



Leading suppliers of industrial
automation module R&D and production

최고의 자동화 모듈 개발 및 생산 공급업체



WOLONG 卧龙

Founded in 2017. A company specializing in the production of linear motors in Wolong Group, focusing on the production, research and development and application of linear motors

2017년에 설립되었다.와룡그룹은 직선전기를 전문적으로 생산하는 회사로서 직선전기의 생산, 연구 개발과 응용에 전념한다



專利產品



ISO9001認證



高性價比



短交期



穩定的品質

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01

Shaft type linear motors 축식 직선전기

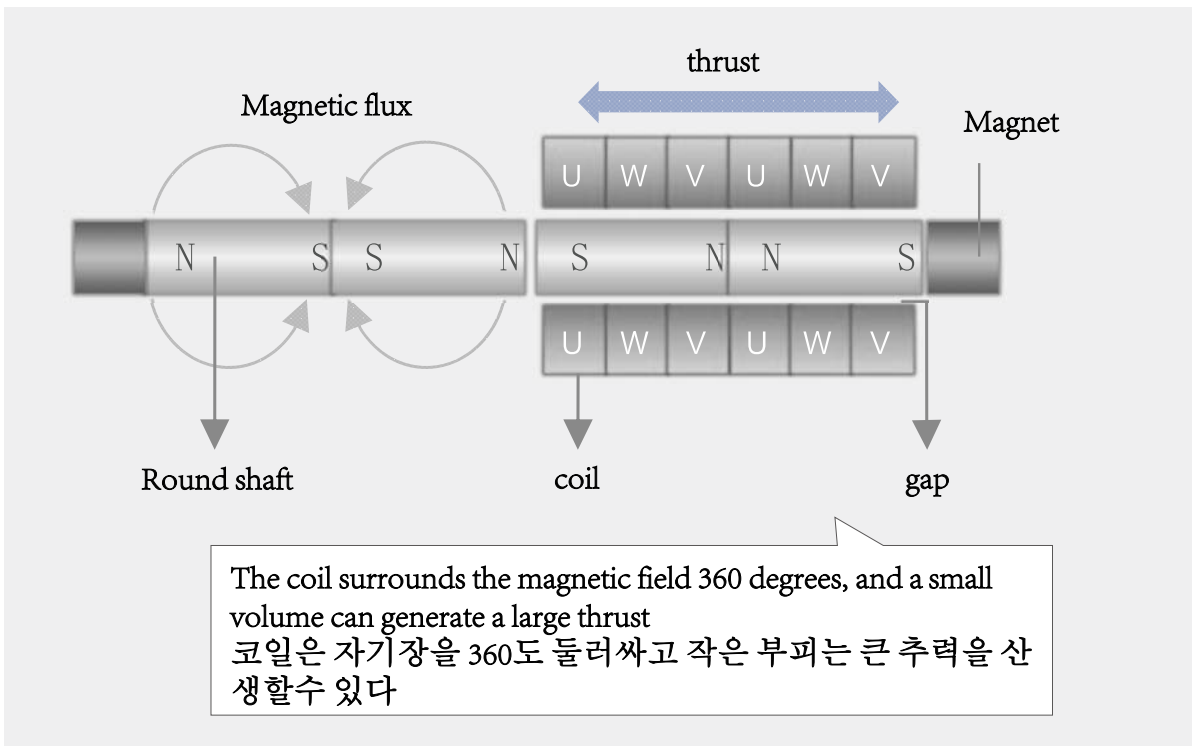
The motor adopts a coreless design, no cogging effect, and the speed fluctuation is small and the response speed is fast. The non-contact motion motor is maintenance-free and suitable for precision equipment. 전기 기계는 무철심 설계를 채택하여 치조 효과가 없고 속도 파동이 적으며 응답 속도가 빠르다. 비접촉식 모션 모터는 유지 보수가 없으며 정밀 설비에 적합하다.



Characteristics of shaft type linear motors

No cogging	Stator length customized	Cost advantage
The linear motor has no frustration force and no cogging effect when moving.	The size of the mover is small, and the stator length can be customized within a certain range according to the requirements	With the same thrust, the cost is advantageous

Principles of movement



Application industry



Semiconductors & IC

Laser equipment

Metal & Processing Equipment

Automotive & Assembly Equipment



Shaft type linear motors 축식 직선전기

COS 160 series

160SS 160S 160M 160H



Motor parameters 모터 매개변수

Model	Rated thrust N	Current rate Arms	Max thrust N	Max current Arms	Pole period mm	resistance Ω	inductance mh	Compatible drive 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	

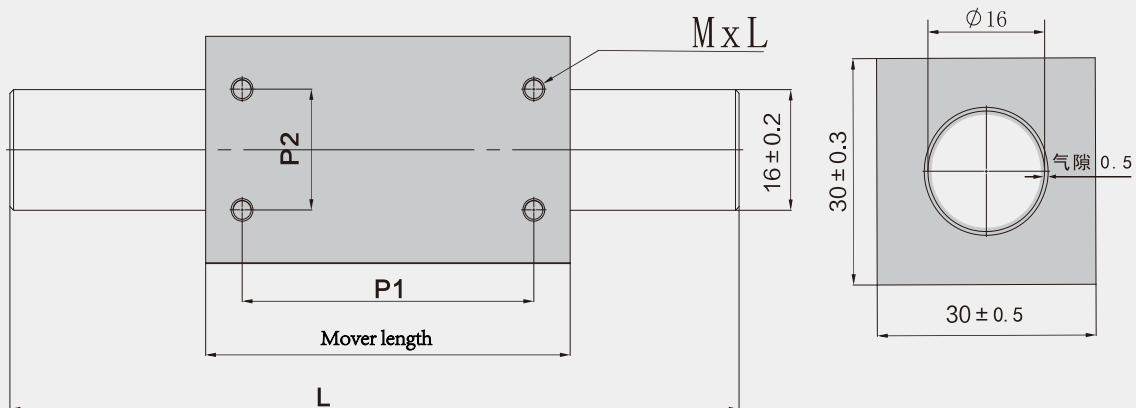
Mover size 이동기 크기

Model	Mover length (mm)	section (mm)	weight (Kg)	Installation space (mm)		aperture (mm) M×l	gap mm
				P1	P2		
160SS	50	30±0.2	0.1	40	16±0.2	4-M3∇5	0.5
160S	80		0.15	70			
160M	110		0.2	100			
160H	140		0.3	130			

Stator size 정자 치수

Stator length mm	Stator diameter mm	The stator length corresponds to the support frame	
		length (mm)	holder size (mm)
100~1725	16±0.2	100~350	≤25
		351~800	≤40
		801~1725	≤60

