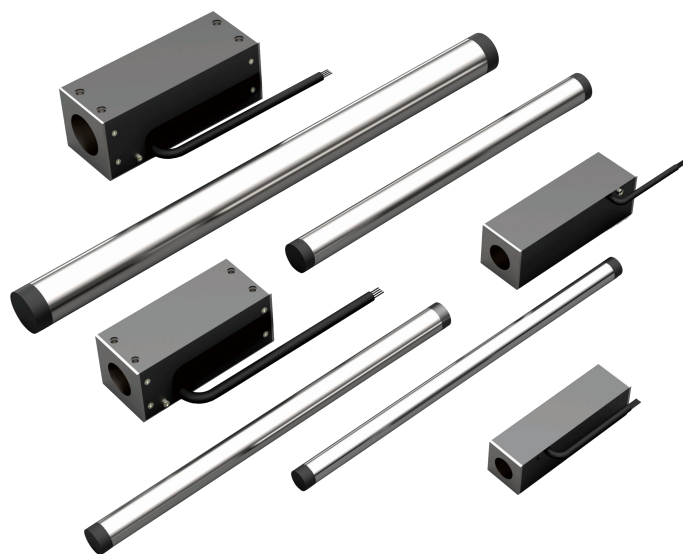




a **WOLONG** company



LINEAR MOTOR PRODUCT SELECTION



1

Round Pole Linear Motor

OLI developed round pole linear motor, it's mature technology ahead of the domestic market. This is a high cost-effective product that suitable for high speed and high precision positioning applications.

The motor adopts core-free technology, low vibration, low slotting effect of stable action, low speed fluctuation, constant speed stability, high precision positioning without reverse clearance, excellent high-speed response performance (high-speed setting), minimal vibration when stopped, the use of simple structure can achieve high rigidity requirements, because the dynamic stator adopts eccentric core structure design, easy to install. No contact sports, maintenance free.



COS160 Series



Round Pole Linear Motor

Motor Parameter

Model	Thrust N	Current Arms	Max Thrust N	Max Current Arms	Pole Spacing mm	Impedance Ω	Inductance mh	Driver model
160SS	5	0.65	19	2.5	60	10.5	4.1	MBDLN25SL**
160S	10	0.62	40	2.5	60	21	8.2	
160M	15	0.62	60	2.5	60	33	12	
160H	20	0.62	80	2.5	60	43	16	

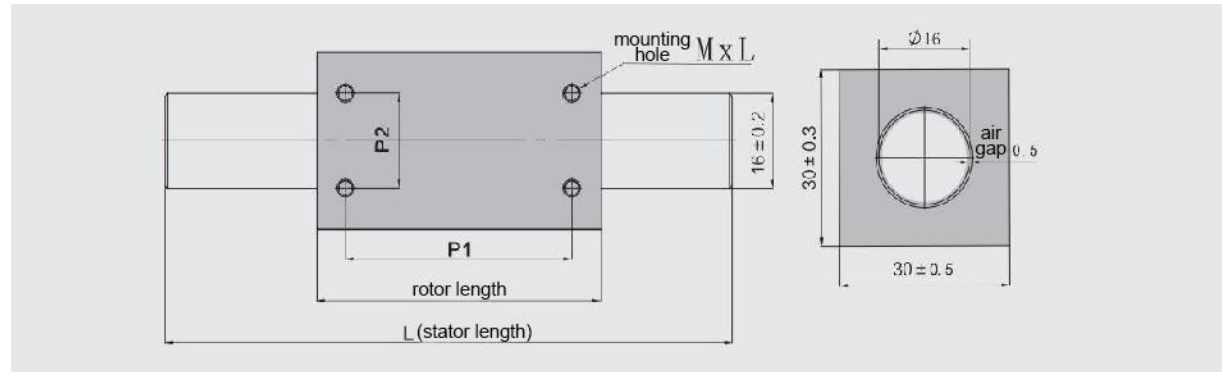
Rotor Size

Model	Length (mm)	Cross Section (mm)	Weight (Kg)	Installation Spacing(mm)		Mounting Hole (mm)	Air Gap
				P1	P2	M×I	G/mm
160SS	50	30±0.2	0.1	40	16±0.2	4-M3T5	0.5
160S	80		0.15	70			
160M	110		0.2	100			
160H	140		0.3	130			

Stator Size

Length (mm)	Diameter (mm)	Different support block according stator length	
		Stator Length(mm)	Support block thickness(mm)
100-1725	16±0.2	100~350	≤25
		351~800	≤40
		801~1725	≤60

COS160 Series Installation Size



Round Pole Linear Motor



Motor Parameter

Model	Thrust N	Current Arms	Max Thrust N	Max Current Arms	Pole Spacing mm	Impedance Ω	Inductance mh	Driver model
200SS	9	0.65	36	2.5	72	14.3	9.6	MBDLN25SI**
200S	18	0.59	70	2.4	72	28.7	19.3	
200M	28	0.59	110	2.4	72	43	29	
200H	38	0.59	150	2.4	72	56	39	

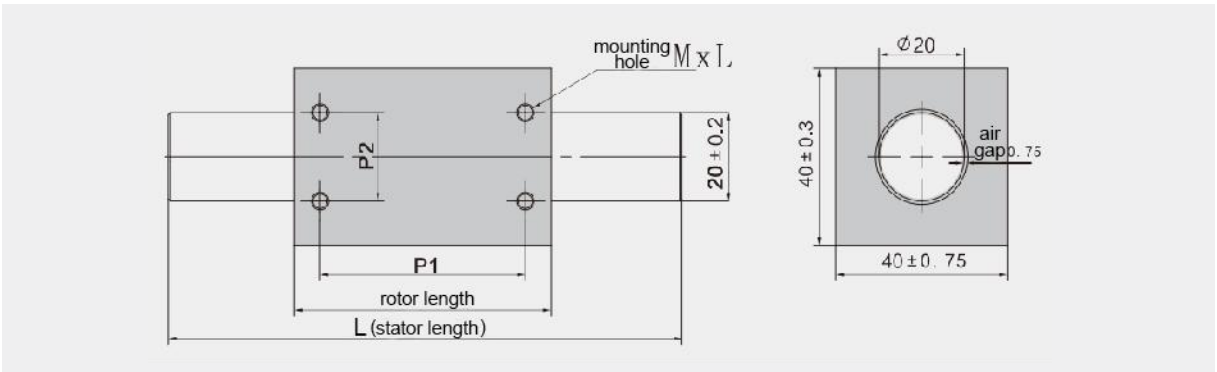
Rotor Size

Model	Length (mm)	Cross Section (mm)	Weight (Kg)	Installation Spacing(mm)		Mounting Hole (mm)	Air Gap
				P1	P2	M×I	G/mm
200SS	60	40±0.3	0.1	48	20±0.2	4-M4T6	0.75
200S	94		0.3	84			
200M	130		0.5	120			
200H	166		0.7	156			

Stator Size

Length (mm)	Diameter (mm)	Different support block according stator length	
		Stator Length(mm)	Support block thickness(mm)
100-2680	20±0.2	100~300	≤25
		300~700	≤40
		700~2680	≤60

COS200 Series Installation Size



COS250 Series



Round Pole Linear Motor

Motor Parameter

Model	Thrust N	Current Arms	Max Thrust N	Max Current Arms	Pole Spacing mm	Impedance Ω	Inductance mh	Driver model
250SS	19	1.3	79	5.4	90	3.9	5	MBDLN25SL **
250S	40	1.28	160	5.1	90	7.8	10	
250M	60	1.28	240	5.1	90	12	15	
250H	75	1.28	300	5.1	90	15	19	

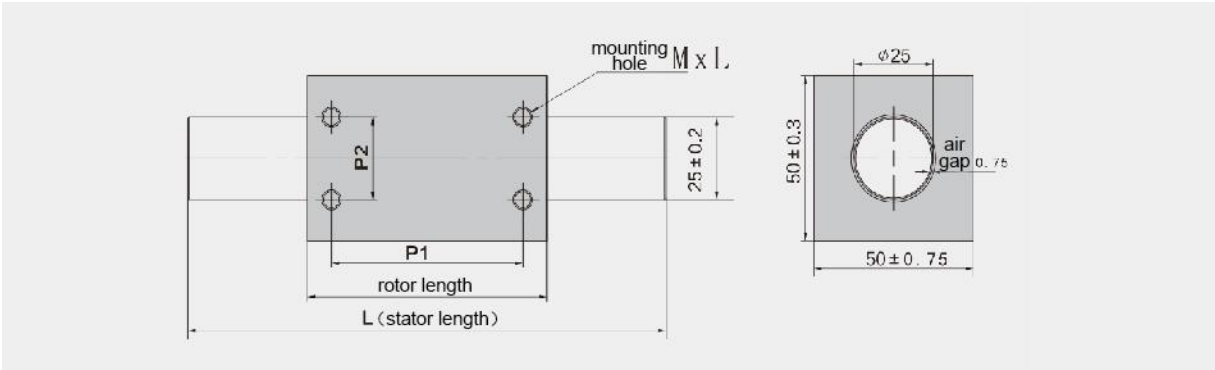
Rotor Size

Model	Length (mm)	Cross Section (mm)	Weight (Kg)	Installation Spacing(mm)		Mounting Hole (mm)	Air Gap
				P1	P2	M×I	G/mm
250SS	75	50±0.3	0.2	60	25 ±0.2	4-M6T8	0.75
250S	120		0.8	105			
250M	165		1.1	150			
250H	210		1.5	195			

Stator Size

Length (mm)	Diameter (mm)	Different support block according stator length	
		Stator Length(mm)	Support block thickness(mm)
100-2500	25±0.2	100~700	≤50
		700~1500	≤70
		1500~2500	≤100

COS250 Series Installation Size



Round Pole Linear Motor



Motor Parameter

Model	Thrust N	Current Arms	Max Thrust N	Max Current Arms	Pole Spacing mm	Impedance Ω	Inductance mh	Driver model
350SS	52	1.5	175	6	120	7	10.8	MBDLN25SL** MCDLN35SL**
350S	105	1.5	415	5.4	120	13.8	21.8	
350M	150	1.5	590	5.4	120	20.2	33	
350H	190	2.7	760	10.8	120	6.9	10.9	

