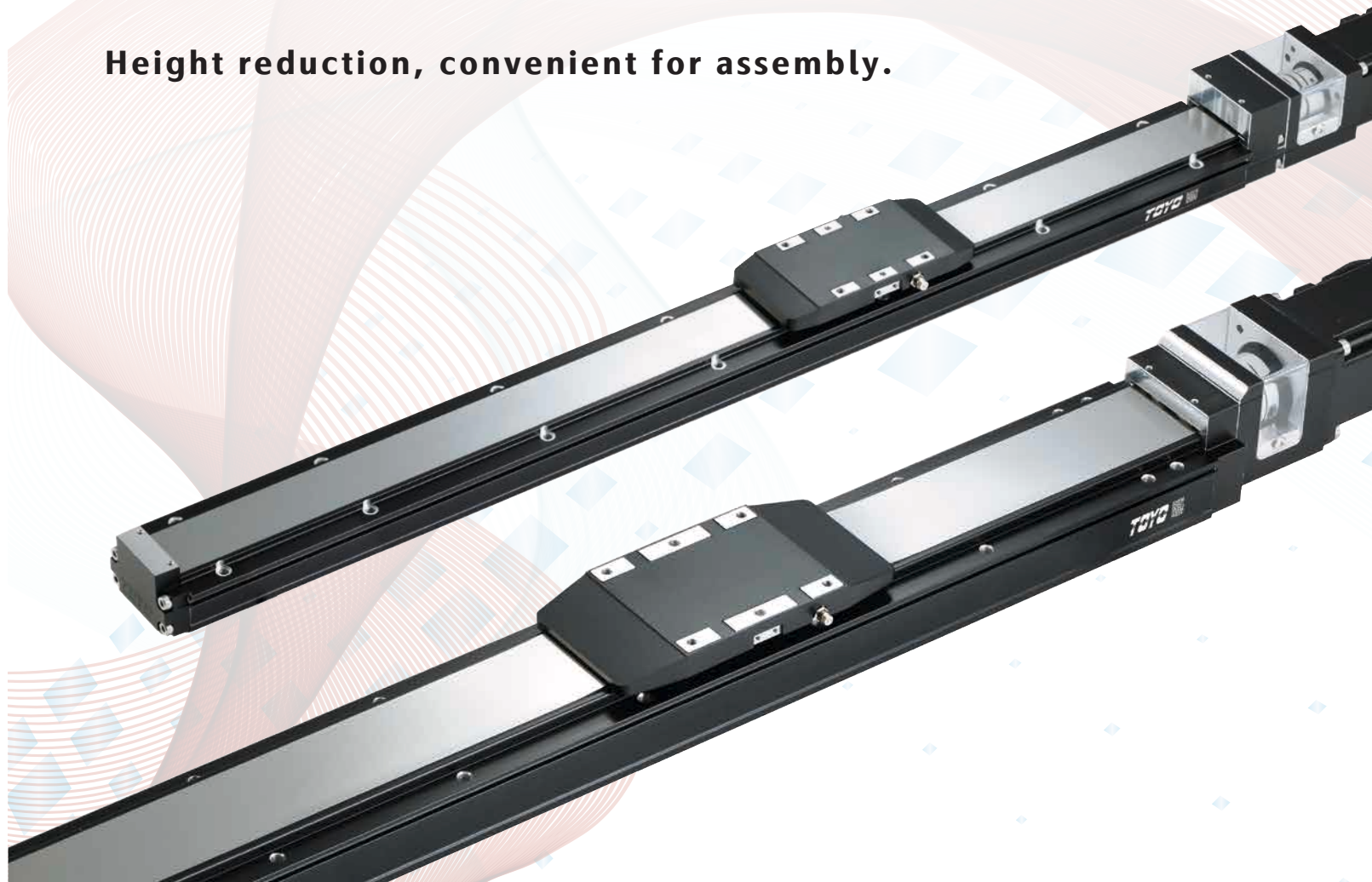
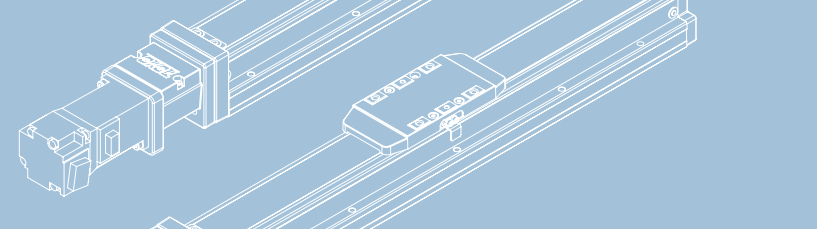


Low Profile Electric Actuator**Integrate Bearing**

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

Height reduction, convenient for assembly.



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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%

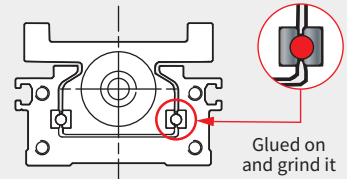
Embedded bearing on the profile. Better space utilization.

Higher moment load capacity.

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



Integrate Bearing Structure



Cost Effective

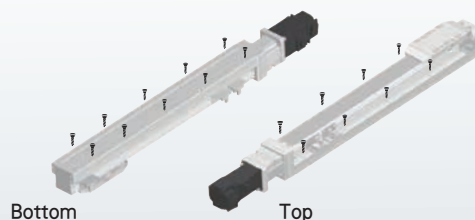


5~20%

- 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.

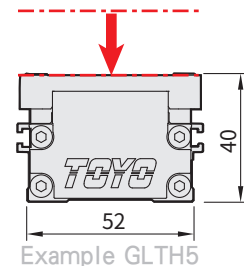


See Thru Coupling Housing



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

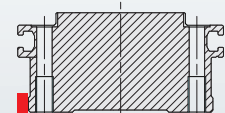
Lower Profile



- 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

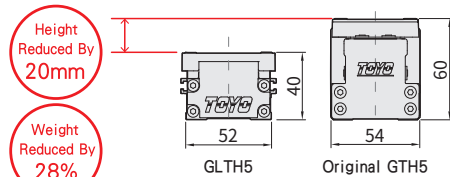
- Datum plane on the side. Provide better positioning precision. Reduce installation time cost.



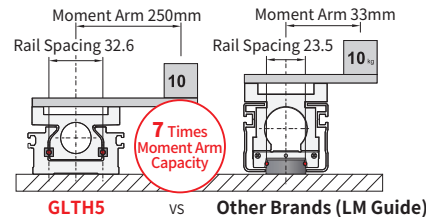
Datum plane here.

Better Performance Across All Our Competitor. Lowest Profile Ever!

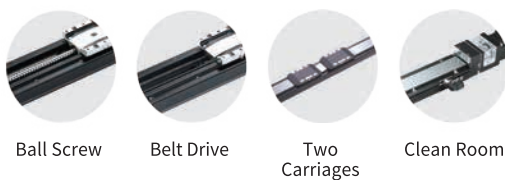
Lower GC, Space Saving



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.



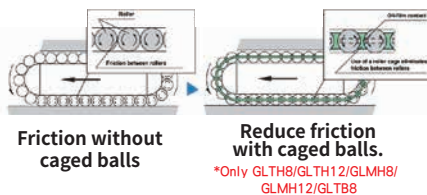
Low Dust Option

- **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.



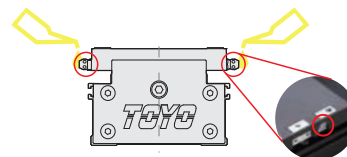
Caged Ball, Reduce Noise, Increase Life

- 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?

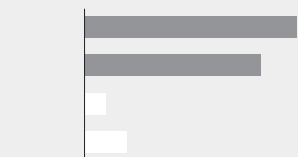
Aluminum GL Series



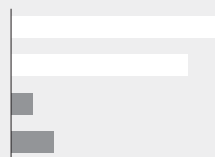
Iron



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

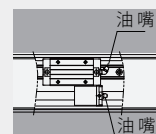


Ball Screw

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

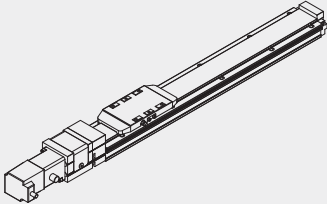
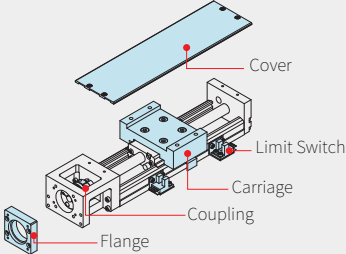
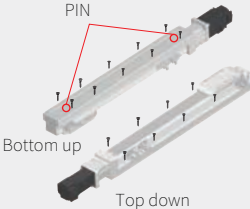
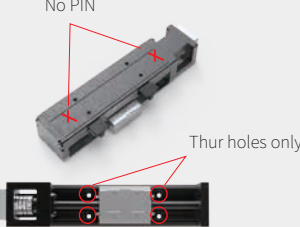
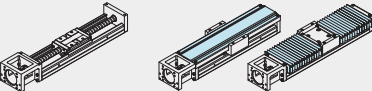
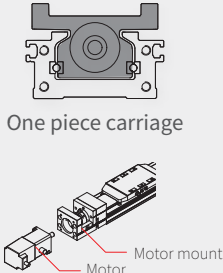
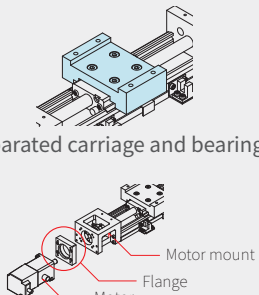
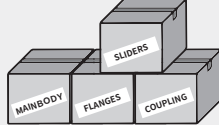
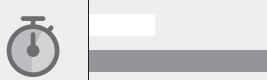


Can't customize. Order in single axis.



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

Spec Index of Electric Actuator

GLTH/GLCH Built-in Linear Motion Guide Ball Screw Actuator-Slider Type

Env.	Drive Type	Model No.	Motor Output	Width	Repeatability	Ball Screw Spec(C7)		Maximum Payload(kg)		Max. Speed(mm/s)
						Outer Dia.(mm)	Lead(mm)	Horizontal	Vertical	
Standard Environment	Ball screw	GLTH3	30W	30	±0.005	6	2 8	13 10	5 2	120 480
		GLTH5 GLCH5	100W	52	±0.005	10	2 6 12	30 25 22	10 6 4	120 360 720
							20	10	3	1200
							6 12 24	80 60 40	15 8 5	360 720 1440
		GLTH8 GLCH8	200W 400W	80	±0.005	14	6 12 24	105 85 40	30 20 10	360 720 1440
							6 12 24	110 88 40	30 20 10	360 720 1440
		GLTH12 GLCH12	400W	120	±0.005	14	2 6 12	30 25 22	10 6 4	120 360 720
							20	10	3	1200
		GLTH5D GLCH5D Dual Carriage	100W	52	±0.005	10	6 12 20	80 60 40	15 8 5	360 720 1440
							6 12 24	105 85 40	30 20 10	360 720 1440
		GLTH8D GLCH8D Dual Carriage	200W 400W	80	±0.005	14	6 12 24	80 60 40	15 8 5	360 720 1440
							6 12 24	105 85 40	30 20 10	360 720 1440
		GLMH5	100W	52	±0.005	10	2 6 12	30 25 22	10 6 4	120 360 720
							20	10	3	1200
		GLMH8	200W 400W	80	±0.005	14	6 12 24	80 60 40	15 8 5	360 720 1440
							6 12 24	105 85 40	30 20 10	360 720 1440
		GLTH5M Long Stroke	100W	52	±0.005	10	2 6 12	30 25 22	10 6 4	120 360 720
							20	10	3	1200
		GLTH8M Long Stroke	200W 400W	80	±0.005	14	6 12 24	80 60 40	15 8 5	360 720 1440
							6 12 24	105 85 40	30 20 10	360 720 1440

*1: Written here is the standard stoke's maximum safe speed. If over this speed, it may casue serious vibration.

*2: GLCH achieves a cleanroom level of up to class 10.

GLTB/GLCB Built-in Linear Motion Guide Belt Drive Actuator-Slider Type

Env.	Drive Type	Model No.	Motor Output	Width	Repeatability	Belt Spec		Maximum Payload(kg)		Max. Speed ^{*1} (mm/s)
						Belt Width(mm)	Lead(mm)	Horizontal	Vertical	
Standard Environment	Belt	GLTB5 GLCB5	100W	52	±0.06	9	32	5	-	1067
		GLTB8 GLCB8	400W	80	±0.06	8	60	8	-	2000

*1: 3000RPM for motor as standard for GLTB.

*2: Written here is the standard stoke's maximum safe speed. If over this speed, it may casue serious vibration.

*3: GLCB5 achieves a cleanroom level of up to class 10, while GLCB8 only achieves a cleanroom level of up to class 100.

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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

Stroke(mm) & Maximum Speed(mm/s) ^{*1}																												Speed								Page
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									
120				107	90	80	70	60	50	40																				10						
480				427	360	320	280	240	200	160																										
				120							110	90	80	70	63	53	50	43	40	36											14					
				360							330	270	240	210	190	160	150	130	120	110											74					
				720							660	540	480	420	380	320	300	260	240	220																
				1200							1100	900	800	700	630	533	500	430	400	367																
				360								350	310	270	240	210	190	170	160	140	130	120	110	100	90											
				720								700	620	540	480	420	380	340	320	280	260	240	220	200	180											
				1440								1400	1240	1080	960	840	760	680	640	560	520	480	440	400	360											
				360								350	310	270	240	210	190	170	160	140	130	120	110	100	90											
				720								700	620	540	480	420	380	340	320	280	260	240	220	200	180											
				1440								1400	1240	1080	960	840	760	680	640	560	520	480	440	400	360											
				360								350	310	270	240	210	190	170	160	140	130	120	110	100												
				720								700	620	540	480	420	380	340	320	280	260	240	220	200												
				1440								1400	1240	1080	960	840	760	680	640	560	520	480	440	400												
				120							110	90	80	70	63	53	50	43	40	36																
				360							330	270	240	210	190	160	150	130	120	110																
				720							660	540	480	420	380	320	300	260	240	220																
				1200							1100	900	800	700	633	533	500	433	400	367																
				360							350	310	270	240	210	190	170	160	140	130	120	110	100	90												
				720							700	620	540	480	420	380	340	320	280	260	240	220	200	180												
				1440							1400	1240	1080	960	840	760	680	640	560	520	480	440	400													
				360							350	310	270	240	210	190	170	160	140	130	120	110	100	90												
				720							700	620	540	480	420	380	340	320	280	260	240	220	200	180												
				1440							1400	1240	1080	960	840	760	680	640	560	520	480	440	400													
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									
				120							110	90	80	70	63	53	50	43	40	36																
				360							330	270	240	210	190	160	150	130	120	110																
				720							660	540	480	420	380	320	300	260	240	220																
				1200							1100	900	800	700	630	533	500	430	400	367																
				360								350	310	270	240	210	190	170	160	140	130	120	110	100	90											
				720								700	620	540	480	420	380	340	320	280	260	240	220	200	180											
				1440								1400	1240	1080	960	840	760	680	640	560	520	480	440	400												
				360								350	310	270	240	210	190	170	160	140	130	120	110	100	90											
				720								700	620	540	480	420	380	340	320	280	260	240	220	200	180											
				1440								1400	1240	1080	960	840	760	680	640	560	520	480	440	400												
650	700	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2100	2200	2300	2350	2400	2450	2500						
120			110	100	93	86	80	76	70	66	63	60	56	53	50	46	43	40	33	30	26	23														
360			330	300	280	260	240	230	210	200	190	180	170	160	150	140	130	120	100	90	80	70														
720			660	600	560	520	480	460	420	400	380	360	340	320	300	280	260	240	200	180	160	140														
1200			1100	1000	933	867	800	767	700	667	633	600	567	533	500	467	433	400	333	300	267	233														
		360		320	300	280	260	250	230	220	210	200	190	180	170	160	150	140	130	120	110	100	90	80	70	60										
		720		640	600	560	520	500	460	440	420	400	380	360	340	320	300	280	260	240	220	200	180	160	140	120										
		1440		1280	1200	1120	1040	1000	920	880	840	800	760	720	680	640	600	560	520	480	440	400	360	320	280	240										
		360		320	300	280	260	250	230	220	210	200	190	180	170	160	150	140	130	120	110	100	90	80	70	60										
		720		640	600	560	520	500	460	440	420	400	380	360	340	320	300	280	260	240	220	200	180	160	140	120										
		1440		1280	1200	1120	1040	1000	920	880	840	800	760	720	680	640	600	560	520	480	440	400	360	320	280	240										

Stroke(mm) & Maximum Speed(mm/s) ^{*2}																														Speed	Page
Stroke	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200				
																													66 102		
																													70 106		

GLCH5 1-axis

▶ Integrated Linear Bearing

▶ Ball Screw Drive

Precision
 ± 0.005 mm

Clean Room



Max. stroke 1000mm

Max. Speed 1200mm/s

Motor Output 100W

Max Payload 30kg

Ordering Method

GLCH5- L2 - 100 - BC - M10B - C4N5 - Refer to the right page. - 0001

Model

Options

Customization Order No.

Stroke
50-1000mm
40 mm Pitch

Ball Screw Lead

2	2mm
6	6mm
12	12mm
20	20mm

Motor Position

BC	Motor Backside
BM	Motor Bottom Side
BL	Motor Left Side
BR	Motor Right Side

Motor Brand & Power Output

M	Mitsubishi	05	-	B ¹⁾
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 Pin
4	2 Pin
5	3 Pin
7	4 Pin
8	5 Pin
9	6 Pin
No Sensor	
6	No Sensor

Output type & Cable length

NH	HPH-M Cable
P2	PHF-M Cable
P5	PHF-M Cable
-	HPH-M Cable

¹⁾ When the motor is used, the power output is 100W maximum.
When the motor is used, the power output is 100W maximum.
When the motor is used, the power output is 100W maximum.
²⁾ If No-Feedback Controller.

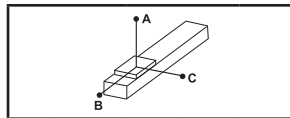
Specification

Performance	Repeatability		mm	±0.005			
	Lead		mm	2	6	12	20
	Maximum Rotating speed		rpm	3600	3600	3600	3600
	Maximum linear speed ※1		mm/s	120	300	720	1200
	Maximum Payload ※2	Horizontal	kg	30	25	22	10
		Vertical	kg	10	6	4	3
	Rated Thrust		N	854	285	142	85
	Stroke (increments)		mm	50-1000mm /(50 increments)			
	Maximum acceleration		G	0.12	0.37	0.73	1.22
	Ball screw	Basic dynamic load rating Ca	N	2270	2243	1436	1384
		Basic static load rating Coa	N	4836	3959	2441	2535
	Linear Guide	Dynamic horizontal (100km)	N	6563			
		Static Horizontal	N	13587			
Parts	Fixed bearing	Basic dynamic load rating Cr	N	5361			
		Static load rating Cor	N	2880			
	AC Servo Motor Output		W	100			
	Ball Screw Ø		mm	C7Ø10			
	Coupling		mm	7X8			
	Home Sensor	Outside		T64N2 (NPN+2M Cable)			

※1 During in a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

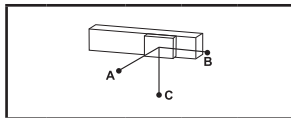
※2 Since the motor performance of each brand is different, a regenerative resistor needs to be appropriately matched to achieve this load condition.

