

# LECH Series

## Clean Room/Ball Screw



LGTH Series

LGCH Series

LETH Series

LECH Series

KK Series

### CONTENTS

#### Clean Room/Ball Screw

##### MEDIUM

LECH14



135mm  
Width  
1050mm  
Max. stroke  
110kg  
Max. payload

##### LARGE

LECH17



170mm  
Width  
1250mm  
Max. stroke  
120kg  
Max. payload

##### LARGE

LECH22



220mm  
Width  
1500mm  
Max. stroke  
150kg  
Max. payload

# Spec Index of Electric Actuator

LGTH  
LGTH series

## LECH Clean Room Bali Screw Actuator

LGCH  
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LETH  
LETH series

LECH  
LECH series

KK  
KK series

Environment	Driven Mode	Specification	Motor Output (w)	Width(mm)	Repeatability (mm)	Ball Screw Spec		Maximum Payload(kg)		Maximum Speed <sup>*1</sup> (mm/s)
						Outer Diameter(mm)	Lead(mm)	Horizontal	Vertical	
Clean Room	Ball screw	LECH14	200W	135	±0.005	16	5	95	27	250
							10	75	18	500
							20	35	7	1000
			32	15			-	1600		
			5	110			33	250		
			10	88			22	500		
		LECH17	400W	135		20	20	40	10	1000
							32	30	8	1600
							5	120	40	250
			10	110			30	500		
			20	75			14	1000		
			40	22			7	2000		
		LECH22	750W	170		25	5	120	50	250
							10	120	40	500
							20	83	25	1000
			40	43			12	2000		
5	150		55	250						
10	150		45	500						
LECH22	750W	220	20	25	105	20	1250			
				40	43	12	2000			

\*1: The highest speed is based on the maximum servo motor's rpm (3000).

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

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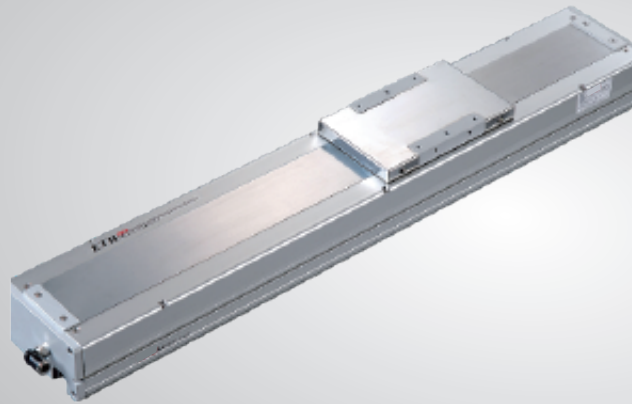
KK series

Stroke(mm) & Maximum Speed(mm/s) *2																	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	1400	1450	1500					
250																225	200	175	150	125	100												355		
500																450	400	350	300	250	200														
1000																900	800	700	600	500	400														
1600																1440	1280	1120	960	800	640														
250																225	200	175	150	125	100														
500																450	400	350	300	250	200														
1000																900	800	700	600	500	400														
1600																1440	1280	1120	960	800	640														
250																		225	200	175	150													367	
500																	450	400	350	300															
1000																	900	800	700	600															
2000																	1800	1600	1400	1200															
250																	225	200	175	150															
500																	450	400	350	300															
1000																	900	800	700	600															
2000																	1800	1600	1400	1200															
250																		225	200	175	150	125	100										377		
500																	450	400	350	300	250	200													
1250																	1125	1000	875	750	625	500													
2000																	1800	1600	1400	1200	1000	800	600												

# LECH14 1-axis

▶ Clean Room

▶ Screw drive



**Maximum Stroke** 1050mm

**Maximum Speed** 1600mm/s

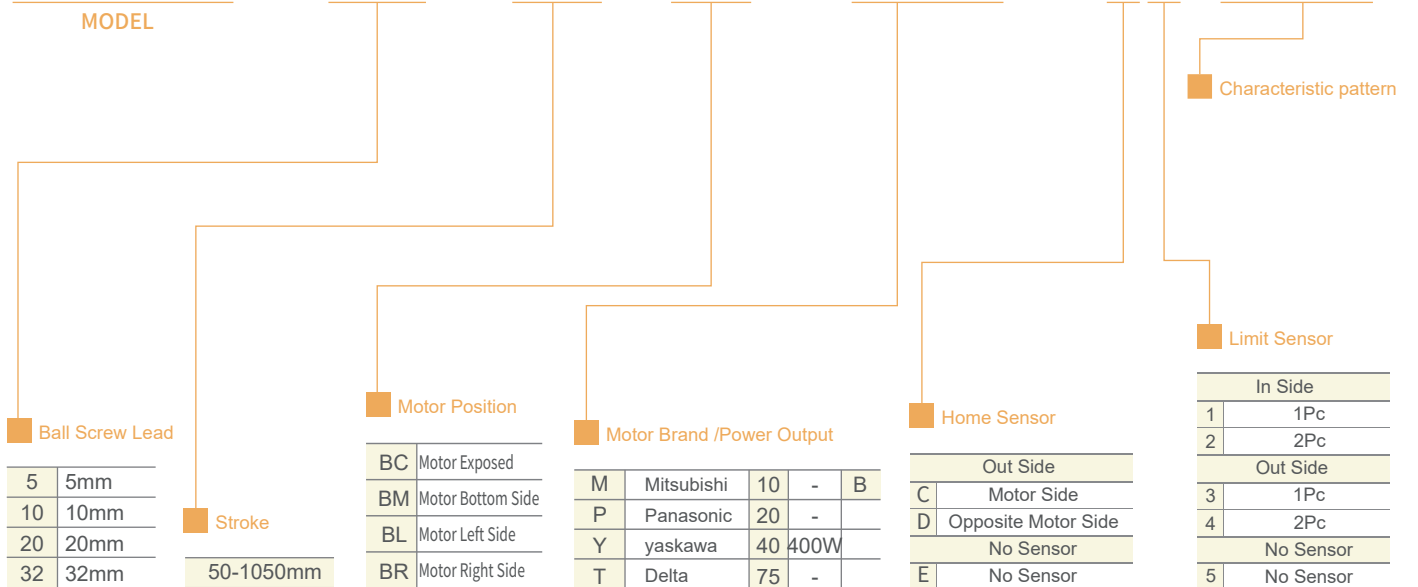
**Motor output** 400W

**Ball Screw** Φ16mm

**LinearGuide** 15C×12.5-2支

## Model naming method

**LECH14 - L5 - 50 - BC - M40B - C4 - 0001**



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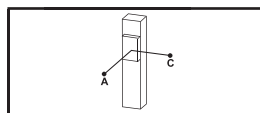
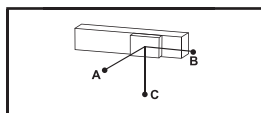
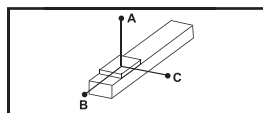
Product parameter

