

## 型號說明 / MODEL

| GP <small>ER</small> | 090        | - | 10K                    | - | ( $\square$ - $\square$ - $\square$ - $\square$ ) | - | $\square$             |
|----------------------|------------|---|------------------------|---|---------------------------------------------------|---|-----------------------|
| 系列代碼<br>Series       | 規格<br>Size |   | 減速比<br>Ratio           |   | 輸入端安裝尺寸<br>Input mounting size                    |   | 非標定製<br>Customization |
|                      |            |   | 雙級<br>Double<br>( L2 ) |   |                                                   |   |                       |
|                      |            |   | 單級<br>Single<br>( L1 ) |   |                                                   |   |                       |
|                      |            |   | 3K                     |   |                                                   |   |                       |
|                      |            |   | 4K                     |   |                                                   |   |                       |
|                      |            |   | 5K                     |   |                                                   |   |                       |
|                      |            |   | 7K                     |   |                                                   |   |                       |
| 070                  |            |   | 10K                    |   |                                                   |   |                       |
| 090                  |            |   | 14K                    |   |                                                   |   |                       |
| 120                  |            |   | 20K                    |   |                                                   |   |                       |
| 155                  |            |   |                        |   |                                                   |   |                       |

依據馬達連接尺寸確認  
According to the motor connection size

|   |                                         |
|---|-----------------------------------------|
| a | 馬達輸出軸直徑<br>Motor Shaft diameter         |
| b | 馬達止口直徑<br>Motor Spigot diameter         |
| c | 馬達安裝孔 PCD<br>Motor Mounting Hole PCD    |
| d | 馬達安裝螺紋孔<br>Motor mounting threaded hole |

例 Example : ( 19-70-90-M5 )

