

# GLH 直線電機系列

## GLH Linear Motor Series



### GLH14S

本體寬幅 135mm  
Width  
最大行程 4500mm  
Max.stroke  
最大荷重 20kg  
Max.payload

### GLH17S

本體寬幅 170mm  
Width  
最大行程 4500mm  
Max.stroke  
最大荷重 45kg  
Max.payload

### GLH22S

本體寬幅 220mm  
Width  
最大行程 4500mm  
Max.stroke  
最大荷重 120kg  
Max.payload

標準螺桿滑台系列  
GMH SERIES

內嵌螺桿滑台系列  
GHI SERIES

無塵螺桿滑台系列  
GMD SERIES

標準皮帶滑台系列  
GMP SERIES

內嵌皮帶滑台系列  
GTP SERIES

無塵皮帶滑台系列  
GMT SERIES

歐規皮帶滑台系列  
GKR SERIES

直線電機系列  
GLH SERIES

螺桿電缸系列  
GEC SERIES

# GLH 有鐵芯直線電機系列內部結構

## Internal structure of iron core linear motor Actuator series

**行程最長到5000mm**  
Maximum stroke: 5000mm

**重複精度 ± 0.002mm**  
Repeatability: ± 0.002mm

**多滑座(動子)選擇**  
Various options of carriage

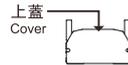
**高精度、高速度、長行程**  
High accuracy, high speed, long stroke

### 高剛性本體/高剛性上蓋

**耐繞曲上蓋**  
Winding resistant cover

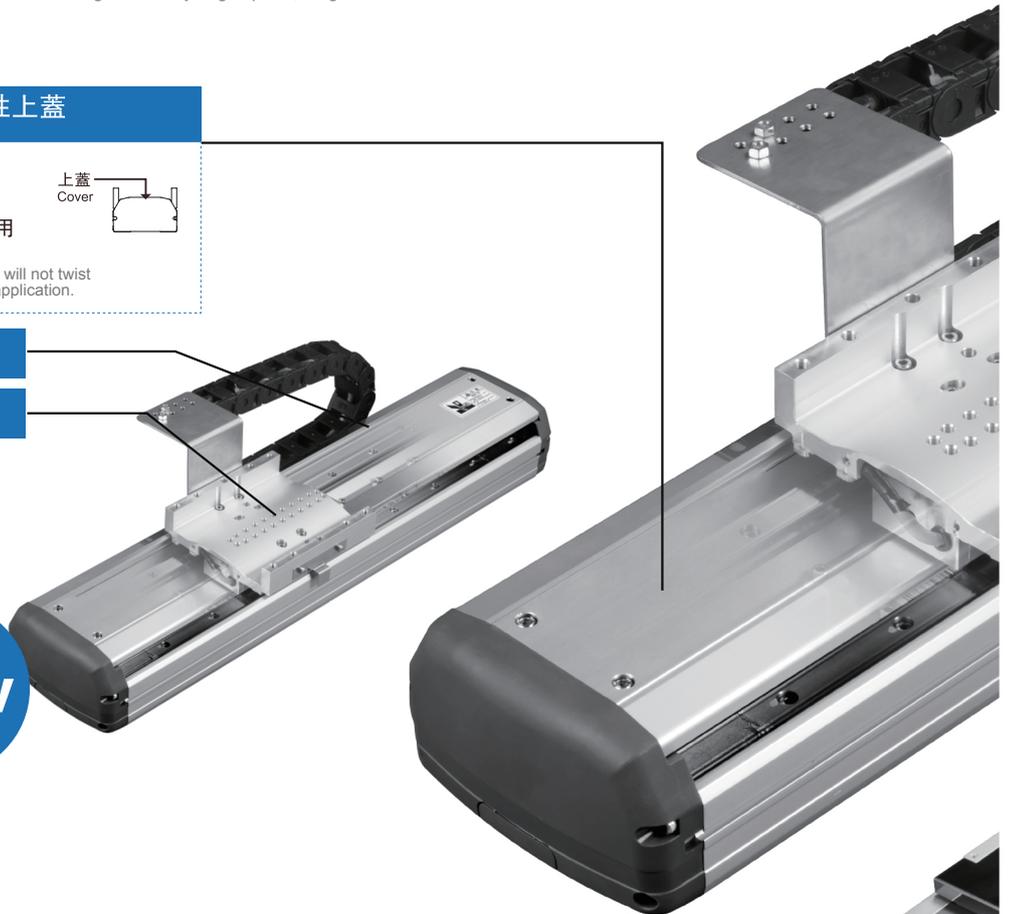
特殊抗繞曲設計，長行程使用時，上蓋不容易扭曲變形

Special anti-winding design. The cover will not twist and deform easily under long strokes application.



