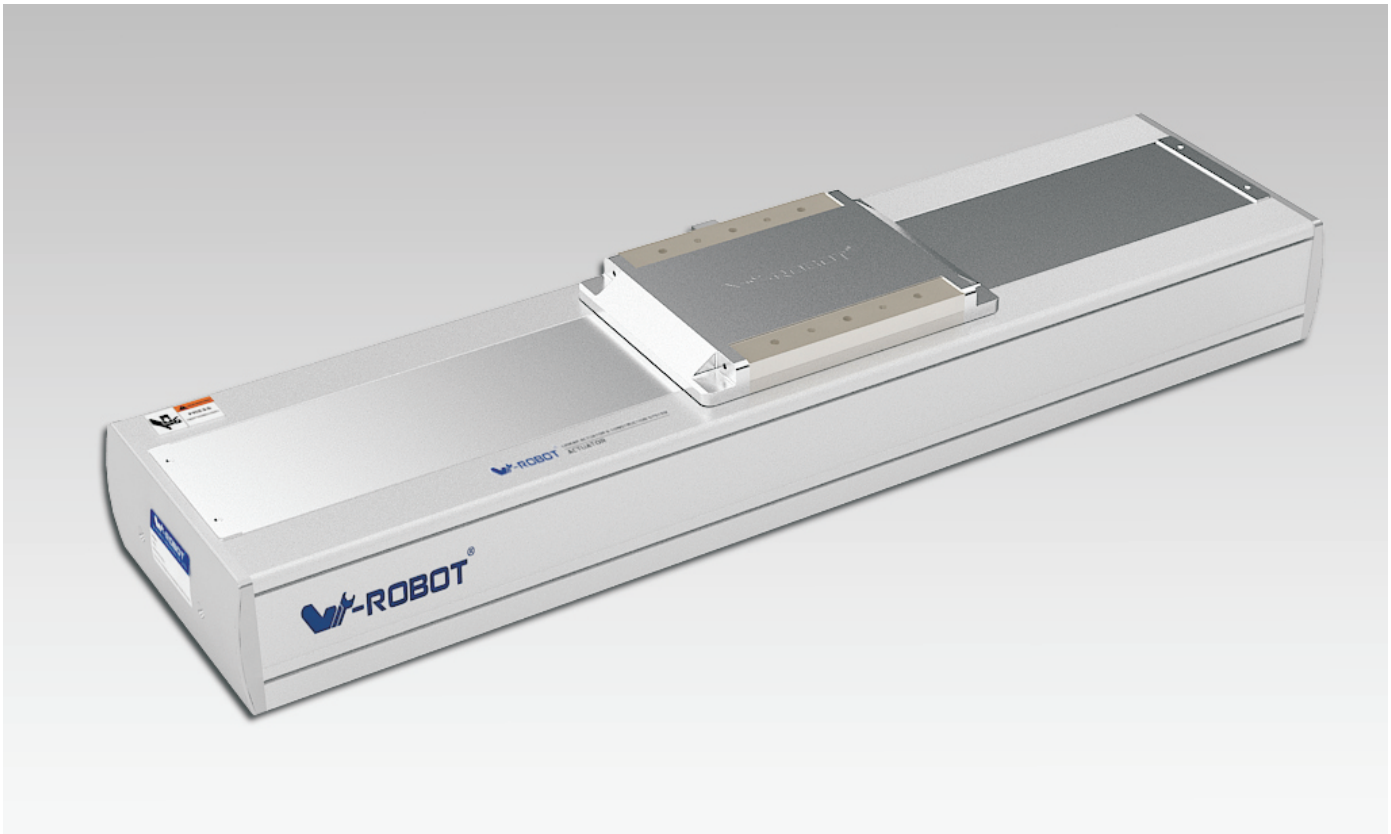
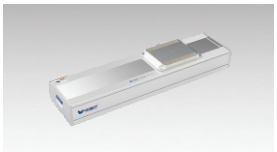
ST22

