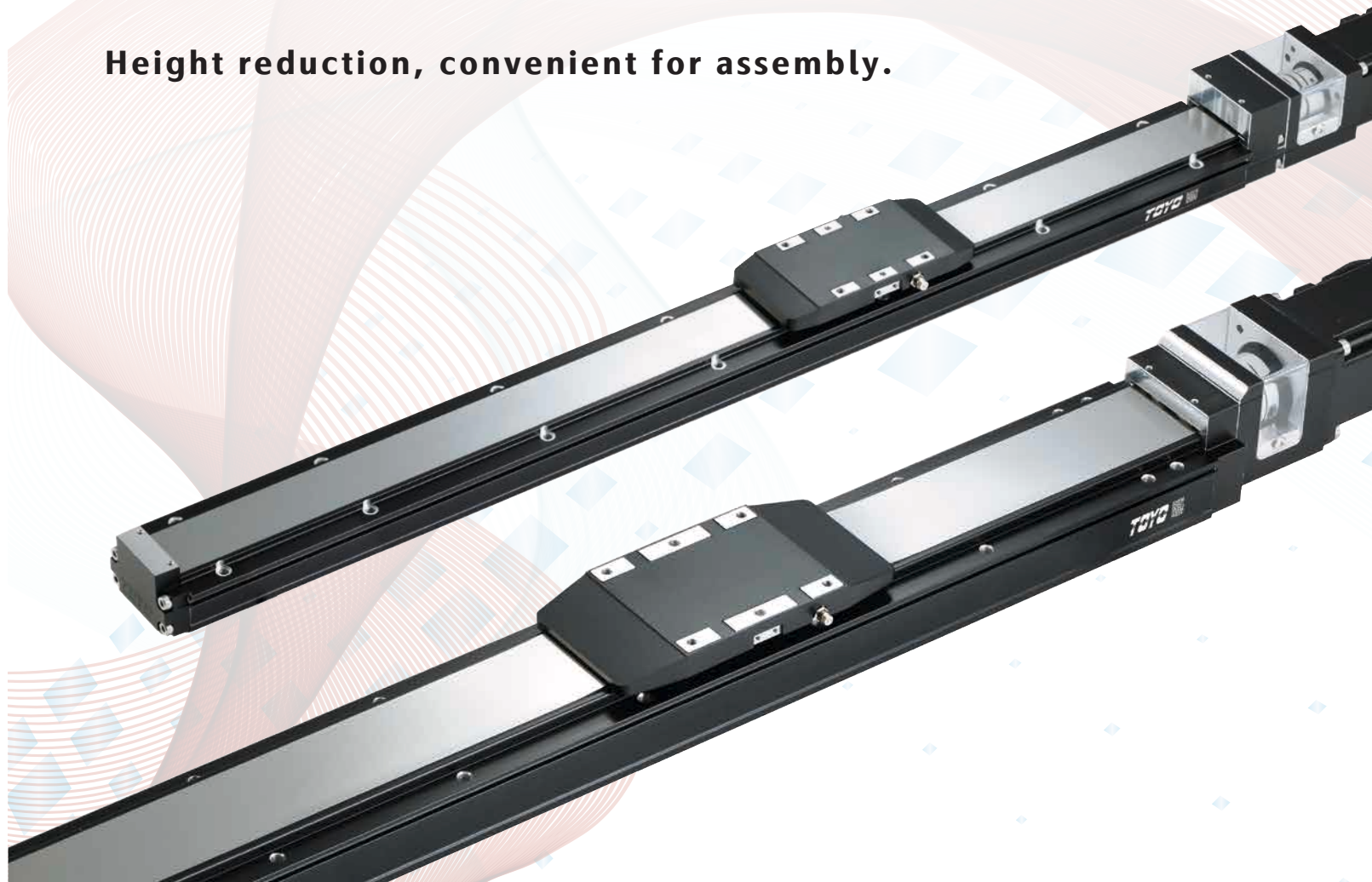
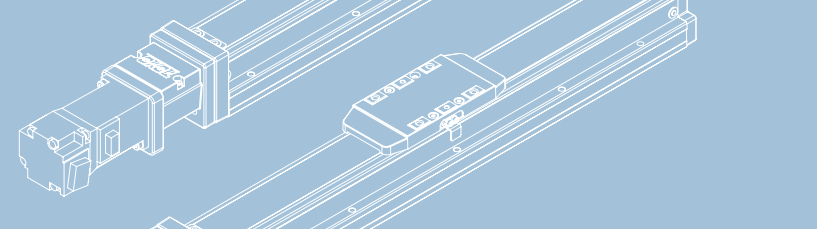


Low Profile Electric Actuator**Integrate Bearing**

GLTH/GLTHD/GLTHM/GLMH/GLTB/GLCH/GLCHD/GLCB Series

Height reduction, convenient for assembly.



免費服務專線：台灣 0800-800-893
Toll-free Number Taiwan

Memo

Application	
Standard Ball Screw Type	GLTH / GLMH
Standard Belt Type	GLTB
Cleanroom Ball Screw Type	GLCH
Cleanroom Belt Type	GLCB
Multi Axis Type	XYGT / XYTH / XYTB
Reference	

GLCB Series
GLCB5
GLCB8

[GL Feature]

New Generation, New Experience!

**All New Low Profile Integrate
Bearing Design Actuator**

NEW

Reduce Cost by 5~20%

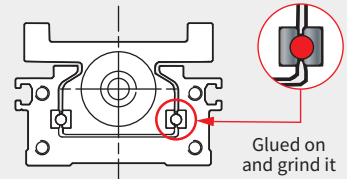
Embedded bearing on the profile. Better space utilization.

Higher moment load capacity.

Lower profile without sacrificing performance. Less material used, reduce weight, and lower carbon foot print.



Integrate Bearing Structure



Cost Effective

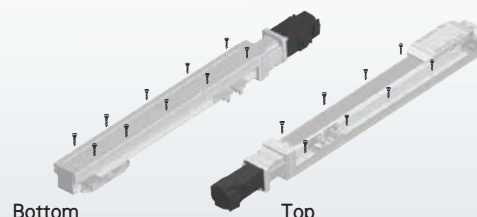


5~20%

- Better manufacturing process, better cost structure than GTH series. Competitive product!

Mounting From Both Direction

- Top down or bottom up mount without remove anything.
- Standard Pin holes.

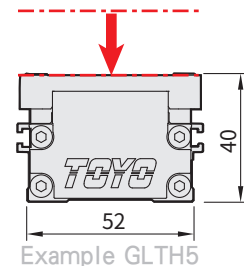


See Thru Coupling Housing



- Live monitoring. Check coupling without stopping the machine.
- Save time.

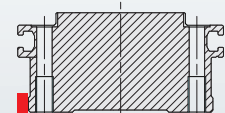
Lower Profile



- Reduced height. Low profile design.
- No matter used as single axis or MAS. Over all height reduced. More compact design that save expensive space cost.

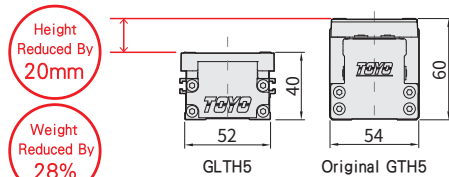
Datum Plane

- Datum plane on the side. Provide better positioning precision. Reduce installation time cost.

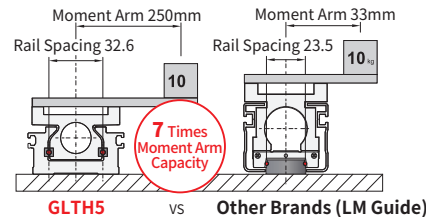


Better Performance Across All Our Competitor. Lowest Profile Ever!

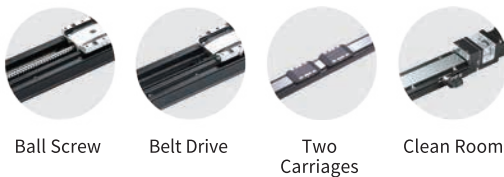
Lower GC, Space Saving



Integrate Bearing, Better Rigidity



All Options



Ultra Long Stroke M Series

GLTH8M
Ball Screw
Longest Stroke **2500 mm**

GLTB8
Belt Drive
Longest Stroke **3000 mm**



Patented ball screw support preventing the screw from whipping.

Multiple Motor Position

For more flexible design choice.



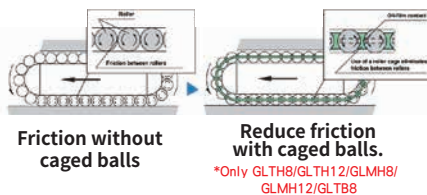
Low Dust Option

- **Open design** : Cover sheet as standard option. Effectively prevent object from dropping in.
- **Enclosed design** : Sealed cover sheet is the best way to prevent dust.
- **Clean room design** : Adding pneumatic ports. Suitable for clean room Class 10 application.



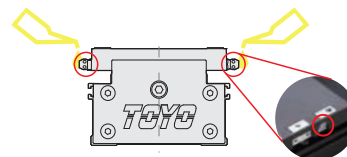
Caged Ball, Reduce Noise, Increase Life

- No contact between balls. Lowering the noise and increasing life.



External Grease Port

- Easier maintenance. One grease port for both rail and ballscrew.



High Accuracy

GLTH5/8

Repeatability | $\pm 0.005\text{mm}$

Straightness / Flatness | $\pm 0.02\text{mm}/800\text{mm}$

optional C5 ball screw

repeatability up to

$\pm 3\mu\text{m}$

Optional screw grade
C5

Black Body, Optional Cold Plate For Ballscrew

- Black body anodizing, enhancing aesthetics and increasing surface corrosion resistance, wear resistance, and thermal stability.
- Reduce light reflection like normal aluminum color does. Suitable for visual inspection and optical application.
- Optional cold plating ball screw.



[Comparison Between GL and Iron Body]



With so many actuator on the market, should I choose an iron one or a GL aluminum one?

Aluminum GL Series



Iron



Comparison between same width



Max Stroke (Belt) 3000mm
Max Stroke (Ball screw) 2500mm



Other Brand Max Stroke (Belt) 300mm
Max Stroke (Ball screw) 600mm

Weight



300mm Stroke. 1.5 kg



Other Brand 300mm Stroke. 2.4 kg

Transmission



Ball Screw



Belt Drive

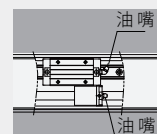


Ball Screw

Maintenance



External grease port that maintain both rail and ball screw.



Grease port located in bearing block. Need to disassemble in order to maintain.

