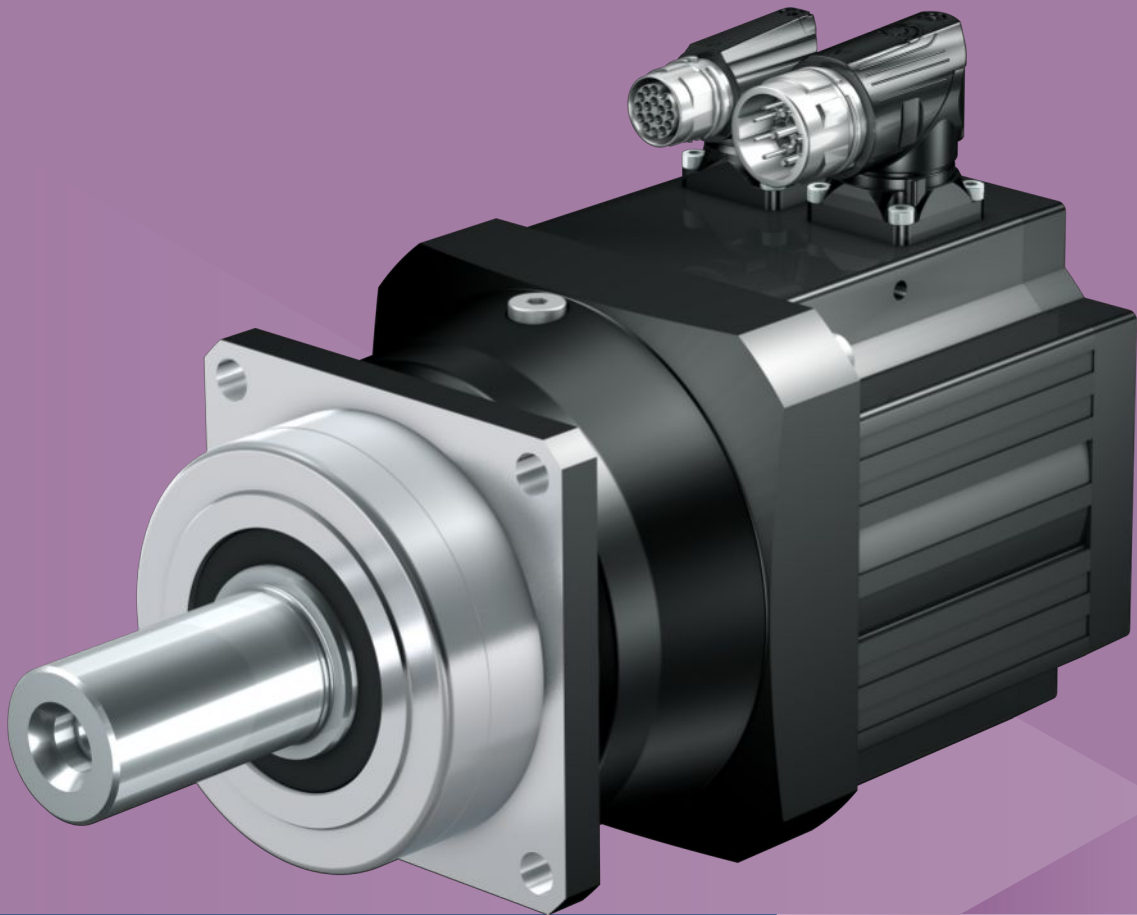




## 2

# 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. EZ401U)
- $M_{2acc}$ ,  $M_{2accHT}$ : 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. EZ401B), refer to

<https://configurator.stoeber.de/en-US/>.

