恒铭智能

专注研发、国造品牌

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# Product Reducers

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## 減速機產品目錄

恒铭造 用心造

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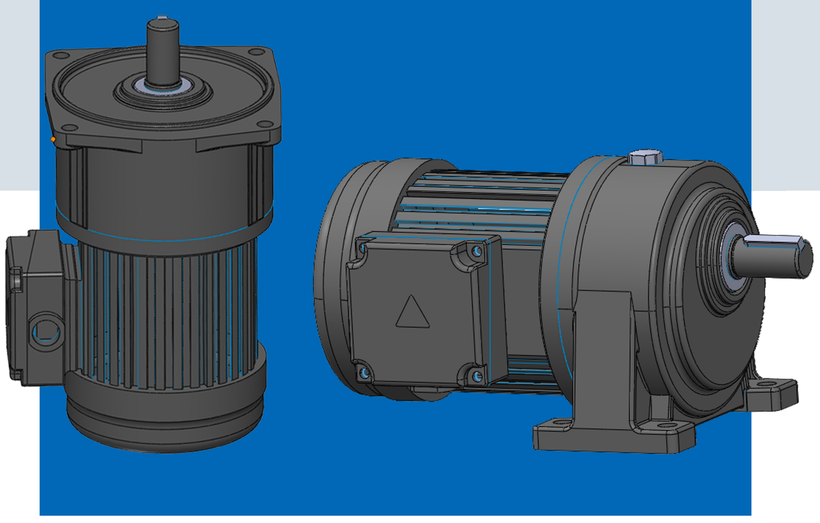
# MEDIUM REDUCERS
# 中型減速機



## 訂購方式
## DESIGNATION

### 型號命名 MODEL NAME

GH 22 400W 30 S B G1 LB HO
1 2 3 4 5 6 7 8 9

**1 型號** Model Code

| | |
|---|---|
| GH | 卧式安裝齒輪減速電機 Horizontal Installation Gear Reducer Motor |
| GV | 立式安裝齒輪減速電機 Vertical Installation Gear Reducer Motor |
| GHM | 卧式安裝直結型齒輪減速機 Horizontal Installation Straight Gear Reducer Motor |
| GVM | 立式安裝直結型齒輪減速機 Vertical Installation Straight Gear Reducer Motor |
| GHD | 卧式安裝雙軸型齒輪減速機 Horizontal Installation Biax Gear Reducer Motor |
| GVD | 立式安裝雙軸型齒輪減速機 Vetical Installation Biax Gear Reducer Motor |

**2 出力軸** Output shaft
18、22、28、32……

**3 馬力** Capacity
100W–7500W

**4 減速比** Ratio: 3、5、10、……1800

**5 馬達** Motor
S: 三相馬達220V、380V/50、60HZ–3–PHASE
A: 單相馬達110V、220V/50、60HZ–Single PHASE

**6 剎車器** Brake unit
B: 斷電剎車器 BRAKE UNIT
AB: 手釋放剎車器 WITH RELEASE BRAKE UNIT
D: DC24V送電剎車器 DC24V BRAKE

**7 依出力軸看配綫盒方向**
Look to the direction of the distributing box depending on the output shaft
G1: 左方向LEFT(標準型) (STD) G2: 右方方向RIGHT
G3: 上方向UPPER G4: 下方向LEOWR

**8 入綫口方向** Wire inlet
T: 向上TOP B: 向後BACK D: 向下DOWN
L: 向左LEFT F: 向前FORWARD R: 向右RIGHT

**9 透氣塞安裝位置選定**
Breatharie plug is mounted position of the selected

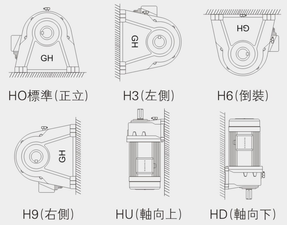
| GH機型安裝位置 GH MODEL INSTALLATION LOCATION | GV機型安裝位置 GV MODEL INSTALLATION LOCATION |
|---|---|
| H0標準(正立) H3(左側) | V0標準(正立) V3(順轉90°) |
| H6(倒裝) H9(右側) | V6(順轉180°) V9(逆轉90°) |
| HU(軸向上) HD(軸向下) | VU(軸向上) VD(軸向下) |

### 配綫盒方向選定 TERMINAL BOX DIRECTION

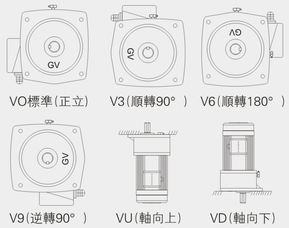
| TYPE | G1–左方向 LEFT SIDE | G2–右方向 RIGHT SIDE | G3–上方向 UPPER SIDE | G4–下方向 LOWER SIDE |
|---|---|---|---|---|
| GH型 GH TYPE | G1 | G2 | G3 | G4 |
| GV型 GV TYPE | G1 | G2 | G3 | G4 |
| 入綫口方向 WIRE INLET DIRECTLON | LD LT | RD RT | TL TR | DL DR |
| | LF LB | RF RB | TF TB | DF DB |

### 減速機與透氣塞安裝位置示意圖
REDUCER AND VENTILATION INSTALLATION

GH機型安裝位置 GH MODELS INSTALLATION LOCATION




GV機型安裝位置 GV MODELS INSTALLATION LOCATION




- 除標準安裝方式外，其餘安裝方式均需先告知本公司。
- In addition to the stand ard installation,the other installation is required prior notice of the company.

# 馬達規範 MOTOR SPECIFIC DATA

## 標準馬達規範表 STANDARD MOTOR SPECIFICATION

| 項目ITEM | 三相交流馬達3–PHASE MOTOR | | 單相交流馬達SINGLE PHASE MOTOR | |
|---|---|---|---|---|
| 保證等級PROTECTION | 全密閉外扇型IP54<br>TOTALLY ENCLOSED FAN COOLED TYPE | | 半密閉外扇區型<br>SEMI–ENCLOSED FAN COOLED TYPE | |
| 外殼材質SHELL MATERIAL | 0.1–7.5KW | 鋁合金 ALUMINUM | 0.1–2.2KW | 鋁合金 ALUM ALLOY |
| 啓動方式STARTING | 全壓啓動 DIRECT STARTING | | 0.1–0.2KW | 運轉電容啓動 CAPACITOR |
| | | | 0.4–0.75KW | 起動電容啓動+電子離心開關<br>STARTING CAPACITOR ACTIVATED+ELECTRONIC CENTRIFUGAL SWITCH |
| | | | 1.5–2.2KW | 起動電容+運行電容+電子離心開關<br>STARTING CAPACITOR RUNNING CAPACITOR++ELECTRONIC CENTRIFUGAL SWITCH |
| 定格TIMA RATING | 連續運轉CONTINUOUS OPERATION | | | |
| 絶緣等級INSULATION | F（特殊行業産品除外） | | | |
| 適用環境ENVIRONMENT | 温度: –10℃~+40℃（TEMPERATURE: –10℃~+40℃） 濕度: ≤90%（HUMIDITY:≤90%） | | | |
| 適用電壓VOLTAGE | 50HZ | 220V,230V,240V,380V,400V,415V,440V | 50HZ | 110V,115V,200V,220V,230V |
| | 60HZ | 220V,240V,380V,415V,440V,460V,480V,600V | 60HZ | 110V,220V,240V |
| 適用極數POLE | 4P | | | |
| 輸出轉數(4P)OUTPUT SPEED(4P) | 50HZ | 1360–1430RPM | 50HZ | 1340–1400RPM |
| | 60HZ | 1640–1740RPM | 60HZ | 1610–1720RPM |
| 依據標準 STANDARD | IEC–34,CNS–10919ACCORDING TOIEC–34,CNS–10919 | | | |
| 海拔 SEA LEVEL | ≤1000m | | | |
| 接綫盒TERMINAL BOX | 根據客户使用要求，有IP55級鋁接綫盒、防水型接綫盒及不銹鋼接綫盒<br>ACCORDING TO THE CUSTOMER REQUEST FOR USE, HAVE GRADE ALUMINUM BOX OF GRADE IP55, WATETRPROOF MODEL TERMINAL BOX AND STAINLESS STEEL TERMINAL BOX. | | | |

## 單相電壓全負載電流值 SINGLE PHASE FULL LOAD CURRENT

| 輸出馬力CAPACITY | 50HZ | | | 60HZ | | |
|---|---|---|---|---|---|---|
| | 110V | 220V | RPM | 110V | 220V | RPM |
| 100W | 2.80 | 1.40 | 1410 | 2.40 | 1.20 | 1720 |
| 200W | 3.60 | 1.80 | 1410 | 3.00 | 1.50 | 1720 |
| 400W | 9.80 | 4.90 | 1420 | 7.80 | 3.90 | 1730 |
| 750W | 18.2 | 9.10 | 1420 | 12.9 | 6.40 | 1730 |
| 1500W | 26.0 | 13.0 | 1430 | 23.4 | 11.7 | 1740 |
| 2200W | 36.0 | 18.0 | 1430 | 30.0 | 15.0 | 1740 |

## 單相馬達電容器規格 SINGLE PHASE MOTOR CURRENT

| 輸出馬力 CAPACITY | 單電容型<br>SINGLE–CAPACITOR TYPE | 雙電容型DOUBLE–CAPACITOR TYPE | |
|---|---|---|---|
| | | 啓動電容<br>STARTING CAPACITOR | 運轉電容<br>RUNNING CAPACITOR |
| 75W | 8μF | – | – |
| 100W | 12μF–16μF | – | – |
| 200W | 14μF–20μF | – | – |
| 400W | 200μF | 200μF | 20μF |
| 750W | 400μF | 400μF | 40μF |
| 1500W | – | 400μF | 40μF |
| 2200W | – | 500μF | 50μF |



## 三相電壓全負載電流值 3–PHASE FULL LOAD CURRENT

| 輸出馬力 CAPACITY | 50HZ | | | | | 60HZ | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 220V | 380V | 415V | 440V | RPM | 230V | 380V | 440V | 460V | RPM |
| 100W | 0.87 | 0.50 | 0.32 | 0.30 | 1410 | 0.60 | 0.40 | 0.30 | 0.29 | 1720 |
| 200W | 1.39 | 0.80 | 0.70 | 0.58 | 1410 | 1.10 | 0.63 | 0.55 | 0.52 | 1720 |
| 400W | 2.40 | 1.40 | 1.13 | 1.07 | 1420 | 1.90 | 1.10 | 0.95 | 0.91 | 1730 |
| 750W | 3.80 | 2.20 | 1.94 | 1.84 | 1420 | 3.40 | 1.96 | 1.70 | 1.63 | 1730 |
| 1500W | 6.90 | 4.00 | 3.94 | 3.30 | 1430 | 6.10 | 3.53 | 3.05 | 2.92 | 1740 |
| 2200W | 9.50 | 5.50 | 4.74 | 4.47 | 1430 | 8.70 | 5.04 | 4.35 | 4.16 | 1745 |
| 3700W | 15.9 | 9.20 | 7.34 | 6.93 | 1440 | 13.5 | 7.82 | 6.75 | 6.46 | 1745 |
| 5500W | 23.5 | 13.5 | – | – | 1440 | 20.8 | 12.0 | – | – | 1745 |
| 7500W | 26.0 | 15.0 | – | – | 1440 | 23.9 | 13.8 | – | – | 1745 |

