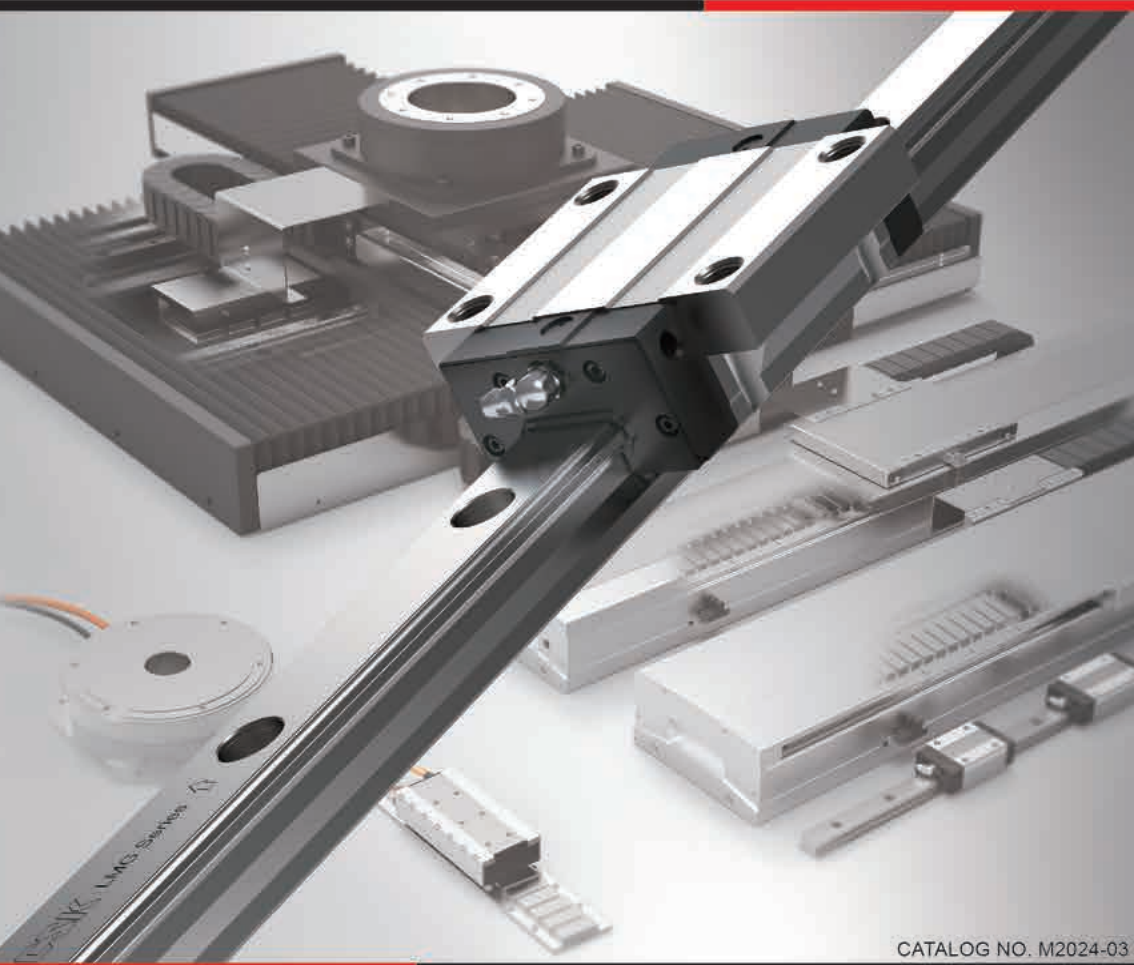


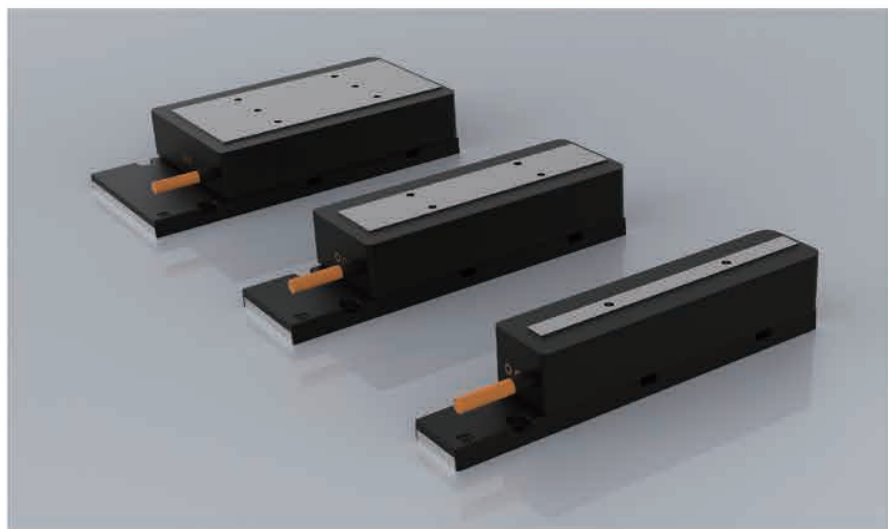
Products Information



CATALOG NO. M2024-03

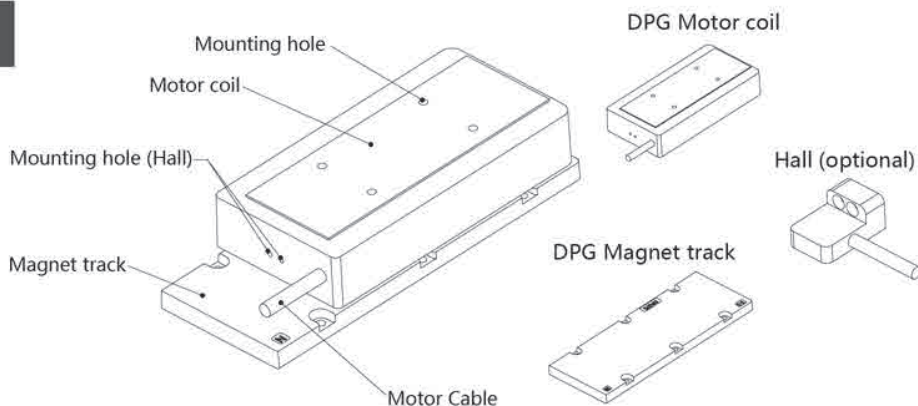
Iron Core Linear Motor

DPG series



Construction

DPG



Note: For reference only.

Characteristics

The DPG series belongs to the high-speed, high-thrust linear motors with high magnetic density. The magnetic tracks are integrally encapsulated, which prevents the magnets from performance degradation due to long-term temperature effects and also protects against the dangers of electrostatic sparks, making it more durable and safer.

- High speed up to 5m/s
- High force density
- Low speed fluctuation
- Smooth operation, no obvious frustration
- Provide accurate magnetic attraction
- Peak force: 87.7N~2000N
- Continuous thrust: 25.3N~691.6N
- Itinerary be extended indefinitely
- Parameters are accurate and reliable
- Hall sensor is available

Applications

Machine Tools (CNC, etc.)

Semiconductor Manufacturing Equipment

Industrial Robots

Gantry dual drive system

Specifications

(1) Motor coil

Series

DPG

Size

35, 45, 55, 65, 75, 95

Number of motor coils

C1, C2, C3, C4

Special symbol

No symbol: Standard

Special: No symbol, A, B ... (For other requirements, please consult CSK)

DPG 35 C1

DPG

(2) Magnet track

Series

DPG

Size

35, 45, 55, 65, 75, 95

Magnet track length

M128

M192

Special symbol

No symbol: Standard

Special: No symbol, A, B ... (For other requirements, please consult CSK)

DPG 35 M128

(3) Hall sensor

Series

HA: Code of hall

Motor type code

D: Direct drive motor

.....

Matching code

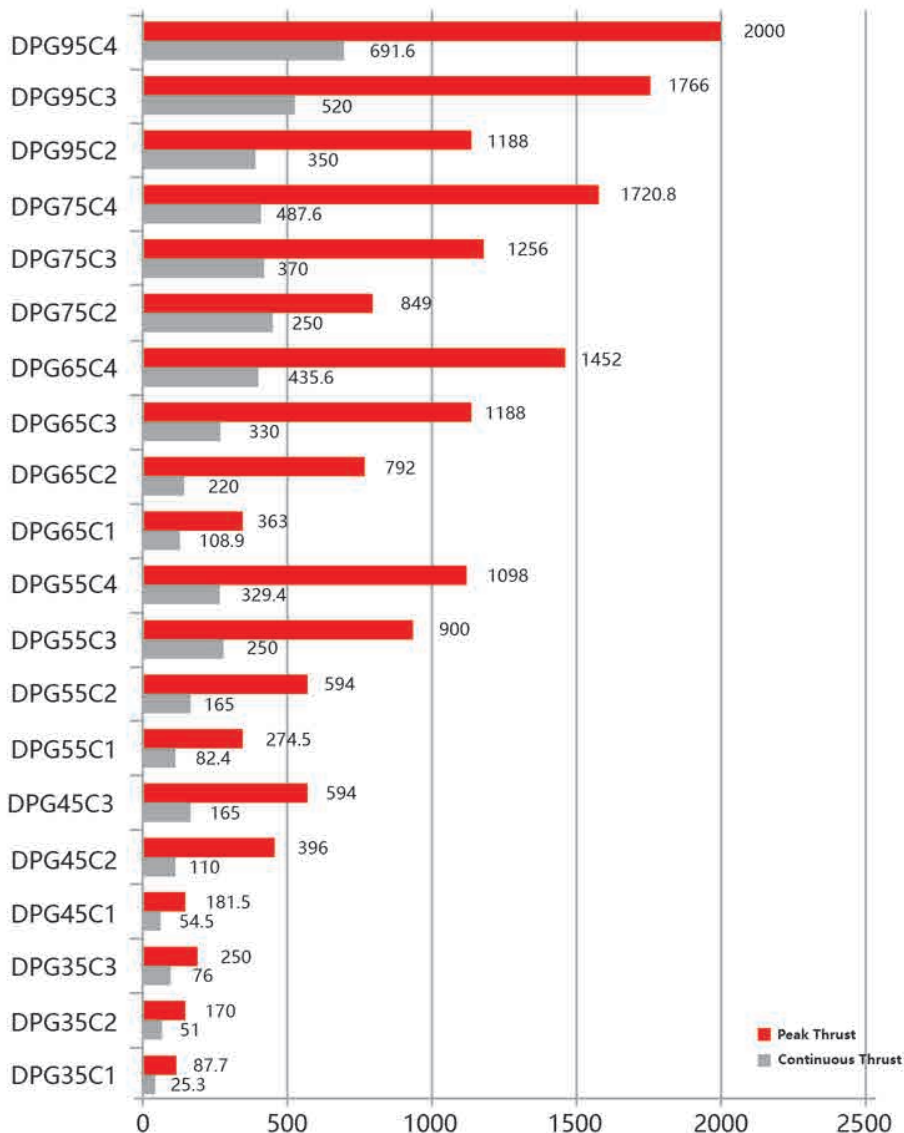
PG: DPG series

.....

HA D PG

Thrust

DPG



■ Peak Thrust

■ Continuous Thrust

DPG Technical parameters

DPG

Performance	Unit	DPG35C1	DPG35C2	DPG35C3	DPG45C1	DPG45C2	DPG45C3	DPG55C1	DPG55C2	DPG55C3	DPG55C4
Peak Force(1 sec.)	N	87.7	170	250	181.5	396	594	274.5	594	900	1098
Continuous Force	N	25.3	51	76	54.5	110	165	82.4	165	250	329.4
Peak Power @25°C (1s)	W	751	1793	2252	935	1870	2805	1202	2283	3424	4566
Continuous Power @25°C	W	62	124	188	84	168	252	108	205	308	411
Electrical											
Peak Current (rms) (1s)	A	10	10	10	15	18	18	18	18	18	18
Continuous Current (rms)	A	3	3	3	5.5	5.5	5.5	5.8	5.8	5.8	5.8
Force Constant	N/A	8.4	17.0	25.0	12.1	22.0	33.0	16.5	33.0	50.0	65.9
Back EMF Constant (L-L)	Vpk/(m/s)	4.5	12.5	22.1	8.7	19.6	31.4	14.1	24.6	42.4	59.5
Resistance @25°C ((L-L)	Ohm	1.2	2.3	3.5	1.5	3	4.4	1.9	3.7	5.5	7.3
Inductance @1kHz ((L-L)	mH	4.7	11.2	16.5	5.2	15	24.7	10.6	22.2	32	42.6
Electrical Time Constant	ms	3.9	4.9	4.7	3.6	5.1	5.6	5.6	6.0	5.8	5.8
Max. DC BUS	V _{DC}	330									
Thermal											
Max. Coil Temperature	°C	120									
Thermal Resistance @105°C	°C/W	1.90	2.30	1.58	1.40	1.10	0.73	1.11	0.73	0.34	0.29
Mechanical											
Electrical Cycle Length	mm	32									
Coil Weight	kg	0.3	0.5	0.8	0.4	0.8	1.1	0.6	1.1	1.6	2
Attraction Force	kN	0.2	0.3	0.4	0.3	0.5	0.7	0.5	0.8	1.1	1.4
Track Weight	kg/m	1.6			2.2			2.9			
Cooling Type		Natural oil-cooling									

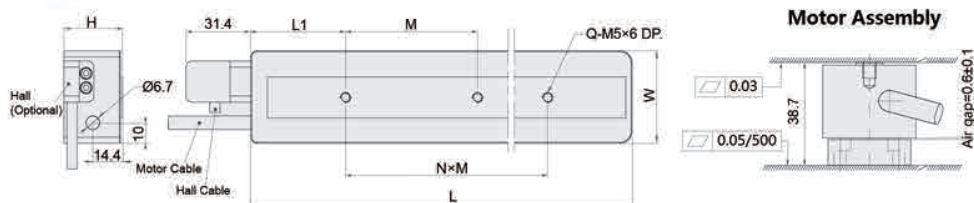
DPG Technical parameters

DPG

Performance	Unit	DPG65C1	DPG65C2	DPG65C3	DPG65C4	DPG75C2	DPG75C3	DPG75C4	DPG95C2	DPG95C3	DPG95C4
Peak Force(1 sec.)	N	363	792	1188	1452	849	1256	1720.8	1188	1766	2000
Continuous Force	N	108.9	220	330	435.6	250	370	487.6	350	520	691.6
Peak Power @25°C (1s)	W	1445	2600	4765	5200	3188	4782	6376	4038	6058	8077
Continuous Power @25°C	W	130	234	351	468	256	384	512	324	486	648
Electrical											
Peak Current (rms) (1s)	A	18	18	18	18	18	18	18	18	18	18
Continuous Current (rms)	A	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Force Constant	N/A	21.8	44.0	66	87	47	69.8	95.6	66	98	130.5
Back EMF Constant (L-L)	Vpk/(m/s)	15.4	35.8	51.9	78.5	41.2	68.5	97.2	48	72	98
Resistance @25°C ((L-L)	Ohm	2.3	4.6	6.4	8.7	4.9	7.6	9.8	6.4	8.9	12.8
Inductance @1kHz ((L-L)	mH	12.7	27.7	41.3	54	31.5	47.5	62.8	42.9	63.8	80.9
Electrical Time Constant	ms	5.6	6.1	6.4	6.2	6.5	6.2	6.4	6.7	7.2	6.3
Max. DC BUS	V _{DC}	330									
Thermal											
Max. Coil Temperature	°C	120									
Thermal Resistance @105°C	°C/W	0.92	0.55	0.3	0.26	0.41	0.27	0.23	0.32	0.22	0.19
Mechanical											
Electrical Cycle Length	mm	32									
Coil Weight	kg	0.7	1.4	1.9	2.5	1.6	2.3	3	2.1	3.1	4
Attraction Force	kN	0.6	1	1.4	1.8	1.3	1.8	2.3	1.8	2.5	3.2
Track Weight	kg/m	3.5			4.2			5.6			
Cooling Type		Natural air-cooling									

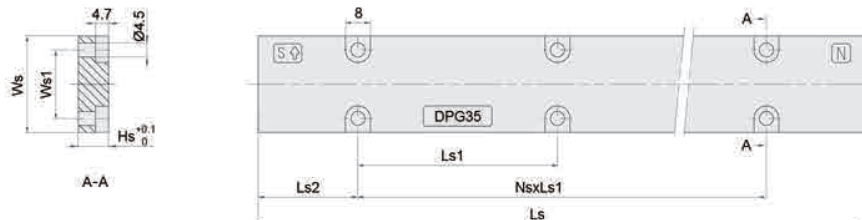
Dimensions of DPG35

(1) Dimensions of Motor Coil



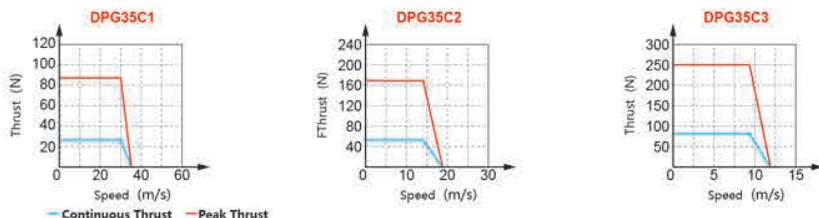
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPG35C1	87	24.7	42.7	1	2	35	10	28.4
DPG35C2	151	46	64	1	2	35	10	28.4
DPG35C3	215	46	64	2	3	35	10	28.4

(2) Dimensions of Magnet Track



Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs
DPG35M128	128	64	32	1	4	31	22	9.7
DPG35M192	192	64	32	2	6	31	32	9.7

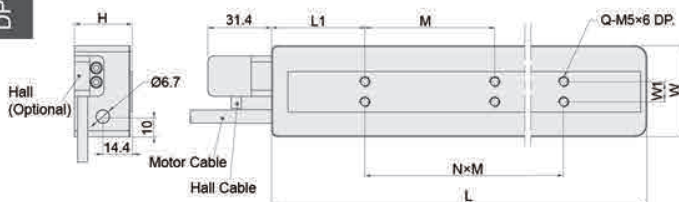
(3) Thrust and speed



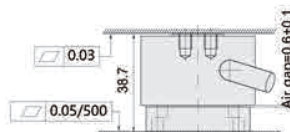
Dimensions of DPG45

(1) Dimensions of Motor Coil

DPG

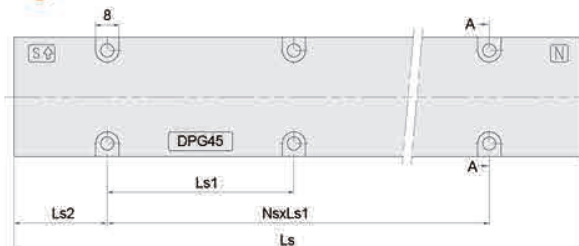


Motor Assembly



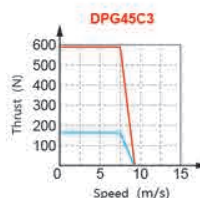
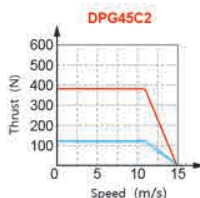
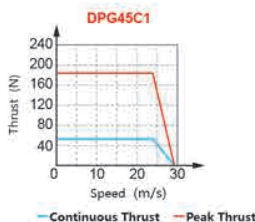
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPG45C1	87	24.7	42.7	1	4	45	10	28.4
DPG45C2	151	46	64	1	4	45	10	28.4
DPG45C3	215	46	64	2	6	45	10	28.4

(2) Dimensions of Magnet Track



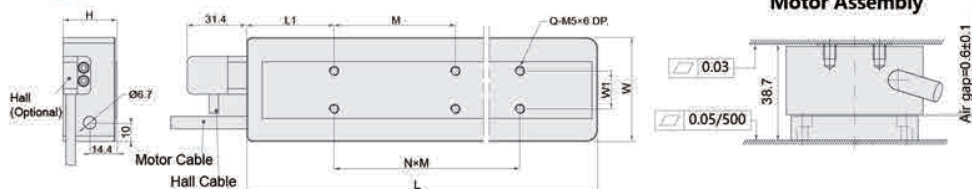
Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs
DPG45M128	128	64	32	1	4	41	32	9.7
DPG45M192	192	64	32	2	6	41	32	9.7

(3) Thrust and speed



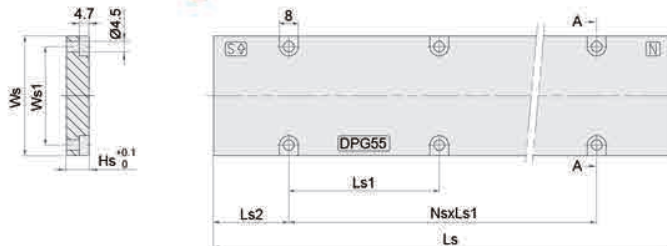
Dimensions of DPG55

(1) Dimensions of Motor Coil



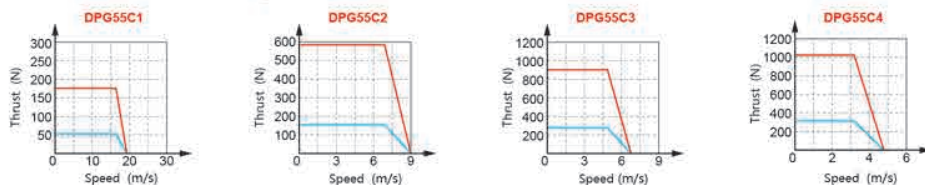
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPG55C1	87	24.7	42.7	1	4	55	20	28.4
DPG55C2	151	46	64	1	4	55	20	28.4
DPG55C3	215	46	64	2	6	55	20	28.4
DPG55C4	279	46	64	3	8	55	20	28.4

(2) Dimensions of Magnet Track



Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs
DPG55M128	128	64	32	1	4	51	42	9.7
DPG55M192	192	64	32	2	6	51	42	9.7

(3) Thrust and speed



— Continuous Thrust — Peak Thrust

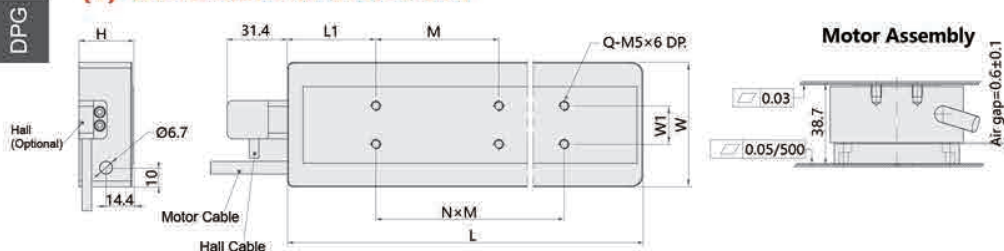
TEL +86 16653137076

E-mail info@cskmotions.com

F-09

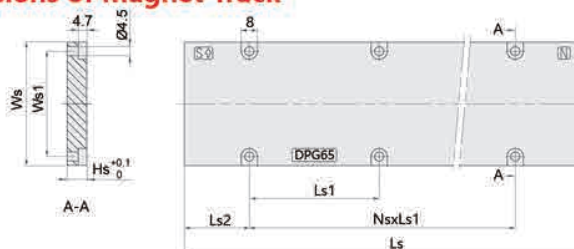
Dimensions of DPG65

(1) Dimensions of Motor Coil



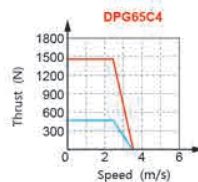
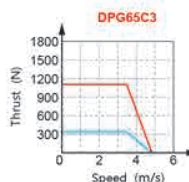
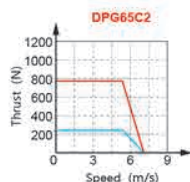
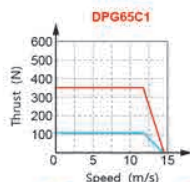
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPG65C1	87	24.7	42.7	1	4	65	20	28.4
DPG65C2	151	46	64	1	4	65	20	28.4
DPG65C3	215	46	64	2	6	65	20	28.4
DPG65C4	279	46	64	3	8	65	20	28.4

(2) Dimensions of Magnet Track



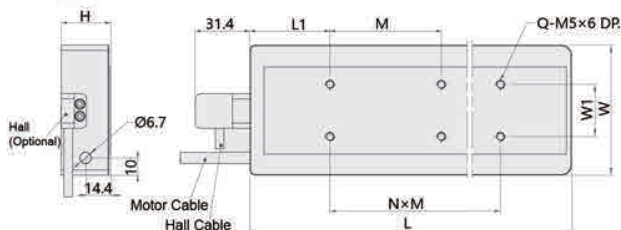
Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs
DPG65M128	128	64	32	1	4	61	52	9.7
DPG65M192	192	64	32	2	6	61	52	9.7

(3) Thrust and speed

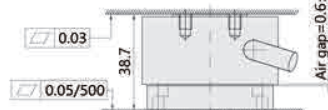


Dimensions of DPG75

(1) Dimensions of Motor Coil



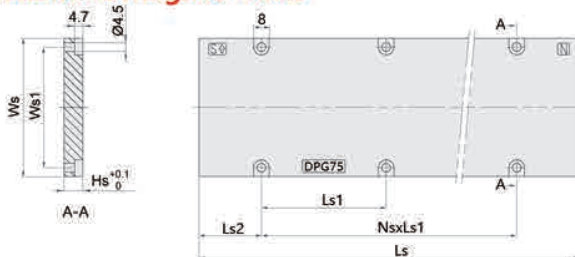
Motor Assembly



DPG

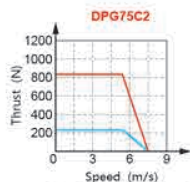
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPG75C2	151	46	64	1	4	75	30	28.4
DPG75C3	215	46	64	2	6	75	30	28.4
DPG75C4	279	46	64	3	8	75	30	28.4

(2) Dimensions of Magnet Track

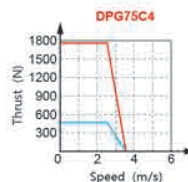
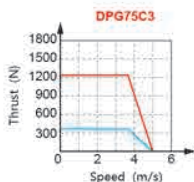


Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs
DPG75M128	128	64	32	1	4	71	62	9.7
DPG75M192	192	64	32	2	6	71	62	9.7

(3) Thrust and speed

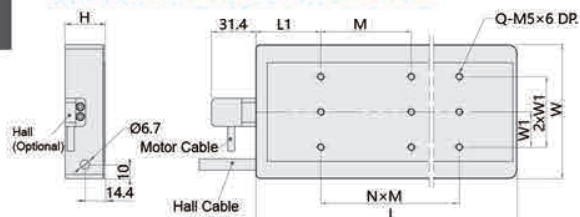


— Continuous Thrust — Peak Thrust



Dimensions of DPG95

(1) Dimensions of Motor Coil

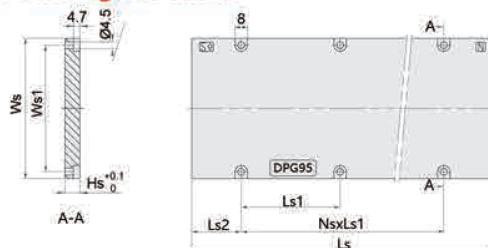


Motor Assembly



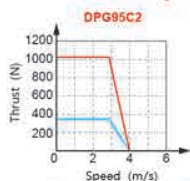
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPG95C2	151	46	64	1	4	95	25	28.4
DPG95C3	215	46	64	2	6	95	25	28.4
DPG95C4	279	46	64	3	8	95	25	28.4

(2) Dimensions of Magnet Track

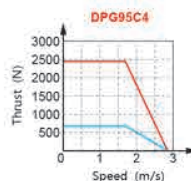
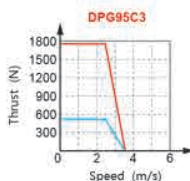


Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs
DPG95M128	128	64	32	1	4	91	82	9.7
DPG95M192	192	64	32	2	6	91	82	9.7

(3) Thrust and speed

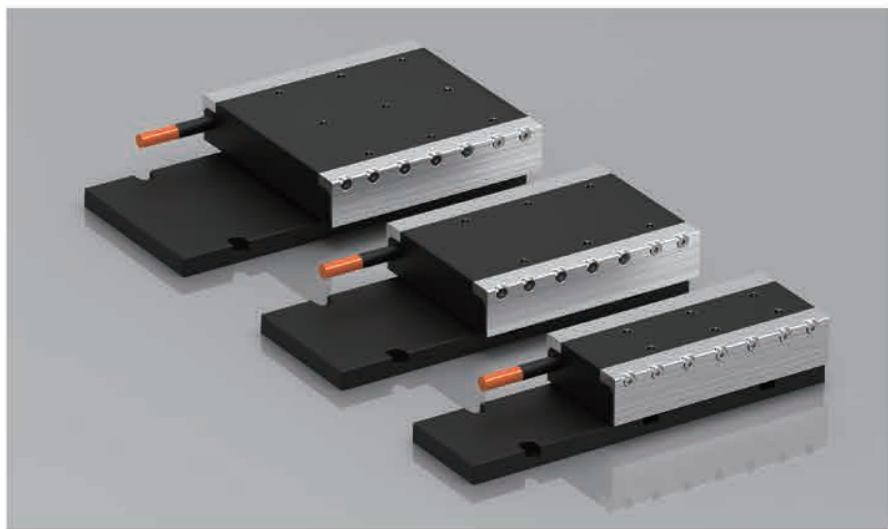


— Continuous Thrust — Peak Thrust

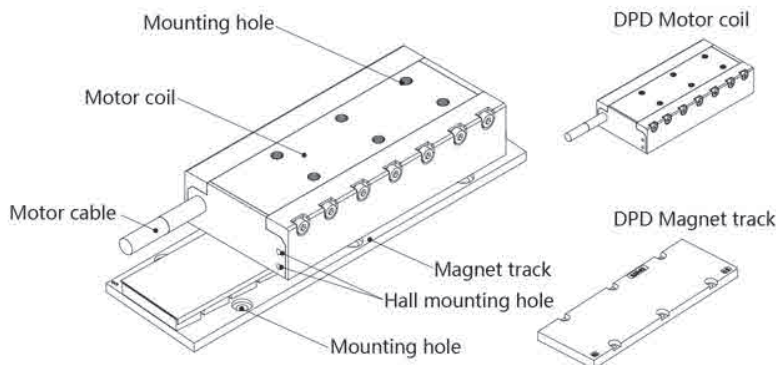


Iron Core Linear Motor

DPD series (Standard)



Construction



Note: For reference only.

Characteristics

DPD series motors are ultra-thin linear motors with high force density and low cogging force. The linear motor of this series consists of motor coil and magnetic track. The motor coil can be combined to form a new ultra-thin high force motor. The length of magnetic track can be customized and the stroke can be selected.

- Ultra-thin
- High response
- Small end effects
- Low cogging force
- Precise magnetic attraction
- Peak force: 285N~2496N
- Continuous force: 95N~832N
- Maximum speed up to 8m/s
- Customization
- Hall sensor optional

Applications

Machine Tool (CNC, Lathe ...) Semiconductor Manufacturing Equipment
Industrial Robot Other (Injection Molding Machine ...)

Specifications

(1) Motor coil

	DPD	56	C2
Series			
DPD: Standard			
Size			
56: The width of the motor coil is 56mm			
86			
116			
Number of motor coils			
C2: 2			
C4			
C6			
Special symbol			
No symbol: Standard			
Special: No symbol, A, B ... (For other requirements, please consult CSK)			

DPD

(2) Magnet track

	DPD	56	M120
Series			
DPD: Standard			
Size			
56: The width of the motor coil is 56mm			
86			
116			
Magnet track length			
M120: 120mm			
M180			
M300			
Special symbol			
No symbol: Standard			
Special: No symbol, A, B ... (For other requirements, please consult CSK)			

(3) Hall sensor

	HA	D	PD
Series			
HA: Code of hall			
Motor type code			
D: Direct drive motor			
.....			
Matching code			
PD: DPD series			
.....			

