

# CFM14F 400W 伺服電機 單軸/1-axis

► 開放式齒輪齒條驅動  
Open Gear Rack



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

**最大行程** Maximum Stroke **2900mm**

**最高速度** Maximum Speed **1665mm/s**

**馬達容量** Motor Output **400W**

**齒條** Rack **M1.5**

**直線滑軌** Linear Guide **15X12.5-2支**

※依減速比不同而異。  
The maximum speed depens on different gear ratio.

## 型號表示方式 Ordering Method

CFM14F - L3/33.32 - 100 - BC - T400W - CN 3 - G

**本體型號**  
Model

### ■減速比與導程

Reduction Ratio With Lead

|    | 減速比  | 導程    |
|----|------|-------|
| 03 | 3:1  | 33.32 |
| 05 | 5:1  | 19.99 |
| 07 | 7:1  | 14.28 |
| 10 | 10:1 | 10.00 |

### 行程

Stroke

|                    |
|--------------------|
| 1000-2900mm        |
| 100間隔 100 mm Pitch |

### 開關數量

Number of switches

### 配置選項

Configuration Options

**馬達位置**  
Motor Position

|    |   |
|----|---|
| BC | 馬達直聯<br>Motor Direct                      |
| BL | 直角減速機<br>Right Angle<br>Reduction Machine |

**電機安裝標準**  
Motor installation

|   |                             |
|---|-----------------------------|
| T | 通用馬達安裝標準:<br>General Motor  |
|   | 三菱 Mitsubishi               |
|   | 台達 Delta                    |
| P | 松下馬達安裝標準<br>Panasonic Motor |

**馬達容量**  
Motor Output

|       |      |
|-------|------|
| 400W  | 400W |
| 750W  | -    |
| 1000W | -    |

**原點與極限開關選配**  
Home & Limit Switch Selection

|      |                    |
|------|--------------------|
| 關電開關 | Power-off Switch   |
| 無記號  | 不含開關<br>No Sensors |
| CN   | 創鋒NPN CF NPN       |
| CP   | 創鋒PNP CF PNP       |
| JN   | 嘉准NPN F&C NPN      |
| JP   | 嘉准PNP F&C PNP      |
| ON   | 歐姆龍NPN OMRON NPN   |
| OP   | 歐姆龍PNP OMRON PNP   |

### 開關數量

Number of switches

|     |          |
|-----|----------|
| 外掛型 | Out Side |
| 1   | 1只 1 Pc  |
| 2   | 2只 2 Pc  |
| 3   | 3只 3 Pc  |

### 無記號

No Mark

### 創鋒標準配置

CF Standard

### 關鍵部件進口配置

Imported Key Components

### G

兩端開鍵槽 Keyways Both Ends

### J

研磨絲桿 Ground Ball Screw

### M

出口海外版 Overseas Edition

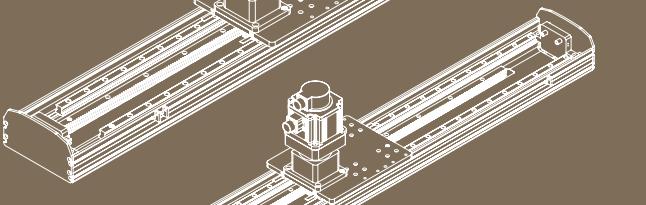
### A

非標項目號 Non-standard Item No.

2601001

※其它配置請諮詢創鋒營業代表

For inquiries about other configuration marks, please consult Chuangfeng.



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Tel-free Number: China 400-716-8787