Installation dimensions of 160 series linear motors
160 시리즈 직선 모터 설치 크기





Shaft type linear motors 축식 직선전기

COS 200 series

20SS 200S 200M 200H



Motor parameters 모터 매개변수

Model	Rated thrust N	Current rate Arms	Max thrust N	Max current Arms	Pole period mm	resistance Ω	inductance mh	Compatible drive model
200SS	9	0.65	36	2.5	72	14.3	9.6	MBDLN25SL **
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	

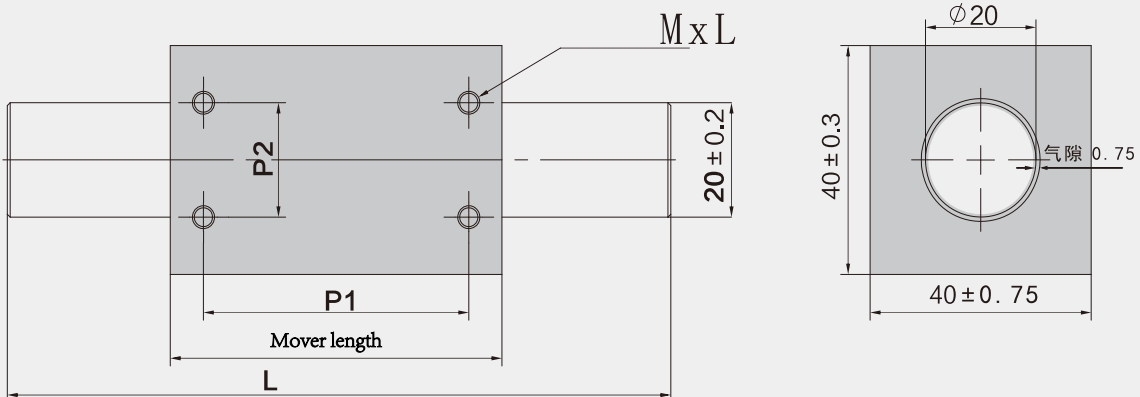
Mover size 이동기 크기

Model	Mover length(mm)	section (mm)	weight (Kg)	installation space (mm)		aperture(mm) M×l	gap mm
				P1	P2		
200SS	60	40 ± 0.3	0.1	48	20 ± 0.2	4-M4↓6	0.75
200S	94		0.3	84			
200M	130		0.5	120			
200H	166		0.7	156			

Stator size 정자 치수

Stator length mm	Stator diameter mm	The stator length corresponds to the support frame	
		length (mm)	holder size (mm)
100~2680	20 ± 0.2	100~300	≤ 25
		300~700	≤ 40
		700~2680	≤ 60

Installation dimensions of 200 series linear motors
200 시리즈 직선 모터 설치 크기





Shaft type linear motors 축식 직선전기

COS 250 series

250SS 250S 250M 250H



Motor parameters 모터 매개변수

Model	Rated thrust N	Current rate Arms	Max thrust N	Max current Arms	Pole period mm	resistance Ω	inductance mh	Compatible drive 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	

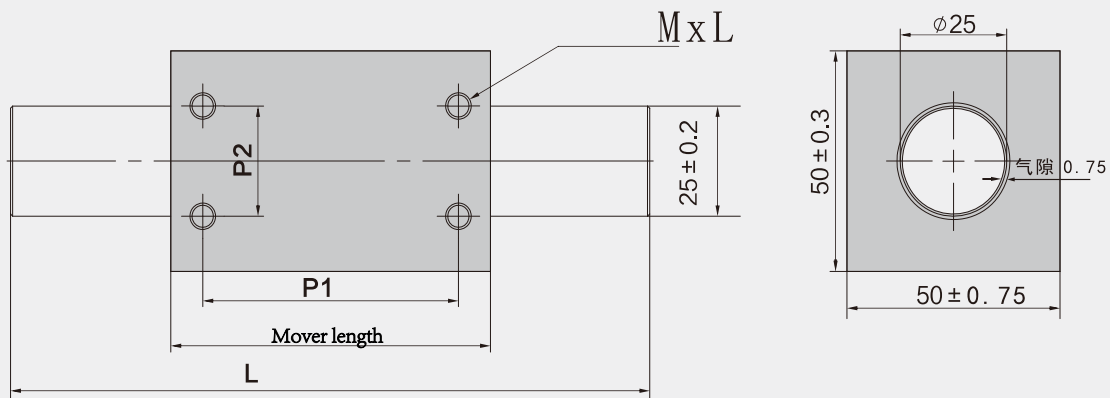
Mover size 이동기 크기

Model	Mover length(mm)	section (mm)	weight (Kg)	installation space(mm)		aperture (mm) M x l	gap mm
				P1	P2		
250SS	75	50 ± 0.3	0.2	60	25 ± 0.2	4-M6 ∇ 8	0.75
250S	120		0.8	105			
250M	165		1.1	150			
250H	210		1.5	195			

Stator size 정자 치수

Stator length mm	Stator diameter mm	The stator length corresponds to the support frame	
		length (mm)	holder size (mm)
100~2500	25 ± 0.2	100~700	≤ 50
		700~1500	≤ 70
		1500~2500	≤ 100

Installation dimensions of 250 series linear motors
250 시리즈 직선 모터 설치 크기





Shaft type linear motors 축식 직선전기

COS 350 series

350SS 350S 350M 350H



Motor parameters 모터 매개변수

Model	Rated thrust N	Current rate Arms	Max thrust N	Max current Arms	Pole period mm	resistance Ω	inductance mh	Compatible drive model
350SS	52	1.5	175	6	120	7	10.8	MBDLN25SL **
350S	105	1.5	415	5.4	120	13.8	21.8	
350M	150	1.5	590	5.4	120	20.2	33	MCDLN35SL **
350H	190	2.7	760	10.8	120	6.9	10.9	

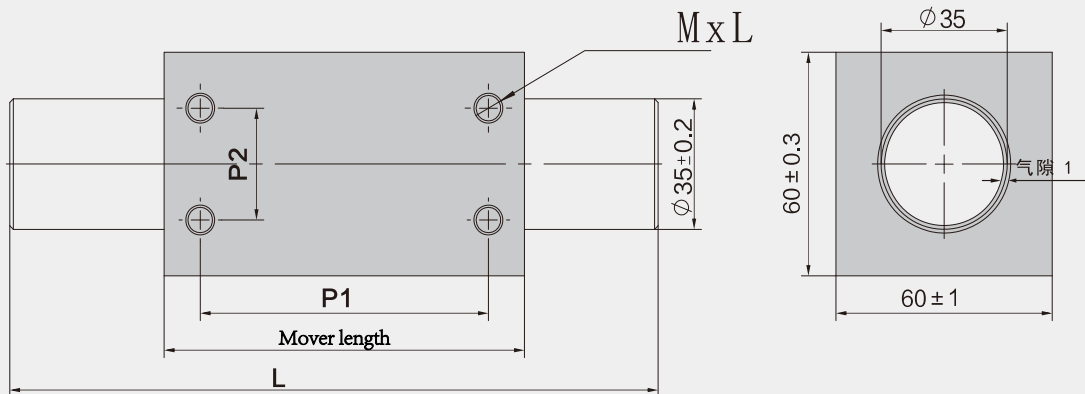
Mover size 이동기 크기

Model	Mover length(mm)	section (mm)	weight(Kg)	installation space (mm)		aperture (mm)	gap mm
				P1	P2		
350SS	100	60 ± 0.3	0.4	80	30 ± 0.2	4-M8 ↓ 9	1.0
350S	160		1.3	140			
350M	220		1.9	200			
350H	280		2.4	260			