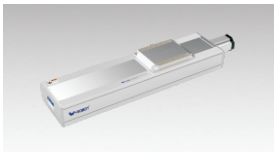
W-ROBOT®
威洛博工业机械手



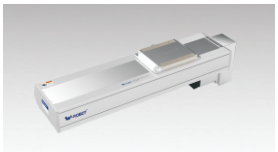
马达安装方式 Motor direction



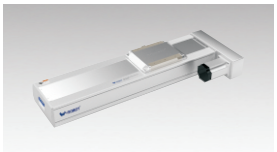
M



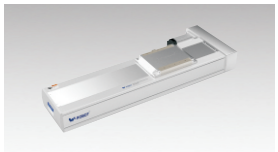
BC



BM



BR



BL

型号表示方式 Guide for Model Selection

ST22 — L10 — S100 — M — ZP40B — C2P — 001

本体样式 Base Style	
S	精密级 Precision
P	高精密级 High Precision
C	洁净型 Cleanse
T	全封闭样式 Fully-enclosed
22	本体220mm宽 Body width220

丝杆导程 Ball Screw Lead	
L5	L5mm
L10	L10mm
L25	L25mm

行程(mm) Stroke(mm)
100-1500

马达方式 Motor way	
M	直联内置 Built-in
BC	直联外置 External
BM	马达下折 Bottom Side
BR	马达右折 Right Side
BL	马达左折 Left Side

马达类型 Motor Type		马达功率 Motor power	
P	松下 Panasonic	40	400W
M	三菱 Mitsubishi	75	750W
T	台达 Delta	57	57步进 Stepper
* 为 Z :代表客户自配电机 *For Z: Motor is from clients.		刹车 Brakes	
		无 No	无刹车 No brake
		B	带刹车 With brake

原点开关位置 Original Sensor position		极限开关数量 Limit Sensor Qty	
外置式: External		外置式: External	
C	马达侧 Motor side	3	1个 1pcs
D	反马达侧 Oppsite motor side	4	2 个 2pcs
E	无 No	5	无感应器 No sensor

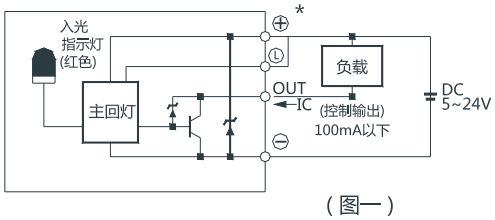
非标特注 Non-standard, d.c.,	
无 No	无特注 No, d.c.,
001	特注序列号 Special order no

感应器类型 Sensor type	
无 No	NPN
P	PNP

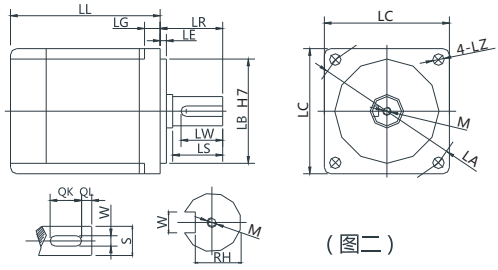
■ 基本规格 Specification

马达功率 AC (W) Motor power AC(W)		400W/750W		
滚珠丝杆驱动-外径 BallScrewØ		ST22	25(C7级)	
		PT22	25(C5级)	
重复定位精度 Repeatability		ST22	±0.01	
		PT22	±0.005	
滚珠丝杆导程 BallScrew Lead(mm)		5	10	25
最快速度 MaximumSpeed(mm/sec) 马达转速 3000 Motor Speed3000(rpm/mim)		250	500	1250
最大载重(kg) Maximum Payload(kg)	水平使用 Horizontal	150/180	150/185	120/144
	垂直使用 Vertical	55/66	45/54	20/25
额定推力 Rated Thrust(N)		2100	1050	420
直线导轨Linear Guide(mm)		23x18 -2		
联轴器 Coupling(mm)	14x16 / 16x16 / 19x16	(Motor side)x(Ball Screw Side)		
	400W / 750W	马达功率 Motor Output		
原点感应器 Home Sensor	外挂 Outside	EE-SX672(NPN) EE-SX672P(PNP)		
	导轨安装 Outside Guide	EE-SX674(NPN) EE-SX674P(PNP)		

感应器接线图＜原点及端点＞



（图一）



（图二）

*以上重复定位精度是300行程范围内测量所得，如行程加长，则重复定位精度适当放大；行程超过600时，会产生丝杆偏摆，此时请将速度降低；更换不同电机时，请注意图二电机尺寸是否同表一尺寸相同，否则需更换联轴器和马达固定座。

*Above repeatability is within stroke 300mm，if logner travel needed，it will be lower.In case stroke over 600 will lead to swing of ball screw，please slow down the speed.Please note figure 2 motor size is same with table 1，or needed to replace coupler and motor holder.