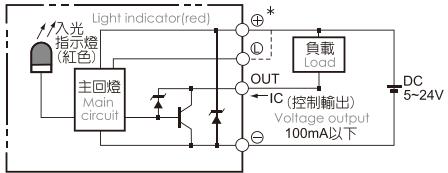
### 基本仕樣 Specification

|            |                           |                               |                                     |       |       |
|------------|---------------------------|-------------------------------|-------------------------------------|-------|-------|
| 規格<br>Spec | 位置重複精度 Repeatability (mm) | $\pm 0.04$                    |                                     |       |       |
|            | 驅動功率 Driving Power (W)    | 400                           |                                     |       |       |
|            | 行星減速機減速比 Reduction ratio  | 3:1                           | 5:1                                 | 7:1   | 10:1  |
|            | 齒輪導程 Gear Lead (mm)       | 33.32                         | 19.99                               | 14.28 | 10.00 |
|            | 最高速度 Maximum Speed (mm/s) | 1665                          | 1000                                | 715   | 500   |
|            | 最大可搬重量 Maximum Payload    | 水平使用 Horizontal (kg)          | 30                                  | 40    | 64    |
|            |                           | 垂直使用 Vertical (kg)            | 8                                   | 10    | 18    |
|            | 定格推力 Rated Thrust (N)     | 218                           | 347                                 | 520   | 694   |
|            | 標準行程 Stroke Pitch (mm)    | 1000-2900mm/100間隔 100mm Pitch |                                     |       |       |
|            | 馬達額定轉速 (RPM)              | 3000                          |                                     |       |       |
|            | 原點感應器 Home Sensor         | 內置 Built-In                   | EE-SX674(NPN)<br>FC-SPX307Z-2M(NPN) |       |       |

\*馬達加減速設定0.2秒。

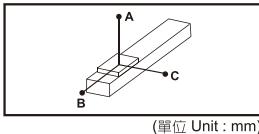
Acceleration and deacceleration value is set 0.2 second.

### 感應器接線圖<原點及端點> Sensor Layout

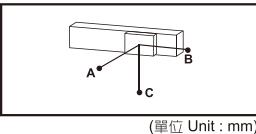


| 應用例<br>Application | 一般/內嵌式樣<br>General/Embedded Type | 無刷/皮帶式樣<br>Brushless/Belt Type | 一般/螺杆式樣<br>General/Screw Type | 齒輪齒條式樣<br>Gear/Gear Strip Type | 一般/螺杆式樣<br>General/Screw Type | 一般/皮帶式樣<br>General/Belt Type | 無刷/螺杆式樣<br>Brushless/Screw Type | 直交連結<br>X-Y-G/X-Y-S/X-Y-T | 參考資料<br>Reference |
|--------------------|----------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|------------------------------|---------------------------------|---------------------------|-------------------|
| CFG/CFY            |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |
| CFA/CFB            |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |
| CFK                |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |
| CFM                |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |
| CFS                |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |
| CFT                |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |
| CFF                |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |
| CFE                |                                  |                                |                               |                                |                               |                              |                                 |                           |                   |

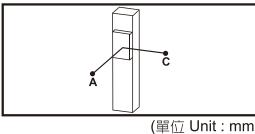
### 容許負載力距表 Allowable Overhang



(單位 Unit : mm)

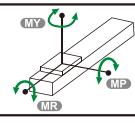


(單位 Unit : mm)



(單位 Unit : mm)

### 靜態容許負載慣量 Static Loading Moment



(單位 Unit : N.m)

|    |     |
|----|-----|
| MY | 551 |
| MP | 552 |
| MR | 485 |

\*力矩表所表示的數據，代表重心。

The torque value in the chart indicate the center of gravity.

\*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.

### 搭配伺服馬達一覽表 Suitable Motor Brand

| 廠牌<br>Brand      | 馬達記號<br>Mark | 煞車有無<br>Brake                           | 馬達容量<br>Watt | 電源電壓<br>AC-Voltage | 伺服馬達型號<br>Motor Model | 驅動器型號<br>Driver Model |
|------------------|--------------|---|--------------|--------------------|-----------------------|-----------------------|
| 三菱<br>Mitsubishi | M            | 無煞車(水平仕樣)<br>No Brake (Horizontal Type) | 400          | 220                | HG-KN43J-S100         | MR-JE-40A             |
|                  |              | 有煞車(垂直仕樣)<br>With Brake (Vertical Type) | 400          | 220                | HG-KN43BJ-S100        | MR-JE-40A             |
| 松下<br>Panasonic  | P            | 無煞車(水平仕樣)<br>No Brake (Horizontal Type) | 400          | 220                | MHMF042L1U2M          | MBDLN25SE             |
|                  |              | 有煞車(垂直仕樣)<br>With Brake (Vertical Type) | 400          | 220                | MHMF042L1V2M          | MBDLN25SE             |
| 台達<br>Delta      | T            | 無煞車(水平仕樣)<br>No Brake (Horizontal Type) | 400          | 220                | ECM-B3M-C20604RS1     | ASD-B3-0421-L         |
|                  |              | 有煞車(垂直仕樣)<br>With Brake (Vertical Type) | 400          | 220                | ECM-B3M-C20604SS1     | ASD-B3-0421-L         |

