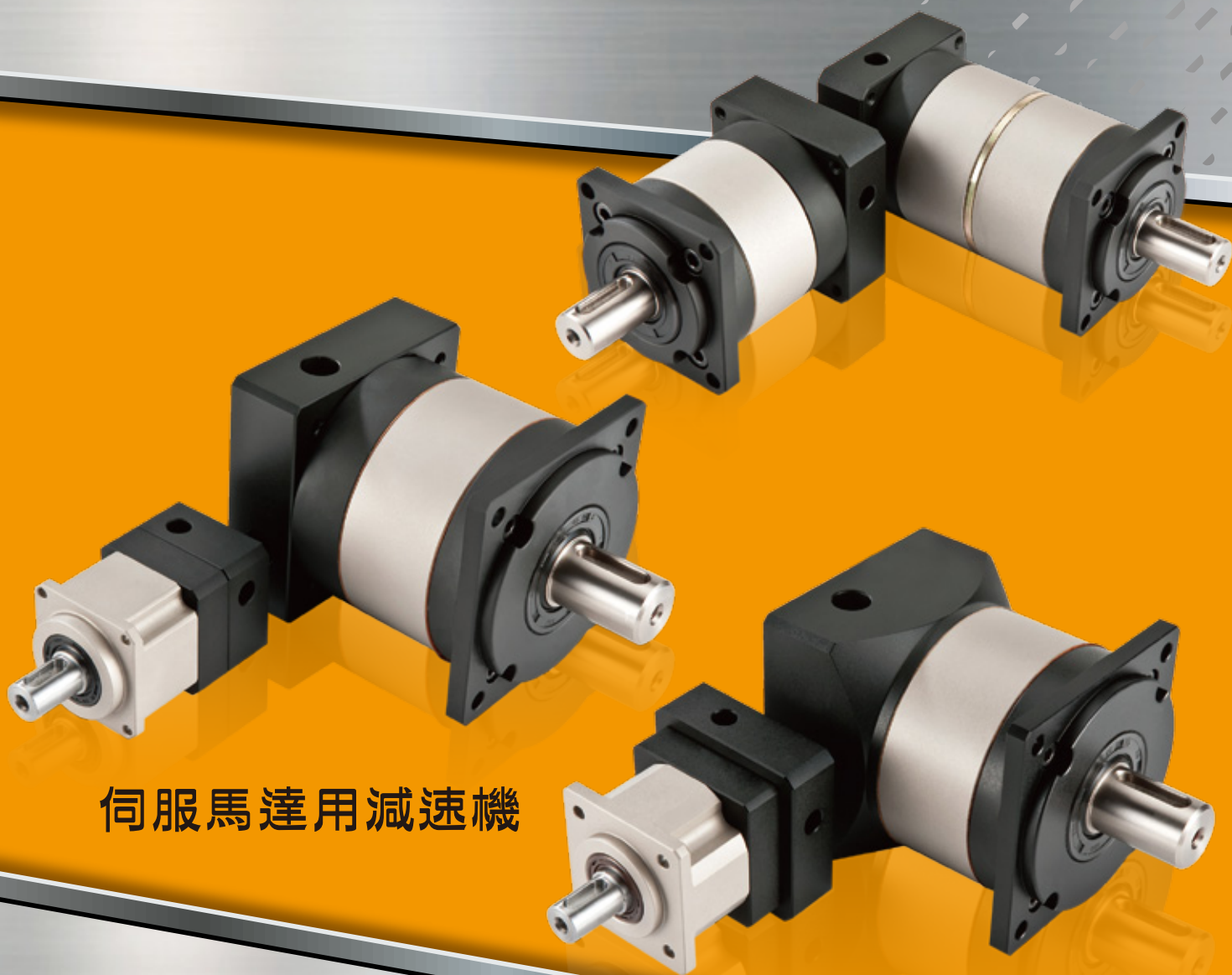




# HIGH PRECISION PLANETARY REDUCER

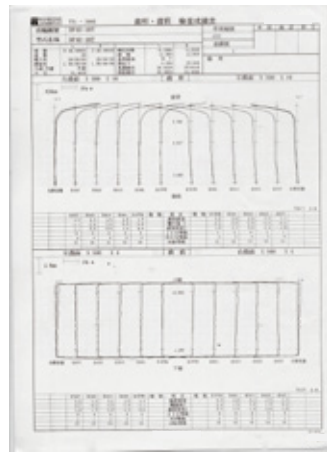
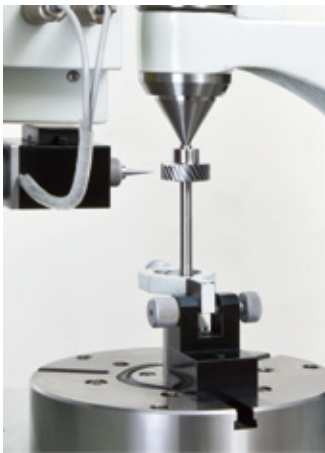


伺服馬達用減速機

# 公司簡介 Company Introduction

從事各類行星式減速機之製造。研發團隊具二十年齒輪製造、研發及設計經驗，專精於齒輪特性應用與精度控制。一系列研發生產之行星式減速機，具低背隙（3~5 arcmin）、低噪音（< 65dBA）、高效率（>=95%）之三大特性。其搭配伺服馬達、步進馬達，可降低轉速並提高扭矩，使動力平順輸出至運用端。的行星式減速機適用於各類自動化領域，亦是您最佳的選擇。我們也提供客製化服務以滿足顧客各種創新獨特的需求。

**Sunmax Reducer Co., Ltd** provide a variety of planetary reducers in high quality. With 20-year gear manufacturing and R&D experiences, we specialize in gear design and applications as well as precision control. Our product series have three key features: Low backlash (3~5 arcmin), Low noise (<65dBA), and High efficiency ( $\geq 95\%$ ). Once workings with servomotors or stepping motors, our planetary reducers decrease the speed and increase output torque smoothly, which helps transmit the power efficiently to the end applications. **Sunmax** planetary reducers are your best choice for all variety of high precision automation equipments and machineries. We also offer customized service to fully meet every innovative and unique requirement of our customers.

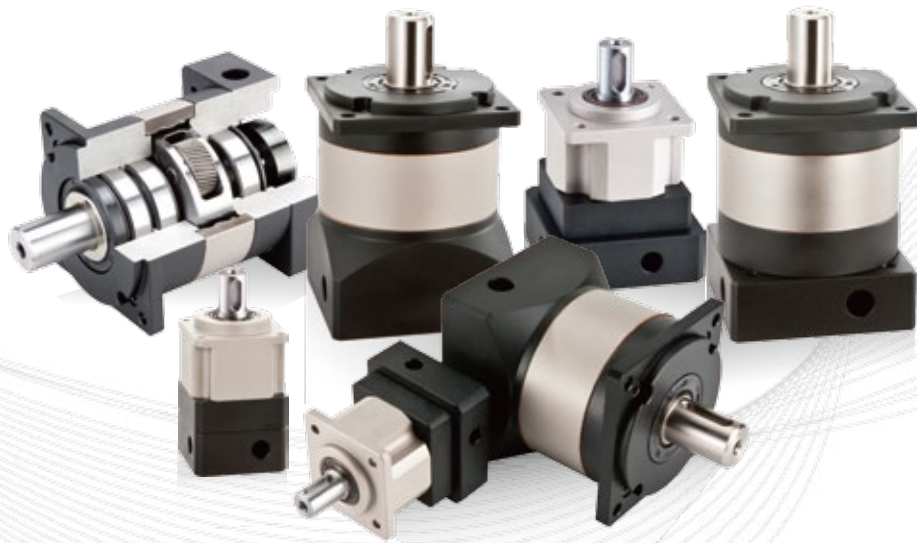


齒形、齒筋檢驗表  
Inspection Report of Gear Profile / Lead

## Automation Machining Equipment



SUNMAX REDUCER CO., LTD.



**Innovative R&D/Quality Guaranteed**

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# 產品技術 Product Technology

PF系列行星式減速機擁有二項多國專利之潤滑結構，運用在內螺旋齒輪結構,確保最高效率輸出。

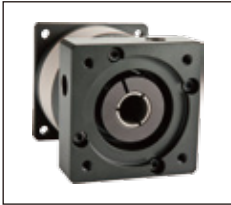
專利 1:降低行星齒輪運轉所產生的軸向推力。

專利 2:增加潤滑,降低磨擦阻力與噪音。

Two multinational patents has been obtained on the lubrication structure of PF series planetary reducers to ensure the highest output value.

Patent 1: To reduce axial thrust bearing from the running of gears.

Patent 2: To reduce frictional resistance and noise level.



## 馬達連接板模組化設計/Modularized motor adapter design

馬達連接板和軸套採用模組化設計，適用於任何廠牌、形式的伺服馬達。  
Motor adapter and bushing module are modularized designed, which applied to any brands, types of servomotors.



## 特殊的表面處理/Particular surface treatment

齒輪箱表面利用無電解鎳處理，馬達連接板採黑色陽極處理，提高環境的耐受性和抗腐蝕能力。  
Electroless Nickel deposition treatment and black anodizing treatment are employed to gear box surface and motor adapter module respectively. The tolerance to the environment and resistant to corrosion are enhanced.



## 合成複合皂基潤滑油脂/Synthetic complex soap grease

使用合成複合皂基潤滑油脂，長效潤滑不漏油、防銹、低噪音、低磨耗。  
Adopting synthetic complex soap grease to have longterm lubrication, leak-proof, antirust, low noise and low friction manufacturing process.



## 一體式結構/Integrated structure

行星臂架與輸出軸採一體式的結構設計，確保最大耐扭力剛性及穩定性。  
Integrated design of planet carrier and output shaft ensures the maximum torque stiffness and stability.



## 表面穩定的氣體氮化/Plasma nitriding heat treatment

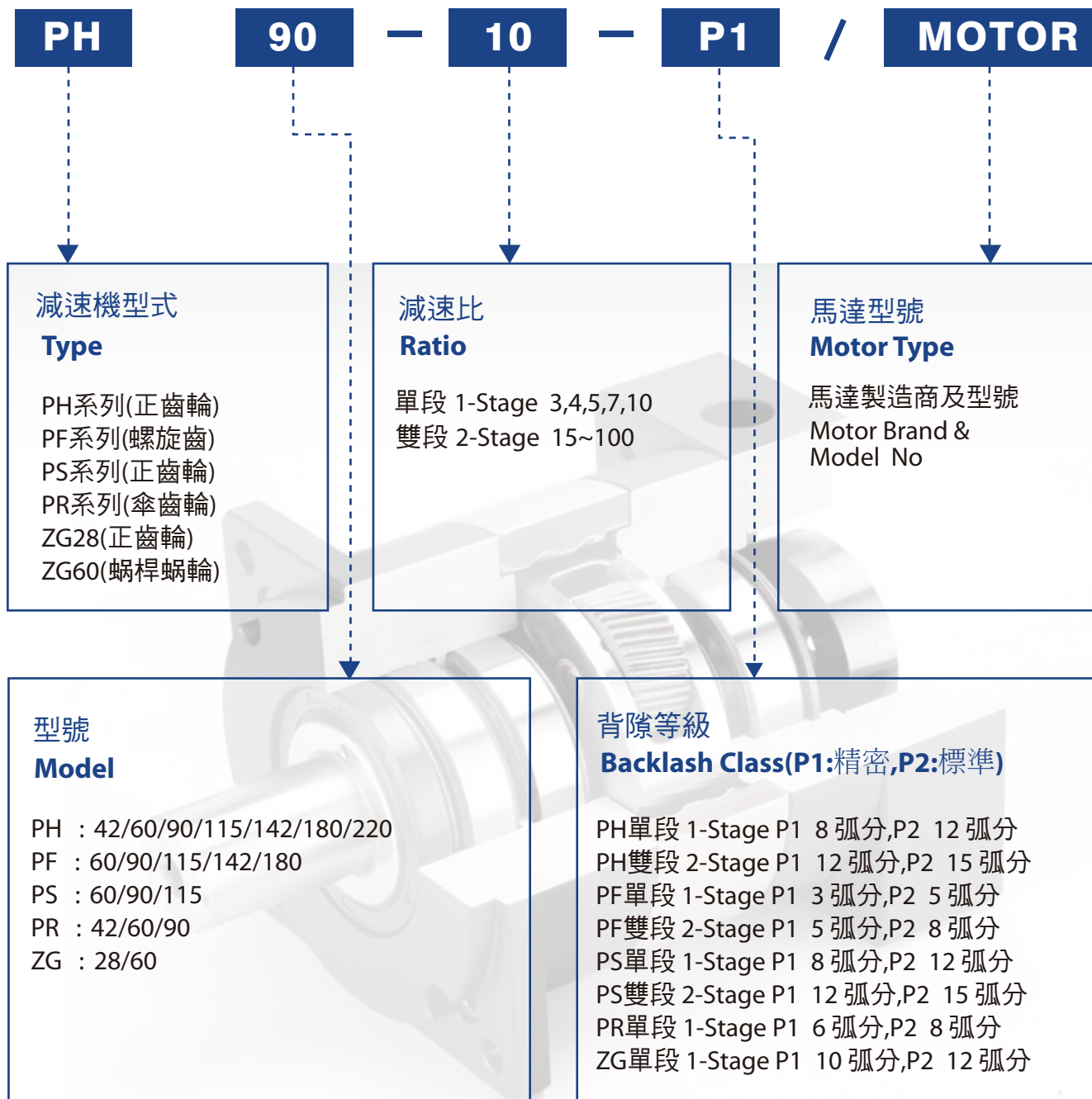
齒輪材料選用鉻鉬釩合金鋼，經調質熱處理至基材硬度25HRC，在利用氣體氮化設備將齒輪表面之硬度氮化至600HV，以獲得最佳的耐磨耗和耐衝擊韌性。  
To gain the best abrasion performance and impact resistance, Chromium Molybdenum Vanadium Alloy steel is selected as raw material. Accompany with quenching and tempering heat treatment process, the core hardness is increased to 25 HRC. Accompany with plasma nitriding heat treatment process, the surface hardness is increased to 600 HV.



