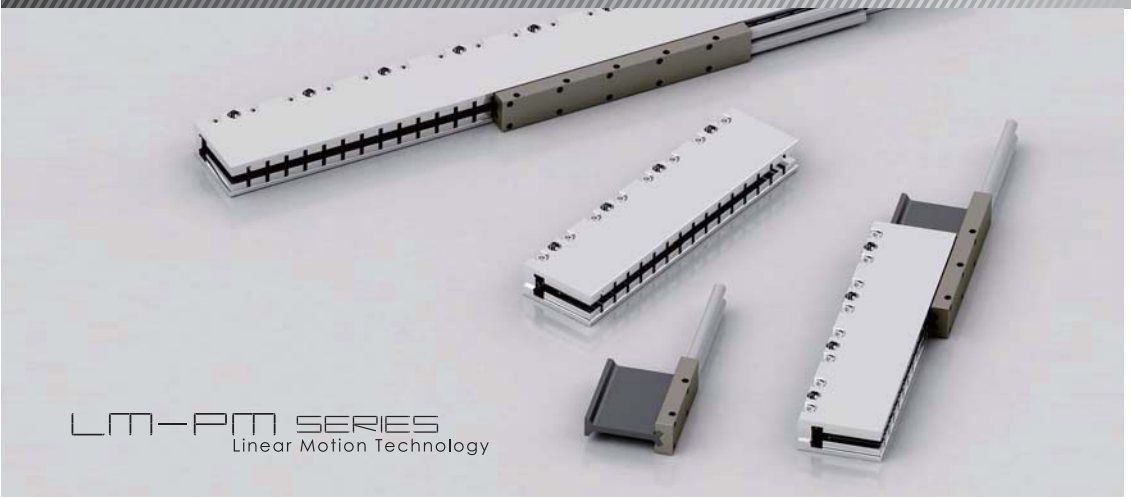


LM-PM Coil Assembly Model

Coil Assembly Model	LM-PM2			LM-PM4			LM-PM6		
Winding code	W1	W2	W3	W1	W2	W3	W1	W2	W3
Performance[4]									
Peak Force with heat sink(N)[1][2]	37.0			74.0			102.1		
Peak Force without heat sink(N)[2][3]	26.6			53.3			71.0		
Continuous Force with heat sink(N)[1][2]	9.2			18.5			25.5		
Continuous Force without heat sink(N)[2][3]	6.7			13.3			17.8		
Peak power(W)[1][2]	230.0			460.0			584.0		
Continuous power(W)[1][2]	14.4			28.8			36.5		
Mechanical									
Coil assembly length(mm)	40			70			100		
Coil assembly weight(kg)[2]	0.04			0.07			0.10		
Magnetic way weight(kg/m)[2]	2.0			2.0			2.0		
Pole pitch(mm)	15			15			15		
Electrical[4]									
Continuous Current with heat sink(A_{pk})[1][2]	2.5	5	10	2.5	5	10	2.3	4.6	9.2
Continuous Current without heat sink(A_{pk})[2][3]	1.8	3.6	7.2	1.8	3.6	7.2	1.6	3.2	6.4
Peak Current with heat sink(A_{pk})[1][2]	10	20	40	10	20	40	9.2	18.4	36.8
Peak Current without heat sink(A_{pk})[2][3]	7.2	14.4	28.8	7.2	14.4	28.8	6.4	12.8	25.6
Force Constant(N/A_{pk})[2]	3.7	1.8	0.9	7.4	3.7	1.8	11.1	5.5	2.8
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	4.3	2.2	1.1	8.6	4.3	2.2	12.9	6.5	3.2
Resistant(Ohms)[2]	2.3	0.6	0.1	4.6	1.2	0.3	6.9	1.7	0.4
Inductance(mH)[2]	0.09	0.02	0.01	0.18	0.04	0.01	0.3	0.07	0.02
Time Constant(ms)[2]	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Thermal Resistant with heat sink(°C/W)[1][2]	4.6			2.3			1.8		
Thermal Resistant without heat sink(°C/W)[2][3]	8.8			4.4			3.8		
Heat Sink(mm)	300x200x12			300x200x12			300x200x12		
Motor Constant(N/√W)[2]	2.4			3.4			4.2		
Ph-PE dielectric strength[2]	≥5KV(AC)			≥5KV(AC)			≥5KV(AC)		
Ph-PE insulation resistance[2]	≥1KV(DC)			≥1KV(DC)			≥1KV(DC)		

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

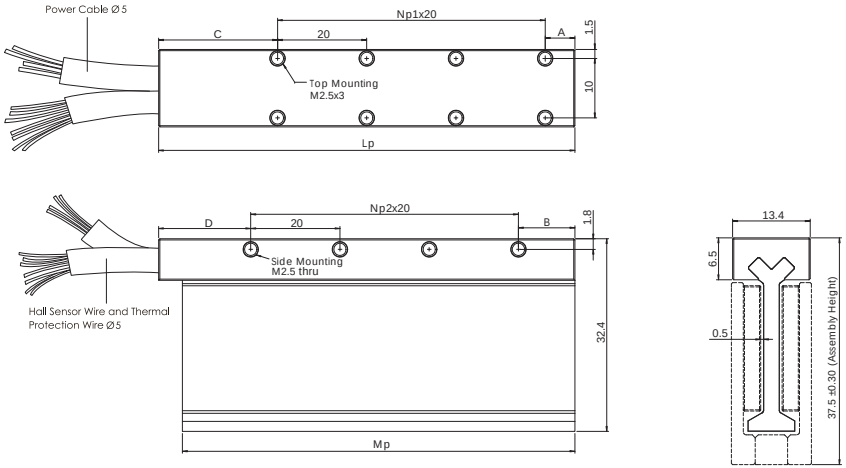
LM-PM Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PM2	1	1	40	35	3	6.5	17	13.5
LM-PM4	2	2	70	65	13	16.5	17	13.5
LM-PM6	4	4	100	95	3	6.5	17	13.5

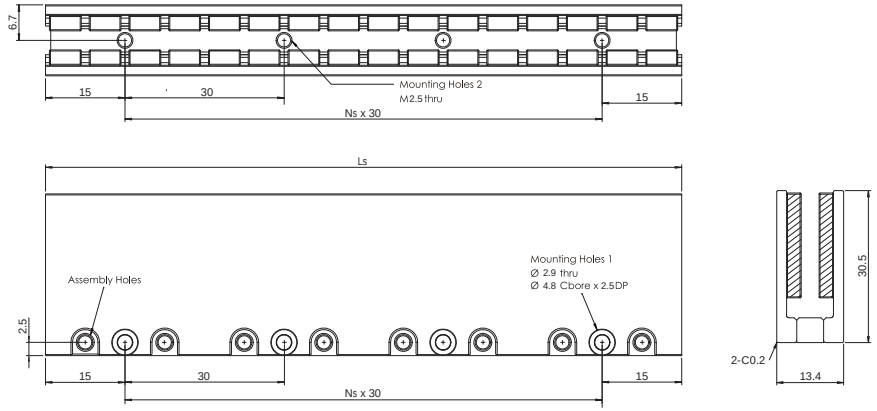
LM-SM Magnetic Way

	Ns	Ls
LM-SM0	3	120
LM-SM1	9	300
LM-SM2	15	480

LM-PM Coil Assembly

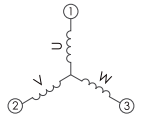


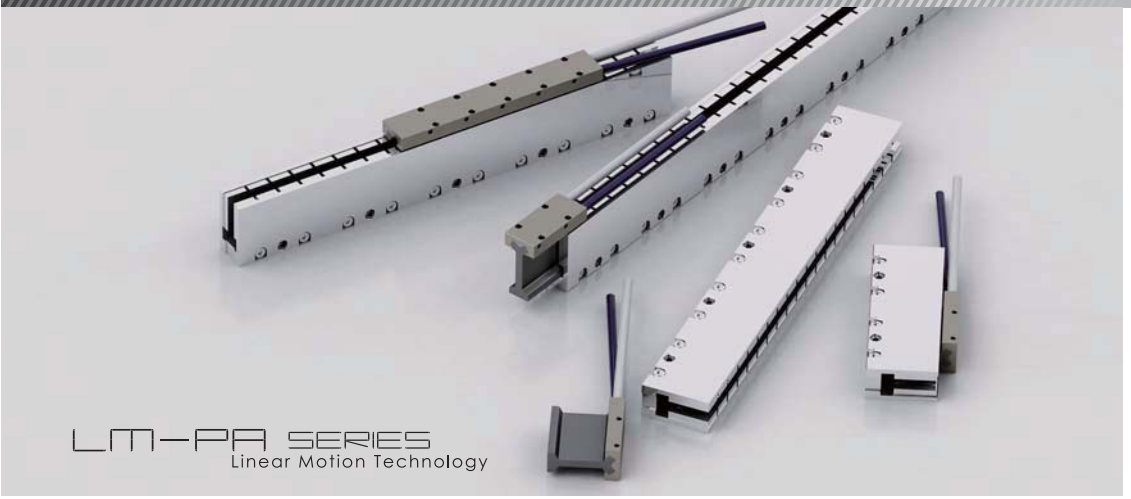
LM-SM Magnetic Way



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.
White	U phase	0.25mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	0.25mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	0.25mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	0.25mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			