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

| $n_{2N}$<br>[rpm]                                                             | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|-------------------------------------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| <b>P2 (<math>n_{1N} = 3000</math> rpm, <math>M_{2acc,max} = 25</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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       |
| <b>P2 (<math>n_{1N} = 6000</math> rpm, <math>M_{2acc,max} = 25</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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       |
| <b>P3 (<math>n_{1N} = 3000</math> rpm, <math>M_{2acc,max} = 75</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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       |

## 2.2 Selection tables 2 P planetary geared motors

| $n_{2N}$<br>[rpm]                                 | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|---------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| P3 ( $n_{1N} = 3000$ rpm, $M_{2acc,max} = 75$ 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 ( $n_{1N} = 6000$ rpm, $M_{2acc,max} = 75$ 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       |

| $n_{2N}$<br>[rpm]                                                              | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|--------------------------------------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| <b>P3 (<math>n_{1N} = 6000</math> rpm, <math>M_{2acc,max} = 75</math> Nm)</b>  |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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       |
| <b>P4 (<math>n_{1N} = 3000</math> rpm, <math>M_{2acc,max} = 140</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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       |

## 2.2 Selection tables 2 P planetary geared motors

| $n_{2N}$<br>[rpm]                                  | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|----------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| P4 ( $n_{1N} = 3000$ rpm, $M_{2acc,max} = 140$ 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 ( $n_{1N} = 4500$ rpm, $M_{2acc,max} = 140$ 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 ( $n_{1N} = 6000$ rpm, $M_{2acc,max} = 140$ 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       |

| $n_{2N}$<br>[rpm]                                  | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|----------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| P4 ( $n_{1N} = 6000$ rpm, $M_{2acc,max} = 140$ 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 ( $n_{1N} = 3000$ rpm, $M_{2acc,max} = 360$ 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        |

## 2.2 Selection tables 2 P planetary geared motors

| $n_{2N}$<br>[rpm]                                                    | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{\text{exakt}}$ | $n_{1\text{maxDB}}$<br>[rpm] | $n_{1\text{maxZB}}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2\text{red}}$<br>[arcmin] | $C_2$<br>[Nm/arcmin] | m<br>[kg] |
|----------------------------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|--------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------------------|----------------------|-----------|
| P5 ( $n_{1N} = 3000 \text{ rpm}$ , $M_{2acc,max} = 360 \text{ Nm}$ ) |                  |                   |          |     |                  |                    |                      |                    |       |                    |                              |                              |                               |                               |                                           |                      |           |
| 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 ( $n_{1N} = 4500 \text{ rpm}$ , $M_{2acc,max} = 360 \text{ Nm}$ ) |                  |                   |          |     |                  |                    |                      |                    |       |                    |                              |                              |                               |                               |                                           |                      |           |
| 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        |

| $n_{2N}$<br>[rpm]                                  | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|----------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| P5 ( $n_{1N} = 4500$ rpm, $M_{2acc,max} = 360$ 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 ( $n_{1N} = 6000$ rpm, $M_{2acc,max} = 360$ 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        |

## 2.2 Selection tables 2 P planetary geared motors

| $n_{2N}$<br>[rpm]                                                              | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|--------------------------------------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| <b>P5 (<math>n_{1N} = 6000</math> rpm, <math>M_{2acc,max} = 360</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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        |
| <b>P7 (<math>n_{1N} = 2000</math> rpm, <math>M_{2acc,max} = 810</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 250                                                                            | 339              | 513               | 8.9      | 1.2 | P731_0080 EZ805U | 668                | 700                  | 1336               | 8.000 | 8/1         | 3000                  | 6000                  | 134                           | 3.0                           | 1.0                                | 58                       | 56        |
| 286                                                                            | 297              | 449               | 9.5      | 1.5 | P731_0070 EZ805U | 805                | 840                  | 1610               | 7.000 | 7/1         | 3000                  | 6000                  | 134                           | 3.0                           | 1.0                                | 61                       | 56        |
| 400                                                                            | 212              | 321               | 14       | 2.1 | P731_0050 EZ805U | 805                | 840                  | 1610               | 5.000 | 5/1         | 2700                  | 5500                  | 135                           | 3.0                           | 1.0                                | 67                       | 56        |
| 500                                                                            | 170              | 256               | 19       | 2.6 | P731_0040 EZ805U | 700                | 725                  | 1400               | 4.000 | 4/1         | 2500                  | 5000                  | 137                           | 3.0                           | 1.0                                | 69                       | 56        |
| 667                                                                            | 127              | 192               | 41       | 2.2 | P731_0030 EZ805U | 500                | 500                  | 1000               | 3.000 | 3/1         | 2200                  | 4000                  | 142                           | 3.0                           | 1.0                                | 68                       | 56        |
| <b>P7 (<math>n_{1N} = 3000</math> rpm, <math>M_{2acc,max} = 810</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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        |
| 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        |

