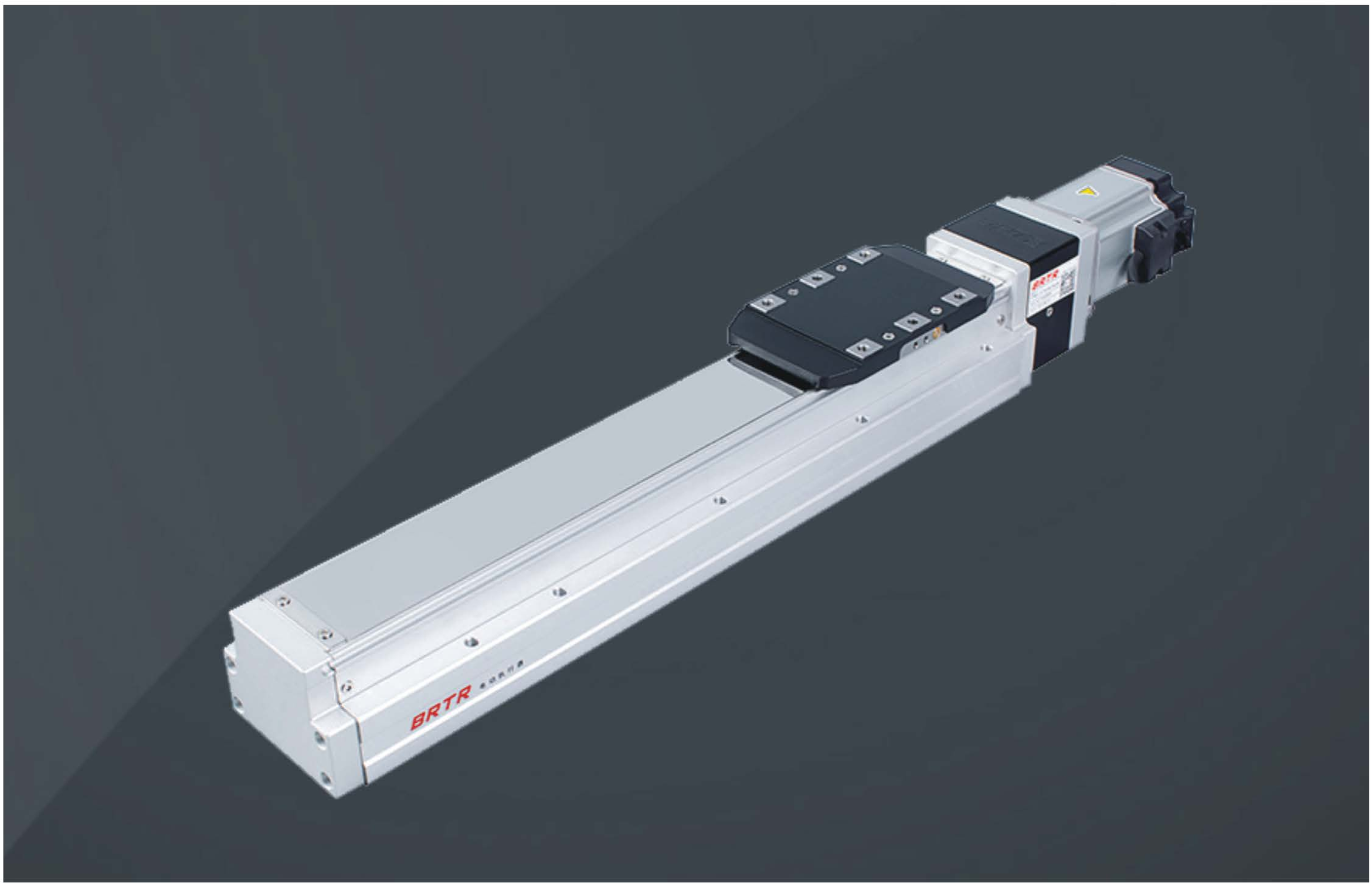
BTH80 单轴/1-axis

▶ 轨道内镶 Built-in Guideway ▶ 螺杆驱动 Ball Screw Drive



此图仅供参考，出货规格详见尺寸图面
The picture is just for the reference. Please check the actual dimensions on the drawing.

