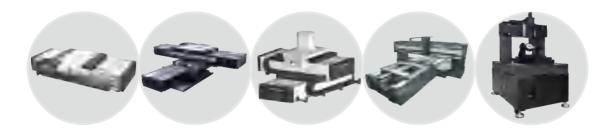
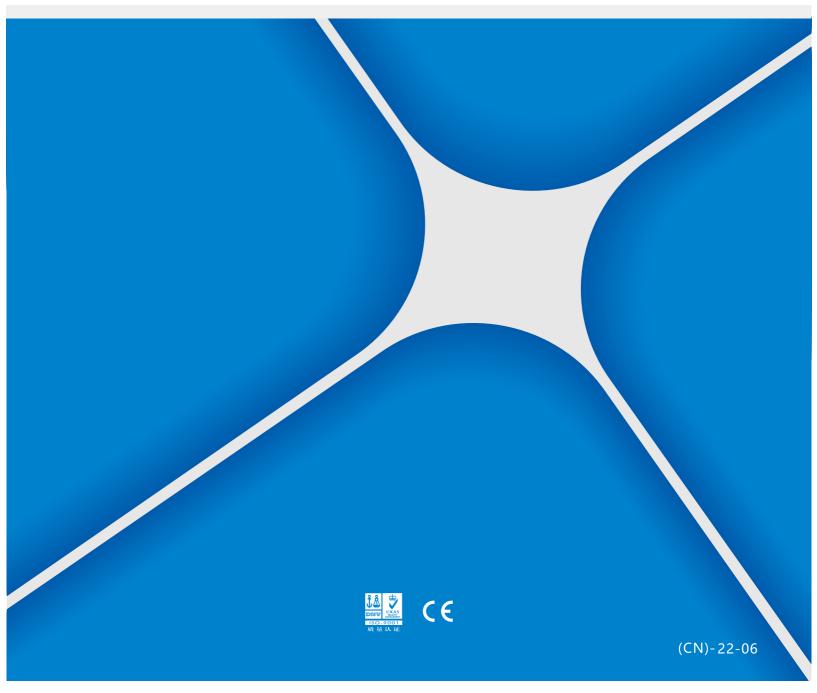
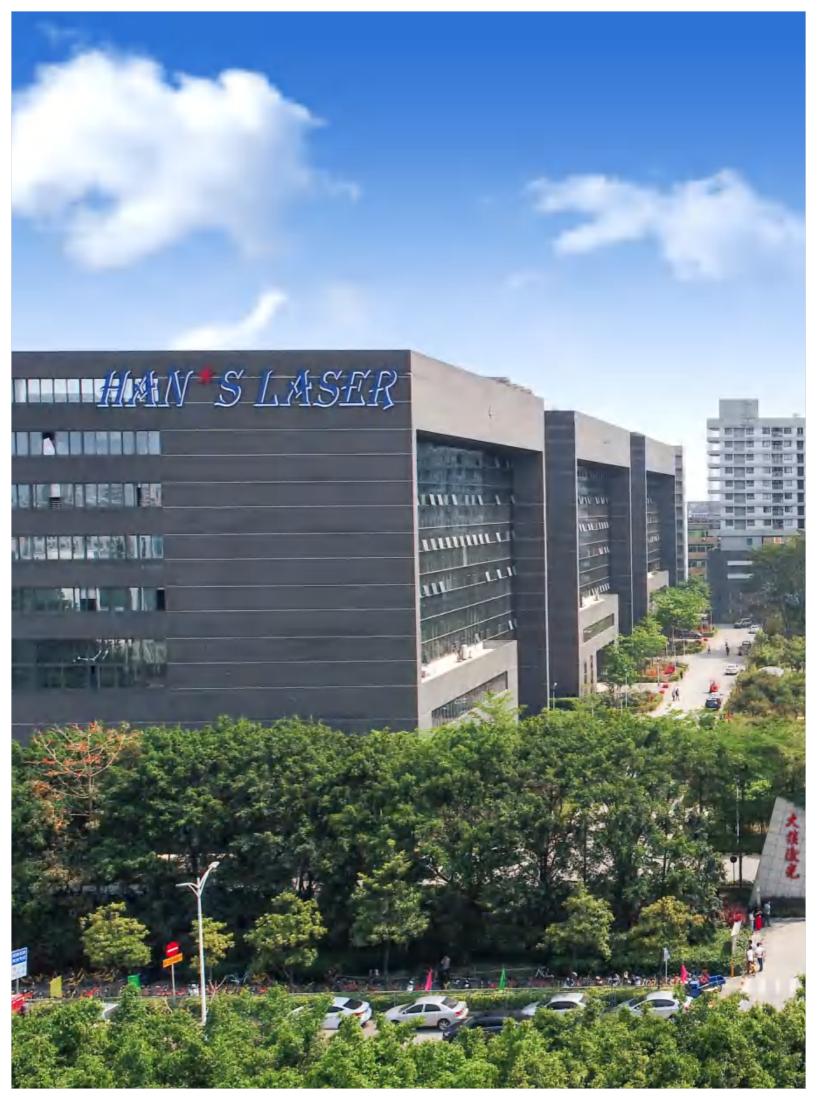


Professional Supplier of Direct-drive Motor

Han's Motor-Direct Drive To The World(Stages)





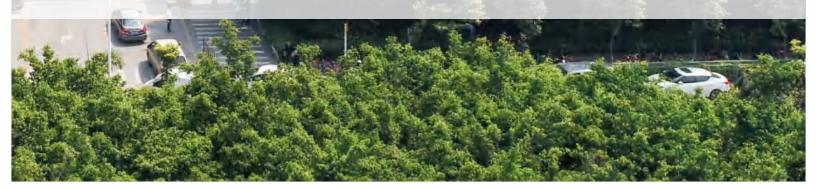




Shenzhen Han's Motor S&T Co.,Ltd was established in 2005, It's a subsidiary of Han's Laser (Stock Code: 002008), Han's laser is a public company which has now became the flagship of Chinese national laser industry and the world's famous laser equipment manufacturer.

Han's Motor focus on linear motors, torque motors, motor modules, motion stages, AC servo systems, variable frequency drives, and so on. Which has specialized in direct drive system in the domestic research, development, promotion, application for 16 years.

Han's Motor has also shared the global marketing system of Han's Group. As of today, Han's Laser market value reaches more than 6 Billion USD.





Company Introduction



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Stage [Industrial robot]

Hans Integrated linear motor industrial robot

(Introduction to accurate linear positioning)

Linear motor stage is a workbech that mainly can achieve accurate movement in X,Y,Z, θ direction, with its rapid response, accurate positioning and high reliability. It is widely applied in high-speed automation equipment, mechanical arm, optical contrast, positioning detection precision measuring system, electronics and semiconductor processing equipment (semiconductor wafer cutting, solid crystal machine and bonding machine), laser processing equipment (laser marking, laser cutting, laser engraving, laser holing, laser marking) and so on.

Linear motor stages included ironless motor, iron core motor and tube motor stages, base width have 135mm, 150mm, 170mm, 210mm, 230mm, 260mm

Standard stages provide the following effective strokes: 100mm, 200mm, 300mm, 400mm, 500mm, 600mm, 700mm, 800mm, 900mm, 1100mm, 1200mm

HAN'S Motor relies on mature motor design and application technology, introduces professional technology, talents and equipment, focuses on the development of high-precision linear motor stage. Stage products and application technology developed rapidly, has become one of the main products of company.

Linear motor stages with the following characteristics:

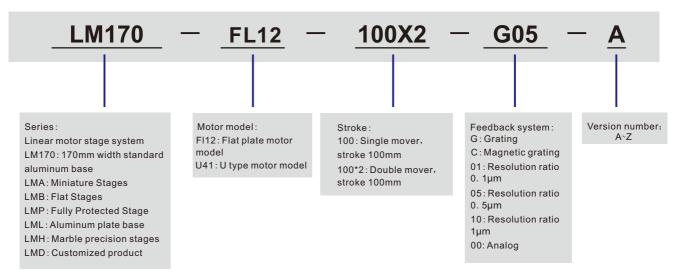
- > Driven by linear motor
- Grating positioning or magnetic grating positioning
- ➤ High stability, high reliability, high response speed
- > High precision, high acceleration, high moving speed
- Mover and stator runs without contact, no backlash error
- > Smooth movement, no wear, little maintenance, long service life
- > Compact modular design, easy to expand, long service life
- Duickly assemble to mechanical arm, XY cross stages and gantry stages
- > Allows multiple independent movers on one axis
- Long stroke, the maximum stroke reaches more than 4m
- The maximum moving speed is more than 5m, greatly improve production efficiency.
- Integrated linear stages actuators eliminate separate connection mechanisms, belts, gears and associated assembly work
- > Homing hardware operation and software process limits can eliminate tedious external limit switches



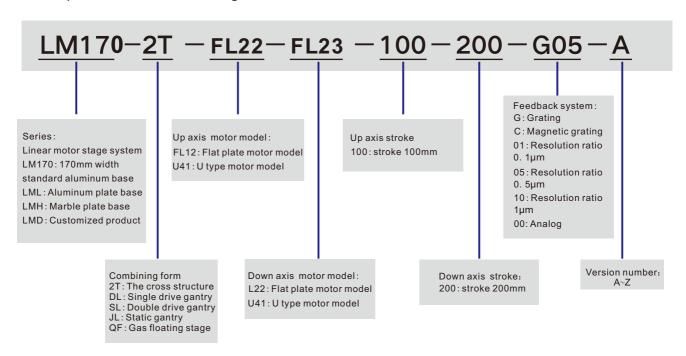




Example of single axis stage selection:



Example of customized stage selection:



LMA Series Miniature Stages

- > Adopts an open structure, which is convenient for disassembly and maintenance;
- ➤ Built-in grating or magnetic grating feedback system, the resolution is 0.1um, 0.5um, 1um, 5um for optional;
- ➤ Adopt moving magnet flat linear motor;
- ➤ Repeat accuracy up to ±1um;
- ➤ Small size and simple structure, which is suitable for light load and high precision occasions;
- ➤ Quickly assemble to XY cross stages;



Linear motor stage selection

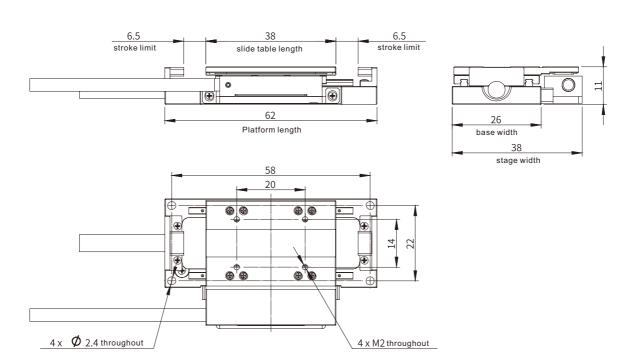
LMA38-10-<u></u>-A

Feedback system:

G01: Grating feedback Resolution ratio 0. $1\mu m$

G05: Grating feedback Resolution ratio 0. 5µm

> Stage appearance and installation size



Motor Parameters		
	Unit	Data
Continuous Force (Tmax)	N	0.6
Peak Force	N	3
Motor Constant	N√W	0.5
Max.Continuous Power Dissipation	W	1.42
Continuous Current (Tmax)	Arms	0.15
Peak Current (1S)	Arms	0.8
Force Constant (25°C, ±5%)	N/Arms	4
Back EMF Constant (25°C, ±5%)	Vrms/m/s	1.3
Electrical Resistance(25°C, ±5%)P-P	Ω	30
Inductance(25°C, ±20%)P-P	um	0.25
Max Coil Temperature	℃	120
Polar Distance (N-N) (360°C Electrical cycle)	mm	24
Magnetic Attraction	N	11

Note (1): According to the natural load, the maximum aread maybe connect be reached
Note (1): According to the actual load, the maximum speed maybe cannot be reached,
so the specific speed should be communicated with the engineer

Stage Parameters		
	Unit	Data
Max. Load	kg	1
Effective Stroke	mm	10
Resolution	um	0.1
Max.Speed(1)	mm/s	200
Repeat accuracy	um	±0.5
Weight	kg	0.1
"Working environment temperature and humidity"	0~40℃、20~80%RH	