LM-PA Coil Assembly Model

Coil Assembly Model	LM-PA1	LM-PA2		LM-PA3		LM-PA4			LM-PA5	
Winding code	W1	W1	W2	W1	W2	W1	W2	W3	W1	W2
Performance[4]										
Peak Force with heat sink(N)[1][2]	47.7	90.4		128.1		160.7			200.9	
Peak Force without heat sink(N)[2][3]	30.1	60.3		90.4		110.5			138.1	
Continuous Force with heat sink(N)[1][2]	11.9	22.6		32		40.2			50.2	
Continuous Force without heat sink(N)[2][3]	7.5	15.1		22.6		27.6			34.5	
Peak power(W)[1][2]	421.6	756.9		1012.7		1196			1495	
Continuous power(W)[1][2]	26.4	47.3		63.3		74.8			93.4	
Mechanical										
Coil assembly length(mm)	50	80		110		140			170	
Coil assembly weight(kg)[2]	0.08	0.12		0.16		0.20			0.24	
Magnetic way weight(kg/m)[2]	4.4	4.4		4.4		4.4			4.4	
Pole pitch(mm)	30	30		30		30			30	
Electrical[4]										
Continuous Current with heat sink(A_{pk})[1][2]	1.9	1.8	3.6	1.7	3.4	1.6	3.2	6.4	1.6	3.2
Continuous Current without heat sink(A_{pk})[2][3]	1.2	1.2	2.4	1.2	2.4	1.1	2.2	4.4	1.1	2.2
Peak Current with heat sink(A_{pk})[1][2]	7.6	7.2	14.4	6.8	13.6	6.4	12.8	25.6	6.4	12.8
Peak Current without heat sink(A_{pk})[2][3]	4.8	4.8	9.6	4.8	9.6	4.4	8.8	17.6	4.4	8.8
Force Constant(N/A_{pk})[2]	6.3	12.6	6.3	18.8	9.4	25.1	12.6	6.3	31.4	15.7
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	7.3	14.6	7.3	21.9	11	29.2	14.6	7.3	36.5	18.3
Resistant(Ohms)[2]	7.3	14.6	3.7	21.9	5.5	29.2	7.3	1.8	36.5	9.1
Inductance(mH)[2]	1.25	2.5	0.63	3.75	0.94	5	1.25	0.13	6.25	1.56
Time Constant(ms)[2]	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Thermal Resistant with heat sink(°C/W)[1][2]	2.7	1.6		1.3		1			0.7	
Thermal Resistant without heat sink(°C/W)[2][3]	6.8	3.9		2.7		2.2			1.7	
Heat Sink(mm)	250x250x25	250x250x25		250x250x25		250x250x25			250x250x25	
Motor Constant(N/√W)[2]	2.3	3.3		4.0		4.6			5.2	
Ph-PE dielectric strength[2]	≥ 5KV(AC)	≥ 5KV(AC)		≥ 5KV(AC)		≥ 5KV(AC)			≥ 5KV(AC)	
Ph-PE insulation resistance[2]	≥ 1KV(DC)	≥ 1KV(DC)		≥ 1KV(DC)		≥ 1KV(DC)			≥ 1KV(DC)	

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

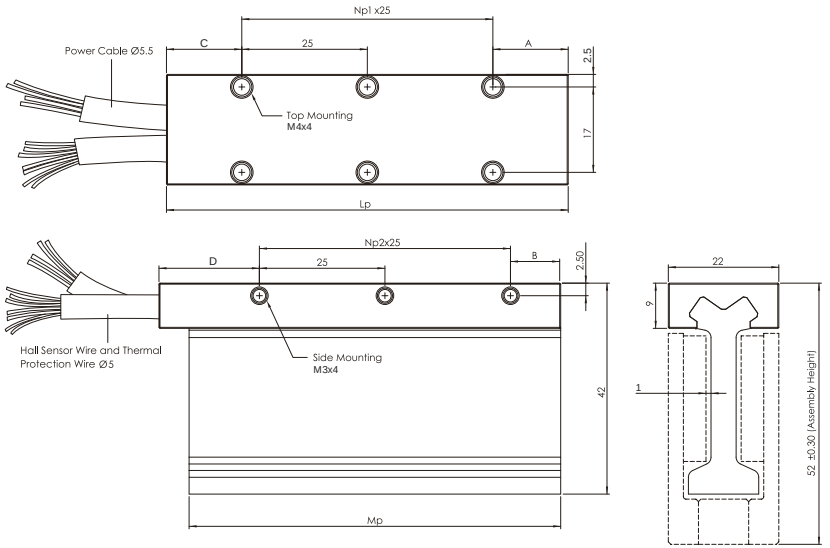
LM-PA Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PA1	1	1	50	44	10	5	15	20
LM-PA2	2	2	80	74	15	10	15	20
LM-PA3	3	3	110	104	20	15	15	20
LM-PA4	4	4	140	134	25	20	15	20
LM-PA5	6	5	170	164	5	25	15	20

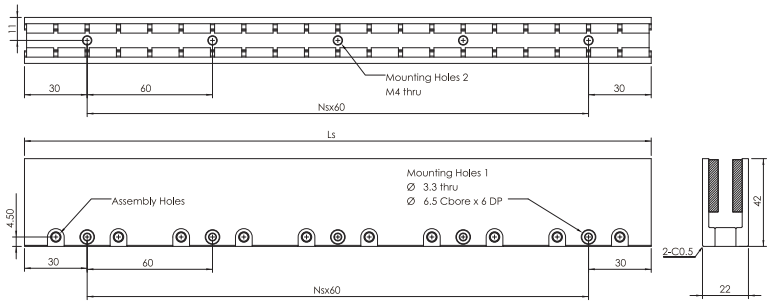
LM-SA Magnetic Way

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

LM-PA Coil Assembly

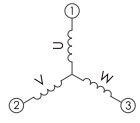


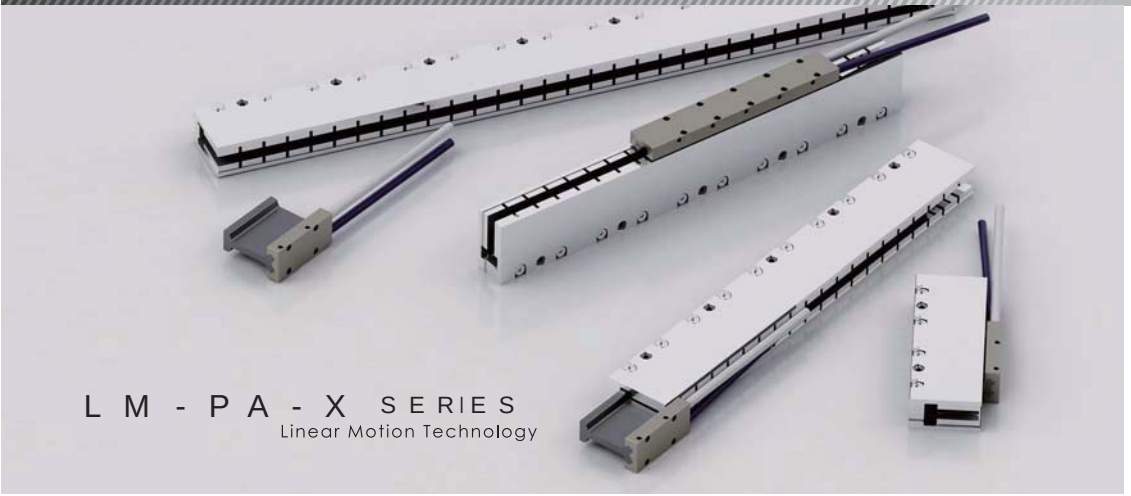
LM-SA Magnetic Way



OUTPUT CABLE (Cable standard length 400mm)

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.
White	U phase	0.25mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	0.25mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	0.25mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	0.25mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			