最大行程 Maximum Stroke	最高速度 Maximum Speed	马达容量 Motor Output	滚珠螺杆 Ball Screw
1000mm	1000mm/s	400W	Ø16mm

型号表示方式 Ordering Method

BTH80 - L10 - 100 - BC - M40B - C 4 - 0001

- **本体型号** Model
- **螺杆导程** Ball Screw Lead
- **行程** Stroke
- **马达位置** Motor Position
- **马达品牌、功率** Motor Brand 、Power Output
- **原点感应器** Home Sensor
- **端点极限感应器** Limit Sensor
- **特注样式** Special Order No.

行程 Stroke

50-1000mm
50间隔 50 mm Pitch

螺杆导程 Ball Screw Lead

05	5mm
10	10mm
20	20mm

马达位置 Motor Position

BC	马达外露 Motor Exposed
BM	马达下折 Motor Bottom Side
BL	马达左折 Motor Left Side
BR	马达右折 Motor Right Side

马达品牌、功率 Motor Brand 、Power Output

M	三菱 Mitsubishi	05	-	B
P	松下 Panasonic	10	-	
Y	安川 Yaskawa	20	-	
T	台达 Delta	40	400W	

*若无刹车则不表示。
If No Brake No Description.

原点感应器 Home Sensor

外挂型 Out Side	
C	马达侧 Motor Side
D	反马达侧 OppoSite Motor Side
无SENSOR No Sensor	
E	无SENSOR No Sensor

* 选择行程50时，有以下限制：
When the stroke is 50 mm,the sensor installation has the following restrictions:
1.原点与极限需放置于不同侧。
Home sensor and limit sensor has to be installed on the different side of body.
2.滑座左右两侧皆需安装感应片。
Both sides of sider need to install the sensor trigger device.

端点极限感应器 Limit Sensor

外挂型 Out Side	
3	1只 1Pc
4	2只 2Pc
无SENSOR No Sensor	
5	无SENSOR No Sensor

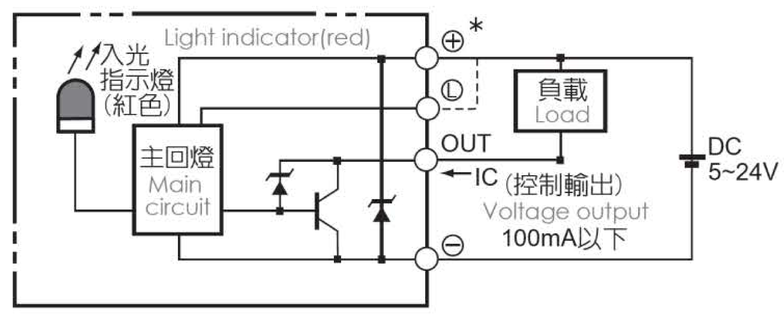
基本式样 Specification

规格 Spec	位置重复精度 Repeatability (mm)		±0.01		
	螺杆导程 Ball Screw Lead (mm)		5	10	20
	最高速度 Maximum Speed (mm/s)		250	500	1000
	最大可搬重量 Repeatability (kg)	水平使用 Horizontal (kg)	50	30	18
		垂直使用 Vertical (kg)	15	8	3
	定格推力 Rated Thrust (N)		1388	694	347
	标准行程 Stroke Pitch (mm)		50-1000mm/50间隔 50 mm Pitch		
部品 Parts	AC伺服马达容量 AC Servo Motor Output (W)		400		
	滚珠螺杆外径 Ball Screw Ø (mm)		C7Ø16		
	联轴器 Coupling (mm)		10X14		
	原点感应器 Home Sensor	外挂 Outside	FF-U674(NPN)		

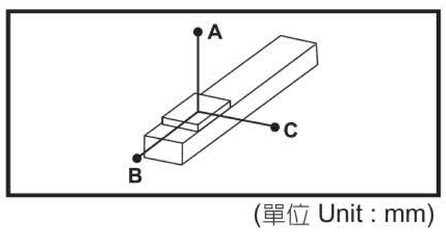
✱ 行程超过750时，会产生螺杆偏摆，此时请将速度调降。
When the stroke is over 750 mm,the run-out of the ballscrew will occur.
we recommend to low down the working speed under this circumstances.

✱ 马达加减速设定0. 2秒.
Acceleration and deacceleration value is set 0.2 second.