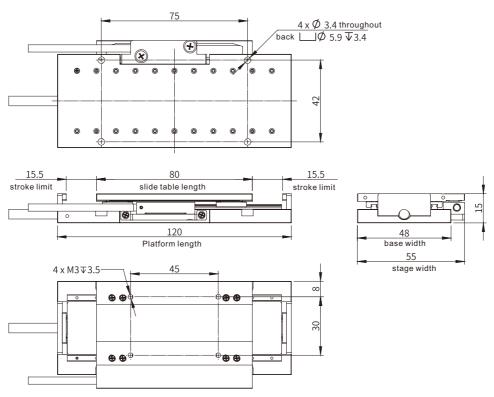
LMA55-25-

Feedback system: G01: Grating feedback Resolution ratio 0. 1µm

G05: Grating feedback Resolution ratio 0.5µm



> Stage appearance and installation size



➤ Motor Model/Parameter

Motor Parameters		
	Unit	Data
Continuous Force (Tmax)	N	6.5
Peak Force	N	26
Motor Constant	N√W	1.65
Max.Continuous Power Dissipation	W	15.46
Continuous Current (Tmax)	Arms	0.8
Peak Current (1S)	Arms	3.2
Force Constant (25°C, ±5%)	N/Arms	8.1
Back EMF Constant (25°C, ±5%)	Vrms/m/s	2.7
Electrical Resistance(25°C, ±5%)P-P	Ω	11.5
Inductance(25°C, ±20%)P-P	um	0.31
Max Coil Temperature	°C	120
Polar Distance (N-N) (360°C Electrical cycle)	mm	36
Magnetic Attraction	N	51

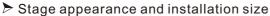
Stage Parameters		
	Unit	Data
Max. Load	kg	2.5
Effective Stroke	mm	25
Resolution	um	0.1
Max.Speed(1)	mm/s	300
Repeat accuracy	um	±0.5
Weight	kg	0.35
"Working environment temperature and humidity"	0~40°C、20~80%RH	

Linear motor stage selection:

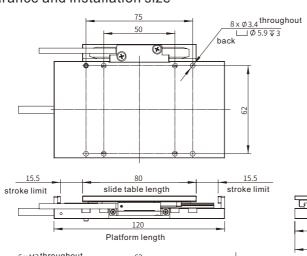
LMA80-25-

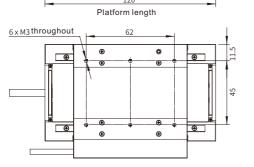
Feedback system: G01: Grating feedback Resolution ratio 0. 1µm

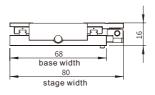
G05: Grating feedback Resolution ratio 0.5µm











Motor Parameters		
	Unit	Data
Continuous Force (Tmax)	N	8
Peak Force	N	32
Motor Constant	N√W	1.74
Max.Continuous Power Dissipation	W	21.10
Continuous Current (Tmax)	Arms	0.8
Peak Current (1S)	Arms	3.2
Force Constant (25°C, ±5%)	N/A	10.0
Back EMF Constant (25°C, ±5%)	V/m/s	3.3
Electrical Resistance(25°C, ±5%)P-P	Ω	15.7
Inductance(25°C, ±20%)P-P	um	0.43
Max Coil Temperature	°C	120
Polar Distance (N-N) (360°C Electrical cycle)	mm	36
Magnetic Attraction	N	84
Stator Mass (glue+solder-covered wire)	kg	0.14
Mover Mass (magnetic)	kg/M	0.9

Note (1): According to the actual load, the maximum speed maybe cannot be reached,
so the specific speed should be communicated with the engineer

Stage Parameters		
	Unit	Data
Max. Load	kg	3.5
Effective Stroke	mm	25
Resolution	um	0.1
Max.Speed(1)	mm/s	700
Repeat accuracy	um	±0.5
Weight	kg	0. 5
"Working environment temperature and humidity"	0~40℃、20~80%RH	

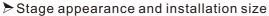
Linear motor stage selection:

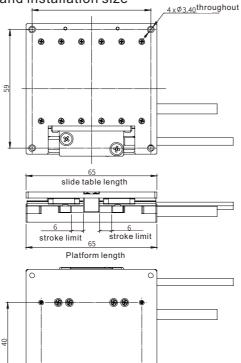
LMA65-10-<u></u>-A

ratio 0. 1µm

Feedback system: G01: Grating feedback Resolution

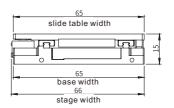
G05: Grating feedback Resolution ratio 0. 5µm





4 x M3 throughout





Motor Parameters			
	Unit	Data	
Continuous Force (Tmax)	N	3.5	
Peak Force	N	24.5	
Motor Constant	N√W	1.82	
Max.Continuous Power Dissipation	W	3.68	
Continuous Current (Tmax)	Arms	0.6	
Peak Current (1S)	Arms	4.2	
Force Constant (25°C, ±5%)	N/Arms	5.8	
Back EMF Constant (25°C, ±5%)	Vrms/m/s	1.9	
Electrical Resistance(25°C, ±5%)P-P	Ω	4.87	
Inductance(25°C, ±20%)P-P	um	0.1	
Max Coil Temperature	℃	120	
Polar Distance (N-N) (360°C Electrical cycle)	mm	36	
Magnetic Attraction	N	67	

Note (1): According to the actual load, the maximum speed maybe cannot be reached,
so the specific speed should be communicated with the engineer

Stage Parameters			
	Unit	Data	
Max. Load	kg	2.4	
Effective Stroke	mm	10	
Resolution	um	0.1	
Max.Speed(1)	mm/s	270	
Repeat accuracy	um	±0.5	
Weight	kg	0. 25	
"Working environment temperature and humidity"	0~40°C、20~80%RH		

Linear motor stage selection:

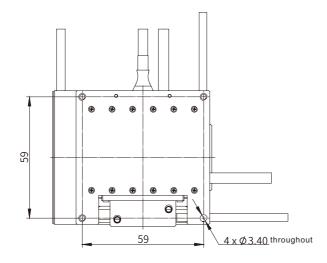
LMA65-10-10-T-

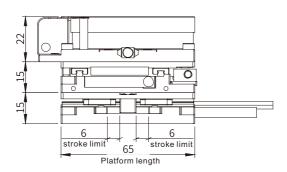
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Feedback system: G01: Grating feedback Resolution ratio 0. 1µm

G05: Grating feedback Resolution ratio 0. 5µm

➤ Stage appearance and installation size

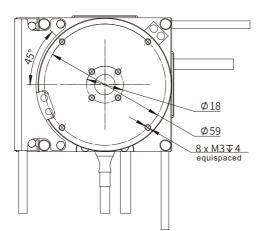




(52)

65

stage width







➤ Motor Model/Parameter

Data Performance Parameter	Unit	Data	
X-axis (Lower axis)			
Continuous Force (Tmax)	N	3.5	
Peak Force	N	24.5	
Continuous Current (Tmax)	Arms	0.6	
Peak Current (1S)	Arms	4.2	
Max. Load	kg	2.4	
Effective Stroke	mm	10	
Resolution	um	0.1	
Max.Speed(1)	mm/s	270	
Repeat accuracy	um	±0.5	
	Y-axis (Lower axis)		
Continuous Force (Tmax)	N	3.5	
Peak Force	N	24.5	
Continuous Current (Tmax)	Arms	0.6	
Peak Current (1S)	Arms	4.2	
Max. Load	kg	2.4	
Effective Stroke	mm	10	
Resolution	um	0.1	
Max.Speed(1)	mm/s	270	
Repeat accuracy	um	±0.5	
	T-axis (Rotation axis)		
Continuous Force (25°C,±5%)	Nm	0.062	
Peak Force	Nm	0.46	
Continuous Current (Tmax)	Arms	0.6	
Peak Current (1S)	Arms	4.5	
Max. Load	kg	/	
Max.Rotation Speed	Rpm	120	
Repeat accuracy	arc sec	±2	
Weight	kg	1	
Working environment temperature and humidity	0~40°C、20~80%RH		

Linear motor stage selection:

LMA120-25-

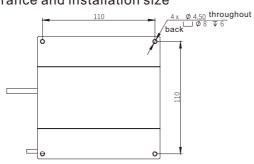
Feedback system:

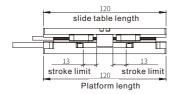
G01: Grating feedback Resolution

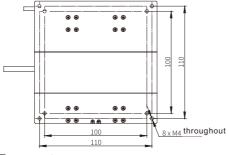
ratio 0. 1µm

G05: Grating feedback Resolution ratio 0.5 µm

➤ Stage appearance and installation size







slide table width 120 base width 120 stage width

Motor Parameters			
	Unit	Data	
Continuous Force (Tmax)	N	17	
Peak Force	N	85	
Motor Constant	N√W	4.77	
Max.Continuous Power Dissipation	W	12.71	
Continuous Current (Tmax)	Arms	0.5	
Peak Current (1S)	Arms	2.5	
Force Constant (25°C, ±5%)	N/Arms	34	
Back EMF Constant (25°C, ±5%)	Vrms/m/s	11.3	
Electrical Resistance(25°C, ±5%)P-P	Ω	24.2	
Inductance(25°C, ±20%)P-P	um	0.72	
Max Coil Temperature	°C	120	
Polar Distance (N-N) (360°C Electrical cycle)	mm	40	
Magnetic Attraction	N	300	

Note (1): According to the actual load, the maximum speed maybe cannot be reached,
Note (1). According to the actual load, the maximum speed maybe calliot be reactied,
so the specific speed should be communicated with the engineer

Stage Parameters			
	Unit	Data	
Max. Load	kg	4	
Effective Stroke	mm	25	
Resolution	um	0.1	
Max.Speed(1)	mm/s	700	
Repeat accuracy	um	±0.5	
Weight	kg	1.7	
"Working environment temperature and humidity"	0~40℃、20~80%RH		

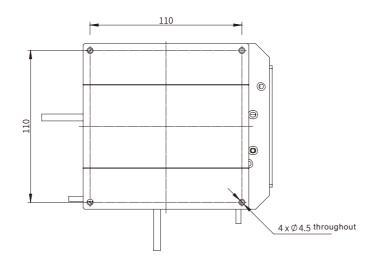
Linear motor stage selection:

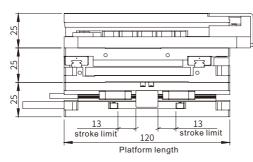
LMA120-25-25-T-

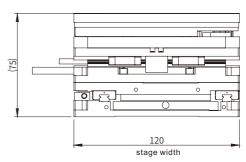
Feedback system: G01: Grating feedback Resolution ratio 0. 1µm

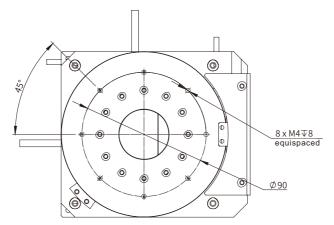
G05: Grating feedback Resolution ratio 0. $5\mu m$

➤ Stage appearance and installation size













► Stage appearance and installation size

Data	Unit	Data
Performance Parameter	V . (1	
	X-axis (Lower axis)	
Continuous Force (Tmax)	N	17
Peak Force	N	85
Continuous Current (Tmax)	Arms	0.5
Peak Current (1S)	Arms	2.5
Max. Load	kg	4
Effective Stroke	mm	25
Resolution	um	0.1
Max.Speed(1)	mm/s	700
Repeat accuracy	um	±0.5
	Y-axis (Lower axis)	
Continuous Force (Tmax)	N	17
Peak Force	N	85
Continuous Current (Tmax)	Arms	0.5
Peak Current (1S)	Arms	2.5
Max. Load	kg	4
Effective Stroke	mm	25
Resolution	um	0.1
Max.Speed(1)	mm/s	700
Repeat accuracy	um	±0.5
	T-axis (Rotation axis)	
Continuous Force (25°C,±5%)	Nm	0.4
Peak Force	Nm	1.2
Continuous Current (Tmax)	Arms	1.3
Peak Current (1S)	Arms	3.9
Max. Load	kg	/
Max.Rotation Speed(1)	Rpm	120
Repeat accuracy	arc sec	±2
Weight	kg	5.5
Working environment temperature and humidity	0~40℃、2	0~80%RH

Linear motor stage selection:

LMA200-20-

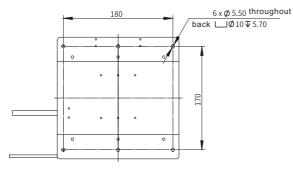
Feedback system:

