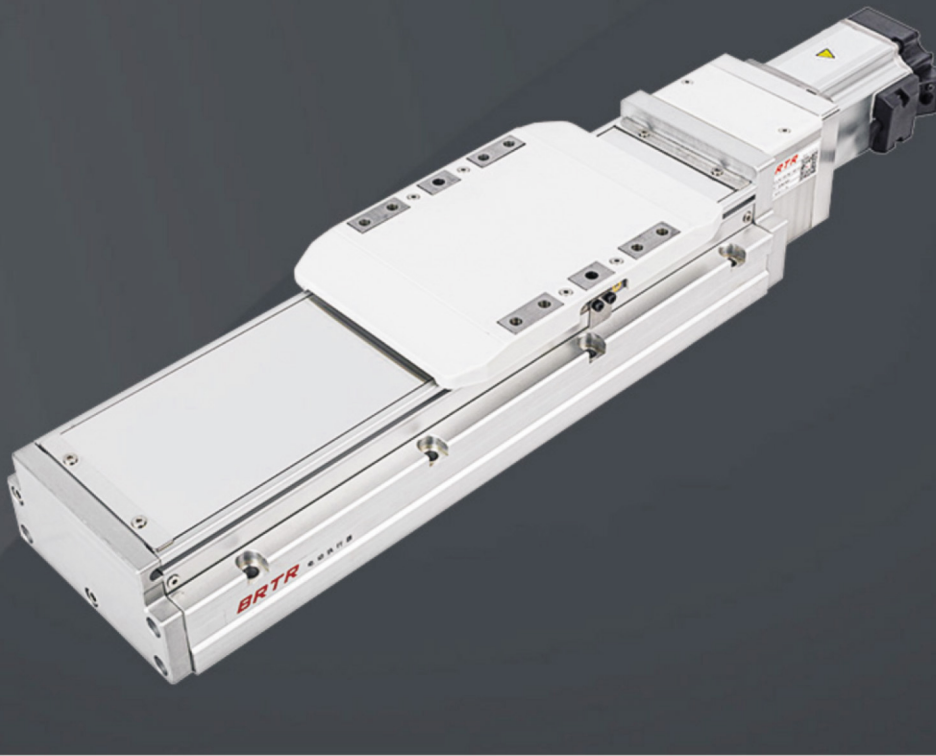


# GTH120单轴/1-axis

轨道内镶  
Built-in Guideway

螺杆驱动  
Ball Screw Drive



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

最大行程  
Maximum Stroke

1000mm

最高速度  
Maximum Speed

1000mm/s

马达容量  
Motor Output

400W

滚珠螺杆  
Ball Screw

Ø16mm

## 型号表示方式 Ordering Method

GTH120- L10 - 100 - BC - M40B - C 4 - 0001

本体型号  
Model

行程  
Stroke

50-1000mm  
50间隔 50 mm Pitch

特注样式  
Special Order No.

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

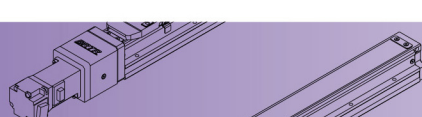
\*选择行程500时,有以下限制:  
When the stroke is 500mm, the sensor installation has the following restrictions:  
1.原点与极限位置互不相同。  
Home sensor and limit sensor has to be installed on the different side of body.  
2.滑座左右两侧皆需安装感应片。  
Both sides of slider need to install the sensor trigger device.

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

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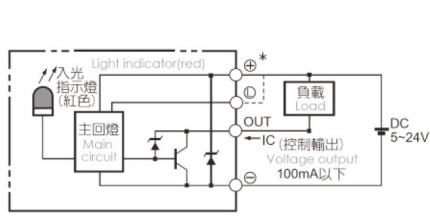
服务热线:0769-28686186

## 基本式样 Specification

|                   |                                    |                            |     |      |
|-------------------|------------------------------------|----------------------------|-----|------|
| 规格<br>Spec        | 位置重复精度 Repeatability (mm)          | ±0.02                      |     |      |
|                   | 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)       | 110 | 88   |
|                   |                                    | 垂直使用 Vertical (kg)         | 33  | 22   |
| 部品<br>Parts       | 定规格力 Rated Thrust (N)              | 1388                       | 694 | 347  |
|                   | 标准行程 Stroke Pitch (mm)             | 50-1000mm/50间隔 50 mm Pitch |     |      |
|                   | 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.  
\*马达加速设定0.2秒。  
Acceleration and deceleration 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

