

# TORQUE MOTOR

# TMM0360-100

PERFORMANCE		Winding codes	3VBN	3TFS
		UNIT	FREE AIR CONVECTION (with glued stator)	FREE AIR CONVECTION (with glued stator)
Tp	Peak torque	Nm	1410	1410
Tc	Continuous torque	Nm	341	353
Ts	Stall torque	Nm	261	270
Kt	Torque constant	Nm/Arms	29.7	16.1
Ku	Back EMF constant (*)	Vrms/(rad/s)	17.1	9.29
Km	Motor constant	Nm/√W	14.7	15.2
R20	Electrical resistance at 20°C (*)	Ohm	2.73	0.747
L1	Electrical inductance (*)	mH	22.8	6.70
Ip	Peak current	Arms	75.7	140
Ic	Continuous current	Arms	11.8	22.5
Is	Stall current	Arms	8.90	17.0
Pc	Max. continuous power dissipation	W	788	788

SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	2130	2130
Rth	Thermal resistance	K/W	0.128	0.128
2p	Number of poles	-	66	66
J	Rotor inertia	kg.m <sup>2</sup>	0.218	0.218
Mr	Rotor mass	kg	11.0	11.0
Ms	Stator mass	kg	24.6	24.6
Td	Max. detent torque (average to peak)	Nm	8.7	8.7
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 0.34 m<sup>2</sup> and rotor to a total surface of 0.200 m<sup>2</sup>

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.

