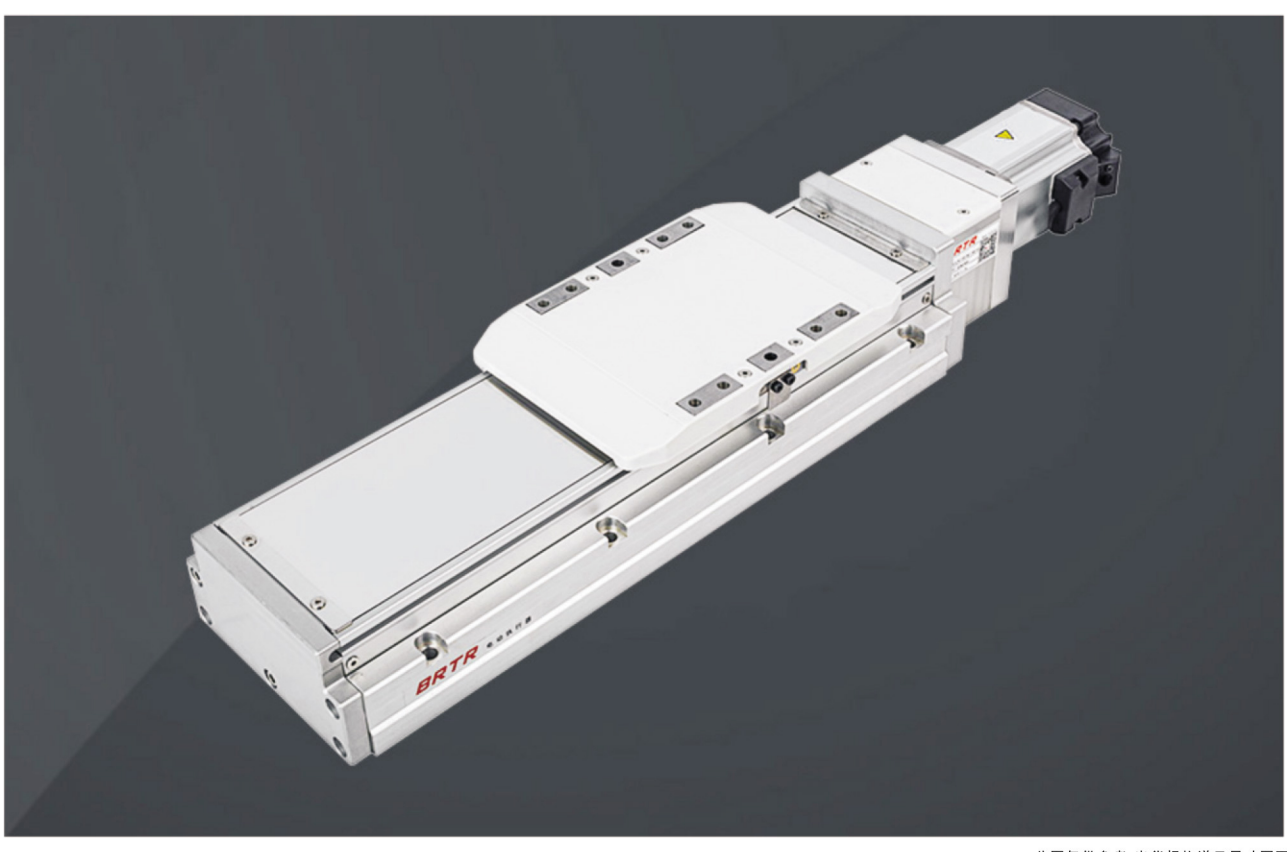
GTH120 单轴/1-axis

▶ 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	马达尺寸 Motor Size	滚珠螺杆 Ball Screw
1000mm	667mm/s	□86mm	Ø16mm

型号表示方式 Ordering Method

GTH120 - L10 - 100 - BC - B86 - C 4 - 0001

本体型号 Model

螺杆导程 Ball Screw Lead

05	5mm
10	10mm
20	20mm

行程 Stroke

50-1000mm
50间隔 50 mm Pitch

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、型号 Motor Brand 、Model

雷赛 LeadShine	86CM80
	86CME80
多摩川 Tamagawa	TS3684N2E6
信浓 Shinano	SST86D530X

*雷赛电机分开环/闭环2种类型。
LeadShine separate ring/closed loop 2 types.

