

# TPG<sup>®</sup>

MOTORS & DRIVES

- 信頼性ある製品 TECHNOLOGY
- 卓越したの性能 PERFECTION
- 保証したの品質 GUARANTEE



CE-N-0710-14-89-01-1A 2017180401003454  
CE-N-0710-14-89-02-1A E478997, E481357 2017180401003455  
2017180401003456



阪神伝動系列 [www.tpg.com.tw](http://www.tpg.com.tw)  
**POWER TRANSMISSION**

**阪神電機**  
TPG MOTORS & DRIVES



# BLDC BRUSHLESS DC MOTOR MOTOR

## 馬達:

TPG阪神高壓永磁無刷直流電動機為組合定子鐵心結構，集中式繞組，轉子磁極採用稀土永磁材料釹鐵硼製成，內置霍爾位置感測器。電機具有調速和控制性能好、功率密度和效率高、無耗損材料免維修、等一系列優點。

## 控制器:

高壓永磁無刷直流電動機控制器由交流電源供電，採用三相全波橋式逆變主電路，控制晶片為無刷電機專用晶片，驅動晶片為高壓控制器專門開發晶片，控制器擁有緩起動和過流保護電路，具有自主知識產權。本控制器能夠實現電機的起停、平滑調速、制動、正反轉、過流保護、過熱保護、緩起動等功能，並設具有外部訊號接口接受編程，運行可靠、數位化集成度高、操作簡便、控制性能好、保護功能完善等優點。



直流無刷馬達系列



TPG brand brushless motor consists of an wind wound stator, surrounding with one rotor made of magnetic Nd-Fe-B and installed one hall sensor in. Motor speed can be adjusted flexible and precise. Compact design, high efficient, non-replacement carbon brush, non maintenance cost.

Brushless motor control in 3 phase full wave bridge reverse circuit board must be supplied by AC power, with soft start, over- current/over heat protection, forward/reverse running, quick stop-start, smooth speed adjustment functions., meanwhile, this control also can be connected external signal which used for edit perfect electronic program.



輸  
NSPORT

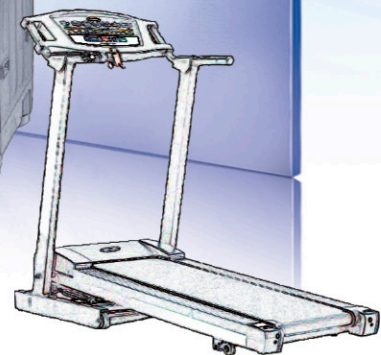


專業代工 OEM



AGV車

家庭  
HOME SUPPLY

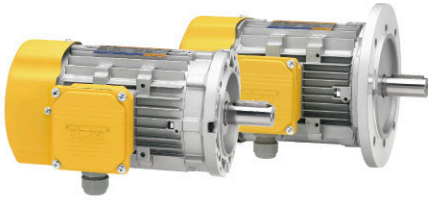


阪神電機 與您開創未來更美好生活 For the better life



**IEC** IEC Series: B5, B14, B34, B35 available.

**NEMA** NEMA Series: 56C / 145C.



**BVM TYPE**

**BVM (IEC) / BHM (NEMA) TYPE**

電壓 Voltage: 130V/260V  
馬力 Horse Power: 1/2 ~ 3 HP  
轉速 No-Load Speed: 2000, 3000 r.p.m.



**BHM TYPE**

▶ **電動車專用無刷馬達與控制器 BRUSHLESS DC MOTOR & CONTROLLER**



**EVB TYPE** 馬力 Horse Power: 3 KW~15 KW  
轉速 No-Load Speed: 1800~8000 r.p.m.  
電壓 Voltage: 48V/60V/72V



**BCBA TYPE**  
輸入電壓 Input Voltage: 48, 60, 72 Vdc  
輸出電流 Output Current: 120, 240, 360A

▶ **無刷馬達 BRUSHLESS MOTOR**

電壓 Voltage : 130, 260 V  
功率 Power : 120W~500W  
轉速 No-Load Speed : 2000, 3000 rpm



**B30 TYPE**

▶ **低壓控制器 LOW VOLTAGE CONTROL**



**BCOA TYPE**



**BCBA TYPE**

輸入電壓 Input Voltage: 48 Vdc  $\pm$  10%  
輸出電壓 Output Voltage: 0~48 Vac 3 $\phi$   
額定電流 Rated Current: 25 Adc Rated / 60 Adc max

▶ **高效鼓風機 HIGH EFFICIENCY BLOWER**

馬力 Horse Power : 1/2~2 HP  
驅動電機 Drive Motor : BLDC Motor  
輸入電壓 Input Voltage : 48Vdc / 220Vac



**BH-204AS**



**BH-207AS**

▶ **高壓無刷馬達控制器 HIGH VOLTAGE BRUSHLESS DC CONTROLLER**

輸入電壓 Input Voltage: 1 $\phi$ 220  $\pm$  10% Vac  
額定電流 Rated Current: 4.2 / 8A  
適用電機 Applicable Motor: 1, 2 HP

產品特色 :

- 1.HALL 閉迴路控制
- 2.內建煞車電阻
- 3.PID控制
- 4.Modbus(RS-485)通訊
- 5.自動轉矩補償
- 6.自動穩壓輸出調整

FEATURES:

- 1.HALL sensor feedback
- 2.Built-in dynamic braking unit
- 3.PID control
- 4.Modbus(RS-485) communication
- 5.Auto-torque compensation
- 6.Auto-adjustment for output voltage stability



**BCBB TYPE**



# BRUSHLESS GEAR MOTOR

無刷平行軸齒輪減速機 มอเตอร์เกียร์เฟลาตรงแบบไม่ใช้แปรงถ่าน

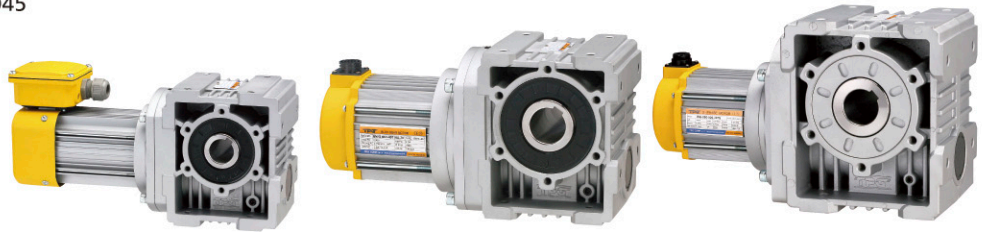
## ▶ 直流無刷中空齒蝸減速機 BRUSHLESS-HELICAL-WORM GEAR UNITS

