

product promotion Brochure

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Daze Transmission Technology (Jiangsu) Co., Ltd

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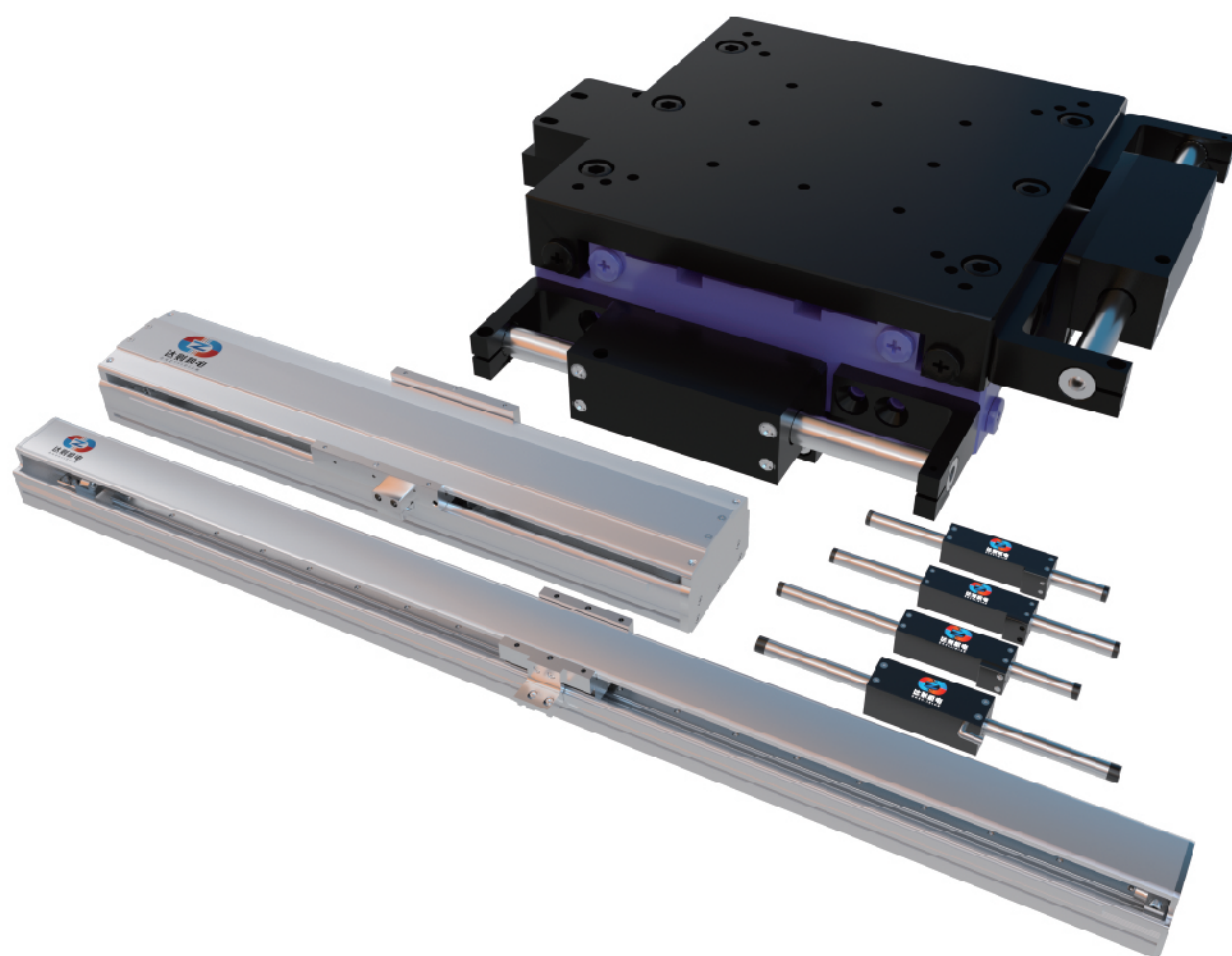
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PROFESSIONALISM | QUALITY | INTEGRITY

Daze Transmission Technology (Jiangsu) Co., Ltd



Boundless Magnetic Drive
Intelligent Future Ahead

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ABOUT US

01. COMPANY PROFILE

Daze Transmission Technology (Jiangsu) Co., Ltd is a technology-driven enterprise specializing in the electromagnetic field. With a core business centered on permanent magnet linear motors and their application products, the company is a key supplier of essential components in the fields of intelligent manufacturing and industrial automation. The company possesses proprietary core technologies and holds multiple invention patents, providing customers with comprehensive and customized solutions in the field of motion control.

Customers are widely distributed in special fields such as new energy vehicles, semiconductor industry, 3C industry, inspection and testing, medical equipment, universities and research institutes, and military industry. The company has a professional technical research and development and service team, providing customers with professional and all-weather technical services and support.

Boasting a skilled R&D team with extensive experience,

we've gained deep technical and market insights in the permanent magnet linear motor field. We've developed a line of high-performance, high-quality products utilized in industrial automation, smart manufacturing, new energy, and environmental protection, receiving high customer acclaim and trust.

Our company strictly adheres to international quality management standards, prioritizing customer needs. We commit to delivering superior quality from raw material procurement to manufacturing, from quality inspection to after-sales service. We've established a professional technical support team available 24/7 for comprehensive after-sales service.

Looking forward, Daze Transmission Technology (Jiangsu) Co., Ltd will uphold innovation, quality, and service as core values, partnering with global customers for a brighter future. We will persist in exploring new uses for permanent magnet linear motor technology, contributing to industrial automation.

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APPLICATION SCENARIO

02. APPLICATION SCENARIO

Our linear motors are widely used in various industrial automation fields. Here are some of our representative application cases.

▶ 01. New energy vehicles components

Manipulator
Handling robot



▶ 02. Semiconductor Industry

Material Handling
Wafer sorter



▶ 03. optical inspection

Visual recognition platform
Additive manufacturing platform



▶ 04. medical devices

Medical and aesthetic instruments
Biopharmaceuticals



Part 1

► Rotary Motion Linear Motor

Introduction to Rotary Motion Linear Motor

The Linear Magnetic Shaft Motor provided by Daze Transmission Technology (Jiangsu) Co., Ltd represents the next generation of linear brushless motors. Daze Transmission's Linear Magnetic Shaft Motor is the perfect choice when reliability, zero maintenance, zero cogging effect, and precision are paramount.

Features and Benefits of Magnetic Shaft Linear Motors: Our motors are available in various sizes and models, easy to install, with a maximum instantaneous thrust of approximately 1000N. They comply with international safety regulations, CE certification, and have an IP67 dust and water resistance rating. Using direct drive technology, linear transmission can be achieved without other mechanical conversion components, and it possesses low inertia, high acceleration, and zero cogging effect. The Magnetic Shaft Linear Motor maximizes magnetic flux, resulting in higher thrust density and excellent dynamic performance. With no wear and tear, zero backlash, and easy maintenance, compared to traditional mechanical linear mechanisms, it can effectively improve equipment productivity and reduce maintenance costs.

Application Range: Satisfying applications requiring high-precision positioning control and smooth operation, such as high-speed light-load automation equipment, dust-free environment automation equipment, panel flatbed equipment, optical inspection equipment, machine tool wire cutting equipment, scanning electron microscope equipment, and medical automation industries.

Naming Convention for Rotary Motion Linear Motor

► **LM—0820T—H—K**

Explanation:

LM represents Linear Motor;

0820 refers to a magnetic shaft diameter of 8mm and a shell width and height of 20mm. 'T' indicates a subtype (for example, in the 0820 series, 'T' represents a mover length of 55m);

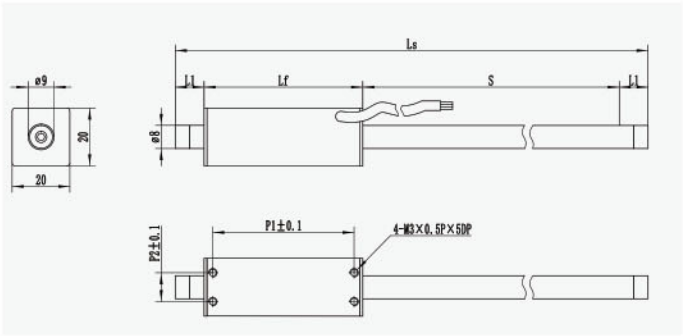
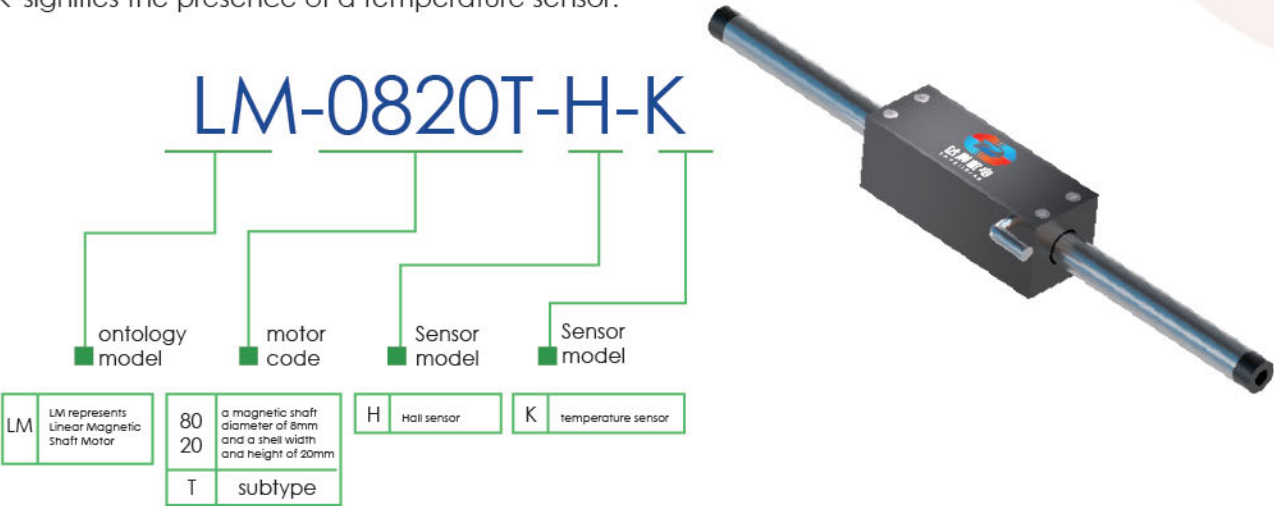
'H' denotes the presence of a Hall sensor;

'K' signifies the presence of a temperature sensor.

Performance Parameters of the Product

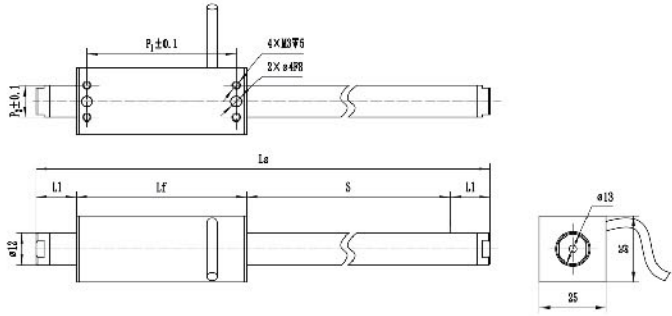
→ LM0820 Series

Parameter	Symbol	Unit	LM0820S	LM0820D	LM0820T	LM0820Q	LM0820L
Electrical Performance Parameters							
Continuous Thrust	F_c	N	1.11	1.67	2.5	3.33	4.17
Peak Thrust	F_p	N	4.44	6.67	10	13.33	16.67
Continuous Current	I_c	Arms	0.6	0.6	0.6	0.6	0.6
Peak Current	I_p	Arms	2.4	2.4	2.4	2.4	2.4
Thrust Constant	K_f	N/Arms	1.85	2.78	4.72	5.56	7.868
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	2.04	2.79	4.18	5.57	7
Line Resistance (25°C)	R_{25}	Ω	6.72	9.87	14.8	19.73	25.94
dq Axis Line Inductance	Ld/Lq	mH	0.972	2.1	3.1	4	4.772
Pole Pair Distance	2τ	mm	20	30			
Coil Heat Resistance	Tmax	°C	120				
Mechanical Performance Parameters and Installation Dimensions							
Mover Mass	M_f	g	33	43	65	86	122
Stator Unit Mass	M_s	Kg/m	0.33				
Mover Length	L_f	mm	30	40	55	70	85
Mover Dimension	A×B	mm	20×20				
Mover Hole Diameter	D_1	mm	9				
Stator-to-Mover Air Gap	G	mm	0.5				
Installation Spacing	P_1	mm	24	34	49	64	79
Installation Spacing	P_2	mm	10				
Standard Stroke	S	mm	<200				
Support Length	L_1	mm	10				
Stator Total Length	Ls	mm	$L_s=S+L_f+2\times L_1$				



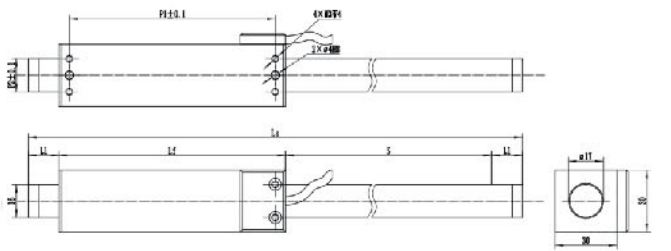
→ LM1225 Series

Parameter	Symbol	Unit	LM1225D	LM1225T	LM1225Q	LM1225L	LM1225C
Electrical Performance Parameters							
Continuous Thrust	F _c	N	7.8	11.7	15.6	23.4	27.3
Peak Thrust	F _p	N	31.2	46.8	62.4	93.6	109.2
Continuous Current	I _c	Arms	1	1	1	1	1
Peak Current	I _p	Arms	4	4	4	4	4
Thrust Constant	K _f	N/Arms	7.8	11.7	15.6	23.4	27.3
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	6.25	9.4	12.5	18.75	21.88
Line Resistance (25°C)	R ₂₅	Ω	6.67	10	13.33	20	23.33
dq Axis Line Inductance	L	mH	2.125	3.25	4.25	6.375	7.5
Pole Pair Distance	2τ	mm	48				
Coil Heat Resistance	Tmax	°C	120				
Mechanical Performance Parameters and Installation Dimensions							
Mover Mass	M _f	g	110	160	210	310	360
Stator Unit Mass	M _s	Kg/m	0.83				
Mover Length	L _f	mm	64	88	112	160	184
Mover Dimension	A×B	mm	25×25				
Mover Hole Diameter	D ₁	mm	13				
Stator-to-Mover Air Gap	G	mm	0.5				
Installation Spacing	P ₁	mm	56	80	104	152	176
Installation Spacing	P ₂	mm	12				
Standard Stroke	S	mm	50-1050 (Pitch 24)				
Standard Stroke	S ₁ -S ₂	mm	<350		350-800	800-1000	
Support Length	L ₁	mm	15		30	60	
Stator Total Length	Ls	mm	Ls=S+L _f +2×L ₁				



