

SNIBO
Innovation in Motion



LINEAR MODULE

SAIBO is one of world recognized manufacturers of precision power transmission components. SAIBO group has two divisions, linear motion division and bearing division. Linear Product Division mainly produces curved rail and conveyor, telescopic rail and fork, linear guide, linear module, belt conveyor etc. Bearing Division mainly produces Thin-section bearing, High-speed angular contact ball bearing, linear bearing etc.

SAIBO products are widely used in 3C, factory automation, precision machine, green energy, rail transportation, medical and pharmacy etc. industries. SAIBO end users are located in more than 50 countries and regions around the world.

SAIBO has over 33,000 square meters producing facilities totally and 350 employees. SAIBO continues to develop innovative automation components and modulars to meet customers sustainable solutions.

SAIBO means aim for greatness, focus on details. We seek to work with you and promise the following:

- The right product from your application
- A quality product you can trust
- Engineering assistance that is proven and world renown



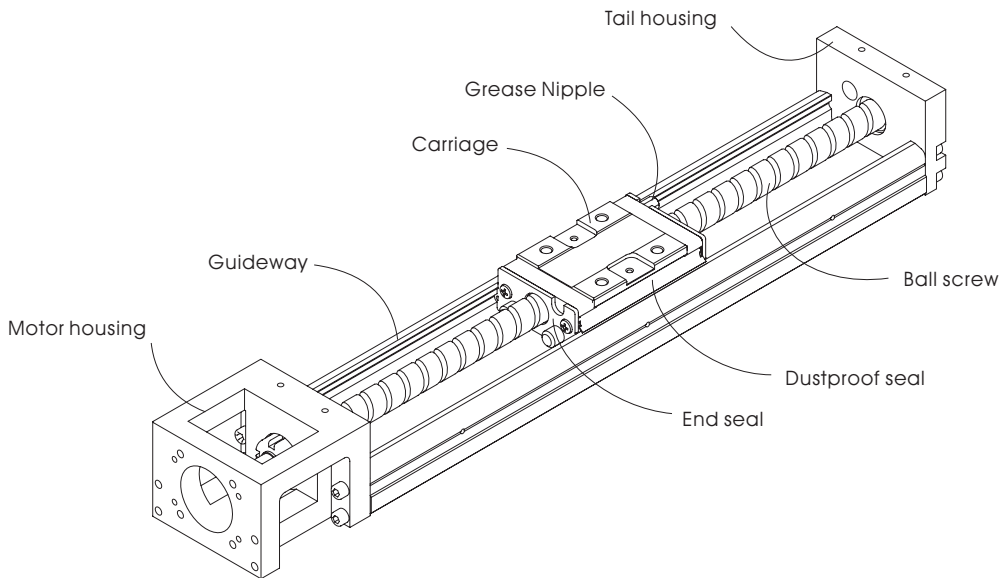
Shield Type

Seal Type

Open Type

SKK Linear Module

SKK linear module integrates a ballscrew and guideway to a modularized product. This compact product realizes not only saving space, but also high precision and rigidity. It also helps users save cost and time during design and installation.



Open Type

Characteristic

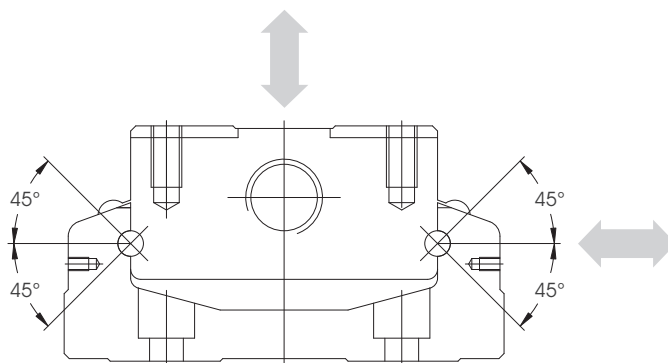
Modularized design and International interchangeable

Compact and saving space

High precision and rigidity

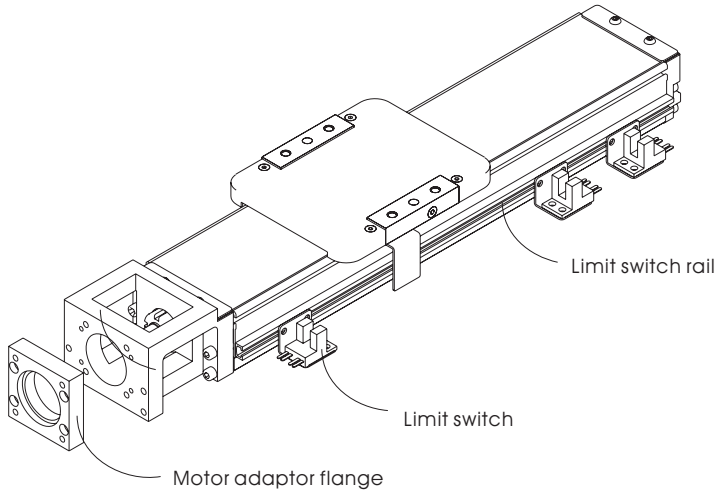
High load capacity

Accessories are available

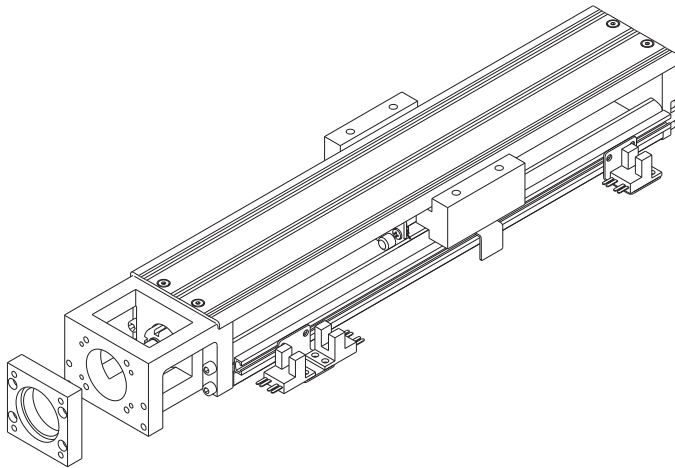


Dustproof and Accessories

In order to adapt to different working conditions, dustproof devices could be selected with semi-closed aluminum covered (Shield Type) and full-closed stainless steel strip sealed (Seal Type). Accessories are available with motor flange, limit switch and its rail etc.



Seal Type

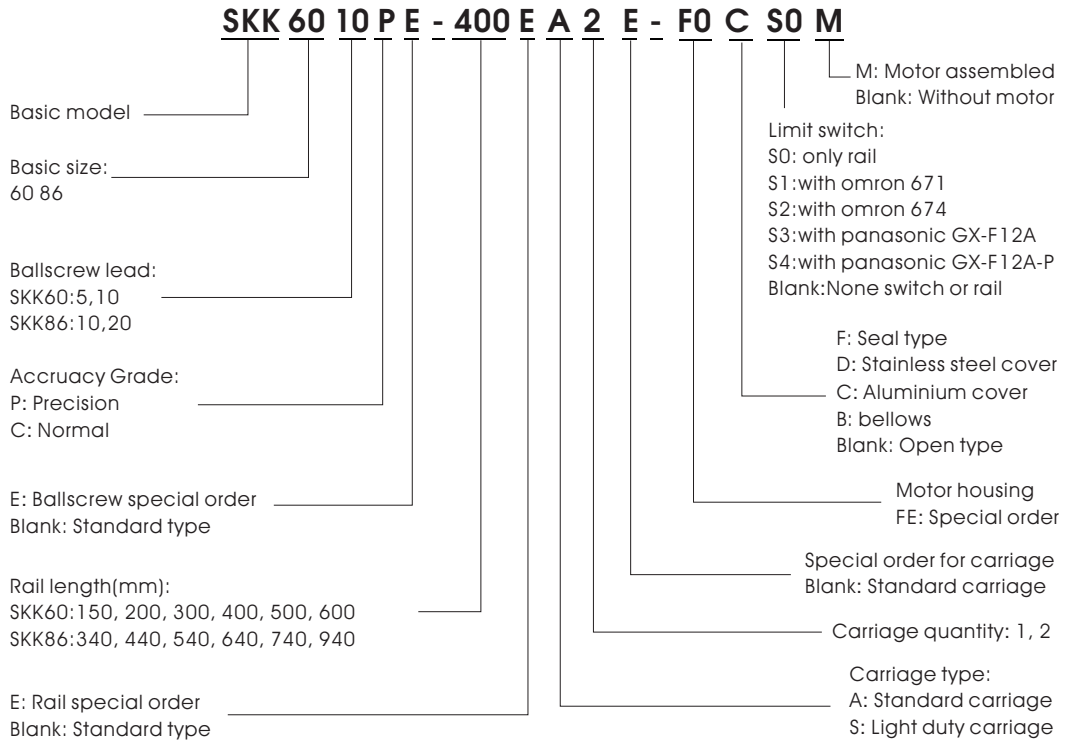


Shield Type

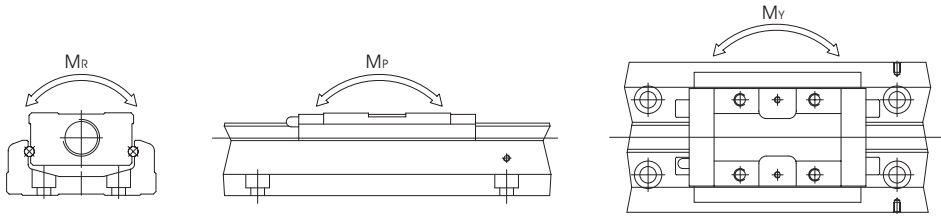
Lubricate

Suggest re-fill grease from grease nipple on the carriage every 100Km. The oil circuit inside the carriage can lubricate the guideway and the lead screw simultaneously. Module operating temperature ranges -20°C ~ 80°C .

Model Code Rules



Load Capacity



Model No.		Ball screw				Guideway															
		N.Dia (mm)	Lead (mm)	Basic Dynamic Load (N)	Basic Static Load (N)	Basic Dynamic Load Rating (N)		Basic Static Load Rating (N)		Static Rated Moment											
						A	S	A	S	MP(N·m)				MY(N·m)				MR(N·m)			
										A1	A2	S1	S2	A1	A2	S1	S2	A1	A2	S1	S2
SKK5002	Precision	8	2	2136	3489	8007	-	12916	-	116	545	-	-	116	545	-	-	222	444	-	-
	Normal			1813	2910																
SKK5006	Precision	8	6	2050	2913	8007	-	12916	-	116	545	-	-	116	545	-	-	116	545	-	-
	Normal			1863	2619																
SKK6005	Precision	12	5	3744	6243	13230	7173	21462	11574	152	760	72	367	152	760	72	367	419	838	241	482
	Normal			3377	5625																
SKK6010	Precision	12	10	2410	3743	13230	7173	21462	11574	152	760	72	367	152	760	72	367	419	838	241	482
	Normal			2107	3234																
SKK6020	Precision	12	20	936	1580	13230	7173	21462	11574	152	760	72	367	152	760	72	367	419	838	241	482
	Normal			840	1400																
SKK8610	Precision	16	10	7144	12642	31458	21051	50764	29475	622	3050	228	1309	622	3050	228	1309	1507	3104	847	1694
	Normal			6429	11387																
SKK8620	Precision	16	20	4645	7655	31458	21051	50764	29475	622	3050	228	1309	622	3050	228	1309	1507	3014	847	1694
	Normal			4175	6889																

Accuracy

Model	Rail Length	Repeatability		Accuracy		Running Parallelism		Starting Torque(N.cm)	
		Precision	Normal	Precision	Normal	Precision	Normal	Precision	Normal
SKK50	150	±0.003	±0.01	0.020	-	0.010	-	4	2
	200								
	250								
	300								
SKK60	150	±0.003	±0.01	0.020	-	0.010	-	15	7
	200								
	300								
	400								
	500								
SKK86	340	±0.003	±0.01	0.025	-	0.015	-	15	10
	440								
	540								
	640								
	740								
	940								

Maximum Speed

Model	Ballscrew Lead (mm)	Rail Length L2 (mm)	Speed(mm/sec)	
			Precision	Normal
SKK50	02	150	270	270
		200	270	270
		250	270	270
		300	270	270
	06	150	270	270
		200	270	270
		250	270	270
		300	270	270
SKK60	05	150	550	390
		200	550	390
		300	550	390
		400	550	390
		500	550	390
		600	340	340
	10	150	1100	790
		200	1100	790
		300	1100	790
		500	1100	790
		600	670	670
	20	150	2200	1580
		200	2200	1580
		300	2200	1580
		400	2200	1580
		500	2200	1580
		600	1340	1340
	SKK86	10	340	740
440			740	520
540			740	520
640			740	520
740			740	520
940			610	430
20		340	1480	1050
		440	1480	1050
		540	1480	1050
		640	1480	1050
		740	1480	1050
		940	1220	870

Life Calculation

The calculating formulas are divided into two parts, guideway and ball screw. The smaller value would be the recommended nominal life of the module.

Guideway nominal life Calculation

$$L1 = \left(\frac{f_t}{f_w} \cdot \frac{C}{P_n} \right)^3 \times 50\text{km}$$

L1 : Life Rating(km)

C : Basic Dynamic Load Rating(N)

f_t : Contact Coefficient (ref. Table 1)

(Refere Load Capacity Table)

f_w : Loading Coefficient (ref. Table 1)

P_n : Calculated Loading(N)

Table 1

Carriage Types	Contact Coefficient f _t
Single Carriage	1.0
Double Carriage	0.81

Table 2

Operating Condition		Loading Coefficient f _w
Thrust and Vibration	Velocity(V)	
No Thrust	V < 15m/min	1.0~1.5
Low Vibration	15m/min < V < 60m/min	1.5~2.0
High Vibration	V > 60m/min	2.0~3.5

Ball screw and Bearing

$$r = \left(\frac{1}{f_w} \cdot \frac{C_a}{P_{a,n}} \right)^3 \times 10^6 \text{ rev}$$

r : Life Rating(rev.)