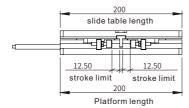
G01: Grating feedback Resolution

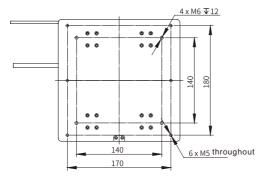
ratio 0. 1µm

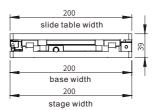
G05: Grating feedback Resolution ratio 0. $5\mu m$

➤ Stage appearance and installation size









➤ Motor Model/Parameter

Motor Parameters		
	Unit	Data
Continuous Force (Tmax)	N	45
Peak Force	N	180
Max.Continuous Power Dissipation	W	91.3
Continuous Current (Tmax)	Arms	2.1
Peak Current (1S)	Arms	8.2
Force Constant (25°C, ±5%)	N/A	22
Electrical Resistance(25°C, ±5%)P-P	Ω	5
Inductance(25°C, ±20%)P-P	um	6.45
Max Coil Temperature	°C	120
Polar Distance (N-N) (360°C Electrical cycle)	mm	42
Magnetic Attraction	N	258

	01111	Data
Max. Load	kg	5
Effective Stroke	mm	20
Resolution	um	0.1
Max.Speed(1)	mm/s	400
Repeat accuracy	um	±0.5
Weight	kg	5
"Working environment temperature and humidity"	0~40°C、20~80%RH	

Stage Parameters

LMA200-20-20-T-

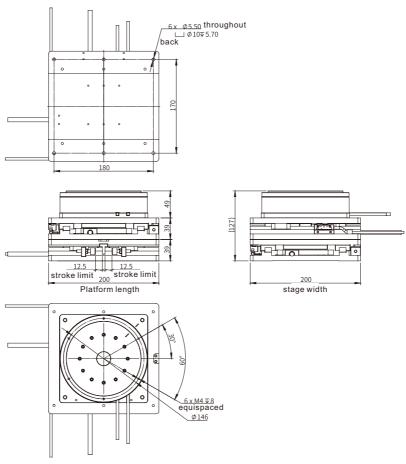
Feedback system:

G01: Grating feedback Resolution

ratio 0. 1µm

G05: Grating feedback Resolution ratio 0. 5µm

➤ Stage appearance and installation size



Performance Parameter	Unit	Data
X-axis(Low	er axis)	
Continuous Force (Tmax)	N	45
Peak Force	N	180
Continuous Current (Tmax)	Arms	2.1
Peak Current (1S)	Arms	8.2
Max. Load	kg	5
Effective Stroke	mm	20
Resolution	um	0.1
Max.Speed(1)	mm/s	700
Repeat accuracy	um	±0.5

Performance Parameter	Unit	Data
Y-axis(Lov	ver axis)	
Continuous Force (Tmax)	N	45
Peak Force	N	180
Continuous Current (Tmax)	Arms	2.1
Peak Current (1S)	Arms	8.2
Max. Load	kg	5
Effective Stroke	mm	20
Resolution	um	0.1
Max.Speed(1)	mm/s	700
Repeat accuracy	um	±0.5

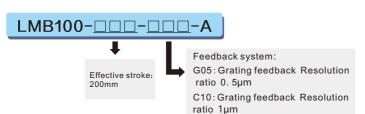
Performance Parameter	Unit	Data		
T-axis(Rotation	on axis)			
Continuous Force (25°C,±5%)	Nm	1		
Peak torque	Nm	3		
Continuous Current (Tmax)	Arms	2.5		
Peak Current (1S)	Arms	7.5		
Max. Load	kg	1		
Max.Rotation Speed	Rpm	250		
Repeat accuracy	arc sec	±2		
Weight	kg	9		
"Working environment temperature and humidity"	0~40°C、20~80%RH			

LMB Series Flat Stages

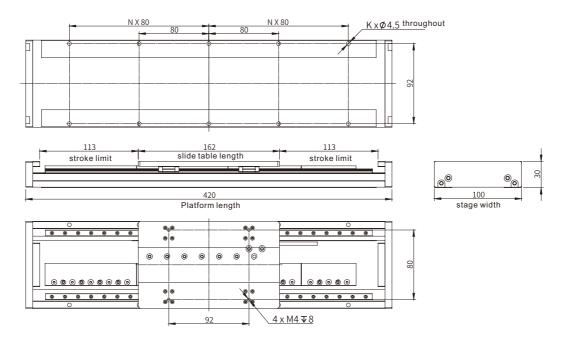
- Adopts an open structure, which is convenient for disassembly and maintenance;
- ▶ Built-in grating or magnetic grating feedback system, the resolution is 0.1um, 0.5um, 1um, 5um for optional;
- Repeat accuracy up to ±1um;Small size and simple structure, which is suitable for
- ▶ light load and high precision occasions;
- Quickly assemble to XY cross stages;



Linear motor stage selection:



> Stage appearance and installation size



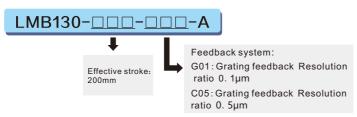
➤ Motor Model/Parameter

Performance Parameter	Unit	Data		
Continuous Force (Tmax)	N	15		
Peak Force	N	150		
Max. Load	kg	5		
Effective Stroke	mm	200		
Resolution	μm	0.1		
Max.Speed(1)	mm/s	700		
Repeat accuracy	μm	±0.6		
Weight	kg	3.5		
"Working environment temperature and humidity"	0~40°C、2	0~80%RH		

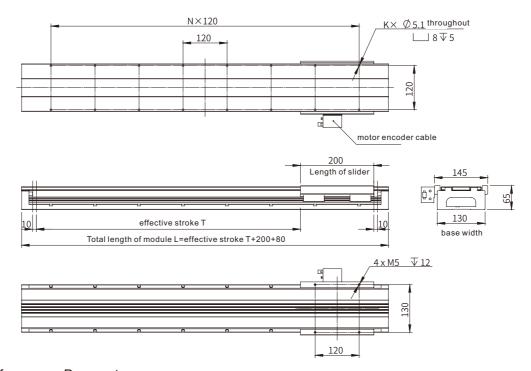
➤ Stage Performance Paramater

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	6	10	14	14	18	18	22	26	26	30	34	34
N	1	2	3	3	4	4	5	6	6	7	8	8
Stage Total Length (mm)	320	420	520	620	720	820	920	1020	1120	1220	1320	1420

Linear motor stage selection:



> Stage appearance and installation size

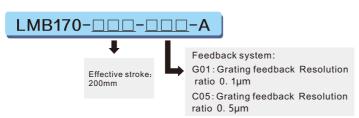


► Stage Performance Paramater

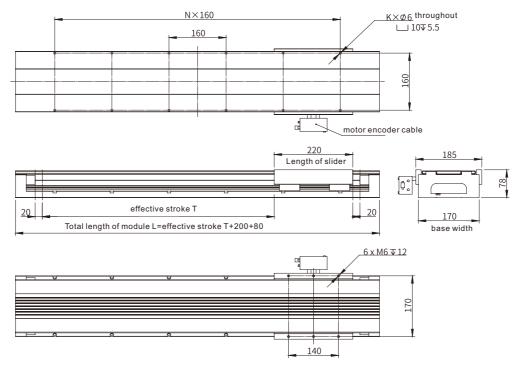
Data Performance Parameter	Unit	Data
Continuous Force (Tmax)	N	15
Peak Force	N	150
Max. Load	Kg	15
Effective Stroke	mm	100-2200
Resolution	um	0.5
Max.Speed(1)	mm/s	1500
Repeat accuracy	um	±1
Weight	Kg	1.8

► Stage Performance Paramater

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	6	8	10	12	14	14	16	26	18	20	24	24
N	2	3	4	5	6	6	7	5	8	9	11	11
Stage Total Length (mm)	380	480	580	680	780	880	980	1080	1080	1180	1380	1480



> Stage appearance and installation size



► Stage Performance Paramater

Data Performance Parameter	Unit	Data
Continuous Force (Tmax)	N	120
Peak Force	N	900
Max. Load	Kg	90
Effective Stroke	mm	100-2500
Resolution	um	0.5
Max.Speed(1)	mm/s	2000
Repeat accuracy	um	±1
Weight	Kg	4.5

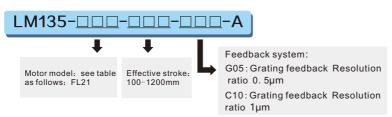
➤ Stage Performance Paramater

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	6	8	8	10	10	12	14	14	16	18	18	20
N	2	3	3	4	4	5	6	6	7	8	8	9
Stage Total Length (mm)	470	570	670	770	870	970	1070	1170	1270	1370	1470	1570

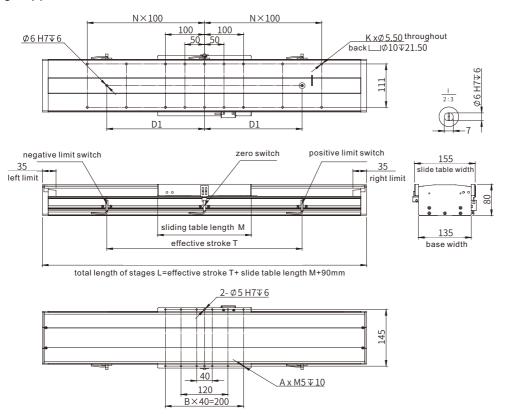
LM Series Standard Stages

- > Standard aluminum base
- > Driven by linear motor, the mover and stator operates without contact
- Grating Positioning/Magnetic Grating Positioning
- ➤ High precision, high acceleration, high moving speed
- Zero backlash error
- ➤ Repeatability accuracy up to ±2um (within any 500mm stroke)
- ► Long stroke, the maximum stroke reaches more than 4m
- > Allows multiple independent movers on the same axis
- ➤ The maximum moving speed is more than 5m
- Quickly assemble to XY cross stages and gantry stages





> Stage appearance and installation size



➤ Motor Model/Parameter

			Iron Core L	inear Motor	
Motor Model Parameter	Unit	FL21	FL31	FL41	FJ21
Continuous Force (Tmax)	N	118	176	236	125
Peak Force	N	314	466	628	498
Motor Constant	$N\sqrt{W}$	13.6	16.5	19.4	13.6
Max.Continuous Power Dissipation	W	75.2	114.2	147.8	84.2
Continuous Current	Arms	4	4	4	2.2
Peak Current (1S)	Arms	12	12	12	9
Force Constant (25°C, ±5%)	N/Arms	29.5	44	59	56.8
Back EMF Constant (25°C, ±5%)	Vrms/m/s	9.8	14.7	19.7	18.8
Electrical Resistance(25°C, ±5%)P-P	Ω	2.4	3.4	4.4	8.2
Inductance(25°C, ±20%)P-P	mH	9.0	13.5	18	26
Max Coil Temperature	°C	120	120	120	120
Polar Distance (N-N)	mm	20	20	20	20
Magnetic Attraction	KN	0.68	0.98	1.3	0.75
Primary weight	Kg	1.6	2.3	3	1



Linear motor Platform parameters

LM135-FL21-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	380	460	560	660	760	860	960	1060	1160	1260	1360	1460
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	8.7	10.1	11.5	12.8	14.2	15.7	16.9	18.4	19.8	21.1	22.5	24.0
Sliding Table M (mm)						17	70					
А						8	3					
В		3										
Motion Parts Weight (kg)	•	3.6										

LM135-FL31-

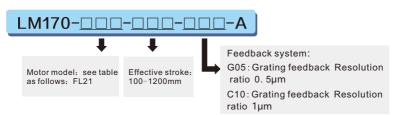
Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	2	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	430	530	630	730	830	930	1030	1130	1230	1330	1430	1530
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	10.7	12.2	13.6	14.9	16.3	17.8	19.0	20.5	21.9	23.2	24.7	26.1
Sliding Table M (mm)						24	10					
A						1	2					
В		5										
Motion Parts Weight (kg)						4	.7					

LM135-FL41-

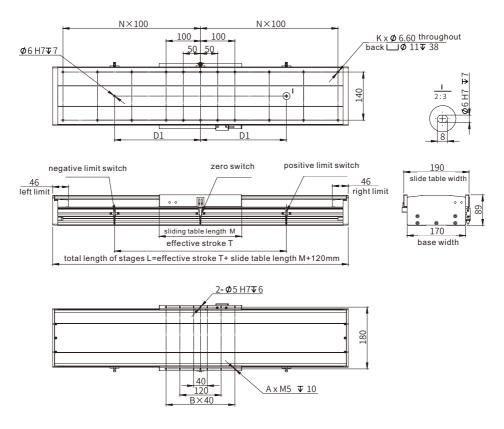
Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	13.2	14.4	15.9	17.2	18.6	20.0	21.3	22.7	24.2	25.5	26.9	28.3
Sliding Table M (mm)						3:	10					
A						1	2					
В	5											
Motion Parts Weight (kg)	5.9											

