

DMS03-X0SP00 Direct Drive Motor

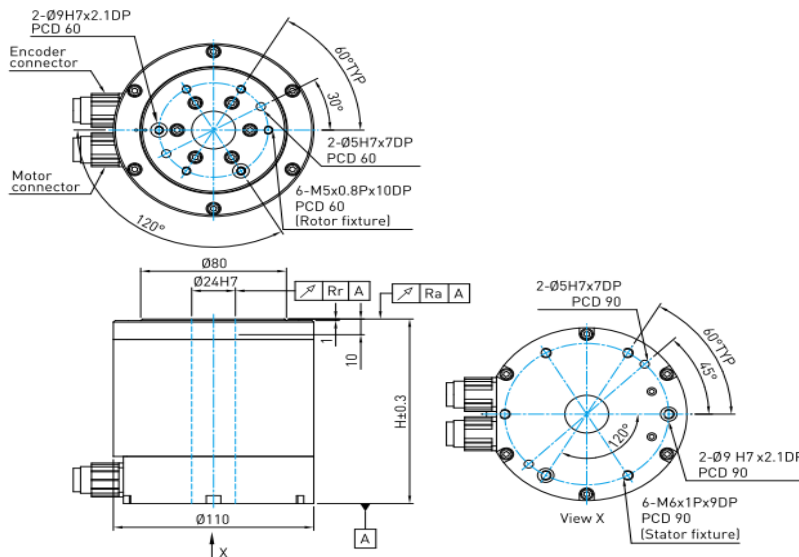
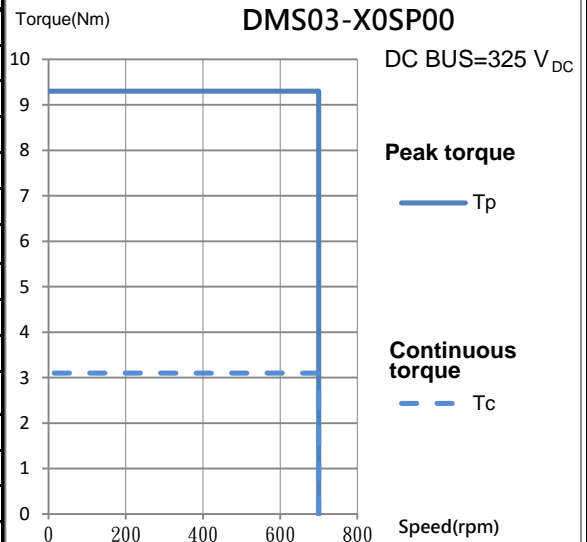
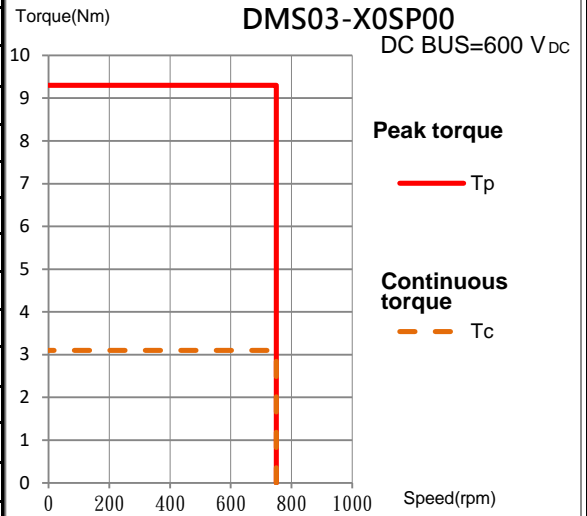
Electrical specifications

Winding code : FA	Symbol	Unit	
Continuous torque	T_c	Nm	3.1
Continuous current	I_c	A_{rms}	2
Peak torque(for 1sec.)	T_p	Nm	9.3
Peak current(for 1sec.)	I_p	A_{rms}	6
Torque constant	K_t	Nm/Arms	1.55
Electrical time constant	T_e	ms	1.9
Resistance (line to line at 25°C)	R_{25}	Ω	7.1
Inductance (line to line)	L	mH	13.8
Number of poles			10
Back emf constant (line to line)	K_v	Vrms/rad/s	0.82
Motor constant (at 25°C)	K_m	Nm/ \sqrt{W}	0.5
Thermal resistance	R_{th}	K/W	1.76
Thermal sensor			PTC 100
Max. DC BUS		V_{DC}	600

Mechanical specifications

	Symbol	Unit	
Inertia of rotor	J	kgm^2	0.003
Mass of motor	M_m	kg	4
Max. axial load	F_a	N	3700
Max. moment load	M	Nm	40
Max. speed(at 600VDC)		rpm	750
Max. speed(at 325VDC)		rpm	700
Line count			2048 (Sin/Cos 1Vpp)
Repeatability		arc-sec	± 3
Accuracy		arc-sec	± 45
Axial run-out	R_a	μm	20
Radial run-out	R_r	μm	20
Motor dimensions	DxH	mm	$\phi 110 \times 117.5$

T-N curve



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

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

Version: 2.03

Date: 2024/9/18