## 螺旋齒輪設計/Helical gear design

減速機採用螺旋齒輪設計，其齒形啮合率為一般正齒輪的35%以上，具有運轉平順、高輸出扭矩和低背隙的特性。  
Adopting helical gear design, the contact ratio of planetary reducer is 35% higher than vertical one. Smooth running, high output torque and low backlash are distinguished features.

## 範例:PH90-10-P1 / MOTOR

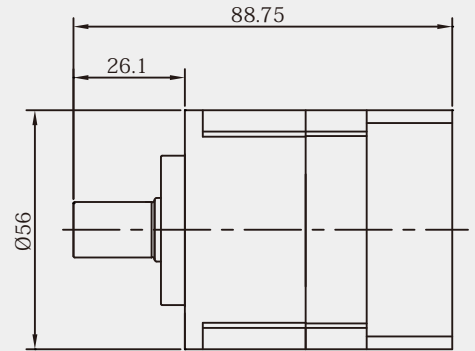
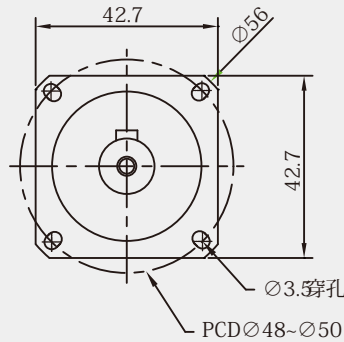
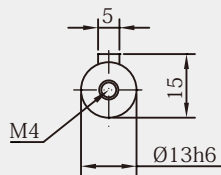


## High Precision Customized Manufacturing

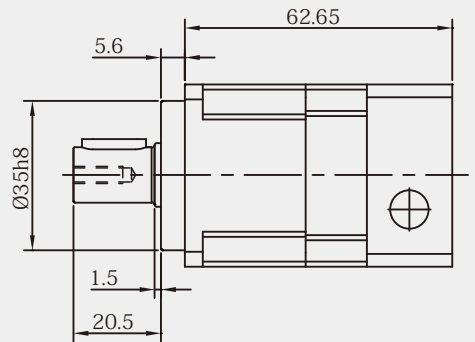


# PH42-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

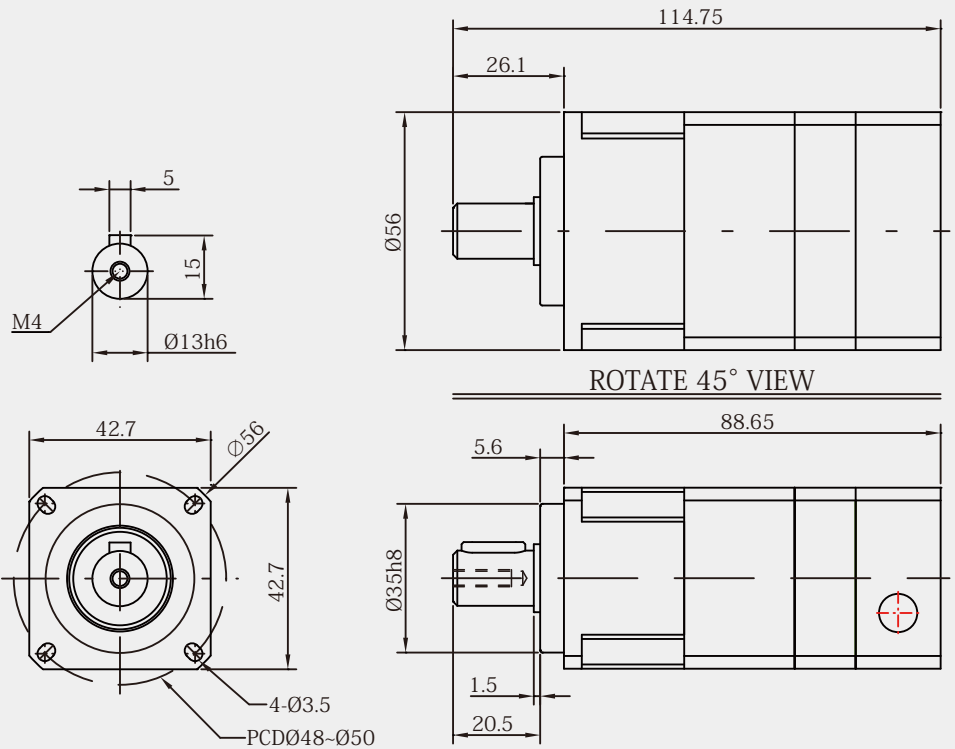
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	10.2Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	63dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	820N
最大軸向力 Max. Axial Load	411N
重量 Weight	1KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	14	12	14	12	9



# PH42-L2

## Double Stage Type



## 規格 SPECIFICATIONS

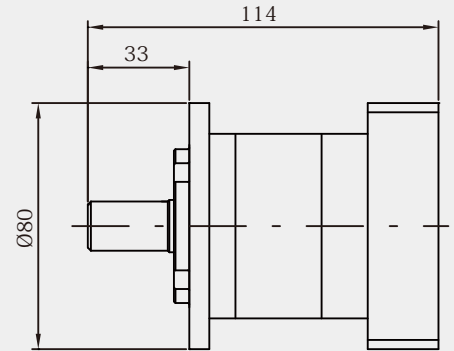
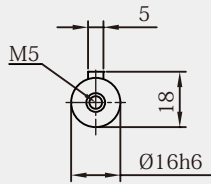
雙節式 Double Stage:	
減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥ 90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	10.2Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ + 90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60% Emergency Stop Torque
噪音值 Noise Level	63dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	820N
最大軸向力 Max. Axial Load	410N
重量 Weight	1.5KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	14	12	12	14	14	12	12	14	12	9

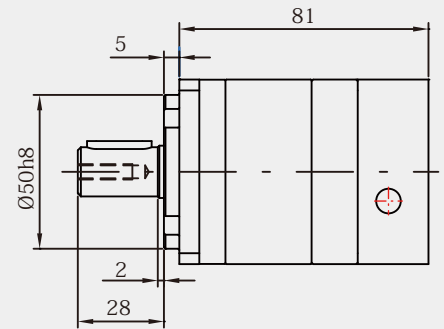
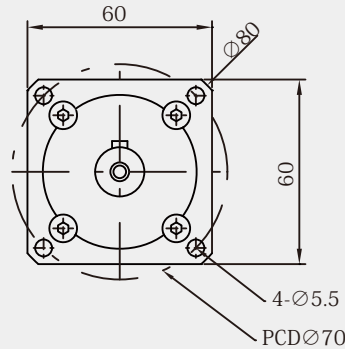


# PH60-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

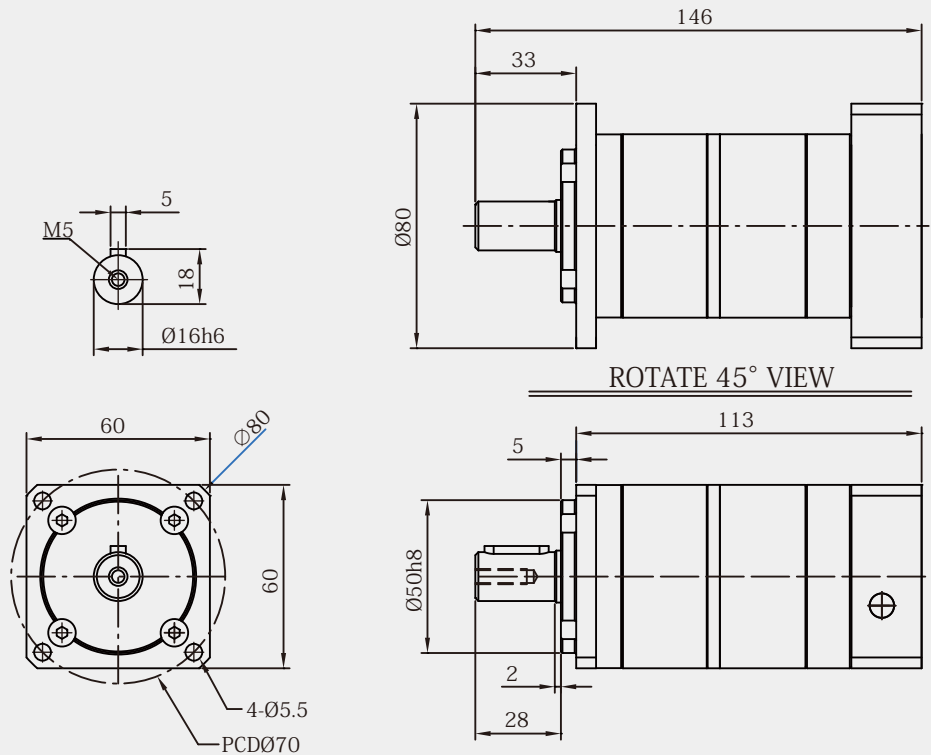
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	27.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	1379N
最大軸向力 Max. Axial Load	679N
重量 Weight	2.0KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	40	32	38	32	27



# PH60-L2

## Double Stage Type



### 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	27.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash	≤ 15 arcmin
最大徑向力 Max. Radial Load	1910N
最大軸向力 Max. Axial Load	956N
重量 Weight	3.5KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	39	32	32	39	39	33	31	39	33	25