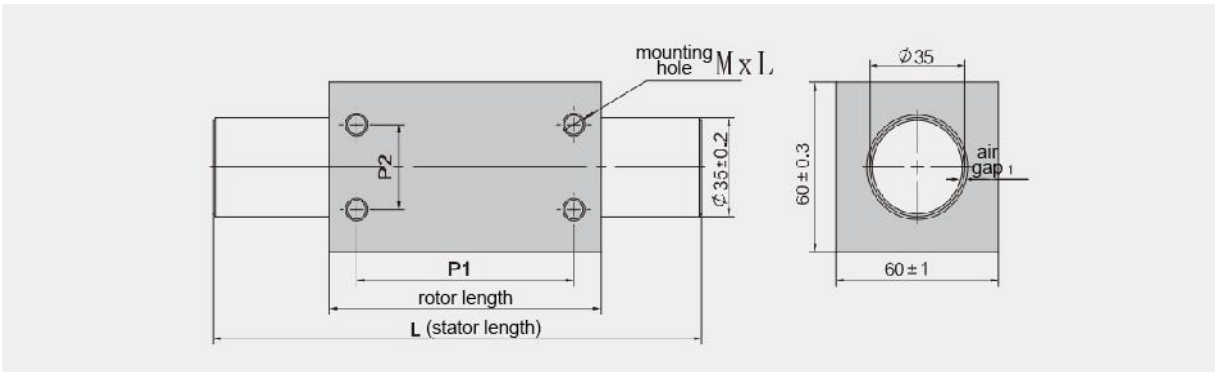
Rotor Size

Model	Length (mm)	Cross Section (mm)	Weight (Kg)	Installation Spacing(mm)		Mounting Hole (mm)	Air Gap
				P1	P2	M×I	G/mm
350SS	100	60±0.3	0.4	80	30±0.2	4-M8T9	1.0
350S	160		1.3	140			
350M	220		1.9	200			
350H	280		2.4	260			

Stator Size

Length (mm)	Diameter (mm)	Different support block according stator length	
		Stator Length(mm)	Support block thickness(mm)
100-2400	35±0.2	100~750	≤50
		751~1500	≤70
		1501~2400	≤100

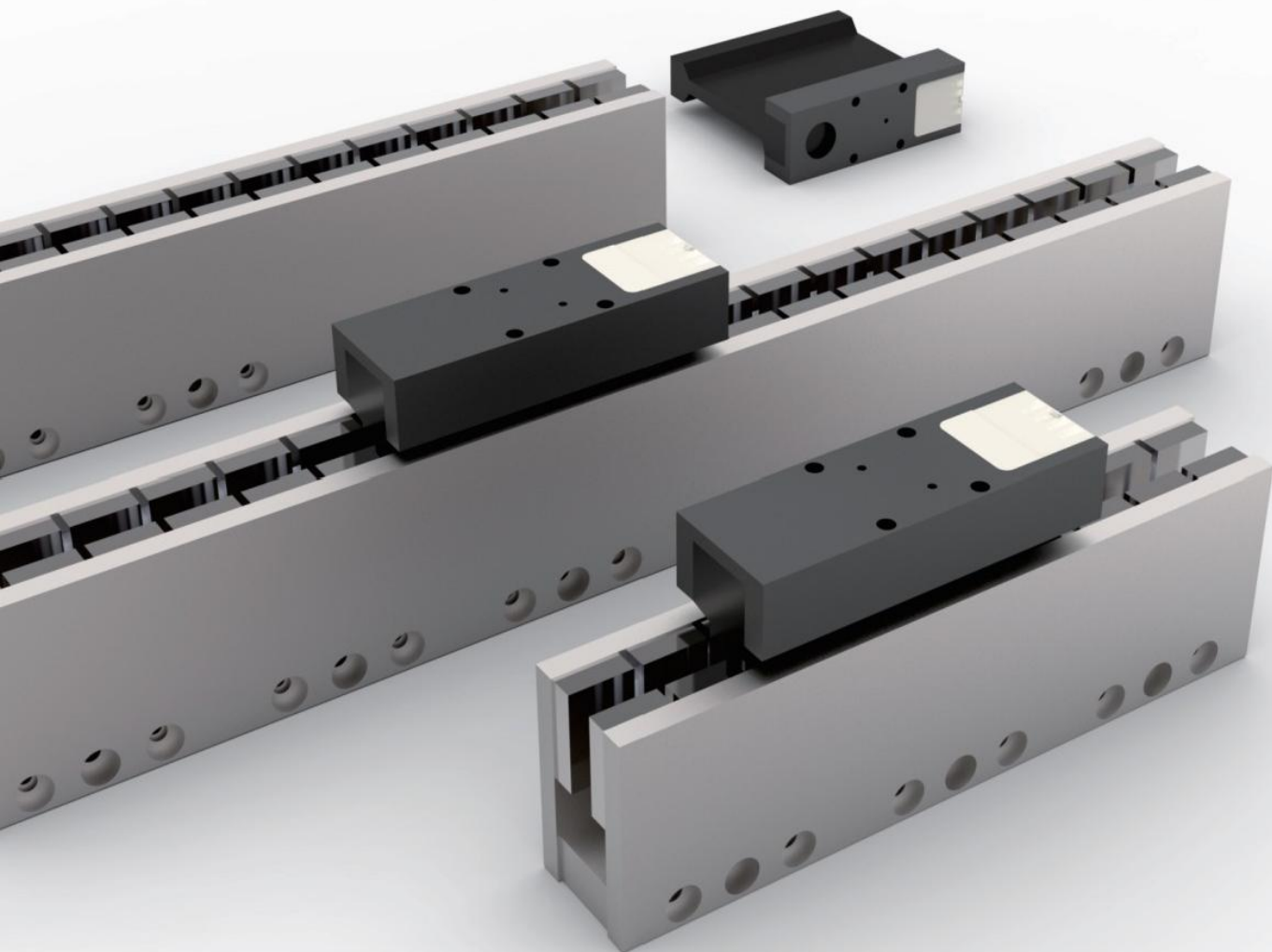
COS350 Series Installation Size



2

U-type Linear Motor

U-type coreless linear motors have no winding slots, which means lighter motion mass, no gravitational force between the coil assembly and the magnetic circuit, and absolutely zero cogging effect. These features of the U-shaped linear motor are suitable for the needs of extremely low bearing friction, light load and high acceleration, and constant speed movement at ultra-low speeds. Suitable for high speed, high precision positioning applications, and no deadweight generation under high thrust motion.



ULM A Series



U-type Linear Motor

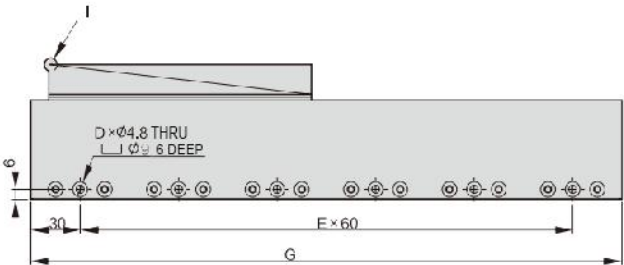
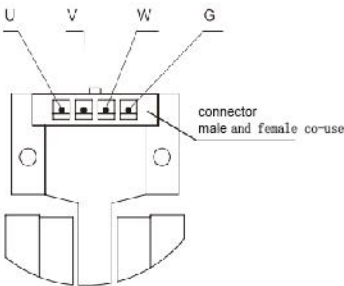
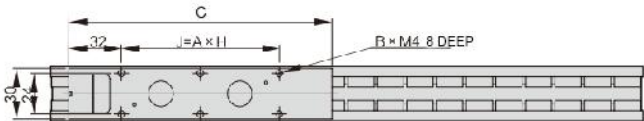
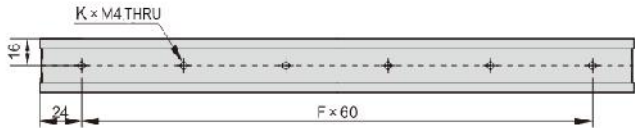
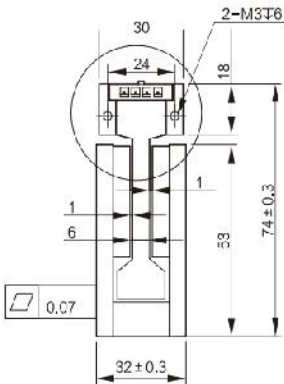
Motor Parameter

Model	Unit	ULMAC1	ULMAC2	ULMAC3
Continuous force	N	32	64	128
Peak force	N	96	192	384
Electrical cycle	mm	36		
Continuous current	Arms	2	2	2
Peak current	Arms	6	6	6
Force constant	N/Arms	16	32	64
Back EMF constant (line to line)	V/m/s	9.2	18.5	37
Resistance (line to line)@25°C	Ω	4.7	9.4	18.8
Inductance (line to line)	mH	1.75	3.5	7
Coil mass	Kg	0.3	0.5	0.9
Coil length	mm	88	160	304

Motor Coil					
Model	A	B	C	H	J
ULMAC1	24	4	88	1	24
ULMAC2	48	6	160	2	96
ULMAC3	48	12	304	5	240

Motor Track					
Model	D	E	F	G	K
LMFA180	3	2	2	180	3
LMFA360	6	5	5	360	6
Special specification					

Drawing Size



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ULM C Series

U-type Linear Motor

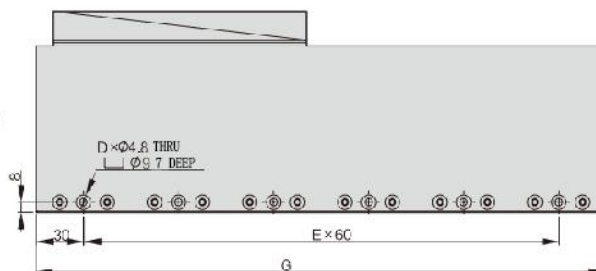
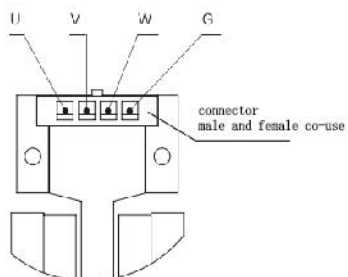
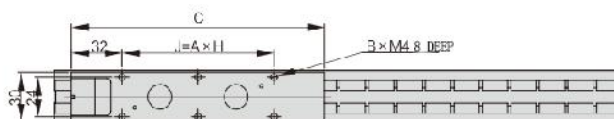
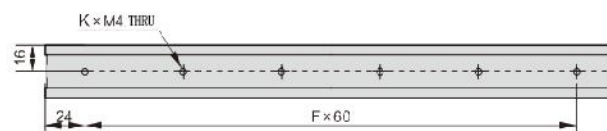
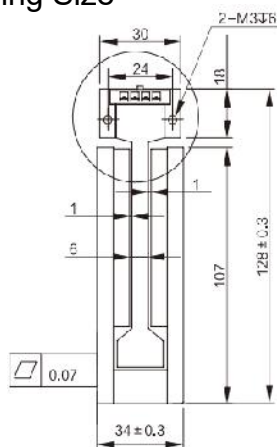
Motor Parameter

Model	Unit	ULMCC1	ULMCC2	ULMCC3
Continuous force	N	94	188	300
Peak force	N	282	564	900
Electrical cycle	mm	36		
Continuous current	Arms	2	2	3.2
Peak current	Arms	6	6	9.6
Force constant	N/Arms	47	94	94
Back EMF constant (line to line)	V/m/s	26	54	54
Resistance (line to line)@25°C	Ω	8	16	8
Inductance (line to line)	mH	3.4	6.7	3.4
Coil mass	Kg	0.5	0.8	1.5
Coil length	mm	88	160	304