依據尺寸圖確認  
According to the drawing  
空白 : 標準品  
Blank : Standard

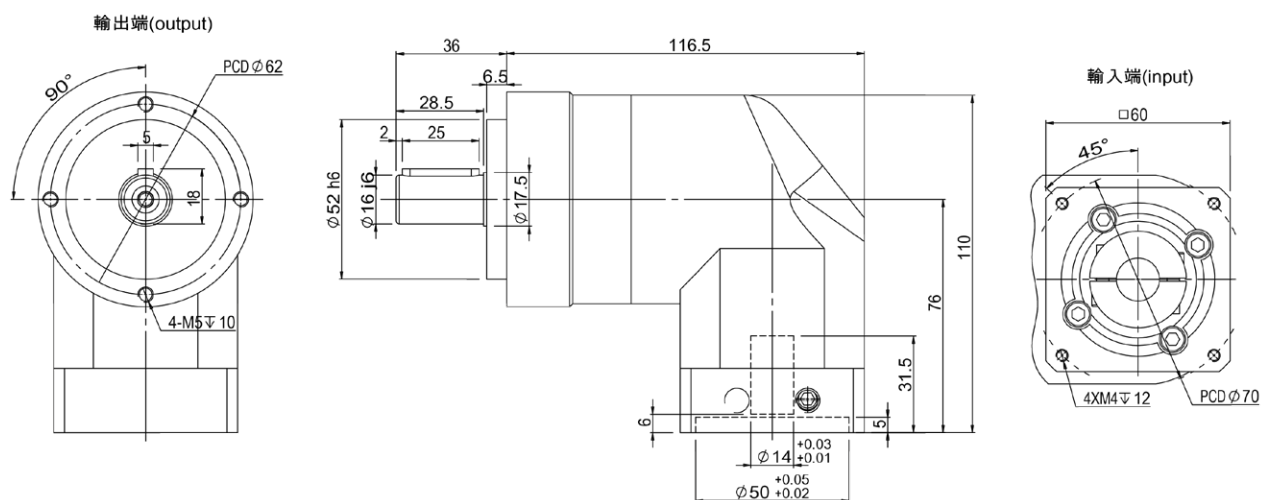
## 轉動慣量總表 / MOMENT OF INERTIA

| 規格<br>specification             | 級數<br>stage | 減速比<br>Ratio | GP <small>ER</small> 070 | GP <small>ER</small> 090 | GP <small>ER</small> 120 | GP <small>ER</small> 155 |
|---------------------------------|-------------|--------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 轉動慣量 J1<br>Moment of inertia J1 | 1           | 3K           | 0.35                     | 2.25                     | 6.84                     | 23.4                     |
|                                 |             | 4K           | 0.35                     | 2.25                     | 6.84                     | 23.4                     |
|                                 |             | 5K           | 0.35                     | 2.25                     | 6.84                     | 23.4                     |
|                                 |             | 7K           | 0.35                     | 2.25                     | 6.84                     | 23.4                     |
|                                 |             | 10K          | 0.35                     | 2.25                     | 6.84                     | 23.4                     |
|                                 |             | 14K          | 0.07                     | 1.87                     | 6.25                     | 21.8                     |
|                                 |             | 20K          | 0.07                     | 1.87                     | 6.25                     | 21.8                     |
|                                 | 2           | 15K          | 0.35                     | 2.25                     | 6.84                     | 23.4                     |
|                                 |             | 25K          | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 30K          | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 35K          | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 40K          | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 50K          | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 70K          | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 80K          | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 100K         | 0.09                     | 0.35                     | 2.25                     | 6.84                     |
|                                 |             | 140K         | 0.01                     | 0.31                     | 1.87                     | 6.25                     |
|                                 |             | 200K         | 0.01                     | 0.31                     | 1.87                     | 6.25                     |

