



打造純德國技術的中國機電品牌



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Product Reducers

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減速機產品目錄

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SCIENCE AND TECHNOLOGY FROM GERMANY FOCUS ON THE WORLD POWER

源自德國科技 專注世界動力

萬鑫精工秉承德國先進科技與臺灣精巧細緻的特色：精于心，簡于形。始終堅持德國機電尖端研發技術，秉承德國細致考究的生產工藝，與德國多家研究室達成戰略合作關係，不斷加強與國際、國內同行的交流，吸收先進的設計思想，利用領先的設計軟件開發研究新產品，實現產品結構更新換代的優化和升級。同時，萬鑫精工借鑒臺灣機電品牌的簡約化、人性化的設計風格，體積更小外觀更精緻，性能更加強勁。

萬鑫精工高薪聘請曾在德國知名企業從事設計研發工作的核心技術人才和掌握最精細製造工藝的德國技術顧問，生產團隊成員均擁有十年以上的機電行業從業經驗。從研發到生產，嚴格執行國際標準，節能環保理念貫穿每個環節，祇為將產品品質做到極致。

萬鑫精工對市場需求的精準把握根植于與數以百計的中小企業和研究機構的密切聯繫，讓中小企業參與尖端技術領域研究，促進研發

和科技成果轉化成真正的生產力。從市場角度研發產品所以更懂企業需求，同時可為靈活多變的客戶提供定制化產品，滿足不同行業的工藝需求，創造非凡價值。

精益求精的品質苛求，世界一流的創新技術，成就了萬鑫精工在機電行業的領導者地位，萬鑫精工立足中國輻射全球，產品覆蓋中國市場全區域，并遠銷東南亞各地，贏得市場一直好評。萬鑫精工成為企業節能減排產業升級的得力助手！

萬鑫精工自始至終重視現有產品的質量和行業所需求新產品的研發，引進國際業界多名頂尖技術工程師加盟，促使萬鑫精工能够一直致力於世界自動化產業的發展，為推動科技智能化社會的進步而不懈努力，秉持“勇擔責任、追求卓越、引領創新”的企業精神，打造純正德國技術的中國機電品牌！



strategic cooperation partnership with a number of German research laboratories, strengthen exchanges with international and domestic counterparts, learn advanced design concepts, and use leading design software to develop new products, optimize and upgrade the product structure. At the same time, Wanshin Seikou Precision learns the simple and humanized design of electromechanical brands from Taiwan, featuring smaller size, more refined appearance and more robust performance.

Wanshin Seikou Precision offers high salary to hire core technology talents engaged in design and R&D work. In well-known companies in Germany and German technology consultants having the most exquisite manufacturing processes; the members of production team have more than a decade of experience in the electromechanical industry. Implement international standards strictly from R&D to production, and run through the energy saving ideas in every aspect to achieve the ultimate product quality.

The accurate grasp of market demand of Wanshin Seikou is rooted in close contact with hundreds of small and medium enterprises and research institutions, let SMEs participate in cutting-edge technology research, promote the transformation of R&D and technological achievements into real productivity, develop products from the market point of view, so that Wanshin Seikou knows business needs better, and also can provide customized products for customers to meet the technology needs of different industries and create extraordinary values.

Rigorous quality requirement and world-class innovation contribute to the leading position of Wanshin Seikou in electromechanical industry. Wanshin Seikou is based in China and covers the world. The products cover the entire market of China and are exported to Southeast Asia, and have won unanimous acclaim. Wanshin Seikou has become a favorite assistant in energy saving and industry upgrading!

Wanshin Seikou attaches great importance to the quality of existing products and new products research and development the industry required from the beginning to end, and brings in many top technical engineers in international industry, making Wanshin Seikou committed to the development of world automation industry and unremitting efforts to promote the progress of science intelligent society, keeps the industrial spirit of "Assuming responsibility, pursuing excellence and committed to innovation", and builds Chinese mechanical and electrical brand with pure Germany technology!



VISION

萬鑫願景

打造純德國技術的中國機電品牌。

Create chinese electromechanical products brand
from the pure germany technology

MISSION

萬鑫使命

為客戶提供高效率、低能耗的全套動力解決方案。

To provide clients with a full set of power solutions of higher efficiency
and lower energy consumption.

為員工提供更好工作環境，更大發展平臺；

To provide employees with a better working environment
and greater platform for development.

為社會和諧發展貢獻力量。

To make contributions to the harmonious development of the society.

SERVICE POLICY

萬鑫服務方針

真誠溝通，高效處理，優質服務，顧客滿意。

Sincere communication,
Efficient handling,
Perfect services,
Customer satisfaction.

累累碩果
見證萬鑫榮耀

FRUITS
WITNESS ROYAL GLORY



微型減速機

COMPACT REDUCERS



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中型減速機

MEDIUM REDUCERS



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COMPACT
REDUCERS
微型減速機



源自德國科技 專注世界動力

訂購方式

DESIGNATION

微型交流電機 MINIATURE AC MOTOR

微型交流電機命名 AC MOTOR MODEL NAME

60YS06WG/DV22

1 機座號 Stand Code	2 名稱代號 Name Code	4 轉子軸形式代號 Rotor shaft form Code	5 電壓代號 Voltage Code	6 派生代號 Derived Code
90、70、80、90、100	YS: 標準電機 STANDARD MOTOR YT: 變速電機 VARIABLE SPEED MOTOR YB: 電磁剎車電機 ELECTROMAGNETIC BRAKE MOTOR YF: 變速電機剎車電機 VARIABLE SPEED ELECTROMAGNETIC BRAKE MOTOR YR: 阻尼電機 DAMPING MOTOR	G: 齒輪 GEAR SHAFT D: 圓軸 ROUND SHAFT	V1: 單相 SINGLE PHASE 110V V2: 單相 SINGLE PHASE 220V Y2: 三相 THREE PHASE 220V Y3: 三相 THREE PHASE 380V	X: 引線式 (線長 300MM) LEAD LINE LENGTH 300 MM) T: 帶熱敏保護 WITH THERMAL PROTECTOR H: 帶接線盒 WITH TERMINAL BLOCK

減速箱型號命名 GEARBOX MODEL NAME

60GK100H

1 機座號 Stand Code	2 機型代號 Model Code	3 減速比代號 Reduction ratio Code	4 結構代號 Structure Code	5 派生代號 Derived Code
90、70、80、90、100、180、190、L100	GK: 6-25W 減速箱 GEARBOX GF: 40-200W 減速箱 GEARBOX	3、3.6、200	H: 標準 STANDARD HE: 帶斜齒 LEARED RT: 直角中空 RIGHT ANGLE SOLID RC: 直角中空 RIGHT ANGLE HOLLOW	K: 通孔 HOLE

微型交流電機通用技術標準 MINIATURE AC MOTOR COMMON TECHNICAL STANDARDS

絕緣電阻	在常溫，常濕下電機額定運轉後，以DC500V兆歐表測量組與外殼的絕緣電阻應為100MΩ以上。
絕緣耐壓	在常溫，常濕下電機額定運轉後，在繞組與外殼間施加50Hz或60Hz，1.5KV電機一分鐘，無異常。
溫升	在裝上減速箱或同等散熱板進行額定運轉時，以電阻法測定其繞組溫度上升值為75K以下。
絕緣等級	E級（120℃）
過熱保護裝置	可內藏過熱保護裝置（自動復位型）動作溫度 120℃±5℃復位溫度 82℃±15℃（此功能需定）
使用環境溫度	-10℃~+40℃（無凍結）
使用環境濕度	85%以下（無結露）

INSULATION RESISTANCE: After running at rated settings under normal temperature and humidity, the insulation resistance between the winding and the shell of the motor measured with a DC500V megger should be more than 100MΩ.

INSULATION VOLTAGE: After running at rated settings under normal temperature and humidity, apply 50Hz or 60Hz, 1.5KV between the winding and the shell for one minute, and the motor is normal.

TEMPERATURE RISE: When running at rated settings with gearbox or equivalent heat radiating plate installed, the temperature rise of the winding measured in resistance method is 75K or less.

INSULATION CLASS: E (120℃)

OVERHEATING PROTECTION DEVICE: With built-in thermal protection device (automatic reset type); operating temperature: 120±5℃; reset temperature: 82±15℃ (this feature should be customized)

OPERATING TEMPERATURE: -10~40℃ (no freezing)

OPERATING HUMIDITY: <85% (no condensation)

微型直流電機 MINIATURE DC MOTOR

■ 微型直流電機命名 DC MOTOR MODEL NAME

60DC20GV24R16

1

2

3

4

5

6

7

1 機座號

Stand Code

60、70、80、90、100

3 功效代號

Efficacy Code

10W、16W、20W、30W、40W、60W、65W、70W、100W、120W、200W、300W

5 電壓代號

Voltage Code

V12、V24、V90、V180

7 派生代號

Derived Code

X: 引線式(線長300MM) LEAD (LINE LENGTH 300 MM)

2 DC直流電機系列

DC motor series

DC

4 轉子軸形式代號

Rotor shaft form Code

G: 齒軸 GEAR SHAFT
D: 圓軸 ROUND SHAFT

6 轉速

Speed

R16: 1800/min
R16: 1800/min

■ 微型直流電機通用技術標準 MINIATURE DC MOTOR COMMON TECHNICAL STANDARDS

絕緣電阻

在常溫常濕下，運轉電機後，以DC500V的絕緣電阻來測量的金屬繞圈和電機外殼之間的絕緣電阻時，不超過100兆歐。

絕緣電壓

在常溫，常濕下，運轉電機後，在電機的金屬繞圈和電機之間，以1500V、50/60Hz，輸于1分鐘時沒有任何問題。

溫度上升

運轉電機後，用電阻法來測量時，繞圈組溫度的上升數值在80℃以下。

絕緣等級

B級 (130℃)

使用溫度

-10℃~+40℃(冰凍)

使用濕度

85% 以下(沒有結露的場所)

INSULATION RESISTANCE: After running under normal temperature and humidity, the insulation resistance between the metal coil and the shell of the motor measured with a DC500V megger should be more than 100MΩ.

INSULATION VOLTAGE: After running under normal temperature and humidity, apply 1500V, 50/60Hz between the metal coil and the shell for one minute, and the motor is normal.

TEMPERATURE RISE: After running the motor, the temperature rise of the coil winding measured in resistance method is 80℃ or less.

INSULATION CLASS: B (130℃)

OPERATING TEMPERATURE: -10~40℃ (no freezing)

OPERATING HUMIDITY: <85% (no condensation)

通用參數

GENERAL PARAMETERS

■ 微型交流電機接線圖及運行電容外形尺寸 MINIATURE AC MOTOR WIRING DIAGRAM DIMENSIONS AND RUNNING CAPACITOR DIMENSIONS

接線圖

Wiring diagram dimensions

運行電容(單相電機附件)外形尺寸

Running capacitor (single phase motor accessories) dimensions

型號 MODEL	電容/電壓 CAPACITANCE VOLTAGE	外形尺寸 DIMENSIONS		
		W	T	H
6W	0.8 μf/450V	37	11	25
	2.5 μf/250V	37	16	30
15W	1.5 μf/450V	37	11	25
	4 μf/250V	47	18	35
25W	2 μf/450V	37	16	30
	6 μf/250V	47	20	37
40W	3 μf/450V	48	20	31
	10 μf/250V	59	27	38
60W	4 μf/450V	48	20	32
	14 μf/250V	58	28	50
90W	5 μf/450V	47	20	37
	20 μf/250V	59	30	50
120W	6 μf/450V	47	20	37
	24 μf/250V	59	30	50
140W	8 μf/450V	47	23	41
	28 μf/250V	60	30	50
200W	10 μf/450V	59	27	38
	32 μf/250V	70	40	55

齒輪軸

GEAR SHAFT

圓軸

ROUND SHAFT

● 順時針旋轉 CLOCKWISE ROTATION

將開關(SW)切換至FWD側，則電機做順時針旋轉。
Turn the switch (SW) to FWD and the motor rotates clockwise.

● 逆時針旋轉 COUNTERCLOCKWISE ROTATION

將開關(SW)切換至REV側，則電機做逆時針旋轉。
若只換U、V、W中任意兩條，則電機做逆時針旋轉。
Turn the switch (SW) to REV and the motor rotates counterclockwise; If any two of U, V and W are exchanged, the motor will rotate counterclockwise.

⚠ 注意 NOTE

- 旋轉方向是指面對電機輸出端，順時針旋轉為FWD，逆時針旋轉為REV。
- 單相電機旋轉方向的切換作業應在電機完全停止後進行。
- 改變旋轉方向時，須等電機完全停止後進行，否則將可能無法切換旋轉方向或是須花較長時間方可切換。
- Rotation direction is facing the motor output terminal. The clockwise direction is FWD, and the counterclockwise direction is REV.
- The rotation direction of single phase motor should be switched when the motor is stopped.
- Switch the rotation direction only when the motor has stopped, or else it may be impossible to change or take longer time.

■ 微型直流電機接線圖 MINIATURE DC MOTOR WIRING DIAGRAM DIMENSIONS

齒輪軸

GEAR SHAFT

圓軸

ROUND SHAFT

接線圖 Wiring diagram dimensions

● 電機給引線長度為300mm

• The length of motor lead is about 300mm

● FWD為正轉

• FWD indicates forward rotation

微型交流電機

MINIATURE AC MOTOR

6W

□60 × 60mm

各型號電機性能 MOTOR PERFORMANCE

型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓V VOLTAGE	頻率Hz FREQUENCY	電流A CURRENT	調速範圍 r/min SPEED RANGE	起動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE 1200r/min 90r/min	運行電容 RUNNING CAPACITOR
齒輪軸 GEAR SHAFT 60YS06GV11 60YR08GV11 60YT06GV11 60YB06GV11	6	Single phase 單相 110	50Hz	0.23	90~1300	38	47 30	2.5 μ f/250V
圓軸 ROUND SHAFT 60YS06DV11 60YR08DV11 60YT06DV11 60YB06DV11			60Hz	0.21	90~1600	40	50 30	
齒輪軸 GEAR SHAFT 60YS06GV22 60YR08GV22 60YT06GV22 60YB06GV22	6	Single phase 單相 220	50Hz	0.11	90~1300	38	47 32	0.8 μ f/450V
圓軸 ROUND SHAFT 60YS06DV22 60YR08DV22 60YT06DV22 60YB06DV22			60Hz	0.10	90~1600	40	50 32	

- 雖然調速電機均調速範圍為：50Hz~90~1300r/min，60Hz~90~1600r/min，但由於低速時(<400r/min)，電機轉矩下降較多，易發生過載，且電機直進風扇冷卻效果差，易發熱，因此必須預留足夠的功率餘量，並且不要經常工作在低速區。因此電機最佳調速範圍為：50Hz~400~1300r/min，60Hz~400~1600r/min。
- 在亂開電源的時候，電機會瞬間停止，請保持負載。
- 電機的啟動、制動特性與電機的負載慣量成正比。
- Although the speed range of the motor is 50Hz, 90~1300r/min, 60Hz, 90~1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz, 400~1300r/min, 60Hz, 400~1600r/min.
- When the power is cut off, the motor will stop immediately and hold the load.
- The start and braking characteristics of the motor are proportional to the load inertia of the motor.

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
50Hz 最高轉速 r/min Output bearing speed	433	361	260	217	173	130	104	87	72	65	52	43
額定轉矩 N·m Rated torque	0.13	0.15	0.22	0.26	0.33	0.44	0.55	0.66	0.79	0.88	1.10	1.32
60Hz 最高轉速 r/min Output bearing speed	533	444	320	267	213	160	128	107	89	80	64	53
額定轉矩 N·m Rated torque	0.11	0.13	0.18	0.22	0.28	0.37	0.46	0.55	0.66	0.73	0.92	1.10
減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
50Hz 最高轉速 r/min Output bearing speed	36	33	26	22	17	14	13	11	9	7	7	
額定轉矩 N·m Rated torque	1.59	1.76	2.06	2.18	2.42	3	3	3	3	3	3	
60Hz 最高轉速 r/min Output bearing speed	44	40	32	27	21	18	16	13	11	9	8	
額定轉矩 N·m Rated torque	1.33	1.47	1.71	1.82	2.02	2.42	2.65	3	3	3	3	

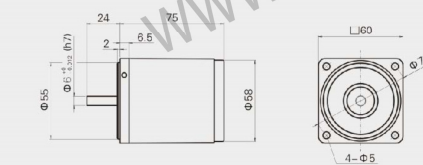
- 表中轉速是以電機的平均轉速(50Hz:1300r/min, 60Hz:1600r/min)為基數除以減速比而算出的數值。
- 實際轉速將隨負載大小而少量變化，變化範圍為±8%左右。
- The speed in the table is the value of average motor speed (50Hz: 1300r/min, 60Hz: 1600r/min) divided by the reduction ratio.
- The actual speed changes according to the load (±8%).

外形尺寸(CAD) DIMENSIONS

6YS/YR01

圓軸電機 質量: 0.8kg

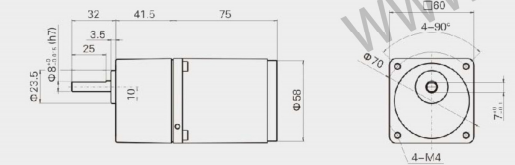
Round-axis motor, mass: 0.8kg



6YS/YR02

組合: 電機+標準減速機(減速比: 1:3~200)質量: 1.1kg

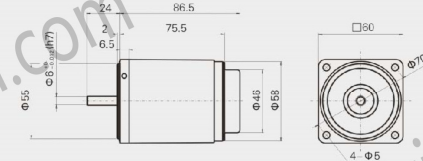
Portfolio: motor + standard reducer (reduction ratio: 1:3~200) mass: 1.1kg



6YT01

圓軸電機 質量: 0.9kg

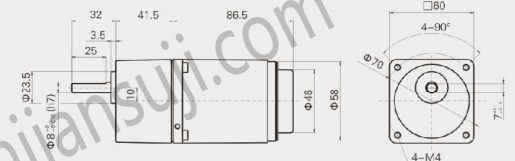
Round-axis motor, mass: 0.9kg



6YT02

組合: 電機+標準減速箱(減速比: 1:3~200)質量: 1.1kg

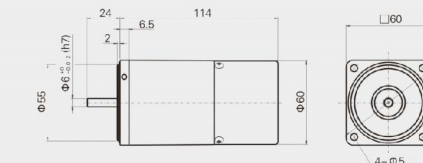
Portfolio: motor + standard reducer (reduction ratio: 1:3~200) mass: 1.1kg



6YB01

圓軸電機 質量: 1.2kg

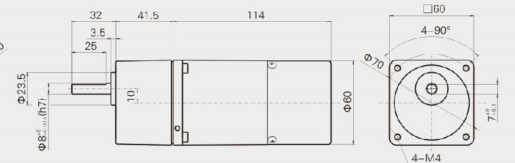
Round-axis motor, mass: 1.2kg



6YB02

組合: 電機+標準減速箱(減速比: 1:3~200)質量: 1.5kg

Portfolio: motor + standard reducer (reduction ratio: 1:3~200) mass: 1.5kg



15W

70 × 70mm

各型號電機性能 MOTOR PERFORMANCE

型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓(V) VOLTAGE	頻率(Hz) FREQUENCY	電流(A) CURRENT	調速範圍 r/min SPEED RANGE	啟動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE	運行電容 RUNNING CAPACITOR
齒輪軸 GEAR SHAFT 70YS15GV11 70YR15GV11 70YT15GV11 70YB15GV11	15	Single phase 單相 110	50Hz	0.39	90~1300	70	125	4 μf/250V
圓軸 ROUND SHAFT 70YS15DV11 70YR15DV11 70YT15DV11 70YB15DV11			60Hz	0.35	90~1600	65	125	
齒輪軸 GEAR SHAFT 70YS15GV22 70YR15GV22 70YT15GV22 70YB15GV22	15	Single phase 單相 220	50Hz	0.20	90~1300	70	125	1.5 μf/450V
圓軸 ROUND SHAFT 70YS15DV22 70YR15DV22 70YT15DV22 70YB15DV22			60Hz	0.17	90~1600	65	125	

- 雖然調速電機的調速範圍為：50Hz~90~1300r/min，60Hz~90~1600r/min，但由於低速時(<400r/min)，電機轉矩下降較多，易發生過載，且電機通風扇冷卻效果差，易發熱，因此必須預留足夠的功率餘量，並且不要經常工作在低速區。因此電機最佳調速範圍為：50Hz~400~1300r/min，60Hz~400~1600r/min。
- 在斷開電源的同時，電機會瞬間停止請保持負載。
- 電機的啟動、制動特性與電機的負載慣性成正比。
- Although the speed range of the motor is 50Hz, 90~1300r/min, 60Hz, 90~1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz, 400~1300r/min, 60Hz, 400~1600r/min.
- When the power is cut off, the motor will stop immediately and hold the load.
- The start and braking characteristics of the motor are proportional to the load inertia of the motor.

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
50Hz 最高轉速/r/min Output bearing speed	438	361	260	217	173	130	104	87	72	65	52	43
額定轉矩 N·m Rated torque	0.30	0.36	0.50	0.60	0.74	0.99	1.24	1.49	1.79	1.98	2.31	2.78
60Hz 最高轉速/r/min Output bearing speed	533	444	320	267	213	160	128	107	89	80	64	53
額定轉矩 N·m Rated torque	0.25	0.30	0.41	0.50	0.62	0.83	1.03	1.24	1.49	1.65	1.98	2.31
減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	160	200	
50Hz 最高轉速/r/min Output bearing speed	36	33	26	22	17	14	13	11	9	7	7	
額定轉矩 N·m Rated torque	3.33	3.70	4.63	5	5	5	5	5	5	5	5	
60Hz 最高轉速/r/min Output bearing speed	44	40	32	27	21	18	16	13	11	9	8	
額定轉矩 N·m Rated torque	2.78	3.09	3.86	4.35	5	5	5	5	5	5	5	

- 表中轉速是以電機的平均轉速(50Hz:1300r/min、60Hz:1600r/min)為基數除以減速比而算出的數值。
- 實際轉速將隨負載大小而少量變化，變化範圍為±8%左右。
- The speed in the table is the value of average motor speed (50Hz: 1300r/min, 60Hz: 1600r/min) divided by the reduction ratio.
- The actual speed changes according to the load (±8%).



