

應用案例及產品特征 Application Examples & Features

DY60 Series



P4-P8

DY85 Series



P9-P14

DY130 Series



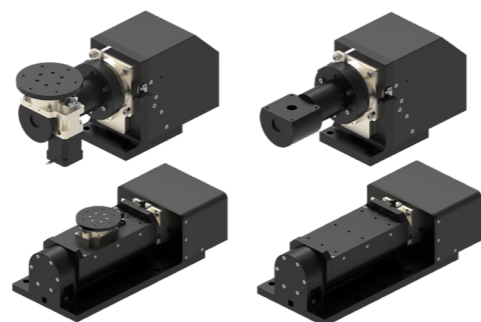
P15-P20

DY200 Series



P21-P25

MDR/MDA  
MDC/MDL  
Series

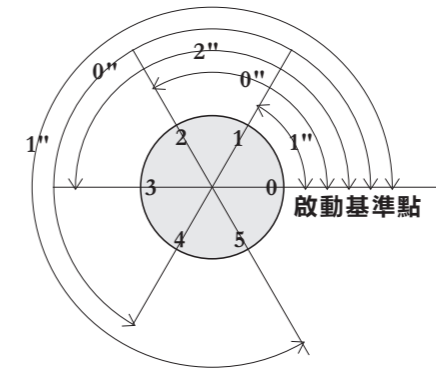


P26-P27

马达安装说明 Instructions of Motor Mounting

P28-P31

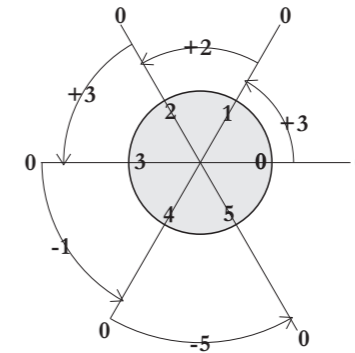
用語解說 Glossary Of Technical Terms



重複定位精度 / Repeated positioning accuracy

以啟動基準點設定為“0”點，做任何不同角度之往復運動，其每次回到啟動點的精度誤差值為“重複定位精度”所標示之數值。

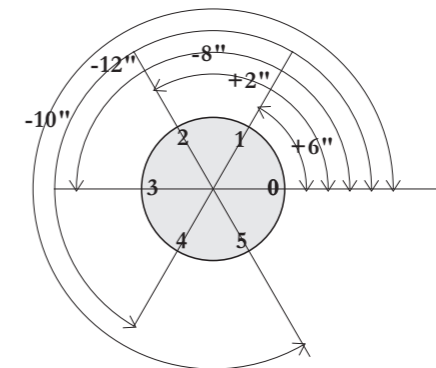
Set the starting reference point as "0" point, which make reciprocating motion at any different angle, and the precision error value of each moving point is the "Repeated positioning accuracy", as marked.



相對精度 / Relative accuracy

每次的啟動點，均視為“0”點，由此點轉動至下一個停止點的角度誤差值為“相對精度”標示，下次再啟動旋轉所設定的角度時，以目前的停止點，視為新的“0”點。

Each starting point is regarded as "0" point, the angular error from this point to the next stop point is the marked "Relative accuracy". When the next time the rotation is started, the current stop point will be regarded as the new "0" point.



絕對精度 / Absolute accuracy

以同一個啟動點的設定：經任意角度旋轉的單向定位精度皆處於“絕對精度”的範圍內。

The setting of the same starting point: the single positioning accuracy rotated by any angle is within the range of "Absolute accuracy".

註：圖表中的數據為範圍數字，實際值請參閱“規格表”

Note: the data in the chart are sample data, please refer to the specification table for actual values.

### 应用案例 Application Examples

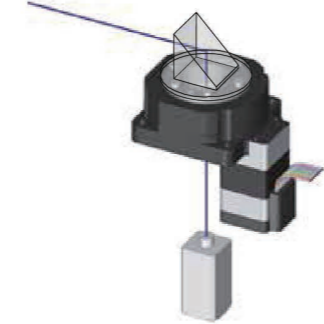
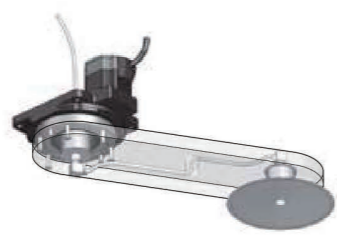
#### 高性能、高剛性的用途

High performance&stiffness application

■ 負載慣性產生變化的用途  
Applications subject to changing load inertia

■ 施以慣量載重的用途  
Applications where a moment load is applied

■ 光學用途  
Optical applications using the hollow hole



#### ■ 高精度定位用途

High accuracy positioning applications



#### ■ 利用中空孔的高精度定位用途

High accuracy positioning applications using the hollow hole



#### 安裝方向自由設計

Flexible design of assembling direction

DY旋轉平台除水平安裝外，還可以垂直安裝或倒掛安裝，裝置設計的範圍較廣。

DY rotary platform can be assembled in vertical direction or upside down direction as well as the parallel direction.

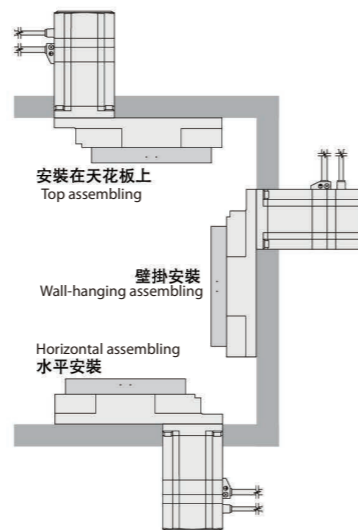
#### 使用時注意事項：

中空旋轉式傳動裝置偶爾會有少量潤滑油滲出。如潤滑油滲出導致周圍環境污染，請在定期檢查時進行確認或安裝接油盤等裝置。

#### Note:

Hollow rotary drive system will occur the exudation of few lubrication oil.

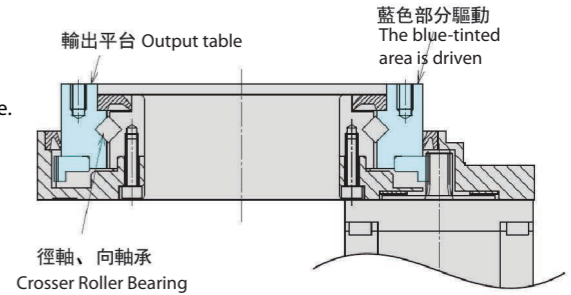
If the oil result in the environmental pollution, please check regularly or assemble the oil-receiving tray.



### 产品特征 Features

#### ■ 一體型產品 Integrated Products

DY系列為組合中空旋轉平台與伺服馬達的產品。平台內部為減速比構造，可實現高輸出驅動。  
DY series are combined with hollow rotary actuators platform and servo motor. Inside are reduction ratio device which can achieve high output drive.



#### ■ 短時間定位 Short Positioning Time

可在短時間內實現慣性負載的定位。  
It can realize inertia load positioning in a short time.

#### ■ 無齒隙的高精度定位 High Accuracy Positioning With Zero Backlash

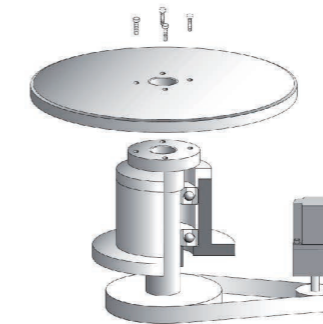
無齒隙，螺旋斜齒，研磨機齒輪：齒輪模數大，實現高扭矩反復定位精度  $\pm 15\text{arcsec}$  ( $\pm 0.04^\circ$ )

\*精度是在一定負載、一定溫度（常溫）下的數值。

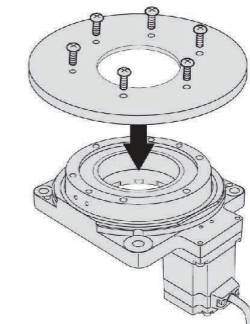
Zero backlash, spiral gear, grinding machine gear: high tooth module to achieve high torque. Repetitive Accuracy:  $\pm 15\text{arcsec}$  ( $\pm 0.04^\circ$ )  
Note: The repetitive positioning accuracy is measured at a constant temperature (normal temperature) under a constant load.

#### ■ 減少設計時間，縮短交期 Reduce Design Time And Shorten The Delivery .

輸出平台可直接安裝設備的工作台或機械手臂，與使用皮帶、皮帶輪等機械零件時比較，可以減少機構設計。零件調配、皮帶張力調整等時間及成本節省設備設計時間，有助於縮短交期。  
Equipment tables and arms can be installed directly on the output table. This saves you the hassle and cost of designing an installation mechanism, arranging necessary parts, adjusting the belt tension, etc. when mechanical parts such as belt and pulley are used for installation.



馬達+機構部件  
(另行設計. 安排)  
Motor+mechanical parts (designed and arranged separately)



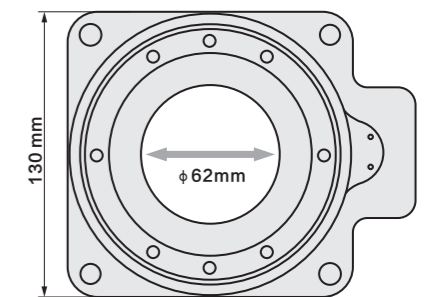
一體化設計  
(結合伺服電機型產品)  
Integrated product (combined with servo motor products)

#### ■ 大口徑中空輸出平台節省配線與配管

Large-Diameter, Hollow Output Table Makes Simple Wiring and Piping Possible

大口徑的中空孔（貫穿）可利用在環境複雜的配線管上，可簡化設備設計。  
The large diameter hollow hole (through-hole) helps reduce the complexity of wiring and piping, thus simplifying your equipment design.

	安裝尺寸mm Frame Size	中空徑 Diameter of Hollow Section
DY60	60	$\phi 28$
DY85	85	$\phi 33$
DY130	130	$\phi 62$
DY200	200	$\phi 100$



### 产品特征 Features

#### 高輸出 高剛性 High Power and Rigidity

Standard Type的輸出平台軸承使用徑、軸向軸承，實現了高載重、高剛性。

<輸出> 最大容許慣量 200N·m

<剛性> 最大容許軸心方向載重 500N·m

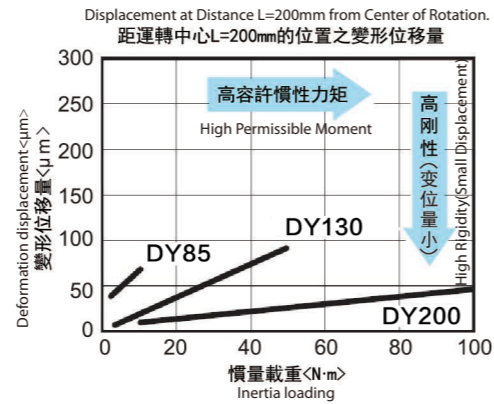
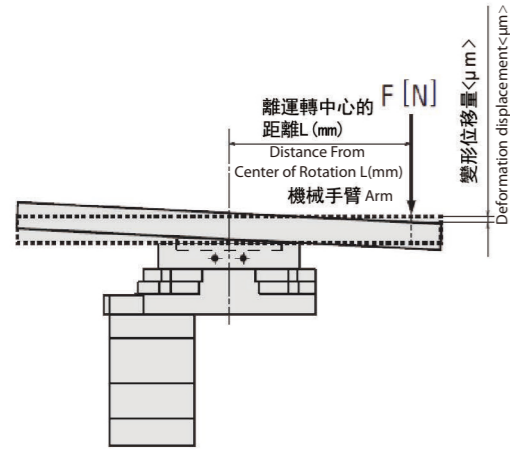
型號越大容許慣量越大，相對於負載慣量的變形位移量就越小。

The standard type-hollow output table is integrated with a high rigidity cross roller bearing to achieve high load and high rigidity.

<output>max permissible inertia 200N·m

<rigidity>max permissible load in axis direction 500N·m.

Larger size with bigger permissible inertia ,and smaller deformation displacement relative to load inertia .



#### 高剛性 High Rigidity

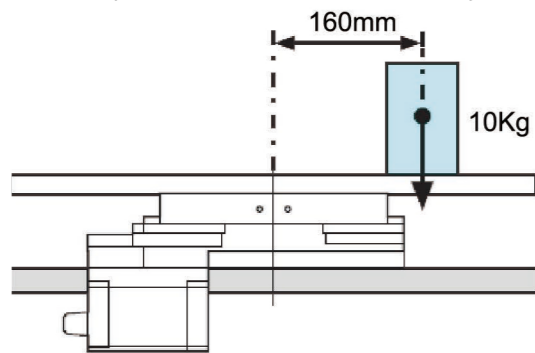
在距離平台中央部160mm的位置有10kg的工作物時，慣重為 15.7N·m。

When there is 10kg object working in the place which is distant 160mm from center plate,the inertia is 15.7N·m

$$10\text{kg} \times \text{gm/s}^2 \times 0.16\text{m} = 15.7\text{N} \cdot \text{m}$$

DY200的容許慣重為200N·m，在容許值以內。

The DY200's permissible inertia is 200N·m within the permissible value.



#### 高剛性 High Rigidity

品名: DY200-10 電源輸入: AC200V

Name: DY200-10 Input Power: AC200V

搬運重量: 91kg (工作物6個+平台)

: 工作物10kg/個 × 6個

: 平台31kg

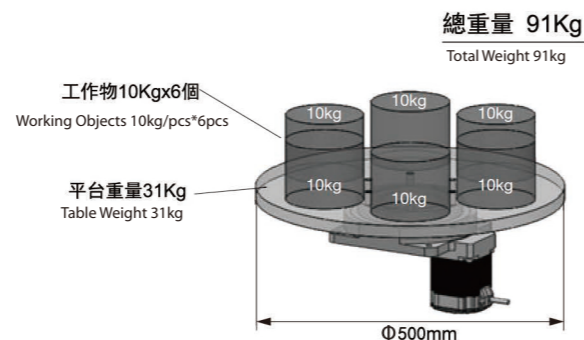
(直徑500mm、厚度200mm、鐵質)

Weight: 91kg(working objects 6pcs+table)

working objects 10kg/pcs\*6pcs

table 31kg

(diameter 500mm,thickness 200mm,Iron Material)



#### 擁有【原點檢知器套件】的選購配件 Home Sensor Suite Available for Optional Accessories

由於原點設定所需的零件齊全，因此可節省安裝檢知器的設計、製造、零件調配時間。

As the complete parts of home position setup, the time regarding design, manufacturing, parts allocation of assembling sensor can be saved.