# 輸出扭矩表 OUTPUT TORQUE

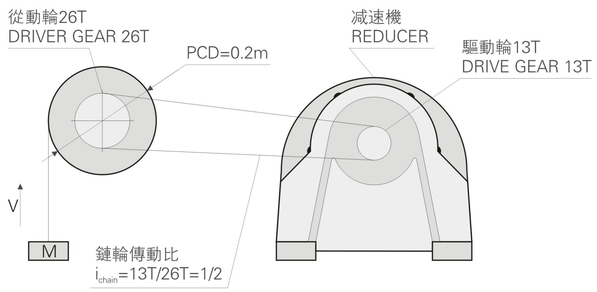
KG–M

## 標準型 NORMAL DUTY TYPE

| 減速比 RATIO | 輸出轉速 OUTPUT RPM | | 輸出扭矩OUTPUT TORQUE | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0.1KW | | 0.2KW | | 0.4KW | | 0.75KW | | 1.5KW | | 2.2KW | | 3.7KW | | 5.5KW | | 7.5KW | |
| | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ | 50HZ | 60HZ |
| 3 | 465 | 570 | 0.19 | 0.16 | 0.37 | 0.31 | 0.70 | 0.60 | 1.30 | 1.10 | 2.60 | 2.20 | 3.80 | 3.20 | 6.00 | 5.50 | 9.8 | 9 | 13.4 | 10.9 |
| 5 | 300 | 360 | 0.31 | 0.26 | 0.62 | 0.52 | 1.20 | 1.00 | 2.20 | 1.90 | 4.50 | 3.80 | 6.72 | 5.60 | 11.0 | 10.1 | 16.4 | 13.3 | 22.4 | 18.2 |
| 10 | 150 | 180 | 0.62 | 0.52 | 1.24 | 1.04 | 2.40 | 2.00 | 4.50 | 3.80 | 9.10 | 7.60 | 13.7 | 11.2 | 22.0 | 20.0 | 32.9 | 26.7 | 44.8 | 36.4 |
| 15 | 100 | 120 | 0.91 | 0.76 | 1.80 | 1.50 | 3.60 | 3.00 | 6.80 | 5.70 | 13.5 | 11.3 | 20.1 | 16.8 | 32.6 | 29.8 | 50.3 | 40 | 67.3 | 54.6 |
| 20 | 75 | 90 | 1.20 | 1.00 | 2.40 | 2.00 | 4.80 | 4.00 | 9.00 | 7.50 | 18.1 | 15.1 | 26.8 | 22.4 | 43.6 | 36.0 | 65.8 | 53.4 | 89.7 | 72.8 |
| 25 | 60 | 72 | 1.40 | 1.20 | 3.00 | 2.50 | 6.00 | 5.00 | 11.2 | 9.40 | 22.6 | 18.9 | 33.6 | 28.0 | 53.9 | 49.5 | 82.3 | 66.7 | 122.2 | 91 |
| 30 | 50 | 60 | 1.80 | 1.50 | 3.60 | 3.00 | 7.30 | 6.00 | 13.5 | 11.3 | 27.1 | 22.6 | 40.3 | 33.6 | 64.7 | 58.8 | 98.7 | 80.1 | 134.6 | 109.2 |
| 40 | 37 | 45 | 2.20 | 1.90 | 4.60 | 3.90 | 9.30 | 7.80 | 17.5 | 14.6 | 34.9 | 29.1 | 52.0 | 43.4 | 86.3 | 78.4 | 131 | 106.8 | 179.5 | 145.6 |
| 45 | 33 | 40 | 2.70 | 2.20 | 5.40 | 4.40 | 10.9 | 9.10 | 20.6 | 17.0 | 41.4 | 34.0 | 59.8 | 49.6 | 98.5 | 81.7 | 148.1 | 120.1 | 202 | 163.8 |
| 50 | 30 | 36 | 2.80 | 2.40 | 5.70 | 4.80 | 11.6 | 9.70 | 21.9 | 18.3 | 43.6 | 36.4 | 65.1 | 54.3 | 107 | 97.0 | 164.4 | 133.5 | 244.4 | 182 |
| 60 | 25 | 30 | 3.40 | 2.90 | 6.90 | 5.80 | 13.9 | 11.6 | 26.2 | 21.9 | 52.4 | 43.7 | 78.1 | 65.1 | 127 | 115 | 197.5 | 160.2 | 269.3 | 218.5 |
| 70 | 21 | 25 | 4.30 | 3.60 | 8.00 | 6.80 | 16.2 | 13.5 | 31.5 | 26.3 | 62.4 | 52.0 | 92.5 | 77.1 | 155 | 125.7 | 230.4 | 180.9 | | |
| 80 | 19 | 23 | 4.80 | 4.00 | 9.20 | 7.70 | 18.4 | 15.4 | 35.5 | 29.6 | 70.8 | 59.0 | 105 | 87.5 | 177.1 | 143.7 | 263.3 | 213.6 | | |
| 90 | 17 | 20 | 5.20 | 4.40 | 10.3 | 8.60 | 20.7 | 17.3 | 39.3 | 32.8 | 77.1 | 64.3 | 113 | 94.3 | 199.3 | 161.6 | 296.3 | 240.3 | | |
| 100 | 15 | 18 | 5.80 | 4.90 | 11.5 | 9.60 | 23.0 | 19.2 | 43.2 | 36.0 | 83.7 | 69.8 | 126 | 105 | 221.5 | 179.6 | 329.2 | 267 | | |
| 120 | 12 | 15 | 6.90 | 5.80 | 13.8 | 11.5 | 27.7 | 23.1 | 51.8 | 43.2 | 101 | 83.7 | 150 | 145 | 265.7 | 215.5 | | | | |
| 140 | 11 | 13 | 8.00 | 6.70 | 16.0 | 13.4 | 32.0 | 26.7 | 59.7 | 49.8 | 116 | 96.8 | | | | | | | | |
| 160 | 9 | 11 | 9.10 | 7.60 | 18.3 | 15.3 | 36.3 | 30.3 | 68.0 | 56.7 | 132 | 110 | | | | | | | | |
| 180 | 8 | 10 | 10.3 | 8.60 | 20.7 | 17.3 | 40.8 | 34.0 | 76.8 | 64.0 | 148 | 123 | | | | | | | | |
| 200 | 7 | 9 | 11.6 | 9.70 | 22.9 | 19.1 | 43.2 | 36.0 | 82.8 | 69.0 | | | | | | | | | | |

# 減速機這選定範例

## EXAMPLE OF THE REDUCERS SELECTED




搬運物總重量: M=300KG
Total weight of load: M=300KG
搬送速度: V=9.5m/min
Speed: V=9.5m/min
鏈輪傳動效率: $\eta_1$=1
Chain transmission efficiency: $\eta_1$=1
減速機傳動效率: $\eta_2$=0.9
Reducer transmission efficiency: $\eta_2$=0.9
運轉時間: 2小時/日
Operation time: 2h/d
起動次數: 1回/分，中衝擊
Times of starting: 1 time/min, medium impact
使用電源: 三相220V，50HZ
Power: 3–phase 220V, 50HZ

| | 注意事項 CONSIDERATIONS | 計算 CALCULATION |
|---|---|---|
| 減速比 REDUCTION RATIO | 由入力軸回轉數及出力軸回轉數來選定減速比<br>Reduction ratio should be decided by input shaft revolutions and output shaft revolutions.<br>1、先求出輸送帶滾輪回轉數（N1）<br>Find conveyor wheel revolutions(N1)<br>N1= 搬送速度/（滾輪直徑PCD・π）<br>N1=speed/（PCD・π）<br>2、再求出減速機出力軸回轉數（N2）<br>Frind reducer output shaft revolutions（N2）<br>N2=N1/鏈輪齒數減速比<br>N2=N1/$i_{chain}$<br>3、以三相機60Hz的馬達計算減速比<br>Calculate reduction ratio of 3–phase motor with frequency of 60Hz<br>i=出力軸回轉數/入力軸回轉數（電機轉數）<br>i=Output shaft revolutions/input shaft revolutions(Motor revolutions） | 1、N1=V/(PCD×π)<br>=9.5/(0.2×3.14)=15r/min<br>2、N2=N1/鏈輪傳動比<br>N2=N1/$i_{chain}$<br>=15/(1/2)=30r/min<br>3、i=出力軸回轉數/入力軸回轉數<br>i=Output shaft revolutions/input shaft revolutions<br>=30/1500=1/50 |
| 扭力 TORQUE | 決定減速比後，由使用機械工作條件計算減速機出力軸扭矩<br>After reduction ratio is decided, torque of the reducers output shaft can found according to mechanical conditions.<br>1、先算出輸送帶滾輪之扭力（T1）<br>Firstly find torque(T1)of conveyance wheel ratio<br>T1=(M・PCD)/2<br>2、再換算成減速機出力軸所須扭力（N2）<br>Then find the torque(T2) of the output shaft of reducer<br>T2=(T1・$i_{chain}$)/($\eta_1$・$\eta_2$) | 1、T1=M・PCD/2<br>=300・0.2/2<br>=30kg.m<br>2、T2=(T1・$i_{chain}$)/($\eta_1$・$\eta_2$)<br>=(30・0.5)(1・0.9)<br>=16.7kg.m |
| 負荷條件 LOAD CONDITIONS | 1、根據運轉條件算出修正後的扭力（T3）<br>Find the adjusted torque(T3) according to operation conditions<br>T3=T2・K 系數K(無衝擊時K=1，衝擊越大，K值越大)<br>Coef.K(No impact K=1, The larger impact, The larger K value) | 1、T3=T2・K<br>=16.7・1<br>=16.7kg.m |
| 馬力 HORSE POWER | 1、最後算成馬力（Hp）<br>Hp=(T3・$N_2$)/716.2 | 1、Hp=(T3・$N_2$)/716.2<br>=(16.7・30)/716.2<br>=0.7hp……(3/4hp) |

- 按以上參數，得出減速機的減速比爲1/50，扭力爲16.7Kg.m，參照齒輪減速機性能表，對比得出選用減速機爲550W。
- In accordance with the parameter, the reduction ratio of the reducer is 1/50, torque is 16.7kg.m.By reference to the performance table, we can find the power for reducer selected is 550W.



### 摩擦系數表 FRICTION FACTOR

| | |
|---|---|
| 鏈輪 SPROCKET | 1.00 |
| 齒輪 GEAR | 1.25 |
| 三角皮帶 BELT | 1.50 |
| 平皮帶 FLAT BELT | 2.50 |

### 常用公式表 FREQUENTLY USED FORMULA

| 預知的條件 INTENDED CONDITIONS | | 已知的條件 KNOWN CONDITIONS | 公式 FORMULA | |
|---|---|---|---|---|
| 扭力 TORQUE | T1 | 動力(F)與半徑(R)/馬力(Hp)與回轉數(N)(r.p.m) | T=F×R | (kgf–m) |
| 扭力 TORQUE | T2 | | T=(716×Hp)/N | (kgf–m) |
| 扭力 TORQUE | T3 | 動力(Kw)與回轉數(N)(r.p.m)/扭力(T)與回轉數(N)(r.p.m) | T=(974×Kw)/N | (kgf–m) |
| 馬力 HORSE TORQUE | Hp | 扭力(T)與回轉數(N)(r.p.m)/重力(F)與速度(V)(m/sec) | Hp=(T×N)716.2 | (馬力) |
| 動力 POWER | Kw | | Kw=(T×N)/974 | (千瓦) |
| 馬力 HORSE TORQUE | Hp | 重力(F)與速度(V)(m/sec)/齒輪、皮帶輪等的 | Hp=(F×V)/75 | (馬力) |
| 動力 POWER | Kw | 直徑(D)與回轉數(N)(r.p.m) | Kw=(F×V)/102 | (千瓦) |
| 速度 VELOCITY | V | 入力回轉數(N1)與出力回轉數(N2) | V=(π×D×N)/60 | (m/sec) |
| 減速比 REDUCTION RATIO | I | | I=N1/N2 | |

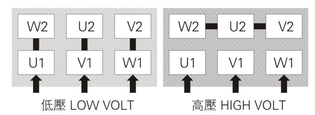
### 符號說明表 CODE DETAILS

| | | |
|---|---|---|
| V=速度 SPEED(M/MIN) | η=效率 EFFICIENCY(%) | 1INCH=2.54CM |
| I=減速比 RATIO | N=出力軸轉速(PRM) | 1FOOT=12INCH |
| 輸出扭力(KG–M)OUTPUT TORQUE | D=滾輪直徑(MM) ROLLER DIAMETER | 1KW=1000W 1KW=1.34HP |
| 連接系數 CONNECTING FACTOR | R=滾輪直徑半徑(MM) ROLLER RADIUS | 1KG–M=7.233FT–LB 1KG–M=86.8IN–LB |
| 荷重系數 SERVICE FACTOR | KW1(HP1)=入力馬力 INPUT CAPACITY | 1KG=2.2LB 1LB=0.4536KG |
| 荷重(KG) LOAD | KW2(HP2)=輸出馬力 OUTPUT CAPACITY | 1CM=10MM 1CM=0.39371NCH |