Motor Coil					
Model	A	B	C	H	J
ULMCC1	24	4	88	1	24
ULMCC2	48	6	160	2	96
ULMCC3	48	12	304	5	240

Motor Track					
Model	D	E	F	G	K
LMFC180	3	2	2	180	3
LMFC360	6	5	5	360	6
Special specification					

Drawing Size



U-type Linear Motor



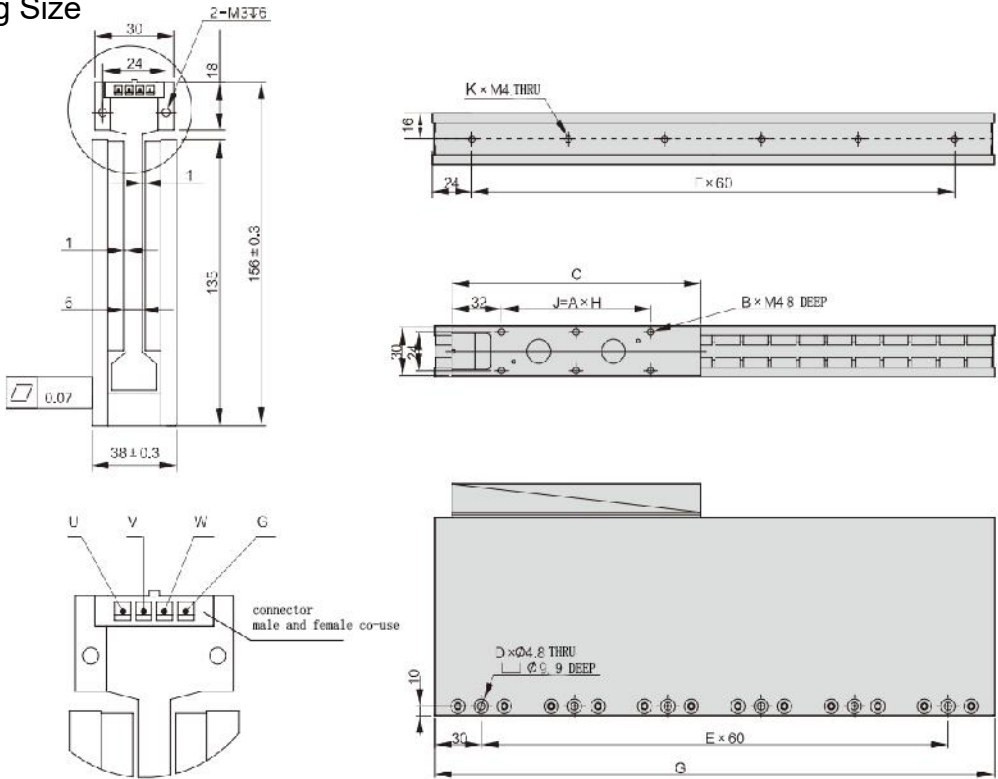
Motor Parameter

Model	Unit	ULMDC1	ULMDC2	ULMDC3
Continuous force	N	128	256	410
Peak force	N	384	768	1230
Electrical cycle	mm	36		
Continuous current	Arms	2	2	3.2
Peak current	Arms	6	6	9.6
Force constant	N/Arms	64	128	128
Back EMF constant (line to line)	V/m/s	37	74	74
Resistance (line to line)@25℃	Ω	9.3	18.6	9.3
Inductance (line to line)	mH	4.2	8.5	4.2
Coil mass	Kg	0.5	1	1.6
Coil length	mm	88	160	304

Motor Coil					
Model	A	B	C	H	J
ULMDC1	24	4	88	1	24
ULMDC2	48	6	160	2	96
ULMDC3	48	12	304	5	240

Motor Track					
Model	D	E	F	G	K
LMFD180	3	2	2	180	3
LMFD360	6	5	5	360	6
Special specification					

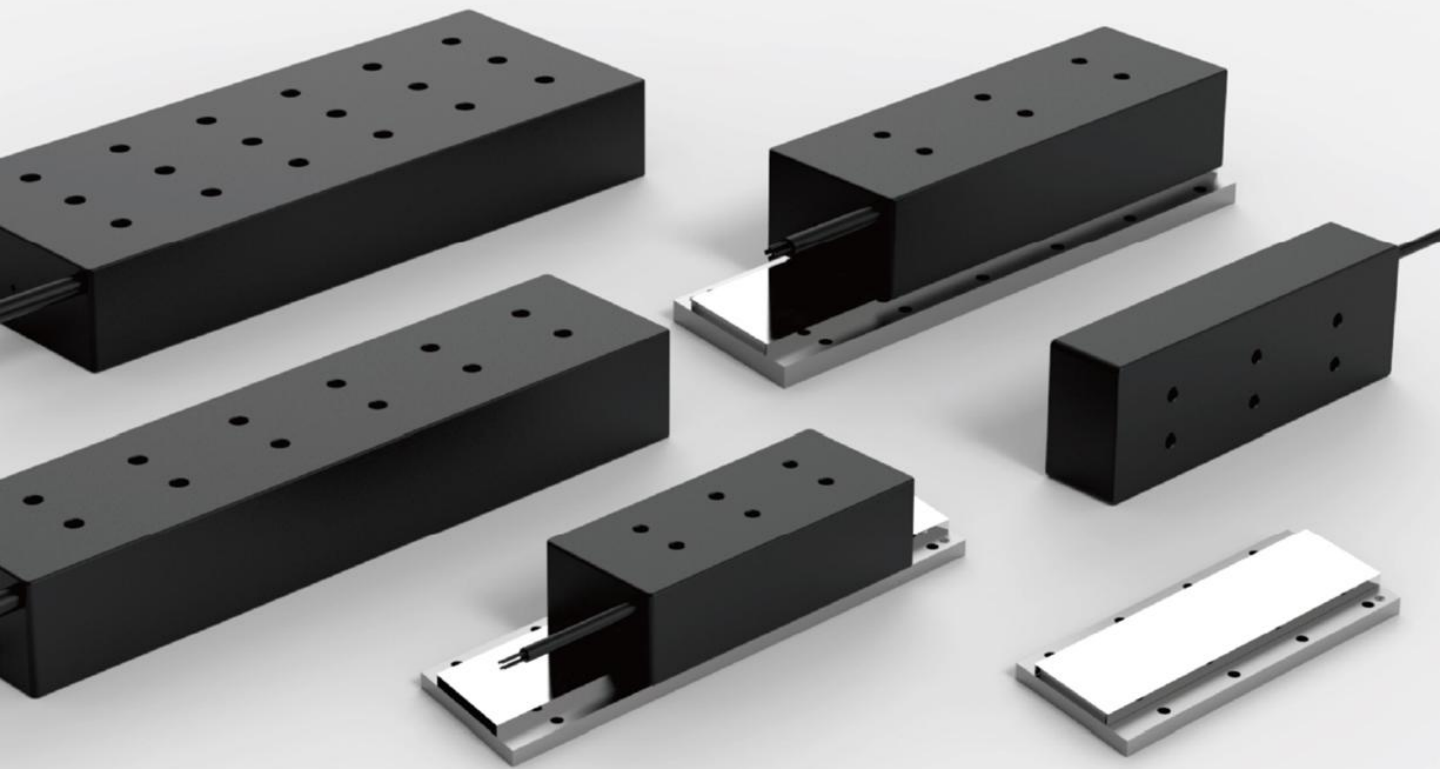
Drawing Size



3

Flat Linear Motor

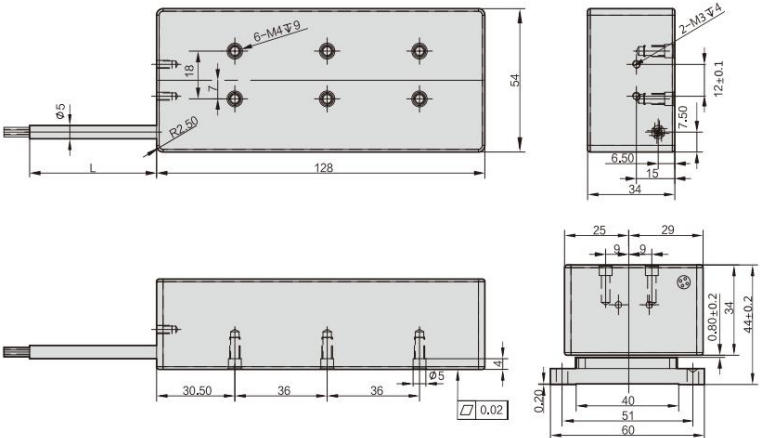
PM core motor provides maximum output per unit volume. They use an excellent anti-slotting solution that minimizes slotting effects, all without the need for deflecting magnets. Their compact size and low suction make them suitable replacements for many core-free applications, and the high thrust generated by the motor makes them ideal for accelerating and moving high quality, as well as maintaining stiffness during machining.



PM90 Coil



Flat Linear Motor

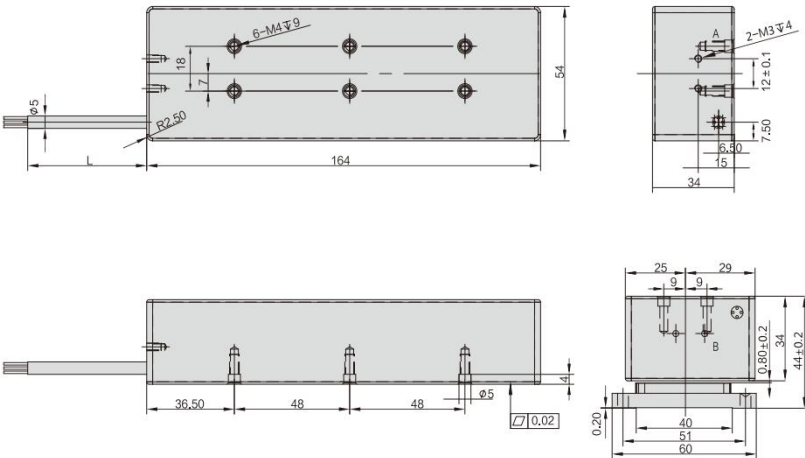


PM90-36-0.45B			
Name	Symbol	Number	Unit
Rated thrust	F _c	90	N
Peak thrust	F _p	270	N
Rated current	I _c	1.5	Arms
Peak current	I _p	4.5	Arms
Pole spacing	T	36	mm
Resistance	R	13	Ω
Inductance	L	52	mh
Coil mass	M	1.2	Kg
Magnetic plate	CB144/CB216		
Electromagnetic attraction	567		

