DMN71-X0SP00 Direct Drive Motor

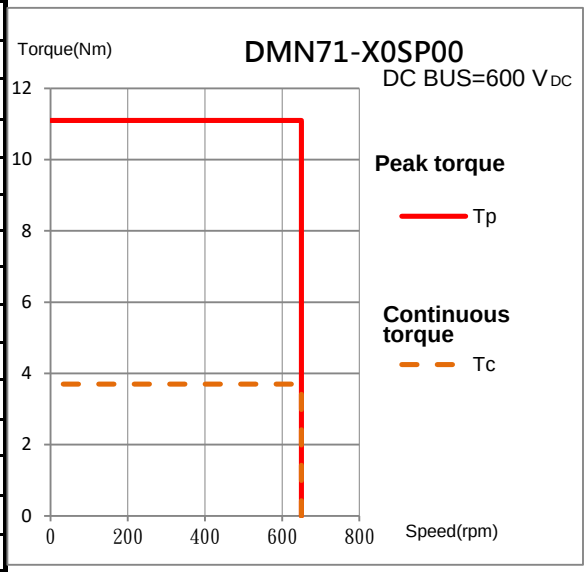
Electrical specifications

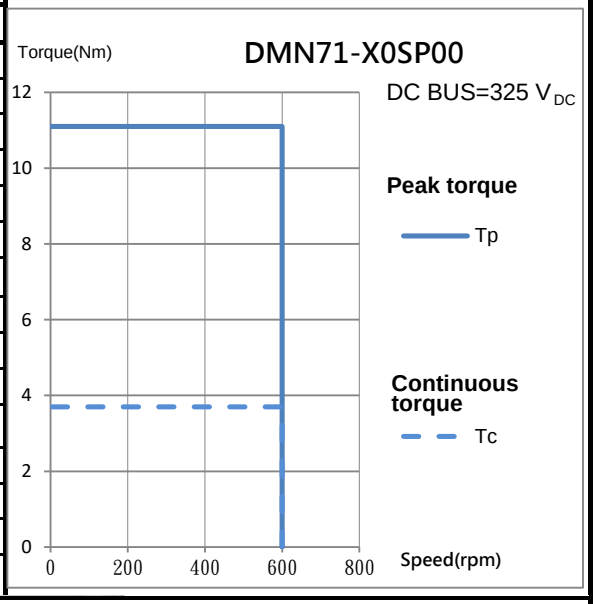
Winding code : LA	Symbol	Unit	
Continuous torque	T_c	Nm	3.7
Continuous current	I_c	A_{rms}	3.4
Peak torque(for 1sec.)	T_p	Nm	11.1
Peak current(for 1sec.)	I_p	A_{rms}	10.2
Torque constant	K_t	Nm/Arms	1.09
Electrical time constant	T_e	ms	3.5
Resistance (line to line at 25℃)	R_{25}	Ω	2.55
Inductance (line to line)	L	mH	9.02
Number of poles			16
Back emf constant (line to line)	K_v	Vrms/rad/s	0.63
Motor constant (at 25℃)	K_m	Nm/√W	0.6
Thermal resistance	R_{th}	K/W	1.7
Thermal sensor			PTC 100
Max. DC BUS		V_{DC}	600

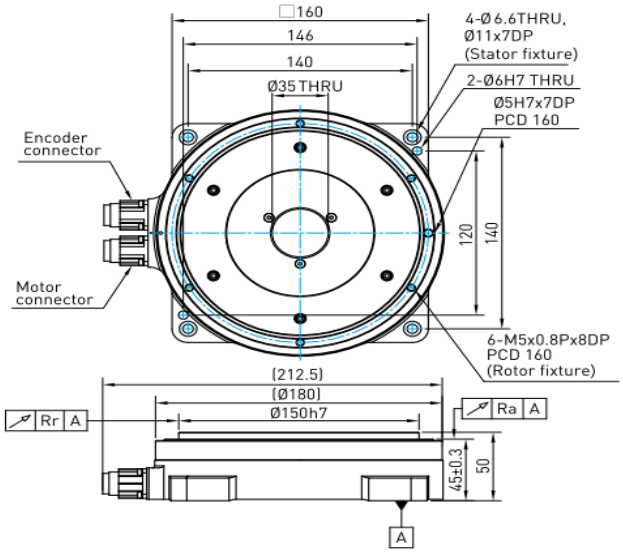
Mechanical specifications

	Symbol	Unit	
Inertia of rotor	J	kgm^2	0.008
Mass of motor	M_m	kg	3.5
Max. axial load	F_a	N	1000
Max. moment load	M	Nm	50
Max. speed(at 600VDC)		rpm	650
Max. speed(at 325VDC)		rpm	600
Line count			2048 (Sin/Cos 1Vpp)
Repeatability		arc-sec	±2.5
Accuracy		arc-sec	±45
Axial run-out	R_a	μm	30
Radial run-out	R_r	μm	30
Motor dimensions	DxH	mm	160x160x50

T-N curve







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

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

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