

LB Series

Belt-Drive Electric Actuators



High force electric actuators for general industrial applications

LB Series Belt-Drive Electric Actuators

Main Features

- Load range: 0-50KG
- Maximum stroke: 4 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

LB50D - L35 - 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

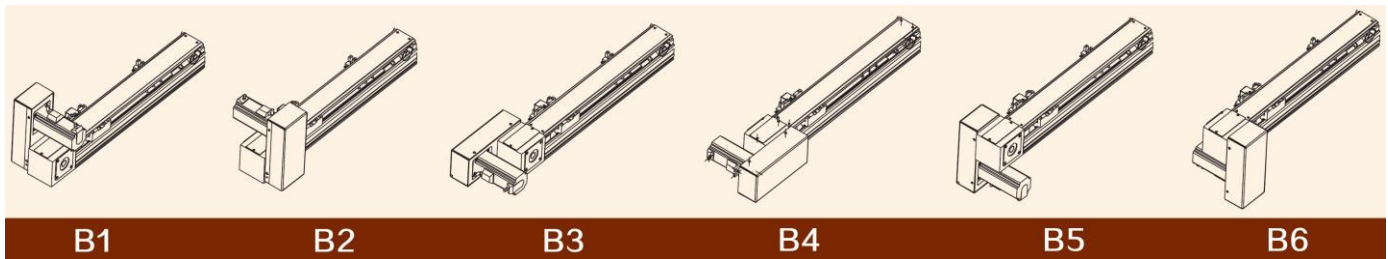
⑦ Brake

LB50D Technical Specifications

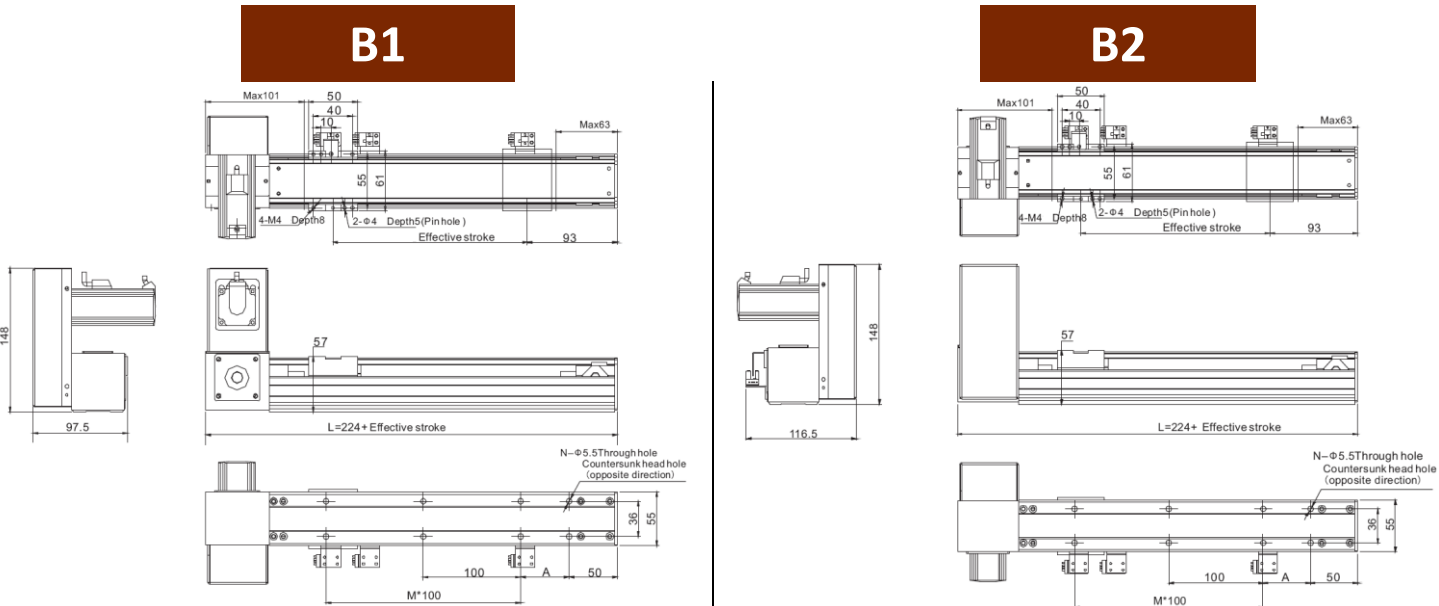
AC servo motor output power	100W								
Repeatability (mm)	±0.04	Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	35	Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	1718	3kg	200	90	250	2kg	225	70	130
Max. payload (kg)	8	5kg	70	5	110	4kg	100	0	20
Stroke length (mm)	100 – 800 (50 interval)	8kg	0	0	0	6kg	0	0	0

* Notes: 1) Linear guide rail: 9*6.5-1pc 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)

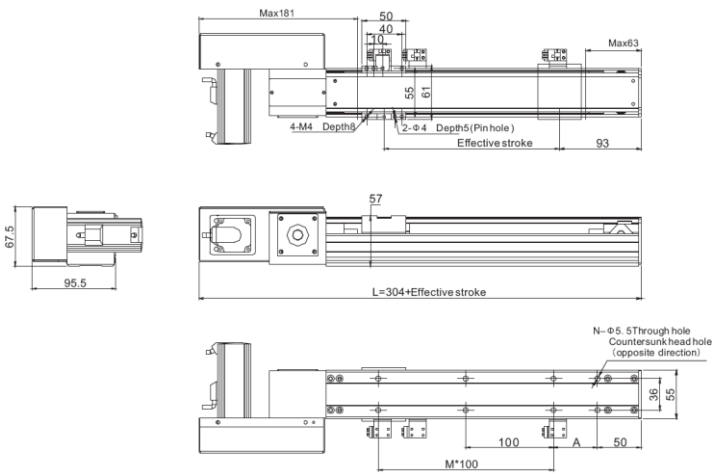


Notes: please contact us for specific model drawings before placing your order

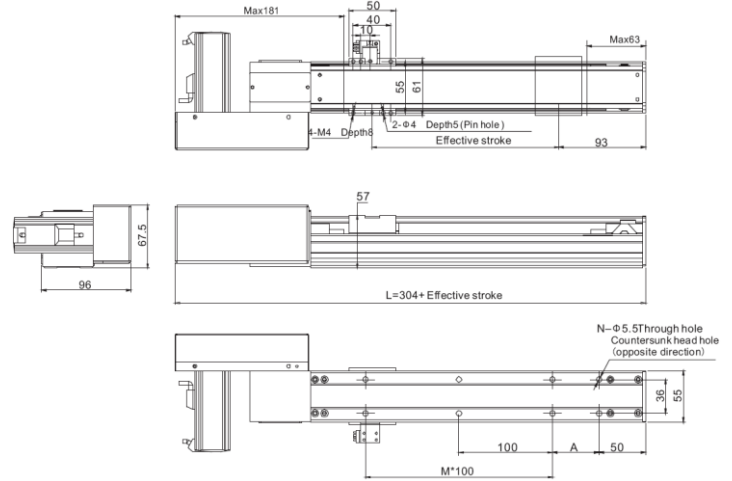
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	324	374	424	474	524	574	624	674	724	774	824	874	924	974	1024
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	1	2	2	3	3	4	4	5	5	6	6	8	8	10
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20

Dimensions (in mm)

