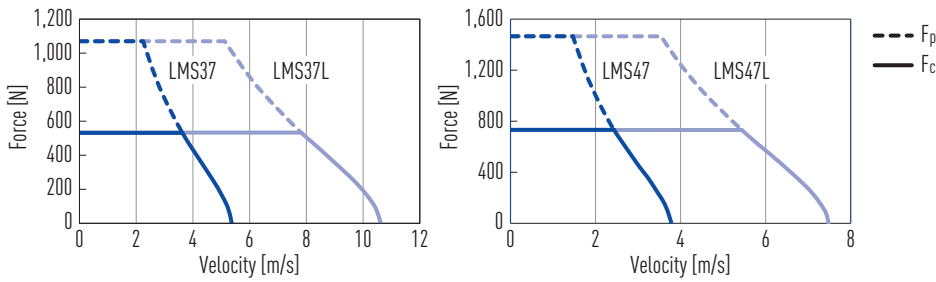


Specifications

Force-velocity curves (DC bus voltage: 600 VDC)



Technical data for LMS3, LMS4						
	Symbol	Unit	LMS37	LMS37L	LMS47	LMS47L
Forces and electrical parameters						
Continuous force at T_{max}	F_c	N	535		733	
Continuous current at T_{max}	I_c	A_{eff}	3.9	7.9	3.9	7.9
Peak force (for 1 s)	F_p	N	1,070		1,466	
Peak current (for 1 s)	I_p	A_{eff}	11.8	23.7	11.8	23.7
Force constant	K_f	N/A_{eff}	136	68	186	93
Attraction force	F_a	N	2,850		4,071	
Electrical time constant	K_e	ms	11.6	11.0	13.0	12.2
Resistance ¹⁾	R_{25}	Ω	8.9	2.1	11.9	2.7
Inductance ¹⁾	L	mH	103.4	23.1	154.4	33.0
Back EMF constant	K_u	$V_{eff}/(m/s)$	71	36	101	51
Motor constant	K_m	N/\sqrt{W}	37.2	38.3	44.0	46.2
Thermal resistance	R_{th}	$^{\circ}C/W$	0.3	0.4	0.3	0.3
Thermal time constant	T_{th}	s	5,685		8,356	
Thermal switch			3 PTC SNM 120 in series			
Max. DC bus voltage		V	600			
Mechanical parameters						
Max. bending radius of motor cable	R_{bend}	mm	69			
Pole pair pitch	2τ	mm	32			
Max. winding temperature	T_{max}	$^{\circ}C$	120			
Weight of forcer	M_F	kg	5.9		8.0	
Unit mass of stator	M_S	kg/m	8.2		11.5	
Width of stator	W_S	mm	100		130	
Stator mounting distance	A_S	mm	85		115	
Length of stator/Dimension N	L_S	mm	128 mm/N = 2; 320 mm/N = 5			
Total height (forcer + stator)	H	mm	57.4			

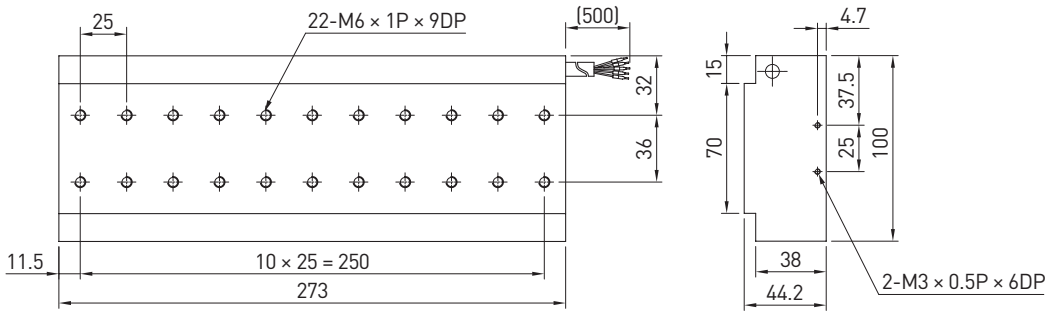
All the specifications in the table (except dimensions) are in $\pm 10\%$ of tolerance at 25 $^{\circ}C$ ambient temperature

¹⁾ Line to line

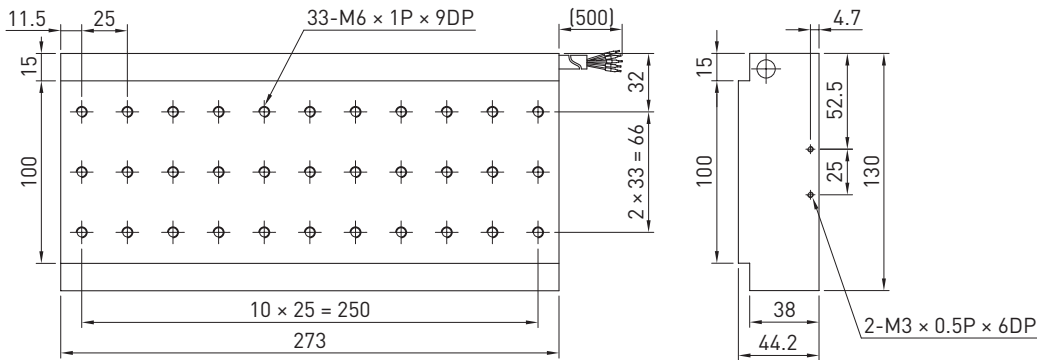
Data Sheet

HIWIN linear motors LMS3, LMS4

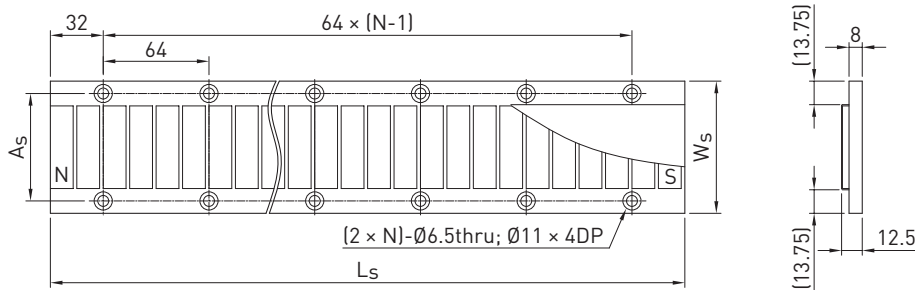
Dimensions of forcer LMS37(L)



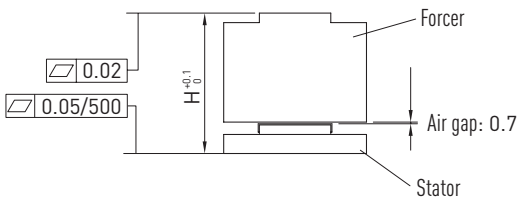
Dimensions of forcer LMS47(L)



Dimensions of stator



Mounting tolerances



LMS3, LMS4 motor cable assignment		
Motor cable	Signal	Diameter [mm]
1	V	9.0
2	U	
3	W	
4	—	
5	T+	
6	T-	
Green/Yellow	GND	