#### 搭配方便 Easy Match

可任意搭配任何品牌的伺服馬達或步進馬達。

It can be matched with any brand of servo motor or stepper motor.

### 訂購型號代碼 Code

**DY 60 - R - 5 - V1**

產品規格  
Specification

馬達連接方式  
Motor Connecting Method

減速比  
Reduction Ratio

馬達類型  
Motor Type

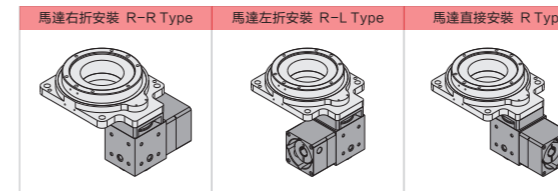
F: 直結式  
F: Direct  
R: 一體式直角轉向  
R: Integrated Right Angle Turning  
P: 一體式行星減速機直連  
P: Integrated Planetary Reducer

5  
10  
15  
25  
30  
50

V1: 伺服 φ8 PCD45, M3  
V1: Servo φ8 PCD45, M3  
V2: 伺服 φ8 PCD46, M4  
V2: Servo φ8 PCD46, M4  
各廠牌100W AC 伺服馬達  
Factory Brand 100W AC Servo Motor  
T1: 步進 φ5 PCD43.8, M3  
T1: Stepper φ5 PCD43.8, M3  
T2: 步進 φ6 PCD43.8, M3  
T2: Stepper φ6 PCD43.8, M3  
各廠牌42型步進馬達  
All Kinds of Type 42 Stepper Motor



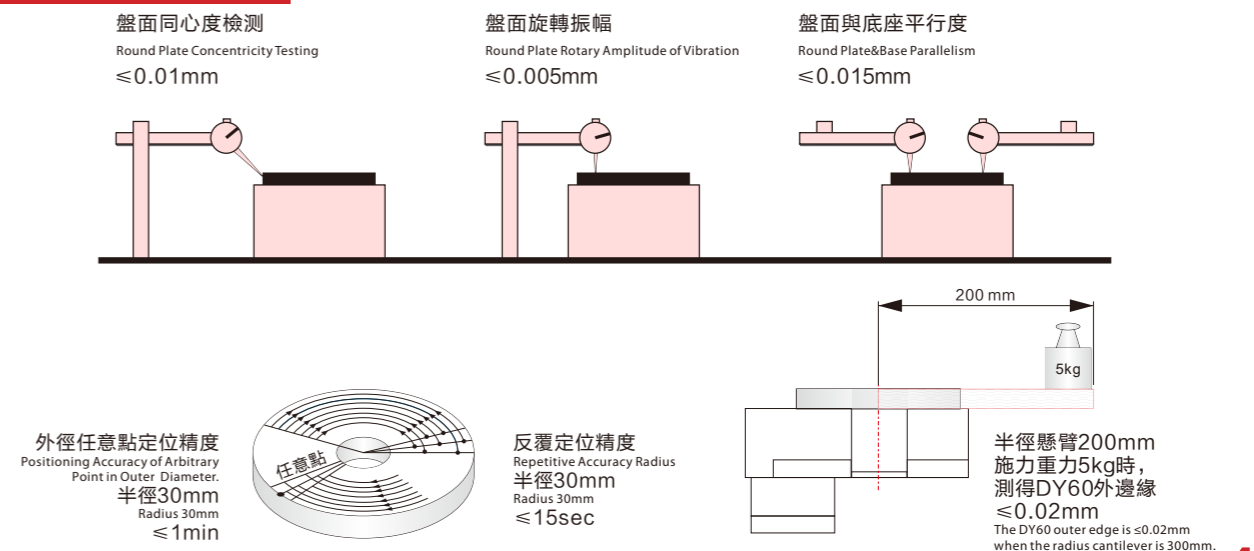
### 直角轉向馬達連接方式 Motor connection direction



### 技術參數 Technical Parameters

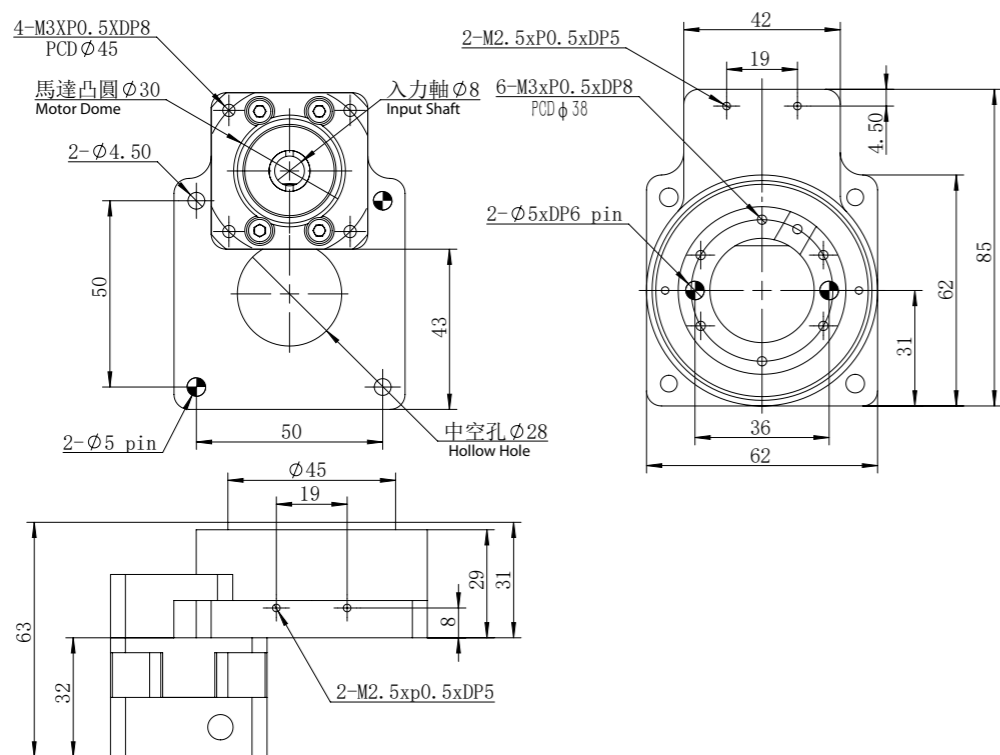
產品型號 Model Type	DY60-F	DY60-P	DY60-R
減速比 Reduction Ratio	5,10	25,50	15,30
容許轉矩 (N·m) Permissible Torque (N·m)	5		
轉動慣量(kg.m <sup>2</sup> ) Moment of Inertia (kg.m <sup>2</sup> )	4320*10 <sup>-7</sup>		
容許軸向負載 (N) Permissible Axial Load (N)	100		
容許慣性力矩負荷 (N.M) Permissible Inertia Moment Load(N.M)	5		
重複定位精度(arc-sec) Repetitive Accuracy(arc-sec)	≤ 15	≤ 30	≤ 30
定位精度(arc-min) Positioning Accuracy(arc-min)	≤ 1		
旋轉平臺平行度(mm) Rotary Plate Parallelism(mm)	≤ 0.015		
旋轉平臺同心度(mm) Rotary Plate Concentricity(mm)	≤ 0.01		
精度壽命(H) Accuracy Life(H)	15000		
允許轉速(RPM) Permissible Revolution Speed(RPM)	200 (盤面 Round Plate)		
重量(KG) Weight(KG)	0.65	1	1
防護等級 Protection Grade	IP40		

