

LBC Series

Belt-Drive Electric Actuators

(For Cleanroom Applications)



High force electric actuators for industrial applications in cleanroom environment

LBC Series Belt Drive Electric Actuators

For cleanroom applications

Our LBC series belt drive linear actuator is widely used in automation production lines to replace pneumatic cylinders, with all the benefits of a high precision, low noise motion control system for cleanroom applications where a fully sealed structure with increased dust proof protection is required.

Main Features

- Load range: 0-50KG
- Maximum stroke: 3 metres, duty up to 100%
- High efficiency steel belt, self-unlocking
- Driven by a range of servo or stepping motors (supplied with or without)
- Precision control of position, precision repeatability of $\pm 0.04\text{mm}$
- Precision control of speed, high performance and high quality on low speed performance
- High dynamic response time, high acceleration
- Long life-cycle with low noise, simple operation and maintenance,

* Note: Thrust, stroke length etc. may be customised upon request. Please contact our technical sales team at (+44) 01202 599 922 for more details.

Part Number Configuration

LBC50D - L34 - S500 - B1 - M 100W - B

① ② ③ ④ ⑤ ⑥ ⑦

① Model name

② Stroke per revolution (mm)

③ Stroke length

④ Motor mounting type

B1= Motor leftward, upper position

B2= Motor rightward, upper position

B3= Motor leftward, horizontal position

B4= Motor rightward, horizontal position

B5= Motor leftward, lower position

B6= Motor rightward, lower position

⑤ Servo motor flange options

H = Hiwin

S = Sanyo Denki

M = Mitsubishi

Y = Yaskawa

P = Panasonic

F = Fuji

T = Delta

⑥ Motor output power

⑦ Brake option

B = with brake

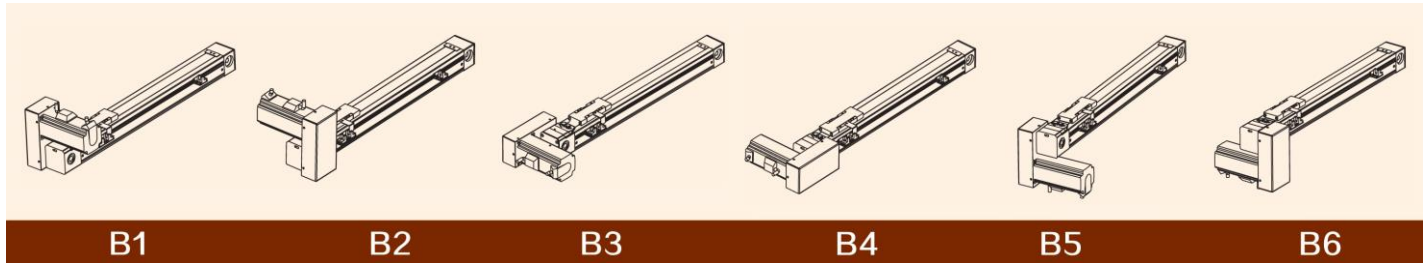
Blank: without brake

LBC50D Technical Specifications

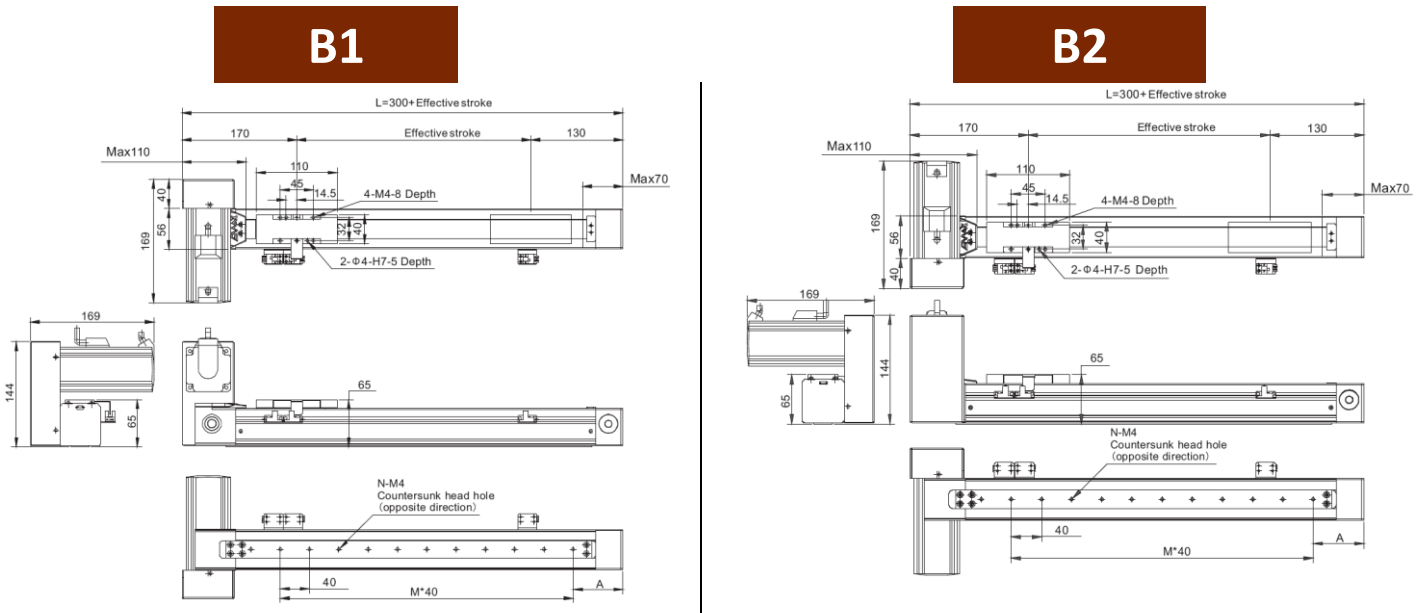
AC servo motor output power	100W								
Repeatability (mm)	±0.04	Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	34	Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	1718	3kg	200	90	250	2kg	225	70	130
Max. payload (kg)	8	5kg	70	5	110	4kg	100	0	20
Stroke length (mm)	100 – 800 (50 interval)	8kg	0	0	0	6kg	0	0	0

* Notes: 1) Linear guide rail: 15*12.5-1pc 2) L is the distance from the center of slider top to the center of gravity of object being transported

Motor Mounting Type



Installation Dimensions (in mm)