**動子：綫圈**  
Rotor: Moving Coil

**定子：磁板**  
Stator: Magnet Track



**磁柵/光柵尺**  
Magnoscale / Grating ruler



**驱动器 Driver**

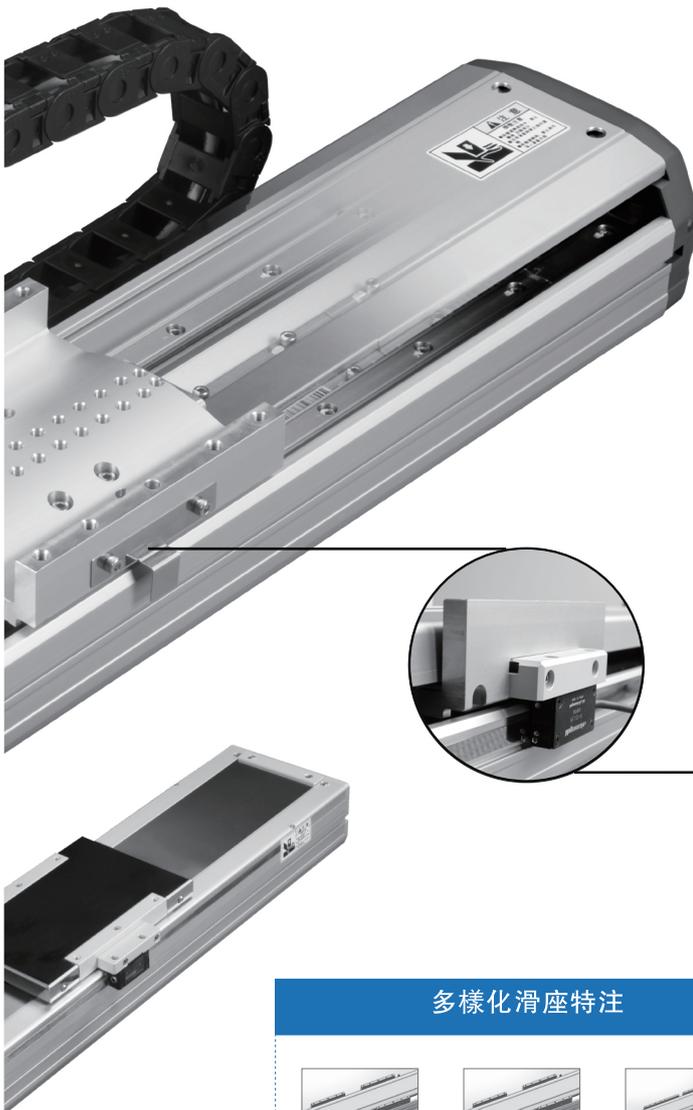
| 廠牌 Brand       | 馬達型號 Motor | 編碼器型號 Encoder Model | 分辨率 Resolving power | 反應速度 Reaction rate | 出力信號 Output signal | 最大可用長度 Maximum available length | IP等級 IP level |
|----------------|------------|---------------------|---------------------|--------------------|--------------------|---------------------------------|---------------|
| Magnoscale 磁柵尺 | M          | SL700PL10-RAC2B     | 1 μm                | 7m/s               | A/B                | 100,000m.m                      | 65            |
|                | M          | SL700PL10-LAC2B     | 5 μm                | 35m/s              | A/B                | 20 μm > 3,000m.m                | 65            |
| Renishaw 磁柵尺   | R          | LMI10C10810A00      | 1 μm                | 7m/s               | A/B                | 2300m.m                         | 65            |
|                | R          | LMI10C10810A00      | 5 μm                | 20m/s              | A/B                | 10,000m.m                       | 65            |
| Renishaw 光柵尺   | R          | RH100X3000SA        | 1 μm                | 6m/s               | A/B                | 2300m.m                         | 65            |
|                | R          | AT0M4T0-150(X)8     | 5 μm                | 20m/s              | A/B                | 10,000m.m                       | 40            |

如需更高精度及速度請聯絡相關銷售人員 (可提供到分辨率 0.1 μm, 速度 8m/s)  
If you need higher accuracy and higher speed, please contact us. (Available resolving power 0.1 μm, speed 8m/s.)

搭配驅動器一覽表 Suitable Motor Brand

| 廠牌 Brand        | 驅動器型號 Driver Model | 馬達容量 Watt | 電源電壓 (AC-240V) Voltage         | 接線信號 Connection signal                    |
|-----------------|--------------------|-----------|--------------------------------|---|
| 美創 Servotronics | M CDHD-P1          | 400W      | 220V 單相三相 Single phase/3 phase | TTL 1.5V                                  |
| 松下 Panasonic    | P ASL BTDH         | 400W      | 220V 單相三相 Single phase/3 phase | TTL IGBT/FWM                              |
| 台達 Delta        | T ASDA-A2R-L       | 400W      | 220V 單相三相 Single phase/3 phase | TTL (單波可藉由轉接器) The spm wave via converter |

可配製三種市面上常用之線性驅動器  
Can equip with 3 linear motor drivers commonly used in the market



特點

Features

- ▲ 超低頓振，可取代無鐵心式綫性馬達  
Low cogging force, able to replace ironless liner motor.
- ▲ 正弦波繞綫，出力平順  
Sine wave winding generate smooth thrust.
- ▲ 鎖付面為高導熱鋁板，散熱佳、高推力  
Built-in aluminum mounting plate provide excellent heat dissipation and strong thrust.
- ▲ 全金屬包覆，無電磁幹擾  
Fully covered by metal shielding to eliminate EMI problem.

高剛性本體/高剛性上蓋

静音運轉：  
Quiet operation:

可有效降低運轉時噪音、提升運轉平順性、壽命與潤滑效率。具有更廣泛的產業應用性，更適用於高速、寧靜與低發塵需求的高科技產業。

Effectively reduce the operating noise and enhance the smoothness, durability and lubrication efficiency. It has wider usage in different industrial application, especially suitable for high-tech industries with high speed, low noise and low dust requirements.



特殊散熱機構、馬達散熱效率佳

光學尺或磁性尺彈性搭配  
Optical linear scale or magnetic scale is optional.

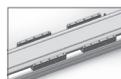
▲ 考慮使用環境的需求，有光學尺與磁性尺的設計可選擇。依據磁性尺選擇，可達到分解能0.001mm的高精度。  
According to the requirement of different environments, optical linear scale or magnetic linear scale is optional. The highest resolution of magnetic linear scale can up to 0.001mm.

▲ 超越滾珠螺桿的精度需求。  
Exceed the accuracy of ball screw.

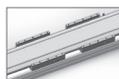
|                                    |                              |
|------------------------------------|------------------------------|
| 重製定位精度<br>Repeatability<br>±0.002m | 解析度<br>Resolution<br>±0.001m |
|------------------------------------|------------------------------|

\*光學尺可特注外置形式。\*External mounted linear scale can be chosen.

多樣化滑座特注



雙滑座雙馬達型  
Double carriage  
double motor drive



雙滑座單馬達型  
Double carriage  
single motor drive



滑座加長單馬達型  
Long carriage  
single motor drive

多種組合對應方式

Variety of combinations

可選配單軸多動力滑座及同步雙驅動軸。 可配多個滑座。  
Optional single-axis multi-power slider and synchronous dual-drive shaft. Multiple sliders



相關產品資訊請參閱該冊型錄。  
For further information, please refer to the individual manual.