### 定位檢測精度 Module Dimension

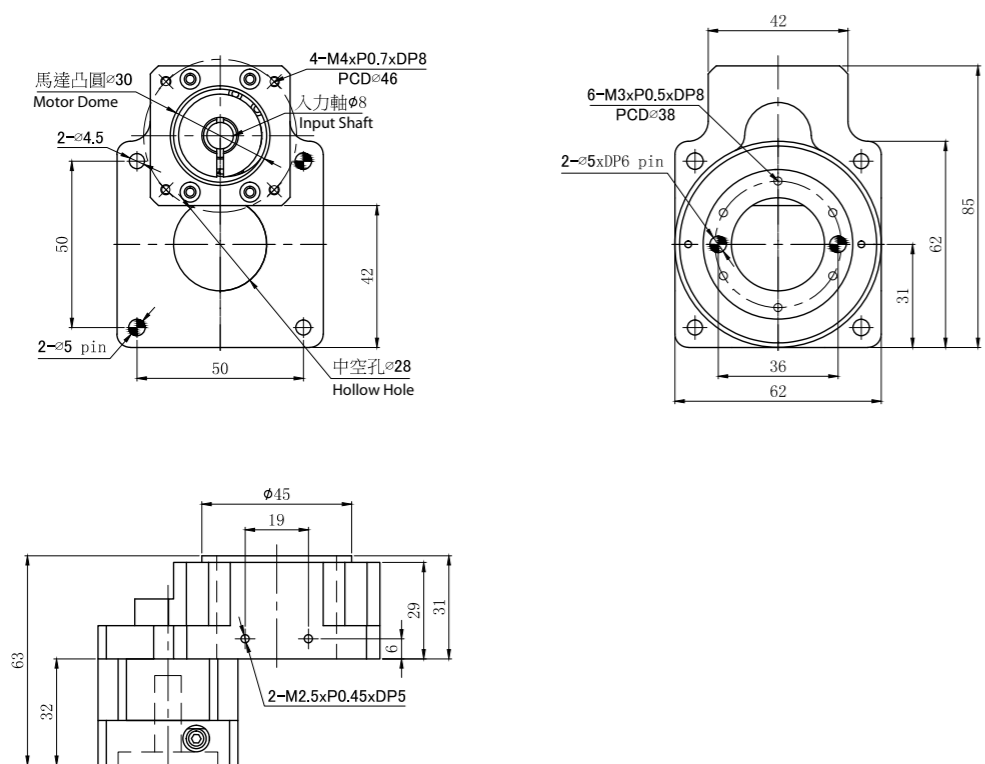


### 產品尺寸 Module Dimension

#### DY60F-5/10-V1

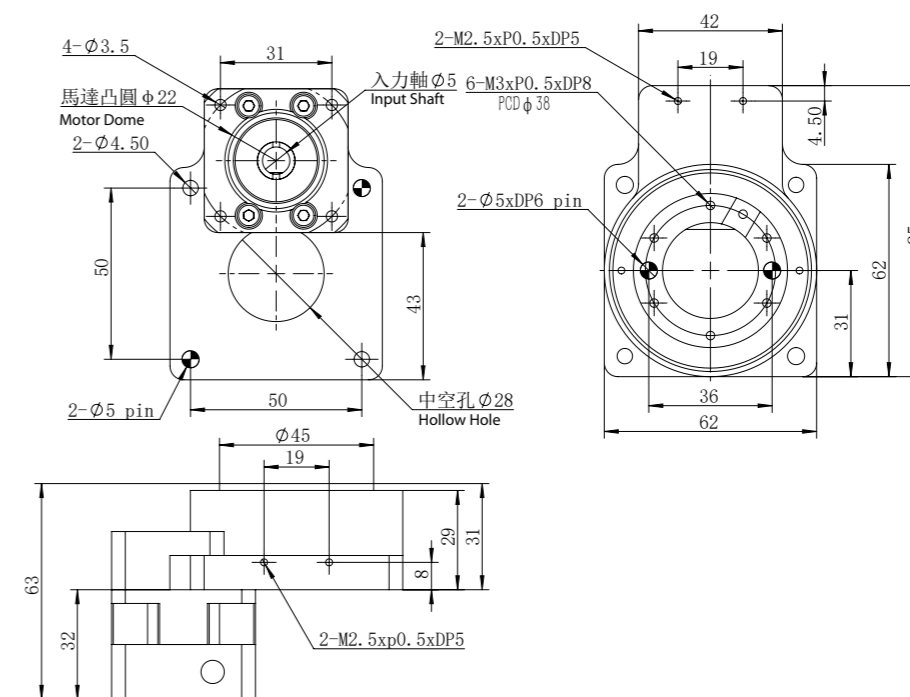


#### DY60F-5/10-V2

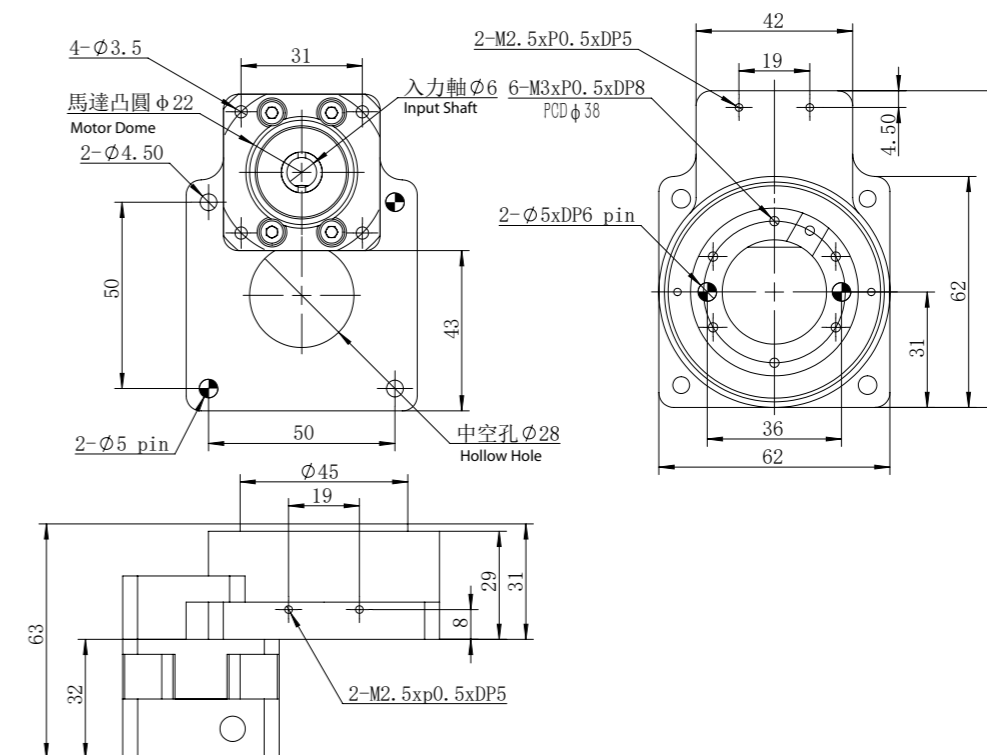


### 產品尺寸 Module Dimension

#### DY60F-5/10-T1

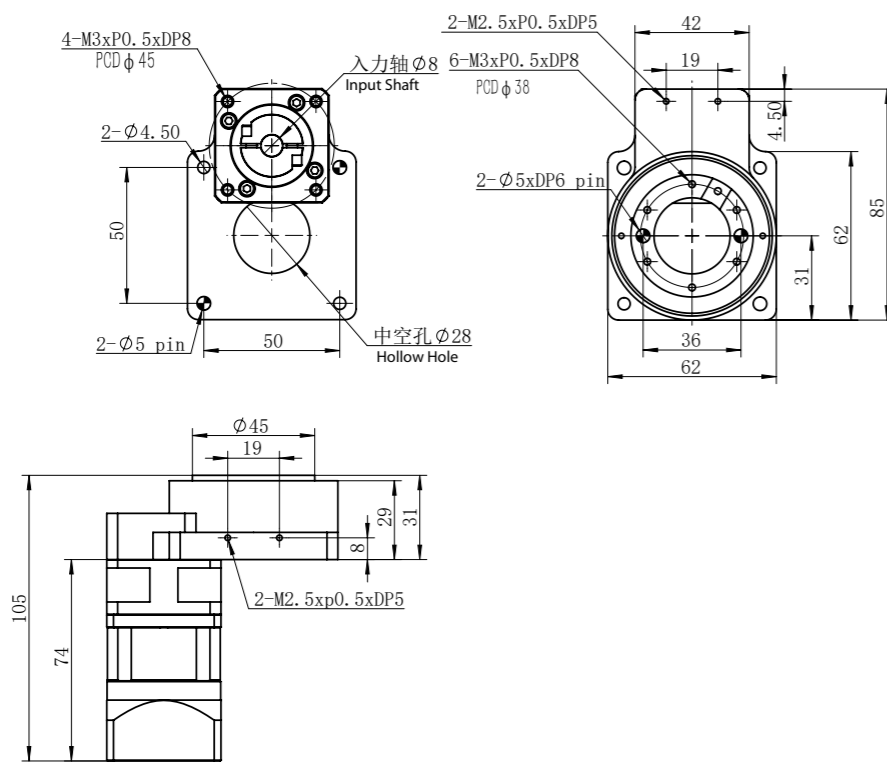


#### DY60F-5/10-T2

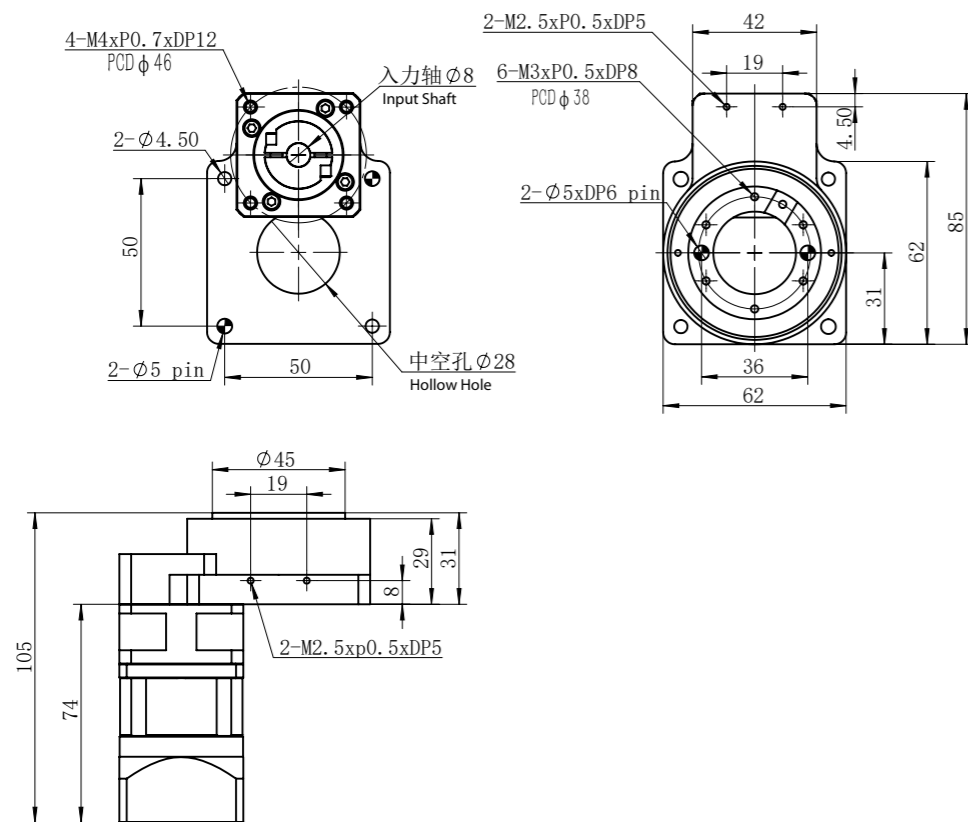


### 產品尺寸 Module Dimension

#### DY60P-25/50-V1

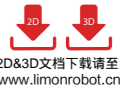
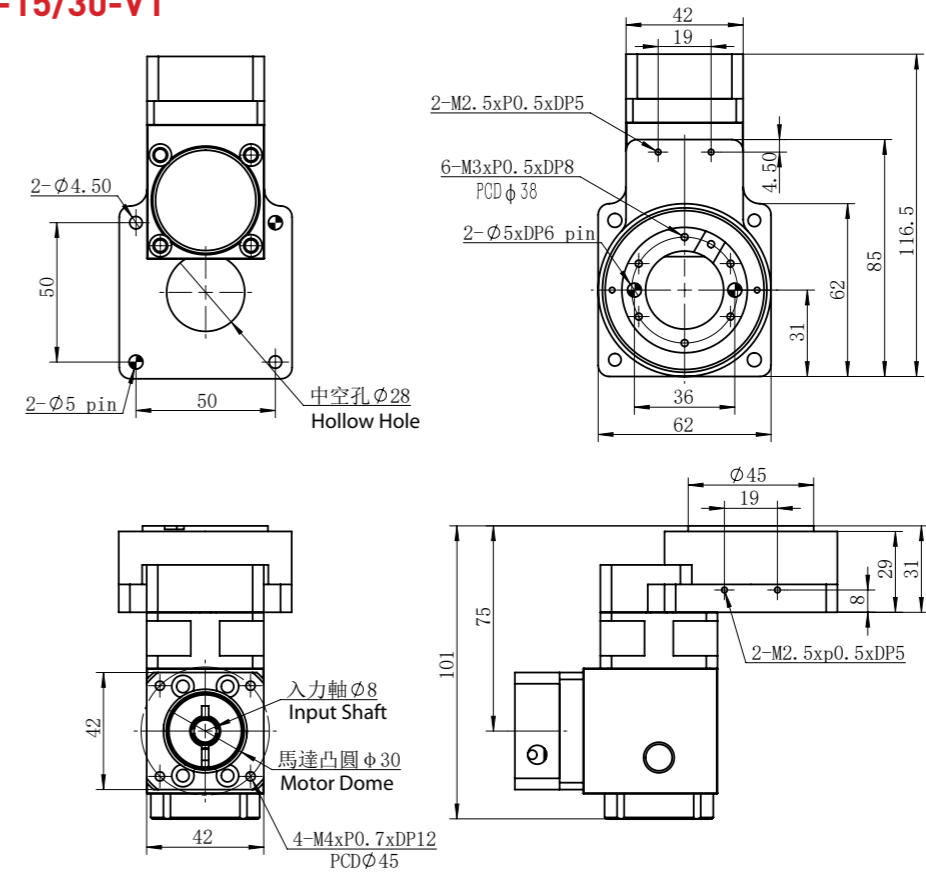


#### DY60P-25/50-V2

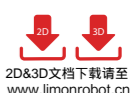
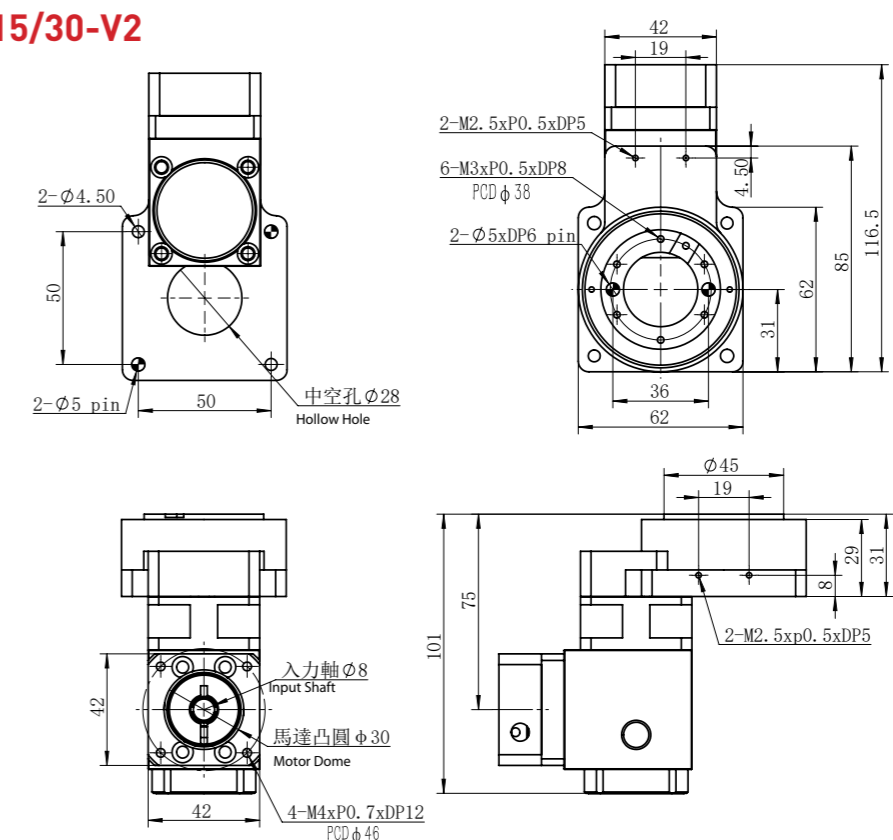


### 產品尺寸 Module Dimension

#### DY60R-15/30-V1



#### DY60R-15/30-V2



# 中空旋轉平臺 DY 85

## Hollow Rotary Actuators

# DY 85 中空旋轉平臺

## Hollow Rotary Actuators

### 訂購型號代碼 Code

**DY 85 - R - 5 - V1**

產品規格  
Specification

馬達連接方式  
Motor Connecting Method

減速比  
Reduction Ratio

馬達類型  
Motor Type

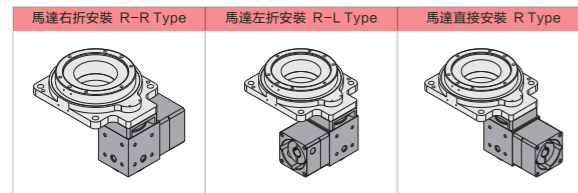
F: 直結式  
F: Direct  
R: 一體式直角轉向  
R: Integrated Right Angle Turning  
P: 一體式行星減速機直連  
P: Integrated Planetary Reducer

5  
10  
15  
18  
25  
30  
50  
54  
90

V1: 伺服  $\phi$  14 PCD70,M4  
V1: Servo  $\phi$  14 PCD70,M4  
V2: 伺服  $\phi$  14 PCD70,M5  
V2: Servo  $\phi$  14 PCD70,M5  
各廠牌200~400W AC 伺服馬達  
Factory Brand 200~400W AC Servo Motor  
T1: 步進  $\phi$  8 PCD66.67,M4  
T1: Stepper  $\phi$  8 PCD66.67,M4  
T2: 步進  $\phi$  8 PCD70,M4  
T2: Stepper  $\phi$  8 PCD70,M4  
T3: 步進  $\phi$  10 PCD70,M4  
T3: Stepper  $\phi$  10 PCD70,M4  
各廠牌G0型步進馬達  
All Kinds of Type G0 Stepper Motor



### 直角轉向馬達連接方式 Motor connection direction



### 技術參數 Technical Parameters

產品型號 Model Type	DY85-F	DY85-P	DY85-R
減速比 Reduction Ratio	5,10,18	25,50,90	15,30,54
容許轉矩(N·m) Permissible Torque (N·m)	15		
轉動慣量(kg·m <sup>2</sup> ) Moment of Inertia (kg·m <sup>2</sup> )	22090*10 <sup>-7</sup>		
容許軸向負載 (N) Permissible Axial Load(N)	500		
容許慣性力矩負荷 (N.M) Permissible Inertia Moment Load(N.M)	10		
重複定位精度(arc-sec) Repetitive Accuracy(arc-sec)	≤15	≤30	≤60
定位精度(arc-min) Positioning Accuracy(arc-min)	≤1		
旋轉平臺平行度(mm) Rotary Plate Parallelism(mm)	≤0.015		
旋轉平臺同心度(mm) Rotary Plate Concentricity(mm)	≤0.01		
精度壽命(H) Accuracy Life(H)	20000		
允許轉速(RPM) Permissible Revolution Speed(RPM)	200 (盤面 Round Plate)		
重量(KG) Weight(KG)	1.4	2.5	2.5
防護等級 Protection Grade	IP40		

### 定位檢測精度 Module Dimension

盤面同心度檢測  
Round Plate Concentricity Testing  
≤0.01mm

盤面旋轉振幅  
Round Plate Rotary Amplitude of Vibration  
≤0.005mm

盤面與底座平行度  
Round Plate&Base Parallelism  
≤0.015mm

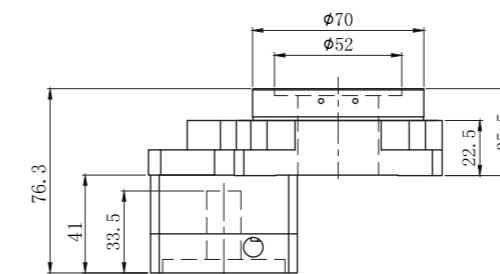
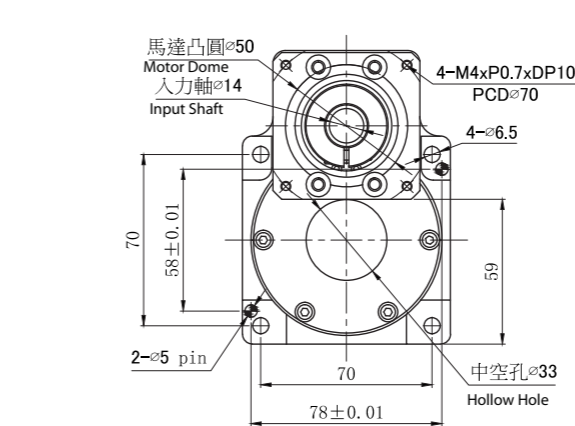
外徑任意點定位精度  
Positioning Accuracy of Arbitrary Point in Outer Diameter  
半徑42.5mm  
Radius 42.5mm  
≤1min