LM135-FJ21-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	380	480	580	680	780	880	980	1080	1180	1280	1380	1480
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	8.7	10.2	11.6	12.8	14.3	15.6	17.8	18.5	19.9	21.1	22.6	23.9
Sliding Table M (mm)						19	90					
A						8	3					
В						3	3					
Motion Parts Weight (kg)	3.3											



➤ Stage appearance and installation size



➤ Motor Model/Parameter

		Iron	less Linear M	lotor		Iron Core L	inear Motor	
Parameter Motor Model	Unit	U42	U43	U44	FL22	FL32	FL42	FJ22
Continuous Force (Tmax)	N	72	108	144	196	294	392	208
Peak Force	N	288	432	576	517	776	1035	831
Motor Constant	$N\sqrt{W}$	8.8	11	12.8	18.9	23.4	27.2	27.5
Max.Continuous Power Dissipation	W	66.7	96.6	126.6	107.5	157.9	208.3	57.1
Continuous Current	Arms	2.3	2.3	2.3	4	4	4	2.2
Peak Current (1S)	Arms	9.2	9.2	9.2	12	12	12	9
Force Constant (25°C, ±5%)	N/Arms	31.4	47.1	62.8	49	73.5	98	94.8
Back EMF Constant (25°C, ±5%)	Vrms/m/s	10.5	15.7	20.9	16.3	24.5	32.7	31.6
Electrical Resistance(25°C, ±5%)P-P	Ω	5.9	8.7	10.6	3.2	4.7	6.2	11.8
Inductance(25°C, ±20%)P-P	mH	4	6	8	15	22.5	30	40
Max Coil Temperature	°C	120	120	120	120	120	120	120
Polar Distance (N-N)	mm	60	60	60	20	20	20	20
Magnetic Attraction	KN	0	0	0	1.1	1.6	2.1	1.23
Primary weight	Kg	0.6	0.9	1.2	2.5	3.7	4.9	1.7



Linear motor stage selection:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	360	460	560	660	760	860	960	1060	1160	1260	1360	1460
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	11	13.6	16.2	18.8	21.4	24	26.6	29.2	31.8	34.4	37	39.6
Sliding Table M (mm)						14	10					
А	8											
В	3											
Motion Parts Weight (kg)	2.5											

LM170-U43-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	410	510	610	710	810	910	1010	1110	1210	1310	1410	1510
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	13.4	16.2	18.8	21	23.8	26.4	28.6	31.4	33	35.2	38	40.6
Sliding Table M (mm)						24	40					
A	12											
В						!	5					
Motion Parts Weight (kg)	4.7											

LM170-U44-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	470	570	670	770	870	970	1070	1170	1270	1370	1470	1570
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	15.8	18.6	21.2	23.4	26.2	28.8	31	33.8	35.4	37.6	40.4	43
Sliding Table M (mm)						2!	50					
A						1	.2					
В						į	5					
Motion Parts Weight (kg)						4	.3					

Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	390	490	590	690	790	890	990	1090	1190	1290	1390	1490
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	12	14	16	18	20	22	24	26	28	30	32	34
Sliding Table M (mm)						1	70					
A	8											
В						:	3					
Motion Parts Weight (kg)		3.8										





Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	460	560	660	760	860	960	1060	1160	1260	1360	1460	1560
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	15	17	19	21	23	25	27	29	31	33	35	37
Sliding Table M (mm)						24	10					
A	12											
В	5											
Motion Parts Weight (kg)	5.4											

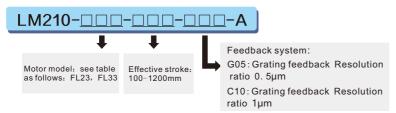
LM170-FL42-

Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	530	630	730	830	930	1030	1130	1230	1330	1430	1530	1630
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	17.6	19.6	21.6	23.6	25.6	27.6	29.6	31.6	33.6	35.6	37.6	39.6
Sliding Table M (mm)						31	10					
А	16											
В	7											
Motion Parts Weight (kg)	6.5											

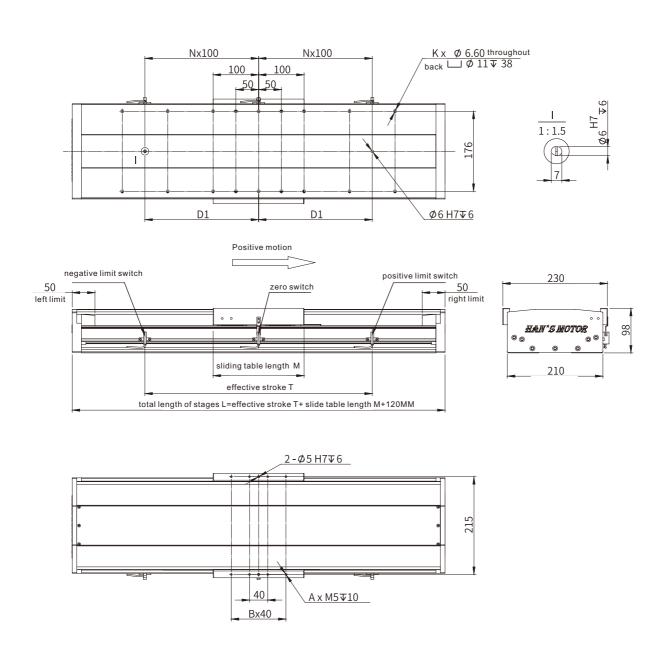
LM170-FJ22-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	410	510	610	710	810	910	1010	1110	1210	1310	1410	1510
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	12.5	14.5	16.5	18.5	20.5	22.5	24.5	26.5	28.5	30.5	32.5	34.5
Sliding Table M (mm)						19	90					
A						8	3					
В						\$	3					
Motion Parts Weight (kg)	4.2											

Linear motor stage selection:



> Stage appearance and installation size







➤ Motor Model/Parameter

			Flat m	otor	
Motor Model Parameter	Unit	FJ23	FL23	FL33	FL43
Continuous Force (Tmax)	N	332	314	472	629
Peak Force	N	1329	827	1237	1653
Motor Constant	N√W	24.4	25.3	31.0	36.2
Max.Continuous Power Dissipation	W	184.8	154.6	231.8	302.4
Continuous Current	Arms	4.4	4	4	4
Peak Current (1S)	Arms	18	12	12	12
Force Constant (25°C, ±5%)	N/Arms	75.6	78.5	118	157
Back EMF Constant (25°C, ±5%)	Vrms/m/s	25.2	26	39.3	52.4
Electrical Resistance(25°C, ±5%)P-P	Ω	4.5	4.6	6.9	9
Inductance(25°C, ±20%)P-P	mH	15.3	24	36	48
Max Coil Temperature	°C	120	120	120	120
Polar Distance (N-N)	mm	20	20	20	20
Magnetic Attraction	KN	1.82	1.7	2.6	3.4
Primary weight	Kg	2.4	3.8	5.5	7.3

			U mo	otor	
Motor Model Parameter	Unit	U53	U54	U55	U56
Continuous Force (Tmax)	N	168	224	280	336
Peak Force	N	936	1248	1560	1872
Motor Constant	N√W	15	17.3	19.4	21.3
Max.Continuous Power Dissipation	W	125	166.6	208.3	250
Continuous Current	Arms	2.3	2.3	2.3	2.3
Peak Current (1S)	Arms	13	13	13	13
Force Constant (25°C, ±5%)	N/Arms	73	96	120	144
Back EMF Constant (25°C, ±5%)	Vrms/m/s	24.3	32	40	48
Electrical Resistance(25°C, ±5%)P-P	Ω	11.25	15	18.75	22.5
Inductance(25°C, ±20%)P-P	mH	10.5	14	17.5	21
Max Coil Temperature	°C	120	120	120	120
Polar Distance (N-N)	mm	60	60	60	60
Magnetic Attraction	KN	0	0	0	0
Primary weight	Kg	1	1.3	1.65	2



Linear motor stage selection:

LM210-FJ23------A:

Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	10	14	14	18	18	22	22	26	26	30	30	34	
N	1	2	2	3	3	4	4	5	5	6	6	7	
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	12.3	12.3 14.1 16.0 17.8 19.6 21.5 23.3 25.1 27.0 28.9 30.6 32.5											
Sliding Table M (mm)						20	00						
A						8	3						
В	3												
Motion Parts Weight (kg)	3.5												

LM210-FL23-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	10	14	14	18	18	22	22	26	26	30	30	34	
N	1	2	2	3	3	4	4	5	5	6	6	7	
Stage Total Length (mm)	390	490	590	690	790	890	990	1090	1190	1290	1390	1490	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	10.9	10.9 12.8 14.7 16.5 18.3 20.2 22.0 23.9 25.8 27.5 29.4 31.3											
Sliding Table M (mm)						17	70						
A						8	3						
В	3												
Motion Parts Weight (kg)	2.8												

LM210-FL33-00-00-A:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	10	14	14	18	18	22	22	26	26	30	30	34	
N	1	2	2	3	3	4	4	5	5	6	6	7	
Stage Total Length (mm)	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	13.0	14.9	16.8	18.6	20.4	22.2	24.1	26.0	27.7	29.6	31.5	33.2	
Sliding Table M (mm)						23	30						
A						1	2						
В	5												
Motion Parts Weight (kg)	3.7												

Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	14	14	18	18	22	22	26	26	30	30	34	34	
N	2	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	520	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	15.4												
Sliding Table M (mm)						30	00						
А						1	6						
В	7												
Motion Parts Weight (kg)	4.8												





Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	10	14	14	18	18	22	22	26	26	30	30	34	
N	1	2	2	3	3	4	4	5	5	6	6	7	
Stage Total Length (mm)	410	510	610	710	810	910	1010	1110	1210	1310	1410	1510	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	16.8	20.0	23.2	26.4	29.6	32.8	36.0	39.2	42.4	45.6	48.8	52.0	
Sliding Table M (mm)						19	90						
A						8	3						
В	3												
Motion Parts Weight (kg)	5												

LM210-U54-

Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	14	14	18	18	22	22	26	26	30	30	34	34	
N	2	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	470	470	670	770	870	970	1070	1170	1270	1370	1470	1570	
Dowel Pin D1 (mm)	50	50	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	20.0	20.0 20.0 26.4 29.6 32.8 36.0 39.2 42.4 45.6 48.8 52.0 55.2											
Sliding Table M (mm)						25	50						
А						1	2						
В	5												
Motion Parts Weight (kg)	5.5												

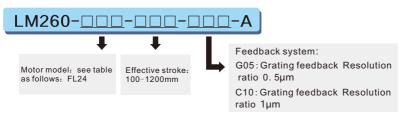
LM210-U55-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	14	14	18	18	22	22	26	26	30	30	34	34	
N	2	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	530	630	730	830	930	1030	1130	1230	1330	1430	1530	1630	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	23.5	23.5 26.8 30.1 33.4 36.7 40.0 43.3 46.6 49.9 53.2 56.5 59.8											
Sliding Table M (mm)						31	10						
A						1	6						
В	7												
Motion Parts Weight (kg)	6.5												

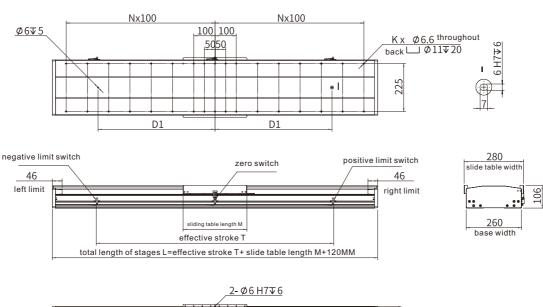
LM210-U56-00-0-0-A:

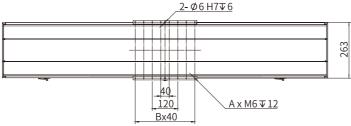
Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	14	18	18	22	22	26	26	30	30	34	34	38	
N	2	3	3	4	4	5	5	6	6	7	7	8	
Stage Total Length (mm)	590	690	790	890	990	1090	1190	1290	1390	1490	1590	1690	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	27.0	30.3	33.6	36.9	40.2	43.5	46.8	50.1	53.4	56.7	60.0	63.3	
Sliding Table M (mm)						37	70						
A						1	.6						
В	7												
Motion Parts Weight (kg)	7.5												