單軸  
1 axis  
CFM

CFM14

CFM14F

CFM17

CFM17F

CFM22

CFM22F

CFM27

CFM27F

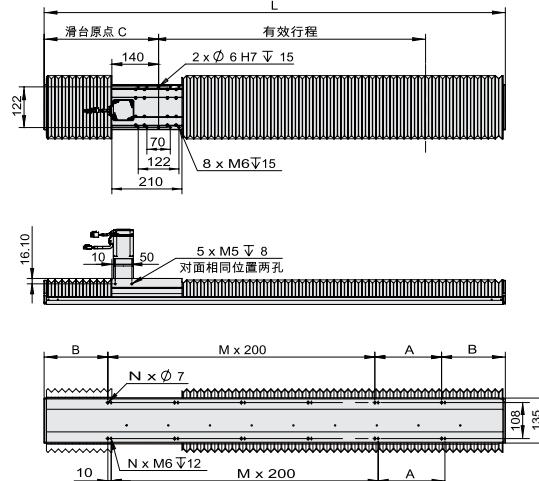
## 馬達外露

Motor Exposed

BC 馬達外露 Motor Exposed

• CAD圖面可至 [www.cf16.com](http://www.cf16.com) 下載 •

單位 Unit : mm



※ 1:馬達尺寸和出力是以400W為準。搭配其它功率馬達請與本公司技術人員確認。

1: The motor size and the output is 400 w. With other power motor, please confirm with our company technical personnel.

※ 2:本體安裝標準型為上下螺紋孔安裝。

2: The installation of the ontology standard thread hole up and down.

※ 3:馬達僅為直接式安裝。

3: the motor is only directly type installation.

※ 4:重量不含馬達。

4: the weight without motor.

※ 5:當行程超過2900mm時, 請向技術人員洽詢。

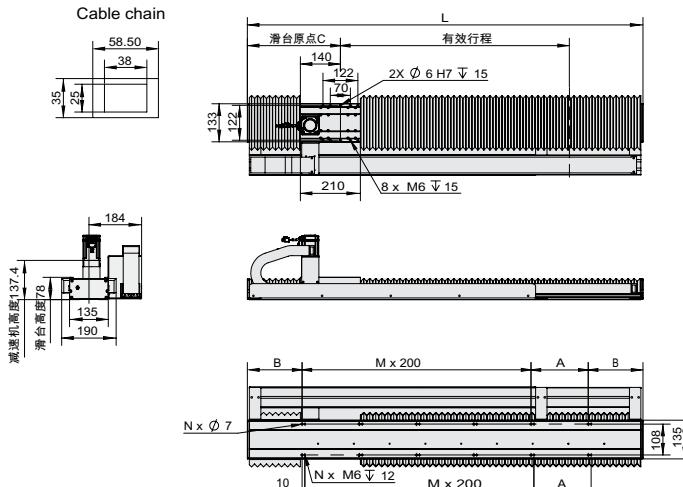
5: when travel more than 2900 mm, please inquire to technical personnel.