C_a : Basic Dynamic Load Rating(N)

f_w : Loading Coefficient (ref. Table 2)

P_{a,n} : Axial Loading(N)

Ball screw and Bearing

$$L2 = \frac{r \times s}{10^6} \text{ km}$$

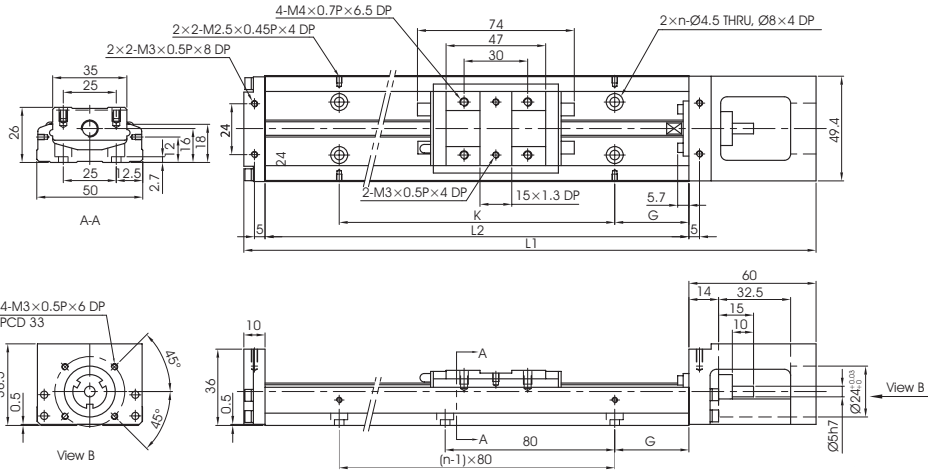
L2: Life (km)

s: Ballscrew lead(mm)

Compare L1 and L2, The smaller date is the module life

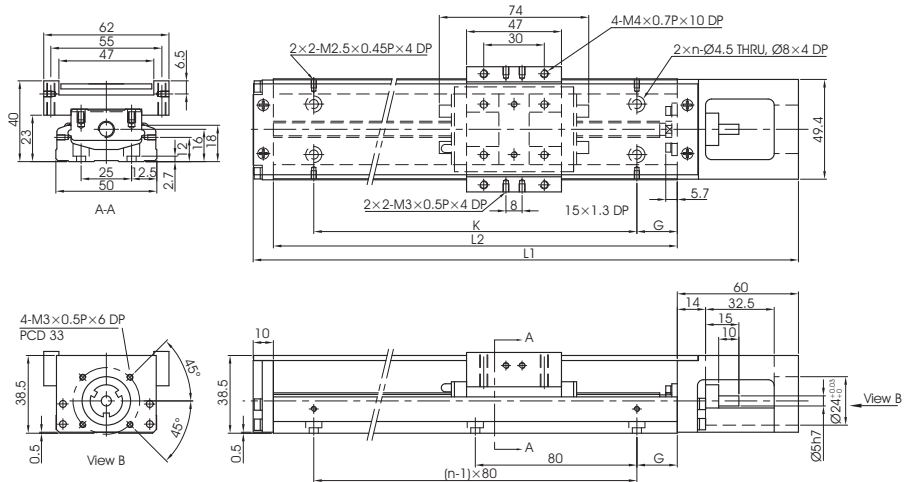
SKK50

Open Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	Mass(kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
150	220	70	–	35	80	2	1	–
200	270	120	55	20	160	3	1.2	1.4
250	320	170	105	45	160	3	1.4	1.6
300	370	220	155	30	240	4	1.6	1.8

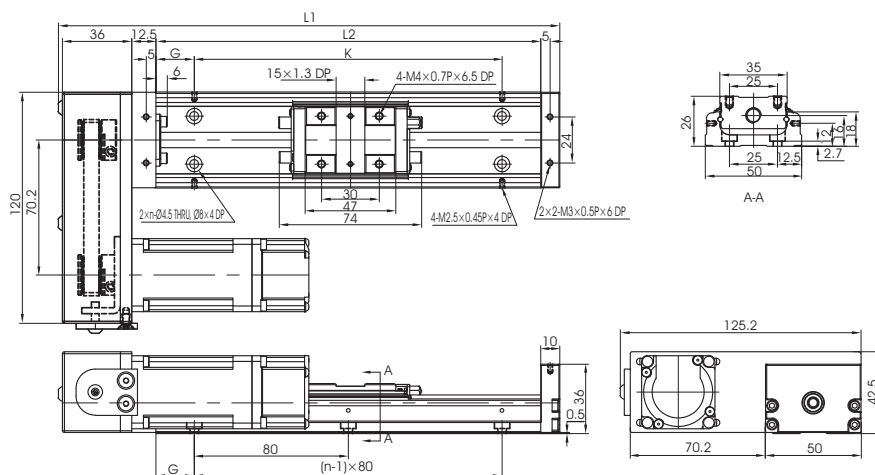
Shield Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	Mass(kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
150	220	70	–	35	80	2	1.1	–
200	270	120	55	20	160	3	1.3	1.5
250	320	170	105	45	160	3	1.6	1.8
300	370	220	155	30	240	4	1.8	2.0

SKK50

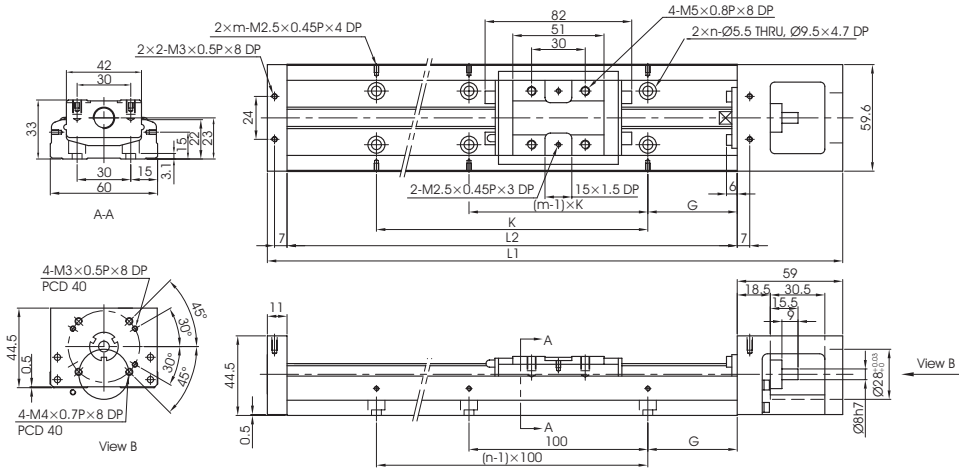
Motor Side-Installed Type



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	Mass(kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
150	210.7	70	–	35	80	2	0.9	–
200	260.7	120	55	20	160	3	1.1	1.3
250	310.7	170	105	45	160	3	1.3	1.5
300	360.7	220	155	30	240	4	1.5	1.7

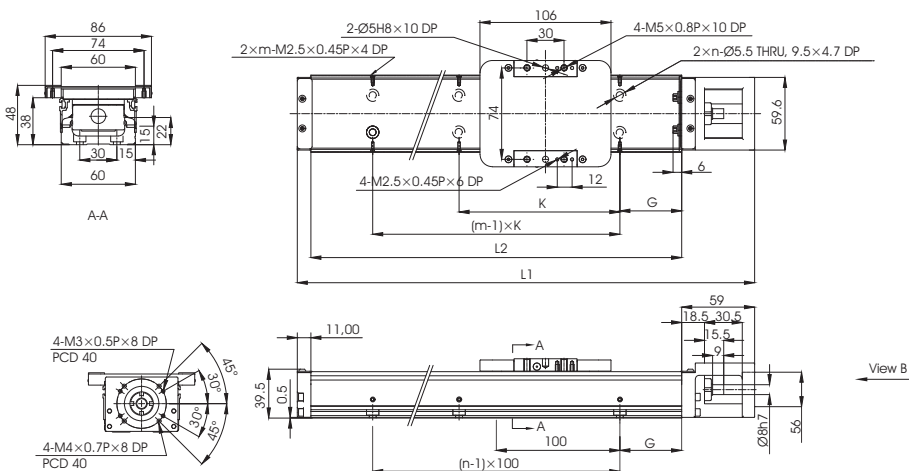
SKK60

Open Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	m	Mass(kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
150	220	60	–	25	100	2	2	1.5	–
200	270	110	–	50	100	2	2	1.8	–
300	370	210	135	50	200	3	2	2.4	2.7
400	470	310	235	50	100	4	4	3	3.3
500	570	410	335	50	200	5	3	3.6	3.9
600	670	510	435	50	100	6	6	4.2	4.6

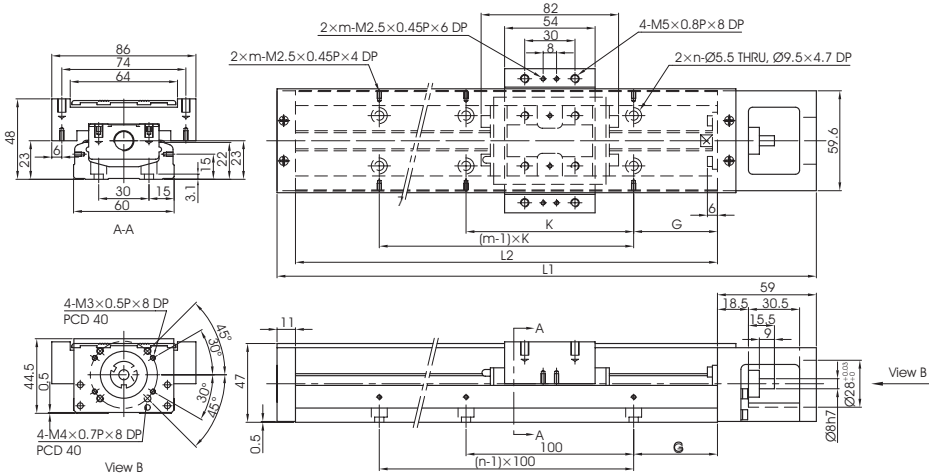
Seal Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	m	A1 Block Mass (kg)
		A1 Block	A2 Block					
150	220	60	–	25	100	2	2	2.4
200	270	110	–	50	100	2	2	2.8
300	370	210	135	50	200	3	2	3.4
400	470	310	235	50	100	4	4	4.0
500	570	410	335	50	200	5	3	4.6
600	670	510	435	50	100	6	6	5.3

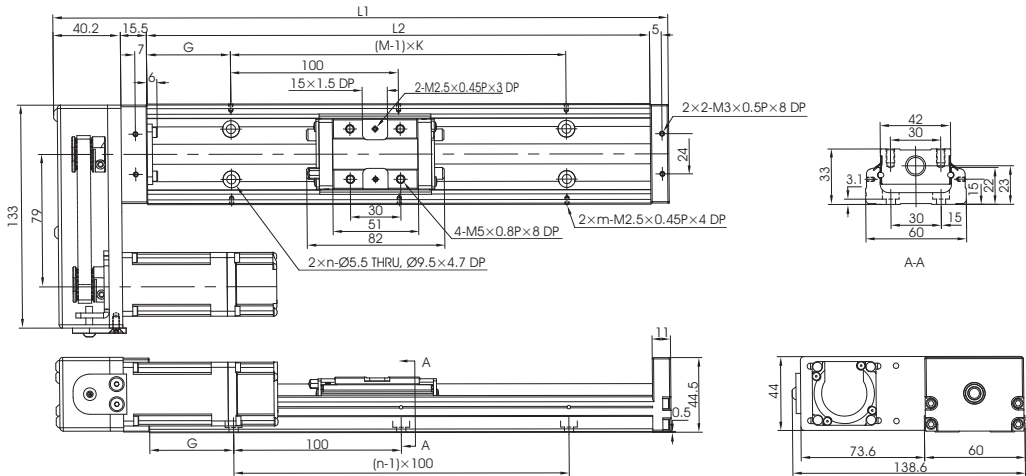
SKK60

Shield Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	m	Mass(kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
150	220	60	–	25	100	2	2	1.7	–
200	270	110	–	50	100	2	2	2.1	–
300	370	210	135	50	200	3	2	2.7	3.0
400	470	310	235	50	100	4	4	3.3	3.6
500	570	410	335	50	200	5	3	3.9	4.2
600	670	510	435	50	100	6	6	4.6	5.0

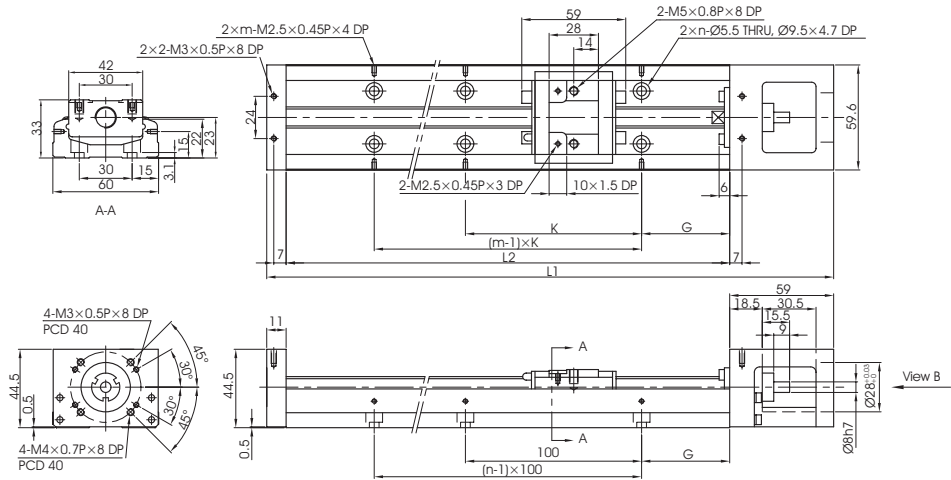
Motor Side-Installed Type



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	m	Mass(kg)	
		A1 Block	A2 Block					A1 Block	A2 Block
150	216.7	60	–	25	100	2	2	1.4	–
200	266.7	110	–	50	100	2	2	1.7	–
300	366.7	210	135	50	200	3	2	2.3	2.6
400	466.7	310	235	50	100	4	4	3.2	3.2
500	566.7	410	335	50	200	5	3	3.5	3.8
600	666.7	510	435	50	100	6	6	4.1	4.5

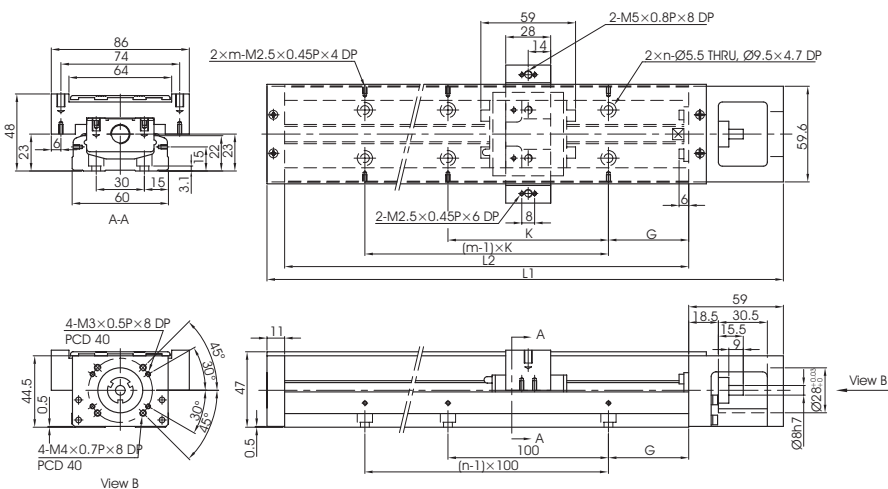
SKK60

Open Type (Light Duty Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	m	Mass(kg)	
		S1 Block	S2 Block					S1 Block	S2 Block
150	220	85	34	25	100	2	2	1.4	1.6
200	270	135	84	50	100	2	2	1.7	1.9
300	370	235	184	50	200	3	2	2.3	2.5
400	470	335	284	50	100	4	4	2.9	3.1
500	570	435	384	50	200	5	3	3.5	3.7
600	670	535	484	50	100	6	6	4.1	4.3