Lead time



< 14 days
All self-made components, no waiting required.



> 14 days
Need to wait for machining parts

Customize ability



Can order multi axis configurations directly

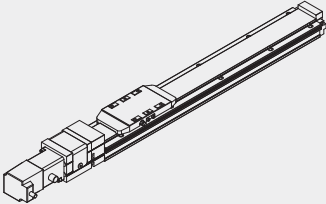
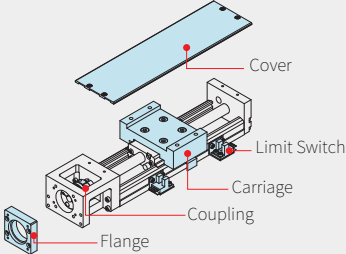
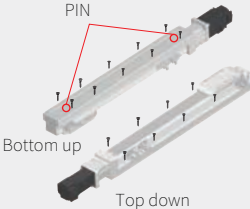
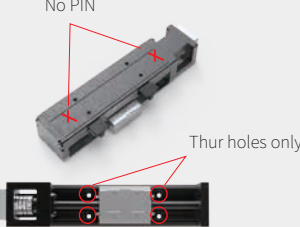
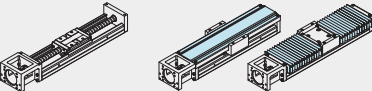
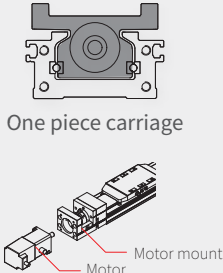
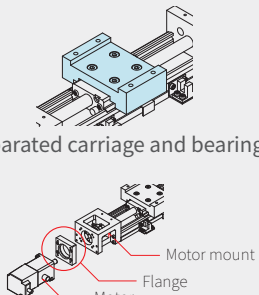
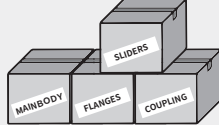


Can't customize. Order in single axis.



After this review, you should know which one to choose! In short, iron actuator are relatively complex and time-consuming to maintain and assemble. The GL design is simple, easy to integrate, and convenient for assembly personnel to use.



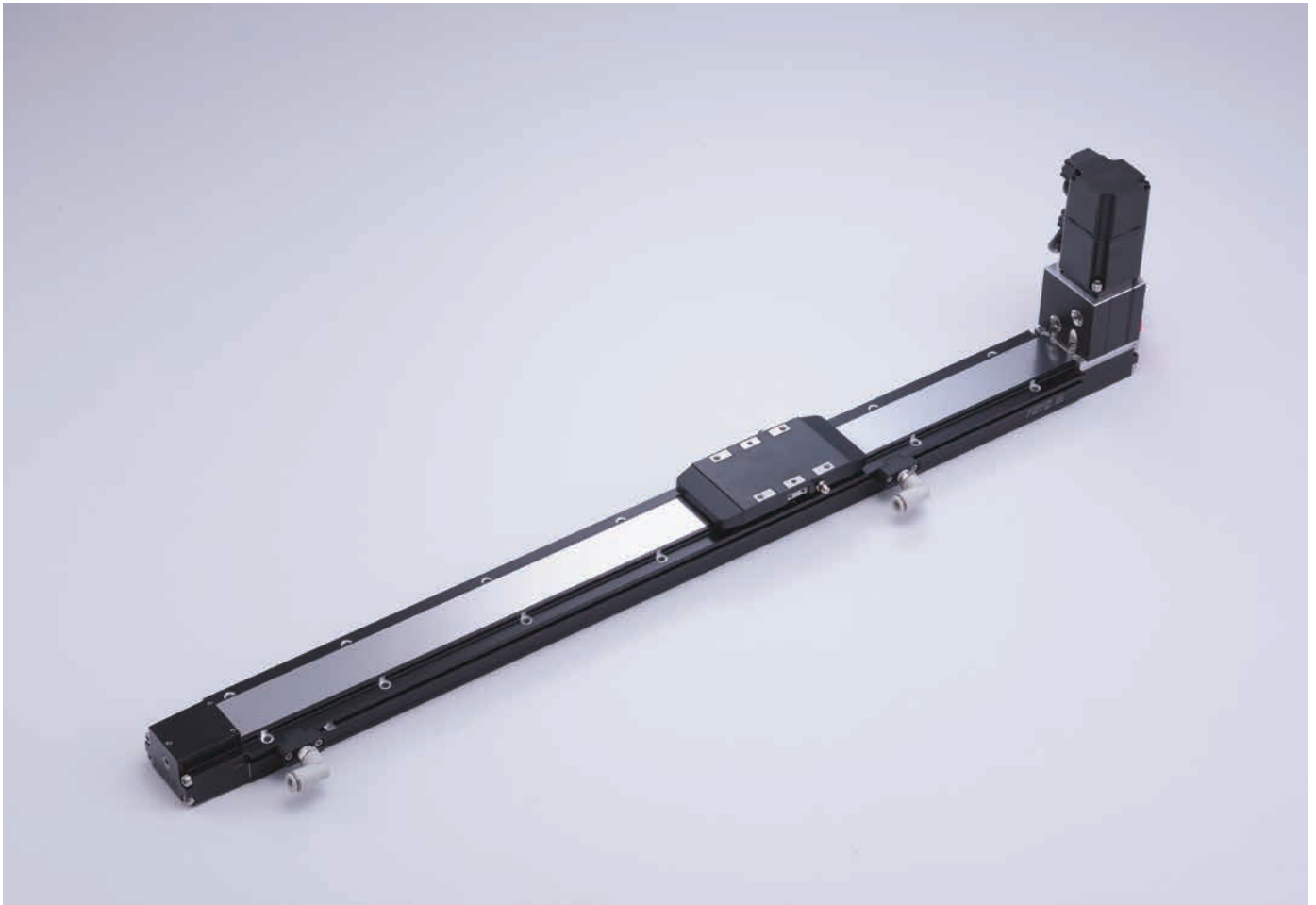
	Aluminum Body GL Series	Iron Body
Structure   	 Assemble ready 	 Need to find the blue parts separately
Implementation   	 Top down/ Bottom up mount / PIN 	 Thur holes only/ No PIN
Variation   	 Open Enclosed Clean Room 	 Open Enclosed, need optional cover
Reliability   	 One piece carriage One piece motor mount. Reduce stacked tolerance. 	 Separated carriage and bearing Separated flange. Tolerance stack-up
One stop shop   	 One stop shop. Fast and easy. 	 Multiple shop. Complex purchasing procedure
Pricing   	 Base on same performance, cost is only 50%~70% of iron actuator 	 Higher cost
Time cost   	 Reduce 1/2 of design/assemble/ purchasing time 	 Time consuming

Application	Standard Ball Screw Type GLTH / GLMH
	Standard Belt Type GLTB
	Cleanroom Ball Screw Type GLCH
	Cleanroom Belt Type GLCB
	Multi Axis Type XYGT / XTH / YXTB
	Reference

GLCB5 1-axis

▶ Integrated Linear Bearing

▶ Belt Drive



Max. stroke 3000mm

Max. Speed 1067mm/s

Motor Output 100W

Max Payload 5kg

Ordering Method

GLCB5 - X32 - 500 - BM - M10 - C4N5 - Refer to the right page. - 0001

Model

Options

Customization Order No.

Lead

22 22mm

Stroke^{*)}

50-3000mm
40 mm Pitch

Motor Position

BW Motor Top Side
BM Motor Bottom Side

Motor Brand & Power Output

M	Mitsubishi	05	-
P	Panasonic	10	100W
Y	Yaskawa	20	-
T	Delta	40	-

Home Sensor

Out Side	
C	Motor Side
D	Opposite Motor Side
No Sensor	
E	No Sensor

Limit Sensor

Out Side	
3	1 Pos
4	2 Pos
5	3 Pos
7	4 Pos
8	5 Pos
9	6 Pos
No Sensor	
11	No Sensor

Output type & Cable length

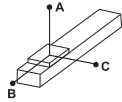
N5	MPN-5M Cable
P2	PNP-5M Cable
P5	PNP-5M Cable
-	MPN-5M Cable

^{*)} Home-to-stroke distance. The stroke is calculated from the distance between the home position and the stroke end position. The distance between the home position and the stroke end position is 40mm. The distance between the home position and the stroke end position is 40mm. The distance between the home position and the stroke end position is 40mm.

Specification

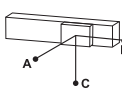
Performance	Repeatability		mm	±0.06
	Lead		mm	32
	Maximum Rotating speed		rpm	2000
	Maximum linear speed		mm/s	1067
	Maximum Payload	Horizontal	kg	5
		Vertical	kg	
	Rated Thrust		N	53
	Stroke (increments)		mm	50-3000mm / 50(50 increments)
Parts	Maximum acceleration		G	0.27
	AC Servo Motor Output		W	100
	Belt Width		mm	9
	Home Sensor	Outside		T64N2 (NPN+2M Cable)

Allowable Overhang



(Unit: mm)

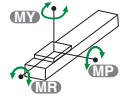
Horizontal Installation	A	B	C
2kg	622	64	65
3kg	380	36	38
5kg	168	14	15



(Unit: mm)

Wall Installation	A	B	C
2kg	65	64	622
3kg	38	36	380
5kg	15	14	168

Static Loading Moment



(Unit: N.m)

MY	73
MP	73
MR	115

* The data represented by the moment table is the center of gravity of the load.The length of the overhang is allowed in a single direction.
*Operation life is 10,000km when the product is using under the specified conditions.
*Data information is not for ceiling-mount inverse use.
Contact us for the details if you want to apply ceiling-mount inverse usage.
*The life and torque are calculated by setting the motor acceleration and deceleration for 0.4 seconds.

