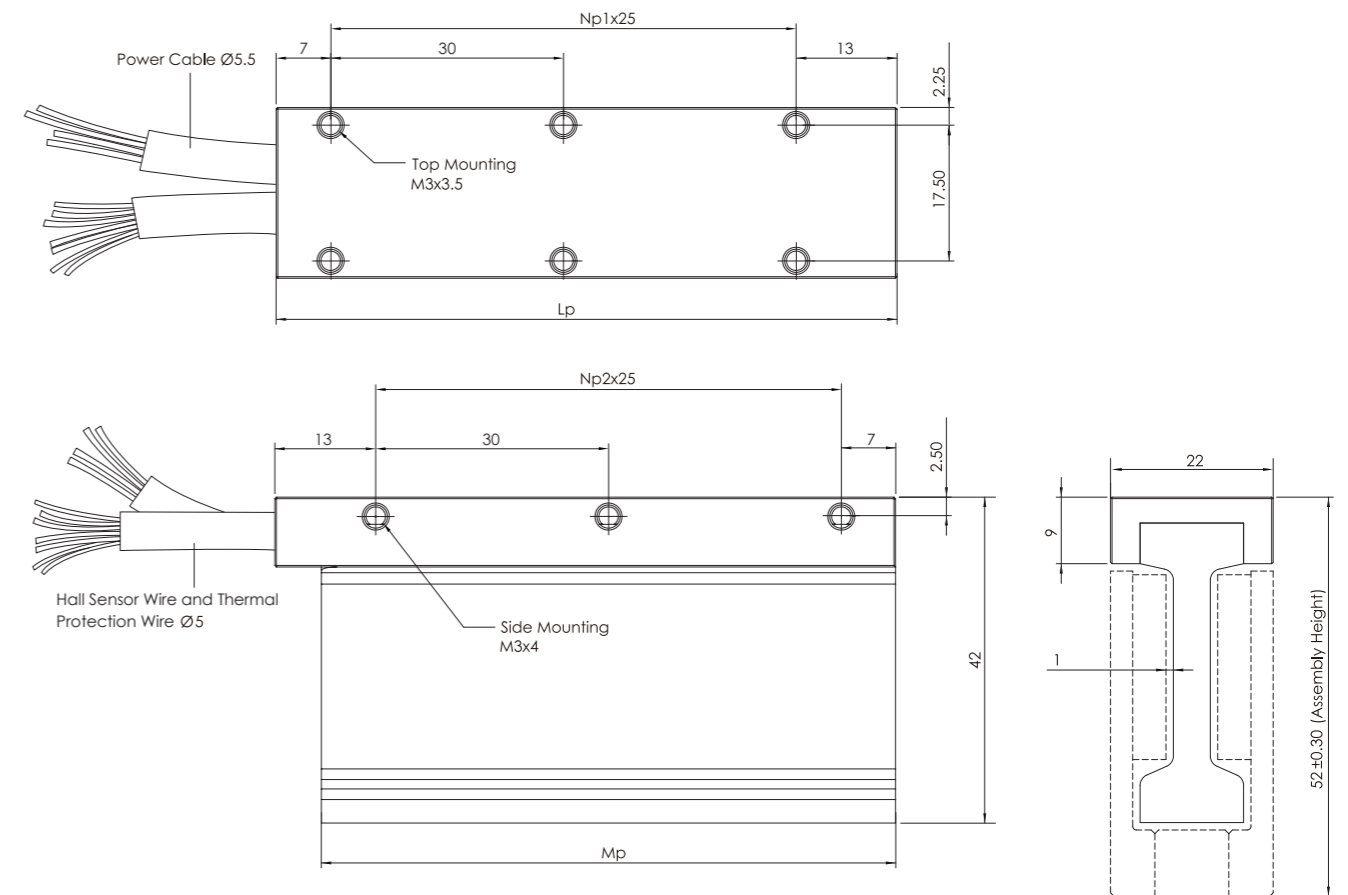


**LM-PA SERIES**  
Linear Motion Technology

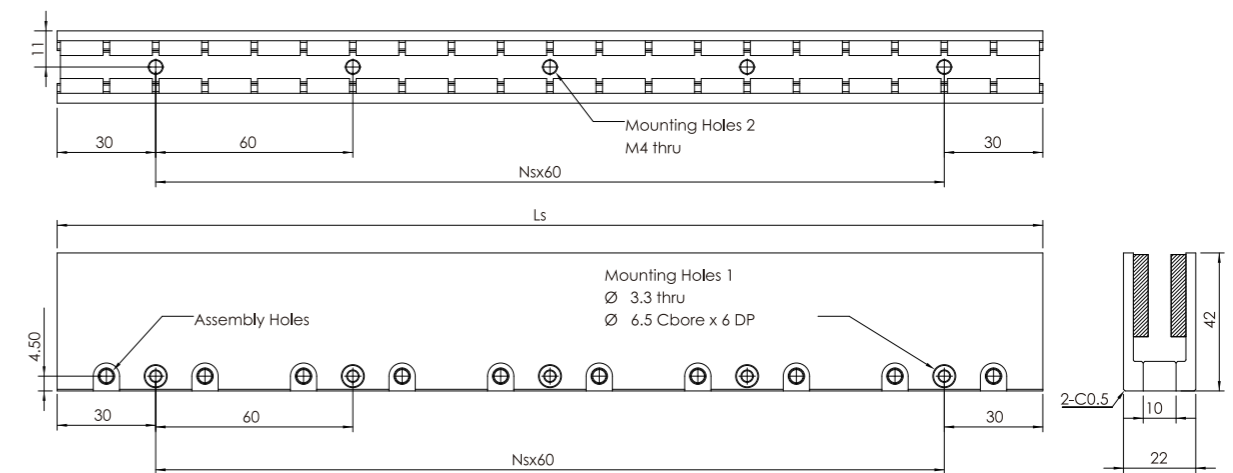
## LM-PA Coil Assembly



## LM-PA Coil Assembly Model

Coil Assembly Model	LM-PA1		LM-PA2		LM-PA3		LM-PA4		
Winding code	W1	W1	W2	W1	W2	W1	W2	W3	
<b>Performance</b>									
Peak force (N)	56	112	128	224					
Continuous force (N)	14	28	42	56					
Peak power (W)	505	1011	1516	1600					
Continuous power (W)	31	63	94	100					
<b>Mechanical</b>									
Coil assembly length (mm)	50	80	110	140					
Coil assembly weight (kg)	0.08	0.12	0.19	0.23					
Magnet track weight (kg/m)	4.2	4.2	4.2	4.2					
Electrical cycle length (mm)	30	30	30	30					
<b>Electrical</b>									
Continuous current (Arms)	2.0	2.0	4.0	2.0	4.0	2.0	4.0	8.0	
Peak current (Arms)	8.0	8.0	16.0	8.0	16.0	8	16	32	
Force constant (N/A)	7	14	7	21	10.5	23	14	7	
Back EMF constant (V/m/s)	8	16	8	24	12	32	16	8	
Ph-Ph resistance @25°C(Ω)	7.9	15.8	3.1	23.7	5.9	25	6.0	1.5	