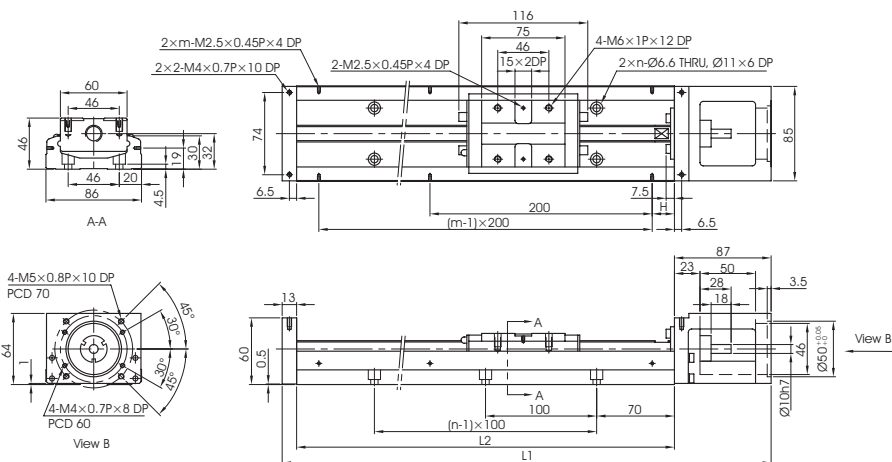
Shield Type (Light Duty Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		G(mm)	K(mm)	n	m	Mass(kg)	
		S1 Block	S2 Block					S1 Block	S2 Block
150	220	85	34	25	100	2	2	1.6	1.8
200	270	135	84	50	100	2	2	1.9	2.1
300	370	235	184	50	200	3	2	2.5	2.7
400	470	335	284	50	100	4	4	3.1	3.3
500	570	435	384	50	200	5	3	3.7	3.9
600	670	535	484	50	100	6	6	4.4	4.6

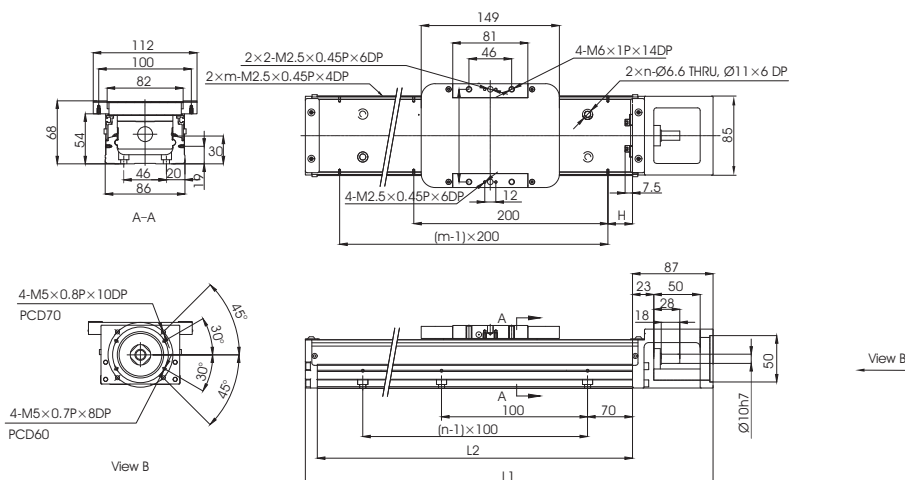
SKK86

Open Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		H(mm)	n	m	Mass(kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
340	440	210	100	70	3	2	5.7	6.5
440	540	310	200	20	4	3	6.9	7.7
540	640	410	300	70	5	3	8.0	8.8
640	740	510	400	20	6	4	9.2	10.0
740	840	610	500	70	7	4	10.4	11.2
940	1040	810	700	70	9	5	11.6	12.4

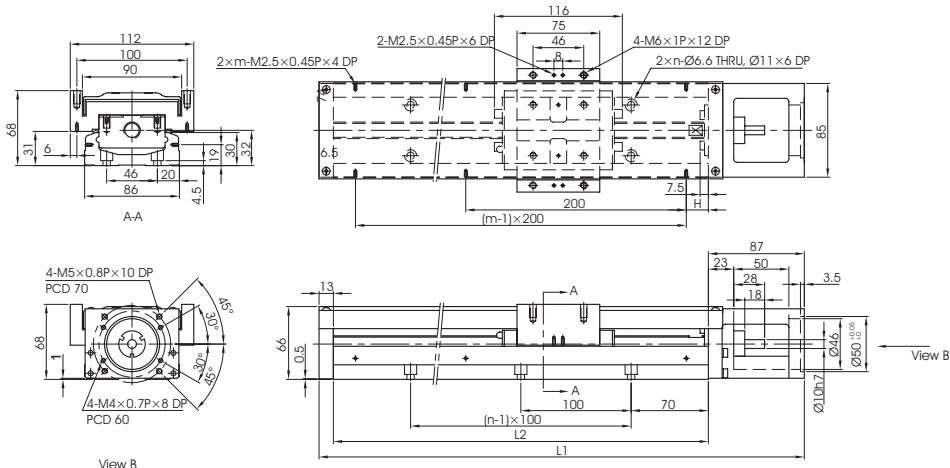
Seal Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)	H(mm)	n	m	A1 Block Mass (kg)
		A1 Block				
340	440	210	70	3	2	7.5
440	540	310	20	4	3	8.8
540	640	410	70	5	3	10.0
640	740	510	20	6	4	11.3
740	840	610	70	7	4	12.6
940	1040	810	70	9	5	14.0

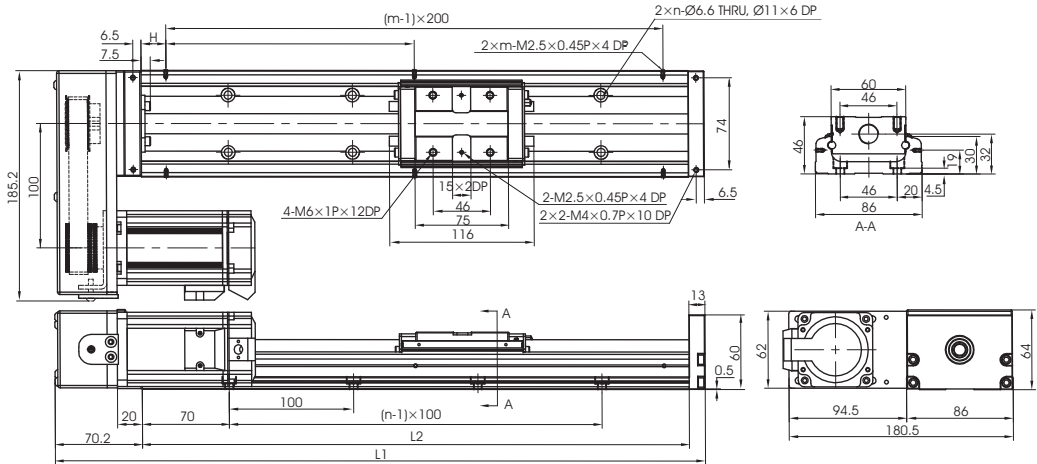
SKK86

Shield Type (Standard Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		H(mm)	n	m	Mass(kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
340	440	210	100	70	3	2	6.5	7.3
440	540	310	200	20	4	3	7.8	8.6
540	640	410	300	70	5	3	9.0	9.8
640	740	510	400	20	6	4	10.3	11.3
740	840	610	500	70	7	4	11.6	12.4
940	1040	810	700	70	9	5	13.0	13.8

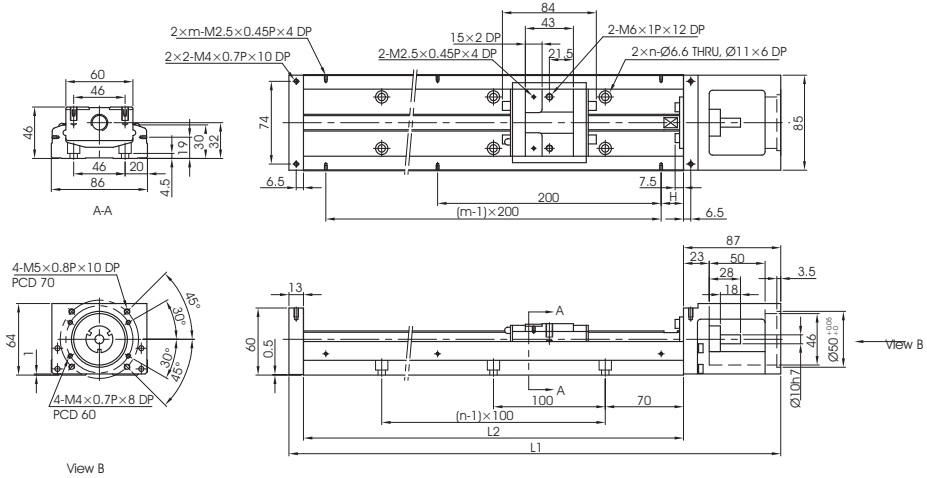
Motor Side-Installed Type



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		H(mm)	n	m	Mass(kg)	
		A1 Block	A2 Block				A1 Block	A2 Block
340	423.2	210	100	70	3	2	5.6	6.4
440	523.2	310	200	20	4	3	6.8	7.6
540	623.2	410	300	70	5	3	7.9	8.7
640	723.2	510	400	20	6	4	9.1	9.9
740	823.2	610	500	70	7	4	10.3	11.1
940	1023.2	810	700	70	9	5	11.5	12.3

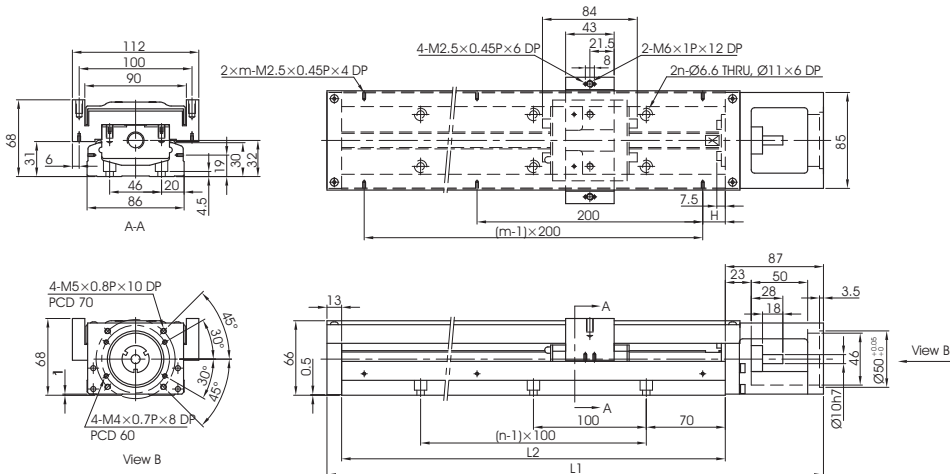
SKK86

Open Type (Light Duty Carriage)



Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		H(mm)	n	m	Mass(kg)	
		S1 Block	S2 Block				S1 Block	S2 Block
340	440	246	170	70	3	2	5.4	5.9
440	540	346	270	20	5	3	6.6	7.1
540	640	446	370	70	5	3	7.7	8.2
640	740	546	470	20	7	4	8.9	9.4
740	840	646	570	70	7	4	10.1	10.6
940	1040	846	770	70	9	5	11.3	11.8

Shield Type (Light Duty Carriage)

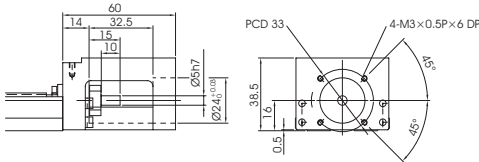


Rail Length L2(mm)	Total Length L1(mm)	Max Stroke(mm)		H(mm)	n	m	Mass(kg)	
		S1 Block	S2 Block				S1 Block	S2 Block
340	440	246	170	70	3	2	6.3	7.1
440	540	346	270	20	4	3	7.6	8.4
540	640	446	370	70	5	3	8.8	9.6
640	740	546	470	20	6	4	10.1	11.1
740	840	646	570	70	7	4	11.4	12.2
940	1040	846	770	70	9	5	12.8	13.6