反覆定位精度  
Repetitive Accuracy Radius  
半徑42.5mm  
Radius 42.5mm  
≤10sec

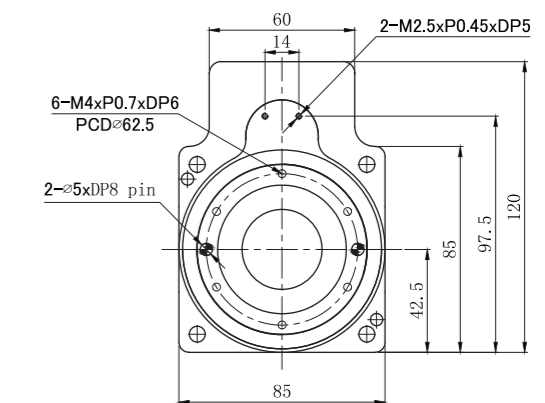
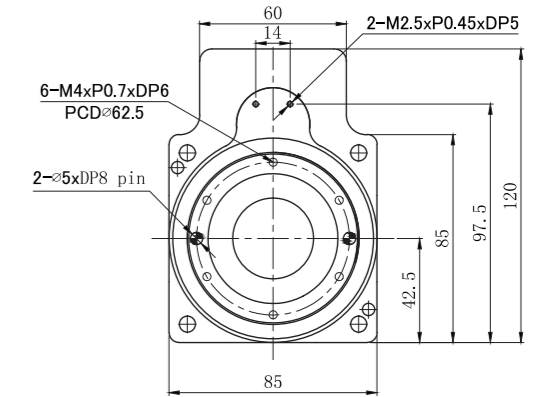
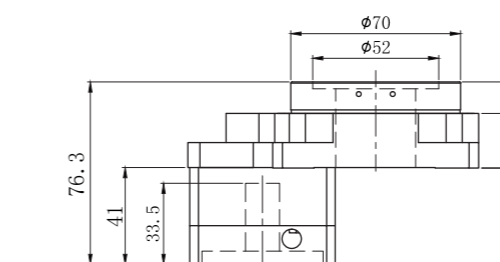
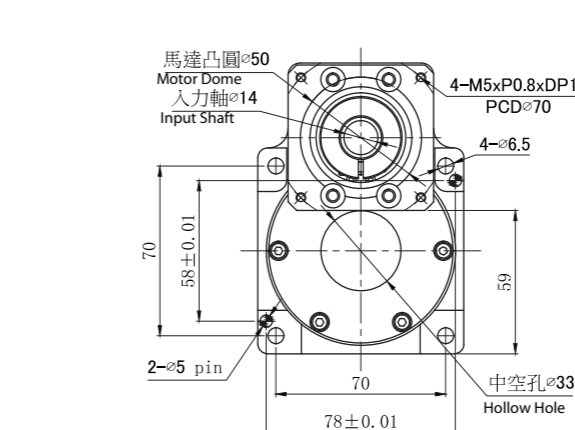
半徑懸臂300mm  
施力重力10kg時,  
測得DY85外邊緣  
≤0.01mm  
The DY85 outer edge is ≤0.01mm  
when the radius cantilever is 300mm.

### 產品尺寸 Module Dimension

DY85F-5/10/18-V1



DY85F-5/10/18-V2

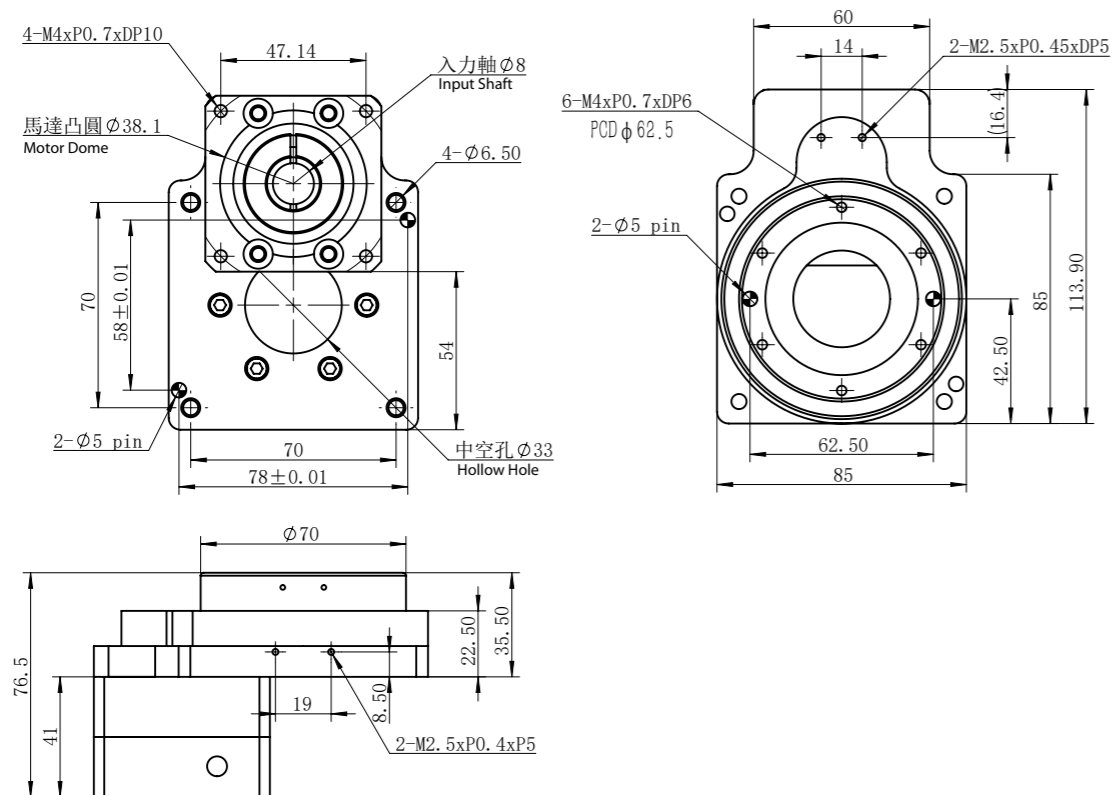


2D&3D文档下载请至  
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www.limonrobot.cn

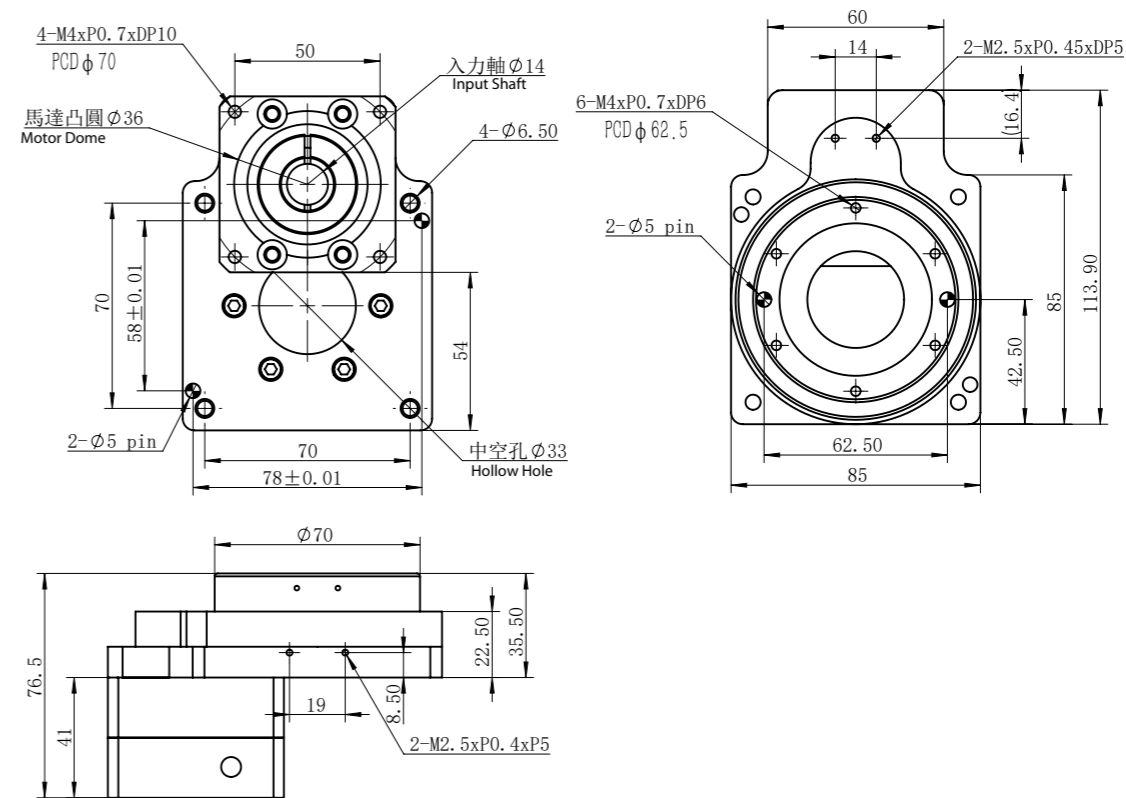
### 產品尺寸 Module Dimension

#### DY85F-5/10/18-T1

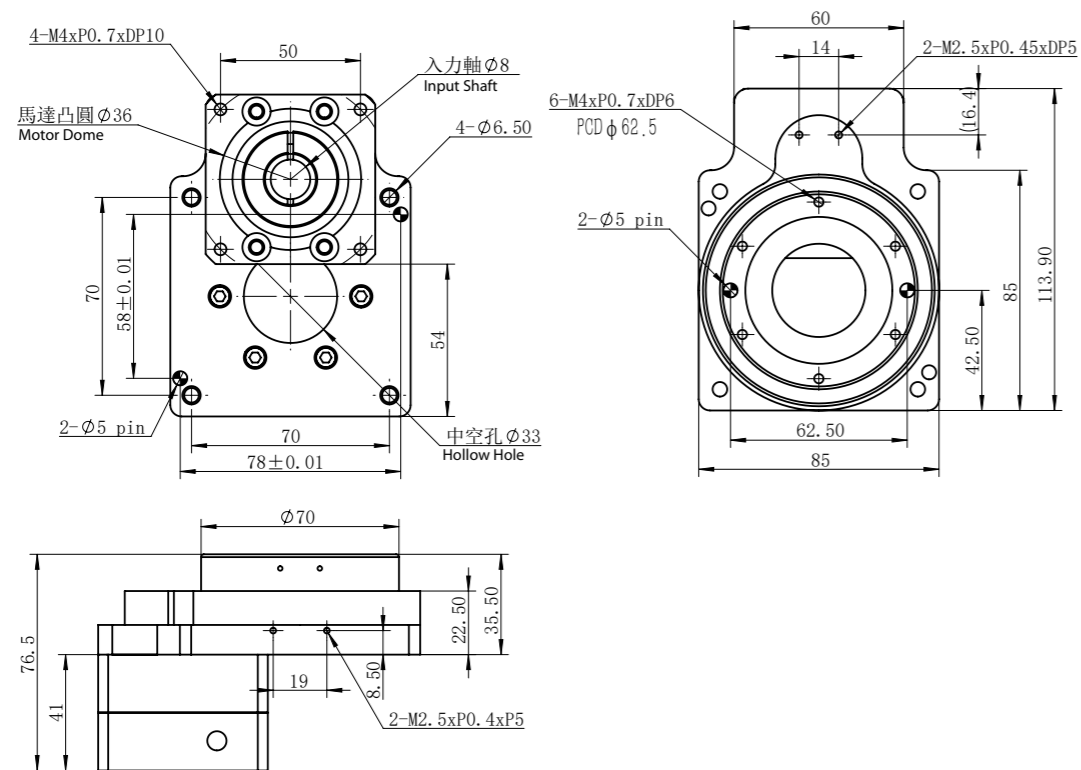


### 產品尺寸 Module Dimension

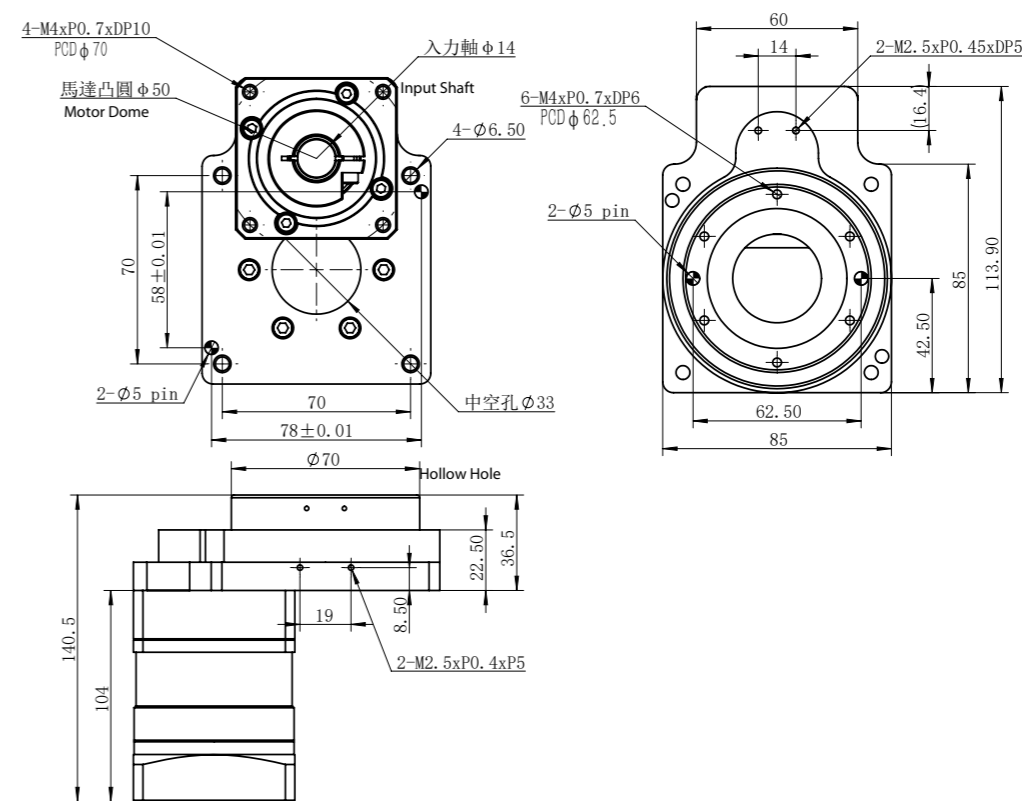
#### DY85F-5/10/18-T3

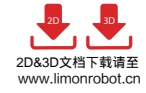
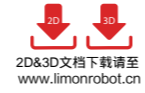


