

LMSA14G

Linear Motor

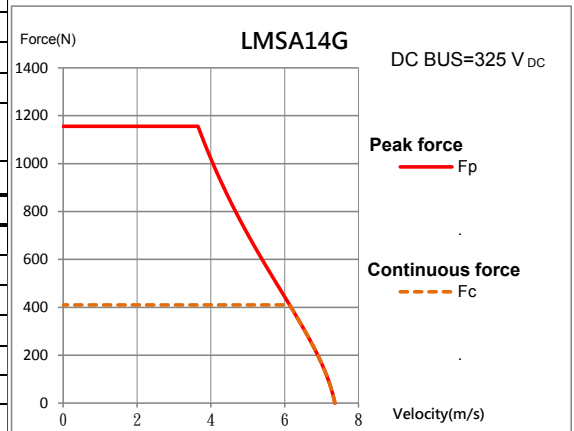
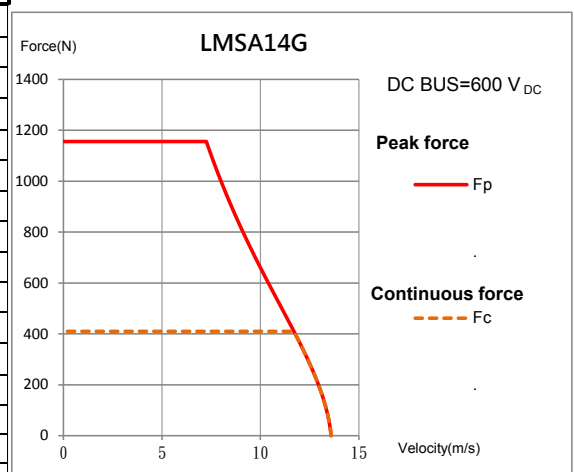
Electrical specifications

	Symbol	Unit	
Continuous force	F_c	N	410
Continuous current	I_c	A_{rms}	8.4
Peak force (1s)	F_p	N	1156
Peak current (1s)	I_p	A_{rms}	25.3
Ultimate force (0.5s)	F_u	N	1517
Ultimate current (0.5s)	I_u	A_{rms}	42.2
Force constant	K_f	N/A_{rms}	48.6
Attraction force	F_a	N	1926
Max. winding temperature	T_{max}	°C	120
Electrical time constant	K_e	ms	4.4
Resistance (line to line · 25°C)	R_{25}	Ω	2.1
Resistance (line to line · 120°C)	R_{120}	Ω	2.9
Inductance (line to line)	L	mH	9.3
Pole pair pitch	2τ	mm	30
Minimum bending radius of cable	R_{bend}	mm	69
Back emf constant(line to line)	K_v	$V_{rms}/(m/s)$	28.1
Motor constant (25°C)	K_m	$N/\sqrt{W}$	27.4
Thermal resistance	R_{th}	°C/W	0.31
Thermal time constant	t_{th}	s	2300
Thermal switch			1 x Pt1000 + 1 x (3 PTC SNM 120 In Series)
Max. DC bus voltage		V_{DC}	750

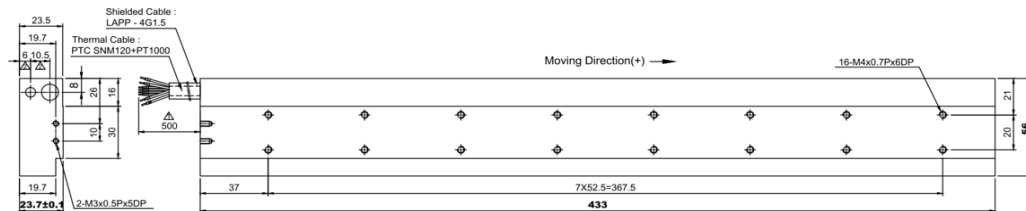
Mechanical specifications

	Symbol	Unit	
Mass offorcer	M_f	kg	2.8
Unit mass of stator	M_s	kg	2.7

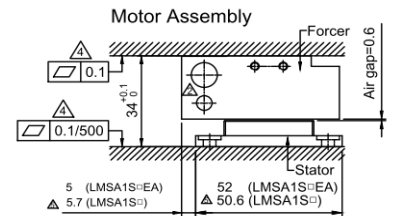
F-V curve



Focer dimensions

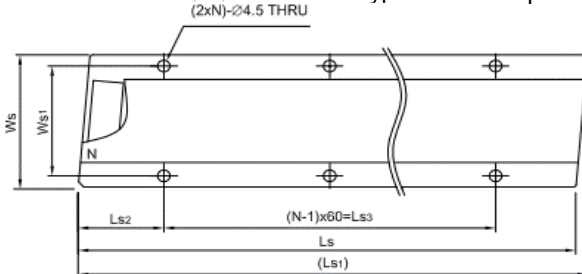


Mounting tolerance

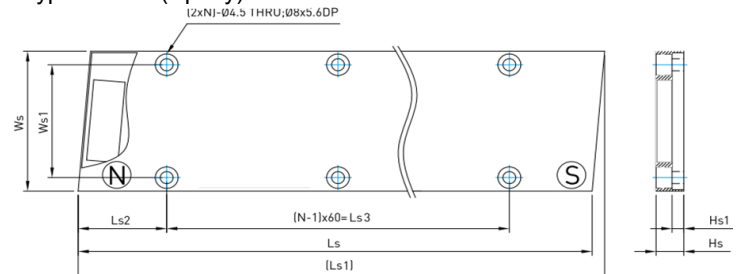


Stator dimensions

Type 1 : Cover plate



Type 2 : EA (Epoxy)



	Ls	Ls1	Ls2	Ls3	Ws	Ws1	Hs	Hs1	N
LMSA1S1(EA)	120	124.36	31	60	50.6(52)	42	9.7	4	2
LMSA1S2(EA)	180	184.36	31	120	50.6(52)	42	9.7	4	3
LMSA1S3(EA)	300	304.34	31	240	50.6(52)	42	9.7	4	5

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.

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