Options

MM

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.111 ~ P.112
MM	Bottom side	
ML	Left side	
MR	Right side	

CMK

Additional keyway for motor drive parts			
Code	Instructions		Refer to
	Keyway Groove	Shipment Type	
CMK	Single (Limited to the motor side)	Keyway Belt Pulley	P.113 ~ P.115

GLCB5 1-axis

Integrated Linear Bearing

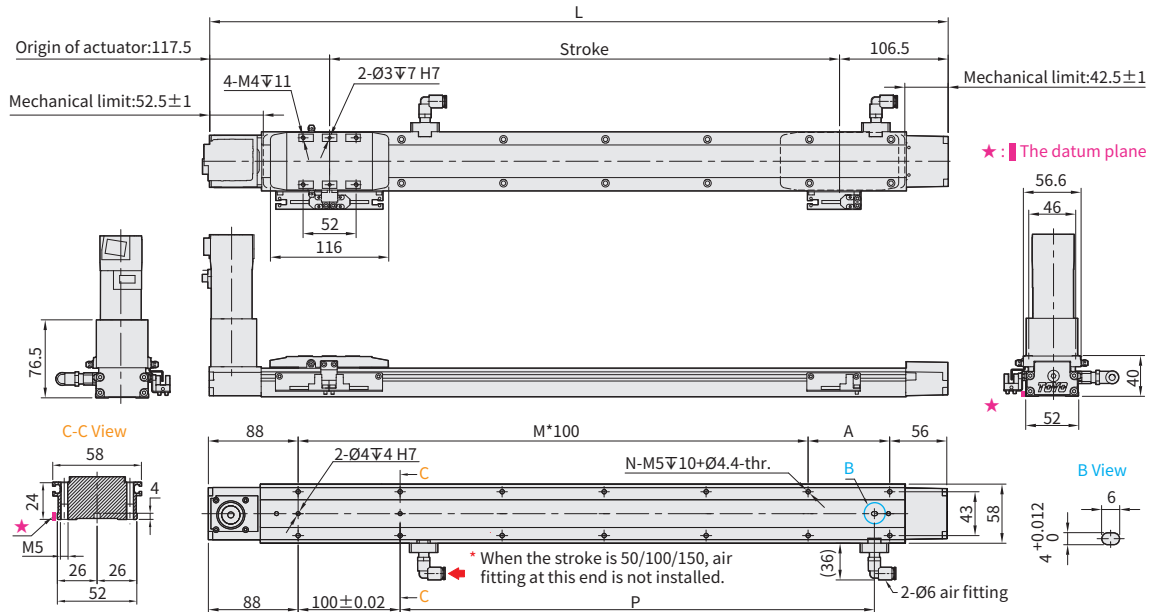
Belt Driver



Download at www.toyorobot.com

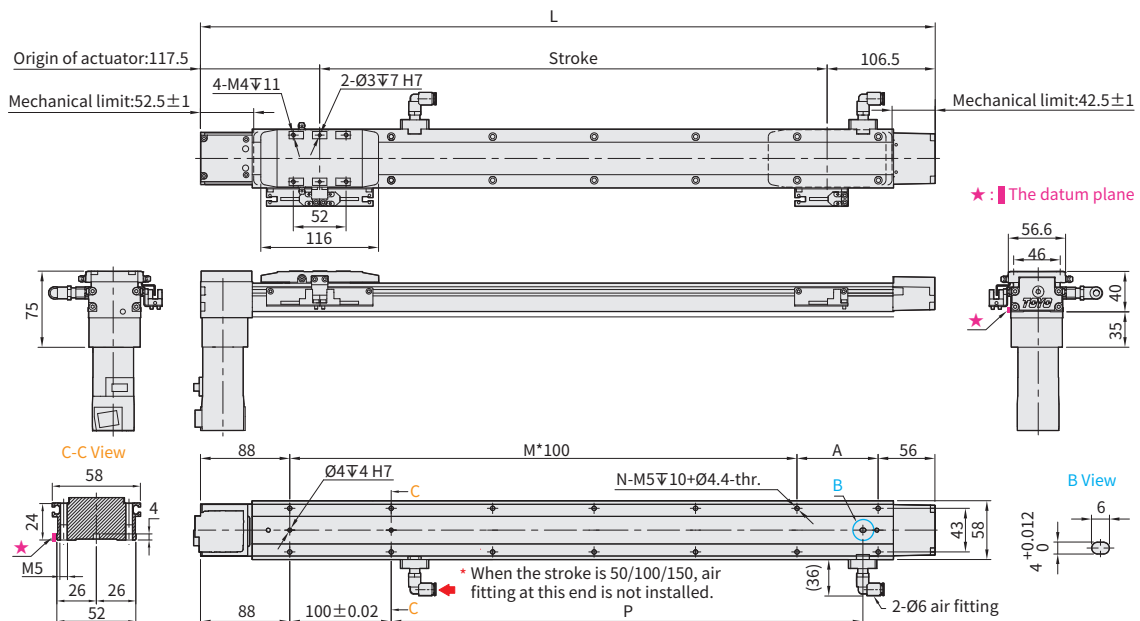
BW Motor Top Side

Unit : mm

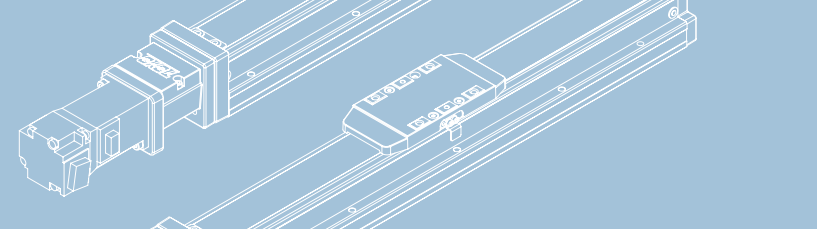


BM Motor Bottom Side

Unit : mm



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	1400	1450	1500
Limit Stroke (± 1)	63	113	163	213	263	313	363	413	463	513	563	613	663	713	763	813	863	913	963	1013	1063	1113	1163	1213	1263	1313	1363	1413	1463	1513
L	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724
A	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80
M	1	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	14	14	15	15
N	6	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	32	32	34	34
P	15	65	115	165	215	265	315	365	415	465	515	565	615	665	715	765	815	865	915	965	1015	1065	1115	1165	1215	1265	1315	1365	1415	1465
KG	1.6	1.64	1.68	1.72	1.76	1.8	1.84	1.88	1.92	1.96	1.99	2.03	2.07	2.11	2.15	2.18	2.22	2.26	2.3	2.33	2.37	2.41	2.45	2.48	2.52	2.56	2.6	2.63	2.67	2.71
Linear Speed mm/s	1067																													
Stroke	1550	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
Limit Stroke (± 1)	1563	1613	1663	1713	1763	1813	1863	1913	1963	2013	2063	2113	2163	2213	2263	2313	2363	2413	2463	2513	2563	2613	2663	2713	2763	2813	2863	2913	2963	3013
L	1774	1824	1874	1924	1974	2024	2074	2124	2174	2224	2274	2324	2374	2424	2474	2524	2574	2624	2674	2724	2774	2824	2874	2924	2974	3024	3074	3124	3174	3224
A	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80
M	16	16	17	17	18	18	19	19	20	20	21	21	22	22	23	23	24	24	25	25	26	26	27	27	28	28	29	29	30	30
N	36	36	38	38	40	40	42	42	44	44	46	46	48	48	50	50	52	52	54	54	56	56	58	58	60	60	62	62	64	64
P	1515	1565	1615	1665	1715	1765	1815	1865	1915	1965	2015	2065	2115	2165	2215	2265	2315	2365	2415	2465	2515	2565	2615	2665	2715	2765	2815	2865	2915	2965
KG	2.75	2.78	2.81	2.85	2.89	2.93	2.97	3	3.04	3.08	3.12	3.15	3.19	3.23	3.27	3.3	3.34	3.38	3.42	3.45	3.49	3.53	3.57	3.6	3.64	3.67	3.71	3.75	3.79	3.82
Linear Speed mm/s	1067																													



免費服務專線：台灣 0800-800-893
Toll-free Number Taiwan

Memo

Application	
Standard Ball Screw Type	GLTH / GLMH
Standard Belt Type	GLTB
Cleanroom Ball Screw Type	GLCH
Cleanroom Belt Type	GLCB
Multi Axis Type	XYGT / XYTH / XYTB
Reference	

GLCB Series
GLCB5
GLCB8

GLCB8 1-axis

▶ Integrated Linear Bearing

▶ Belt Drive



Max. stroke 3000mm

Max. Speed 2000mm/s

Motor Output 400W

Max Payload 8kg

Ordering Method

GLCB8 - X60 - 500 - BM - M40 - C4N5 - Seller is the right page. - 0001

Model

Options

Customization
Order No.

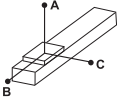
Lead 50 50mm		Stroke 50-3000mm 40 mm Pitch		Motor Position BW Motor Top Side BM Motor Bottom Side		Motor Brand & Power Output <table border="1"> <tr> <td>M</td> <td>Mitsubishi</td> <td>05</td> <td>-</td> </tr> <tr> <td>P</td> <td>Panasonic</td> <td>10</td> <td>-</td> </tr> <tr> <td>Y</td> <td>Yokawa</td> <td>20</td> <td>-</td> </tr> <tr> <td>T</td> <td>Delta</td> <td>40</td> <td>400W</td> </tr> </table>		M	Mitsubishi	05	-	P	Panasonic	10	-	Y	Yokawa	20	-	T	Delta	40	400W	Home Sensor <table border="1"> <tr> <th colspan="2">Out Side</th> </tr> <tr> <td>C</td> <td>Motor Side</td> </tr> <tr> <td>D</td> <td>Opposite Motor Side</td> </tr> <tr> <td colspan="2">No Sensor</td> </tr> <tr> <td>E</td> <td>No Sensor</td> </tr> </table>		Out Side		C	Motor Side	D	Opposite Motor Side	No Sensor		E	No Sensor	Limit Sensor <table border="1"> <tr> <th colspan="2">Out Side</th> </tr> <tr> <td>3</td> <td>1 Pc</td> </tr> <tr> <td>4</td> <td>2 Pcs</td> </tr> <tr> <td>5</td> <td>3 Pcs</td> </tr> <tr> <td>7</td> <td>4 Pcs</td> </tr> <tr> <td>8</td> <td>5 Pcs</td> </tr> <tr> <td>9</td> <td>6 Pcs</td> </tr> <tr> <td colspan="2">No Sensor</td> </tr> <tr> <td>11</td> <td>No Sensor</td> </tr> </table>		Out Side		3	1 Pc	4	2 Pcs	5	3 Pcs	7	4 Pcs	8	5 Pcs	9	6 Pcs	No Sensor		11	No Sensor	Output type & Cable length <table border="1"> <tr> <td>N5</td> <td>MPN-5M Cable</td> </tr> <tr> <td>P2</td> <td>PNP-5M Cable</td> </tr> <tr> <td>P5</td> <td>PNP-5M Cable</td> </tr> <tr> <td>-</td> <td>MPN-5M Cable</td> </tr> </table>		N5	MPN-5M Cable	P2	PNP-5M Cable	P5	PNP-5M Cable	-	MPN-5M Cable
M	Mitsubishi	05	-																																																														
P	Panasonic	10	-																																																														
Y	Yokawa	20	-																																																														
T	Delta	40	400W																																																														
Out Side																																																																	
C	Motor Side																																																																
D	Opposite Motor Side																																																																
No Sensor																																																																	
E	No Sensor																																																																
Out Side																																																																	
3	1 Pc																																																																
4	2 Pcs																																																																
5	3 Pcs																																																																
7	4 Pcs																																																																
8	5 Pcs																																																																
9	6 Pcs																																																																
No Sensor																																																																	
11	No Sensor																																																																
N5	MPN-5M Cable																																																																
P2	PNP-5M Cable																																																																
P5	PNP-5M Cable																																																																
-	MPN-5M Cable																																																																

*1. Please refer to the following table for the motor selection. The motor selection is based on the motor power and the motor speed. The motor selection is based on the motor power and the motor speed. The motor selection is based on the motor power and the motor speed.

