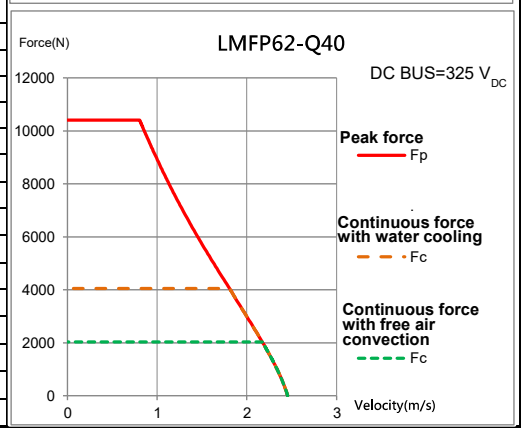
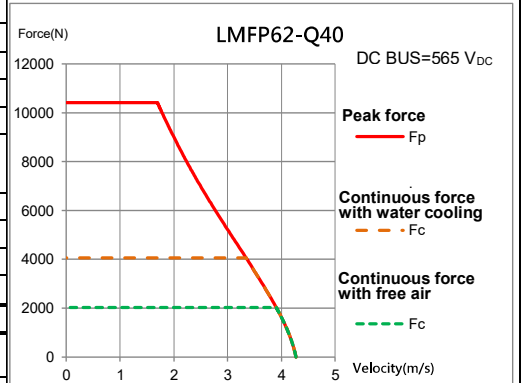
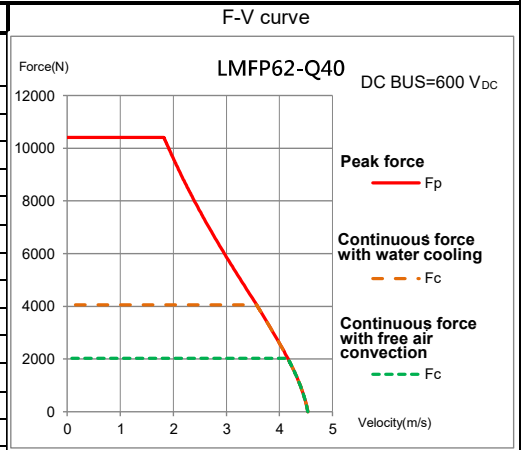


LMFP62-Q40

Linear Motor

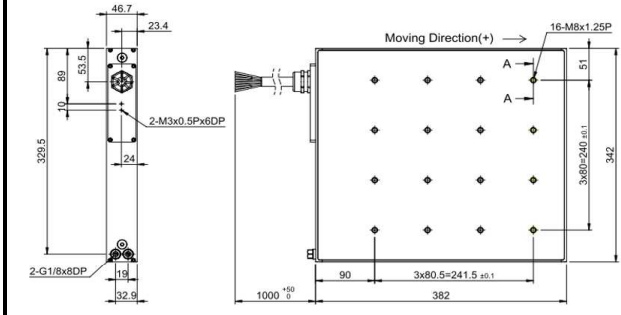
DB100212-V1.00

Electrical specifications				
	Symbol	Unit	Free air convection	Water cooling
Continuous force	F_c	N	2029	4057
Continuous current	I_c	A_{rms}	13.9	27.8
Stall force	F_0	N	-	2846
Stall current	I_0	A_{rms}	-	19.5
Peak force (1s)	F_p	N	10414	
Peak current (1s)	I_p	A_{rms}	83.8	
Force constant	K_f	N/A_{rms}	145.8	
Attraction force	F_a	N	18727	
Max. winding temperature	T_{max}	$^{\circ}C$	120	
Electrical time constant	K_e	ms	12.4	
Resistance (line to line · 25 $^{\circ}C$)	R_{25}	Ω	1.3	
Resistance (line to line · 120 $^{\circ}C$)	R_{120}	Ω	1.8	
Inductance (line to line)	L	mH	16.1	
Pole pair pitch	2τ	mm	46	
Back emf constant(line to line)	K_v	$V_{rms}/(m/s)$	84.2	
Motor constant (25 $^{\circ}C$)	K_m	$N/A_{rms}/W$	104.5	
Thermal resistance	R_{th}	$^{\circ}C/W$	0.18	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	1.8	
Maximum electric power input	$P_{EL,MAX}$	W	-	37706
Maximum dissipated heat output	$Q_{P,H,MAX}$	W	-	2087
Max. DC bus voltage	V_{DC}		750	

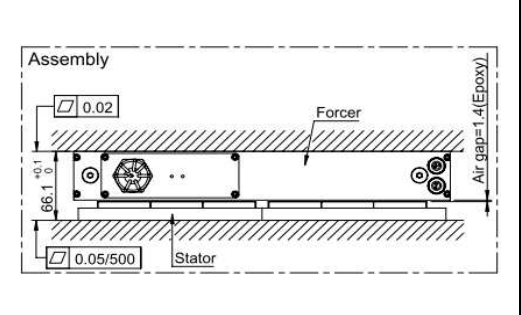


Mechanical specifications				
	Symbol	Unit	Free air convection	Water cooling
Mass of forcer	M_f	kg	33.4	
Unit mass of stator	M_s	kg	40.1	
Total installation height	H	mm	66.1	
Minimum flow rate		L/min	-	6.8
Temperature of cooling water		$^{\circ}C$	-	20
Pressure drop	ΔP	bar	-	1.64
Water temperature difference	$\Delta\theta_{P,H}$	K	-	4.4
Forcer precision cooler				
Maximum dissipated thermal output	$Q_{FC,MAX}$	W	-	143
Pressure drop	ΔP_{FC}	bar	-	5.99
Stator precision cooler				
Maximum dissipated thermal output	$Q_{SC,MAX}$	W	-	428
Pressure drop per meter of cooling pipe	ΔP_s	bar	-	0.09
Pressure drop per combi distributor	ΔP_{sd}	bar	-	0.4
Pressure drop per coupling point	ΔP_{sp}	bar	-	0.09

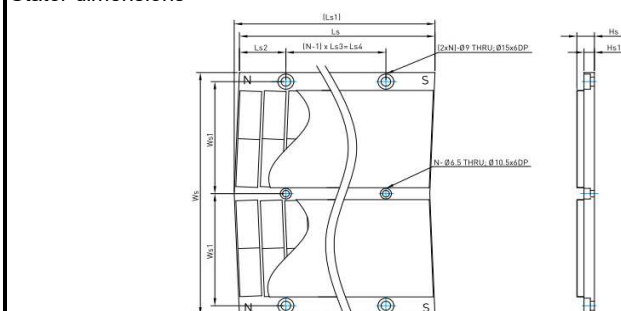
Forcer dimensions



Mounting tolerance



Stator dimensions



Wiring diagram

WIRING DIAGRAM		
Cable	Signal	
L1/U	U	
L2/V	V	
L3/W	W	
Yellow/Green	⊥	
Shield		
Red	T1+	PTC SNM120
Yellow	T1-	
Black	T2+	
White	T2-	

Type	Ls	Ls1	Ls2	Ls3	Ls4	Hs	Hs1	Ws	Ws1	N
LMF6S1E	184	188.66	20.97	46	138	18	11.8	334	158	4

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

Version: 1.00

Date: 2021/1/29