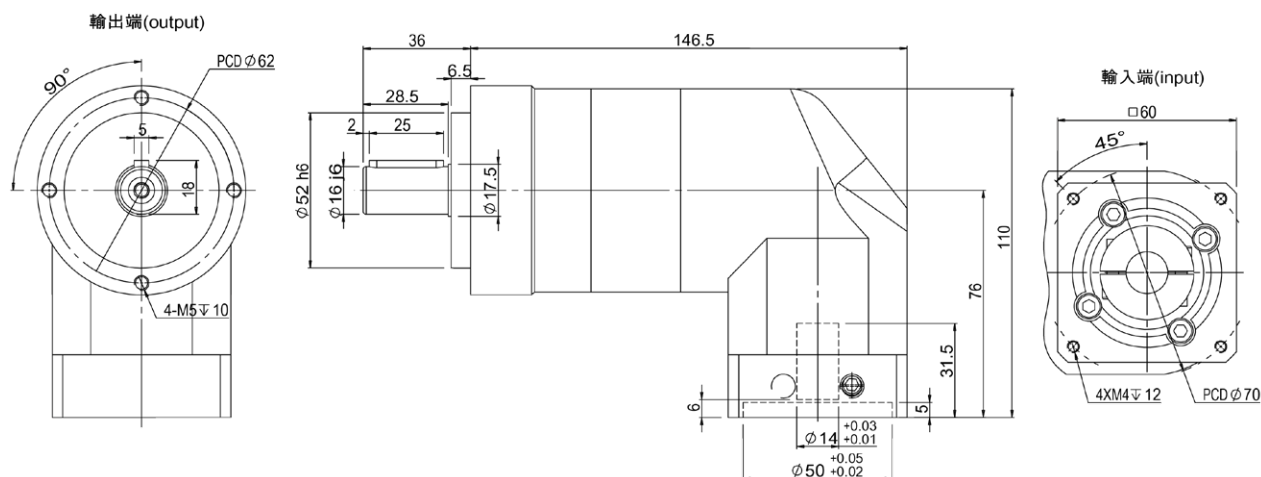
## 減速機性能資料 / PERFORMANCE

| 規格<br>specification                                                                 |           | 節數<br>stage | 減速比<br>ratio | GP070                                  | GP090 | GP120 | GP155 |
|-------------------------------------------------------------------------------------|-----------|-------------|--------------|----------------------------------------|-------|-------|-------|
| 額定輸出力矩 $T_{2N}$<br>Rated output torque $T_{2N}$                                     | Nm        | 1           | 3K           | 36                                     | 90    | 195   | 342   |
|                                                                                     |           |             | 4K           | 48                                     | 120   | 260   | 520   |
|                                                                                     |           |             | 5K           | 60                                     | 150   | 325   | 650   |
|                                                                                     |           |             | 7K           | 50                                     | 140   | 300   | 550   |
|                                                                                     |           |             | 10K          | 40                                     | 100   | 230   | 450   |
|                                                                                     |           |             | 14K          | 50                                     | 140   | 300   | 550   |
|                                                                                     |           |             | 20K          | 40                                     | 100   | 230   | 450   |
|                                                                                     |           | 2           | 15K          | 60                                     | 150   | 325   | 650   |
|                                                                                     |           |             | 25K          | 60                                     | 150   | 325   | 650   |
|                                                                                     |           |             | 30K          | 55                                     | 150   | 310   | 600   |
|                                                                                     |           |             | 35K          | 50                                     | 140   | 300   | 550   |
|                                                                                     |           |             | 40K          | 45                                     | 120   | 260   | 500   |
|                                                                                     |           |             | 50K          | 60                                     | 100   | 230   | 650   |
|                                                                                     |           |             | 70K          | 50                                     | 140   | 300   | 550   |
|                                                                                     |           |             | 80K          | 45                                     | 120   | 260   | 500   |
|                                                                                     |           |             | 100K         | 40                                     | 100   | 230   | 450   |
|                                                                                     |           |             | 140K         | 50                                     | 140   | 300   | 550   |
|                                                                                     |           |             | 200K         | 40                                     | 100   | 230   | 450   |
| 急停扭矩 $T_{2NOT}$<br>Emergency stop torque $T_{2NOT}$                                 | Nm        | 1 & 2       | 3 ~ 200K     | 3 倍額定輸出力矩 / Triple rated output torque |       |       |       |
| 額定輸入轉速 $n_{1N}$<br>Rated input speed $n_{1N}$                                       | rpm       | 1 & 2       | 3 ~ 200K     | 5000                                   | 4000  | 4000  | 3000  |
| 最大輸入轉速 $n_{1B}$<br>Max input speed $n_{1B}$                                         |           | 1 & 2       | 3 ~ 200K     | 10000                                  | 8000  | 8000  | 6000  |
| 精密背隙 P1<br>Precision backlash P1                                                    | arcmin    | 1           | 3 ~ 20K      | ≤ 4                                    | ≤ 4   | ≤ 4   | ≤ 4   |
|                                                                                     |           | 2           | 15 ~ 200K    | ≤ 7                                    | ≤ 7   | ≤ 7   | ≤ 7   |
| 標準背隙 P2<br>Standard backlash P2                                                     | arcmin    | 1           | 3 ~ 20K      | ≤ 6                                    | ≤ 6   | ≤ 6   | ≤ 6   |
|                                                                                     |           | 2           | 15 ~ 200K    | ≤ 9                                    | ≤ 9   | ≤ 9   | ≤ 9   |
| 扭轉剛性<br>Torsional rigidity                                                          | Nm/arcmin | 1 & 2       | 3 ~ 200K     | 7                                      | 14    | 25    | 50    |
| 容許徑向力 $F_{2rB}$<br>Allowable radial force $F_{2rB}$                                 | N         | 1 & 2       | 3 ~ 200K     | 1530                                   | 3250  | 6700  | 9400  |
| 容許軸向力 $F_{2aB}$<br>Allowable axial force $F_{2aB}$                                  | N         | 1 & 2       | 3 ~ 200K     | 765                                    | 1625  | 3350  | 4700  |
| 使用壽命<br>Lifespan                                                                    | Hr        | 1 & 2       | 3 ~ 200K     | 20000                                  |       |       |       |
| 效率<br>Efficiency                                                                    | %         | 1           | 3 ~ 20K      | ≥ 95%                                  |       |       |       |
|                                                                                     |           | 2           | 15 ~ 200K    | ≥ 92%                                  |       |       |       |
| 重量<br>Weight                                                                        | kg        | 1           | 3 ~ 20K      | 2.1                                    | 6.4   | 13    | 24.5  |
|                                                                                     |           | 2           | 15 ~ 200K    | 1.5                                    | 7.8   | 14.2  | 27.5  |
| 使用溫度<br>Working temperature                                                         | °C        | 1 & 2       | 3 ~ 200K     | -10°C ~ 90°C                           |       |       |       |
| 潤滑<br>Grease                                                                        |           | 1 & 2       | 3 ~ 200K     | 合成潤滑油脂 / Synthetic lubricating grease  |       |       |       |
| 防護等級<br>IP Grade                                                                    |           | 1 & 2       | 3 ~ 200K     | IP65                                   |       |       |       |
| 安裝方向<br>Installation direction                                                      |           | 1 & 2       | 3 ~ 200K     | 任意方向 / Any direction                   |       |       |       |
| 噪音值 ( $n_1=3000\text{rpm}$ , 無負載)<br>Noise Value ( $n_1=3000\text{rpm}$ , off load) | Db        | 1 & 2       | 3 ~ 200K     | ≤ 63                                   | ≤ 65  | ≤ 68  | ≤ 70  |

