

DIRECT DRIVE PRODUCT SELECTION GUIDE





DongGuan Kaifull Electronics Technology Co., Ltd is a high-tech enterprise that has always been committed to the R&D, production, and sales of high-quality motion control products. The company has always adhered to the corporate philosophy and development strategy of "market demand orientation, technological innovation as the core". After 16 years of hard work and operation, the company has developed into a leading domestic manufacturer of stepper motors, drivers and related products. Kaifull Technology has independent brands such as Kaifull and YARAK, and its products include stepper motor drive systems, servo motor drive systems, brushless motor drive systems, planetary reducers, hollow rotation platforms, precision fine-tuning platforms, alignment platforms, linear motors, and other series of products. These products are widely used in high-tech industries such as 3C industry, CNC machine tools, medical equipment, laser engraving, textile printing, packaging machinery, electronic equipment, robots, lithium batteries and semiconductors.

The company has established production bases in Dongguan and Suzhou respectively, with strong research and development capabilities, advanced manufacturing equipment and processes, and the company adopts the comprehensive testing methods to ensure product quality and supply guarantee. Meanwhile, the company has an experienced sales and technical team that enhances customer value through services, constantly understands customer needs, continuously tracks customer development, and provides customers with the best motion control solutions. For 15 years, Kaifu Technology has adhered to the mission of "providing global leading motion control solutions" and is committed to making every intelligent manufacturing factory trust Kaifu's products and services!

Kaifull Motors-15 years of innovation and surpassing itself! Kaifull Motors, founded in 2008, is headquartered in Dongguan, a forefront of China's reform and opening up and a modern manufacturing city of China. Adhering to its development strategy that is "market-oriented, and places technological innovation as the core", the company has been achieving the common development of partners, employees and the company. After 15 years of unremitting efforts in technical research and development and market expansion, the company has been grown into a leading research and development manufacturer of stepper motors, drivers and related products in China, and its brand influence is constantly improving.

The company has its own brands "Kaifull" and "YARAK", and its products cover screw stepper motor, closed-loop stepper motor, deceleration integrated stepper motor, brake stepper motor, stepper driver, planetary reducer, hollow rotary platform, Motorized Stages Auto-positioning stages and so on. Setting "becoming the world's leading motion control manufacturer" as its mission, the company has set up a technical R & D and technological breakthrough team with high caliber talents from domestic 985 colleges and universities with master and doctor degrees. Entrepreneurial and industry experts from Japan, Taiwan as well as overseas cooperation and development teams from Germany as the main force, which focuses on the research and development and application of advanced motion control technologies in the industry, and it has made a number of invention patents and technical patents up to the present.

■ Product Overview

Direct drive linear motor (referred to as the linear motor) is a device that directly completes linear transmission. It can directly replace mechanical transmission parts such as ball screws, racks/gears, belts/pulleys, etc., greatly reducing transmission clearance and related issues such as noise, wear, and vibration caused by mechanical transmission. The essence of linear motor transmission is to lay flat and unfold the stator and rotor of the rotating motor and directly connect them to drive the load. The linear motor has the characteristics of high transmission efficiency and good dynamic response. With the development of industrial automation and the improvement of equipment requirements, the application of linear motors is becoming increasingly widespread.

■ Types

There are many types of linear motor, and each type has its own advantages and can provide users with suitable solutions.

At present, there are two main types of linear motor: iron core linear motor and non-iron core linear motor. Different motors have different characteristics and functions. Different motors have different performance to meet the ever-changing application needs of customers in various industries.

■ Advantages

High Accuracy

The linear motor can achieve direct transmission, eliminate various accumulated accuracy errors caused by intermediate links, and also avoid the shortcomings of traditional transmission such as reverse clearance, inertia, friction, and insufficient rigidity, achieving higher precision transmission.

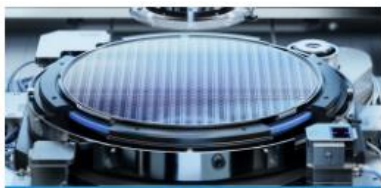
Good Safety, High Reliability, Little Maintenance and Long Service Life

The linear motor can achieve contactless transmission. Thanks to its almost zero mechanical friction loss and few faults, it has good safety, high reliability and has a long service life, with little maintenance.

Low Mechanical Noise

The transmission method of linear motor is different from that of rotary motor. The linear motor transmission eliminates all intermediate mechanical transmission links from the motor to the workbench, achieving "zero contact and zero transmission", resulting in low noise and vibration during system operation, and greatly improving the equipment performance.

■ Applications



Semiconductor

Process:

Wafer slicing, cracking, chip packaging detection, fiber coupling, etc.



New Energy Industry

Process:

New energy battery lamination, welding, liquid injection, packaging and testing, etc.



PV

Process:

Screen printing, slicing, sorting, string welding and testing, etc.



Laser

Process:

Drilling technology for products such as SMT inductor ceramics, semiconductor microelectronics TSV, engine fuel injectors.



3C Electronics

Process:

Automatic loading and unloading, pasting, dispensing, inspection, sorting, packaging, etc.



LCD Panel Industry

Process:

Dispensing, bonding, cutting, testing, etc.

Linear Motor Selection Elements

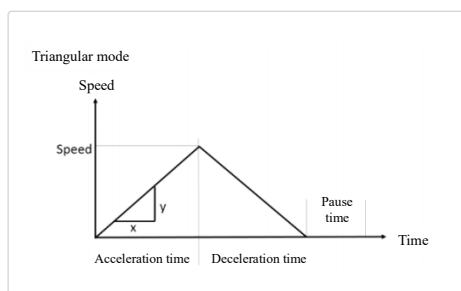
■ Selection Elements

- 1. The selection elements of linear motor includes maximum thrust, continuous thrust requirements, and acceleration calculation.
- 2. The maximum thrust is determined by the mass of the moving load and the value of the maximum acceleration.

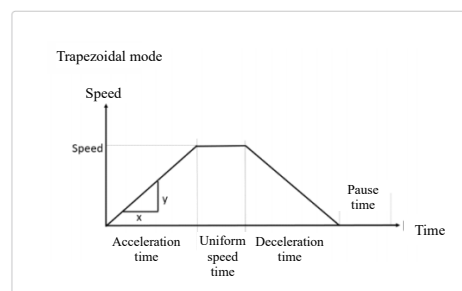
Thrust=Total mass x acceleration+friction+external stress

Example: When the moving load is 5Kg (including the rotor), the required acceleration is 30m/s², the friction force is 1N, and the external stress is 2 N, the motor will generate a force of 153N.

- 3. However, the commonly known parameter is the movement time of the load from one position to another, and the acceleration is calculated based on displacement and movement time. Generally, for short stroke, we recommend using the triangular speed mode (without constant speed), while for long stroke, the trapezoidal speed mode will be more efficient. In the triangular speed mode, the motor does not move at a uniform speed and is consistently in a state of acceleration and deceleration.



$$\text{Acceleration}=4 \times \text{displacement}/\text{motion time}^2$$



$$\text{Acceleration}=\text{constant speed}/(\text{motion time} - \text{displacement}/\text{constant speed})$$

- 4. In most cases, acceleration is approximately equal to deceleration, unless there is an unbalanced force (gravity) acting on the motor.
- 5. Maximum thrust is to ensure that the load reaches the expected acceleration within the time we set, while continuous thrust is to ensure that the load can continue to move steadily and maintain a constant speed. Calculation formula for continuous thrust:

$$\text{RMS Force}=\sqrt{\frac{\text{Fa}^2 * \text{Ta}+\text{Fc}^2 * \text{Tc}+\text{Fd}^2 * \text{Td}+\text{Fw}^2 * \text{Tw}}{\text{Ta} + \text{Tc} + \text{Td} + \text{Tw}}}$$

RMS Force = continuous thrust

Fa=acceleration force

Ta=acceleration time

Fc=constant speed segment force

Tc=constant speed time

Fd=deceleration force

Td=deceleration time

Fw=stagnation force

Tw=stagnation time

Note: To maintain a constant speed, the motor will resist friction and external stress. When the servo on the motor stagnates, it will resist external stress. A certain safety factor shall be multiplied by when choosing a suitable linear motor based on maximum thrust and sustained thrust The safety factor is generally 1.3.

- 6. For example, in an application, the motor needs to move a 4KG load by 0.3m within 0.2s in the triangular mode. The stagnation time before returning during the same stroke of the motor is 0.15 seconds. Assuming that friction and other unbalanced forces do not exist.

Maximum thrust=acceleration force=deceleration force=load x acceleration=4 x 30=120N

$$\text{RMS Force}=\sqrt{\frac{(120)^2 * (0.1)+(120)^2 * (0.1)}{0.1 + 0.1 + 0.15}}=90.7\text{N}$$

Then, consider a safety factor of 30%.

CONTENTS

2024

2025



KFX series linear motor module	02
KE series linear motor module	19
PMQ series linear motor	46
M1 series linear motor	69
KUM series U-shaped motor (without iron core)	77
Carbon fiber linear motor	79
Definition of linear motor interface	80
Linear motor driver	81
Googol linear motor driver	82
Servotronix linear motor driver	83
Servotronix economic linear motor driver	84
Wiring diagram of linear motor module	85
Accessory	90

KFX Series Linear Module

For detailed technical information and specifications of this product, please refer to the official website.

■ Product Advantages

① High speed

The maximum speed can reach 3m/s, and the maximum acceleration and deceleration can reach 5G.

③ Low noise, dust-free

By combining a linear motor and a linear guide rail, the noise remains low during high-speed operation, and the moving stator has no contact friction and does not generate dust.

⑤ Long stroke

The base of the profile can be molded for 6 meters, with a stroke of 5633mm. Theoretically, it can be assembled into a module with infinite stroke.

② High precision

By utilizing the full closed-loop control of a linear encoder, high positioning accuracy can be compensated.

Repetitive accuracy of optical grating 2 μM

Repetitive accuracy of magnetic grating 3 μM

④ Multiple rotors

On a single axis module, multiple rotors can be selected.

⑥ High acceleration and deceleration

It can achieve high acceleration and deceleration of 5G.

Module Ordering Number Rules

YK-	KFX14-	A	2-	L1000-	C-	JN	3-	01
Brand logo	Series	Sliding table length	Number of	Base length	Encoder code	Photoelectric	Number of photoelectric	Customization
YK:YARAK	KFX	A: KFS055A(90mm)	sliding tables	360-3944mm	C: Magnetic grating	switch	switches	01
	14: base width 135 mm	B:KFS055B(152mm)	2 pcs	*The base length	encoder (standard	JN:NPN	*Total number of module	Customization SN
		C:KFS055C(235mm)	* In case of 1	increases	configuration)	JP:PNP	photoelectric switches	
		D:KFS055D(300mm)	piece	progressively in	S: Optical grating			
			"No mark"	multiples of 64mm	encoder			

- Semi-closed structure
- Max. stroke: 3814mm
- High speed: 5m/s
- Continuous thrust range of motor: 76N~303N
- Guide rail specification: 15-2 pieces



Parameters Overview

Item	Motor model	KFS055A	KFS055B	KFS055C	KFS055D	
Sliding table length	mm	90	152	235	300	
Continuous thrust	N	76	152	227	303	
Peak thrust	N	178	356	534	712	
Max. load*1	500mm/s	kg	13	28	40	55
	1000mm/s		8	16	23	32
Number of sliding blocks		2	4	4	6	
Mass of moving part*2	kg	2	3	4	5	
Incremental encoder*3	Magnetic grating	Resolution: 1um; repetitive accuracy ± 3um; maximum speed: 5m/s				
	Optical grating	Resolution: 0.5um; repetitive accuracy ± 2um; maximum speed: 3m/s				
Operating ambient temperature, humidity		0-40 °C, 20-80% RH (without condensation)				
Motor extension cable*4		Standard cable length Lxx: 03, 05, 08, 10, 12, in meter				
Adapted driver*5		/				
Module outgoing line		Standard outgoing line 0.5 m				

*1. The maximum load is the theoretical value when placed horizontally, with an acceleration of 1G, a pause of 0.5s, and a 1000mm stroke, for reference only. The actual load is affected by factors such as motion speed, acceleration, and motor thrust;

*2. It includes the mass of components such as motor, sliding block, workbench, encoder, etc., excluding the mass of cables;

*3. This data is based on measurements made using the RENISHAW laser interferometer at an ambient temperature of 20 °C within any stroke range of 1000mm;

*4 If you need to purchase an extension cable, please consult Kaifull Technology.

*5. Please consult Kaifull Technology for driver selection.

Item	Motor model	KFS055A	KFS055B	KFS055C	KFS055D
	Continuous thrust (N)		76	152	227
Peak thrust (N)		178	356	534	712
Continuous current (A)		4.5	4.5	4.5	4.5
Peak current (A)		13.5	13.5	13.5	13.5
Thrust constant $\pm 10\%$ (N/A)		18.3	36.6	54.9	73.2
Reverse electromotive force constant $\pm 10\%$ (V/m/s)		15.9	31.8	47.7	63.7
Motor constant $\pm 10\%$ (N/ \sqrt{W})		9.7	14.1	17.2	19.9
Resistance $\pm 10\%$ (ohm)		3.54	6.31	9.78	13.87
Inductance $\pm 30\%$ (mh)		11.32	20.19	31.28	44.37
Electrical time constant (ms)		3.2	3.2	3.2	3.2
Rated power (W)		108	205	308	411
Maximum power (W)		1202	2283	3424	4566
Magnetic pitch (mm)		32	32	32	32
Thermal dissipation constant (W/°C)		1.8	3.4	5.1	6.8
Magnetic attraction (KN)		0.5	0.8	1.1	1.4
Rotor weight (Kg)		0.71	1.2	1.69	2.18
Maximum temperature (°C)		120	120	120	120

*1. The measurement room temperature is 25 °C, depending on the heat dissipation environment.

*3. Inductance measurement frequency is 1kHz.

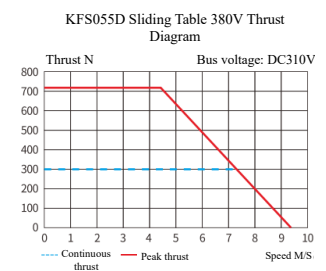
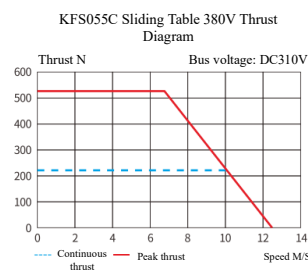
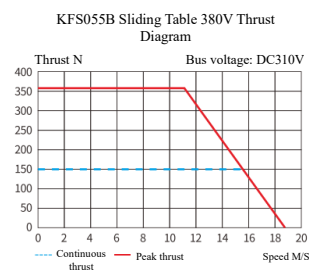
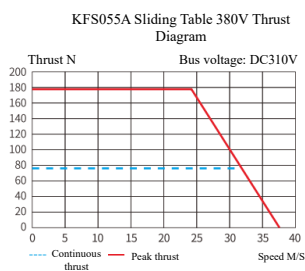
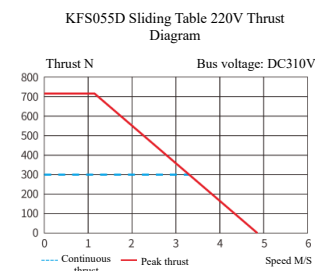
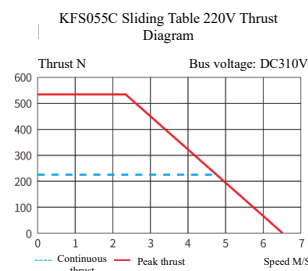
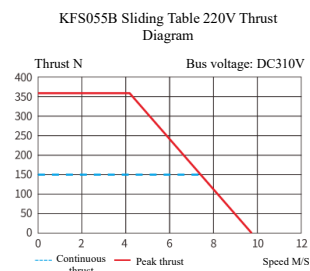
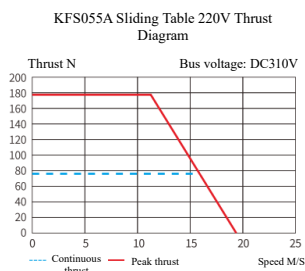
*5. The maximum duration of maximum thrust is 1 second.

*2. DC current is adopted for the resistance measurement, including 0.5-meter standard cable.

*4. For unmarked dimensional tolerance, the tolerance shall be ± 0.1 mm.

*6. The relevant parameter regulations are subject to change without prior notice.

■ Motor Performance Parameters



Module Ordering Number Rules

YK-	KFX17-	A	2-	L1128-	C-	JN	3-	01
Brand logo	Series	Sliding table length	Number of sliding tables	Base length	Encoder code	Photoelectric switch	Number of photoelectric switches	Customization
YK:YARAK	KFX	B: KFS075B(152mm)	2 pcs	360-5992mm	C: Magnetic grating encoder (standard configuration)	JN:NPN	*Total number of module photoelectric switches	01
	17: base width 170 mm	C: KFS075C(235mm)	* In case of 1 piece	*The base length increases progressively in multiples of 64mm	S: Optical grating encoder	JP:PNP		Customization SN
		D: KFS075D(300mm)	"No mark"					

- Semi-closed structure
- Maximum stroke: 5800mm
- Maximum speed: 5m/s
- Continuous thrust range of motor: 226N~449N
- Guide rail specification: 15-2 pieces



Parameters Overview

Item	Motor model	KFS075B	KFS075C	KFS075D
Sliding table length	mm	152	235	300
Continuous thrust	N	226	336	449
Peak thrust	N	519	774	1032
Max. load*1	500mm/s	48	68	90
	1000mm/s	25	36	48
Number of sliding blocks		4	6	6
Mass of moving part*2	kg	4.2	6.3	7.3
Incremental encoder*3	Magnetic grating	Resolution: 1um; repetitive accuracy ± 3um; maximum speed: 5m/s		
	Optical grating	Resolution: 0.5um; repetitive accuracy ± 2um; maximum speed: 3m/s		
Operating ambient temperature, humidity		0-40 °C, 20-80% RH (without condensation)		
Motor extension cable*4		Standard cable length Lxx: 03, 05, 08, 10, 12, in meter		
Adapted driver*5		/		
Module outgoing line		Standard outgoing line 0.5 m		

*1. The maximum load is the theoretical value when placed horizontally, with an acceleration of 1G, a pause of 0.5s, and a 1000mm stroke, for reference only. The actual load is affected by factors such as motion speed, acceleration, and motor thrust;

*2. It includes the mass of components such as motor, sliding block, workbench, encoder, etc., excluding the mass of cables;

*3. This data is based on measurements made using the RENISHAW laser interferometer at an ambient temperature of 20 °C within any stroke range of 1000mm;

*4 If you need to purchase an extension cable, please consult Kaifull Technology.

*5. Please consult Kaifull Technology for driver selection.

Item \ Motor model	KFS075B	KFS075C	KFS075D
Continuous thrust (N)	226	336	449
Peak thrust (N)	519	774	1032
Continuous current (A)	5.1	5.1	5.1
Peak current (A)	15	15	15
Thrust constant $\pm 10\%$ (N/A)	48.1	71.7	95.6
Reverse electromotive force constant $\pm 10\%$ (V/m/s)	41.8	62.3	83.1
Motor constant $\pm 10\%$ (N/ \sqrt{W})	18.8	22.9	26.4
Resistance $\pm 10\%$ (ohm)	6.63	9.68	13.26
Inductance $\pm 30\%$ (mh)	24.54	35.81	49.08
Electrical time constant (ms)	3.7	3.7	3.7
Rated power (W)	256	384	512
Maximum power (W)	3188	4782	6376
Magnetic pitch (mm)	32	32	32
Thermal dissipation constant (W/°C)	4.3	6.4	8.5
Magnetic attraction (KN)	1.3	1.8	2.3
Rotor weight (Kg)	7.73	2.48	3.2
Maximum temperature (°C)	120	120	120

*1. The measurement room temperature is 25 °C, depending on the heat dissipation environment.

*3. Inductance measurement frequency is 1kHz.

*5. The maximum duration of maximum thrust is 1 second.

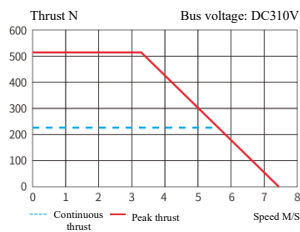
*2. DC current is adopted for the resistance measurement, including 0.5-meter standard cable.

*4. For unmarked dimensional tolerance, the tolerance shall be ± 0.1 mm.

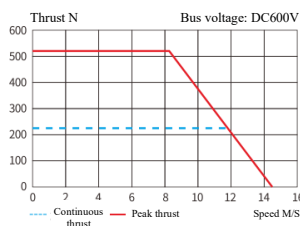
*6. The relevant parameter regulations are subject to change without prior notice.

■ Motor Performance Parameters

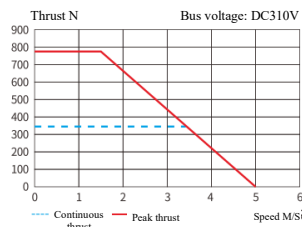
KFS075B Sliding Table 220V Thrust Diagram



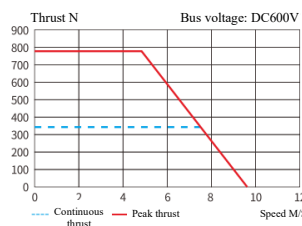
KFS075B Sliding Table 380V Thrust Diagram



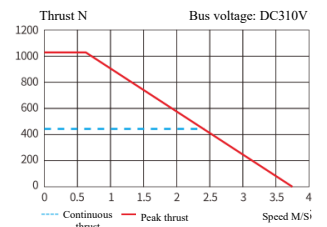
KFS075C Sliding Table 220V Thrust Diagram



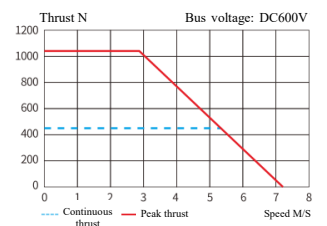
KFS075C Sliding Table 380V Thrust Diagram



KFS075D Sliding Table 220V Thrust Diagram



KFS075D Sliding Table 380V Thrust Diagram



KFS075B KFX17



■ Outline Drawing (unit: mm)

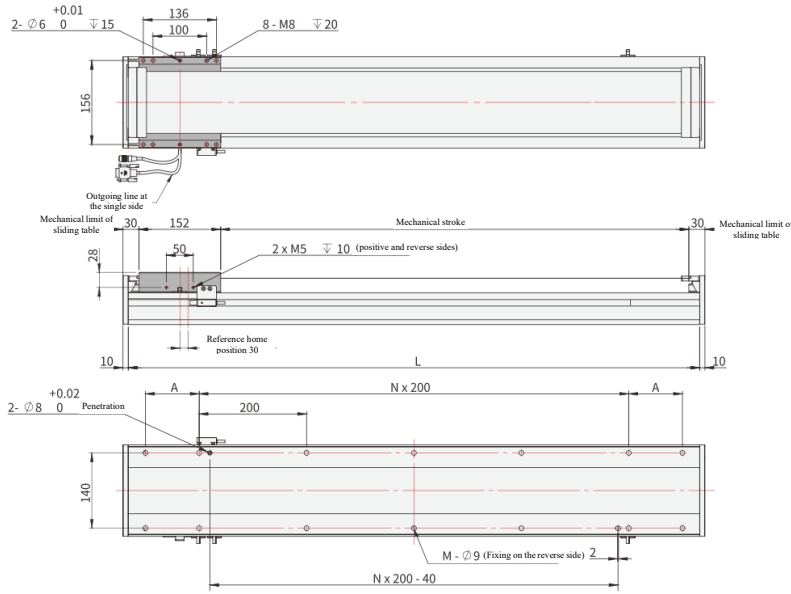
● KFS075B

Digital encoder output signal (ABZ)			
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

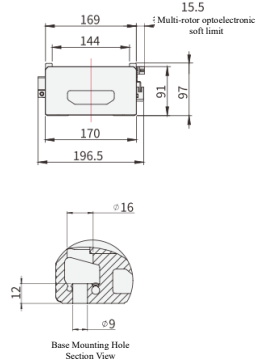
Motor connector (male connector): 16M-4K
 Maximum length: 42.8 ± 0.5 Maximum diameter φ18
 External thread diameter: M16 × 1.0

Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W

42.8 ± 0.5



KFS075B
Sliding table length: 152mm



Total length (mm)	380	508	636	764	892	1020	1148	1276	1404	1532	1660	1788	1916	2044	2172	2300	2428	2556	2684	2812	2940	3068	3196
L base length (mm)	360	438	616	744	872	1000	1128	1256	1384	1512	1640	1768	1896	2024	2152	2280	2408	2536	2664	2792	2920	3048	3176
Mechanical stroke (mm)	168	296	424	552	680	808	936	1064	1192	1320	1448	1576	1704	1832	1960	2088	2216	2344	2472	2600	2728	2856	2984
A	50	100	50	150	0	50	150	0	50	100	0	50	100	150	0	100	150	0	100	150	0	100	150
M	8	8	10	10	10	14	14	14	18	18	18	22	22	22	22	26	26	26	30	30	30	34	34
N	1	1	2	2	4	4	4	6	6	6	8	8	8	8	10	10	10	12	12	12	14	14	14
Total mass (kg)	11.0	13.0	15.0	17.1	19.1	21.2	23.2	25.3	27.3	29.4	31.4	33.4	35.5	37.5	39.6	41.6	43.7	45.7	47.8	49.8	51.9	53.9	55.9

Total length (mm)	3324	3452	3580	3708	3836	3964	4092	4220	4348	4476	4604	4732	4860	4988	5116	5244	5372	5500	5628	5756	5884	6012	
L base length (mm)	3304	3432	3560	3688	3816	3944	4072	4200	4328	4456	4584	4712	4840	4968	5096	5224	5352	5480	5608	5736	5864	5992	
Mechanical stroke (mm)	3112	3240	3368	3496	3624	3752	3880	4008	4136	4264	4392	4520	4648	4776	4904	5032	5160	5288	5416	5544	5672	5800	
A	0	100	150	0	50	150	0	50	100	0	50	100	0	50	100	150	50	100	150	0	100	150	
M	34	38	38	38	42	42	42	46	46	46	50	50	54	54	54	58	58	58	58	58	62	62	
N	16	16	16	18	18	18	20	20	20	22	22	22	24	24	24	26	26	26	28	28	28	28	
Total mass (kg)	58	60	62.1	64.1	66.2	68.2	70.3	72.3	74.4	76.4	78.4	80.5	82.5	84.6	86.6	88.7	90.7	92.8	94.8	96.8	98.0	100.9	

KFS075C KFX17



■ Outline Drawing (unit: mm)

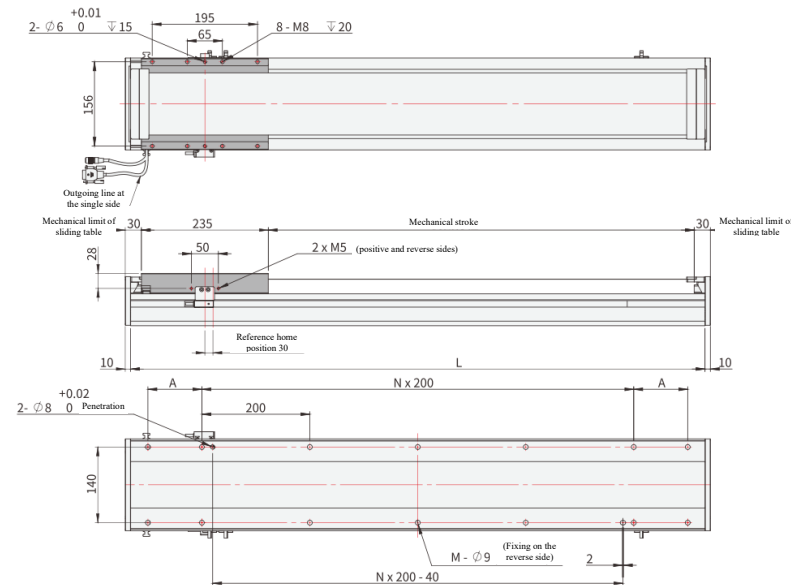
● KFS075C

Digital encoder output signal (ABZ)			
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

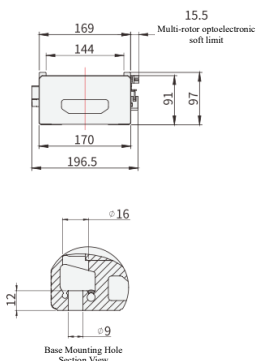
Motor connector (male connector): 16M-4K
 Maximum length: 42.8 ± 0.5 Maximum diameter φ18
 External thread diameter: M16 × 1.0

Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W

42.8 ± 0.5



KFS075C
Sliding table length: 235mm



Total length (mm)	380	508	636	764	892	1020	1148	1276	1404	1532	1660	1788	1916	2044	2172	2300	2428	2556	2684	2812	2940	3068	3196
L base length (mm)	360	488	616	744	872	1000	1128	1256	1384	1512	1640	1768	1896	2024	2152	2280	2408	2536	2664	2792	2920	3046	3176
Mechanical stroke (mm)	85	213	341	469	597	725	853	981	1109	1237	1365	1493	1621	1749	1877	2005	2133	2261	2389	2517	2645	2773	2901
A	50	100	50	150	0	50	150	0	50	100	0	50	100	150	0	100	150	0	100	150	0	100	150
M	8.5	8	10	10	10	14	14	14	18	18	18	22	22	22	22	26	26	26	30	30	30	34	34
N	1	1	2	2	4	4	4	6	6	6	8	8	8	8	10	10	10	12	12	12	14	14	14
Total mass (kg)	13.1	15.1	17.1	19.2	21.2	23.3	25.3	27.4	29.4	31.5	33.5	35.5	37.6	39.6	41.7	43.7	45.8	47.8	49.9	51.9	54.0	56.0	58.0

Total length (mm)	3324	3452	3580	3708	3836	3964	4092	4220	4348	4476	4604	4732	4860	4988	5116	5244	5372	5500	5628	5756	5884	6012	
L base length (mm)	3304	3432	3560	3688	3816	3944	4072	4200	4328	4456	4584	4712	4840	4968	5096	5224	5352	5480	5608	5736	5864	5992	
Mechanical stroke (mm)	3029	3157	3285	3413	3541	3669	3797	3925	4053	4181	4309	4437	4565	4693	4821	4949	5077	5205	5333	5461	5589	5717	
A	0	100	150	0	50	150	0	50	100	0	50	100	0	50	100	150	50	100	150	0	100	150	
M	34	38	38	38	42	42	42	46	46	46	50	50	54	54	54	58	58	58	58	58	62	62	
N	16	16	16	18	18	18	20	20	20	22	22	22	24	24	24	26	26	26	28	28	28	28	
Total mass (kg)	60.1	62.1	64.2	66.2	68.3	70.3	72.4	74.4	76.5	78.5	80.5	82.6	84.6	86.7	88.7	90.8	92.8	94.9	96.9	98.9	101.0	103.0	

KFS075D KFX17

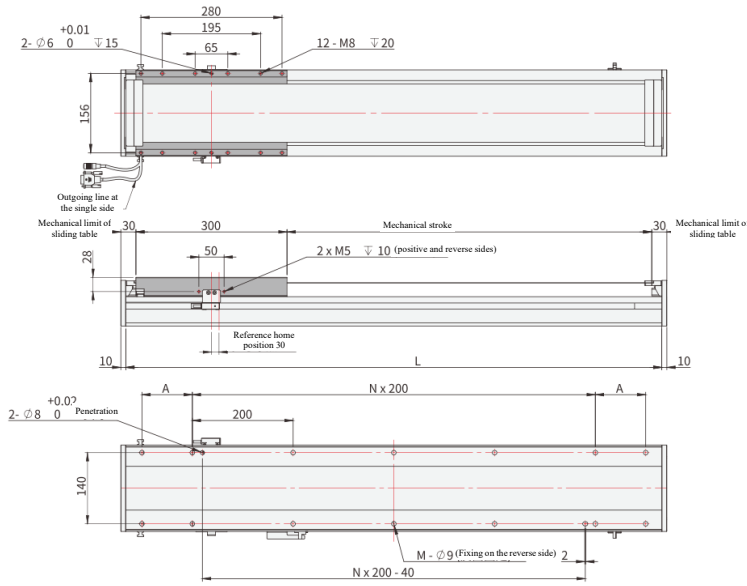


■ Outline Drawing (unit: mm)

● KFS075D

Digital encoder output signal (ABZ)	 D-sub 9 pins (male connector)		
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

Motor connector (male connector): 16M-4K				
Maximum length: 42.8 ± 0.5 Maximum diameter φ18				
External thread diameter: M16 × 1.0				
Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W



KFS075D
Sliding table length: 300mm

Total length (mm)	380	508	636	764	892	1020	1148	1276	1404	1532	1660	1788	1916	2044	2172	2300	2428	2556	2684	2812	2940	3068	3196
L base length (mm)	360	488	616	744	872	1000	1128	1256	1384	1512	1640	1768	1896	2024	2152	2280	2408	2536	2664	2792	2920	3048	3176
Mechanical stroke (mm)	-	148	276	404	532	660	788	916	1044	1172	1300	1428	1556	1684	1812	1940	2068	2196	2324	2452	2580	2708	2836
A	-	100	50	150	0	50	150	0	50	100	0	50	100	150	0	100	150	0	100	150	0	100	150
M	-	8	10	10	10	14	14	14	18	18	18	22	22	22	22	26	26	26	30	30	30	34	34
N	-	1	2	2	4	4	4	6	6	6	8	8	8	10	10	10	12	12	12	14	14	14	14
Total mass (kg)	-	16.1	18.1	20.2	22.2	24.3	26.3	28.4	30.4	32.5	34.5	36.5	38.6	40.6	42.7	44.7	46.8	48.8	50.9	52.9	55	57	59

Total length (mm)	3324	3452	3580	3708	3836	3964	4092	4220	4348	4476	4604	4732	4860	4988	5116	5244	5372	5500	5628	5756	5884	6012	
L base length (mm)	3304	3432	3560	3688	3816	3944	4072	4200	4328	4456	4584	4712	4840	4968	5096	5224	5352	5480	5608	5736	5864	5992	
Mechanical stroke (mm)	2964	3092	3220	3348	3476	3604	3732	3860	3988	4116	4244	4372	4500	4628	4756	4884	5012	5140	5268	5396	5524	5652	
A	0	100	150	0	50	150	0	50	100	0	50	100	0	50	100	150	50	100	150	0	100	150	
M	34	38	38	38	42	42	42	46	46	46	50	50	50	54	54	54	58	58	58	58	62	62	
N	16	16	16	18	18	18	20	20	20	22	22	22	24	24	24	24	26	26	26	28	28	28	
Total mass (kg)	61.1	63.1	65.2	67.2	69.3	71.3	73.4	75.4	77.5	79.5	81.5	83.6	85.6	87.7	89.7	91.8	93.8	95.9	97.9	99.9	102.0	104.0	

YK-KFX20

Module Ordering Number Rules

YK-	KFX20-	A	2-	L1114-	C-	JN	3-	01
Brand logo	Series	Sliding table length	Number of	Base length	Encoder code	Photoelectric	Number of photoelectric	Customization
YK:YARAK	KFX	B: KFS095B(170mm)	sliding tables	474-5978mm	C: Magnetic grating	switch	switches	01
	20: base width 200mm	C: KFS095C(235mm)	2 pcs	*The base length	encoder (standard	JN:NPN	*Total number of module	Customization SN
		D: KFS095D(300mm)	* In case of 1	increases	configuration)	JP:PNP	photoelectric switches	
			piece	progressively in	S: Optical grating			
			"No mark"	multiples of 64mm	encoder			

- Semi-closed structure
- Maximum stroke: 5718mm
- Maximum speed: 5m/s
- Continuous thrust range of motor: 318N~636N
- Guide rail specification: 20-2 pieces



Parameters Overview

Item	Motor model	KFS075B	KFS075C	KFS075D
Sliding table length	mm	170	235	300
Continuous thrust	N	318	477	636
Peak thrust	N	747	1220	1494
Max. load*1	500mm/s	kg	65	125
	1000mm/s		35	65
Number of sliding blocks		4	4	6
Mass of moving part*2	kg	5.5	7.5	9
Incremental encoder*3	Magnetic grating	Resolution: 1um; repetitive accuracy ± 3um; maximum speed: 5m/s		
	Optical grating	Resolution: 0.5um; repetitive accuracy ± 2um; maximum speed: 3m/s		
Operating ambient temperature, humidity		0-40 °C, 20-80% RH (without condensation)		
Motor extension cable*4		Standard cable length Lxx: 03, 05, 08, 10, 12, in meter		
Adapted driver *5		/		
Module outgoing line		Standard outgoing line 0.5 m		

*1. The maximum load is the theoretical value when placed horizontally, with an acceleration of 1G, a pause of 0.5s, and a 1000mm stroke, for reference only. The actual load is affected by factors such as motion speed, acceleration, and motor thrust;

*2. It includes the mass of components such as motor, sliding block, workbench, encoder, etc., excluding the mass of cables;

*3. This data is based on measurements made using the RENISHAW laser interferometer at an ambient temperature of 20 °C within any stroke range of 1000mm;

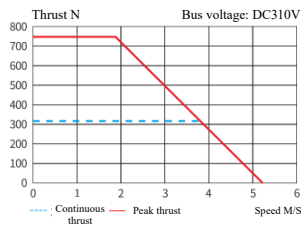
*4 If you need to purchase an extension cable, please consult Kaifull Technology.

*5. Please consult Kaifull Technology for driver selection.