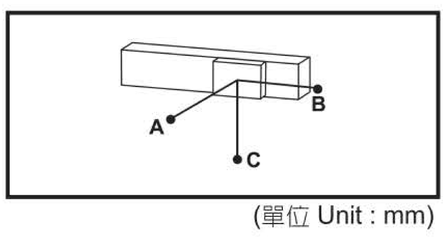
感应器接线图<原点及端点> Sensor Layout



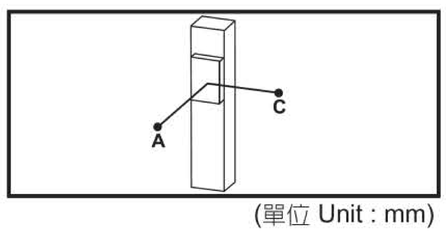
容许负载力矩表 Allowable Overhang



(單位 Unit : mm)



(單位 Unit : mm)



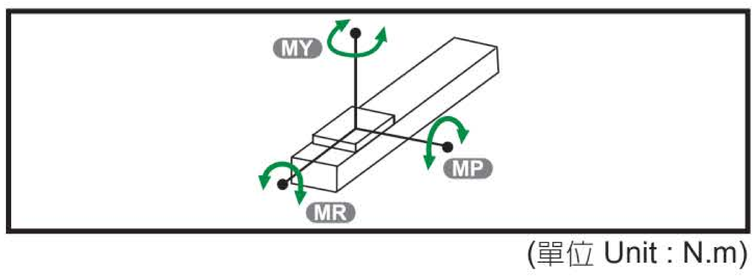
(單位 Unit : mm)

水平安装 Horizontal Installation		A	B	C
导程5 Lead	20kg	1560	153	237
	35kg	890	81	126
	50kg	550	53	82
导程10 Lead	10kg	1730	286	412
	20kg	839	136	196
	30kg	541	86	124
导程20 Lead	6kg	1213	403	493
	9kg	800	264	323
	18kg	592	194	238

壁挂安装 Wall Installation		A	B	C
导程5 Lead	20kg	214	153	1435
	35kg	113	81	845
	50kg	74	53	506
导程10 Lead	10kg	370	286	1400
	20kg	176	136	800
	30kg	112	86	495
导程20 Lead	6kg	444	403	760
	9kg	292	264	277
	18kg	214	194	544

垂直安装 Vertical Installation		A	C
导程5 Lead	10kg	331	331
	15kg	220	220
	-	-	-
导程10 Lead	5kg	589	589
	8kg	368	368
	-	-	-
导程20 Lead	2.5kg	935	935
	-	-	-
	-	-	-

静态容许负载惯量 Static Loading Moment



(單位 Unit : N.m)

MY	318
MP	318
MR	626

✱ 力矩表所表示的数据，代表重心。
The torque value in the chart indicate the center of gravity.

✱ 符合型录规范的正常试用下，保证寿命为10000公里。
Operation life is 10,000km when the product is using under the specified conditions.

✱ 倒吊使用无法套用标准规范，如有需求请咨询我司业务。
Data information is not for ceiling-mount inverse use.
Contact us for the details if you want to apply ceiling-mount inverse usage.

搭配伺服马达一览表 Suitable Motor Brand

品牌 Brand	马达记号 Mark	刹车有无 Broke	马达容量 Watt	电源电压 AC-Voltage	伺服马达型号 Motor Model	驱动器型号 Driver Model
三菱 Mitsubishi	M	无刹车(水平式样) No Brake (Horizontal Type)	400	220	HG-KR43	MR-J4-40A
		有刹车(垂直式样) With Brake (Horizontal Type)	400	220	HG-KR43B	MR-J4-40A
松下 Panasonic	P	无刹车(水平式样) No Brake (Horizontal Type)	400	220	MSMD042G1U	MADHT2510
		有刹车(垂直式样) With Brake (Horizontal Type)	400	220	MSMD042G1V	MADHT2510
台达 Delta	T	无刹车(水平式样) No Brake (Horizontal Type)	400	220	ECMA-C20604ES	ASD-B20421-B
		有刹车(垂直式样) With Brake (Horizontal Type)	400	220	ECMA-C20604FS	ASD-B20421-B

