

ETH14

1-axis

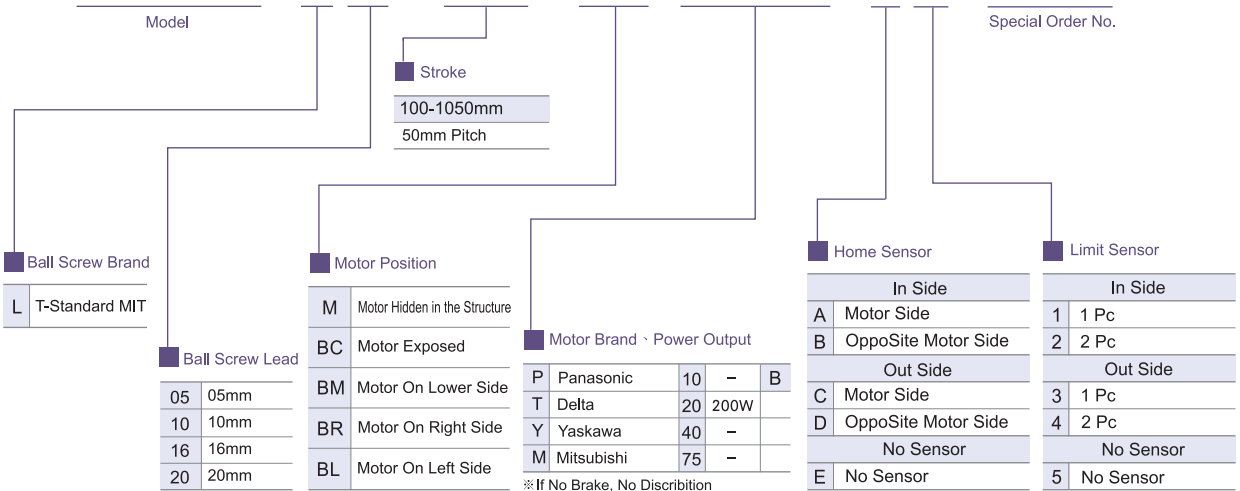
Ball Screw Drive



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

Ordering Method

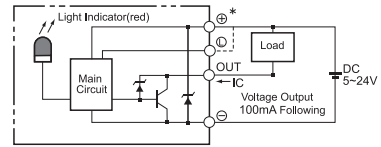
ETH14 - L 5 - 100 - M - M20B - C 4 - 0001



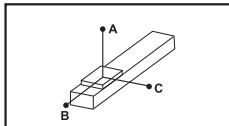
Specification

Function	Repeatability (mm)		±0.01			
	Belt Lead (mm)		5	10	16	20
	Maximum Speed (mm/s)		250	500	800	1000
	Maximum Payload	Horizontal (kg)	95	75	44	35
		Vertical (kg)	27	18	7	6
	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

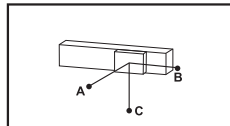


Allowable Overhang N.m



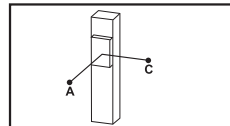
(Unit:mm)

Horizontal Installation	A	B	C	
Lead 5	60kg	2448	316	322
	80kg	2197	247	257
	95kg	2005	207	219
Lead 10	30kg	1958	370	490
	50kg	1660	370	333
	75kg	1725	247	243
Lead 16	10kg	2265	1674	961
	20kg	1402	855	537
	44kg	1047	445	324
Lead 20	10kg	2263	1672	958
	20kg	1400	852	535
	35kg	1052	448	328



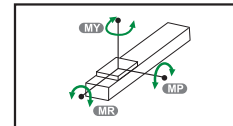
(Unit:mm)

Wall Installation	A	B	C	
Lead 5	60kg	204	112	1394
	80kg	130	57	1115
	95kg	85	24	895
Lead 10	30kg	414	333	1277
	50kg	235	157	929
	75kg	129	57	751
Lead 16	10kg	461	372	1410
	20kg	264	178	1027
	44kg	148	69	832
Lead 20	10kg	997	1217	1709
	20kg	513	555	985
	35kg	268	231	640



(Unit:mm)