Position repetition accuracy (mm)		±0.01			
Ball Screw Lead (mm)		5	10	20	32
Max. speed(mm/s)		250	500	1000	1600
Max. load(KG)	Max. horizontal load(KG)	110	88	40	30
	Max. vertical load(KG)	33	22	10	8
Stationary thrust (N)		1388	694	347	217
Standard stroke (mm)		50-1050mm/50mm Pitch			
AC servo motor capacity(W)		400			
Ball Screw (mm)		C7Φ16			
High Rigidity Linear Guide (mm)		W15×H12.5			
Coupling (mm)		10×14			
Origin inductor	Outside	EE-SX672(NPN)			
	Built-in	EE-SX674(NPN)			

※1 Acceleration and deceleration value is set 0.2 second.

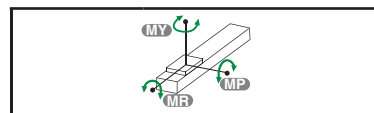
※2 When the stroke is over 750mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

Allowable Overhang



Horizontal Installation (Unit : mm)				Wall Installation (Unit : mm)				Vertical Installation (Unit : mm)							
Lead	Weight	A	B	C	Lead	Weight	A	B	C	Lead	Weight	A	C		
5	60kg	2512	242	232	5	55kg	257	269	2883	5	15kg	1118	1118		
	80kg	1811	172	164		10	75kg	178	186		2000	10	22kg	770	770
	110kg	1284	114	108			20	110kg	108		114		1284	20	33kg
10	30kg	2727	470	430	10	35kg		363	395	2368	10	10kg	1500		1500
	50kg	1577	266	242		20	55kg	218	238	1445		20	14kg	1072	1072
	88kg	854	134	122			32	88kg	123	134			854	32	22kg
20	10kg	2304	1222	1028	20	12kg		854	1019	2552	20	7kg	1700		1700
	22kg	1443	540	451		32	20kg	500	596	1588		32	10kg	1188	1188
	40kg	860	277	233			32	40kg	233	277			860	32	-
32	15kg	1033	545	405	32	15kg		405	545	1033	32	5kg	1503		1503
	25kg	604	311	233		32	30kg	188	251	495		32	8kg	944	944
	30kg	495	251	188			32	-	-	-			-	32	-

Static Loading Moment



Moment	Value (Unit : N.m)
MY	551
MP	552
MR	485

\* The torque value in the chart indicate the center of gravity.

\* Operation life is 10,000km when the product is using under the specified conditions.

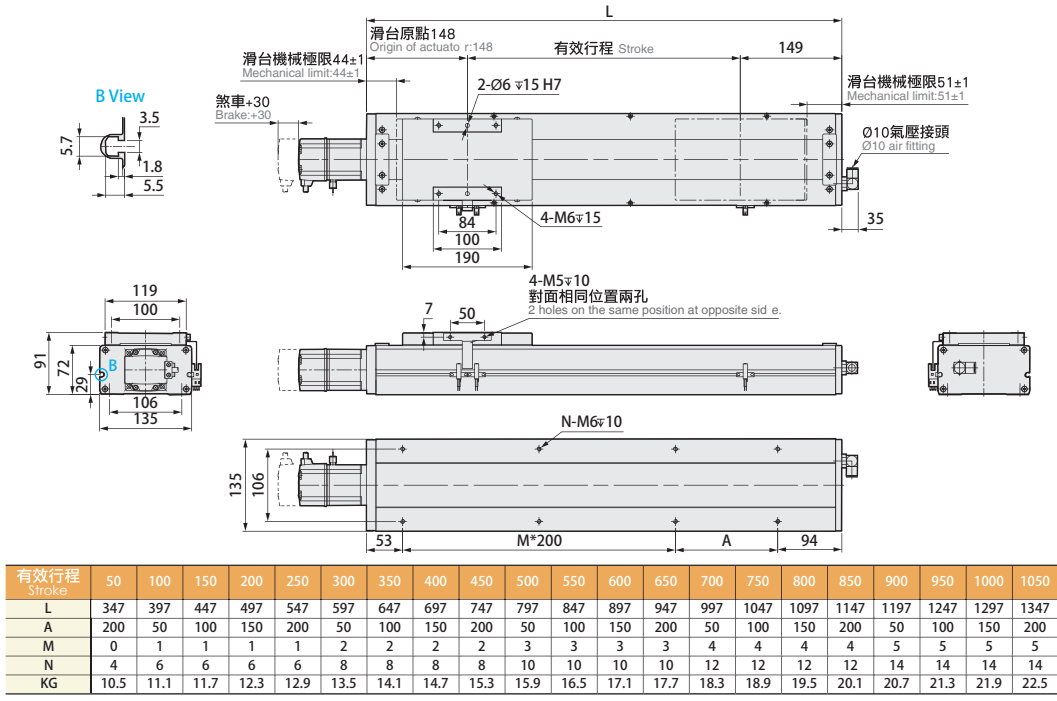
\* Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Suitable Motor Brand

Brand	Mark	Brake	Watt	AC-Voltage	Motor Model	Driver Model
Mitsubishi	M	No Brake (Horizontal Type)	400	220	HG-KR43	MR-J4-40A
		With Brake (Vertical Type)	400	220	HG-KR43B	MR-J4-40A
Panasonic	P	No Brake (Horizontal Type)	400	220	MHMD042G1U	MBDHT2510
		With Brake (Vertical Type)	400	220	MHMD042G1V	MBDHT2510
Delta	T	No Brake (Horizontal Type)	400	220	ECMA-C20604ES	ASD-B20421-B
		With Brake (Vertical Type)	400	220	ECMA-C20604FS	ASD-B20421-B

