

FLANGE-MOUNTED WORM GEAR





<http://www.li-ming.com>

Compact Gearmotor Series 微型齒輪減速機

前言 時勢造英雄

科技的進步，產品的小型化似乎成為了一種趨勢。

利茗機械股份有限公司自1969年創立以來，一直以生產大型減速機為主，至1992年開始生產小型減速機。利茗公司秉持著多年的專業製造經驗，現在推出微型減速機，使得公司產品型號更齊全，提供機械相關產業更完整的服務。

Foreword - The trend makes the hero.

Technical advancement and miniaturized products have become a trend. Since our establishment in 1969, Li Ming Machinery Co., Ltd. has been dedicated to the production of large speed reducers. From 1992, we started production of small speed reducers. By adhering to professional manufacturing experience for several years, now Li Ming Company has introduced compact-size speed reducers, making a more complete range of our products, providing better service to compact gearmotor series related machine industry.

使用 行業別 Application

輸送機械類
Conveyors

電子儀器類
Electronic
instruments

食品機械類
Food processing
machines

事務機械類
Business
machines

包裝機械類
Packing
machines

電線電纜類
Wires and
cables

印刷機械類
Printing
machines

金融業設備
Facilities
for financial
institutes

醫療儀器類
Medical
instruments

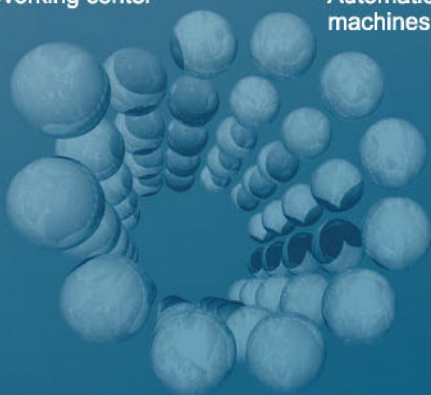
環保設備類
Environmental
protection
equipment

紡織機械類
Textile machines

理化儀器類
Physical &
Chemical
instruments

工作母機類
Working center

自動販賣類
Automatic vending
machines



Gearmotor Series

專業認證



品質第一 · 顧客滿意

Quality first · Customer's satisfaction





微型齒輪減速機系列 GEARMOTOR SERIES

減速機型號表示 Indication of the Gearhead

<u>CG</u> 機 型 Type	<u>09</u> 型 號 Model	<u>B</u> 軸承型式 Bearing	<u>50</u> 減速比 Ratio	<u>S12</u> 出力軸 Output shaft
	06 : 60mm 07 : 70mm 08 : 80mm 09 : 90mm	B : 滾珠軸承 Ball bearing M : 含油軸承 Metal bearing F : 滾珠+含油 Balls only for Outputs shaft, Rest are metal	減速比 1 : 50 Ratio 1:50	出力軸Ø12 Shaft Ø12

馬達機型、型號表示 Indication of the motor

<u>CM</u> 機 型 Type	<u>09</u> 型 號 Model	<u>I</u> 馬達型式 Motor type	<u>G</u> 出力軸 Output shaft	<u>40</u> 輸出功率(W) Output power	<u>SA</u> 電壓極數 Voltage	<u>T</u> 附 件 Accessory
	06 : 60mm 07 : 70mm 08 : 80mm 09 : 90mm	I : 感應式 Induction R : 可逆式 Reversible	A : 圓柱軸 Cylindrical Shaft G : 螺旋齒軸 Helical gear shaft	06 : 6W 15 : 15W 25 : 25W 40 : 40W 60 : 60W 90 : 90W	SA:1 Ø 110V 4P SB: 1 Ø 220V 4P TB:3 Ø 220V 4P TC:3 Ø 380V 4P TJ:3 Ø 220V/380V 4P TK:3 Ø 480V 4P TM:3 Ø 220V/460V 4P	T : 端子盒 Terminal box B : 電磁剎車 Electromagnetic brake F : 風扇 Fan CF : 強制風扇 Compulsory fan V : 調速型 Speed variable W : 溫控開關 Tem perature control switch

馬達機種一覽表 List of motor models

馬達種類 Motor type	輸出功率 Output power	安裝尺寸 Installation measurement	導線型 Conductive wire type	端子盒 Terminal box	單相50/60Hz 100V/110V Single phase	單相50/60Hz 220V/230V Single phase	三相50/60Hz 200V/220V/380V Three phase
感應馬達 Induction motor	6W	□60mm	●	-	●	●	-
	15W	□70mm	●	-	●	●	-
	25W	□80mm	●	●	●	●	●
	40W	□90mm	●	●	●	●	●
	60W	□90mm	●	●	●	●	●
	90W	□90mm	●	●	●	●	●
可逆馬達 Reversible motor	6W	□60mm	●	-	●	●	-
	15W	□70mm	●	-	●	●	-
	25W	□80mm	●	●	●	●	-
	40W	□90mm	●	●	●	●	-
	60W	□90mm	●	●	●	●	-
	90W	□90mm	●	●	●	●	-
電磁煞車 馬達 Electromagnetic brake motor	6W	□60mm	-	-	-	-	-
	15W	□70mm	-	-	-	-	-
	25W	□80mm	●	-	●	●	●
	40W	□90mm	●	-	●	●	●
	60W	□90mm	●	-	●	●	●
	90W	□90mm	●	-	●	●	●
組合型 調速馬達 Combinated speed variable motor	6W	□60mm	●	-	●	●	-
	15W	□70mm	●	-	●	●	-
	25W	□80mm	●	-	●	●	-
	40W	□90mm	●	-	●	●	-
	60W	□90mm	●	-	●	●	-
	90W	□90mm	●	-	●	●	-
分離型 調速馬達 Separated speed variable motor	6W	□60mm	●	-	●	●	-
	15W	□70mm	●	-	●	●	-
	25W	□80mm	●	-	●	●	-
	40W	□90mm	●	-	●	●	-
	60W	□90mm	●	-	●	●	-
	90W	□90mm	●	-	●	●	-

註：其他機型陸續開發中 Note: New models will be available soon

選配件一覽表 List of optional accessories

輸出功率 Output power	安裝尺寸 Installation measurement	電壓相數 Phase Voltage	附端子盒(T) With terminal box	電磁煞車(B) Electromagnetic brake	調速(V) Speed adjustment	溫控開關(W) Temperature control switch	強制風扇(CF) Fan	一般風扇(F) Regular fan
6W	□60mm	1Ø 單相 110V、220V	-	-	●	●	-	-
15W	□70mm	1Ø 單相 110V、220V	-	-	●	●	-	-
25W	□80mm	1Ø 單相 110V、220V 3Ø 三相 220V、380V	● ●	● ●	● -	● ●	- -	- -
40W	□90mm	1Ø 單相 110V、220V 3Ø 三相 220V、380V	● ●	● ●	● -	● ●	● ●	● ●
60W	□90mm	1Ø 單相 110V、220V 3Ø 三相 220V、380V	● ●	● ●	● -	● ●	● ●	● ●
90W	□90mm	1Ø 單相 110V、220V 3Ø 三相 220V、380V	● ●	● ●	● -	● ●	● ●	● ●

註1：電磁煞車器的輸入電源為單相110V及單相220V兩種。

註2：60W馬達與90W馬達之標準品已附一般風扇。

註3：強制風扇的輸入電源為單相110V及單相220V兩種。

註4：其他機型陸續開發中

Note1: The input power of electro magnetic brake has 2 choices; single phase 110v and single phase 220v

Note2: The regular fan has attached to 60w and 90w motor as standard product

Note3: The input power of forced fan has 2 choices; single phase 110v and single phase 220v

Note4: New models will be available soon



微型齒輪減速機系列 GEARMOTOR SERIES

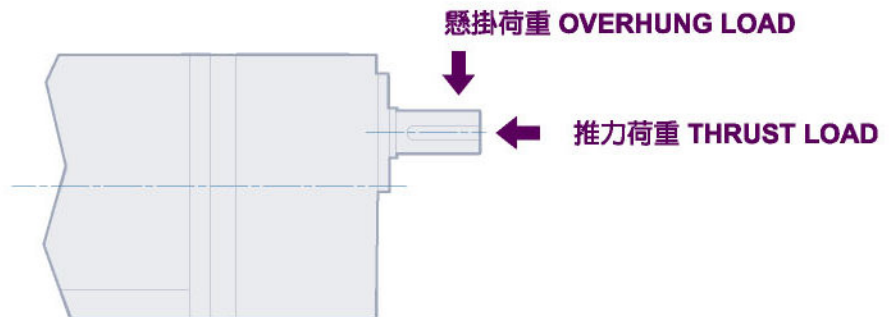
減速機速比一覽表 List of gear ratios

機種 Model	減速比 Gear ratio
CG06□S8	3, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180, 200, 240, 300
CG07□S10	3, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180, 200, 240
CG08□S10	3, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180, 200, 240, 300
CG08□X	中間級減速機 Medium Reducer 10, 15
CG09□S12	3, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180, 200, 240
CG09□X	中間級減速機 Medium Reducer 10, 15
CG09□S15	3, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180, 200, 240
CG09□X	中間級減速機 Medium Reducer 10, 15

容許懸吊荷重及容許推力荷重 Permissible overhung load and permissible thrust load

- 與減速機出力軸呈直角方向且在出力軸1/2處，施以最大荷重時，稱為容許懸吊荷重。(如下圖示)
- 與減速機出力軸呈平行方向施以荷重，稱為推力荷重。(如下圖示)
- When a maximum load is applied vertical at the point of 1/2 output shaft and gear reducer; it is called permissible overhung load. (See diagram below)
- When a load is applied in parallel direction to the output shaft of speed reducer, it is called thrust load. (See diagram below)

型號 Model	容許懸掛荷重 Permissible overhung load (Kg)	容許推力荷重 Permissible thrust load (Kg)
CG06B CG06M	15 8	3
CG07B CG07M	25 15	4
CG08B CG08M	35 25	5
CG09B CG09M	45 35	10



減速機傳動效率 Gear reducer transmission efficiency

型號 Model	減速比 Ratio	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200	240	300
CG06B□					81%							73%							66%				
CG07B□					81%							73%							66%				
CG08B□					81%							73%							66%				
CG09B□					81%							73%							66%				



微型齒輪減速機系列 GEARMOTOR SERIES

減速機概要

減速比計算公式

客戶依減速機輸出迴轉速和配合之機械迴轉速而選擇最適合的減速比。(定轉速)

$$i = N_m / N_g \text{ or } 1/i = N_g / N_m$$

i = 減速比

N_g : 減速機轉速(rpm)

N_m : 馬達轉速(rpm)

直接連結減速機之轉矩計算公式

客戶依減速機輸出轉矩和配合之機械轉矩而選擇最合適的型號。(定轉矩)

$$T_g = T_m \times i \times \eta$$

T_g : 減速機輸出轉矩

T_m : 馬達輸出轉矩

i : 減速比

η : 減速機傳動效率

最大容許轉矩

減速機輸出轉矩是右上述之轉矩計算公式算出，當減速比較大時受到齒輪材質、齒箱材質及減速機本身的設計結構等限制下，所能承受的負載轉矩有限，因此各個型號皆有最大容許轉矩的限制。(如下圖)

General introduction of speed reducer series Calculation of reduction gear ratio:

Customers choose the most appropriate reduction gear ratio according to their requirement to match output rpm of gear reducer with the rpm of operating machines. (AAC)

$$i = N_m / N_g \text{ or } 1/i = N_g / N_m$$

i = Gear ratio

N_g : Output speed of gear reducer (rpm)

N_m : Motor running speed (rpm)

Torque calculation formula of direct link speed reducer

Customer chooses the most appropriate model to suit the machine's output torque of the speed reducer. (Constant torque)

$$T_g = T_m \times i \times \eta$$

T_g : Reducer output torque

T_m : Motor output torque

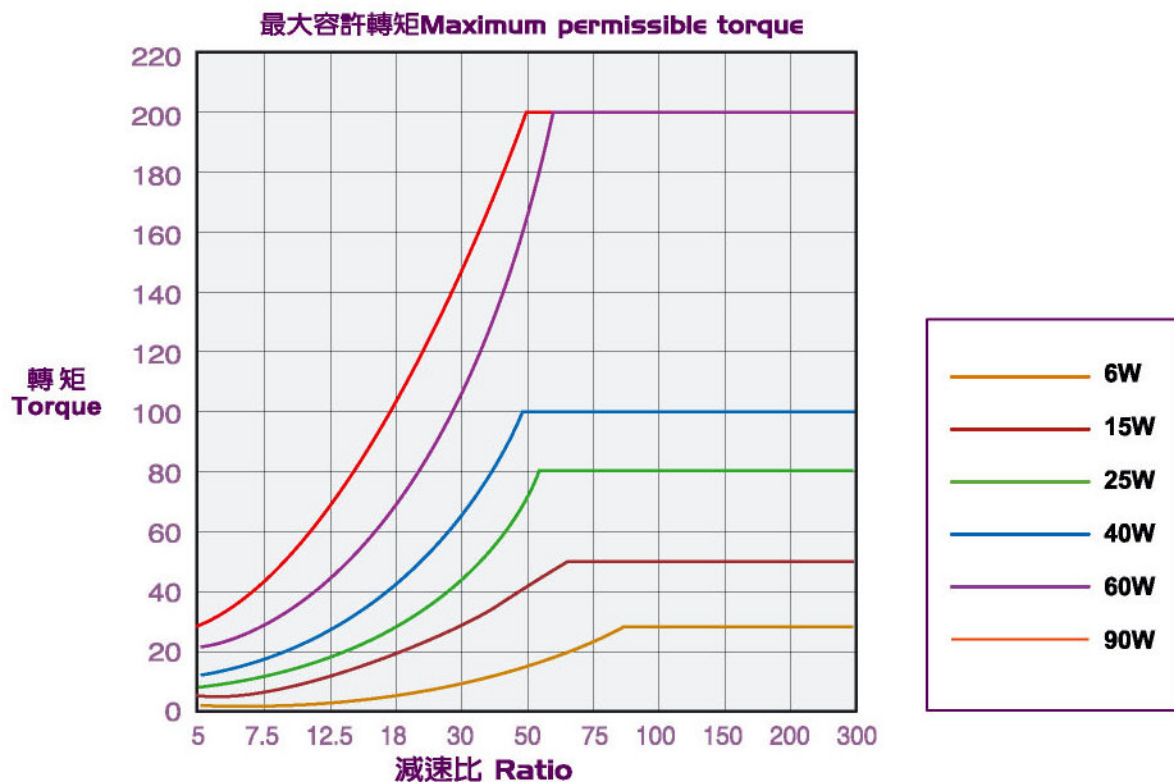
i : Gear ratio

η : Speed reducer transmission efficiency

Maximum permissible torque

Output torque of speed reducer is calculated according to the formula described above.

When reduction ratio is larger, its withstanding load torque is limited, due to restrictions of the gearbox quality and the structural design of the speed reducer itself. Therefore, all models have the restriction of their maximum permissible torque. (See diagram below.)



直接連結減速馬達時之容許轉矩 Permissible torque at direct link gearmotor

■60Hz最大容許轉矩(Kgcm) 60Hz maximum permissible torque (Kgcm)

輸出 功率 Output power	馬達型號 \ 減速機型號 Motor model \ reducer model	減速比 Gear Ratio ratio	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200	240	300		
		轉速 (rpm) RPM	600	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	9	7.5	6		
6W	CM06IG06	CG06□	1.0	1.5	1.8	2.3	2.8	3.9	4.7	5.6	7.0	8.3	10	13.8	16	20	24	30	30	30	30	30	30	30	30	
15W	CM07IG15	CG07□	2.6	3.9	4.7	5.8	7.0	9.8	11.8	15	19	23	27.6	38.4	46	50	50	50	50	50	50	50	50	50	-	
25W	CM08IG25	CG08□	4.1	6.3	7.6	9.5	11.4	16	19	23	31	37	45	62	75	80	80	80	80	80	80	80	80	80	80	
40W	CM09IG40	CG09□	6.3	10	12	15	19	26	30	37	45	54	65	90	100	100	100	100	100	100	100	100	100	100	-	
60W	CM09IG60	CG09□	9.8	16	19	24	28	40	47	55	69	83	100	138	160	175	200	200	200	200	200	200	200	200	-	
90W	CM09IG90	CG09□	14	24	28	35	42	60	70	80	103	124	149	200	200	200	200	200	200	200	200	200	200	200	-	
減速機出力軸旋轉方向 Rotating direction of output shaft of speed reducer			與馬達同一方向旋轉 Rotating in the same direction as the motor A									與馬達相反方向旋轉 Rotating in the opposite direction to the motor B						與馬達同一方向旋轉 Rotating in the same direction as the motor C								

- 轉速為4極60Hz馬達的同步轉速除以減速比所算出的轉速。
- 數據表格中範圍為 **B** 時，表示減速機出力軸旋轉方向與馬達相反方向旋轉，其他為相同方向旋轉。
- Running speed of motor 4P 60Hz divided by gear ratio equals RPM in the above table.
- **A** means rotating in the same direction as motor; **B** means in the opposite direction to the motor.
- In case of scope B of the data format, it indicates the speed reducer output shaft is rotating in the opposite direction to the motor; others indicate rotation in the same direction.

■50Hz最大容許轉矩(Kgcm) 50Hz maximum permissible torque (Kgcm)

輸出 功率 Output power	馬達型號 \ 減速機型號 Motor model \ reducer model	減速比 Gear Ratio ratio 轉速 (rpm) RPM	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200	240	300		
			500	300	250	200	166	120	100	83	60	50	42	30	25	20	17	15	12.5	10	8.3	7.5	6.25	5		
6W	CM06IG06	CG06□	1.2	1.9	2.3	2.9	3.4	4.7	5.7	6.8	9.3	11	13	16	20	24	30	30	30	30	30	30	30	30	30	
15W	CM07IG15	CG07□	3.0	4.7	5.7	7.1	8.5	11.8	14.2	18	23	28	33	46	50	50	50	50	50	50	50	50	50	50	-	
25W	CM08IG25	CG08□	5.0	7.8	9.4	11.8	14.1	19.6	23	28	38	46	55	76	80	80	80	80	80	80	80	80	80	80	80	
40W	CM09IG40	CG09□	7.3	12	14.7	18	22	30	36	43	54	65	77	100	100	100	100	100	100	100	100	100	100	100	-	
60W	CM09IG60	CG09□	12	19	22	28	34	48	55	62	82	98	118	164	196	200	200	200	200	200	200	200	200	200	-	
90W	CM09IG90	CG09□	18	28	34	43	51	71	85	96	125	150	178	200	200	200	200	200	200	200	200	200	200	200	-	
減速機出力軸旋轉方向 Rotating direction of output shaft of speed reducer			與馬達同一方向旋轉 Rotating in the same direction as the motor A									與馬達相反方向旋轉 Rotating in the opposite direction to the motor B						與馬達同一方向旋轉 Rotating in the same direction as the motor C								

- 轉速為4極50Hz馬達的同步轉速除以減速比所算出的轉速。
- 數據表格中範圍為 **B** 時，表示減速機出力軸旋轉方向與馬達相反方向旋轉，其他為相同方向旋轉。
- Running speed of motor 4P 50Hz divided by gear ratio equals RPM in the above table.
- **A** means rotating in the same direction as motor; **B** means in the opposite direction to the motor.
- In case of scope B of the data format, it indicates the speed reducer output shaft is rotating in the opposite direction to the motor; others indicate rotation in the same direction.



微型齒輪減速機系列 GEARMOTOR SERIES

馬達用詞解釋 Motor terminology

額定

額定是規定馬達的使用限度，包括馬達的輸出功率、電壓、電流、頻率、轉矩及轉速等。若以溫度上升情況來說，又分成連續額定和短時間額定二種。

連續額定和短時間額定

連續額定是指在馬達在額定輸出情況下連續運轉；而短時間額定是指在規定時間內馬達以額定輸出運轉。

輸出功率

表示馬達在一個單位時間內所能做的功，馬達所做的功是由轉速及轉矩來決定。參考公式如下：

$$\text{輸出(Kw)} = (T \times N) / 97400$$

T：轉矩 (Kgcm) N：轉速 (rpm)

$$1\text{HP} = 0.746\text{Kw}$$

97400：常數

啓動轉矩

馬達啓動時瞬間發出的轉矩，當負載大於這項轉矩時，馬達將無法啓動。

最大轉矩

於規定的電壓及頻率下能發揮的最大轉矩，馬達運轉時當負載大於這項轉矩時，馬達將立即停止。

Rating

Rating is specification of the operating limit of motor, including motor's output power, voltage, current, frequency, torque and rpm, etc. In terms of temperature rise, there are two types, continuous rating and short period rating.

Continuous rating and short-period rating

Continuous rating refers to continuous operation of the motor under rated output; short-period rating refers to motor running at rated output within a specified period of time.

Output power

Indicates the power that can be performed by a motor within a unit time. The power performed by the motor is determined by rpm and torque. Reference formula is as below:

$$\text{Output(Kw)} = (T \times N) / 97400$$

T：Torque N：RPM 97400：Constant

Starting torque

The torque is produced instantly when motor is started. The motor will not start in case a load is larger than such a torque.

Maximum torque

The maximum torque performed under the specified voltage frequency. The motor will stop operating immediately when the load is larger than this torque.

額定轉矩

於額定轉速時的轉矩為額定轉矩。

同步轉速

馬達的頻率、極數可以決定馬達的轉速。

參考公式如下：

$$N_s = (120 \times f) / P$$

Ns：同步轉速 (rpm)

120：常數

f：頻率 (Hz)

P：極數

例如：4極的馬達、頻率60HZ的同步轉速

$$N_s = (120 \times 60) / 4 = 1800\text{rpm}$$

無載轉速

馬達在無負載情況下的轉速。

轉差率

屬轉速表示方法之一，參考公式如下：

$$S = (N_s - N) / N_s$$

S：轉差率

Ns：同步轉速 (rpm)

N：任意負載下的轉速 (rpm)

Rated torque

The torque at rated rpm is the rated torque.