■ 搭配伺服马达一览表 Servo Motor Matches List

（表一）

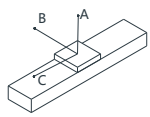
伺服电机外形尺寸

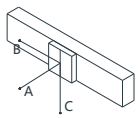
功率W	品牌	型号		LL	LL(刹车) LL(brake)	LA	LE	LZ	LC	LG	LW	RH	W	LR	S	LB	M	QK	QL
400W	松下 Panasonic	MSMD042G1□	V：带刹车 U:无刹车 V:With brake U:No brake	99	135	70	3	4.5	60	6.5	20	11	5h9	30	14h6	50h7	M5x10L	-	-
	台达 Delta	ECMA-C20604□S	S：带刹车 R:无刹车 S:With brake R:No brake	130.7	166.6	70	3	5.5	60	7.5	20	11	5	30	14h6	50h7	M4x15L	-	-
		ECMA-C20804□S	S：带刹车 R:无刹车 S:With brake R:No brake	112.3	152.8	90	3	6.6	80	8	20	11	5	35	14h6	70h7	M4x15L	-	-
	三菱 Mitsubishi	HC-KFS43□K	B：带刹车□：无刹车 B:With brake □:No brake	124.5	165.5	70	3	5.8	62	7	-	-	-	30	14h6	50h7	-	-	-
750W	松下 Panasonic	MSMD082G1□	V：带刹车 U:无刹车 V:With brake U:No brake	122	149	90	3	6	80	8	25	15.5	6h9	35	19h6	70h7	M5x10L	-	-
	台达 Delta	ECMA-C20807□S	S：带刹车 R:无刹车 S:With brake R:No brake	138.3	178	90	3	6.6	80	8	25	15.5	6	35	19h6	70h7	M6x20L	-	-
		ECMA-C20907□S	S：带刹车 R:无刹车 S:With brake R:No brake	130.2	161.3	100	3	6.6	86	8	20	13	5	35	16h6	80h7	M5x15L	-	-
	三菱 Mitsubishi	HC-KFS73□K	B：带刹车□：无刹车 B:With brake □:No brake	142	177.5	90	3	6.6	82	8	-	-	-	40	19h6	70h7	-	-	-

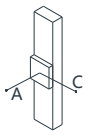
□表示为空

■ 容许负载力矩表 Allow Load Torque Table

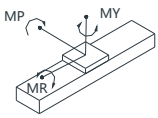
(单位: mm)（ Unit : mm ）







(单位: N.m)(Unit: N.m)



水平安装 Horizontal installation		A	B	C
导程 5 Lead 5	60kg	3672	435	577
	100kg	3000	247	331
	150kg	2652	202	269
导程 10 Lead 10	60kg	2652	899	994
	100kg	1775	526	593
	150kg	1396	317	267