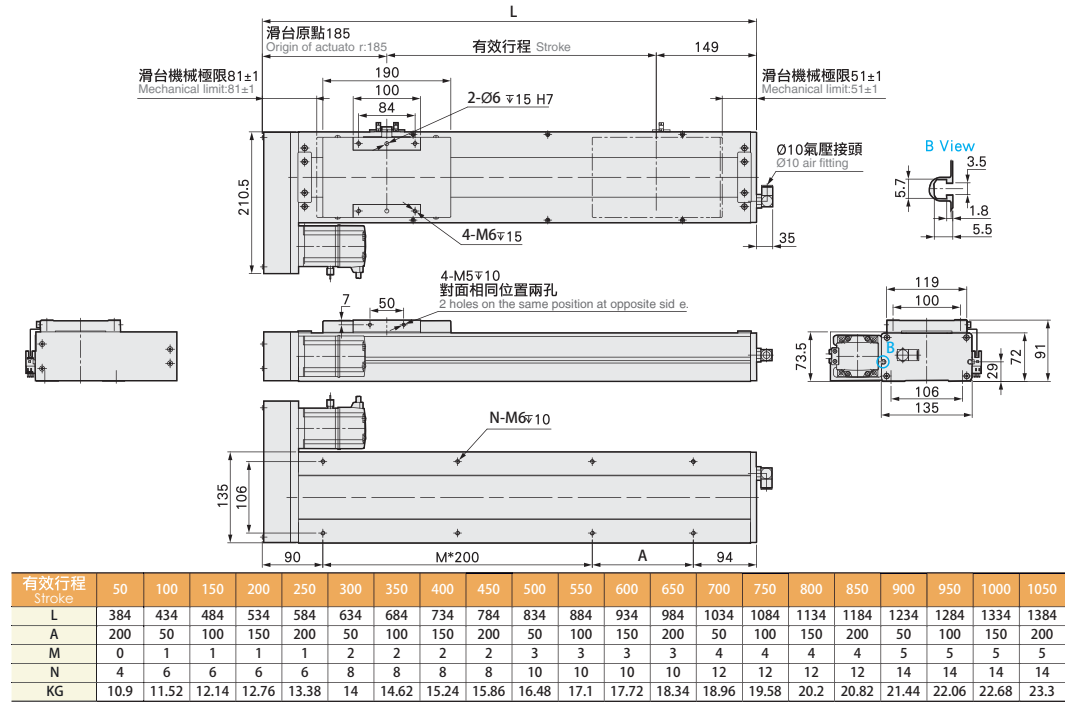
### motor exposed

Unit:mm



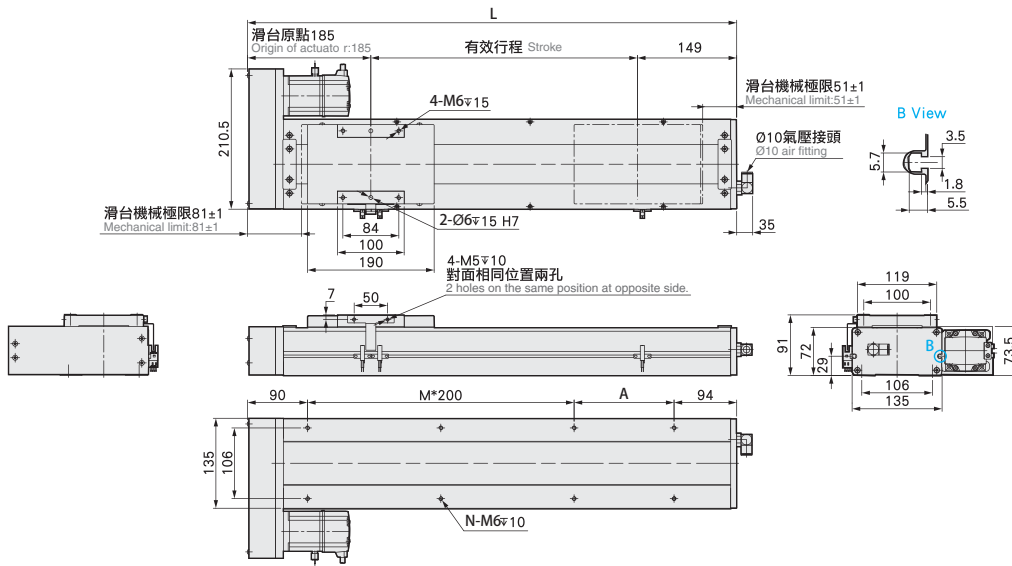
### motor left side

Unit:mm



## motor right side

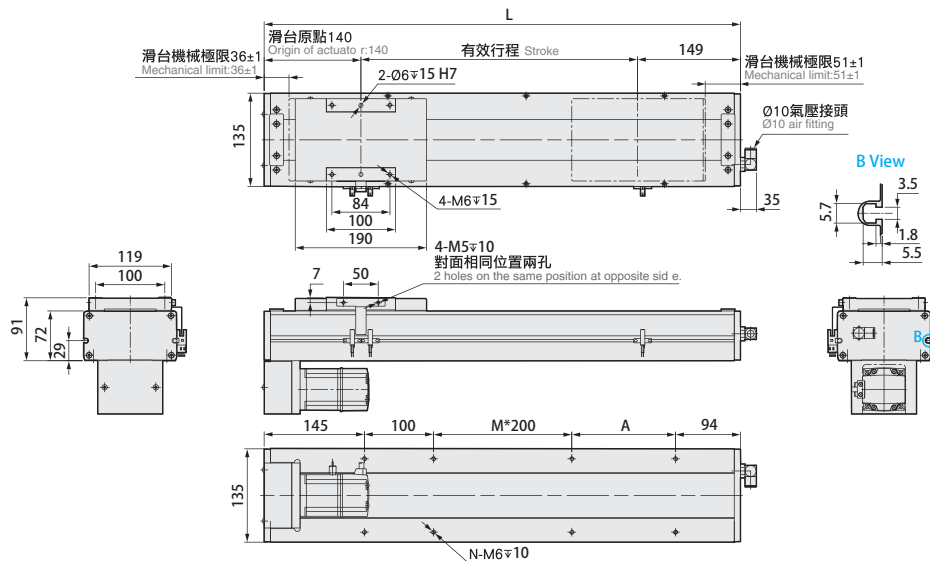
Unit:mm



有效行程 Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	384	434	484	534	584	634	684	734	784	834	884	934	984	1034	1084	1134	1184	1234	1284	1334	1384
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
KG	10.9	11.52	12.14	12.76	13.38	14	14.62	15.24	15.86	16.48	17.1	17.72	18.34	18.96	19.58	20.2	20.82	21.44	22.06	22.68	23.3