Stator size 정자 치수

Stator length mm	Stator diameter mm	The stator length corresponds to the support frame	
		length (mm)	holder size (mm)
100~2400	35 ± 0.2	100~750	≤ 50
		751~1500	≤ 70
		1501~2400	≤ 100

Installation dimensions of 350 series linear motors
350 시리즈 직선 모터 설치 크기





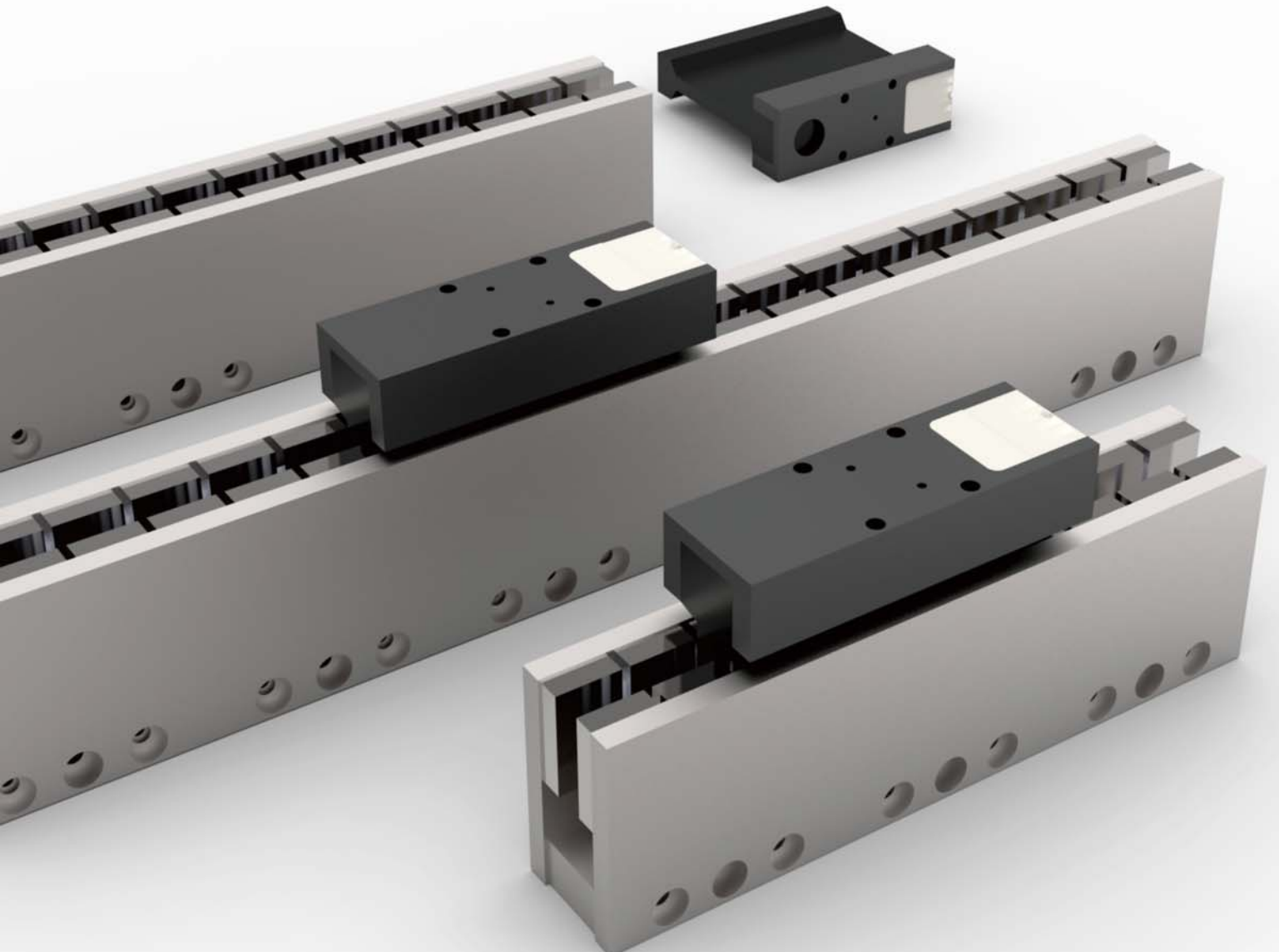
02

U-type linear motors

U형 직선전기

The motor adopts a coreless design, no cogging effect, and the speed fluctuation is small and the response speed is fast. The non-contact motion motor is maintenance-free and suitable for precision equipment.

전기 기계는 무철심 설계를 채택하여 치조 효과가 없고 속도 파동이 적으며 응답 속도가 빠르다. 비접촉식 모션 모터는 유지 보수가 없으며 정밀 설비에 적합하다.