Allowable Overhang



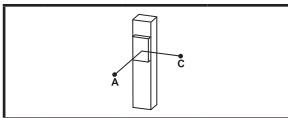
(Unit: mm)

Horizontal Installation		A	B	C
2 Lead	10kg	2500	157	250
	20kg	1120	70	112
	30kg	650	41	65
6 Lead	10kg	1400	122	184
	20kg	650	52	79
	25kg	490	38	57
12 Lead	8kg	590	132	175
	10kg	460	103	135
	22kg	185	37	49
20 Lead	3kg	656	300	303
	6kg	314	141	144
	10kg	177	78	79



(Unit: mm)

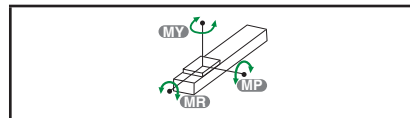
Wall Installation		A	B	C
2 Lead	10kg	250	157	2500
	20kg	112	70	1120
	30kg	65	41	650
6 Lead	10kg	184	122	1400
	20kg	79	52	650
	25kg	57	38	490
12 Lead	8kg	175	132	590
	10kg	135	103	460
	22kg	49	37	185
20 Lead	3kg	303	300	656
	6kg	144	141	314
	10kg	79	78	177



(Unit: mm)

Vertical Installation		A	C
2 Lead	5kg	346	346
	10kg	173	173
	-	-	-
6 Lead	3kg	463	463
	6kg	231	231
	-	-	-
12 Lead	2.5kg	465	465
	4kg	292	292
	-	-	-
20 Lead	1.5kg	555	555
	3g	278	278
	-	-	-

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 0.2 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	Motor Position	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.113 ~ P.115
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Keyway Belt Pulley	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

GLCH5 1-axis

Integrated Linear
Bearing

Ball Screw
Drive

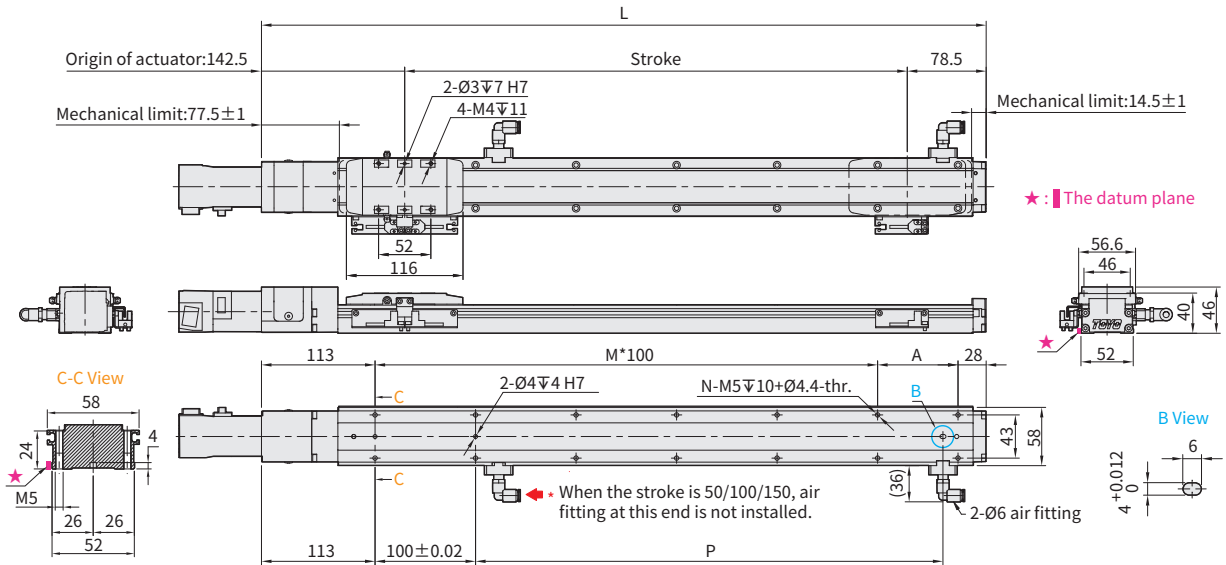


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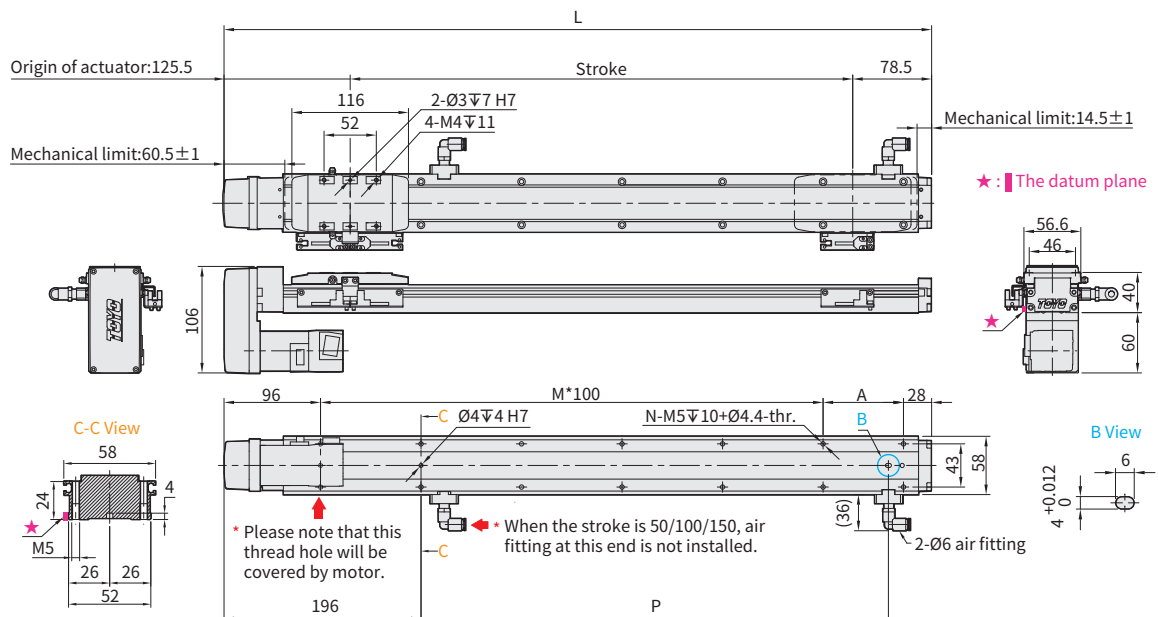
Motor Exposed

Unit : mm



Motor Bottom Side

Unit : mm



Stroke		50 ⁻¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Limit Stroke (±1)		63	113	163	213	263	313	363	413	463	513	563	613	663	713	763	813	863	913	963	1013
L	BC	271	321	371	421	471	521	571	621	671	721	771	821	871	921	971	1021	1071	1121	1171	1221
	BM	254	304	354	404	454	504	554	604	654	704	754	804	854	904	954	1004	1054	1104	1154	1204
A		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
N		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
P		15	65	115	165	215	265	315	365	415	465	515	565	615	665	715	765	815	865	915	965
KG	MC	1.1	1.23	1.36	1.48	1.61	1.73	1.86	1.99	2.11	2.24	2.37	2.49	2.62	2.75	2.87	3	3.12	3.25	3.38	3.5
	BM	1.2	1.33	1.46	1.58	1.71	1.83	1.96	2.09	2.21	2.34	2.47	2.59	2.72	2.85	2.97	3.1	3.22	3.35	3.48	3.6
Linear Speed mm/s	Lead 2	120										110	90	80	70	63	53	50	43	40	36
	Lead 6	360										330	270	240	210	190	160	150	130	120	110
	Lead 12	720										660	540	480	420	380	320	300	260	240	220
	Lead 20	1200										1100	900	800	700	630	533	500	430	400	367

※ 1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix as a result, suggest that fixing actuator body from the bottom to the top.



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Unit: mm



Unit: mm



※ 1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

GLCH8D

GLCH8 1-axis

▶ Integrated Linear Bearing

▶ Ball Screw Drive

Precision
 ± 0.005 mm

Clean Room



Max. stroke 1250mm

Max. Speed 1440mm/s

Motor Output 200W

Max Payload 80kg

Ordering Method

GLCH8- L6 - 100 - BC - M20B - C4N5 - Motor to the right page. - 0001

Model

Option

Customization
Order No.

Stroke

50-1250mm
50mm Pitch

Motor Position

BC	Motor Backward
BM	Motor Bottom Side
BL	Motor Left Side
BR	Motor Right Side

Motor Brand & Power Output

M	Mitsubishi	05	-	B ¹
P	Panasonic	10	-	
Y	Yaskawa	20	200W	
T	Delta	40	-	

Home Sensor

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

Limit Sensor

End Side	
3	1 Pin
4	2 Pin
5	3 Pin
7	4 Pin
8	5 Pin
9	6 Pin
No Sensor	
5	No Sensor

Output type & Cable length

N5	NPN+2M Cable
P2	PNP+2M Cable
P5	PNP+5M Cable
-	NPN+2M Cable

Ball Screw Lead

6	6mm
12	12mm
24	24mm

¹ Motor to the right page. The motor is selected for the motor position.
Note: The motor is selected for the motor position. The motor is selected for the motor position. The motor is selected for the motor position.
² Motor to the right page. The motor is selected for the motor position.

Specification

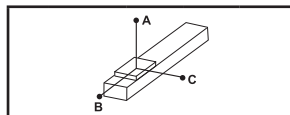
Performance	Repeatability		mm	±0.005		
	Lead		mm	6	12	24
	Maximum Rotating speed		rpm	3600	3600	3600
	Maximum linear speed ※1		mm/s	360	720	1440
	Maximum Payload ※2	Horizontal	kg	80	60	40
		Vertical	kg	15	8	5
	Rated Thrust		N	569	284	142
	Stroke (increments)		mm	50-1250mm / (50 increments)		
	Maximum acceleration		G	0.37	0.73	1.47
	Ball screw	Basic dynamic load rating Ca	N	7733	5855	3007
		Basic static load rating Coa	N	14200	10401	5414
	Linear Guide	Dynamic horizontal (100km)	N	18601		
		Static Horizontal	N	34189		
	Fixed bearing	Basic dynamic load rating Cr	N	8447		
		Static load rating Cor	N	5060		
Parts	AC Servo Motor Output		W	200		
	Ball Screw Ø		mm	C7Ø14		
	Coupling		mm	10X14 /11 ※3		
	Home Sensor	Outside		T64N2 (NPN+2M Cable)		

※1 During in a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

※2 Since the motor performance of each brand is different, a regenerative resistor needs to be appropriately matched to achieve this load condition.

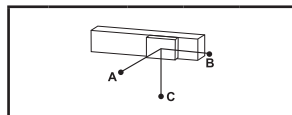
※3 Motor (200W) Shaft Diameter: Panasonic: 11mm; Other: 14mm.

Allowable Overhang



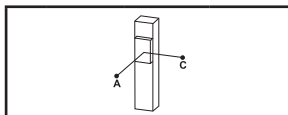
(Unit : mm)

Horizontal Installation		A	B	C
Lead 6	35kg	1600	139	220
	45kg	1210	102	160
	80kg	620	46	74
Lead 12	10kg	2040	470	645
	30kg	638	141	193
	60kg	283	58	80
Lead 24	20kg	253	145	133
	40kg	109	60	55
	-	-	-	-



(Unit : mm)

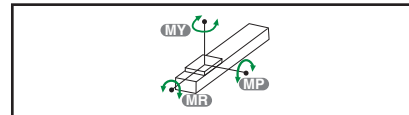
Wall Installation		A	B	C
Lead 6	35kg	220	139	1600
	45kg	160	102	1210
	80kg	74	46	620
Lead 12	10kg	645	470	2040
	30kg	193	141	638
	60kg	80	58	283
Lead 24	20kg	133	145	253
	40kg	55	60	109
	-	-	-	-



(Unit : mm)

Vertical Installation		A	C
Lead 6	10kg	535	535
	15kg	360	360
	-	-	-
Lead 12	3.5kg	1380	1380
	8kg	605	605
	-	-	-
Lead 24	2kg	1380	1380
	5kg	556	556
	-	-	-

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 the motor acceleration and deceleration for 0.2 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	Motor Position	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.113 ~ P.115
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Keyway Belt Pulley	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

GLCH8 1-axis

Integrated Linear
Bearing

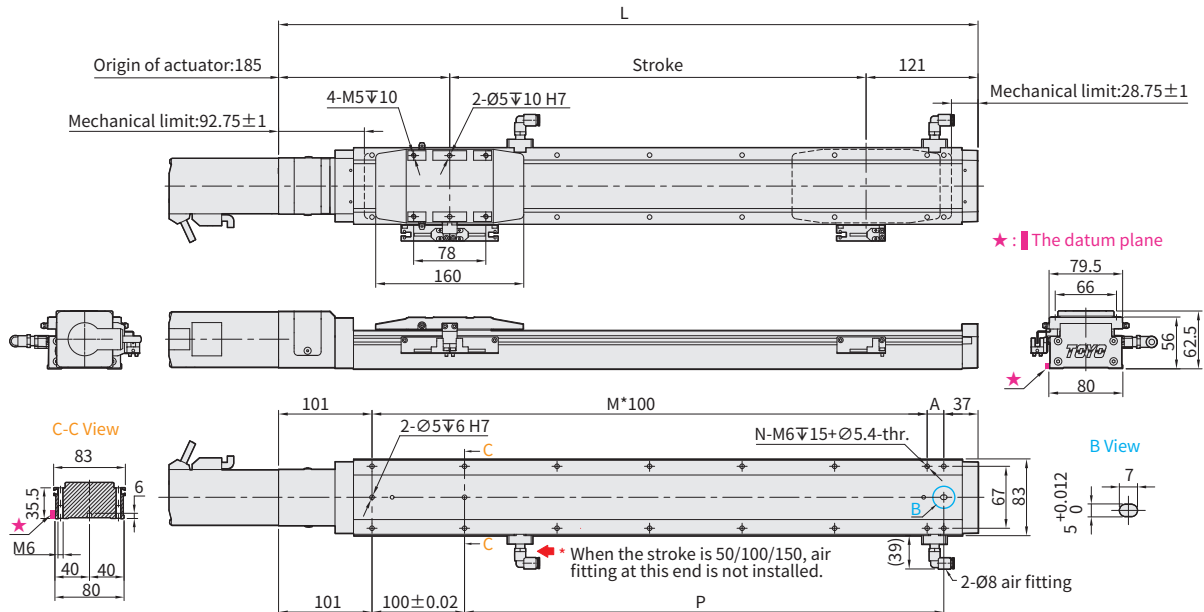
Ball Screw
Drive



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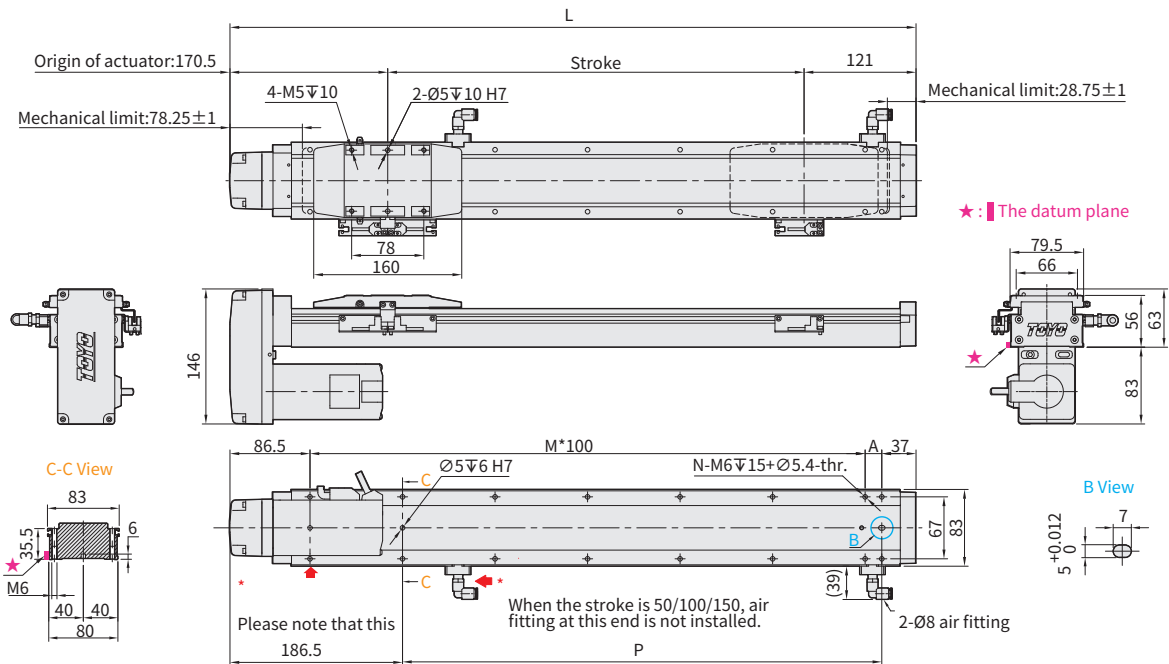
BC Motor Exposed

Unit : mm



BM Motor Bottom Side

Unit : mm



Stroke	50 ⁻¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
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
L	BC	356	406	456	506	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156	1206	1256	1306	1356	1406	1456	1506
	BM	341.5	391.5	441.5	491.5	541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5
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
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
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
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
KG	BC	2.35	2.65	2.94	3.24	3.53	3.83	4.13	4.42	4.72	5.01	5.31	5.61	5.91	6.2	6.5	6.79	7.09	7.39	7.68	7.98	8.28	8.57	8.87	9.17
	BM	2.72	3.02	3.31	3.61	3.91	4.2	4.5	4.79	5.09	5.39	5.68	5.98	6.28	6.57	6.87	7.17	7.46	7.76	8.05	8.35	8.65	8.94	9.24	9.54
Linear Speed mm/s	Lead 6	360										350	310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720										700	620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440										1400	1240	1080	960	840	760	680	640	560	520	480	440	400	360