Synchronous rpm

Motor frequency and poles can decide motor rpm. Reference formula is as follows:

Ns：Synchronous rpm

120：Constant

f：Frequency

P：Poles

For example: Synchronous rpm if 4-pole motor, frequency 60Hz

$$N_s = (120 \times 60) / 4 = 1800\text{rpm}$$

No-load rpm

Motor rpm without load

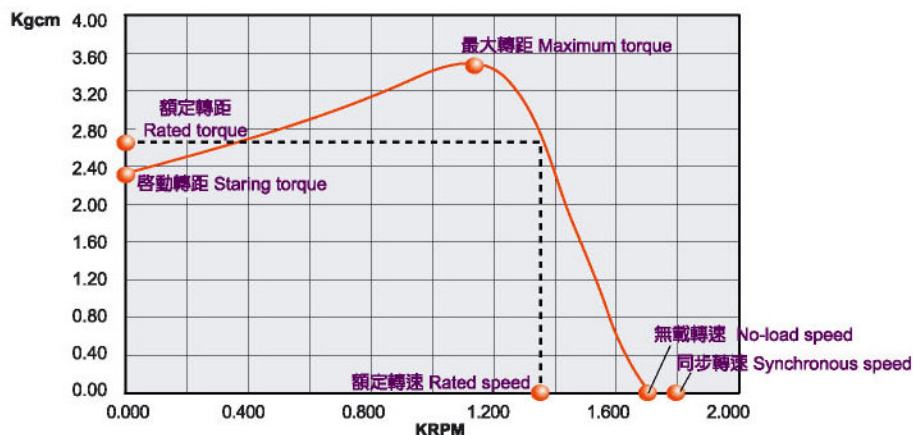
Slip

One of the methods to indicate rpm, reference formula as below:

$$S = (N_s - N) / N_s$$

Ns：Synchronous rpm

N：RPM under any load



馬達容量基本計算 Basic calculation of motor capacity

■ 皮帶輸送機 Belt conveyor

● 空轉動力 Idling power

$$P_1 = 9.8 \mu \omega v l n \quad [W]$$

$$P_g = (P_1 + P_2 + P_3) \frac{100}{n} \quad [W]$$

● 水平動力 Level power

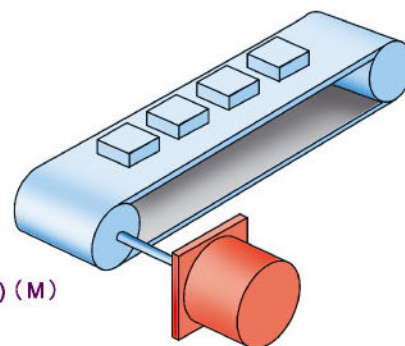
$$P_2 = \frac{\mu Q l}{367} \quad [W]$$

● 垂直動力 Vertical power

$$P_3 = \pm \frac{QH}{367} \quad [W]$$

P_g : 所需動力 (W)
 l : 輸送機之機長 (m) (軸間距離)
 ω : 皮帶單位長之重量 (kg/m)
 μ : 摩擦係數
 v : 皮帶速度 (m/sec)
 Q : 輸送量 (kg/h)
 n : 效率 (%)
 H : 傾斜輸送機兩端之高低差 (m)

P_g : Required power (W)
 l : Length of conveyor (distance between shafts) (M)
 ω : Weight of unit length of belt (kg/m)
 μ : Friction coefficient
 v : Belt speed (m/sec)
 Q : Conveyance volume (kg/h)
 n : Efficiency (%)
 H : Difference in height between two ends of conveyor (m)



馬達
Motor

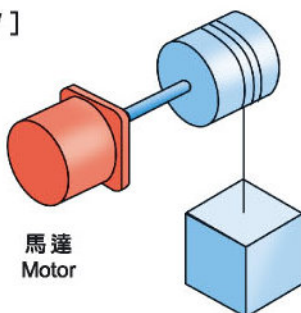
■ 將荷重捲上的場合

Field of lifting up the loading

$$P_g = \frac{\omega v}{6.12} \cdot \frac{100}{n} \quad [W]$$

P_g : 所需動力 (W)
 ω : 荷重 (kg)
 v : 速度 (m/sec)
 n : 效率 (%)

P_g : Required power (w)
 ω : Load (kg)
 v : Speed (m/sec)
 n : Efficiency (%)



馬達
Motor

■ 驅動慣性體の場合

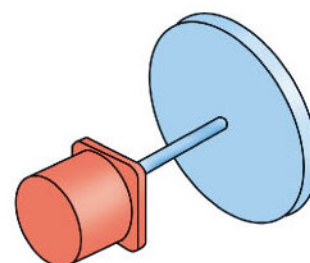
Field of driving inertia body

$$P_g = 1.027 N T \quad [W]$$

$$T = \frac{GD^2}{375} \times \frac{N}{t} \quad (Kg-M)$$

P_g : 所需動力 (W)
 N : 每分鐘回轉數 (rpm)
 T : 轉矩 (kg-m)
 GD^2 : 飛輪效應 (kg/m²)
 (含轉子的飛輪效應)
 t : 起動時間 (sec)

P_g : Required power (w)
 N : Revolutions per minute (rpm)
 T : Torque (kg-m)
 GD^2 : Flywheel effect (including flywheel effect of rotor) (kg/m²)
 t : Starting time (sec)



馬達
Motor

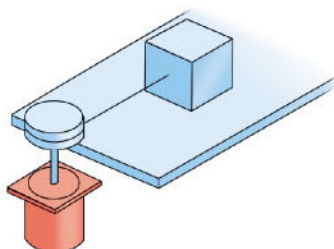
■ 接觸面上作水平移動の場合

Field of level movement on contact surface

$$P_g = \frac{\mu \omega v}{6.12} \quad [W]$$

P_g : 所需動力 (W)
 ω : 荷重 (kg)
 v : 速度 (m/min)
 μ : 摩擦係數

P_g : Required power (w)
 ω : Load (kg)
 v : Speed (m/min)
 μ : Friction coefficient



馬達
Motor

註：以上為常態的基本公式，在實際運用上請依設計物件的安全度、電源的變動及實際的起動加速、負荷大小的影響程度加以選擇。

Note: The above is the basic formula under normal circumstances. In actual application, please make your choice in consideration of the safety of design article, fluctuation of power source, and actual starting acceleration, and loading.



微型齒輪減速機系列 GEARMOTOR SERIES

馬達安裝須知 Instructions for motor installation

因馬達出力軸的不同，安裝亦有所不同。

(1) 圓軸型 Fig.2

在安裝板上開孔後用螺絲、螺帽將馬達固定在安裝板上(此產品不附螺絲、螺帽)。請注意馬達的安裝面與安裝板之間不要留有縫隙。

Different installation methods result from different output shafts of motor.

Cylindrical shaft type

After drilling holes on the installation board, use nuts and screws to fasten the motor onto the installation board (screws and nuts are not offered with this motor). Please make sure there is no clearance between the motor's installation surface and installation board.

安裝用螺絲 Screws used for installation		
型號 Model	螺絲尺寸 Screw size	安裝力矩 Installation torque
CM06、CG06	M4	20kgfcm
CM07、CG07	M5	25kgfcm
CM08、CG08	M5	25kgfcm
CM09、CG09	M6	30kgfcm

注意：請勿將馬達斜插入安裝孔或強行安裝、否則有可能會造成內緣部份受傷、馬達破損。

Note: Please do not insert the motor obliquely into the installation hole or use force. It may cause damage to the interior or breakage of motor.

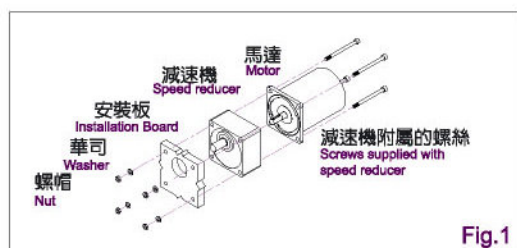


Fig.1

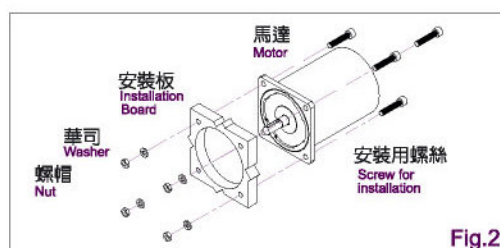


Fig.2

(2) 螺旋齒輪(與減速機組合) Fig.1

在安裝板上開孔後，用另售的減速機所附屬的4根螺絲、螺帽將馬達和減速機固定在安裝板上。請注意安裝時不要使馬達的凸緣與減速機的內緣留有縫隙。請注意：馬達齒軸與減速機組合時應小心的左右旋轉減速機即可裝入，避免強行安裝導致齒輪碰傷，而造成齒輪受損減速機出現異常運轉聲，產品壽命將縮短亦可能造成事故。

Heliced gear shaft (in combination with speed reducer)

After drilling holes on the installation plate, use the 4 screws and nuts supplied with the speed reducer, to fasten gear head and motor on the the installation plate. Make sure there is no clearance between the flange of motor and the inside of speed reducer. (Caution: Please revolve the gearhead carefully to combine motor and gearhead. Please avoid using force for assembly. It will hurt gears. There will be noise at running. The life of gear motor will shorten or even cause an accident.)

(3) 附散熱風扇的馬達馬達附散熱風扇時，為了避免堵塞馬達後部的散熱孔，安裝時請在風扇外框後部空出10mm以上或開換氣孔。 Fig.3
Please leave the rear of motor unoccupied at least 10mm distance or open the breather while using the motor with fan.

電容器安裝須知(僅單相馬達有附) Fig.4

Instructions for capacitor installation (Only for single phase motor)

安裝前請先確認電容器規格是否與馬達銘牌上的規格相同。安裝電容器時，請使用M4螺絲(此產品不附固定螺絲)。請注意：電容器固定時，螺絲的安裝力矩請控制在10kgfcm以下，以防止安裝腳損壞。電容器安裝地點應距離馬達10cm以上，以防止電容器因熱而縮短使用壽命。

Before installation, please make sure the capacitor specification is the same as that on the motor nameplate. To install the capacitor, please use M4 screws (Fixing screws are not offered)(Caution: Please adjust the install torque to mounting foot. The capacitor should be located atleast 10cm faraway the motor, otherwise excessive heat will shorten service life of capacitor.)

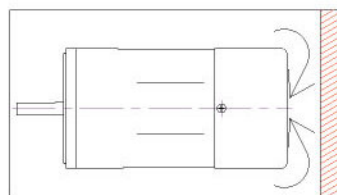


Fig.3

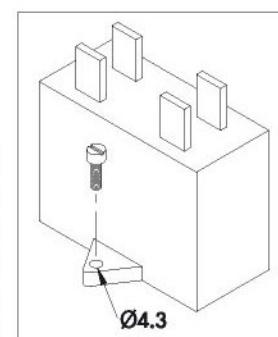
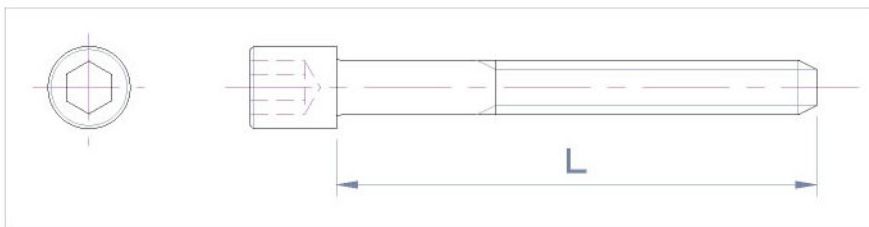
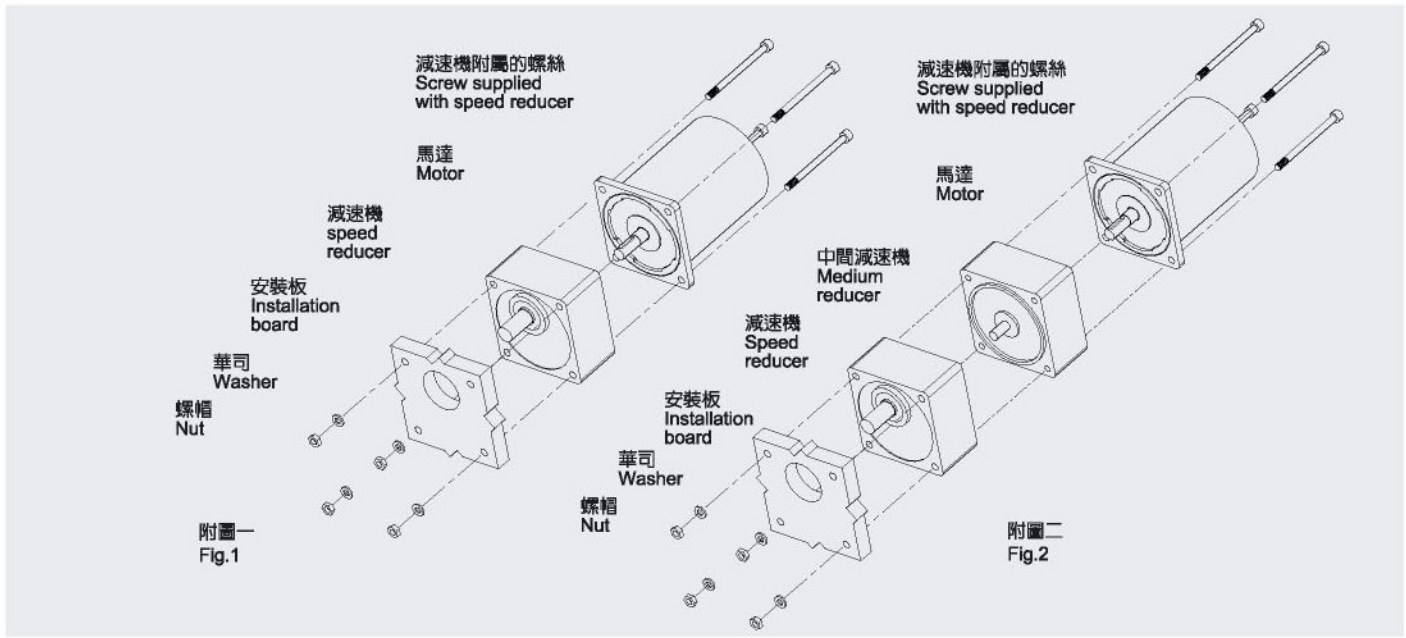


Fig.4

附屬螺絲尺寸規格Measurement and specification of supplied screws

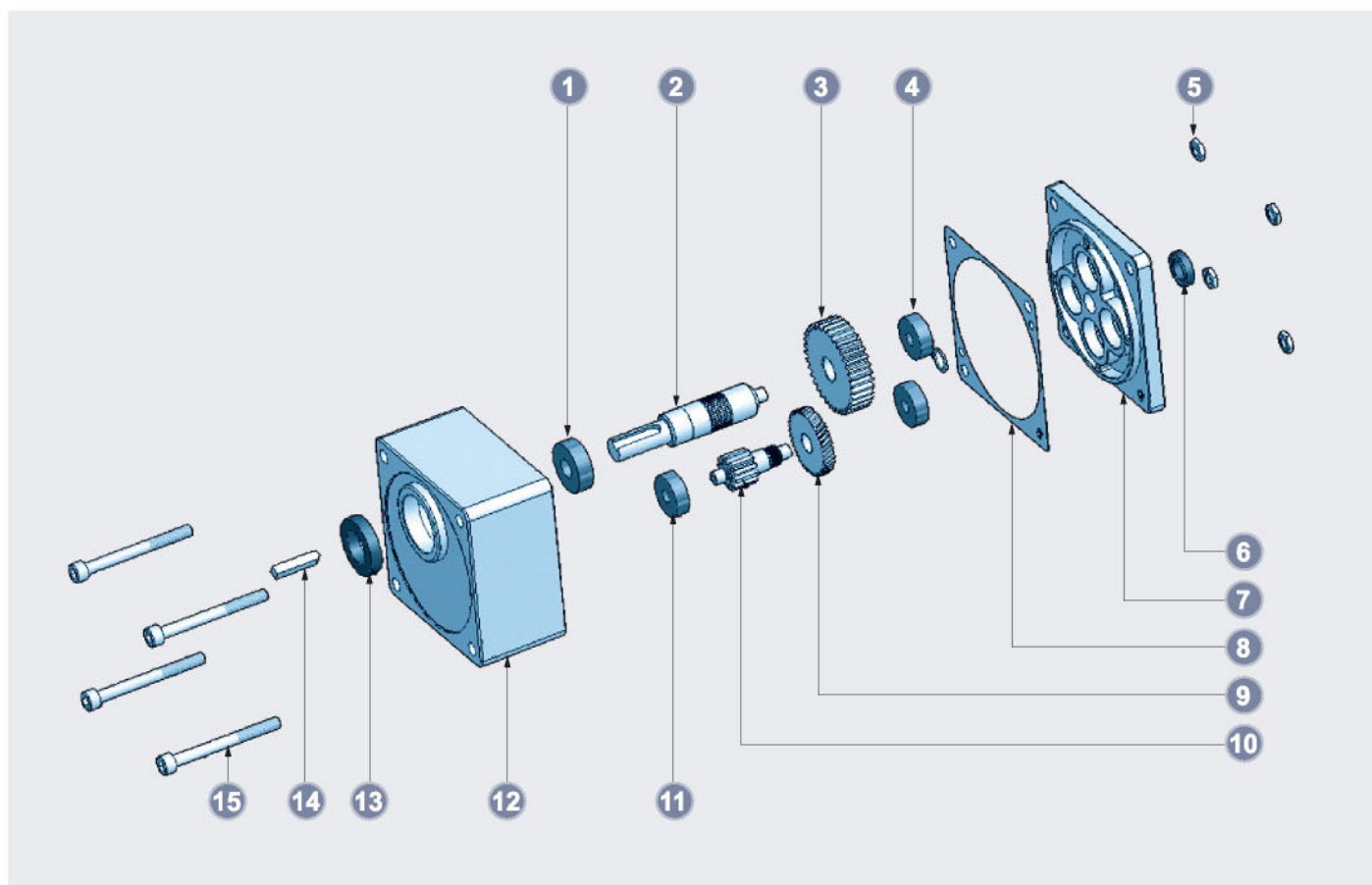


NO.	機種 Model	螺絲長度 Screw length L(mm)	規格 Specification	
1	CG06□3~75S8	65	M4 P0.7	附圖一 Fig.1
2	CG06□90~300S8	70	M4 P0.7	
3	CG07□3~75S10	70	M5 P0.8	
4	CG07□90~240S10	75	M5 P0.8	
5	CG08□3~75S10	70	M5 P0.8	
6	CG08□90~300S10	80	M5 P0.8	
7	CG09□3~75S12	85	M6 P1.0	
8	CG09□90~240S12	95	M6 P1.0	
9	CG09□3~75S15	85	M6 P1.0	
10	CG09□90~240S15	95	M6 P1.0	
11	CG08□3~75S10 + CG08B10X	110	M5 P0.8	附圖二 Fig.2
12	CG08□90~300S10 + CG08B10X	120	M5 P0.8	
13	CG09□3~75S12 + CG09B10X	140	M6 P1.0	
14	CG09□90~240S12 + CG09B10X	150	M6 P1.0	
15	CG09□3~75S15 + CG09B10X	140	M6 P1.0	
16	CG09□90~240S15 + CG09B10X	150	M6 P1.0	



微型齒輪減速機系列 GEARMOTOR SERIES

齒輪箱分解系統圖 Diagram of Gearhead



NO.	名稱	NAME OF PARTS	NO.	名稱	NAME OF PARTS
1	滾珠軸承	Ball Bearing	9	B齒輪	B Gear
2	出力軸	Output Shaft	10	C齒輪	C Gear
3	D齒輪	D Gear	11	滾珠軸承	Ball Bearing
4	滾珠軸承	Ball Bearing	12	齒輪箱	Gear Shell
5	外六角螺帽	HEX. Nut	13	油封	Oil Seal
6	油封	Oil Seal	14	單圓鍵	Key
7	後蓋	Rear Cover	15	六角承窩頭螺絲	HEX. Screw
8	防油墊片	Paper Packing			

馬達分解系統圖Diagram of motor



NO.	名稱	NAME OF PARTS	NO.	名稱	NAME OF PARTS
1	油封	Oil Seal	9	波型華司	Wave-Washer
2	馬達前蓋	Motor Bracket	10	定子線圈	Stator
3	滾珠軸承	Ball Bearing	11	馬達機殼	Motor Housing
4	R扣環	R-Ring	12	風扇	Fan
5	馬達齒軸	Motor Gearshaft	13	固定螺絲	Fixing Screw
6	S扣環	S-Ring	14	風罩	Fan Guard
7	轉子	Rotor	15	十字頭螺絲	Screw
8	滾珠軸承	Ball Bearing	16	護線扣環	Cable Retaining Ring



微型齒輪減速機系列 GEARMOTOR SERIES

感應.可逆式馬達

Induction reversible motor



感應式、可逆式馬達 Induction、reversible motor

感應式馬達特徵：適用於單相或三相馬達單方向連續運轉。

可逆式馬達特徵：適用於單相馬達頻繁正逆轉操作(30分鐘額定)。

Characteristics of induction motor : Applicable to single-phase or 3-phase motor in single direction continuous operation

Characteristics of reversible motor : Applicable to single-phase motor frequently cw /ccw operation (30 minutes rating).

馬達一般規格 Motor general specifications

絕緣阻抗：在馬達的線圈與外殼間以DC500V高阻計測定其數值在100MΩ以上。

絕緣耐壓：在馬達的線圈與外殼間施加50Hz或60Hz、1.5KV、1分鐘無發生異常現象。

溫度上升：於馬達額定運轉後以電阻法測定，溫度上升值在80°C以下。

絕緣等級：B種(130°C)

保護等級：導線型IP20，端子盒型IP54。

使用溫度：-10°C~+50°C(電容運轉馬達-10°C~+40°C)(不結凍狀態)。

使用溼度：85%以下(不結露狀態)。

Insulation impedance : Measure with DC500V high resistance gauge between the coil and casing of motor, the reading is 100M or higher.

Insulation resistance to pressure : Apply 50Hz or 60Hz, 1.5KV between the coil and casing of motor for one minute without irregularity resulted.

Temperature rise : To specify by resistance method after motor reaches rated operation, temperature is less than 80°C

Insulation : B(130°C)

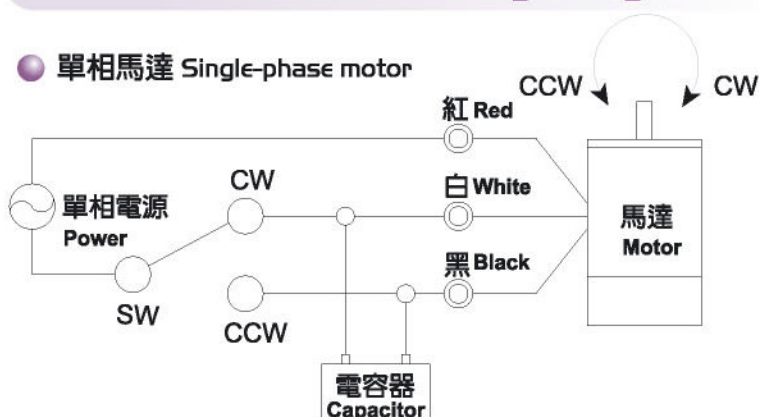
Protection : motor with conductive wire is IP20 ; motor with terminalbox is IP54

Operating temperature : -10°C~+50°C(Capacitor operation motor -10°C~+40°C) (No freezing)

Operating humidity : 85% or less(No condensation)

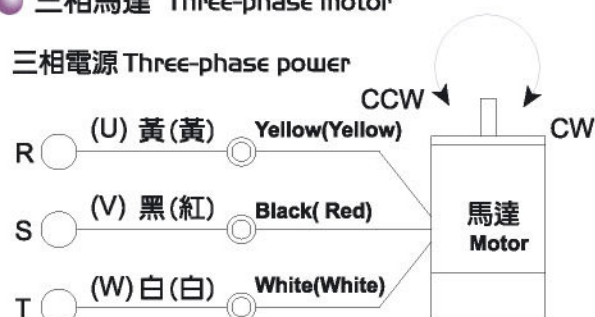
馬達接線圖 Motor wiring diagram

● 單相馬達 Single-phase motor



● 三相馬達 Three-phase motor

三相電源 Three-phase power



感應式馬達機種一覽表List of induction motor models

型 號 Model		輸出功率 (W) Output power	電壓 (V) Voltage	極數 (P) Poles	頻率 (Hz) Frequency	起動轉矩 (KgcM) Starting Torque	額定轉矩 (KgcM) Rated torque	額定電流 (A) Rated current	額定轉速 (r/min) Rated rpm	電容器容量 (μ f) Capacitor capacity
圓 軸 Round shaft	齒 軸 Gear									
CM06IA06SA	CM06IG06SA	6	1Ø110	4	50 60	0.44 0.45	0.50 0.38	0.25 0.22	1300 1630	2.5(250V)
CM06IA06SB	CM06IG06SB		1Ø220	4	50 60	0.40 0.53	0.45 0.38	0.14 0.12	1300 1360	0.7(450V)
CM07IA15SA	CM07IG15SA	15	1Ø110	4	50 60	0.81 1.00	1.22 0.98	0.38 0.34	1300 1600	5(250V)
CM07IA15SB	CM07IG15SB		1Ø220	4	50 60	0.88 0.86	1.22 0.97	0.20 0.18	1200 1600	1.2(450V)
CM08IA25SA	CM08IG25SA	25	1Ø110	4	50 60	1.30 1.20	1.87 1.48	0.43 0.45	1300 1600	6(250V)
CM08IA25SB	CM08IG25SB		1Ø220	4	50 60	1.45 1.57	1.82 1.50	0.21 0.20	1330 1640	1.5(450V)
CM08IA25TB	CM08IG25TB	25	3Ø220	4	50 60	5.94 4.86	2.06 1.63	0.23 0.21	1300 1600	--
CM08IA25TC	CM08IG25TC		3Ø380	4	50 60	5.90 4.86	1.75 1.46	0.15 0.13	1300 1550	--
CM09IA40SA	CM09IG40SA	40	1Ø110	4	50 60	2.26 2.17	3.00 2.50	0.83 0.70	1350 1650	10(250V)
CM09IA40SB	CM09IG40SB		1Ø220	4	50 60	2.17 2.15	3.40 2.84	0.46 0.37	1350 1650	2.5(450V)
CM09IA40TB	CM09IG40TB	40	3Ø220	4	50 60	10.4 7.90	3.17 2.80	0.31 0.26	1400 1650	--
CM09IA40TC	CM09IG40TC		3Ø380	4	50 60	8.14 6.17	3.00 3.00	0.15 0.13	1350 1600	--
CM09IA60SAF	CM09IG60SAF	60	1Ø110	4	50 60	3.90 3.80	4.86 4.00	1.58 1.10	1350 1650	16(250V)
CM09IA60SBF	CM09IG60SBF		1Ø220	4	50 60	3.35 3.10	4.37 4.30	0.58 0.58	1350 1600	4(450V)
CM09IA60TBF	CM09IG60TBF	60	3Ø220	4	50 60	17.4 13.9	4.90 4.00	0.60 0.45	1350 1600	--
CM09IA60TCF	CM09IG60TCF		3Ø380	4	50 60	13.0 9.74	4.85 3.88	0.25 0.21	1325 1600	--
CM09IA90SAF	CM09IG90SAF	90	1Ø110	4	50 60	6.00 5.20	6.35 5.28	1.58 1.43	1375 1650	20(250V)
CM09IA90SBF	CM09IG90SBF		1Ø220	4	50 60	6.00 6.00	6.20 5.43	0.74 0.85	1350 1650	6(450V)
CM09IA90TBF	CM09IG90TBF	90	3Ø220	4	50 60	17.4 17.2	6.50 5.30	0.70 0.57	1350 1650	--
CM09IA90TCF	CM09IG90TCF		3Ø380	4	50 60	17.4 15.0	6.20 5.30	0.35 0.30	1350 1600	--

如馬達特性變更，恕不另行通知，以馬達銘牌為準

In case of change of motor characteristics, no further notice shall be given. The information shown on the nameplate of motor is taken as standard.



