

CTH5 單軸 1-axis

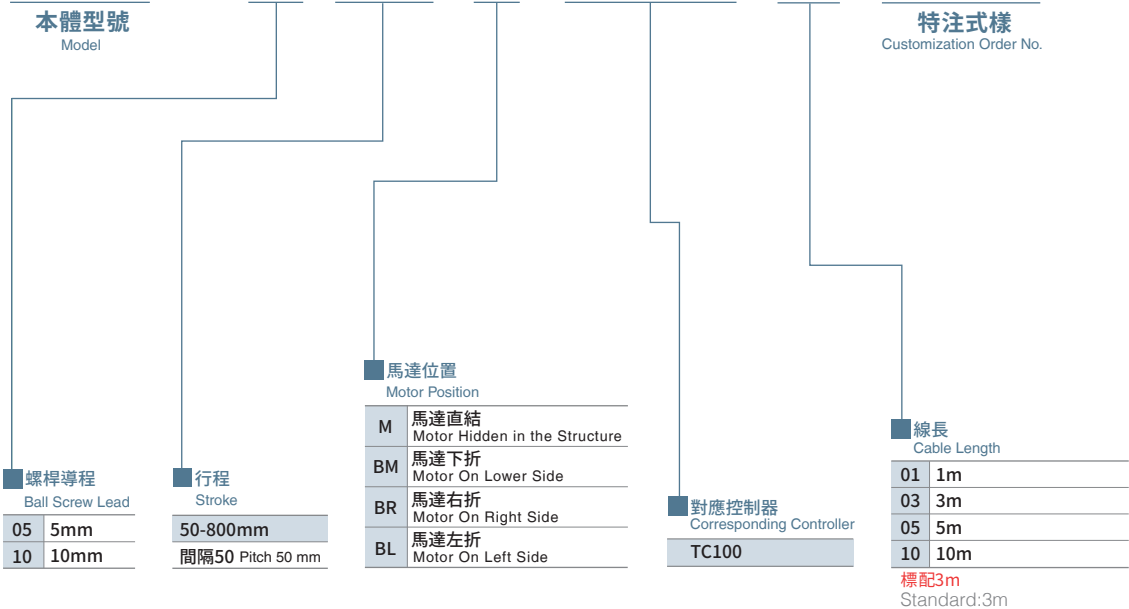
螺桿驅動 Ball Screw Drive



| | | | | |
|--|---|---|--|---|
| 最大行程 Maximum Stroke 800mm | 最高速度 Maximum Speed 500mm/s | 馬達尺寸 Motor Dimension 42□mm | 滾珠螺桿 Ball Screw ∅12mm | 直線滑軌 Linear Guide 24x8.5-1pc |
|--|---|---|--|---|

型號表示方式 Ordering Method

CTH5 - L10 - 300 - M - TC100 - 03 - A0001



基本仕様 Specification

| | | | | |
|----------------------------|------------------------------|----------------------|------|----|
| 規格 Spec | 位置重複精度 Repeatability (mm) | ±0.01 | | |
| | 螺桿導程 Ball Screw Lead (mm) | 5 | 10 | |
| | 最高速度 Maximum Speed (mm/s) ※2 | ≤250 | ≤500 | |
| | 最大可搬重量 Maximum Payload | 水平使用 Horizontal (kg) | ≤10 | ≤5 |
| | | 垂直使用 Vertical (kg) | ≤3 | ≤3 |
| | 定格推力 Rated Thrust (N) | 565 | 283 | |
| 標準行程 Stroke / Pitch(mm) ※1 | 50-800 / 50 | | | |
| 部品 Parts | 馬達尺寸 Motor Dimension (mm) | 42□ | | |
| | 滾珠螺桿規格 Ball Screw Spec | C7 φ 12mm | | |

※1 行程超過600時，會產生螺桿偏擺震動，此時請將速度調降。詳細請參考P21頁說明。

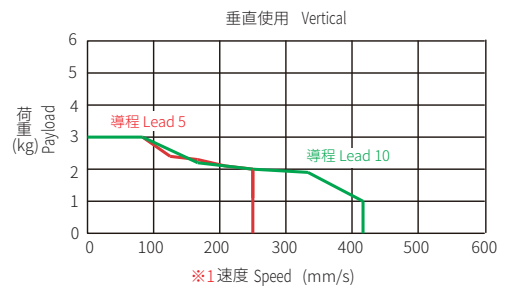
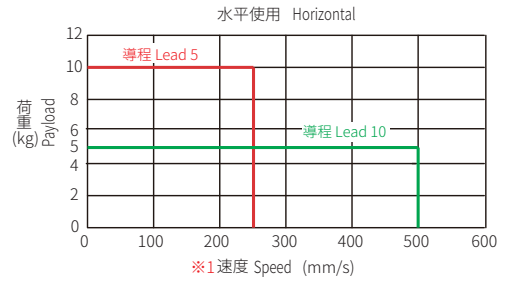
When the stroke is over 600mm, the run-out of the ballscrew will occur.

