Standard

TORQUE MOTOR TMM0360-070

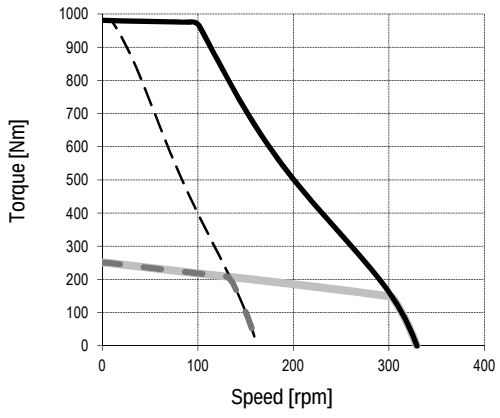
PERFORMANCE		Winding codes	3VBN	3XBS
		UNIT	FREE AIR CONVECTION (with glued stator)	FREE AIR CONVECTION (with glued stator)
Tp	Peak torque	Nm	990	990
Tc	Continuous torque	Nm	247	246
Ts	Stall torque	Nm	190	189
Kt	Torque constant	Nm/Arms	20.8	13.5
Ku	Back EMF constant (*)	Vrms/(rad/s)	12.0	7.80
Km	Motor constant	Nm/√W	11.9	11.8
R20	Electrical resistance at 20°C (*)	Ohm	2.04	0.870
L1	Electrical inductance (*)	mH	16.0	6.75
Ip	Peak current	Arms	75.7	117
Ic	Continuous current	Arms	12.2	18.7
Is	Stall current	Arms	9.23	14.1
Pc	Max. continuous power dissipation	W	633	633

SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	2150	2150
Rth	Thermal resistance	K/W	0.159	0.159
2p	Number of poles	-	66	66
J	Rotor inertia	$kg.m^2$	0.153	0.153
Mr	Rotor mass	kg	7.71	7.71
Ms	Stator mass	kg	18.3	18.4
Td	Max. detent torque (average to peak)	Nm	6.1	6.1
ns	Stall speed	rpm	0.0085	0.0085

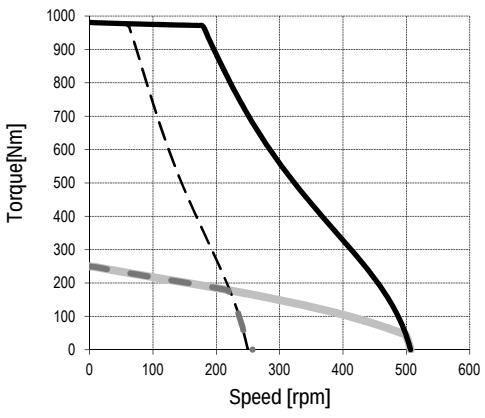
Notes: (*) terminal to terminal. Ambient temperature = 20 °C. Max. coil temperature = 130 °C.
Hypothesis and tolerances are in ETEL's Handbook. Stator connected to a total surface of 0.24 m² and rotor to a total surface of 0.150 m²

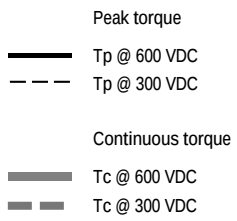
Caution: Any use of the motor beyond speed/force limit could lead to hazardous voltage and serious injuries. Customer is responsible for setting safeties/limitations that will keep the motor in its safe operating area. ETEL cannot be held responsible if the motor is used in an improper way.

Force = f(speed) for 3VBN



Force = f(speed) for 3XBS





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