B3



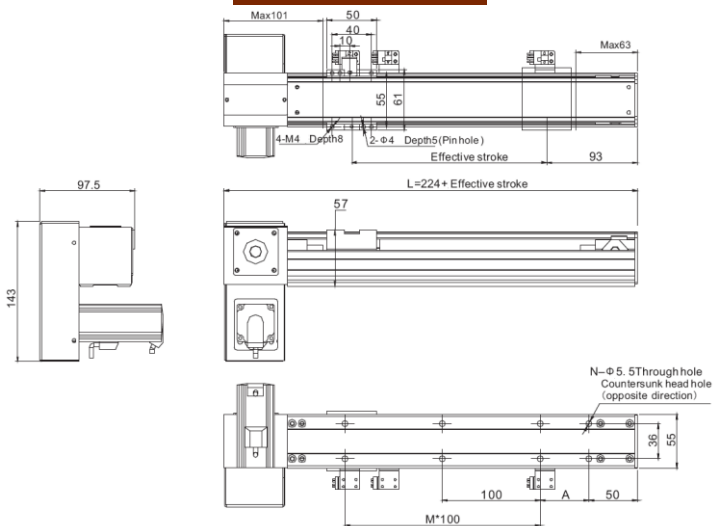
B4



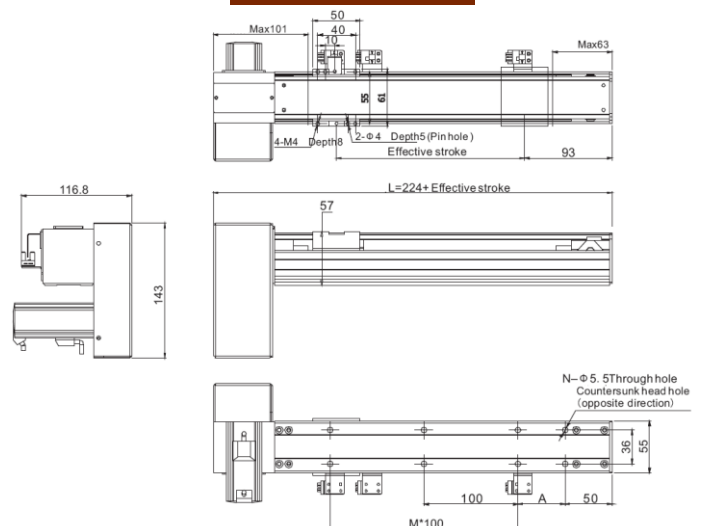
Notes: please contact us for specific model drawings before placing your order

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	404	454	504	554	604	654	704	754	804	854	904	954	1004	1054	1104
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	1	2	2	3	3	4	4	5	5	6	6	8	8	10
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20

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	324	374	424	474	524	574	624	674	724	774	824	874	924	974	1024
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	1	2	2	3	3	4	4	5	5	6	6	8	8	10
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20

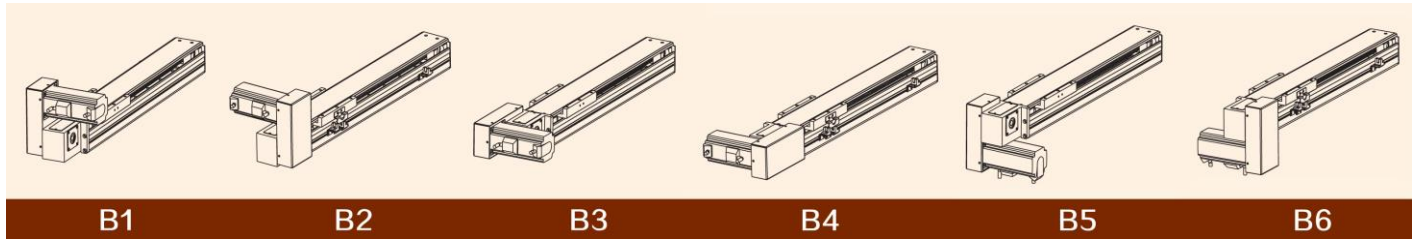
LB80D Technical Specifications

AC servo motor output power	100W	200W								
	±0.04		Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	28		Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	1400		5kg	271	410	630	5kg	383	290	255
Max. payload (kg)	20	28	13kg	61	188	300	13kg	144	95	88
Stroke length (mm)	100 – 1500 (50 interval)		20kg	0	102	195	20kg	0	0	0
			28kg	0	20	116	28kg	0	0	0

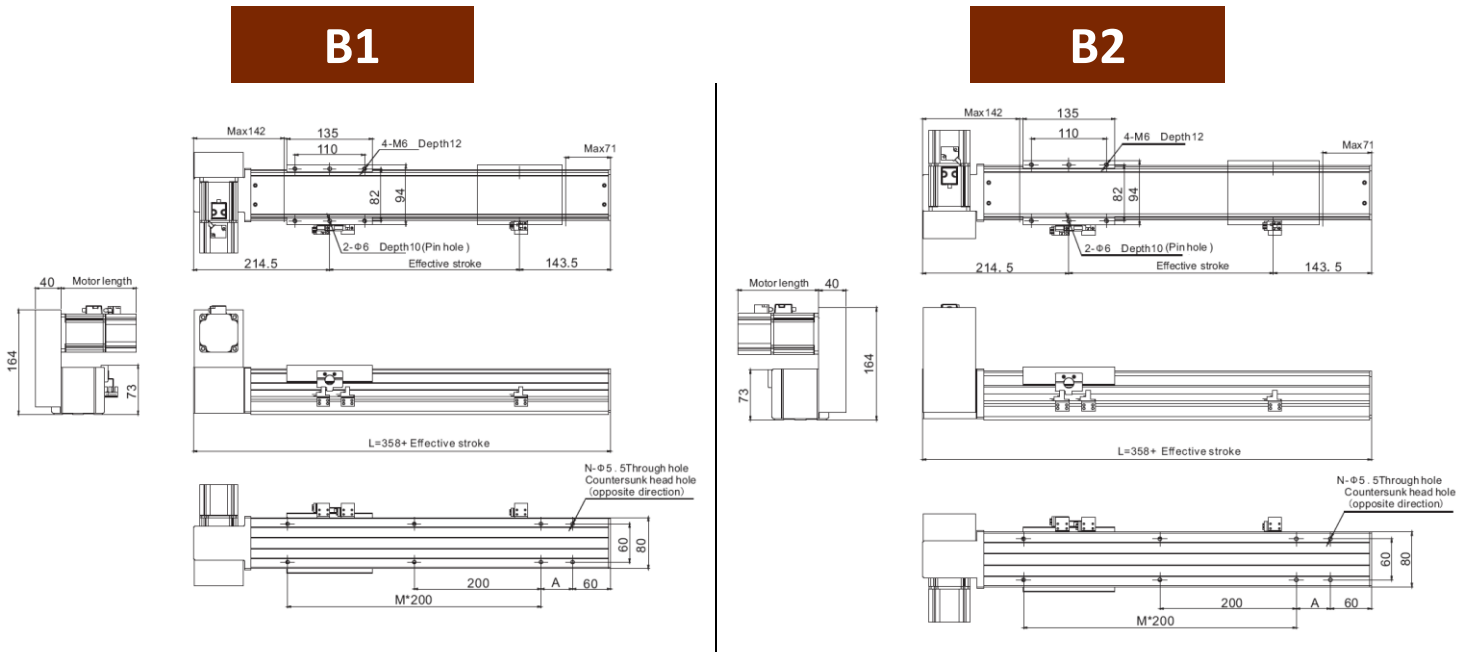
* Notes: 1) Linear guide rail: 15*12.5-1pc

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

Motor Mounting Type



Installation Dimensions (in mm)

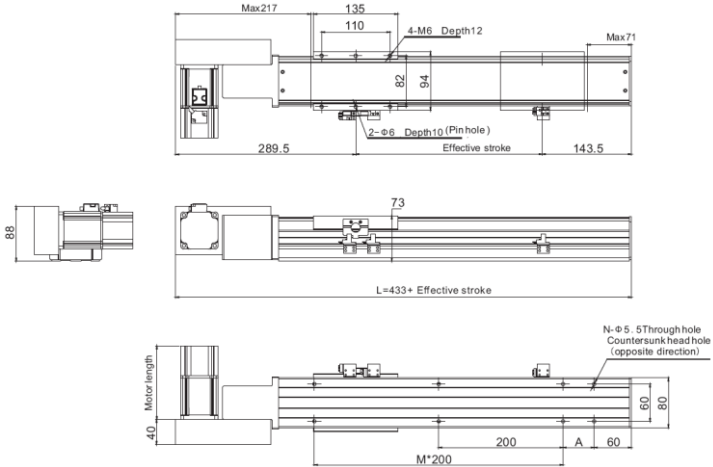


Notes: please contact us for specific model drawings before placing your order

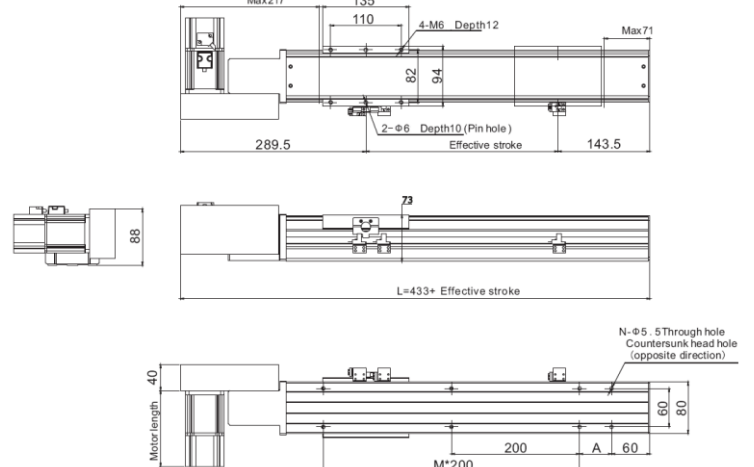
Stroke	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
L	458	558	658	758	858	958	1058	1158	1258	1358	1458	1558	1658	1758	1858
A	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20