Vertical Installation	A	C	
Lead 5	20kg	762	614
	25kg	607	489
	27kg	498	483
Lead 10	10kg	1365	1101
	15kg	901	727
	18kg	674	543
Lead 16	2kg	2420	2031
	4kg	1690	1360
	7kg	1300	1050
Lead 20	6kg	1695	1361
	-	-	-



(Unit:N.m)

Static Loading Moment

	Static Loading Moment
MY	551(N)
MP	552(N)
MR	485(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

ETH14

1-axis

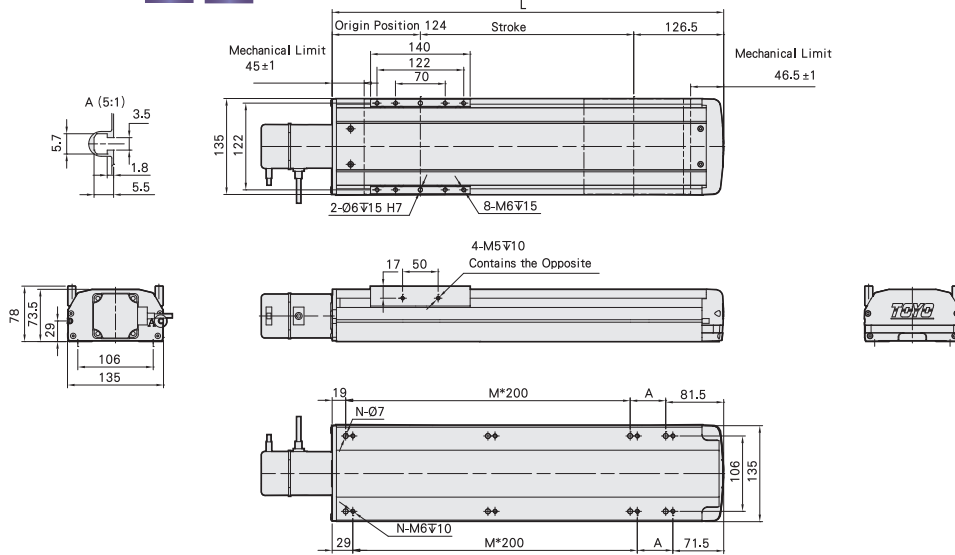
Motor Exposed /
Motor Hidden in the Structure

BC Motor Exposed



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(mm)



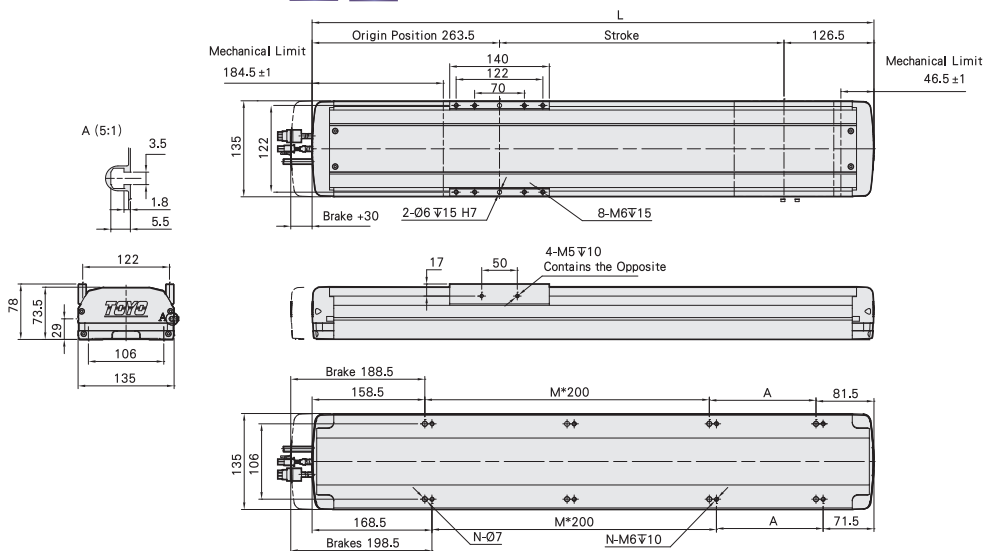
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5	1050.5	1100.5	1150.5	1200.5	1250.5	1300.5
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	1240	1290	1340	1390	1440
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	3	3	3	3	4	4	4	4	5	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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

