

# TPM+ power 025 2-stage

| Ratio  | i                           | 16  |          | 20   |      | 25   |      | 28                |      | 35                |      | 40                |      | 50                |      | 70                |      | 100               |      |
|--|-----------------------------|---|----------|------|------|------|------|-------------------|------|-------------------|------|-------------------|------|-------------------|------|-------------------|------|-------------------|------|
|  |                             | $U_D$                                       | $V_{DC}$ | 320  | 560  | 320  | 560  | 320               | 560  | 320               | 560  | 320               | 560  | 320               | 560  | 320               | 560  | 320               | 560  |
| Intermediate circuit voltage   | $U_D$ $V_{DC}$              |   |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Max. acceleration torque at output (max. 1000 cycles per hour)                 | $T_{2B}$ Nm                 | 350   |          | 350  |      | 380  |      | 350               |      | 380               |      | 293               |      | 367               |      | 330               |      | 265               |      |
| Static output torque   | $T_{20}$ Nm                 | 183   |          | 210  |      | 200  |      | 210               |      | 220               |      | 113               |      | 142               |      | 200               |      | 120               |      |
| Brake holding torque at output, 100°C  | $T_{2BR}$ Nm                | 208   |          | 260  |      | 325  |      | 364 <sup>1)</sup> |      | 455 <sup>1)</sup> |      | 392 <sup>1)</sup> |      | 490 <sup>1)</sup> |      | 625 <sup>1)</sup> |      | 625 <sup>1)</sup> |      |
| Max. speed   | $n_{2max}$ rpm              | 375   |          | 300  |      | 240  |      | 214               |      | 171               |      | 150               |      | 120               |      | 86                |      | 60                |      |
| Speed limit for $T_{2B}$   | $n_{2B}$ rpm                | 260   |          | 220  |      | 185  |      | 170               |      | 140               |      | 90                |      | 70                |      | 65                |      | 50                |      |
| Max. acceleration torque of motor  | $T_{Mmax}$ Nm               | 28.9  |          | 28.9 |      | 28.9 |      | 28.9              |      | 28.9              |      | 7.5               |      | 7.5               |      | 7.5               |      | 7.5               |      |
| Max. acceleration current of motor   | $I_{maxdyn}$ $A_{eff}$      | 70  | 40       | 70   | 40   | 70   | 40   | 70                | 40   | 70                | 40   | 20.8              | 12.0 | 20.8              | 12.0 | 20.8              | 12.0 | 20.8              | 12.0 |
| Static motor current   | $I_0$ $A_{eff}$             | 23.7  | 13.7     | 23.7 | 13.7 | 23.7 | 13.7 | 23.7              | 13.7 | 23.7              | 13.7 | 6.6               | 3.8  | 6.6               | 3.8  | 6.6               | 3.8  | 6.6               | 3.8  |
| Moment of inertia (on motor shaft, without brake, with resolver)               | $J_t$ $kgm^2 \cdot 10^{-4}$ | 8.94  |          | 8.83 |      | 8.83 |      | 8.72              |      | 8.71              |      | 2.49              |      | 2.48              |      | 2.48              |      | 2.47              |      |
| Torsional backlash   | $j_t$ arcmin                | Standard $\leq 3$ / Reduced $\leq 1$        |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Torsional rigidity   | $C_t$ Nm/arcmin             | 81  |          | 81   |      | 83   |      | 80                |      | 82                |      | 76                |      | 80                |      | 71                |      | 60                |      |
| Tilting rigidity   | $C_K$ Nm/arcmin             | 550   |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Max. axial force   | $F_{Amax}$ N                | 4150  |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Max. tilting torque (distance from point of rotation to output flange 94.5 mm) | $M_{Kmax}$ Nm               | 440   |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Weight (with resolver, without brake)  | $m$ kg                      | 14.5  |          |      |      |      |      |                   |      |                   |      | 10.3              |      |                   |      |                   |      |                   |      |
| Operating noise (measured at motor speed of 3000 rpm)                          | $L_{PA}$ dB(A)              | $\leq 64$                                   |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Max. permitted housing temperature   | °C                          | +90   |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Ambient temperature  | °C                          | 0 to +40                                    |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Protection class   |                             | IP 65                                       |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Mounting position  |                             | Any   |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Lubrication  |                             | Synthetic oil, lubricated for life          |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Insulating material class  |                             | F   |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |
| Paint  |                             | Metallic blue 250 and natural cast aluminum |          |      |      |      |      |                   |      |                   |      |                   |      |                   |      |                   |      |                   |      |

Tolerances T, I and n: Maximum +/- 10%.

<sup>1)</sup> greater than  $T_{2B}$  of the gearhead. In an emergency, can be used approx. 1000 times while the motor is rotating.

Please refer to the instructions and graphic illustration of the speed and torque values in the chapter "Information".