※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

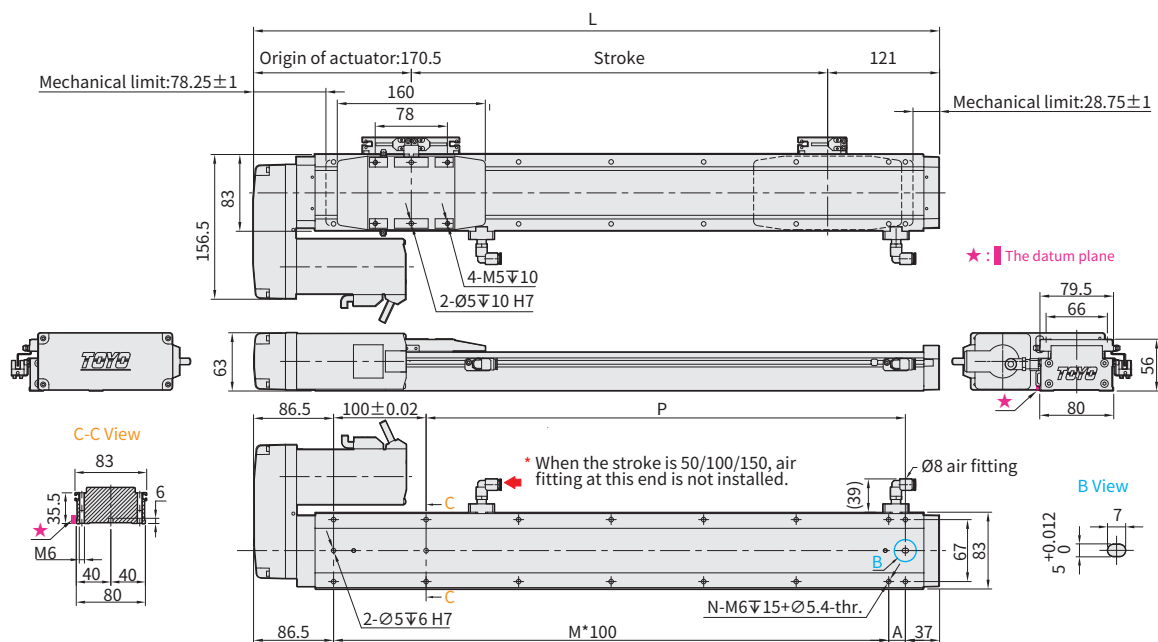
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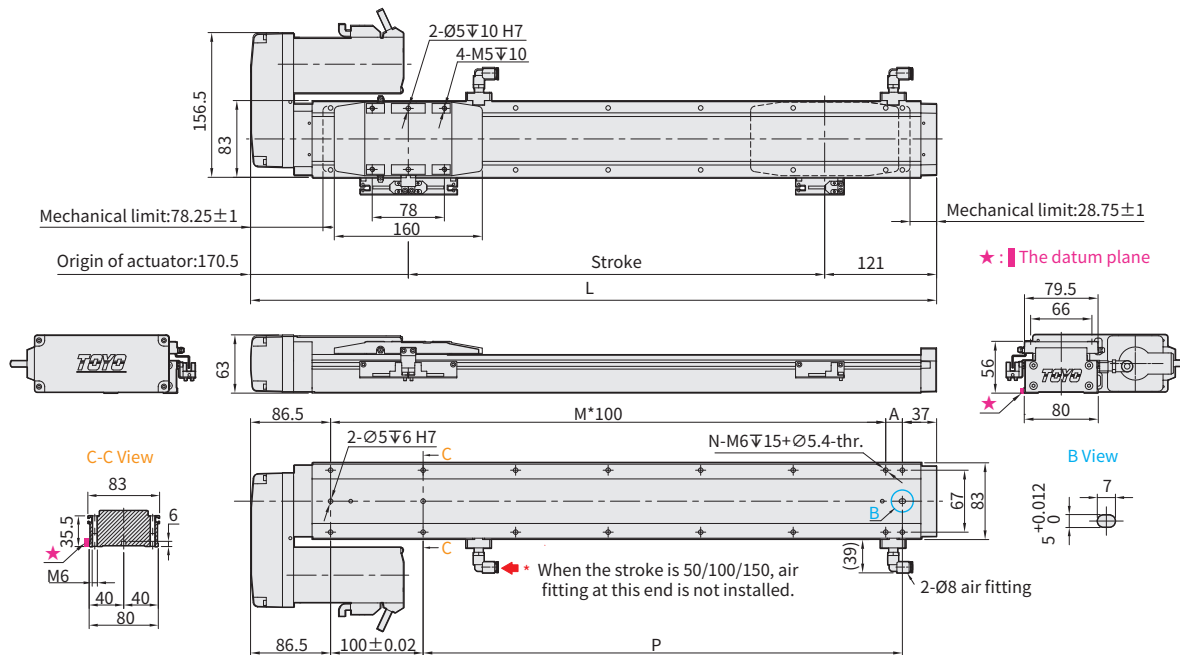
BL Motor Left Side

Unit: mm



BR Motor Right 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
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
L	341.5	391.5	441.5	491.5	541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5	1541.5
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
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
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
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
KG	2.72	3.02	3.31	3.61	3.91	4.2	4.5	4.79	5.09	5.39	5.68	5.98	6.28	6.57	6.87	7.17	7.46	7.76	8.05	8.35	8.65	8.94	9.24	9.54	9.83
Linear Speed mm/s	Lead 6	360										350	310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720										700	620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440										1400	1240	1080	960	840	760	680	640	560	520	480	440	400	360

※ 1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix;as a result, suggest that fixing actuator body from the bottom to the top.

Application

Standard
Ball Screw Type
GLTH / GLMH

Standard
Belt Type
GLTB

Cleanroom Belt Type GLCB

Multi Axis Type
XYGT/XYTH/XYTE

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5

GLCH8D

GLCH8 1-axis

▶ Integrated Linear Bearing

▶ Ball Screw Drive

Precision
±0.005 mm

Clean Room



Max. stroke 1250mm

Max. Speed 1440mm/s

Motor Output 400W

Max Payload 105kg

Ordering Method

GLCH8 - L6 - 100 - BC - M40B - C4N5 - Refer to the right page. - 0001

Model

Options

Customization
Order No.

Stroke ¹
50-1250mm
00mm Pitch

Motor Position

Motor Brand ~
Power Output

Home Sensor

Limit Sensor

Output type &
Cable length

Ball Screw Lead
6 4mm
12 10mm
24 20mm

Motor Position
BC Motor Backward
BM Motor Bottom Side
BL Motor Left Side
BR Motor Right Side

Motor Brand ~ Power Output
M Mitsubishi 05 - B ²
P Panasonic 10 -
Y Yaskawa 20 -
T Delta 40 400W

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

Limit Sensor
Out Side
3 1 Pin
4 2 Pin
5 3 Pin
7 4 Pin
8 3 Pin
9 4 Pin
No Sensor
5 No Sensor

Output type & Cable length
NB MPN-2M Cable
P2 MPN-2M Cable
P5 MPN-5M Cable
- MPN-2M Cable

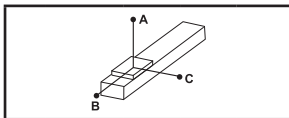
¹ Motor Stroke is 1250mm, but maximum stroke is 1200mm.
Motor Stroke is 1250mm, but maximum stroke is 1200mm.
Motor Stroke is 1250mm, but maximum stroke is 1200mm.
² 4 Motor Side Drive, No Counter.

Specification

Performance	Repeatability		mm	±0.005			
	Lead		mm	6	12	24	
	Maximum Rotating speed		rpm	3600	3600	3600	
	Maximum linear speed※1		mm/s	360	720	1440	
	Maximum Payload※2	Horizontal	kg	105	85	40	
		Vertical	kg	30	20	10	
	Rated Thrust		N	1156	578	289	
	Stroke (increments)		mm	50-1250mm / (50 increments)			
	Maximum acceleration		G	0.37	0.73	1.47	
	Ball screw	Basic dynamic load rating Ca		N	7733	5855	3007
		Basic static load rating Coa		N	14200	10401	5414
	Linear Guide	Dynamic horizontal (100km)		N	18601		
		Static Horizontal		N	34189		
Fixed bearing	Basic dynamic load rating Cr		N	8447			
	Static load rating Cor		N	5060			
Parts	AC Servo Motor Output		W	400			
	Ball Screw Ø		mm	C7Ø14			
	Coupling		mm	10X14			
	Home Sensor	Outside		T64N2 (NPN+2M Cable)			

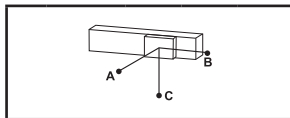
※1 During in a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

Allowable Overhang



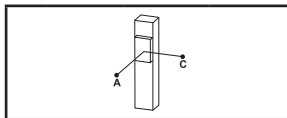
(Unit : mm)

Horizontal Installation		A	B	C
Lead 6	30kg	1900	165	261
	50kg	1080	88	140
	105kg	434	29	47
Lead 12	25kg	780	175	240
	35kg	530	117	160
	85kg	175	33	46
Lead 24	4kg	1400	820	750
	12kg	440	257	235
	40kg	109	60	55



(Unit : mm)

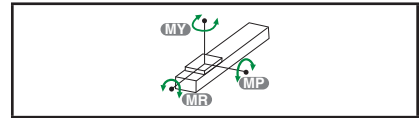
Wall Installation		A	B	C
Lead 6	30kg	261	165	1900
	50kg	140	88	1080
	105kg	47	29	434
Lead 12	25kg	240	175	780
	35kg	160	117	530
	85kg	46	33	175
Lead 24	4kg	750	820	1400
	12kg	235	257	440
	40kg	55	60	109



(Unit : mm)

Vertical Installation		A	C
Lead 6	16kg	335	335
	30kg	180	180
	-	-	-
Lead 12	12kg	400	400
	20kg	240	240
	-	-	-
Lead 24	6kg	460	460
	10kg	275	275
	-	-	-

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 the motor acceleration and deceleration for 0.2 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	Motor Position	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.113 ~ P.115
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Keyway Belt Pulley	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

GLCH8 1-axis

Integrated Linear
Bearing

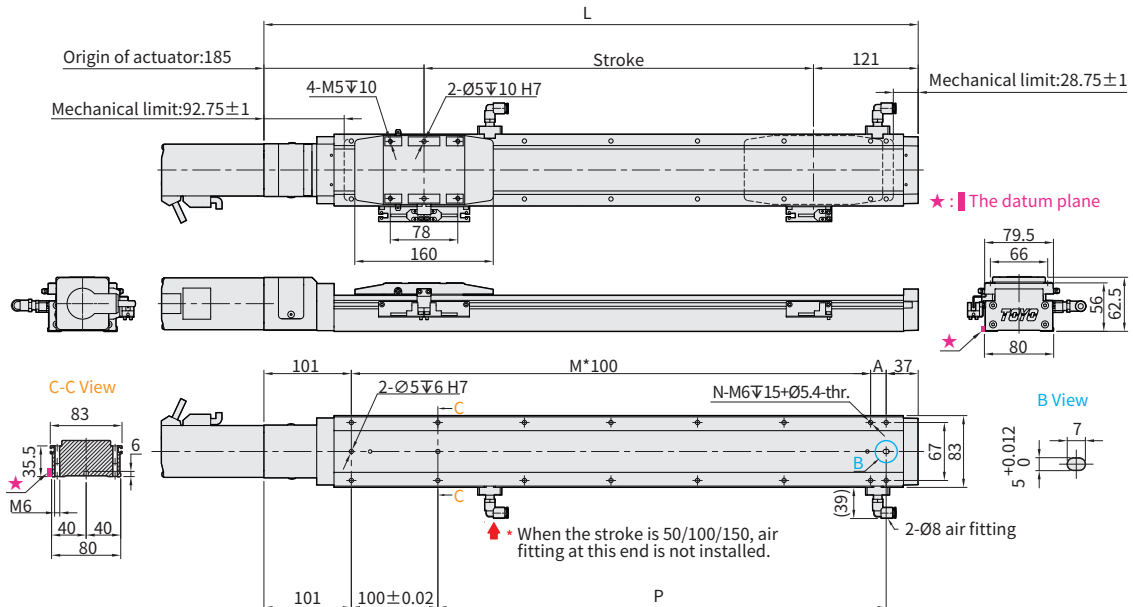
Ball Screw
Drive



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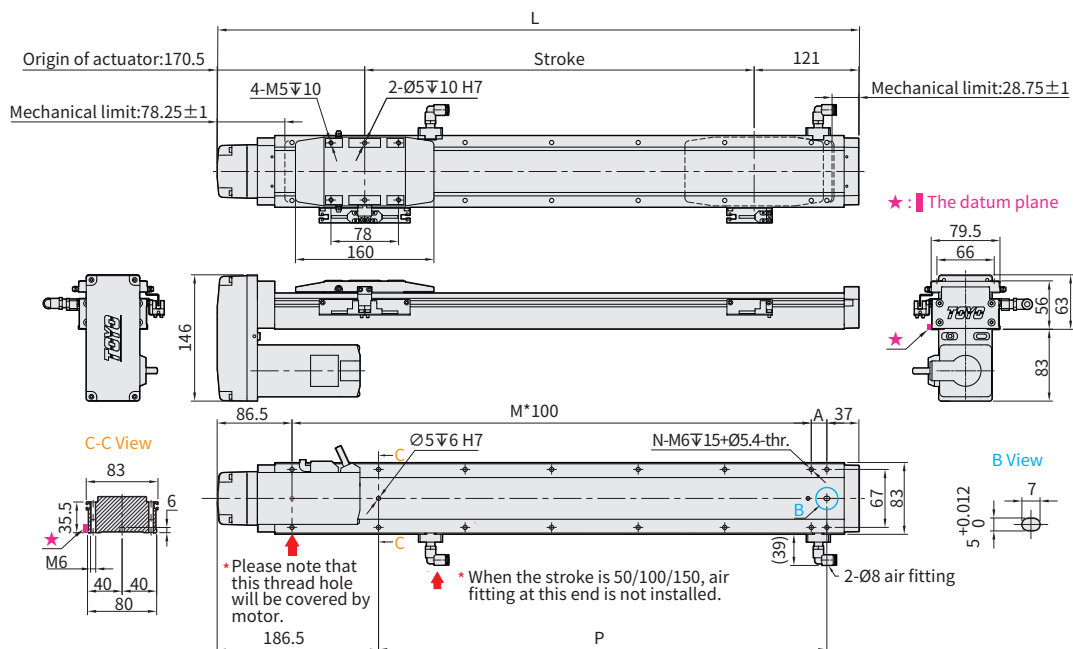
BC Motor Exposed

Unit : mm



BM Motor Bottom Side

Unit : mm

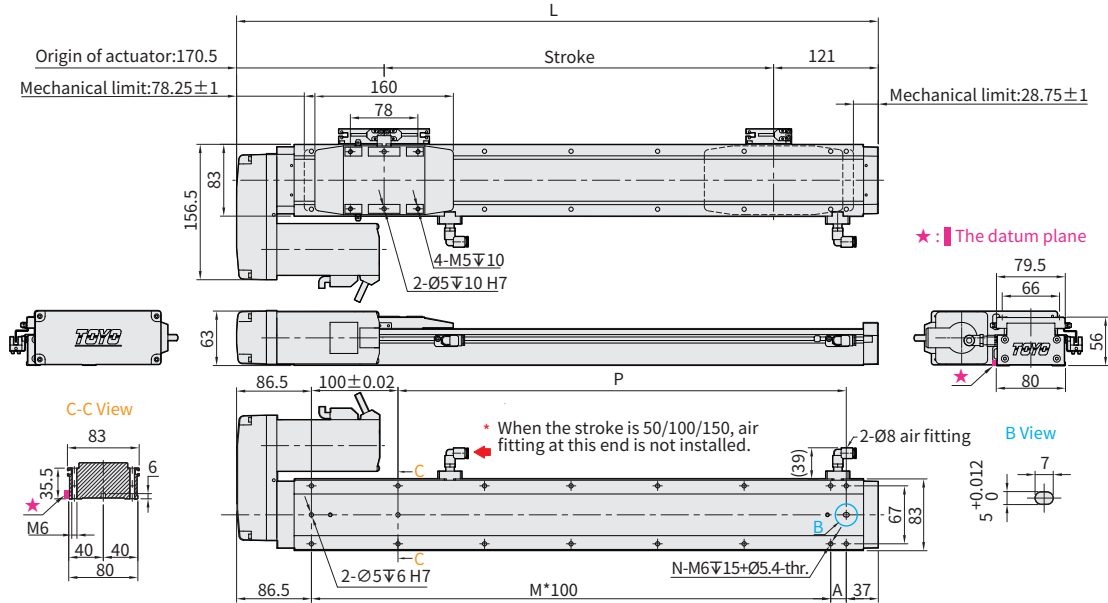


Stroke	50 ⁻¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Limit Stroke (±1)	74.5	124.5	174.5	224.5	274.5	324.5	374.5	424.5	474.5	524.5	574.5	624.5	674.5	724.5	774.5	824.5	874.5	924.5	974.5	1024.5	1074.5	1124.5	1174.5	1224.5	1274.5
L	BC	356	406	456	506	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156	1206	1256	1306	1356	1406	1456	1506
	BM	341.5	391.5	441.5	491.5	541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5
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
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
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
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
KG	BC	2.35	2.65	2.94	3.24	3.53	3.83	4.13	4.42	4.72	5.01	5.31	5.61	5.91	6.2	6.5	6.79	7.09	7.39	7.68	7.98	8.28	8.57	8.87	9.17
	BM	2.72	3.02	3.31	3.61	3.91	4.2	4.5	4.79	5.09	5.39	5.68	5.98	6.28	6.57	6.87	7.17	7.46	7.76	8.05	8.35	8.65	8.94	9.24	9.54
Linear Speed mm/s	Lead 6	360										350	310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720										700	620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440										1400	1240	1080	960	840	760	680	640	560	520	480	440	400	360

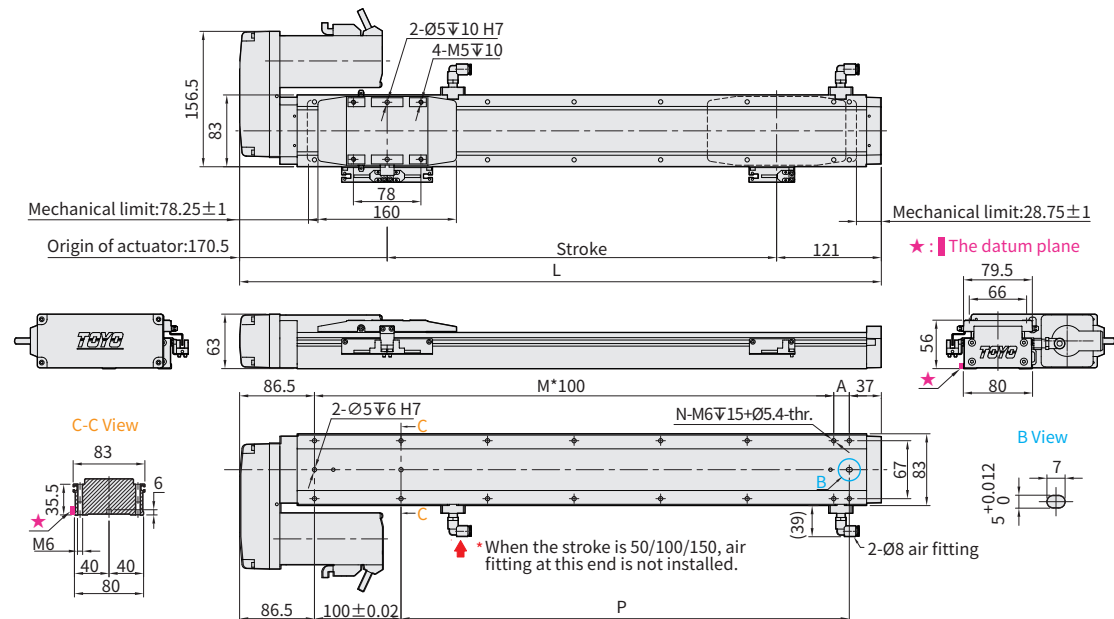
※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Download at www.toyorobot.com**BL** Motor Left Side

Unit : mm

**BR** Motor Right Side

Unit : mm



Stroke		50 ^{±1}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
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
L		341.5	391.5	441.5	491.5	541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5	1541.5
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
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
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
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
KG		2.72	3.02	3.31	3.61	3.91	4.2	4.5	4.79	5.09	5.39	5.68	5.98	6.28	6.57	6.87	7.17	7.46	7.76	8.05	8.35	8.65	8.94	9.24	9.54	9.83
Linear Speed mm/s	Lead 6	360											350	310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720											700	620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440											1400	1240	1080	960	840	760	680	640	560	520	480	440	400	360

※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Application

Standard
Ball Screw Type
GLTH/GLMHStandard
Belt Type
GLTBCleanroom
Ball Screw Type
GLCHCleanroom
Belt Type
GLCBMulti Axis Type
XYGT/XYTH/XYTB

Reference

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5D

GLCH8D

▶ Ball Screw Drive



Refer to this right page.