→ LM1630 Series

Parameter	Symbol	Unit	LM1630D	LM1630T	LM1630Q
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	15.67	23.5	31.33
Peak Thrust	F _p	N	62.67	94	125.33
Continuous Current	I _c	Arms	1.3	1.3	1.3
Peak Current	I _p	Arms	5.2	5.2	5.2
Thrust Constant	K _f	N/Arms	12.05	18.07	24.1
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	9	14.9	18
Line Resistance (25℃)	R ₂₅	Ω	8.8	13.04	17.15
dq Axis Line Inductance	L	mH	5.02	7.3	9.8
Pole Pair Distance	2τ	mm	60		
Coil Heat Resistance	Tmax	℃	120		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	g	181	272	362
Stator Unit Mass	M _s	Kg/m	1.55		
Mover Length	L _f	mm	80	110	140
Mover Dimension	A×B	mm	30×30		
Mover Hole Diameter	D ₁	mm	17		
Stator-to-Mover Air Gap	G	mm	0.5		
Installation Spacing	P ₁	mm	70	100	130
Installation Spacing	P ₂	mm	16		
Standard Stroke	S	mm	100-1050 (Pitch 30)		
Standard Stroke	S ₁ -S ₂	mm	<350	350-800	800-1200
Support Length	L ₁	mm	20	40	60
Stator Total Length	Ls	mm	Ls=S+L _f +2×L ₁		

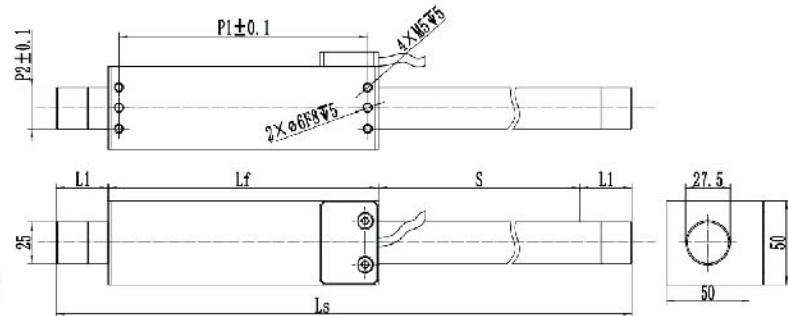
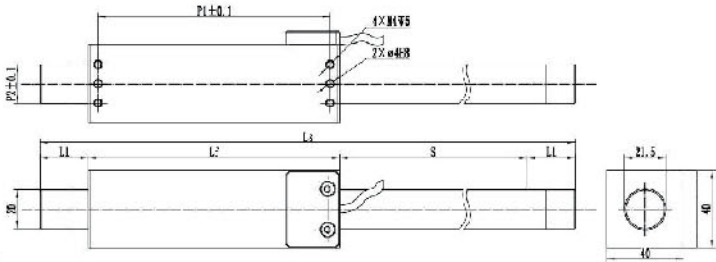


→ LM2040 Series

Parameter	Symbol	Unit	LM2040D	LM2040T	LM2040Q
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	21	32	70
Peak Thrust	F _p	N	85	128	280
Continuous Current	I _c	Arms	1.6	1.6	3
Peak Current	I _p	Arms	6.4	6.4	12
Thrust Constant	K _f	N/Arms	13.3	20	23.55
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	10.9	16.35	18.89
Line Resistance (25°C)	R ₂₅	Ω	11.22	16.83	9.1
dq Axis Line Inductance	Ld/Lq	mH	4.9/6.3	7.4/9.5	9
Pole Pair Distance	2τ	mm	72		
Coil Heat Resistance	Tmax	°C	120		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	g	420	630	840
Stator Unit Mass	M _s	Kg/m	2.3		
Mover Length	L _f	mm	94	130	166
Mover Dimension	A×B	mm	40×40		
Mover Hole Diameter	D ₁	mm	21.5		
Stator-to-Mover Air Gap	G	mm	0.75		
Installation Spacing	P ₁	mm	84	120	156
Installation Spacing	P ₂	mm	20		
Standard Stroke	S	mm	100-1550 (Pitch 36)		
Standard Stroke	S ₁ -S ₂	mm	<300	300-700	700-1500
Support Length	L ₁	mm	25	40	60
Stator Total Length	Ls	mm	Ls=S+L _f +2×L ₁		

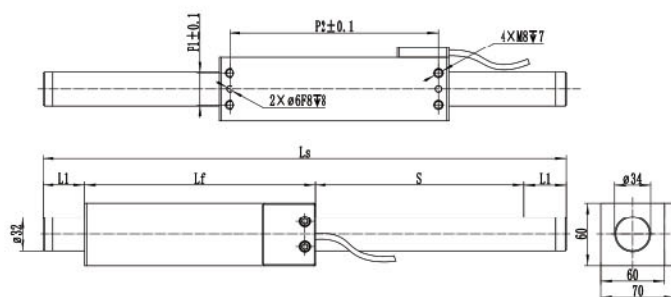
→ LM2550 Series

Parameter	Symbol	Unit	LM2550D	LM2550T	LM2550Q
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	68	102	136
Peak Thrust	F _p	N	272	408	544
Continuous Current	I _c	Arms	5	5	5
Peak Current	I _p	Arms	20	20	20
Thrust Constant	K _f	N/Arms	13.6	20.4	27.2
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	11	17	22
Line Resistance (25°C)	R ₂₅	Ω	2.25	3.37	4.51
dq Axis Line Inductance	Ld/Lq	mH	3.3	4.97	6.62
Pole Pair Distance	2τ	mm	90		
Coil Heat Resistance	Tmax	°C	120		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	Kg	0.84	1.26	1.56
Stator Unit Mass	M _s	Kg/m	3.65		
Mover Length	L _f	mm	120	165	210
Mover Dimension	A×B	mm	50×50		
Mover Hole Diameter	D ₁	mm	27.5		
Stator-to-Mover Air Gap	G	mm	0.75		
Installation Spacing	P ₁	mm	105	150	195
Installation Spacing	P ₂	mm	28		
Standard Stroke	S	mm	100-1550 (Pitch 45)		
Standard Stroke	S ₁ -S ₂	mm	<700	700-1500	1500-2000
Support Length	L ₁	mm	50	70	100
Stator Total Length	Ls	mm	Ls=S+L _f +2×L ₁		



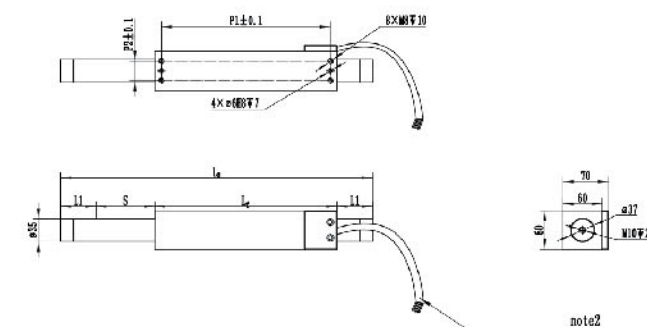
→ LMT3260 Series

Parameter	Symbol	Unit	LM3260D	LM3260T	LM3260Q	LM3260QZQ
Electrical Performance Parameters						
Continuous Thrust	F_c	N	102	153	204	276
Peak Thrust	F_p	N	408	612	816	1104
Continuous Current	I_c	Arms	5	5	5	5
Peak Current	I_p	Arms	20	20	20	20
Thrust Constant	K_f	N/Arms	20.4	30	40.8	55.2
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	16	24	32	44.44
Line Resistance (25°C)	R_{25}	Ω	3.58	5.3	7.14	7.14
dq Axis Line Inductance	Ld/Lq	mH	2.96/3.73	4.435/5.6	13.33	
Pole Pair Distance	2 τ	mm	120			
Coil Heat Resistance	Tmax	°C	150			
Mechanical Performance Parameters and Installation Dimensions						
Mover Mass	M_f	Kg	1.52	2.12	2.72	
Stator Unit Mass	M_s	Kg/m	5.6			
Mover Length	L_f	mm	160	220	280	
Mover Dimension	A×B	mm	60×60			
Mover Hole Diameter	D_1	mm	34			
Stator-to-Mover Air Gap	G	mm	1			
Installation Spacing	P_1	mm	140	200	260	
Installation Spacing	P_2	mm	30			
Standard Stroke	S	mm	100-2000 (Pitch 60)			
Standard Stroke	S_1 - S_2	mm	<750	750-1500	1500-2000	
Support Length	L_1	mm	50	70	100	
Stator Total Length	Ls	mm	$L_s=S+L_f+2\times L_1$			



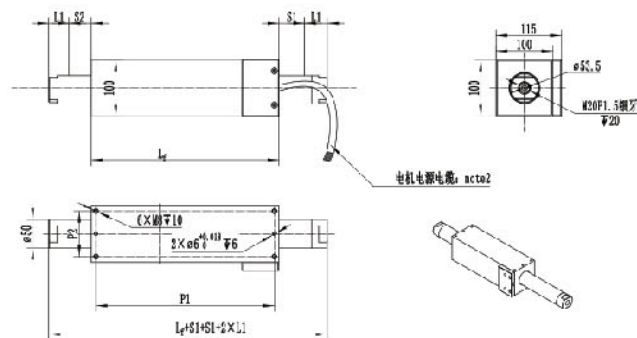
→ **LM3560 Series**

Parameter	Symbol	Unit	LM3560D	LM3560T1	LM3560T2	LM3560Q
Electrical Performance Parameters						
ontinuous Thrust	F _c	N	100	150	140	202
Peak Thrust	F _p	N	400	600	560	808
Continuous Current	I _c	Arms	5	5	6.4	5
Peak Current	I _p	Arms	20	20	25.6	20
Thrust Constant	K _f	N/Arms	20	30	21	40.4
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	16.67	25.83	19	34.5
Line Resistance (25°C)	R ₂₅	Ω	2.79	4.23	3	5.51
dq Axis Line Inductance	L	mH	4.45	6.68	4.94	8.6
Pole Pair Distance	2τ	mm	120	120	120	120
Coil Heat Resistance	Tmax	°C	180	180	180	180
Mechanical Performance Parameters and Installation Dimensions						
Mover Mass	M _f	Kg	1.3	1.9	2	2.2
Stator Unit Mass	M _s	Kg/m	6.8	6.8	6	6.8
Mover Length	L _f	mm	160	220	220	280
Mover Dimension	A×B	mm	60×60			
Mover Hole Diameter	D ₁	mm	37			
Installation Spacing	P ₁	mm	30			
Installation Spacing	P ₂	mm	140	200		260
Standard Stroke	S	mm	100-2000 (Pitch 60)			
Standard Stroke	S ₁ -S ₂	mm	<750	750-1500		1500-2000
Support Length	L ₁	mm	50	70		200
Stator Total Length	Ls	mm	Ls=S+L _f +2×L ₁			

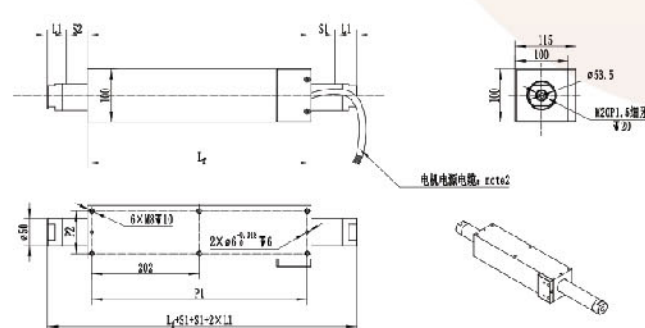


→ LM50100 Serie

Parameter	Symbol	Unit	LM50100D	LM50100T	LM50100Q
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	500	750	1000
Peak Thrust	F _p	N	1658	2487	3315
Continuous Current	I _c	Arms	18	18	18
Peak Current	I _p	Arms	60	60	60
Thrust Constant	K _f	N/Arms	27.78	41.67	55
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	22.5	33.75	45
Line Resistance (25°C)	R ₂₅	Ω	1.3	1.95	2.6
dq Axis Line Inductance	L	mH	7.45	11.175	14.9
Pole Pair Distance	2τ	mm	180		
Coil Heat Resistance	Tmax	°C	180		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	Kg	6.9	9.6	12.7
Stator Unit Mass	M _s	Kg/m	12.5		
Mover Length	L _f	mm	210	300	420
Mover Dimension	A×B	mm	100×100		
Mover Hole Diameter	D ₁	mm	52		
Installation Spacing	P ₁	mm	194	284	404
Installation Spacing	P ₂	mm	80		
Standard Stroke	S ₁ -S ₂	mm	<500(Pitch 90)		
Support Length	L ₁	mm	70		



*LM50100Q Motor Outline Dimensions Diagram



*LM50100 Outline Dimensions Diagram
for Other Motor Series

Part 2

► Axial Driven Linear Motor

Naming Convention for Axial Driven Linear Motors

Compact structure, fully utilizes the magnetic field, ironless design, cogging force-free, with stationary primary and movable secondary magnetic shaft for motion output.

Naming Convention for Axial Driven Linear Motors

► LM—0820TI—H—K

Explanation:

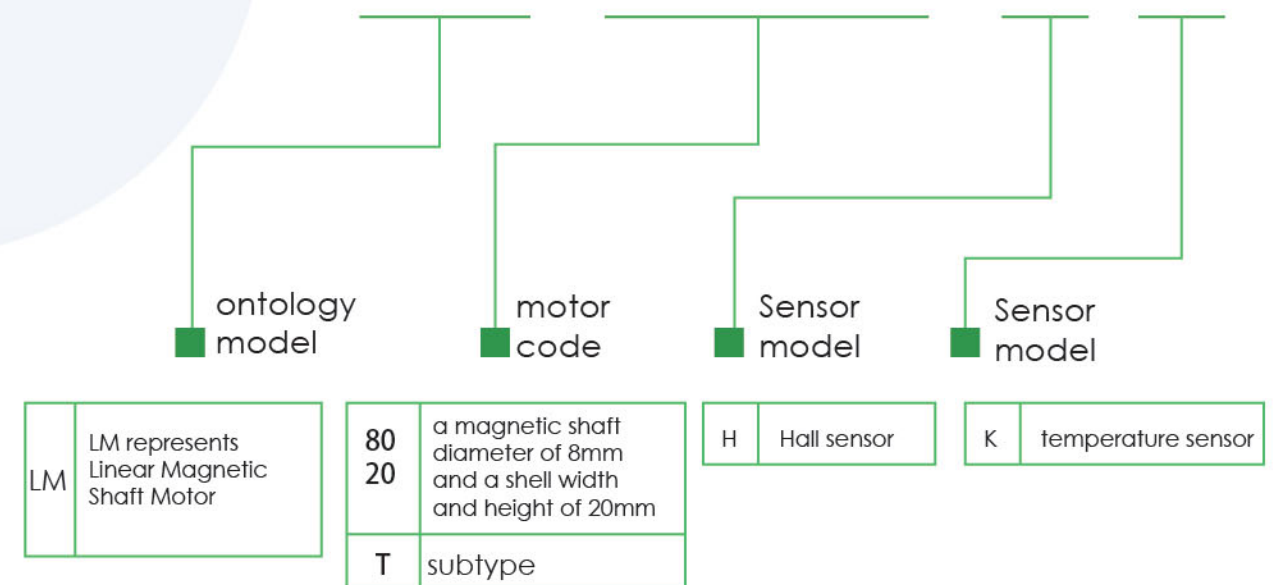
LM represents Linear Magnetic Shaft Motor;

0820 refers to a magnetic shaft diameter of 8mm and a shell width and height of 20mm. 'T' indicates a subtype (for example, in the 0820 series, 'T' represents a mover length of 55mm, 'I' represents axial driven);

'H' denotes the presence of a Hall sensor;

'K' signifies the presence of a temperature sensor.