Linear motor stage selection:



> Stage appearance and installation size





			Flat motor	
Parameter Motor Model	Unit	FL24	FL34	FL44
Continuous Force (Tmax)	N	393	589	785
Peak Force	N	1035	1553	2070
Motor Constant	$N\sqrt{W}$	28.9	35.7	41.4
Max.Continuous Power Dissipation	W	184.8	272.2	359.5
Continuous Current	Arms	4	4	4
Peak Current (1S)	Arms	12	12	12
Force Constant (25°C, ±5%)	N/Arms	98.3	147	196.3
Back EMF Constant (25°C, ±5%)	Vrms/m/s	32.8	49	65.4
Electrical Resistance(25°C, ±5%)P-P	Ω	5.5	8.1	10.7
Inductance(25°C, ±20%)P-P	mH	30	45	60
Max Coil Temperature	°C	120	120	120
Polar Distance (N-N)	mm	20	20	20
Magnetic Attraction	KN	2.2	3.3	4.4
Primary weight	Kg	4.7	6.9	9





Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	10	14	14	18	18	22	22	26	26	30	30	34	
N	1	2	2	3	3	4	4	5	5	6	6	7	
Stage Total Length (mm)	390	490	590	690	790	890	990	1090	1190	1290	1390	1490	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	19.4												
Sliding Table M (mm)						17	70						
А	8												
В	3												
Motion Parts Weight (kg)	6.6												

LM260-FL34-

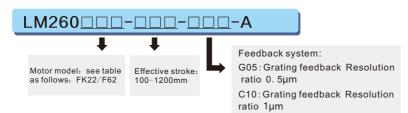
Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	14	14	18	18	22	22	26	26	30	30	34	34	
N	2	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	21.9	21.9 25.2 28.6 32.0 35.3 38.7 42.1 45.5 48.8 52.2 55.6 59.0											
Sliding Table M (mm)						23	30						
A	12												
В	5												
Motion Parts Weight (kg)	8.3												

LM260-FL44-

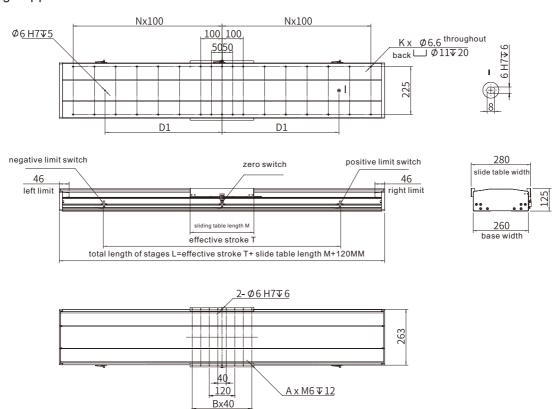
Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	14	14	18	18	22	22	26	26	30	30	34	34	
N	2	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	520	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	24.9	24.9 28.3 31.7 35.0 38.4 41.8 45.1 48.5 51.9 55.3 58.6 62.0									62.0		
Sliding Table M (mm)						30	00						
A						1	6						
В	7												
Motion Parts Weight (kg)	10.4												



Linear motor stage selection:



> Stage appearance and installation size



		U motor				Flat motor				
Parameter Motor Model	Unit	U62	U63	U64	U65	F612	F613	F614	FK11	FK22
Continuous Force (Tmax)	N	221	331	442	552	715	1562	1296	600	1164
Peak Force	N	1326	1988	2649	3311	1778	3767	2981	1240	2398
Motor Constant	N√W	19.0	23.5	27.2	30.5	42.8	65.7	58.9	36.1	50.5
Max.Continuous Power Dissipation	W	135.2	199.5	263.8	328.1	279.7	564.5	483.8	275.8	532.2
Continuous Current	Arms	2.5	2.5	2.5	2.5	6	8	8	4.8	4.8
Peak Current (1S)	Arms	15	15	15	15	18	24	24	11.3	11
Force Constant (25°C, ±5%)	N/Arms	88.4	132.5	176.6	220.7	119	195.3	162	130.2	255
Back EMF Constant (25°C, ±5%)	Vrms/m/s	29.5	44.2	58.9	73.6	39.7	65.1	54	43.4	85
Electrical Resistance(25°C, ±5%)P-P	Ω	10.3	15.2	20.1	25	3.7	4.2	3.6	5.7	11
Inductance(25°C, ±20%)P-P	mH	19	28.5	38	47.5	50	64	64.8	41.4	82.8
Max Coil Temperature	°C	120	120	120	120	120	120	120	120	120
Polar Distance (N-N)	mm	84	84	84	84	42	42	42	32	32
Magnetic Attraction	KN	0	0	0	0	3.4	6.8	5.3	3.5	6.9
Primary weight	Kg	1.9	2.7	3.6	4.5	7.4	13.6	10.8	5.5	10.4





LM260-U62-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	400	500	500	700	800	900	1000	1100	1200	1300	1400	1500
Dowel Pin D1 (mm)	50	100	100	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	24.8	29.7	29.7	39.5	44.4	49.3	54.2	59.0	63.9	68.8	73.7	78.6
Sliding Table M (mm)						18	30					
Α	8											
В		3										
Motion Parts Weight (kg)		7.6										

LM260-U63-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	480	580	680	780	880	980	1080	1180	1280	1380	1480	1580
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	29.7	34.6	39.5	44.4	49.3	54.2	59.1	63.9	68.8	73.7	78.6	83.5
Sliding Table M (mm)						26	50					
A		12										
В	5											
Motion Parts Weight (kg)	10.2											

LM260-U64-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	14	18	18	22	22	26	26	30	30	34	34	38
N	2	3	3	4	4	5	5	6	6	7	7	8
Stage Total Length (mm)	570	670	770	870	970	1070	1170	1270	1370	1470	1570	1670
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	35.2	40.1	45.0	49.9	54.8	59.7	64.6	69.5	74.4	79.2	84.1	89.0
Sliding Table M (mm)						35	50					
A	16											
В	7											
Motion Parts Weight (kg)		13.2										

LM260-U65-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	18	18	22	22	26	26	30	30	34	34	38	38
N	3	3	4	4	5	5	6	6	7	7	8	8
Stage Total Length (mm)	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	40.2	45.1	50.0	54.9	59.8	64.7	69.6	74.5	79.4	84.2	89.1	94.0
Sliding Table M (mm)						4:	30					
A		20										
В		9										
Motion Parts Weight (kg)		15.9										



Linear motor stage selection:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	430	530	630	730	830	930	1030	1130	1230	1330	1430	1530
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	27.0	30.4	33.7	37.1	40.4	43.7	47.1	50.4	53.8	57.1	60.5	63.8
Sliding Table M (mm)						2:	10					
A		12										
В		5										
Motion Parts Weight (kg)		13.8										

LM260-F613------A:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	14	18	18	22	22	26	26	30	30	34	34	38
N	2	3	3	4	4	5	5	6	6	7	7	8
Stage Total Length (mm)	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	39.3	42.6	46.0	49.3	52.7	56.0	59.4	62.7	66.1	69.4	72.7	76.1
Sliding Table M (mm)						38	30					
A	20											
В	9											
Motion Parts Weight (kg)	23.9											

LM260-F614-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	510	610	710	810	910	1010	1110	1210	1310	1410	1510	1610
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	33.3	36.6	40.0	43.3	46.7	50.0	53.3	56.7	60.0	63.4	66.7	70.1
Sliding Table M (mm)						29	90					
A		16										
В	7											
Motion Parts Weight (kg)		19.0										

LM260-FK11-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	430	530	630	730	830	930	1030	1130	1230	1330	1430	1530
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	26.5	30.3	34.1	37.9	41.7	45.5	49.3	53.1	56.9	60.7	64.5	68.2
Sliding Table M (mm)						2:	10					
A	12											
В		5										
Motion Parts Weight (kg)		11.9										





LM260-FK22------A:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	14	18	18	22	22	26	26	30	30	34	34	38
N	2	3	3	4	4	5	5	6	6	7	7	8
Stage Total Length (mm)	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	38.3	42.1	45.8	49.6	53.4	57.2	61.0	64.8	68.6	72.4	76.2	80.0
Sliding Table M (mm)						38	30					
Α	20											
В	9											
Motion Parts Weight (kg)	20.7											

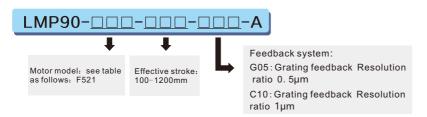
HAN'S MOTOR

LMP Series Fully Protected Stages

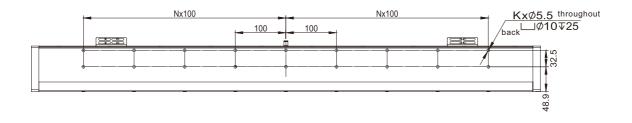
- > It is suitable for cleanroom environment
- > Standard aluminum base
- > Driven by linear motor, the mover and stator operates without contact
- Grating Positioning/Magnetic Grating Positioning
- ➤ High precision, high acceleration, high moving speed
- > Zero backlash error
- ➤ Repeatability accuracy up to ±2um (within any 500mm stroke)
- ▶ Long stroke, the maximum stroke reaches more than 4m
- > Allows multiple independent movers on the same axis
- ➤ The maximum moving speed is more than 5m
- > Quickly assemble to XY cross stages and gantry stages

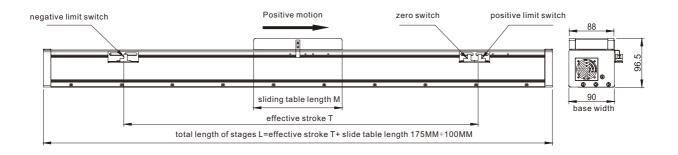


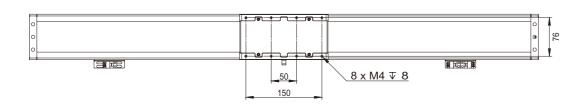
Linear motor stage selection:



> Stage appearance and installation size









Linear motor stage selection:

➤ Motor Model/Parameter

Motor Model Parameter	Unit	F521
Continuous Force (Tmax)	N	96.5
Peak Force	N	441.2
Motor Constant	N√W	10.9
Max.Continuous Power Dissipation	W	77.8
Continuous Current	Arms	4.2
Peak Current (1S)	Arms	19.2
Force Constant (25°C, ±5%)	N/Arms	23.1
Back EMF Constant (25°C, ±5%)	Vrms/m/s	7.7
Electrical Resistance(25°C, ±5%)P-P	Ω	1.9
Inductance(25°C, ±20%)P-P	mH	4.4
Max Coil Temperature	℃	120
Polar Distance (N-N)	mm	20
Magnetic Attraction	KN	0.67
Primary weight	Kg	1.05



Linear motor stage selection:

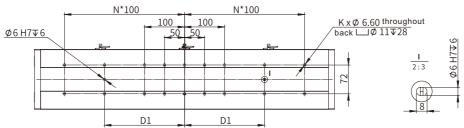
LM90-F521-

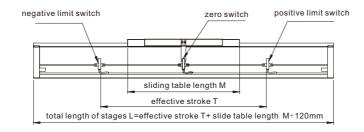
Stroke (mm) Parameter	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	6	10	10	14	14	18	18	22	22	26	26	30
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	405	505	605	705	805	905	1005	1105	1205	1305	1405	1505
Stage Weight (kg)	7.4	8.5	9.7	10.9	12.0	13.2	14.4	15.5	16.7	17.9	19.0	20.2
Sliding Table M (mm)		175										
Motion Parts Weight (kg)		3.1										

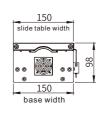
Note (1): According to the actual load, the maximum speed maybe cannot be reached, so the specific speed should be communicated with the engineer

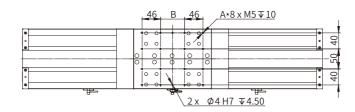
Motor model: see table as follows: L21 Feedback system: G05: Grating feedback Resolution ratio 0.5 C10: Grating feedback Resolution ratio 1 pm