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

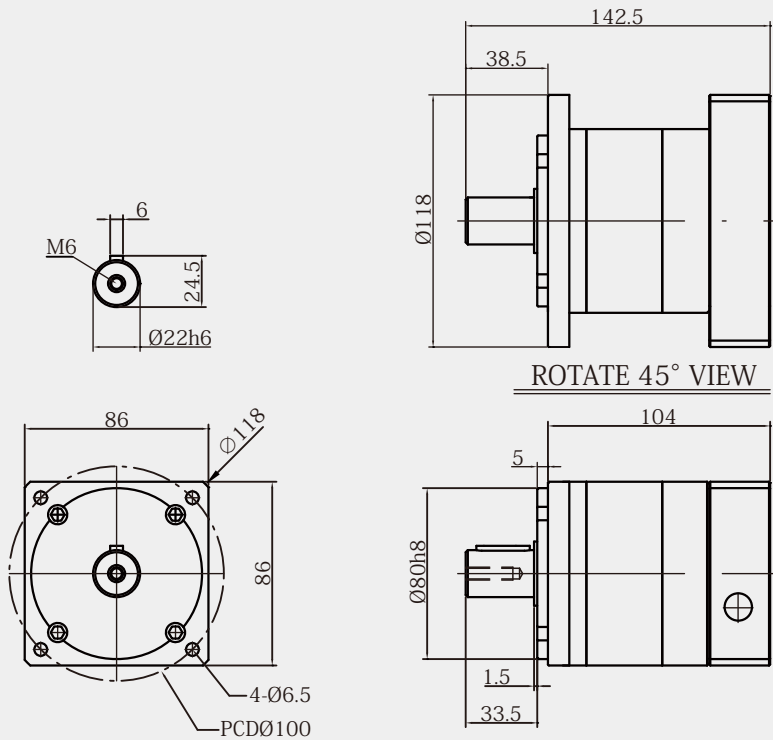
\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# PH90-L1

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

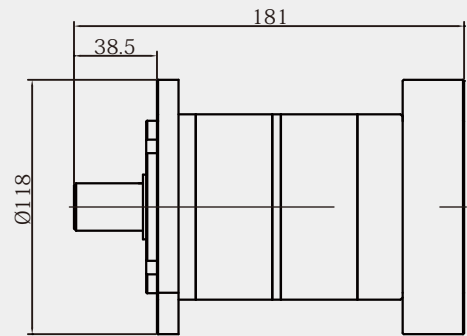
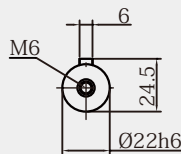
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	73.50Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	2060N
最大軸向力 Max. Axial Load	1030N
重量 Weight	4.0KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	104	85	104	91	65

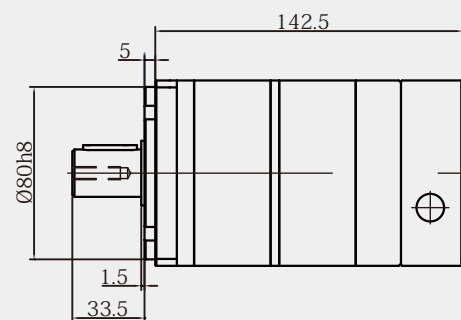
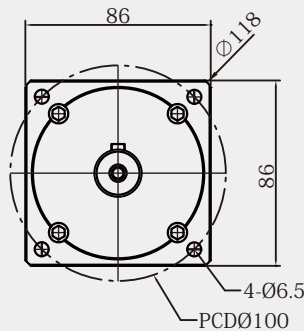


# PH90-L2

## Double Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≧90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	73.50Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≦ 12 arcmin
標準背隙 Standard Backlash P2	≦ 15 arcmin
最大徑向力 Max. Radial Load	2060N
最大軸向力 Max. Axial Load	1030N
重量 Weight	5.5KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	104	85	86	104	104	91	95	104	91	65

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

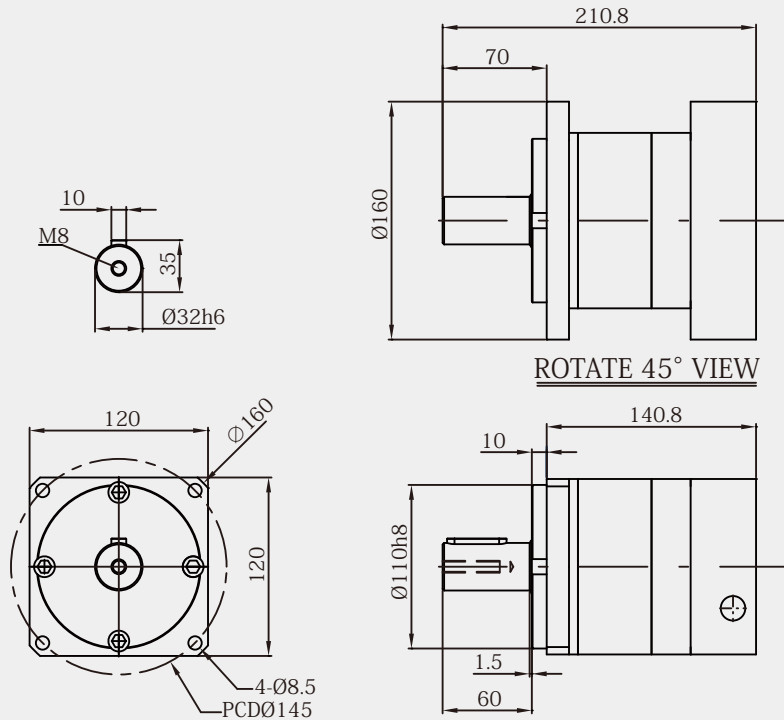
\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# PH115-L1

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

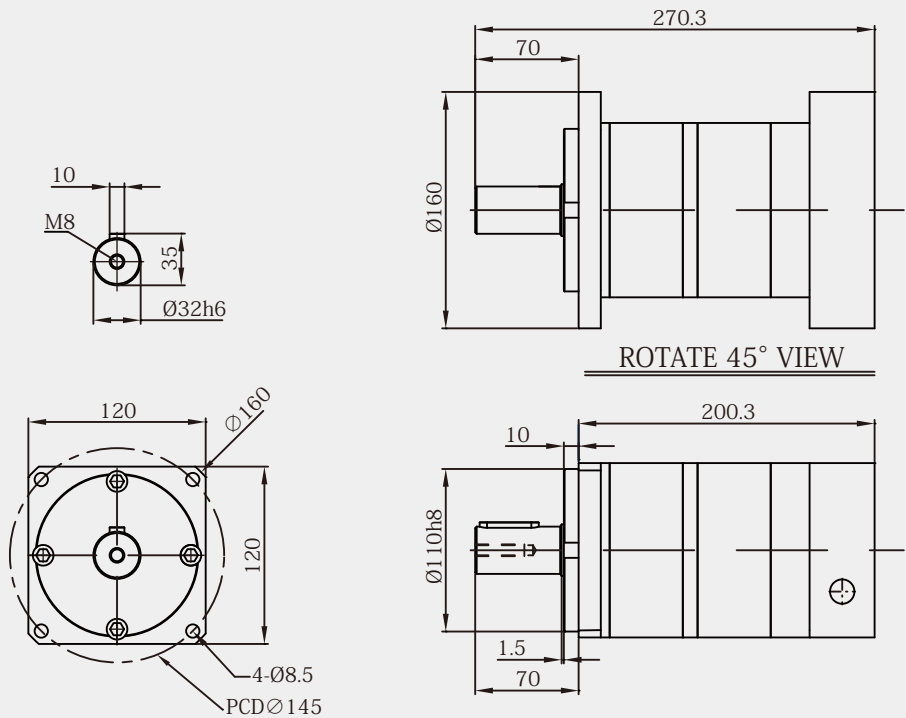
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2500rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	151.90Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	4146N
最大軸向力 Max. Axial Load	2082N
重量 Weight	10KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	215	178	216	196	149



# PH115-L2

## Double Stage Type



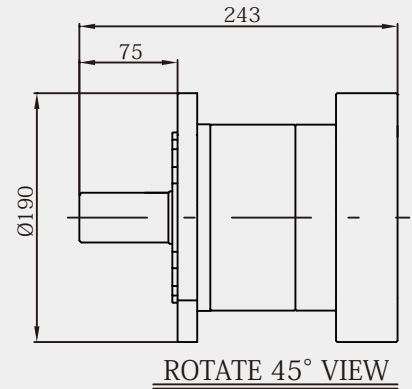
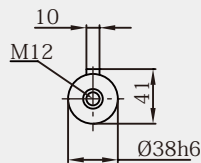
### 規格 SPECIFICATIONS

雙節式 Double Stage:	
減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2500rpm
效率 Efficiency	≥ 90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	151.90Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	4160N
最大軸向力 Max. Axial Load	2080N
重量 Weight	15KG

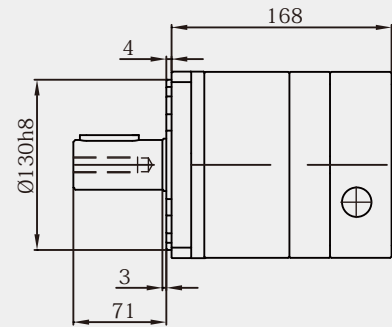
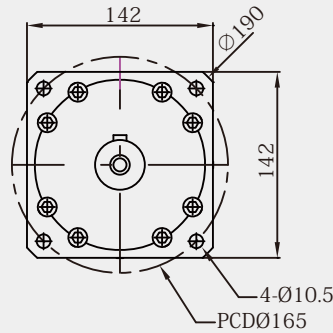
減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	215	176	178	216	214	195	177	214	195	150

# PH142-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

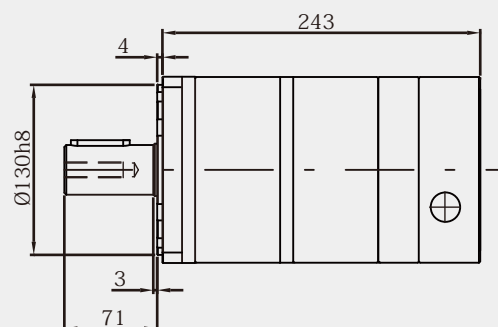
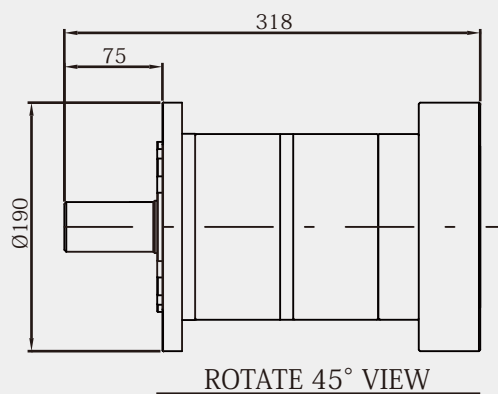
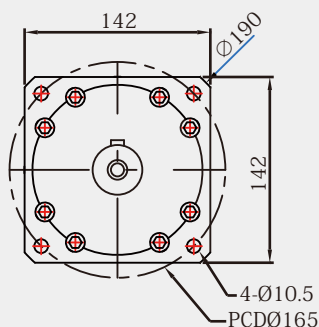
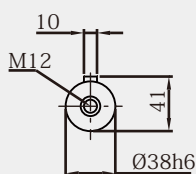
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	294.00Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	6450N
最大軸向力 Max. Axial Load	3226N
重量 Weight	13KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	422	363	425	360	295



# PH1 42-L2

## Double Stage Type



## 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	294.00Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	6450N
最大軸向力 Max. Axial Load	3226N
重量 Weight	20KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	424	365	365	423	423	358	365	424	360	294

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

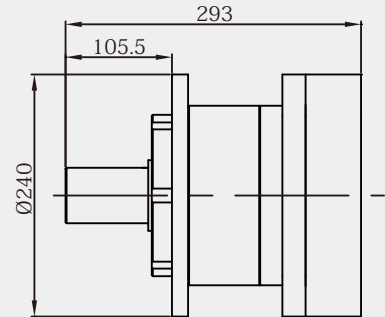
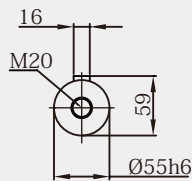
\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes

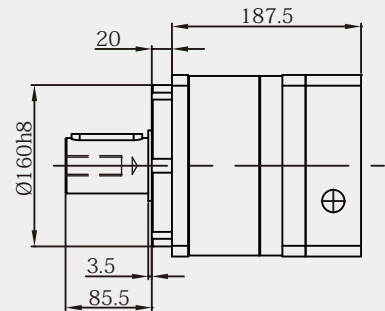
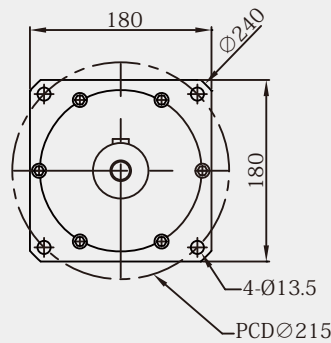


