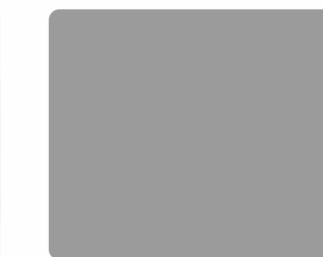


超長壽命減速電機專家

INTRODUCTION OF PERFORMANCE OF MULTIFUNCTIONAL AC DECELERATION MOTOR

6W-7500W多功能減速電機性能介紹



LEONHARD®
雷奧哈德

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德國技術企業

MULTIPLE GERMAN TECHNOLOGY FIRMS



董事長致辭 Chairman's speech

衷心感謝為我們“雷奧哈德”電機辛勤奉獻的各位同仁，感謝你們近二十年來在各自的崗們上揮灑汗水；感謝你們對我工作的信任與包容。感謝各位新老客戶對我們雷奧哈德電機的支持與信任

我們來自五湖四海：不同的國家、不同的民族、不同的語言；我們團結一心、眾志誠城；為着一個共同的夢想-----讓“雷奧哈德”成爲智能工業自動化傳動產品集成供應商！

1821年英國科學家法拉第首先證明可以把電力轉變爲旋轉運動，在1882年居古拉·特斯拉製造出世界上第一臺交流發電機。19世紀30、40年代機器製造業機械化的實現爲英國工業革命基本完成的標志.....經歷無數自動化行業先驅者的智慧與創造，人類才得從大部分繁重且危險的環境中解脫。

隨着人類社會的高速發展，水源、空氣污染嚴重；企業用工成本不斷上升；工業4.0的應用及普及對於工業自動行業將面臨更大的挑戰與機遇，“雷奧哈德”電機致力於生產高效、智能、環保的工業自動化傳動產品爲使命，努力爲客戶創造價值。我們有責任爲子孫後代留下一片藍天.....

I would like to thank you for your dedication of our work. Thank you for your perseverance and tolerance in my work for the past two decades. Thanks for new and old customers' s support and trust. We come from all over the world, different countries, different nationalities, different languages; and we unite as one. Zhongzhi Chengcheng; for the common dream ----- become an intelligent industrial automation product integration supplier.

In 1821 the British scientist Faraday first proved that the power can be transformed into a rotating movement, Gulu Te Tesla in 1882 to create the world's first alternator. The mechanization of machinery manufacturing in the 1930s and 1940s was a sign of the completion of the British industrial revolution ... the wisdom and creation of numerous pioneers in the automation industry, and that mankind had, from most of the heavy and dangerous environments relief. With the rapid development of human society, water, air pollution is serious; enterprise labor costs continue to rise; industrial 4.0 application and popularization for the industrial automation industry will face greater challenges and opportunities. LeonHard was committed to producing efficient, intelligent, environmental protection of industrial automation products for the mission, and strive to create value for customers. We have the responsibility to leave a blue sky for future generations.

公司簡介 Company profile



臺灣雷奧哈德傳動設備有限公司是全球領先的減速電機設備與服務提供商，擁有13年精密減速電機的研發、生產、銷售和服務經驗。總部位于臺灣新北市淡水區，并在中國廣東省東莞市建立了20000m²的大型生產基地。

雷奧哈德自成立以來，秉持“全員參與 成果共享”的企業宗旨，打造了減速電機領域知名的“雷奧哈德”“leonhard”品牌。

我們擁有德國精密齒輪加工核心技術，采用日本HAMAI、瑞士MIKRON原裝進口滾齒機、磨齒機等加工設備；日本TTI齒輪綜合檢測儀、三座標測量儀、齒輪硬度測量儀等檢測設備！公司率先通過ISO9001質量體系認證、國家CCC強制認證、歐盟CE認證

雷奧哈德電機，自進入世界市場以來，流淌着臺灣純正的血脈，傳承着精密之至的品質，固守着安靜穩定的性能和長久的使用年限。

“全員參與，成果共享”，leonhard以“打造減速電機領域全球領先品牌”爲戰略目標。

Taiwan Leo Hard Co., Ltd. is the world's leading manufacturer of gear motors and services, with 13 years of gear motor research and development, production, sales and service experience. Headquartered in Taiwan's Taipei Dainshi area, and in Dongguan, Guangdong China established a 20,000 square meters of large-scale production base.

Since inception, uphold the business purposes of "people-oriented, customer first, team first, the value of talent, work and study, learn to quickly adapt to change environment", to create a field of reduction gear motor "Leonhard" brand.

Our Factory have German precision gear processing core technology, Using HAMAL and MIKRON hobbing machine, gear grinding machine and other processing equipment imported from Japan and Switzerland; Also have TTI gear integrated detector, three coordinates measuring instrument and gear hardness measuring instrument etc equipments from Japan. Our factory is the first batch passed the ISO9001, CCC and CE certification.

Leonhard motor, since entering the world market, flowing into Taiwan pure blood, heritage of the quality to the precision, stick to the quiet and stable performance and long service of life.

"Business responsibility. A world brand", Leonhard Company goal is to "build the world's leading manufacturer of geared motors" brand.



13年

公司發展歷程 Company development process

- 2005年**
臺灣雷奧哈德有限公司創立并同年創立品牌“雷奧哈德”
Taiwan Leon Hard Co., Ltd. was founded and the same year founded the brand "Leon hard"
- 2009年**
在中國深圳設立電機銷售及售後中心，雷奧哈德電機產品進入中國市場
Set up a motor sales and after-sale center in Shenzhen, China
Leonhard motor products launch into the China market.
- 2012年**
東莞市雷奧哈德電機有限公司創立，并在東莞建立大型生產基地
Dongguan Leo Hard Motor Co., Ltd. was founded and established in Dongguan production base.
- 2013年**
“雷奧哈德”推出二次精滾齒輪減速電機
Leonhard introduced the second roller gear motor.
“雷奧哈德”防水電機研發成功并推出市場
Leonhard waterproof motor research and development and launch in the market.
“雷奧哈德”模切設備專用直流無刷機型研發成功并投放市場
Leonhard Die-cutting equipment: Special brushless dc machine is developed and put on the market
“雷奧哈德”醫療設備專用低振動電機研發成功并投放市場
Leonhard Medical equipment: Special low vibration motor is developed and put on the market
大範圍速度控制及恆扭矩研發成功
A wide range of speed control and constant torque developed successful.

- 2014年**
公司評為東莞市節能協會副會長單位
The Vice president of Taiwan Energy Conservation Association unit.
公司評為東莞市電子元件行業協會副會長單位
The company as Taiwan Electronic Components Industry Association vice president of units.
“雷奧哈德”榨油機減速電機（可低溫起動）研制成功
Leonhard Oil press machine gear motor (low temperature can start) is developed
“雷奧哈德”燃油洗車機專用減速電機研制成功
Leonhard Fuel car washer gear motor is developed

- 2015年**
雷奧哈德（LEONHARD）電機推出第二代優化改良版二次精滾齒輪減速電機，噪音提升到祇有49分貝，壽命可達5年以上
Leonhard motor introduced the second generation of improved modified version of the second roller gear motor, the noise raised to only 49 decibels and life expectancy of up to 5 years.
雷奧哈德（LEONHARD）成為臺灣高新技術企業培育入庫企業
Become Taiwan's high-tech enterprises to cultivate storage enterprises.
雷奧哈德（LEONHARD）成為臺灣專利優勢企業
Become Taiwan's technological transformation of technological innovation enterprises.

- 2017年**
雷奧哈德（LEONHARD）電機將銷售網絡鋪至全球，在多國設有辦事處及代理商。
Leonhard motor sales network will be spread to the world, with offices in various countries and agents.



公司榮譽 Company honor

客戶滿意是我們的榮耀，主動爭取做得更好，承擔更多的責任。
責任是一種精神，責任即榮譽。責任來自哪裏？
責任來自對每一個工程的完美達標，來自對自我的一種認定，來自對自身不斷超越的渴求...
Customer satisfaction is our honor, the initiative to strive for better, and assume more responsibility.
Responsibility is a spirit, a duty is an honor. Where does the responsibility come from?
Responsibility comes from the perfect standard of every project, from the identification of self, from the desire to surpass oneself...



品質第一 服務至上

Quality first, service first



■ 電機型號說明 Motor modelc shows

<p>5</p> <p>型號尺寸 Motor model shows 2:60mm 3:70mm 4:80mm 5:90mm 6:104mm</p>	<p>I</p> <p>電機種類 Motor types I:感應電機 I:Induction motor R:可逆電機 R:Reversible motor T:力矩電機 T:Torque motor</p>	<p>K</p> <p>電機系列 Motor series K系類 K series</p>	<p>60</p> <p>輸出功率 Output power 6:6W 15:15W 25:25W 40:40W 60:60W 90:90W 120:120W 140:140W 160:160W 180:180W 200:200W 250:250W</p>	<p>R</p> <p>調速馬達 Speed regulating motor</p>
<p>GN</p> <p>電機軸形狀 Motor shaft shape A:銑扁 A:Milling flat A1:銑鍵槽 A1:keyset GN:普通型斜齒軸 GN:Ordinary helical gear shaft GU:強力型斜齒 GU:Strength type helical gear</p>	<p>C</p> <p>電壓極數 Voltage series A=1 Φ 110V C=1 Φ 220V S₂=3 Φ 220V S₃=3 Φ 380V</p>	<p>F</p> <p>其它附件 other Appendixes F: 風扇 F: a ventilator motor Ff: 附強冷風扇 FF: With strong cold air fan M: 附電磁剎車 M: With electromagnetic brake P: 附熱保護器 P: With thermal protector T: 附接線盒 T: Attached terminal box Y: 延長綫 (Y1=1m, Y2=2m, Y3=3m) Y: Extension cord (Y1=1m' Y2=2m' Y3=3m)</p>	<p>4</p> <p>2=2P/2800r/min 4=4P/1400r/min 6=6P/960r/min 8=8P/720r/min</p>	

• 注：輸出功率後加字母“R”表示調速電機
• Note: after the power output with the letter "R" said speed regulating motor