Installation Dimensions (in mm)

B3



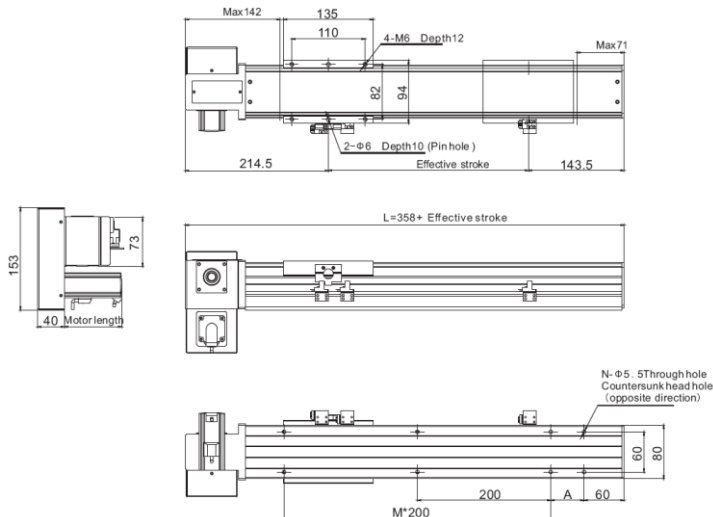
B4



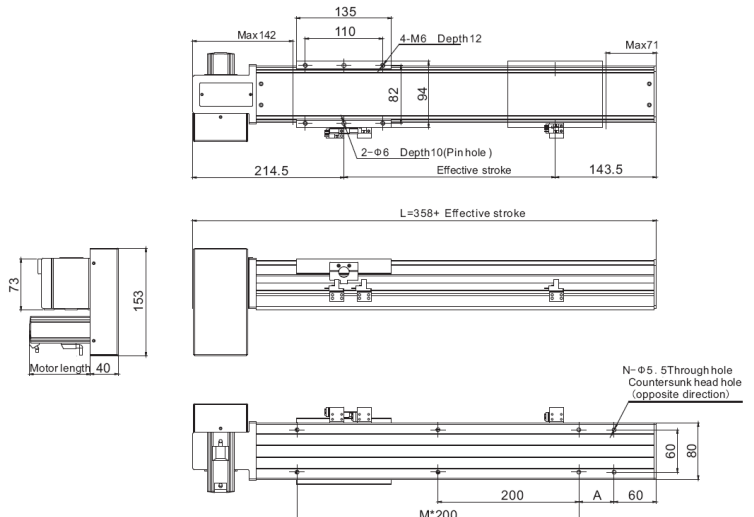
Notes: please contact us for specific model drawings before placing your order

Stroke	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
L	533	633	733	833	933	1033	1133	1233	1333	1433	1533	1633	1733	1833	1933
A	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20

B5



B6



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

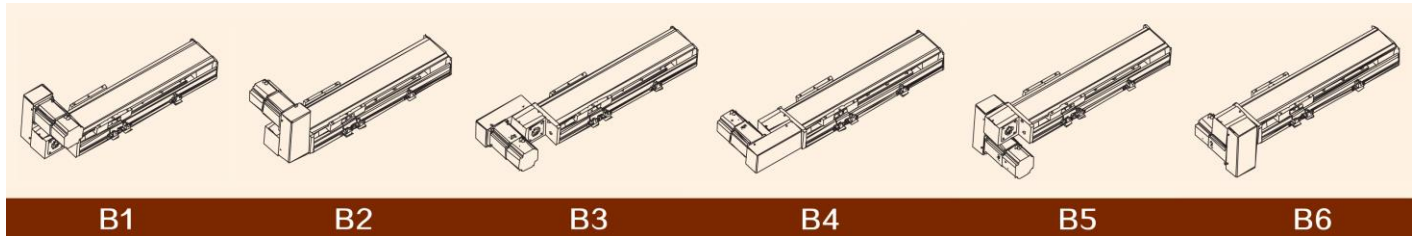
Stroke	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
L	458	558	658	758	858	958	1058	1158	1258	1358	1458	1558	1658	1758	1858
A	50	150	50	150	50	150	50	150	50	150	50	150	50	150	50
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20

LB100S Technical Specifications

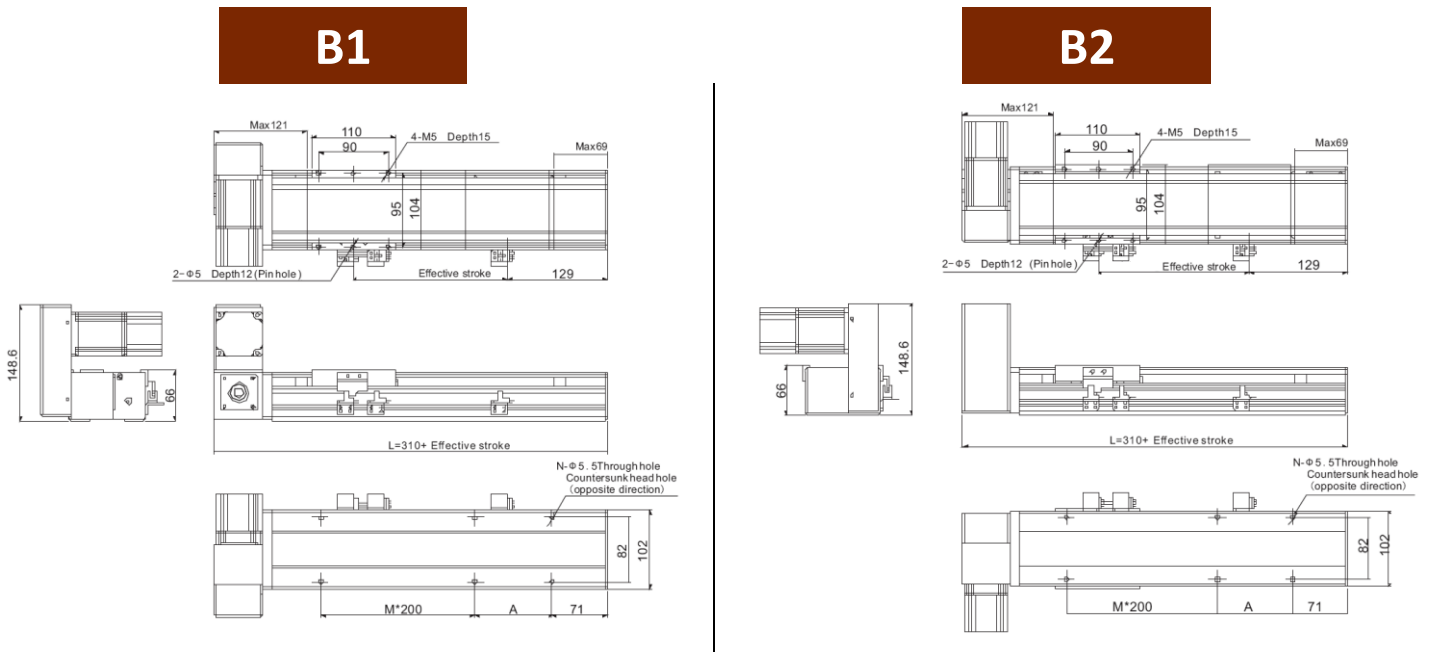
AC servo motor output power	100W	200W								
	±0.04		Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	35		Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	1600		5kg	600	750	1400	5kg	1100	500	660
Max. payload (kg)	10	15	8kg	400	450	1100	8kg	850	300	450
Stroke length (mm)	150 – 1850 (100 interval)		10kg	350	350	100	10kg	800	220	350