標準減速箱
STANDARD GEARBOX
70GK □H

減速箱型號中的□為減速比的數值
速比：1:3~200

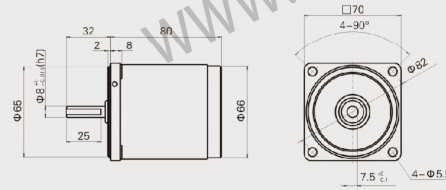
□ in gearbox model indicates the reduction ratio (1:3~200)

外形尺寸(CAD) DIMENSIONS

15YS/YR01

圓軸電機 質量：1.1kg

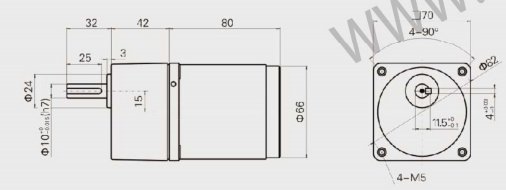
Round-axis motor, mass: 1.1kg



15YS/YR02

組合：電機+標準減速機(減速比：1:3~200)質量：1.6kg

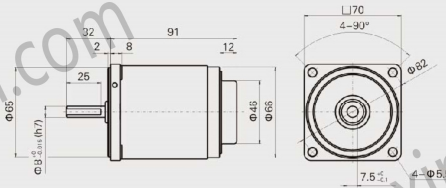
Portfolio: motor + standard reducer(reduction ratio:1:3~200)mass:1.6kg



15YT01

圓軸電機 質量：0.9kg

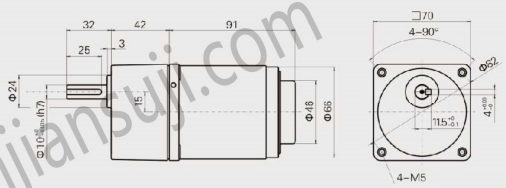
Round-axis motor, mass: 0.9kg



15YT02

組合：電機+標準減速箱(減速比：1:3~200)質量：1.2kg

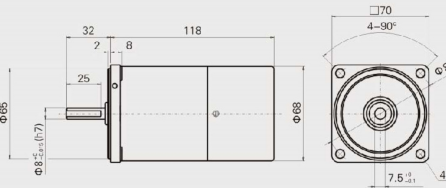
Portfolio: motor + standard reducer(reduction ratio: 1:3~200)mass:1.2kg



15YB01

圓軸電機 質量：1.1kg

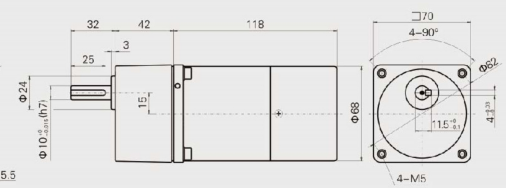
Round-axis motor, mass: 1.1kg



15YB02

組合：電機+標準減速箱(減速比：1:3~200)質量：2kg

Portfolio: motor + standard reducer(reduction ratio: 1:3~200)mass: 2kg





各型號電機性能 MOTOR PERFORMANCE									
型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓V VOLTAGE	頻率Hz FREQUENCY	電流A CURRENT	調速範圍 r/min SPEED RANGE	起動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE		運行電容 CAPACITOR
							1200r/min	90r/min	
齒輪軸 GEAR SHAFT 80YS25GV11 80YR25GV11 80YT25GV11 80YB25GV11	25	Single phase 單相 110	50Hz	0.53	90-1300	145	170	45	6 μ f/250V
圓軸 ROUND SHAFT 80YS25DV11 80YR25DV11 80YT25DV11 80YB25DV11			60Hz	0.48	90-1600	120	170	45	
齒輪軸 GEAR SHAFT 80YS25GV22 80YR25GV22 80YT25GV22 80YB25GV22	25	Single phase 單相 220	50Hz	0.25	90-1300	145	205	50	2 μ f/450V
圓軸 ROUND SHAFT 80YS25DV22 80YR25DV22 80YT25DV22 80YB25DV22			60Hz	0.23	90-1600	120	205	50	
齒輪軸 GEAR SHAFT 80YS25GY22 80YT25GY22 80YB25GY22	25	Three phase 三相 220	50Hz	0.25	90-1300	250	195		
圓軸 ROUND SHAFT 80YS25DY22 80YT25DY22 80YB25DY22			60Hz	0.23	90-1600	205	180		
齒輪軸 GEAR SHAFT 80YS25GY38 80YT25GY38 80YB25GY38	25	Three phase 三相 380	50Hz	0.14	90-1300	250	195		
圓軸 ROUND SHAFT 80YS25DY38 80YT25DY38 80YB25DY38			60Hz	0.13	90-1600	205	180		

•雖然調速電機調速範圍為：50Hz：90-1300r/min；60Hz：90-1600r/min。但由於低速時(<400r/min)，電機轉矩下降較多，易發生過載，且電機溫升過高，易發熱，因此必須預留足夠的功率餘量，並且不要經常工作在低速區。因此電機最佳調速範圍為：50Hz：400-1300r/min；60Hz：400-1600r/min。

•在斷電電機停轉時，電機會瞬間停止，請保持負載。

•電機的啟動、制動特性與電機的負載慣性量成正比。

•Although the speed range of the motor is 50Hz: 90-1300r/min, 60Hz: 90-1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz: 400-1300r/min, 60Hz: 400-1600r/min.

•When the power is cut off, the motor will stop immediately and hold the load.

•The start and braking characteristics of the motor are proportional to the load inertia of the motor.

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART												
減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
50Hz 最高轉速/r/min Output bearing speed	433	361	260	217	173	130	104	87	72	65	52	43
額定轉矩 N·m Rated torque	0.50	0.60	0.83	0.99	1.24	1.65	1.95	2.34	2.81	3.12	3.90	4.68
60Hz 最高轉速/r/min Output bearing speed	533	444	320	267	213	160	128	107	89	80	64	53
額定轉矩 N·m Rated torque	0.41	0.50	0.69	0.83	1.03	1.38	1.63	1.95	2.34	2.60	3.25	3.90
減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
50Hz 最高轉速/r/min Output bearing speed	36	33	26	22	17	14	13	11	9	7	7	
額定轉矩 N·m Rated torque	5.62	6.24	6.89	8	8	8	8	8	8	8	8	
60Hz 最高轉速/r/min Output bearing speed	44	40	32	27	21	18	16	13	11	9	8	
額定轉矩 N·m Rated torque	4.68	5.20	5.74	6.88	8	8	8	8	8	8	8	

•表中轉速是以電機的平均轉速(50Hz:1300r/min、60Hz:1600r/min)為基數乘以減速比而算出的數值。

•實際轉速將隨負載大小而少量變化，變化範圍為±8%左右。

•The speed in the table is the value of average motor speed (50Hz: 1300r/min, 60Hz: 1600r/min) divided by the reduction ratio.

•The actual speed changes according to the load (±8%).

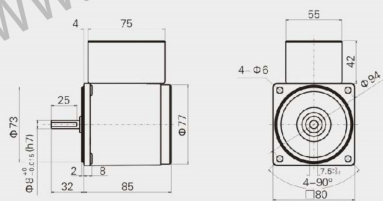


外形尺寸 (CAD) DIMENSIONS

25YS/YR01

圓軸電機 質量: 1.6kg

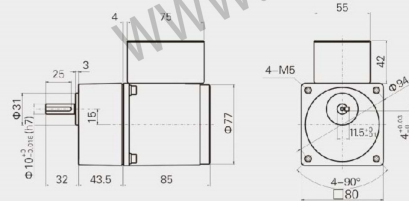
Round-axis motor, mass: 1.6kg



25YS/YR02

組合: 電機+標準減速機 (減速比: 1:3~200) 質量: 2.3kg

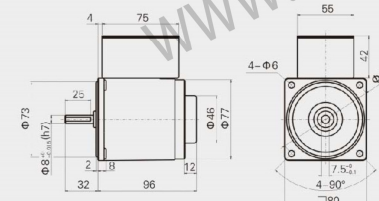
Portfolio: motor + standard reducer (reduction ratio: 1:3~200) mass: 2.3kg



25YT01

圓軸電機 質量: 1.7kg

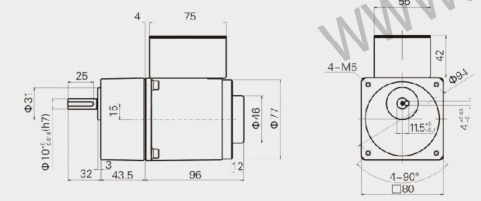
Round-axis motor, mass: 1.7kg



25YT02

組合: 電機+標準減速機 (減速比: 1:3~200) 質量: 2.4kg

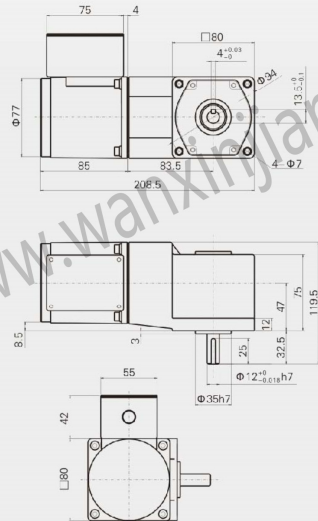
Portfolio: motor + standard reducer (reduction ratio: 1:3~200) mass: 2.4kg



25YS/YR03

組合: 電機+直角中實減速箱 (減速比: 1:3~200) 質量: 3.8kg

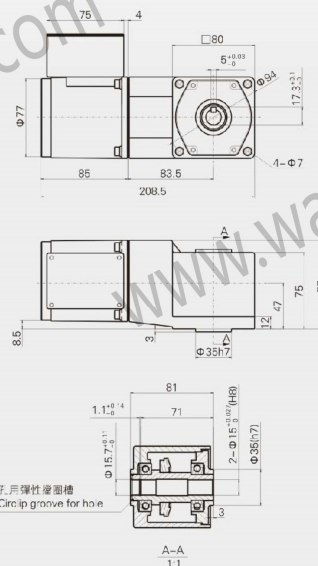
Portfolio: motor + right angle solid gearbox (reduction ratio: 1:3~200) mass: 3.8kg



25YS/YR04

組合: 電機+直角中空減速箱 (減速比: 1:3~200) 質量: 3.7kg

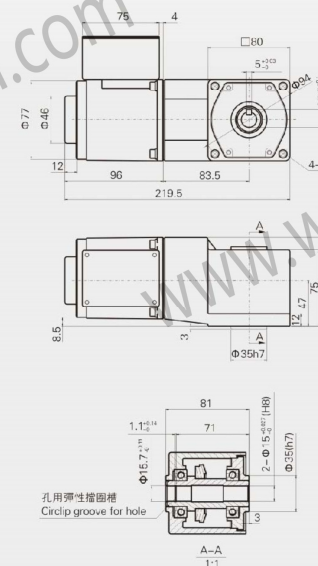
Portfolio: motor + right-angle hollow gearbox (reduction ratio: 1:3~200) mass: 3.7kg



25YT03

組合: 電機+直角中空減速箱 (減速比: 1:3~200) 質量: 3.7kg

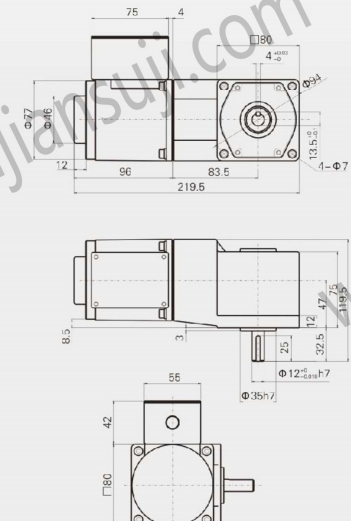
Portfolio: motor + right-angle solid gearbox (reduction ratio: 1:3~200) mass: 3.7kg



25YT04

組合: 電機+直角中實減速箱 (減速比: 1:3~200) 質量: 3.8kg

Portfolio: motor + right angle hollow gearbox (reduction ratio: 1:3~200) mass: 3.8kg

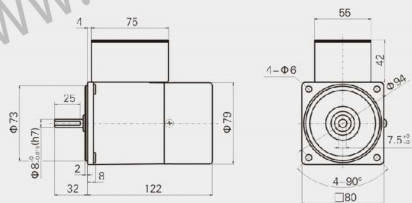


外形尺寸 (CAD) DIMENSIONS

25YB01

圓軸電機 質量: 2kg

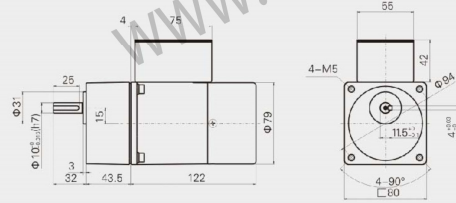
Round-axis motor, mass: 2kg



25YB02

組合: 電機+標準減速箱(減速比: 1:3~200)質量: 2.7kg

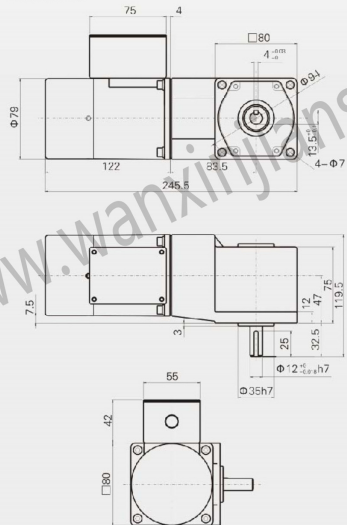
Portfolio: motor + standard reducer(reduction ratio: 1:3~200)mass: 2.7kg



25YB03

組合: 電機+直角中實減速箱(減速比: 1:3~200)質量: 3.8kg

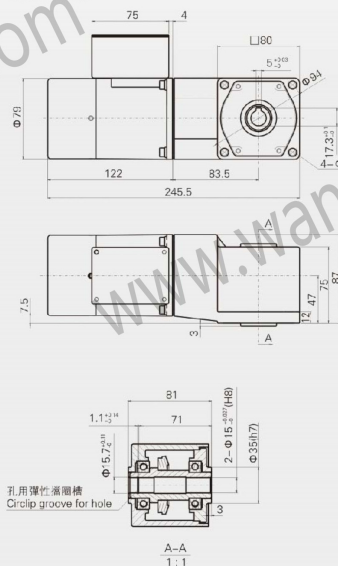
Portfolio: motor + right angle solid gearbox (reduction ratio: 1:3~200) mass: 3.8kg



25YB04

組合: 電機+直角中空減速箱(減速比: 1:3~200)質量: 3.7kg

Portfolio: motor + right-angle hollow gearbox (reduction ratio: 1:3~200) mass: 3.7kg



各型號電機性能 MOTOR PERFORMANCE

型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓V VOLTAGE	頻率Hz FREQUENCY	電流A CURRENT	調速範圍 SPEED RANGE	起動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE 1200r/min 90r/min	運行電容 RUNNING CAPACITOR
齒輪軸 GEAR SHAFT	90YS40GV11 90YR40GV11 90YT40GV11 90YF40GV11 90YB40GV11	Single phase 110	50Hz	0.79	90~1300	235	300 65	10 μf/250V
圓軸 ROUND SHAFT	90YS40DV11 90YR40DV11 90YT40DV11 90YF40DV11 90YB40DV11		60Hz	0.71	90~1600	180	260 70	
齒輪軸 GEAR SHAFT	90YS40GV22 90YR40GV22 90YT40GV22 90YF40GV22 90YB40GV22	Single phase 220	50Hz	0.40	90~1300	235	320 65	3 μf/450V
圓軸 ROUND SHAFT	90YS40DV22 90YR40DV22 90YT40DV22 90YF40DV22 90YB40DV22		60Hz	0.37	90~1600	180	260 70	
齒輪軸 GEAR SHAFT	90YS40GV22 90YB40GV22	Three phase 220	50Hz	0.35	90~1300	403	310	
圓軸 ROUND SHAFT	90YS40DV22 90YB40DV22		60Hz	0.32	90~1600	338	260	
齒輪軸 GEAR SHAFT	90YS40GV38 90YB40GV38	Three phase 380	50Hz	0.21	90~1300	403	310	
圓軸 ROUND SHAFT	90YS40DV38 90YB40DV38		60Hz	0.19	90~1600	338	260	

- 雖然電機電機均為調速範圍為: 50Hz~90~1300r/min, 60Hz~90~1600r/min。但由於低速時(<400r/min), 電機轉矩下降較多, 電機中過熱, 且電機直連風扇冷卻效果差, 易發熱, 因此必須預留足夠的功率餘量, 並且不要經常工作在低速區。因此電機最佳調速範圍為: 50Hz~400~1300r/min, 60Hz~400~1600r/min。
- 在斷開電源的同時, 電機會瞬間停止關保持負載。
- 電機的起動、制動特性與電機的負載慣性量成正比。
- Although the speed range of the motor is 50Hz, 90~1300r/min, 60Hz, 90~1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz, 400~1300r/min, 60Hz, 400~1600r/min.
- When the power is cut off, the motor will stop immediately and hold the load.
- The start and braking characteristics of the motor are proportional to the load inertia of the motor.

40W
60W

□90 x 90mm

各型號電機性能 MOTOR PERFORMANCE									
型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓V VOLTAGE	頻率Hz FREQUENCY	電流A CURRENT	調速範圍 r/min SPEED RANGE	起動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE		運行電容 RUNNING CAPACITOR
							1200r/min	90r/min	
齒輪軸 GEAR SHAFT	90YS60GV11 90YR60GV11 90YT60GV11 90YF60GV11 90YB60GV11	60	Single phase 單相 110	50Hz	90-1300	350	490	200	14 μ f/250V
圓軸 ROUND SHAFT	90YS60DV11 90YR60DV11 90YT60DV11 90YF60DV11 90YB60DV11			60Hz	90-1600	280	490	220	
齒輪軸 GEAR SHAFT	90YS60GV22 90YR60GV22 90YT60GV22 90YF60GV22 90YB60GV22	60	Single phase 單相 220	50Hz	90-1300	350	490	200	4 μ f/450V
圓軸 ROUND SHAFT	90YS60DV22 90YR60DV22 90YT60DV22 90YF60DV22 90YB60DV22			60Hz	90-1600	280	490	220	
齒輪軸 GEAR SHAFT	90YS60GY22 90YB60GY22	60	Three phase 三相 220	50Hz	90-1300	600	460		
圓軸 ROUND SHAFT	90YS60DY22 90YB60DY22			60Hz	90-1600	490	375		
齒輪軸 GEAR SHAFT	90YS60GY38 90YB60GY38	60	Three phase 三相 380	50Hz	90-1300	600	460		
圓軸 ROUND SHAFT	90YS60DY38 90YB60DY38			60Hz	90-1600	490	375		

•雖然調速電機的調速範圍為：50Hz：90-1300r/min，60Hz：90-1600r/min，但由於低速時(<400r/min)，電機轉矩下降較多，易發生過載，且電機直連風扇冷卻效果差，易發熱，因此必須預留足夠的功率餘量，並且不要經常工作在低速區。因此電機最佳調速範圍為：50Hz：400-1300r/min，60Hz：400-1600r/min。

•在關閉電源的同時，電機電機應停止運行。

•電機的起動、制動和過載電機負載慣性量成正比。

•Although the speed range of the motor is 50Hz: 90-1300r/min, 60Hz: 90-1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz: 400-1300r/min, 60Hz: 400-1600r/min.

•When the power is cut off, the motor will stop immediately and hold the load.

•The start and braking characteristics of the motor are proportional to the load inertia of the motor.

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART														
減速比 REDUCTION RATIO			3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
40W	50Hz	最高轉速 /min Output bearing speed	433	361	260	217	173	130	104	87	72	65	52	43
		額定轉矩 N·m Rated torque	0.77	0.92	1.28	1.53	1.92	2.56	3.20	3.83	4.60	5.11	5.73	6.88
	60Hz	最高轉速 /min Output bearing speed	533	444	320	267	213	160	128	107	89	80	64	53
		額定轉矩 N·m Rated torque	0.64	0.77	1.07	1.28	1.60	2.13	2.66	3.20	3.83	4.26	4.78	5.73
60W	50Hz	最高轉速 /min Output bearing speed	433	361	260	217	173	130	104	87	72	65	52	43
		額定轉矩 N·m Rated torque	1.19	1.43	1.98	2.38	2.98	3.97	4.35	5.22	6.27	6.96	8.26	9.92
	60Hz	最高轉速 /min Output bearing speed	533	444	320	267	213	160	128	107	89	80	64	53
		額定轉矩 N·m Rated torque	0.99	1.19	1.65	1.98	2.48	3.31	3.63	4.35	5.22	5.80	6.89	8.26
減速比 REDUCTION RATIO			36	40	50	60	75	90	100	120	150	180	200	
40W	50Hz	最高轉速 /min Output bearing speed	36	33	26	22	17	14	13	11	9	7	7	
		額定轉矩 N·m Rated torque	8.25	9.17	10	10	10	10	10	10	10	10	10	
	60Hz	最高轉速 /min Output bearing speed	44	40	32	27	21	18	16	13	11	9	8	
		額定轉矩 N·m Rated torque	6.88	7.64	9.16	10	10	10	10	10	10	10	10	
60W	50Hz	最高轉速 /min Output bearing speed	36	33	26	22	17	14	13	11	9	7	7	
		額定轉矩 N·m Rated torque	11.90	13.22	16.53	19.83	20	20	20	20	20	20	20	
	60Hz	最高轉速 /min Output bearing speed	44	40	32	27	21	18	16	13	11	9	8	
		額定轉矩 N·m Rated torque	9.92	11.02	13.77	16.53	20	20	20	20	20	20	20	

•表中數據是以電機的平均轉速(50Hz:1300r/min、60Hz:1600r/min)為基數乘以減速比而算出的數值。

•實際轉速將隨負載大小而少量變化，變化範圍為±8%左右。

•The speed in the table is the value of average motor speed (50Hz: 1300r/min, 60Hz: 1600r/min) divided by the reduction ratio.

•The actual speed changes according to the load (±8%).