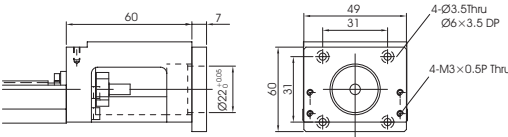
Motor Adaptor Flange

SKK50

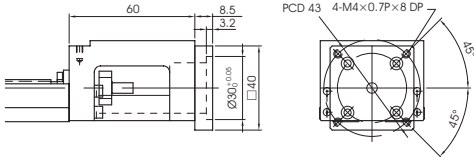
Motor Housing F0



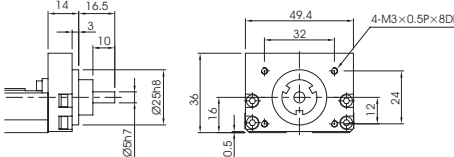
Motor Housing F3



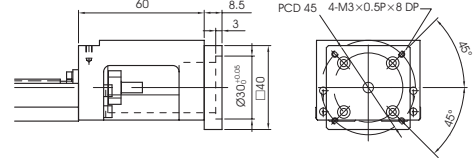
Motor Housing F1



Motor Housing H0



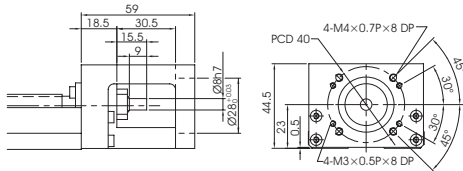
Motor Housing F2



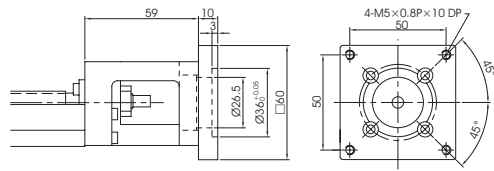
Motor Adaptor Flange

SKK60

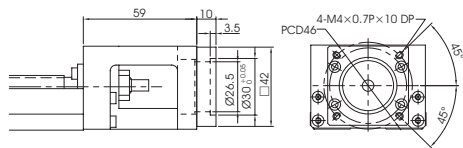
Motor Housing F0



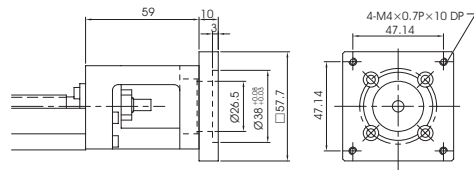
Motor Housing F3



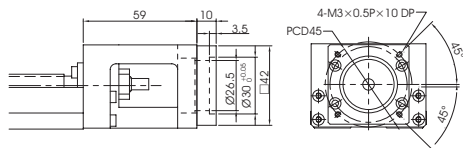
Motor Housing F1



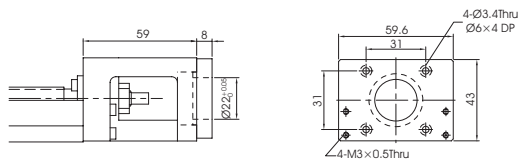
Motor Housing F4



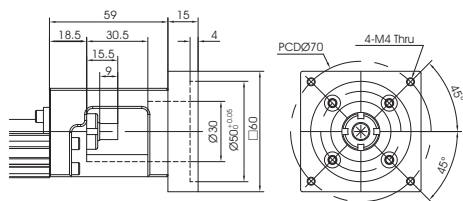
Motor Housing F2



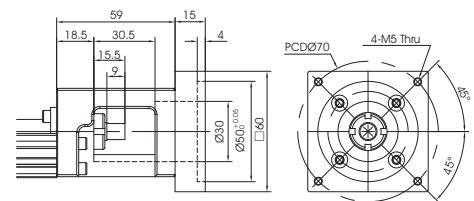
Motor Housing F5



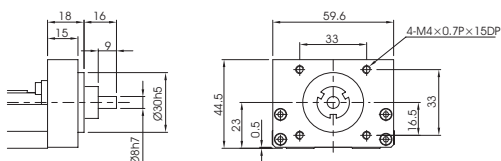
Motor Housing F6



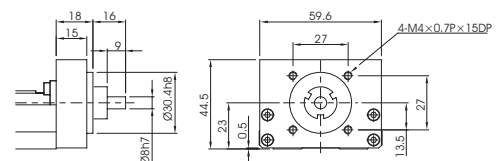
Motor Housing F7



Motor Housing H0

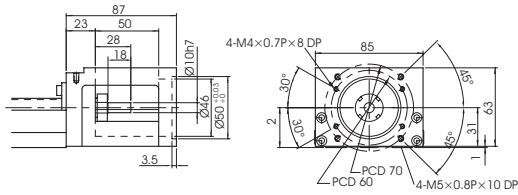


Motor Housing H1

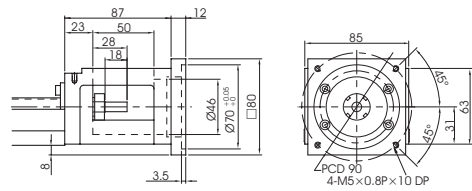


SKK86

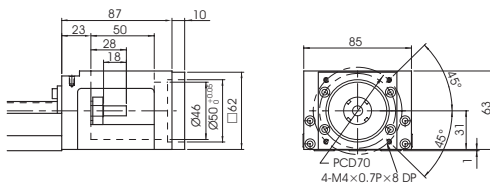
Motor Housing F0



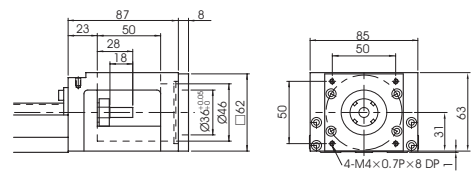
Motor Housing F4



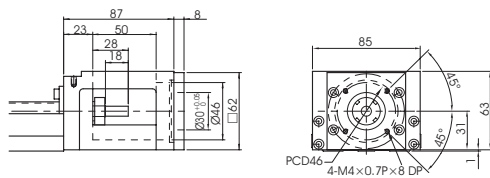
Motor Housing F1



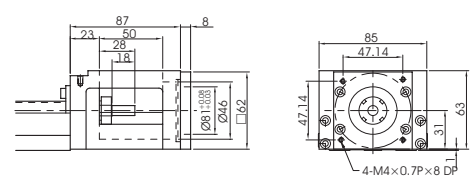
Motor Housing F5



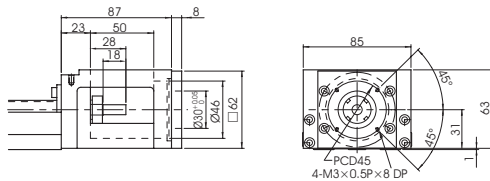
Motor Housing F2



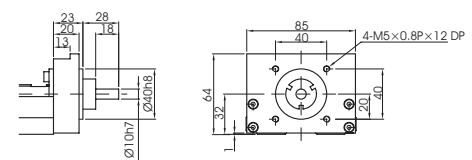
Motor Housing F6



Motor Housing F3

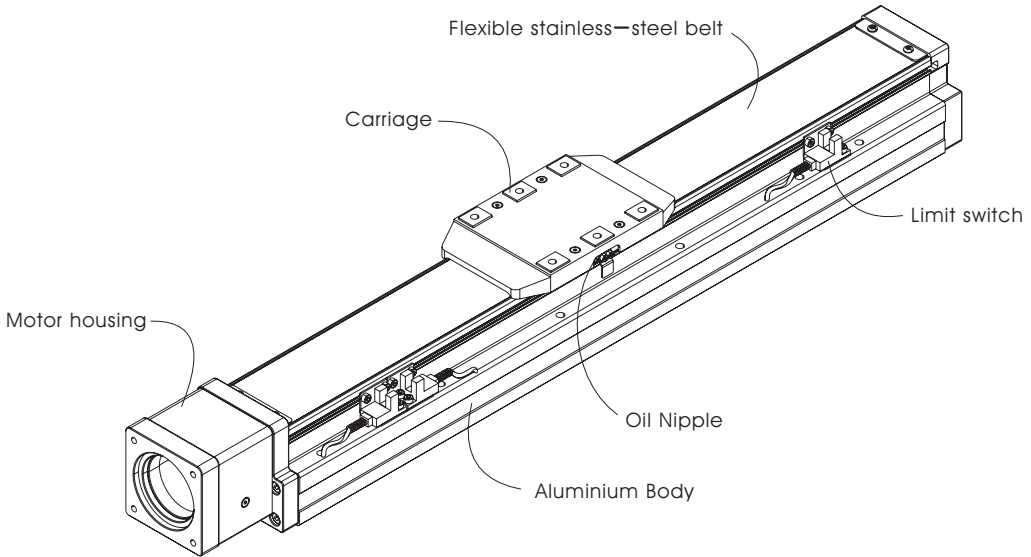


Mount Housing H0



SGTH Linear Module (Ball Screw Drives)

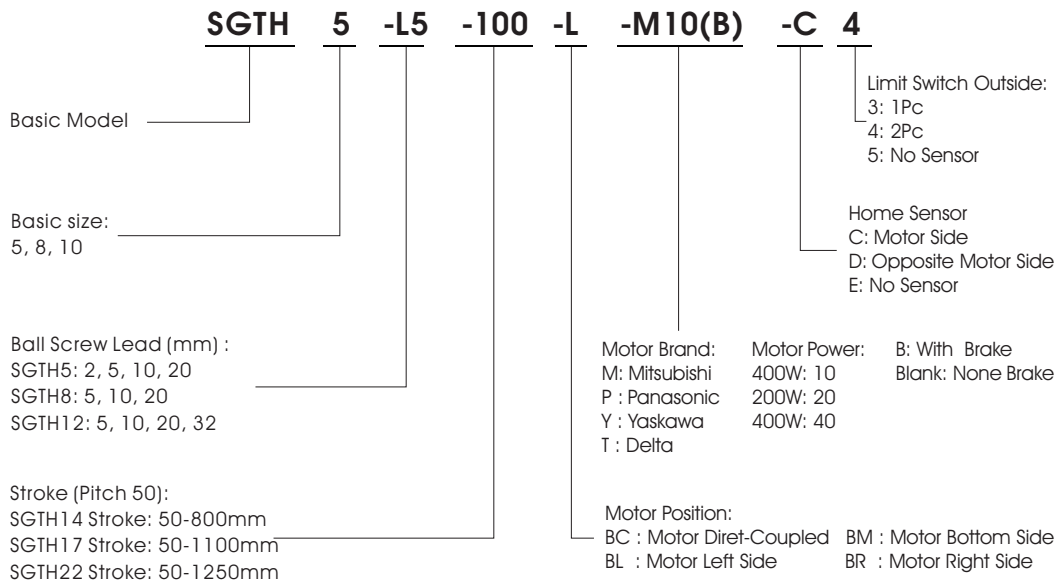
SGTH linear module integrates two steel guideways into an aluminium module body to achieve compact and slim structure. The carriage is driven by a ballscrew to offer accuracy and efficient movement. This series products adopt flexible stainless-steel belt to meet the requirements of dustproof.



Specification

Environment	Driven Mode	Speci Cation	Motor Output (W)	Width (mm)	Repeatability (mm)	Ball Screw Spec		Maximum Payload(kg)		Maximum Speed (mm/s)
						Outer Diameter (mm)	Lead (mm)	Horizontal	Vertical	
Standard	Ball screw	SGTH5	100W	54	± 0.01	12	2	30	10	100
							5	30	10	250
							10	15	5	500
							20	10	2.5	1000
		SGTH8	200W	82	± 0.01	16	5	50	15	250
							10	30	8	500
							20	18	3	1000
		SGTH12	400W	120	± 0.01	16	5	110	33	250
							10	88	22	500
							20	40	10	1000
							32	30	8	1600

Model Code Rules

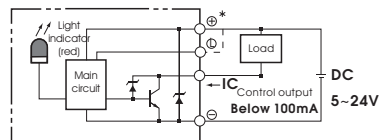


Stroke(mm) & Maximum Speed (mm/s)																																
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350					
	100											90	80	70	60																	
	250											270	200	175	150																	
	500											450	400	350	300																	
	1000											900	800	700	600																	
	250												225	200	175	150	125	100	75													
	500												450	400	350	300	250	200	150													
	1000												900	800	700	600	500	400	300													
	250												225	200	175	167	158	150	133	125	117											
	500												450	400	350	333	317	300	267	250	233											
	1000												900	800	700	667	633	600	533	500	467											
	1600												1440	1280	1120	1067	1013	900	853	800	747											

SGTH5 Linear Module (Ball Screw Drives)

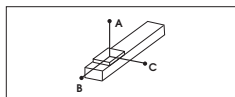
Repeatability (mm)		± 0.01			
Ball Screw Lead (mm)		2	5	10	20
Maximum Speed ※ 1 (mm/s)		100	250	500	1000
Maximum Payload	Horizontal (kg)	30	30	15	10
	Vertical (kg)	10	10	5	2.5
Rated Thrust (N)		854	341	170	85
Stroke / Pitch (mm)		50–800mm/50 Pitch 50mm			
AC Servo Motor Output (W)		100			
Ball Screw Ø (mm)		C7Ø12			
Coupling (mm)		7 × 8			
Home Sensor	Outside	EE-SX674(NPN)			

Circuit Diagram of Sensor

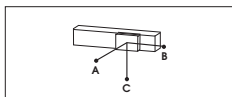


- ※ 1. Acceleration and deceleration value is set 0.2 second.
- ※ 2. When the stroke is over 600mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

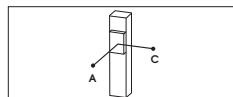
Arm of Force



Unit: mm

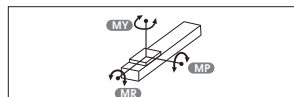


Unit: mm



Unit: mm

Static Loading Moment



Unit: N.m

Horizontal Installation		A	B	C
Lead 2	10kg	900	100	135
	20kg	700	45	60
	30kg	550	25	35
Lead 5	10kg	650	75	100
	20kg	440	32	45
	30kg	270	19	25
Lead 10	5kg	600	145	185
	10kg	370	70	85
	15kg	250	42	52
Lead 20	5kg	320	120	130
	8kg	220	70	80
	10kg	175	55	60

Wall Installation		A	B	C
Lead 2	10kg	135	100	900
	20kg	60	45	700
	30kg	37	27	550
Lead 5	10kg	100	75	650
	20kg	45	32	420
	30kg	25	19	260
Lead 10	5kg	180	145	600
	10kg	85	68	370
	15kg	52	42	250
Lead 20	5kg	130	120	320
	8kg	75	70	220
	10kg	60	55	170

Vertical Installation		A	C
Lead 2	6kg	180	180
	8kg	135	135
	10kg	110	110
Lead 5	6kg	145	145
	8kg	110	110
	10kg	90	90
Lead 10	1kg	800	800
	3kg	260	260
	5kg	155	155
Lead 20	1kg	600	600
	2kg	300	300
	2.5kg	250	250

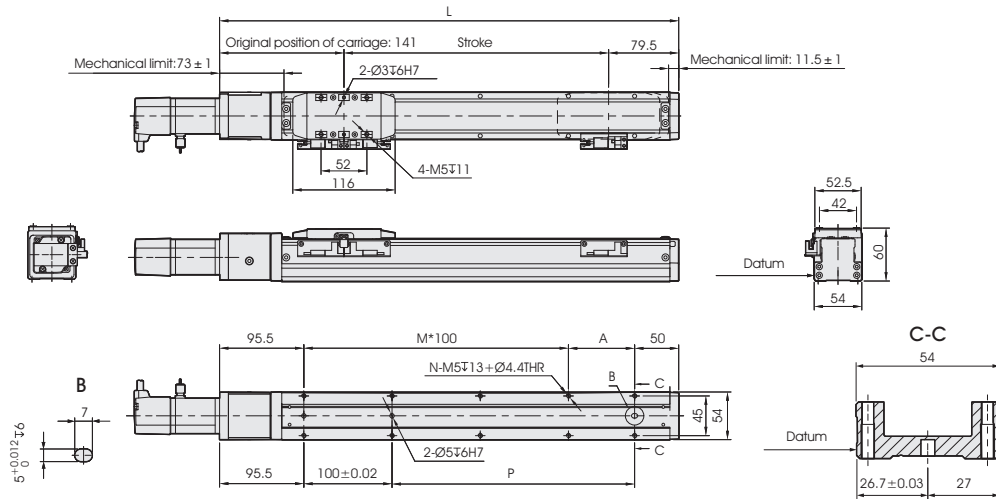
MY	103
MP	103
MR	114

- ※ The torque value in the chart indicate the center of gravity
- ※ Operation life is 10,000km when the product is using under the specified conditions
- ※ Data information is not for ceiling-mount inverse use.

Motor Parameter

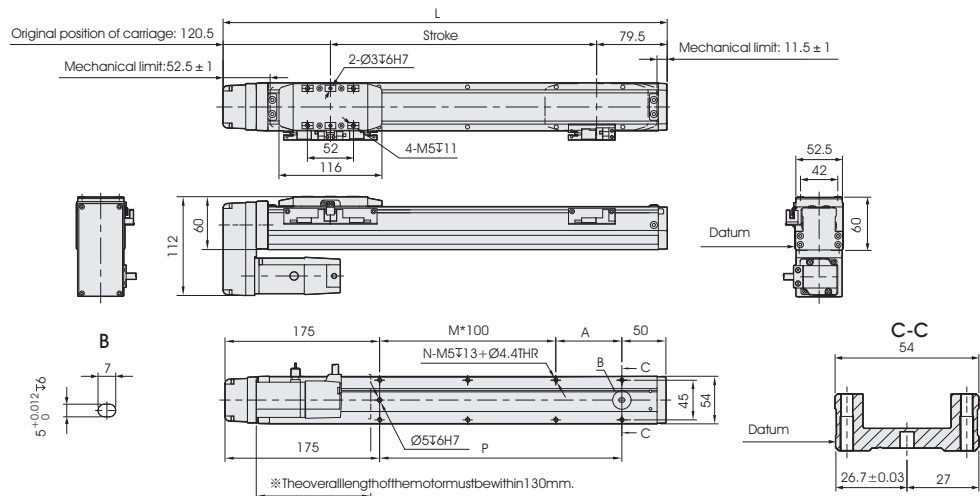
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	100	220	HG-KR13	MR-J4-10A
		YES (Vertical Type)	100	220	HG-KR23B	MR-J4-10A
Panasonic	P	None (Horizontal Type)	100	220	MSMD012GIU	MADHT1505
		YES (Vertical Type)	100	220	MSMD012GIV	MADHT1505
Delta	T	None (Horizontal Type)	100	220	ECMA-C20401ES	ASD-B20121-B
		YES (Vertical Type)	100	220	ECMA-C20401FS	ASD-B20121-B

Motor Direct-Coupled (BC)



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	270.5	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5
A	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
KG	1.65	1.79	1.92	2.11	2.39	2.50	2.52	2.75	2.86	2.95	3.15	3.28	3.44	3.58	3.71	4.09

Motor On Bottom Side (BM)

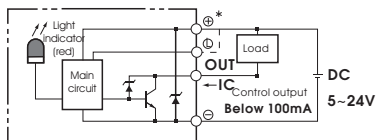


Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	250.5	300.5	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5
A	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
M	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
N	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
P	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
KG	1.68	1.80	2.03	2.14	2.42	2.53	2.58	2.78	2.89	2.98	3.18	3.31	3.47	3.60	3.74	4.12