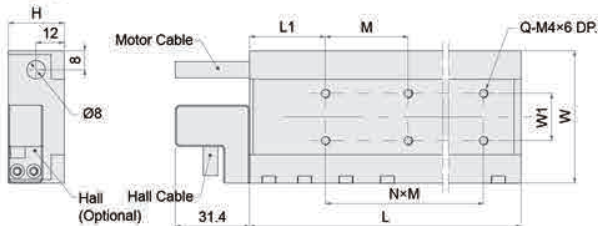
DPD Technical parameters

DPD

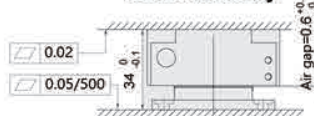
Performance	Unit	DPD56C2	DPD56C4	DPD56C6	DPD86C2	DPD86C4	DPD86C6	DPD116C2	DPD116C4	DPD116C6
Peak Force(1 sec.)	N	285	576	858	588	1092	1677	690	1620	2496
Continuous Force	N	95	192	286	196	364	559	230	540	832
Peak Power @25°C (1s)	W	285	576	858	588	1092	1677	690	1620	2496
Continuous Power @25°C	W	95	192	286	196	364	559	230	540	832
Electrical										
Peak Current (rms) (1s)	A	6.6	12.6	18.9	6.6	12.2	19.2	6.6	12.1	19.2
Continuous Current (rms)	A	2.2	4.2	6.3	2.2	4	6.4	2.2	4	6.4
Force Constant	N/A	43.2	45.7	45.4	89.1	91	87.3	104.5	135	130
Back EMF Constant (L-L)	Vpk/(m/s)	38.6	38.3	36.9	74.8	74.1	71.4	113.6	106.2	105.9
Resistance @25°C ((L-L)	Ohm	4.53	2.6	1.7	7.86	4.08	3.2	10.5	5.7	3.5
Inductance @1kHz ((L-L)	mH	21	11.46	7.4	41	20.1	13.5	65.46	29	21.87
Electrical Time Constant	ms	4.64	4.41	4.35	5.22	4.93	4.22	6.23	5.09	6.25
Max. DC BUS	V _{DC}	330								
Thermal										
Max. Coil Temperature	°C	120								
Thermal Resistance @105°C	°C/W	1.3	0.6	0.4	0.6	0.3	0.2	0.5	0.2	0.1
Mechanical										
Electrical Cycle Length	mm	30								
Coil Weight	kg	0.82	1.44	2.1	1.18	2.4	3.51	1.79	3.35	4.92
Attraction Force	kN	0.75	1.47	2.17	1.45	2.85	4.19	2.15	4.2	6.28
Track Weight	kg/m	3			5.3			9.5		
Cooling Type		Natural oil-cooling								

Dimensions of DPD56

(1) Dimensions of Motor Coil



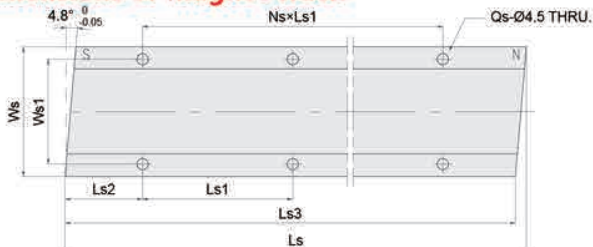
Motor Assembly



DPD

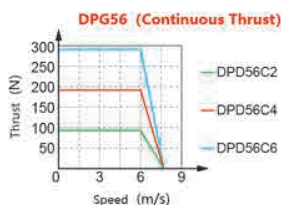
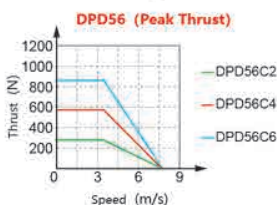
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPD56C2	118	32	35	2	6	56	20	23.7
DPD56C4	223	32	35	5	12	56	20	23.7
DPD56C6	328	32	35	8	18	56	20	23.7

(2) Dimensions of Magnet Track



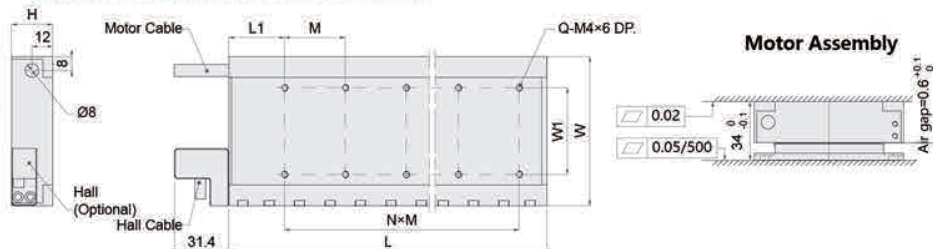
Magnet Track SPC.	Ls	Ls1	Ls2	Ls3	Ns	Qs	Ws	Ws1	Hs	Hs1
DPD56M120	124.4	60	31	120	1	4	52	42	9.6	4
DPD56M180	184.4	60	31	180	2	6	52	42	9.6	4
DPD56M300	304.4	60	31	300	4	10	52	42	9.6	4

(3) Thrust and speed



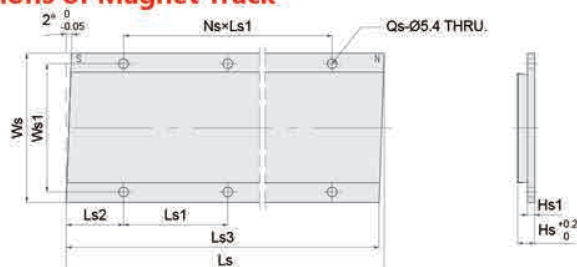
Dimensions of DPN86

(1) Dimensions of Motor Coil



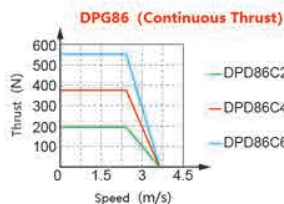
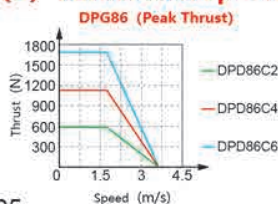
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPD86C2	118	32	35	2	6	86	50	23.7
DPD86C4	223	32	35	5	12	86	50	23.7
DPD86C6	328	32	35	8	18	86	50	23.7

(2) Dimensions of Magnet Track



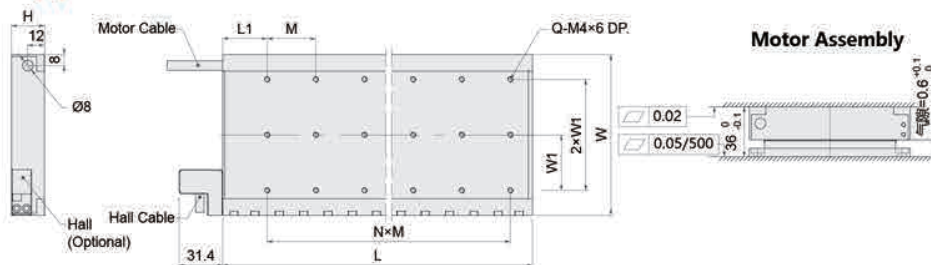
Magnet Track SPC.	Ls	Ls1	Ls2	Ls3	Ns	Qs	Ws	Ws1	Hs	Hs1
DPD86M120	123	60	31	120	1	4	86	74	9.6	4
DPD86M180	183	60	31	180	2	6	86	74	9.6	4
DPD86M300	303	60	31	300	4	10	86	74	9.6	4

(3) Thrust and speed



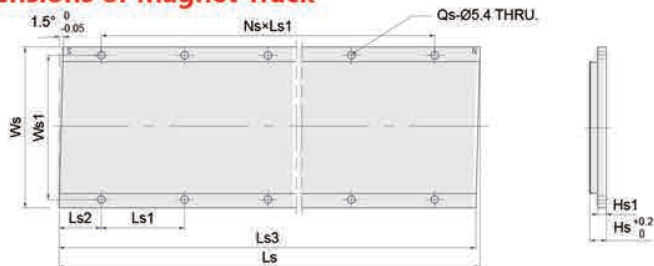
Dimensions of DPN116

(1) Dimensions of Motor Coil



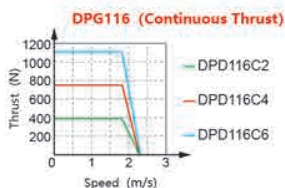
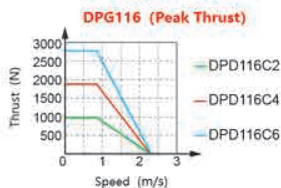
Coil SPC.	L	L1	M	N	Q	W	W1	H
DPD116C2	118	32	35	2	9	116	40	23.7
DPD116C4	223	32	35	5	18	116	40	23.7
DPD116C6	328	32	35	8	27	116	40	23.7

(2) Dimensions of Magnet Track



Magnet Track SPC.	Ls	Ls1	Ls2	Ls3	Ns	Qs	Ws	Ws1	Hs	Hs1
DPD116M120	123	60	30.4	120	1	4	116	104	11.6	6
DPD116M180	183	60	30.4	180	2	6	116	104	11.6	6
DPD116M300	303	60	30.4	300	4	10	116	104	11.6	6

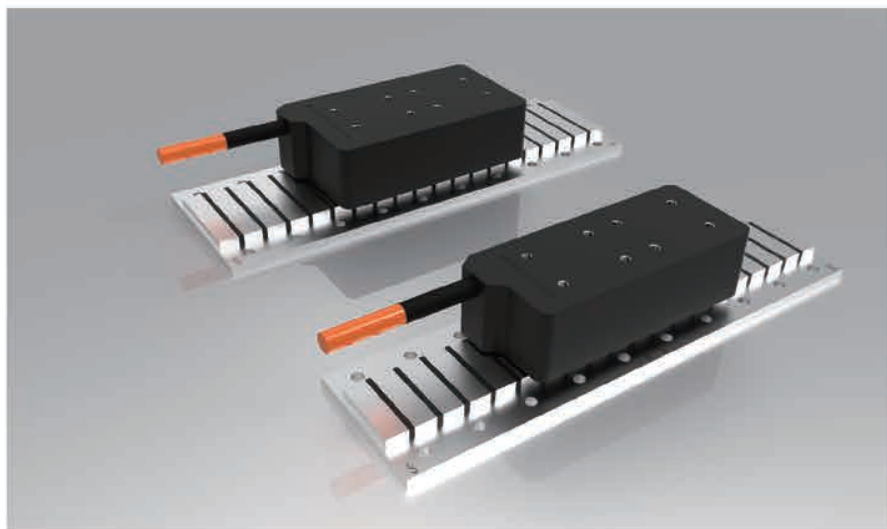
(3) Thrust and speed



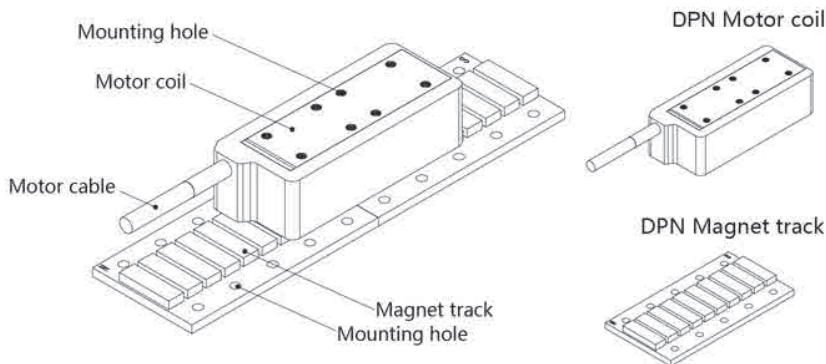
Iron Core Linear Motor

DPN series (Small size)

DPN



Construction



DPN

Note: For reference only.

Characteristics

DPN series motors are small linear motors with small size, high force and small magnetic attraction. The linear motor of this series consists of motor coil and magnetic track. The moving part can be a motor coil or a magnetic track, suitable for short stroke. These motors have the characteristics of high acceleration and high speed, which are suitable for testing industry.

- Small size
- High response
- Small end effects
- Low cogging force
- Precise magnetic attraction
- Peak force: 75N~240N
- Continuous force: 25N~80N
- Maximum speed up to 8m/s
- Customization
- Hall sensor optional

Applications

Machine Tool (CNC, Lathe ...)

Semiconductor Manufacturing Equipment

Industrial Robot

Other (Injection Molding Machine ...)

TEL +86 16653137076

E-mail info@cskmotions.com

H-01 |

Specifications

(1) Motor coil

DPN

	DPN	30	C2
Series			
DPN: Small size			
Size			
30: The width of the motor coil is 30mm			
40			
Number of motor coils			
C2: 2			
C4			
Special symbol			
No symbol: Standard			
Special: No symbol, A, B ... (For other requirements, please consult CSK)			

(2) Magnet track

	DPN	30	M75
Series			
DPN: Small size			
Size			
30: The width of the motor coil is 30mm			
40			
Magnet track length			
M75: 75mm			
Special symbol			
No symbol: Standard			
Special: No symbol, A, B ... (For other requirements, please consult CSK)			

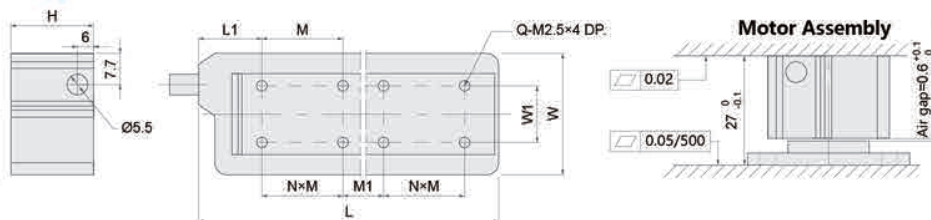
DPN Technical parameters

DPN

Performance	Unit	DPN30C2	DPN30C4	DPN40C2	DPN40C4
Peak Force (1s)	N	75	150	120	240
Continuous Force	N	25	50	40	80
Peak Power @25°C (1s)	W	56.3	112.5	90	180
Continuous Power @25°C	W	18.8	37.5	30	60
Electrical					
Peak Current (rms) (1s)	A	4.5	4.5	4.5	4.5
Continuous Current (rms)	A	1.5	1.5	1.5	1.5
Force Constant	N/A	16.67	33.33	26.67	53.33
Back EMF Constant (L-L)	Vpk/(m/s)	29.13	58.26	43.5	86.8
Resistance @25°C (L-L)	Ohm	14.71	29.41	20.5	36
Inductance @1kHz (L-L)	mH	22.06	60.47	47.9	86.8
Electrical Time Constant	ms	1.5	2.06	2.34	2.41
Max. DC BUS	V _{DC}	300			
Thermal					
Max. Coil Temperature	°C	120			
Thermal Resistance @105°C	°C/W	6.4	3.2	4	2
Mechanical					
Electrical Cycle Length	mm	15			
Coil Weight	kg	0.09	0.18	0.12	0.24
Attraction Force	kN	0.2	0.4	0.3	0.56
Track Weight	kg/m	1.35		1.68	
Cooling Type		Natural oil-cooling			

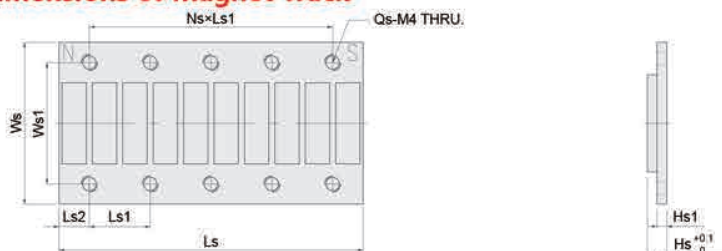
Dimensions of DPN30

(1) Dimensions of Motor Coil



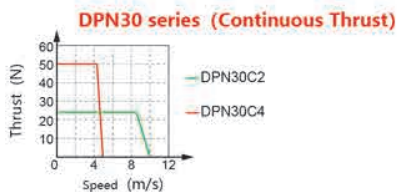
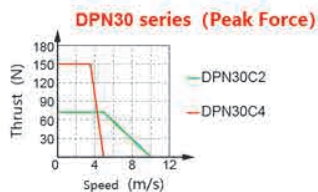
Coil SPC.	L	L1	M	M1	N	Q	W	W1	H
DPN30C2	74	15.6	20	10	1	8	30	14	20.4
DPN30C4	134	15.6	20	30	2	12	30	14	20.4

(2) Dimensions of Magnet Track



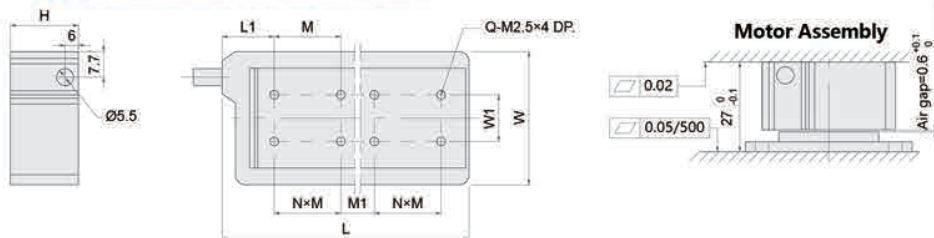
Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs	Hs1
DPN30M60	60	15	7.5	3	8	40	30	6	3
DPN30M75	75	15	7.5	4	10	40	30	6	3
DPN30M120	120	15	7.5	7	16	40	30	6	3
DPN30M180	180	15	7.5	11	24	40	30	6	3
DPN30M240	240	15	7.5	15	32	40	30	6	3
DPN30M300	300	15	7.5	19	40	40	30	6	3

(3) Thrust and speed



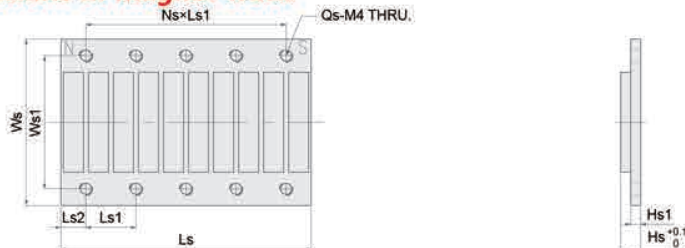
Dimensions of DPN40

(1) Dimensions of Motor Coil



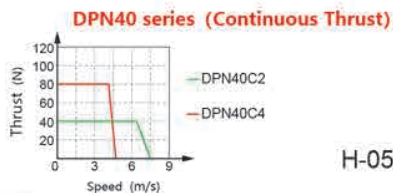
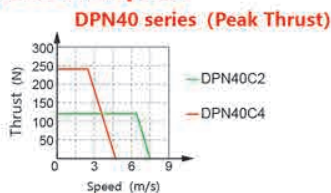
Coil SPC.	L	L1	M	M1	N	Q	W	W1	H
DPN40C2	74	15.6	20	10	1	8	40	14	20.4
DPN40C4	134	15.6	20	30	2	12	40	14	20.4

(2) Dimensions of Magnet Track



Magnet Track SPC.	Ls	Ls1	Ls2	Ns	Qs	Ws	Ws1	Hs	Hs1
DPN40M60	60	15	7.5	3	8	50	40	6	3
DPN40M75	75	15	7.5	4	10	50	40	6	3
DPN40M120	120	15	7.5	7	16	50	40	6	3
DPN40M180	180	15	7.5	11	24	50	40	6	3
DPN40M240	240	15	7.5	15	32	50	40	6	3
DPN40M300	300	15	7.5	19	40	50	40	6	3

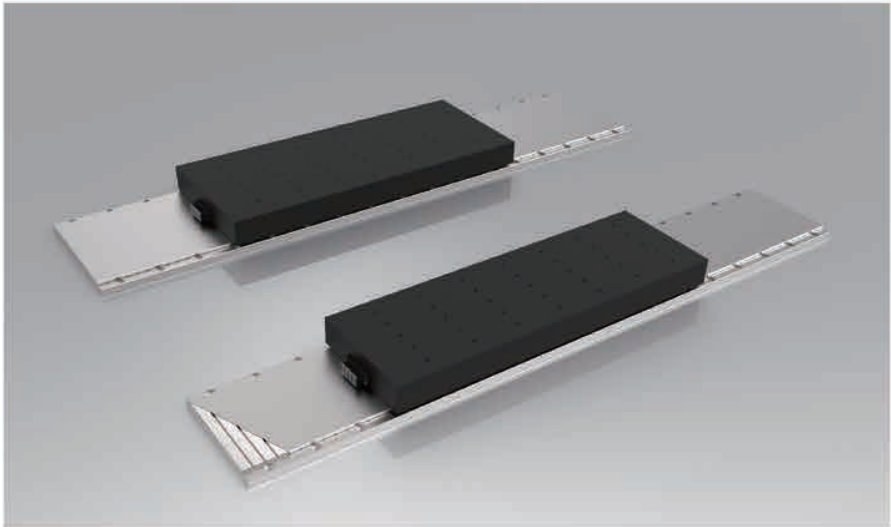
(3) Thrust and speed



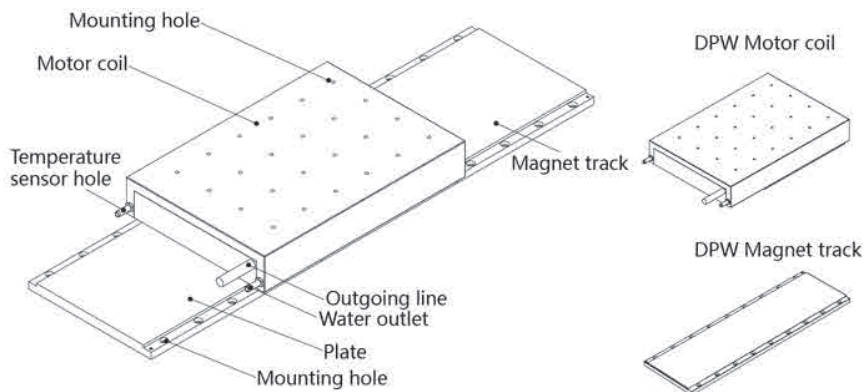
Iron Core Linear Motor

DPW-F series (Heavy load water cooling)

DPW



Construction



Note: For reference only.

Characteristics

DPWF series motors are high force flat plate linear motors with high load, more than 1KN of force. The linear motor of this series consists of motor coil and magnetic track. These motors have the characteristics of low speed, high force and high load, which are suitable for large equipment and high load conditions.

- The force is more than 1KN
- High load capacity
- Suitable for low speed operation
- Peak force: 1960.4N~7861N
- Continuous force: 1023.6N~3931.2N
- Customization

Applications

Machine Tool (CNC, EDM ...)

Laser industry

Logistics handling

Other (Gantry double drive system ...)

Specifications

(1) Motor coil

DPW

Series

DPW: High force

Size

180: The width of the motor coil is 180mm

230

Number of motor coils

C4: 4

C8

C12

C16

water cooling

Special symbol

No symbol: Standard

Special: No symbol, A, B ... (For other requirements, please consult CSK)

DPW 180 C4 F

(2) Magnet track

Series

DPW: High force

Size

180: The width of the motor coil is 180mm

230

Magnet track length

M256: 256mm

M320

M512

M576

Special symbol

No symbol: Standard

Special: No symbol, A, B ... (For other requirements, please consult CSK)

DPW 180 M256

DPW Technical parameters

DPW

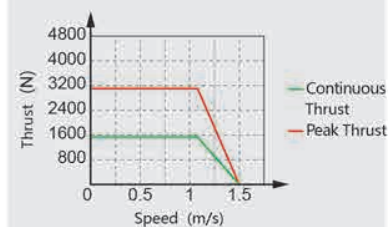
Performance	Unit	DPW180C4F	DPW180C8F	DPW180C12F	DPW180C16F	DPW230C4F	DPW230C8F	DPW230C12F	DPW230C16F
Peak Force(1 sec.)	N	3040	5416	6912	9031	4121	7250	8743	10621
Continuous Force	N	1580	2844	3595	4511	2060	3816	4670	5556
Electrical									
Peak Current (rms) (1s)	A	16	32	48	64	16	32	48	64
Continuous Current (rms)	A	8	16	24	32	8	16	24	32
Force Constant	N/A	197.5	177.8	149.8	141	257.5	238.5	194.6	173.6
Back EMF Constant (L-L)	V _{pk} /(m/s)	190	120.2	153.5	122	251.1	160.7	203	162.7
Resistance @25°C (L-L)	Ohm	7.78	3.89	2.9	1	10.1	5.04	3.36	2.52
Inductance @1kHz (L-L)	mH	100.5	51.25	33.1	15.3	134	68.4	50.2	29.8
Electrical Time Constant	ms	12.9	13.2	11.4	15.3	13.3	13.6	14.9	11.8
Max. DC BUS	V _{DC}	330							
Thermal									
Max. Coil Temperature	°C	120							
Thermal Resistance @105°C	°C/W	0.11	0.04	0.04	0.03	0.1	0.04	0.03	0.02
Mechanical									
Electrical Cycle Length	mm	32							
Coil Weight	kg	6.8	13.5	20.2	27	8.5	16.9	25.3	33.7
Attraction Force	kN	4.93	9.98	14.97	19.9	6.5	13.3	19.95	26.5
Track Weight	kg/m	20.9				26.3			
Cooling Type		Natural oil-cooling							

1-05 |

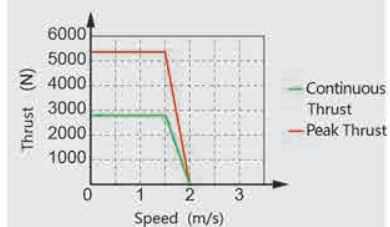
DPW series technical analysis

DPW

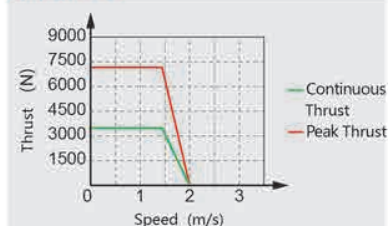
DPW180C4



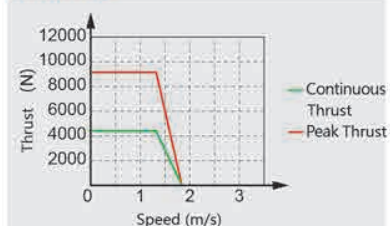
DPW180C8



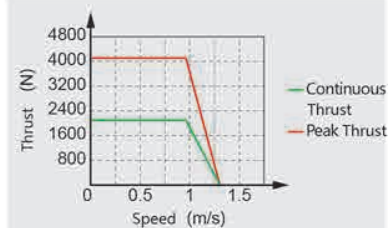
DPW180C12



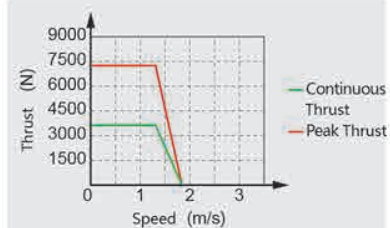
DPW180C16



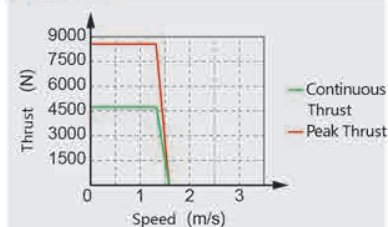
DPW230C4



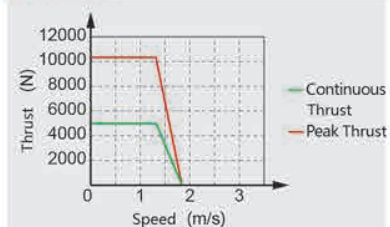
DPW230C8



DPW230C12

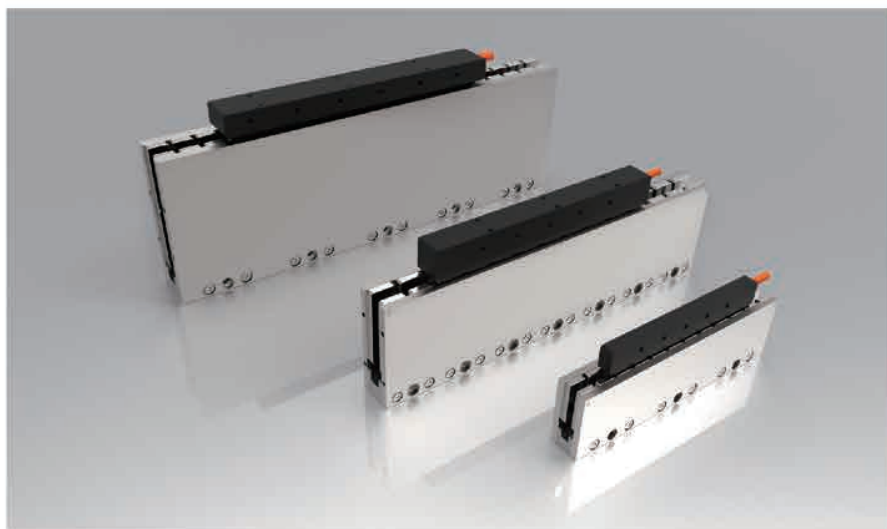


DPW230C16



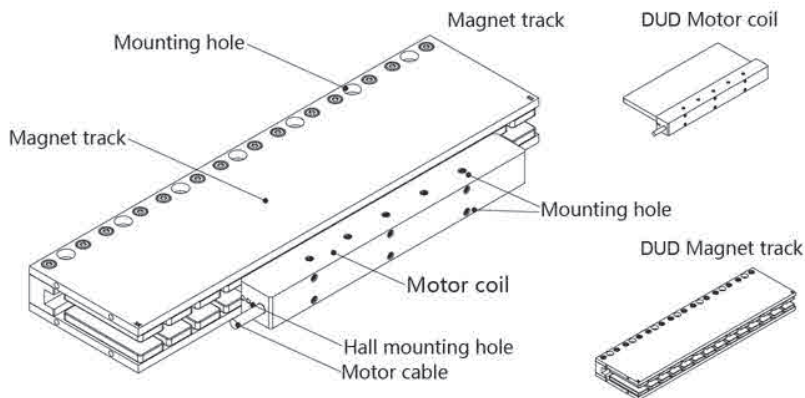
Ironless Linear Motor

DUD series



DUD

Construction



Note: For reference only.

Characteristics

DUD series motors are ironless linear motors with no cogging force and low speed fluctuation. The linear motor of this series consists of motor coil and magnetic track. There is no attractive force between motor coil and magnet track during assembly. Without cogging force, they have excellent dynamic performance and can meet the demand of low speed fluctuation.

- No attractive force
- No cogging force
- Low speed fluctuation
- High response
- Small end effects
- Peak force: 198N~1152N
- Continuous force: 54.5N~384N
- Customization
- Hall sensor optional

Applications

Machine Tool (CNC, Lathe ...)

Industrial Robot

Semiconductor Manufacturing Equipment

Other (Injection Molding Machine ...)

Specifications

(1) Motor coil

Series

DUD: Ironless Linear Motor

Size

50: The width of the motor coil is 50mm

80

120

Number of motor coils

C2: 2

C3

C4

Special symbol

No symbol: Standard

Special: No symbol, A, B ... (For other requirements, please consult CSK)

DUD 50 C2

DUD

(2) Magnet track

Series

DUD: Ironless Linear Motor

Size

50: The width of the motor coil is 50mm

80

120

Magnet track length

M120: 120mm

M180

.....

Special symbol

No symbol: Standard

Special: No symbol, A, B ... (For other requirements, please consult CSK)

DUD 50 M120

(3) Hall sensor

Series

HA: Code of hall

Motor type code

D: Direct drive motor

.....

Matching code

UD50: DUD50 series

.....

