

ETH13

1-axis

Ball Screw Drive



Maximum Stroke **1050mm**

Maximum Speed **1000mm/s**

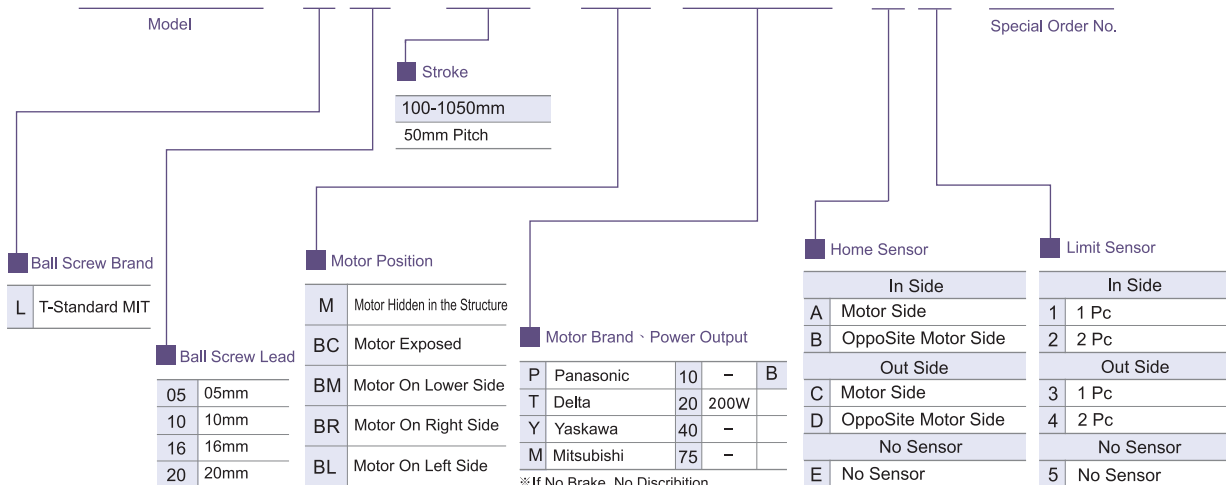
Motor Output **200W**

Ball Screw $\phi 16\text{mm}$

Linear Guide **15X12.5-2pc**

Ordering Method

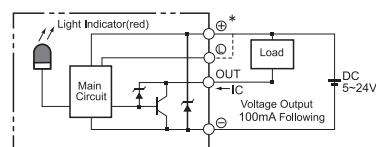
ETH13 - L 5 - 100 - M - M20B - C 4 - 0001



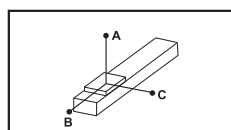
Specification

Function	Repeatability (mm)		±0.01			
	Belt Lead (mm)		5	10	16	20
	Maximum Speed (mm/s)		250	500	800	1000
	Maximum Payload	Horizontal (kg)	70	47	30	24
		Vertical (kg)	17	12	6	4
	Rated Thrust (N)		683	341	213	174
Stroke Pitch (mm)		100-1050mm / 50mm Pitch				
Parts	AC Servo Motor Output (w)		200			
	Ball Screw Ø (mm)		C7 ϕ 16			
	High Rigidity Linear Guide (mm)		15X12.5			
	Coupling (mm)		14X10			
	Home Sensor	Outside	EE-SX672(NPN)			
		Built In	EE-SX674(NPN)			

Sensor Layout

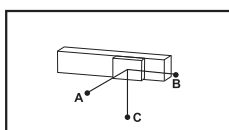


Allowable Overhang N.m



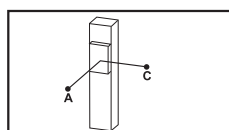
(Unit:mm)

Horizontal Installation	A	B	C
Lead 5	40kg	2448	316
	55kg	2197	247
	70kg	2005	207
Lead 10	25kg	1958	370
	35kg	1660	370
	47kg	1725	247
Lead 16	10kg	1800	1400
	20kg	1100	700
	30kg	1047	445
Lead 20	5kg	2105	1351
	15kg	1170	455
	24kg	1300	250