微型齒輪減速機系列 GEARMOTOR SERIES



可逆式馬達機種一覽表 List of reversible motor models

型 號 Model		輸出功率 (W) Output power	電壓 (V) Voltage	極數 (P) Poles	頻率 (Hz) Frequency	起動轉矩 (Kgcm) Starting Torque	額定轉矩 (Kgcm) Rated torque	額定電流 (A) Rated current	額定轉速 (r/min) Rated rpm	電容器容量 (μ) Capacitor capacity
圓 軸 Round shaft	齒 軸 Gear									
CM06RA06SA	CM06RG06SA	6	1ø110	4	50 60	0.55 0.54	0.51 0.42	0.26 0.24	1250 1550	3(250V)
CM06RA06SB	CM06RG06SB		1ø220	4	50 60	0.55 0.54	0.46 0.40	0.14 0.13	1250 1550	0.8(450V)
CM07RA15SA	CM07RG15SA	15	1ø110	4	50 60	1.11 1.10	1.23 1.00	0.40 0.43	1250 1550	6(250V)
CM07RA15SB	CM07RG15SB		1ø220	4	50 60	1.14 1.15	1.27 1.03	0.20 0.24	1250 1550	1.5(450V)
CM08RA25SA	CM08RG25SA	25	1ø110	4	50 60	1.50 1.50	1.91 1.55	0.52 0.59	1250 1550	8(250V)
CM08RA25SB	CM08RG25SB		1ø220	4	50 60	2.05 2.09	1.90 1.54	0.24 0.26	1250 1550	2(450V)
CM09RA40SA	CM09RG40SA	40	1ø110	4	50 60	2.54 2.73	3.25 2.56	0.82 1.00	1250 1550	12(250V)
CM09RA40SB	CM09RG40SB		1ø220	4	50 60	2.91 2.80	3.11 2.49	0.39 0.46	1250 1550	3.5(450V)
CM09RA60SAF	CM09RG60SAF	60	1ø110	4	50 60	3.90 3.85	4.77 3.70	1.45 1.35	1250 1550	20(250V)
CM09RA60SBF	CM09RG60SBF		1ø220	4	50 60	4.92 4.86	4.61 3.71	0.70 0.65	1250 1550	4(450V)
CM09RA90SAF	CM09RG90SAF	90	1ø110	4	50 60	6.35 5.90	6.60 5.24	2.05 1.90	1250 1550	30(250V)
CM09RA90SBF	CM09RG90SBF		1ø220	4	50 60	6.20 6.00	6.84 5.70	1.05 1.00	1290 1550	7.5(450V)

如馬達特性變更，恕不另行通知，以馬達銘牌為準

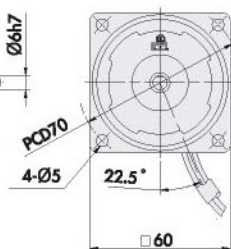
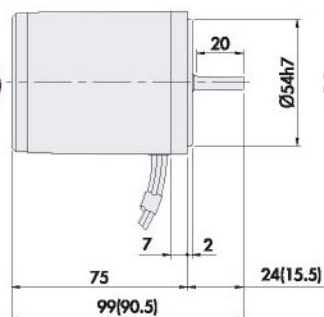
In case of change of motor characteristics, no further notice shall be given. The information shown on the nameplate of motor is taken as standard.

感應.可逆式外觀尺寸圖 Outline drawing of induction/reversible models

Unit 單位 : mm

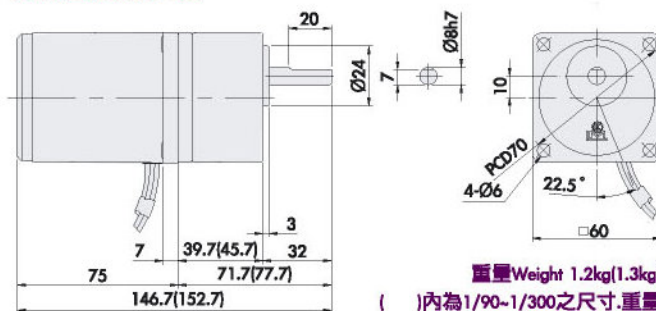
CM06□

6w



重量Weight 0.9kg
()內為齒軸尺寸
{ } is for helical gear shaft

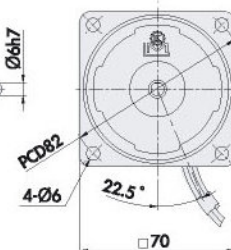
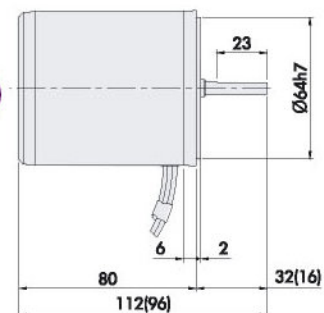
CM06□/CG06□S8



重量Weight 1.2kg(1.3kg)
()內為1/90~1/300之尺寸.重量
{ } is for ratio1/90~1/300 measurement/weight

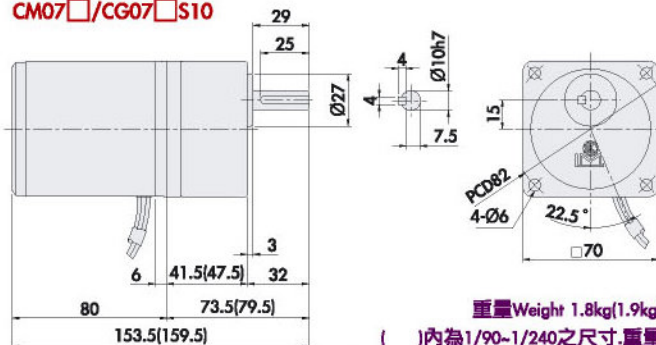
CM07□

15w



重量Weight 1.3kg
()內為齒軸尺寸
{ } is for helical gear shaft

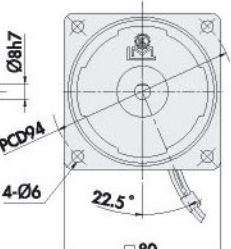
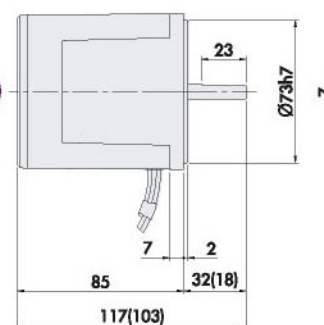
CM07□/CG07□S10



重量Weight 1.8kg(1.9kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio1/90~1/240 measurement/weight

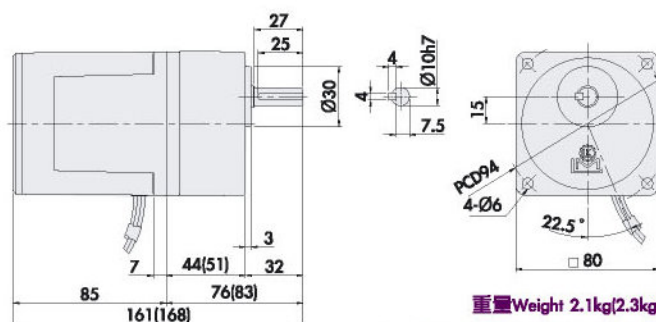
CM08□

25w



重量Weight 1.5kg
()內為齒軸尺寸
{ } is for helical gear shaft

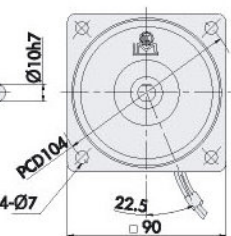
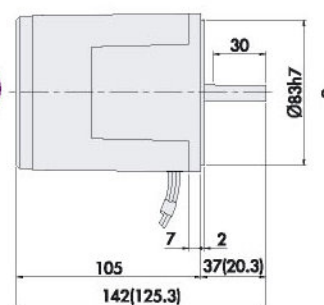
CM08□/CG08□S10



重量Weight 2.1kg(2.3kg)
()內為1/90~1/300之尺寸.重量
{ } is for ratio1/90~1/300 measurement/weight

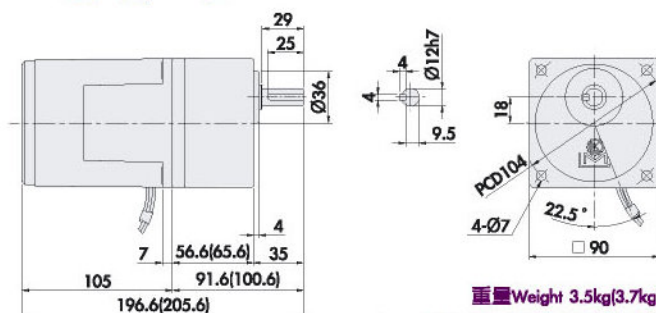
CM09□40□

40w



重量Weight 2.3kg
()內為齒軸尺寸
{ } is for helical gear shaft

CM09□40□/CG09□S12

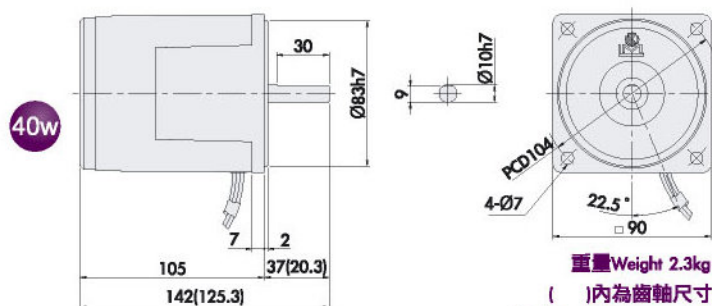


重量Weight 3.5kg(3.7kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio1/90~1/240 measurement/weight

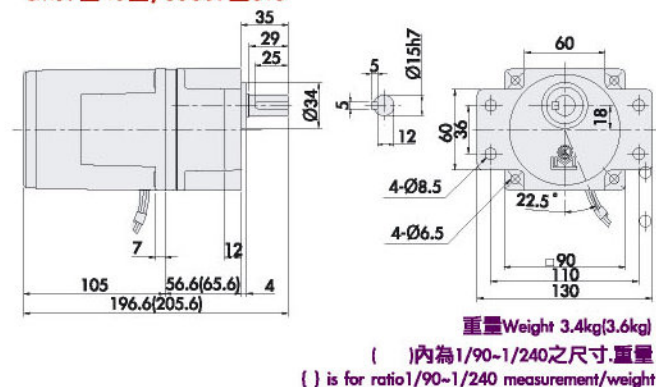


微型齒輪減速機系列 GEARMOTOR SERIES

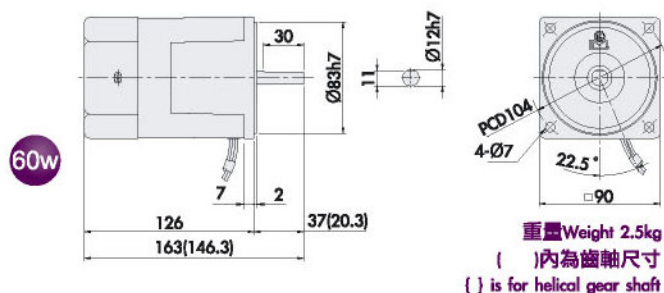
CM09□40□



CM09□40□/CGU09□S15



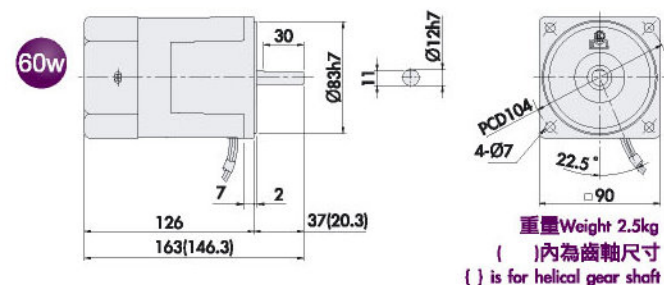
CM09□60□F



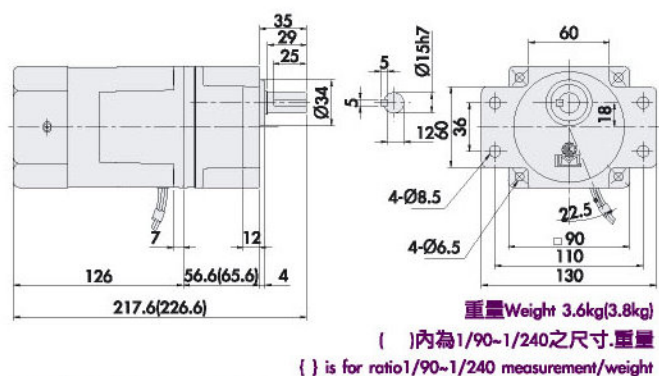
CM09□60□F/CG09□S15



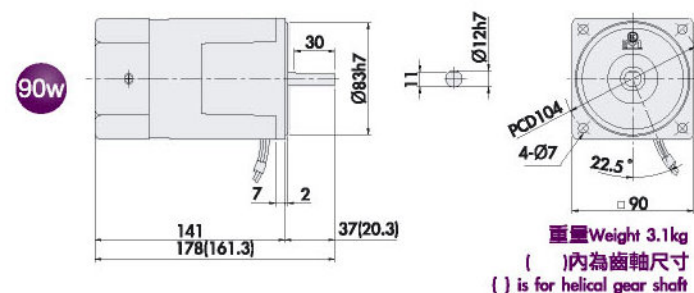
CM09□60□F



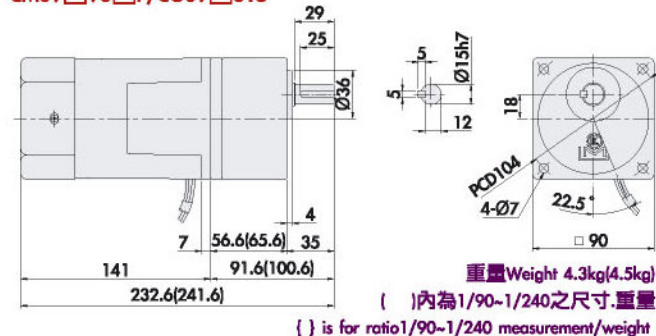
CM09□60□F/CGU09□S15



CM09□90□F

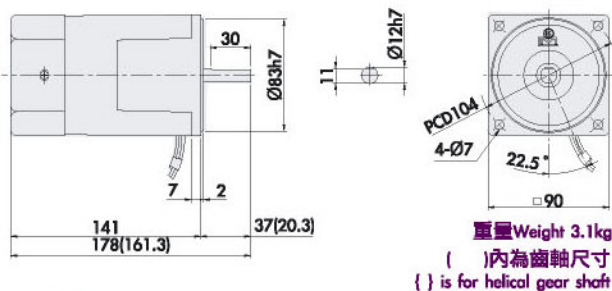


CM09□90□F/CG09□S15

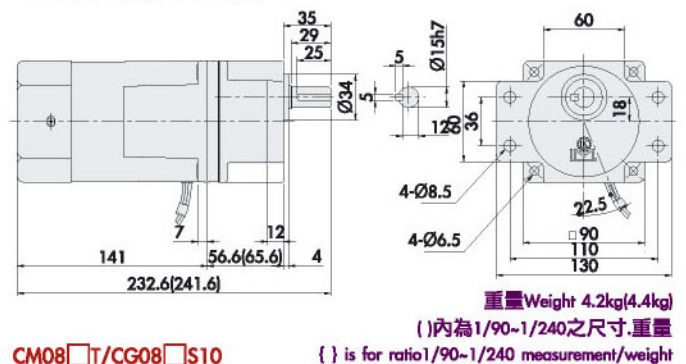


CM09□90□F

90w



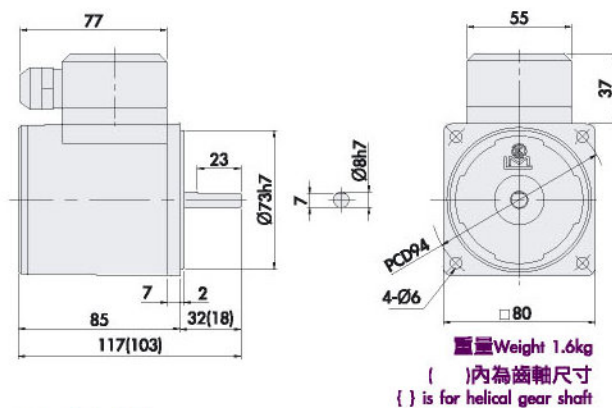
CM09□90□F/CGU09□S15



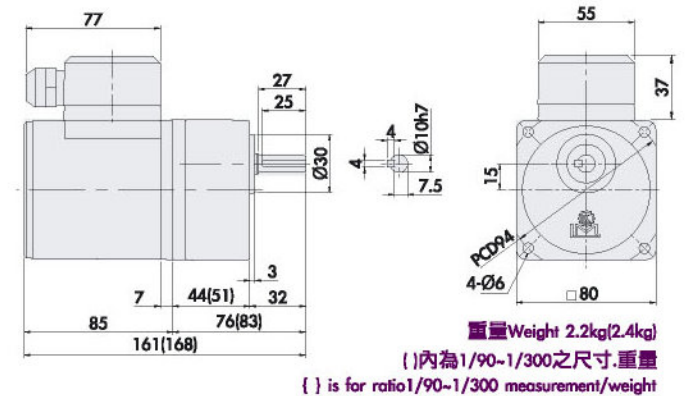
CM08□T

25w

附端子盒
with terminal box



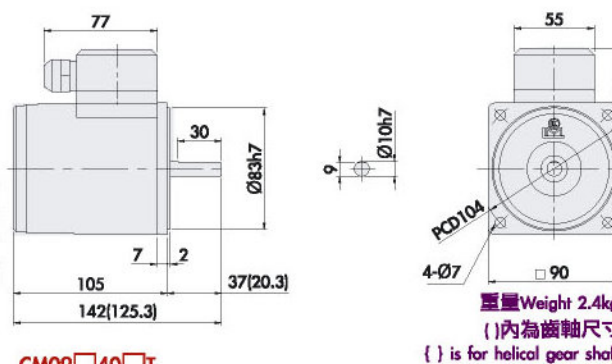
CM08□T/CG08□S10



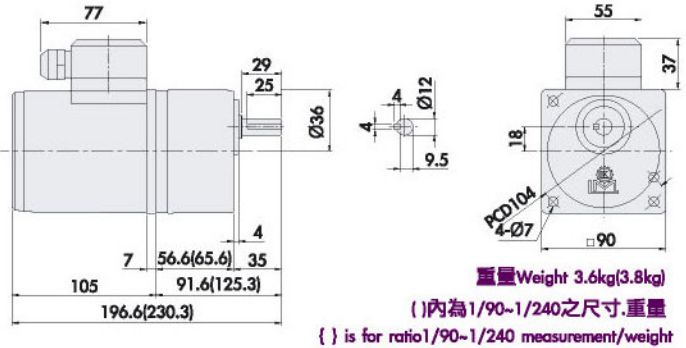
CM09□40□T

40w

附端子盒
with terminal box



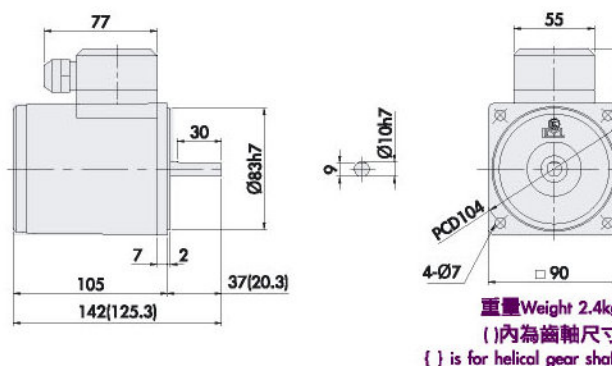
CM09□40□T/CG09□S12



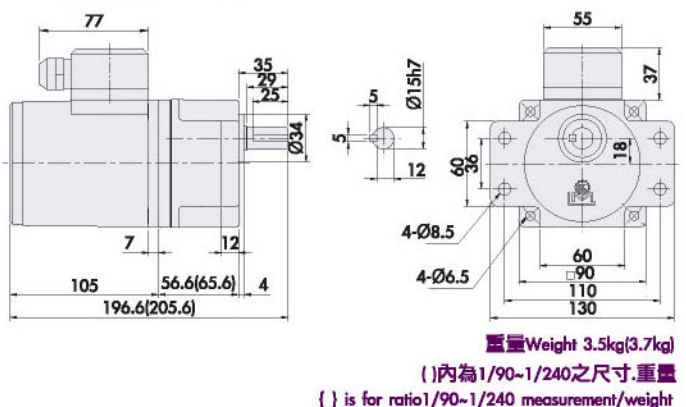
CM09□40□T

40w

附端子盒
with terminal box



CM09□40□T/CGU09□S15



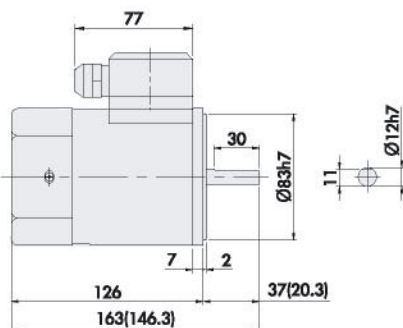


微型齒輪減速機系列 GEARMOTOR SERIES

CM09□60□FT

60w

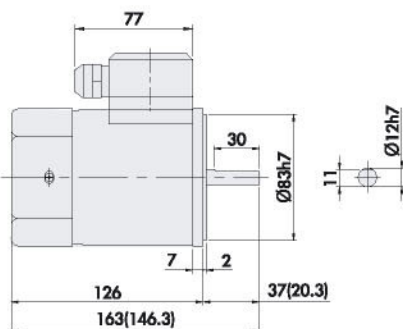
附端子盒
with terminal box



CM09□60□FT

60w

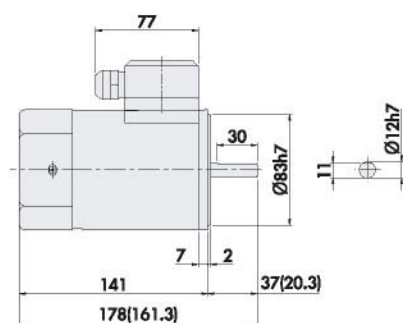
附端子盒
with terminal box



CM09□90□FT

90w

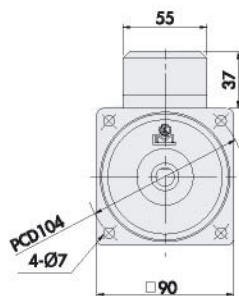
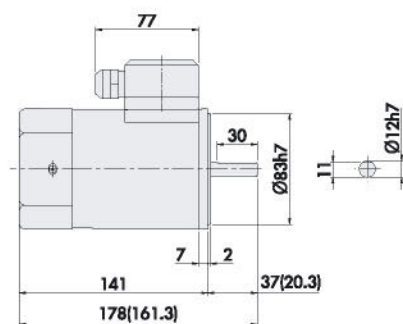
附端子盒
with terminal box