## motor bottom side

Unit:mm

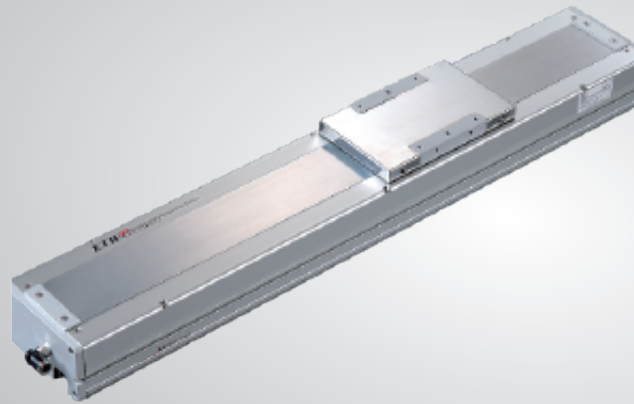


有效行程 Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	339	389	439	489	539	589	639	689	739	789	839	889	939	989	1039	1089	1139	1189	1239	1289	1339
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
KG	10.9	11.52	12.14	12.76	13.38	14	14.62	15.24	15.86	16.48	17.1	17.72	18.34	18.96	19.58	20.2	20.82	21.44	22.06	22.68	23.3

# LECH17 1-axis

▶ Clean Room

▶ Screw drive



**Maximum Stroke** 1250mm

**Maximum Speed** 2000mm/s

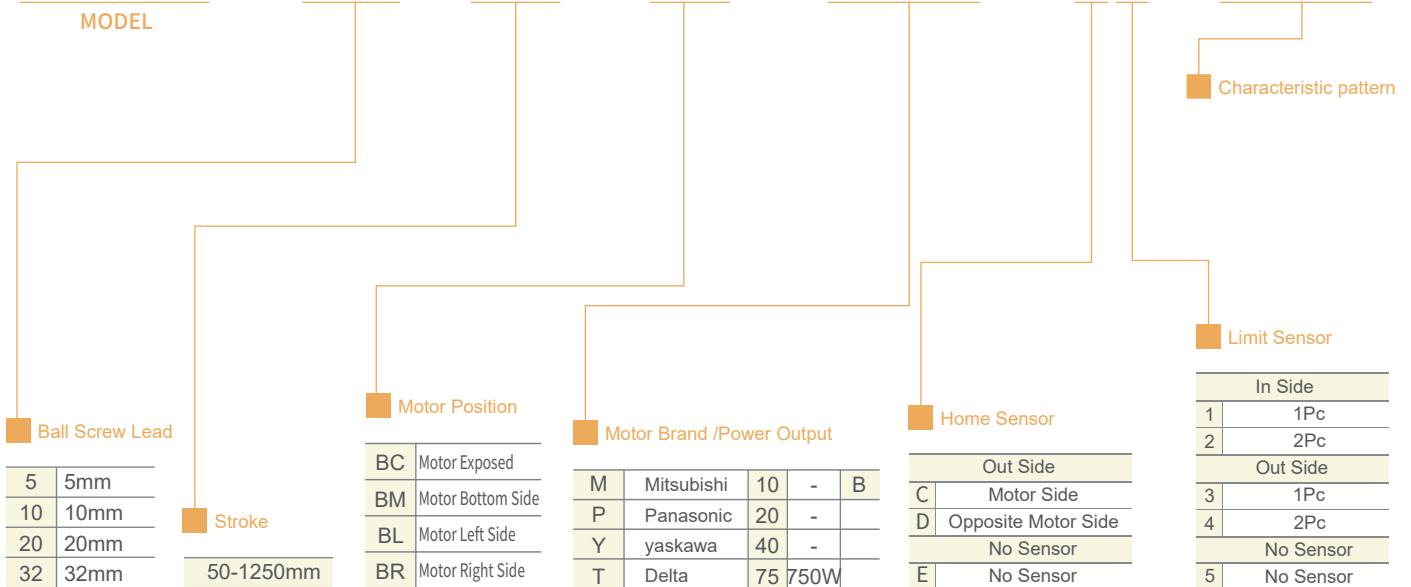
**Motor output** 750W

**Ball Screw** Φ20mm

**LinearGuide** 20×15-2支

## Model naming method

**LECH17 - L5 - 50 - BC - M75B - C4 - 0001**





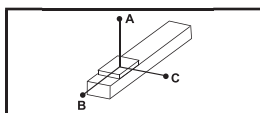
Product parameter

Position repetition accuracy (mm)		±0.01			
Ball Screw Lead (mm)		5	10	20	40
Max. speed(mm/s)		250	500	1000	2000
Max. load(KG)	Max. horizontal load(KG)	120	120	83	43
	Max. vertical load(KG)	50	40	25	12
Rated thrust (N)		2563	1281	640	320
Standard stroke (mm)		50-1250mm/50mm Pitch			
AC servo motor capacity(W)		750			
Ball Screw (mm)		C7Φ20			
High Rigidity Linear Guide (mm)		W20×H15			
Coupling (mm)		12×19			
Origin inductor	Outside	EE-SX672(NPN)			
	Built-in	EE-SX674(NPN)			

※1 Acceleration and deceleration value is set 0.2 second.

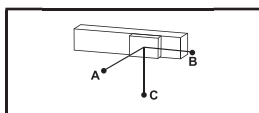
※2 When the stroke is over 850mm, the run-out of the ballscrew will occur.  
We recommend to low down the working speed under this circumstances.

Allowable Overhang



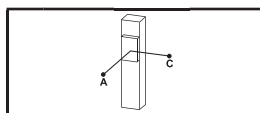
(Unit: mm)

Horizontal Installation	A	B	C	
5 Lead	70kg	3235	349	408
	90kg	2482	263	306
	120kg	1861	187	218
10 Lead	65kg	1911	338	373
	85kg	1445	248	276
	120kg	1000	164	182
20 Lead	35kg	1666	547	538
	55kg	1030	331	328
	83kg	654	206	204
40 Lead	15kg	1126	740	577
	22kg	755	491	384
	43kg	366	231	183



(Unit: mm)

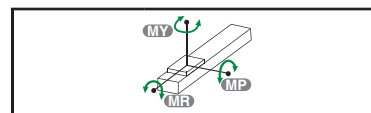
Wall Installation	A	B	C	
5 Lead	75kg	377	322	2988
	95kg	288	246	2333
	120kg	218	187	1850
10 Lead	60kg	408	368	2092
	80kg	296	266	1554
	120kg	182	164	1002
20 Lead	30kg	633	644	1961
	50kg	365	369	1143
	83kg	204	206	656
40 Lead	12kg	729	936	1417
	22kg	384	491	755
	43kg	183	231	366



(Unit: mm)

Vertical Installation	A	C	
5 Lead	20kg	1368	1368
	30kg	911	911
	50kg	546	546
10 Lead	15kg	1618	1618
	25kg	970	970
	40kg	607	607
20 Lead	10kg	1922	1922
	14kg	1377	1377
	25kg	769	769
40 Lead	7kg	1356	1356
	12kg	790	790
	-	-	-

Static Loading Moment



(Unit: N.m)

<b>MY</b>	1032
<b>MP</b>	1034
<b>MR</b>	908

\* The torque value in the chart indicate the center of gravity.