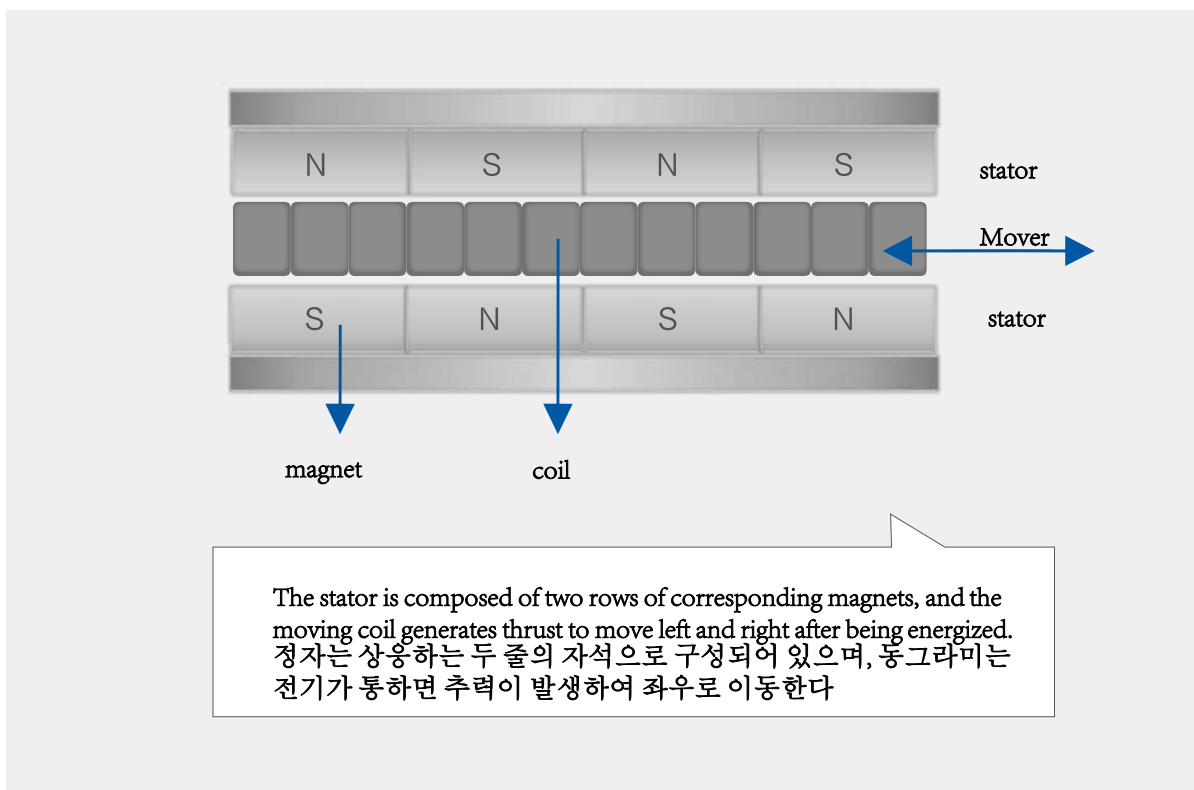


Characteristics of U-shaped linear motor

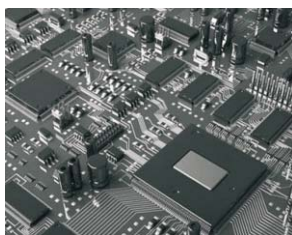
No adsorption force	No cogging	The weight of the mover is light
The rotor and stator have no adhesive force, facilitating easy installation	The linear motor has no frustration force and no cogging effect when moving.	The mover is lightweight and can achieve fast response

U-type linear motors

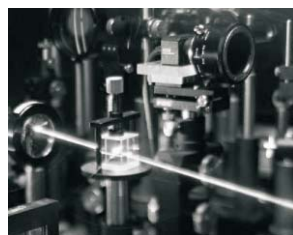
Principles of movement



Application industry



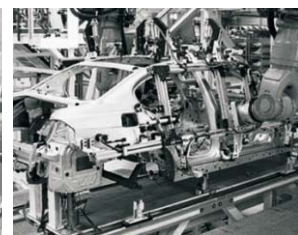
Semiconductors & IC



Laser equipment



Metal & Processing Equipment



Automotive & Assembly Equipment



U-type linear motors U형 직선전기

ULM A series

ULM AC1 ULM AC2 ULM AC3



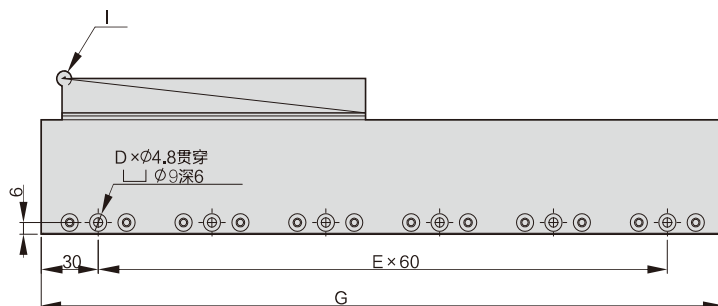
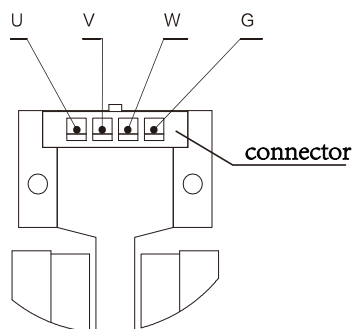
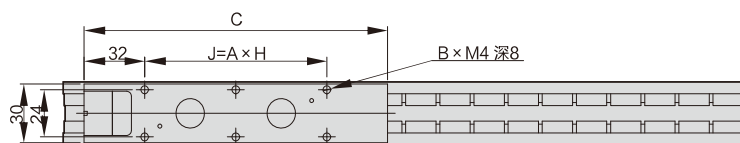
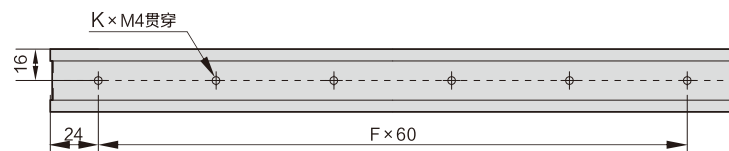
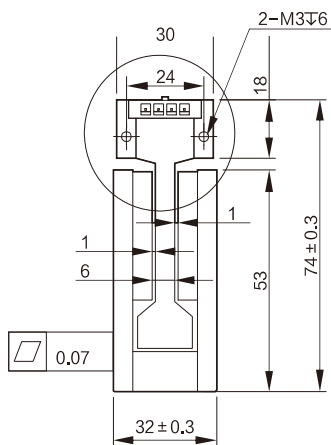
Motor parameters

Model	unit	ULMAC1	ULMAC2	ULMAC3
Rated thrust	N	32	64	128
Peak thrust	N	96	192	384
Pole period	mm	36		
Current rating	Arms	2	2	2
Peak current	Arms	6	6	6
Thrust constant	N/Arms	16	32	64
Back EMF constant	V/m/s	9.2	18.5	37
resistance @25°C	Ω	4.7	9.4	18.8
inductance	mH	1.75	3.5	7
Mover weight	Kg	0.3	0.5	0.9
Mover length	mm	88	160	304

