Oriental motor

KII
KIIS

Standard AC Motors

Single-Phase Induction Motors

KII Series

Three-Phase High-Efficiency Induction Motors

KIIS Series

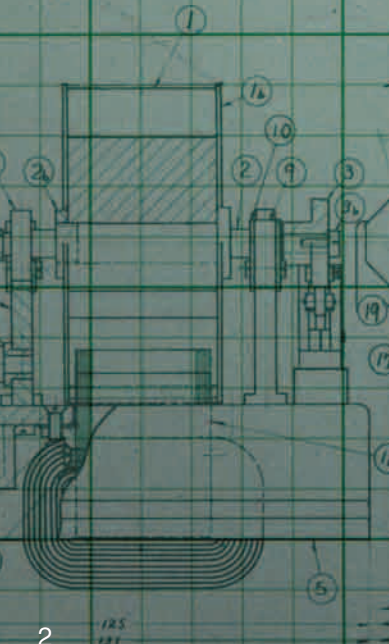
Since 1885

Founded In 1885. Legendary Craftsmanship.

Oriental Motor was founded in 1885. We were successful in making the prototype of an electric motor in 1909, when we started our business as a manufacturer of small motors. Since then, in our century-long history of continuing to evolve with the changing of the times, our basic concept of "having the heart to love things and people" has been passed down from generation to generation.

Pioneer In Standardization Of Motors

As a pioneer, Oriental Motor started the standardization of motors in the 1950s. For over 60 years, we have maintained the belief of "providing many customers with affordably priced, excellent motors regardless of the quantity they buy."



Global Benchmark Of Standard AC Motors

The **K** Series was released in 1966 followed by the World **K** Series. These two Series were considered the standard of all AC Motors. Even now, after half a century, many manufacturers are producing motors with the same shape and power output, making these Series the global benchmark to meet.

Challenge for Standardization of Next-Generation Motors

Oriental Motor has been positioned as the global benchmark of the Standard AC Motors for half a century. New products are now available with the performance and usability required for compact standard AC motors of the new generation. These products reflect our legendary advanced technology and the voices of countless customers. High-Strength gears stretch the limits of the motor, while highly efficient motors are designed specially for the new generation. In addition, prices are kept affordable with great usability for our customers. The **KⅡ** and **KⅡS** Series are setting a new benchmark for Standard AC Motors all over the world.

- High Reliability with High-Strength Gearhead
- High-Performance Motor with High Energy Efficiency
- User-Friendly Design Reflecting the Voices of countless Customers
- Guaranteed Support from Model Selection to After-Sales Service

New Generation/New Standard AC Motors

Single-Phase Induction Motors
KⅡ Series

Three-Phase High-Efficiency Induction Motors
KⅡS Series

High-Intensity Gearhead, High Reliability.

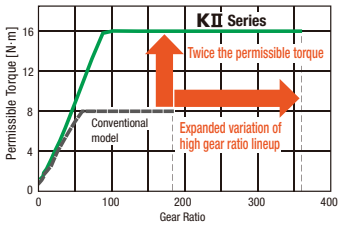
KII/KIIS Series Gearhead

High Permissible Torque

The permissible torque is twice that of conventional models

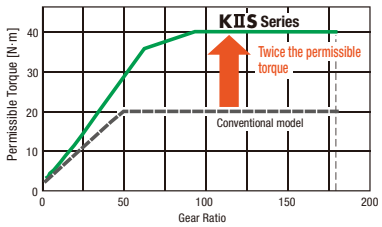
Increase in the strength of the gear raises the maximum permissible torque to twice the torque when compared with conventional models. A torque range that was unavailable can now be used.

● Gearhead output (permissible) torque for 25 W



KII Series

● Gearhead output (permissible) torque for 100 W



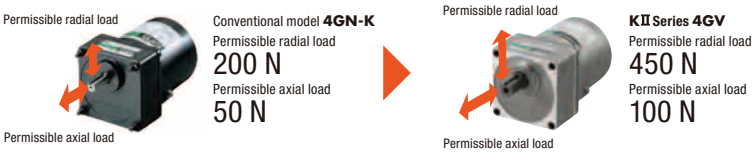
KIIS Series

High Strength

Permissible load is twice that of conventional models*

The strength of the permissible radial load and the permissible axial load is twice that of the conventional model.

*Remains the same in some products.



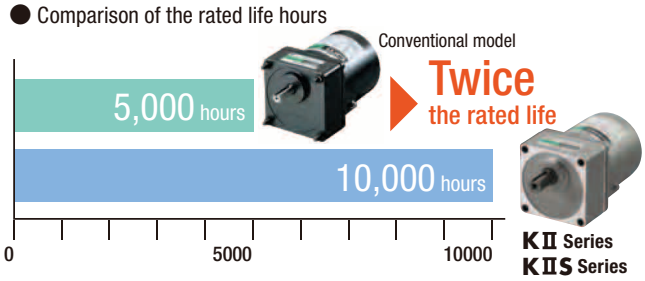
Long Life

The rated life is twice that of the conventional model

The large bore bearing used for this model extends the gearhead's rated life to 10,000 hours, which is twice that of the conventional model. This reduces the maintenance work for the device.

Rated life hours: Definition determined by Oriental Motor. For details, contact Oriental Motor.

● Comparison of the rated life hours

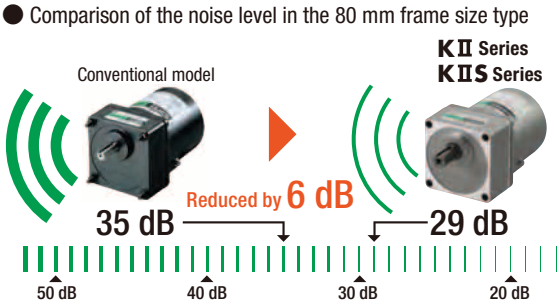


Silent

Reduced gear contact noise by 6 dB

Noises from motor/gearhead contact have been reduced by 6 dB compared with the conventional standard motor.

● Comparison of the noise level in the 80 mm frame size type



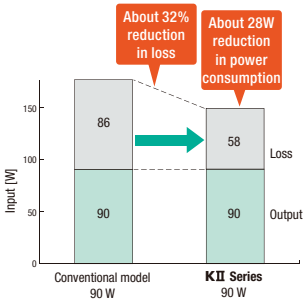
The Highest Level of Highly Efficient Motor.

KII/KIIS Series Motor

High Performance Motor Installed

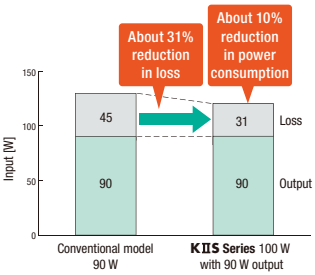
High efficiency

The optimal magnetic design and dedicated parts have dramatically reduced losses, achieving high efficiency. Compared with the conventional model under the same conditions, this model needs less power, contributing to a labor-saving device.



Single-Phase 200 VAC 60 Hz

KII Series

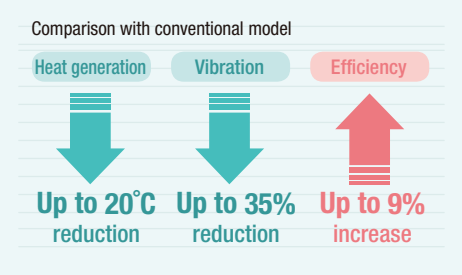


Three-Phase 200 VAC 60 Hz

KIIS Series

Low heat generation and low vibration

With less heat generation and vibration of the motor, achieved by reduced losses, the reliability of the device has increased.



Environmental Resistance

Fan-less structure

Reduction in loss has reduced the heat generation in the motor. Therefore, the **KII Series's** single-phase 220/230 VAC 50 Hz type and the **KIIS Series** do not require the cooling fan that was installed in the conventional models of 60 W or higher, resolving the problem of raising dust.

IP66 water resistance specification

The sealing structure of the motor, gearhead, and terminal box has been strengthened. The terminal box type* conforms to the IP66 rating degree of protection.

*Excluding the installation surface of the round shaft type

IP66: The IP indication that shows the water-resistant and dust-resistant performance is specified under IEC 60529 and IEC 60034-5.

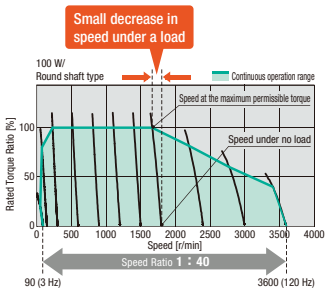
Induction Motor Terminal Box Type

Main specification
- Material: Case and terminal box: Aluminum; Output shaft: S45C; Screw: Stainless steel (Exposed part only)
- Surface treatment: Case and terminal box: Painted (Except the installation surface)

Best For Combination With An Inverter (KIIS Series only)

Variable speed control

By combining with an inverter, you can control the speed in a wide range from the low speed at 3 Hz to the high speed at 120 Hz. Even at a low speed, high torque is produced. In addition, less variation under loads enables more stable speed control.



●About use with an inverter of other manufacturers

For easy use of an inverter, we provide, for your reference, the "Speed - Torque characteristics" and "Parameter settings for the inverter" when this product is combined with an inverter of another manufacturer. For details, contact our customer support center.

User-Friendly Design of The Gears and Motors.

KⅡ/KⅡS Series Design

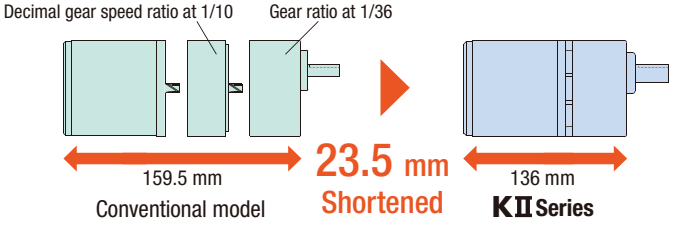
High Gear Ratio

Less overall length by the elimination of the decimal gearhead

The gearhead lineup offers a wide range of gear ratios from low gear ratios up to a maximum of 1/360. For the high gear ratio at 1/180, the decimal gearhead was previously required. Now, only one gearhead is required, achieving a saving of space.

∗ **KⅡ Series** For the output of 6 W to 25 W
KⅡ Series For 40 W and 60 W, up to 1/300; For 90 W, up to 1/180
KⅡS Series For 60 W, up to 1/300; For 100 W, 1/180

● For a gear ratio of 1/360 (25 W)



Output Axis Tapping

For motors with 25 W output power or higher, tapping has been applied to the output shaft end. This prevents the pulley and other transmission parts from coming off.

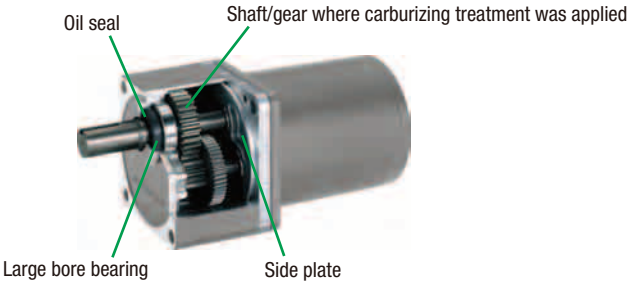
Increase In Installation Accuracy

The installation surface and pilot of the gearhead are polished. The gearhead can be installed into the device more accurately.

Built-In Oil Seal

Less grease leakage

Oil seal is installed in the final stage of the output shaft. This prevents grease from leaking. Furthermore, 40 W and higher motors use a special oil seal with high sealing performance. This provides highly reliable measures against grease leakage.



Combination Type

Pre-assembled gearhead

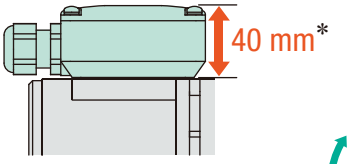
The combination type comes with a motor and a gearhead pre-assembled. This type makes the installation into the device easy, and you no longer have to worry about giving damage to the shaft, which may cause abnormal noise.

<What is the combination type?>
The combination type comes with the motor and gearhead pre-assembled with dedicated screws. Motors and gearheads are also available individually for maintenance.

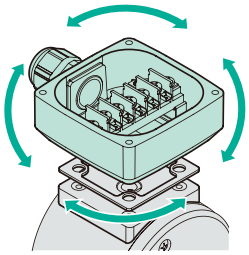
Slim Terminal Box

Improvement in workability

A slim terminal box is used to make wiring work easier. The box is slimmer than conventional products. The cable outlet can be changed by 90 degrees to four different directions. The slim terminal box type conforms to the IP66 rating degree of protection. (Except the installation surface of the round shaft type)



*For some round shaft types, the length is 46 mm.



Cost Performance

High performance at an affordable price

This model is affordably priced, equivalent to or less than conventional models, while increasing in strength and efficiency.

Conventional model

World **K** Series
25 W Three-Phase power supply input
GN-K Series
Gear ratio at 1/100

KII Series
25 W Three-Phase power supply input
Combination-type gearhead
Gear ratio at 1/100

International Standards

Conforms to safety standards

This series conforms to the UL/CSA Standards and the China Compulsory Certification System (CCC System), and is also affixed with the CE Marking (Low Voltage Directive).

Energy Efficiency Regulation in China Conforms to the First Grade (GB25958-2010) (**KII Series** only)

KII Series 220 VAC/230 VAC 50 Hz (except the 6 W type), we provide products obtaining certification under the China Certificate for Energy Conservation Products (CQC31-461113-2011).

Services Before Purchasing Our Products
How to enquire on our products.

KII/KIIS Series Service

Enquiries

"I have no idea how to use or connect the product ···"
"Do you have the product named ○○?"

First, please contact the Customer Support Centre.

● Customer Support Centre

Dedicated staff can assist you with any inquires regarding product selection, use of motors and any other technical issues by phone, e-mail or fax.

For Singapore : 1800-8420280 (Toll Free)
*Vietnamese Language support is available.
For Malaysia : 1800-806161 (Toll Free)
For Thailand : 1800-888-881 (Toll Free)
For Other Countries: +65-6842-0280

Operation Hours: 9.00am to 5.30pm
E-mail Addresss : sales@orientalmotor.com.sg

Japanese Customer Support Centre
日本語お客様ご相談センター
Tel: +65-6745-3008
Operation Hours : 9.00am to 5.30pm
E-mail address: j-support@orientalmotor.com.sg

No Minimum Order Quantity

We have developed the business base in the whole world. You can purchase our products directly from us by telephone, fax or through our website. Minimum order is one item.

Direct Backup in Various Situations

We continue to provide information related to "movement" and directly support our customers from the moment they consider "movement" untill after they purchase the product.

We have exhibitions and technical seminars at various location, and provide the latest product information through publications, website and e-mail newsletter. Face to Face - We support customers anytime, anywhere.

Services Before Purchasing Our Products
To Understand More on Our Products.

KII/KIIS Series Service

Technical Seminars

"I want to know how the motor operates"
"I want to use motors appropriately depending on their application."

Please attend our Technical Seminar.

▶Technical Seminars

Dedicated trainers will go through from basic motor knowledge to the applied technology and selection of the right motor. In addition, on-site seminars are also available.

You can register for our seminars from our website.

Demonstration, Confirmation and Operation of Products

"I want to know about the latest models."
"I want to check the actual movements and sounds."
"Can I check the operations with a sample?"

You can check our products at showrooms, motor fairs and exhibitions.

▶Showroom

An exhibit on the wide array of products is available here. With demonstrations provided, we can also provide technical advice and assist you to select the motor required.

*Showroom is available at ORIENTAL MOTOR SINGAPORE BRANCH

▶Exhibitions

We participate in major exhibitions in order to reach our customers and make our products better known. For information on exhibition schedules, feel free to contact us.

Motor Selection

"Which one is suitable for this application?"
"It's a hassle to calculate torque for selection."

Please use our sizing and selection service.

▶Sizing Selection Service

We provide motor selection service, such as calculation of torque, to assist our customers in selecting the right product.

*Motor selection software available for download at Oriental Motor website.

Types of Support and Services During- and After- Purchases

KII/KIIS Series Service

Purchasing

You can purchase our products through the telephone, Fax or the internet from one item onward!

● Inquiries for Orders and Quotation

"I want estimates of price and delivery."
"I want to order a product."
"I want to ask about payment."

For inquiries on purchase and modes of transaction, and for orders, please contact or use below:
Customer Support Centre
Website
Sales Offices

● Internet

You can make a quotation with "Personal Web Catalogue" on the website.

After Purchase (Technical Support)

"Suddenly the motor stopped working."
"An error seems to have occurred,
but I have no idea of the cause and how to handle it."