■ 減速箱型號說明 Descriptions of the reduction box model







<p>5</p> <p>型號尺寸 Motor model shows 2:60mm 3:70mm 4:80mm 5:90mm 6:100mm</p>	<p>GN</p> <p>齒輪種類 Gear type GN: 普通型斜齒軸 GN:Ordinary helical gear shaft GU: 加強型斜齒軸 GU:Heavy-duty helical gear shaft</p>	<p>50</p> <p>減速比 Reduction ratio 50:減速比為1: 50 50: reduction ratio for 1:50</p>	<p>K</p> <p>減速箱構造類型 (齒輪箱均採用滾珠軸承) Reducer structure types(Gear box adopts ball bearing) 5GN□ K方箱軸12mm 5GN□ K Square box axis 12mm 5GU□ KB方箱軸15mm 5GU□ KB Square box axis 15mm 5GU□ K耳箱軸15mm 5GU□ K Ear box axis 15mm RT: 轉角系列中實 RT: CORNER SERIES IN IMPLEMENTING RC: 轉角系列中空 RC: CORNER SERIES HOLLOW</p>
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• 注：非標準型分體的編號為：在電機型號或減速型前加“V”（請在訂貨時寫明具體參數要求）
• Note: Numbers of standard fission is: in motor type or reduction model former add "V" (please specify when ordering parameter requirements)

■ 速度控制器型號說明 Descriptions of the speed controller model

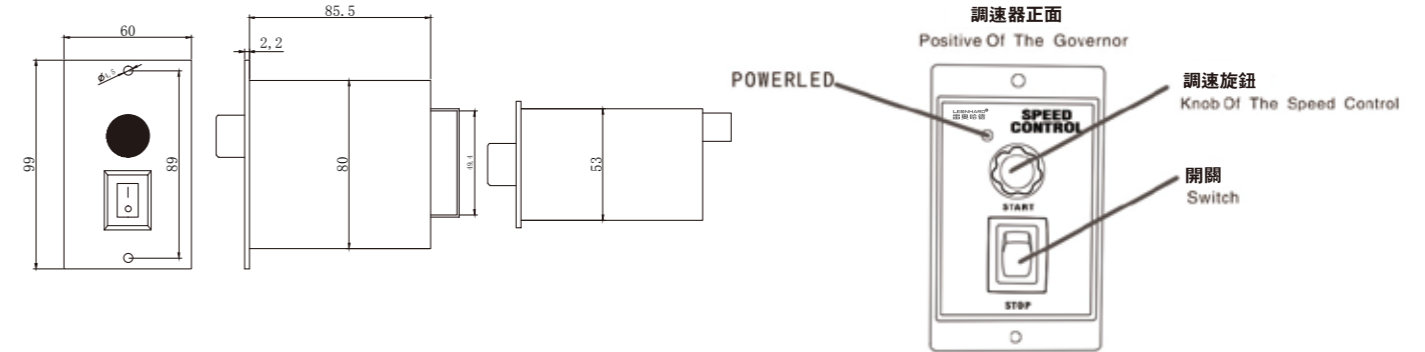
機種 Model	外形尺寸 Physical size	功率 Power	電壓 Voltage
US: 組合型 US:Combination	2: 60mm 3: 70mm	6=6W 15=15W	01=110V
SS: 分離型 SS:Separation type	4: 80mm 5: 90mm	25=25W 40=40W 60=60W 90=90W 120=120W 140=140W 160=160W 180=180W 200=200W 250=250W	02=220V

■ 電機配件 Motor related parts

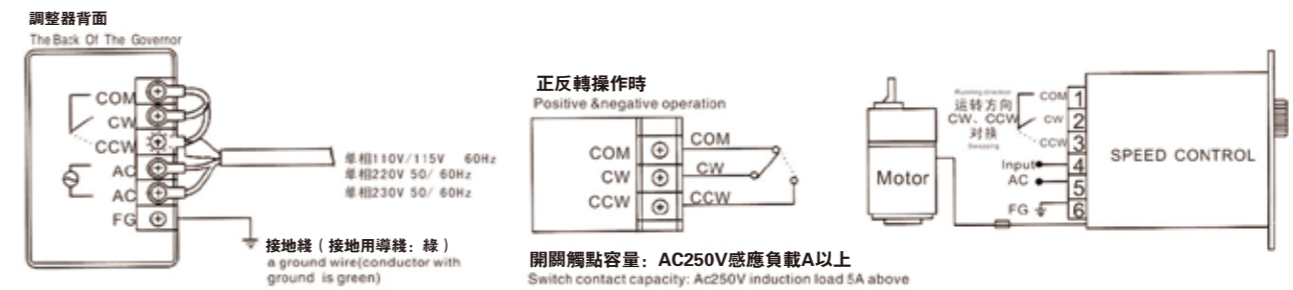
	<ul style="list-style-type: none"> ● 結構\原理: 交流感應電機, 單相電壓採用電容式結構運轉。 Structure: Ac induction motor; Single phase; voltage Capacitive structure operation ● 功效\特點: 體積小, 大功率, 單相、三相齊全, 功率種類繁多。 Characteristic: Small volume; High power; Single phase and three-phase includes, different kinds of power
	<ul style="list-style-type: none"> ● 結構\原理: 直齒, 斜齒混合結構; 全滾珠軸承; 鋁合金高剛性結構。 Structure: Straight teeth and helical mixing structure; ball bearing; Aluminum alloy high rigid structure ● 功效\特點: 低噪音, 超長壽命; 外型美觀, 安裝方便。 Characteristic: Low noise; Long life; Beautiful design; Easy installation
	<ul style="list-style-type: none"> ● 結構\原理: 整體鋁合金壓鑄, 表面經過銑削加工。 Structure: Integral aluminum alloy die casting; Surface milling; ● 功效\特點: 高剛性、堅固耐用, 直角精確度高, 外型精美。 Characteristic: High rigidity, strong and durable; Rectangular high precision, Appearance elegant
	<ul style="list-style-type: none"> ● 結構\原理: 閉環式電子調速; 隱藏運行電容, 外觀更精緻; 可選擇數顯或旋鈕控制方式。 Structure: A closed-loop type electronic speed control; Hidden running capacitor; Appearance elegant; optional control mode ● 功效\特點: 調速範圍廣, 安裝方便。 Characteristic: Wide speed range; Easy installation
	<ul style="list-style-type: none"> ● 結構\原理: 電子變頻器, 領先驅動技術, 充分發揮電機最佳性能 Structure: The electronic frequency converter; Leading drive technology; Give full play to the motor optimal performance ● 功效\特點: 功能強, 可靠性高, 可與PLC兼容 Characteristic: powerful function; High reliability; Can be compatible with the PLC
	<ul style="list-style-type: none"> ● 結構\原理: 內置電磁制動器。 Structure: Built-in electromagnetic brake ● 功效\特點: 電源斷電即可制動, 保持負載; 單相三相型號齊全。 Characteristic: Braking after power outage, keep the load; Single phase and three-phase included

電機+調速器接線圖 Motor+ Governor Wiring Diagram

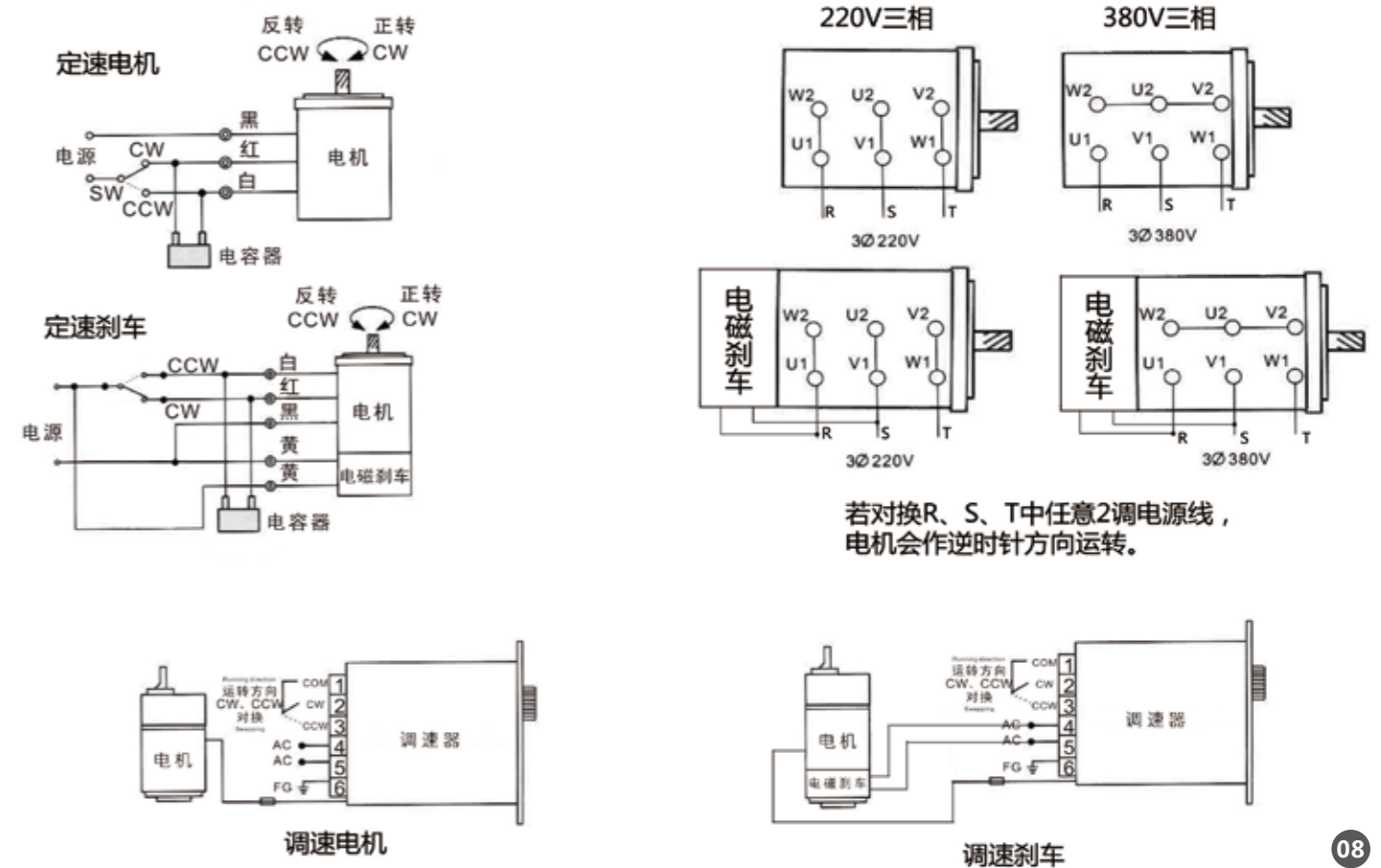
● 尺寸與特徵 Size And Characteristics



● 接線圖 Wiring Diagram



● 電機接線圖 Motor Wiring Diagram



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電機、減速機尺寸圖
Dimensions of motor and reducer