\* Operation life is 10,000km when the product is using under the specified conditions.

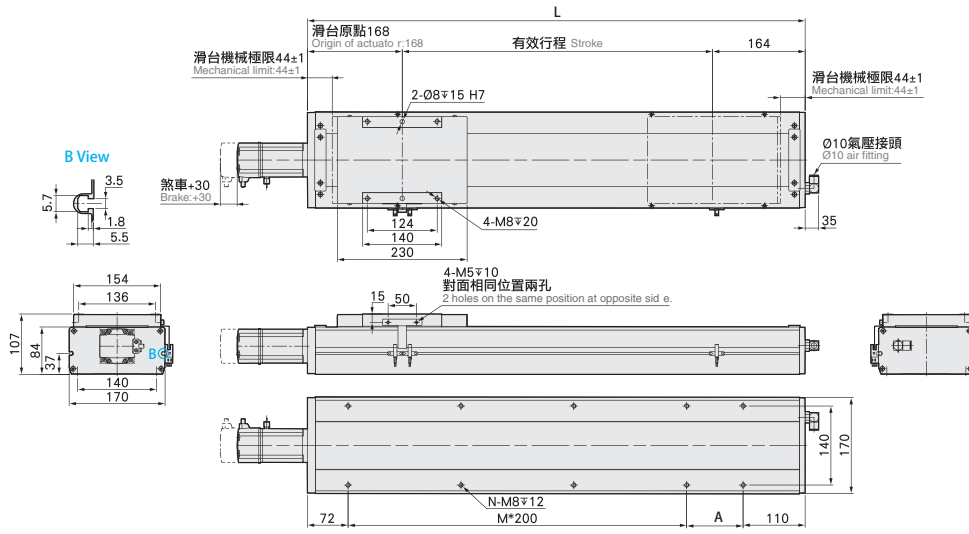
\* Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Suitable Motor Brand

Brand	Mark	Brake	Watt	AC-Voltage	Motor Model	Driver Model
Mitsubishi	M	No Brake (Horizontal Type)	750	220	HG-KR73	MR-J4-70A
		With Brake (Vertical Type)	750	220	HG-KR73B	MR-J4-70A
Panasonic	P	No Brake (Horizontal Type)	750	220	MHMD082G1U	MCDHT3520
		With Brake (Vertical Type)	750	220	MHMD082G1V	MCDHT3520
Delta	T	No Brake (Horizontal Type)	750	220	ECMA-C20807ES	ASD-B20721-B
		With Brake (Vertical Type)	750	220	ECMA-C20807FS	ASD-B20721-B

# motor exposed

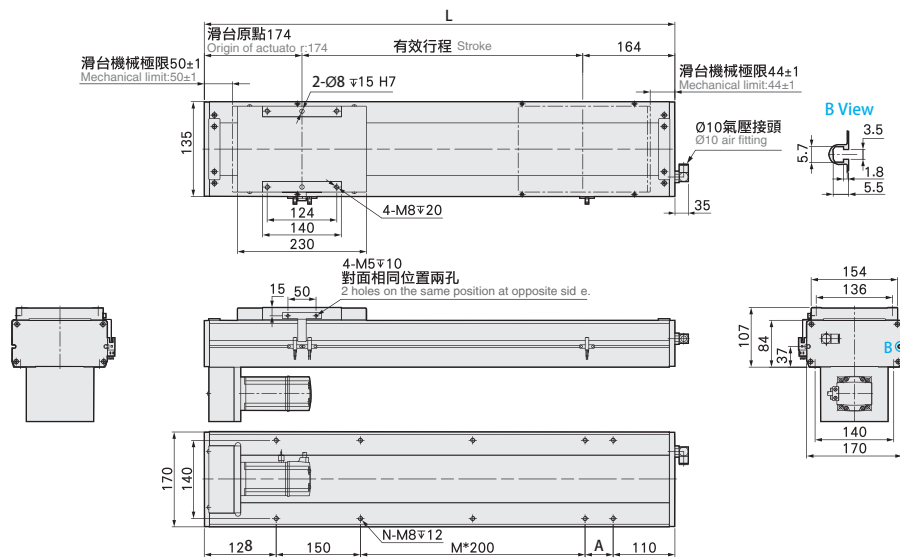
Unit:mm



有效行程 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
L	392	442	492	542	592	642	692	742	792	842	892	942	992	1042	1092	1142	1192	1242	1292	1342	1392	1442	1492	1542	1592
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16
KG	11.84	12.62	13.4	14.18	14.96	15.74	16.52	17.3	18.08	18.85	19.63	20.41	21.19	21.97	22.75	23.53	24.31	25.09	25.87	26.65	27.43	28.21	28.99	29.77	30.55

# motor bottom side

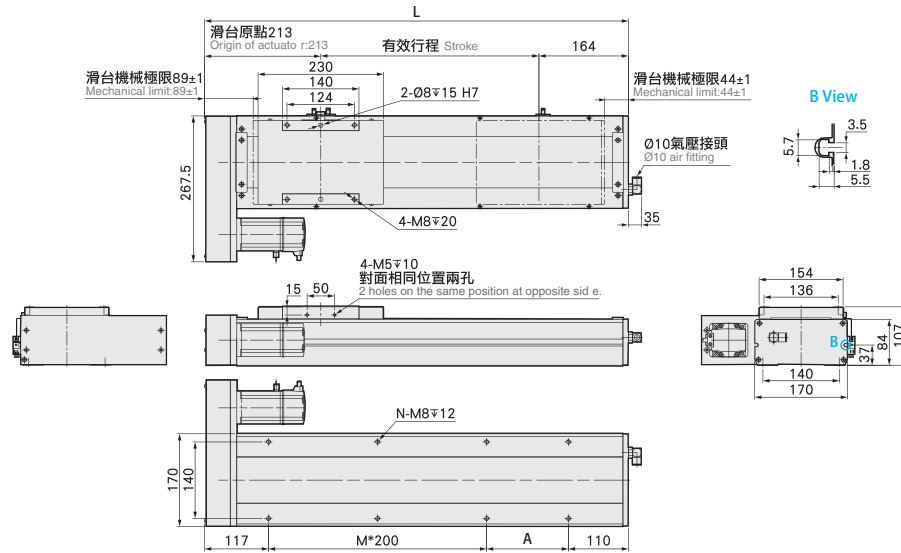
Unit:mm



有效行程 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
L	388	438	488	538	588	638	688	738	788	838	888	938	988	1038	1088	1138	1188	1238	1288	1338	1388	1438	1488	1538	1588
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16
KG	12.61	13.39	14.17	14.96	15.74	16.53	17.31	18.1	18.88	19.67	20.45	21.24	22.02	22.81	23.59	24.38	25.17	25.95	26.74	27.52	28.31	29.09	29.88	30.66	31.45