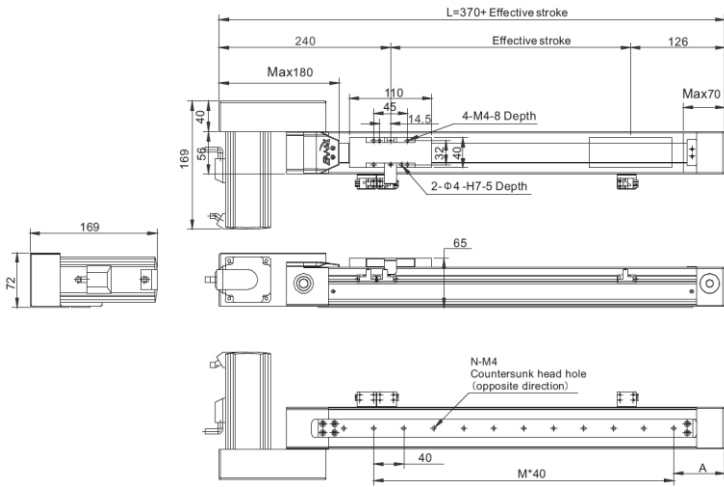


Notes: please contact us for specific model drawings before placing your order

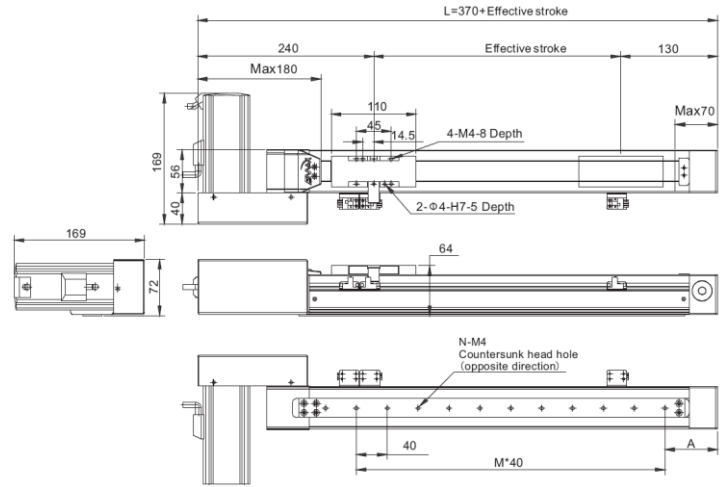
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
A	68	78	68	78	68	78	68	78	68	78	68	78	68	78	68
M	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
N	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Weight(kg)	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2

Installation Dimensions (in mm)

B3



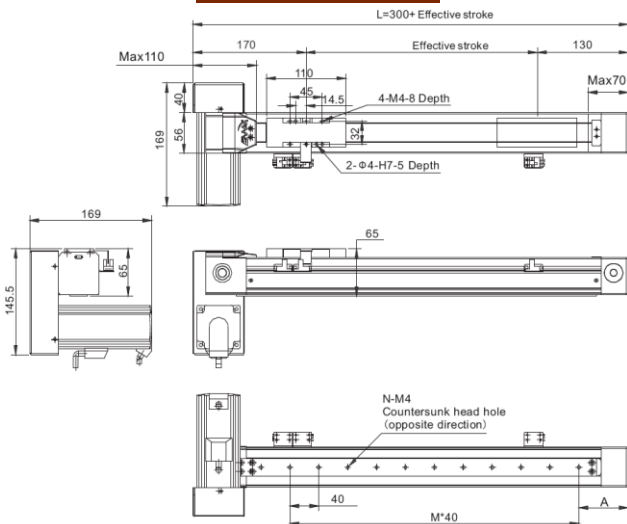
B4



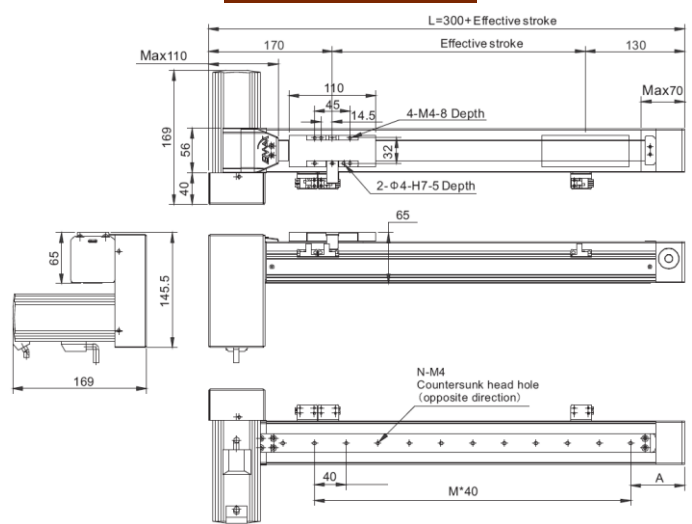
Notes: please contact us for specific model drawings before placing your order

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	470	520	570	620	670	720	770	820	870	920	970	1020	1070	1120	1170
A	68	78	68	78	68	78	68	78	68	78	68	78	68	78	68
M	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
N	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Weight(kg)	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2

B5



B6



Notes: please contact us for specific model drawings before placing your order

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
A	68	78	68	78	68	78	68	78	68	78	68	78	68	78	68
M	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
N	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Weight(kg)	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2

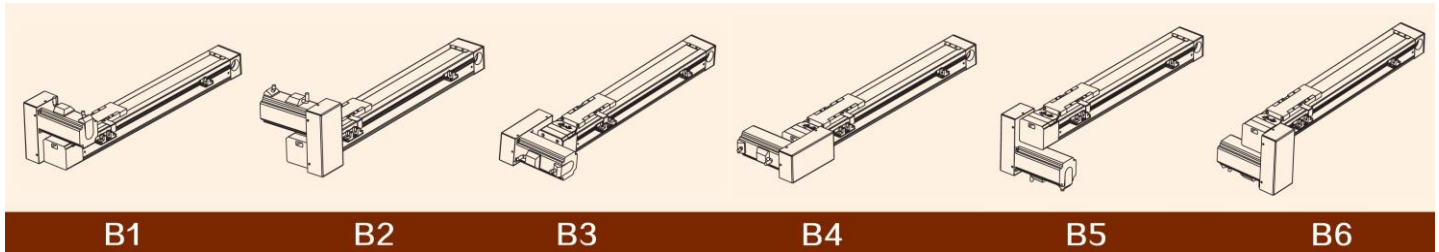
LBC60D Technical Specifications

AC servo motor output power	200W	400W								
	±0.04		Horizontal use (in mm)				Wall installation (in mm)			
Repeatability (mm)			Payload	0°	45°	90°	Payload	0°	45°	90°
Stroke per revolution (mm)	34		5kg	100	200	450	5kg	390	145	70
Max. speed (mm/s)	1718		15kg	35	100	290	15kg	120	55	25
Max. payload (kg)	15	25	25kg	0	70	150	25kg	20	0	0
Stroke length (mm)	100-800 (50 interval)									

