

# ETH13

1-axis

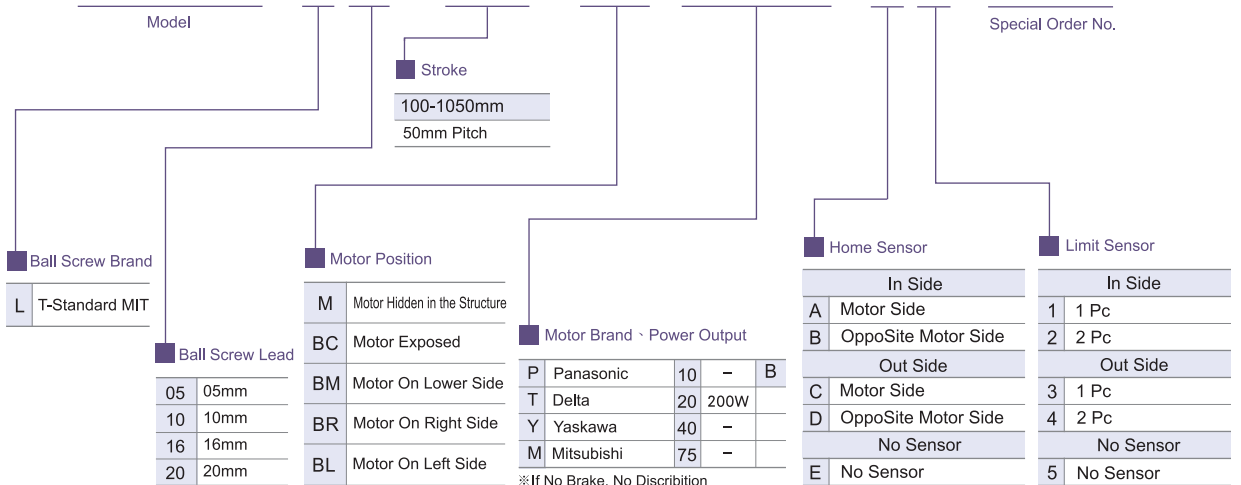
Ball Screw Drive



Maximum Stroke **1050mm**    Maximum Speed **1000mm/s**    Motor Output **200W**    Ball Screw  $\phi$ **16mm**    Linear Guide **15X12.5-2pc**

### Ordering Method

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

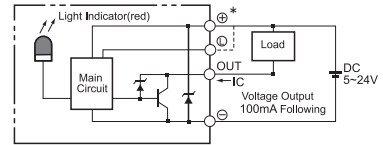


Toll-Free Number : China 400-875-0009 Taiwan 0800-800-893

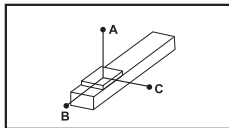
**Specification**

<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)	70	47	30	24
		Vertical (kg)	17	12	6	4
	Rated Thrust (N)		683	341	213	174
Stroke Pitch (mm)		100-1050mm / 50mm Pitch				
<b>Parts</b>	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**

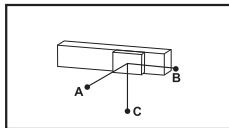


**Allowable Overhang N.m**



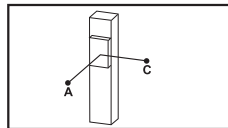
(Unit:mm)

Horizontal Installation		A	B	C
Lead 5	40kg	2448	316	322
	55kg	2197	247	257
	70kg	2005	207	219
Lead 10	25kg	1958	370	490
	35kg	1660	370	333
	47kg	1725	247	243
Lead 16	10kg	1800	1400	800
	20kg	1100	700	450
	30kg	1047	445	324
Lead 20	5kg	2105	1351	960
	15kg	1170	455	420
	24kg	1300	250	305



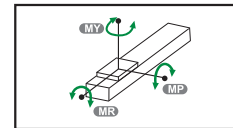
(Unit:mm)

Wall Installation		A	B	C
Lead 5	40kg	204	112	1394
	55kg	130	57	1115
	70kg	85	24	895
Lead 10	25kg	414	333	1277
	35kg	235	157	929
	47kg	129	57	751
Lead 16	10kg	461	372	1410
	20kg	264	178	1027
	30kg	148	69	832
Lead 20	5kg	1041	965	1560
	15kg	400	271	770
	24kg	220	108	685



(Unit:mm)

Vertical Installation		A	C
Lead 5	5kg	762	614
	10kg	607	489
	12kg	498	493
Lead 10	4kg	1365	1101
	6kg	901	727
	8kg	674	543
Lead 16	1kg	1067	1217
	2kg	997	805
	6kg	747	603
Lead 20	1kg	580	580
	2kg	1155	1155
	4kg	1130	885



(Unit:N.m)