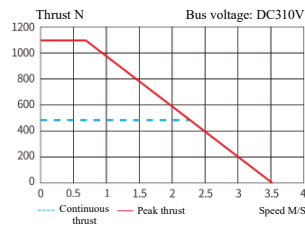
Item \ Motor model	KFS095B	KFS095C	KFS095D
Continuous thrust (N)	318	477	636
Peak thrust (N)	747	1120	1494
Continuous current (A)	15.3	5.1	5.1
Peak current (A)	5.1	15.3	15.3
Thrust constant $\pm 10\%$ (N/A)	67.8	101.7	135.6
Reverse electromotive force constant $\pm 10\%$ (V/m/s)	59	88.4	117.9
Motor constant $\pm 10\%$ (N/ \sqrt{W})	23.5	28.8	33.3
Resistance $\pm 10\%$ (ohm)	8.36	12.77	17.76
Inductance $\pm 30\%$ (mh)	30.95	47.26	65.72
Electrical time constant (ms)	3.7	3.7	3.7
Rated power (W)	324	486	648
Maximum power (W)	4038	6058	8077
Magnetic pitch (mm)	32	32	32
Thermal dissipation constant (W/°C)	5.4	8.1	10.8
Magnetic attraction (KN)	1.8	2.5	3.2
Rotor weight (Kg)	2.29	3.26	4.23
Maximum temperature (°C)	120	120	120

■ Motor Performance Parameters

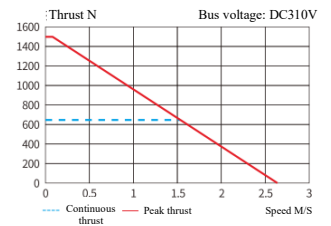
KFS095B Sliding Table 220V Thrust Diagram



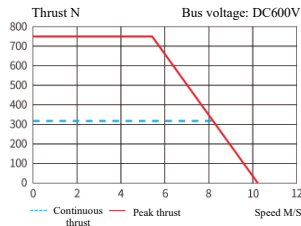
KFS095C Sliding Table 220V Thrust Diagram



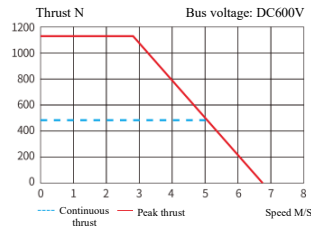
KFS095D Sliding Table 220V Thrust Diagram



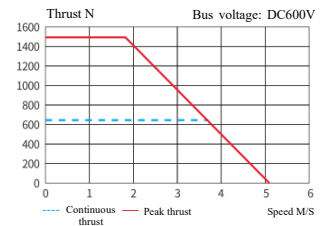
KFS095B Sliding Table 380V Thrust Diagram



KFS095C Sliding Table 380V Thrust Diagram



KFS095D Sliding Table 380V Thrust Diagram



KFS095B KFX20

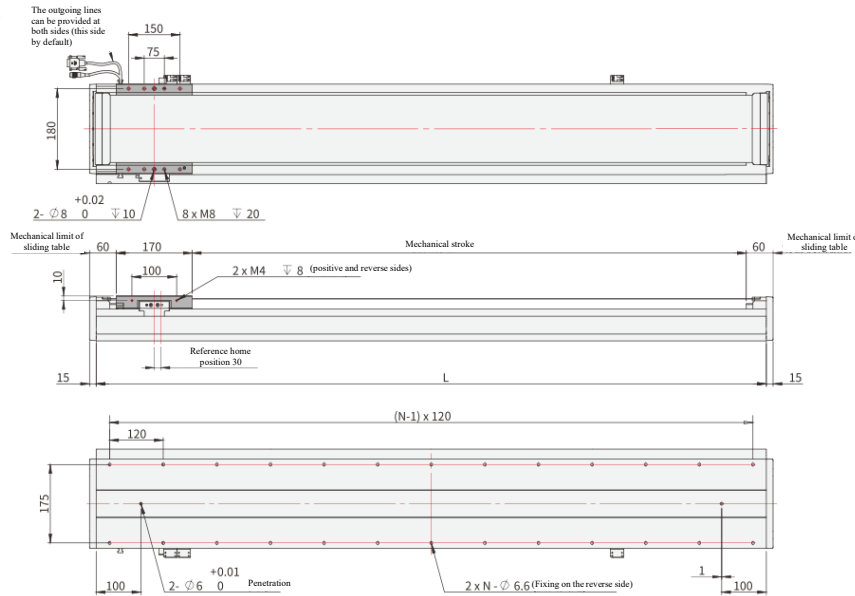
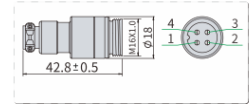


■ Outline Drawing (unit: mm)

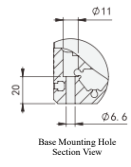
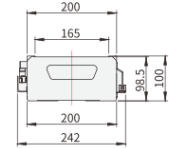
● KFS095B

Digital encoder output signal (ABZ)	 D-sub 9 pins (male connector)		
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

Motor connector (male connector): 16M-4K				
Maximum length: 42.8 ± 0.5 Maximum diameter φ18				
External thread diameter: M16 × 1.0				
Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W



KFS095B
Sliding table length: 170mm



Total length (mm)	504	632	760	888	1016	1144	1272	1400	1528	1656	1784	1912	2040	2168	2296	2424	2552	2680	2808	2936	3064	3192
L base length (mm)	474	602	730	858	986	1114	1242	1370	1498	1626	1754	1882	2010	2138	2266	2394	2522	2650	2778	2906	3034	3162
Mechanical stroke (mm)	214	342	470	598	726	854	982	1110	1238	1366	1494	1622	1750	1878	2006	2134	2262	2390	2518	2646	2774	2902
N	3	5	5	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	25	25	27
Total mass (kg)	16.9	19.7	22.6	25.4	28.2	31.0	33.8	36.6	39.5	42.3	45.1	47.9	50.7	53.5	56.4	59.2	62.0	64.8	67.6	70.4	73.2	76.1

Total length (mm)	3320	3448	3576	3704	3832	3960	4088	4216	4344	4472	4600	4728	4856	4984	5112	5240	5368	5496	5624	5752	5880	6008
L base length (mm)	3290	3418	3546	3674	3802	3930	4058	4186	4314	4442	4570	4698	4826	4954	5082	5210	5338	5466	5594	5722	5850	5978
Mechanical stroke (mm)	3030	3158	3286	3414	3542	3670	3798	3926	4054	4182	4310	4438	4566	4694	4822	4950	5078	5206	5334	5462	5590	5718
N	27	29	29	31	31	33	33	35	35	37	37	39	39	41	43	43	45	45	47	47	49	49
Total mass (kg)	78.9	81.7	84.5	87.3	90.1	93.0	95.8	98.6	101.4	104.2	107.0	109.9	112.7	115.5	118.3	121.1	123.9	126.8	129.6	132.4	135.2	138.0

KFS095C KFX20

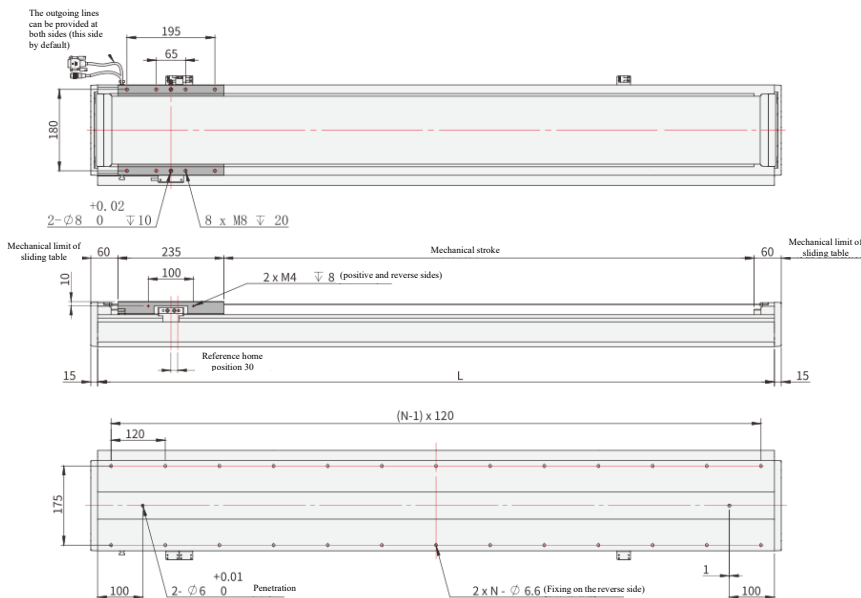
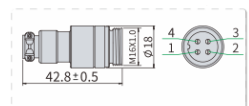


■ Outline Drawing (unit: mm)

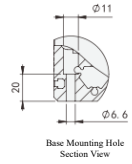
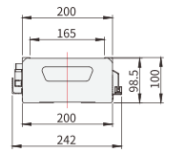
● KFS095C

Digital encoder output signal (ABZ)	 D-sub 9 pins (male connector)		
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

Motor connector (male connector): 16M-4K				
Maximum length: 42.8 ± 0.5 Maximum diameter φ18				
External thread diameter: M16 × 1.0				
Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W



KFS095C
Sliding table length: 235mm



Total length (mm)	504	632	760	888	1016	1144	1272	1400	1528	1656	1784	1912	2040	2168	2296	2424	2552	2680	2808	2936	3064	3192
L base length (mm)	474	602	730	858	986	1114	1242	1370	1498	1626	1754	1882	2010	2138	2266	2394	2522	2650	2778	2906	3034	3162
Mechanical stroke (mm)	149	277	405	533	661	789	917	1045	1173	1301	1429	1557	1685	1813	1941	2069	2197	2325	2453	2581	2709	2837
N	3	5	5	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	25	25	27
Total mass (kg)	19.1	21.9	24.8	27.6	30.4	33.2	36.0	38.8	41.7	44.5	47.3	50.1	52.9	55.7	58.6	61.4	64.2	67.0	69.8	72.6	75.4	78.3

Total length (mm)	3320	3448	3576	3704	3832	3960	4088	4216	4344	4472	4600	4728	4856	4984	5112	5240	5368	5496	5624	5752	5880	6008
L base length (mm)	3290	3418	3546	3674	3802	3930	4058	4186	4314	4442	4570	4698	4826	4954	5082	5210	5338	5466	5594	5722	5850	5978
Mechanical stroke (mm)	2965	3093	3221	3349	3477	3605	3733	3861	3989	4117	4245	4373	4501	4629	4757	4885	5013	5141	5269	5397	5525	5653
N	27	29	29	31	31	33	33	35	35	37	37	39	39	41	43	43	45	45	47	47	49	49
Total mass (kg)	81.1	83.9	86.7	89.5	92.3	95.2	98.0	100.8	103.6	106.4	109.2	112.1	114.9	117.7	120.5	123.3	126.1	129.0	131.8	134.6	137.4	140.2

KFS095D KFX20

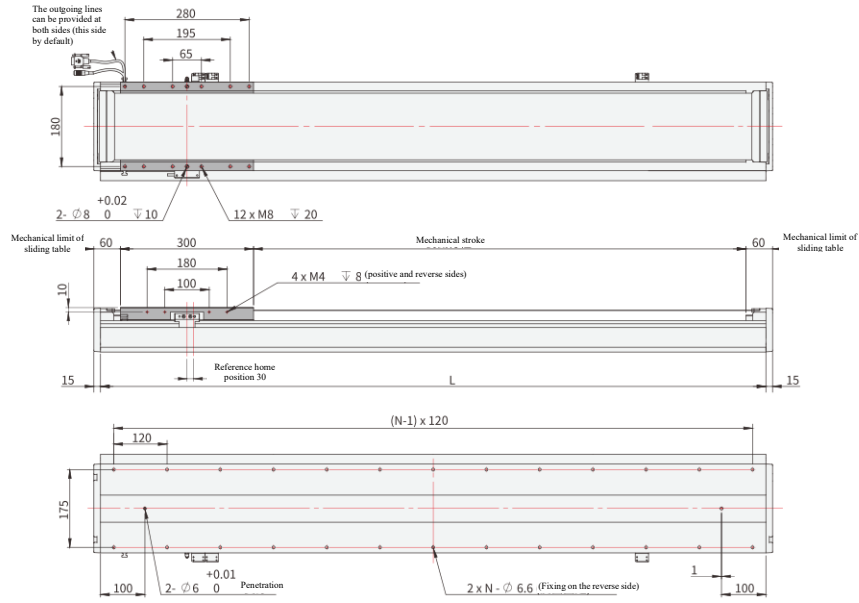
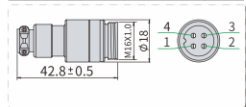


■ Outline Drawing (unit: mm)

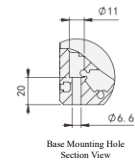
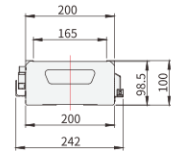
● KFS095D

Digital encoder output signal (ABZ)	 D-sub 9 pins (male connector)		
Pin No.	1	2	3
Signal	0V	A+	Z-
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

Motor connector (male connector): 16M-4K				
Maximum length: 42.8 ± 0.5 Maximum diameter φ18				
External thread diameter: M16 × 1.0				
Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W



KFS095D
Sliding table length: 300mm



Total length (mm)	504	632	760	888	1016	1144	1272	1400	1528	1656	1784	1912	2040	2168	2296	2424	2552	2680	2808	2936	3064	3192
L base length (mm)	474	602	730	858	986	1114	1242	1370	1498	1626	1754	1882	2010	2138	2266	2394	2522	2650	2778	2906	3034	3162
Mechanical stroke (mm)	-	212	340	468	596	724	852	980	1108	1236	1364	1492	1620	1748	1876	2004	2132	2260	2388	2516	2644	2772
N	-	5	5	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	25	25	27
Total mass (kg)	-	23.7	26.6	29.4	32.2	35.0	37.8	40.6	43.5	46.3	49.1	51.9	54.7	57.5	60.4	63.2	66.0	68.8	71.6	74.4	77.2	80.1

Total length (mm)	3320	3448	3576	3704	3832	3960	4088	4216	4344	4472	4600	4728	4856	4984	5112	5240	5368	5496	5624	5752	5880	6008
L base length (mm)	3290	3418	3546	3674	3802	3930	4058	4186	4314	4442	4570	4698	4826	4954	5082	5210	5338	5466	5594	5722	5850	5978
Mechanical stroke (mm)	2900	3028	3156	3284	3412	3540	3668	3796	3924	4052	4180	4308	4436	4564	4692	4820	4948	5076	5204	5332	5460	5588
N	27	29	29	31	31	33	33	35	35	37	37	39	39	41	43	43	45	45	47	47	49	49
Total mass (kg)	82.9	85.7	88.5	91.3	94.1	97.0	99.8	102.6	105.4	108.2	111.0	113.9	116.7	119.5	122.3	125.1	127.9	130.8	133.6	136.4	139.2	142.0

YK-KFX25

Module Ordering Number Rules

YK-	KFX25-	C	2-	L1242-	C-	JN	3-	01
Brand logo	Series	Sliding table length	Number of	Base length	Encoder code	Photoelectric	Number of photoelectric	Customization
YK:YARAK	KFX	C: KFS125C(235mm)	sliding tables	474-5978mm	C: Magnetic grating	switch	switches	01
	25: base width 250 mm	D: KFS125D(300mm)	2 pcs	*The base length	encoder (standard	JN:NPN	*Total number of module	Customization SN
		F: KFS125F(430mm)	* In case of 1	increases	configuration)	JP:PNP	photoelectric switches	
			piece	progressively in	S: Optical grating			
			"No mark"	multiples of 64mm	encoder			

- Semi-closed structure
- Max. stroke: 5800 mm
- Maximum speed: 5m/s
- Continuous thrust range of motor: 689N~1378N
- Guide rail specification: 25-2 pieces



Parameters Overview

Item	Motor model	KFS125C	KFS125D	KFS125F
Sliding table length	mm	235	300	430
Continuous thrust	N	689	919	1378
Peak thrust	N	1617	2157	3234
Max. load*1	500mm/s	kg	145	190
	1000mm/s		79	105
Number of sliding blocks		4	4	6
Mass of moving part*2	kg	12	15	20
Incremental encoder*3	Magnetic grating	Resolution: 1um; repetitive accuracy ± 3um; maximum speed: 5m/s		
	Optical grating	Resolution: 0.5um; repetitive accuracy ± 2um; maximum speed: 3m/s		
Operating ambient temperature, humidity		0-40 °C, 20-80% RH (without condensation)		
Motor extension cable*4		Standard cable length Lxx: 03, 05, 08, 10, 12, in meter		
Adapted driver *5		/		
Module outgoing line		Standard outgoing line 0.5 m		

*1. The maximum load is the theoretical value when placed horizontally, with an acceleration of 1G, a pause of 0.5s, and a 1000mm stroke, for reference only. The actual load is affected by factors such as motion speed, acceleration, and motor thrust;

*2. It includes the mass of components such as motor, sliding block, workbench, encoder, etc., excluding the mass of cables;

*3. This data is based on measurements made using the RENISHAW laser interferometer at an ambient temperature of 20 °C within any stroke range of 1000mm;

*4 If you need to purchase an extension cable, please consult Kaifull Technology.

*5. Please consult Kaifull Technology for driver selection.

Item	Motor model	KFS125C	KFS125D	KFS125F
	Continuous thrust (N)		689	919
Peak thrust (N)		1617	2157	3234
Continuous current (A)		5.1	10.2	10.2
Peak current (A)		15.3	30.6	30.6
Thrust constant $\pm 10\%$ (N/A)		146.8	97.9	146.8
Reverse electromotive force constant $\pm 10\%$ (V/m/s)		127.7	85.1	127.7
Motor constant $\pm 10\%$ (N/ \sqrt{W})		36.1	41.7	51.1
Resistance $\pm 10\%$ (ohm)		16.88	5.67	8.45
Inductance $\pm 30\%$ (mh)		64.16	21.56	32.11
Electrical time constant (ms)		3.8	3.8	3.8
Rated power (W)		645	860	1289
Maximum power (W)		8031	10711	16057
Magnetic pitch (mm)		32	32	32
Thermal dissipation constant (W/°C)		10.7	14.3	21.5
Magnetic attraction (KN)		3.6	4.6	6.6
Rotor weight (Kg)		4.41	5.57	8.41
Maximum temperature (°C)		120	120	120

*1. The measurement room temperature is 25 °C, depending on the heat dissipation environment.

*3. Inductance measurement frequency is 1kHz.

*5. The maximum duration of maximum thrust is 1 second.

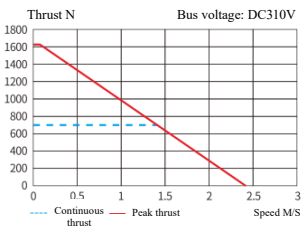
*2. DC current is adopted for the resistance measurement, including 0.5-meter standard cable.

*4. For unmarked dimensional tolerance, the tolerance shall be ± 0.1 mm.

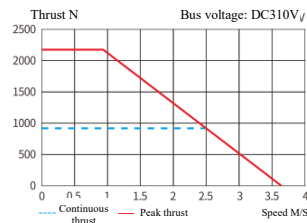
*6. The relevant parameter regulations are subject to change without prior notice.

Motor Performance Parameters

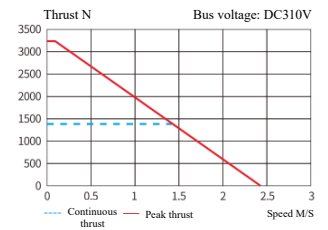
KFS125C Sliding Table 220V Thrust Diagram



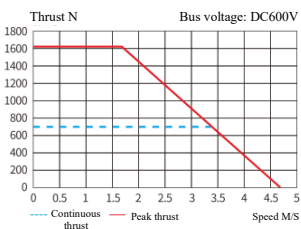
KFS125D Sliding Table 220V Thrust Diagram



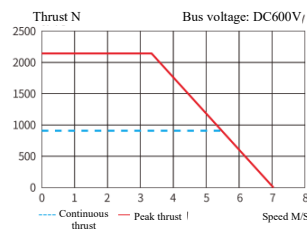
KFS125F Sliding Table 220V Thrust Diagram



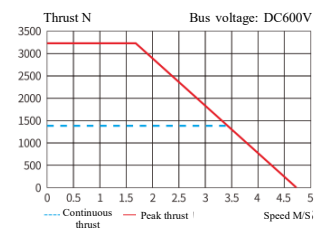
KFS125C Sliding Table 380V Thrust Diagram



KFS125D Sliding Table 380V Thrust Diagram



KFS125F Sliding Table 380V Thrust Diagram



KFS125C KFX25

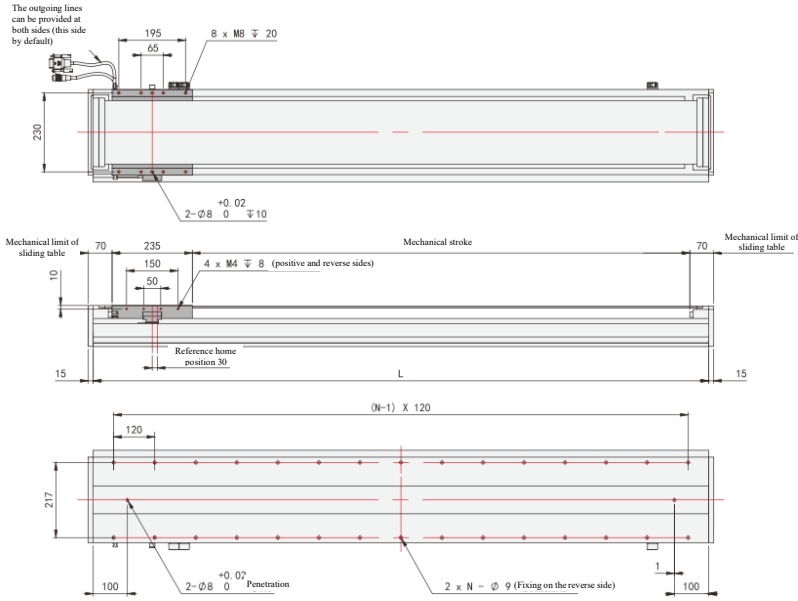
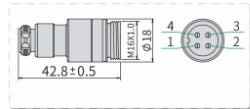


Outline Drawing (unit: mm)

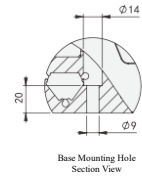
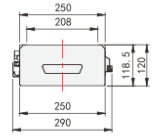
KFS125C

Digital encoder output signal (ABZ)			
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

Motor connector (male connector): 16M-4K				
Maximum length: 42.8 ± 0.5 Maximum diameter: φ18				
External thread diameter: M16 × 1.0				
Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W



KFS125C
Sliding table length: 235mm



Total length (mm)	504	632	760	888	1016	1144	1272	1400	1528	1656	1784	1912	2040	2168	2296	2424	2552	2680	2808	2936	3064	3192
L base length (mm)	474	602	730	858	986	1114	1242	1370	1498	1626	1754	1882	2010	2138	2266	2394	2522	2650	2778	2906	3034	3162
Mechanical stroke (mm)	129	257	385	513	641	769	897	1025	1153	1281	1409	1537	1665	1793	1921	2049	2177	2305	2433	2561	2689	2817
N	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45
Total mass (kg)	31.1	35.5	39.9	44.2	48.6	52.9	57.3	61.7	66.0	70.4	74.7	79.1	83.5	87.8	92.2	96.5	100.9	105.2	109.6	114.0	118.3	122.7

Total length (mm)	3320	3448	3576	3704	3832	3960	4088	4216	4344	4472	4600	4728	4856	4984	5112	5240	5368	5496	5624	5752	5880	6008
L base length (mm)	3290	3418	3546	3674	3802	3930	4058	4186	4314	4442	4570	4698	4826	4954	5082	5210	5338	5466	5594	5722	5850	5978
Mechanical stroke (mm)	2945	3073	3201	3329	3457	3585	3713	3841	3969	4097	4225	4353	4481	4609	4737	4865	4993	5121	5249	5377	5505	5633
N	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69
Total mass (kg)	127.0	131.4	135.8	140.1	144.5	148.8	153.2	157.6	161.9	166.3	170.6	175.0	179.4	183.7	188.1	192.4	196.8	201.1	205.5	209.9	214.2	218.6

KFS125D KFX20

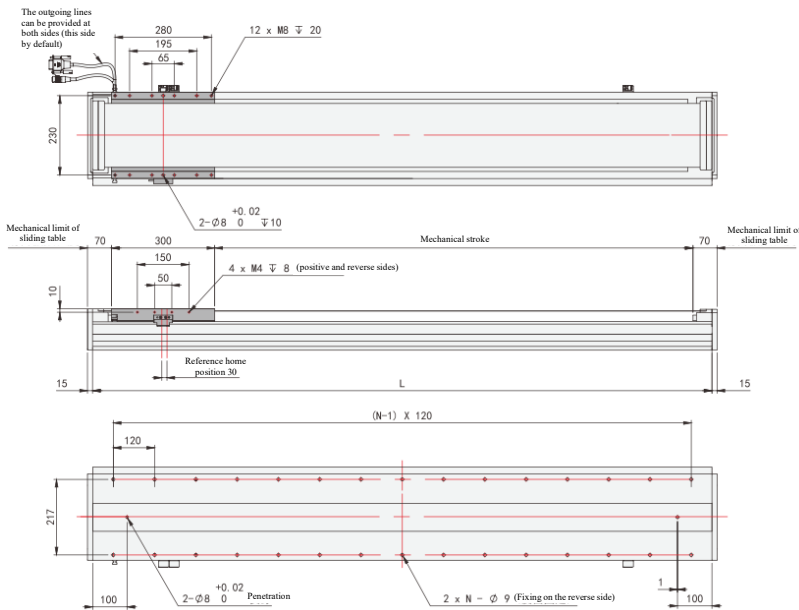
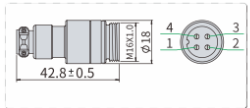


Outline Drawing (unit: mm)

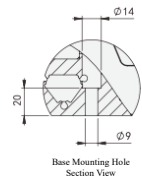
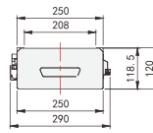
KFS125D

Digital encoder output signal (ABZ)			
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

Motor connector (male connector): 16M-4K				
Maximum length: 42.8 ± 0.5 Maximum diameter: φ18				
External thread diameter: M16 × 1.0				
Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W



KFS125D
Sliding table length: 300mm



Total length (mm)	504	632	760	888	1016	1144	1272	1400	1528	1656	1784	1912	2040	2168	2296	2424	2552	2680	2808	2936	3064	3192
L base length (mm)	474	602	730	858	986	1114	1242	1370	1498	1626	1754	1882	2010	2138	2266	2394	2522	2650	2778	2906	3034	3162
Mechanical stroke (mm)	-	-	320	448	576	704	832	960	1088	1216	1344	1472	1600	1728	1856	1984	2112	2240	2368	2496	2624	2752
N	-	-	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43
Total mass (kg)	-	-	42.9	47.2	51.6	55.9	60.3	64.7	69.0	73.4	77.7	82.1	86.5	90.8	95.2	99.5	103.9	108.2	112.6	117.0	121.3	125.7

Total length (mm)	3320	3448	3576	3704	3832	3960	4088	4216	4344	4472	4600	4728	4856	4984	5112	5240	5368	5496	5624	5752	5880	6008
L base length (mm)	3290	3418	3546	3674	3802	3930	4058	4186	4314	4442	4570	4698	4826	4954	5082	5210	5338	5466	5594	5722	5850	5978
Mechanical stroke (mm)	2880	3008	3136	3264	3392	3520	3648	3776	3904	4032	4160	4288	4416	4544	4672	4800	4928	5056	5184	5312	5440	5568
N	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69
Total mass (kg)	130.0	134.4	138.8	143.1	147.5	151.8	156.2	160.6	164.9	169.3	173.6	178.0	182.4	186.7	191.1	195.4	199.8	204.1	208.5	212.9	217.2	221.6

KFS125F KFX25

■ Outline Drawing (unit: mm)

● KFS125F



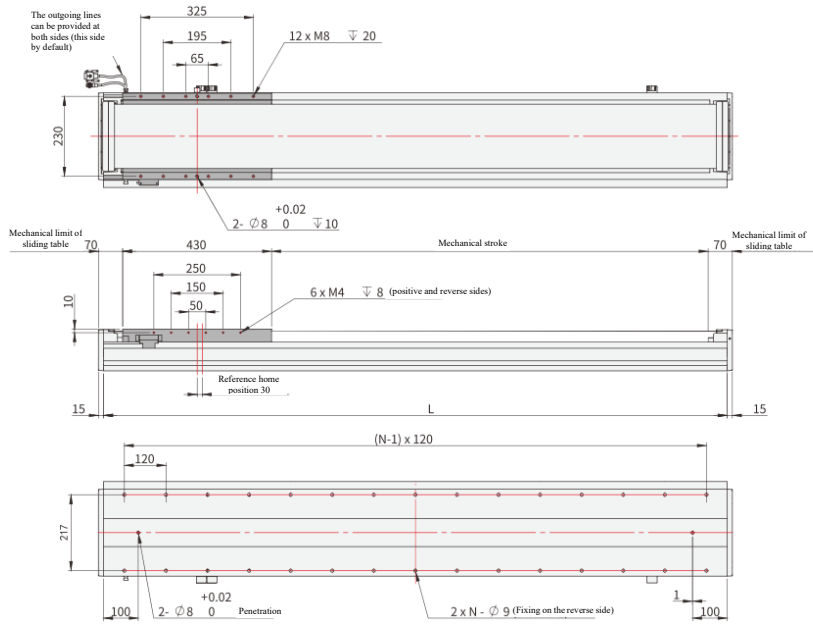
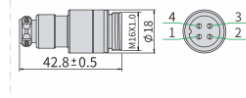
Digital encoder output signal (ABZ)			
Pin No.	1	2	3
Signal	0V	A+	Z+
Pin No.	4	5	6
Signal	B+	5V	A-
Pin No.	7	8	9
Signal	Z-	B-	-

Motor connector (male connector): 16M-4K

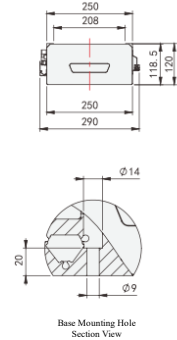
Maximum length: 42.8 ± 0.5 Maximum diameter: φ18

External thread diameter: M16 × 1.0

Pin No.	1	2	3	4
Motor phase sequence	PE	U	V	W



CFS125F
Sliding table length: 430mm
滑台长度: 430mm



Total length (mm)	504	632	760	888	1016	1144	1272	1400	1528	1656	1784	1912	2040	2168	2296	2424	2552	2680	2808	2936	3064	3192
L base length (mm)	474	602	730	858	986	1114	1242	1370	1498	1626	1754	1882	2010	2138	2266	2394	2522	2650	2778	2906	3034	3162
Mechanical stroke (mm)	-	-	190	318	446	574	702	830	958	1086	1214	1342	1470	1598	1726	1854	1982	2110	2238	2366	2494	2622
N	-	-	5	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	25	25	27
Total mass (kg)	-	-	45.9	50.2	54.6	58.9	63.3	67.7	72.0	76.4	80.7	85.1	89.5	93.8	98.2	102.5	106.9	111.2	115.6	120.0	124.3	128.7

Total length (mm)	3320	3448	3576	3704	3832	3960	4088	4216	4344	4472	4600	4728	4856	4984	5112	5240	5368	5496	5624	5752	5880	6008
L base length (mm)	3290	3418	3546	3674	3802	3930	4058	4186	4314	4442	4570	4698	4826	4954	5082	5210	5338	5466	5594	5722	5850	5978
Mechanical stroke (mm)	2750	2878	3006	3134	3262	3390	3518	3646	3774	3902	4030	4158	4286	4414	4542	4670	4798	4926	5054	5182	5310	5438
N	27	29	29	31	31	33	33	35	35	37	37	39	39	41	43	43	45	45	47	47	49	49
Total mass (kg)	133.0	137.4	141.8	146.1	150.5	154.8	159.2	163.6	167.9	172.3	176.6	181.0	185.4	189.7	194.1	198.4	202.8	207.1	211.5	215.9	220.2	224.6

■ Features

Simplified and Modular Structure

Unlike that traditional linear motor composed of multiple components, the product integrates the base and the guide rail, and integrates the sliding block, sliding table and reading head support, forming a simple and solid integrated module.

More Oil Storage, Longer Operation

The oil storage space is large, and the largest module can run 100 thousand kilometers when fully filled with oil.

Wide Applications

The module still operates well when withstanding a lateral eccentric load of 500mm.

Superhigh Accuracy, Never Getting Loose

The guide rail is directly embedded into the aluminum profile using a special process, and then processed with a high-precision grinder to form it in one go, making the linear motor more precise, sturdy, and durable.

Larger Load, More Stable Operation

A large number of large-sized precision steel balls are embedded inside the sliding block, with each ball having the bearing capacity of 1 to 2 tons.

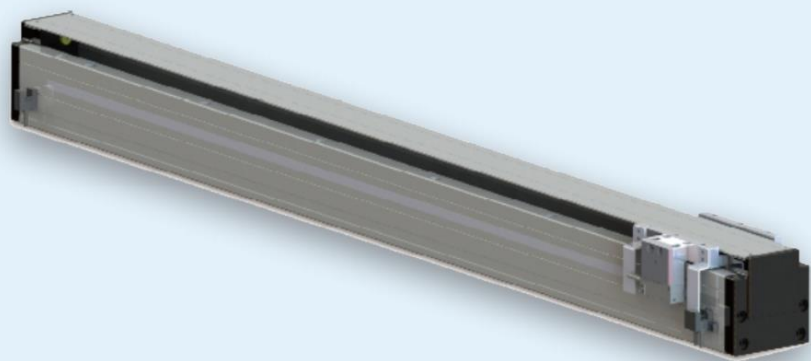
Better Materials, Resistant to Wear and Rust

The embedded guide rail is made of stainless steel material, which is more wear-resistant, corrosion-resistant, and rust resistant.

■ Reading Method of Trade Name

Brand logo	SN	Base size	Number of rotors	Effective stroke	Encoder	Cable length	Matching motor	Non-standard code
YK	KE	60	D1	L300	KA1	0.2	A	1
YK: YARAK	KE : Semi-closed type	60 : 60mm 82 : 82mm 95 : 95mm 115 : 115mm 145 : 145mm 165 : 165mm 195 : 195mm	D1: 1 rotor 02: 2 rotors 03: 3 rotors	30-3570mm	KA: Kaifull magnetic grating KB: Kaifull optical grating 1: 1 μm resolution 0.5: 0.5 μm resolution 0.1: 0.1 μm resolution	0.2: 0.2m 3 : 3m 5 : 5m	A: Motor A B: Motor B C: Motor C	The standard is empty

- Linear motor drive
- Optical grating positioning/magnetic grating positioning
- High stability, high reliability, and high response speed
- No back clearance error
- Smooth movement, no wear, long service life
- Compact and modular design



Parameters Overview

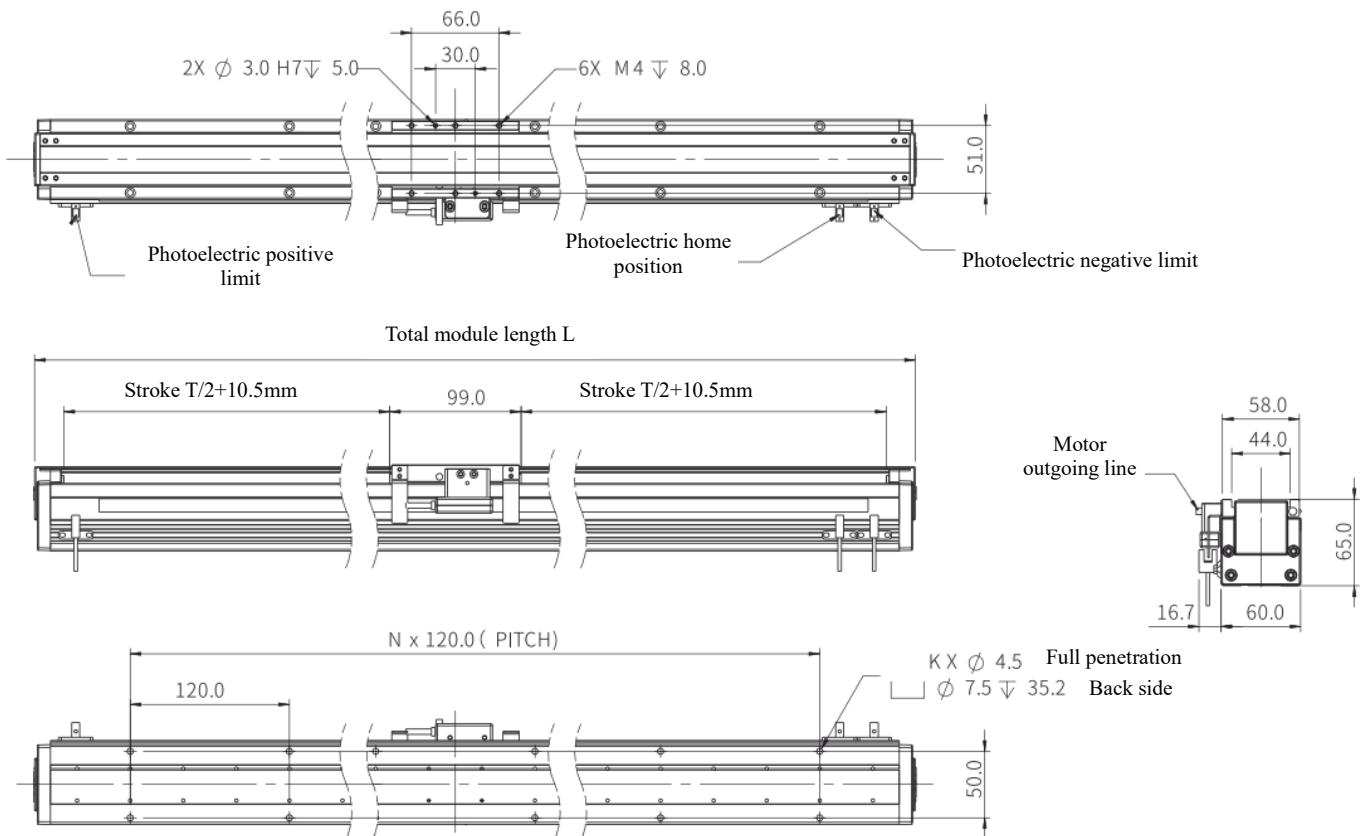
Product type	Repetitive positioning accuracy (μm)	0N-50N	50N-100N	100N-500N	500N-1500N	1500N-2000 N	2000N-2500 N
60A	up to ± 3	Fpk:179 Fcn:44.8					
82A	up to ± 3	Fpk:208 Fcn:52					
82B	up to ± 3	Fpk:208 Fcn:52					
95A	up to ± 3	Fpk:442 Fcn:110.5					
95B	up to ± 3	Fpk:588 Fcn:147					
115A	up to ± 3	Fpk:609 Fcn:152					
115B	up to ± 3	Fpk:812 Fcn:203					
145A	up to ± 3	Fpk:900 Fcn:225.8					
145B	up to ± 3	Fpk:1350 Fcn:337.5					
165A	up to ± 3	Fpk:1196 Fcn:299					
165B	up to ± 3	Fpk:1790 Fcn:447.5					
195A	up to ± 3	Fpk:1568 Fcn:392					
195B	up to ± 3	Fpk:2244 Fcn:561					

YK-KE-60 motor A semi-enclosed KE series linear module



Outline Drawing (unit: mm)

YK-KE-60



Note: Profile cover plate with a total module length less than 1200mm
Steel strip cover plate for modules with a total length greater than 1200mm

● Motor Specifications

Parameter	Stroke T (mm)											
	40	100	160	220	280	340	400	460	520	580	640	700
K	4	4	6	6	8	8	10	10	12	12	14	14
N	1	1	2	2	3	3	4	4	5	5	6	6
L(mm)	204	264	324	384	444	504	564	624	684	744	804	864

Parameter	Stroke T (mm)											
	760	820	880	940	1000	1060	1120	1180	1240	1300	1360	700
K	16	16	18	18	20	20	22	22	24	24	26	14
N	7	7	8	8	9	9	10	10	11	11	12	6
L(mm)	924	984	1044	1104	1164	1224	1284	1344	1404	1464	1524	864

● Motor Configuration and Performance Parameters

Motor	YK-M1-W28-C6-0.3 power cord length: 200mm
Drives	Continuous current: 2.5A Peak current: 10A
Feed back	Magnetic grating: DMT-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Embedded double guide rail
Thrust	Continuous thrust: 44.8N Peak thrust: 179N
Load	At an acceleration of 1G, a speed of 500mm/s, a dwell time of 0.2s, and a running stroke of 600mm: Module horizontal installation: Load ≤ 5kg Module side mounted installation: Load ≤ 3kg; the maximum operating speed limit is 1200mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 2kg (stroke increases by 0.32kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Peak current	10.0Arms
Continuous current	2.5Arms
Recommended model of driver	Servotronix innovation bus CDHDE-4D52AEB (with connector)/Servotronix pulse CDHDE-4D52AAP (with connector)

● Motor Parameters

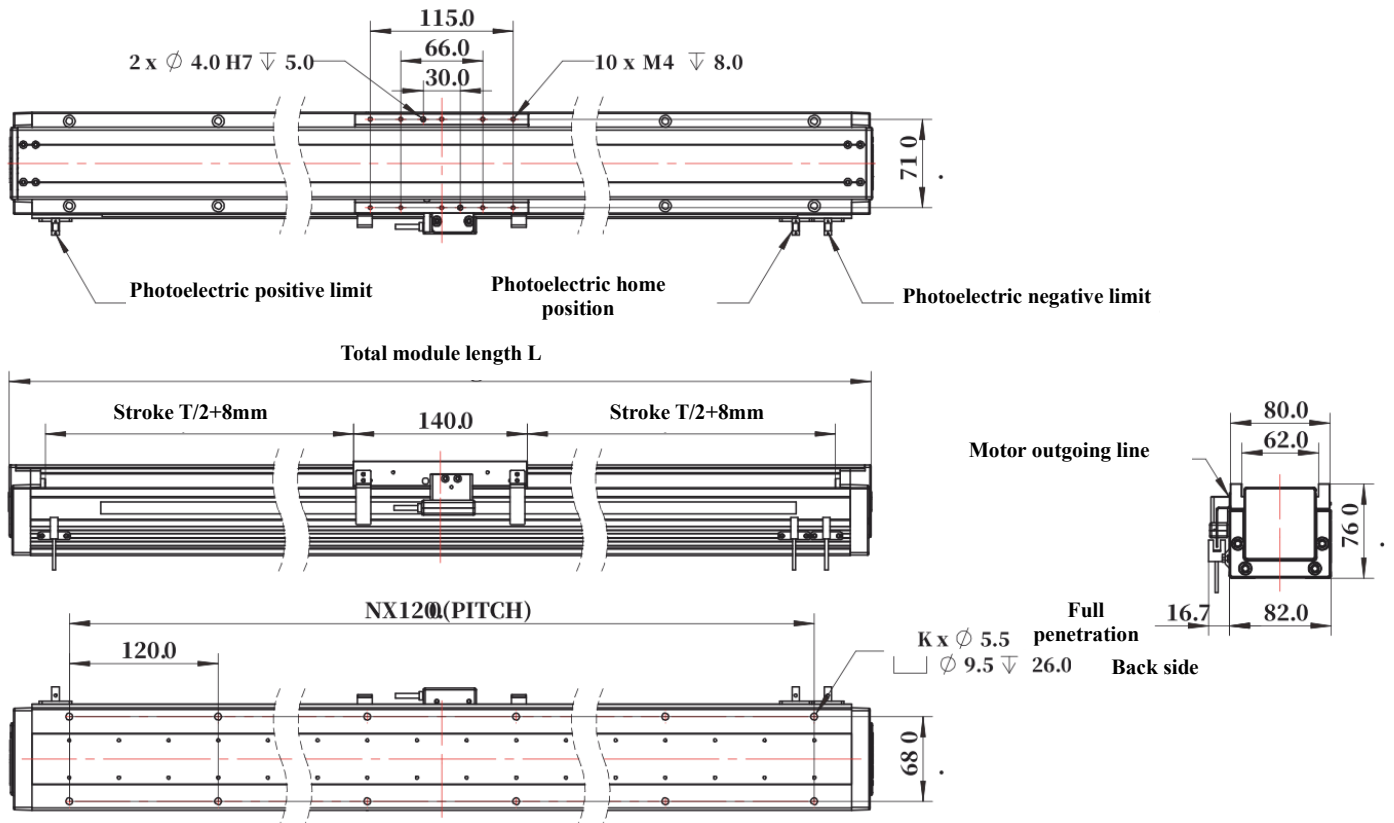
YK-KE-60	
Peak thrust	179.0N
Continuous thrust	44.8N
Motor constant	7.0N/(W ^{1/2})
Max. continuous power dissipation	41.2W
Peak current	10.0Arms
Continuous current	2.5Arms
Force constant	17.9 N/Arms
Back EMF	14.6 V _{peak} /(m/s)
Resistance Phase to Phase @25°	3.2 ohms
Inductance phase to phase	9.4mH
Electrical time constant	3.0 ms
Max. terminal voltage	460 Vdc
Max. winding temperature	120°C
Coil weight	0.35 KG
Electrical cycle length	20.0mm

YK-KE-82-A semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-82-A



Note: Profile cover plate with a total module length less than 1200mm
 Steel strip cover plate for modules with a total length greater than 1200mm