Customization
Order No.

50-1250mm
40 mm Pitch

N1	NFN+3M Cable
P2	PNP+2M Cable
P1	PNP+3M Cable
-	NFN+2M Cable

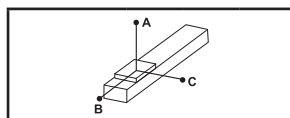
www.toyorobot.com

Specification

Performance	Repeatability		mm	±0.005		
	Lead		mm	6	12	24
	Maximum Rotating speed		rpm	3600	3600	3600
	Maximum linear speed ※1		mm/s	360	720	1440
	Maximum Payload ※2	Horizontal	kg	110	88	40
		Vertical	kg	30	20	10
	Rated Thrust		N	1156	578	289
	Stroke (increments)		mm	50-1250mm /(50 increments)		
	Maximum acceleration		G	0.37	0.73	1.47
	Ball screw	Basic dynamic load rating Ca	N	7733	5855	3007
		Basic static load rating Coa	N	14200	10401	5414
	Linear Guide	Dynamic horizontal (100km)	N	51128		
		Static Horizontal	N	84518		
	Fixed bearing	Basic dynamic load rating Cr	N	2600		
		Static load rating Cor	N	4750		
Parts	AC Servo Motor Output		W	400		
	Ball Screw Ø		mm	C7Ø14		
	Coupling		mm	10X14		
	Home Sensor	Outside		T64N2(NPN+2M Cable)		

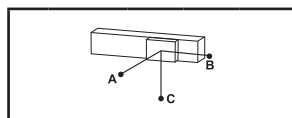
※1 During in a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

Allowable Overhang



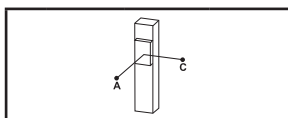
(Unit : mm)

Horizontal Installation		A	B	C
Lead 6	60kg	1900	165	268
	80kg	1428	113	184
	110kg	963	70	114
Lead 12	60kg	1538	346	483
	70kg	1300	290	406
	88kg	1010	222	311
Lead 24	20kg	1285	753	693
	30kg	835	487	450
	40kg	613	355	328



(Unit : mm)

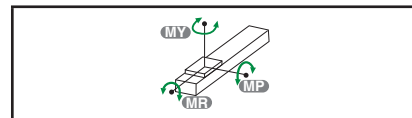
Wall Installation		A	B	C
Lead 6	60kg	268	165	1990
	80kg	184	113	1428
	110kg	114	70	963
Lead 12	60kg	483	346	1538
	70kg	406	290	1300
	88kg	311	222	1010
Lead 24	20kg	693	753	1285
	30kg	450	487	835
	40kg	328	355	613



(Unit : mm)

Vertical Installation		A	C
Lead 6	20kg	1250	1250
	30kg	830	830
	-	-	-
Lead 12	10kg	2250	2250
	20kg	1120	1120
	-	-	-
Lead 24	7kg	1840	1840
	10kg	1280	1280
	-	-	-

Static Loading Moment



(Unit : N.m)

MY	606
MP	606
MR	1168

* 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 0.2 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	Motor Position	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.113 ~ P.115
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Keyway Belt Pulley	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5D

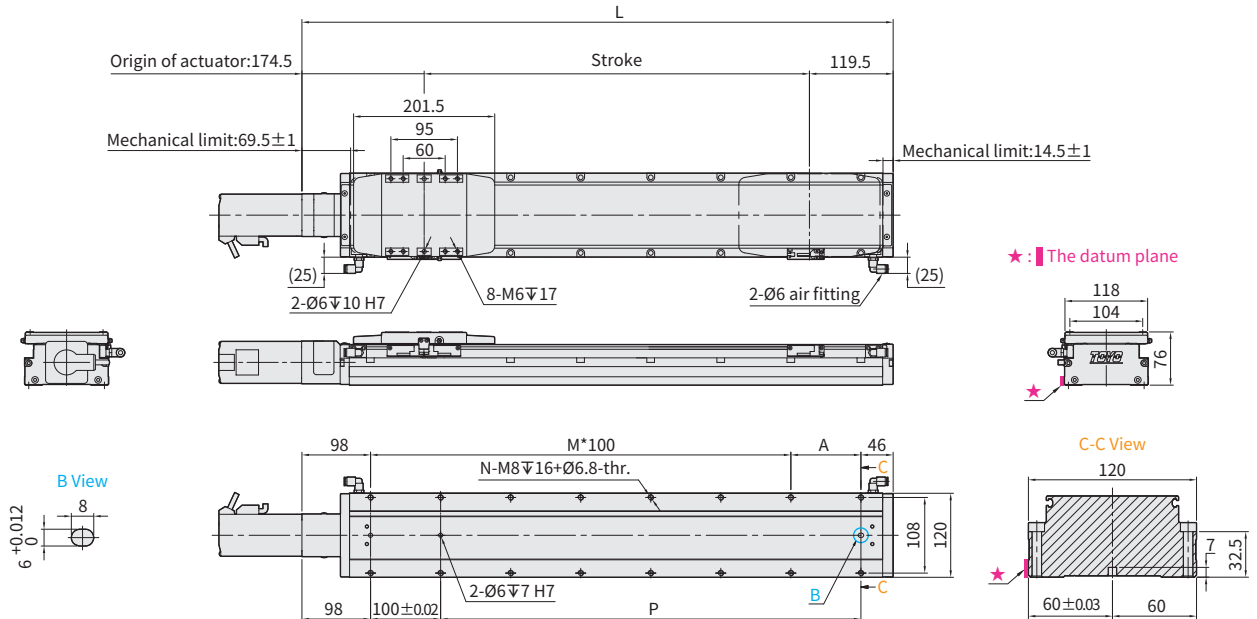
GLCH8D



Download at www.toyorobot.com

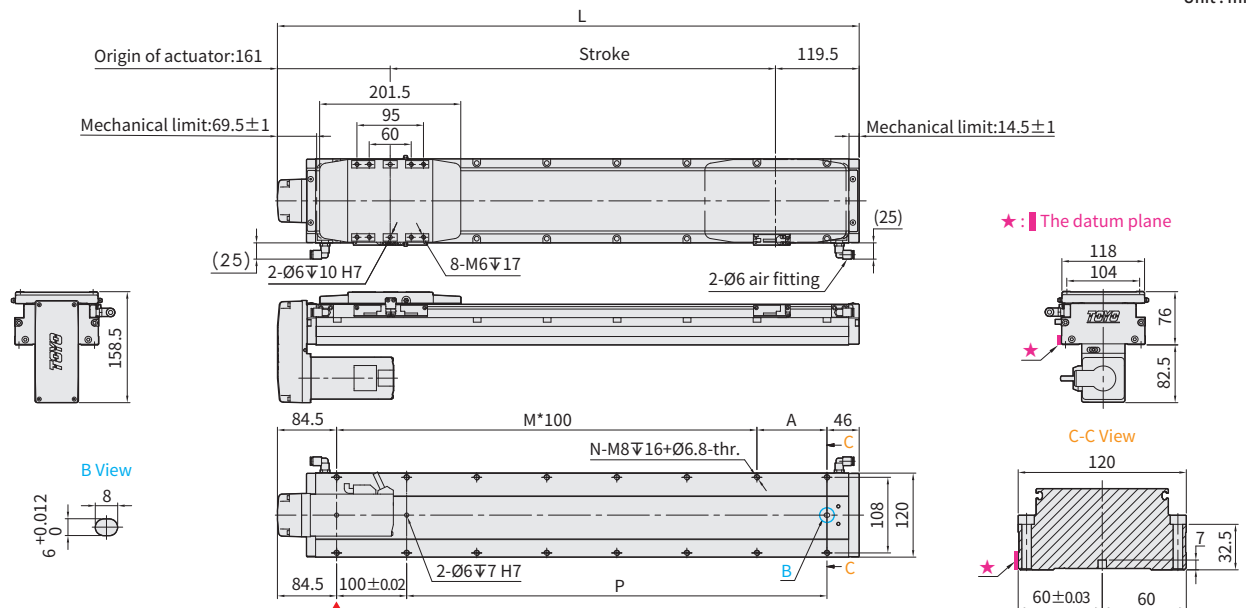
BC Motor Exposed

Unit : mm



BM Motor Bottom Side

Unit : mm



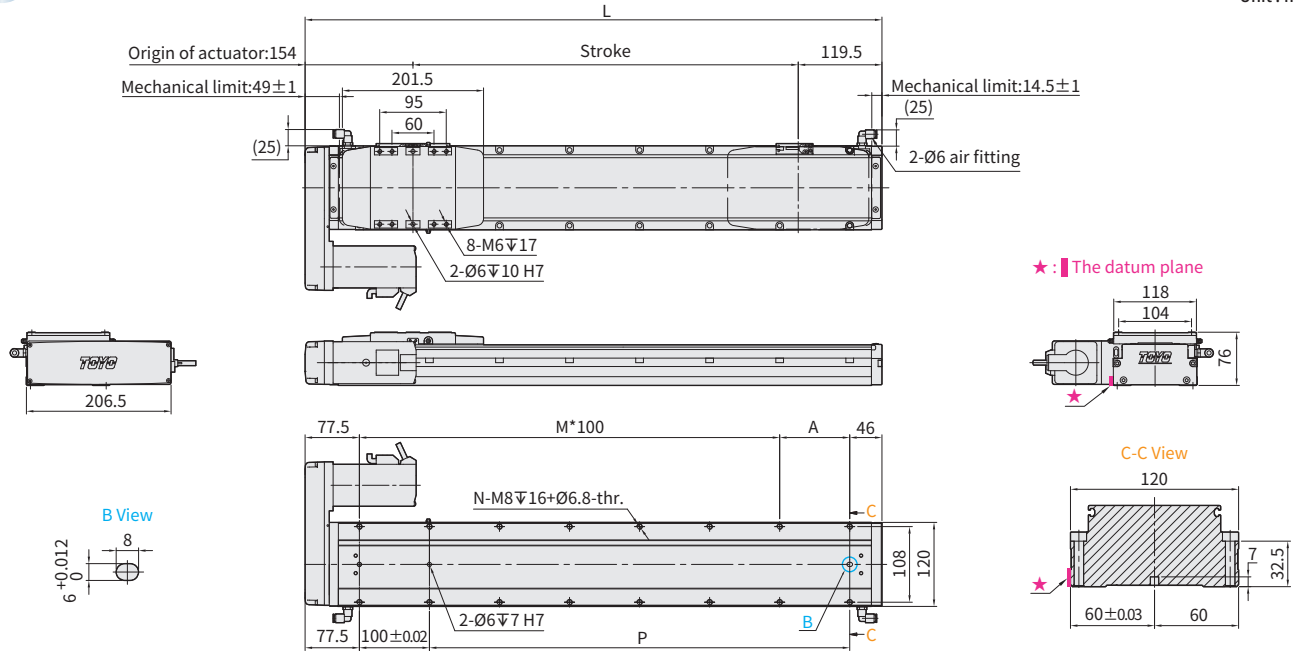
* Please note that this thread hole will be covered by motor.

Stroke		50 ⁻¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Limit Stroke (±1)		58.5	108.5	158.5	208.5	258.5	308.5	358.5	408.5	458.5	508.5	558.5	608.5	658.5	708.5	758.5	808.5	858.5	908.5	958.5	1008.5	1058.5	1108.5	1158.5	1208.5	1258.5
L	BC	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
	BM	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		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	BC	5.35	5.7	6.05	6.4	6.75	7.1	7.45	7.8	8.15	8.5	8.85	9.2	9.55	9.9	10.25	10.6	10.95	11.3	11.65	12	12.35	12.7	13.05	13.4	13.75
	BM	5.51	5.86	6.21	6.56	6.91	7.26	7.61	7.96	8.31	8.66	9.01	9.36	9.71	10.06	10.41	10.76	11.11	11.46	11.81	12.16	12.51	12.86	13.21	13.56	13.91
Linear Speed mm/s	Lead 6	360												350 310 270 240 210 190 170 160 140 130 120 110 100												
	Lead 12	720												700 620 540 480 420 380 340 320 280 260 240 220 200												
	Lead 24	1440												1400 1240 1080 960 840 760 680 640 560 520 480 440 400												

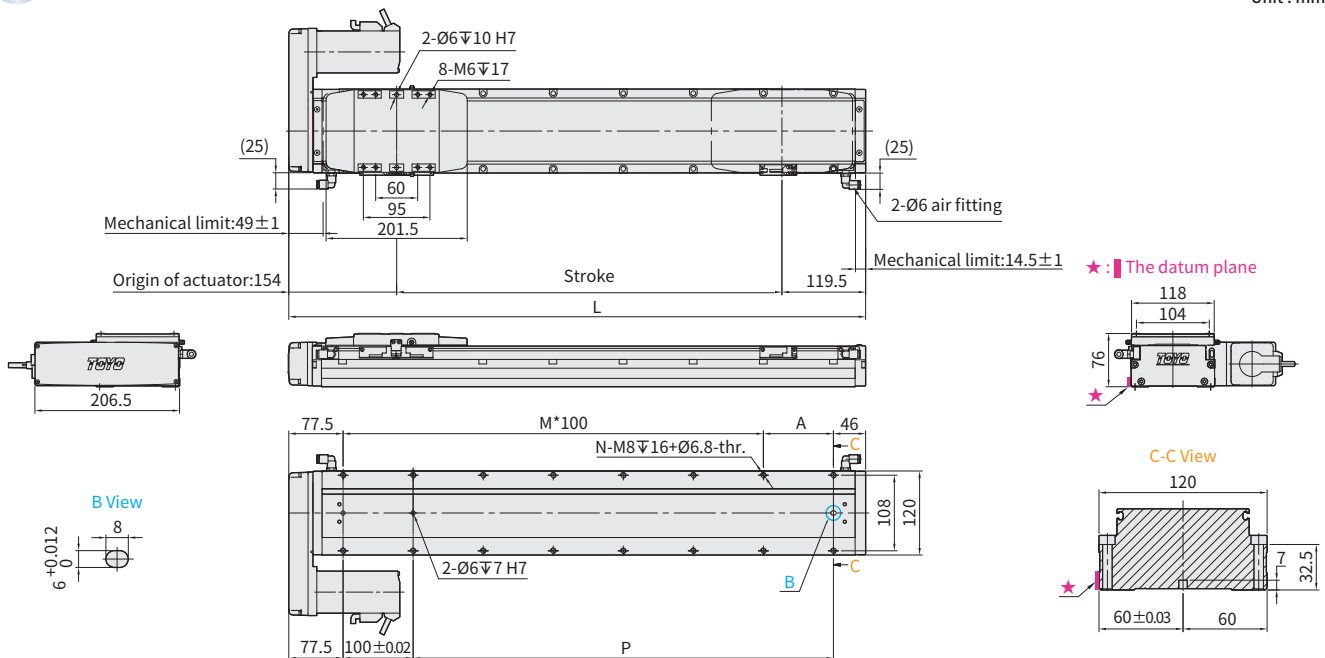
※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Download at www.toyorobot.com**BL** Motor Left Side

Unit : mm

**BR** Motor Right Side

Unit : mm



Stroke	50 ^{mm}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Limit Stroke (±1)	58.5	108.5	158.5	208.5	258.5	308.5	358.5	408.5	458.5	508.5	558.5	608.5	658.5	708.5	758.5	808.5	858.5	908.5	958.5	1008.5	1058.5	1108.5	1158.5	1208.5	1258.5
L	323.5	373.5	423.5	473.5	523.5	573.5	623.5	673.5	723.5	773.5	823.5	873.5	923.5	973.5	1023.5	1073.5	1123.5	1173.5	1223.5	1273.5	1323.5	1373.5	1423.5	1473.5	1523.5
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	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	5.55	5.9	6.25	6.6	6.95	7.3	7.65	8	8.35	8.7	9.05	9.4	9.75	10.1	10.45	10.8	11.15	11.5	11.85	12.2	12.55	12.9	13.25	13.6	13.95
Linear Speed mm/s	Lead 6	360										350										130	120	110	100
	Lead 12	720										700										260	240	220	200
	Lead 24	1440										1400										520	480	440	400

※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Application

Standard
Ball Screw Type
GLTH/GLMHStandard
Belt Type
GLTBCleanroom
Ball Screw Type
GLCHCleanroom
Belt Type
GLCBMulti Axis Type
XYGT /XYTH/XYTB

Reference

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5D

GLCH8D

GLCH5D 1-axis

▶ Integrated Linear Bearing

▶ Ball Screw Drive

Precision
±0.005 mm

Clean Room



Max. stroke 850mm

Max. Speed 1200mm/s

Motor Output 100W

Max Payload 30kg

Ordering Method

GLCH5D - L2 - 100 - BC - M10B - C4N5 - Refer to the right page. - 0001

Model Options Customization Order No.

Stroke		Motor Position		Motor Brand ~ Power Output		Home Sensor		Limit Sensor		Output type & Cable length	
50-850mm		BC Motor Bipolar		M Mitsubishi 05 - B ²		C Motor Side		1 1 Pin		M5 NPN+GND Cable	
40 mm Pitch		BM Motor Bottom Side		P Panasonic 10 100W		D Opposite Motor Side		2 2 Pins		P2 PNP+GND Cable	
		BL Motor Left Side		Y Yaskawa 20 -		No Sensor		3 3 Pins		P5 PNP+GND Cable	
		BR Motor Right Side		T Delta 40 -		E No Sensor		4 4 Pins			
								5 5 Pins			
								6 6 Pins			
								No Sensor			
								No Sensor			

* Motor-to-cable distance, 1m is recommended for 10A motor-to-cable distance.
Motor-to-cable distance 10m is recommended for 10A motor-to-cable distance. 10m is recommended for 10A motor-to-cable distance.
Motor-to-cable distance 10m is recommended for 10A motor-to-cable distance. 10m is recommended for 10A motor-to-cable distance.
* 4 Motor-to-cable distance, 10m is recommended for 10A motor-to-cable distance.