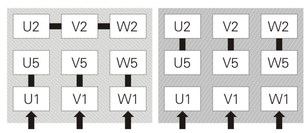
## 連結方式 WIRING DIAGRAM

### 三相馬達剎車器結綫方式 THREE PHASE MOTOR W/BRAKE UNIT DIAGRAM

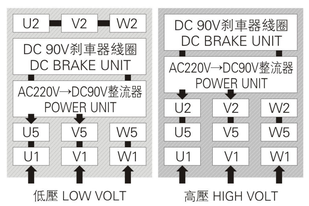
三相六條馬達電源綫
FOR SIX WIRES



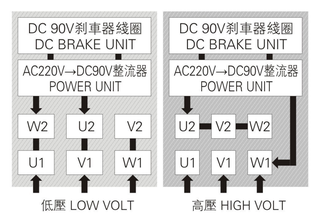

三相九條馬達電源綫
FOR NINE WIRES



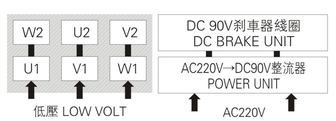

三相九條馬達電源綫附直流剎車器
NINE WIRES W/DC BRAKE UNIT

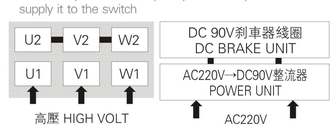



三相六條馬達電源綫附直流剎車器
SIX WIRES W/DC BRAKE UNIT



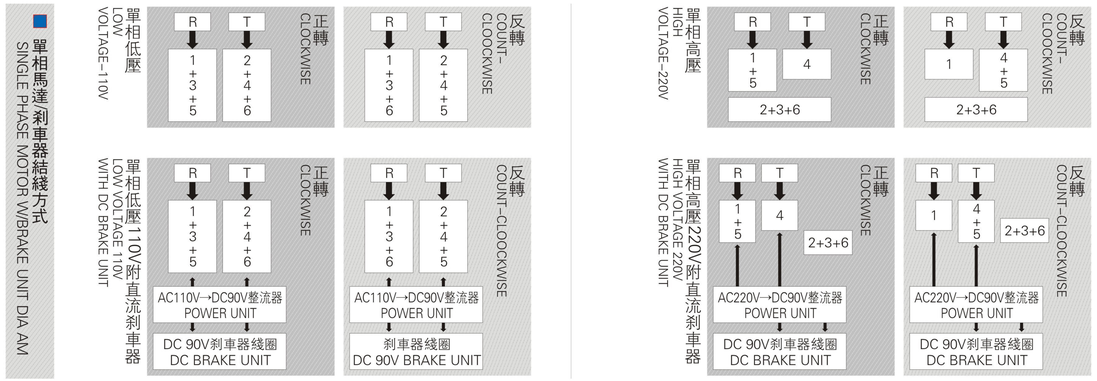

變頻器附剎車馬達
THE BRAKE MOTOR WITH FREQUENCY CONVERTER




- 剎車電源與變頻器電源需同時開關。
- The brake power and frequency converter power supply it to the switch

■ 單相馬達.剎車器結綫方式
SINGLE PHASE MOTOR W/BRAKE UNIT DIA AM

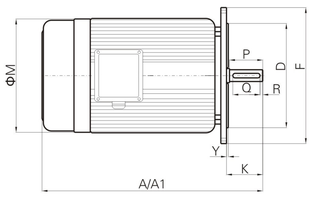


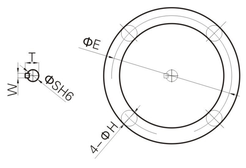

# 尺寸表

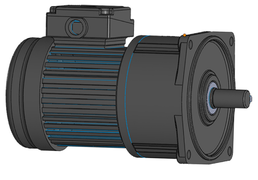
## DIMENSIONS(MM)

## 1 立式三相標準IEC鋁殼(剎車)馬達
VERTICAL THREE-PHASE STANDARD IEC ALUMINUM (BRAKE) MOTOR

| 輸出馬達 CAPACITYP | A | A1 | D | E | F | H | K | M | P | Q | R | S | T | W | Y | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200W 1/4HP | 223 | 227 | 110 | 130 | 160 | 10 | 23 | 127 | 20 | 10 | 2 | 11 | 12.5 | 4 | 3 | 5.5 |
| 400W 1/2HP | 250 | 254 | 110 | 130 | 160 | 10 | 30 | 127 | 27 | 14 | 2 | 14 | 16 | 5 | 3 | 6.9 |
| 750W 1HP | 297 | 297 | 130 | 165 | 200 | 12 | 40 | 159 | 39 | 25 | 2 | 19 | 21.5 | 6 | 3 | 10.6 |
| 1500W 2HP | 350 | 370 | 130 | 165 | 200 | 12 | 50 | 190 | 50 | 32 | 3 | 24 | 27 | 8 | 3.5 | 16.5 |
| 2200W 3HP | 384 | 410 | 180 | 215 | 250 | 14.5 | 60 | 220 | 60 | 40 | 3 | 28 | 31 | 8 | 4 | 28 |
| 3700W 5HP | 400 | 426 | 180 | 215 | 250 | 14.5 | 60 | 220 | 60 | 40 | 3 | 28 | 31 | 8 | 4 | 34.5 |
| 5500W 7.5HP | 471 | 471 | 230 | 265 | 300 | 15 | 80 | 250 | 80 | 60 | 4 | 38 | 41.5 | 10 | 4 | 45 |
| 7500W 10HP | 511 | 511 | 230 | 265 | 300 | 15 | 80 | 250 | 80 | 60 | 4 | 38 | 41.5 | 10 | 4 | 55 |



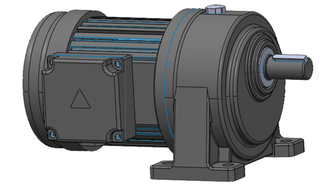



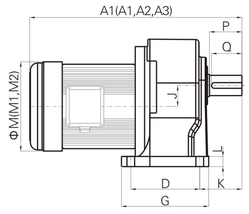
- A1爲三相帶剎車馬達尺寸。
- A1 is the size of the three-phase motor with brake.

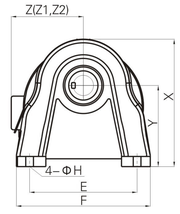
## 2 GH卧式附三相、單相鋁殼(剎車)齒輪減速馬達
GH HORIZONTAL ATTACHED SINGLE-PHASE THREE-PHASE, ALUMINUM SHELL (BRAKE) GEAR REDUCER MOTORS

| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | X | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 3-50 | 1# | 18 | 253 | 273 | 257 | 40 | 110 | 135 | 65 | 9 | 10 | 16 | 45 | 127 | 127 | 132 | 88.5 | 116 | 116 | 5.3 |
| | 60-200 | 2# | 22 | 287 | 307 | 291 | 65 | 130 | 163 | 90 | 11 | 15 | 18.2 | 56 | 127 | 127 | 152 | 97.5 | 116 | 116 | 6.9 |
| 200W 1/4HP | 3-10 | 1# | 18 | 273 | 293 | 277 | 40 | 110 | 135 | 65 | 9 | 10 | 16 | 45 | 127 | 127 | 132 | 88.5 | 116 | 116 | 6.7 |
| | 15-90 | 2# | 22 | 307 | 327 | 311 | 65 | 130 | 163 | 90 | 11 | 15 | 18.2 | 56 | 127 | 127 | 152 | 97.5 | 116 | 116 | 8.6 |
| | 100-200 | 3# | 28 | 333 | 353 | 337 | 90 | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 127 | 127 | 180 | 116 | 116 | 116 | 11 |
| 400W 1/2HP | 3-10 | 2# | 22 | 327 | 346 | 331 | 65 | 130 | 163 | 90 | 11 | 15 | 18.2 | 56 | 127 | 159 | 152 | 97.5 | 116 | 133 | 11 |
| | 15-90 | 3# | 28 | 353 | 372 | 357 | 90 | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 127 | 159 | 180 | 116 | 116 | 133 | 14 |
| | 100-200 | 4# | 32 | 388 | 407 | 392 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 127 | 159 | 210 | 138.5 | 116 | 133 | 19.6 |
| 750W 1HP | 3-25 | 3# | 28 | 382 | 415 | 382 | 90 | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 159 | 190 | 180 | 116 | 133 | 145 | 15 |
| | 30-120 | 4# | 32 | 417 | 449 | 417 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 159 | 190 | 210 | 138.5 | 133 | 145 | 21.6 |
| | 130-200 | 5# | 40 | 444 | 476 | 444 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 159 | 190 | 248 | 160 | 133 | 145 | 42 |
| 1500W 2HP | 4-25 | 4# | 32 | 449 | | 470 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 190 | | 210 | 138.5 | 145 | | 27.6 |
| | 30-120 | 5# | 40 | 476 | | 497 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 190 | | 248 | 160 | 145 | | 47 |
| | 130-200 | 6# | 50 | 517 | | 538 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 190 | | 315 | 200 | 145 | | 52 |
| 2200W 3HP | 3-60 | 5# | 40 | 482 | | 508 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 217 | | 248 | 160 | 153 | | 48 |
| | 70-200 | 6# | 50 | 523 | | 549 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 217 | | 315 | 200 | 153 | | 55 |
| 3700W 5HP | 3-10 | 5# | 40 | 498 | | 524 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 217 | | 248 | 160 | 153 | | 50 |
| | 15-180 | 6# | 50 | 539 | | 565 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 217 | | 315 | 200 | 153 | | 57 |
| 5500W 7.5HP | 5-10 | 8# | 45 | 545 | | 585 | 200 | 250 | 310 | 235 | 15 | 30 | 42.2 | 93 | 250 | | 265 | 175 | 178 | | 78 |
| | 11-30 | 8# | 50 | 579 | | 619 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 250 | | 315 | 200 | 178 | | 88 |
| | 31-60 | 8# | 50 | 579 | | 619 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 250 | | 315 | 200 | 178 | | 90 |
| | 61-100 | 8# | 60 | 589 | | 629 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 115 | 250 | | 315 | 200 | 178 | | 93 |
| 7500W 10HP | 5-10 | 8# | 50 | 619 | | 659 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 250 | | 315 | 200 | 178 | | 99 |
| | 11-30 | 8# | 60 | 629 | | 669 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 115 | 250 | | 315 | 200 | 178 | | 103 |
| | 31-60 | 8# | 60 | 629 | | 669 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 115 | 250 | | 315 | 200 | 178 | | 110 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ45 | 75 | 12 | 48.5 | 70 | 12×8×70 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |
| | Φ60 | 90 | 15 | 63.5 | 85 | 15×10×85 |







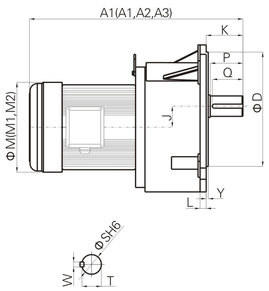

- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

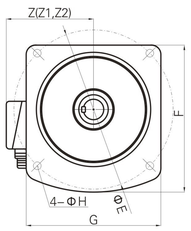
## 3 GV立式附三相、單相鋁殼(剎車)齒輪減速馬達

GV ALL CINEMAS WITH SINGLE-PHASE THREE-PHASE,VERTICAL ALUMINUM SHELL (BRAKE) GEAR REDUCER MOTORS

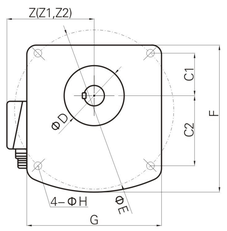
| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 3-50 | 1# | *18 | 253 | 273 | 257 | 50 | 140 | 120 | 120 | 9 | 12 | 16 | 38 | 127 | 127 | 5 | 116 | 116 | 5.3 |
| | 60-200 | 2# | 22 | 287 | 307 | 291 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 6.9 |
| | 60-200 | 2# | *22 | 287 | 307 | 291 | 55 | 170 | 146 | 146 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 6.7 |
| 200W 1/4HP | 3-10 | 1# | *18 | 273 | 293 | 277 | 50 | 140 | 120 | 120 | 9 | 12 | 16 | 38 | 127 | 127 | 5 | 116 | 116 | 6.9 |
| | 15-90 | 2# | 22 | 307 | 327 | 331 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 8.6 |
| | 15-90 | 2# | *22 | 307 | 327 | 311 | 55 | 170 | 146 | 146 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 8.6 |
| | 100-200 | 3# | 28 | 333 | 353 | 337 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 127 | 127 | 4 | 116 | 116 | 11 |
| 400W 1/2HP | 3-10 | 2# | 22 | 327 | 346 | 331 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 127 | 159 | 3.5 | 116 | 133 | 11 |
| | 3-10 | 2# | *22 | 327 | 346 | 331 | 55 | 170 | 146 | 146 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 133 | 11 |
| | 15-90 | 3# | 28 | 353 | 372 | 357 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 127 | 159 | 4 | 116 | 133 | 14 |
| | 100-200 | 4# | 32 | 388 | 407 | 392 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 127 | 159 | 4 | 116 | 133 | 19.4 |
| 750W 1HP | 3-25 | 3# | 28 | 382 | 415 | 382 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 159 | 190 | 4 | 133 | 145 | 15 |
| | 30-120 | 4# | 32 | 417 | 449 | 417 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 159 | 190 | 4 | 133 | 145 | 21.4 |
| | 130-200 | 5# | 40 | 444 | 476 | 444 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 159 | 190 | 5 | 133 | 145 | 42 |
| 1500W 2HP | 4-25 | 4# | 32 | 449 | | 470 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 190 | | 4 | 145 | | 27.4 |
| | 30-120 | 5# | 40 | 476 | | 497 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 190 | | 5 | 145 | | 47 |
| | 130-200 | 6# | 50 | 517 | | 538 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90 | 190 | | 5 | 145 | | 52 |
| 2200W 3HP | 3-60 | 5# | 40 | 482 | | 508 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 217 | | 5 | 153 | | 48 |
| | 70-200 | 6# | 50 | 523 | | 549 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90 | 217 | | 5 | 153 | | 55 |
| 3700W 5HP | 3-10 | 5# | 40 | 498 | | 524 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 217 | | 5 | 153 | | 50 |
| | 15-180 | 6# | 50 | 539 | | 565 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90 | 217 | | 5 | 153 | | 57 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |