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

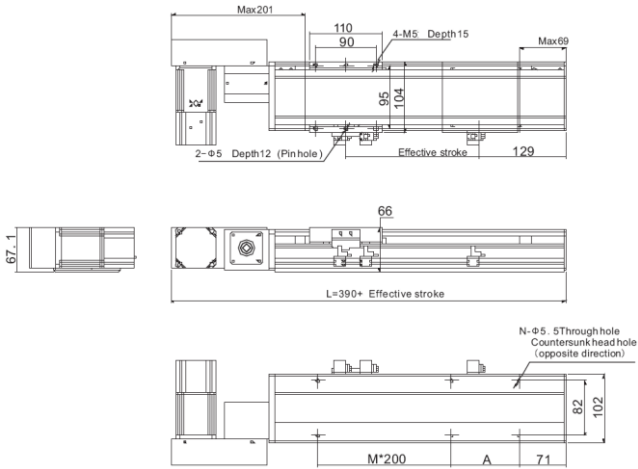


Notes: please contact us for specific model drawings before placing your order

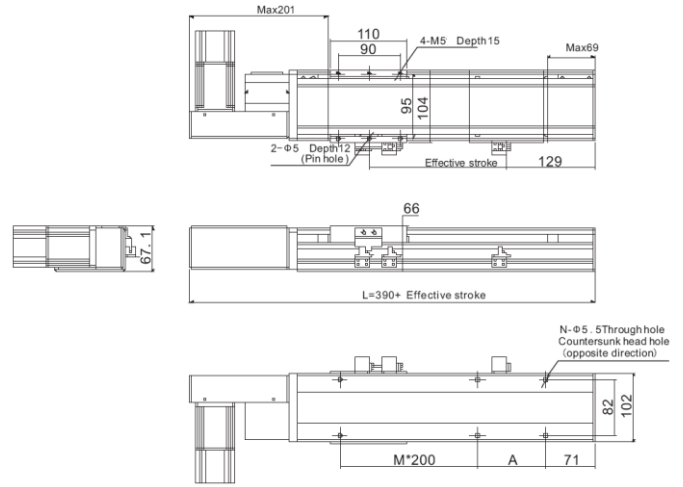
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110	1160	1210	1260	1310	1360
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	16	16	16

Installation Dimensions (in mm)

B3



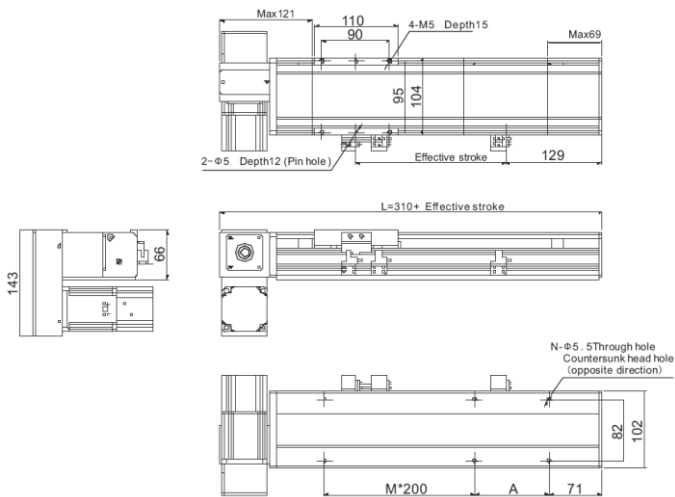
B4



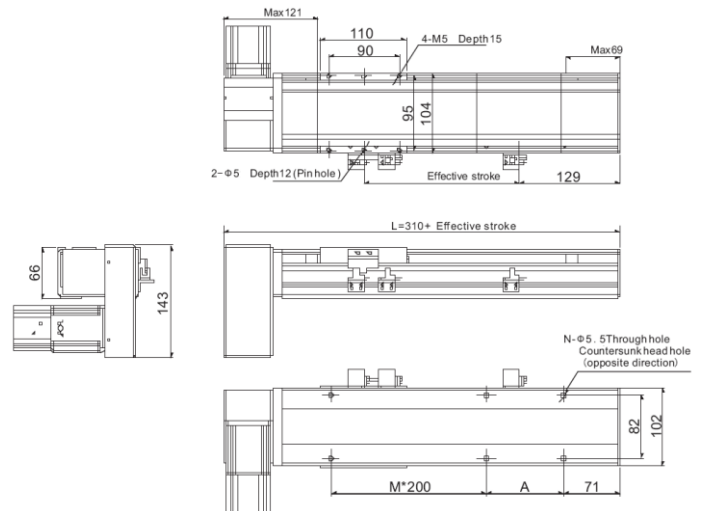
Notes: please contact us for specific model drawings before placing your order

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	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	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	16	16	16

B5



B6



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

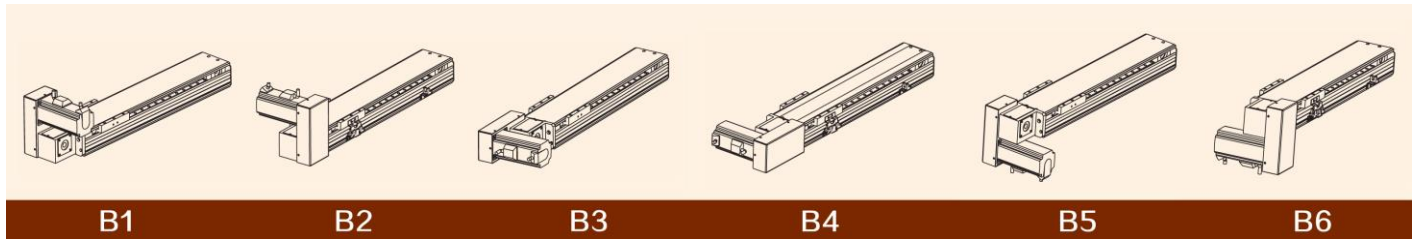
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110	1160	1210	1260	1310	1360
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	16	16	16

LB100D Technical Specifications

AC servo motor output power	100W	200W								
	±0.04		Horizontal use (in mm)				Wall installation (in mm)			
Lead (mm)	28		Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	1400		5kg	509	525	800	5kg	727	401	433
Max. payload (kg)	20	25	15kg	208	290	427	15kg	503	290	316
Stroke length (mm)	150 – 1850 (100 interval)		20kg	122	186	229	20kg	200	116	144
			25kg	37	69	130	25kg	71	36	0

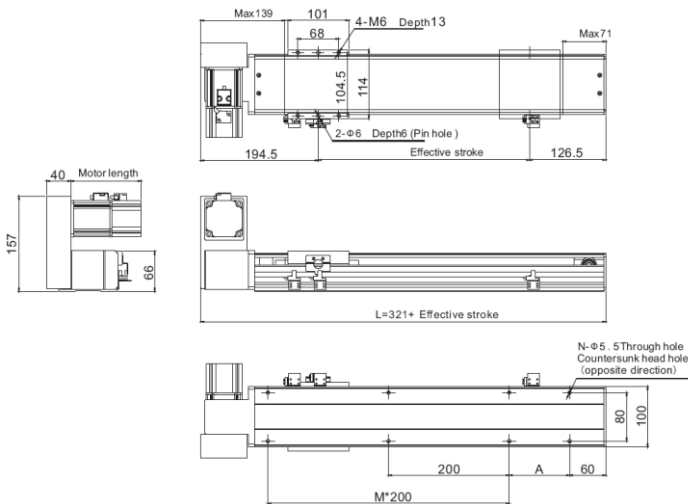
* Notes: 1) Linear guide rail: 12*8-2pcs 2) L is the distance from the center of slider top to center of gravity of object being transported

Motor Installation Type

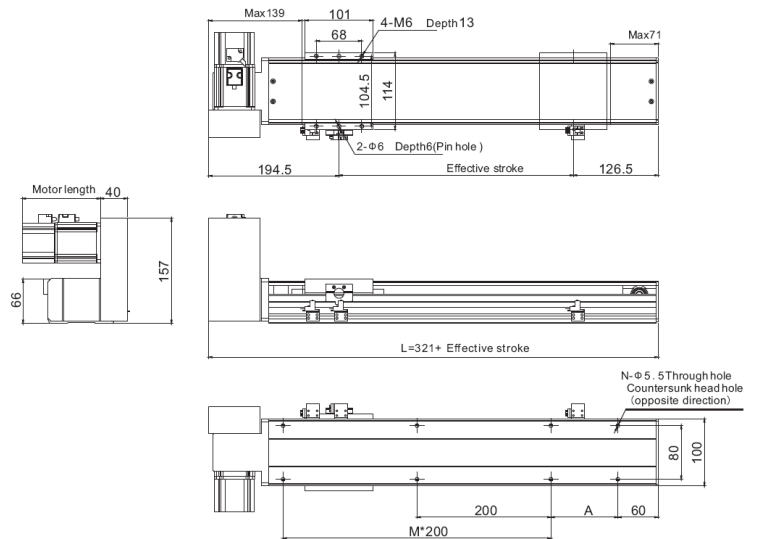


Installation Dimensions (in mm)

