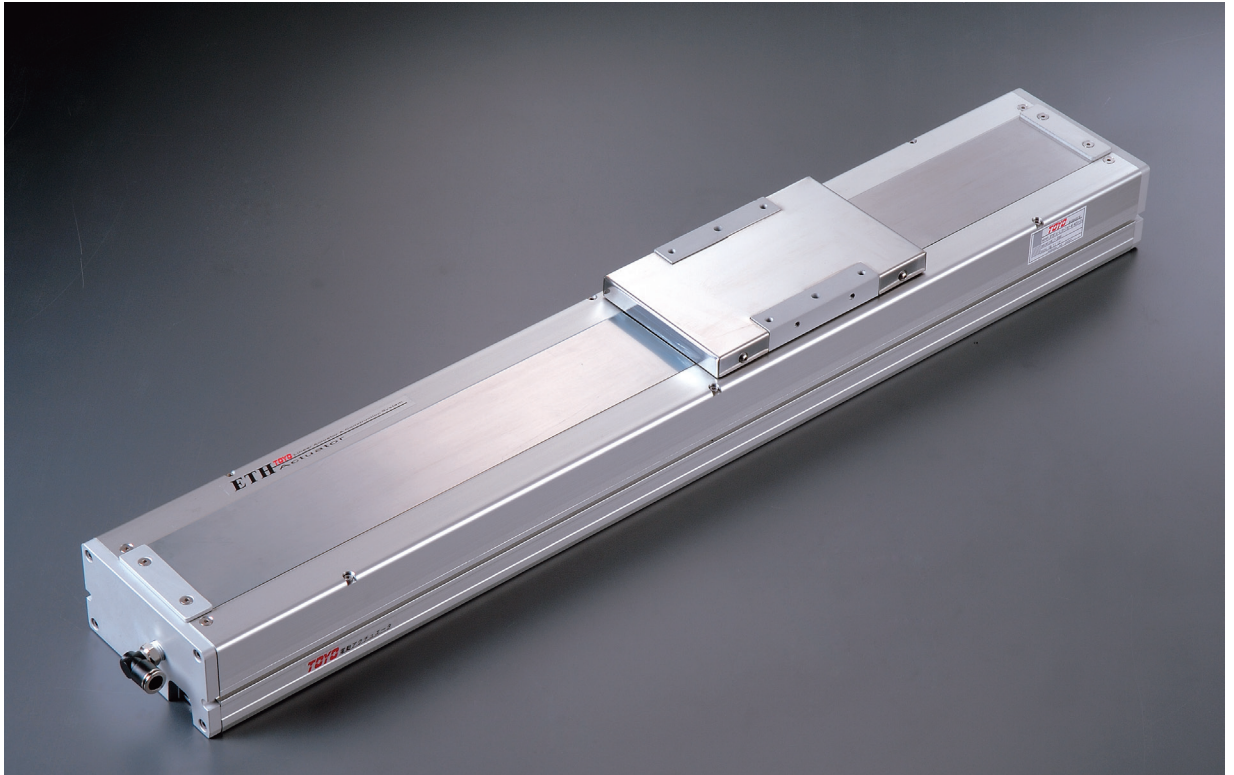


# ECH12

1-axis

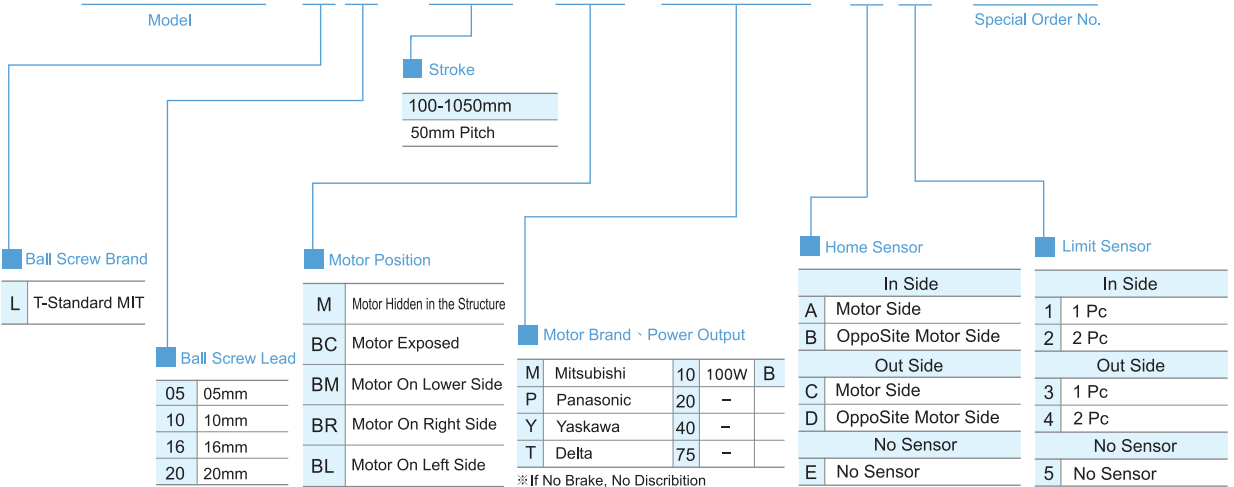
Ball Screw Drive



Maximum Stroke **1050mm**    Maximum Speed **1000mm/s**    Motor Output **100W**    Ball Screw  $\phi$  **16mm**    Linear Guide **12X7.5-2pc**

### Ordering Method

## ECH12 - L 5 - 100 - M - M10B - C 4 - 0001

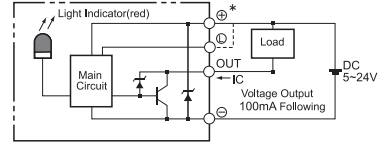


Application  
Standard Ball Screw  
Rod Type Actuator  
Standard/Belt Type  
Clean Room Ball Screw  
Clean Room Belt Type  
Linear Motor  
Multi Axis  
Alignment Stage  
Reference

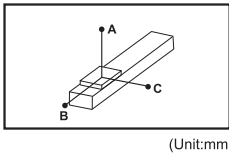
**Specification**

<b>Function</b>	Repeatability (mm)		±0.01			
	Belt Lead (mm)		5	10	16	20
	Maximum Speed (mm/s)		250	500	800	1000
	Maximum Payload	Horizontal (kg)	50	30	22	18
		Vertical (kg)	12	8	5	3
	Rated Thrust (N)		341	170	106	85
	Stroke Pitch (mm)		100-1050mm / 50mm Pitch			
<b>Parts</b>	AC Servo Motor Output (w)		100			