# PH180-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

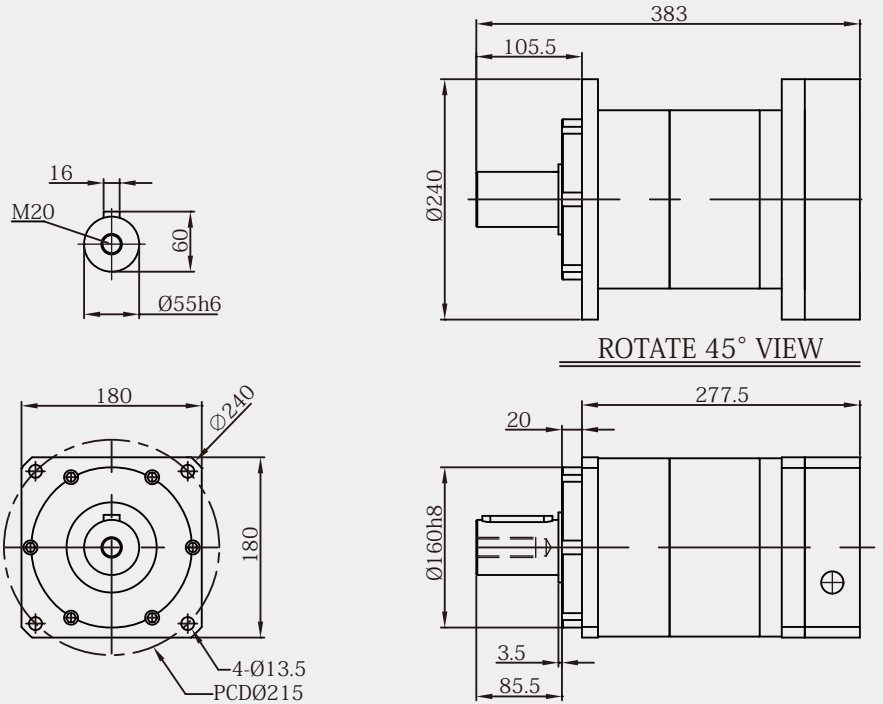
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	558.60Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	70dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	8015N
最大軸向力 Max. Axial Load	4371N
重量 Weight	25KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	1180	1090	1180	1092	780



# PH180-L2

## Double Stage Type



### 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	558.60Nm/arcm
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	70dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	8015N
最大軸向力 Max. Axial Load	4371N
重量 Weight	37KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	645	645	678	645	678	635	606	650	679	521

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

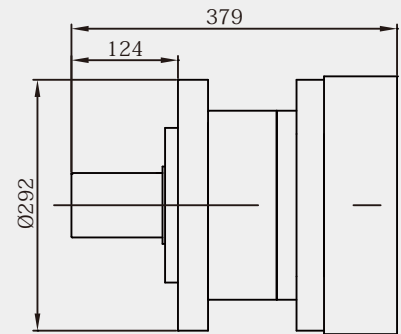
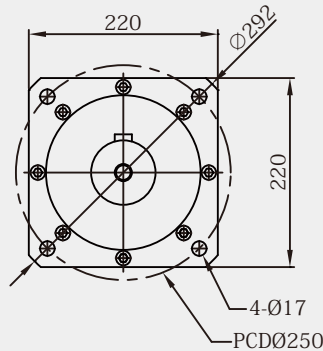
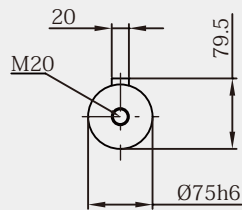
\* 噪音值(輸入:3000rpm; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes

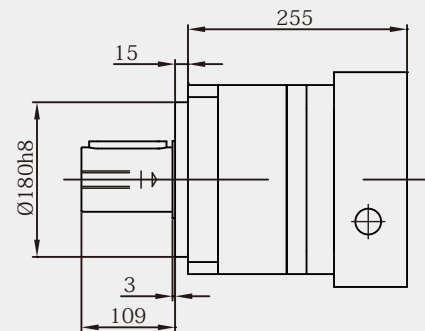


# PH220-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

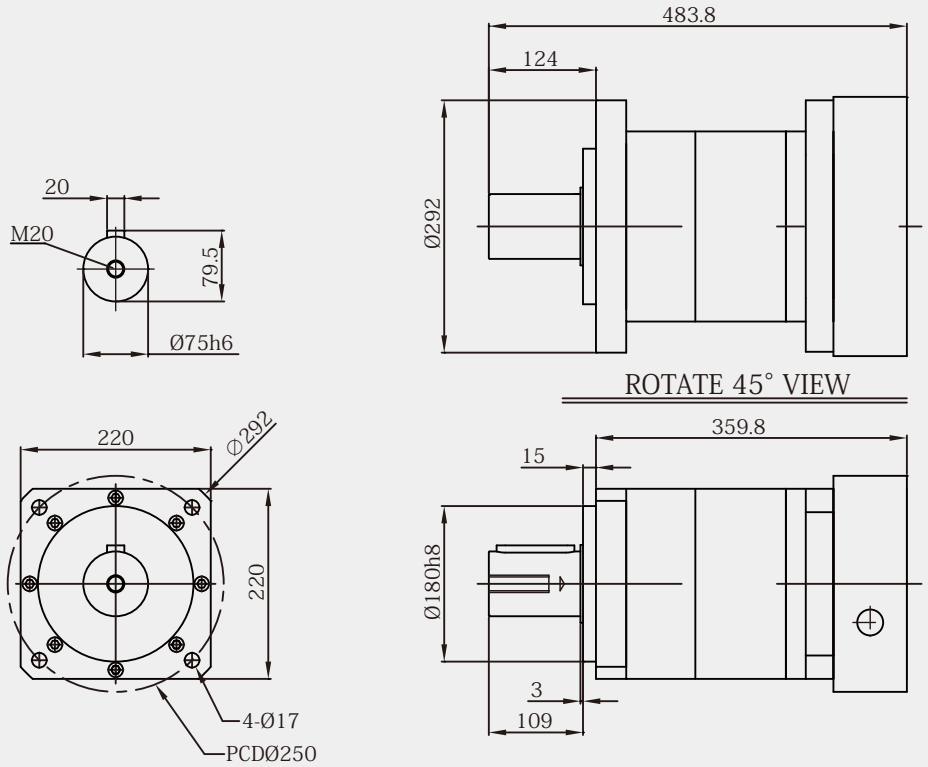
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	1,078.00Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	70dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	9820N
最大軸向力 Max. Axial Load	5639N
重量 Weight	55KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	1681	1573	1681	1573	1197



# PH220-L2

## Double Stage Type



### 規格 SPECIFICATIONS

雙節式 Double Stage:	
減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	1,078.00Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	70dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	9820N
最大軸向力 Max. Axial Load	5639N
重量 Weight	70KG

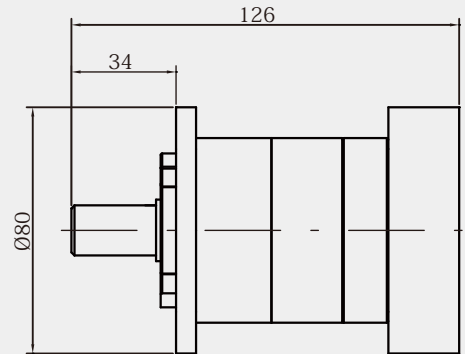
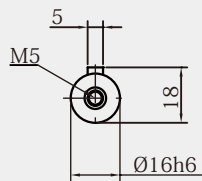
減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	1162	1103	1195	1167	1195	1172	1120	1167	1195	1033

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation  
 \* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)  
 \* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes

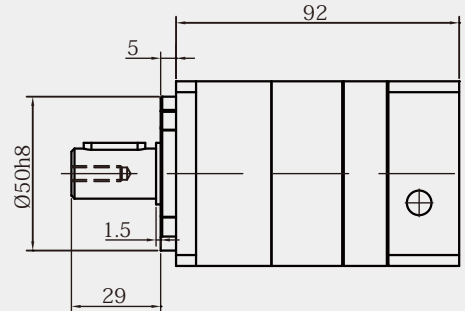
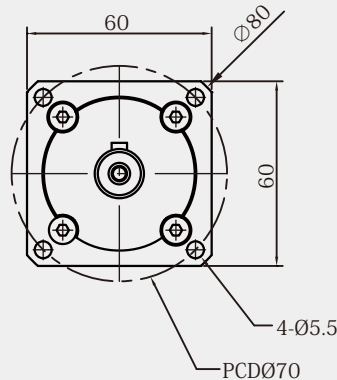


# PF60-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

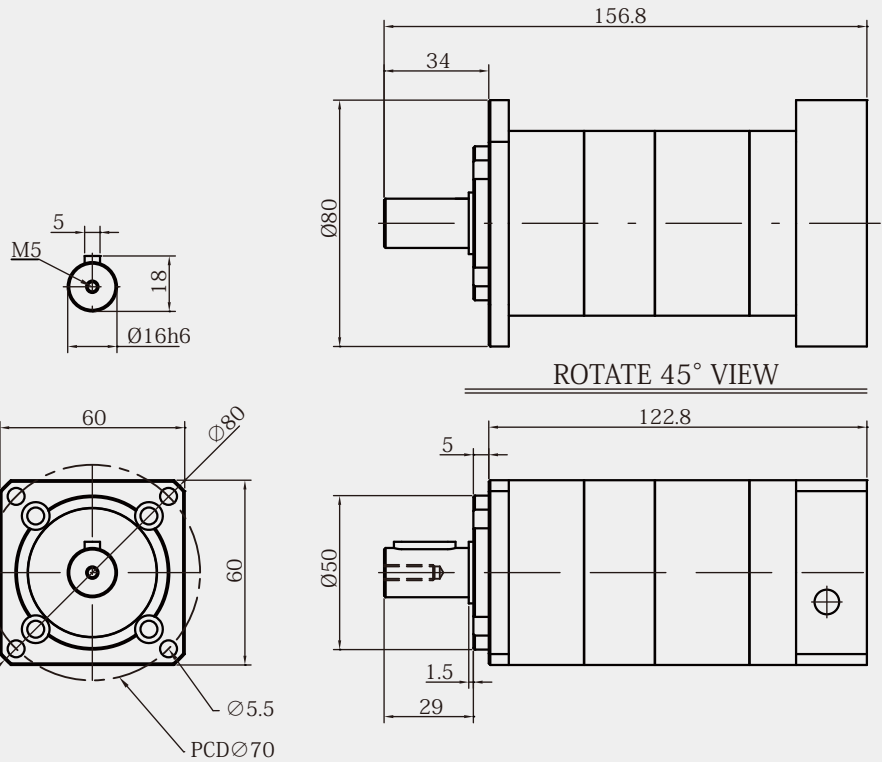
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥97%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	27.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	58dB/1m
精密背隙 High Precision Backlash P1	≤ 3 arcmin
標準背隙 Standard Backlash P2	≤ 5 arcmin
最大徑向力 Max. Radial Load	1910N
最大軸向力 Max. Axial Load	956N
重量 Weight	2KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	57	54	64	51	43



# PF60-L2

## Double Stage Type



### 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	27.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	58dB/1m
精密背隙 High Precision Backlash P1	≤ 5 arcmin
標準背隙 Standard Backlash P2	≤ 8 arcmin
最大徑向力 Max. Radial Load	1910N
最大軸向力 Max. Axial Load	956N
重量 Weight	3KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	45	45	45	45	30	37	30	30	30	30