LM-PA-X Coil Assembly Model

Coil Assembly Model	LM-PA-X1	LM-PA-X2		LM-PA-X3		LM-PA-X4			LM-PA-X5	
Winding code	W1	W1	W2	W1	W2	W1	W2	W3	W1	W2
Performance[4]										
Peak Force with heat sink(N)[1][2]	65.4	123.8		175.4		220.2			258	
Peak Force without heat sink(N)[2][3]	44.7	82.6		113.5		151.4			189.2	
Continuous Force with heat sink(N)[1][2]	16.3	31		43.9		55			64.5	
Continuous Force without heat sink(N)[2][3]	11.2	20.6		28.4		37.8			47.3	
Peak power(W)[1][2]	491	881.3		1179.1		1392.6			1537.2	
Continuous power(W)[1][2]	30.7	55.1		73.7		87			96.1	
Mechanical										
Coil assembly length(mm)	50	80		110		140			170	
Coil assembly weight(kg)[2]	0.08	0.13		0.18		0.23			0.28	
Magnetic way weight(kg/m)[2]	4.4	4.4		4.4		4.4			4.4	
Pole pitch(mm)	30	30		30		30			30	
Electrical[4]										
Continuous Current with heat sink(A_{pk})[1][2]	1.9	1.8	3.6	1.7	3.4	1.6	3.2	6.4	1.5	3
Continuous Current without heat sink(A_{pk})[2][3]	1.3	1.2	2.4	1.1	2.2	1.1	2.2	4.4	1.1	2.2
Peak Current with heat sink(A_{pk})[1][2]	7.6	7.2	14.4	6.8	13.6	6.4	12.8	25.6	6	12
Peak Current without heat sink(A_{pk})[2][3]	5.2	4.8	9.6	4.4	8.8	4.4	8.8	17.6	4.4	8.8
Force Constant(N/A_{pk})[2]	8.6	17.2	8.6	25.8	12.9	34.4	17.2	8.6	43	21.5
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	10	20	10	30	15	40	20	10	50	25
Resistant(Ohms)[2]	8.5	17	4.3	25.5	6.4	34	8.5	2.1	42.7	10.7
Inductance(mH)[2]	1.65	3.3	0.83	4.95	1.24	6.6	1.65	0.41	8.27	2.07
Time Constant(ms)[2]	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Thermal Resistant with heat sink(°C/W)[1][2]	2.5	1.5		1.1		0.9			0.7	
Thermal Resistant without heat sink(°C/W)[2][3]	4.9	3.5		2.7		2			1.6	
Heat Sink(mm)	250x250x25	250x250x25		250x250x25		250x250x25			250x250x25	
Motor Constant(N/√W)[2]	2.9	4.2		5.1		5.9			6.6	
Ph-PE dielectric strength[2]	≥5KV(AC)	≥5KV(AC)		≥5KV(AC)		≥5KV(AC)			≥5KV(AC)	
Ph-PE insulation resistance[2]	≥1KV(DC)	≥1KV(DC)		≥1KV(DC)		≥1KV(DC)			≥1KV(DC)	

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

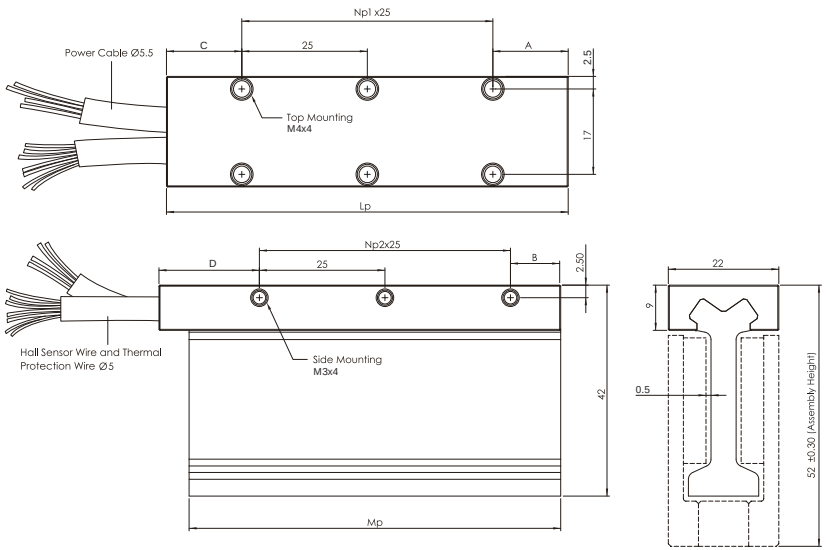
LM-PA-X Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PA-X1	1	1	50	44	10	5	15	20
LM-PA-X2	2	2	80	74	15	10	15	20
LM-PA-X3	3	3	110	104	20	15	15	20
LM-PA-X4	4	4	140	134	25	20	15	20
LM-PA-X5	6	5	170	164	5	25	15	20

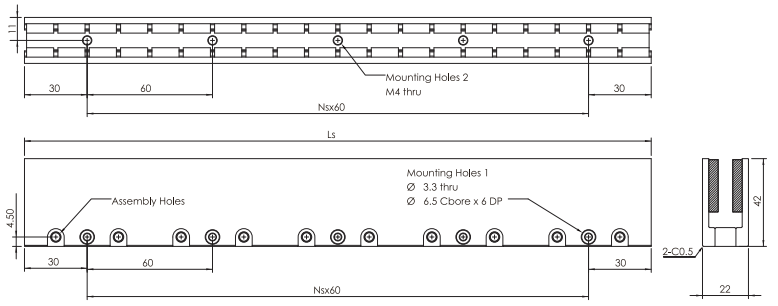
LM-SA-X Magnetic Way

	Ns	Ls
LM-SA-X0	1	120
LM-SA-X1	4	300
LM-SA-X2	7	480

LM-PA-X Coil Assembly

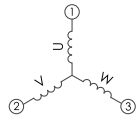


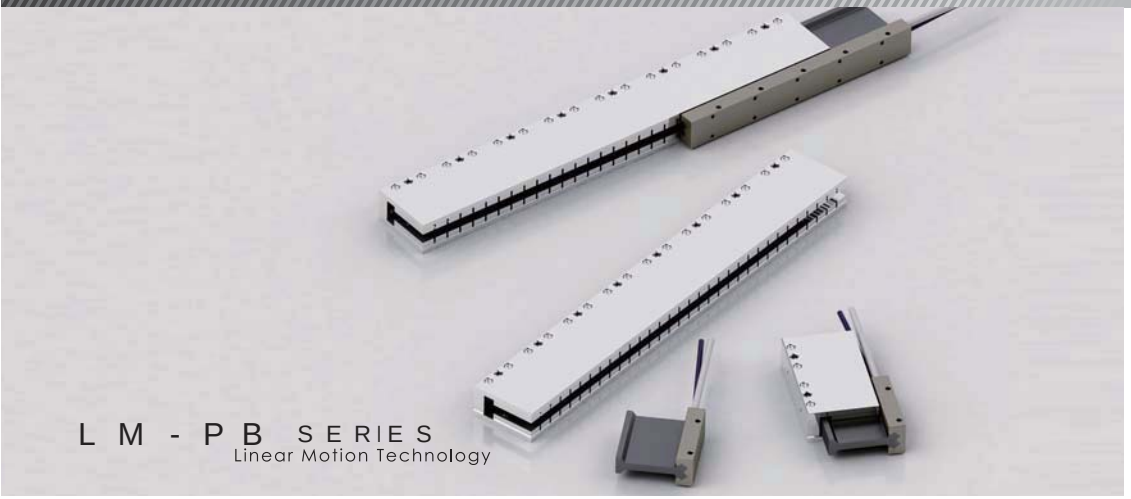
LM-SA-X Magnetic Way



OUTPUT CABLE (Cable standard length 400mm)

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.
White	U phase	0.25mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	0.25mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	0.25mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	0.25mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			