Specification

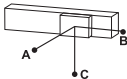
Performance	Repeatability		mm	±0.06
	Lead		mm	60
	Maximum Rotating speed		rpm	2000
	Maximum linear speed		mm/s	2000
	Maximum Payload	Horizontal	kg	8
		Vertical	kg	
	Rated Thrust		N	116
	Stroke (increments)		mm	50-3000mm / (50 increments)
Parts	Maximum acceleration		G	0.51
	AC Servo Motor Output		W	400
	Belt Width		mm	8
	Home Sensor	Outside		T64N2(NPN+2M Cable)

Allowable Overhang



(Unit : mm)

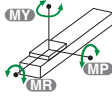
Horizontal Installation	A	B	C
2kg	1110	126	132
5kg	427	90	94
8kg	256	73	77



(Unit : mm)

Wall Installation	A	B	C
2kg	132	126	1110
5kg	94	90	427
8kg	77	73	256

Static Loading Moment



(Unit : N.m)

MY	137
MP	137
MR	227

* The data represented by the moment table is the center of gravity of the load.The length of the overhang is allowed in a single direction.
*Operation life is 10,000km when the product is using under the specified conditions.
*Data information is not for ceiling-mount inverse use.
Contact us for the details if you want to apply ceiling-mount inverse usage.
*The life and torque are calculated by setting

Options

MM

CMK

Selectable Cable Leading Direction		
Code	Instructions	Refer to
MW	Upper side	P.111 ~ P.112
MM	Bottom side	
ML	Left side	
MR	Right side	

Additional keyway for motor drive parts			
Code	Instructions		Refer to
	Keyway Groove	Shipment Type	
CMK	Single (Limited to the motor side)	Keyway Belt Pulley	P.113 ~ P.115

GLCB8 1-axis

Integrated Linear
Bearing

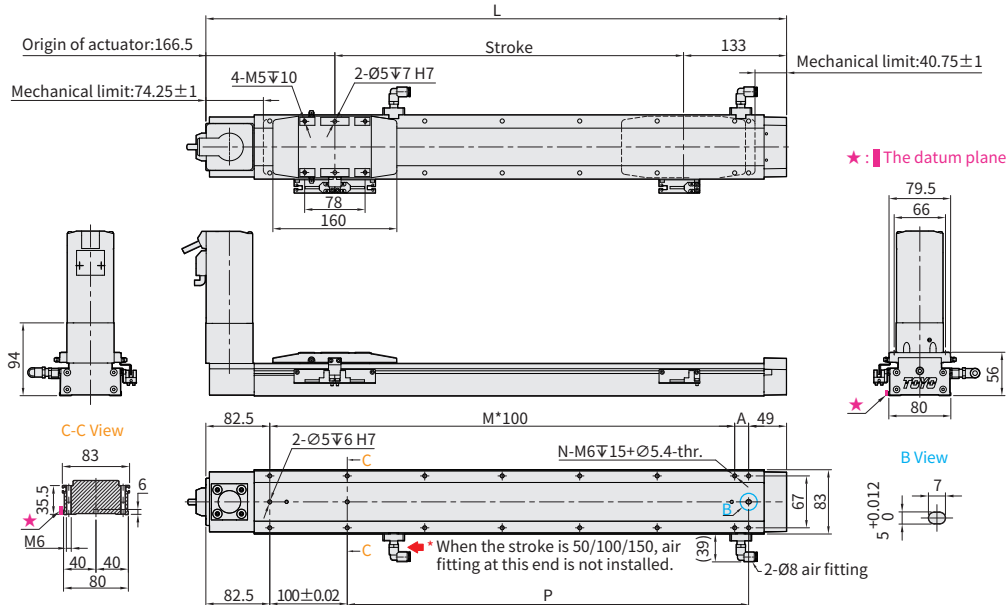
Belt
Driver



Download at www.toyorobot.com

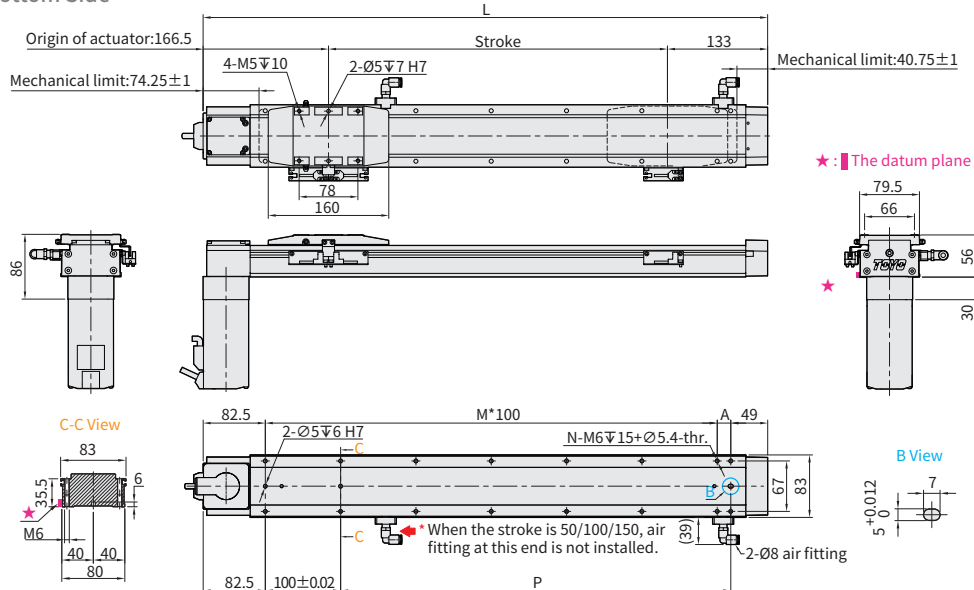
Motor Top Side

Unit : mm



Motor Bottom Side

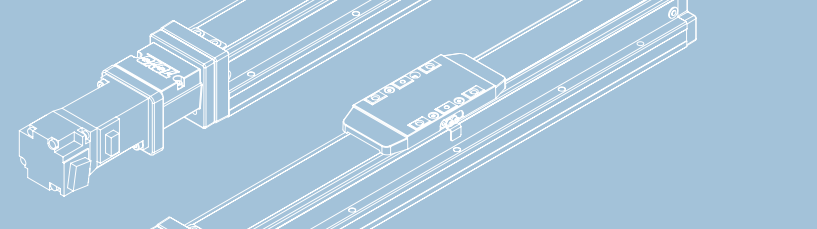
Unit : mm



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	1400	1450	1500
Limit Stroke (±1)	74.5	124.5	174.5	224.5	274.5	324.5	374.5	424.5	474.5	524.5	574.5	624.5	674.5	724.5	774.5	824.5	874.5	924.5	974.5	1024.5	1074.5	1124.5	1174.5	1224.5	1274.5	1324.5	1374.5	1424.5	1474.5	1524.5
L	349.5	399.5	449.5	499.5	549.5	599.5	649.5	699.5	749.5	799.5	849.5	899.5	949.5	999.5	1049.5	1099.5	1149.5	1199.5	1249.5	1299.5	1349.5	1399.5	1449.5	1499.5	1549.5	1599.5	1649.5	1699.5	1749.5	1799.5
A	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68
M	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16
N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36	36
P	118	168	218	268	318	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318	1368	1418	1468	1518	1568
KG	2.56	2.77	2.98	3.19	3.4	3.61	3.82	4.03	4.24	4.45	4.66	4.87	5.08	5.29	5.5	5.71	5.92	6.13	6.34	6.55	6.76	6.97	7.18	7.39	7.6	7.81	8.02	8.23	8.44	8.65

Stroke	1550	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
Limit Stroke (±1)	1574.5	1624.5	1674.5	1724.5	1774.5	1824.5	1874.5	1924.5	1974.5	2024.5	2074.5	2124.5	2174.5	2224.5	2274.5	2324.5	2374.5	2424.5	2474.5	2524.5	2574.5	2624.5	2674.5	2724.5	2774.5	2824.5	2874.5	2924.5	2974.5	3024.5
L	1849.5	1899.5	1949.5	1999.5	2049.5	2099.5	2149.5	2199.5	2249.5	2299.5	2349.5	2399.5	2449.5	2499.5	2549.5	2599.5	2649.5	2699.5	2749.5	2799.5	2849.5	2899.5	2949.5	2999.5	3049.5	3099.5	3149.5	3199.5	3249.5	3299.5
A	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68
M	17	17	18	18	19	19	20	20	21	21	22	22	23	23	24	24	25	25	26	26	27	27	28	28	29	29	30	30	31	31
N	38	38	40	40	42	42	44	44	46	46	48	48	50	50	52	52	54	54	56	56	58	58	60	60	62	62	64	64	66	66
P	1618	1668	1718	1768	1818	1868	1918	1968	2018	2068	2118	2168	2218	2268	2318	2368	2418	2468	2518	2568	2618	2668	2718	2768	2818	2868	2918	2968	3018	3068
KG	8.86	9.07	9.28	9.49	9.7	9.91	10.12	10.33	10.54	10.75	10.96	11.17	11.38	11.59	11.8	12.01	12.22	12.43	12.64	12.85	13.06	13.27	13.48	13.69	13.9	14.11	14.32	14.53	14.74	14.95