To avail a visit from a service engineer and for inspection and troubleshooting, please use below:
Field Service
Inspection and Repair Service

● Field Service

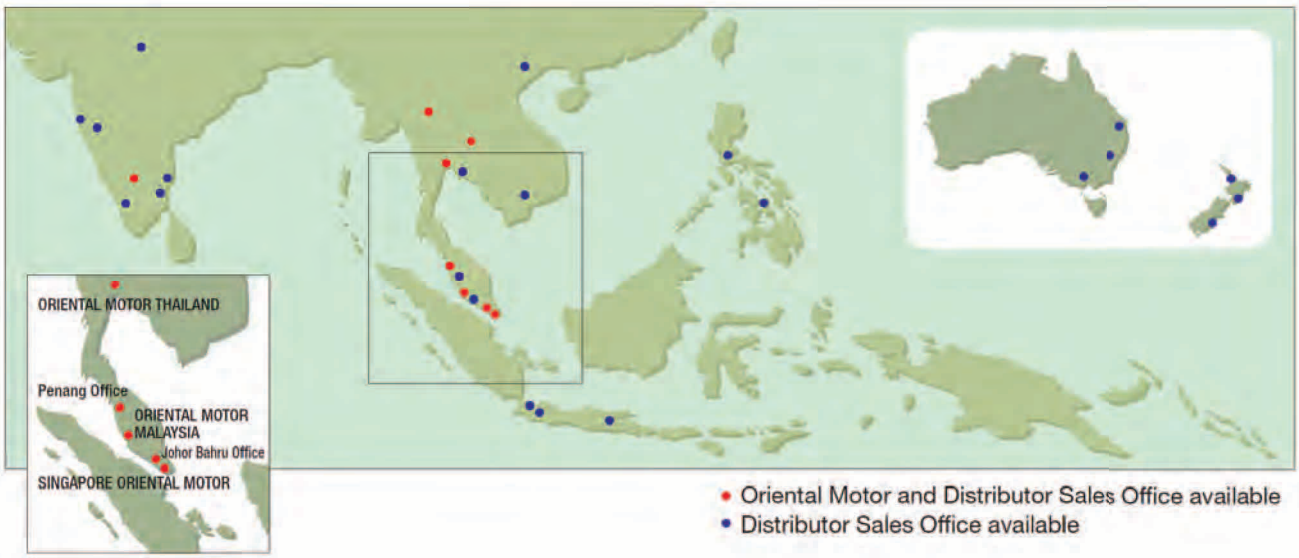
Dedicated service engineers will visit you when assistance is required on the usuage of our products. Please feel free to contact the customer support cemtre of your nearest sales offices.

● Inspection and Repair

Oriental Motor offers free inspection services. Feel free to contact us if you have encountered any problems with or damage to Oriental Motor products. If repair is required, we will advice on the applicable charges. Kindly note that free repair is availavle if products are used in accordance with the warranty conditions.

Sales Network
South East Asia.

KII/KIIS Series Service



- Oriental Motor and Distributor Sales Office available
- Distributor Sales Office available

Singapore
- Singapore

Malaysia
- Kuala Lumpur
- Penang
- Johor Bahru
- Melaka
- Ipoh
- Sungai Petani

Thailand
- Bangkok
- Nakhonratchasima
- Lamphun
- Chonburi

Indonesia
- Jarkarta
- Surabaya
- Bandung
- Batam

India
- Bangalore
- New Delhi
- Ahmedabad
- Pune
- Mumbai
- Grugaon
- Coimbatore
- Pondicherry
- Chennai

Philippines
- Manila
- Cebu

Vietnam
- Ho Chi Minh
- Ha Noi

Australia
- Sydney
- Brisbane
- Melbourne

New Zealand
- Auckland
- Wellington
- Christchurch

For more information, kindly contact us at:

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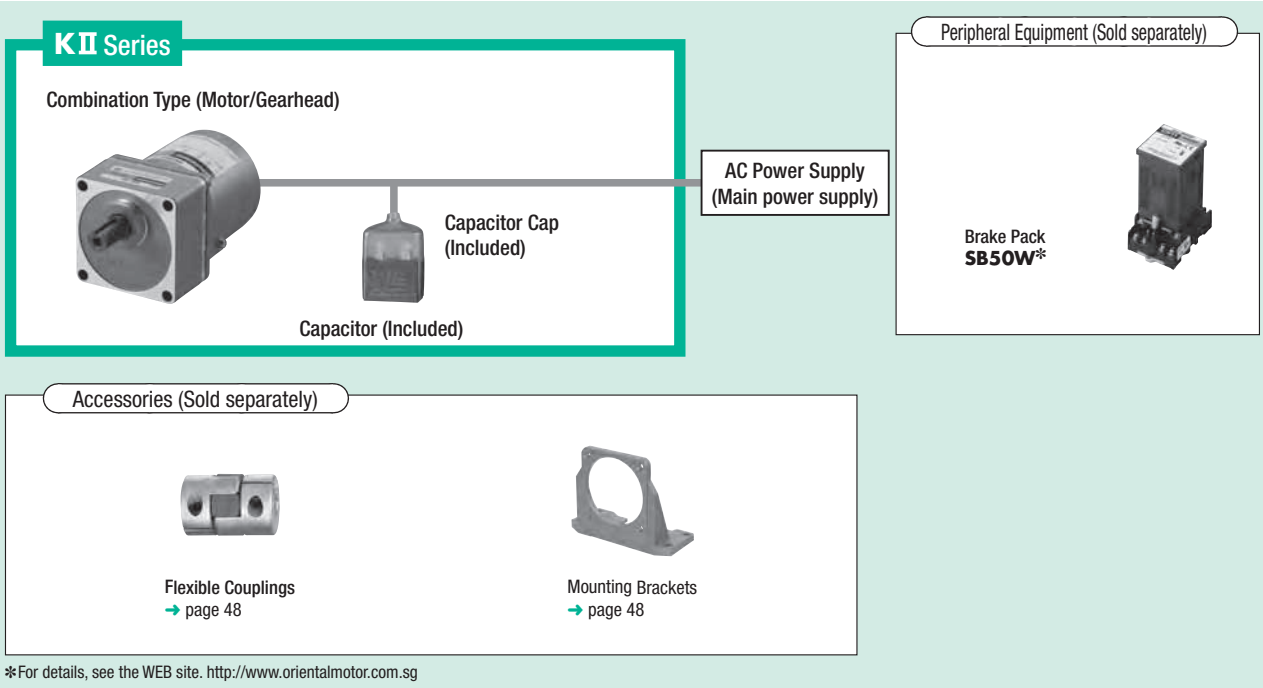
sales@orientalmotor.co.in

Features

Series Name	Features and Lineup
KII Series 	**Excellent motor characteristics** • The motors were specifically designed according to the power supply voltage of each country, achieving the increase in the motor efficiency by up to 9%. • With less heat generation and vibration of the motor, the reliability of the device has increased. **High Permissible Torque** The maximum permissible torque is up to twice as much as the conventional model. **High strength** The permissible radial load and the permissible axial load are twice as much as the conventional model. **High gear ratio gearhead** The gearhead lineup offers a wide range of gear ratio up to a maximum of 1/360. **Combination type of pre-assembled gearhead** The combination type comes with a gearhead and a motor pre-assembled. **Slim terminal box (Terminal box type)** A slim terminal box is installed for easy wiring. This box conforms to the Degree of Protection IP66. (Excluding the installation surface of the round shaft type) **Lineup** Frame Size: 60 mm～90 mm Output Power: Terminal Box Type: 25 W～90 W; Lead Wire Type: 6 W～90 W Voltage: Single-Phase 110/115 VAC, Single-Phase 220/230 VAC Type: Combination Type/Round Shaft Type

System Configuration



*For details, see the WEB site. http://www.orientalmotor.com.sg

System Configuration Example

Induction Motor	+	Sold Separately	
		Mounting Brackets	Flexible Couplings
4IK25UC-25		SOL4M6F	MCL401515

The system configuration shown above is an example. Other combinations are available.

Product Number Code

Combination Type

5 I K 40 UC T2 - 100
① ② ③ ④ ⑤ ⑥ ⑦

Round Shaft Type

5 I K 40 A - UC T2
① ② ③ ④ ⑦ ⑤ ⑥

①	Motor Frame Size	**2**: 60 mm **3**: 70 mm **4**: 80 mm **5**: 90 mm
②	Model Name	**I**: Induction Motor
③	Series Name	**K**: KII Series
④	Output Power (W)	(Example) **40**: 40 W
⑤	Power Supply Voltage	**UA**: Single-Phase 110/115 VAC (60 Hz) **GC**: Single-Phase 220/230 VAC (50 Hz) **UC**: Single-Phase 220/230 VAC (60 Hz)
⑥	**T2**: Terminal Box Type	
⑦	Gear Ratio/Shaft Configuration	Number: Gear Ratio for Combination Types **A**: Round Shaft Type

General Specifications

Item	Specifications
Insulation Resistance	The measured value is 100 MΩ or more when a 500 VDC megger is applied between the windings and the case after rated operation under normal ambient temperature and humidity.
Insulation Resistance	No abnormality is judged even with application of AC1.5 kV at 50 Hz or 60 Hz between the windings and the case for 1 minute after rated operation under normal ambient temperature and humidity.
Temperature Rise	A gearhead or equivalent heat sink*1 is connected and the winding temperature rise is measured at 80°C or less using the resistance change method after rated operation under normal ambient temperature and humidity.
Heat-Resistant Class	130 (B)
Overheat Protection Device	6 W Type Impedance Protected Other Types Built-in Thermal Protector (Automatic return type) Open: 130±5°C Close: 85±20°C
Operating Ambient Temperature	−10～+40°C (non-freezing)
Operating Ambient Humidity	85% or less (non-condensing)
Degree of Protection	Lead Wire Type : IP20 Terminal Box Type : 25 W, 40 W Type IP66*2 (Excluding the installation surface of the round shaft type) : 60 W, 90 W Type IP54 (Excluding the installation surface of the round shaft type), 60 W **GC** type is IP66*2 (Excluding the installation surface of the round shaft type)

*1 Heat sink size (Material: Aluminum)

Motor Type	Size (mm)	Thickness (mm)
6 W Type	115×115	5
15 W Type	125×125	
25 W Type	135×135	
40 W Type	165×165	
60 W, 90 W Type	200×200	

*2 Material and surface treatment

●Material

Case and terminal box: Aluminum

Output shaft: S45C

Screw: Stainless steel (Exposed part only)

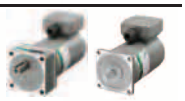
●Surface treatment

Case and terminal box: Painted (Except the installation surface)

KII/KIIS Series lineup

Each model is specifically designed according to the power supply specification, delivering the optimal performance in your power source environment.

Series		KII						KIIS	
Output Power	[W]	6	15	25	40	60	90	60	100
Frame Size	[mm]	□60	□70	□80	□90			□90	
Power Supply		Single-Phase 110/115 VAC 60 Hz Single-Phase 220/230 VAC 50 Hz Single-Phase 220/230 VAC 60 Hz						Three-Phase 220/230 VAC 50/60 Hz	
Motor Type		Induction Motor						Induction Motor Electromagnetic Brake Motor	
Type		Combination Type Round Shaft Type							
Wire Type		Lead Wire		Lead Wire Terminal Box Type					

Series	KII		KIIS	
Model	Induction Motor		Induction Motor	Electromagnetic Brake Type Motor
Lead Wire Type	 Combination Type	 Round Shaft Type	 Combination Type Round Shaft Type	 Combination Type Round Shaft Type
Terminal Box Type	 Combination Type	 Round Shaft Type	 Combination Type Round Shaft Type	 Combination Type Round Shaft Type

Induction Motors
6 W
□60 mm
Combination Type, Round Shaft Type

Specifications - Continuous Rating

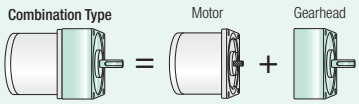
Product Name Upper Level: Combination Type Lower Level: Round Shaft Type Lead Wire Type	Output Power W	Voltage VAC	Frequency Hz	Current* A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF	Overheat Protection Device
2IK6UA-□ **2IK6A-UA**	6	Single-Phase 110	60	0.185 (0.179)	40	41	1450	2.5	ZP
		Single-Phase 115		0.189 (0.184)					
2IK6GC-□ **2IK6A-GC**	6	Single-Phase 220	50	0.088	32	49	1150	0.6	
		Single-Phase 230		0.090	36		1200		
2IK6UC-□ **2IK6A-UC**	6	Single-Phase 220	60	0.093 (0.090)	40	41	1450	0.6	
		Single-Phase 230		0.096 (0.093)					

* ( ) indicates the value of the round shaft type.
● The specifications apply to the motor only.
ZP: These products are impedance protected.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90°.



●Combination Type

Product Name	Gear Ratio
2IK6UA-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
2IK6GC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
2IK6UC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360

The following items are included in each product.
Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

●Round Shaft Type

Product Name
2IK6A-UA
2IK6A-GC
2IK6A-UC

The following items are included in each product.
Motor, Capacitor, Capacitor Cap, Operating Manual

●A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
The actual speed is 2 to 20% less, depending on the load.

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5	4.1
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**	**360**
2IK6GC-□		0.22	0.26	0.33	0.40	0.55	0.66	0.79	1.1	1.3	1.5	2.1	2.5	3.2	3.8	4.2	5.1	6	6	6	6	6

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	7.2	6	5
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**	**360**
2IK6U■-□		0.18	0.22	0.28	0.33	0.46	0.55	0.66	0.92	1.1	1.3	1.8	2.1	2.6	3.2	3.5	4.2	5.0	6	6	6	6

Permissible Radial Load/Permissible Axial Load

➜ page 32

Permissible Inertia J of Combination Types

➜ page 32

Dimensions (Unit = mm)

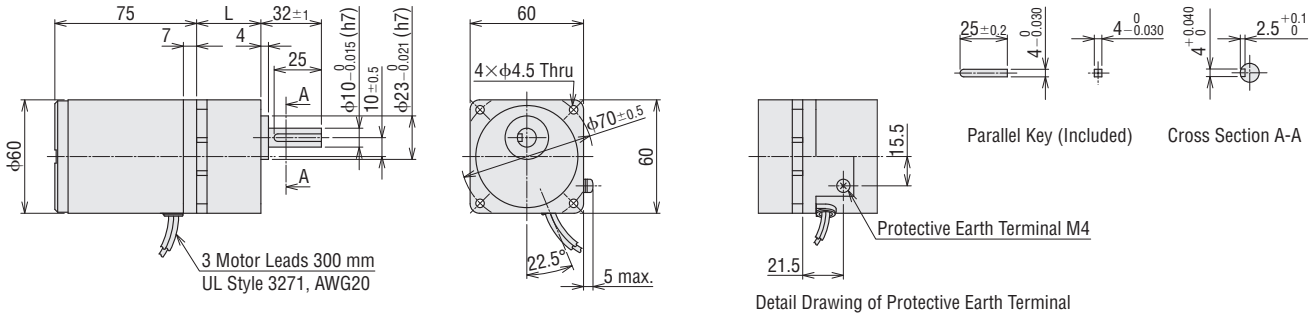
"Installation screws" are included with the combination type. Dimensions of installation screws ➜ page 31

Lead Wire Type

◇Combination Type

2D & 3D CAD

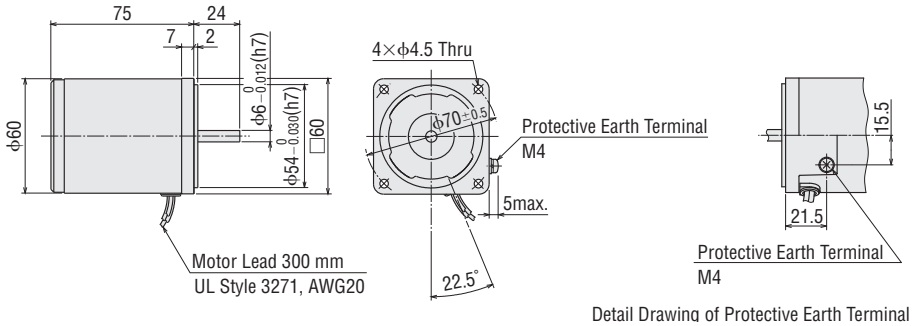
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
2IK6U■-□ **2IK6GC-□**	2IK6GV-U■ 2IK6GV-GC	2GV□B	**5~25**	34	1.2	A1229A
			30~120	38		A1229B
			150~360	43		A1229C



◇Round Shaft Type

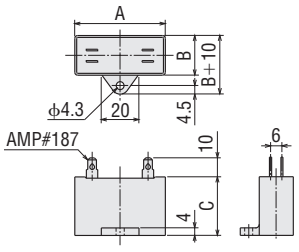
2IK6A-U■, 2IK6A-GC

Mass: 0.7 kg 2D CAD A444 3D CAD



◇Capacitor (Included)

Unit : mm



Product Name		Capacitor Product Name	A	B	C	Mass g
Combination Type	Round Shaft Type					
2IK6UA-□	**2IK6A-UA**	CH25FAUL2	31	17	27	21
2IK6GC-□	**2IK6A-GC**	CH06BFAUL	31	14.5	23.5	18
2IK6UC-□	**2IK6A-UC**	CH06BFAUL	31	14.5	23.5	18

Capacitor Cap is included.

Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
A number indicating the gear ratio is entered where the box □ is located within the product name.

Induction Motors
15 W
□70 mm
Combination Type, Round Shaft Type

Specifications - Continuous Rating

Product Name Upper Level: Combination Type Lower Level: Round Shaft Type Lead Wire Type	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF	Overheat Protection Device
3IK15UA-□ **3IK15A-UA**	15	Single-Phase 110	60	0.31	65	105	1450	4.0	TP
		Single-Phase 115		0.31					
3IK15GC-□ **3IK15A-GC**	15	Single-Phase 220	50	0.156	80	125	1200	1.2	
		Single-Phase 230		0.157	90				
3IK15UC-□ **3IK15A-UC**	15	Single-Phase 220	60	0.154	65	105	1450	1.0	
		Single-Phase 230		0.155					

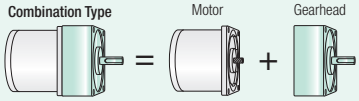
● The specifications apply to the motor only.

TP: This indicates that there is a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90°.



Combination Type

Product Name	Gear Ratio
3IK15UA-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
3IK15GC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
3IK15UC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360

The following items are included in each product.
Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

Round Shaft Type

Product Name
3IK15A-UA
3IK15A-GC
3IK15A-UC

The following items are included in each product.
Motor, Capacitor, Capacitor Cap, Operating Manual

● A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

● The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
The actual speed is 2 to 20% less, depending on the load.