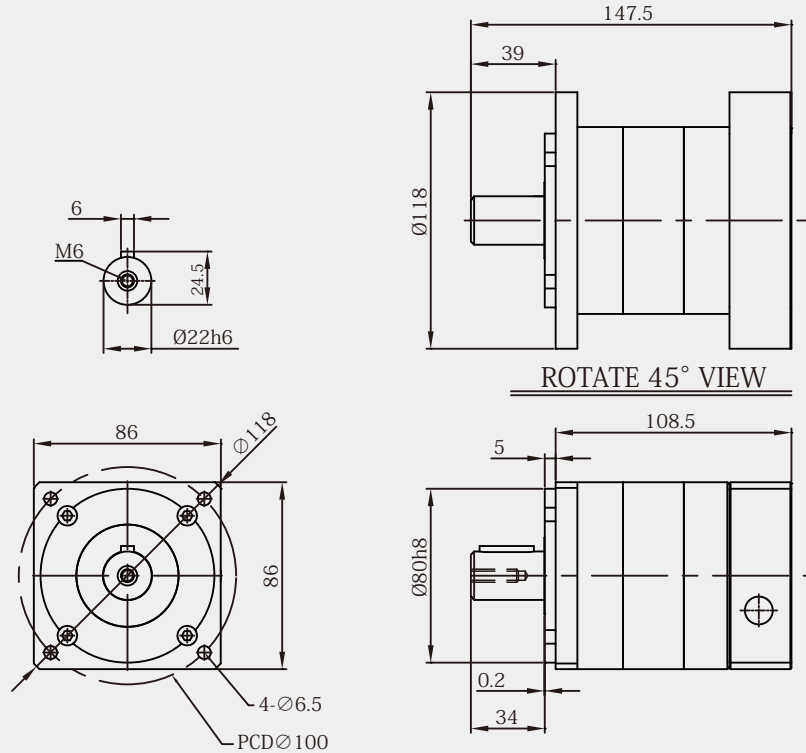
\* 連續運轉15,000小時 / 15,000 Hours Continuous Operation

\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes

# PF90-L1

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

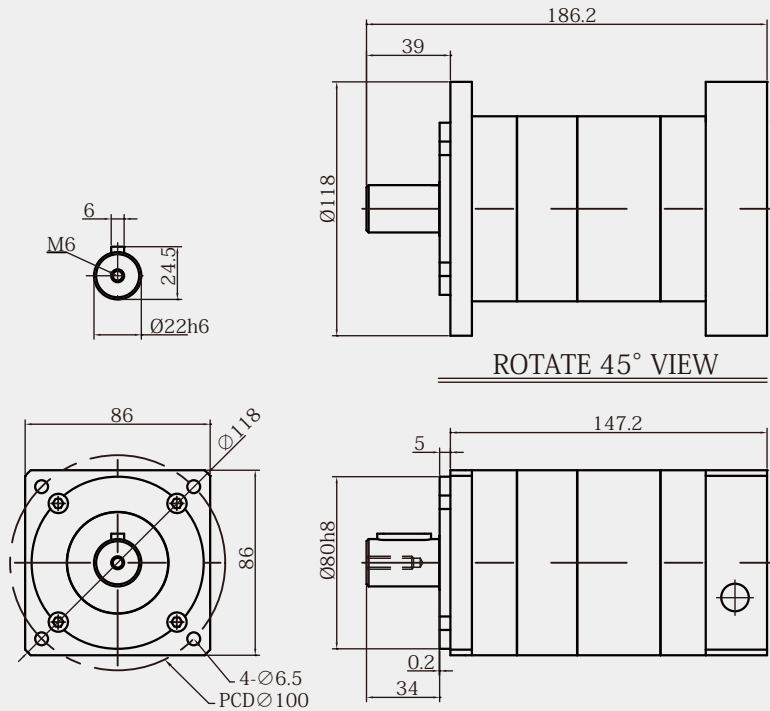
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≧ 97%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	73.5Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	60dB/1m
精密背隙 High Precision Backlash P1	≦ 3 arcmin
標準背隙 Standard Backlash P2	≦ 5 arcmin
最大徑向力 Max. Radial Load	2993N
最大軸向力 Max. Axial Load	1323N
重量 Weight	4KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	130	140	162	138	102



# PF90-L2

## Double Stage Type



### 規格 SPECIFICATIONS

雙節式 Double Stage:	
減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≧ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	73.5Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	60dB/1m
精密背隙 High Precision Backlash P1	≦ 5 arcmin
標準背隙 Standard Backlash P2	≦ 8 arcmin
最大徑向力 Max. Radial Load	2993N
最大軸向力 Max. Axial Load	1323N
重量 Weight	6.5KG

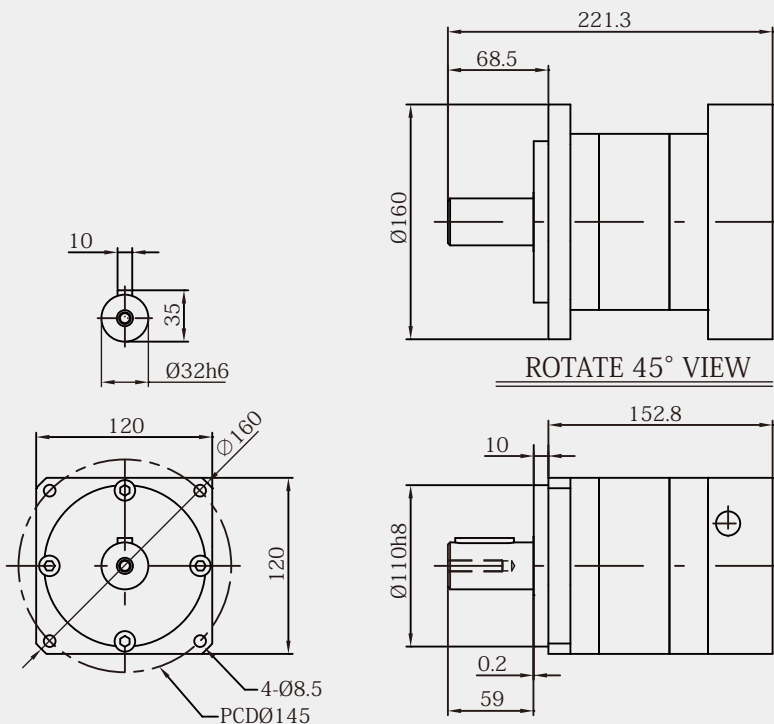
減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	120	120	150	120	75	105	75	75	75	75

\* 連續運轉15,000小時 / 15,000 Hours Continuous Operation  
 \* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)  
 \* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# PF115-L1

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

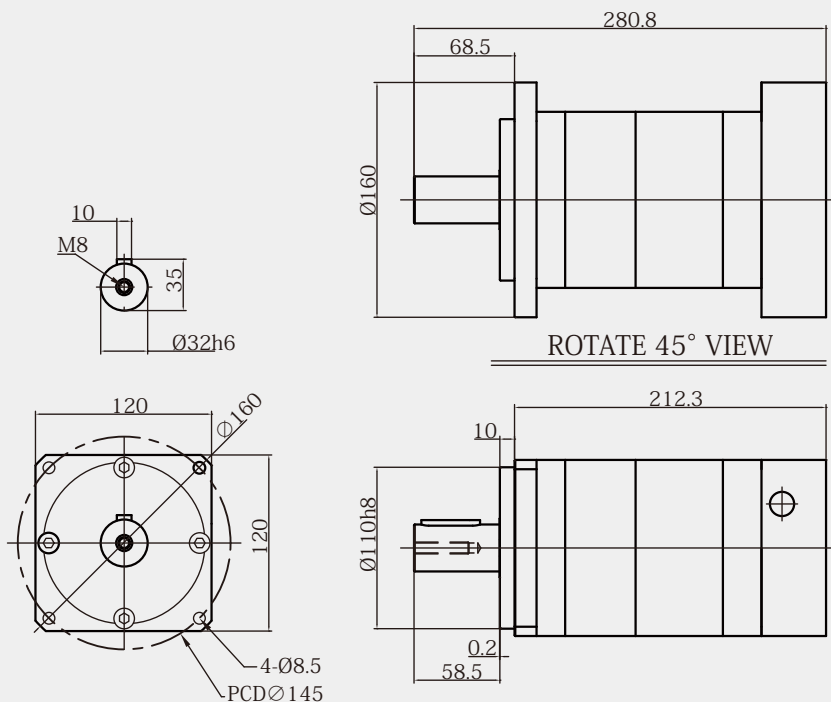
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 97%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	151.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	62dB/1m
精密背隙 High Precision Backlash P1	≤ 3 arcmin
標準背隙 Standard Backlash P2	≤ 5 arcmin
最大徑向力 Max. Radial Load	6100N
最大軸向力 Max. Axial Load	2982N
重量 Weight	10KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	209	287	337	289	228



# PF115-L2

## Double Stage Type



### 規格 SPECIFICATIONS

雙節式 Double Stage:	
減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	151.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	62dB/1m
精密背隙 High Precision Backlash P1	≤ 5 arcmin
標準背隙 Standard Backlash P2	≤ 8 arcmin
最大徑向力 Max. Radial Load	6100N
最大軸向力 Max. Axial Load	2982N
重量 Weight	15KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	250	250	265	265	255	260	230	230	230	230

\*連續運轉15,000小時 / 15,000 Hours Continuous Operation

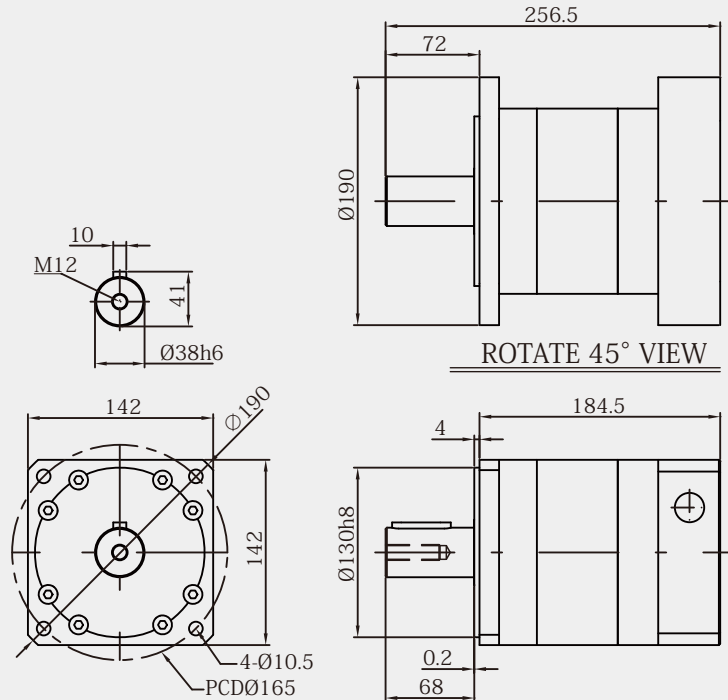
\*噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\*連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# PF1 42-L1

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

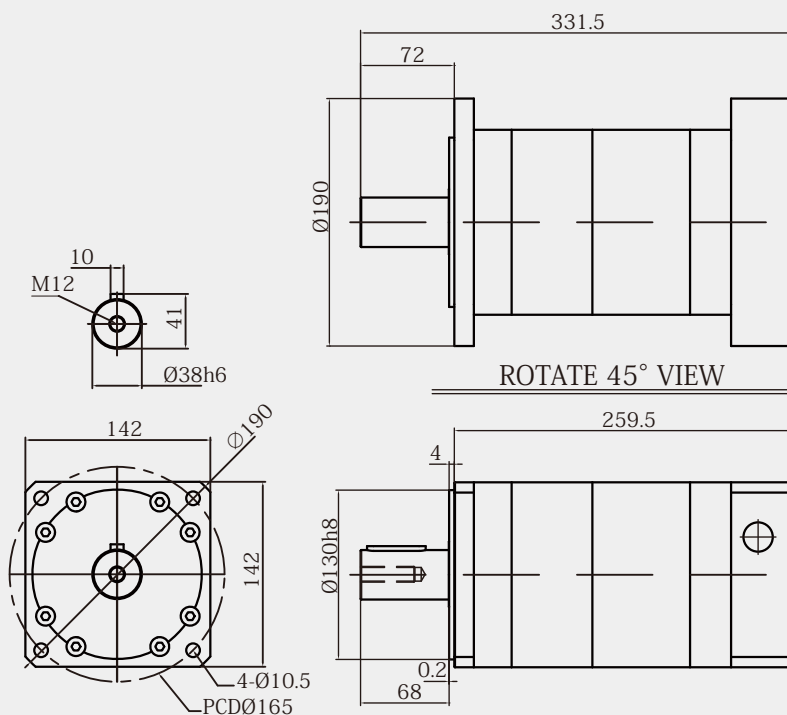
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 97%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	294Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 3 arcmin
標準背隙 Standard Backlash P2	≤ 5 arcmin
最大徑向力 Max. Radial Load	8477N
最大軸向力 Max. Axial Load	4110N
重量 Weight	15KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	342	542	651	556	453



