 | 1.25 | 10.00 | 8.00 | 7.58 | 10.0 |
| EZ505B | 103 | 4500 | 16.4 | 16.4 | 1.00 | 7.7 | 22.0 | 19.4 | 1.14 | 0.06 | 67.0 | 73.0 | 0.50 | 4.47 | 8.94 | 12.2 | 12.9 |
| EZ505B | 141 | 3000 | 20.2 | 13.7 | 1.47 | 6.4 | 23.4 | 14.7 | 1.60 | 0.06 | 67.0 | 52.0 | 0.93 | 8.33 | 8.96 | 12.2 | 12.9 |
| EZ701B | 76 | 6000 | 7.50 | 10.6 | 0.71 | 4.7 | 10.2 | 12.4 | 0.84 | 0.24 | 20.0 | 31.0 | 0.87 | 8.13 | 9.34 | 8.50 | 11.2 |
| EZ701B | 95 | 3000 | 9.70 | 9.50 | 1.02 | 3.1 | 10.5 | 10.0 | 1.07 | 0.24 | 20.0 | 25.0 | 1.30 | 12.83 | 9.87 | 8.50 | 11.2 |
| EZ702B | 82 | 6000 | 12.5 | 16.7 | 0.75 | 7.9 | 19.3 | 22.1 | 0.89 | 0.24 | 41.0 | 60.5 | 0.34 | 3.90 | 11.47 | 13.7 | 13.7 |
| EZ702B | 133 | 3000 | 16.6 | 11.8 | 1.41 | 5.2 | 19.3 | 12.9 | 1.51 | 0.24 | 41.0 | 36.0 | 1.00 | 11.73 | 11.73 | 13.7 | 13.7 |
| EZ703B | 99 | 4500 | 19.8 | 20.3 | 0.98 | 9.3 | 27.2 | 24.2 | 1.13 | 0.24 | 65.0 | 78.0 | 0.36 | 4.42 | 12.28 | 21.6 | 15.7 |
| EZ703B | 122 | 3000 | 24.0 | 18.2 | 1.32 | 7.5 | 28.0 | 20.0 | 1.41 | 0.24 | 65.0 | 62.0 | 0.52 | 6.80 | 13.08 | 21.6 | 15.7 |
| EZ705B | 106 | 4500 | 27.7 | 25.4 | 1.09 | 13 | 39.4 | 32.8 | 1.21 | 0.24 | 104 | 114 | 0.22 | 2.76 | 12.55 | 34.0 | 21.2 |
| EZ705B | 140 | 3000 | 33.8 | 22.9 | 1.48 | 11 | 41.8 | 26.5 | 1.59 | 0.24 | 104 | 87.0 | 0.33 | 4.80 | 14.55 | 34.0 | 21.2 |
| EZ813B | 117 | 4000 | 49.5 | 38.1 | 1.30 | 21 | 62.9 | 46.6 | 1.36 | 0.30 | 140 | 130 | 0.13 | 1.20 | 9.09 | 104 | 41.8 |
| EZ813B | 239 | 2000 | 57.3 | 21.9 | 2.62 | 12 | 61.6 | 22.9 | 2.71 | 0.30 | 140 | 64.9 | 0.69 | 5.10 | 7.41 | 104 | 41.8 |
| EZ815B | 117 | 4000 | 73.6 | 56.2 | 1.31 | 31 | 90.8 | 65.0 | 1.40 | 0.30 | 200 | 169 | 0.04 | 0.72 | 18.00 | 167 | 54.4 |
| EZ815B | 239 | 2000 | 91.0 | 33.7 | 2.70 | 19 | 100 | 36.3 | 2.76 | 0.30 | 200 | 92.4 | 0.40 | 3.63 | 9.08 | 167 | 54.4 |

# 17.3 Torque/speed curves

Torque/speed curves depend on the nominal speed and/or winding design of the motor and the DC link voltage of the drive controller that is used. The following torque/speed curves apply to the DC link voltage DC 540 V.

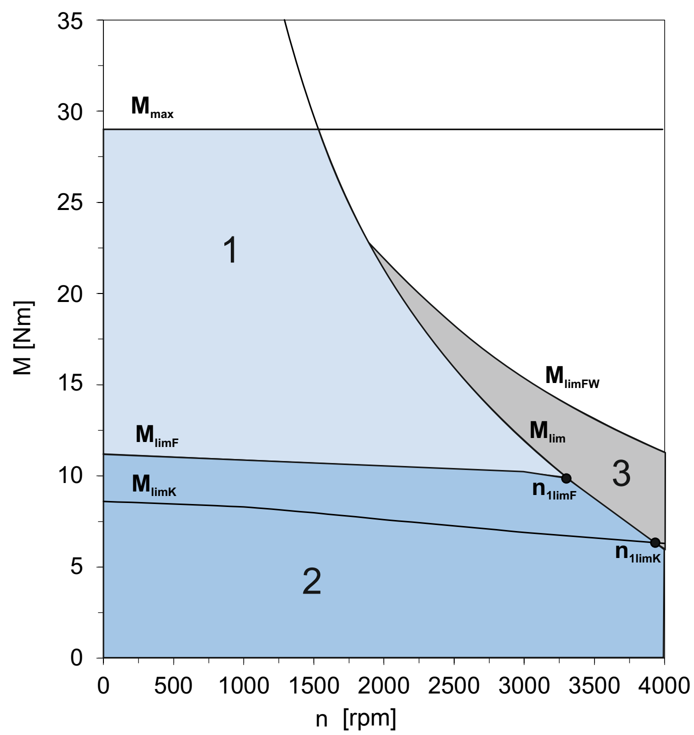
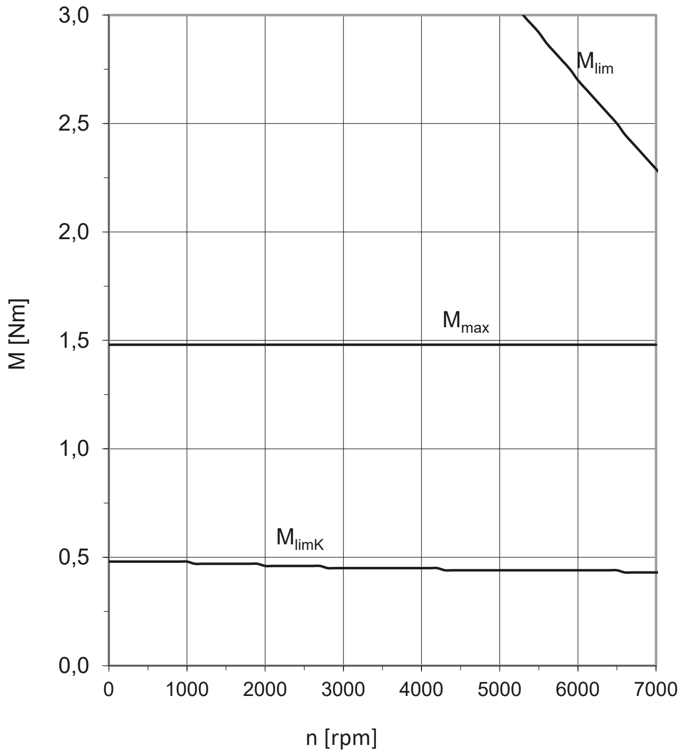


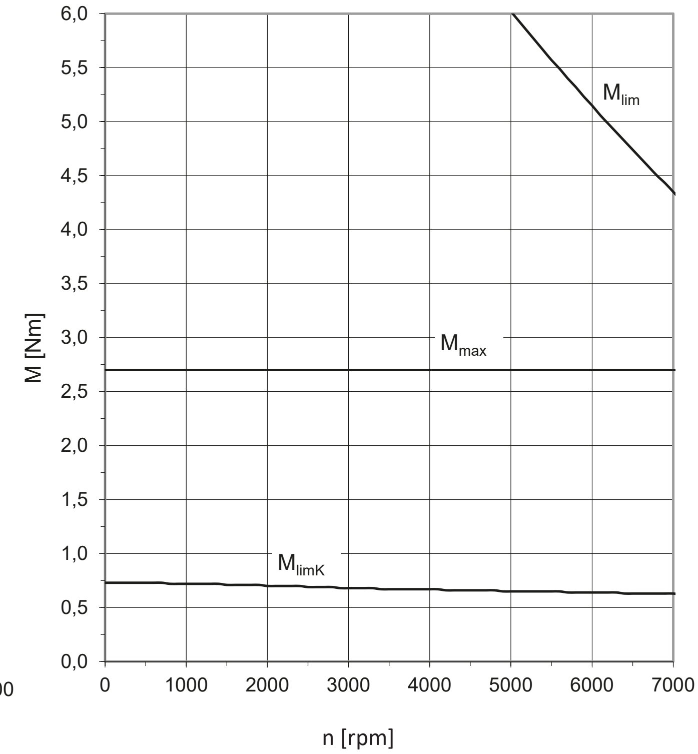

*Fig. 1:* Explanation of a torque/speed curve

| | | | |
|---|---|---|---|
| 1 | Torque range for brief operation ($ED_{10}$ < 100%) with Δϑ = 100 K | 2 | Torque range for continuous operation with constant load (S1 mode, $ED_{10}$ = 100%) with Δϑ = 100 K |
| 3 | Field weakening range (can be used only with operation on STOBER drive controllers) | | |

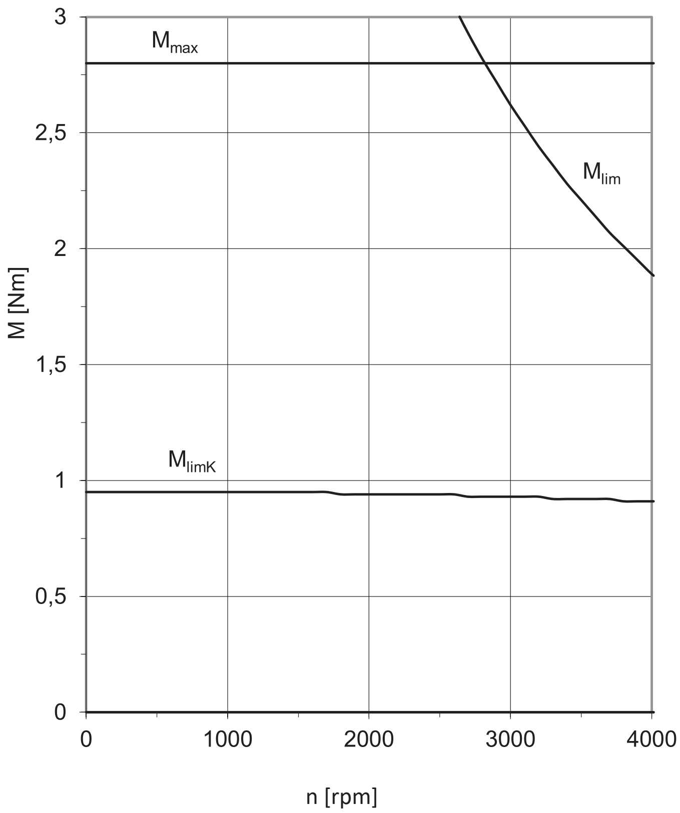
**EZ202** ($n_N$=6000 rpm)



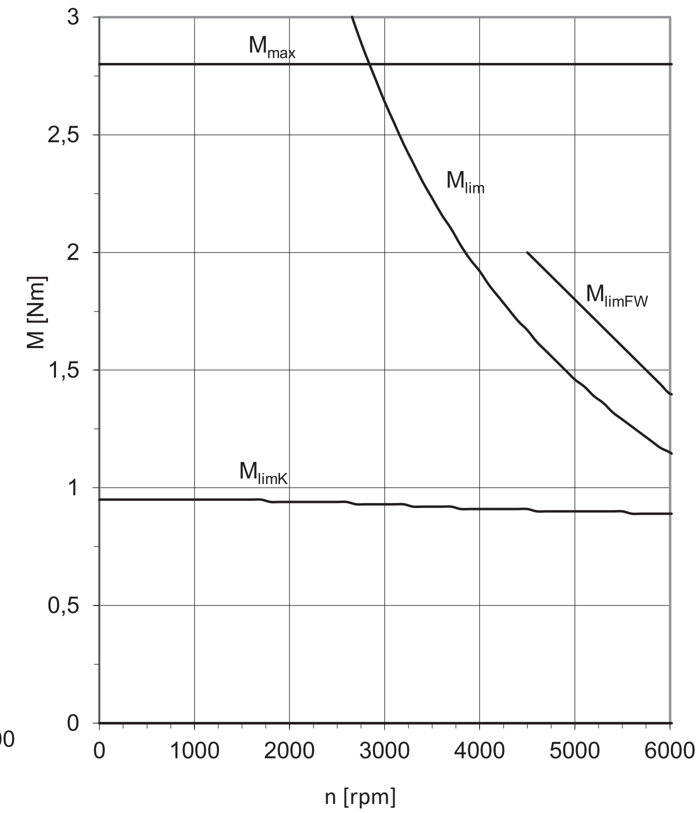

**EZ203** ($n_N$=6000 rpm)



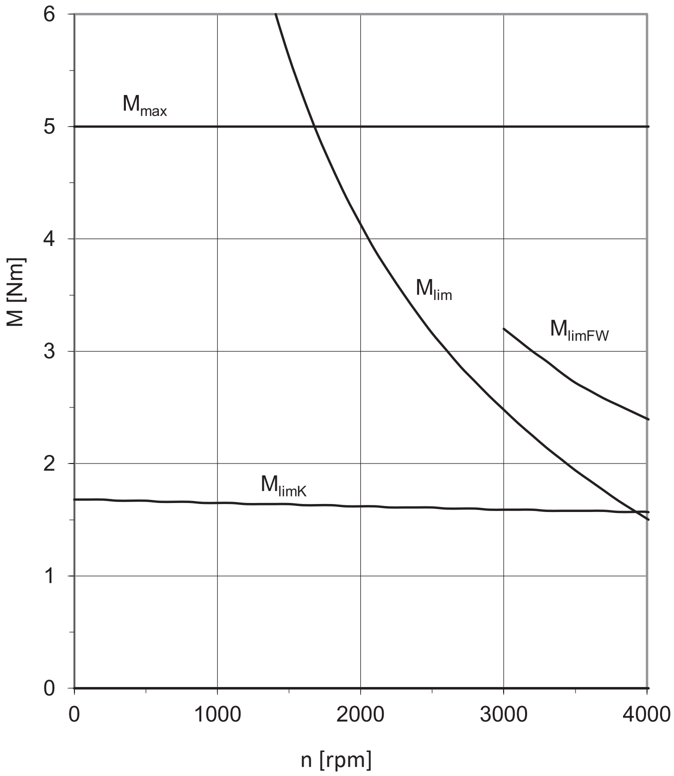

**EZ301** ($n_N$=3000 rpm)



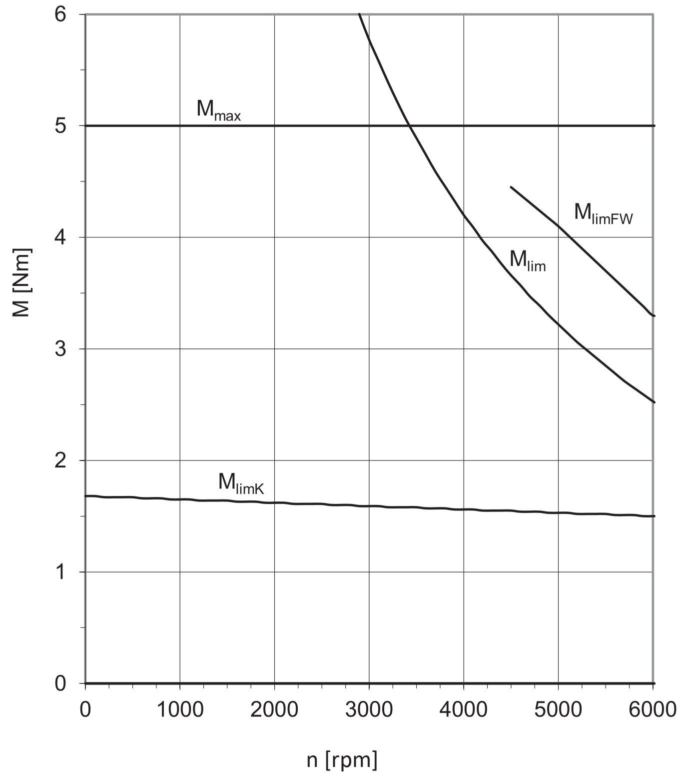

**EZ301** ($n_N$=6000 rpm)



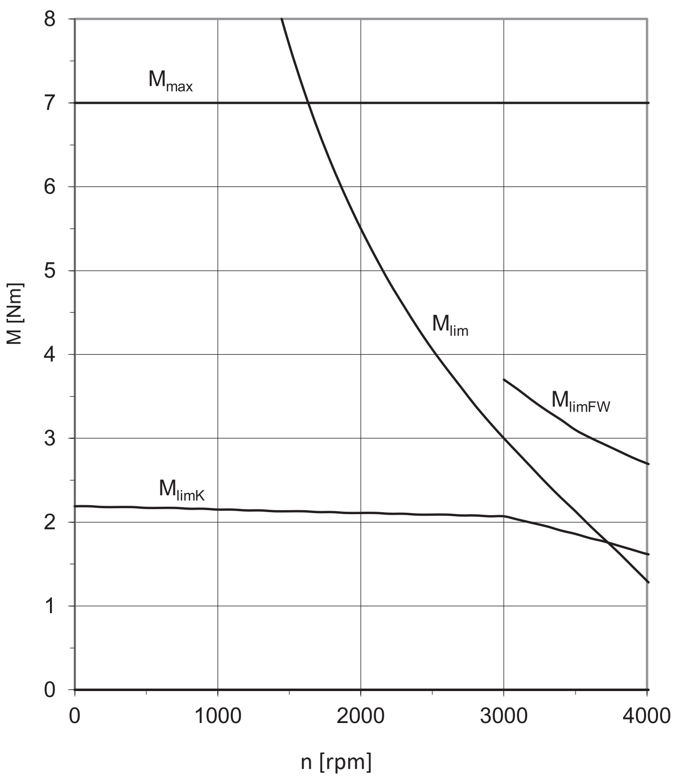
**EZ302** ($n_N$=3000 rpm)



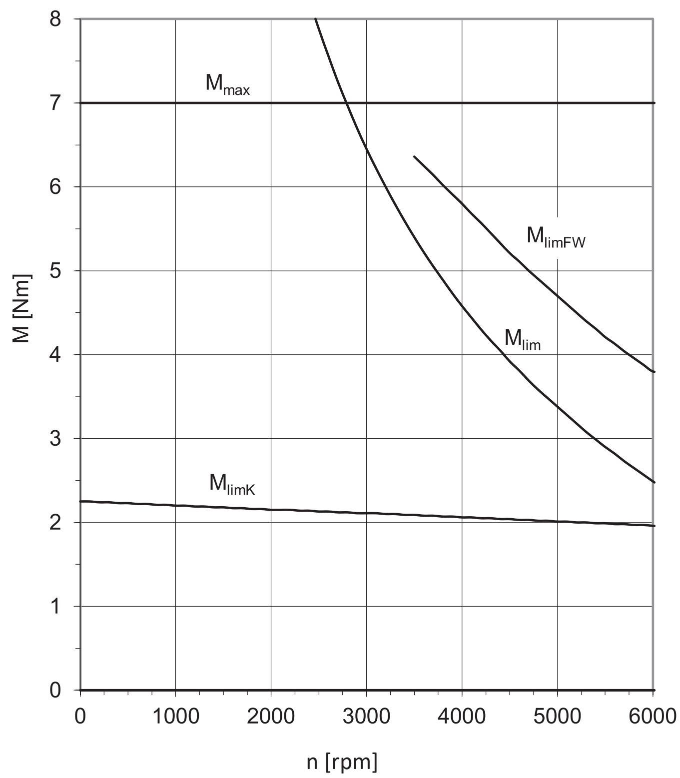

**EZ302** ($n_N$=6000 rpm)



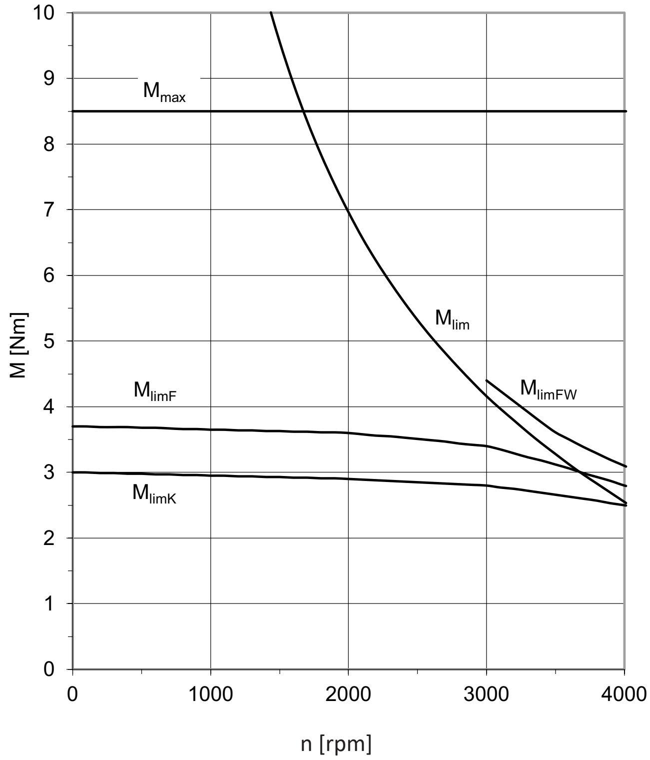

**EZ303** ($n_N$=3000 rpm)



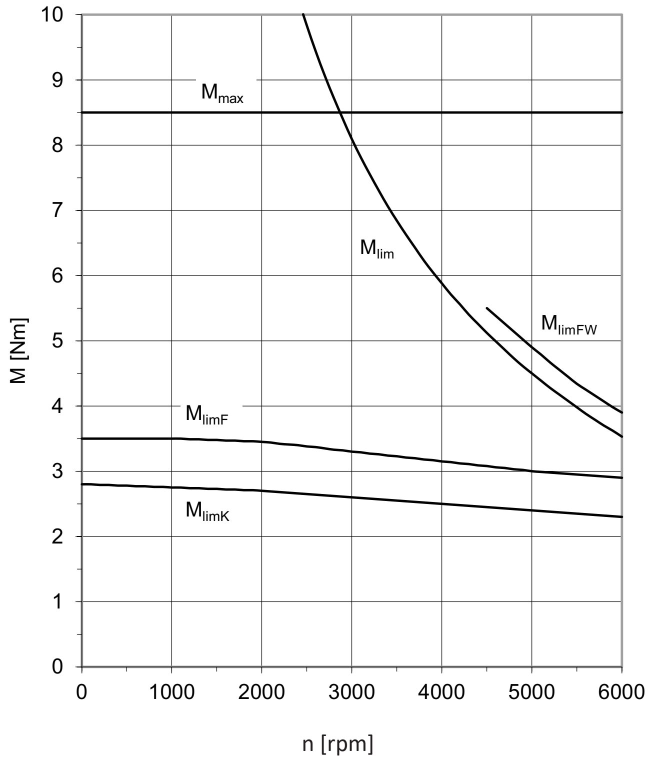

**EZ303** ($n_N$=6000 rpm)



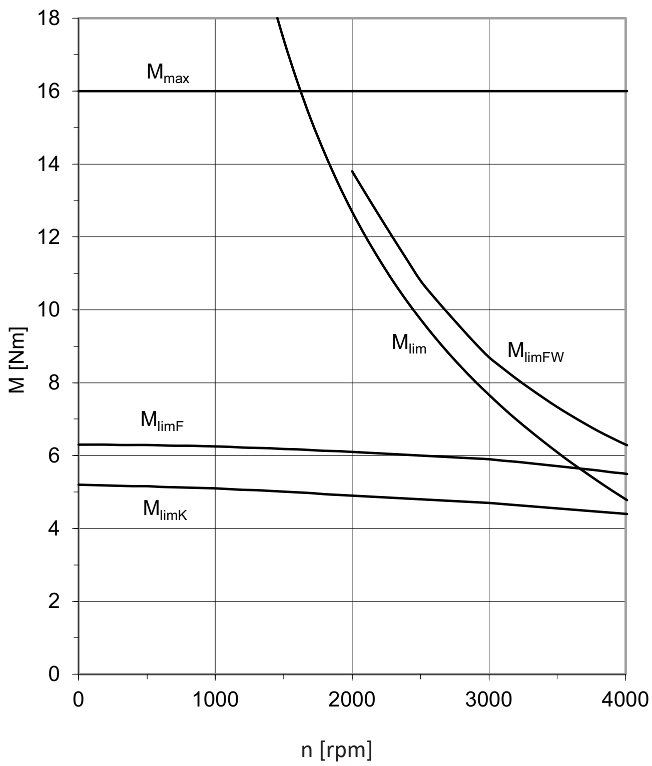
**EZ401** ($n_N$=3000 rpm)



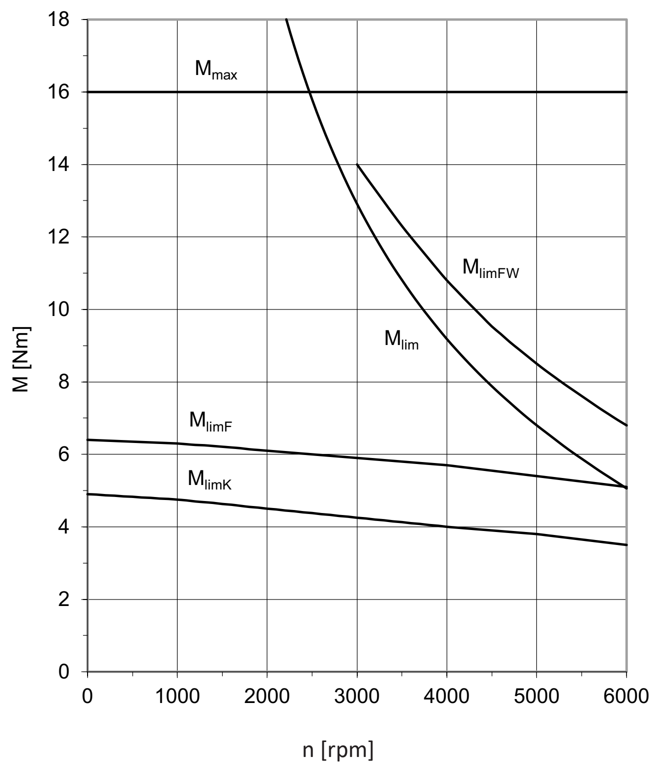

**EZ401** ($n_N$=6000 rpm)



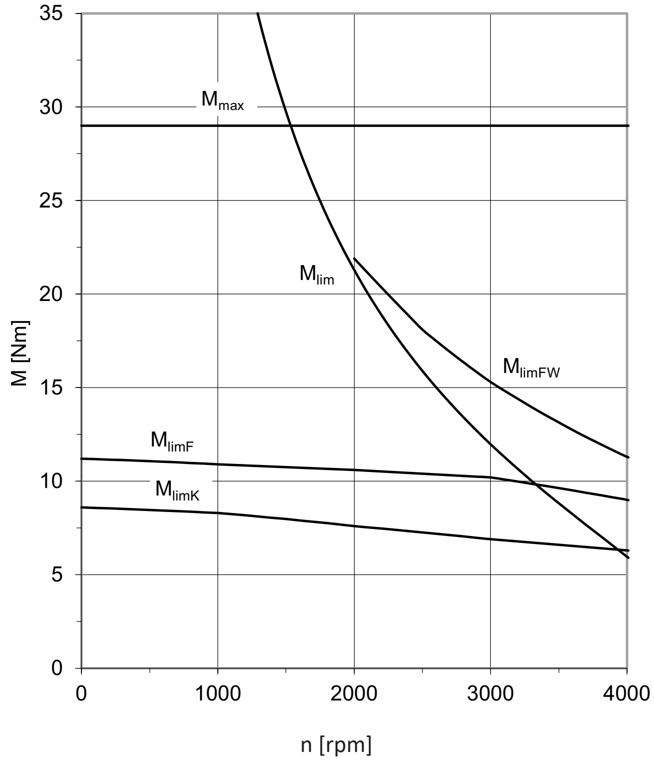

**EZ402** ($n_N$=3000 rpm)



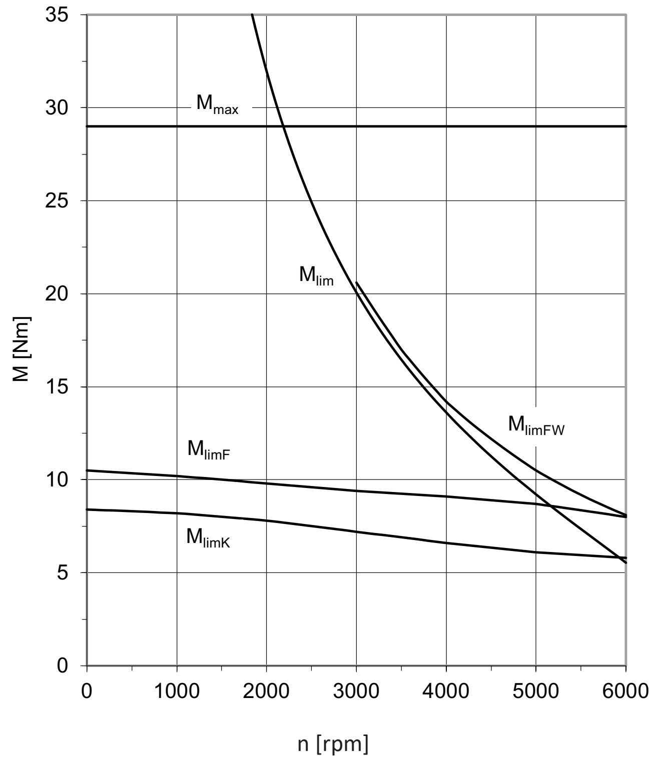

**EZ402** ($n_N$=6000 rpm)



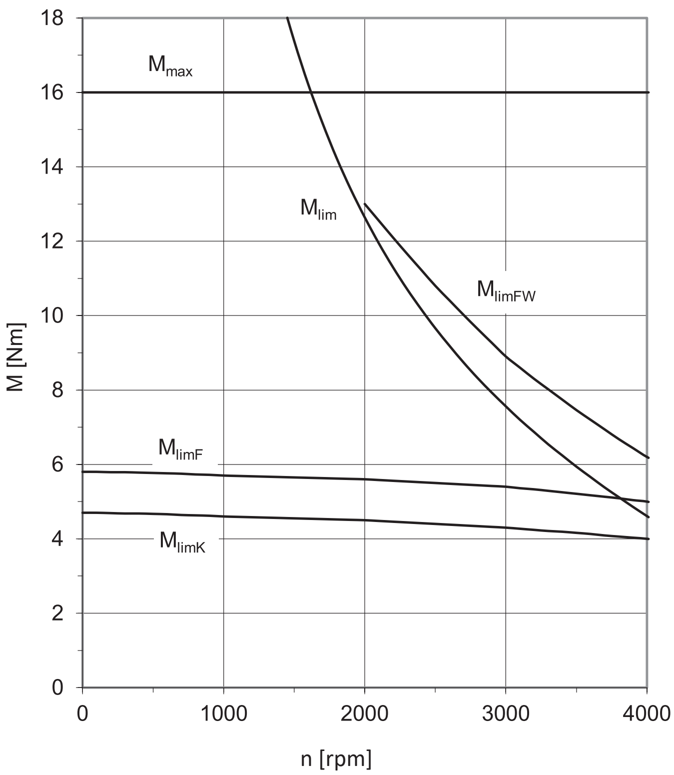
**EZ404** ($n_N$=3000 rpm)