● Motor Specifications

Parameter	Stroke T (mm)															
	60	120	180	240	300	360	420	480	540	600	660	720	780	840	900	
K	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	
N	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
L(mm)	274	334	394	454	514	574	634	694	754	814	874	934	994	1054	1114	

Parameter	Stroke T (mm)															
	960	1020	1080	1140	1200	1260	1320	1380	1440	1500	1560	1620	1680	1740	1800	
K	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	
N	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	
L(mm)	1174	1228	1288	1348	1408	1468	1528	1588	1648	1708	1768	1828	1888	1948	2008	

● **Motor Configuration and Performance Parameters**

Motor	YK-M1-W40-C9-0.3 power cord length: 200mm
Drives	Continuous current: 2.5A Peak current: 10A
Feed back	Magnetic grating: DMT-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Embedded double guide rail
Thrust	Continuous thrust: 52N Peak thrust: 208N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Module horizontal installation: Load ≤ 8kg Module side mounted installation: Load ≤ 6kg; the maximum operating speed limit is 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 5kg (stroke increases by 0.5kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronix innovation bus CDHDE-4D52AEB (with connector)/Servotronix pulse CDHDE-4D52AAP (with connector)

● **Motor Parameters**

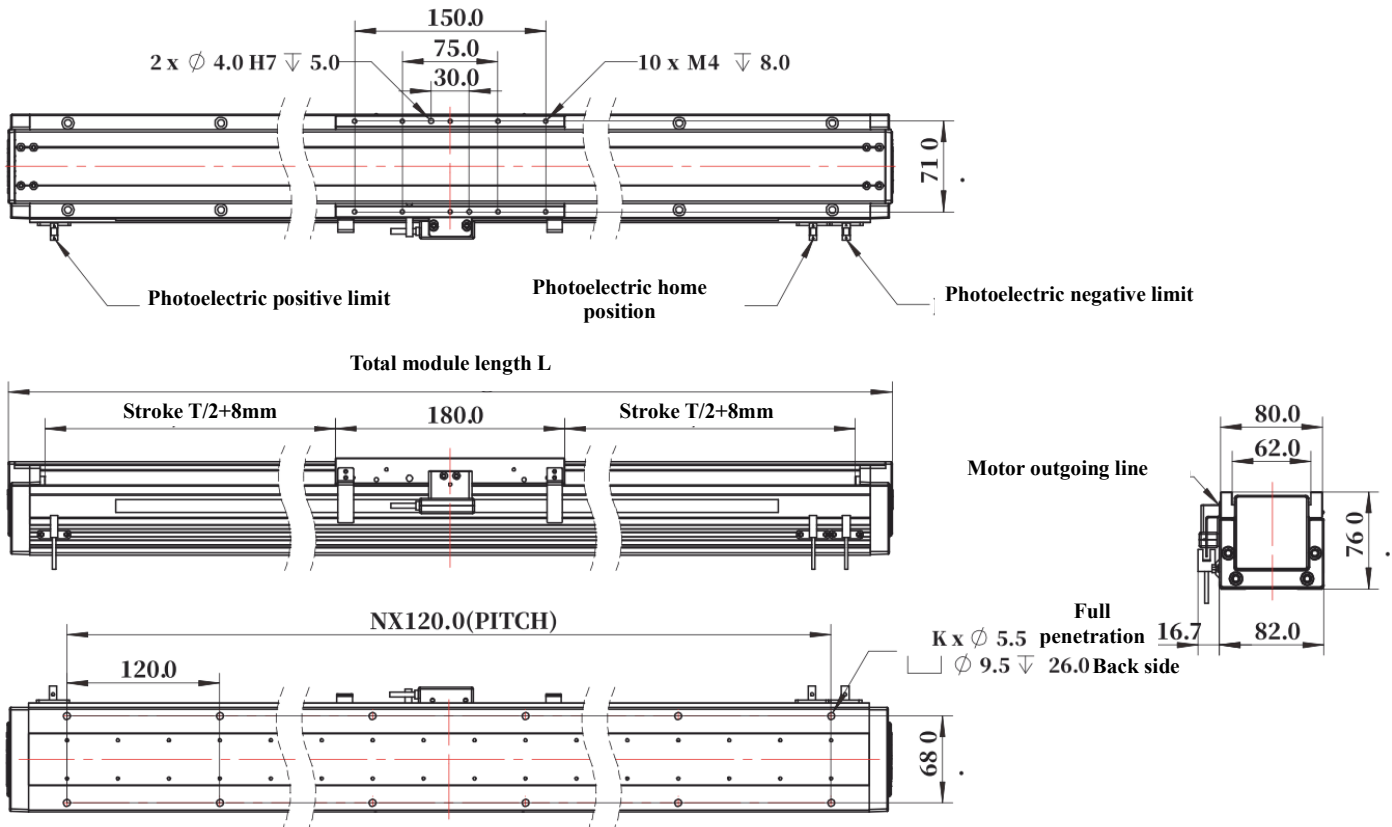
YK-KE-82-A	
Peak thrust	208.0 N
Continuous thrust	52.0 N
Motor constant	23.4N/(W ^{1/2})
Max. continuous power dissipation	42.5 W
Peak current	10.0Arms
Continuous current	2.5 Arms
Force constant	20.8N/Arms
Back EMF	17.1 V _{peak} /(m/s)
Resistance Phase to Phase @25°	4.0 ohms
Inductance phase to phase	10.0 mH
Electrical time constant	0.9 ms
Max. terminal voltage	460 Vdc
Max. winding temperature	120 °C
Coil weight	1.3 KG
Electrical cycle length	20.0mm

YK-KE-82-B semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-82-B



Note: Profile cover plate with a total module length less than 1200mm
 Steel strip cover plate for modules with a total length greater than 1200mm

● Motor Specifications

Parameter	Stroke T (mm)														
	80	140	200	260	320	380	440	500	560	620	680	740	800	860	920
K	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
N	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
L(mm)	334	394	454	514	574	634	694	754	814	874	934	994	1054	1114	1174

Parameter	Stroke T (mm)													
	980	1040	1100	1160	1220	1280	1340	1400	1460	1520	1580	1640	1700	1760
K	20	22	22	24	24	26	26	28	28	30	30	32	32	34
N	9	10	10	11	11	12	12	13	13	14	14	15	15	16
L(mm)	1228	1288	1348	1408	1468	1528	1588	1648	1708	1768	1828	1888	1948	2008

● Motor Configuration and Performance Parameters

Motor	YK-M1-W40-C12-0.3 power cord length: 200mm
Drives	Continuous current: 2.5A Peak current: 10A
Feed back	Magnetic grating: DMT-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Embedded double guide rail
Thrust	Continuous thrust: 98N Peak thrust: 392N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Module horizontal installation: Load ≤ 15kg Module side mounted installation: Load ≤ 10kg; the maximum operating speed limit is 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 5.6kg (stroke increases by 0.5kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronix innovation bus CDHDE-4D52AEB (with connector)/Servotronix pulse CDHDE-4D52AAP (with connector)

● Motor Parameters

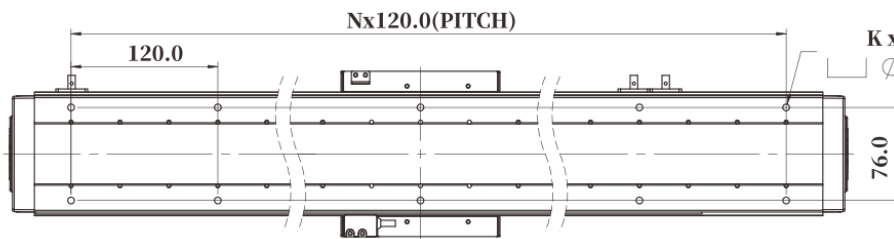
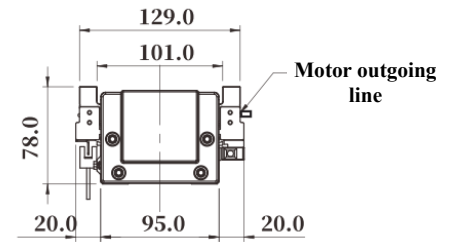
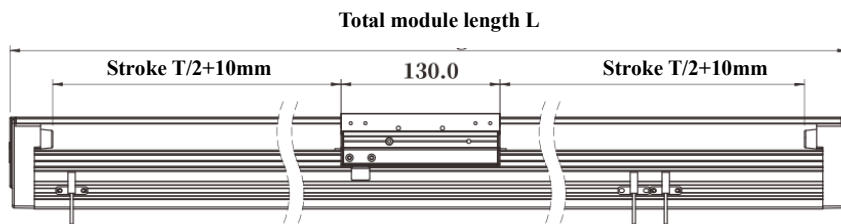
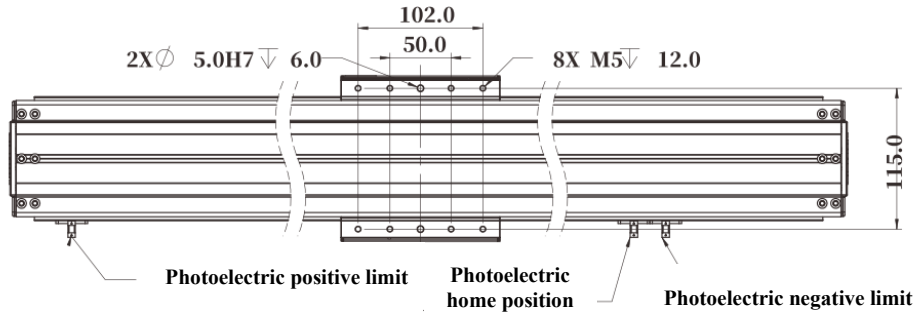
YK-KE-82-B	
Peak thrust	392.0 N
Continuous thrust	98.0 N
Motor constant	10.5 N/(W ^{1/2})
Max. continuous power dissipation	59.2 W
Peak current	10.0Arms
Continuous current	2.5 Arms
Force constant	39.2 N/Arms
Back EMF	32.1 V _{peak} /(m/s)
Resistance Phase to Phase @25°	6.6 ohms
Inductance phase to phase	21.4mH
Electrical time constant	2.8 ms
Max. terminal voltage	460 Vdc
Max. winding temperature	120 °C
Coil weight	1.7 KG
Electrical cycle length	20.0 mm

YK-KE-95-A semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-95-A



Note: Profile cover plate with a total module length less than 1200mm
Steel strip cover plate for modules with a total length greater than 1200mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	4	6	6	8	8	10	10	12	12
N	/	2	2	3	3	4	4	5	5
L(mm)	280	340	400	460	520	580	640	700	760

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	14	14	16	16	18	18	20	20	22
N	6	6	7	7	8	8	9	9	10
L(mm)	820	880	940	1000	1060	1120	1180	1236	1296

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	22	24	24	26	26	28	28	30	30
N	10	11	11	12	12	13	13	14	14
L(mm)	1356	1416	1476	1536	1596	1656	1716	1776	1836

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	32	32	34	34	36	36	38	38	40
N	15	15	16	16	17	17	18	18	19
L(mm)	1896	1956	2016	2076	2136	2196	2256	2316	2376

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	40	42	42	44	44	46	46	48	48
N	19	20	20	21	21	22	22	23	23
L(mm)	2436	2496	2556	2616	2676	2736	2796	2856	2916

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	3240
K	50	50	52	52	54	54	56	56	58
N	24	24	25	25	26	26	27	27	28
L(mm)	2976	3036	3096	3156	3216	3276	3336	3396	3456

Parameter Parameters	Stroke T (mm)								
	3300	3360	3420	3480	3540	3600	3660	3720	3780
K	58	60	60	62	62	64	64	66	66
N	28	29	29	30	30	31	31	32	32
L(mm)	3516	3576	3636	3696	3756	3816	3876	3936	3996

● Motor Configuration and Performance Parameters

Motor	YK-M1-W60-C9-0.3 power cord length: 200mm
Drives	Continuous current: 2.5A Peak current: 10A
Feed back	Magnetic grating: DMT-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	External embedded double guide rail
Thrust	Continuous thrust: 110.5N Peak thrust: 442N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 18kg side mounted installation: Load ≤ 15kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating; repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 6.4kg (stroke increases by 0.65kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronix innovation bus CDHDE-4D52AEB (with connector)/Servotronix pulse CDHDE-4D52AAP (with connector)

● Motor Parameters

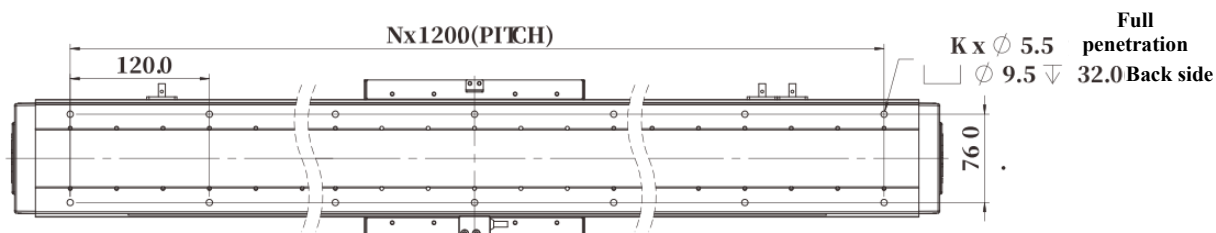
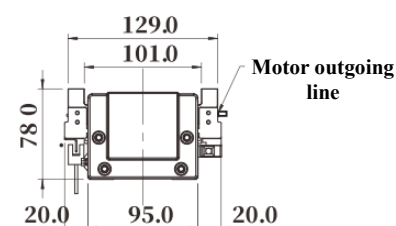
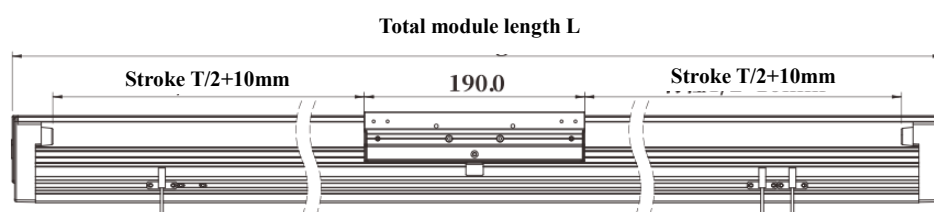
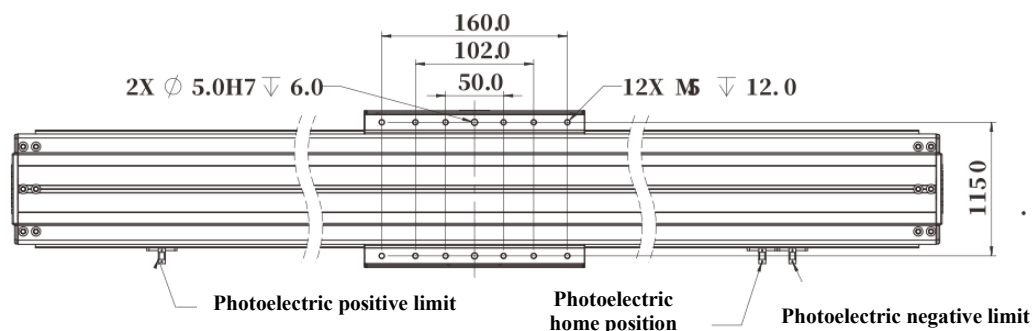
YK-KE-95-A	
Peak thrust	442.0 N
Continuous thrust	110.5 N
Motor constant	23.4 N/(W1/2)
Max. continuous power dissipation	259.8 W
Peak current	10.0Arms
Continuous current	2.5 Arms
Force Constant	44.2 N/Arms
Back EMF	36.2 Vpeak/(m/s)
Resistance Phase to Phase @25°	7.2ohms
Inductance phase to phase	27.7 mH
Electrical time constant	3.8 ms
Max. terminal voltage	460Vdc
Max. winding temperature	120°C
Coil weight	1.1KG
Electrical cycle length	20.0mm

YK-KE-95-B semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-95-B



Note: Profile cover plate with a total module length less than 1200mm
Steel strip cover plate for modules with a total length greater than 1200mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	6	6	8	8	10	10	12	12	14
N	2	2	3	3	4	4	5	5	6
L(mm)	340	400	460	520	580	640	700	760	820

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	14	16	16	18	18	20	20	22	22
N	6	7	7	8	8	9	9	10	10
L(mm)	880	940	1000	1060	1120	1180	1236	1296	1356

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	24	24	26	26	28	28	30	30	32
N	11	11	12	12	13	13	14	14	15
L(mm)	1416	1476	1536	1596	1656	1716	1776	1836	1896

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	32	34	34	36	36	38	38	40	40
N	15	16	16	17	17	18	18	19	19
L(mm)	1956	2016	2076	2136	2196	2256	2316	2376	2436

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	42	42	44	44	46	46	48	48	50
N	20	20	21	21	22	22	23	23	24
L(mm)	2496	2556	2616	2676	2736	2796	2856	2916	2976

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	3240
K	50	52	52	54	54	56	56	58	58
N	24	25	25	26	26	27	27	28	28
L(mm)	3036	3096	3156	3216	3276	3336	3396	3456	3516

Parameter Parameters	Stroke T (mm)								
	3300	3360	3420	3480	3540	3600	3600	3660	
K	60	60	62	62	64	64	64	66	
N	29	29	30	30	31	31	31	32	
L(mm)	3576	3636	3696	3756	3816	3876	3876	3936	

● Motor Configuration and Performance Parameters

Motor	YK-M1-W60-C12-0.3 power cord length: 200mm
Drives	Continuous current: 2.5A Peak current: 10A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	External embedded double guide rail
Thrust	Continuous thrust: 147N Peak thrust: 588N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 25kg side mounted installation: Load ≤ 20kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 7.6kg (stroke increases by 0.65kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronix innovation bus CDHDE-4D52AEB (with connector)/Servotronix pulse CDHDE-4D52AAP (with connector)

● Motor Parameters

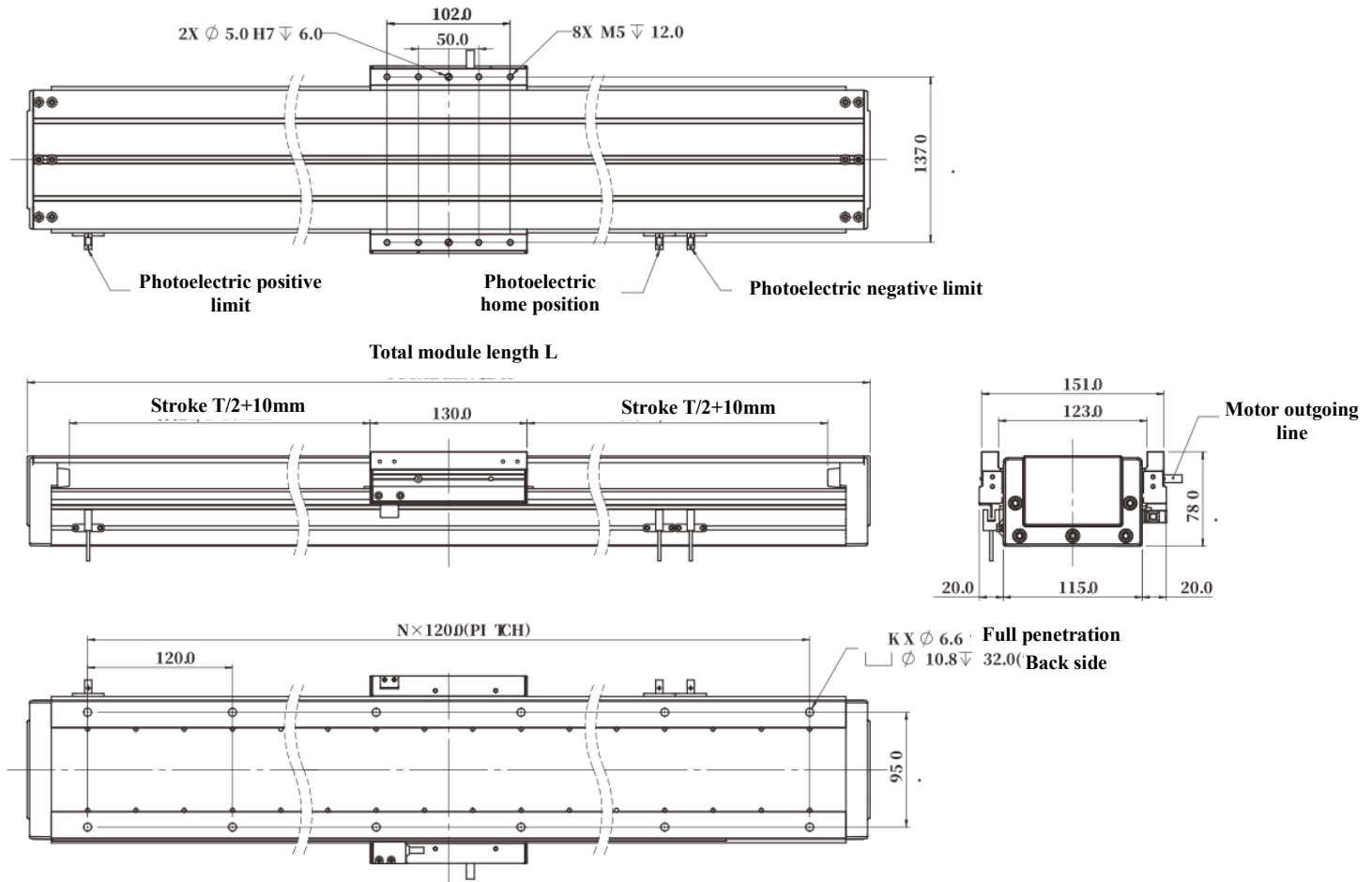
YK-KE-95-B	
Peak thrust	588.0 N
Continuous thrust	147.0 N
Motor constant	15.2 N/(W ^{1/2})
Max. continuous power dissipation	112.0W
Peak current	10.0 Arms
Continuous current	2.5 Arms
Force constant	58.8 N/Arms
Back EMF	48.2 Vpeak/(m/s)
Resistance Phase to Phase @25°	8.7 ohms
Inductance phase to phase	36.5 mH
Electrical time constant	4.2 ms
Max. terminal voltage	460Vdc
Max. winding temperature	120°C
Coil weight	1.5KG
Electrical cycle length	20.0mm

YK-KE-115-A semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-115-A



Note: Profile cover plate with a total module length less than 1200mm
 Steel strip cover plate for modules with a total length greater than 1200mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	4	6	6	8	8	10	10	12	12
N	/	2	2	3	3	4	4	5	5
L(mm)	280	340	400	460	520	580	640	700	760

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	14	14	16	16	18	18	20	20	22
N	6	6	7	7	8	8	9	9	10
L(mm)	820	880	940	1000	1060	1120	1180	1236	1296

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	22	24	24	26	26	28	28	30	30
N	10	11	11	12	12	13	13	14	14
L(mm)	1356	1416	1476	1536	1596	1656	1716	1776	1836

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	32	32	34	34	36	36	38	38	40
N	15	15	16	16	17	17	18	18	19
L(mm)	1896	1956	2016	2076	2136	2196	2256	2316	2376

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	40	42	42	44	44	46	46	48	48
N	19	20	20	21	21	22	22	23	23
L(mm)	2436	2496	2556	2616	2676	2736	2796	2856	2916

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	3240
K	50	50	52	52	54	54	56	56	58
N	24	24	25	25	26	26	27	27	28
L(mm)	2976	3036	3096	3156	3216	3276	3336	3396	3456

Parameter Parameters	Stroke T (mm)								
	3300	3360	3420	3480	3540	3600	3660	3720	3780
K	58	60	60	62	62	64	64	66	66
N	28	29	29	30	30	31	31	32	32
L(mm)	3516	3576	3636	3696	3756	3816	3876	3936	3996

● Motor Configuration and Performance Parameters

Motor	YK-M1-W75-C9-0.3 Power cord length: 200mm
Drives	Continuous current: 2.5A Peak current: 10A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	External embedded double guide rail
Thrust	Continuous thrust: 152N Peak thrust: 609N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 25kg side mounted installation: Load ≤ 18kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 7.5kg (stroke increases by 0.75kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronics innovation bus CDHDE-4D52AEB (with connector)/Servotronics pulse CDHDE-4D52AAP (with connector)

● Motor Parameters

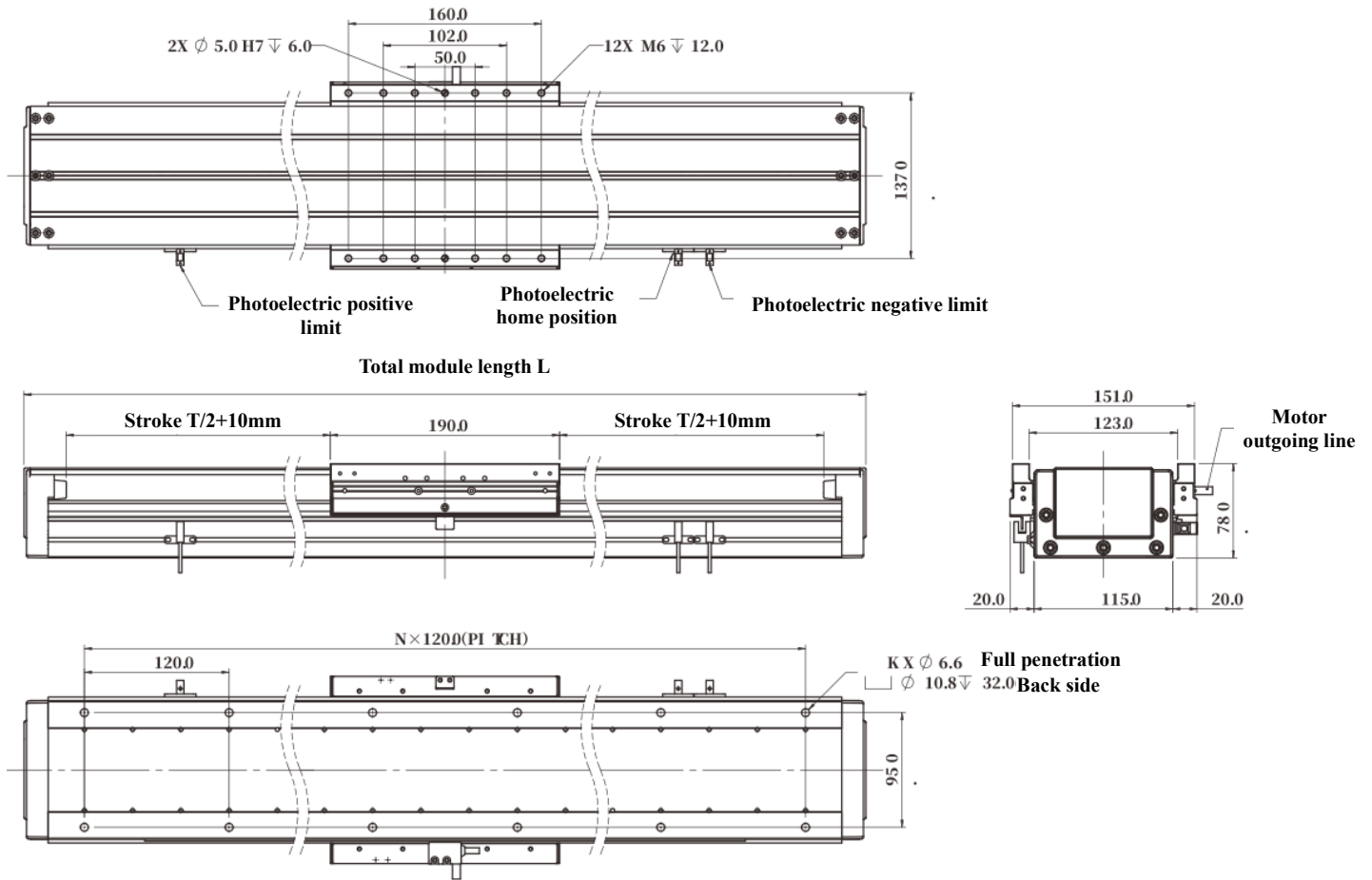
YK-KE-115-A	
Peak thrust	609.0 N
Continuous thrust	152.0 N
Motor constant	14.3 N/(W ^{1/2})
Max. continuous power dissipation	113.3 W
Peak current	10.0Arms
Continuous current	2.5 Arms
Force constant	60.9 N/Arms
Back EMF	49.7 Vpeak/(m/s)
Resistance Phase to Phase @25°	8.8 ohms
Inductance phase to phase	32.5 mH
Electrical time constant	3.6ms
Max. terminal voltage	460Vdc
Max. winding temperature	120°C
Coil weight	1.35KG
Electrical cycle length	20.0mm

YK-KE-115-B semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-115-B



Note: Profile cover plate with a total module length less than 1200mm
 Steel strip cover plate for modules with a total length greater than 1200mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	6	6	8	8	10	10	12	12	14
N	2	2	3	3	4	4	5	5	6
L(mm)	340	400	460	520	580	640	700	760	820

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	14	16	16	18	18	20	20	22	22
N	6	7	7	8	8	9	9	10	10
L(mm)	880	940	1000	1060	1120	1180	1236	1296	1356

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	24	24	26	26	28	28	30	30	32
N	11	11	12	12	13	13	14	14	15
L(mm)	1416	1476	1536	1596	1656	1716	1776	1836	1896

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	32	34	34	36	36	38	38	40	40
N	15	16	16	17	17	18	18	19	19
L(mm)	1956	2016	2076	2136	2196	2256	2316	2376	2436

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	42	42	44	44	46	46	48	48	50
N	20	20	21	21	22	22	23	23	24
L(mm)	2496	2556	2616	2676	2736	2796	2856	2916	2976

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	3240
K	50	52	52	54	54	56	56	58	58
N	24	25	25	26	26	27	27	28	28
L(mm)	3036	3096	3156	3216	3276	3336	3396	3456	3516

Parameter Parameters	Stroke T (mm)								
	3300	3360	3420	3480	3540	3600	3660	3720	
K	60	60	62	62	64	64	66	66	
N	29	29	30	30	31	31	32	32	
L(mm)	3576	3636	3696	3756	3816	3876	3936	3996	

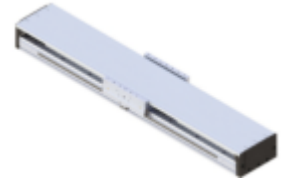
● Motor Configuration and Performance Parameters

Motor	YK-M1-W75-C12-0.3 power cord length: 200mm
Drives	Continuous current: 2.5A Peak current: 10A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	External embedded double guide rail
Thrust	Continuous thrust: 152N Peak thrust: 609N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 35kg side mounted installation: Load ≤ 20kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 9kg (stroke increases by 0.75kg for every additional 90mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronix innovation bus CDHDE-4D52AEB (with connector)/Servotronix pulse CDHDE-4D52AAP (with connector)

● Motor Parameters

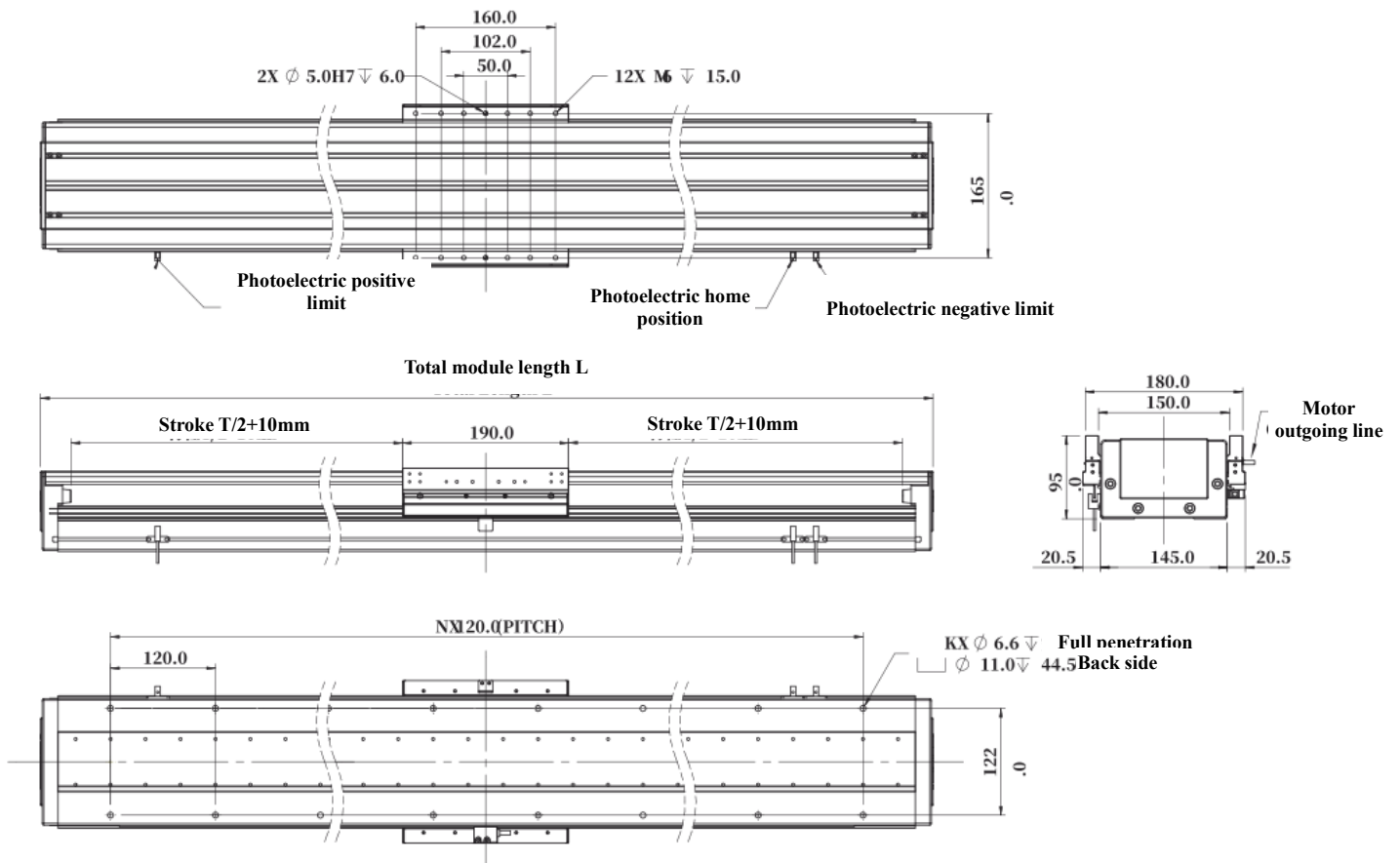
YK-KE-115-B	
Peak thrust	812.0 N
Continuous thrust	203.0N
Motor constant	12.2N/(W12)
Max. continuous power dissipation	149.3 W
Peak current	10.0 Arms
Continuous current	2.5 Arms
Force constant	81.2 N/Arms
Back EMF	66.3 Vpeak/(m/s)
Resistance Phase to Phase @25°	11.6 ohms
Inductance phase to phase	46.0 mH
Electrical time constant	4.2ms
Max. terminal voltage	460Vdc
Max. winding temperature	120°C
Coil weight	1.8KG
Electrical cycle length	20.0mm

YK-KE-145-A semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-145-A



Note: Profile cover plate with a total module length less than 1700mm
 Steel strip cover plate for modules with a total length greater than 1700mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	6	6	8	8	10	10	12	12	14
N	2	2	3	3	4	4	5	5	6
L(mm)	340	400	460	520	580	640	700	760	820

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	14	16	16	18	18	20	20	22	22
N	6	7	7	8	8	9	9	10	10
L(mm)	880	940	1000	1060	1120	1180	1240	1300	1360

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	24	24	26	26	28	28	30	30	32
N	11	11	12	12	13	13	14	14	15
L(mm)	1420	1480	1540	1600	1660	1716	1776	1836	1896

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	32	34	34	36	36	38	38	40	40
N	15	16	16	17	17	18	18	19	19
L(mm)	1956	2016	2076	2136	2196	2256	2316	2376	2436

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	42	42	44	44	46	46	48	48	50
N	20	20	21	21	22	22	23	23	24
L(mm)	2496	2556	2616	2676	2736	2796	2856	2916	2976

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	3240
K	50	52	52	54	54	56	56	58	58
N	24	25	25	26	26	27	27	28	28
L(mm)	3036	3096	3156	3216	3276	3336	3396	3456	3516

Parameter Parameters	Stroke T (mm)								
	3300	3360	3420	3480	3540	3600	3660	3720	
K	60	60	62	62	64	64	66	66	
N	29	29	30	30	31	31	32	32	
L(mm)	3576	3636	3696	3756	3816	3876	3936	3996	

● Motor Configuration and Performance Parameters

Motor	YK-KFM02-W60-C1C2-0.3 power cord length: 200mm
Drives	Continuous current: 5A Peak current: 20A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Internal and external embedded four guide rails
Thrust	Continuous thrust: 225.8N Peak thrust: 900N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 35kg side mounted installation: Load ≤ 25kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 11kg (stroke increases by 0.8kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronics Pulse CDHDE-0102AAP (with connector)/ Servotronics Bus CDHDE-0102AEB (with connector)

● Motor Parameters

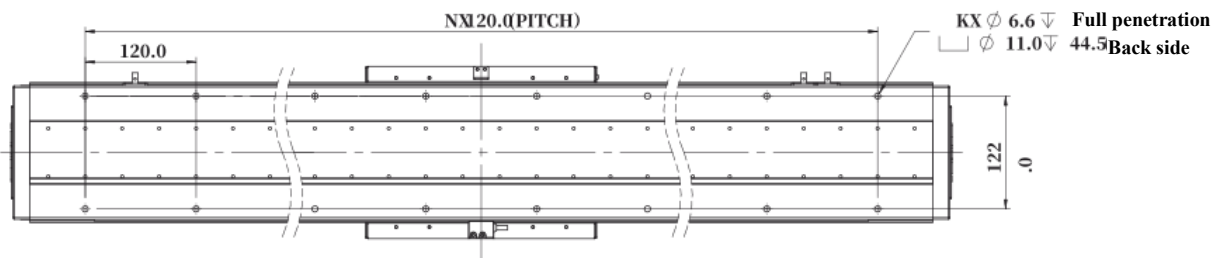
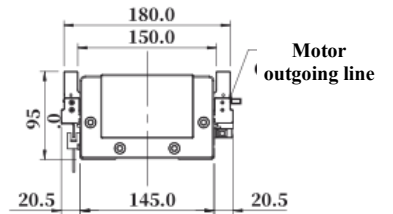
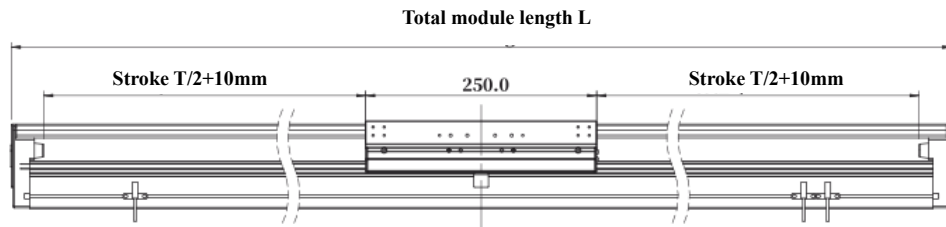
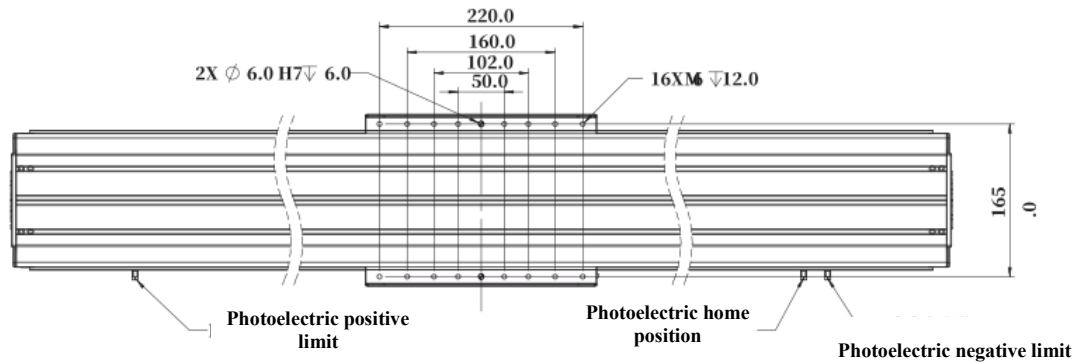
YK-KE-145-A	
Peak thrust	900.0 N
Continuous thrust	225.8 N
Motor constant	17.8N/(W1/2)
Max. continuous power dissipation	159.6 W
Peak current	20.0 Arms
Continuous current	5.0 Arms
Force constant	45.2 N/Arms
Back EMF	36.8 Vpeak/(m/s)
Resistance Phase to Phase @25°	3.1 ohms
Inductance phase to phase	23.0 mH
Electrical time constant	7.4 ms
Max. terminal voltage	540Vdc
Max. winding temperature	120°C
Coil weight	2.3KG
Electrical cycle length	20.0mm

YK-KE-145-B semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-145-B



Note: Profile cover plate with a total module length less than 1700mm
 Steel strip cover plate for modules with a total length greater than 1700mm

● Motor Specifications

Parameter	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	6	8	8	10	10	12	12	14	14
N	2	3	3	4	4	5	5	6	6
L(mm)	400	460	520	580	640	700	760	820	880

Parameter	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	16	16	18	18	20	20	22	22	24
N	7	7	8	8	9	9	10	10	11
L(mm)	940	1000	1060	1120	1180	1240	1300	1360	1420

