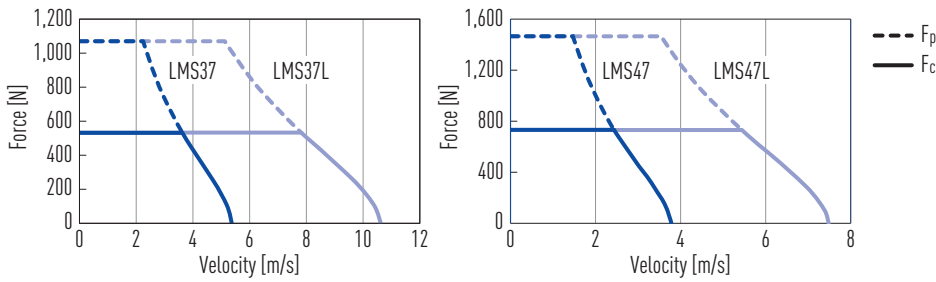


### Specifications

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



Technical data for LMS3, LMS4						
	Symbol	Unit	LMS37	LMS37L	LMS47	LMS47L
<b>Forces and electrical parameters</b>						
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 <sup>1)</sup>	$R_{25}$	$\Omega$	8.9	2.1	11.9	2.7
Inductance <sup>1)</sup>	$L$	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			
<b>Mechanical parameters</b>						
Max. bending radius of motor cable	$R_{bend}$	mm	69			
Pole pair pitch	$2\tau$	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			

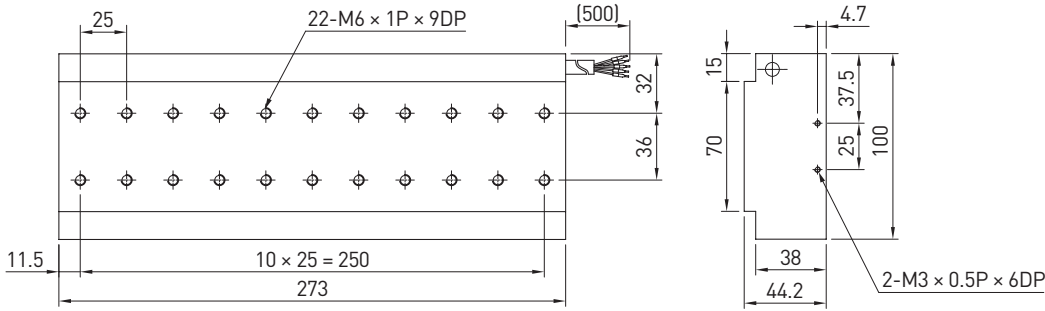
All the specifications in the table (except dimensions) are in  $\pm 10\%$  of tolerance at 25  $^{\circ}C$  ambient temperature

<sup>1)</sup> Line to line

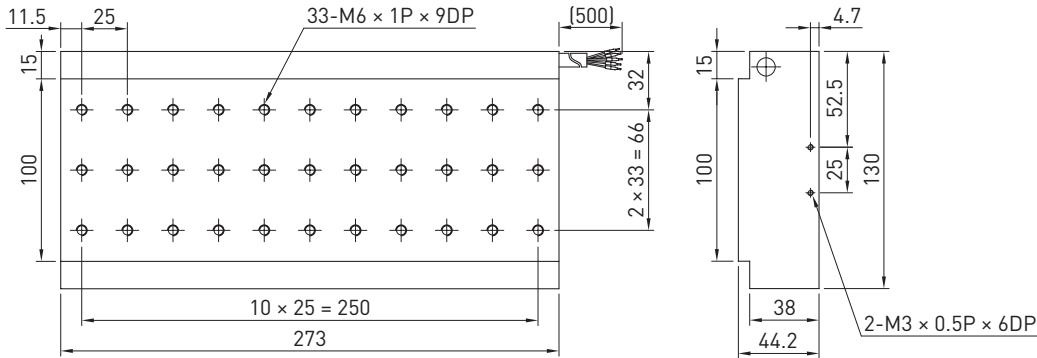
# Data Sheet

HIWIN linear motors LMS3, LMS4

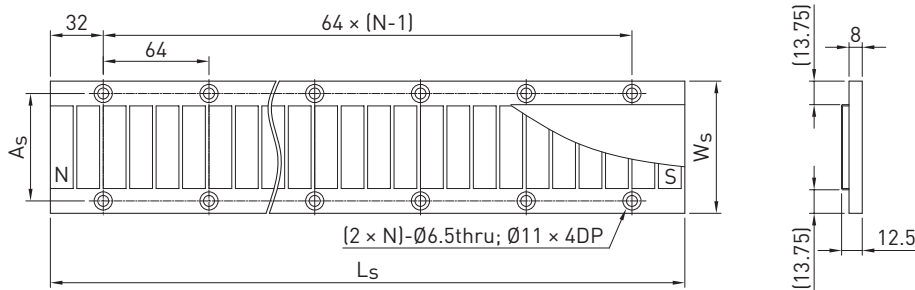
## Dimensions of forcer LMS37(L)



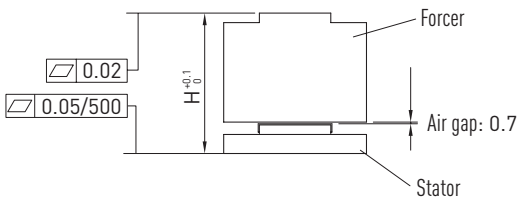
## Dimensions of forcer LMS47(L)



## 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	