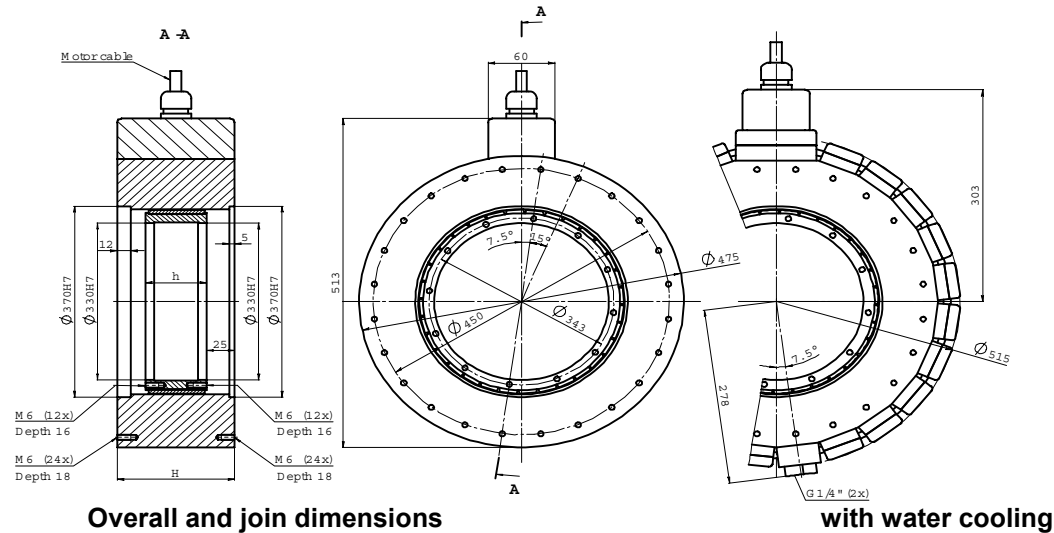


Torque motors RSM - P - 36 – 366 - ...

Notes:

1. Motor has peak torque at peak current I_P (2...3 sec)
2. Max temperature of rotor 70°C .
3. The stator has build-in threshold sensor for temperature 120°C .
4. Max. input pressure of liquid fluid - 1,1 bar
5. All data are subject to change without notice
6. All data tolerance $\pm 10\%$.



Overall and joint dimensions

with water cooling

| Parameter | Unit | RSM-P-36-366*25 | RSM-P-36-366*50 | RSM-P-36-366*75 | RSM-P-36-366*100 | RSM-P-36-366*150 | | | | | | |
|---|------|------------------|-----------------|-----------------|------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Peak torque (coil at 20°C) | Mp | Nm | 373 | 746 | 1119 | 1492 | 2239 | | | | | |
| Continuous torque (coil at 120°C), water cooling | Mw | Nm | 311 | 599 | 899 | 1199 | 1798 | | | | | |
| Continuous stall torque (coil at 120°C), water cooling | Ms | Nm | 243 | 468 | 702 | 936 | 1405 | | | | | |
| Continuous torque (coil at 120°C), air cooling | Ma | Nm | 160 | 307 | 461 | 614 | 921 | | | | | |
| Detent torque | Md | Nm | 1.5 | 3.0 | 4.5 | 6.0 | 9.0 | | | | | |
| Rotor inertia | Jr | kgm ² | 0.12 | 0.24 | 0.36 | 0.48 | 0.72 | | | | | |
| Number of poles pairs | P | | 32 | 32 | 32 | 32 | 32 | | | | | |
| Stator height | Hs | mm | 80 | 105 | 130 | 155 | 205 | | | | | |
| Motor mass ¹ | m | kg | 59.4 | 83.5 | 107.4 | 131.4 | 179.4 | | | | | |
| Peak power dissipation (coil at 20°C)** | Pp | W | 3095 | 4393 | 5866 | 7347 | 10315 | | | | | |
| Continuous power dissipation (coil at 120°C), water cooling** | Pw | W | 1622 | 2695 | 3576 | 4465 | 6250 | | | | | |
| Continuous power dissipation (coil at 120°C), air cooling** | Pa | W | 434 | 712 | 918 | 1130 | 1557 | | | | | |
| Coolant flow for temperature difference 5°C by power Pw** | Cf | L/min | 1.2 | 1.9 | 2.6 | 3.2 | 4.5 | | | | | |
| Recommended supply voltage DC | Us | V | 600 | 600 | 600 | 600 | 600 | | | | | |
| 3 phases winding combination | | | FS | FT | BS | BT | BS | BT | BS | BT | BS | BT |
| Maximum velocity at Mp and Us (Coil at 20°C) | Np | rpm | 123 | 225 | 136 | 243 | 87 | 160 | 63 | 118 | 38 | 75 |
| Maximum velocity at Mw and Us (Coil at 20°C) | Nw | rpm | 142 | 257 | 159 | 283 | 103 | 187 | 75 | 138 | 46 | 89 |
| Maximum velocity at Ma and Us (Coil at 20°C) | Na | rpm | 195 | 344 | 213 | 373 | 140 | 248 | 104 | 185 | 67 | 121 |
| Peak current at Mp and N=0 | Ip | Arms | 14.0 | 24.2 | 29.7 | 51.4 | 29.7 | 51.4 | 29.7 | 51.4 | 29.7 | 51.4 |
| Continuous current at 120°C, water cooling at Mw and N=0 | Iw | Arms | 11.3 | 19.6 | 23.0 | 39.9 | 23.0 | 39.9 | 23.0 | 39.9 | 23.0 | 39.9 |
| Continuous current at 120°C, air cooling at Ma and N=0 | Ia | Arms | 5.6 | 9.6 | 11.3 | 19.6 | 11.3 | 19.6 | 11.3 | 19.6 | 11.3 | 19.6 |
| Motor constant (coil at 20°C) | Ko | Nm/√W | 9.0 | | 14.2 | | 18.3 | | 21.7 | | 27.4 | |
| Back EMF constant (*) (peak phase-phase) | Ku | V/(rad/s) | 23.5 | 13.6 | 22.1 | 12.8 | 33.2 | 19.2 | 44.2 | 25.5 | 66.4 | 38.3 |
| Electrical resistance at 20°C (*) | R | Ohm | 6.84 | 2.28 | 2.44 | 0.81 | 3.30 | 1.10 | 4.16 | 1.39 | 5.88 | 1.96 |
| Electrical inductance (*) | L | mH | 59.6 | 19.9 | 26.4 | 8.8 | 39.6 | 13.2 | 52.8 | 17.6 | 79.2 | 26.4 |

* terminal-terminal value ** for connection star ¹ Sum rotor and stator mass