Parameter	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	24	26	26	28	28	30	30	32	32
N	11	12	12	13	13	14	14	15	15
L(mm)	1480	1540	1600	1660	1716	1776	1836	1896	1956

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	34	34	36	36	38	38	40	40	42
N	16	16	17	17	18	18	19	19	20
L(mm)	2016	2076	2136	2196	2256	2316	2376	2436	2496

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	42	44	44	46	46	48	48	50	50
N	20	21	21	22	22	23	23	24	24
L(mm)	2556	2616	2676	2736	2796	2856	2916	2976	3036

Parameter Parameters	Stroke T (mm)								
	2760	2820	2340	2400	2460	2520	2580	2640	2700
K	52	52	44	46	46	48	48	50	50
N	25	25	21	22	22	23	23	24	24
L(mm)	3096	3156	2676	2736	2796	2856	2916	2976	3036

Parameter Parameters	Stroke T (mm)								
	3240	3300	3360	3420	3480	3540	3600	3660	
K	60	60	62	62	64	64	66	66	
N	29	29	30	30	31	31	32	32	
L(mm)	3576	3636	3696	3756	3816	3876	3936	3996	

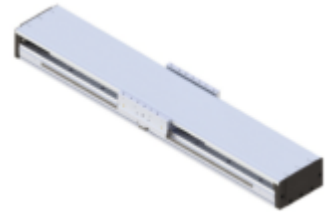
● Motor Configuration and Performance Parameters

Motor	YK-KFW03-W60-C1C2-0.3 power cord length: 200mm
Drives	DA-C145 Series
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Internal and external embedded four guide rails
Thrust	Continuous thrust: 337.5N Peak thrust: 1350N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 45kg side mounted installation: Load ≤ 35kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 13kg (stroke increases by 0.8kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronix Pulse CDHDE-0102AAP (with connector)/ Servotronix Bus CDHDE-0102AEB (with connector)

● Motor Parameters

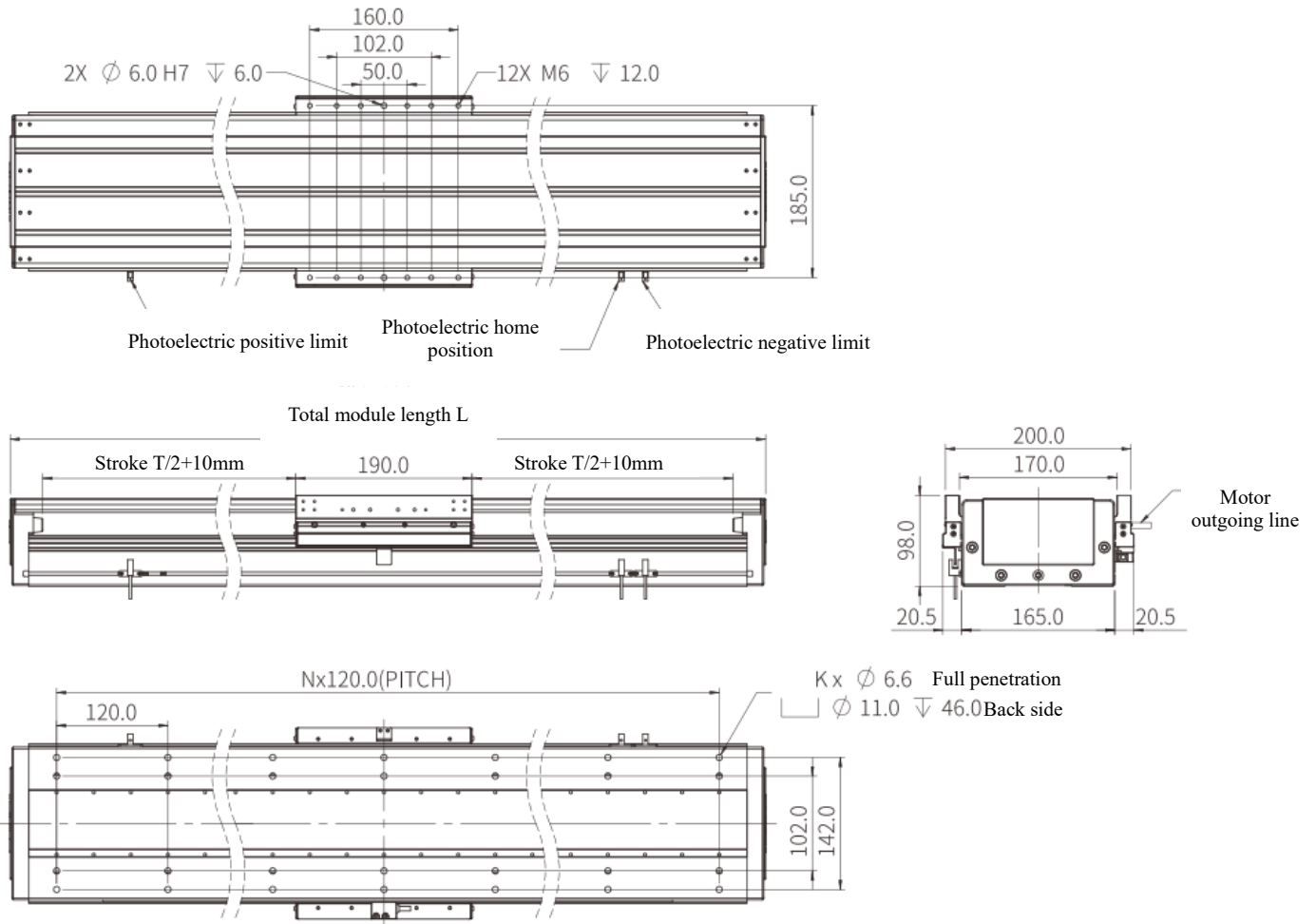
YK-KE-145-B	
Peak thrust	1350.0 N
Continuous thrust	337.5 N
Motor constant	21.9N/(W1/2)
Max. continuous power dissipation	236.8 W
Peak current	20.0 Arms
Continuous current	5.0 Arms
Force constant	67.5 N/Arms
Back EMF	54.9 Vpeak/(m/s)
Resistance Phase to Phase @25°	4.6 ohms
Inductance phase to phase	37.0 mH
Electrical time constant	8.0ms
Max. terminal voltage	540Vdc
Max. winding temperature	120°C
Coil weight	3.5KG
Electrical cycle length	20.0mm

YK-KE-165-A semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-165-A



Note: Profile cover plate with a total module length less than 1700mm
 Steel strip cover plate for modules with a total length greater than 1700mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	12	12	16	16	20	20	24	24	28
N	2	2	3	3	4	4	5	5	6
L(mm)	340	400	460	520	580	640	700	760	820

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	28	32	32	36	36	40	40	44	44
N	6	7	7	8	8	9	9	10	10
L(mm)	880	940	1000	1060	1120	1180	1240	1300	1360

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	48	48	52	52	56	56	60	60	64
N	11	11	12	12	13	13	14	14	15
L(mm)	1420	1480	1540	1600	1660	1720	1780	1840	1900

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	64	68	68	72	72	76	76	80	80
N	15	16	16	17	17	18	18	19	19
L(mm)	1960	2020	2080	2140	2200	2260	2320	2380	2440

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	84	84	88	88	92	92	96	96	100
N	20	20	21	21	22	22	23	23	24
L(mm)	2500	2560	2620	2680	2740	2800	2860	2920	2980

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	3240
K	100	104	104	108	108	112	112	116	116
N	24	25	25	26	26	27	27	28	28
L(mm)	3040	3100	3160	3220	3280	3340	3400	3460	3520

Parameter Parameters	Stroke T (mm)								
	3300	3360	3420	3480	3540	3600	3660	3720	
K	120	120	124	124	128	128	132	132	
N	29	29	30	30	31	31	32	32	
L(mm)	3580	3640	3700	3760	3820	3880	3940	4000	

● Motor Configuration and Performance Parameters

Motor	YK-KFM02-W75-C1C2-0.3 power cord length: 200mm
Drives	Continuous current: 5A Peak current: 20A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Internal and external embedded four guide rails
Thrust	Continuous thrust: 299N Peak thrust: 1196N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 50kg side mounted installation: Load ≤ 40kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 13kg (stroke increases by 0.8kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronics Pulse CDHDE-0102AAP (with connector)/ Servotronics Bus CDHDE-0102AEB (with connector)

● Motor Parameters

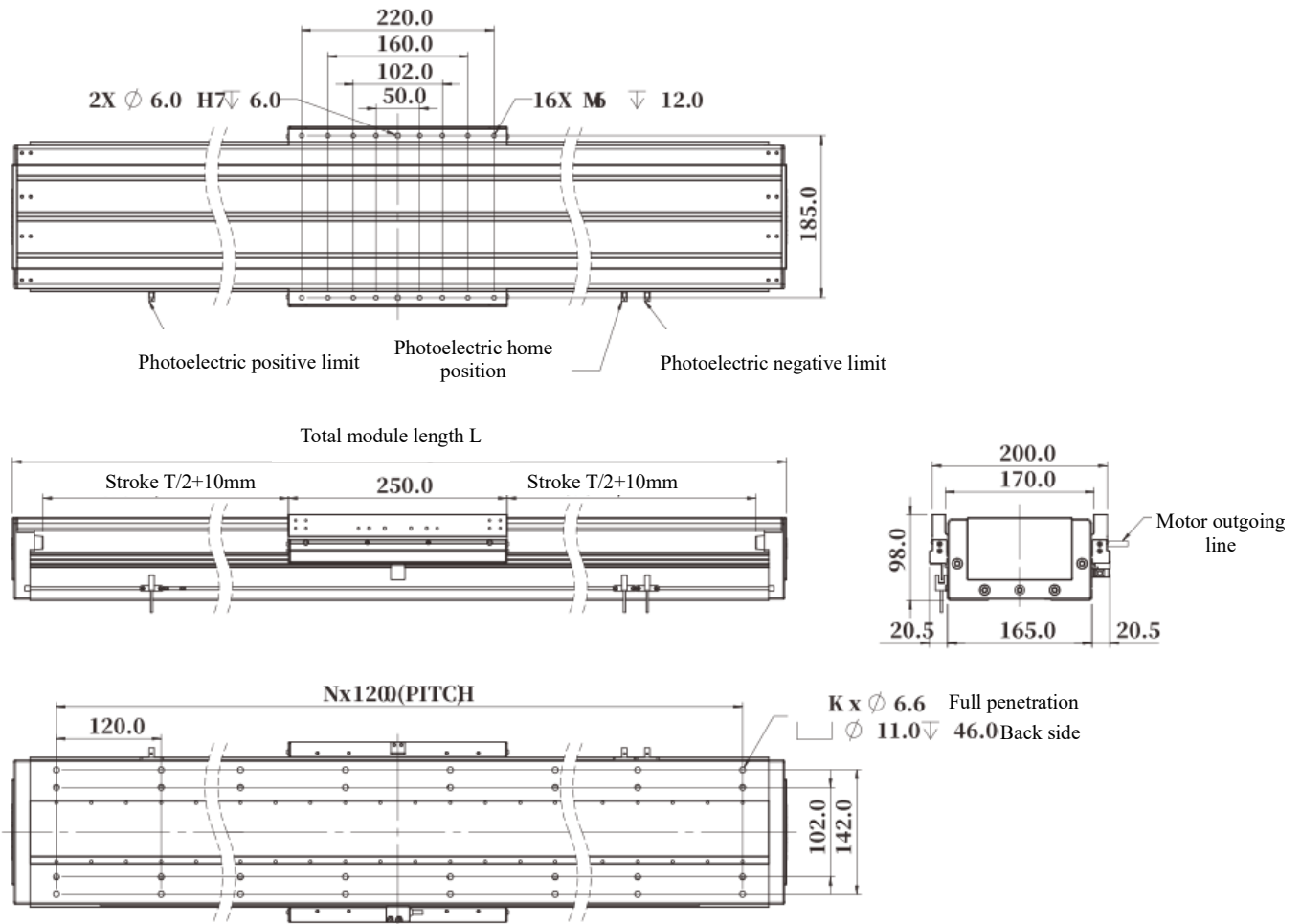
YK-KE-165-A	
Peak thrust	1196.0 N
Continuous thrust	299.0 N
Motor constant	20.8 N/(W ^{1/2})
Max. continuous power dissipation	206.0W
Peak current	20.0 Arms
Continuous current	5.0 Arms
Force constant	59.8 N/Arms
Back EMF	48.6 Vpeak/(m/s)
Resistance Phase to Phase @25°	4.0 ohms
Inductance phase to phase	32.0 mH
Electrical time constant	8.0ms
Max. terminal voltage	540Vdc
Max. winding temperature	120°C
Coil weight	2.4KG
Electrical cycle length	20.0mm

YK-KE-165-B semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-165-B



Note: Profile cover plate with a total module length less than 1700mm
Steel strip cover plate for modules with a total length greater than 1700mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	12	16	16	20	20	24	24	28	28
N	2	3	3	4	4	5	5	6	6
L(mm)	400	460	520	580	640	700	760	820	880

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	32	32	36	36	40	40	40	44	48
N	7	7	8	8	9	9	10	10	11
L(mm)	940	1000	1060	1120	1180	1240	1300	1360	1420

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	48	52	52	56	56	60	60	64	64
N	11	12	12	13	13	14	14	15	15
L(mm)	1480	1540	1600	1660	1720	1780	1840	1900	1960

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	68	68	72	72	76	76	80	80	84
N	16	16	17	17	18	18	19	19	20
L(mm)	2020	2080	2140	2200	2260	2320	2380	2440	2500

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	84	88	88	92	92	96	96	100	100
N	20	21	21	22	22	23	23	24	24
L(mm)	2560	2620	2680	2740	2800	2860	2920	2980	3040

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	
K	104	104	108	108	112	112	116	116	
N	25	25	26	26	27	27	28	28	
L(mm)	3100	3160	3220	3280	3340	3400	3460	3520	

Parameter Parameters	Stroke T (mm)								
	3240	3300	3360	3420	3480	3540	3600	3660	
K	120	120	124	124	128	128	132	132	
N	29	29	30	30	31	31	32	32	
L(mm)	3580	3640	3700	3760	3820	3880	3940	4000	

● Motor Configuration and Performance Parameters

Motor	YK-KFW03-W75-C1C2-0.3 power cord length: 200mm
Drives	Continuous current: 5A Peak current: 20A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Internal and external embedded four guide rails
Thrust	Continuous thrust: 447.5 N Peak thrust: 1790N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 65kg side mounted installation: Load ≤ 55kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 19kg (stroke increases by 1.1kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronics Pulse CDHDE-0102AAP (with connector)/ Servotronics Bus CDHDE-0102AEB (with connector)

● Motor Parameters

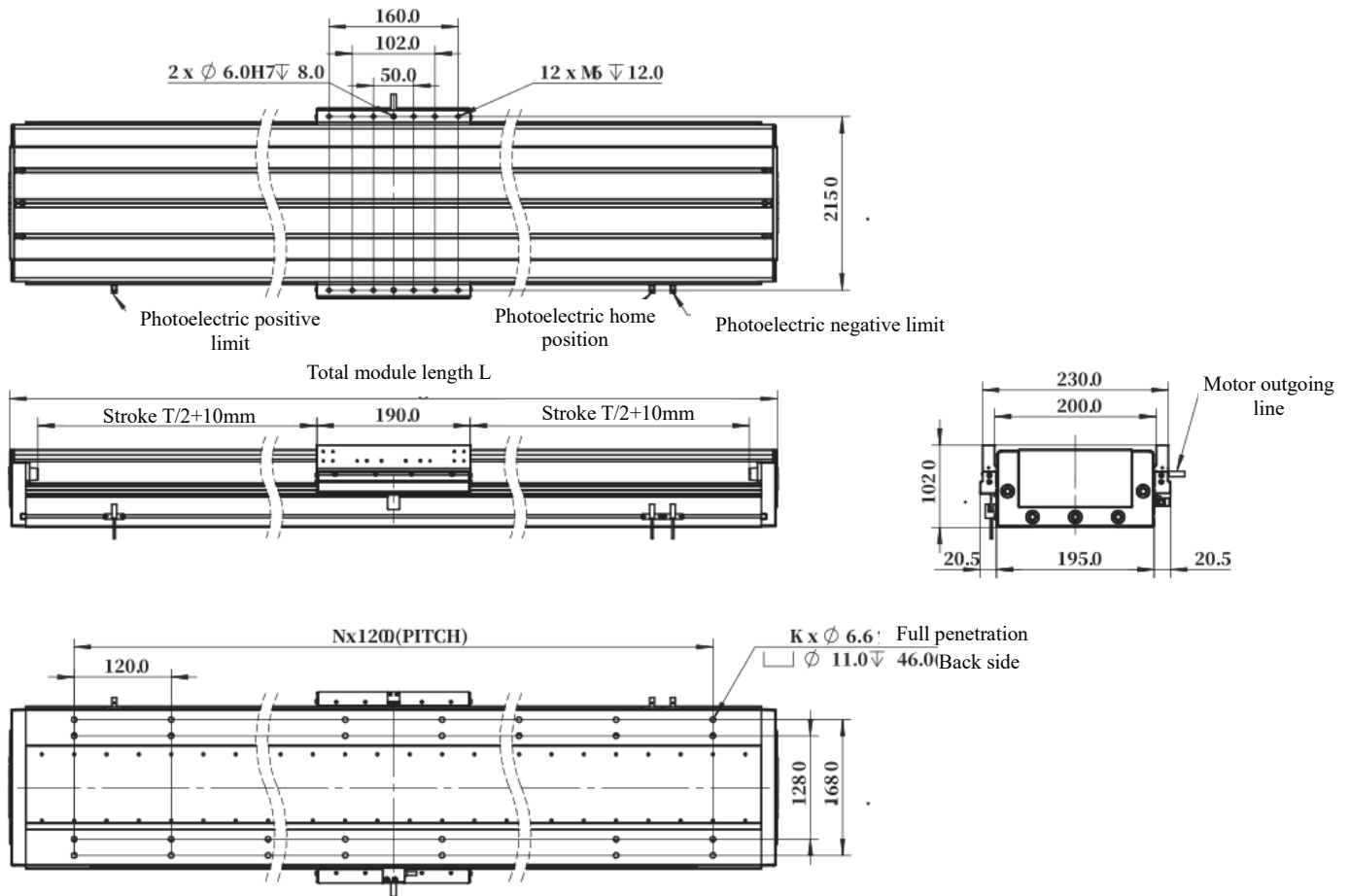
YK-KE-165-B	
Peak thrust	1790.0 N
Continuous thrust	447.5 N
Motor constant	25.6N/(W1/2)
Max. continuous power dissipation	303.8W
Peak current	20.0 Arms
Continuous current	5.0 Arms
Force constant	89.5 N/Arms
Back EMF	72.9 Vpeak/(m/s)
Resistance Phase to Phase @25°	5.9 ohms
Inductance phase to phase	51.0mH
Electrical time constant	8.6ms
Max. terminal voltage	540Vdc
Max. winding temperature	120°C
Coil weight	3.6KG
Electrical cycle length	20.0mm

YK-KE-195-A semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-195-A



Note: Profile cover plate with a total module length less than 1700mm
 Steel strip cover plate for modules with a total length greater than 1700mm

● Motor Specifications

Parameter Parameters	Stroke T (mm)								
	60	120	180	240	300	360	420	480	540
K	12	12	16	16	20	20	24	24	28
N	2	2	3	3	4	4	5	5	6
L(mm)	340	400	460	520	580	640	700	760	820

Parameter Parameters	Stroke T (mm)								
	600	660	720	780	840	900	960	1020	1080
K	28	32	32	36	36	40	40	44	44
N	6	7	7	8	8	9	9	10	10
L(mm)	880	940	1000	1060	1120	1180	1240	1300	1360

Parameter Parameters	Stroke T (mm)								
	1140	1200	1260	1320	1380	1440	1500	1560	1620
K	48	48	52	52	56	56	60	60	64
N	11	11	12	12	13	13	14	14	15
L(mm)	1420	1480	1540	1600	1660	1720	1780	1840	1900

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	64	68	68	72	72	76	76	80	80
N	15	16	16	17	17	18	18	19	19
L(mm)	1960	2020	2080	2140	2200	2260	2320	2380	2440

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	84	84	88	88	92	92	96	96	100
N	20	20	21	21	22	22	23	23	24
L(mm)	2500	2560	2620	2680	2740	2800	2860	2920	2980

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	3240
K	100	104	104	108	108	112	112	116	116
N	24	25	25	26	26	27	27	28	28
L(mm)	3040	3100	3160	3220	3280	3340	3400	3460	3520

Parameter Parameters	Stroke T (mm)								
	3300	3360	3420	3480	3540	3600	3660	3720	
K	120	120	124	124	128	128	132	132	
N	29	29	30	30	31	31	32	32	
L(mm)	3580	3640	3700	3760	3820	3880	3940	4000	

● Motor Configuration and Performance Parameters

Motor	YK-KFM02-W90-C1C2-0.3 power cord length: 200mm
Drives	Continuous current: 5A Peak current: 20A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Internal and external embedded four guide rails
Thrust	Continuous thrust: 392N Peak thrust: 1568N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 60 kg side mounted installation: Load ≤ 50 kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 16.5kg (stroke increases by 1.5 kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronics Pulse CDHDE-0102AAP (with connector)/ Servotronics Bus CDHDE-0102AEB (with connector)

● Motor Parameters

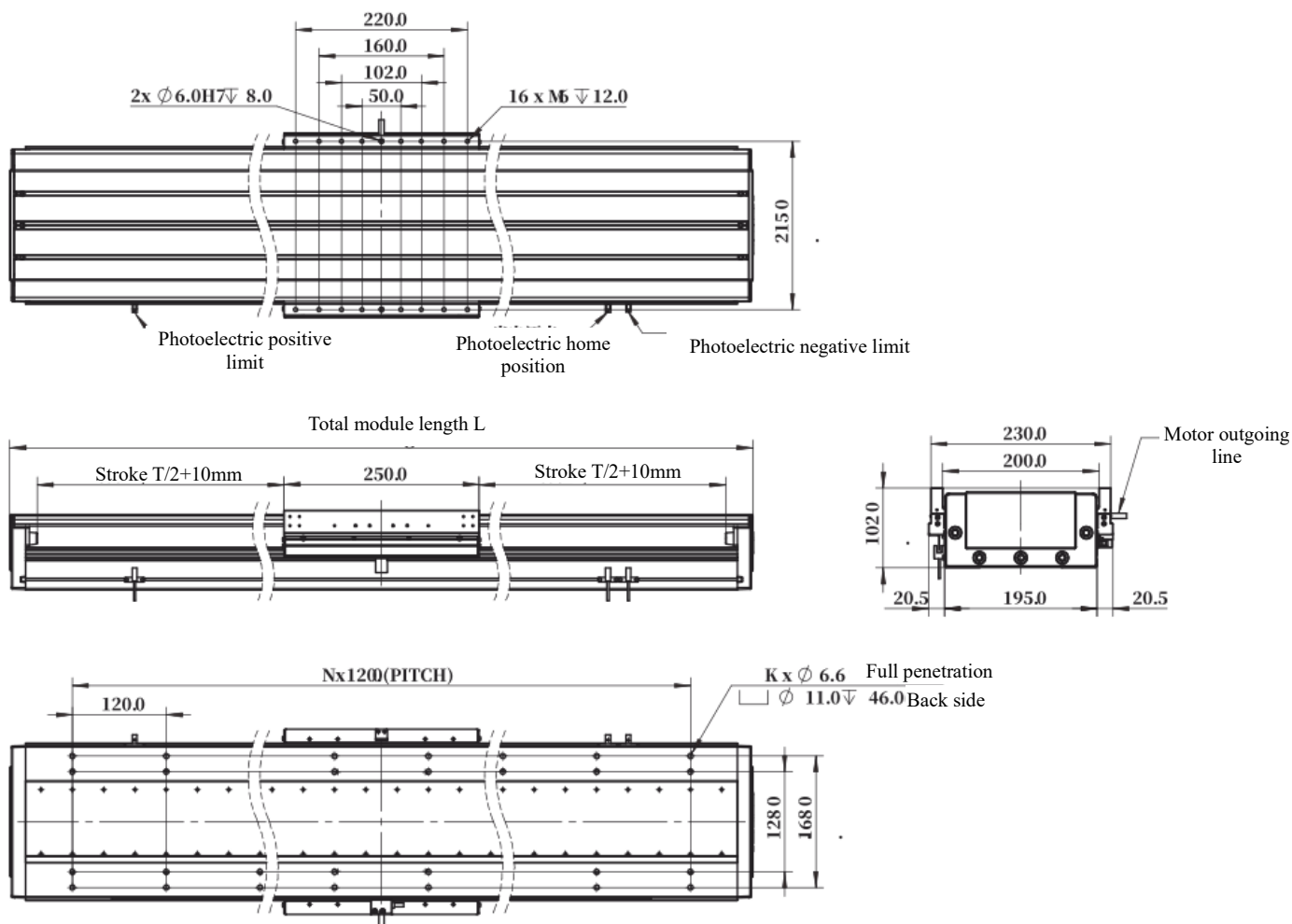
YK-KE-195-A	
Peak thrust	1568.0 N
Continuous thrust	392.0 N
Motor constant	25.3N/(W1/2)
Max. continuous power dissipation	252.3W
Peak current	20.0 Arms
Continuous current	5.0 Arms
Force constant	78.4 N/Arms
Back EMF	64.2 Vpeak/(m/s)
Resistance Phase to Phase @25°	5.3 ohms
Inductance phase to phase	43.1 mH
Electrical time constant	9.3ms
Max. terminal voltage	540Vdc
Max. winding temperature	120°C
Coil weight	3.6KG
Electrical cycle length	20.0mm

YK-KE-195-B semi-closed KE series linear module



■ Outline Drawing (unit: mm)

● YK-KE-195-B



Note: Profile cover plate with a total module length less than 1700mm
Steel strip cover plate for modules with a total length greater than 1700mm

● Motor Specifications

Parameter	Stroke T (mm)									
	60	120	180	240	300	360	420	480	540	
K	12	16	16	20	20	24	24	28	28	
N	2	3	3	4	4	5	5	6	6	
L(mm)	400	460	520	580	640	700	760	820	880	

Parameter	Stroke T (mm)									
	600	660	720	780	840	900	960	1020	1080	
K	32	32	36	36	40	40	44	44	48	
N	7	7	8	8	9	9	10	10	11	
L(mm)	940	1000	1060	1120	1180	1240	1300	1360	1420	

Parameter	Stroke T (mm)									
	1140	1200	1260	1320	1380	1440	1500	1560	1620	
K	48	52	52	56	56	60	60	64	64	
N	11	12	12	13	13	14	14	15	15	
L(mm)	1480	1540	1600	1660	1720	1780	1840	1900	1960	

Parameter Parameters	Stroke T (mm)								
	1680	1740	1800	1860	1920	1980	2040	2100	2160
K	68	68	72	72	76	76	80	80	84
N	16	16	17	17	18	18	19	19	20
L(mm)	2020	2080	2140	2200	2260	2320	2380	2440	2500

Parameter Parameters	Stroke T (mm)								
	2220	2280	2340	2400	2460	2520	2580	2640	2700
K	84	84	88	92	92	96	96	100	100
N	20	21	21	22	22	23	23	24	24
L(mm)	2560	2620	2680	2740	2800	2860	2920	2980	3040

Parameter Parameters	Stroke T (mm)								
	2760	2820	2880	2940	3000	3060	3120	3180	
K	104	104	108	108	112	112	116	116	
N	25	25	26	26	27	27	28	28	
L(mm)	3100	3160	3220	3280	3340	3400	3460	3520	

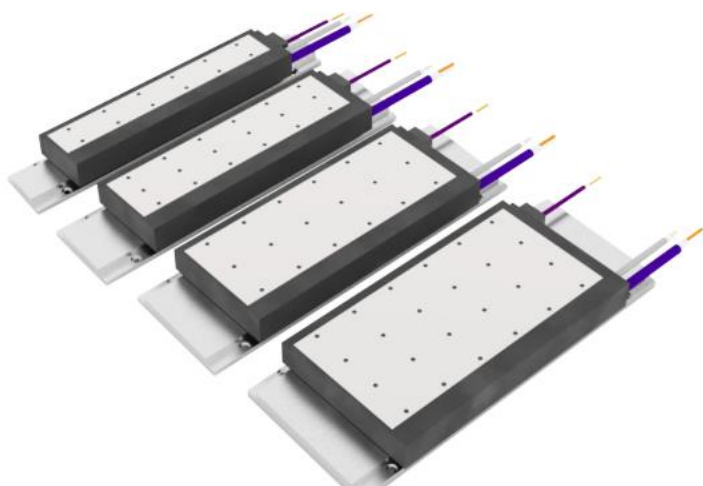
Parameter Parameters	Stroke T (mm)								
	3240	3300	3360	3420	3480	3540	3600	3660	
K	120	120	124	124	128	128	132	132	
N	29	29	30	30	31	31	32	32	
L(mm)	3580	3640	3700	3760	3820	3880	3940	4000	

● Motor Configuration and Performance Parameters

Motor	YK-KFW03-W90-C1C2-0.3 power cord length: 200mm
Drives	Continuous current: 5A Peak current: 20A
Feed back	Magnetic grating: DMA-010 1.0 μm resolution; wiring length: 200mm Optical grating: AM4D40R 1.0μm resolution; wiring length: 200mm
Guide rail	Internal and external embedded four guide rails
Thrust	Continuous thrust: 561N Peak thrust: 2244N
Load	At an acceleration of 1G, a speed of 1000mm/s, a dwell time of 0.2s, and a running stroke of 1000mm: Horizontal installation: Load ≤ 75kg side mounted installation: Load ≤ 60kg; maximum operating speed limit: 2000mm/s
Accuracy	Magnetic grating: Repetitive accuracy: ±5μm grating: repetition accuracy: ±3μm
Straightness	±10μm/300mm
Weight	60mm stroke 20kg (stroke increases by 1.5 kg for every additional 60mm)
Installation Methods	Horizontal installation/side mounted installation (base side as the module reference)
Recommended model of driver	Servotronics Pulse CDHDE-0102AAP (with connector)/ Servotronics Bus CDHDE-0102AEB (with connector)

● Motor Parameters

YK-KE-195-B	
Peak thrust	2244.0 N
Continuous thrust	561.0 N
Motor constant	31.5N/(W/2)
Max. continuous power dissipation	375.8W
Peak current	20.0 Arms
Continuous current	5.0 Arms
Force constant	112.2 N/Arms
Back EMF	91.8 Vpeak/(m/s)
Resistance Phase to Phase @25°	7.8 ohms
Inductance phase to phase	64.3 mH
Electrical time constant	9.2ms
Max. terminal voltage	540Vdc
Max. winding temperature	120°C
Coil weight	5.4KG
Electrical cycle length	20.0mm



Flat plate motor (with iron core)

It can provide the maximum output force per unit volume. With the adjustment of the driver, it can replace various coreless applications. The high thrust of the motor is most suitable for maintaining high rigidity during high acceleration and rapid movement, and the product is also relatively affordable.

High current **High speed**

■ Product Introduction

A linear motor with iron core consists of a rotor and a stator with a single-row magnetic circuit. The rotor and the stator move relative to each other through an air gap magnetic field. The rotor is made of copper wire coils wound around the iron core through vacuum encapsulation. Therefore, it is called a linear motor drive with iron core; its overall structure is similar to a flat plate, so it is also known as a flat plate motor.

■ Advantages

- The iron core adopts a laminated structure to concentrate magnetic flux and it has a high thrust density.
- A reasonable laminated structure and large surface area result in good heat dissipation performance.
- The modular design of the stator allows infinite splicing and infinite stroke.
- The stator is designed with a simple structure and is provided with a single row of magnet, so it has a significant price advantage.

■ Reading Method of Trade Name

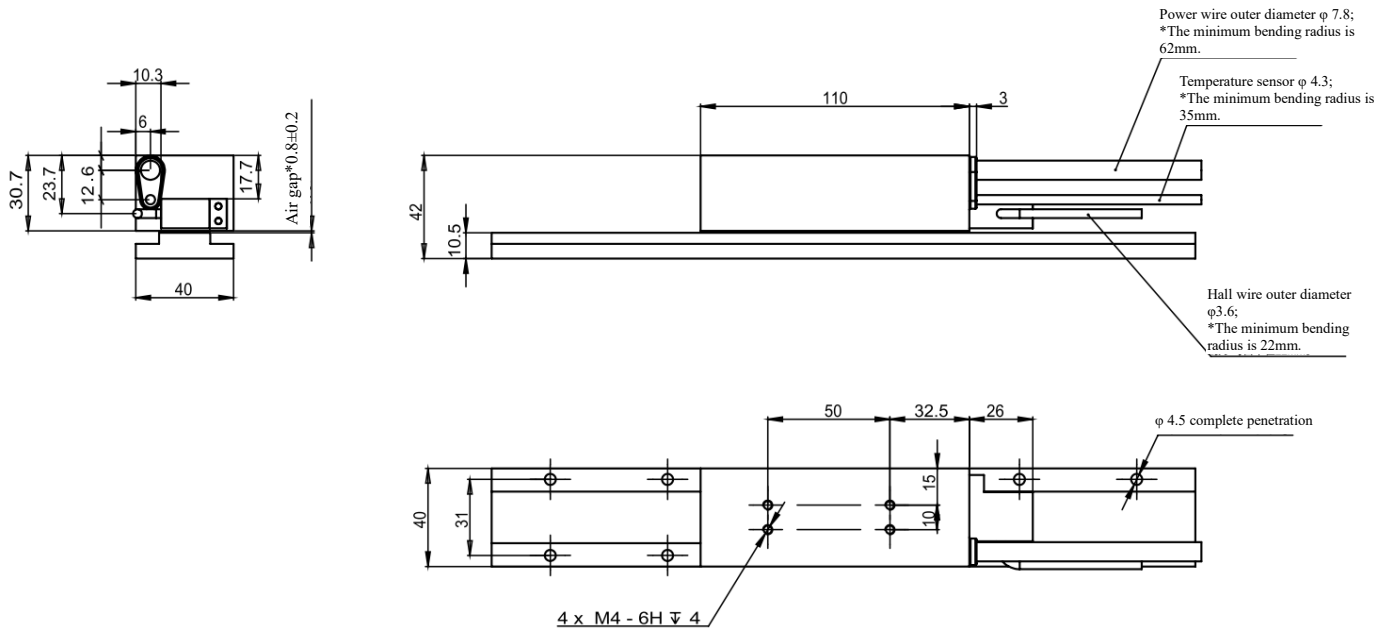
Rotor series	Iron core width	Winding connection method	Temperature control	Provided with Hall	Cable length	Provided with magnetic ring or not
PMQ	20	C2	A	H	1M	NMR
PMQ	20	C2/C4	A	H: Provided	1M	NMR
PMQE	35/35L	C2/C4/C6		NH: Not provided		
	55/55L	C2/C4/C6				
	75/75L	C2/C4/C6				

*The L specification has high-current and high-speed performance

PMQ20-C2 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ20-C2



■ Motor Performance Parameters

Model name	PMQ20-C2
Maximum bus voltage	600.00V
Rated thrust	73.00N
Rated current (* 1)	2.70Arms
Peak thrust (*1)	153.00N
Peak current	9.00Arms
Thrust constant ± 10%	27.04N/Arms
Back electromotive force constant ± 10%	22.06V(pk)/m/s
Resistance (*2)	3.72Ω
Inductance (*3)	26.40mH
Electrical time constant	7.10ms
Magnetic attraction	0.28KN
Coil maximum temperature	120.00°C
Polar distance (N-N)	24.00 mm
Rotor length	110.00mm
Rotor mass	0.40Kg
Stator mass	2.40 kg/m

*1. Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, WW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4 × 1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

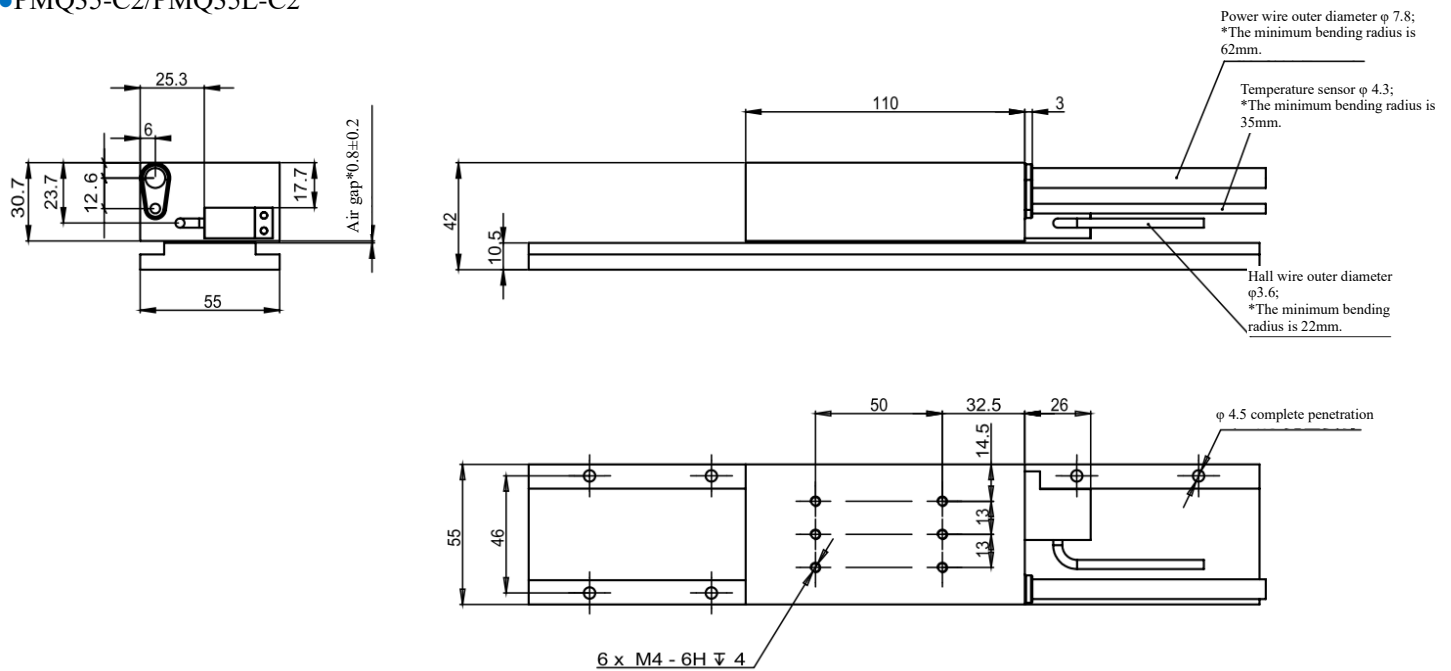
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ35-C2/PMQ35L-C2 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ35-C2/PMQ35L-C2



■ Motor Performance Parameters

Model name	PMQ35-C2	PMQ35L-C2
Maximum bus voltage	600.00V	
Rated thrust	124.00N	
Rated current (* 1)	2.70Arms	3.50Arms
Peak thrust (*1)	267.00N	
Peak current	9.00Arms	12.00Arms
Thrust constant ± 10%	45.93N/Arms	35.43N/Arms
Back electromotive force constant ± 10%	37.48V(pk)/m/s	28.91V(pk)/m/s
Resistance (*2)	5.20Ω	3.10Ω
Inductance (*3)	37.00mH	22.00mH
Electrical time constant	7.12ms	7.10ms
Magnetic attraction	0.50KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	110.00mm	
Rotor mass	0.90Kg	
Stator mass	3.50kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

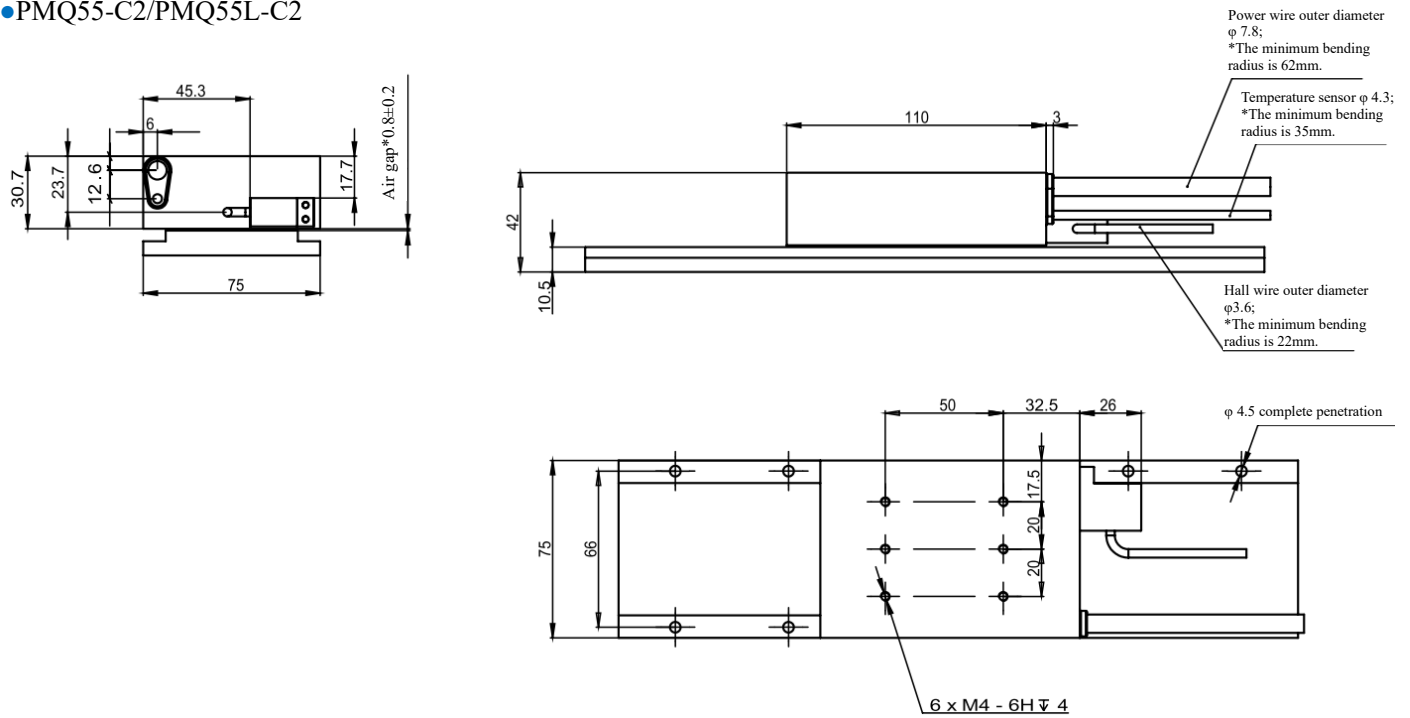
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ55-C2/PMQ55L-C2 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ55-C2/PMQ55L-C2