CM09□90□FT

90w

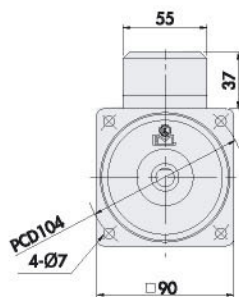
附端子盒
with terminal box



重量Weight 2.6kg

()內為齒軸尺寸

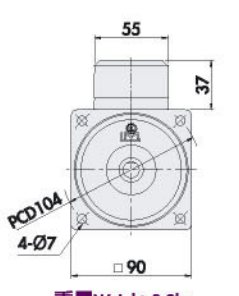
{ } is for helical gear shaft



重量Weight 2.6kg

()內為齒軸尺寸

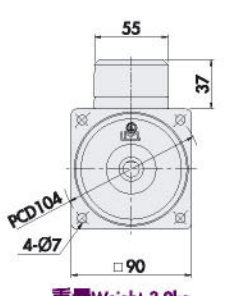
{ } is for helical gear shaft



重量Weight 3.2kg

()內為齒軸尺寸

{ } is for helical gear shaft

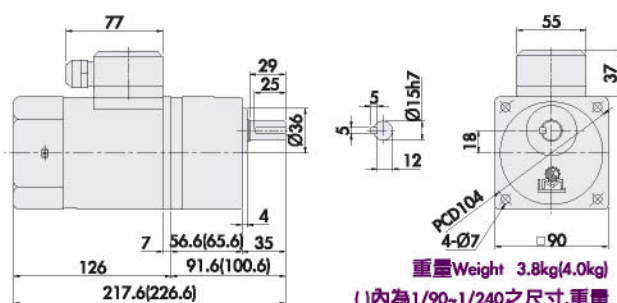


重量Weight 3.2kg

()內為齒軸尺寸

{ } is for helical gear shaft

CM09□60□FT/CG09□S15

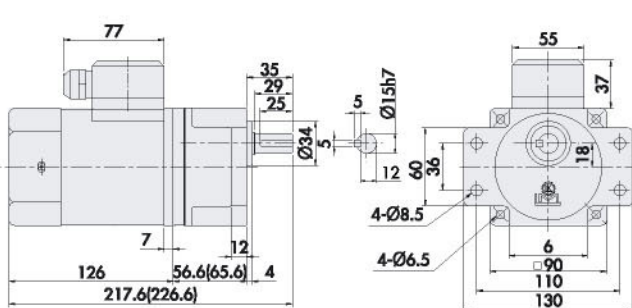


重量Weight 3.8kg(4.0kg)

()內為1/90~1/240之尺寸.重量

{ } is for ratio1/90~1/240 measurement/weight

CM09□60□FT/CGU09□S15

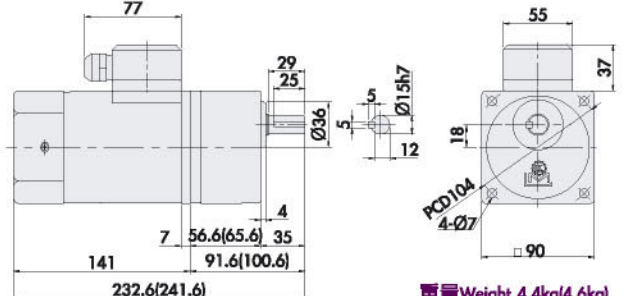


重量Weight 3.7kg(3.9kg)

()內為1/90~1/240之尺寸.重量

{ } is for ratio1/90~1/240 measurement/weight

CM09□90□FT/CG09□S15

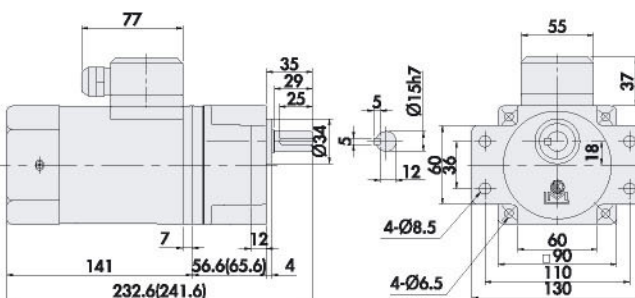


重量Weight 4.4kg(4.6kg)

()內為1/90~1/240之尺寸.重量

{ } is for ratio1/90~1/240 measurement/weight

CM09□90□FT/CGU09□S15

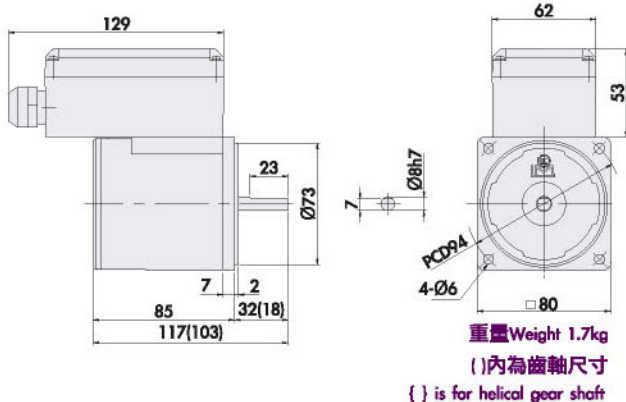


重量Weight 4.3kg(4.5kg)

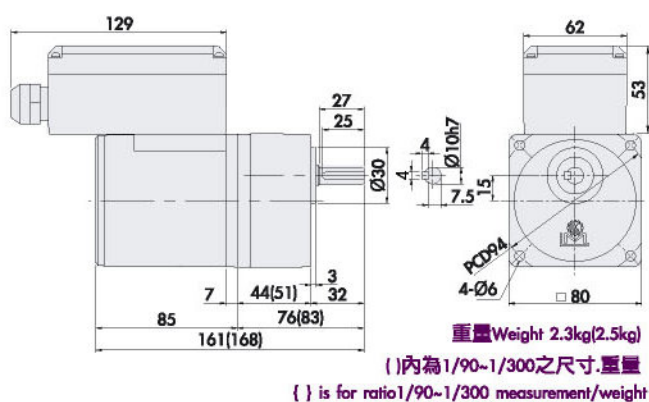
()內為1/90~1/240之尺寸.重量

{ } is for ratio1/90~1/240 measurement/weight

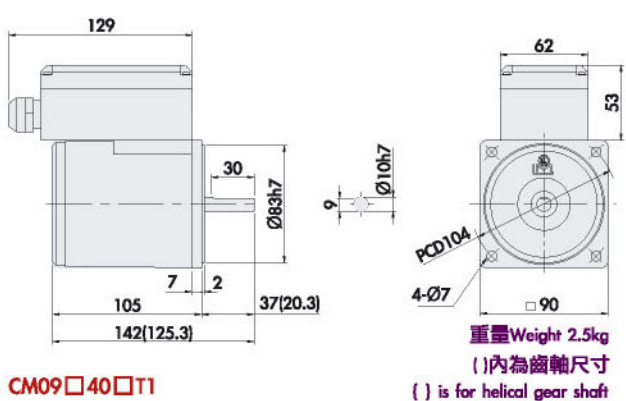
CM08 □T1



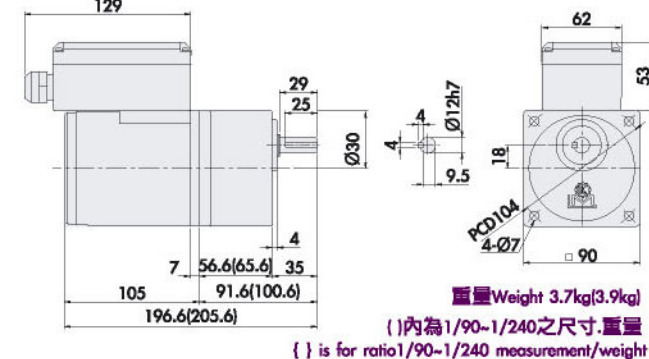
CM08 □T1/CG08 □S10



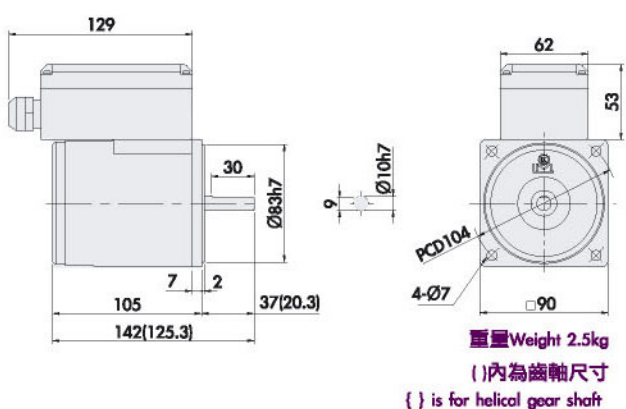
CM09 □40 □T1



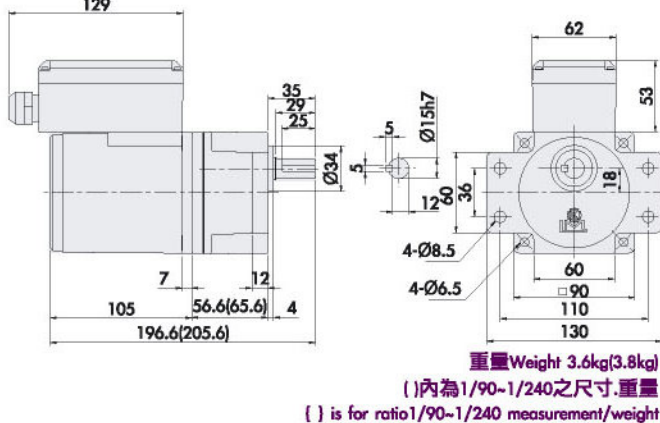
CM09 □40 □T1/CG09 □S12



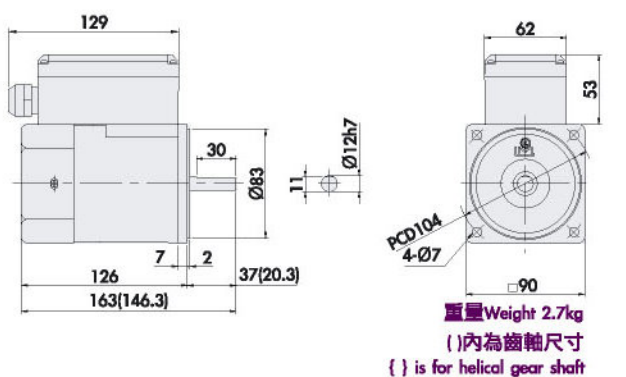
CM09 □40 □T1



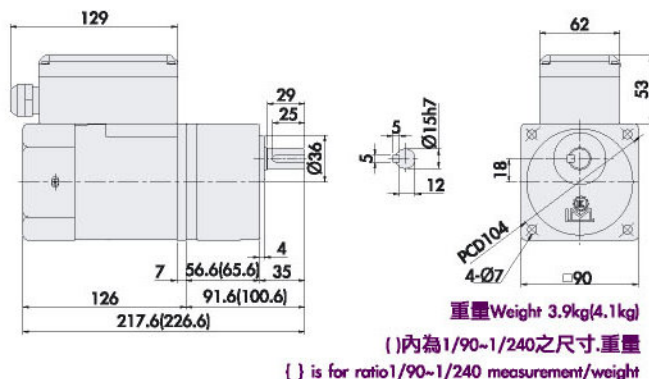
CM09 □40 T1/CGU09 □S15



CM09 □60 □T1



CM09 □60 □T1/CG09 □S15

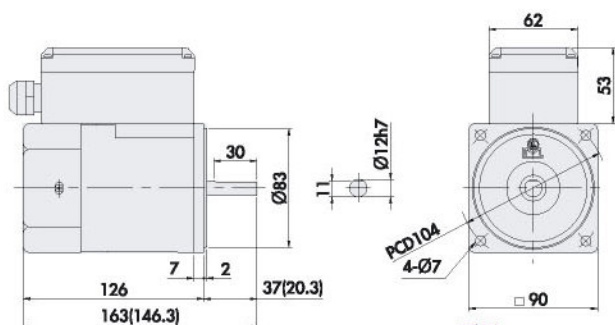




微型齒輪減速機系列 GEARMOTOR SERIES

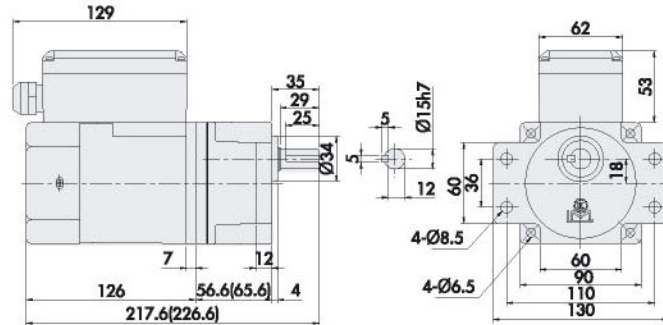
60w
附大端子盒
with big terminal box

CM09□60□FT1



重量Weight 2.7kg
()內為齒軸尺寸
{ } is for helical gear shaft

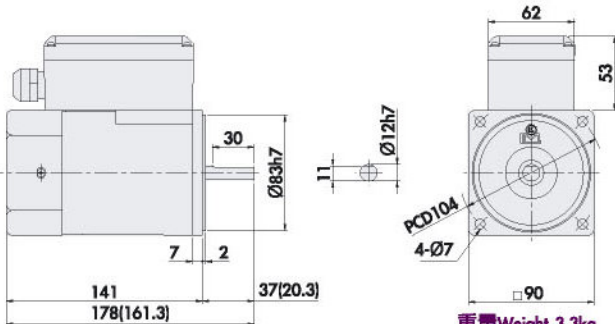
CM09□60□FT1/CGU09□S15



重量Weight 3.8kg(4.0kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio 1/90~1/240 measurement/weight

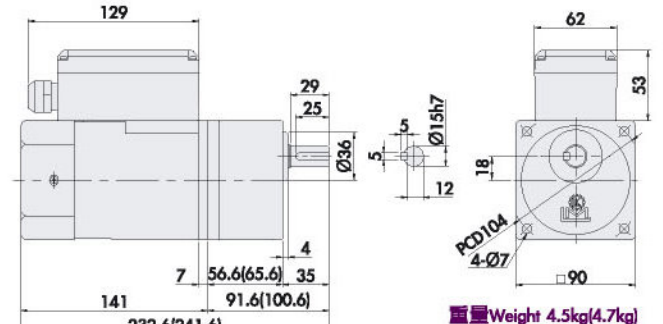
90w
附大端子盒
with big terminal box

CM09□90□FT1



重量Weight 3.3kg
()內為齒軸尺寸
{ } is for helical gear shaft

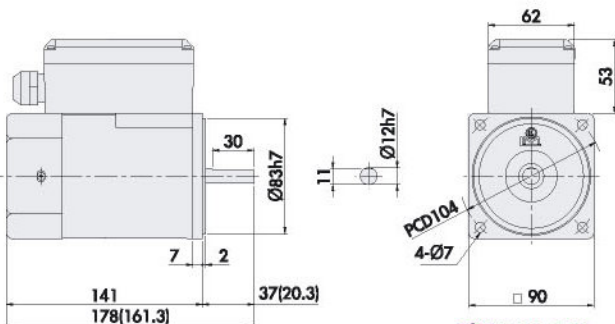
CM09□90□FT1/CG09□S15



重量Weight 4.5kg(4.7kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio 1/90~1/240 measurement/weight

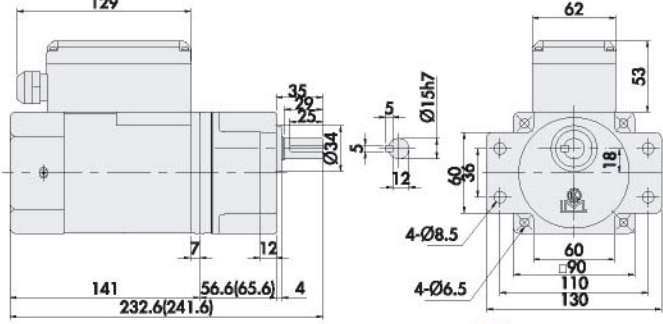
90w
附大端子盒
with big terminal box

CM09□90□FT1



重量Weight 3.3kg
()內為齒軸尺寸
{ } is for helical gear shaft

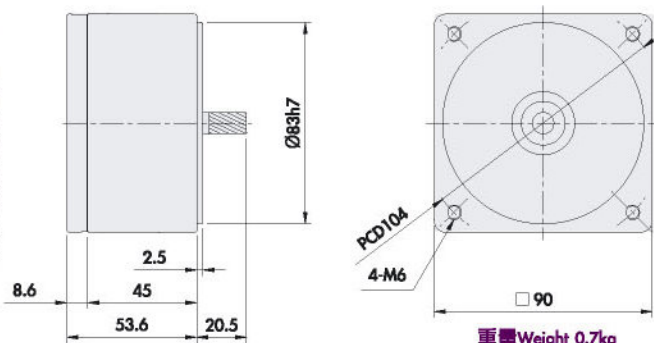
CM09□90□FT1/CGU09□S15



重量Weight 4.4kg(4.6kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio 1/90~1/240 measurement/weight

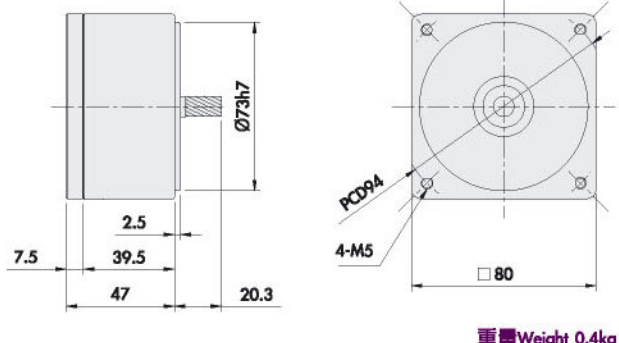
中間級減速機
Medium Reducer

CG09B10X



重量Weight 0.7kg

CG08B10X

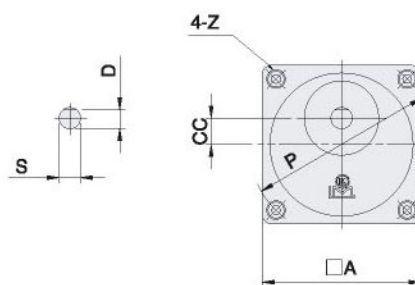
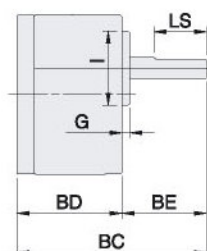


重量Weight 0.4kg

齒輪箱 GEAR HEAD ■ MODEL : CG



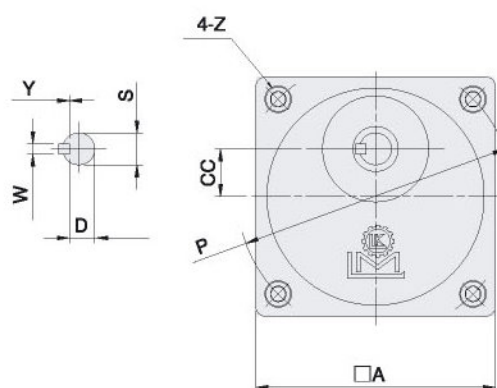
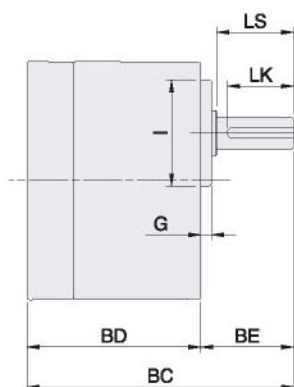
CG06□



CG07□

CG08□

CG09□



尺寸表 Dimension

單位 : m/m

型號 MODEL	動力 Power	減速比 RATIO	A	CC	BC	BD	BE	I	G	P	Z	出力軸 OUTPUT SHAFT				重量 Weight(KG)
												LS	S	D	WxYxLK	
06	6W	5~75	60	10	71.7	39.7	32	28	3	70	M4	20	8	7		0.34
		90~300			77.7	45.7										0.39
07	15W	5~75	70	15	73.5	41.5	32	27	3	82	M5	29	10	7.5	4x4x25	0.52
		90~240			79.5	47.5										0.58
08	25W	5~75	80	15	76	44.25	32	33.5	3	94	M5	27	10	7.5	4x4x25	0.66
		90~300			84	51.25										0.81
09	40W	5~75	90	18	91.6	56.6	35	40	4	104	M6	29	12	9.5	5x5x25	1.2
	60W	91.57~240			100.6	65.6										1.4
		91.57~240			100.6	65.6										1.4
	90W	5~75	90	18	91.6	56.6	35	40	4	104	M6	29	15	12	5x5x25	1.2
		91.57~240			100.6	65.6										1.4



微型齒輪減速機系列 GEARMOTOR SERIES

調速型馬達 Speed variable motor



調速型馬達 Speed variable motor

特徵：適用於單相馬達作速度調整控制。

(50Hz：90～1400rpm、60Hz：90～1700rpm)

(註：三相馬達作速度控制時一般則用變頻器控制)

Feature: Applicable for speed adjustment for single-phase motor

(Note: The frequency converter is used for 3-phase motor, to control speed.)

馬達一般規格 Motor general specifications

絕緣阻抗：在馬達的線圈與外殼間以DC500V高阻計測定，其數值在100M Ω 以上。

絕緣耐壓：在馬達的線圈與外殼間施加50Hz或60Hz、1.5KV，1分鐘無發生異常現象。

溫度上升：於馬達額定運轉後以電阻法測定，溫度上升值在80℃以下。

絕緣等級：B種(130℃)。

保護等級：導線型IP20

使用溫度：-10℃～+50℃(電容運轉馬達-10℃～+40℃)(不結凍狀態)

使用溼度：85%以下(不結露狀態)

調速型所搭配使用的控制器有組合式(SCU)及分離式(SCS)兩種控制器，於H35頁有詳細的規格介紹。

Insulation impedance: Measure with DC500V high resistance gauge between the coil and casing of motor, the reading is 100M or higher.

Insulation resistance to pressure: Apply 50Hz or 60Hz, 1.5KV between the coil and casing of motor for one minute without irregularity resulted.

Temperature rise: To specify by resistance method after motor reaches rated operation. Temperature is less than 80℃

Insulation B class (130℃)

Protection Motor with conductive wire is IP20

Operating temperature: -10℃～+50℃ (Capacitor operation motor -10℃～+40℃) (No freezing)

Operating humidity: 85% or less (No condensation)

There are two types of controller; SCU (combined) and SCS (separated). See detailed specification on H35.