●50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5	4.1
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**	**360**
3IK15GC-□		0.56	0.68	0.84	1.0	1.4	1.7	2.0	2.8	3.2	3.9	5.4	6.5	8.1	9.7	10	10	10	10	10	10	10

●60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	7.2	6	5
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**	**360**
3IK15U■-□		0.47	0.57	0.71	0.85	1.2	1.4	1.7	2.4	2.7	3.3	4.5	5.4	6.8	8.1	9.0	10	10	10	10	10	10

Permissible Radial Load/Permissible Axial Load

➜ page 32

Permissible Inertia J of Combination Types

➜ page 32

Dimensions (Unit = mm)

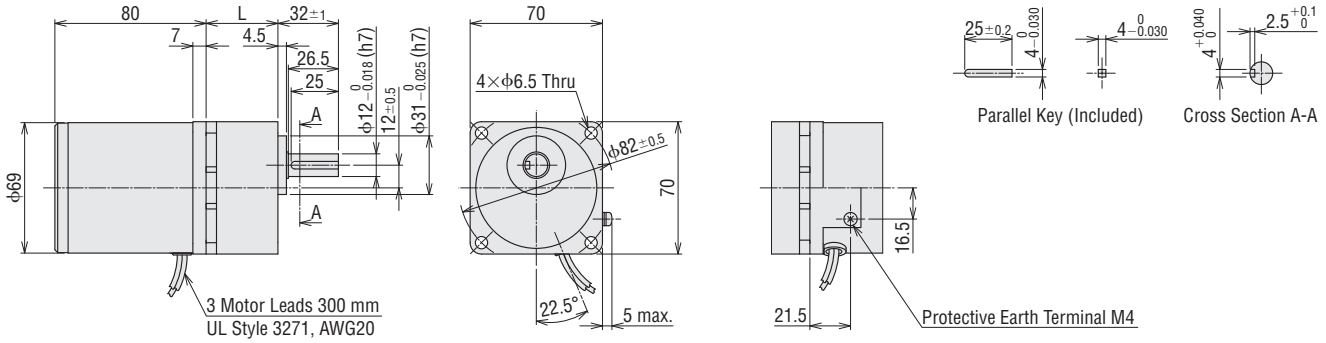
● "Installation screws" are included with the combination type. Dimensions of installation screws ➜ page 31

●Lead Wire Type

◇Combination Type

2D & 3D CAD

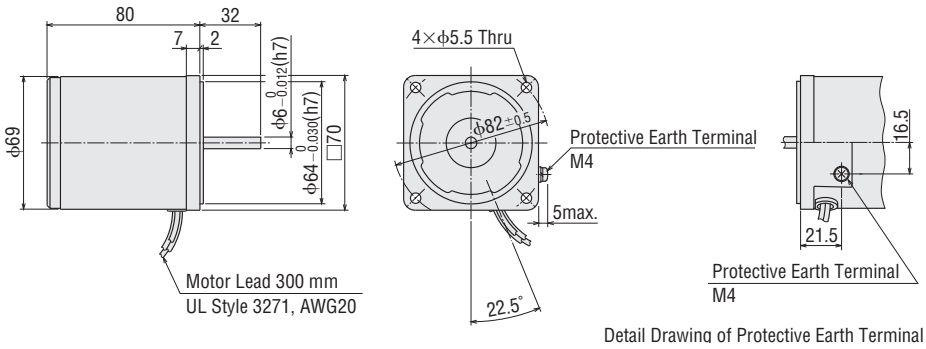
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
3IK15U■-□ **3IK15GC-□**	3IK15GV-U■ 3IK15GV-GC	3GV□B	**5~25**	38	1.7	A1230A
			30~120	43		A1230B
			150~360	48		A1230C



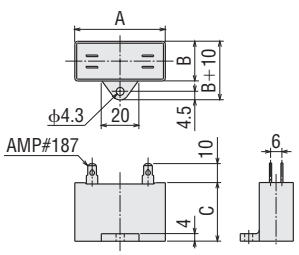
◇Round Shaft Type

3IK15A-U■, 3IK15A-GC

Mass: 1.1 kg 2D CAD A448 3D CAD



◇Capacitor (Included)



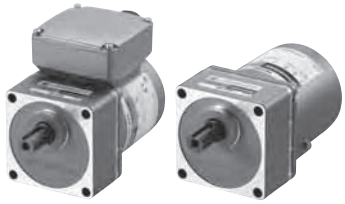
Unit : mm

Product Name		Capacitor Product Name	A	B	C	Mass g
Combination Type	Round Shaft Type					
3IK15UA-□	**3IK15A-UA**	CH40FAUL2	37	18	27	26
3IK15GC-□	**3IK15A-GC**	CH12BFAUL	37	18	27	28
3IK15UC-□	**3IK15A-UC**	CH10BFAUL	37	18	27	27

● Capacitor Cap is included.

● Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
A number indicating the gear ratio is entered where the box □ is located within the product name.

Induction Motors
25 W
□80 mm
Combination Type, Round Shaft Type



Terminal Box Type　　Lead Wire Type

Specifications - Continuous Rating

Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor	Overheat Protection Device
Terminal Box Type	Lead Wire Type	W	VAC	Hz	A	mN·m	mN·m	r/min	μF	
4IK25UAT2-□ **4IK25A-UAT2**	**4IK25UA-□** **4IK25A-UA**	25	Single-Phase 110	60	0.44	120	170	1450	6.0	TP
			Single-Phase 115		0.43					
4IK25GCT2-□ **4IK25A-GCT2**	**4IK25GC-□** **4IK25A-GC**	25	Single-Phase 220	50	0.23	120	205	1200	1.8	
			Single-Phase 230		0.23	130				
4IK25UCT2-□ **4IK25A-UCT2**	**4IK25UC-□** **4IK25A-UC**	25	Single-Phase 220	60	0.22	110	170	1450	1.5	
			Single-Phase 230		0.22	120				

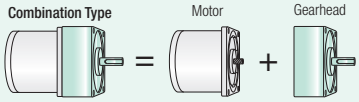
●The specifications apply to the motor only.

TP: This indicates that there is a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90˚.



●Combination Type

◇Terminal Box Type

Product Name	Gear Ratio
4IK25UAT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
4IK25GCT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
4IK25UCT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360

The following items are included in each product.
Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

◇Lead Wire Type

Product Name	Gear Ratio
4IK25UA-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
4IK25GC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360
4IK25UC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300, 360

●Round Shaft Type

◇Terminal Box Type

Product Name
4IK25A-UAT2
4IK25A-GCT2
4IK25A-UCT2

◇Lead Wire Type

Product Name
4IK25A-UA
4IK25A-GC
4IK25A-UC

The following items are included in each product.
Motor, Capacitor, Capacitor Cap, Operating Manual

●A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
- The actual speed is 2 to 20% less, depending on the load.

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5	4.1
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**	**360**
4IK25GC□-□		0.92	1.1	1.4	1.7	2.3	2.8	3.3	4.6	5.3	6.3	8.8	10.6	13.2	15.9	16	16	16	16	16	16	16

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	7.2	6	5
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**	**360**
4IK25U□□-□		0.77	0.92	1.1	1.4	1.9	2.3	2.8	3.8	4.4	5.3	7.3	8.8	11.0	13.2	14.6	16	16	16	16	16	16

Permissible Radial Load/Permissible Axial Load

➜ page 32

Permissible Inertia J of Combination Types

➜ page 32

Dimensions (Unit = mm)

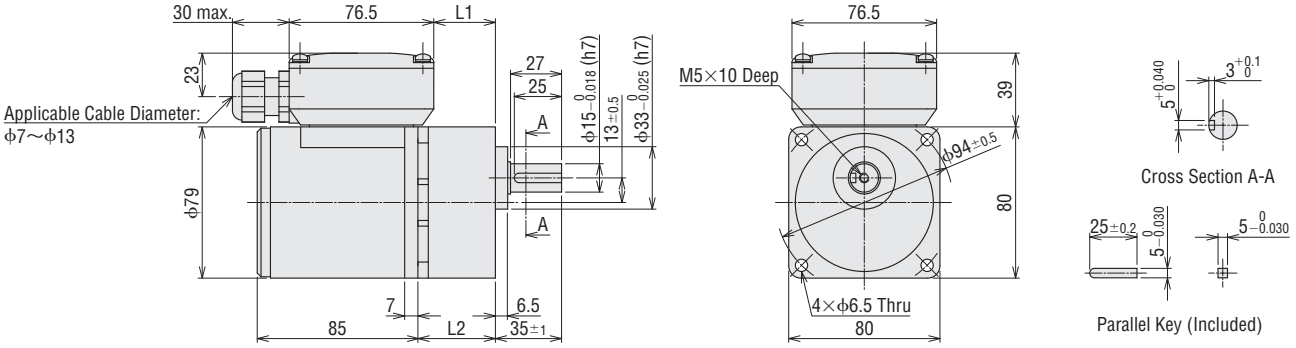
- "Installation screws" are included with the combination type. Dimensions of installation screws ➜ page 31
- The cable outlet of the terminal box can be changed and fixed to four different directions.

Terminal Box Type

◇Combination Type

2D & 3D CAD

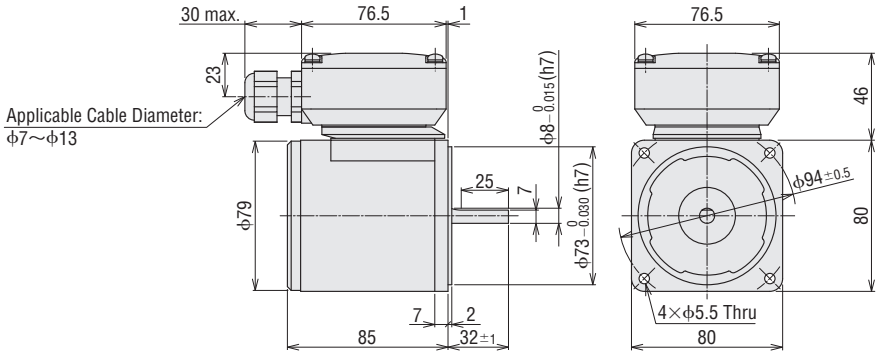
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2	Mass kg	2D CAD
4IK25U□T2-□ **4IK25GCT2-□**	4IK25GV-U□T2 4IK25GV-GCT2	4GV□B	**5~25**	32.6	41	2.75	A1304A
			30~120	37.6	46		A1304B
			150~360	42.6	51		A1304C



◇Round Shaft Type

4IK25A-U□T2, 4IK25A-GCT2

Mass: 1.8 kg 2D CAD A1308 3D CAD



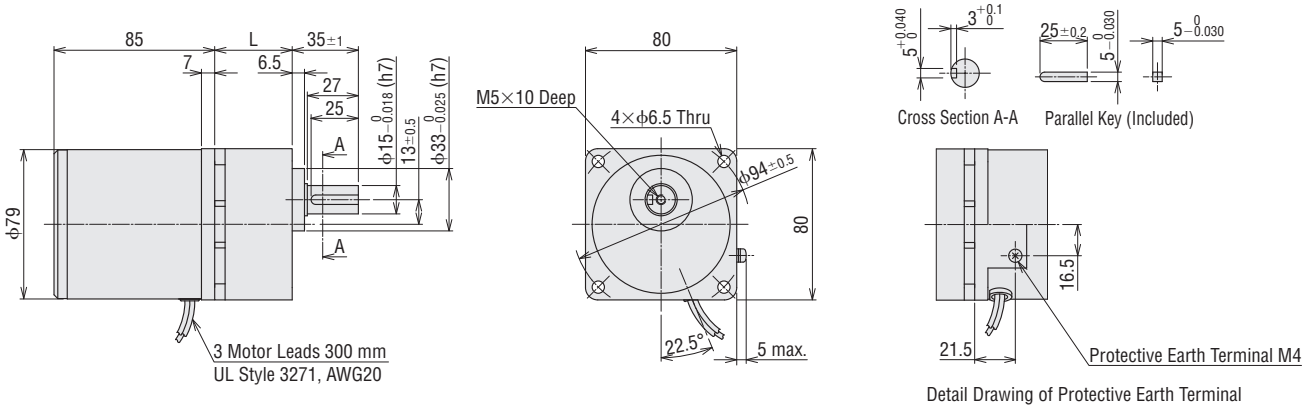
- Either **A** or **C** indicating the power supply voltage is replaced with the box □ in the product name.
  A code (**T2**) indicating the terminal box type is replaced with the box □ in the product name.
  A number indicating the gear ratio is entered where the box □ is located within the product name.

●Lead Wire Type

◇Combination Type

2D & 3D CAD

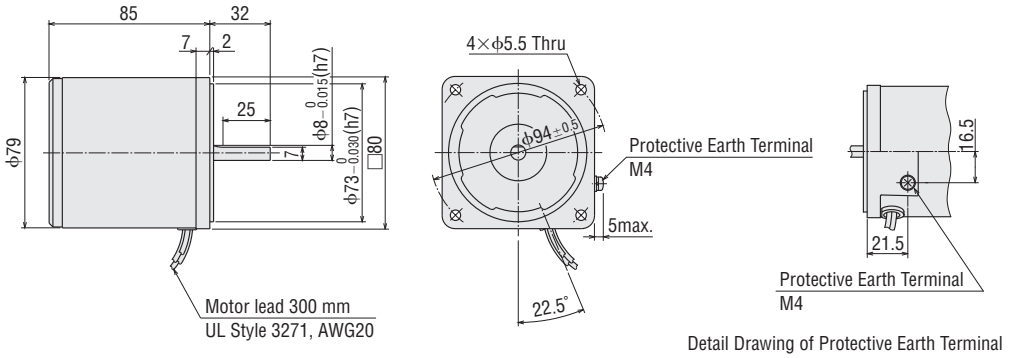
Product Name	Motor Product Name	Gearhead Product Name	Mass kg	Gear Ratio 5~25		Gear Ratio 30~120		Gear Ratio 150~360	
				L	2D CAD	L	2D CAD	L	2D CAD
4IK25U□-□ **4IK25GC-□**	4IK25GV-U□ 4IK25GV-GC	4GV□B	2.45	41	A1231A	46	A1231B	51	A1231C



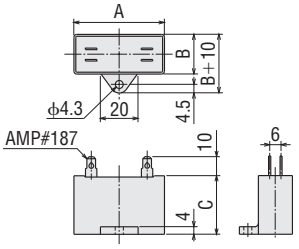
◇Round Shaft Type

4IK25A-U□, 4IK25A-GC

Mass: 1.5 kg 2D CAD A450 3D CAD



◇Capacitor (Included)



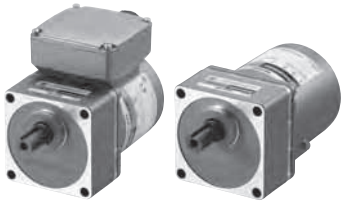
Unit : mm

Product Name		Capacitor Product Name	A	B	C	Mass g
Combination Type	Round Shaft Type					
4IK25UAT2-□ **4IK25UA-□**	**4IK25A-UAT2** **4IK25A-UA**	CH60CFAUL2	38	21	31	35
4IK25GCT2-□ **4IK25GC-□**	**4IK25A-GCT2** **4IK25A-GC**	CH18BFAUL	38	21	31	37
4IK25UCT2-□ **4IK25UC-□**	**4IK25A-UCT2** **4IK25A-UC**	CH15BFAUL	38	21	31	37

●Capacitor Cap is included.

●Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
A number indicating the gear ratio is entered where the box □ is located within the product name.

Induction Motors
40 W
□90 mm
Combination Type, Round Shaft Type



Terminal Box Type　　Lead Wire Type

Specifications - Continuous Rating

Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor	Overheat Protection Device
Terminal Box Type	Lead Wire Type	W	VAC	Hz	A	mN·m	mN·m	r/min	μF	
5IK40UAT2-□ 5IK40A-UAT2	5IK40UA-□ 5IK40A-UA	40	Single-Phase 110	60	0.66	200	260	1500	9.0	TP
			Single-Phase 115		0.65					
5IK40GCT2-□ 5IK40A-GCT2	5IK40GC-□ 5IK40A-GC	40	Single-Phase 220	50	0.34	170	315	1250	2.5	
			Single-Phase 230		0.33	195	300	1300		
5IK40UCT2-□ 5IK40A-UCT2	5IK40UC-□ 5IK40A-UC	40	Single-Phase 220	60	0.33	200	260	1500	2.0	
			Single-Phase 230		0.32					

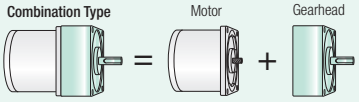
● The specifications apply to the motor only.

TP: This indicates that there is a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90°.



●Combination Type

◇Terminal Box Type

Product Name	Gear Ratio
5IK40UAT2-□	5, 6, 7.5, 9, 12.5, 15, 18
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300
5IK40GCT2-□	5, 6, 7.5, 9, 12.5, 15, 18
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300
5IK40UCT2-□	5, 6, 7.5, 9, 12.5, 15, 18
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300

◇Lead Wire Type

Product Name	Gear Ratio
5IK40UA-□	5, 6, 7.5, 9, 12.5, 15, 18
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300
5IK40GC-□	5, 6, 7.5, 9, 12.5, 15, 18
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300
5IK40UC-□	5, 6, 7.5, 9, 12.5, 15, 18
	25, 30, 36
	50, 60, 75, 90, 100, 120, 150, 180
	250, 300

The following items are included in each product.
Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

●Round Shaft Type

◇Terminal Box Type

Product Name
5IK40A-UAT2
5IK40A-GCT2
5IK40A-UCT2

◇Lead Wire Type

Product Name
5IK40A-UA
5IK40A-GC
5IK40A-UC

The following items are included in each product.
Motor, Capacitor, Capacitor Cap, Operating Manual

● A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
- The actual speed is 2 to 20% less, depending on the load.