|                                 |            |       |      |      |            |       |     |      |
|---------------------------------|------------|-------|------|------|------------|-------|-----|------|
| 水平安装<br>Horizontal installation | 导程<br>Lead | A     | B    | C    | 导程<br>Lead | A     | B   | C    |
|                                 |            |       |      |      |            |       |     |      |
| 导程 5                            | Lead       | 60kg  | 2850 | 250  | 340        | 55kg  | 280 | 280  |
|                                 |            | 80kg  | 2100 | 180  | 250        | 75kg  | 200 | 195  |
| 导程 10                           | Lead       | 110kg | 1500 | 120  | 170        | 110kg | 130 | 125  |
|                                 |            | 30kg  | 2850 | 490  | 600        | 35kg  | 400 | 410  |
| 导程 20                           | Lead       | 50kg  | 1700 | 280  | 350        | 55kg  | 245 | 250  |
|                                 |            | 88kg  | 950  | 140  | 190        | 88kg  | 150 | 150  |
| 导程 40                           | Lead       | 10kg  | 3400 | 1250 | 1400       | 12kg  | 900 | 1070 |
|                                 |            | 22kg  | 1650 | 550  | 620        | 20kg  | 550 | 630  |
| 导程 80                           | Lead       | 40kg  | 900  | 290  | 330        | 40kg  | 260 | 300  |
|                                 |            |       |      |      |            |       |     |      |

## 静态容许负载惯量 Static Loading Moment

|    |      |
|----|------|
| MY | 1168 |
| MP | 606  |
| MR | 606  |

\*力矩表所示的数据,代表重心。  
The force value in the chart indicate the center of gravity.  
\*符合型录规格的正常试用下,保证寿命为10000公里。  
Operation life is 10,000km when the product is using under the specified conditions.  
\*倒用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<br>Brand      | 马达记号<br>Mark | 刹车有无<br>Brake                           | 马达容量<br>Watt | 电源电压<br>AC Voltage | 伺服马达型号<br>Motor Model | 驱动器型号<br>Driver Model |
|------------------|--------------|-----------------------------------------|--------------|--------------------|-----------------------|-----------------------|
| 三菱<br>Mitsubishi | M            | 无刹车(水平式样)<br>No Brake (Horizontal Type) | 400          | 220                | HG-KR43               | MR-J4-40A             |
|                  |              | 有刹车(垂直式样)<br>With Brake (Vertical Type) | 400          | 220                | HG-KR43B              | MR-J4-40A             |
| 松下<br>Panasonic  | P            | 无刹车(水平式样)<br>No Brake (Horizontal Type) | 400          | 220                | MSMD042G1U            | MBDHT2510             |
|                  |              | 有刹车(垂直式样)<br>With Brake (Vertical Type) | 400          | 220                | MSMD042G1V            | MBDHT2510             |
| 台达<br>Delta      | T            | 无刹车(水平式样)<br>No Brake (Horizontal Type) | 400          | 220                | ECMA-C20604ES         | ASD-B20421-B          |
|                  |              | 有刹车(垂直式样)<br>With Brake (Vertical Type) | 400          | 220                | ECMA-C20604FS         | ASD-B20421-B          |