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電機參數
Motor characteristics

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Reducer characteristics

電機、減速機尺寸圖
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Technical parameters / dimension drawings

定速電機 STANDARD MOTOR 6W-250W

德國技術 傳動未來

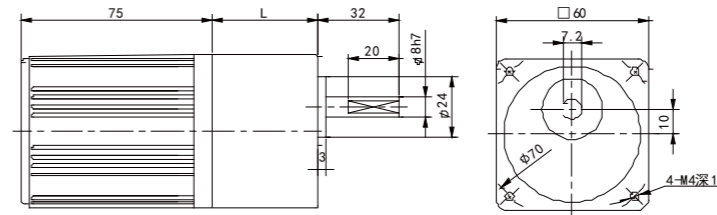
GERMAN TECHNOLOGY DRIVE IN
THE FUTURE

定速電機 Standard motor 6w 60*60mm

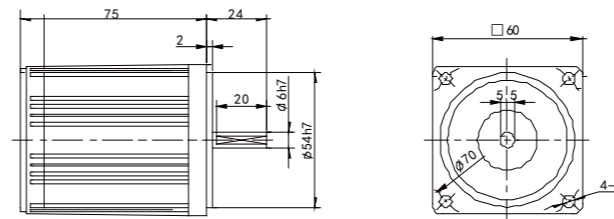


尺寸圖 Size drawing

定數電機 Constant Speed Motor 2IK6GN-C+2GN□K L=40 20-180



圓軸電機 Circular Shaft Motor 2IK6A-C



●電機特性 Motor characteristics

■規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output W	電壓 voltage V	頻率 frequency Hz	電流 current A	起動轉矩 Starting torque mN·m	額定轉矩 Rated torque mN·m	額定轉速 Rated speed r/min	電容量/耐壓 Capacitance/ pressure endurance μF/AC
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor								
2IK6A-A	2IK6GN-A	6	單相110	50/60	0.24	50	45	1250/1550	2/250v
2IK6A-C	2IK6GN-C	6	單相220	50/60	0.12	50	45	1250/1550	0.6/450v



middle reducer gearbox
標準減速箱
速比: 1: 3~180

●減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	15	15	18	20	25	30	36	40	40	60	75	90	100	120	150	180	250
2IK6GN-□	Kg/cm	1.30	1.50	2.10	2.60	3.20	3.90	4.30	6.40	6.40	7.70	7.70	9.70	11.60	13.90	15.50	15.50	21.00	26.20	30.00	30.00	30.00	30.00	30.00	30.00
	N.m	0.13	0.15	0.21	0.26	0.31	0.38	0.42	0.63	0.63	0.76	0.76	0.95	1.14	1.36	1.52	1.52	2.06	2.57	2.94	2.94	2.94	2.94	2.94	2.94

■裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ: 1350r/min 60HZ:1620r/min）為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2-20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機
speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

定速電機 Standard motor 15w 70*70mm



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output W	電壓 voltage V	頻率 frequency Hz	電流 current A	起動轉矩 Starting torque mN·m	額定轉矩 Rated torque mN·m	額定轉速 Rated speed r/min	電容量/耐壓 Capacitance/ pressure endurance μF/AC
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor								
3IK15A-A	3IK15GN-A	15	單相 110	50/60	0.36	95	118	1250/1550	5/250V
3IK15A-C	3IK15GN-C	15	單相 220	50/60	0.16	95	118	1250/1550	1.2/450V



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180

● 減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

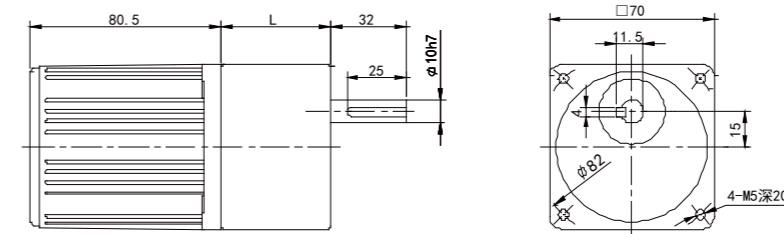
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	40	60	75	90	100	120	150	180	250
3IK15GN-□	Kg/cm	3.20	3.90	5.40	6.50	8.10	9.70	10.80	13.50	16.20	19.40	24.20	29.10	34.90	38.80	43.60	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	N.m	0.31	0.38	0.53	0.64	0.79	0.95	1.06	1.32	1.59	1.90	1.90	2.37	2.85	3.42	3.81	4.28	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

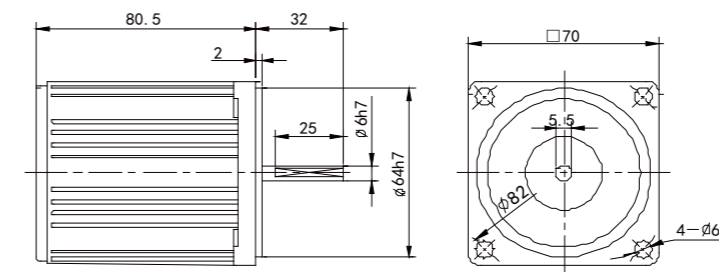
- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- □ 色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ: 1350r/min 60HZ:1620r/min）為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2-20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

尺寸圖 Size drawing

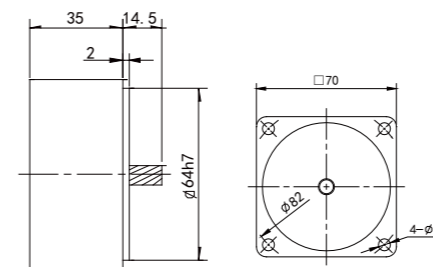
■ 定速電機 Constant Speed Motor 3IK15GN-C+3GN□K L=35.5 3-15 L=46.5 18-180



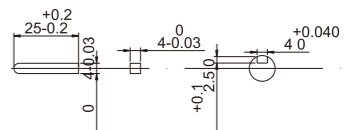
■ 圓軸電機 Circular Shaft Motor 3IK15A-C



■ 中間減速機 Intermediate Speed Reducer 3GN10K



■ 鍵 Key



定速電機
Standard motor
25w
80*80mm



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output W	電壓 voltage V	頻率 frequency Hz	電流 current A	起動轉矩 Starting torque mN·m	額定轉矩 Rated torque mN·m	額定轉速 Rated speed r/min	電容量/耐壓 Capacitance/ pressure endurance μF/AC
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor								
4IK25A-A	4IK25GN-A	25	單相110	50/60	0.52	150	205	1300/1600	6/250v
4IK25A-C	4IK25GN-C	25	單相220	50/60	0.25	150	205	1300/1600	1.5/450v
4IK25A-S3	4IK25GN-S3	25	三相380	50/60	0.12	470	205	1300/1600	
4IK25A-S	4IK25GN-S	25	三相220	50/60	0.2	470	205	1300/1600	



middle reducer gearbox
標準減速箱
速比: 1: 3~180



middle real axis
直角中實減速箱
速比: 1: 10~180



quill shaft
直角中空減速箱
速比: 1: 10~180

● 減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

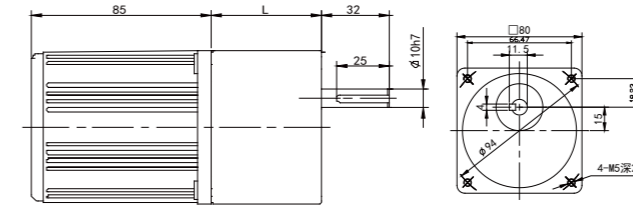
型號 Model	轉速 speed r/min 減速比 Reduction ratio	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
		3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
4IK25GN-□	Kg/cm	3.40	4.10	5.70	6.80	8.50	10.20	11.30	14.20	17.00	20.40	25.60	30.70	36.80	40.90	46.20	55.40	69.20	80.00	80.00	80.00	80.00	80.00	80.00	
	N.m	0.33	0.40	0.56	0.67	0.83	1.00	1.11	1.39	1.67	2.00	2.00	2.51	3.01	3.61	4.01	4.53	5.43	6.79	7.84	7.84	7.84	7.84	7.84	

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

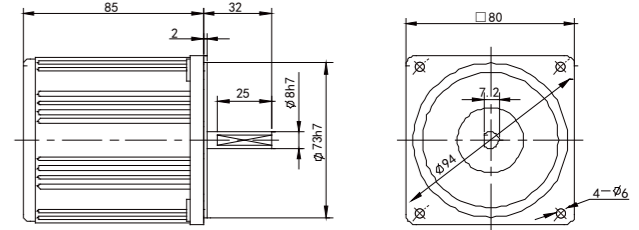
- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ: 1350r/min 60HZ:1620r/min）為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2~20%左右
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- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

尺寸圖 Size drawing

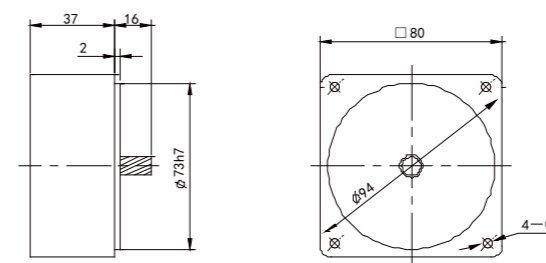
■ 定速電機 Constant Speed Motor
4IK25GN-C+4GN□K L=38.5 3-18
L=52 20-180