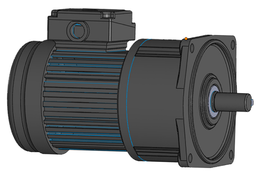




A-出力法蘭
A-Output Flange




B-出力法蘭
B-Output Flange

備注 NOTE:
1、1#本體（型號爲18）C1爲33.5，C2爲65.5
1# Ontology（Models for 18）
C1 is 33.5，C2 is 65.5
2、2#本體（型號爲22）C1爲40，C2爲80
2# Ontology（Models for 22）
C1 is 40，C2 is 80



- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

- *屬于B型號出力法蘭。
- *Belong to B type output flange.

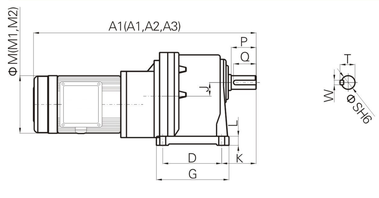


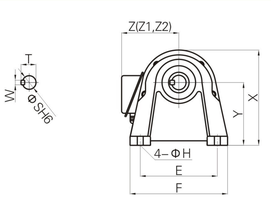
## 4 GH卧式高速比附三相、單相鋁殼(剎車)齒輪減速馬達

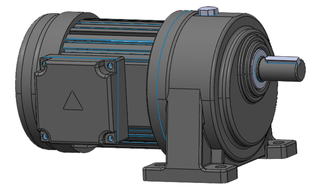
GH HORIZONTAL HIGH-SPEED OPPONENT SINGLE-PHASE THREE-PHASE,ALUMINUM SHELL (BRAKE) GEAR REDUCER MOTORS

| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | X | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 250-1800 | 1#+3# | 28 | 390 | 410 | 394 | 90 | 140 | 180 | 120 | 11 | 15 | 20.8 | 65 | 127 | 127 | 180 | 116 | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800 | 2#+4# | 32 | 471 | 491 | 475 | 130 | 170 | 215 | 160 | 13 | 20 | 30.2 | 76 | 127 | 127 | 210 | 138.5 | 116 | 116 | 23.2 |
| 400W 1/2HP | 250-1800 | 3#+5# | 40 | 532 | 551 | 536 | 150 | 210 | 260 | 185 | 15 | 23 | 42.2 | 85 | 127 | 159 | 248 | 160 | 116 | 133 | 49 |
| 750W 1HP | 250-1800 | 3#+6# | 50 | 602 | 635 | 602 | 170 | 265 | 330 | 220 | 19 | 25 | 51.7 | 104 | 159 | 190 | 315 | 200 | 133 | 145 | 59 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |



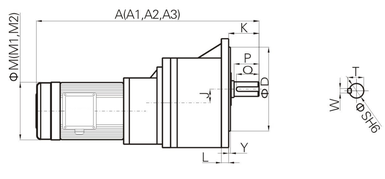
- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

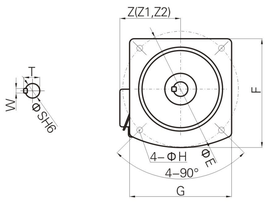
## 5 GV立式高速比附三相、單相鋁殼(剎車)齒輪減速馬達

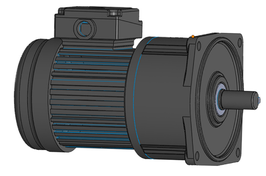
GV ALL CINEMAS VERTICAL HIGH-SPEED OPPONENT SINGLE-PHASE THREE-PHASE,ALUMINUM SHELL (BRAKE) GEAR REDUCER MOTORS

| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 250-1800 | 1#+3# | 28 | 390 | 410 | 394 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 127 | 127 | 4 | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800 | 2#+4# | 32 | 471 | 491 | 475 | 185 | 225 | 237 | 215 | 13 | 15 | 30.2 | 67 | 127 | 127 | 4 | 116 | 116 | 23 |
| 400W 1/2HP | 250-1800 | 3#+5# | 40 | 532 | 551 | 536 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 127 | 159 | 5 | 116 | 133 | 49 |
| 750W 1HP | 250-1800 | 3#+6# | 50 | 602 | 635 | 602 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90 | 159 | 190 | 5 | 133 | 145 | 59 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ28 | 30 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |



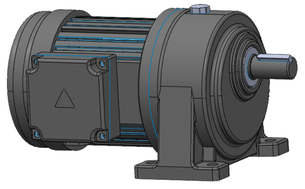
- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

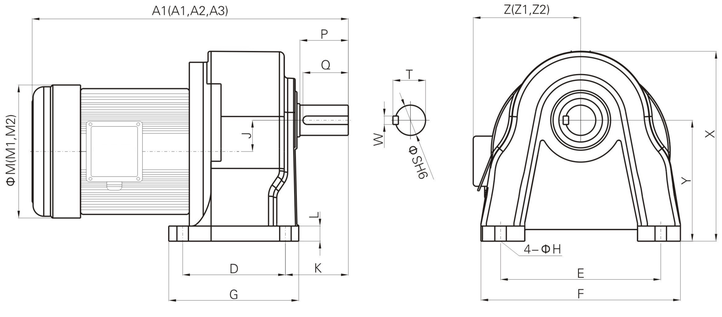
## 6 GH卧式三相、單相鋁殼(剎車)縮框型齒輪輸減速馬達

GH HORIZONTAL ATTACHED SINGLI-PHASE,ALUMINUM SHELL (BRAKE) SHRINK BOX TYPE GEAR REDUCER MOTOERS

| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | X | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 50-200 | 1# | 18 | 253 | 273 | 257 | 40 | 110 | 135 | 65 | 9 | 10 | 16 | 45 | 127 | 127 | 132 | 88.5 | 116 | 116 | 5.3 |
| 200W 1/4HP | 15-90 | 1# | 18 | 273 | 293 | 277 | 40 | 110 | 135 | 65 | 9 | 10 | 16 | 45 | 127 | 127 | 132 | 88.5 | 116 | 116 | 5.3 |
| | 100-200 | 2# | 22 | 307 | 327 | 311 | 65 | 130 | 163 | 90 | 11 | 15 | 18.2 | 56 | 127 | 127 | 152 | 97.5 | 116 | 116 | 6.9 |
| 400W 1/2HP | 3-10 | 1# | 18 | 293 | 310 | 297 | 40 | 110 | 135 | 65 | 9 | 10 | 16 | 45 | 127 | 159 | 132 | 88.5 | 116 | 133 | 6.7 |
| | 15-90 | 2# | 22 | 327 | 346 | 331 | 65 | 130 | 163 | 90 | 11 | 15 | 18.2 | 56 | 127 | 159 | 152 | 97.5 | 116 | 133 | 8.6 |
| | 100-200 | 3# | 28 | 353 | 372 | 357 | 90 | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 127 | 159 | 180 | 116 | 116 | 133 | 11 |
| 750W 1HP | 3-25 | 2# | 22 | 356 | 390 | 356 | 65 | 130 | 163 | 90 | 11 | 15 | 18.2 | 56 | 159 | 190 | 152 | 97.5 | 133 | 145 | 11 |
| | 30-120 | 3# | 28 | 382 | 414 | 382 | 90 | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 159 | 190 | 180 | 116 | 133 | 145 | 14 |
| | 130-200 | 4# | 32 | 417 | 449 | 417 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 159 | 190 | 210 | 138.5 | 133 | 145 | 19.6 |
| 1500W 2HP | 4-25 | 3# | 28 | 415 | | 436 | 90 | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 190 | | 180 | 116 | 145 | | 15 |
| | 30-120 | 4# | 32 | 449 | | 470 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 190 | | 210 | 138.5 | 145 | | 21.6 |
| | 130-200 | 5# | 40 | 476 | | 497 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 190 | | 248 | 160 | 145 | | 42 |
| 2200W 3HP | 3-60 | 4# | 32 | 455 | | 481 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 190 | | 210 | 138.5 | 153 | | 27.6 |
| | 70-200 | 5# | 40 | 482 | | 508 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 217 | | 248 | 160 | 153 | | 47 |
| 3700W 5HP | 30-180 | 5# | 40 | 498 | | 524 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 217 | | 248 | 160 | 153 | | 52 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |






- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

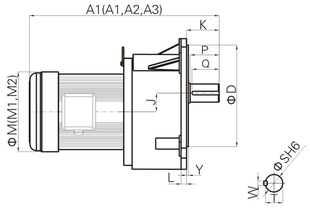
- 請選用標準框號齒輪減速馬達，如特殊原因需選擇縮框型齒輪減速馬達時，負載必須低于正常負載。
- Please select the gear reducer motors of standard box number; if a gear reducer motor of shrunk box should be selected for a specific reason, the load must be lower than the normal load.

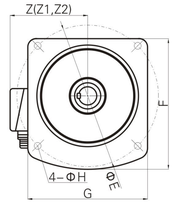
## 7 GV立式附三相、單相鋁殼(剎車)縮框型齒輪減速馬達

GV ALL CINEMAS WITH SINGLE-PHASE THREE-PHASE,VERTICAL ALUMINUM SHELL (BRAKE) SHRINK BOX TYPE GEAR REDUCER MOTORS

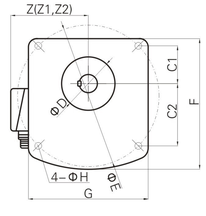
| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 50-200 | 1# | 18 | 253 | 273 | 257 | 50 | 140 | 120 | 120 | 9 | 12 | 16 | 38 | 127 | 127 | 5 | 116 | 116 | 5.3 |
| 200W 1/4HP | 15-90 | 1# | *18 | 273 | 293 | 277 | 50 | 140 | 120 | 120 | 9 | 12 | 16 | 38 | 127 | 127 | 5 | 116 | 116 | 5.3 |
| | 100-200 | 2# | 22 | 307 | 327 | 311 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 6.9 |
| | 100-200 | 2# | *22 | 307 | 327 | 311 | 55 | 170 | 146 | 146 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 6.9 |
| 400W 1/2HP | 3-10 | 1# | *18 | 393 | 345 | 297 | 50 | 140 | 120 | 120 | 9 | 12 | 16 | 38 | 127 | 159 | 5 | 116 | 133 | 6.7 |
| | 15-90 | 2# | 22 | 327 | 346 | 331 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 127 | 159 | 3.5 | 116 | 133 | 8.6 |
| | 15-90 | 2# | *22 | 327 | 346 | 331 | 55 | 170 | 146 | 146 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 133 | 8.0 |
| | 100-200 | 3# | 28 | 353 | 372 | 357 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 127 | 159 | 4 | 116 | 133 | 11 |
| 750W 1HP | 3-25 | 2# | 22 | 355 | 395 | 355 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 159 | 190 | 3.5 | 133 | 145 | 11 |
| | 3-25 | 2# | *22 | 355 | 395 | 355 | 55 | 170 | 146 | 146 | 11 | 12 | 18.2 | 49 | 159 | 190 | 3.5 | 133 | 145 | 11 |
| | 30-120 | 3# | 28 | 382 | 415 | 382 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 159 | 190 | 4 | 133 | 145 | 14 |
| | 130-200 | 4# | 32 | 417 | 449 | 417 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 159 | 190 | 4 | 133 | 145 | 19.4 |
| 1500W 2HP | 4-25 | 3# | 28 | 415 | | 436 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 190 | | 4 | 145 | | 15 |
| | 30-120 | 4# | 32 | 449 | | 470 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 190 | | 4 | 145 | | 21.4 |
| | 130-200 | 5# | 40 | 476 | | 497 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 190 | | 5 | 145 | | 42 |
| 2200W 3HP | 3-60 | 4# | 32 | 455 | | 481 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 190 | | 4 | 153 | | 27.4 |
| | 70-200 | 5# | 40 | 482 | | 508 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 217 | | 5 | 153 | | 47 |
| 3700W 5HP | 30-180 | 5# | 40 | 498 | | 524 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 217 | | 5 | 153 | | 52 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |



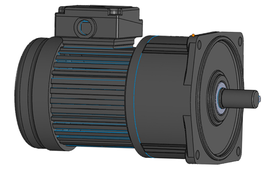




A-出力法蘭
A-Output Flange




B-出力法蘭
B-Output Flange

備注 NOTE:
1、1#本體（型號爲18）C1爲33.5，C2爲65.5
1# Ontology（Models for 18）
C1 is 33.5，C2 is 65.5
2、2#本體（型號爲22）C1爲40，C2爲80
2# Ontology（Models for 22）
C1 is 40，C2 is 80



- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

- *屬于B型號出力法蘭。
- *Belong to B type output flange.