B1



B2

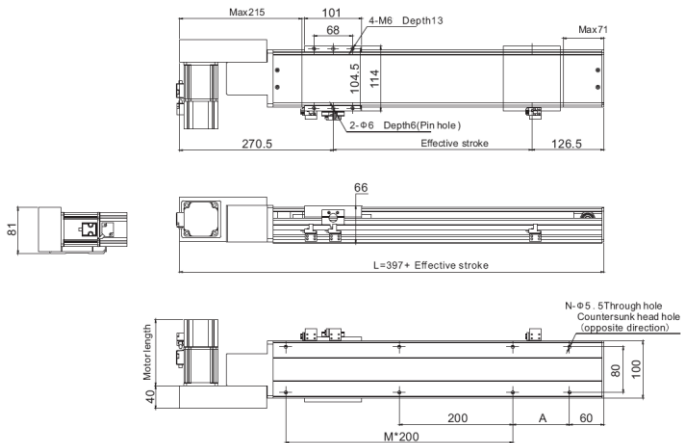


Notes: please contact us for specific model drawings before placing your order

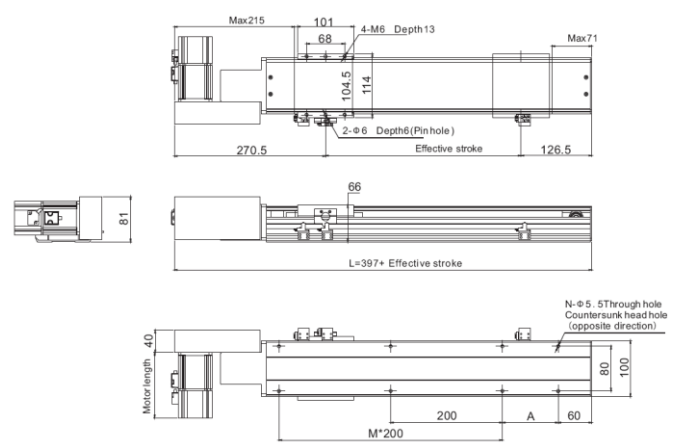
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850
L	471	571	671	771	871	971	1071	1171	1271	1371	1471	1571	1671	1771	1871	1971	2071	2171
A	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22

Installation Dimensions (in mm)

B3



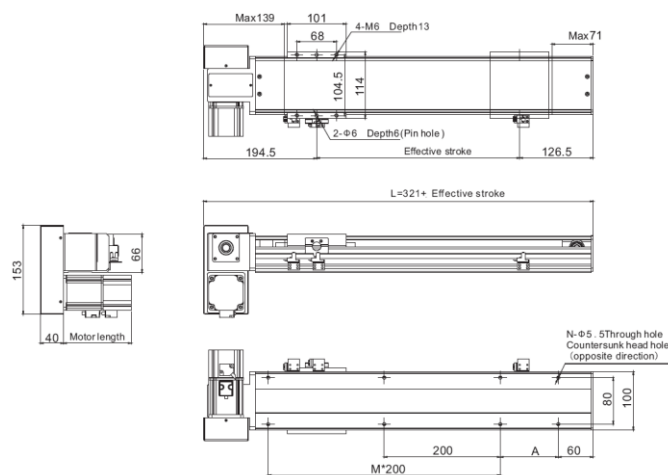
B4



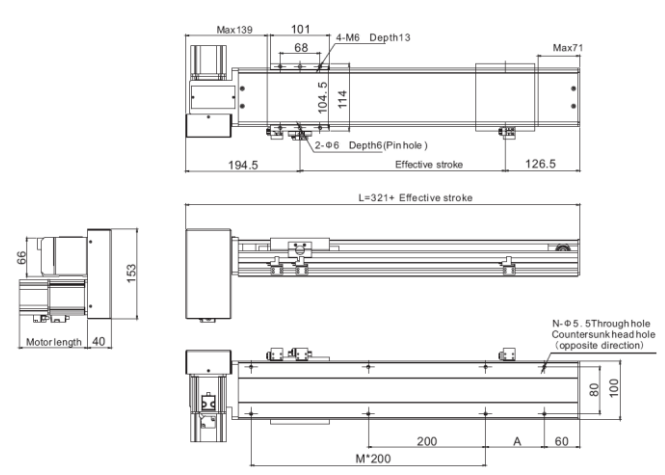
Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850
L	547	647	747	847	947	1047	1147	1247	1347	1447	1547	1647	1747	1847	1947	2047	2147	2247
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

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	471	571	671	771	871	971	1071	1171	1271	1371	1471	1571	1671	1771	1871	1971	2071	2171
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

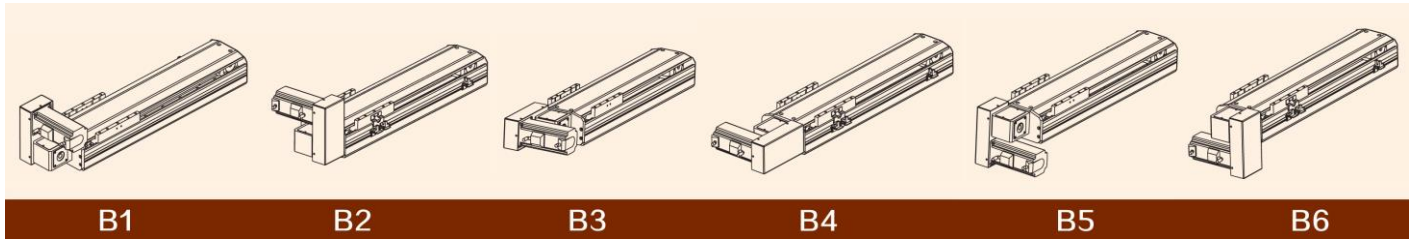
LB136D Technical Specifications

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	15kg	712	719	1559	15kg	1319	649	699
Stroke length (mm)	150 – 3050 (100 interval)	20kg	434	475	1209	20kg	935	385	379
		32kg	288	310	766	32kg	600	220	199

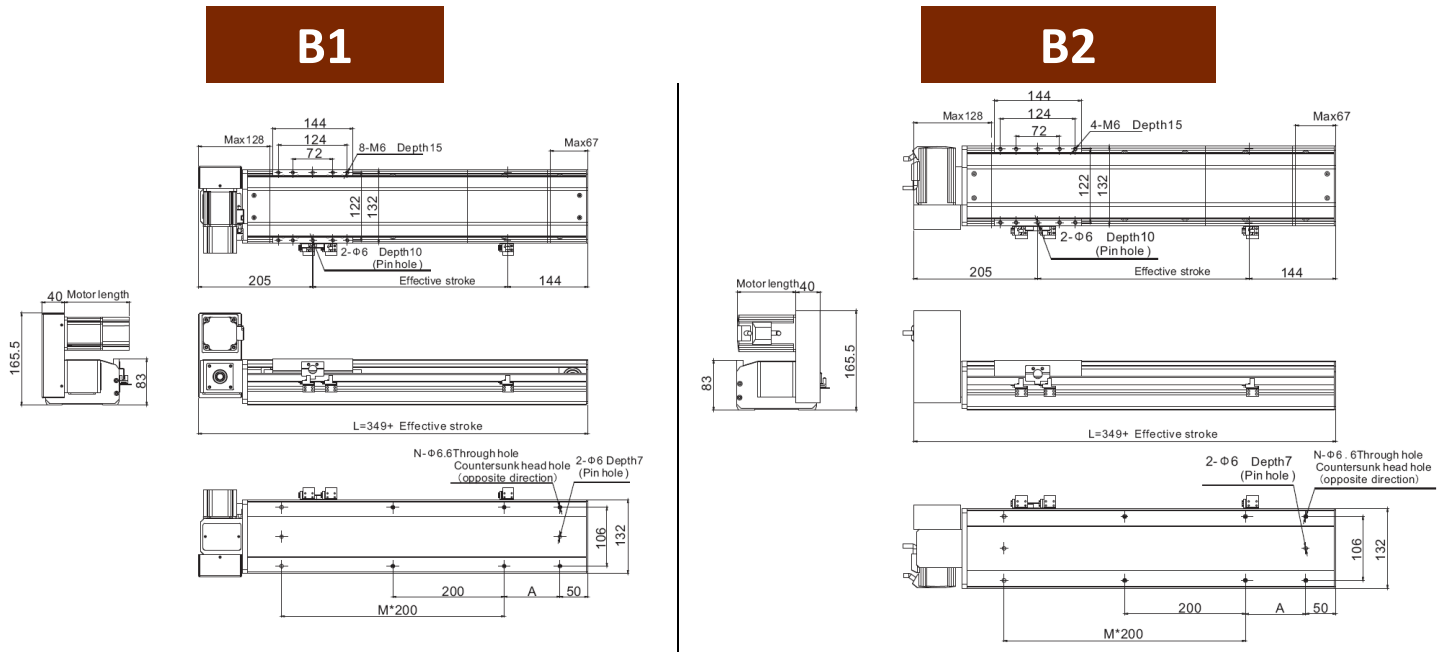
* Notes: 1) Linear guide rail: 15*12.5-2pcs

