

TORQUE MOTOR

TMM0210-150

PERFORMANCE		Winding codes	3TBN	3UBS
		UNIT	FREE AIR CONVECTION (with glued stator)	FREE AIR CONVECTION (with glued stator)
Tp	Peak torque	Nm	672	672
Tc	Continuous torque	Nm	138	132
Ts	Stall torque	Nm	105	99.9
Kt	Torque constant	Nm/Arms	16.9	12.7
Ku	Back EMF constant (*)	Vrms/(rad/s)	9.79	7.35
Km	Motor constant	Nm/√W	7.03	6.69
R20	Electrical resistance at 20°C (*)	Ohm	3.88	2.40
L1	Electrical inductance (*)	mH	22.8	12.9
Ip	Peak current	Arms	56.2	74.9
Ic	Continuous current	Arms	8.30	10.5
Is	Stall current	Arms	6.29	7.98
Pc	Max. continuous power dissipation	W	554	554

SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	1430	1430
Rth	Thermal resistance	K/W	0.177	0.177
2p	Number of poles	-	44	44
J	Rotor inertia	kg.m ²	0.0451	0.0451
Mr	Rotor mass	kg	7.57	7.57
Ms	Stator mass	kg	12.6	12.6
Td	Max. detent torque (average to peak)	Nm	3.2	3.2
ns	Stall speed	rpm	0.019	0.019

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 0.30 m² and rotor to a total surface of 0.140 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.

