

| MOTOR PERFORMANCE | | Winding codes | UP | XP | | |
|-------------------|--|---------------|---------------|---------------|--|--|
| | | UNIT | WATER COOLING | WATER COOLING | | |
| TP | Peak torque | Nm | 9000 | 9000 | | |
| TI | Intermittent torque | Nm | 6860 | 6790 | | |
| TC | Continuous torque | Nm | 5070 | 5020 | | |
| TS | Standstill torque | Nm | 4110 | 4050 | | |
| IP | Peak current | Arms | 400 | 776 | | |
| II | Intermittent current | Arms | 254 | 485 | | |
| IC | Continuous current | Arms | 160 | 307 | | |
| IS | Standstill current | Arms | 122 | 232 | | |
| NS | Rated low speed | rpm | 0.034 | 0.033 | | |
| NM | Maximum speed without flux weakening | rpm | 172 | 334 | | |
| NM,FW | Maximum speed with flux weakening | rpm | 632 | 671 | | |
| TON,p | Maximum ON time for peak cycle | s | 17 | 16 | | |
| TON,i | Maximum ON time for intermittent cycle | s | 3.2 | 3.2 | | |
| PP | Power dissipation @ Ip | W | 50100 | 51800 | | |
| PI | Power dissipation @ Ii | W | 25700 | 25600 | | |
| PC | Power dissipation @ Ic | W | 10300 | 10200 | | |
| TD | Max. detent torque (average to peak) | Nm | 20 | 20 | | |

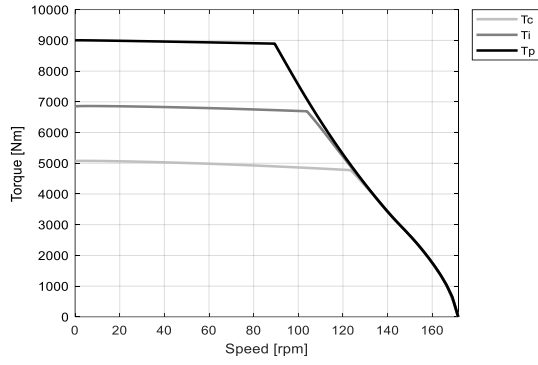
| MOTOR SETTING | | UNIT | | | | |
|---------------|---------------------------------------|--------------|-------------|---------------|--|--|
| Kt | Torque constant | Nm/Arms | 38.6 | 19.9 | | |
| Ku | Back EMF constant (*) | Vrms/(rad/s) | 23.1 | 11.9 | | |
| Km | Motor constant | Nm/√W | 72.5 | 71.4 | | |
| R20 | Electrical resistance at 20°C (*) | Ohm | 0.189 | 0.0516 | | |
| Ld/Lq | Electrical inductance (*) | mH | 2.05 / 1.84 | 0.544 / 0.491 | | |
| Isc | Maximum short-circuit current | Arms | 148 | 287 | | |
| nb | Base speed | rpm | 124 | 263 | | |
| nb,i | Base speed at intermittent duty cycle | rpm | 104 | 217 | | |
| nb,p | Base speed at peak duty cycle | rpm | 89.4 | 182 | | |
| nn | Rated speed | rpm | 110 | 233 | | |
| Tn | Rated torque | Nm | 4830 | 4140 | | |
| In | Rated current | Arms | 153 | 253 | | |
| rth | Thermal time constant | s | 203 | 204 | | |
| Rth | Thermal resistance | K/W | 0.00993 | 0.00991 | | |
| 2p | Number of poles | - | 176 | 176 | | |
| J | Rotor inertia | kg·m² | 20.4 | 20.4 | | |
| mr | Rotor mass | kg | 111 | 111 | | |
| ms | Stator mass | kg | 173 | 174 | | |

| MOTOR ENVIRONMENT | | UNIT | | | | |
|-------------------|-------------------------------------|-------|-------|-------|--|--|
| Udc | Nominal DC bus voltage | VDC | 600 | 600 | | |
| Di | Intermittent duty cycle | % | 40 | 40 | | |
| Dp | Peak duty cycle | % | 5.0 | 5.0 | | |
| Sr | Rotor exchange surface | m² | 0.369 | 0.369 | | |
| θamb | Ambient temperature | °C | 20 | 20 | | |
| θmax | Maximum coil temperature | °C | 130 | 130 | | |
| θw | Inlet water temperature | °C | 20 | 20 | | |
| Δθw | Water temperature difference for Pc | K | 5.0 | 5.0 | | |
| qw | Minimum water flow for Δθw | l/min | 32 | 32 | | |
| Δpw | Max. pressure drop at qw | bar | 1.6 | 1.6 | | |

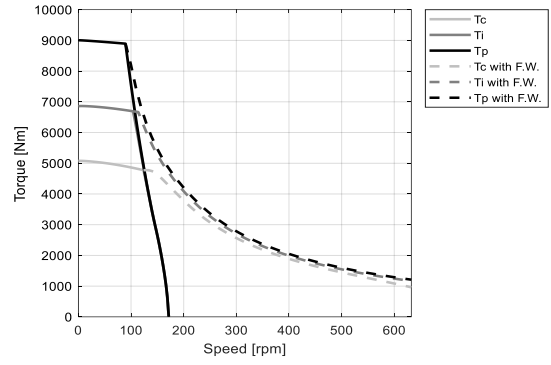
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

Caution: Any use of the motor beyond speed/torque 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.

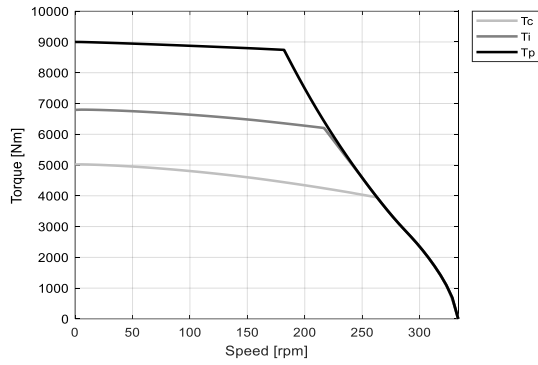
UP - WATER COOLING



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XP - WATER COOLING



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