Motor On Left Side /
Motor On Right Side

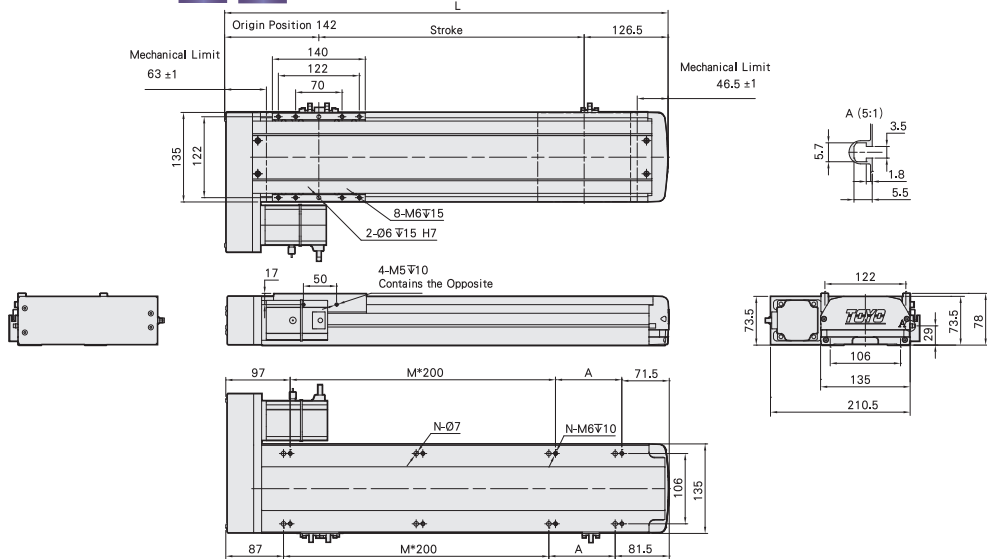
Toll-Free Number : China 400-875-0009 Taiwan 0800-800-893

BL Motor On Left Side



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(mm)



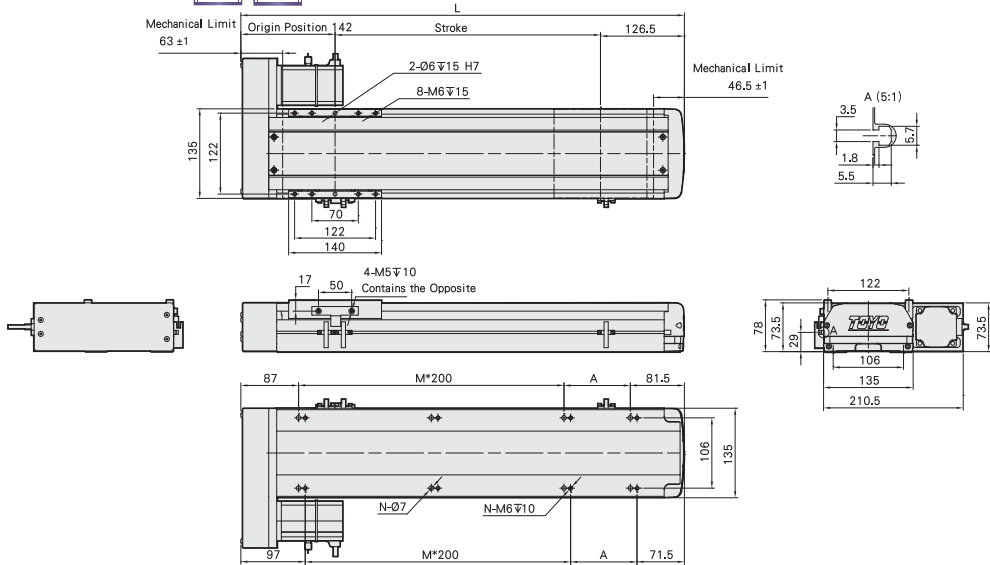
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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	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	1318.5
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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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