PM130 Coil

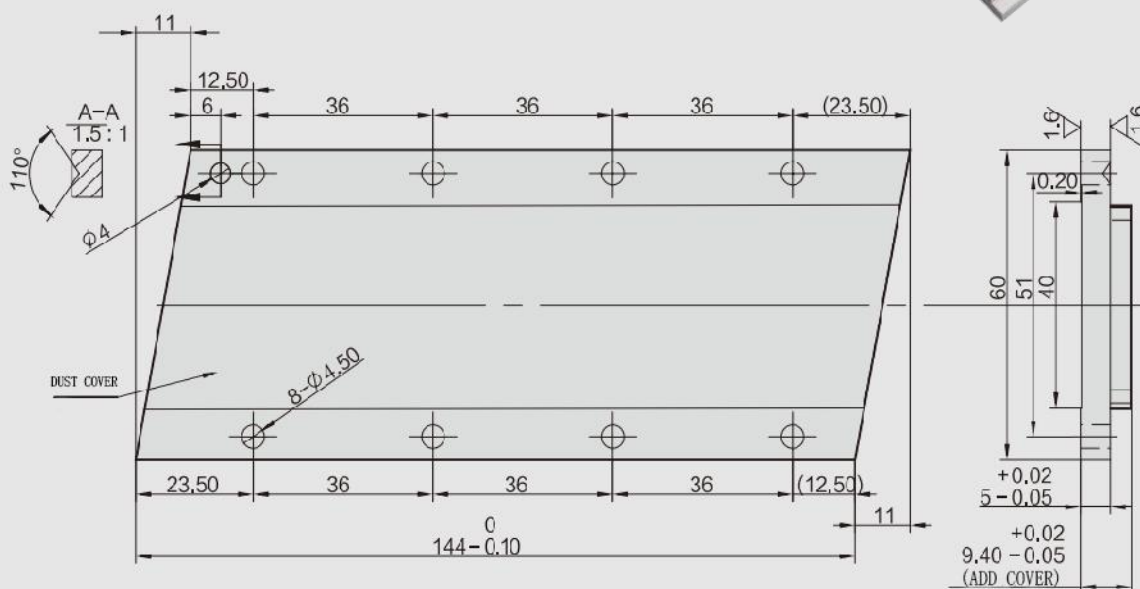


Flat Linear Motor

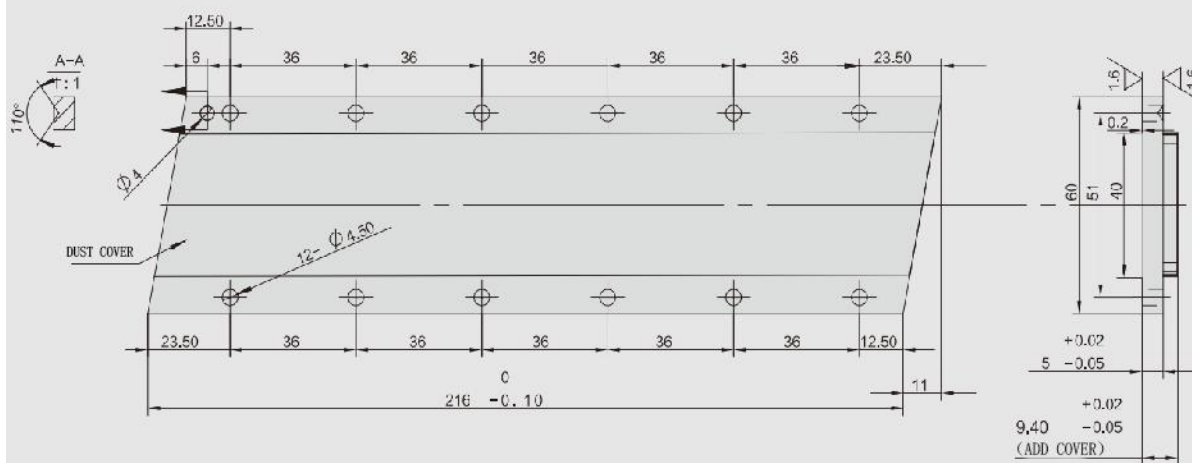


PM130-36-0.6B			
Name	Symbol	Number	Unit
Rated thrust	F _c	130	N
Peak thrust	F _p	390	N
Rated current	I _c	2.2	Arms
Peak current	I _p	6.6	Arms
Pole spacing	T	36	mm
Resistance	R	6.4	Q
Inductance	L	37	mh
Coil mass	M	1.6	Kg
Magnetic plate	CB144/CB216		
Electromagnetic attraction	819		

Motor Magnetic Plate CB144-60-36-B



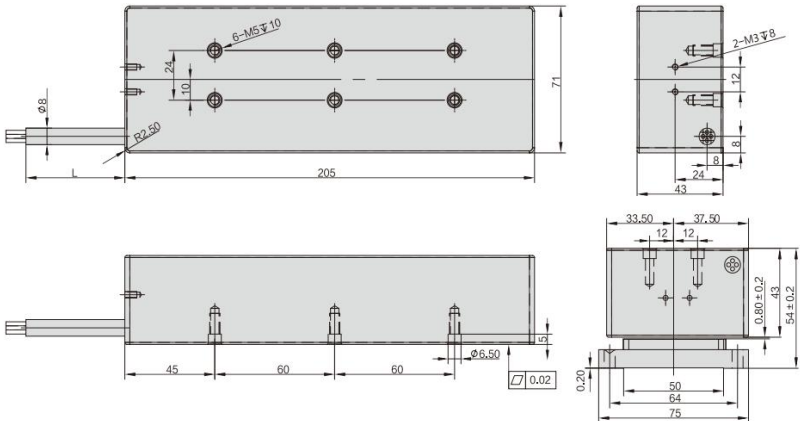
Motor Magnetic Plate CB216-60-36-B



PM250 Coil



Flat Linear Motor

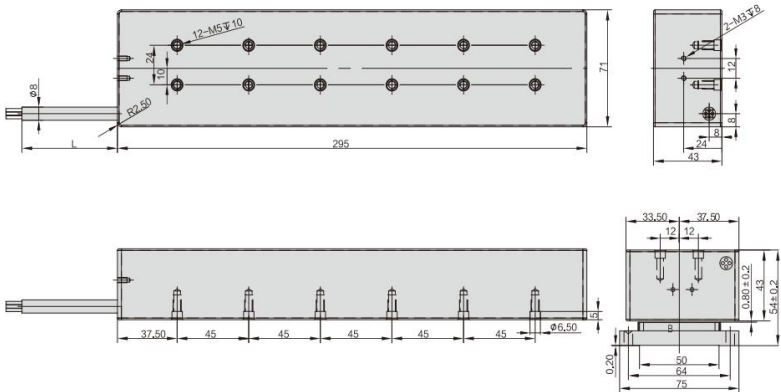
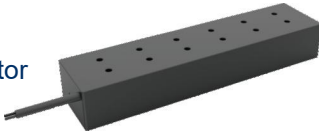


PM250-45-0.6B			
Name	Symbol	Number	Unit
Rated thrust	F _c	250	N
Peak thrust	F _p	750	N
Rated current	I _c	2.2	Arms
Peak current	I _p	6.6	Arms
Pole spacing	T	45	mm
Resistance	R	10.7	Ω
Inductance	L	84.5	mh
Coil mass	M	3.3	Kg
Magnetic plate	CB180/CB270		
Electromagnetic attraction	1575		

PM400 Coil

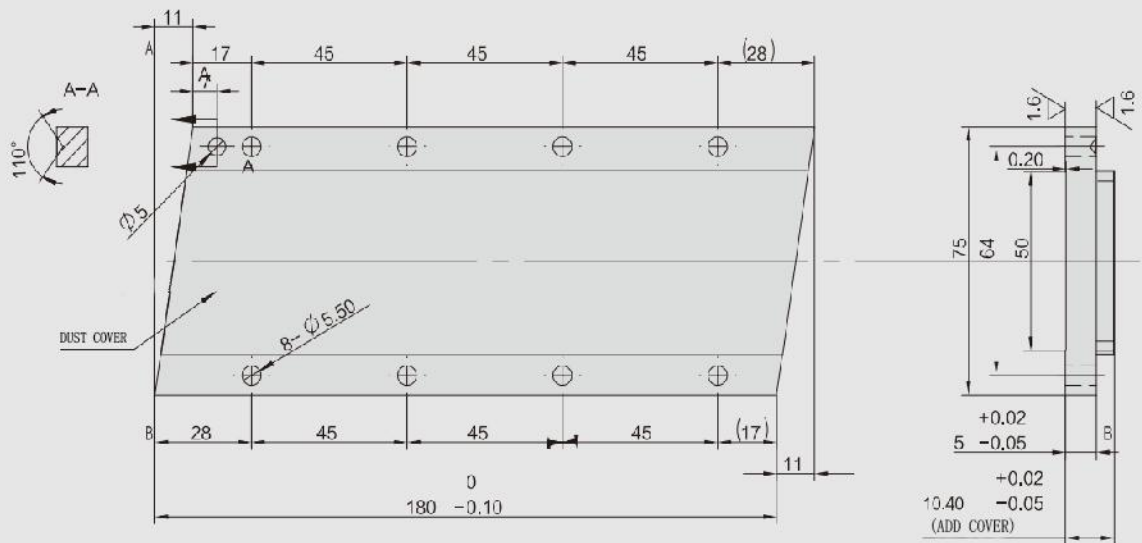
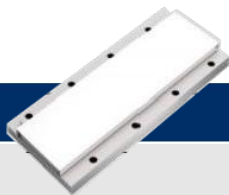


Flat Linear Motor

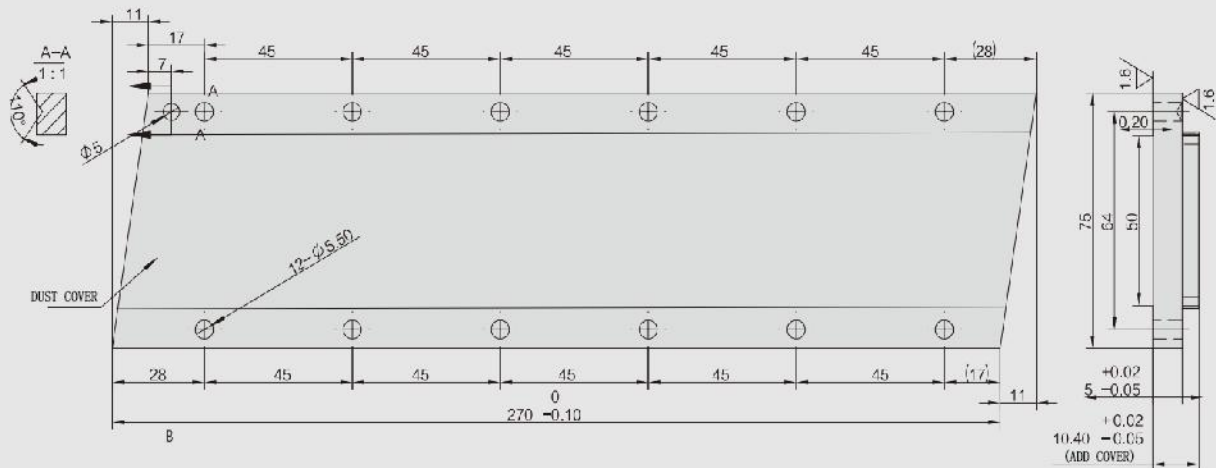


PM400-45-0.6CB			
Name	Symbol	Number	Unit
Rated thrust	F _c	400	N
Peak thrust	F _p	1200	N
Rated current	I _c	4	Arms
Peak current	I _p	12	Arms
Pole spacing	T	45	Mm
Resistance	R	5.3	Ω
Inductance	L	41.5	mh
Coil mass	M	4.8	Kg
Magnetic plate	CB180/CB270		
Electromagnetic attraction	2520		