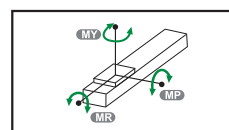
(Unit:mm)

Wall Installation	A	B	C
Lead 5	40kg	204	112
	55kg	130	57
	70kg	85	24
Lead 10	25kg	414	333
	35kg	235	157
	47kg	129	57
Lead 16	10kg	461	372
	20kg	264	178
	30kg	148	69
Lead 20	5kg	1041	965
	15kg	400	271
	24kg	220	108



(Unit:mm)

Vertical Installation	A	C
Lead 5	5kg	762
	10kg	607
	12kg	498
Lead 10	4kg	1365
	6kg	901
	8kg	674
Lead 16	1kg	1067
	2kg	997
	6kg	747
Lead 20	1kg	580
	2kg	1155
	4kg	1130



(Unit:N.m)

Static Loading Moment

MY	174(N)
MP	175(N)
MR	153(N)

Suitable Motor Brand

Brand	Mark	Brake	Watp	AC-Voltage	Motor Model	Driver Model
Mitsubishi	M	No Brake (Horizontal Type)	200	220	HF-KP23	MR-J3-20A
		With Brake (Vertical Type)	200	220	HF-KP23B	MR-J3-20A
Panasonic	P	No Brake (Horizontal Type)	200	220	MHMD022P1S	MADDT1207
		With Brake (Vertical Type)	200	220	MHMD022P1T	MADDT1207
Delta	T	No Brake (Horizontal Type)	200	220	ECMA-C20602ES	ASD-B20221-B
		With Brake (Vertical Type)	200	220	ECMA-C20602FS	ASD-B20221-B

ETH13

1-axis

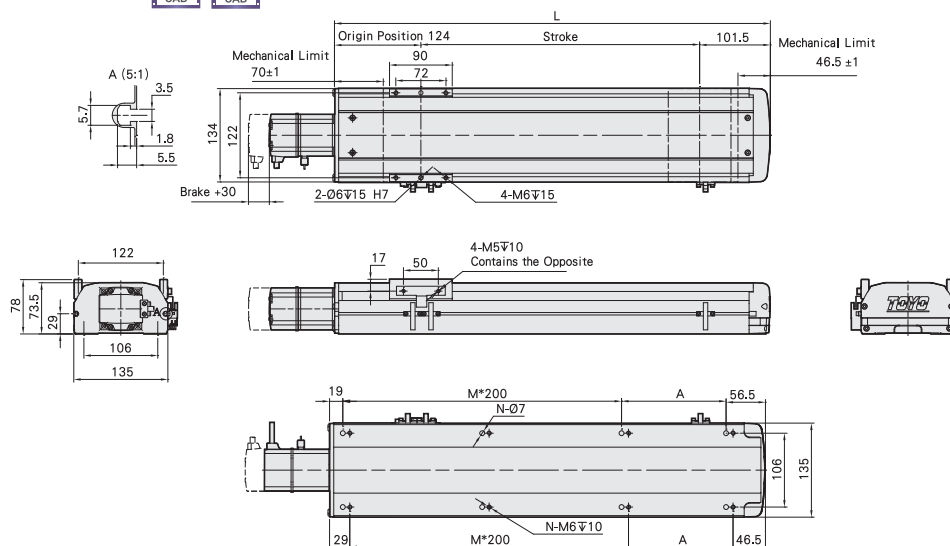
Motor Exposed /
Motor Hidden in the Structure

BC Motor Exposed



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(mm)