> Stage appearance and installation size









► Motor Model/Parameter

		U m	otor		Flat	notor	
Parameter Motor Model	unit	U74	U78	FL21	FL31	FL41	FJ21
Continuous Force (Tmax)	N	28.8	57.5	118	176	236	125
Peak Force	N	144	288	314	466	628	498
Motor Constant	N√W	4.7	6.6	13.1	16.5	19.4	13.6
Max.Continuous Power Dissipation	W	38.2	76.3	80.6	114.2	147.8	84.2
Continuous Current	Arms	1.15	1.15	4	4	4	2.2
Peak Current (1S)	Arms	5.8	5.8	12	12	12	9
Force Constant (25°C, ±5%)	N/Arms	25	50	29.5	44	59	56.8
Back EMF Constant (25°C, ±5%)	Vrms/m/s	8.2	16.4	9.8	14.7	19.7	18.8
Electrical Resistance(25°C, ±5%)P-P	Ω	12.8	25.6	2.4	3.4	4.4	8.2
Inductance(25°C, ±20%)P-P	mH	3.2	6.4	9	13.5	18	26
Max Coil Temperature	°C	120	120	120	120	120	120
Polar Distance (N-N)	mm	30	30	20	20	20	20
Magnetic Attraction	KN	0	0	0.68	0.98	1.3	0.75
Primary weight	Kg	0.23	0.46	1.6	2.3	3.1	1

Note (1): According to the actual load, the maximum speed maybe cannot be reached, so the specific speed should be communicated with the engineer $\,$



Linear motor stage selection:

LMP150-U74-00-00-A:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	10	14	14	18	18	22	22	26	26	30	30	34	
N	1	2	2	3	3	4	4	5	5	6	6	7	
Stage Total Length (mm)	360	460	560	660	760	860	960	1060	1160	1260	1360	1460	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	12.4	13.6	14.8	16	17.2	18.4	19.6	20.8	22	23.2	24.4	25.6	
Sliding Table M (mm)						19	90						
A						:	L						
В		50											
Motion Parts Weight (kg)		3.6											

LMP150-U78-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	470	570	670	770	870	970	1070	1170	1270	1370	1470	1570
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	12.6	13.8	15	16.2	17.4	18.6	19.8	21	22.2	23.4	24.6	25.8
Sliding Table M (mm)						30	00					
A						2	2					
В	70											
Motion Parts Weight (kg)	5.2											

LMP150-FL21-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	390	490	590	690	790	890	990	1090	1190	1290	1390	1490
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	11.5	12.7	13.9	15.1	16.3	17.5	18.7	19.9	21.1	22.3	23.5	24.7
Sliding Table M (mm)						22	20					
А						1	L					
В						5	0					
Motion Parts Weight (kg)						4.	.0					

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	14	14	18	18	22	22	26	26	30	30	34	34	
N	2	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	13.2	14.4	15.6	16.8	18	19.2	20.4	21.6	22.8	24	25.2	26.4	
Sliding Table M (mm)						28	80						
A	2												
В	60												
Motion Parts Woight (kg)						4	0						



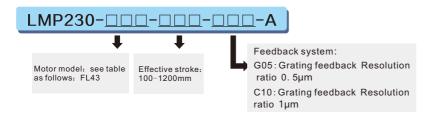


LMP150-FL41-

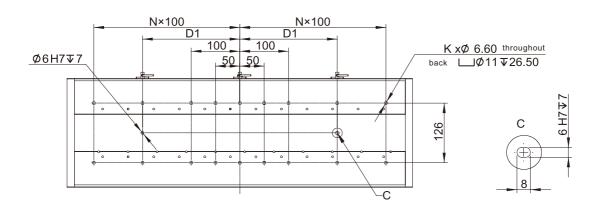
Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	14	14	18	18	22	22	26	26	30	30	34	34	
N	2	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	520	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	14.7	15.9	17.1	18.3	19.5	20.7	21.9	23.1	24.3	25.5	26.7	27.9	
Sliding Table M (mm)						3.5	50						
А						2	2						
В	90												
Motion Parts Weight (kg)	6.0												

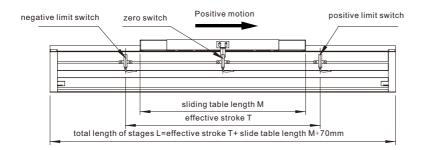
Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	390	490	590	690	790	890	990	1090	1190	1290	1390	1490
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	11.5	12.7	13.9	15.1	16.3	17.5	18.7	19.9	21.1	22.3	23.5	24.7
Sliding Table M (mm)						22	20					
A						1	L					
В		50										
Motion Parts Weight (kg)						4.	.0					

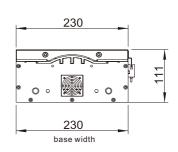
Linear motor stage selection:

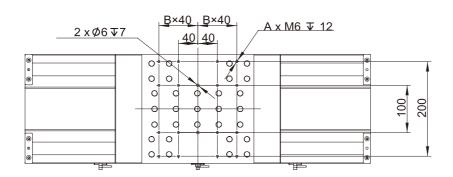


> Stage appearance and installation size













LMP230-

Motor model: see table as follows: FL43

Effective stroke: 100-1200mm Feedback system:

G05: Grating feedback Resolution ratio 0.5 µm

C10: Grating feedback Resolution ratio $1\mu m$

➤ Motor Model/Parameter

			Ironless Li	near Motor	
Parameter Motor Model	unit	U53	U54	U55	U56
Continuous Force (Tmax)	N	168	224	280	336
Peak Force	N	936	1248	1560	1872
Motor Constant	N√W	15	17.4	19.4	21.3
Max.Continuous Power Dissipation	W	125	166.6	208.3	250
Continuous Current	Arms	2.3	2.3	2.3	2.3
Peak Current (1S)	Arms	13	13	13	13
Force Constant (25°C, ±5%)	N/Arms	73	96	120	144
Back EMF Constant (25°C, ±5%)	Vrms/m/s	24.3	32	40	48
Electrical Resistance(25°C, ±5%)P-P	Ω	11.25	15	18.75	22.5
Inductance(25°C, ±20%)P-P	mH	10.5	14	17.5	21
Max Coil Temperature	°C	120	120	120	120
Polar Distance (N-N)	mm	60	60	60	60
Magnetic Attraction	KN	0	0	0	0
Primary weight	Kg	1	1.3	1.65	2

					Iron Core L	inear Motor			
Motor Model Parameter	unit	FJ22	FJ23	FL22	FL32	FL42	FL23	FL33	FL43
Continuous Force (Tmax)	N	208	332	196	294	392	314	472	629
Peak Force	N	831	1329	517	776	1035	827	1237	1653
Motor Constant	N√W	27.5	24.4	18.9	23.4	27.2	25.3	31.0	36.2
Max.Continuous Power Dissipation	W	57.1	184.8	107.5	157.9	208.3	154.6	231.8	302.4
Continuous Current	Arms	2.2	4.4	4	4	4	4	4	4
Peak Current (1S)	Arms	9	18	12	12	12	12	12	12
Force Constant (25°C, ±5%)	N/Arms	94.8	75.6	49	73.5	98	78.5	118	157
Back EMF Constant (25°C, ±5%)	Vrms/m/s	31.6	25.2	16.3	24.5	32.7	26	39.3	52.4
Electrical Resistance(25°C, ±5%)P-P	Ω	11.8	4.5	3.2	4.7	6.2	4.6	6.9	9
Inductance(25°C, ±20%)P-P	mH	40	15.3	15	22.5	30	24	36	48
Max Coil Temperature	°C	120	120	120	120	120	120	120	120
Polar Distance (N-N)	mm	20	20	20	20	20	20	20	20
Magnetic Attraction	KN	1.23	1.82	1.1	1.6	2.1	1.7	2.6	3.4
Primary weight	Kg	1.7	2.4	2.5	3.7	4.9	3.8	5.5	7.3

Note (1): According to the actual load, the maximum speed maybe cannot be reached, so the specific speed should be communicated with the engineer



Linear motor stage selection:

LMP230-U53-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	10	14	14	18	18	22	22	26	26	30	30	34	
N	1	2	2	3	3	4	4	5	5	6	6	7	
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	23	27	31	35	39	43	47	51	55	59	63	67	
Sliding Table M (mm)						2!	50						
Α						8	3						
В	1												
Motion Parts Weight (kg)	7												

LMP230-U54-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	470	570	670	770	870	970	1070	1170	1270	1370	1470	1570
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	26	30	34	38	42	46	50	54	58	62	66	70
Sliding Table M (mm)						30	00					
A						1	6					
В		2										
Motion Parts Weight (kg)	8.5											

LMP230-U55-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
К	10	14	18	18	22	22	26	26	30	30	34	34	
N	1	2	3	3	4	4	5	5	6	6	7	7	
Stage Total Length (mm)	390	630	730	830	930	1030	1130	1230	1330	1430	1530	1630	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	11.5	34	38	42	46	50	54	58	62	66	70	74	
Sliding Table M (mm)						36	50						
А						1	6						
В		2											
Motion Parts Weight (kg)		10											

LMP230-U56-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	
K	14	18	18	22	22	26	26	30	30	34	34	38	
N	2	3	3	4	4	5	5	6	6	7	7	8	
Stage Total Length (mm)	590	690	790	890	990	1090	1190	1290	1390	1490	1590	1690	
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600	
Stage Weight (kg)	34	38	42	46	50	54	58	62	66	70	74	78	
Sliding Table M (mm)						4.	20						
A	24												
В	3												
Motion Parts Weight (kg)						2	0						





Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	22.4	25.6	28.8	32	35.2	38.4	41.6	44.8	48	51.2	54.4	57.6
Sliding Table M (mm)						28	30					
A						8	3					
В						:	L					
Motion Parts Weight (kg)						Ģ	9					

LMP230-FJ23-□□□-□□-A:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	24.6	27.8	31	34.2	37.4	40.6	43.8	47	50.2	53.4	56.6	59.8
Sliding Table M (mm)						28	30					
А						3	3					
В						1	L					
Motion Parts Weight (kg)		10.4										

LMP230-FL22-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
K	14	14	18	18	22	22	26	26	30	30	34	34
N	2	2	3	3	4	4	5	5	6	6	7	7
Stage Total Length (mm)	510	610	710	810	910	1010	1110	1210	1310	1410	1510	1610
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	29.1	32.3	35.5	38.7	41.9	45.1	48.3	51.5	54.7	57.9	61.1	64.3
Sliding Table M (mm)						34	10					
A						1	6					
В		2										
Motion Parts Weight (kg)		13.2										

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	22	25	28	31	34	37	40	43	46	49	52	55
Sliding Table M (mm)						2!	50					
Α						:	3					
В							1					
Motion Parts Weight (kg)		·		·	·		9				·	



Linear motor stage selection:

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	22	25	28	31	34	37	40	43	46	49	52	55
Sliding Table M (mm)						2!	50					
Α						8	3					
В						:	L					
Motion Parts Weight (kg)						Ç	9					

LMP230-FL23-

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	22	25	28	31	34	37	40	43	46	49	52	55
Sliding Table M (mm)						25	50					
А						8	3					
В						1	1					
Motion Parts Weight (kg)						Ç	9					

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	22	25	28	31	34	37	40	43	46	49	52	55
Sliding Table M (mm)						2!	50					
A						8	3					
В						:	L					
Motion Parts Weight (kg)						Ģ	9					

Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
К	10	14	14	18	18	22	22	26	26	30	30	34
N	1	2	2	3	3	4	4	5	5	6	6	7
Stage Total Length (mm)	420	520	620	720	820	920	1020	1120	1220	1320	1420	1520
Dowel Pin D1 (mm)	50	100	150	200	250	300	350	400	450	500	550	600
Stage Weight (kg)	22	25	28	31	34	37	40	43	46	49	52	55
Sliding Table M (mm)						2!	50					
A						;	3					
В						:	1					
Motion Parts Weight (kg)							9					



LML Series High-precision Stages

- > Standard aluminum base
- > Adopt an incremental optical scale feedback system
- ➤ Assemble to XY cross stages
- > It is suitable for high-precision inspection and assembly equipment
- ➤ Repeat accuracy up to ±1um