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

Stator					
Model	D	E	F	G	K
LMFA180	3	2	2	180	3
LMFA360	6	5	5	360	6

Motor size





U-type linear motorsU

ULM B series

ULM BC1 | ULM BC2 | ULM BC3



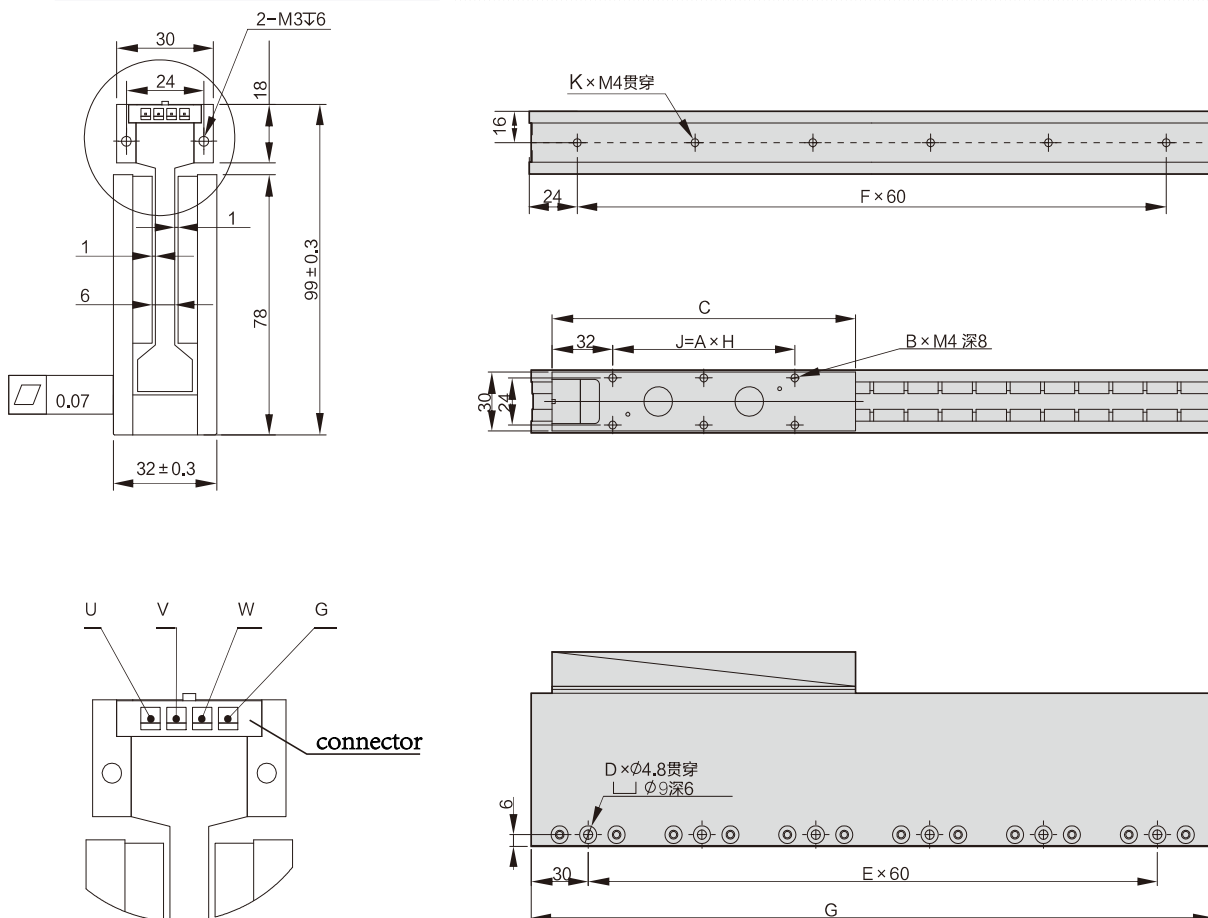
Motor parameters

Model	单位	ULMBC1	ULMBC2	ULMBC3	ULMBC4
Rated thrust	N	62	124	246	184
Peak thrust	N	186	372	738	552
Pole period	mm	36			
Current rating	Arms	2	2	2	2
Peak current	Arms	6	6	6	6
Thrust constant	N/Arms	31	62	126	92
Back EMF constant	V/m/s	17.3	35.7	71	53.2
resistance @25°C	Ω	6.3	12.5	25	18.7
inductance	mH	2.6	5.2	10.4	8.4
Mover weight	Kg	0.3	0.6	1.2	0.89
Mover length	mm	88	160	304	230

Mover					
Model	A	B	C	H	J
ULMBC1	24	4	88	1	24
ULMBC2	48	6	160	2	96
ULMBC3	48	12	304	5	240
ULMBC4	48	10	230	4	196

Stator					
Model	D	E	F	G	K
LMFB180	3	2	2	180	3
LMFB360	6	5	5	360	6

Motor size





U-type linear motorsU

ULM C series

ULM CC1 | ULM CC2 | ULMCC3



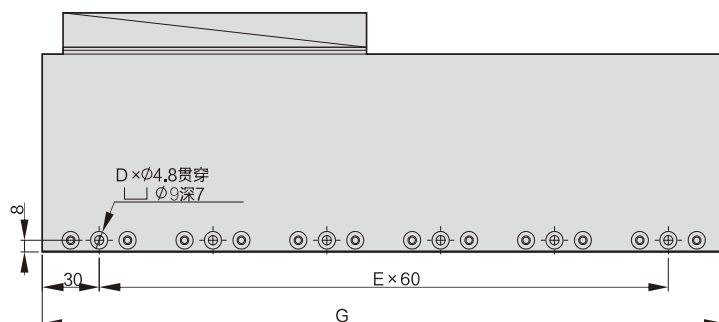
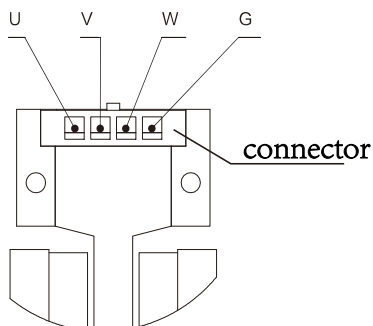
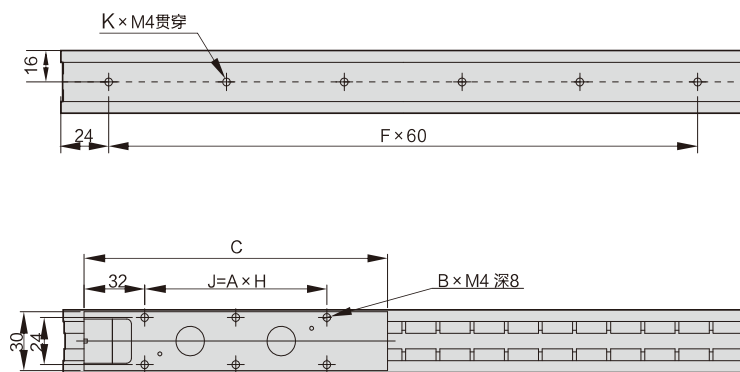
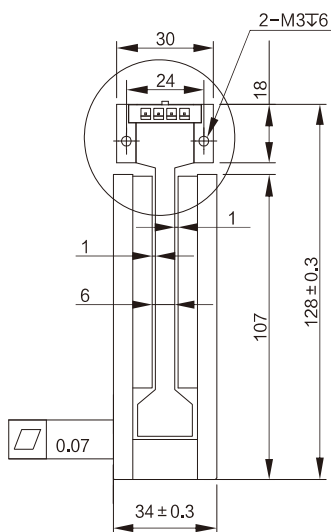
Motor parameters