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)

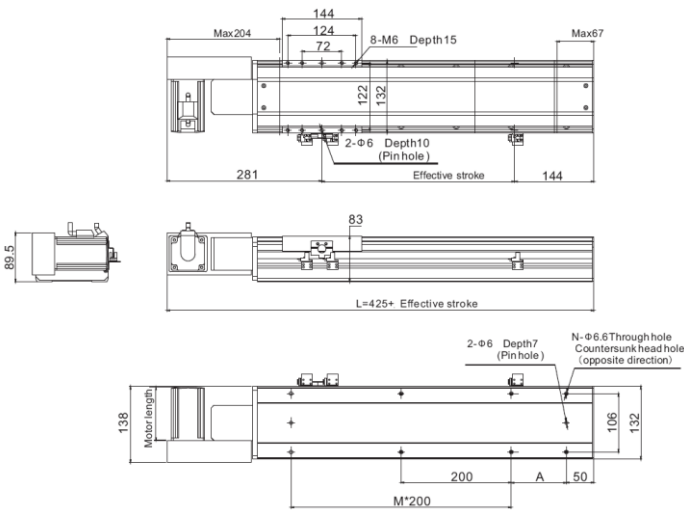


Notes: please contact us for specific model drawings before placing your order

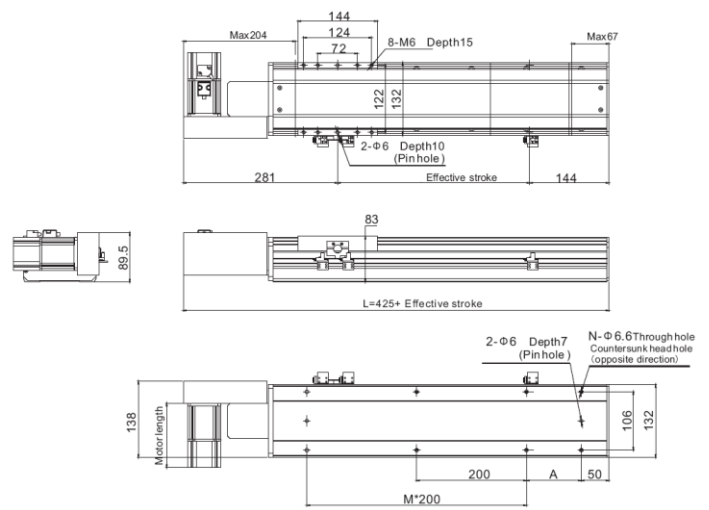
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	499	599	699	799	899	999	1099	1199	1299	1399	1499	1599	1699	1799	1899	1999	2099	2199	2299	2399	2499	2599	2699	2799	2899	2999	3099	3199	3299	3399
A	100	200	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	200
M	1	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
N	6	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

Installation Dimensions (in mm)

B3



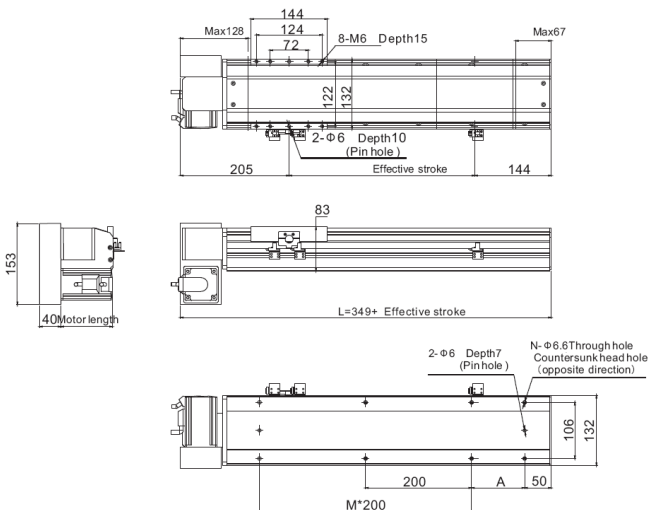
B4



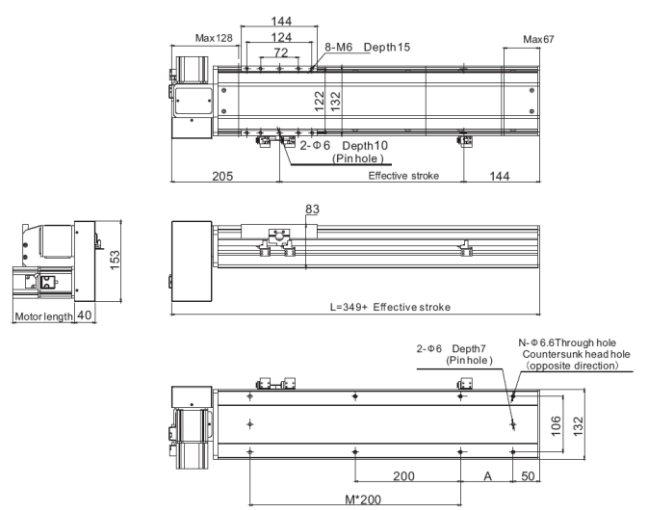
Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	575	675	775	875	975	1075	1175	1275	1375	1475	1574	1675	1775	1875	1975	2075	2175	2275	2375	2475	2574	2675	2775	2875	2975	3075	3175	3275	3375	3475
A	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	200
M	1	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
N	6	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

B5



B6



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

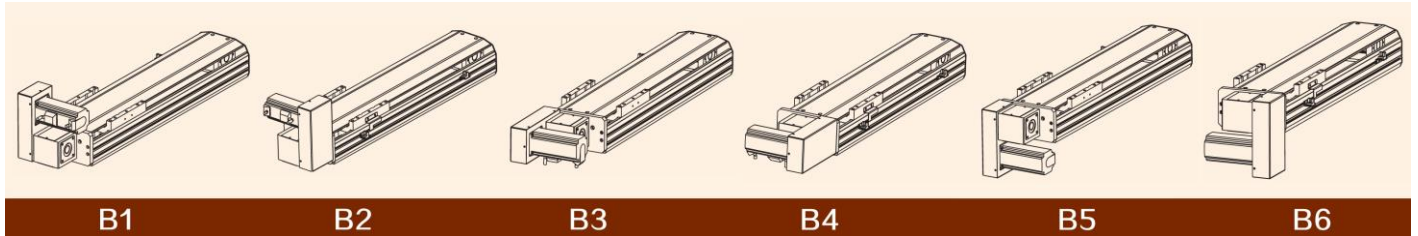
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	499	599	699	799	899	999	1099	1199	1299	1399	1499	1599	1699	1799	1899	1999	2099	2199	2299	2399	2499	2599	2699	2799	2899	2999	3099	3199	3299	3399
A	100	200	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	200
M	1	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
N	6	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