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**
5IK40GC□-□ (Single-Phase 230VAC)		1.4	1.6	2.0	2.4	3.4	4.1	4.9	6.5	7.7	9.3	12.9	15.5	19.4	23.2	25.8	29.2	30	30	30	30
5IK40GC□-□ (Single-Phase 220VAC)		1.4	1.7	2.1	2.6	3.5	4.3	5.1	6.8	8.1	9.8	13.5	16.3	20.3	24.4	27.1	30	30	30	30	30

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	7.2	6
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**
5IK40U■□-□		1.2	1.4	1.8	2.1	2.9	3.5	4.2	5.6	6.7	8.0	11.2	13.4	16.8	20.1	22.4	25.3	30	30	30	30

Permissible Radial Load/Permissible Axial Load

→ page 32

Permissible Inertia J of Combination Types

→ page 32

Dimensions (Unit = mm)

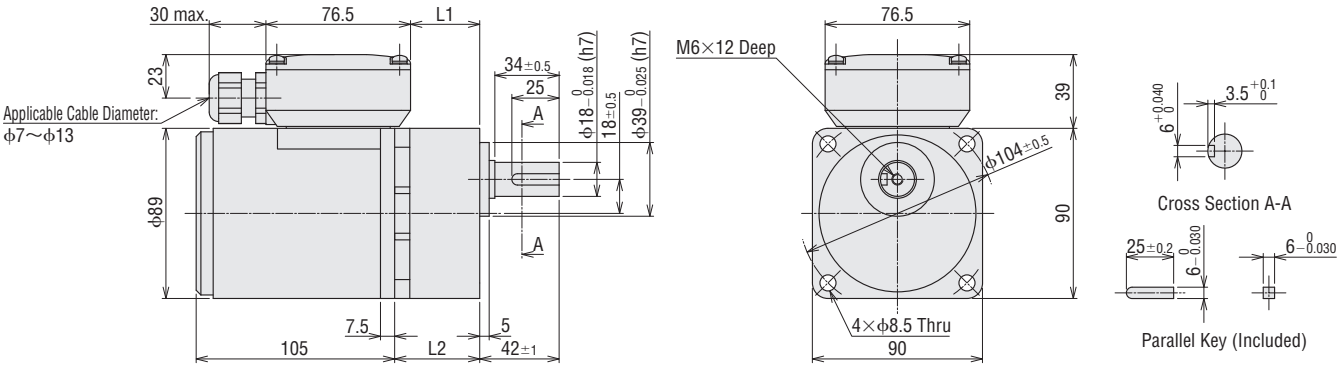
- "Installation screws" are included with the combination type. Dimensions of installation screws → page 31
- The cable outlet of the terminal box can be changed and fixed to four different directions.

Terminal Box Type

◇Combination Type

2D & 3D CAD

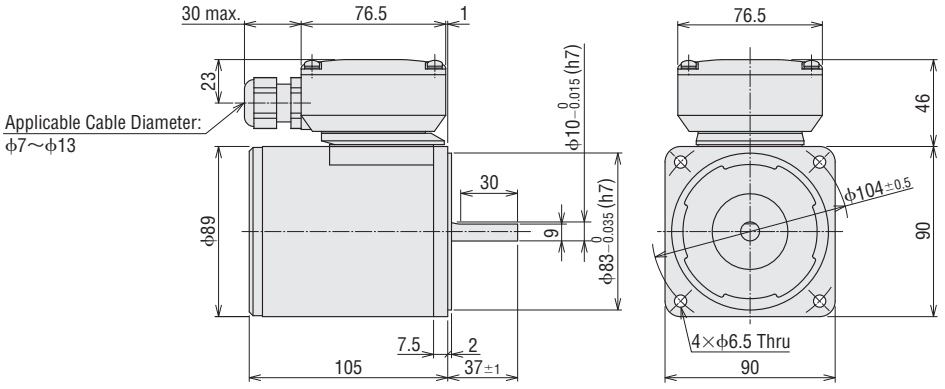
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2	Mass kg	2D CAD
5IK40U■T2-□ **5IK40GCT2-□**	5IK40GV-U■T2 5IK40GV-GCT2	5GV□B	**5~18**	36.6	45	4.3	A1305A
			25~100	49.6	58		A1305B
			120~300	55.6	64		A1305C



◇Round Shaft Type

5IK40A-U■T2, 5IK40A-GCT2

Mass: 2.8 kg 2D CAD A1309 3D CAD



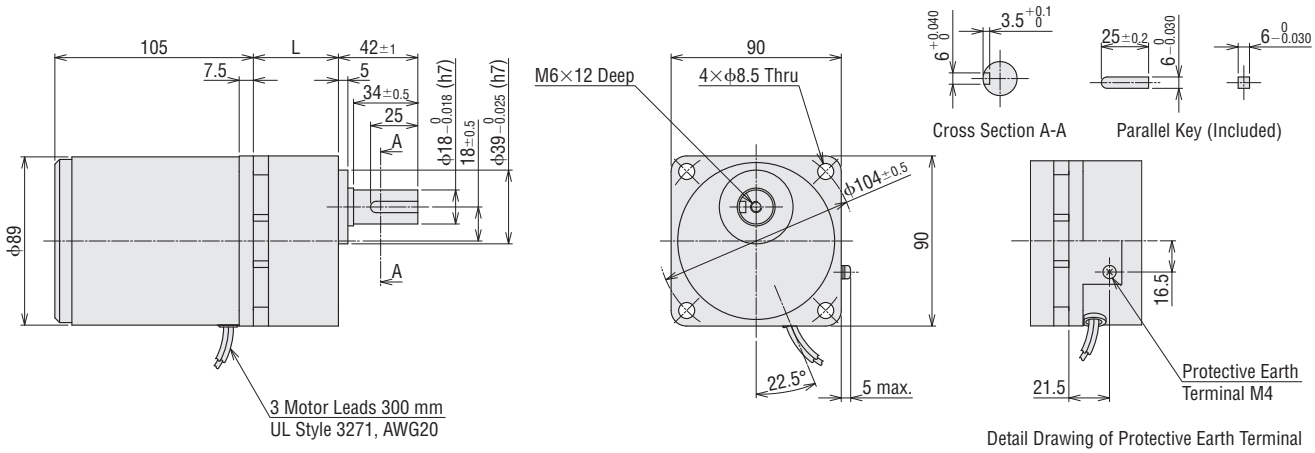
- Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
  A code (**T2**) indicating the terminal box type is replaced with the box □ in the product name.
  A number indicating the gear ratio is entered where the box □ is located within the product name.

Lead Wire Type

◇Combination Type

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Mass kg	Gear Ratio 5~18		Gear Ratio 25~100		Gear Ratio 120~300	
				L	2D CAD	L	2D CAD	L	2D CAD
5IK40U□-□ **5IK40GC-□**	5IK40GV-U□ 5IK40GV-GC	5GV□B	4.0	45	A1233A	58	A1233B	64	A1233C

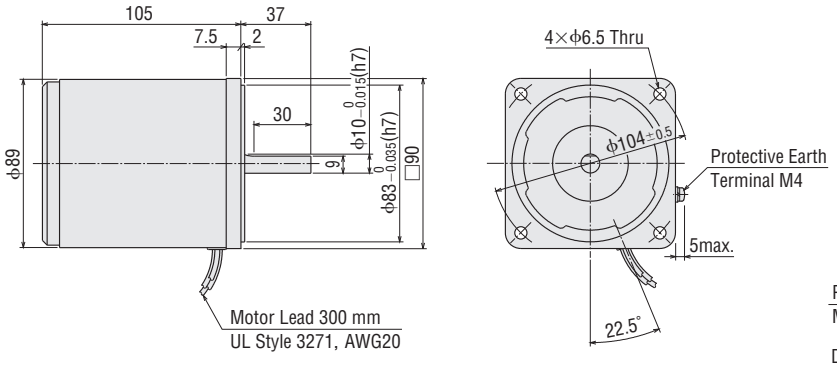


Detail Drawing of Protective Earth Terminal

◇Round Shaft Type

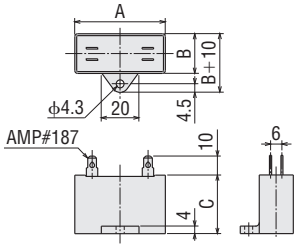
5IK40A-U□, 5IK40A-GC

Mass: 2.5 kg 2D CAD A453 3D CAD



Detail Drawing of Protective Earth Terminal

◇Capacitor (Included)



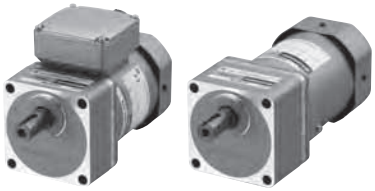
Unit : mm

Product Name		Capacitor Product Name	A	B	C	Mass g
Combination Type	Round Shaft Type					
5IK40UAT2-□ **5IK40UA-□**	**5IK40A-UAT2** **5IK40A-UA**	CH90CFAUL2	48	22.5	31.5	45
5IK40GCT2-□ **5IK40GC-□**	**5IK40A-GCT2** **5IK40A-GC**	CH25BFAUL	48	21	31	42
5IK40UCT2-□ **5IK40UC-□**	**5IK40A-UCT2** **5IK40A-UC**	CH20BFAUL	48	19	29	36

● Capacitor Cap is included.

● Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
A number indicating the gear ratio is entered where the box □ is located within the product name.

Induction Motors
60 W
□90 mm
Combination Type, Round Shaft Type



Terminal Box Type　　Lead Wire Type

Specifications - Continuous Rating

Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor	Overheat Protection Device
Terminal Box Type	Lead Wire Type	W	VAC	Hz	A	mN·m	mN·m	r/min	μF	
5IK60UAT2-□ **5IK60A-UAT2**	**5IK60UA-□** **5IK60A-UA**	60	Single-Phase 110	60	1.09	320	405	1450	16	TP
			Single-Phase 115		1.09					
5IK60GCT2-□ **5IK60A-GCT2**	**5IK60GC-□** **5IK60A-GC**	60	Single-Phase 220	50	0.49	290	490	1200	4.0	
			Single-Phase 230		0.49	320				
5IK60UCT2-□ **5IK60A-UCT2**	**5IK60UC-□** **5IK60A-UC**	60	Single-Phase 220	60	0.53	320	405	1450	4.0	
			Single-Phase 230		0.52					

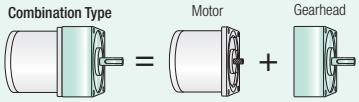
●The specifications apply to the motor only.

TP: This indicates that there is a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90˚.



●Combination Type

◇Terminal Box Type

Product Name	Gear Ratio
5IK60UAT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60, 75, 90, 100
	120, 150, 180
	250, 300
5IK60GCT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60, 75, 90, 100
	120, 150, 180
	250, 300
5IK60UCT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60, 75, 90, 100
	120, 150, 180
	250, 300

The following items are included in each product.
Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

◇Lead Wire Type

Product Name	Gear Ratio
5IK60UA-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60, 75, 90, 100
	120, 150, 180
	250, 300
5IK60GC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60, 75, 90, 100
	120, 150, 180
	250, 300
5IK60UC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60, 75, 90, 100
	120, 150, 180
	250, 300

●Round Shaft Type

◇Terminal Box Type

Product Name
5IK60A-UAT2
5IK60A-GCT2
5IK60A-UCT2

◇Lead Wire Type

Product Name
5IK60A-UA
5IK60A-GC
5IK60A-UC

The following items are included in each product.
Motor, Capacitor, Capacitor Cap, Operating Manual

●A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
- The actual speed is 2 to 20% less, depending on the load.

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**
5IK60GC□-□		2.2	2.6	3.3	4.0	5.5	6.6	7.9	10.5	12.6	15.2	21.1	25.3	30	30	30	30	30	30	30	30

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	7.2	6
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**
5IK60U□□-□		1.8	2.2	2.7	3.3	4.6	5.5	6.6	8.7	10.4	12.5	17.4	20.9	26.1	30	30	30	30	30	30	30

Permissible Radial Load/Permissible Axial Load

➜ page 32

Permissible Inertia J of Combination Types

➜ page 32

Dimensions (Unit = mm)

- "Installation screws" are included with the combination type. Dimensions of installation screws ➜ page 31
- The cable outlet of the terminal box can be changed and fixed to four different directions.

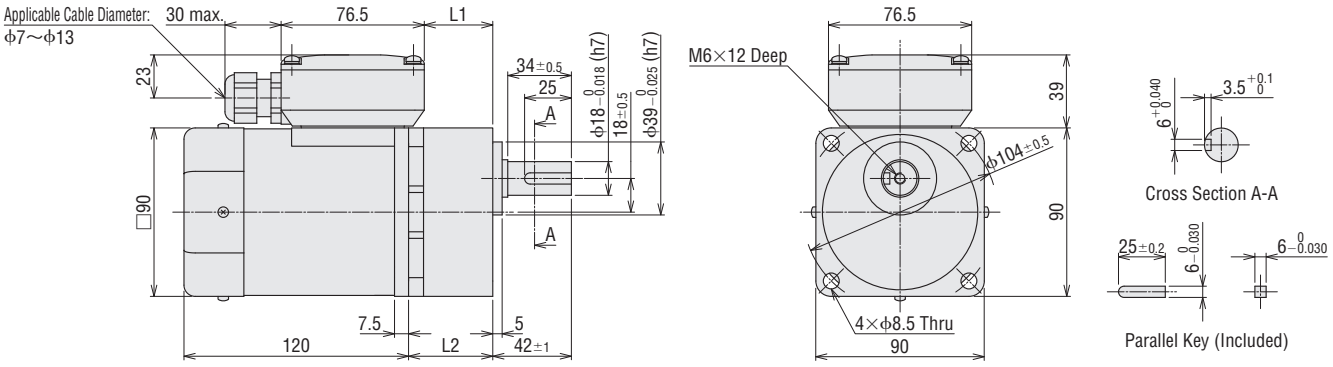
Terminal Box Type

◇Combination Type

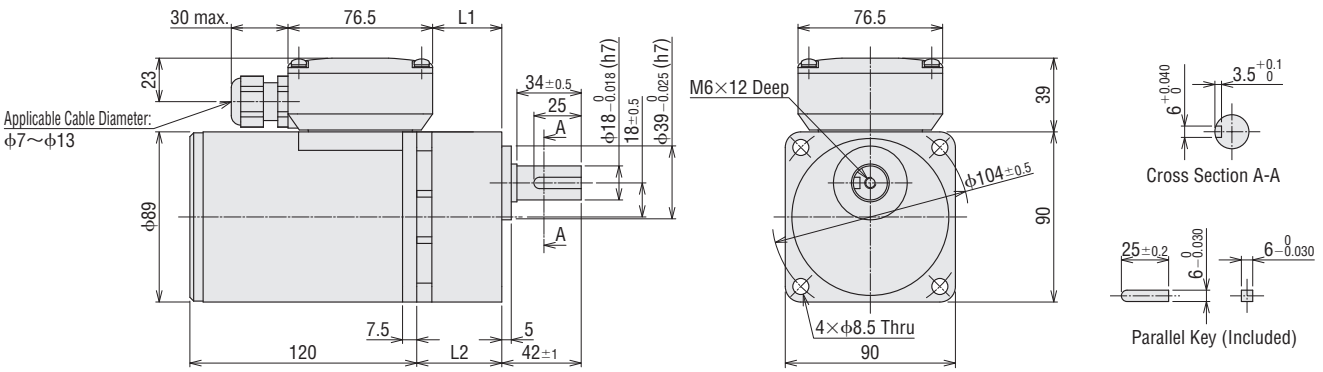
2D & 3D CAD

Dimensions No.	Product Name	Motor Product Name	Gearhead Product Name	Mass kg	Gear Ratio 5~18			Gear Ratio 25~100			Gear Ratio 120~300		
					L1	L2	2D CAD	L1	L2	2D CAD	L1	L2	2D CAD
①	**5IK60U□T2-□**	5IK60GVH-U□T2	5GVH□B	4.5	36.6	45	A1306A	49.6	58	A1306B	55.6	64	A1306C
②	**5IK60GCT2-□**	5IK60GVH-GCT2		4.7			A1312A			A1312B			A1312C

• Dimensions ①



• Dimensions ②

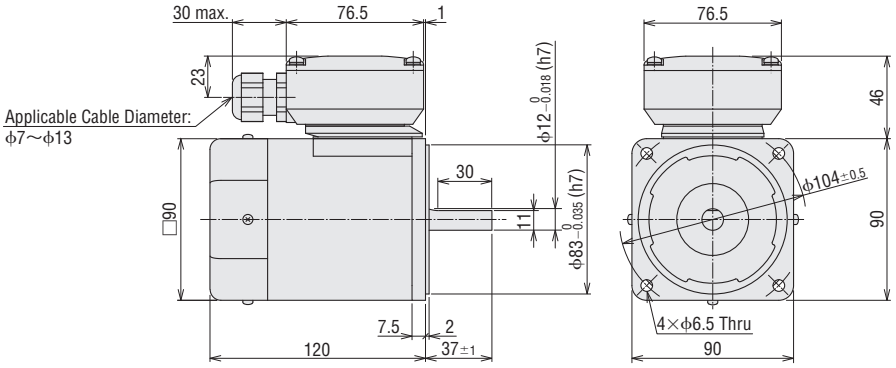


- Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
  A code (**T2**) indicating the terminal box type is replaced with the box □ in the product name.
  A number indicating the gear ratio is entered where the box □ is located within the product name.