Linear Speed mm/s 2000



免費服務專線：台灣 0800-800-893
Toll-free Number Taiwan

Memo

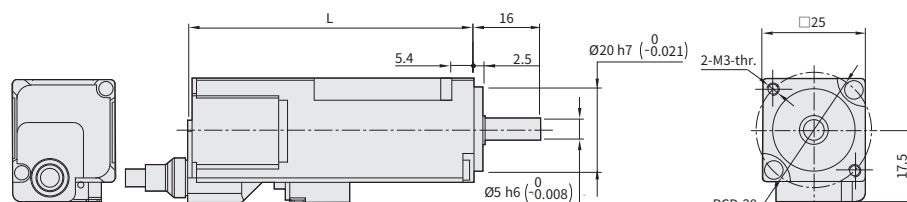
Application	
Standard Ball Screw Type	GLTH / GLMH
Standard Belt Type	GLTB
Cleanroom Ball Screw Type	GLCH
Cleanroom Belt Type	GLCB
Multi Axis Type	XYGT / XYTH / XYTB
Reference	

GLCB Series
GLCB5
GLCB8

Mitsubishi Servo Motor Information

Servo Motor		No Brake	HG-AK0336	HG-KR053	HG-KR13	HG-KR23	HG-KR43	HG-KR73	HG-SR102	HG-SR152
		With Brake	HG-AK0336B	HG-KR053B	HG-KR13B	HG-KR23B	HG-KR43B	HG-KR73B	HG-SR102B	HG-SR152B
Motor Drives			MR-J3W-0303BN6	MR-J4-10A	MR-J4-10A	MR-J4-20A	MR-J4-40A	MR-J4-70A	MR-J4-100A	MR-J4-200A
Power Supply Capacity			480(W)	0.3	0.3	0.5	0.9	1.3	1.7	2.5
Power Consumption			30	50	100	200	400	750	1000	1500
Rated Torque			0.095	0.16	0.32	0.64	1.3	2.4	4.8	7.2
Instantaneous Maximum Torque			0.286	0.56	1.1	2.2	4.5	8.4	14.3	21.5
Rated Current			2.2	0.9	0.8	1.3	2.6	4.8	5.6	9.4
Maximum Current			6.6	3.2	2.5	4.6	9.1	17	17	29
Rated Speed			3000						2000	
Maximum Speed			6000						3000	
load Inertia	No Brake	0.0061	0.045	0.0777	0.221	0.371	1.26	11.6	16	
	With Brake	0.0074	0.0472	0.0837	0.243	0.393	1.37	13.8	18.2	
Load Inertia	Moment Ratio	Under 30 Multiple	Under 17 Multiple			Under 26 Multiple	Under 25 Multiple	Under 17 Multiple		
Controller	Type	Incremental, Share With Controller								
		18bit	22bit							
	Encoder Resolutiess Of Servo Motor	262144 p/rev	4194304 p/rev							
Structure (Natural-cooling,Open)			IP Rating:IP55	IP Rating:IP66					IP Rating:IP67	
Environmental Conditions	Ambient Temperature	0℃ ~40℃ Non-freezing, -15℃ ~70℃ Non-freezing								
	Ambient Humidity	10%RH~80%RH Non-freezing , 10%RH~90%RH Non-condensing								
	Ambience	Indoors(no direct sunlight), Free From Corrosive Gas, Flammable Gas, Oil Mist, Dust, And Dirt.								
	Altitude	Max. 1000 m Above Sea Level	Max. 2000 m Above Sea Level							
	Vibration	X:49m/s2 Y:49m/s2							X:24.5m/s2 Y:24.5m/s2	
Weight	No Brake	0.16	0.34	0.54	0.91	1.4	2.8	6.2	7.3	
	With Brake	0.26	0.54	0.74	1.3	1.8	3.8	8.2	9.3	

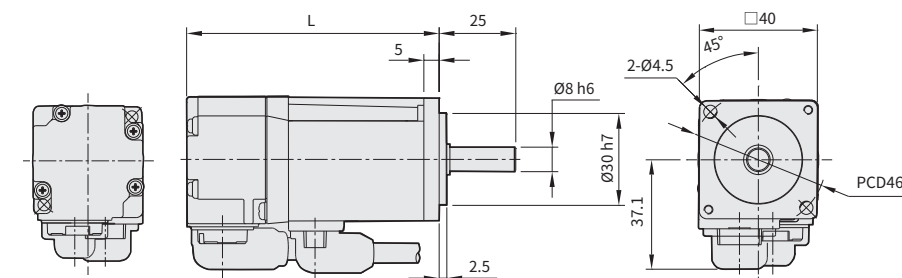
Model	30W	L
HG-AK0336	No Brake	68
HG-AK0336B	With Brake	100



30W

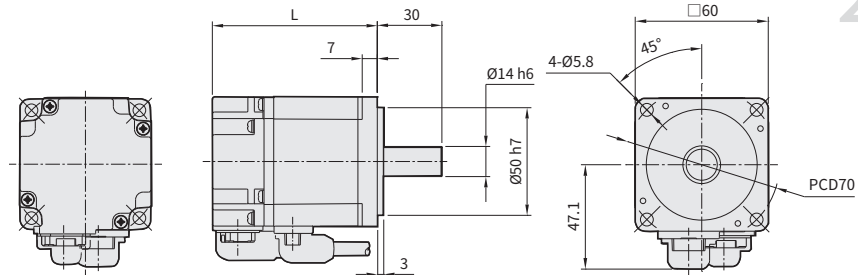
Model	50W	L
HG-KR053	No Brake	66.4
HG-KR053B	With Brake	107

Model	100W	L
HG-KR13	No Brake	82.4
HG-KR13B	With Brake	123

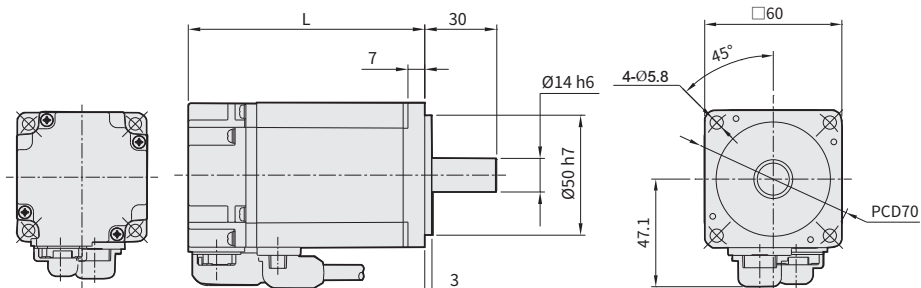


50/100W

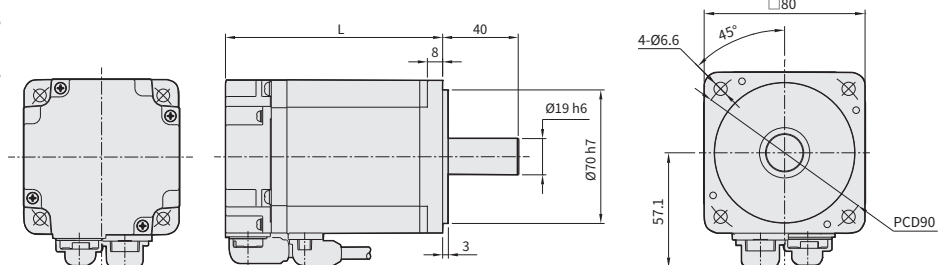
Model	200W	L
HG-KR23	No Brake	76.6
HG-KR23B	With Brake	113.4

**200W**

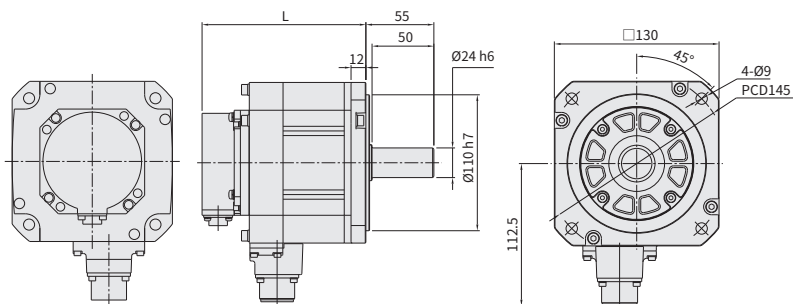
Model	400W	L
HG-KR43	No Brake	98.3
HG-KR43B	With Brake	135.1

**400W**

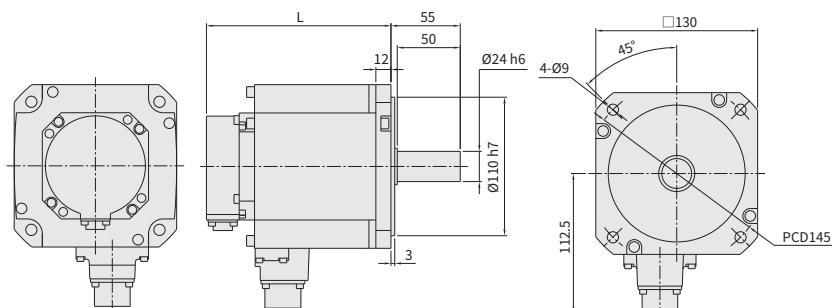
Model	750W	L
HG-KR73	No Brake	112
HG-KR73B	With Brake	152.3

**750W**

Model	1000W	L
HG-SR102	No Brake	132.5
HG-SR102B	With Brake	167

**1000W**

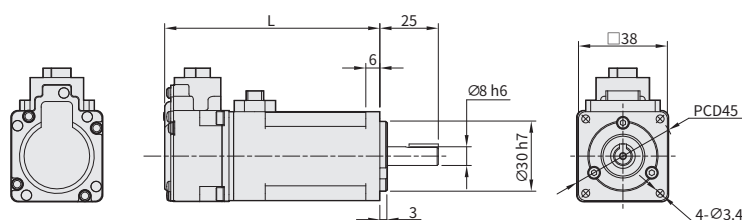
Model	1500W	L
HG-SR152	No Brake	146.5
HG-SR152B	With Brake	181