■ Motor Performance Parameters

Model name	PMQ55-C2	PMQ55L-C2
Maximum bus voltage	600.00V	
Rated thrust	193.00N	
Rated current (* 1)	2.65Arms	3.50Arms
Peak thrust (*1)	420.00N	
Peak current	9.00Arms	12.00Arms
Thrust constant ± 10%	72.83N/Arms	55.14N/Arms
Back electromotive force constant ± 10%	59.43V(pk)/m/s	45.00V(pk)/m/s
Resistance (*2)	7.40Ω	4.20Ω
Inductance (*3)	52.50mH	29.80mH
Electrical time constant	7.09ms	7.10ms
Magnetic attraction	0.78KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	110.00mm	
Rotor mass	1.40Kg	
Stator mass	5.00kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

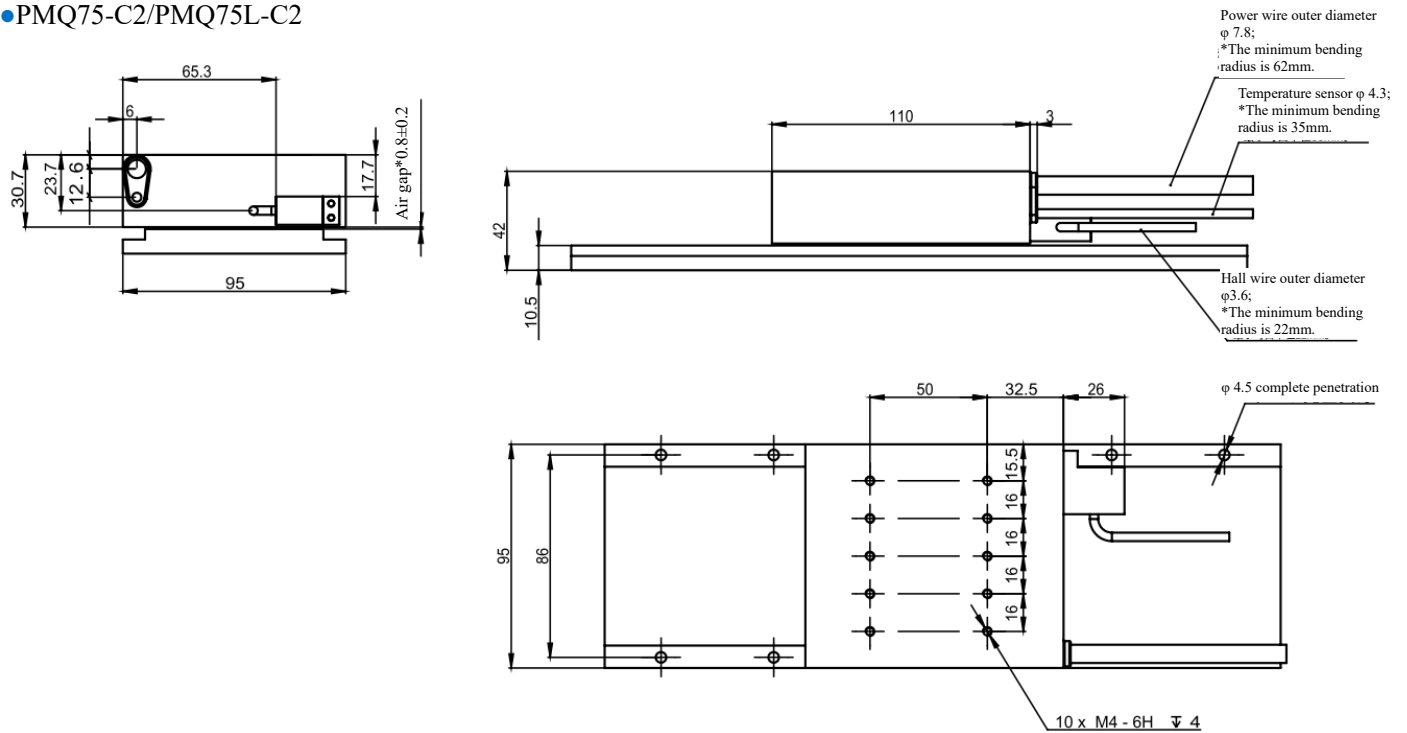
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ75-C2/PMQ75L-C2 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ75-C2/PMQ75L-C2



■ Motor Performance Parameters

Model name	PMQ75-C2	PMQ75L-C2
Maximum bus voltage	600.00V	
Rated thrust	262.00N	
Rated current (* 1)	2.65Arms	3.50Arms
Peak thrust (*1)	572.00N	
Peak current	9.00Arms	12.00Arms
Thrust constant ± 10%	98.87N/Arms	74.86N/Arms
Back electromotive force constant ± 10%	80.68V(pk)/m/s	61.08V(pk)/m/s
Resistance (*2)	9.60Ω	5.40Ω
Inductance (*3)	68.00mH	38.40mH
Electrical time constant	7.08ms	7.11ms
Magnetic attraction	1.10KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	110.00mm	
Rotor mass	1.75Kg	1.8 Kg
Stator mass	6.40kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

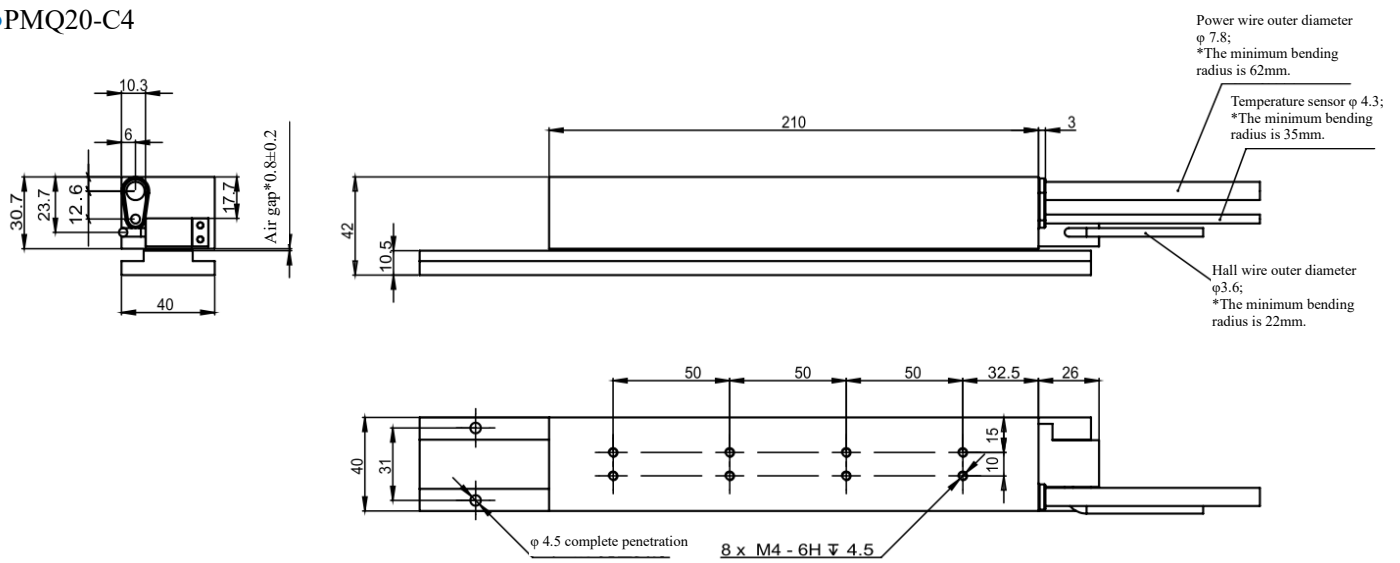
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ20-C4 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ20-C4



■ Motor Performance Parameters

Model name	PMQ20-C4
Maximum bus voltage	600.00V
Rated thrust	138.00N
Rated current (* 1)	5.20Arms
Peak thrust (*1)	303.00N
Peak current	18.00Arms
Thrust constant ± 10%	26.54N/Arms
Back electromotive force constant ± 10%	21.66V(pk)/m/s
Resistance (*2)	1.85Ω
Inductance (*3)	13.20mH
Electrical time constant	7.14ms
Magnetic attraction	0.60KN
Coil maximum temperature	120.00°C
Polar distance (N-N)	24.00 mm
Rotor length	110.00mm
Rotor mass	0.80Kg
Stator mass	2.40kg/m

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

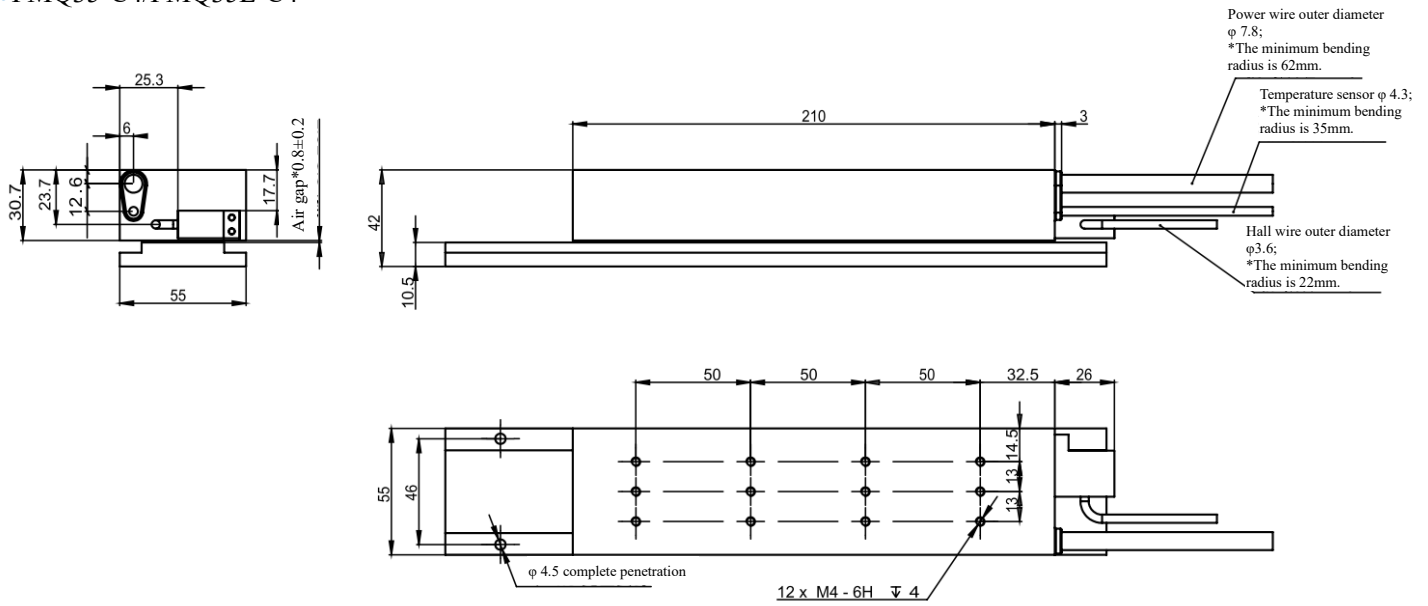
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ35-C4/PMQ35L-C4 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ35-C4/PMQ35L-C4



■ Motor Performance Parameters

Model name	PMQ35-C4	PMQ35L-C4
Maximum bus voltage	600.00V	
Rated thrust	240.00N	
Rated current (* 1)	5.20Arms	6.80Arms
Peak thrust (*1)	534.00N	
Peak current	18.00Arms	24.00Arms
Thrust constant ± 10%	46.15N/Arms	35.29N/Arms
Back electromotive force constant ± 10%	37.66V(pk)/m/s	28.80V(pk)/m/s
Resistance (*2)	2.60Ω	1.50Ω
Inductance (*3)	18.40mH	10.60mH
Electrical time constant	7.08ms	7.07ms
Magnetic attraction	0.96KN	1.00KN
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	210.00mm	
Rotor mass	1.90Kg	
Stator mass	3.50kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

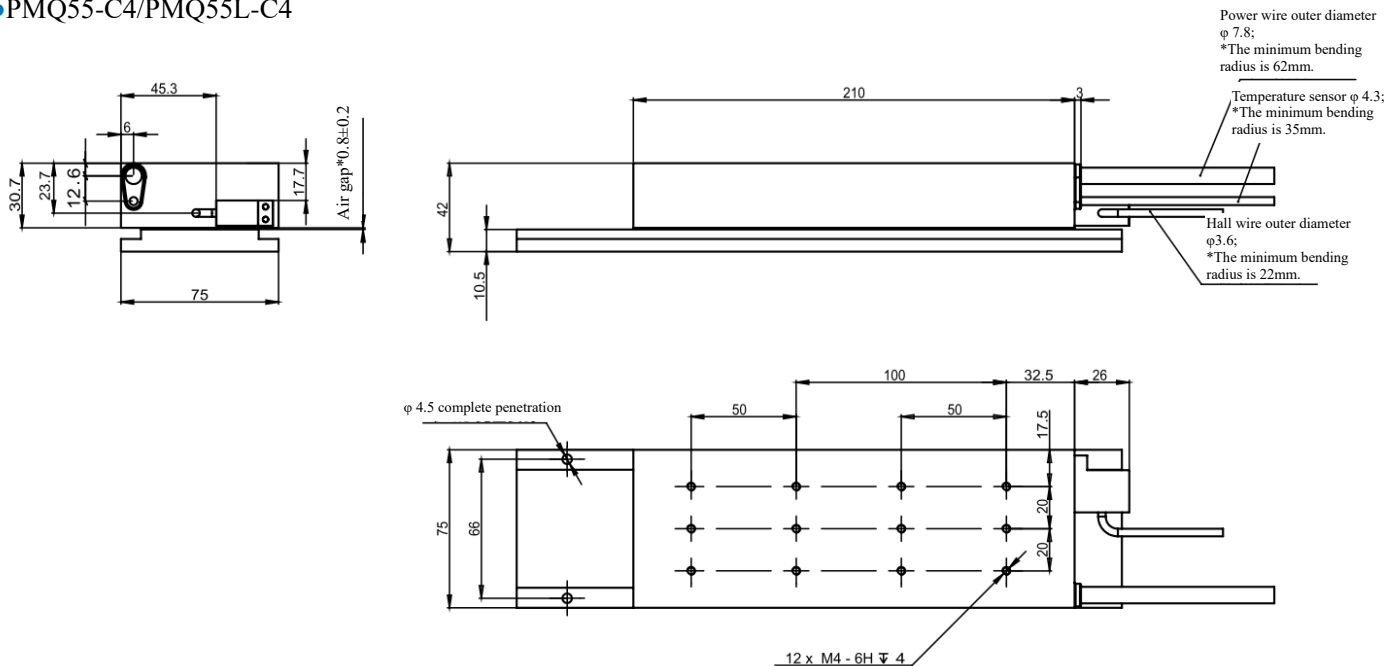
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ55-C4/PMQ55L-C4 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ55-C4/PMQ55L-C4



■ Motor Performance Parameters

Model name	PMQ55-C4	PMQ55L-C4
Maximum bus voltage	600.00V	
Rated thrust	375.00N	
Rated current (* 1)	5.16Arms	6.80Arms
Peak thrust (*1)	837.00N	
Peak current	18.00Arms	24.00Arms
Thrust constant ± 10%	72.67N/Arms	55.15N/Arms
Back electromotive force constant ± 10%	59.30V(pk)/m/s	45.00V(pk)/m/s
Resistance (*2)	3.70Ω	2.10Ω
Inductance (*3)	21.60mH	14.90mH
Electrical time constant	7.05ms	7.10ms
Magnetic attraction	1.56KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	210.00mm	
Rotor mass	2.80Kg	
Stator mass	5.00kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

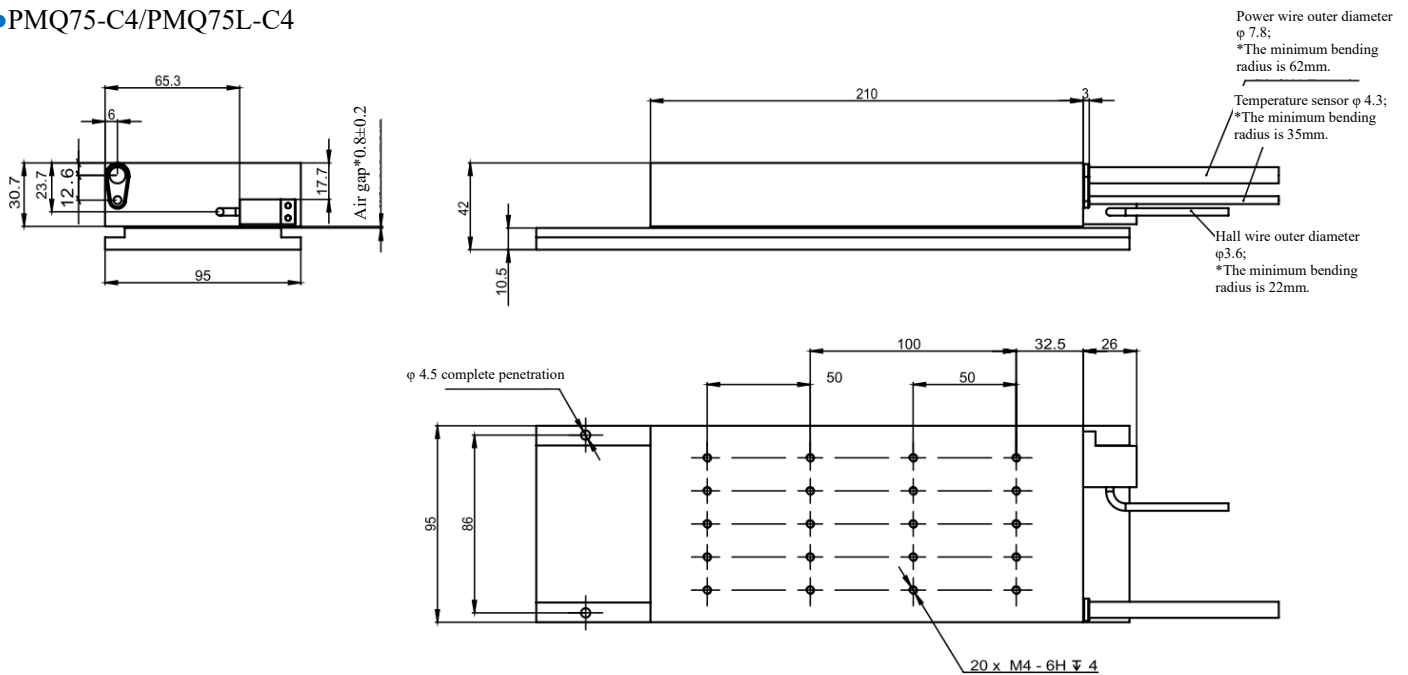
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ75-C4/PMQ75L-C4 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ75-C4/PMQ75L-C4



■ Motor Performance Parameters

Model name	PMQ75-C4	PMQ75L-C4
Maximum bus voltage	600.00V	
Rated thrust	508.00N	
Rated current (* 1)	5.16Arms	6.80Arms
Peak thrust (*1)	1134.00N	
Peak current	18.00Arms	24.00Arms
Thrust constant ± 10%	98.45N/Arms	74.71N/Arms
Back electromotive force constant ± 10%	80.33V(pk)/m/s	60.96V(pk)/m/s
Resistance (*2)	4.80Ω	2.70Ω
Inductance (*3)	34.00mH	19.20mH
Electrical time constant	7.08ms	7.11ms
Magnetic attraction	2.20KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	210.00mm	
Rotor mass	3.60Kg	
Stator mass	6.40kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

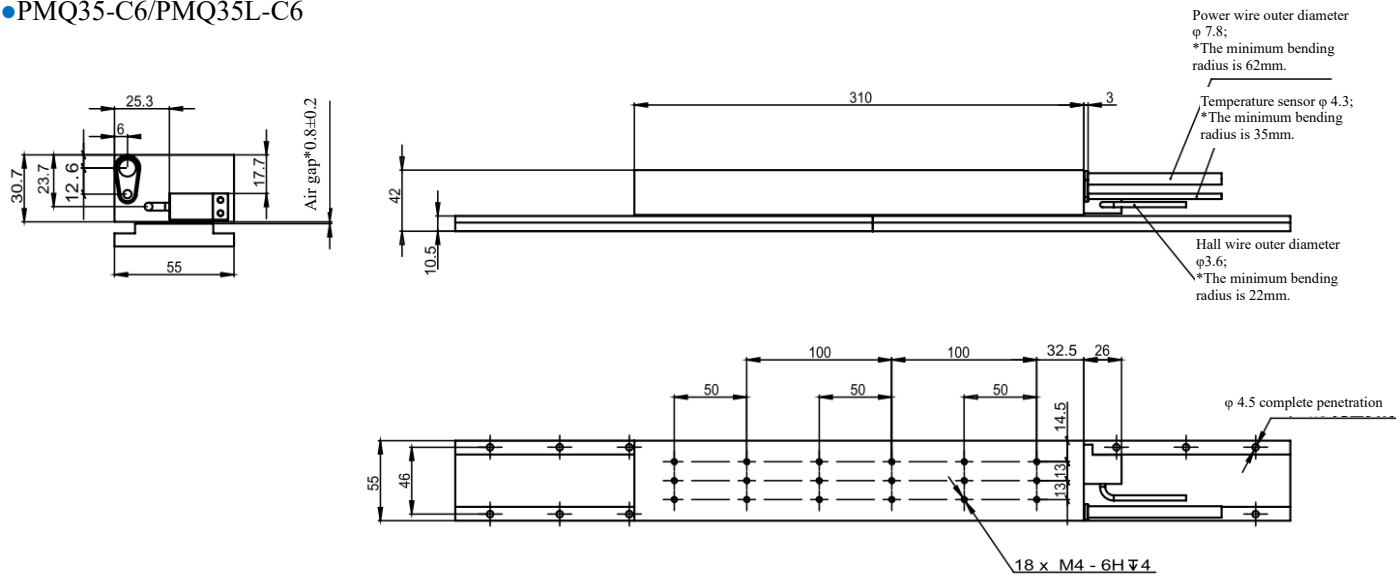
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ35-C6/PMQ35L-C6 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ35-C6/PMQ35L-C6



■ Motor Performance Parameters

Model name	PMQ35-C6	PMQ35L-C6
Maximum bus voltage	600.00V	
Rated thrust	352.00N	
Rated current (* 1)	7.50Arms	10.00Arms
Peak thrust (*1)	800.00N	
Peak current	27.00Arms	36.00Arms
Thrust constant ± 10%	46.93N/Arms	35.20N/Arms
Back electromotive force constant ± 10%	38.30V(pk)/m/s	28.72V(pk)/m/s
Resistance (*2)	1.70Ω	1.00Ω
Inductance (*3)	12.10mH	7.10mH
Electrical time constant	7.12ms	7.10ms
Magnetic attraction	1.50KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	310.00mm	
Rotor mass	2.80Kg	
Stator mass	3.50kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

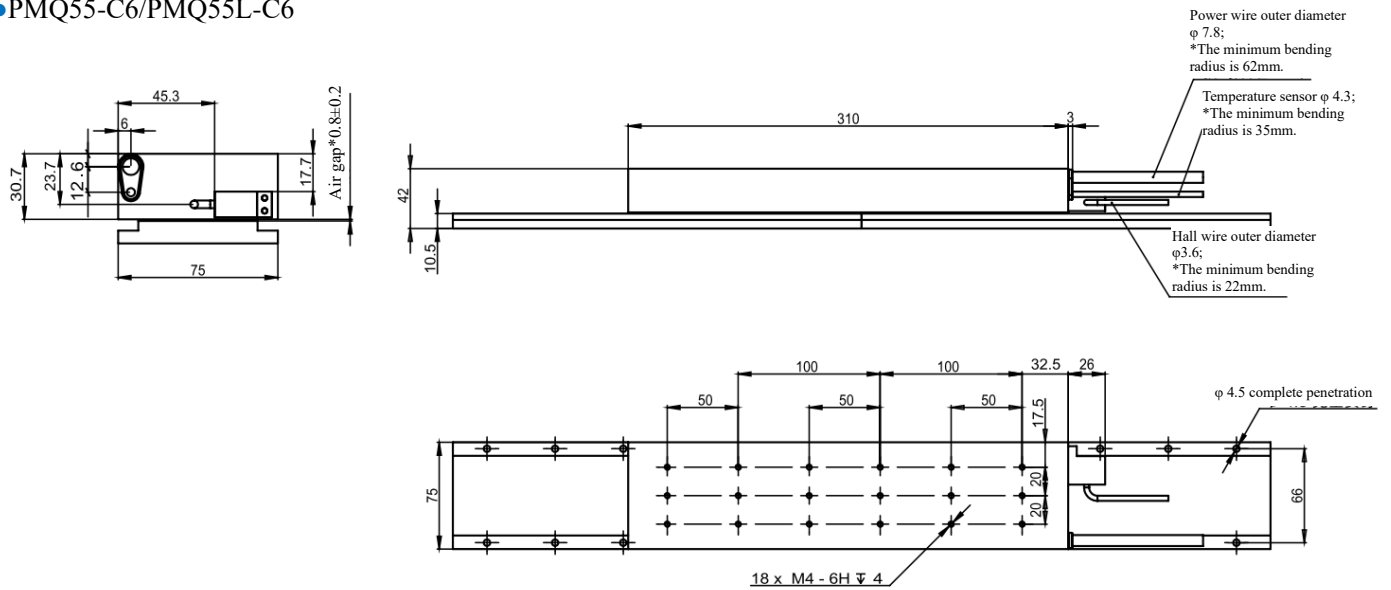
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ55-C6/PMQ55L-C6 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ55-C6/PMQ55L-C6



■ Motor Performance Parameters

Model name	PMQ55-C6	PMQ55L-C6 (*4)
Maximum bus voltage	600.00V	
Rated thrust	547.00.00N	
Rated current (*1)	7.50Arms	10.00Arms
Peak thrust (*1)	1255.00N	
Peak current	27.00Arms	36.00Arms
Thrust constant ± 10%	72.93N/Arms	54.70N/Arms
Back electromotive force constant ± 10%	59.51V(pk)/m/s	44.64V(pk)/m/s
Resistance (*2)	2.50Ω	1.40Ω
Inductance (*3)	17.80mH	9.90mH
Electrical time constant	7.12ms	7.07ms
Magnetic attraction	2.30KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	310.00mm	
Rotor mass	4.10Kg	
Stator mass	5.00kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

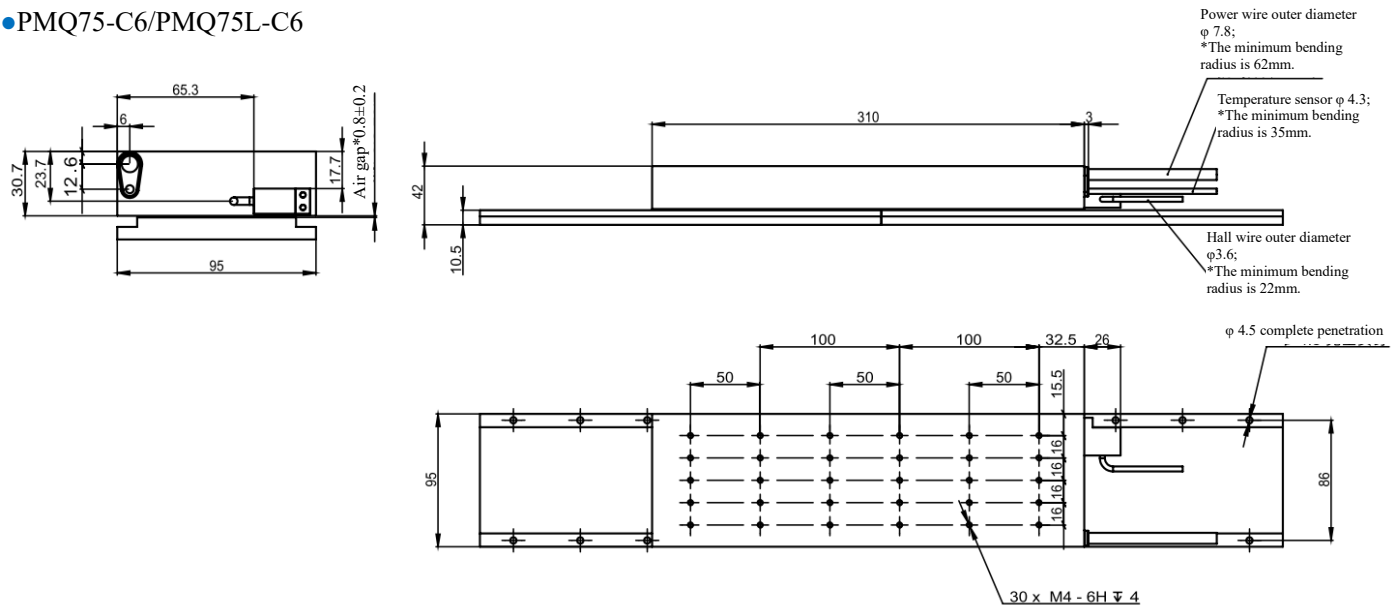
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQ75-C6/PMQ75L-C6 PMQ series linear motor

■ Outline Drawing (unit: mm)

● PMQ75-C6/PMQ75L-C6



■ Motor Performance Parameters

Model name	PMQ75-C6	PMQ75L-C6 (*4)
Maximum bus voltage	600.00V	
Rated thrust	742.00.00N	
Rated current (*1)	7.50Arms	10.00Arms
Peak thrust (*1)	1710.00N	
Peak current	27.00Arms	36.00Arms
Thrust constant ± 10%	98.93N/Arms	74.20N/Arms
Back electromotive force constant ± 10%	80.73V(pk)/m/s	60.55V(pk)/m/s
Resistance (*2)	3.20Ω	1.85Ω
Inductance (*3)	22.60mH	13.20mH
Electrical time constant	7.06ms	7.14ms
Magnetic attraction	3.30KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	310.00mm	
Rotor mass	5.40Kg	
Stator mass	6.40kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

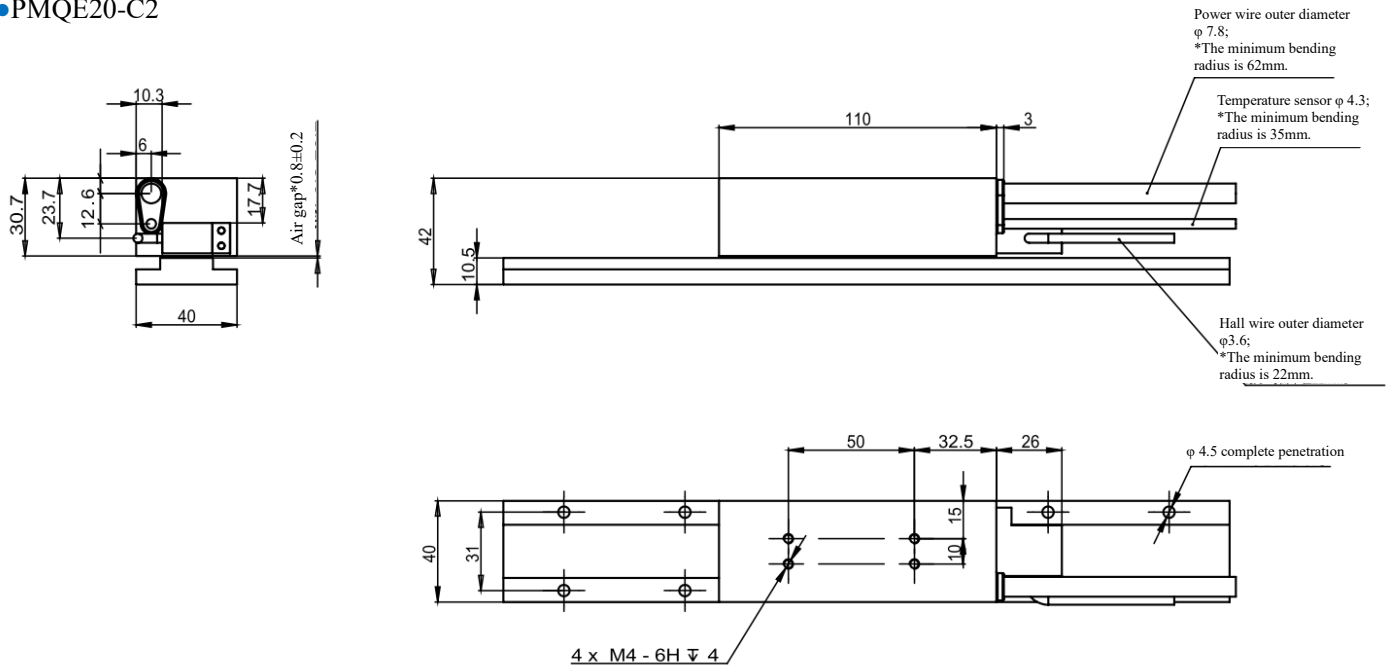
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE20-C2 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE20-C2



■ Motor Performance Parameters

Model name	PMQE20-C2
Maximum bus voltage	600.00V
Rated thrust	73.00.00N
Rated current (* 1)	2.70Arms
Peak thrust (*1)	213.00N
Peak current	9.00Arms
Thrust constant ± 10%	27.04N/Arms
Back electromotive force constant ± 10%	22.06V(pk)/m/s
Resistance (*2)	3.72Ω
Inductance (*3)	26.40mH
Electrical time constant	7.10ms
Magnetic attraction	0.28KN
Coil maximum temperature	120.00°C
Polar distance (N-N)	24.00 mm
Rotor length	110.00mm
Rotor mass	0.40Kg
Stator mass	2.40kg/m

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

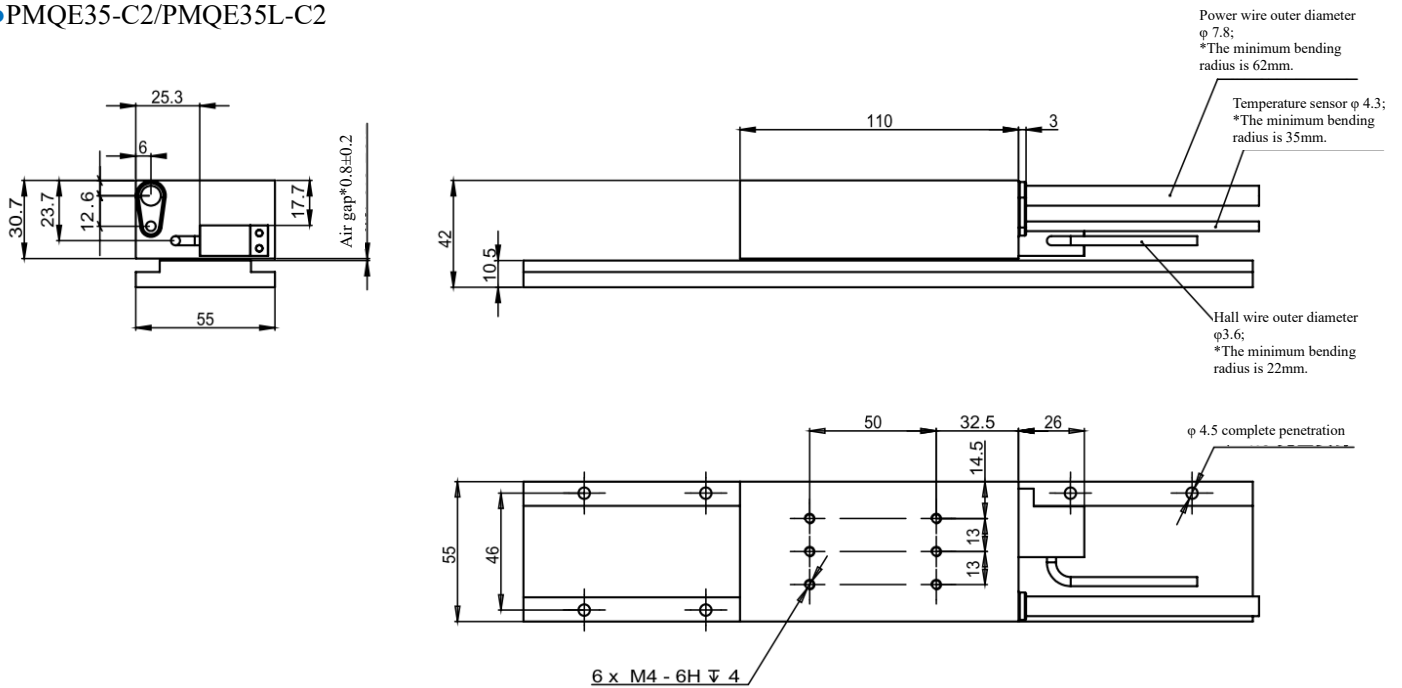
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE35-C2/PMQE35L-C2 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE35-C2/PMQE35L-C2



■ Motor Performance Parameters

Model name	PMQE35-C2	PMQE35L-C2
Maximum bus voltage	600.00V	
Rated thrust	124.00.00N	
Rated current (* 1)	2.70Arms	3.50Arms
Peak thrust (*1)	368.00N	
Peak current	9.00Arms	12.00Arms
Thrust constant ± 10%	45.93N/Arms	35.43N/Arms
Back electromotive force constant ± 10%	37.48V(pk)/m/s	28.91V(pk)/m/s
Resistance (*2)	5.20Ω	3.10Ω
Inductance (*3)	37.00mH	22.00mH
Electrical time constant	7.12ms	7.10ms
Magnetic attraction	0.54KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	110.00mm	
Rotor mass	0.90Kg	
Stator mass	3.50kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

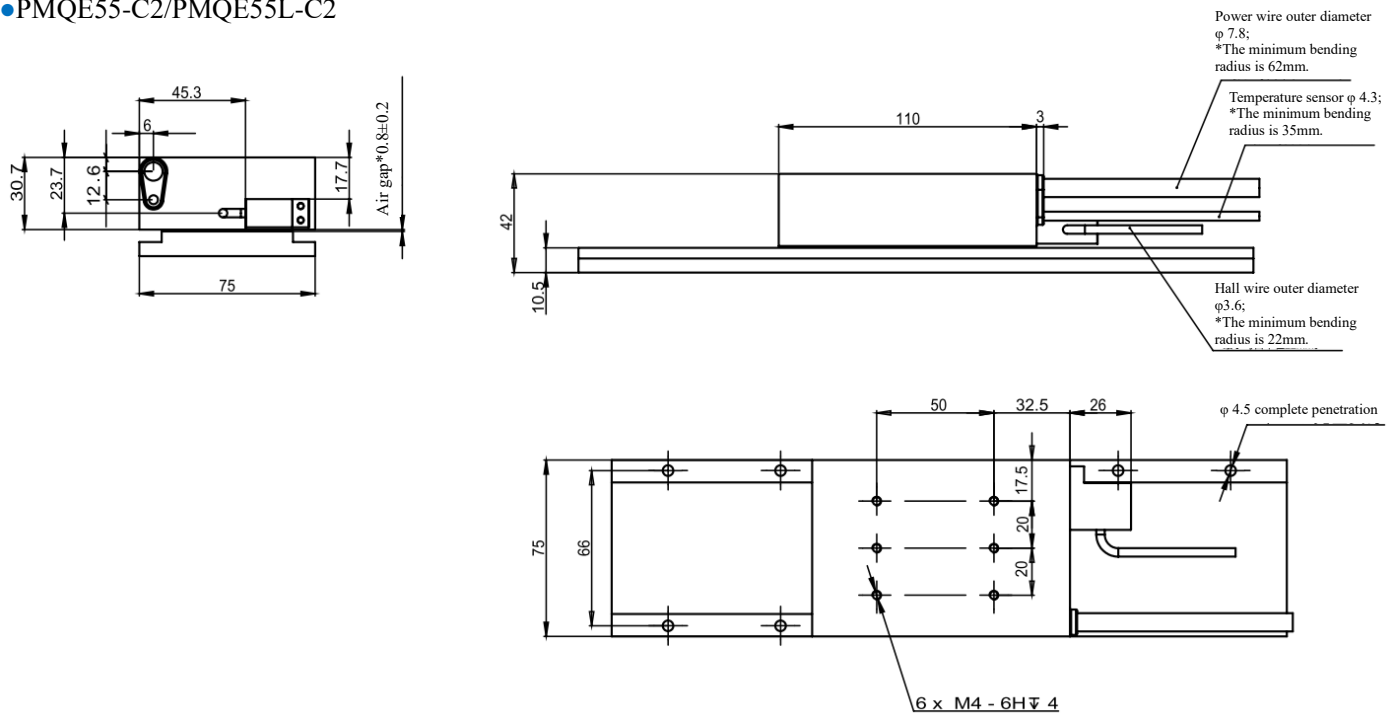
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE55-C2/PMQE55L-C2 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE55-C2/PMQE55L-C2