Model	单位	ULMCC1	ULMCC2	ULMCC3
Rated thrust	N	94	188	300
Peak thrust	N	282	564	900
Pole period	mm	36		
Current rating	Arms	2	2	3.2
Peak current	Arms	6	6	9.6
Thrust constant	N/Arms	47	94	94
Back EMF constant	V/m/s	26	54	54
resistance @25°C	Ω	8	16	8
inductance	mH	3.4	6.7	3.4
Mover weight	Kg	0.5	0.8	1.5
Mover length	mm	88	160	304

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

Stator					
Model	D	E	F	G	K
LMFC180	3	2	2	180	3
LMFC360	6	5	5	360	6

Motor size





U-type linear motors

ULM D series

ULM DC1 | ULM DC2 | ULM DC3



Motor parameters

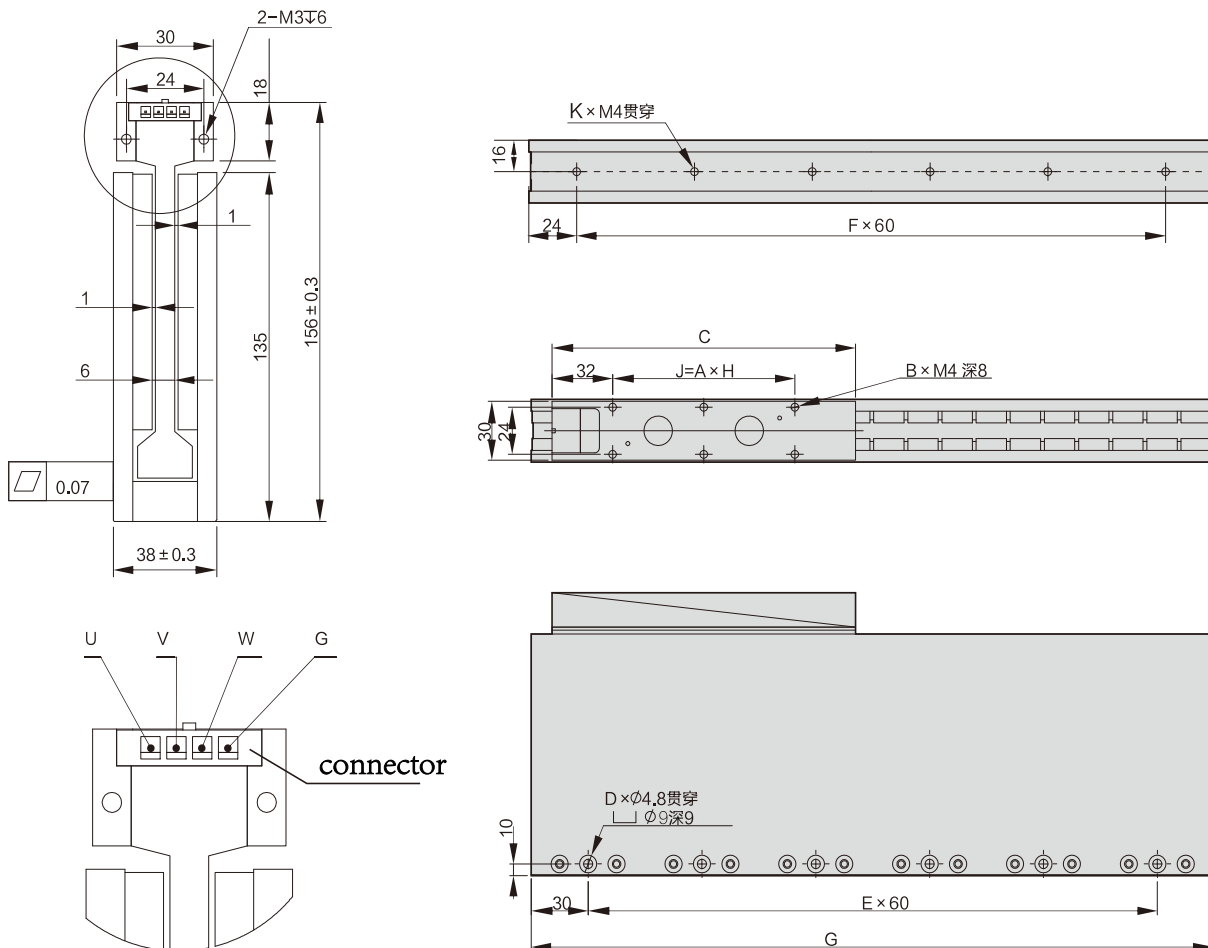
Model	单位	ULMDC1	ULMDC2	ULMDC3
Rated thrust	N	128	256	410
Peak thrust	N	384	768	1230
Pole period	mm	36		
Current rating	Arms	2	2	3.2
Peak current	Arms	6	6	9.6
Thrust constant	N/Arms	64	128	128
Back EMF constant	V/m/s	37	74	74
resistance @25°C	Ω	9.3	18.6	9.3
inductance	mH	4.2	8.5	4.2
Mover weight	Kg	0.5	1	1.6
Mover length	mm	88	160	304