最大行程  
Maximum Stroke 2544mm

最高速度  
Maximum Speed 5000mm/s

峰值推力  
Peak Force 240/N

連續推力  
Rated Force @100°C 80/N

直線滑軌  
Linear Guide 15X4-2支



此圖僅供參考，出貨規格詳見尺寸圖面  
The picture is just for reference. Please check the actual dimensions on the drawing.

型號表示方式

Ordering Code

**GLH14S - C1 - 500 - M - P - C4 - 1 - 01**

本體型號  
Model

線圈規格  
Coil specifications

|                 |             |
|-----------------|-------------|
| 標準型<br>Standard | R20-C1 400W |
| 加長型<br>Long     | R20-C2 400W |

最大行程  
Maximum Stroke

|                      |           |
|----------------------|-----------|
| 行程範圍<br>Stroke range | 2544mm    |
| 108 間隔<br>108 Pitch  | 108mm pat |

※ 超出 2544 請聯系銷售。  
Please contact us if stroke over 2544mm.

驅動器 Driver

|   |                 |
|---|-----------------|
| P | 松下 Panasonic    |
| T | 台達 Delta        |
| S | 高創 Servotronics |

編碼器 Encoder

|   |                        |
|---|------------------------|
| G | 光柵尺1/5um Grating ruler |
| M | 磁柵尺1/5um Magnescale    |

線圈Coil

|   |                  |
|---|------------------|
| 1 | 線圈數量<br>Coil Qty |
|---|------------------|

※ 同一條滑臺上可多個線圈。  
There can be multiple coils on the same slider.

原點感應器  
Home sensor

|    |  |
|----|--|
| C1 | 尺上感應器 (光柵)<br>Sensor on the ruler (raster) |
| C4 | 感應器 Sensor                                 |

※ 前極限與後極限並接驅動器。  
Front limit and rear limit are connected to driver.

GLH14S

GLH17S

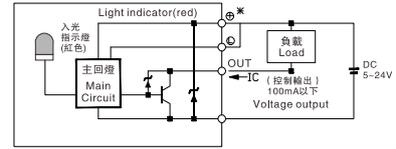
GLH22S

基本仕様 Specification

| 驅動方式 Type (mm) |                                 | 線圈 Coil R20-C1                      | 線圈 Coil R20-C2 |    |
|----------------|---------------------------------|-------------------------------------|----------------|----|
| 性能             | 編碼器 Encoder                     | 磁柵尺 / 光柵尺 Magnescale /Grating ruler |                |    |
|                | 最高速度"1"2 Maximum Speed (mm/s)   | 5000                                |                |    |
|                | 最大加速度"2" Maximum Payload (G)    | 6                                   |                |    |
|                | 最大負載"3" Payload(kg)             | 水平使用 kg Horizontal (kg)             | 10             | 20 |
|                | 分辨率 Resolution(um)              | 1um/5um                             |                |    |
|                | 峰值推力 Peak Force (N)             | 120                                 | 240            |    |
|                | 連續推力 Rated Force@100C (N)       | 40                                  | 80             |    |
|                | 標準行程 Stroke Pitch (mm)          | 168~3544/108 Pitch                  |                |    |
|                | 使用溫度 Operating Temperature (mm) | 0~40                                |                |    |

- ◆鎖付面為高導熱鋁板，散熱佳高推力，減輕重量。  
Built-in aluminum mounting plate provide excellent heat dissipation, strong thrust and light weight.
- ◆全金屬包覆，避免對附近光學讀頭產生電磁干擾。  
Full metal covering to avoid electromagnetic interference to the optical reading heads.
- ◆強制冷卻套件，取代大推力無鐵心綫性馬達，具有更小體積，更佳散熱的優勢。  
The forced cooling kit replaces the high-thrust ironless linear motor, which has the advantages of smaller size and better heat dissipation.

感應器接線圖 <原點及端點> Sensor Layout



| 綫圈/G值<br>Coil/G value | R20-C1             | R20-C2 |
|-----------------------|--------------------|--------|
| 2KG                   | 6G                 | 6G ↑   |
| 4KG                   | 3G                 | 6G     |
| 6KG                   | 2G                 | 4G     |
| 10KG                  | 1G                 | 2G     |
| 20KG                  | 無法載重<br>Can't load | 1G     |

\*符合型錄規範的正常使用下，保證壽命為10000公里。  
\*Operation life is 10,000km when the product is using under the specified conditions.

\*倒吊使用無法套用標準規範，如有需求請洽詢我司業務。  
\*Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

