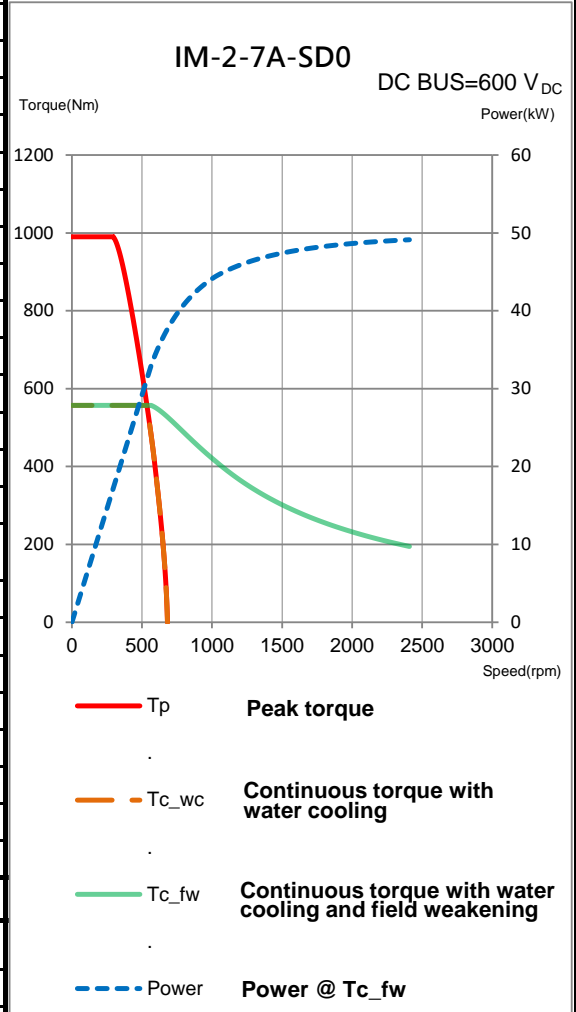


# IM-2-7A-SD0

## Electrical specifications

Winding code : SD0	Symbol	Unit	Field weakening & Water cooling
Continuous torque	$T_c$	Nm	557
Continuous current	$I_c$	$A_{rms}$	64.5
Stall torque	$T_s$	Nm	458
Stall current	$I_s$	$A_{rms}$	51.6
Peak torque(for 1sec.)	$T_p$	Nm	990
Peak current(for 1sec.)	$I_p$	$A_{rms}$	176.6
Torque constant	$K_t$	$Nm/A_{rms}$	9.35
Electrical time constant	$T_e$	ms	6.7
Resistance (line to line at 25°C)	$R_{25}$	$\Omega$	0.45
Inductance (line to line)	$L_d / L_q$	mH	3 / 4.09
Number of poles	2p		44
Back emf constant (line to line)	$K_v$	$V_{rms}/rad/s$	5.4
Motor constant (at 25°C)	$K_m$	$Nm/\sqrt{W}$	10.86
Thermal resistance	$R_{th}$	K/W	0.037
Thermal sensor			PTC SNM100+SNM130+Pt1000
Max. DC BUS	$V_{DC}$		750
Inertia of rotor	J	$kgm^2$	0.187
Thermal time constant	$T_{th}$	s	120
Max. continuous power dissipation	$P_c$	W	3993
Max. peak power dissipation	$P_p$	W	29940
Max. speed(at 600VDC)		rpm	2400
Based speed(at 600VDC)		rpm	565
Rated speed(at 600VDC)		rpm	2400

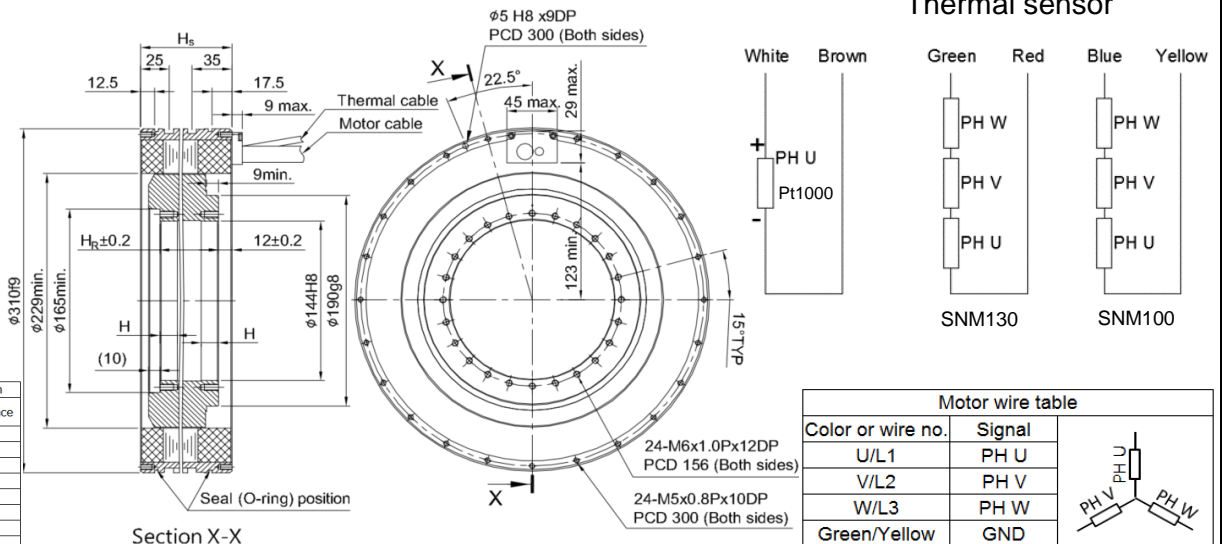
## T-N curve



## Mechanical specifications

	Symbol	Unit	Field weakening & Water cooling
Mass of rotor	$M_r$	kg	21
Mass of stator	$M_s$	kg	28.9
Height of stator	$H_s$	mm	150
Height of rotor	$H_r$	mm	121
Length of rotor centring fit	H	mm	20
Water temperature difference for Pc	$\Delta\theta$	K	5
Minimum water flow	q	l/min	11.5
Max. pressure drop	$\Delta p$	bar	1

## Thermal sensor



General tolerance mm	
Nominal dimension	Tolerance
~ 6	±0.1
> 6 ~ 30	±0.2
> 30 ~ 120	±0.3
> 120 ~ 300	±0.4
> 300 ~ 600	±0.5
> 600 ~ 1200	±0.8
> 1200 ~ 2400	±1.0
> 2400	±1.5

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