調速型馬達機型一覽表 List of speed adjustable type motor models

型 號	Model	輸出功率 (W) Output power	電壓 (V) Voltage	極數 (P) Poles	頻率 (Hz) Frequency	起動轉矩 (Kgcm) Starting Torque	電流 (A) Current	調速範圍 (r/min) Speed variable range	電容器容量 (μ) Capacitor's capacity	容許轉矩 Permissible torque	
圓 軸 Round shaft	齒 軸 Gear shaft									1200rpm	90rpm
CM06IA06SAV	CM06IG06SAV	6	1Ø110	4	50	0.42	0.26	90~1400	2.5(250V)	0.50	0.30
					60	0.38	0.27	90~1700			
CM06IA06SBV	CM06IG06SBV		1Ø220	4	50	0.46	0.15	90~1400	0.7(450V)	0.50	0.30
					60	0.52	0.14	90~1700			
CM07IA15SAV	CM07IG15SAV	15	1Ø110	4	50	0.91	0.41	90~1400	5(250V)	1.20	0.40
					60	0.90	0.47	90~1700			
CM07IA15SBV	CM07IG15SBV		1Ø220	4	50	0.92	0.18	90~1400	1.2(450V)	1.20	0.40
					60	0.94	0.20	90~1700			
CM08IA25SAV	CM08IG25SAV	25	1Ø110	4	50	1.14	0.54	90~1400	6(250V)	1.90	0.45
					60	1.22	0.64	90~1700			
CM08IA25SBV	CM08IG25SBV		1Ø220	4	50	1.32	0.31	90~1400	1.5(450V)	2.00	0.45
					60	1.42	0.32	90~1700			
CM09IA40SAV	CM09IG40SAV	40	1Ø110	4	50	2.25	0.72	90~1400	10(250V)	2.50	0.70
					60	2.30	1.00	90~1700			
CM09IA40SBV	CM09IG40SBV		1Ø220	4	50	2.03	0.40	90~1400	2.5(450V)	2.50	0.70
					60	2.11	0.48	90~1700			
CM09IA60SA□V	CM09IG60SA□V	60	1Ø110	4	50	3.43	1.70	90~1400	16(250V)	2.00	2.00
					60	3.57	1.73	90~1700			
CM09IA60SB□V	CM09IG60SB□V		1Ø220	4	50	3.69	0.80	90~1400	4(450V)	2.00	2.00
					60	3.65	0.85	90~1700			
CM09IA90SA□V	CM09IG90SA□V	90	1Ø110	4	50	5.75	2.00	90~1400	20(250V)	7.50	2.00
					60	5.83	2.50	90~1700			
CM09IA90SB□V	CM09IG90SB□V		1Ø220	4	50	5.90	0.90	90~1400	6(450V)	7.50	2.60
					60	6.04	1.06	90~1700			

● 如馬達特性變更，恕不另行通知，以馬達銘牌為準

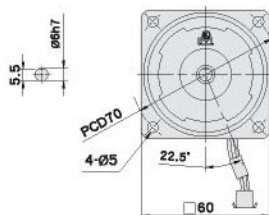
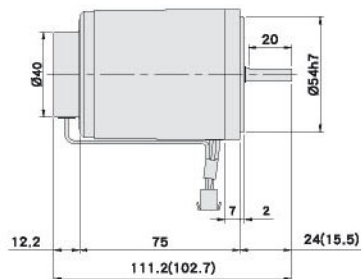
In case of change of motor characteristics, no further notice shall be given. The information shown on the nameplate of motor is taken as standard.



微型齒輪減速機系列 GEARMOTOR SERIES

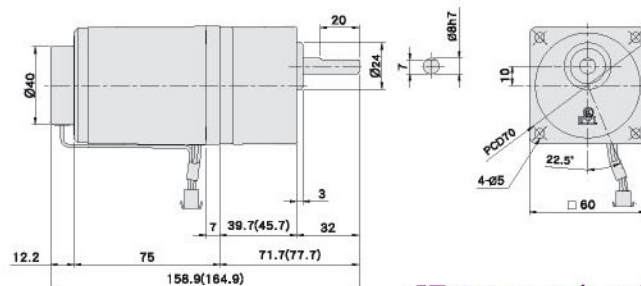
CM06□V

6w



重量Weighe 1kg
()內為齒軸尺寸
() is for helical gear shaft

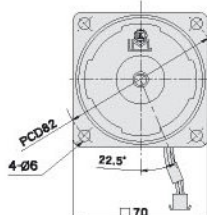
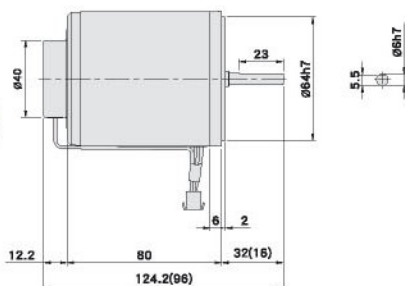
CM06□V/CG06□S8



重量Weighe 1.3kg(1.4kg)
()內為1/90~1/300之尺寸.重量
() is for ratio1/90~1/300 measurement/weight

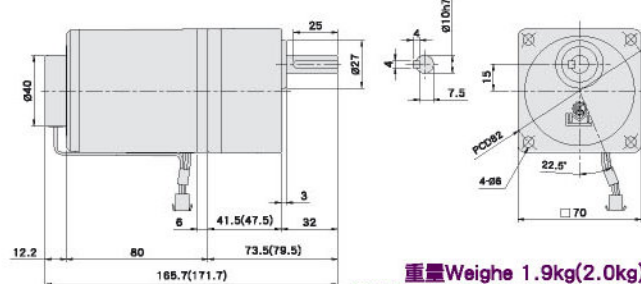
CM06□V

15w



重量Weighe 1.4kg
()內為齒軸尺寸
() is for helical gear shaft

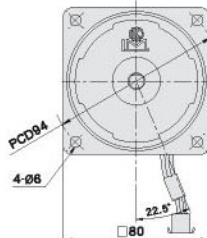
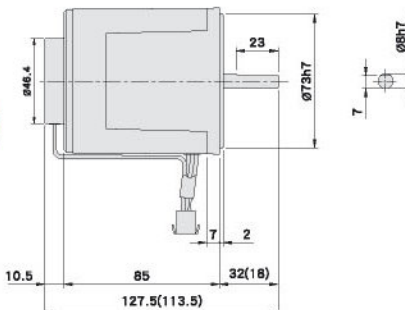
CM07□V/CG07□S10



重量Weighe 1.9kg(2.0kg)
()內為1/90~1/240之尺寸.重量
() is for ratio1/90~1/240 measurement/weight

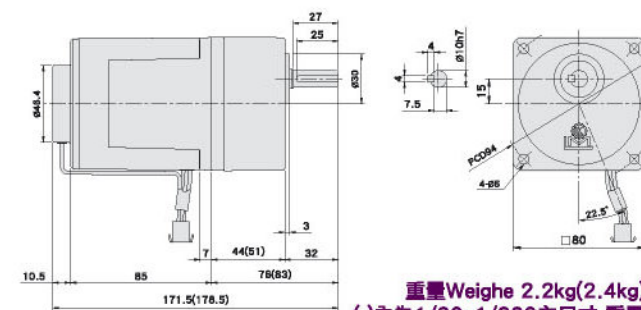
CM08□V

25w



重量Weighe 1.6kg
()內為齒軸尺寸
() is for helical gear shaft

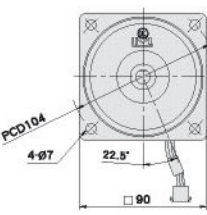
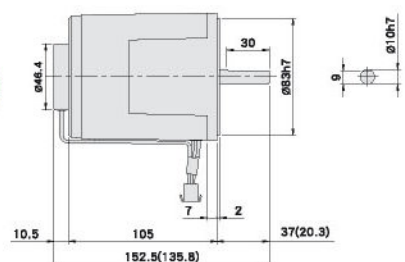
CM08□V/CG08□S10



重量Weighe 2.2kg(2.4kg)
()內為1/90~1/300之尺寸.重量
() is for ratio1/90~1/300 measurement/weight

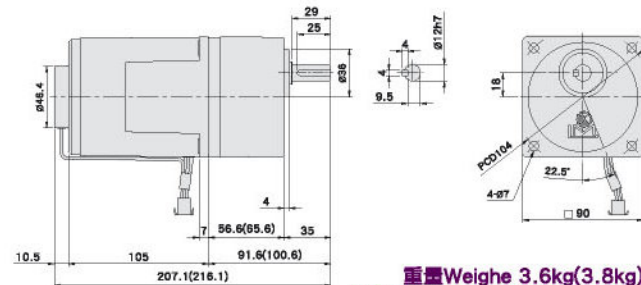
CM09□40□V

40w



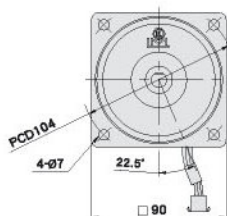
重量Weighe 2.4kg
()內為齒軸尺寸
() is for helical gear shaft

CM09□40□V/CG09□S12

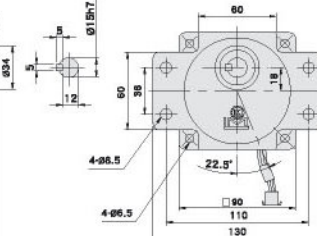


重量Weighe 3.6kg(3.8kg)
()內為1/90~1/240之尺寸.重量
() is for ratio1/90~1/240 measurement/weight

40w

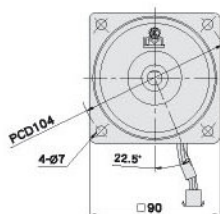
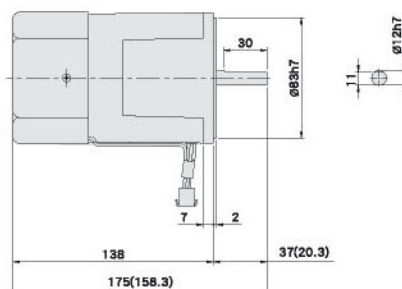


重量Weighe 2.4kg
()内為齒軸尺寸
() is for helical gear shaft

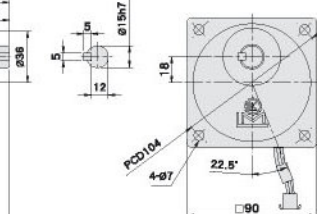
[illegible]

重量 Weighe 3.5kg(3.7kg)
()內為1/90~1/240之尺寸.重量
() is for ratio 1/90~1/240 measurement/weight

60w

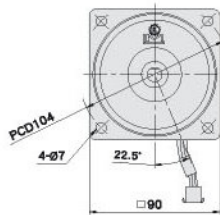
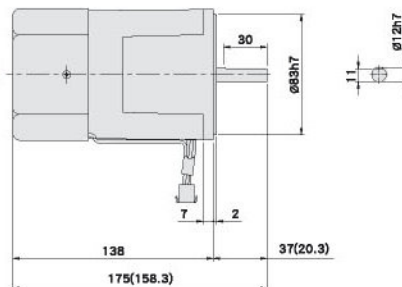


重量Weighe 2.6kg
()內為齒軸尺寸
() is for helical gear shaft

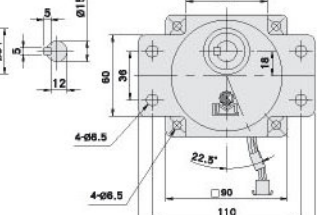


重量 Weighe 3.8kg(4.0kg)
()內為1/90~1/240之尺寸.重量
() is for ratio 1/90~1/240 measurement/weight

60w

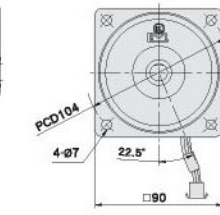
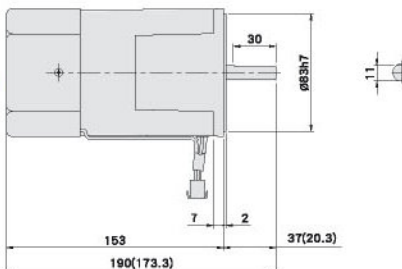


重量Weighe 2.6kg
()內為齒軸尺寸
() is for helical gear shaft

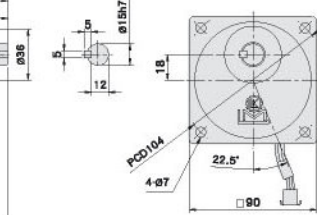
[illegible]

重量Weighe 3.7kg(3.9kg)
()內為1/90~1/240之尺寸.重量
() is for ratio1/90~1/240 measurement/weight

90w



重量Weighe 3.2kg
()內為齒軸尺寸
() is for helical gear shaft



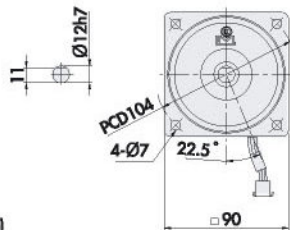
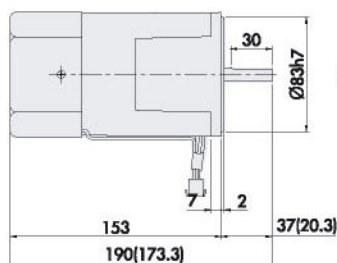
重量Weighe 4.4kg(4.6kg)
()內為1/90~1/240之尺寸.重量
() is for ratio 1/90~1/240 measurement/weight



微型齒輪減速機系列 GEARMOTOR SERIES

CM09□90□FV

90w



重量Weight 3.2kg

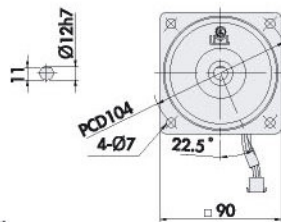
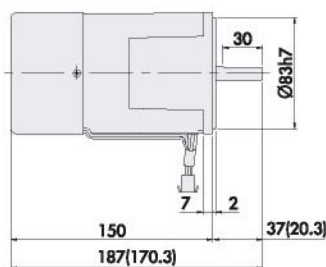
()內為齒軸尺寸

{ } is for helical gear shaft

CM09□60□CFV

60w

強制通風
with compulsory fan



重量Weight 2.8kg

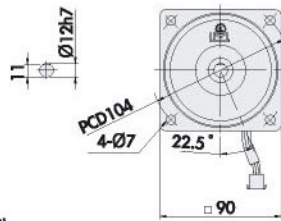
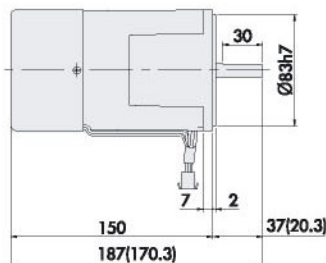
()內為齒軸尺寸

{ } is for helical gear shaft

CM09□60□CFV

60w

強制通風
with compulsory fan



重量Weight 2.8kg

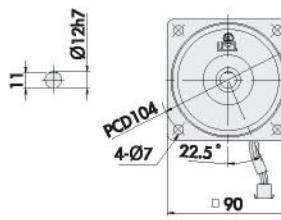
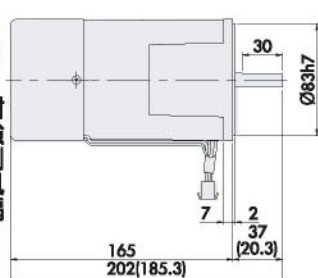
()內為齒軸尺寸

{ } is for helical gear shaft

CM09□90□CFV

90w

強制通風
with compulsory fan

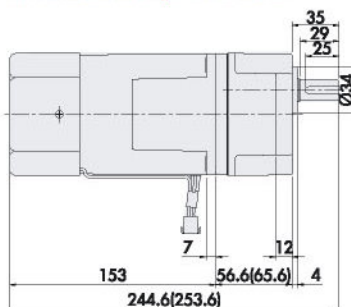


重量Weight 3.5kg

()內為齒軸尺寸

{ } is for helical gear shaft

CM09□90□FV/CGU09□S15

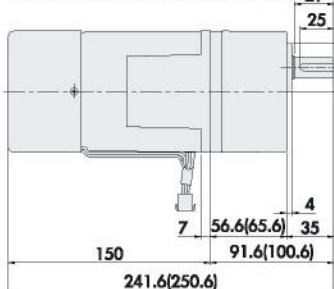


重量Weight 4.3kg(4.5kg)

()內為1/90~1/240之尺寸.重量

{ } is for ratio 1/90~1/240 measurement/weight

CM09□60□CFV/CG09□S15

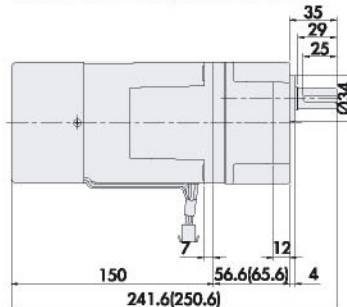


重量Weight 4kg(4.2kg)

()內為1/90~1/240之尺寸.重量

{ } is for ratio 1/90~1/240 measurement/weight

CM09□60□CFV/CGU09□S15

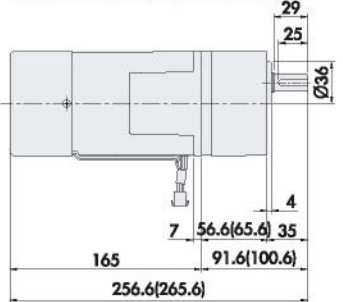


重量Weight 3.9kg(4.1kg)

()內為1/90~1/240之尺寸.重量

{ } is for ratio 1/90~1/240 measurement/weight

CM09□90□CFV/CG09□S15



重量Weight 4.7kg(4.9kg)

()內為1/90~1/240之尺寸.重量

{ } is for ratio 1/90~1/240 measurement/weight

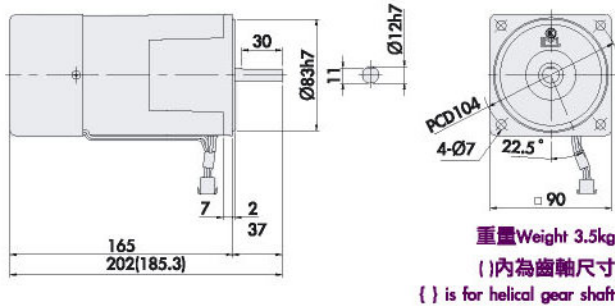
GEARMOTOR SERIES

微型齒輪減速機系列

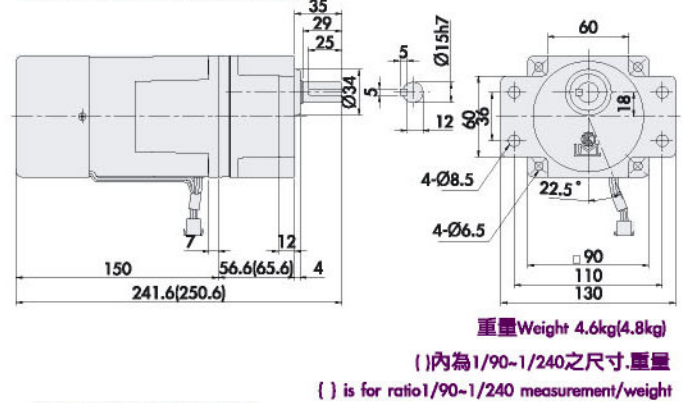
90w

附帶風扇
with compulsory fan

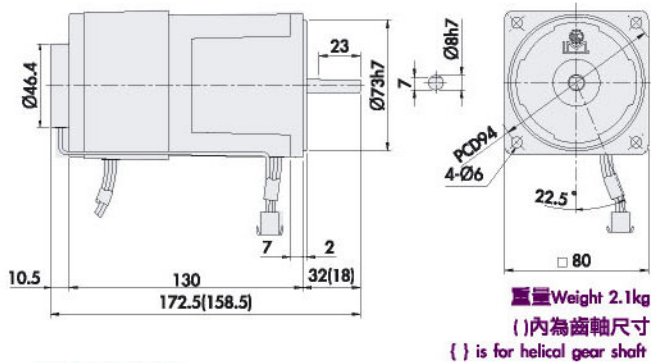
CM09□90□CFV



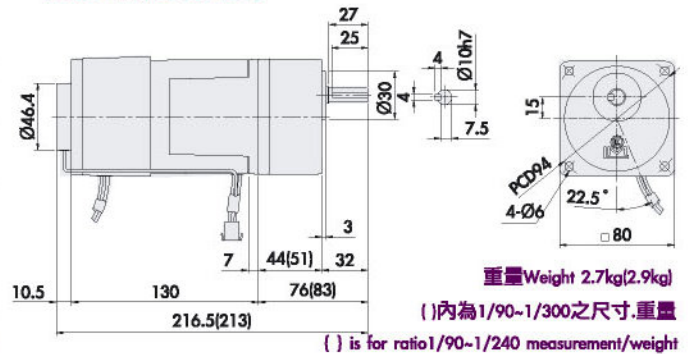
CM09□90□CFV/CGU09□S15



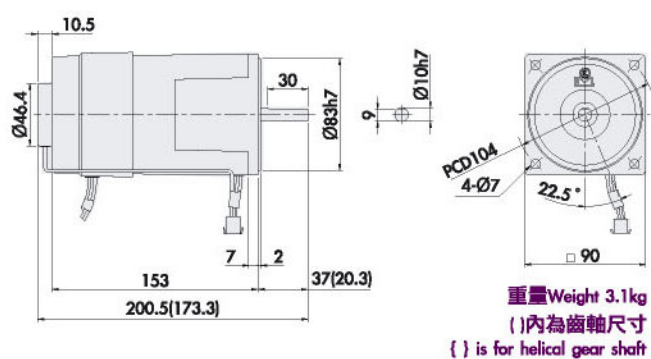
CM08□BV



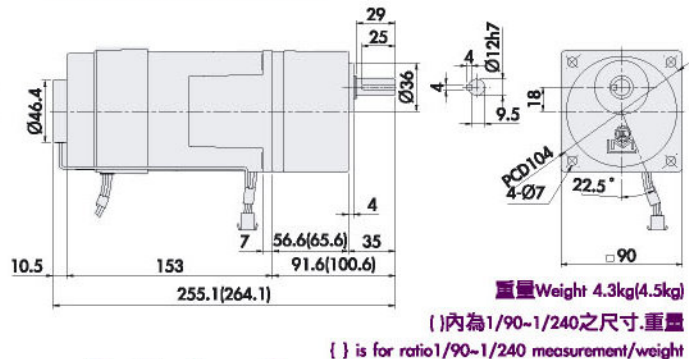
CM08□BV/CG08□S10



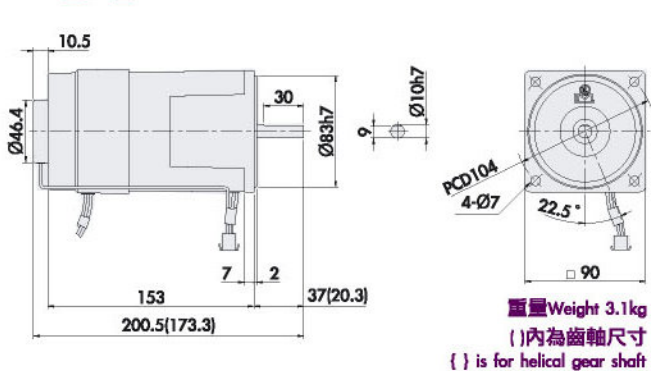
CM09□40□BV



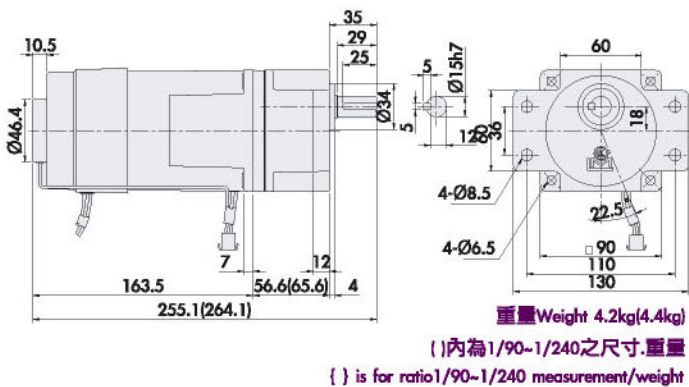
CM09□40□BV/CG09□S12



CM09□40□BV



CM09□40□BV/CGU09□S15



40w

附帶磁剎車
with electro magnetic brake

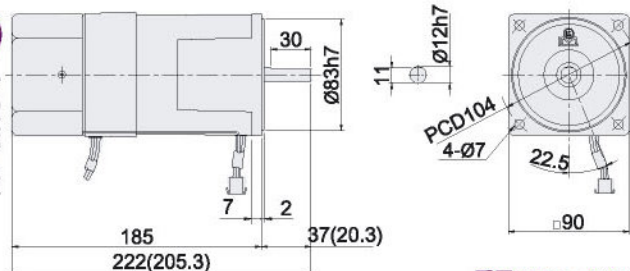


微型齒輪減速機系列 GEARMOTOR SERIES

CM09□60□FBV

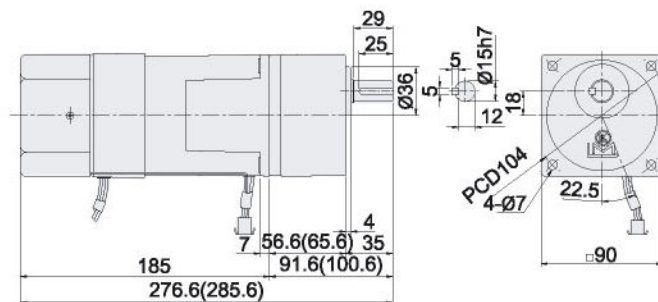
60w

附電磁剎車
with electromagnetic brake



重量 Weight 3.2kg
() 內為齒軸尺寸
() is for helical gear shaft

CM09□60□FBV/CGU09□S15

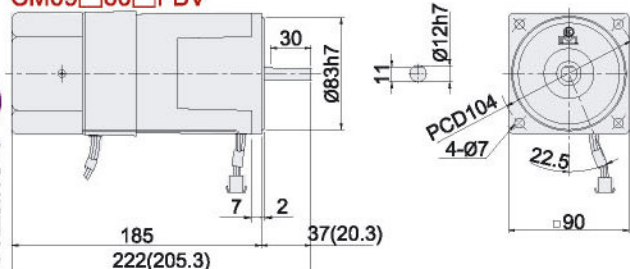


重量 Weight 4.4kg(4.6kg)
() 內為 1/90~1/300 之尺寸. 重量
() is for ratio 1/90~1/300 measurement/weight