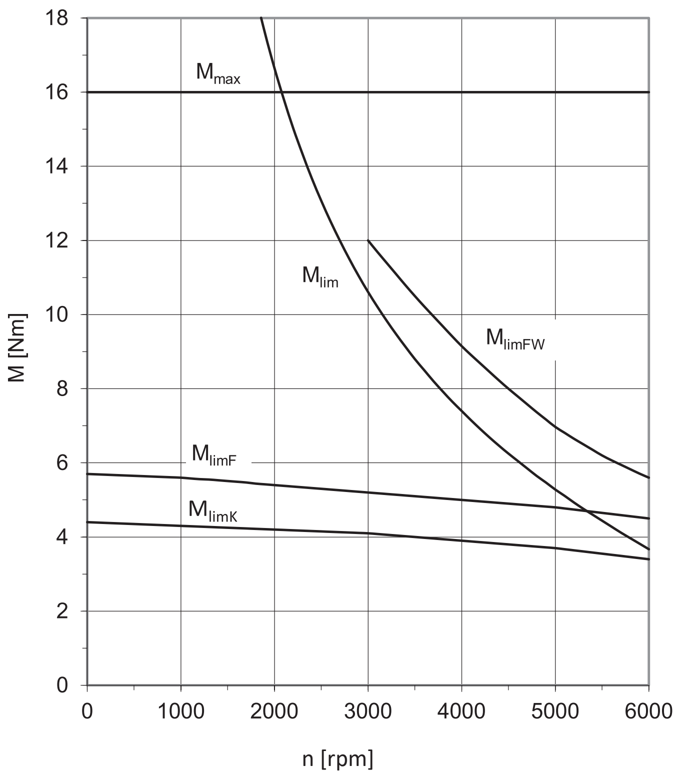

**EZ404** ($n_N$=6000 rpm)

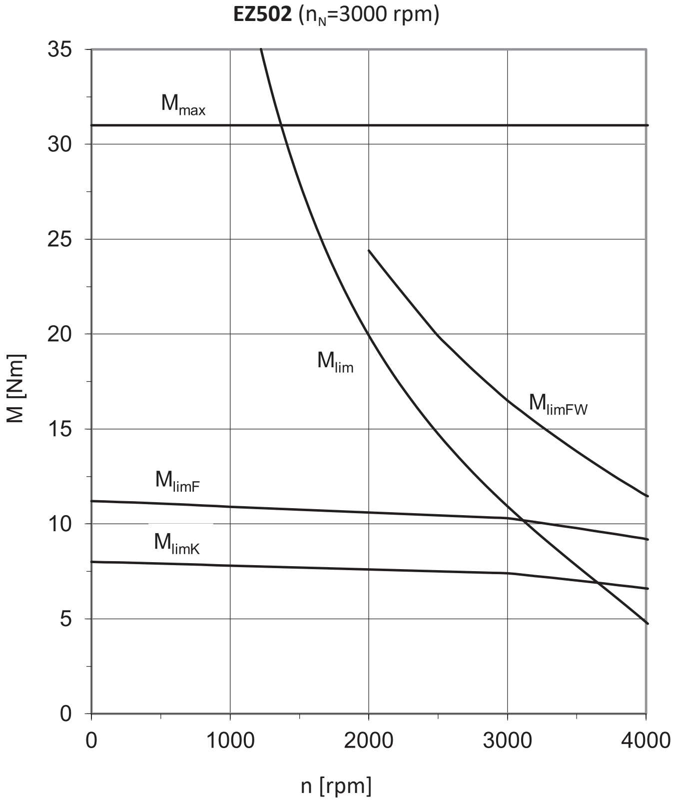


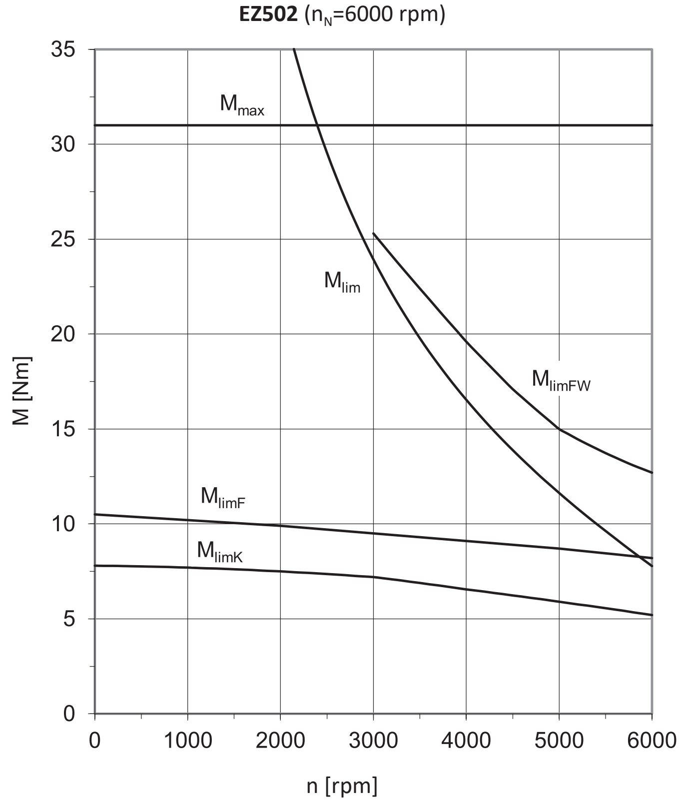

**EZ501** ($n_N$=3000 rpm)

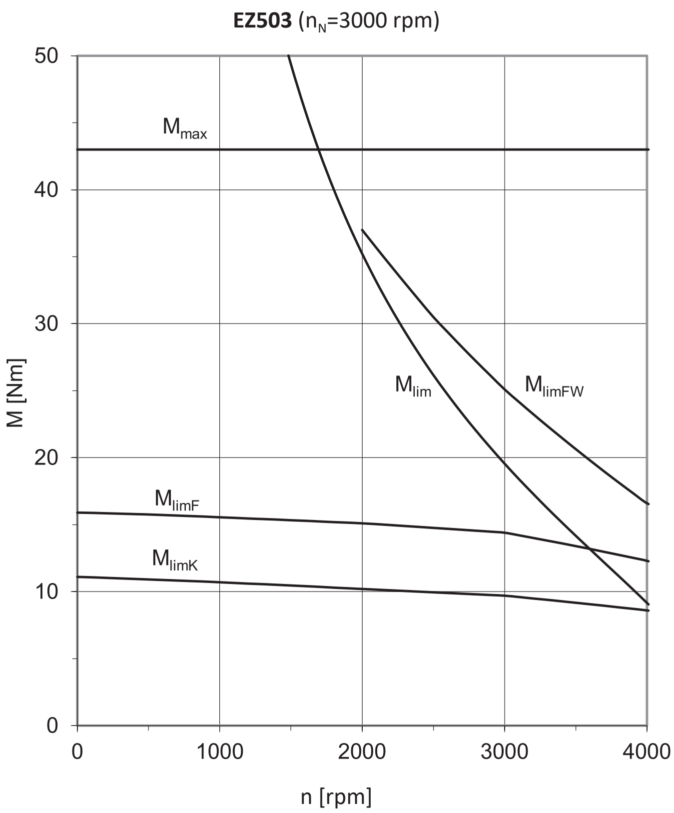


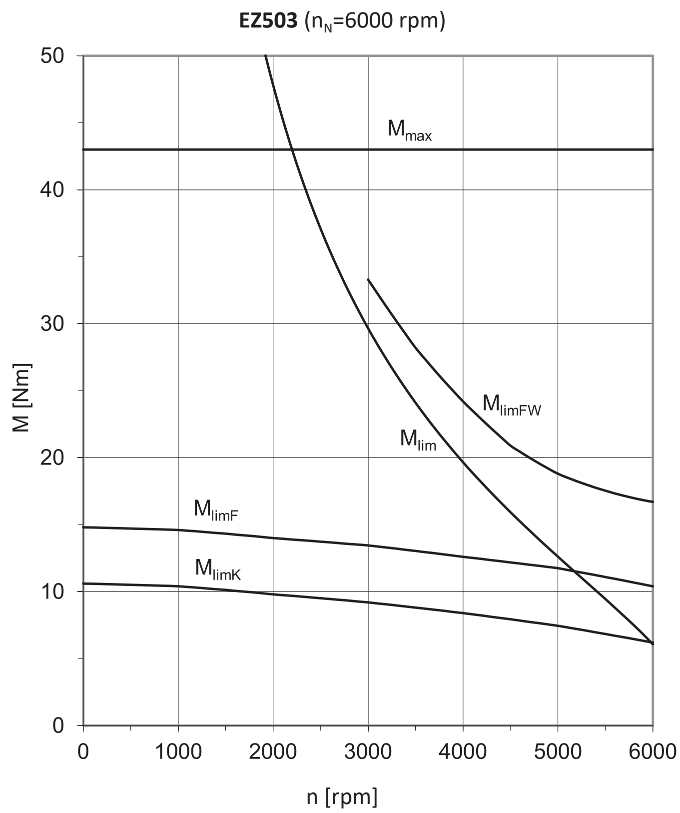

**EZ501** ($n_N$=6000 rpm)



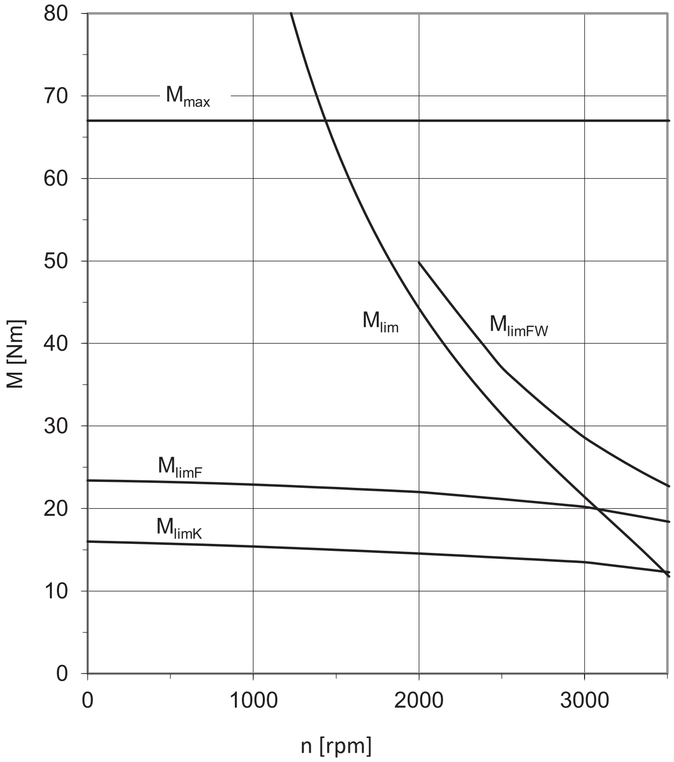

EZ502 (nN=3000 rpm)
Mmax
Mlim
MlimFW
MlimF
MlimK
M [Nm]
n [rpm]
0
5
10
15
20
25
30
35
0
1000
2000
3000
4000


EZ502 (nN=6000 rpm)
Mmax
Mlim
MlimFW
MlimF
MlimK
M [Nm]
n [rpm]
0
5
10
15
20
25
30
35
0
1000
2000
3000
4000
5000
6000

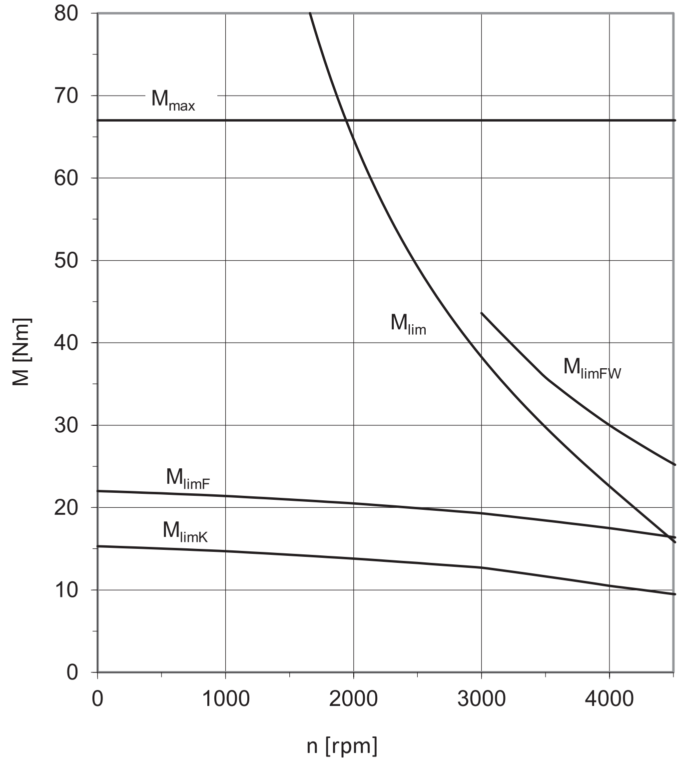

EZ503 (nN=3000 rpm)
Mmax
Mlim
MlimFW
MlimF
MlimK
M [Nm]
n [rpm]
0
10
20
30
40
50
0
1000
2000
3000
4000


EZ503 (nN=6000 rpm)
Mmax
MlimFW
Mlim
MlimF
MlimK
M [Nm]
n [rpm]
0
10
20
30
40
50
0
1000
2000
3000
4000
5000
6000

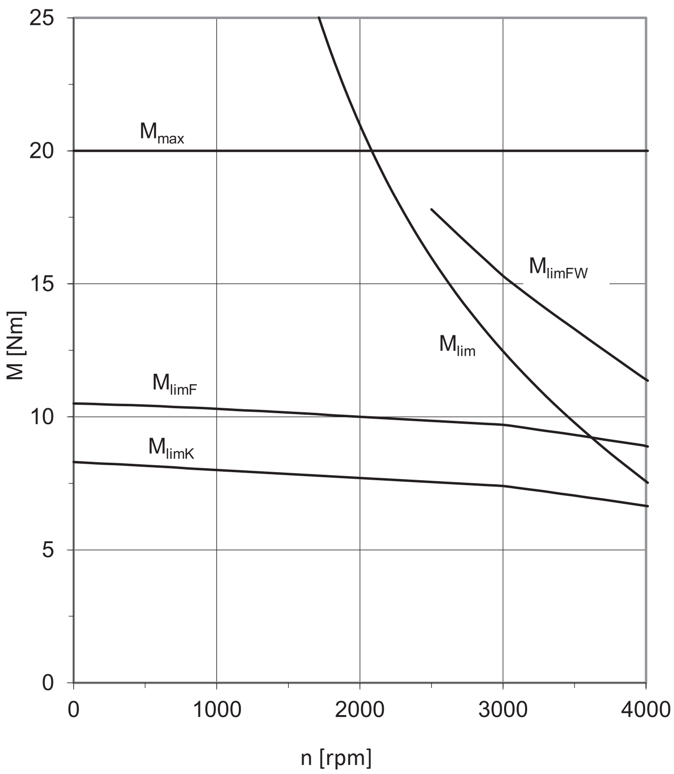
**EZ505** ($n_N$=3000 rpm)



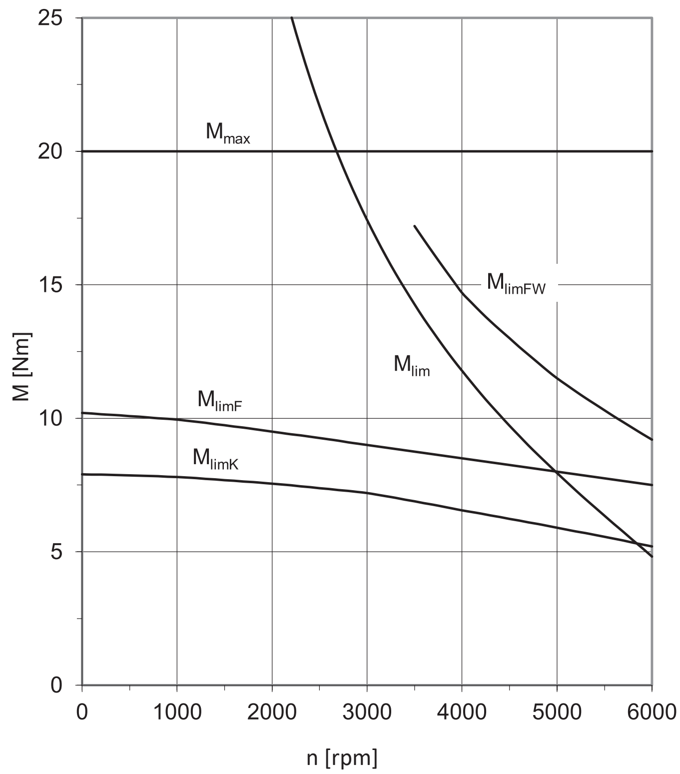

**EZ505** ($n_N$=4500 rpm)



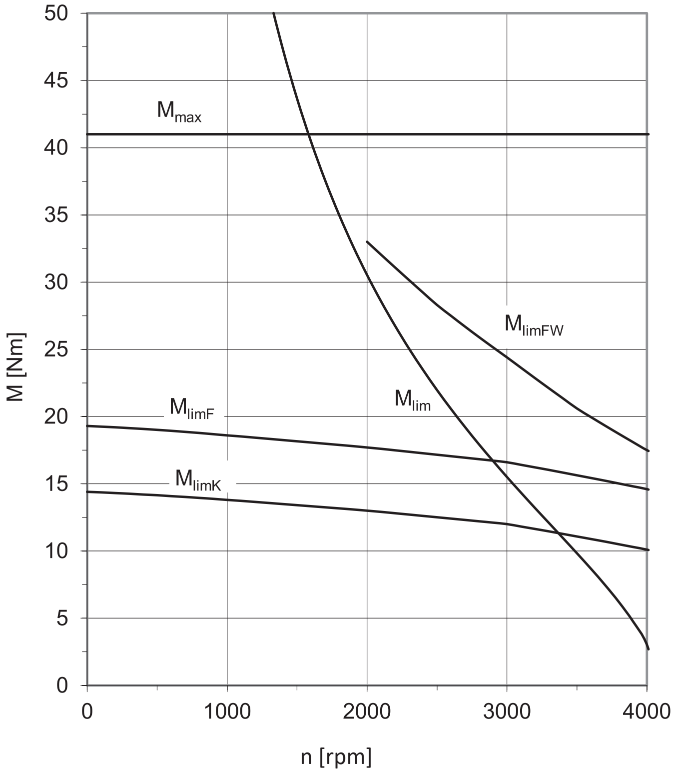

**EZ701** ($n_N$=3000 rpm)



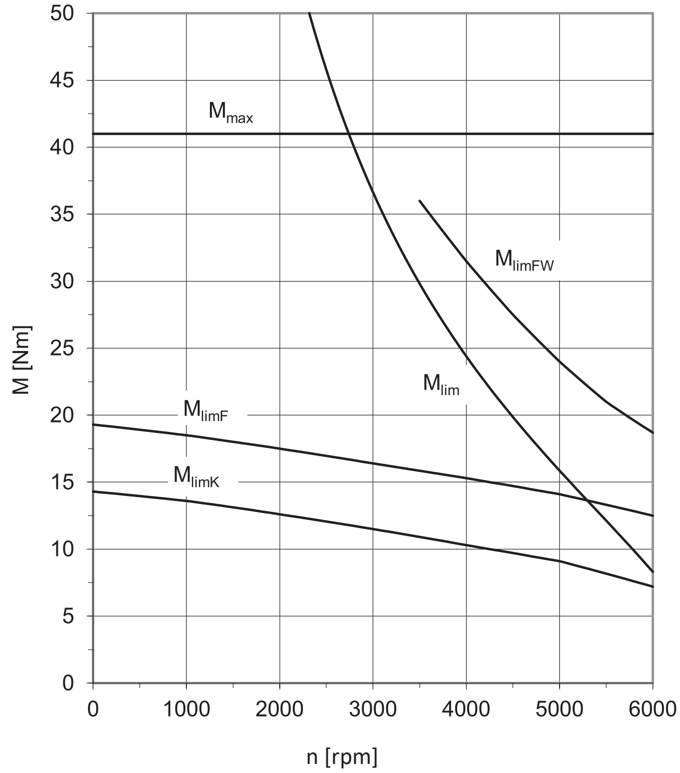

**EZ701** ($n_N$=6000 rpm)



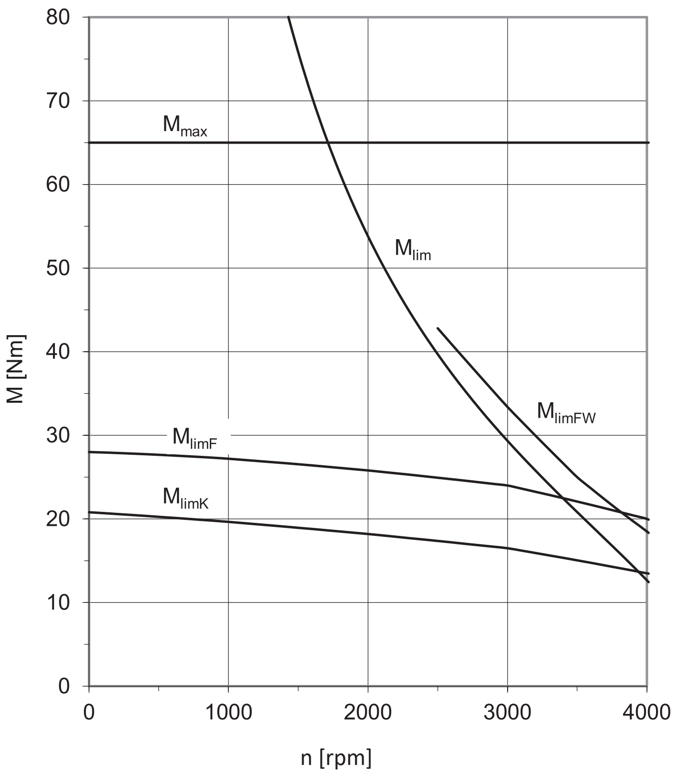
**EZ702** ($n_N$=3000 rpm)



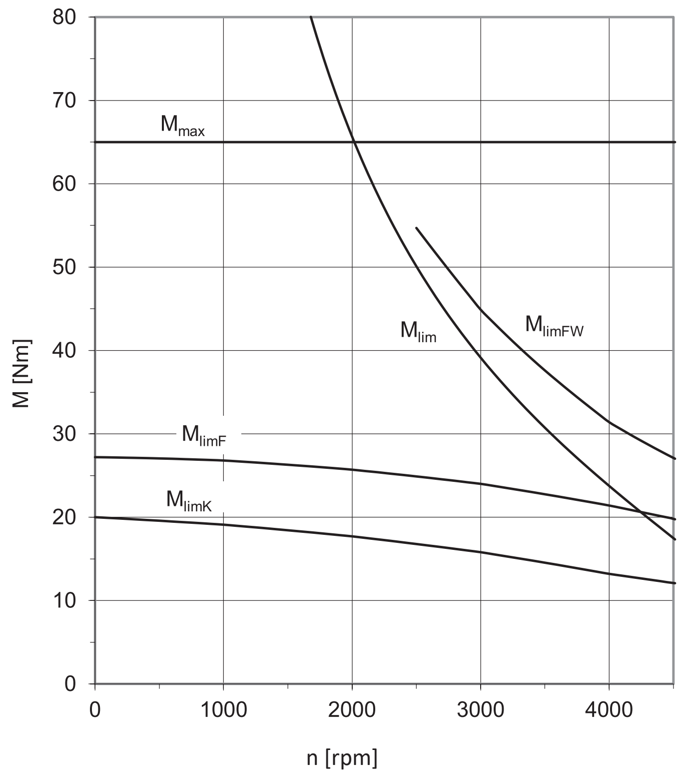

**EZ702** ($n_N$=6000 rpm)



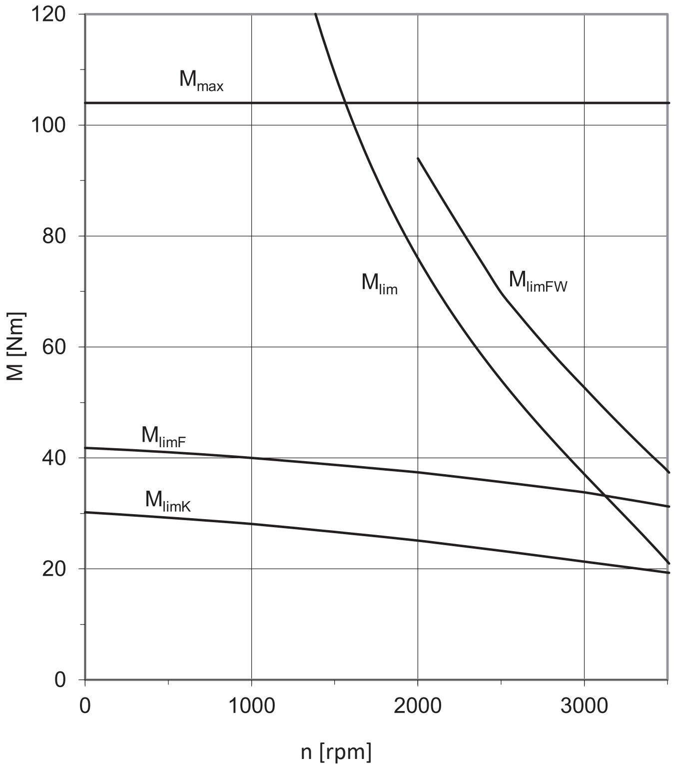

**EZ703** ($n_N$=3000 rpm)



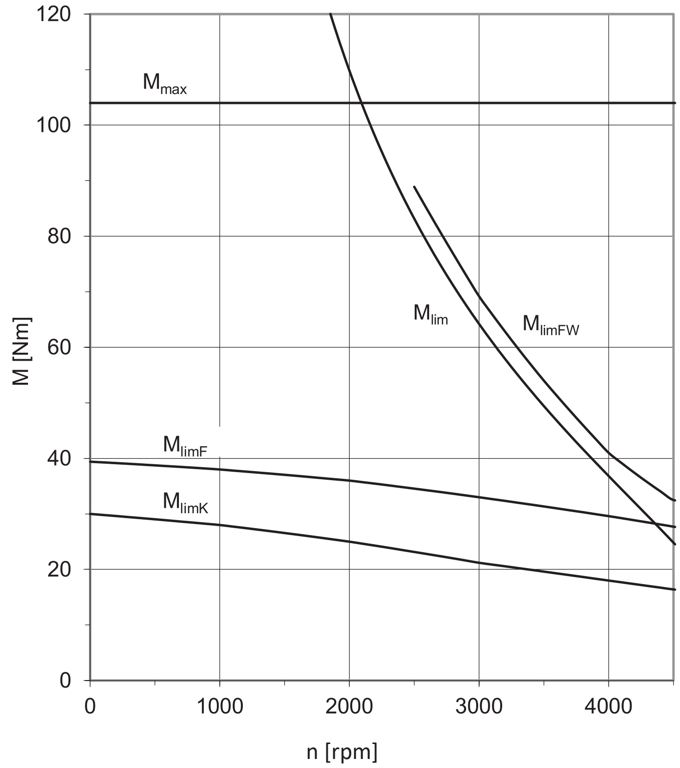

**EZ703** ($n_N$=4500 rpm)



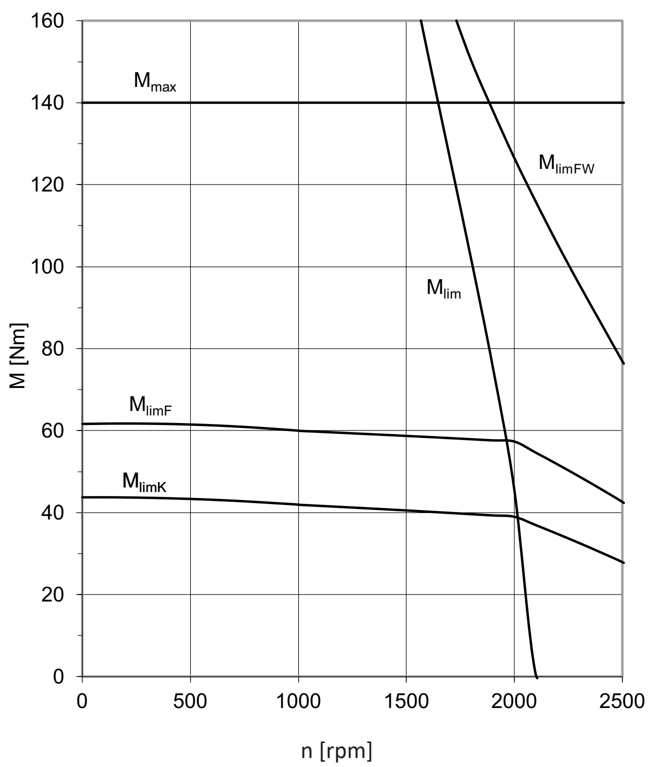
**EZ705** ($n_N$=3000 rpm)



