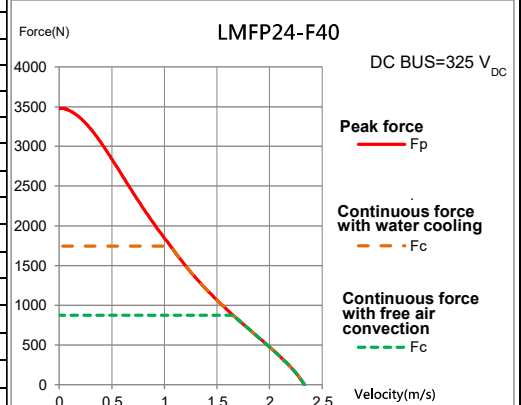
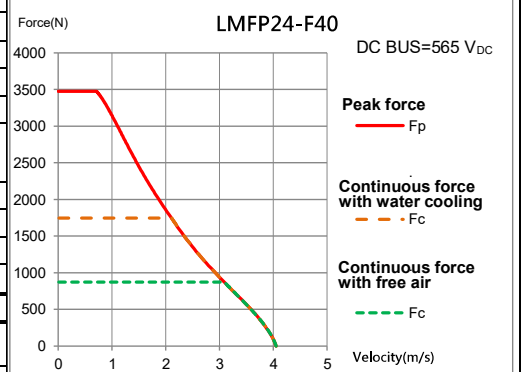
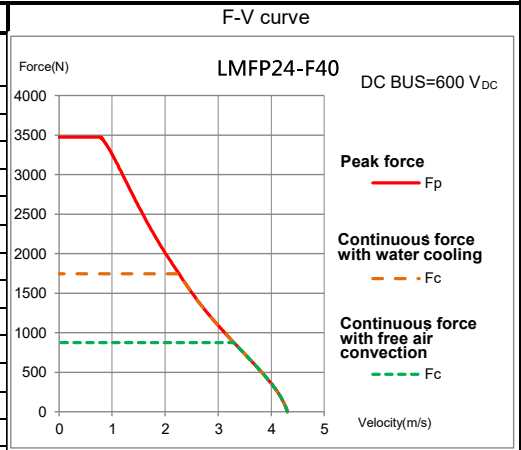
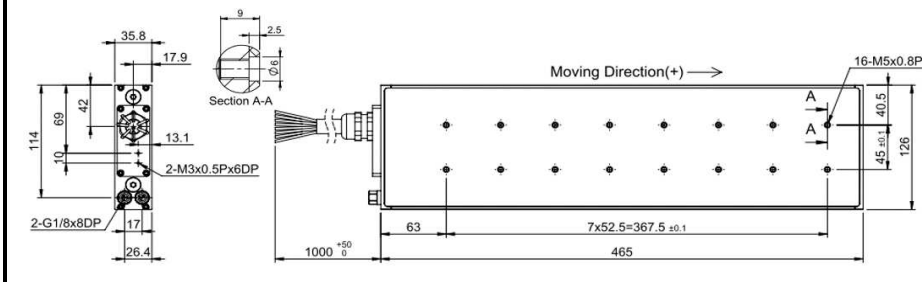


LMFP24-F40		Linear Motor			DB100196-V2.00
Electrical specifications					
	Symbol	Unit	Free air convection	Water cooling	
Continuous force	F_c	N	874	1747	
Continuous current	I_c	A_{rms}	5.7	11.4	
Stall force	F_0	N	-	1227	
Stall current	I_0	A_{rms}	-	8	
Peak force (1s)	F_p	N		3477	
Peak current (1s)	I_p	A_{rms}		32.8	
Force constant	K_f	N/A_{rms}		153.6	
Attraction force	F_a	N		4583	
Max. winding temperature	T_{max}	°C		120	
Electrical time constant	K_e	ms		8.1	
Resistance (line to line · 25°C)	R_{25}	Ω		7.1	
Resistance (line to line · 120°C)	R_{120}	Ω		9.7	
Inductance (line to line)	L	mH		57.6	
Pole pair pitch	2τ	mm		30	
Back emf constant(line to line)	K_v	$V_{rms}/(m/s)$		88.7	
Motor constant (25°C)	K_m	$N/A_{rms}/W$		47	
Thermal resistance	R_{th}	°C/W	0.2	0.05	
Thermal time constant	t_{th}	s		150	
Thermal switch			1 x Pt1000 + 1 x (3 PTC SNM 120 In Series)		
Maximum velocity at maximum force	$V_{MAX,FP}$	m/s		0.78	
Maximum electric power input	$P_{EL,MAX}$	W	-	18366	
Maximum dissipated heat output	$Q_{P,H,MAX}$	W	-	1891	
Max. DC bus voltage	V_{DC}			750	

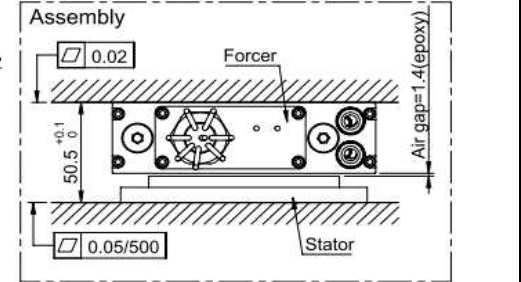


Mechanical specifications					
	Symbol	Unit	Free air convection	Water cooling	
Mass of forcer	M_f	kg		11	
Unit mass of stator	M_s	kg		9.8	
Total installation height	H	mm		50.5	
Minimum flow rate		L/min	-	4	
Temperature of cooling water		°C	-	20	
Pressure drop	ΔP	bar	-	3.18	
Water temperature difference	$\Delta\theta_{P,H}$	K	-	6.8	

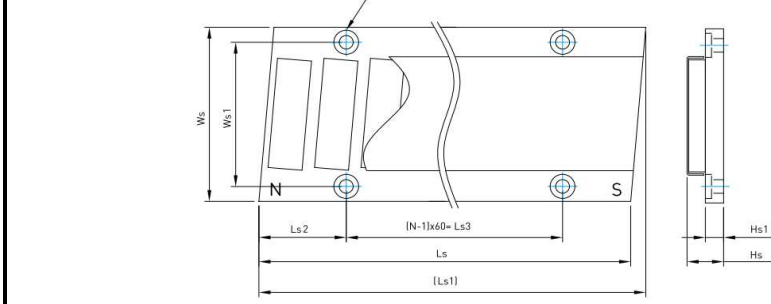
Forcer dimensions



Mounting tolerance



Stator dimensions



Wiring diagram

WIRING DIAGRAM	
Cable	Signal
L1/U	U
L2/V	V
L3/W	W
Yellow/Green	Shield
Red	T1+
Yellow	T1-
Black	T2+
White	T2-

PTC SNM120
Pt1000

Type	Ls	Ls1	Ls2	Ls3	Hs	Hs1	Ws	Ws1	N
LMF2S1	120	123.09	30.4	60	13.8	7.9	118	104	2
LMF2S1E	120	123.09	30.4	60	13.3	7.7	118	104	2
LMF2S2	180	183.09	30.4	120	13.8	7.9	118	104	3
LMF2S2E	180	183.09	30.4	120	13.3	7.7	118	104	3
LMF2S3	300	303.09	30.4	240	13.8	7.9	118	104	5
LMF2S3E	300	303.09	30.4	240	13.3	7.7	118	104	5

Except dimensions, all the specifications in the table are in ±10% of tolerance

Version: 2.00

Date: 2021/3/18