	Ball Screw Ø (mm)		C7 φ 16			
	High Rigidity Linear Guide (mm)		12 X7.5			
	Coupling (mm)		8 X10			
	Home Sensor	Outside	EE-SX672(NPN)			
Built In		EE-SX674(NPN)				

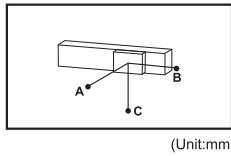
**Sensor Layout**



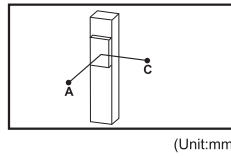
**Allowable Overhang N.m**



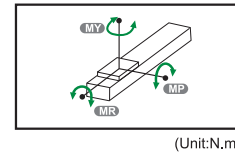
Horizontal Installation		A	B	C
Lead 5	30kg	1200	158	311
	50kg	1100	124	124
	-	-	-	-
Lead 10	15kg	1000	190	250
	25kg	900	190	170
	30kg	850	124	122
Lead 16	5kg	2150	1365	982
	10kg	1190	462	427
	22kg	1270	242	291
Lead 20	5kg	1936	1229	882
	15kg	1139	418	387
	20kg	1073	220	264



Wall Installation		A	B	C
Lead 5	10kg	126	60	800
	20kg	70	30	600
	30kg	50	15	476
Lead 10	10kg	246	180	700
	20kg	150	80	515
	30kg	72	32	422
Lead 16	5kg	1068	976	1579
	10kg	405	278	776
	22kg	220	107	680
Lead 20	5kg	958	875	1420
	10kg	361	248	696
	20kg	107	95	610