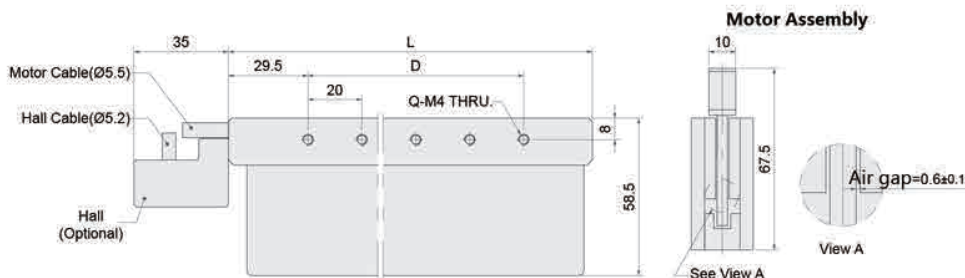
HA D UD50

DUD Technical parameters

Performance	Unit	DUD50C2	DUD50C3	DUD50C4	DUD80C2	DUD80C3	DUD80C4	DUD120C2	DUD120C3	DUD120C4
Peak Force(1 sec.)	N	198	297	396	486	722	964	576	870	1152
Continuous Force	N	54.5	81.8	109	143.5	203.4	283.4	192	290	384
Peak Power @25°C (1s)	W	297	445.5	594	729	939	1253.2	921.6	1392	1843.2
Continuous Power @25°C	W	81.8	122.7	163.5	215.3	264	368.4	307.2	464	614.4
Electrical										
Peak Current (rms)(1s)	A	5.5	8.5	11	5.1	7.5	10.2	14	14	14
Continuous Current (rms)	A	1.6	2.4	3.2	1.5	2.2	3	4	4	4
Force Constant	N/A	48	71	95	95.7	92.5	94.5	72	72.5	72.5
Back EMF Constant (L-L)	Vpk/(m/s)	29.5	29.5	29.5	87.2	86.3	89.8	66	66.8	66.8
Resistance @25°C (L-L)	Ohm	18.8	12.6	9.4	25.4	17	12.7	10.8	15.9	21.2
Inductance @1kHz (L-L)	mH	6	4	3	25.3	17	12.8	6.8	10.3	13.5
Electrical Time Constant	ms	0.3	0.3	0.3	1	1	1	0.6	0.6	0.6
Max. DC BUS	V _{DC}	300			330			330		
Thermal										
Max. Coil Temperature	°C	100								
Thermal Resistance @105°C	°C/W	1.22	0.81	0.61	0.46	0.38	0.27	0.33	0.22	0.16
Mechanical										
Electrical Cycle Length	mm	30			42			36		
Coil Weight	kg	0.2	0.3	0.4	0.6	1	1.2	0.9	1.3	1.8
Attraction Force	kN	0								
Track Weight	kg/m	5.6			10.4			23.5		
Cooling Type		Natural ail-cooling								

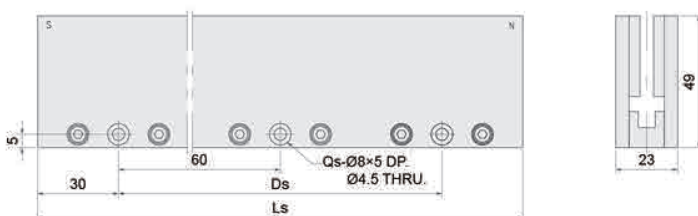
Dimensions of DUD50

(1) Dimensions of Motor Coil



Coil SPC.	L	D	Q
DUD50C2	135	80	5
DUD50C3	195	140	8
DUD50C4	255	200	11

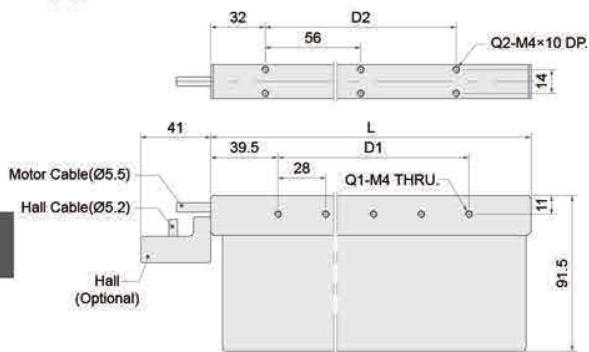
(2) Dimensions of Magnet Track



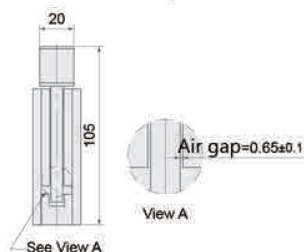
Magnet Track SPC.	Ls	Ds	Qs
DUD50M120	120	60	2
DUD50M180	180	120	3
DUD50M300	300	240	5

Dimensions of DUD80

(1) Dimensions of Motor Coil

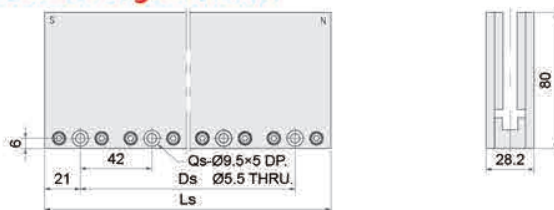


Motor Assembly



Coil SPC.	L	D1	Q1	D2	Q2
DUD80C2	188	112	5	112	6
DUD80C3	272	196	8	224	10
DUD80C4	356	280	11	280	12

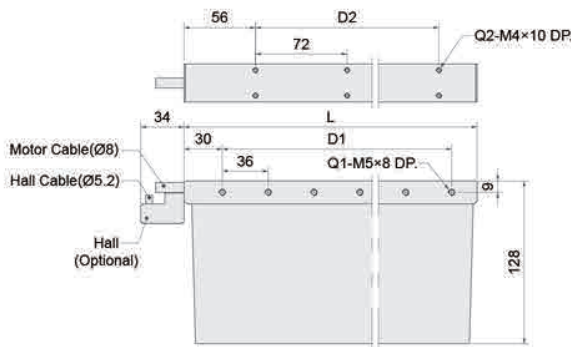
(2) Dimensions of Magnet Track



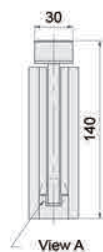
Magnet Track SPC.	Ls	Ds	Qs
DUD80M126	126	84	3
DUD80M168	168	126	4
DUD80M294	294	252	7

Dimensions of DUD120

(1) Dimensions of Motor Coil



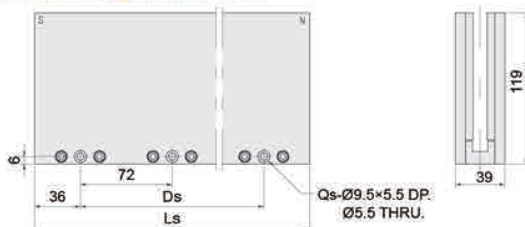
Motor Assembly



DUD

Coil SPC.	L	D1	Q1	D2	Q2
DUD120C2	158	108	4	72	4
DUD120C3	230	180	6	144	6
DUD120C4	302	252	8	216	8

(2) Dimensions of Magnet Track

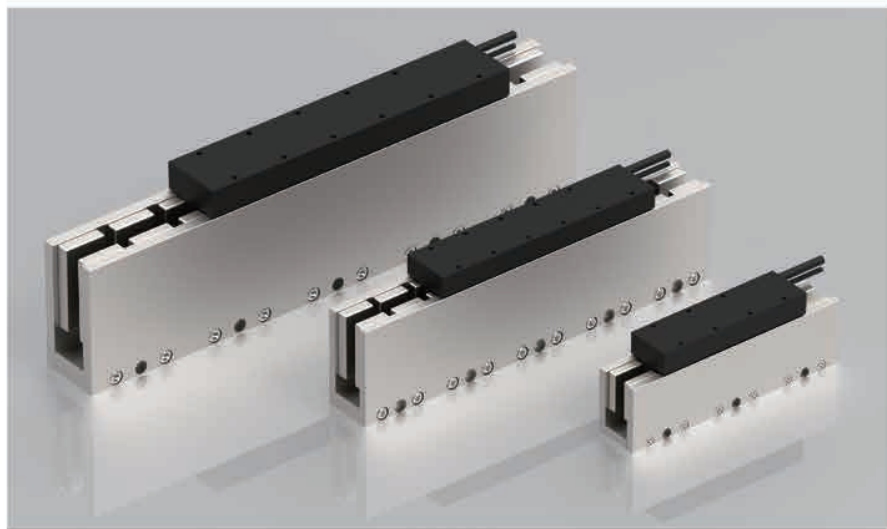


Magnet Track SPC.	Ls	Ds	Qs
DUD120M144	144	72	2
DUD120M216	216	144	3
DUD120M288	288	216	4

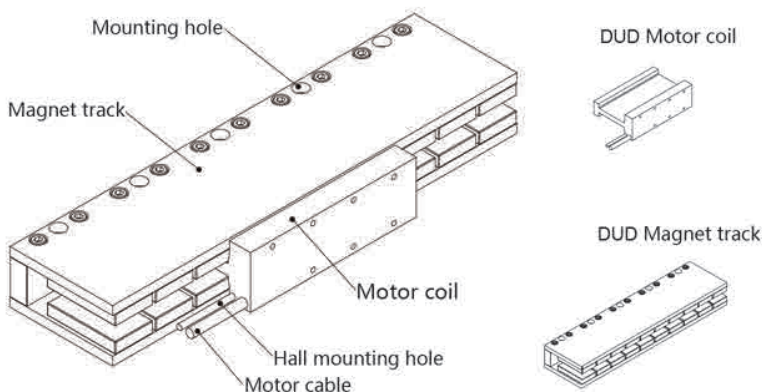
Ironless Linear Motor

DUF series

DUF



Construction



Note: For reference only.

DUF

Characteristics

DUF series motors are ironless linear motors with no cogging force and low speed fluctuation. The linear motor of this series consists of motor coil and magnetic track. There is no attractive force between motor coil and magnet track during assembly. Without cogging force, they have excellent dynamic performance and can meet the demand of low speed fluctuation.

- No attractive force
- No cogging force
- Low speed fluctuation
- High response
- Small end effects
- Peak force: 226.4N~10510N
- Continuous force: 41.2N~1501N
- Customization

Applications

Machine Tool (CNC, Lathe ...)

Industrial Robot

Semiconductor Manufacturing Equipment

Other (Injection Molding Machine ...)

Specifications

(1) Motor coil

	DUF	3	C2	P
Series				
DUD: Ironless Linear Motor				
Size				
3: 35.5mm				
4: 39mm				
5: 50mm				
6: 64.5mm				
Number of motor coils				
C1-C6				
Special symbol				
No symbol: series				
P: parallel				
Special: No symbol, A, B ... (For other requirements, please consult CSK)				

(2) Magnet track

	DUF	3	M120
Series			
DUD: Ironless Linear Motor			
Size			
the width of the motor coil			
Magnet track length			
M120: 120mm			
M180			
.....			
Special symbol			
No symbol: Standard			
Special: No symbol, A, B ... (For other requirements, please consult CSK)			

DUF

DUF Technical parameters

Performance	Unit	DUF3C1	DUF3C2	DUF3C3	DUF4C1	DUF4C2	DUF4C3	DUF4C4	DUF4C4P	DUF4C5	DUF4C5P	DUF4C6P
Peak Force(1 sec.)	N	226.4	452.8	679	333.2	666.4	999.6	1332.8	1332.8	1666	1666	1999
Continuous Force	N	41.2	82.3	123.5	66.6	133.3	199.9	266.6	266.6	333.2	333.2	399.8
Electrical												
Peak Current (rms) (1s)	A	11.55	11.55	11.55	14	14	14	14	28	14	28	28
Continuous Current (rms)	A	2.1	2.1	2.1	2.8	2.8	2.8	2.8	5.6	2.8	5.6	5.6
Force Constant	N/A	19.6	39.2	58.8	23.8	47.6	71.4	95.2	47.6	119	59.5	71.4
Back EMF Constant (L-L)	V _{pk} /(m/s)	15.99	31.99	47.98	19.42	38.84	58.26	77.68	38.84	97.1	48.55	58.26
Resistance @25°C ((L-L)	Ohm	3.7	7.4	11.1	5.03	10.07	15.1	20.13	5.03	25.17	6.04	7.55
Inductance @1kHz ((L-L)	mH	2.3	4.6	6.9	5.18	10.37	15.55	20.74	4.93	25.92	5.92	7.78
Electrical Time Constant	ms	0.62	0.62	0.62	1.03	1.03	1.03	1.03	0.98	1.03	0.98	1.03
Max. DC BUS	V _{DC}	330										
Thermal												
Max. Coil Temperature	°C	100										
Thermal Resistance @105°C	°C/W	2.37	1.18	0.79	0.98	0.49	0.33	0.24	0.24	0.2	0.2	0.16
Mechanical												
Electrical Cycle Length	mm	60										
Coil Weight	kg	0.34	0.45	0.68	0.34	0.65	0.95	1.3	1.3	1.58	1.58	1.75
Attraction Force	kN	0										
Track Weight	kg/m	8.75				14.72						
Cooling Type		Natural air-cooling										

DUF

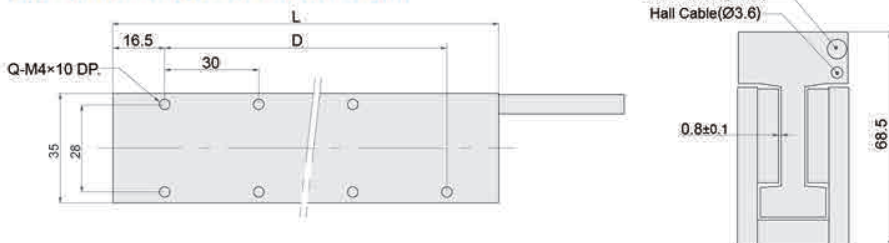
DUF Technical parameters

Performance	Unit	DUF5C2	DUF5C2P	DUF5C3	DUF5C3P	DUF5C4	DUF5C4P	DUF5C5	DUF5C5P	DUF6C4	DUF6C8
Peak Force(1 sec.)	N	1825.2	1825.2	2737.8	2737.8	3650.4	3650.4	4563	4563	5040	10510
Continuous Force	N	280.8	280.8	421.2	421.2	561.6	561.6	702	702	720	1501
Electrical											
Peak Current (rms) (1s)	A	19.5	39	19.5	39	19.5	39	19.5	39	72.8	72.8
Continuous Current (rms)	A	3	6	3	6	3	6	3	6	10.4	10.4
Force Constant	N/A	93.6	46.8	140.4	70.2	187.2	93.6	234	117	69.3	144.38
Back EMF Constant (L-L)	Vpk/(m/s)	76.38	38.17	114.57	57.28	152.76	76.38	190.94	97.47	56.55	117.81
Resistance @25°C ((L-L)	Ohm	7.4	2	11.1	3	14.8	4	18.5	5	1.08	2.3
Inductance @1kHz ((L-L)	mH	15.4	3.76	23.1	5.64	30.78	7.51	38.5	9.39	1.38	5
Electrical Time Constant	ms	2.08	1.88	2.08	1.88	2.08	1.88	2.08	1.88	1.53	2.17
Max. DC BUS	V _{DC}	330									
Thermal											
Max. Coil Temperature	°C	100									
Thermal Resistance @105°C	°C/W	0.58	0.54	0.39	0.36	0.48	0.53	0.48	0.53	1.4	2.98
Mechanical											
Electrical Cycle Length	mm	84									
Coil Weight	kg	0.8	0.8	1.6	2.4	3.2	3.2	4	4	4.25	9.5
Attraction Force	kN	0									
Track Weight	kg/m	25.08									66.7
Cooling Type		Natural ail-cooling									

DUF

Dimensions of DUF3

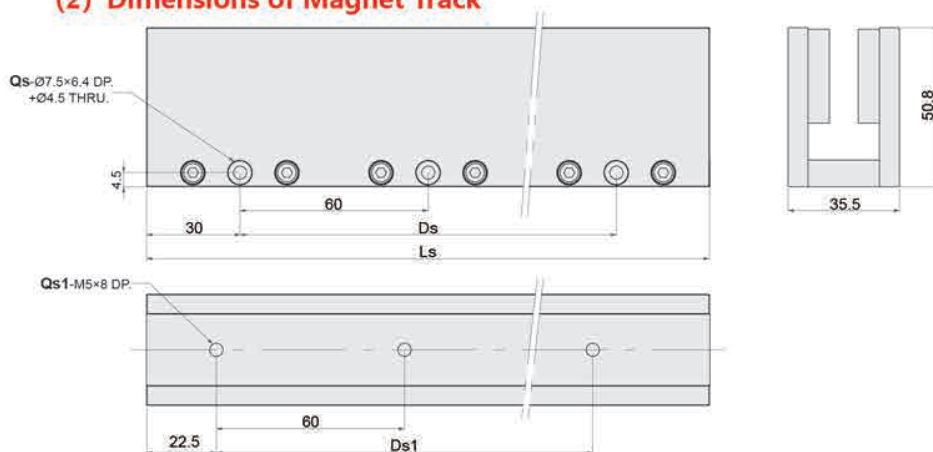
(1) Dimensions of Motor Coil



Coil SPC.	L	D	Q
DUF3C1	63	30	3
DUF3C2	123	90	7
DUF3C3	183	150	11

DUF

(2) Dimensions of Magnet Track

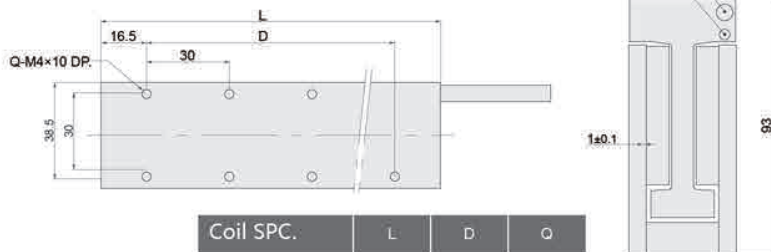


Magnet Track SPC.	Ls	Ds	Qs	Ds1	Qs1
DUF3M120	120	60	2	60	2
DUF3M180	180	120	3	120	3
DUF3M300	240	180	4	180	4

K-05

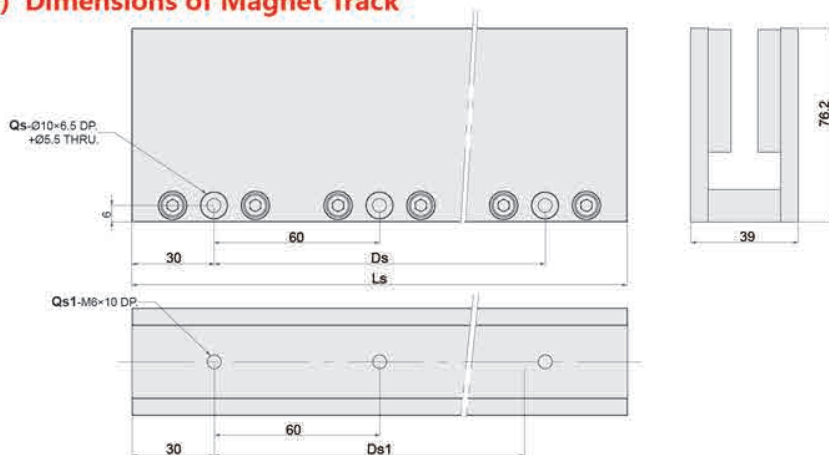
Dimensions of DUF4

(1) Dimensions of Motor Coil



Coil SPC.	L	D	Q
DUF4C1	63	30	3
DUF4C2	123	90	7
DUF4C3	183	150	11
DUF4C4	243	210	15
DUF4C5	303	270	19
DUF4C6	363	330	23

(2) Dimensions of Magnet Track

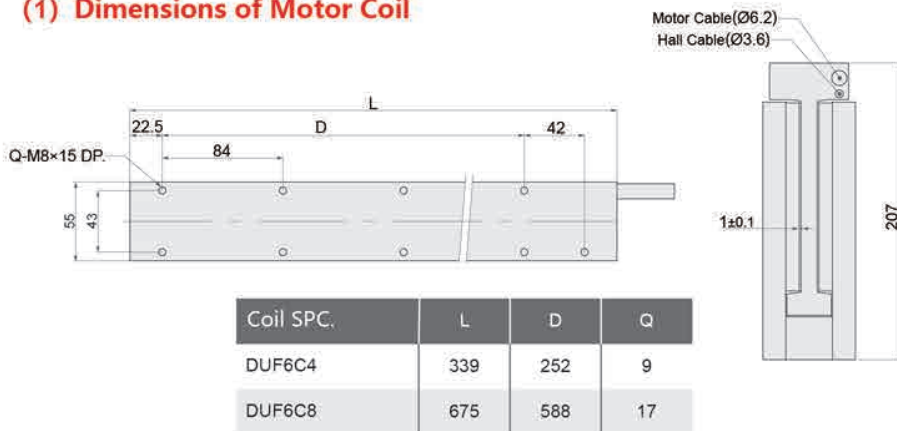


Magnet Track SPC.	Ls	Ds	Qs	Ds1	Qs1
DUF4M120	120	60	2	60	2
DUF4M180	180	120	3	120	3
DUF4M240	240	180	4	180	4

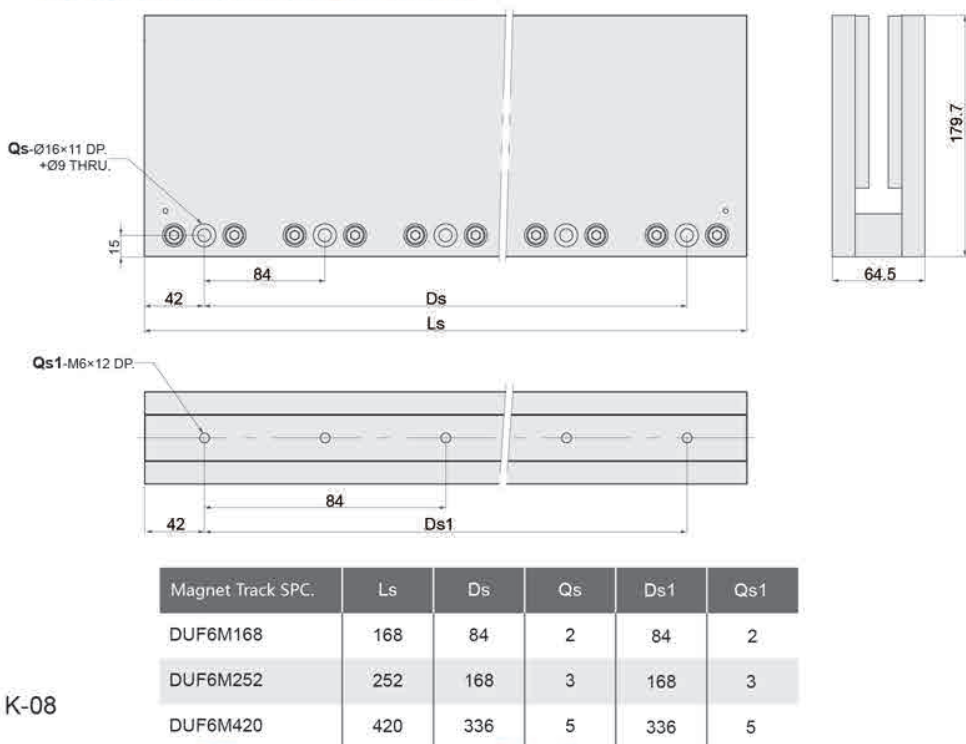
DUF

Dimensions of DUF6

(1) Dimensions of Motor Coil



(2) Dimensions of Magnet Track



Precautions for use

1. Precautions before purchase

- 1.1 When purchasing, please check the scope of the use environment with our sales staff. Please do not use in the corrosive environment such as sulfur and sulphide gas, which may lead to line breakage or poor contact.
- 1.2 When selecting the model, please check the use requirements and motor parameters with our sales staff to ensure the scientific use.

2. Matters needing attention in operation

- 2.1 This product is manufactured as a precision mechanical part and is widely used in the mechanical industry. Technical personnel with professional knowledge and experience are required to operate it.
- 2.2 When operating, please be sure to use according to the operating specifications of the product.
- 2.3 In the application, if you have special requirements on the use environment of cable and motor installation, please contact our sales staff for confirmation to prevent accidents.
- 2.4 All terminals of the equipment are not allowed to be plugged and unplugged with live power to prevent damage to the motor and driver.
- 2.5 The ground wire of the motor must be grounded.
- 2.6 Do not place the control signal line and power line (main power line, motor power line, etc.) of the equipment in the same line tube or wrap them into a bundle.
- 2.7 During motor operation, do not touch the moving parts of the motor.

3. Matters needing attention for follow-up maintenance

- 3.1 Precautions for storage equipment: temperature shall be controlled within -20°C to +60°C. Humidity: less than 85%, placed in a dust-free, clean, non-corrosive gas, no grinding fluid, no metal powder, no oil environment.
- 3.2 In the case of movement, wiring, maintenance and inspection, please cut off the power for more than 3 minutes before operating. Cut off the power for about 2~3 minutes, the power line still has voltage residue, do not touch the equipment carelessly.
- 3.3 Frequent power on or off will lead to deterioration of main circuit components. After power off, please wait for more than 1 minute to power on again. The frequency of power on and off is limited to less than 2 times every 3 minutes.

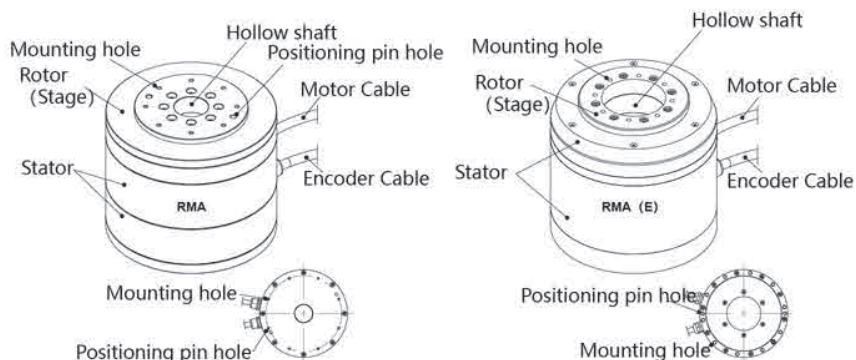
Direct Drive Torque Motor

RMA series



RMA

Construction



Note: For reference only.

RMA

Characteristics

RMA series torque motors are directly connected to the load, saving the connection mechanism such as reducer, gearbox and so on. This series is equipped with high resolution optical encoder, so that it has the advantages of high precision, high response, accurate positioning, etc., which is widely used in detection, machine tool and other industries.

- High resolution optical encoder
- Hollow shaft
- Stable structure, High load capacity
- Compact structure
- High precision
- Peak torque: 18~269N·m
- Continuous torque: 5~75N·m
- Low torque fluctuation, less than 0.2%
- Repeatability: $\pm 2\text{arc-sec}$
- Hall sensor optional

Applications

Machine Tool (CNC ...)

Industrial Robot

Clean room environment

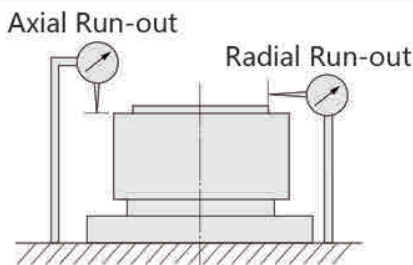
Semiconductor Manufacturing Equipment

Other (Laser manufacturing equipment ...)

Specifications

	RMA	150 - 1	H - IE - N
Series			
RMA			
Size			
150: Outer diameter is 150mm			
150E			
200			
200E: Outer diameter is 208mm			
300			
Height code			
1, 2, 3 (Please refer to the corresponding form for details)			
Hall sensor			
H: With Hall sensor			
No symbol: Without Hall sensor			
Encoder			
AE: Absolute Encoder			
IE: Incremental Encoder			
Accuracy grade			
N: High accuracy grade			
P: Precision grade			
Special symbol			
No symbol: Standard			
Special: No symbol, A, B ... (For other requirements, please consult CSK)			
Notice:			
1.The length of motor cable and encoder cable is 0.4 meters, and the length of extension cable needs to be confirmed by customers.			
2.This series supports customization.			

Run-out measurement



Technical parameters

Performance	Unit	RMA150-1	RMA150-2	RMA150-3	RMA200-1	RMA200-2	RMA200-3	RMA300-1	RMA300-2
Peak Torque(1 sec.)	N·m	18	44	56	51	110	187	200	269
Continuous Torque	N·m	5	11	18	13	29	55	50	75
Max.Speed	rpm	600	500	400	400	300	230	210	130
Electrical									
Peak Current (rms)(1s)	A	18	24	19	18	18	14	18	16
Continuous Current (rms)	A	4	4	4	3	3.1	3	3	3
Torque Constant	N·m/A	1.3	2.5	3.8	3.3	6.5	13.3	16.7	25
Back EMF Constant (L-L)	V/rpm	0.07	0.15	0.22	0.26	0.51	1.02	1.46	2.19
Resistance @25℃ (L-L)	Ohm	4	6.2	8.7	8.9	13	20.1	11.53	15.8
Inductance @1kHz (L-L)	mH	8	15	20	34.3	58	106.3	34.7	52.1
Electrical Time Constant	ms	2	2.4	2.3	3.9	4.5	5.3	3	3.3
Max. DC BUS	V _{DC}	330							
Thermal									
Max. Coil Temperature	℃	120							
Mechanical									
Number of Poles		22			22			44	
Rotor Inertia	kg·m²	0.006	0.0065	0.007	0.014	0.02	0.026	0.06	0.08
Weight	kg	6.4	7.6	8.7	18.2	20.5	25	25	31
Max. Axial Load	N	1700			3000			5000	
Encoder Type		Incremental optical encoder							
Resolution	p/rev	33554432✱							
Repeatability	arc-sec	±2							
Accuracy	arc-sec	±30							
Cooling Type		Natural ail-cooling							

*Resolution: The display value is the highest value and the parameter changes with the setting of the drive.
Due to different working conditions, some performance parameters are different. Please consult CSK.

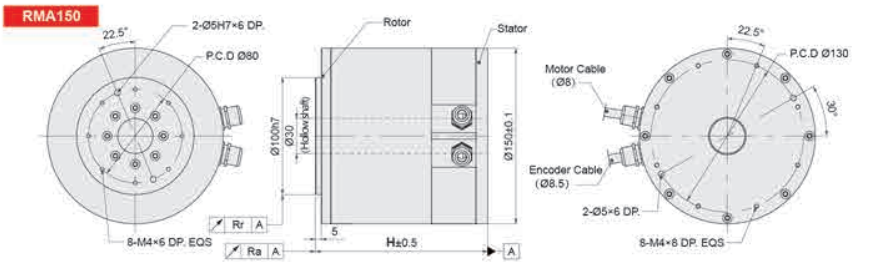
RMA

Technical parameters

Performance	Unit	RMA150E-1	RMA150E-2	RMA150E-3	RMA200E-1	RMA200E-2	RMA200E-3
Peak Torque(1 sec.)	N·m	18	44	56	51	110	187
Continuous Torque	N·m	5	11	18	13	29	55
Max.Speed	rpm	600	500	400	400	300	230
Electrical							
Peak Current (rms)(1s)	A	18	24	19	18	18	14
Continuous Current (rms)	A	4	4	4	3	3.1	3
Torque Constant	N·m/A	1.3	2.5	3.8	3.3	6.5	13.3
Back EMF Constant (L-L)	V/rpm	0.07	0.15	0.22	0.26	0.51	1.02
Resistance @25°C (L-L)	Ohm	4	6.2	8.7	8.9	13	20.1
Inductance @1kHz (L-L)	mH	8	15	20	34.3	58	106.3
Electrical Time Constant	ms	2	2.4	2.3	3.9	4.5	5.3
Max. DC BUS	V _{DC}	330					
Thermal							
Max. Coil Temperature	°C	120					
Mechanical							
Number of Poles		22			22		
Rotor Inertia	kg·m²	0.006	0.0065	0.007	0.014	0.02	0.026
Weight	kg	6.4	7.6	8.7	18.2	20.5	25
Max. Axial Load	N	1700			3000		
Encoder Type		Incremental optical encoder					
Resolution	p/rev	33554432*					
Repeatability	arc-sec	±2					
Accuracy	arc-sec	±30					
Cooling Type		Natural oil-cooling					

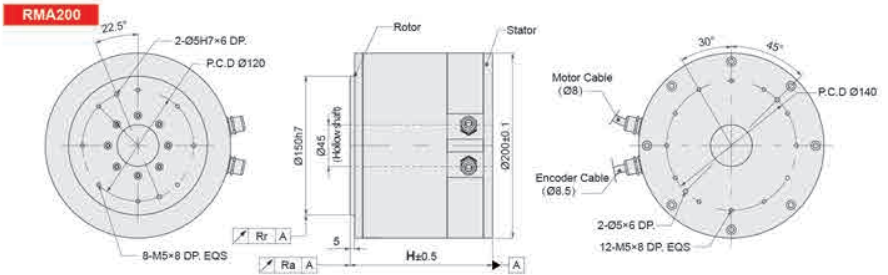
*Resolution: The display value is the highest value and the parameter changes with the setting of the drive.
Due to different working conditions, some performance parameters are different. Please consult CSK.

Dimensions of RMA



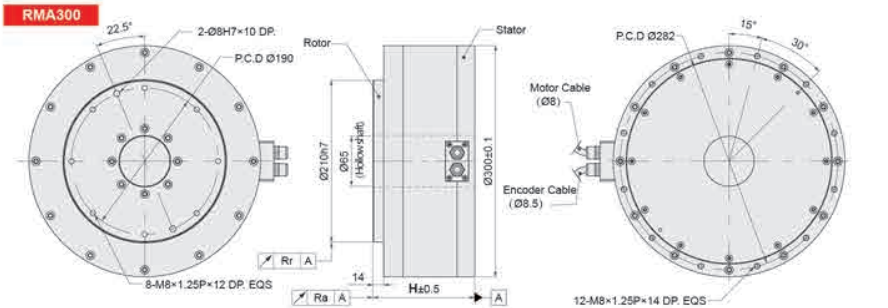
Height (mm)	RMA150-1	RMA150-2	RMA150-3
H	127	147	167

Accuracy grade	High accuracy grade	Precision grade
Run-out(mm)		
Ra	0.02	0.005
Rr	0.02	0.005



Height (mm)	RMA200-1	RMA200-2	RMA200-3
H	134	154	194

Accuracy grade	High accuracy grade	Precision grade
Run-out(mm)		
Ra	0.02	0.005
Rr	0.02	0.005

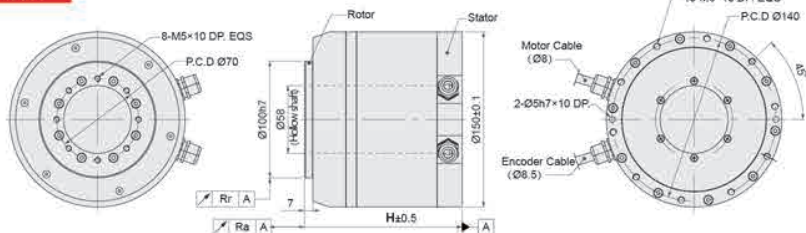


Height (mm)	RMA300-1	RMA300-2
H	132	152

Accuracy grade	High accuracy grade	Precision grade
Run-out(mm)		
Ra	0.02	0.005
Rr	0.02	0.005

Dimensions of RMA

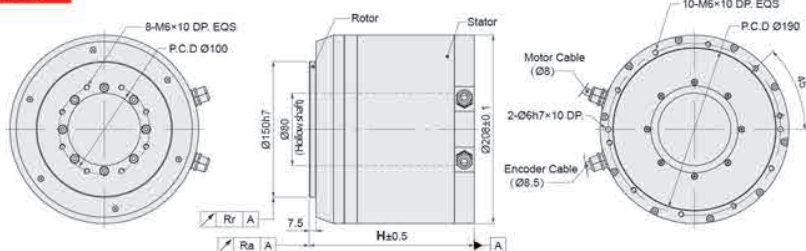
RMA150E



Height (mm)	RMA150E-1	RMA150E-2	RMA150E-3
H	125	145	165

Accuracy grade	High accuracy grade	Precision grade
Run-out(mm)		
Ra	0.02	0.005
Rr	0.02	0.005

RMA200E



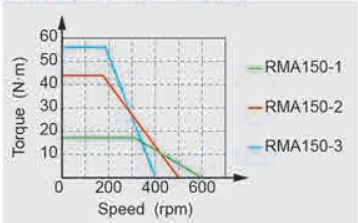
Height (mm)	RMA200E-1	RMA200E-2	RMA200E-3
H	122	142	182

Accuracy grade	High accuracy grade	Precision grade
Run-out(mm)		
Ra	0.02	0.005
Rr	0.02	0.005

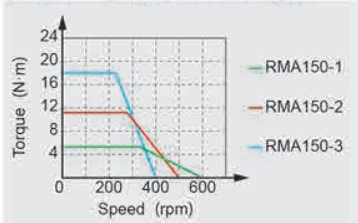
RMA

RMA series technical analysis

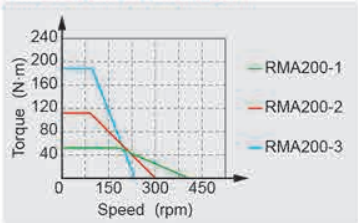
RMA150 series (Peak Torque)



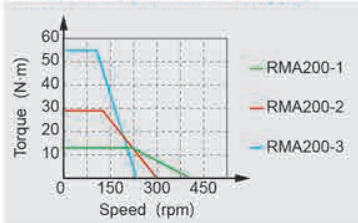
RMA150 series (Continuous Torque)



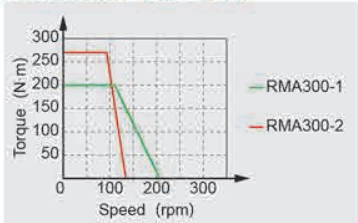
RMA200 series (Peak Torque)



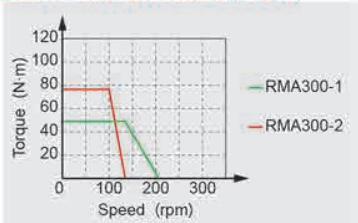
RMA200 series (Continuous Torque)



RMA300 series (Peak Torque)



RMA300 series (Continuous Torque)



RMA

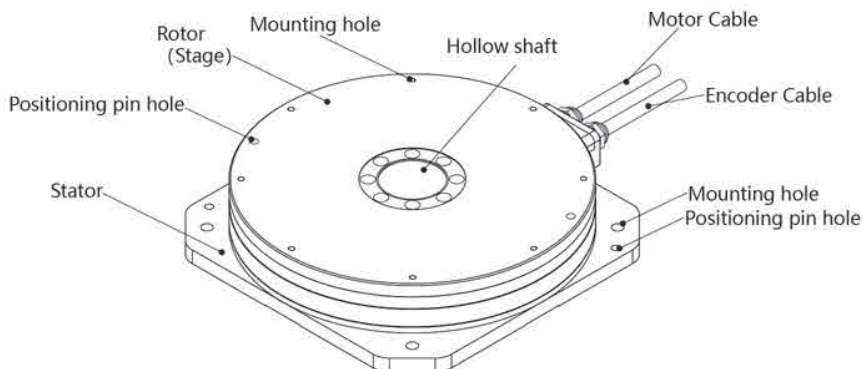
Direct Drive Torque Motor

RMB series

RMB



Construction



Note: For reference only.