#### DY85F-5/10/18-T2



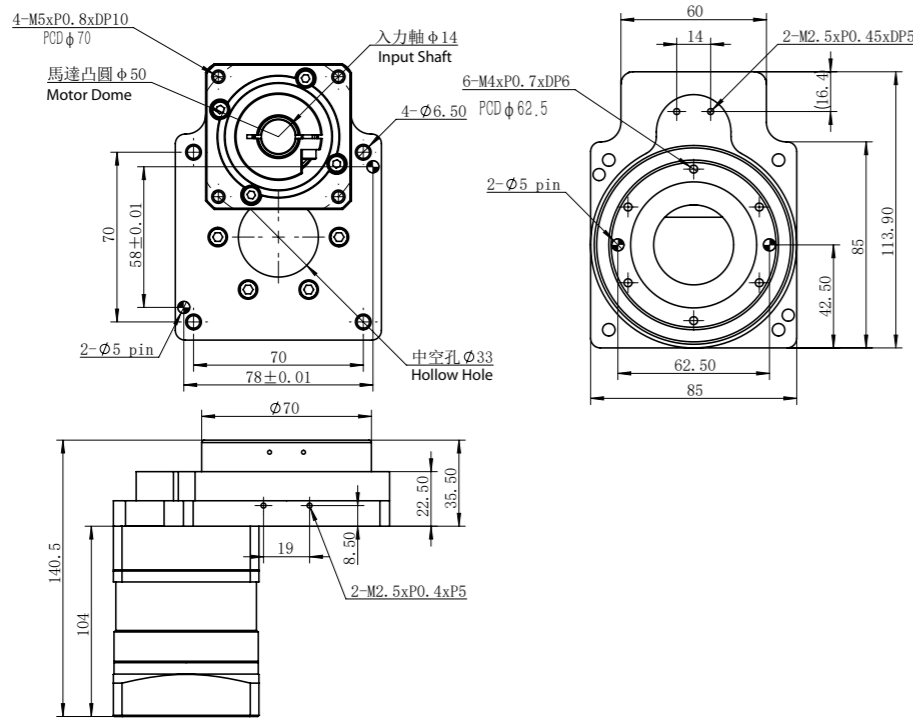
#### DY85P-25/50/90-V1



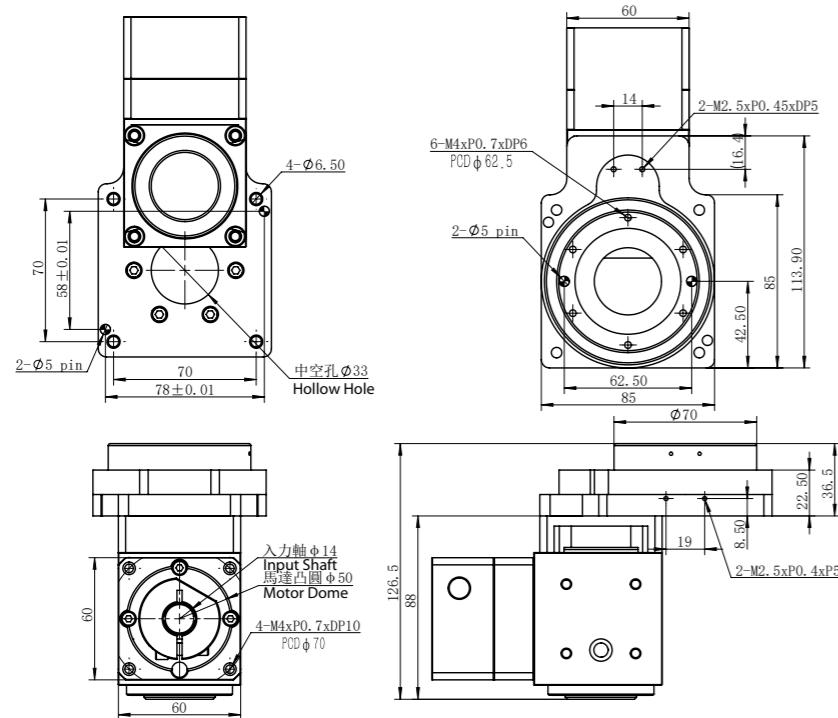


### 產品尺寸 Module Dimension

#### DY85P-25/50/90-V2

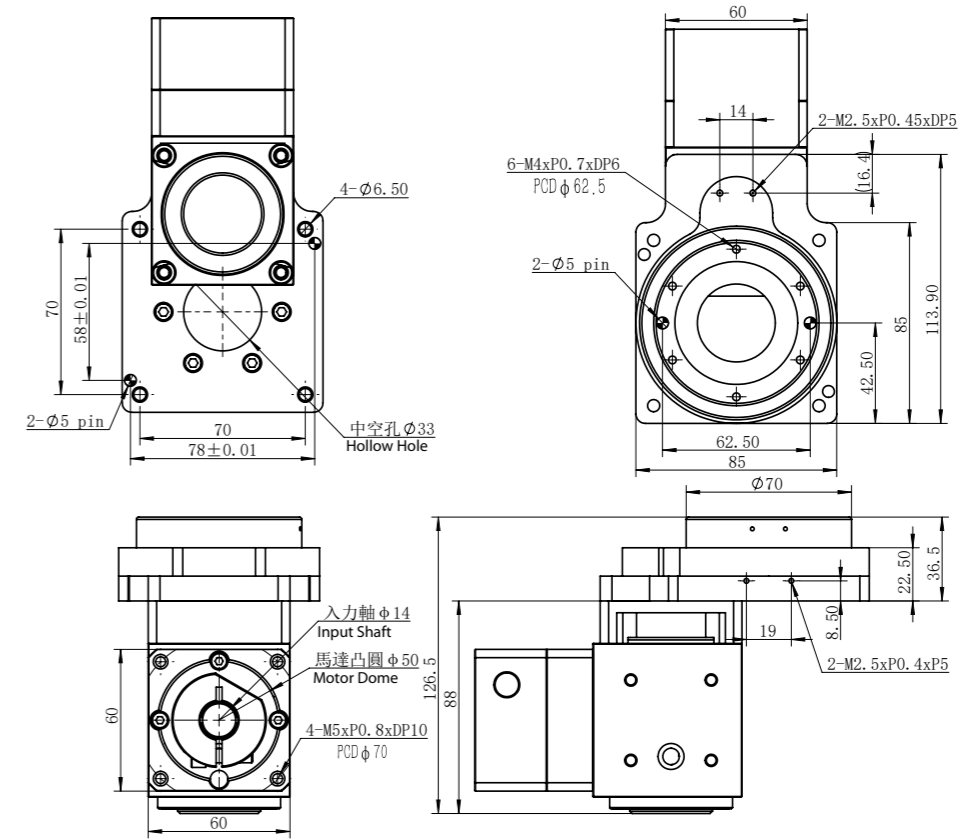


#### DY85R-15/30/54-V1



### 產品尺寸 Module Dimension

#### DY85R-15/30/54-V2



DY60 Series

DY85 Series

DY130 Series

DY200 Series

MDR/MDA Series

MDC/MDL Series

DY60 Series

DY85 Series

DY130 Series

DY200 Series

MDR/MDA Series

MDC/MDL Series



# 中空旋轉平臺 DY 130

Hollow Rotary Actuators

# DY 130 中空旋轉平臺

Hollow Rotary Actuators

## 訂購型號代碼 Code

**DY 130 - R - 10 - V1**



產品規格  
Specification

馬達連接方式  
Motor Connecting Method

減速比  
Reduction Ratio

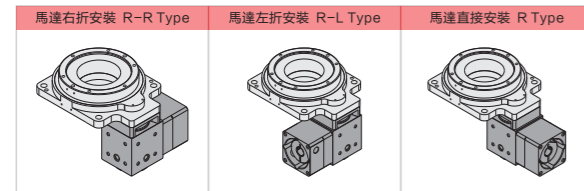
馬達類型  
Motor Type

F: 直結式  
F: Direct  
R: 一體式直角轉向  
R: Integrated Right Angle Turning  
P: 一體式行星減速機直連  
P: Integrated Planetary Reducer

10  
18  
25  
30  
50  
54

V1: 伺服 φ 14 PCD70, M4  
V1: Servo φ 14 PCD70, M4  
V2: 伺服 φ 14 PCD70, M5  
V2: Servo φ 14 PCD70, M5  
各廠牌 200~400W AC 伺服馬達  
Factory Brand 200~400W AC Servo Motor  
T1: 步進 φ 8 PCD66.67, M4  
T1: Stepper φ 8 PCD66.67, M4  
T2: 步進 φ 8 PCD70, M4  
T2: Stepper φ 8 PCD70, M4  
T3: 步進 φ 10 PCD70, M4  
T3: Stepper φ 10 PCD70, M4  
各廠牌 60 型步進馬達  
All Kinds of Type 60 Stepper Motor

## 直角轉向馬達連接方式 Motor connection direction



## 技術參數 Technical Parameters

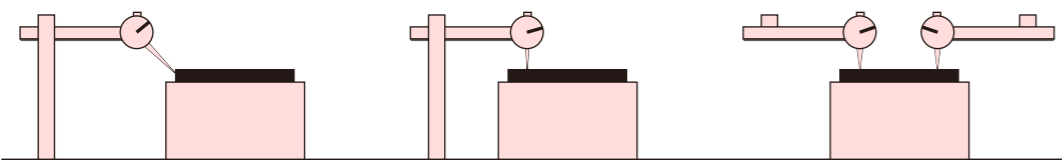
產品型號 Model Type	DY130-F	DY130-P	DY130-R
減速比 Reduction Ratio	10, 18	50, 90	30, 54
容許轉矩 (N·m) Permissible Torque (N·m)		45	
轉動慣量 (kg·m <sup>2</sup> ) Moment of Inertia (kg·m <sup>2</sup> )		150600*10 <sup>-7</sup>	
容許軸向負載 (N) Permissible Inertia Moment Load (N)		2000	
容許慣性力矩負荷 (N·M) Permissible Inertia Moment Load (N·M)		50	
重複定位精度 (arc-sec) Repetitive Accuracy (arc-sec)	≤ 15	≤ 30	≤ 30
定位精度 (arc-min) Positioning Accuracy (arc-min)		≤ 1	
旋轉平臺平行度 (mm) Rotary Plate Parallelism (mm)		≤ 0.015	
旋轉平臺同心度 (mm) Rotary Plate Concentricity (mm)		≤ 0.01	
精度壽命 H Accuracy Life (H)		20000	
允許轉速 (RPM) Permissible Revolution Speed (RPM)		200 (盤面 Round Plate)	
重量 (KG) Weight (KG)	2.4	3.4	3.5
防護等級 Protection Grade		IP40	

## 定位檢測精度 Module Dimension

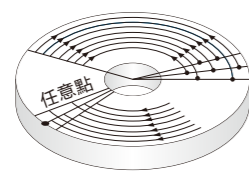
盤面同心度檢測  
Round Plate Concentricity Testing  
≤ 0.01mm

盤面旋轉振幅  
Round Plate Rotary Amplitude of Vibration  
≤ 0.005mm

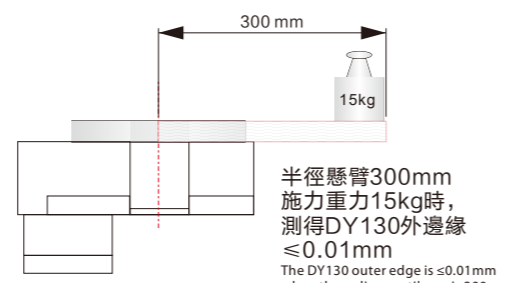
盤面與底座平行度  
Round Plate & Base Parallelism  
≤ 0.015mm



外徑任意點定位精度  
Positioning Accuracy of Arbitrary Point in Outer Diameter  
半徑 65mm  
Radius 65mm  
≤ 1min



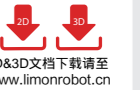
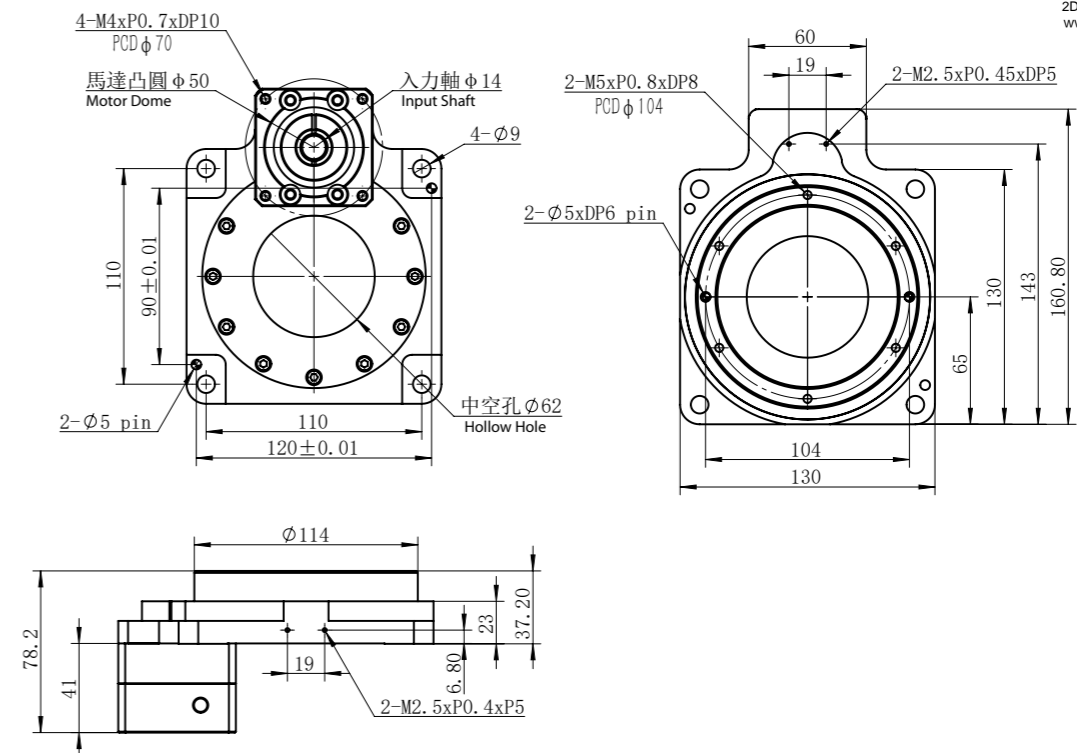
反覆定位精度  
Repetitive Accuracy Radius  
半徑 65mm  
Radius 65mm  
≤ 10sec



半徑懸臂 300mm  
施力重力 15kg 時,  
測得 DY130 外邊緣  
≤ 0.01mm  
The DY130 outer edge is ≤ 0.01mm  
when the radius cantilever is 300mm.