LB168D Technical Specifications

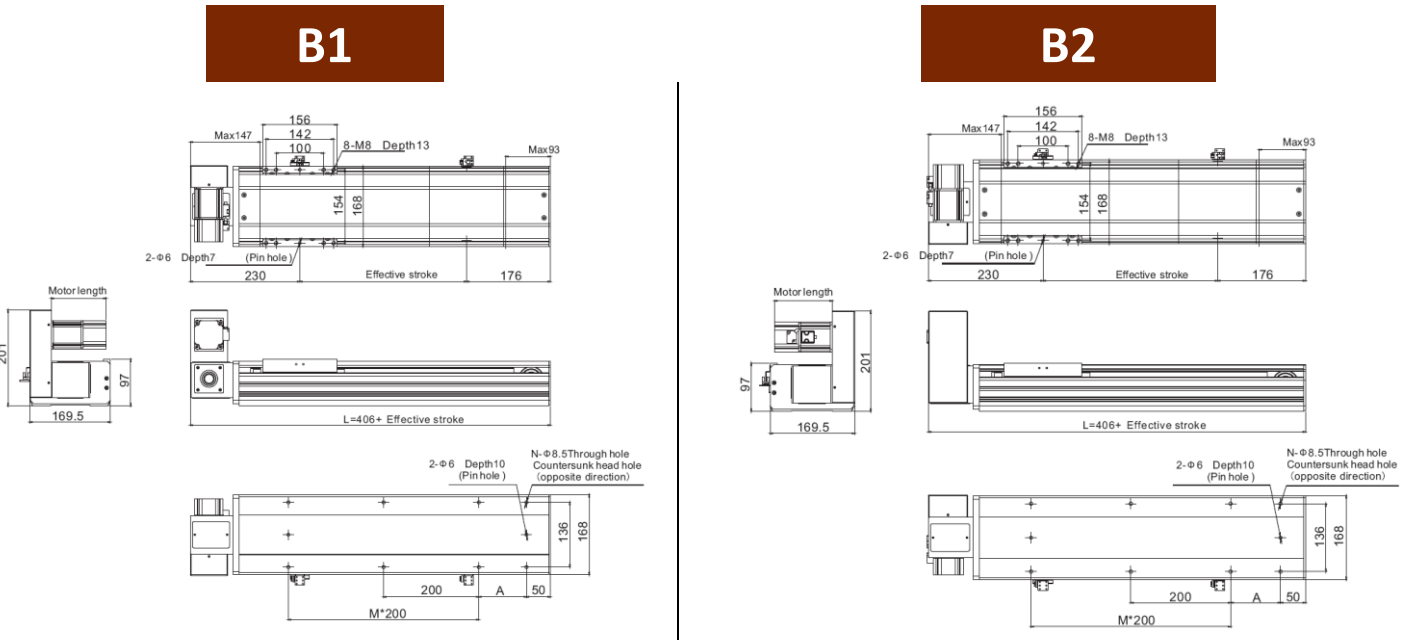
AC servo motor output power	400W								
Repeatability (mm)	±0.04	Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	76	Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	2000	10kg	750	1304	1610	10kg	1337	680	721
Max. payload (kg)	45	25kg	492	563	1033	25kg	964	389	403
Stroke length (mm)	150 – 3050 (100 interval)	45kg	190	282	411	45kg	257	73	91

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

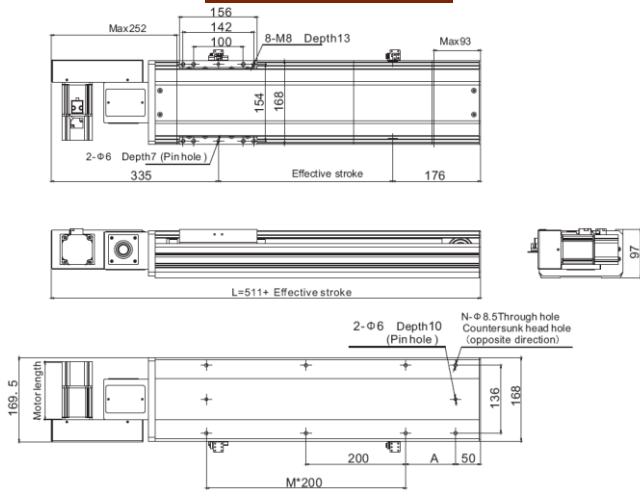


Notes: please contact us for specific model drawings before placing your order

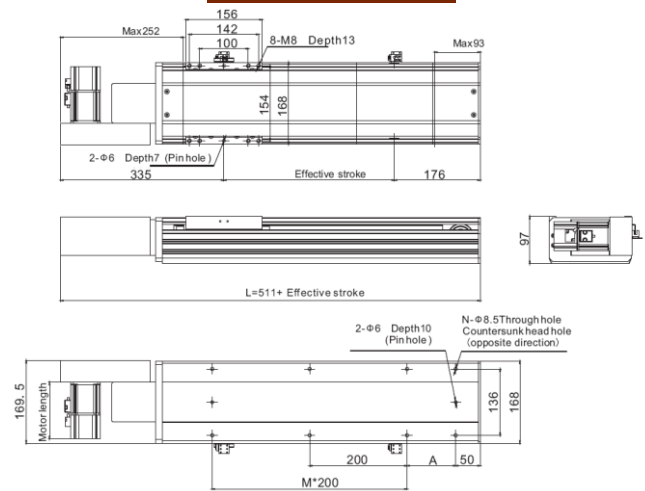
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	556	656	756	856	956	1056	1156	1256	1356	1456	1556	1656	1756	1856	1956	2056	2156	2256	2356	2456	2556	2656	2756	2856	2956	3056	3156	3256	3356	3456
A	100	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	200
M	1	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
N	6	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

Installation Dimensions (in mm)

B3



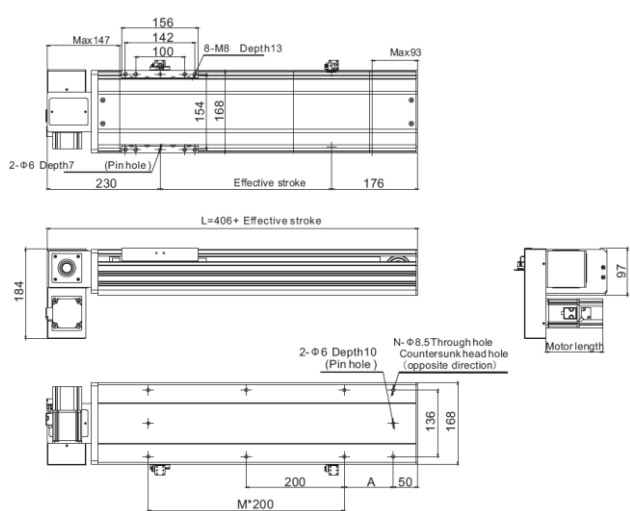
B4



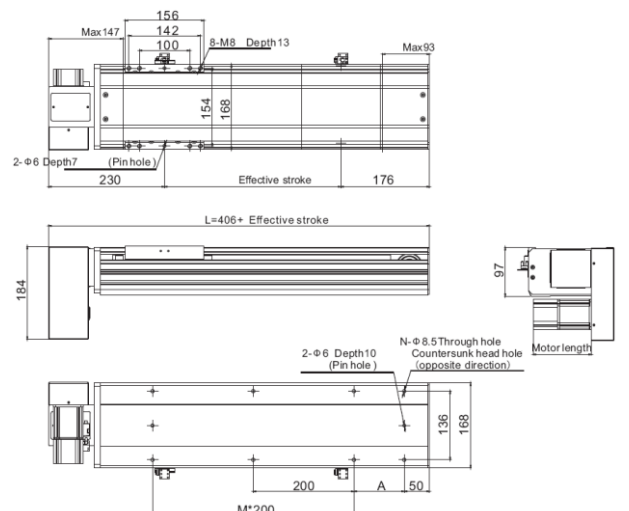
Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	661	761	861	961	1061	1161	1261	1361	1461	1561	1661	1761	1861	1961	2061	2161	2261	2361	2461	2561	2661	2761	2861	2961	3061	3161	3261	3361	3461	3561
A	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	200
M	1	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
N	6	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

B5



B6



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

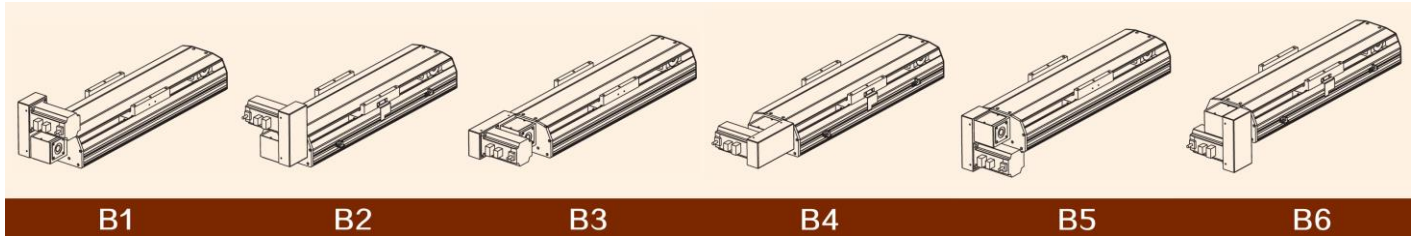
Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	556	656	756	856	956	1056	1156	1256	1356	1456	1556	1656	1756	1856	1956	2056	2156	2256	2356	2456	2556	2656	2756	2856	2956	3056	3156	3256	3356	3456
A	100	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	200
M	1	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
N	6	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