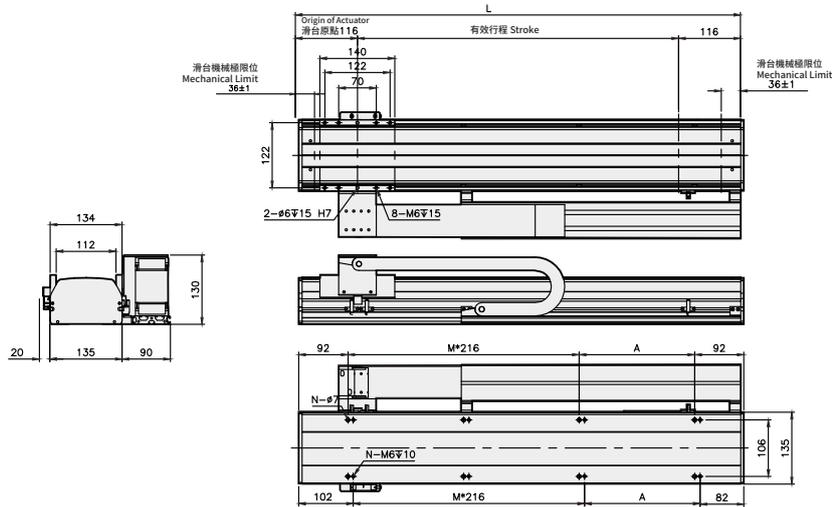
搭配編碼器一覽表 Suitable Encoder Brand

| 廠牌 Brand   | 馬達記號 Mark | 編碼器型號 Encoder Model | 分辨率 Resolving power | 反應速度 Reaction rate | 出力信號 Output signal | 最大可使用長度 Maximum available length | IP 等級 IP level |
|------------|-----------|---------------------|---------------------|--------------------|--------------------|----------------------------------|----------------|
| Magnescale | M         | SL700/PL101-BACDB   | 1 μm                | 7m/s               | A/B                | 100,000m.m                       | 65             |
|            |           | SL700/PL101-BACFB   | 5 μm                | 35m/s              | A/B                | 20 μm > 3,000m.m                 | 65             |
| Renishaw   | R         | LM10IC001BB10A00    | 1 μm                | 7m/s               | A/B                | 2300m.m                          | 65             |
|            |           | LM10IC005BB10A00    | 5 μm                | 20m/s              | A/B                | 10,000m.m                        |                |
| Renishaw   | R         | RH100X30D05A        | 1 μm                | 6m/s               | A/B                | 2300m.m                          | 40             |
|            |           | ATOM4T0-150(X8)     | 5 μm                | 20m/s              | A/B                | 10, 000m.m                       |                |

搭配驅動器一覽表 Suitable Driver Brand

| 廠牌 Brand       | 驅動器記號 Mark | 驅動器型號 Driver Model | 馬達容量 Watt | 電源電壓 (AC-Voltage)                     | 接線訊號 Connection signal                           |
|----------------|------------|--------------------|-----------|---------------------------------------|--|
| 高創 Servotronix | S          | CDHD-P1            | 400W      | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>1.1V                                      |
| 松下 Panasonic   | P          | A5L BTDH           | 400W      | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>IGBT PWM                                  |
| 台達 Delta       | T          | ASDA-A2R-L         | 400W      | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>(旋波可經由轉換器)<br>The spin wave via converter |

**C1** 標準型  
Standard

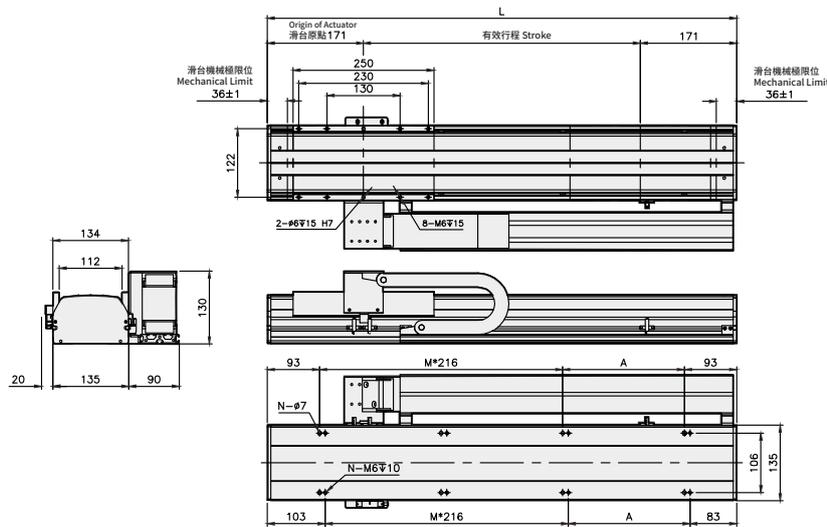


| 有效行程 Stroke | 168 | 276 | 384 | 492  | 600  | 708  | 816  | 924  | 1032 | 1140 | 1248 | 1356 | 1464 | 1572 | 1680 | 1788 | 1896 | 2004 | 2112 | 2220 | 2328 | 2436 | 2544 |
|-------------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 400 | 508 | 616 | 724  | 832  | 940  | 1048 | 1156 | 1264 | 1372 | 1480 | 1588 | 1696 | 1804 | 1912 | 2020 | 2128 | 2236 | 2344 | 2452 | 2560 | 2668 | 2776 |
| A           | 216 | 108 | 216 | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  |
| M           | 0   | 1   | 1   | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    | 9    | 9    | 10   | 10   | 11   | 11   |
| N           | 4   | 6   | 6   | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   | 22   | 22   | 24   | 24   | 26   | 26   |
| KG          | 7.8 | 8.8 | 9.8 | 10.8 | 11.8 | 12.8 | 13.8 | 14.8 | 15.8 | 16.8 | 17.8 | 18.8 | 19.8 | 20.8 | 21.8 | 22.8 | 23.8 | 24.8 | 25.8 | 26.8 | 27.8 | 28.8 | 29.8 |

GLH145

GLH175

**C2** 加長型  
Long



| 有效行程 Stroke | 168 | 276 | 384 | 492 | 600 | 708  | 816  | 924  | 1032 | 1140 | 1248 | 1356 | 1464 | 1572 | 1680 | 1788 | 1896 | 2004 | 2112 | 2220 | 2328 | 2436 | 2544 |
|-------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 510 | 618 | 726 | 834 | 942 | 1050 | 1158 | 1266 | 1374 | 1482 | 1590 | 1698 | 1806 | 1914 | 2022 | 2130 | 2238 | 2346 | 2454 | 2562 | 2670 | 2778 | 2886 |
| A           | 108 | 216 | 108 | 216 | 108 | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  |
| M           | 1   | 1   | 2   | 2   | 3   | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    | 9    | 9    | 10   | 10   | 11   | 11   | 12   |
| N           | 6   | 6   | 8   | 8   | 10  | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   | 22   | 22   | 24   | 24   | 26   | 26   | 28   |
| KG          | 8   | 9   | 10  | 11  | 12  | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   |

GLH225



**最大行程** 3074mm  
Maximum Stroke

**最高速度** 4000mm/s  
Maximum Speed

**峰值推力** 480/N  
Peak Force

**連續推力** 160/N  
Rated Force @100C

**直線滑軌** 20X4-2支  
Linear Guide

此圖僅供參考，出貨規格詳見尺寸圖面  
The picture is just for reference. Please check the actual dimensions on the drawing.