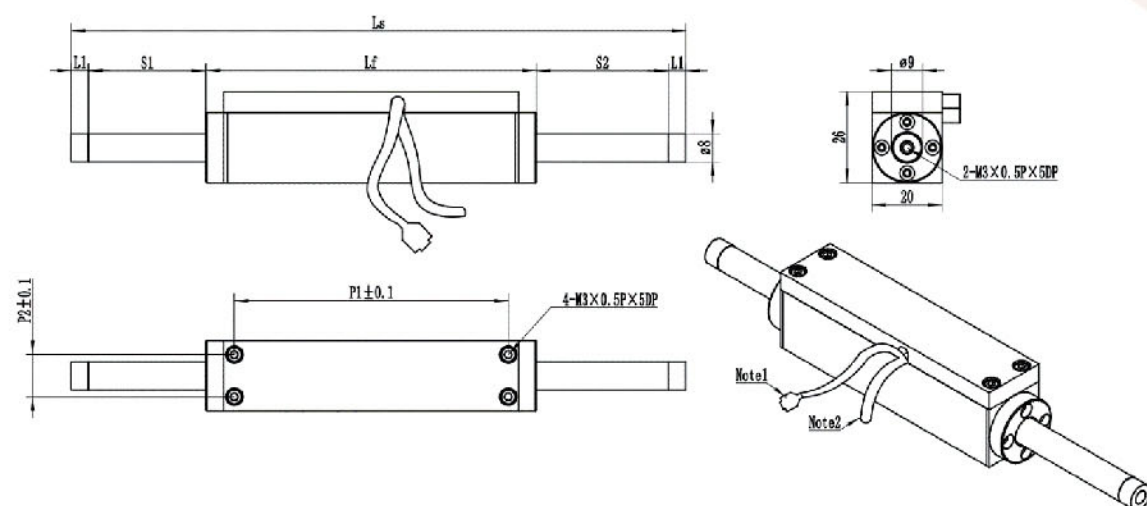
LM-0820T-H-K



Performance Parameters of the Product

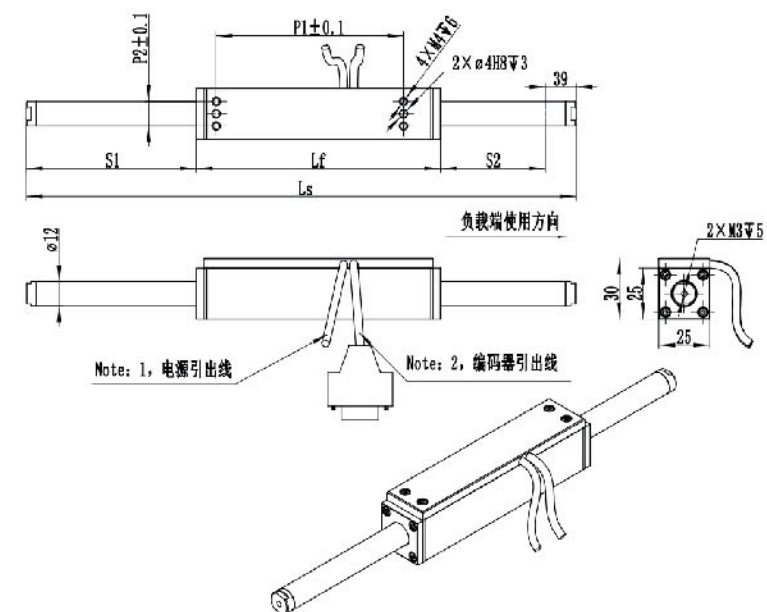
→ **LM0820I Series**

Parameter	Symbol	Unit	LM0820SI	LM0820DI	LM0820TI	LM0820QI	LM0820LI
Electrical Performance Parameters							
ontinuous Thrust	F_c	N	1.11	1.67	2.5	3.33	4.17
Peak Thrust	F_p	N	4.44	6.67	10	13.33	16.67
Continuous Current	I_c	Arms	0.6	0.6	0.6	0.6	0.6
Peak Current	I_p	Arms	2.4	2.4	2.4	2.4	2.4
Thrust Constant	K_f	N/Arms	1.85	2.78	4.72	5.55	6.95
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	2.04	2.79	4.18	5.57	7
Line Resistance (25°C)	R_{25}	Ω	6.72	10.6	14.8	19.73	25.94
dq Axis Line Inductance	L	mH	0.96	1.91	2.696	3.592	4.772
Pole Pair Distance	2τ	mm	20	30			
Coil Heat Resistance	T_{max}	°C	120				
Mechanical Performance Parameters and Installation Dimensions							
Mover Mass	M_f	g	70	130	140	150	160
Stator Unit Mass	M_s	Kg/m	0.33				
Mover Length	L_f	mm	68	79	94	109	124
Mover Dimension	$A \times B$	mm	20×26				
Mover Hole Diameter	D_1	mm	9				
Stator-to-Mover Air Gap	G	mm	0.5				
Installation Spacing	P_1	mm	48	59	74	89	104
Installation Spacing	P_2	mm	10				
Support Length	L_1	mm	15				
Standard Stroke	$S=S_1+S_2$	mm	≤ 100 (Pitch 10)	≤ 200 (Pitch 15)			
Stator Total Length	L_s	mm	$S_1+S_2+L_f+2 \times L_1$				



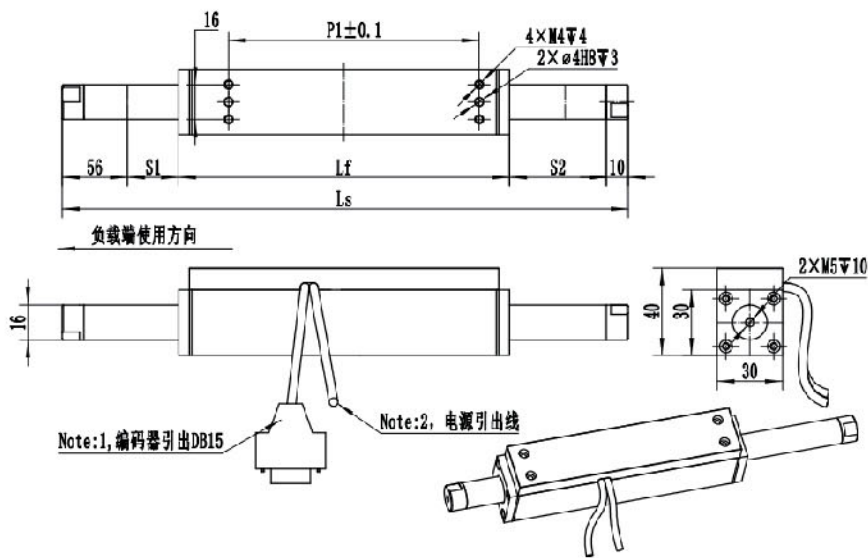
→ LM1225I Series

Parameter	Symbol	Unit	LM12DI	LM12TI	LM12QI	LM12LI	LM12CI
Electrical Performance Parameters							
ontinuous Thrust	F _c	N	7.8	11.7	15.6	23.4	27.3
Peak Thrust	F _p	N	31.2	46.8	62.4	93.6	109.2
Continuous Current	I _c	Arms	1	1	1	1	1
Peak Current	I _p	Arms	4	4	4	4	4
Thrust Constant	K _f	N/Arms	7.8	11.7	15.6	23.4	27.3
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	6.25	9.4	12.5	18.75	21.88
Line Resistance (25°C)	R ₂₅	Ω	6.67	10	13.33	20	23.33
dq Axis Line Inductance	L	mH	2.125	3.25	4.25	6.375	7.5
Pole Pair Distance	2τ	mm	48				
Coil Heat Resistance	Tmax	°C	120				
Mechanical Performance Parameters and Installation Dimensions							
Mover Mass	M _f	g	100	150	263	280	360
Stator Unit Mass	M _s	Kg/m	0.83				
Mover Length	L _f	mm	96	120	144	192	216
Mover Dimension	A×B	mm	25×25				
Mover Hole Diameter	D ₁	mm	12				
Installation Spacing	P ₁	mm	12				
Installation Spacing	P ₂	mm	68	92	116	164	188
Standard Stroke	S=S ₁ +S ₂	mm	≦500(Pitch 24)				
Stator Total Length	Ls	mm	Ls=S+39+L _f				



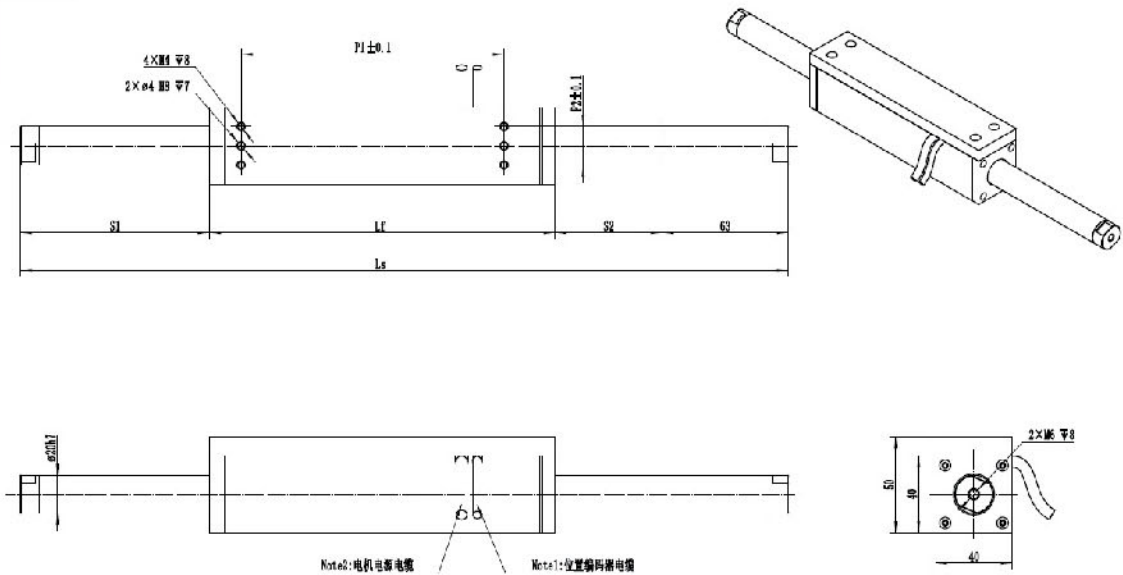
→ LM1630I Series

Parameter	Symbol	Unit	LM1630DI	LM1630TI	LM1630QI
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	15.67	23.5	31.33
Peak Thrust	F _p	N	62.67	94	125.33
Continuous Current	I _c	Arms	1.3	1.3	1.3
Peak Current	I _p	Arms	5.2	5.2	5.2
Thrust Constant	K _f	N/Arms	12.05	18.07	24.1
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	9	14.9	18
Line Resistance (25°C)	R ₂₅	Ω	8.8	13.04	17.15
dq Axis Line Inductance	L	mH	5.02	7.3	9.8
Pole Pair Distance	2τ	mm	60		
Coil Heat Resistance	Tmax	°C	120		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	g	332	423	523
Stator Unit Mass	M _s	Kg/m	1.33		
Mover Length	L _f	mm	122	152	182
Mover Dimension	A×B	mm	30×40		
Mover Hole Diameter	D ₁	mm	16		
Installation Spacing	P ₁	mm	16		
Installation Spacing	P ₂	mm	85	115	145
Standard Stroke	S=S ₁ +S ₂	mm	<=500(Pitch 30)		
Stator Total Length	Ls	mm	Ls=S+66+L _f		



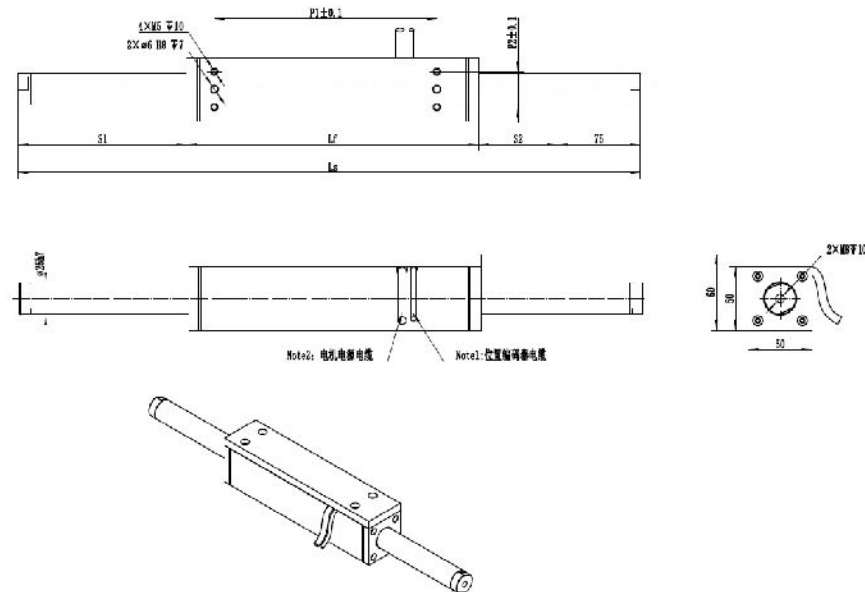
→ LM2040I Series

Paramete	Symbol	Unit	LM2040DI	LM2040TI	LM2040QI
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	30	55	72
Peak Thrust	F _p	N	120	220	288
Continuous Current	I _c	Arms	1.6	3	3
Peak Current	I _p	Arms	6.4	12	12
Thrust Constant	K _f	N/Arms	18.75	18.33	25.777
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	16.25	17.2	20.8
Line Resistance (25°C)	R ₂₅	Ω	11.48	6.51	8.7
dq Axis Line Inductance	L	mH	10.633	6.811	9
Pole Pair Distance	2τ	mm	72		
Coil Heat Resistance	Tmax	°C	120		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	Kg	0.8	1	1.2
Stator Unit Mass	M _s	Kg/m	2.25		
Mover Length	L _f	mm	144	180	216
Mover Dimension	A×B	mm	40×50		
Mover Hole Diameter	D ₁	mm	20		
Installation Spacing	P ₁	mm	101	137	173
Installation Spacing	P ₂	mm	20		
Standard Stroke	S=S ₁ +S ₂ +27	mm	<=500 (Pitch 36)		
Stator Total Length	Ls	mm	Ls=S+L _f +63		



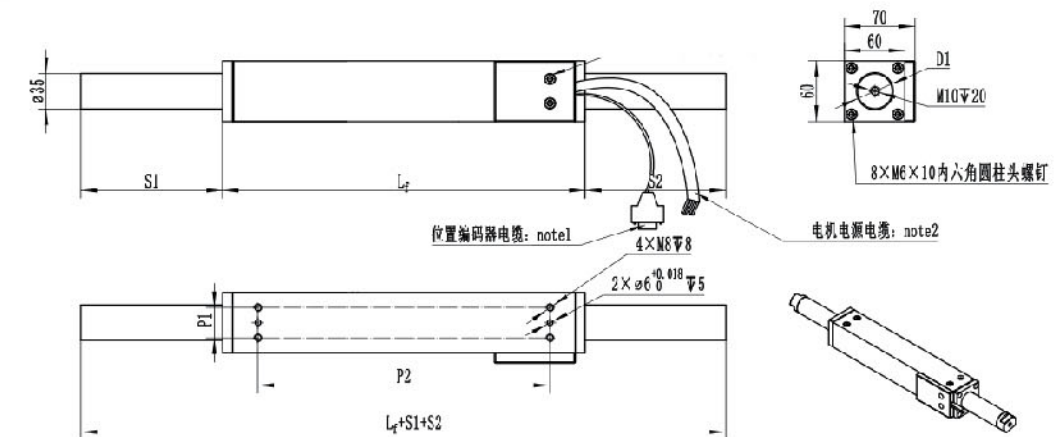
→ LM2550I Series

Parameter	Symbol	Unit	LM2550DI	LM2550TI	LM2550QI
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	64	96	128
Peak Thrust	F _p	N	256	384	512
Continuous Current	I _c	Arms	5	5	5
Peak Current	I _p	Arms	20	20	20
Thrust Constant	K _f	N/Arms	12.8	19.2	25.6
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	10.3	15.5	20.68
Line Resistance (25°C)	R ₂₅	Ω	2.25	3.37	4.49
dq Axis Line Inductance	Ld/Lq	mH	3.3	4.97	6.62
Pole Pair Distance	2τ	mm	90		
Coil Heat Resistance	Tmax	°C	120		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	Kg	1.1	1.33	1.6
Stator Unit Mass	M _s	Kg/m	3.6		
Mover Length	L _f	mm	180	225	270
Mover Dimension	A×B	mm	50×60		
Mover Hole Diameter	D ₁	mm	25		
Installation Spacing	P ₁	mm	130	175	220
Installation Spacing	P ₂	mm	28		
Standard Stroke	S=S ₁ +S ₂	mm	≤500 (Pitch 45)		
Stator Total Length	Ls	mm	Ls=S+L _f +75		