■ Motor Performance Parameters

Model name	PMQE55-C2	PMQE55L-C2 (*4)
Maximum bus voltage	600.00V	
Rated thrust	193.000N	
Rated current (* 1)	2.65Arms	3.50Arms
Peak thrust (*1)	575.00N	
Peak current	9.00Arms	12.00Arms
Thrust constant ± 10%	72.83N/Arms	55.14N/Arms
Back electromotive force constant ± 10%	59.43V(pk)/m/s	45.00V(pk)/m/s
Resistance (*2)	7.40Ω	4.20Ω
Inductance (*3)	52.50mH	29.80mH
Electrical time constant	7.09ms	7.10ms
Magnetic attraction	0.78KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	110.00mm	
Rotor mass	1.40Kg	
Stator mass	5.00kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

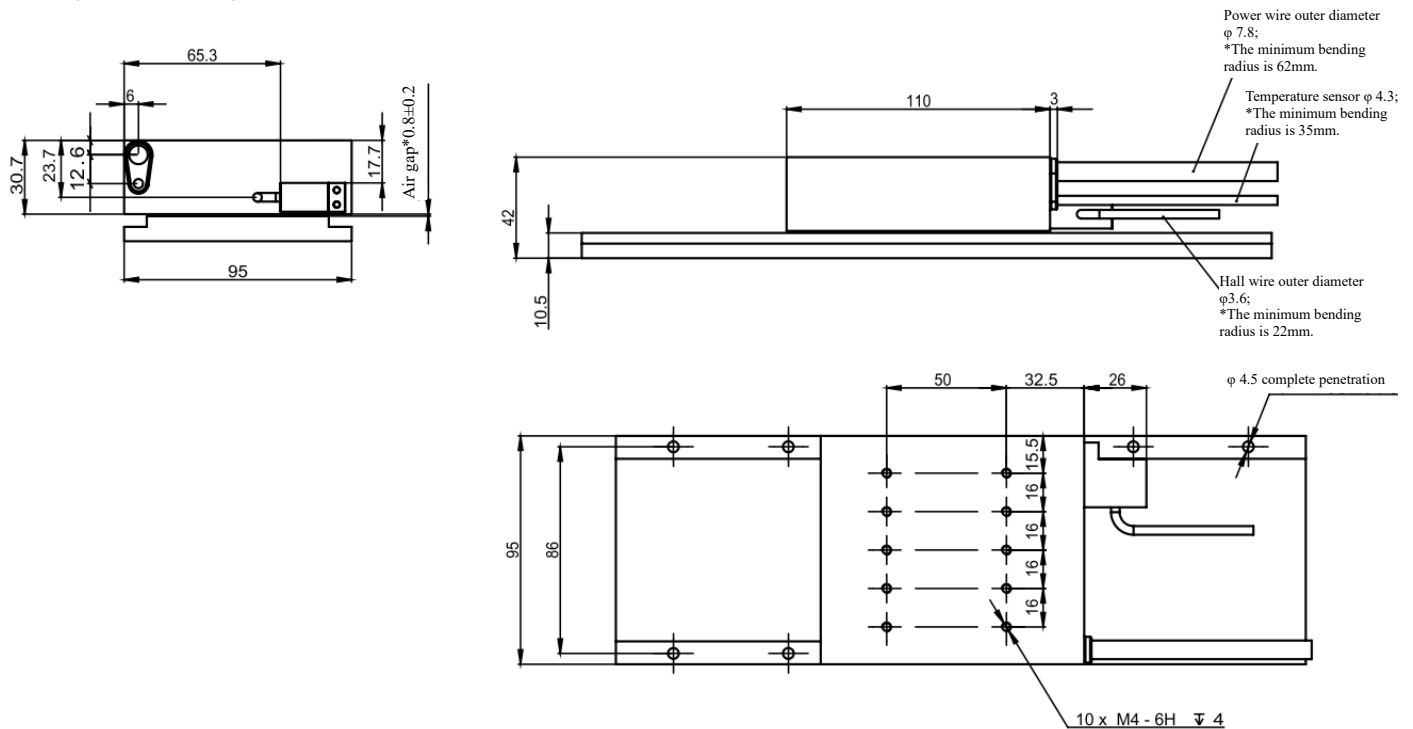
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE75-C2/PMQE75L-C2 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE75-C2/PMQE75L-C2



■ Motor Performance Parameters

Model name	PMQE75-C2	PMQE75L-C2 (*4)
Maximum bus voltage	600.00V	
Rated thrust	262.00.00N	
Rated current (* 1)	2.65Arms	3.50Arms
Peak thrust (*1)	782.00N	
Peak current	9.00Arms	12.00Arms
Thrust constant ± 10%	98.87N/Arms	74.86N/Arms
Back electromotive force constant ± 10%	80.68V(pk)/m/s	61.08V(pk)/m/s
Resistance (*2)	9.60Ω	5.40Ω
Inductance (*3)	68.00mH	38.40mH
Electrical time constant	7.08ms	7.11ms
Magnetic attraction	1.10KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	110.00mm	
Rotor mass	1.75Kg	1.80Kg
Stator mass	6.40kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

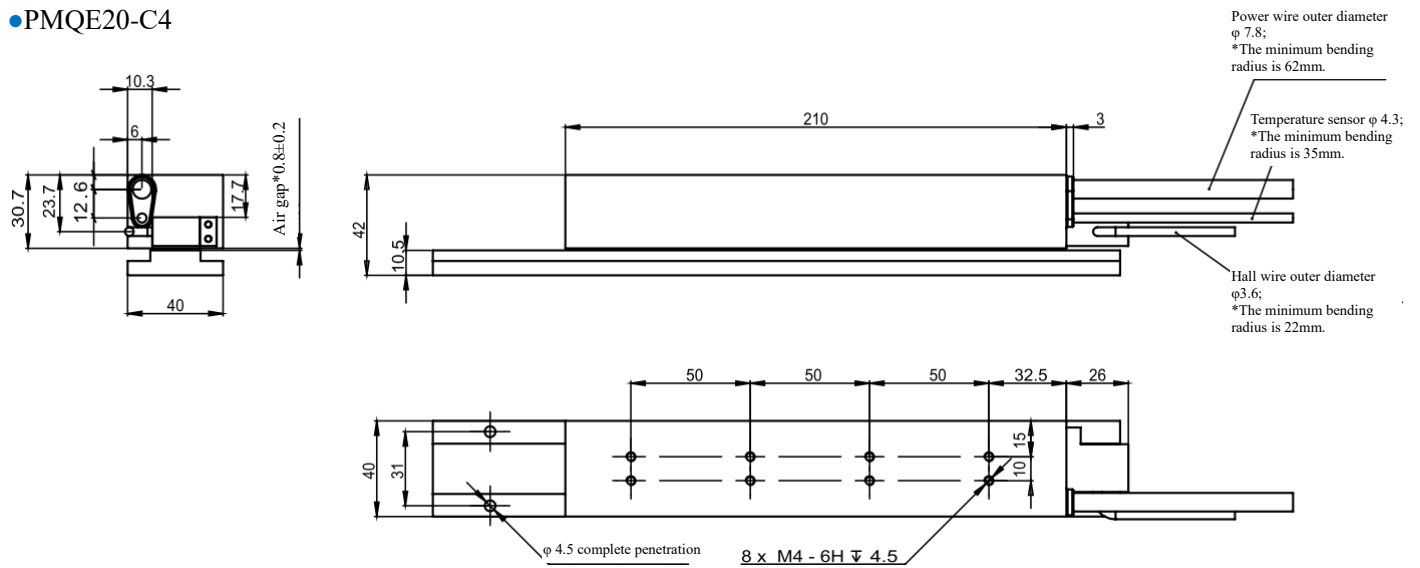
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE20-C4 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE20-C4



■ Motor Performance Parameters

Model name	PMQE20-C4
Maximum bus voltage	600.00V
Rated thrust	138.00.00N
Rated current (* 1)	5.2Arms
Peak thrust (*1)	410.00N
Peak current	18.00Arms
Thrust constant ± 10%	26.54N/Arms
Back electromotive force constant ± 10%	21.66V(pk)/m/s
Resistance (*2)	1.85Ω
Inductance (*3)	13.20mH
Electrical time constant	7.14ms
Magnetic attraction	0.60KN
Coil maximum temperature	120.00°C
Polar distance (N-N)	24.00 mm
Rotor length	210.00mm
Rotor mass	0.80Kg
Stator mass	2.40kg/m

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

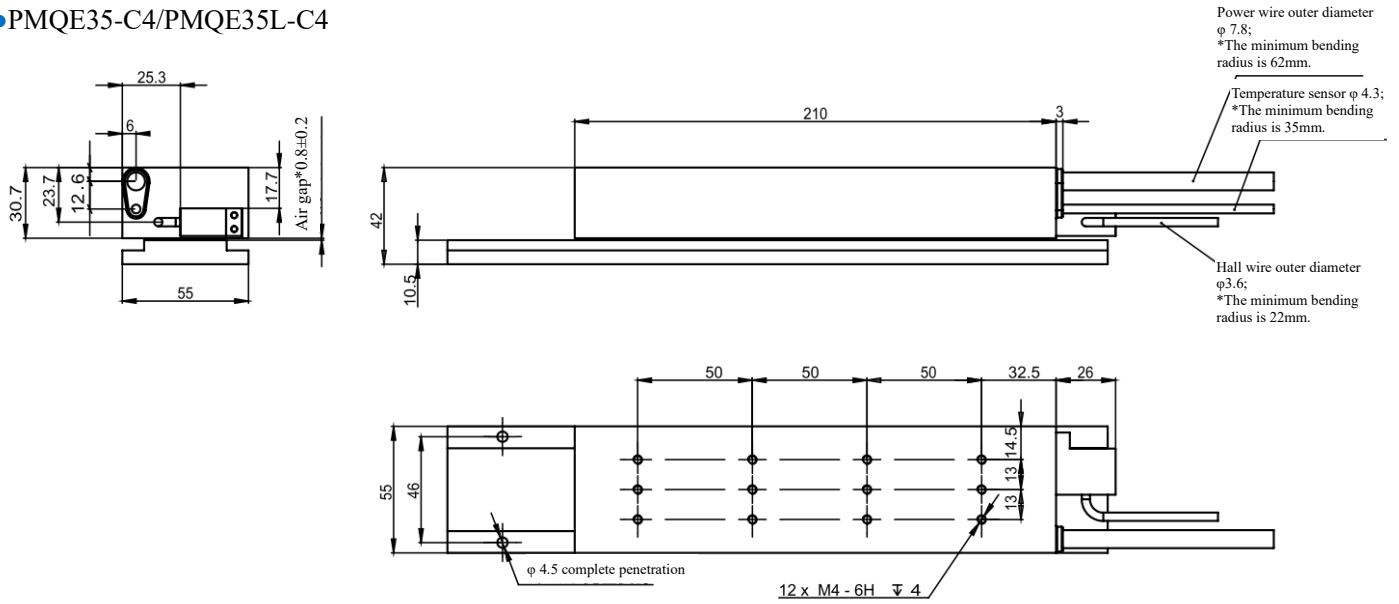
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE35-C4/PMQE35L-C4 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE35-C4/PMQE35L-C4



■ Motor Performance Parameters

Model name	PMQE35-C4	PMQE35L-C4 (*4)
Maximum bus voltage	600.00V	
Rated thrust	240.00.00N	
Rated current (* 1)	5.20Arms	6.80Arms
Peak thrust (*1)	716.00N	
Peak current	18.00Arms	24.00Arms
Thrust constant ± 10%	46.15N/Arms	35.29N/Arms
Back electromotive force constant ± 10%	37.66V(pk)/m/s	28.80V(pk)/m/s
Resistance (*2)	2.60Ω	1.50Ω
Inductance (*3)	18.40mH	10.60mH
Electrical time constant	7.08ms	7.07ms
Magnetic attraction	0.96KN	1.00KN
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	210.00mm	
Rotor mass	1.90Kg	
Stator mass	3.50kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

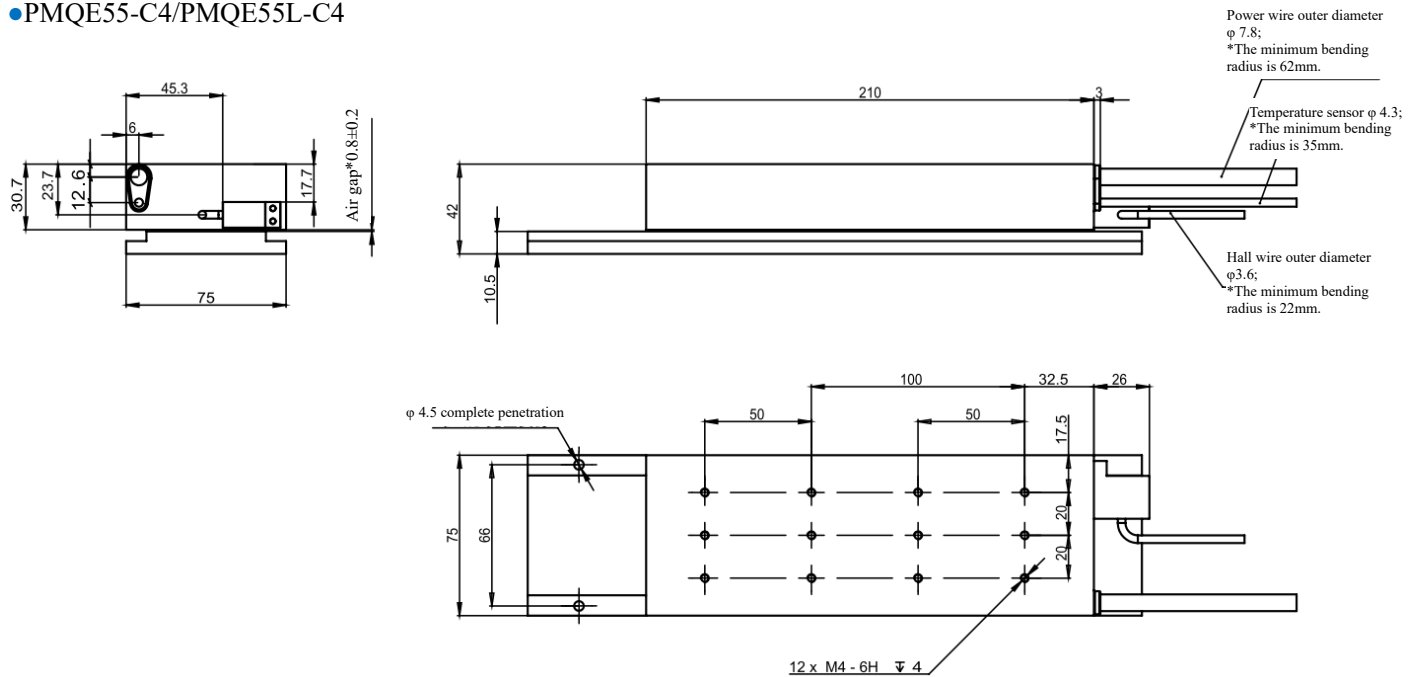
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE55-C4/PMQE55L-C4 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE55-C4/PMQE55L-C4



■ Motor Performance Parameters

Model name	PMQE55-C4	PMQE55L-C4 (*4)
Maximum bus voltage	600.00V	
Rated thrust	375.00.00N	
Rated current (* 1)	5.16Arms	6.80Arms
Peak thrust (*1)	1127.00N	
Peak current	18.00Arms	24.00Arms
Thrust constant ± 10%	72.67N/Arms	55.15N/Arms
Back electromotive force constant ± 10%	59.30V(pk)/m/s	45.00V(pk)/m/s
Resistance (*2)	3.70Ω	2.10Ω
Inductance (*3)	21.60mH	14.90mH
Electrical time constant	7.05ms	7.10ms
Magnetic attraction	1.56KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	210.00mm	
Rotor mass	2.80Kg	
Stator mass	5.00kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

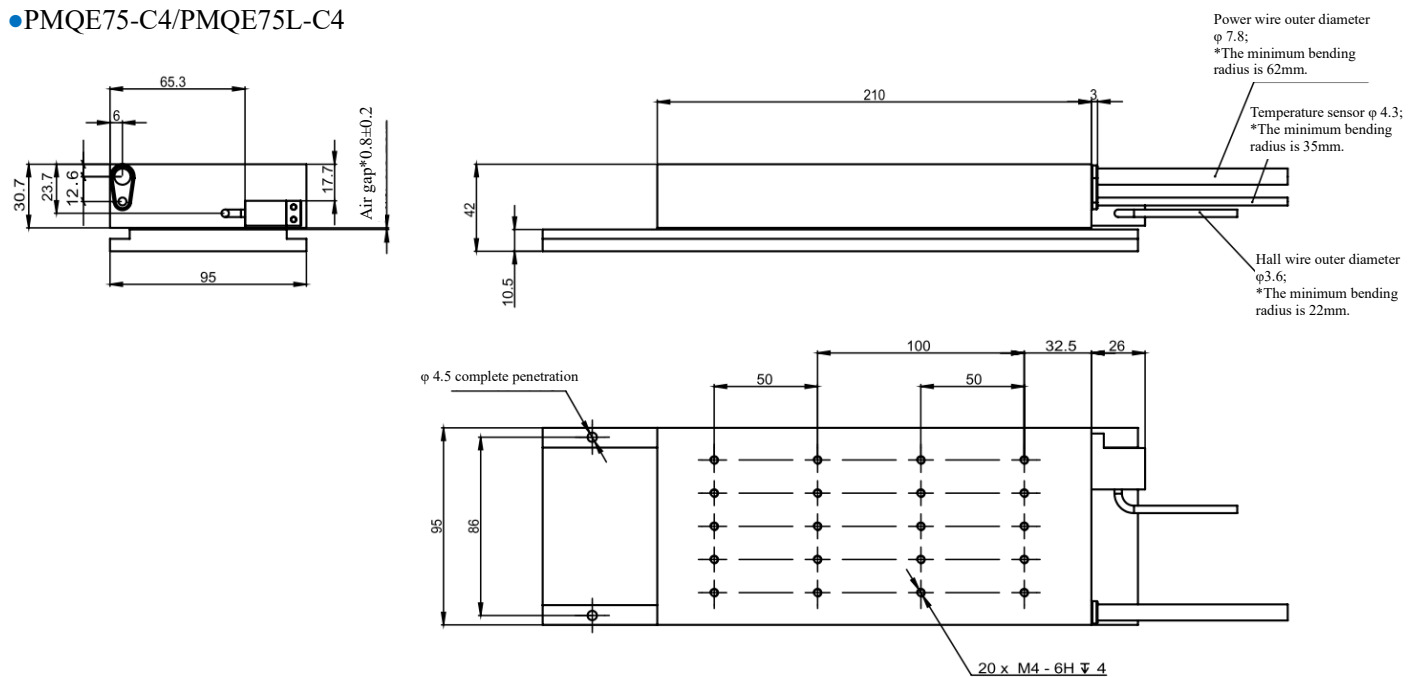
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE75-C4/PMQE75L-C4 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE75-C4/PMQE75L-C4



■ Motor Performance Parameters

Model name	PMQE75-C4	PMQE75L-C4 (*4)
Maximum bus voltage	600.00V	
Rated thrust	508.00.00N	
Rated current (* 1)	5.16Arms	6.80Arms
Peak thrust (*1)	1526.00N	
Peak current	18.00Arms	24.00Arms
Thrust constant ± 10%	98.45N/Arms	74.71N/Arms
Back electromotive force constant ± 10%	80.33V(pk)/m/s	60.96V(pk)/m/s
Resistance (*2)	4.80Ω	2.70Ω
Inductance (*3)	34.00mH	19.20mH
Electrical time constant	7.08ms	7.11ms
Magnetic attraction	2.20KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	210.00mm	
Rotor mass	3.60Kg	
Stator mass	6.40kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

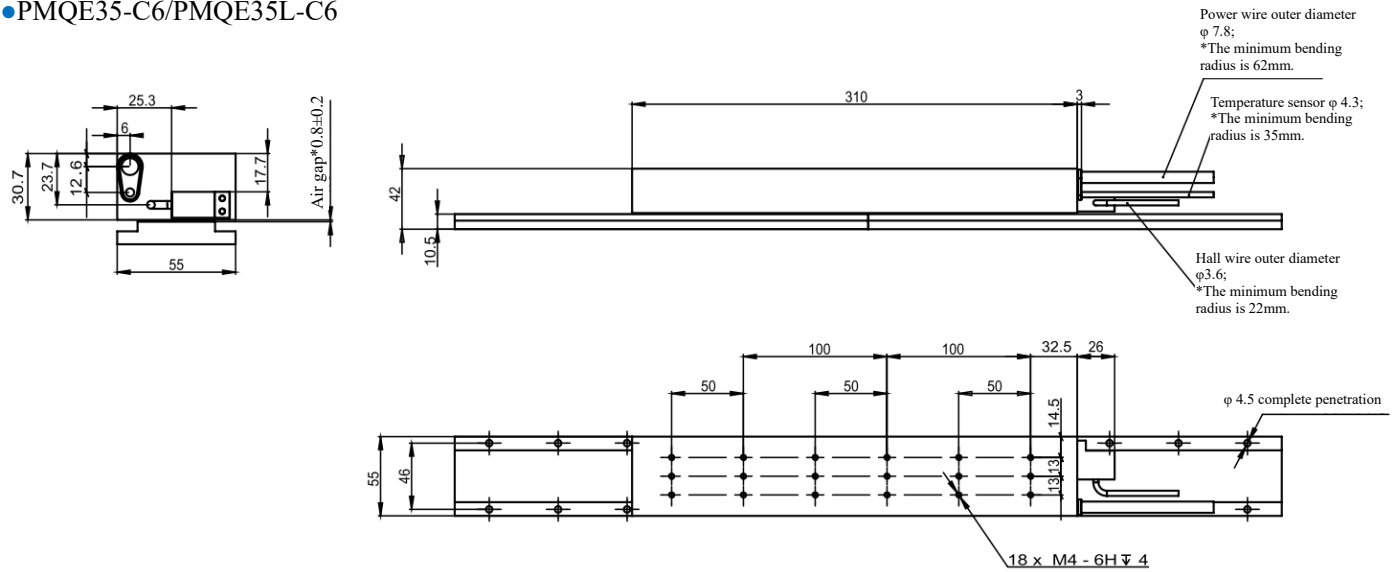
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE35-C6/PMQE35L-C6 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE35-C6/PMQE35L-C6



■ Motor Performance Parameters

Model name	PMQE35-C6	PMQE35L-C6 (*4)
Maximum bus voltage	600.00V	
Rated thrust	352.00.00N	
Rated current (*1)	7.50Arms	10.00Arms
Peak thrust (*1)	1052.00N	
Peak current	27.00Arms	36.00Arms
Thrust constant ± 10%	46.93N/Arms	35.20N/Arms
Back electromotive force constant ± 10%	38.30V(pk)/m/s	28.72V(pk)/m/s
Resistance (*2)	1.70Ω	1.00Ω
Inductance (*3)	12.10mH	7.10mH
Electrical time constant	7.12ms	7.10ms
Magnetic attraction	1.50KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	310.00mm	
Rotor mass	2.80Kg	
Stator mass	3.50kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

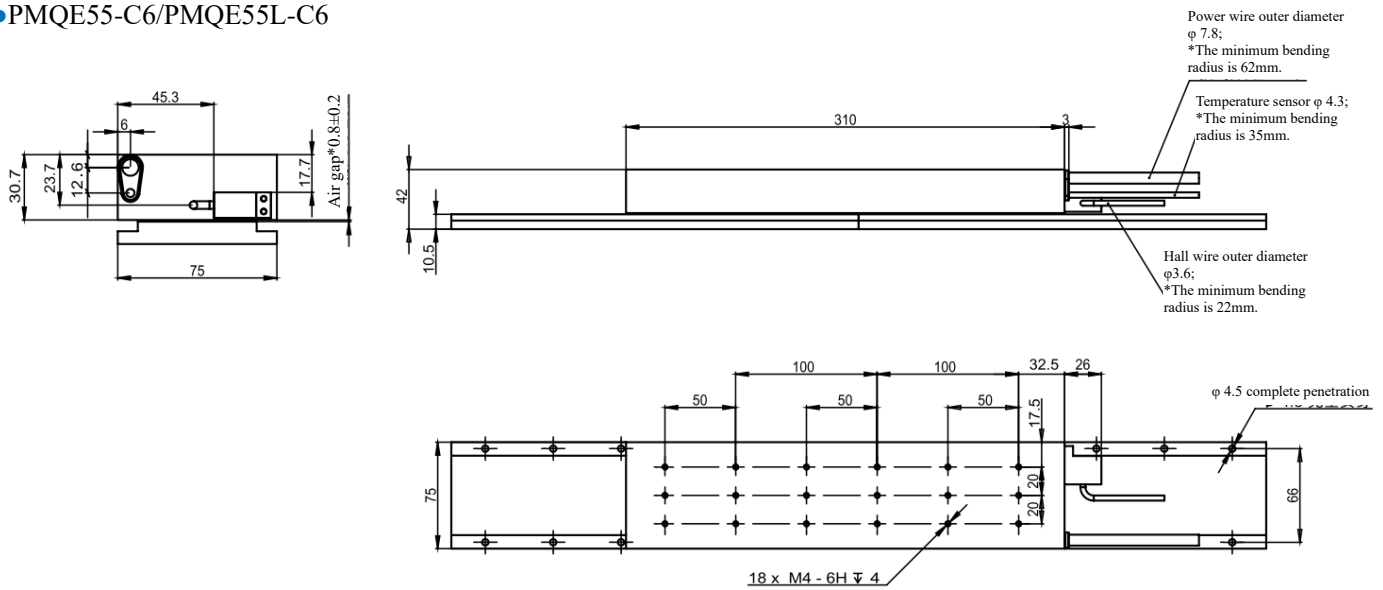
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE55-C6/PMQE55L-C6 MQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE55-C6/PMQE55L-C6



■ Motor Performance Parameters

Model name	PMQE55-C6	PMQE55L-C6 (*4)
Maximum bus voltage	600.00V	
Rated thrust	547.00.00N	
Rated current (* 1)	7.50Arms	10.00Arms
Peak thrust (*1)	1643.00N	
Peak current	27.00Arms	36.00Arms
Thrust constant ± 10%	72.93N/Arms	54.70N/Arms
Back electromotive force constant ± 10%	59.51V(pk)/m/s	44.64V(pk)/m/s
Resistance (*2)	2.50Ω	1.40Ω
Inductance (*3)	17.80mH	9.90mH
Electrical time constant	7.12ms	7.07ms
Magnetic attraction	2.30KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	310.00mm	
Rotor mass	4.10Kg	
Stator mass	5.00kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

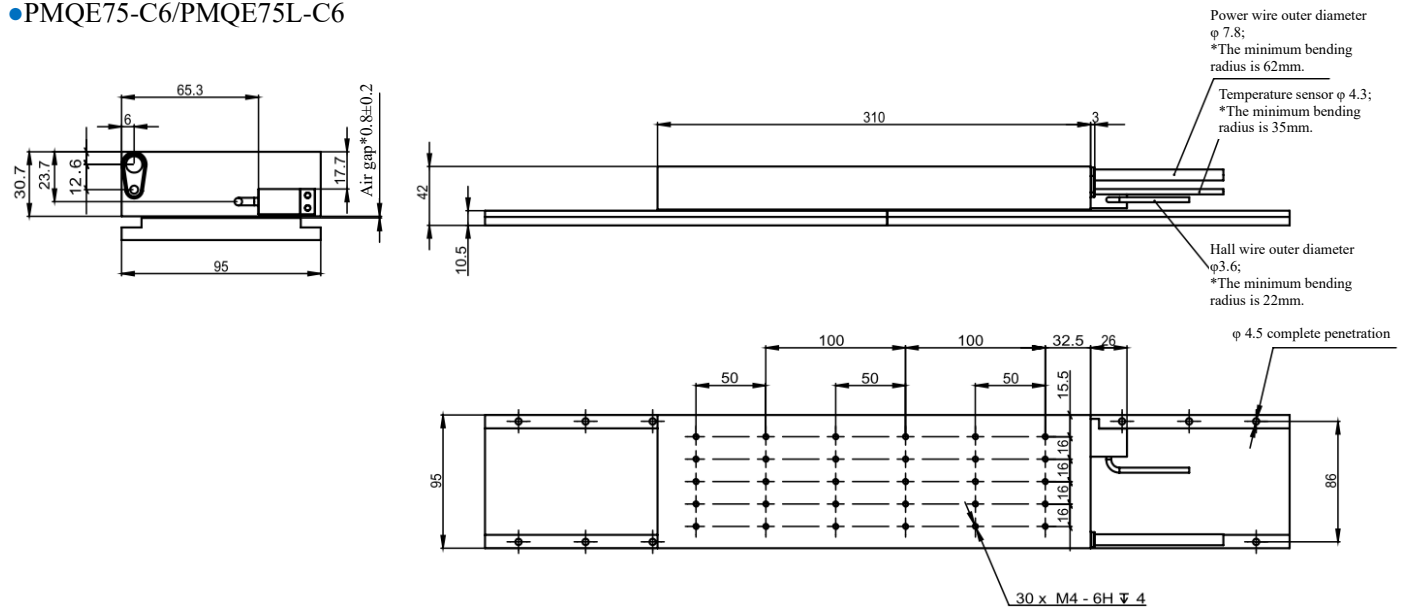
■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

PMQE75-C6/PMQE75L-C6 PMQE series linear motor has higher peak thrust

■ Outline Drawing (unit: mm)

● PMQE75-C6/PMQE75L-C6



■ Motor Performance Parameters

Model name	PMQE75-C6	PMQE75L-C6 (*4)
Maximum bus voltage	600.00V	
Rated thrust	742.00.00N	
Rated current (* 1)	7.50Arms	10.00Arms
Peak thrust (*1)	2222.00N	
Peak current	27.00Arms	36.00Arms
Thrust constant ± 10%	98.93N/Arms	74.20N/Arms
Back electromotive force constant ± 10%	80.73V(pk)/m/s	60.55V(pk)/m/s
Resistance (*2)	3.20Ω	1.85Ω
Inductance (*3)	22.60mH	13.20mH
Electrical time constant	7.06ms	7.14ms
Magnetic attraction	3.30KN	
Coil maximum temperature	120.00°C	
Polar distance (N-N)	24.00 mm	
Rotor length	310.00mm	
Rotor mass	5.40Kg	
Stator mass	6.40kg/m	

*1: Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

*4: For the L motor, its current and maximum speed are increased.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ7.8mm (4×1mm ²)
Min. turning radius of power cable	62.0mm
Definition of power cable	4 cores (U: Black1, V: Black2, W: Black3, PE: Yellow/Green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	22.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ4.3mm (4×0.1mm ²)
Min. turning radius of temperature sensor cable	35.0mm
Definition of temperature sensor	4 cores (PTC+: brown, PTC -: white) shielded

■ Stator Dimensions and Specifications

Length (mm)	End distance (mm)	Hole spacing (mm)
96	24	48
144		
288		

■ Parameters Overview

Motor model	YK-M1-W28-C6-0.3	YK-M1-W40-C9-0.3	YK-M1-W40-C12-0.3	YK-M1-W60-C9-0.3	YK-M1-W60-C12-0.3	YK-M1-W75-C9-0.3	YK-M1-W75-C12-0.3
Peak thrust (N)	179	208	392	442	588	609	812
Continuous thrust (N)	44.8	52	98	110.5	147	152.3	203
Motor constant N/(W1/2)	7	23.4	10.5	23.4	15.2	14.3	12.2
Max. sustained dissipated power (W)	41.2	42.5	59.2	259.8	112	113.3	149.3
Peak current (Arms)	10	10	10	10	10	10	10
Continuous current (Arms)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Force constant (N/Arms)	17.9	20.8	39.2	44.2	58.8	60.9	81.2
Back electromotive force (Vpeak/(m/s))	14.6	17.1	32.1	36.2	48.2	49.7	66.3
Phase-to-phase resistance (Ω)	3.2	4	6.6	7.2	8.7	8.8	11.6
Phase-to-phase inductance (mH)	9.4	10	21.4	27.7	36.5	32.5	46
Electrical time constant (ms)	3	0.9	2.8	3.8	4.2	3.6	4.2
Electrical time constant (ms)	460	460	460	460	460	460	460
Maximum winding temperature (°C)	120	120	120	120	120	120	120
Coil weight (KG)	0.35	1.3	1.7	1.1	1.5	1.35	1.8
Magnetic pole spacing (mm)	20	20	20	20	20	20	20

■ Reading Method of Trade Name

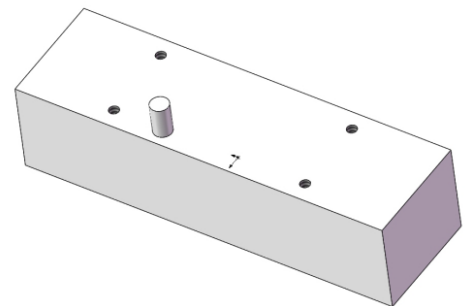
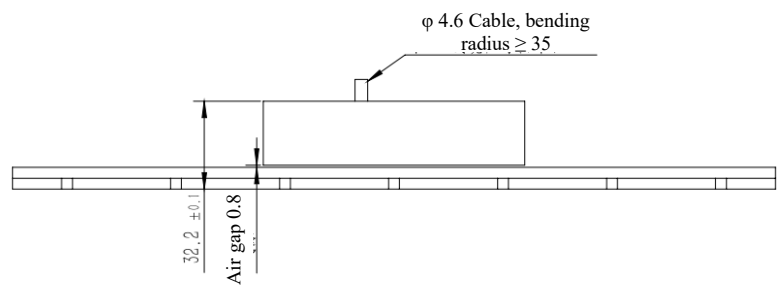
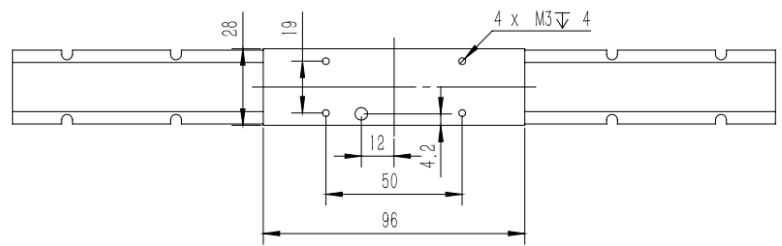
Rotor series	Motor width	Winding connection method	Outgoing line length
M1	28	C6	0.3
M1	40	C9	
	60	C12	
	75		

■ Motor Performance Parameters

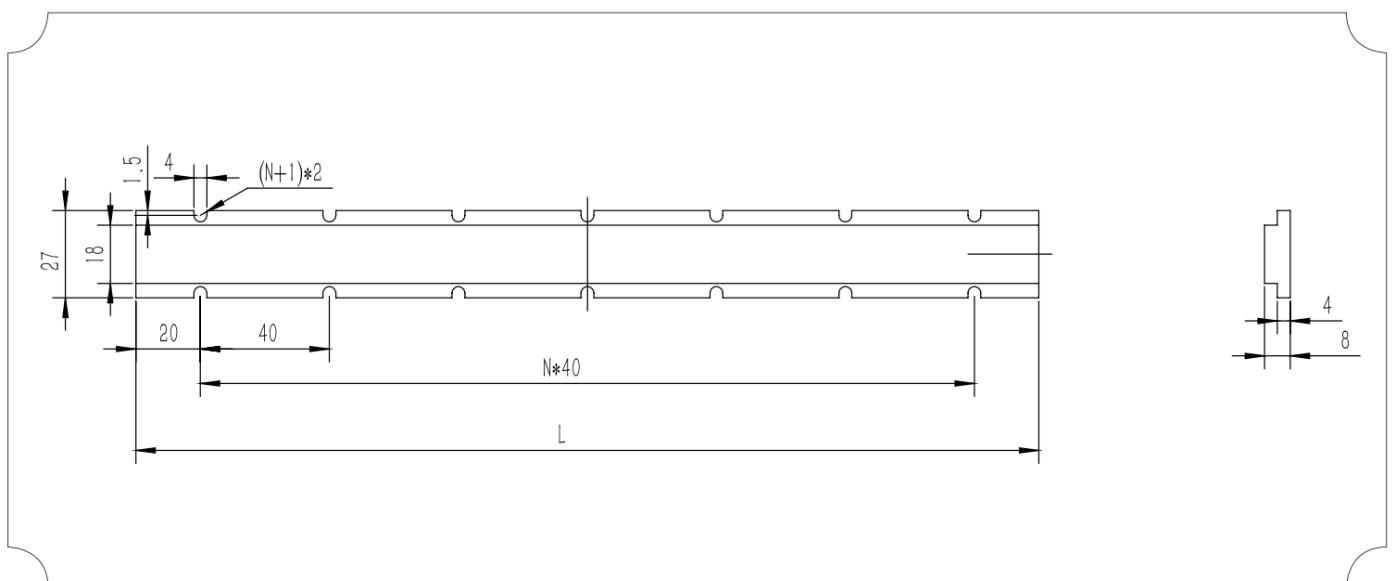
Performance parameters	YK-M1- W28 - C6 - 0.3	Unit
Continuous thrust	44.8	N
Peak thrust	179	N
Continuous current	2.5	Arms
Peak current	10	Arms
Motor constant	7	N/Sqrt(W)
Max. coil temperature	120	°C
Force constant	17.9	N/Arms
Magnetic variation cycle	20	mm
Wire resistance	3.2	Ω
Wire inductance	9.4	mH
Electrical time constant	3	ms
Back electromotive constant	14.6	Vpeak/m/s
Rotor mass	0.35	kg
Stator mass	1.2	kg/m
Suction force	0.31	kN
Rotor length (L)	96	mm

■ Outline Drawing (unit: mm)

● YK-M1-W28-C6-0.3



Stator model	Stator length mm (L)	Total hole spacing (N)	Number of holes
YK-M1-W28-28-160	160	3	8
YK-M1-W28-28-200	200	4	10
YK-M1-W28-28-240	240	5	12
YK-M1-W28-28-280	280	6	14



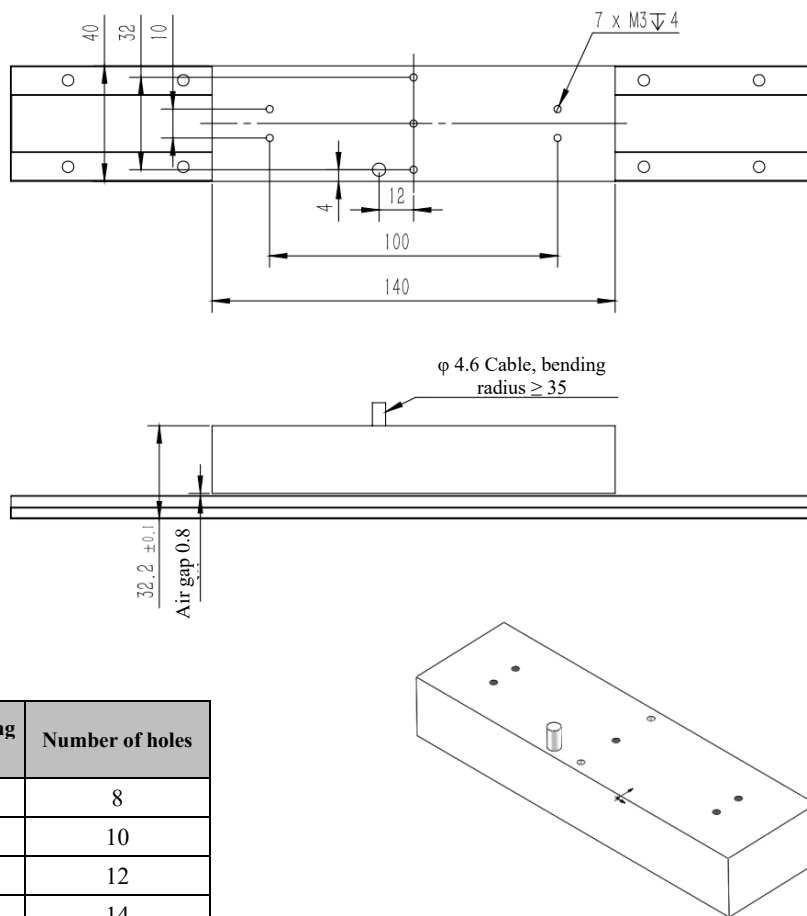
YK-M1-W40- C9-0.3 YK-M1 Series Motor

Motor Performance Parameters

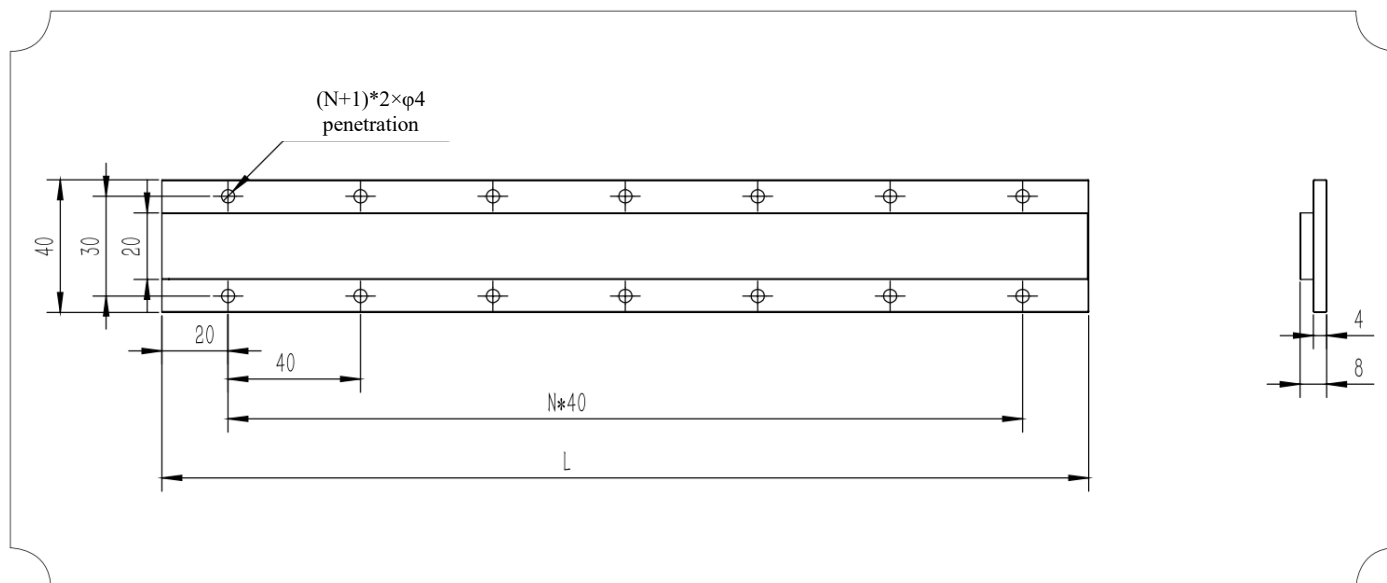
Performance parameters	YK-M1- W40 - C9 - 0.3	Unit
Continuous thrust	52	N
Peak thrust	208	N
Continuous current	2.5	Arms
Peak current	10	Arms
Motor constant	23.4	N/Sqrt(W)
Max. coil temperature	120	°C
Force constant	20.8	N/Arms
Magnetic variation cycle	20	mm
Wire resistance	4	Ω
Wire inductance	10	mH
Electrical time constant	2.5	ms
Back electromotive constant	17.1	Vpeak/m/s
Rotor mass	1.3	kg
Stator mass	1.77	kg/m
Suction force	0.37	kN
Rotor length (L)	140	mm