| $n_{2N}$<br>[rpm]                                  | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|----------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| P7 ( $n_{1N} = 3000$ rpm, $M_{2acc,max} = 810$ Nm) |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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        |
| 300                                                | 216              | 360               | 5.0      | 1.3 | P731_0100 EZ802U | 575                | 575                  | 1150               | 10.00 | 10/1        | 3000                  | 6000                  | 59                            | 3.0                           | 1.0                                | 55                       | 37        |
| 300                                                | 258              | 468               | 6.0      | 1.1 | P731_0100 EZ803U | 575                | 575                  | 1150               | 10.00 | 10/1        | 3000                  | 6000                  | 84                            | 3.0                           | 1.0                                | 55                       | 43        |
| 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        |
| 375                                                | 173              | 288               | 5.2      | 2.0 | P731_0080 EZ802U | 668                | 700                  | 1336               | 8.000 | 8/1         | 3000                  | 6000                  | 59                            | 3.0                           | 1.0                                | 58                       | 37        |
| 375                                                | 206              | 374               | 6.2      | 1.7 | P731_0080 EZ803U | 668                | 700                  | 1336               | 8.000 | 8/1         | 3000                  | 6000                  | 84                            | 3.0                           | 1.0                                | 58                       | 43        |
| 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        |
| 429                                                | 151              | 252               | 5.6      | 2.5 | P731_0070 EZ802U | 679                | 679                  | 1610               | 7.000 | 7/1         | 3000                  | 6000                  | 59                            | 3.0                           | 1.0                                | 61                       | 37        |
| 429                                                | 181              | 327               | 6.6      | 2.1 | P731_0070 EZ803U | 805                | 840                  | 1610               | 7.000 | 7/1         | 3000                  | 6000                  | 85                            | 3.0                           | 1.0                                | 61                       | 43        |
| 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        |
| 600                                                | 108              | 180               | 8.3      | 3.6 | P731_0050 EZ802U | 485                | 485                  | 1610               | 5.000 | 5/1         | 2700                  | 5500                  | 60                            | 3.0                           | 1.0                                | 67                       | 37        |
| 600                                                | 129              | 234               | 9.9      | 3.0 | P731_0050 EZ803U | 703                | 703                  | 1610               | 5.000 | 5/1         | 2700                  | 5500                  | 86                            | 3.0                           | 1.0                                | 67                       | 43        |
| 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        |
| 750                                                | 87               | 144               | 11       | 4.4 | P731_0040 EZ802U | 388                | 388                  | 1400               | 4.000 | 4/1         | 2500                  | 5000                  | 62                            | 3.0                           | 1.0                                | 69                       | 37        |
| 750                                                | 103              | 187               | 13       | 3.7 | P731_0040 EZ803U | 563                | 563                  | 1400               | 4.000 | 4/1         | 2500                  | 5000                  | 88                            | 3.0                           | 1.0                                | 69                       | 43        |
| 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        |
| 1000                                               | 65               | 108               | 24       | 3.8 | P731_0030 EZ802U | 291                | 291                  | 1000               | 3.000 | 3/1         | 2200                  | 4000                  | 67                            | 3.0                           | 1.0                                | 68                       | 37        |
| 1000                                               | 77               | 140               | 29       | 3.2 | P731_0030 EZ803U | 422                | 422                  | 1000               | 3.000 | 3/1         | 2200                  | 4000                  | 93                            | 3.0                           | 1.0                                | 68                       | 43        |
| P7 ( $n_{1N} = 4500$ rpm, $M_{2acc,max} = 810$ 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        |
| 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        |