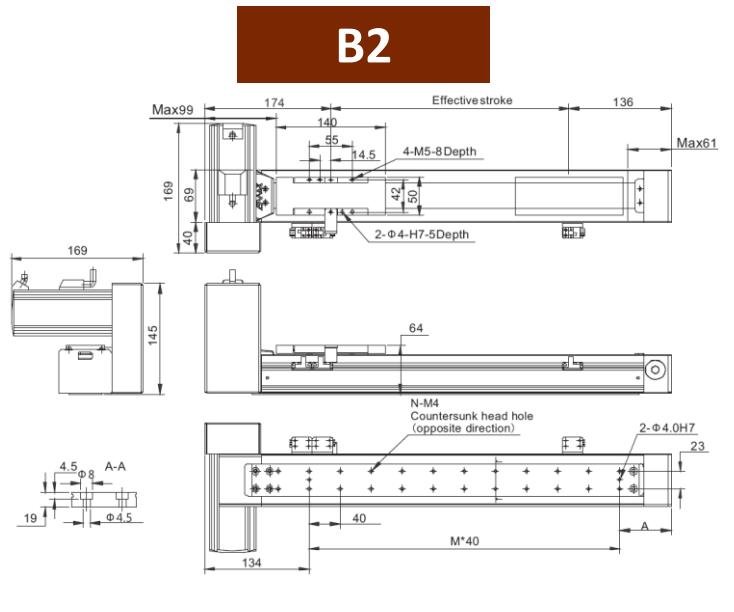
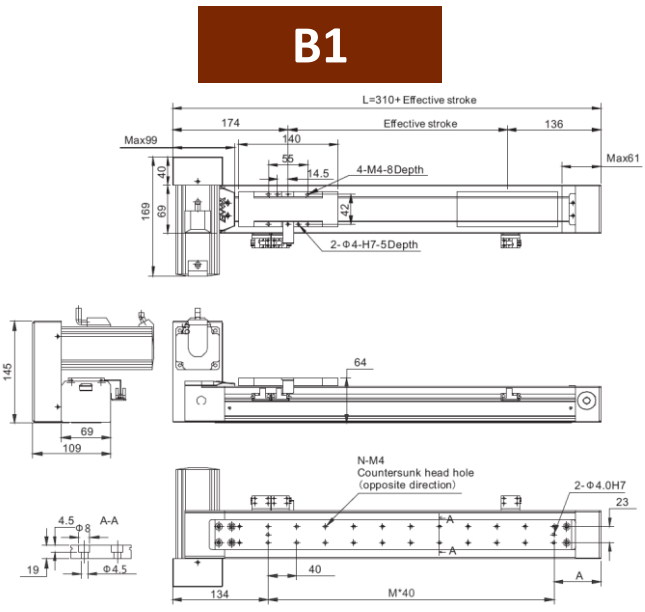
* Notes: 1) Linear guide rail: 15*12.5-1pc

2) L is the distance from the center of slider top to center of gravity of object being transported

Motor Mounting Type



Installation Dimensions (in mm)

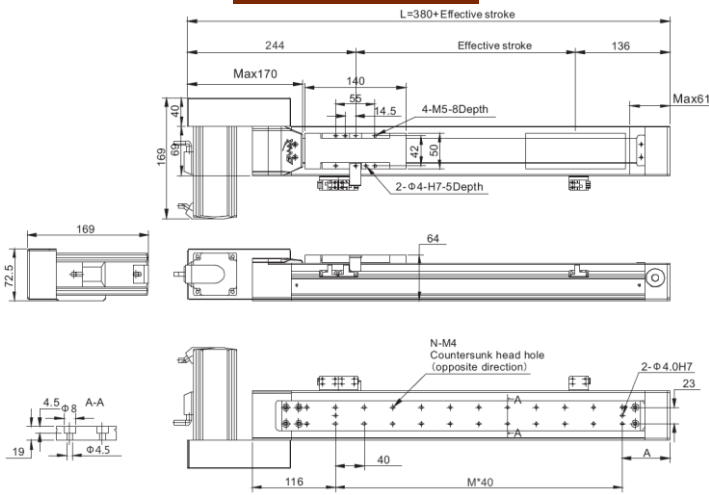


Notes: please contact us for specific model drawings before placing your order

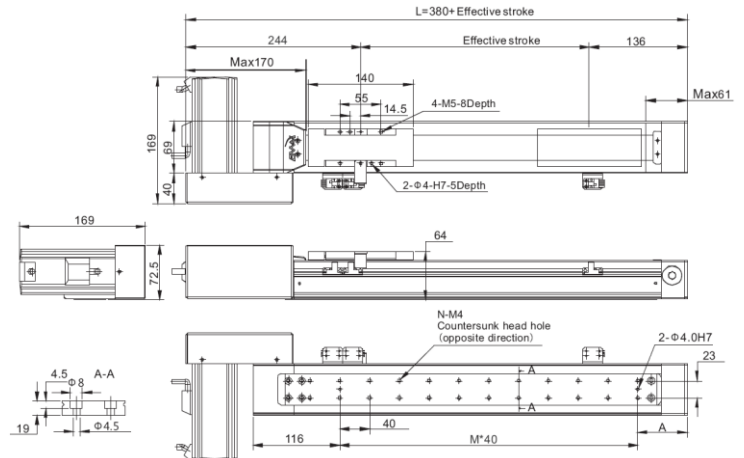
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110
A	66	76	66	76	66	76	66	76	66	76	66	76	66	76	66
M	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
N	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
Weight(kg)	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6

Installation Dimensions (in mm)

B3



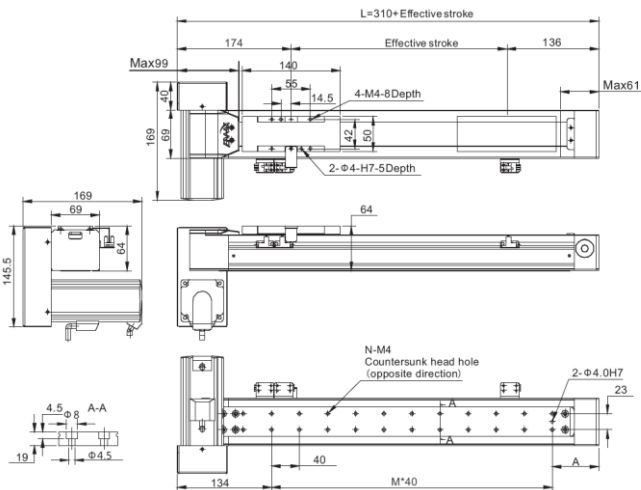
B4



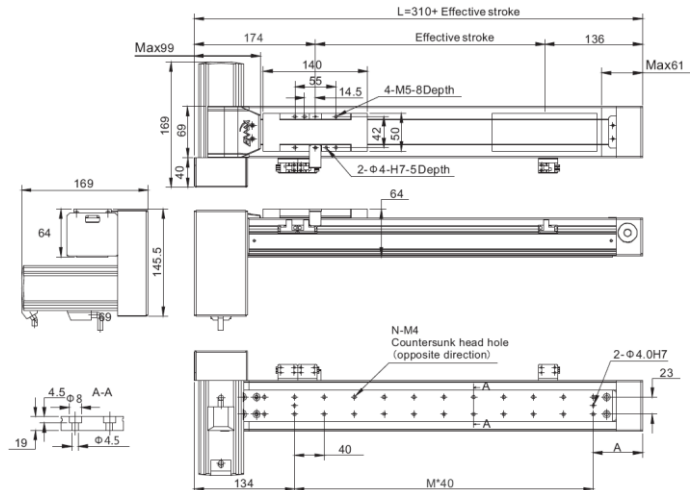
Notes: please contact us for specific model drawings before placing your order