## motor left side

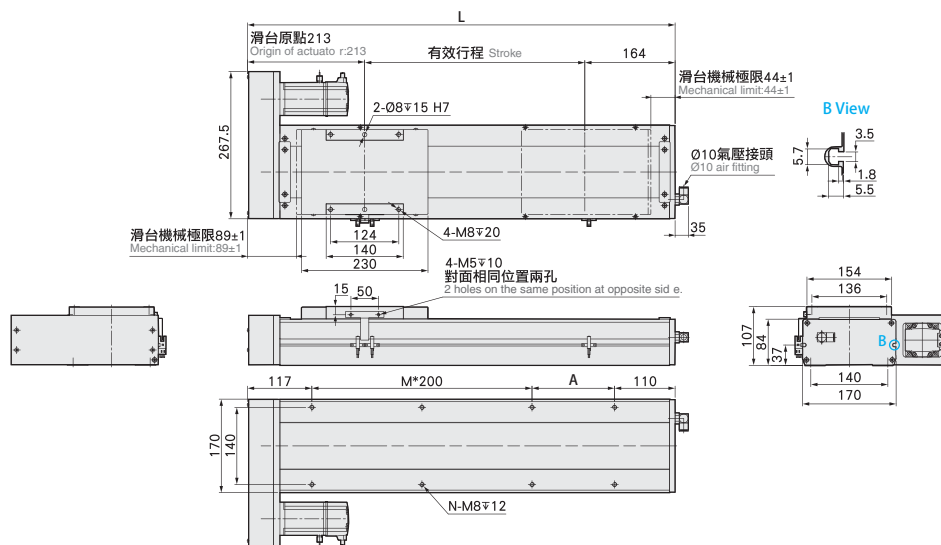
Unit:mm



有效行程 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
L	427	477	527	577	627	677	727	777	827	877	927	977	1027	1077	1127	1177	1227	1277	1327	1377	1427	1477	1527	1577	1627
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16
KG	12.61	13.39	14.17	14.96	15.74	16.53	17.31	18.1	18.88	19.67	20.45	21.24	22.02	22.81	23.59	24.38	25.17	25.95	26.74	27.52	28.31	29.09	29.88	30.66	31.45

## motor right side

Unit:mm



有效行程 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
L	427	477	527	577	627	677	727	777	827	877	927	977	1027	1077	1127	1177	1227	1277	1327	1377	1427	1477	1527	1577	1627
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16
KG	12.61	13.39	14.17	14.96	15.74	16.53	17.31	18.1	18.88	19.67	20.45	21.24	22.02	22.81	23.59	24.38	25.17	25.95	26.74	27.52	28.31	29.09	29.88	30.66	31.45