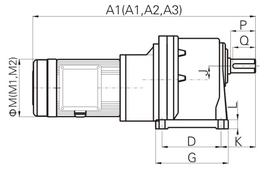
- 請選用標準框號齒輪減速馬達，如特殊原因需選擇縮框型齒輪減速馬達時，負載必須低于正常負載。
- Please select the gear reducer motors of standard box number; if a gear reducer motor of shrunk box should be selected for a specific reason, the load must be lower than the normal load.

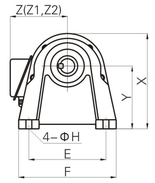
## 8 GH卧式高速比附三相、單相鋁殼(剎車)縮框型齒輪減速馬達

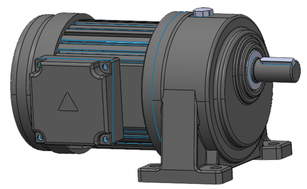
GH HORIZONTAL HIGH-SPEED OPPONENT SINGLE-PHASE THREE-PHASE,ALUMNUM SHELL (BRAKE) SHRINK BOX TYPE GEAR REDUCER MOTORS

| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | X | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 250-1800 | 1#+2# | 22 | 365 | 385 | 369 | 65 | 130 | 163 | 90 | 11 | 15 | 18.2 | 56 | 127 | 127 | 152 | 97.5 | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800 | 1#+3# | 28 | 410 | 430 | 414 | 90 | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 127 | 127 | 180 | 116 | 116 | 116 | 29.6 |
| 400W 1/2HP | 250-1800 | 2#+4# | 32 | 491 | 510 | 495 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 127 | 159 | 210 | 138.5 | 116 | 133 | 42.6 |
| 750W 1HP | 250-1800 | 3#+5# | 40 | 561 | 594 | 561 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 85 | 159 | 190 | 248 | 160 | 133 | 145 | 59 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |





- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

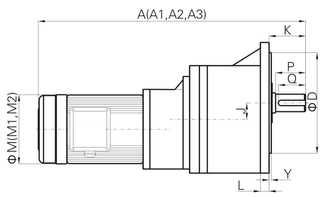
- 請選用標準框號齒輪減速馬達，如特殊原因需選擇縮框型齒輪減速馬達時，負載必須低于正常負載。
- Please select the gear reducer motors of standard box number; if a gear reducer motor of shrunk box should be selected for a specific reason, the load must be lower than the normal load.

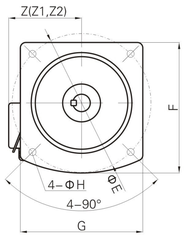
## 9 GV立式高速比附三相、單相鋁殼(剎車)縮框型齒輪減速馬達

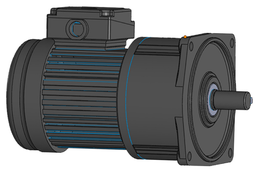
GV ALL CINEMAS VERTICAL HIGH-SPEED OPPONENT SINGLE-PHASE,ALUMINUM SHELL (BRAKE) SHRINK BOX TYPE GEAR REDUCER MOTOR

| 馬力HP-4P | 減速比 GEAR RATIO | 本體 CODE | 型號 TYPE | A1 | A2 | A3 | D | E | F | G | H | L | J | K | M1 | M2 | Y | Z1 | Z2 | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 250-1800 | 1#+2# | 22 | 364 | 384 | 368 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800 | 1#+3# | 28 | 410 | 430 | 414 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 127 | 127 | 4 | 116 | 116 | 29.6 |
| 400W 1/2HP | 250-1800 | 2#+4# | 32 | 491 | 510 | 495 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 127 | 159 | 4 | 116 | 133 | 42.4 |
| 750W 1HP | 250-1800 | 3#+5# | 40 | 561 | 594 | 561 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 159 | 190 | 4 | 133 | 145 | 59 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |





- A1、M1、Z1爲三相馬達尺寸。
- A2、M2、Z2爲單相馬達尺寸。
- A3爲三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

- 請選用標準框號齒輪減速馬達，如特殊原因需選擇縮框型齒輪減速馬達時，負載必須低于正常負載。
- Please select the gear reducer motors of standard box number; if a gear reducer motor of shrunk box should be selected for a specific reason, the load must be lower than the normal load.



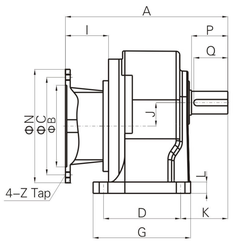
## 10 GHM卧式直結型齒輪減速機

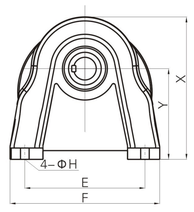
GHM HORIZONTAL STRAIGHT TYPE GEAR

| 馬力HP-4P | 減速比 GEAR RATIO | 型號 TYPE | A | B | C | D | E | F | G | H | I | J | K | L | N | X | Y | Z | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200W 1/4HP | 3-10 | 18 | 153 | 110 | 130 | 40 | 110 | 135 | 65 | 9 | 52.5 | 16 | 45 | 10 | 158 | 132 | 88.5 | M8 | 4 |
| | 15-90 | 22 | 188 | 110 | 130 | 65 | 130 | 159 | 90 | 11 | 52.5 | 18.2 | 56 | 15 | 158 | 152 | 97.5 | M8 | 6 |
| | 100-200 | 28 | 216 | 110 | 130 | 90 | 140 | 180 | 122 | 11 | 52.5 | 20.8 | 65 | 15 | 158 | 180 | 116 | M8 | 8 |
| 400W 1/2HP | 3-10 | 22 | 188 | 110 | 130 | 65 | 130 | 160 | 90 | 11 | 52.5 | 18.2 | 56 | 15 | 158 | 152 | 97.5 | M8 | 6 |
| | 15-90 | 28 | 216 | 110 | 130 | 90 | 140 | 180 | 122 | 11 | 52.5 | 20.8 | 65 | 15 | 158 | 180 | 116 | M8 | 8 |
| | 100-200 | 32 | 250 | 110 | 130 | 130 | 170 | 215 | 160 | 13 | 52.5 | 30.2 | 76 | 25 | 158 | 210 | 138.5 | M8 | 14.6 |
| 750W 1HP | 3-25 | 28 | 250 | 130 | 165 | 90 | 140 | 180 | 122 | 11 | 90.8 | 20.8 | 66 | 15 | 198 | 180 | 116 | M10 | 11 |
| | 30-120 | 32 | 288 | 130 | 165 | 130 | 170 | 215 | 160 | 13 | 90.8 | 30.2 | 76 | 25 | 198 | 210 | 138.5 | M10 | 19.6 |
| | 125-200 | 40 | 313 | 130 | 165 | 150 | 210 | 260 | 185 | 15 | 90.8 | 42.2 | 85 | 25 | 198 | 248 | 160 | M10 | 38 |
| 1500W 2HP | 3-25 | 32 | 288 | 130 | 165 | 130 | 170 | 215 | 160 | 13 | 90.8 | 30.2 | 76 | 25 | 198 | 210 | 138.5 | M10 | 19.6 |
| | 30-120 | 40 | 313 | 130 | 165 | 150 | 210 | 260 | 185 | 15 | 90.8 | 42.2 | 85 | 25 | 198 | 248 | 160 | M10 | 39 |
| 2200W 3HP | 3-60 | 40 | 320 | 180 | 215 | 150 | 210 | 260 | 185 | 15 | 95 | 42.2 | 85 | 25 | 250 | 248 | 160 | M12 | 40 |
| | 70-120 | 50 | 360 | 180 | 215 | 170 | 265 | 330 | 220 | 18 | 95 | 51.7 | 104 | 30 | 250 | 315 | 200 | M12 | 45 |
| 3700W 5HP | 3-25 | 40 | 320 | 180 | 215 | 150 | 210 | 260 | 185 | 15 | 95 | 42.2 | 85 | 25 | 250 | 248 | 160 | M12 | 50 |
| | 30-80 | 50 | 360 | 180 | 215 | 170 | 265 | 330 | 220 | 18 | 95 | 51.7 | 104 | 30 | 250 | 315 | 200 | M12 | 55 |

| 入力軸尺寸INPUT BORE | 馬力KW | 入力軸BORE | 鍵槽KEYWAY | |
|---|---|---|---|---|
| | | S1 | W1 | T1 |
| | 1/4HP | Φ11 | 4 | 12.8 |
| | 1/2HP | Φ14 | 5 | 16.3 |
| | 1HP | Φ19 | 6 | 21.8 |
| | 2HP | Φ24 | 8 | 27.3 |
| | 3HP | Φ28 | 8 | 31.3 |
| | 5HP | Φ28 | 8 | 31.3 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |






- 配合IEC馬達爲主.
- Available for IEC metric motor.

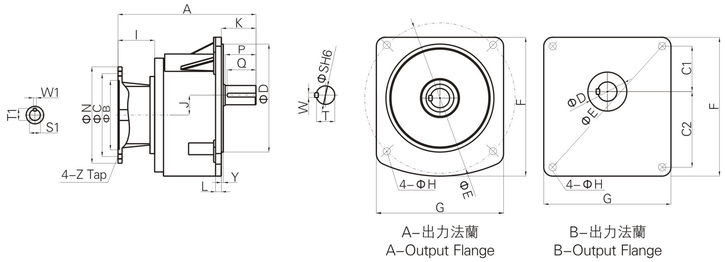
## 11 GVM立式直結型齒輪減速機
GVM VERTICAL STRAIGHT TYPE GEAR