**型號表示方式** Ordering Code

**GLH17S - C1 - 500 - M - P - C4 - 1 - 01**

本體型號  
Model

綫圈規格  
Coil specifications

|                 |             |
|-----------------|-------------|
| 標準型<br>Standard | R35-C1 400W |
| 加長型<br>Long     | R35-C2 750W |

驅動器 Driver

|   |                |
|---|----------------|
| P | 松下 Panasonic   |
| T | 台達 Delta       |
| S | 高創 Servotronic |

綫圈Coil

|   |                  |
|---|------------------|
| 1 | 綫圈數量<br>Coil Qty |
|---|------------------|

※ 同一條滑臺上可多個綫圈。  
There can be multiple coils on the same slider.

編碼器 Encoder

|   |                        |
|---|------------------------|
| G | 光柵尺1/5um Grating ruler |
| M | 磁柵尺1/5um Magnescale    |

最大行程  
Maximum Stroke

|                      |           |
|----------------------|-----------|
| 行程範圍<br>Stroke range | 3074mm    |
| 108 間隔<br>108 Pitch  | 108mm pat |

※ 超出 3074 請聯系銷售。  
Please contact us if stroke over 3074mm

原點感應器  
Home sensor

|    |  |
|----|--|
| C1 | 尺上感應器 (光柵)<br>Sensor on the ruler (raster) |
| C4 | 感應器 Sensor                                 |

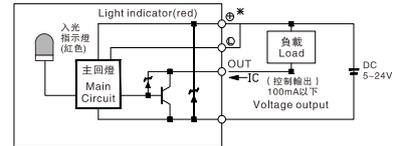
※ 前極限後極限並接驅動器。  
Front limit and rear limit are connected to driver.

基本仕様 Specification

| 驅動方式 Type (mm) |  | 線圈 Coil R35-C1                       | 線圈 Coil R35-C2 |    |
|----------------|--|--------------------------------------|----------------|----|
| 性能             | 編碼器 Encoder                              | 磁柵尺 / 光柵尺 Magnescale / Grating ruler |                |    |
|                | 最高速度 <sup>1</sup> 2 Maximum Speed (mm/s) | 5000                                 |                |    |
|                | 最大加速度 <sup>2</sup> 2 Maximum Payload (G) | 6                                    |                |    |
|                | 最大負載 <sup>3</sup> 3 Payload(kg)          | 水平使用 kg Horizontal (kg)              | 22             | 44 |
|                | 分辨率 Resolution(um)                       | 1um/5um                              |                |    |
|                | 峰值推力 Peak Force (N)                      | 240                                  | 480            |    |
|                | 連續推力 Rated Force@100C (N)                | 80                                   | 160            |    |
|                | 標準行程 Stroke Pitch (mm)                   | 158~3074/108 Pitch                   |                |    |
|                | 使用溫度 Operating Temperature (mm)          | 0-40                                 |                |    |

- ◆鎖付面為高導熱鋁板，散熱佳高推力，減輕重量。  
Built-in aluminum mounting plate provide excellent heat dissipation, strong thrust and light weight.
- ◆全金屬包覆，避免對附近光學讀頭產生電磁幹擾。  
Full metal covering to avoid electromagnetic interference to the optical reading heads.
- ◆強制冷卻套件，取代大推力無鐵心線性馬達，具有更小體積，更佳散熱的優勢。  
The forced cooling kit replaces the high-thrust ironless linear motor, which has the advantages of smaller size and better heat dissipation.

感應器接線圖 <原點及端點> Sensor Layout



| 動子/G值<br>Coil/G value | R35-C1             | R35-C2 |
|-----------------------|--------------------|--------|
| 4KG                   | 6G                 | 6G †   |
| 8KG                   | 3G                 | 5G     |
| 12KG                  | 1.5G               | 3.5G   |
| 20KG                  | 1G                 | 2G     |
| 40KG                  | 無法載動<br>Can't load | 1G     |

\*符合型錄規範的正常使用下，保證壽命為10000公里。  
\*Operation life is 10,000km when the product is using under the specified conditions.

\*倒吊使用無法套用標準規範，如有需求請洽詢我司業務。  
\*Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

搭配編碼器一覽表 Suitable Encoder Brand

| 廠牌 Brand   | 馬達記號 Mark | 編碼器型號 Encoder Model | 分辨率 Resolving power | 反應速度 Reaction rate | 出力信號 Output signal | 最大可使用長度 Maximum available length | IP 等級 IP level |
|------------|-----------|---------------------|---------------------|--------------------|--------------------|----------------------------------|----------------|
| Magnescale | M         | SL700/PL101-BACDB   | 1 μm                | 7m/s               | A/B                | 100,000m.m<br>20 μm × 3,000m.m   | 65             |
|            |           | SL700/PL101-BACFB   | 5 μm                | 35m/s              | A/B                |                                  | 65             |
| Renishaw   | R         | LM101C001BB10A00    | 1 μm                | 7m/s               | A/B                | 2300m.m                          | 65             |
|            |           | LM101C005BB10A00    | 5 μm                | 20m/s              | A/B                | 10,000m.m                        |                |
| Renishaw   | R         | RH100X30D05A        | 1 μm                | 6m/s               | A/B                | 2300m.m                          | 40             |
|            |           | ATOM4T0-150(X8)     | 5 μm                | 20m/s              | A/B                | 10,000m.m                        |                |