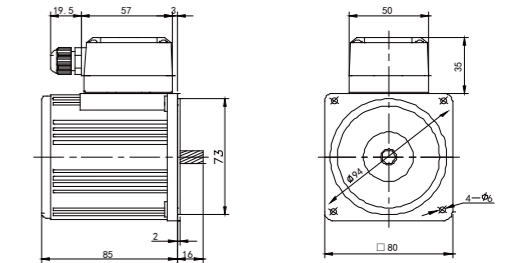
■ 圓軸電機 Circular Shaft Motor
4IK25A-C



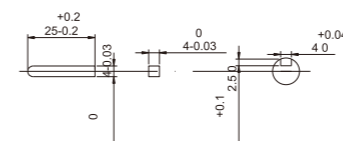
■ 中間減速機 Intermediate Speed Reducer
4GN10K



■ 齒軸帶接線盒 Motor With Terminal Box
4IK25GN-CT

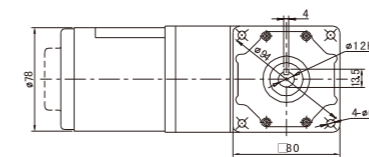


■ 鍵 Key



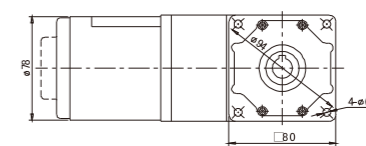
電機+中實軸

Electrical machinery+middle real axis



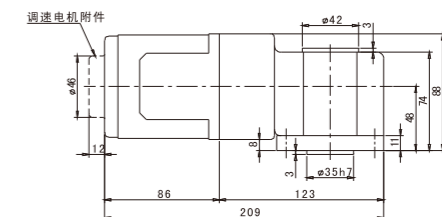
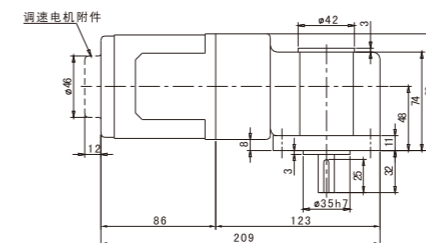
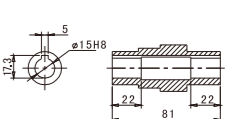
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



定速電機

Standard motor

40w

90*90mm



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated ■ 規格 30分鐘額定 Provisions For 30 Minutes Rated

電機型號 Motor model		出力 output W	電壓 voltage V	頻率 frequency Hz	電流 current A	起動轉矩 Starting torque mN·m	額定轉矩 Rated torque mN·m	額定轉速 Rated speed r/min	電容量/耐壓 Capacitance/ pressure endurance μF/AC
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor								
51K40A-A	51K40GN-A	40	單相110	50/60	0.65	270	300	1300/1600	10/250V
51K40A-C	51K40GN-C	40	單相220	50/60	0.33	270	300	1300/1600	2.5/450V
51K40A-S3	51K40GN-S3	40	三相380	50/60	0.18	970	300	1300/1600	
51K40A-S	51K40GN-S	40	三相220	50/60	0.31	970	300	1300/1600	
5RK40A-A	5RK40GN-A	40	單相110	50/60	0.65	270	300	1300/1600	12/250v
5RK40A-C	5RK40GN-C	40	單相220	50/60	0.33	270	300	1300/1600	3.0/450V



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

● 減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

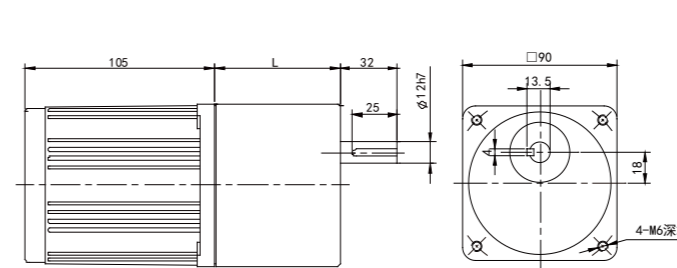
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
51K40GN-□	Kg/cm	8.30	9.90	13.80	16.50	20.70	24.80	27.50	34.40	41.30	49.60	62.10	74.50	89.40	99.30	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	N.m	0.81	0.97	1.35	1.62	2.03	2.43	2.70	3.37	4.05	4.86	4.86	6.09	7.30	8.76	9.73	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

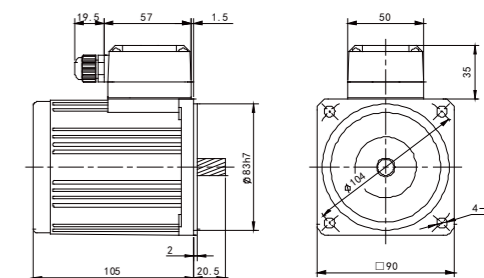
- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- □色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2~20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2~20% its desirable to install the intermediate speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

尺寸圖 Size drawing

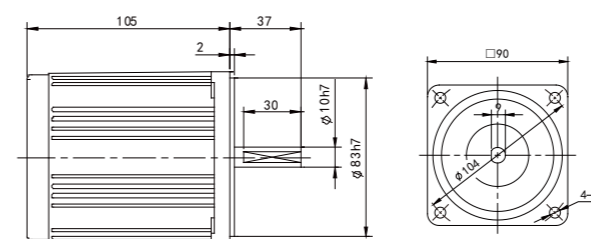
■ 定速電機 Constant Speed Motor
51K40GN-C+5GN□K L=47.3 3-15
L=69.3 18-180



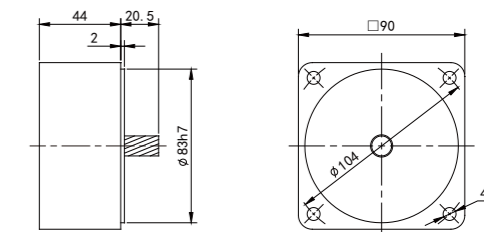
■ 齒軸帶接線盒 Motor With Terminal Box
51K40GN-CT



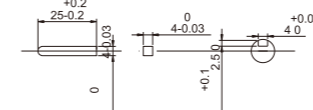
■ 圓軸電機 Circular Shaft Motor
51K40A-C



■ 中間減速機 Intermediate Speed Reducer
5GN10K

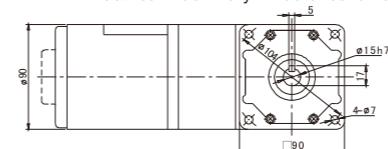


■ 鍵 Key



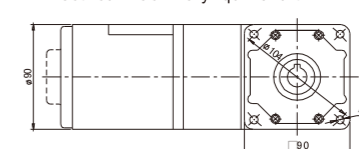
電機+中實軸

Electrical machinery+middle real axis



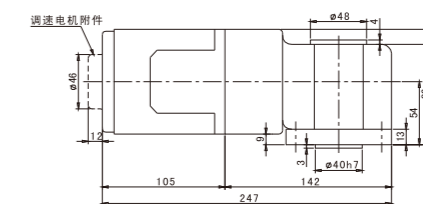
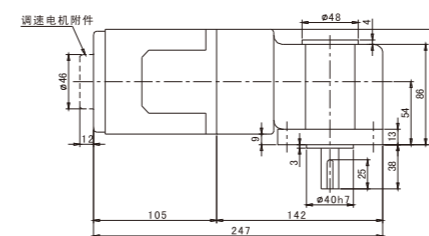
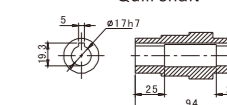
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



定速電機

Standard motor

60w

90*90mm



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated ■ 規格 30分鐘額定 Provisions For 30 Minutes Rated

电机型号 Motor model		出力 output W	电压 voltage V	频率 frequency Hz	电流 current A	起动转矩 Starting torque mN·m	额定转矩 Rated torque mN·m	额定转速 Rated speed r/min	电容容量/耐压 Capacitance/ pressure endurance μF/AC
圓軸电机 Circular shaft motor	齒軸电机 Gear shaft motor								
5IK60A-AF	5IK60GU-AF	60	單相110	50/60	0.90	397	450	1300/1600	14/250v
5IK60A-CF	5IK60GU-CF	60	單相220	50/60	0.52	397	450	1300/1600	3.5/450V
5IK60A-S3F	5IK60GU-S3F	60	三相380	50/60	0.18	970	450	1300/1600	
5IK60A-SF	5IK60GU-SF	60	三相220	50/60	0.31	970	450	1300/1600	
5RK60A-AF	5RK60GU-AF	60	單相110	50/60	0.90	397	450	1300/1600	12/250v
5RK60A-CF	5RK60GU-CF	60	單相220	50/60	0.52	397	450	1300/1600	3.0/450V



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

● 減速機特性 Motor characteristics

单位 = 上段: N·m / 下段: kgfcm
Unit = upper segment: N·m / lower segment: kgfcm

型號 Model	轉速 speed r/min	減速比 Reduction ratio																							
		450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
5IK60GN-□	Kg/cm	12.20	14.60	20.30	24.30	30.40	36.50	40.50	45.60	54.80	65.70	73.00	82.50	99.00	119.00	132.00	165.00	198.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	1.20	1.43	1.99	2.38	2.99	3.58	3.97	4.47	5.37	6.44	7.15	8.09	9.70	11.66	12.94	16.17	19.40	19.60	19.60	19.60	19.60	19.60	19.60	19.60

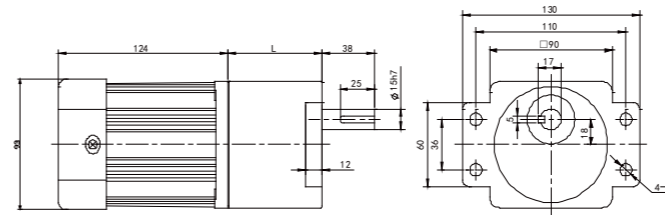
■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型。
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向。
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2~20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機
speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