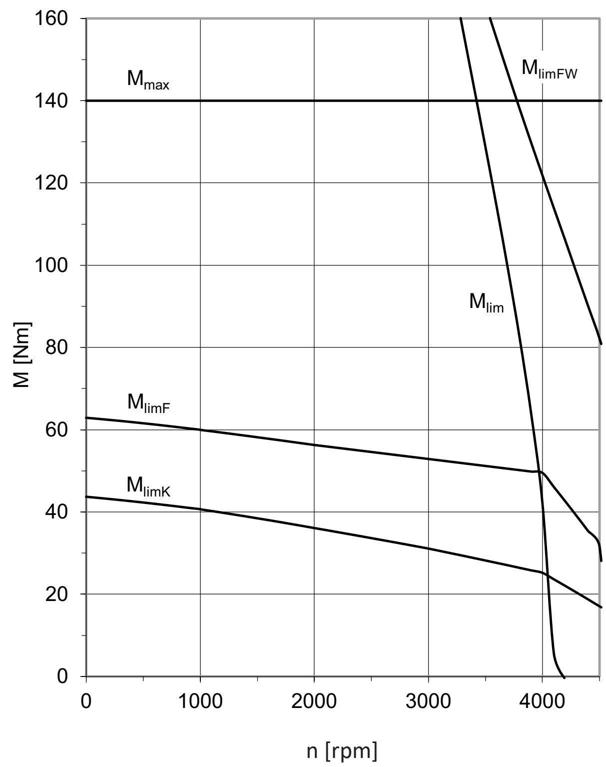

**EZ705** ($n_N$=4500 rpm)



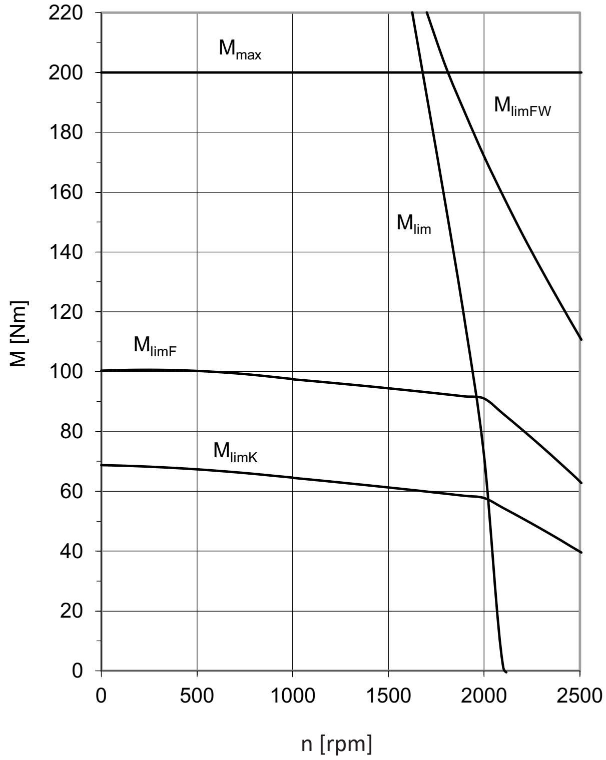

**EZ813** ($n_N$=2000 rpm)



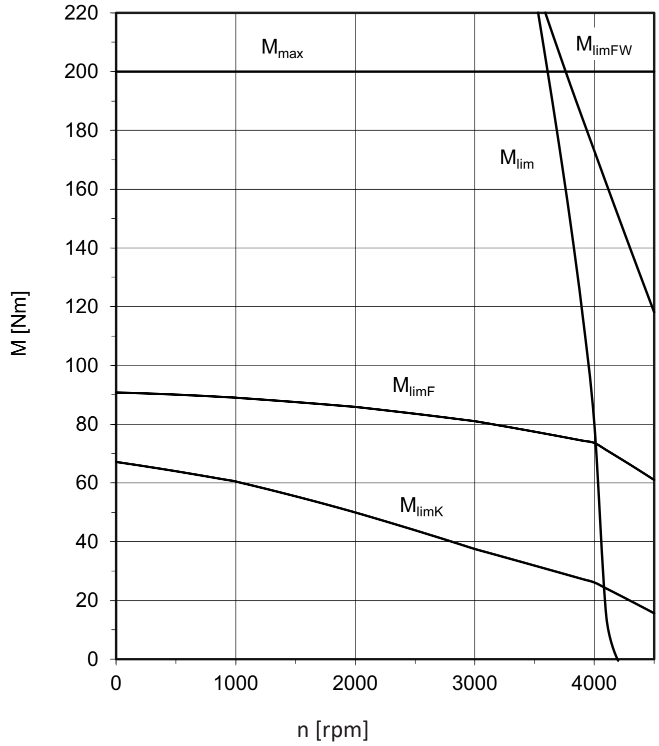

**EZ813** ($n_N$=4000 rpm)



**EZ815** ($n_N$=2000 rpm)




**EZ815** ($n_N$=4000 rpm)



# 17.4 Dimensional drawings

In this chapter, you can find the dimensions of the motors.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download 3D models of our standard drives at https://configurator.stoeber.de/en-US/.

In this chapter, the dimensions p1 and w1 for standard motor designs are presented. In designs for connection to drive controllers of third-party manufacturers, dimensions p1 and w1 may differ. You can find more details at https://configurator.stoeber.de/en-US/.

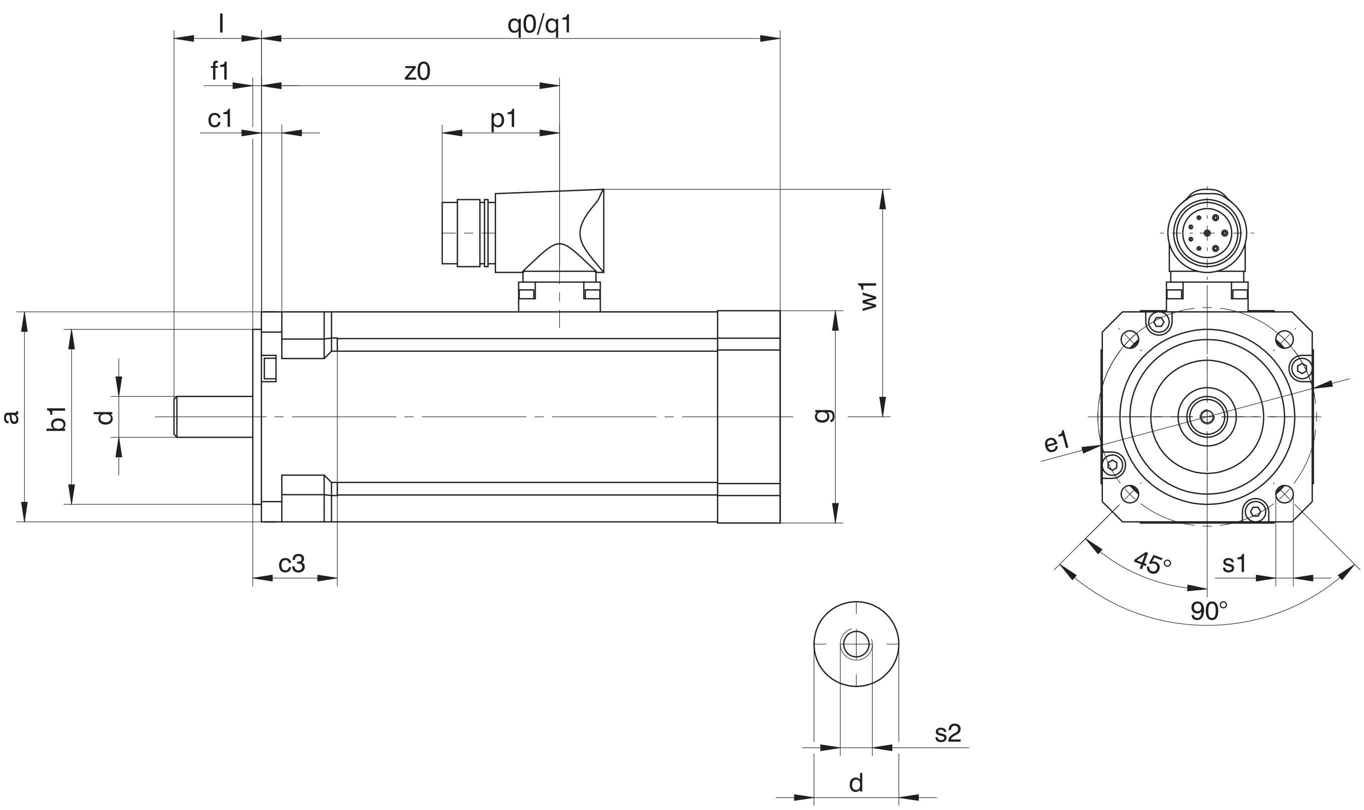
**Tolerances**

| Solid shaft | Tolerance |
|---|---|
| Shaft ∅ fit ≤ 50 mm | DIN 748-1, ISO k6 |
| Shaft ∅ fit > 50 mm | DIN 748-1, ISO m6 |

**Centering holes in solid shafts in accordance with DIN 332-2, DR shape**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Thread size** | M4 | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
| **Thread depth [mm]** | 10 | 12.5 | 16 | 19 | 22 | 28 | 36 | 42 | 50 |

## 17.4.1 EZ2 – EZ3 motors with convection cooling (One Cable Solution)

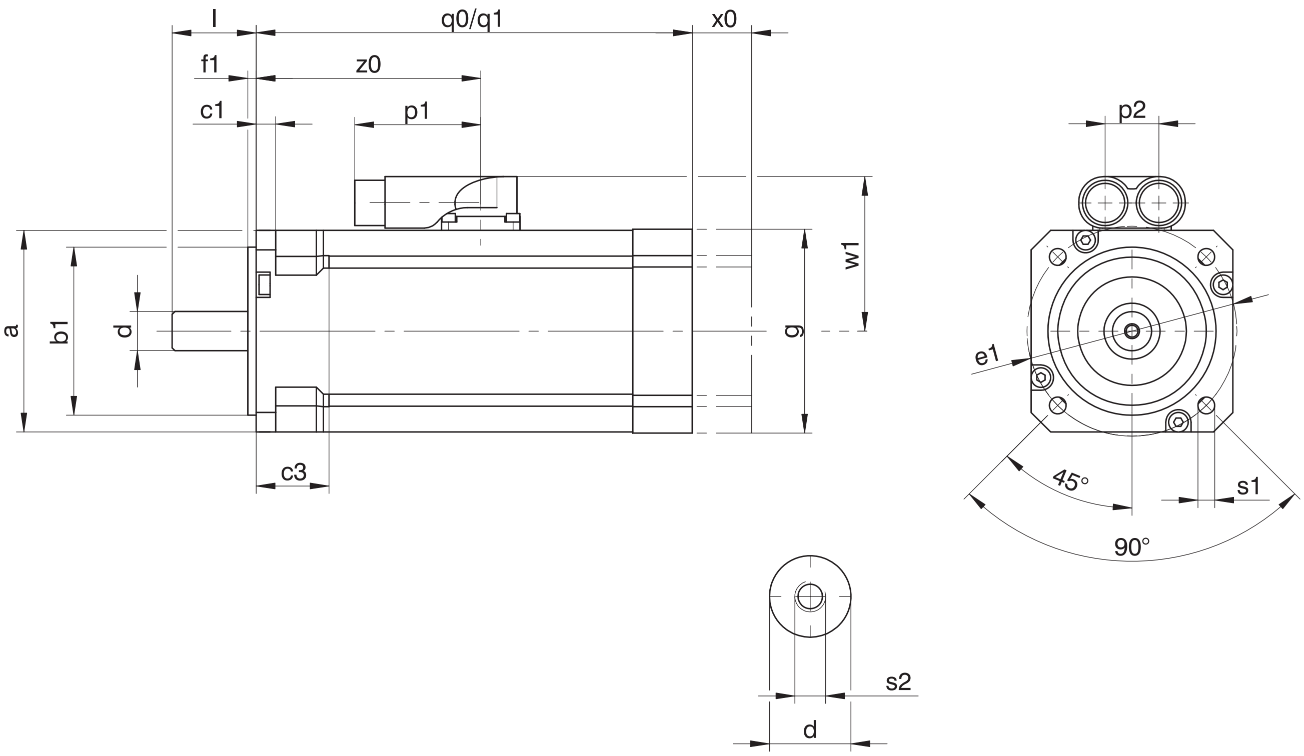



q0 Applies to motors without holding brake

q1 Applies to motors with holding brake

| Type | □a | ∅b1 | c1 | c3 | ∅d | ∅e1 | f1 | □g | l | p1 | q0 | q1 | ∅s1 | s2 | w1 | z0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ202U | 55 | $40_{j6}$ | 7 | 7 | $9_{k6}$ | 63 | 3.5 | 55 | 20 | 40 | 148 | 182 | 5.8 | M4 | 69.5 | 93.0 |
| EZ203U | 55 | $40_{j6}$ | 7 | 7 | $9_{k6}$ | 63 | 3.5 | 55 | 20 | 40 | 166 | 200 | 5.8 | M4 | 69.5 | 111.0 |
| EZ301U | 72 | $60_{j6}$ | 7 | 26 | $14_{k6}$ | 75 | 3.0 | 72 | 30 | 40 | 116 | 156 | 6.0 | M5 | 78.0 | 80.5 |
| EZ302U | 72 | $60_{j6}$ | 7 | 26 | $14_{k6}$ | 75 | 3.0 | 72 | 30 | 40 | 138 | 178 | 6.0 | M5 | 78.0 | 102.5 |
| EZ303U | 72 | $60_{j6}$ | 7 | 26 | $14_{k6}$ | 75 | 3.0 | 72 | 30 | 40 | 160 | 200 | 6.0 | M5 | 78.0 | 124.5 |

## 17.4.2 EZ2 – EZ3 motors with convection cooling



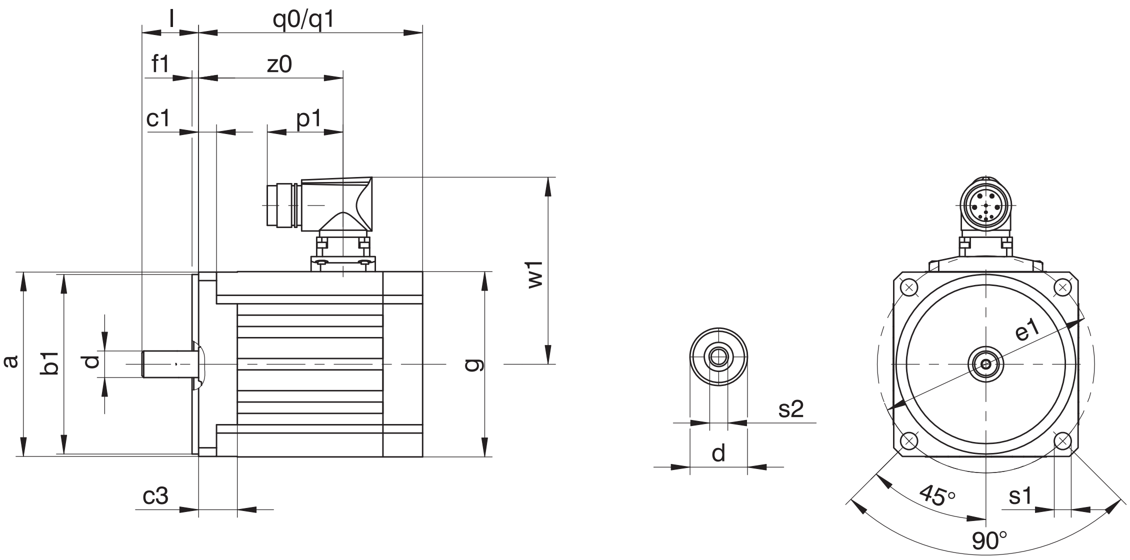

q0 Applies to motors without holding brake

q1 Applies to motors with holding brake

x0 EZ2: Applies only to motors with holding brake and encoders using an optical or inductive measuring method
EZ3: Applies to encoders using an optical measuring method

| Type | □a | ∅b1 | c1 | c3 | ∅d | ∅e1 | f1 | □g | l | p1 | p2 | q0 | q1 | ∅s1 | s2 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ202U | 55 | $40_{j6}$ | 7 | 7 | $9_{k6}$ | 63 | 3.5 | 55 | 20 | 45 | 19 | 148 | 157 | 5.8 | M4 | 47.0 | 25 | 93.0 |
| EZ203U | 55 | $40_{j6}$ | 7 | 7 | $9_{k6}$ | 63 | 3.5 | 55 | 20 | 45 | 19 | 166 | 175 | 5.8 | M4 | 47.0 | 25 | 111.0 |
| EZ301U | 72 | $60_{j6}$ | 7 | 26 | $14_{k6}$ | 75 | 3.0 | 72 | 30 | 45 | 19 | 116 | 156 | 6.0 | M5 | 55.5 | 21 | 80.5 |
| EZ302U | 72 | $60_{j6}$ | 7 | 26 | $14_{k6}$ | 75 | 3.0 | 72 | 30 | 45 | 19 | 138 | 178 | 6.0 | M5 | 55.5 | 21 | 102.5 |
| EZ303U | 72 | $60_{j6}$ | 7 | 26 | $14_{k6}$ | 75 | 3.0 | 72 | 30 | 45 | 19 | 160 | 200 | 6.0 | M5 | 55.5 | 21 | 124.5 |

## 17.4.3 EZ4 – EZ7 motors with convection cooling (One Cable Solution)

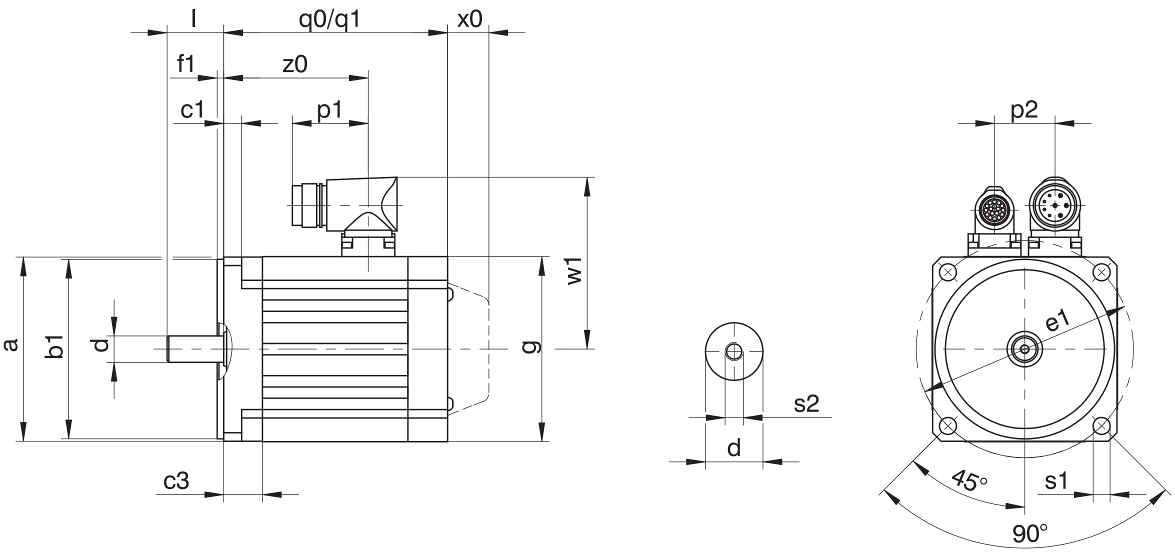



q0 Applies to motors without holding brake

q1 Applies to motors with holding brake

| Type | □a | ∅b1 | c1 | c3 | ∅d | ∅e1 | f1 | □g | l | p1 | q0 | q1 | ∅s1 | s2 | w1 | z0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ401U | 98 | $95_{j6}$ | 9.5 | 20.5 | $14_{k6}$ | 115 | 3.5 | 98 | 30 | 40 | 118.5 | 167.0 | 9 | M5 | 99 | 76.5 |
| EZ402U | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 98 | 40 | 40 | 143.5 | 192.0 | 9 | M6 | 99 | 101.5 |
| EZ404U | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 98 | 40 | 40 | 193.5 | 242.0 | 9 | M6 | 99 | 151.5 |
| EZ501U | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 115 | 40 | 40 | 109.0 | 163.5 | 9 | M6 | 110 | 74.5 |
| EZ502U | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 115 | 40 | 40 | 134.0 | 188.5 | 9 | M6 | 110 | 99.5 |
| EZ503U | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 115 | 50 | 40 | 159.0 | 213.5 | 9 | M8 | 110 | 124.5 |
| EZ505U | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 115 | 50 | 40 | 209.0 | 263.5 | 9 | M8 | 110 | 174.5 |
| EZ701U | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 145 | 50 | 40 | 121.0 | 180.0 | 11 | M8 | 125 | 83.0 |
| EZ702U | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 145 | 50 | 40 | 146.0 | 205.0 | 11 | M8 | 125 | 108.0 |
| EZ703U | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 145 | 50 | 40 | 171.0 | 230.0 | 11 | M8 | 125 | 133.0 |
| EZ705U | 145 | $130_{j6}$ | 10.0 | 19.0 | $32_{k6}$ | 165 | 3.5 | 145 | 58 | 40 | 226.0 | 285.0 | 11 | M12 | 125 | 184.0 |

### 17.4.4 EZ4 – EZ8 motors with convection cooling



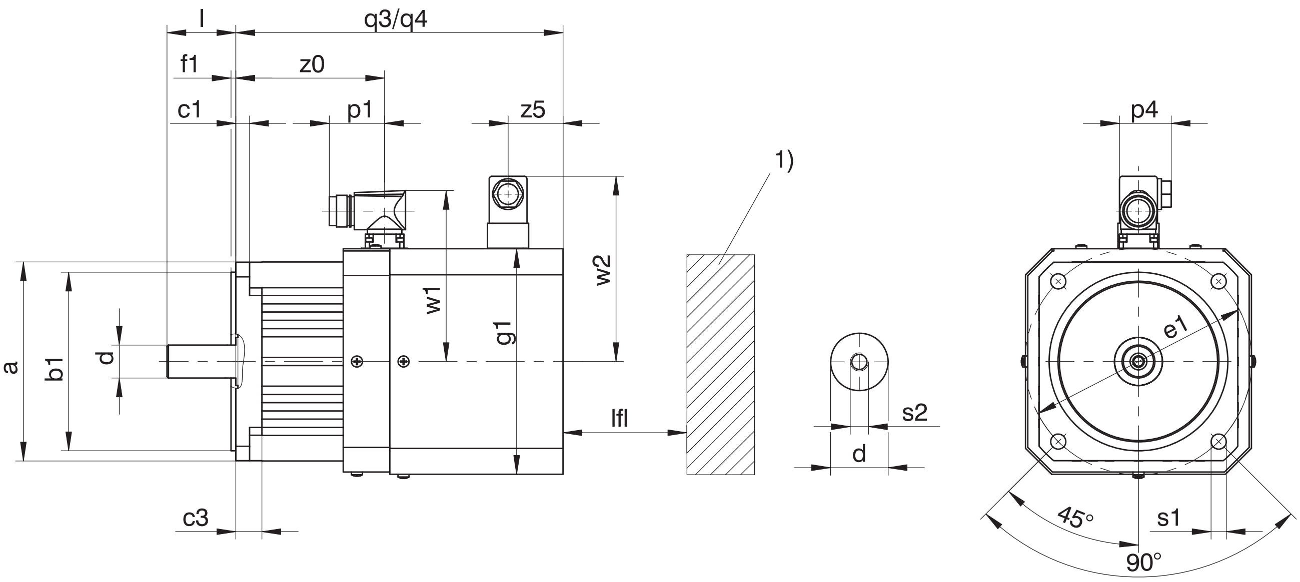

q0 Applies to motors without holding brake

q1 Applies to motors with holding brake

x0 Applies to encoders based on an optical measuring method

| Type | □a | ⌀b1 | c1 | c3 | ⌀d | ⌀e1 | f1 | □g | l | p1 | p2 | q0 | q1 | ⌀s1 | s2 | w1 | x0 | z0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ401U | 98 | $95_{j6}$ | 9.5 | 20.5 | $14_{k6}$ | 115 | 3.5 | 98 | 30 | 40 | 32 | 118.5 | 167.0 | 9.0 | M5 | 91.0 | 22 | 76.5 |
| EZ402U | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 98 | 40 | 40 | 32 | 143.5 | 192.0 | 9.0 | M6 | 91.0 | 22 | 101.5 |
| EZ404U | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 98 | 40 | 40 | 32 | 193.5 | 242.0 | 9.0 | M6 | 91.0 | 22 | 151.5 |
| EZ501U | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 115 | 40 | 40 | 36 | 109.0 | 163.5 | 9.0 | M6 | 100.0 | 22 | 74.5 |
| EZ502U | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 115 | 40 | 40 | 36 | 134.0 | 188.5 | 9.0 | M6 | 100.0 | 22 | 99.5 |
| EZ503U | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 115 | 50 | 40 | 36 | 159.0 | 213.5 | 9.0 | M8 | 100.0 | 22 | 124.5 |
| EZ505U | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 115 | 50 | 40 | 36 | 209.0 | 263.5 | 9.0 | M8 | 100.0 | 22 | 174.5 |
| EZ701U | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 145 | 50 | 40 | 42 | 121.0 | 180.0 | 11.0 | M8 | 115.0 | 22 | 83.0 |
| EZ702U | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 145 | 50 | 40 | 42 | 146.0 | 205.0 | 11.0 | M8 | 115.0 | 22 | 108.0 |
| EZ703U | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 145 | 50 | 40 | 42 | 171.0 | 230.0 | 11.0 | M8 | 115.0 | 22 | 133.0 |
| EZ705U | 145 | $130_{j6}$ | 10.0 | 19.0 | $32_{k6}$ | 165 | 3.5 | 145 | 58 | 71 | 42 | 226.0 | 285.0 | 11.0 | M12 | 134.0 | 22 | 184.0 |
| EZ813U | 190 | $180_{j6}$ | 15.0 | 25.0 | $38_{k6}$ | 215 | 3.5 | 190 | 80 | 71 | 60 | 263.0 | 340.0 | 13.5 | M12 | 156.5 | 22 | 209.0 |
| EZ815U | 190 | $180_{j6}$ | 15.0 | 25.0 | $38_{k6}$ | 215 | 3.5 | 190 | 80 | 71 | 60 | 345.0 | 422.0 | 13.5 | M12 | 156.5 | 22 | 291.0 |

## 17.4.5 EZ4 – EZ7 motors with forced ventilation (One Cable Solution)



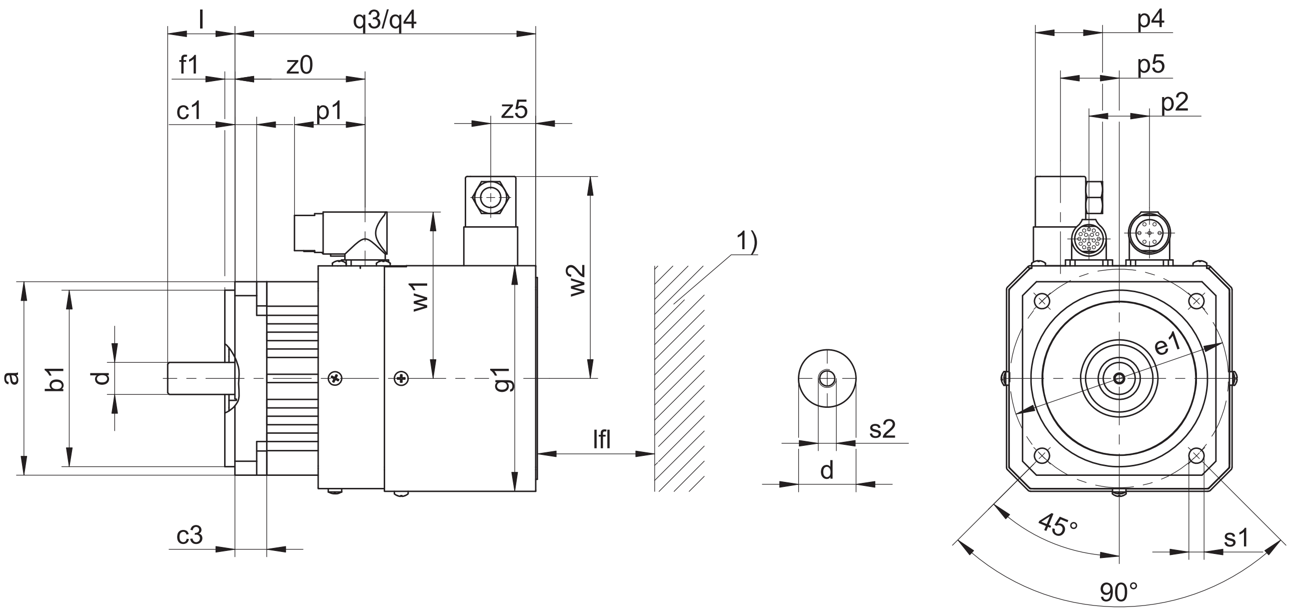

q3 Applies to motors without holding brake

q4 Applies to motors with holding brake

1) Machine wall

| Type | □a | ∅b1 | c1 | c3 | ∅d | ∅e1 | f1 | □g1 | l | $lfl_{min}$ | p1 | p4 | q3 | q4 | ∅s1 | s2 | w1 | w2 | z0 | z5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ401B | 98 | $95_{j6}$ | 9.5 | 20.5 | $14_{k6}$ | 115 | 3.5 | 118 | 30 | 20 | 40 | 37.5 | 175 | 224 | 9.0 | M5 | 99 | 111 | 76.5 | 25 |
| EZ402B | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 118 | 40 | 20 | 40 | 37.5 | 200 | 249 | 9.0 | M6 | 99 | 111 | 101.5 | 25 |
| EZ404B | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 118 | 40 | 20 | 40 | 37.5 | 250 | 299 | 9.0 | M6 | 99 | 111 | 151.5 | 25 |
| EZ501B | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 135 | 40 | 20 | 40 | 37.5 | 179 | 234 | 9.0 | M6 | 110 | 120 | 74.5 | 25 |
| EZ502B | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 135 | 40 | 20 | 40 | 37.5 | 204 | 259 | 9.0 | M6 | 110 | 120 | 99.5 | 25 |
| EZ503B | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 135 | 50 | 20 | 40 | 37.5 | 229 | 284 | 9.0 | M8 | 110 | 120 | 124.5 | 25 |
| EZ505B | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 135 | 50 | 20 | 40 | 37.5 | 279 | 334 | 9.0 | M8 | 110 | 120 | 174.5 | 25 |
| EZ701B | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 165 | 50 | 30 | 40 | 37.5 | 213 | 272 | 11.0 | M8 | 125 | 134 | 83.0 | 40 |
| EZ702B | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 165 | 50 | 30 | 40 | 37.5 | 238 | 297 | 11.0 | M8 | 125 | 134 | 108.0 | 40 |
| EZ703B | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 165 | 50 | 30 | 40 | 37.5 | 263 | 322 | 11.0 | M8 | 125 | 134 | 133.0 | 40 |