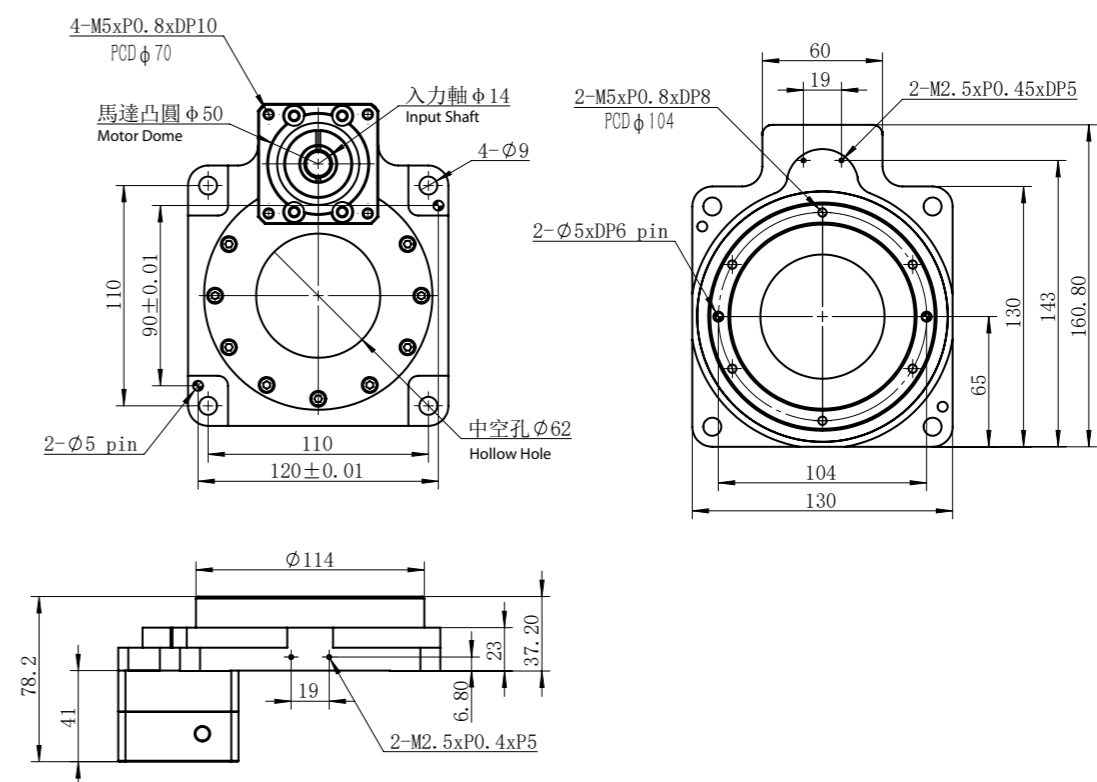
## 產品尺寸 Module Dimension

### DY130F-10/18-V1



2D&3D 文档下载請至  
www.limonrobot.cn

### DY130F-10/18-V2



2D&3D 文档下载請至  
www.limonrobot.cn



# 中空旋轉平臺 DY 130

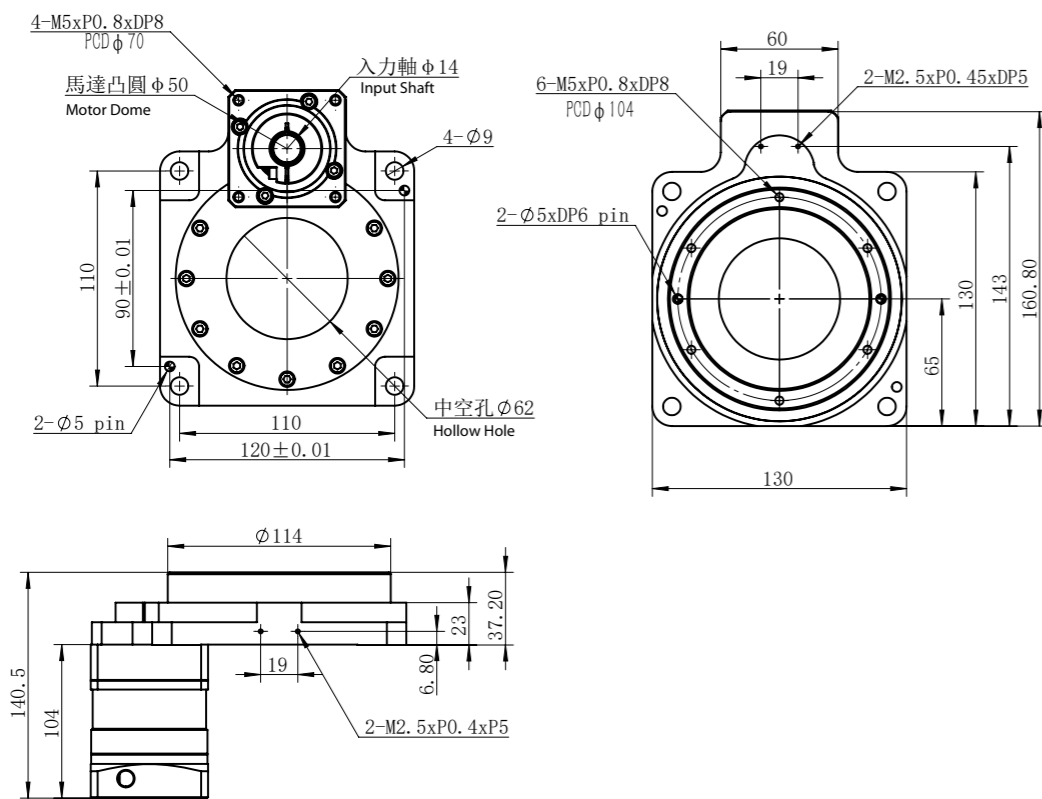
Hollow Rotary Actuators

# DY 130 中空旋轉平臺

Hollow Rotary Actuators

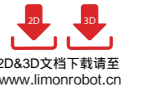
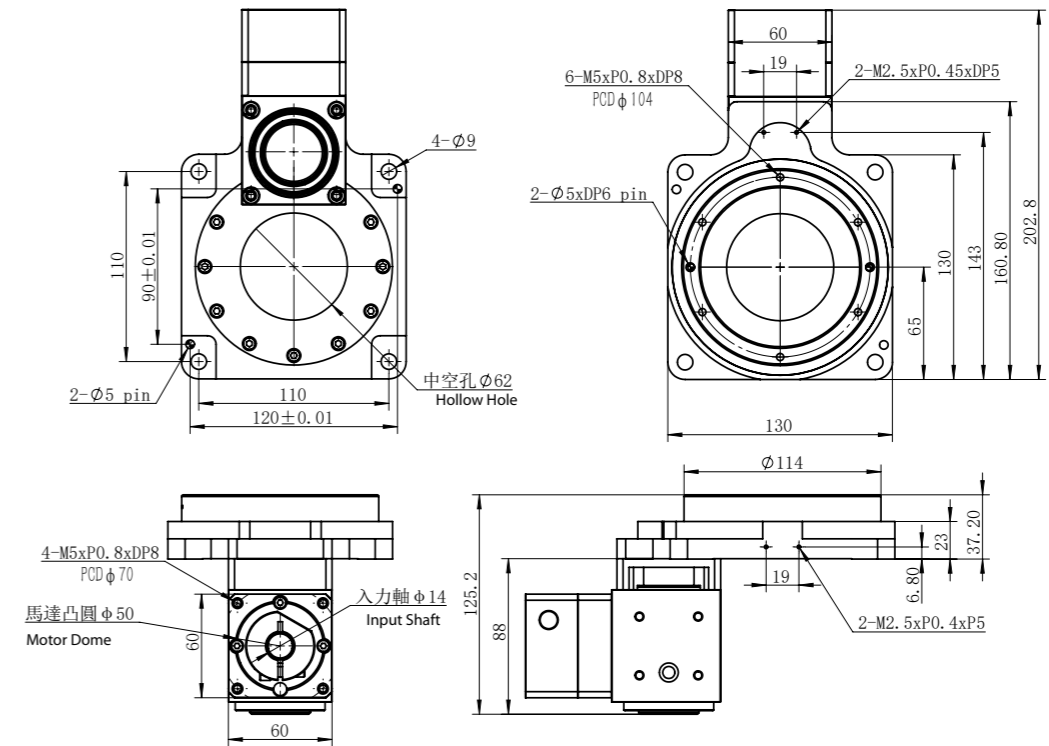
## 產品尺寸 Module Dimension

### DY130P-50/90-V2

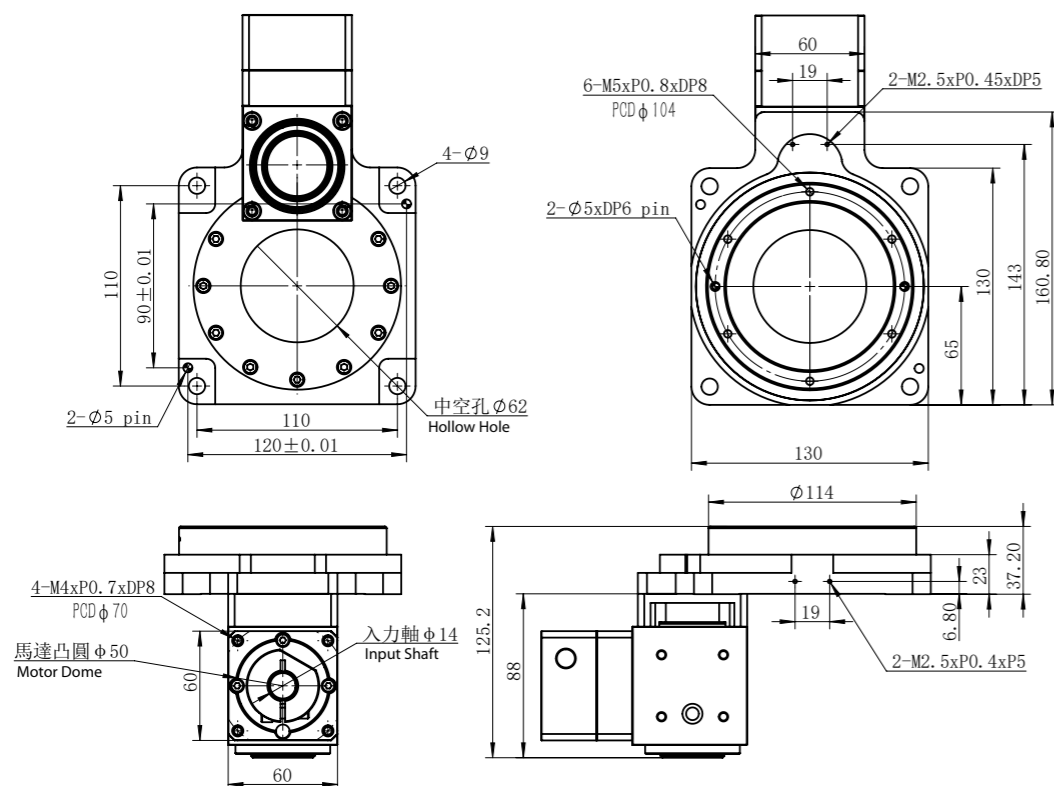


## 產品尺寸 Module Dimension

### DY130R-30/54-V2



### DY130R-30/54-V1



# 中空旋轉平臺 DY 200

Hollow Rotary Actuators

# DY 200 中空旋轉平臺

Hollow Rotary Actuators

## 产品型号 Code

**DY 200 - R - 10 - V1**

產品規格  
Specification

馬達連接方式  
Motor Connecting Method

減速比  
Reduction Ratio

馬達類型  
Motor Type

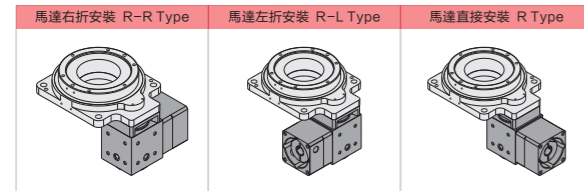
- F: 直結式  
F: Direct
- R: 一體式直角轉向  
R: Integrated Right Angle Turning
- P: 一體式行星減速機直連  
P: Integrated Planetary Reducer

- 10
- 18
- 30
- 50
- 54
- 90

- V1: 伺服  $\phi 19$  PCD90, M5  
V1: Servo  $\phi 19$  PCD90, M5
- V2: 伺服  $\phi 19$  PCD90, M6  
V2: Servo  $\phi 19$  PCD90, M6
- 各廠牌750W AC 伺服馬達  
Factory Brand 750W AC Servo Motor
- T1: 步進  $\phi 14$  PCD98.4, M5  
T1: Stepper  $\phi 14$  PCD98.4, M5
- T2: 步進  $\phi 14$  PCD98.4, M6  
T2: Stepper  $\phi 14$  PCD98.4, M6
- 各廠牌86型步進馬達  
All Kinds of Type 86 Stepper Motor