LM-PB Coil Assembly Model

Coil Assembly Model	LM-PB2		LM-PB3		LM-PB4			LM-PB5		LM-PB6		LM-PB8			
Winding code	W1	W2	W1	W2	W1	W2	W3	W1	W2	W1	W2	W1	W2	W3	W4
Performance[4]															
Peak Force with heat sink(N)[1][2]	180.3		270.4		360.5			428.1		513.7		648.9			
Peak Force without heat sink(N)[2][3]	118.3		166.4		207.1			240.4		288.4		468.5			
Continuous Force with heat sink(N)[1][2]	45.1		67.6		90.1			107		128.4		162.2			
Continuous Force without heat sink(N)[2][3]	29.6		41.6		51.8			60.1		72.1		117.1			
Peak power(W)[1][2]	960		1440		1920			2166		2599.2		3110.4			
Continuous power(W)[1][2]	60		90		120			135.4		162.5		194.4			
Mechanical															
Coil assembly length(mm)	80		110		140			170		200		260			
Coil assembly weight(kg)[2]	0.31		0.43		0.54			0.66		0.78		0.9			
Magnetic way weight(kg/m)[2]	11.8		11.8		11.8			11.8		11.8		11.8			
Electrical cycle length(mm)	30		30		30			30		30		30			
Electrical[4]															
Continuous Current with heat sink(A_{pk})[1][2]	2	4	2	4	2	4	8	1.9	3.8	1.9	3.8	1.8	3.6	7.2	14.4
Continuous Current without heat sink(A_{pk})[2][3]	1.6	3.2	1.5	3	1.4	2.8	5.6	1.3	2.6	1.3	2.6	1.3	2.6	5.2	10.4
Peak Current with heat sink(A_{pk})[1][2]	8	16	8	16	8	16	32	7.6	15.2	7.6	15.2	7.2	14.4	28.8	57.6
Peak Current without heat sink(A_{pk})[2][3]	6.4	12.8	6	12	5.6	11.2	22.4	5.2	10.4	5.2	10.4	5.2	10.4	20.8	41.6
Force Constant(N/A_{pk})[2]	22.5	11.3	33.8	16.9	45.1	22.5	11.3	56.3	28.2	67.6	33.8	90.1	45.1	22.5	11.3
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	26.2	13.1	39.3	19.7	52.4	26.2	13.1	65.5	32.8	78.6	39.3	104.8	52.4	26.2	13.1
Resistant(Ohms)[2]	15	3.8	22.5	5.6	30	7.5	1.9	37.5	9.4	45	11.3	60	15	3.8	0.9
Inductance(mH)[2]	3.5	0.88	5.25	1.31	7	1.75	0.44	8.75	2.19	10.5	2.63	14	3.5	0.88	0.22
Time Constant(ms)[2]	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Thermal Resistant with heat sink(°C/W)[1][2]	1.3		0.9		0.8			0.6		0.5		0.5			
Thermal Resistant without heat sink(°C/W)[2][3]	2.1		1.7		1.5			1.3		1.1		0.8			
Heat Sink(mm)	250x250x25		250x250x25		250x250x25			250x250x25		250x250x25		250x250x25			
Motor Constant(N/√W)[2]	5.8		7.1		8.2			9.2		10.1		11.6			
Ph-PE dielectric strength[2]	≥ 5KV(AC)		≥ 5KV(AC)		≥ 5KV(AC)			≥ 5KV(AC)		≥ 5KV(AC)		≥ 5KV(AC)			
Ph-PE insulation resistance[2]	≥ 1KV(DC)		≥ 1KV(DC)		≥ 1KV(DC)			≥ 1KV(DC)		≥ 1KV(DC)		≥ 1KV(DC)			

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

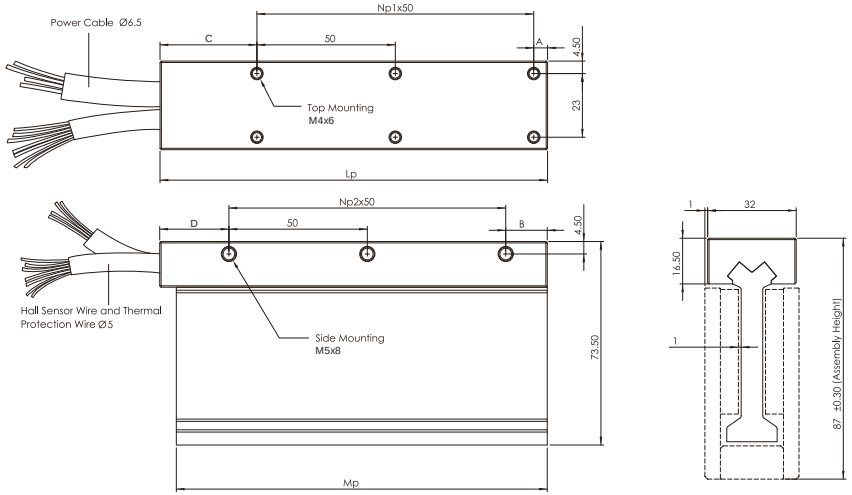
LM-PB Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PB2	1	1	80	74	5	10	25	20
LM-PB3	1	1	110	104	25	35	35	25
LM-PB4	2	2	140	134	5	15	35	25
LM-PB5	2	2	170	164	35	45	35	25
LM-PB6	3	3	200	194	15	25	35	25
LM-PB8	4	4	260	254	25	35	35	25

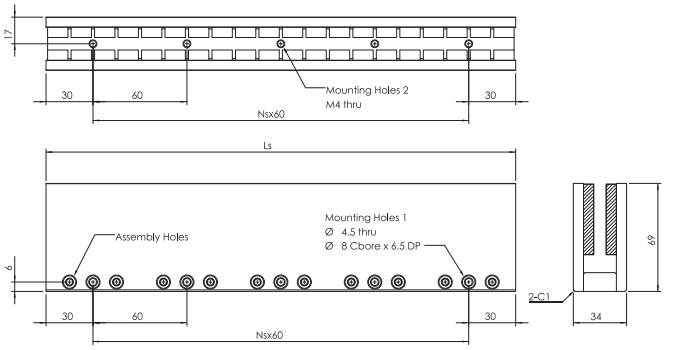
LM-SB Magnetic Way

	Ns	Ls
LM-SB0	1	120
LM-SB1	4	300
LM-SB2	7	480

LM-PB Coil Assembly

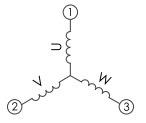


LM-SB Magnetic Way



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.
White	U phase	0.5 mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	0.5 mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	0.5 mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	0.5 mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			



LM-PB-X Coil Assembly Model

Coil Assembly Model	LM-PB-X2		LM-PB-X3		LM-PB-X4			LM-PB-X5		LM-PB-X6		LM-PB-X8			
Winding code	W1	W2	W1	W2	W1	W2	W3	W1	W2	W1	W2	W1	W2	W3	W4
Performance[4]															
Peak Force with heat sink(N)[1][2]	227		340.6		431.4			539.2		613		771.9			
Peak Force without heat sink(N)[2][3]	170.3		238.4		295.2			368.9		442.7		590.3			
Continuous Force with heat sink(N)[1][2]	56.8		85.1		107.8			134.8		153.3		193			
Continuous Force without heat sink(N)[2][3]	42.6		59.6		73.8			92.2		110.7		147.6			
Peak power(W)[1][2]	1056		1584		1906.1			2382.6		2566.1		3051.8			
Continuous power(W)[1][2]	66		99		119.1			148.9		160.4		190.7			
Mechanical															
Coil assembly length(mm)	80		110		140			170		200		260			
Coil assembly weight(kg)[2]	0.33		0.44		0.55			0.72		0.9		1.09			
Magnetic way weight(kg/m)[2]	12.2		12.2		12.2			12.2		12.2		12.2			
Electrical cycle length(mm)	30		30		30			30		30		30			
Electrical[4]															
Continuous Current with heat sink(A_{pk})[1][2]	2	4	2	4	1.9	3.8	7.6	1.9	3.8	1.8	3.6	1.7	3.4	6.8	13.6
Continuous Current without heat sink(A_{pk})[2][3]	1.5	3	1.4	2.8	1.3	2.6	5.2	1.3	2.6	1.3	2.6	1.3	2.6	5.2	10.4
Peak Current with heat sink(A_{pk})[1][2]	8	16	8	16	7.6	15.2	30.4	7.6	15.2	7.2	14.4	6.8	13.6	27.7	54.4
Peak Current without heat sink(A_{pk})[2][3]	6	12	5.6	11.2	5.2	10.4	20.8	5.2	10.4	5.2	10.4	5.2	10.4	20.8	41.6
Force Constant(N/A_{pk})[2]	28.4	14.2	42.6	21.3	56.8	28.4	14.2	71	35.5	85.1	42.6	113.5	56.8	28.4	14.2
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	33	16.5	49.5	24.8	66	33	16.5	82.5	41.3	99	49.5	132	66	33	16.5
Resistant(Ohms)[2]	16.5	4.1	24.8	6.2	33	8.3	2.1	41.3	10.3	49.5	12.4	66	16.5	4.1	1
Inductance(mH)[2]	5.74	1.44	8.61	2.15	11.48	2.87	0.72	14.35	3.59	17.22	4.31	22.96	5.74	1.44	0.36
Time Constant(ms)[2]	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Thermal Resistant with heat sink(°C/W)[1][2]	1.1		0.8		0.7			0.6		0.5		0.4			
Thermal Resistant without heat sink(°C/W)[2][3]	1.9		1.6		1.4			1.2		1		0.7			
Heat Sink(mm)	250x250x25		250x250x25		250x250x25			250x250x25		250x250x25		250x250x25			
Motor Constant(N/√W)[2]	7		8.6		9.9			11		12.1		14			
Ph-PE dielectric strength[2]	≥ 5KV(AC)		≥ 5KV(AC)		≥ 5KV(AC)			≥ 5KV(AC)		≥ 5KV(AC)		≥ 5KV(AC)			
Ph-PE insulation resistance[2]	≥ 1KV(DC)		≥ 1KV(DC)		≥ 1KV(DC)			≥ 1KV(DC)		≥ 1KV(DC)		≥ 1KV(DC)			