標準減速箱
STANDARD GEARBOX
90GF □H



帶耳減速箱
EARED GEARBOX
90GF □HE



直角中空減速箱
RIGHT ANGLE HOLLOW GEARBOX
L90GF □RC



直角中實減速箱
RIGHT ANGLE SOLID GEARBOX
L90GF □RT

減速箱型號中的□為減速比的數值
速比：1:3~200
□ in gearbox model indicates the reduction ratio (1:3~200)

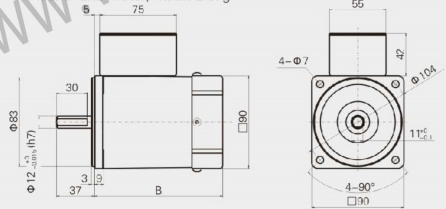


外形尺寸 (CAD) DIMENSIONS

40/60YS/YR/YT/YB/YF01

圓軸電機 質量: 2.5kg

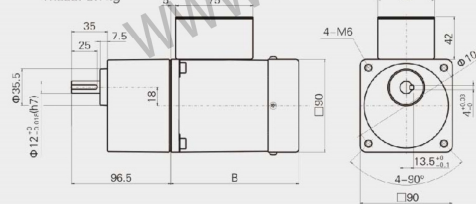
Round-axis motor, mass: 2.5kg



40/60YS/YR/YT/YB/YF02

組合: 電機+標準減速機(減速比: 1:3~200)質量: 3.7kg

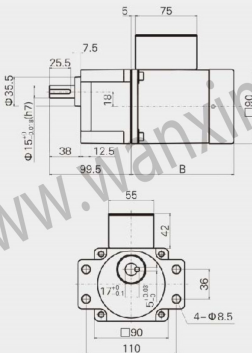
Portfolio: motor + standard reducer (reduction ratio: 1:3~200)
mass: 3.7kg



40/60YS/YR/YT/YB/YF03

組合: 電機+帶耳減速機
減速比: 1:3~200
質量: 3.7kg

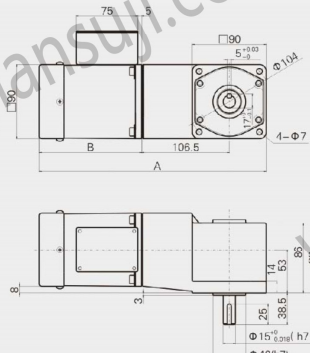
Portfolio: motor + eared gear
Reduction ratio: 1:3~200
Mass: 3.7kg



40/60YS/YR/YT/YB/YF04

組合: 電機+直角中實減速箱
減速比: 1:3~200
質量: 5.4kg

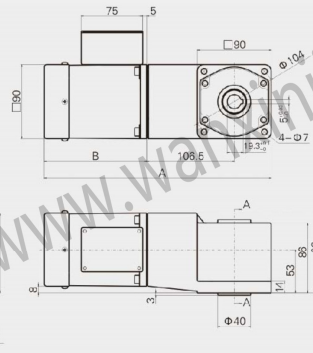
Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200
Mass: 5.4kg



40/60YS/YR/YT/YB/YF05

組合: 電機+直角中空減速箱
減速比: 1:3~200
質量: 5.3kg

Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200
Mass: 5.3kg



序號 No.	電機類型 Motor type	A	B
1	YS/YR	276.5	125
2	YT	287.5	136
3	YB	311.5	160
4	YF	323.5	172

各型號電機性能 MOTOR PERFORMANCE

型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓V VOLTAGE	頻率Hz FREQUENCY	電流A CURRENT	調速範圍 SPEED RANGE	起動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE 1200r/min 90r/min	運行電容 RUNNING CAPACITOR
齒輪軸 GEAR SHAFT	90YS90GV11 90YR90GV11 90YT90GV11 90YB90GV11 90YF90GV11	Single phase 110	50Hz	0.70	90~1300	525	710 200	20 μf/250V
圓軸 ROUND SHAFT	90YS90DV11 90YR90DV11 90YT90DV11 90YB90DV11 90YF90DV11		60Hz	0.50	90~1600	420	710 200	
齒輪軸 GEAR SHAFT	90YS90GV22 90YR90GV22 90YT90GV22 90YB90GV22 90YF90GV22	Single phase 220	50Hz	0.95	90~1300	525	710 200	5 μf/450V
圓軸 ROUND SHAFT	90YS90DV22 90YR90DV22 90YT90DV22 90YB90DV22 90YF90DV22		60Hz	0.86	90~1600	420	710 200	
齒輪軸 GEAR SHAFT	90YS90GV22 90YB90GV22	Three phase 220	50Hz	0.69	90~1300	910	700	
圓軸 ROUND SHAFT	90YS90DV22 90YB90DV22		60Hz	0.63	90~1600	730	560	
齒輪軸 GEAR SHAFT	90YS90GV38 90YB90GV38	Three phase 380	50Hz	0.41	90~1300	910	700	
圓軸 ROUND SHAFT	90YS90DV38 90YB90DV38		60Hz	0.38	90~1600	730	560	

- 雖然該電機為調速範圍: 50Hz~90~1300r/min, 60Hz~90~1600r/min。但由於低速時(<400r/min), 電機轉矩下降較多, 電機過熱, 且電機直連風扇冷卻效果差, 易發熱, 因此必須預留足夠的功率餘量, 並且不要經常工作在低速區。因此該電機最佳調速範圍為: 50Hz~400~1300r/min, 60Hz~400~1600r/min。
- 在斷開電源的同時, 電機會瞬間停止關保持負載。
- 電機在啟動、制動時其電機負載慣性量成正比。
- Although the speed range of the motor is 50Hz, 90~1300r/min, 60Hz, 90~1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz, 400~1300r/min, 60Hz, 400~1600r/min.
- When the power is cut off, the motor will stop immediately and hold the load.
- The start and braking characteristics of the motor are proportional to the load inertia of the motor.

90W
120W

□90 x 90mm

各型號電機性能 MOTOR PERFORMANCE									
型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓(V) VOLTAGE	頻率(Hz) FREQUENCY	電流(A) CURRENT	調速範圍 r/min SPEED RANGE	啟動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE		運行電容 RUNNING CAPACITOR
齒輪軸 GEAR SHAFT	90YS120GV11 90YR120GV11 90YT120GV11 90YB120GV11 90YF120GV11	120	Single phase 單相 110	50Hz 2.04	90-1300	720	840	300	24 μ f/250V
圓軸 ROUND SHAFT	90YS120DV11 90YR120DV11 90YT120DV11 90YB120DV11 90YF120DV11			60Hz 1.84	90-1600	600	840	300	
齒輪軸 GEAR SHAFT	90YS120GV22 90YR120GV22 90YT120GV22 90YB120GV22 90YF120GV22	120	Single phase 單相 220	50Hz 1.02	90-1300	720	840	300	6 μ f/450V
圓軸 ROUND SHAFT	90YS120DV22 90YR120DV22 90YT120DV22 90YB120DV22 90YF120DV22			60Hz 0.92	90-1600	600	840	300	
齒輪軸 GEAR SHAFT	90YS120GY22 90YB120GY22	120	Three phase 三相 220	50Hz 0.89	90-1300	1195	924		
圓軸 ROUND SHAFT	90YS120DY22 90YB120DY22			60Hz 0.81	90-1600	1014	750		
齒輪軸 GEAR SHAFT	90YS120GY38 90YB120GY38	120	Three phase 三相 380	50Hz 0.51	90-1300	1195	924		
圓軸 ROUND SHAFT	90YS120GY38 90YB120GY38			60Hz 0.45	90-1600	1014	750		

•雖然調速電機均調速範圍為：50Hz：90-1300r/min，60Hz：90-1600r/min，但由於低速時(<400r/min)，電機轉矩下降較多，易發生過載，且電機直連風扇冷卻效果差，易發熱，因此必須預留足夠的功率餘量，並且不要經常工作在低速區。因此電機最佳調速範圍為：50Hz：400-1300r/min，60Hz：400-1600r/min。

•在重閉電源的同時，電機電機轉矩上升保持負載。

•電機的啟動、制動和過載電機均與負載慣性量成正比。

•Although the speed range of the motor is 50Hz: 90-1300r/min, 60Hz: 90-1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz: 400-1300r/min, 60Hz: 400-1600r/min.

•When the power is cut off, the motor will stop immediately and hold the load.

•The start and braking characteristics of the motor are proportional to the load inertia of the motor.

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART														
減速比 REDUCTION RATIO			3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
90W 50Hz	最高轉速/r/min Output bearing speed		433	361	260	217	173	130	104	87	72	65	52	43
	額定轉矩・N・m Rated torque		1.79	2.14	2.98	3.57	4.46	5.29	6.61	7.93	9.52	10.58	12.07	14.48
	最高轉速/r/min Output bearing speed	60Hz	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩・N・m Rated torque		1.49	1.79	2.48	2.98	3.72	4.41	5.51	6.61	7.93	8.82	10.06	12.07
120W 50Hz	最高轉速/r/min Output bearing speed		433	361	260	217	173	130	104	87	72	65	52	43
	額定轉矩・N・m Rated torque		2.25	2.70	3.75	4.50	5.62	6.88	8.60	10.31	12.38	13.75	15.43	18.51
	最高轉速/r/min Output bearing speed	60Hz	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩・N・m Rated torque		1.87	2.25	3.12	3.75	4.68	5.73	7.16	8.60	10.31	11.46	12.86	15.43
減速比 REDUCTION RATIO			36	40	50	60	75	90	100	120	150	180	200	
90W 50Hz	最高轉速/r/min Output bearing speed		36	33	26	22	17	14	13	11	9	7	7	
	額定轉矩・N・m Rated torque		17.38	19.31	20	20	20	20	20	20	20	20	20	
	最高轉速/r/min Output bearing speed	60Hz	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩・N・m Rated torque		14.48	16.09	20	20	20	20	20	20	20	20	20	
120W 50Hz	最高轉速/r/min Output bearing speed		36	33	26	22	17	14	13	11	9	7	7	
	額定轉矩・N・m Rated torque		20	20	20	20	20	20	20	20	20	20	20	
	最高轉速/r/min Output bearing speed	60Hz	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩・N・m Rated torque		18.51	20	20	20	20	20	20	20	20	20	20	

•表中轉速是以電機的平均轉速(50Hz:1300r/min、60Hz:1600r/min)為基數乘以減速比而算出的數值。

•實際轉速將隨負載大小而少量變化，變化範圍為±8%左右。

•The speed in the table is the value of average motor speed (50Hz: 1300r/min, 60Hz: 1600r/min) divided by the reduction ratio.

•The actual speed changes according to the load (±8%).



標準減速箱
STANDARD GEARBOX
90GF □H



帶耳減速箱
EARED GEARBOX
90GF □HE



直角中空減速箱
RIGHT ANGLE HOLLOW GEARBOX
L90GF □RC



直角中實減速箱
RIGHT ANGLE SOLID GEARBOX
L90GF □RT

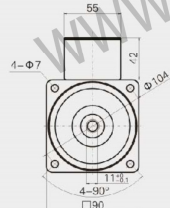
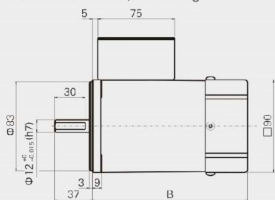
減速箱型號中的□為減速比的數值
速比: 1.3~200
□ in gearbox model indicates the reduction ratio (1.3~200)

外形尺寸(CAD) DIMENSIONS

90/120YS/YR/YT/YB/YF01

圓軸電箱 質量: 3kg

Round-axis motor, mass: 3kg

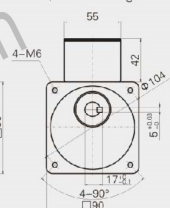
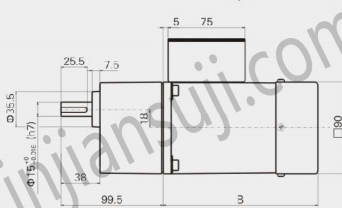


序號 No.	電機類型 Motor type	B
1	YS/YR	140
2	YT	151
3	YB	175
4	YF	187

90/120YS/YR/YT/YB/YF02

組合: 電機+標準減速箱 (減速比: 1:3~200) 質量: 4.2kg

Portfolio: motor + standard reducer (reduction ratio: 1:3~200) mass: 4.2kg

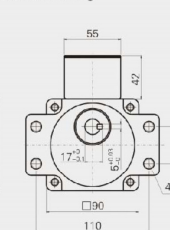
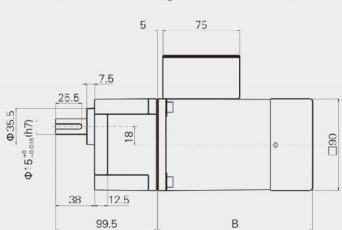


序號 No.	電機類型 Motor type	B
1	YS/YR	140
2	YT	151
3	YB	175
4	YF	187

90/120YS/YR/YT/YB/YF03

組合: 電機+帶耳減速箱 (減速比: 1:3~200) 質量: 4.2kg

Portfolio: motor + eared gear (reduction ratio: 1:3~200) mass: 4.2kg



序號 No.	電機類型 Motor type	B
1	YS/YR	140
2	YT	151
3	YB	175
4	YF	187

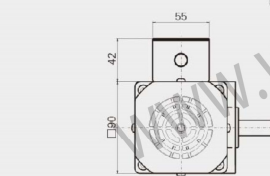
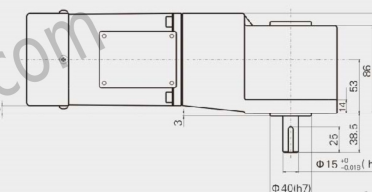
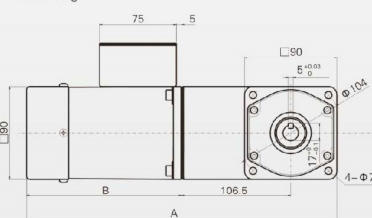
90/120YS/YR/YT/YB/YF04

組合: 電機+直角中實減速箱

減速比: 1:3~200

質量: 6.2kg

Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200
Mass: 6.2kg



序號 No.	電機類型 Motor type	A	B
1	YS/YR	291.5	140
2	YT	302.5	151
3	YB	326.5	175
4	YF	338.5	187

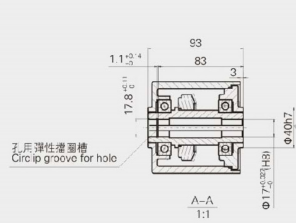
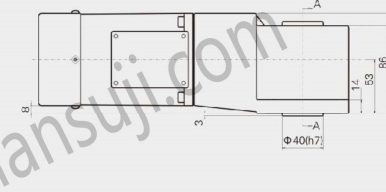
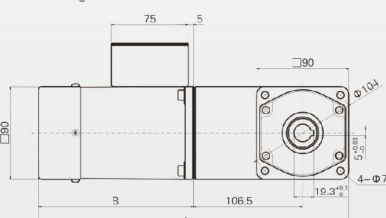
90/120YS/YR/YT/YB/YF05

組合: 電機+直角中空減速箱

減速比: 1:3~200

質量: 6kg

Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200
Mass: 6kg



140W
200W
□ 100 × 100mm

各型號電機性能 MOTOR PERFORMANCE

型號 MODEL	最大輸出 功率(W) MAXIMUM OUTPUT POWER	電壓V VOLTAGE	頻率Hz FREQUENCY	電流A CURRENT	調速範圍 r/min SPEED RANGE	起動轉矩 N·mm START TORQUE	額定轉矩(N·mm) RATED TORQUE 1200r/min 90r/min	運行電容 RUNNING CAPACITOR
齒輪軸 GEAR SHAFT 100YS140GV11 100YT140GV11 100YB140GV11 100YF140GV11	140	Single phase 單相 110	50Hz	2.26	90~1300	840	1050 350	28 μ f/250V
圓軸 ROUND SHAFT 100YS140DV11 100YT140DV11 100YB140DV11 100YF140DV11								
齒輪軸 GEAR SHAFT 100YS140GV22 100YT140GV22 100YB140GV22 100YF140GV22								
圓軸 ROUND SHAFT 100YS140DV22 100YT140DV22 100YB140DV22 100YF140DV22								
齒輪軸 GEAR SHAFT 100YS140GY22 100YB140GY22	140	Single phase 單相 220	50Hz	1.13	90~1300	840	1050 350	8 μ f/450V
圓軸 ROUND SHAFT 100YS140DY22 100YB140DY22								
齒輪軸 GEAR SHAFT 100YS140GY38 100YB140GY38	140	Three phase 三相 220	50Hz	0.95	90~1300	1393	1078	
圓軸 ROUND SHAFT 100YS140DY38 100YB140DY38								
齒輪軸 GEAR SHAFT 100YS200GV11 100YT200GV11 100YB200GV11 100YF200GV11	200	Single phase 單相 110	50Hz	3.38	90~1300	1150	1650	32 μ f/250V
圓軸 ROUND SHAFT 100YS200DV11 100YT200DV11 100YB200DV11 100YF200DV11								
齒輪軸 GEAR SHAFT 100YS200GV22 100YT200GV22 100YB200GV22 100YF200GV22	200	Single phase 單相 220	50Hz	1.69	90~1300	1150	1650	10 μ f/450V
圓軸 ROUND SHAFT 100YS200DV22 100YT200DV22 100YB200DV22 100YF200DV22								
齒輪軸 GEAR SHAFT 100YS200GY22 100YB200GY22	200	Three phase 三相 220	50Hz	1.62	90~1300	1690	1640	
圓軸 ROUND SHAFT 100YS200DY22 100YB200DY22								
齒輪軸 GEAR SHAFT 100YS200GY38 100YB200GY38	200	Three phase 三相 380	50Hz	1.05	90~1300	1990	1540	
圓軸 ROUND SHAFT 100YS200DY38 100YB200DY38								

- 雖然調速電機的調速範圍為：50Hz~90~1300r/min；60Hz~90~1600r/min。但由於低速時(<400r/min)，電機轉矩下降較多，易發生過載，且電機通風扇冷卻效果差，易發熱，因此必須預留足夠的功率餘量，並且不要經常工作在低速區。因此電機最佳調速範圍為：50Hz~400~1300r/min；60Hz~400~1600r/min。
- 在斷開電源的同時，電機會瞬間停止並保持負載。
- 電機的起動、制動特性與電機的負載慣性量成正比。
- Although the speed range of the motor is 50Hz: 90~1300r/min, 60Hz: 90~1600r/min, it easily causes overload and the cooling effect of the motor fan is poor if the speed is too low (<400r/min) and the motor torque decreases too much; therefore, please keep sufficient power margin and avoid operating in low speed section frequently. The optimal speed range of the motor is 50Hz: 400~1300r/min, 60Hz: 400~1600r/min.
- When the power is cut off, the motor will stop immediately and held the load.
- The start and braking characteristics of the motor are proportional to the load inertia of the motor.

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
140W 50Hz 最高轉速/r/min Output bearing speed	433	361	260	217	173	130	104	87	72	65	52	43
額定轉矩 N·m Rated torque	2.62	3.15	4.37	5.25	6.56	7.51	9.38	11.26	13.51	15.02	18.77	21.91
60Hz 最高轉速/r/min Output bearing speed	533	444	320	267	213	160	128	107	89	80	64	53
額定轉矩 N·m Rated torque	2.19	2.62	3.64	4.37	5.46	6.26	7.82	9.38	11.26	12.51	15.64	18.26
200W 50Hz 最高轉速/r/min Output bearing speed	433	361	260	217	173	130	104	87	72	65	52	43
額定轉矩 N·m Rated torque	3.44	4.13	5.73	6.88	8.60	11.46	14.33	17.19	18.51	20.57	25.71	30.85
60Hz 最高轉速/r/min Output bearing speed	533	444	320	267	213	160	128	107	89	80	64	53
額定轉矩 N·m Rated torque	2.87	3.44	4.78	5.73	7.16	9.55	11.94	14.33	15.43	17.14	21.43	25.71
減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
140W 50Hz 最高轉速/r/min Output bearing speed	36	33	26	22	17	14	13	11	9	7	7	
額定轉矩 N·m Rated torque	26.29	29.21	33.94	40.73	44	44	44	44	44	44	44	
60Hz 最高轉速/r/min Output bearing speed	44	40	32	27	21	18	16	13	11	9	8	
額定轉矩 N·m Rated torque	21.91	24.34	28.28	33.94	40.73	44	44	44	44	44	44	
200W 50Hz 最高轉速/r/min Output bearing speed	36	33	26	22	17	14	13	11	9	7	7	
額定轉矩 N·m Rated torque	37.02	41.14	44	44	44	44	44	44	44	44	44	
60Hz 最高轉速/r/min Output bearing speed	44	40	32	27	21	18	16	13	11	9	8	
額定轉矩 N·m Rated torque	30.85	34.28	42.85	44	44	44	44	44	44	44	44	

- 表中轉速是以電機的平均轉速(50Hz:1300r/min、60Hz:1600r/min)為基數乘以減速比而算出的數值。
- 實際轉速將隨負載大小而少量變化，變化範圍為±8%左右。
- The speed in the table is the value of average motor speed (50Hz: 1300r/min, 60Hz: 1600r/min) divided by the reduction ratio.
- The actual speed changes according to the load (±8%).



標準減速箱
STANDARD GEARBOX
100GF □H



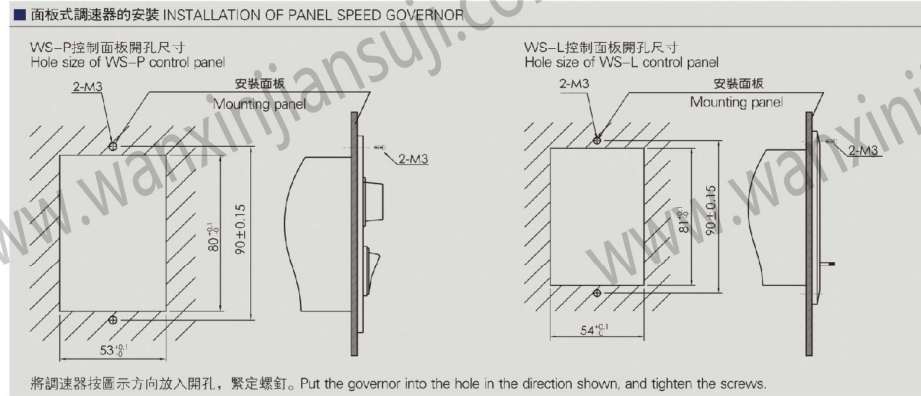
直角中空減速箱
RIGHT ANGLE HOLLOW GEARBOX
L100GF □RC



直角中實減速箱
RIGHT ANGLE SOLID GEARBOX
L100GF □RT

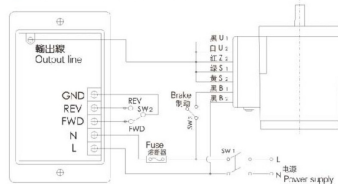
減速箱型號中的□為減速比的數值
速比: 1:3~200

□ in gearbox model indicates the reduction ratio (1:3~200)

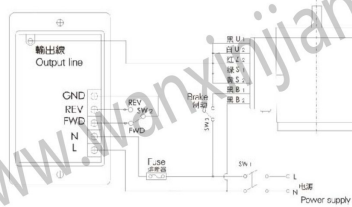


■ 接線方法 WIRING METHOD

單相旋轉 Unidirectional rotation



正、反向旋轉 Forward and reverse rotation



■ 旋轉方向 DIRECTION OF ROTATION

調速器出廠時，旋轉方向選擇軟線連接至L與FWD端，電機順時針旋轉，若需使電機逆時針旋轉，僅需將軟線連接至REV端。若需正、反向旋轉，則在FWD、REV連接旋轉方向選擇開關SW2。

When the governor is delivered, the cord of rotation direction selection has been connected to the L and FWD terminal, and the motor rotates clockwise; to make the motor rotate counterclockwise, just connect the cord to the REV terminal. For forward and reverse rotation, connect FWD and REV terminals to the rotation direction selector switch SW2.