We recommend to low down the working speed under this circumstances. Please refer to P21 for details.

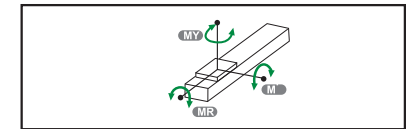
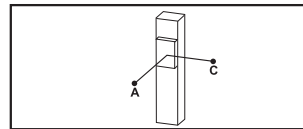
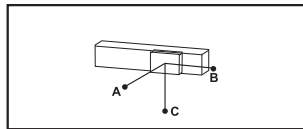
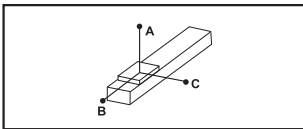
※2 此處最高速度為軟體移動速度設定為100%時。

The maximum speed shown here is when software speed setting is 100%.

速度-荷重曲線圖 Speed-Payload Curve Diagram



容許負載力距表 Allowable Moment



(單位 Unit:mm)

| 水平安裝 Horizontal Installation | | A | B | C |
|---------------------------------|------|-----|----|----|
| 導程 5 Lead | 5kg | 400 | 23 | 50 |
| | 8kg | 250 | 14 | 32 |
| | 10kg | 175 | 10 | 23 |
| 導程 10 Lead | 3kg | 315 | 37 | 75 |
| | 4kg | 225 | 27 | 56 |
| | 5kg | 175 | 20 | 42 |

(單位 Unit:mm)

| 壁面安裝 Wall Installation | | A | B | C |
|---------------------------|------|----|----|-----|
| 導程 5 Lead | 5kg | 55 | 23 | 450 |
| | 8kg | 30 | 13 | 315 |
| | 10kg | 22 | 10 | 240 |
| 導程 10 Lead | 3kg | 75 | 37 | 300 |
| | 4kg | 55 | 27 | 225 |
| | 5kg | 45 | 20 | 175 |

(單位 Unit:mm)

| 垂直安裝 Vertical Installation | | A | C |
|-------------------------------|-----|-----|-----|
| 導程 5 Lead | 1kg | 140 | 140 |
| | 2kg | 70 | 70 |
| | 3kg | 50 | 50 |
| 導程 10 Lead | 1kg | 130 | 130 |
| | 2kg | 65 | 65 |
| | 3kg | 50 | 50 |

(單位 Unit:N.m)

| | |
|----|----|
| MY | 16 |
| MP | 20 |
| MR | 19 |

對應控制器一覽表 Corresponding Controller Chart

| 外觀 Exterior | 控制器型號 Controller Model | 控制介面 Control Mode | 特點 Features | 電氣規格 Electrical Spec. | 詳細參閱 Reference Page |
|---|---------------------------|---|---|--|------------------------|
|  | TC100 | Pulse控制 Pulse Control Mode | Line driver 500k Hz Open collector 200k Hz 同時間只能使用一種。 Support Line driver and Open collector Max.pulse receiving speed 500k/200k Hz. | 控制電路只能使用24V。 工作電壓DC24V， 額定電流 2A，峰值電流3A。 工作電壓DC48V， 額定電流 1A，峰值電流2A。 | P.99 |
| | | I/O控制 I/O Control Mode | 利用I/O變化，最多可以執行127個 位置控制。 By I/O control, max. 127 positioning points, can be executed. | 使用DC48V時在相同扭力下， 轉速會提升，詳細內容請跟服務 窗口連絡。 The voltage of control circuit is 24V only. | |
| | | 通訊控制 Communication Control Mode | 採Modbus的RS485通訊介面 (最大並接16台)及一組mini USB (TOYO Single專用)。 Use Modbus as the interface of RS485 (connect max. 16 controllers) and 1 set mini USB. (special for TOYO-single) | Operating voltage DC24V, rated current 2A, peak current 3A. Operating voltage DC48V, rated current 1A, peak current 2A. When the voltage is DC48V but same torque, the rotation speed will be raised. Please contact your service window to details. | |