CM09□60□FBV

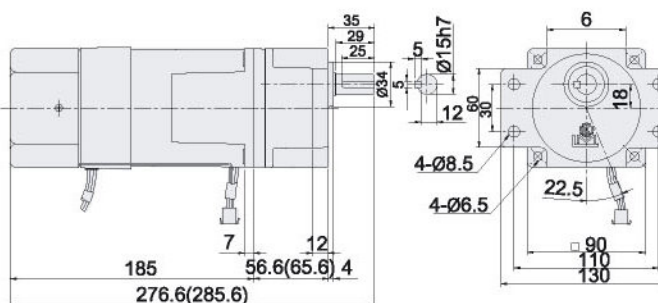
60w

附電磁剎車
with electromagnetic brake



重量 Weight 3.2kg
() 內為齒軸尺寸
() is for helical gear shaft

CM09□60□FBV/CGU09□S15

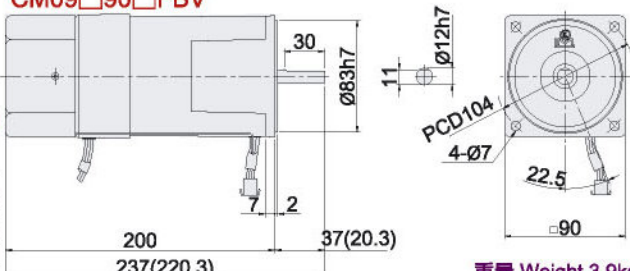


重量 Weight 4.3kg(4.5kg)
() 內為 1/90~1/240 之尺寸. 重量
() is for ratio 1/90~1/300 measurement/weight

CM09□90□FBV

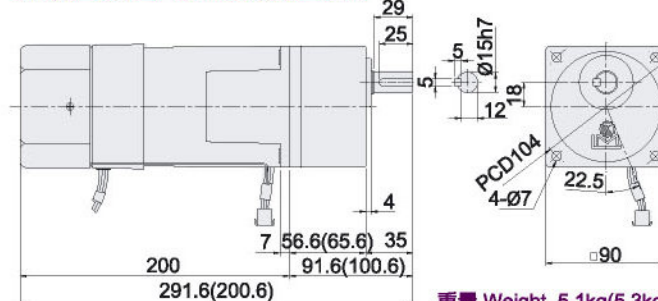
90w

附電磁剎車
with electromagnetic brake



重量 Weight 3.9kg
() 內為齒軸尺寸
() is for helical gear shaft

CM09□90□FBV/CGU09□S15

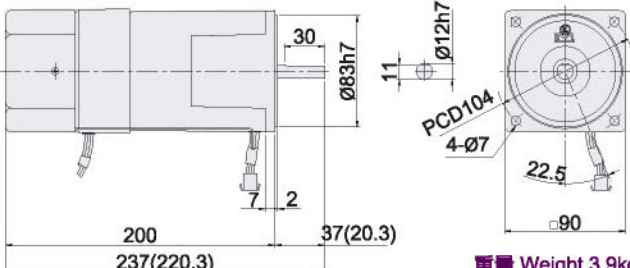


重量 Weight 5.1kg(5.3kg)
() 內為 1/90~1/240 之尺寸. 重量
() is for ratio 1/90~1/300 measurement/weight

CM09□90□FBV

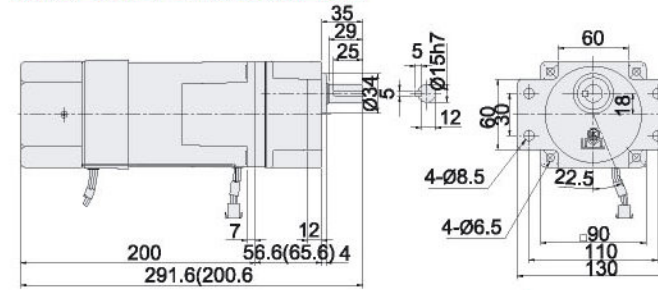
90w

附電磁剎車
with electromagnetic brake



重量 Weight 3.9kg
() 內為齒軸尺寸
() is for helical gear shaft

CM09□90□FBV/CGU09□S15



重量 5.0kg(5.2kg)
() 內為 1/90~1/240 之尺寸. 重量
() is for ratio 1/90~1/300 measurement/weight



微型齒輪減速機系列 GEARMOTOR SERIES

電磁剎車馬達 Electromagnetic Brake Motor



電磁煞車馬達 Electro magnetic Brake Motor

特徵：適用於單相或三相馬達緊急剎車作業。在電源斷電的時候，馬達會瞬間停止並具有負載保持力。

Features: Applicable to single-phase or 3-phase emergency brake.

When power is interrupted, motor will instantly stop and maintain the loading.

馬達一般規格 Motor general specification

絕緣阻抗：在馬達的線圈與外殼間以DC500V高阻計測定其數值在100MΩ以上。

絕緣耐壓：在馬達的線圈與外殼間施加50Hz或60Hz、1.5KV、1分鐘無發生異常現象。

溫度上升：於馬達額定運轉後以電阻法測定，溫度上升值在80℃以下。

絕緣等級：B種(130℃)。保護等級：導線型IP20。

使用溫度：-10℃~+50℃(電容運轉馬達-10℃~+40℃)(不結凍狀態)

使用溼度：85%以下(不結露狀態)

Insulation impedance: Measure with DC500V high impedance gauge between the coil and casing of motor, the reading is 100M or higher.

Insulation resistance to pressure: Apply 50Hz or 60Hz, 1.5KV between the coil and casing of motor for one minute without in irregularity resulted.

Temperature rise: Specify with resistance method after motor has reached rated operation, the temperature is less than 80℃.

Insulation : B type class (130℃)

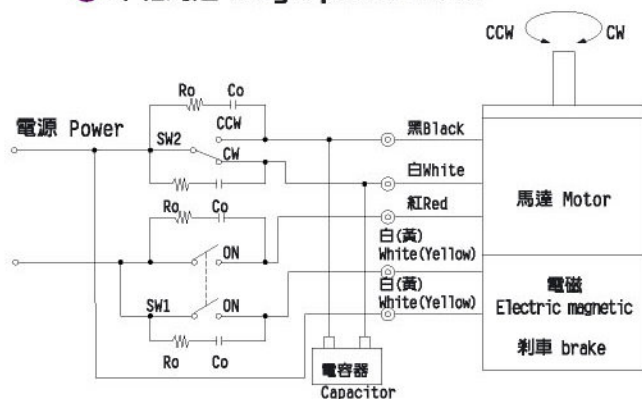
Protection : motor with conductive wire is IP20

Operating temperature: -100C~+500C (capacitor operating motor -100C~+400C) (No freezing)

Operating humidity: 85% or less (no condensation)

電磁馬達接線圖 Electric magnetic motor wiring diagram

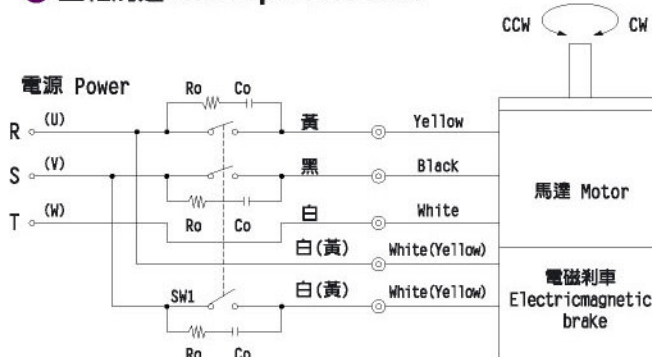
● 單相馬達 Single-phase motor



RoCo 為吸收突波用的CR迴路

CR circuit to absorb surge current

● 三相馬達 Three-phase motor



RoCo 為吸收突波用的CR迴路

CR circuit to absorb surge current

註：06、07型電磁剎車馬達開發中

Note: Electromagnetic brake motor for model 06 and 07 will be available soon.

電磁剎車馬達機型一覽表 List of electromagnetic brake motor models

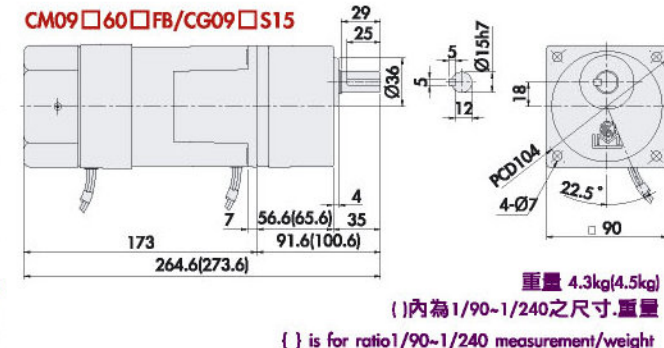
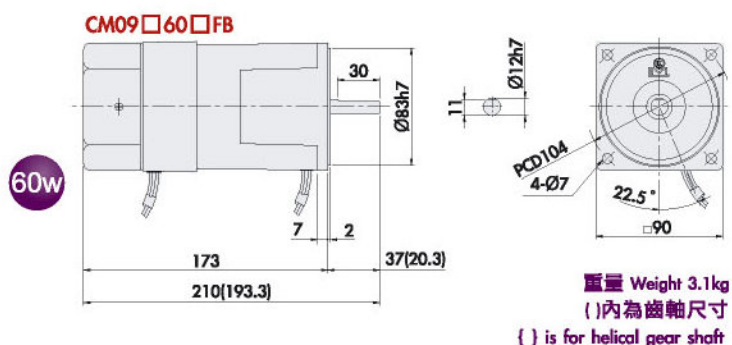
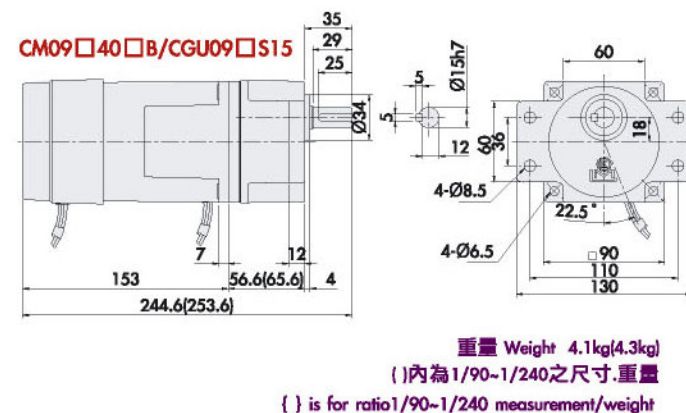
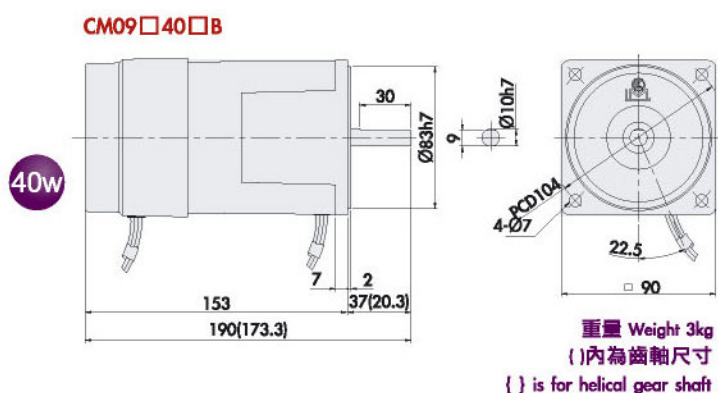
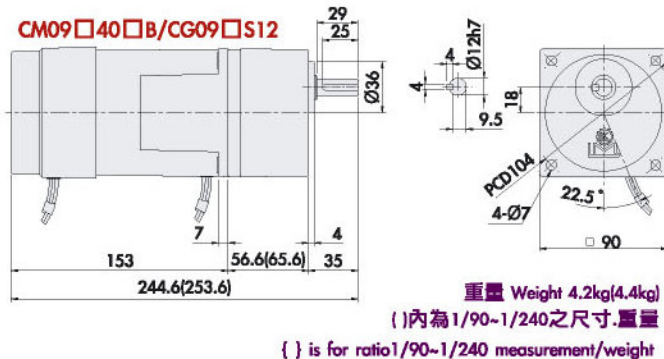
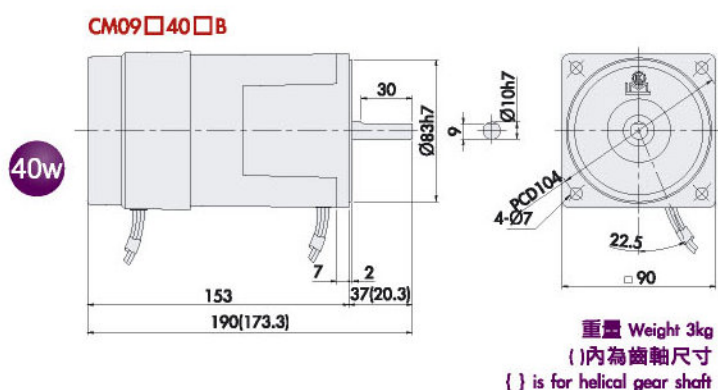
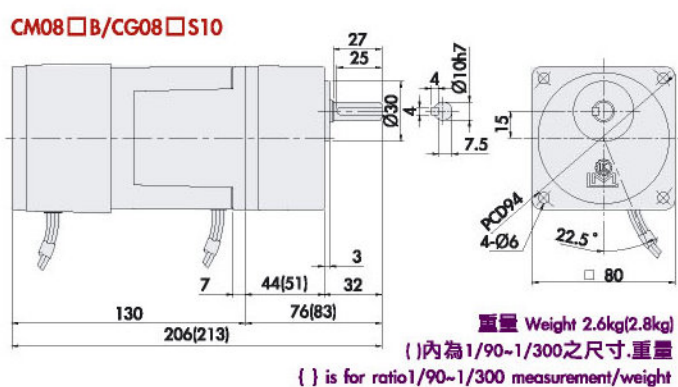
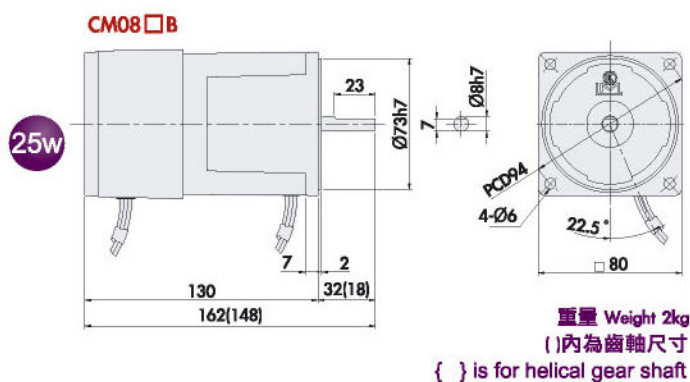
型號 Model		輸出功率 Output power (W)	電壓 Voltage (V)	極數 Poles (P)	頻率 Frequency (Hz)	起動轉矩 Starting Torque (Kgcm)	額定轉矩 Rated torque (Kgcm)	額定電流 (A)	額定轉速 Rated rpm (r/min)	電容器容量 Capacitor capacity (μ)
圓軸 Round shaft	齒軸 Gear									
CM06IA06SA	CM06IG06SA	6	1Ø110	4	50	0.44	0.50	0.25	1300	2.5(250V)
					60	0.45	0.38	0.22	1630	
CM06IA06SB	CM06IG06SB	6	1Ø220	4	50	0.40	0.45	0.14	1300	0.7(450V)
					60	0.53	0.38	0.12	1360	
CM07IA15SA	CM07IG15SA	15	1Ø110	4	50	0.81	1.22	0.38	1300	5(250V)
					60	1.00	0.98	0.34	1600	
CM07IA15SB	CM07IG15SB	15	1Ø220	4	50	0.88	1.22	0.20	1200	1.2(450V)
					60	0.86	0.97	0.18	1600	
CM08IA25SA	CM08IG25SA	25	1Ø110	4	50	1.30	1.87	0.43	1300	6(250V)
					60	1.20	1.48	0.45	1600	
CM08IA25SB	CM08IG25SB	25	1Ø220	4	50	1.45	1.82	0.21	1330	1.5(450V)
					60	1.57	1.50	0.20	1640	
CM08IA25TB	CM08IG25TB	25	3Ø220	4	50	5.94	2.06	0.23	1300	--
					60	4.86	1.63	0.21	1600	--
CM08IA25TC	CM08IG25TC	25	3Ø380	4	50	5.90	1.75	0.15	1300	--
					60	4.86	1.46	0.13	1550	--
CM09IA40SA	CM09IG40SA	40	1Ø110	4	50	2.26	3.00	0.83	1350	10(250V)
					60	2.17	2.50	0.70	1650	
CM09IA40SB	CM09IG40SB	40	1Ø220	4	50	2.17	3.40	0.46	1350	2.5(450V)
					60	2.15	2.84	0.37	1650	
CM09IA40TB	CM09IG40TB	40	3Ø220	4	50	10.4	3.17	0.31	1400	--
					60	7.90	2.80	0.26	1650	--
CM09IA40TC	CM09IG40TC	40	3Ø380	4	50	8.14	3.00	0.15	1350	--
					60	6.17	3.00	0.13	1600	--
CM09IA60SAF	CM09IG60SAF	60	1Ø110	4	50	3.90	4.86	1.58	1350	16(250V)
					60	3.80	4.00	1.10	1650	
CM09IA60SBF	CM09IG60SBF	60	1Ø220	4	50	3.35	4.37	0.58	1350	4(450V)
					60	3.10	4.30	0.58	1600	
CM09IA60TBF	CM09IG60TBF	60	3Ø220	4	50	17.4	4.90	0.60	1350	--
					60	13.9	4.00	0.45	1600	--
CM09IA60TCF	CM09IG60TCF	60	3Ø380	4	50	13.0	4.85	0.25	1325	--
					60	9.74	3.88	0.21	1600	--
CM09IA90SAF	CM09IG90SAF	90	1Ø110	4	50	6.00	6.35	1.58	1375	20(250V)
					60	5.20	5.28	1.43	1650	
CM09IA90SBF	CM09IG90SBF	90	1Ø220	4	50	6.00	6.20	0.74	1350	6(450V)
					60	6.00	5.43	0.85	1650	
CM09IA90TBF	CM09IG90TBF	90	3Ø220	4	50	17.4	6.50	0.70	1350	--
					60	17.2	5.30	0.57	1650	--
CM09IA90TCF	CM09IG90TCF	90	3Ø380	4	50	17.4	6.20	0.35	1350	--
					60	15.0	5.30	0.30	1600	--

● 如馬達特性變更，恕不另行通知，以馬達銘牌為準

In case of change of motor characteristics, no further notice shall be given. The information shown on the nameplate of motor is taken as standard.



微型齒輪減速機系列 GEARMOTOR SERIES

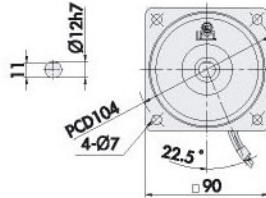
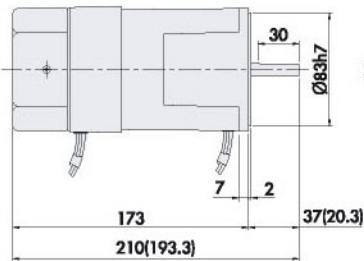


GEARMOTOR SERIES

微型齒輪減速機系列

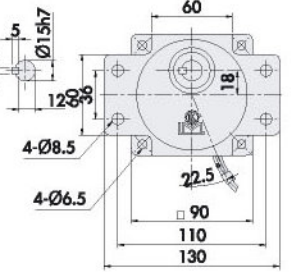
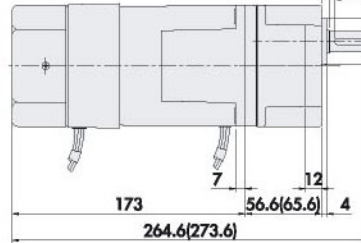
60w

CM09□60□FB



重量 Weight 3.1kg
()內為齒軸尺寸
{ } is for helical gear shaft

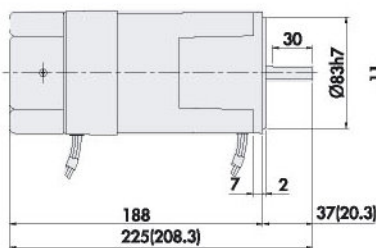
CM09□60□FB/CGU09□S15



重量 Weight 4.2kg(4.4kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio 1/90~1/240 measurement/weight

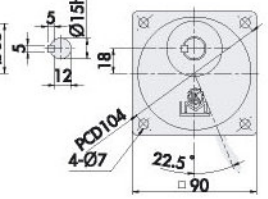
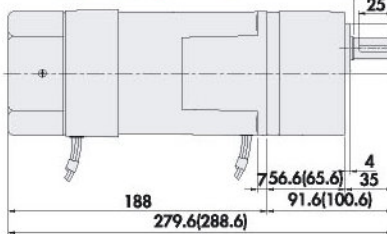
90w

CM09□90□FB



重量 Weight 3.8kg
()內為齒軸尺寸
{ } is for helical gear shaft

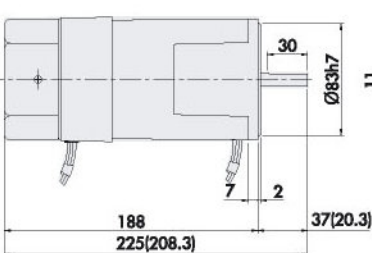
CM09□90□FB/CG09□S15



重量 Weight 5.0kg(5.2kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio 1/90~1/240 measurement/weight

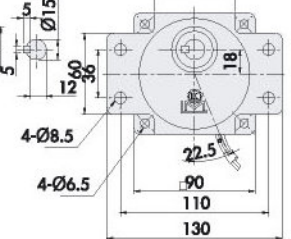
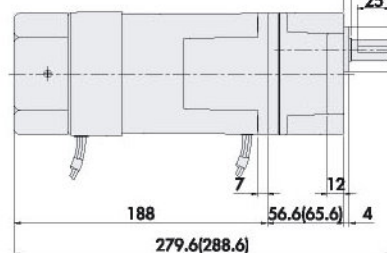
90w

CM09□90□FB



重量 Weight 3.8kg
()內為齒軸尺寸
{ } is for helical gear shaft

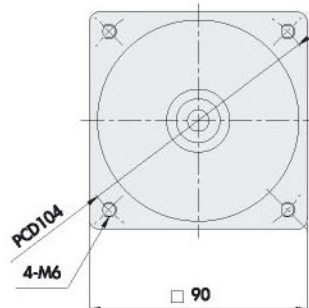
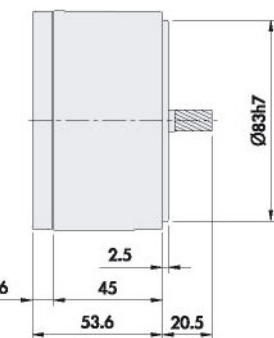
CM09□90□FB/CGU09□S15



重量 Weight 4.9kg(5.1kg)
()內為1/90~1/240之尺寸.重量
{ } is for ratio 1/90~1/240 measurement/weight

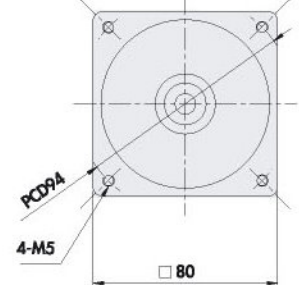
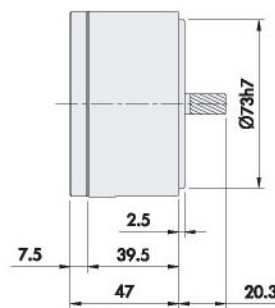
中間級 1/10 減速機
medium gear box 1/10

CG09B10X



重量 Weight 0.7kg
()內為齒軸尺寸
{ } is for helical gear shaft

CG08B10X



重量 Weight 0.4k



微型齒輪減速機系列 GEARMOTOR SERIES

速度控制器 Speed controller



組合型 Combined style speed controller

SCU 型 號 Model	SA 電 壓 Voltage	90W 功率識別 Power identification
	SA:1Ø100V/120V SB:1Ø200V/240V	6W:6W 15W:15W 25W:25W 40W:40W 60W:60W 90W:90W
註：SCUN為速度顯示組合型控制器 Note: SCUN is the combined style speed display controller		

分離型 Separated style speed controller

SCS 型 號 Model	SA 電 壓 Voltage	EB 其他附件 Other accessories
	SA:1Ø100V/120V SB:1Ø200V/240V	EB:電子式煞車(11PIN腳) Electronic brake (11PIN) V:VR內建型 Built-in type

SCU 組合型控制器 SCU Assembly type controller

● 使用方法

連接馬達與控制器的接頭，於控制器AC兩端接上AC電源(請確認電源是否正確)，控制器開關若切到STAND-BY的位置時LED為紅色，此時馬達為停止狀態；開關若切到RUN的位置時LED為綠色，此時馬達為運轉狀態，調整控制器上的旋鈕即可控制馬達轉速快慢。註:SCUN 速度顯示組合型控制器使用方法與標準組合型控制器相同

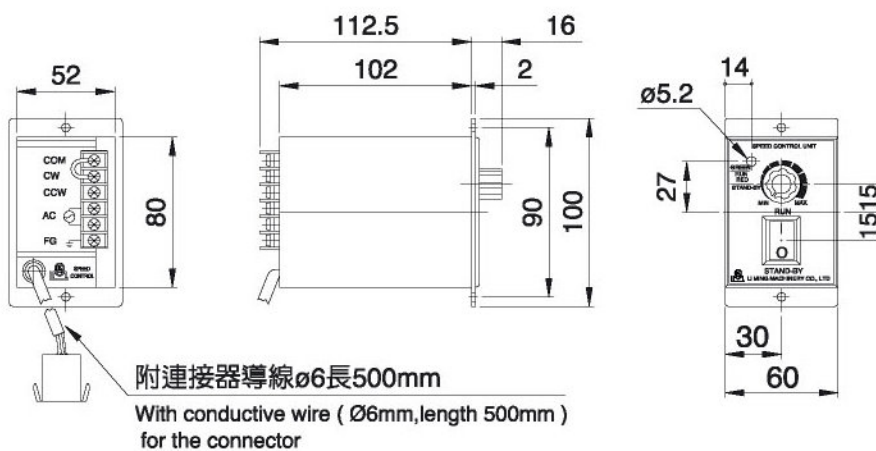
● How to use

Connect motor and controller and supply AC power at power at AC two ends of controller AC power.(please check on correct power source). When control switch is turned to STAND-BY position, LED is red.