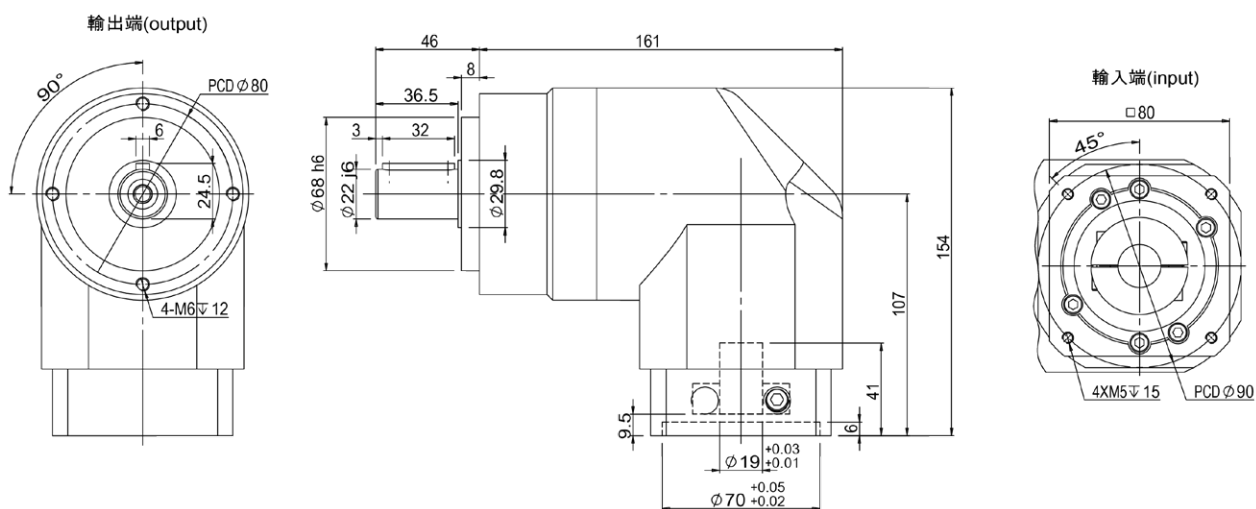
## ■ GPER070-L1



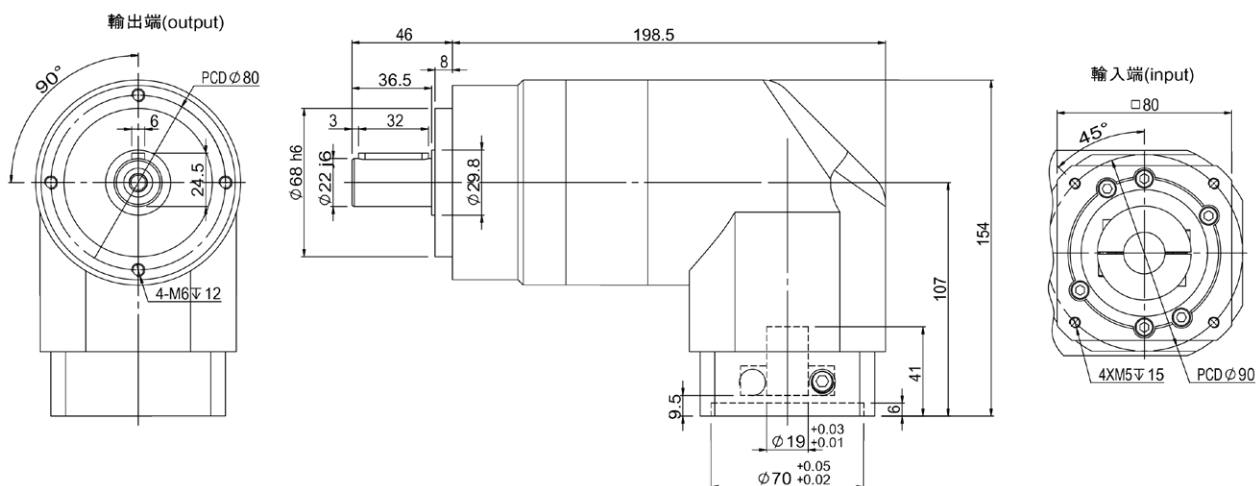