Characteristics

RMB series is an ultra-thin direct drive torque motor, which has the characteristics of large torque, low height, light weight, large hollow shaft and so on. This series is equipped with high resolution optical encoder, so that it has the advantages of high precision, high response, accurate positioning, etc., which is widely used in detection, machine tool and other industries.

- | | |
|--|--|
| • High resolution optical encoder | • Peak torque: 1.9~42N·m |
| • Hollow shaft | • Continuous torque: 0.6~14N·m |
| • Ultra thin structure, low combination height | • Low run-out, less than 10μm (optional) |
| • Compact structure | • Repeatability: ± 2.5 arc-sec |
| • High precision | • No hall sensor |

Applications

Machine Tool (CNC ...)

Industrial Robot

Clean room environment

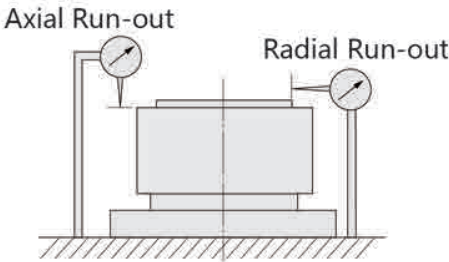
Semiconductor Manufacturing Equipment

Other (Laser manufacturing equipment ...)

Specifications

	RMB	80	- 1	IE	- N
Series					
RMB					
Size					
80: Outer diameter is 80mm					
110					
180					
240					
Height code					
1 (Please refer to the corresponding form for details)					
Encoder					
AE: Absolute Encoder					
IE: Incremental Encoder					
Accuracy grade					
N: High accuracy grade					
P: Precision grade					
Special symbol					
No symbol: Standard					
Special: No symbol, A, B ... (For other requirements, please consult CSK)					
Notice:					
1.The length of motor cable and encoder cable is 0.4 meters, and the length of extension cable needs to be confirmed by customers.					
2.This series supports customization.					

Run-out measurement



Technical parameters

Performance	Unit	RMB80-1	RMB110-1	RMB110-2	RMB180-1	RMB240-1
Peak Torque(1 sec.)	N·m	1.9	3.3	7.2	11.1	42
Continuous Torque	N·m	0.6	1.1	2.4	3.7	14
Max.Speed	rpm	1000	1000	500	600	400
Electrical						
Peak Current (rms)(1s)	A	3.6	3.8	4.2	10.2	10.2
Continuous Current (rms)	A	1.2	1.2	1.4	3.4	3.4
Torque Constant	N·m/A	0.5	0.92	2	1.1	5.2
Back EMF Constant (L-L)	V/rpm	0.043	0.09	0.173	0.105	0.51
Resistance @25°C (L-L)	Ohm	7.8	10	13.8	3.1	5.1
Inductance @1kHz (L-L)	mH	5.1	15	26.5	5.7	24.6
Electrical Time Constant	ms	0.65	1.5	1.9	1.8	4.9
Max. DC BUS	V _{DC}	330				
Thermal						
	°C	120				
Mechanical						
Number of Poles		10	10	10	16	22
Rotor Inertia	kg·m²	0.00098	0.0016	0.003	0.01	0.034
Weight	kg	1.6	2.8	4	6.4	13.8
Max. Axial Load	N	500	500	500	2090	2430
Encoder Type		Incremental optical encoder			Absolute optical encoder	
Resolution	p/rev	10240000*	14745600*		16777216*	
Repeatability	arc-sec	±2				
Accuracy	arc-sec	±30			±10*	
Cooling Type		Natural air-cooling				

*Resolution: The display value is the highest value and the parameter changes with the setting of the drive.

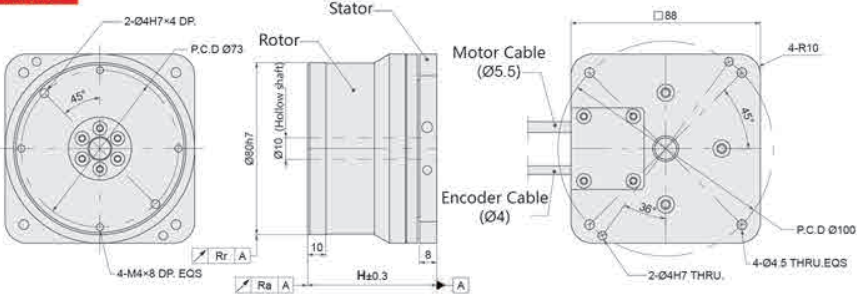
Accuracy: After the compensation.

Due to different working conditions, some performance parameters are different. Please consult CSK.

RMB

Dimensions of RMB

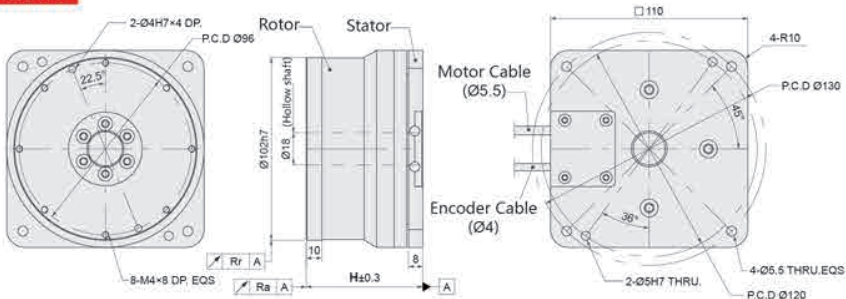
RMB80



Height (mm)	RMB80-1
H	60

Accuracy grade	High accuracy grade	Precision grade
Run-out(mm)		
Ra	0.015	0.005
Rr	0.015	0.005

RMB110

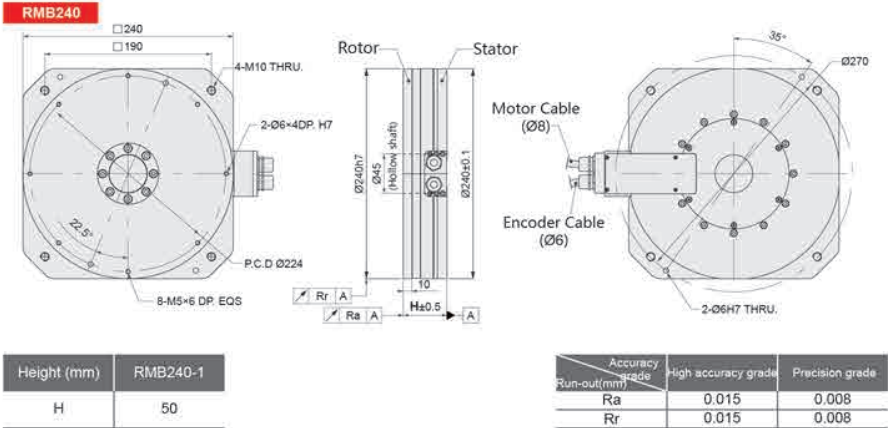
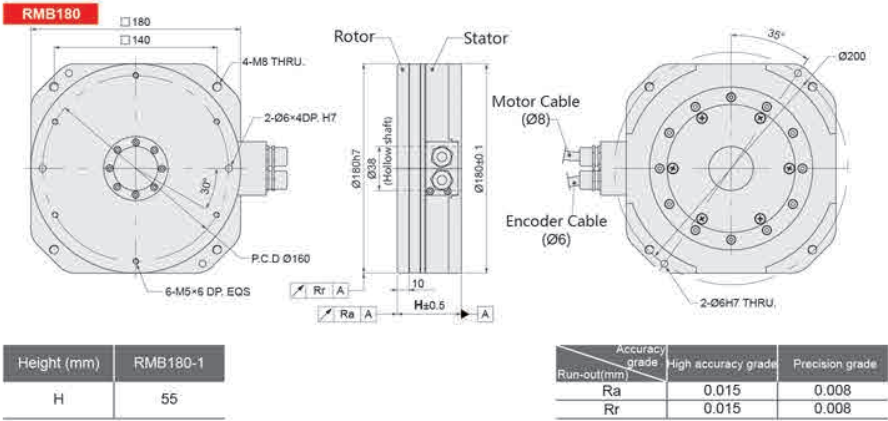


Height (mm)	RMB110-1	RMB110-2
H	65	80

Accuracy grade	High accuracy grade	Precision grade
Run-out(mm)		
Ra	0.015	0.005
Rr	0.015	0.005

RMB

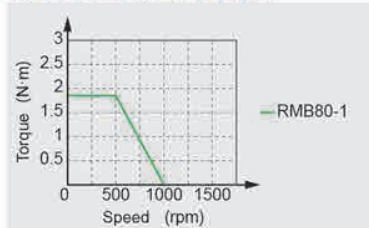
Dimensions of RMB



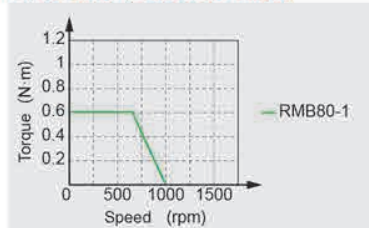
RMB

RMB series technical analysis

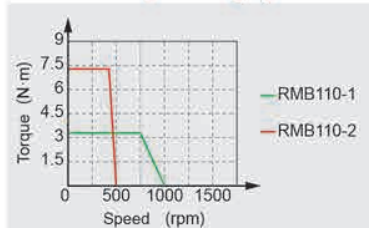
RMB80 series (Peak Torque)



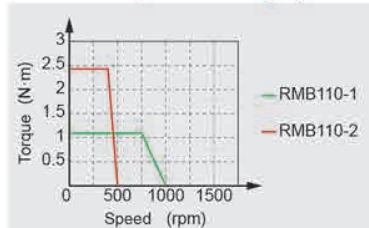
RMB80 series (Continuous Torque)



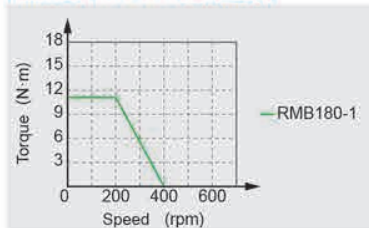
RMB110 series (Peak Torque)



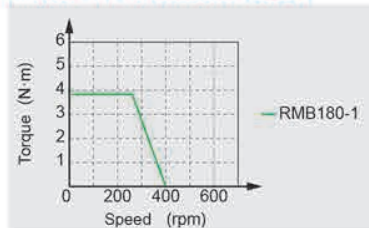
RMB110 series (Continuous Torque)



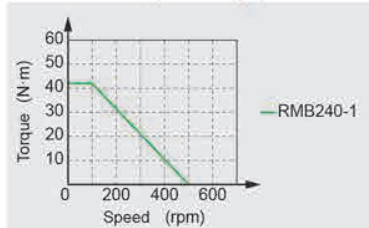
RMB180 series (Peak Torque)



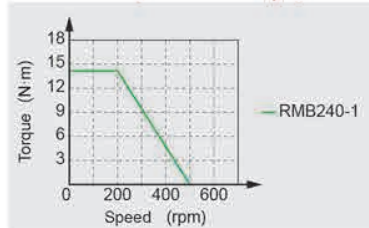
RMB180 series (Continuous Torque)



RMB240 series (Peak Torque)



RMB240 series (Continuous Torque)



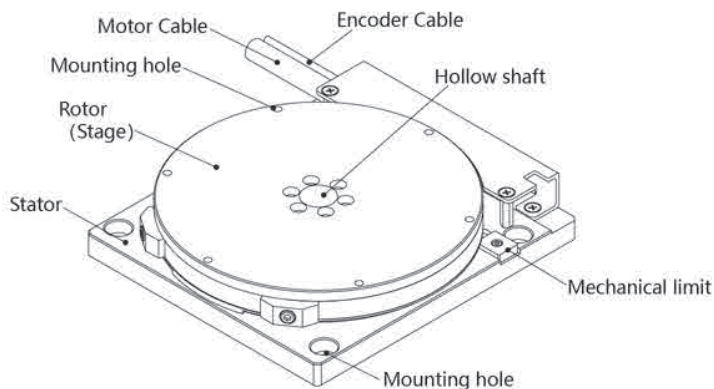
Direct Drive Torque Motor

RMC series



RMC

Construction



Note: For reference only.

Characteristics

RMC series adopts coreless motor with small cogging force and fast response. It is equipped with high resolution linear encoder, photoelectric switch and mechanical limit. It has a variety of feedback and protection. The product is suitable for the automation industry with constant rotation angle, high response and light load.

- High resolution linear encoder
- Hollow shaft
- Ultra thin structure, low combination height
- Compact structure
- High precision
- Peak torque: 0.32~1.6N·m
- Continuous torque: 0.05~0.4N·m
- Repeatability: ± 2.5 arc-sec
- Constant rotation angle

Applications

Machine Tool (CNC ...)

Industrial Robot

Clean room environment

Semiconductor Manufacturing Equipment

Other (Laser manufacturing equipment ...)

Specifications

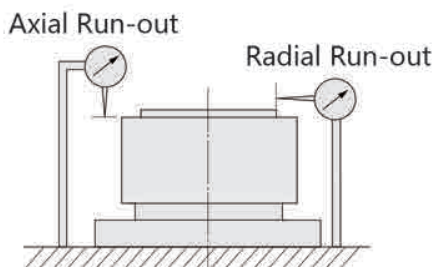
	RMC	65	- 1
Series			
RMC			
Size			
65: Outer diameter is 65mm			
120			
Height code			
1 (Please refer to the corresponding form for details)			
Special symbol			
No symbol: Standard			
Special: No symbol, A, B ... (For other requirements, please consult CSK)			

Notice:

- 1.The length of motor cable is 0.4 meters and encoder cable is 2.95 meters, and the length of extension cable needs to be confirmed by customers.
- 2.This series supports customization.

RMC

Run-out measurement



Technical parameters

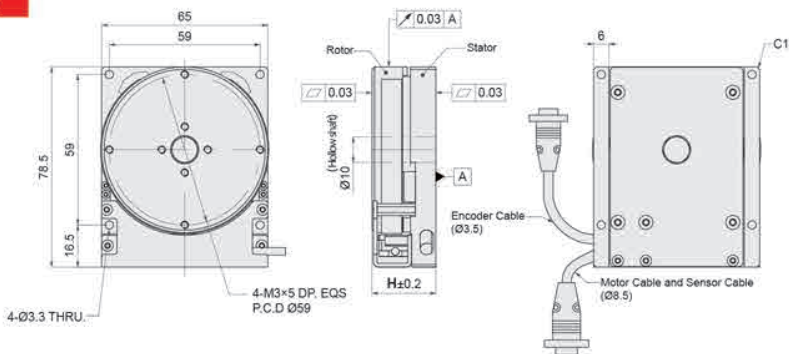
Performance	Unit	RMC65-1	RMC120-1
Peak Torque(1 sec.)	N·m	0.32	1.6
Continuous Torque	N·m	0.05	0.4
Max.Speed	°/s	600	400
Electrical			
Peak Current (rms)(1s)	A	5	5
Continuous Current (rms)	A	1.5	1.4
Thermal			
Max. Coil Temperature	°C	120	
Mechanical			
Rotor Inertia	kg·m ²	0.00013	0.005
Max. Transportable Load	kg	1.8	5
Weight	kg	0.65	1.8
Effective rotation angle	°	±95	±90
Encoder Type		Incremental optical encoder	
Repeatability	arc-sec	±2.5	
Accuracy	arc-sec	±10*	
Cooling Type		Natural ail-cooling	

*Accuracy: After the compensation.

Due to different working conditions, some performance parameters are different. Please consult CSK.

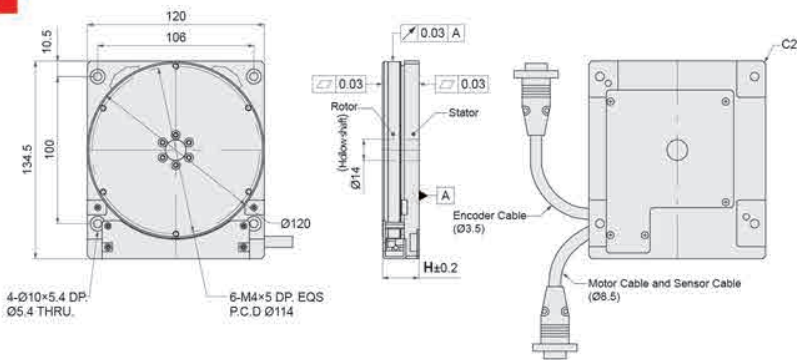
Dimensions of RMC

RMC65



Height (mm)	RMC65-1
H	25

RMC120



Height (mm)	RMC120-1
H	25.7

RMC

Precautions for use

1. Precautions before purchase

1.1 When purchasing, please check the scope of the use environment with our sales staff. Please do not use in the corrosive environment such as sulfur and sulphide gas, which may lead to line breakage or poor contact.

1.2 When selecting the model, please check the use requirements and motor parameters with our sales staff to ensure the scientific use.

2. Matters needing attention in operation

2.1 This product is manufactured as a precision mechanical part and is widely used in the mechanical industry. Technical personnel with professional knowledge and experience are required to operate it.

2.2 When operating, please be sure to use according to the operating specifications of the product.

2.3 In the application, if you have special requirements on the use environment of cable and motor installation, please contact our sales staff for confirmation to prevent accidents.

2.4 All terminals of the equipment are not allowed to be plugged and unplugged with live power to prevent damage to the motor and driver.

2.5 The ground wire of the motor must be grounded.

2.6 Do not place the control signal line and power line (main power line, motor power line, etc.) of the equipment in the same line tube or wrap them into a bundle.

2.7 During motor operation, do not touch the moving parts of the motor.

3. Matters needing attention for follow-up maintenance

3.1 Precautions for storage equipment: temperature shall be controlled within -20°C to +60°C.

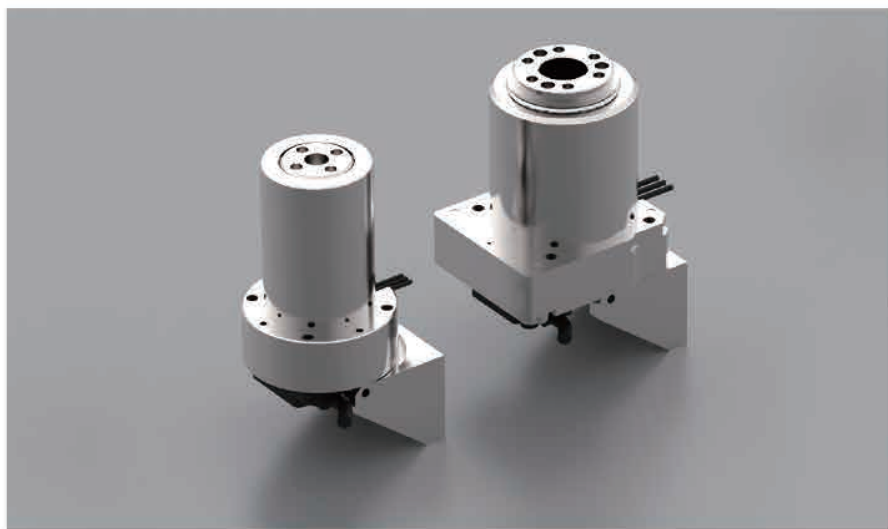
Humidity: less than 85%, placed in a dust-free, clean, non-corrosive gas, no grinding fluid, no metal powder, no oil environment.

3.2 In the case of movement, wiring, maintenance and inspection, please cut off the power for more than 3 minutes before operating. Cut off the power for about 2~3 minutes, the power line still has voltage residue, do not touch the equipment carelessly.

3.3 Frequent power on or off will lead to deterioration of main circuit components. After power off, please wait for more than 1 minute to power on again. The frequency of power on and off is limited to less than 2 times every 3 minutes.

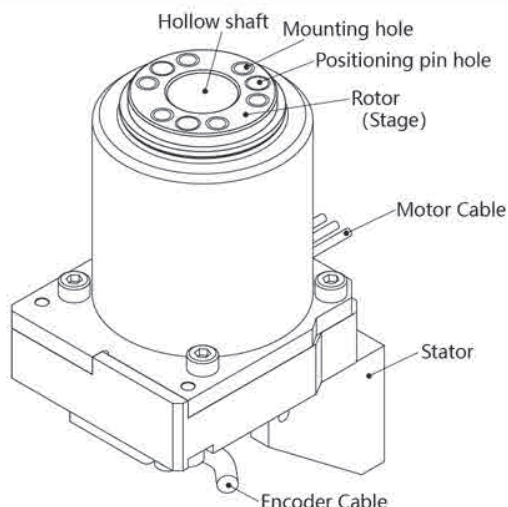
Direct Drive Torque Motor

RMD series



RMD

Construction



Note: For reference only.

Characteristics

The RMD series motors feature a steel structure, with a smaller size that allows for quicker response during operation. To achieve higher precision, the rotating part of the motor is equipped with a high-resolution linear encoder. This product is widely used in high-response, light-load automation industries.

- High resolution optical encoder
- Extremely small size, customizable
- Compact structure
- High accuracy
- Peak torque: 0.02~0.45N·m
- Continuous torque: 0.013~0.15N·m

Applications

LCD panel manufacturing equipment

Semiconductor Manufacturing Equipment

High speed placement machine

Other (Laser manufacturing equipment ...)

Specifications

Series

RMD Series

Size

20: Outer diameter is 36mm

30: Outer diameter is 43mm

Height code

1 (Please refer the corresponding form for details)

Special symbol

No symbol: CSK standard

Special: No symbol, A, B ... (Please contact us, if customize.)

Note

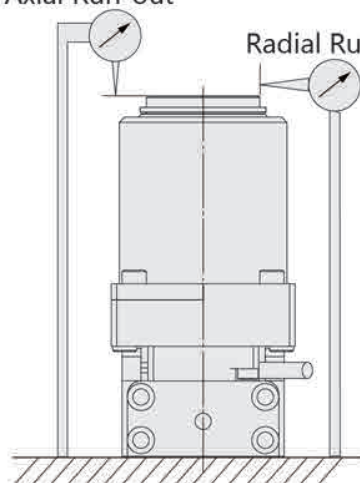
1. The length of motor cable and encoder cable is 0.4 meters, and the length of extension cable needs to be confirmed by customers.
2. This series supports customization.

RMD 20 - 1

Run-out measurement

Axial Run-out

Radial Run-out



RMD

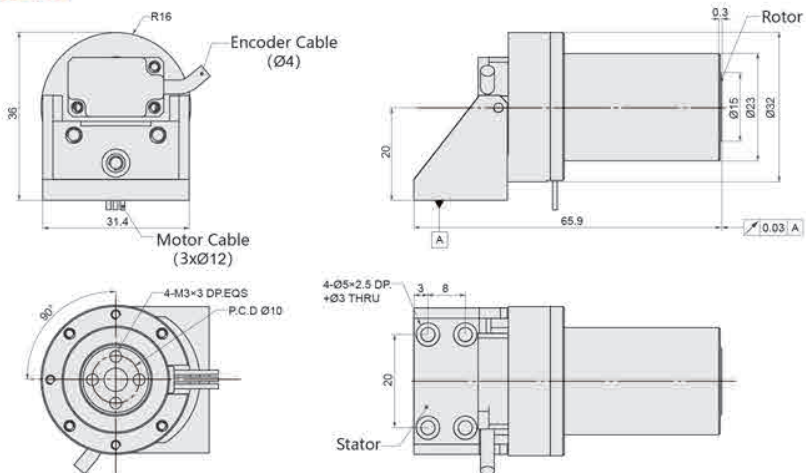
Technical parameters

Performance	Unit	RMD20-1	RMD30-1
Peak Torque(1 sec.)	N·m	0.02	0.45
Continuous Torque	N·m	0.013	0.15
Electrical			
Peak Current (rms)(1s)	A	1	1.5
Continuous Current (rms)	A	0.5	5
Resistance	Ohm	10.6	0.5
Inductance	mA	0.3	11.5
Back EMF Constant	V/rpm	0.002	0.54
Thermal			
Max. Coil Temperature	°C	120	
Mechanical			
Encoder line count	sin cos	1024	2048
Encoder Type		Incremental optical encoder	
Number of Poles	/	8	
Weight	Kg	0.3	
Cooling Type		Natural ail-cooling	

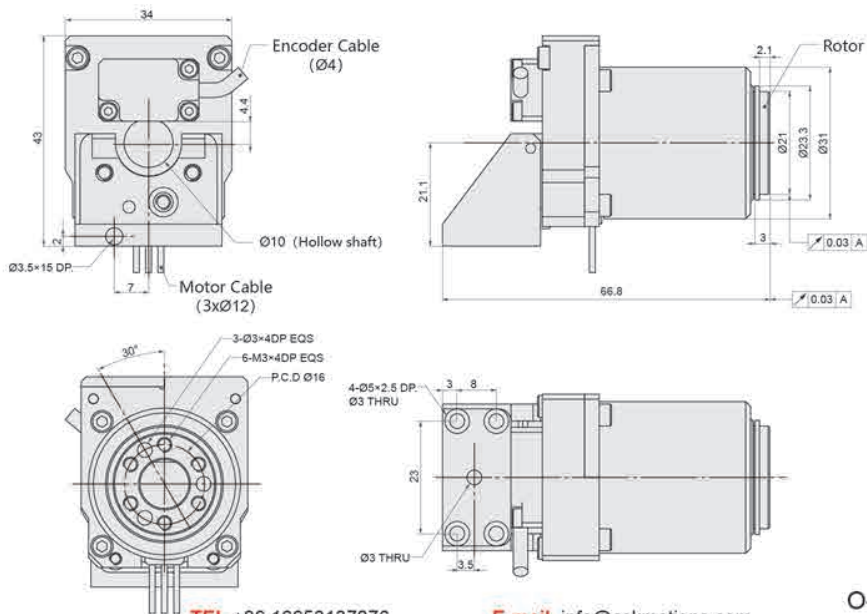
Due to different operating conditions, some performance parameters may vary.
Please consult CSK for details .

Dimensions of RMD

RMD20 Series



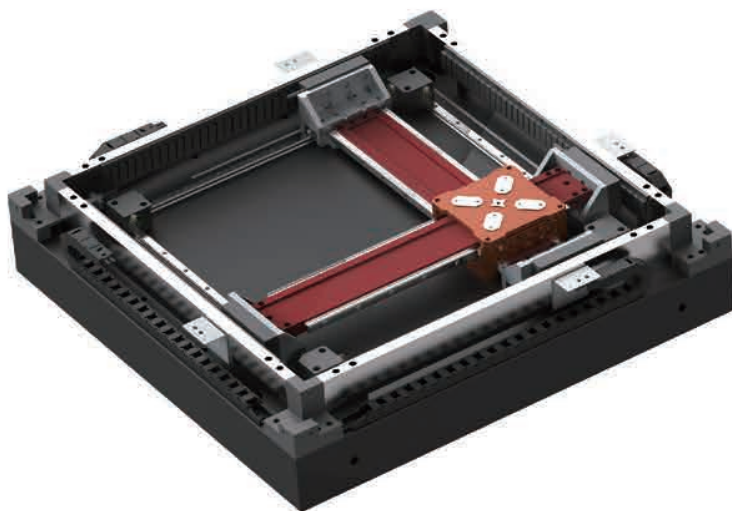
RMD30 Series



RMD

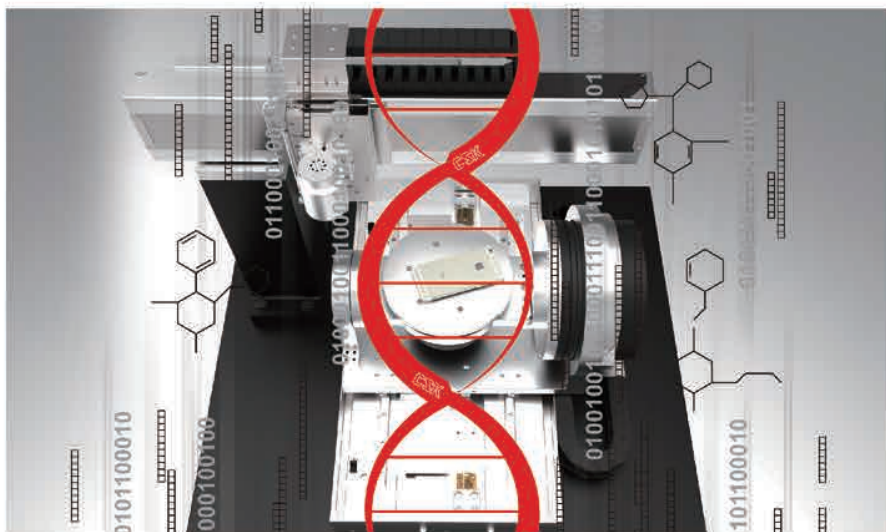
Linear Motor Stage

LMA series



LMA

Construction



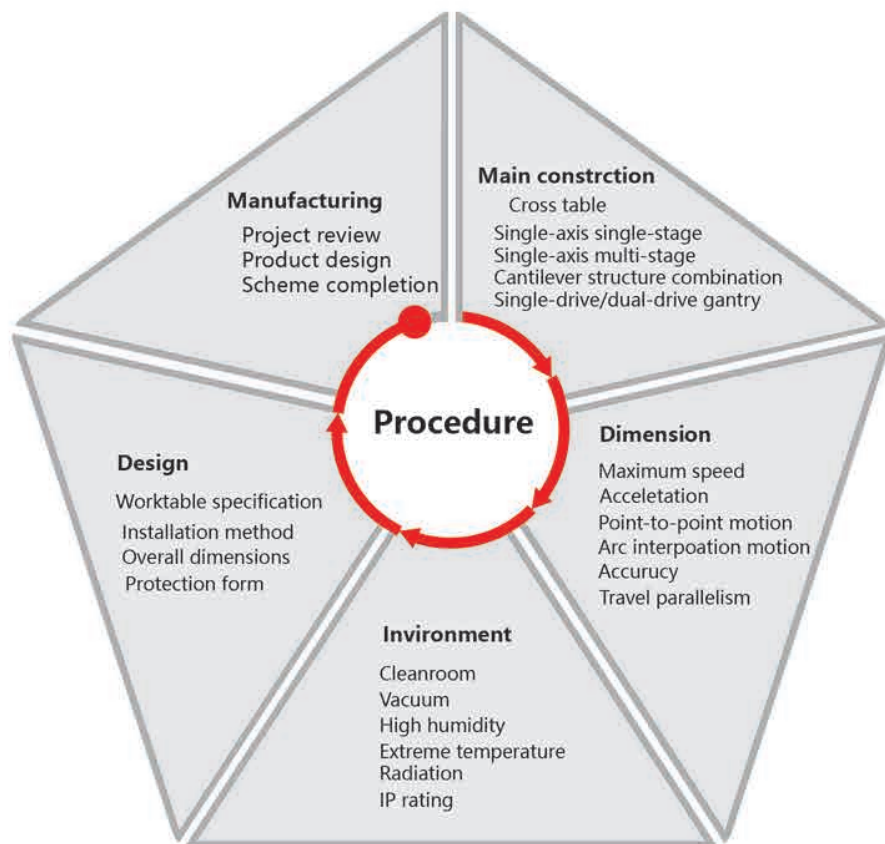
Characteristics

LMA series is a customized series, the main body of this stage is the linear motor stage. In order to ensure the quality of products, components are well-known brand products. In addition, the products have been designed and tested by a team of professional designers. Single product manufacturing and batch manufacturing are allowed.

- Customization
- Multiple structural types
- Multiple motor types
- Multiple dustproof configurations
- Multiple accuracy grades
- Multiple control modes
- Multiple product combinations
- Multiple appearance treatments
- Original design
- Cooperation

LMA

Procedures for Constructing Motor Stage



Customized and Original

CSK specializes in providing professional products and services in the field of linear motors. Contact our research and development team during the initial design phase to discuss your requirements. We will assist you in finding the right solutions and shorten your design and product cycles.