## 17.4.6 EZ4 – EZ8 motors with forced ventilation




q3 Applies to motors without holding brake

q4 Applies to motors with holding brake

1) Machine wall

| Type | □a | ∅b1 | c1 | c3 | ∅d | ∅e1 | f1 | □g1 | l | $lfl_{min}$ | p1 | p2 | p4 | p5 | q3 | q4 | ∅s1 | s2 | w1 | w2 | z0 | z5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ401B | 98 | $95_{j6}$ | 9.5 | 20.5 | $14_{k6}$ | 115 | 3.5 | 118 | 30 | 20 | 40 | 32 | 37.5 | 0 | 175 | 224 | 9.0 | M5 | 91.0 | 111 | 76.5 | 25 |
| EZ402B | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 118 | 40 | 20 | 40 | 32 | 37.5 | 0 | 200 | 249 | 9.0 | M6 | 91.0 | 111 | 101.5 | 25 |
| EZ404B | 98 | $95_{j6}$ | 9.5 | 20.5 | $19_{k6}$ | 115 | 3.5 | 118 | 40 | 20 | 40 | 32 | 37.5 | 0 | 250 | 299 | 9.0 | M6 | 91.0 | 111 | 151.5 | 25 |
| EZ501B | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 135 | 40 | 20 | 40 | 36 | 37.5 | 0 | 179 | 234 | 9.0 | M6 | 100.0 | 120 | 74.5 | 25 |
| EZ502B | 115 | $110_{j6}$ | 10.0 | 16.0 | $19_{k6}$ | 130 | 3.5 | 135 | 40 | 20 | 40 | 36 | 37.5 | 0 | 204 | 259 | 9.0 | M6 | 100.0 | 120 | 99.5 | 25 |
| EZ503B | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 135 | 50 | 20 | 40 | 36 | 37.5 | 0 | 229 | 284 | 9.0 | M8 | 100.0 | 120 | 124.5 | 25 |
| EZ505B | 115 | $110_{j6}$ | 10.0 | 16.0 | $24_{k6}$ | 130 | 3.5 | 135 | 50 | 20 | 40 | 36 | 37.5 | 0 | 279 | 334 | 9.0 | M8 | 100.0 | 120 | 174.5 | 25 |
| EZ701B | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 165 | 50 | 30 | 40 | 42 | 37.5 | 0 | 213 | 272 | 11.0 | M8 | 115.0 | 134 | 83.0 | 40 |
| EZ702B | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 165 | 50 | 30 | 40 | 42 | 37.5 | 0 | 238 | 297 | 11.0 | M8 | 115.0 | 134 | 108.0 | 40 |
| EZ703B | 145 | $130_{j6}$ | 10.0 | 19.0 | $24_{k6}$ | 165 | 3.5 | 165 | 50 | 30 | 40 | 42 | 37.5 | 0 | 263 | 322 | 11.0 | M8 | 115.0 | 134 | 133.0 | 40 |
| EZ705B | 145 | $130_{j6}$ | 10.0 | 19.0 | $32_{k6}$ | 165 | 3.5 | 165 | 58 | 30 | 71 | 42 | 37.5 | 0 | 318 | 377 | 11.0 | M12 | 134.0 | 134 | 184.0 | 40 |
| EZ813B | 190 | $180_{j6}$ | 15.0 | 25.0 | $38_{k6}$ | 215 | 3.5 | 215 | 80 | 30 | 71 | 60 | 37.5 | 62 | 363 | 440 | 13.5 | M12 | 156.5 | 160 | 209.0 | 40 |
| EZ815B | 190 | $180_{j6}$ | 15.0 | 25.0 | $38_{k6}$ | 215 | 3.5 | 215 | 80 | 30 | 71 | 60 | 37.5 | 62 | 445 | 522 | 13.5 | M12 | 156.5 | 160 | 291.0 | 40 |

# 17.5 Type designation

The type designation of a geared motor is composed of the type designation of the gearbox and motor. This chapter describes the type designation of the motor. The type designation of the gearbox is explained in the respective gearbox chapter.

**Example code**

| EZ | 4 | 0 | 1 | U |
|---|---|---|---|---|

**Explanation**

| Code | Designation | Design |
|---|---|---|
| **EZ** | Type | Synchronous servo motor |
| **4** | Size | 4 (example) |
| **0** | Generation | Generation 0 |
| 1 | | Generation 1 |
| **1** | Length | 1 (example) |
| **U** | Cooling[2] | Convection cooling |
| B | | Forced ventilation |

**To complete the type designation, also specify the following in your order:**

- Code of the drive controller, see the chapter [▷ 17.6.4.6]
- Code of the encoder, see the chapter [▷ 17.6.4]
- With or without holding brake (option), see the chapter [▷ 17.6.7]
- Voltage constant $K_{EM}$, see the chapter [▷ 17.2]

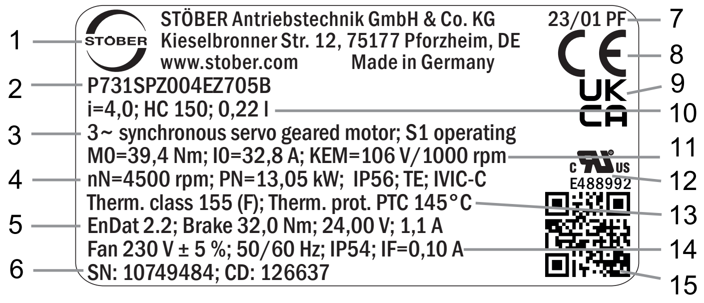
To make selecting your motor easy, use our STOBER Configurator at https://configurator.stoeber.de/en-US/.



[2] EZ2/EZ3 motors only available with convection cooling

## 17.5.1 Nameplate

The nameplate of a P731_EZ705 synchronous servo geared motor is explained as an example in this chapter.




| Line | Value | Description |
|---|---|---|
| 1 | STÖBER Antriebstechnik GmbH + Co. KG | Logo and address of the manufacturer |
| 2 | P731SPZ004EZ705B | Type designation of the geared motor |
| 3 | 3~ synchronous servo geared motor<br>S1 operating | Geared motor type: three-phase synchronous servo geared motor<br>Operating mode |
| 4 | nN=4500 rpm<br>PN=13.05 kW<br>IP56<br>TE<br>IVIC-C | Nominal speed<br>Nominal power<br>Protection class of the motor<br>Protection class in accordance with UL1004<br>Impulse voltage insulation class |
| 5 | EnDat 2.2<br>Brake<br>32.0 Nm<br>24.00 V<br>1.1 A | Encoder interface<br>Holding brake (optional)<br>Static braking torque at 100 °C<br>Nominal voltage (DC) of the holding brake<br>Nominal current of the holding brake at 20 °C |
| 6 | SN: 10749484<br>CD: 126637 | Serial number of the motor<br>Customer-specific data |
| 7 | 23/01<br>PF | Date of manufacture (year/calendar week)<br>Place of manufacture (abbreviation) |
| 8 | CE | CE mark |
| 9 | UKCA | UKCA mark |
| 10 | i=4.0<br>HC 150<br>0.22 l | Gear ratio of the gearbox<br>Lubricant specification<br>Lubricant fill volume |
| 11 | M0=39.4 Nm<br>I0=32.8 A<br>KEM=106 V/1000 rpm | Stall torque<br>Stall current<br>Voltage constant |
| 12 | cURus E488992 | cURus test symbol, registered under UL number E488992 |
| 13 | Therm. class 155 (F)<br>Therm. prot. PTC 145 °C | Thermal class<br>Type of temperature sensor |
| 14 | Fan<br>230 V ± 5%; 50/60 Hz<br>IP54<br>IF = 0.10 A | Forced ventilation unit (option)<br>Nominal voltage of the forced ventilation unit<br>Protection class of the forced ventilation unit<br>Nominal current of the forced ventilation unit |
| 15 | QR code | Link to product information |

# 17.6 Product description

## 17.6.1 General features

| Feature | Description |
|---|---|
| Design | IM B5, IM V1, IM V3 in accordance with EN 60034-7 |
| Protection class | IP56 / IP66 (option) |
| Thermal class | 155 (F) in accordance with EN 60034-1 (155 °C, heating Δϑ = 100 K) |
| Surface | Matte black as per RAL 9005 |
| Cooling | IC 410 convection cooling<br>(IC 416 convection cooling with forced ventilation units, optional) |
| Bearing | Rolling bearing with lifetime lubrication and non-contact sealing |
| Sealing | Radial shaft seal rings made of FKM (A side) |
| Shaft | Shaft without feather key, diameter quality k6 |
| Radial runout | Normal tolerance class in accordance with IEC 60072-1 |
| Concentricity | Normal tolerance class in accordance with IEC 60072-1 |
| Axial runout | Normal tolerance class in accordance with IEC 60072-1 |
| Vibration intensity | A in accordance with EN 60034-14 |
| Noise level | Limit values in accordance with EN 60034-9 |

## 17.6.2 Electrical features

General electrical features of the motor are described in this chapter. You can find more details in Chapter [▹ 17.2].

| Feature | Description |
|---|---|
| DC link voltage | DC 540 V (max. 750 V) on STOBER drive controllers |
| Winding | Three-phase |
| Circuit | Star, center not led through |
| Protection class | I (protective grounding) in accordance with EN 61140 |
| Impulse voltage insulation class (IVIC) | C in accordance with DIN EN 60034-18-41 (inverter connection voltage 0 – 480 V ± 10%) |
| Number of pole pairs | 2 (EZ2)<br>5 (EZ3)<br>7 (EZ4/EZ5/EZ7)<br>4 (EZ81) |

## 17.6.3 Ambient conditions

Standard ambient conditions for transport, storage and operation of the motor are described in this chapter. Information about differing ambient conditions can be found in the chapter [▹ 17.7.3].

| Feature | Description |
|---|---|
| Surrounding temperature for transport/storage | −30 °C to +85 °C |
| Surrounding temperature for operation | −15 °C to +40 °C |
| Relative humidity | 5% to 95%, no condensation |
| Installation altitude | ≤ 1000 m above sea level |
| Shock load | ≤ 50 m/s² (5 g), 6 ms in accordance with EN 60068-2-27 |

**Notes**

- STOBER synchronous servo motors are not suitable for potentially explosive atmospheres.
- Secure the power cables close to the motor so that vibrations of the cable do not place impermissible loads on the motor plug connector.
- Note that the braking torques of the holding brake (optional) may be reduced by shock loading.
- At operating temperatures below 0 °C, note that the discs of the holding brake (optional) may ice up.
- Also take into consideration the shock load of the motor due to output units (such as gearboxes and pumps) which are coupled with the motor.

## 17.6.4 Encoders

STOBER synchronous servo motors can be designed with different encoder models. The following chapters include information for choosing the optimal encoder for your application.

### 17.6.4.1 Encoder measuring method selection tool

The following table offers a selection tool for an encoder measuring method that is optimally suited for your application.

| Feature | Absolute encoder | | Resolvers |
|---|---|---|---|
| Measuring method | Optical | Inductive | Electromag-netic |
| Temperature resistance | ★★☆ | ★★★ | ★★★ |
| Vibration strength and shock resistance | ★★☆ | ★★★ | ★★★ |
| System accuracy | ★★★ | ★★☆ | ★☆☆ |
| Safety-related position measuring system for use in safety-oriented applications | ✓[3] | ✓[4] | – |
| Elimination of referencing with multi-turn design (optional) | ✓ | ✓ | – |
| Simple commissioning with electronic nameplate | ✓ | ✓ | – |
| Key: ★☆☆ = satisfactory, ★★☆ = good, ★★★ = very good | | | |

### 17.6.4.2 Selection tool for EnDat interface

The following table offers a selection tool for the EnDat interface of absolute encoders.

| Feature | EnDat 2.1 | EnDat 2.2 | EnDat 3 |
|---|---|---|---|
| Short cycle times | ★★☆ | ★★★ | ★★★ |
| Transfer of additional information along with the position value | – | ✓ | ✓ |
| Expanded power supply range | ★★☆ | ★★★ | ★★★ |
| One Cable Solution (OCS) | – | – | ✓ |
| Key: ★★☆ = good, ★★★ = very good | | | |

### 17.6.4.3 EnDat 3 encoders

EnDat 3 is a robust, purely digital protocol that functions with minimal connection lines. EnDat 3 facilitates the One Cable Solution, which allows the connection lines between the encoder and drive controller to be routed along in the motor's power cable.

The One Cable Solution offers the following advantages:

- Significantly reduced wiring effort by eliminating the encoder cable
- For cable lengths up to 50 m, a choke between the drive controller and motor is not necessary
- Extended safety functions possible (up to SIL 2 / category 3, PL d)
- Significantly reduced space requirements by eliminating the encoder plug connector
- Transmission of measured values from the temperature sensor using the EnDat 3 protocol

A motor with an EnDat 3 encoder can be operated only on a SB6, SC6 or SI6 drive controller from STOBER.

The EnDat 3 encoder has the following features:

| Encoder model | Code | Measur-ing method | Recordable revolutions | Resolu-tion | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EnDat 3 EQI 1131 Safety | S7 | Inductive | 4096 | 19 bit | 524288 | > 100 | ≤ 15 × $10^{-9}$ |

[3] The EnDat 2.1 EQN 1125 encoder does not have FS certification from the manufacturer. However, the mechanical attachment complies with the specifications for FS devices.

[4] Not for EnDat 2.2 ECI 1118-G2 encoders

### 17.6.4.4 EnDat 2 encoders

In this chapter, you can find detailed technical data for encoder models that can be selected with EnDat interface.

**Encoders with EnDat 2.2 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EnDat 2.2 EQI 1131 Safety | S2 | Inductive | 4096 | 19 bit | 524288 | > 100 | ≤ 15 × $10^{-9}$ |
| EnDat 2.2 ECI 1118-G2 | C5 | Inductive | – | 18 bit | 262144 | > 76 | ≤ 1.5 × $10^{-6}$ |
| EnDat 2.2 EQN 1135 Safety | S3 | Optical | 4096 | 23 bit | 8388608 | > 100 | ≤ 15 × $10^{-9}$ |

**Encoders with EnDat 2.1 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| EnDat 2.1 EQN 1125 | Q4 | Optical | 4096 | 13 bit | 8192 | Sin/cos 512 | > 57 | ≤ 2 × $10^{-6}$ |
| EnDat 2.1 ECI 1118-G3 | C2 | Inductive | – | 18 bit | 262144 | Sin/cos 16 | > 100 | ≤ 6 × $10^{-7}$ |
| EnDat 2.1 EQI 1130-G3 | Q2 | Inductive | 4096 | 18 bit | 262144 | Sin/cos 16 | > 100 | ≤ 6 × $10^{-7}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Safety = Safety-related position measuring system for use in safety-oriented applications.
- MTTF = Average time before dangerous failure. MTTF values greater than 100 years were reduced in accordance with DIN EN ISO 13849.
- PFH = Probability of a dangerous failure per hour.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

### 17.6.4.5 Resolver

In this chapter, you can find detailed technical data for the resolver that can be installed as an encoder in a STOBER motor.

| Feature | Description |
|---|---|
| Code | R0 |
| Number of poles | 2 |
| Input voltage $U_{1eff}$ | 7 V ± 5% |
| Input frequency $f_1$ | 10 kHz |
| Output voltage $U_{2,S1–S3}$ | $K_{tr} \cdot U_{R1–R2} \cdot \cos\theta$ |
| Output voltage $U_{2,S2–S4}$ | $K_{tr} \cdot U_{R1–R2} \cdot \sin\theta$ |
| Transformation ratio $K_{tr}$ | 0.5 ± 5% |
| Electrical fault | ±10 arcmin |
| MTTF | > 100 years |
| PFH | ≤ $10^{-9}$ |

### 17.6.4.6 Possible combinations with drive controllers

The following table shows the options for combining STOBER drive controllers with selectable encoder models.

| **Drive controller** | | **SB6** | | | **SC6** | | | **SI6** | | | **SD6** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Drive controller code** | | BC | BD | BE | AU | AV | BA | AP | AQ | BB | AD | AE |
| **Connection plan ID** | | 443376 | 443377 | 443378 | 443052 | 443053 | 443174 | 442771 | 442772 | 443175 | 442450 | 442451 |
| **Encoder** | **Encoder code** | | | | | | | | | | | |
| EnDat 3 EQI 1131 Safety | S7 | – | ✓ | – | – | – | ✓ | – | – | ✓ | – | – |
| EnDat 2.2 EQI 1131 Safety | S2 | ✓ | – | – | ✓ | – | – | ✓ | – | – | ✓ | – |
| EnDat 2.2 EQN 1135 Safety | S3 | ✓ | – | – | ✓ | – | – | ✓ | – | – | ✓ | – |
| EnDat 2.2 ECI 1118-G2 | C5 | ✓ | – | – | ✓ | – | – | ✓ | – | – | ✓ | – |
| EnDat 2.1 EQN 1125 | Q4 | – | – | ✓ | – | – | – | – | – | – | – | ✓ |
| EnDat 2.1 ECI 1118-G3 | C2 | – | – | ✓ | – | – | – | – | – | – | – | ✓ |
| Resolvers | R0 | – | – | ✓ | – | ✓ | – | – | ✓ | – | – | ✓ |

**Notes**

- In Chapter [▷ 18], you can find information about options for connecting STOBER synchronous servo motors to drive controllers from other manufacturers.

## 17.6.5 Temperature sensor

In this chapter, you can find technical data for the temperature sensors that are installed in STOBER synchronous servo motors for implementing thermal winding protection. To prevent damage to the motor, always monitor the temperature sensor with appropriate devices that will turn off the motor if the maximum permitted winding temperature is exceeded.

Some encoders feature integrated temperature monitoring, the warning and switch-off thresholds of which may overlap with the corresponding values set for the temperature sensor in the drive controller. In some cases, this may result in an instance where an encoder with internal temperature monitoring forces the motor to shut down, even before the motor has reached its nominal data.

Information about the electrical connection of the temperature sensor can be found in the chapter [▷ 17.6.8].

### 17.6.5.1 PTC thermistor

The PTC thermistor is installed as a standard temperature sensor in STOBER synchronous servo motors.

The PTC thermistor is a triple thermistor in accordance with DIN 44082 that can be used for monitoring the temperature of each winding phase. The resistance values in the following table and curve refer to a single thermistor in accordance with DIN 44081. These values must be multiplied by 3 for a triple thermistor in accordance with DIN 44082.

| Feature | Description |
|---|---|
| Nominal response temperature $\vartheta_{NAT}$ | 145 °C ± 5 K |
| Resistance R −20 °C up to $\vartheta_{NAT}$ − 20 K | ≤ 250 Ω |
| Resistance R with $\vartheta_{NAT}$ − 5 K | ≤ 550 Ω |
| Resistance R with $\vartheta_{NAT}$ + 5 K | ≥ 1330 Ω |
| Resistance R with $\vartheta_{NAT}$ + 15 K | ≥ 4000 Ω |
| Operating voltage | ≤ DC 7.5 V |
| Thermal response time | < 5 s |
| Thermal class | 155 (F) in accordance with EN 60034-1 (155 °C, heating Δϑ = 100 K) |

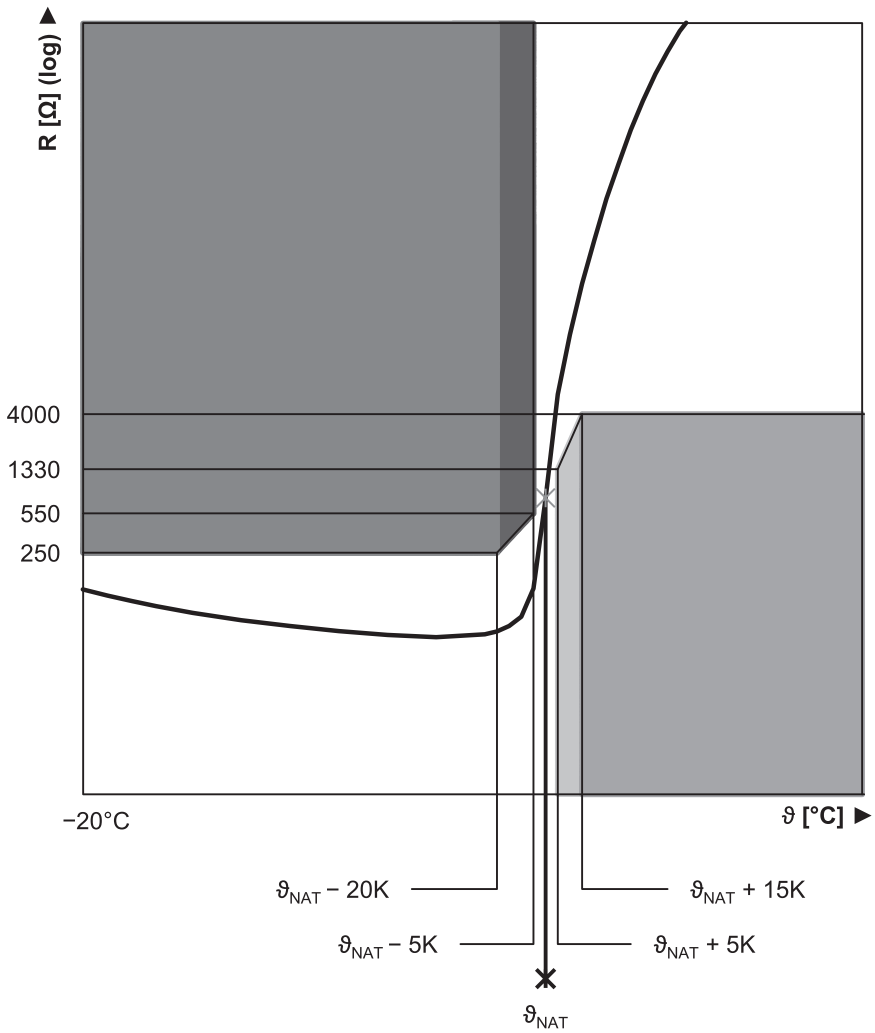



*Fig. 2:* PTC thermistor curve (single thermistor)

### 17.6.5.2 Pt1000 temperature sensor

STOBER synchronous servo motors are available in versions with a Pt1000 temperature sensor. The Pt1000 is a temperature-dependent resistor that has a resistance curve with a linear relationship with temperature. As a result, the Pt1000 allows for measurements of the winding temperature. These measurements are limited to one phase of the motor winding, however. In order to adequately protect the motor from exceeding the maximum permitted winding temperature, use a $i^2t$ model in the drive controller to monitor the winding temperature.

Pt1000 temperature sensors can also be used with the One Cable Solution.

Avoid exceeding the specified measurement current so that the measured values are not falsified due to self-heating of the temperature sensor.

| Feature | Description |
|---|---|
| Measurement current (constant) | 2 mA |
| Resistance R for ϑ = 0 °C | 1000 Ω |
| Resistance R for ϑ = 80 °C | 1300 Ω |
| Resistance R for ϑ = 150 °C | 1570 Ω |

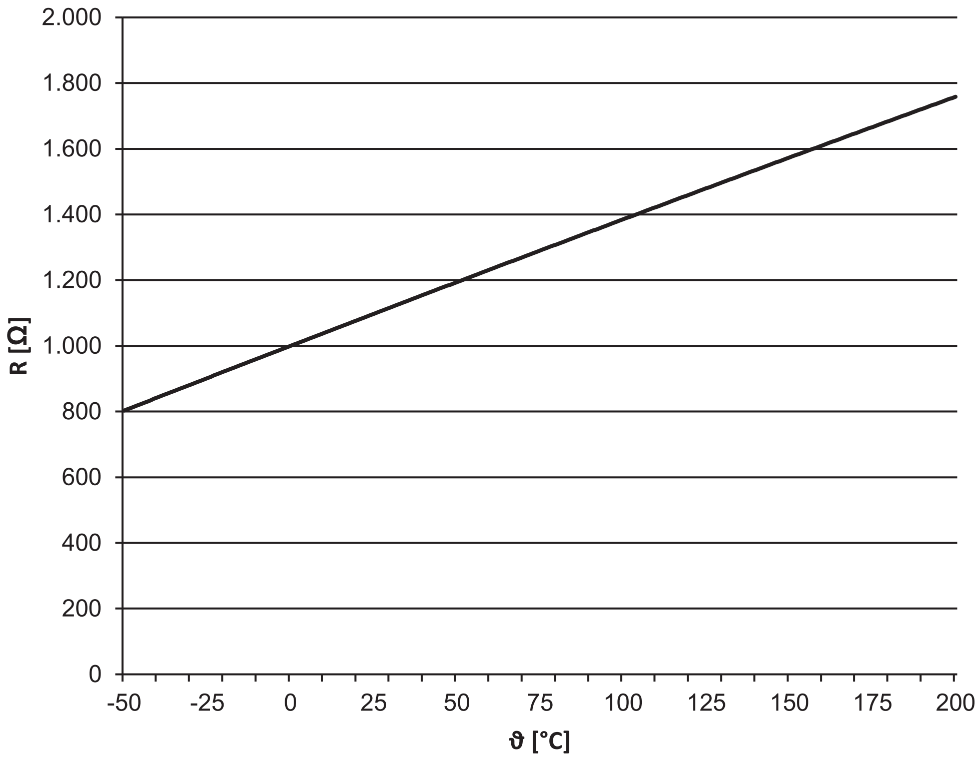



*Fig. 3:* Pt1000 temperature sensor characteristic curve

## 17.6.6 Cooling

A synchronous servo motor in the standard version is cooled by convection cooling (IC 410 in accordance with EN 60034-6). Optionally, forced ventilation can be used to cool the motor.

### 17.6.6.1 Forced ventilation

STOBER synchronous servo motors offer the option of being cooled with forced ventilation in order to increase performance data while maintaining the same size. Retrofitting with a forced ventilation unit is also possible in order to optimize the drive at a later date. When retrofitting, check whether the conductor cross-section of the power cable of the motor must be increased. Also take into account the dimensions of the forced ventilation unit.

The performance data for motors with forced ventilation can be found in the chapter [▸ 17.2] and the dimensional drawings in the chapter [▸ 17.4].

**Technical data**

| Motor | Forced venti-lation unit | $U_{N,F}$ [V] | $I_{N,F}$ [A] | $P_{N,F}$ [W] | $q_{vF}$ [m³/h] | $L_{pA,F}$ [dB(A)] | $m_F$ [kg] | Protection class |
|---|---|---|---|---|---|---|---|---|
| EZ4_B | FL4 | 230 V ± 5%, 50/60 Hz | 0.07 | 10 | 59 | 41 | 1.4 | IP44 |
| EZ5_B | FL5 | | 0.10 | 14 | 160 | 45 | 1.9 | IP54 |
| EZ7_B | FL7 | | 0.10 | 14 | 160 | 45 | 2.9 | IP54 |
| EZ8_B | FL8 | | 0.20 | 26 | 420 | 54 | 5.0 | IP55 |

**Terminal assignment for forced ventilation unit plug connectors**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | L1 (phase) |
| | 2 | N (neutral conductor) |
| | 3 | |
| | ⏚ | PE (grounding conductor) |

## 17.6.7 Holding brake

STOBER synchronous servo motors can be equipped with a backlash-free holding brake using permanent magnets in order to secure the motor shaft when at a standstill. The holding brake engages automatically if the voltage drops.

The holding brake is designed for a high number of operations ($B_{10}$ = 10 million operations, $B_{10d}$ = 20 million operations).

Nominal voltage of permanent magnet holding brake: DC 24 V ± 5%, smoothed.

**Observe the following during project configuration:**

- The holding brake is designed to keep the motor shaft from moving. Activate braking processes during operation using the corresponding electrical functions of the drive controller. In exceptional circumstances, the holding brake can be used for braking from full speed (following a power failure or when setting up the machine). The maximum permitted work done by friction $W_{B,Rmax/h}$ may not be exceeded.
- Note that the braking torque $M_{Bdyn}$ may initially be up to 50% less when braking from full speed. As a result, the braking effect has a delayed action and braking distances become longer.
- Regularly perform a brake test to ensure the functional safety of the brakes. Details can be found in the documentation of the motor and the drive controller.
- Connect a varistor of type S14 K35 (or comparable) in parallel to the brake coil to protect your machine from switching surges. (Not necessary for connecting the holding brake to STOBER drive controllers of the 5th and 6th generation with a BRS/BRM brake module).
- The holding brake of the motor does not offer adequate safety for persons in the hazardous area of gravity-loaded vertical axes. Therefore take additional measures to minimize risk, e.g. by providing a mechanical substructure for maintenance work.
- Take into consideration voltage losses in the connection cables that connect the voltage source to the holding brake connections.
- The holding torque of the brake can be reduced by shock loading. Information about shock loading can be found in the chapter [▷ 17.6.3].
- At operating temperatures from −15 °C to 0 °C, a cold holding brake in the released state may cause operating noises. As the temperature of the holding brake increases, these noises decrease such that operating noises are not heard when using holding brake at operating temperature in the released state.

