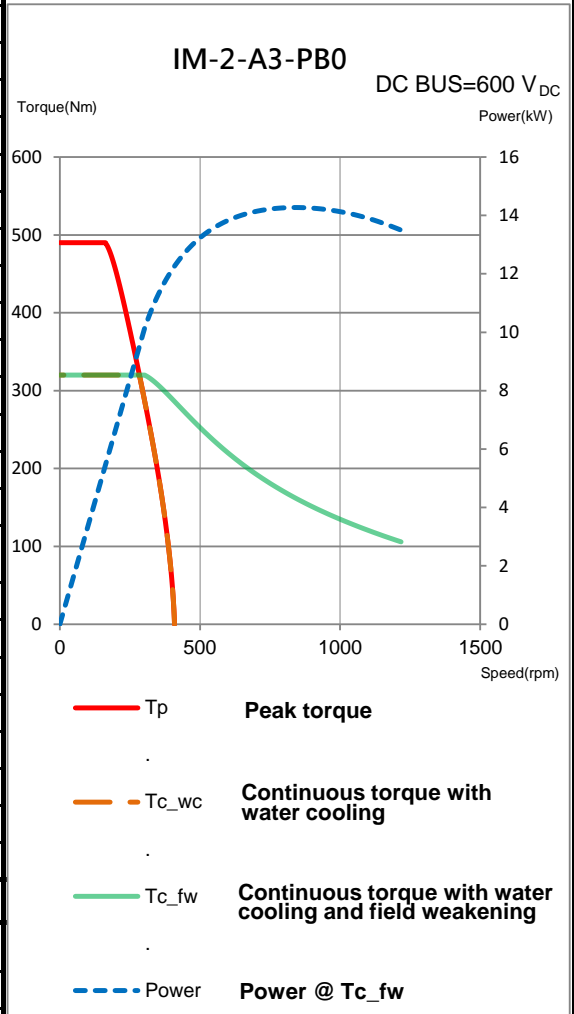


# IM-2-A3-PB0

## Electrical specifications

Winding code : PB0	Symbol	Unit	Field weakening & Water cooling
Continuous torque	$T_c$	Nm	320
Continuous current	$I_c$	$A_{rms}$	23
Stall torque	$T_s$	Nm	268
Stall current	$I_s$	$A_{rms}$	18.4
Peak torque(for 1sec.)	$T_p$	Nm	490
Peak current(for 1sec.)	$I_p$	$A_{rms}$	52
Torque constant	$K_t$	$Nm/A_{rms}$	15.59
Electrical time constant	$T_e$	ms	6.9
Resistance (line to line at 25°C)	$R_{25}$	$\Omega$	1.8
Inductance (line to line)	$L_d / L_q$	mH	12.4 / 16
Number of poles	2p		66
Back emf constant (line to line)	$K_v$	$V_{rms}/rad/s$	9
Motor constant (at 25°C)	$K_m$	$Nm/\sqrt{W}$	9.43
Thermal resistance	$R_{th}$	K/W	0.074
Thermal sensor			PTC SNM100+SNM130+Pt1000
Max. DC BUS		$V_{DC}$	750
Inertia of rotor	J	$kgm^2$	0.185
Thermal time constant	$T_{th}$	s	280
Max. continuous power dissipation	$P_c$	W	2015
Max. peak power dissipation	$P_p$	W	10302
Max. speed(at 600VDC)		rpm	1200
Based speed(at 600VDC)		rpm	302
Rated speed(at 600VDC)		rpm	1200

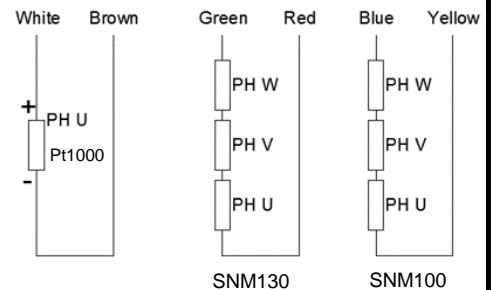
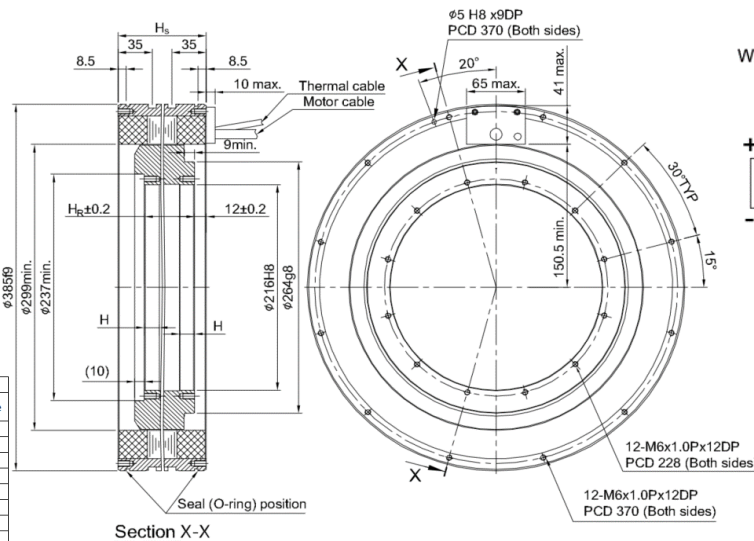
## T-N curve



## Mechanical specifications

	Symbol	Unit	Field weakening & Water cooling
Mass of rotor	$M_r$	kg	11.3
Mass of stator	$M_s$	kg	20.1
Height of stator	$H_s$	mm	90
Height of rotor	$H_r$	mm	51
Length of rotor centring fit	H	mm	15
Water temperature difference for $P_c$	$\Delta\theta$	K	5
Minimum water flow	q	l/min	5.8
Max. pressure drop	$\Delta p$	bar	1

## Thermal sensor



Motor wire table	
Color or wire no.	Signal
U/L1	PH U
V/L2	PH V
W/L3	PH W
Green/Yellow	GND

Except dimensions, all the specifications in the table are in  $\pm 10\%$  of tolerance

Version: 2.00

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

Date: 2020/11/4