注：型號WS-L可選擇面板按鍵控制正反轉，或是手動接後面板接線控制。

Note: Model WS-L allows controlling forward and reverse rotation with the panel button, or manually connect rear panel wiring.

■ 電機制動停止 MOTOR BRAKE STOPS

當電機停止運轉時，斷開SW3，電機內失電電磁制動器制動，電機電磁制動，保持負載。在電機正常運轉中，不允許斷開SW3，否則電機及電機內的失電電磁制動器將損壞。

When the motor stops running, disconnect SW3, the de-energized electromagnetic brake in the motor brakes, and the motor brakes and maintains the load. In the normal operation of the motor, it is not allowed to disconnect SW3, or else the motor and the de-energized electromagnetic brake in the motor will burn.

● 特別注意 Special Note

B1、B2通電，失電電磁制動器不制動。B1、B2斷電，失電電磁制動器制動。剎車電源開關必須與電機開關同步。

When B1 and B2 are energized, the de-energized electromagnetic brake won't brake; when B1 and B2 are de-energized, the de-energized electromagnetic brake brakes. Brake power switch must be synchronized with the motor speed control switch.

■ 運轉操作 RUNNING OPERATION

將調速器與電機按圖連接，然後打開AC電源。閉合SW3，電機內失電電磁制動器通電，電磁制動失效，此時將面板上的開關切換到RUN，電機開始旋轉。

Connect the speed governor to the motor as shown in the figure, and then turn on the AC power. Close SW3, the de-energized electromagnetic brake in the motor is energized, and the electromagnetic brake fails; the switch on the panel turns to RUN, and the motor starts to rotate.

■ 轉速調整 SPEED ADJUSTMENT

順時針旋轉面板上的調速器旋鈕，電機轉速增加，電機調整範圍：50Hz:90~1300r/min
60Hz:90~1600r/min

Rotate the speed control knob clockwise on the panel, and the motor speed increases; the range of adjustment: 50Hz: 90 ~ 1300r/min; 60Hz: 90 ~ 1600r/min.

● 特別注意 Special Note

嚴禁使用SW1電源開關作為運行/制動開關/停運調速器，並使用電機停止制動保持負載，否則易造成調速器損壞。現時由于調速器每次開電源時其內部電路有充電時間，故無法立即起動電機，動作亦會不正常。

Do not use SW1 power switch as the start/stop speed governor of running/brake switch and stop braking with the motor and hold the load, or else it will damage the speed governor easily. At present, internal circuit needs time to charge when the speed governor is turned on every time. The motor won't be started immediately, and the action will be abnormal.

■ 停止 STOP

將調速器面板上的開關切換到STOP，電機停止。

Turn the switch on the governor panel to STOP, and the motor stops.

注：此開關并非電源開關，若電機長期停止運轉，則請另設電源開關。

NOTE: This switch is not a power switch; if the motor stops running for a long time, please equip a separate power switch.

微型直流電機

MINIATURE DC MOTOR

■ 各型號電機性能 MOTOR PERFORMANCE

機座號 MODEL	電壓V VOLTAGE	功率W POWER	轉速SPEED r/min	負載參數 LOAD PARAMETERS 力矩TORQUE kg·cm	電流A CURRENT	電刷壽命h BRUSH LIFE	電機重量kg MOTOR WEIGHT
60DC10GV12R16	12	10	1600	0.62	1.24	2000	0.7
60DC10GV24R16	24	10	1600	0.62	0.62	2000	0.7
60DC15GV12R16	12	15	1600	0.93	1.87	2000	0.9
60DC15GV24R16	24	15	1600	0.93	0.93	2000	0.9
60DC20GV12R16	12	20	1600	1.24	2.49	2000	0.9
60DC20GV24R16	24	20	1600	1.24	1.24	2000	0.9

■ 減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

轉速 r/min SPEED	減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
1600	出力轉速r/min OUTPUT BEARING SPEED	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩N·m RATED TORQUE	0.129	0.154	0.215	0.259	0.324	0.43	0.53	0.64	0.769	0.77	0.97	1.16
轉速 r/min SPEED	減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
1600	出力轉速r/min OUTPUT BEARING SPEED	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩N·m RATED TORQUE	1.39	1.55	1.93	2.32	3	3	3	3	3	3	3	



標準減速箱
STANDARD GEARBOX
60GK □H

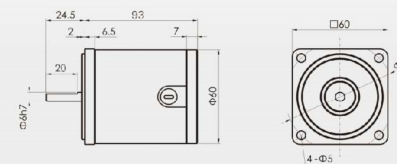
減速箱型號中的□為減速比的數值
速比：1:3~200
□ in gearbox model indicates the reduction ratio (1:3~200)

■ 外形尺寸 (CAD) DIMENSIONS

60DC(10W/15W)

圓軸電機

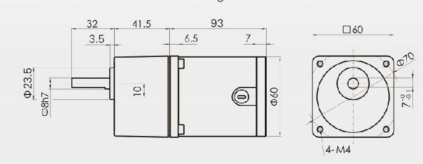
Round-axis motor



60DC(10W/15W)

組合：電機+標準減速箱（減速比：1:3~200）

Portfolio: motor + standard gearbox (reduction ratio: 1:3~200)

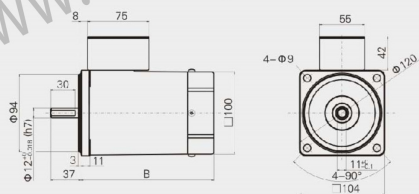


外形尺寸 (CAD) DIMENSIONS

140/200YS/YT/YB/YF01

圓軸電箱 質量: 4.6kg

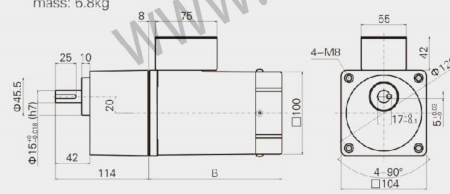
Round-axis motor, mass: 4.6kg



140/200YS/YT/YB/YF02

組合: 電機+標準減速箱(減速比: 1:3~200)質量: 6.8kg

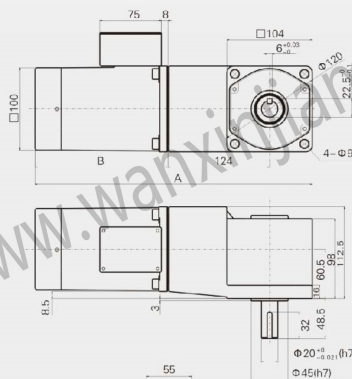
Portfolio: motor + standard reducer (reduction ratio: 1:3~200)
mass: 6.8kg



140/200YS/YT/YB/YF03

組合: 電機+直角中實減速箱
減速比: 1:3~200
質量: 8.8kg

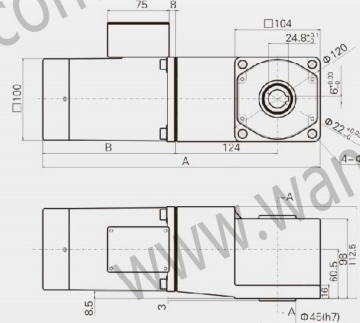
Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200
Mass: 8.8kg



140/200YS/YT/YB/YF04

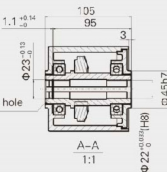
組合: 電機+直角中空減速箱
減速比: 1:3~200
質量: 8.6kg

Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200
Mass: 8.6kg



序號 No.	電機類型 Motor type	A	B
1	YS	338	162
2	YT	350	174
3	YB	368	192
4	YF	386	210

孔用彈性圈槽
Circlip groove for hole



調速電磁制動電機

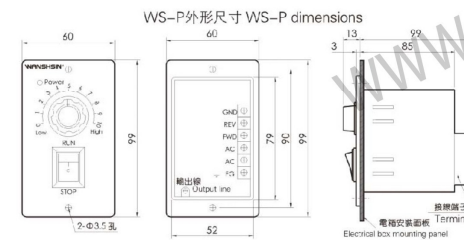
VARIABLE SPEED ELECTROMAGNETIC BRAKE MOTOR

調速器

SPEED GOVERNOR



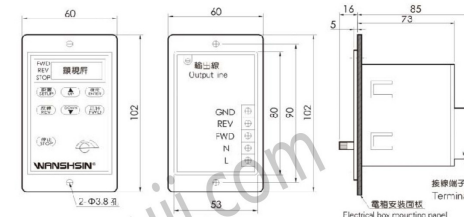
■ 面板式調速器 PANEL SPEED GOVERNOR



■ 特點 FEATURES

- 與調速電機組合實現寬範圍的無級變速。
Achieve continuously variable transmission in a wide range combined with variable speed motor
- 功能豐富，可實現緩慢加速，緩慢減速及電機堵轉保護。
Feature-rich, enabling slow acceleration, slow deceleration and motor stall protection.
- 調速器運行電容直接安裝於調速器內部，布線整齊、方便。
The capacitor for speed governor running is mounted directly inside the governor, featuring neat and convenient wiring.
- 調速穩定，功率高達200W。
Stable speed regulation, power up to 200W.

WS-L外形尺寸 WS-L dimensions



■ 型號參數表 MODEL PARAMETERS

型號 MODEL	WS-P	WS-L
安裝方式 INSTALLATION METHOD	面板式 Panel	數顯面板式 Digital panel
調速方法 SPEED REGULATION	面板電位器 Panel potentiometer	數顯 Digital
電源電壓 SUPPLY VOLTAGE	單相220V Single phase 220V	單相220V Single phase 220V
控制功能 CONTROL FEATURES	速度控制、緩慢加速、緩慢減速、電子制動 Speed control, slow acceleration, slow deceleration, electronic brake, stall protection, panel control forward and reverse rotation, speed display, percentage display (the difference between displayed speed and actual speed is 5%/min)	速度控制、緩慢加速、緩慢減速、電子制動、堵轉保護、面板控制正反轉、轉速顯示、百分比顯示(顯示轉速與實際轉速相差5%/min) Speed control, slow acceleration, slow deceleration, electronic brake, stall protection, panel control forward and reverse rotation, speed display, percentage display (the difference between displayed speed and actual speed is 5%/min)
適用電機功率範圍 APPLICABLE MOTOR POWER RANGE	6W~200W	
運行電容 RUNNING CAPACITOR	內置 Built-in	
電源頻率 POWER FREQUENCY	50/60Hz	
調速範圍 SPEED RANGE	50Hz:90~1300r/min 60Hz:90~1600r/min	
速度變化率 RATE OF SPEED CHANGE	5%	
電子制 ELECTRONIC BRAKING TIME	0.4秒 sec	
動時間使用環境 ENVIRONMENT OF USE	-10℃~+40℃無凍結 No freezing, <85% (無結露 No condensation)	

70DC

20W/30W

各型號電機性能 MOTOR PERFORMANCE

機座號 MODEL	電壓V VOLTAGE	功率W POWER	負載參數 LOAD PARAMETERS			電刷壽命h BRUSH LIFE	電機重量kg MOTOR WEIGHT
			轉速SPEED r/min	力矩TORQUE kg·cm	電流A≤ CURRENT		
70DC20GV12R16	12	20	1600	1.24	2.49	2000	1.0
70DC20GV24R16	24	20	1600	1.24	1.24	2000	1.0
70DC20GV90R16	90	20	1600	1.24	0.33	2000	1.0
70DC30GV12R16	12	30	1600	1.86	3.73	2000	1.1
70DC30GV24R16	24	30	1600	1.86	1.87	2000	1.1
70DC30GV90R16	90	30	1600	1.86	0.50	2000	1.1

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

轉速 SPEED	減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
1600	出力軸轉速r/min OUTPUT BEARING SPEED	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩N·m RATED TORQUE	0.26	0.31	0.43	0.52	0.86	0.86	1.08	1.29	1.39	1.55	1.93	2.32
轉速 SPEED	減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
1600	出力軸轉速r/min OUTPUT BEARING SPEED	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩N·m RATED TORQUE	2.78	3.09	3.86	4.46	5	5	5	5	5	5	5	



標準減速箱
STANDARD GEARBOX
70GK □H

減速箱型號中的口為減速比的數值
速比：1:3~200

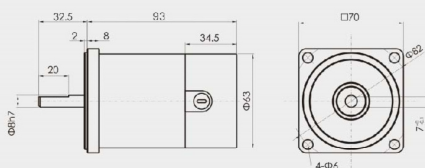
□ in gearbox model indicates the reduction ratio (1:3~200)

外形尺寸(CAD) DIMENSIONS

70DC(20W/36W)

圓軸電機

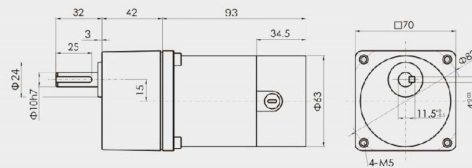
Round-axis motor



70DC(20W/36W)

組合：電機+標準減速箱（減速比：1:3~200）

Portfolio: motor + standard gearbox (reduction ratio: 1:3~200)



各型號電機性能 MOTOR PERFORMANCE

機座號 MODEL	電壓V VOLTAGE	功率W POWER	負載參數 LOAD PARAMETERS			電刷壽命h BRUSH LIFE	電機重量kg MOTOR WEIGHT
			轉速SPEED r/min	力矩TORQUE kg·cm	電流A≤ CURRENT		
80DC30GV12R16	12	30	1600	1.86	3.73	2000	1.8
80DC30GV24R16	24	30	1600	1.86	1.87	2000	1.8
80DC30GV90R16	90	30	1600	1.86	0.50	2000	1.8
80DC60GV12R16	12	60	1600	3.73	7.46	2000	1.9
80DC60GV24R16	24	60	1600	3.73	3.73	2000	1.9
80DC60GV90R16	90	60	1600	3.73	1.00	2000	1.9

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

轉速 SPEED	減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
1600	出力軸轉速r/min OUTPUT BEARING SPEED	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩N·m RATED TORQUE	0.386	0.464	0.644	0.773	0.966	1.288	1.61	1.932	2.318	2.576	3.22	3.477
轉速 SPEED	減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
1600	出力軸轉速r/min OUTPUT BEARING SPEED	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩N·m RATED TORQUE	4.173	4.63	5.796	6.995	8	8	8	8	8	8	8	



標準減速箱
STANDARD GEARBOX
80GK □H



直角中空減速箱
RIGHT ANGLE HOLLOW GEARBOX
L80GK □RC



直角中實減速箱
RIGHT ANGLE SOLID GEARBOX
L80GK □RT

減速箱型號中的口為減速比的數值
速比：1:3~200

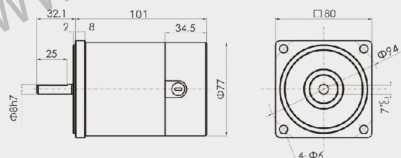
□ in gearbox model indicates the reduction ratio (1:3~200)

外形尺寸(CAD) DIMENSIONS

80DC(30W/60W)

圓軸電機

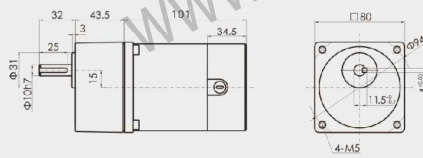
Round-axis motor



80DC(30W/60W)

組合：電機+標準減速箱（減速比：1:3~200）

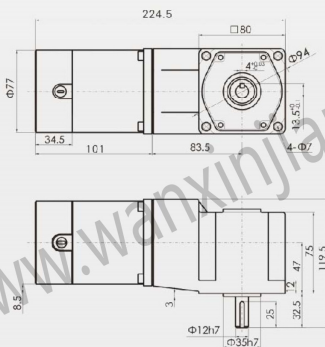
Portfolio: motor + standard gearbox (reduction ratio: 1:3~200)



80DC(30W/60W)

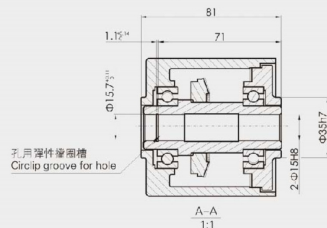
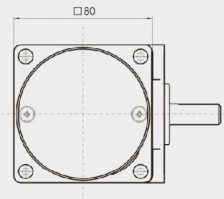
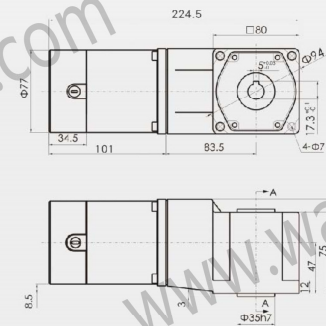
組合：電機+直角中空減速箱
減速比：1:3~200

Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200



組合：電機+直角中空減速箱
減速比：1:3~200

Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200



各型號電機性能

機座號 MODEL	電壓V VOLTAGE	功率W POWER	負載參數 LOAD PARAMETERS			電刷壽命h BRUSH LIFE	電機重量kg MOTOR WEIGHT
			轉速SPEED r/min	力矩TORQUE kg·cm	電流A≤ CURRENT		
90DC40GV12R16	12	40	1600	2.48	4.98	2000	1.9
90DC40GV24R16	24	40	1600	2.48	2.49	2000	1.9
90DC40GV90R16	90	40	1600	2.48	0.66	2000	1.9
90DC70GV12R16	12	70	1600	4.35	8.71	2000	2.0
90DC70GV24R16	24	70	1600	4.35	4.35	2000	2.0
90DC70GV90R16	90	70	1600	4.35	1.16	2000	2.0
90DC65GV12R16	12	65	1600	4.04	8.08	2000	2.0
90DC65GV24R16	24	65	1600	4.04	4.04	2000	2.0
90DC65GV90R16	90	65	1600	4.04	1.08	2000	2.0
90DC65GV180R16	180	65	1600	4.04	0.54	2000	2.0
90DC120GV12R16	12	120	1600	7.45	14.93	2000	2.2
90DC120GV24R16	24	120	1600	7.45	7.46	2000	2.2
90DC120GV90R16	90	120	1600	7.45	1.99	2000	2.2
90DC120GV180R16	180	120	1600	7.45	1.00	2000	2.2
90DC100GV12R16	12	100	1600	6.21	12.44	2000	2.1
90DC100GV24R16	24	100	1600	6.21	6.22	2000	2.1
90DC100GV90R16	90	100	1600	6.21	1.66	2000	2.1
90DC100GV180R16	180	100	1600	6.21	0.83	2000	2.1
90DC200GV12R16	12	200	1600	12.42	24.88	2000	2.3
90DC200GV24R16	24	200	1600	12.42	12.44	2000	2.3
90DC200GV90R16	90	200	1600	12.42	3.32	2000	2.3
90DC200GV180R16	180	200	1600	12.42	1.66	2000	2.3

90DC

40W/70W
65W/120W
100W/200W

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

40W/70W

轉速 SPEED	減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
1600	出力軸轉速r/min OUTPUT BEARING SPEED	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩N·m RATED TORQUE	0.52	0.62	0.86	0.86	1.29	1.72	1.93	2.32	2.78	3.09	3.87	4.64
轉速 SPEED	減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
1600	出力軸轉速r/min OUTPUT BEARING SPEED	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩N·m RATED TORQUE	5.57	6.19	6.96	8.35	10.44	12.53	13.92	16.7	20	20	20	

65W/120W

轉速 SPEED	減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
1600	出力軸轉速r/min OUTPUT BEARING SPEED	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩N·m RATED TORQUE	0.838	1.0	1.397	1.677	2.086	2.975	3.144	3.773	4.527	5.03	6.288	7.545
轉速 SPEED	減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
1600	出力軸轉速r/min OUTPUT BEARING SPEED	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩N·m RATED TORQUE	9.054	10.06	11.32	13.58	16.977	20	20	20	20	20	20	

100W/200W

轉速 SPEED	減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
1600	出力軸轉速r/min OUTPUT BEARING SPEED	533	444	320	267	213	160	128	107	89	80	64	53
	額定轉矩N·m RATED TORQUE	1.29	1.55	2.15	2.58	3.22	4.3	4.83	5.8	6.96	7.74	9.67	11.6
轉速 SPEED	減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
1600	出力軸轉速r/min OUTPUT BEARING SPEED	44	40	32	27	21	18	16	13	11	9	8	
	額定轉矩N·m RATED TORQUE	13.92	15.47	17.41	20	20	20	20	20	20	20	20	



減速箱型號中的□為減速比的數值
速比：1:3~200

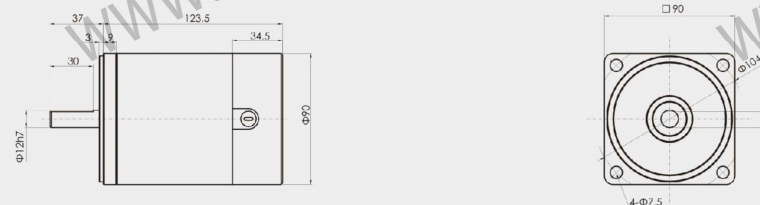
□ in gearbox model indicates the reduction ratio (1:3~200)

外形尺寸 (CAD) DIMENSIONS

90DC(40W/70W)