LGTH series

LGCH series

LETH series

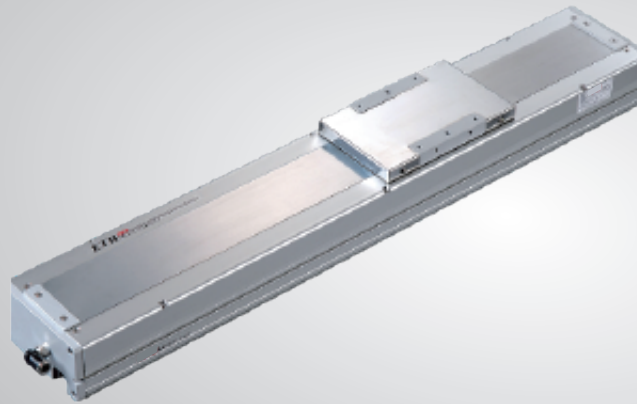
LECH series

KK series

# LECH22 1-axis

▶ Clean Room

▶ Screw drive



**Maximum Stroke** 1500mm

**Maximum Speed** 2000mm/s

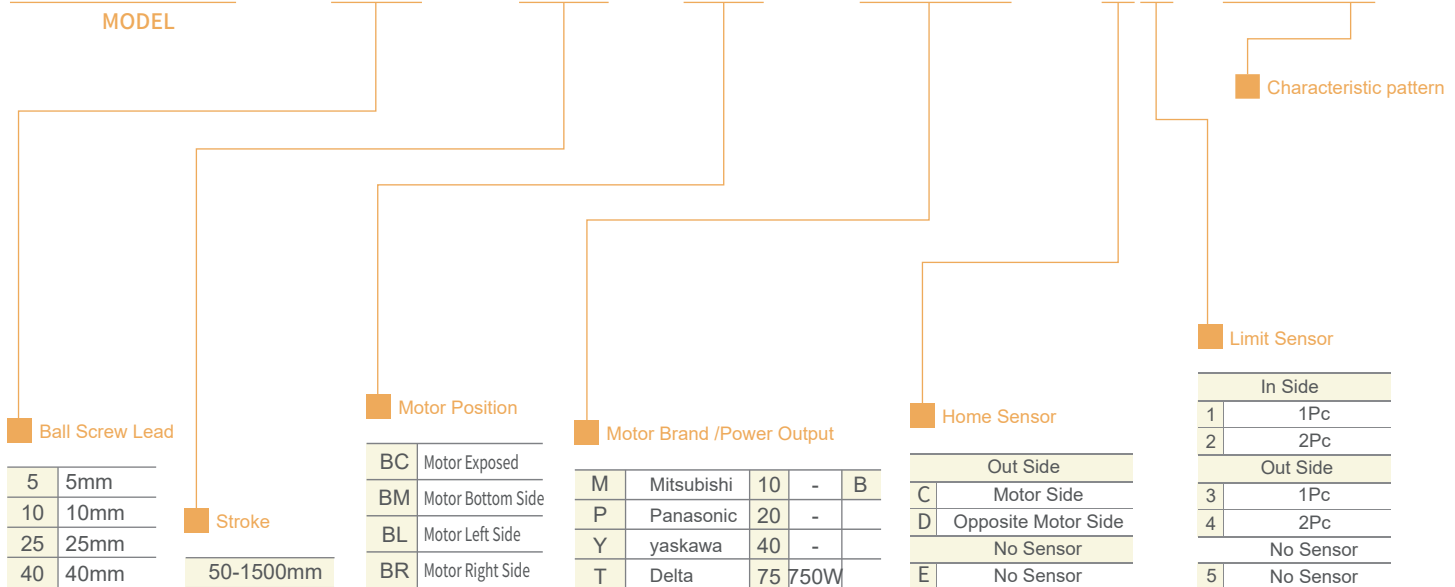
**Motor output** 750W

**Ball Screw**  $\Phi 25\text{mm}$

**LinearGuide** 23×18-2支

## Model naming method

# LECH22 - L10 - 50 - BC - M75B - C4 - 0001



Product parameter

Position repetition accuracy (mm)		±0.01			
Ball Screw Lead (mm)		5	10	25	40
Max. speed(mm/s)		250	500	1250	2000
Max. load(KG)	Max. horizontal load(KG)	150	150	105	43
	Max. vertical load(KG)	55	45	20	12
Rated thrust (N)		2565	1281	640	320
Standard stroke (mm)		50-1500mm/50mm Pitch			
AC servo motor capacity(W)		750			
Ball Screw (mm)		C7Φ25		C7Φ20	
High Rigidity Linear Guide (mm)		W23×H18			
Coupling (mm)		17×19		12×19	
Origin inductor	Outside	EE-SX672(NPN)			
	Built-in	EE-SX674(NPN)			

LGTH series

LGCH series

LETH series

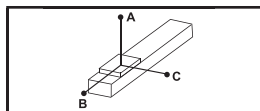
LECH series

KK series

※1 Acceleration and deceleration value is set 0.2 second.

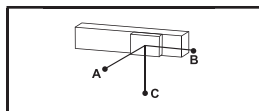
※2 When the stroke is over 900mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances.

Allowable Overhang



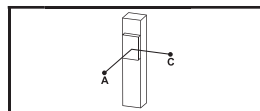
(Unit: mm)

Horizontal Installation	A	B	C
5 Lead	100kg	5000	633 557
	125kg	3880	491 431
	150kg	3357	396 347
10 Lead	100kg	3220	563 474
	125kg	2554	434 367
	150kg	2113	349 295
25 Lead	65kg	1522	614 458
	85kg	1136	451 336
	105kg	893	350 262
40 Lead	18kg	2445	1616 1052
	30kg	1436	938 613
	43kg	978	630 412



(Unit: mm)

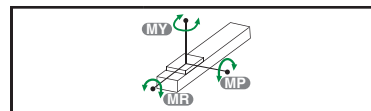
Wall Installation	A	B	C
5 Lead	110kg	500	569 4500
	130kg	412	469 3711
	150kg	347	396 3357
10 Lead	110kg	427	503 2900
	130kg	351	414 2444
	150kg	295	349 2113
25 Lead	70kg	420	564 1404
	90kg	315	420 1066
	105kg	262	350 893
40 Lead	15kg	1272	1955 2948
	24kg	778	1190 1813
	43kg	412	630 978



(Unit: mm)

Vertical Installation	A	C
5 Lead	30kg	2355 2355
	40kg	1768 1768
	55kg	1288 1288
10 Lead	25kg	2505 2505
	35kg	1795 1795
	45kg	1396 1396
20 Lead	15kg	2711 2711
	20kg	2033 2033
	20kg	2033 2033
40 Lead	7kg	3511 3511
	12kg	2055 2055
	12kg	2055 2055

Static Loading Moment



(Unit: N.m)

<b>MY</b>	2052
<b>MP</b>	2052
<b>MR</b>	1810

\* The torque value in the chart indicate the center of gravity.

\* Operation life is 10,000km when the product is using under the specified conditions.

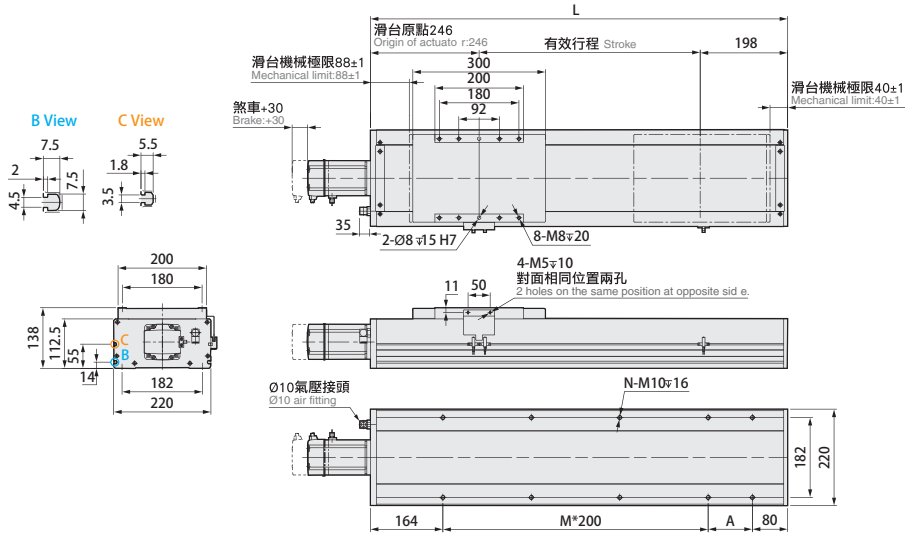
\* Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

Suitable Motor Brand

Brand	Mark	Brake	Watt	AC-Voltage	Motor Model	Driver Model
Mitsubishi	M	No Brake (Horizontal Type)	750	220	HG-KR73	MR-J4-70A
		With Brake (Vertical Type)	750	220	HG-KR73B	MR-J4-70A
Panasonic	P	No Brake (Horizontal Type)	750	220	MHMD082G1U	MCDHT3520
		With Brake (Vertical Type)	750	220	MHMD082G1V	MCDHT3520
Delta	T	No Brake (Horizontal Type)	750	220	ECMA-C20807ES	ASD-B20721-B
		With Brake (Vertical Type)	750	220	ECMA-C20807FS	ASD-B20721-B