# PF142-L2

## Double Stage Type



## 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	294Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 5 arcmin
標準背隙 Standard Backlash P2	≤ 8 arcmin
最大徑向力 Max. Radial Load	8477N
最大軸向力 Max. Axial Load	4110N
重量 Weight	21KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	480	480	540	540	400	470	400	400	400	400

\* 連續運轉15,000小時 / 15,000 Hours Continuous Operation

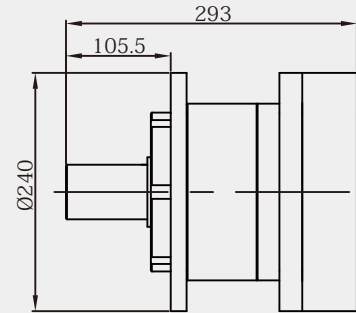
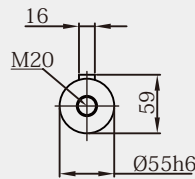
\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes

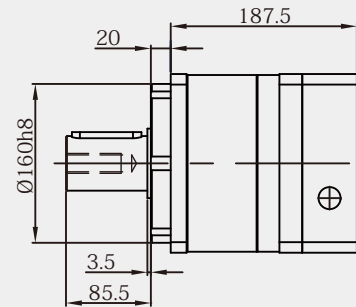
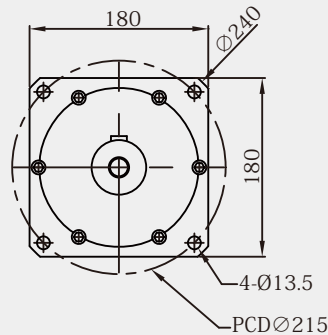


# PF180-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

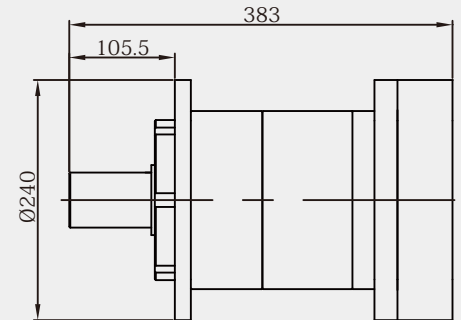
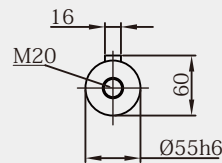
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≧97%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	558.6Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≦ 3 arcmin
標準背隙 Standard Backlash P2	≦ 5 arcmin
最大徑向力 Max. Radial Load	9015N
最大軸向力 Max. Axial Load	4371N
重量 Weight	25KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	1180	1090	1180	1092	780

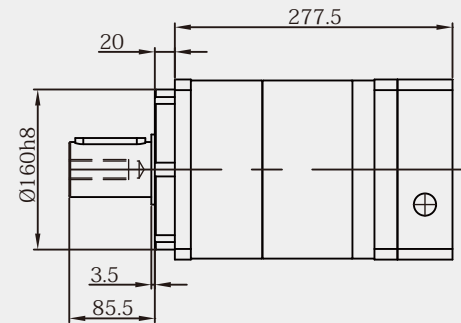
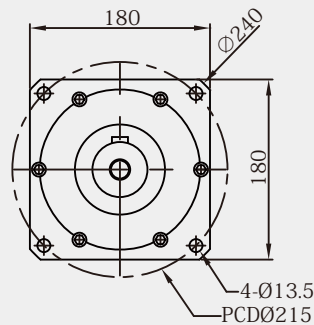


# PF180-L2

## Double Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	558.6Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 5 arcmin
標準背隙 Standard Backlash P2	≤ 8 arcmin
最大徑向力 Max. Radial Load	9015N
最大軸向力 Max. Axial Load	4371N
重量 Weight	37KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	800	800	1000	1050	800	960	800	800	800	800

\*連續運轉10,000小時 / 10,000 Hours Continuous Operation

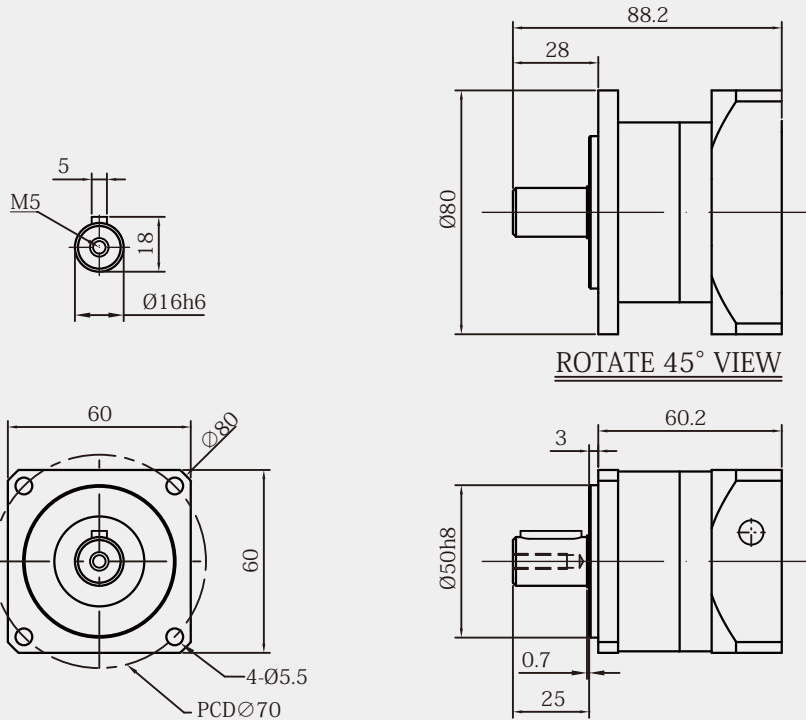
\*噪音值(輸入:3000rpm; 無負載下所得)/Noise Level (Input: 3000 rpm; No Load)

\*連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# PS60-L1

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

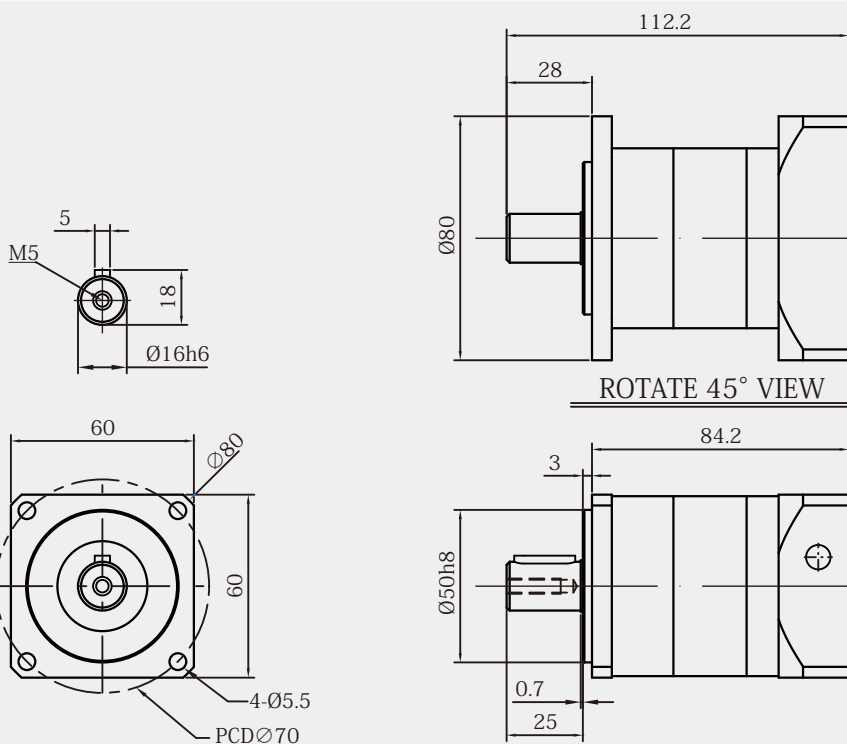
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥ 95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	24.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	1279N
最大軸向力 Max. Axial Load	579N
重量 Weight	1KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	38	30	36	30	25



# PS60-L2

## Double Stage Type



## 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	24.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	1810N
最大軸向力 Max. Axial Load	856N
重量 Weight	1.5KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	34	27	29	34	34	28	26	34	28	20

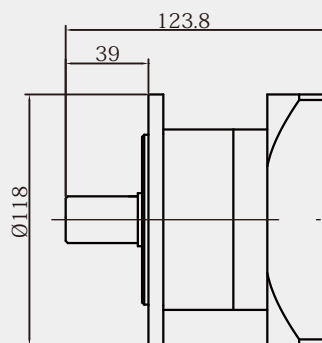
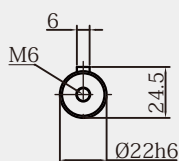
\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

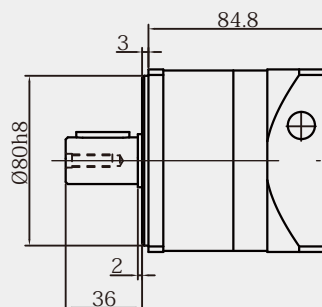
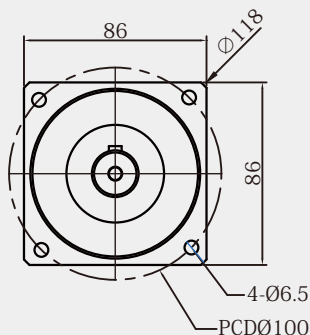
\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes

# PS90-L1

## Single Stage Type



ROTATE 45° VIEW



## 規格 SPECIFICATIONS

單節式 Single Stage:

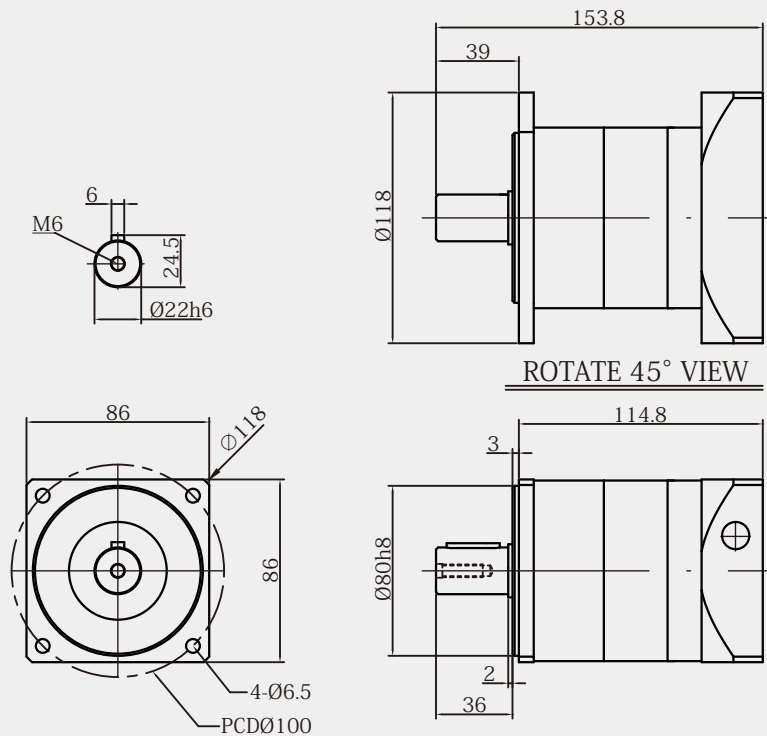
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	70.5Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	1860N
最大軸向力 Max. Axial Load	830N
重量 Weight	2.5KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	99	80	99	86	60