搭配驅動器一覽表 Suitable Driver Brand

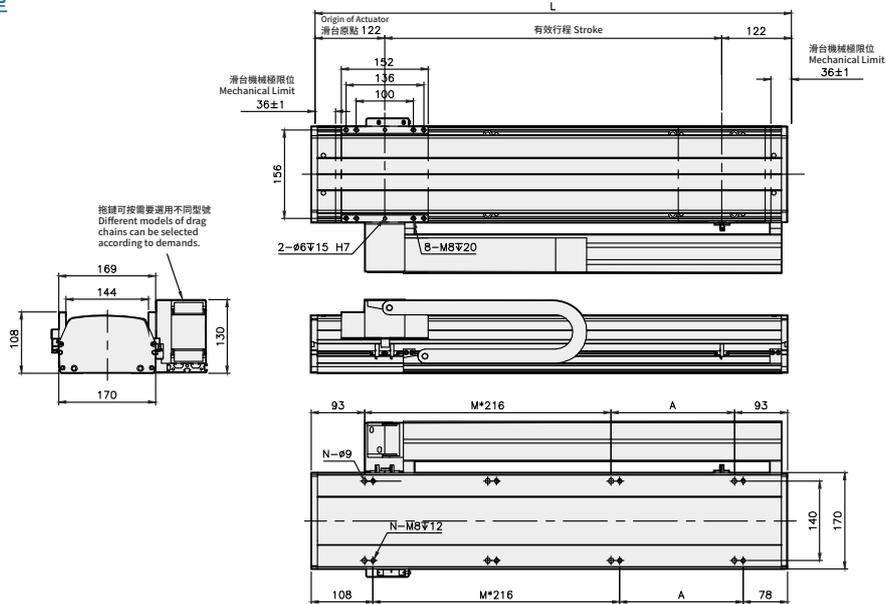
| 廠牌 Brand        | 驅動器記號 Mark | 驅動器型號 Driver Model | 馬達容量 Watt | 電源電壓 (AC-Voltage)                     | 接線訊號 Connection signal                           |
|-----------------|------------|--------------------|-----------|---------------------------------------|--|
| 高創 Servotronics | S          | CDHD-P1            | 400/750W  | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>1.5V                                      |
| 松下 Panasonic    | P          | A5L BTDH           | 400/750W  | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>IGBTPWM                                   |
| 台達 Delta        | T          | ASDA-A2R-L         | 400/750W  | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>(旋波可經由轉換器)<br>The spin wave via converter |

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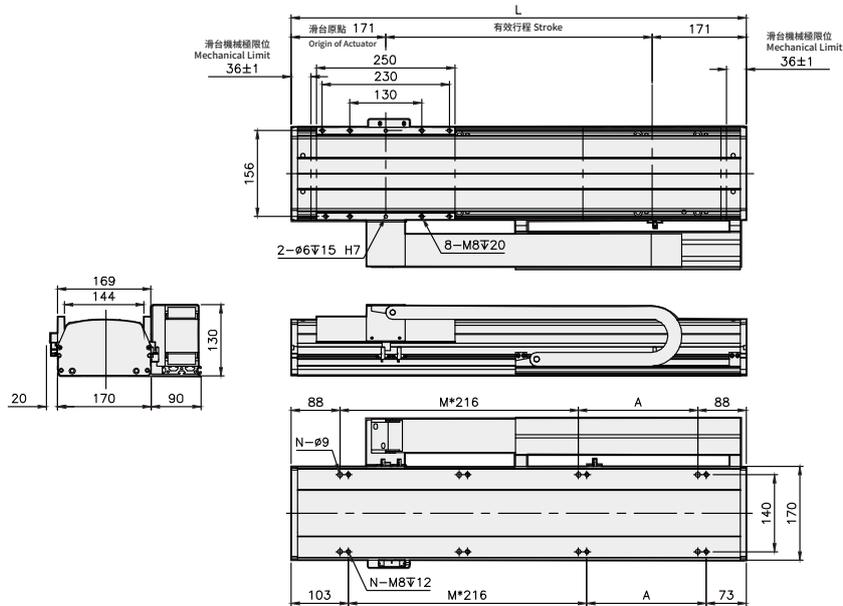
GLH22S

**C1 標準型**  
Standard



| 有效行程 Stroke | 158 | 266 | 374  | 482  | 590  | 698  | 806  | 914  | 1022 | 1130 | 1238 | 1346 | 1454 | 1562 | 1670 | 1778 | 1886 | 1994 | 2102 | 2210 | 2318 | 2426 | 2534 | 2642 | 2750 | 2858 | 2966 | 3074 |
|-------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 402 | 510 | 618  | 726  | 834  | 942  | 1050 | 1158 | 1266 | 1374 | 1482 | 1590 | 1698 | 1806 | 1914 | 2022 | 2130 | 2238 | 2346 | 2454 | 2562 | 2670 | 2778 | 2886 | 2994 | 3102 | 3210 | 3318 |
| A           | 216 | 108 | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  |
| M           | 0   | 1   | 1    | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    | 9    | 9    | 10   | 10   | 11   | 11   | 12   | 12   | 13   | 13   | 14   |
| N           | 4   | 6   | 6    | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   | 22   | 22   | 24   | 24   | 26   | 26   | 28   | 28   | 30   | 30   | 32   |
| KG          | 8.5 | 9.5 | 10.5 | 11.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 18.5 | 19.5 | 20.5 | 21.5 | 22.5 | 23.5 | 24.5 | 25.5 | 26.5 | 27.5 | 28.5 | 29.5 | 30.5 | 31.5 | 32.5 | 33.5 | 34.5 | 35.5 |

**C2 加長型**  
Long



| 有效行程 Stroke | 158 | 266  | 374  | 482  | 590  | 698  | 806  | 914  | 1022 | 1130 | 1238 | 1346 | 1454 | 1562 | 1670 | 1778 | 1886 | 1994 | 2102 | 2210 | 2318 | 2426 | 2534 | 2642 | 2750 | 2858 | 2966 | 3074 |
|-------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 500 | 608  | 716  | 824  | 932  | 1040 | 1148 | 1256 | 1364 | 1472 | 1580 | 1688 | 1796 | 1904 | 2012 | 2120 | 2228 | 2336 | 2444 | 2552 | 2660 | 2768 | 2876 | 2984 | 3092 | 3200 | 3308 | 3416 |
| A           | 108 | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  | 108  | 216  |
| M           | 1   | 1    | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    | 9    | 9    | 10   | 10   | 11   | 11   | 12   | 12   | 13   | 13   | 14   | 14   |
| N           | 6   | 6    | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   | 22   | 22   | 24   | 24   | 26   | 26   | 28   | 28   | 30   | 30   | 32   | 32   |
| KG          | 9.5 | 10.5 | 11.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 18.5 | 19.5 | 20.5 | 21.5 | 22.5 | 23.5 | 24.5 | 25.5 | 26.5 | 27.5 | 28.5 | 29.5 | 30.5 | 31.5 | 32.5 | 33.5 | 34.5 | 35.5 | 36.5 |

**最大行程**  
Maximum Stroke **3255mm**

**最高速度**  
Maximum Speed **4000mm/s**

**峰值推力**  
Peak Force **1680/N**

**連續推力**  
Rated Force @100C **560/N**

**直線滑軌**  
Linear Guide **25X4-2支**



此圖僅供參考，出貨規格詳見尺寸圖面  
The picture is just for reference. Please check the actual dimensions on the drawing.