出力軸孔 Output Shaft:  $\varnothing 30, \varnothing 35, \varnothing 45$

減速比 Ratio: 1:44.3~465

馬力 Horse Power: 1/8 ~ 2 HP

電壓 Voltage: 130V/260V



**BWG TYPE**

## ▶ 直流無刷齒輪減速馬達 BRUSHLESS GEAR MOTOR



**BGH TYPE**

出力軸 Output Shaft:  $\varnothing 18 \sim \varnothing 50$

減速比 Ratio: 1:3~200

馬力 Horse Power: 1/8 ~ 2 HP

電壓 Voltage: 130V/260V



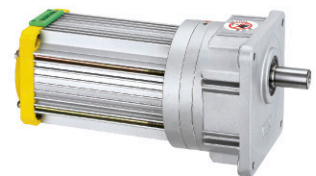
**BGV TYPE**

出力軸 Output Shaft:  $\varnothing 18 \sim \varnothing 50$

減速比 Ratio: 1:5~200

馬力 Horse Power: 1 ~ 2 HP

電壓 Voltage: 130V/260V



**BGV-15 TYPE**

出力軸 Output Shaft:  $\varnothing 15$

減速比 Ratio: 1:3~180

馬力 Horse Power: 45W~500W

電壓 Voltage: 130V/260V

## ▶ 直流無刷中空蝸輪減速機 BRUSHLESS-HOLLOW SHAFT WORM GEAR MOTOR

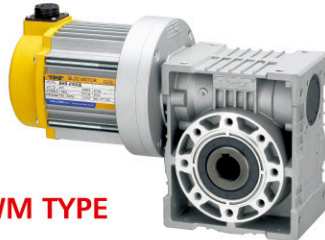
中心距 Central Distance:

$\varnothing 40, \varnothing 50, \varnothing 63, \varnothing 75, \varnothing 90$

減速比 Ratio: 1:7~100

馬力 Horse Power: 1/8 ~ 2 HP

電壓 Voltage: 130V/260V



**BWM TYPE**

## ▶ 風扇專用低速無刷馬達 (內建控制器) LOW SPEED BLDC INDUSTRIAL EXHAUST FAN

馬力 Horse Power: 0.85, 1.2kW

轉速 Speed: 100~500 RPM

電壓 Voltage: 220Vac 50/60Hz



**BVS TYPE**

## ▶ 直流無刷准雙曲面傘齒輪減速機 BRUSHLESS HYPOID GEAR MOTOR



**BFV TYPE**

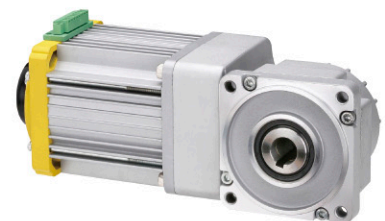
馬力 Horse Power: 1/8, 2 HP

馬達額定轉速 Rated Speed : 2500rpm

減速比 Ratio: 1 : 5~240

電壓 Voltage: 130V/260V

## ▶ 直流無刷直交軸傘齒輪減速機 BRUSHLESS RIGHT ANGLE SPIRAL BEVEL GEAR MOTOR



**BF-17 TYPE**

馬力 Horse Power: 1/8, 1/4 HP

馬達額定轉速 Rated Speed : 2500rpm

減速比 Ratio: 1 : 7~200

電壓 Voltage: 130V/260V



**平行軸**

PARALLEL GEAR TYPE

▶ **減速齒輪馬達**  
**GEAR MOTORS**

Horse Power: 0.1KW—7.5KW  
Gear Ratio: 1:5~1:1200  
Voltage:  
1Ø, 100-120V, 200-240V  
3Ø, 220/380V, 220/440V  
200/400V, 208/415V



**GH TYPE**



**GV TYPE**

▶ **煞車減速馬達**  
**GEAR MOTORS WITH BRAKE**

ADOPT DC POWER OFF SAFETY BRAKE  
Horse Power: 0.1KW—2.2KW  
Gear Ratio: 1 : 5~1:1200  
Voltage:  
1Ø, 100-120V, 200-240V  
3Ø, 220/380V, 220/440V  
200/400V, 208/415V



**GHM TYPE WITH BRAKE**



**GVM TYPE WITH BRAKE**

▶ **法蘭面減速箱**  
**BOX -IEC B5 FLANGE**

Horse Power: 0.1KW-7.5KW  
Gear Ratio: 1 : 5~1 : 1200



**GHS TYPE SINGLE-SHAFT**  
-IEC 63B5~132B5 Flange  
-NEMA 42C~256TC Frame



**GVS TYPE SINGLE-SHAFT**  
-IEC 63B5~132B5 Flange  
-NEMA 42C~256TC Frame

▶ **雙軸減速箱**  
**TWO-SHAFT GEAR BOX**

Horse Power: 0.1KW-7.5KW  
Gear Ratio: 1 : 5~1 : 1200



**GHD TYPE TWO - SHAFT**



**GVD TYPE TWO - SHAFT**



免加油 Oil Free

▶ **停車專用減速機**



**手釋放剎車**  
**Manual release brake**  
Pat. No. : M275320 / M275626



**GHMH TYPE**



**平行軸**  
**PARALLEL GEAR TYPE**

- ◆ **AS** 系列同軸型減速機，擁有較傳統設計更高的懸掛力，入力軸與出力軸同軸型設計，出力軸兩端以強力軸承承載，擁有較大負載能力。
- ◆ 出力法蘭為可拆式安裝，方便使用不增加庫存。
- ◆ 單軸型與雙軸型搭配簡單彈性。
- ◆ **#AS16**及**20**型機殼採用ADC12。**#AS25**型機殼採用FCD材質，體型精簡、堅固耐用。
- ◆ 內部齒輪採用鉻組合金鋼，材料經滲碳處理，堅固耐用。
- ◆ **TPG AS** series helical in-line reducer is the new design as European style, with the aim of allowing higher overhung and trust loads on low speed shaft. More average and stable gear torque load to make reducer stronger than the traditional ones, durable, low noise, more compact shape.
- ◆ **SF>1**, gear ratio from **5.53 to 187.5**, size 16/20/25, flexible flange & foot option available, Single shaft/double shaft available, wider range motor economic efficiency.
- ◆ **AS16/20** with die-cast aluminium ADC12 housing, which is reliable & lighter weight & fashion outlet appearance. Internal components can be exchanged between two different size makes the buyer low down the spare parts cost & stock.
- ◆ **AS25/30/35** with cast steel FC25 housing, with more torque loads. Reinforced bearing are used in above reducers. Special heat treatment is applied to accurate enough hardness, temper process to make gear durable, stable.
- ◆ Application to circular weaving machine, agitator, food machine, milling machine, textiling machine....etc.