SGTH8 Linear Module (Ball Screw Drives)

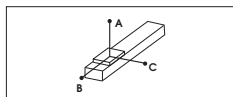
Repeatability (mm)		± 0.01		
Ball Screw Lead (mm)		5	10	20
Maximum Speed ※1 (mm/s)		250	500	1000
Maximum Payload	Horizontal(kg)	50	30	18
	Vertical(kg)	15	8	3
Rated Thrust (N)		683	341	174
Stroke / Pitch (mm)		50-1100mm/50 Pitch 50mm		
AC Servo Motor Output (W)		200		
Ball ScrewØ (mm)		C7Ø16		
Coupling (mm)		10×14/11(注1)		
Home Sensor	Outside	EE-SX674(NPN)		

Circuit Diagram of Sensor

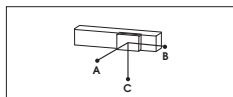


- ※1. Acceleration and deceleration value is set 0.2 second.
- ※2. When the stroke is over 750mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

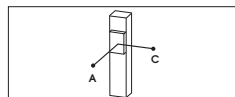
Arm of Force



Unit: mm

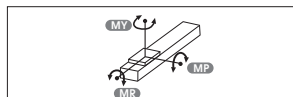


Unit: mm



Unit: mm

Static Loading Moment



Unit: N.m

Horizontal Installation		A	B	C
Lead 5	20kg	1560	153	237
	35kg	890	81	126
	50kg	550	53	82
Lead 10	10kg	1730	286	412
	20kg	839	136	196
	30kg	541	86	124
Lead 10	6kg	1213	403	493
	9kg	800	264	323
	18kg	592	194	238

Wall Installation		A	B	C
Lead 5	20kg	214	153	1435
	35kg	113	81	845
	50kg	74	53	506
Lead 10	10kg	370	286	1400
	20kg	176	136	800
	30kg	112	86	495
Lead 10	6kg	444	403	760
	9kg	292	264	277
	18kg	214	194	544

Vertical Installation		A	C
Lead 5	10kg	331	331
	15kg	220	220
	-	-	-
Lead 10	5kg	589	589
	8kg	368	368
	-	-	-
Lead 20	3kg	935	935
	-	-	-

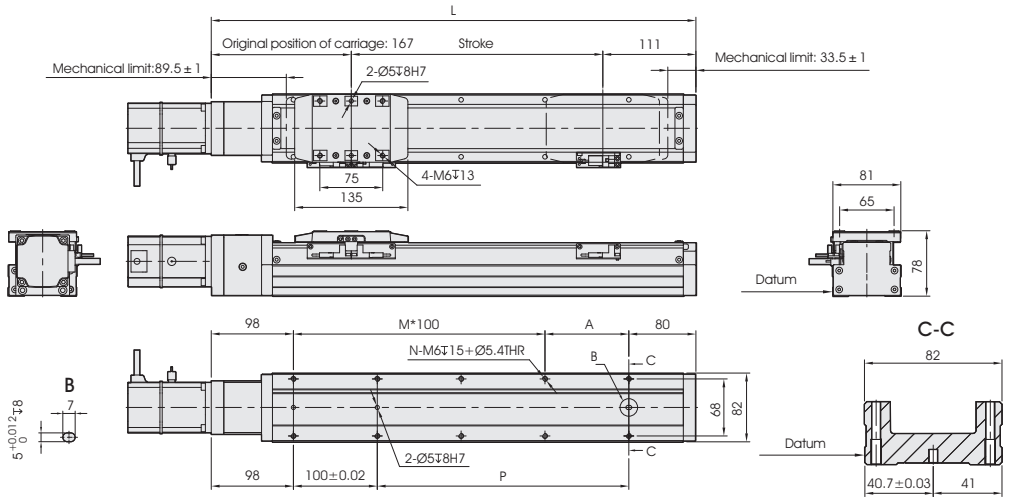
MY	318
MP	318
MR	626

- ※ The torque value in the chart indicate the center of gravity
- ※ Operation life is 10,000km when the product is using under the specified conditions
- ※ Data information is not for ceiling-mount inverse use.

Motor Parameter

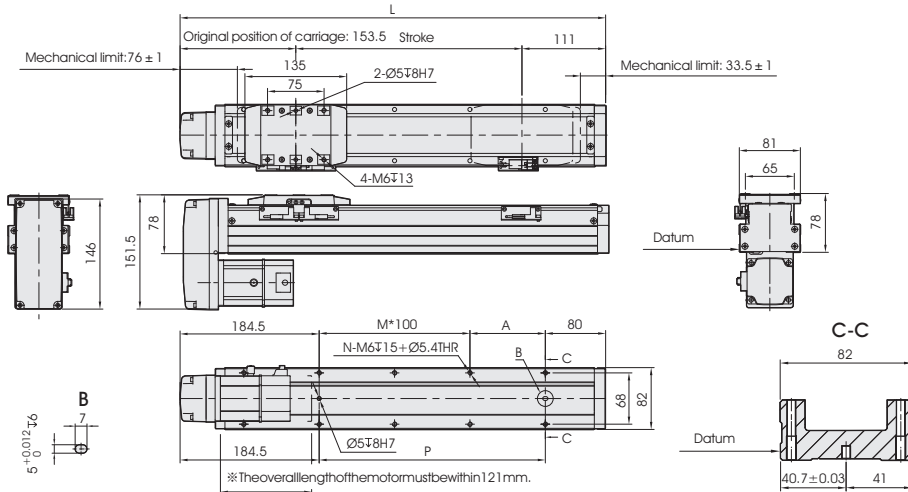
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	200	220	HG-KR23	MR-J4-20A
		YES (Vertical Type)	200	220	HG-KR238	MR-J4-20A
Panasonic	P	None (Horizontal Type)	200	220	MHMD022G1U	MADHT1507
		YES (Vertical Type)	200	220	MHMD022G1V	MADHT1507
Delta	T	None (Horizontal Type)	200	220	ECMA-C20602ES	ASD-B20221-B
		YES (Vertical Type)	200	220	ECMA-C20602FS	ASD-B20221-B

Motor Direct-Coupled (BC)



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
L	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	1128	1178	1228	1278	1328	1378
A	80	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
N	6	6	8	8	10	10	12	12	14	14	16	16	18	8	20	20	22	22	24	24	26	26
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
KG	3.91	4.29	4.70	5.00	5.35	5.68	6.00	6.35	6.64	6.97	7.41	7.71	8.12	8.41	8.65	8.96	9.37	9.62	10.01	10.28	10.70	11.12

Motor On Bottom Side (BM)

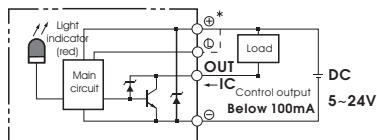


Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
L	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5	1314.5	1364.5
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
N	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
KG	3.95	4.33	4.74	5.09	5.39	5.72	6.04	6.39	6.68	7.01	7.45	7.75	8.16	8.45	8.69	9.00	9.41	9.66	10.08	10.32	10.74	11.16

SGTH12 Linear Module (Ball Screw Drives)

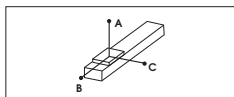
Repeatability (mm)		± 0.01			
Ball Screw Lead (mm)		5	10	20	32
Maximum Speed ※ 1 (mm/s)		25	500	1000	1600
Maximum Payload	Horizontal (kg)	110	88	40	30
	Vertical (kg)	33	22	10	8
Rated Thrust (N)		1388	697	347	218
Stroke / Pitch (mm)		50-1250mm/50 Pitch 50mm			
AC Servo Motor Output (W)		400			
Ball Screw Ø (mm)		C7Ø16			
Coupling (mm)		10 × 14			
Home Sensor	Outside	EE-SX674(NPN)			

Circuit Diagram of Sensor

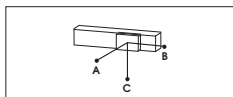


- ※ 1. Acceleration and deceleration value is set 0.2 second.
- ※ 2. When the stroke is over 800mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

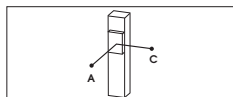
Arm of Force



Unit: mm

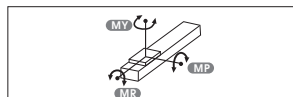


Unit: mm



Unit: mm

Static Loading Moment



Unit: N·m

Horizontal Installation		A	B	C
Lead 5	60kg	2850	250	340
	80kg	2100	180	250
	110kg	1500	120	170
Lead 10	30kg	2850	490	600
	50kg	1700	280	350
	88kg	950	140	190
Lead 20	10kg	3400	1250	1400
	22kg	1650	550	620
	40kg	900	290	330
Lead 32	15kg	1100	570	550
	25kg	620	330	320
	30kg	520	270	260

Wall Installation		A	B	C
Lead 5	55kg	280	280	3300
	75kg	200	195	2400
	110kg	130	125	1550
Lead 10	35kg	400	410	2500
	55kg	245	250	1550
	88kg	150	150	950
Lead 20	12kg	900	1070	3000
	20kg	550	630	1800
	40kg	260	300	900
Lead 32	15kg	440	570	1050
	30kg	210	270	520
	-	-	-	-

Vertical Installation		A	C
Lead 5	15kg	1200	1200
	22kg	820	820
	33kg	550	550
Lead 10	10kg	1600	1600
	14kg	1150	1150
	22kg	730	730
Lead 20	7kg	1800	1800
	10kg	1250	1250
	-	-	-
Lead 32	5kg	1600	1600
	8kg	1000	1000
	-	-	-

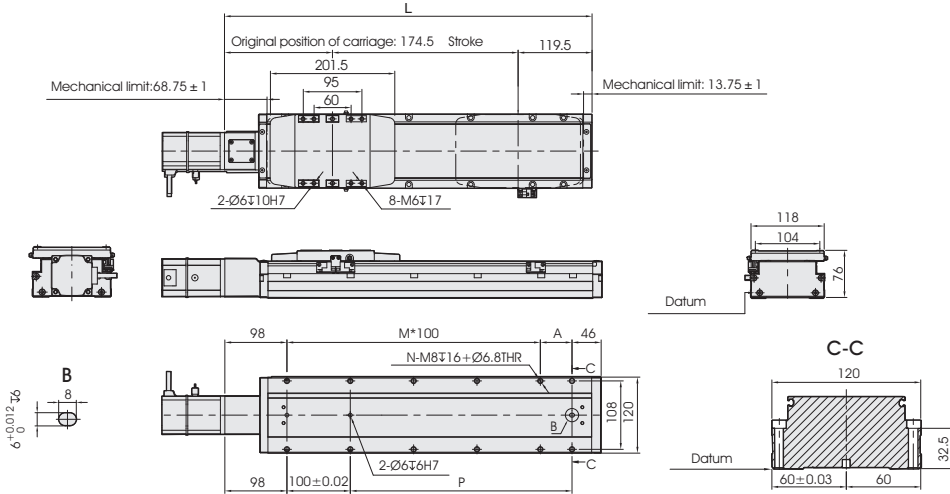
MY	606
MP	606
MR	1168

- ※ The torque value in the chart indicate the center of gravity
- ※ Operation life is 10,000km when the product is using under the specified conditions
- ※ Data information is not for ceiling-mount inverse use.

Motor Parameter

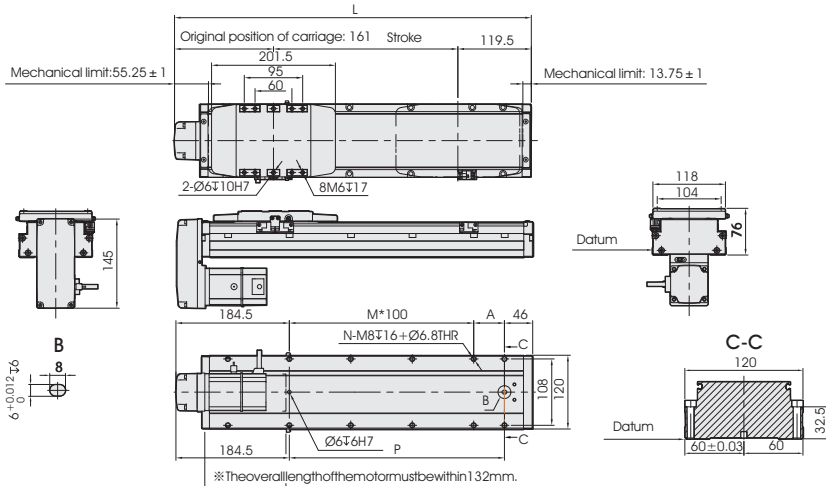
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	400	220	HG-KR43	MR-J4-40A
		YES (Vertical Type)	400	220	HG-KR43B	MR-J4-40A
Panasonic	P	None (Horizontal Type)	400	220	MSMD042GIU	MADHT2510
		YES (Vertical Type)	400	220	MSMD042GIV	MADHT2510
Delta	T	None (Horizontal Type)	400	220	ECMA-C20601ES	ASD-B20421-B
		YES (Vertical Type)	400	220	ECMA-C20601FS	ASD-B20421-B

Motor Direct-Coupled (BC)



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
L	344	394	444	494	544	594	644	694	744	794	844	894	944	994	1044	1094	1144	1194	1244	1294	1344	1394	1444	1494	1544
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300
KG	5.05	5.4	5.75	6.1	6.45	6.8	7.15	7.5	7.85	8.2	8.55	8.9	9.25	9.6	9.95	10.3	10.65	11	11.35	11.7	12.05	12.4	12.75	13.1	13.45

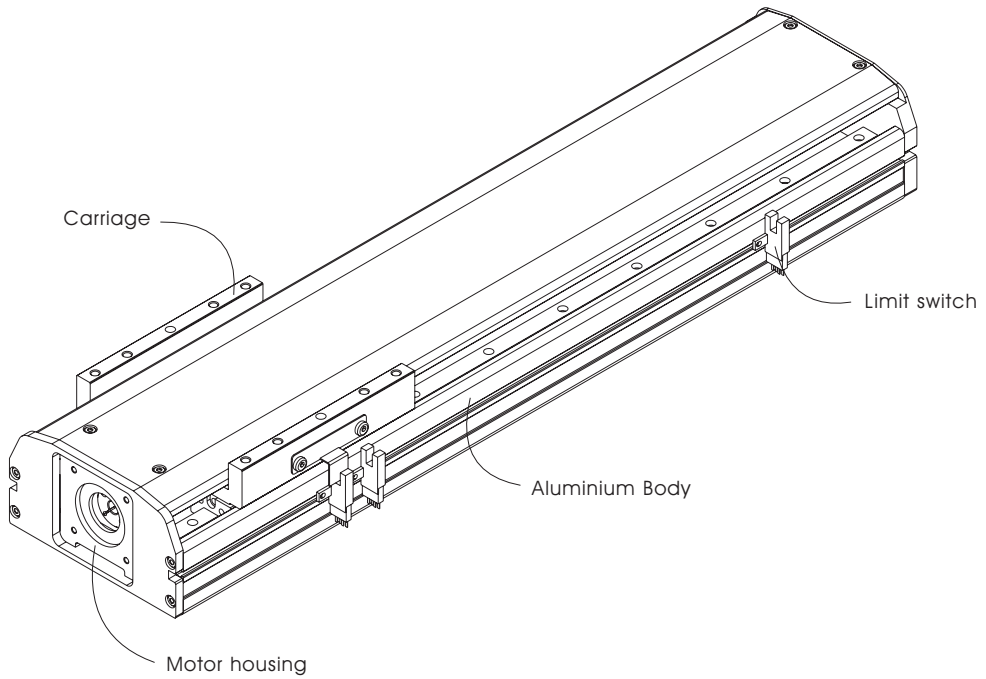
Motor On Bottom Side (BM)



