

TORQUE MOTOR

TMM0360-070

| PERFORMANCE | | Winding codes | 3VBN | 3XBS |
|-------------|-----------------------------------|---------------|---|---|
| | | UNIT | FREE AIR CONVECTION (with glued stator) | FREE AIR CONVECTION (with glued stator) |
| Tp | Peak torque | Nm | 990 | 990 |
| Tc | Continuous torque | Nm | 247 | 246 |
| Ts | Stall torque | Nm | 190 | 189 |
| Kt | Torque constant | Nm/Arms | 20.8 | 13.5 |
| Ku | Back EMF constant (*) | Vrms/(rad/s) | 12.0 | 7.80 |
| Km | Motor constant | Nm/√W | 11.9 | 11.8 |
| R20 | Electrical resistance at 20°C (*) | Ohm | 2.04 | 0.870 |
| L1 | Electrical inductance (*) | mH | 16.0 | 6.75 |
| Ip | Peak current | Arms | 75.7 | 117 |
| Ic | Continuous current | Arms | 12.2 | 18.7 |
| Is | Stall current | Arms | 9.23 | 14.1 |
| Pc | Max. continuous power dissipation | W | 633 | 633 |

| SPECIFICATIONS | | UNIT | | |
|----------------|--------------------------------------|-------------------|--------|--------|
| Udc | Nominal input voltage | VDC | 600 | 600 |
| τth | Thermal time constant | s | 2150 | 2150 |
| Rth | Thermal resistance | K/W | 0.159 | 0.159 |
| 2p | Number of poles | - | 66 | 66 |
| J | Rotor inertia | kg.m ² | 0.153 | 0.153 |
| Mr | Rotor mass | kg | 7.71 | 7.71 |
| Ms | Stator mass | kg | 18.3 | 18.4 |
| Td | Max. detent torque (average to peak) | Nm | 6.1 | 6.1 |
| ns | Stall speed | rpm | 0.0085 | 0.0085 |

Notes: (*) terminal to terminal. Ambient temperature = 20 °C. Max. coil temperature = 130 °C.
 Hypothesis and tolerances are in ETEL's Handbook. Stator connected to a total surface of 0.24 m² and rotor to a total surface of 0.150 m²

Caution: Any use of the motor beyond speed/force limit could lead to hazardous voltage and serious injuries. Customer is responsible for setting safeties/limitations that will keep the motor in its safe operating area. ETEL cannot be held responsible if the motor is used in an improper way.