| 有效行程<br>stroke | 1000  | 1100  | 1200  | 1300  | 1400 | 1500  | 1600  | 1700  | 1800  | 1900 | 2000  | 2100  | 2200  | 2300  | 2400 | 2500  | 2600  | 2700  | 2800  | 2900 |
|----------------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|
| L              | 1622  | 1742  | 1862  | 1982  | 2102 | 2222  | 2342  | 2462  | 2582  | 2702 | 2822  | 2942  | 3062  | 3182  | 3302 | 3422  | 3542  | 3662  | 3782  | 3902 |
| A              | 200   | 100   | 200   | 100   | 200  | 100   | 200   | 100   | 200   | 100  | 200   | 100   | 200   | 100   | 200  | 100   | 200   | 100   | 200   | 100  |
| M              | 5     | 6     | 6     | 7     | 7    | 8     | 8     | 9     | 9     | 10   | 10    | 11    | 11    | 12    | 12   | 13    | 13    | 14    | 14    | 15   |
| N              | 14    | 16    | 16    | 18    | 18   | 20    | 20    | 22    | 22    | 24   | 24    | 26    | 26    | 28    | 28   | 30    | 30    | 32    | 32    | 34   |
| B              | 211   | 221   | 231   | 241   | 251  | 261   | 271   | 281   | 291   | 301  | 311   | 321   | 331   | 341   | 351  | 361   | 371   | 381   | 391   | 401  |
| C              | 346   | 356   | 366   | 376   | 386  | 396   | 406   | 416   | 426   | 436  | 446   | 456   | 466   | 476   | 486  | 496   | 506   | 516   | 526   | 536  |
| KG             | 23.56 | 24.92 | 26.28 | 27.64 | 29   | 30.36 | 31.72 | 33.08 | 34.44 | 35.8 | 37.16 | 38.52 | 39.88 | 41.24 | 42.6 | 43.96 | 45.32 | 46.68 | 48.04 | 49.4 |

## 含拖鏈 Including Drag Chains

• CAD圖面可至 [www.cf16.com](http://www.cf16.com) 下載 •

單位 Unit : mm



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| 有效行程<br>stroke | 1000  | 1100  | 1200  | 1300  | 1400 | 1500  | 1600  | 1700  | 1800  | 1900 | 2000  | 2100  | 2200  | 2300  | 2400 | 2500  | 2600  | 2700  | 2800  | 2900 |
|----------------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|
| L              | 1622  | 1742  | 1862  | 1982  | 2102 | 2222  | 2342  | 2462  | 2582  | 2702 | 2822  | 2942  | 3062  | 3182  | 3302 | 3422  | 3542  | 3662  | 3782  | 3902 |
| A              | 200   | 100   | 200   | 100   | 200  | 100   | 200   | 100   | 200   | 100  | 200   | 100   | 200   | 100   | 200  | 100   | 200   | 100   | 200   | 100  |
| M              | 5     | 6     | 6     | 7     | 7    | 8     | 8     | 9     | 9     | 10   | 10    | 11    | 11    | 12    | 12   | 13    | 13    | 14    | 14    | 15   |
| N              | 14    | 16    | 16    | 18    | 18   | 20    | 20    | 22    | 22    | 24   | 24    | 26    | 26    | 28    | 28   | 30    | 30    | 32    | 32    | 34   |
| B              | 211   | 221   | 231   | 241   | 251  | 261   | 271   | 281   | 291   | 301  | 311   | 321   | 331   | 341   | 351  | 361   | 371   | 381   | 391   | 401  |
| C              | 346   | 356   | 366   | 376   | 386  | 396   | 406   | 416   | 426   | 436  | 446   | 456   | 466   | 476   | 486  | 496   | 506   | 516   | 526   | 536  |
| KG             | 23.56 | 24.92 | 26.28 | 27.64 | 29   | 30.36 | 31.72 | 33.08 | 34.44 | 35.8 | 37.16 | 38.52 | 39.88 | 41.24 | 42.6 | 43.96 | 45.32 | 46.68 | 48.04 | 49.4 |

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Toll-free Number China

| 應用例<br>Application | 一般/內嵌式樣<br>CFG/CFY | 無層/皮帶式樣<br>CFA/CFB | 一般/螺杆式樣<br>CFK | 齒輪齒條式樣<br>CFM | 一般/螺杆式樣<br>CFS | 一般/皮帶式樣<br>CFT | 無層/螺杆式樣<br>CFF | 無層/皮帶式樣<br>CFE | 直交連結<br>XYG/XYS/XYT | 參考資料<br>Reference |
|--------------------|--------------------|--------------------|----------------|---------------|----------------|----------------|----------------|----------------|---------------------|-------------------|
| 轉<br>1 axis<br>CFM | CFM14              | CFM14F             | CFM17          | CFM17F        | CFM22          | CFM22F         | CFM27          | CFM27F         |                     |                   |

## MEMO

|        |
|--------|
| CFM14  |
| CFM14F |
| CFM17  |
| CFM17F |
| CFM22  |
| CFM22F |
| CFM27  |
| CFM27F |