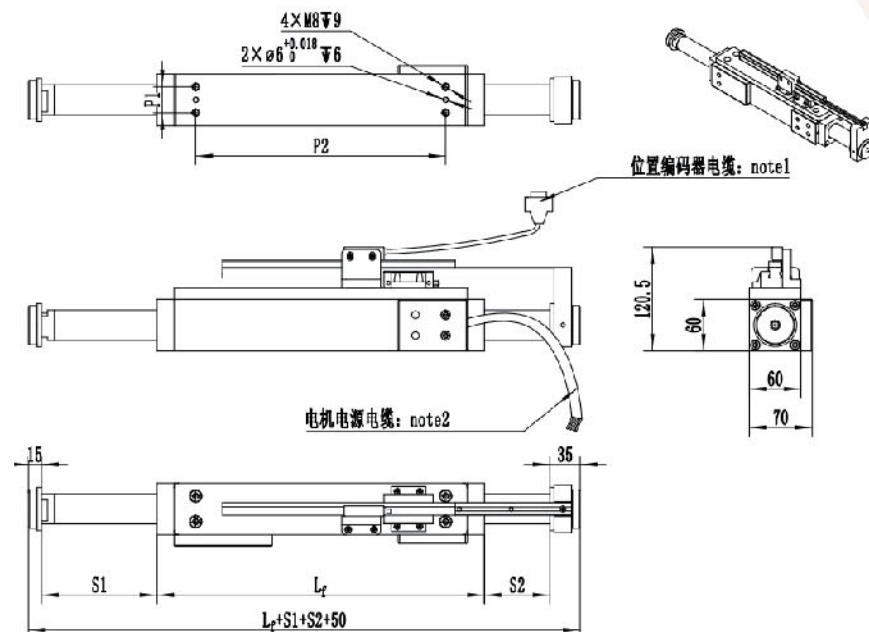
→ LM3560I Series

Parameter	Symbol	Unit	LM3560DI	LM3560TI	LM3560QI	LM35602QI
Electrical Performance Parameters						
ontinuous Thrust	F _c	N	107	160	215	430
Peak Thrust	F _p	N	428	640	860	1720
Continuous Current	I _c	Arms	5	5	5	5
Peak Current	I _p	Arms	20	20	20	20
Thrust Constant	K _f	N/Arms	21.4	32	43	86
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	16.67	25.83	34.5	60
Line Resistance (25°C)	R ₂₅	Ω	2.79	4.23	5.51	10.95
dq Axis Line Inductance	L	mH	4.45	6.68	8.6	16.4
Pole Pair Distance	2τ	mm	120			
Coil Heat Resistance	Tmax	°C	180			
Mechanical Performance Parameters and Installation Dimensions						
Mover Mass	M _f	Kg	1.85	2.3	2.75	4.8
Stator Unit Mass	M _s	Kg/m	6.8			
Mover Length	L _f	mm	240	300	360	620
Mover Dimension	A×B	mm	60×60			
Mover Hole Diameter	D ₁	mm	37			
Installation Spacing	P ₁	mm	30			
Installation Spacing	P ₂	mm	170	230	290	275+275
Standard Stroke	S=S ₁ +S ₂	mm	≤500(Pitch 60)			
Stator Total Length	Ls	mm	Ls=S+180+L _f			



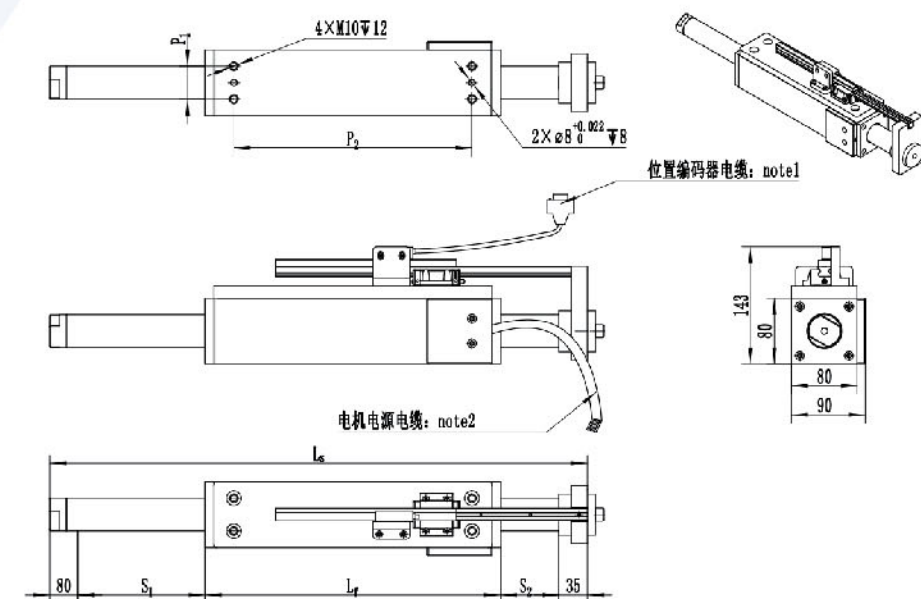
→ LM3560IDG Series

Parameter	Symbol	Unit	LM3560DI	LM3560TI	LM3560QI	LM35602QI
Electrical Performance Parameters						
ontinuous Thrust	F _c	N	100	150	202	404
Peak Thrust	F _p	N	400	600	808	1616
Continuous Current	I _c	Arms	5	5	5	5
Peak Current	I _p	Arms	20	20	20	20
Thrust Constant	K _f	N/Arms	20	30	40.4	80.8
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	16.67	25.83	34.5	60
Line Resistance (25°C)	R ₂₅	Ω	2.79	4.23	5.51	10.95
dq Axis Line Inductance	L	mH	4.45	6.68	8.6	16.4
Pole Pair Distance	2τ	mm	120			
Coil Heat Resistance	Tmax	°C	180			
Mechanical Performance Parameters and Installation Dimensions						
Mover Mass	M _f	Kg	2.15	2.7	3.25	5.45
Stator Unit Mass	M _s	Kg/m	6.8			
Mover Length	L _f	mm	240	300	360	620
Mover Dimension	A×B	mm	60×60			
Mover Hole Diameter	D ₁	mm	37			
Installation Spacing	P ₁	mm	30			
Installation Spacing	P ₂	mm	170	230	290	275+275
Standard Stroke	S=S ₁ +S ₂	mm	<=500(Pitch 60)			



→ LM4080IDG Series

Parameter	Symbol	Unit	LM4080SI	LM4080DI	LM4080TI	LM4080QI
Electrical Performance Parameters						
ontinuous Thrust	F_c	N	160	320	480	735
Peak Thrust	F_p	N	640	1280	1920	1470
Continuous Current	I_c	Arms	5	5	5	5
Peak Current	I_p	Arms	20	20	20	10
Thrust Constant	K_f	N/Arms	32	64	96	147
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	26.11	52.22	78.33	118.1
Line Resistance (25°C)	R_{25}	Ω	4.88	9.76	14.64	5
dq Axis Line Inductance	L	mH	25.45	50.9	76.35	20.03
Pole Pair Distance	2 τ	mm	120			
Coil Heat Resistance	Tmax	°C	180			
Mechanical Performance Parameters and Installation Dimensions						
Mover Mass	M_f	Kg	3.6	5.1	6.6	8.1
Stator Unit Mass	M_s	Kg/m	7.65			
Mover Length	L_f	mm	180	240	300	360
Mover Dimension	A×B	mm	80×80			
Mover Hole Diameter	D_1	mm	41			
Installation Spacing	P_1	mm	40			
Installation Spacing	P_2	mm	110	170	230	290
Standard Stroke	S=S ₁ +S ₂	mm	≤500(Pitch 60)			
Stator Total Length	Ls	mm	Ls=S+115+L _f			



Part 3

→ LM50100IDG Series

Parameter	Symbol	Unit	LM50100QI	LM50100DI	LM50100TI
Electrical Performance Parameters					
ontinuous Thrust	F _c	N	1000	500	750
Peak Thrust	F _p	N	3315	1658	2487
Continuous Current	I _c	Arms	18	18	18
Peak Current	I _p	Arms	60	60	60
Thrust Constant	K _f	N/Arms	55	27.78	41.67
Back EMF Constant (Line-to-Line)	Ke	Vpeak/(m/s)	45	22.5	33.75
Line Resistance (25°C)	R ₂₅	Ω	2.6	1.3	1.95
dq Axis Line Inductance	Ld/Lq	mH	14.9	7.45	11.175
Pole Pair Distance	2τ	mm	180		
Coil Heat Resistance	Tmax	°C	180		
Mechanical Performance Parameters and Installation Dimensions					
Mover Mass	M _f	Kg	21.7	13.7	16.5
Stator Unit Mass	M _s	Kg/m	12.5		
Mover Length	L _f	mm	520	310	400
Mover Dimension	A×B	mm	100×100		
Mover Hole Diameter	D ₁	mm	52		
Installation Spacing	P ₁	mm	220+220	230	320
Installation Spacing	P ₂	mm	80		
Standard Stroke	S=S ₁ +S ₂	mm	<500 (Pitch 90)		

► High-Performance Magnetic Shaft Linear Motor

Model Naming Convention

► LSM85—LM16T—1—500—A01

Explanation:

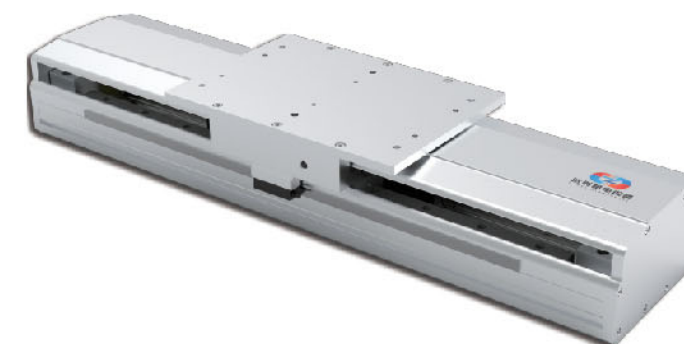
LSM85 (Ontology Model): Linear Magnetic Shaft Motor Module, 85 refers to the module profile specification.

LM16T (Motor Code): LSM85-LM16T, LSM140—LM25T, LSM175—LM35T.

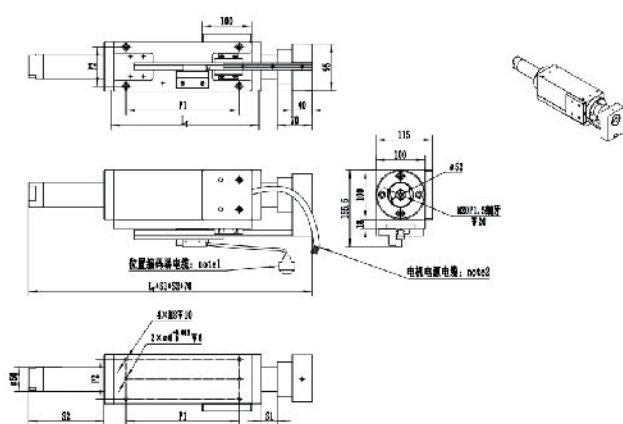
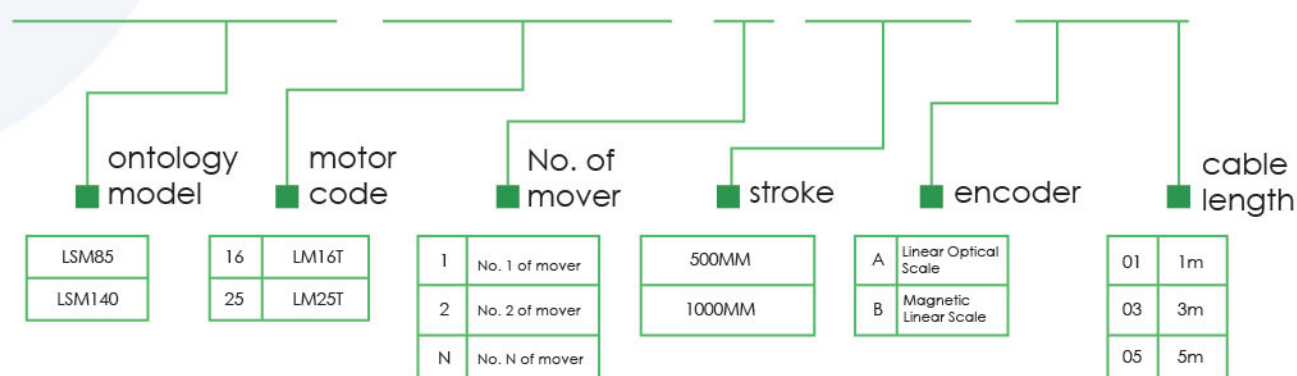
1: '1' represents one mover, '2' represents two movers, 'N' represents N movers.

500: The stroke is 500mm.

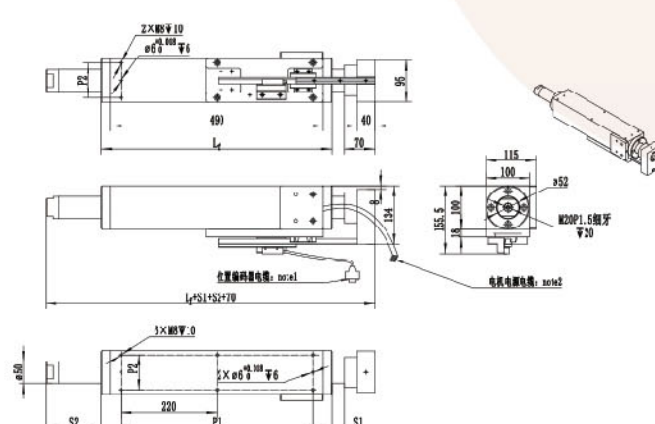
A01: 'A' represents a grating scale, 'B' represents a magnetic scale, '01' indicates that the encoder cable length is 1 meter.