CTH5 單軸 1-axis

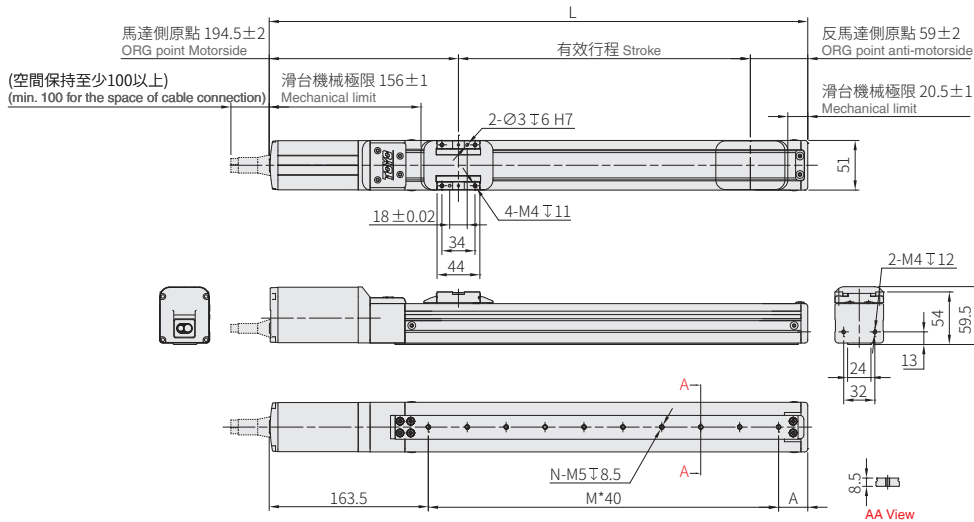
螺桿驅動 Ball Screw Drive

M 馬達直結 Motor Hidden in the Structure



• CAD圖面可至www.toyorobot.com下載 •
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)



| 有效行程 Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| L | 303.5 | 353.5 | 403.5 | 453.5 | 503.5 | 553.5 | 603.5 | 653.5 | 703.5 | 753.5 | 803.5 | 853.5 | 903.5 | 953.5 | 1003.5 | 1053.5 |
| A | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 |
| M | 2 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | 12 | 14 | 15 | 16 | 17 | 19 | 20 | 21 |
| N | 3 | 5 | 6 | 7 | 8 | 10 | 11 | 12 | 13 | 15 | 16 | 17 | 18 | 20 | 21 | 22 |
| *Weight(kg) | 2.07 | 2.21 | 2.35 | 2.5 | 2.64 | 2.79 | 2.94 | 3.08 | 3.23 | 3.37 | 3.52 | 3.67 | 3.81 | 3.96 | 4.1 | 4.25 |

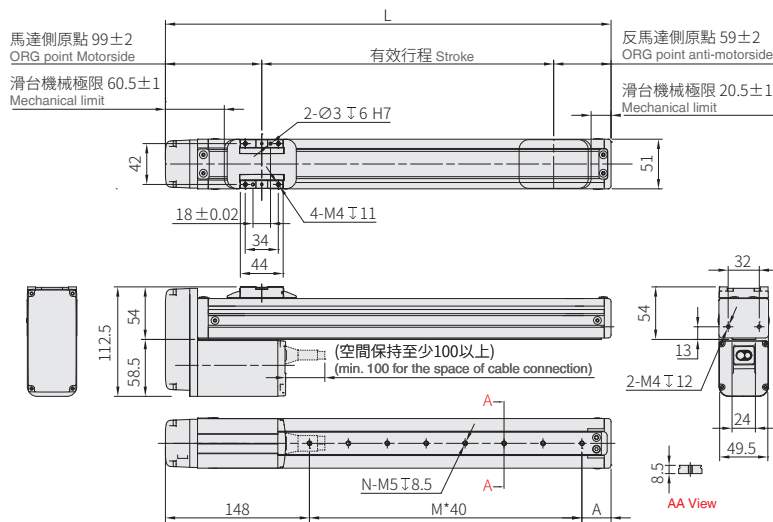
*重量包含本體與馬達。Weight of model with motor.

BM 馬達下折 Motor On Lower Side



• CAD圖面可至www.toyorobot.com下載 •
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)



| 有效行程 Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-------------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|-----|------|
| L | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 |
| A | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 |
| M | 0 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 | 12 | 13 | 14 | 15 | 17 | 18 | 19 |
| N | 1 | 3 | 4 | 5 | 6 | 8 | 9 | 10 | 11 | 13 | 14 | 15 | 16 | 18 | 19 | 20 |
| *Weight(kg) | 2.17 | 2.31 | 2.45 | 2.6 | 2.74 | 2.89 | 3.04 | 3.18 | 3.33 | 3.47 | 3.62 | 3.77 | 3.91 | 4.06 | 4.2 | 4.35 |

*重量包含本體與馬達。Weight of model with motor.