## 直角轉向馬達連接方式 Motor connection direction

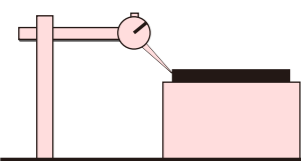


## 产品参数 Module Parameters

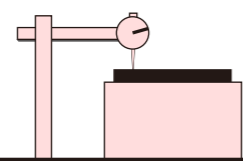
產品型號 Model Type	DY200-F	DY200-R	DY200-P
減速比 Reduction Ratio	10, 18	30, 54	50, 90
容許轉矩 N·m Permissible Torque N·m		85	
轉動慣量 kg·m <sup>2</sup> Moment of Inertia kg·m <sup>2</sup>		916400*10 <sup>-7</sup>	
容許軸向負載 (N) Permissible Inertia Moment Load(N)		4000	
容許慣性力矩負荷 (N.M) Permissible Inertia Moment Load(N.M)		10	
重複定位精度(arc-sec) Repetitive Accuracy (arc-sec)	≤15	≤15	≤60
定位精度(arc-min) Positioning Accuracy (arc-min)		≤1	
旋轉平臺平行度(mm) Rotary Plate Parallelism (mm)		≤0.015	
旋轉平臺同心度(mm) Rotary Plate Concentricity (mm)		≤0.01	
精度壽命(H) Accuracy Life(H)		20000	
允許轉速(RPM) Permissible Revolution Speed (RPM)		150 (盤面 Round Plate)	
重量(KG) Weight(KG)	8.5	8.5	12.7
防護等級 Protection Grade			IP40

## 定位檢測精度 Module Dimension

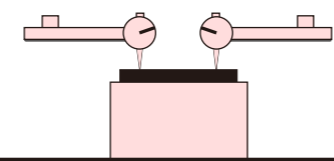
盤面同心度檢測  
Round Plate Concentricity Testing  
≤0.01mm



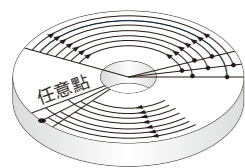
盤面旋轉振幅  
Round Plate Rotary Amplitude of Vibration  
≤0.0015 mm



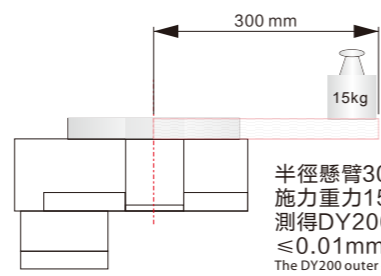
盤面與底座平行度  
Round Plate & Base Parallelism  
≤0.015mm



外徑任意點定位精度  
Positioning Accuracy of Arbitrary Point in Outer Diameter.  
半徑100mm  
Radius 100mm  
≤1min



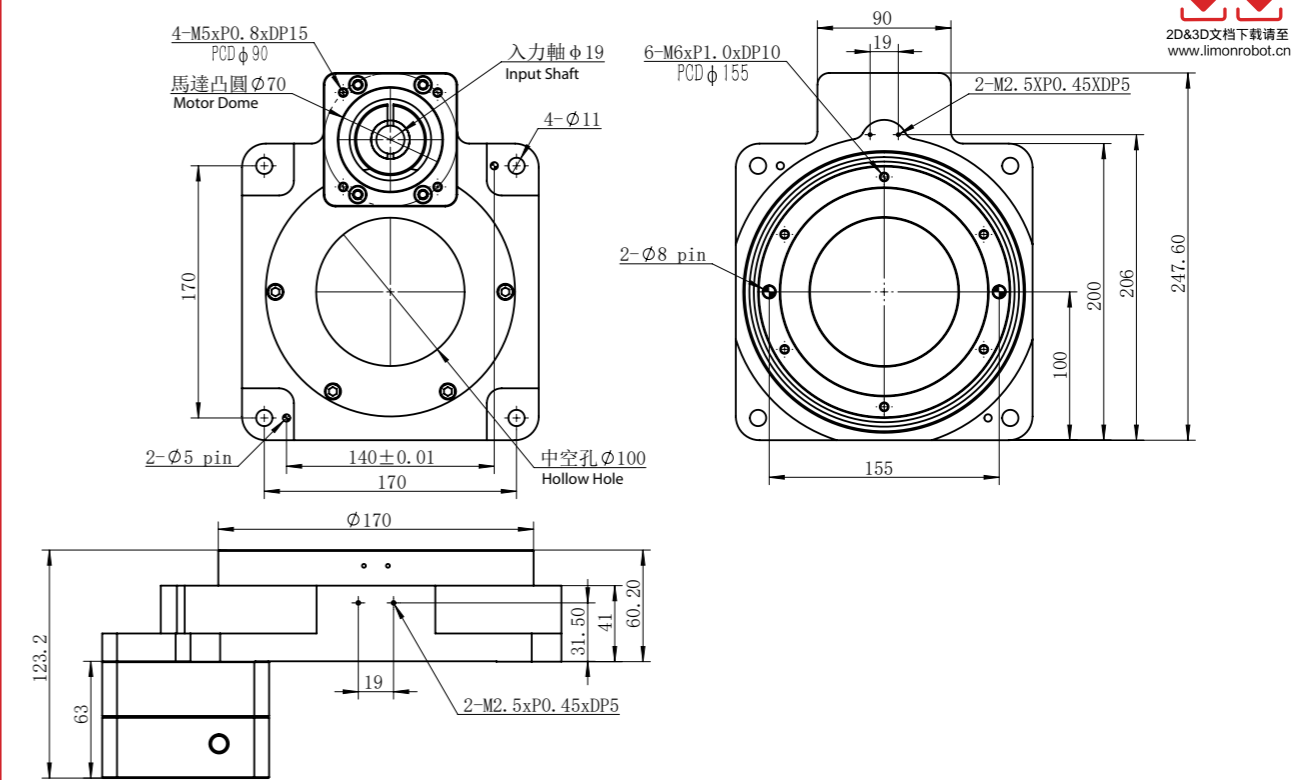
反覆定位精度  
Repetitive Accuracy Radius  
半徑100mm  
Radius 100mm  
≤10sec



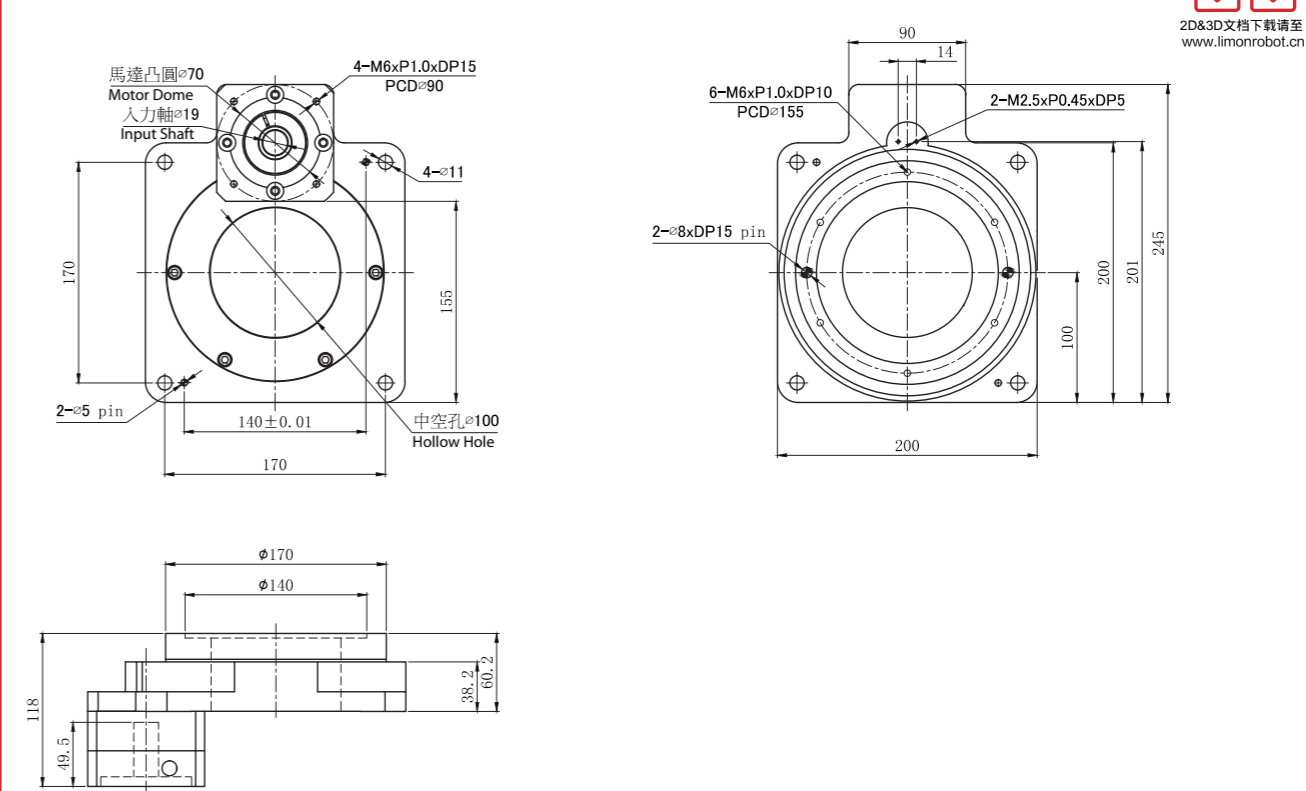
半徑懸臂300mm  
施力重力15kg時,  
測得DY200外邊緣  
≤0.01mm  
The DY200 outer edge is ≤0.01mm  
when the radius cantilever is 300mm.