**Static Loading Moment**

	Value
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

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

# ETH13

1-axis

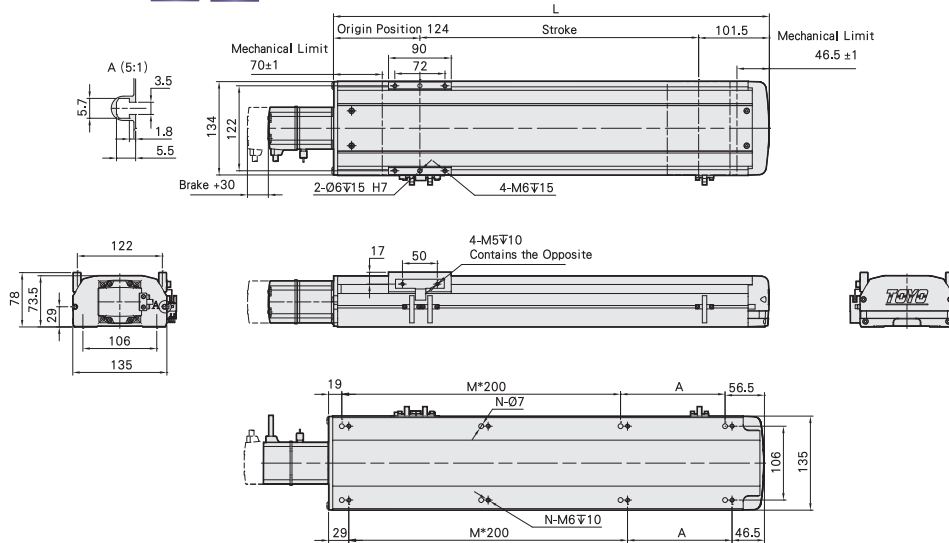
Motor Exposed /  
Motor Hidden in the Structure

**BC** Motor Exposed



Welcome to download 2D/3D CAD and spec PDF

(mm)



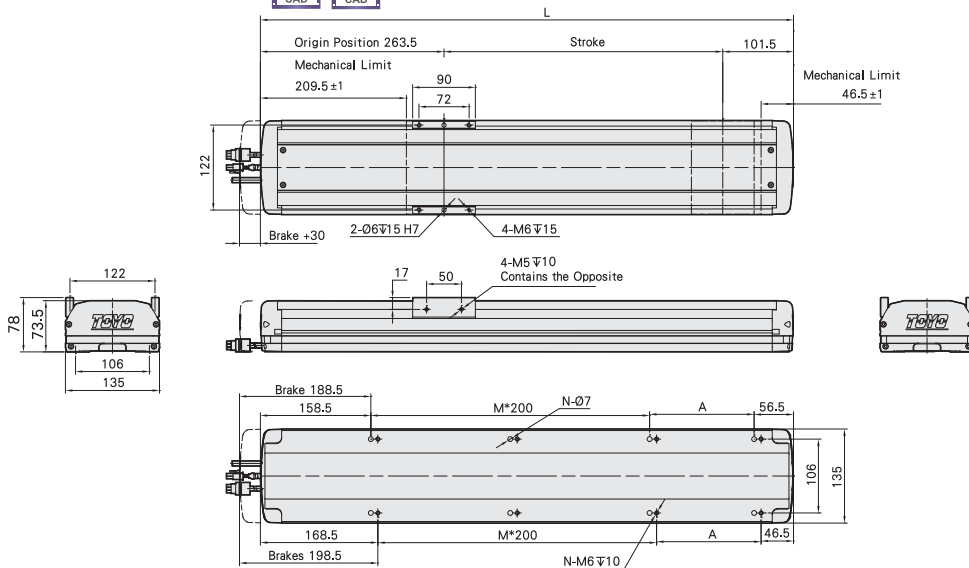
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5	975.5	1025.5	1075.5	1125.5	1175.5	1225.5	1275.5
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	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



Welcome to download 2D/3D CAD and spec PDF

(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

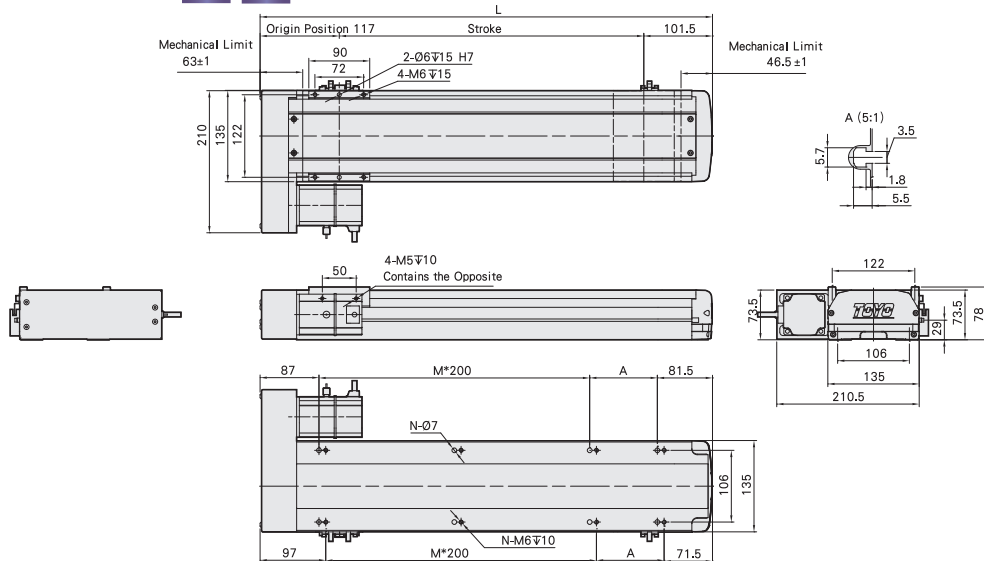
Toll-Free Number : China 400-875-0009 Taiwan 0800-800-893