LSM85-LM16T-1-500-A01



*LM50100QI Motor Outline Dimensions Diagram



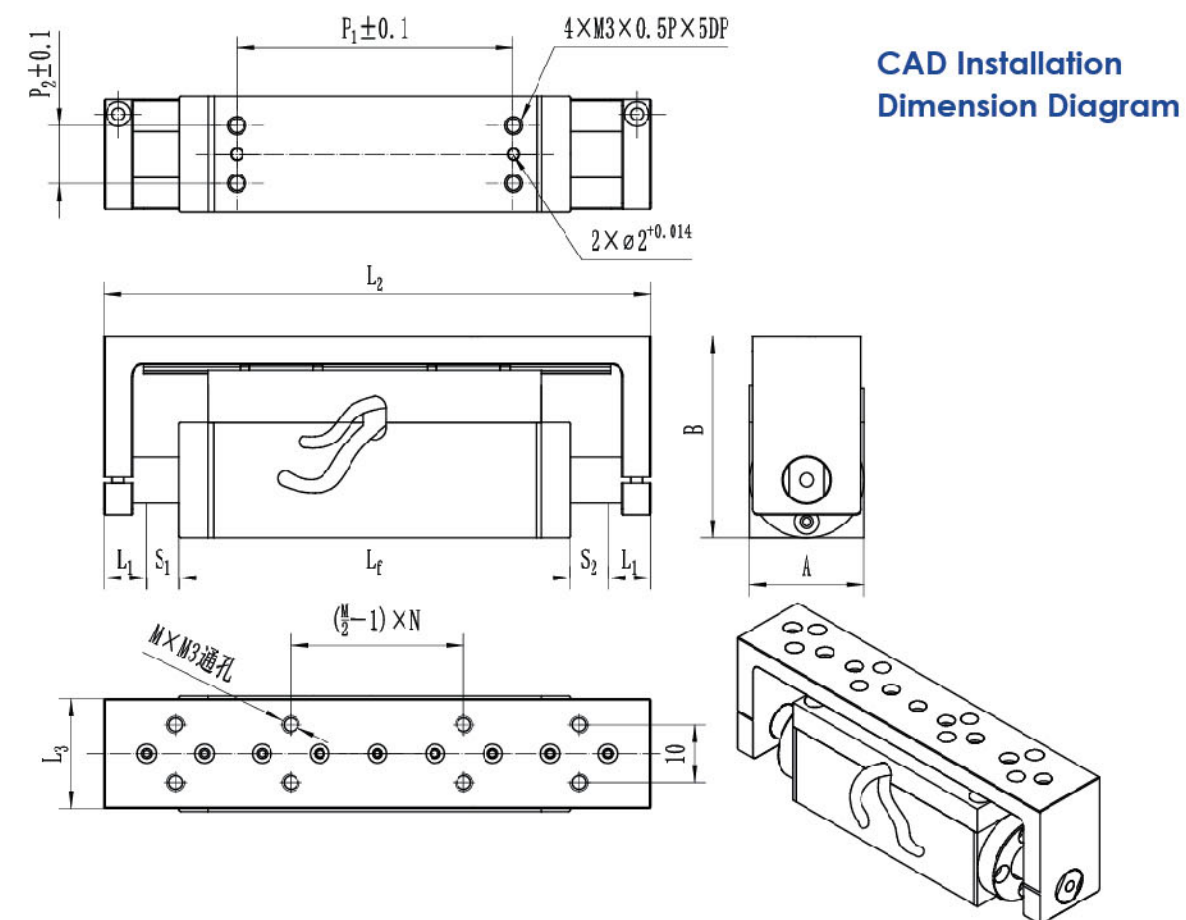
*LM50100 Outline Dimensions Diagram
for Other Motor Series

→ LSM20 High-Performance Magnetic Shaft Linear Motor

Parameter	Symbol	Unit	LSM20- LM08S	LSM20- LM08D	LSM20- LM08T	LSM20- LM08Q	LSM20- LM08L
Electrical Performance Parameters							
ontinuous Thrust	F_c	N	1.11	1.67	2.5	3.33	4.17
Peak Thrust	F_p	N	4.44	6.67	10	13.33	16.67
Continuous Current	I_c	Arms	0.6	0.6	0.6	0.6	0.6
Peak Current	I_p	Arms	2.4	2.4	2.4	2.4	2.4
Thrust Constant	K_T	N/Arms	1.85	2.78	4.72	5.55	6.95
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	2.04	2.79	4.18	5.57	7
Line Resistance (25°C)	R_{25}	Ω	6.72	10.6	14.8	19.73	25.94
dq Axis Line Inductance	L_d/L_q	mH	0.96	1.91	2.696	3.592	4.772
Pole Pair Distance	2τ	mm	20	30			
Coil Heat Resistance	T_{max}	°C	120				
Mechanical Performance Parameters and Installation Dimensions							
Mover Mass	M_f	g	70	130	140	150	160
Stator Unit Mass	M_s	Kg/m	0.33				
Mover Length	L_f	mm	68	79	94	109	124
Mover Hole Diameter	D_1	mm	9				
Stator-to-Mover Air Gap	G	mm	0.5				
Installation Spacing	P_1	mm	48	59	74	89	104
Installation Spacing	P_2	mm	10				
Support Length	L_1	mm	10				
Mover Dimension	$A \times B$	mm	20×35				
Module Overall Length	L_2	mm	$L_1=L_f+S_1+S_2+2XL_1$				
Platform Width	L_3	mm	19				
Standard Stroke	$S=S_1+S_2$	mm	≤30	≤50	≤65	≤80	≤95

Note:

*Line resistance at 25°C is the resistance value with a 1-meter power cable.



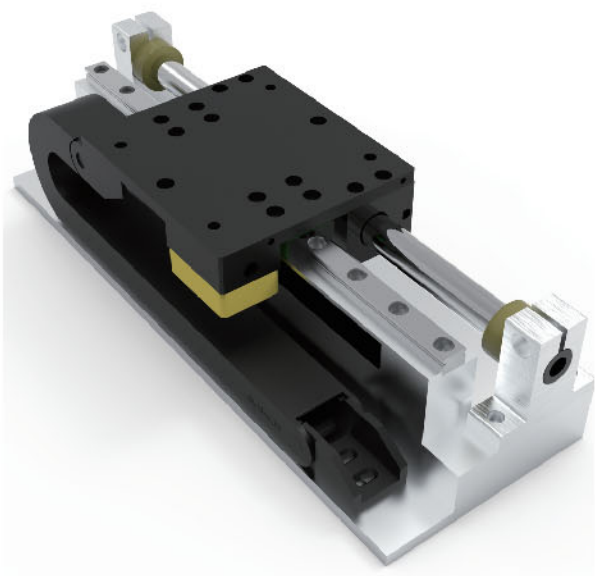
Motor Size								
Standard Stroke	S ₁ +S ₂	10	20	30	50	65	80	95
Mounting Hole Pitch	N	20	20	30	50	35	35	40
Number of Mounting Holes	M	8	8	8	8	8	12	12
Note: Non-standard strokes and mounting hole patterns are customizable.								

→ **LSM85 High-Performance Magnetic Shaft Linear Motor**

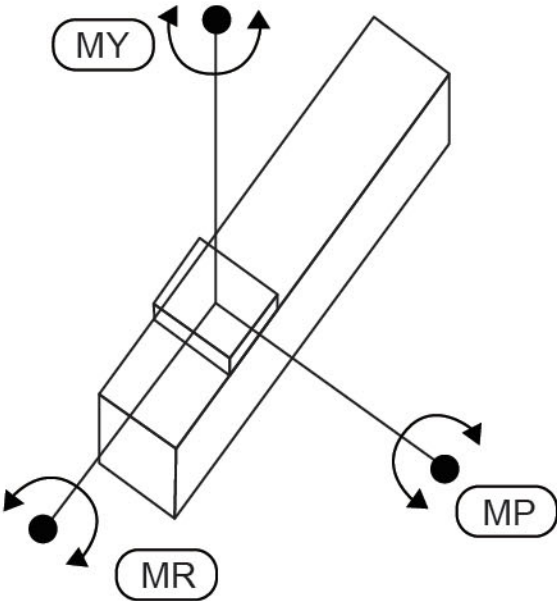
Basic Performance Parameters of LSM85-LM12

Parameter		Symbol	LM12D	LM12T	LM12Q
ontinuous Thrust		N	7.8	11.7	15.6
Peak Thrust		N	31.2	46.8	62.4
Continuous Current		Arms	1	1	1
Peak Current		Arms	4	4	4
Thrust Constant		N/Arms	7.8	11.7	15.6
Back EMF Constant		Vpeak/(m/s)	6.25	9.4	12.5
Line Resistance (25°C)		Ω	6.67	10	13.33
Line Inductance		mH	2.125	3.25	4.25
Pole Pair Distance		mm	48	48	48
Coil Heat Resistance		°C	120	120	120
Motive mass		kg	0.248	0.34	0.495
Length of mover		mm	64	88	112
Mounting Hole Pitch		mm	34	58	82
Repeat Positioning Accuracy (RPA)	Linear Optical	mm	±0.0015		
	Magnetic Linear		±0.0025		
Maximum Payload Capacity ※1		Kg	0.4	0.7	1
Maximum Operating Speed※2		m/s	1.7	1.7	1.7
Stroke	Single Mover	mm	≤504	≤504	≤504
	Dual Mover		≤432	≤408	≤384

※1、The maximum payload capacity (2m/s under triangular wave profile with 300mm stroke) is measured under specific motion conditions.
※2 The peak operating speed(300mm stroke under no-load condition)



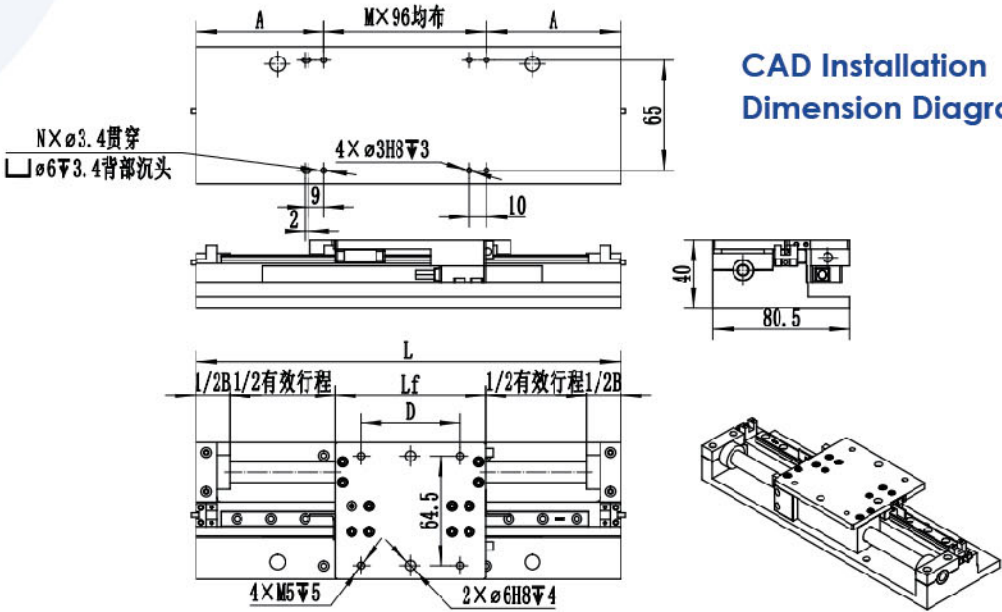
→ **Static Allowable Load Inertia**



specifications		Pitch Torque	Yaw Torque	Roll Torque
LSM85-LM12T	symbol	MY	MP	MR
	Value	23.6	14.8	14.8

unit:N.M

CAD Installation Dimension Diagram



*Note:Non-standard stroke, LM12L, LM12C, and dual-mover modules can be customized.

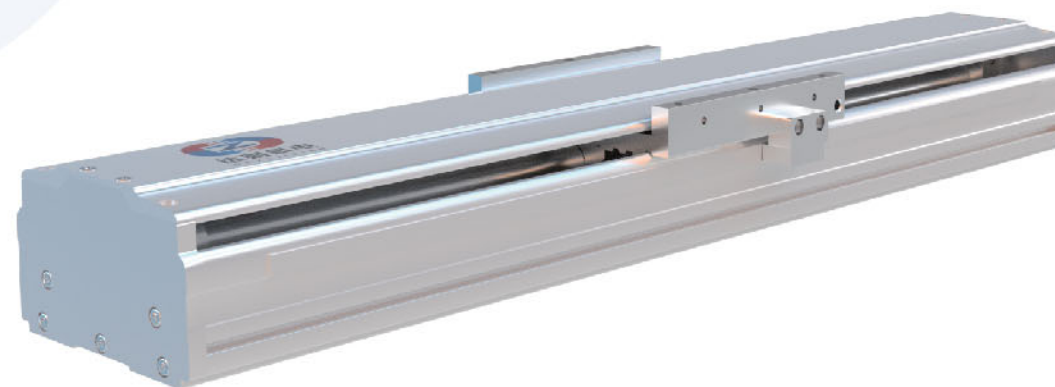
LM1225D Module Size											
Standard Stroke/mm	S	48	72	96	120	144	168	192	216	240	264
Total length/mm	L	154	178	202	226	250	274	298	322	346	370
Mounting Hole Pitch/mm	A	29	41	53	65	29	41	53	65	29	41
N/2-1	F	1	1	1	1	2	2	2	2	3	3
Number of Mounting Holes	N	4	4	4	4	6	6	6	6	8	8
weight/kg	M	0.83	0.92	1.01	1.19	1.28	1.37	1.46	1.55	1.64	1.73
Clamping length	B	40									
LM1225D Module Size											
Standard Stroke	S	288	312	336	360	384	408	432	456	480	504
Total length	L	394	418	442	466	490	514	538	562	586	610
Mounting Hole Pitch	A	53	65	29	41	53	65	29	41	53	65
N/2-1	F	3	3	4	4	4	4	5	5	5	5
Number of Mounting Holes	N	8	8	10	10	10	10	12	12	12	12
weight	M	1.82	1.91	2	2.09	2.18	2.27	2.36	2.45	2.54	2.63
Clamping length	B	40									
LM1225T Module Size											
Standard Stroke	S	48	72	96	120	144	168	192	216	240	264
Total length	L	178	202	226	250	274	298	322	346	370	394
Mounting Hole Pitch	A	41	53	65	29	41	53	65	29	41	53
N/2-1	F	1	1	1	2	2	2	2	3	3	3
Number of Mounting Holes	N	4	4	4	6	6	6	6	8	8	8
weight	M	1.1	1.19	1.28	1.37	1.46	1.55	1.64	1.73	1.82	1.91
Clamping length	B	40									
LM1225T Module Size											
Standard Stroke	S	288	312	336	360	384	408	432	456	480	504
Total length	L	418	442	466	490	514	538	562	586	610	634
Mounting Hole Pitch	A	65	29	41	53	65	29	41	53	65	29
N/2-1	F	3	4	4	4	4	5	5	5	5	6
Number of Mounting Holes	N	8	10	10	10	10	12	12	12	12	14
weight	M	2	2.09	2.18	2.27	2.36	2.45	2.54	2.63	2.72	2.81
Clamping length	B	40									
LM1225Q Module Size											
Standard Stroke	S	48	72	96	120	144	168	192	216	240	264
Total length	L	202	226	250	274	298	322	346	370	394	418
Mounting Hole Pitch	A	53	65	29	41	53	65	29	41	53	65
N/2-1	F	1	1	2	2	2	2	3	3	3	3
Number of Mounting Holes	N	4	4	6	6	6	6	8	8	8	8
weight	M	1.37	1.46	1.55	1.64	1.73	1.82	1.91	2	2.09	2.18
Clamping length	B	40									
LM1225Q Module Size											
Standard Stroke	S	288	312	336	360	384	408	432	456	480	504
Total length	L	442	466	490	514	538	562	586	610	634	698
Mounting Hole Pitch	A	29	41	53	65	29	41	53	65	29	41
N/2-1	F	4	4	4	4	5	5	5	5	6	6
Number of Mounting Holes	N	10	10	10	10	12	12	12	12	14	14
weight	M	2.27	2.36	2.45	2.54	2.63	2.72	2.81	2.9	2.99	3.08
Clamping length	B	40									