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180
A	66	76	66	76	66	76	66	76	66	76	66	76	66	76	66
M	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
N	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
Weight(kg)	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6

B5



B6



Notes: please contact us for specific model drawings before placing your order

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110
A	66	76	66	76	66	76	66	76	66	76	66	76	66	76	66
M	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
N	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
Weight(kg)	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6

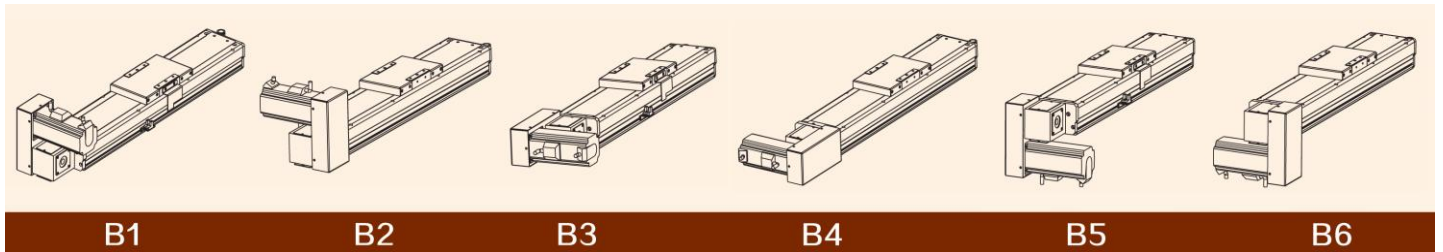
LBC100D Technical Specifications

AC servo motor output power	100W	200W								
	±0.04		Horizontal use (in mm)				Wall installation (in mm)			
Repeatability (mm)	±0.04		Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	40		Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	2000		5kg	509	525	800	5kg	727	401	433
Max. payload (kg)	20	25	15kg	208	290	427	11kg	503	290	316
Stroke length (mm)	150 – 1850 (100 interval)		20kg	122	186	229	18kg	200	116	144
			25kg	37	69	130	25kg	71	36	0

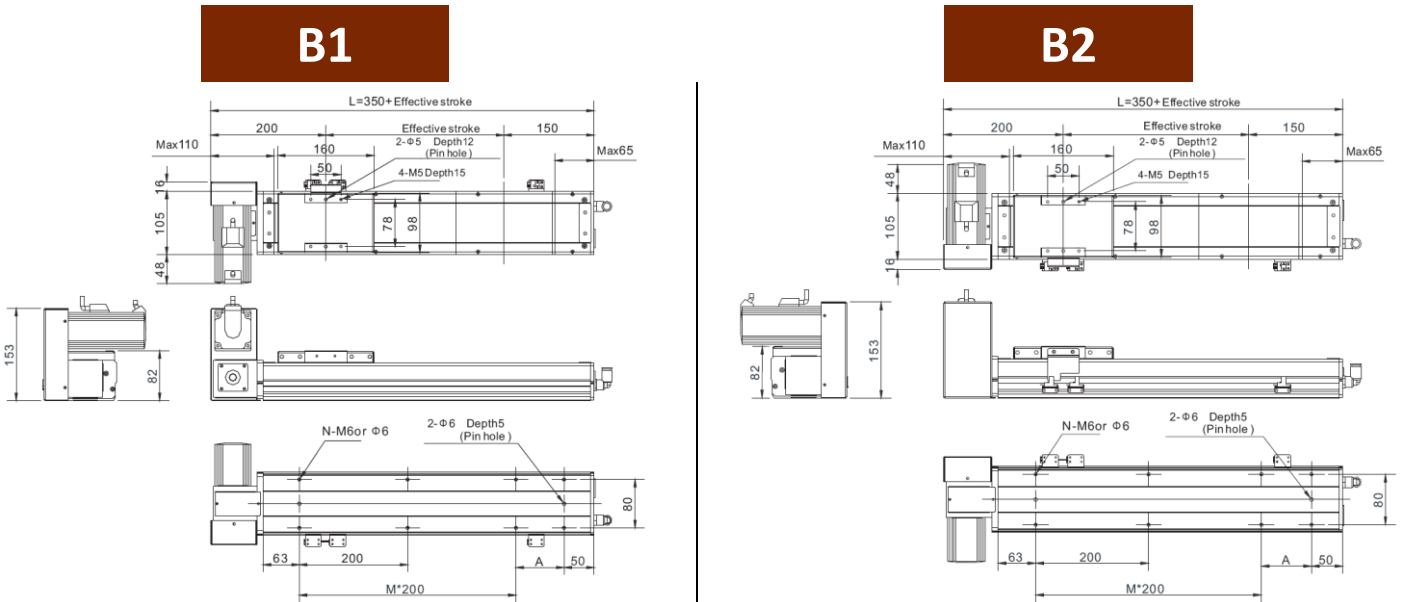
* Notes: 1) Linear guide rail: 15*12.5-1pc

2) L is the distance from the center of slider top to center of gravity of object being transported

Motor Installation Type



Installation Dimensions (in mm)

