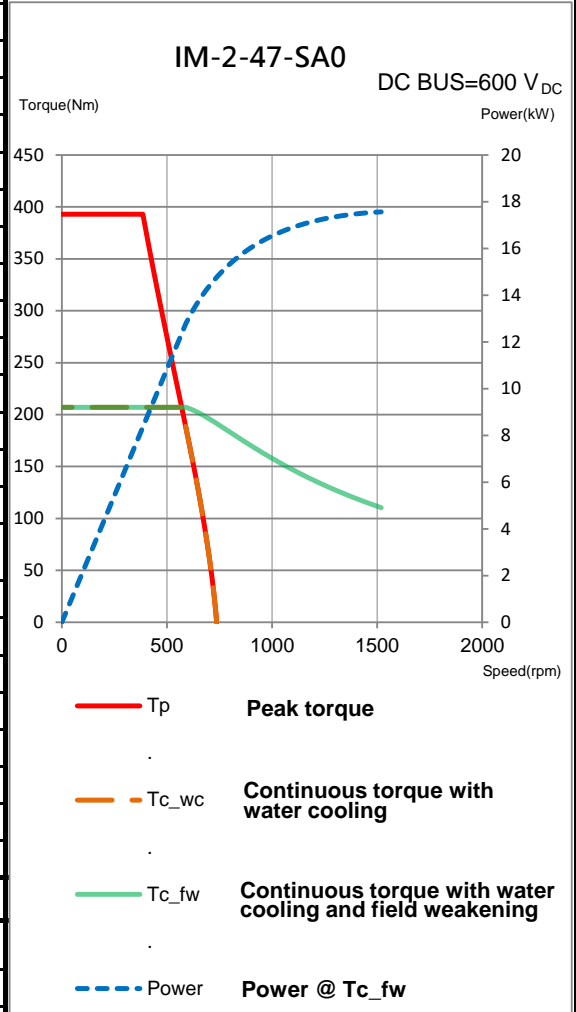


IM-2-47-SAO

Electrical specifications

Winding code : SA	Symbol	Unit	Field weakening & Water cooling
Continuous torque	T_c	Nm	207
Continuous current	I_c	A_{rms}	24.9
Stall torque	T_s	Nm	168
Stall current	I_s	A_{rms}	19.9
Peak torque(for 1sec.)	T_p	Nm	393
Peak current(for 1sec.)	I_p	A_{rms}	52
Torque constant	K_t	Nm/A_{rms}	8.66
Electrical time constant	T_e	ms	3
Resistance (line to line at 25°C)	R_{25}	Ω	2.3
Inductance (line to line)	L_d / L_q	mH	6.8 / 10
Number of poles	$2p$		40
Back emf constant (line to line)	K_v	$V_{rms}/rad/s$	5
Motor constant (at 25°C)	K_m	Nm/\sqrt{W}	4.6
Thermal resistance	R_{th}	K/W	0.049
Thermal sensor			PTC SNM100+SNM130+Pt1000
Max. DC BUS		V_{DC}	750
Inertia of rotor	J	kgm^2	0.036
Thermal time constant	T_{th}	s	88
Max. continuous power dissipation	P_c	W	3022
Max. peak power dissipation	P_p	W	13182
Max. speed(at 600VDC)		rpm	1500
Based speed(at 600VDC)		rpm	588
Rated speed(at 600VDC)		rpm	1500

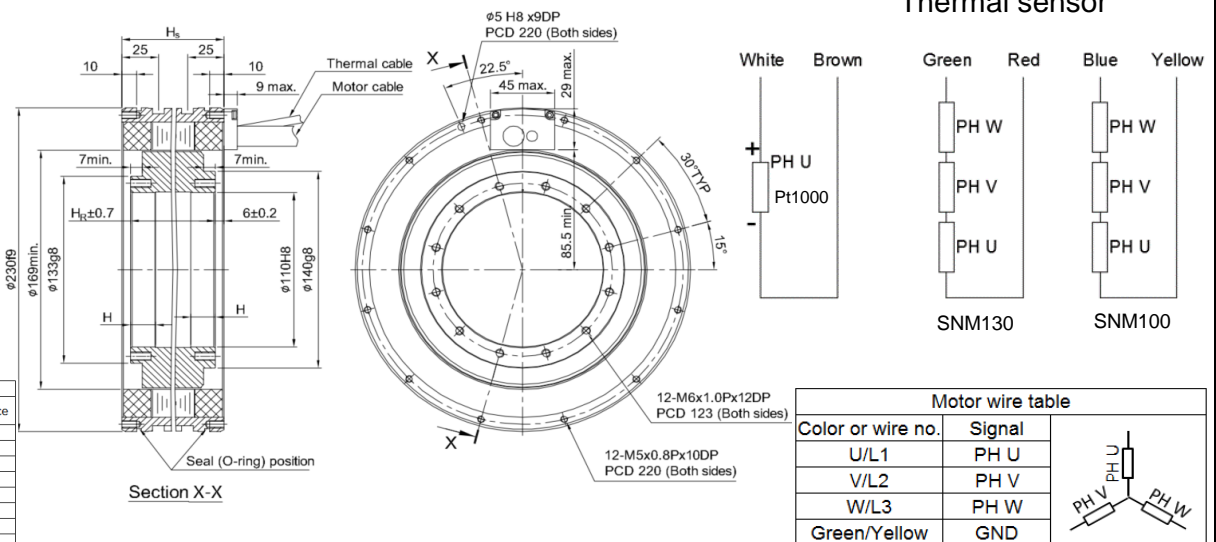
T-N curve



Mechanical specifications

	Symbol	Unit	Field weakening & Water cooling
Mass of rotor	M_r	kg	7.2
Mass of stator	M_s	kg	11.2
Height of stator	H_s	mm	110
Height of rotor	H_r	mm	98
Length of rotor centring fit	H	mm	17
Water temperature difference for P_c	$\Delta\theta$	K	5
Minimum water flow	q	l/min	8.7
Max. pressure drop	Δp	bar	1

Thermal sensor



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

Version: 2.00

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

Date: 2020/10/23