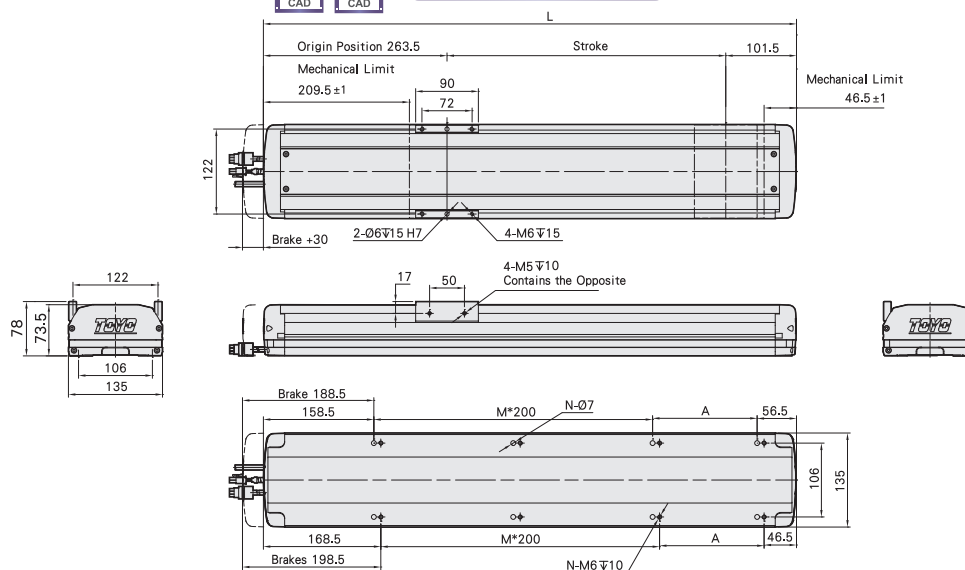
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5	975.5	1025.5	1075.5	1125.5	1175.5	1225.5	1275.5
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
KG	7.4	7.8	8.3	8.8	9.3	9.8	10.2	10.8	11.2	11.8	12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.7	16.1	16.7

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	465	515	565	615	665	715	765	815	865	915	965	1015	1065	1115	1165	1215	1265	1315	1365	1415
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
KG	7.4	7.8	8.3	8.8	9.3	9.8	10.2	10.8	11.2	11.8	12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.7	16.1	16.7

Motor On Left Side / Motor On Right Side

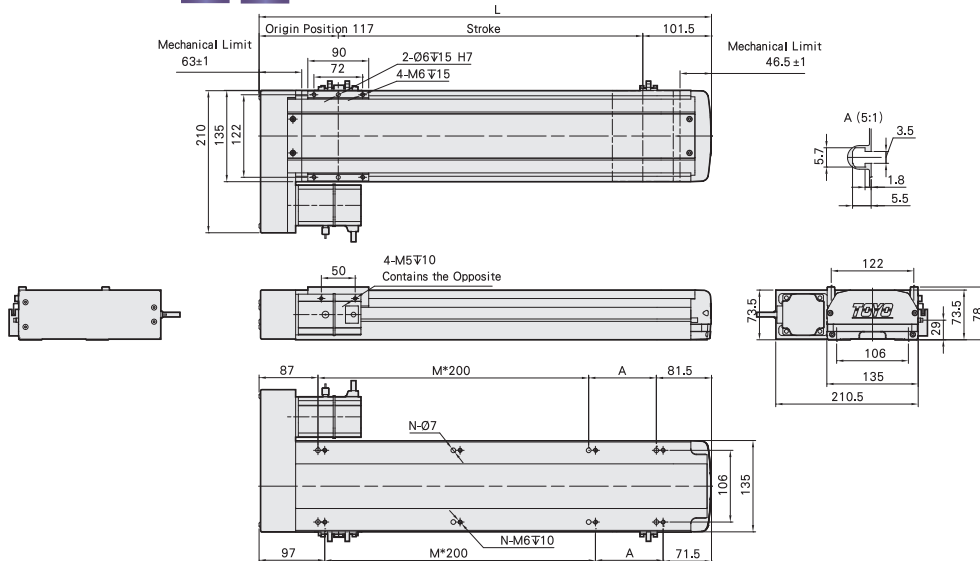
Toll-Free Number : China 400-875-0009 Taiwan 0800-800-893

BL Motor On Left Side



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(mm)