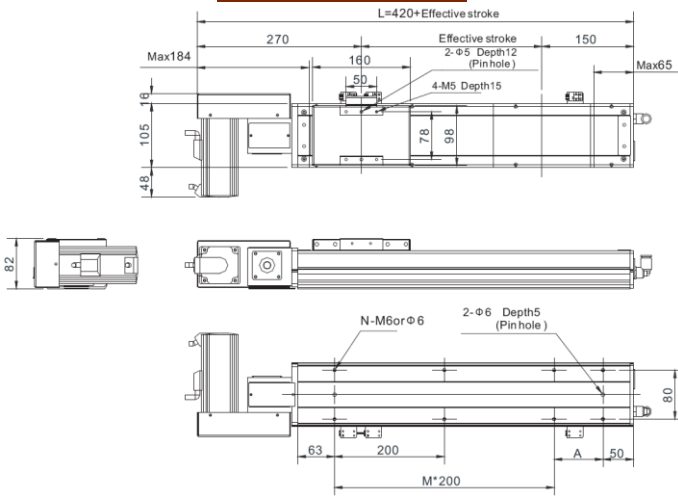


Notes: please contact us for specific model drawings before placing your order

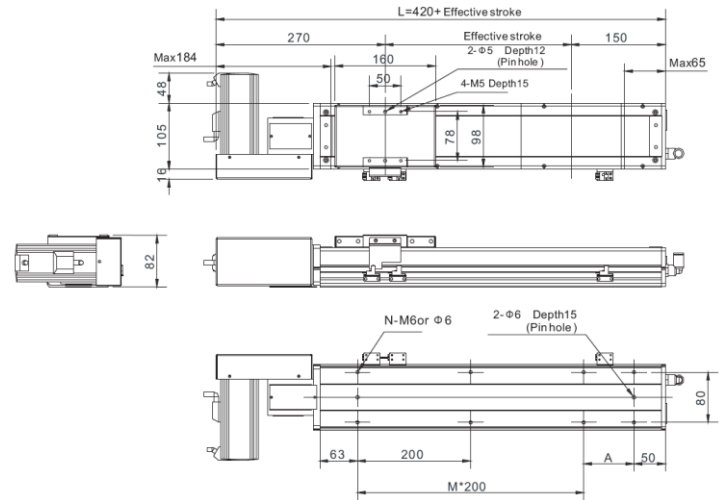
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850
L	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
A	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
Weight(kg)	6.2	6.9	7.6	8.3	9.0	9.7	10.4	11.1	11.8	12.5	13.2	13.9	14.6	15.3	16.0	16.7	17.4	18.1

Installation Dimensions (in mm)

B3



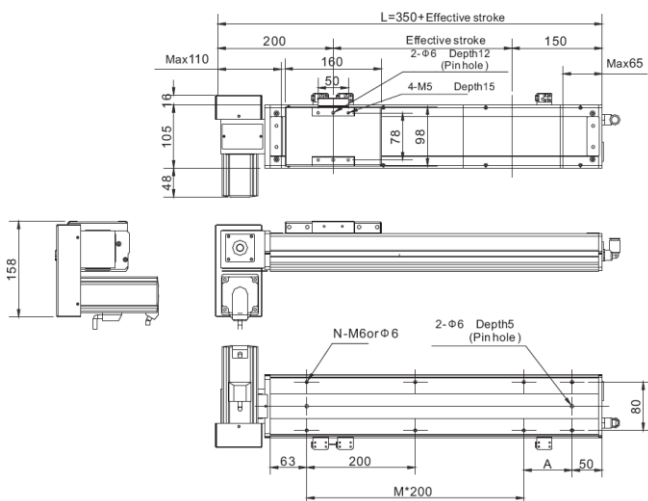
B4



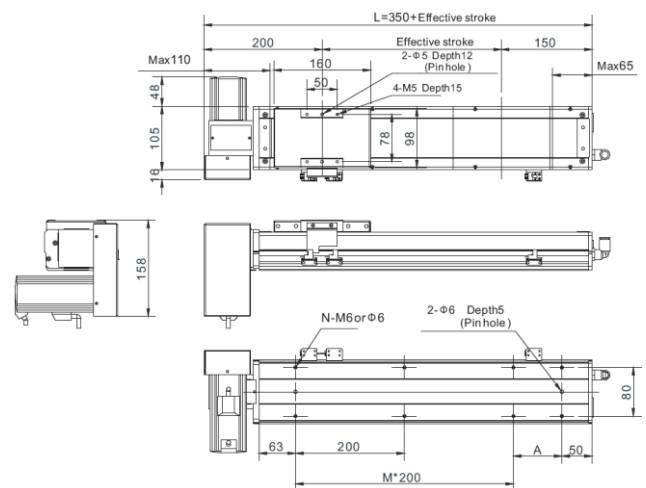
Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850
L	570	670	770	870	970	1070	1170	1270	1370	1470	1570	1670	1770	1870	1970	2070	2170	2270
A	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
Weight(kg)	6.2	6.9	7.6	8.3	9.0	9.7	10.4	11.1	11.8	12.5	13.2	13.9	14.6	15.3	16.0	16.7	17.4	18.1

B5



B6



Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850
L	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
A	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
Weight(kg)	6.2	6.9	7.6	8.3	9.0	9.7	10.4	11.1	11.8	12.5	13.2	13.9	14.6	15.3	16.0	16.7	17.4	18.1

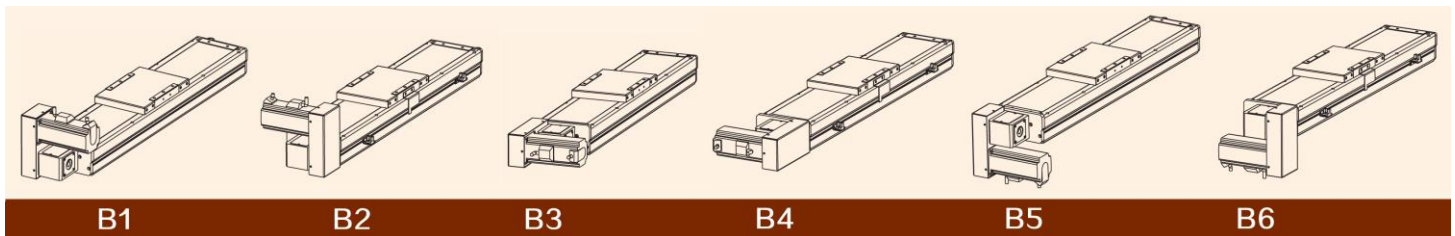
LEB136D Technical Specifications

AC servo motor output power	200W								
Repeatability (mm)	±0.04	Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	40	Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	2000	5kg	1150	1279	2629	5kg	2339	1219	1365
Max. payload (kg)	32	10kg	712	719	1559	10kg	1319	649	699
Stroke length (mm)	150 – 3050 (100 interval)	20kg	434	475	1209	20kg	935	385	379
		32kg	288	310	766	30kg	600	220	199