Basic Performance Parameters of LSM85-LM16

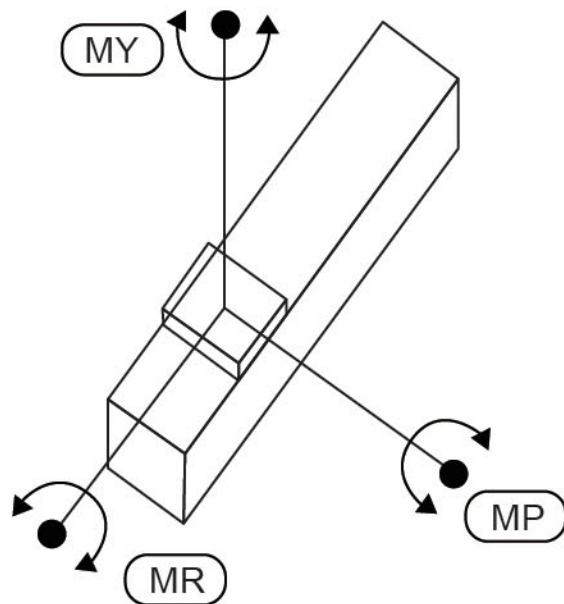
Parameter	Unit	LM1630DZQ	LM1630TZQ	LM1630QZQ
Continuous Thrust	N	17.76	26.65	34.8
Peak Thrust	N	71.04	106.6	139.2
Continuous Current	Arms	1.3	1.3	1.3
Peak Current	Arms	5.2	5.2	5.2
Thrust Constant	N/Arms	13.66	20.5	26.77
Back Electromotive Force Constant	Vpeak/(m/s)	10.45	15.68	20.9
Line Resistance (25℃)	Ω	8.73	13.1	17.47
dq Axis Line Inductance	mH	5.02	7.3	9.8
Pole Pitch	mm	60		
Coil Heat Resistance	℃	120		
Mover Mass	kg	0.75	0.95	1.155
Mover Length	mm	70.5	100.5	130.5
Mover Bolt Center D	mm	40	70	70
Repositioning Accuracy	Raster Magnetic grid	mm		
		±0.0015		
		±0.0025		
Maximum Carry Weight※1	Kg	3	5	9
Maximum Running Speed※2	m/s	3	4	4
Stroke	One Mover	mm		
	Double Movers	mm		
		≤ 1200		
		≤ 1000		

※1 Maximum carry weight is obtained at a stroke of 1m and a maximum running speed of 1.5m/s, the maximum carry weight can vary depending on the application.

※2 Maximum running speed is related to the choice of encoder, obtained under no-load conditions.

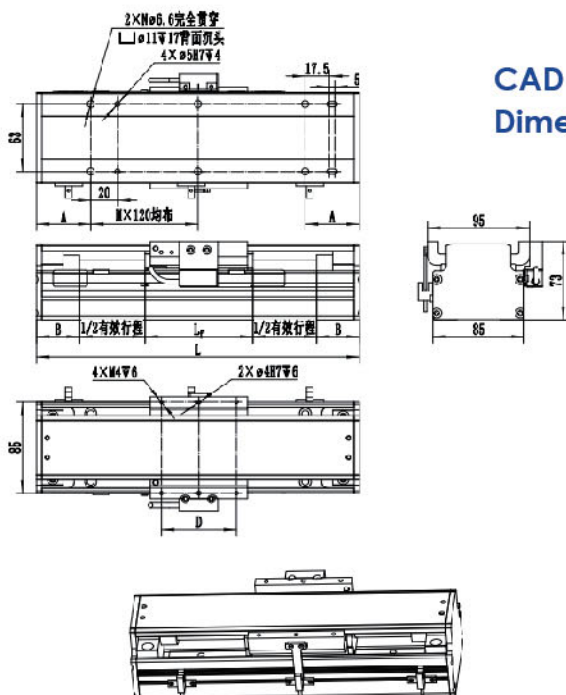


→ Allowable static load inertia is not specified



unit:N.M

Specification		Pitch Torque	Yaw Torque	Roll Torque
LSM85-LM16T	symbol	MY	MP	MR
	Value	100	100	130



CAD Installation Dimension Diagram

*Notes:

1. Non-standard strokes, different thrust requirements, different slider lengths, and dual-mover modules can be customized.
2. Cable carriers and photoelectric limit switches can be customized. The RU2 grating encoder is equipped with built-in origin magnets and left/right limit magnets.

LSM-16DZQ Module Size												
Standard Stroke/mm	S	60	120	180	240	300	360	420	480	540	600	660
Total length/mm	L	211	271	331	391	451	511	571	631	691	751	811
Mounting Hole Pitch/mm	A	45.5	75.5	45.5	75.5	45.5	75.5	45.5	75.5	45.5	75.5	45.5
N/2-1	F	1	1	2	2	3	3	4	4	5	5	6
Number of Mounting Holes	N	2	2	3	3	4	4	5	5	6	6	7
weight/kg	M	1.56	2.39	3.22	4.05	4.88	5.71	6.54	7.37	8.2	9.03	9.86
Limi/mmt	B	40										
LSM-16DZQ Module Size												
Standard Stroke/mm	S	720	780	840	900	960	1020	1080	1140	1200	1260	1320
Total length/mm	L	871	931	1031	1091	1151	1211	1271	1331	1391	1451	1511
Mounting Hole Pitch/mm	A	75.5	45.5	95.5	65.5	95.5	65.5	95.5	65.5	95.5	65.5	95.5
N/2-1	F	6	7	7	8	8	9	9	10	10	11	11
Number of Mounting Holes	N	7	8	8	9	9	10	10	11	11	12	12
weight/kg	M	10.69	11.52	12.47	13.3	14.13	14.96	15.79	16.62	17.45	18.28	19.11
Limi/mmt	B	40		60								
LSM-16TZQ Module Size												
Standard Stroke/mm	S	60	120	180	240	300	360	420	480	540	600	660
Total length/mm	L	241	301	361	421	481	541	601	661	721	781	841
Mounting Hole Pitch/mm	A	60.5	90.5	60.5	90.5	60.5	90.5	60.5	90.5	60.5	90.5	60.5
N/2-1	F	1	1	2	2	3	3	4	4	5	5	6
Number of Mounting Holes	N	2	2	3	3	4	4	5	5	6	6	7
weight/kg	M	2.17	3.01	3.85	4.69	5.53	6.37	7.21	8.05	8.89	9.73	10.57
Limi/mmt	B	40										
LSM-16TZQ Module Size												
Standard Stroke/mm	S	720	780	840	900	960	1020	1080	1140	1200	1260	1320
Total length/mm	L	901	961	1061	1121	1181	1241	1301	1361	1421	1481	1541
Mounting Hole Pitch/mm	A	90.5	60.5	50.5	80.5	50.5	80.5	50.5	80.5	50.5	80.5	50.5
N/2-1	F	6	7	8	8	9	9	10	10	11	11	12
Number of Mounting Holes	N	7	8	9	9	10	10	11	11	12	12	13
weight/kg	M	11.41	12.25	13.21	14.05	14.89	15.73	16.57	17.41	18.25	19.09	19.93
Limi/mmt	B	40		60								
LSM-16QZQ Module Size												
Standard Stroke/mm	S	60	120	180	240	300	360	420	480	540	600	660
Total length/mm	L	271	331	391	451	511	571	631	691	751	811	871
Mounting Hole Pitch/mm	A	75.5	45.5	75.5	45.5	75.5	45.5	75.5	45.5	75.5	45.5	75.5
N/2-1	F	1	1	2	2	3	3	4	4	5	5	6
Number of Mounting Holes	N	2	2	3	3	4	4	5	5	6	6	7
weight/kg	M	2.78	3.63	4.48	5.33	6.18	7.03	7.88	8.73	9.58	10.43	11.28
Limi/mmt	B	40										
LSM-16QZQ Module Size												
Standard Stroke/mm	S	720	780	840	900	960	1020	1080	1140	1200	1260	1320
Total length/mm	L	931	1031	1091	1151	1211	1271	1331	1391	1451	1511	1571
Mounting Hole Pitch/mm	A	45.5	75.5	65.5	95.5	65.5	95.5	65.5	95.5	65.5	95.5	65.5
N/2-1	F	6	7	8	8	9	9	10	10	11	11	12
Number of Mounting Holes	N	7	8	9	9	10	10	11	11	12	12	13
weight/kg	M	12.13	12.98	13.95	14.8	15.65	16.5	17.35	18.2	19.05	19.9	20.75
Limi/mmt	B	40		60								

→ LSM120 High-performance Magnetic Shaft Linear Motor

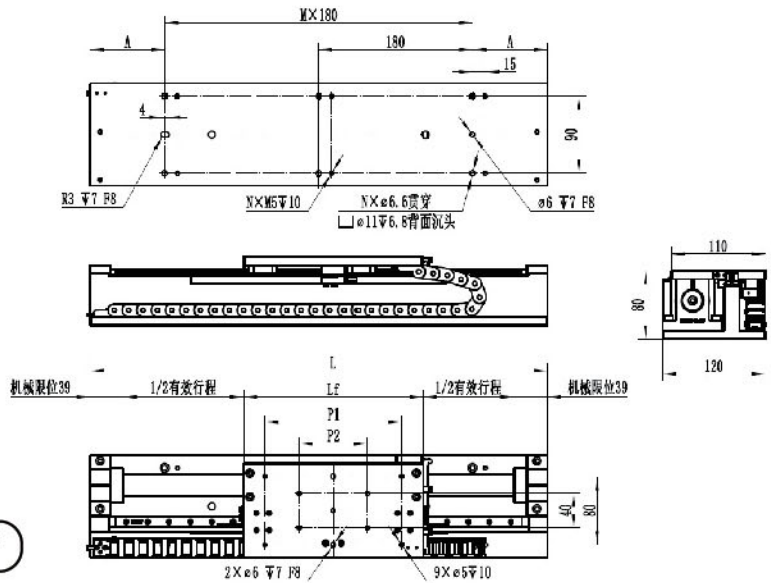
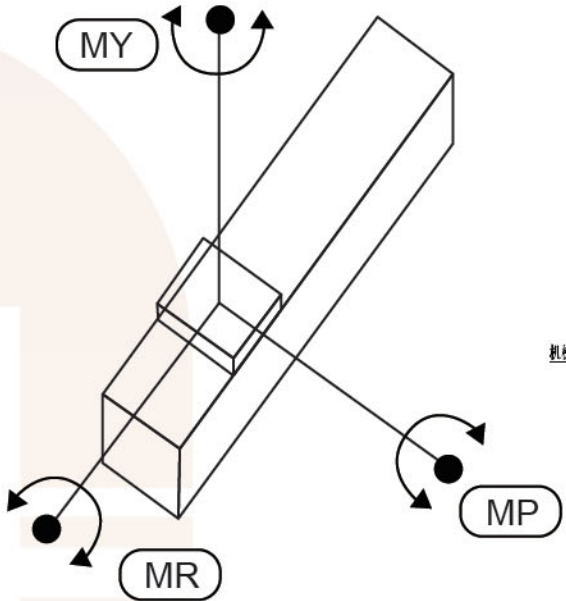
Basic Performance Parameters of LSM120-LM25

Parameter		Unit	LM25D	LM25DZQ	LM25T	LM25TZQ	LM25Q	LM25QZQ
Continuous Thrust		N	45	68	67	102	90	136
Peak Thrust		N	178.6	272	268	408	360	544
Continuous Current		Arms	5					
Peak Current		Arms	20					
Thrust Constant		N/Arms	8.9	13.6	13.4	20.4	17.9	27.2
Back Electromotive Force Constant		Vpeak/(m/s)	14.31	11	10.73	17	14.31	22
Line Resistance (25℃)		Ω	2.25		3.37		4.51	
dq Axis Line Inductance		mH	1.5/1.97	1.5/1.97	2.25/2.956	1.915/2.36	3/3.94	2.545/3.1325
Line Inductance		mH	3.193		4.836		6.212	
Pole Pitch		mm	90					
Coil Heat Resistance		℃	120					
Mover Mass		kg	1.34		1.86		2.3	
Mover Length		mm	120		165		210	
Installation Spacin P ₁		mm	80		120		160	
Installation Spacing P ₂		mm	40		60		80	
Repositioning Accuracy	Raster	mm	±0.0015					
	Magnetic grid		±0.0025					
Maximum Carry Weight※1		Kg	0.5	1.5	1	2	1.56	2.5
Maximum Running Speed※2		m/s	2.2	2.5	2.4	2.8	2.5	3
Stroke	One Mover	mm	≤2000					
	Double Movers		One Mover Stroke≤900					

※1. The maximum transportable weight is achieved at a stroke of 200mm with a triangular wave peak operating speed of 2m/s. Different operating speeds will correspond to varying maximum transport capacities.

※2. The maximum operating speed of 2m/s is obtained under no-load conditions with a 200mm stroke.

→ Allowable static load inertia is not specified



CAD Installation Dimension Diagram

unit:N.M

Specification		Pitch Torque	Yaw Torque	Roll Torque
LSM120-LM25T	symbol	MY	MP	MR
	Value	13.72	13.72	25.48

*Note:Non-standard strokand dual-mover modules can be customized.

LSM120-LM25D Module Size													
Standard Stroke	S	50	100	150	240	330	420	510	600	690	780	870	960
Total length	L	265	310	355	445	535	625	715	805	895	985	1075	1165
Mounting Hole Pitch	A	42.5	65	87.5	42.5	87.5	42.5	87.5	42.5	87.5	42.5	87.5	42.5
Number of Mounting Holes	M	1	1	1	2	2	3	3	4	4	5	5	6
Number of Mounting Holes-1	N	4	4	4	6	6	8	8	10	10	12	12	14
weight	KG	4.6	4.9	5.1	6.1	7	8	9	9.8	10.7	11.6	12.6	13.6
LSM120-LM25T Module Size													
Standard Stroke	S	50	100	150	240	330	420	510	600	690	780	870	960
Total length	L	310	355	400	490	580	670	760	850	940	1030	1120	1210
Mounting Hole Pitch	A	65	87.5	110	65	110	65	110	65	110	65	110	65
Number of Mounting Holes	M	1	1	1	2	2	3	3	4	4	5	5	6
Number of Mounting Holes-1	N	4	4	4	6	6	8	8	10	10	12	12	14
weight	KG	5.3	5.6	6.2	7.1	8	8.95	10	10.8	11.7	12.6	13.5	14.5
LSM120-LM25Q Module Size													
Standard Stroke	S	50	100	150	240	330	420	510	600	690	780	870	960
Total length	L	355	400	445	535	625	715	805	895	985	1075	1165	1255
Mounting Hole Pitch	A	87.5	110	42.5	87.5	42.5	87.5	42.5	87.5	42.5	87.5	42.5	87.5
Number of Mounting Holes	M	1	1	2	2	3	3	4	4	5	5	6	6
Number of Mounting Holes-1	N	4	4	6	6	8	8	10	10	12	12	14	14
weight	KG	6	6.6	7.2	8	9	9.9	10.9	11.8	12.7	13.6	14.4	15.4