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
L	330.5	380.5	430.5	480.5	530.5	580.5	630.5	680.5	730.5	780.5	830.5	880.5	930.5	980.5	1030.5	1080.5	1130.5	1180.5	1230.5	1280.5	1330.5	1380.5	1430.5	1480.5	1530.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300
KG	5.21	5.56	5.91	6.26	6.61	6.96	7.31	7.66	8.01	8.36	8.71	9.06	9.41	9.76	10.11	10.46	10.81	11.16	11.51	11.86	12.21	12.56	12.91	13.26	13.61

SETH Linear Module (Ball Screw Drives)

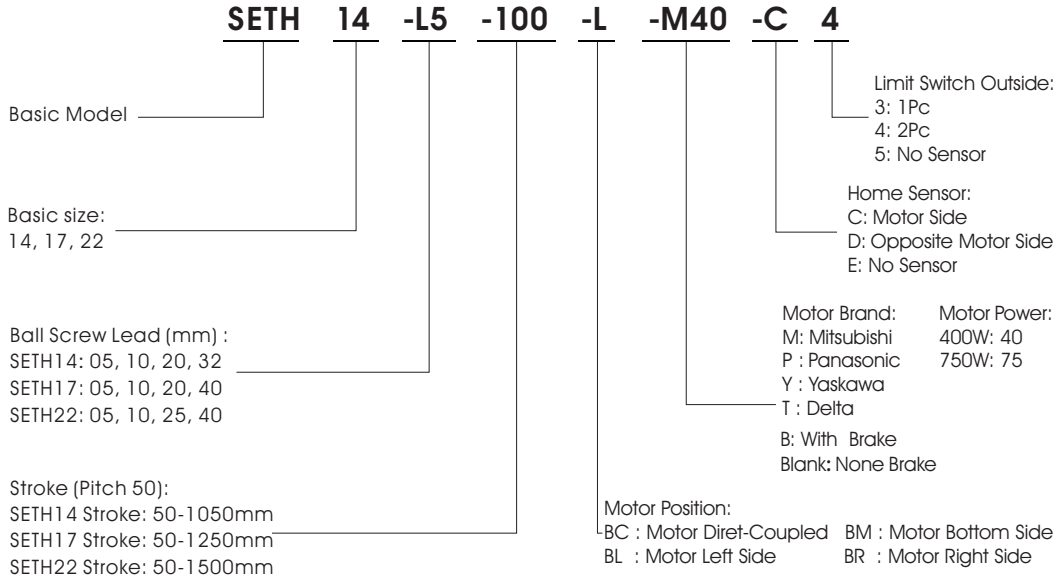
The SETH linear module is a high load and precision module formed by combining a ball screw unit and linear guides unit on a high rigidity aluminum alloy housing. Its excellent high rigidity and light weight performance could realize high speed with heavy load. It is designed with an aluminum cover to protect power transmission components.



Specification

Environment	Driven Mode	Speci Cation	Motor Output (W)	Width (mm)	Repeatability (mm)	Ball Screw Spec		Maximum Payload (kg)		Maximum Speed (mm/s)				
						Outer Diameter (mm)	Lead (mm)	Horizontal	Vertical		Stroke	50	100	150
Standard	Ballscrew	SETH14	400W	135	±0.01	16	5	110	33	250				
							10	88	22	500				
							20	40	10	1000				
							32	30	8	1600				
		SETH17	750W	170	±0.01	20	5	120	50	250				
							10	120	40	500				
							20	83	25	1000				
							40	43	12	2000				
		SETH22	750W	220	±0.01	25	5	150	55	250				
							10	150	45	500				
							20	105	20	1250				
							40	43	12	2000				

Model Code Rules

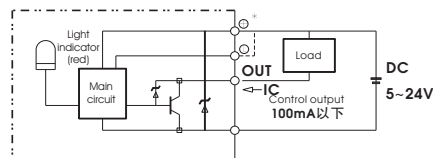


Stroke(mm) & Maximum Speed (mm/s)																																						
200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500												
250												225	200	175	150	125	100																					
500												450	400	350	300	250	200																					
1000												900	800	700	600	500	400																					
1600												1440	1280	1120	960	800	640																					
250															225	200	175	150																				
500															450	400	350	300	250	200																		
1000															900	800	700	600	500	400																		
2000															1800	1600	1400	1200																				
250																225	200	175	150	125	100																	
500																450	400	350	300	250	200																	
1250																1125	1000	875	750	625	500																	
2000																1800	1600	1400	1200	1000	800	600																

SETH14 Linear Module (Ball Screw Drives)

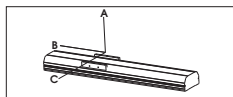
Repeatability (mm)		± 0.01			
Ball Screw Lead (mm)		5	10	20	32
Maximum Speed ※1 (mm/s)		250	500	1000	1600
Maximum Payload	Horizontal (kg)	110	88	40	30
	Vertical (kg)	33	22	10	8
Rated Thrust (N)		1388	694	347	218
Stroke / Pitch ※2 (mm)		100-1050mm/50 Pitch 50mm			
AC Servo Motor Output (W)		400			
Ball Screw Ø (mm)		C7Ø16			
High Rigidity Linear Guide (mm)		W15XH12.5			
Coupling (mm)		10×14			
Home Sensor	Outside	EE-SX672(NPN)			

Circuit Diagram of Sensor

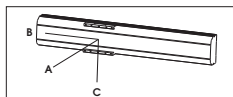


- ※1. Acceleration and deceleration value is set 0.2 second.
- ※2. When the stroke is over 750mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

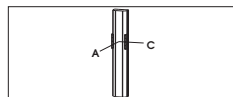
Arm of Force



Unit: mm

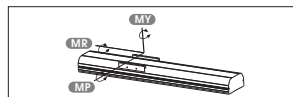


Unit: mm



Unit: mm

Static Loading Moment



Unit: N.m

Horizontal Installation		A	B	C
Lead 5	60kg	2512	242	232
	80kg	1811	175	164
	110kg	1284	114	108
Lead 10	30kg	2727	470	430
	50kg	1577	266	242
	88kg	854	134	122
Lead 20	10kg	2304	1222	1028
	22kg	1443	540	451
	40kg	860	277	233
Lead 32	15kg	1033	545	405
	25kg	604	311	233
	30kg	495	251	188

Wall Installation		A	B	C
Lead 5	55kg	257	269	2883
	75kg	178	186	2000
	110kg	108	114	1284
Lead 10	35kg	363	395	2368
	55kg	218	238	1445
	88kg	123	134	854
Lead 20	12kg	854	1019	2552
	20kg	500	596	1588
	40kg	233	277	860
Lead 32	15kg	405	545	1033
	30kg	188	251	495
	-	-	-	-

Vertical Installation		A	C
Lead 5	15kg	1118	1118
	22kg	770	770
	33kg	513	513
Lead 10	10kg	1500	1500
	14kg	1072	1072
	22kg	682	682
Lead 20	7kg	1700	1700
	10kg	1188	1188
	-	-	-
Lead 32	5kg	1503	1503
	8kg	944	944
	-	-	-

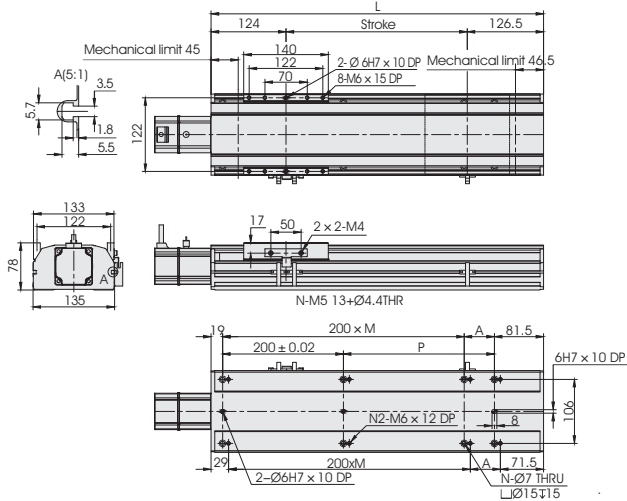
MY	551
MP	552
MR	485

- ※ The torque value in the chart indicate the center of gravity
- ※ Operation life is 10,000km when the product is using under the specified conditions
- ※ Data information is not for ceiling-mount inverse use.

Motor Parameter

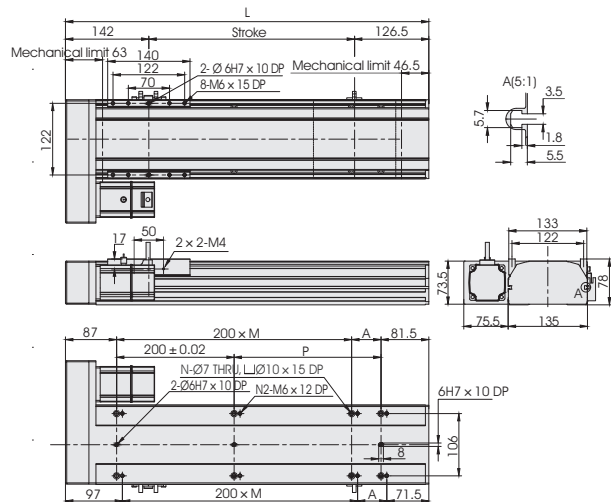
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	400	220	HG-KR43	MR-J4-40A
		YES (Vertical Type)	400	220	HG-KR43B	MR-J4-40A
Panasonic	P	None (Horizontal Type)	400	220	MHMD042GIU	MBDHT2510
		YES (Vertical Type)	400	220	MHMD042GIV	MBDHT2510
Delta	T	None (Horizontal Type)	400	220	ECMA-C20604ES	ASD-B20421-B
		YES (Vertical Type)	400	220	ECMA-C20604FS	ASD-B20421-B

Motor Direct-Coupled (BC)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5	1050.5	1100.5	1150.5	1200.5	1250.5	1300.5
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
KG	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

Motor Left Side (L)

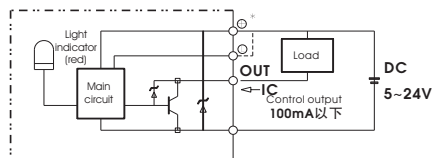


Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	0	50	100	150	200	250	300	350	400	450	500	55	600	650	700	750	800	850	900	950
KG	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

SETH17 Linear Module (Ball Screw Drives)

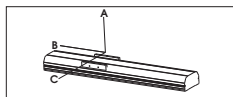
Repeatability (mm)		± 0.01			
Ball Screw Lead (mm)		5	10	20	40
Maximum Speed ※1 (mm/s)		250	500	1000	2000
Maximum Payload	Horizontal (kg)	120	120	83	43
	Vertical (kg)	50	40	25	12
Rated Thrust (N)		2563	1281	640	320
Stroke / Pitch ※2 (mm)		100-1250mm/50 Pitch 50mm			
AC Servo Motor Output (W)		750			
Ball Screw Ø (mm)		C7Ø20			
High Rigidity Linear Guide (mm)		W20XH15			
Coupling (mm)		12×19			
Home Sensor	Outside	EE-SX672(NPN)			

Circuit Diagram of Sensor

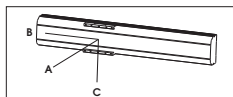


- ※1. Acceleration and deceleration value is set 0.2 second.
- ※2. When the stroke is over 850mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

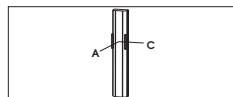
Arm of Force



Unit: mm

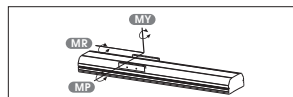


Unit: mm



Unit: mm

Static Loading Moment



Unit: N.m

Horizontal Installation		A	B	C
Lead 5	70kg	3235	349	408
	90kg	2482	263	306
	120kg	1861	187	218
Lead 10	65kg	1911	338	373
	85kg	1445	248	276
	120kg	1000	164	182
Lead 20	35kg	1666	547	538
	55kg	1030	331	328
	83kg	654	206	204
Lead 40	15kg	1126	740	577
	22kg	755	491	384
	43kg	366	231	183

Wall Installation		A	B	C
Lead 5	75kg	377	322	2988
	95kg	288	246	2333
	120kg	218	187	1850
Lead 10	60kg	408	368	2092
	80kg	296	266	1554
	120kg	182	164	1002
Lead 20	30kg	633	644	1002
	50kg	365	369	1143
	83kg	204	206	656
Lead 40	12kg	729	936	1417
	22kg	384	491	755
	43kg	183	231	366

Vertical Installation		A	C
Lead 5	20kg	1368	1368
	30kg	911	911
	50kg	546	546
Lead 10	15kg	1618	1618
	25kg	970	970
	40kg	607	607
Lead 20	10kg	1922	1922
	14kg	1377	1377
	25kg	769	769
Lead 40	7kg	1356	1356
	12kg	790	790
	-	-	-

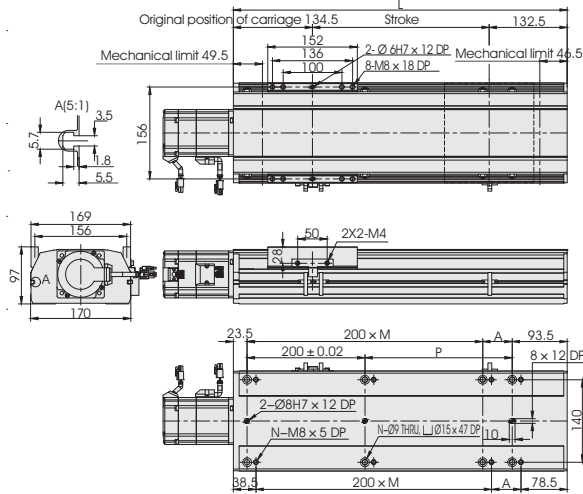
MY	1032
MP	1034
MR	908

- ※ The torque value in the chart indicate the center of gravity
- ※ Operation life is 10,000km when the product is using under the specified conditions
- ※ Data information is not for ceiling-mount inverse use.