型號表示方式

Ordering Code

**GLH22S - C1 - 500 - M - P - C4 - 1 - 01**

本體型號  
Model

線圈規格  
Coil specifications

|                 |             |
|-----------------|-------------|
| 標準型<br>Standard | R50-C1 750W |
| 加長型<br>Long     | R50-C2 750W |

編碼器 Encoder

|   |                        |
|---|------------------------|
| G | 光柵尺1/5um Grating ruler |
| M | 磁柵尺1/5um Magnescale    |

最大行程  
Maximum Stroke

|                      |           |
|----------------------|-----------|
| 行程範圍<br>Stroke range | 3255mm    |
| 108 間隔<br>108 Pitch  | 135mm pat |

※ 超出 3255 請聯系銷售。  
Please contact us if stroke over 3255mm

驅動器 Driver

|   |                |
|---|----------------|
| P | 松下 Panasonic   |
| T | 台達 Delta       |
| S | 高創 Servotronic |

線圈Coil

|   |                    |
|---|--------------------|
| 1 | 線圈數量<br>Coil Q' ty |
|---|--------------------|

※ 同一條滑臺上可多個線圈。  
There can be multiple coils on the same slider.

原點感應器  
Home sensor

|    |  |
|----|--|
| C1 | 尺上感應器 (光柵)<br>Sensor on the ruler (raster) |
| C4 | 感應器 Sensor                                 |

※ 前極限後極限並接驅動器。  
Front limit and rear limit are connected to driver.

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基本仕様 Specification

| 驅動方式 Type (mm) |                                 | 線圈 Coil R50-C1                      | 線圈 Coil R50-C2 |     |
|----------------|---------------------------------|-------------------------------------|----------------|-----|
| 性能             | 位置重複精度 Repeatability (mm)       | 磁柵尺 / 光柵尺 Magnescale /Grating ruler |                |     |
|                | 最高速度"1"2 Maximum Speed (mm/s)   | 5000                                |                |     |
|                | 最大加速度"2" Maximum Payload (G)    | 6                                   |                |     |
|                | 最大負載"3" Payload(kg)             | 水平使用 kg Horizontal (kg)             | 60             | 120 |
|                | 分辨率 Resolution(um)              | 1um/5um                             |                |     |
|                | 峰值推力 Peak Force (N)             | 840                                 | 1680           |     |
|                | 連續推力 Rated Force@100C (N)       | 280                                 | 560            |     |
|                | 標準行程 Stroke Pitch (mm)          | 150~3255/108 Pitch                  |                |     |
|                | 使用溫度 Operating Temperature (mm) | 0~40                                |                |     |

- ◆鎖付面為高導熱鋁板，散熱佳高推力，減輕重量。  
Built-in aluminum mounting plate provide excellent heat dissipation, strong thrust and light weight.
- ◆全金屬包覆，避免對附近光學讀頭產生電磁干擾。  
Full metal covering to avoid electromagnetic interference to the optical reading heads.
- ◆強制冷卻套件，取代大推力無鐵心綫性馬達，具有更小體積，更佳散熱的優勢。  
The forced cooling kit replaces the high-thrust ironless linear motor, which has the advantages of smaller size and better heat dissipation.

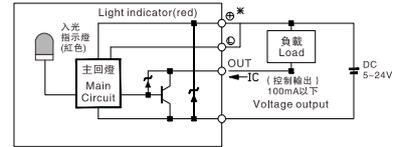
搭配編碼器一覽表 Suitable Encoder Brand

| 廠牌 Brand   | 馬達記號 Mark | 編碼器型號 Encoder Model | 分辨率 Resolving power | 反應速度 Reaction rate | 出力信號 Output signal | 最大可使用長度 Maximum available length | IP 等級 IP level |
|------------|-----------|---------------------|---------------------|--------------------|--------------------|----------------------------------|----------------|
| Magnescale | M         | SL700/PL101-BACDB   | 1 μm                | 7m/s               | A/B                | 100,000m.m<br>20 μm × 3,000m.m   | 65             |
|            |           | SL700/PL101-BACFB   | 5 μm                | 35m/s              | A/B                |                                  | 65             |
| Renishaw   | R         | LM10IC001BB10A00    | 1 μm                | 7m/s               | A/B                | 2300m.m                          | 65             |
|            |           | LM10IC005BB10A00    | 5 μm                | 20m/s              | A/B                | 10,000m.m                        |                |
| Renishaw   | R         | RH100X30D05A        | 1 μm                | 6m/s               | A/B                | 2300m.m                          | 40             |
|            |           | ATOM4T0-150(X8)     | 5 μm                | 20m/s              | A/B                | 10, 000m.m                       |                |

搭配驅動器一覽表 Suitable Driver Brand

| 廠牌 Brand       | 驅動器記號 Mark | 驅動器型號 Driver Model | 馬達容量 Watt | 電源電壓 (AC-Voltage)                     | 接線訊號 Connection signal                           |
|----------------|------------|--------------------|-----------|---------------------------------------|--|
| 高創 Servotronic | S          | CDHD-P1            | 750W      | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>1.1V                                      |
| 松下 Panasonic   | P          | A5L BTDH           | 750W      | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>IGBT PWM                                  |
| 台達 Delta       | T          | ASDA-A2R-L         | 750W      | 220V<br>單相/三相<br>Single phase/3 phase | TTL<br>(旋波可經由轉換器)<br>The spin wave via converter |