BTH80 单轴/1-axis

轨道内镶 Built-in Guideway

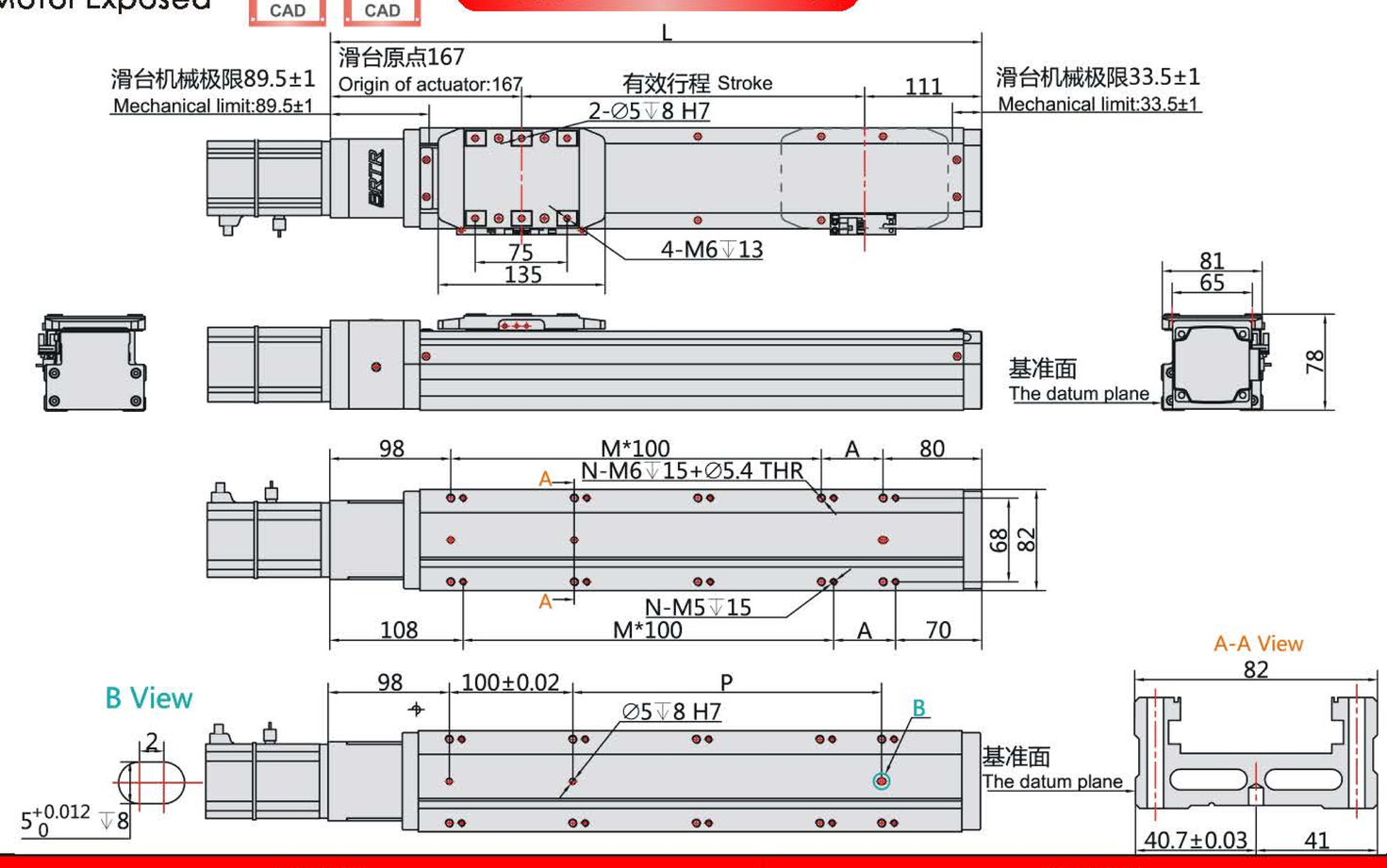
螺杆驱动 Ball Screw Drive

马达外露/马达下折
Motor Exposed / Motor Bottom Side

BC 马达外露 Motor Exposed

2D CAD 3D CAD CAD图面可至www.beartrace.cn下载

单位：Unit: mm



有效行程 Stroke	标准行程 Standard Trip										容许行程 Allow Trip									
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	1128	1178	1228	1278
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
KG	5.18	5.54	5.91	6.27	6.64	7	7.37	7.73	8.1	8.46	8.83	9.19	9.56	9.92	10.29	10.65	11.02	11.38	11.75	12.11