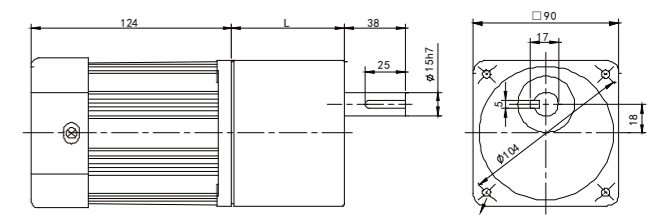
■ 定速電機 Constant Speed (control) Machine

5IK60GU-CF+5GU□K L=47.3 3-15
L=69.3 18-180



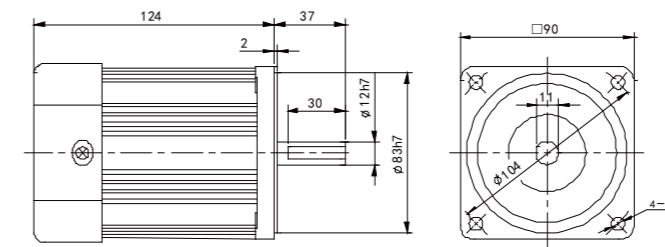
■ 定速電機 Constant Speed (control) Machine

5IK60GU-CF+5GU□KB L=47.3 3-15
L=69.3 18-180



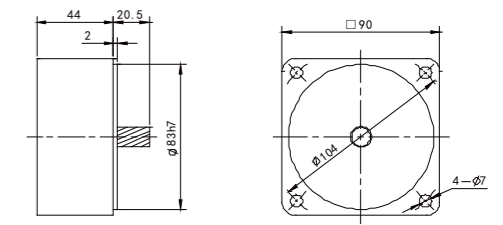
■ 圓軸電機 Circular Shaft Motor

5IK60A-CF

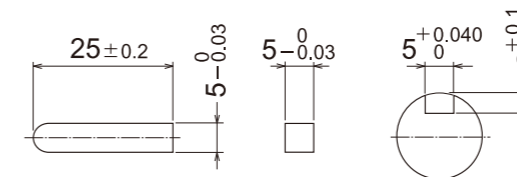


■ 中間減速機 Intermediate Speed Reducer

5GN10K (60W.90W.120W共用)

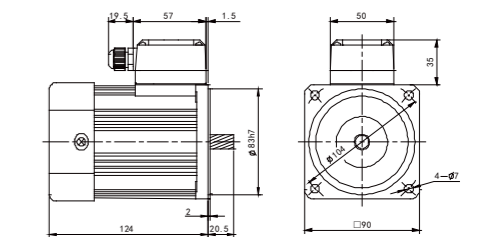


■ 鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)



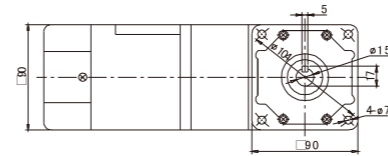
■ 齒軸帶接線盒 Motor With Terminal Box

5IK60GU-CFT



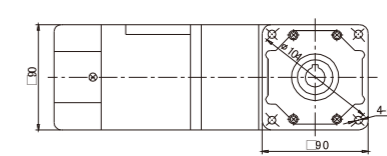
電機+中實軸

Electrical machinery+middle real axis



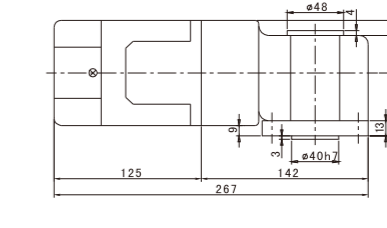
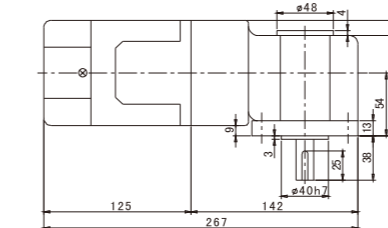
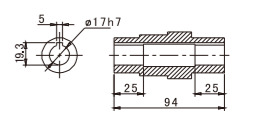
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



定速電機

Standard motor

90w

90*90mm



●電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated ■ 規格 30分鐘額定 Provisions For 30 Minutes Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
51K90A-AF	51K90GU-AF	90	單相110	50/60	1.2	580	670	1300/1600	20/250v
51K90A-CF	51K90GU-CF	90	單相220	50/60	0.5	580	670	1300/1600	5.0/450v
51K90A-S3F	51K90GU-S3F	90	三相380	50/60	0.38	2400	670	1300/1600	
51K90A-SF	51K90GU-SF	90	三相220	50/60	0.66	2400	670	1300/1600	
5RK90A-AF	5RK90GU-AF	90	單相110	50/60	1.2	580	670	1300/1600	24/250v
5RK90A-CF	5RK90GU-CF	90	單相220	50/60	0.58	580	670	1300/1600	6.0/450v



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

●減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

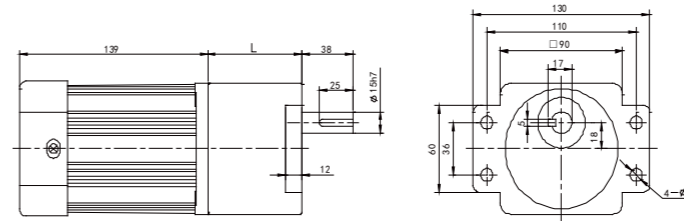
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
51K90GN-□	Kg/cm	15.82	18.98	26.33	31.63	39.49	47.35	52.35	59.29	71.22	85.41	94.90	107.14	128.57	154.08	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	1.55	1.86	2.58	3.1	3.87	4.64	5.13	5.81	6.98	8.37	9.3	10.5	12.6	15.1	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

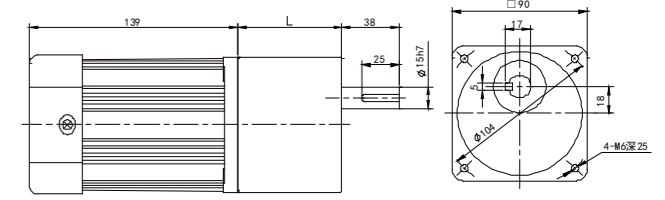
- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2~20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2~20% its desirable to install the intermediate speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

尺寸圖 Size drawing

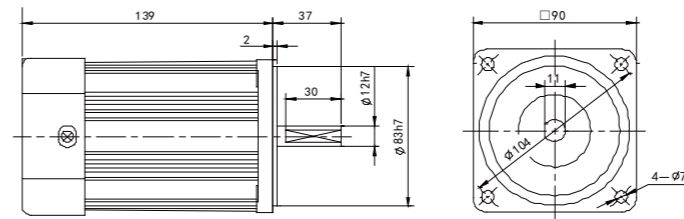
■ 定速電機 Constant Speed (control) Machine
51K90GU-CF+5GU□K L=47.3 3-15
L=69.3 18-180



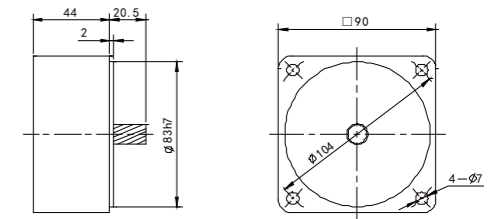
■ 定速電機 Constant Speed (control) Machine
51K90GU-CF+5GU□KB L=47.3 3-15
L=69.3 18-180



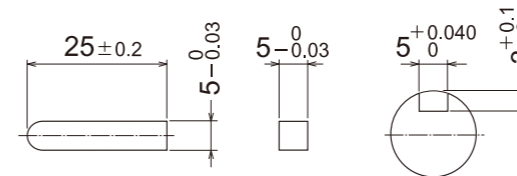
■ 圓軸電機 Circular Shaft Motor
51K90A-CF



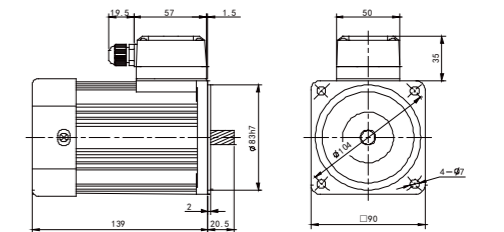
■ 中間減速機 Intermediate Speed Reducer
5GN10XK (60W.90W.120W共用)



■ 鍵 Key (60W.90W.120W.140W.160W.
180W.200W.250W共用)

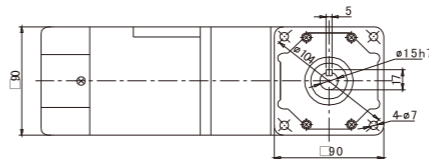


■ 齒軸帶接線盒 Motor With Terminal Box
51K90GU-CFT



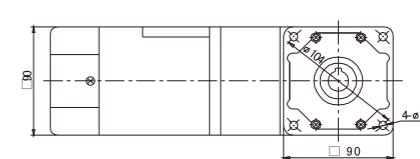
電機+中實軸

Electrical machinery+middle real axis



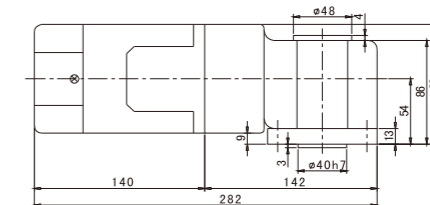
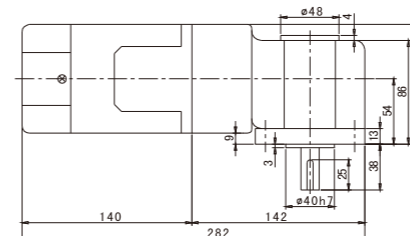
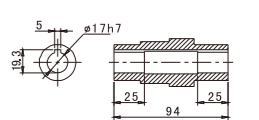
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



定速電機

Standard motor

120w

90*90mm



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated ■ 規格 30分鐘額定 Provisions For 30 Minutes Rated

電機型號 Motor model		出力 output W	電壓 voltage V	頻率 frequency Hz	電流 current A	起動轉矩 Starting torque mN·m	額定轉矩 Rated torque mN·m	額定轉速 Rated speed r/min	電容量/耐壓 Capacitance/pressure endurance μF/AC
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor								
5IK120A-AF	5IK120GU-AF	120	單相110	50/60	1.68	650	800	1300/1600	24/250V
5IK120A-CF	5IK120GU-CF	120	單相220	50/60	0.81	650	800	1300/1600	6.0/450V
5IK120A-S3F	5IK120GU-S3F	120	三相380	50/60	0.43	2900	800	1300/1600	
5IK120A-SF	5IK120GU-SF	120	三相220	50/60	0.74	2900	800	1300/1600	
5RK120A-AF	5RK120GU-AF	120	單相110	50/60	1.80	720	890	1300/1600	30/250V
5RK120A-CF	5RK120GU-CF	120	單相220	50/60	0.95	720	890	1300/1600	8.0/450V



