

TM-2-7F-PB0

Torque Motor

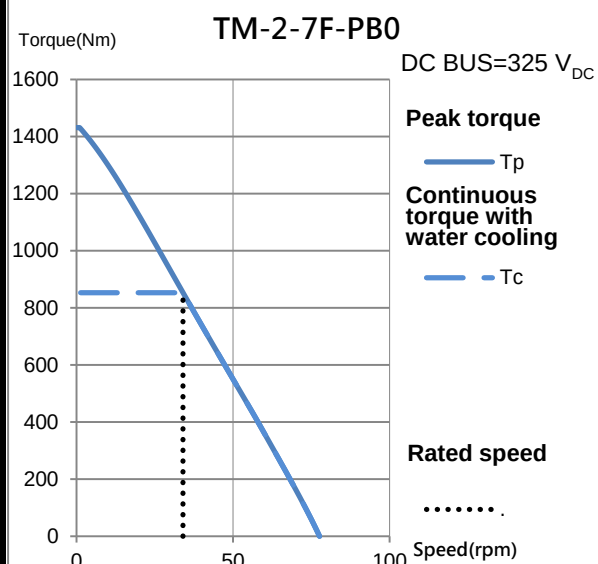
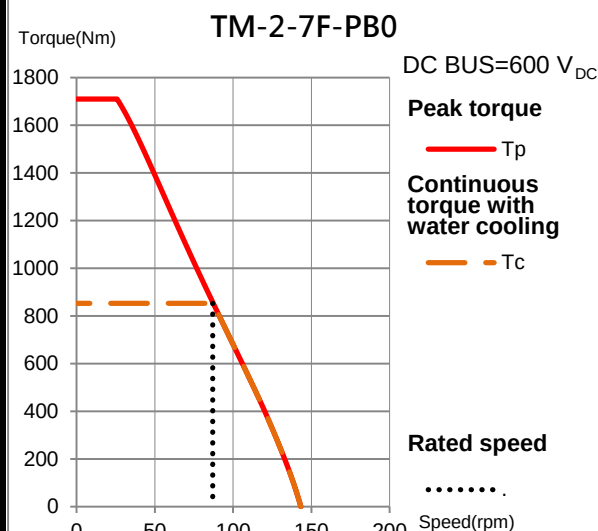
Electrical specifications

Winding code : PB0	Symbol	Unit	Water cooling
Continuous torque	T_c	Nm	853
Continuous current	I_c	A_{rms}	20.5
Stall torque	T_s	Nm	701
Stall current	I_s	A_{rms}	16.4
Peak torque(for 1sec.)	T_p	Nm	1710
Peak current(for 1sec.)	I_p	A_{rms}	56
Torque constant	K_t	Nm/Arms	44.51
Electrical time constant	T_e	ms	7.8
Resistance (line to line at 25°C)	R_{25}	Ω	6.5
Inductance (line to line)	L	mH	51
Number of poles	2p		44
Back emf constant (line to line)	K_v	Vrms/rad/s	25.7
Motor constant (at 25°C)	K_m	Nm/ $\sqrt{W}$	14.24
Thermal resistance	R_{th}	K/W	0.026
Thermal sensor			PTC 100+PTC 130+Pt1000
Max. DC BUS		V_{DC}	750
Inertia of rotor	J	kgm^2	0.121
Thermal time constant	T_{th}	s	100
Max. continuous power dissipation	P_c	W	5786
Max. peak power dissipation	P_p	W	43182
Rated speed(at 600VDC)		rpm	87

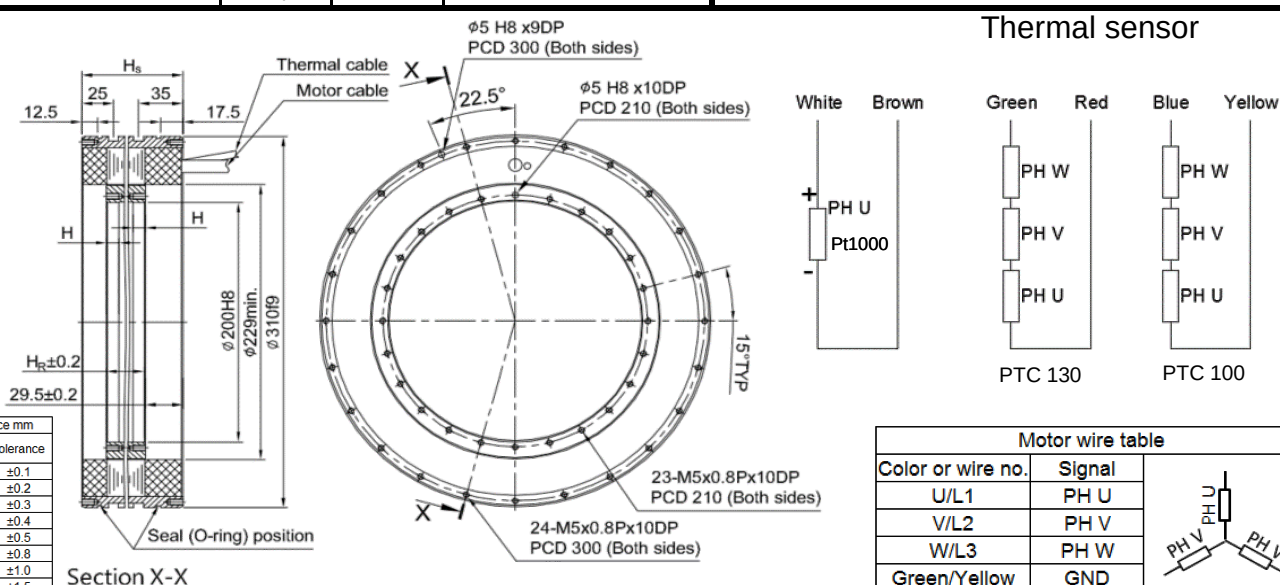
Mechanical specifications

	Symbol	Unit	Water cooling
Mass of rotor	M_r	kg	11.6
Mass of stator	M_s	kg	40.6
Height of stator	H_s	mm	200
Height of rotor	H_r	mm	151
Length of rotor centring fit	H	mm	15
Water temperature difference for P_c	$\Delta\theta$	K	5
Minimum water flow	q	l/min	16.6
Max. pressure drop	Δp	bar	3

T-N curve



Thermal sensor



Except dimensions, all the specifications in the table are in ±10% of tolerance

This drawing is only for reference, detail dimensions please refer to approval drawing.

Version: 2.00a

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