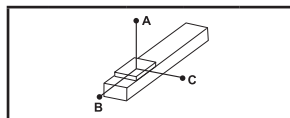
Specification

Performance	Repeatability		mm	±0.005			
	Lead		mm	2	6	12	20
	Maximum Rotating speed		rpm	3600	3600	3600	3600
	Maximum linear speed ^{※1}		mm/s	120	300	720	1200
	Maximum Payload ^{※2}	Horizontal	kg	30	25	22	10
		Vertical	kg	10	6	4	3
	Rated Thrust		N	854	285	142	85
	Stroke (increments)		mm	50-850mm /(50 increments)			
	Maximum acceleration		G	0.12	0.37	0.73	1.22
	Ball screw	Basic dynamic load rating Ca	N	2270	2243	1436	1384
		Basic static load rating Coa	N	4836	3959	2441	2535
	Linear Guide	Dynamic horizontal (100km)	N	6563			
		Static Horizontal	N	13587			
	Fixed bearing	Basic dynamic load rating Cr	N	5361			
		Static load rating Cor	N	2880			
Parts	AC Servo Motor Output		W	100			
	Ball Screw Ø		mm	C7Ø10			
	Coupling		mm	7X8			
	Home Sensor	Outside		T64N2 (NPN+2M Cable)			

※1 During in a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

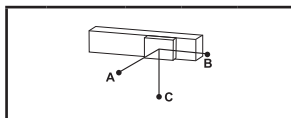
※2 Since the motor performance of each brand is different, a regenerative resistor needs to be appropriately matched to achieve this load condition.

Allowable Overhang



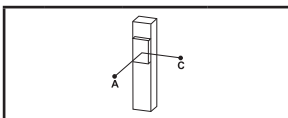
(Unit : mm)

Horizontal Installation		A	B	C
2 Lead	10kg	2500	157	250
	20kg	1120	70	112
	30kg	650	41	65
6 Lead	10kg	1400	122	184
	20kg	650	52	79
	25kg	490	38	57
12 Lead	8kg	590	132	175
	10kg	460	103	135
	22kg	185	37	49
20 Lead	3kg	656	300	303
	6kg	314	141	144
	10kg	177	78	79



(Unit : mm)

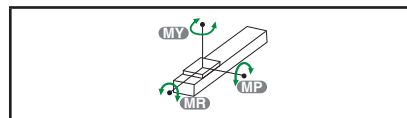
Wall Installation		A	B	C
2 Lead	10kg	250	157	2500
	20kg	112	70	1120
	30kg	65	41	650
6 Lead	10kg	184	122	1400
	20kg	79	52	650
	25kg	57	38	490
12 Lead	8kg	175	132	590
	10kg	135	103	460
	22kg	49	37	185
20 Lead	3kg	303	300	656
	6kg	144	141	314
	10kg	79	78	177



(Unit : mm)

Vertical Installation		A	C
2 Lead	5kg	346	346
	10kg	173	173
	-	-	-
6 Lead	3kg	463	463
	6kg	231	231
	-	-	-
12 Lead	2.5kg	465	465
	4kg	292	292
	-	-	-
20 Lead	1.5kg	555	555
	3kg	278	278
	-	-	-

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 0.2 seconds.

選配 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	Motor Position	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.113 ~ P.115
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Keyway Belt Pulley	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley(Please purchase and install by yourself)	

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5D

GLCH8D

GLCH5D 1-axis

Integrated Linear
Bearing

Ball Screw
Drive

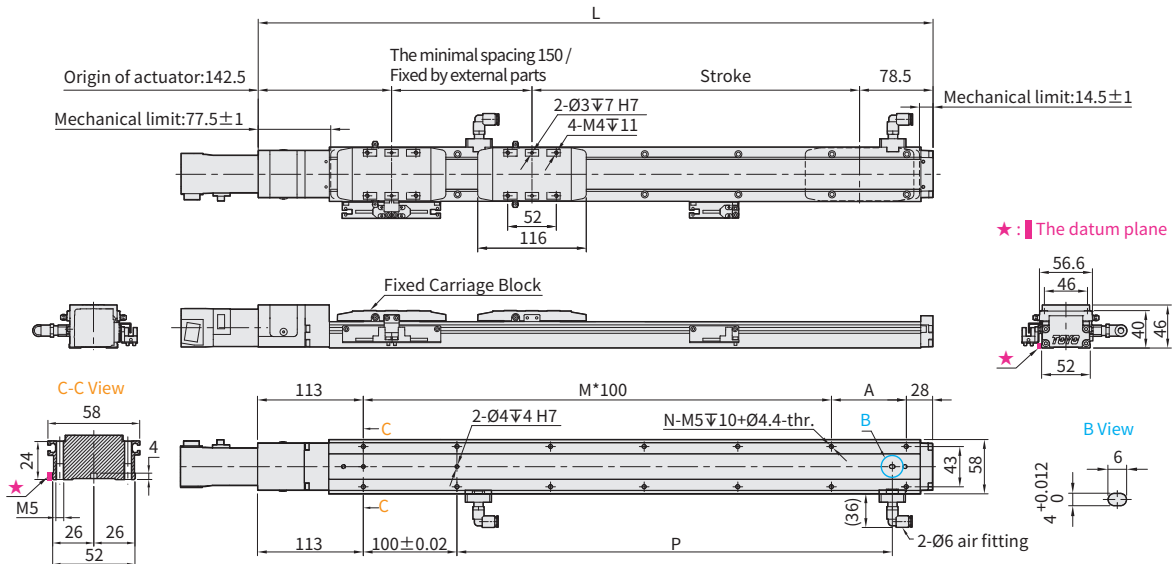


Download at www.toyorobot.com

BC

Motor Exposed

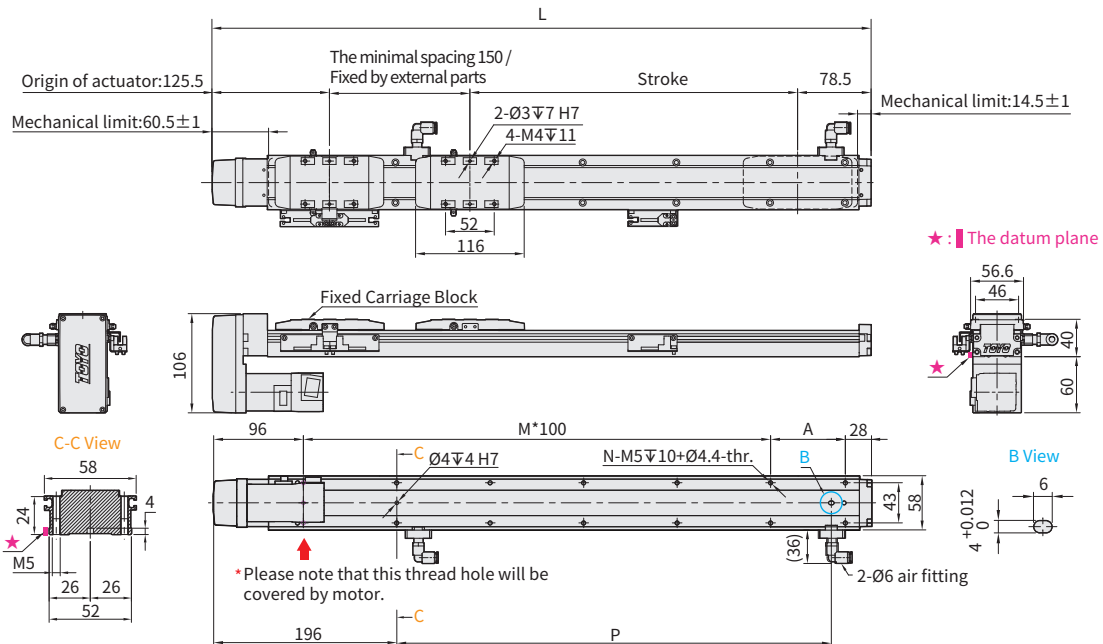
Unit : mm



BM

Motor Bottom Side

Unit : mm

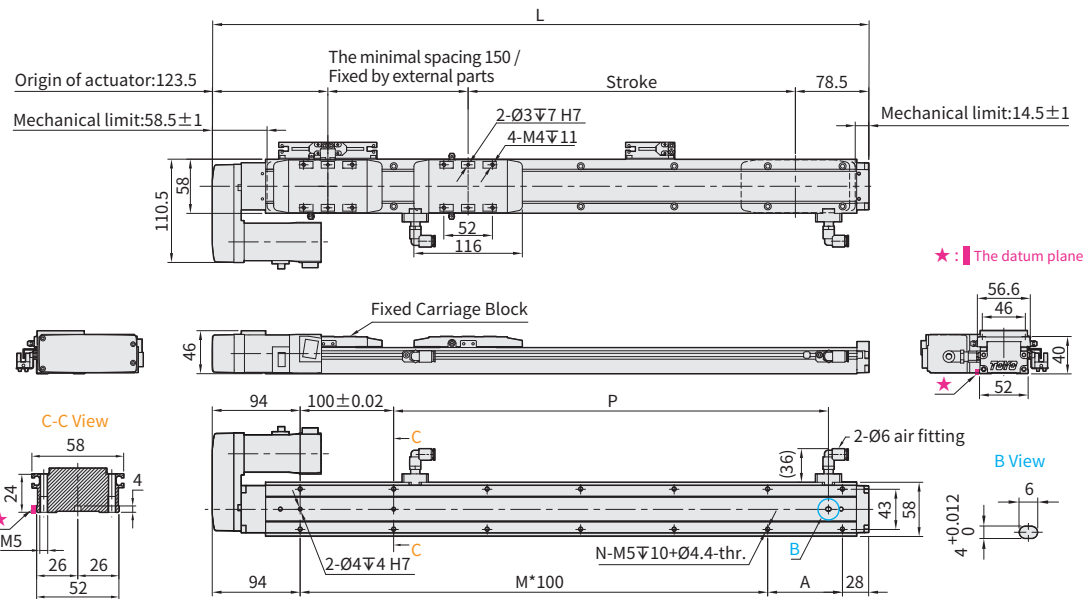


Stroke	50 ^{±1}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Limit Stroke (±1)	63	113	163	213	263	313	363	413	463	513	563	613	663	713	763	813	863
L	BC	421	471	521	571	621	671	721	771	821	871	921	971	1021	1071	1121	1221
	BM	404	454	504	554	604	654	704	754	804	854	904	954	1004	1054	1104	1204
A	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80
M	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
N	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
P	165	215	265	315	365	415	465	515	565	615	665	715	765	815	865	915	965
KG	BC	1.61	1.74	1.86	1.99	2.12	2.24	2.37	2.50	2.62	2.75	2.88	3.00	3.13	3.25	3.38	3.51
	BM	1.71	1.84	1.96	2.09	2.22	2.34	2.47	2.60	2.72	2.85	2.98	3.10	3.23	3.35	3.48	3.61
Linear Speed mm/s	Lead 2	120						110	90	80	70	63	53	50	43	40	36
	Lead 6	360						330	270	240	210	190	160	150	130	120	110
	Lead 12	720						660	540	480	420	380	320	300	260	240	220
	Lead 20	1200						1100	900	800	700	633	533	500	433	400	367

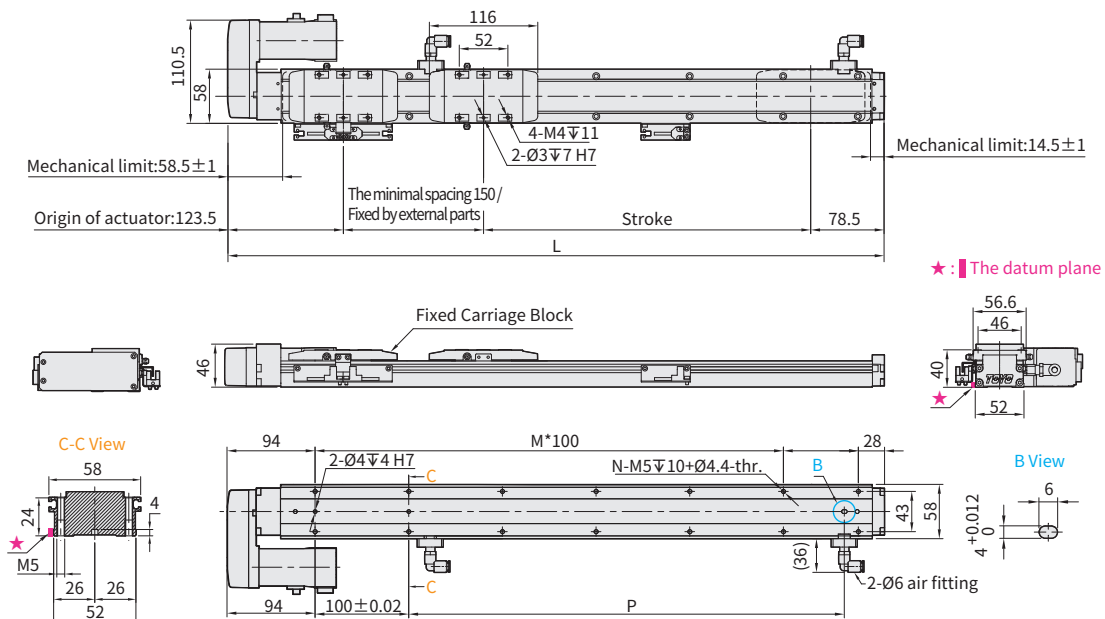
※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Download at www.toyorobot.com**BL** Motor Left Side

Unit : mm

**BR** Motor Right Side

Unit : mm



Stroke	50 ¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Limit Stroke (±1)	63	113	163	213	263	313	363	413	463	513	563	613	663	713	763	813	863
L	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202
A	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80
M	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
N	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
P	165	215	265	315	365	415	465	515	565	615	665	715	765	815	865	915	965
KG	1.71	1.84	1.96	2.09	2.22	2.34	2.47	2.60	2.72	2.85	2.98	3.10	3.23	3.35	3.48	3.61	3.73
Linear Speed mm/s	Lead 2	120						110	90	80	70	63	53	50	43	40	36
	Lead 6	360						330	270	240	210	190	160	150	130	120	110
	Lead 12	720						660	540	480	420	380	320	300	260	240	220
	Lead 20	1200						1100	900	800	700	633	533	500	433	400	367

※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Application

Standard
Ball Screw Type
GLTH/GLMHStandard
Belt Type
GLTBCleanroom
Ball Screw Type
GLCHCleanroom
Belt Type
GLCBMulti Axis Type
XYGT /XYTH/XYTB

Reference

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5D

GLCH8D

GLCH8D 1-axis

▶ Integrated Linear Bearing

▶ Ball Screw Drive

Precision
 ± 0.005 mm

Clean Room



Max. stroke 1050mm

Max. Speed 1440mm/s

Motor Output 200W

Max Payload 80kg

Ordering Method

GLCH8D - L6 - 100 - BC - M20B - C4N5 - Motor to the right page. - 0001

Model Options Customization Order No.

Ball Screw Lead		Motor Position		Motor Brand - Power Output		Home Sensor		Limit Sensor		Output type & Cable length	
6	3mm	BC	Motor Backward	M	Mitsubishi	05	-	B ¹	C	Motor Side	
12	1.5mm	BM	Motor Bottom Side	P	Panasonic	10	-		D	Opposite Motor Side	
24	0.7mm	BL	Motor Left Side	Y	Yaskawa	20	300W			No Sensor	
		BR	Motor Right Side	T	Delta	40	-		E	No Sensor	

¹ Motor to the right side, the motor to the left side is not available.
 Motor to the left side, the motor to the right side is not available.
 Motor to the left side, the motor to the right side is not available.
 Motor to the left side, the motor to the right side is not available.

Specification

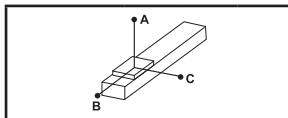
Performance	Repeatability		mm	±0.005		
	Lead		mm	6	12	24
	Maximum Rotating speed		rpm	3600	3600	3600
	Maximum linear speed ※1		mm/s	360	720	1440
	Maximum Payload ※2	Horizontal	kg	80	60	40
		Vertical	kg	15	8	5
	Rated Thrust		N	569	284	142
	Stroke (increments)		mm	50-1050mm /(50 increments)		
	Maximum acceleration		G	0.37	0.73	1.47
	Ball screw	Basic dynamic load rating Ca	N	7733	5855	3007
		Basic static load rating Coa	N	14200	10401	5414
	Linear Guide	Dynamic horizontal (100km)	N	18601		
		Static Horizontal	N	34189		
Parts	Fixed bearing	Basic dynamic load rating Cr	N	8447		
		Static load rating Cor	N	5060		
	AC Servo Motor Output		W	200		
	Ball Screw Ø		mm	C7Ø14		
	Coupling		mm	10X14 /11 ※3		
	Home Sensor	Outside		T64N2 (NPN+2M Cable)		

※1 During in a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

※2 Since the motor performance of each brand is different, a regenerative resistor needs to be appropriately matched to achieve this load condition.

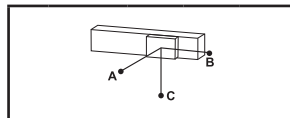
※3 Motor (200W) Shaft Diameter: Panasonic: 11mm; Other: 14mm.