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

Stator					
Model	D	E	F	G	K
LMFD180	3	2	2	180	3
LMFD360	6	5	5	360	6

U-type linear motors

Motor size





03

Flat type linear motors

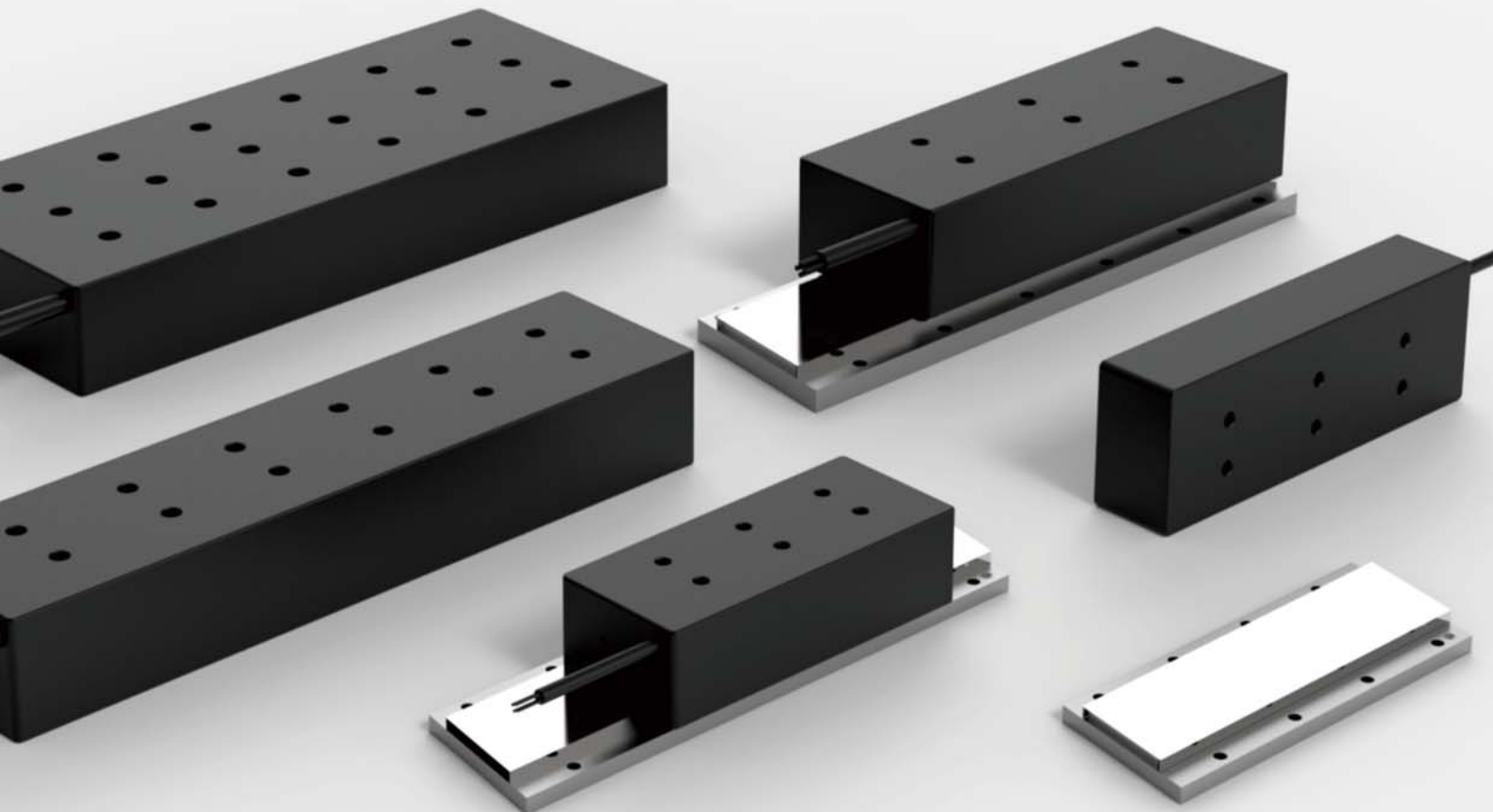
It has a core motor and adopts a technology that suppresses the cogging effect, so that the thrust fluctuation is small, and the small volume can achieve a large thrust

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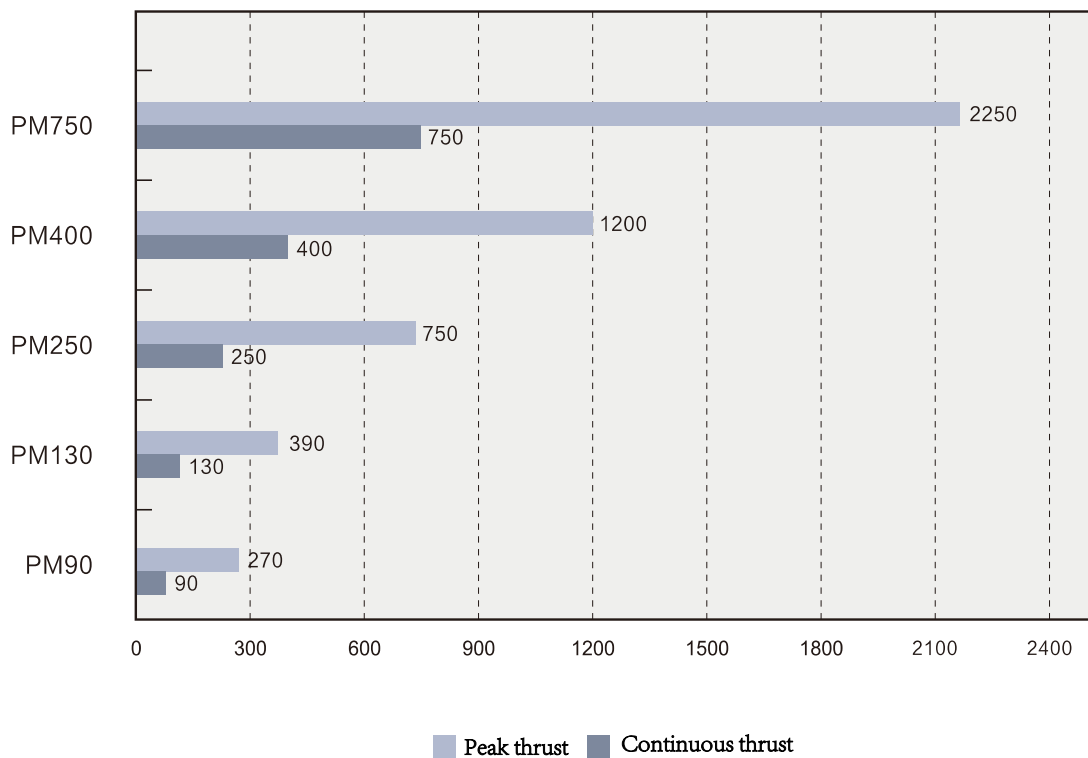
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Flat Linear Motor Features:

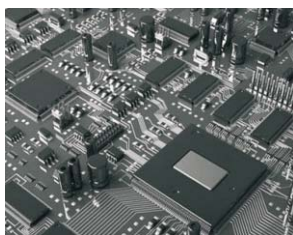
High thrust density	Excellent heat exchange	Easy to assemble
It has an iron core structure design, and the small volume can achieve large thrust	The internal design of the rotor has excellent heat dissipation	The rotor and stator are of simple structure, facilitating installation.