**Calculation of work done by friction per braking process**

$$W_{B,R/B} = \frac{J_{tot} \cdot n^2}{182.4} \cdot \frac{M_{Bdyn}}{M_{Bdyn} \pm M_L}, \quad M_{Bdyn} > M_L$$

The sign of $M_L$ is positive if the movement runs vertically upwards or horizontally and it is negative if the movement runs vertically down.

### Calculation of the stop time

$$t_{dec} = 2.66 \cdot t_{1B} + \frac{n \cdot J_{tot}}{9.55 \cdot M_{Bdyn}}$$

### Switching behavior

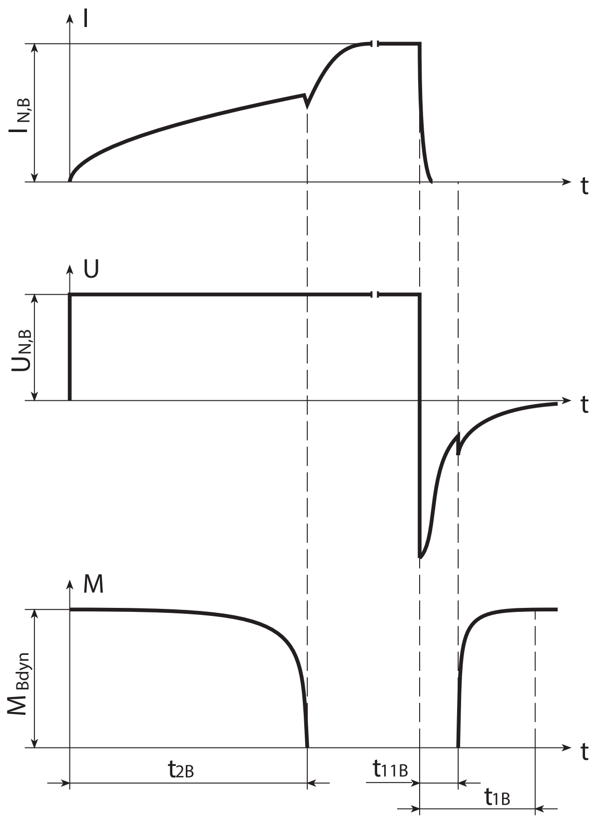



*Fig. 4:* Holding brake – Switching behavior

### Technical data

| Type | $M_{Bstat}$ [Nm] | $M_{Bdyn}$ [Nm] | $I_{N,B}$ [A] | $W_{B,Rmax/h}$ [kJ/h] | $N_{Bstop}$ | $J_{Bstop}$ [kgcm²] | $W_{B,Rlim}$ [kJ] | $t_{2B}$ [ms] | $t_{11B}$ [ms] | $t_{1B}$ [ms] | $x_{B,N}$ [mm] | $\Delta J_B$ [kgcm²] | $\Delta m_B$ [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EZ202 | 1.2 | 1.0 | 0.36 | 3.0 | 45000 | 0.310 | 70 | 10 | 2.0 | 5 | 0.15 | 0.03 | 0.25 |
| EZ203 | 1.2 | 1.0 | 0.38 | 3.0 | 36000 | 0.390 | 70 | 10 | 2.0 | 5 | 0.15 | 0.03 | 0.25 |
| EZ301 | 2.5 | 2.3 | 0.51 | 6.0 | 48000 | 0.752 | 180 | 25 | 3.0 | 20 | 0.20 | 0.19 | 0.55 |
| EZ302 | 4.0 | 3.8 | 0.50 | 8.5 | 38000 | 0.952 | 180 | 44 | 4.0 | 26 | 0.30 | 0.19 | 0.55 |
| EZ303 | 4.0 | 3.8 | 0.50 | 8.5 | 30000 | 1.17 | 180 | 44 | 4.0 | 26 | 0.30 | 0.19 | 0.55 |
| EZ401 | 4.0 | 3.8 | 0.50 | 8.5 | 16000 | 2.24 | 180 | 44 | 4.0 | 26 | 0.30 | 0.19 | 0.76 |
| EZ402 | 8.0 | 7.0 | 0.75 | 8.5 | 13500 | 4.39 | 300 | 40 | 2.0 | 20 | 0.30 | 0.57 | 0.97 |
| EZ404 | 8.0 | 7.0 | 0.75 | 8.5 | 8500 | 7.09 | 300 | 40 | 2.0 | 20 | 0.30 | 0.57 | 0.97 |
| EZ501 | 8.0 | 7.0 | 0.75 | 8.5 | 8700 | 6.94 | 300 | 40 | 2.0 | 20 | 0.30 | 0.57 | 1.19 |
| EZ502 | 8.0 | 7.0 | 0.80 | 8.5 | 5200 | 11.5 | 300 | 40 | 2.0 | 20 | 0.30 | 0.57 | 1.19 |
| EZ503 | 15 | 12 | 1.0 | 11.0 | 5900 | 18.6 | 550 | 60 | 5.0 | 30 | 0.30 | 1.72 | 1.62 |
| EZ505 | 15 | 12 | 1.0 | 11.0 | 4000 | 27.8 | 550 | 60 | 5.0 | 30 | 0.30 | 1.72 | 1.62 |
| EZ701 | 15 | 12 | 1.0 | 11.0 | 5400 | 20.5 | 550 | 60 | 5.0 | 30 | 0.30 | 1.74 | 1.94 |
| EZ702 | 15 | 12 | 1.0 | 11.0 | 3600 | 30.9 | 550 | 60 | 5.0 | 30 | 0.30 | 1.74 | 1.94 |
| EZ703 | 32 | 28 | 1.1 | 25.0 | 5200 | 54.6 | 1400 | 100 | 5.0 | 25 | 0.40 | 5.68 | 2.81 |
| EZ705 | 32 | 28 | 1.1 | 25.0 | 3500 | 79.4 | 1400 | 100 | 5.0 | 25 | 0.40 | 5.68 | 2.81 |
| EZ813 | 65 | 35 | 1.7 | 45.0 | 4500 | 200 | 2250 | 200 | 10 | 50 | 0.40 | 16.5 | 5.40 |
| EZ815 | 115 | 70 | 2.1 | 65.0 | 7000 | 376 | 6500 | 190 | 12 | 65 | 0.50 | 55.5 | 8.40 |

## 17.6.8 Connection method

The following chapters describe the connection technology of STOBER synchronous servo motors in the standard version on STOBER drive controllers. You can find further information relating to the drive controller type that was specified in your order in the connection plan that is delivered with every synchronous servo motor.

In Chapter [▶ 18], you can find information about options for connecting STOBER synchronous servo motors to drive controllers from other manufacturers.

### 17.6.8.1 Connection of the motor housing to the grounding conductor system

Connect the motor housing to the machine's grounding conductor system to protect persons.

All attachment parts required for the connection of the grounding conductor to the motor housing are delivered with the motor. The grounding screw of the motor is identified with the symbol ⏚ in accordance with IEC 60417-DB. The cross-section of the grounding conductor has to be at least as large as the cross-section of the lines in the power connection.

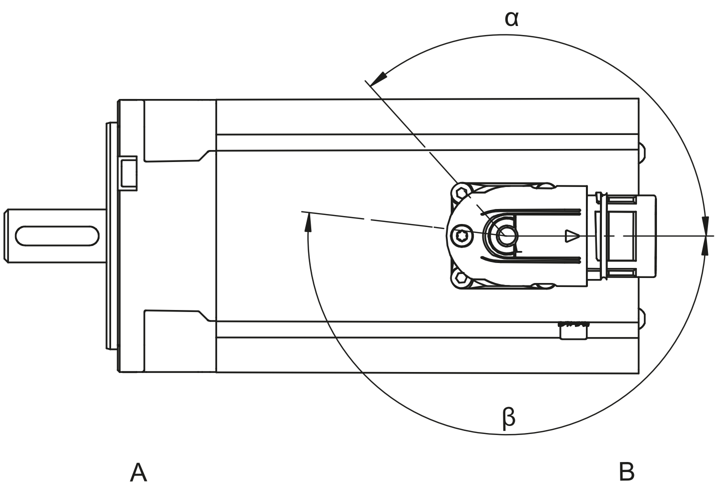
### 17.6.8.2 Plug connectors (One Cable Solution)

In the One Cable Solution design, the power and encoder lines are connected using a shared plug connector.

For motors with forced ventilation, avoid collisions between the motor connection cables and the plug connector of the forced ventilation unit. In the event of a collision, rotate the plug connectors of the motor by the required angle. Details on the position of the plug connector for the forced ventilation unit can be found in the chapter [▶ 17.4.5].

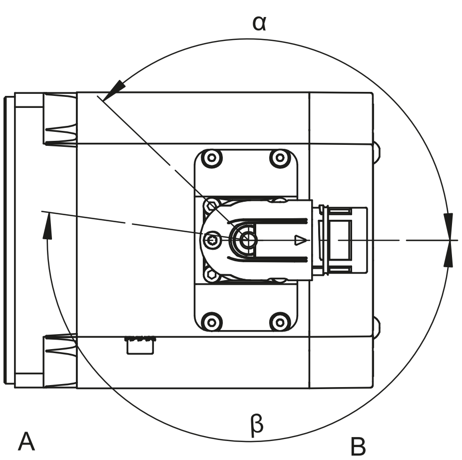
The figures represent the position of the plug connectors upon delivery.

**Turning ranges of plug connectors (EZ2 – EZ3 motors)**




| | | | |
|---|---|---|---|
| A | Attachment or output side of the motor | B | Not output side |

**Turning ranges of plug connectors (EZ4 – EZ7 motors)**




| | | | |
|---|---|---|---|
| A | Attachment or output side of the motor | B | Not output side |

**Plug connector features**

| Motor type | Size | Connection | Turning range | |
|---|---|---|---|---|
| | | | α | β |
| EZ2 – EZ5, EZ701 – EZ703, EZ705U | con.23 | Quick-lock | 130° | 190° |

**Notes**

- The number after "con." indicates the approximate external thread diameter of the plug connector in mm (for example, con.23 designates a plug connector with an external thread diameter of about 23 mm).

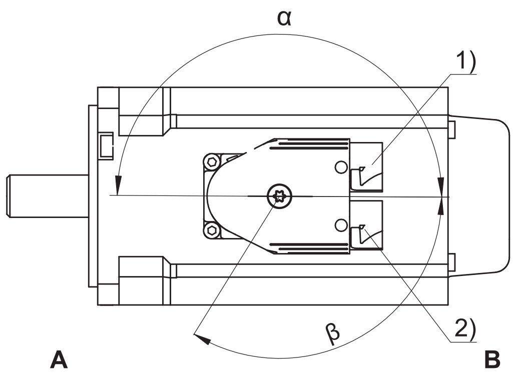
### 17.6.8.3 Plug connectors

STOBER The standard version of synchronous servo motors is equipped with rotatable quick-lock plug connectors[5]. Details can be found in this chapter.

For motors with forced ventilation, avoid collisions between the motor connection cables and the plug connector of the forced ventilation unit. In the event of a collision, rotate the plug connectors of the motor by the required angle. Details on the position of the plug connector for the forced ventilation unit can be found in the chapter [▶ 17.4.6].

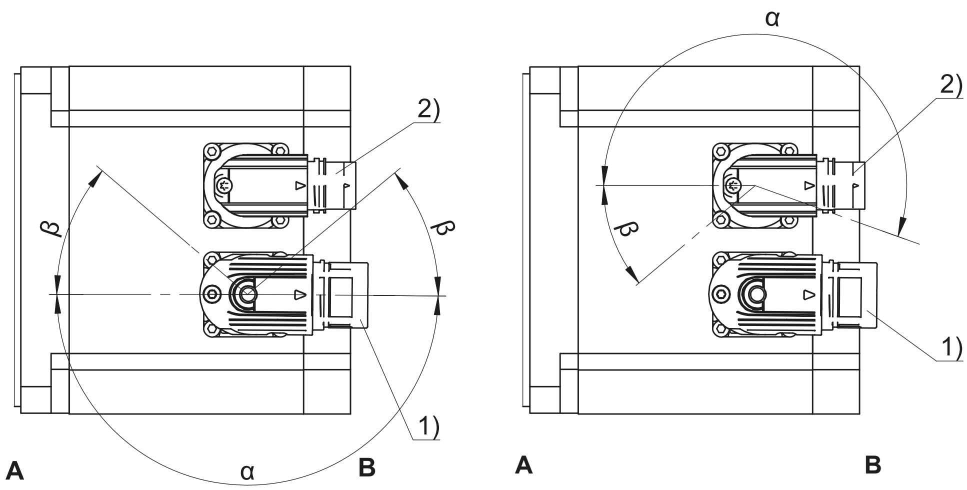
The figures represent the position of the plug connectors upon delivery.

**Turning ranges of plug connectors (EZ2 – EZ3 motors)**




| | | | |
|---|---|---|---|
| 1 | Power plug connector | 2 | Encoder plug connector |
| A | Attachment or output side of the motor | B | Not output side |

**Turning ranges of plug connectors (EZ4 – EZ8 motors)**




| | | | |
|---|---|---|---|
| 1 | Power plug connector | 2 | Encoder plug connector |
| A | Attachment or output side of the motor | B | Not output side |

[5] The connectors can be pivoted up to 10 times at a specific angle. They cannot be rotated repeatedly.

**Power plug connector features**

| Motor type | Size | Connection | Turning range | |
|---|---|---|---|---|
| | | | α | β |
| EZ2, EZ3 | con.15 | Quick-lock | 180° | 120° |
| EZ4, EZ5, EZ701, EZ702, EZ703 | con.23 | Quick-lock | 180° | 40° |
| EZ705, EZ8 | con.40 | Quick-lock | 180° | 40° |

**Encoder plug connector features**

| Motor type | Size | Connection | Turning range | |
|---|---|---|---|---|
| | | | α | β |
| EZ2, EZ3 | con.15 | Quick-lock | 180° | 120° |
| EZ4, EZ5, EZ7, EZ8 | con.17 | Quick-lock | 190° | 35° |

**Notes**

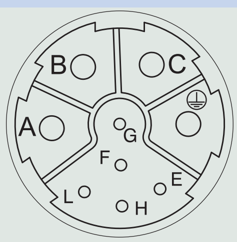
- The number after "con." indicates the approximate external thread diameter of the plug connector in mm (for example, con.23 designates a plug connector with an external thread diameter of about 23 mm).
- In turning range β, the power or encoder plug connectors can be turned only if doing so does not cause them to collide.
- For the EZ2/EZ3 motor, the power and encoder plug connectors are mechanically connected and can only be turned together.

### 17.6.8.4 Terminal assignment for plug connectors (One Cable Solution)

In the One Cable Solution design, the power and encoder lines are connected using a shared plug connector.

The temperature sensor of the motor is connected to the encoder internally. The measured values from the temperature sensor are transmitted via the EnDat 3 protocol of the encoder.

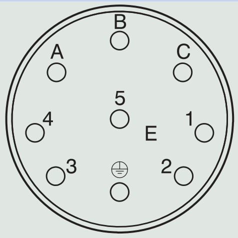
**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | E | P_SD – |
| | F | |
| | G | 1BD1 (brake +) |
| | H | P_SD + |
| | L | 1BD2 (brake –) |
| | ⏚ | PE (grounding conductor) |

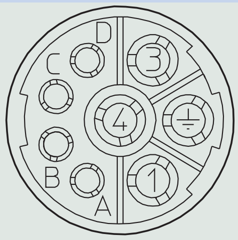
## 17.6.8.5 Connection assignment of the power plug connector

The size and connection diagram of the power plug connector depend on the size of the motor.

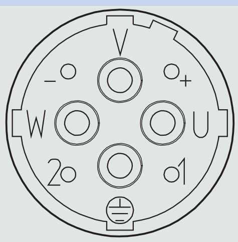
**Plug connector size con.15**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | 1 | 1TP1 (temperature sensor +) |
| | 2 | 1TP2 (temperature sensor –) |
| | 3 | 1BD1 (brake +) |
| | 4 | 1BD2 (brake –) |
| | 5 | |
| | ⏚ | PE (grounding conductor) |

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | 1U1 (U phase) |
| | 3 | 1V1 (V phase) |
| | 4 | 1W1 (W phase) |
| | A | 1BD1 (brake +) |
| | B | 1BD2 (brake –) |
| | C | 1TP1 (temperature sensor +) |
| | D | 1TP2 (temperature sensor –) |
| | ⏚ | PE (grounding conductor) |

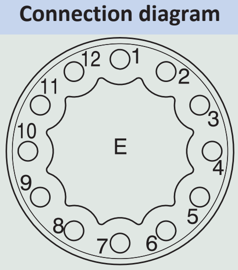
**Plug connector size con.40**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | + | 1BD1 (brake +) |
| | – | 1BD2 (brake –) |
| | 1 | 1TP1 (temperature sensor +) |
| | 2 | 1TP2 (temperature sensor –) |
| | ⏚ | PE (grounding conductor) |

## 17.6.8.6 Connection assignment of the encoder plug connector

The size and terminal assignment of the encoder plug connectors depend on the model of encoder installed and the size of the motor.

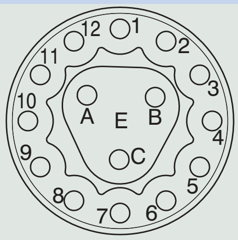
**EnDat 2.2 digital encoder, plug connector size con.15**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | Clock + |
| | 2 | Up sense |
| | 3 | |
| | 4 | |
| | 5 | Data – |
| | 6 | Data + |
| | 7 | |
| | 8 | Clock – |
| | 9 | |
| | 10 | 0 V GND |
| | 11 | |
| | 12 | Up + |

**EnDat 2.2 digital encoder, plug connector size con.17**


| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | Clock + |
| | 2 | Up sense |
| | 3 | |
| | 4 | |
| | 5 | Data – |
| | 6 | Data + |
| | 7 | |
| | 8 | Clock – |
| | 9 | |
| | 10 | 0 V GND |
| | 11 | |
| | 12 | Up + |

**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.15**

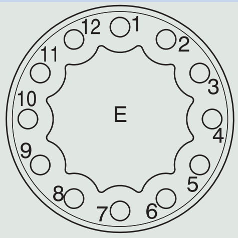



| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | Up sense |
| | 2 | 0 V sense |
| | 3 | Up + |
| | 4 | Clock + |
| | 5 | Clock – |
| | 6 | 0 V GND |
| | 7 | B + (Sin +) |
| | 8 | B – (Sin –) |
| | 9 | Data + |
| | 10 | A + (Cos +) |
| | 11 | A – (Cos –) |
| | 12 | Data – |
| | A | |
| | B | |
| | C | |

**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.17**


| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | Up sense |
| | 2 | |
| | 3 | |
| | 4 | 0 V sense |
| | 5 | |
| | 6 | |
| | 7 | Up + |
| | 8 | Clock + |
| | 9 | Clock – |
| | 10 | 0 V GND |
| | 11 | |
| | 12 | B + (Sin +) |
| | 13 | B – (Sin –) |
| | 14 | Data + |
| | 15 | A + (Cos +) |
| | 16 | A – (Cos –) |
| | 17 | Data – |

**Resolver, plug connector size con.15**




| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | S3 Cos + |
| | 2 | S1 Cos – |
| | 3 | S4 Sin + |
| | 4 | S2 Sin – |
| | 5 | |
| | 6 | |
| | 7 | R2 Ref + |
| | 8 | R1 Ref – |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |

**Resolver, plug connector size con.17**


| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | S3 Cos + |
| | 2 | S1 Cos – |
| | 3 | S4 Sin + |
| | 4 | S2 Sin – |
| | 5 | |
| | 6 | |
| | 7 | R2 Ref + |
| | 8 | R1 Ref – |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |

## 17.7 Project configuration

Project your drives using our SERVOsoft designing software. Download SERVOsoft free of charge after registration at https://www.stoeber.de/en/services/info-servosoft/.

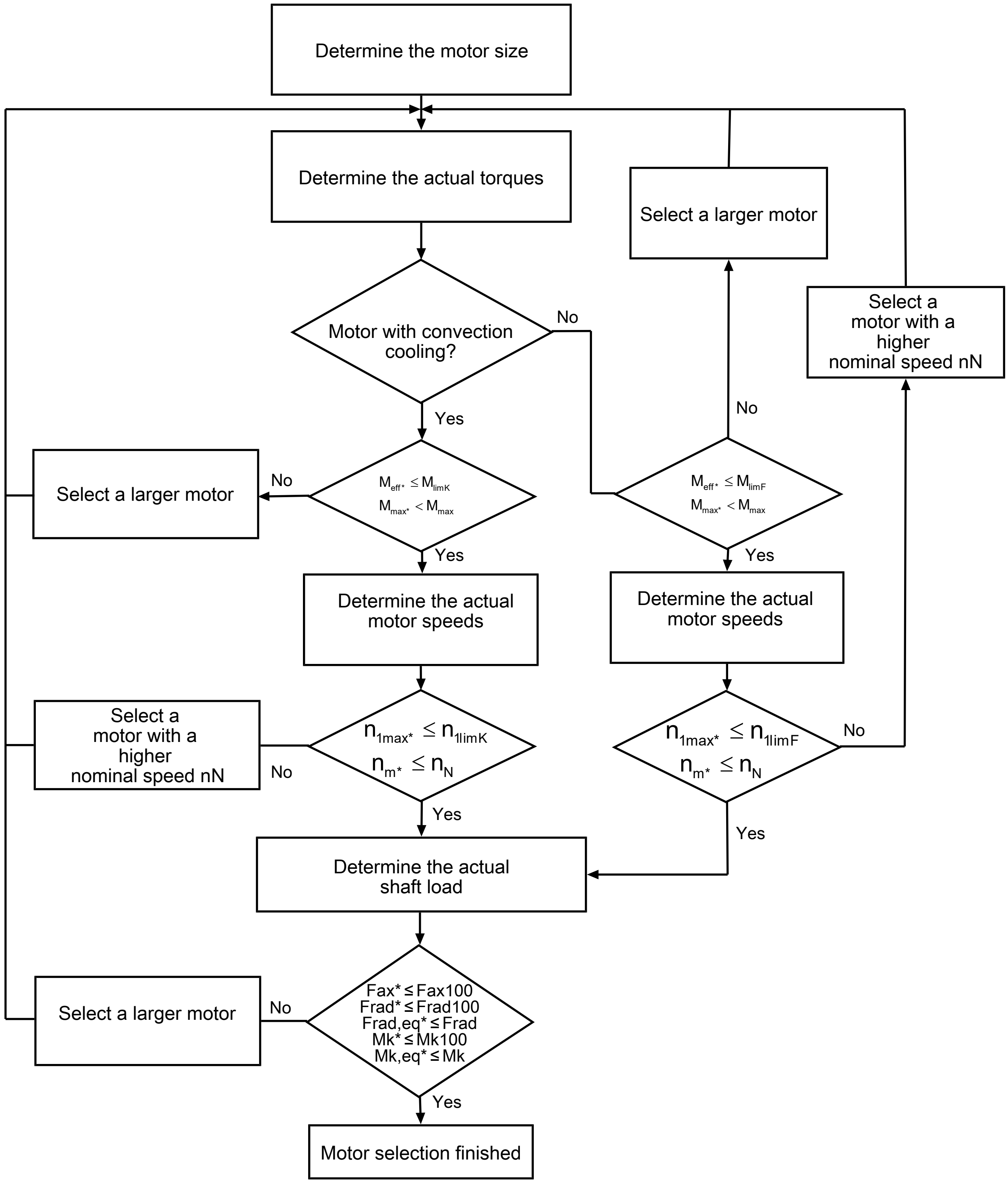
It is the most convenient and reliable method of drive selection, as the entire torque/speed curve of the application is displayed and evaluated here in the curve of the geared motor.

In this chapter, only limit values for specific operating points can be taken into consideration for manual drive selection.

An explanation of the formula symbols can be found in Chapter [▸ 20.1].

The formula symbols for values actually present in the application are marked with *.

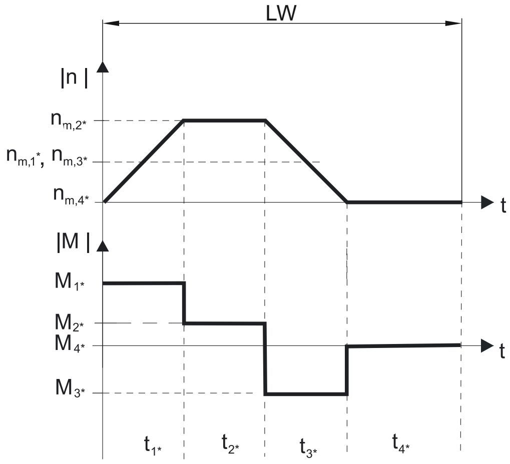
### 17.7.1 Drive selection




The value for $M_{lim}$, $M_{limK}$, $M_{limF}$, $M_{max}$, $n_{1limK}$ and $n_{1limF}$ can be found in the motor characteristic curve in the chapter [▷ 17.3]. Note the size, nominal speed $n_N$ and cooling type of the motor.

**Example of cyclic operation**

The following calculations refer to a representation of the power delivered at the motor shaft in accordance with the following example:




**Calculation of the actual average input speed**

$$n_{m*} = \frac{|n_{m,1*}| \cdot t_{1*} + \ldots + |n_{m,n*}| \cdot t_{n*}}{t_{1*} + \ldots + t_{n*}}$$

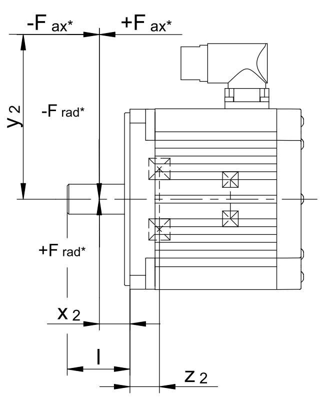
If $t_{1*} + \ldots + t_{3*} \geq 6$ min, determine $n_{m*}$ without the rest phase $t_{4*}$.

**Calculation of the actual effective torque**

$$M_{eff*} = \sqrt{\frac{t_{1*} \cdot M_{1*}^2 + \ldots + t_{n*} \cdot M_{n*}^2}{t_{1*} + \ldots + t_{n*}}}$$

## 17.7.2 Permitted shaft loads

This chapter contains information about the maximum permitted shaft loads of the output shaft of the motor.



| Type | $z_2$ [mm] | $F_{ax100}$ [N] | $F_{rad100}$ [N] | $M_{k100}$ [Nm] |
|---|---|---|---|---|
| EZ202 | 12.0 | 250 | 750 | 20 |
| EZ203 | 12.0 | 250 | 750 | 20 |
| EZ301 | 24.0 | 350 | 1000 | 39 |
| EZ302 | 24.0 | 350 | 1000 | 39 |
| EZ303 | 24.0 | 350 | 1000 | 39 |
| EZ401 | 19.5 | 550 | 1800 | 62 |
| EZ402 | 19.5 | 550 | 1800 | 71 |
| EZ404 | 19.5 | 550 | 1800 | 71 |
| EZ501 | 19.5 | 750 | 2000 | 79 |
| EZ502 | 19.5 | 750 | 2400 | 95 |
| EZ503 | 19.5 | 750 | 2400 | 107 |
| EZ505 | 19.5 | 750 | 2400 | 107 |
| EZ701 | 24.5 | 1300 | 3500 | 173 |
| EZ702 | 24.5 | 1300 | 4200 | 208 |
| EZ703 | 24.5 | 1300 | 4200 | 208 |
| EZ705 | 24.5 | 1300 | 4200 | 225 |
| EZ813 | 28.5 | 1750 | 5600 | 384 |
| EZ815 | 28.5 | 1750 | 5600 | 384 |

The values for permitted shaft loads specified in the table apply:

- For shaft dimensions in accordance with the catalog
- A force applied at the center of the output shaft: $x_2 = l / 2$ (shaft dimensions can be found in the chapter [▸ 17.4])
- Output speeds $n_{m*} \leq 100$ rpm ($F_{ax} = F_{ax100}$; $F_{rad} = F_{rad100}$; $M_k = M_{k100}$)

The following applies to output speeds $n_{m*} > 100$ rpm:

$$F_{ax} = \frac{F_{ax100}}{\sqrt[3]{\frac{n_{m*}}{100\ \text{rpm}}}} \qquad F_{rad} = \frac{F_{rad100}}{\sqrt[3]{\frac{n_{m*}}{100\ \text{rpm}}}} \qquad M_k = \frac{M_{k100}}{\sqrt[3]{\frac{n_{m*}}{100\ \text{rpm}}}}$$

The following applies to other force application points:

$$M_{k*} = \frac{2 \cdot F_{ax*} \cdot y_2 + F_{rad*} \cdot (x_2 + z_2)}{1000}$$

For applications with multiple axial and/or radial forces, you must add the forces as vectors.

**Also note the calculation for equivalent values:**

$$M_{k,eq*} = \sqrt[3]{\frac{\left|n_{m,1*}\right| \cdot t_{1*} \cdot \left|M_{k,1*}{}^3\right| + \ldots + \left|n_{m,n*}\right| \cdot t_{n*} \cdot \left|M_{k,n*}{}^3\right|}{\left|n_{m,1*}\right| \cdot t_{1*} + \ldots + \left|n_{m,n*}\right| \cdot t_{n*}}}$$

$$F_{rad,eq*} = \sqrt[3]{\frac{\left|n_{m,1*}\right| \cdot t_{1*} \cdot \left|F_{rad,1*}{}^3\right| + \ldots + \left|n_{m,n*}\right| \cdot t_{n*} \cdot \left|F_{rad,n*}{}^3\right|}{\left|n_{m,1*}\right| \cdot t_{1*} + \ldots + \left|n_{m,n*}\right| \cdot t_{n*}}}$$

## 17.7.3 Derating

If you use the motor under ambient conditions that differ from the standard ambient conditions, the nominal torque $M_N$ of the motor is reduced. In this chapter, you can find information for calculating the reduced nominal torque.