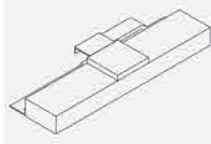
Construction

(1) Motor coil

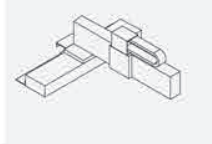
	LMA	2	L	2R	200 × 200 × 200	A
Series						
LMA: Linear Motor Stage						
Number of straight axes						
2: 2 straight axes						
Structure type						
S: Single axis with single slider						
D: Single axis with multiple sliders						
C: Cantilever type						
L: Cross type						
G: Gantry type (contains the coaxial dual drive)						
Number of rotation axes						
2R: 2 rotation axes						
No symbol: There is no axis of rotation						
Stroke (mm)						
Special symbol						
No symbol: Standard						
Special: No symbol, A, B ... (For other requirements, please consult CSK)						

Structure type

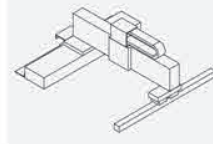
S type



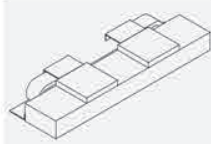
C type



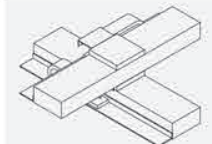
G type (Single drive)



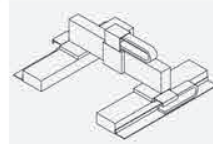
D type



L type



G type (Double drive)



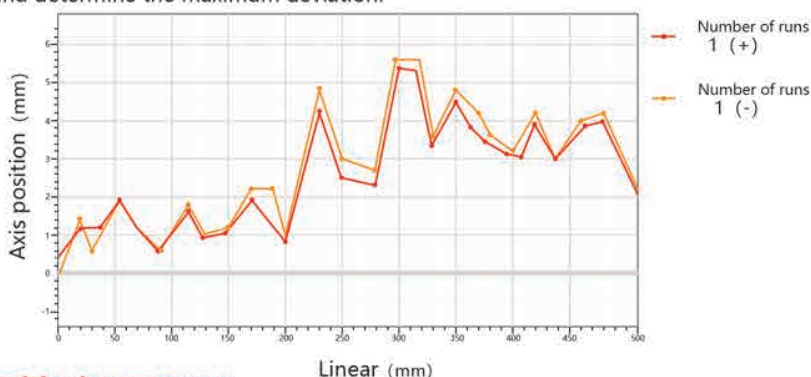
LMA

Accuracy

The precision of the module varies depending on the model (according to measurement method using Renishaw XL80 laser interferometer), and it can be tested under equivalent conditions according to customer requirements. Please consult CSK.

(1) Repetition accuracy

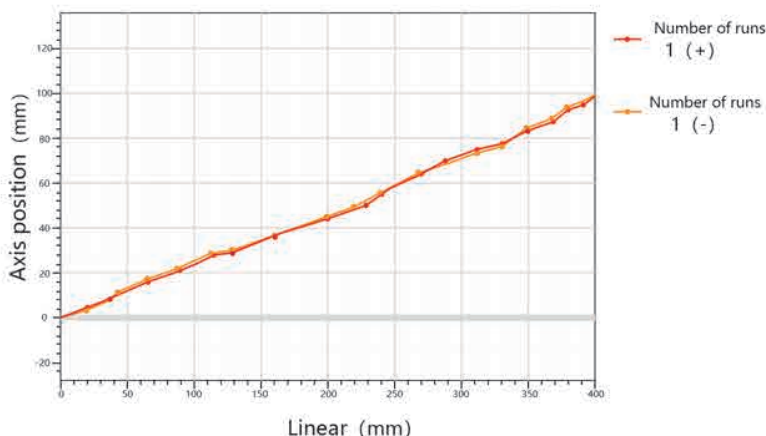
Repeat positioning from the same direction to any point 7 times and determine the maximum deviation.



(2) Positioning accuracy

From the reference position, sequentially position to specific points in a certain direction. Measure the difference between the actual displacement and the desired displacement at each position.

Express the maximum deviation within each stroke length in absolute value.



Accuracy

Pitch

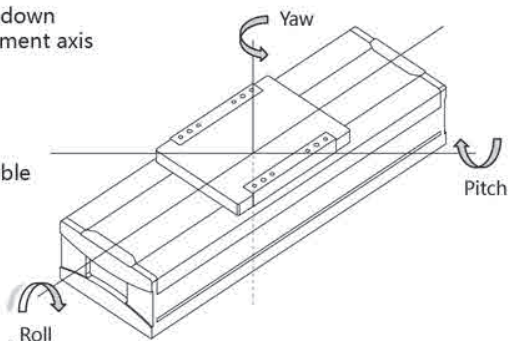
The angle change in the up and down direction of the worktable movement axis

Roll

Changes in axial angle of worktable movement axis

Yaw

The angle change of the worktable movement axis in the left and right directions



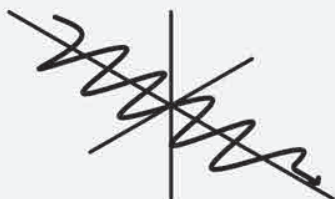
Running Parallelism

Deviation from the baseline

The movement along the horizontal axis

The movement along the vertical axis

Horizontal straightness



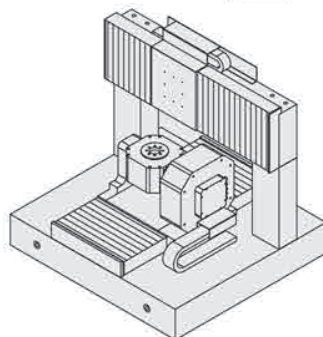
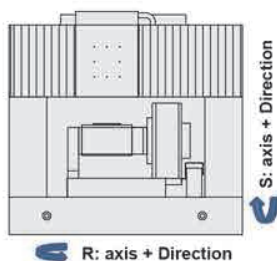
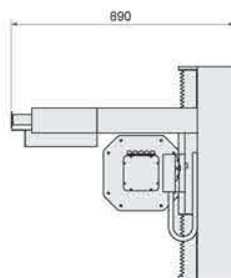
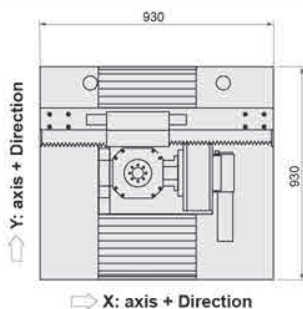
Vertical straightness



LMA

LMA2L2R-PP-300×300A (L)

DA0000683A



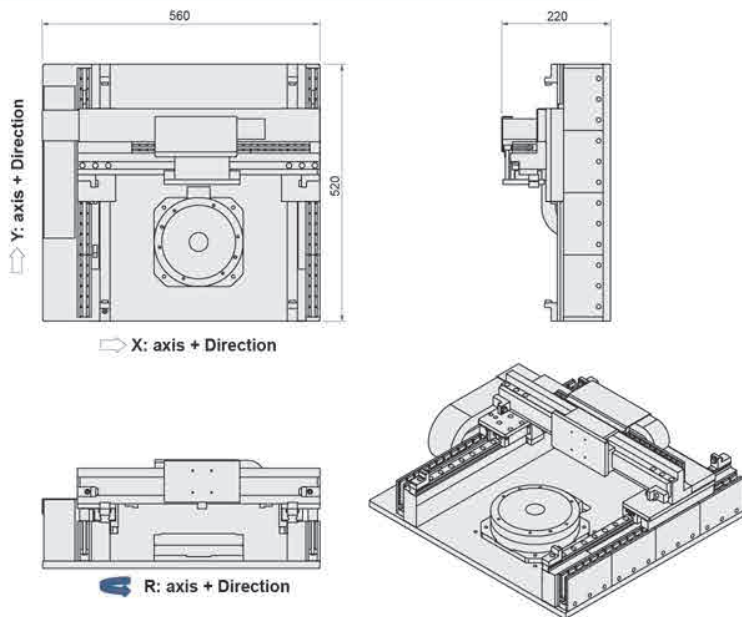
LMA

LMA2L2R-PP-300×300A

Peak force (N)	X: 486 Y: 1108	Max. acceleration (m/s ²)	9.8 (Rated load)
Continuous force (N)	X: 143.5 Y: 277	Encoder (Magnetic/Optical)	Optical 0.1μm
Peak Torque (N.m)	R: 11.1	Limit switch	Y1M-BS5
Continuous Torque (N.m)	R: 3.7	Appearance	Black
Effective stroke (mm)	X/Y: 300	Placement method	Horizontal
Payload (kg)	X: 15 R: 10	Lubrication	Lithium base grease
Maximum speed (m/s)	0.5 (Rated load)		
Repeatability (μm)	X/Y: ±2; R/S: ±2arc-sec (RenishawXL80 measurement method)		
Accuracy (μm)	X/Y: ±5; R/S: ±30arc-sec (compensatory)		

LMA3G1R-240×240 (G)

DA0000588A

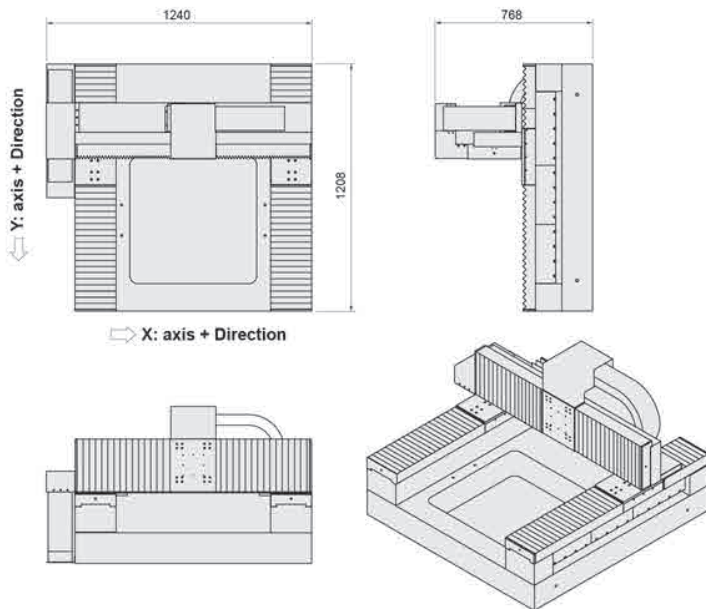


LMA

LMA3G1R-240X240			
Peak force (N)	X: 198 Y: 486	Max. acceleration (m/s ²)	9.8 (Rated load)
Continuous force (N)	X: 54.5 Y: 143.5	Encoder (Magnetic/Optical)	Optical 0.5μm
Peak Torque (N.m)	R: 42	Limit switch	Y1M-BS5
Peak Torque (N.m)	R: 14	Appearance	Silvery
Effective stroke (mm)	X/Y: 240	Placement method	Horizontal
Payload (kg)	X: 3 R: 10	Lubrication	Lithium base grease
Maximum speed (m/s)	0.8 (Rated load)		
Repeatability (μm)	X/Y: ±2; R/S: ±2arc-sec (RenishawXL80 measurement method)		
Accuracy (μm)	X/Y: ±5; R/S: ±30arc-sec (compensatory)		

LMA3G-600×600A (G)

DA0000572A



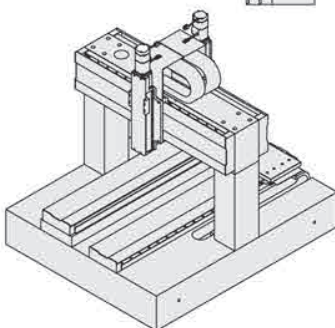
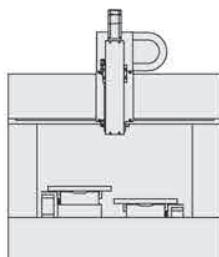
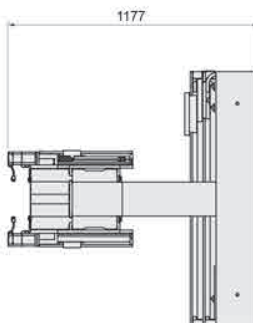
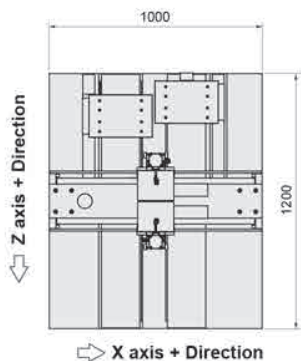
LMA

LMA3G-600×600A

Peak force (N)	X: 486; Y: 1015	Limit switch	BS5-Y1M
Continuous force (N)	X: 143; Y: 290	Appearance	Black/Silvery
Effective stroke (mm)	X: 600; Y: 600	Base material	Granite
Payload (kg)	10	Placement method	Horizontal
Maximum speed (m/s)	0.5 (Rated load)	Lubrication	Lithium base grease
Max.acceleration (m/s ²)	9.8 (Rated load)		
Encoder (Magnetic/Optical)	Optical 0.5μm		
Repeatability (μm)	X/Y: ±1 (RenishawXL80 measurement method)		
Accuracy (μm)	X/Y: ±3 (compensatory)		

LMA6G-700×900×200A (G)

DA0000466A



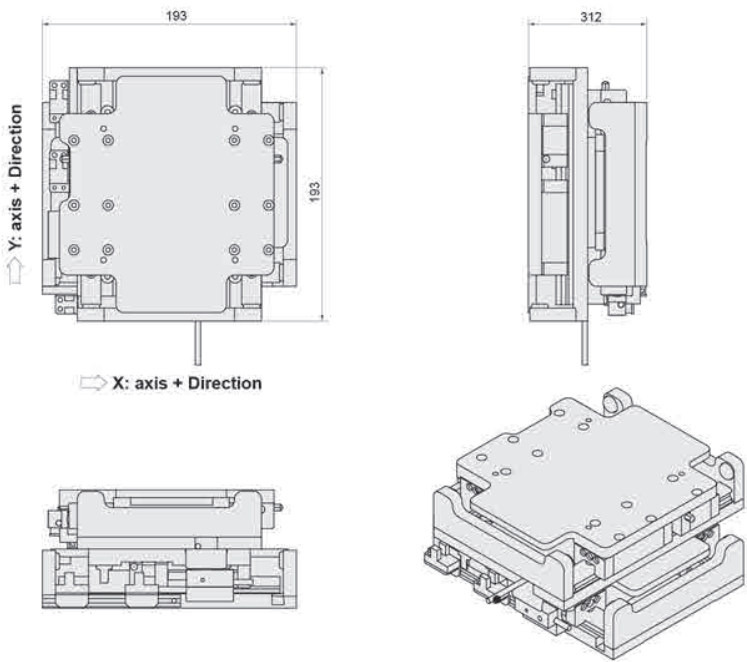
LMA

LMA6G-700×900×200A

Peak force (N)	X: 588; Y: 285	Limit switch	BS5-Y1M
Continuous force (N)	X: 196; Y: 95	Appearance	Black
Effective stroke (mm)	X: 700; Y: 900; Z: 200	Base material	Granite
Payload (kg)	Z: 25; Y: 10	Placement method	Horizontal
Maximum speed (m/s)	0.1 (Rated load)	Lubrication	Lithium base grease
Max.acceleration (m/s ²)	-		
Encoder (Magnetic/Optical)	Optical 0.5um		
Repeatability (μm)	X/Y: ±1.5; Z: ±3 (RenishawXL80)		
Accuracy (μm)	X/Y: ±5; Z: 25 (compensatory)		

LMA2L-40×40 (L)

DA0000600A



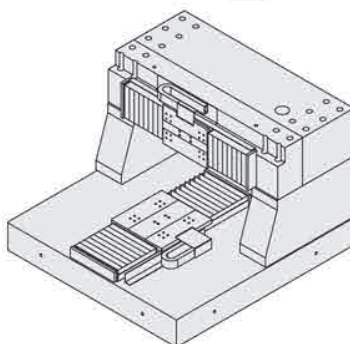
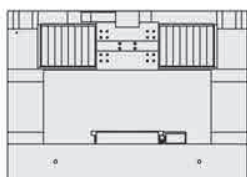
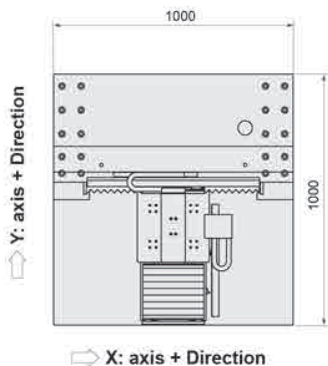
LMA

LMA2L-40×40

Peak force (N)	X/Y: 588	Limit switch	Y1M-BS5
Continuous force (N)	X/Y: 196	Appearance	Silvery
Effective stroke (mm)	X/Y: 40	Placement method	Hanging upside down
Payload (kg)	15	Lubrication	Lithium base grease
Maximum speed (m/s)	0.2 (Rated load)		
Max.acceleration (m/s²)	6 (Rated load)		
Encoder (Magnetic/Optical)	Optical 0.5um		
Repeatability (µm)	X/Y: ±2 (RenishawXL80 measurement method)		
Accuracy (µm)	X/Y: ±2 (compensatory)		

LMA2G-300×300A (G)

DA0000185H

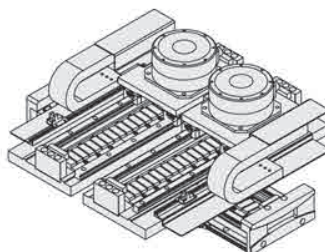
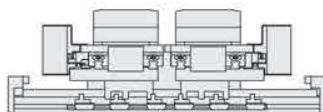
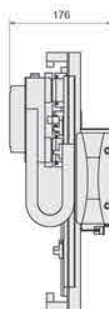
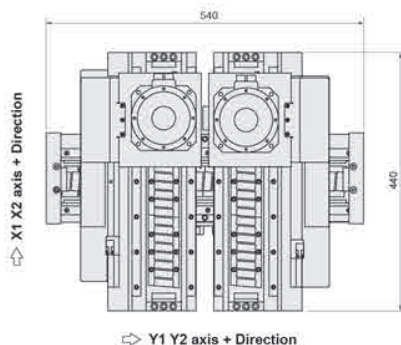


LMA

LMA2G-300×300A			
Peak force (N)	X: 360 Y: 540	Limit switch	EE-SX674
Continuous force (N)	X: 120 Y: 180	Appearance	Silvery
Effective stroke (mm)	X/Y: 300	Placement method	Horizontal
Payload (kg)	X: 10 Y: 15	Lubrication	Lithium base grease
Maximum speed (m/s)	1 (Rated load)		
Max.acceleration (m/s ²)	9.8 (Rated load)		
Encoder (Magnetic/Optical)	Optical 0.5μm		
Repeatability (μm)	X/Y: ±2 (RenishawXL80 measurement method)		
Accuracy (μm)	X/Y: ±5 (compensatory)		

LMA4L2R-210×40A (L)

DA0000310H

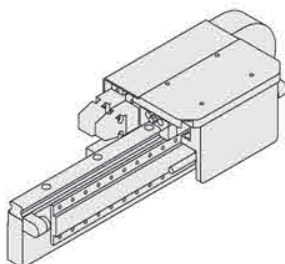
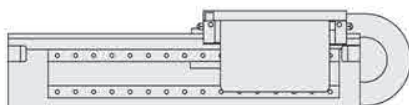
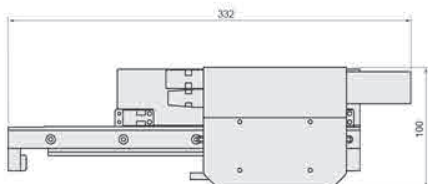


LMA

LMA4L2R-210×40A			
Peak force (N)	X: 360; Y: 540	Encoder (Magnetic/Optical)	Optical 0.5um
Continuous force (N)	X: 120; Y: 180	Repeatability (μm)	X/Y: ±1 (RenishawXL80 measurement method)
Peak Torque (N·m)	A: 3.9	Repeatability (arc-sec)	A: ±3
Continuous Torque (N·m)	A: 1.3	Limit switch	EE-SX674
Effective stroke (mm)	X: 210; Y: 40; A: 360°	Appearance	Silvery
Payload (kg)	A: 5	Base material	aluminium alloy
Maximum speed (m/s)	1 (Rated load)	Placement method	Horizontal
Max.acceleration (m/s²)	-	Lubrication	Lithium base grease
No-load speed (rpm)	300		

LMA1S-150A (S)

DA0000647A



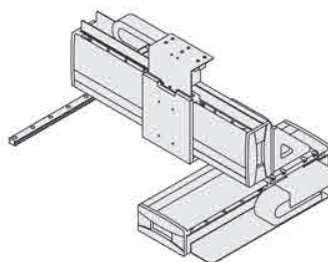
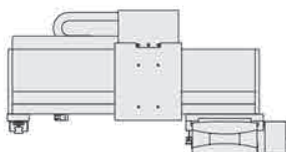
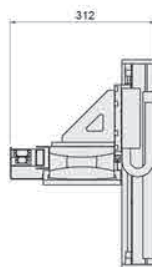
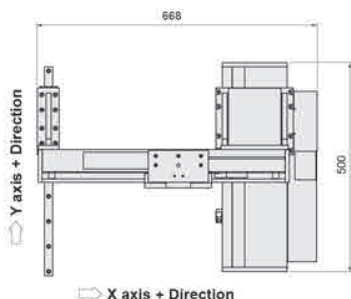
LMA1S-150A

Peak force (N)	75	Limit switch	Y1M-BS5
Continuous force (N)	25	Appearance	Silvery
Effective stroke (mm)	150	Placement method	Horizontal
Payload (kg)	1	Lubrication	Lithium base grease
Maximum speed (m/s)	0.9 (Rated load)		
Max. acceleration (m/s ²)	9.8 (Rated load)		
Encoder (Magnetic/Optical)	Magnetic 1um		
Repeatability (μm)	±5 (RenishawXL80 measurement method)		
Accuracy (μm)	±15 (compensatory)		

LMA

LMA2G-200×200A (G)

DA0000444B



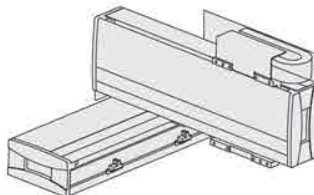
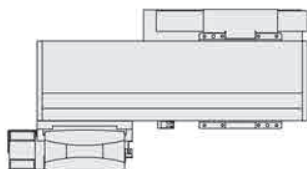
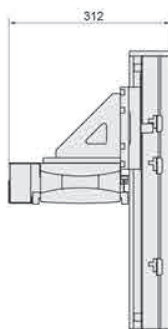
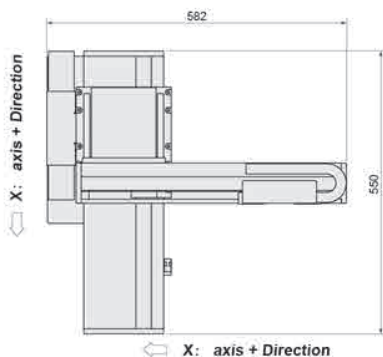
LMA

LMA2G-200×200A

Peak force (N)	X/Y: 390	Limit switch	BS5-Y1M
Continuous force (N)	X/Y: 130	Appearance	Black/Silvery
Effective stroke (mm)	X/Y: 200	Base material	Granite
Payload (kg)	10	Placement method	Horizontal
Maximum speed (m/s)	0.2 (Rated load)	Lubrication	Lithium base grease
Max.acceleration (m/s ²)	5 (Rated load)		
Encoder (Magnetic/Optical)	Optical 1μm		
Repeatability (μm)	X/Y: ±5 (RenishawXL80 measurement method)		
Accuracy (μm)	X/Y: ±15 (compensatory)		

LMA2C-120×250A (C)

DA0000322C

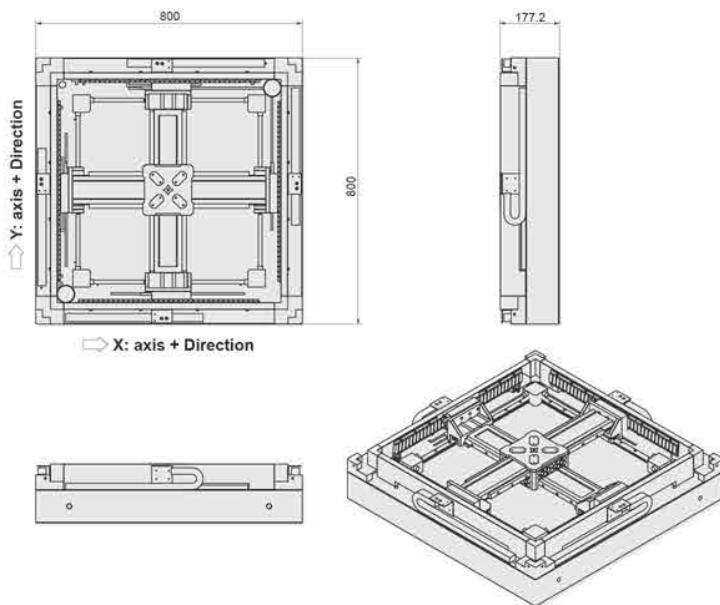


LMA

LMA2C-120×250A			
Peak force (N)	X/Y: 390	Limit switch	EE-SX674
Continuous force (N)	X/Y: 130	Appearance	Silvery
Effective stroke (mm)	X: 120; Y: 250	Base material	Aluminium alloy
Payload (kg)	20	Placement method	Horizontal
Maximum speed (m/s)	X: 0.2; Y: 0.3 (Rated load)	Lubrication	Lithium base grease
Max.acceleration (m/s ²)	2 (Rated load)		
Encoder (Magnetic/Optical)	Magnetic 1um		
Repeatability (μm)	X/Y: ±30 (RenishawXL80 measurement method)		
Accuracy (μm)	X/Y: ±90 (compensatory)		

LMA2L-300×300A (L)

DA0000680A



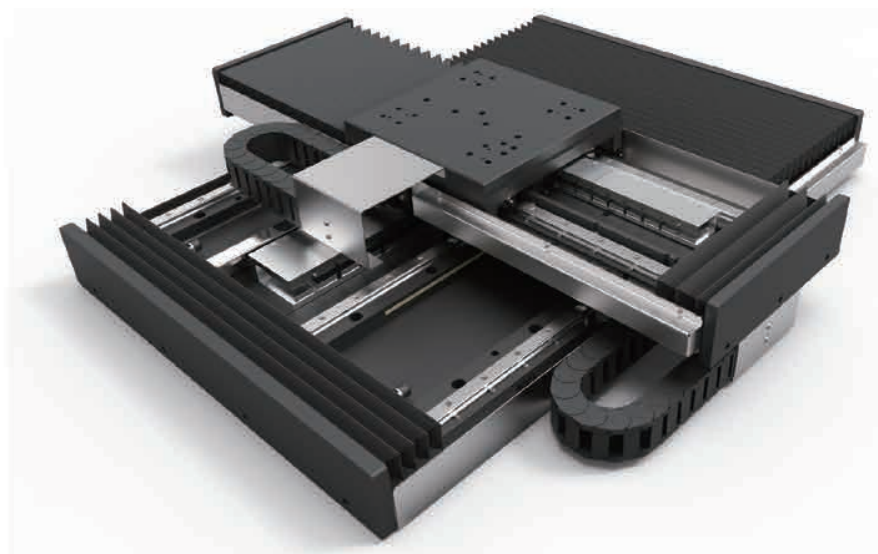
LMA

LMA2L-300×300A

Peak force (N)	X/Y: 285	Limit switch	BS5-Y1M
Continuous force (N)	X/Y: 95	Appearance	Black/silvery
Effective stroke (mm)	X/Y: 300	Base material	Granite
Payload (kg)	10	Placement method	Horizontal
Maximum speed (m/s)	1.5 (Rated load)	Lubrication	Lithium base grease
Max.acceleration (m/s ²)	2.8 (Rated load)		
Encoder (Magnetic/Optical)	Optical 0.1μm		
Repeatability (μm)	X/Y: ±1 (RenishawXL80 measurement method)		
Accuracy (μm)	X/Y: ±3 (compensatory)		

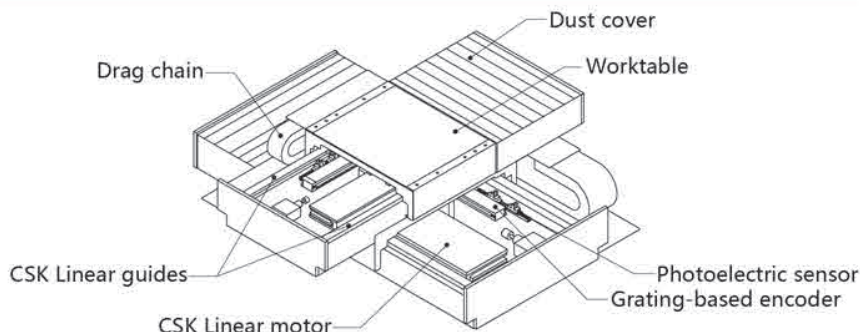
Linear Motor Stage

LMA-CS series



LMA

Construction



Note: Only for reference

Characteristics

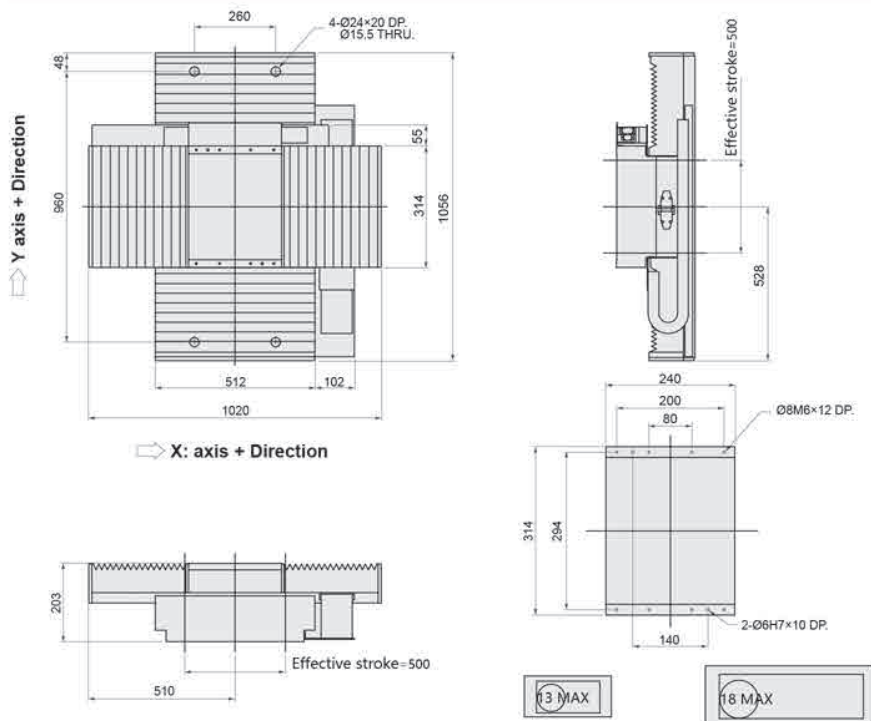
LMA-CS series is designed and developed to meet the high-precision requirements of the motion platform market. Notably, this series features full linear motor drive and is constructed with an industrial-grade marble theme. All components are sourced from internationally renowned brands, ensuring product excellence. Leveraging years of experience in motion platform manufacturing, the overall architecture has been reanalyzed to achieve optimal balance design. Rigorous data validation using professional instruments ensures the scientific and rational performance of the motion platform, all while maintaining cost-effectiveness. The LMA-CS series offers both personalized single-unit production and batch supply options.