Motor Parameter

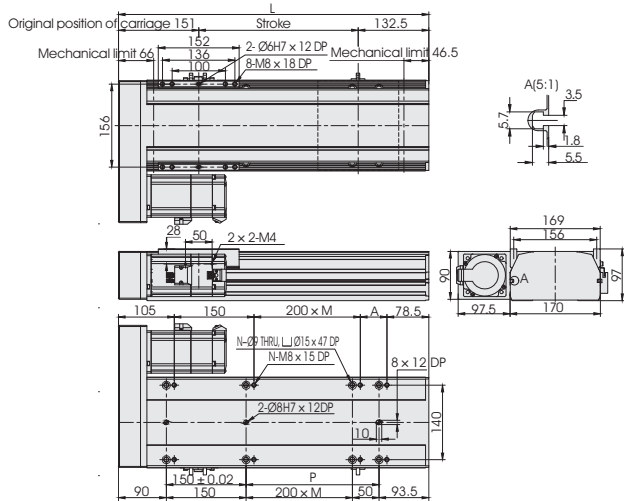
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	750	220	HG-KR73	MR-J4-70A
		YES (Vertical Type)	750	220	HG-KR73B	MR-J4-70A
Panasonic	P	None (Horizontal Type)	750	220	MHMD082GIU	MBDHT3520
		YES (Vertical Type)	750	220	MHMD082GIV	MBDHT3520
Delta	T	None (Horizontal Type)	750	220	ECMA-C20807ES	ASD-B20721-B
		YES (Vertical Type)	750	220	ECMA-C20807FS	ASD-B20721-B

Motor Direct-Coupled (BC)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
L	367	417	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367	1417	1467	1517
A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	700	800	850	900	950	1000	1050	1100	1150	1200
KG	11.8	12.6	13.4	14.2	14.9	15.7	16.5	17.3	18	18.8	19.6	20.4	21.1	21.9	21.9	23.5	24.2	25	25.8	26.6	27.4	28.2	29	29.8

Motor Left Side (L)

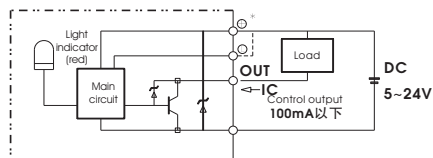


Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
L	383.5	433.5	483.5	533.5	583.5	633.5	683.5	733.5	783.5	833.5	883.5	933.5	983.5	1033.5	1083.5	1133.5	1183.5	1233.5	1283.5	1333.5	1383.5	1433.5	1483.5	1533.5
A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
M	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
KG	11.8	12.6	13.4	14.2	14.9	15.7	16.5	17.3	18	18.8	19.6	20.4	21.1	21.9	22.7	23.8	24.2	25	25.8	26.6	27.4	28.2	29	29.8

SETH22 Linear Module (Ball Screw Drives)

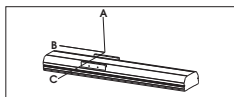
Repeatability (mm)		± 0.01			
Ball Screw Lead (mm)		5	10	20	40
Maximum Speed ※1 (mm/s)		250	500	1250	2000
Maximum Payload	Horizontal (kg)	150	150	105	43
	Vertical (kg)	55	45	20	12
Rated Thrust (N)		2563	1281	640	320
Stroke / Pitch ※2 (mm)		100-1500mm/50 Pitch 50mm			
AC Servo Motor Output (W)		750			
Ball Screw Ø (mm)		C7Ø25		C7Ø20	
High Rigidity Linear Guide (mm)		W20XH15			
Coupling (mm)		17×19		12×19	
Home Sensor	Outside	EE-SX672(NPN)			

Circuit Diagram of Sensor

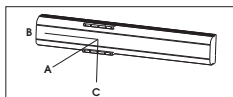


- ※1. Acceleration and deceleration value is set 0.2 second.
- ※2. When the stroke is over 900mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

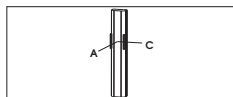
Arm of Force



Unit: mm

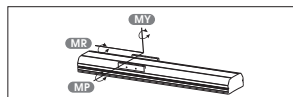


Unit: mm



Unit: mm

Static Loading Moment



Unit: N.m

Horizontal Installation		A	B	C
Lead 5	100kg	5000	633	557
	125kg	3880	494	431
	150kg	3357	396	347
Lead 10	100kg	3220	563	474
	125kg	2554	434	367
	150kg	2113	349	295
Lead 20	65kg	1522	614	458
	85kg	1136	451	336
	105kg	893	350	262
Lead 40	18kg	2445	1616	1052
	30kg	1436	938	613
	43kg	978	630	412

Wall Installation		A	B	C
Lead 5	100kg	500	569	4500
	130kg	412	469	3711
	150kg	347	396	3357
Lead 10	110kg	427	503	2900
	130kg	351	414	2444
	150kg	295	349	2113
Lead 20	70kg	420	564	1404
	90kg	315	420	1066
	105kg	262	350	893
Lead 40	15kg	1272	1955	2948
	24kg	778	1190	1813
	43kg	412	630	978

Vertical Installation		A	C
Lead 5	30kg	2355	2355
	40kg	1768	1768
	55kg	1288	1288
Lead 10	25kg	2505	2505
	35kg	1795	1795
	45kg	1396	1396
Lead 20	15kg	2711	2711
	20kg	2033	2033
	-	-	-
Lead 40	7kg	3511	3511
	12kg	2055	2055
	-	-	-

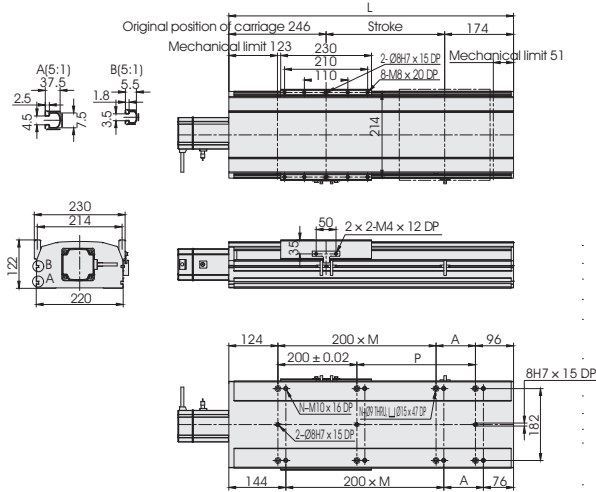
MY	2052
MP	2052
MR	1810

- ※ The torque value in the chart indicate the center of gravity
- ※ Operation life is 10,000km when the product is using under the specified conditions
- ※ Data information is not for ceiling-mount inverse use.

Motor Parameter

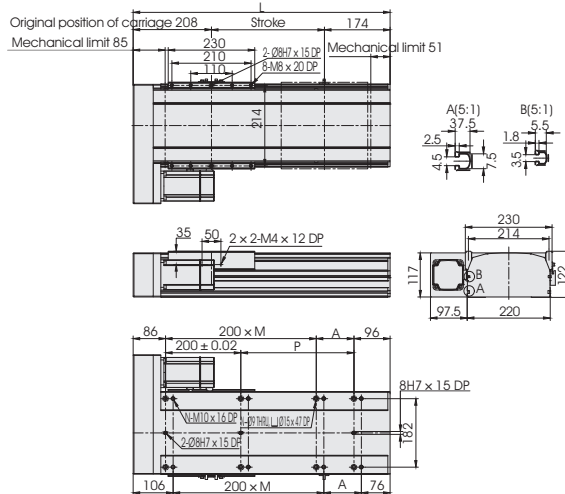
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	750	220	HG-KR73	MR-J4-70A
		YES (Vertical Type)	750	220	HG-KR73B	MR-J4-70A
Panasonic	P	None (Horizontal Type)	750	220	MHMD082GIU	MCDHT3520
		YES (Vertical Type)	750	220	MHMD082GIV	MCDHT3520
Delta	T	None (Horizontal Type)	750	220	ECMA-C20807ES	ASD-B20721-B
		YES (Vertical Type)	750	220	ECMA-C20807FS	ASD-B20721-B

Motor Direct-Coupled (BC)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
L	520	570	620	670	720	770	820	870	920	970	1020	1070	1120	1170	1220	1270	1320	1370	1420	1470	1520	1570	1620	1670	1720	1770	1820	1870	1920
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	8	8	8	8	9	9
N	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1050	1150	1200	1250	1300	1350	1400	1450	1500
KG	24.1	25.3	26.6	27.8	29	30.2	31.4	32.7	33.9	35.1	36.3	37.5	38.8	40	41.2	42.4	43.6	44.9	46.1	47.3	47.3	49.7	51	52.2	53.4	54.6	55.8	57	58.2

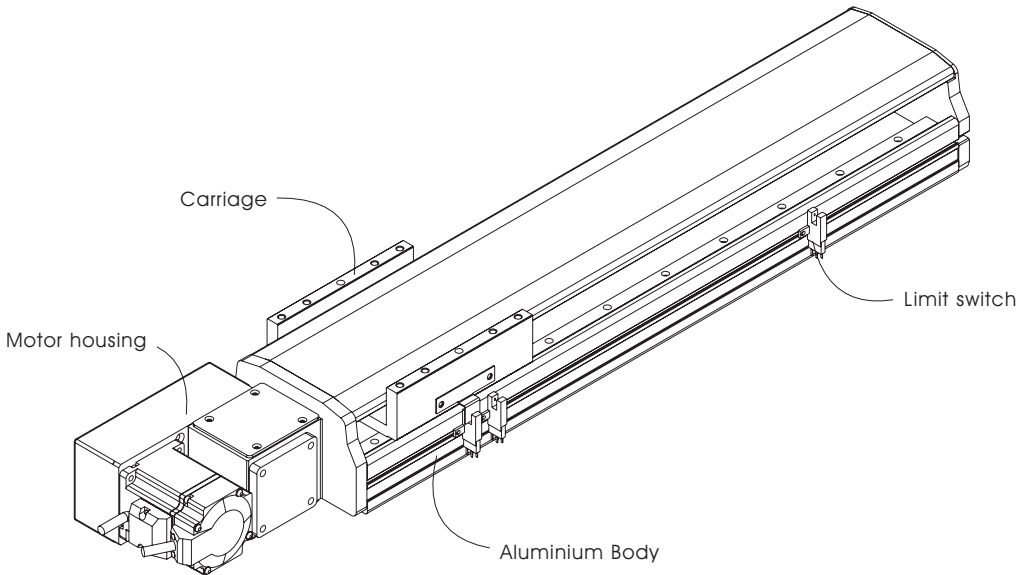
Motor Left Side (L)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
L	482	532	582	632	682	732	782	832	882	932	982	1032	1082	1132	1182	1232	1282	1332	1382	1432	1482	1532	1582	1632	1682	1732	1782	1832	1882
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
KG	24.1	25.3	26.6	27.8	29	30.2	31.4	32.7	33.9	35.1	36.3	37.5	38.8	40	41.2	42.4	43.6	44.9	46.1	47.3	48.5	49.7	51	52.2	53.4	54.6	55.8	57	58.2

SETB Linear Module (Belt Drives)

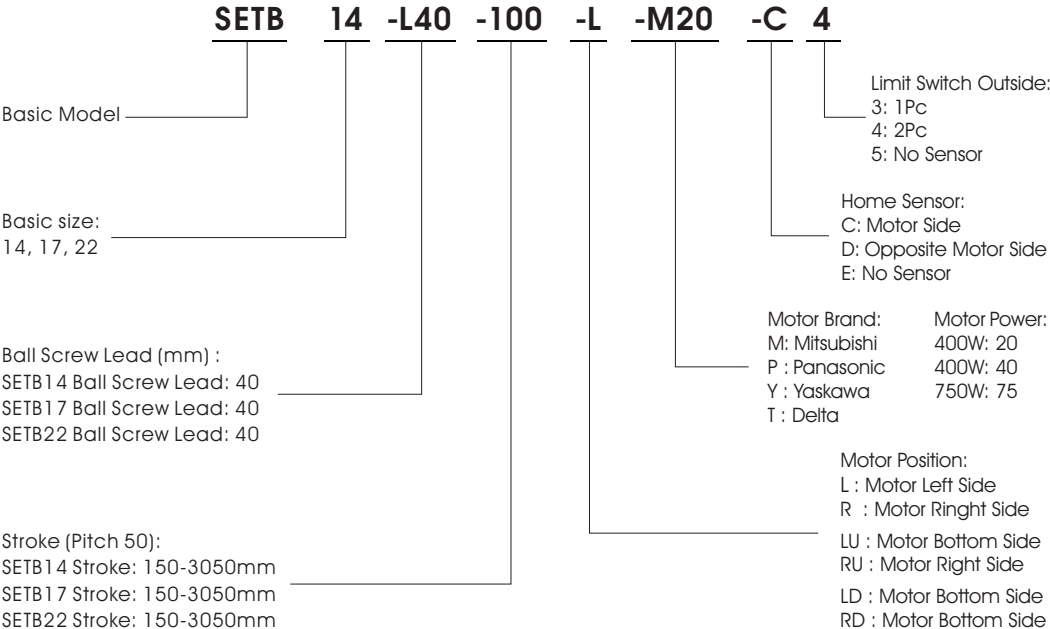
SETB linear module is a linear motion module which combines belt drive components and linear guide unit. This series module has a simple structure which could be easier to achieve long travel. Especially suitable for long stroke, fast speed. It is designed with an aluminum cover to protect power transmission components.



Specification

Environment	Driven Mode	Specification	Motor Output (W)	Width (mm)	Repeatability (mm)	Ball Screw Spec		Maximum Payload (kg)		Maximum Speed (mm/s)			
						Outer Diameter (mm)	Lead (mm)	Horizontal	Vertical		Stroke	150	300
Standard	Ball screw	SETB14	200W	135	±0.04	22	40	25	/	2000			
		SETB17	400W	170	±0.04	30	40	45	/	2000			
		SETB22	750W	220	±0.04	50	40	85	/	2000			

Model Code Rules

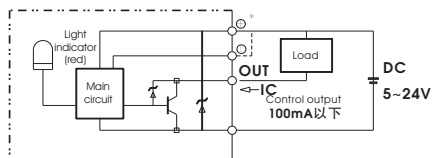


Stroke(mm) & Maximum Speed (mm/s)																																						
450	600	800	900	1050	1200	1350	1500	1650	1800	1950	2100	2150	2300	2550	2600	2750	3050	3150	3300	3500	3600	3750	3900	4050														
2000																																						
2000																																						
2000																																						

SETB14 Linear Module (Belt Drives)

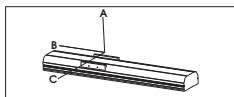
Repeatability (mm)		±0.04
Ball Screw Lead (mm)		40
Maximum Speed ※1 (mm/s)		2000
Maximum Payload	Horizontal (kg)	25
	Vertical (kg)	/
Rated Thrust (N)		100
Stroke / Pitch ※2 (mm)		100-3050mm/50 Pitch 50mm
AC Servo Motor Output (W)		200
Ball Screw Ø (mm)		22
High Rigidity Linear Guide (mm)		W15XH12.5
Home Sensor	Outside	EE-SX672(NPN)

Circuit Diagram of Sensor



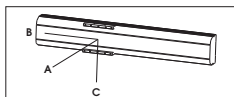
※1. Acceleration and deceleration value is set 0.4second.

Arm of Force



Unit: mm

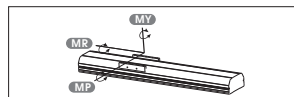
Horizontal Installation	A	B	C
10kg	1794	688	538
20kg	858	324	253
25kg	670	251	197



Unit: mm

Wall Installation	A	B	C
15kg	348	446	1170
18kg	285	365	961
25kg	197	251	670

Static Loading Moment



Unit: N.m

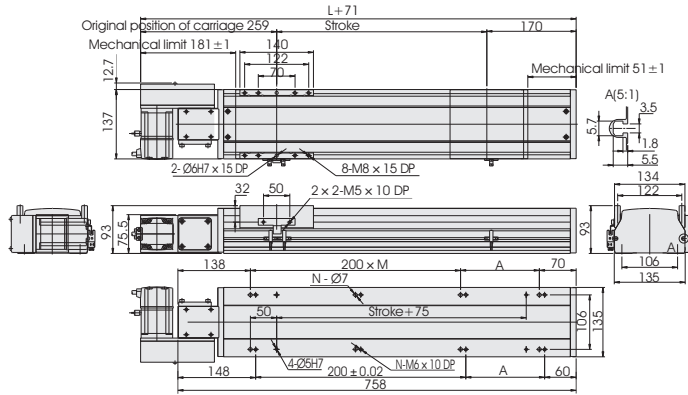
MY	551
MP	552
MR	485

- ※ The torque value in the chart indicate the center of gravity
- ※ Operation life is 10,000km when the product is using under the specified conditions
- ※ Data information is not for ceiling-mount inverse use.