LB202D Technical Specifications

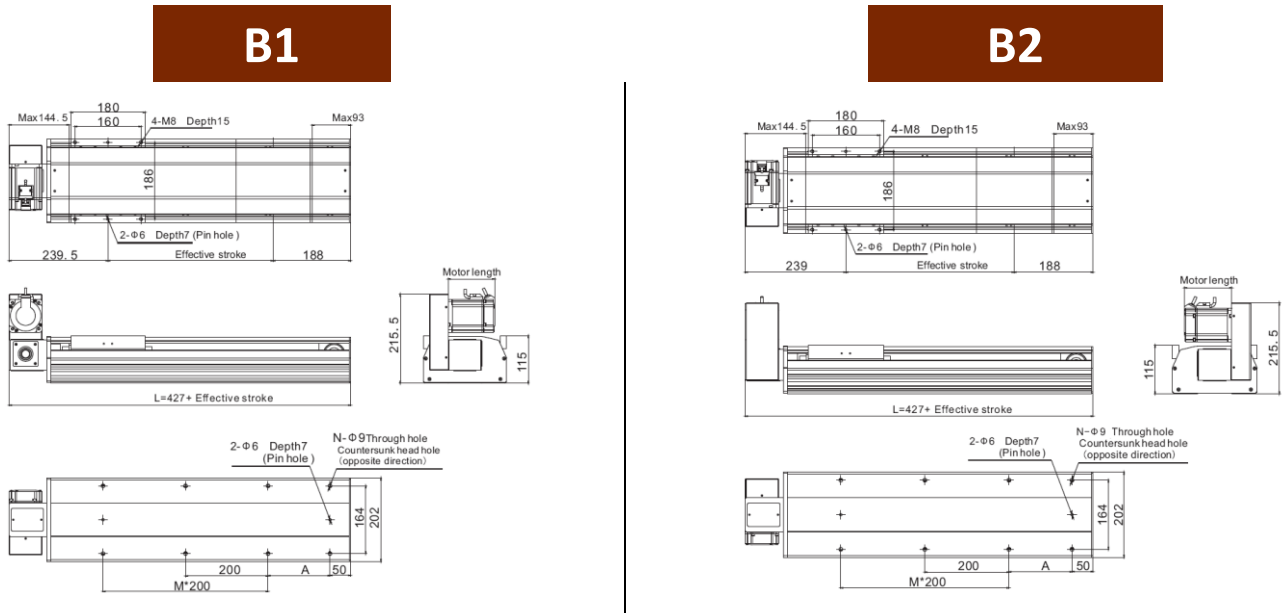
AC servo motor output power	400W								
Repeatability (mm)	±0.04	Horizontal use (in mm)				Wall installation (in mm)			
Stroke per revolution (mm)	76	Payload	0°	45°	90°	Payload	0°	45°	90°
Max. speed (mm/s)	2000	15kg	595	1249	1421	15kg	937	511	606
Max. payload (kg)	45	30kg	207	469	899	30kg	416	242	322
Stroke length (mm)	150 – 3050 (100 interval)	55kg	26	177	298	55kg	89	11	40

* Notes: 1) Linear guide rail: 23*22-2pcs 2) L is the distance from the center of slider top to center of gravity of object being transported

Motor Installation Type



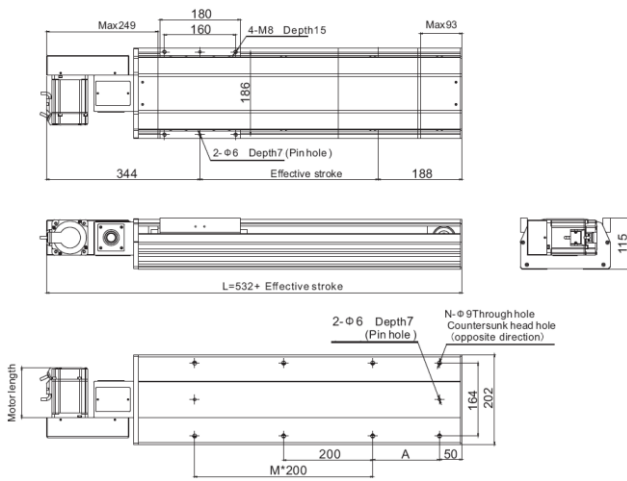
Installation Dimensions (in mm)



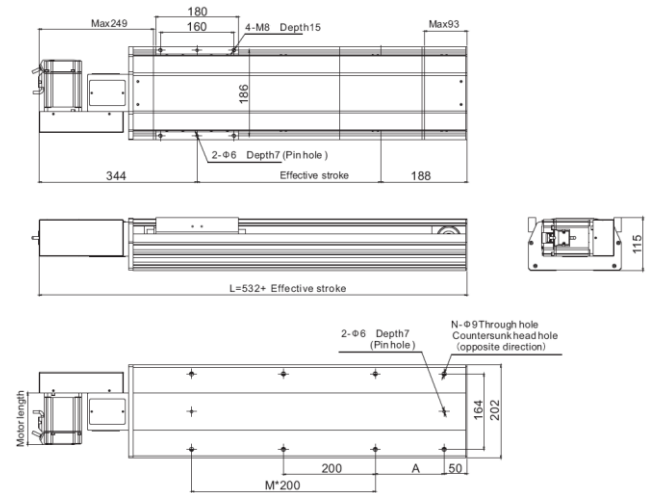
Notes: please contact us for specific model drawings before placing your order

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	577	677	777	877	977	1077	1177	1277	1377	1477	1577	1677	1777	1877	1977	2077	2177	2277	2377	2477	2577	2677	2777	2877	2977	3077	3177	3277	3377	3477
A	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	200
M	1	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
N	6	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

B3



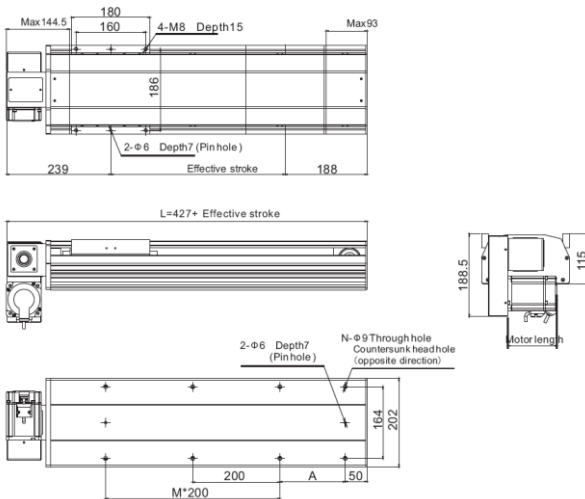
B4



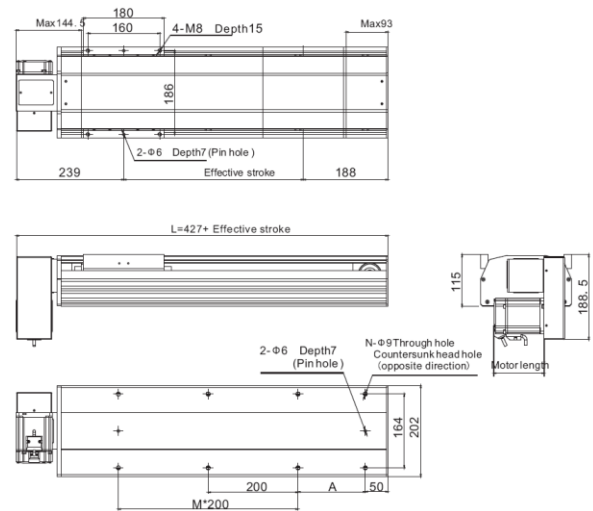
Notes: please contact us for specific model drawings before placing your order

Stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	682	782	882	982	1082	1182	1282	1382	1482	1582	1682	1782	1872	1982	2082	2182	2282	2382	2482	2582	2682	2782	2872	2982	3082	3182	3282	3382	3482	3582
A	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	200
M	1	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
N	6	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

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	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	577	677	777	877	977	1077	1177	1277	1377	1477	1577	1677	1777	1877	1977	2077	2177	2277	2377	2477	2577	2677	2777	2877	2977	3077	3177	3277	3377	3477
A	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	200
M	1	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
N	6	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