# PS90-L2

## Double Stage Type



### 規格 SPECIFICATIONS

雙節式 Double Stage:

減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	5000rpm
額定輸入轉速 Nominal Input Speed	3000rpm
效率 Efficiency	≥90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	70.5Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	1960N
最大軸向力 Max. Axial Load	930N
重量 Weight	4KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	99	80	81	99	99	86	90	99	86	60

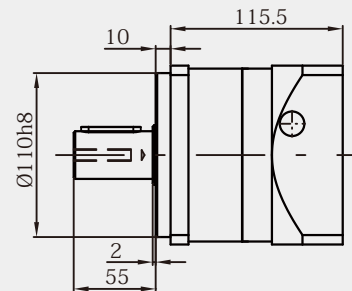
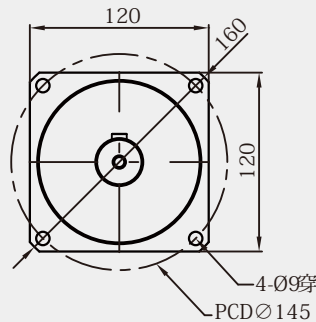
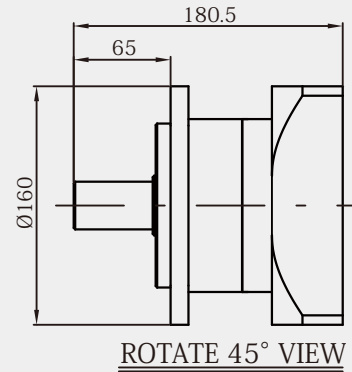
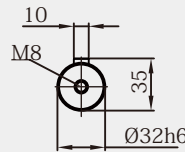
\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes

# PS115-L1

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

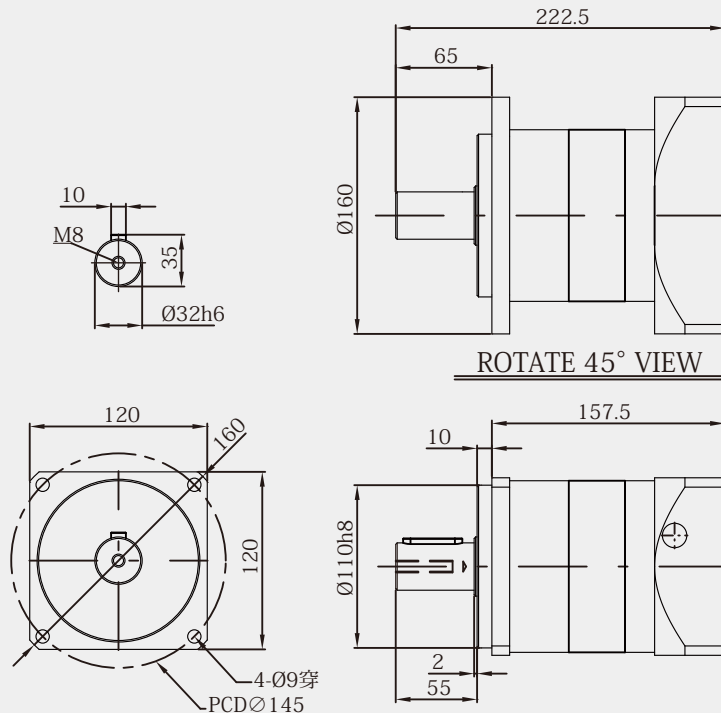
減速比 Gear Ratio	3, 4, 5, 7, 10
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥95%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	145.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 8 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	3946N
最大軸向力 Max. Axial Load	1882N
重量 Weight	7KG

減速比 Gear Ratio	3	4	5	7	10
額定輸出力矩 Nominal Output Torque N . m	210	173	211	191	144



# PS115-L2

## Double Stage Type



## 規格 SPECIFICATIONS

雙節式 Double Stage:

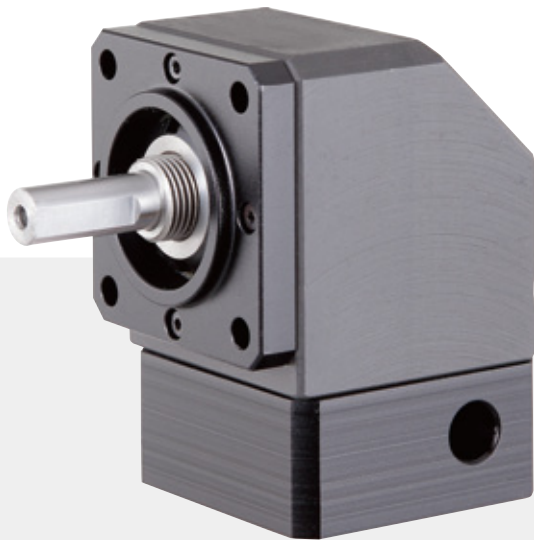
減速比 Gear Ratio	15, 16, 20, 25, 30, 35, 40, 50, 70, 100
最高輸入轉速 Max. Input Speed	4000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	145.9Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 12 arcmin
標準背隙 Standard Backlash P2	≤ 15 arcmin
最大徑向力 Max. Radial Load	3946N
最大軸向力 Max. Axial Load	1882N
重量 Weight	10KG

減速比 Gear Ratio	15	16	20	25	30	35	40	50	70	100
額定輸出力矩 Nominal Output Torque N . m	210	170	173	210	208	187	170	208	185	140

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

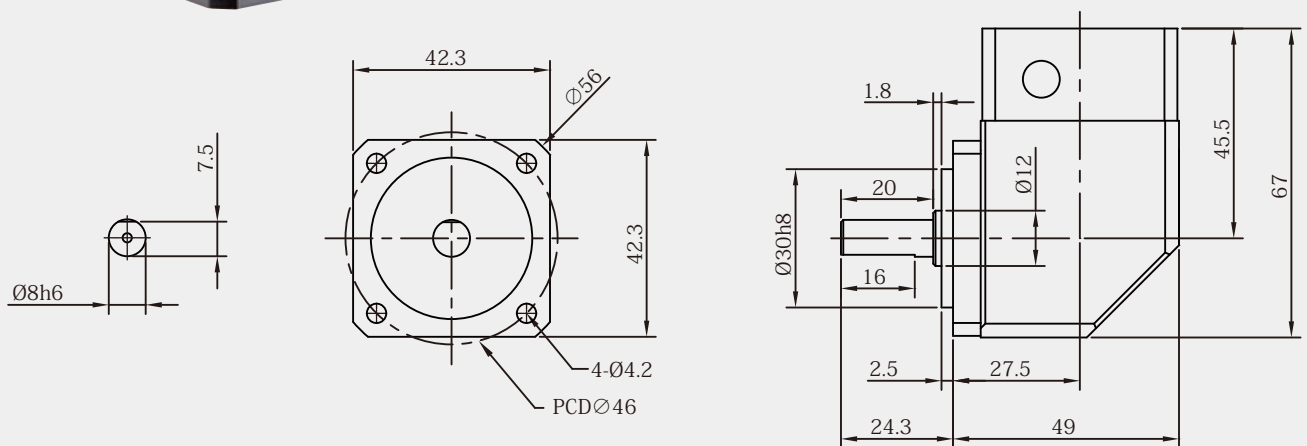
\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# PR42

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

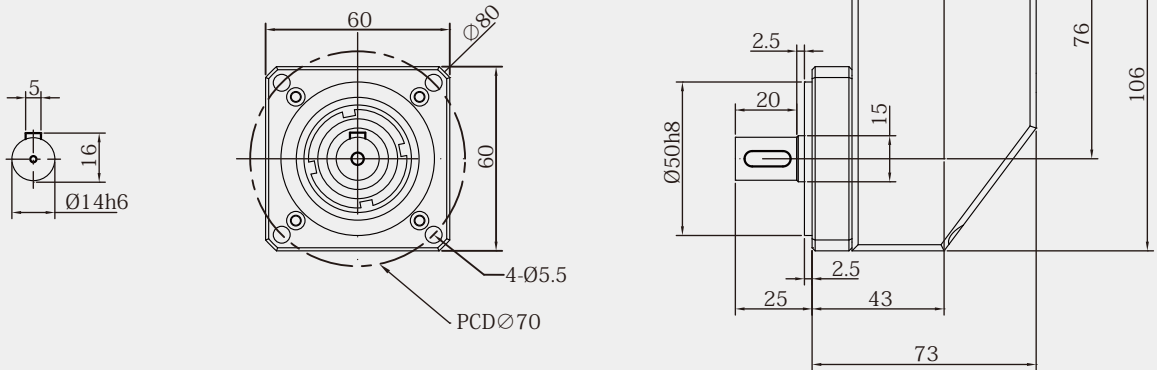
減速比 Gear Ratio	1, 2
最高輸入轉速 Max. Input Speed	3000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≧90%
使用壽命 Service Life	15,000小時 / 15,000 hours
最大輸出力矩 Max. Output Torque	1.5倍額定輸出力矩 / 1.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	2Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≧ 6 arcmin
標準背隙 Standard Backlash P2	≧ 8 arcmin
最大徑向力 Max. Radial Load	205N
最大軸向力 Max. Axial Load	100N
重量 Weight	1.5KG

減速比 Gear Ratio	1	2
額定輸出力矩 Nominal Output Torque N . m	8	5



# PR60

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

減速比 Gear Ratio	1, 2
最高輸入轉速 Max. Input Speed	3000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 90%
使用壽命 Service Life	15,000小時 / 15,000 hours
最大輸出力矩 Max. Output Torque	1.5倍額定輸出力矩 / 1.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	20Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 6 arcmin
標準背隙 Standard Backlash P2	≤ 8 arcmin
最大徑向力 Max. Radial Load	730N
最大軸向力 Max. Axial Load	430N
重量 Weight	2.5KG

減速比 Gear Ratio	1	2
額定輸出力矩 Nominal Output Torque N . m	20	15

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

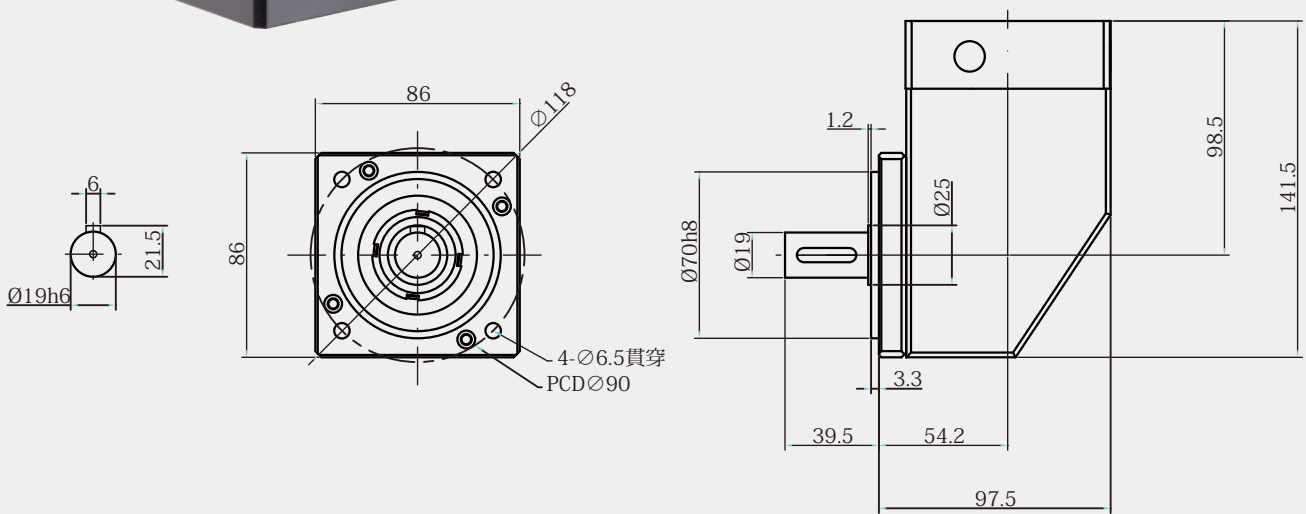
\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# PR90