ETH14

1-axis

Motor On Lower Side

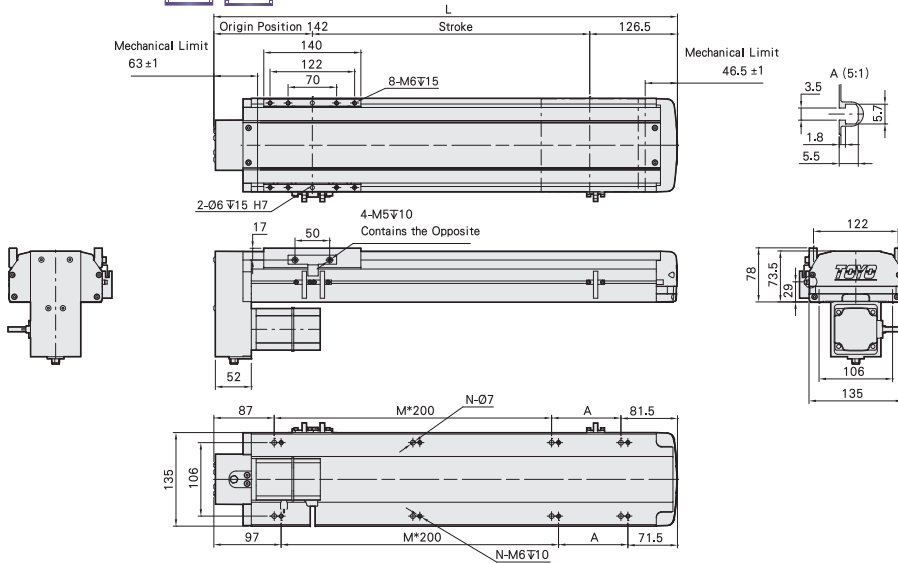
BM

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	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	1318.5
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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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 Ball Type

Linear Motor

Multi Axis

Alignment Stage

Reference

1 axis ETH

ETH5M

ETH6M

ETH10

ETH12

ETH13

ETH14

ETH17

ETH22

ETH14

1-axis

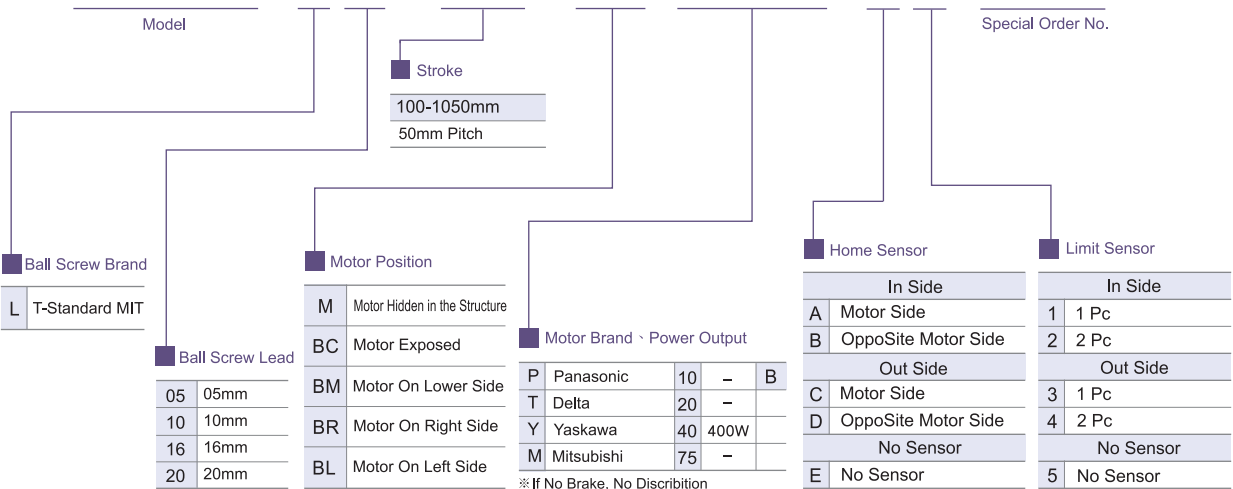
Ball Screw Drive



Maximum Stroke **1050mm**
Maximum Speed **1000mm/s**
Motor Output **400W**
Ball Screw ϕ **16mm**
Linear Guide **15X125-2pc**