◇Round Shaft Type

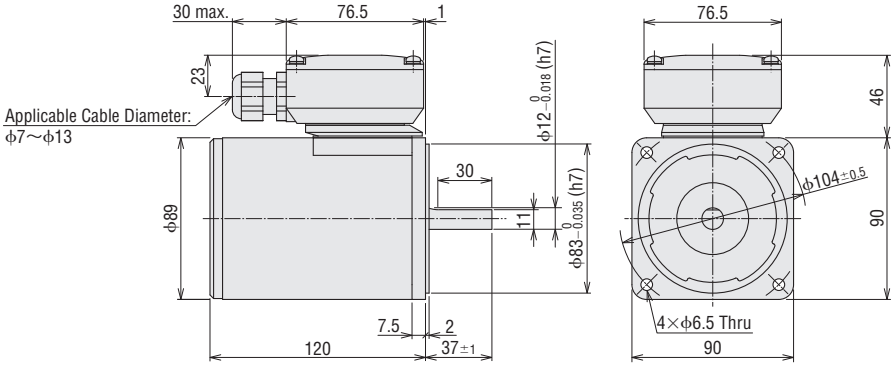
5IK60A-U■T2

Mass: 3.0 kg 2D CAD A1310 3D CAD



5IK60A-GCT2

Mass: 3.2 kg 2D CAD A1313 3D CAD



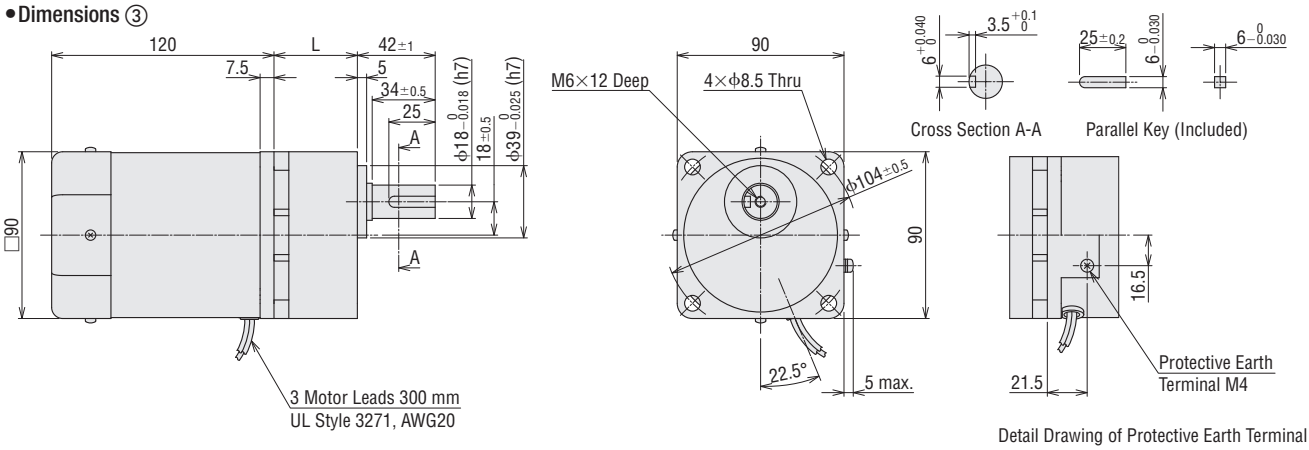
●Lead Wire Type

◇Combination Type

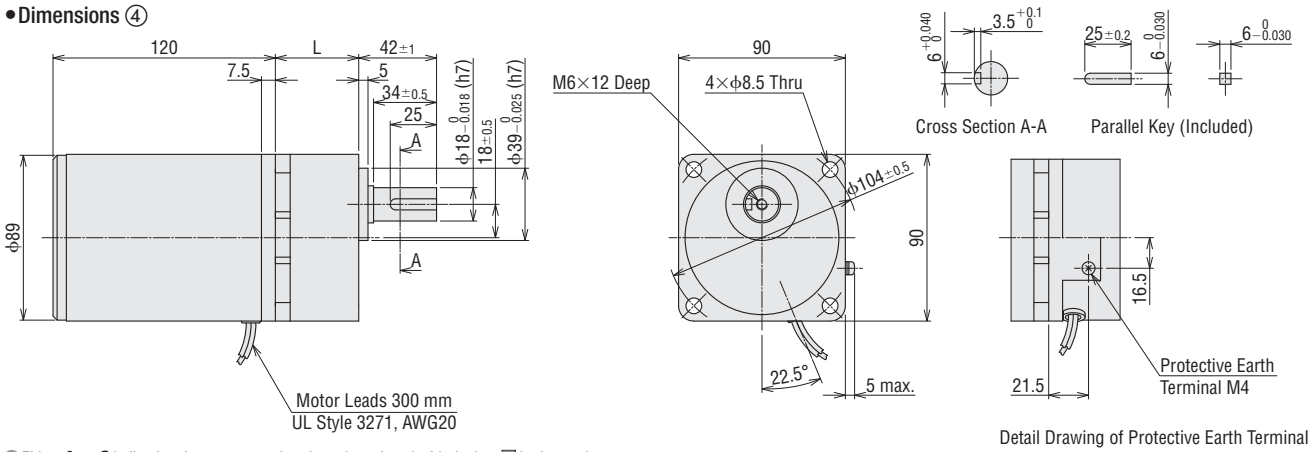
2D & 3D CAD

Dimensions No.	Product Name	Motor Product Name	Gearhead Product Name	Mass kg	Gear Ratio 5～18		Gear Ratio 25～100		Gear Ratio 120～300	
					L	2D CAD	L	2D CAD	L	2D CAD
③	**5IK60U■-□**	5IK60GVH-U■	5GVH□B	4.2	45	A1235A	58	A1235B	64	A1235C
④	**5IK60GC-□**	5IK60GVH-GC		4.4		A1328A		A1328B		A1328C

•Dimensions ③



•Dimensions ④

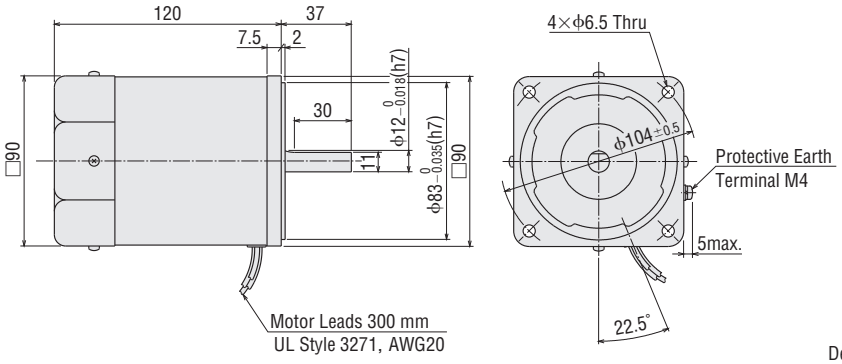


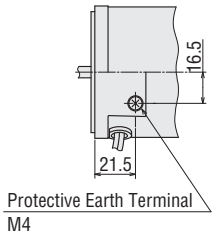
●Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
A number indicating the gear ratio is entered where the box □ is located within the product name.

◇Round Shaft Type

5IK60A-U□

Mass: 2.7 kg 2D CAD A456 3D CAD

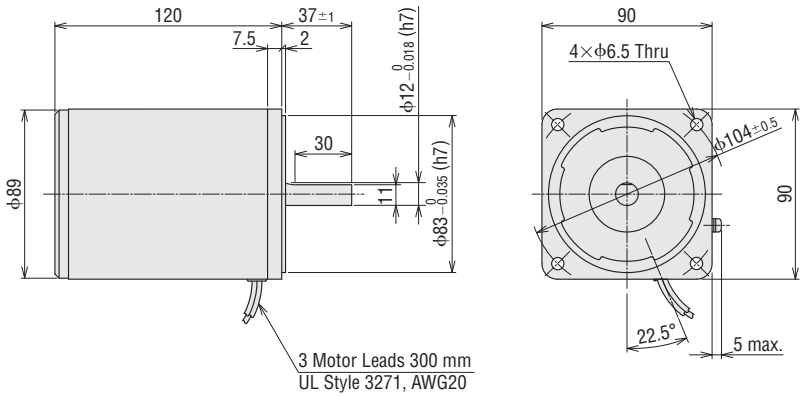


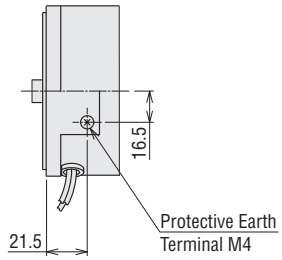


Detail Drawing of Protective Earth Terminal

5IK60A-GC

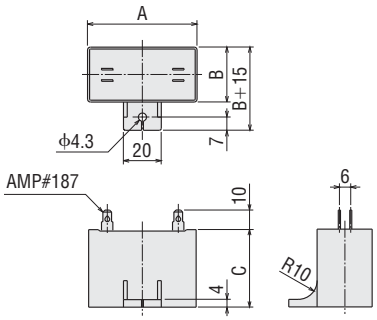
Mass: 2.9 kg 2D CAD A1329 3D CAD





Detail Drawing of Protective Earth Terminal

◇Capacitor (Included)



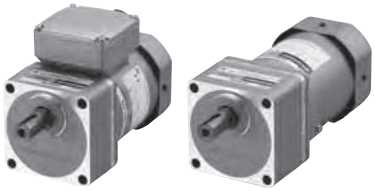
Unit : mm

Product Name		Capacitor Product Name	A	B	C	Mass g
Combination Type	Round Shaft Type					
5IK60UAT2-□ **5IK60UA-□**	**5IK60A-UAT2** **5IK60A-UA**	CH160CFAUL2	58	23.5	37	71
5IK60GCT2-□ **5IK60GC-□**	**5IK60A-GCT2** **5IK60A-GC**	CH40BFAUL	58	23.5	37	73
5IK60UCT2-□ **5IK60UC-□**	**5IK60A-UCT2** **5IK60A-UC**	CH40BFAUL	58	23.5	37	73

● Capacitor Cap is included.

● Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
A number indicating the gear ratio is entered where the box □ is located within the product name.

Induction Motors
90 W
□90 mm
Combination Type, Round Shaft Type



Terminal Box Type　　Lead Wire Type

Specifications - Continuous Rating

Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor	Overheat Protection Device
Terminal Box Type	Lead Wire Type	W	VAC	Hz	A	mN·m	mN·m	r/min	μF	
5IK90UAT2-□ **5IK90A-UAT2**	**5IK90UA-□** **5IK90A-UA**	90	Single-Phase 110	60	1.44	450	585	1500	20	TP
			Single-Phase 115		1.44					
5IK90GCT2-□ **5IK90A-GCT2**	**5IK90GC-□** **5IK90A-GC**	90	Single-Phase 220	50	0.70	480	730	1200	6.0	
			Single-Phase 230		0.70	520				
5IK90UCT2-□ **5IK90A-UCT2**	**5IK90UC-□** **5IK90A-UC**	90	Single-Phase 220	60	0.71	450	605	1450	5.0	
			Single-Phase 230		0.71					

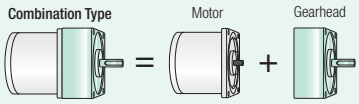
●The specifications apply to the motor only.

TP: This indicates that there is a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90°.



●Combination Type

◇Terminal Box Type

Product Name	Gear Ratio
5IK90UAT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60
	75, 90, 100, 120, 150, 180
5IK90GCT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60
	75, 90, 100, 120, 150, 180
5IK90UCT2-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60
	75, 90, 100, 120, 150, 180

The following items are included in each product.
Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

◇Lead Wire Type

Product Name	Gear Ratio
5IK90UA-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60
	75, 90, 100, 120, 150, 180
5IK90GC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60
	75, 90, 100, 120, 150, 180
5IK90UC-□	**5, 6, 7.5, 9, 12.5, 15, 18**
	25, 30, 36, 50, 60
	75, 90, 100, 120, 150, 180

●Round Shaft Type

◇Terminal Box Type

Product Name
5IK90A-UAT2
5IK90A-GCT2
5IK90A-UCT2

◇Lead Wire Type

Product Name
5IK90A-UA
5IK90A-GC
5IK90A-UC

The following items are included in each product.
Motor, Capacitor, Capacitor Cap, Operating Manual

●A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
- The actual speed is 2 to 20% less, depending on the load.

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**
5IK90GC□-□		3.3	3.9	4.9	5.9	8.2	9.9	11.3	15.7	18.8	22.6	31.4	37.7	40	40	40	40	40	40

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**
5IK90UA□-□		2.6	3.2	3.9	4.7	6.6	7.9	9.1	12.6	15.1	18.1	25.2	30.2	35.5	40	40	40	40	40
5IK90UC□-□		2.7	3.3	4.1	4.9	6.8	8.2	9.4	13.0	15.6	18.7	26.0	31.2	36.8	40	40	40	40	40

Permissible Radial Load/Permissible Axial Load

➜ page 32

Permissible Inertia J of Combination Types

➜ page 32

Dimensions (Unit = mm)

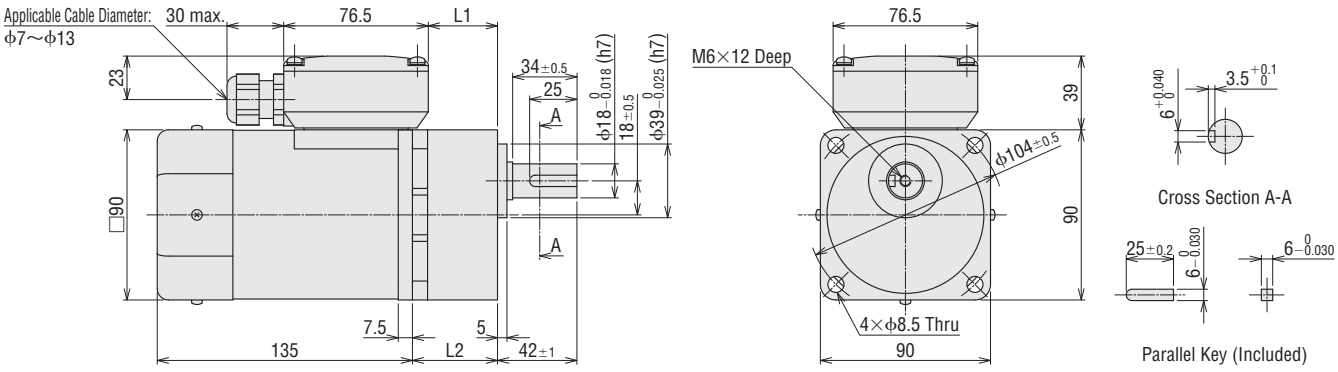
- "Installation screws" are included with the combination type. Dimensions of installation screws ➜ page 31
- The cable outlet of the terminal box can be changed and fixed to four different directions.

Terminal Box Type

◇Combination Type

2D & 3D CAD

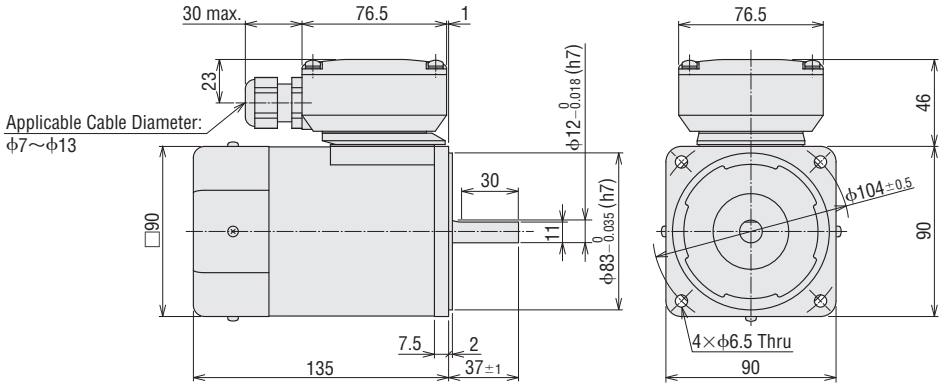
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2	Mass kg	2D CAD
5IK90U□T2-□ **5IK90GCT2-□**	5IK90GVR-U□T2 5IK90GVR-GCT2	5GVR□B	**5~15**	36.6	45	5.0	A1307A
			18~36	49.6	58		A1307B
			50~180	61.6	70		A1307C



◇Round Shaft Type

5IK90A-U□T2, 5IK90A-GCT2

Mass: 3.5 kg 2D CAD A1311 3D CAD



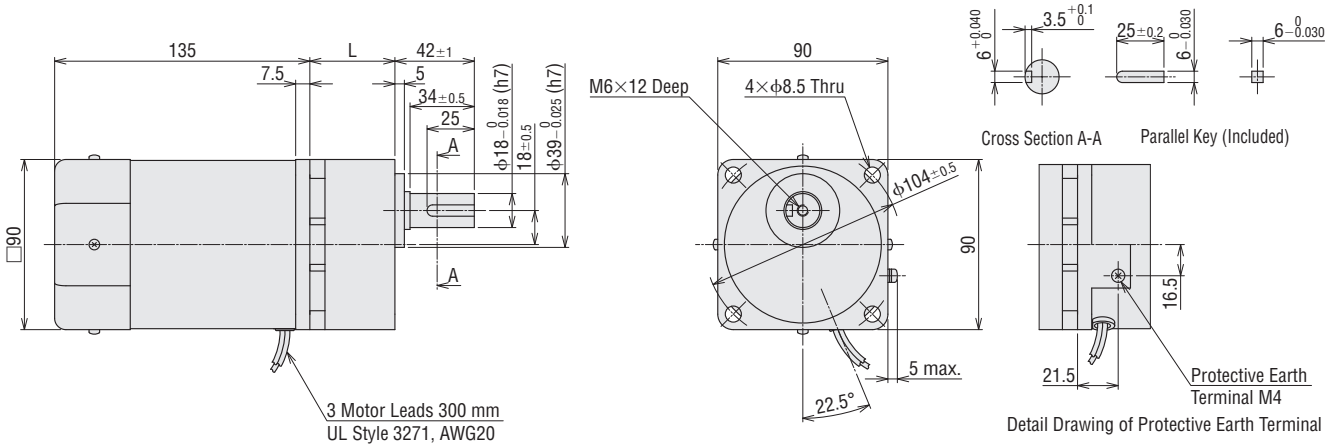
- Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
  A code (**T2**) indicating the terminal box type is replaced with the box □ in the product name.
  A number indicating the gear ratio is entered where the box □ is located within the product name.