Vertical Installation		A	C
Lead 5	5kg	412	398
	10kg	394	356
	12kg	357	355
	4kg	711	578
Lead 10	6kg	534	414
	8kg	411	376
	1kg	1210	1210
Lead 16	2kg	1174	1174
	5kg	650	650
Lead 20	-	-	-
	-	-	-
	3kg	1030	802



Static Loading Moment	
MY	302(N)
MP	302(N)
MR	118(N)

**Suitable Motor Brand**

Brand	Mark	Brake	Watp	AC-Voltage	Motor Model	Driver Model
Mitsubishi	M	No Brake (Horizontal Type)	100	220	HF-KP13	MR-J3-10A
		With Brake (Vertical Type)	100	220	HF-KP13B	MR-J3-10A
Panasonic	P	No Brake (Horizontal Type)	100	220	MSMD012P1S	MADDT1205
		With Brake (Vertical Type)	100	220	MSMD012P1T	MADDT1205
Delta	T	No Brake (Horizontal Type)	100	220	ECMA-C20401ES	ASD-B20121-B
		With Brake (Vertical Type)	100	220	ECMA-C20401FS	ASD-B20121-B

1 axis ECH  
ECH5M  
ECH6M  
ECH10  
ECH12  
ECH14  
ECH17  
ECH22

# ECH12 1-axis

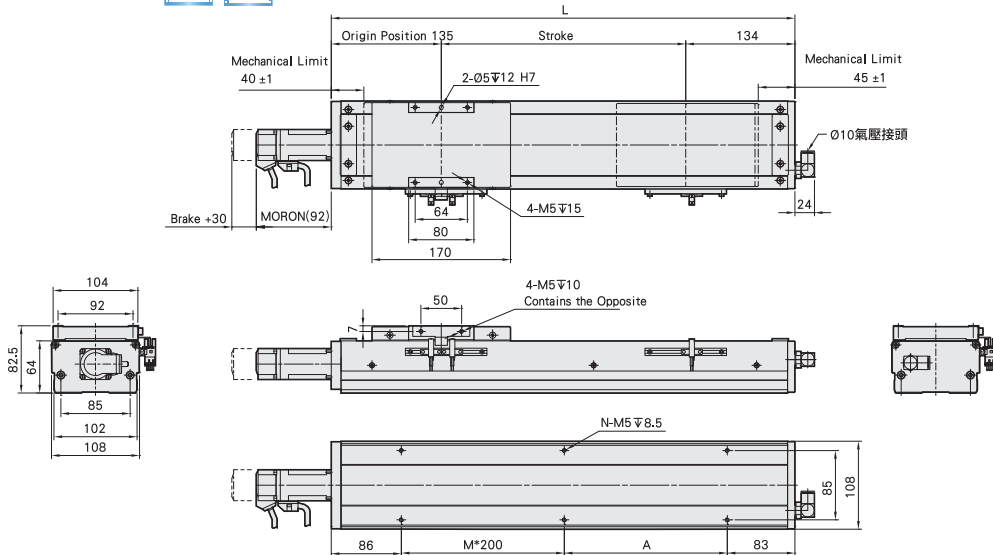
Motor Exposed / Motor Hidden in the Structure

BC Motor Exposed



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(mm)