Motor Parameter

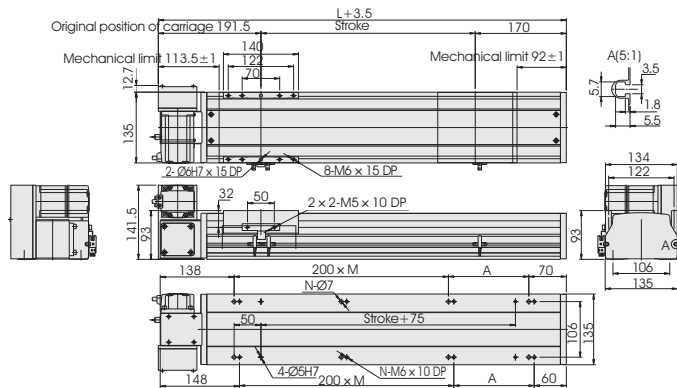
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	200	220	HG-KR23	MR-J4-20A
Panasonic	P	None (Horizontal Type)	200	220	MHMD022GIU	MADHT1507
Delta	T	None (Horizontal Type)	200	220	ECMA-C20602ES	ASD-B20221-B

Motor Left Side (L)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	
L	458	508	558	608	658	708	758	808	858	908	958	1008	1058	1108	1158	1208	1258	1308	1358	1408	1458	1508	1558	1608	1658	1708	1758	1808	1858	1908	
A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	14	16	16	16	16	18	18	18	18	20	20
KG	8.6	9	9.5	10	10.5	11	11.4	12	12.4	13	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	17.3	17.9	18.5	19.1	19.7	20.3	20.9	21.5	22.1	22.7	23.3	23.9	
Stroke	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	
L	1958	2008	2058	2108	2158	2208	2258	2308	2358	2408	2458	2508	2558	2608	2658	2708	2758	2808	2858	2908	2958	3008	3058	3108	3158	3208	3258	3308	3358	3408	
A	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	
M	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34	
KG	24.5	25.1	25.7	26.3	26.9	27.5	28.1	28.7	29.3	29.9	30.5	30.5	31.7	31.7	32.9	33.5	34.1	34.7	35.3	35.3	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	

Motor Left Upper Side (LU)

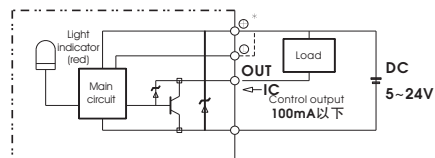


Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	
L	458	508	558	608	658	708	758	808	858	908	958	1008	1058	1108	1158	1208	1258	1308	1358	1408	1458	1508	1558	1608	1658	1708	1758	1808	1858	1908	
A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	14	16	16	16	16	18	18	18	18	20	20
KG	8.6	9	9.5	10	10.5	11	11.4	12	12.4	13	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	17.3	17.9	18.5	19.1	19.7	20.3	20.9	21.5	22.1	22.7	23.3	23.9	
Stroke	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	
L	1958	2008	2058	2108	2158	2208	2258	2308	2358	2408	2458	2508	2558	2608	2658	2708	2758	2808	2858	2908	2958	3008	3058	3108	3158	3208	3258	3308	3358	3408	
A	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	
M	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34	
KG	24.5	25.1	25.7	26.3	26.9	27.5	28.1	28.7	29.3	29.9	30.5	30.5	31.7	31.7	32.9	33.5	34.1	34.7	35.3	35.3	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	

SETB17 Linear Module (Belt Drives)

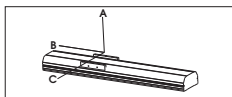
Repeatability (mm)		± 0.04
Ball Screw Lead (mm)		40
Maximum Speed ※1 (mm/s)		2000
Maximum Payload	Horizontal (kg)	45
	Vertical (kg)	/
Rated Thrust (N)		100
Stroke / Pitch ※2(mm)		100-3050mm/50 Pitch 50mm
AC Servo Motor Output (W)		400
Ball Screw∅ (mm)		30
High Rigidity Linear Guide (mm)		W20XH15
Home Sensor	Outside	EE-SX672(NPN)

Circuit Diagram of Sensor



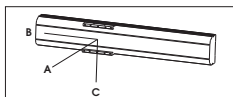
※1. Acceleration and deceleration value is set 0.4second.

Arm of Force



Unit: mm

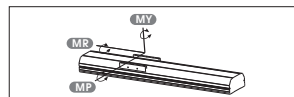
Horizontal Installation	A	B	C
10kg	2942	1133	1033
20kg	1430	547	498
30kg	926	350	320
45kg	588	219	201



Unit: mm

Wall Installation	A	B	C
15kg	676	742	1933
25kg	390	428	1127
35kg	269	294	781
45kg	201	219	588

Static Loading Moment



Unit: N.m

MY	1032
MP	1034
MR	908

※ The torque value in the chart indicate the center of gravity

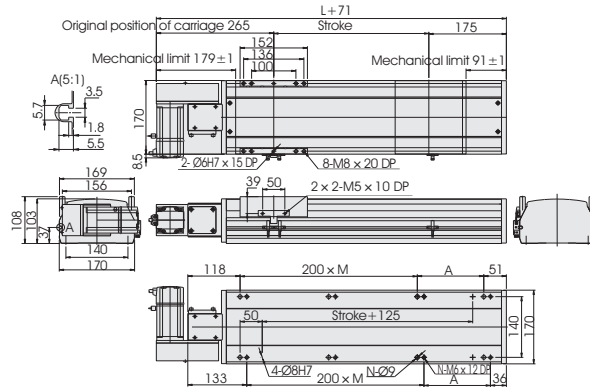
※ Operation life is 10,000km when the product is using under the specified conditions

※ Data information is not for ceiling-mount inverse use.

Motor Parameter

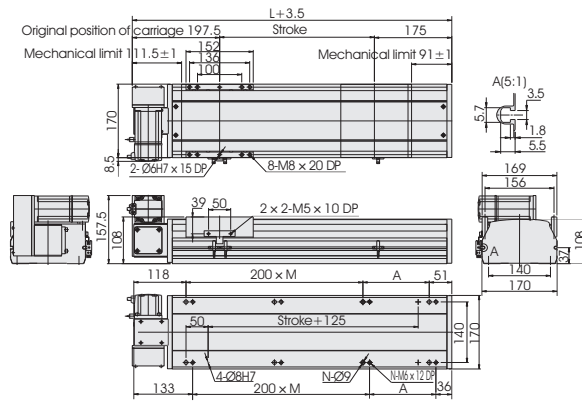
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	400	220	HG-KR43	MR-J4-40A
Panasonic	P	None (Horizontal Type)	400	220	MHMD042GIU	MADHT2510
Delta	T	None (Horizontal Type)	400	220	ECMA-C20604ES	ASD-B20421-B

Motor Left Side (L)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550		
L	469	519	569	619	669	719	769	819	869	919	969	1019	1069	1119	1169	1219	1269	1319	1369	1419	1469	1519	1569	1619	1669	1719	1769	1819	1869	1919		
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	6	6	6	6	6	7	7	7	7	8	8	8
M	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8	
N	6	6	6	8	8	8	8	8	10	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20	
KG	12	13.8	14.6	15.4	16.1	16.9	17.7	18.5	19.2	20	20.8	21.6	22.3	23.1	23.8	24.7	25.4	26.2	27	27.8	28.6	29.4	30.2	31	31.8	32.6	33.4	34.2	35	35.8		
Stroke	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050		
L	1969	2019	2069	2119	2169	2219	2269	2319	2369	2419	2469	2519	2569	2619	2669	2719	2769	2819	2869	2919	2969	3019	3069	3119	3169	3219	3269	3319	3369	3419		
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50		
M	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16		
N	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36		
KG	36.6	37.4	38.2	39	39.8	40.6	41.4	42.2	43	43.8	44.6	45.4	46.2	47	47.8	48.6	49.4	50.2	51	51.8	52.6	53.4	54.2	55	55.8	56.6	57.4	58.2	59	59.8		

Motor Left Upper Side (LU)

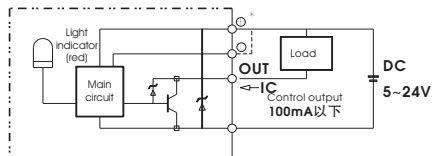


Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550		
L	469	519	569	619	669	719	769	819	869	919	969	1019	1069	1119	1169	1219	1269	1319	1369	1419	1469	1519	1569	1619	1669	1719	1769	1819	1869	1919		
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	6	6	6	6	6	7	7	7	7	8	8	8
M	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8	
N	6	6	6	8	8	8	8	8	10	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20	
KG	12	13.8	14.6	15.4	16.1	16.9	17.7	18.5	19.2	20	20.8	21.6	22.3	23.1	23.8	24.7	25.4	26.2	27	27.8	28.6	29.4	30.2	31	31.8	32.6	33.4	34.2	35	35.8		
Stroke	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050		
L	1969	2019	2069	2119	2169	2219	2269	2319	2369	2419	2469	2519	2569	2619	2669	2719	2769	2819	2869	2919	2969	3019	3069	3119	3169	3219	3269	3319	3369	3419		
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50		
M	8	9	9	9	9	10	10	10	10	11	11	11	11	11	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16		
N	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36		
KG	36.6	37.4	38.2	39	39.8	40.6	41.4	42.2	43	43.8	44.6	45.4	46.2	47	47.8	48.6	49.4	50.2	51	51.8	52.6	53.4	54.2	55	55.8	56.6	57.4	58.2	59	59.8		

SETB22 Linear Module (Belt Drives)

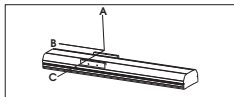
Repeatability (mm)		± 0.04
Ball Screw Lead (mm)		40
Maximum Speed ※1 (mm/s)		2000
Maximum Payload	Horizontal (kg)	85
	Vertical (kg)	/
Rated Thrust (N)		367
Stroke / Pitch ※2(mm)		100-3500mm/50 Pitch 50mm
AC Servo Motor Output (W)		750
Ball ScrewØ (mm)		50
High Rigidity Linear Guide (mm)		W23XH18
Home Sensor	Outside	EE-SX672(NPN)

Circuit Diagram of Sensor



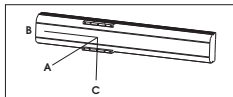
※1. Acceleration and deceleration value is set 0.4second.

Arm of Force



Unit: mm

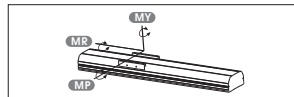
Horizontal Installation	A	B	C
45kg	1588	600	349
65kg	1052	328	285
85kg	768	281	206



Unit: mm

Wall Installation	A	B	C
40kg	500	685	1805
60kg	315	430	1152
85kg	206	281	768

Static Loading Moment



Unit: N.m

MY	2052
MP	2052
MR	1810

※ The torque value in the chart indicate the center of gravity

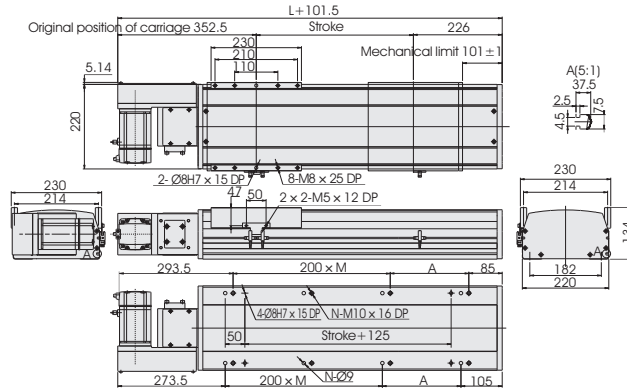
※ Operation life is 10,000km when the product is using under the specified conditions

※ Data information is not for ceiling-mount inverse use.

Motor Parameter

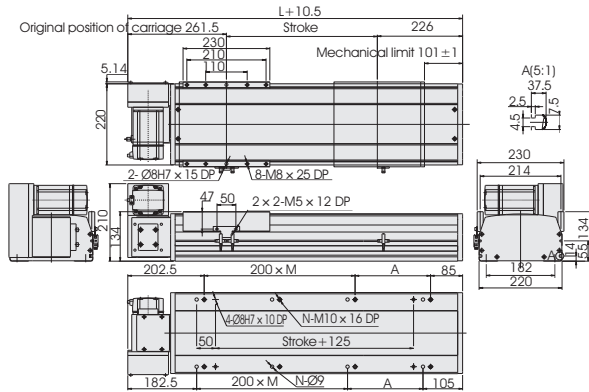
Brand	Mark	Brake	Motor Power (W)	AC-Voltage (V)	Motor Model	Driver Model
Mitsubishi	M	None (Horizontal Type)	750	220	HG-KR73	MR-J4-70A
Panasonic	P	None (Horizontal Type)	750	220	MHMD082GIU	MADHT3520
Delta	T	None (Horizontal Type)	750	220	ECMA-C20807ES	ASD-B20721-B

Motor Left Side (L)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	577	627	677	727	777	827	877	927	977	1027	1077	1127	1177	1227	1277	1327	1377	1427	1477	1527	1577	1627	1677	1727	1777	1827	1877	1927	1977	2027
A	100	150	200	50	100	150	200	100	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8
N	6	6	6	8	8	8	8	8	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20
KG	30	31.2	32.4	33.6	34.8	36	37.2	39.6	39.6	40.8	42	43.2	44.4	45.6	46.8	48	49.2	50.4	51.6	52.8	54	55.2	56.4	57.6	58.8	60	61.2	62.4	63.6	64.8
Stroke	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	2077	2127	2177	2227	2277	2327	2377	2427	2477	2527	2577	2627	2677	2727	2777	2827	2877	2927	2977	3027	3077	3127	3177	3227	3277	3327	3377	3427	3477	3527
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	8	9	9	9	9	10	10	10	10	10	11	11	11	11	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16
N	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36
KG	66	67.2	68.4	69.6	70.8	72	73.2	74.4	75.6	76.8	78	79.2	80.4	81.6	82.8	84	85.2	86.4	87.6	88.8	90	91.2	92.4	93.6	94.8	96	97.2	98.4	99.6	100.8

Motor Left Upper Side (LU)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	577	627	677	727	777	827	877	927	977	1027	1077	1127	1177	1227	1277	1327	1377	1427	1477	1527	1577	1627	1677	1727	1777	1827	1877	1927	1977	2027
A	100	150	200	50	100	150	200	100	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8
N	6	6	6	8	8	8	8	8	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20
KG	30	31.2	32.4	33.6	34.8	36	37.2	39.6	39.6	40.8	42	43.2	44.4	45.6	46.8	48	49.2	50.4	51.6	52.8	54	55.2	56.4	57.6	58.8	60	61.2	62.4	63.6	64.8
Stroke	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	2077	2127	2177	2227	2277	2327	2377	2427	2477	2527	2577	2627	2677	2727	2777	2827	2877	2927	2977	3027	3077	3127	3177	3227	3277	3327	3377	3427	3477	3527
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	8	9	9	9	9	10	10	10	10	10	11	11	11	11	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16
N	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36
KG	66	67.2	68.4	69.6	70.8	72	73.2	74.4	75.6	76.8	78	79.2	80.4	81.6	82.8	84	85.2	86.4	87.6	88.8	90	91.2	92.4	93.6	94.8	96	97.2	98.4	99.6	100.8





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S06E-2023