| 馬力HP–4P | 減速比 GEAR RATIO | 型號 TYPE | A | B | C | D | E | F | G | H | I | J | K | L | N | Y | Z | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200W 1/4HP | 3–10 | *18 | 153 | 110 | 130 | 50 | 140 | 120 | 120 | 9 | 52.5 | 16 | 38 | 12 | 158 | 5 | M8 | 4 |
| | 15–90 | 22 | 188 | 110 | 130 | 148 | 185 | 170 | 156 | 11 | 52.5 | 18.2 | 49 | 12 | 158 | 3.5 | M8 | 6 |
| | 15–90 | *22 | 188 | 110 | 130 | 55 | 170 | 146 | 146 | 11 | 52.5 | 18.2 | 49 | 12 | 158 | 3.5 | M8 | 6 |
| | 100–200 | 28 | 216 | 110 | 130 | 170 | 220 | 195 | 180 | 11 | 52.5 | 20.8 | 57 | 15 | 158 | 4 | M8 | 8 |
| 400W 1/2HP | 3–10 | 22 | 188 | 110 | 130 | 148 | 185 | 170 | 156 | 11 | 52.5 | 18.2 | 49 | 12 | 158 | 3.5 | M8 | 6 |
| | 3–10 | *22 | 188 | 110 | 130 | 55 | 170 | 146 | 146 | 11 | 52.5 | 18.2 | 49 | 12 | 158 | 3.5 | M8 | 6 |
| | 15–90 | 28 | 216 | 110 | 130 | 170 | 220 | 195 | 180 | 11 | 52.5 | 20.8 | 57 | 15 | 158 | 4 | M8 | 8 |
| | 100–200 | 32 | 250 | 110 | 130 | 185 | 255 | 237 | 215 | 13 | 52.5 | 30.2 | 67 | 17 | 158 | 4 | M8 | 14.6 |
| 750W 1HP | 3–25 | 28 | 250 | 130 | 165 | 170 | 220 | 195 | 180 | 11 | 90.8 | 20.8 | 57 | 15 | 198 | 4 | M10 | 11 |
| | 30–120 | 32 | 288 | 130 | 165 | 185 | 255 | 237 | 215 | 13 | 90.8 | 30.2 | 67 | 17 | 198 | 5 | M10 | 19.6 |
| | 125–200 | 40 | 313 | 130 | 165 | 230 | 310 | 300 | 275 | 15 | 90.8 | 42.2 | 79 | 20 | 198 | 4 | M10 | 38 |
| 1500W 2HP | 3–25 | 32 | 288 | 130 | 165 | 185 | 255 | 237 | 215 | 13 | 90.8 | 30.2 | 67 | 17 | 198 | 5 | M10 | 19.6 |
| | 30–120 | 40 | 313 | 130 | 165 | 230 | 310 | 300 | 275 | 15 | 90.8 | 42.2 | 79 | 20 | 198 | 5 | M10 | 39 |
| 2200W 3HP | 3–60 | 40 | 320 | 180 | 215 | 230 | 310 | 300 | 275 | 15 | 95 | 42.2 | 79 | 20 | 250 | 5 | M12 | 39 |
| | 70–120 | 50 | 360 | 180 | 215 | 280 | 390 | 360 | 330 | 19 | 95 | 51.7 | 90 | 20 | 250 | 5 | M12 | 44 |
| 3700W 5HP | 3–25 | 40 | 320 | 180 | 215 | 230 | 310 | 300 | 275 | 15 | 95 | 42.2 | 79 | 20 | 250 | 5 | M12 | 55 |
| | 30–80 | 50 | 360 | 180 | 215 | 280 | 390 | 360 | 330 | 19 | 95 | 51.7 | 90 | 20 | 250 | 5 | M12 | 60 |

| 入力軸尺寸INPUT BORE | 馬力KW | 入力軸BORE | 鍵槽KEYWAY | |
|---|---|---|---|---|
| | | S1 | W1 | T1 |
| | 1/4HP | Φ11 | 4 | 12.8 |
| | 1/2HP | Φ14 | 5 | 16.3 |
| | 1HP | Φ19 | 6 | 21.8 |
| | 2HP | Φ24 | 8 | 27.3 |
| | 3HP | Φ28 | 8 | 31.3 |
| | 5HP | Φ28 | 8 | 31.3 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |

備注 NOTE:
1、1#本體（型號爲18）C1爲33.5，C2爲65.5
1# Ontology（Models for 18）
C1 is 33.5，C2 is 65.5
2、2#本體（型號爲22）C1爲40，C2爲80
2# Ontology（Models for 22）
C1 is 40，C2 is 80




A–出力法蘭
A–Output Flange

B–出力法蘭
B–Output Flange

- 配合IEC馬達爲主。
- Available for IEC metric motor.
- *屬于B型號出力法蘭。
- *Belong to B type output flange.

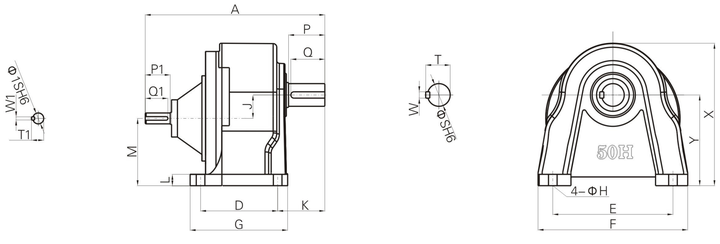


## 12 GHD卧式雙軸型齒輪減速機
GHD HORIZONTAL TYPE DUAL AXLE GEAR

| 馬力 HP–4P | 減速比 GEAR RATIO | 型號 TYPE | A | D | E | F | G | H | J | K | L | M | X | Y | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 3–50 | 18 | 168 | 40 | 110 | 135 | 65 | 9 | 16 | 45 | 10 | 72.5 | 132 | 88.5 | 3 |
| | 60–200 | 22 | 200 | 65 | 130 | 160 | 90 | 11 | 18.2 | 56 | 15 | 80 | 152 | 97.5 | 4 |
| 200W 1/4HP | 3–10 | 18 | 168 | 40 | 110 | 135 | 65 | 9 | 16 | 45 | 10 | 72.5 | 132 | 88.5 | 3 |
| | 15–90 | 22 | 200 | 65 | 130 | 160 | 90 | 11 | 18.2 | 56 | 15 | 80 | 152 | 97.5 | 5 |
| | 100–200 | 28 | 258 | 90 | 140 | 180 | 120 | 11 | 20.8 | 65 | 15 | 95.2 | 180 | 116 | 7 |
| 400W 1/2HP | 3–10 | 22 | 207 | 65 | 130 | 160 | 90 | 11 | 18.2 | 56 | 15 | 80 | 152 | 97.5 | 6 |
| | 15–90 | 28 | 263 | 90 | 140 | 180 | 120 | 11 | 20.8 | 65 | 15 | 95.2 | 180 | 116 | 7 |
| | 100–200 | 32 | 300 | 130 | 170 | 215 | 160 | 13 | 30.2 | 76 | 25 | 108.5 | 210 | 138.5 | 12.6 |
| 750W 1HP | 3–25 | 28 | 269 | 90 | 140 | 180 | 120 | 11 | 20.8 | 65 | 15 | 95.2 | 180 | 116 | 7 |
| | 30–120 | 32 | 310 | 130 | 170 | 215 | 160 | 13 | 30.2 | 76 | 25 | 108.5 | 210 | 138.5 | 14.6 |
| | 125–200 | 40 | 336 | 150 | 210 | 260 | 185 | 15 | 42.2 | 85 | 25 | 117.8 | 248 | 160 | 35 |
| 1500W 2HP | 3–25 | 32 | 320 | 130 | 170 | 215 | 160 | 13 | 30.2 | 76 | 25 | 108.5 | 210 | 138.5 | 14.6 |
| | 30–120 | 40 | 350 | 150 | 210 | 260 | 185 | 15 | 42.2 | 85 | 25 | 117.8 | 248 | 160 | 35 |
| 2200W 3HP | 3–60 | 40 | 360 | 150 | 210 | 260 | 185 | 15 | 42.2 | 85 | 25 | 117.8 | 248 | 160 | 35 |
| | 70–120 | 50 | 410 | 170 | 265 | 330 | 220 | 19 | 51.7 | 104 | 30 | 148.6 | 315 | 200 | 43 |
| 3700W 5HP | 3–25 | 40 | 360 | 150 | 210 | 260 | 185 | 15 | 42.2 | 85 | 25 | 117.8 | 248 | 160 | 35 |
| | 30–80 | 50 | 410 | 170 | 265 | 330 | 220 | 19 | 51.7 | 104 | 30 | 148.6 | 315 | 200 | 43 |

| 入力軸尺寸INPUT BORE | 入力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | KW | S1h6 | P1 | W1 | T1 | Q1 | SPEC |
| | 0.1/0.2 | 14 | 25 | 5 | 16 | 22 | 5×5×22 |
| | 0.4 | 14 | 30 | 5 | 16 | 26 | 5×5×25 |
| | 0.75 | 19 | 40 | 6 | 21.5 | 35 | 6×6×35 |
| | 1.5 | 24 | 50 | 8 | 27 | 45 | 8×7×45 |
| | 2.2 | 28 | 60 | 8 | 31 | 50 | 8×7×50 |
| | 3.7 | 28 | 60 | 8 | 31 | 50 | 8×7×50 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |



## 13 GVD立式雙軸型齒輪減速機
GVD(GUN VISUAL DEBUGGER)BIAXICAL TYPE GEAR

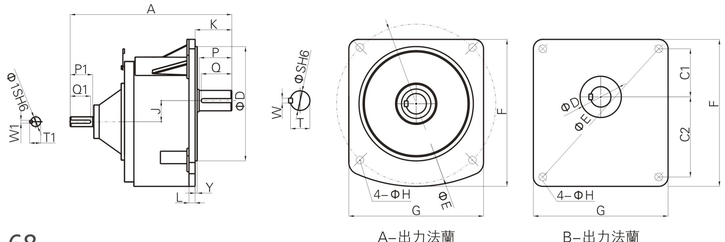
| 馬力HP–4P | 減速比 GEAR RATIO | 型號 TYPE | A | D | E | F | G | H | J | K | L | Y | 重量KG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100W 1/8HP | 3–50 | *18 | 168 | 50 | 140 | 120 | 120 | 9 | 16 | 38 | 12 | 5 | 3 |
| | 60–200 | 22 | 200 | 148 | 185 | 170 | 156 | 11 | 18.2 | 49 | 12 | 3.5 | 4 |
| | 60–200 | *22 | 200 | 55 | 170 | 146 | 146 | 11 | 18.2 | 49 | 12 | 3.5 | 4 |
| 200W 1/4HP | 3–10 | *18 | 168 | 50 | 140 | 120 | 120 | 9 | 16 | 38 | 12 | 5 | 3 |
| | 15–90 | 22 | 200 | 148 | 185 | 170 | 156 | 11 | 18.2 | 49 | 12 | 3.5 | 5 |
| | 15–90 | *22 | 200 | 55 | 170 | 146 | 146 | 11 | 18.2 | 49 | 12 | 3.5 | 4 |
| | 100–200 | 28 | 258 | 170 | 220 | 195 | 180 | 11 | 20.8 | 57 | 15 | 4 | 7 |
| 400W 1/2HP | 3–10 | 22 | 207 | 148 | 185 | 170 | 156 | 11 | 18.2 | 49 | 12 | 3.5 | 6 |
| | 3–10 | *22 | 200 | 55 | 170 | 146 | 146 | 11 | 18.2 | 49 | 12 | 3.5 | 4 |
| | 15–90 | 28 | 263 | 170 | 220 | 195 | 180 | 11 | 20.8 | 57 | 15 | 4 | 7 |
| | 100–200 | 32 | 300 | 185 | 255 | 237 | 215 | 13 | 30.2 | 67 | 17 | 4 | 12.4 |
| 750W 1HP | 3–25 | 28 | 268 | 170 | 220 | 195 | 180 | 11 | 20.8 | 57 | 15 | 4 | 7 |
| | 30–120 | 32 | 310 | 185 | 255 | 237 | 215 | 13 | 30.2 | 67 | 17 | 4 | 14.4 |
| | 125–200 | 40 | 336 | 230 | 310 | 300 | 275 | 15 | 20.8 | 79 | 20 | 5 | 35 |
| 1500W 2HP | 3–25 | 32 | 320 | 185 | 255 | 237 | 215 | 13 | 30.2 | 67 | 17 | 4 | 14.4 |
| | 30–120 | 40 | 350 | 230 | 310 | 300 | 275 | 15 | 42.2 | 79 | 20 | 5 | 35 |
| 2200W 3HP | 3–60 | 40 | 360 | 230 | 310 | 300 | 275 | 15 | 42.2 | 79 | 20 | 5 | 35 |
| | 70–120 | 50 | 400 | 280 | 390 | 360 | 330 | 19 | 51.7 | 90 | 20 | 5 | 43 |
| 3700W 5HP | 3–25 | 40 | 360 | 230 | 310 | 300 | 275 | 15 | 42.2 | 79 | 20 | 5 | 35 |
| | 30–80 | 50 | 400 | 280 | 390 | 360 | 330 | 19 | 51.7 | 90 | 20 | 5 | 43 |

| 入力軸尺寸INPUT BORE | 入力軸SHAFT | | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|---|
| | KW | S1h6 | P1 | W1 | T1 | Q1 | SPEC |
| | 0.1/0.2 | 14 | 25 | 5 | 16 | 22 | 5×5×22 |
| | 0.4 | 14 | 30 | 5 | 16 | 26 | 5×5×25 |
| | 0.75 | 19 | 40 | 6 | 21.5 | 35 | 6×6×35 |
| | 1.5 | 24 | 50 | 8 | 27 | 45 | 8×7×45 |
| | 2.2 | 28 | 55 | 8 | 31 | 50 | 8×7×50 |
| | 3.7 | 28 | 55 | 8 | 31 | 50 | 8×7×50 |

| 出力軸尺寸OUTPUT SHAFT | 出力軸SHAFT | | 鍵槽KEYWAY | | | 鍵KEY |
|---|---|---|---|---|---|---|
| | Sh6 | P | W | T | Q | SPEC |
| | Φ18 | 30 | 5 | 20 | 25 | 5×5×25 |
| | Φ22 | 40 | 7 | 25 | 35 | 7×7×35 |
| | Φ28 | 45 | 7 | 31 | 40 | 7×7×40 |
| | Φ32 | 55 | 10 | 35.5 | 50 | 10×8×50 |
| | Φ40 | 65 | 10 | 43.5 | 60 | 10×8×60 |
| | Φ50 | 80 | 14 | 54 | 75 | 14×9×75 |

備注 NOTE:
1、1#本體（型號爲18）C1爲33.5，C2爲65.5
1# Ontology（Models for 18）
C1 is 33.5，C2 is 65.5
2、2#本體（型號爲22）C1爲40，C2爲80
2# Ontology（Models for 22）
C1 is 40，C2 is 80

- *屬于B型出力法蘭.
- *Belong to B type output flange.