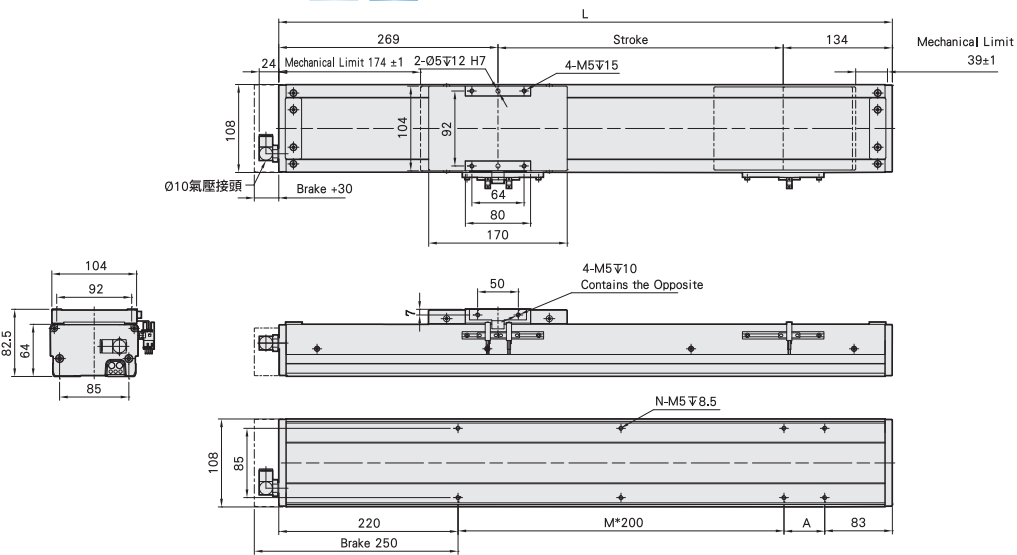
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	369	419	469	519	569	619	669	719	769	819	869	919	969	1019	1069	1119	1169	1219	1269	1319
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
KG	6.77	7.2	7.62	8.04	8.47	8.89	9.31	9.73	10.16	10.58	11	11.43	11.85	12.27	12.7	13.12	13.54	13.96	14.39	14.81

M Motor Hidden in the Structure



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(mm)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	503	553	603	653	703	753	803	853	903	953	1003	1053	1103	1153	1203	1253	1303	1353	1403	1453
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
KG	6.77	7.2	7.62	8.04	8.47	8.89	9.31	9.73	10.16	10.58	11	11.43	11.85	12.27	12.7	13.12	13.54	13.96	14.39	14.81

Motor On Left Side /  
Motor On Right Side

Toll-Free Number : China 400-875-0009 Taiwan 0800-800-893

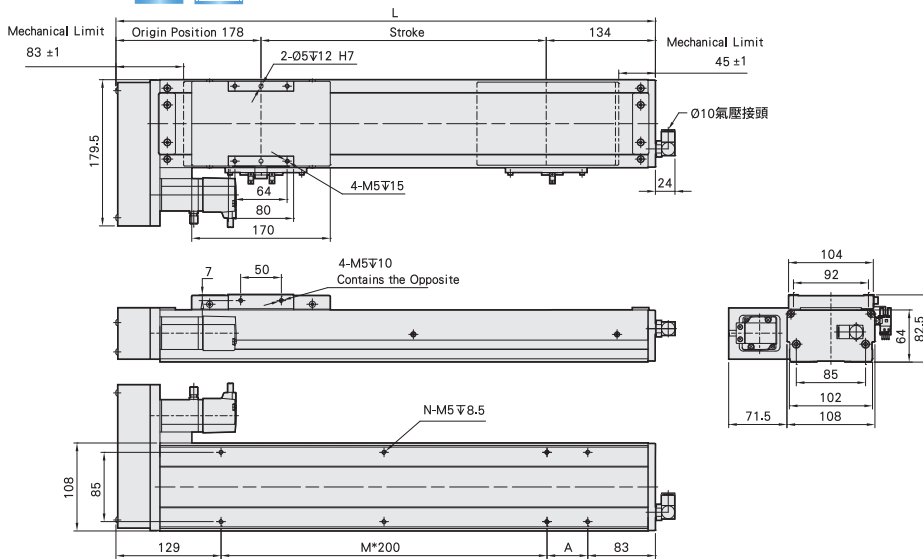
BL

Motor On Left Side



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(mm)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	412	462	512	562	612	662	712	762	812	862	912	962	1012	1062	1112	1162	1212	1262	1312	1362
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
KG	6.77	7.2	7.6	8.04	8.47	8.89	9.31	9.73	10.16	10.58	11	11.43	11.95	12.27	12.7	13.12	13.54	13.96	14.39	14.81