Motor Magnetic Plate CB180-75-45-B



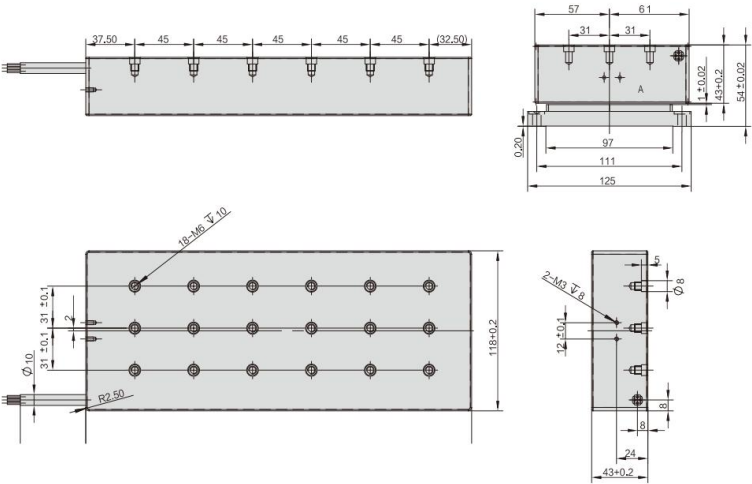
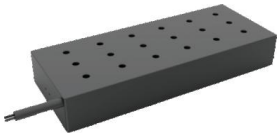
Motor Magnetic Plate CB270-75-45-B



PM750 Coil



Flat Linear Motor

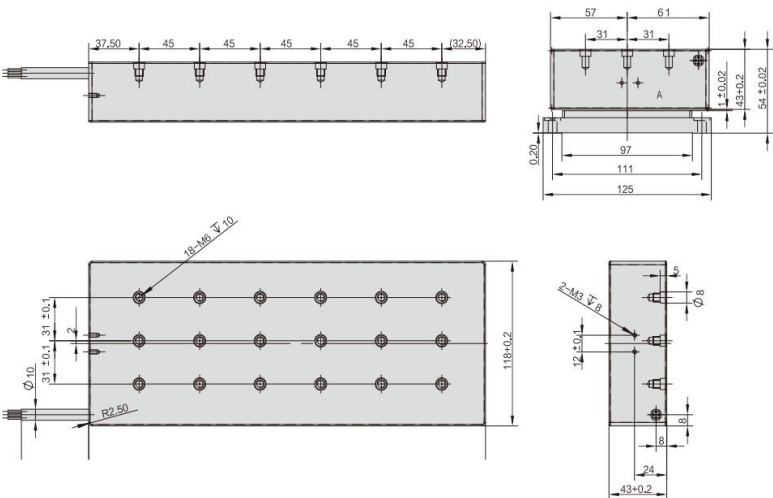
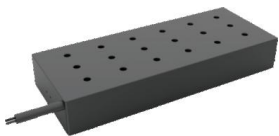


PM750-45-0.6BB			
Name	Symbol	Number	Unit
Rated thrust	Fc	750	N
Peak thrust	Fp	2250	N
Rated current	Ic	6.8	Arms
Peak current	Ip	20.4	Arms
Pole spacing	T	45	mm
Resistance	R	3.4	Ω
Inductance	L	29.8	mh
Coil mass	M	9.5	Kg
Magnetic plate	CB270-125-45		
Electromagnetic attraction	4725		

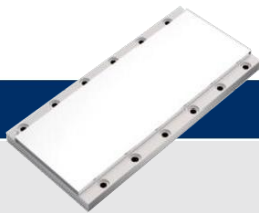
PM750 High Response



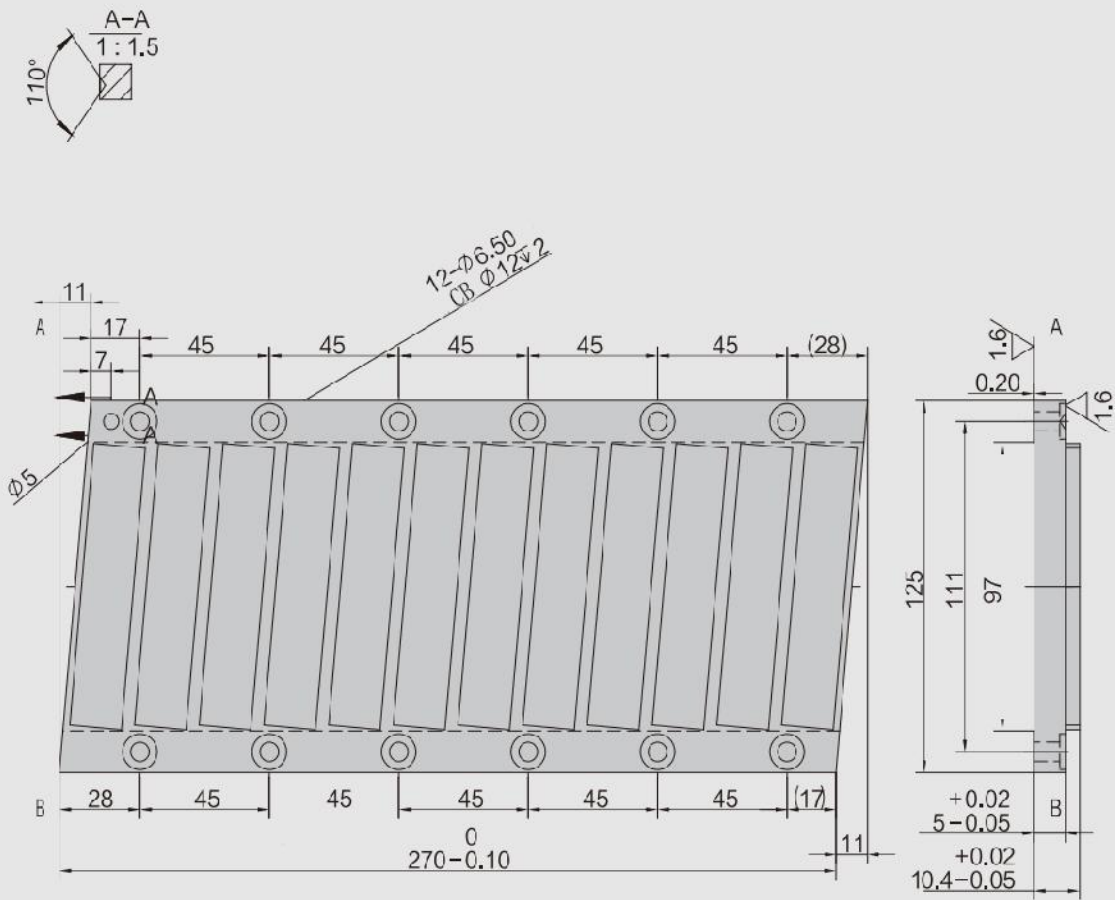
Flat Linear Motor



PM750-45-0.6BB			
Name	Symbol	Number	Unit
Rated thrust	Fc	750	N
Peak thrust	Fp	2250	N
Rated current	Ic	12	Arms
Peak current	Ip	36	Arms
Pole spacing	T	45	Mm
Resistance	R	0.9	Ω
Inductance	L	8.0	mh
Coil mass	M	9.5	Kg
Magnetic plate	CB270-125-45		
Electromagnetic attraction	5725		