- High speed and accuracy
- Speed fluctuation < 0.1%
- Multiple precision options
- Labyrinth structure dust protection
- No toothless force
- Axis orthogonality < 5 μ m
- Meet arc interpolation requirements

Specifications

	LMA-CS	-U-	300 × 300	A
LMA-CS				
motor				
U: DUD Ironless Linear Motor				
P: DPD Iron Core Linear Motor				
Effective stroke (mm)				
Special symbol				
No symbol: Standard				
Special: No symbol, A, B ... (For other requirements, please consult CSK)				

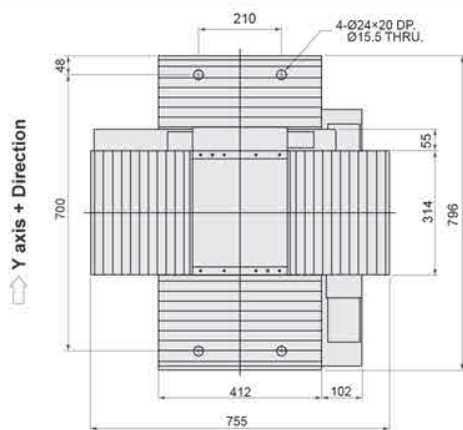
LMA-CS-U-500×500



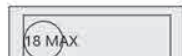
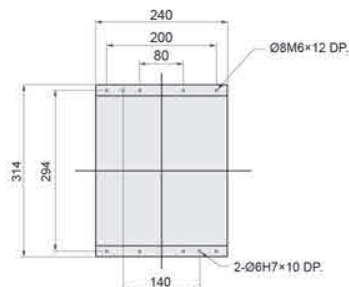
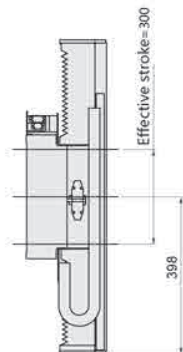
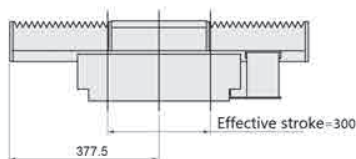
LMA-CS-U-500×500

Peak force (N)	X: 486 Y: 870	Limit switch	Optional
Continuous force (N)	X: 143.5 Y: 290	Appearance	Black
Effective stroke (mm)	X/Y: 500	Placement method	Horizontal
Payload (kg)	20	Lubrication	Lithium base grease
Maximum speed (m/s)	1 (no-load)		
Max.acceleration (m/s ²)	9.8 (no-load)		
Encoder (Magnetic/Optical)	Optional		
Repeatability (µm)	X/Y: ±2 (RenishawXL80 measurement method)		
Accuracy (µm)	X/Y: ±4 (compensatory)		

LMA-CS-U-300×300



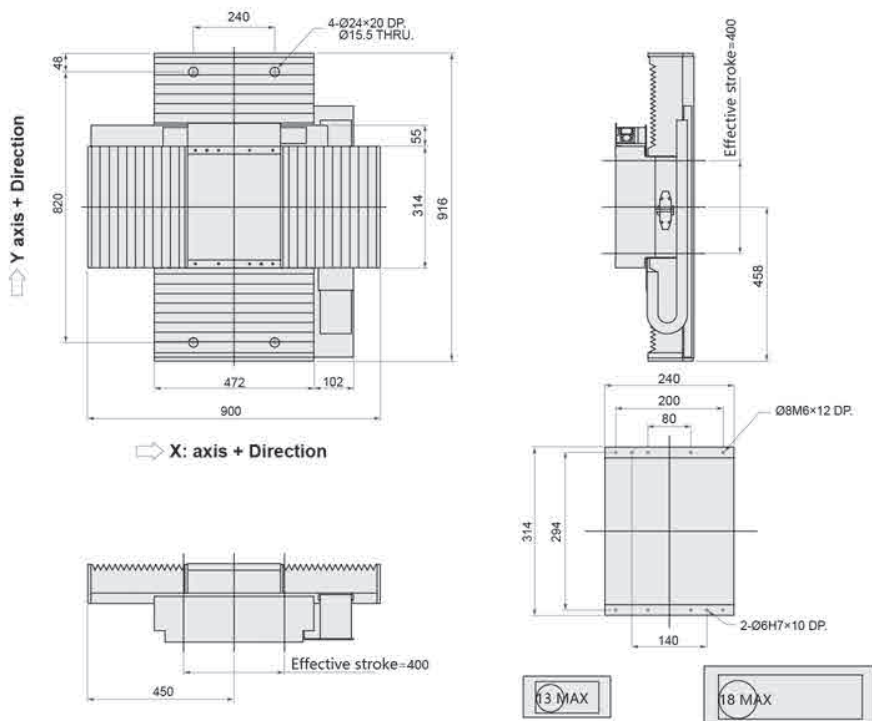
⇒ X: axis + Direction



LMA-CS-U-300×300

Peak force (N)	X: 486 Y: 870	Limit switch	Optional
Continuous force (N)	X: 143.5 Y: 290	Appearance	Black
Effective stroke (mm)	X/Y: 300	Placement method	Horizontal
Payload (kg)	20	Lubrication	Lithium base grease
Maximum speed (m/s)	1 (no-load)		
Max. acceleration (m/s ²)	9.8 (no-load)		
Encoder (Magnetic/Optical)	Optional		
Repeatability (µm)	X/Y: ±2 (Renishaw XL80 measurement method)		
Accuracy (µm)	X/Y: ±4 (compensatory)		

LMA-CS-U-400×400



LMA-CS-U-400×400

Peak force (N)	X: 486 Y: 870	Limit switch	Optional
Continuous force (N)	X: 143.5 Y: 290	Appearance	Black
Effective stroke (mm)	X/Y: 400	Placement method	Horizontal
Payload (kg)	20	Lubrication	Lithium base grease
Maximum speed (m/s)	1 (no-load)		
Max. acceleration (m/s²)	9.8 (no-load)		
Encoder (Magnetic/Optical)	Optional		
Repeatability (µm)	X/Y: ±2 (Renishaw XL80 measurement method)		
Accuracy (µm)	X/Y: ±4 (compensatory)		

Precautions for use

1. Precautions before purchase

- 1.1 When purchasing, please check the scope of the use environment with our sales staff. Please do not use in the corrosive environment such as sulfur and sulphide gas, which may lead to line breakage or poor contact.
- 1.2 When selecting the model, please check the use requirements and motor parameters with our sales staff to ensure the scientific use.

2. Matters needing attention in operation

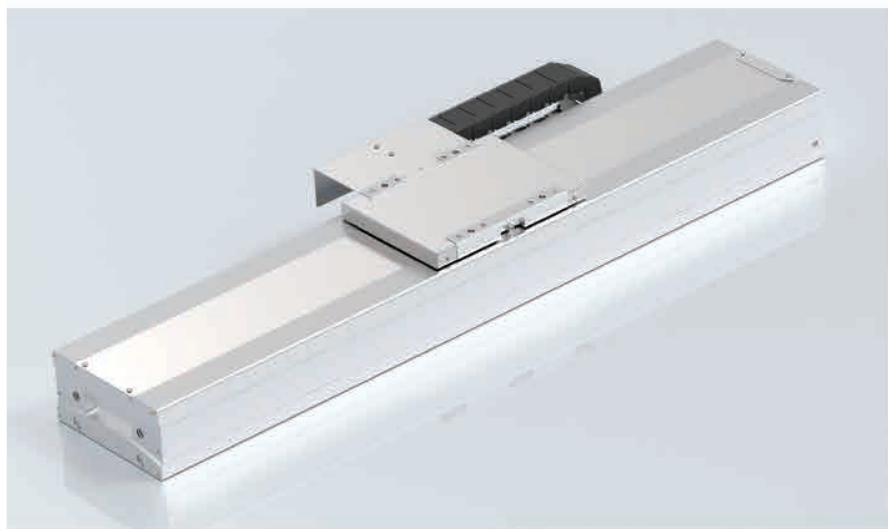
- 2.1 This product is manufactured as a precision mechanical part and is widely used in the mechanical industry. Technical personnel with professional knowledge and experience are required to operate it.
- 2.2 When operating, please be sure to use according to the operating specifications of the product.
- 2.3 In the application, if you have special requirements on the use environment of cable and motor installation, please contact our sales staff for confirmation to prevent accidents.
- 2.4 All terminals of the equipment are not allowed to be plugged and unplugged with live power to prevent damage to the motor and driver.
- 2.5 The ground wire of the motor must be grounded.
- 2.6 Do not place the control signal line and power line (main power line, motor power line, etc.) of the equipment in the same line tube or wrap them into a bundle.
- 2.7 During motor operation, do not touch the moving parts of the motor.

3. Matters needing attention for follow-up maintenance

- 3.1 Precautions for storage equipment: temperature shall be controlled within -20°C to +60°C. Humidity: less than 85%, placed in a dust-free, clean, non-corrosive gas, no grinding fluid, no metal powder, no oil environment.
- 3.2 In the case of movement, wiring, maintenance and inspection, please cut off the power for more than 3 minutes before operating. Cut off the power for about 2~3 minutes, the power line still has voltage residue, do not touch the equipment carelessly.
- 3.3 Frequent power on or off will lead to deterioration of main circuit components. After power off, please wait for more than 1 minute to power on again. The frequency of power on and off is limited to less than 2 times every 3 minutes.

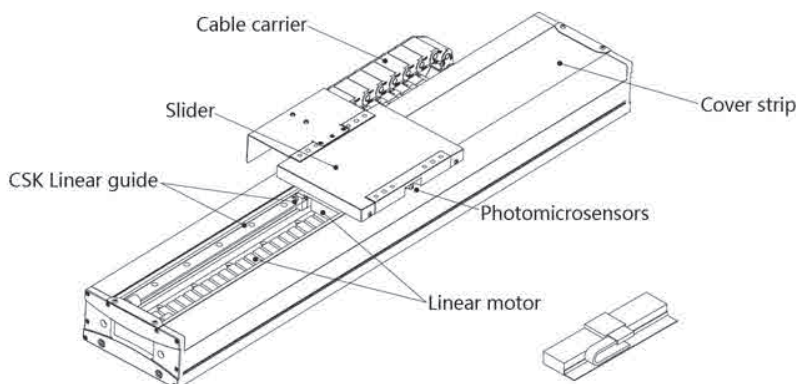
Linear Motor Module

LMB series



LMB

Construction



Note: For reference only.

Characteristics

LMB series linear motor modules are specially designed for environments with high dust level and low dust emission. Completely dustpreventive structure is adopted to effectively prevent foreign bodies from invading the module body, so that it can withstand harsh environment . It can be connected with a special device to achieve low dust emission, can meet part of clean room use requirements.

- Completely dust preventive structure
- Low dust emission
- Rapid acceleration/deceleration
- Precision optional
- Multi-slider
- Long stroke
- Use precision linear guideway
- Modularization
- High quality appearance
- Customization

Applications

Machine Tool (CNC, Lathe ...)
Industrial Robot
Clean room environment

Semiconductor Manufacturing Equipment
Other (Injection Molding Machine ...)

Specifications

	LMB	150	F1	D2 - S700	LH	P2	3K	3M
Series	LMB: Completely dust preventive structure series							
Size	150: The width of the module is 150mm							
180								
200								
Thrust specifications								
F1:								
F2:								
Number of slider								
D1: 1 slider (Standard)								
D2: 2 sliders								
Effective stroke	S700: Each slider effective stroke is 700mm							
200mm, 300mm, 400mm....., 2000mm								
Cable carrier entry location								
RH : Horizontally, right								
LH : Horizontally, left (Standard)								
RW: Wall hanging, right								
LW : Wall hanging, left								
No symbol : There is no cable carrier								
Resolution								
P1: Magnetic encoders								
P2: Optical encoders 1μm (Standard)								
P3: Optical encoders 0.5μm								
Note: For other requirements, please consult CSK.								
Limit switch								
3K: 3 Photomicrosensors (Optional)								
N : There is no limit switch								
Note: For other requirements, please consult CSK.								
Motor/encoder extension cable								
3M: 3 meters (Standard) , 5 meters, 10 meters								
Special symbol								
No symbol: Standard								
Special: No symbol, A, B ... (For other requirements, please consult CSK)								

LMB

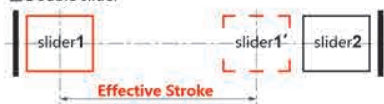
LMB series technical analysis

Effective stroke

Single slider



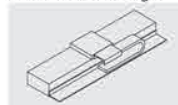
Double slider



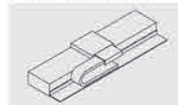
※Note: For other requirements, please consult CSK.

Cable carrier entry location

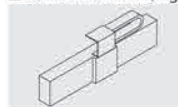
RH Horizontal, right



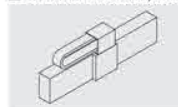
LH Horizontal, left



RW Wall mounted, right



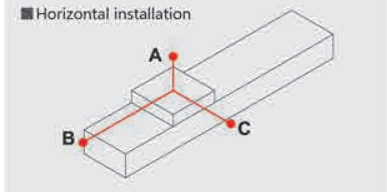
LW Wall mounted, left



※Be sure to install in the direction as specified individually. Installation in any other way will cause a failure.

Allowable overhang

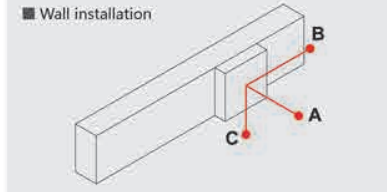
Horizontal installation



Unit (mm)

Payload	A	B	C
10kg	2525	1397	956
15kg	2248	940	706
20kg	2143	712	573
25kg	1752	576	404
30kg	1464	484	296
35kg	1264	420	220
40kg	1112	372	180

Wall installation



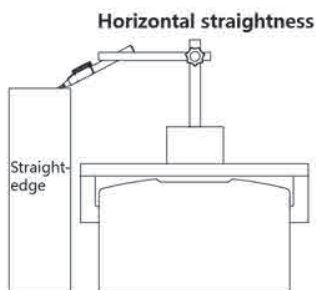
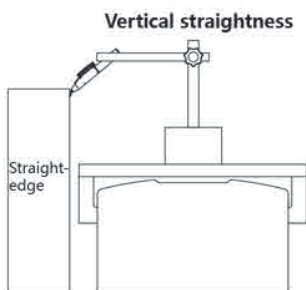
Unit (mm)

Payload	A	B	C
10kg	976	1056	2032
15kg	696	680	1760
20kg	536	488	1624
25kg	388	320	1024
30kg	224	260	840
35kg	212	216	712
40kg	188	184	612

Construction

Model	LMB150		LMB180		LMB200
	LMB150F1	LMB150F2	LMB180F1	LMB180F2	LMB200F1
Peak Force (N)	792	1188	849	1256	1766
Continuous Force (N)	220	330	250	370	520
Effective stroke (mm)	100-4000				
Encoder resolution	Optical: 1, 0.5, 0.1 μ m ; 1vpp sincos/ Magnetic: 1 μ m, 0.2 μ m				
Repeatability (μ m)	$\pm 2\mu\text{m}/\pm 3\mu\text{m}$				
Accuracy (μ m)	$\pm 6\mu\text{m}/\pm 9\mu\text{m}$ (compensatory)				
Horizontal straightness	$\pm 2.5\mu\text{m}/500\text{mm}$				
Vertical straightness	$\pm 5\mu\text{m}/500\text{mm}$				
Appearance	Colorless oxidation				
Maximum speed (m/s)	5	5	5	5	5
Max. acceleration (m/s ²)	27.5	33.6	28.7	34.2	41.9
Workbench weight (kg)	4.5	6.3	5.2	7.3	8.9
Height (mm)	95				

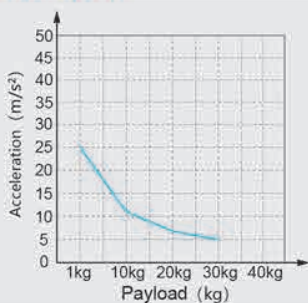
Running Parallelism



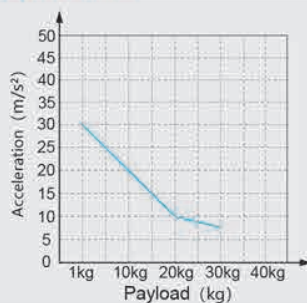
LMB

Selection auxiliary diagram(acceleration)

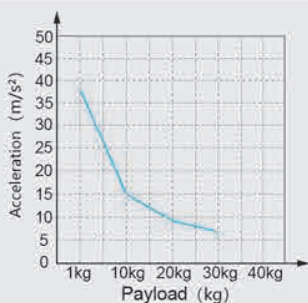
LMB150F1



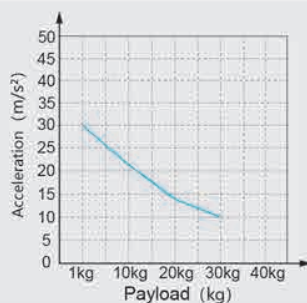
LMB150F2



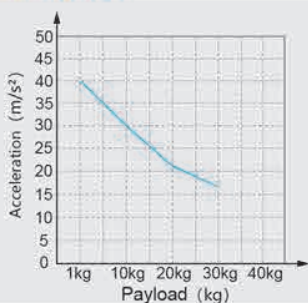
LMB180F1



LMB180F2



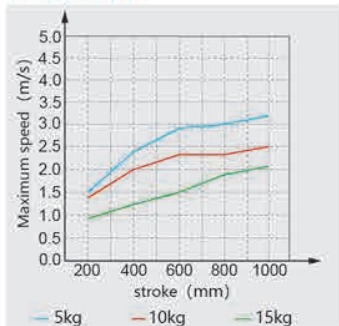
LMB200F1



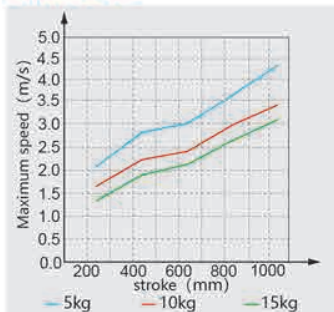
LMB

Selection auxiliary diagram (Maximum speed)

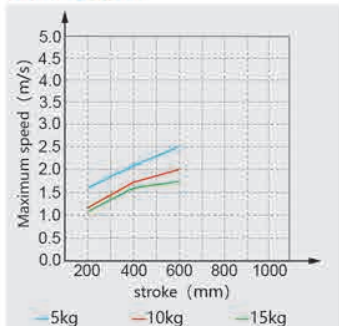
LMB150F1



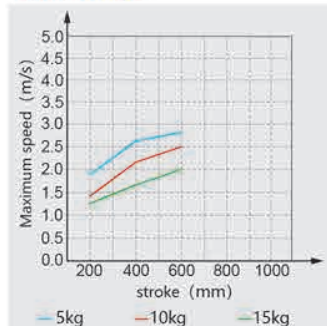
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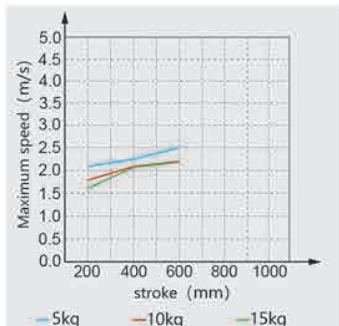
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LMB180F2

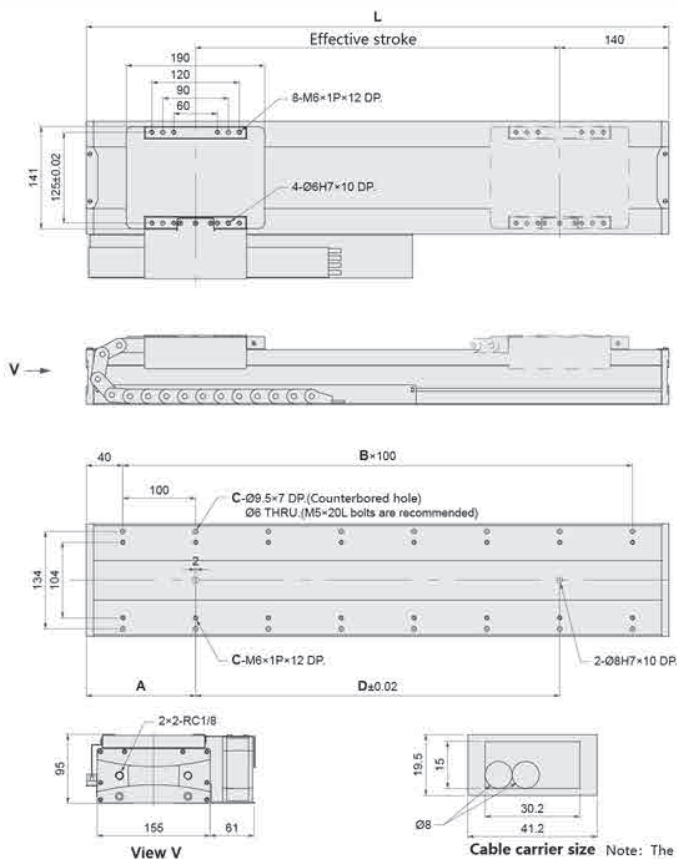


LMB200F1



LMB

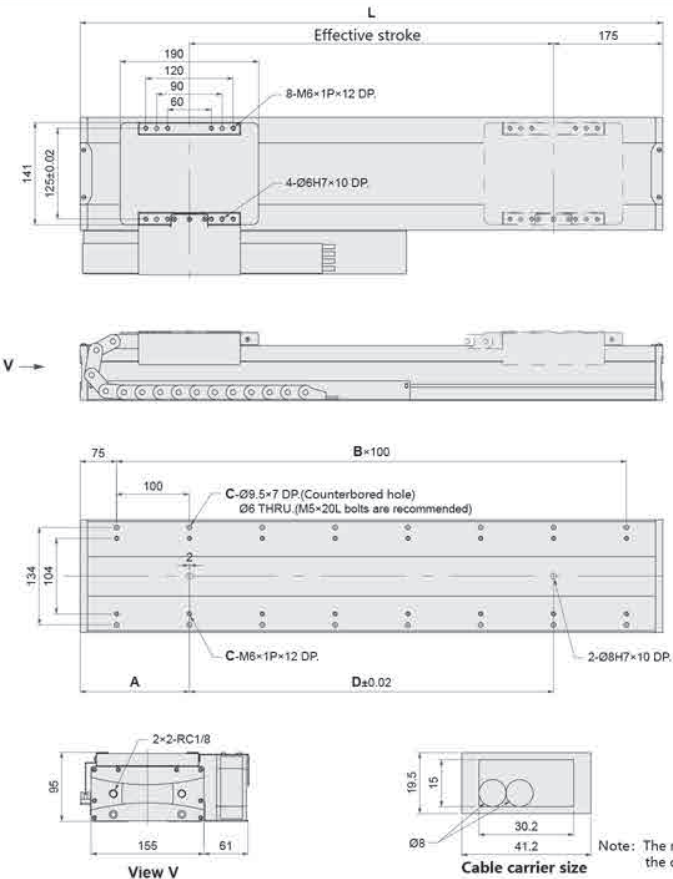
Construction



LMB

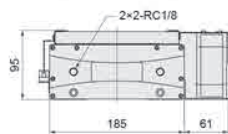
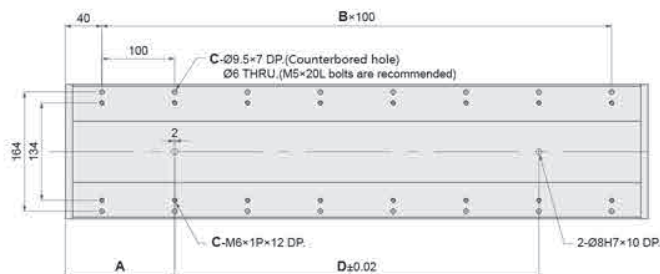
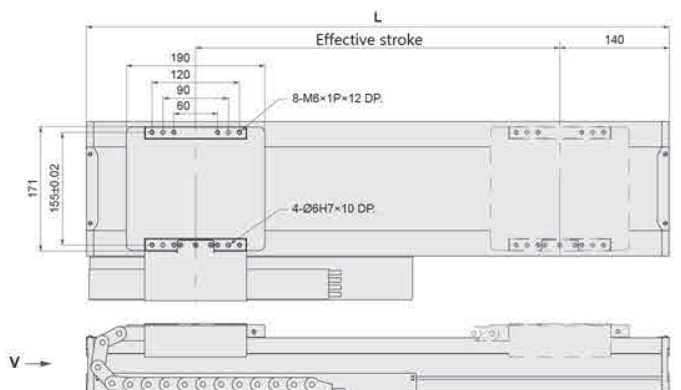
													Unit (mm)	
Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000	
L	480	580	680	780	880	980	1080	1280	1480	1680	1880	2080	2280	
A	140								240	340	440	540	640	
B	4	5	6	7	8	9	10	12	14	16	18	20	22	
C	10	12	14	16	18	20	22	26	30	34	38	42	46	
D	200	300	400	500	600	700	800	1000						
Weight (kg)	13	14.6	16.3	17.9	19.5	21.2	22.8	26.1	29.3	32.6	35.9	39.1	42.4	

Construction

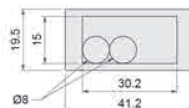


	Unit (mm)												
Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	550	650	750	850	950	1050	1150	1350	1550	1750	1950	2150	2350
A	175								275	375	475	575	675
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	14	15.6	17.3	18.9	20.5	22.2	23.8	27.1	30.3	33.6	36.9	40.1	43.4

Construction



View V



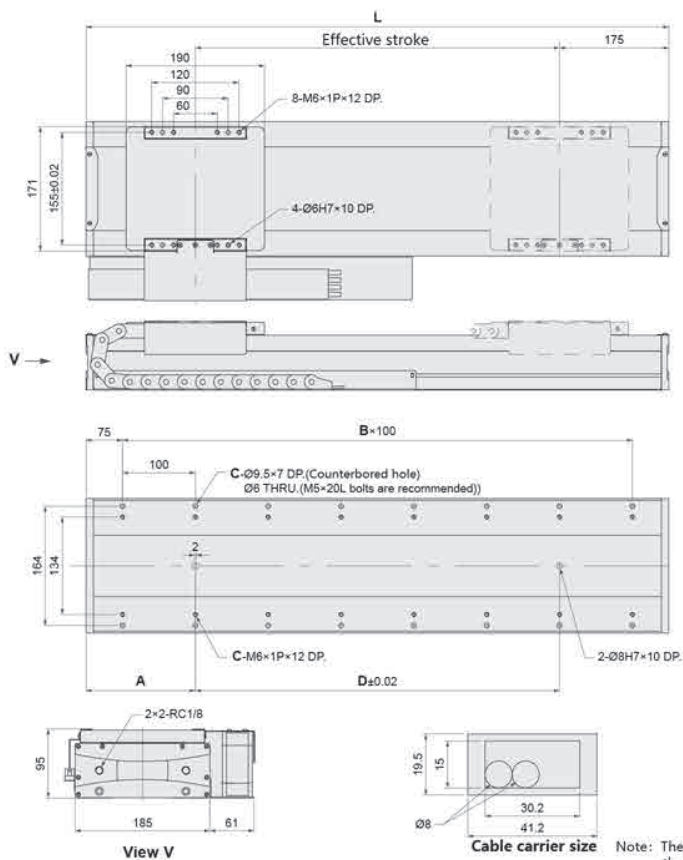
Cable carrier size

Note: The maximum diameter of the cable is 13 millimeter.

Unit (mm)

Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	480	580	680	780	880	980	1080	1280	1480	1680	1880	2080	2280
A	140								240	340	440	540	640
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	13.9	15.8	17.7	19.6	21.5	23.4	25.2	29	32.8	36.5	40.3	44.1	47.8

Construction



LMB

Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	550	650	750	850	950	1050	1150	1350	1550	1750	1950	2150	2350
A	175								275	375	475	575	675
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	15.1	17	18.9	20.8	22.7	24.6	26.4	30.2	34	37.7	41.5	45.3	49

Note: The maximum diameter of the cable is 13 millimeter.

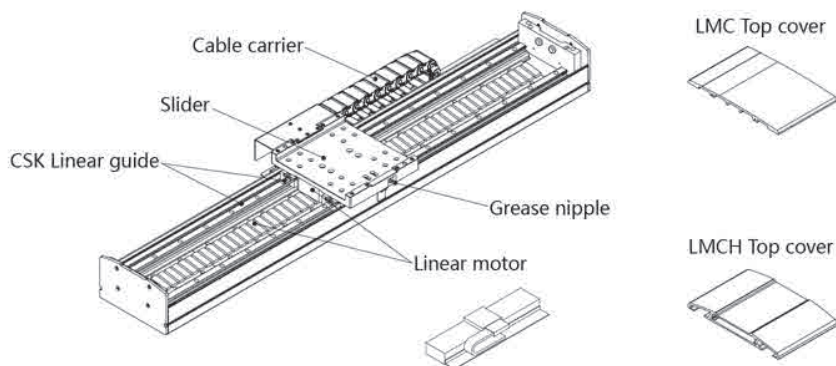
E-mail info@cskmotions.com

Linear Motor Module LMC (H) series



LMC

Construction



Note: For reference only.

Characteristics

LMC (H) series linear motor module is a universal series, suitable for automatic applications as moving or driving units. Modular design is economical and practical. Different structures can meet different stroke, and can be used together when the accuracy is not high. The cover plate can be removed under special circumstance.

- Semi enclosed structure
- Efficient heat dissipation
- Rapid acceleration/deceleration
- Precision optional
- Multi-slider
- Long stroke
- Use precision linear guideway
- Modularization
- High quality appearance
- Customization

Applications

Machine Tool (CNC, Lathe ...)
Industrial Robot

Semiconductor Manufacturing Equipment
Other (Injection Molding Machine ...)

LMC

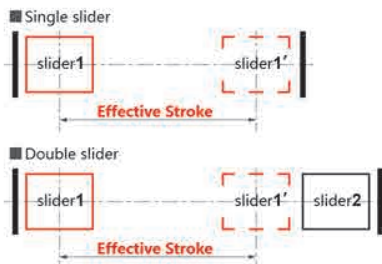
Specifications

	LMC	100	F1	D2	S700	LH	P2	3K	3M
Series									
LMC: Semi enclosed structure series									
LMCH: Semi enclosed structure series (High type)									
Size									
100: The width of the module is 100mm									
135									
180									
200									
Thrust specifications									
F1:									
F2:									
Number of slider									
D1: 1 slider (Standard)									
D2: 2 sliders									
Effective stroke									
S700: Each slider effective stroke is 700mm									
200mm, 300mm, 400mm....., 2000mm									
Cable carrier entry location									
RH : Horizontally, right									
LH : Horizontally, left (Standard)									
RW: Wall hanging, right									
LW : Wall hanging, left									
No symbol : There is no cable carrier									
Resolution									
P1: Magnetic encoders									
P2: Optical encoders 1μm (Standard)									
P3: Optical encoders 0.5μm									
Note: For other requirements, please consult CSK.									
Limit switch									
3K: 3 Photomicrosensors (Optional)									
N : There is no limit switch									
Note: For other requirements, please consult CSK.									
Motor/encoder extension cable									
3M: 3 meters (Standard) , 5 meters, 10 meters									
Special symbol									
No symbol: Standard									
Special: No symbol, A, B ... (For other requirements, please consult CSK)									

LMC

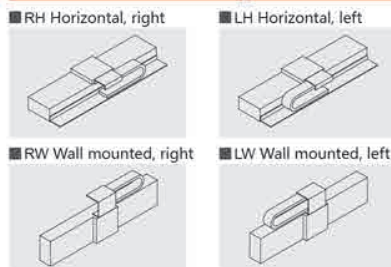
LMC series technical analysis

Effective stroke



※Note: For other requirements, please consult CSK.

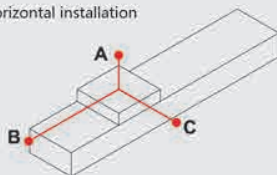
Cable carrier entry location



※Be sure to install in the direction as specified individually.
Installation in any other way will cause a failure.

Allowable overhang

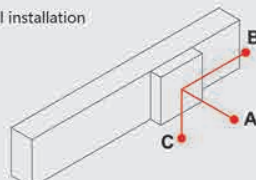
■ Horizontal installation



Unit (mm)

Payload	A	B	C
10kg	2525	1397	956
15kg	2248	940	706
20kg	2143	712	573
25kg	1752	576	404
30kg	1464	484	296
35kg	1264	420	220
40kg	1112	372	180

■ Wall installation



Unit (mm)

Payload	A	B	C
10kg	976	1056	2032
15kg	696	680	1760
20kg	536	488	1624
25kg	388	320	1024
30kg	224	260	840
35kg	212	216	712
40kg	188	184	612

Height difference



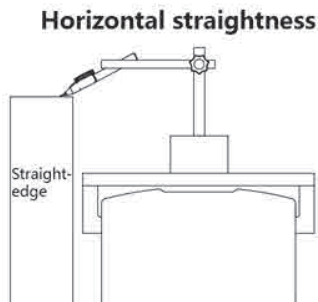
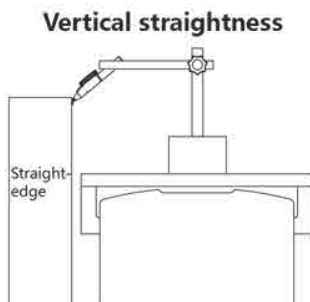
LMC Characteristics:
After installation, the assembly height is low.

LMCH Characteristics:
After installation, long stroke can be realized.