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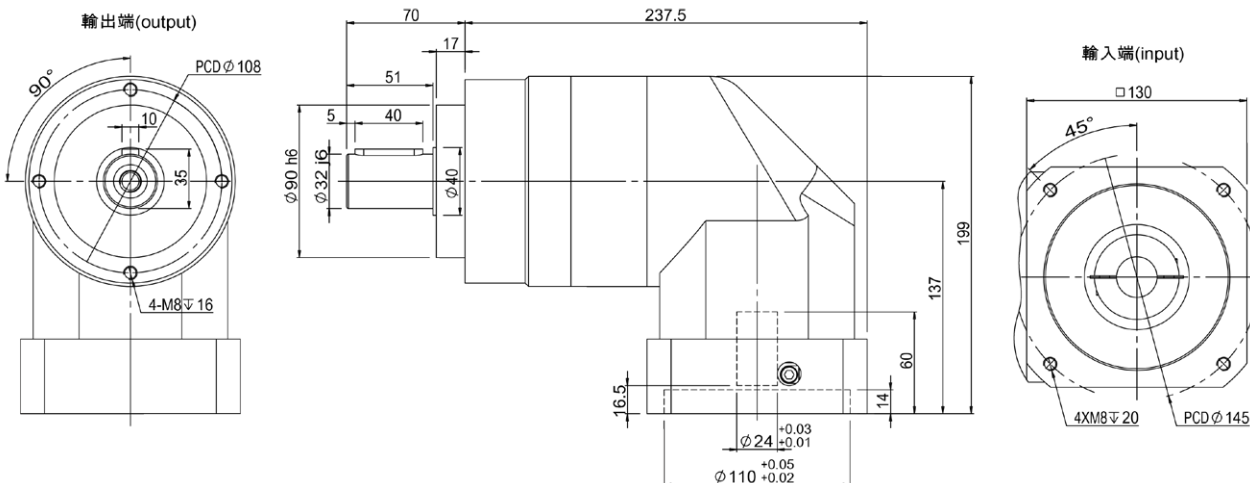
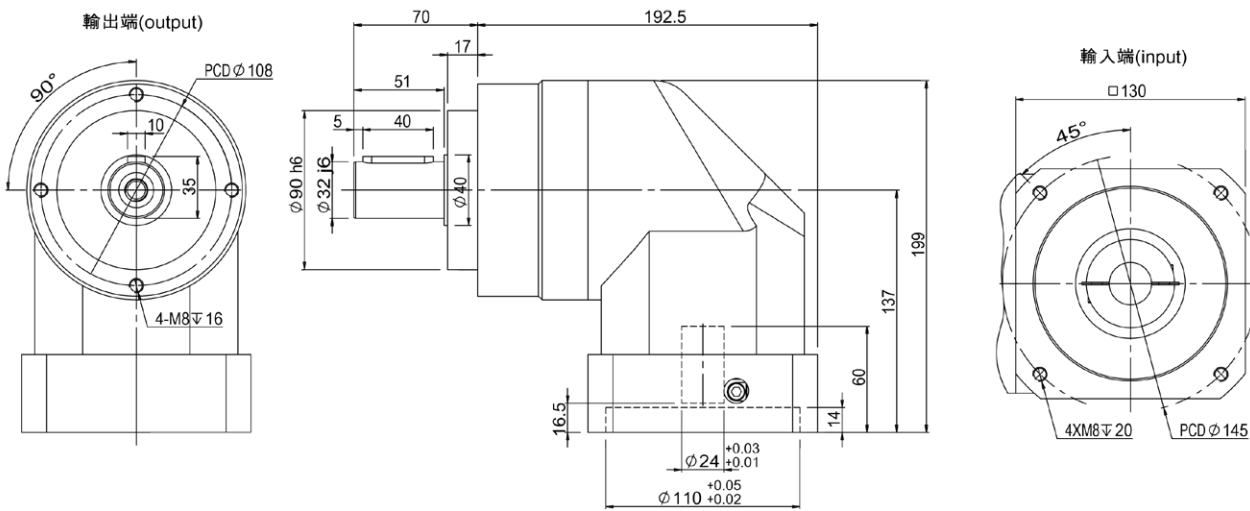