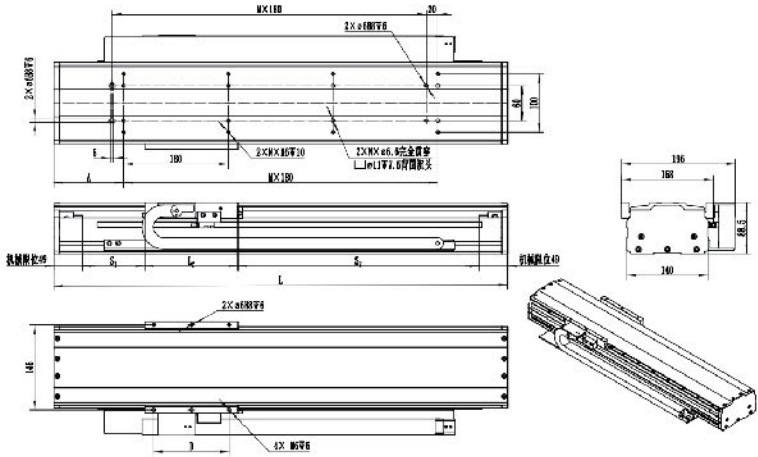
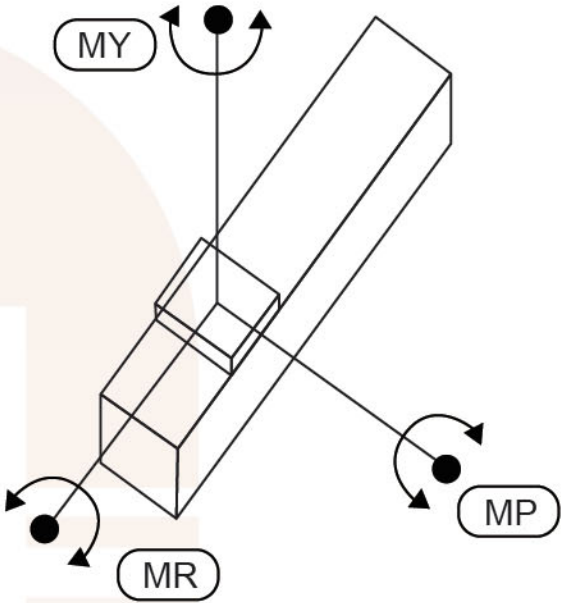
→ LSM140 High-performance Magnetic Shaft Linear Motor

Basic Performance Parameters of LSM140-LM25

Parameter		Unit	LM25D	LM25DZQ	LM25T	LM25TZQ	LM25Q	LM25QZQ
Continuous Thrust		N	45	68	2.4	102	90	136
Peak Thrust		N	178.6	272	160	408	360	544
Continuous Current		Arms	5					
Peak Current		Arms	20					
Thrust Constant		N/Arms	8.9	13.6	13.4	20.4	17.9	27.2
Back Electromotive Force Constant		Vpeak/(m/s)	14.31	11	10.73	17	14.31	22
Line Resistance (25℃)		Ω	2.25		3.37		4.51	
Line Inductance		mH	3.193		4.836		6.212	
Pole Pitch		mm	90					
Coil Heat Resistance		℃	180					
Mover Mass		kg	1.7		1.7		3.1	
Mover Length		mm	115		115		205	
Mover Bolt Center D		mm	85		85		130	
Repositioning Accuracy	Raster	mm	±0.0015					
	Magnetic grid		±0.0025					
Maximum Carry Weight※1		Kg	4	8	8	15	12	20
Maximum Running Speed※2		m/s	1.8	2.5	2	2.6	2.2	2.8
Stroke	One Mover	mm	≤2000					
	Double Movers		One Mover Stroke≤960					

※1 Maximum carry weight is obtained at a stroke of 0.46m and a maximum running speed of 1.8m/s, the maximum carry weight can vary depending on the application.
※2 Maximum running speed is related to the choice of encoder, obtained under no-load conditions.

→ Allowable static load inertia is not specified

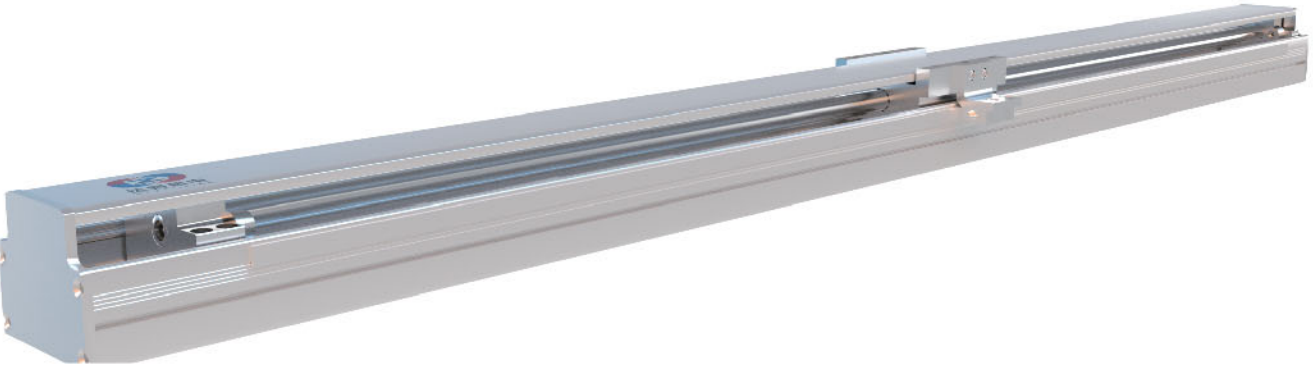


CAD Installation Dimension Diagram

		unit:N.M		
LSM140—LM25T	Specification	Pitch Torque	Yaw Torque	Roll Torque
	symbol	MY	MP	MR
	Value	120	120	140

*Note:Non-standard strokand dual-mover modules can be customized.

LSM140-LM25D Module Size													
Standard Stroke	S	60	150	240	330	420	510	600	690	780	870	960	1050
Total length	L	285	375	465	555	645	735	825	915	1005	1095	1185	1275
Mounting Hole Pitch	A	52.5	97.5	52.5	97.5	52.5	97.5	52.5	97.5	52.5	97.5	52.5	97.5
Number of Mounting Holes	M	1	1	2	2	3	3	4	4	5	5	6	6
Number of Mounting Holes-1	N	2	2	3	3	4	4	5	5	6	6	7	7
weight	KG	6.9	8.33	9.76	11.19	12.62	14.05	15.48	16.91	18.34	19.77	21.2	22.63
LSM140-LM25T Module Size													
Standard Stroke	S	60	150	240	330	420	510	600	690	780	870	960	1050
Total length	L	330	420	510	600	690	780	870	960	1050	1140	1230	1320
Mounting Hole Pitch	A	75	120	75	120	75	120	75	120	75	120	75	120
Number of Mounting Holes	M	1	1	2	2	3	3	4	4	5	5	6	6
Number of Mounting Holes-1	N	2	2	3	3	4	4	5	5	6	6	7	7
weight	KG	8.33	9.76	11.19	12.62	14.05	15.48	16.91	18.34	19.77	21.2	22.63	24.06
LSM140-LM25Q Module Size													
Standard Stroke	S	60	150	240	330	420	510	600	690	780	870	960	1050
Total length	L	375	465	555	645	735	825	915	1005	1095	1185	1275	1365
Mounting Hole Pitch	A	97.5	52.5	97.5	52.5	97.5	52.5	97.5	52.5	97.5	52.5	97.5	52.5
Number of Mounting Holes	M	1	2	2	3	3	4	4	5	5	6	6	7
Number of Mounting Holes-1	N	2	3	3	4	4	5	5	6	6	7	7	8
weight	KG	9.76	11.19	12.62	14.05	15.48	16.91	18.34	19.77	21.2	22.63	24.06	25.5

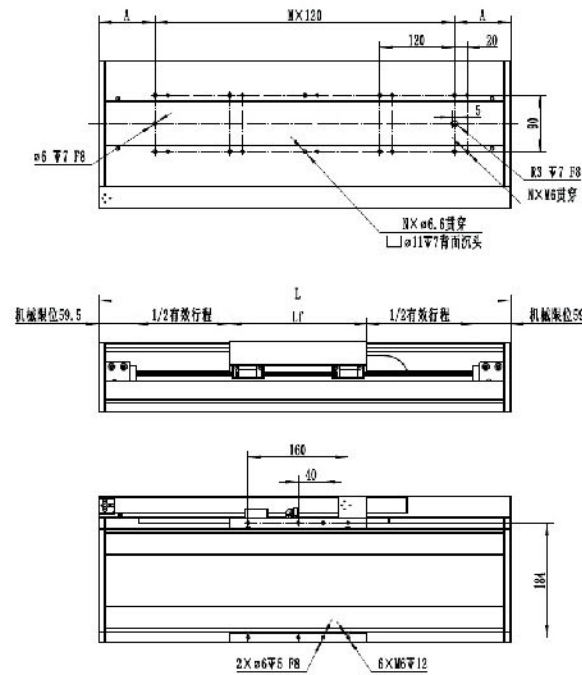


→ LSM200 High-performance Magnetic Shaft Linear Motor

Basic Performance Parameters of LSM200-LM32

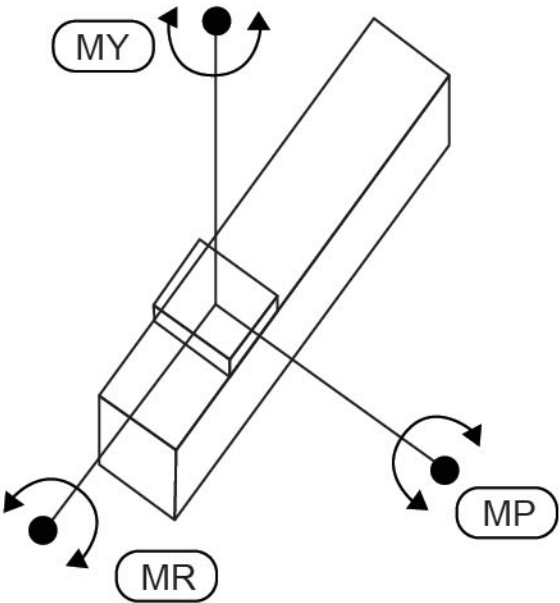
Parameter		Unit	LM32T	LM32TZQ
Continuous Thrust		N	153	207
Peak Thrust		N	612	828
Continuous Current		Arms	5	5
Peak Current		Arms	20	20
Thrust Constant		N/Arms	30	41.4
Back Electromotive Force Constant		Vpeak/(m/s)	24	33.33
Line Resistance (25℃)		Ω	5.3	5.3
dq Axis Line Inductance		mH	9.9	9.9
Pole Pitch		mm	120	120
Coil Heat Resistance		℃	120	120
Mover Mass		kg	5	5
Mover Length		mm	220	220
Repositioning Accuracy	Raster	mm	±0.0015	
	Magnetic grid		±0.0025	
Maximum Carry Weight※1		Kg	10	15
Maximum Running Speed※2		m/s	3.5	4
Stroke	One Mover	mm	≦ 2000	
	Double Movers		≦ 1700	

※1. The maximum transportable weight is achieved at a stroke of 500mm with a triangular wave peak operating speed of 2m/s. Different operating speeds will correspond to varying maximum transport capacities.
※2. The maximum operating speed of 2m/s is obtained under no-load conditions with a 500mm stroke.



CAD Installation Dimension Diagram

→ Allowable static load inertia is not specified



Specification		Pitch Torque	Yaw Torque	Roll Torque
LSM200-LM32T	symbol	MY	MP	MR
	Value	0.06	0.06	0.13

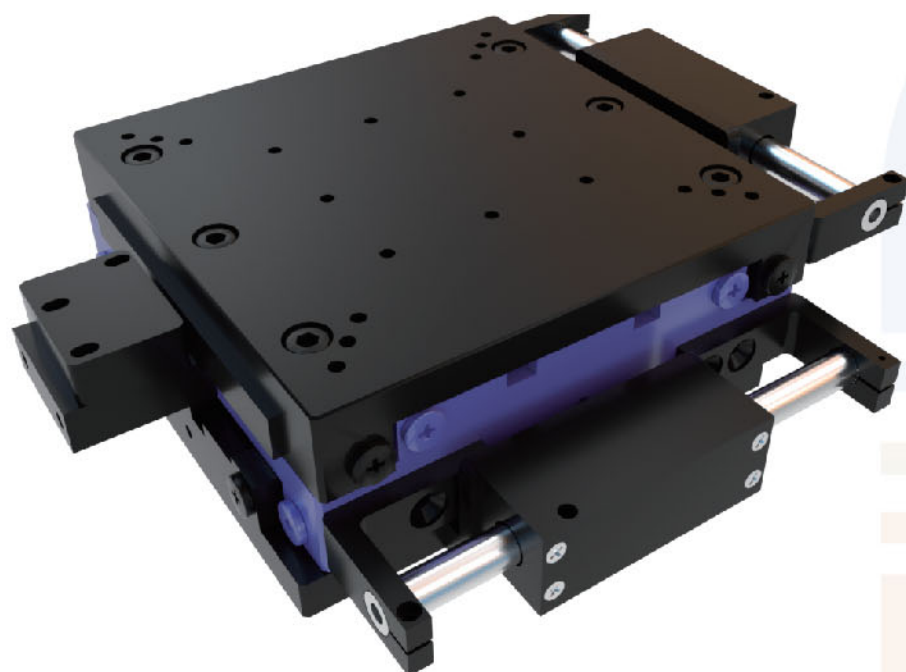
unit:N.M

*Note:Non-standard stroke,LM32D,LM32Q, and dual-mover modules can be customized.

Module Size									
Standard Stroke	S	60	180	300	420	540	660	780	900
Total length	L	420	540	660	780	900	1020	1140	1260
Mounting Hole Pitch	A	90	90	90	90	90	90	90	90
Number of Mounting Holes	M	2	3	4	5	6	7	8	9
Number of Mounting Holes-1	N	6	8	10	12	14	16	18	20
weight	KG	20	23	26	29	32	35	38	41