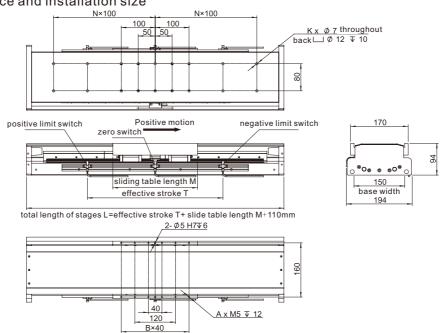




LML150-000-000-A



> Stage appearance and installation size



▶ Motor Model/Parameter

Parameter Motor Model	Unit	U44
Continuous Force (Tmax)	N	144
Peak Force	N	576
Motor Constant	$N\sqrt{W}$	12.8
Max.Continuous Power Dissipation	W	126.6
Continuous Current	Arms	2.3
Peak Current (1S)	Arms	9.2
Force Constant (25°C, ±5%)	N/Arms	62.8
Back EMF Constant (25°C, ±5%)	Vrms/m/s	20.9
Electrical Resistance(25°C, ±5%)P-P	Ω	10.6
Inductance(25°C, ±20%)P-P	mH	8
Max Coil Temperature	℃	120
Polar Distance (N-N)	mm	60
Magnetic Attraction	KN	0
Primary weight	Kg	1.2

Linear motor stage selection:

LML150-U44-

Parameter Stroke (mm)	100	200	300	400	500
К	14	14	18	18	22
N	4	4	6	6	8
Stage Total Length (mm)	460	560	660	760	860
Dowel Pin D1 (mm)	16.1	19	21.8	24.1	27
Stage Weight (kg)			250		
А			12		
В			5		
Motion Parts Weight (kg)			4.2		

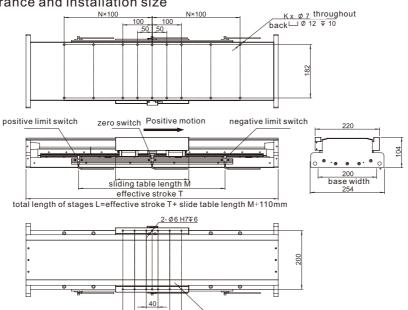
Note (1): According to the actual load, the maximum speed maybe cannot be reached, so the specific speed should be communicated with the engineer



LML200-



> Stage appearance and installation size



➤ Motor Model/Parameter

Parameter Motor Model	Unit	U44
Continuous Force (Tmax)	N	144
Peak Force	N	576
Motor Constant	N√W	12.8
Max.Continuous Power Dissipation	W	126.6
Continuous Current	Arms	2.3
Peak Current (1S)	Arms	9.2
Force Constant (25°C, ±5%)	N/Arms	62.8
Back EMF Constant (25°C, ±5%)	Vrms/m/s	20.9
Electrical Resistance(25°C, ±5%)P-P	Ω	10.6
Inductance(25°C, ±20%)P-P	mH	8
Max Coil Temperature	℃	120
Polar Distance (N-N)	mm	60
Magnetic Attraction	KN	0
Primary weight	Kg	1.2

A x M6 ▼ 15



Linear motor stage selection:

LML200-U44-

Parameter Stroke (mm)	100	200	300	400	500
К	10	14	14	18	18
N	2	4	4	6	6
Stage Total Length (mm)	460	560	660	760	860
Dowel Pin D1 (mm)	19.9	23.4	26.8	29.7	32.9
Stage Weight (kg)			250		
A			12		
В			5		
Motion Parts Weight (kg)			5.6		



Linear motor stage selection:

LML250-

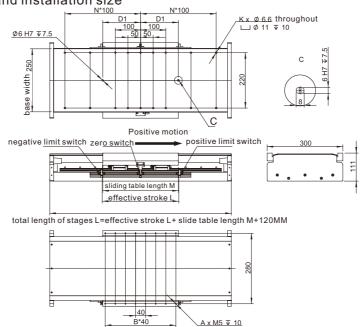


Feedback system:

G05: Grating feedback Resolution ratio 0.5µm

C10: Grating feedback Resolution ratio 1µm

> Stage appearance and installation size



▶ Motor Model/Parameter

Parameter Motor Model		U55
Continuous Force (Tmax)	N	280
Peak Force	N	1560
Motor Constant	N√W	19.4
Max.Continuous Power Dissipation	W	208.3
Continuous Current	Arms	2.3
Peak Current (1S)	Arms	13
Force Constant (25°C, ±5%)	N/Arms	120
Back EMF Constant (25°C, ±5%)	Vrms/m/s	40
Electrical Resistance(25°C, ±5%)P-P	Ω	18.75
Inductance(25°C, ±20%)P-P	mH	17.5
Max Coil Temperature	℃	120
Polar Distance (N-N)	mm	60
Magnetic Attraction	KN	0
Primary weight	Kg	1.65



Linear motor stage selection:

LML250-U55-

Parameter Stroke (mm)	100	200	300	400	500
К	14	14	18	18	22
N	2	2	3	3	4
Stage Total Length (mm)	520	620	720	820	920
Dowel Pin D1 (mm)	50	100	150	200	250
Stage Weight (kg)	34.6	47.0	39.4	41.8	44.2
Sliding Table M (mm)			250		
Α			16		
В	7				
Motion Parts Weight (kg)	8.6				



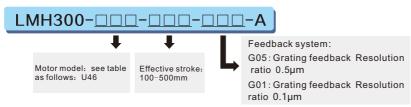
LMH Series Precision Stages

- ➤ The base is made of marble with modular design, good rigidity and good stability;
- ➤ Adopt high-end linear motor and grating encoder;
- > Adopt an incremental optical scale feedback system;
- ➤ Assemble to XY cross stages
- ➤ Repeat accuracy up to ±1um (within any stroke 500mm)

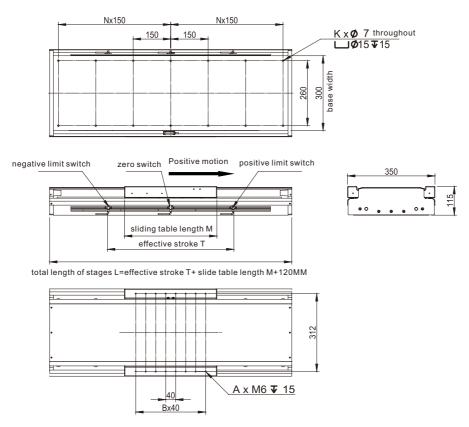




Linear motor stage selection:



> Stage appearance and installation size



➤ Motor Model/Parameter

		Ironless Linear Motor			
Motor Model Parameter	Unit	U42	U43	U44	U46
Continuous Force (Tmax)	N	72	108	144	216
Peak Force	N	288	432	576	864
Motor Constant	$N\sqrt{W}$	8.8	11.0	12.8	15.8
Max.Continuous Power Dissipation	W	66.7	96.6	126.6	186.6
Continuous Current	Arms	2.3	2.3	2.3	2.3
Peak Current (1S)	Arms	9.2	9.2	9.2	9.2
Force Constant (25°C, ±5%)	N/Arms	31.4	47.1	62.8	94.2
Back EMF Constant (25°C, ±5%)	Vrms/m/s	10.5	15.7	20.9	31.3
Electrical Resistance(25°C, ±5%)P-P	Ω	6	8.7	11.4	16.8
Inductance(25°C, ±20%)P-P	mH	4	6	8	10
Max Coil Temperature	°C	120	120	120	120
Polar Distance (N-N)	mm	60	60	60	60
Magnetic Attraction	KN	0	0	0	0
Primary weight	Kg	0.6	0.9	1.2	1.8



LMH300-U42-

Stroke (mm)	100	200	300	400	500
К	6	6	6	10	10
N	1	1	1	2	2
Stage Total Length (mm)	410	510	610	710	810
Stage Weight (kg)	28.2	33.1	38.1	43.1	48.0
Sliding Table M (mm)			190		
Α			8		
В	3				
Motion Parts Weight (kg)			8.0		

LMH300-U43-

Stroke (mm)	100	200	300	400	500
К	6	6	6	10	10
N	1	1	1	2	2
Stage Total Length (mm)	410	510	610	710	810
Stage Weight (kg)	28.5	33.4	38.4	43.4	48.3
Sliding Table M (mm)		•	190		
A			8		
В	3				
Motion Parts Weight (kg)			8.3		

LMH300-U44-

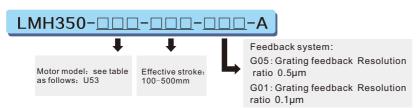
Stroke (mm)	100	200	300	400	500
К	6	6	10	10	10
N	1	1	2	2	2
Stage Total Length (mm)	470	570	670	770	870
Stage Weight (kg)	31.4	36.4	41.3	46.3	51.3
Sliding Table M (mm)			250	•	
A			12		
В	5				
Motion Parts Weight (kg)			10.4		

LMH300-U46-

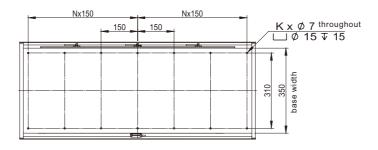
Stroke (mm)	100	200	300	400	500			
К	6	10	10	10	14			
N	1	2	2	2	3			
Stage Total Length (mm)	590	690	790	890	990			
Stage Weight (kg)	37.2	42.2	47.2	52.1	57.1			
Sliding Table M (mm)			370					
A			16					
В	7							
Motion Parts Weight (kg)			14.6	14.6				

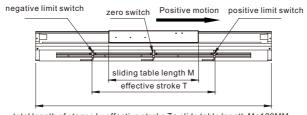


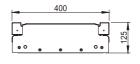
Linear motor stage selection:



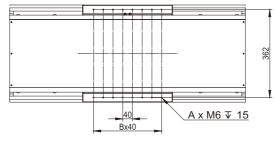
> Stage appearance and installation size







total length of stages L=effective stroke T+ slide table length M+120MM $\,$



➤ Motor Model/Parameter

		Ironless Linear Motor			
Motor Model Parameter	Unit	U53	U54	U55	U56
Continuous Force (Tmax)	N	168	224	280	336
Peak Force	N	936	1248	1560	1872
Motor Constant	N√W	15	17.4	19.4	21.3
Max.Continuous Power Dissipation	W	125	166.6	208.3	250.0
Continuous Current	Arms	2.3	2.3	2.3	2.3
Peak Current (1S)	Arms	13	13	13	13
Force Constant (25°C, ±5%)	N/Arms	73	96	120	144
Back EMF Constant (25°C, ±5%)	Vrms/m/s	24.3	32	40	48
Electrical Resistance(25°C, ±5%)P-P	Ω	11.25	15	18.75	22.5
Inductance(25°C, ±20%)P-P	mH	10.5	14	17.5	21
Max Coil Temperature	°C	120	120	120	120
Polar Distance (N-N)	mm	60	60	60	60
Magnetic Attraction	KN	0	0	0	0
Primary weight	Kg	1	1.3	1.65	2



Stroke (mm)	100	200	300	400	500
К	6	6	6	10	10
N	1	1	1	2	2
Stage Total Length (mm)	410	510	610	710	810
Stage Weight (kg)	35.9	42.3	48.7	55.0	61.4
Sliding Table M (mm)			190		
Α			8		
В	3				
Motion Parts Weight (kg)			10.7		

LMH350-U54-

Stroke (mm)	100	200	300	400	500
К	6	6	10	10	10
N	1	1	2	2	2
Stage Total Length (mm)	470	570	670	770	870
Stage Weight (kg)	40.0	46.3	52.7	59.0	65.4
Sliding Table M (mm)			250		
A			12		
В	5				
Motion Parts Weight (kg)			13.6		

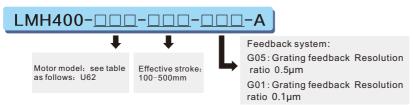
LMH350-U55-

Stroke (mm)	100	200	300	400	500
К	6	6	10	10	10
N	1	1	2	2	2
Stage Total Length (mm)	530	630	730	830	930
Stage Weight (kg)	44.0	50.4	56.8	63.1	69.5
Sliding Table M (mm)			310		
A			16		
В	7				
Motion Parts Weight (kg)			16.5		

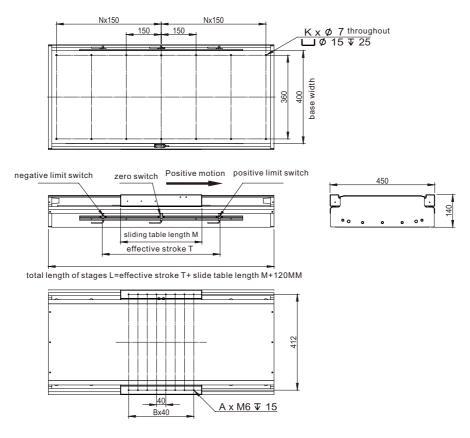
LMH350-U56-

Stroke (mm)	100	200	300	400	500
К	6	10	10	10	14
N	1	2	2	2	3
Stage Total Length (mm)	590	690	790	890	990
Stage Weight (kg)	48.1	54.5	60.8	67.2	73.6
Sliding Table M (mm)			370		
A			16		
В	7				
Motion Parts Weight (kg)			19.4		