Construction

Model	LMC100		LMC135	LMC150/LMCH150		LMC180/LMCH180		LMC200/LMCH200	
	LMC100F1	LMC100F2	LMC135F1	LMC150F1	LMC150F2	LMC180F1	LMC180F2	LMC200F1	LMC200F2
Peak Force (N)	240	170	396	792	1188	849	1256	1188	1766
Continuous force (N)	80	51	110	220	330	250	370	350	520
Effective stroke (mm)	100-1000		100-4000						
Encoder resolution			Optical: 1、0.5、0.1μm；1vpp sincos/ Magnetic: 1μm、0.2μm						
Repeatability (μm)			±2μm/±3μm						
Accuracy (μm)			±6μm/±9μm（compensatory）						
Horizontal straightnes			±2.5μm/500mm						
Vertical straightness			±5μm/500mm						
Appearance			Colorless oxidation						
Maximum speed (m/s)	5	5	5	5	5	5	5	5	5
Max. acceleration (m/s²)	20	11	25	30	36	31	37	38	44
Workbench weight (kg)	1.5	1.8	2.6	3.7	5.5	4.4	6.5	5.7	8.1
Height (mm)	70		85	80/95					

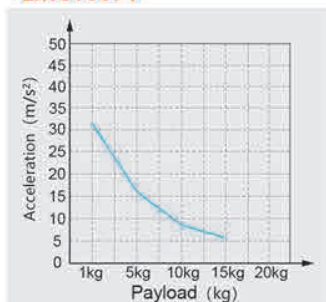
Running Parallelism



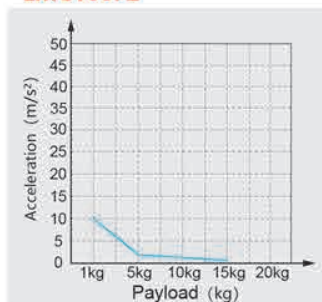
LMC

Selection auxiliary diagram(acceleration)

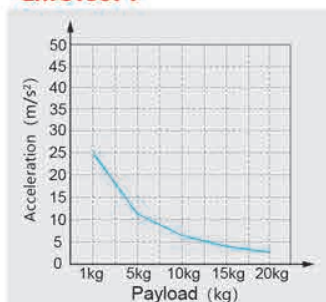
LMC100F1



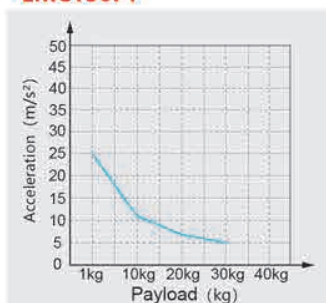
LMC100F2



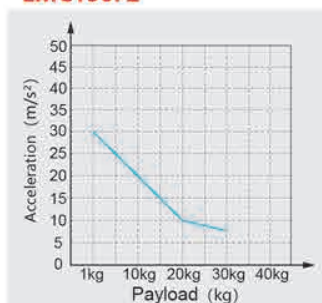
LMC135F1



LMC150F1



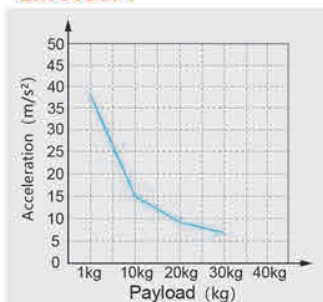
LMC150F2



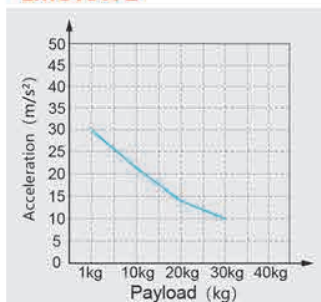
LMC

Selection auxiliary diagram(acceleration)

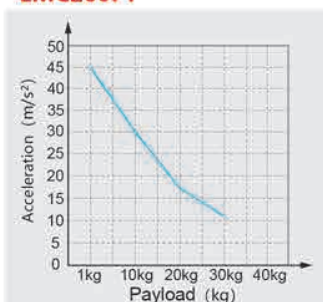
LMC180F1



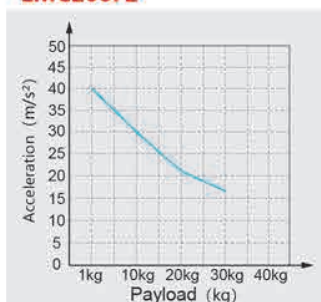
LMC180F2



LMC200F1

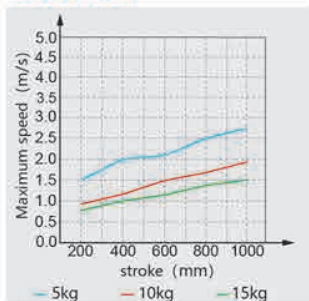


LMC200F2

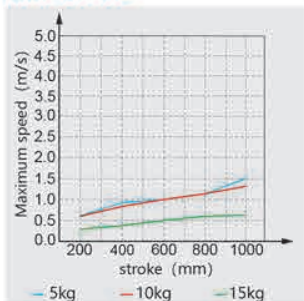


Selection auxiliary diagram (Maximum speed)

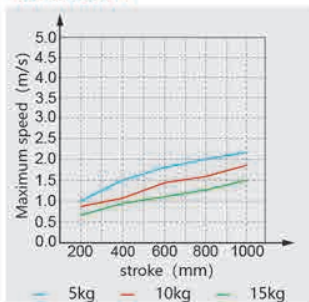
LMC100F1



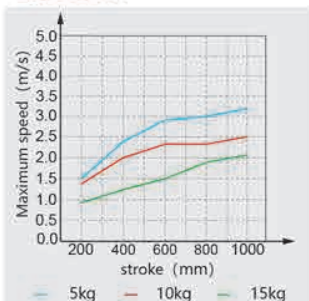
LMC100F2



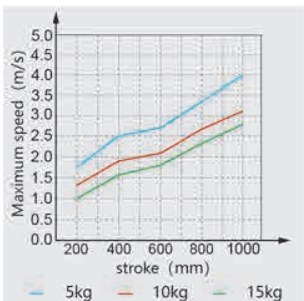
LMC135F1



LMC150F1

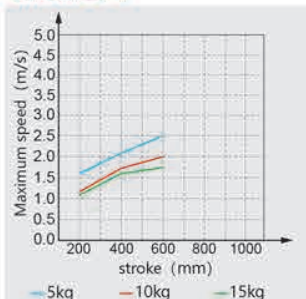


LMC150F2

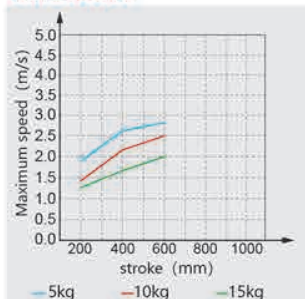


Selection auxiliary diagram (Maximum speed)

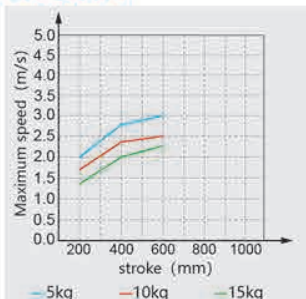
LMC180F1



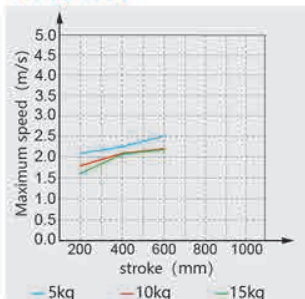
LMC180F2



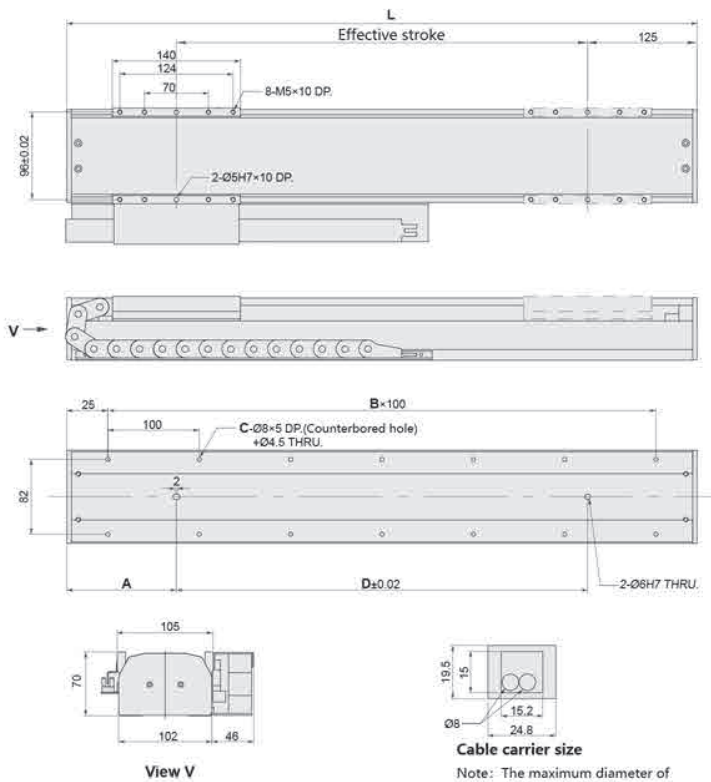
LMC200F1



LMC200F2



LMC100F1

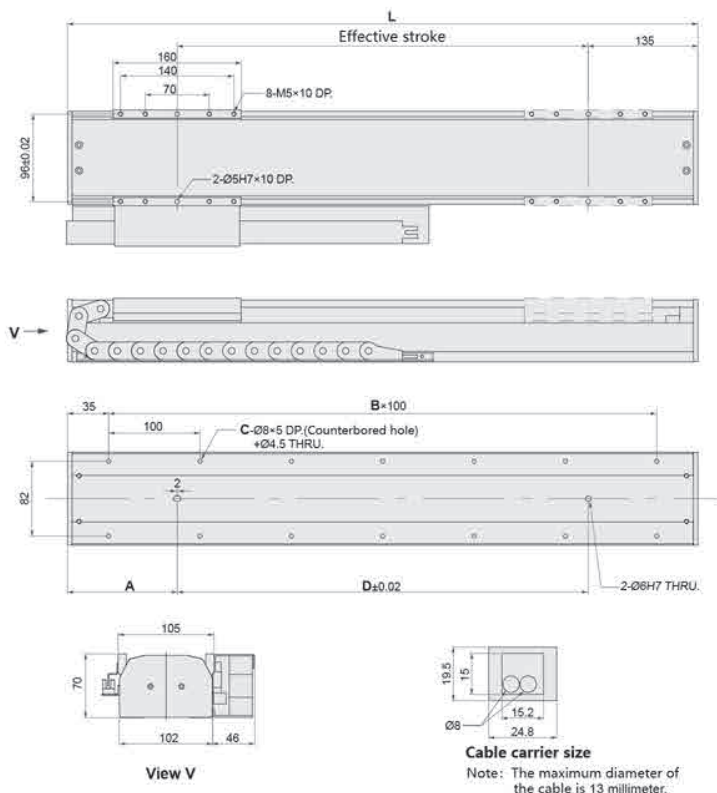


LMC

Unit (mm)

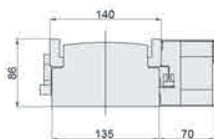
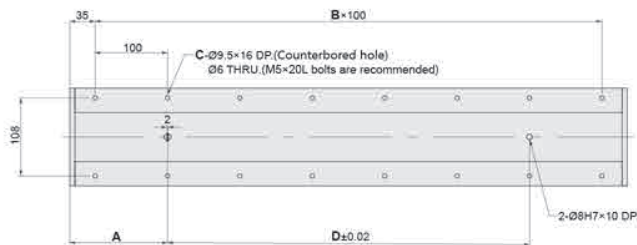
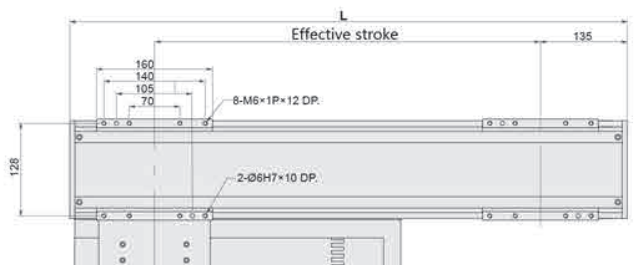
Effective stroke	100	200	300	400	500	600	700	800	900	1000
L	350	450	550	650	750	850	950	1050	1150	1250
A	125									
B	3	4	5	6	7	8	9	10	11	12
C	8	10	12	14	16	18	20	22	24	26
D	100	200	300	400	500	600	700	800	900	1000
Weight (kg)	4.7	5.4	6	6.7	7.3	8	8.7	9.3	10	10.6

LMC100F2

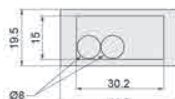


	Unit (mm)									
Effective stroke	100	200	300	400	500	600	700	800	900	1000
L	370	470	570	670	770	870	970	1070	1170	1270
A	135									
B	3	4	5	6	7	8	9	10	11	12
C	8	10	12	14	16	18	20	22	24	26
D	100	200	300	400	500	600	700	800	900	1000
Weight (kg)	5.6	6.3	7	7.6	8.3	9	9.7	10.3	11	11.7

LMC135



View V



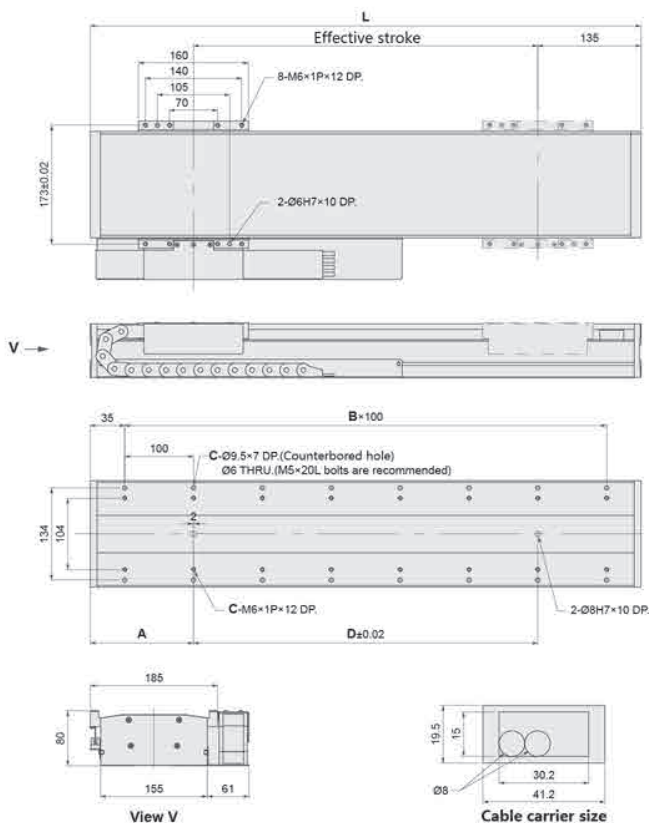
Cable carrier size

Note: The maximum diameter of the cable is 13 millimeter.

Unit (mm)

Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	470	570	670	770	870	970	1070	1270	1470	1670	1870	2070	2270
A	135								235	335	435	535	635
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	8.9	10.1	11.3	12.6	13.8	15.1	16.3	18.8	21.2	23.7	26.2	28.7	31.2

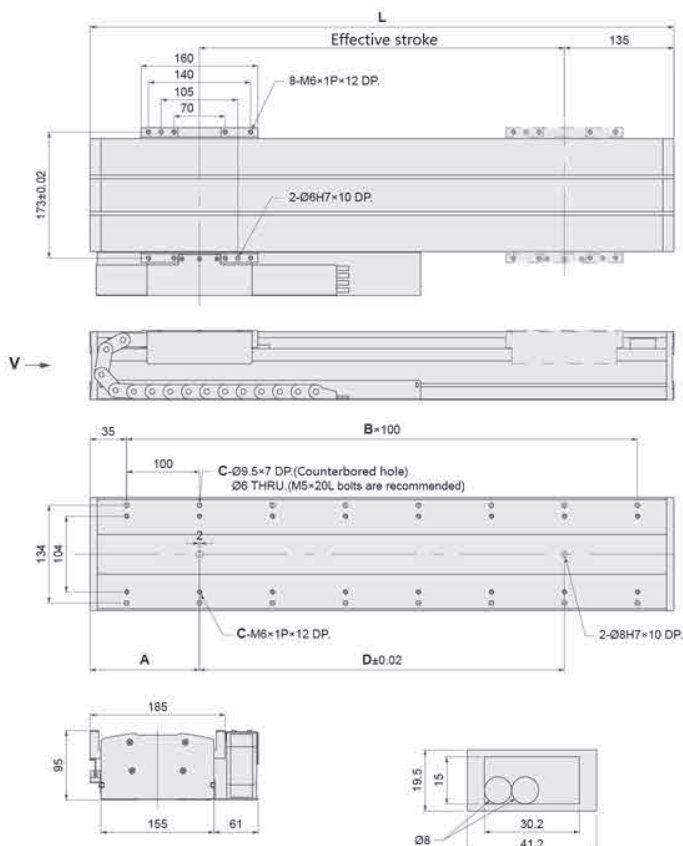
LMC150F1



Unit (mm)

Effective stroke	200	300	400	500	600	700
L	470	570	670	770	870	970
A	135					
B	4	5	6	7	8	9
C	10	12	14	16	18	20
D	200	300	400	500	600	700
Weight (kg)	13.2	15	16.7	18.5	20.2	22

LMCH150F1



View V

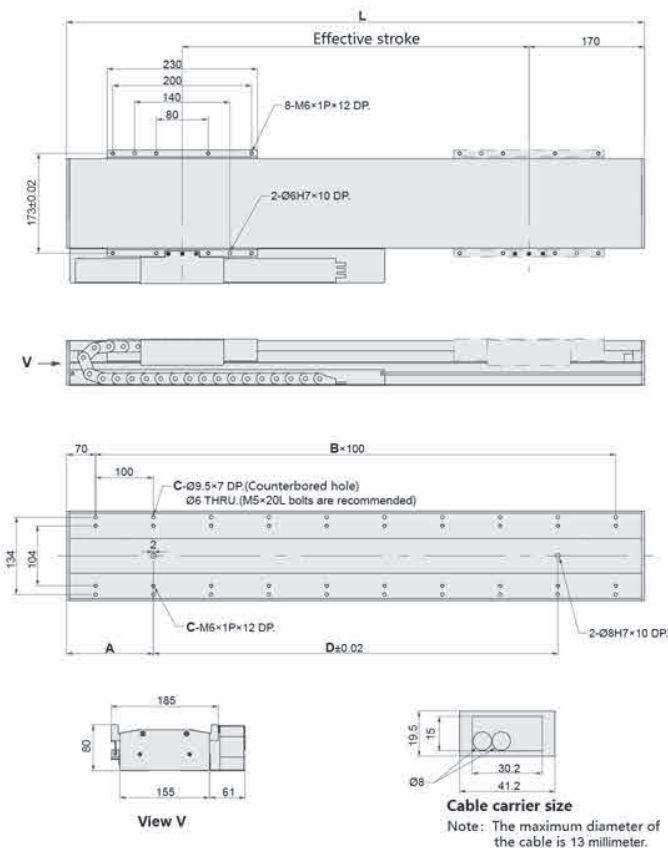
Cable carrier size

Note: The maximum diameter of the cable is 13 millimeter.

Unit (mm)

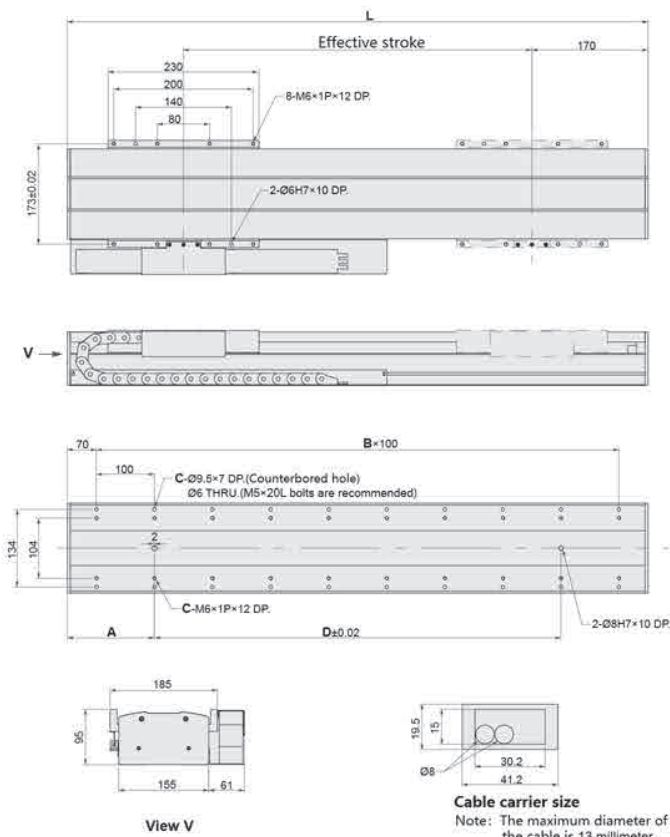
Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	470	570	670	770	870	970	1070	1270	1470	1670	1870	2070	2270
A	135								235	335	435	535	635
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	13.7	15.5	17.2	19	20.7	22.5	24.2	27.7	31.2	34.7	38.2	41.7	45.2

LMC150F2



Unit (mm)						
Effective stroke	200	300	400	500	600	700
L	540	640	740	840	940	1040
A	170					
B	4	5	6	7	8	9
C	10	12	14	16	18	20
D	200	300	400	500	600	700
Weight (kg)	15	16.8	18.5	20.3	22	23.8

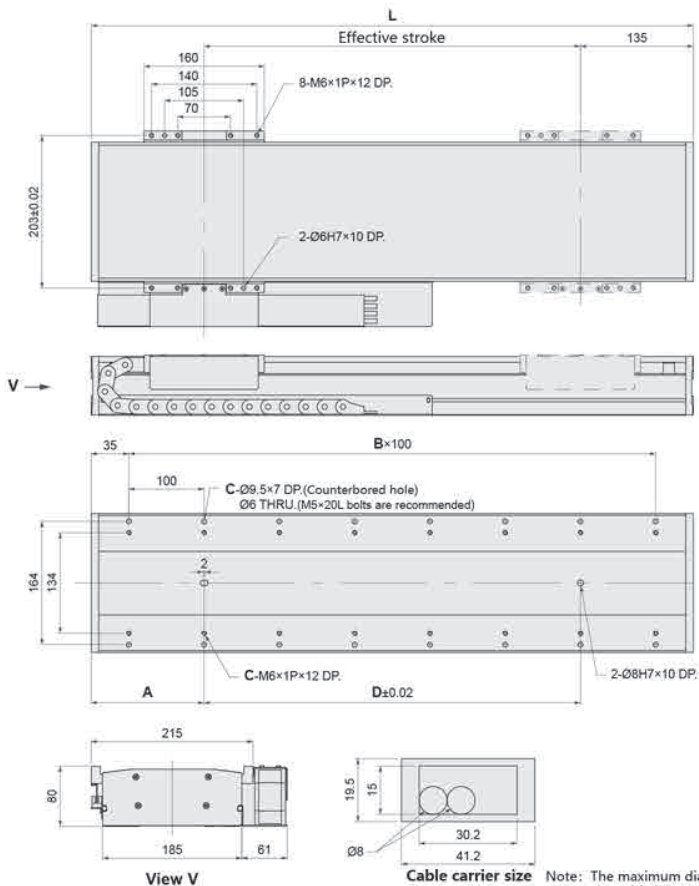
LMCH150F2



LMC

	Unit (mm)												
Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	540	640	740	840	940	1040	1140	1340	1540	1740	1940	2140	2340
A	170								270	370	470	570	670
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	15.6	17.4	19.1	20.9	22.6	24.4	26.1	29.6	33.1	36.6	40.1	43.6	47.1

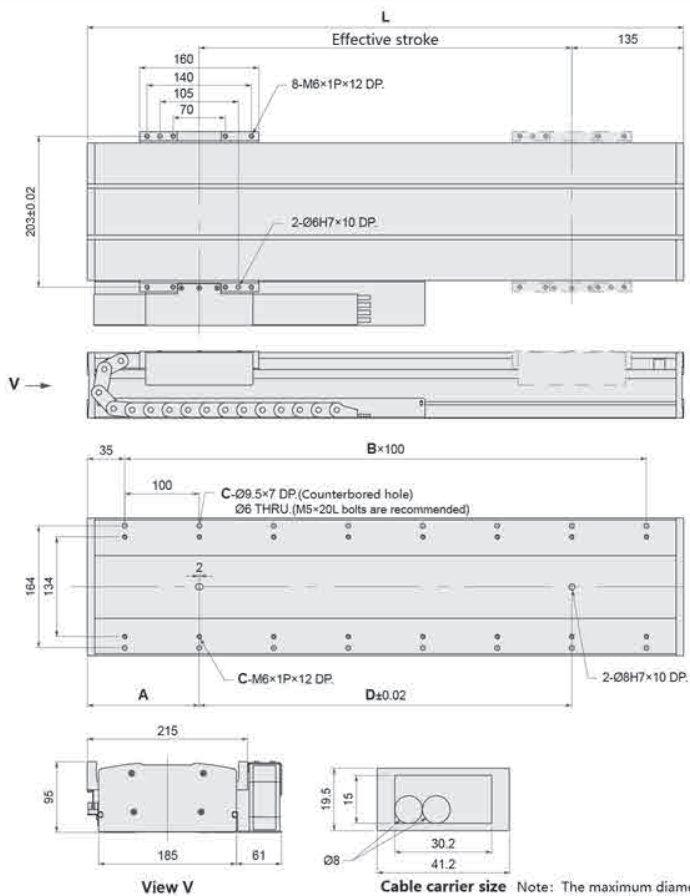
LMC180F1



Note: The maximum diameter of the cable is 13 millimeter.

	Unit (mm)					
Effective stroke	200	300	400	500	600	700
L	470	570	670	770	870	970
A	135					
B	4	5	6	7	8	9
C	10	12	14	16	18	20
D	200	300	400	500	600	700
Weight (kg)	15.7	17.7	19.7	21.6	23.6	25.6

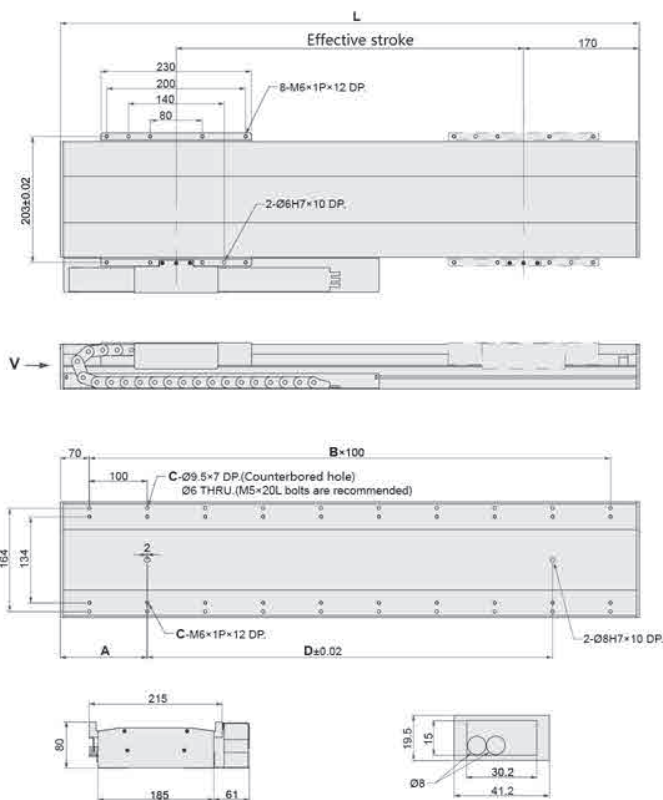
LMCH180F1



LMC

the cable is 13 millimeter.											Unit (mm)		
Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	470	570	670	770	870	970	1070	1270	1470	1670	1870	2070	2270
A	135								235	335	435	535	635
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	16.2	18.2	20.2	22.1	24.1	26.1	28.1	32	36	40	39.9	47.9	51.8

LMC180F2

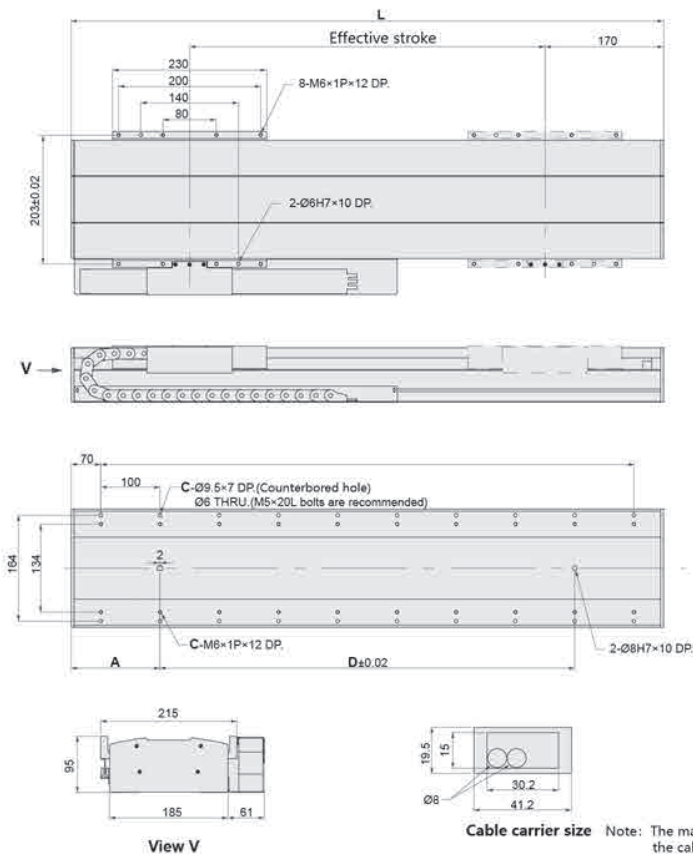


View V

Cable carrier size Note: The maximum diameter of the cable is 13 millimeter.

	Unit (mm)					
Effective stroke	200	300	400	500	600	700
L	540	640	740	840	940	1040
A	170					
B	4	5	6	7	8	9
C	10	12	14	16	18	20
D	200	300	400	500	600	700
Weight (kg)	17.8	19.8	21.8	23.7	25.7	27.7

LMCH180F2



LMC

View V

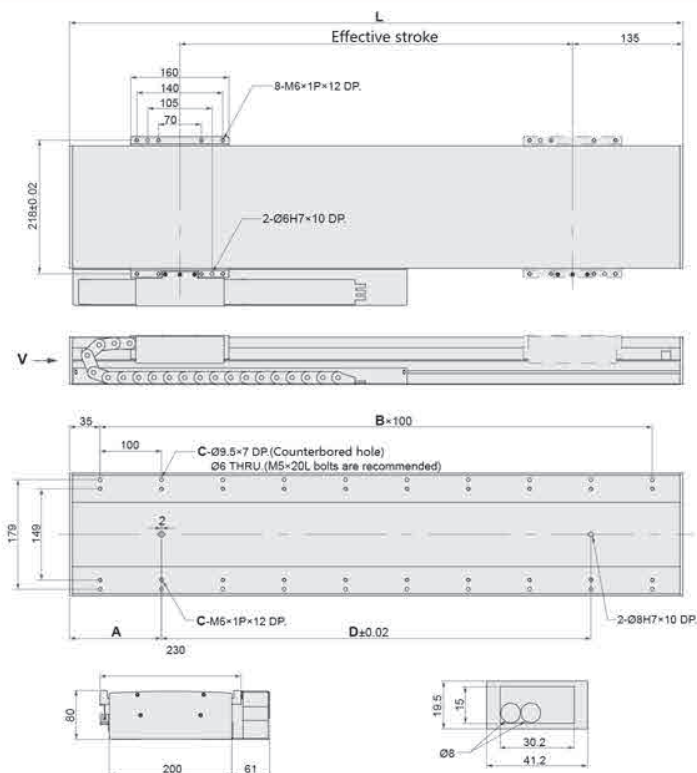
Cable carrier size

Note: The maximum diameter of the cable is 13 millimeter.

Unit (mm)

Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	540	640	740	840	940	1040	1140	1340	1540	1740	1940	2140	2340
A	170								270	370	470	570	670
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	18.5	20.5	22.5	24.4	26.4	28.4	30.4	34.3	38.3	42.3	46.2	50.2	54.1

LMC200F1



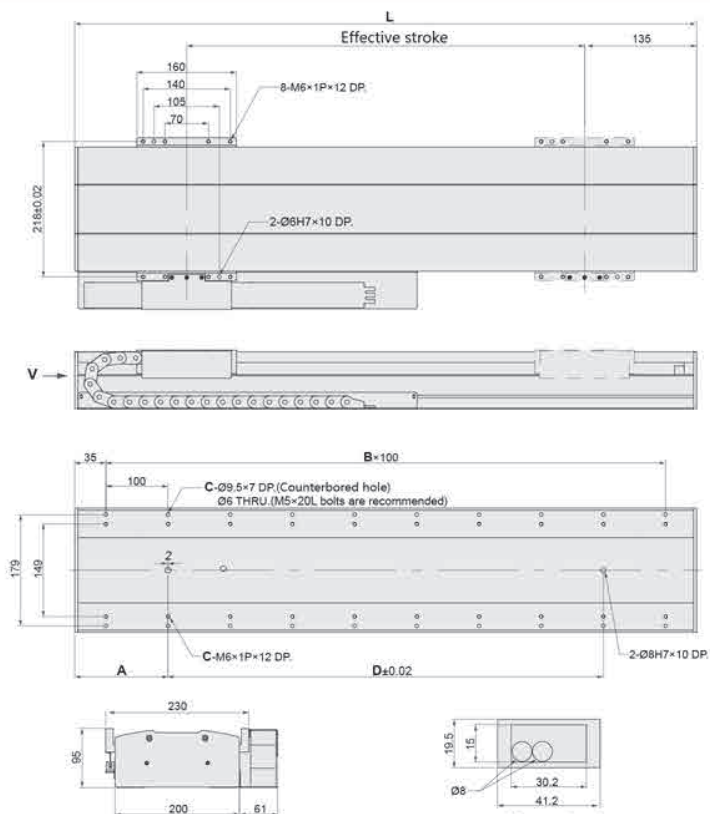
View V

Cable carrier size Note: The maximum diameter of the cable is 13 millimeter.

Unit (mm)

Effective stroke	200	300	400	500	600
L	470	570	670	770	870
A	135				
B	4	5	6	7	8
C	10	12	14	16	18
D	200	300	400	500	600
Weight (kg)	17.5	20.5	22.6	24.6	26.7

LMCH200F1



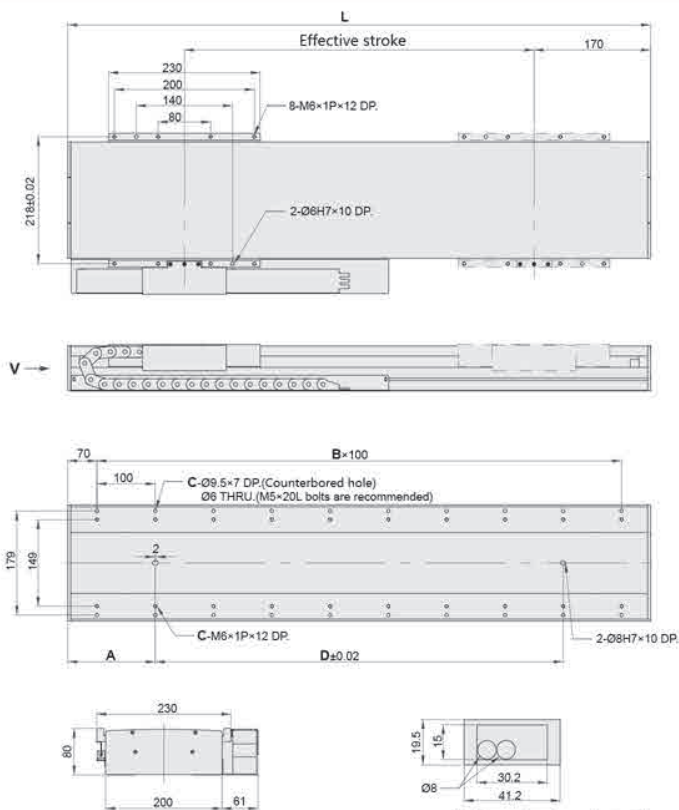
Cable carrier size

Note: The maximum diameter of the cable is 13 millimeter.