**AHM TYPE**



**AVM TYPE**



**AHMH TYPE WITH BRAKE**



**AVMH TYPE WITH BRAKE**



**AHD TYPE**



**AVD TYPE**



**AHS TYPE / FLANGE TYPE**  
 IEC 63/71/80/90 B5



**AVS TYPE / FLANGE TYPE**  
 IEC 63/71/80/90 B5

■ **組合系列** ※雙軸型減速機可適用安裝IEC 63B5, 71B5, 80B5, 90B5框號之馬達，無段變速機煞車離合器等產品。  
 Input flange suitable IEC series 63B5, 71B5, 80B5, 90B5, or disco, clutch, Brake joint.



**AS GEAR BOX+DISCO**



**AS GEAR BOX+AC MOTOR**



**AS GEAR BOX+MAGNETIC CLUTCH**



▶ **小金鋼系列 SUBFRACTIONAL HORSE POWER SERIES**

TPG Mighty tiny AC gear motor is designed for light, compact small scale conveyors, which were widely applied into consumption goods, for example, small lifter for food, material processing machines, packaging machines, medicine machines and feeder. They also can be used upon the electronic industry to deliver component perfectly and cleanly. Meanwhile the compact alloy body design not only saves installation space but also supply more effective applications. The widely size available from 25W smallest one, 45W-120W medium size, then biggest 200W to serve all different kinds end users.



免加油 Oil Free

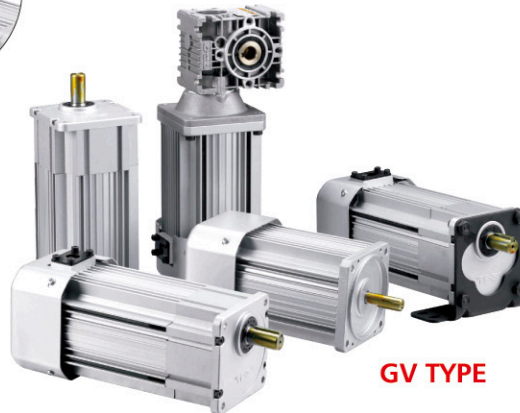


出線盒-選購品  
Conduit Box  
-Option

Ratio 1:3-1:180

**平行軸**  
PARALLEL GEAR TYPE

**TP-MV-2 TP-MV-5**



**GV TYPE**



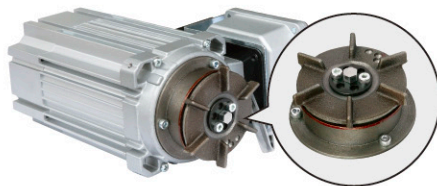
**GVM TYPE**

**80** 25W  
Power:25W, Frame: 80#

**90** 45W~120W  
Power:45W~120W, Frame: 90#

**104** 200W  
Power:200W, Frame: 104#

▶ **SBV-042 小金鋼煞車 BRAKE**



**The brake SBV-042 for mighty tiny AC motor series**

產品特色：體積小,溫升低,安裝容易。  
規格：適用小金鋼系列所有產品。  
適用場所：各式場合皆適用。  
Features: small compact size, low temperature, easy to install.  
Spec. : application for all mighty tiny AC motor from 45W-120W.

▶ **小金鋼齒輪減速機調速器 SPEED CONTROL**



需搭配 TG  
轉速發電機  
Must come  
with TG077  
together

CA201: AC 230V, 1A  
CA102: AC 115V, 2A

Power: Less 100w



**TG077**

▶ **CA-202A 小型變頻器 VARIABLE SPEED AC DRIVE**



CA201A: 0.1KW, 0.9A  
CA202A: 0.2KW, 1.5A

頻率 Freq.: 50/60HZ  
額定輸出電流 Current: 1A / 1.5A  
過電流能力 Max Current: 4.5A  
額定輸出容量 Max HP: 1/4 HP(CA202A),  
1/8 HP(CA201A)  
最大輸出電壓 Max. Output Voltage: 三相 240V  
適用電機容量 Suitable Motor: 1/4HP 以下 25~200W  
額定電源電壓 Single Input Voltage: 單相 200~240V  
重量 Weight: 450 g



# RIGHT ANGLE SPIRAL BEVEL GEAR MOTOR

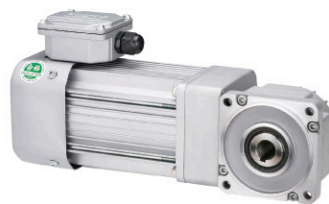
直交軸傘齒輪減速馬達 เกียร์ทดรอบแบบ SPIRAL BEVEL

## FEATURES

1. Wider gear ratio available from 7 to 200.
2. Higher torque ability for those high gear ratios over 80 to 200 comparisons with might tiny series.
3. Safe factor 1.0 with reasonable purchase cost.
4. Gear efficiency reach 90%.
5. Flexible motor options, which can be in AC power, DC power or Brushless DC power.
6. Output end can be in hollow bore 17mm dia, or solid shaft type 18mm dia.
7. Using high quality grease, no need to be re-filled under normal operation status, saving maintenance cost.
8. Lower noise running, supply quiet & nice operation environment.
9. For AC power 3phase motor 60W-120W, single phase 45W-90W.
10. With nice alloy conduit box, safe & durable.
11. TEFC or TENV available, IP54, F insulation level.
12. Brake function available, as well as many necessary accessories options, such as AC inverter, DC control, and brushless motor control supply.
13. Application: Packing machine, Conveyor, Food processing machine, Frozen food machines...etc.