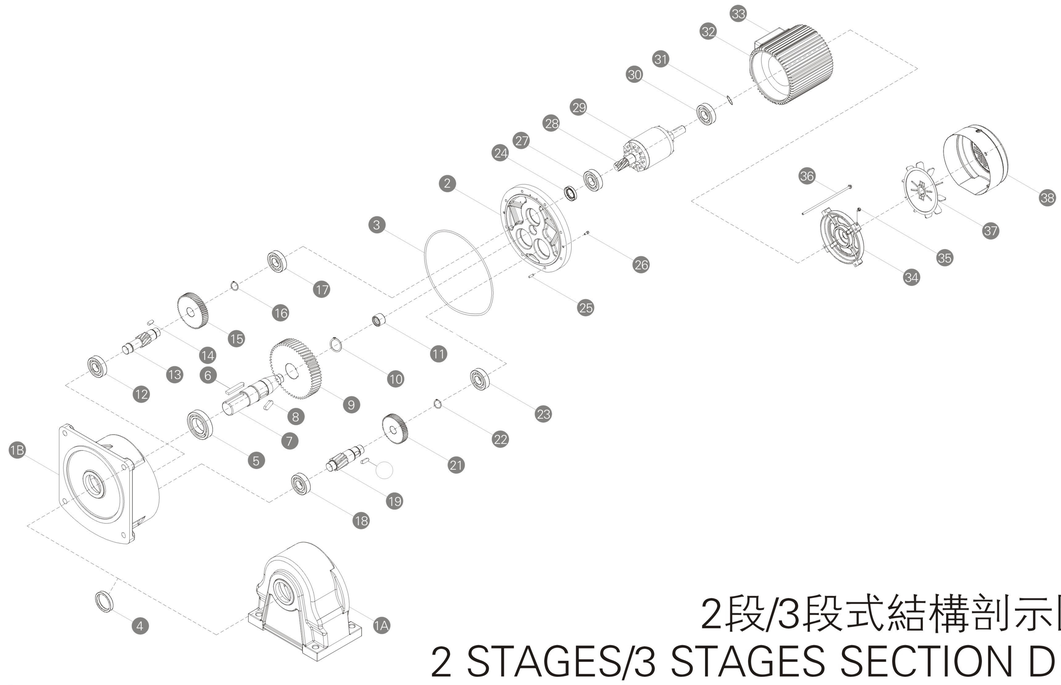



A–出力法蘭
A–Output Flange

B–出力法蘭
B–Output Flange



## 零件剖面圖
DETAILS PARTS LIST

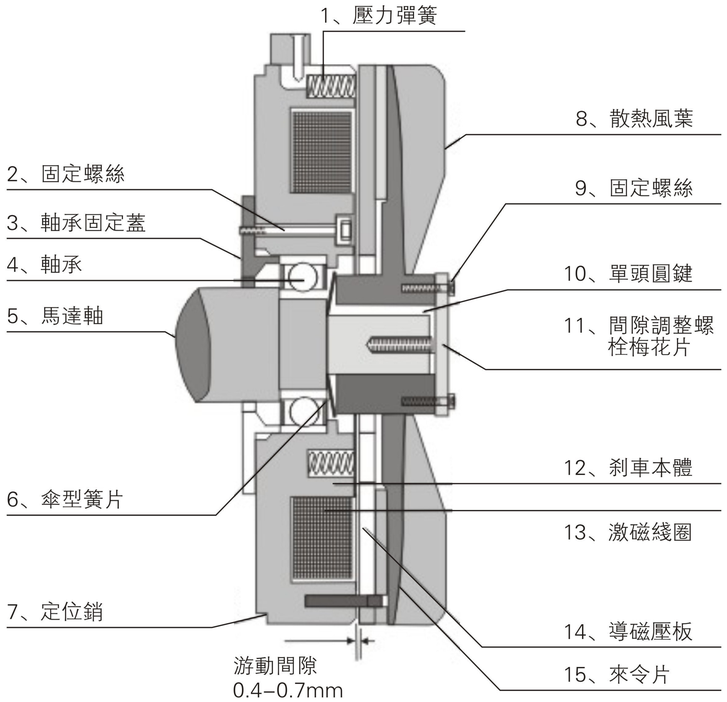



# 2段/3段式結構剖示圖
# 2 STAGES/3 STAGES SECTION DIA

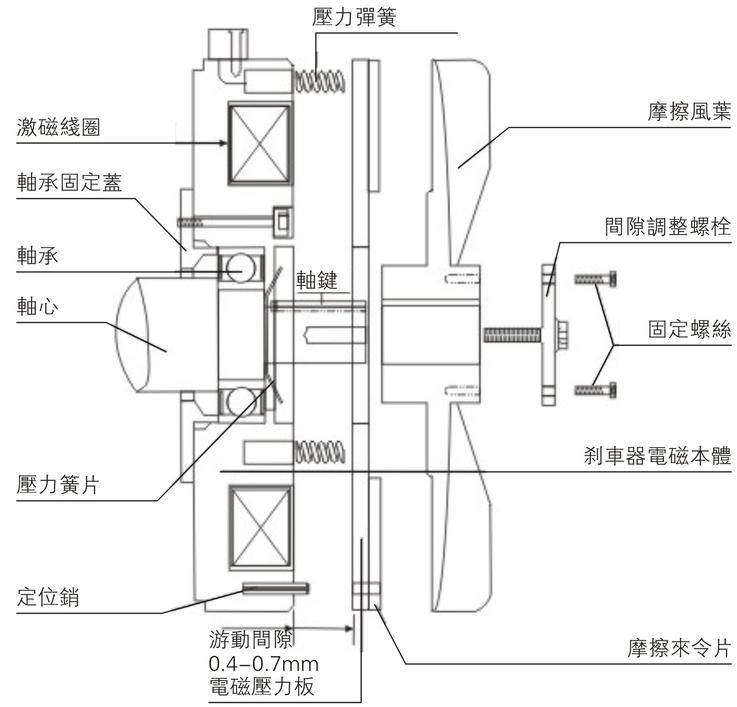
| | | | | | |
|---|---|---|---|---|---|
| 1A | 卧式本體 HORIZONTAL HOUSING | 13 | 三段小齒軸 PINION–3NDSTAGE | 26 | 內六角螺絲 HEX–HEAD SCREW |
| 1B | 立式本體 VERTICAL HOUSING | 14 | 三段小齒軸鍵 KEY–3NDSTAGE PINION | 27 | 馬達軸培林 BEARING–MOTOR SHAFT |
| 2 | 馬達前蓋 HOUSING COVER | 15 | 二段大齒輪 GEAR–2NDSTAGE | 28 | 馬達齒輪 MOTOR SHAFT |
| 4 | O型環 O–RING | 16 | C–扣環 SNAP RING | 29 | 轉子 ROTOR |
| 4 | 出力軸油封 OILSEAL–OUTPUT SHAFT | 17 | 三段齒輪軸培林 BEARING–3RDSTAGE PINION | 30 | 馬達軸培林 BEARING–MOTOR SHAFT |
| 5 | 出力軸培林 BEARING–OUTRUT SHAFT | 18 | 二段齒軸培林 BEARING–2NDSTAGE PINION | 31 | 波浪彈簧 WAVE SPRING |
| 6 | 出力軸鍵 KEY–OUTPUT SHAFT | 19 | 二段齒軸培林 PINON–2NDSTAGE | 32 | 綫圈總成 COILASSEMBLY |
| 7 | 出力軸 OUTPUT SHAFT | 20 | 二段小齒軸鍵 KEY–2NDSTAGE PINION | 33 | 接綫盒 WIRE BOX |
| 8 | 三段小齒軸鍵 KEY–3RDPINION | 21 | 一段大齒輪 GEAR–1RDSTAGE | 34 | 馬達後蓋 REAR COVER–MOTOR |
| 9 | 三段大齒軸鍵 GEAR–3RDPINION | 22 | C–扣環 SNAP RING | 35 | 風罩螺絲 SCREW–FAN COVER |
| 10 | C–扣環 SNAP RING | 23 | 二段齒軸培林 BEARING–2RDSTA | 36 | 馬達螺栓 BOLT–MOTOR |
| 11 | 出力軸滾針軸承 THE OUTPUT SHAFT NEEDLE BEARING | 24 | 入側油封 OIL SEAL–MOTOR SHAFT | 37 | 風葉 FAN |
| 12 | 二段齒軸培林 BEARING–2NDSTAGE PINION | 25 | 定位銷 PIN | 38 | 風罩 FAN COVER–MOTOR |

# 剎車零件分解圖
# BRAKE UNIT SECTION DIAGRAM

短型安全剎車器




智型安全剎車器




| | | | | | |
|---|---|---|---|---|---|
| 1 | 壓力彈簧<br>PRESSURE SPRING | 6 | 傘型簧片<br>DISC SPRING | 11 | 調整螺栓<br>GAP ADIUSTMENT BOLT |
| 2 | 固定螺絲<br>FIXED SCREW | 7 | 定位銷<br>FIXED PIN | 12 | 剎車本體<br>BRAKE HOUSING |
| 3 | 軸承固定蓋<br>FIXED BEARING PLATE | 8 | 散熱風葉<br>FAN | 13 | 激磁綫圈<br>BRAKE COIL |
| 4 | 軸承<br>BEARING | 9 | 固定螺絲<br>FIXED SCREW | 14 | 導磁壓板<br>FRICTION PLATE |
| 5 | 馬達軸<br>MOTOR SHAFT | 10 | 固定鍵<br>KEY | 15 | 來令片<br>FRICTION BRAKE<br>BRAKE DISC |

## 剎車間隙調整
## ADIUST BRAKE CLEARANCE

間隙調整螺栓正面圖
Front view of
gap adjusting bolt

1、請先移除固定螺絲
Please remove two pieces fixed screws in advance

2、每向右調整一格，其間距縮小0.07–0.10mm
Every single position adjustment,brake ciearance will reduce 0.07–0.10mm

# 故障排除
TROUBLE SHOUTING

## 直流剎車器故障排除 TROUBLE SHOUTING FOR DC BRAKE UNIT

| 不良原因<br>DEFECTIVE REASON | 原因分析<br>POSSIBLE ANALYSIS | 解決方式<br>SOLUTION METHOD |
|---|---|---|
| 剎車器不動作 NO ACTION | 未供電源<br>NOPOWER INSIDE BRAKE | 供應電源<br>SUPPLY POWER |
| | 來令片磨損<br>BRAKE DISC WORN OUT | 換新來令片<br>USE NEW BRAKE DISC |
| | 間隙過大<br>LARGE CLEARANCE | 調整間隙<br>ADJUST CLEARANCE |
| | 電源電壓不足<br>LOW VOLTA | 提供正確電壓<br>USE CORRECT VOLTAGE |
| | 電源供應器損壞<br>POWER SUPPLY DAMAGE | 電源供應器換新<br>USE NEW POWOR SUPPLY |
| | 異物入侵<br>DIRTY INSIDE | 清潔零件<br>CLEAN PARTS |
| | 使用電壓錯誤<br>WRONG VOLTAGE | 使用正確電壓<br>CORRECT VOLTAGE |
| | 接綫脱落<br>CONNECT WIRE LOST | 重新接綫<br>RE–CONNECT WIRE |
| | 來令片卡死<br>BRAKE DISC LOCKED | 清潔零件<br>CLEAN PARTS |
| | 煞車綫圈燒毀<br>BRAKE COIL BURNED–OUT | 更換剎車綫圈<br>USE NEW BRAKE COLL |
| 剎車移動 OVER STOP | 來令片磨損<br>BRAKE DISC WORN OUT | 換新來令片<br>USE NEW BRAKE DISC |
| | 間隙過大<br>LARGE CLEARANCE | 調整間隙<br>ADJUST CLEARANCE |
| | 來令片沾染油渣<br>SURFACE W/OIL | 清潔來令片<br>CLEAN BRAKE DISC |
| | 負載過大<br>OVER LOADING | 重新設計<br>RE–DESIGN BRAKE UNIT |
| | 煞車表面歪斜<br>DISC SURFACE TWIST | 更換零件<br>USE NEW PARTS |
| | 下降重量過大<br>HUGE MOMENTUM | 機構重新設計<br>SYSTEM RE–DESIGN |
| | 選用機型錯誤<br>SELECT WRONG TYPE | 選用正確機型<br>RE–SELECT UNIT |
| | 環境温度過高<br>HIGH TEMPERATURE | 改善環境温度<br>ADJUST TEMPERATURE |