BM 马达下折 Motor Bottom Side

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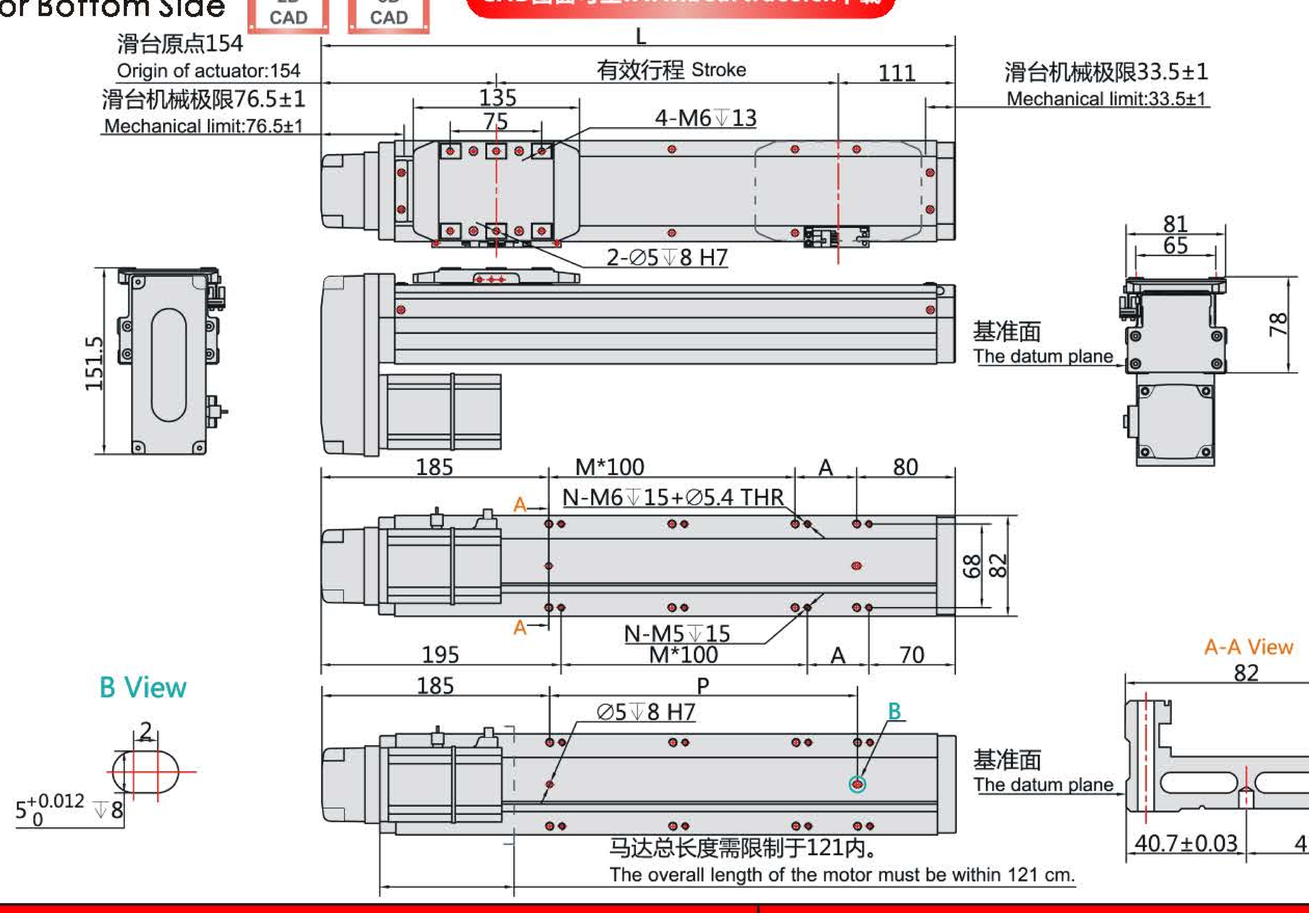
单位：Unit: mm



有效行程 Stroke	标准行程 Standard Trip										容许行程 Allow Trip									
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
N	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
KG	5.19	5.6	6.12	6.64	7.16	7.68	8.2	8.72	9.24	9.76	10.28	10.8	11.32	11.84	12.36	12.88	13.4	13.92	14.44	14.96