Outline Drawing (unit: mm)

● YK-M1-W40-C9-0.3



Stator model	Stator length mm (L)	Total hole spacing (N)	Number of holes
YK-M1-W40-40-160	160	3	8
YK-M1-W40-40-200	200	4	10
YK-M1-W40-40-240	240	5	12
YK-M1-W40-40-280	280	6	14



YK-M1-W40- C12-0.3

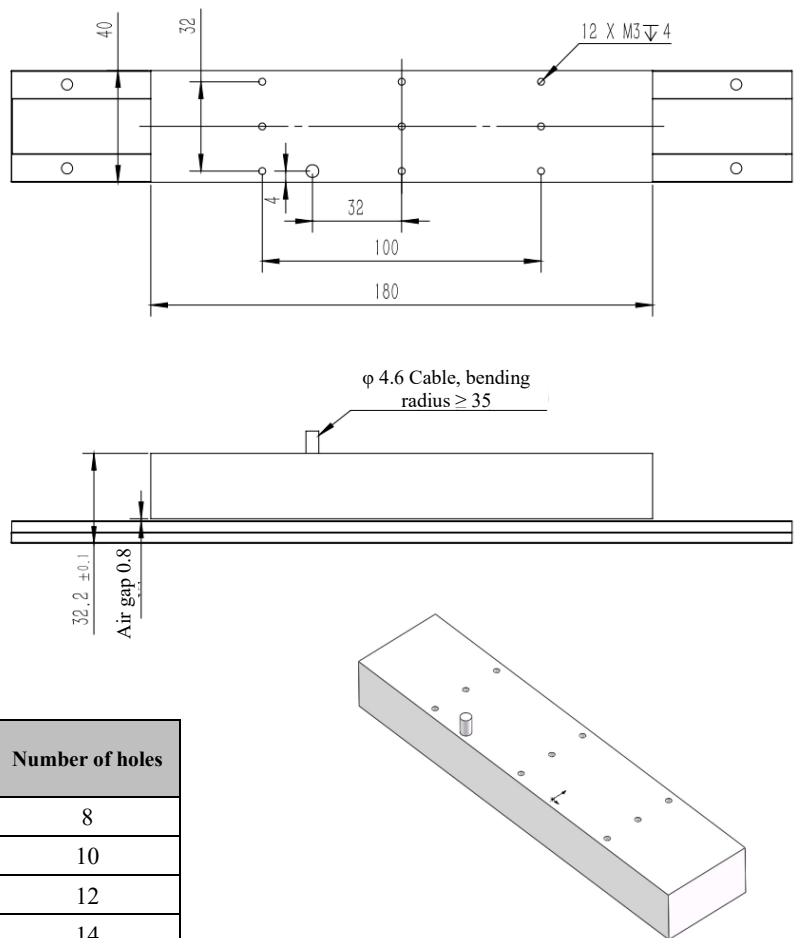
YK-M1 Series Motor

Motor Performance Parameters

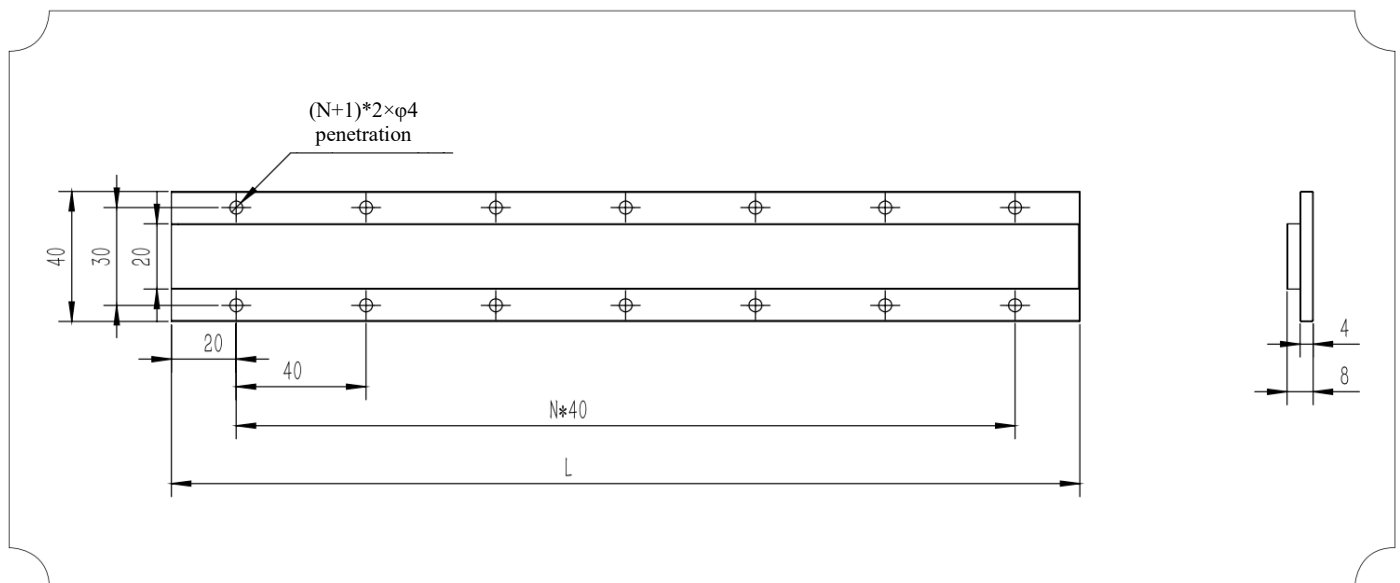
Performance parameters	YK-M1- W40 - C12 - 0.3	Unit
Continuous thrust	98	N
Peak thrust	392	N
Continuous current	2.5	Arms
Peak current	10	Arms
Motor constant	10.5	N/Sqrt(W)
Max. coil temperature	120	°C
Force constant	39.2	N/Arms
Magnetic variation cycle	20	mm
Wire resistance	6.6	Ω
Wire inductance	21.4	mH
Electrical time constant	2.8	ms
Back electromotive constant	32.1	Vpeak/m/s
Rotor mass	1.7	kg
Stator mass	1.77	kg/m
Suction force	0.69	kN
Rotor length (L)	180	mm

Outline Drawing (unit: mm)

● YK-M1-W40-C12-0.3



Stator model	Stator length mm (L)	Total hole spacing (N)	Number of holes
YK-M1-W40-40-160	160	3	8
YK-M1-W40-40-200	200	4	10
YK-M1-W40-40-240	240	5	12
YK-M1-W40-40-280	280	6	14

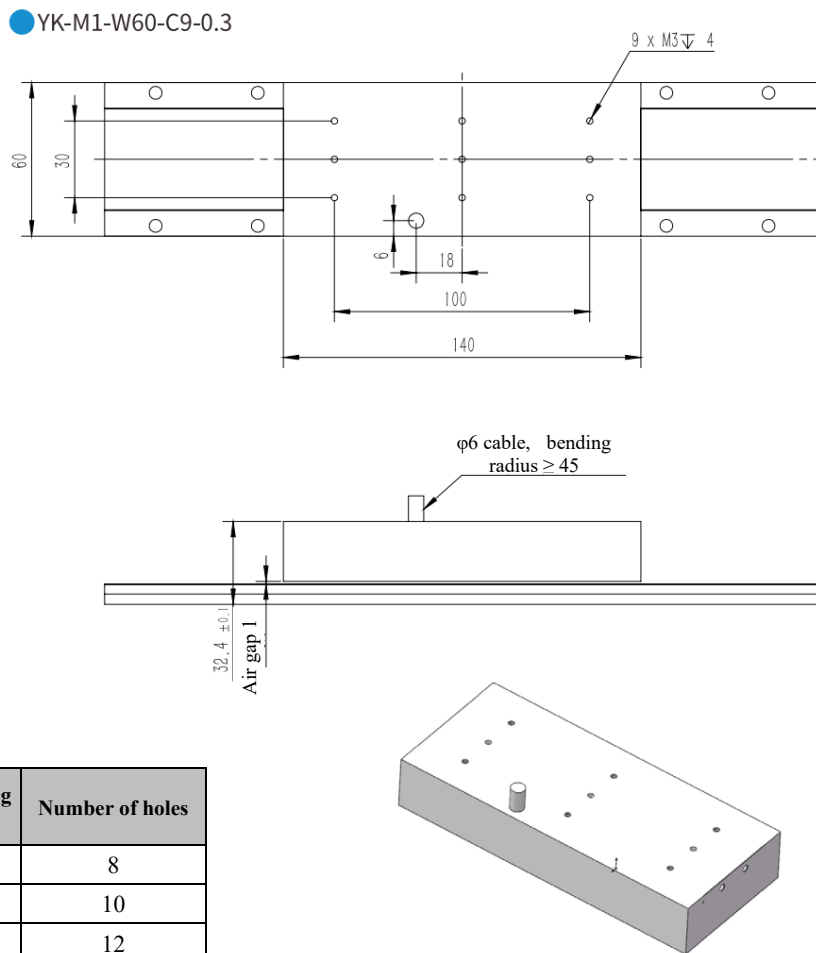


YK-M1-W60- C9-0.3 YK-M1 Series Motor

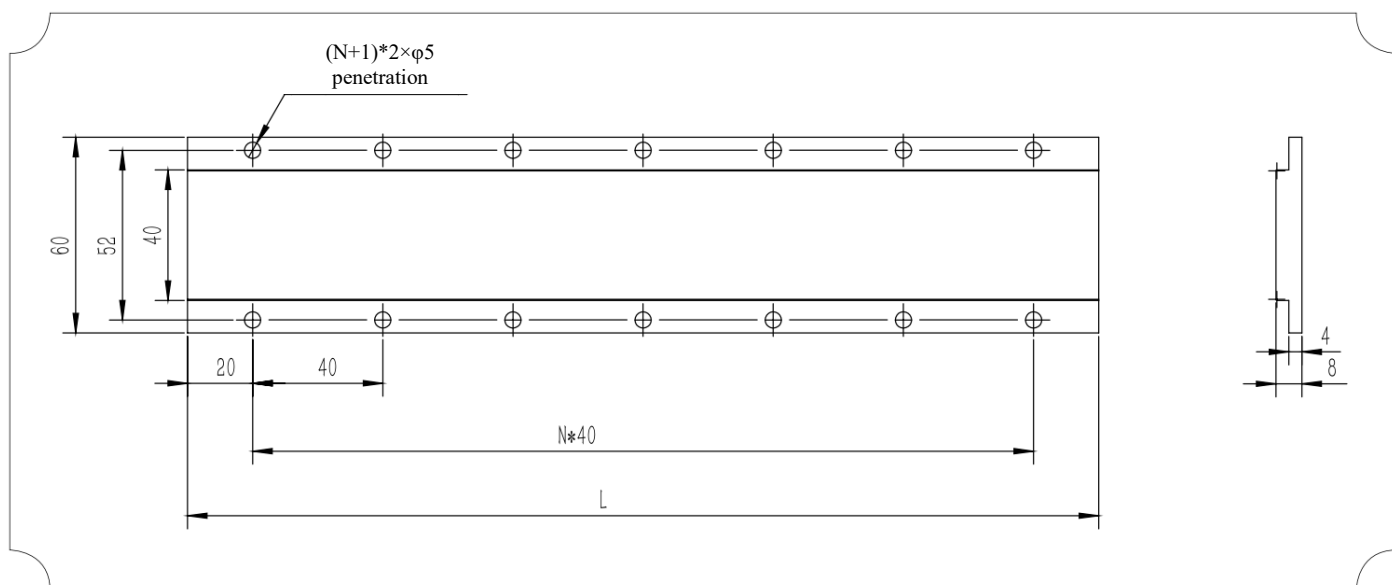
Motor Performance Parameters

Performance parameters	YK-M1- W60 - C9- 0.3	Unit
Continuous thrust	110.5	N
Peak thrust	442	N
Continuous current	2.5	Arms
Peak current	10	Arms
Motor constant	23.4	N/Sqrt(W)
Max. coil temperature	120	°C
Force constant	44.2	N/Arms
Magnetic variation cycle	20	mm
Wire resistance	7.2	Ω
Wire inductance	27.7	mH
Electrical time constant	3.8	ms
Back electromotive constant	36.2	Vpeak/m/s
Rotor mass	1.1	kg
Stator mass	2.65	kg/m
Suction force	0.773	kN
Rotor length (L)	140	mm

Outline Drawing (unit: mm)



Stator model	Stator length mm (L)	Total hole spacing (N)	Number of holes
YK-M1-W60-60-160	160	3	8
YK-M1-W60-60-200	200	4	10
YK-M1-W60-60-240	240	5	12
YK-M1-W60-60-280	280	6	14

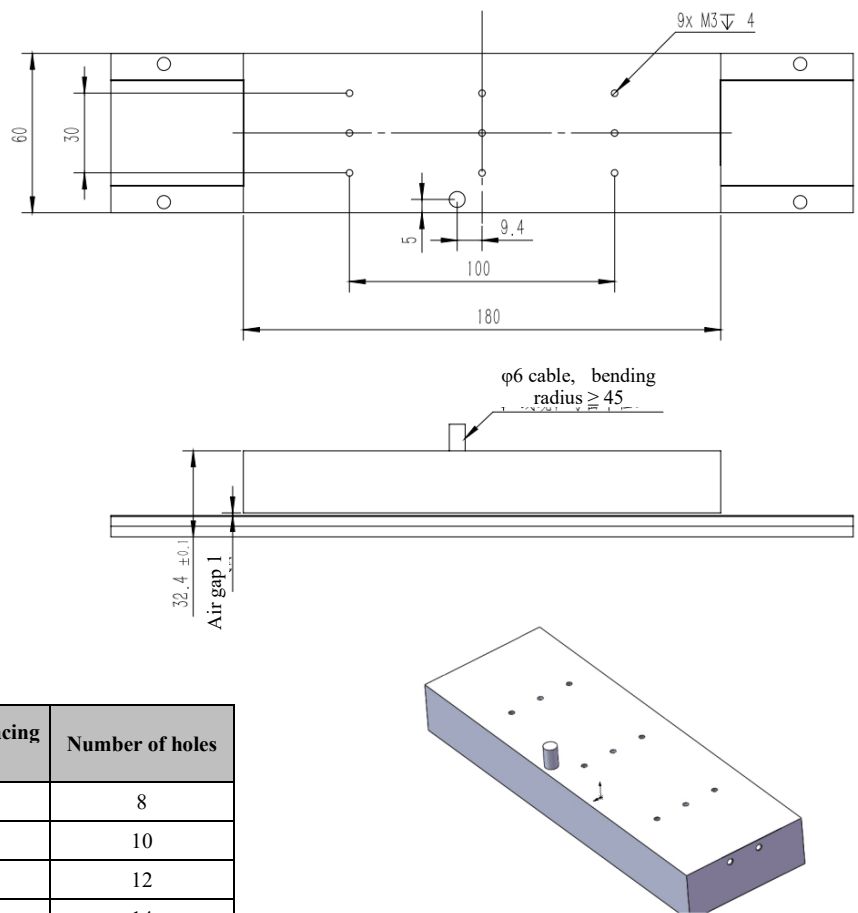


■ Motor Performance Parameters

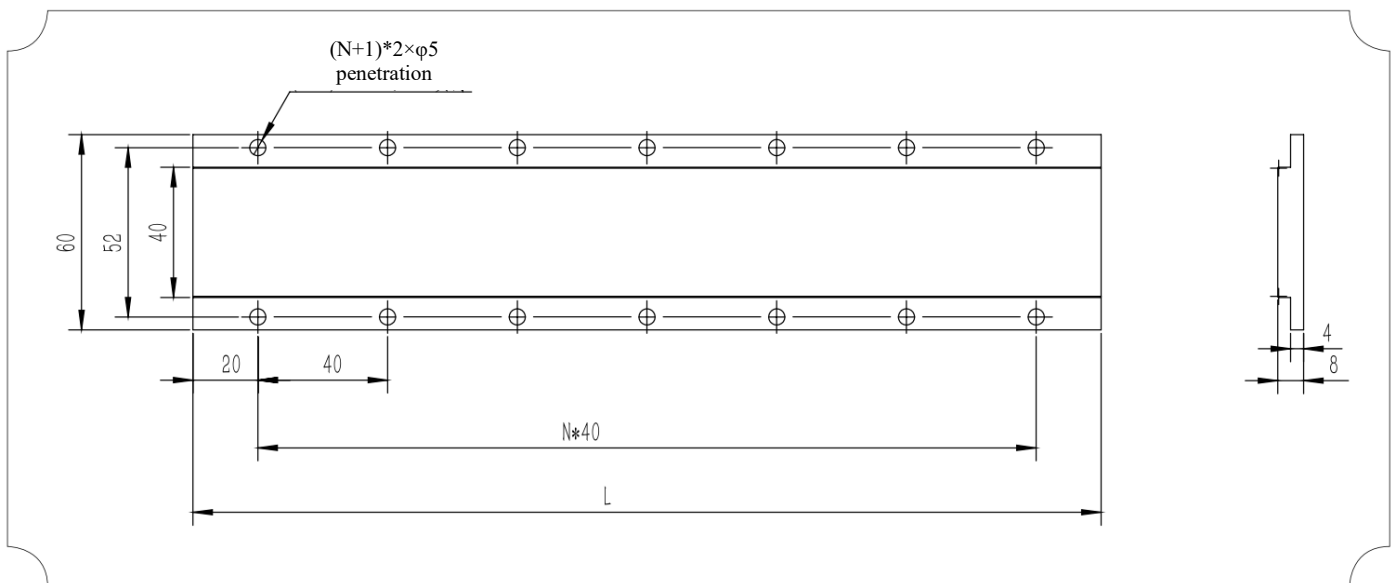
Performance parameters	YK-M1- W60 - C12- 0.3	Unit
Continuous thrust	147	N
Peak thrust	588	N
Continuous current	2.5	Arms
Peak current	10	Arms
Motor constant	15.2	N/Sqrt(W)
Max. coil temperature	120	°C
Force constant	58.8	N/Arms
Magnetic variation cycle	20	mm
Wire resistance	8.7	Ω
Wire inductance	36.5	mH
Electrical time constant	4.2	ms
Back electromotive constant	48.2	Vpeak/m/s
Rotor mass	1.5	kg
Stator mass	2.65	kg/m
Suction force	1.1	kN
Rotor length (L)	180	mm

■ Outline Drawing (unit: mm)

● YK-M1-W60-C12-0.3



Stator model	Stator length mm (L)	Total hole spacing (N)	Number of holes
YK-M1-W60-60-160	160	3	8
YK-M1-W60-60-200	200	4	10
YK-M1-W60-60-240	240	5	12
YK-M1-W60-60-280	280	6	14

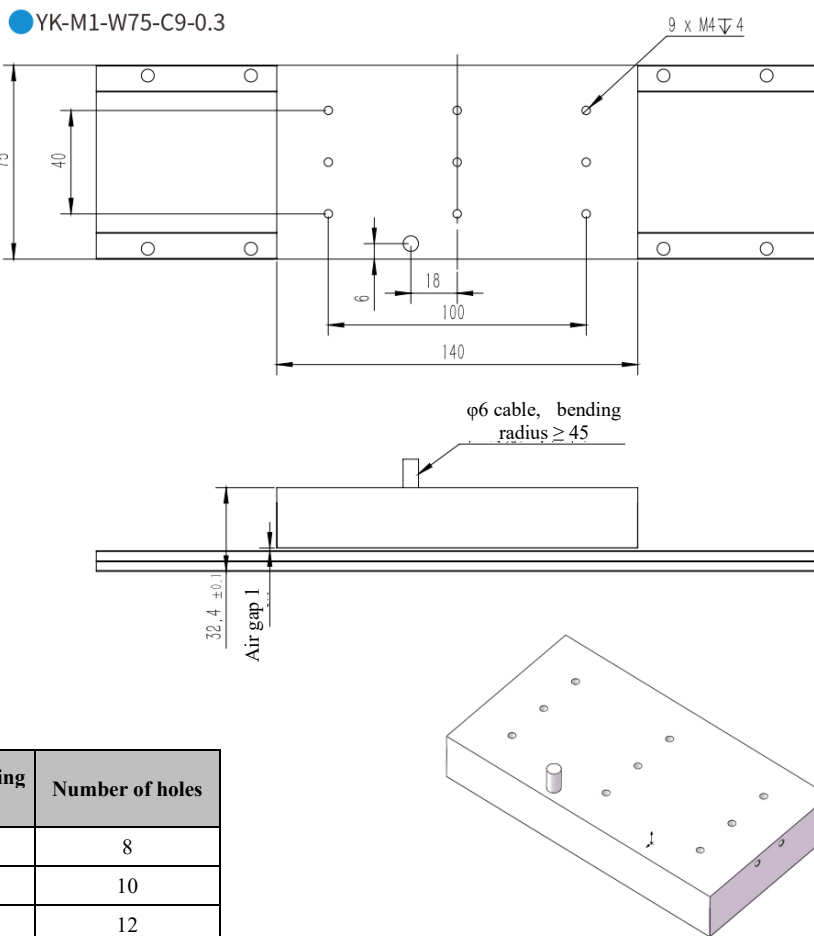


YK-M1-W75- C9-0.3 YK-M1 Series Motor

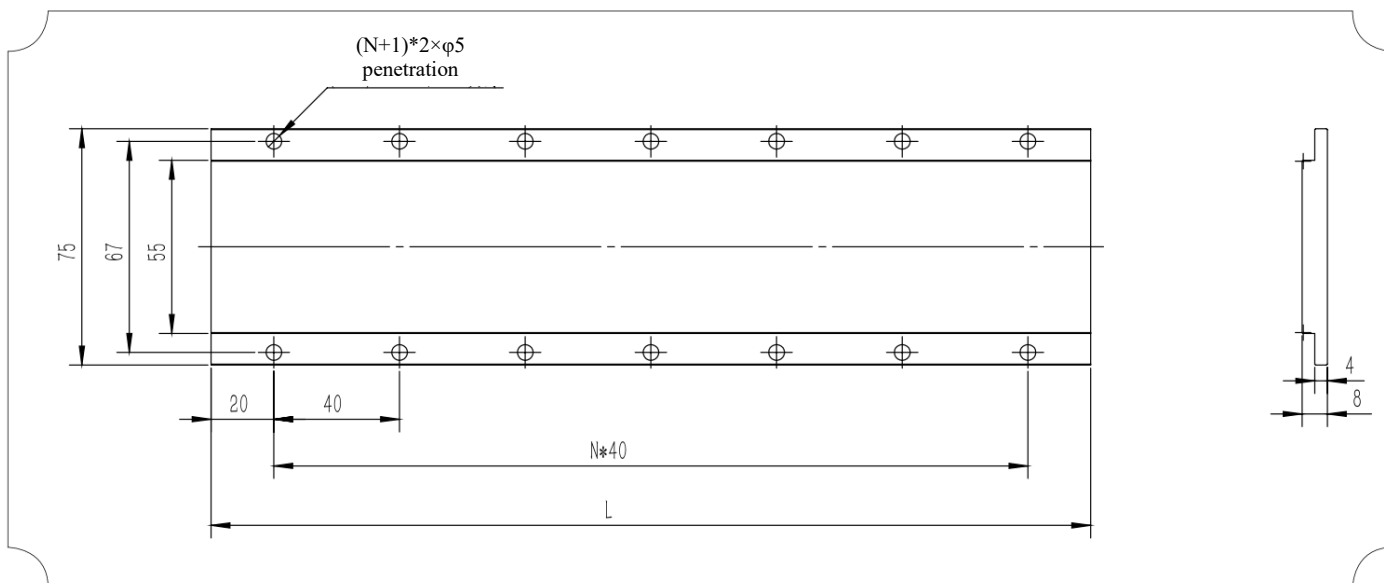
Motor Performance Parameters

Performance parameters	YK-M1- W75- C9- 0.3	Unit
Continuous thrust	152.3	N
Peak thrust	609	N
Continuous current	2.5	Arms
Peak current	10	Arms
Motor constant	14.3	N/Sqrt(W)
Max. coil temperature	120	°C
Force constant	60.9	N/Arms
Magnetic variation cycle	20	mm
Wire resistance	8.8	Ω
Wire inductance	32.5	mH
Electrical time constant	3.6	ms
Back electromotive constant	49.7	Vpeak/m/s
Rotor mass	1.35	kg
Stator mass	3.3	kg/m
Suction force	1.1	kN
Rotor length (L)	140	mm

Outline Drawing (unit: mm)



Stator model	Stator length mm (L)	Total hole spacing (N)	Number of holes
YK-M1-W75-75-160	160	3	8
YK-M1-W75-75-200	200	4	10
YK-M1-W75-75-240	240	5	12
YK-M1-W75-75-280	280	6	14



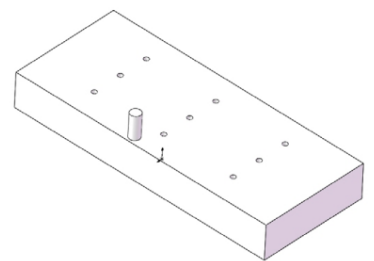
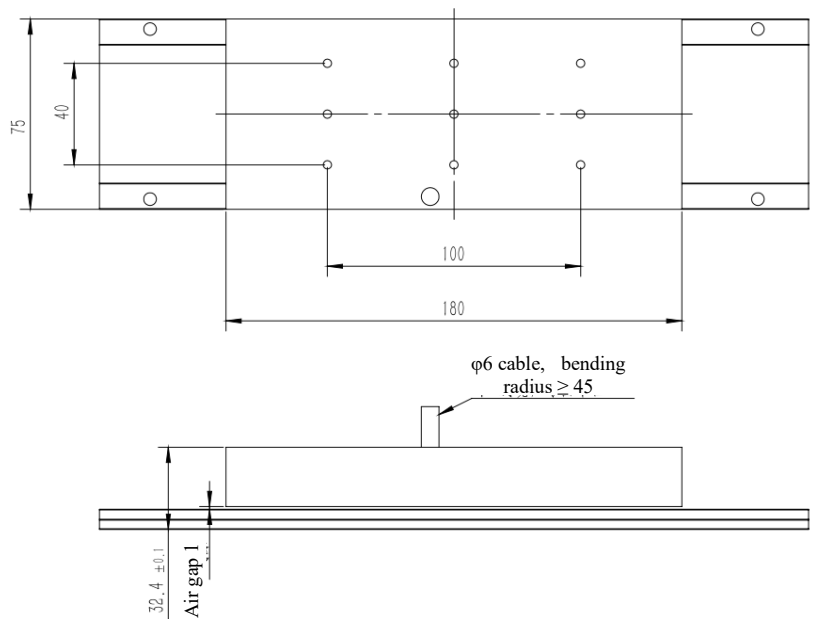
YK-M1-W75- C9-0.3 YK-M1 Series Motor

Motor Performance Parameters

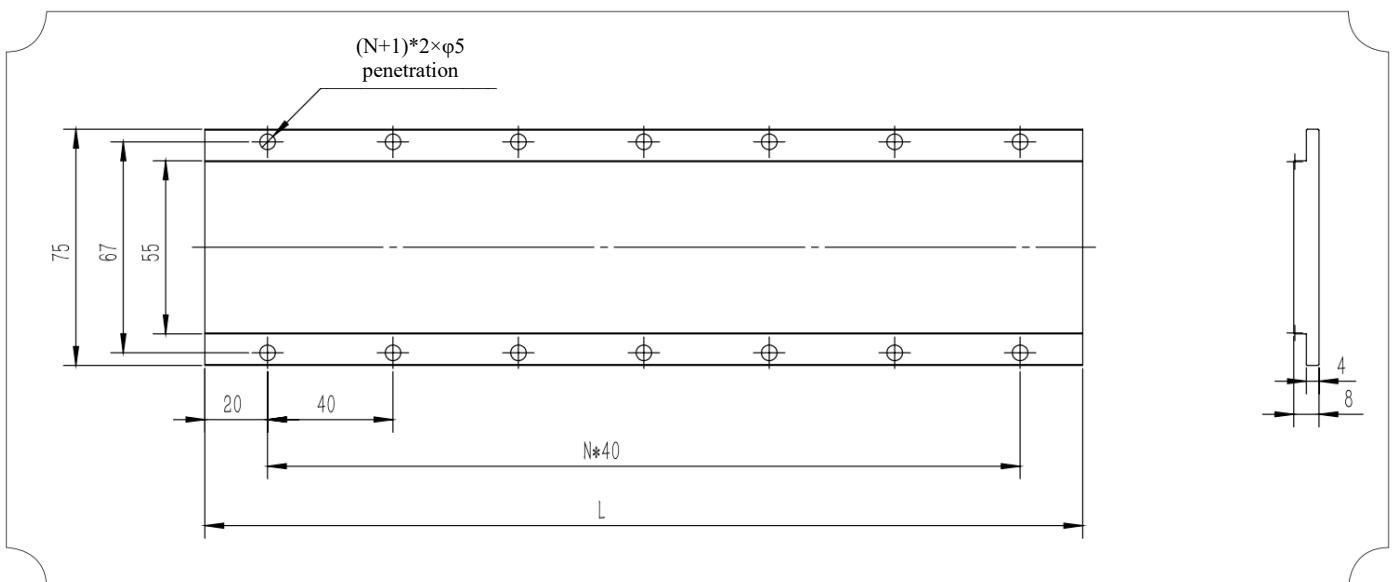
Performance parameters	YK-M1- W75- C12- 0.3	Unit
Continuous thrust	203	N
Peak thrust	812	N
Continuous current	2.5	Arms
Peak current	10	Arms
Motor constant	12.2	N/Sqrt(W)
Max. coil temperature	120	°C
Force constant	81.2	N/Arms
Magnetic variation cycle	20	mm
Wire resistance	11.6	Ω
Wire inductance	46	mH
Electrical time constant	4.2	ms
Back electromotive constant	66.3	Vpeak/m/s
Rotor mass	1.8	kg
Stator mass	3.3	kg/m
Suction force	1.42	kN
Rotor length (L)	180	mm

Outline Drawing (unit: mm)

● YK-M1-W75-C12-0.3



Stator model	Stator length mm (L)	Total hole spacing (N)	Number of holes
YK-M1-W75-75-160	160	3	8
YK-M1-W75-75-200	200	4	10
YK-M1-W75-75-240	240	5	12
YK-M1-W75-75-280	280	6	14



KUM series U-shaped motor (without iron core)

For detailed technical information and specifications of this product, please refer to the official website.

It is a coreless linear motor without winding slots and has absolute zero tooth space effect

It is suitable for extremely low friction, light loads, and high acceleration.

Due to the characteristics of low-speed ripples, it can meet the stable motion requirements at ultra-low speed.



■ Motor Performance Parameters

Model name	YK-KUM03	YK-KUM06	YK-KUM09	YK-KUMU	YK-KUM15
Maximum bus voltage	600.00V				
Rated thrust	31.0N	60.0N	89.0N	118.0N	147.0N
Rated current (* 1)	0.8Arms	1,6Arms	2,4Arms	3.2Arms	4.0Arms
Peak thrust (*1)	105.4N	204.0N	302.6N	401.2N	499.8N
Peak current	2.7Arms	5.4Arms	8,2Arms	10.9Arms	13.6Arms
Thrust constant ± 10%	38.8N/Arms	375N/Arms	37.1N/Arms	36.9N/Arms	36.8N/Arms
Back electromotive force constant ± 10%	31.6 V(pk)/m/s	30.6V(pk)/m/s	30.3V(pk)/m/s	30.1V(pk)/m/s	30.0V(pk)/m/s
Resistance (*2)	36.0Ω	18.0Ω	12.0Ω	8.9Ω	7.0
Inductance (*3)	12.0mH	6.0mH	4.0mH	3.0mH	2.2mH
Electrical time constant	0.3ms				
Magnetic attraction	0.0KN				
Coil maximum temperature	120.0°C				
Polar distance (N-N)	30.0mm				
Rotor length	78.0mm	138.0mm	198.0mm	258.0mm	316.0mm
Rotor mass	0.08Kg	016Kg	0,24Kg	0.32Kg	0.40Kg
Stator mass	4.8kg/m				
Thermal resistance coefficient	1.8°C/W	0.9°C/W	0.6°C/W	0.45°C/W	0.33°C/W

*1. Measurement room temperature at 25 °C, which is closely related to the heat dissipation conditions;

*2: UV, VW, UW mean value, measured using DC current, including 1 meter standard cable;

*3: UV, VW, UW mean value, measurement frequency 1kHz.

■ Wire Specifications

Cable Parameters	
Power cable diameter	φ4.4mm (4×0.25mm ²)
Min. turning radius of power cable	44.0mm
Definition of power cable	4 cores (U: brown, V: white, W: yellow, PE: green) shielded
HALL cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of HALL cable	36.0mm
Definition of HALL cable	5 cores (5V: red, 0V: black, HU: yellow, HV: blue, HW: white) shielded
Temperature sensor cable diameter	φ3.6mm (5×0.1mm ²)
Min. turning radius of temperature sensor cable	36.0mm
Definition of temperature sensor	/

■ Features

High Acceleration

Acceleration of 17g, speed of 3m/s, stroke of 160mm, movement of 100mm, completed within 60ms including the setting time, setting accuracy of 3-5um.

High Efficiency

Coreless motor, smooth thrust.

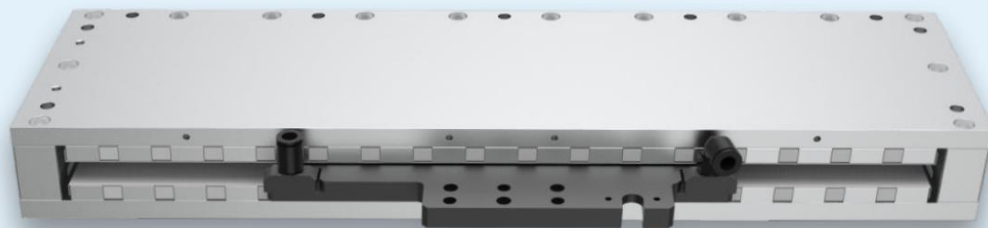
■ Reading Method of Trade Name

High Rigidity

Comprehensive application of new materials based on carbon fiber board.

Brand logo	Special for the carbon fiber U type motor DB	Effective stroke (mm)	Internal and external adjustment stroke (mm)	Cooling method	Motor outgoing line length (mm)
YK	CU1	158	8	AC	1000
YK YARAK	CU1	158	8	AC: air cooling NC: natural cooling	1000: 1000mm M: magnet

- Zero tooth space force, smooth operation, easy to control
- Made of carbon fiber/glass fiber material, the rotor has a light weight and a thrust to weight ratio of up to 2000
- Small speed fluctuations and easy trajectory control



Definition of linear motor interface

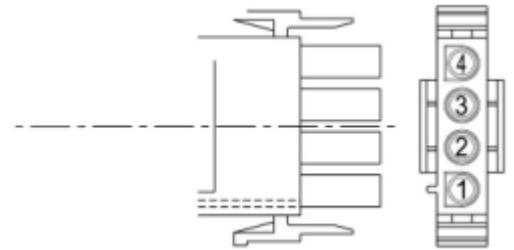
For detailed technical information and specifications of this product, please refer to the official website.

* Applies only to YK-KE-60, YK-KE-82, YK-KE-95 and YK-KE-115.

■ Motor Plug

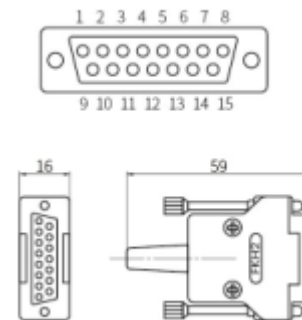
● Plug model: YK-63080-4P

No.	1	2	3	4
Mark	M1	M2	M3	PE
Function	Motor phase line	Motor phase line	Motor phase line	Protective ground
Color	Red + yellow	Blue + green	Brown + black	White + shield



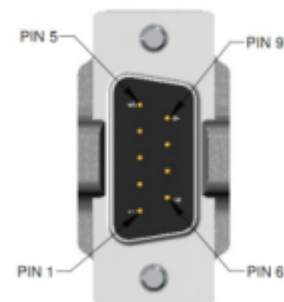
■ YK-MS15 optical grating plug

No.	2	4	5	6	7	8	9	10	11	12	13	14
Signal	GN	Z	B	A	+5	+5	GN	S	S	Z	B	A
1	D	-	-	-	V	V	D	1	2	+	+	+



■ Hall Plug

No.	1	2	3	4	5
Signal	Hu	Hv	Hw	+5V	GND



■ Magnetic Grating Plug

No.	1	2	3	4	5	6	7	8	9
Signal	(not connected to NC)	Z+	B+	A+	+5V	Z-	B-	A-	GND



■ Motor Performance Parameters

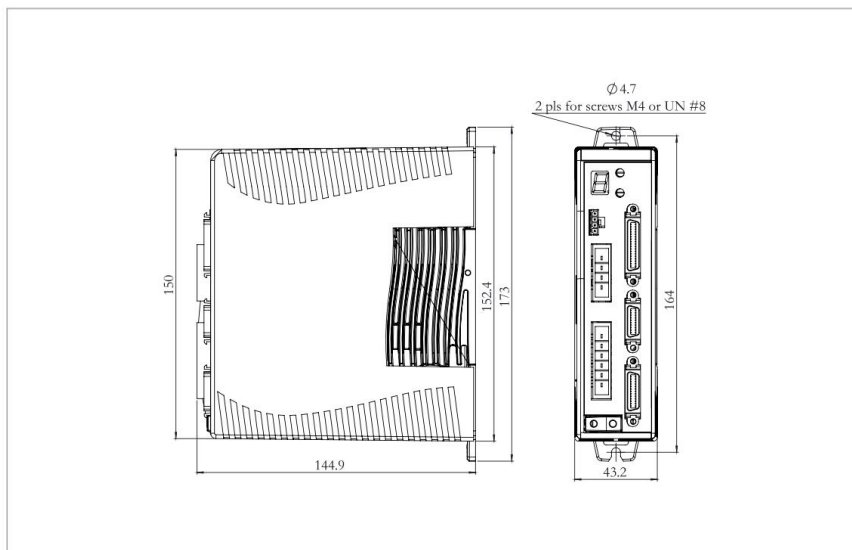
We provide the following matching brand and model options. Our linear motor is compatible with most brands of drivers on the market. For more information on the selection and model confirmation of drivers, please consult our sales engineer.