## 2.2 Selection tables 2 P planetary geared motors

| $n_{2N}$<br>[rpm]                                  | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|----------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| P7 ( $n_{1N} = 4500$ rpm, $M_{2acc,max} = 810$ Nm) |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 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                                                | 102              | 335               | 2.7      | 2.4 | P731_0100 EZ802U | 575                | 575                  | 1150               | 10.00 | 10/1        | 3000                  | 6000                  | 59                            | 3.0                           | 1.0                                | 55                       | 37        |
| 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                                                | 81               | 268               | 2.8      | 3.7 | P731_0080 EZ802U | 668                | 700                  | 1336               | 8.000 | 8/1         | 3000                  | 6000                  | 59                            | 3.0                           | 1.0                                | 58                       | 37        |
| 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                                                | 71               | 234               | 3.0      | 4.7 | P731_0070 EZ802U | 679                | 679                  | 1610               | 7.000 | 7/1         | 3000                  | 6000                  | 59                            | 3.0                           | 1.0                                | 61                       | 37        |
| 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 ( $n_{1N} = 6000$ rpm, $M_{2acc,max} = 810$ 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        |

| $n_{2N}$<br>[rpm]                                                               | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/arcmin] | m<br>[kg] |
|---------------------------------------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|----------------------|-----------|
| <b>P7 (<math>n_{1N} = 6000</math> rpm, <math>M_{2acc,max} = 810</math> Nm)</b>  |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 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        |
| <b>P8 (<math>n_{1N} = 2000</math> rpm, <math>M_{2acc,max} = 1840</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 80                                                                              | 1038             | 1570              | 5.0      | 1.3 | P832_0250 EZ805U | 1840               | 2000                 | 3230               | 25.00 | 25/1        | 2900                  | 5000                  | 135                           | 4.0                           | 2.0                                | 177                  | 76        |
| 100                                                                             | 830              | 1256              | 5.8      | 1.5 | P832_0200 EZ805U | 1840               | 2000                 | 3230               | 20.00 | 20/1        | 2700                  | 5000                  | 137                           | 4.0                           | 2.0                                | 177                  | 76        |
| 125                                                                             | 664              | 1005              | 7.4      | 1.7 | P832_0160 EZ805U | 1600               | 1600                 | 3200               | 16.00 | 16/1        | 2700                  | 5000                  | 137                           | 4.0                           | 2.0                                | 174                  | 76        |
| 167                                                                             | 498              | 754               | 12       | 1.6 | P832_0120 EZ805U | 1200               | 1200                 | 2400               | 12.00 | 12/1        | 2200                  | 4500                  | 139                           | 4.0                           | 2.0                                | 168                  | 76        |
| 200                                                                             | 424              | 641               | 3.8      | 1.8 | P831_0100 EZ805U | 1380               | 1380                 | 2760               | 10.00 | 10/1        | 2800                  | 4500                  | 136                           | 3.0                           | 1.0                                | 150                  | 70        |
| 250                                                                             | 339              | 513               | 4.8      | 2.4 | P831_0080 EZ805U | 1500               | 1500                 | 3000               | 8.000 | 8/1         | 2800                  | 4500                  | 137                           | 3.0                           | 1.0                                | 162                  | 70        |
| 286                                                                             | 297              | 449               | 4.5      | 3.4 | P831_0070 EZ805U | 1392               | 1392                 | 3230               | 7.000 | 7/1         | 2800                  | 4500                  | 138                           | 3.0                           | 1.0                                | 170                  | 70        |
| 400                                                                             | 212              | 321               | 6.8      | 4.7 | P831_0050 EZ805U | 994                | 994                  | 2512               | 5.000 | 5/1         | 2500                  | 4000                  | 143                           | 3.0                           | 1.0                                | 185                  | 70        |
| 500                                                                             | 170              | 256               | 11       | 4.7 | P831_0040 EZ805U | 795                | 795                  | 2018               | 4.000 | 4/1         | 2000                  | 3500                  | 151                           | 3.0                           | 1.0                                | 187                  | 70        |
| <b>P8 (<math>n_{1N} = 3000</math> rpm, <math>M_{2acc,max} = 1840</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 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        |
| 60                                                                              | 1059             | 1762              | 1.8      | 1.2 | P832_0500 EZ802U | 1840               | 2000                 | 3230               | 50.00 | 50/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 173                  | 57        |