## ■ GPER090-L1

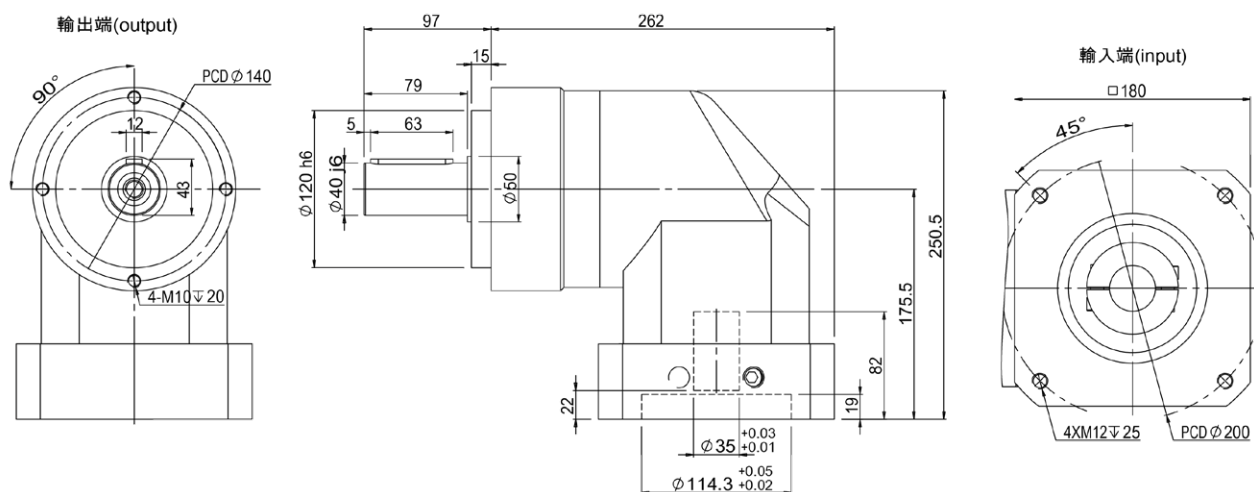


## ■ GPER090-L2





## ■ GPER155-L1



## ■ GPER155-L2