Allowable Overhang



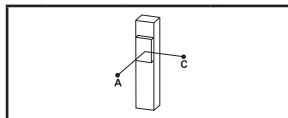
(Unit : mm)

Horizontal Installation		A	B	C
Lead 6	35kg	1600	139	220
	45kg	1210	102	160
	80kg	620	46	74
Lead 12	10kg	2040	470	645
	30kg	638	141	193
	60kg	283	58	80
Lead 24	20kg	253	145	133
	40kg	109	60	55
	-	-	-	-



(Unit : mm)

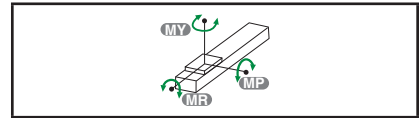
Wall Installation		A	B	C
Lead 6	35kg	220	139	1600
	45kg	160	102	1210
	80kg	74	46	620
Lead 12	10kg	645	470	2040
	30kg	193	141	638
	60kg	80	58	283
Lead 24	20kg	133	145	253
	40kg	55	60	109
	-	-	-	-



(Unit : mm)

Vertical Installation		A	C
Lead 6	10kg	535	535
	15kg	360	360
	-	-	-
Lead 12	3.5kg	1380	1380
	8kg	605	605
	-	-	-
Lead 24	2kg	1380	1380
	5kg	556	556
	-	-	-

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 the motor acceleration and deceleration for 0.2 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	Motor Position	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.113 ~ P.115
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Keyway Belt Pulley	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

GLCH8D 1-axis

Integrated Linear
Bearing

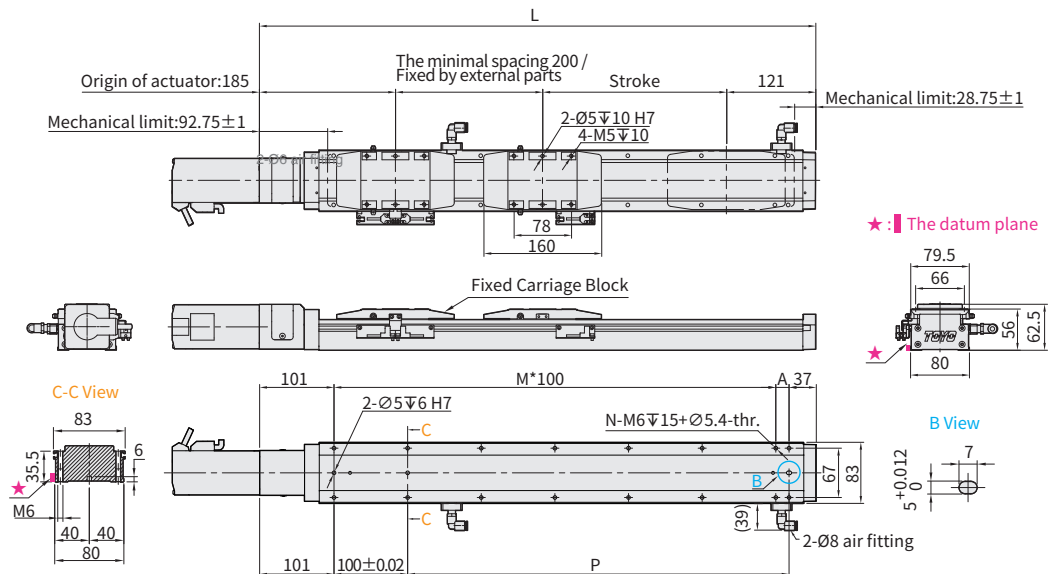
Ball Screw
Drive



Download at www.toyorobot.com

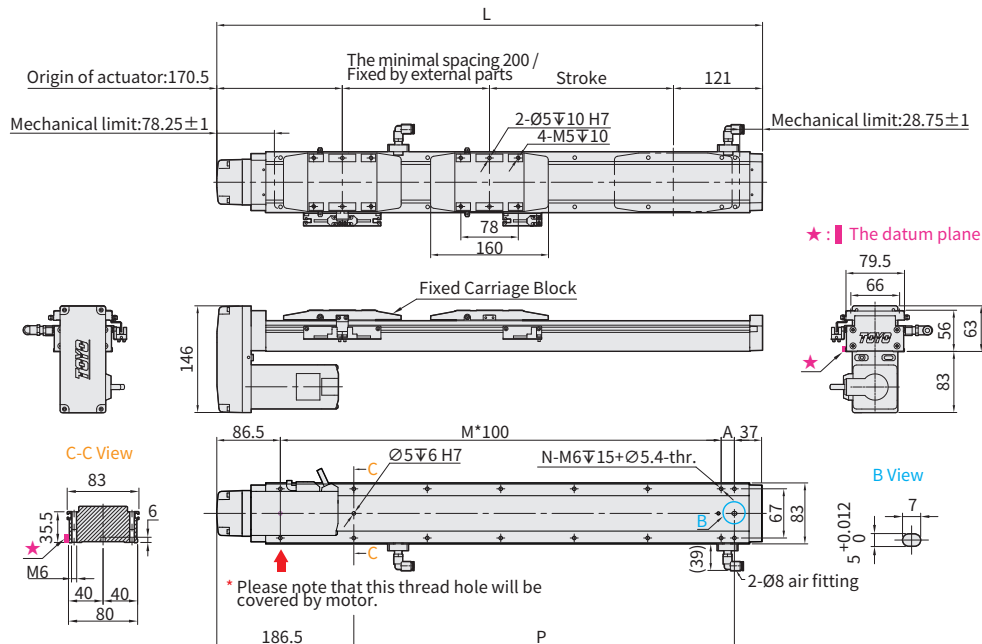
BC Motor Exposed

Unit : mm



BM Motor Bottom Side

Unit : mm

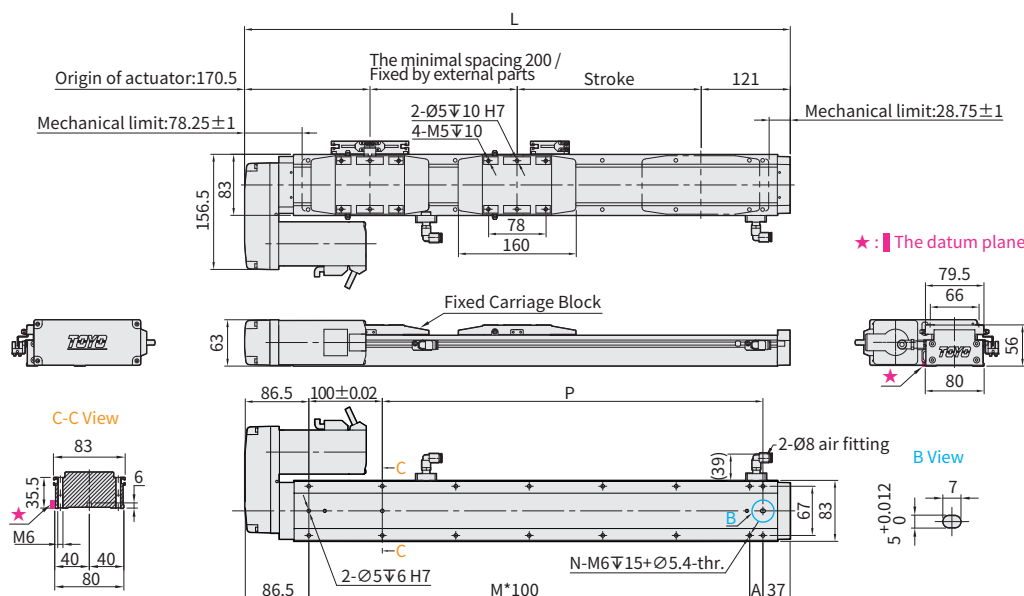


Stroke		50 ⁻¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	
Limit Stroke (±1)		74.5	124.5	174.5	224.5	274.5	324.5	374.5	424.5	474.5	524.5	574.5	624.5	674.5	724.5	774.5	824.5	874.5	924.5	974.5	1024.5	1074.5	
L	BC	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156	1206	1256	1306	1356	1406	1456	1506	1556	
	BM	541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5	1541.5	
A		18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	
M		4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	
N		12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	
P		318	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318	
KG	BC	3.93	4.23	4.53	4.82	5.12	5.41	5.71	6.01	6.31	6.6	6.9	7.19	7.49	7.79	8.08	8.38	8.68	8.97	9.27	9.57	9.86	
	BM	4.31	4.6	4.9	5.19	5.49	5.79	6.08	6.38	6.68	6.97	7.27	7.57	7.86	8.16	8.45	8.75	9.05	9.34	9.64	9.94	10.23	
Linear Speed mm/s	Lead 6	360						350			310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720						700			620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440						1400			1240	1080	960	840	760	680	640	560	520	480	440	400	360

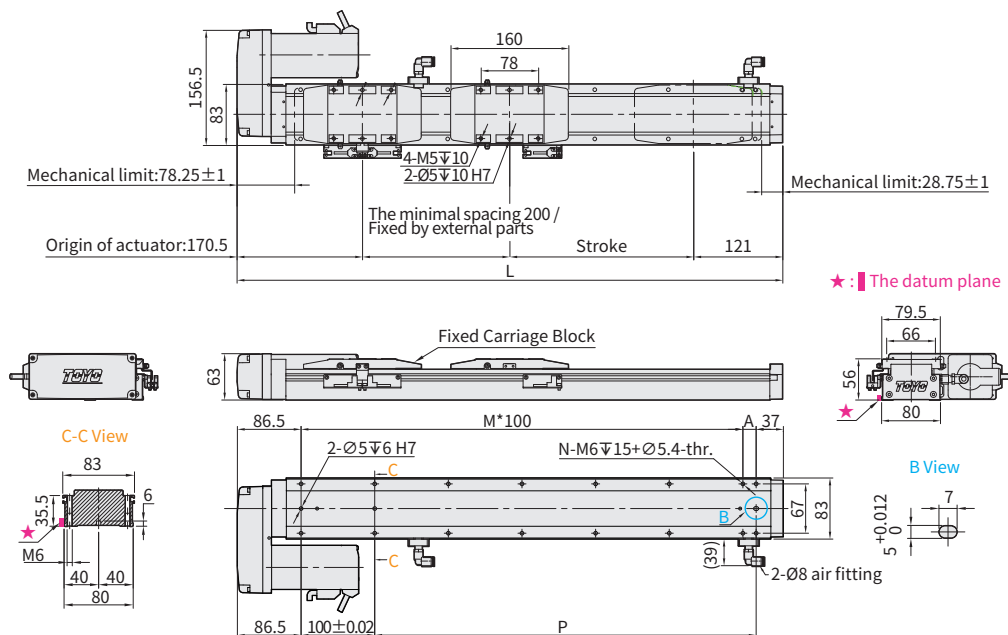
※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Download at www.toyorobot.com**BL** Motor Left Side

Unit: mm

**BR** Motor Right Side

Unit: mm



Stroke		50 ⁻¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
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
L		541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5	1541.5
A		18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18
M		4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14
N		12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32
P		318	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318
KG		4.31	4.6	4.9	5.19	5.49	5.79	6.08	6.38	6.68	6.97	7.27	7.57	7.86	8.16	8.45	8.75	9.05	9.34	9.64	9.94	10.23
Linear Speed mm/s	Lead 6	360						350		310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720						700		620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440						1400		1240	1080	960	840	760	680	640	560	520	480	440	400	360

※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Application

Standard
Ball Screw Type
GLTH/GLMHStandard
Belt Type
GLTBCleanroom
Ball Screw Type
GLCHCleanroom
Belt Type
GLCBMulti Axis Type
XYGT /XYTH/XYTB

Reference

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5D

GLCH8D

GLCH8D 1-axis

▶ Integrated Linear Bearing

▶ Ball Screw Drive

Precision
 ± 0.005 mm

Clean Room



Max. stroke 1050mm

Max. Speed 1440mm/s

Motor Output 400W

Max Payload 80kg

Ordering Method

GLCH8D - L6 - 100 - BC - M40B - C4N5 - Refer to the right page. - 0001

Model

Options

Customization
Order No.

Stroke
50-1050mm
40 mm Pitch

Ball Screw Lead

6	6mm
12	12mm
24	24mm

Motor Position

BC	Motor Backward
BM	Motor Bottom Side
BL	Motor Left Side
BR	Motor Right Side

Motor Brand - Power Output

M	Mitsubishi	05	-	B*
P	Panasonic	10	-	
Y	Yaskawa	20	-	
T	Delta	40	400W	

Home Sensor

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

Limit Sensor

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

Output type & Cable length

M1	MPH-2M Cable
P2	MPH-2M Cable
P3	MPH-2M Cable
-	MPH-2M Cable

* Motor-to-sensor distance, 2m or more is required for the Motor-to-sensor distance.
Motor-to-sensor distance (M1) is 2m or more and Motor-to-sensor distance (M2) is 2m or more.
Motor-to-sensor distance (M3) is 2m or more and Motor-to-sensor distance (M4) is 2m or more.
* If Motor-to-sensor distance is 2m or more, the Motor-to-sensor distance is 2m or more.

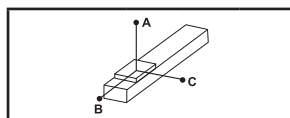
Specification

Performance	Repeatability		mm	±0.005		
	Lead		mm	6	12	24
	Maximum Rotating speed		rpm	3600	3600	3600
	Maximum linear speed ^{※1}		mm/s	360	720	1440
	Maximum Payload ^{※2}	Horizontal	kg	105	85	40
		Vertical	kg	30	20	10
	Rated Thrust		N	1156	578	289
	Stroke (increments)		mm	50-1050mm /(50 increments)		
	Maximum acceleration		G	0.37	0.73	1.47
	Ball screw	Basic dynamic load rating Ca	N	7733	5855	3007
		Basic static load rating Coa	N	14200	10401	5414
	Linear Guide	Dynamic horizontal (100km)	N	18601		
		Static Horizontal	N	34189		
Parts	Fixed bearing	Basic dynamic load rating Cr	N	8447		
		Static load rating Cor	N	5060		
	AC Servo Motor Output		W	400		
	Ball Screw Ø		mm	C7Ø14		
Coupling			mm	10X14		
Home Sensor		Outside		T64N2 (NPN+2M Cable)		

※1 During in a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

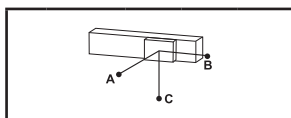
※2 Since the motor performance of each brand is different, a regenerative resistor needs to be appropriately matched to achieve this load condition.

Allowable Overhang



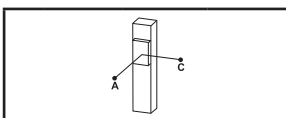
(Unit : mm)

Horizontal Installation		A	B	C
Lead 6	30kg	1900	165	261
	50kg	1080	88	140
	105kg	434	29	47
Lead 12	25kg	780	175	240
	35kg	530	117	160
	85kg	175	33	46
Lead 24	4kg	1400	820	750
	12kg	440	257	235
	40kg	109	60	55



(Unit : mm)

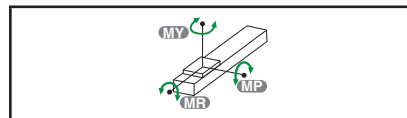
Wall Installation		A	B	C
Lead 6	30kg	261	165	1900
	50kg	140	88	1080
	105kg	47	29	434
Lead 12	25kg	240	175	780
	35kg	160	117	530
	85kg	46	33	175
Lead 24	4kg	750	820	1400
	12kg	235	257	440
	40kg	55	60	109



(Unit : mm)

Vertical Installation		A	C
Lead 6	6kg	335	335
	30kg	180	180
	-	-	-
Lead 12	12kg	400	400
	20kg	240	240
	-	-	-
Lead 24	6kg	460	460
	10kg	275	275
	-	-	-

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 the motor acceleration and deceleration for 0.2 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	Motor Position	Shipment Type	
CMK	Single (Limited to the motor side)	BC	Keyway Coupling	P.113 ~ P.115
		BL/BR/BM	Keyway Belt Pulley	
SKY	Double	BC	Keyway Coupling	
		BL/BR/BM	Keyway Belt Pulley	
SKN	Double	BC	Without Coupling (Please purchase and install by yourself)	
		BL/BR/BM	Without Belt Pulley (Please purchase and install by yourself)	

GLCH Series

GLCH5

GLCH8

GLCH12

GLCH5D

GLCH8D

GLCH8D 1-axis

Integrated Linear
Bearing

Ball Screw
Drive

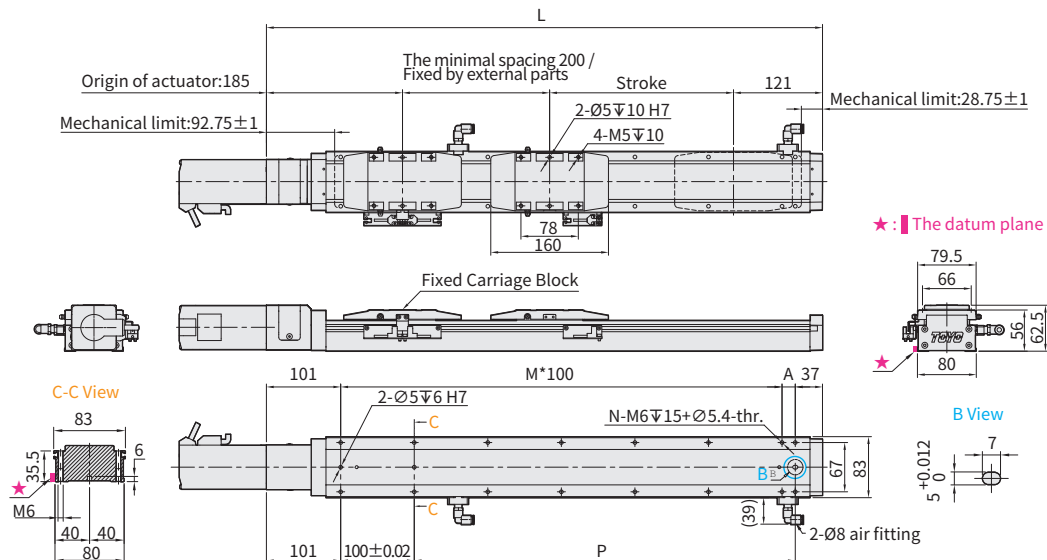


Download at www.toyorobot.com



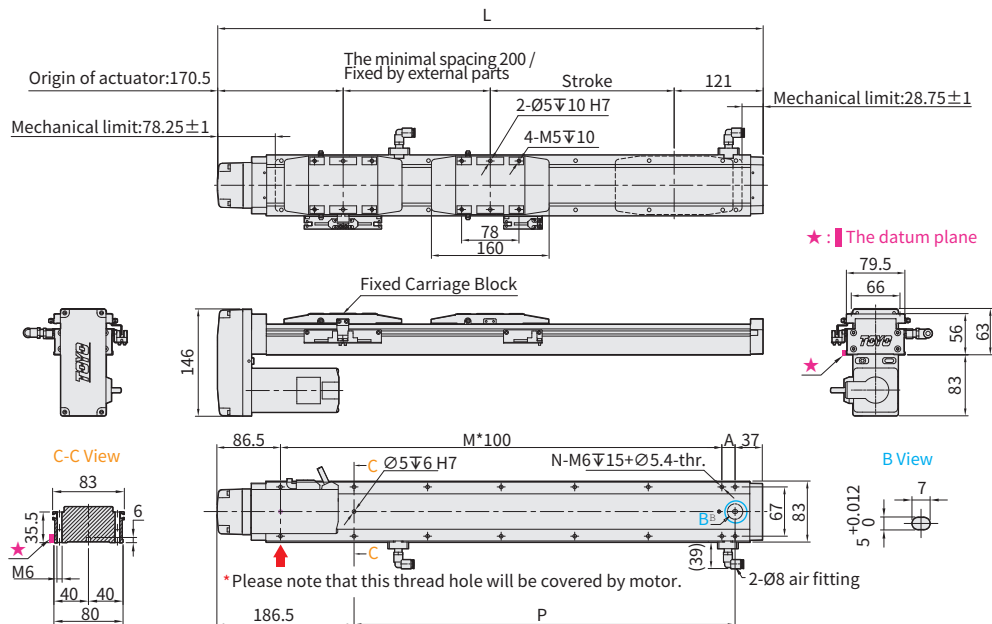
Motor Exposed

Unit : mm



Motor Bottom Side

Unit : mm

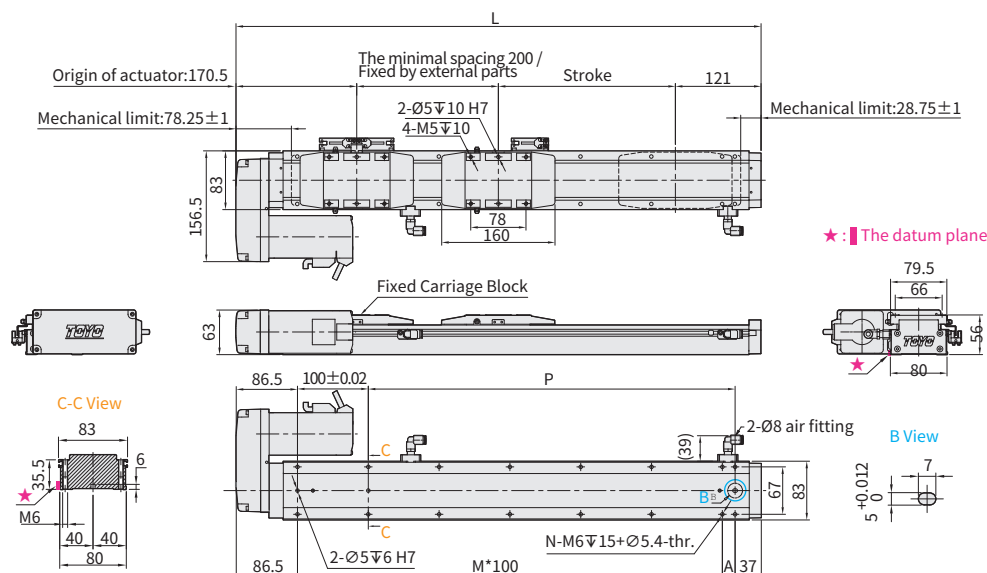


Stroke		50 ^{±1}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	
Limit Stroke (±1)		74.5	124.5	174.5	224.5	274.5	324.5	374.5	424.5	474.5	524.5	574.5	624.5	674.5	724.5	774.5	824.5	874.5	924.5	974.5	1024.5	1074.5	
L	BC	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156	1206	1256	1306	1356	1406	1456	1506	1556	
	BM	541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5	1541.5	
A		18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	
M		4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	
N		12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	
P		318	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318	
KG	BC	3.93	4.23	4.53	4.82	5.12	5.41	5.71	6.01	6.31	6.6	6.9	7.19	7.49	7.79	8.08	8.38	8.68	8.97	9.27	9.57	9.86	
	BM	4.31	4.6	4.9	5.19	5.49	5.79	6.08	6.38	6.68	6.97	7.27	7.57	7.86	8.16	8.45	8.75	9.05	9.34	9.64	9.94	10.23	
Linear Speed mm/s	Lead 6	360							350		310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720							700		620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440							1400		1240	1080	960	840	760	680	640	560	520	480	440	400	360