# motor exposed

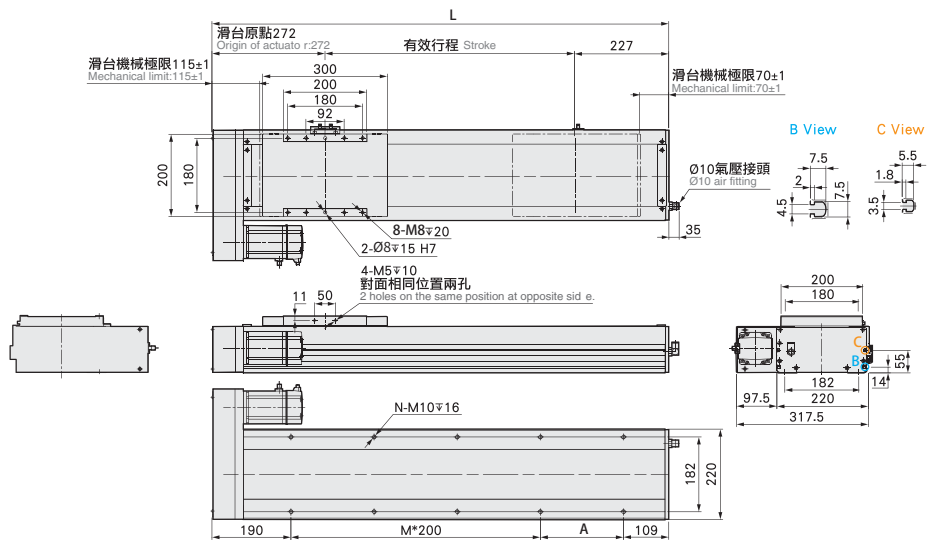
Unit:mm



有效行程 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	1400	1450	1500
L	494	544	594	644	694	744	794	844	894	944	994	1044	1094	1144	1194	1244	1294	1344	1394	1444	1494	1544	1594	1644	1694	1744	1794	1844	1894	1994
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
KG	27.5	28.96	30.42	31.88	33.34	34.8	36.26	37.72	39.18	40.64	42.1	43.56	45.02	46.48	47.94	49.4	50.86	52.32	53.78	55.24	56.7	58.16	59.62	61.08	62.54	64	65.46	66.92	68.38	69.84

# motor left side

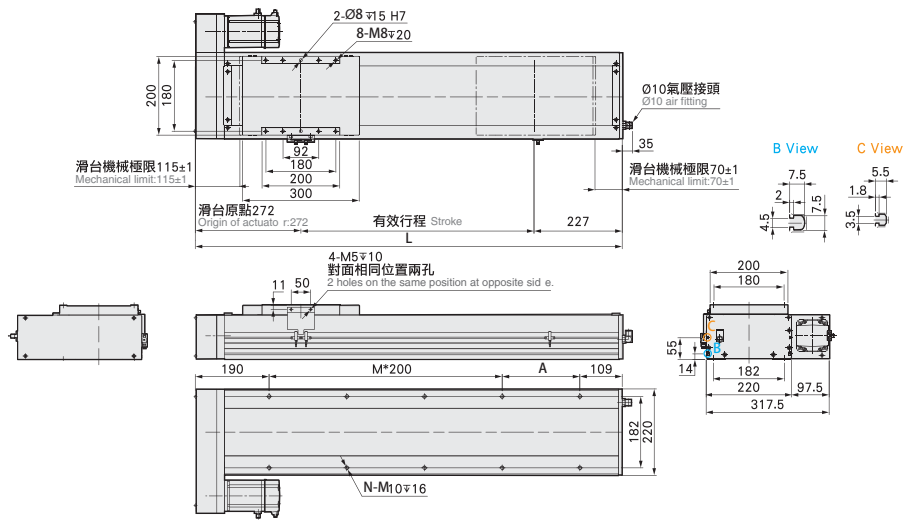
Unit:mm



有效行程 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	1400	1450	1500
L	549	599	649	699	749	799	849	899	949	999	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
KG	28.6	30.06	31.52	32.98	34.44	35.9	37.36	38.82	40.28	41.74	43.2	44.66	46.12	47.58	49.04	50.5	51.96	53.42	54.88	56.34	57.8	59.26	60.72	62.18	63.64	65.1	66.56	68.02	69.48	70.94

### motor right side

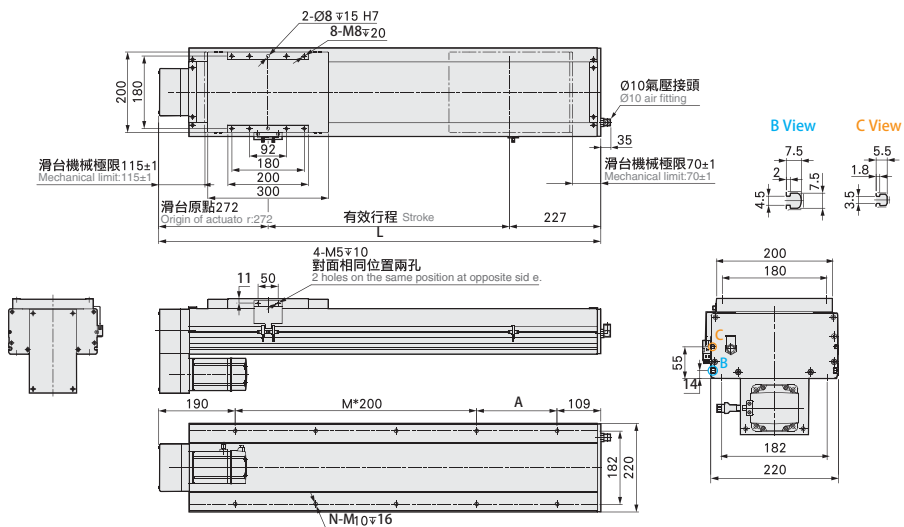
Unit:mm



有效行程 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	1400	1450	1500
L	549	599	649	699	749	799	849	899	949	999	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
KG	28.6	30.06	31.52	32.98	34.44	35.9	37.36	38.82	40.28	41.74	43.2	44.66	46.12	47.58	49.04	50.5	51.96	53.42	54.88	56.34	57.8	59.26	60.72	62.18	63.64	65.1	65.56	68.02	69.48	70.94

### motor bottom side

Unit:mm



有效行程 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	1400	1450	1500
L	549	599	649	699	749	799	849	899	949	999	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
KG	28.6	30.06	31.52	32.98	34.44	35.9	37.36	38.82	40.28	41.74	43.2	44.66	46.12	47.58	49.04	50.5	51.96	53.42	54.88	56.34	57.8	59.26	60.72	62.18	63.64	65.1	65.56	68.02	69.48	70.94

LGTH series

LGCH series

LETH series

LECH series

KK series