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

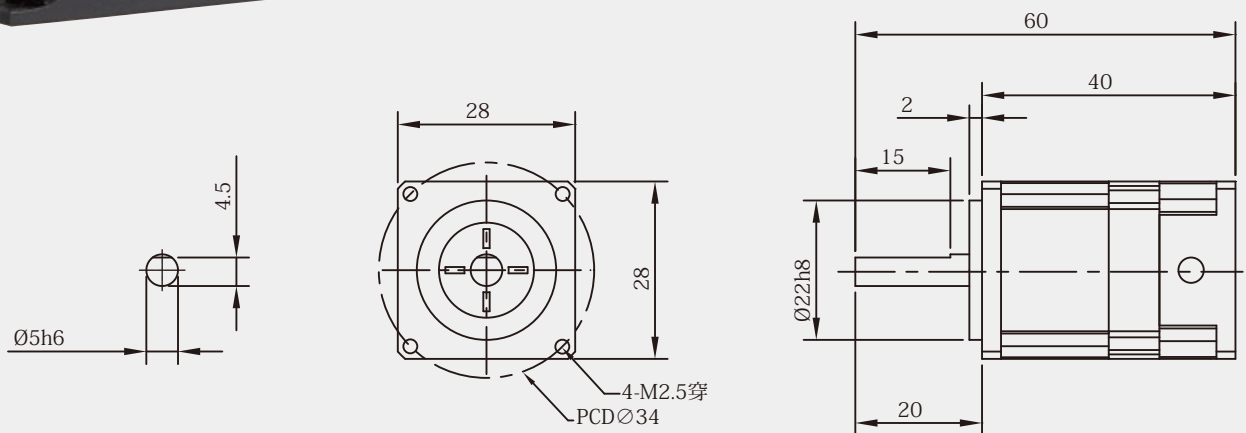
減速比 Gear Ratio	1, 2
最高輸入轉速 Max. Input Speed	3000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 90%
使用壽命 Service Life	15,000小時 / 15,000 hours
最大輸出力矩 Max. Output Torque	1.5倍額定輸出力矩 / 1.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	55Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +90°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	68dB/1m
精密背隙 High Precision Backlash P1	≤ 6 arcmin
標準背隙 Standard Backlash P2	≤ 8 arcmin
最大徑向力 Max. Radial Load	1430N
最大軸向力 Max. Axial Load	710N
重量 Weight	3.5KG

減速比 Gear Ratio	1	2
額定輸出力矩 Nominal Output Torque N . m	60	45



# ZG28

## Single Stage Type



## 規格 SPECIFICATIONS

單節式 Single Stage:

減速比 Gear Ratio	3, 4, 5
最高輸入轉速 Max. Input Speed	3000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≥ 90%
使用壽命 Service Life	15,000小時 / 15,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	3Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ + 70°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	60dB/1m
精密背隙 High Precision Backlash P1	≤ 10 arcmin
標準背隙 Standard Backlash P2	≤ 12 arcmin
最大徑向力 Max. Radial Load	225N
最大軸向力 Max. Axial Load	105N
重量 Weight	0.3KG

減速比 Gear Ratio	3	4	5
額定輸出力矩 Nominal Output Torque N . m	5	8	7

\* 連續運轉10,000小時 / 10,000 Hours Continuous Operation

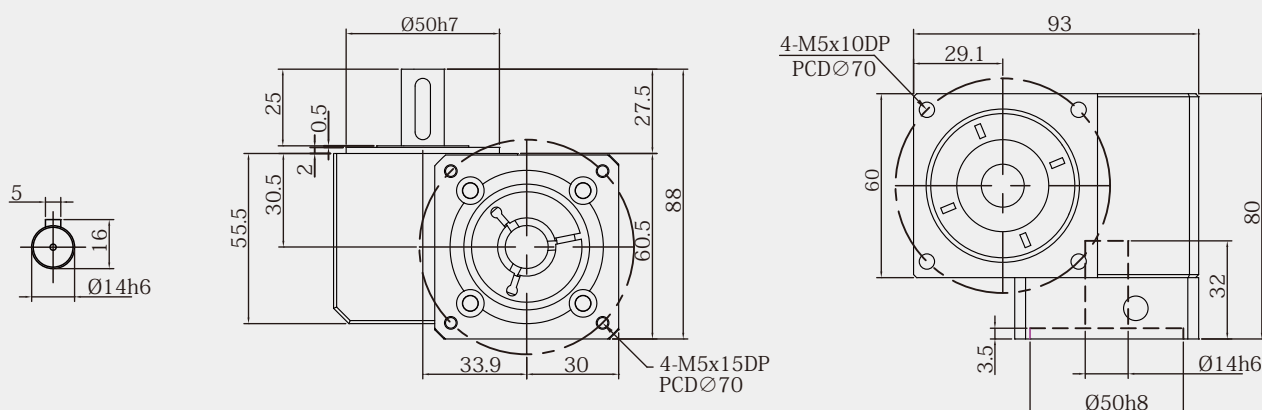
\* 噪音值(輸入:3000rpm ; 無負載下所得)/Noise Level (Input: 3000 rpm ; No Load)

\* 連接板視馬達尺寸製作 Connection plate is adjustable to motor sizes



# ZG60

## Single Stage Type



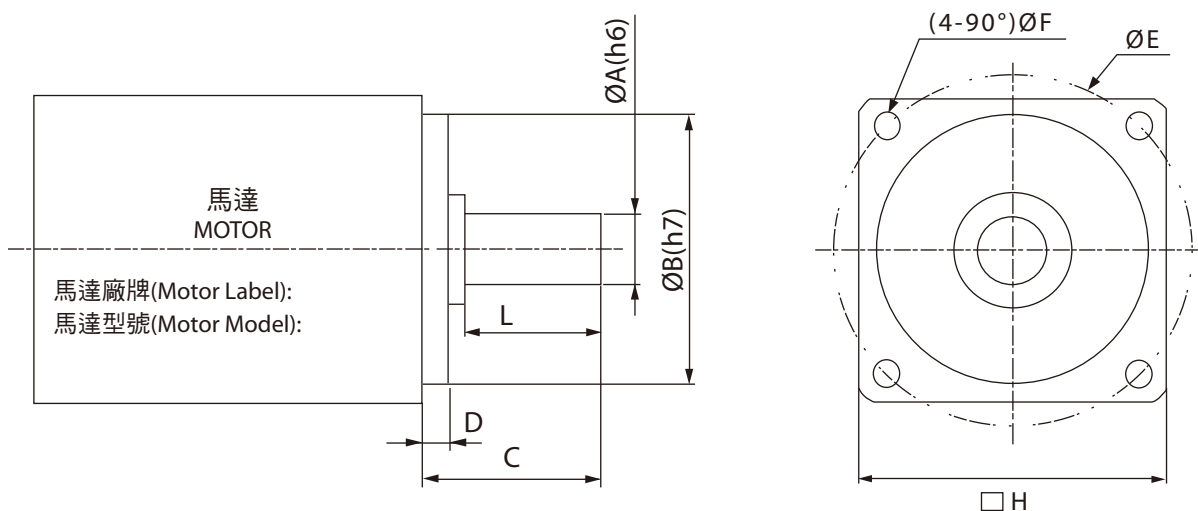
## 規格 SPECIFICATIONS

單節式 Single Stage:

減速比 Gear Ratio	10, 20
最高輸入轉速 Max. Input Speed	3000rpm
額定輸入轉速 Nominal Input Speed	2000rpm
效率 Efficiency	≧90%
使用壽命 Service Life	20,000小時 / 20,000 hours
最大輸出力矩 Max. Output Torque	2.5倍額定輸出力矩 / 2.5 Times Of Nominal Output Torque
安裝方向 Mounting Position	任意方向 / Any Direction
扭轉剛性 Torsional Rigidity	20Nm/arcmin
使用溫度 Operating Temp.	- 10°C ~ +70°C
急停扭矩 Emergency Stop Torque	三倍額定輸出力矩 / 3 Times Of Nominal Output Torque
潤滑 Lubrication	合成複合皂基潤滑油脂 / Synthetic Complex Soap Grease
最大加速扭矩 Max. Acceleration Torque	60%急停扭矩 / 60%Emergency Stop Torque
噪音值 Noise Level	65dB/1m
精密背隙 High Precision Backlash P1	≦ 10 arcmin
標準背隙 Standard Backlash P2	≦ 12 arcmin
最大徑向力 Max. Radial Load	840N
最大軸向力 Max. Axial Load	425N
重量 Weight	1.5KG

減速比 Gear Ratio	10	20
額定輸出力矩 Nominal Output Torque N . m	45	35

## 客戶馬達規格 CUSTOMER SPEC FORM



搭配馬達廠牌 ( Motor Lable ) :

馬達型號 ( Motor Model ) :

馬達軸外徑 Motor Shaft Dia.	馬達凸緣外徑 Flange Dia.	馬達軸長度 Motor Shaft Length	馬達凸緣高度 Flange Height	螺絲孔中心距 PCD of Bore	螺絲孔直徑 Bore Dia.	馬達面尺寸 Flange Square	馬達軸有效長 Actual Length of Motor Shaft
$\psi A (h6)$	$\psi B (h7)$	C	D	$\psi E$	$\psi F$	H	L

## 行星減速機訂購編號

	—		—		—		—	
減速機型 TYPE		型號 MODEL		速比 RADIO		背隙等級 BACKLASH CLASS		馬達型號 MOTOR TYPE

公司名稱 Company Name/	聯絡人 Contact Person/	
地址 Address/		
電話 Tel/	傳真 Fax/	電子信箱 E-Mail/
備註 Remarks/		

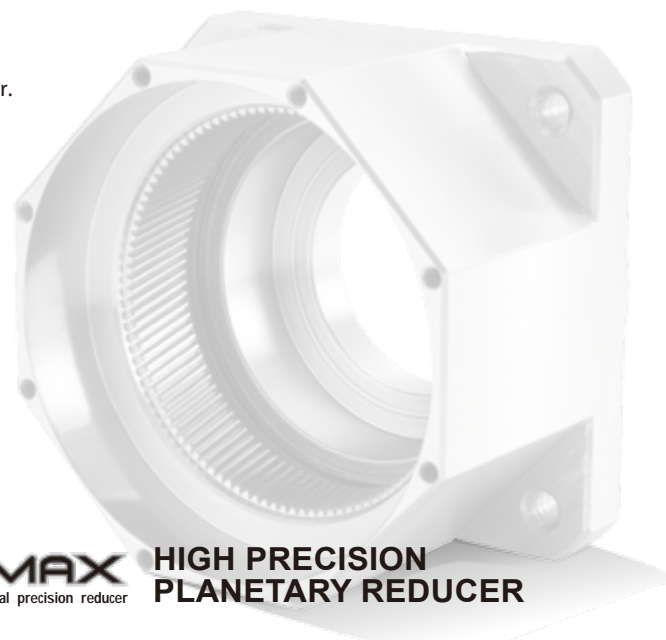
# 減速機選用參考表 Reducer Selection Table

## 減速機選用參考表依據伺服馬達輸出功率選擇 Reducer Select of Table (by power of servo-motor)

馬達功率 POWER	減速機型號 MODEL	減速比 RATIO														
		3	4	5	7	10	15	16	20	25	30	35	40	50	70	100
50W~100W	42	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	50	◎	◎	◎	◎	◎										
50W~400W	60	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	75	◎	◎	◎	◎	◎										
200W~1.3KW	90	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
500W~1.5KW	115	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
0.75KW~3.5KW	142	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
1.2KW~5.5KW	180	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
1.5KW~7.5KW	220	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

備註 Remark :

1. 可依馬達輸出功率選用該減速比有"◎"記號之減速機型號。  
Ratio with mark"◎" can be choice by motor output power.
2. 當應用於扭矩或慣性較大時，需選用較大減速機型號。  
For larger moment inertia and torque,need upgrade to bigger reducer.



**HIGH PRECISION  
PLANETARY REDUCER**



經銷商/AGENT