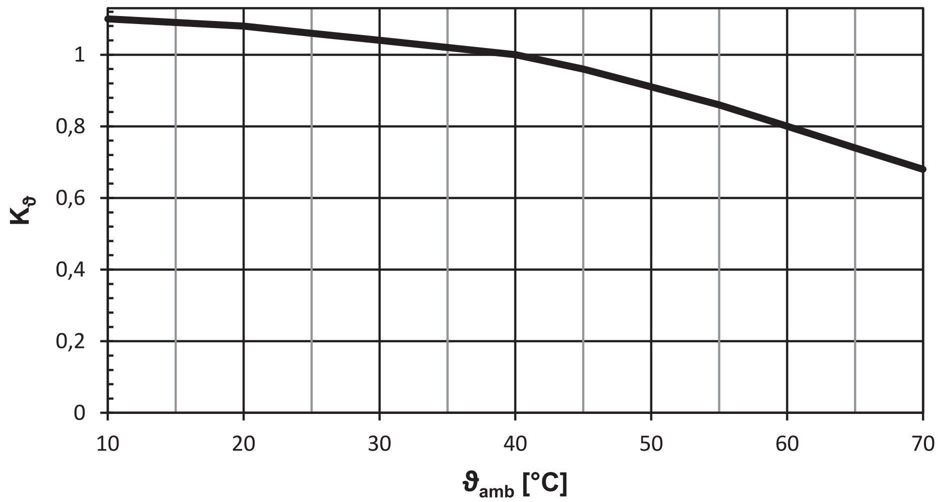



*Fig. 5:* Derating depending on the surrounding temperature

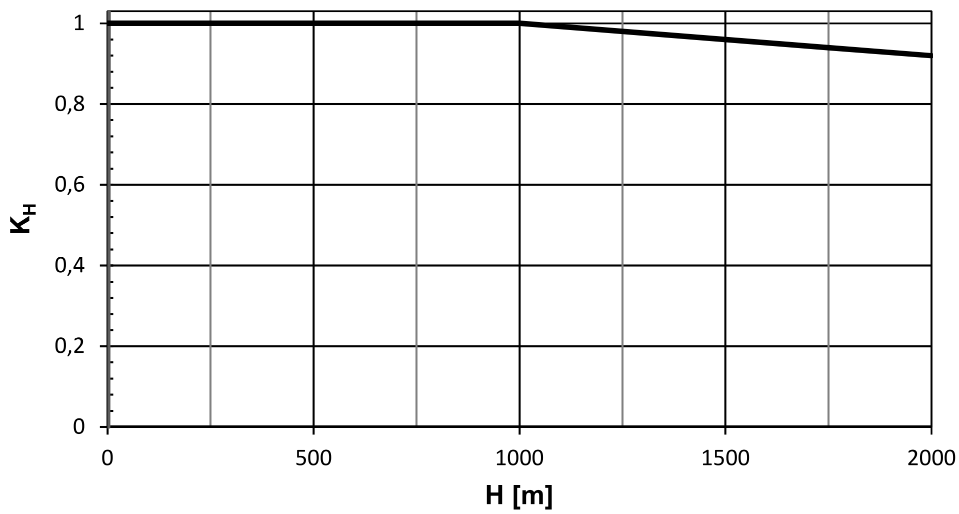



*Fig. 6:* Derating depending on the installation height

**Calculation**

If surrounding temperature $\vartheta_{amb}$ > 40 °C:

$M_{Nred} = M_N \cdot K_\vartheta$

If installation altitude H > 1000 m above sea level:

$M_{Nred} = M_N \cdot K_H$

If the surrounding temperature $\vartheta_{amb}$ > 40 °C and installation altitude H > 1000 m above sea level:

$M_{Nred} = M_N \cdot K_H \cdot K_\vartheta$

# 17.8 Further information

## 17.8.1 Directives and standards

STOBER synchronous servo motors meet the requirements of the following directives and standards:

- (Low Voltage) Directive 2014/35/EU
- EN 60034-1: 2010 + Cor.:2010
- EN 60034-5: 2020
- EN 60034-6:1993

## 17.8.2 Identifiers and test symbols

STOBER synchronous servo motors have the following identifiers and test symbols:

CE mark: The product meets the requirements of EU directives.

UKCA mark: The product meets the requirements of UK directives.

cURus test symbol "Servo and Stepper Motors – Component"; registered under UL number E488992 with Underwriters Laboratories USA.

## 17.8.3 Additional documentation

Additional documentation related to the product can be found at http://www.stoeber.de/en/downloads/

Enter the ID of the documentation in the Search term field.

| Documentation | ID |
|---|---|
| Operating manual for EZ synchronous servo motors | 443032_en |

# 18 Connecting to drive controllers of third-party manufacturers

## Table of contents

# 18.1 General notes

STOBER synchronous servo motors are designed for connection to STOBER drive controllers in the standard version. STOBER offers an extensive assortment of high-quality, trusted power and encoder connection cables for this purpose. However, STOBER synchronous servo motors can also be operated on drive controllers from third-party manufacturers. Notes and information for this purpose can be found in the following chapters. You can find all other information about STOBER synchronous servo motors in the chapter [ 17].

## 18.1.1 Nominal data

Nominal data for synchronous servo motors specified in the selection tables of this catalog were calculated for connecting to STOBER drive controllers. Note that this nominal data may change when STOBER synchronous servo motors are connected to drive controllers of third-party manufacturers. The following drive controller plug connectors are determining factors here:

- $f_{2PU}$
- $f_{PWM,PU}$
- $U_{ZK}$
- Compensation of the field weakening range.

The maximum achievable speed of a synchronous servo motor depends on the number of pole pairs (p) of the synchronous servo motor and, if applicable, on the restriction of $f_{2PU}$ by Regulation (EC) No. 428/2009 (EC Dual Use Regulation). Details are shown in the figure below.

Some encoders feature integrated temperature monitoring, the warning and switch-off thresholds of which may overlap with the corresponding values set for the thermal winding protection in the drive controller. In some cases, this may result in an instance where an encoder with internal temperature monitoring forces the motor to shut down, even before the motor has reached its nominal data.

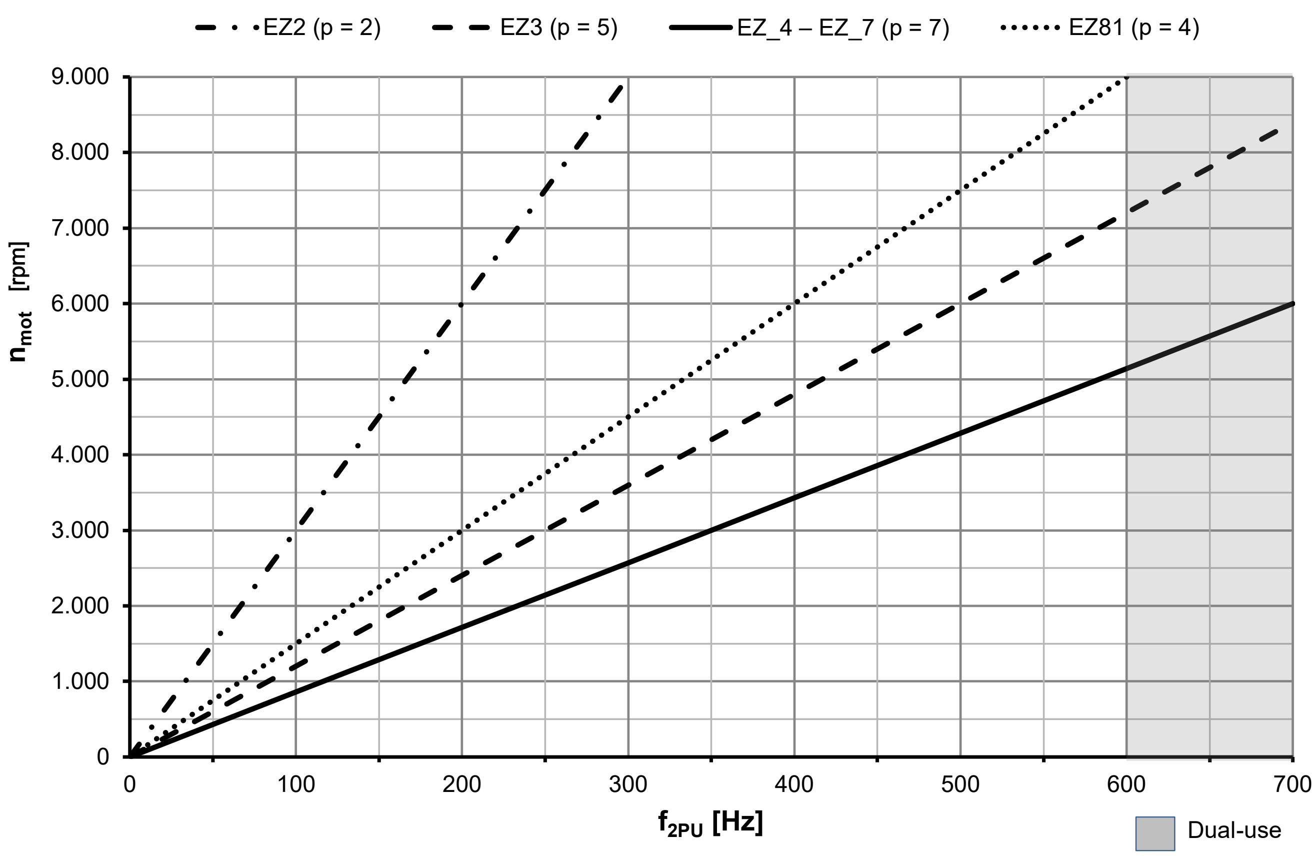



*Fig. 1:* Speed/frequency graph for EZ motors

## 18.1.2 Plug connectors (One Cable Solution)

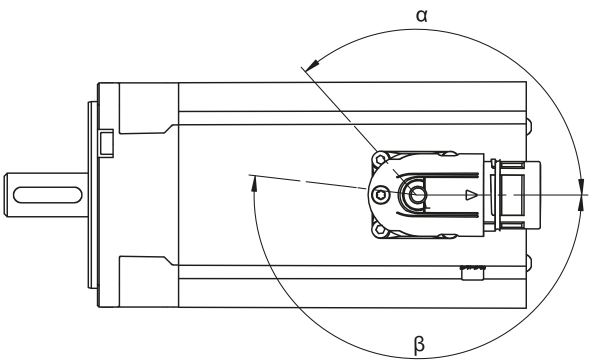
The One Cable Solution option is available for B&R, Control Techniques, Beckhoff, and Allen-Bradley drive controllers.

In the One Cable Solution design, the power and encoder lines are connected using a shared plug connector.

For motors with forced ventilation, avoid collisions between the motor connection cables and the plug connector of the forced ventilation unit. In the event of a collision, rotate the plug connectors of the motor by the required angle. Details on the position of the plug connector for the forced ventilation unit can be found in the chapter [▷ 17.4.5].

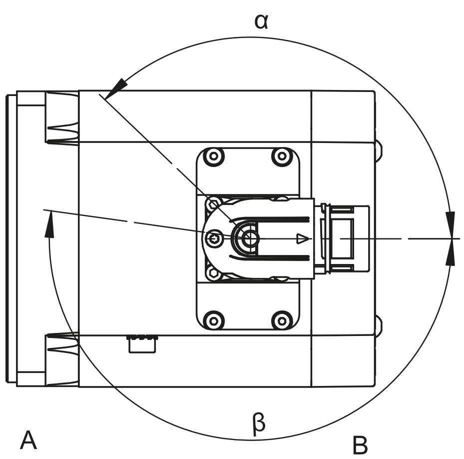
The figures represent the position of the plug connectors upon delivery.

**Turning ranges of plug connectors (EZ2 – EZ3 motors)**




| | | | |
|---|---|---|---|
| A | Attachment or output side of the motor | B | Not output side |

**Turning ranges of plug connectors (EZ4 – EZ7 motors)**




| | | | |
|---|---|---|---|
| A | Attachment or output side of the motor | B | Not output side |

**Features of B&R/Beckhoff plug connectors**

| Motor type | Size | Connection | Turning range | |
|---|---|---|---|---|
| | | | α | β |
| EZ2 – EZ5, EZ701 – EZ703, EZ705U, EZ705B ($n_N$=3000 rpm) | con.23 | Quick-lock | 130° | 190° |

**Features of Allen-Bradley plug connectors**

| Motor type | Size | Connection | Turning range | |
|---|---|---|---|---|
| | | | α | β |
| EZ3 – EZ5, EZ701 – EZ703, EZ705U ($n_N$=3000 rpm) | con.23 | Quick-lock | 130° | 190° |
| EZ705U ($n_N$=4500 rpm), EZ705B, EZ813U | con.40 | Quick-lock | 130° | 190° |

**Notes**

- The number after "con." indicates the approximate external thread diameter of the plug connector in mm (for example, con.23 designates a plug connector with an external thread diameter of about 23 mm).

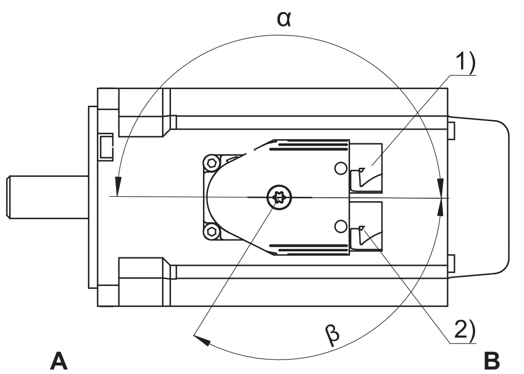
### 18.1.3 Plug connectors

In the standard version, STOBER synchronous servo motors are equipped with rotatable plug connectors[1] for power and encoder connections. You can find detailed technical information about the plug connectors at http://www.intercontec.biz.

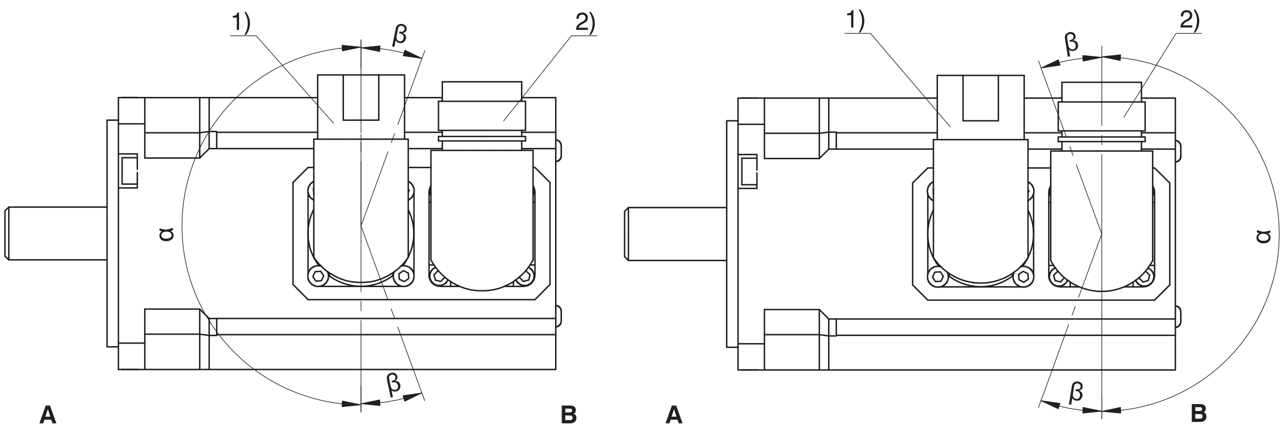
For motors with forced ventilation, avoid collisions between the motor connection cables and the plug connector of the forced ventilation unit. In the event of a collision, rotate the plug connectors of the motor by the required angle. Details on the position of the plug connector for the forced ventilation unit can be found in the chapter [▸ 17.4.6].

The figures represent the position of the plug connectors upon delivery.

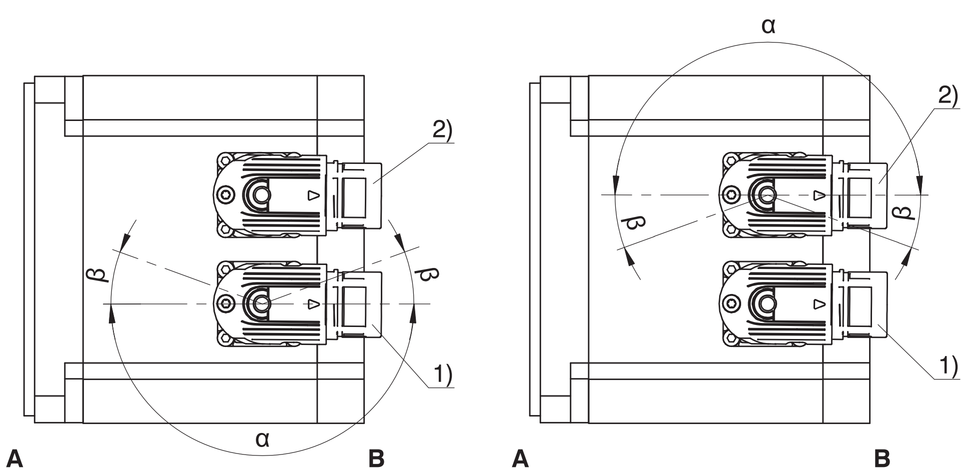
**Turning ranges of con.15 ytec plug connectors (motors EZ2 – EZ3, EZ401, EZ402) for connection to B&R drive controllers (drive controller code GY)**




**Turning ranges of plug connectors (EZ2 – EZ3 motors)**




**Turning ranges of plug connectors (EZ4 – EZ8 motors)**




| | | | |
|---|---|---|---|
| 1 | Power plug connector | 2 | Encoder plug connector |
| A | Attachment or output side of the motor | B | Not output side |

[1] The connectors can be pivoted up to 10 times at a specific angle. They cannot be rotated repeatedly.

**Power plug connector features**

| Motor type | Size | Connection | Turning range | |
|---|---|---|---|---|
| | | | α | β |
| EZ2 – EZ3, EZ401, EZ402 | con.15[2] | Quick-lock (ytec) | 180° | 140° |
| EZ2 – EZ5, EZ701 – EZ703 | con.23 | Quick-lock | 180° | 40° |
| EZ705, EZ8 | con.40 | Quick-lock | 180° | 40° |

**Encoder plug connector features**

| Motor type | Size | Connection | Turning range | |
|---|---|---|---|---|
| | | | α | β |
| EZ2 – EZ3, EZ401, EZ402 | con.15[3] | Quick-lock (ytec) | 180° | 140° |
| EZ404, EZ5, EZ7, EZ8 | con.15[4] | Quick-lock (itec) | 180° | 20° |
| EZ2 – EZ8 | con.15[5] | Quick-lock (itec) | 180° | 20° |
| EZ2 – EZ8 | con.23 | Quick-lock | 180° | 20° |

**Notes**

- In turning range β, the power or encoder plug connectors can be turned only if doing so does not cause them to collide.
- The number after "con." indicates the approximate external thread diameter of the plug connector in mm (for example, con.23 designates a plug connector with an external thread diameter of about 23 mm).
- With ytec plug connectors, the power and encoder plug connectors are mechanically connected and can only be turned together.

## 18.1.4 Connection cables

The plug connectors and terminal assignment of STOBER synchronous servo motors are designed for connecting to drive controllers from third-party manufacturers in a way that allows you to connect the original cable of the respective manufacturer. Keep the following information regarding cable quality and design in mind.

- Because the original cable from Bosch cannot be used, STOBER offers suitable cables for this purpose. More detailed information is available from your STOBER customer consultant.
- Ensure that the cable quality and cable design is suitable for the ambient conditions at the installation location.

You can find more detailed information on our cables in the connection method manual, ID 443101.

Enter the ID of the manual in the Search term field at http://www.stoeber.de/en/downloads/.

[2] Only for connection to B&R ACOPOS P3 with EnDat 2.2 (drive controller code GY)
[3] Only for connection to B&R ACOPOS P3 with EnDat 2.2 (drive controller code GY)
[4] Only for connection to B&R ACOPOS P3 with EnDat 2.2 (drive controller code GY)
[5] Only for connection to B&R ACOPOSmulti with EnDat 2.2 (drive controller code GG)

## 18.2 Connection to B&R drive controllers

This chapter contains the information for connecting STOBER synchronous servo motors to drive controllers of the above-named manufacturer which differs from connecting to STOBER drive controllers. You can find all other information about STOBER synchronous servo motors in the chapter [▸ 17].

STOBER has taken the following measures to minimize the effort of commissioning STOBER motors connected to B&R drive controllers and avoid errors during parameterization:

- The commutation offset of the motor was set so that calibration by the customer is not necessary.
- The electronic nameplate of the motor was designed to be compatible with the B&R controllers.
- Parameter lists are available on request at systemsupport@stoeber.de.

More information on commissioning EZ motors connected to B&R drive controllers can be found in the 443184_en document in the download area on the STOBER website.

### 18.2.1 Encoders

**Encoders with EnDat 2.2 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EnDat 2.2 EQI 1131 Safety | S2 | Inductive | 4096 | 19 bit | 524288 | > 100 | ≤ 15 × $10^{-9}$ |
| EnDat 2.2 EQN 1135 Safety | S3 | Optical | 4096 | 23 bit | 8388608 | > 100 | ≤ 15 × $10^{-9}$ |
| EnDat 2.2 ECI 1118-G2 | C5 | Inductive | – | 18 bit | 262144 | > 76 | ≤ 1.5 × $10^{-6}$ |

**Encoders with EnDat 2.1 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| EnDat 2.1 EQN 1125 | Q4 | Optical | 4096 | 13 bit | 8192 | Sin/cos 512 | > 57 | ≤ 2 × $10^{-6}$ |
| EnDat 2.1 ECI 1118-G3 | C2 | Inductive | – | 18 bit | 262144 | Sin/cos 16 | > 100 | ≤ 6 × $10^{-7}$ |
| EnDat 2.1 EQI 1130-G3 | Q2 | Inductive | 4096 | 18 bit | 262144 | Sin/cos 16 | > 100 | ≤ 6 × $10^{-7}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Safety = Safety-related position measuring system for use in safety-oriented applications.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

### 18.2.2 Resolver

In this chapter, you can find detailed technical data for the resolver that can be installed as an encoder in a STOBER motor.

| Feature | Description |
|---|---|
| Code | R0 |
| Number of poles | 2 |
| Input voltage $U_{1eff}$ | 7 V ± 5% |
| Input frequency $f_1$ | 10 kHz |
| Output voltage $U_{2,S1–S3}$ | $K_{tr} \cdot U_{R1–R2} \cdot \cos\theta$ |
| Output voltage $U_{2,S2–S4}$ | $K_{tr} \cdot U_{R1–R2} \cdot \sin\theta$ |
| Transformation ratio $K_{tr}$ | 0.5 ± 5% |
| Electrical fault | ±10 arcmin |
| MTTF | > 100 years |
| PFH | ≤ $10^{-9}$ |

## 18.2.3 Possible combinations with drive controllers

The following table shows the possible combinations of STOBER synchronous servo motors with drive controllers from B&R depending on the encoder model.

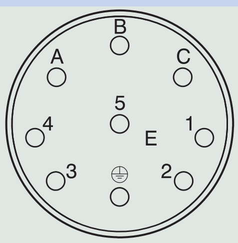
| Drive controller | | ACOPOS Standard EnDat 2.1/resolver | ACOPOSmulti EnDat 2.1/resolver | ACOPOSmulti EnDat 2.2 | ACOPOS P3 EnDat 2.2 | ACOPOS P3 OCS EnDat 2.2 | ACOPOSmulti OCS EnDat 2.2 |
|---|---|---|---|---|---|---|---|
| **Drive controller code** | | FG | FV | GG | GY | GP | GV |
| **Connection plan ID** | | 442313 | 442444 | 442677 | 443095 | 443022 | 443092 |
| **Encoder** | **Encoder code** | | | | | | |
| EnDat 2.2 EQI 1131 Safety | S2 | – | – | EZ | EZ | EZ | EZ |
| EnDat 2.2 EQN 1135 Safety | S3 | – | – | EZ | EZ | EZ | EZ |
| EnDat 2.2 ECI 1118-G2 | C5 | – | – | EZ | EZ | – | – |
| EnDat 2.1 EQN 1125 | Q4 | EZ | EZ | – | – | – | – |
| EnDat 2.1 ECI 1118-G3 | C2 | – | EZ | – | – | – | – |
| EnDat 2.1 EQI 1130-G3 | Q2 | – | EZ | – | – | – | – |
| Resolvers | R0 | EZ | EZ | – | – | – | – |

The encoder and drive controller codes are a part of the type designation of the motor.

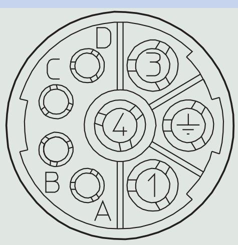
## 18.2.4 Connection assignment of the power plug connector

The size and connection diagram of the power plug connector depend on the size of the motor.

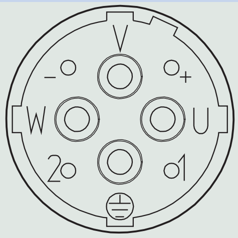
**Plug connector size con.15**

| Connection diagram | Pin | Connection |
|---|---|---|
|   | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | 1 | 1TP1 (temperature sensor +) |
| | 2 | 1TP2 (temperature sensor –) |
| | 3 | 1BD1 (brake +) |
| | 4 | 1BD2 (brake –) |
| | 5 | |
| | ⏚ | PE (grounding conductor) |

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|   | 1 | 1U1 (U phase) |
| | 3 | 1W1 (W phase) |
| | 4 | 1V1 (V phase) |
| | A | 1TP1 (temperature sensor +) |
| | B | 1TP2 (temperature sensor –) |
| | C | 1BD1 (brake +) |
| | D | 1BD2 (brake –) |
| | ⏚ | PE (grounding conductor) |

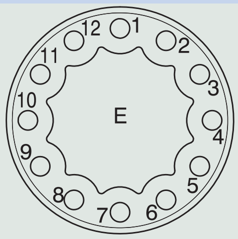
**Plug connector size con.40**

| Connection diagram | Pin | Connection |
|---|---|---|
|   | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | + | 1BD1 (brake +) |
| | – | 1BD2 (brake –) |
| | 1 | 1TP1 (temperature sensor +) |
| | 2 | 1TP2 (temperature sensor –) |
| | ⏚ | PE (grounding conductor) |

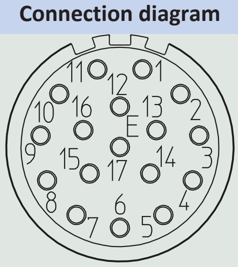
## 18.2.5 Connection assignment of the encoder plug connector

The size and terminal assignment of the encoder plug connectors depend on the model of encoder installed and the size of the motor.

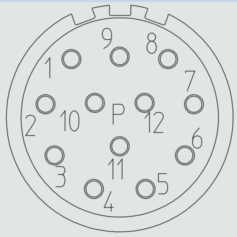
**EnDat 2.2 digital encoder, plug connector size con.15**

| Connection diagram | Pin | Connection |
|---|---|---|
|   | 1 | Up + |
| | 2 | Data + |
| | 3 | Data – |
| | 4 | Clock + |
| | 5 | Clock – |
| | 6 | |
| | 7 | 0 V GND |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |

**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|   | 1 | Up sense |
| | 2 | |
| | 3 | |
| | 4 | 0 V sense |
| | 5 | |
| | 6 | |
| | 7 | Up + |
| | 8 | Clock + |
| | 9 | Clock – |
| | 10 | 0 V GND |
| | 11 | |
| | 12 | B + (Sin +) |
| | 13 | B – (Sin –) |
| | 14 | Data + |
| | 15 | A + (Cos +) |
| | 16 | A – (Cos –) |
| | 17 | Data – |

**Resolver, plug connector size con.23**

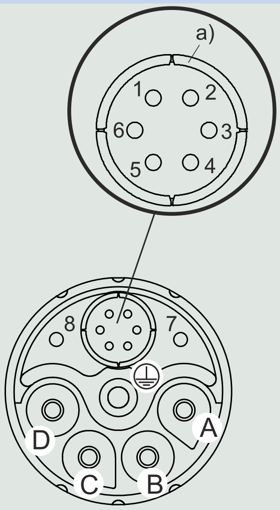
| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | |
| | 2 | |
| | 3 | S4 Sin + |
| | 4 | S1 Cos – |
| | 5 | R2 Ref + |
| | 6 | |
| | 7 | S2 Sin – |
| | 8 | S3 Cos + |
| | 9 | R1 Ref – |
| | 10 | |
| | 11 | |
| | 12 | |

## 18.2.6 Terminal assignment for plug connectors (One Cable Solution)

In the One Cable Solution design, the power and encoder lines are connected using a shared plug connector.

The temperature sensor of the motor is connected to the encoder internally. The measured values from the temperature sensor are transmitted via the log of the encoder.

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | D | |
| | 1 | Up + |
| | 2 | 0 V GND |
| | 3 | Data + |
| | 4 | Data – |
| | 5 | Clock + |
| | 6 | Clock – |
| | 7 | 1BD2 (brake –) |
| | 8 | 1BD1 (brake +) |
| | ⏚ | PE (grounding conductor) |
| a) Coaxial shield to which the shield of the encoder cores is connected | | |

## 18.3 Connection to Control Techniques drive controllers

This chapter contains the information for connecting STOBER synchronous servo motors to drive controllers of the above-named manufacturer which differs from connecting to STOBER drive controllers. You can find all other information about STOBER synchronous servo motors in the chapter [▷ 17].

STOBER has taken the following measures to minimize the effort of commissioning STOBER motors connected to Control Techniques drive controllers and avoid errors during parameterization:

- The commutation offset of the motor was set so that calibration by the customer is not necessary.
- Parameter lists are available on request at systemsupport@stoeber.de.