Part 4

► High-performance X-Y Coordinate Alignment Platform

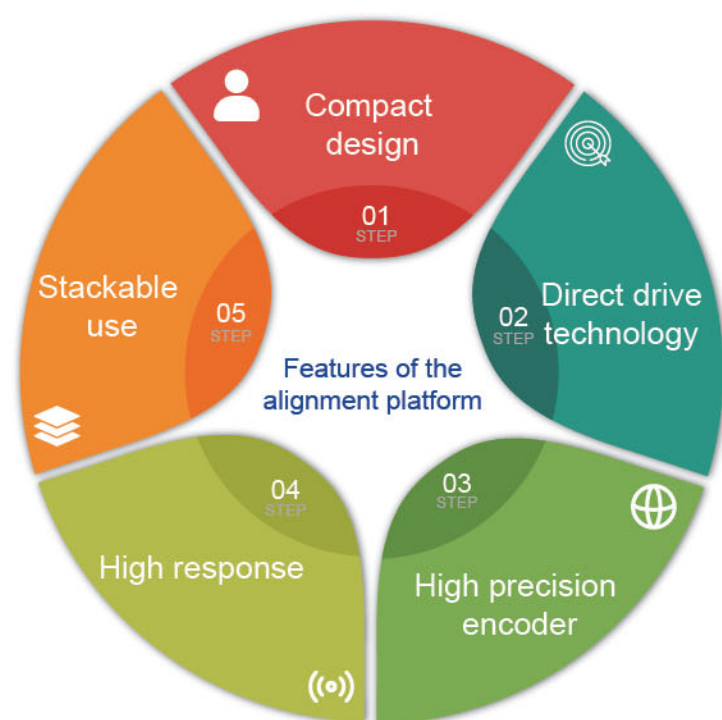


→ LMY12005 of the alignment platform

Basic Performance Parameters of LMY12005

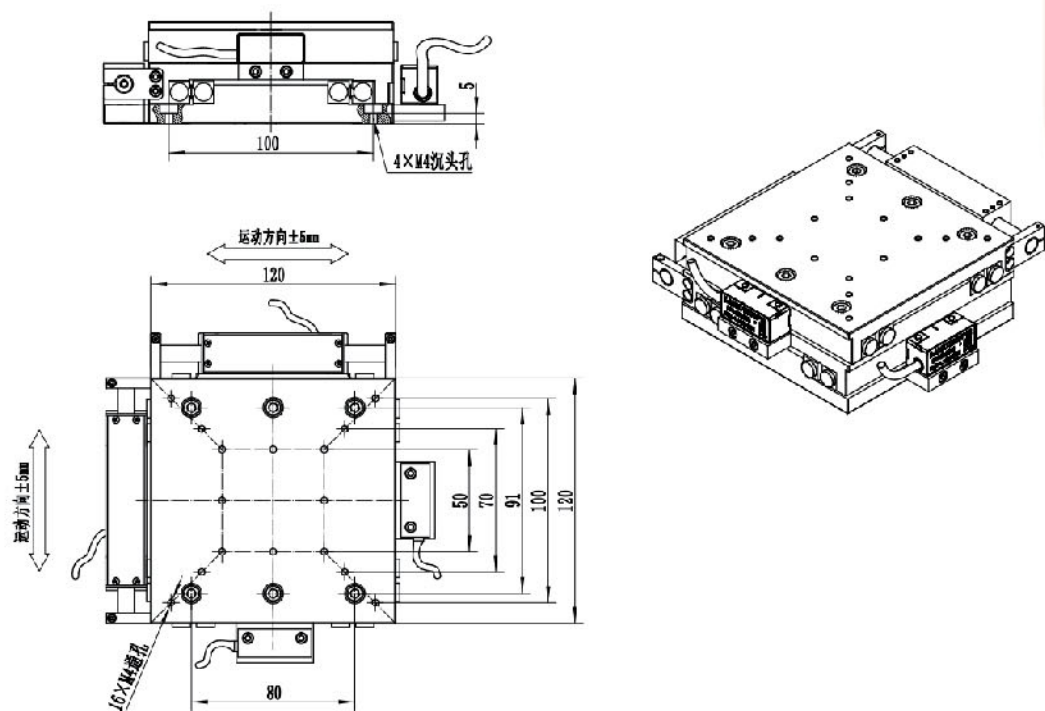
Parameter Specification	Unit	Value
X motor model	LM0820Q	
Y motor model	LM0820L	
X effective stroke	mm	10
Y effective stroke	mm	10
Grating encoder resolution	mm	0.0005
Repositioning Accuracy	mm	0.001
Straightness	mm	±0.003
Flatness	mm	±0.005
Recommended horizontal load※1	kg	2
Maximum horizontal load※1	kg	3
X no-load moving mass	—	Horizontal installation
Y no-load moving mass	kg	2
Total mass	kg	3.1

※1The size of the load is related to the speed of the motor. The faster the speed, the greater the acceleration, and the weaker the load-bearing capacity.



Basic Performance Parameters				
Parameter	Symbol	Unit	LM0820Q	LM0820L
Continuous Thrust	F_c	N	3.33	4.17
Peak Thrust	F_p	N	13.33	16.67
Continuous Current	I_c	Arms	0.6	0.6
Peak Current	I_p	Arms	2.4	2.4
Thrust Constant	K_T	N/Arms	5.56	7.868
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	5.57	7
Line Resistance (25°C)	R_{25}	Ω	19.73	25.94
dq Axis Line Inductance	L_d/L_q	mH	3.592	4.772
Pole Pair Distance	2τ	mm	30	30
Coil Heat Resistance	T_{max}	°C	120	120

CAD Installation Dimension Diagram



→ LMY12025 of the alignment platform

Basic Performance Parameters of LMY12025

Parameter	Symbol	Unit
X motor model	LM0820Q	
Y motor model	LM0820L	
X effective stroke	mm	50
Y effective stroke	mm	50
Grating encoder resolution	mm	0.001
Repositioning Accuracy	Raster	mm
	Magnetic grid	mm
Straightness	mm	±0.003
Flatness	mm	±0.005
Recommended horizontal load※1	kg	0.5
Maximum horizontal load※1	kg	2
X no-load moving mass	—	Horizontal installation
Y no-load moving mass	kg	1.76
Total mass	kg	2.65

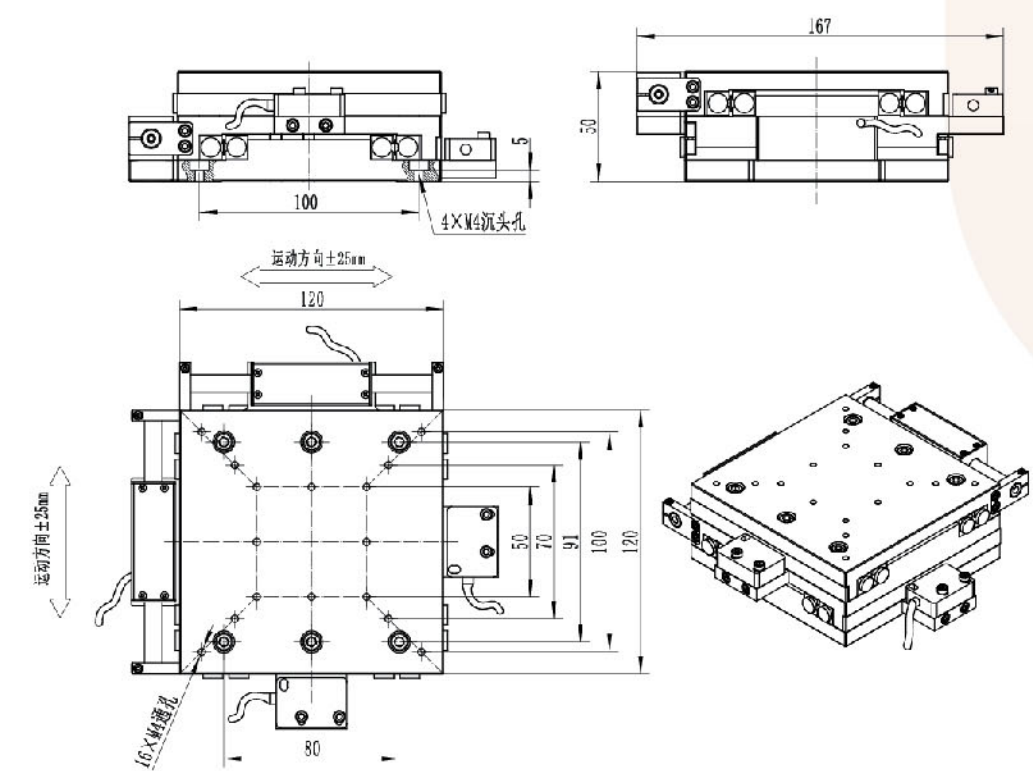
※1 The size of the load is related to the motor's movement speed. The faster the speed and the greater the acceleration, the weaker the load-bearing capacity.

※2 Non-standard strokes, as well as models LM0820D, LM0820Q, and LM0820L, can be customized.

※3 The encoder type and resolution can be matched according to the user's requirements, with a minimum achievable resolution of 10 nm.

Basic Performance Parameters			
Parameter	Symbol	Unit	LM0820T
Continuous Thrust	F_c	N	2.5
Peak Thrust	F_p	N	10
Continuous Current	I_c	Arms	0.6
Peak Current	I_p	Arms	2.4
Thrust Constant	K_f	N/Arms	5.56
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	4.18
Line Resistance (25°C)	R_{25}	Ω	14.8
dq Axis Line Inductance	L	mH	2.696
Pole Pair Distance	2τ	mm	30
Coil Heat Resistance	T_{max}	°C	120

CAD Installation Dimension Diagram



→ LMY24050 of the alignment platform

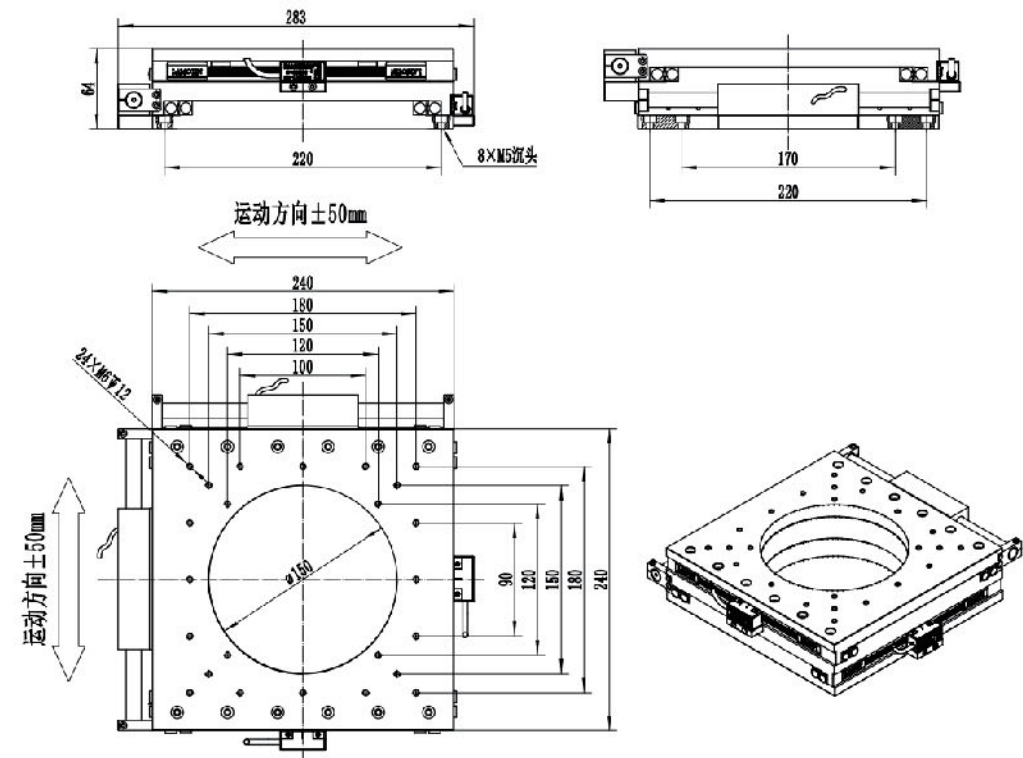
Basic Performance Parameters of LMY24050

Parameter Specification	Unit	Value
X motor model	LM1225TZQ	
Y motor model	LM1225QZQ	
X effective stroke	mm	100
Y effective stroke	mm	100
Grating encoder resolution	mm	0.0005
Repositioning Accuracy	mm	±0.0015
Straightness	mm	±0.003
Flatness	mm	±0.005
Recommended horizontal load※1	kg	2
Maximum horizontal load※1	kg	5
installation	—	Horizontal installation
X no-load moving mass	kg	2.6
Y no-load moving mass	kg	7.1
Total mass	kg	10.5

※1. The magnitude of the load is related to the motor's running speed. The faster the speed and the greater the acceleration, the weaker the load - carrying capacity.
※2. For a 2 - kg load on the XY - axis, it is recommended that the maximum running speed of the triangular wave does not exceed 400 mm/s.

Basic Performance Parameters				
Parameter	Symbol	Unit	LM1225TZQ	LM1225QZQ
Continuous Thrust	F_c	N	11.7	15.6
Peak Thrust	F_p	N	46.8	62.4
Continuous Current	I_c	Arms	1	1
Peak Current	I_p	Arms	4	4
Thrust Constant	K_f	N/Arms	11.7	15.6
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	9.4	12.5
Line Resistance (25°C)	R_{25}	Ω	10	13.33
dq Axis Line Inductance	L_d/L_q	mH	3.25	4.25
Pole Pair Distance	2τ	mm	48	48
Coil Heat Resistance	T_{max}	°C	120	120

CAD Installation Dimension Diagram



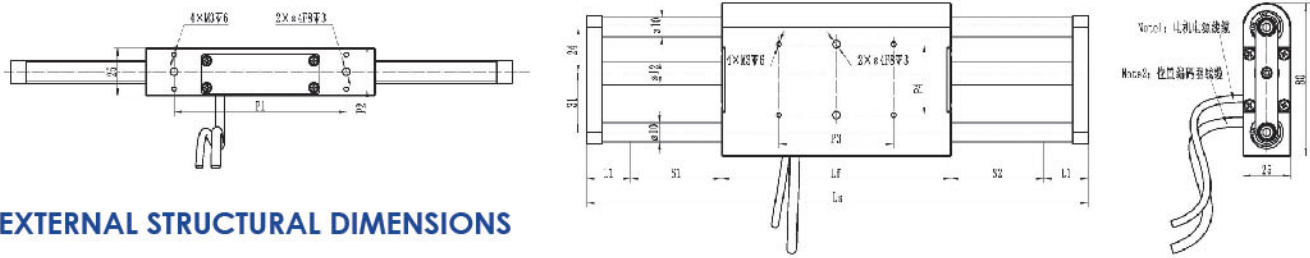
Part 5

► High-performance Axial Motion Module

→ SLM1225QI Series

electrical machinery Performance Parameters			
Parameter	Symbol	Unit	SLM1225QI
Electrical Performance Parameters			
Continuous Thrust	F_c	N	15.6
Peak Thrust	F_p	N	62.5
Continuous Current	I_c	Arms	1
Peak Current	I_p	Arms	4
Thrust Constant	K_f	N/Arms	15.6
Back EMF Constant (Line-to-Line)	K_e	Vpeak/(m/s)	12.5
Line Resistance (25°C)	R_{25}	Ω	13.33
dq Axis Line Inductance	L	mH	4.25
Pole Pair Distance	2τ	mm	48
Coil Heat Resistance	T_{max}	°C	120
Mechanical Performance Parameters and Installation Dimensions			
Primary Quality	M_f	Kg	0.65
Magnetic Shaft Quality	M_s	Kg/m	0.83
Primary Length	L_f	mm	120
Primary Dimensions	$A \times B$	mm	25×80
Primary Bore Diameter	D_1	mm	12
Mounting Spacing	P_1	mm	90
Mounting Spacing	P_2	mm	18
Mounting Spacing	P_3	mm	60
Mounting Spacing	P_4	mm	37
Standard Stroke	$S=S_1+S_2$	mm	≤500 (Pitch 24)
Magnetic Shaft Length	L_s	mm	$L_s=S+2 \times L_1+L_f$

- ※1.The line resistance (at 25 ° C) is the resistance value with a 1-meter power cable.
- ※2.When the sum of S1 and S2 is not a multiple of 24, it should be supplemented to a multiple of 24.



Part 6

▶ Linear Motor with Integrated Drive and Control

→ LMG1630 Series

electrical machinery Performance Parameters					
Parameter	Symbol	Unit	LMG1630DI	LMG1630TI	LMG1630QI
Electrical Performance Parameters					
Rated Thrust	F_c	N	15	23	31
Rated Current	I_c	Arms	1.3	1.3	1.3
Rated Voltage	V_n	V	12~60	12~60	12~60
Motor Temperature Resistance	Tmax	℃	120		
Mechanical Performance Parameters and Installation Dimensions					
Primary mass	M_f	g	382	473	563
Magnetic shaft mass	M_s	Kg/m		1.33	
Primary length	L_f	mm	105	135	165
Primary overall dimensions	AxB	mm		30x48	
Primary aperture diameter	D_1	mm		16	
Mounting spacing	P_2	mm		16	
Mounting spacing	P_1	mm	77	107	137
Standard stroke	$S=S_1+S_2$	mm	<=500（Pitch 30）		
Magnetic shaft length	L_s	mm	$L_s=S+29+L_f$		

The stroke increases in multiples of 60. When it is not a multiple of 60, it should be supplemented to a multiple of 60.