●Lead Wire Type

◇Combination Type

2D & 3D CAD

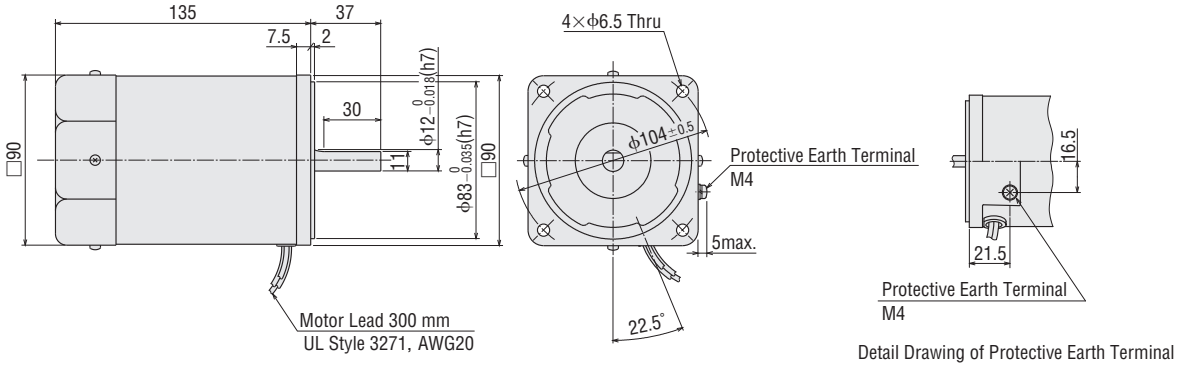
Product Name	Motor Product Name	Gearhead Product Name	Mass kg	Gear Ratio 5~15		Gear Ratio 18~36		Gear Ratio 50~180	
				L	2D CAD	L	2D CAD	L	2D CAD
5IK90U□-□ **5IK90GC-□**	5IK90GVR-U□ 5IK90GVR-GC	5GVR□B	4.7	45	A1237A	58	A1237B	70	A1237C



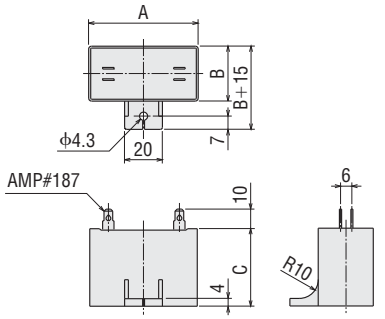
◇Round Shaft Type

5IK90A-U□, 5IK90A-GC

Mass: 3.2 kg 2D CAD A459 3D CAD



◇Capacitor (Included)



Unit : mm

Product Name		Capacitor Product Name	A	B	C	Mass g
Combination Type	Round Shaft Type					
5IK90UAT2-□ **5IK90UA-□**	**5IK90A-UAT2** **5IK90A-UA**	CH200CFAUL2	58	29	41	91
5IK90GCT2-□ **5IK90GC-□**	**5IK90A-GCT2** **5IK90A-GC**	CH60BFAUL	58	29	41	92
5IK90UCT2-□ **5IK90UC-□**	**5IK90A-UCT2** **5IK90A-UC**	CH50BFAUL	58	29	41	93

●Capacitor Cap is included.

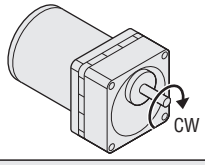
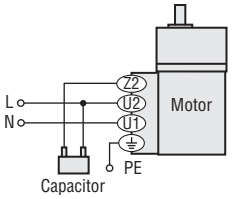
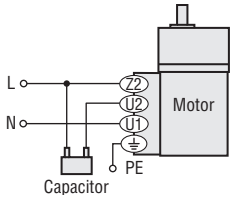
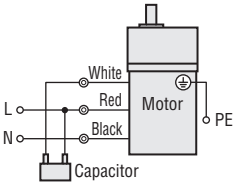
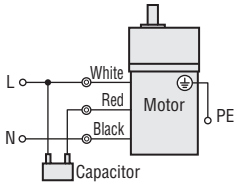
●Either **A** or **C** indicating the power supply voltage is replaced with the box ■ in the product name.
●A number indicating the gear ratio is entered where the box □ is located within the product name.

Connection Diagram

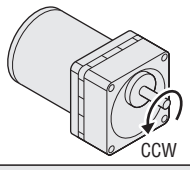
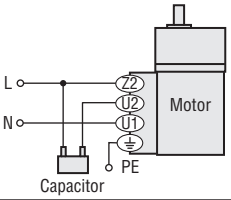
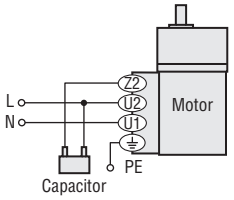
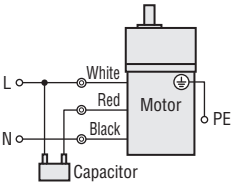
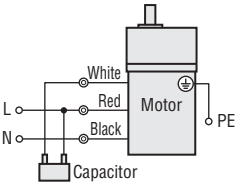
The rotation direction of the motor is as viewed from the output shaft of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.

Combination Type/Round Shaft Type

◇CW Rotation

Output Power	Type/Gear Ratio	
6 W 15 W 25 W	Gear Ratio: **5**~**25**, **150**~**360** Round Shaft Type	Gear Ratio: **30**~**120**
40 W 60 W	Gear Ratio: **5**~**18**, **120**~**300** Round Shaft Type	Gear Ratio: **25**~**100**
90 W	Gear Ratio: **5**~**15**, **75**~**180** Round Shaft Type	Gear Ratio: **18**~**60**
Rotation Direction		
Single-Phase Motor		
Terminal Box Type		
Lead Wire Type		

◇CCW Rotation

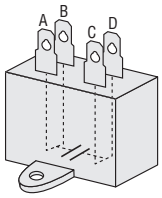
Output Power	Type/Gear Ratio	
6 W 15 W 25 W	Gear Ratio: **5**~**25**, **150**~**360** Round Shaft Type	Gear Ratio: **30**~**120**
40 W 60 W	Gear Ratio: **5**~**18**, **120**~**300** Round Shaft Type	Gear Ratio: **25**~**100**
90 W	Gear Ratio: **5**~**15**, **75**~**180** Round Shaft Type	Gear Ratio: **18**~**60**
Rotation Direction		
Single-Phase Motor		
Terminal Box Type		
Lead Wire Type		

Note

Change the direction of single-phase motor rotation only after bringing the motor to a stop.
If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction of rotation after some delay.

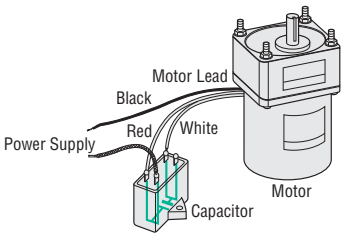
How to connect a capacitor

The capacitor has four terminals. As shown in the figure, the terminal A is internally connected with the terminal B, and the terminal C with the terminal D. Electrically, these are handled as two terminals.



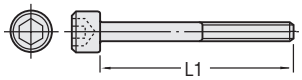
Inner Wiring Diagram for 4-Terminal Capacitor

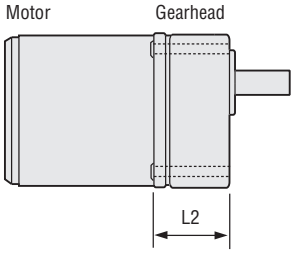
●How to connect a motor/capacitor
(For induction motor/clockwise rotation)



Dimensions of installation screws

The following screws are included with the combination type.





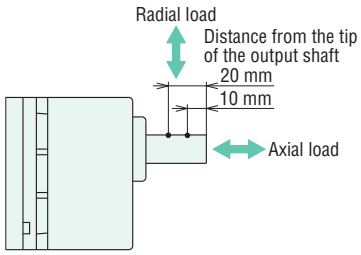
Gearhead Product Name	Installation Screws		L2 (mm)
	L1 (mm)	Screw Size	
2GV5B~25B	50	M4 P0.7	41
2GV30B~120B	55		45
2GV150B~360B	60		50
3GV5B~25B	60	M6 P1.0	45
3GV30B~120B	65		50
3GV150B~360B	70		55
4GV5B~25B	60		48
4GV30B~120B	65		53
4GV150B~360B	70		58
5GV5B~18B, 5GVH5B~18B	70	M8 P1.25	52.5
5GV25B~100B, 5GVH25B~100B	85		65.5
5GV120B~300B, 5GVH120B~300B	90		71.5
5GVR5B~15B	70		52.5
5GVR18B~36B	85		65.5
5GVR50B~180B	95		77.5

Installation Screws: 4 plain washers and 4 spring washers are included.
The installation screw material is stainless steel.

Permissible Radial Load/Permissible Axial Load

Combination Type

Product Name	Gear Ratio	Permissible Radial Load N Distance from the tip of the gearhead output shaft		Permissible Axial Load
		10 mm	20 mm	N
2IK6	5~25	150	200	40
	30~360	200	300	
3IK15	5~25	200	300	80
	30~360	300	400	
4IK25	5~25	300	350	100
	30~360	450	550	
5IK40 5IK60	5~9	400	500	150
	12.5~18	450	600	
	25~300	500	700	
5IK90	5~9	400	500	150
	12.5~18	450	600	
	25~180	500	700	



Round Shaft Type

Product Name	Permissible Radial Load N Distance from the tip of the motor output shaft		Permissible Axial Load
	10 mm	20 mm	
2IK6	50	110	Half of motor mass or less*
3IK15	40	60	
4IK25	90	140	
5IK40	140	200	
5IK60 5IK90	240	270	

*Avoid axial loads as much as possible.
If axial load is unavoidable, keep it at half or less of the motor mass.

Permissible Inertia J of Combination Types

Unit : $\times 10^{-4}$kg·m^2

Product Name \ Gear Ratio		5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
2IK6		12	18	28	40	78	110	160	260	370	540	920	1300	1700	2000	2500	3600	5000	5000	5000	5000	5000
	At Instantaneous Stop	1.55	2.23	3.49	5.02	9.69	14	20.1	38.8	55.8	80.4	155	155	155	155	155	155	155	155	155	155	155
3IK15		20	28	45	65	120	180	260	440	630	900	1500	2100	2800	3200	4000	5700	8000	8000	8000	8000	8000
	At Instantaneous Stop	3.5	5.04	7.88	11.3	21.9	31.5	45.4	87.5	126	181	350	350	350	350	350	350	350	350	350	350	350
4IK25		22	32	50	72	150	220	310	550	800	1100	2200	3200	4000	5000	6200	8900	12000	12000	12000	12000	12000
	At Instantaneous Stop	7.75	11.2	17.4	25.1	48.4	69.8	100	194	279	402	775	775	775	775	775	775	775	775	775	775	775
5IK40 5IK60		45	65	100	150	300	420	620	1100	1600	2300	4500	6000	8000	10000	12000	17000	25000	25000	25000	25000	–
	At Instantaneous Stop	27.5	39.6	61.9	89.1	172	248	356	688	990	1426	2750	2750	2750	2750	2750	2750	2750	2750	2750	2750	–
5IK90		45	65	100	150	300	420	620	1100	1600	2300	4500	6000	8000	10000	12000	17000	25000	25000	–	–	–
	At Instantaneous Stop	27.5	39.6	61.9	89.1	172	248	356	688	990	1426	2750	2750	2750	2750	2750	2750	2750	2750	–	–	–

Combination Type Motor and Gearhead Combinations

Terminal Box Type

Product Name	Motor Product Name	Gearhead Product Name
4IK25UAT2-□	4IK25GV-UAT2	4GV□B
4IK25GCT2-□	4IK25GV-GCT2	
4IK25UCT2-□	4IK25GV-UCT2	
5IK40UAT2-□	5IK40GV-UAT2	5GV□B
5IK40GCT2-□	5IK40GV-GCT2	
5IK40UCT2-□	5IK40GV-UCT2	
5IK60UAT2-□	5IK60GVH-UAT2	5GVH□B
5IK60GCT2-□	5IK60GVH-GCT2	
5IK60UCT2-□	5IK60GVH-UCT2	
5IK90UAT2-□	5IK90GVR-UAT2	5GVR□B
5IK90GCT2-□	5IK90GVR-GCT2	
5IK90UCT2-□	5IK90GVR-UCT2	

Lead Wire Type

Product Name	Motor Product Name	Gearhead Product Name
2IK6UA-□	2IK6GV-UA	2GV□B
2IK6GC-□	2IK6GV-GC	
2IK6UC-□	2IK6GV-UC	
3IK15UA-□	3IK15GV-UA	3GV□B
3IK15GC-□	3IK15GV-GC	
3IK15UC-□	3IK15GV-UC	
4IK25UA-□	4IK25GV-UA	4GV□B
4IK25GC-□	4IK25GV-GC	
4IK25UC-□	4IK25GV-UC	
5IK40UA-□	5IK40GV-UA	5GV□B
5IK40GC-□	5IK40GV-GC	
5IK40UC-□	5IK40GV-UC	
5IK60UA-□	5IK60GVH-UA	5GVH□B
5IK60GC-□	5IK60GVH-GC	
5IK60UC-□	5IK60GVH-UC	
5IK90UA-□	5IK90GVR-UA	5GVR□B
5IK90GC-□	5IK90GVR-GC	
5IK90UC-□	5IK90GVR-UC	

●A number indicating the gear ratio is replaced with the box □ in the product name.

Features

Series Name	Features and Lineup
KⅡS Series 	**High-efficiency three-phase motor** The optimal magnetic design and dedicated parts provide high efficiency of up to 73%. This model also has reduced the power consumption by up to around 10%. **Best for combination with an inverter** You can control the speed in a wide range from low speeds to high speeds. In addition, speed regulation under loads is small, enabling stable speed control. **Increase in motor power output** For the frame size of 90 mm, the output of 100 W has been achieved through high efficiency. **Fanless** Reduction in loss has suppressed heat generation. This eliminates the cooling fan installed in the conventional model of 60 W or higher. With less total length, less installation space is required. **Slim terminal box (Terminal box type)** A slim terminal box is installed for easy wiring. This box conforms to the Degree of Protection IP66. (Excluding the installation surface of the round shaft type) **Combination type of pre-assembled gearhead** The combination type comes with a gearhead and a motor pre-assembled. **Lineup** Frame Size: 90 mm Output Power: 60 W, 100 W Voltage: Three-Phase 220/230 VAC Type: Combination Type/Round Shaft Type Model: Induction Motor, Electromagnetic Brake Type Motor

System Configuration

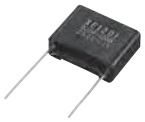
KⅡS Series

AC Power Supply
(Main power supply)

Accessories (Sold separately)

Flexible Couplings
→ page 48

Mounting Brackets
→ page 48



CR Circuit for Surge Suppression
→ page 48

System Configuration Example

Three-Phase High-Efficiency Induction Motor	+	Sold Separately		
		Mounting Brackets	Flexible Couplings	CR Circuit for Surge Suppression
5IK60VEST2-25		SOL5M8F	MCL551818	EPCR1201-2

The system configuration shown above is an example. Other combinations are available.

Product Number Code

Combination Type

5 I K 100 V ES M T2 - 15

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Round Shaft Type

5 I K 100 V A - ES T2

① ② ③ ④ ⑤ ⑨ ⑥ ⑧

①	Motor Frame Size	**5**: 90 mm
②	Model Name	**I**: Induction Motor
③	Series Name	**K**: **K**Ⅱ Series
④	Output Power (W)	(Example) **100**: 100 W
⑤	**V**: Three-Phase High-Efficiency Motor	
⑥	Power Supply Voltage and Number of Poles	**ES**: Three-Phase 220/230 VAC 4 poles
⑦	**M**: Power Off Activated Type Electromagnetic Brake	
⑧	**T2**: Terminal Box Type	
⑨	Gear Ratio/Shaft Configuration	Number: Gear Ratio for Combination Types **A**: Round Shaft Type

General Specifications

Item	Specifications
Insulation Resistance	The measured value is 100 MΩ or more when a 500 VDC megger is applied between the motor windings and the case after continuous operation under normal ambient temperature and humidity.
Insulation Resistance	No abnormality is judged even with application of AC1.5 kV at 50Hz or 60Hz between the motor windings and the case for 1 minute after continuous operation under normal ambient temperature and humidity.
Temperature Rise	A gearhead or equivalent heat sink (200 × 200 mm, Thickness: 5 mm, Material: Aluminum) is connected and the winding temperature rise is measured at 80°C or less using the resistance change method after rated load continuous operation under normal ambient temperature and humidity.
Heat-Resistant Class	130 (B)
Operating Ambient Temperature	−10～+40 °C (non-freezing)
Operating Ambient Humidity	85% or less (non-condensing)
Degree of Protection	Terminal Box Type: IP66* (Excluding the installation surface of the round shaft type) Lead Wire Type: IP20 Lead Wire Type: IP20

*Material and surface treatment

●Material

Case and terminal box: Aluminum

Output shaft: S45C

Screw: Stainless steel (Exposed part only)

●Surface treatment

Case and terminal box: Painted (Except the installation surface)

Note

●There is no built-in overheat protection device (thermal protector).

To prevent the motor from burning out when an excess load is applied or the output shaft is locked, use the electrical thermal function of the electromagnetic switch or the inverter.