马达左折/马达右折
Motor Left Side / Motor Right Side

BL 马达左折 Motor Left Side

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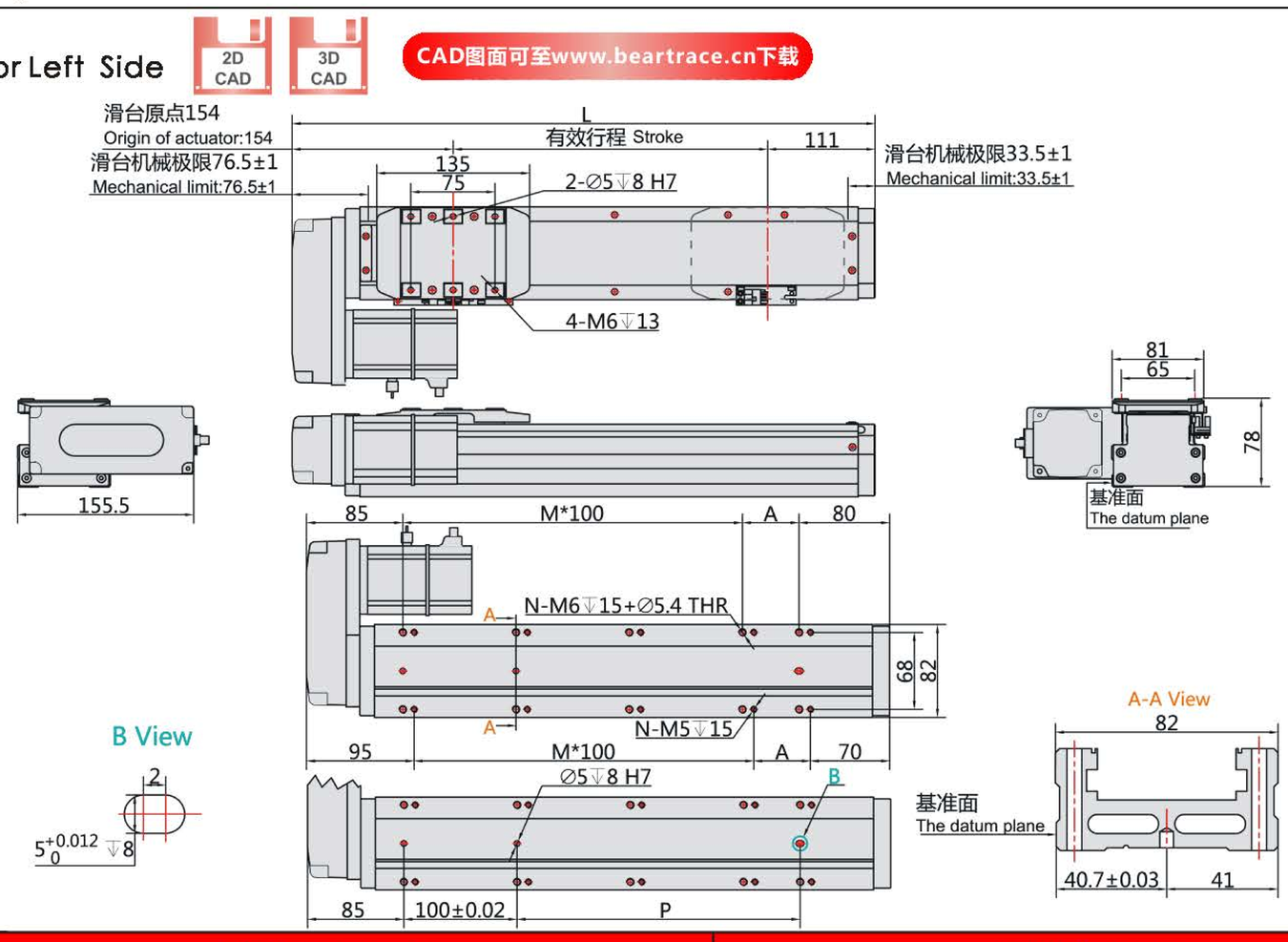
单位：Unit: mm