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

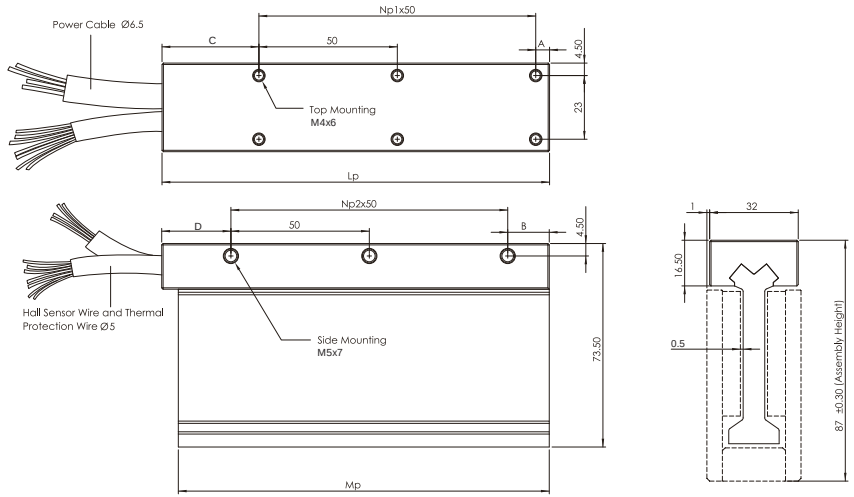
LM-PB-X Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PB-X2	1	1	80	74	5	10	25	20
LM-PB-X3	1	1	110	104	25	35	35	25
LM-PB-X4	2	2	140	134	5	15	35	25
LM-PB-X5	2	2	170	164	35	45	35	25
LM-PB-X6	3	3	200	194	15	25	35	25
LM-PB-X8	4	4	260	254	25	35	35	25

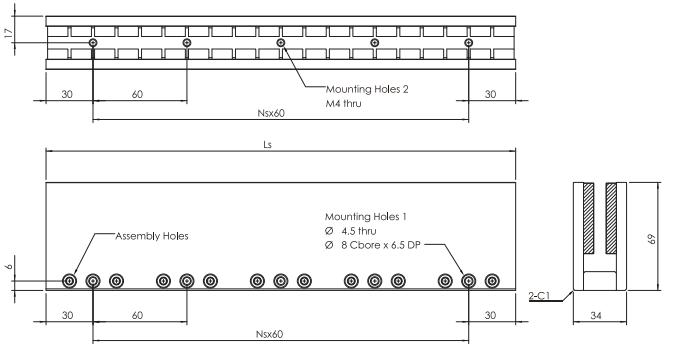
LM-SB-X Magnetic Way

	Ns	Ls
LM-SB-X0	1	120
LM-SB-X1	4	300
LM-SB-X2	7	480

LM-PB-X Coil Assembly

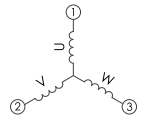


LM-SB-X Magnetic Way



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.
White	U phase	0.5 mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	0.5 mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	0.5 mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	0.5 mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			



LM-PD Coil Assembly Model

Coil Assembly Model	LM-PD2		LM-PD4			LM-PD6			LM-PD8			LM-PD10		
Winding code	W1	W2	W1	W2	W3	W1	W2	W3	W1	W2	W3	W1	W2	W3
Performance[4]														
Peak Force with heat sink(N)[1][2]	908.7		1642.7			2464			3075.6			3844.5		
Peak Force without heat sink(N)[2][3]	699		1258.2			1887.3			2376.6			2796		
Continuous Force with heat sink(N)[1][2]	227.2		410.7			616			768.9			961.1		
Continuous Force without heat sink(N)[2][3]	174.8		314.6			471.8			594.2			699		
Peak power(W)[1][2]	2812.2		4594.7			6892.1			8053.8			10067.2		
Continuous power(W)[1][2]	175.8		287.2			430.8			503.4			629.2		
Mechanical														
Coil assembly length(mm)	146		266			386			506			626		
Coil assembly weight(kg)[2]	1.3		2.5			3.7			4.9			6.1		
Magnetic way weight(kg/m)[2]	29.8		29.8			29.8			29.8			29.8		
Electrical cycle length(mm)	60		60			60			60			60		
Electrical[4]														
Continuous Current with heat sink(A_{pk})[1][2]	2.6	5.2	2.4	4.7	9.4	2.4	4.7	14.4	2.2	4.4	8.8	2.2	4.4	11.0
Continuous Current without heat sink(A_{pk})[2][3]	2	4	1.8	3.6	7.2	1.8	3.6	10.8	1.7	3.4	6.8	1.6	3.2	8.0
Peak Current with heat sink(A_{pk})[1][2]	10.4	20.8	9.4	18.8	37.6	9.4	18.8	56.4	8.8	17.6	35.2	8.8	17.6	44.0
Peak Current without heat sink(A_{pk})[2][3]	8	16	7.2	14.4	28.8	7.2	14.4	43.2	6.8	13.6	27.2	6.4	12.8	32.0
Force Constant(N/A_{pk})[2]	87.4	43.7	174.8	87.4	43.7	262.1	131.1	43.7	349.5	174.8	87.4	436.9	218.4	87.4
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	101.6	50.8	203.2	101.6	50.8	304.8	152.4	50.8	406.4	203.2	101.6	508	254	101.6
Resistant(Ohms)[2]	26	6.5	52	13	3.3	78	19.5	2.2	104	26	6.5	130	32.5	5.3
Inductance(mH)[2]	26.4	6.6	52	13.2	3.3	79	19.8	2.2	105.6	26.4	6.6	132	33	5.3
Time Constant(ms)[2]	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Thermal Resistant with heat sink(°C/W)[1][2]	0.4		0.3			0.2			0.2			0.1		
Thermal Resistant without heat sink(°C/W)[2][3]	0.7		0.5			0.3			0.3			0.2		
Heat Sink(mm)	800x900x12		800x900x12			800x900x12			800x900x12			800x900x12		
Motor Constant(N/√W)[2]	17.1		24.2			29.7			34.3			38.3		
Ph-PE dielectric strength[2]	≥5KV(AC)		≥5KV(AC)			≥5KV(AC)			≥5KV(AC)			≥5KV(AC)		
Ph-PE insulation resistance[2]	≥1KV(DC)		≥1KV(DC)			≥1KV(DC)			≥1KV(DC)			≥1KV(DC)		

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

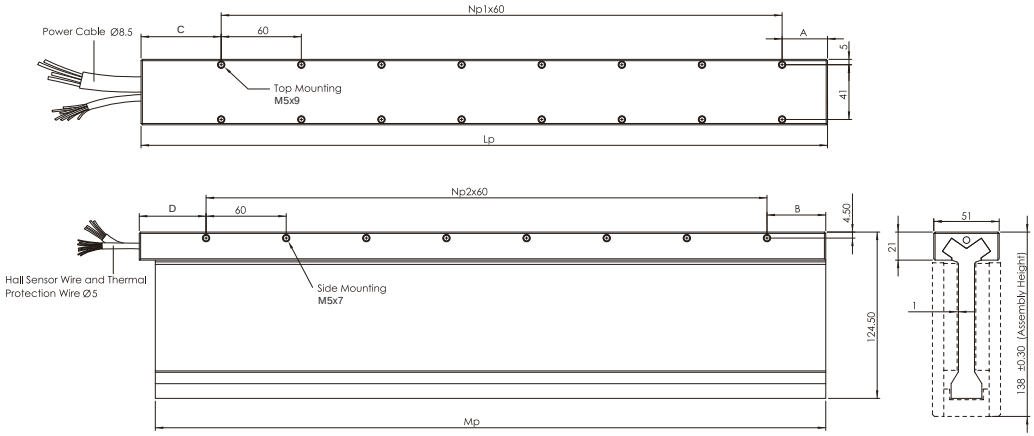
LM-PD Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PD2	1	1	146	143	26	36	60	50
LM-PD4	3	3	266	263	26	36	60	50
LM-PD6	5	5	386	383	26	36	60	50
LM-PD8	7	7	506	503	26	36	60	50
LM-PD10	9	9	626	623	26	36	60	50