圓軸電機

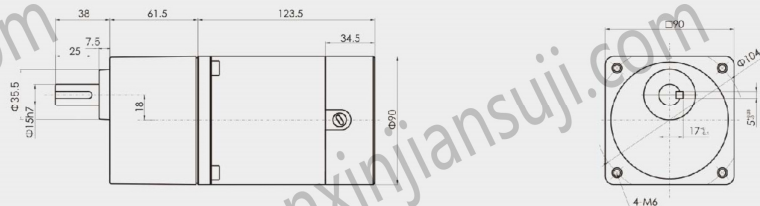
Round-axis motor



90DC(40W/70W)

組合：電機+標準減速箱（減速比：1:3~200）

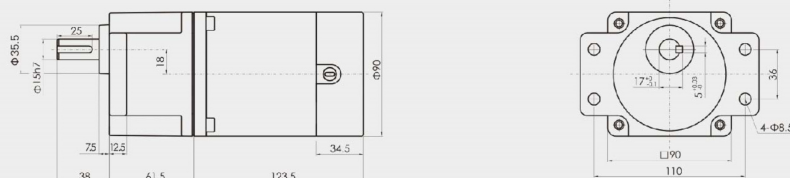
Portfolio: motor + standard gearbox (reduction ratio: 1:3~200)



90DC(40W/70W)

組合：電機+帶耳減速箱（減速比：1:3~200）

Portfolio: motor + eared gear (reduction ratio: 1:3~200)

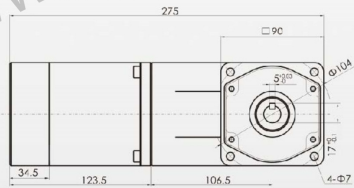


外形尺寸 (CAD) DIMENSIONS

90DC(40W/70W)

組合：電機+直角中實減速箱（減速比：1:3~200）

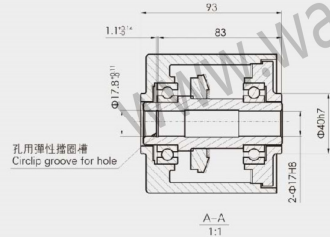
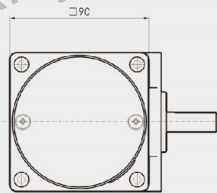
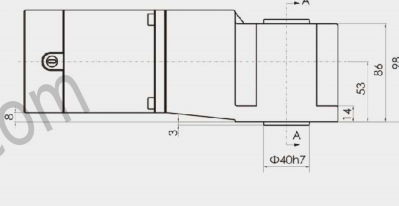
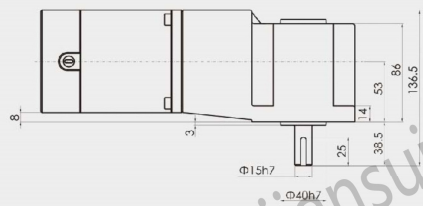
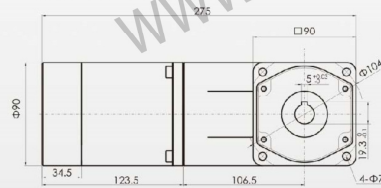
Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200



90DC(40W/70W)

組合：電機+直角中空減速箱（減速比：1:3~200）

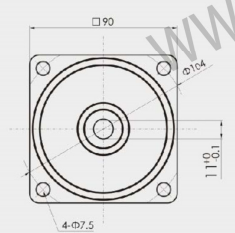
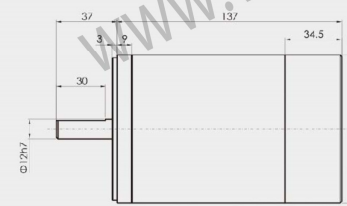
Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200



90DC(65W/120W)

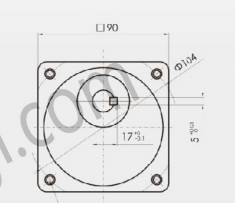
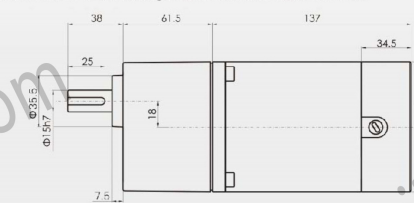
圓軸電機

Round-axis motor



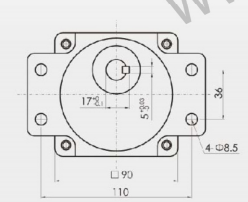
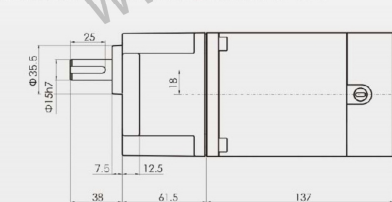
組合：電機+標準減速箱（減速比：1:3~200）

Portfolio: motor + standard gearbox (reduction ratio: 1:3~200)



組合：電機+帶耳減速箱（減速比：1:3~200）

Portfolio: motor + eared gear (reduction ratio: 1:3~200)

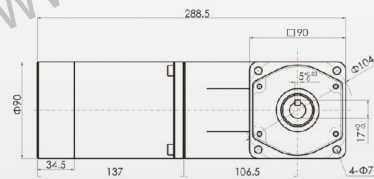


外形尺寸 (CAD) DIMENSIONS

90DC(65W/120W)

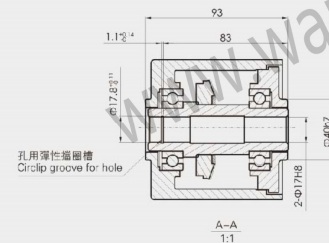
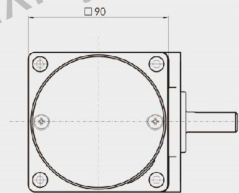
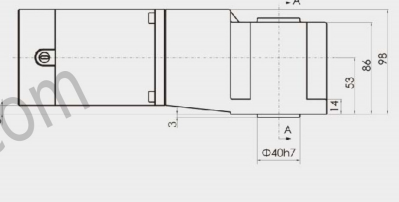
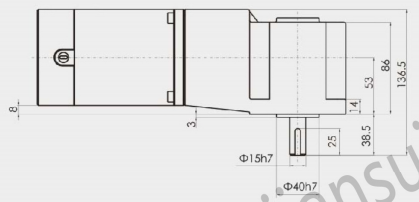
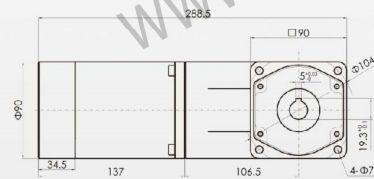
組合：電機+直角中實減速箱（減速比：1:3~200）

Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200



組合：電機+直角中空減速箱（減速比：1:3~200）

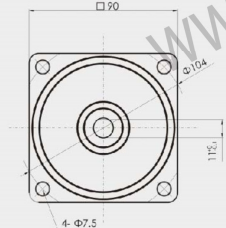
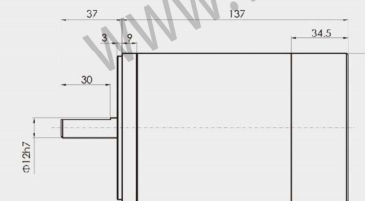
Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200



90DC(100W/200W)

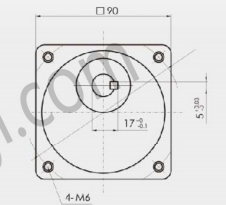
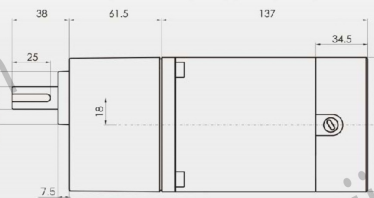
圓軸電機

Round-axis motor



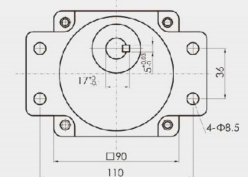
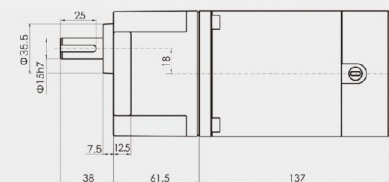
組合：電機+標準減速箱（減速比：1:3~200）

Portfolio: motor + standard gearbox (reduction ratio: 1:3~200)



組合：電機+帶耳減速箱（減速比：1:3~200）

Portfolio: motor + beared gear (reduction ratio: 1:3~200)

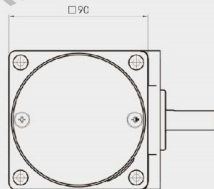
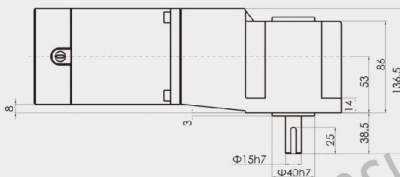
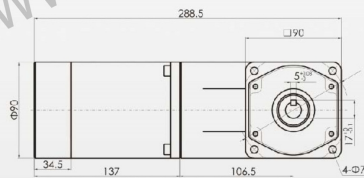


外形尺寸 (CAD) DIMENSIONS

90DC(100W/200W)

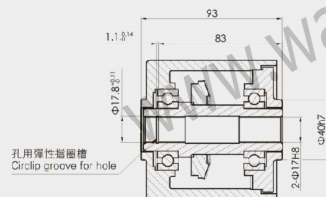
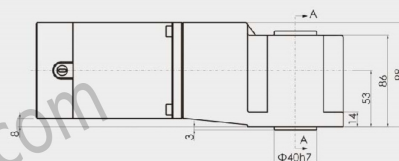
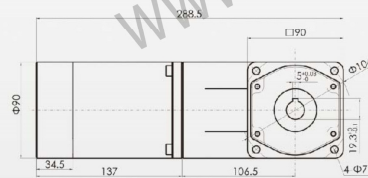
組合：電機+直角中實減速箱（減速比：1:3~200）

Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200



組合：電機+直角中空減速箱（減速比：1:3~200）

Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200


$$\frac{A-A}{1:1}$$

各型號電機性能 MOTOR PERFORMANCE

機座號 MODEL	電壓V VOLTAGE	功率W POWER	負載參數 LOAD PARAMETERS			電刷壽命h BRUSH LIFE	電機重量kg MOTOR WEIGHT
			轉速SPEED r/min	力矩TORQUE kg·cm	電流A≤ CURRENT		
100DC200GV24R18	24	200	1800	11.04	12.44	2000	2.4
100DC200GV90R18	90	200	1800	11.04	3.32	2000	2.4
100DC200GV180R18	180	200	1800	11.04	1.66	2000	2.4
100DC300GV24R18	24	300	1800	16.56	18.66	2000	2.5
100DC300GV90R18	90	300	1800	16.56	4.98	2000	2.5
100DC300GV180R18	180	300	1800	16.56	2.49	2000	2.5

減速箱減速比性能對照表 REDUCTION RATIO PERFORMANCE CHART

轉速 (RPM) SPEED	減速比 REDUCTION RATIO	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30
1800	出力軸轉速/rmin OUTPUT BEARING SPEED	600	500	360	300	240	180	144	120	100	90	72	60
	額定轉矩 N・m RATED TORQUE	2.578	3.094	4.297	5.156	6.446	8.564	10.74	11.6	13.92	15.47	19.34	23.21
轉速 (RPM) SPEED	減速比 REDUCTION RATIO	36	40	50	60	75	90	100	120	150	180	200	
1800	出力軸轉速/rmin OUTPUT BEARING SPEED	50	45	36	30	24	20	18	15	12	10	9	
	額定轉矩 N・m RATED TORQUE	27.85	30.94	38.66	41.77	44	44	44	44	44	44	44	



減速箱型號中的□為減速比的數值
速比: 1:3~200
□ in gearbox model indicates the reduction ratio (1:3~200)

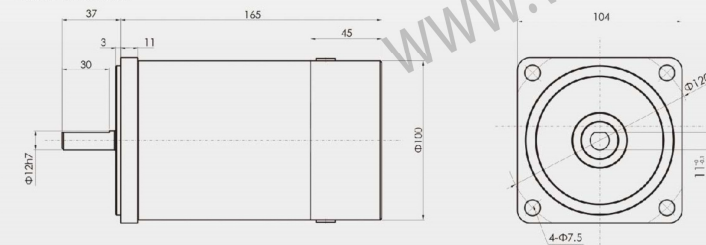
□ in gearbox model indicates the reduction ratio (1:3~200)

外形尺寸 (CAD) DIMENSIONS

100DC(200W/300W)

圓軸電機

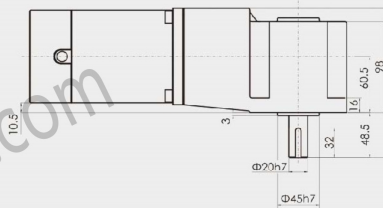
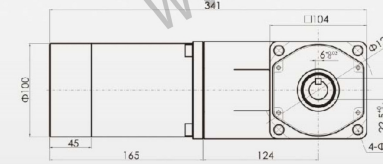
Round-axis motor



100DC(200W/300W)

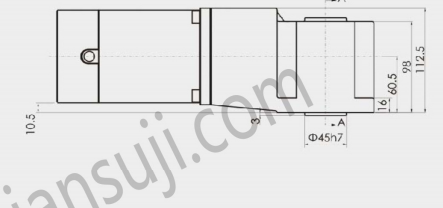
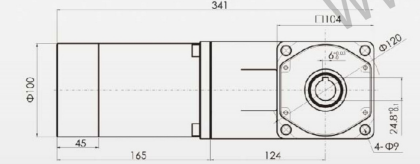
組合：電機+直角中實減速箱（減速比：1:3~200）

Portfolio: motor + right-angle solid gearbox
Reduction ratio: 1:3~200



組合：電機+直角中空減速箱（減速比：1:3~200）

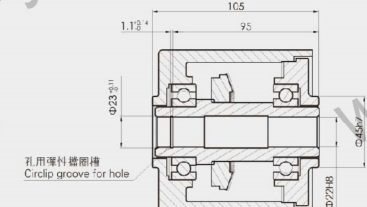
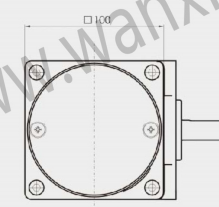
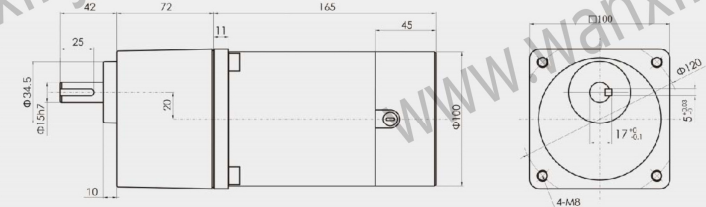
Portfolio: motor + right angle hollow gearbox
Reduction ratio: 1:3~200



100DC(200W/300W)

組合：電機+標準減速箱（減速比：1:3~200）

Portfolio: motor + standard gearbox (reduction ratio: 1:3~200)

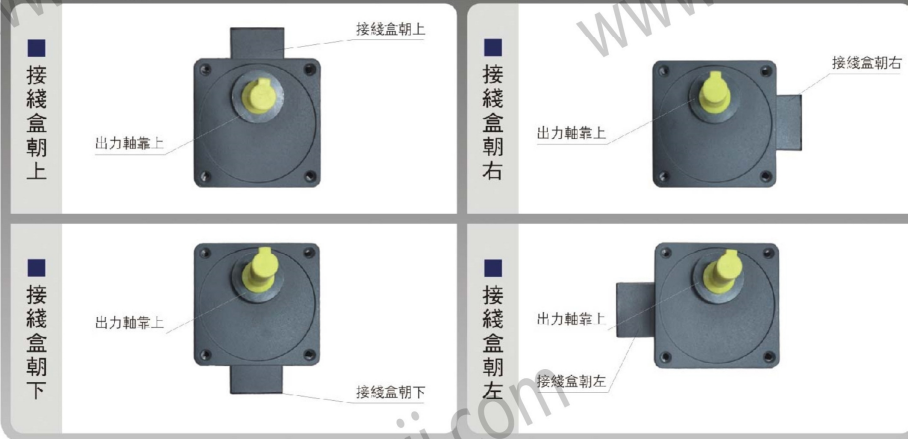


帶接線盒減速電機選購指南

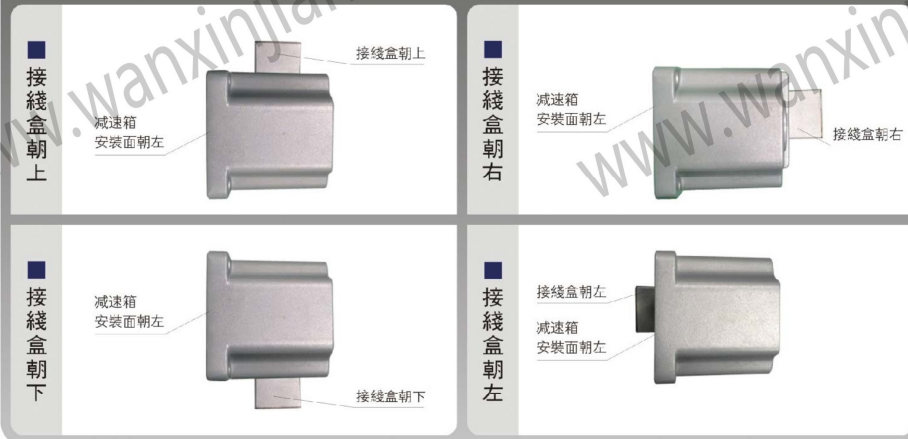
TECHNICAL APPLICATION (Description and installation)

- 1、萬鑫標配產品不帶接線盒，如需訂帶接線盒的減速電機，需特別說明，且參考附圖注明接線盒方向；
- 2、萬鑫可視客戶需求將接線盒上、下、左、右4個方向調整，如客戶無特殊要求，則出廠的接線盒方向統一朝上，具體如下：

普通減速箱接線盒方向



直角減速箱接線盒方向



技術應用（說明及安裝）

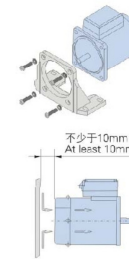
TECHNICAL APPLICATION (Description and installation)

電機 MOTOR

1 特點 Features

電機作為本產品系列相對獨立的一部分，共有六個品種，一個系列供用戶選擇。按品種分：標準電機、阻尼電機、調速電機、電磁制動電機、調速電磁制動電機、直流電機。按功率分：6W、15W、25W、40W、60W、90W、120W、140W、200W、250W。按使用電壓分：單相110V/220V、三相220V/380V。該電機可配獨立的接線端子盒，以方便電氣連接。由於該產品系列為精密小型動力機械，外觀精巧、尺寸精準。在裝配使用中嚴禁過度敲擊以防造成內部結構損壞，同時在選型過程中注意對輸出軸的軸向、徑向載荷也有要求，為保證使用壽命，請謹慎選型，合理使用。

As a relatively independent part of this product series, the motor has six varieties and ten series for your option: by varieties: standard, damping, variable speed, electromagnetic brake, variable speed electromagnetic brake and DC motors; by power: 6W, 15W, 25W, 40W, 60W, 90W, 120W, 140W, 200W, and 250W; by operating voltage: single phase 110V/220V, and three phase 220V/380V. The motor can match the terminal box of independence for easy electrical connection. Since the product line is precision small power machine and has sophisticated appearance and accurate size, it is strictly prohibited to impact excessively in the assembly to avoid causing damage to the internal structure; in the selection process, also pay attention to the axial and radial load of the output bearing. To ensure the life, please select carefully and use reasonably.



2 安裝 Installation

對於輸出軸為圓軸的獨立電機，其軸端零件安裝聯接孔尺寸公差型號不同分別為6H7、8H7、10H7、12H7。轉配中除因設計結構外，推薦使用相對應規格的聯接軸軸器。在端面安裝有困難的場合，推薦使用相對應規格的直角安裝腳，另外，對有冷卻風扇的電機在安裝時注意不要堵塞電機後部的吸風口，建議留出不少于10mm的空間。

For an independent motor with circular output bearing, the tolerance of connecting hole size for bearing component installation are 6H7, 8H7, 10H7 and 12H7 respectively depending on the models. Except for the reason of design structure, it is recommended to use flexible coupler of corresponding specifications for assembly. If it is difficult to install the end face, it is recommended to use right-angle mounting feet of corresponding specifications. In addition, do not to clog the suction opening in the rear side for the motors with cooling fans. It is recommended to leave a space not less than 10mm.

標準減速箱與電機的組合 Combination of standard gearbox and motor

1 特點 Features

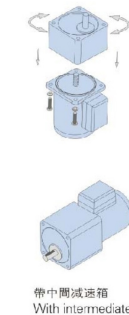
電機通過端蓋定位環與標準減速箱精密定位，可提供標準減速比1/3~1/200組合形式。在該系列減速比換型的前提下，若在選擇不同功能的電機，即可實現變化更為豐富的實用組合。例如：調速、電磁制動等形式。

The motor positions accurately through end face retaining ring and standard gearbox, and can provide standard reduction ratio of 1/3~1/200; when this series of reduction ratio change, you can select motors of different functions to achieve practical combinations with richer changes. For example: variable speed, electromagnetic brake, and so on.

2 安裝 Installation

標準減速箱、電機，同為精密機械。在設計選型後的安裝過程，就成為決定使用壽命的關係因素之一。

Standard gearbox and motor are precision machinery. During installation after design and selection, it is one of the factors that determine the life.

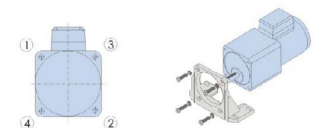


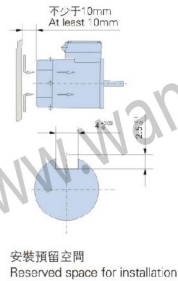
3 電機與標準減速箱的連接

Connection of the motor and standard gearbox

作為精密機械的裝配，與減速箱配套的電機，在其連接端面均有凸緣止口。而減速箱的連接端面有與之配合的沉塞止口。用戶可根據自己的實際情況選擇減速箱與電機的裝配相位，也就是說，可按圖示任意旋轉電機或減速箱。調速到理想位置後，在緊固電機法蘭上的四個螺釘。注意緊固螺釘的順序，通過對角依次逐漸緊固，方可使電機與減速箱體緊密貼合。

For the assembly of precision machinery, the motor used together with the gearbox has flange spigot in its connecting end. The connecting end of gearbox has a mating spigot. The user can adjust the assembly position of the gearbox and motor according to the actual situation, that is, the motor and gearbox can be rotated freely as shown. Adjust to the desired position, and then secure the four screws on the motor flange. Note the order of the fastening screws, tighten diagonally in turn and then fit the motor and gearbox closely.





