Standard

TORQUE MOTOR TMM0175-050

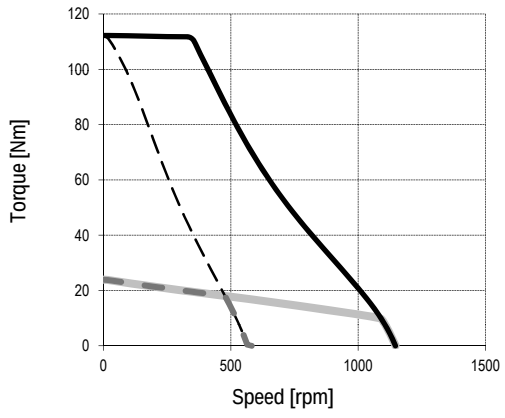
PERFORMANCE		Winding codes	3TAS	3UBS
		UNIT	FREE AIR CONVECTION (with glued stator)	FREE AIR CONVECTION (with glued stator)
Tp	Peak torque	Nm	113	113
Tc	Continuous torque	Nm	23.6	23.9
Ts	Stall torque	Nm	17.9	18.1
Kt	Torque constant	Nm/Arms	5.96	2.41
Ku	Back EMF constant (*)	Vrms/(rad/s)	3.45	1.39
Km	Motor constant	Nm/√W	1.99	2.01
R20	Electrical resistance at 20°C (*)	Ohm	6.00	0.961
L1	Electrical inductance (*)	mH	37.0	6.05
Ip	Peak current	Arms	27.1	66.9
Ic	Continuous current	Arms	4.22	10.5
Is	Stall current	Arms	3.19	7.98
Pc	Max. continuous power dissipation	W	226	226

SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	1860	1860
Rth	Thermal resistance	K/W	0.466	0.466
2p	Number of poles	-	22	22
J	Rotor inertia	$kg.m^2$	0.00454	0.00454
Mr	Rotor mass	kg	1.66	1.66
Ms	Stator mass	kg	5.46	5.48
Td	Max. detent torque (average to peak)	Nm	0.95	0.95
ns	Stall speed	rpm	0.029	0.029

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 0.08 m² and rotor to a total surface of 0.037 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 3TAS



Force = f(speed) for 3UBS