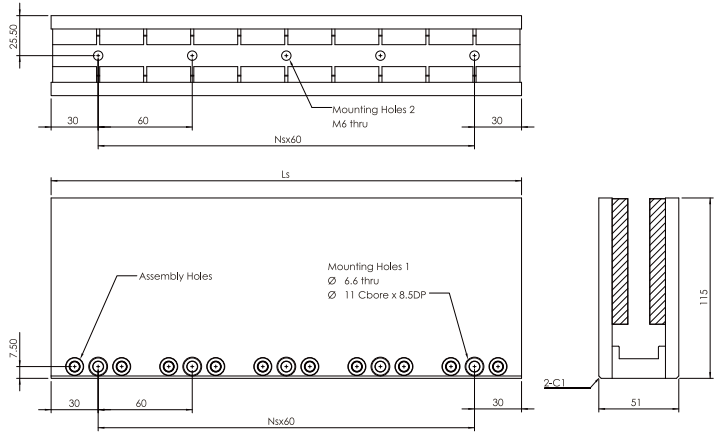
LM-SD Magnetic Way

	Ns	Ls
LM-SD0	1	120
LM-SD1	4	300
LM-SD2	7	480

LM-PD Coil Assembly

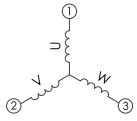


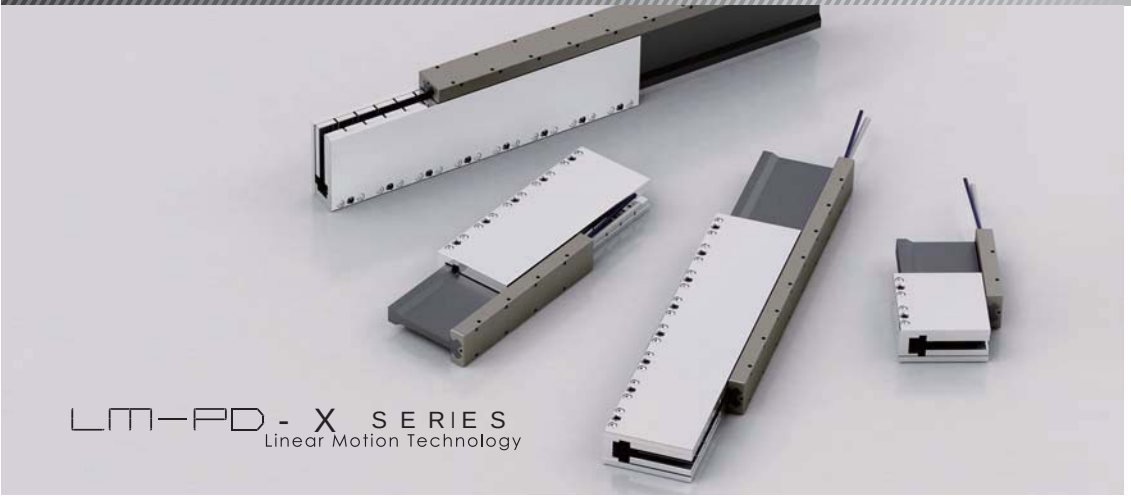
LM-SD Magnetic Way



OUTPUT CABLE (Cable standard length 400mm)

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.
White	U phase	1.5mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	1.5mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	1.5mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	1.5mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			





LM-PD-X Coil Assembly Model

Coil Assembly Model	LM-PD-X2		LM-PD-X4			LM-PD-X6			LM-PD-X8			LM-PD-X10		
Winding code	W1	W2	W1	W2	W3	W1	W2	W3	W1	W2	W3	W1	W2	W3
Performance[4]														
Peak Force with heat sink(N)[1][2]	1025		1892.3			2779.3			3469.2			4336.5		
Peak Force without heat sink(N)[2][3]	709.6		1419.2			2069.7			2680.7			3153.8		
Continuous Force with heat sink(N)[1][2]	256.2		473.1			694.8			867.3			1084.1		
Continuous Force without heat sink(N)[2][3]	177.4		354.8			517.4			670.2			788.4		
Peak power(W)[1][2]	3028.5		5161			7422.2			8673.3			10841.6		
Continuous power(W)[1][2]	189.3		322.6			463.9			542.1			677.6		
Mechanical														
Coil assembly length(mm)	146		266			386			506			626		
Coil assembly weight(kg)[2]	1.3		2.8			4.3			5.8			7.3		
Magnetic way weight(kg/m)[2]	29.8		29.8			29.8			29.8			29.8		
Electrical cycle length(mm)	60		60			60			60			60		
Electrical[4]														
Continuous Current with heat sink(A_{pk})[1][2]	2.6	5.2	2.4	4.7	9.6	2.4	4.7	14.4	2.2	4.4	8.8	2.2	4.4	11.0
Continuous Current without heat sink(A_{pk})[2][3]	1.8	3.6	1.8	3.6	7.2	1.8	3.5	10.8	1.7	3.4	6.8	1.6	3.2	8.0
Peak Current with heat sink(A_{pk})[1][2]	10.4	20.8	9.6	19.2	38.4	9.4	18.8	56.4	8.8	17.6	35.2	8.8	17.6	44.0
Peak Current without heat sink(A_{pk})[2][3]	7.2	14.4	7.2	14.4	28.8	7	14	42	6.8	13.6	27.2	6.4	12.8	32.0
Force Constant(N/A_{pk})[2]	98.6	49.3	197.1	98.6	49.3	295.7	147.8	49.3	394.2	197.1	98.6	492.8	246.4	98.6
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	114.6	57.3	229.2	114.6	57.3	343.8	171.9	57.3	458.4	229.2	114.6	573	286.5	114.6
Resistant(Ohms)[2]	28	7	56	14	3.5	84	21	2.3	112	28	7	140	35	5.6
Inductance(mH)[2]	30.32	7.58	60.64	15.16	3.79	90.96	22.74	2.53	121.28	30.32	7.58	151.6	37.9	6.06
Time Constant(ms)[2]	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Thermal Resistant with heat sink(°C/W)[1][2]	0.4		0.3			0.2			0.2			0.1		
Thermal Resistant without heat sink(°C/W)[2][3]	0.8		0.4			0.3			0.2			0.2		
Heat Sink(mm)	800x900x12		800x900x12			800x900x12			800x900x12			800x900x12		
Motor Constant(N/√W)[2]	18.6		26.3			32.3			37.3			41.6		
Ph-PE dielectric strength[2]	≥5KV(AC)		≥5KV(AC)			≥5KV(AC)			≥5KV(AC)			≥5KV(AC)		
Ph-PE insulation resistance[2]	≥1KV(DC)		≥1KV(DC)			≥1KV(DC)			≥1KV(DC)			≥1KV(DC)		

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

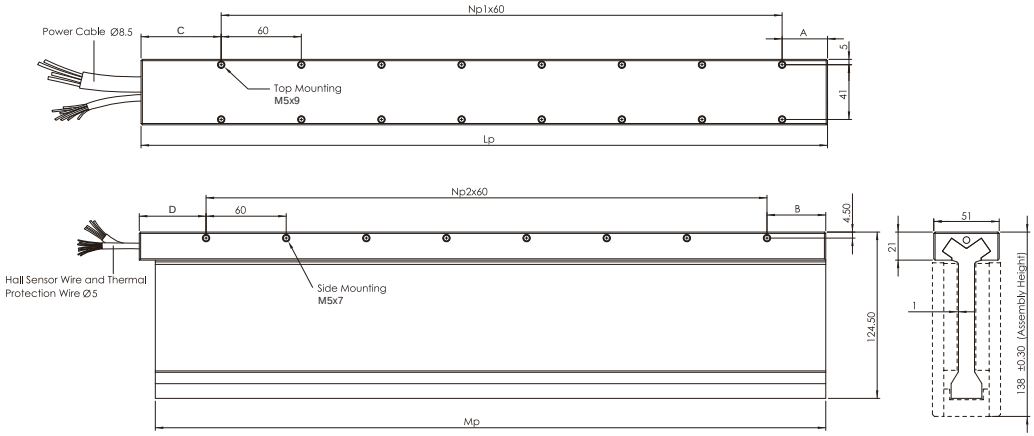
LM-PD-X Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PD-X2	1	1	146	143	26	36	60	50
LM-PD-X4	3	3	266	263	26	36	60	50
LM-PD-X6	5	5	386	383	26	36	60	50
LM-PD-X8	7	7	506	503	26	36	60	50
LM-PD-X10	9	9	626	623	26	36	60	50

