Standard

TORQUE MOTOR TML0360-100

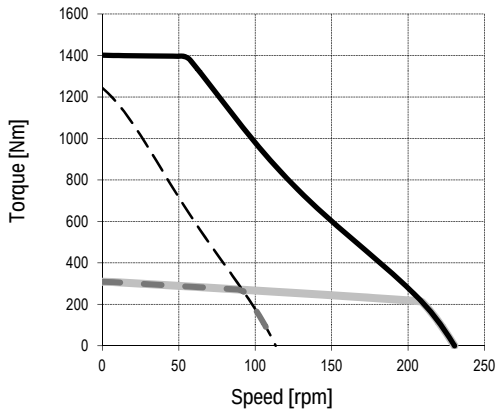
	PERFORMANCE	Winding codes	3VBN	3TFS
		UNIT	FREE AIR CONVECTION	FREE AIR CONVECTION
Tp	Peak torque	Nm	1410	1410
Tc	Continuous torque	Nm	304	315
Ts	Stall torque	Nm	232	240
Kt	Torque constant	Nm/Arms	29.7	16.1
Ku	Back EMF constant (*)	Vrms/(rad/s)	17.1	9.29
Km	Motor constant	Nm/√W	14.7	15.2
R20	Electrical resistance at 20°C (*)	Ohm	2.73	0.747
L1	Electrical inductance (*)	mH	22.8	6.69
Ip	Peak current	Arms	75.7	140
Ic	Continuous current	Arms	10.4	19.9
Is	Stall current	Arms	7.88	15.1
Pc	Max. continuous power dissipation	W	616	616

	SPECIFICATIONS	UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	2750	2750
Rth	Thermal resistance	K/W	0.161	0.161
2p	Number of poles	-	66	66
J	Rotor inertia	$kg.m^2$	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	0.0066	0.0066

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 m² and rotor to a total surface of 0.200 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 3VBN



Force = f(speed) for 3TFS