Induction Motors
60 W
□90 mm
Combination Type, Round Shaft Type


Terminal Box Type　Lead Wire Type

Specifications - Continuous Rating

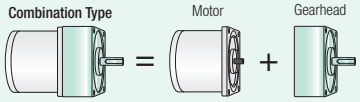
Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed
Terminal Box Type	Lead Wire Type	W	VAC	Hz	A	mN·m	mN·m	r/min
5IK60VEST2-□ 5IK60VA-EST2	5IK60VES-□ 5IK60VA-ES	60	Three-Phase 220	50	0.37	600	410	1400
				60	0.33	500	350	1670
		60	Three-Phase 230	50	0.38	600	410	1400
				60	0.33	500	350	1670

- The specifications apply to the motor only.
- There is no built-in overheat protection device (thermal protector).
  To prevent the motor from burning out when an excess load is applied or the output shaft is locked, use the electrical thermal function of the electromagnetic switch or the inverter.
- To combine this model with an inverter, set the frequency of the inverter to 120 Hz or lower.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90˚.



Combination Type

Type	Product Name	Gear Ratio
Terminal Box Type	5IK60VEST2-□	5, 6, 7.5, 9, 12.5, 15, 18
		25, 30, 36, 50, 60, 75, 90, 100
		120, 150, 180
		250, 300
Lead Wire Type	5IK60VES-□	5, 6, 7.5, 9, 12.5, 15, 18
		25, 30, 36, 50, 60, 75, 90, 100
		120, 150, 180
		250, 300

The following items are included in each product.
Motor, Gearhead, Installation Screws, Parallel Key, Operating Manual

Round Shaft Type

Type	Product Name
Terminal Box Type	5IK60VA-EST2
Lead Wire Type	5IK60VA-ES

The following items are included in each product.
Motor, Operating Manual

Permissible Torque on Combination Types

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5
	Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300
5IK60VEST2-□, 5IK60VES-□		1.8	2.2	2.8	3.3	4.6	5.5	6.6	8.8	10.6	12.7	17.6	21.2	26.4	30	30	30	30	30	30	30

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	7.2	6
	Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300
5IK60VEST2-□, 5IK60VES-□		1.6	1.9	2.4	2.8	3.9	4.7	5.7	7.5	9.0	10.8	15.1	18.1	22.6	27.1	30	30	30	30	30	30

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
  The actual speed is 2 to 10% less, depending on the load.

- A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Radial Load/Permissible Axial Load

➜ page 47

Permissible Inertia J of Combination Types

➜ page 47

Dimensions (Unit = mm)

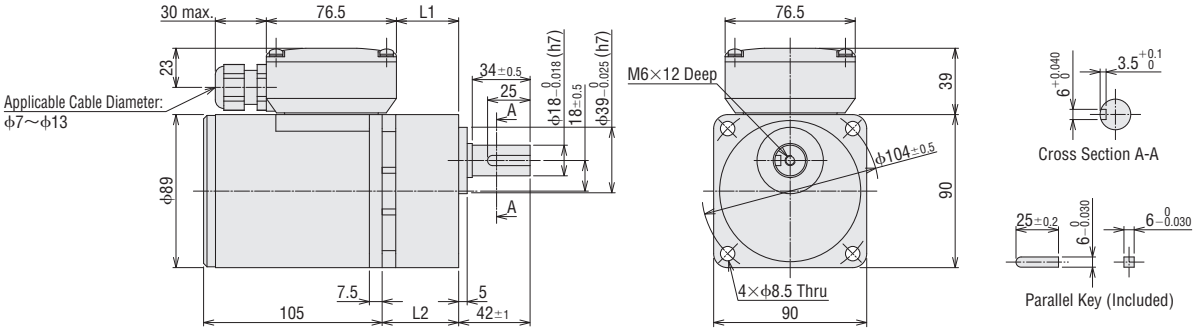
- "Installation screws" are included with the combination type. Dimensions of installation screws ➜ page 47
- The cable outlet of the terminal box can be changed and fixed to four different directions.
- A number indicating the gear ratio is entered where the box □ is located within the product name.

Combination Type

◇Terminal Box Type

2D & 3D CAD

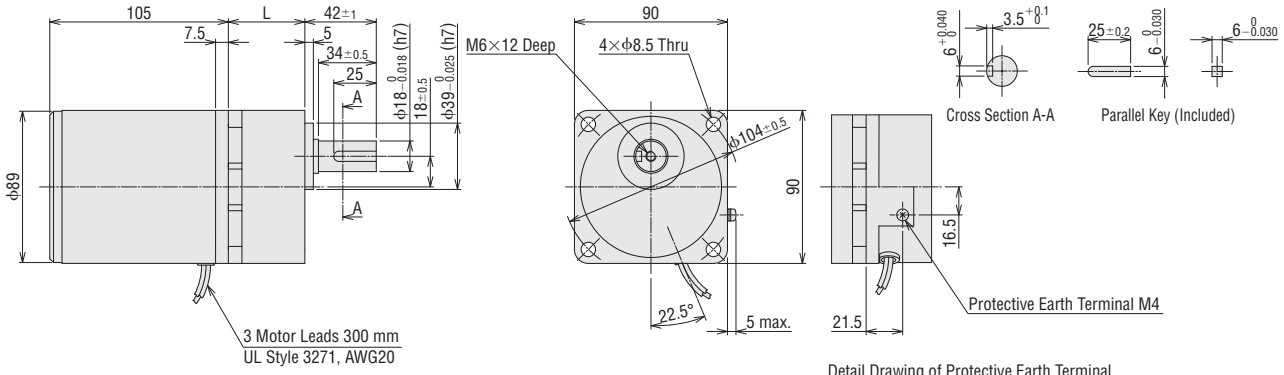
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2	Mass kg	2D CAD
5IK60VEST2-□	5IK60VGVH-EST2	5GVH□B	**5~18**	36.6	45	4.1	A1314A
			25~100	49.6	58		A1314B
			120~300	55.6	64		A1314C



◇Lead Wire Type

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
5IK60VES-□	5IK60VGVH-ES	5GVH□B	**5~18**	45	3.8	A1221A
			25~100	58		A1221B
			120~300	64		A1221C



Detail Drawing of Protective Earth Terminal

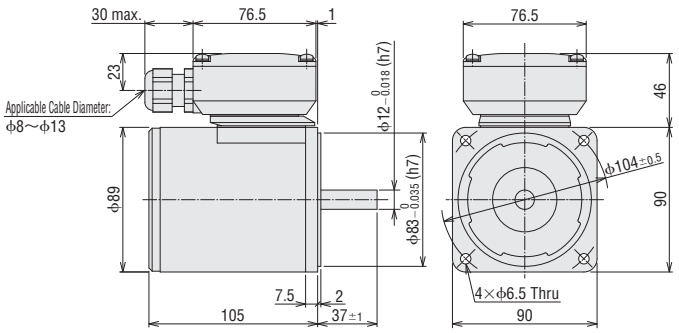
Round Shaft Type

◇Terminal Box Type

5IK60VA-EST2

Mass: 2.6 kg

2D CAD A1315 3D CAD

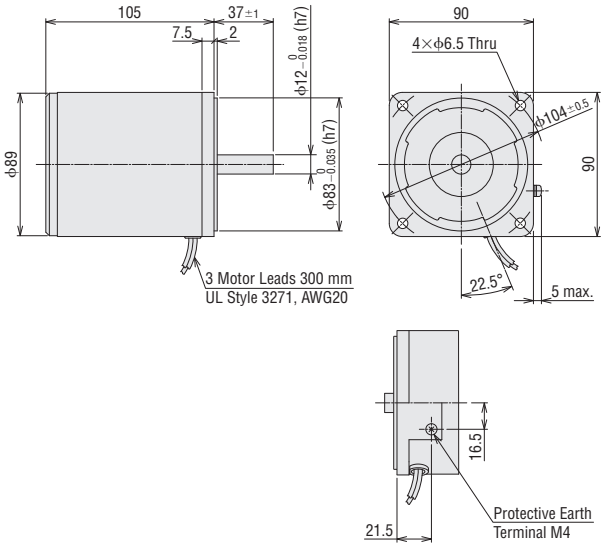


◇Lead Wire Type

5IK60VA-ES

Mass: 2.3 kg

2D CAD A1226 3D CAD



Detail Drawing of Protective Earth Terminal

Induction Motors
100 W
□90 mm
Combination Type, Round Shaft Type


Terminal Box Type


Lead Wire Type

Specifications - Continuous Rating

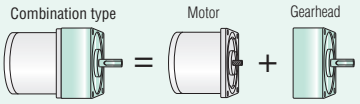
Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed
Terminal Box Type	Lead Wire Type	W	VAC	Hz	A	mN·m	mN·m	r/min
5IK100VEST2-□ **5IK100VA-EST2**	**5IK100VES-□** **5IK100VA-ES**	100	Three-Phase 220	50	0.55	850	690	1400
				60	0.48	700	570	1680
		100	Three-Phase 230	50	0.57	850	690	1400
				60	0.48	700	570	1680

- The specifications apply to the motor only.
- There is no built-in overheat protection device (thermal protector).
  To prevent the motor from burning out when an excess load is applied or the output shaft is locked, use the electrical thermal function of the electromagnetic switch or the inverter.
- To combine this model with an inverter, set the frequency of the inverter to 120 Hz or lower.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90°.



Combination Type

Type	Product Name	Gear Ratio
Terminal Box Type	**5IK100VEST2-□**	**5, 6, 7.5, 9, 12.5, 15, 18**
		25, 30, 36, 50, 60
		75, 90, 100, 120, 150, 180
Lead Wire Type	**5IK100VES-□**	**5, 6, 7.5, 9, 12.5, 15, 18**
		25, 30, 36, 50, 60
		75, 90, 100, 120, 150, 180

The following items are included in each product.
Motor, Gearhead, Installation Screws, Parallel Key, Operating Manual

Round Shaft Type

Type	Product Name
Terminal Box Type	**5IK100VA-EST2**
Lead Wire Type	**5IK100VA-ES**

The following items are included in each product.
Motor, Operating Manual

Permissible Torque on Combination Types

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**
5IK100VEST2-□, 5IK100VES-□		3.1	3.7	4.7	5.6	7.8	9.3	10.7	14.8	17.8	21.4	29.7	35.6	40	40	40	40	40	40

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**
5IK100VEST2-□, 5IK100VES-□		2.6	3.1	3.8	4.6	6.4	7.7	8.8	12.3	14.7	17.6	24.5	29.4	34.6	40	40	40	40	40

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
  The actual speed is 2 to 10% less, depending on the load.

- A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Radial Load/Permissible Axial Load

➜ page 47

Permissible Inertia J of Combination Types

➜ page 47

Dimensions (Unit = mm)

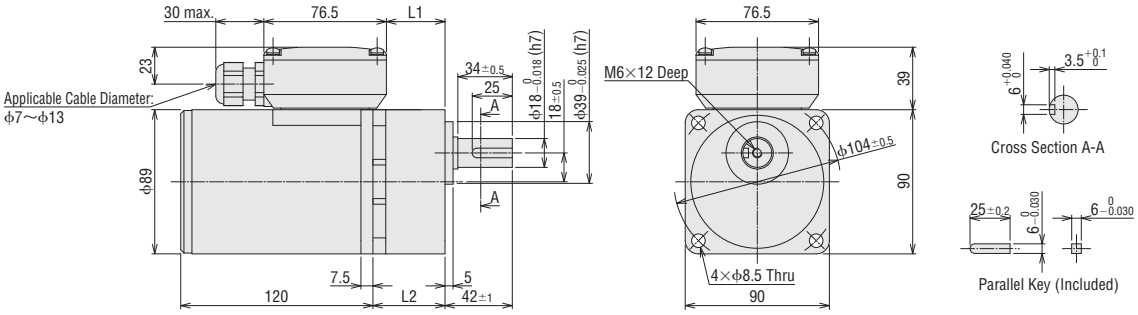
- "Installation screws" are included with the combination type. Dimensions of installation screws ➜ page 47
- The cable outlet of the terminal box can be changed and fixed to four different directions.
- A number indicating the gear ratio is entered where the box □ is located within the product name.

Combination Type

◇Terminal Box Type

2D & 3D CAD

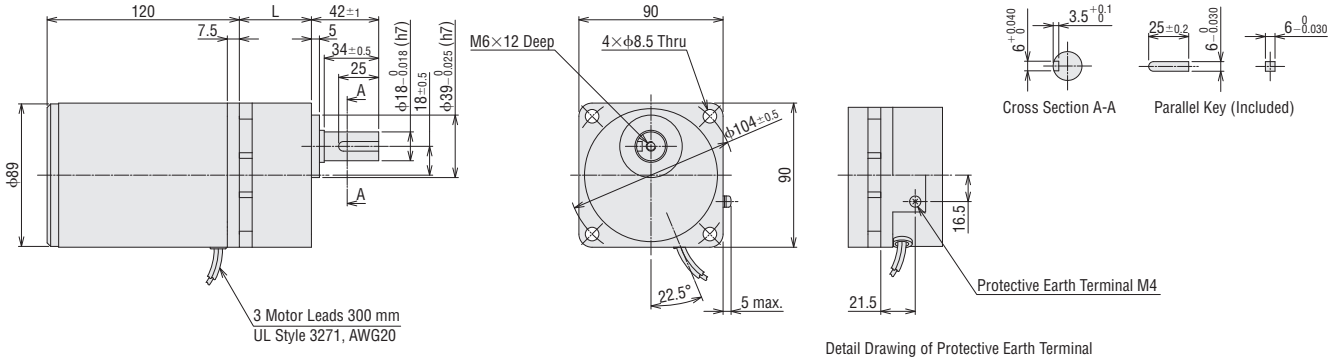
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2	Mass kg	2D CAD
5IK100VEST2-□	5IK100VGVR-EST2	5GVR□B	5~15	36.6	45	4.7	A1316A
			18~36	49.6	58		A1316B
			50~180	61.6	70		A1316C



◇Lead Wire Type

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
5IK100VES-□	5IK100VGVR-ES	5GVR□B	5~15	45	4.4	A1223A
			18~36	58		A1223B
			50~180	70		A1223C

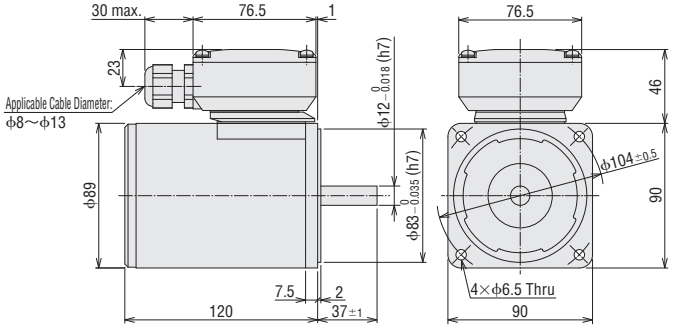


Round Shaft Type

◇Terminal Box Type

5IK100VA-EST2

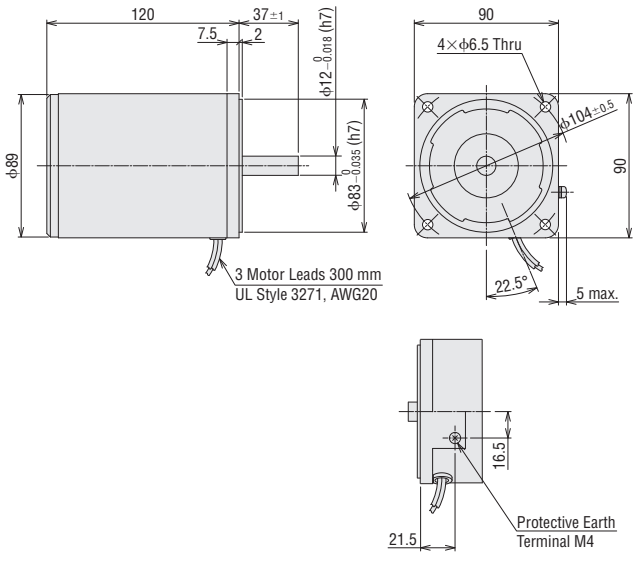
Mass: 3.2 kg 2D CAD A1317 3D CAD



◇Lead Wire Type

5IK100VA-ES

Mass: 2.9 kg 2D CAD A1228 3D CAD



Electromagnetic Brake Type Motors
60 W
□90 mm
Combination Type, Round Shaft Type

Terminal Box Type　　Cable Type

Specifications - Continuous Rating

Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed
Terminal Box Type	Cable Type	W	VAC	Hz	A	mN·m	mN·m	r/min
5IK60VESMT2-□ **5IK60VA-ESMT2**	**5IK60VESM-□** **5IK60VA-ESM**	60	Three-Phase 220	50	0.37	600	410	1400
				60	0.33	500	350	1670
		60	Three-Phase 230	50	0.38	600	410	1400
				60	0.33	500	350	1670

- The specifications apply to the motor only.
- There is no built-in overheat protection device (thermal protector).
  To prevent the motor from burning out when an excess load is applied or the output shaft is locked, use the electrical thermal function of the electromagnetic switch or the inverter.
- To combine this model with an inverter, set the frequency of the inverter to 120 Hz or lower.

Electromagnetic Brake (Power off activated type)

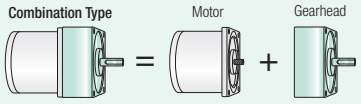
Product Name		Voltage	Frequency	Current	Input	Static Friction Torque
Terminal Box Type	Cable Type	VAC	Hz	A	W	mN·m
5IK60VESMT2-□ **5IK60VA-ESMT2**	**5IK60VESM-□** **5IK60VA-ESM**	Single-Phase 220	50	0.04	6	500
			60			
		Single-Phase 230	50	0.04	6	500
			60			

- The specifications apply to the motor only.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90°.