> Stage appearance and installation size



➤ Motor Model/Parameter

			Ironless Li	near Motor	
Motor Model Parameter	Unit	U62	U63	U64	U65
Continuous Force (Tmax)	N	221	331	442	552
Peak Force	N	1326	1988	2649	3311
Motor Constant	$N\sqrt{W}$	19.0	23.5	27.2	30.5
Max.Continuous Power Dissipation	W	135.2	199.5	263.8	328.1
Continuous Current	Arms	2.5	2.5	2.5	2.5
Peak Current (1S)	Arms	15	15	15	15
Force Constant (25°C, ±5%)	N/Arms	88.4	132.5	176.6	220.7
Back EMF Constant (25°C, ±5%)	Vrms/m/s	29.5	44.2	58.9	73.6
Electrical Resistance(25°C, ±5%)P-P	Ω	10.3	15.2	20.1	25
Inductance(25°C, ±20%)P-P	mH	19	28.5	38	47.5
Max Coil Temperature	°C	120	120	120	120
Polar Distance (N-N)	mm	84	84	84	84
Magnetic Attraction	KN	0	0	0	0
Primary weight	Kg	1.9	2.7	3.6	4.5



Stroke (mm)	100	200	300	400	500		
К	6	6	6	10	10		
N	1	1	1	2	2		
Stage Total Length (mm)	400	500	600	700	800		
Stage Weight (kg)	44.9	53.6	62.3	71.1	79.8		
Sliding Table M (mm)	190						
A	8						
В			3				
Motion Parts Weight (kg)	11.6						

LMH400-U63-

Stroke (mm)	100	200	300	400	500		
К	6	6	10	10	10		
N	1	1	2	2	2		
Stage Total Length (mm)	480	580	680	780	880		
Stage Weight (kg)	51.3	60.1	68.8	77.6	86.3		
Sliding Table M (mm)	260						
A	12						
В			5				
Motion Parts Weight (kg)	15.4						

LMH400-U64-

Stroke (mm)	100	200	300	400	500			
К	6	10	10	10	14			
N	1	2	2	2	3			
Stage Total Length (mm)	570	670	770	870	970			
Stage Weight (kg)	58.6	67.4	76.1	84.9	93.6			
Sliding Table M (mm)	350							
A			16					
В	7							
Motion Parts Weight (kg)	20.1							

LMH400-U65-

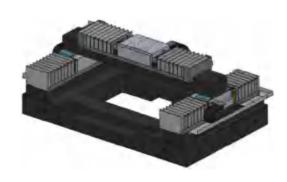
Stroke (mm)	100	200	300	400	500			
К	6	10	10	10	14			
N	1	2	2	2	3			
Stage Total Length (mm)	650	750	850	950	1050			
Stage Weight (kg)	65.2	74.0	82.7	91.5	100.2			
Sliding Table M (mm)	430							
A	20							
В			9					
Motion Parts Weight (kg)	24.4							

LMD Series Custom Stages

- ➤ It is customized motor stages;
- ➤ Adopt an incremental optical scale feedback system;
- ➤ It can be assembled to single-drive gantry stages, double-drive gantry stages, and static gantry stages;
- > Stable and consistent motion performance which can receive high efficiency;
- ➤ The stroke, running speed and acceleration of each axis can be customized according to customer requirements;













LMD Custom Linear Motor Stages











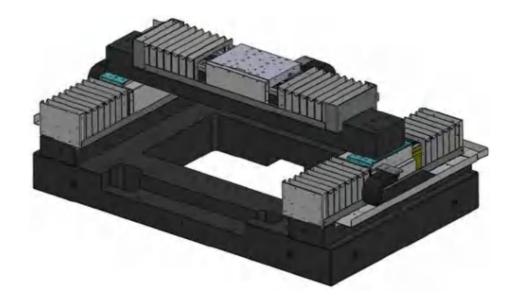






LMD Custom Linear Motor Stages

- > Adopt Han's brand U-type linear motor and ACS high-performance control system;
- ➤ The base and beam are made of marble, double-drive gantry structure, strong load capacity and good stability;
- > Adopt high-precision optical ruler feedback system and ultra-high-precision linear guide;
- > It is suitable for high-end inspection equipment, welding and micro-cutting production;
- ➤ It can be choose different types of linear motor models according to requirements, and the Z axis can be expanded;



Product code	Stroke range	Load (Kg) Velocity (m/s) Acceleration (g) Straightness (Straightness (µm)	Verticality (µm)	Repeat accuracy (µm)	
X-axis (crossbeam axis)	100-1000	25	0.5	0.5	6/400	5/400	±1.5
Y1-axis (Lower axis)	100-1000	/	0.5	0.5	6/400	5/400	±1.5
Y2-axis (Lower axis)	100-1000	/	0.5	0.5	6/400	5/400	±1.5



LMD Custom Linear Motor Stages

- > Adopt Han's brand U-type linear motor and ACS high-performance control system;
- ➤ The base and beam are made of marble, fixed gantry structure, strong load capacity and good stability;
- > It is uitable for precision inspection, printing plate making and other applications;
- ➤ It can be customized high precision marble gantry stages according to customer requirements, and the Z axis can be expanded;



Stage Performance							
Parameter	X-axis (Lower axis)	Y-axis (crossbeam axis)					
Stroke (mm)	2700	2850					
Max.velocity (m/s)	1	1					
Acceleration (g)	0.4	0.4					
Repeat accuracy(µm)	±0.75μm	±1.15μm					
Positional accuracy (μm)	±2μm/1.5m	±2μm/1.5m					
Velocity fluctuation	<0.3%	<0.3%					
Acceleration and deceleration vibration	Smooth without vibration	Smooth without vibration					
Horizontal straightness (µm)	7.7	7.53					
Vertical straightness (µm)	7.07	6.96					
Load (kg)	100	140					
X-Y Verticality (mm) 0.01							

Electrical Control And Wiring Instruction

Drive Control System

➤ Multi-brand selection

Our linear motor stages can be adapted to a varity of drivers that commonly used in the market. Users can choose according to their needs, such as Servotronix, Panasonic, ADTECH, ELMO, ACS and other brands.



HAN'S



Servotronix



Panasonic



ADTECH



ELMO



ACS

> A variety of control options

Control method	Bus topology: EtherCAT, CANopen, RTNX, SSINET-III/H
Control method	Pulse type: PUL/DIR, A&B, CCW/CW
Operational mode	position mode, speed mode, torque mode
Pulse frequency (pulse type)	Maximum 4MHz
Power adapter	Input main power: AC220V
Power adapter	logic power: DC24V
Debug Interface	RS232, MINI-B



Feedback System

Stages can be equipped with a variety of different specifications and models of coded feedback system according to the application situation. To meet customer requirements for precision, speed, size, signal type and other applications. Commonly used brands are Renishaw, Haidham, RSF etc.



MS15 digital incremental grating





Digital incremental gating

➤ Commonly used several encoder interface definition

DB15 digital incremental grating

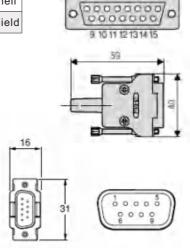
Pin	7、8	2、9	14	6	13	5	12	4	10	11	shell
Signal	5V	0V	A+	A-	B+	B-	Z+	Z-	S1	S2	shield

DB9 absolute grating

Pin	4、5	8、9	2	3	6	7	1	shell
Signal	5V	0V	MA+	MA-	SLO+	SLO-	shield	shield

DB9 Digital incremental gating

	_			•	•					
Pin	5	9	4	8	3	7	2	6	shell	
Signal	5V	0V	A+	A-	B+	B-	Z+	Z-	shield	



Pin Number

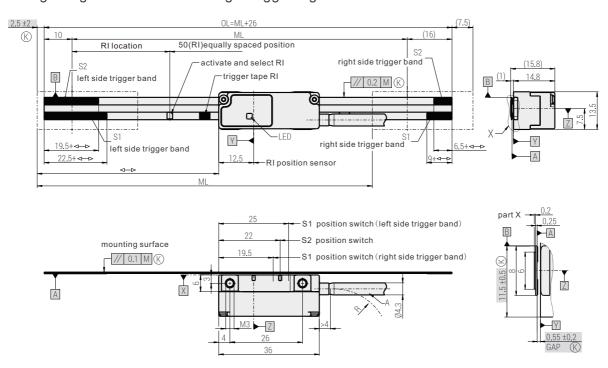
see pin direction

HAN'S MOTOR

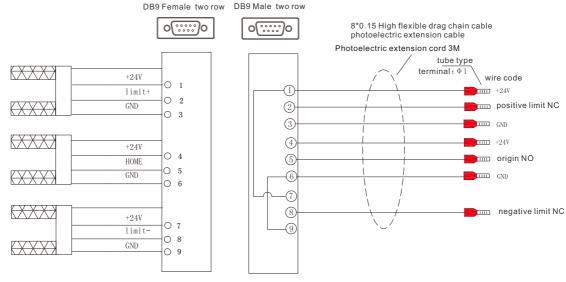


Limit origin induction system

For incremental feedback system, the company can be equipped with two limit and origin trigger modes according to requirements: For the stage with limited size and high precision requirements, the grating internal limit and origin trigger signal can be used.



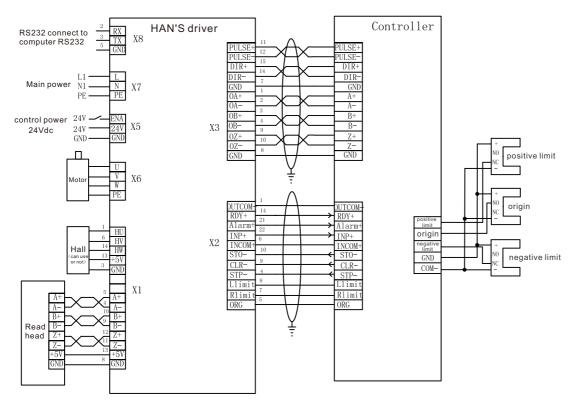
For no special requirements, the stage for later maintenance will be equipped with photoelectric switch and the corresponding extension cable Photoelectric brand: Omron EE-SX67X, MEIJIDENKI series etc. The corresponding wiring harness as following:



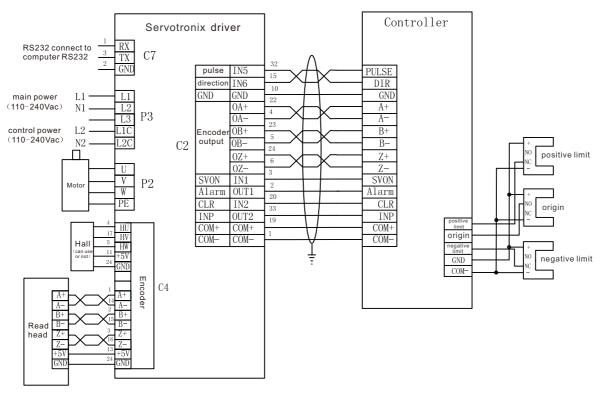


Several common pulse driver wiring reference

HAN'S Series



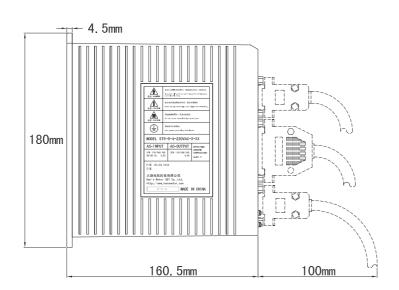
Servotronix CDHD Series

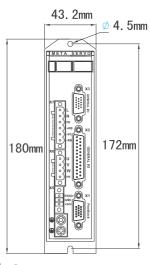


Note: For reference only, please refer to the driver manual for specific usage

Driver Installation Dimension

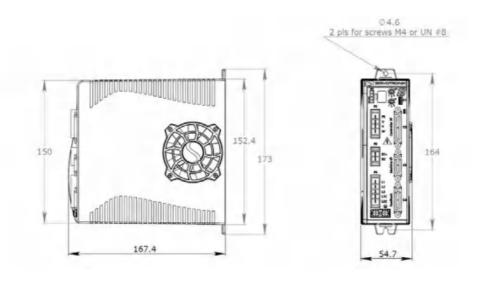






screw: M4 screw torque:14(kgf-cm)

Servotronix



Note: For reference only, please refer to the driver manual for specific usage



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