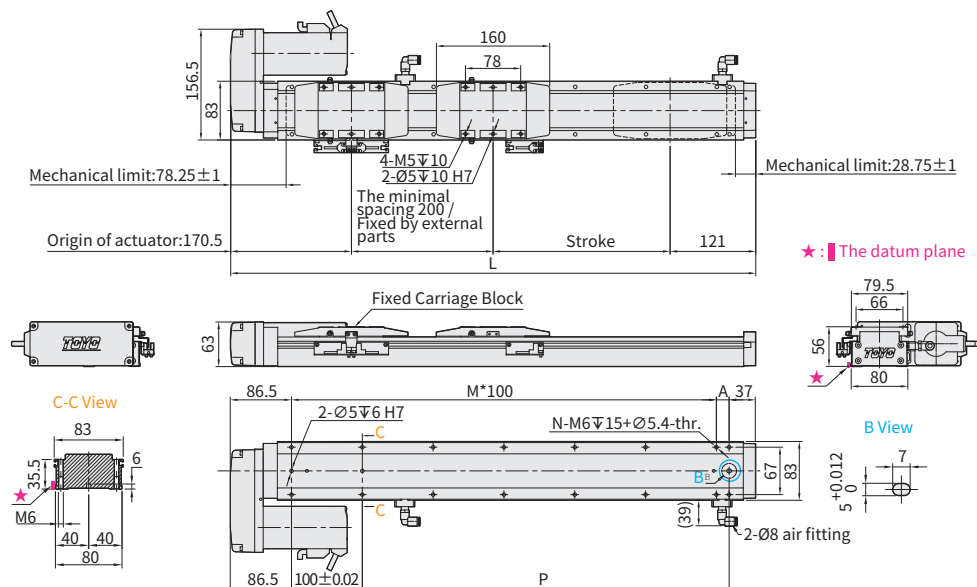
※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Download at www.toyorobot.com**BL** Motor Left Side

Unit : mm

**BR** Motor Right Side

Unit : mm



Stroke	50 ⁻¹	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050			
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			
L	541.5	591.5	641.5	691.5	741.5	791.5	841.5	891.5	941.5	991.5	1041.5	1091.5	1141.5	1191.5	1241.5	1291.5	1341.5	1391.5	1441.5	1491.5	1541.5			
A	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18			
M	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14			
N	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32			
P	318	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318			
KG	4.31	4.6	4.9	5.19	5.49	5.79	6.08	6.38	6.68	6.97	7.27	7.57	7.86	8.16	8.45	8.75	9.05	9.34	9.64	9.94	10.23			
Linear Speed mm/s	Lead 6	360					350					310	270	240	210	190	170	160	140	130	120	110	100	90
	Lead 12	720					700					620	540	480	420	380	340	320	280	260	240	220	200	180
	Lead 24	1440					1400					1240	1080	960	840	760	680	640	560	520	480	440	400	360

※1 When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.

Application

Standard
Ball Screw Type
GLTH/GLMHStandard
Belt Type
GLTBCleanroom
Ball Screw Type
GLCHCleanroom
Belt Type
GLCBMulti Axis Type
XYGT/XYTH/XYTB

Reference

GLCH Series

GLCH5

GLCH8

GLCH12

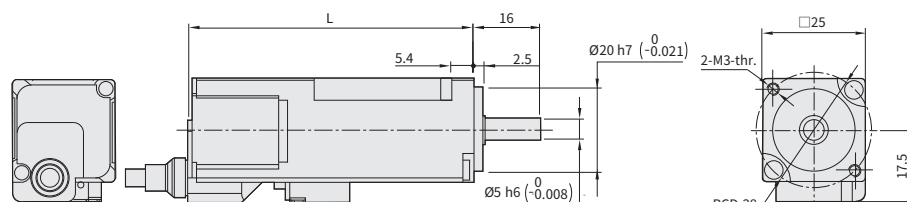
GLCH5D

GLCH8D

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 Resolutiss 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	

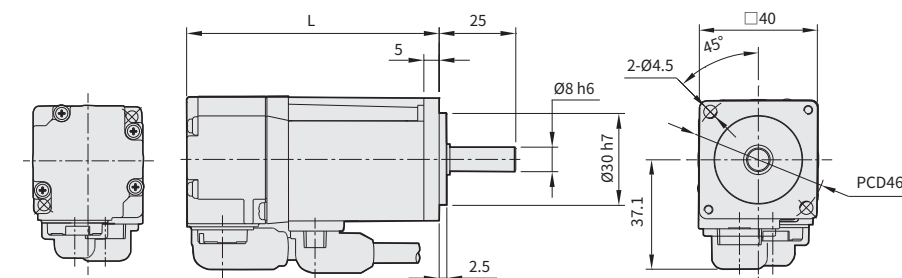
Model	30W	L
HG-AK0336	No Brake	68
HG-AK0336B	With Brake	100



30W

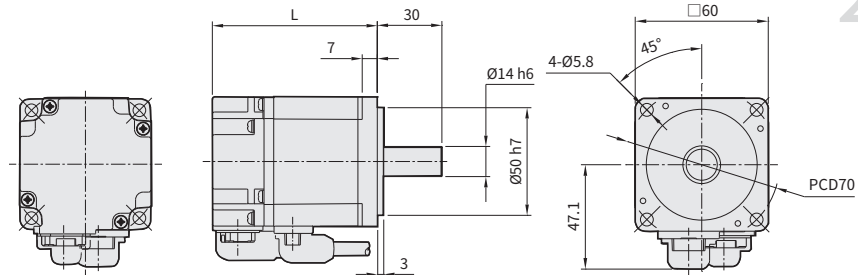
Model	50W	L
HG-KR053	No Brake	66.4
HG-KR053B	With Brake	107

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



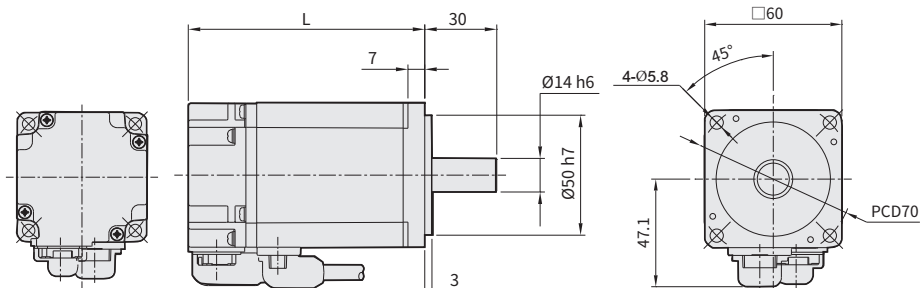
50/100W

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



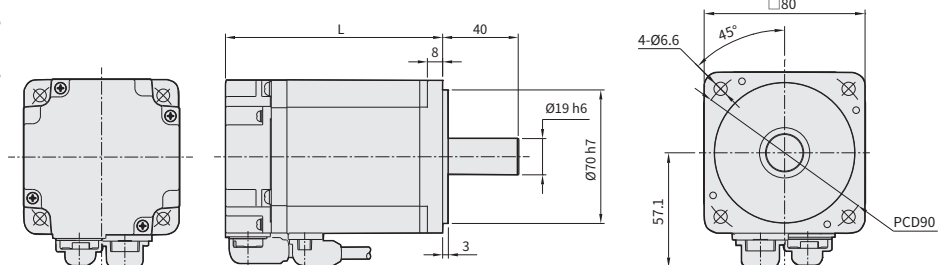
200W

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



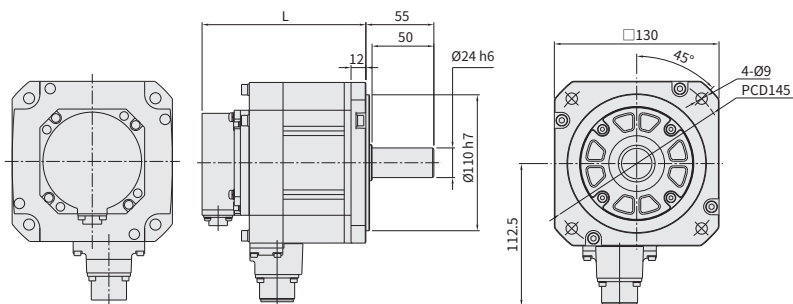
400W

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



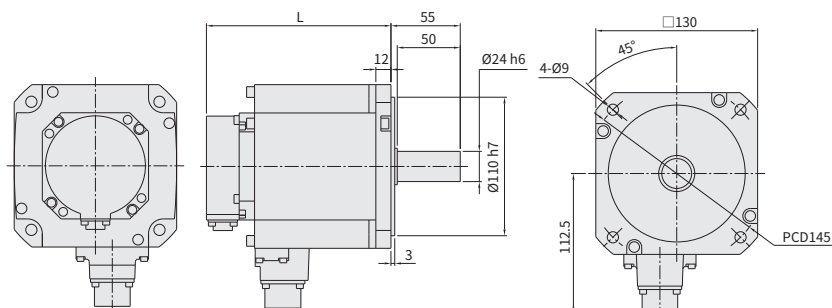
750W

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

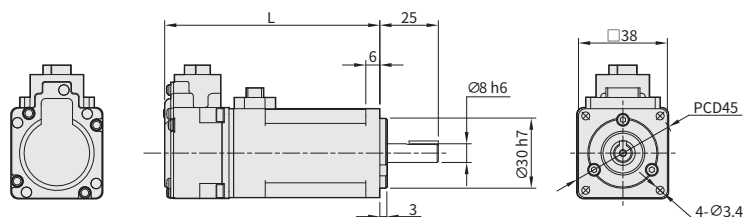


1500W

Panasonic Servo Motor Information

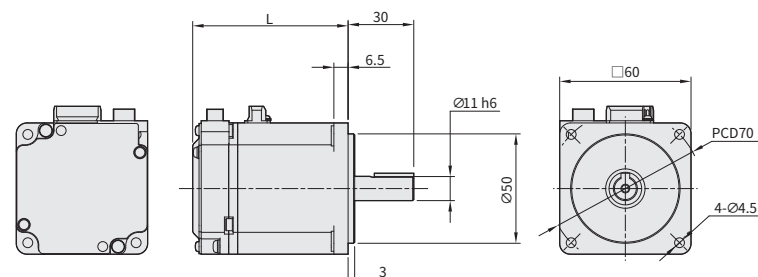
Servo Motor		No Brake	MSMF5AZL1U	MSMF012L1U	MHMF022L1U	MHMF042L1U	MHMF082L1U	MDMF102L1G	MDMF152L1G
		With Brake	MSMF5AZL1V	MSMF012L1V	MHMF022L1V	MHMF042L1V	MHMF082L1V	MDMF102L1H	MDMF152L1H
Motor Drives			MADLT05SF	MADLT05SF	MADLT15SF	MBDLT25SF	MCDLT35SF	MDDLT45SF	MDDLT55SF
Power Supply Capacity			0.5	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

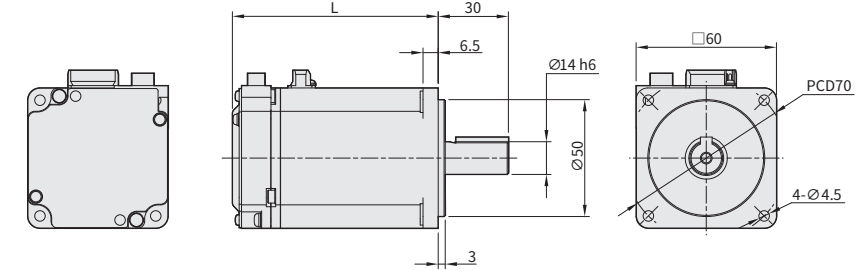
Model	200W	L
MHMF022L1U	No Brake	71
MHMF022L1V	With Brake	100.3



200W

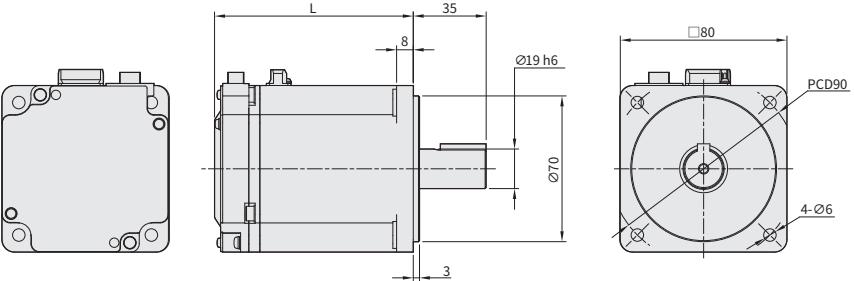
Model	400W	L
MHMF042L1U	No Brake	88
MHMF042L1V	With Brake	117.3

400W



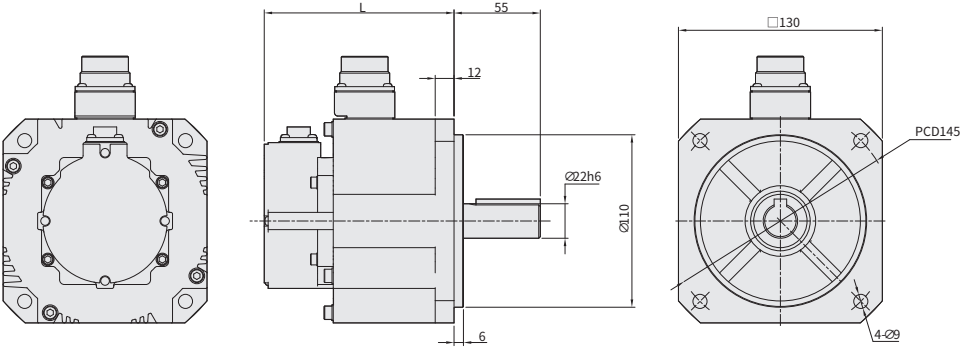
Model	750W	L
MHMF082L1U	No Brake	95.4
MHMF082L1V	With Brake	129

750W



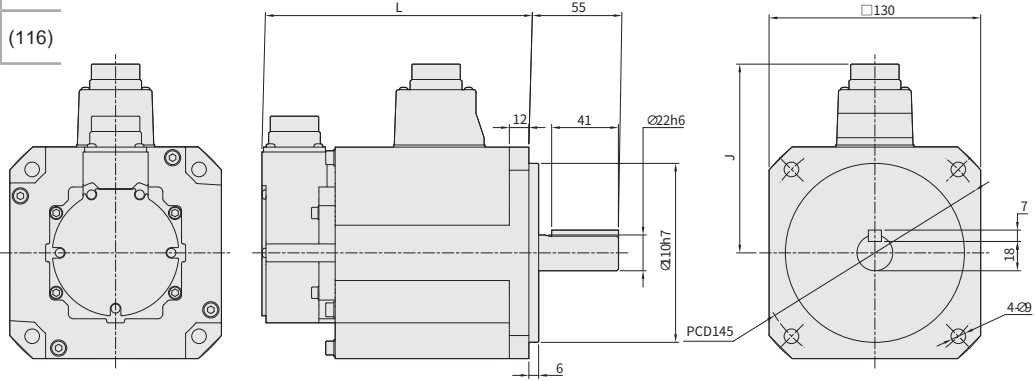
Model	1000W	L
MDMF102L1G	No Brake	122
MDMF102L1H	With Brake	150

1000W



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

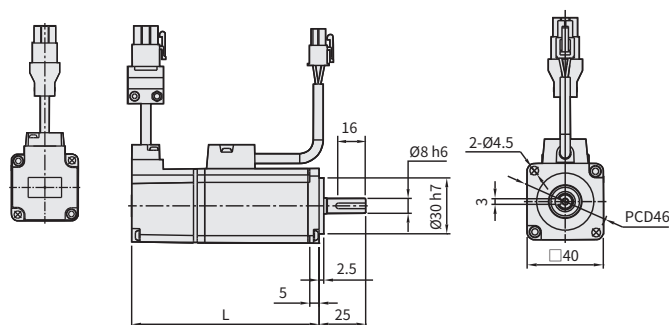
1500W



Delta Servo Motor Information

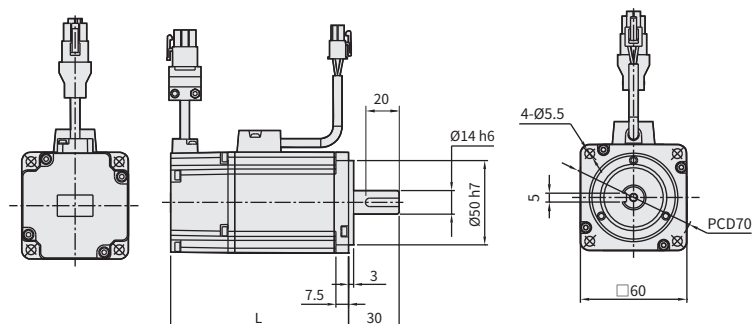
Servo Motor	No Brake	ECMA-C1040FES	ECMA-C20401ES	ECMA-C20602ES	ECMA-C20604ES	ECMA-C20807ES	ECMA-E11310ES	ECMA-E11315ES	
	With Brake	ECMA-C1040FFS	ECMA-C20401FS	ECMA-C20602FS	ECMA-C20604FS	ECMA-C20807FS	ECMA-E11310FS	ECMA-E11315FS	
Motor Drives		ASD-A2-0121-M	ASD-B2-0121-B	ASD-B2-0221-B	ASD-B2-0421-B	ASD-B2-0721-B	ASD-B2-1021-B	ASD-B2-1521-B	
Power Consumption		50	100	200	400	750	1000	1500	
Rated Torque		0.159	0.32	0.64	1.27	2.39	4.77	7.16	
Instantaneous Maximum Torque		0.477	0.96	1.92	3.82	7.16	14.3	21.48	
Rated Current		0.69	0.9	1.55	2.6	5.1	5.6	8.3	
Maximum Current		2.05	2.7	4.65	7.8	15.3	16.8	24.9	
Rated Speed		3000						2000	
Maximum Speed		5000						3000	
load Inertia (X10~4 kg.m2)	No Brake	0.0206	0.037	0.177	0.277	1.13	8.41	11.18	
	With Brake	0.0236	0.04	0.192	0.3	1.18	9.14	11.9	
Controller	Type	Incremental 20 bit	Incremental, Share With 17 Bit Controller					Incremental, Share With 20 Bit Controller	
	Encuder Resolutiess Of Servo Motor	160000 p/rev							
Structure		Natural-cooling,Open (IP Rating:IP65)							
Environmental Conditions	Ambient Temperature	0°C ~40°C , -10°C ~80°C Non-freezing							
	Ambient Humidty	20%~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							
	Vibration	2.5G							
Weight(kg)	No Brake	0.42	0.5	1.2	1.6	3	7	7.5	
	With Brake	0.72	0.8	1.5	2	3.8	8.4	8.9	