感應器接線圖 <原點及端點> Sensor Layout

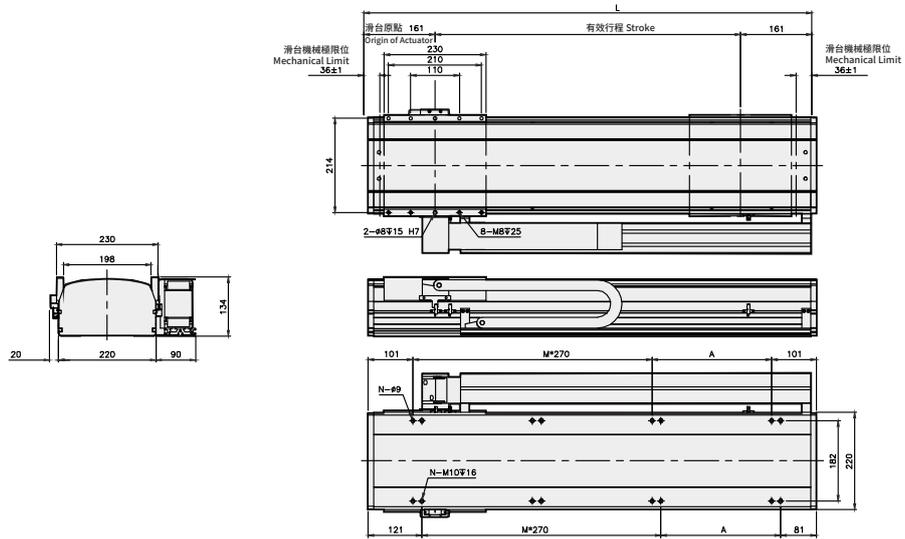


| 線圈/G值 Coil/G value | R50-C1          | R50-C2 |
|--------------------|-----------------|--------|
| 10KG               | 6G              | 6G ↑   |
| 15KG               | 4G              | 6G ↑   |
| 20KG               | 3G              | 6G     |
| 30KG               | 2G              | 4G     |
| 60KG               | 1G              | 2G     |
| 120KG              | 無法載重 Can't load | 1G     |

\*符合型錄規範的正常使用下，保證壽命為10000公里。  
\*Operation life is 10,000km when the product is using under the specified conditions.

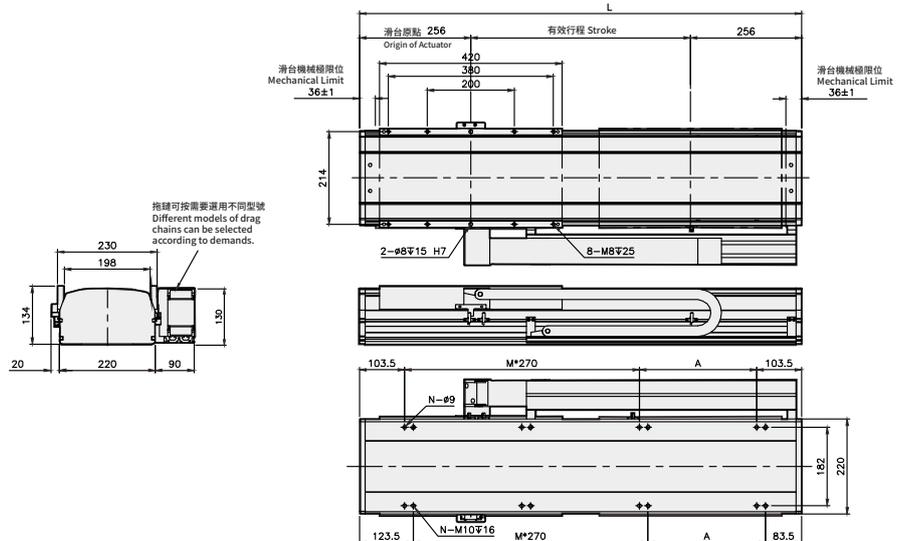
\*倒吊使用無法套用標準規範，如有需求請洽詢我司業務。  
\*Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

## C1 標準型 Standard



| 有效行程 Stroke | 150  | 285  | 420  | 555  | 690  | 825  | 960  | 1095 | 1230 | 1365 | 1500 | 1635 | 1770 | 1905 | 2040 | 2175 | 2310 | 2445 | 2580 | 2715 | 2850 | 2985 | 3120 | 3255 |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 472  | 607  | 742  | 877  | 1012 | 1147 | 1282 | 1417 | 1552 | 1687 | 1822 | 1957 | 2092 | 2227 | 2362 | 2497 | 2632 | 2767 | 2902 | 3037 | 3172 | 3307 | 3442 | 3577 |
| A           | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  |
| M           | 0    | 1    | 1    | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    | 9    | 9    | 10   | 10   | 11   | 11   | 12   |
| N           | 4    | 6    | 6    | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   | 22   | 22   | 24   | 24   | 26   | 26   | 28   |
| KG          | 22.1 | 23.3 | 24.6 | 25.8 | 27   | 28.2 | 29.4 | 30.7 | 31.9 | 33.1 | 34.3 | 35.5 | 36.8 | 38   | 39.2 | 40.4 | 41.6 | 42.9 | 44.1 | 45.3 | 46.5 | 47.7 | 49   | 50.2 |

## C2 加長型 Long



| 有效行程 Stroke | 100  | 235  | 370  | 505  | 640  | 775  | 910  | 1045 | 1180 | 1315 | 1450 | 1585 | 1720 | 1855 | 1990 | 2125 | 2260 | 2395 | 2530 | 2665 | 2800 | 2935 | 3070 | 3205 |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 612  | 747  | 882  | 1017 | 1152 | 1287 | 1422 | 1557 | 1692 | 1827 | 1962 | 2097 | 2232 | 2367 | 2502 | 2637 | 2772 | 2907 | 3042 | 3177 | 3312 | 3447 | 3582 | 3717 |
| A           | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  | 135  | 270  |
| M           | 1    | 1    | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    | 9    | 9    | 10   | 10   | 11   | 11   | 12   | 12   |
| N           | 6    | 6    | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   | 22   | 22   | 24   | 24   | 26   | 26   | 28   | 28   |
| 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 |

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