Then the motor is stopped. When the switch is turned to RUN position, LED is green.

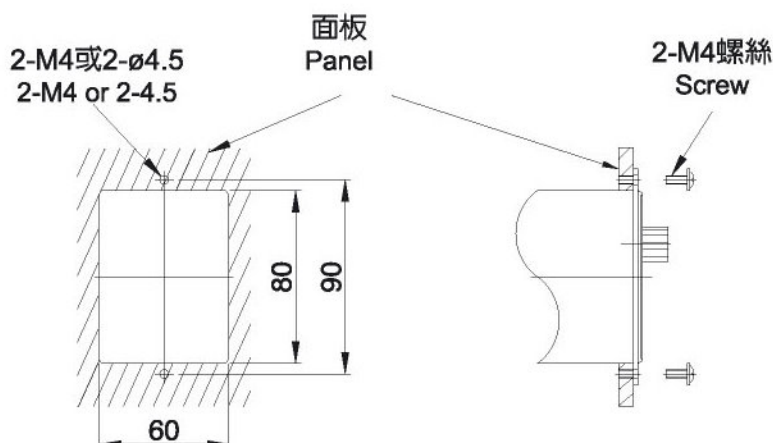
Then the motor is operating. Adjust the knob on the control to control the speed of the motor. Note: Operation of SCUN speed display controller is the same as standard assembly type control.

■ 調速器外觀尺寸圖 Drawing of the speed controller



■ 調速器面板安裝加工圖

Installation and processing diagram of speed control panel





微型齒輪減速機系列 GEARMOTOR SERIES

SCS 分離型控制器 SCS Separated style controller

● 使用方法

分離型控制器一般是使用於配電盤內控制。控制器本體會有標示配線圖，於馬達與控制器腳座之間依配線圖配線完成後將控制器本體插入腳座，準備就緒後起動開關，調整旋鈕即可控制馬達轉速快慢。

註：分離型控制器依功能區分會有8腳與11腳兩種控制器其安裝尺寸如下圖。

● How to use

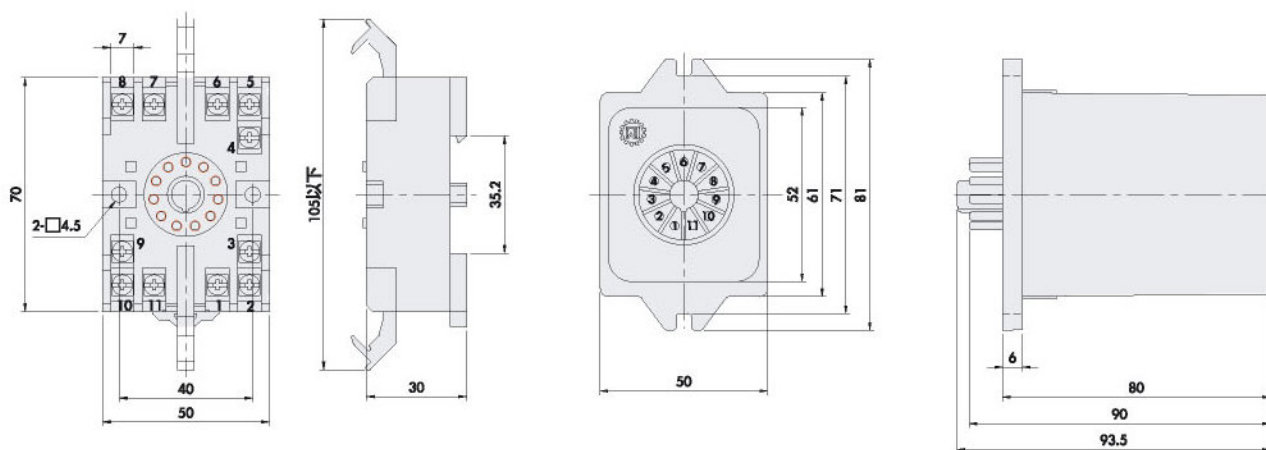
Separated type controller is generally used for control in an electric panel. The controller itself has marking of wiring diagram. After completion of wiring between motor base and control base, insert the controller main set into the base. When everything is ready, base please switch on the controller. Rotate the knob to control the speed of the motor.

Note: According to the performance, separated style controller come with 8 pins and 11 pins. Installation of the two types of controls is shown below.

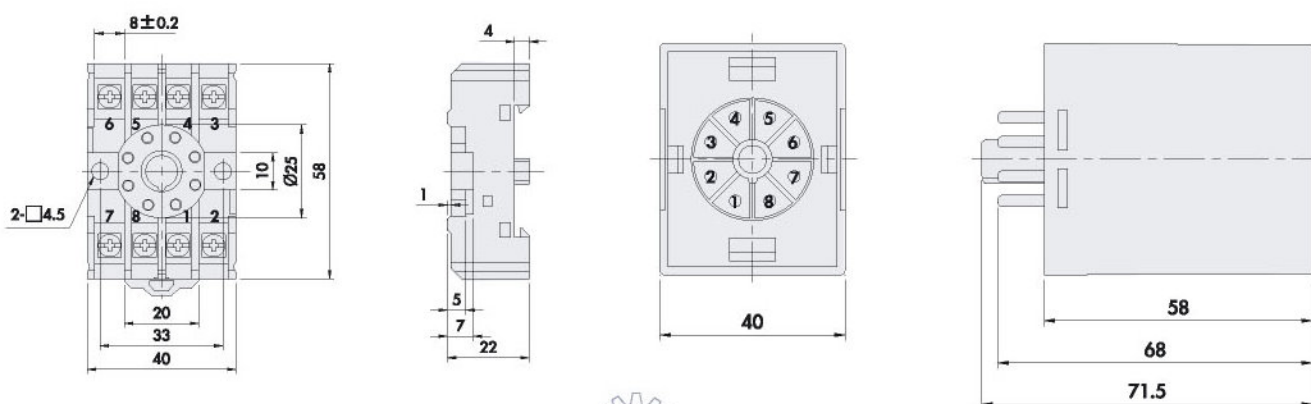
11腳.8腳分離控制器外觀尺寸圖；

11 pins Exterior view of 8-pin separated style controller

● 11腳 11 pins

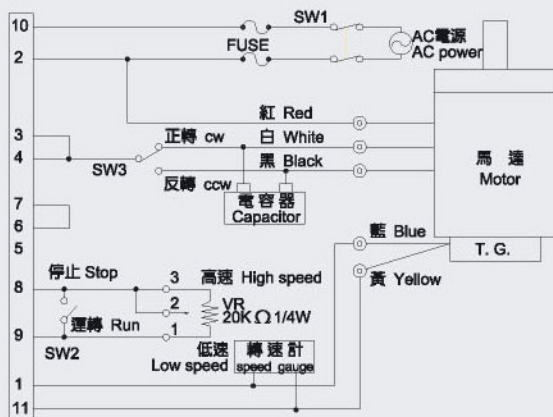


● 8腳 8 pins



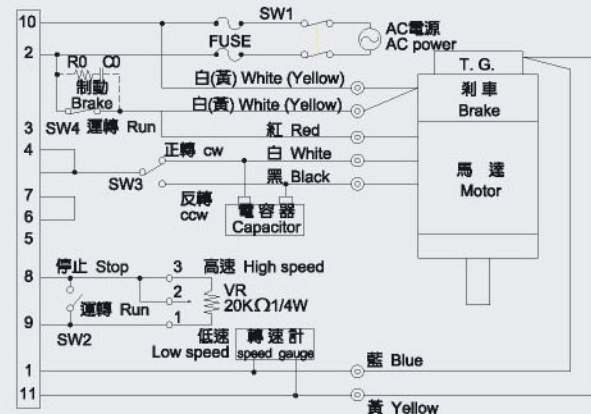
SCS-SAEB SCS-SBEB 外部配線圖 SCS-SAEB SCS-SBEB wiring diagram

● 正逆轉 CW /CCW



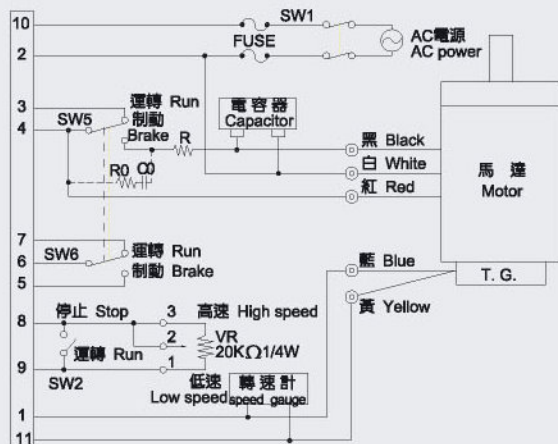
● 正逆轉附電磁剎車

CW /CCW rotation with electronic magnetic brake



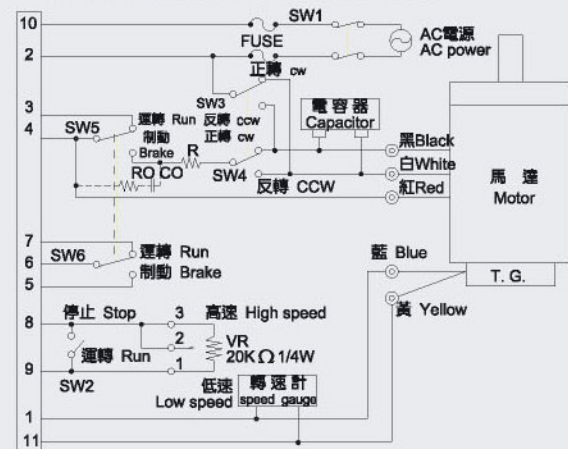
RoCo 為吸收突波用的CR迴路
CR circuit to absorb surges

● 單一方向運轉附電子式剎車 One-way rotation with electronic brake



RoCo 為吸收突波用的CR迴路
CR circuit to absorb surges

● 正逆轉附電子式剎車 CW /CCW with electronic brake

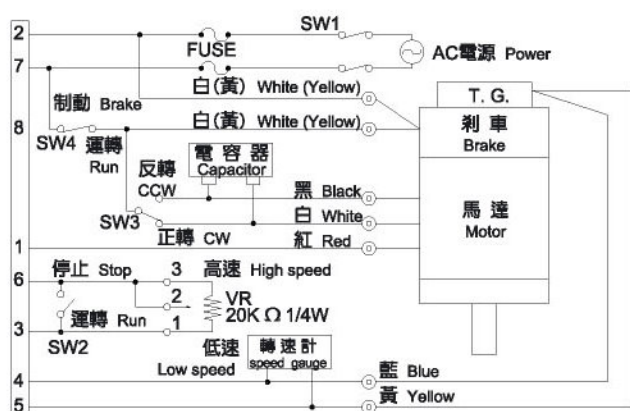


RoCo 為吸收突波用的CR迴路
CR circuit to absorb surges

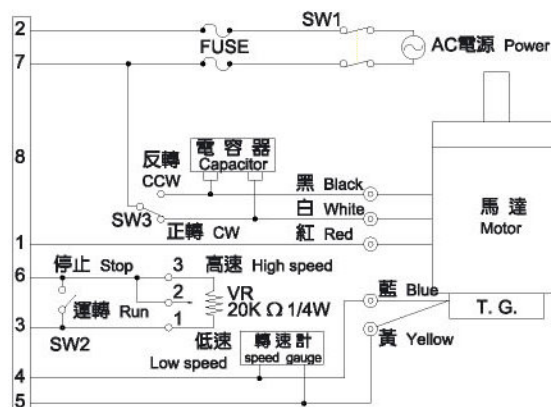


SCS-SA SCS-SB exterior wiring diagram

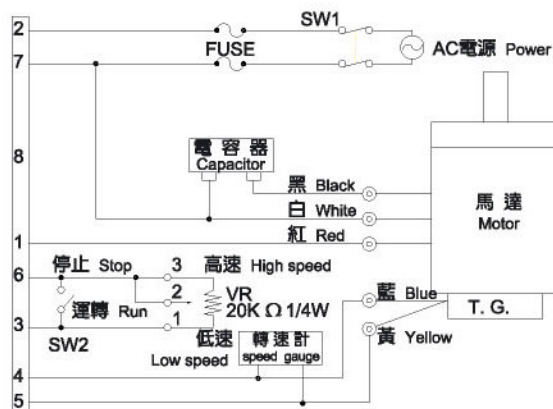
CW /CCW rotation with electromagnetic brake



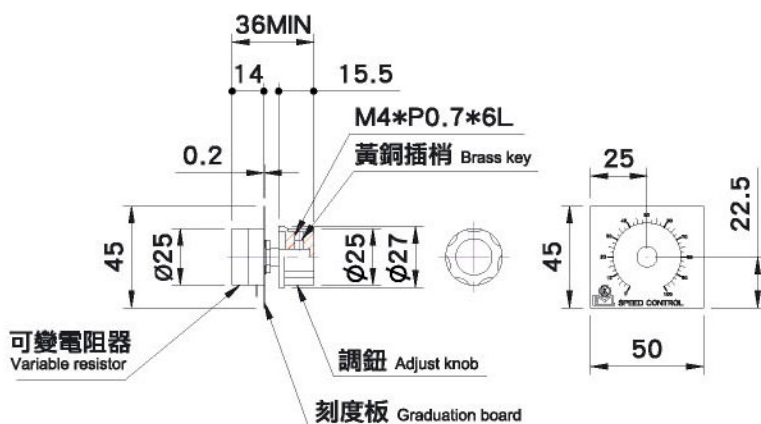
CW /CCW Rotation



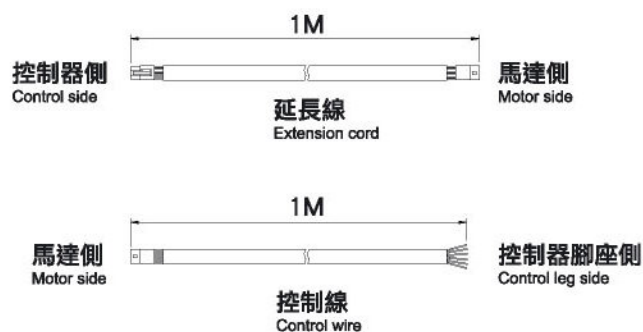
● 單一方向運轉 One-way operation



Drawing of variable resistor



● 接線規格 Wiring specification





微型蝸輪減速機系列 GEARMOTOR SERIES

鋁合金蝸輪減速機 Aluminum alloy worm reducer



機種型號表示 Indication of model numbers

LM	NECM	50	10	L	90	SA	T
公司代號 Company code	機型 Type	型號 Model No.	速比 Ratio	軸向 Direction	輸出功率(W) Output power	電壓級數 Voltage	附件 Accessory
	NECM NEOCM NEHCM NEOM NECGM NEOCGM NEOVM NEOHCGM NEHM NEGCM NEOGCM	30 40 50 60			40W 60W 90W	SA:1Ø 110V 4P SB:1Ø 220V 4P TB:3Ø 220V 4P TC:3Ø 380V 4P TJ:3Ø 220V/380V 4P TK:3Ø 480V 4P TM:3Ø 220V/460V 4P	T:端子盒 Terminal box B:電磁剎車 Electromagnetic brake F:風扇 Fan CF:強制風扇 Compulsory fan V:調速型 Speed variable W:溫控開關 Temperature control switch

鋁合金蝸輪搭配微型系列選用表

Selection table of aluminum alloy worm gear reducer in combination with compact gear motor

	機型30#,40# Worm Reducer Model	減速比 Speed reduction ratio	搭配型號 Matching model number
搭配圓軸馬達 In combination with round shaft motor	NECM	5~60	CM09IA□-LK
	NEOCM	5~60	
	NEHCM	100~1600	
	NEOHCM	100~1600	
搭配微型減速馬達 In combination with compact gear motor	NECGM	15~18000	CG08□ S11/CM08□
		15~14400	CG09□ S11/CM09□
	NEOCGM	15~18000	CG08□ S11/CM08□
		15~14400	CG09□ S11/CM09□
	NEHCGM	300~480000	CG08□ S11/CM08□
			CG09□ S11/CM09□
搭配齒軸馬達 In combination with gear-shaft motor	NEOHCGM	12.5~150	CG08□ S11/CM08□
	NEOGCM		CG09□ S11/CM09□
	NEGCM	12.5~150	CM09IG□
	NEOGCM		

微型馬達長度及重量表

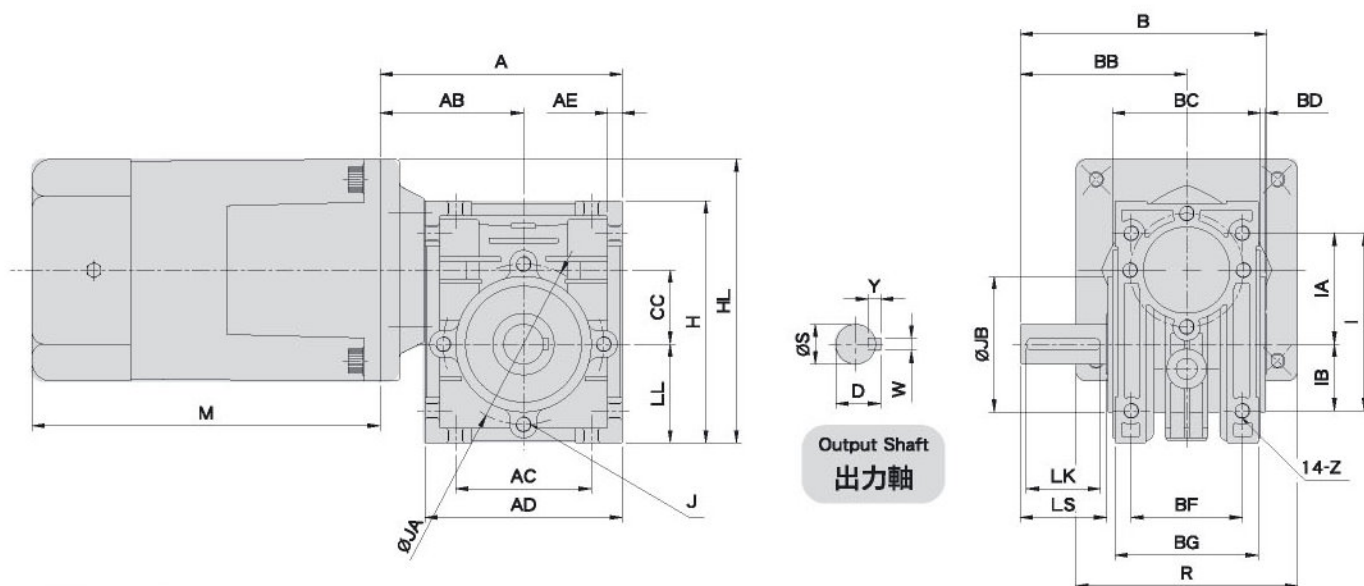
型號 Model CM	功率 power	標準 Standard		附剎車 Brake		調速型 Speed variable		調速+強制風扇 Speed variable & fan		剎車調速 Speed variable & brake	
		長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG
09	40W	105	2.3	153	3.0	115.5	2.4	—	—	163.5	3.1
	60W	126	2.5	173	3.1	138	2.6	150	2.8	185	3.2
	90W	141	3.1	188	3.8	153	3.2	165	3.5	200	3.9

微型減速馬達長度及重量表

型號 Model CG	功率 power	速比 Ratio	標準 Standard		附剎車 Brake		調速型 Speed variable		調速+強制風扇 Speed variable & fan		剎車調速 Speed variable & brake	
			長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG	長度 Length M	重量 Weight KG
08	25W	3~75	129	2.1	174	2.6	139.5	2.2	—	—	184.5	2.7
		90~300	136	2.3	181	2.8	146.5	2.4	—	—	191.5	2.9
09	40W	3~75	161.6	3.5	209.6	4.2	172.1	3.6	—	—	220.1	4.3
		90~240	170.6	3.7	218.6	4.4	181.1	3.8	—	—	229.1	4.5
	60W	3~75	182.6	3.7	229.6	4.3	194.6	3.8	206.6	4.0	241.6	4.4
		90~240	191.6	3.9	238.6	4.5	203.6	4.0	215.6	4.2	250.6	4.6
	90W	3~75	197.6	4.3	244.6	5.0	209.6	4.4	221.6	4.7	256.6	5.1
		90~240	206.6	4.5	253.6	5.2	218.6	4.6	230.6	4.9	265.6	5.3