**1500W**

Panasonic Servo Motor Information

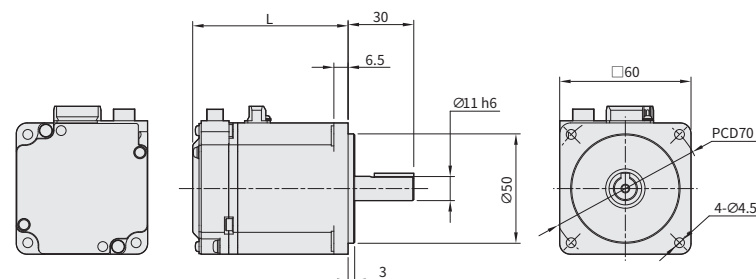
Servo Motor		No Brake	MSMF5AZL1U	MSMF012L1U	MHMF022L1U	MHMF042L1U	MHMF082L1U	MDMF102L1G	MDMF152L1G
		With Brake	MSMF5AZL1V	MSMF012L1V	MHMF022L1V	MHMF042L1V	MHMF082L1V	MDMF102L1H	MDMF152L1H
Motor Drives			MADLT05SF	MADLT05SF	MADLT15SF	MBDLT25SF	MCDLT35SF	MDDL45SF	MDDL55SF
Power Supply Capacity			0.5	0.5	0.5	0.9	1.8	2.4	2.9
Power Consumption			50	100	200	400	750	1000	1500
Rated Torque			0.16	0.32	0.64	1.27	2.39	4.77	7.16
Instantaneous Maximum Torque			0.48	0.95	2.23	4.46	8.36	14.3	21.5
Rated Current			1.1	1.1	1.4	2.1	3.8	5.2	8
Maximum Current			4.7	4.7	6.9	10.4	18.8	22	34
Rated Speed			3000					2000	
Maximum Speed			6000					3000	
Load Inertia	No Brake		0.026	0.048	0.29	0.56	1.56	6.18	9.16
	With Brake		0.029	0.051	0.31	0.58	1.66	7.4	10.4
Load	Inertia	Moment Ratio	Under 30 Multiple				Under 20 Multiple	Under 10 Multiple	
Controller	Pulse		Absolute / Incremental 23-bit Encoder						
	Resolution		8388608 p/rev						
Structure			Natural-cooling,Open (IP Rating:IP65)						
Environmental Conditions	Ambient Temperature		0℃ ~40℃ Non-freezing, Storage: -20℃ to 65℃ (Maximum Temperature Tolerance: 80℃ for up to 72 hours, Avoid Freezing)						
	Ambient Humidity		20%RH~85%RH No Condensation						
	Ambience		Indoors(no direct sunlight), Free From Corrosive Gas, Flammable Gas, Oil Mist, Dust, And Dirt.						
	Altitude		Max. 1000 m Above Sea Level						
	Vibration		During Operation: ≤ 49 m/s² (5G); When Stopped: ≤ 24.5 m/s² (2.5G)						
Weight(kg)	No Brake		0.32	0.47	0.81	1.2	2.4	4.6	5.7
	With Brake		0.53	0.68	1.2	1.6	3.1	6.1	7.2

Model	50W	L
MSMF5AZL1U	No Brake	72
MSMF5AZL1V	With Brake	102
Model	100W	L
MSMF012L1U	No Brake	92
MSMF012L1V	With Brake	122



50/100W

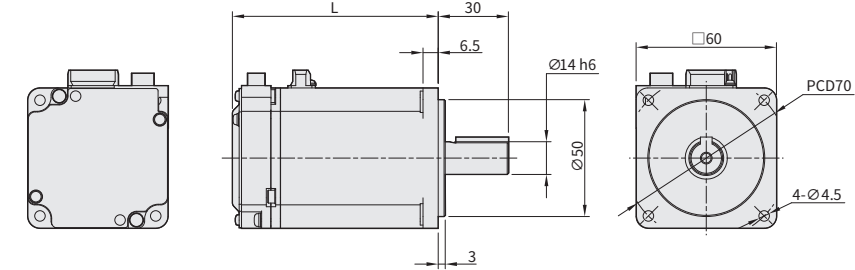
Model	200W	L
MHMF022L1U	No Brake	71
MHMF022L1V	With Brake	100.3



200W

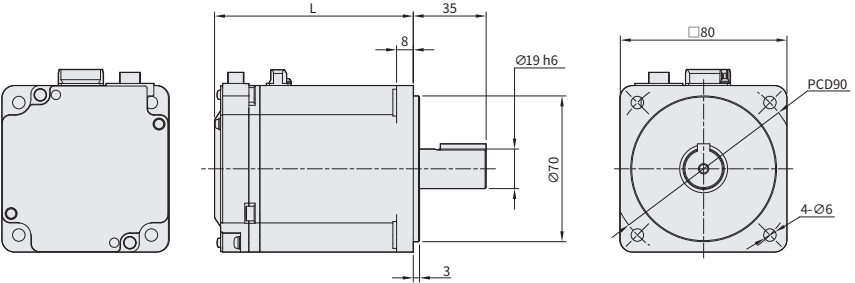
Model	400W	L
MHMF042L1U	No Brake	88
MHMF042L1V	With Brake	117.3

400W



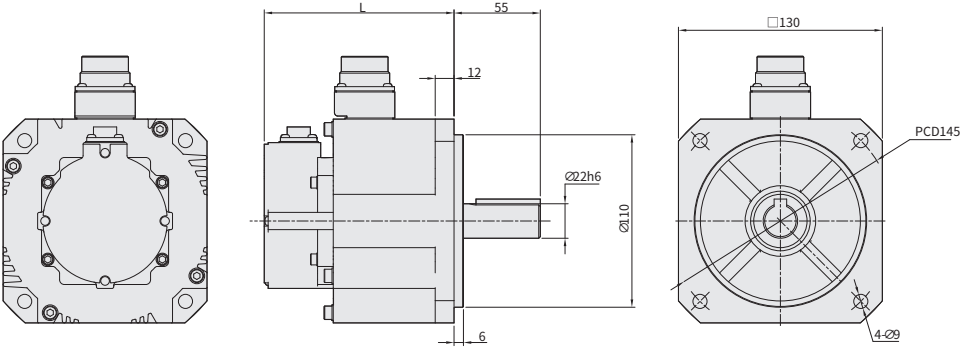
Model	750W	L
MHMF082L1U	No Brake	95.4
MHMF082L1V	With Brake	129

750W



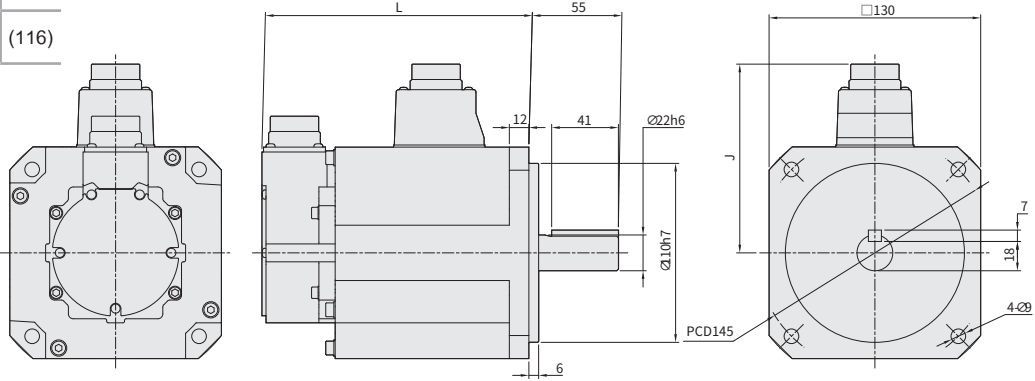
Model	1000W	L
MDMF102L1G	No Brake	122
MDMF102L1H	With Brake	150

1000W



Model	1500W	L	J
MDMF152L1G	No Brake	136	(105)
MDMF152L1H	With Brake	164	(116)

1500W



免費服務專線：台灣 0800-800-893
Toll-Free Number Taiwan

Application

Standard
Ball Screw Type
GLTH/GLMH

Standard
Belt Type
GLTB

Cleanroom
Ball Screw Type
GLCH

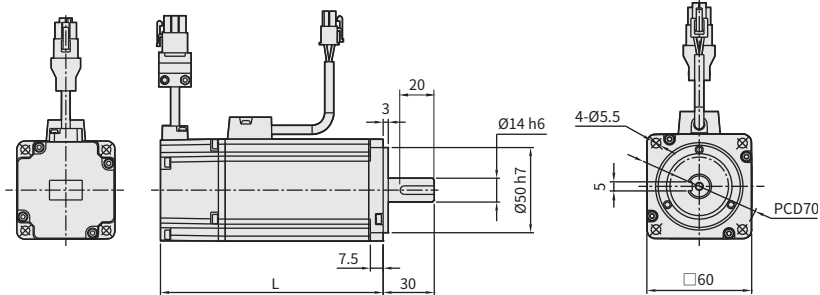
Cleanroom
Belt Type
GLCB

Multi Axis Type
XYGT/XYTH/XYTB

Reference

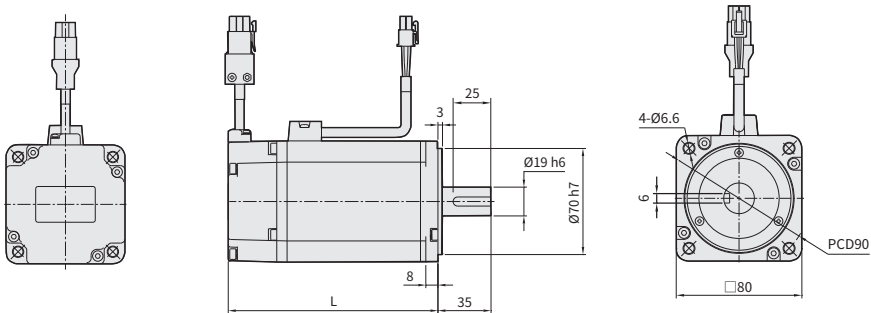
Model	400W	L
ECMA-C20604ES	No Brake	130.7
ECMA-C20604FS	With Brake	166.8

400W



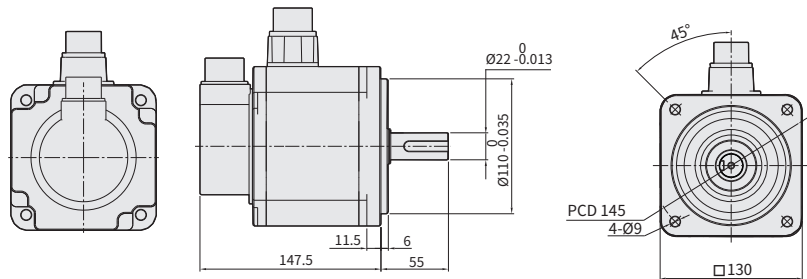
Model	750W	L
ECMA-C20807ES	No Brake	138.3
ECMA-C20807FS	With Brake	178