**BL** Motor On Left Side



Welcome to download 2D/3D CAD and spec PDF

(mm)



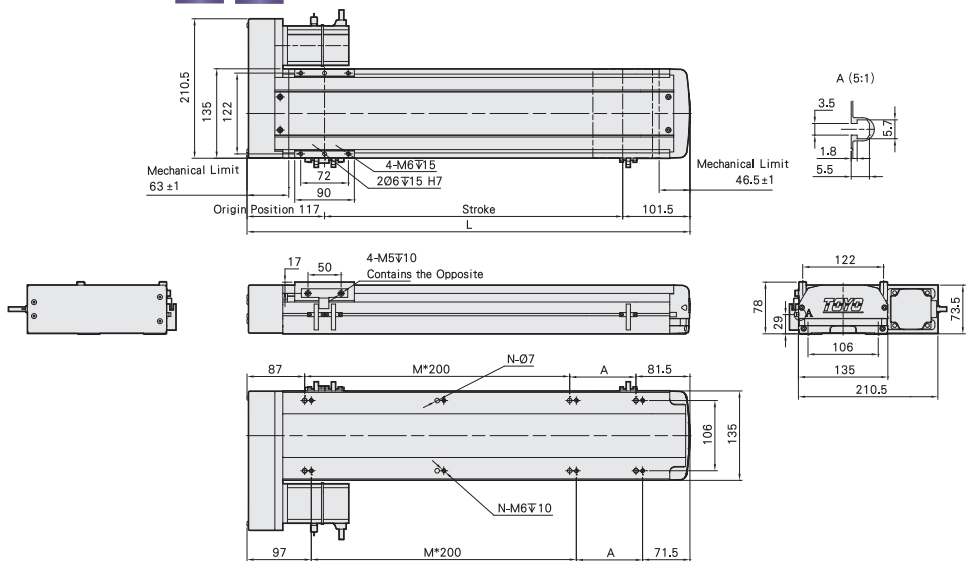
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	0	1	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



Welcome to download 2D/3D CAD and spec PDF

(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

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 ETH  
ETH5M  
ETH6M  
ETH10  
ETH12  
ETH13  
ETH14  
ETH17  
ETH22

# ETH13

1-axis

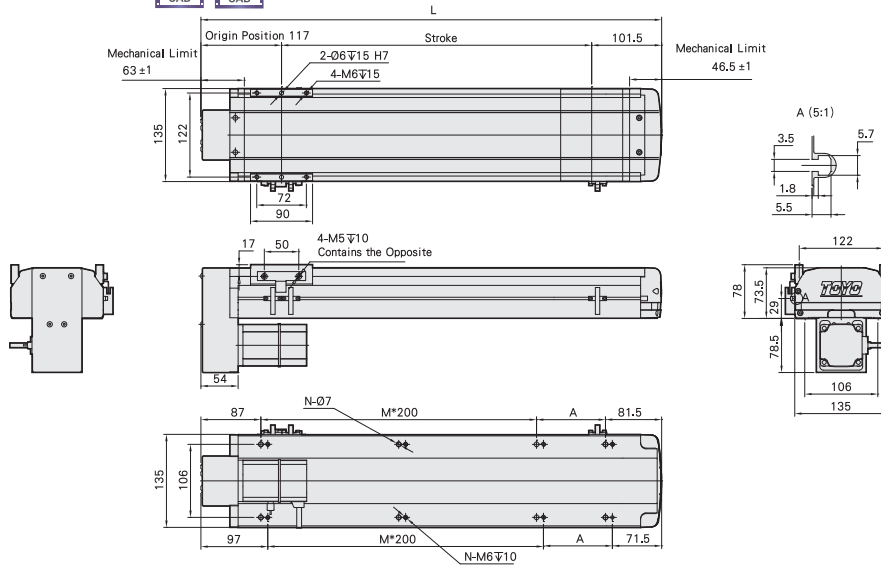
Motor On Lower Side

BM Motor On Lower Side



Welcome to download 2D/3D CAD and spec PDF

(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