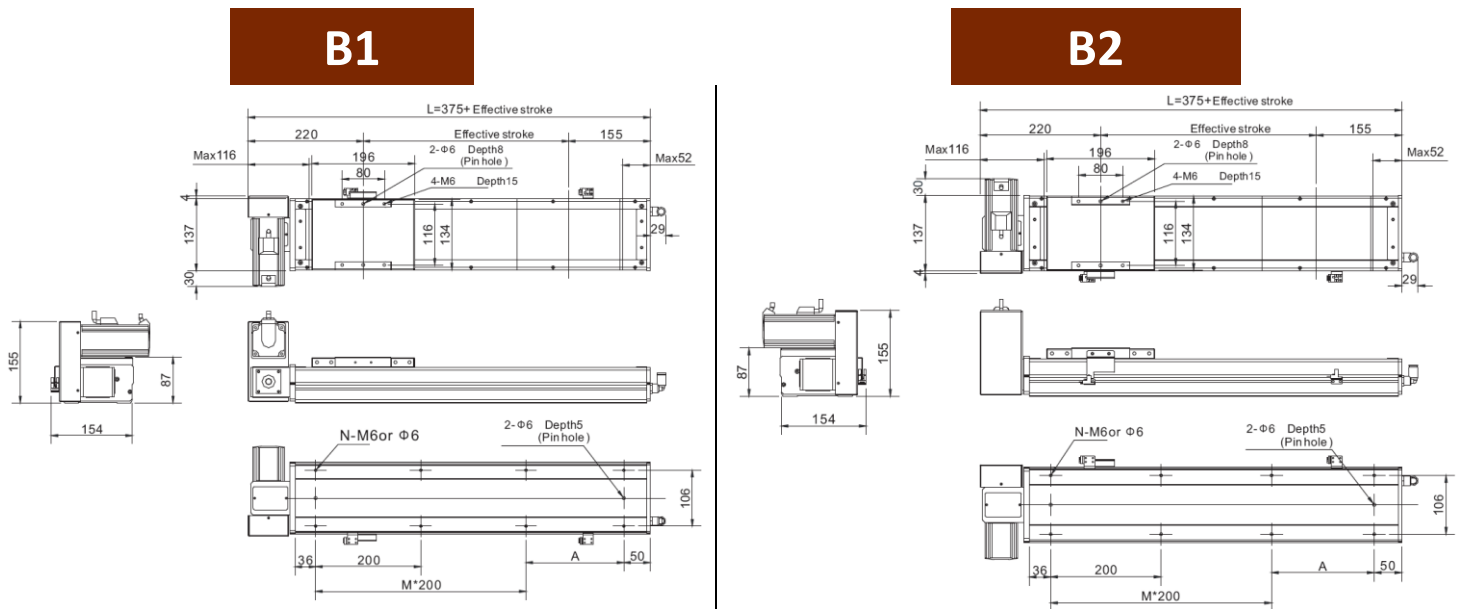
* Notes: 1) Linear guide rail: 15*12.5-1pc

2) L is the distance from the center of slider top to center of gravity of object being transported

Motor Installation Type



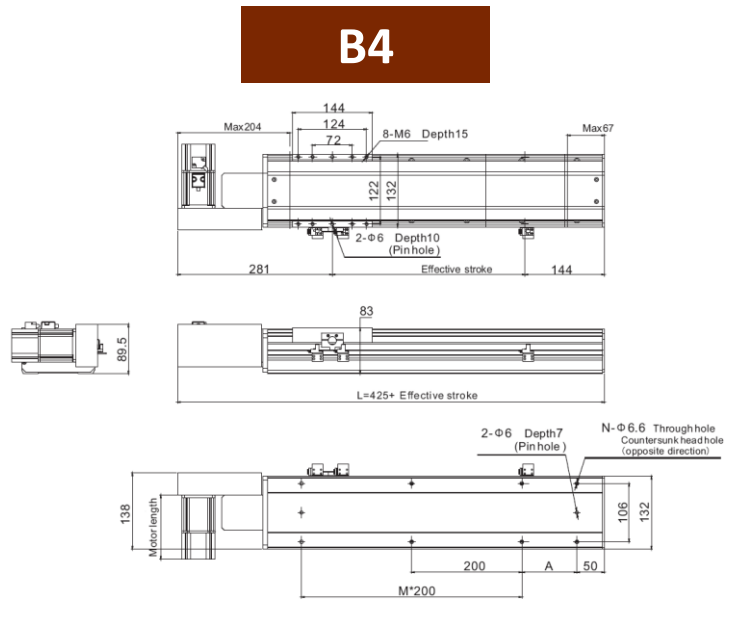
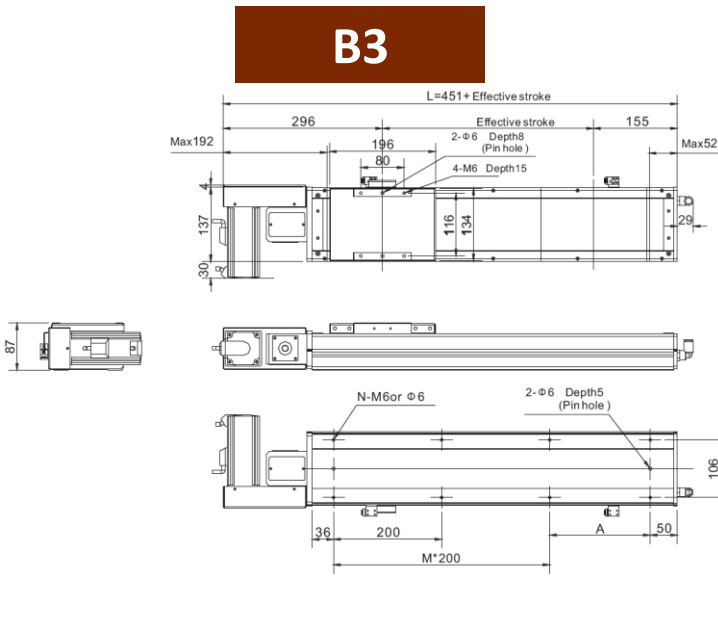
Installation Dimensions (in mm)



Notes: please contact us for specific model drawings before placing your order

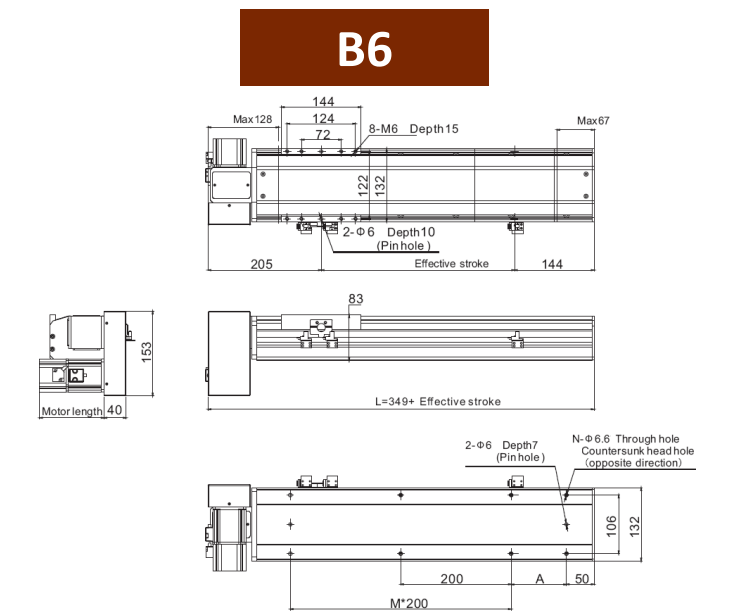
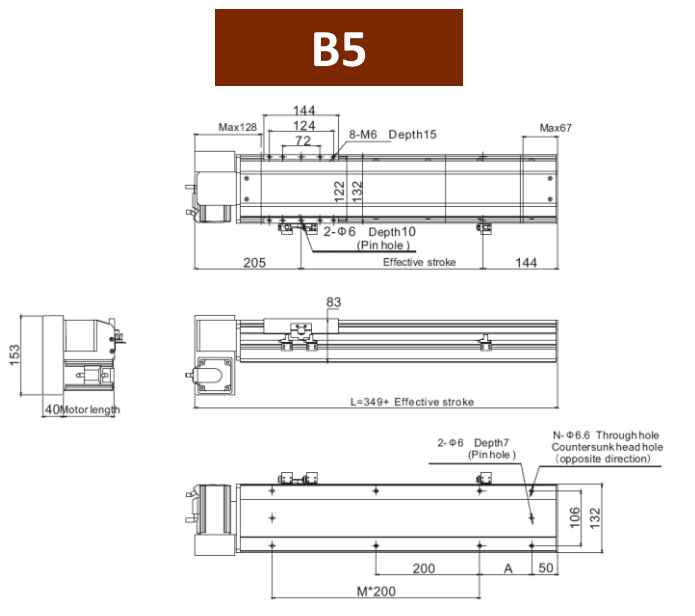
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	525	625	725	825	925	1025	1125	1225	1325	1425	1525	1625	1725	1825	1925	2025	2125	2225	2325	2425	2525	2625	2725	2825	2925	3025	3125	3225	3325	3425
A	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36
Weight(kg)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0