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

● 減速機特性 Motor characteristics

◇ 50Hz

型號 Model	轉速 speed r/min 減速比 Reduction ratio	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
		3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
5IK120GN-□	Kg/cm	23.20	27.80	38.70	46.40	58.00	69.60	77.40	87.00	104.00	125.00	139.00	156.00	188.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	2.28	2.73	3.79	4.55	5.69	6.83	7.59	8.53	10.24	12.29	13.65	15.36	18.43	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

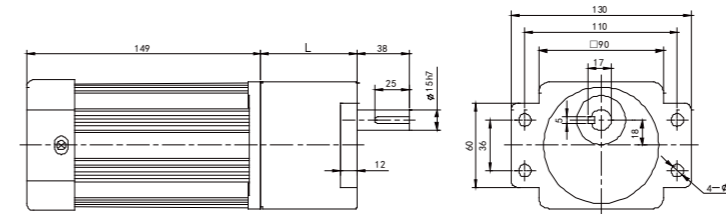
■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2~20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

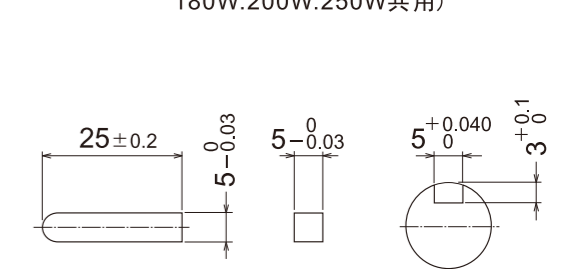
尺寸圖 Size drawing

■ 定速電機 Constant Speed (control) Machine

5IK120GU-CF+5GU□K L=47.3 3-15
L=69.3 18-180

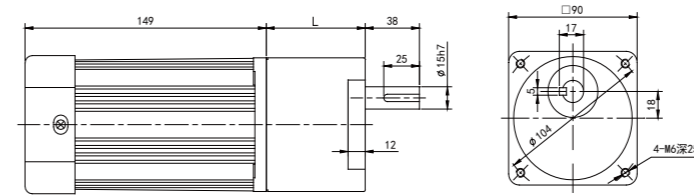


■ 鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)

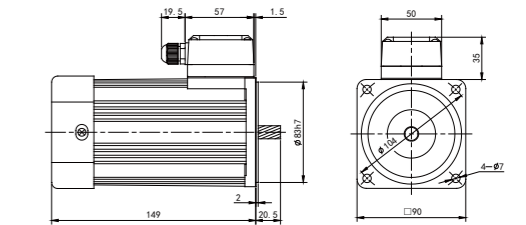


■ 定速電機 Constant Speed (control) Machine

5IK120GU-CF+5GU□KB L=47.3 3-15
L=69.3 18-180

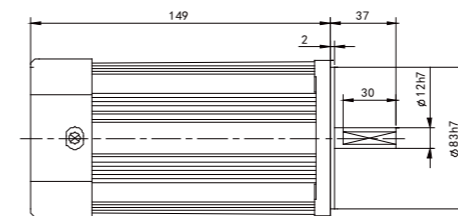


■ 齒軸帶接線盒 Motor With Terminal Box 5IK120GU-CFT

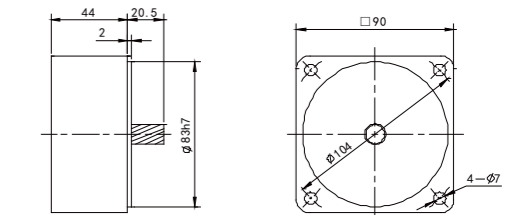


■ 圓軸電機 Circular Shaft Motor

5IK120A-CF

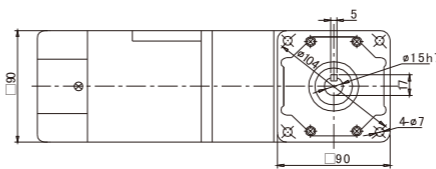


■ 中間減速機 Intermediate Speed Reducer 5GN10XK (60W.90W.120W共用)



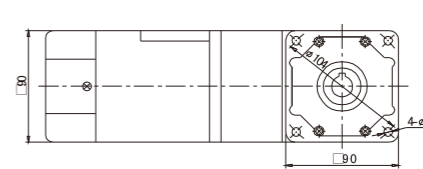
電機+中實軸

Electrical machinery+middle real axis



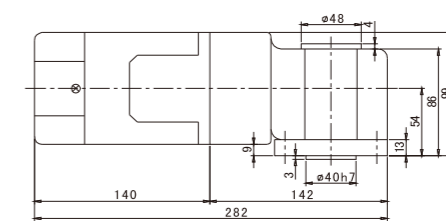
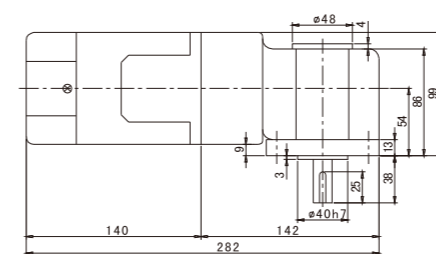
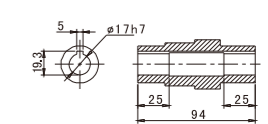
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



定速電機

Standard motor

140w

90*90mm



●電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated ■ 規格 30分鐘額定 Provisions For 30 Minutes Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容量/耐壓 Capacitance/pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
5IK140A-AF	5IK140GU-AF	140	單相110	50/60	2.35	900	1000	1350/1650	30/250V
5IK140A-CF	5IK140GU-CF	140	單相220	50/60	2.35	900	1000	1350/1650	7.0/450V
5IK140A-S3F	5IK140GU-S3F	140	三相380	50/60	0.56	3500	1000	1350/1650	
5IK140A-SF	5IK140GU-SF	140	三相220	50/60	0.12	3500	1000	1350/1650	
5RK140A-AF	5RK140GU-AF	140	單相110	50/60	2.1	945	990	1350/1650	32/250
5RK140A-CF	5RK140GU-CF	140	單相220	50/60	1.2	945	990	1350/1650	9.0/450



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

●減速機特性 Motor characteristics

◇ 50Hz

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
5IK140GN-□	Kg/cm	24.50	29.10	40.00	47.70	59.30	70.90	78.70	88.30	105.30	126.30	140.30	157.30	189.30	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	2.41	2.286	3.92	4.68	5.82	6.96	7.72	8.66	10.37	12.42	13.78	15.49	18.56	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74

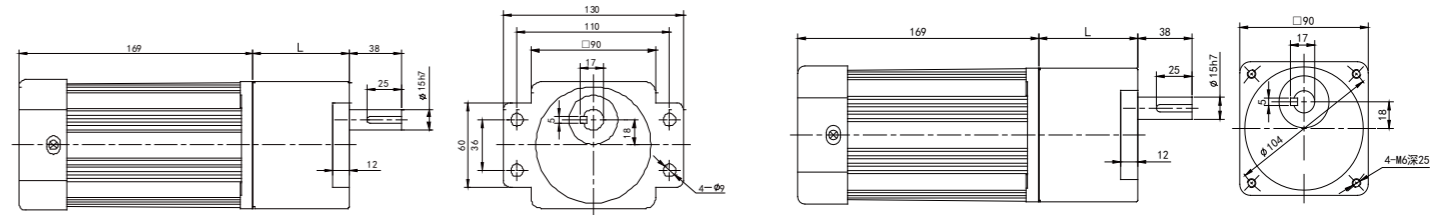
■裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
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- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

尺寸圖 Size drawing

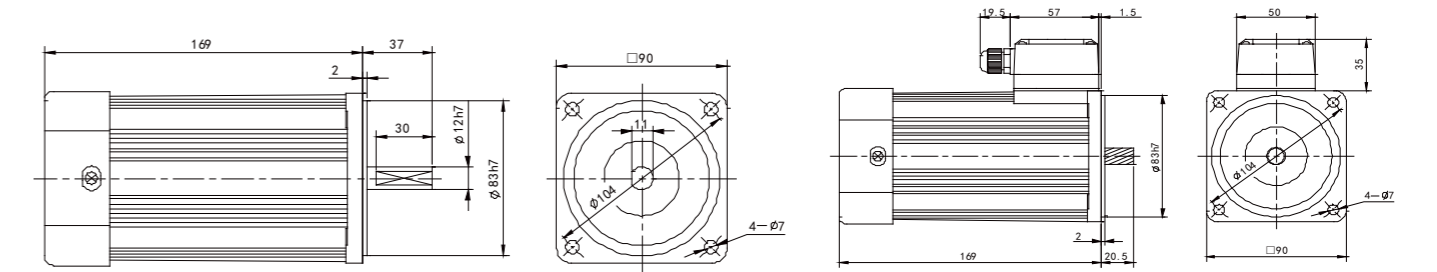
■ 定速電機 Constant Speed (control) Machine
5IK140GU-CF+5GU□K L=47.3 3-15
L=69.3 18-180

■ 定速電機 Constant Speed (control) Machine
5IK140GU-CF+5GU□KB L=47.3 3-15
L=69.3 18-180

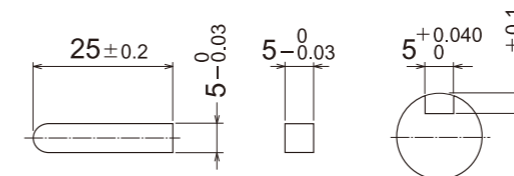


■ 圓軸電機 Circular Shaft Motor
5IK140A-CF

■ 齒軸帶接線盒 Motor With Terminal Box
5IK140GU-CFT

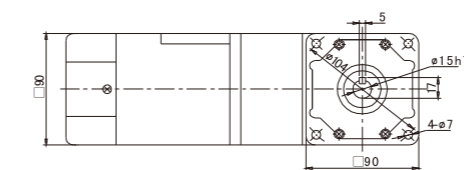


■ 鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)



