

TORQUE MOTOR

TMM0530-150

PERFORMANCE		Winding codes	3VDN	3VHN
		UNIT	FREE AIR CONVECTION (with glued stator)	FREE AIR CONVECTION (with glued stator)
Tp	Peak torque	Nm	4990	4990
Tc	Continuous torque	Nm	1170	1170
Ts	Stall torque	Nm	899	899
Kt	Torque constant	Nm/Arms	60.4	30.2
Ku	Back EMF constant (*)	Vrms/(rad/s)	35.0	17.5
Km	Motor constant	Nm/√W	35.1	35.1
R20	Electrical resistance at 20°C (*)	Ohm	1.98	0.494
L1	Electrical inductance (*)	mH	28.9	7.23
Ip	Peak current	Arms	159	318
Ic	Continuous current	Arms	19.8	39.6
Is	Stall current	Arms	15.0	30.0
Pc	Max. continuous power dissipation	W	1660	1660

SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	2470	2470
Rth	Thermal resistance	K/W	0.0662	0.0662
2p	Number of poles	-	88	88
J	Rotor inertia	kg.m ²	1.38	1.38
Mr	Rotor mass	kg	28.8	28.8
Ms	Stator mass	kg	62.1	62.1
Td	Max. detent torque (average to peak)	Nm	43	43
ns	Stall speed	rpm	0.0055	0.0055

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 0.75 m² and rotor to a total surface of 0.450 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.