Model	50W	L
ECMA-C1040FES	No Brake	79.1
ECMA-C1040FFS	With Brake	109.1
Model	100W	L
ECMA-C20401ES	No Brake	100.6
ECMA-C20401FS	With Brake	136.6



50/100W

Model	200W	L
ECMA-C20602ES	No Brake	105.5
ECMA-C20602FS	With Brake	141.6



200W

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Application

Standard
Ball Screw Type
GLTH/GLMH

Standard
Belt Type
GLTB

Cleanroom
Ball Screw Type
GLCH

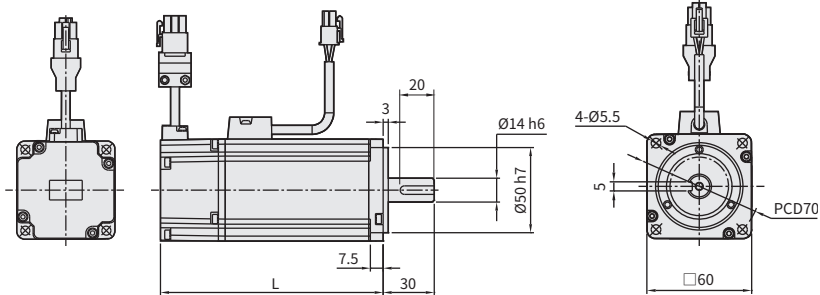
Cleanroom
Belt Type
GLCB

Multi Axis Type
XYGT/XYTH/XYTB

Reference

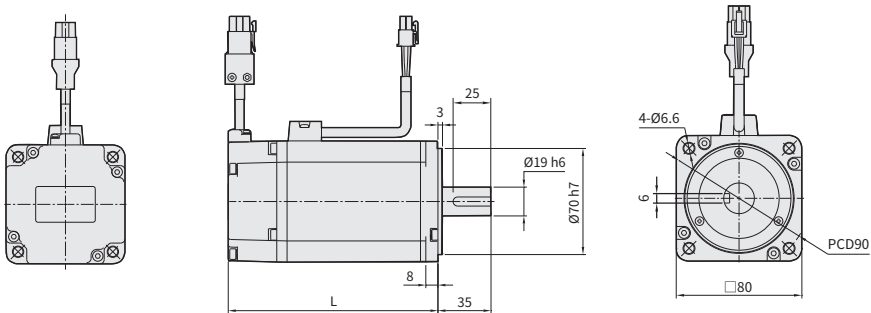
Model	400W	L
ECMA-C20604ES	No Brake	130.7
ECMA-C20604FS	With Brake	166.8

400W



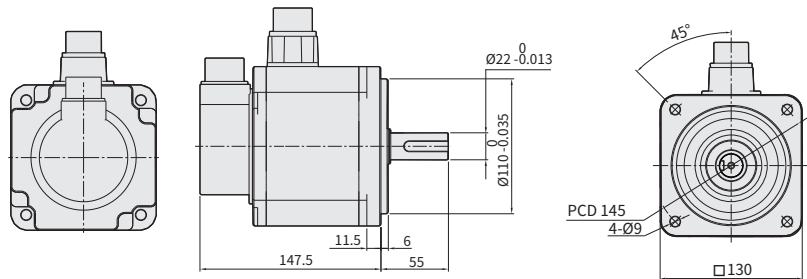
Model	750W	L
ECMA-C20807ES	No Brake	138.3
ECMA-C20807FS	With Brake	178

750W



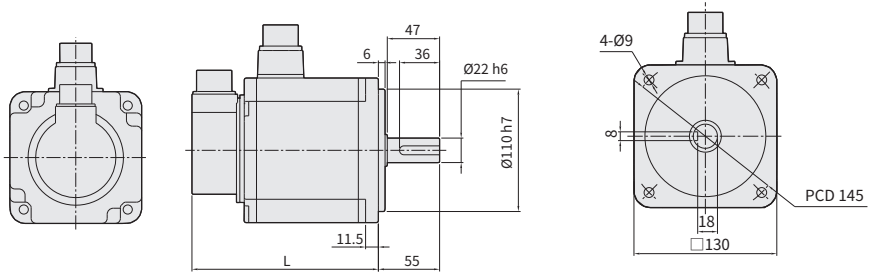
Model	1000W	L
ECMA-E11310ES	No Brake	147.5
ECMA-E11310FS	With Brake	183.5

1000W



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

1500W

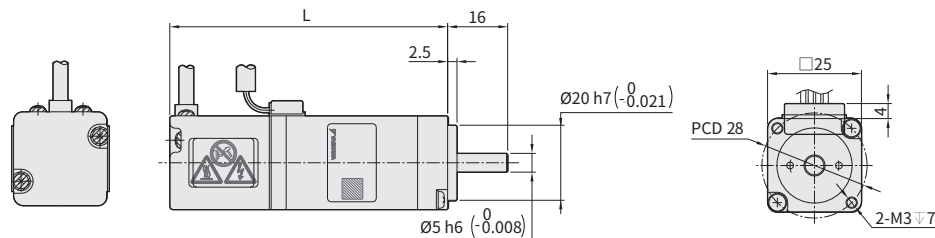


Yaskawa Servo Motor Information

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

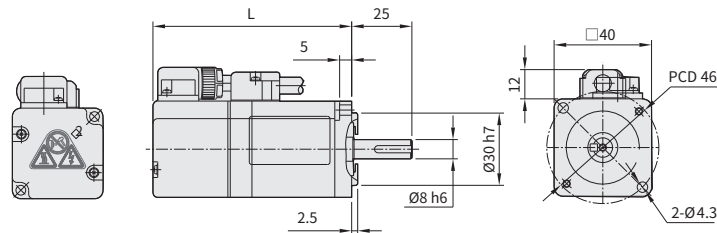
Model	30W	L
SGMMV-A3A2A21	No Brake	74
SGMMV-A3A2A2C	With Brake	102.5

30W



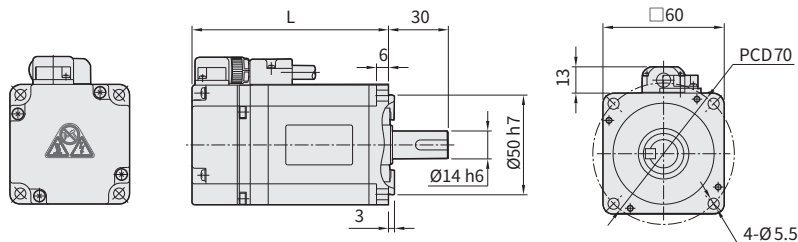
Model	50W	L
SGMJV-A5AAA21	No Brake	69
SGMJV-A5A3A2C	With Brake	114
Model	100W	L
SGMJV-01AAA21	No Brake	82.5
SGMJV-01AAA2C	With Brake	127.5

50/100W



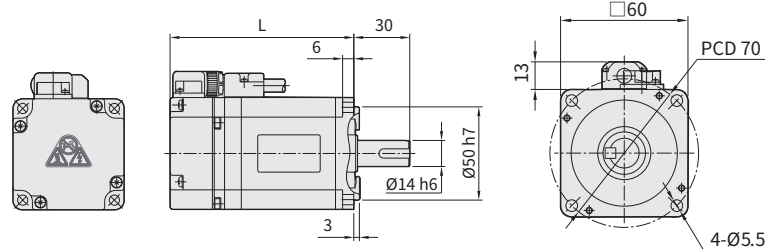
Model	200W	L
SGMJV-02AAA21	No Brake	80
SGMJV-02AAA2C	With Brake	120

200W



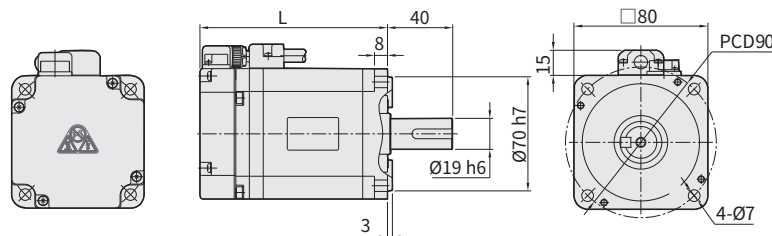
Model	400W	L
SGMJV-04AAA21	No Brake	98.5
SGMJV-04AAA2C	With Brake	138.5

400W



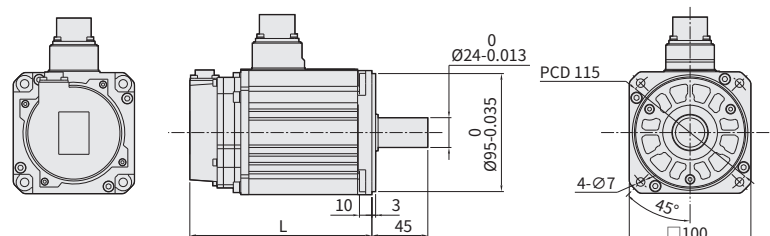
Model	750W	L
SGMJV-08AAA21	No Brake	115
SGMJV-08AAA2C	With Brake	160

750W



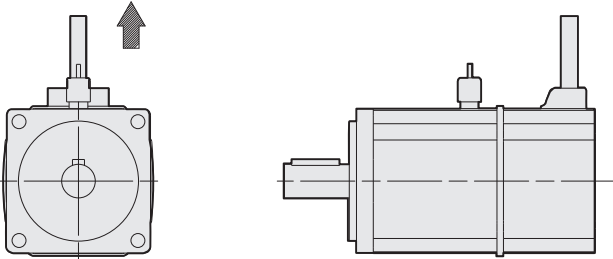
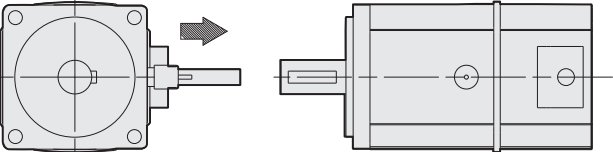
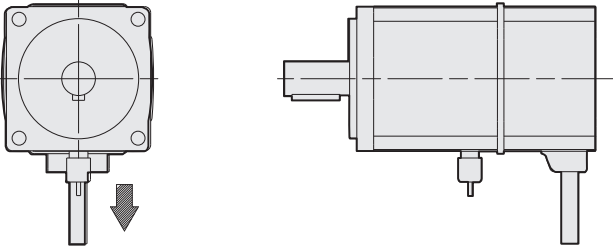
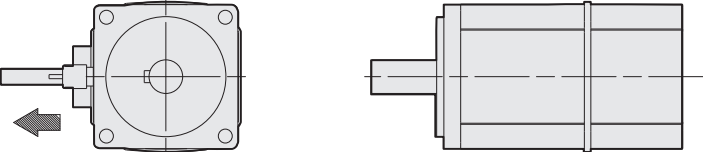
Model	1000W	L
SGMSV-10ADA21	No Brake	147
SGMSV-10ADA2C	With Brake	188

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

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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	○	○	○	○	○	○	○	×	○	×	○	○	×	○	○	○

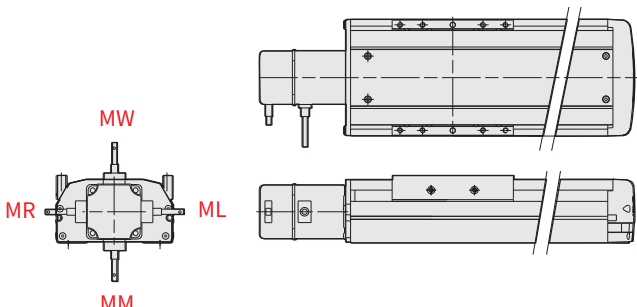
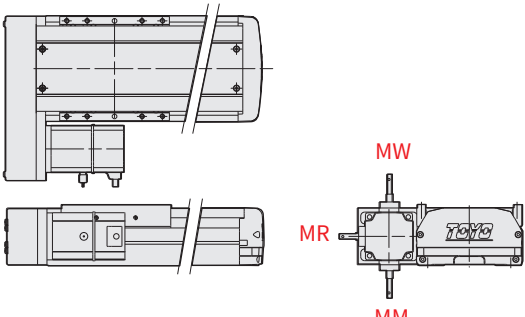
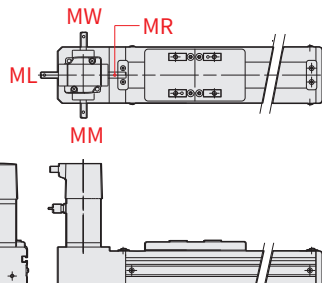
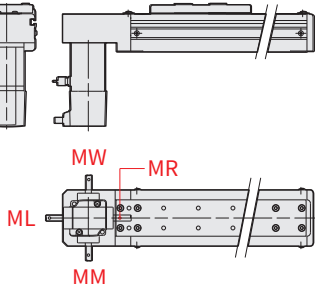
Belt type	Motor position corresponds to power cable direction							
	BW				BM			
Applicable specs	MW	MR	MM	ML	MW	MR	MM	ML
GLTB GLCB	○	○	○	○	○	○	○	○

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

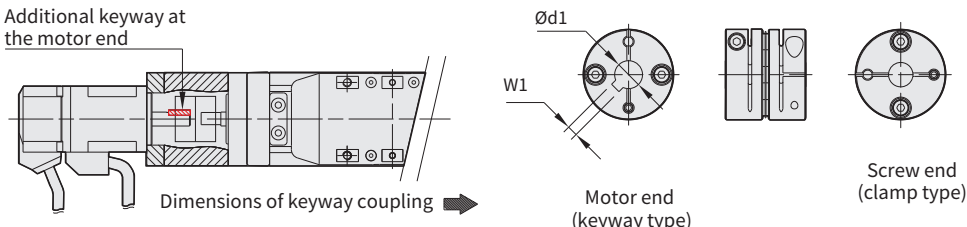
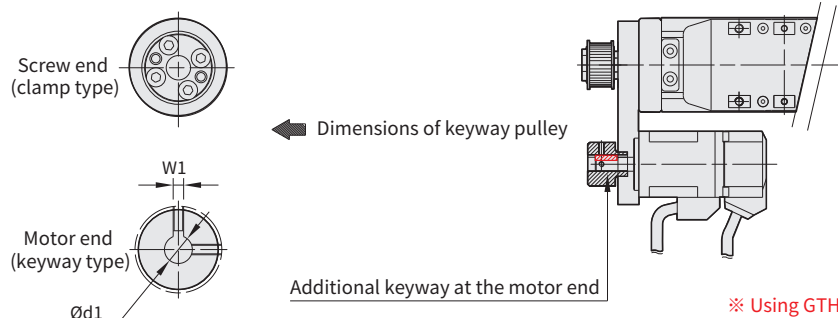
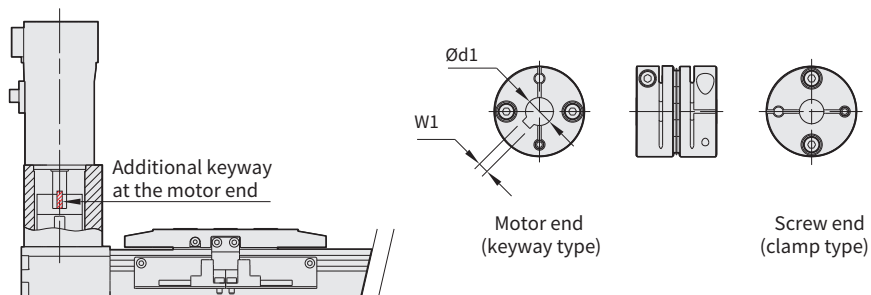
Application	Standard Ball Screw Type GLTH/GLMH	Standard Belt Type GLTB	Cleanroom Ball Screw Type GLCH	Cleanroom Belt Type GLCB	Multi Axis Type XYGT/XYTH/XYTB	Reference
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Options

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

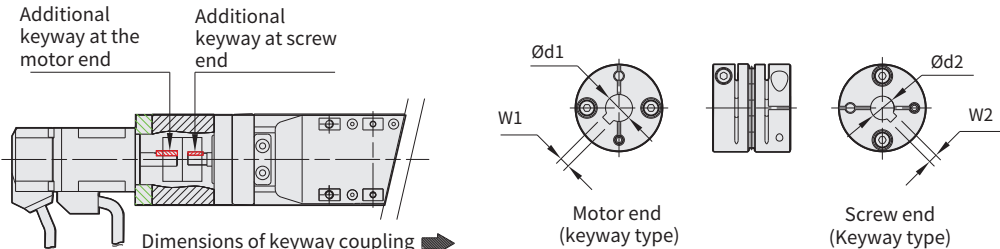
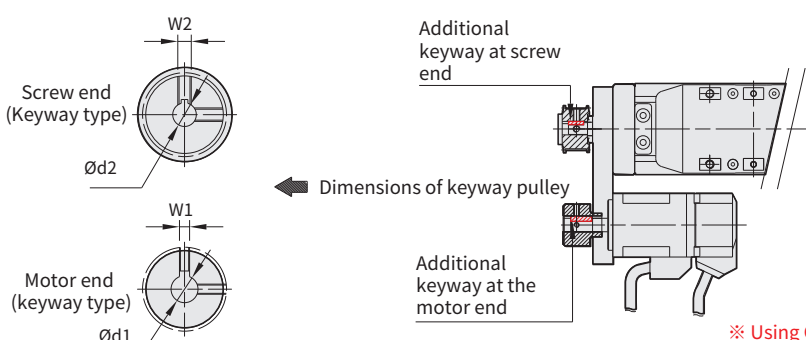
Additional Keyway for Motor Transmission Accessories

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

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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	

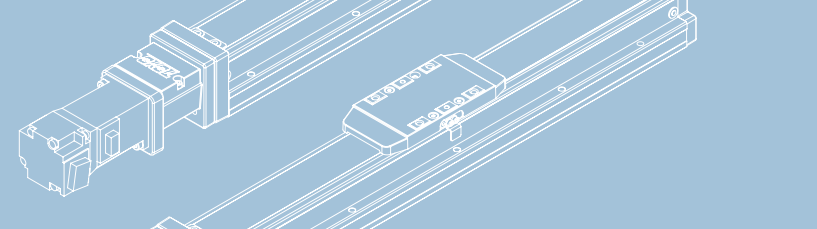
Dimensions corresponding to the keyway of each specification

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.



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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