Ordering Method

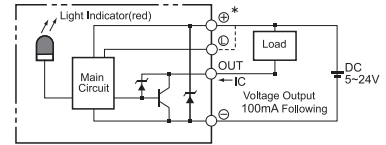
ETH14 - L 5 - 100 - M - M40B - C 4 - 0001



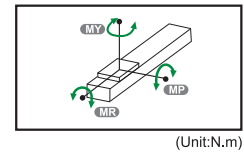
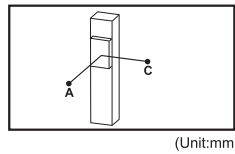
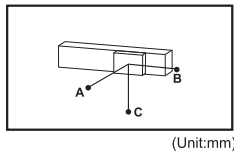
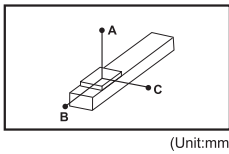
Specification

Repeatability (mm)		±0.01			
Belt Lead (mm)		5	10	16	20
Maximum Speed (mm/s)		250	500	800	1000
Maximum Payload	Horizontal (kg)	110	88	48	40
	Vertical (kg)	33	22	10	8
Rated Thrust (N)		1388	694	433	347
Stroke Pitch (mm)		100-1050mm / 50mm Pitch			
AC Servo Motor Output (w)		400			
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



Horizontal Installation		A	B	C
Lead 5	60kg	2448	316	322
	80kg	2197	247	257
	110kg	2005	207	219
Lead 10	30kg	1958	370	490
	50kg	1660	370	333
	88kg	1725	247	243
Lead 16	10kg	2265	1674	961
	20kg	1402	855	537
	48kg	1047	445	324
Lead 20	10kg	2263	1672	958
	20kg	1400	852	535
	40kg	1052	448	328

Wall Installation		A	B	C
Lead 5	60kg	204	112	1394
	80kg	130	57	1115
	110kg	85	24	895
Lead 10	30kg	414	333	1277
	50kg	235	157	929
	88kg	129	57	751
Lead 16	10kg	461	372	1410
	20kg	264	178	1027
	48kg	148	69	832
Lead 20	10kg	997	1217	1709
	20kg	513	555	985
	40kg	268	231	640

Vertical Installation		A	C
Lead 5	20kg	762	614
	25kg	607	489
	33kg	498	483
Lead 10	10kg	1365	1101
	15kg	901	727
	22kg	674	543
Lead 16	2kg	1067	1217
	4kg	997	805
	10kg	747	603
Lead 20	4kg	2402	2018
	6kg	1701	1366
	8kg	1305	1055

Static Loading Moment

MY	551(N)
MP	552(N)
MR	485(N)

Suitable Motor Brand

Brand	Mark	Brake	Watp	AC-Voltage	Motor Model	Driver Model
Mitsubishi	M	No Brake (Horizontal Type)	400	220	HF-KP43	MR-J3-40A
		With Brake (Vertical Type)	400	220	HF-KP43B	MR-J3-40A
Panasonic	P	No Brake (Horizontal Type)	400	220	MHMD042P1S	MADDT2210
		With Brake (Vertical Type)	400	220	MHMD042P1T	MADDT2210
Delta	T	No Brake (Horizontal Type)	400	220	ECMA-C20604ES	ASD-B20421-B
		With Brake (Vertical Type)	400	220	ECMA-C20604FS	ASD-B20421-B