750W



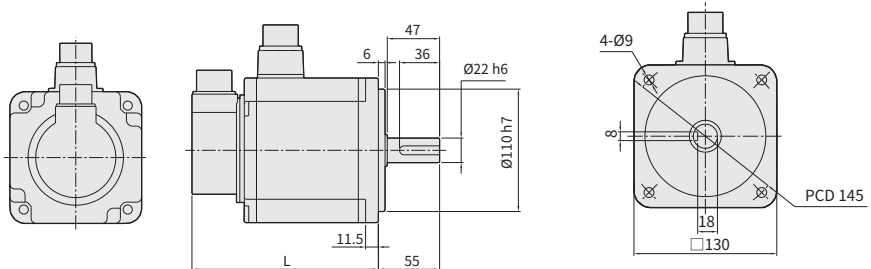
Model	1000W	L
ECMA-E11310ES	No Brake	147.5
ECMA-E11310FS	With Brake	183.5

1000W



Model	1500W	L
ECMA-E11315ES	No Brake	167.5
ECMA-E11315FS	With Brake	202

1500W

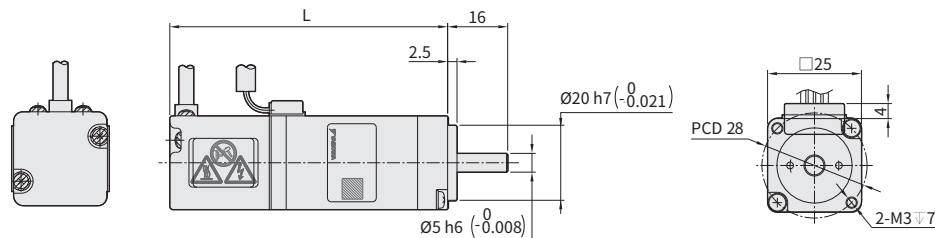


Yaskawa Servo Motor Information

Servo Motor	No Brake	SGMMV-A3A2A21	SGMJV-A5AAA21	SGMJV-01AAA21	SGMJV-02AAA21	SGMJV-04AAA21	SGMJV-08AAA21	SGMSV-10ADA21
	With Brake	SGMMV-A3A2A2C	SGMJV-A5A3A2C	SGMJV-01AAA2C	SGMJV-02AAA2C	SGMJV-04AAA2C	SGMJV-08AAA2C	SGMSV-10ADA2C
Motor Drives	單相 220V	SGDV-2R1F	SGDV-R70F	SGDV-R90F	SGDV-2R1F	SGDV-2R8F	—	—
	三相 220V	SGDV-1R6A	SGDV-R70A	SGDV-R90A	SGDV-1R6A	SGDV-2R8A	SGDV-5R5A	SGDV-7R6A
Power Consumption		30	50	100	200	400	750	1000
Rated Torque		0.0955	0.159	0.318	0.637	1.27	2.39	3.18
Instantaneous Maximum Torque		0.286	0.557	1.11	2.23	4.46	8.36	9.54
Rated Current		0.98	0.61	0.84	1.6	2.7	4.7	5.7
Maximum Current		2.9	2.1	2.9	5.8	9.3	16.9	17
Rated Speed		3000						
Maximum Speed		6000						
load Inertia (X10-4 kg.m2)	No Brake	0.00668	0.0414	0.0665	0.259	0.442	1.57	1.74
	With Brake	0.00804	0.0561	0.0812	0.323	0.744	1.74	1.99
Load Inertia Moment Ratio		Under30 Multiple	Under20 Multiple		Under15 Multiple	Under 10 Multiple		Under5Multiple
Controller	Type	絕對值 17bit 之編碼器	No Brake	增量型 13bit 之編碼器				增量型 20 bit
			增量型 13bit 之編碼器					
			With Brake					
			絕對值 20bit 之編碼器					
Structure		Natural-cooling,Open (IP Rating:IP55)	Natural-cooling,Open (IP Rating:IP65)					IP67
Environmental Conditions	Ambient Temperature	0℃ ~40℃ , -10℃ ~80℃ Non-freezing						
	Ambient Humidity	20%~80%RH Non-condensing						
	振動等級	V15						
	耐熱等級	B						F
	絕緣耐壓	AC1500V 1 分鐘						
Weight(kg)	No Brake	0.21	0.3	0.4	0.9	1.3	2.7	4.1
	With Brake	0.31	0.6	0.7	1.5	1.9	3.6	5.5

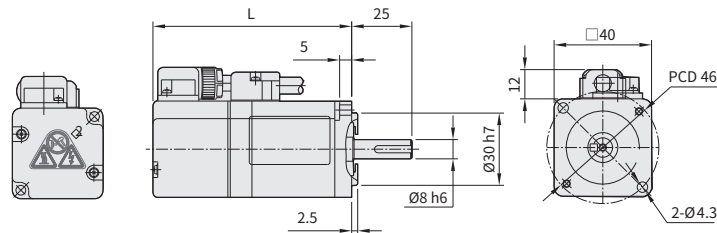
Model	30W	L
SGMMV-A3A2A21	No Brake	74
SGMMV-A3A2A2C	With Brake	102.5

30W



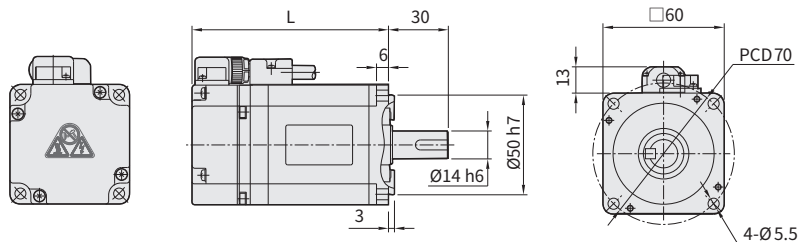
Model	50W	L
SGMJV-A5AAA21	No Brake	69
SGMJV-A5A3A2C	With Brake	114
Model	100W	L
SGMJV-01AAA21	No Brake	82.5
SGMJV-01AAA2C	With Brake	127.5

50/100W



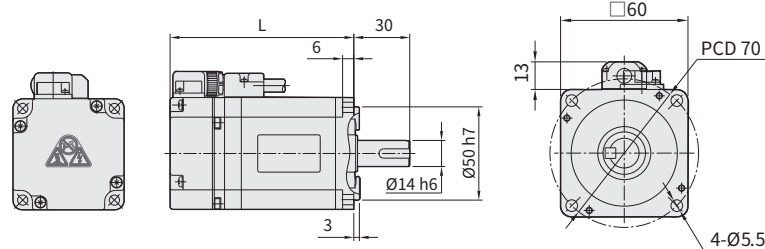
Model	200W	L
SGMJV-02AAA21	No Brake	80
SGMJV-02AAA2C	With Brake	120

200W



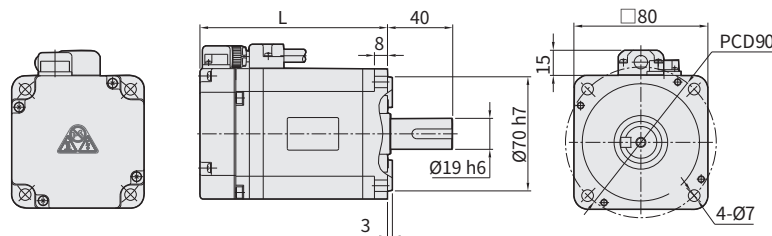
Model	400W	L
SGMJV-04AAA21	No Brake	98.5
SGMJV-04AAA2C	With Brake	138.5

400W



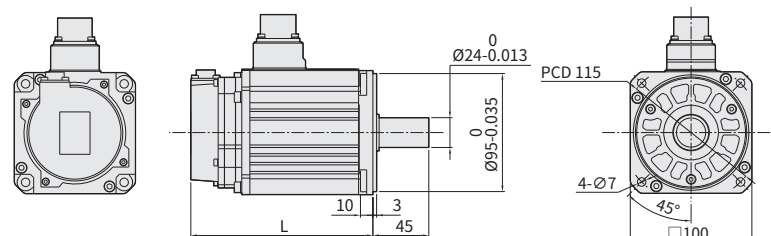
Model	750W	L
SGMJV-08AAA21	No Brake	115
SGMJV-08AAA2C	With Brake	160

750W



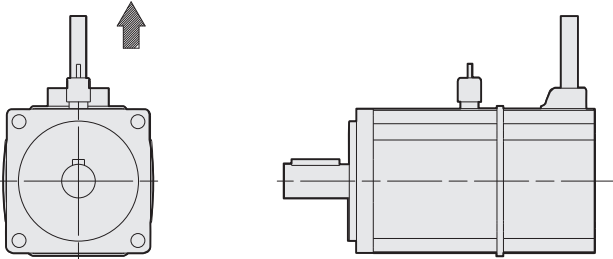
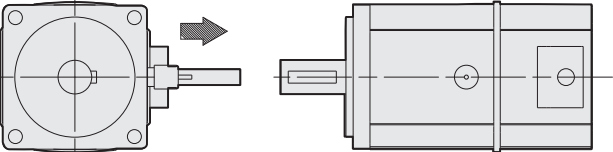
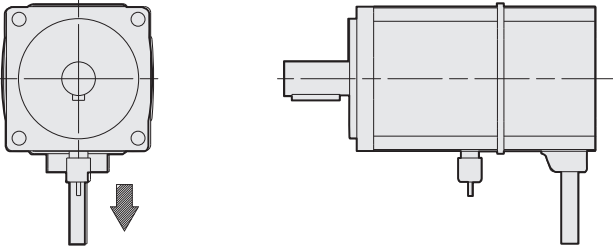
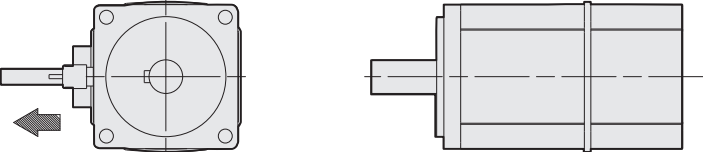
Model	1000W	L
SGMSV-10ADA21	No Brake	147
SGMSV-10ADA2C	With Brake	188

1000W



Options

Selectable Motor Cable Leading Direction

Code	Instructions	Diagram
MW	Motor cable leading direction upper side	
MR	Motor cable leading direction Right side	
MM	Motor cable leading direction Bottom side	
ML	Motor cable leading direction Left side	

※ Definition method of the outlet direction 1. The slide table is placed horizontally 2. Face the motor output shaft, judge up, down, left and right

免費服務專線：台灣 0800-800-893
Toll-free Number Taiwan

Selectable Motor Cable Leading Direction

Ball Screw type	Motor position corresponds to power cable direction															
	BC				BL				BR				BM			
Applicable specs	MW	MR	MM	ML	MW	MR	MM	ML	MW	MR	MM	ML	MW	MR	MM	ML
GLTH/GLTHD GLTHM GLCH/GLCHD	○	○	○	○	○	○	○	×	○	×	○	○	×	○	○	○