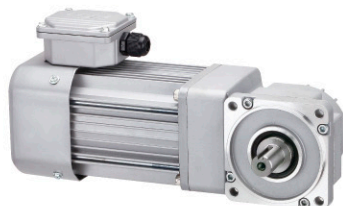
For Conveyor 輸送帶應用



**AFV TYPE**  
Hollow type



**AFVM TYPE**  
Brake type



**AFH TYPE**  
Solid shaft type



**AFHM TYPE**  
Solid shaft + brake type

### AF-15 series

- 1 Phase : 25W
- 減速比 Ratio: 1:7~200



### AF-17 series

- 3 Phase : 60W, 100W, 120W, 180W
- 1 Phase : 45W, 60W, 90W
- 減速比 Ratio: 1:7~200



### AF-22 series

- 3 Phase : 200 W
- 1 Phase : 200W
- 減速比 Ratio: 1:7~200





效率高達 **85-90%**

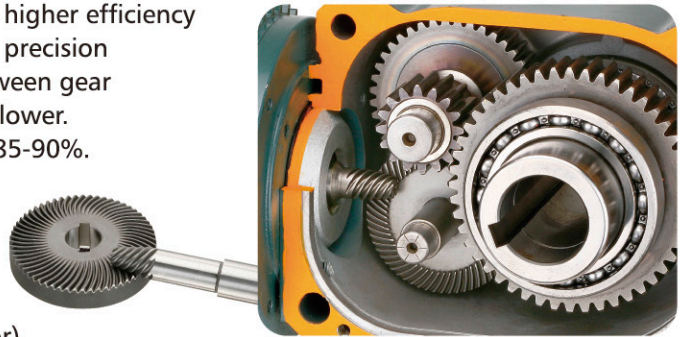
**產品特色:**

准雙曲面減速機擁有高傳輸效率的特性，一般減速比可達85-90%  
高效率傳輸，體積小且減速比選擇豐富，承載係數S.F.高達1.0以上！  
高鋼性，耐衝擊的特性，使之為直交軸減速機中最好的動力輸出者。

**Features:**

The structure for Right Angle Hypoid Bevel Gear Motor (F TYPE) is similar to that of worm gear motor, but it gets higher efficiency & rigidity. Meanwhile the hypoid gear is through precision grinding procedure to increase the matching between gear and shaft, then the operation noise will be much lower. Efficiencies for F TYPE gearing can be reached at 85-90%.

- 馬力 Horse Power : 0.1KW to 5.5KW
- 減速比 Ratio : 1:5 up to 1:240
- Output Diameter : 20, 25, 30, 35, 45, 55
- Shafts : Hollow
- Voltage : 220/400VAC (Single and 3-Phase Motor)



高傳動比 更高效率 更加輕巧 壽命長 免維修 彈性搭配

效能進化 HYPOID GEAR



**FVLM TYPE**



**FVMH TYPE**



**MIGHTY TINY MOTOR  
FV TYPE**



**FV TYPE**



**FVS TYPE**



**FVP TYPE**



選購品  
Option

I7編碼器 I7 ENCODER  
Can create 2048 PPR signs for application

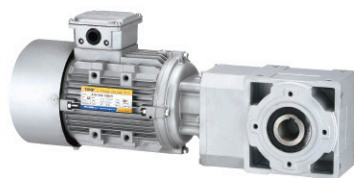
▶ 直交軸—中空式傘齒減速機 **RIGHT ANGLE HOLLOW SHAFT HYPOID GEAR MOTOR (AC)**

產品特色：直交軸、體積小、效率高，耐衝擊、負荷大，適用各式場合  
馬力 Horse Power : 0.2KW ~ 1.5KW。  
減速比 Ratio : 1:5 ~ 240。

**Features:**

Hypoid gear design, compact size, high efficient, durable, heavy load, wider application.

\* 可搭配伺服馬達。  
\* Also available servo motor selection.



**RHG TYPE**



**RHGM TYPE**



**RHGS TYPE**



# HOLLOW SHAFT WORM GEAR

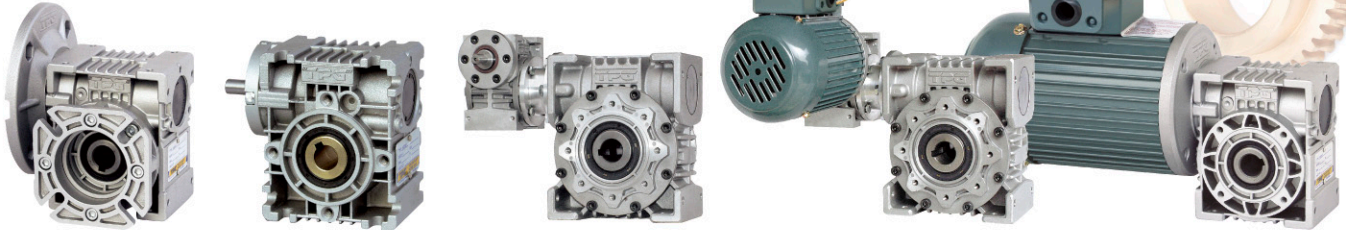
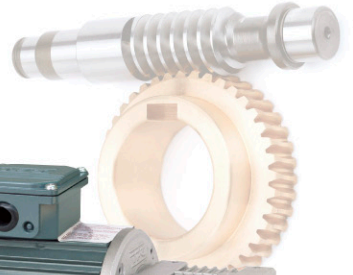
## 中空軸蝸輪減速機

เกียร์ทดรอบรุ่นอลูมิเนียม

### 直交軸

RIGHT ANGLE TYPE

Gear Ratio: 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120 ~ 18000



#### WS TYPE

030#-110#  
IEC: 56~132 B5/B14 法蘭面  
NEMA: 48C~215TC  
Motor Flame Size

#### WD TYPE

030#-110#  
TWO SHAFT

#### WDT TYPE

TWO SHAFT

#### WMT TYPE

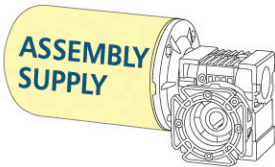
WITH BRAKE

#### WM TYPE

0.1-3.7 KW 3Ø AC MOTOR  
0.1-0.75KW 1Ø AC MOTOR

### 應用範例

#### Application Example



#### 組合供應

COMBINATION SUPPLY  
(ASSEMBLY SUPPLY)

- + DC MOTOR
- + HIGH REDUCING RATIO MOTOR
- + 高減速比馬達
- RATIO減速比: 120-18000
- + AC MOTOR + WITH BRAKE
- ORDER-MADE PRODUCTS AS SPECIFIED 指定特殊製品