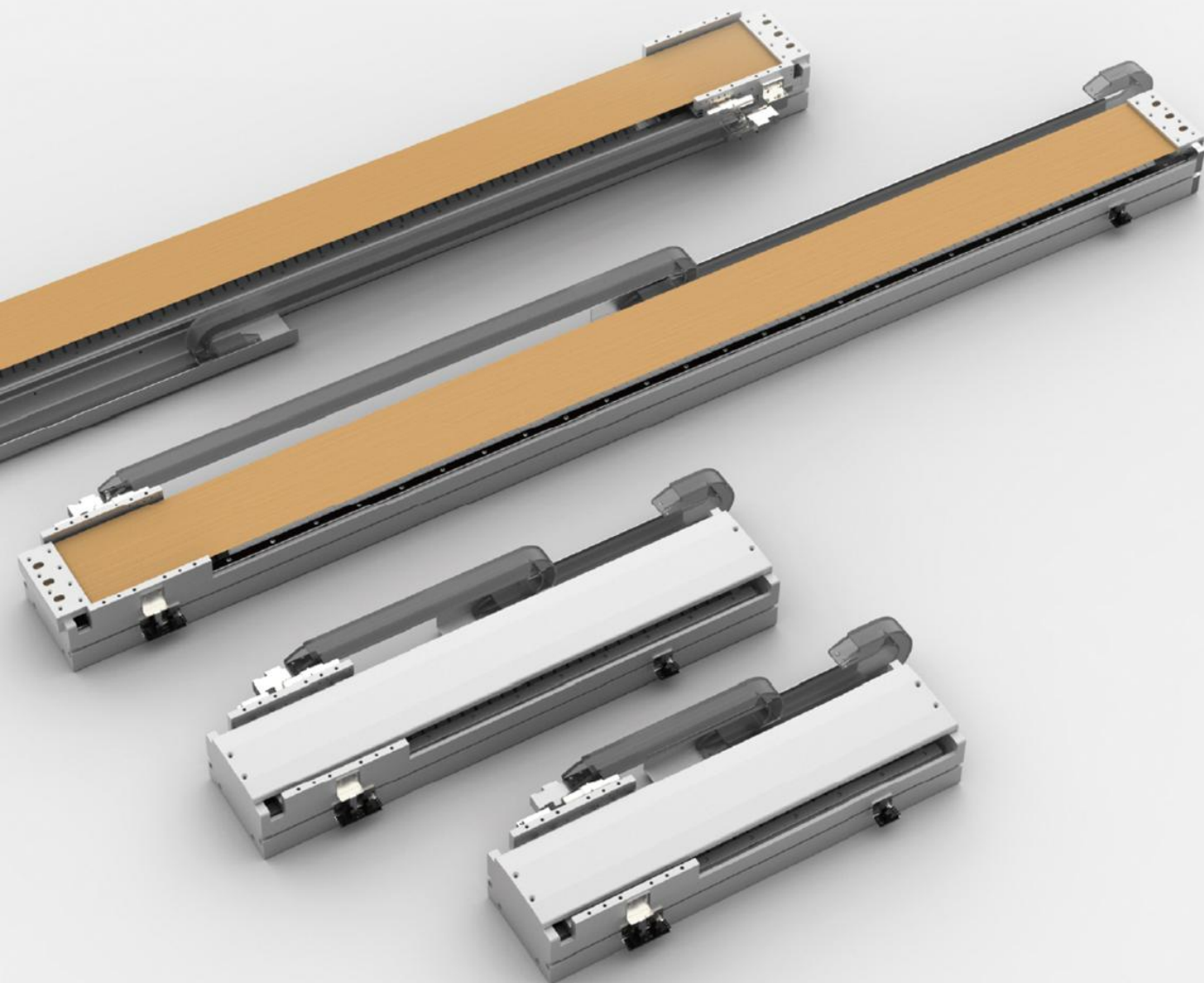
Motor Magnetic Plate CB270-125-45-B



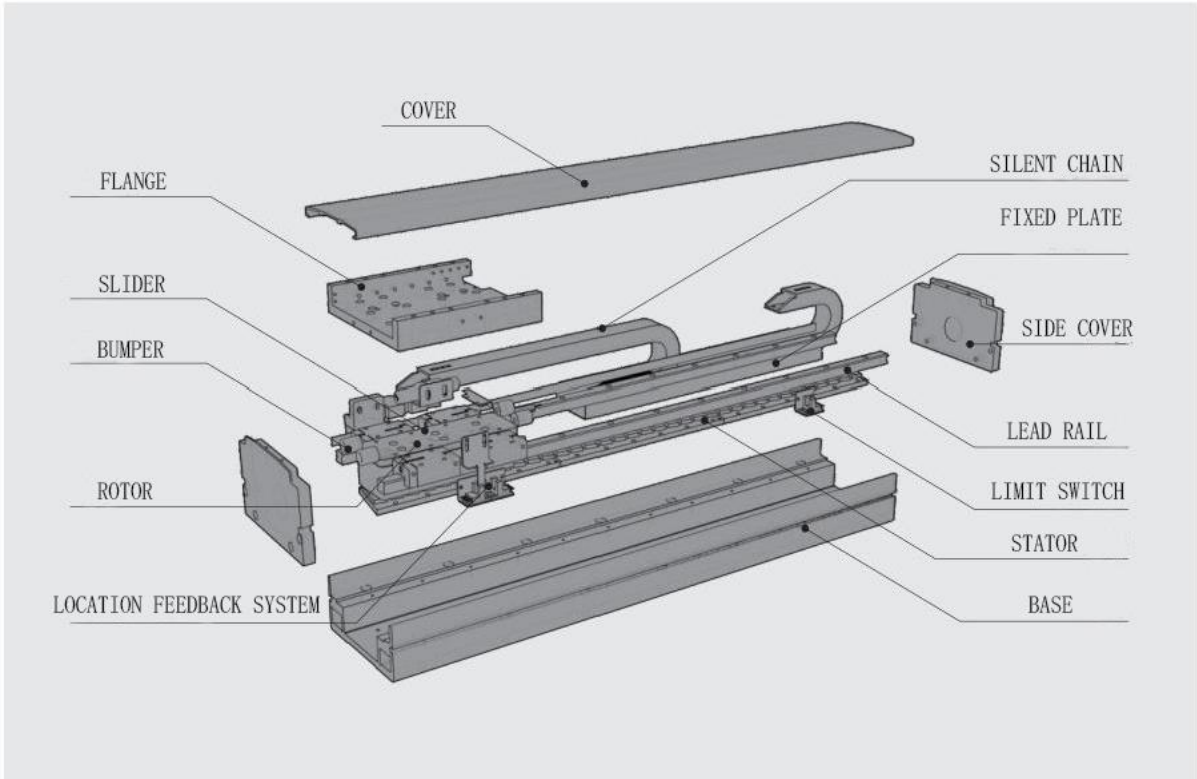
4

Module Series

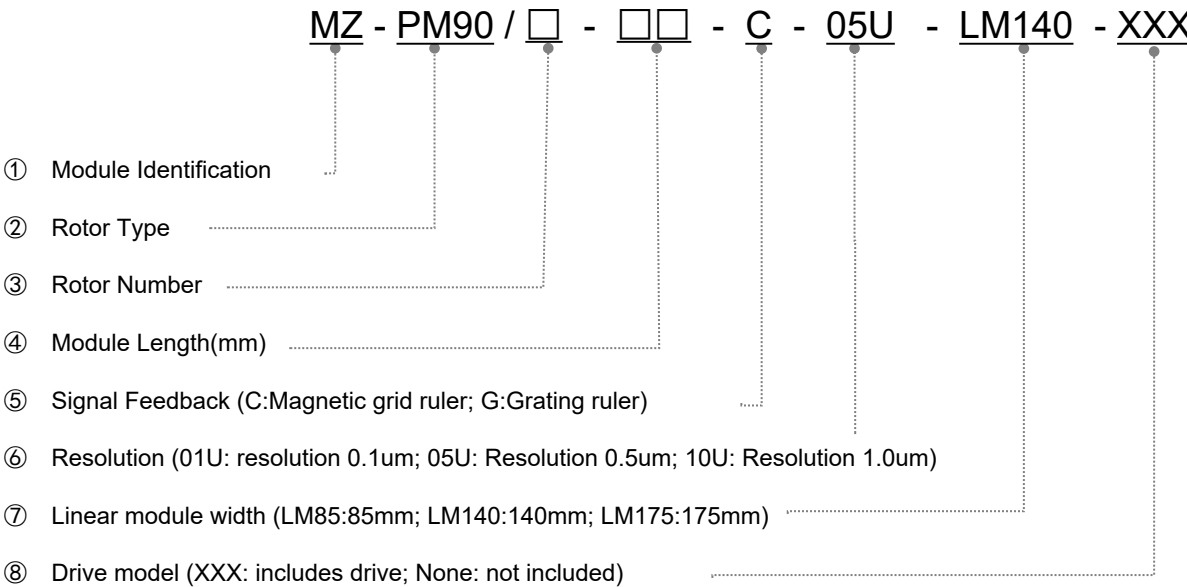
Linear motor drive, grating/magnetic grid positioning; High stability, high reliability, high response speed; High precision, high acceleration, high moving speed, no contact operation of the stator. No back backlash error, smooth movement, no wear, little maintenance, long service life.



Linear Module Structure



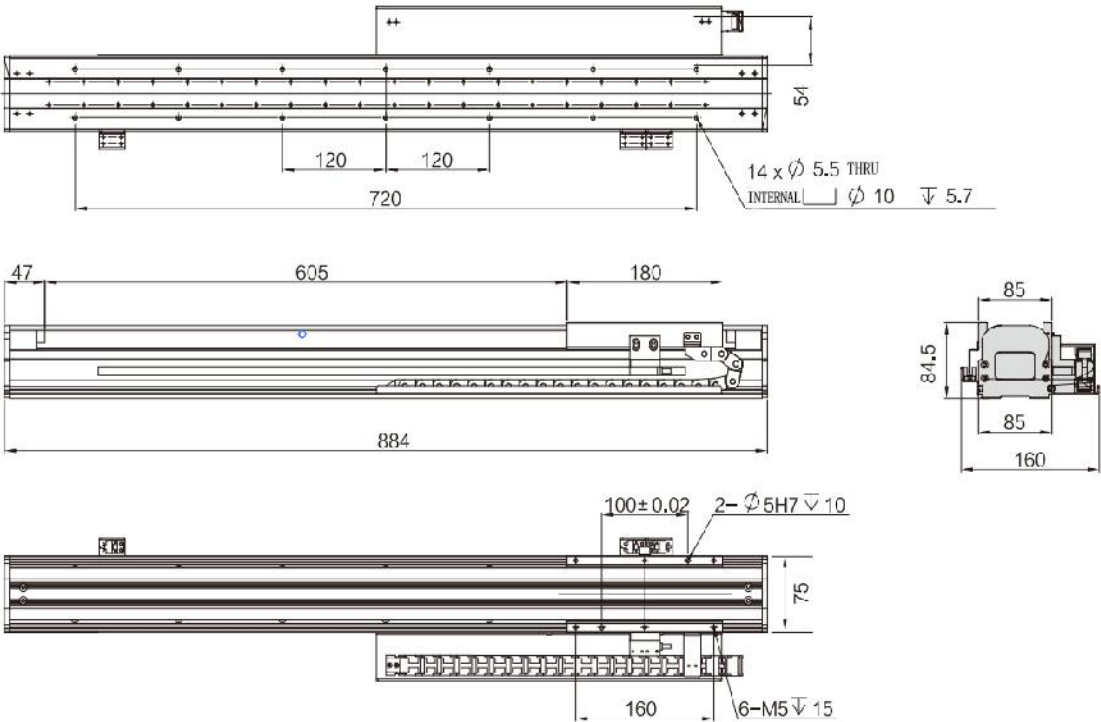
Naming Scheme



Linear Module
MZ-S200H/□-□□- C05U-LM85

150
Peak Thrust
(N)

38
Peak Thrust
(N)



Module Parameter

Repeated Positioning Accuracy	Rated Thrust	Max Thrust	Rated Current	Peak Current
less than $\pm 0.002\text{mm}$	38N	150N	0.59A	2.4A