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

1 axis
ETH
ETH5M
ETH6M
ETH10
ETH12
ETH13
ETH14
ETH17
ETH22

ETH14

1-axis

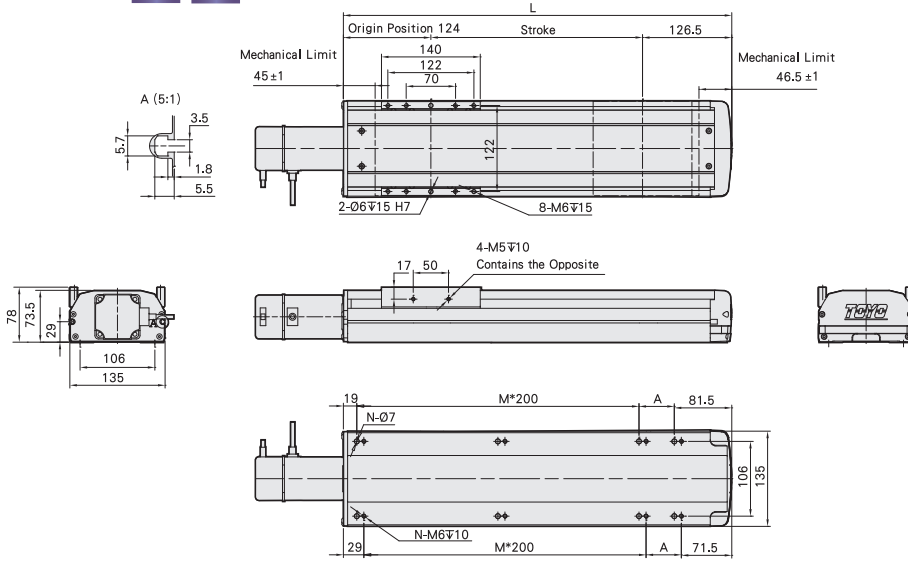
Motor Exposed /
Motor Hidden in the Structure

BC Motor Exposed



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(mm)



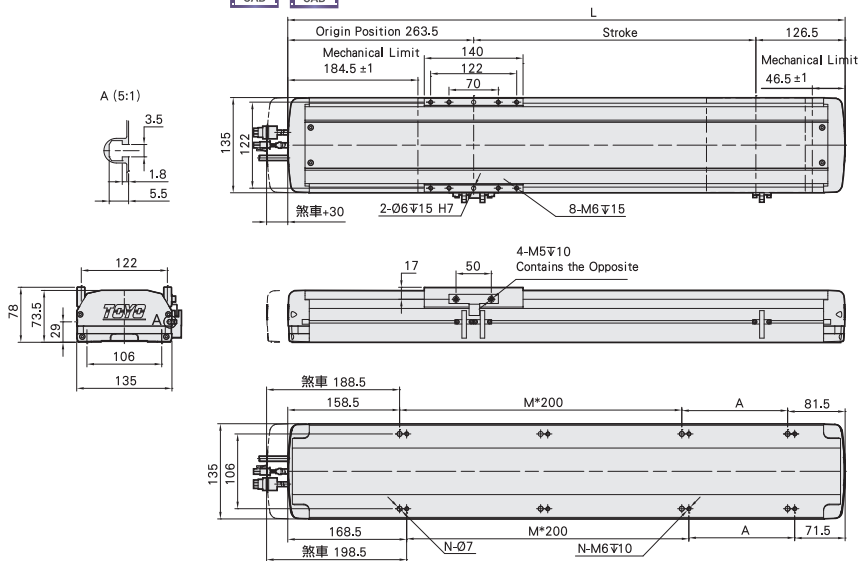
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L	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5	1050.5	1100.5	1150.5	1200.5	1250.5	1300.5
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	3	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
KG	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	1240	1290	1340	1390	1440
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	3	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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

Motor On Left Side /
Motor On Right Side

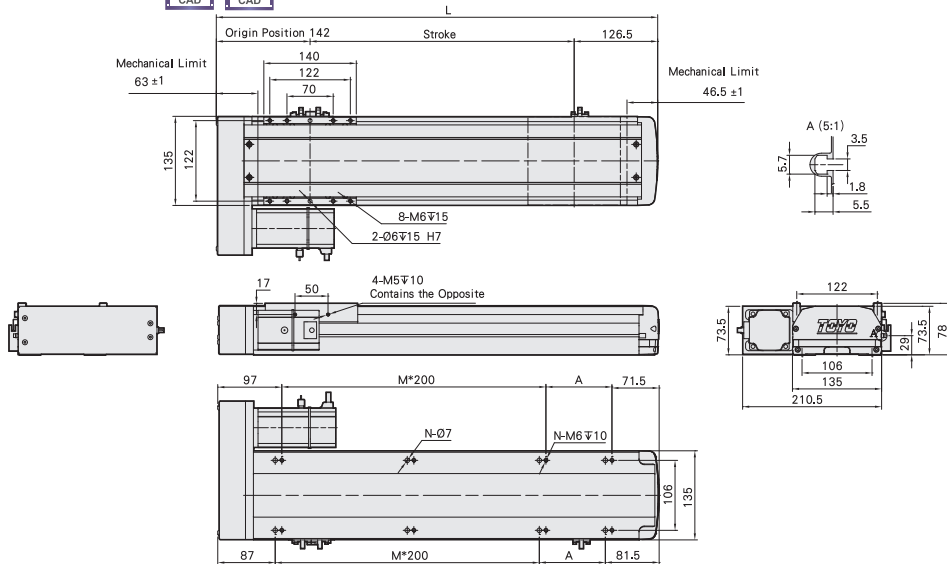
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BL Motor On Left Side



