

TMRWG7L Torque Motor

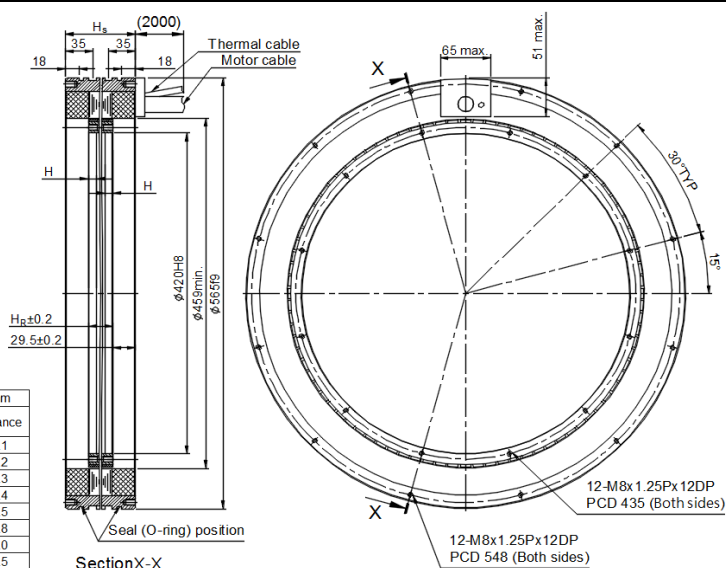
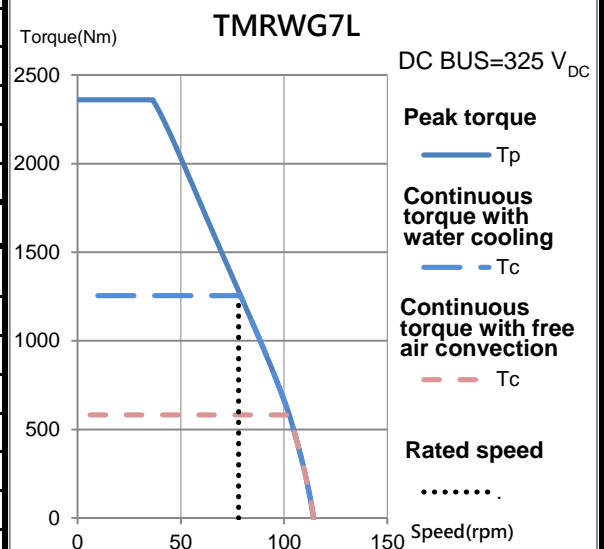
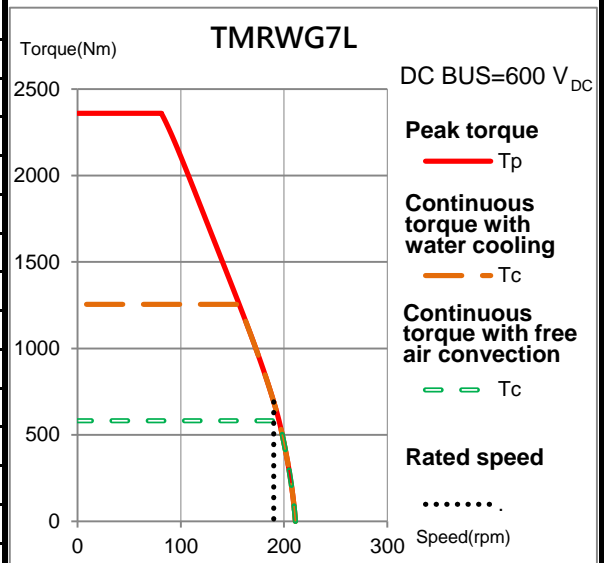
Electrical specifications

Winding code : SD	Symbol	Unit	Free air convection	Water cooling
Continuous torque	T_c	Nm	582	1255
Continuous current	I_c	A_{rms}	21	52.5
Stall torque	T_s	Nm	407	879
Stall current	I_s	A_{rms}	14.7	36.8
Peak torque(for 1sec.)	T_p	Nm	1446.5	2360
Peak current(for 1sec.)	I_p	A_{rms}	63	142
Torque constant	K_t	Nm/Arms	27.7	
Electrical time constant	T_e	ms	7.2	
Resistance (line to line at 25°C)	R_{25}	Ω	0.83	
Inductance (line to line)	L	mH	6	
Number of poles	2p		88	
Back emf constant (line to line)	K_v	Vrms/rad/s	16	
Motor constant (at 25°C)	K_m	Nm/ \sqrt{W}	24.84	
Thermal resistance	R_{th}	K/W	0.17	0.028
Thermal sensor			PTC SNM100+SNM120+Pt1000	
Max. DC BUS		V_{DC}	750	
Inertia of rotor	J	kgm^2	0.619	
Thermal time constant	T_{th}	s	3800	190
Max. continuous power dissipation	P_c	W	754	4713
Max. peak power dissipation	P_p	W	34480	
Rated speed(at 600VDC)		rpm	190	

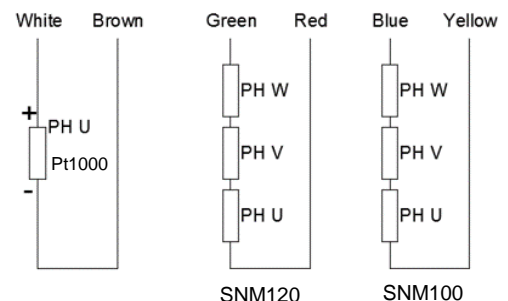
Mechanical specifications

	Symbol	Unit	Free air convection	Water cooling
Mass of rotor	M_r	kg	13.3	
Mass of stator	M_s	kg	61.1	
Height of stator	H_s	mm	130	
Height of rotor	H_r	mm	71	
Length of rotor centring fit	H	mm	15	
Water temperture difference for P_c	$\Delta\theta$	K	-	5
Minimum water flow	q	l/min	-	13.5
Max. pressure drop	Δp	bar	-	1

T-N curve



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: 2020/10/23