- HIGH EFFICIENCY
- LONG LIFE
- LOW NOISE

- 高效率
- 長壽命
- 低噪音



#### WST TYPE

雙生中空蝸輪減速箱  
Twin Worm Gear  
Reducers Combination  
馬力HP: 0.1KW~1.5KW



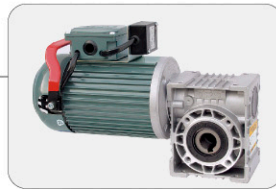
#### WDC TYPE

中空蝸輪減速機+直流馬達  
Worm Gear Reducer + DC Motor  
馬力HP: 0.1KW~2.2KW



#### WSM TYPE

中空蝸輪減速機+交流馬達  
Worm Gear Reducer + AC Motor  
馬力HP: 0.1KW~3.7 KW



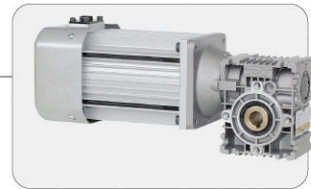
#### WMMH TYPE

中空蝸輪減速機+手釋放剎車  
Worm Gear Motor +  
Manual Release Brake  
馬力HP: 0.1KW~2.2KW



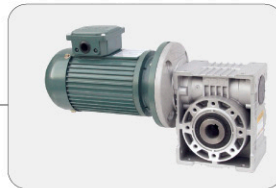
#### WSD TYPE

中空蝸輪減速機+無段變速機  
Worm Gear Reducer + Disco  
馬力HP: 0.2KW / 0.4KW /  
0.75KW IECB5



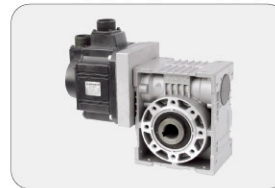
#### WFM TYPE

中空蝸輪減速機+小金剛馬達  
Worm Gear Reducer  
+ Mighty Tiny Motor  
馬力HP: 45W~150W



#### WGV TYPE

中空軸齒輪蝸輪減速馬達  
High Reducing Ratio Motor  
馬力HP: 0.1KW~0.75KW



#### WSS TYPE

中空蝸輪減速機+伺服馬達  
Worm Gear Reducer + Servo Motor  
接受特殊定製品

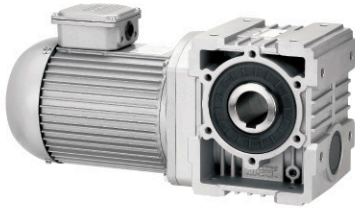


免加油 Oil Free



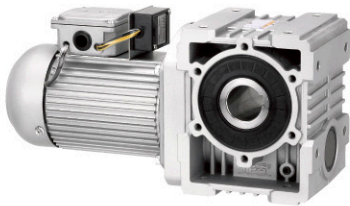
**直交軸**

RIGHT ANGLE TYPE



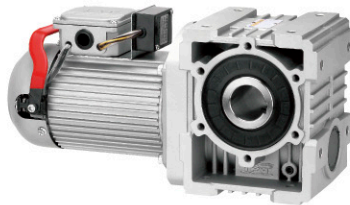
**WG TYPE**

出力孔徑 Output Dia.: Ø30, Ø40, Ø45  
馬力 Horse Power : 1/8 ~ 2 HP  
減速比 Ratio: 1:44.3 ~ 465  
※中空軸減速齒輪馬達



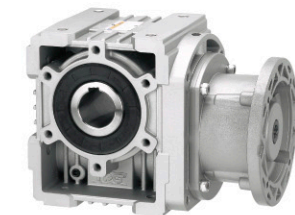
**WGM TYPE**

出力孔徑 Output Dia.: Ø30, Ø40, Ø45  
馬力 Horse Power : 1/8 ~ 2 HP  
減速比 Ratio: 1:44.3 ~ 465  
煞車 Brake: DC90



**WGMH TYPE**

出力孔徑 Output Dia.: Ø30, Ø40, Ø45  
馬力 Horse Power : 1/8 ~ 2 HP  
減速比 Ratio: 1:44.3 ~ 465  
煞車 Brake: DC90加手煞車



**WGS TYPE**

出力孔徑 Output Dia.: Ø30, Ø40, Ø45  
馬力 Horse Power : 1/4 ~ 2 HP  
減速比 Ratio: 1:44.3 ~ 465  
法蘭面框號 : 63B5, 71B5, 80B5, 90B5



**WGD TYPE**

出力孔徑 Output Dia.: Ø30, Ø40, Ø45  
馬力 Horse Power : 1/8 ~ 2 HP  
減速比 Ratio: 1:44.3 ~ 465

特性說明

- ◆ 本系列產品設計採用螺旋齒輪搭配蝸輪蝸桿組合，達到高減速比、高強度的使用。
- ◆ 出力軸採用中空式設計，可得到較大的傳動效率。
- ◆ 減速比規格齊全，由1:44.3~465。
- ◆ 馬力1/8 HP~ 2HP。雙軸式適用IEC框號立式馬達。
- ◆ 出力軸孔徑Ø30, Ø40, Ø45。
- ◆ 選擇配件：掛板、出力軸。

FEATURES

- ◆ Inline gear plus right angle gear joint together more strong constructure.
- ◆ Alloy die-cast house, nice looking, light weight.
- ◆ Hollow shaft bore, flexible joint choices.
- ◆ High gear ratio 1:44.3~465, wider range.
- ◆ Power 1/8 HP ~ 2 HP; IEC flange type available.
- ◆ Output shaft dia.: Ø30, Ø40, Ø45mm.
- ◆ Option Accessory: Output shaft, Torque arm.





TPG 阪神電機持續進步開創各式減速機，以滿足不同產業之期望，推出行星式齒輪減速機，可依產業需求連結各式伺服馬達，主軸馬達等。



行星式齒輪減速機可分為三大系列，PA/PD/PG 系列。

- PA 系列為平行軸齒輪減速機，比數從3-81，提供一段式或二段式齒輪箱結構。
- PD 系列為直角軸齒輪減速機，設計為中空軸樣式，比數從9-135。
- PG 系列為直角軸齒輪減速機，設計為實心軸樣式，比數從9-135。

TPG made planetary gear box contains one or two planet sets, which is great selection for servo motor, automation motor...etc.

- PA type is parallel axis gear box, ratio from 3 to 81, 1 & 2 stage available.
- PD type is right angle gear box, ratio from 9 to 135, 2 & 3 stage available.
- PG type is right angle gear box, ratio from 9 to 135, 2 & 3 stage available.

### 特性:

1. 提供更精細的齒輪準確性。
2. 壓鑄鋁合金機體，密度堅實且美觀大方，耐用長壽。
3. 在有限的空間裡可提供與一般傳統減速機相當的比數。
4. 負載可被平均分攤，因而增加齒輪的剛度。
5. 提供複合多功能的選配。
6. 出力軸安裝特殊軸承，有效減小馬達運轉時所產生的振動。
7. 可選用多款連接法蘭，以搭配不同廠家的伺服馬達。
8. 高品質合金鋼齒輪材質經熱處理加工後，扭力值更為加強。
9. 一段、二段齒輪箱的組合，加大減速比範圍。

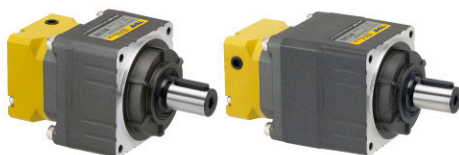
### Advantages:

- Offer more accuracies than traditional gear box.
- Supply high power density, durable and long lifetime.
- Larger reduction in small space.
- 3% mechanical loss only, save energy and create more efficiency.
- Average load distribution increase more rotational stiffness.
- Multiple assortment combinations can be added in.
- Special bearing installed in the end of output shaft to reduce the vibration occurred while motor running.
- Alum. Die cast house offer impact size and nice shape design.
- Flexible flange or frame can be jointed with different brand servo motors.
- High quality Chrome alloy material gear with special treatment to enforce the torque ability.
- Wide range gear ratio applies to more different operations in the same gear box body.