原点感应器 Home Sensor

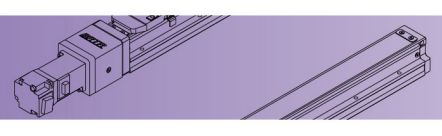
外挂型 Out Side	
C	马达侧 Motor Side
D	反马达侧 OppoSite Motor Side
无SENSOR No Sensor	
E	无SENSOR No Sensor

* 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

特注样式 Special Order No.



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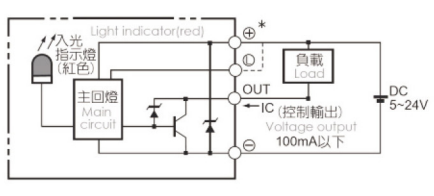
基本式样 Specification

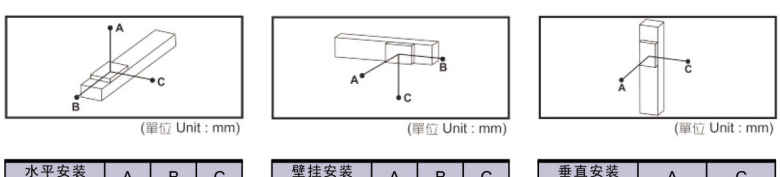
规格 Spec	位置重复精度 Repeatability (mm)		±0.01		
	螺杆导程 Ball Screw Lead (mm)		5	10	20
	最高速度 Maximum Speed (mm/s)	水平使用 Horizontal (mm/s)	≤167	≤334	≤667
		垂直使用 Vertical (mm/s)	≤167	≤303	≤603
	最大可搬重量 Repeatability (kg)	水平使用 Horizontal (kg)	≤95	≤75	≤34
		垂直使用 Vertical (kg)	≤28	≤19	≤8.5
	定格推力 Rated Thrust (N)		8541	4273	2136
	标准行程 Stroke Pitch (mm)		50-1000mm/50间隔 50 mm Pitch		
部品 Parts	保持转矩 Holding Torque (N·m)		8.0		
	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.
* 运行速度根据负载大小会有变化。
Running speed varies according to load size.
* 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



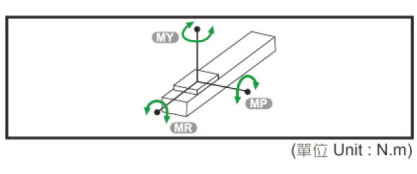
(單位 Unit : mm)

水平安装 Horizontal Installation		A	B	C
导程5 Lead	60kg	2650	200	260
	80kg	2000	150	200
	95kg	1300	100	140
导程10 Lead	30kg	2450	390	400
	50kg	1500	180	250
	75kg	850	120	160
导程20 Lead	10kg	3000	1050	1200
	22kg	1450	390	450
	34kg	800	240	290

壁挂安装 Wall Installation		A	B	C
导程5 Lead	55kg	260	200	2650
	75kg	200	150	2000
	90kg	140	100	1300
导程10 Lead	30kg	400	390	2450
	50kg	250	180	1500
	75kg	160	120	850
导程20 Lead	10kg	1200	1050	3000
	20kg	450	390	1800
	30kg	290	240	800

垂直安装 Vertical Installation		A	C
导程5 Lead	15kg	400	331
	22kg	320	220
	28kg	250	-
导程10 Lead	10kg	800	589
	14kg	750	368
	19kg	630	-
导程20 Lead	6kg	1000	935
	8.5kg	950	-
	-	-	-

静态容许负载惯量 Static Loading Moment



(單位 Unit : N.m)

MY	1168
MP	606
MR	606

* 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.

搭配马达一览表 Suitable Motor Brand

品牌 Brand	保持转矩 Holding Torque	电源电压 AC-Voltage	马达型号 Motor Model	驱动器型号 Driver Model
雷赛 LeadShine	8.0N·m	DC24V	86CM80	DM882S
		DC24V	86CME80	CI86
多摩川 Tamagawa	7.8N·m	DC24V	TS3684N2E6	AU9290N4
信浓 Shinano	7.9N·m	DC24V	SST86D530X	SDU22C701