| 60                                                                              | 1264             | 2290              | 2.2      | 1.0 | P832_0500 EZ803U | 1840               | 2000                 | 3230               | 50.00 | 50/1        | 3000                  | 6000                  | 84                            | 4.0                           | 2.0                                | 173                  | 63        |
| 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        |
| 75                                                                              | 847              | 1410              | 2.6      | 1.2 | P832_0400 EZ802U | 1600               | 1600                 | 3200               | 40.00 | 40/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 168                  | 57        |
| 75                                                                              | 1011             | 1832              | 3.1      | 1.0 | P832_0400 EZ803U | 1600               | 1600                 | 3200               | 40.00 | 40/1        | 3000                  | 6000                  | 84                            | 4.0                           | 2.0                                | 168                  | 63        |
| 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        |
| 86                                                                              | 741              | 1234              | 2.2      | 1.7 | P832_0350 EZ802U | 1840               | 2000                 | 3230               | 35.00 | 35/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 176                  | 57        |
| 86                                                                              | 884              | 1603              | 2.6      | 1.4 | P832_0350 EZ803U | 1840               | 2000                 | 3230               | 35.00 | 35/1        | 3000                  | 6000                  | 85                            | 4.0                           | 2.0                                | 176                  | 63        |
| 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        |
| 94                                                                              | 678              | 1128              | 2.9      | 1.5 | P832_0320 EZ802U | 1525               | 1595                 | 3049               | 32.00 | 32/1        | 2700                  | 5000                  | 62                            | 4.0                           | 2.0                                | 159                  | 57        |
| 94                                                                              | 809              | 1465              | 3.5      | 1.2 | P832_0320 EZ803U | 1525               | 1595                 | 3049               | 32.00 | 32/1        | 2700                  | 5000                  | 87                            | 4.0                           | 2.0                                | 159                  | 63        |
| 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        |
| 107                                                                             | 593              | 987               | 3.1      | 1.7 | P832_0280 EZ802U | 1600               | 1600                 | 3200               | 28.00 | 28/1        | 3000                  | 5000                  | 59                            | 4.0                           | 2.0                                | 172                  | 57        |
| 107                                                                             | 708              | 1282              | 3.7      | 1.4 | P832_0280 EZ803U | 1600               | 1600                 | 3200               | 28.00 | 28/1        | 3000                  | 5000                  | 85                            | 4.0                           | 2.0                                | 172                  | 63        |
| 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        |
| 120                                                                             | 530              | 881               | 2.6      | 2.4 | P832_0250 EZ802U | 1840               | 2000                 | 3230               | 25.00 | 25/1        | 2900                  | 5000                  | 60                            | 4.0                           | 2.0                                | 177                  | 57        |
| 120                                                                             | 632              | 1145              | 3.1      | 2.0 | P832_0250 EZ803U | 1840               | 2000                 | 3230               | 25.00 | 25/1        | 2900                  | 5000                  | 86                            | 4.0                           | 2.0                                | 177                  | 63        |
| 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        |
| 150                                                                             | 424              | 705               | 3.0      | 3.0 | P832_0200 EZ802U | 1840               | 1900                 | 3230               | 20.00 | 20/1        | 2700                  | 5000                  | 62                            | 4.0                           | 2.0                                | 177                  | 57        |
| 150                                                                             | 505              | 916               | 3.5      | 2.5 | P832_0200 EZ803U | 1840               | 2000                 | 3230               | 20.00 | 20/1        | 2700                  | 5000                  | 87                            | 4.0                           | 2.0                                | 177                  | 63        |
| 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        |
| 188                                                                             | 339              | 564               | 4.1      | 3.0 | P832_0160 EZ802U | 1520               | 1520                 | 3200               | 16.00 | 16/1        | 2700                  | 5000                  | 62                            | 4.0                           | 2.0                                | 174                  | 57        |
| 188                                                                             | 404              | 733               | 4.9      | 2.5 | P832_0160 EZ803U | 1600               | 1600                 | 3200               | 16.00 | 16/1        | 2700                  | 5000                  | 88                            | 4.0                           | 2.0                                | 174                  | 63        |
| 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        |