PG TYPE - 2 Stage

### ▶ 平行軸齒輪減速機 PA TYPE PARALLEL AXIS GEAR BOX



PA TYPE - 1 Stage

PA TYPE - 2 Stage

### ▶ 直交軸齒輪減速機 PD TYPE HOLLOW SHAFT RIGHT ANGLE GEAR BOX



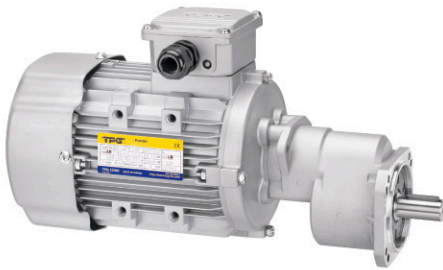
PD TYPE - 2 Stage

### ▶ 直交軸齒輪減速機 PG TYPE SOLID SHAFT RIGHT ANGLE GEAR BOX



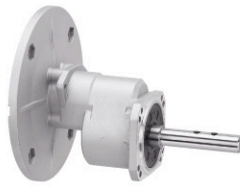
PG TYPE - 3 Stage





**GX TYPE**

附馬達減速機 WITH MOTOR  
馬力 Horse Power: 0.25KW~1.5KW  
減速比 Ratio: 1:1.58~8.57  
Output Flange: 80B14 / 80B5 / 90B5

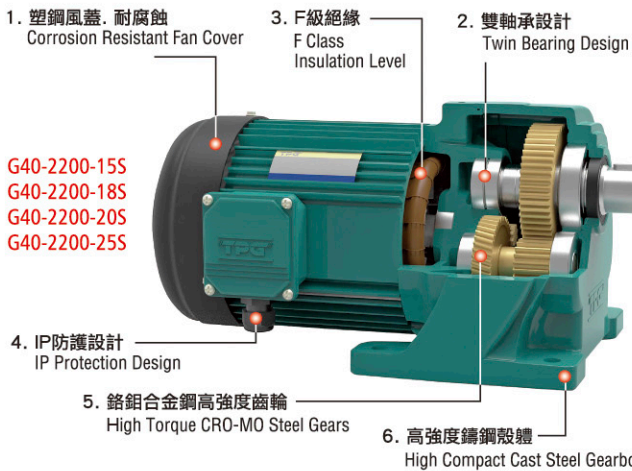


**GXS TYPE**

單軸型減速機 SINGLE SHAFT  
減速比 Ratio: 1:1.58~8.57

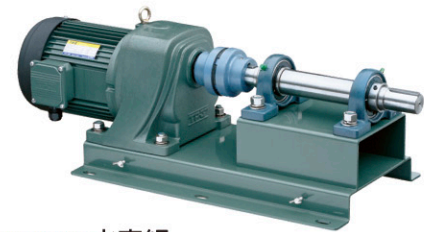


**G40 AQUACULTURE SERIES - PADDLEWHEEL AERATOR 養殖水車系列**  
เครื่องตีน้ำสำหรับเพาะเลี้ยงสัตว์น้ำ



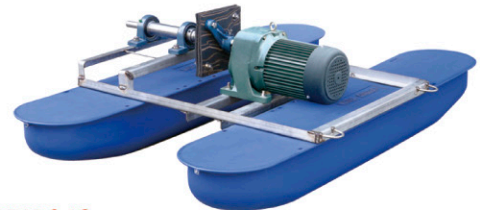
G40-2200-15S  
G40-2200-18S  
G40-2200-20S  
G40-2200-25S

Paddle wheel aerator



**BKK-012 水車組**

馬力 Horse Power: 3HP  
with motor base.



**BKK-013**

馬力 Horse Power: 3HP  
水車倉架 BKK-012  
with two floating.

**CM-25S**

馬力 Horse Power: 2HP  
減速比 Ratio: 15  
with three floating.



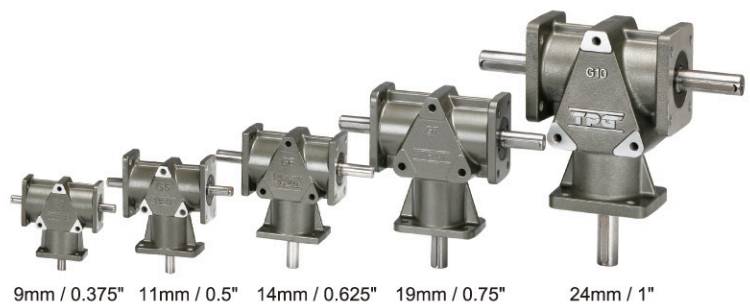
**CM-15S**

馬力 Horse Power: 1HP  
減速比 Ratio: 15  
with two floating.





TPG spiral Bevel gear use high torque steel material under special heat treatment to enforce tooth hardness. The direction of drive from the drive shaft must be turned 90° to drive the wheel, which such design produce less vibration & noise. By the way the output can be one way or two ways, supply more flexible application.



- 減速比 Ratio : 1:1 / 1:2
- 轉速/最大容許扭力 : 100/2.9 ~ 3600/2
- NEMA TYPE: 312/500/625/750/1000
- IEC TYPE: Ø9, Ø11, Ø14, Ø19, Ø24mm

	1:1		1:2		
100-3600rpm	TQ(N.M)	Input TQ	Output TQ	Matching motor HP	
9mm / 0.375"	2.94-2.16	1.05-0.83	2.11-1.66	1/8	
11mm / 0.5"	5.74-3.71	2.5-1.97	5.02-3.94	1/4	
14mm / 0.625"	9.58-6.2	3.55-2.6	7.12-5.22	1/2	
19mm / 0.75"	21.19-13.71	8.41-6.17	16.88-12.38	1	
24mm / 1"	37.1-24.01	20.03-12.96	40.14-25.93	2	

## ▶ 剎車離合器系列 CLUTCH & BRAKE คลัช, เบรคไฟฟ้า

**Clutch** : Rated turning distance 1.2(12NM)-40(400NM)  
**Brake** : Rated turning distance from 0.5-32 kgm

**磁粉式剎車**  
Magnetic Powder Brake



### 特點

- 1.安全、確實的制動力
- 2.安靜的制動音
- 3.可以調整扭力
- 4.附有防塵罩蓋
- 5.可以手動解除
- 6.壽命長
- 7.組裝、調整容易

### Features

- 1.Safe and Secure Control
- 2.Quiet Action
- 3.Adjustable Torque
- 4.Dust Cover
- 5.Manual Release
- 6.Long Life
- 7.Easy Assembly and adjust



- 變速比 Ratio 1:6
- Horse Power: 0.2 KW~1.5 KW
- 165~1000 rpm (50 Hz), 200~1200 rpm (60 Hz)
- DAS Type: 02 for 1/4HP, 04 for 1/2HP, 07 for 1HP Available.

