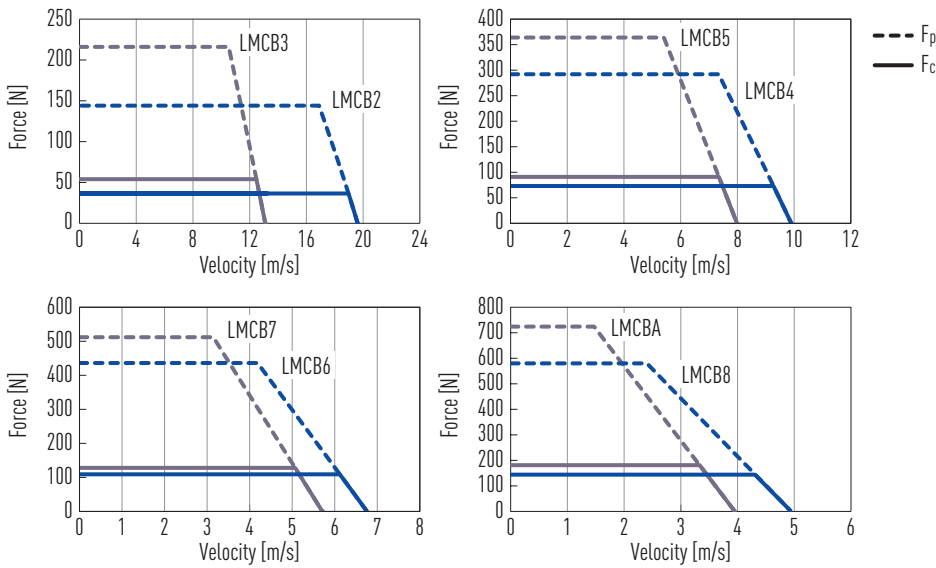


Specifications

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



Technical data for LMCB										
	Symbol	Unit	LMCB2	LMCB3	LMCB4	LMCB5	LMCB6	LMCB7	LMCB8	LMCBA
Forces and electrical parameters										
Continuous force at T_{max}	F_c	N	36	54	73	91	109	128	145	181
Continuous current at T_{max}	I_c	A_{eff}	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Peak force (for 1 s)	F_p	N	144	216	292	364	436	512	580	724
Peak current (for 1 s)	I_p	A_{eff}	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Force constant	K_f	N/A_{eff}	18.1	27.2	36.3	45.4	54.5	63.5	72.5	90.6
Electrical time constant	K_e	ms	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
Resistance ¹⁾	R_{25}	Ω	3.6	5.4	7.1	9.0	10.7	12.6	14.6	17.9
Inductance ¹⁾	L	mH	1.4	1.9	2.6	3.2	3.8	4.4	5.0	6.2
Back EMF constant	K_u	$V_{eff}/(m/s)$	10.1	15.2	20.0	24.8	29.3	34.7	40.0	50.0
Motor constant	K_m	N/\sqrt{W}	7.7	9.5	11.2	12.4	13.6	14.7	15.5	17.5
Thermal resistance	R_{th}	$^{\circ}C/W$	2.77	1.85	1.41	1.11	0.93	0.79	0.68	0.56
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	7	8	10
Weight of forcer	M_F	kg	0.20	0.29	0.38	0.48	0.58	0.68	0.72	0.88
Length of forcer	L_F	mm	66	98	130	162	194	226	258	322
Unit mass of stator	M_S	kg/m	12							
Length of stator/Dimension N	L_S	mm	128 mm/N = 2; 320 mm/N = 5							

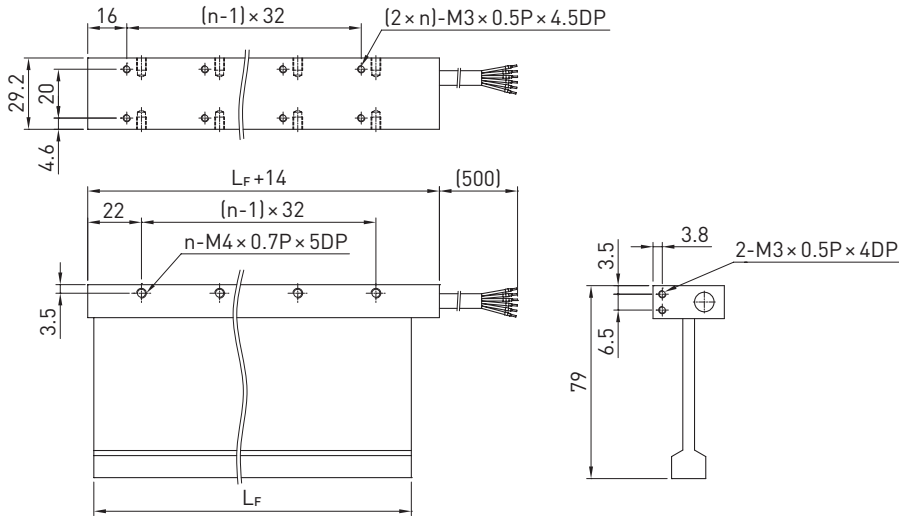
All the specifications in the table (except dimensions) are in $\pm 10\%$ of tolerance at 25 $^{\circ}C$ ambient temperature

¹⁾ Line to line

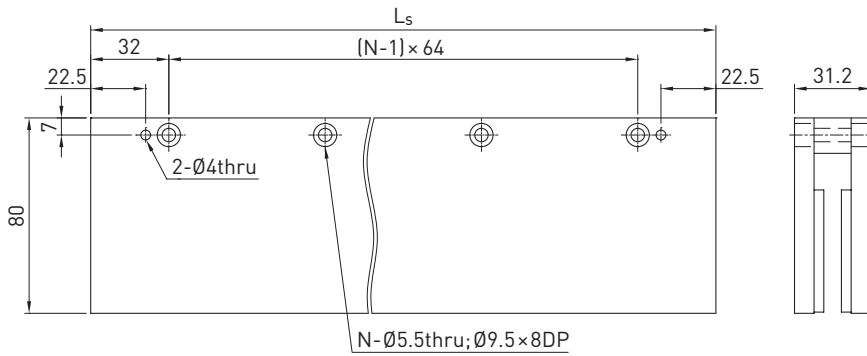
Data Sheet

HIWIN linear motors LMCB

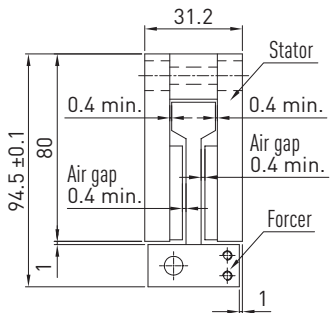
Dimensions of forcer



Dimensions of stator



Mounting tolerances



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