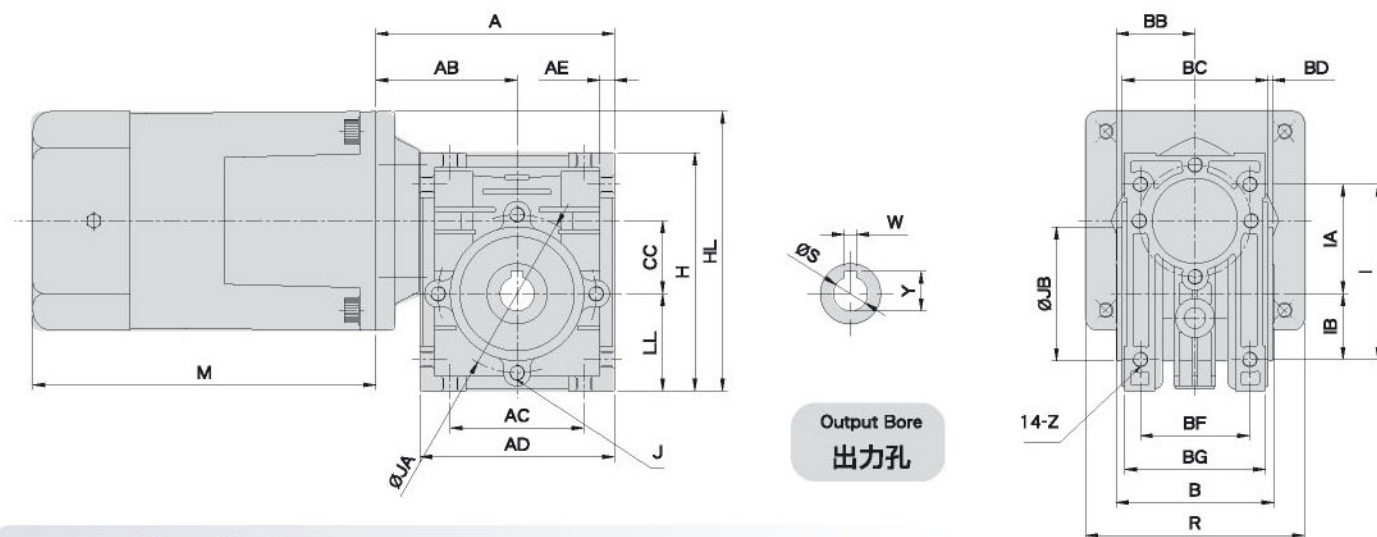
微型蝸輪減速機系列 GEARMOTOR SERIES



NECM (搭配圓軸馬達) In combination with round-shaft motor

Dimension (mm)																												
Model	CM	A	AB	AC	AD	AE	B	BB	BC	BD	BF	BG	CC	LL	H	HL	I	IA	IB	Z	Output Shaft							Weight
																					LS	S	D	WxYxLK	JA	JB	J	KG
30	09	98	58	55	80	6	99.5	67.5	60	2	45	58	30	40	98	115	72	45	27	M6	35	16	18	5x5x30	65	55	8-M6	1.41
40	09	123	72	70	102	7.5	127	85	80	2	60	72	40	50	122	135	90	55	35	M8	40	20	22.5	6x6x35	77	60	12-M6	2.9
* 重量不含馬達 Weight not include motor																												

* 重量不含馬達 Weight not include motor



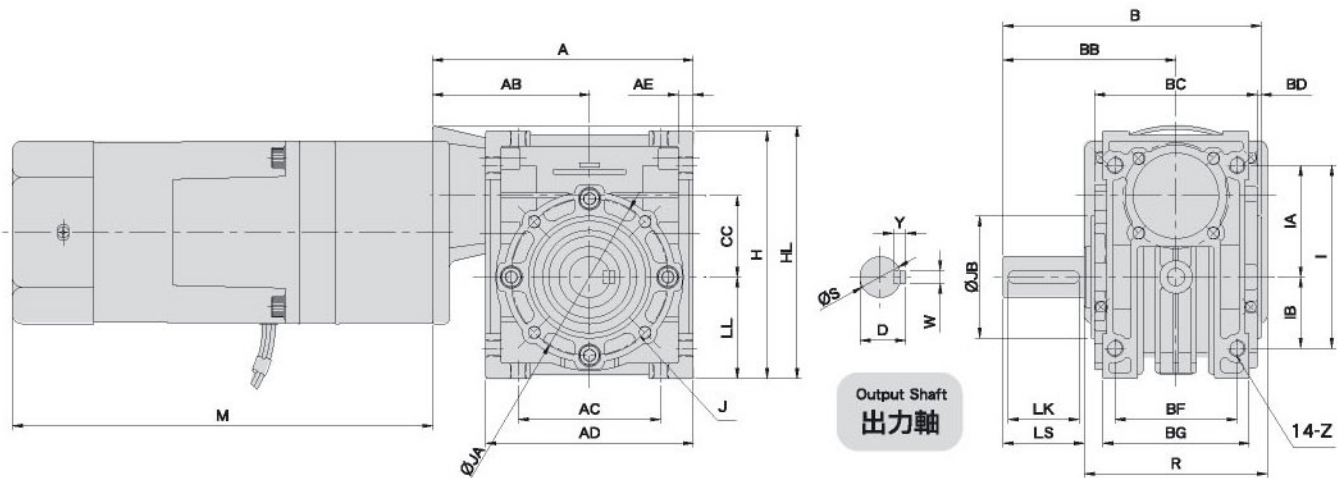
NEOCM (搭配圓軸馬達) In combination with round-shaft motor

Dimension (mm)																											
Model	CM	A	AB	AC	AD	AE	B	BB	BC	BD	BF	BG	CC	LL	H	HL	I	IA	IB	Z	Output Bore						Weight
																					W	S	Y	JA	JB	J	
30	09	98	58	55	80	6	65	32.5	60	2	45	58	30	40	98	115	72	45	27	M6	5	14	16.3	65	55	8-M6	1.31
40	09	123	72	70	102	7.5	90	45	80	2	60	72	40	50	122	167	90	55	35	M8	6	20	22.8	77	60	12-M6	2.6
* 重量不含馬達 Weight not include motor																											

* 重量不含馬達 Weight not include motor

GEARMOTOR SERIES

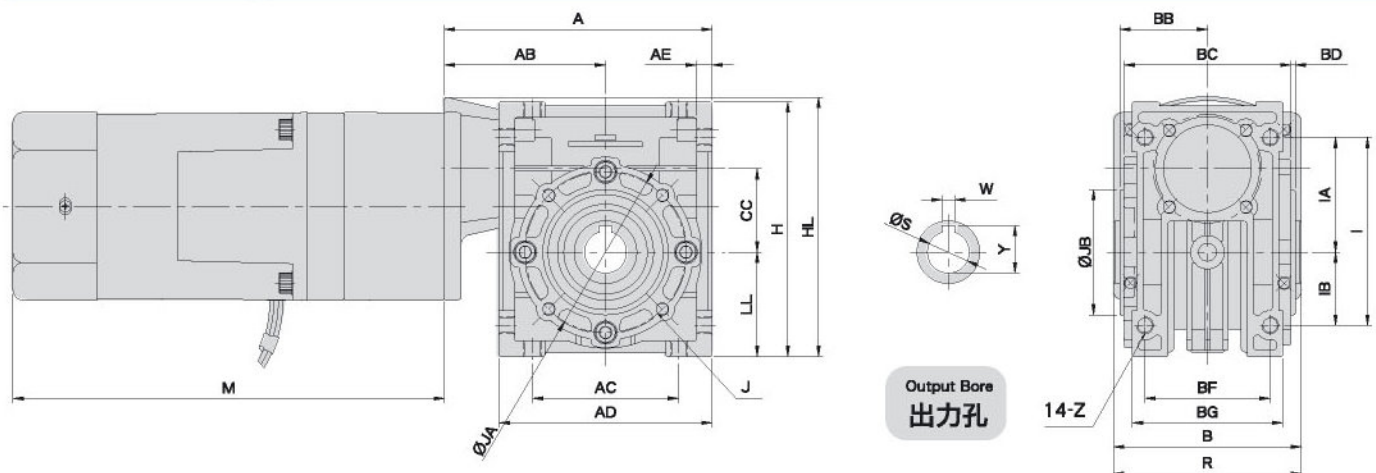
微型蝸輪減速機系列



NECGM (搭配微型減速馬達) In combination with compact gearmotor

Dimension (mm)																											
Model	CG	A	AB	AC	AD	AE	B	BB	BC	BD	BF	BG	CC	LL	H	I	IA	IB	Z	Output Shaft							Weight
																				LS	S	D	WxYxLK	JA	JB	J	KG
30	08 09	99	59																								
		109	69	55	80	6	99.5	67.5	60	2	45	58	30	40	98	72	45	27	M6	35	16	18	5x5x30	65	55	8-M6	1.41
		109	69																								
40	09	131	80	70	102	7.5	127	85	80	2	60	72	40	50	122	90	55	35	M8	40	20	22.5	6x6x35	77	60	12-M6	2.9
* 重量不含馬達 Weight not include motor																											

* 重量不含馬達 Weight not include motor



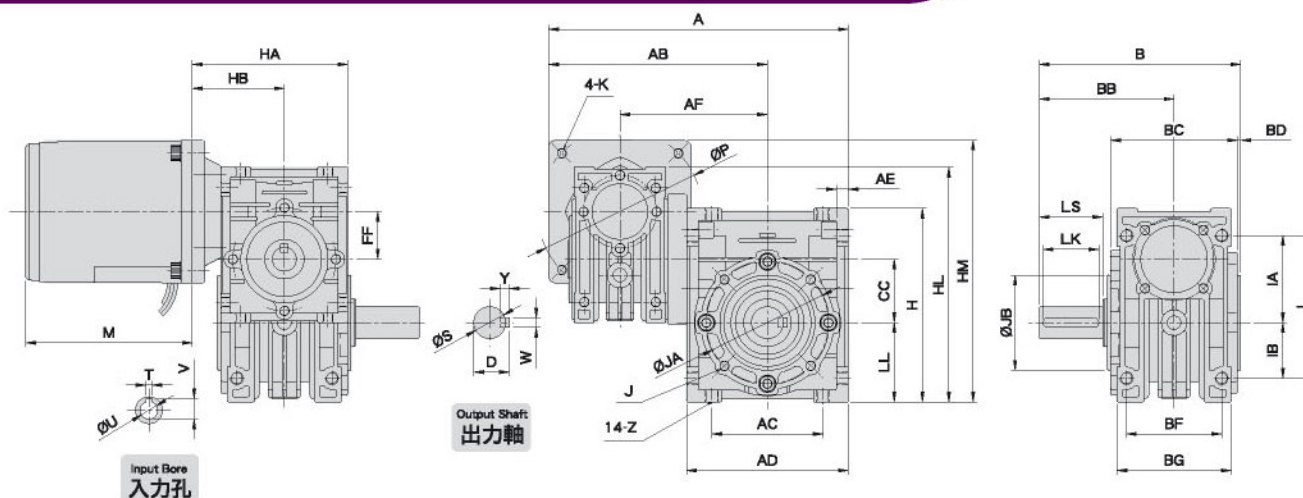
NEOCGM (搭配微型減速馬達) In combination with compact gearmotor

Dimension (mm)																										
Model	CG	A	AB	AC	AD	AE	B	BB	BC	BD	BF	BG	CC	LL	H	I	IA	IB	Z	Output Bore						Weight
																				W	S	Y	JA	JB	J	KG
30	08 09	99	59																							
		109	69	55	80	6	65	32.5	60	2	45	58	30	40	98	72	45	27	M6	5	14	16.3	65	55	8-M6	1.31
40	09	131	80	70	102	7.5	90	45	80	2	60	72	40	50	122	90	55	35	M8	6	20	22.8	77	60	12-M6	2.6

* 重量不含馬達 Weight not include motor



微型蝸輪減速機系列 GEARMOTOR SERIES



NEHCM (搭配圓軸馬達)

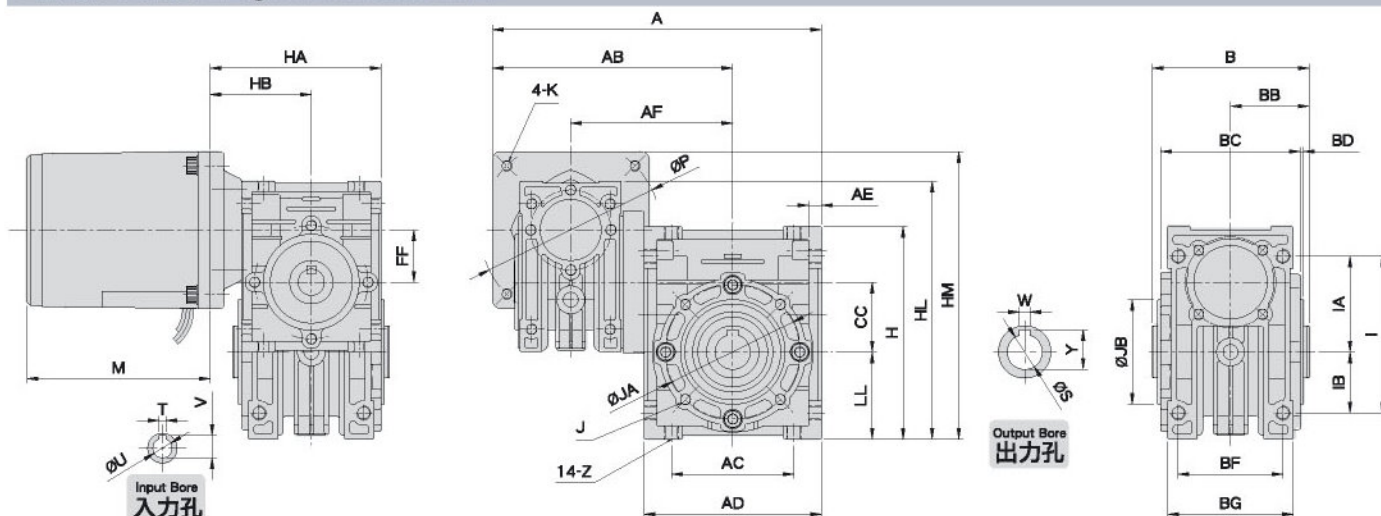
In combination with round-shaft motor

(mm)	40	50	60
Distance to the center of output-stage outer shell.			
(mm)	30	30	40
Distance to the center of input-stage outer shell.			

Dimension (mm)

Model	CM	CCFF		A	AB	AC	AD	AE	AF	B	BB	BC	BD	BF	BG	H	HA	HB	HL	I	IA	IB	LL	Z	Output Shaft							Weight
40	08	40	30	184	133	70	102	7.5	93	127	85	80	2	60	72	122	99	59	148	90	55	35	50	M8	40	20	22.5	6x6x35	77	60	12-M6	3.96
				189	138												109	69														
				189	138												109	69														
50	08 09	50	30	202	142	80	120	8.5	102	150	100	94	3	70	85	145	99	59	168	105	65	40	60	M10	50	25	28	8x7x45	95	70	12-M6	5.51
				207	147												109	69														
				207	147												109	69														
60	09	60	40	243	170	100	146	10	125	159	105	102	3	85	103	180	131	80	207	136	83	53	75	M10	50	25	28	8x7x45	120	80	12-M8	8.7

* 重量不含馬達 Weight not include motor



NEOHCM (搭配圓軸馬達)

In combination with round-shaft motor

(mm)	40	50	60
Distance to the center of output-stage outer shell.			
(mm)	30	30	40
Distance to the center of input-stage outer shell.			

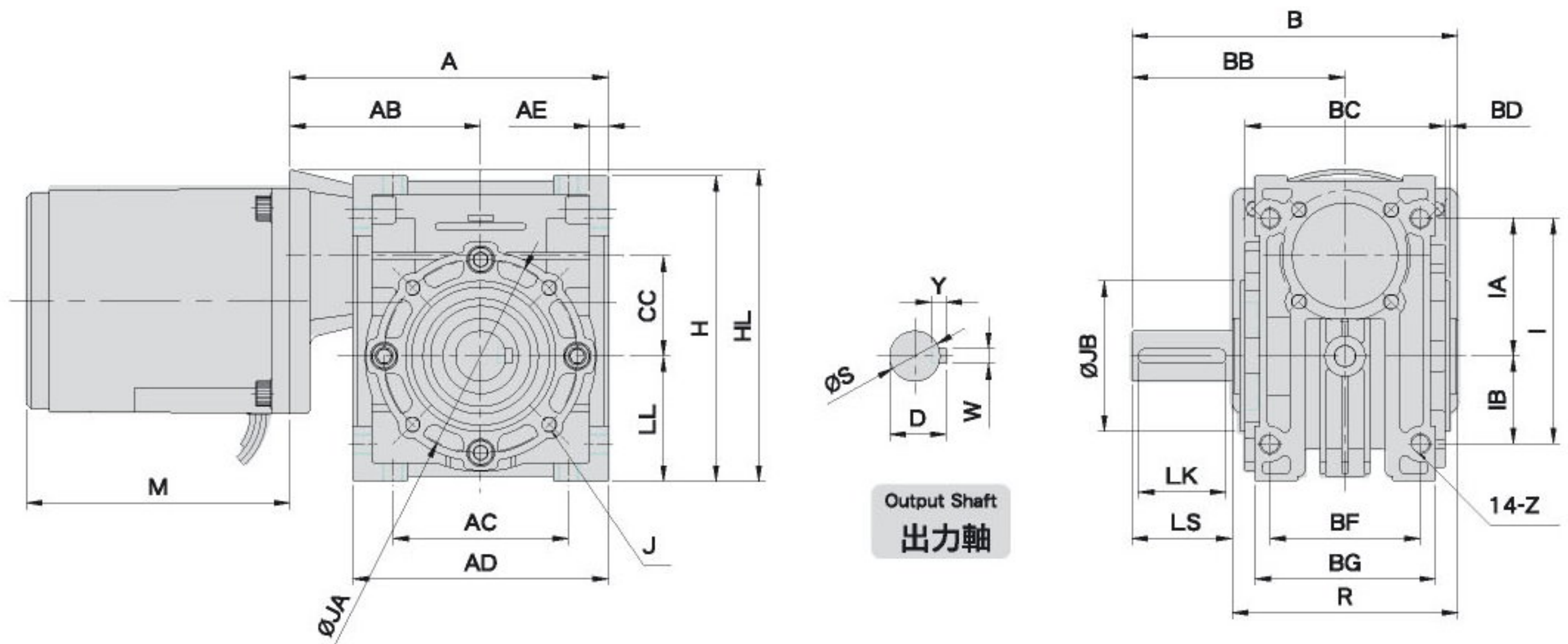
Dimension (mm)

Model	CM	CC	FF	A	AB	AC	AD	AE	AF	B	BB	BC	BD	BF	BG	H	HA	HB	HL	I	IA	IB	LL	Z	Output Bore					Weight	
																									W	S	Y	JA	JB	J	KG
40	08 09	40	30	184 189	133 138	70	102	7.5	93	90	45	80	2	60	72	122	99 109	59 69	148	90	55	35	50	M8	6	20	22.8	77	60	12-M6	3.96
50	08 09	50	30	202 207	142 147	80	120	8.5	102	100	50	94	3	70	85	145	99 109	59 69	168	105	65	40	60	M10	8	25	28.3	95	70	12-M6	5.51
60	09	60	40	243	170	100	146	10	125	110	55	102	3	85	103	180	131	80	207	136	83	53	75	M10	8	25	28.3	120	80	12-M8	8.7

* 重量不含馬達 Weight not include motor

GEARMOTOR SERIES

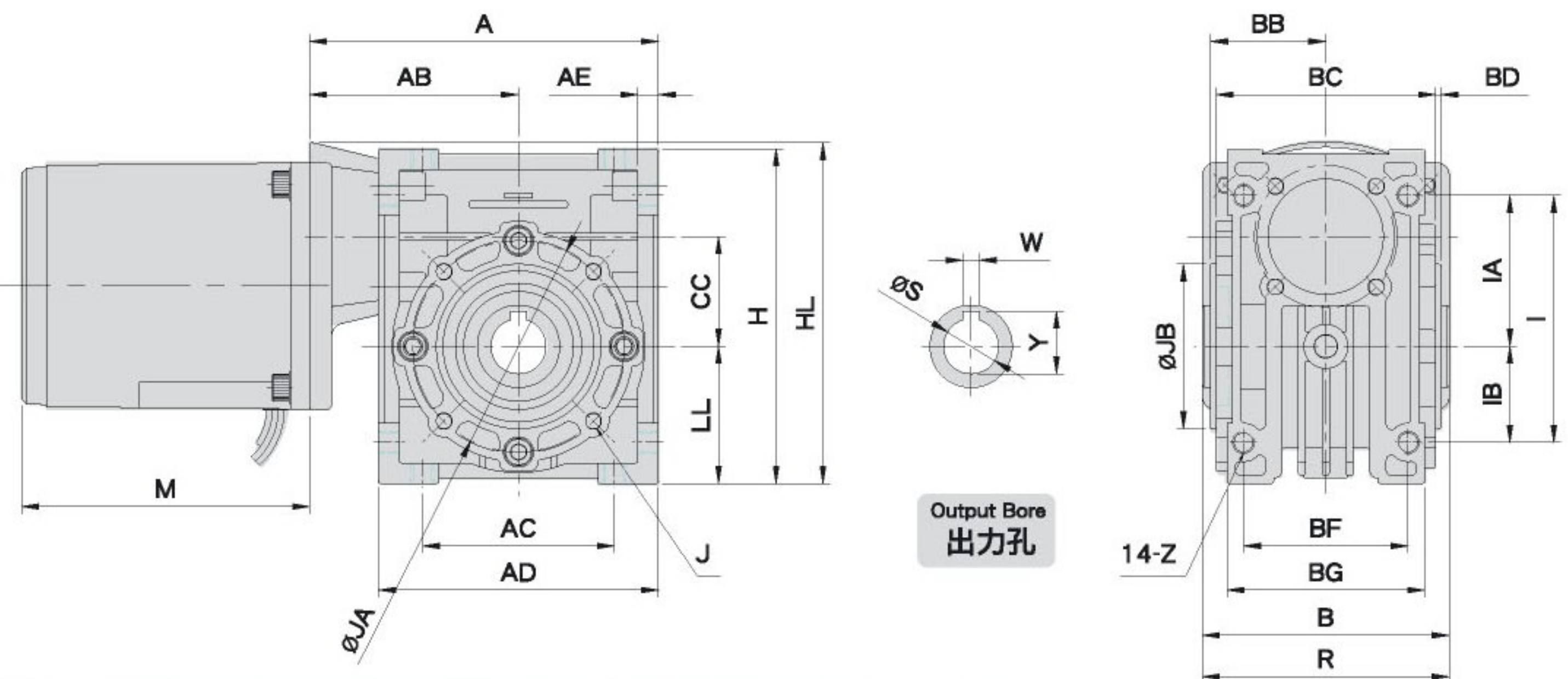
微型蝸輪減速機系列



NEGCM (搭配齒軸馬達) In combination with gear shaft motor

Dimension (mm)																										
Model	CM	A	AB	AC	AD	AE	B	BB	BC	BD	BF	BG	CC	LL	H	I	IA	IB	Z	Output Bore						Weight KG
																				S	D	WxYxLK	JA	JB	J	
30	09	212	172	55	80	6	65	32.5	60	2	45	58	30	40	98	72	45	27	M6	14	16.3	5 x5x30	65	55	8-M6	1.41
		233	193																							
		248	208																							
40	09	236	185	70	102	7.5	90	45	80	2	60	72	40	50	122	90	55	35	M8	20	22.5	6 x6x35	77	60	12-M6	2.9
		257	206																							
		272	221																							
* 重量不含馬達 Weight not include motor																										

* 重量不含馬達 Weight not include motor



NEOGCM (搭配齒軸馬達) In combination with gear shaft motor

Dimension (mm)																										
Model	CM	A	AB	AC	AD	AE	B	BB	BC	BD	BF	BG	CC	LL	H	I	IA	IB	Z	Output Bore						Weight KG
																				W	S	Y	JA	JB	J	
30	09	212	172	55	80	6	97.5	67.5	60	2	45	58	30	40	98	72	45	27	M6	5	16	18	65	55	8-M6	1.31
		233	193																							
		248	208																							
40	09	236	185	70	102	7.5	127	85	80	2	60	72	40	50	122	90	55	35	M8	6	20	22.8	77	60	12-M6	2.6
		257	206																							
		272	221																							
* 重量不 含馬達 Weight not include motor																										

* 重量不含馬達 Weight not include motor