Installation Dimensions (in mm)



Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	601	701	801	901	1001	1101	1201	1301	1401	1501	1601	1701	1801	1901	2001	2101	2201	2301	2401	2501	2601	2701	2801	2901	3001	3101	3201	3301	3401	3501
A	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	23	30	32	32	34	34	36
Weight(kg)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0



Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	525	625	725	825	925	1025	1125	1225	1325	1425	1525	1625	1725	1825	1925	2025	2125	2225	2325	2425	2525	2625	2725	2825	2925	3025	3125	3225	3325	3425
A	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	23	30	32	32	34	34	36
Weight(kg)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0

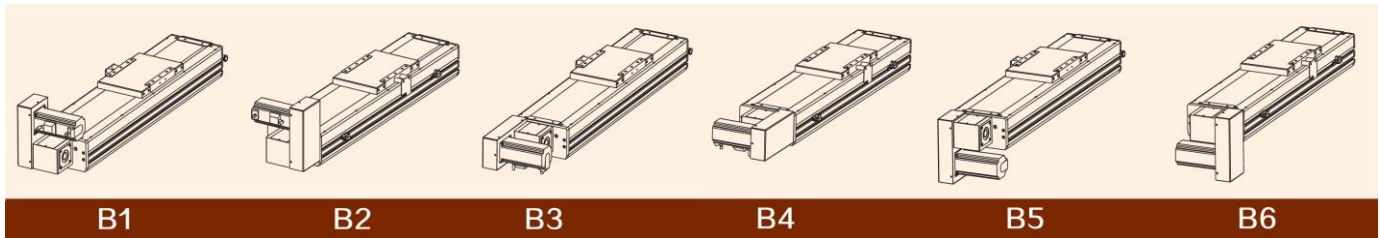
LBC168D Technical Specifications

AC servo motor output power	400W								
Repeatability (mm)	±0.04	Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	40	Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	2000	10kg	750	1304	1610	10kg	1337	680	721
Max. payload (kg)	45	25kg	492	563	1033	25kg	964	389	403
Stroke length (mm)	150 – 3050 (100 interval)	45kg	190	282	411	45kg	257	73	91

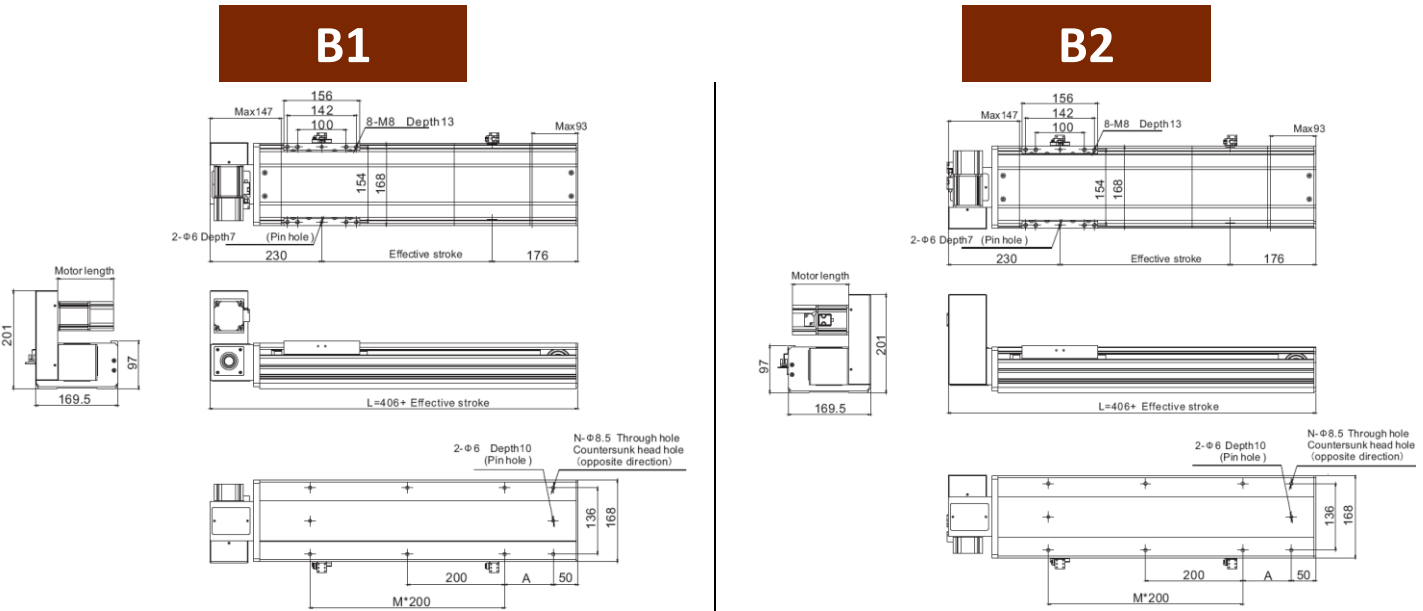
* Notes: 1) Linear guide rail: 20*15.5-2pc

2) L is the distance from the center of slider top to center of gravity of object being transported