## 产品尺寸 Module Dimension

### DY200F-10/18-V1

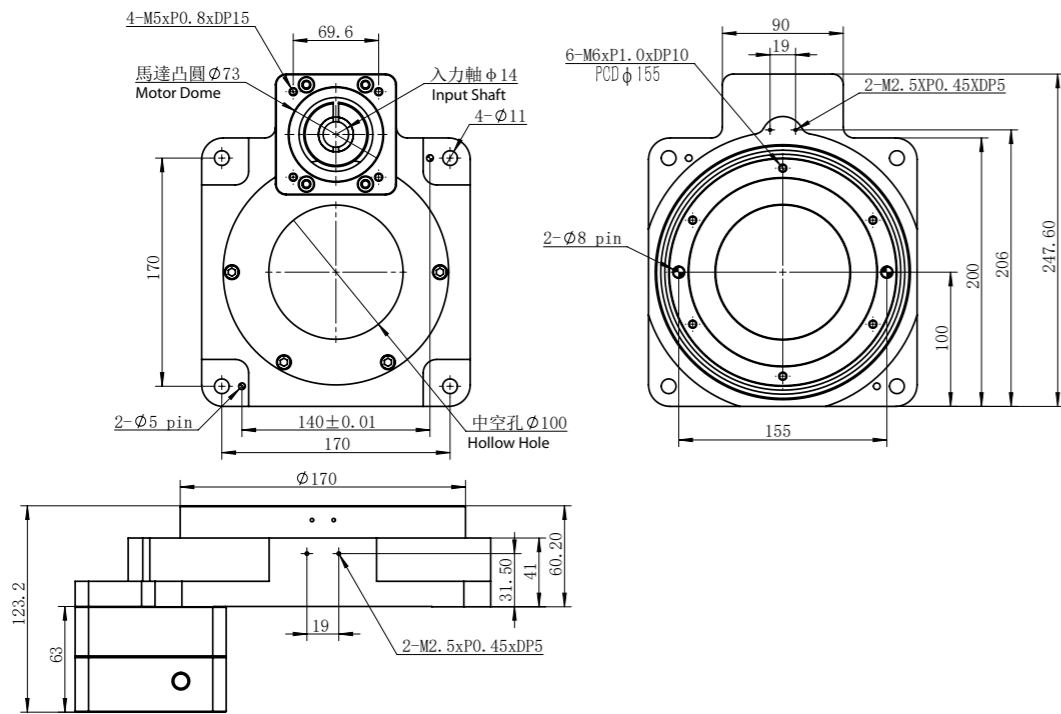


### DY200F-10/18-V2

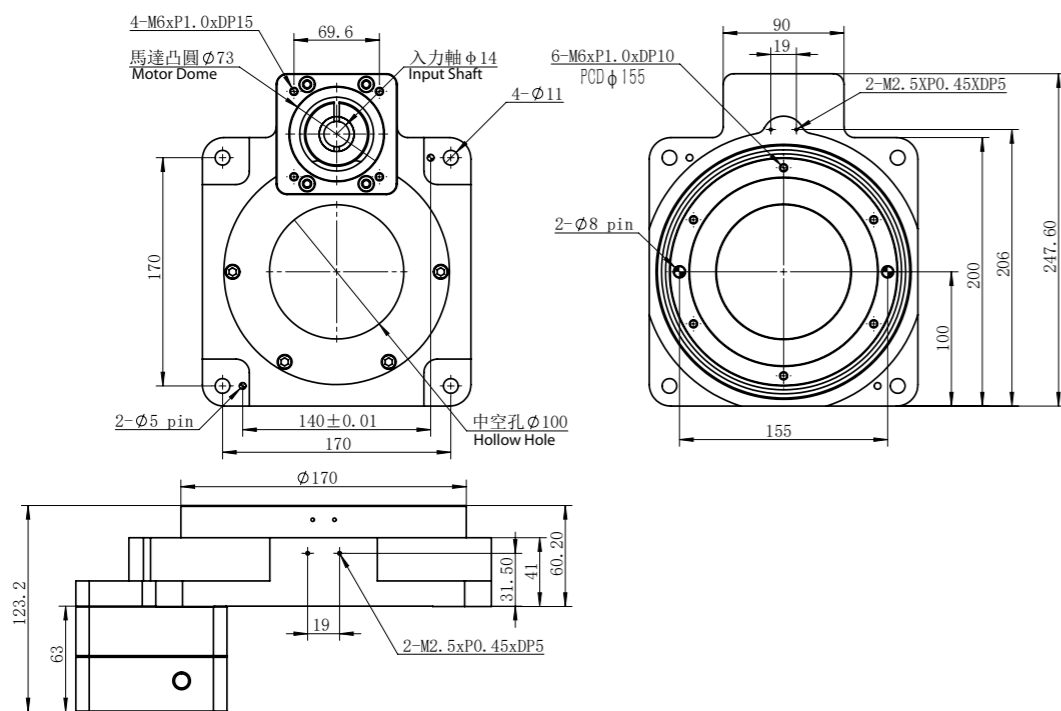


### 產品尺寸 Module Dimension

#### DY200F-10/18-T1

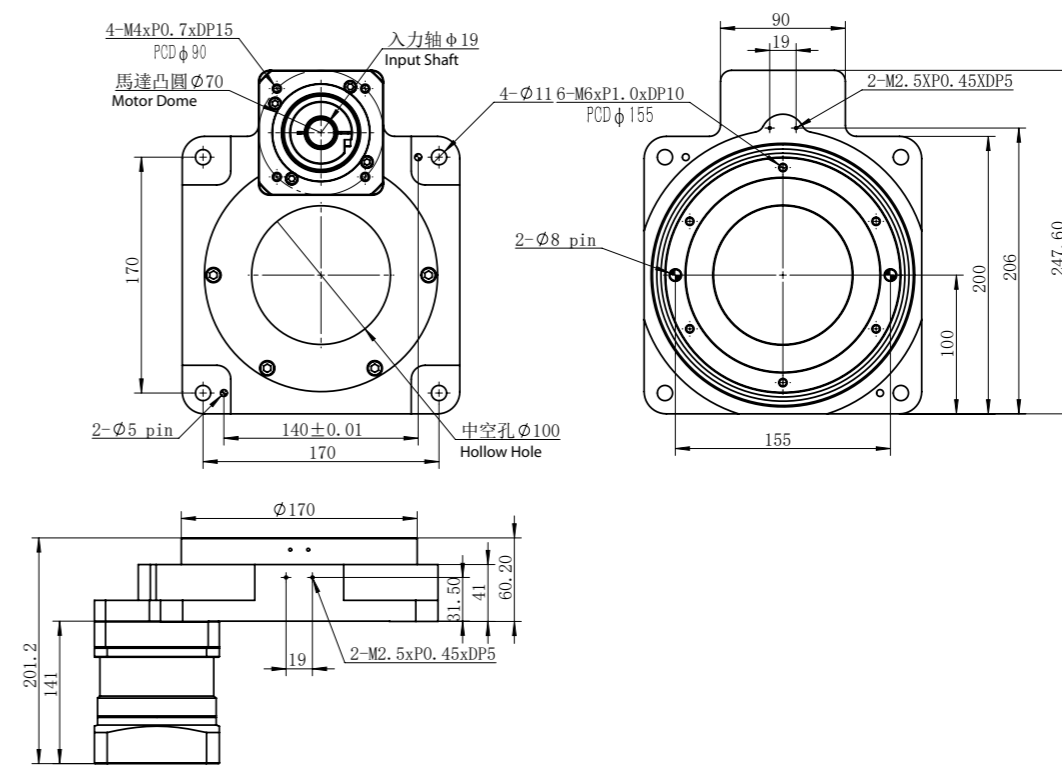


#### DY200F-10/18-T2

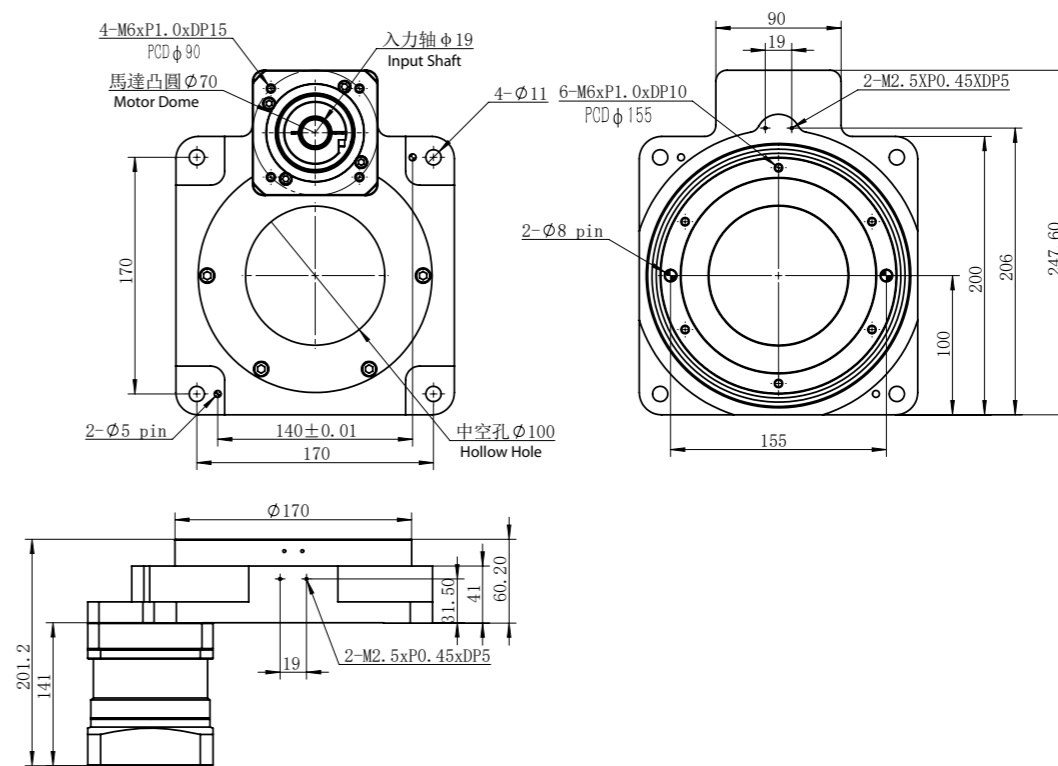


### 產品尺寸 Module Dimension

#### DY200P-50/90-V1

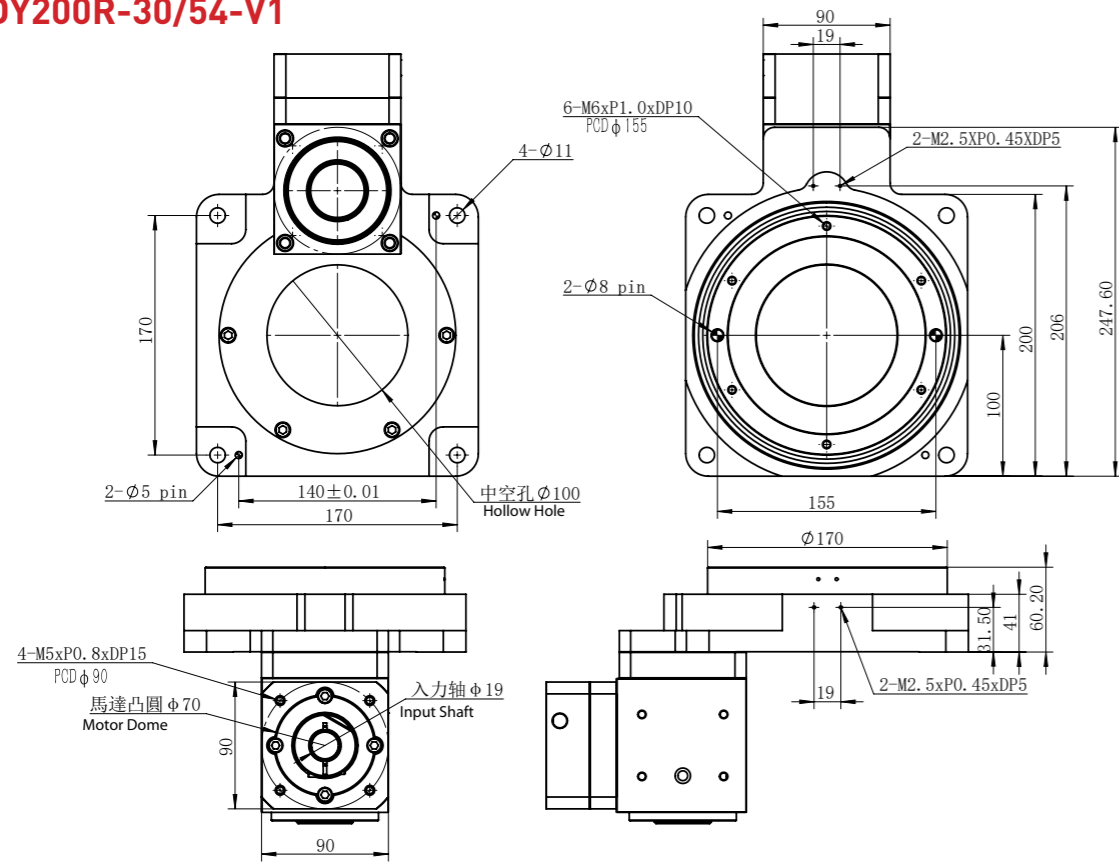


#### DY200P-50/90-V2

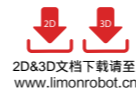
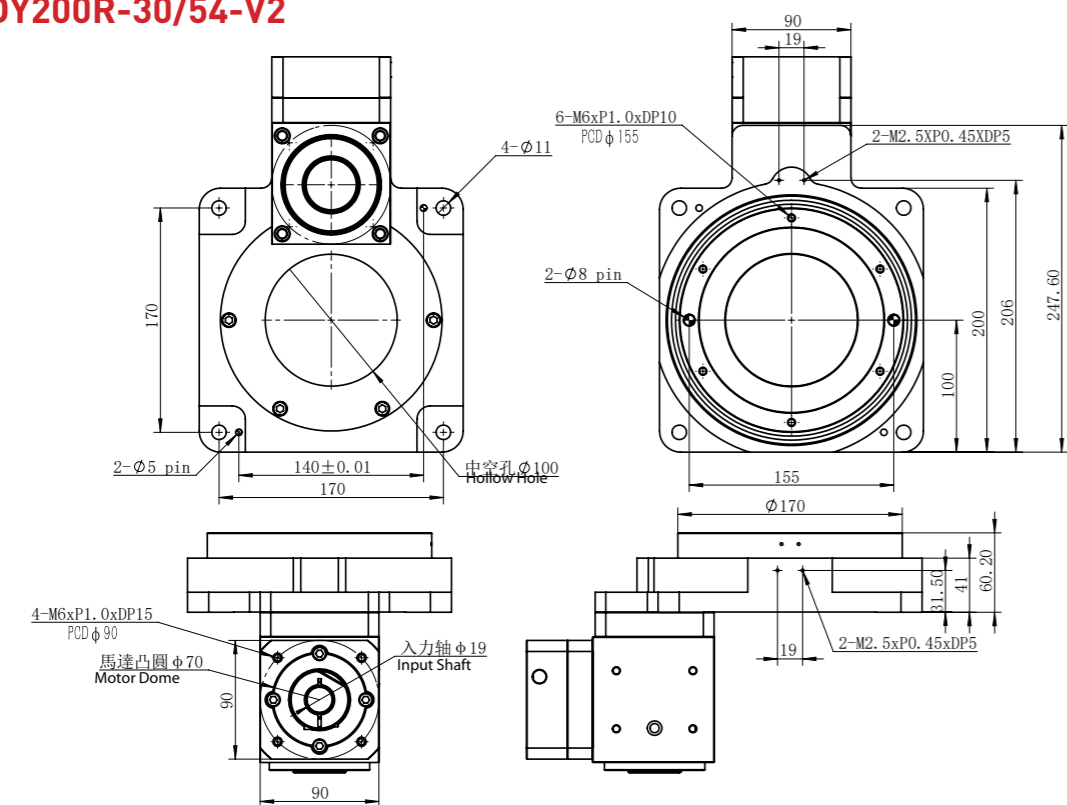


### 產品尺寸 Module Dimension

#### DY200R-30/54-V1

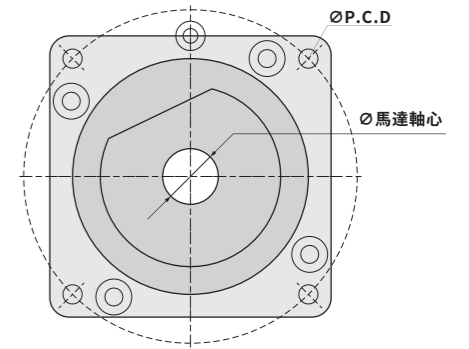
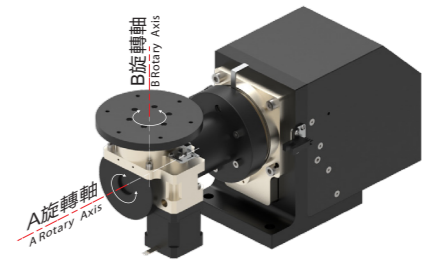


#### DY200R-30/54-V2



### 产品型号 Code MDR

产品型号 Model Type	MDR60-100	MDR60-140	MDR60-190	MDR85-140
容許轉矩 N·m Permissible Torque N·m		6		15
容許荷重 kg Max Load kg		3		5
旋轉角度 Angle of Rotation	A軸 /A Axis B軸 /B Axis		± 180° 360°	
旋轉精度 Precision of Rotation	A軸 /A Axis B軸 /B Axis		≤ 30" ≤ 30"	
重複定位精度 Repetition precision	A軸 /A Axis B軸 /B Axis		≤ 10" ≤ 15"	
最大旋轉半徑 mm Max Radius of Rotation mm	90	130	130	130
二維同心度 mm 2 Dimensional Concentricity mm	± 0.02			
二維平行度 mm 2 Dimensional Parallelism mm	± 0.02			
減速比 i Gear Ratio	A軸 /A Axis B軸 /B Axis		1:8 步進馬達 1:10 伺服馬達 1:5	
允許旋轉速度 Max Rotary Speed	1080° / sec			
防護等級 Protection Rating	IP60			
馬達 Motor	A軸 /A Axis B軸 /B Axis		56/60型步進馬達 or 200w-400w伺服馬達 42型步進馬達 or 100w步進馬達	
質量 kg Weight kg	8	8.2	8.4	11



### 产品型号 Code MDA

产品型号 Model Type	MDA100□-100	MDA100□-140	MDA100□-190
容許轉矩 N·m Permissible Torque N·m		45	
容許荷重 kg Max Load kg	10	8	6
旋轉角度 Angle of Rotation	± 180°		
旋轉精度 Precision of Rotation	≤ 30"		
重複定位精度 Repetition precision	≤ 10"		
最大旋轉半徑 mm Max Radius of Rotation mm	90	130	180
旋轉同心度 mm Rotation Concentricity mm	± 0.01		
旋轉平行度 mm Rotation of Parallelism mm	± 0.01		
減速比 i Gear Ratio	8		
允許旋轉速度 Max Rotary Speed	1080° / sec		
防護等級 Protection Rating	IP60		
馬達 Motor	56/60型步進馬達 or 200w-400w伺服馬達		
質量 kg Weight kg	4.5	4.7	4.9

