

TORQUE MOTOR

TML0360-070

PERFORMANCE		Winding codes	3VBN	3XBS
		UNIT	FREE AIR CONVECTION	FREE AIR CONVECTION
Tp	Peak torque	Nm	990	990
Tc	Continuous torque	Nm	217	216
Ts	Stall torque	Nm	165	165
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	6.74
Ip	Peak current	Arms	75.7	117
Ic	Continuous current	Arms	10.6	16.2
Is	Stall current	Arms	8.04	12.3
Pc	Max. continuous power dissipation	W	477	477

SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	2900	2890
Rth	Thermal resistance	K/W	0.207	0.207
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	0.0063	0.0063

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.