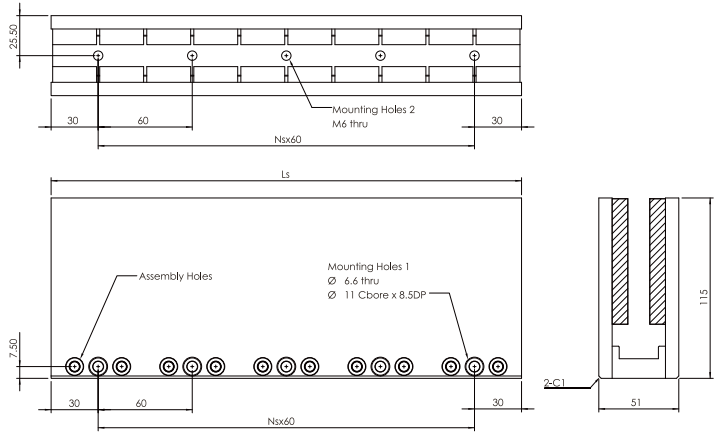
LM-SD-X Magnetic Way

	Ns	Ls
LM-SD-X0	1	120
LM-SD-X1	4	300
LM-SD-X2	7	480

LM-PD-X Coil Assembly

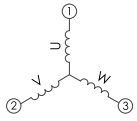


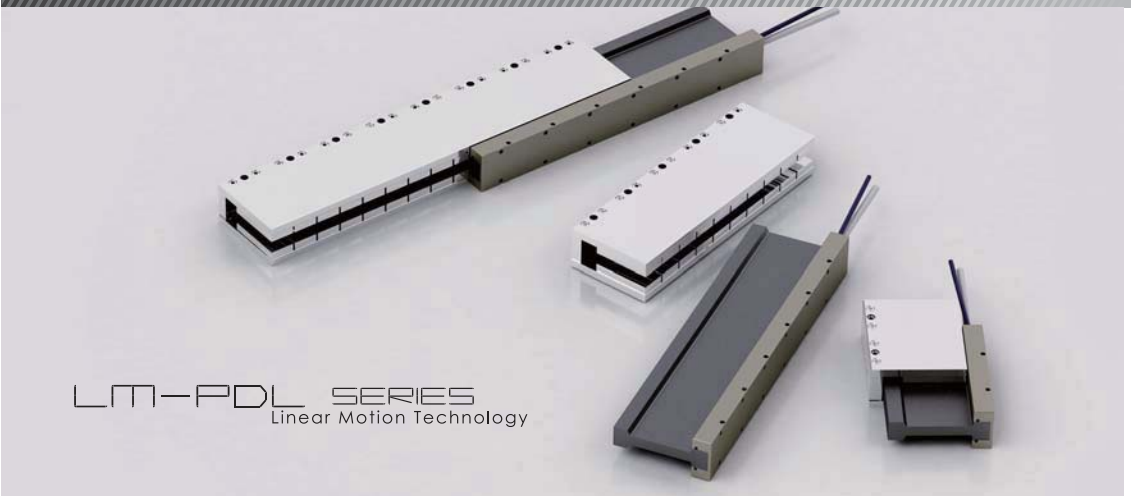
LM-SD-X Magnetic Way



OUTPUT CABLE (Cable standard length 400mm)

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.
White	U phase	1.5mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	1.5mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	1.5mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	1.5mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			





LM-PDL Coil Assembly Model

Coil Assembly Model	LM-PDL2			LM-PDL4			LM-PDL6			LM-PDL8		
Winding code	W1	W2	W3	W1	W2	W3	W1	W2	W3	W1	W2	W3
Performance[4]												
Peak Force with heat sink(N)[1][2]	657.2			1305.3			1900.3			2457.0		
Peak Force without heat sink(N)[2][3]	502.2			998.2			1382.1			1842.7		
Continuous Force with heat sink(N)[1][2]	164.4			326.3			475.1			614.2		
Continuous Force without heat sink(N)[2][3]	125.7			249.5			345.5			460.7		
Peak power(W)[1][2]	1294.7			2589.4			3659.0			4587.5		
Continuous power(W)[1][2]	80.9			161.8			228.7			286.7		
Mechanical												
Coil assembly length(mm)	148.0			268.0			388.0			508.0		
Coil assembly weight(kg)[2]	1.6			2.6			3.6			4.6		
Magnetic way weight(kg/m)[2]	25.1			25.1			25.1			25.1		
Electrical cycle length(mm)	60.0			60.0			60.0			60.0		
Electrical[4]												
Continuous Current with heat sink(A_{pk})[1][2]	1.7	3.4	6.8	1.7	3.4	6.8	1.7	3.3	10.2	1.6	3.3	6.6
Continuous Current without heat sink(A_{pk})[2][3]	1.3	2.6	5.2	1.3	2.6	5.2	1.2	2.4	7.2	1.2	2.4	4.8
Peak Current with heat sink(A_{pk})[1][2]	6.8	13.6	27.2	6.8	13.6	27.2	6.6	13.2	39.6	6.4	12.8	25.6
Peak Current without heat sink(A_{pk})[2][3]	5.2	10.4	20.8	5.2	10.4	20.8	4.8	9.6	28.8	4.8	9.6	19.2
Force Constant(N/A_{pk})[2]	96.7	48.4	24.2	192.0	96.0	48.0	287.9	144.0	48.0	383.9	192.0	96.0
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	111.6	57.3	28.7	223.2	111.6	55.8	334.8	167.4	55.8	446.4	223.2	111.6
Resistant(Ohms)[2]	28	7.0	1.8	56.0	14.0	3.5	84.0	21.0	2.3	112.0	28.0	7.0
Inductance(mH)[2]	30.32	7.58	1.9	60.64	15.16	3.79	90.96	22.74	2.50	121.28	30.32	7.58
Time Constant(ms)[2]	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Thermal Resistant with heat sink(°C/W)[1][2]	1			0.5			0.4			0.3		
Thermal Resistant without heat sink(°C/W)[2][3]	1.6			0.8			0.7			0.5		
Heat Sink(mm)	800x900x12			800x900x12			800x900x12			800x900x12		
Motor Constant(N/√W)[2]	18.3			25.7			31.4			36.3		
Ph-PE dielectric strength[2]	≥ 5KV(AC)			≥ 5KV(AC)			≥ 5KV(AC)			≥ 5KV(AC)		
Ph-PE insulation resistance[2]	≥ 1KV(DC)			≥ 1KV(DC)			≥ 1KV(DC)			≥ 1KV(DC)		

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

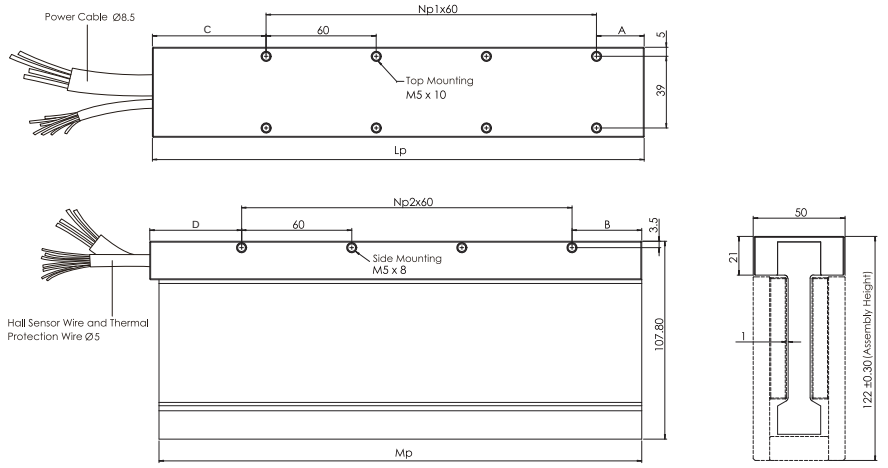
LM-PDL Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PDL2	1	1	148	143	26	38	62	50
LM-PDL4	3	3	268	263	26	38	62	50
LM-PDL6	5	5	388	383	26	38	62	50
LM-PDL8	7	7	508	503	26	38	62	50

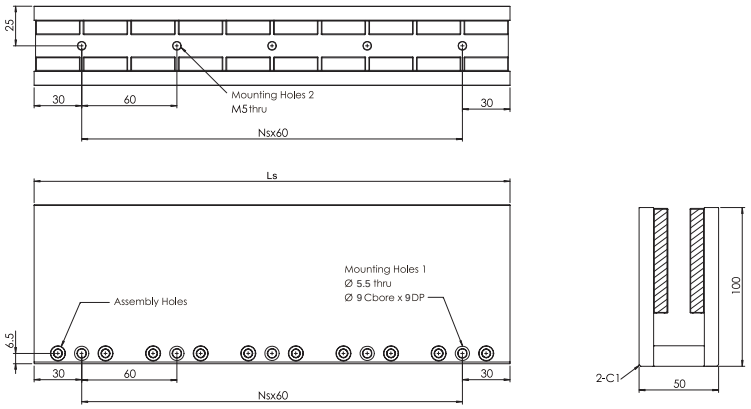
LM-SDL Magnetic Way

	Ns	Ls
LM-SDL0	1	120
LM-SDL1	4	300
LM-SDL2	7	480

LM-PDL Coil Assembly

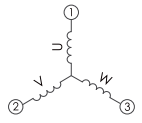


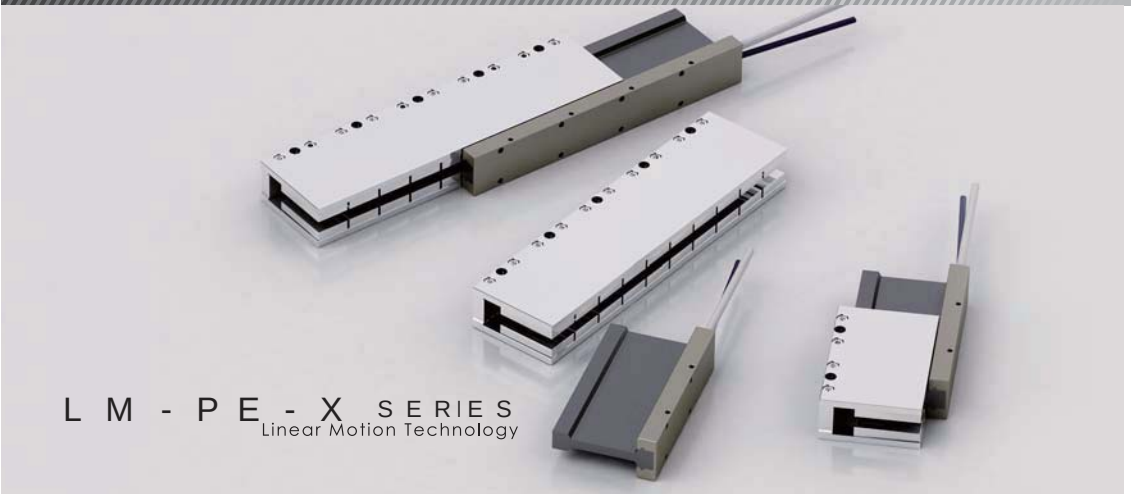
LM-SDL Magnetic Way



OUTPUT CABLE (Cable standard length 400mm)