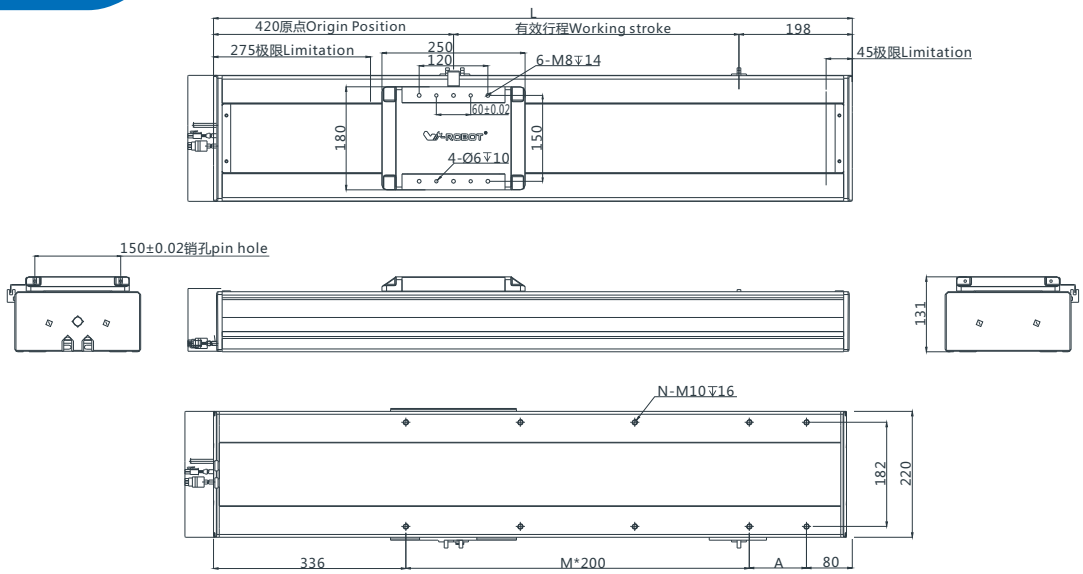
墙面安装 Wall installation		A	B	C
导程 5 Lead 5	60kg	530	350	2438
	100kg	277	165	1995
	150kg	215	118	1836
导程 10 Lead 10	60kg	982	815	2573
	100kg	569	442	1680
	150kg	337	232	1258

垂直安装 Vertical installation		A	C
导程 5 Lead 5	30kg	2688	2688
	50kg	1893	1893
	70kg	1640	1640
导程 10 Lead 10	20kg	2297	2297
	30kg	1518	1518
	45kg	999	999

MY	2052
MP	2052
MR	1810

M:直联内置(Built-in)

单位（mm）



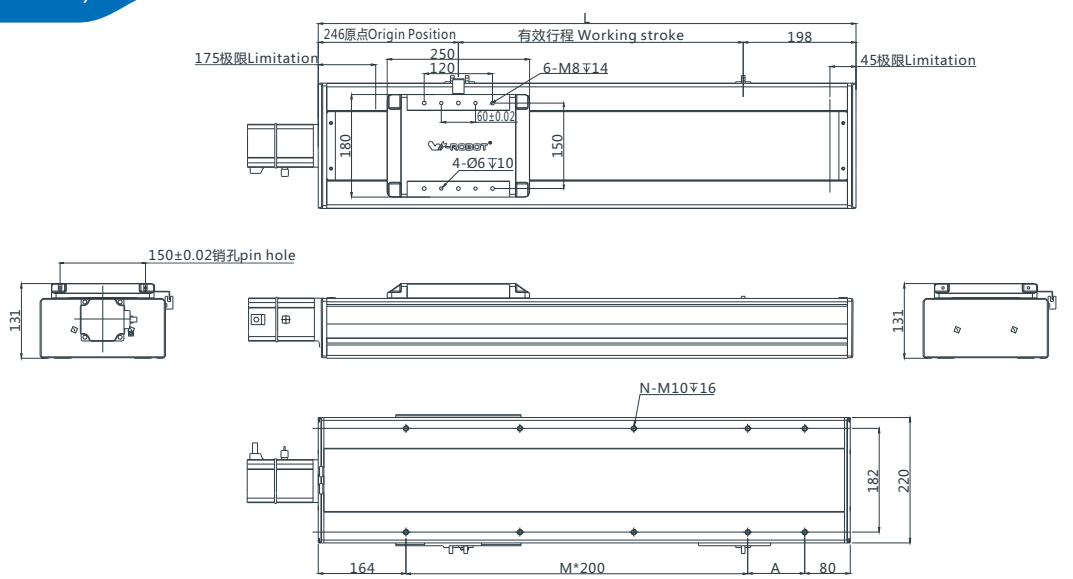
注:以下不含电机重量。Note: Not including motor weight.

有效行程 Working Stroke	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	716	766	816	866	916	966	1016	1066	1116	1166	1216	1266	1316	1366	1416	1466	1516	1566	1616	1666	1716	1766	1816	1866	1916	1966	2016	2066	2116
A	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
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	19
重量KG Weight KG	24.1	25.3	26.6	27.8	29	30.2	31.4	32.7	33.9	35.1	36.3	37.5	38.8	40	41.2	42.4	43.6	44.9	46.1	47.3	48.5	49.7	51	52.2	53.4	54.6	55.8	57.1	58.3

*如有特殊行程请先与技术人员联系。*In case special stroke please contact technical services.