GTH120 单轴/1-axis

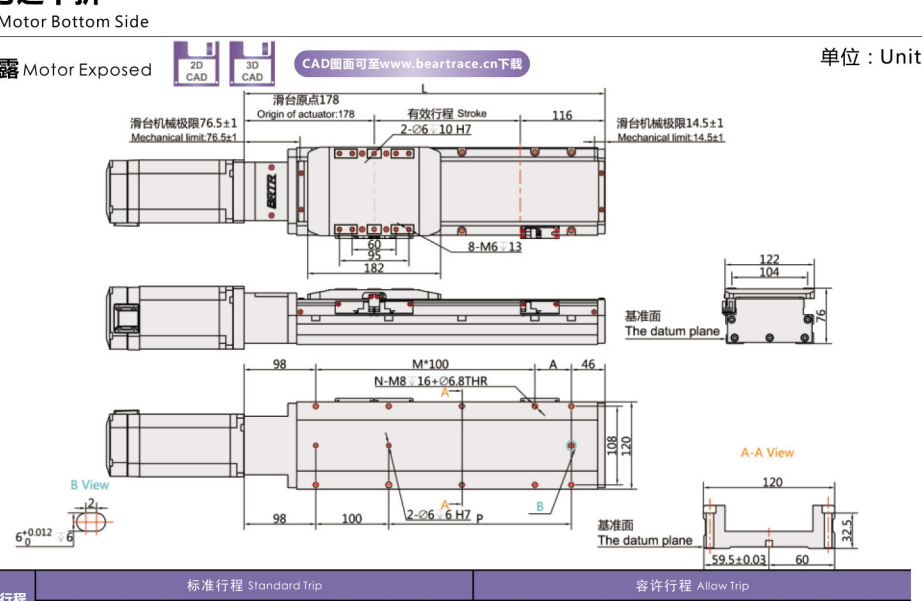
▶ 轨道内镶 Built-in Guideway ▶ 螺杆驱动 Ball Screw Drive

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	344	394	444	494	544	594	644	694	744	794	844	894	944	994	1044	1094	1144	1194	1244	1294
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	7.9	8.44	8.9	9.37	9.84	10.3	10.77	11.23	11.7	12.16	12.73	13.19	13.66	14.12	14.59	15.05	15.6	16	16.45	17

BM 马达下折 Motor Bottom Side

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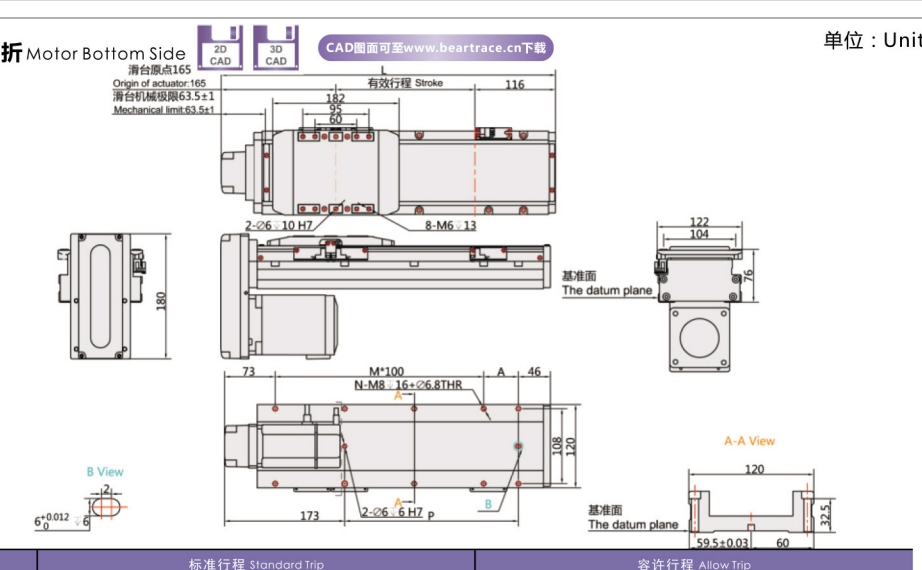
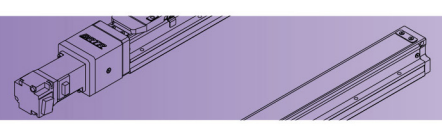
单位：Unit: mm



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	334.5	384.5	434.5	484.5	534.5	584.5	634.5	684.5	734.5	784.5	834.5	884.5	934.5	984.5	1034.5	1084.5	1134.5	1184.5	1234.5	1284.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	7.79	8.3	8.92	9.54	10.16	10.78	11.4	12.02	12.74	13.36	13.98	14.6	15.22	15.84	16.46	17.08	17.7	18.42	19.04	19.66