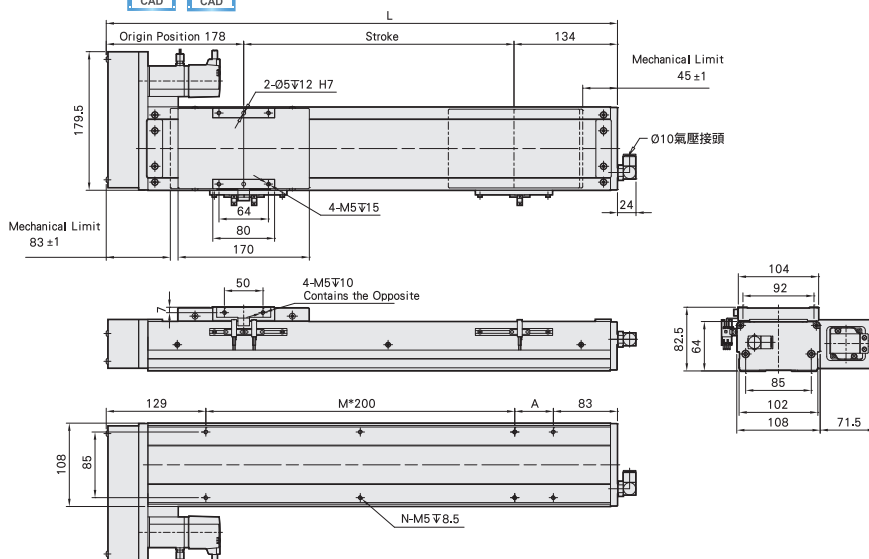
BR

Motor On Right Side



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(mm)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	412	462	512	562	612	662	712	762	812	862	912	962	1012	1062	1112	1162	1212	1262	1312	1362
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
KG	6.77	7.2	7.62	8.04	8.47	8.89	9.31	9.73	10.16	10.58	11	11.43	11.85	12.27	12.7	13.12	13.54	13.96	14.39	14.81

Application

Standard/Ball Screw

Foot Type Actuator

Standard/Belt Type

Clean Room/Ball Screw

Clean Room/Belt Type

Linear Motor

Multi Axis

Alignment Stage

Reference

1 axis ECH

ECH5M

ECH6M

ECH10

ECH12

ECH14

ECH17

ECH22

# ECH12

1-axis

Motor On Lower Side

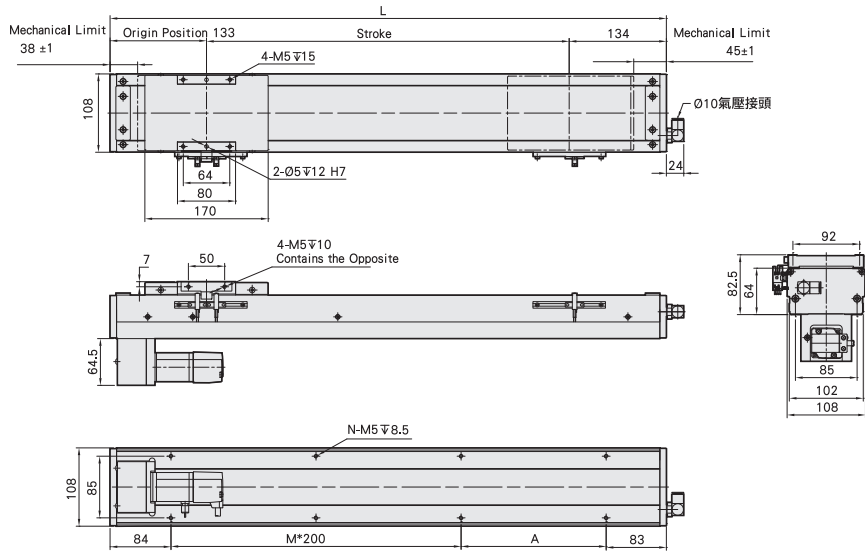
BM

Motor On Lower Side



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(mm)



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	367	417	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
KG	6.77	7.2	7.62	8.04	8.47	8.89	9.31	9.73	10.16	10.58	11	11.43	11.85	12.27	12.7	13.12	13.54	13.9	14.39	14.81

Toll-Free Number : China 400-875-0009 Taiwan 0800-800-893

**MEMO**

Application

Standard/Ball Screw

Foot Type Actuator

Standard/Belt Type

Clean Room/Ball Screw

Clean Room/Belt Type

Linear Motor

Multi Axis

Alignment Stage

Reference

**1 axis  
ECH**

ECH5M

ECH6M

ECH10

**ECH12**

ECH14

ECH17

ECH22