	Unit (mm)												
Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	470	570	670	770	870	970	1070	1270	1470	1670	1870	2070	2270
A	135								235	335	435	535	635
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	19.6	21.6	23.7	25.7	27.8	29.8	31.9	36	40.1	44.2	48.3	52.4	56.5

LMC

LMC200F2

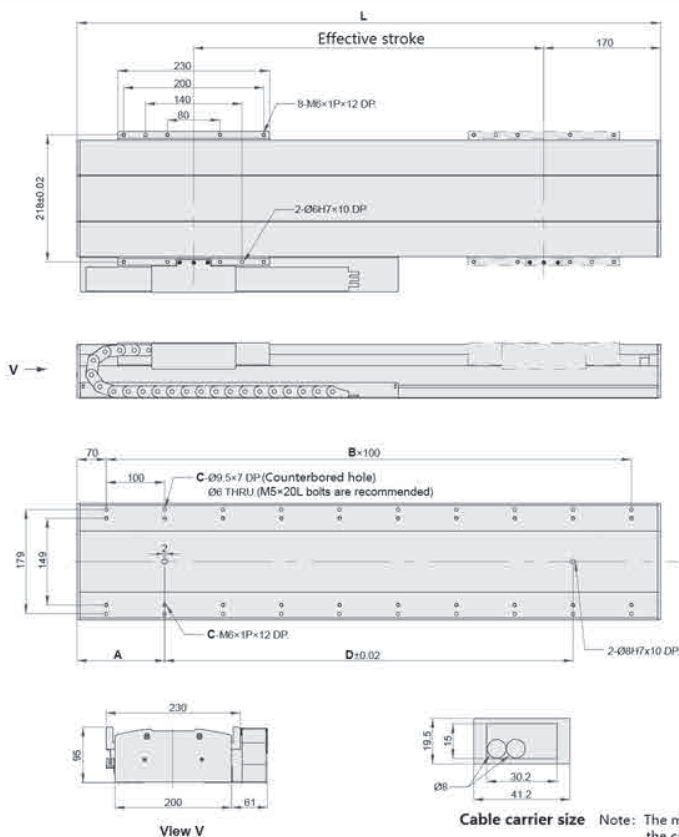


View V

Cable carrier size Note: The maximum diameter of the cable is 13 millimeter.

	Unit (mm)				
Effective stroke	200	300	400	500	600
L	540	640	740	840	940
A	170				
B	4	5	6	7	8
C	10	12	14	16	18
D	200	300	400	500	600
Weight (kg)	18.5	21.5	23.6	25.6	27.7

LMCH200F2



LMC

Unit (mm)

Effective stroke	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
L	540	640	740	840	940	1040	1140	1340	1540	1740	1940	2140	2340
A	170								270	370	470	570	670
B	4	5	6	7	8	9	10	12	14	16	18	20	22
C	10	12	14	16	18	20	22	26	30	34	38	42	46
D	200	300	400	500	600	700	800	1000					
Weight (kg)	21.8	23.8	25.9	27.9	30	32	34.1	38.2	42.3	46.4	50.5	54.6	58.7

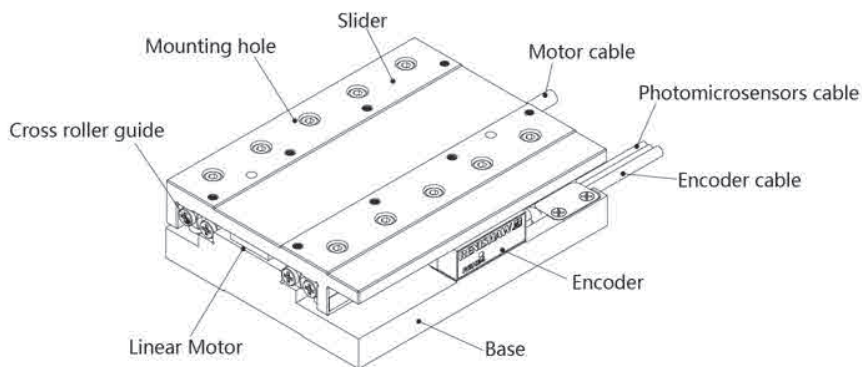
Micro Linear Motor Module

LMD series



LMD

Construction



Note: For reference only.

Characteristics

The concept of LMD series is to design a direct drive micro module with extremely low cross-section height, small volume and high force by matching with high-resolution linear encoder and using high-precision roller guide rail, it realizes high-precision and extremely low dust emission, which can be used in clean room environment.

- High positioning accuracy
- High acceleration, high response
- Compact structure and space saving
- Excellent stability
- Multiple configurations available

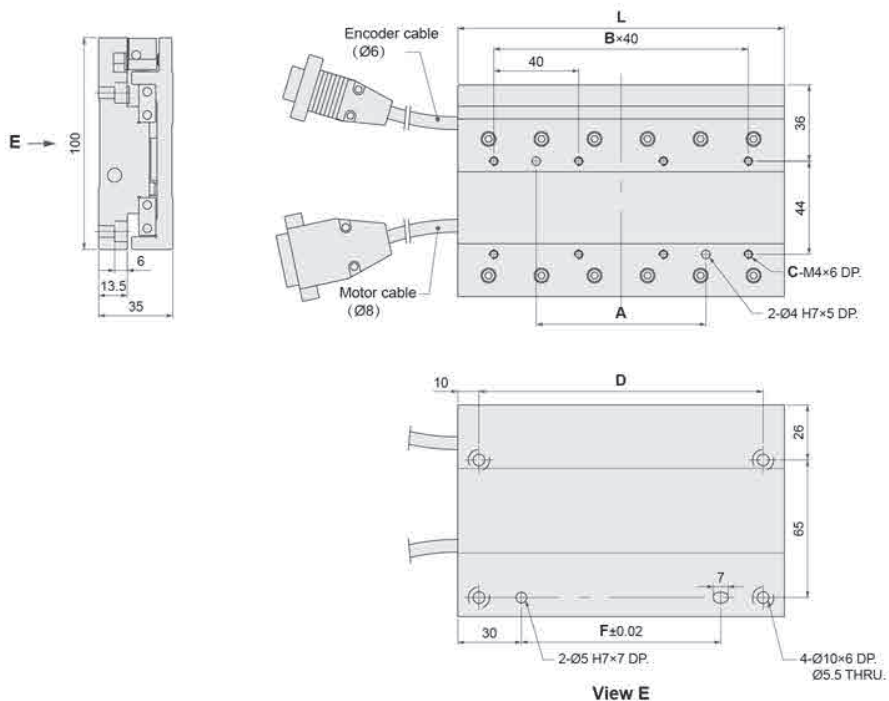
Applications

Precision motion in measurement, metrology, photonics, semiconductor, display, etc.

Specifications

	LMD	100	- S60	P2	2K	3M
Series						
LMD: Micro Linear Motor Module series						
Size						
100: The width of the module is 100mm						
120: The width of the module is 118mm						
Effective stroke						
S60: Each slider effective stroke is 60mm						
Resolution						
P1: Magnetic encoders 1μm						
P2: Optical encoders 1μm (Standard)						
P3: Optical encoders 0.5μm						
Note: For other requirements, please consult CSK.						
Limit switch						
2K: 2 Photomicrosensors (Standard)						
N : There is no limit switch						
Note: For other requirements, please consult CSK.						
Motor/encoder extension cable						
3M: 3 meters (Standard) , 5 meters, 10 meters						
Special symbol						
No symbol: Standard						
Special: No symbol, A, B ... (For other requirements, please consult CSK)						

Dimensions of LMD100



LMD

	Unit (mm)		
Effective stroke	40	60	80
L	129	154	179
A	80	80	120
B	3	3	4
C	8	8	10
D	109	134	159
F	69	94	119
Weight (kg)	2.1	3.2	4.3

Technical parameters

Model: LMD100

Driving method	Iron core linear motor	Limit switch	Optional
Peak force (1s) (N)	75	Peak current (A)	4.5
Continuous force (@120°C) (N)	25	Continuous current (A)	1.5
Effective stroke (mm)	Optional	Appearance	Black
Payload (kg)	3	Lubrication	Lithium-based grease
Max.acceleration (no-load) (G)	3		
Encoder (Magnetic/Optical)	Optional		
Repeatability (μm)	±1		
Accuracy (μm)	±3 (After the compensation)		

LMD

Technical parameters

Model: LMD120

Driving method	Iron core linear motor	Limit switch	Optional
Peak force (1s) (N)	120	Peak current (A)	4.5
Continuous force (@120°C) (N)	40	Continuous current (A)	1.5
Effective stroke (mm)	Optional	Appearance	Black
Payload (kg)	5	Lubrication	Lithium-based grease
Max.acceleration (no-load) (G)	6		
Encoder (Magnetic/Optical)	Optional		
Repeatability (μm)	±1		
Accuracy (μm)	±3 (After the compensation)		

LMD

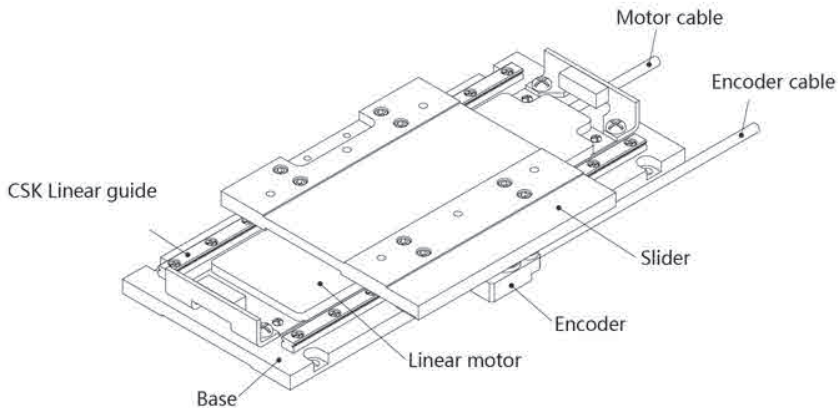
Miniature Linear Motor Module

LME series



LME

Construction



Note: For reference only.

Characteristics

The LME series is designed with the concept of creating an ultra-low-profile ironless core direct-drive micro module. It achieves high speed, rapid response, minimal speed fluctuations, and precise positioning by combining it with a high-resolution linear encoder and utilizing micro linear guides.

- High Positioning Accuracy
- High Acceleration and Responsiveness
- Compact Structure and Space-Saving
- Excellent Stability
- Low Speed Fluctuations

Applications

Precision scanning in metrology, photonics, semiconductor, display, etc.

LME

Specifications

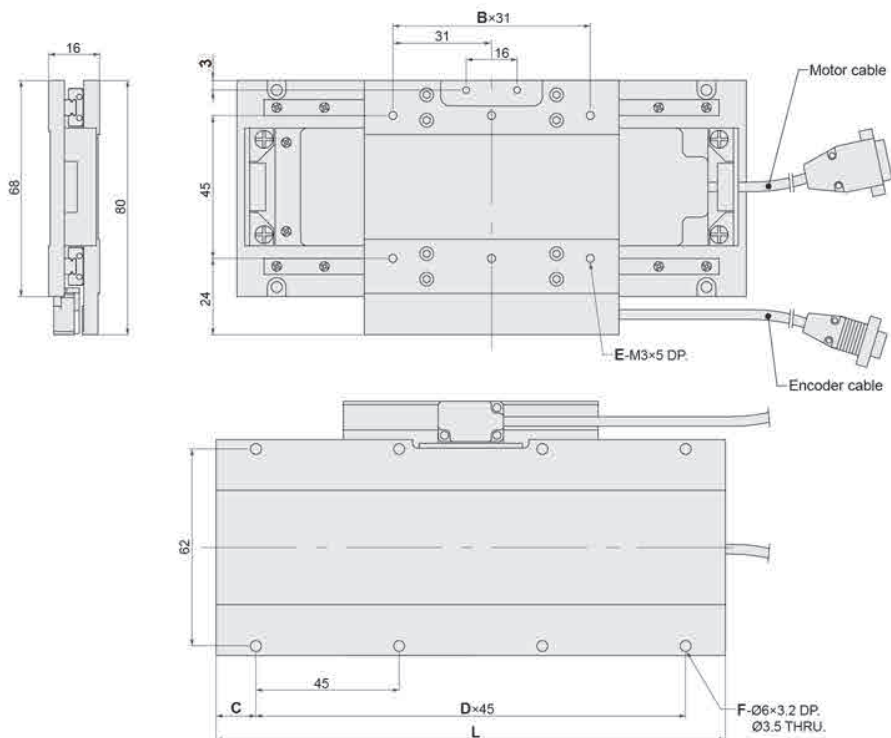
	LME	80	-	S60	3M	
Series						
LME: Miniature Ironless Linear Motor						
Size						
80: The width of the module is 80mm						
Effective stroke						
S60: Each slider effective stroke is 60mm						
S120:						
Motor/encoder extension cable						
3M: 3 meters (Standard) , 5 meters, 10 meters						
Special symbol						
No symbol: Standard						
Special: No symbol, A, B ... (For other requirements, please consult CSK)						

Technical parameters

Model	LME80-S603M	LME80-S1203M
Specifications	Ironless Linear Motor	
Peak force (N)	36	72
Continuous force (@120°C) (N)	8	15
Max.acceleration (300Vno-load) (m/s)	1.3	0.8
Encoder	Optical	
Repeatability (μm)	±1	±1
Accuracy (μm)	±3	±3
Peak current (A)	1.52	1.52
Continuous current (A)	0.38	0.38
Base material	Electroless nickel plating	Electroless nickel plating
Lubrication	Lithium-based grease	Lithium-based grease

LME

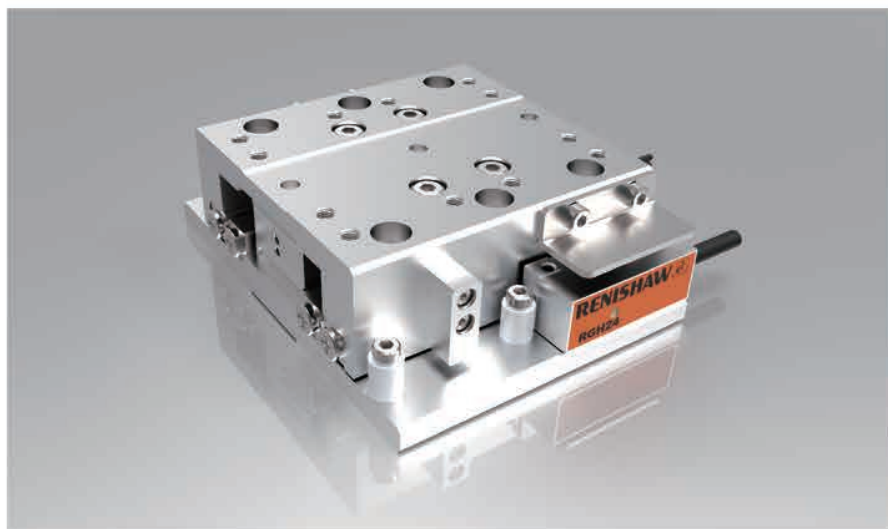
Dimensions of LME



	Unit (mm)	
Effective stroke	60	120
L	160	280
A	80	140
B	2	4
C	12.5	8
D	3	5
E	6	10
F	8	12
Weight (kg)	1.2	2.1

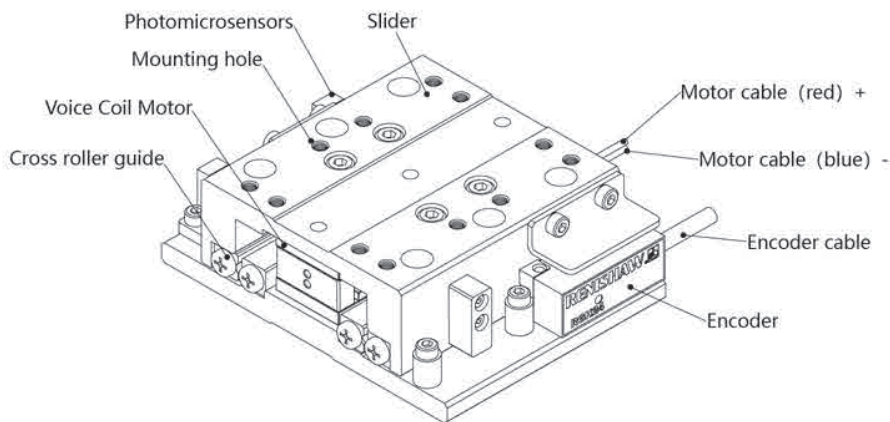
Voice Coil Motor Module

LMV series



LMV

Construction



Note: For reference only.

Characteristics

LMV series voice coil motor module, reduces mechanical parts of the transmission system by means of direct drive technology. Cross roller guide is installed to achieve high motion accuracy and longer service life. Compact design is easy to modularize and integrate. According to the characteristics of voice coil motor, this module is more suitable for high frequency motion.

- High frequency motion
- High precision
- High response
- High rigidity
- Compact structure, low mass
- Micro-motion
- Customization

Applications

Precision scanning in metrology, photonics, semiconductor, display, etc.

Specifications

Series

LMV: Voice Coil Motor series

Size

100: The width of the module is 100mm

130

Effective stroke

S16: Each slider effective stroke is 16mm

Limit switch

2K: 2 Photomicrosensors (Standard)

Motor/encoder extension cable

3M: 3 meters (Standard) , 5 meters, 10 meters

Special symbol

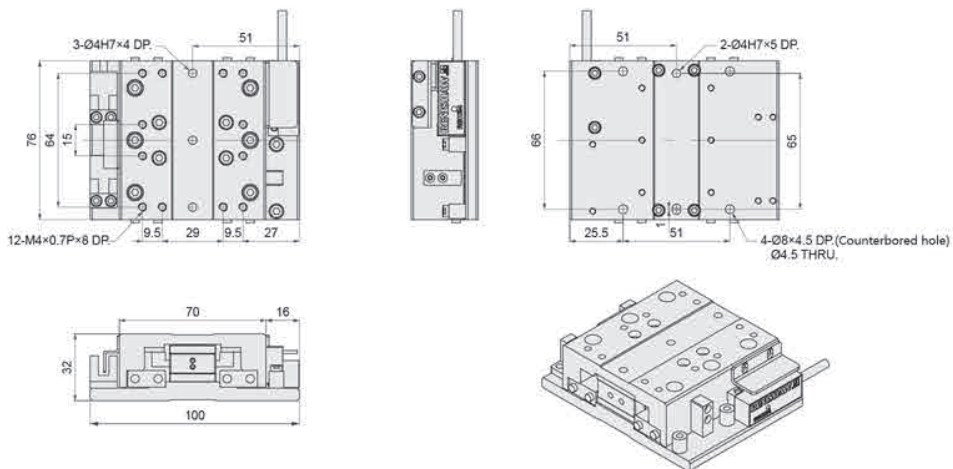
No symbol: Standard

Special: No symbol, A, B ... (For other requirements, please consult CSK)

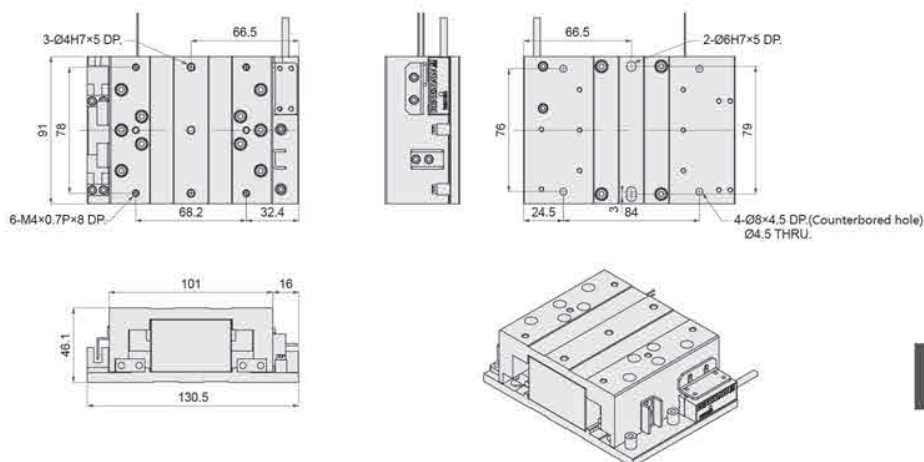
Technical parameters

Model	Unit	LMV100S16	LMV130S16	Model	Unit	LMV100S16	LMV130S16
Specifications		DVB25C1	DVB50C1	Motor constant	N/SqRt (W)	1.24	6.48
Peak force (1s)	N	9	79	Maximum payload	Kg	0.5	5
Continuous force (@100°C)	N	3	26.3	Module mass	Kg	0.63	1.98
Peak current (rms) (1s)	A	4.2	8.6	Maximum acceleration (no load)	G	2	6.5
Continuous current (rms)	A	1.4	2.8	Effective stroke	mm	16	16
Force constant	N/A	2.14	9.39	Bi-repetition accuracy	μm	±1	±1
Back EMF constant	V/ (m/s)	2.54	9.4	Encoder resolution	μm	0.5	0.5
Resistance (@25°C)	Ohm	3	2.1	Appearance		Colorless oxidation	Colorless oxidation
Inductance (@1kHz)	mH	1.84	1.68	Base material		Aluminum alloy	Aluminum alloy
Voltage	V	24	24	Lubrication		Lithium-based grease	Lithium-based grease
Electrical time constant	ms	0.61	0.8				

Dimensions of LMV100S16



Dimensions of LMV130S16



LMV

Precautions for use

1. Precautions before purchase

1.1 When purchasing, please check the scope of the use environment with our sales staff. Please do not use in the corrosive environment such as sulfur and sulphide gas, which may lead to line breakage or poor contact.

1.2 When selecting the model, please check the use requirements and motor parameters with our sales staff to ensure the scientific use.

2. Matters needing attention in operation

2.1 This product is manufactured as a precision mechanical part and is widely used in the mechanical industry. Technical personnel with professional knowledge and experience are required to operate it.

2.2 When operating, please be sure to use according to the operating specifications of the product.

2.3 In the application, if you have special requirements on the use environment of cable and motor installation, please contact our sales staff for confirmation to prevent accidents.

2.4 All terminals of the equipment are not allowed to be plugged and unplugged with live power to prevent damage to the motor and driver.

2.5 The ground wire of the motor must be grounded.

2.6 Do not place the control signal line and power line (main power line, motor power line, etc.)

of the equipment in the same line tube or wrap them into a bundle.

2.7 During motor operation, do not touch the moving parts of the motor.

3. Matters needing attention for follow-up maintenance

3.1 Precautions for storage equipment: temperature shall be controlled within -20°C to +60°C.

Humidity: less than 85%, placed in a dust-free, clean, non-corrosive gas, no grinding fluid, no metal powder, no oil environment.

3.2 In the case of movement, wiring, maintenance and inspection, please cut off the power for more than 3 minutes before operating. Cut off the power for about 2~3 minutes, the power line still has voltage residue, do not touch the equipment carelessly.

3.3 Frequent power on or off will lead to deterioration of main circuit components. After power off, please wait for more than 1 minute to power on again. The frequency of power on and off is limited to less than 2 times every 3 minutes.

3.4 When in use, please lubricate and maintain the linear guide rail regularly.

Theoretical Calculation Software



Precision Linear Guide Life Calculation Software

Applicable products: CSK LMG series linear guideway

In order to provide customers with scientific data reference, CSK specially produces this theoretical calculation software, which is convenient for users to select products and evaluate schemes.

The software is based on the theoretical calculation, and there is deviation between the calculation result and the actual value, which is only for reference.

The software copyright belongs to CSK Motion Technology Co., Ltd. please consult CSK for more technical support.



Linear Motor Force Calculation Software

Applicable products: CSK Iron Core Linear Motor and ironless Linear Motor
In order to provide customers with scientific data reference, CSK specially produces this theoretical calculation software, which is convenient for users to select products and evaluate schemes.

The software is based on the theoretical calculation, and there is deviation between the calculation result and the actual value, which is only for reference.

The software copyright belongs to CSK Motion Technology Co., Ltd. please consult CSK for more technical support.



Direct Drive Torque Motor Torque Calculation Software

Applicable products: CSK Direct Drive Torque Motor

In order to provide customers with scientific data reference, CSK specially produces this theoretical calculation software, which is convenient for users to select products and evaluate schemes.

The software is based on the theoretical calculation, and there is deviation between the calculation result and the actual value, which is only for reference.

The software copyright belongs to CSK Motion Technology Co., Ltd. please consult CSK for more technical support.

Notice:

CSK calculation software is a theoretical calculation software, which is only for reference. When using, please ask professional personnel to operate or operate under the guidance of professional personnel. If incorrect operation is used to output results, the consequences will be borne by the operator.

Product performance verification equipment

In CSK's product development process, products are rigorously tested and strive to provide the best products to customers.

Guide life testing machine



Guide high speed testing machine



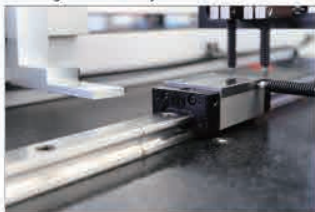
Guide dustproof testing machine



Salt spray testing machine



Linear guide accuracy detection



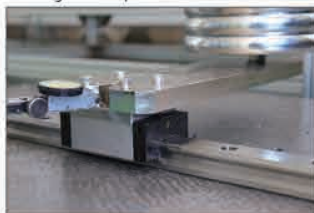
Linear guide thrust fluctuation test



Linear guide durability test



Linear guide torque test



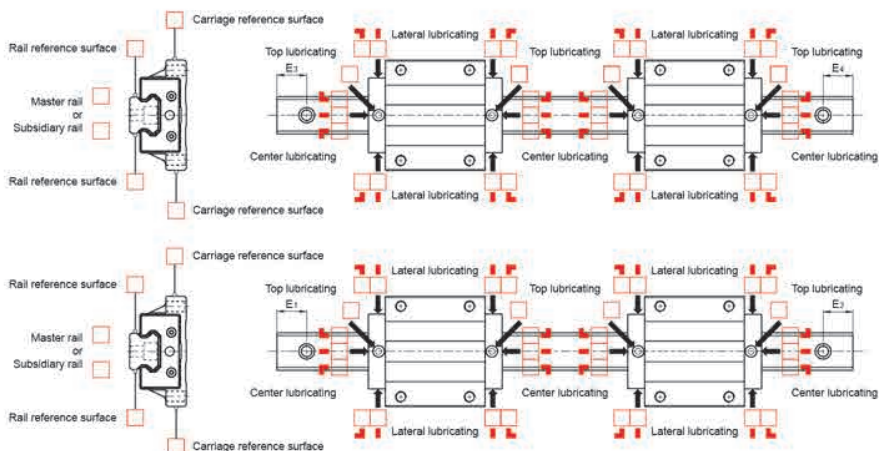
Date:

Customer Name:		Address:					
TEL:		Model:					
FAX:		Number:					
Contact Person:		Application:					

Installation Direction							
	☐ H type	☐ R type	☐ V type	☐ K type	☐ T type	☐ RV type	☐ Others

Carriage Type	☐ C	☐ LC	☐ H	☐ LH	☐ T	☐ ST
Size	☐ 15	☐ 20	☐ 25	☐ 30	☐ 35	☐ 45
No. of Carriages	☐ 1	☐ 2	☐ 3	☐ 4	☐ Others:	
Dust Protection	☐ 无	☐ UU	☐ SS	☐ ZZ	☐ DD	☐ KK
Preload Grade	☐ P0	☐ P1	☐ P2			
Rail Type	☐ Counter-bore (R Type)		☐ Tapped hole (T Type)		☐ Counter-bore (U Type)	
Rail Length & Pitch	L0:	E1:	E2:	E3:	E4:	
Accuracy Grade	☐ N	☐ H	☐ P	☐ SP	☐ UP	
Rail per Axis	☐ 1	☐ 2	☐ 3	☐ Others:		
Lubrication Type	☐ Grease		☐ Oil			
Lubrication Fitting	☐ Grease nipple (Code:)			☐ Oil piping joint (Code:)		
Full Code of Spec.						
Required Quantity						

Reference surface, Lubricating location and direction

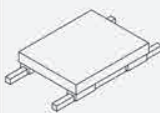
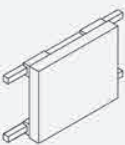
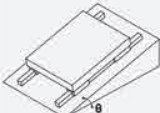
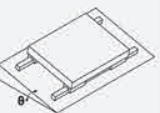


Note : Non-specified cases followed by CSK standards. For other special requirements, please contact us.

Date:

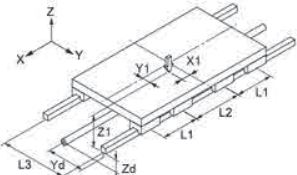
Customer Name:	Address:
TEL:	Model:
FAX:	Number:
Contact Person:	Application:

Installation:

				
☐ Horizontal mount	☐ Vertical mount	☐ Wall mount	☐ Front tilt mount	☐ Laterally tilt mount

Note: please draw a schematic drawing for other requirements.

Parameters:

Preselection conditions				Figure: 
Series		Preload		
Size		Accuracy grade		
Installation				
Speed conditions				Schematic drawing:
Max. speed	m/s	Stroke	mm	
Acceleration time	sec	No. of reciprocations	1/min	
Service conditions				
Driving original position		Carriage distance		
Yd	mm	L1	mm	
Zd	mm	Middle distance		
Load	kg	L2	mm	
Load position		Rail distance		
X1	mm	L3	mm	
Y1	mm	Tilt angle		
Z1	mm	theta	°	

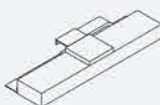
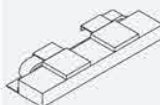
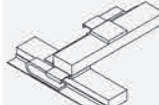
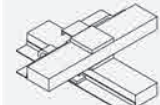
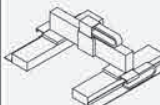
Demand:

Note : Non-specified cases followed by CSK standards. For other special requirements, please contact us.

Date:

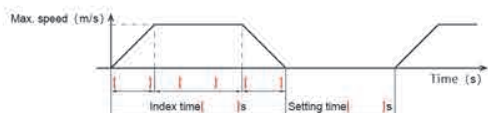
Customer Name:	Address:
TEL:	Model:
FAX:	Number:
Contact Person:	Application:

Structure Type:

				
☐ S type	☐ D type	☐ C type	☐ L type	☐ G type

Note: please draw a schematic drawing for other requirements.

Parameters:

Single axis					Schematic drawing:
Stroke	mm	Load	kg		
Max. speed	m/s	Accuracy	$\pm\mu\text{m}$		
Acceleration	m/s^2	Repeatability	$\pm\mu\text{m}$		
X axis					
Stroke	mm	Load	kg		
Max. speed	m/s	Accuracy	$\pm\mu\text{m}$		
Acceleration	m/s^2	Repeatability	$\pm\mu\text{m}$		
Y axis					
Stroke	mm	Load	kg		
Max. speed	m/s	Accuracy	$\pm\mu\text{m}$		
Acceleration	m/s^2	Repeatability	$\pm\mu\text{m}$		
Cycle pattern					Installation ☐ Horizontal mount ☐ Wall mount ☐ Others []
					Dust Proof

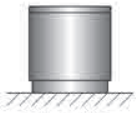
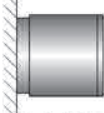
Demand:

Note : Non-specified cases followed by CSK standards. For other special requirements, please contact us.

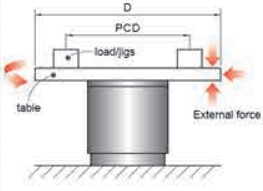
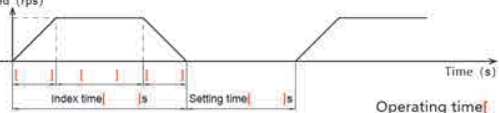
Date:

Customer Name:	Address:
TEL:	Model:
FAX:	Number:
Contact Person:	Application:

Installation:

☐ Horizontal mount  Output shaft in a vertical direction	☐ Wall mount  Output shaft in a transverse direction	☐ Inverted mount  Output shaft in a downward direction	☐ Others
--	--	--	---------------------------------

Parameters:

Load conditions	Figure	Schematic drawing
Shape of table		
Diameter of table(D)		
Mass of table(m1)		
Material of table		
Dimensions of load/jigs		
Mass of load/jigs		
Number of load/jigs		
PCD (distance between the load/jigs)		
External force	☐ N / ☐ None ☐ At startup ☐ During rotating ☐ Rotational direction ☐ At setting (Clockwise is the direction of rotation)	
Way of external force		
Position of external force		
Direction of external force		
Positioning command system	☐ Internal program system ☐ Pulse train input operation ☐ CANopen ☐ EtherCAT ☐ PROFINET	
Index angle/Number of points	Settle at []°, Number of points []	
Repeatability (±)	± [] arc-sec (± [] mm at [] mm from the motor center)	
Cycle pattern • Index time • Setting time	Rotational speed (rps)  Operating time [] hours/days	
Environmental conditions	Operating environment ☐ Clean ☐ General environment (IP30) ☐ Chips and dust ☐ Oil, water, and chemical	
Motor cable Length	Length: []m	

Demand:

Note : Non-specified cases followed by CSK standards. For other special requirements, please contact us.



CSK
MOTION TECHNOLOGY



MELUCCI
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