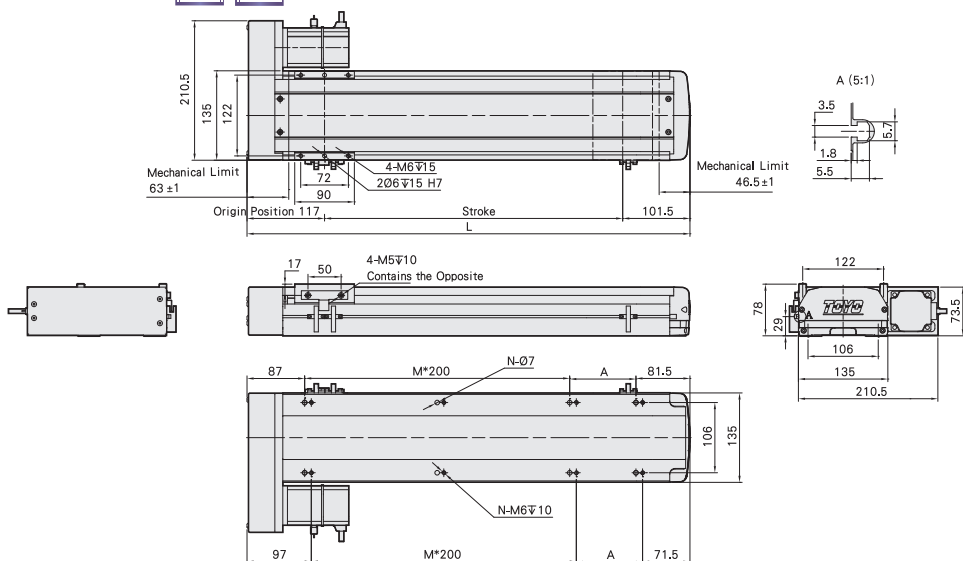
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
KG	7.4	7.8	8.3	8.8	9.3	9.8	10.2	10.8	11.2	11.8	12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.7	16.1	16.7

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	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
KG	7.4	7.8	8.3	8.8	9.3	9.8	10.2	10.8	11.2	11.8	12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.7	16.1	16.7

ETH13

1-axis

Motor On Lower Side

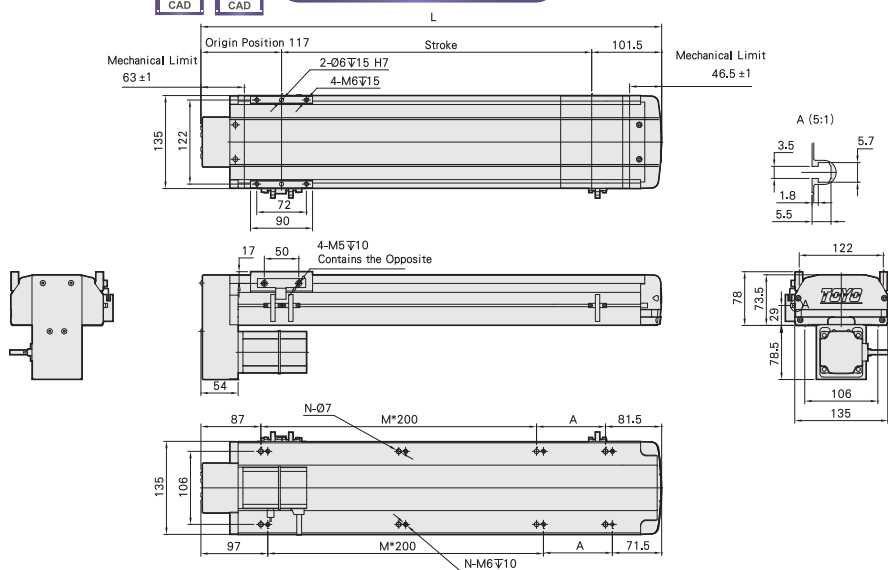
BM

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	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
KG	7.4	7.8	8.3	8.8	9.3	9.8	10.2	10.8	11.2	11.8	12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.7	16.1	16.7

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

MEMO

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

**1 axis
ETH**

ETH5M

ETH6M

ETH10

ETH12

ETH13

ETH14

ETH17

ETH22