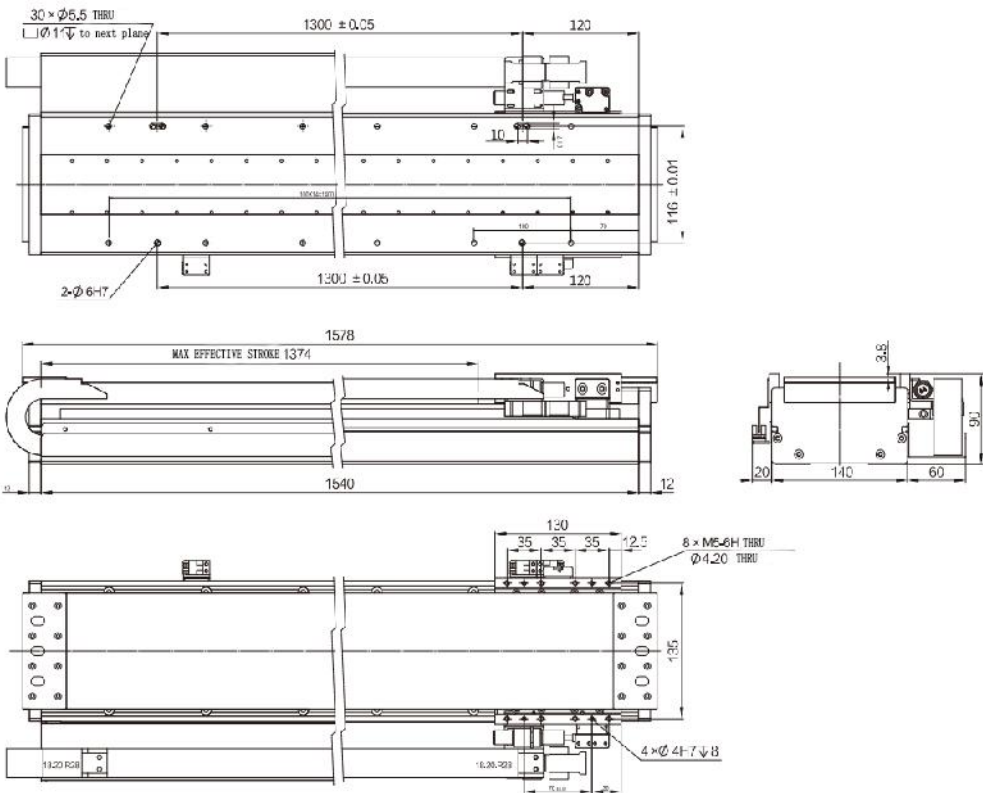
Stroke

Effective Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
L(mm)	384	484	584	684	784	884	1024	1124	1224	1324	1424	1524	1624	1724	1824
Weight(Kg)	8.5	9.6	10.7	11.8	12.9	13.9	15.3	16.4	17.5	18.6	19.6	20.7	21.8	22.9	24.0

Linear Module
MZ-PM90/□-□□- C05U-LM140

270
Peak Thrust
(N)

90
Peak Thrust
(N)



Module Parameter

Repeated Positioning Accuracy	Rated Thrust	Max Thrust	Rated Current	Peak Current
less than ±0.002mm	90N	270N	1.5A	4.5A

Stroke

Effective Stroke (mm)	78	150	222	294	366	438	510	582	654	726	798	870	942	1014	1086	1158	1230	1302	1374	1446	1518
L(mm)	268	340	412	484	556	628	700	772	844	916	988	1060	1132	1204	1276	1348	1420	1492	1564	1636	1708
Weight(Kg)	7.1	8.1	9.2	10.3	11.5	12.6	13.7	14.8	15.9	17.1	18.2	19.3	20.4	21.5	22.7	23.8	24.8	25.9	27.1	28.2	29.3

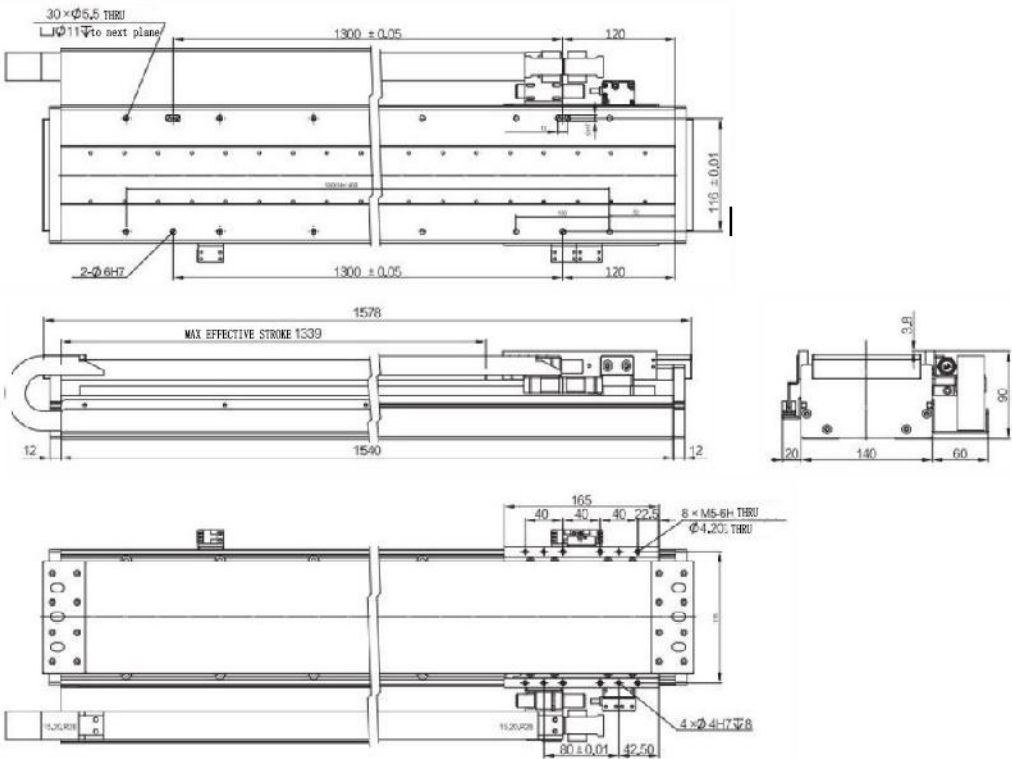
Effective Stroke (mm)	1590	1662	1734	1806	1878	1950	2022	2094	2166	2238	2310	2382	2454	2526	2598	2670	2742	2814	2886	2958	3030
L(mm)	1780	1852	1924	1996	2068	2140	2212	2284	2356	2428	2500	2572	2644	2716	2788	2860	2932	3004	3076	3148	3220
Weight(Kg)	30.5	31.5	32.6	33.8	34.9	36.0	37.1	38.2	39.3	40.5	41.6	42.7	43.8	45.0	46.1	47.2	48.3	49.5	50.6	51.7	52.8

Effective Stroke (mm)	3102	3174	3246	3318	3390	3462	3534	3606	3678	3750	3822	3894	3966	4038	4110	4182	4254	4326
L(mm)	3292	3364	3436	3508	3580	3652	3724	3796	3868	3940	4012	4084	4156	4228	4300	4372	4444	4516
Weight(Kg)	53.9	55.1	56.2	57.4	58.5	59.6	60.7	61.8	63	64	65.2	66.3	67.4	68.6	69.8	71	72.1	73.2

Linear Module
MZ-PM130/□-□□- C05U-LM140

390
Peak Thrust
(N)

130
Peak Thrust
(N)



Module Parameter

Repeated Positioning Accuracy	Rated Thrust	Max Thrust	Rated Current	Peak Current
less than $\pm 0.002\text{mm}$	130N	390N	2.2A	6.6A

Stroke

Effective Stroke (mm)	48	120	192	264	336	408	480	552	624	696	768	840	912	984	1056	1128	1200	1272	1344	1416	1488
L(mm)	268	340	412	484	556	628	700	772	844	916	988	1060	1132	1204	1276	1348	1420	1492	1564	1636	1708
Weight(Kg)	7.7	8.8	9.9	11.0	12.1	13.2	14.3	15.4	16.5	17.6	18.8	19.9	21.0	22.1	23.2	24.4	25.4	26.5	27.7	28.8	30.0

Effective Stroke (mm)	1560	1632	1704	1776	1848	1920	1992	2064	2136	2208	2280	2352	2424	2496	2568	2640	2712	2784	2856	2928	3000
L(mm)	1780	1852	1924	1996	2068	2140	2212	2284	2356	2428	2500	2572	2644	2716	2788	2860	2932	3004	3076	3148	3220
Weight(Kg)	31.0	32.1	33.2	34.4	35.5	36.6	37.7	38.9	40.0	41.1	42.2	43.4	44.5	45.6	46.8	47.9	49.0	50.2	51.3	52.4	53.5

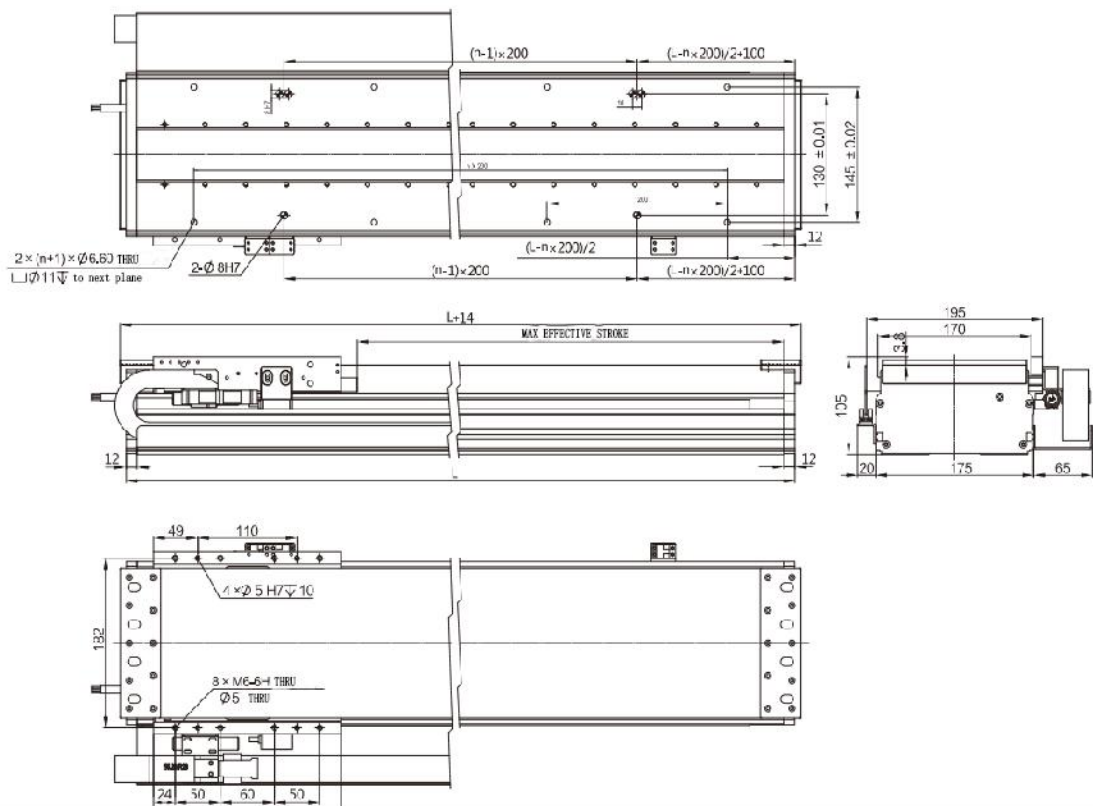
Effective Stroke (mm)	3072	3144	3216	3288	3360	3432	3504	3576	3648	3720	3792	3864	3936	4008	4080	4152	4224	4296			
L(mm)	3292	3364	3436	3508	3580	3652	3724	3796	3868	3940	4012	4084	4156	4228	4300	4372	4444	4516			
Weight(Kg)	54.6	55.8	56.9	58.	59.2	60.3	61.5	62.6	63.7	64.9	66	67.1	68.2	69.3	70.5	71.6	72.7	73.9			