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(mm)



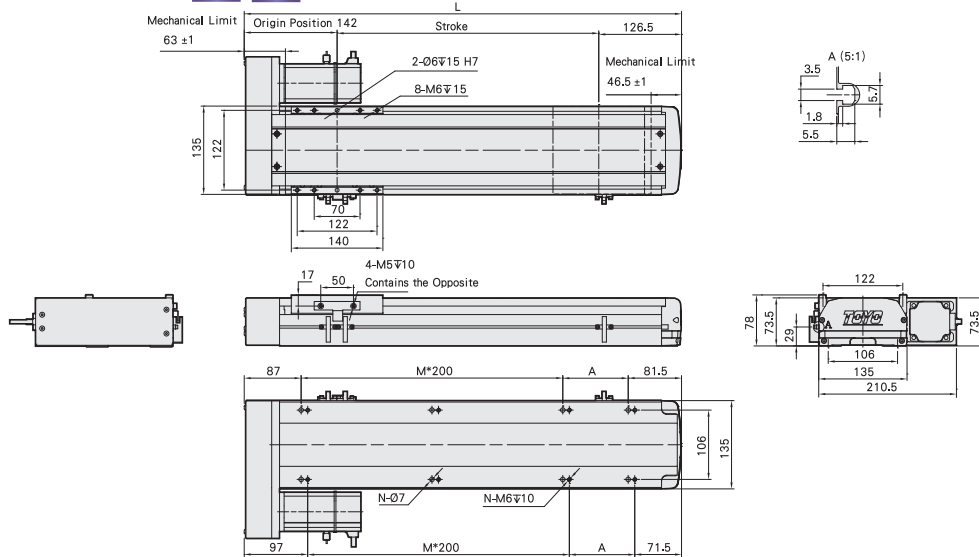
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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	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	1318.5
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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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

ETH14

1-axis

Motor On Lower Side

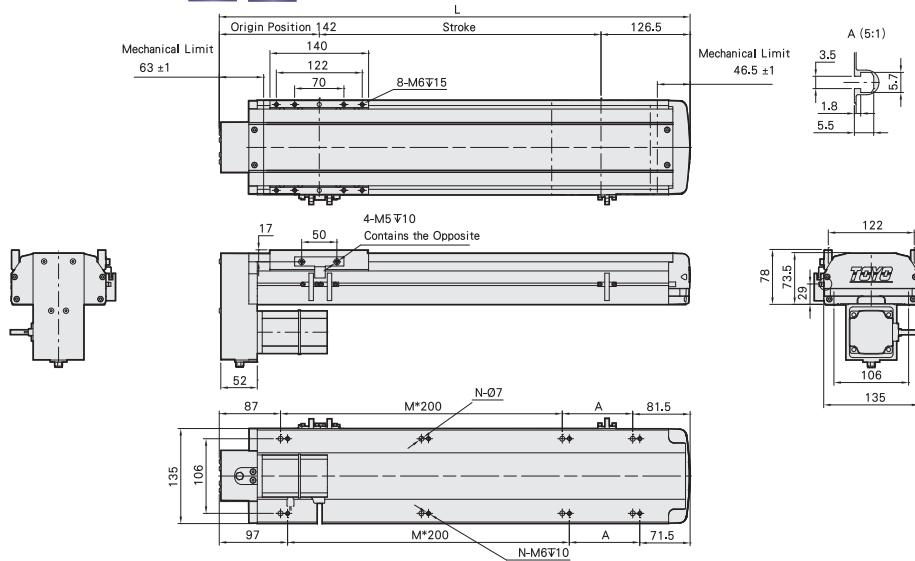
BM

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	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	1318.5
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	7.6	8	8.5	9	9.5	10	10.4	11	11.4	12	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.9

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