## 減速機故障排除 TROUBLE SHOUTING FOR GEARMOTOR

| 不良原因<br>DEFECTIVE REASON | | 原因分析<br>POSSIBLE ANALYSIS | 解決方式<br>SOLUTION METHOD |
|---|---|---|---|
| 噪音<br>NOISE | 齒輪敲擊聲<br>KNOCKING | 齒輪表面受傷<br>HURT GEAR SURFACE | 更換受傷齒輪組<br>REPLACE GEAR SFT |
| | 連續性雜音<br>CONTINUALLY | 培林損壞<br>BAD BEARING | 更換損壞培林<br>REPLACE BEARING |
| | 周期性雜音<br>PERIODICALLY | 异物附着齒面<br>PARTICLE INSIDE | 檢查齒輪齒面<br>CHECK GEAR |
| | 斯斯聲<br>NEIGH | 油量不足<br>LACK OF LUBRICANT | 添加潤滑油<br>FILL WITH LUB–OIL |
| | 斷續性雜音<br>INTERMITTENTLY | 潤滑油不潔<br>DIRTY LUBRICANT | 更換新潤滑油<br>REPLACE LUBRICANT |
| 振動<br>VIBRATING | 固定底座振動<br>MOUNTING BASE M | 安裝平面歪斜<br>BAD SURFACE MOUNTIN | 重新調整固定底座<br>E–ADJUST MOUNTING BASE |
| | 出力軸振動<br>OUTPUT SHAFT MOVING | 培林損壞<br>BEARING BROKEN | 更換損害培林<br>REPLACE WOUNDED BRARING |
| | 内部齒輪零件振動<br>INSIDE GEAR PARTS MOVEMENT | 齒輪受傷<br>GEAR WOUNDED | 更換受傷齒輪<br>REPLACE WOUNDED BEARING |
| | 本體振動<br>HOUSING VIBRATING | 齒輪組安裝不良<br>BAD GEAR ASSEMBLY | 重新調整齒輪組<br>RE–ADJUST GEAR SET |
| 漏油<br>LEAKAGE | 油封漏油<br>OIL SEAL LEAKAGE | 油封硬化<br>OIL SEAL TOO HARDEN | 更換損壞油封<br>REPLACE WOUNDED OIL SEAL |
| | 本體漏油<br>HOUSING LEAKAGE | 本體有砂孔<br>HOUSING HAD SAND HOLE | 更換砂孔本體<br>REPLACE SAND HOLE HOUSING |
| | 結合面漏油<br>CONNECT SURFAXE LEAKAGE | O–型環損壞<br>O–RINGBR | 更換損壞O–型環<br>REPLACE WOUNDED O–RING |
| 過熱<br>OVER–<br>HEATING | 油封<br>BAD OIL SEAL | 油封太緊<br>OIL SEAL TOO TIGHT | 更換太緊油封<br>REPLACE TIGHTEN OIL SEAL |
| | 本體過熱<br>HOUSING TOO HEAT | 過負載<br>OVER LOAD RUNNING | 重新計算負載馬力<br>RE–CALAULATE LOADING |
| | 缺潤滑油<br>LESS LUBRICANT | 油量不足<br>LACK OF LUBRICANT | 加入潤滑油<br>FILL WITH LUBRICANT |
| | 馬達過熱<br>MOTOR TOO HEAT | 馬達不良<br>DEFECTIVE MOTOR | 更換新馬達<br>REPLACE NEW MOTOR |

# 齒輪減速馬達使用説明書

## INSTRUCTIONS FOR GEAR REDUCER MOTOR

### 1 使用前 Before using

1、請檢查產品型號、電機功率、電機額定電壓、安裝方式、減速比及出力軸尺寸是否符合您的要求，如有不符，請及時與您的經銷商聯系，以便及時處理。

2、在減速箱上有膠栓的減速馬達(減速機)需將膠栓上面黃色的小膠栓拔掉，否則經長時間連續運行後有漏油的危險。

1、Please check if the product type, motor power, motor rated voltage, installation, reduction ratio and size of output bearing meet your requirements; if not, please contact your dealer for timely processing.

2、For the gear reducer motors (reducers) with plastic plugs in the gearboxes, pull out the yellow small plastic plugs, or else the oil may spill after long hours of running.

### 2 使用環境 Environment of use

1、請勿在爆炸性環境、易燃性氣體環境、腐蝕性環境以及漏水的環境使用此減速馬達。

2、請勿强行彎曲、拉扯或夾住電源、電纜綫和電機導綫。

3、電機安裝完成後，必須使用接地綫良好接地，接地綫位置位于接綫盒上面。

4、安裝、連接、檢查等須由專業技術人員進行。

5、安裝環境須幹燥且通風良好，周圍温度-5℃~40℃之間，异常高温或低温時需特別注明。

6、齒輪減速馬達需安裝在平整且堅固的底座上。

1、Do not use the gear reducer motor in the environment with explosives, flammable gas,corrosion, or water leaks.

2、Do not forcibly bend, pull or pinch the power supply, cables and motor wires.

3、When the motor is installed, it must be grounded properly with a ground wire, which is located on the junction box.

4、Installation, connection and inspection must be carried out by professional technicians.

5、The installation environment must be dry and well ventilated, the ambient temperature should be -5℃ ~40℃ , and extreme temperatures shall be noted.

6、The gear reducer motor should be installed on a flat and solid base.

### 3 安裝 Installation

1、當使用連軸器連接輸出軸時，須安裝固定且務必使兩軸平行，底座需以安裝孔徑相適應的螺栓進行安裝，確保齒輪減速馬達緊密牢固。

2、所有安裝在出力軸上的裝備必須輕裝于軸上，勿使用鐵錘及其它鈍器等敲擊出力軸，避免因安裝過緊而引起的軸承損壞。

3、滑輪、鏈輪或齒輪在裝配時盡量靠近出力軸承以減少彎曲應力。應使用不超過出力軸直徑6倍的鏈輪、皮帶輪等與出軸連接。使用時請配合H7公差使用，避免使用中發出异常噪音及軸面受損。

4、安裝完成後，可以在出力軸表面塗上適當的防銹油或防銹漆以保護出力軸避免生銹。

5、根據電源電壓，這擇適合的接线方式接好電機綫盒内引綫，并且必須接地綫。接綫盒内接錯綫會導致電機燒毀。要據電機銘牌上額定電流，建議按5A/mm²的電流密度選擇合適尺寸電纜綫給電機供電。

6、使用變頻器給帶刹車功能的齒輪減速馬達供電時，需將刹車綫(黃色)單獨提供交流220V供電，供電應與齒輪減速馬達供電同步。

7、齒輪減速馬達齒輪箱内已經加注好合適的潤滑油，使用前請勿再加潤滑油。正常使用超過10000小時後，可加放適合的0號潤滑油。

8、安裝完成後，再次檢查齒輪減速馬達安裝面是否平整，確保不能有任何物品頂到電機，否則會造成電機燒毀。

1、When the output bearing is connected with the coupler, it must be fixed and the two shafts must be parallel,the base should be installed with the bolts of appropriate aperture, and ensure that gear reducer motor is fixed tightly and securely.

2、All the equipment installed on the output bearing must be installed lightly;do not knock the output bearing with a hammer or other blunt objects to prevent bearing damage caused by tight installation.

3、The pulleys, sprockets and gears should be installed as close as possible to the output bearing to reduce bending stress. Connect to the output bearing through sprocket or belt pulley with a diameter no more than 6 times of the output bearing. Please use in combination with H7 tolerance to avoid noise and damage to the bearing surface.

4、After installation, coated suitable anti-rust oil or paint on the surface of the output bearing to avoid rusting.

5、Select appropriate wiring method according to the power supply voltage and connect the wires in the junction box.Wiring error will cause motor burn. According to the rated current on the nameplate,it is recommended to select the appropriate size of power cable according to 5A/mm2 current density to supply power to the motor.

6、When the gear reducer motor with brake function is powered by frequency converter, the brake line (yellow) should be provided with AC 220V power supply separately, and the power supply should be synchronized with the gear reducer motor.

7、The gearbox of the gear reducer motor has been filled with appropriate lubricating oil, and it isn't required to add lubricating before use. After normal use for 10,000 hours, add 0# lubricating oil.

8、After installation, check again if the mounting surface of gear reducer motor is flat,and ensure that no objects prop the motor,or else it will cause motor burn.



### 4 使用中 In use

1、使用中電源電壓變動超過10%時，有可能燒毀電機，同時伴有出力扭力降低或异常。

2、電機超負荷運行時有可能燒毀，請在運行初次測試電機電流是否在額定電流值内。

3、電機即使在正常運行狀態，有時表面温度也會有超過70℃的現象。電機運轉時，若有靠近電機的可能，請制作“高温注意”圖標并貼于電機顯眼處。

4、電機反轉時，單相電機按接綫圖進行調整。三相電機衹需要將電源綫中兩相對調即可。

1、If the variation of the supply voltage in use exceeds 10%, the motor might be damaged, accompanied by reduced or abnormal output torque.

2、The motor running overload may be burnt. Before running for the first time, test if the motor current is within the rated range.

3、Even if the motor is in normal operation state, the surface temperature may also exceed 70℃. If it is possible to approach the motor when the motor is running, please affix a "HOT" mark on a conspicuous place on the motor.

4、When the motor is running reversely, adjust single-phase motor according to the wiring diagram. For three-phase motors, just exchange two phases of the power cable.

### 5 保養與檢查 Maintenance and inspection

做一般定期檢查時，請注意需注意以下幾點:

- 温度上升

  齒輪減速馬達爲F级絶緣，全密閉外扇構造，所以馬達表面温度比周圍高50℃左右亦屬正常。如果温度高于以上時，必須停機檢查。(因素:馬達或傳動系統負載异常)

- 刹車馬達來令片因長時間使用會有磨損，請依據刹車間隙值進行調整。
- 异常振動、噪音

  正常情况，本機幾乎没有振動噪音。若有某些安裝异常使用，會産生振動噪音，所以請特別留意。（當空載噪音值在70dB/1M以下時，是被容許的。）

- 馬達通風口有時會積聚□物妨礙通風，所有請清除馬達外部，以確保馬達正常運行温度。
- 定期檢查時，請以500V電阻測量馬達綫組之絶緣阻抗，確保其1MΩ以上，以避免漏電之危險。
- For the standard gear reducer motors of shrunk boxes, only the motor coils have one year warranty, while the gearbox isn't covered. If the coil is burnt due to the damage of gearbox, we will charge for the maintenance costs.
- The standard gear reducer motors have one year warranty. If it is damaged by disassembly without permission or the load reasons, we will charge for the maintenance costs.
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### 6 故障處理與咨詢 Troubleshooting and consulting

- 發生故障時先對照目録的故障排除表進行處理，不能自行處理的，請聯系當地經銷商解决。
- 本機故障，換用零部件或咨詢時，請將銘牌上的參數確認後再進行聯系：型式(TYPE)馬力(OUTPUT)減速比(RATIO)制造編號(NO.)
- For the standard gear reducer motors of shrunk boxes, only the motor coils have one year warranty, while the gearbox isn't covered. If the coil is burnt due to the damage of gearbox, we will charge for the maintenance costs.
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### 7 質保 Quality assurance

1、縮框型號齒輪減速馬達僅電機綫圈部分保修一年，齒輪箱部分不保修。如果因齒輪箱損壞而造成綫圈部分燒毀，我司將收取維修成本費用。

2、標準框號齒輪減速馬達出廠後，保修一年。如因客户拆裝或所帶負載原因損壞，我司將收取維修成本費用。

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2、The standard gear reducer motors have one year warranty. If it is damaged by disassembly without permission or the load reasons, we will charge for the maintenance costs.