BC:直联外置(External)

单位（mm）



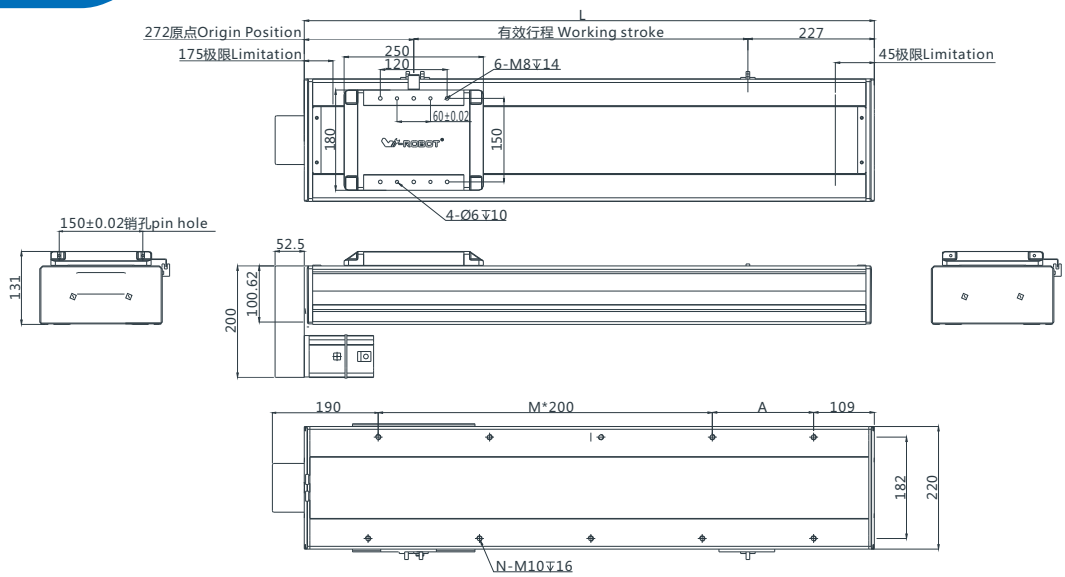
注:以下不含电机重量。Note: Not including motor weight.

有效行程 Working Stroke	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	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	1944
A	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
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	19
重量KG Weight KG	24.1	25.3	26.6	27.8	29	30.2	31.4	32.7	33.9	35.1	36.3	37.5	38.8	40	41.2	42.4	43.6	44.9	46.1	47.3	48.5	49.7	51	52.2	53.4	54.6	55.8	57.1	58.3

*如有特殊行程请先与技术人员联系。*In case special stroke please contact technical services.

BM:马达下折(Bottom Side)

单位（mm）



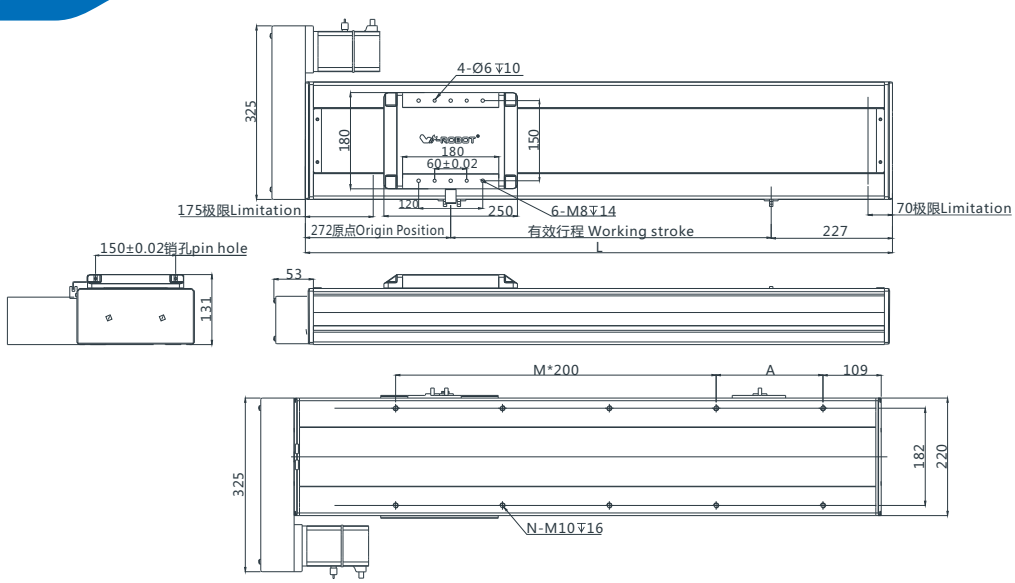
注:以下不含电机重量。Note: Not including motor weight.