### 18.3.1 Encoder

**Encoders with EnDat 2.2 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EnDat 2.2 EQI 1131 Safety | S2 | Inductive | 4096 | 19 bit | 524288 | > 100 | $\leq 15 \times 10^{-9}$ |
| EnDat 2.2 EQN 1135 Safety | S3 | Optical | 4096 | 23 bit | 8388608 | > 100 | $\leq 15 \times 10^{-9}$ |

**Encoders with EnDat 2.1 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| EnDat 2.1 EQN 1125 | Q4 | Optical | 4096 | 13 bit | 8192 | Sin/cos 512 | > 57 | $\leq 2 \times 10^{-6}$ |
| EnDat 2.1 ECI 1118-G3 | C2 | Inductive | – | 18 bit | 262144 | Sin/cos 16 | > 100 | $\leq 6 \times 10^{-7}$ |
| EnDat 2.1 EQI 1130-G3 | Q2 | Inductive | 4096 | 18 bit | 262144 | Sin/cos 16 | > 100 | $\leq 6 \times 10^{-7}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Safety = Safety-related position measuring system for use in safety-oriented applications.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

### 18.3.2 Resolver

In this chapter, you can find detailed technical data for the resolver that can be installed as an encoder in a STOBER motor.

| Feature | Description |
|---|---|
| Code | R0 |
| Number of poles | 2 |
| Input voltage $U_{1eff}$ | 7 V ± 5% |
| Input frequency $f_1$ | 10 kHz |
| Output voltage $U_{2,S1-S3}$ | $K_{tr} \cdot U_{R1-R2} \cdot \cos \theta$ |
| Output voltage $U_{2,S2-S4}$ | $K_{tr} \cdot U_{R1-R2} \cdot \sin \theta$ |
| Transformation ratio $K_{tr}$ | 0.5 ± 5% |
| Electrical fault | ±10 arcmin |
| MTTF | > 100 years |
| PFH | $\leq 10^{-9}$ |

## 18.3.3 Possible combinations with drive controllers

The following table shows the possible combinations of STOBER synchronous servo motors with drive controllers from Control Techniques depending on the encoder model.

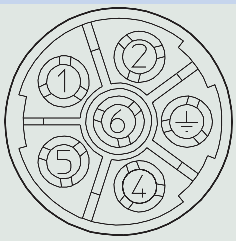
| **Drive controller** | | **Unidrive**<br>EnDat 2.1/Resolver | **Digitax OCS**<br>EnDat 2.2 |
|---|---|---|---|
| **Drive controller code** | | GE | HH |
| **Connection plan ID** | | 442555 | 443177 |
| **Encoder** | **Encoder code** | | |
| EnDat 2.2 EQI 1131 Safety | S2 | – | EZ |
| EnDat 2.2 EQN 1135 Safety | S3 | – | EZ |
| EnDat 2.1 EQN 1125 | Q4 | EZ | – |
| EnDat 2.1 ECI 1118-G3 | C2 | EZ | – |
| EnDat 2.1 EQI 1130-G3 | Q2 | EZ | – |
| Resolvers | R0 | EZ | – |

The encoder and drive controller codes are a part of the type designation of the motor.

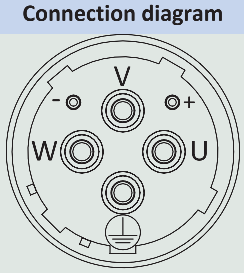
## 18.3.4 Terminal assignment of the power plug connector

The size and connection diagram of the power plug connector depend on the size of the motor.

**Plug connector size con.23**

<table>
<tr><th>Connection diagram</th><th>Pin</th><th>Connection</th></tr>
<tr><td rowspan="6">
</td><td>1</td><td>1U1 (U phase)</td></tr>
<tr><td>2</td><td>1V1 (V phase)</td></tr>
<tr><td>4</td><td>1W1 (W phase)</td></tr>
<tr><td>5</td><td>1BD1 (brake +)</td></tr>
<tr><td>6</td><td>1BD2 (brake –)</td></tr>
<tr><td>⏚</td><td>PE (grounding conductor)</td></tr>
</table>

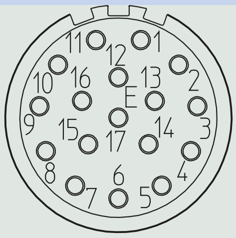
**Plug connector size con.40**

<table>
<tr><th>Connection diagram</th><th>Pin</th><th>Connection</th></tr>
<tr><td rowspan="6">
</td><td>U</td><td>1U1 (U phase)</td></tr>
<tr><td>V</td><td>1V1 (V phase)</td></tr>
<tr><td>W</td><td>1W1 (W phase)</td></tr>
<tr><td>+</td><td>1BD1 (brake +)</td></tr>
<tr><td>–</td><td>1BD2 (brake –)</td></tr>
<tr><td>⏚</td><td>PE (grounding conductor)</td></tr>
</table>

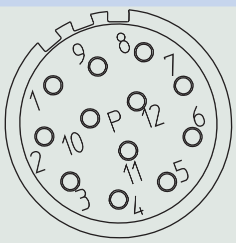
## 18.3.5 Terminal assignment of the encoder plug connector

The size and terminal assignment of the encoder plug connectors depend on the model of encoder installed and the size of the motor.

**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | 1TP1 (temperature sensor +) |
| | 2 | 1TP2 (temperature sensor –) |
| | 3 | |
| | 4 | |
| | 5 | |
| | 6 | |
| | 7 | |
| | 8 | Clock + |
| | 9 | Clock – |
| | 10 | A + (Cos +) |
| | 11 | Data + |
| | 12 | Data – |
| | 13 | A – (Cos –) |
| | 14 | B + (Sin +) |
| | 15 | B – (Sin –) |
| | 16 | Up + |
| | 17 | 0 V GND |

**Resolver, plug connector size con.23**

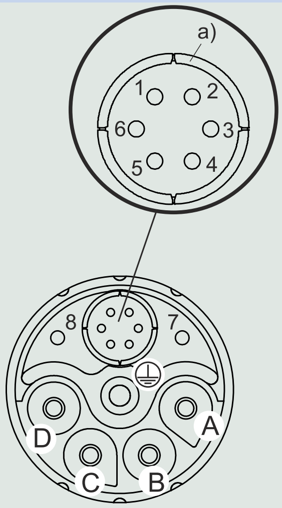
| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | R2 Ref + |
| | 2 | R1 Ref – |
| | 3 | S3 Cos + |
| | 4 | S1 Cos – |
| | 5 | S4 Sin + |
| | 6 | S2 Sin – |
| | 7 | 1TP1 (temperature sensor +) |
| | 8 | 1TP2 (temperature sensor –) |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |

## 18.3.6 Terminal assignment for plug connectors (One Cable Solution)

In the One Cable Solution design, the power and encoder lines are connected using a shared plug connector.

The temperature sensor of the motor is connected to the encoder internally. The measured values from the temperature sensor are transmitted via the log of the encoder.

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|   | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | D | |
| | 1 | Up + |
| | 2 | 0 V GND |
| | 3 | Data + |
| | 4 | Data – |
| | 5 | Clock + |
| | 6 | Clock – |
| | 7 | 1BD2 (brake –) |
| | 8 | 1BD1 (brake +) |
| | ⏚ | PE (grounding conductor) |

a) Coaxial shield to which the shield of the encoder cores is connected

# 18.4 Connection to Siemens drive controllers

This chapter contains the information for connecting STOBER synchronous servo motors to drive controllers of the above-named manufacturer which differs from connecting to STOBER drive controllers. You can find all other information about STOBER synchronous servo motors in the chapter [▶ 17].

STOBER has taken the following measures to minimize the effort of commissioning STOBER motors connected to SINAMICS S120 drive controllers and avoid errors during parameterization:

- The commutation offset of the motor was set so that calibration by the customer is not necessary.
- Parameter lists are available on request at systemsupport@stoeber.de.

More information on commissioning EZ motors connected to SINAMICS S120 drive controllers can be found in the 443232_en document in the download area on the STOBER website.

## 18.4.1 Encoders

**Encoders with EnDat 2.1 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| EnDat 2.1 EQN 1125 | Q4 | Optical | 4096 | 13 bit | 8192 | Sin/cos 512 | > 57 | ≤ $2 \times 10^{-6}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

## 18.4.2 Resolver

In this chapter, you can find detailed technical data for the resolver that can be installed as an encoder in a STOBER motor.

| Feature | Description |
|---|---|
| Code | R0 |
| Number of poles | 2 |
| Input voltage $U_{1eff}$ | 7 V ± 5% |
| Input frequency $f_1$ | 10 kHz |
| Output voltage $U_{2,S1–S3}$ | $K_{tr} \cdot U_{R1–R2} \cdot \cos \theta$ |
| Output voltage $U_{2,S2–S4}$ | $K_{tr} \cdot U_{R1–R2} \cdot \sin \theta$ |
| Transformation ratio $K_{tr}$ | 0.5 ± 5% |
| Electrical fault | ±10 arcmin |
| MTTF | > 100 years |
| PFH | ≤ $10^{-9}$ |

## 18.4.3 Possible combinations with drive controllers

The following table shows the possible combinations of STOBER synchronous servo motors with drive controllers from Siemens depending on the encoder model.

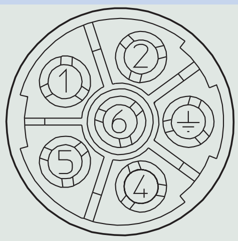
| **Drive controller** | | **SINAMICS S120**<br>EnDat 2.1/resolver |
|---|---|---|
| **Drive controller code** | | FJ |
| **Connection plan ID** | | 442315 |
| **Encoder** | **Encoder code** | |
| EnDat 2.1 EQN 1125 | Q4 | EZ |
| Resolvers | R0 | EZ |

The encoder and drive controller codes are a part of the type designation of the motor.

## 18.4.4 Connection assignment of the power plug connector

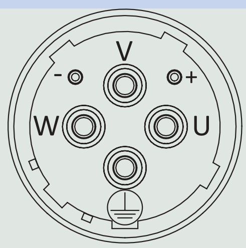
The size and connection diagram of the power plug connector depend on the size of the motor.

**Plug connector size con.23**




| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | 1U1 (U phase) |
| | 2 | 1V1 (V phase) |
| | 4 | 1BD1 (brake +) |
| | 5 | 1BD2 (brake –) |
| | 6 | 1W1 (W phase) |
| | ⏚ | PE (grounding conductor) |

**Plug connector size con.40**

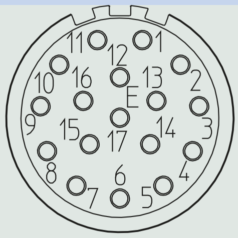



| Connection diagram | Pin | Connection |
|---|---|---|
| | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | + | 1BD1 (brake +) |
| | – | 1BD2 (brake –) |
| | ⏚ | PE (grounding conductor) |

## 18.4.5 Connection assignment of the encoder plug connector

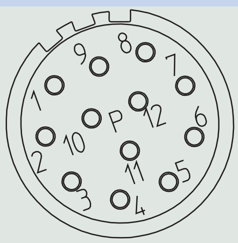
The size and terminal assignment of the encoder plug connectors depend on the model of encoder installed and the size of the motor.

**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.23**




| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | A + (Cos +) |
| | 2 | A − (Cos −) |
| | 3 | Data + |
| | 4 | |
| | 5 | Clock + |
| | 6 | |
| | 7 | 0 V GND |
| | 8 | 1TP1 (temperature sensor +) |
| | 9 | 1TP2 (temperature sensor −) |
| | 10 | Up + |
| | 11 | B + (Sin +) |
| | 12 | B − (Sin −) |
| | 13 | Data − |
| | 14 | Clock − |
| | 15 | 0 V sense |
| | 16 | Up sense |
| | 17 | |

**Resolver, plug connector size con.23**




| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | S4 Sin + |
| | 2 | S2 Sin − |
| | 3 | |
| | 4 | |
| | 5 | |
| | 6 | |
| | 7 | R1 Ref − |
| | 8 | 1TP1 (temperature sensor +) |
| | 9 | 1TP2 (temperature sensor −) |
| | 10 | R2 Ref + |
| | 11 | S3 Cos + |
| | 12 | S1 Cos − |

# 18.5 Connection to Kollmorgen drive controllers

This chapter contains the information for connecting STOBER synchronous servo motors to drive controllers of the above-named manufacturer which differs from connecting to STOBER drive controllers. You can find all other information about STOBER synchronous servo motors in the chapter [▶ 17].

STOBER has taken the following measures to minimize the effort of commissioning STOBER motors connected to Kollmorgen drive controllers and avoid errors during parameterization:

- The commutation offset of the motor was set so that calibration by the customer is not necessary.
- Parameter lists are available on request at systemsupport@stoeber.de.

More information on commissioning EZ motors connected to Kollmorgen drive controllers can be found in the 443236_en document in the download area on the STOBER website.

## 18.5.1 Encoders

**Encoders with EnDat 2.2 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EnDat 2.2 EQI 1131 Safety | S2 | Inductive | 4096 | 19 bit | 524288 | > 100 | ≤ $15 \times 10^{-9}$ |

**Encoders with EnDat 2.1 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| EnDat 2.1 EQN 1125 | Q4 | Optical | 4096 | 13 bit | 8192 | Sin/cos 512 | > 57 | ≤ $2 \times 10^{-6}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Safety = Safety-related position measuring system for use in safety-oriented applications.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

## 18.5.2 Resolver

In this chapter, you can find detailed technical data for the resolver that can be installed as an encoder in a STOBER motor.

| Feature | Description |
|---|---|
| Code | R0 |
| Number of poles | 2 |
| Input voltage $U_{1eff}$ | 7 V ± 5% |
| Input frequency $f_1$ | 10 kHz |
| Output voltage $U_{2,S1-S3}$ | $K_{tr} \cdot U_{R1-R2} \cdot \cos\theta$ |
| Output voltage $U_{2,S2-S4}$ | $K_{tr} \cdot U_{R1-R2} \cdot \sin\theta$ |
| Transformation ratio $K_{tr}$ | 0.5 ± 5% |
| Electrical fault | ±10 arcmin |
| MTTF | > 100 years |
| PFH | ≤ $10^{-9}$ |

### 18.5.3 Possible combinations with drive controllers

The following table shows the possible combinations of STOBER synchronous servo motors with drive controllers from Kollmorgen depending on the encoder model.

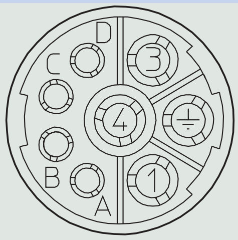
| **Drive controller** | | **Servostar S300-700**<br>EnDat 2.2/EnDat 2.1/resolver |
|---|---|---|
| **Drive controller code** | | FE |
| **Connection plan ID** | | 442311 |
| **Encoder** | **Encoder code** | |
| EnDat 2.2 EQI 1131 Safety | S2 | EZ |
| EnDat 2.1 EQN 1125 | Q4 | EZ |
| Resolvers | R0 | EZ |

The encoder and drive controller codes are a part of the type designation of the motor.

### 18.5.4 Connection assignment of the power plug connector

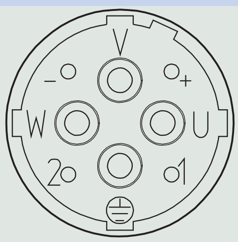
The size and connection diagram of the power plug connector depend on the size of the motor.

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | 1U1 (U phase) |
| | 3 | 1W1 (W phase) |
| | 4 | 1V1 (V phase) |
| | A | 1BD1 (brake +) |
| | B | 1BD2 (brake –) |
| | C | |
| | D | |
| | ⏚ | PE (grounding conductor) |



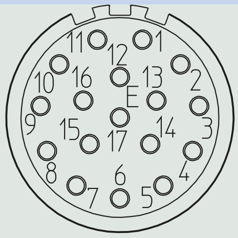
**Plug connector size con.40**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | + | 1BD1 (brake +) |
| | – | 1BD2 (brake –) |
| | 1 | |
| | 2 | |
| | ⏚ | PE (grounding conductor) |

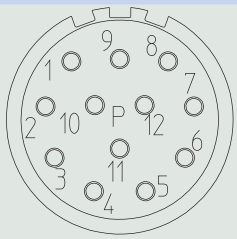
### 18.5.5 Connection assignment of the encoder plug connector

The size and terminal assignment of the encoder plug connectors depend on the model of encoder installed and the size of the motor.

**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | B – (Sin –) |
| | 2 | 0 V GND |
| | 3 | A – (Cos –) |
| | 4 | Up + |
| | 5 | Data + |
| | 6 | |
| | 7 | 1TP1 (temperature sensor +) |
| | 8 | Clock + |
| | 9 | B + (Sin +) |
| | 10 | 0 V sense |
| | 11 | A + (Cos +) |
| | 12 | Up sense |
| | 13 | Data – |
| | 14 | 1TP2 (temperature sensor -) |
| | 15 | Clock – |
| | 16 | |
| | 17 | |

**Resolver, plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | |
| | 2 | 1TP1 (temperature sensor +) |
| | 3 | S4 Sin + |
| | 4 | S3 Cos + |
| | 5 | R2 Ref + |
| | 6 | 1TP2 (temperature sensor -) |
| | 7 | S2 Sin – |
| | 8 | S1 Cos – |
| | 9 | R1 Ref – |
| | 10 | |
| | 11 | |
| | 12 | |

## 18.6 Connection to Bosch drive controllers

This chapter contains the information for connecting STOBER synchronous servo motors to drive controllers of the above-named manufacturer which differs from connecting to STOBER drive controllers. You can find all other information about STOBER synchronous servo motors in the chapter [▸ 17].

STOBER has taken the following measures to minimize the effort of commissioning STOBER motors connected to IndraDrive C/Cs drive controllers and avoid errors during parameterization:

- The commutation offset of the motor was set so that calibration by the customer is not necessary.
- Parameter lists are available on request at systemsupport@stoeber.de.

More information on commissioning EZ motors connected to IndraDrive C/Cs drive controllers can be found in the 443235_en document in the download area on the STOBER website.

### 18.6.1 Encoders

**Encoders with EnDat 2.1 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| EnDat 2.1 EQN 1125 | Q4 | Optical | 4096 | 13 bit | 8192 | Sin/cos 512 | > 57 | $\leq 2 \times 10^{-6}$ |
| EnDat 2.1 ECI 1118-G3 | C2 | Inductive | – | 18 bit | 262144 | Sin/cos 16 | > 100 | $\leq 6 \times 10^{-7}$ |
| EnDat 2.1 EQI 1130-G3 | Q2 | Inductive | 4096 | 18 bit | 262144 | Sin/cos 16 | > 100 | $\leq 6 \times 10^{-7}$ |

**Encoders with HIPERFACE interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| SKM36 | H1 | Optical | 4096 | 12 bit | 4096 | Sin/cos 128 | > 100 | $\leq 5.4 \times 10^{-7}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

### 18.6.2 Possible combinations with drive controllers

The following table shows the possible combinations of STOBER synchronous servo motors with drive controllers from Bosch depending on the encoder model.

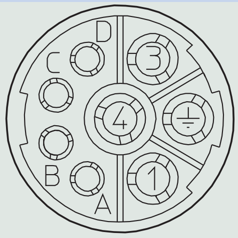
| Drive controller | | IndraDrive C/Cs<br>EnDat 2.1/HIPERFACE |
|---|---|---|
| **Drive controller code** | | FW |
| **Connection plan ID** | | 442445 |
| **Encoder** | **Encoder code** | |
| EnDat 2.1 EQN 1125 | Q4 | EZ |
| EnDat 2.1 ECI 1118-G3 | C2 | EZ |
| EnDat 2.1 EQI 1130-G3 | Q2 | EZ |
| SKM36 | H1 | EZ |

The encoder and drive controller codes are a part of the type designation of the motor.

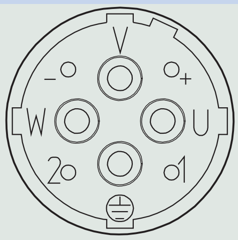
## 18.6.3 Connection assignment of the power plug connector

The size and connection diagram of the power plug connector depend on the size of the motor.

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | 1U1 (U phase) |
| | 3 | 1V1 (V phase) |
| | 4 | 1W1 (W phase) |
| | A | 1BD1 (brake +) |
| | B | 1BD2 (brake –) |
| | C | 1TP1 (temperature sensor +) |
| | D | 1TP2 (temperature sensor –) |
| | ⏚ | PE (grounding conductor) |

**Plug connector size con.40**

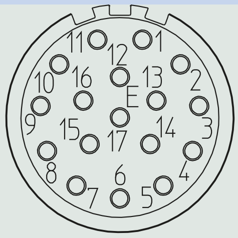
| Connection diagram | Pin | Connection |
|---|---|---|
|  | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | + | 1BD1 (brake +) |
| | – | 1BD2 (brake –) |
| | 1 | 1TP1 (temperature sensor +) |
| | 2 | 1TP2 (temperature sensor –) |
| | ⏚ | PE (grounding conductor) |

## 18.6.4 Connection assignment of the encoder plug connector

The size and terminal assignment of the encoder plug connectors depend on the model of encoder installed and the size of the motor.

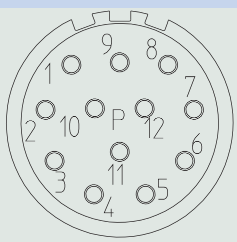
**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.23**

This terminal assignment only applies to the IndraDrive C/Cs drive controller.




| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | Up sense |
| | 2 | |
| | 3 | |
| | 4 | 0 V sense |
| | 5 | |
| | 6 | |
| | 7 | Up + |
| | 8 | Clock + |
| | 9 | Clock – |
| | 10 | 0 V GND |
| | 11 | |
| | 12 | B + (Sin +) |
| | 13 | B – (Sin –) |
| | 14 | Data + |
| | 15 | A + (Cos +) |
| | 16 | A – (Cos –) |
| | 17 | Data – |

**HIPERFACE encoder, plug connector size con.23**




| Connection diagram | Pin | Connection |
|---|---|---|
| | 1 | Us |
| | 2 | 0 V GND |
| | 3 | REFSIN |
| | 4 | REFCOS |
| | 5 | Data + |
| | 6 | Data – |
| | 7 | + SIN |
| | 8 | + COS |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |

# 18.7 Connection to Beckhoff drive controllers

This chapter contains the information for connecting STOBER synchronous servo motors to drive controllers of the above-named manufacturer which differs from connecting to STOBER drive controllers. You can find all other information about STOBER synchronous servo motors in the chapter [▶ 17].

STOBER has taken the following measures to minimize the effort of commissioning STOBER motors connected to AX5000 and AX8000 drive controllers and avoiding errors during parameterization:

- The commutation offset of the motor was set so that calibration by the customer is not necessary.
- Parameter lists are available on request at systemsupport@stoeber.de.

More information on commissioning EZ motors connected to Beckhoff drive controllers can be found in the 443185_en document in the download area on the STOBER website.

## 18.7.1 Encoders

**Encoders with EnDat 2.2 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EnDat 2.2 EQI 1131 Safety | S2 | Inductive | 4096 | 19 bit | 524288 | > 100 | ≤ 15 × $10^{-9}$ |
| EnDat 2.2 EQN 1135 Safety | S3 | Optical | 4096 | 23 bit | 8388608 | > 100 | ≤ 15 × $10^{-9}$ |

**Encoders with EnDat 2.1 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | Periods per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|---|
| EnDat 2.1 EQN 1125 | Q4 | Optical | 4096 | 13 bit | 8192 | Sin/cos 512 | > 57 | ≤ 2 × $10^{-6}$ |
| EnDat 2.1 EQI 1130-G3 | Q2 | Inductive | 4096 | 18 bit | 262144 | Sin/cos 16 | > 100 | ≤ 6 × $10^{-7}$ |

**Encoders with HIPERFACE DSL interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EDM35 | H6 | Optical | 4096 | 20 bit | 1048576 | > 100 | ≤ 31 × $10^{-9}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Safety = Safety-related position measuring system for use in safety-oriented applications.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

## 18.7.2 Possible combinations with drive controllers

The following table shows the possible combinations of STOBER synchronous servo motors with drive controllers from Beckhoff depending on the encoder model.

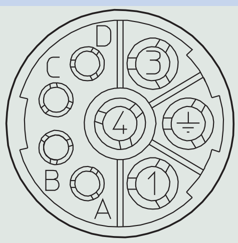
| **Drive controller** | | **AX5000 8-pin**[6] EnDat 2.1 | **AX8000/5000 OCS 9-pin**[7] HIPERFACE DSL | **AX5000 9-pin**[8] EnDat 2.1 | **AX8000 9-pin**[9] EnDat 2.2 |
|---|---|---|---|---|---|
| **Drive controller code** | | FM | HK | HN | HO |
| **Connection plan ID** | | 442318 | 443393 | 443451 | 443452 |
| **Encoder** | **Encoder code** | | | | |
| EnDat 2.2 EQI 1131 Safety | S2 | | | | EZ |
| EnDat 2.2 EQN 1135 Safety | S3 | | | | EZ |
| EnDat 2.1 EQN 1125 | Q4 | EZ | | EZ | |
| EnDat 2.1 EQI 1130-G3 | Q2 | | | EZ | |
| EDM35 | H6 | | EZ | | |

The encoder and drive controller codes are a part of the type designation of the motor.

## 18.7.3 Terminal assignment of 8-pin power plug connector

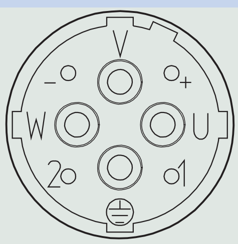
The size and connection diagram of the power plug connector depend on the size of the motor.

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | 1U1 (U phase) |
| | 3 | 1W1 (W phase) |
| | 4 | 1V1 (V phase) |
| | A | 1BD1 (brake +) |
| | B | 1BD2 (brake –) |
| | C | 1TP1 (temperature sensor +) |
| | D | 1TP2 (temperature sensor –) |
| | ⏚ | PE (grounding conductor) |



**Plug connector size con.40**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | + | 1BD1 (brake +) |
| | – | 1BD2 (brake –) |
| | 1 | 1TP1 (temperature sensor +) |
| | 2 | 1TP2 (temperature sensor –) |
| | ⏚ | PE (grounding conductor) |



[6] Design of the power connector

[7] Design of the power connector

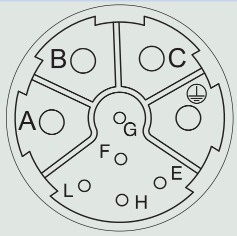
[8] Design of the power connector

[9] Design of the power connector

### 18.7.4 Terminal assignment of 9-pin power plug connector

The size and connection diagram of the power plug connector depend on the size of the motor.

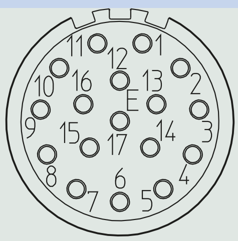
**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | E | 1TP2 (temperature sensor -) |
| | F | |
| | G | 1BD1 (brake +) |
| | H | 1TP1 (temperature sensor +) |
| | L | 1BD2 (brake –) |
| | ⏚ | PE (grounding conductor) |

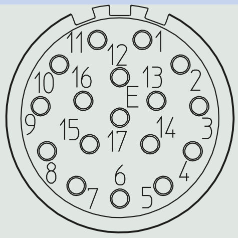
### 18.7.5 Connection assignment of the encoder plug connector

The size and terminal assignment of the encoder plug connectors depend on the type of encoder installed and the size of the motor.

**EnDat 2.2 digital encoder, plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | |
| | 2 | 0 V GND |
| | 3 | |
| | 4 | Up + |
| | 5 | Data + |
| | 6 | |
| | 7 | |
| | 8 | Clock + |
| | 9 | |
| | 10 | 0 V sense |
| | 11 | |
| | 12 | Up sense |
| | 13 | Data – |
| | 14 | |
| | 15 | Clock – |
| | 16 | |
| | 17 | |

**EnDat 2.1 encoder with sin/cos incremental signals, plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | 1 | B − (Sin −) |
| | 2 | 0 V GND |
| | 3 | A − (Cos −) |
| | 4 | Up + |
| | 5 | Data + |
| | 6 | |
| | 7 | |
| | 8 | Clock + |
| | 9 | B + (Sin +) |
| | 10 | 0 V sense |
| | 11 | A + (Cos +) |
| | 12 | Up sense |
| | 13 | Data − |
| | 14 | |
| | 15 | Clock − |
| | 16 | |
| | 17 | |

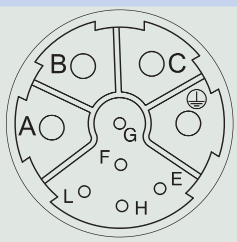
## 18.7.6 Terminal assignment for plug connectors (One Cable Solution)

In the One Cable Solution design, the power and encoder lines are connected using a shared plug connector.

The size of the plug connector depends on the size of the motor.

The temperature sensor of the motor is connected to the encoder internally. The measured values from the temperature sensor are transmitted via the log of the encoder.

**Plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|  | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | E | DSL− (L) |
| | F | DSL shield |
| | G | 1BD1 |
| | H | DSL+ (H) |
| | L | 1BD2 |
| | ⏚ | PE (grounding conductor) |

# 18.8 Connection to Allen-Bradley drive controllers

This chapter contains the information for connecting STOBER synchronous servo motors to drive controllers of the above-named manufacturer which differs from connecting to STOBER drive controllers. You can find all other information about STOBER synchronous servo motors in the chapter [▶ 17].

The STOBER EZ geared motors can be parameterized to Kinetix 5500/5700/6500 drive controllers fully automatically. EZ motors without an attached gearbox and other STOBER series are excluded.

STOBER has taken the following measures to minimize the effort of commissioning STOBER motors connected to Allen-Bradley drive controllers and avoid errors during parameterization:

- The commutation offset of the motor was set so that calibration by the customer is not necessary.
- The electronic nameplate of the motor was designed to be compatible with the Kinetix 5500/5700/6500.
- STOBER tests the motor connected to Allen-Bradley drive controllers before delivery to the customer.
- Parameter lists are available on request at systemsupport@stoeber.de.

More information on commissioning EZ motors connected to Allen-Bradley drive controllers can be found in the 443244_en document in the download area on the STOBER website.

## 18.8.1 Encoders

**Information**

The safety functionality of the encoders cannot be used in combination with Allen-Bradley drive controllers because, for applications with safety functionality, Allen-Bradley only permits its own motors.