適用：食品機械、印刷機器、工作母機輸送帶...  
Application : Food Processing Machinery,  
Printing Machinery, CNC Machinery,  
Conveying System.

▶ **FOOT MOUNT TYPE**



**DHM TYPE**



**DVM TYPE**



**DHS TYPE**  
IEC 法蘭 71/80/90 B5



**DHD TYPE**

▶ **FLANGE MOUNT TYPE**



**DVS TYPE**  
IEC 法蘭  
71/80/90 B5



**DVD TYPE**



**GDS FLAME TYPE**  
Available: GDM with motor type  
GDD with two shaft type



**DAS TYPE**  
(ALUM, CASE)  
IEC 法蘭  
63/71/80 B5



**WSD TYPE**  
Worm Gear Reducer  
+ Disco

▶ **VARIABLE SPEED PULLEY 皮帶變速輪**

1. Flexible & wide range speed ratio available 1:4.
2. Simple rotating handle to adjust the speed freely.
3. Easy read handle scale

馬力 Horse Power: 1/4HP~5HP  
變速比 Ratio: 1:3.5~1:4



MP (主動輪 Main pulley)	SP (被動輪 Subsidiary pulley)	DP (MP+SP)	BELT



# HIGH PRESSURE BLOWER 高壓鼓風機

โบดัวอริ



**BH-101 TYPE**



**BH-307 TYPE**



**BH-737 TYPE**



**Optional Accessory**

**AIR FILTER 過濾器**

□徑 Orifice: 1"~4"

- Strong wind-force -- maximum 870m<sup>3</sup>/hr
- High vacuum -- maximum 4300mmAq
- High pressure -- maximum 5500mmAq
- Stable flow volume
- Low energy loss

**單相 Single - Phase**

- 50Hz IP54 100~110/200~220V  
額定出力 Max Power: 0.09~1.75KW
- 60Hz IP54 100~110/200~220V  
額定出力 Max Power: 0.13~1.90KW

**三相 Three - Phase**

- 50Hz IP54 200~240/380~415V  
額定出力 Max Power: 0.09~11KW
- 60Hz IP54 200~230/380~460V  
額定出力 Max Power: 0.13~11KW

**TURBO BLOWER 透浦式鼓風機** 高效率、低耗能、低震動、低噪音

- Specification:
- Horsepower : 3 Phase Motor, 0.18KW~7.5KW
  - Voltage : 220V/380V/415V/460V
  - Max. Air Flow : 2.5 ~ 39 m<sup>3</sup>/min
  - Current : 2.0A ~ 10A



**BX TYPE**

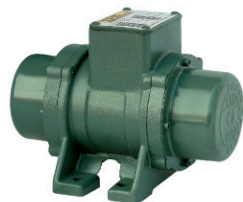
**VIBRATION MOTOR 阪神振動馬達** มอเตอร์สั่น(เขย่า)

適用：砂石廠、粉塵原料輸送(麵粉廠、塑膠廠)、零件輸送等...

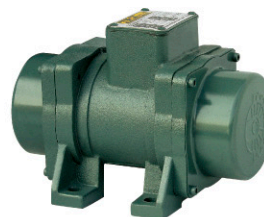
Application :Available for Various Kinds of Powder Material Conveying Industries as Concrete Plants, Powder Plants, Plastic Plants, and Parts Conveyors.



**V2-0045**



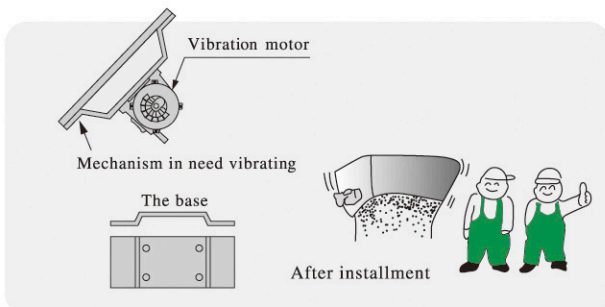
**V2-0075**



**V2-0090**



**V4-0180**



**• 2 POLE**

Horse Power: 1/30HP—2HP  
Vibrating Force: 25-2000 KG

**• 6 POLE**

Horse Power: 1/2HP—7.5HP  
Vibrating Force: 795-7995 KG

**• 4 POLE**

Horse Power: 1/4HP—7.5HP  
Vibrating Force: 530-8500 KG

**• 8 POLE**

Horse Power: 1HP—10HP  
Vibrating Force: 980-7480 KG

**適用範圍:**

電動車、電動椅、電動堆高機、戶外輸送系統、跑步機、升降梯、包裝機械、幫浦、給料機、運動器材與研磨機械...等。

**Applications:**

Electric Golf Car, Electric Wheelchair, Electric Car, Electric Treadmill, Medical Equipment, Elevator, Outdoor Conveyor System, Mill Machinery and Packaging machines, Pump, Feeders, Exercise equipment, Forklift..... etc.

DC 12, 24, 36, 48, 90, 180V

馬力 Horse Power : 45W ~ 2.2KW

轉速 Rpm : 1750/3000

200/300/400/500 Series

DPI: IEC Series

DPN: NEMA Series

DPS: 特殊規格接受訂製



WMB



200 TYPE

HP:45W~250W



300 TYPE

HP:0.18KW~0.55KW



400 TYPE

HP:0.18KW~1.1KW



500 TYPE

HP:1.1KW~2.2KW

▶ **AC GEAR MOTOR**

交流齒輪減速馬達



AG6 TYPE

▶ **BRUSHLESS GEAR MOTOR**

無刷齒輪減速馬達



BG6 TYPE



▶ **DC GEAR MOTOR**

直流齒輪減速馬達



DG6 TYPE

型號 Model	AG6	BG6	DG6
電壓 Voltage	1P 115/230 Vac, 3P 230/460 Vac	130/260 Vdc	90/180 Vdc
功率 Power	120W~370W, 180W~370W	120W~370W	120W~370W
轉速 No-Load Speed	50HZ/5~300 rpm, 60HZ/6~360r pm	8~500 rpm	8~500 rpm
減速比 Ratio	5~300	5~300	5~300

▶▶▶ Equivalent Baldor, Leeson, Bodine and Bison similar model.