Ph-Ph inductance @25°C(mH)	2.88	5.76	1.44	8.64	2.16	11.52	2.88	0.72	
Motor constant (N/A W)	2.5	3.5	3.5	4.3	4.3	5.6	5.6	5.6	

## LM-SA Magnetic Way



## LM-PA Coil Assembly

	Np1	Np2	Lp	Mp
LM-PA1	1	1	50	44
LM-PA2	2	2	80	74
LM-PA3	3	3	110	104
LM-PA4	4	4	140	134

## LM-SA Magnetic Way

	Ns	Ls
LM-SA0	1	120
LM-SA1	4	300
LM-SA2	7	480

## OUTPUT CABLE (All cable standard length 400 mm)

Motor Wire Table			Hall Sensor Wire Table and Thermal Protection Wire Table					
Pin Number	Function	Cross section	Color	Function	Cable Dia.	Color	Function	Cable Dia.
1	U phase	1.0 mm <sup>2</sup>	Pink	Hall A U phase	0.14 mm <sup>2</sup>	Brown/Blue	Thermal sensor	0.14 mm <sup>2</sup>
2	V phase	1.0 mm <sup>2</sup>	Yellow	Hall B V phase	0.14 mm <sup>2</sup>			
3	W phase	1.0 mm <sup>2</sup>	Green	Hall C W phase	0.14 mm <sup>2</sup>			
yellow/green	PE	1.0 mm <sup>2</sup>	Grey	Hall IC + 5V	0.14 mm <sup>2</sup>			
			White	GND	0.14 mm <sup>2</sup>			