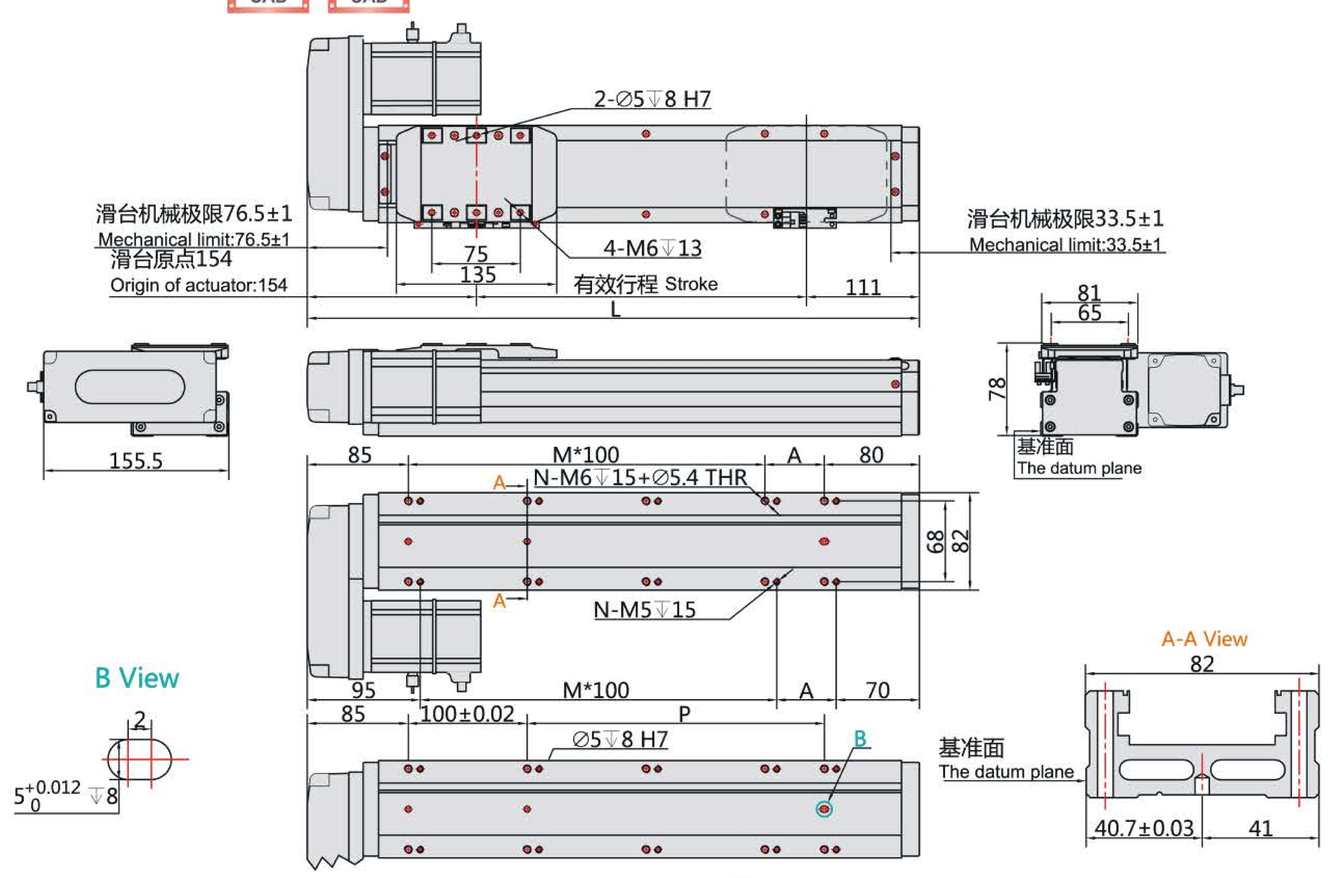


有效行程 Stroke	标准行程 Standard Trip										容许行程 Allow Trip									
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
KG	5.19	5.6	6.12	6.64	7.16	7.68	8.2	8.72	9.24	9.76	10.28	10.8	11.32	11.84	12.36	12.88	13.4	13.92	14.44	14.96

BR 马达右折 Motor Right Side

2D CAD 3D CAD CAD图面可至www.beartrace.cn下载

单位：Unit: mm



有效行程 Stroke	标准行程 Standard Trip										容许行程 Allow Trip									
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
KG	5.19	5.6	6.12	6.64	7.16	7.68	8.2	8.72	9.24	9.76	10.28	10.8	11.32	11.84	12.36	12.88	13.4	13.92	14.44	14.96