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.
White	U phase	1.5 mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	1.5 mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	1.5 mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	1.5 mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²			





LM-PE-X Coil Assembly Model

Coil Assembly Model	LM-PE-X2			LM-PE-X4			LM-PE-X6			LM-PE-X8		
Winding code	W1	W2	W3	W1	W2	W3	W1	W2	W3	W1	W2	W3
Performance[4]												
Peak Force with heat sink(N)[1][2]	526.7			1053.4			1511.4			1923.6		
Peak Force without heat sink(N)[2][3]	389.3			778.6			1099.2			1465.6		
Continuous Force with heat sink(N)[1][2]	131.7			263.4			377.9			480.9		
Continuous Force without heat sink(N)[2][3]	97.3			194.7			274.8			366.4		
Peak power(W)[1][2]	1269.6			2539.2			3484.8			4233.6		
Continuous power(W)[1][2]	79.4			158.7			217.8			264.6		
Mechanical												
Coil assembly length(mm)	148.0			268.0			388.0			508.0		
Coil assembly weight(kg)[2]	0.9			1.5			2.1			2.7		
Magnetic way weight(kg/m)[2]	15.0			15.0			15.0			15		
Electrical cycle length(mm)	60.0			60.0			60.0			60.0		
Electrical[4]												
Continuous Current with heat sink(A_{pk})[1][2]	2.3	4.6	9.2	2.3	4.6	9.2	2.2	4.4	13.2	2.1	4.2	8.4
Continuous Current without heat sink(A_{pk})[2][3]	1.7	3.4	6.8	1.7	3.4	6.8	1.6	3.2	9.6	1.6	2.4	4.8
Peak Current with heat sink(A_{pk})[1][2]	9.2	18.4	36.8	9.2	18.4	36.8	8.8	17.6	52.8	8.4	16.8	33.6
Peak Current without heat sink(A_{pk})[2][3]	6.8	13.6	27.2	6.8	13.6	27.2	6.4	12.8	38.4	6.4	12.8	25.6
Force Constant(N/A_{pk})[2]	57.3	28.6	14.3	114.5	57.3	28.6	171.8	85.9	28.6	229.0	114.5	57.3
Back EMF Constant($V_{pk(l-l)}$ / m/s)[2]	66.1	33.1	16.5	132.2	66.1	33.1	198.3	99.2	33.1	264.4	132.2	66.1
Resistant(Ohms)[2]	15	3.8	0.9	30.0	7.5	1.9	45.0	11.3	1.3	60.0	15.0	3.8
Inductance(mH)[2]	12.89	3.22	0.81	25.78	6.45	1.61	38.67	9.67	1.07	51.56	12.89	3.22
Time Constant(ms)[2]	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Thermal Resistant with heat sink(°C/W)[1][2]	1			0.5			0.4			0.3		
Thermal Resistant without heat sink(°C/W)[2][3]	1.6			0.9			0.7			0.5		
Heat Sink(mm)	250x500x25			250x500x25			250x500x25			250x500x25		
Motor Constant(N/√W)[2]	14.8			20.9			25.6			29.6		
Ph-PE dielectric strength[2]	≥ 5KV(AC)			≥ 5KV(AC)			≥ 5KV(AC)			≥ 5KV(AC)		
Ph-PE insulation resistance[2]	≥ 1KV(DC)			≥ 1KV(DC)			≥ 1KV(DC)			≥ 1KV(DC)		

(1) The value applies to static sinusoidal drive, specific heat sink and temperature from 25°C up to 110°C. The actual performance is dependent to heat sink configuration, system cooling condition and ambient temperature.
(2) The tolerance of all performance and electrical specification is ±10%
(3) The value applies to static sinusoidal drive and temperature from 25°C up to 110°C, without heat sink.
(4) Above "withoutheatsink" figure assumes a working condition of 1atm, 25°Cambient temperature, with the linear motor stationary and not in contact with any other objects, thus relying only on free air convection for cooling. As all heat conductive objects in direct contact with the linear motor, including slide plate, linear guide and base etc.can be considered as a kind of heat sink, the "with heat sink" figure should be taken as the primaryreference in actual application design.

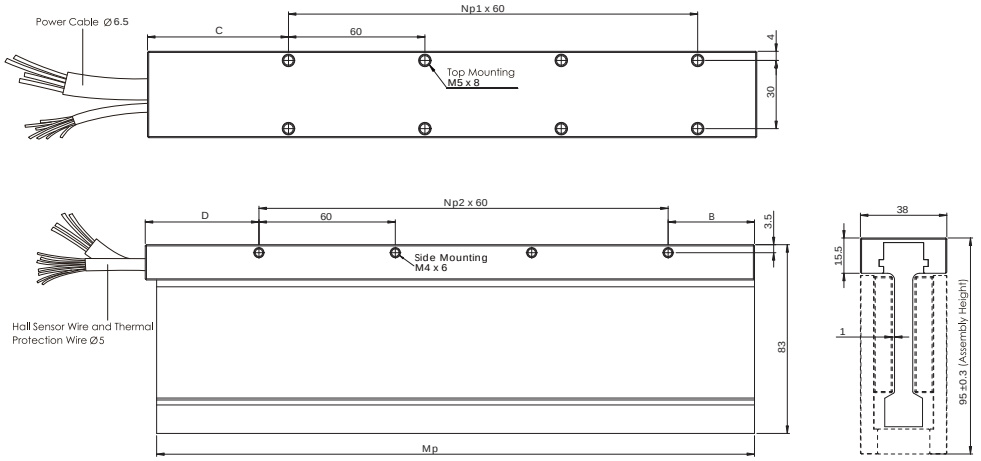
LM-PE-X Coil Assembly

	Np1	Np2	Lp	Mp	A	B	C	D
LM-PE-X2	1	1	148	143	26	38	62	50
LM-PE-X4	3	3	268	263	26	38	62	50
LM-PE-X6	5	5	388	383	26	38	62	50
LM-PE-X8	7	7	508	503	26	38	62	50

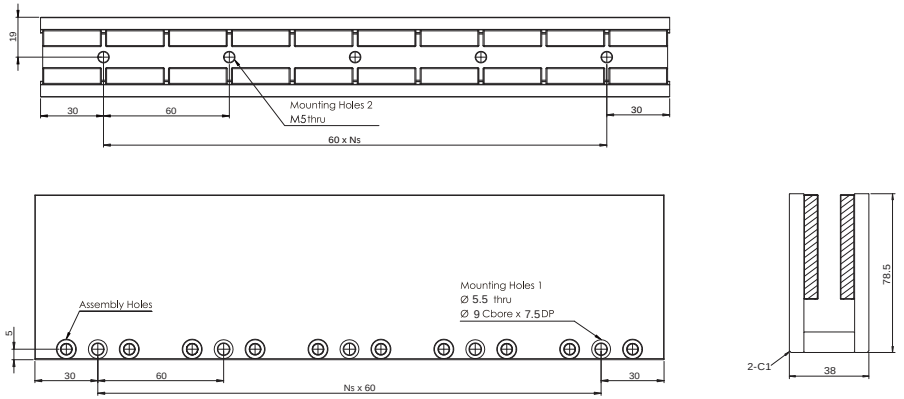
LM-SE-X Magnetic Way

	Ns	Ls
LM-SE-X0	1	120
LM-SE-X1	4	300
LM-SE-X2	7	480

LM-PE-X Coil Assembly



LM-SE-X Magnetic Way



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.
White	U phase	0.5 mm²	Pink	Hall A U phase	0.14 mm²	Brown/Blue	Thermal sensor	0.14 mm²
Yellow	V phase	0.5 mm²	Yellow	Hall B V phase	0.14 mm²			
Brown	W phase	0.5 mm²	Green	Hall C W phase	0.14 mm²			
Green	PE	0.5 mm²	Grey	Hall IC + 5V	0.14 mm²			
			White	GND	0.14 mm²