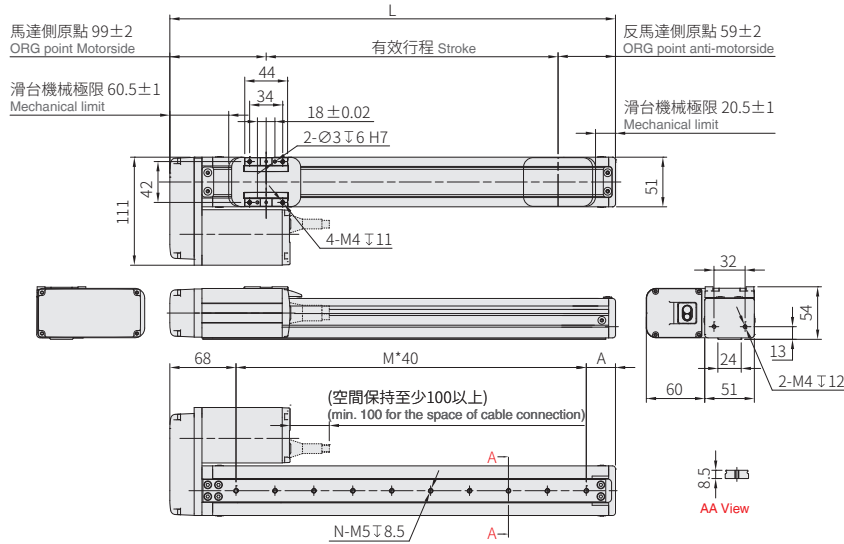
免費服務專線：大陸 400-875-0009 台灣 0800-800-893
Toll-Free Number China Taiwan

BL 馬達左折 Motor On Left Side



CAD圖面可至www.toyorobot.com下載
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)



| 有效行程 Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-------------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|-----|------|
| L | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 |
| A | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 |
| M | 2 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | 12 | 14 | 15 | 16 | 17 | 19 | 20 | 21 |
| N | 3 | 5 | 6 | 7 | 8 | 10 | 11 | 12 | 13 | 15 | 16 | 17 | 18 | 20 | 21 | 22 |
| *Weight(kg) | 2.17 | 2.31 | 2.45 | 2.6 | 2.74 | 2.89 | 3.04 | 3.18 | 3.33 | 3.47 | 3.62 | 3.77 | 3.91 | 4.06 | 4.2 | 4.35 |

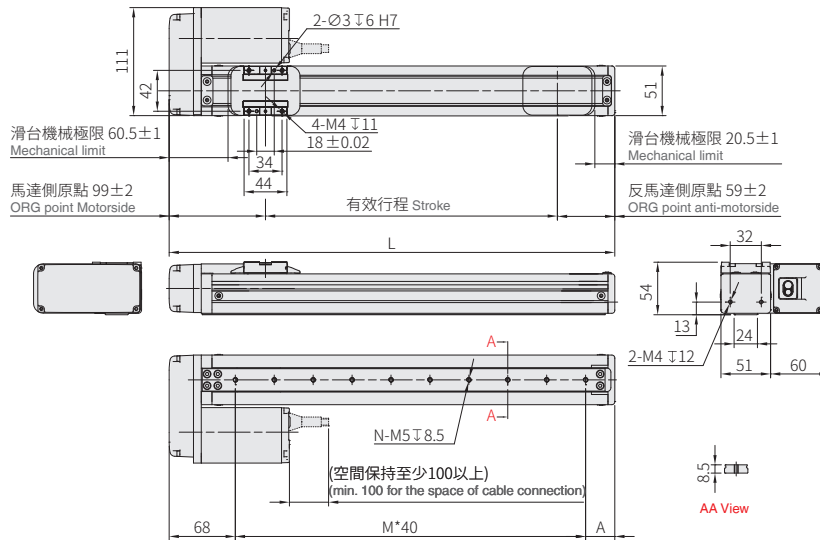
*重量包含本體與馬達。 Weight of model with motor.

BR 馬達右折 Motor On Right Side



CAD圖面可至www.toyorobot.com下載
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)



| 有效行程 Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
|-------------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|-----|------|
| L | 208 | 258 | 308 | 358 | 408 | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 |
| A | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 | 60 | 30 | 40 | 50 |
| M | 2 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | 12 | 14 | 15 | 16 | 17 | 19 | 20 | 21 |
| N | 3 | 5 | 6 | 7 | 8 | 10 | 11 | 12 | 13 | 15 | 16 | 17 | 18 | 20 | 21 | 22 |
| *Weight(kg) | 2.17 | 2.31 | 2.45 | 2.6 | 2.74 | 2.89 | 3.04 | 3.18 | 3.33 | 3.47 | 3.62 | 3.77 | 3.91 | 4.06 | 4.2 | 4.35 |

*重量包含本體與馬達。 Weight of model with motor.