Standard

TORQUE MOTOR TML0210-150

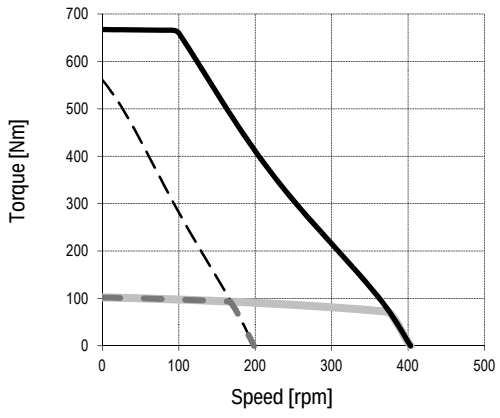
		Winding codes	3TBN	3UBS
PERFORMANCE		UNIT	FREE AIR CONVECTION	FREE AIR CONVECTION
Tp	Peak torque	Nm	672	672
Tc	Continuous torque	Nm	99.9	95.0
Ts	Stall torque	Nm	75.1	71.3
Kt	Torque constant	Nm/Arms	16.9	12.7
Ku	Back EMF constant (*)	Vrms/(rad/s)	9.79	7.35
Km	Motor constant	Nm/√W	7.03	6.69
R20	Electrical resistance at 20°C (*)	Ohm	3.87	2.40
L1	Electrical inductance (*)	mH	22.9	12.9
Ip	Peak current	Arms	56.2	74.9
Ic	Continuous current	Arms	5.98	7.59
Is	Stall current	Arms	4.53	5.75
Pc	Max. continuous power dissipation	W	286	286

	SPECIFICATIONS	UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	3210	3210
Rth	Thermal resistance	K/W	0.333	0.333
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	14.6	14.6
Td	Max. detent torque (average to peak)	Nm	3.2	3.2
ns	Stall speed	rpm	0.0085	0.0085

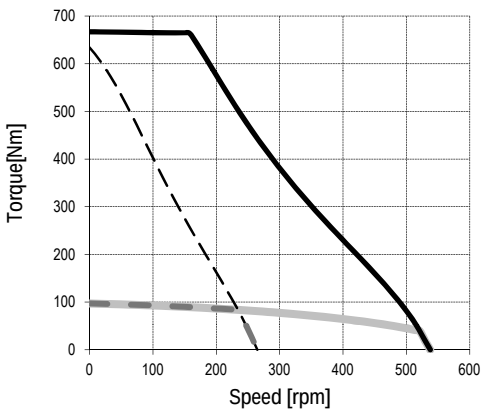
Notes: (*) terminal to terminal. Ambient temperature = 20 °C. Max. coil temperature = 130 °C.
Hypothesis and tolerances are in ETEL's Handbook. Stator connected to a total surface of 0.30 m² and rotor to a total surface of 0.140 m²

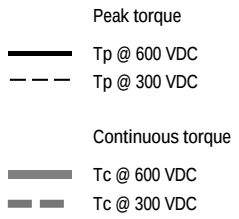
Caution: Any use of the motor beyond speed/force limit could lead to hazardous voltage and serious injuries. Customer is responsible for setting safeties/limitations that will keep the motor in its safe operating area. ETEL cannot be held responsible if the motor is used in an improper way.

Force = f(speed) for 3TBN



Force = f(speed) for 3UBS





ETEL S.A. Zone Industrielle, CH-2112 Môtiers, Switzerland
T +41 (0)32 862 01 00 • F +41 (0)32 862 01 01 • etel@etel.ch • www.etel.ch