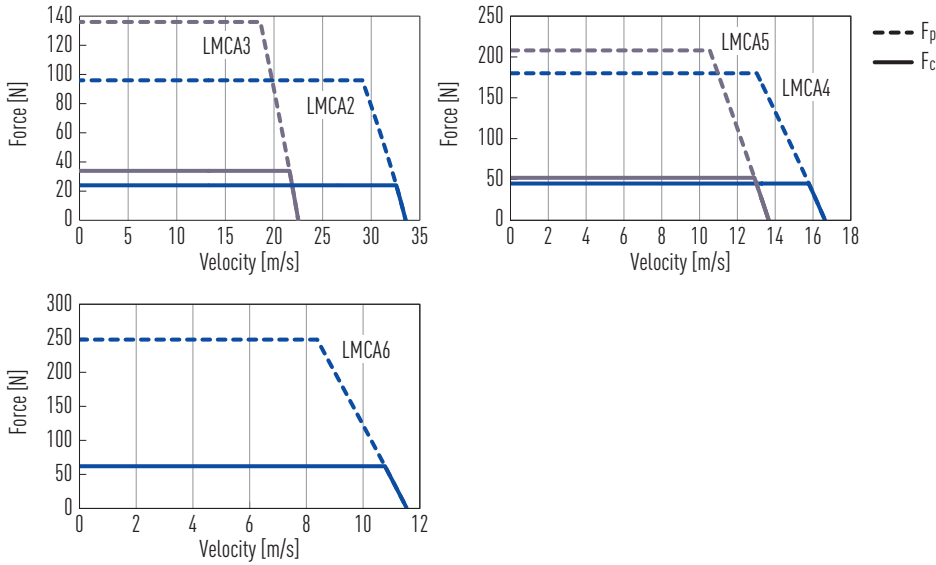


Specifications

Force-velocity curves (DC bus voltage: 330 VDC)



Technical data for LMCA							
	Symbol	Unit	LMCA2	LMCA3	LMCA4	LMCA5	LMCA6
Forces and electrical parameters							
Continuous force at T_{max}	F_c	N	24	34	45	52	62
Continuous current at T_{max}	I_c	A_{eff}	2.3	2.1	2.1	1.8	1.8
Peak force (for 1 s)	F_p	N	96	136	180	208	248
Peak current (for 1 s)	I_p	A_{eff}	9.2	8.4	8.4	7.2	7.2
Force constant	K_f	N/A_{eff}	10.6	15.8	21.2	28.2	33.8
Electrical time constant	K_e	ms	0.4	0.3	0.3	0.3	0.3
Resistance ¹⁾	R_{25}	Ω	2.7	4.1	5.4	6.7	8.2
Inductance ¹⁾	L	mH	1.0	1.4	1.9	2.3	2.8
Back EMF constant	K_u	$V_{eff}/(m/s)$	5.9	8.8	11.9	14.5	17.4
Motor constant	K_m	N/\sqrt{W}	5.2	6.5	7.5	9.1	9.8
Thermal resistance	R_{th}	$^{\circ}C/W$	2.80	2.21	1.68	1.84	1.50
Thermal switch			3 PTC SNM 100 in series				
Max. DC bus voltage		V	330				
Mechanical parameters							
Max. bending radius of motor cable	R_{bend}	mm	37.5				
Pole pair pitch	2τ	mm	32				
Max. winding temperature	T_{max}	$^{\circ}C$	100				
Mounting holes (forcer)	n		2	3	4	5	6
Weight of forcer	M_F	kg	0.15	0.23	0.31	0.38	0.45
Length of forcer	L_F	mm	66	98	130	162	194
Unit mass of stator	M_S	kg/m	7				
Length of stator/Dimension N	L_S	mm	128 mm/N = 2; 320 mm/N = 5				

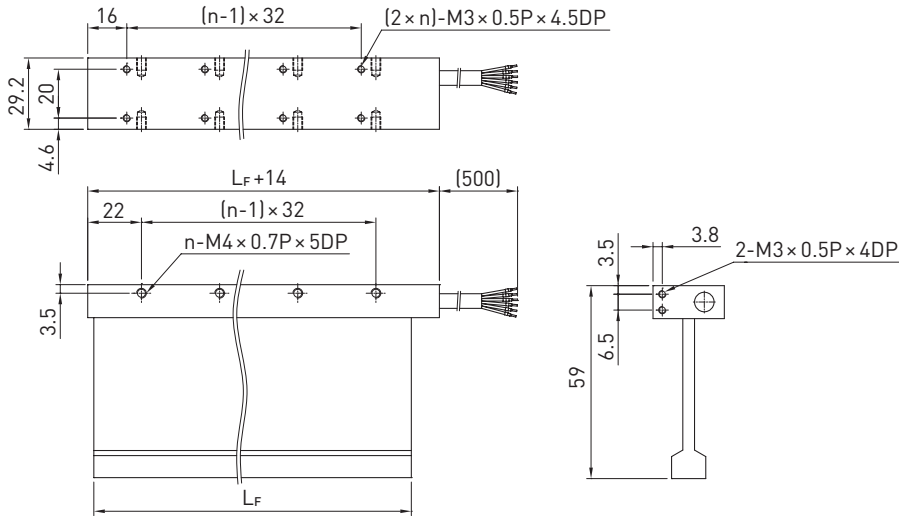
All the specifications in the table (except dimensions) are in $\pm 10\%$ of tolerance at 25 $^{\circ}C$ ambient temperature

¹⁾ Line to line

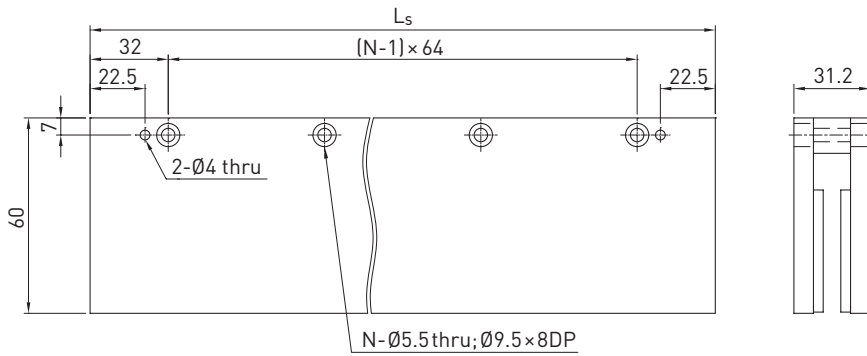
Data Sheet

HIWIN linear motors LMCA

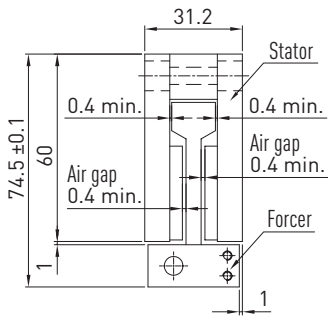
Dimensions of forcer



Dimensions of stator



Mounting tolerances



LMCA motor cable assignment		
Motor cable	Signal	Diameter [mm]
Brown	U	7.5
White	V	
Grey	W	
Black	GND	
Yellow	T+	
Green	T-	