## 2.2 Selection tables 2 P planetary geared motors

| $n_{2N}$<br>[rpm]                                                               | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/arcmin] | m<br>[kg] |
|---------------------------------------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|----------------------|-----------|
| <b>P8 (<math>n_{1N} = 3000</math> rpm, <math>M_{2acc,max} = 1840</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 250                                                                             | 254              | 423               | 6.0      | 3.1 | P832_0120 EZ802U | 1140               | 1140                 | 2400               | 12.00 | 12/1        | 2200                  | 4500                  | 64                            | 4.0                           | 2.0                                | 168                  | 57        |
| 250                                                                             | 303              | 549               | 7.1      | 2.6 | P832_0120 EZ803U | 1200               | 1200                 | 2400               | 12.00 | 12/1        | 2200                  | 4500                  | 89                            | 4.0                           | 2.0                                | 168                  | 63        |
| 300                                                                             | 216              | 360               | 2.2      | 3.1 | P831_0100 EZ802U | 970                | 970                  | 2760               | 10.00 | 10/1        | 2800                  | 4500                  | 61                            | 3.0                           | 1.0                                | 150                  | 51        |
| 300                                                                             | 258              | 468               | 2.7      | 2.6 | P831_0100 EZ803U | 1380               | 1380                 | 2760               | 10.00 | 10/1        | 2800                  | 4500                  | 86                            | 3.0                           | 1.0                                | 150                  | 57        |
| 375                                                                             | 173              | 288               | 2.8      | 4.0 | P831_0080 EZ802U | 776                | 776                  | 3000               | 8.000 | 8/1         | 2800                  | 4500                  | 62                            | 3.0                           | 1.0                                | 162                  | 51        |
| 375                                                                             | 206              | 374               | 3.4      | 3.4 | P831_0080 EZ803U | 1125               | 1125                 | 3000               | 8.000 | 8/1         | 2800                  | 4500                  | 88                            | 3.0                           | 1.0                                | 162                  | 57        |
| 429                                                                             | 181              | 327               | 3.2      | 4.8 | P831_0070 EZ803U | 985                | 985                  | 3230               | 7.000 | 7/1         | 2800                  | 4500                  | 89                            | 3.0                           | 1.0                                | 170                  | 57        |
| <b>P8 (<math>n_{1N} = 4500</math> rpm, <math>M_{2acc,max} = 1840</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 56                                                                              | 798              | 2622              | 1.0      | 1.1 | P832_0800 EZ802U | 1380               | 1380                 | 2760               | 80.00 | 80/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 159                  | 57        |
| 64                                                                              | 698              | 2294              | 0.8      | 1.6 | P832_0700 EZ802U | 1610               | 1610                 | 3220               | 70.00 | 70/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 164                  | 57        |
| 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                                                                              | 559              | 1835              | 1.2      | 1.6 | P832_0560 EZ802U | 1380               | 1380                 | 2760               | 56.00 | 56/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 159                  | 57        |
| 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                                                                              | 499              | 1639              | 1.0      | 2.2 | P832_0500 EZ802U | 1840               | 2000                 | 3230               | 50.00 | 50/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 173                  | 57        |
| 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                                                                             | 399              | 1311              | 1.4      | 2.2 | P832_0400 EZ802U | 1600               | 1600                 | 3200               | 40.00 | 40/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 168                  | 57        |
| 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                                                                             | 349              | 1147              | 1.2      | 3.2 | P832_0350 EZ802U | 1840               | 2000                 | 3230               | 35.00 | 35/1        | 3000                  | 6000                  | 59                            | 4.0                           | 2.0                                | 176                  | 57        |