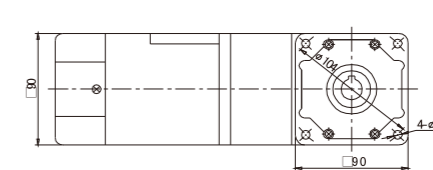
電機+中實軸

Electrical machinery+middle real axis



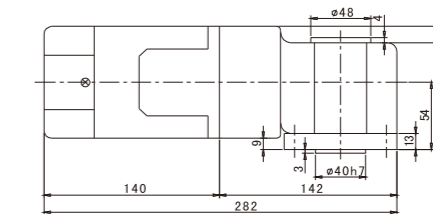
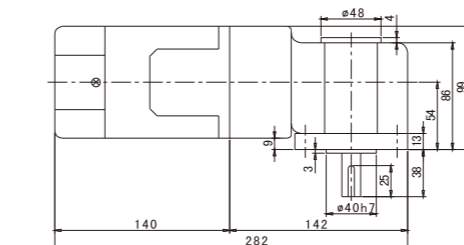
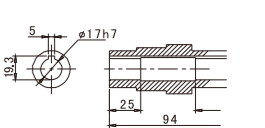
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



定速電機

Standard motor

160w

104*104mm



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
6IK160A-AF	6IK160GU-AF	160	單相110	50/60	2.4	950	1260	1350	32/250V
6IK160A-CF	6IK160GU-CF	160	單相220	50/60	1.25	950	1260	1350	8.0/450V
6IK160A-S3F	6IK160GU-S3F	160	三相380	50/60	0.55	3700	1260	1400	
6IK160A-SF	6IK160GU-SF	160	三相220	50/60	0.95	3700	1260	1400	



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

● 減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

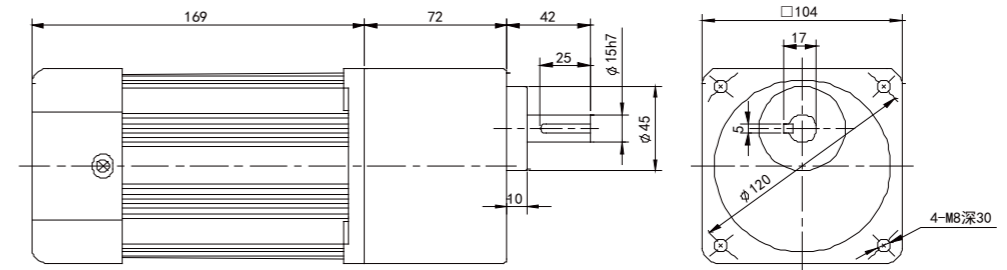
型號 Model	轉速 speed r/min	減速比 Reduction ratio																							
		450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
6IK160GN-□	Kg/cm	24.1	28.8	40.1	48.1	60.1	72.1	81.3	90.3	108	130	147	163	196	235	279	327	392	400	400	400	400	400	400	400
	N.m	2.36	2.83	3.93	4.71	5.89	7.07	7.96	8.85	10.6	12.7	14.35	16.0	19.2	23.0	27.6	32.0	38.4	39.2	39.2	39.2	39.2	39.2	39.2	39.2

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

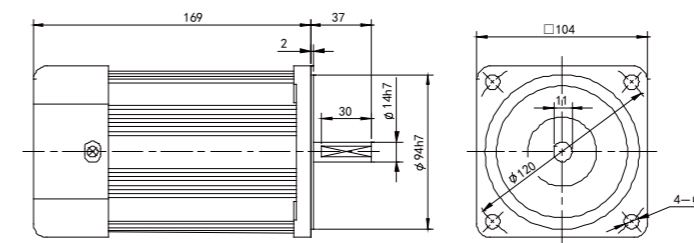
- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型。
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向。
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2~20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機
speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

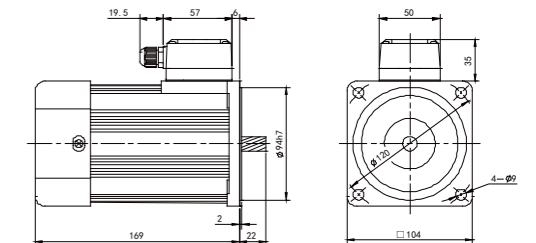
■ 定速電機 Constant Speed (control) Machine 6IK160GU-CF+6GU (3-180) K



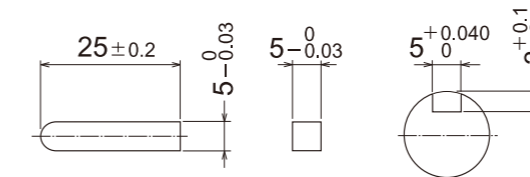
■ 圓軸電機 Circular Shaft Motor 6IK160A-CF



■ 齒軸帶接線盒 Motor With Terminal Box 6IK160GU-CFT

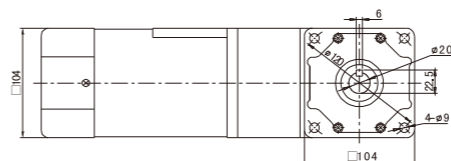


■ 鍵 Key (60W.90W.120W.140W.160W. 180W.200W.250W共用)



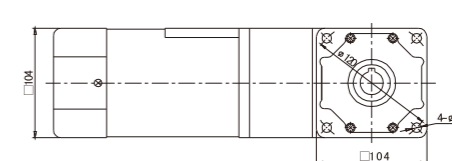
電機+中實軸

Electrical machinery+middle real axis



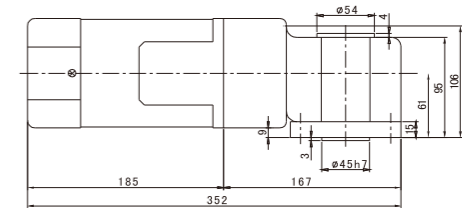
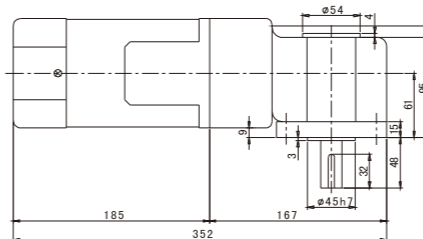
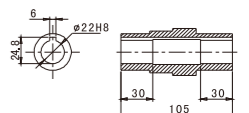
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



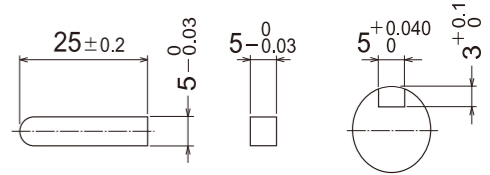
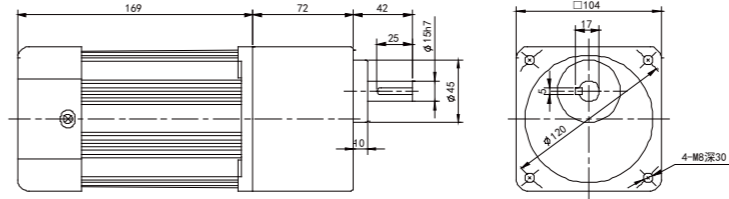
定速電機
Standard motor
180w
104*104mm



尺寸圖 Size drawing

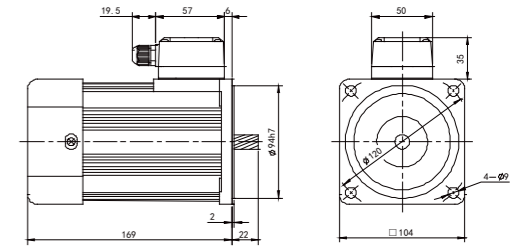
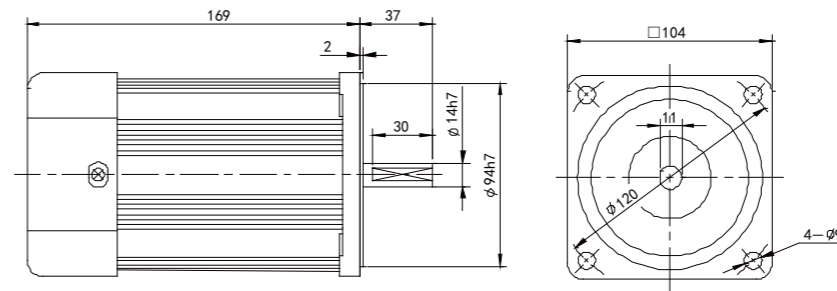
定速電機 Constant Speed (control) Machine
6IK180GU-CF+6GU (3-180)K

鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)



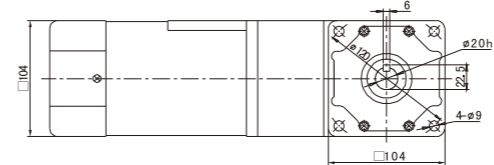
圓軸電機 Circular Shaft Motor
6IK180A-CF

齒軸帶接線盒 Motor With Terminal Box
6IK180GU-CFT



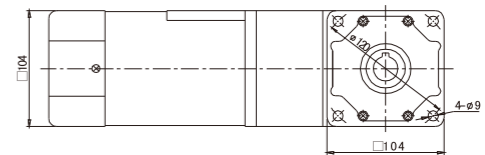
電機+中實軸

Electrical machinery+middle real axis



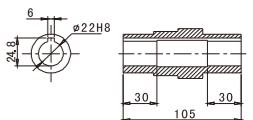
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output W	電壓 voltage V	頻率 frequency Hz	電流 current A	起動轉矩 Starting torque mN·m	額定轉矩 Rated torque mN·m	額定轉速 Rated speed r/min	電容量/耐壓 Capacitance/ pressure endurance μF/AC
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor								
6IK180A-AF	6IK180GU-AF	180	單相110	50/60	3.0	1020	1300	1350/1650	36/250V
6IK180A-CF	6IK180GU-CF	180	單相220	50/60	1.3	1020	1300	1350/1650	9.0/450V
6IK180A-S3F	6IK180GU-S3F	180	三相380	50/60	0.83	4000	1300	1350/1650	
6IK180A-SF	6IK180GU-SF	180	三相220	50/60	1.44	4000	1300	1350/1650	



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中空減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

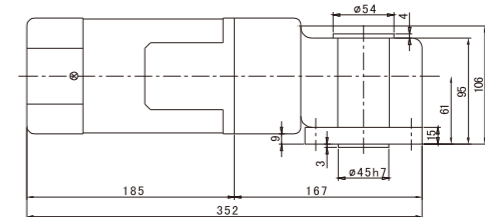
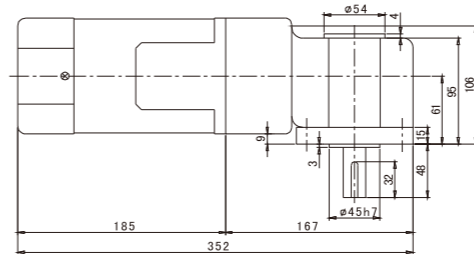
● 減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

型號 Model	轉速 speed r/min	減速比 Reduction ratio																							
		450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
6IK180GN-□	Kg/cm	30	36.02	50.00	60.00	74.59	90.00	104.08	120.41	144.90	172.45	202.04	231.63	277.55	317.35	369.39	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00
	N.m	2.94	3.53	4.9	5.88	7.31	8.82	10.2	11.8	14.2	16.9	19.8	22.7	27.2	31.1	36.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- □色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2-20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機
speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.