Current		3A	4A	6A	8A	10A
Googol	Pulse	GSHD-003-2A-AP1-LM	GSHD-4D5-2A-AP1-LM	GSHD-006-2A-AP1-LM	GSHD-008-2A-AP1-LM	GSHD-010-2A-AP1-LM
	EtherCAT	GSHD-003-2A-EC2-LM	GSHD-4D5-2A-EC2-LM	GSHD-006-2A-EC2-LM	GSHD-008-2A-EC2-LM	GSHD-010-2A-EC2-LM
Servotronic	Pulse	CDHD-0032AAP1	CDHD-4D52AAP1	CDHD-0062AAP1	CDHD-0082AAP1	CDHD-0102AAP1
	EtherCAT	CDHD-0032AEC2	CDHD-4D52AEC2	CDHD-0062AEC2	CDHD-0082AEC2	CDHD-0102AEC2
Servotronic economic type	Pulse	CDHDE-4D52AAP				
	EtherCAT			CDHDE-4D52AEB		
	Pulse+EtherCAT	DKHDE-03		DKHDE-06		

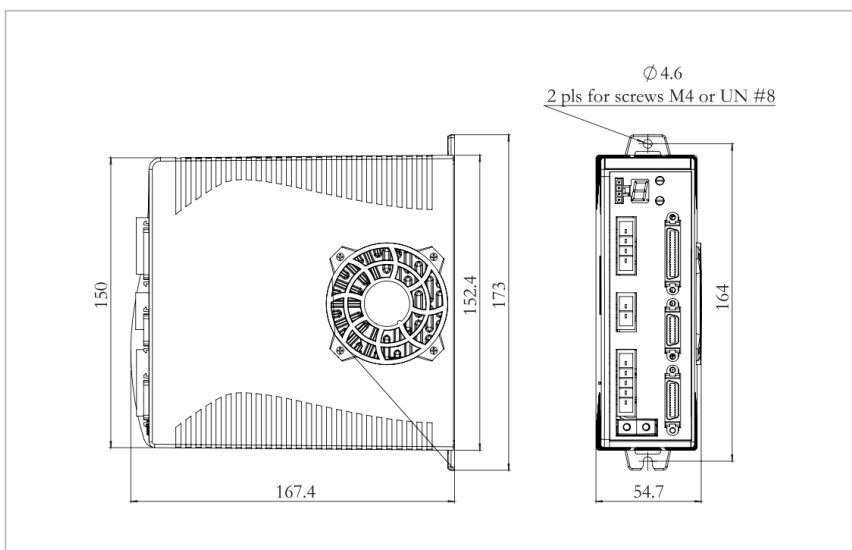
Googol linear motor driver

■ Mechanical Dimensions (unit: mm)

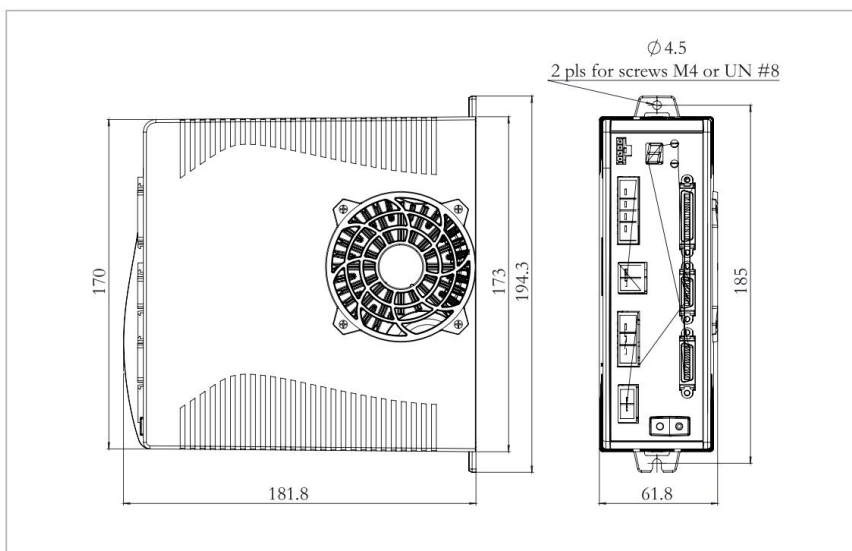
- Medium voltage GSHD-003 series



- Medium voltage GSHD-4D5/GSHD-006 series



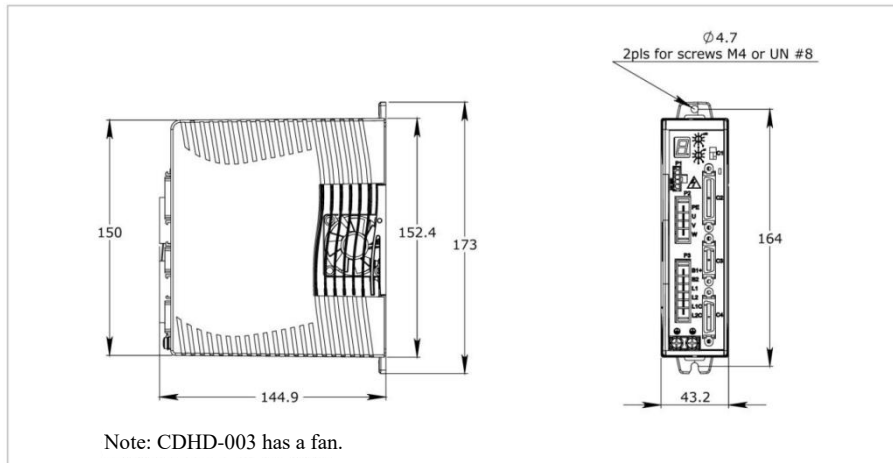
- Medium voltage GSHD-4D5/GSHD-006 series



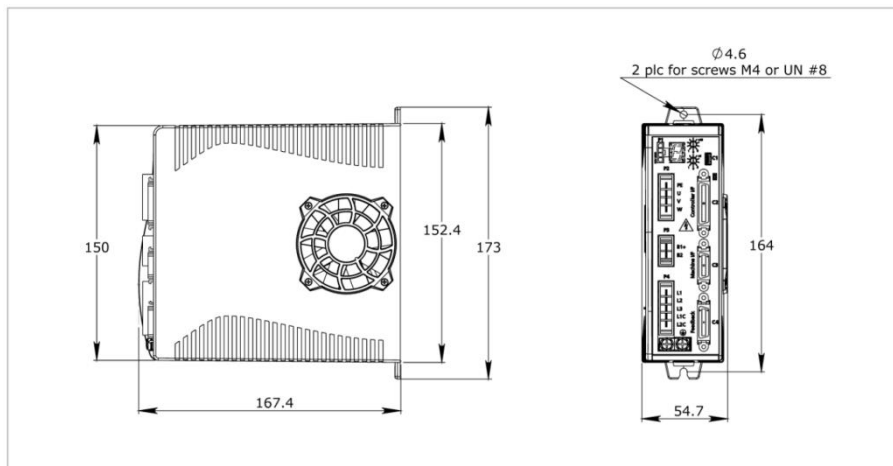
Servotronix linear motor driver

■ Mechanical Dimensions (unit: mm)

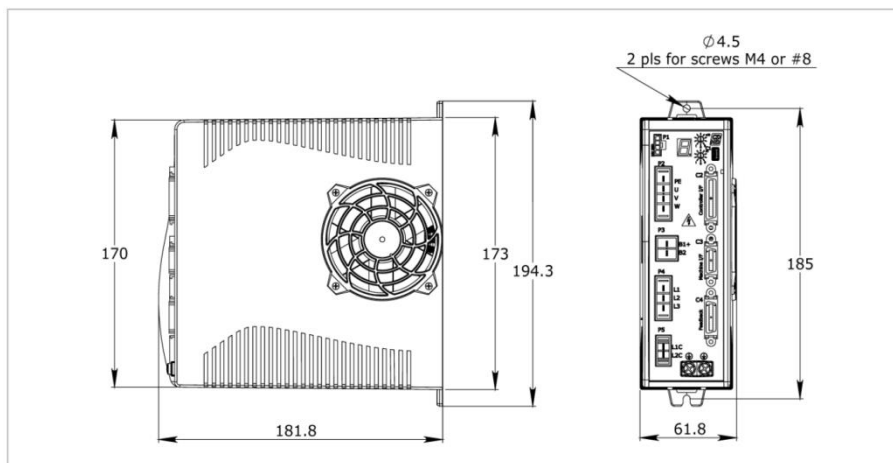
● CDHD-1D5/CDHD-003 - 120/240 VAC



● CDHD-4D5/CDHD-006 - 120/240 VAC



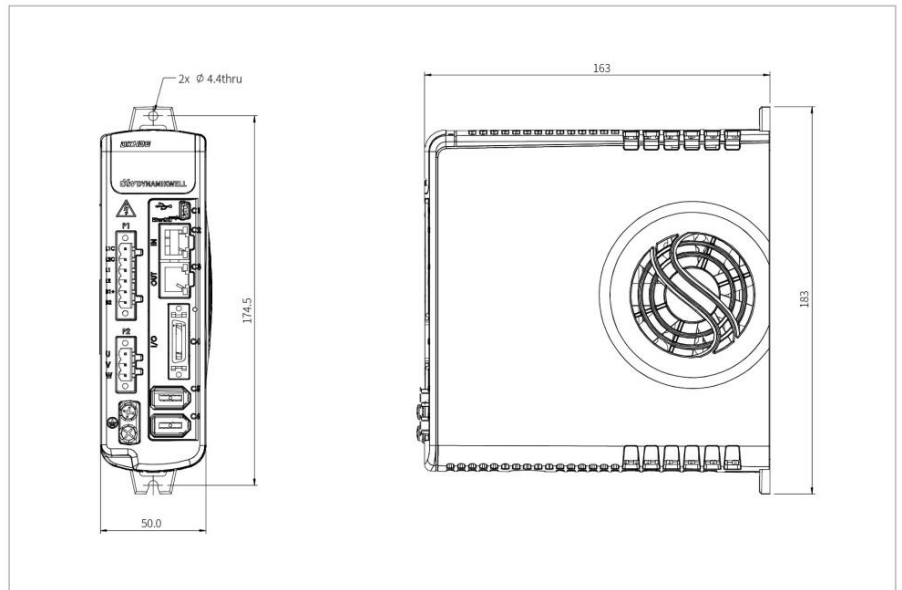
● CDHD-008/CDHD-010/CDHD-013 - 120/240 VAC



Servotronix economic linear motor driver

■ Mechanical Dimensions (unit: mm)

- DKHDE-03/DKHDE-06



■ Performance Parameters

Model name	DKHDE-03	DKHDE-06
Main power supply	110/220VAC	
Logic power supply	110/220VAC	
Output continuous power supply	3A	6A
Max. output power supply	9A	18A
Control mode	Position control: Pulse/direction, positive and negative pulses	
	EtherCAT bus	
Encoder interface	Incremental A+, A -, B+, B -, 1+, 1-	
Operation temperature	0°C~40°C	

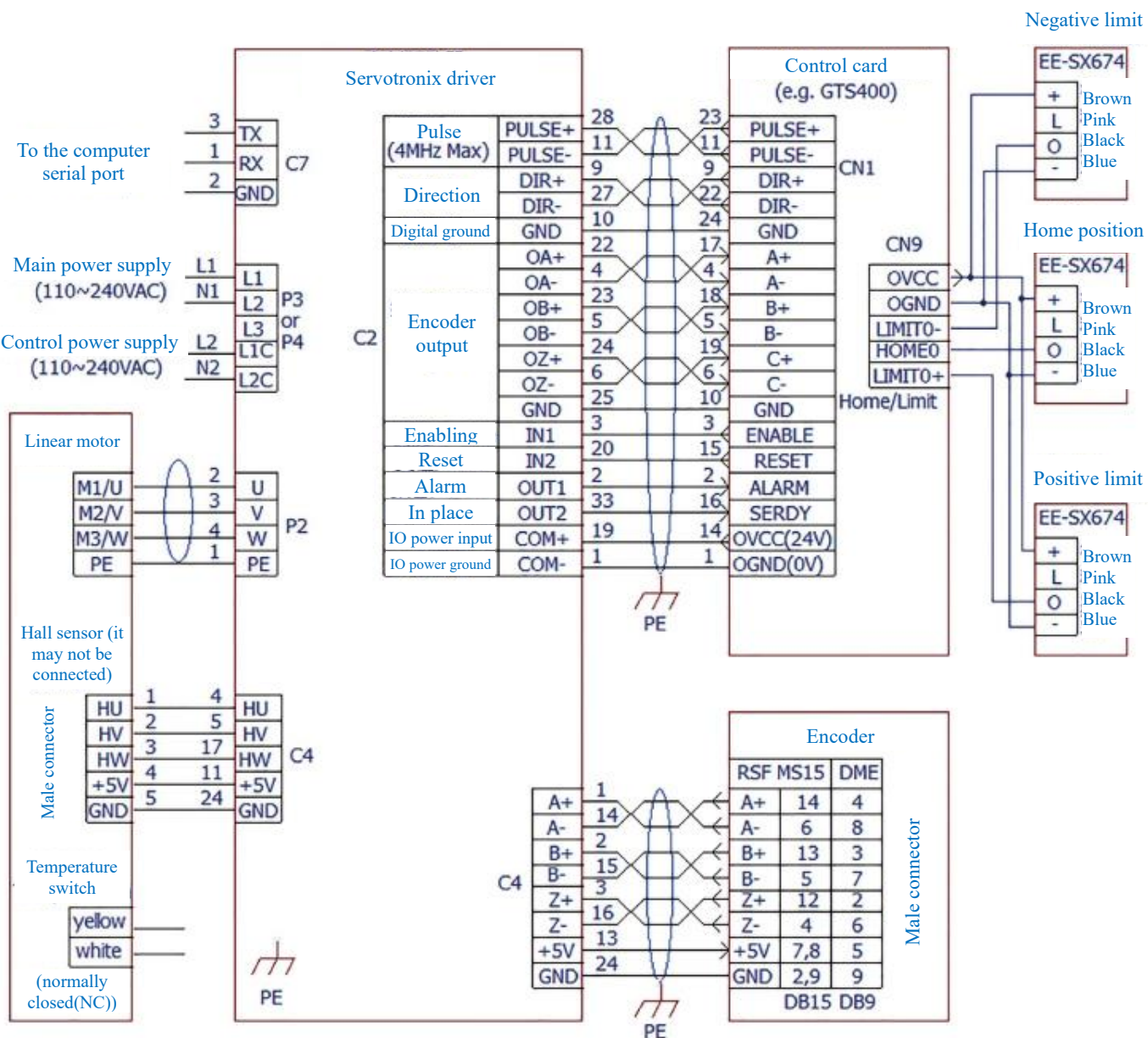
Wiring diagram of linear motor module

Performance Parameters

Model name	Lichuang/Guli
Signal type	Scattered signal
Pulse frequency	4MHz
Control power supply	110/240VAC
Main power supply	110/240VAC

Wiring Diagram

- Pulse frequency 4MHz



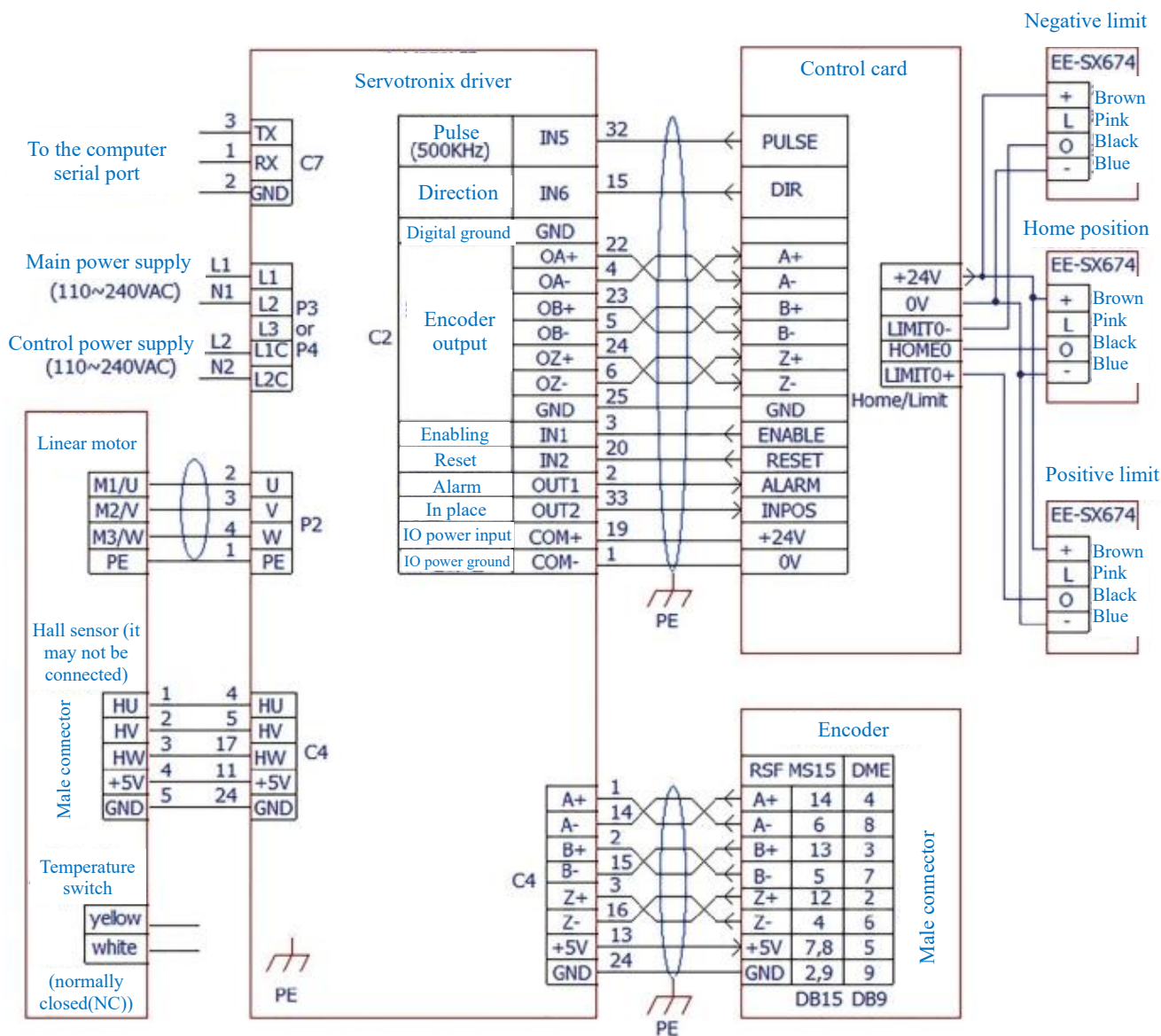
Wiring diagram of linear motor module

Performance Parameters

Model name	Lichuang/Guli
Signal type	Single-end signal
Pulse frequency	500MHz
Control power supply	110/240VAC
Main power supply	110/240VAC

Wiring Diagram

- Pulse frequency 500MHz



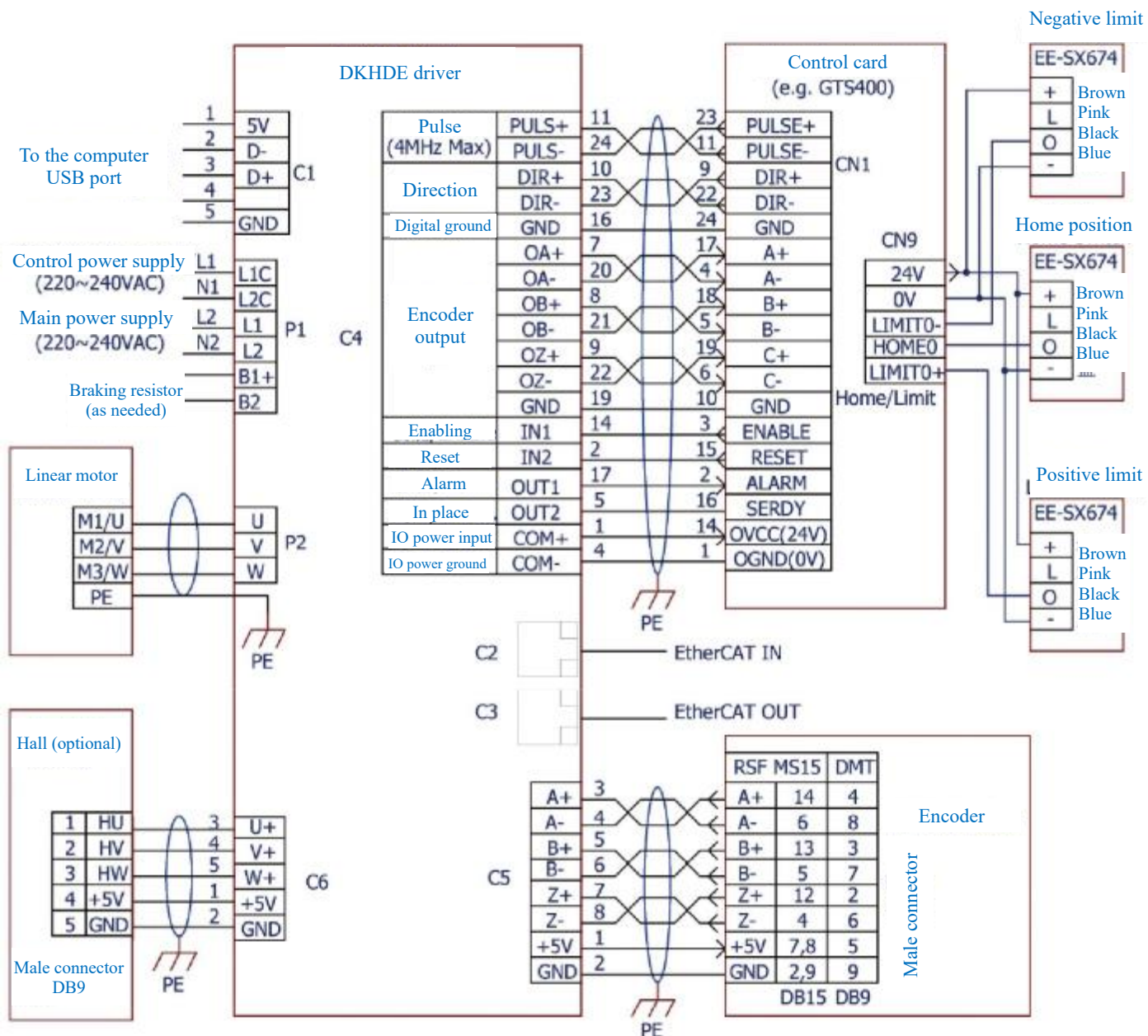
Wiring diagram of linear motor module

Performance Parameters

Model name	DKHDE-03/DKHDE-06
Signal type	Differential Signal
Pulse frequency	5MHz
Control power supply	110/220VAC
Main power supply	110/220VAC

Wiring Diagram

- Pulse frequency 5MHz



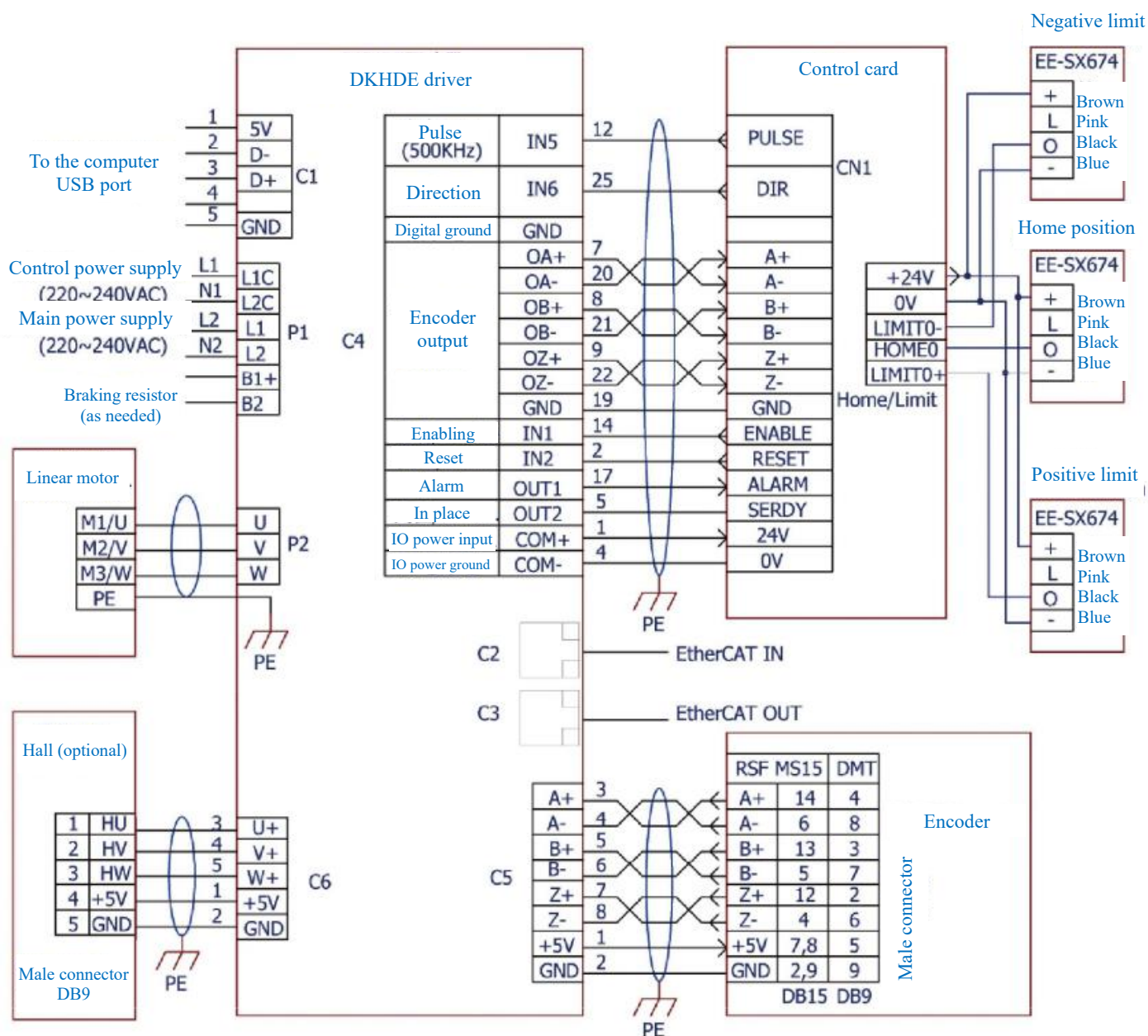
Wiring diagram of linear motor module

Performance Parameters

Model name	DKHDE-03/DKHDE-06
Signal type	Differential Signal
Pulse frequency	500MHz
Control power supply	110/220VAC
Main power supply	110/220VAC

Wiring Diagram

- Pulse frequency 500MHz

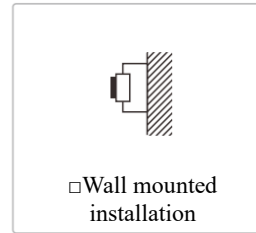
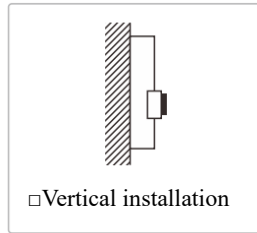
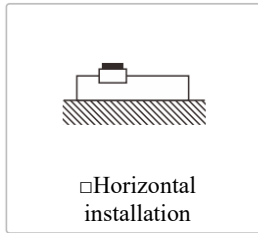


Auxiliary Table for Linear Motor Selection

Company name: _____ Departmental position: _____ Filling date: _____

Contact person: _____ Contact information: _____

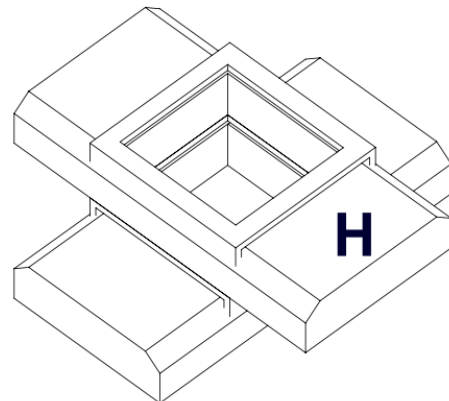
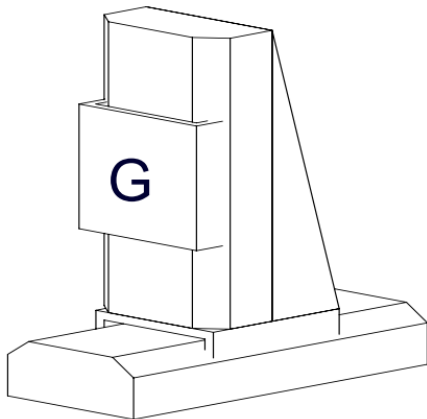
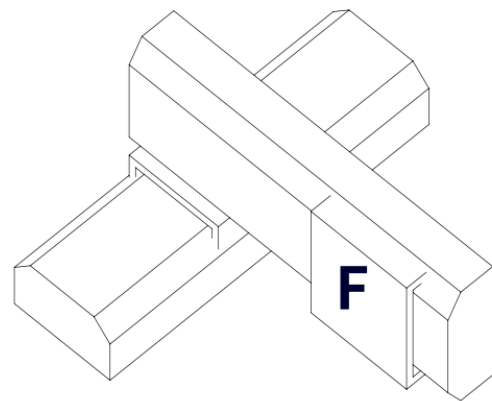
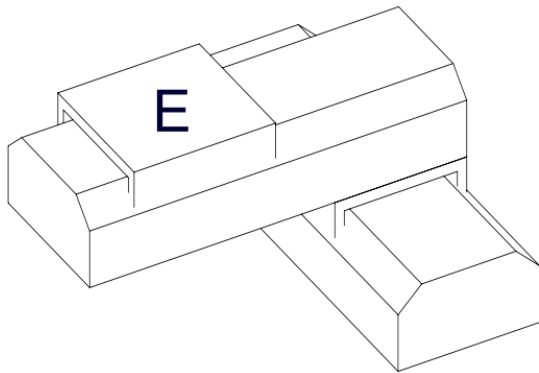
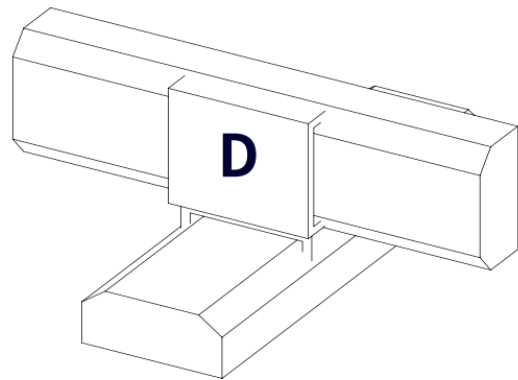
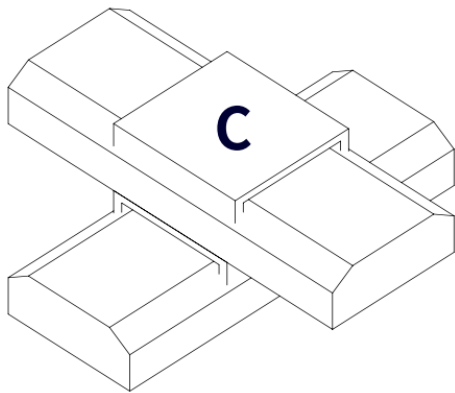
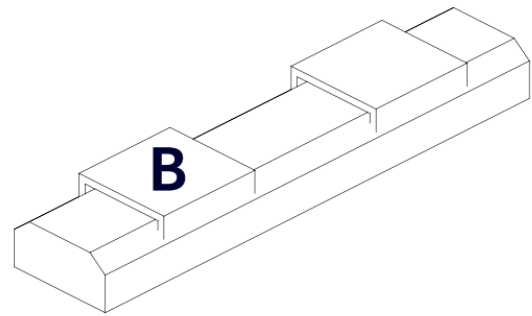
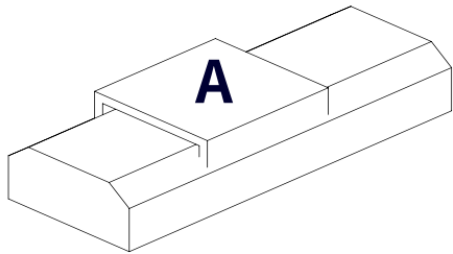
Installation method:



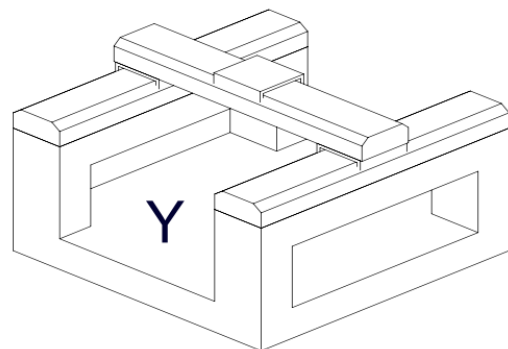
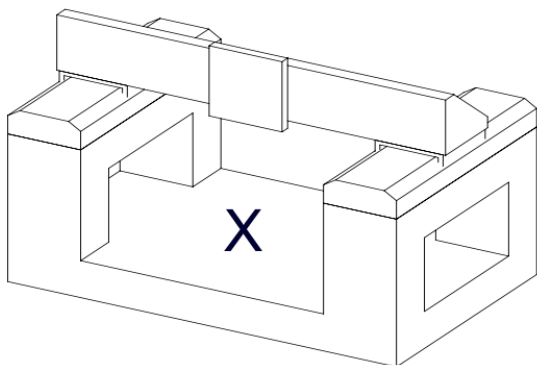
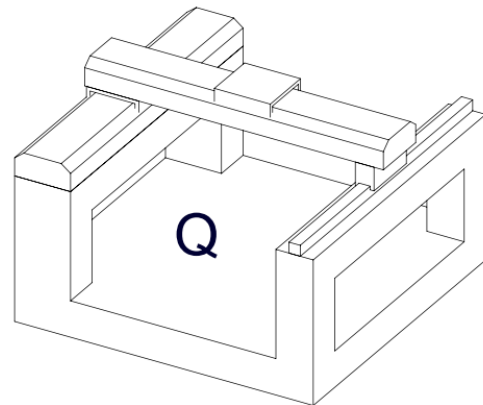
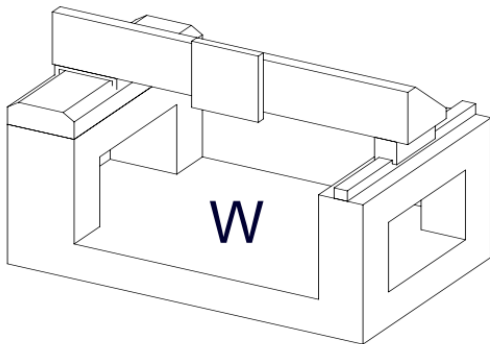
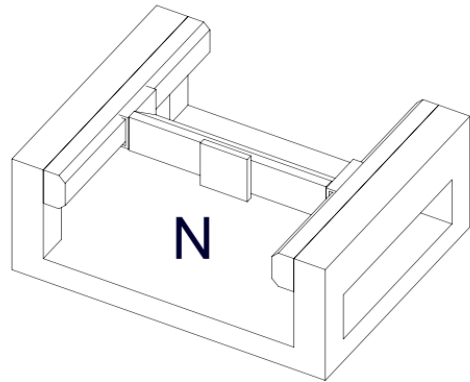
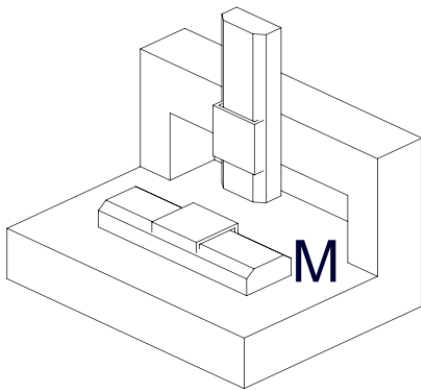
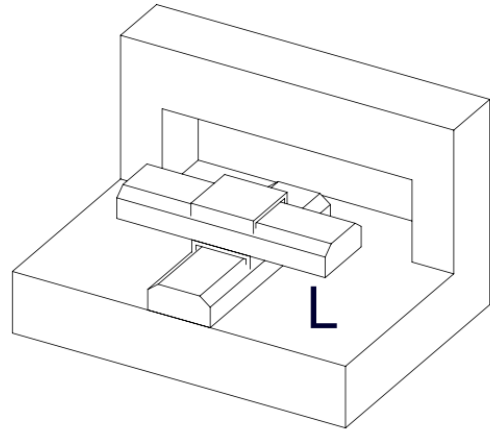
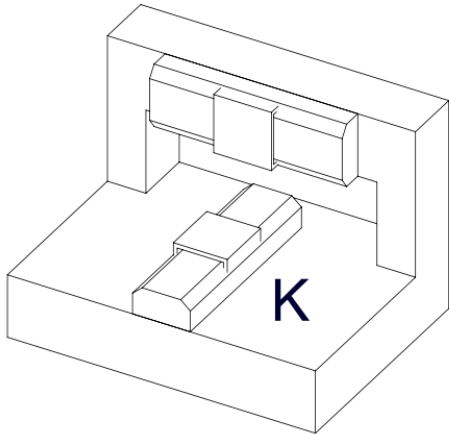
Description of motion requirements (the motion curve can be attached) _____

Parameter	Unit	Numerical value	Parameter	Unit	Numerical value
Total stroke	mm		Positioning accuracy	μm	
Load	KG		Repetitive positioning accuracy	μm	
Friction	N		Dimension requirement (L*W*H)	mm	
Max. motion speed	m/s		Planeness	μm	
Cycle time	s		Perpendicularity	μm	
Maximum acceleration	m/s ²				
Maximum speed time	s				
Acceleration time	s				

Attachment 1



Attachment 2





Customer Consultation Center

[Catalog request, technical consultation, product clarification](#)

400-960-1069 sales hotline

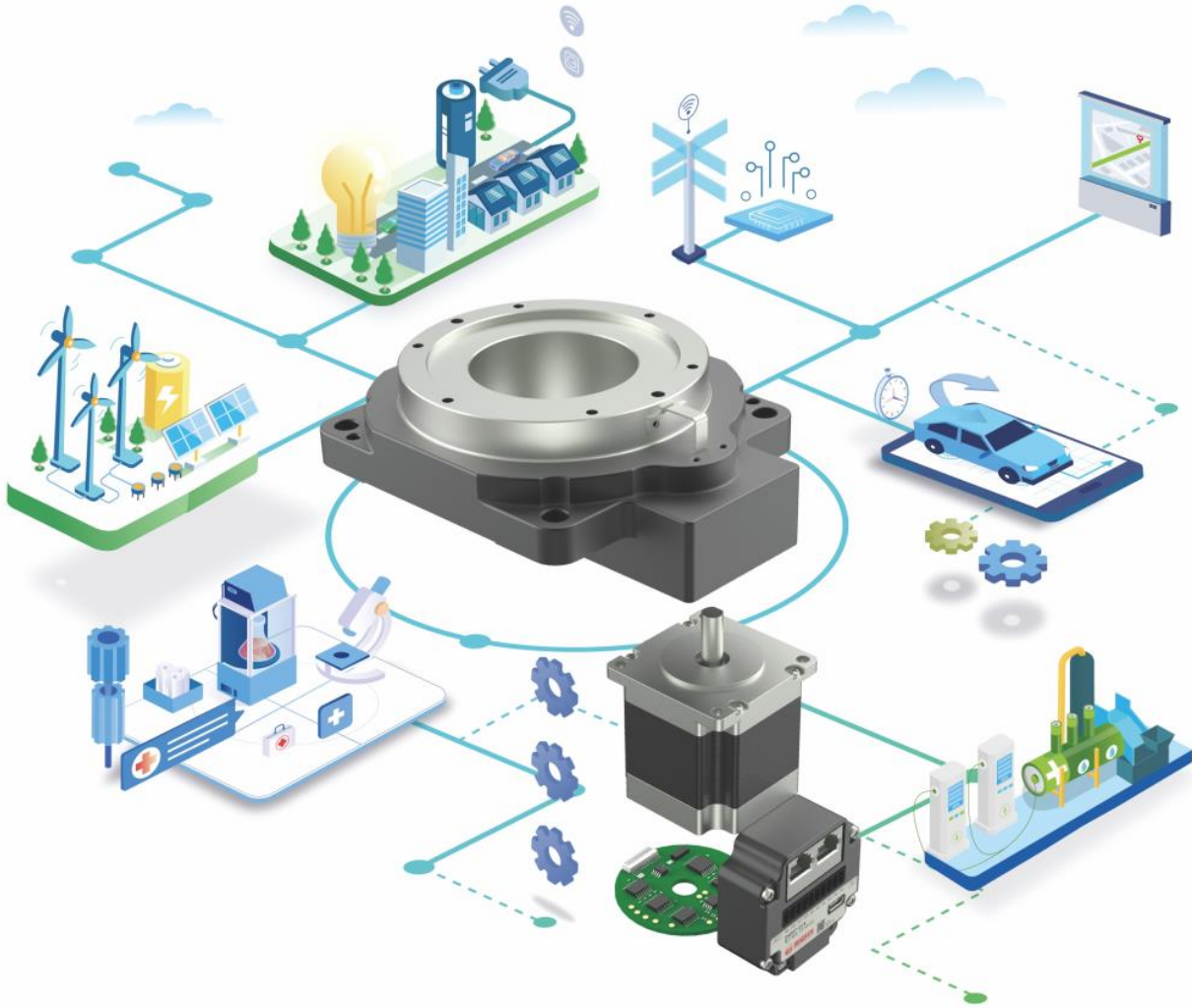
For more newer consultation with Kaifull, please scan the QR

code to follow up



WeChat official account

Official website



Boosting the world's intelligent factory, intelligently creating a beautiful and happy life

Guangdong Kaifull Electronics Technology Co., Ltd.

Tel: 400-960-1069

Official website: www.kaifull.net

Dongguan headquarters: Kaifull Science and Technology Park, No. 5 Gaolong East Road, Gaoshe Town, Dongguan City, Guangdong

Suzhou branch address: 611, Block A, Zhongbo Science and Technology Park, No. 999 Donghuan South Road, Guoxiang Street, Wuzhong District, Suzhou

Address of Wuhan Branch: 1806, Building B, Optics Valley Times Plaza, No. 111 Guanshan Road, Hongshan District, Wuhan

Version April 2024

All rights reserved; the responsibilities shall be investigated for any reproduction.