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# GTH120单轴/1-axis

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

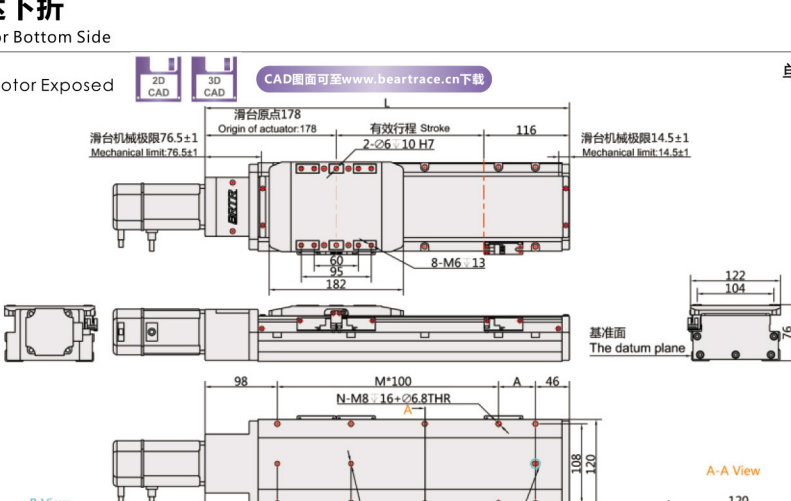
BC 马达外露 Motor Exposed

2D CAD

3D CAD

CAD图面可至www.beartrace.cn下载

单位: Unit: mm



| 有效行程<br>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   |

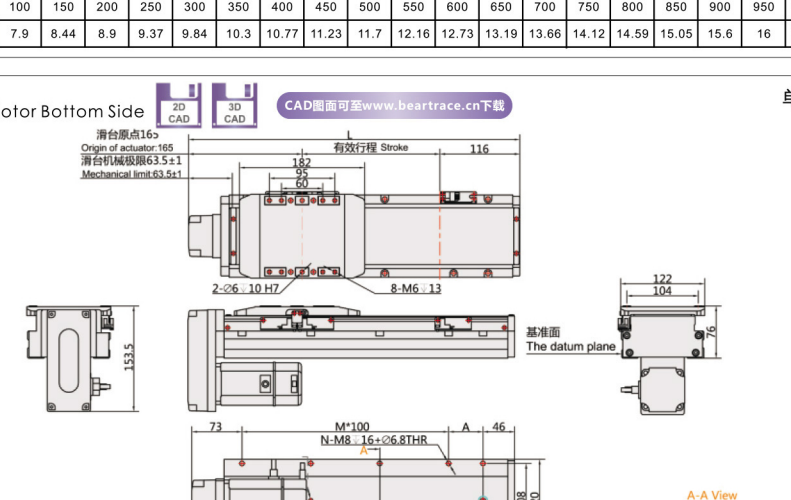
## BM 马达下折 Motor Bottom Side

2D CAD

3D CAD

CAD图面可至www.beartrace.cn下载

单位: Unit: mm



| 有效行程<br>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   | 18.32  | 18.94  | 19.56  |

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

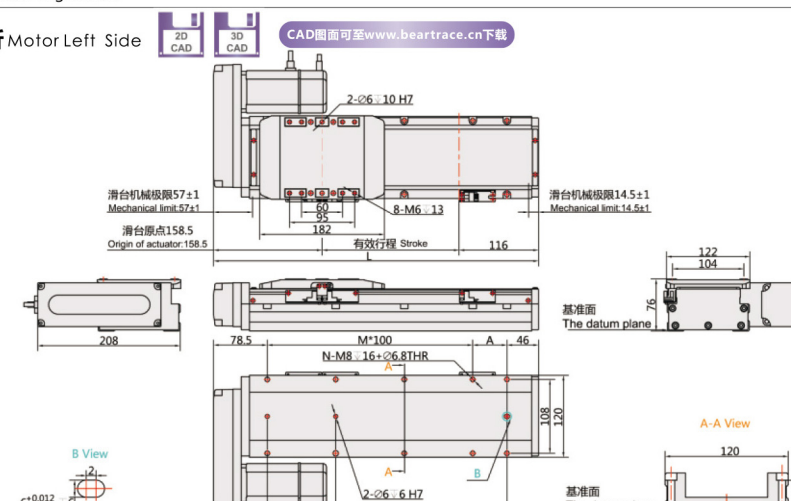
BL 马达左折 Motor Left Side

2D CAD

3D CAD

CAD图面可至www.beartrace.cn下载

单位: Unit: mm



| 有效行程<br>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 | 12.84 | 13.46 | 14.08           | 14.7  | 15.32 | 15.94 | 16.56  | 17.18  | 17.8   | 18.42  | 19.04  | 19.66  |

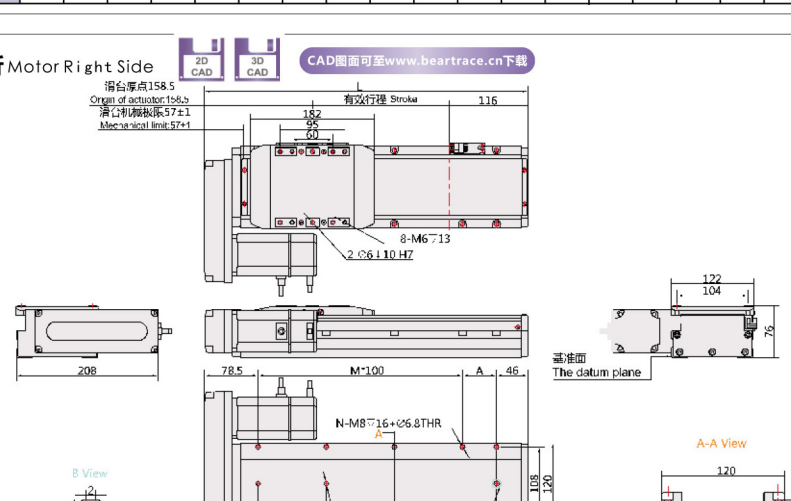
## BR 马达右折 Motor Right Side

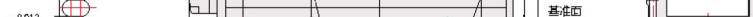
2D CAD

3D CAD

CAD图面可至www.beartrace.cn下载

单位: Unit: mm



|  |                    |       |       |       |       |       |       |       |       |       |                 |       |       |       |        |        |        |        |        |        |
|-------------------------------------------------------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| 有效行程<br>Strokes                                                                     | 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  | 9.6   | 10.1  | 10.6  | 11.1  | 11.6  | 12.1  | 12.6  | 13.1            | 13.6  | 14.1  | 14.6  | 15.1   | 15.6   | 16.1   | 16.6   | 17.1   | 17.6   |