| 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                                                                             | 319              | 1049              | 1.6      | 2.8 | P832_0320 EZ802U | 1525               | 1595                 | 3049               | 32.00 | 32/1        | 2700                  | 5000                  | 62                            | 4.0                           | 2.0                                | 159                  | 57        |
| 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                                                                             | 279              | 918               | 1.7      | 3.2 | P832_0280 EZ802U | 1600               | 1600                 | 3200               | 28.00 | 28/1        | 3000                  | 5000                  | 59                            | 4.0                           | 2.0                                | 172                  | 57        |
| 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                                                                             | 249              | 819               | 1.4      | 4.4 | P832_0250 EZ802U | 1840               | 2000                 | 3230               | 25.00 | 25/1        | 2900                  | 5000                  | 60                            | 4.0                           | 2.0                                | 177                  | 57        |
| 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        |
| <b>P8 (<math>n_{1N} = 6000</math> rpm, <math>M_{2acc,max} = 1840</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 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        |
| <b>P9 (<math>n_{1N} = 2000</math> rpm, <math>M_{2acc,max} = 3450</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 40                                                                              | 2076             | 3140              | 2.1      | 1.1 | P932_0500 EZ805U | 3200               | –                    | 6400               | 50.00 | 50/1        | 2800                  | 4500                  | 136                           | 4.0                           | –                                  | 399                  | 103       |
| 50                                                                              | 1661             | 2512              | 2.8      | 1.2 | P932_0400 EZ805U | 3000               | –                    | 6000               | 40.00 | 40/1        | 2800                  | 4500                  | 136                           | 4.0                           | –                                  | 394                  | 103       |
| 57                                                                              | 1453             | 2198              | 2.5      | 1.6 | P932_0350 EZ805U | 3300               | –                    | 6600               | 35.00 | 35/1        | 2800                  | 4500                  | 138                           | 4.0                           | –                                  | 404                  | 103       |
| 71                                                                              | 1162             | 1758              | 2.9      | 2.0 | P932_0280 EZ805U | 3000               | –                    | 6000               | 28.00 | 28/1        | 2800                  | 4500                  | 139                           | 4.0                           | –                                  | 402                  | 103       |
| 80                                                                              | 1038             | 1570              | 2.9      | 2.4 | P932_0250 EZ805U | 3300               | –                    | 6600               | 25.00 | 25/1        | 2500                  | 4000                  | 143                           | 4.0                           | –                                  | 407                  | 103       |
| 100                                                                             | 830              | 1256              | 3.1      | 3.0 | P932_0200 EZ805U | 3450               | –                    | 6900               | 20.00 | 20/1        | 2000                  | 3500                  | 151                           | 4.0                           | –                                  | 407                  | 103       |
| 125                                                                             | 664              | 1005              | 4.4      | 3.0 | P932_0160 EZ805U | 3000               | –                    | 6000               | 16.00 | 16/1        | 2000                  | 3500                  | 152                           | 4.0                           | –                                  | 406                  | 103       |
| <b>P9 (<math>n_{1N} = 3000</math> rpm, <math>M_{2acc,max} = 3300</math> Nm)</b> |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                      |           |
| 43                                                                              | 1483             | 2467              | 0.9      | 1.6 | P932_0700 EZ802U | 3156               | –                    | 6312               | 70.00 | 70/1        | 2800                  | 4500                  | 61                            | 4.0                           | –                                  | 372                  | 84        |
| 43                                                                              | 1769             | 3205              | 1.1      | 1.3 | P932_0700 EZ803U | 3156               | –                    | 6312               | 70.00 | 70/1        | 2800                  | 4500                  | 86                            | 4.0                           | –                                  | 372                  | 90        |
| 60                                                                              | 1059             | 1762              | 1.1      | 2.2 | P932_0500 EZ802U | 3200               | –                    | 6400               | 50.00 | 50/1        | 2800                  | 4500                  | 61                            | 4.0                           | –                                  | 399                  | 84        |