4 與設備的連接 Connection with the equipment

減速箱輸出軸的連接面為平面，其上的連接孔為螺紋孔，該面是經過精加工的平面，可與設備已加工的連接面直接連接。注意在緊定時仍應按對角依次逐漸緊固的方式。或設備連接受限，或設計結構差異，推薦使用專門配置的直角安裝腳進行安裝，這樣更便于可靠連接，方便調速，同時也有與此配套的高精度彈性聯軸器可供選擇。

同樣，對有冷卻風扇的電機在安裝時注意不要堵塞電機後部的吸風口，建議留出不少於10mm的空間。

本產品系列的電機、減速箱、中間減速箱均為精密傳動部件，在與負載連接時應格外注意，嚴禁猛烈敲擊、扳扭。為便于裝配在產品設計生產中已兼顧此類問題，下面是鍵槽寬度為4mm時的尺寸，軸外徑公差等級均為h7。

The connecting surface of gearbox output bearing is flat, and the connecting holes on the surface are threaded. The surface is fine finished and can be directly connected to the processed connecting surface of the equipment. Note that it also should be tightened diagonally in turn. If limited by equipment connection or design structure difference, it is recommended to install with specially configured right angle mounting feet, which is more reliable and easy to connect, easy to regulate speed, and high precision flexible couplers are available.

Similarly, do not clog the suction opening in the rear side for the motors with cooling fans. It is recommended to leave a space not less than 10mm.

The motor, gearbox and intermediate gearbox of this product series are close transmission components, and it is prohibited to impact or twist violently when connecting to the load. To facilitate assembly, these problems have been considered in product design. The keyway width is 4mm, and the outer diameter tolerance of the bearings is h7.

直角減速箱與電機的組合 Combination of right-angle gearbox and motor

1 特點 Features

與傳統的標準減速箱（或稱平行軸減速箱）不同，為了給設計者提供更大的選擇空間，使設備整體更加緊湊，本公司還提供了直角減速箱的傳動形式。直角減速箱除具有標準減速箱的所有功能外，也就是寬範圍的速比選擇性（i=3~600），優異的傳遞性能，還具有高強度的殼體，以及緊湊的安裝形式，這是標準減速箱所不有的。

同樣，在前述條件下，通過選擇不同功能的電機，能實現不同的功能組合。

例如：調速、電磁制動、可逆等等。

Different from traditional standard gearboxes (or parallel shaft gearboxes), in order to give designers greater choice and make the equipment more compact, we also offer right angle gearboxes. In addition to all the features of standard gearboxes, i.e. wide range of speed ratio selectivity (i=3~600) and excellent transfer properties, the right-angle gearboxes also have high strength casing and compact installation, which the standard gearboxes do not have.

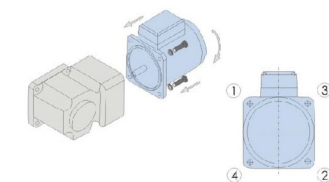
Similarly, under the aforementioned conditions, you can achieve different combinations of features by selecting motors of different functions.

For example: variable speed, electromagnetic brake, reversible, and so on.

4 與設備的連接 Connection with the equipment

直角減速箱輸出軸的端面為精加工平面，其上的四角分布地四個通孔，可與設備已加工的連接面直接貼合連接，在直角減速箱的輸出方式分為中實軸與中空兩種形式，用戶可根據負載的形式選擇，緊固螺栓時，同樣應採用對角依次逐漸緊固的方式。

The end surface of right angle gearbox output bearing is finished plane. The four through holes distributed in the four corners can fit the processed connection surface of the equipment directly. The output of right angle gearbox includes solid axis and hollow axis forms. The user can select according to the load form. The bolts also should be fastened diagonally in turn.



2 安裝 Installation

直角減速箱、中間減速箱和電機屬精密機械。在設計選型後的裝配質量將會直接影響其使用壽命以及性能。

Right angle gearbox, intermediate gearbox and motor are precision machinery. The assembly quality after design and selection will directly affect the service life and performance.

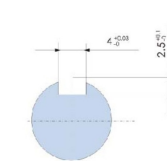
3 電機與直角減速箱的連接 Connection of the motor and the right angle gearbox

作為精密機械的裝配，與直角減速箱配套的電機除有獨立的連線端子盒外，在其連接端均有凸緣止口。而直角減速箱輸入端有與之配合的沉孔臺止口。用戶可根據實際情況，適當地旋轉電機與直角減速箱的相對位置。調整到位後，在緊定電機到連接法蘭上的四個螺釘。

注意緊固螺釘的順序：對角依次逐漸緊固。

For the assembly of precision machinery, in addition to independent connection terminal box, the motor used together with the right angle gearbox has flange spigot in its connecting end. The connecting end of the right angle gearbox has a mating spigot. The user can rotate the relative rotation of the motor and the right angle gearbox appropriately according to the actual situation. Adjust to the desired position, and then secure the four screws on the motor flange.

Note the order of screw tightening: tighten diagonally in turn.



5 直角減速箱中實軸輸出的連接 Connection with solid axis output of right angle gearbox

直角減速箱中實軸輸出為鍵槽結構形式，對應不同規格，與其輸出軸裝配孔的尺寸分別為：12H7，15H7，20H7三種。在與負載的連接中，嚴禁猛烈敲擊、扳扭，在確保裝配質量的前提下，該產品在設計生產中也兼顧了有關裝配的因素。如圖所示為鍵寬4mm尺寸公差。

The solid axis output of right angle gearbox is in keyway structure. Corresponding to different specifications, the sizes of the output bearing mounting holes are 12H7, 15H7 and 20H7 respectively. In connection with the load, do not knock or twist violently. Under the premise of ensuring the assembly quality, other assembly factors are also considered in product design and production. The figure shows 4mm key width dimensional tolerance.

7 電機、減速箱的轉配注意事項 Precautions for motor and gearbox assembly

電機、減速箱以及中間減速箱均為精密機械。在實際應用中，因裝配不當而造成損壞或報廢的情況尤為突出，所以裝配環節也是影響正常使用的因素之一。

●軸、鍵公差 Shaft and key tolerance

為便于轉配，同時保證可靠的連接，以及轉矩傳遞。產品所涉及的鍵槽公差在現有的規格中，均有一般通用設備略大（具體公差詳見樣本），輸出軸公差為H7、孔類H8。

To facilitate the assembly and ensure reliable connection and torque transmission, the related keyway tolerances are generally slightly larger than generic devices (see sample for specific tolerance), the tolerance of output bearings is H7, and the tolerance of holes is H8.

●敲擊問題 Percussion problem

轉配中嚴禁對負載軸、套進行暴力轉配，這將容易導致電機或減速箱體中軸承或齒輪的損壞，也會造成齒輪的齒面印痕。同時也要避免猛烈敲擊，以及扳扭。嚴格控制負載軸、套的尺寸公差，必要時可用軟質材料襯墊，輕微敲擊。

It is prohibited to transfer the pressure of load axis and sleeve in the assembly process, or else it will easily lead to damage to the bearings or gears in the motor or gearbox and ratcheting prints on the gear teeth. Also avoid violent knock and twist. Control the dimensional tolerance of the load axis and sleeve strictly; if necessary, pad soft liner material and knock softly.

●同心度問題 Concentricity problem

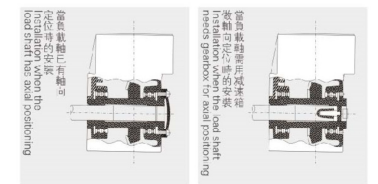
由于輸出均為回轉形式，在調速、重載工况下，同心度尤為重要。推薦選用本公司配套生產的彈性聯軸器，它不僅回轉慣量小，結構緊湊，而且具備同心度補償和傳遞轉矩。

Since the output is in rotating form, concentricity is particularly important in variable speed and heavy-duty condition. It is recommended to use the flexible couplers of our company, which not only have small rotary inertia and compact structure, but also compensate concentricity and transmit torque.

6 直角減速箱中空軸輸出的連接 Connection with hollow axis output of right angle gearbox

在中空系列的直角減速箱裝配中，同樣注意嚴禁猛烈敲擊、扳扭。與中空軸連接的軸尺寸差為H8，分別有：15h8，17h8，22h8三種。為使與負載連接時有可靠的軸向定位，在直角減速箱中空系列中還設置了軸向固定結構。推薦的安裝方式如圖所示：

In the assembly of hollow series right angle gearboxes, it is also prohibited to knock or twist violently. The dimensional tolerance of the axis connected to the hollow axis is h8, including 15h8, 17h8 and 22h8. To ensure reasonable and reliable axial positioning in load connection, the hollow series right angle gearboxes also integrate axially fixed structure. The recommended installation is shown in the figure:



●特別注意 Special Note

- 1、用直角中空減速箱做軸向定位時，不允許負載軸有過定位的現象，否則將毀損減速箱。
- 2、直角中空減速箱軸套裝配技術要求：
 - 若此軸套完全利用中空軸支撐固定，則軸長應與中空軸等長或略短一點。
 - 若無支撐作用，僅傳遞轉矩，則軸僅需插入中空軸1/3深即可。

- 1、For axial positioning with the right angle hollow gearbox, over-positioning isn't allowed for the load axis, or else it will easily damage the gearbox.
- 2、Technical requirements on axis length of right angle hollow gearbox:
 - If this axis is fully supported and fixed by hollow axis, the axial length should be equal to or slightly shorter than the hollow axis.
 - If there is no supporting effect and only the torque is transferred, the axis only needs to be inserted to 1/3 depth of the hollow axis.

●軸向固定步驟 Steps of axial fixation

- 1、取下直角減速箱中空軸另一側的防護蓋；
- 2、如圖所示，對不同結構的負載軸按圖示方法固定；
- 3、安裝後部防護蓋（注意：螺絲高度不得超過後蓋蓋面2mm）；
- 4、若無法安裝防護蓋，則必須用M4×5螺絲將原防護蓋螺釘孔堵住，否則會漏油，同時螺釘勿超長，否則將損壞內部軸承。

- 1、Remove the dust cover on the other side of the hollow axis of the right angle gearbox;
- 2、As shown in the figure, fix the load axis of different structures in the method shown;
- 3、Install the rear dust cover (Note: Bolt height shall not exceed 2mm of the rear cap);
- 4、If the dust cover can't be installed, you must block the screw holes of the dust cover with M4×5 screws, or else it will leak oil; the screws shouldn't be too long, or else it will damage the internal bearings.



MEDIUM
REDUCERS
中型減速機



訂購方式

DESIGNATION

■ 型號命名 MODEL NAME

GH22400W30SBG1LBHO

- 1

2

3

4

5

6

7

8

9
- 1 型號 Model Code

GH 臥式安裝齒輪減速電機
Horizontal Installation Gear Reducer Motor

GV 立式安裝齒輪減速電機
Vertical Installation Gear Reducer Motor

GHM 臥式安裝直結型齒輪減速機
Horizontal Installation Straight Gear Reducer Motor

GVM 立式安裝直結型齒輪減速機
Vertical Installation Straight Gear Reducer Motor

GHD 臥式安裝雙軸型齒輪減速機
Horizontal Installation Bix Gear Reducer Motor

GVD 立式安裝雙軸型齒輪減速機
Vertical Installation Bix Gear Reducer Motor
- 2 出力軸 Output shaft

18、22、28、32……
- 3 馬力 Capacity

100W-7500W
- 4 減速比 Ratio: 3、5、10、……1800
- 5 馬達 Motor

S: 三相馬達 220V、380V/50、60HZ-3-PHASE
A: 單相馬達 110V、220V/50、60HZ-Single PHASE
- 6 剎車器 Brake unit

B: 斷電剎車器 BRAKE UNIT
AB: 手釋放剎車器 WITH RELEASE BRAKE UNIT
D: DC24V送電剎車器 DC24V BRAKE
- 7 依出力軸看配線盒方向

Look to the direction of the distributing box depending on the output shaft

G1: 左方向LEFT(標準型) G2: 右方向RIGHT
G3: 上方向UPPER G4: 下方向LEOWR
- 8 入線口方向 Wire inlet

T: 向上TOP B: 向後BACK D: 向下DOWN
L: 向左LEFT F: 向前FORWARD R: 向右RIGHT
- 9 透氣塞安裝位置選定

Breatharie plug is mounted position of the selected

GH機型安裝位置 GV機型安裝位置
GH MODEL INSTALLATION LOCATION GV MODEL INSTALLATION LOCATION

H0標準(正立) H3(左側) V0標準(正立) V3(底轉90°)
H6(倒裝) H9(右側) V6(順轉180°) V9(逆轉90°)
HU(軸向上) HD(軸向下) VU(軸向上) VD(軸向下)

■ 配線盒方向選定 TERMINAL BOX DIRECTION

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

■ 減速機與透氣塞安裝位置示意圖

REDUCER AND VENTILATION INSTALLATION			
GH機型安裝位置 GH MODELS INSTALLATION LOCATION			
GV機型安裝位置 GV MODELS INSTALLATION LOCATION			

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

馬達規範 MOTOR SPECIFIC DATA				
標準馬達規範表 STANDARD MOTOR SPECIFICATION				
項目ITEM	三相交流馬達3-PHASE MOTOR		單相交流馬達SINGLE PHASE MOTOR	
保護等級PROTECTION	全密封外扇型IP54 TOTALLY ENCLOSED FAN COOLED TYPE		半密封外扇型 SEMI-ENCLOSED FAN COOLED TYPE	
外殼材質SHELL MATERIAL	0.1~7.5KW	鋁合金 ALUMINUM	0.1~2.2KW	鋁合金 ALUM ALLOY
啟動方式STARTING	全壓啟動 DIRECT STARTING		0.1~0.2KW	運轉電容啟動 CAPACITOR
			0.4~0.75KW	啟動電容啟動+電子離心開關 STARTING CAPACITOR ACTIVATED-ELECTRONIC CENTRIFUGAL SWITCH
			1.5~2.2KW	啟動電容+運行電容+電子離心開關 STARTING CAPACITOR RUNNING CAPACITOR+ELECTRONIC CENTRIFUGAL SWITCH
定額TIMA RATING	連續運轉CONTINUOUS OPERATION			
絕緣等級INSULATION	F（特殊行業產品除外）			
適用環境ENVIRONMENT	溫度: -10℃~+40℃（TEMPERATURE: -10℃~+40℃） 濕度: ≤90%（HUMIDITY: ≤90%）			
適用電壓VOLTAGE	50HZ	220V,230V,240V,380V,400V,415V,440V	50HZ	110V,115V,200V,220V,230V
	60HZ	220V,240V,390V,415V,440V,460V,480V,600V	60HZ	110V,220V,240V
適用極數POLE	4P			
輸出轉數(4P)OUTPUT SPEED(4P)	50HZ	1360~1430RPM	50HZ	1340~1400RPM
	60HZ	1640~1740RPM	60HZ	1610~1720RPM
依據標準 STANDARD	IEC-34,CNS-10919ACCORDING TOIEC-34,CNS-10919			
海拔 SEA LEVEL	≤1000m			
接線盒TERMINAL BOX	根據客戶使用要求，有IP55級鋁接線盒、防水型接線盒及不銹鋼接線盒 ACCORDING TO THE CUSTOMER REQUEST FOR USE, HAVE GRADE ALUMINUM BOX OF GRADE IP55, WATETRPROOF MODEL TERMINAL BOX AND STAINLESS STEEL TERMINAL BOX.			

■ 單相電壓全負載電流值 SINGLE PHASE FULL LOAD CURRENT						
輸出馬力CAPACITY	50HZ			60HZ		
	110V	220V	RPM	110V	220V	RPM
100W	2.80	1.40	1410	2.40	1.20	1720
200W	3.60	1.80	1410	3.00	1.50	1720
400W	9.80	4.90	1420	7.80	3.90	1730
750W	18.2	9.10	1420	12.9	6.40	1730
1500W	26.0	13.0	1430	23.4	11.7	1740
2200W	36.0	18.0	1430	30.0	15.0	1740

■ 單相馬達電容器規格 SINGLE PHASE MOTOR CURRENT			
輸出馬力 CAPACITY	單電容型 SINGLE-CAPACITOR TYPE		雙電容型DOUBLE-CAPACITOR TYPE
	啟動電容 STARTING CAPACITOR		運轉電容 RUNNING CAPACITOR
75W	8 μ F		-
100W	12 μ F-16 μ F		-
200W	14 μ F-20 μ F		-
400W	200 μ F		200 μ F
750W	400 μ F		400 μ F
1500W	-		400 μ F
2200W	-		500 μ F

■ 三相電壓全負載電流值 3-PHASE FULL LOAD CURRENT									
輸出馬力 CAPACITY	50HZ				RPM	60HZ			
	220V	380V	415V	440V		230V	380V	440V	460V
100W	0.87	0.50	0.32	0.30	1410	0.60	0.40	0.30	0.29
200W	1.39	0.80	0.70	0.58	1410	1.10	0.63	0.55	0.52
400W	2.40	1.40	1.13	1.07	1420	1.90	1.10	0.95	0.91
750W	3.80	2.20	1.94	1.84	1420	3.40	1.96	1.70	1.63
1500W	6.90	4.00	3.94	3.30	1430	6.10	3.53	3.05	2.92
2200W	9.50	5.50	4.74	4.47	1430	8.70	5.04	4.35	4.16
3700W	15.9	9.20	7.34	6.93	1440	13.5	7.82	6.75	6.46
5500W	23.5	13.5	-	-	1440	20.8	12.0	-	-
7500W	26.0	15.0	-	-	1440	23.9	13.8	-	-

輸出扭矩表 OUTPUT TORQUE

KG-M

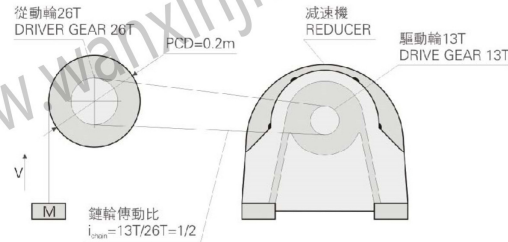
標準型 NORMAL DUTY TYPE

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



減速機選定範例

EXAMPLE OF THE REDUCERS SELECTED



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

注意事項 CONSIDERATIONS

計算 CALCULATION

減速比 REDUCTION RATIO

由入力軸回轉數及出力軸回轉數決定減速比
Reduction ratio should be decided by input shaft revolutions and output shaft revolutions.

- 1、先求出輸送帶滾輪回轉數 (N1)
Find conveyor wheel revolutions (N1)
 $N1 = \text{搬送速度} / (\text{滾輪直徑} \times \pi)$
 $N1 = \text{speed} / (\text{PCD} \times \pi)$
- 2、再求出減速機出力軸回轉數 (N2)
Find reducer output shaft revolutions (N2)
 $N2 = N1 / \text{減速機減速比}$
 $N2 = N1 / i_{\text{red}}$
- 3、以三相60Hz的馬達計算減速比
Calculate reduction ratio of 3-phase motor with frequency of 60Hz
 $i = \text{出力軸回轉數} / \text{入力軸回轉數} (\text{電機轉數})$
 $i = \text{Output shaft revolutions} / \text{input shaft revolutions} (\text{Motor revolutions})$

- 1、 $N1 = V / (\text{PCD} \times \pi)$
 $= 9.5 / (0.2 \times 3.14) = 15\text{r/min}$
- 2、 $N2 = N1 / \text{鏈輪傳動比}$
 $N2 = N1 / i_{\text{gear}}$
 $= 15 / (1/2) = 30\text{r/min}$
- 3、 $i = \text{出力軸回轉數} / \text{入力軸回轉數}$
 $i = \text{Output shaft revolutions} / \text{input shaft revolutions}$
 $= 30 / 1500 = 1/50$

扭力 TORQUE

決定減速比後, 由使用機械工作條件計算減速機出力軸扭力
After reduction ratio is decided, torque of the reducers output shaft can found according to mechanical conditions.

