

TORQUE MOTOR

TMM0360-030

PERFORMANCE		Winding codes	3VAS	3VBS
		UNIT	FREE AIR CONVECTION (with glued stator)	FREE AIR CONVECTION (with glued stator)
Tp	Peak torque	Nm	424	424
Tc	Continuous torque	Nm	114	114
Ts	Stall torque	Nm	87.8	87.8
Kt	Torque constant	Nm/Arms	17.8	8.90
Ku	Back EMF constant (*)	Vrms/(rad/s)	10.3	5.14
Km	Motor constant	Nm/√W	6.72	6.72
R20	Electrical resistance at 20°C (*)	Ohm	4.68	1.17
L1	Electrical inductance (*)	mH	27.4	6.86
Ip	Peak current	Arms	37.9	75.7
Ic	Continuous current	Arms	6.60	13.2
Is	Stall current	Arms	5.00	10.0
Pc	Max. continuous power dissipation	W	428	428

SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	2190	2190
Rth	Thermal resistance	K/W	0.237	0.237
2p	Number of poles	-	66	66
J	Rotor inertia	kg.m ²	0.0655	0.0655
Mr	Rotor mass	kg	3.30	3.30
Ms	Stator mass	kg	10.0	10.0
Td	Max. detent torque (average to peak)	Nm	2.6	2.6
ns	Stall speed	rpm	0.0083	0.0083

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 0.10 m² and rotor to a total surface of 0.079 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.