定速電機

Standard motor

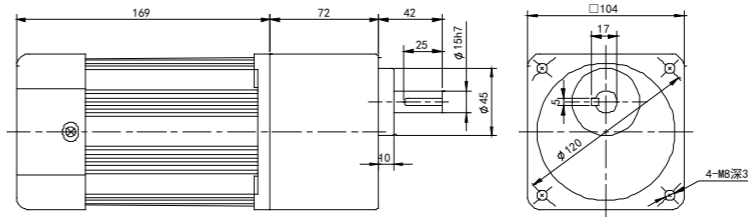
200w

104*104mm

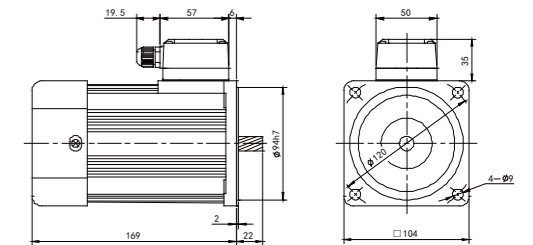


尺寸圖 Size drawing

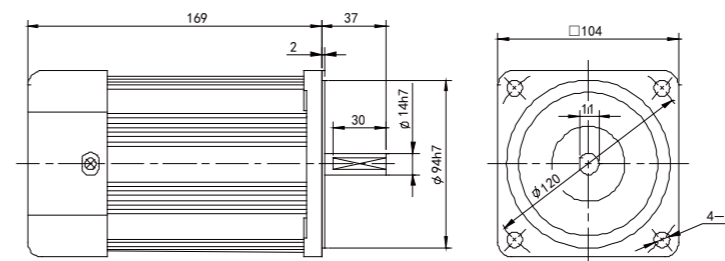
定速電機 Constant Speed (control) Machine 61K200GU-CF+6GU (3-180) K



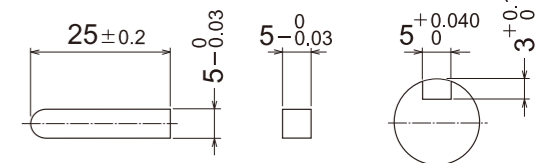
齒軸帶接線盒 Motor With Terminal Box 61K200GU-CFT



圓軸電機 Circular Shaft Motor 61K200A-CF



鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)



電機特性 Motor characteristics

規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output W	電壓 voltage V	頻率 frequency Hz	電流 current A	起動轉矩 Starting torque mN·m	額定轉矩 Rated torque mN·m	額定轉速 Rated speed r/min	電容量/耐壓 Capacitance/pressure endurance μF/AC
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor								
61K200A-AF	61K200GU-AF	200	單相110	50/60	3.2	1100	1470	1350/1650	40/250V
61K200A-CF	61K200GU-CF	200	單相220	50/60	1.6	1100	1470	1350/1650	10/450V
61K200A-S3F	61K200GU-S3F	200	三相380	50/60	0.75	4200	1460	1350/1650	
61K200A-SF	61K200GU-SF	200	三相220	50/60	1.45	4200	1460	1350/1650	



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

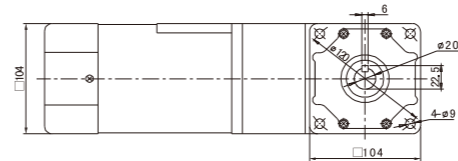
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
61K200GN-□	Kg/cm	35.2	42.3	58.8	70.6	88.2	106	126	147	176	212	253	294	353	400	400	400	400	400	400	400	400	400	400	400
	N.m	3.52	4.23	5.88	7.06	8.82	10.6	12.6	14.7	17.6	21.2	25.3	29.4	35.3	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2

裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則為相反方向
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速 (50HZ: 1350r/min 60HZ:1620r/min) 為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2-20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

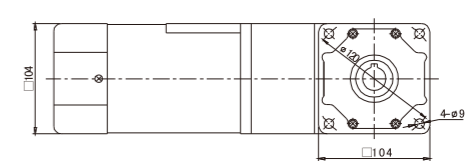
電機+中實軸

Electrical machinery+middle real axis



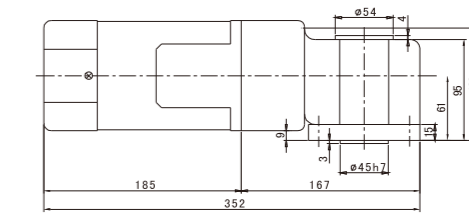
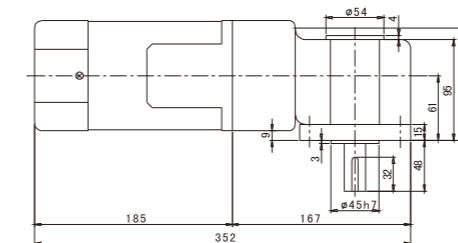
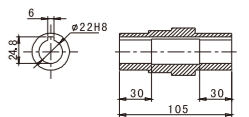
電機+中空軸

Electrical machinery+quill shaft



中空軸

Quill shaft



定速電機

調速電機

定速電磁制動電機

調速電磁制動電機

中型齒輪減速電機

行星減速機

定速電機 Standard motor 250w 104*104mm



● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

电机型号 Motor model		出力 output W	电压 voltage V	频率 frequency Hz	电流 current A	起动转矩 Starting torque mN·m	额定转矩 Rated torque mN·m	额定转速 Rated speed r/min	电容容量/耐压 Capacitance/ pressure endurance μF/AC
圆轴电机 Circular shaft motor	齿轴电机 Gear shaft motor								
6IK250A-AF	6IK250GU-AF	250	單相110	50/60	3.5	1200	1790	1350/1600	48/250V
6IK250A-CF	6IK250GU-CF	250	單相220	50/60	1.8	1200	1790	1350/1600	12/450V
6IK250A-S3F	6IK250GU-S3F	250	三相380	50/60	1.05	4500	1800	1350/1600	
6IK250A-SF	6IK250GU-SF	250	三相220	50/60	1.6	4500	1800	1350/1600	



middle reducer gearbox
■ 標準減速箱
速比: 1: 3~180



middle real axis
■ 直角中實減速箱
速比: 1: 10~180



quill shaft
■ 直角中空減速箱
速比: 1: 10~180

● 減速機特性 Motor characteristics

單位=上段: N.m/下段: kgfcm
Unit = upper segment: N·m/lower segment: kgfcm

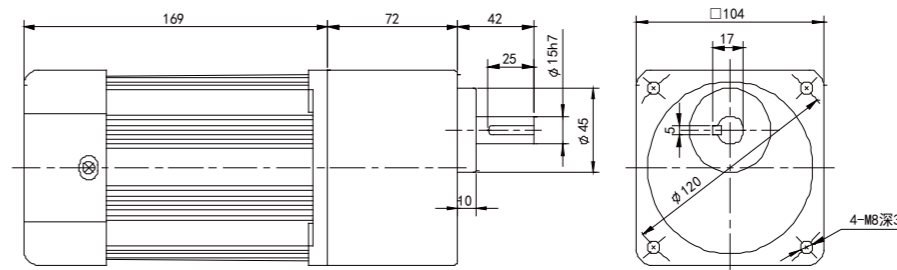
型號 Model	轉速 speed r/min	減速比 Reduction ratio																							
		450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
6IK250GN-□	Kg/cm	43	520	71.6	86	107	129	152	179	215	258	308	358	400	400	400	400	400	400	400	400	400	400	400	400
	N.m	4.3	5.2	7.16	8.6	10.7	12.9	15.2	17.9	21.5	25.8	30.8	35.8	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

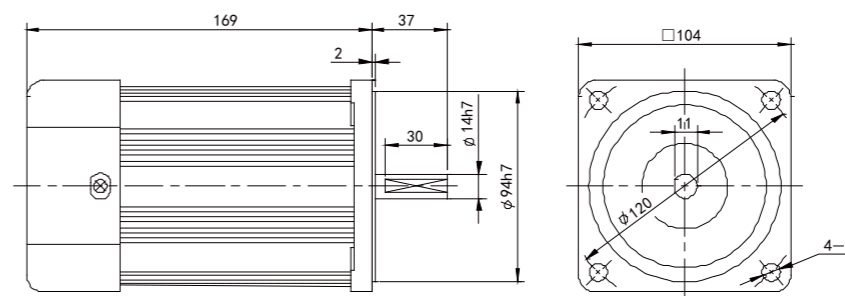
- 減速機品名的□中為減速比的數值，電動機品名的□為電機電壓類型。
The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- □色表示與電動機同一方向運轉，其它則為相反方向。
The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ: 1350r/min 60HZ:1620r/min）為基準除以減速比而算出的數值。
The speed is calculated by dividing the speed of the motor by the reduction ratio (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
實際轉速將隨負載大小變化而比所示數值減少2-20%左右
The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比為10的中間減速機

尺寸圖 Size drawing

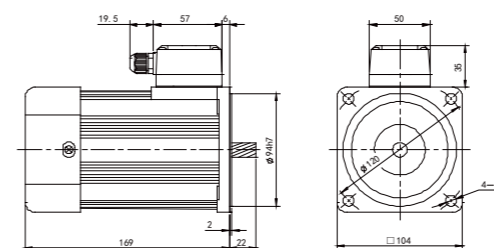
■ 定速電機 Constant Speed (control) Machine 6IK250GU-CF+6GU (3-180) K



■ 圓軸電機 Circular Shaft Motor 6IK250A-CF



■ 齒軸帶接線盒 Motor With Terminal Box 6IK250GU-CFT



■ 鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)