**Encoders with EnDat 2.2 interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EnDat 2.2 EQN 1135 Safety | S3 | Optical | 4096 | 23 bit | 8388608 | > 100 | $\leq 15 \times 10^{-9}$ |

**Encoders with HIPERFACE DSL interface**

| Encoder model | Code | Measuring method | Recordable revolutions | Resolution | Position values per revolution | MTTF [years] | PFH [h] |
|---|---|---|---|---|---|---|---|
| EDM35 | H6 | Optical | 4096 | 20 bit | 1048576 | > 100 | $\leq 31 \times 10^{-9}$ |

**Notes**

- The encoder code is a part of the type designation of the motor.
- Safety = Safety-related position measuring system for use in safety-oriented applications.
- Multiple revolutions of the motor shaft can be recorded only using multi-turn encoders.

## 18.8.2 Possible combinations with drive controllers

The following table shows the possible combinations of STOBER motors and geared motors with drive controllers from Allen-Bradley depending on the encoder model.

**Information**

The safety functionality of the encoders cannot be used in combination with Allen-Bradley drive controllers because, for applications with safety functionality, Allen-Bradley only permits its own motors.

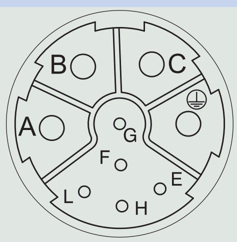
| **Drive controller** | | **KINETIX 5500 OCS**<br>HIPERFACE DSL | **KINETIX 5700 OCS**<br>HIPERFACE DSL | **KINETIX 5700**<br>EnDat 2.2 | **KINETIX 6500**<br>EnDat 2.2 |
|---|---|---|---|---|---|
| **Drive controller code** | | HB | GD | HA | GC |
| **Connection plan ID** | | 443169 | 442449 | 443096 | 442448 |
| **Encoder** | **Encoder code** | | | | |
| EnDat 2.2 EQN 1135 Safety | S3 | – | – | EZ | EZ |
| EDM35 | H6 | EZ | EZ | – | – |

The encoder and drive controller codes are a part of the type designation of the motor.

## 18.8.3 Terminal assignment of the power plug connector

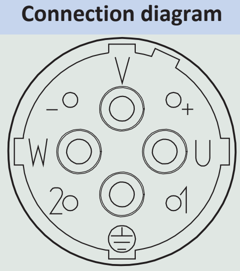
The size and connection diagram of the power plug connector depend on the size of the motor.

**Plug connector size con.23**




| Connection diagram | Pin | Connection |
|---|---|---|
| | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | F | MBRK + (1BD1) |
| | G | MBRK – (1BD2) |
| | E | |
| | H | |
| | L | |
| | ⏚ | PE (grounding conductor) |

**Plug connector size con.40**

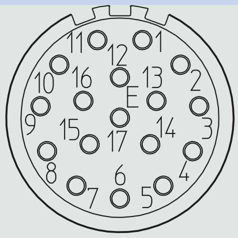



| Connection diagram | Pin | Connection |
|---|---|---|
| | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | + | MBRK + (1BD1) |
| | – | MBRK – (1BD2) |
| | 1 | |
| | 2 | |
| | ⏚ | PE (grounding conductor) |

## 18.8.4 Terminal assignment of the encoder plug connector

The size and terminal assignment of the encoder plug connectors depend on the model of encoder installed and the size of the motor.

**EnDat 2.2 digital encoder, plug connector size con.23**

| Connection diagram | Pin | Connection |
|---|---|---|
|   | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |
| | 5 | DATA + |
| | 6 | DATA – |
| | 7 | CLK + (Clock +) |
| | 8 | CLK – (Clock –) |
| | 9 | EPWR_5V (Up +) |
| | 10 | ECOM (0 V) |
| | 11 | |
| | 12 | |
| | 13 | TS + (1TP1) |
| | 14 | TS – (1TP2) |
| | 15 | |
| | 16 | |
| | 17 | |

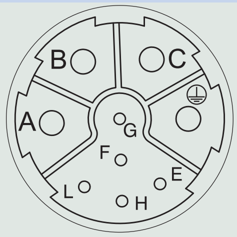
## 18.8.5 Terminal assignment for plug connectors (One Cable Solution)

In the One Cable Solution design, the power and encoder lines are connected using a shared plug connector.

The size of the plug connector depends on the size of the motor.

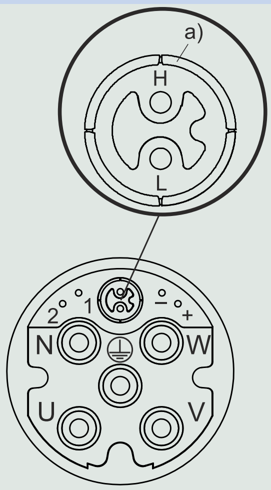
The temperature sensor of the motor is connected to the encoder internally. The measured values from the temperature sensor are transmitted via the log of the encoder.

**Plug connector size con.23**




| Connection diagram | Pin | Connection |
|---|---|---|
| | A | 1U1 (U phase) |
| | B | 1V1 (V phase) |
| | C | 1W1 (W phase) |
| | E | DATA + (DSL +) |
| | F | MBRK + (1BD1) |
| | G | MBRK – (1BD2) |
| | H | DATA – (DSL –) |
| | L | |
| | ⏚ | PE (grounding conductor) |

**Plug connector size con.40**




| Connection diagram | Pin | Connection |
|---|---|---|
| | U | 1U1 (U phase) |
| | V | 1V1 (V phase) |
| | W | 1W1 (W phase) |
| | N | |
| | + | |
| | – | |
| | 1 | MBRK + (1BD1) |
| | 2 | MBRK – (1BD2) |
| | H | DATA – (DSL –) |
| | L | DATA + (DSL +) |
| | ⏚ | PE (grounding conductor) |
| a) Coaxial shield to which the DSL shield is connected | | |


# 19 Close to customers around the world

**Service Network**

You can rely on our strong partners when it comes to service. They guide you through commissioning and offer expert technical advice.

**International Service Network**

Thanks to our large and long-standing international network, we offer worldwide service and continuous support. In over 40 countries. Put your trust in our expertise.

**Service hotline**

+49 7231 582-3000 We are available around the clock.

Do you value international availability and global service? We are here for you.

**STOBER AUSTRIA**
www.stoeber.at
+43 7613 7600-0
sales@stoeber.at

**STOBER FRANCE**
www.stober.fr
+33 478 98 91 80
sales@stober.fr

**STOBER ITALY**
www.stober.it
+39 02 93909570
sales@stober.it

**STOBER KOREA**
www.stober.kr
+82 10 5681 6298
sales@stober.kr

**STOBER SWITZERLAND**
www.stoeber.ch
+41 56 496 96 50
sales@stoeber.ch

**STOBER TURKEY**
www.stober.com
+90 216 510 2290
sales-turkey@stober.com

**STOBER USA**
www.stober.com
+1 606 759 5090
sales@stober.com

**STOBER CHINA**
www.stoeber.cn
+86 512 5320 8850
sales@stoeber.cn

**STOBER Germany**
www.stoeber.de
+49 7231 582-0
sales@stoeber.de

**STOBER JAPAN**
www.stober.co.jp
+81-3-5875-7583
sales@stober.co.jp

**STOBER SWEDEN**
www.stober.com
+46 702 394 675
neil.arstad@stoeber.de

**STOBER TAIWAN**
www.stober.tw
+886 4 2358 6089
sales@stober.tw

**STOBER UK**
www.stober.co.uk
+44 1543 458 858
sales@stober.co.uk

# 20 Appendix

## Table of contents

## 20.1 Symbols in formulas

The formula symbols for values actually present in the application are marked with *.

| Symbol | Unit | Explanation |
|---|---|---|
| $a_{th}$ | – | Parameter for calculating $K_{mot,th}$ |
| $a_{thEL}$ | – | Parameters for calculating $K_{mot,th}$ (dependent on the mounting position) |
| $B_{10}$ | – | Number of cycles after which 10% of components have failed |
| $B_{10D}$ | – | Number of cycles until 10% of components have failed dangerously |
| $C_2$ | Nm/ arcmin | Torsional stiffness relative to the gearbox output |
| $C_{2k}$ | Nm/arcmin | Tilting stiffness |
| $C_{dyn}$ | N | Dynamic bearing load rating |
| $\Delta J_B$ | $kgcm^2$ | Additive mass moment of inertia of a motor with brake |
| $\Delta m_B$ | kg | Additive weight of a motor with brake |
| $\Delta n_1$ | rpm | Speed difference at the input |
| $\Delta n_2$ | rpm | Speed difference at the output |
| $\Delta\phi_2$ | arcmin | Backlash at the output shaft with a blocked input |
| $\Delta\phi_{2red}$ | arcmin | Reduced backlash at the output shaft with a blocked input |
| $\Delta\phi_{2redI}$ | arcmin | Reduced backlash (backlash class I) at the output shaft with a blocked input |
| $\Delta\phi_{2redII}$ | arcmin | Reduced backlash (backlash class II) at the output shaft with a blocked input |
| $\Delta t$ | s | Timespan |
| $\Delta\vartheta$ | K | Temperature difference |
| $\eta_{get}$ | % | Efficiency of the gearbox at nominal torque |
| $\eta_{gt}$ | % | Efficiency of the screw drive |
| $ED_{10}$ | % | Duty cycle based on 10 minutes |
| $F_{2ax*}$ | N | Actual axial force at the gearbox output |
| $F_{2ax100}$ | N | Permitted axial force at the gearbox output for $n_{2m*} \leq 100$ rpm (without radial force) |
| $F_{2ax20}$ | N | Permitted axial force at the gearbox output for $n_{2m*} \leq 20$ rpm (without radial force) |
| $F_{2ax,eq*}$ | N | Actual equivalent axial force on the gearbox output |
| $F_{2axN}$ | N | Permitted nominal axial force at the gearbox output (without radial force) |
| $f_{2PU}$ | Hz | Output frequency of the power unit |
| $f_{PWM,PU}$ | kHz | Frequency of the pulse width modulation of the power unit |
| $F_{2rad*}$ | N | Actual radial force on the gearbox output |
| $F_{2rad100}$ | N | Permitted radial force at the gearbox output for $n_{2m*} \leq 100$ rpm |
| $F_{2rad20}$ | N | Permitted radial force on the gearbox output for $n_{2m*} \leq 20$ rpm |
| $F_{2rad,acc}$ | N | Permitted radial acceleration force at the gearbox output |
| $F_{2rad,acc*}$ | N | Radial acceleration force present at the gearbox output |
| $F_{2rad,acc,1*}$ | N | Radial acceleration force present at the gearbox output in the first time period |
| $F_{2rad,acc,n*}$ | N | Radial acceleration force present at the gearbox output in the nth time period |
| $F_{2rad,eq*}$ | N | Actual equivalent force at the gearbox output |
| $F_{2radN}$ | N | Permitted nominal radial force at the gearbox output |
| $F_{ax}$ | N | Permitted axial force on the output |
| $F_{ax*}$ | N | Actual axial force on the output |
| $F_{ax,1*} – F_{ax,n*}$ | N | Actual axial force in the respective time segment |
| $F_{ax,1*} – F_{ax,n*}$ | N | Actual axial force in the respective time segment |
| $F_{ax100}$ | N | Permitted axial force on the output for $n_{m*} \leq 100$ rpm |
| $F_{ax300}$ | N | Permitted axial force on the output for $n_{m*} \leq 300$ rpm |
| $F_{ax,eff*}$ | N | Actual effective axial force on the output |
| $F_{ax,ss}$ | N | Axial force that can be transmitted by the shrink ring |
| $fB_{op}$ | – | Operating mode operating factor |
| $fB_t$ | – | Runtime operating factor |
| $fB_T$ | – | Temperature operating factor |
| $fB_{ZB}$ | – | Operating factor for cyclic operation |
| $F_{rad}$ | N | Permitted radial force on the output |

| Symbol | Unit | Explanation |
|---|---|---|
| $F_{rad*}$ | N | Actual radial force on the output |
| $F_{rad100}$ | N | Permitted radial force on the output for $n_{m*}$ ≤ 100 rpm |
| $F_{rad300}$ | N | Permitted radial force on the output for $n_{m*}$ ≤ 300 rpm |
| $F_{rad,eq*}$ | N | Actual equivalent radial force at the output |
| H | m | Installation altitude above sea level |
| i | – | Gear ratio |
| $i_{exact}$ | – | Mathematically exact gear ratio |
| I | A | Current |
| $I_0$ | A | Stall current |
| $I_{max}$ | A | Maximum current |
| $I_N$ | A | Nominal current |
| $I_{N,B}$ | A | Nominal current of the brake at 20 °C |
| $I_{N,F}$ | A | Nominal current of the forced ventilation unit |
| $J_1$ | $kgcm^2$ | Mass moment of inertia relative to the gearbox input |
| $J_{Bstop}$ | $kgcm^2$ | Reference mass moment of inertia when braking from full speed: $J_{Bstop} = J_{dyn} \times 2$ |
| $J_{dyn}$ | $kgcm^2$ | Mass moment of inertia of a motor in dynamic operation |
| $J_{tot}$ | $kgm^2$ | Total mass moment of inertia (based on the motor shaft) |
| $K_{EM}$ | V/1000 rpm | Voltage constant: peak value of the induced voltage between the phases U, V, W of the motor at operating temperature at a speed of 1000 rpm |
| $K_H$ | – | Derating factor for installation altitude |
| $K_{M0}$ | Nm/A | Torque constant: ratio of the stall torque and frictional torque to the stall current; $K_{M0} = (M_0 + M_R) / I_0$ (tolerance ±10%) |
| $K_{M,N}$ | Nm/A | Torque constant: ratio of the nominal torque $M_N$ to the nominal current $I_N$; $K_{M,N} = M_N / I_N$ (tolerance ±10%) |
| $K_{mot,th}$ | – | Factor for determining the thermal limit torque |
| $K_\vartheta$ | – | Derating factor for surrounding temperature |
| l | mm | Length of the output shaft |
| $L_{10}$ | – | Nominal bearing service life for a survival probability of 90% in $10^6$ rollovers |
| $L_{10h}$ | h | Bearing service life |
| $L_{pA,F}$ | dB(A) | Noise level of the forced ventilation unit in the optimal operating range |
| $L_{U-V}$ | mH | Winding inductance of a motor between two phases (determined in a resonant circuit) |
| LW | - | Load change: A load change (LW) corresponds to an acceleration and a deceleration. |
| m | kg | Weight (for gearboxes without lubricant) |
| M | Nm | Torque |
| $\|M\|$ | Nm | Absolute value of torque |
| $M_0$ | Nm | Stall torque: The continuous torque the motor is able to deliver at a speed of 10 rpm (tolerance ±5%) |
| $M_{1*} – M_{4*}$ | Nm | Actual torque of the motor in the respective time segment (1 to 4) |
| $M_{1acc*}$ | Nm | Actual acceleration torque at the gearbox input |
| $M_{1eff*}$ | Nm | Actual effective torque at the gearbox input |
| $M_2$ | Nm | Torque at the gearbox output |
| $\|M_2\|$ | Nm | Absolute value of torque on the output |
| $M_{2.0}$ | Nm | Stall torque on the gearbox output |
| $M_{2.1*} – M_{2.4*}$ | Nm | Actual torque in the respective time segment (1 to 4) |
| $M_{2,n*}$ | Nm | Actual torque in the n-th time segment |
| $M_{2acc}$ | Nm | Maximum permitted acceleration torque on the gearbox output |
| $M_{2acc*}$ | Nm | Actual acceleration torque on the gearbox output |
| $M_{2acc,max}$ | Nm | Maximum permitted acceleration torque of a group of geared motors whose size and nominal torque $n_{1N}$ are the same |
| $M_{2accHT}$ | Nm | Maximum permitted acceleration torque on the gearbox output with reduced backlash |
| $M_{2eff*}$ | Nm | Actual effective torque on the gearbox output |
| $M_{2eq*}$ | Nm | Equivalent torque present on the gearbox output |
| $M_{2k*}$ | Nm | Actual tilting torque on the gearbox output |
| $M_{2k100}$ | Nm | Permitted tilting torque on the gearbox output for $n_{2m*}$ ≤ 100 rpm |

| Symbol | Unit | Explanation |
|---|---|---|
| $M_{2k20}$ | Nm | Permitted tilting torque on the gearbox output for $n_{2m*} \le 20$ rpm |
| $M_{2k,acc}$ | Nm | Permitted acceleration tilting torque at the gearbox output |
| $M_{2k,acc*}$ | Nm | Acceleration tilting torque present at the gearbox output |
| $M_{2k,eq*}$ | Nm | Actual equivalent tilting torque on the gearbox output |
| $M_{2kN}$ | Nm | Permitted nominal tilting torque at the gearbox output |
| $M_{2max}$ | Nm | Maximum torque at the gearbox output |
| $M_{2NOT}$ | Nm | Gearbox emergency off torque on the gearbox output for max. 1000 load changes |
| | | Without consideration of the maximum torque of the motor |
| $M_{2NOT*}$ | Nm | Actual emergency off torque for the gearbox on the gearbox output |
| $M_{2th}$ | Nm | Thermal limit torque on the gearbox output |
| $M_{Bdyn}$ | Nm | Dynamic braking torque at 100 °C |
| $M_{Bstat}$ | Nm | Static braking torque of the motor brake at 100 °C |
| $m_{dyn}$ | kg | Weight of a motor in dynamic operation |
| $M_{eff*}$ | Nm | Actual effective torque of the motor |
| $m_F$ | kg | Weight of the forced ventilation unit |
| $M_k$ | Nm | Permitted tilting torque on the output |
| $M_{k*}$ | Nm | Actual tilting torque on the output |
| $M_{k,1*} – M_{k,n*}$ | Nm | Actual tilting torque of the motor in the respective time segment |
| $M_{k,eq*}$ | Nm | Actual equivalent tilting torque at the output |
| $M_{k100}$ | Nm | Permitted tilting torque on the output for $n_{m*} \le 100$ rpm |
| $M_{k300}$ | Nm | Permitted tilting torque on the output for $n_{m*} \le 300$ rpm |
| $M_L$ | Nm | Load torque |
| $M_{L*}$ | Nm | Actual load torque |
| $M_{lim}$ | Nm | Torque limit without field weakening |
| $M_{limF}$ | Nm | Torque curve of the motor with forced ventilation in continuous operation |
| $M_{limFW}$ | Nm | Torque limit with field weakening (applies to operation on STOBER drive controllers only) |
| $M_{limK}$ | Nm | Torque curve of the motor with convection cooling in continuous operation |
| $M_{max}$ | Nm | Maximum torque: the maximum permitted torque the motor is able to deliver over a short period (when accelerating or decelerating) (tolerance ±10%) |
| $M_{max*}$ | Nm | Actual maximum torque |
| $M_{n*}$ | Nm | Actual torque of the motor in the n-th time segment |
| $M_N$ | Nm | Nominal torque: the maximum torque of a motor in S1 mode at nominal speed $n_N$ (tolerance ±5%) |
| | | You can calculate other torque values as follows: $M_{N*} = K_{M0} \cdot I^* – M_R$. |
| $M_{Nred}$ | Nm | Reduced nominal torque of the motor |
| $M_{op}$ | Nm | Torque of motor at the operating point from the motor characteristic curve at $n_{1m*}$ |
| $M_R$ | Nm | Frictional torque (of the bearings and seals) of a motor at winding temperature $\Delta\vartheta$ = 100 K |
| n | rpm | Speed |
| $\|n\|$ | rpm | Absolute value of speed |
| $n_{1limF}$ | rpm | Intersection of torque curve $M_{lim}$ and torque curve with forced ventilation $M_{limF}$ |
| $n_{1limK}$ | rpm | Intersection of torque curve $M_{lim}$ and torque curve with convection cooling $M_{limK}$ |
| $n_{1m*}$ | rpm | Actual average input speed |
| $n_{1max}$ | rpm | Maximum permitted input speed |
| $n_{1max*}$ | rpm | Actual maximum input speed |
| $n_{1maxDB}$ | $min^{-1}$ | Maximum permitted input speed of the gearbox in continuous operation |
| | | (at surrounding temperature of 20 °C) |
| $n_{1maxDBEL1,2}$ | rpm | Maximum permitted input speed of the gearbox in continuous operation Mounting positions EL1, EL2 |
| | | (at surrounding temperature of 20 °C) |
| $n_{1maxDBEL1,2,3,4}$ | rpm | Maximum permitted input speed of the gearbox in continuous operation Mounting positions EL1, EL2, EL3, EL4 |
| | | (at surrounding temperature of 20 °C) |

| Symbol | Unit | Explanation |
|---|---|---|
| $n_{1maxDBEL1,2,5,6}$ | rpm | Maximum permitted input speed of the gearbox in continuous operation Mounting positions EL1, EL2, EL5, EL6 |
| | | (at surrounding temperature of 20 °C) |
| $n_{1maxDBEL3,4}$ | rpm | Maximum permitted input speed of the gearbox in continuous operation Mounting positions EL3, EL4 |
| | | (at surrounding temperature of 20 °C) |
| $n_{1maxDBEL3,4,5,6}$ | rpm | Maximum permitted input speed of the gearbox in continuous operation Mounting positions EL3, EL4, EL5, EL6 |
| | | (at surrounding temperature of 20 °C) |
| $n_{1maxDBEL5,6}$ | rpm | Maximum permitted input speed of the gearbox in continuous operation Mounting positions EL5, EL6 |
| | | (at surrounding temperature of 20 °C) |
| $n_{1maxZB}$ | $min^{-1}$ | Maximum permitted input speed of the gearbox in cyclic operation |
| | | (at surrounding temperature of 20 °C) |
| $n_{1N}$ | rpm | Nominal speed at the gearbox input |
| $n_2$ | rpm | Speed at the gearbox output |
| $\|n_2\|$ | rpm | Absolute value of output speed |
| $n_{2m*}$ | rpm | Actual average output speed |
| $n_{2m,1*} – n_{2m,4*}$ | rpm | Actual average output speed in the respective time segment (1 to 4) |
| $n_{2m,n*}$ | rpm | Actual average output speed in the n-th time segment |
| $N_{Bstop}$ | – | Permitted number of braking processes from full speed (n = 3000 rpm) with $J_{Bstop}$ ($M_L$ = 0). The following applies if the values of n and $J_{Bstop}$ differ: $N_{Bstop} = W_{B,Rlim} / W_{B,R/B}$. |
| $n_{m*}$ | rpm | Actual average motor speed |
| $n_{m,1*} – n_{m,4*}$ | rpm | Actual average speed of the motor in the respective time segment (1 to 4) |
| $n_{m,n*}$ | rpm | Actual average speed of the motor in the n-th time segment |
| $n_{mot}$ | rpm | Speed of the motor |
| $n_N$ | rpm | Nominal speed: The speed for which the nominal torque $M_N$ is specified |
| p | – | Number of pole pairs |
| $P_N$ | kW | Nominal power: the power the motor is able to deliver long term in S1 mode at the nominal point (tolerance ±5 %) |
| $P_{N,F}$ | W | Nominal output of the forced ventilation unit |
| $P_{st}$ | mm | Pitch of the screw drive |
| $R_{U-V}$ | Ω | Winding resistance of a motor between two phases at a winding temperature of 20 °C |
| $q_{vF}$ | $m^3/h$ | Delivery capacity of the forced ventilation unit in open air |
| S | – | Service factor: Quotient of the nominal torque from the gearbox and the motor without consideration for thermal limiting performance. Represents a value for the reserve of the geared motor. |
| t | s | Time |
| $t_{1*} – t_{4*}$ | s | Duration of the respective time segment (1 to 4) |
| $t_{1B}$ | ms | Linking time: time from when the current is turned off until the nominal braking torque is reached |
| $t_{11B}$ | ms | Response delay: time from when the current is turned off until the torque increases |
| $t_{2B}$ | ms | Release time (also: disengagement time) of the brake; time span from when the current is switched off until the brake is completely released |
| $t_{dec}$ | ms | Stop time |
| $T_{el}$ | ms | Electrical time constant: ratio of the winding inductance to the winding resistance of a motor: $T_{el} = L_{U-V} / R_{U-V}$ |
| $t_{n*}$ | s | Duration of the n-th time segment |
| $\vartheta_{amb}$ | °C | Surrounding temperature |
| U | V | Voltage |
| $U_{N,B}$ | V | Nominal voltage of brake |
| $U_{N,F}$ | V | Nominal voltage of the forced ventilation unit |
| $U_{ZK}$ | V | DC link voltage: characteristic value of a drive controller |
| $v_{ax}$ | mm/s | Axial velocity |
| $v_{ax,m*}$ | mm/s | Actual average axial velocity |

| Symbol | Unit | Explanation |
|---|---|---|
| $v_{ax,m1*} - v_{ax,mn*}$ | mm/s | Actual average axial velocity in the respective time segment |
| $W_{B,R/B}$ | J | Work done by friction for braking |
| $W_{B,Rlim}$ | kJ | Work done by friction until wear limit is reached |
| $W_{B,Rmax/h}$ | kJ/h | Maximum permitted work done by friction per hour with individual braking |
| $x_2$ | mm | Distance of the shaft shoulder to the force application point |
| $x_{B,N}$ | mm | Nominal air gap of brake |
| $y_2$ | mm | Distance of the shaft axis to the axial force application point |
| $z_2$ | mm | Distance of the shaft shoulder to the middle of the output bearing |

## 20.2 Trademarks

The following names used in connection with the device, its optional equipment and its accessories are trademarks or registered trademarks of other companies:

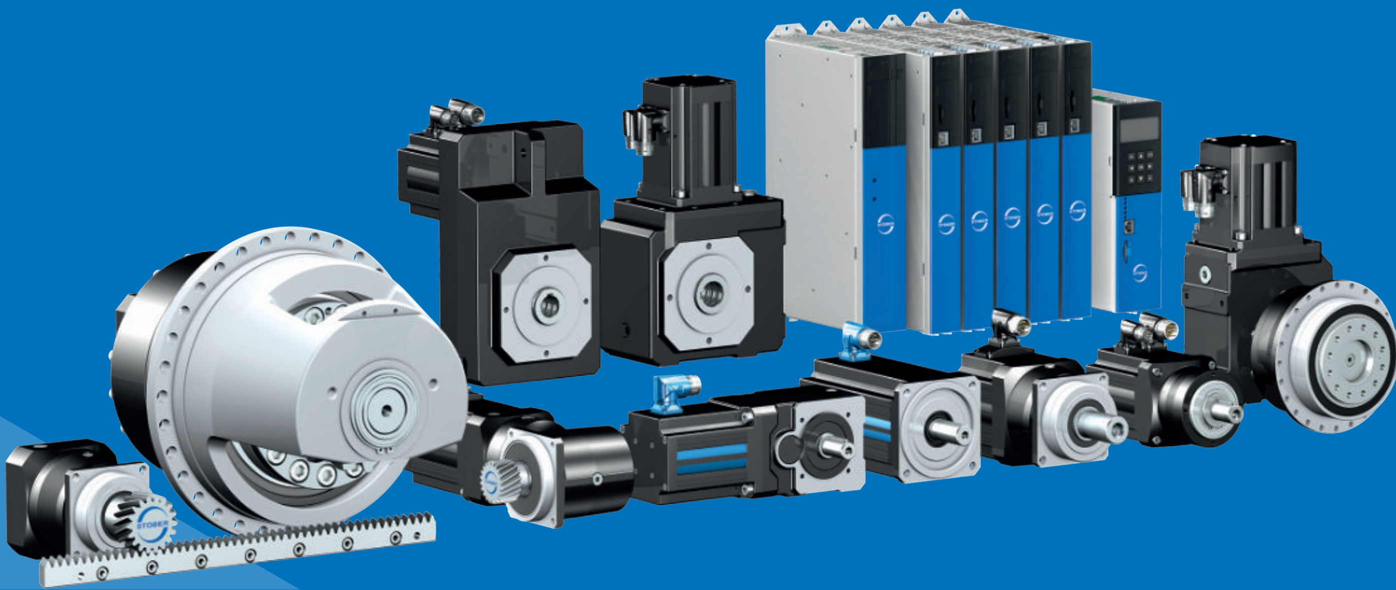
| | |
|---|---|
| ACOPOS® | ACOPOS® is a registered trademark of ABB Asea Brown Boveri Ltd., Switzerland. |
| ALLEN-BRADLEY® | ALLEN-BRADLEY® is a registered trademark of Rockwell Automation, Inc., USA. |
| Control Techniques® | Control Techniques® is a registered trademark of Nidec Control Techniques Limited, UK. |
| DRIVE-CLiQ®, | DRIVE-CLiQ® is a registered trademark of Siemens AG, Germany. |
| EnDat® | EnDat® and the EnDat® logo are registered trademarks of Dr. Johannes Heidenhain GmbH, Germany. |
| HIPERFACE® | HIPERFACE® and the HIPERFACE DSL® logo are registered trademarks of SICK AG, Germany. |
| IndraDrive® | IndraDrive® is a registered trademark of Bosch Rexroth AG, Germany. |
| INTERCONTEC® | INTERCONTEC® is a registered trademark of TE Connectivity Industrial GmbH, Germany. |
| RINGFEDER® | RINGFEDER® is a registered trademark of VBG GROUP TRUCK EQUIPMENT GmbH, Germany. |
| SERVOSTAR® | SERVOSTAR® is a registered trademark of Kollmorgen Corporation, USA. |
| SINAMICS® | SINAMICS® is a registered trademark of Siemens AG, Germany. |

All other trademarks not listed here are the property of their respective owners.

Products that are registered as trademarks are not specially indicated in this documentation. Existing property rights (patents, trademarks, protection of utility models) are to be observed.

## 20.3 Sales terms and delivery conditions

You can find our current sales terms and delivery conditions at http://www.stoeber.de/en/gtc.



STÖBER Antriebstechnik GmbH + Co. KG
Kieselbronner Strasse 12
75177 Pforzheim
Germany
Phone: +49 7231 582-0
mail@stoeber.de
www.stober.com

Service hotline:
+49 7231 582-3000

ID 442437_en.16 03/2026



STÖBER