有效行程 Working Stroke	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	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	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
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	19
重量KG Weight KG	24.1	25.3	26.6	27.8	29	30.2	31.4	32.7	33.9	35.1	36.3	37.5	38.8	40	41.2	42.4	43.6	44.9	46.1	47.3	48.5	49.7	51	52.2	53.4	54.6	55.8	57.1	58.3

*如有特殊行程请先与技术人员联系。*In case special stroke please contact technical services.

BR:马达右折(Right Side)

单位（mm）



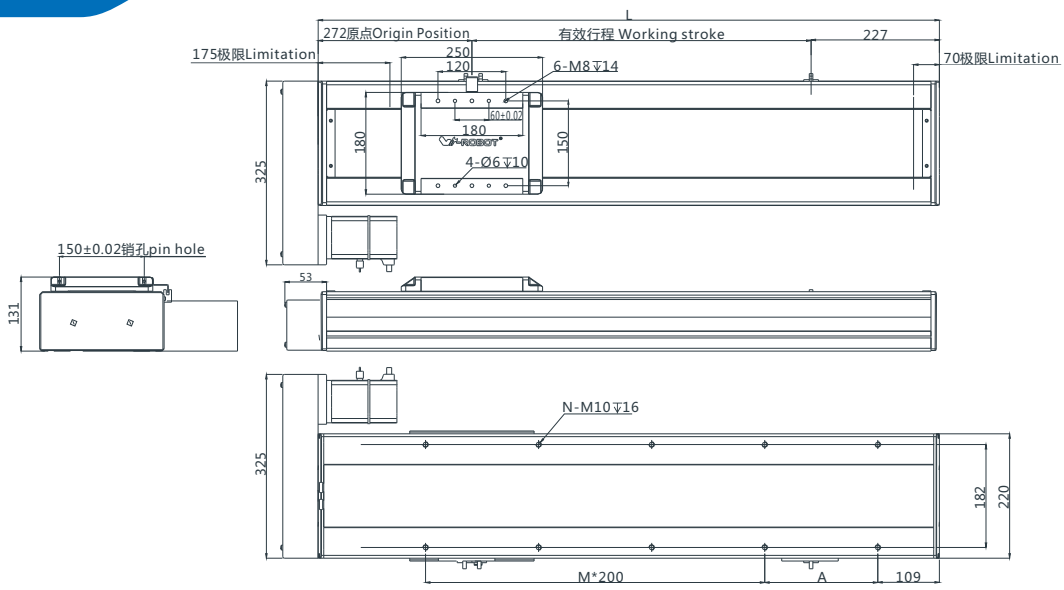
注:以下不含电机重量。Note: Not including motor weight.

有效行程 Working Stroke	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	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	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
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	19
重量KG Weight KG	24.1	25.3	26.6	27.8	29	30.2	31.4	32.7	33.9	35.1	36.3	37.5	38.8	40	41.2	42.4	43.6	44.9	46.1	47.3	48.5	49.7	51	52.2	53.4	54.6	55.8	57.1	58.3

*如有特殊行程请先与技术人员联系。*In case special stroke please contact technical services.

BL:马达左折(Left Side)

单位（mm）



注:以下不含电机重量。Note: Not including motor weight.

有效行程 Working Stroke	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	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	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
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	19
重量KG Weight KG	24.1	25.3	26.6	27.8	29	30.2	31.4	32.7	33.9	35.1	36.3	37.5	38.8	40	41.2	42.4	43.6	44.9	46.1	47.3	48.5	49.7	51	52.2	53.4	54.6	55.8	57.1	58.3

*如有特殊行程请先与技术人员联系。*In case special stroke please contact technical services.

MEMO