Series specifications

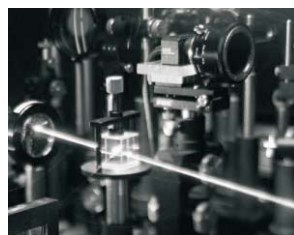


Flat type linear motors

application field



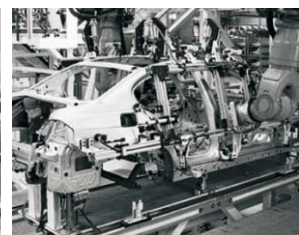
Semiconductors & IC



Laser equipment



Metal & Processing Equipment

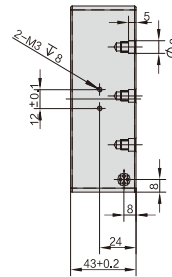
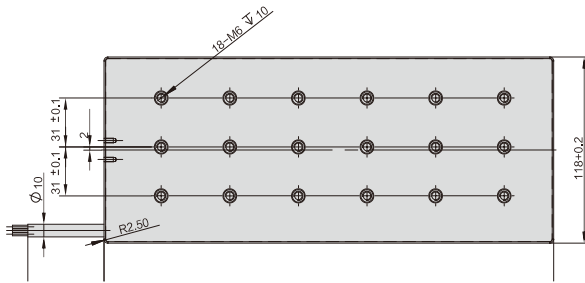
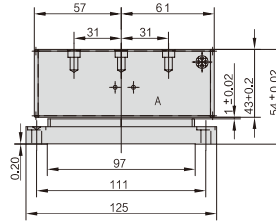
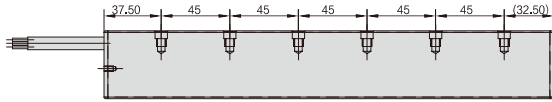
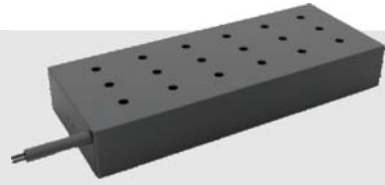


Automotive & Assembly Equipment



Flat type linear motors

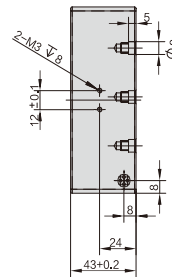
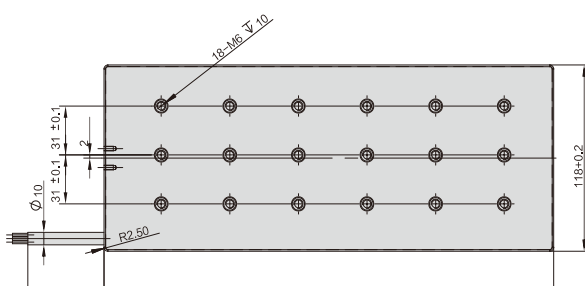
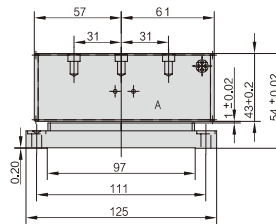
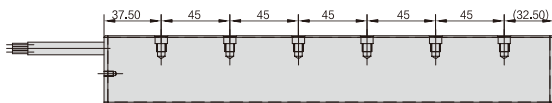
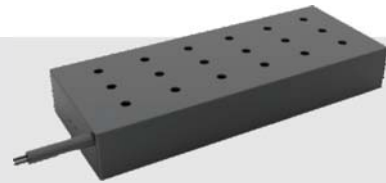
PM750



PM750-45-0.6BC			
name	symbol	value	unit
Rated thrust	Fc	750	N
Peak thrust	Fp	2250	N
Rated current	Ic	6.8	A
peak current	Ip	20.4	A
pole period	T	45	mm
resistance	R	3.4	Ω
inductance	L	29.8	mh
weight	M	9.5	Kg
Stator model	CB270-125-45		
suction	4725		

Flat type linear motors

PM750高响应



PM750-45-0.6BB			
name	symbol	value	unit
Rated thrust	Fc	750	N
Peak thrust	Fp	2250	N
Rated current	Ic	12	Arms
peak current	Ip	36	Arms
pole period	T	45	mm
resistance	R	0.9	Ω
inductance	L	8.0	mh
weight	M	9.5	Kg
Stator model	CB270-125-45		
suction	4725		

EMLO 驱动

Gold Oboe Digital Servo

EtherCAT



Physical Specifications

Feature	Units	All Types
Weight	Kg (oz)	Fins Heat- Sink + Fan 1.10 Kg (36.70 oz)
Dimensions	mm (in)	Fins Heat- Sink 72.3 x 140x 109 (2.82" x5.52"x4.29")
Mounting method		Panel / Wall Mounted
IP		IP30

Technical Data

Feature	Units	6/230	13/230
Minimum supply voltage	VAC DC-500 Hz	1 x50or3x 50	
Nominal supply voltage	VAC DC-500 Hz	1 x230 or3 x 230	
Maximum supply voltage	VAC DC-500 Hz	1 x270or3 x 270	
Maximum continuous power output	kW	1.6	3.6
Efficiency at rated power (at nominal conditions)	%	> 98	
Auxiliary supply voltage	VDC	Without Fan: 18 to 30 VDC With Fan: 24VDCt 10%	
Auiliary supply power	VA	Without Fan: 6 With Fan: 6 (Control) + 10 (for fan)= 16	
Continuous current limit (Ic) Amplitude sinusoidal/DC trapezoidal commutation	A	6	13
Continuous RMS sinusoidal commutation current limit (Ic)	A	4.2	9.2
Peak Current	A	12	26
Built In Shunt (peak Power)	w	3000	

Note on current ratings:
The current ratings of the Gold Oboe are given in units of DC amperes (ratings that are used for trapezoidal commutation or DC motors).

The RMS (sinusoidal/commutation) value is the DC value divided by 1.41.

Product Features

Main Feature	Details	Presence and No.
Digital Input Option	TTL or	6 (5 with STO output model)
	PLC Source or	6 (5 with STO output model)
	PLC Sink	6 (5 with STO output model)
Digital Output Option	TTL or	4 (3 with STO output model)
	PLC Source or	4 (3 with STO output model)
	PLC Sink	4 (3 with STO output model)
Analog Input	Differential Input	1
Feedback	Standard PortA, B, & C	√
Communication Option	USB	√
	EtherCAT with switches or	√
	CAN	√
Other	STO Output Status	√

Environmental Conditions
You can guarantee the safe operation of the Gold Oboe by ensuring that it is installed in an appropriate environment.

Linear motor selection demand table

customer :		address :			
Contact :		Department :			
TLE :		E mail:			
Model :		Applications			
quantity :		注：型号如不清楚，请本公司业务人员填写			
stroke mm	Load weight Kg	Acc and dec (2选1*) time ms	Maximum speed m/s	acceleration(2选1*) g	cycle pause time Sec
Customer needs	<input type="checkbox"/> Mover + stator		resolution		μ m
	<input type="checkbox"/> Linear module		Repeatability		μ m
Installation:	<input type="checkbox"/> horizontal <input type="checkbox"/> Wall-mounted <input type="checkbox"/> vertical				
Number of movers	<input type="checkbox"/> singleness <input type="checkbox"/> multiple		Number		
Control mode	<input type="checkbox"/> Pulse method <input type="checkbox"/> Analog <input type="checkbox"/> other				
Cable length:	m	<input type="checkbox"/> Grating scale <input type="checkbox"/> Magnetic scale			
application environment					
Mechanical structure	<input type="checkbox"/> Unilateral drive <input type="checkbox"/> Gantry structure				
Installation space size					
Demand quantity					
Mass production plan					
Budgeted Costs					
Motion curve graph					



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