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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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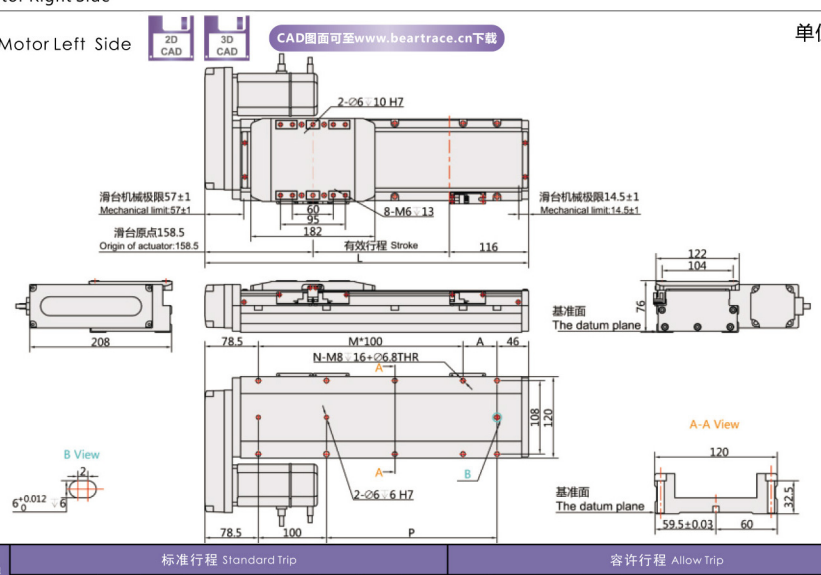
单位：Unit: mm

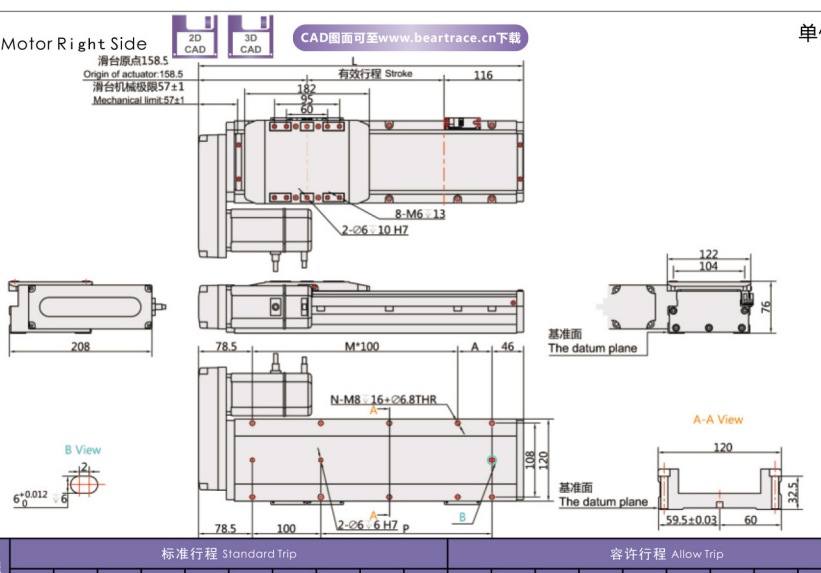


有效行程 Stroke	标准行程 Standard Trip										容许行程 Allow Trip									
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	324.5	374.5	424.5	474.5	524.5	574.5	624.5	674.5	724.5	774.5	824.5	874.5	924.5	974.5	1024.5	1074.5	1124.5	1174.5	1224.5	1274.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	7.99	8.5	9.12	9.74	10.36	10.98	11.6	12.22	12.94	13.56	14.18	14.8	15.42	16	16.66	17.28	17.9	18.62	19.24	19.86

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	324.5	374.5	424.5	474.5	524.5	574.5	624.5	674.5	724.5	774.5	824.5	874.5	924.5	974.5	1024.5	1074.5	1124.5	1174.5	1224.5	1274.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
KG	7.99	8.5	9.12	9.74	10.36	10.98	11.6	12.22	12.94	13.56	14.18	14.8	15.42	16	16.66	17.28	17.9	18.62	19.24	19.86