- 1、先算出輸送帶滾輪之扭力 (T1)
Firstly find torque (T1) of conveyance wheel ratio
 $T1 = (M \times \text{PCD}) / 2$
- 2、再換算成減速機出力軸所須扭力 (N2)
Then find the torque (T2) of the output shaft of reducer
 $T2 = (T1 \times i_{\text{red}}) / (\eta_1 \times \eta_2)$

- 1、 $T1 = M \times \text{PCD} / 2$
 $= 300 \times 0.2 / 2$
 $= 30\text{kg.m}$
- 2、 $T2 = (T1 \times i_{\text{red}}) / (\eta_1 \times \eta_2)$
 $= (30 \times 0.5) / (1 \times 0.9)$
 $= 16.7\text{kg.m}$

負荷條件 LOAD CONDITIONS

- 1、根據運轉條件算出修正後的扭力 (T3)
Find the adjusted torque (T3) according to operation conditions
 $T3 = T2 \times K$ 系数K(無衝擊時K=1, 衝擊越大, K值越大)
Coef.K(No impact K=1, The larger impact, The larger K value)

- 1、 $T3 = T2 \times K$
 $= 16.7 \times 1$
 $= 16.7\text{kg.m}$

馬力 HORSE POWER

- 1、最後算成馬力 (Hp)
 $\text{Hp} = (T3 \times N2) / 716.2$

- 1、 $\text{Hp} = (T3 \times N2) / 716.2$
 $= (16.7 \times 30) / 716.2$
 $= 0.7\text{hp} \cdots (3/4\text{hp})$

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

摩擦係數表 FRICTION FACTOR

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

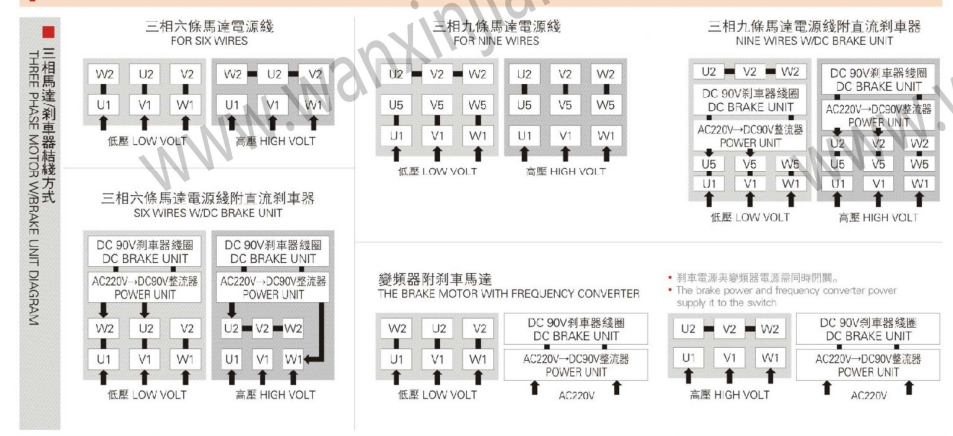
常用公式表 FREQUENTLY USED FORMULA

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

符號說明表 CODE DETAILS

V=速度 SPEED(M/MIN)	η =效率 EFFICIENCY(%)	1INCH=2.54CM
I=減速比 RATIO	N=出力軸轉速(RPM)	1FOOT=12INCH
輸出扭力(KG-M)OUTPUT TORQUE	D=滾輪直徑(MM) ROLLER DIAMETER	1KW=1000W 1KW=1.34HP
連接係數 CONNECTING FACTOR	R=滾輪直徑半徑(MM) ROLLER RADIUS	1KG-M=7.233FT-LB 1KG-M=86.8IN-LB
荷重係數 SERVICE FACTOR	KW1(IP1)=入力馬力 INPUT CAPACITY	1KG=2.2LB 1LB=0.4536KG
荷重(KG) LOAD	KW2(IP2)=輸出馬力 OUTPUT CAPACITY	1CM=10MM 1CM=0.3937INCH

連結方式 WIRING DIAGRAM

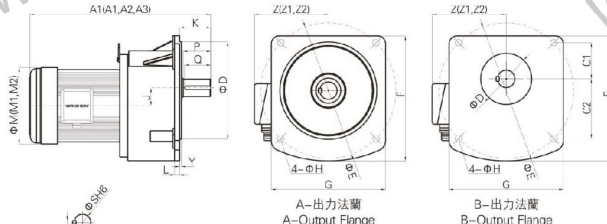




3 GV立式附三相、單相鋁殼(剎車)齒輪減速馬達 GV ALL CINEMAS WITH SINGLE-PHASE THREE-PHASE ALUMINUM SHELL (BRAKE) GEAR REDUCER MOTORS																				
馬力HP-4P	減速比 GEAR RATIO	本體 CODE	型號 TYPE	A1	A2	A3	D	E	F	G	H	L	J	K	M1	M2	Y	Z1	Z2	重量KG
100W 1/8HP	3-50	1#	*18	253	273	257	50	140	120	120	9	12	16	38	127	127	5	116	116	5.3
	60-200	2#	*22	287	307	291	148	185	170	156	11	12	18.2	49	127	127	3.5	116	116	6.9
	60-200	2#	*22	287	307	291	55	170	146	146	11	12	18.2	49	127	127	3.5	116	116	6.7
200W 1/4HP	3-10	1#	*18	273	293	277	50	140	120	120	9	12	16	38	127	127	5	116	116	6.9
	15-90	2#	*22	307	327	331	148	185	170	156	11	12	18.2	49	127	127	3.5	116	116	8.6
	100-200	3#	*28	333	353	337	170	220	195	180	11	15	20.8	57	127	127	4	116	116	11
400W 1/2HP	3-10	2#	*22	327	346	331	148	185	170	156	11	12	18.2	49	127	159	3.5	116	133	11
	3-10	2#	*22	327	346	331	55	170	146	146	11	12	18.2	49	127	127	3.5	116	133	11
	15-90	3#	*28	353	372	357	170	220	195	180	11	15	20.8	57	127	159	4	116	133	14
750W 1HP	100-200	4#	*32	398	407	392	185	255	237	215	13	17	30.2	67	127	159	4	116	133	19.4
	3-25	3#	*28	382	415	382	170	220	195	180	11	15	20.8	57	159	190	4	133	145	15
	30-120	4#	*32	417	449	417	185	255	237	215	13	17	30.2	67	159	190	4	133	145	21.4
1500W 2HP	130-200	5#	*40	444	476	444	230	310	300	275	15	20	42.2	79	159	190	5	133	145	42
	4-25	4#	*32	449	470	465	185	255	237	215	13	17	30.2	67	190		4	145		27.4
	30-120	5#	*40	476	497	476	230	310	300	275	15	20	42.2	79	190		5	145		47
2200W 3HP	130-200	6#	*50	517	538	500	280	390	360	330	19	20	51.7	90	190		5	145		52
	3-60	5#	*40	482	508	482	230	310	300	275	15	20	42.2	79	217		5	153		48
	70-200	6#	*50	523	549	523	280	390	360	330	19	20	51.7	90	217		5	153		55
3700W 5HP	3-10	5#	*40	498	524	498	230	310	300	275	15	20	42.2	79	217		5	153		50
	15-180	6#	*50	539	565	539	280	390	360	330	19	20	51.7	90	217		5	153		57

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

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

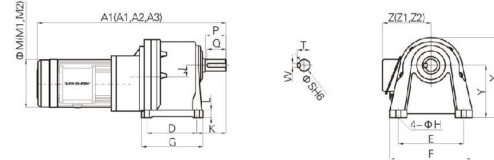


• A1、M1、Z1為三相馬達尺寸。
• A2、M2、Z2為單相馬達尺寸。
• A3為三相帶剎車馬達尺寸。
• A1、M1、Z1 are the sizes of three-phase motors.
• A2、M2、Z2 are the sizes of single-phase motors.
• A3 is the size of three-phase motors with brakes.

• *屬於B型號出力法蘭。
• *Belong to B type output flange.

4 GH臥式高速比附三相、單相鋁殼(剎車)齒輪減速馬達 GH HORIZONTAL HIGH-SPEED OPONENT SINGLE-PHASE THREE-PHASE ALUMINUM SHELL (BRAKE) GEAR REDUCER MOTORS																						
馬力HP-4P	減速比 GEAR RATIO	本體 CODE	型號 TYPE	A1	A2	A3	D	E	F	G	H	L	J	K	M1	M2	X	Y	Z1	Z2	重量KG	
100W 1/8HP	250-1800	1#+3#	28	390	410	394	90	140	180	120	11	15	20.8	65	127	127	180	116	116	116	13.2	
	200W 1/4HP	2#+4#	32	471	491	475	130	170	215	160	13	20	30.2	76	127	127	210	138.5	116	116	23.2	
	400W 1/2HP	3#+5#	40	532	551	536	150	210	260	185	15	23	42.2	85	127	159	248	160	116	133	49	
750W 1HP	250-1800	3#+6#	50	602	633	602	170	265	330	220	19	25	51.7	104	159	190	315	200	133	145	59	

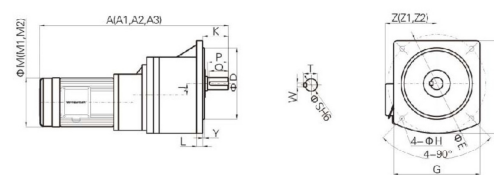
出力軸尺寸 OUTPUT SHAFT	出力軸SHAFT	鍵槽KEYWAY	鍵KEY
	Sh6	P	W T Q SPEC
	Φ28	45	7 31 40 7×7×40
	Φ32	55	10 35.5 50 10×8×50
	Φ40	65	10 43.5 60 10×8×60
	Φ50	80	14 54 75 14×9×75



• A1、M1、Z1為三相馬達尺寸。
• A2、M2、Z2為單相馬達尺寸。
• A3為三相帶剎車馬達尺寸。
• A1、M1、Z1 are the sizes of three-phase motors.
• A2、M2、Z2 are the sizes of single-phase motors.
• A3 is the size of three-phase motors with brakes.

5 GV立式高速比附三相、單相鋁殼(剎車)齒輪減速馬達 GV ALL CINEMAS VERTICAL HIGH-SPEED OPONENT SINGLE-PHASE THREE-PHASE ALUMINUM SHELL (BRAKE) GEAR REDUCER MOTORS																				
馬力HP-4P	減速比 GEAR RATIO	本體 CODE	型號 TYPE	A1	A2	A3	D	E	F	G	H	L	J	K	M1	M2	Y	Z1	Z2	重量KG
100W 1/8HP	250-1800	1#+3#	28	390	410	394	170	220	195	180	11	15	20.8	67	127	127	4	116	116	13.2
	200W 1/4HP	2#+4#	32	471	491	475	185	225	237	215	13	15	30.2	67	127	127	4	116	116	23
	400W 1/2HP	3#+5#	40	532	551	536	230	310	300	275	15	20	42.2	79	127	159	5	116	133	49
750W 1HP	250-1800	3#+6#	50	602	635	602	260	390	360	330	19	20	51.7	90	159	190	5	133	145	59

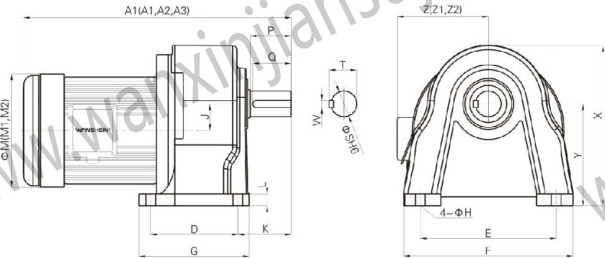
出力軸尺寸 OUTPUT SHAFT	出力軸SHAFT	鍵槽KEYWAY	鍵KEY
	Sh6	P	W T Q SPEC
	Φ28	30	7 31 40 7×7×40
	Φ32	55	10 35.5 50 10×8×50
	Φ40	65	10 43.5 60 10×8×60
	Φ50	80	14 54 75 14×9×75



• A1、M1、Z1為三相馬達尺寸。
• A2、M2、Z2為單相馬達尺寸。
• A3為三相帶剎車馬達尺寸。
• A1、M1、Z1 are the sizes of three-phase motors.
• A2、M2、Z2 are the sizes of single-phase motors.
• A3 is the size of three-phase motors with brakes.

6		GH卧式三相、單相鋁殼(剎車)縮框型齒輪輸速馬達																			
		GH HORIZONTAL ATTACHED SINGLE-PHASE ALUMINUM SHELL (BRAKE) SHRINK BOX TYPE GEAR REDUCER MOTORS																			
馬力HP-4P	減速比 GEAR RATIO	本體 CODE	型號 TYPE	A1	A2	A3	D	E	F	G	H	L	J	K	M1	M2	X	Y	Z1	Z2	重量KG
100W 1/8HP	50-200	1#	18	253	273	257	40	110	135	65	9	10	16	45	127	127	132	88.5	116	116	5.3
	15-90	1#	18	273	293	277	40	110	135	65	9	10	16	45	127	127	132	88.5	116	116	5.3
200W 1/4HP	100-200	2#	22	307	327	311	65	130	163	90	11	15	18.2	56	127	127	152	97.5	116	116	6.9
	3-10	1#	18	293	310	297	40	110	135	65	9	10	16	45	127	159	132	88.5	116	133	6.7
400W 1/2HP	15-90	2#	22	327	346	331	65	130	163	90	11	15	18.2	56	127	159	152	97.5	116	133	8.6
	100-200	3#	28	353	372	357	90	140	180	122	11	15	20.8	65	127	159	180	116	116	133	11
	3-25	2#	22	356	390	356	65	130	163	90	11	15	18.2	56	159	190	152	97.5	133	145	11
750W 1HP	30-120	3#	28	382	414	382	90	140	180	122	11	15	20.8	65	159	190	180	116	133	145	14
	130-200	4#	32	417	449	417	130	170	215	160	13	25	30.2	76	159	190	210	138.5	133	145	19.6
	4-25	3#	28	415	436	400	90	140	180	122	11	15	20.8	65	190		180	116	145		15
1500W 2HP	30-120	4#	32	449	470	449	130	170	215	160	13	25	30.2	76	190		210	138.5	145		21.6
	130-200	5#	40	476	497	476	150	210	260	185	15	25	42.2	85	190		248	160	145		42
2200W 3HP	3-60	4#	32	455	481	455	130	170	215	160	13	25	30.2	76	190		210	138.5	153		27.6
	70-200	5#	40	482	508	482	150	210	260	185	15	25	42.2	85	217		248	160	153		47
3700W 5HP	30-180	5#	40	498	524	498	150	210	260	185	15	25	42.2	85	217		248	160	153		52

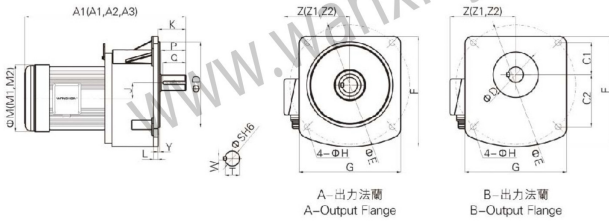
出力軸尺寸 OUTPUT SHAFT	出力軸 SHAFT		鍵槽 KEYWAY			鍵 KEY
	Sh6	P	W	T	Q	SPEC
	Φ18	30	5	20	25	5×5×25
	Φ22	40	7	25	35	7×7×35
	Φ28	45	7	31	40	7×7×40
	Φ32	55	10	35.5	50	10×8×50
	Φ40	65	10	43.5	60	10×8×60



- A1、M1、Z1為三相馬達尺寸。
- A2、M2、Z2為單相馬達尺寸。
- A3為三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.
- 請選用標準齒輪減速馬達，如特殊原因需選擇齒輪減速馬達時，負載必須低於正常負載。
- Please select the gear reducer motors of standard box number, if a gear reducer motor of shrink box should be selected for a specific reason, the load must be lower than the normal load.

GV立式附三相、單相鋁殼(剎車)縮框型齒輪減速馬達																						
GV ALL CINEMAS WITH SINGLE-PHASE THREE-PHASE VERTICAL ALUMINUM SHELL (BRAKE) SHRINK BOX TYPE GEAR REDUCER MOTORS																						
馬力HP-4P	減速比 GEAR RATIO	本體 CODE	型號 TYPE	A1	A2	A3	D	E	F	G	H	L	J	K	M1	M2	Y	Z1	Z2	重量KG		
100W 1/8HP	50-200	1#	18	253	273	257	50	140	120	120	9	12	16	38	127	127	5	116	116	5.3		
	15-90	1#	*18	273	293	277	50	140	120	120	9	12	16	38	127	127	5	116	116	5.3		
200W 1/4HP	100-200	2#	22	307	327	311	148	185	170	156	11	12	18.2	49	127	127	3.5	116	116	6.9		
	100-200	2#	*22	307	327	311	55	170	146	146	11	12	18.2	49	127	127	3.5	116	116	6.9		
400W 1/2HP	3-10	1#	*18	383	345	297	50	140	120	120	9	12	16	38	127	159	5	116	133	6.7		
	15-90	2#	22	327	346	331	148	185	170	156	11	12	18.2	49	127	159	3.5	116	133	8.6		
	15-90	2#	*22	327	346	331	55	170	146	146	11	12	18.2	49	127	127	3.5	116	133	8.0		
	100-200	3#	28	353	372	357	170	220	195	180	11	15	20.8	57	127	159	4	116	133	11		
750W 1HP	3-25	2#	22	355	395	355	148	185	170	156	11	12	18.2	49	159	190	3.5	133	145	11		
	3-25	2#	*22	355	395	355	55	170	146	146	11	12	18.2	49	159	190	3.5	133	145	11		
	30-120	3#	28	382	415	382	170	220	195	180	11	15	20.8	57	159	190	4	133	145	14		
	130-200	4#	32	417	449	417	185	255	237	215	13	17	30.2	67	159	190	4	133	145	19.4		
1500W 2HP	4-25	3#	28	415		436	170	220	195	180	11	15	20.8	57	190		4	145		15		
	30-120	4#	32	449		470	185	255	237	215	13	17	30.2	67	190		4	145		21.4		
	130-200	5#	40	476		497	230	310	300	275	15	20	42.2	79	190		5	145		42		
2200W 3HP	3-60	4#	32	455		481	185	255	237	215	13	17	30.2	67	190		4	153		27.4		
	70-200	5#	40	482		508	230	310	300	275	15	20	42.2	79	217		5	153		47		
3700W 5HP	30-180	5#	40	498		524	230	310	300	275	15	20	42.2	79	217		5	153		52		

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



- 備注 NOTE:
- 1#本體 (型號為18) C1為33.5, C2為65.5
1# Ontology (Models for 18)
C1 is 33.5, C2 is 65.5
 - 2#本體 (型號為22) C1為40, C2為80
2# Ontology (Models for 22)
C1 is 40, C2 is 80



- A1、M1、Z1為三相馬達尺寸。
- A2、M2、Z2為單相馬達尺寸。
- A3為三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.
- *屬於B型號出力法蘭。
- *Belong to B type output flange.
- 請選用標準齒輪減速馬達，如特殊原因需選擇齒輪減速馬達時，負載必須低於正常負載。
- Please select the gear reducer motors of standard box number, if a gear reducer motor of shrink box should be selected for a specific reason, the load must be lower than the normal load.

8 GH卧式高速比附三相、單相鋁殼(剎車)縮框型齒輪減速馬達

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

馬力HP~4P	減速比 GEAR RATIO	本體 CODE	型號 TYPE	A1	A2	A3	D	E	F	G	H	L	J	K	M1	M2	X	Y	Z1	Z2	重量KG
100W 1/6HP	250-1800	1#-2#	22	385	385	369	65	130	163	90	11	15	18.2	56	127	127	152	97.5	116	116	43.2
200W 1/4HP	250-1800	1#-3#	28	410	430	414	90	140	180	122	11	15	20.8	65	127	127	180	116	116	116	29.6
400W 1/2HP	250-1800	2#-4#	32	491	510	495	130	170	215	160	13	25	30.2	76	127	159	210	138.5	116	133	42.6
750W 1HP	250-1800	3#-5#	40	561	594	561	150	210	260	185	15	25	42.2	85	159	190	248	160	133	145	59

出力軸尺寸 OUTPUT SHAFT	出力軸 SHAFT	鍵槽 KEYWAY	鍵 KEY
Sh6	P	W	T
Φ22	40	7	25
Φ28	45	7	31
Φ32	55	10	35.5
Φ40	65	10	43.5



- A1、M1、Z1為三相馬達尺寸。
- A2、M2、Z2為單相馬達尺寸。
- A3為三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.
- 請選用標準齒輪減速馬達，如特殊原因需選擇縮框型齒輪減速馬達時，負載必須低於正常負載。
- Please select the gear reducer motors of standard box number; if a gear reducer motor of shrink box should be selected for a specific reason, the load must be lower than the normal load.

9 GV立式高速比附三相、單相鋁殼(剎車)縮框型齒輪減速馬達

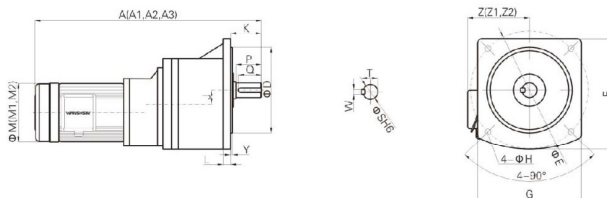
GV ALL CINEMAS VERTICAL HIGH-SPEED OPPONENT SINGLE-THREE-PHASE ALUMINUM SHELL (BRAKE) SHRINK BOX TYPE GEAR REDUCER MOTOR

馬力HP~4P	減速比 GEAR RATIO	本體 CODE	型號 TYPE	A1	A2	A3	D	E	F	G	H	L	J	K	M1	M2	Y	Z1	Z2	重量KG
100W 1/6HP	250-1800	1#-2#	22	304	384	368	148	185	170	156	11	12	18.2	49	127	127	3.5	116	116	13.2
200W 1/4HP	250-1800	1#-3#	28	410	430	414	170	220	195	180	11	15	20.8	57	127	127	4	116	116	29.6
400W 1/2HP	250-1800	2#-4#	32	491	510	495	185	255	237	215	13	17	30.2	67	127	159	4	116	133	42.4
750W 1HP	250-1800	3#-5#	40	561	594	561	230	310	300	275	15	20	42.2	79	159	190	4	133	145	59

出力軸尺寸 OUTPUT SHAFT	出力軸 SHAFT	鍵槽 KEYWAY	鍵 KEY
Sh6	P	W	T
Φ22	40	7	25
Φ28	45	7	31
Φ32	55	10	35.5
Φ40	65	10	43.5



- A1、M1、Z1為三相馬達尺寸。
- A2、M2、Z2為單相馬達尺寸。
- A3為三相帶剎車馬達尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.
- 請選用標準齒輪減速馬達，如特殊原因需選擇縮框型齒輪減速馬達時，負載必須低於正常負載。
- Please select the gear reducer motors of standard box number; if a gear reducer motor of shrink box should be selected for a specific reason, the load must be lower than the normal load.