Motor Installation Type



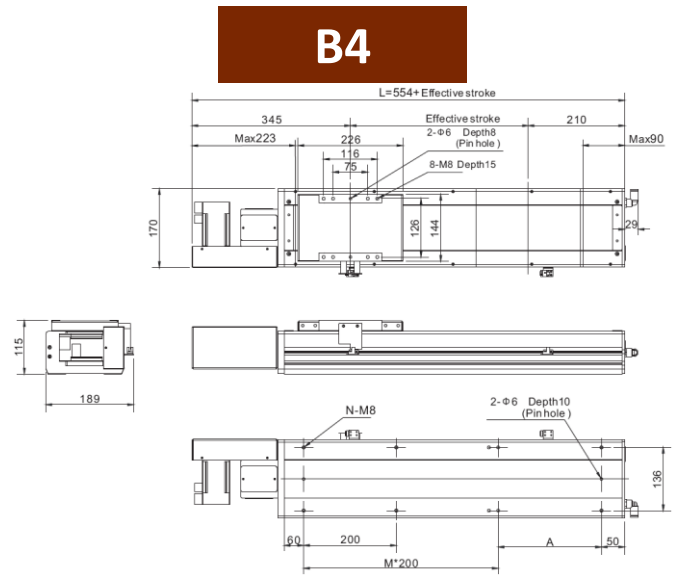
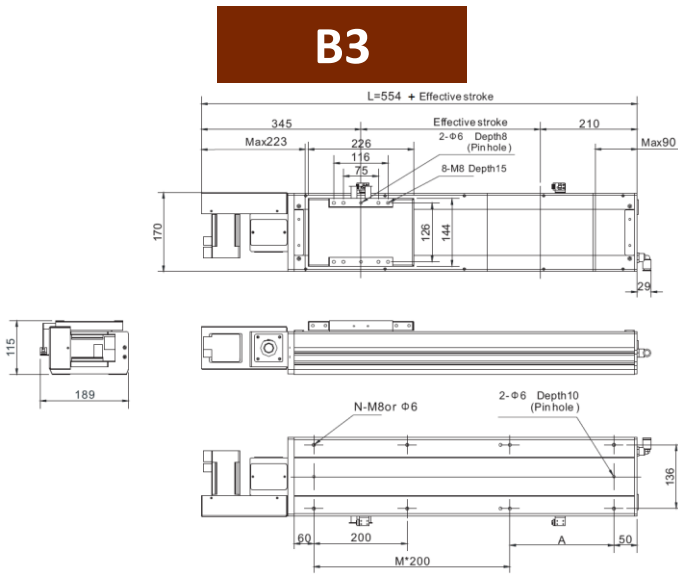
Installation Dimensions (in mm)



Notes: please contact us for specific model drawings before placing your order

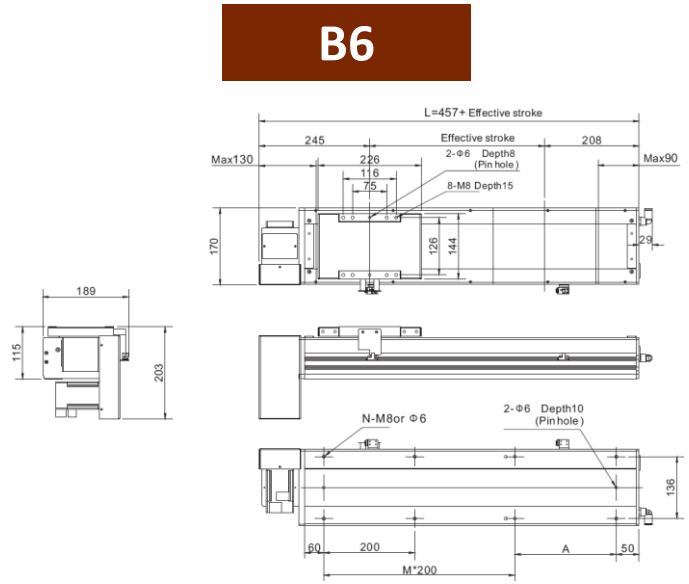
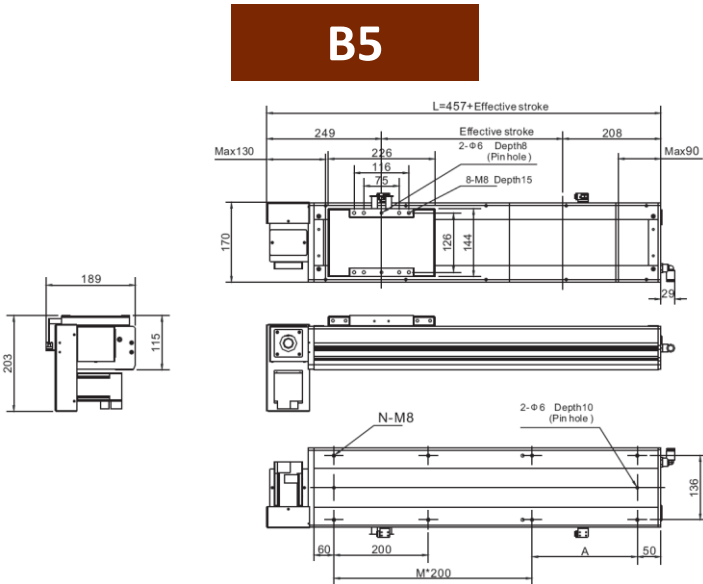
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	607	707	807	907	1007	1107	1207	1307	1407	1507	1607	1707	1807	1907	2007	2107	2207	2307	2407	2507	2607	2707	2807	2907	3007	3107	3207	3307	3407	3507
A	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36
Weight(kg)	14.8	16.4	18.0	19.6	21.2	22.8	24.4	26.0	27.6	29.2	30.8	32.4	34.0	35.6	37.2	38.8	40.4	42.0	43.6	45.2	46.8	48.4	50.0	51.6	53.2	54.8	56.4	58.0	59.6	61.2

Installation Dimensions (in mm)



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Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	704	804	904	1004	1104	1204	1304	1404	1504	1604	1704	1804	1904	2004	2104	2204	2304	2404	2504	2604	2704	2804	2904	3004	3104	3204	3304	3404	3504	3604
A	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36
Weight(kg)	14.8	16.4	18.0	19.6	21.2	22.8	24.4	26.0	27.6	29.2	30.8	32.4	34.0	35.6	37.2	38.8	40.4	42.0	43.6	45.2	46.8	48.4	50.0	51.6	53.2	54.8	56.4	58.0	59.6	61.2



Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	607	707	807	907	1007	1107	1207	1307	1407	1507	1607	1707	1807	1907	2007	2107	2207	2307	2407	2507	2607	2707	2807	2907	3007	3107	3207	3307	3407	3507
A	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36
Weight(kg)	14.8	16.4	18.0	19.6	21.2	22.8	24.4	26.0	27.6	29.2	30.8	32.4	34.0	35.6	37.2	38.8	40.4	42.0	43.6	45.2	46.8	48.4	50.0	51.6	53.2	54.8	56.4	58.0	59.6	61.2