▶ **中空式直流馬達, 中空式直流無刷馬達**

Hollow shaft PM DC motor, Hollow shaft brushless DC motor

Wafer drying machines using TPG motor with specially hollow high torque shaft to join the fixed bracket which running in drying system in semiconductor industry.

晶圓清洗機專用馬達



DPSH Type

BVS Type

MV-TW071 Type

- Generation 1. PMDC motor with hollow shaft with great DC motor benefit to maintenance high torque under low rpm
- Generation 2. Standard AC motor is popular & easy obtained from 3phase AC power environment, save control cost.
- Generation 3. Applied the new brushless type, can approach more precise feedback thru encoder, also come with lower maintenance cost & time, due to non-brush.

**PENTA KB POWER**

▶ **直流馬達控制器**

DC CONTROL / AC INVERTER



AC Inverter / DC Motor SCR Drives HP : 0.15KW ~ 2.2KW



1. Can be applied upon TENV, TEFC, ODP AC motors.
2. Steady & Precise output speed  $\pm 0.5\%$ .
3. Low speed with high torque small torque ripple.
4. Precise motor parameter self learning.
5. Uninterruptible power system installed.
6. Supply wide range of input voltage from 220V to 480V,  $\pm 15\%$ .
7. EMC design specifications improved.
8. Meet EMC directive 2004/108/CE Electronmagnetic compatibility directive and LVD directive.
9. Anti-dust design and cover keep inverter clean.
10. Anti-corrosion paint spraying surface to prevent from the rusting.
11. Thermal protectors for overheating protection.
12. Low temperature rising while operation to keep environment safely.
13. Energy saving new design in production & material process.
14. Compact shape design save much intallation space in machine.
15. Various functions choices available -- 51kinds.
16. Flexible communication interface application.
17. Free maintenance cost.

1. 適用各式交流電機。
2. 提供穩定與準確的輸出轉速( $\pm 0.5\%$ )。
3. 低速高扭矩及抑制速矩脈動...等低速特性。
4. 具備精確的馬達自動演算功能。
5. 具備UPS功能,電力系統不穩定時,提供瞬時保護。
6. 輸入電壓可選擇220/380/480Vac。
7. 產品符合EMC(電磁兼容性)指令。
8. 符合CE 2004 / 108電磁相容與電磁耐受標準。
9. 防塵、防水外罩設計, 永保變頻器清潔。
10. 防腐蝕油漆外罩以防止生口落漆。
11. 過熱溫控設計, 自行斷電安全可靠。
12. 低溫昇確保使用環境的安全。
13. 現代化的生產流程與原料管理。
14. 緊湊的設計規化, 節省安裝空間。
15. 51項參數可供設定。
16. 多項通訊介面。
17. 免維護成本。

- Input Voltage Level
  - 2 : AC 220V
  - 4 : AC 380V
  - 5 : AC 480V
- Input Voltage
  - A : Single-phase
  - S : Three-phase
- Rated output: Ex: 03 : 2.5A



## ▶ 不鏽鋼中空軸蝸輪減速機 Stainless steel HOLLOW WORM GEAR BOX

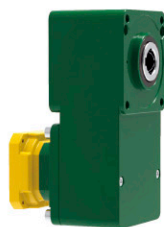
central distance: 40mm to 90mm  
gear ratio: 1:10-1:100  
right angle type

Using high quality stainless steel material #304 for whole input flange, house and shaft bore in this gear box to keep the operation environment totally in clean, safe, impolluted, anti-corrosively and rust resistance.

Practical application industries, including food processing, food packaging machines, bakery machines, beveraging machines, chemical processing, pharmaceutical machines and medical robot system.



**WSS**



**GBP-25** Flange Type



**GBS-25** Servo Type



**GB-25** Ac Type



**GBB-25** BLDC Type

## ▶ 中空平行軸AGV車系列 Hollow type AGV gear box series (GB series)

Driverless Automated Guided Vehicle is the automatically facilities are used in industrial application to move materials or objects from one working station to another by means of following a set path, mostly on rails using magnet or other theory. The great advantages as below.

- a. high effective: can be worked 24 hours continuously without extra cost paid by the users, specially best choice to those production swift is running 24 hours, such as seim-conduction industry, robot system.
- b. Precise position: can be matched the servo motor (our GBS-25) to do the precise position job, applied with further control system or new programmed design to upgrade the location ability, application in electronic industry, computer assembly industry.
- c. Heavy load: can carry heavy objects or great cube materials, such as auto industry, steel industry to save expensive labor cost during transmission those materials one station to the others.
- d. Dangerous environment: for example using in chemical polluted factories, hot/dirty steel factories, nuclear related industries or darkness film industry which is not proper for human being worked there.
- e. flexible AI programs edited, for automative storage system, automative packing system, to simplify the complex delivery course time to time.



**MOTORS & DRIVES**

- ▶ 製造元 台灣-Taiwan  
TAIWAN PRECISION GEAR CORP.  
TEL: 886-4-25351329 FAX: 886-4-25351467  
E-mail: tpg@tpg.com.tw
- ▶ 總代理 美國-USA  
TPG MOTORS & DRIVES (U.S.A.) LLC.  
E-mail: tpg\_motor@yahoo.com
- ▶ 泰國-Thailand  
TPG MOTORS & DRIVES (THAILAND) CO.,LTD.  
TEL:66-2-2778878 FAX:66-2-2779788  
E-mail: th@tpg.com.tw
- ▶ 馬來西亞-Malaysia  
TPG MOTORS & DRIVES (MALAYSIA) SDN BHD  
TEL:60-3-89640111 FAX:60-3-89640999  
E-mail: ma@tpg.com.tw
- ▶ 新加坡-Singapore  
TPG MOTORS & DRIVES (SINGAPORE) PTE LTD  
TEL:65-62456007 FAX:65-62456017  
E-mail: sg@tpg.com.tw
- ▶ 印尼-Indonesia  
TPG MOTORS & DRIVES (INDONESIA) CO.,LTD  
TEL:62-21-45846725 FAX:62-21-45846726  
E-mail: ind@tpg.com.tw
- ▶ 越南-Vietnam  
TPG MOTORS & DRIVES (VIETNAM) COMPANY LIMITED  
TEL: 84-8-3-8165878 FAX: 84-8-3-8165878  
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