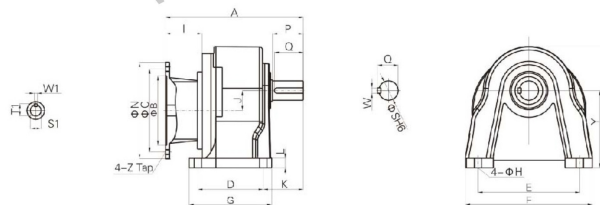


10 GHM卧式直結型齒輪減速機

GHM HORIZONTAL STRAIGHT TYPE GEAR

馬力HP~4P	減速比 GEAR RATIO	型號 TYPE	A	B	C	D	E	F	G	H	I	J	K	L	N	X	Y	Z	重量KG
200W 1/4HP	3-10	18	153	110	130	40	110	135	65	9	52.5	16	45	10	158	132	88.5	M8	4
	15-90	22	188	110	130	65	130	159	90	11	52.5	18.2	56	15	158	152	97.5	M8	6
	100-200	28	216	110	130	90	140	180	122	11	52.5	20.8	65	15	158	180	116	M8	8
400W 1/2HP	3-10	22	188	110	130	65	130	160	90	11	52.5	18.2	56	15	158	152	97.5	M8	6
	15-90	28	216	110	130	90	140	180	122	11	52.5	20.8	65	15	158	180	116	M8	8
	100-200	32	250	110	130	130	170	215	160	13	52.5	30.2	76	25	158	210	138.5	M8	14.6
750W 1HP	3-25	28	250	130	165	90	140	180	122	11	90.8	20.8	66	15	198	160	116	M10	11
	30-120	32	288	130	165	130	170	215	160	13	90.8	30.2	76	25	198	210	138.5	M10	19.6
	125-200	40	313	130	165	150	210	260	185	15	90.8	42.2	85	25	198	248	160	M10	38
1500W 2HP	3-25	32	288	130	165	130	170	215	160	13	90.8	30.2	76	25	198	210	138.5	M10	19.6
	30-120	40	313	130	165	150	210	260	185	15	90.8	42.2	85	25	198	248	160	M10	39
2200W 3HP	3-60	40	320	180	215	150	210	260	185	15	95	42.2	85	25	250	248	160	M12	40
	70-120	50	380	180	215	170	265	330	220	18	95	51.7	104	30	250	315	200	M12	45
3700W 5HP	3-25	40	320	180	215	150	210	260	185	15	95	42.2	85	25	250	248	160	M12	50
	30-80	50	360	180	215	170	265	330	220	18	95	51.7	104	30	250	315	200	M12	55

入力軸尺寸 INPUT BORE	馬力 KW	入力軸 BORE	鍵槽 KEYWAY
		S1	W1
	1/4HP	Φ11	4
	1/2HP	Φ14	5
	1HP	Φ19	6
	2HP	Φ24	8
	3HP	Φ28	8
	5HP	Φ28	8
出力軸尺寸 OUTPUT SHAFT	出力軸 SHAFT	鍵槽 KEYWAY	鍵 KEY
	Sh6	P	W
	Φ18	30	5
	Φ22	40	7
	Φ28	45	7
	Φ32	55	10
	Φ40	65	10
	Φ50	80	14

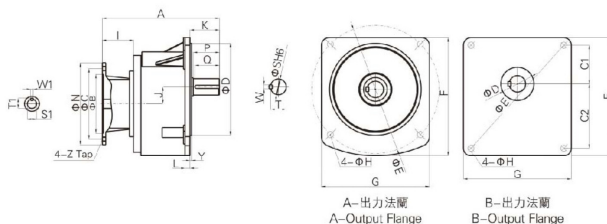


- 配合IEC馬達用。
- Available for IEC metric motor.

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

入力軸尺寸INPUT BORE		馬力KW		入力軸BORE		鍵槽KEYWAY	
				S1	W1	T1	
		1/4HP		Φ11	4	12.8	
		1/2HP		Φ14	5	16.3	
		1HP		Φ19	6	21.8	
		2HP		Φ24	8	27.3	
		3HP		Φ28	8	31.3	
		5HP		Φ28	8	31.3	
出力軸尺寸OUTPUT SHAFT		出力軸SHAFT		鍵槽KEYWAY		鍵KEY	
		Sh6	P	W	T	Q	SPEC
		Φ18	30	5	20	25	5×5×25
		Φ22	40	7	25	35	7×7×35
		Φ28	45	7	31	40	7×7×40
		Φ32	55	10	35.5	50	10×8×50
		Φ40	65	10	43.5	60	10×8×60
		Φ50	80	14	54	75	14×9×75

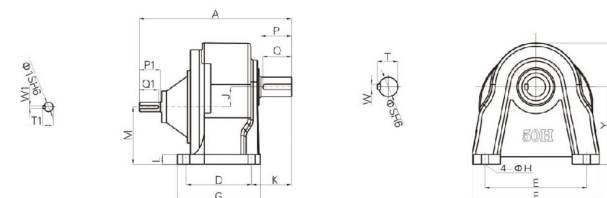
備注 NOTE:
1、1#本體（型號為18）C1為33.5，C2為65.5
1# Ontology (Models for 18)
C1 is 33.5, C2 is 65.5
2、2#本體（型號為22）C1為40，C2為80
2# Ontology (Models for 22)
C1 is 40, C2 is 80



- 配合IEC馬達為主。
- Available for IEC metric motor.
- *屬於B型號出力法蘭。
- *Belong to B type output flange.

12		GHD臥式雙軸型齒輪減速機													
		GHD HORIZONTAL TYPE DUAL AXLE GEAR													
馬力 HP-4P	減速比 GEAR RATIO	型號 TYPE	A	D	E	F	G	H	J	K	L	M	X	Y	重量KG
100W 1/8HP	3-50	18	168	40	110	135	65	9	16	45	10	72.5	132	88.5	3
	60-200	22	200	65	130	160	90	11	18.2	56	15	80	152	97.5	4
200W 1/4HP	3-10	18	168	40	110	135	65	9	16	45	10	72.5	132	88.5	3
	15-90	22	200	65	130	160	90	11	18.2	56	15	80	152	97.5	5
400W 1/2HP	100-200	28	258	90	140	180	120	11	20.8	65	15	95.2	180	116	7
	3-10	22	207	65	130	160	90	11	18.2	56	15	80	152	97.5	6
	15-90	28	263	90	140	180	120	11	20.8	65	15	95.2	180	116	7
	100-200	32	300	130	170	215	160	13	30.2	76	25	108.5	210	138.5	12.6
750W 1HP	3-25	28	269	90	140	180	120	11	20.8	65	15	95.2	180	116	7
	30-120	32	310	130	170	215	160	13	30.2	76	25	108.5	210	138.5	14.6
	125-200	40	336	150	210	260	185	15	42.2	85	25	117.8	248	160	35
1500W 2HP	3-25	32	320	130	170	215	160	13	30.2	76	25	108.5	210	138.5	14.6
	30-120	40	350	150	210	260	185	15	42.2	85	25	117.8	248	160	35
2200W 3HP	3-60	40	360	150	210	260	185	15	42.2	85	25	117.8	248	160	35
	70-120	50	410	170	265	330	220	19	51.7	104	30	148.6	315	200	43
3700W 5HP	3-25	40	380	150	210	260	185	15	42.2	85	25	117.8	248	160	35
	30-80	50	410	170	265	330	220	19	51.7	104	30	148.6	315	200	43

入力軸尺寸INPUT BORE		入力軸SHAFT		鍵槽KEYWAY		鍵KEY	
		KW	Sh6	P1	W1	T1	Q1 SPEC
		0.1/0.2	14	25	5	16	22 5×5×22
		0.4	14	30	5	16	26 5×5×25
		0.75	19	40	6	21.5	35 6×6×35
		1.5	24	50	8	27	45 8×7×45
		2.2	28	60	8	31	50 8×7×50
		3.7	28	60	8	31	50 8×7×50
出力軸尺寸OUTPUT SHAFT		出力軸SHAFT		鍵槽KEYWAY		鍵KEY	
		Sh6	P	W	T	Q	SPEC
		Φ18	30	5	20	25	5×5×25
		Φ22	40	7	25	35	7×7×35
		Φ28	45	7	31	40	7×7×40
		Φ32	55	10	35.5	50	10×8×50
		Φ40	65	10	43.5	60	10×8×60
		Φ50	80	14	54	75	14×9×75



13 GVD立式雙軸型齒輪減速機

GVOIGUN VISUAL DEBUGGER/BIAXIAL TYPE GEAR

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

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

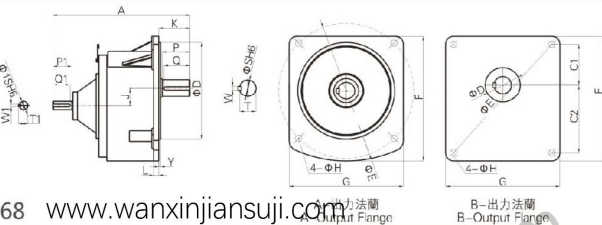
輸出軸尺寸OUTPUT SHAFT	出力軸SHAFT			鍵槽KEYWAY			鍵KEY
	Sh6	P	W	T	Q	SPEC	
	Φ18	30	5	20	25	5×5×25	
	Φ22	40	7	25	35	7×7×35	
	Φ28	45	7	31	40	7×7×40	
	Φ32	55	10	35.5	50	10×8×50	
	Φ40	65	10	43.5	60	10×8×60	
	Φ50	80	14	54	75	14×9×75	

備注 NOTE:

- 1、1#本體（型號為18）C1為33.5，C2為65.5
1# Ontology (Models for 18)
C1 is 33.5, C2 is 65.5
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2# Ontology (Models for 22)
C1 is 40, C2 is 80

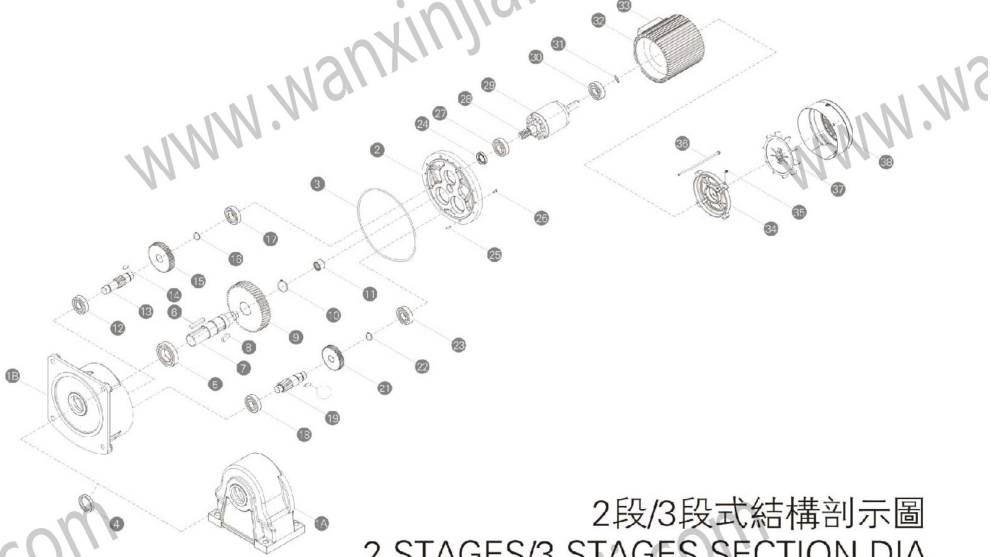


- * 屬於B型出力法蘭。
- *Belong to B type output flange.



零件剖面圖

DETAILS PARTS LIST



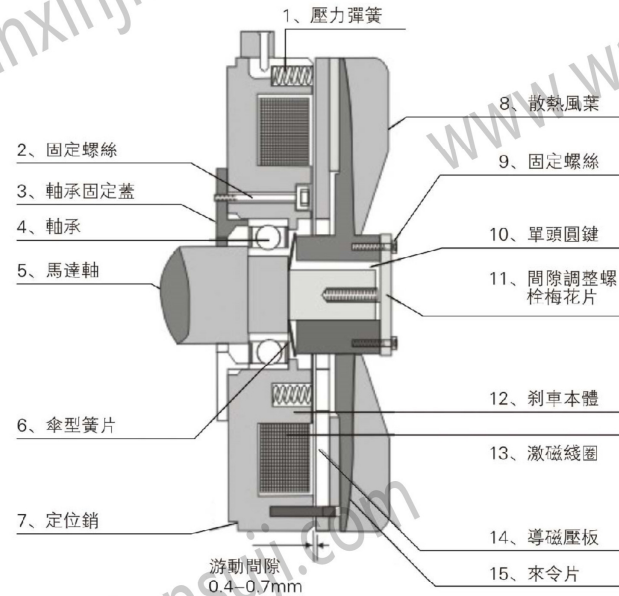
2段/3段式結構剖示圖
 2 STAGES/3 STAGES SECTION DIA

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

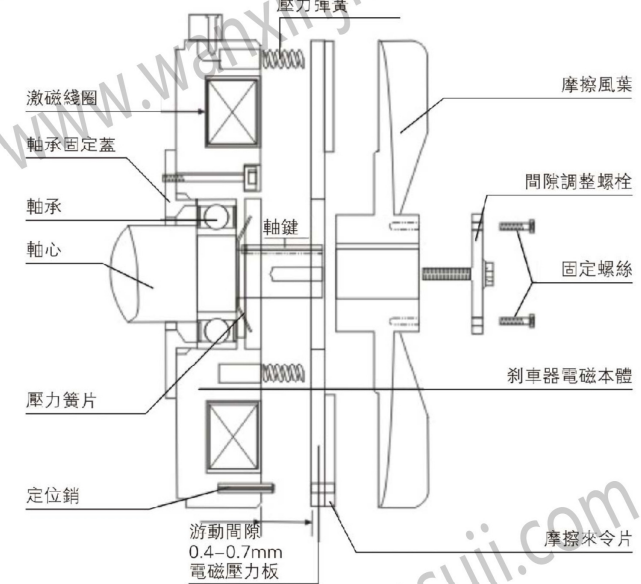
刹車零件分解圖

BRAKE UNIT SECTION DIAGRAM

短型安全刹車器



智型安全刹車器



- 1 壓力彈簧
PRESSURE SPRING
- 2 固定螺絲
FIXED SCREW
- 3 軸承固定蓋
FIXED BEARING PLATE
- 4 軸承
BEARING
- 5 馬達軸
MOTOR SHAFT

- 6 傘型簧片
DISC SPRING
- 7 定位銷
FIXED PIN
- 8 散熱風葉
FAN
- 9 固定螺絲
FIXED SCREW
- 10 固定鍵
KEY

- 11 調整螺栓
GAP ADJUSTMENT BOLT
- 12 刹車本體
BRAKE HOUSING
- 13 激磁線圈
BRAKE COIL
- 14 導磁壓板
FRICTION PLATE
- 15 來令片
FRICTION BRAKE
BRAKE DISC

刹車間隙調整 ADJUST BRAKE CLEARANCE



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

- 1、請先移除固定螺絲
Please remove two pieces fixed screws in advance
- 2、每向右調整一格，其間距縮小0.07-0.10mm
Every single position adjustment, brake clearance will reduce 0.07-0.10mm

故障排除

TROUBLE SHOUTING

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

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

減速機故障排除 TROUBLE SHOUTING FOR GEARMOTOR

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



齒輪減速馬達使用說明書

INSTRUCTIONS FOR GEAR REDUCER MOTOR

歡迎選用萬鑫公司系列齒輪減速馬達（減速機）。使用前請參照此說明書進行相關安裝。
Welcome to choose Wanxin series gear reducer motors (reducers). Please refer to these instructions before installation and using.

1 使用前 Before using

- 請檢查產品型號、電機功率、電機額定電壓、安裝方式、減速比及出力軸尺寸是否符合您的要求，如有不符，請及時與您的經銷商聯系，以便及時處理。
- 在減速箱上有膠栓的減速馬達（減速機）需將膠栓上面黃色的小膠栓拔掉，否則經長時間連續運行後有漏油的危險。
- Please check if the product type, motor power, motor rated voltage, installation, reduction ratio and size of output bearing meet your requirements; if not, please contact your dealer for timely processing.
- For the gear reducer motors (reducers) with plastic plugs in the gearboxes, pull out the yellow small plastic plugs, or else the oil may spill after long hours of running.

2 使用環境 Environment of use

- 請勿在爆炸性環境、易燃易爆氣體環境、腐蝕性環境以及漏水的環境使用此減速馬達。
- 請勿強行彎曲、拉扯或夾住電源、電纜線和電機導線。
- 電機安裝完成後，必須使用接地線良好接地，接地線位置位於接線盒上面。
- 安裝、連接、檢查等須由專業技術人員進行。
- 安裝環境須乾燥且通風良好，周圍溫度-5℃~40℃之間，異常高溫或低溫時需特別注明。
- 齒輪減速馬達需安裝在平整且堅固的底座上。
- Do not use the gear reducer motor in the environment with explosives, flammable gas, corrosion, or water leaks.
- Do not forcibly bend, pull or pinch the power supply, cables and motor wires.
- When the motor is installed, it must be grounded properly with a ground wire, which is located on the junction box.
- Installation, connection and inspection must be carried out by professional technicians.
- The installation environment must be dry and well ventilated, the ambient temperature should be -5℃~40℃ and extreme temperatures shall be noted.
- The gear reducer motor should be installed on a flat and solid base.

3 安裝 Installation

- 當使用連軸器連接輸出軸時，須安裝固定且務必使兩軸平行，底座需以安裝孔徑相適應的螺栓進行安裝，確保齒輪減速馬達緊密牢固。
- 所有安裝在出力軸上的裝置必須輕裝於軸上，勿使用鐵錘及其它鈍器等敲擊出力軸，避免因安裝過緊而引起的軸承損壞。
- 滑輪、鏈輪或齒輪在裝配時盡量靠近出力軸承以減少彎曲應力。應使用不超過出力軸直徑6倍的鏈輪、皮帶輪等與軸連接。使用時請配合H7公差使用，避免使用中發出異常噪音及軸面受損。
- 安裝完成後，可以在出力軸表面塗上適當的防銹油或防銹漆以保護出力軸避免生銹。
- 根據電源電壓，選擇適合的接線方式接好電機線盒內引線，並且必須接地線。接線盒內接線盒會導致電機燒毀。要接電機銘牌上額定電流，建議按5A/mm²的電流密度選擇合適尺寸電機線給電機供電。
- 使用變頻器控制帶制動功能的齒輪減速馬達供電時，需將制動線（黃色）單獨提供交流220V供電，供電應與齒輪減速馬達供電同步。
- 齒輪減速馬達齒輪箱內已經加注好合適的潤滑油，使用前請勿再加潤滑油。正常使用超過10000小時後，可加放適合的0號潤滑油。
- 安裝完成後，再次檢查齒輪減速馬達安裝面是否平整，確保不能有任何物品頂到電機，否則會造成電機燒毀。

- When the output bearing is connected with the coupler, it must be fixed and the two shafts must be parallel, the base should be installed with the bolts of appropriate aperture, and ensure that gear reducer motor is fixed tightly and securely.
- All the equipment installed on the output bearing must be installed lightly; do not knock the output bearing with a hammer or other blunt objects to prevent bearing damage caused by tight installation.
- The pulleys, sprockets and gears should be installed as close as possible to the output bearing to reduce bending stress. Connect to the output bearing through sprocket or belt pulley with a diameter no more than 6 times of the output bearing. Please use in combination with H7 tolerance to avoid noise and damage to the bearing surface.
- After installation, coated suitable anti-rust oil or paint on the surface of the output bearing to avoid rusting.
- Select appropriate wiring method according to the power supply voltage and connect the wires in the junction box. Wiring error will cause motor burn. According to the rated current on the nameplate, it is recommended to select the appropriate size of power cable according to 5A/mm² current density to supply power to the motor.
- When the gear reducer motor with brake function is powered by frequency converter, the brake line (yellow) should be provided with AC 220V power supply separately, and the power supply should be synchronized with the gear reducer motor.
- The gearbox of the gear reducer motor has been filled with appropriate lubricating oil, and it isn't required to add lubricating before use. After normal use for 10,000 hours, add 0# lubricating oil.
- After installation, check again if the mounting surface of gear reducer motor is flat, and ensure that no objects prop the motor, or else it will cause motor burn.

4 使用中 In use

- 使用中電源電壓變動超過10%時，有可能燒毀電機，同時伴有出力降低或異常。
- 電機超負荷運行時有可能燒毀，請在運行初次測試電機電流是否在額定電流值內。
- 電機即使在正常運行狀態，有時表面溫度也會有超過70℃的現象。電機運轉時，若有靠近電機的可能，請制作“高溫注意”圖標并貼于電機顯眼處。
- 電機反轉時，單相電機按接線圖進行調整。三相電機祇需將電源線中兩相對調即可。
- If the variation of the supply voltage in use exceeds 10%, the motor might be damaged, accompanied by reduced or abnormal output torque.
- The motor running overload may be burnt. Before running for the first time, test if the motor current is within the rated range.
- Even if the motor is in normal operation state, the surface temperature may also exceed 70℃. If it is possible to approach the motor when the motor is running, please affix a "HOT" mark on a conspicuous place on the motor.
- When the motor is running reversely, adjust single-phase motor according to the wiring diagram. For three-phase motors, just exchange two phases of the power cable.

5 保養與檢查 Maintenance and inspection

做一般定期檢查時，請注意需注意以下幾點：

- 溫度上升
齒輪減速馬達為F級絕緣，全密封外殼構造，所以馬達表面溫度比周圍高60℃左右亦屬正常。如果溫度高于以上時，必須停機檢查。（因素：馬達或傳動系統負載異常）
- 制動馬達來令片因長時間使用會有磨損，請依據制動間隙值進行調整。
- 異常振動、噪音
正常情況，本機幾乎沒有振動噪音。若有某些安裝異常使用，會產生振動噪音，所以請特別留意。（當空載噪音值在70dB/1M以下時，是被容許的。）
- 馬達通風口有時會積聚口物妨礙通風，所有請清除馬達外部，以確保馬達正常運行溫度。
- 定期檢查時，請以500V電阻測量馬達線組之絕緣阻抗，確保其1MΩ以上，以避免漏電之危險。
- For the standard gear reducer motors of shrunk boxes, only the motor coils have one year warranty, while the gearbox isn't covered. If the coil is burnt due to the damage of gearbox, we will charge for the maintenance costs.
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6 故障處理與諮詢 Troubleshooting and consulting

- 發生故障時先對照目錄的故障排除表進行處理，不能自行處理的，請聯系當地經銷商解決。
- 本機故障，換用零件或諮詢時，請將銘牌上的參數確認後再進行聯繫：型式（TYPE）馬力（OUTPUT）減速比（RATIO）製造編號（NO.）
- For the standard gear reducer motors of shrunk boxes, only the motor coils have one year warranty, while the gearbox isn't covered. If the coil is burnt due to the damage of gearbox, we will charge for the maintenance costs.
- The standard gear reducer motors have one year warranty, if it is damaged by disassembly without permission or the load reasons, we will charge for the maintenance costs.

7 質保 Quality assurance

- 縮框型號齒輪減速馬達電機線圈部分保修一年，齒輪箱部分不保修。如果因齒輪箱損壞而造成線圈部分燒毀，我司將收取維修成本費用。
- 標準框號齒輪減速馬達出廠後，保修一年。如因客戶拆裝或所帶負載原因損壞，我司將收取維修成本費用。
- For the standard gear reducer motors of shrunk boxes, only the motor coils have one year warranty, while the gearbox isn't covered. If the coil is burnt due to the damage of gearbox, we will charge for the maintenance costs.
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