Linear Module

MZ-PM250/□-□□- C05U-LM175

750
Peak Thrust
(N)

250
Peak Thrust
(N)



Module Parameter

Repeated Positioning Accuracy	Rated Thrust	Max Thrust	Rated Current	Peak Current
less than $\pm 0.002\text{mm}$	250N	750N	2.2A	6.6A

Stroke

Effective Stroke (mm)	132	222	312	402	492	582	672	762	852	942	1032	1122	1212	1302	1392	1482	1572	1662	1752	1842	1932
L(mm)	400	490	580	670	760	850	940	1030	1120	1210	1300	1390	1480	1570	1660	1750	1840	1930	2020	2110	2200
Weight(Kg)	14.9	17.0	9.1	21.0	23.1	25.2	27.1	29.1	31.2	33.2	35.2	37.3	39.2	41.3	43.4	42.8	44.7	46.6	48.3	50.3	52.2

Effective Stroke (mm)	2022	2112	2202	2292	2382	2472	2562	2652	2742	2832	2922	3012	3102	3192	3282	3372	3462	3552	3642	3732	3822
L(mm)	2290	2380	2470	2560	2650	2740	2830	2920	3010	3100	3190	3280	3370	3460	3550	3640	3730	3820	3910	4000	4090
Weight(Kg)	53.9	55.8	57.7	59.4	61.3	63.3	65.0	66.7	68.6	70.5	72.2	74.1	75.9	77.8	79.5	81.4	83.3	85.2	87.0	88.7	90.6

Effective Stroke (mm)	3912	4002	4092	4182
L(mm)	4180	4270	4360	4450
Weight(Kg)	92.5	94.4	96.1	98

Linear Module

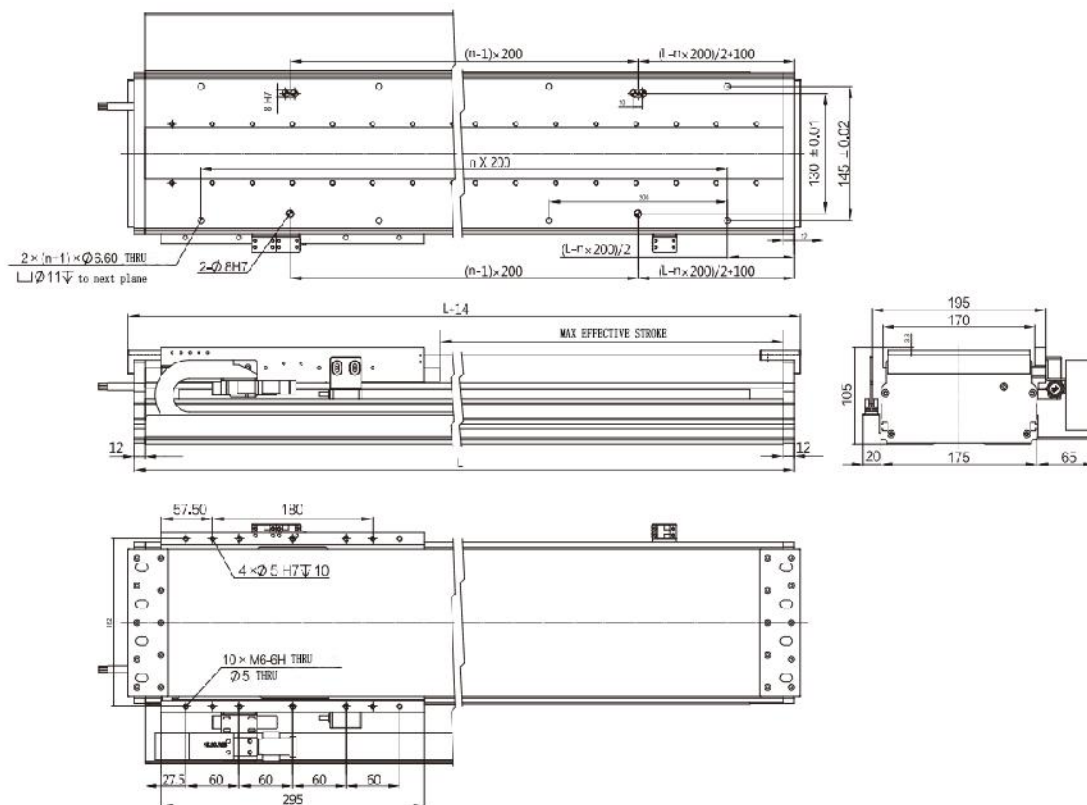
MZ-PM400/□-□□- C05U-LM175

1200

Peak Thrust
(N)

400

Peak Thrust
(N)



Module Parameter

Repeated Positioning Accuracy	Rated Thrust	Max Thrust	Rated Current	Peak Current
less than $\pm 0.002\text{mm}$	400N	1200N	4A	12A

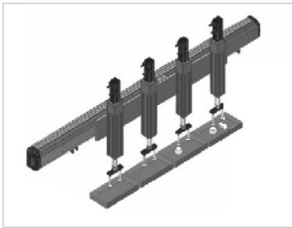
Stroke

[illegible]

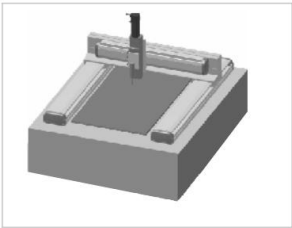
▶ Linear Module Installation Method



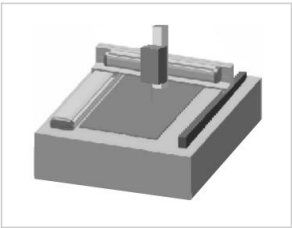
Mount horizontally
or upside down



Cross mounting



Large LCD glass basic glue
application



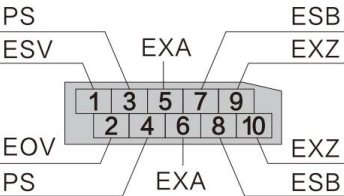
Single drive gantry
installation

▶ Connector X5 Wiring

The power supply for the external feedback ruler is ready for the customer, but please ensure that it is in the power output as shown below (below 250mA).

Suitable For	Symbol	Connector Pin No.	Content
Output	EX5V	1	Power supply for external displacement sensors or A/B/Z phase encoders.
	EXOV	2	Connected to the GND of the control circuit.
External displacement sensor signal input and output	EXPS	3	Serial signal sending and receiving signal
	/EXPS	4	
Phase A/B/Z encoder signal input	EXA	5	Parallel signal receiving speed: - 4Mpulse/s(after 4x)
	/EXA	6	
	EXB	7	
	/EXB	8	
	EXZ	9	
	/EXZ	10	
Case ground	FG	Housing	The ground terminal is connected inside the servo driver

Connector(Plug):
MUF-PK10K-X



▶ CS signal connector X6

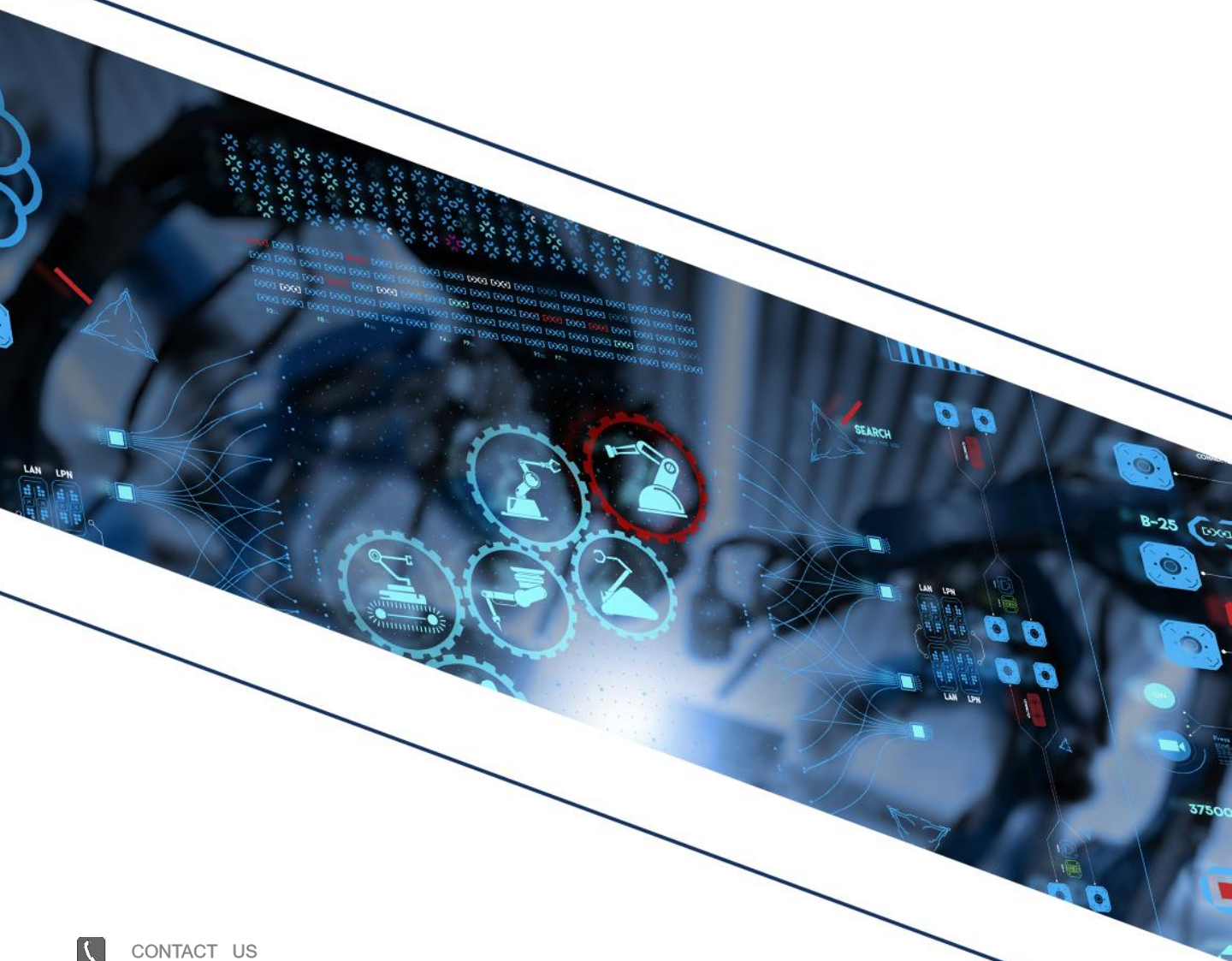
Suitable For	Connector Pin No.	Content
Power output for CS signal	1	E5V
	2	EOV(注1)
-	3	Do not link
Encoder signal input/output(serial signal)	4	CS3 signal input
	5	CS2 signal input
	6	CS1 signal input
Case ground	Housing	FG



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随时随地 如您所需

ANYTIME AND ANYWHERE AS YOUR NEED



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