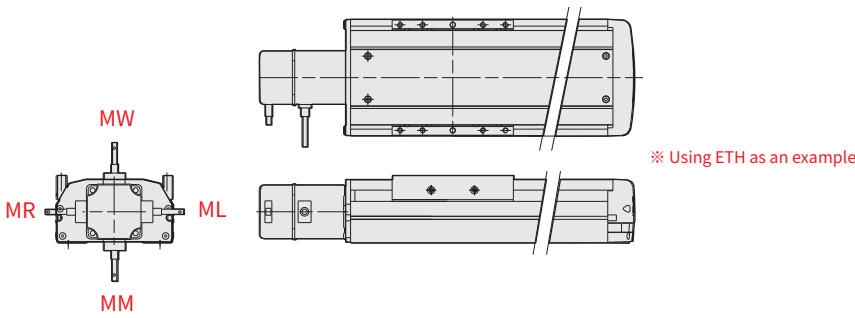
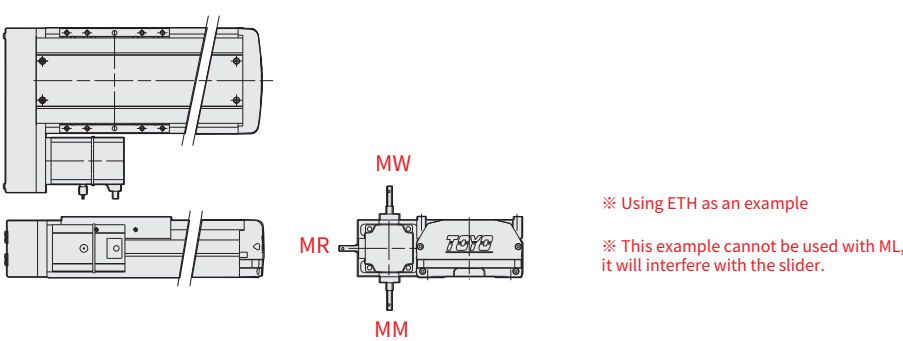
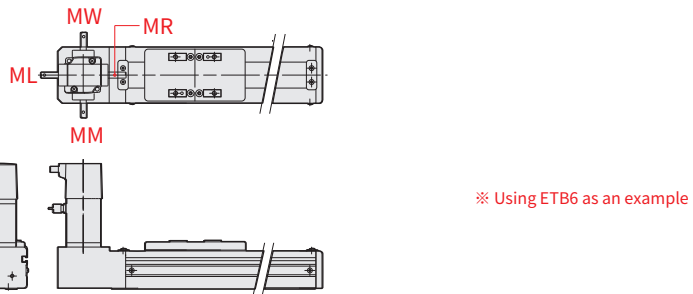
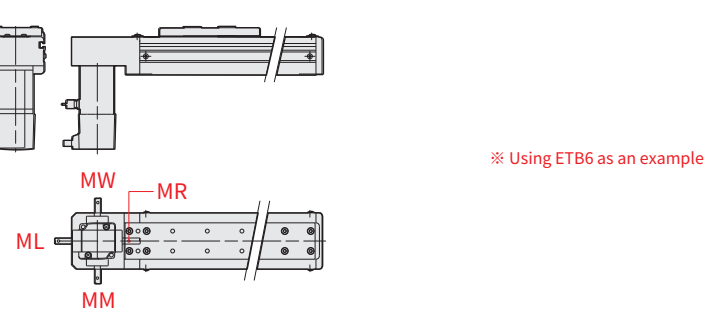
Belt type	Motor position corresponds to power cable direction							
	BW				BM			
Applicable specs	MW	MR	MM	ML	MW	MR	MM	ML
GLTB GLCB	○	○	○	○	○	○	○	○

* When the lead direction is not specified, follow the catalog diagram

Application	Standard Ball Screw Type GLTH/GLMH	Standard Belt Type GLTB	Cleanroom Ball Screw Type GLCH	Cleanroom Belt Type GLCB	Multi Axis Type XYGT / XTH / XYTB	Reference
-------------	---------------------------------------	----------------------------	-----------------------------------	-----------------------------	--------------------------------------	-----------

Options

Selectable Motor Cable Leading Direction

Applicable specs	Provide motor cable leading direction example according to different specifications
GLTH series GLCH series	 ※ Using ETH as an example
	 ※ Using ETH as an example ※ This example cannot be used with ML, it will interfere with the slider.
GLTB series GLCB series	 ※ Using ETB6 as an example
	 ※ Using ETB6 as an example

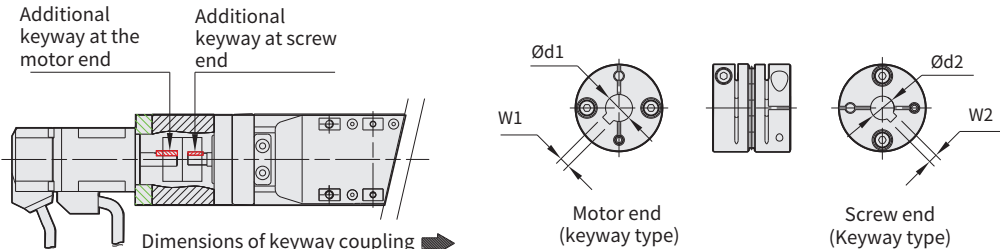
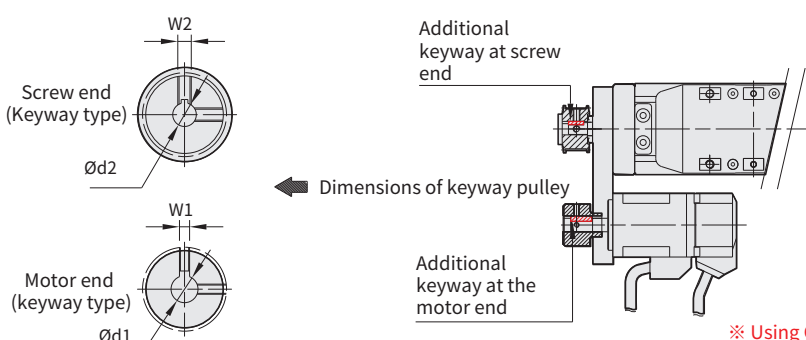
Additional Keyway for Motor Transmission Accessories

Code		Instructions
CMK		Additional keyway for motor transmission accessories (only one side - limited to the motor side)
Applicable specs	Motor position	Schematic diagram of additional keyway on one side
GLTH series GLCH series	BC M	Additional keyway at the motor end Dimensions of keyway coupling ➡ Motor end (keyway type) Screw end (clamp type) ※ Using GTH as an example
	BL BR BM	Screw end (clamp type) Dimensions of keyway pulley ← Motor end (keyway type) Additional keyway at the motor end ※ Using GTH as an example
GLTB series GLCB series	BW BM	Additional keyway at the motor end Motor end (keyway type) Screw end (clamp type) ※ Using GLTB5 as an example

Application	Standard Ball Screw Type GLTH / GLMH
	Standard Belt Type GLTB
	Cleanroom Ball Screw Type GLCH
	Cleanroom Belt Type GLCB
	Multi Axis Type XYGT / XTH / YTB
	Reference

Options

Additional Keyway for Motor Transmission Accessories

Code		Instructions
SKY		Additional keyway at motor end & screw end Shipment with keyway parts
SKN		Additional keyway at the motor end & screw end Shipment without keyway parts (purchased and installed by the customer)
Applicable specs	Motor position	Schematic diagram of additional keyway on both sides
GLTH series GLCH series	BC M	 Additional keyway at the motor end Additional keyway at screw end Dimensions of keyway coupling → Motor end (keyway type) Screw end (Keyway type) ※ Using GTH as an example
	BL BR BM	 Additional keyway at screw end Additional keyway at the motor end Dimensions of keyway pulley ← Screw end (Keyway type) Motor end (keyway type) ※ Using GTH as an example

免費服務專線：台灣 0800-800-893
Toll-Free Number Taiwan

Application	Standard Ball Screw Type	Standard Belt Type	Cleanroom Ball Screw Type	Cleanroom Belt Type	Multi Axis Type	Reference
	GLTH/GLMH	GLTB	GLCH	GLCB	XYGT/XYTH/XYTB	

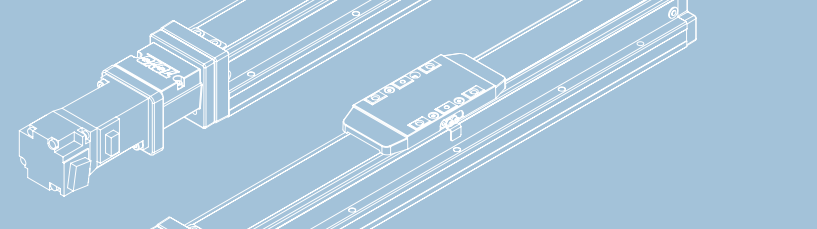
Dimensions corresponding to the keyway of each specification

Bulit-in linear Guide ball screw actuator/ electric cylinder		Ball Screw actuator / servo electric cylinder		Motor wattage	Motor Shaft (mm) (d1)	Keyway Width (mm) (W1)	Ball screw processing end (mm) (d2)	Keyway size (mm) (W2)
General environment	Clean room environment	General environment	Clean room environment					
GLTH5 GLTH5M GLTH5D GLCH5 GLCH5D	—	—	—	100W	8	3	7	2
GLTH8 GLTH8M GLTH8D GLCH8 GLCH8D	—	—	—	200W	11	4	10	3
					14	5	10	3
	—	—	—	400W	14	5	10	3

Dimensions corresponding to the keyway of each specification

Belt actuator / servo electric cylinder		Motor wattage	Motor Shaft (mm) (d1)	Keyway Width (mm) (W1)	Ball screw processing end (mm) (d2)	Keyway size (mm) (W2)
General environment	Clean room environment					
GLTB5 GLCB5	—	100W	8	3	—	—
GLTB8 GLCB8	—	400W	14	5	—	—

* If it does not meet the above definition, a corresponding special order is required.
* This code is not applicable when the motor shaft is flat (non-keyway), such as Mitsubishi 100W.



免費服務專線：台灣 0800-800-893
Toll-free Number Taiwan

Memo

Application	
Standard Ball Screw Type	GLTH / GLMH
Standard Belt Type	GLTB
Cleanroom Ball Screw Type	GLCH
Cleanroom Belt Type	GLCB
Multi Axis Type	XYGT / XYTH / XYTB
Reference	

GLCB Series
GLCB5
GLCB8