| $n_{2N}$<br>[rpm]                                   | $M_{2N}$<br>[Nm] | $M_{2,0}$<br>[Nm] | $a_{th}$ | S   | Type             | $M_{2acc}$<br>[Nm] | $M_{2accHT}$<br>[Nm] | $M_{2NOT}$<br>[Nm] | i     | $i_{exakt}$ | $n_{1maxDB}$<br>[rpm] | $n_{1maxZB}$<br>[rpm] | $J_1$<br>[kgcm <sup>2</sup> ] | $\Delta\varphi_2$<br>[arcmin] | $\Delta\varphi_{2red}$<br>[arcmin] | $C_2$<br>[Nm/<br>arcmin] | m<br>[kg] |
|-----------------------------------------------------|------------------|-------------------|----------|-----|------------------|--------------------|----------------------|--------------------|-------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|-----------|
| P9 ( $n_{1N} = 3000$ rpm, $M_{2acc,max} = 3300$ Nm) |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 60                                                  | 1264             | 2290              | 1.3      | 1.8 | P932_0500 EZ803U | 3200               | –                    | 6400               | 50.00 | 50/1        | 2800                  | 4500                  | 86                            | 4.0                           | –                                  | 399                      | 90        |
| 75                                                  | 847              | 1410              | 1.4      | 2.4 | P932_0400 EZ802U | 3000               | –                    | 6000               | 40.00 | 40/1        | 2800                  | 4500                  | 61                            | 4.0                           | –                                  | 394                      | 84        |
| 75                                                  | 1011             | 1832              | 1.7      | 2.0 | P932_0400 EZ803U | 3000               | –                    | 6000               | 40.00 | 40/1        | 2800                  | 4500                  | 86                            | 4.0                           | –                                  | 394                      | 90        |
| 86                                                  | 741              | 1234              | 1.3      | 3.2 | P932_0350 EZ802U | 3300               | –                    | 6600               | 35.00 | 35/1        | 2800                  | 4500                  | 64                            | 4.0                           | –                                  | 404                      | 84        |
| 86                                                  | 884              | 1603              | 1.5      | 2.7 | P932_0350 EZ803U | 3300               | –                    | 6600               | 35.00 | 35/1        | 2800                  | 4500                  | 89                            | 4.0                           | –                                  | 404                      | 90        |
| 107                                                 | 593              | 987               | 1.5      | 3.8 | P932_0280 EZ802U | 2660               | –                    | 6000               | 28.00 | 28/1        | 2800                  | 4500                  | 64                            | 4.0                           | –                                  | 402                      | 84        |
| 107                                                 | 708              | 1282              | 1.8      | 3.2 | P932_0280 EZ803U | 3000               | –                    | 6000               | 28.00 | 28/1        | 2800                  | 4500                  | 89                            | 4.0                           | –                                  | 402                      | 90        |
| 120                                                 | 530              | 881               | 1.5      | 4.6 | P932_0250 EZ802U | 2375               | –                    | 6600               | 25.00 | 25/1        | 2500                  | 4000                  | 69                            | 4.0                           | –                                  | 407                      | 84        |
| 120                                                 | 632              | 1145              | 1.7      | 3.9 | P932_0250 EZ803U | 3300               | –                    | 6600               | 25.00 | 25/1        | 2500                  | 4000                  | 94                            | 4.0                           | –                                  | 407                      | 90        |
| 150                                                 | 505              | 916               | 1.9      | 4.9 | P932_0200 EZ803U | 2755               | –                    | 6900               | 20.00 | 20/1        | 2000                  | 3500                  | 102                           | 4.0                           | –                                  | 407                      | 90        |
| 188                                                 | 404              | 733               | 2.7      | 4.9 | P932_0160 EZ803U | 2204               | –                    | 6000               | 16.00 | 16/1        | 2000                  | 3500                  | 103                           | 4.0                           | –                                  | 406                      | 90        |
| P9 ( $n_{1N} = 4500$ rpm, $M_{2acc,max} = 3200$ Nm) |                  |                   |          |     |                  |                    |                      |                    |       |             |                       |                       |                               |                               |                                    |                          |           |
| 45                                                  | 998              | 3278              | 0.5      | 1.5 | P932_1000 EZ802U | 2200               | –                    | 4400               | 100.0 | 100/1       | 2800                  | 4500                  | 61                            | 4.0                           | –                                  | 321                      | 84        |
| 64                                                  | 698              | 2294              | 0.5      | 3.2 | P932_0700 EZ802U | 3156               | –                    | 6312               | 70.00 | 70/1        | 2800                  | 4500                  | 61                            | 4.0                           | –                                  | 372                      | 84        |
| 90                                                  | 499              | 1639              | 0.5      | 4.4 | P932_0500 EZ802U | 3200               | –                    | 6400               | 50.00 | 50/1        | 2800                  | 4500                  | 61                            | 4.0                           | –                                  | 399                      | 84        |