Combination Type

Type	Product Name	Gear Ratio
Terminal Box Type	**5IK60VESMT2-□**	**5, 6, 7.5, 9, 12.5, 15, 18**
		25, 30, 36, 50, 60, 75, 90, 100
		120, 150, 180
		250, 300
Cable Type	**5IK60VESM-□**	**5, 6, 7.5, 9, 12.5, 15, 18**
		25, 30, 36, 50, 60, 75, 90, 100
		120, 150, 180
		250, 300

The following items are included in each product.
Motor, Gearhead, Installation Screws, Parallel Key, Operating Manual

Round Shaft Type

Type	Product Name
Terminal Box Type	**5IK60VA-ESMT2**
Cable Type	**5IK60VA-ESM**

The following items are included in each product.
Motor, Operating Manual

- A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**
5IK60VESMT2-□, 5IK60VESM-□		1.8	2.2	2.8	3.3	4.6	5.5	6.6	8.8	10.6	12.7	17.6	21.2	26.4	30	30	30	30	30	30	30

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	7.2	6
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**	**250**	**300**
5IK60VESMT2-□, 5IK60VESM-□		1.6	1.9	2.4	2.8	3.9	4.7	5.7	7.5	9.0	10.8	15.1	18.1	22.6	27.1	30	30	30	30	30	30

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio. The actual speed is 2 to 10% less, depending on the load.
- A number indicating the gear ratio is entered where the box □ is located within the product name.

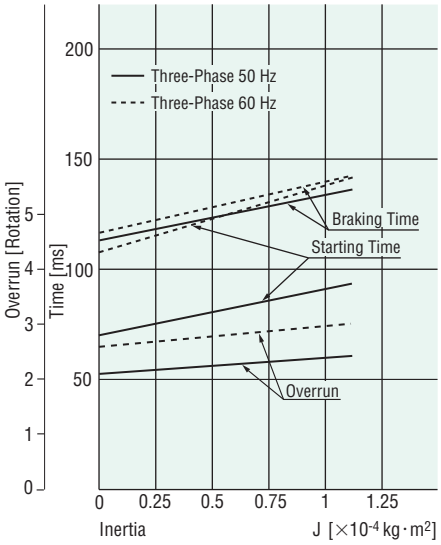
Permissible Radial Load/Permissible Axial Load

→ page 47

Permissible Inertia J of Combination Types

→ page 47

Starting and Braking Characteristics (Reference values for the motor only)



Dimensions (Unit = mm)

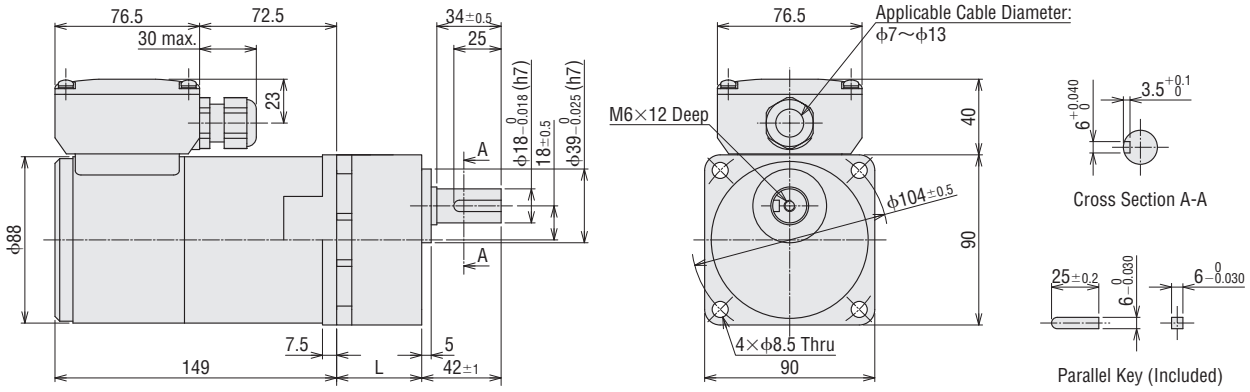
- "Installation screws" are included with the combination type. Dimensions of installation screws → page 47
- The cable outlet of the terminal box can be changed and fixed to four different directions. The cable outlet of the cable type can be done so to two different directions.
- A number indicating the gear ratio is entered where the box □ is located within the product name.

Combination Type

◇Terminal Box Type

2D & 3D CAD

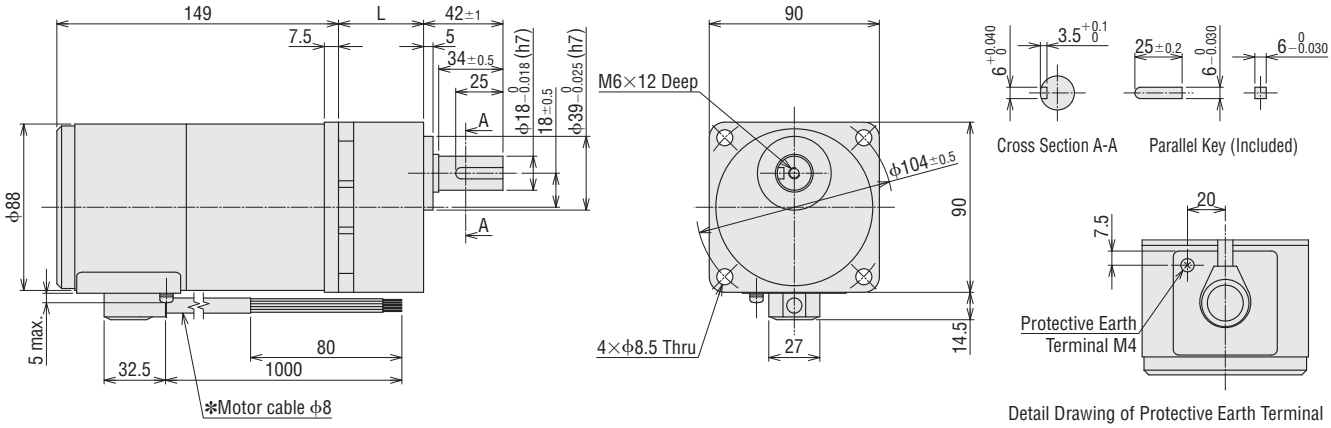
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
5IK60VESMT2-□	5IK60VGVH-ESMT2	5GVH□B	**5~18**	45	4.8	A1321A
			25~100	58		A1321B
			120~300	64		A1321C



◇Cable Type

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
5IK60VESM-□	5IK60VGVH-ESM	5GVH□B	**5～18**	45	4.5	A1281A
			25～100	58		A1281B
			120～300	64		A1281C

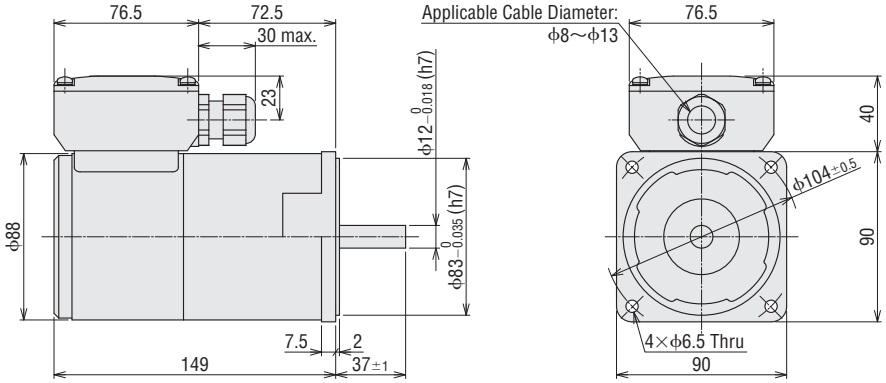


✻Motor Cable Cores
3 Motor Leads UL Style 3271, AWG20
2 Electromagnetic Brake Leads UL Style 3266, AWG22

●Round Shaft Type

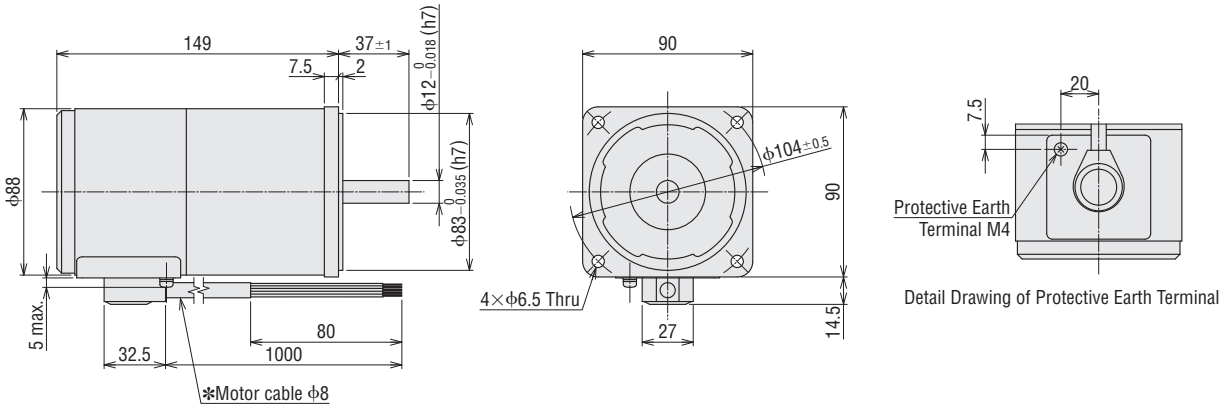
◇Terminal Box Type

5IK60VA-ESMT2 Mass: 3.3 kg 2D CAD A1322 3D CAD



◇Cable Type

5IK60VA-ESM Mass: 3.0 kg 2D CAD A1283 3D CAD



✻Motor Cable Cores
3 Motor Leads UL Style 3271, AWG20
2 Electromagnetic Brake Leads UL Style 3266, AWG22

Electromagnetic Brake Type Motors
100 W
□90 mm
Combination Type, Round Shaft Type

Terminal Box Type　　Cable Type

Specifications - Continuous Rating

Product Name Upper Level: Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed
Terminal Box Type	Cable Type	W	VAC	Hz	A	mN·m	mN·m	r/min
5IK100VESMT2-□ **5IK100VA-ESMT2**	**5IK100VESM-□** **5IK100VA-ESM**	100	Three-Phase 220	50	0.55	850	690	1400
				60	0.48	700	570	1680
		100	Three-Phase 230	50	0.57	850	690	1400
				60	0.48	700	570	1680

- The specifications apply to the motor only.
- There is no built-in overheat protection device (thermal protector).
  To prevent the motor from burning out when an excess load is applied or the output shaft is locked, use the electrical thermal function of the electromagnetic switch or the inverter.
- To combine this model with an inverter, set the frequency of the inverter to 120 Hz or lower.

Electromagnetic Brake (Power off activated type)

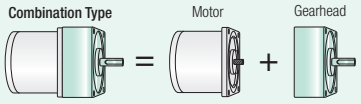
Product Name		Voltage	Frequency	Current	Input	Static Friction Torque
Terminal Box Type	Cable Type	VAC	Hz	A	W	mN·m
5IK100VESMT2-□ **5IK100VA-ESMT2**	**5IK100VESM-□** **5IK100VA-ESM**	Single-Phase 220	50	0.04	6	500
			60			
		Single-Phase 230	50	0.04	6	500
			60			

- The specifications apply to the motor only.

Product Line

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately.
You can also remove the gearhead to change the installation position by 90°.



Combination Type

Type	Product Name	Gear Ratio
Terminal Box Type	**5IK100VESMT2-□**	**5, 6, 7.5, 9, 12.5, 15, 18**
		25, 30, 36, 50, 60
		75, 90, 100, 120, 150, 180
Cable Type	**5IK100VESM-□**	**5, 6, 7.5, 9, 12.5, 15, 18**
		25, 30, 36, 50, 60
		75, 90, 100, 120, 150, 180

The following items are included in each product.
Motor, Gearhead, Installation Screws, Parallel Key, Operating Manual

Round Shaft Type

Type	Product Name
Terminal Box Type	**5IK100VA-ESMT2**
Cable Type	**5IK100VA-ESM**

The following items are included in each product.
Motor, Operating Manual

- A number indicating the gear ratio is entered where the box □ is located within the product name.

Permissible Torque on Combination Types

50 Hz

Unit : N·m

Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**
5IK100VESMT2-□, 5IK100VESM-□		3.1	3.7	4.7	5.6	7.8	9.3	10.7	14.8	17.8	21.4	29.7	35.6	40	40	40	40	40	40

60 Hz

Unit : N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	**5**	**6**	**7.5**	**9**	**12.5**	**15**	**18**	**25**	**30**	**36**	**50**	**60**	**75**	**90**	**100**	**120**	**150**	**180**
5IK100VESMT2-□, 5IK100VESM-□		2.6	3.1	3.8	4.6	6.4	7.7	8.8	12.3	14.7	17.6	24.5	29.4	34.6	40	40	40	40	40

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
  The actual speed is 2 to 10% less, depending on the load.
- A number indicating the gear ratio is entered where the box □ is located within the product name.

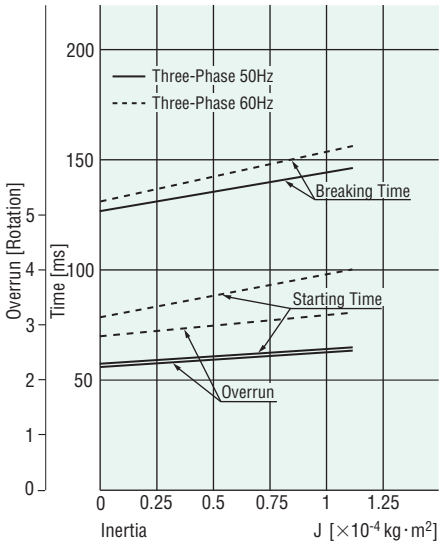
Permissible Radial Load/Permissible Axial Load

➜ page 47

Permissible Inertia J of Combination Types

➜ page 47

Starting and Braking Characteristics (Reference values for the motor only)



Dimensions (Unit = mm)

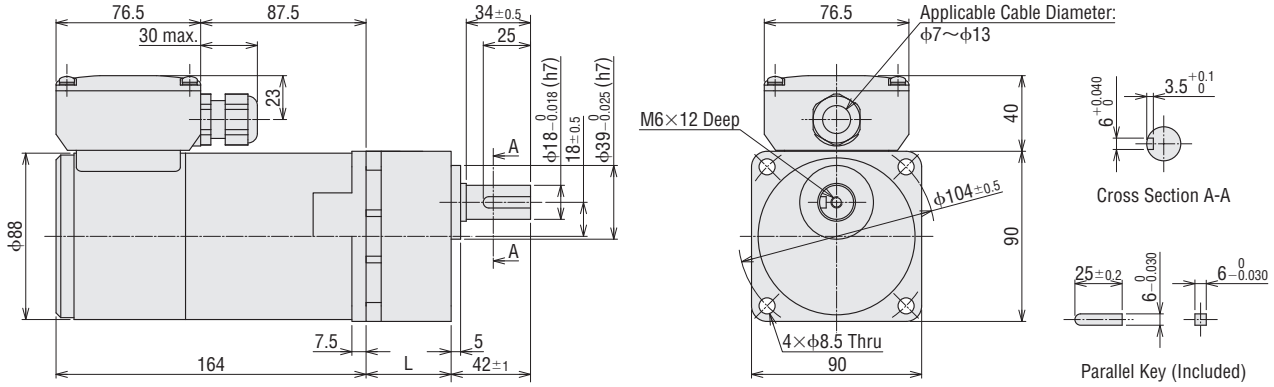
- "Installation screws" are included with the combination type. Dimensions of installation screws ➜page 47
- The cable outlet of the terminal box can be changed and fixed to four different directions. The cable outlet of the cable type can be done so to two different directions.
- A number indicating the gear ratio is entered where the box □ is located within the product name.

Combination Type

◇Terminal Box Type

2D & 3D CAD

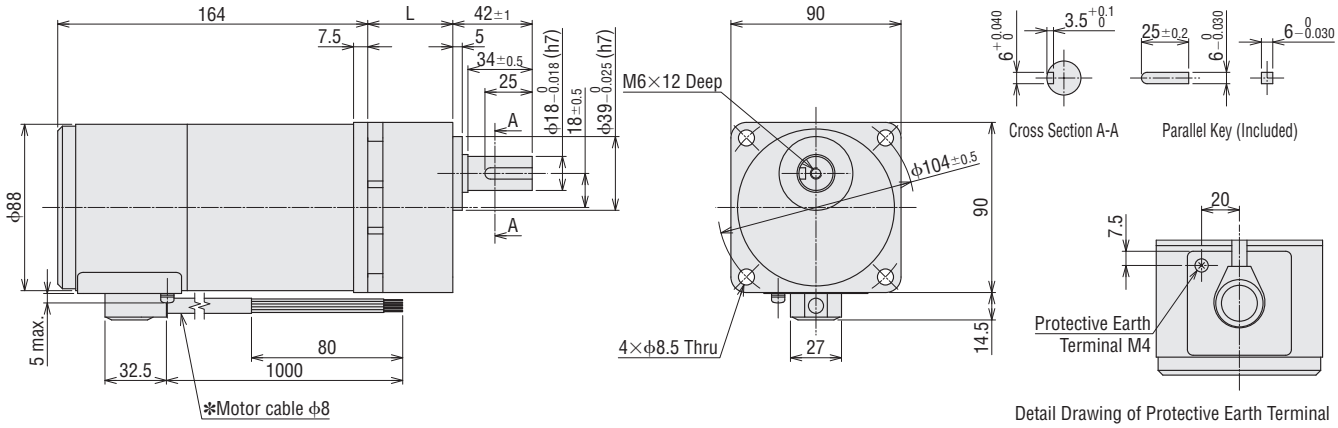
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
5IK100VESMT2-□	5IK100VGVR-ESMT2	5GVR□B	**5～15**	45	5.4	A1323A
			18～36	58		A1323B
			50～180	70		A1323C



◇Cable Type

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
5IK100VESM-□	5IK100VGVR-ESM	5GVR□B	**5~15**	45	5.1	A1285A
			18~36	58		A1285B
			50~180	70		A1285C

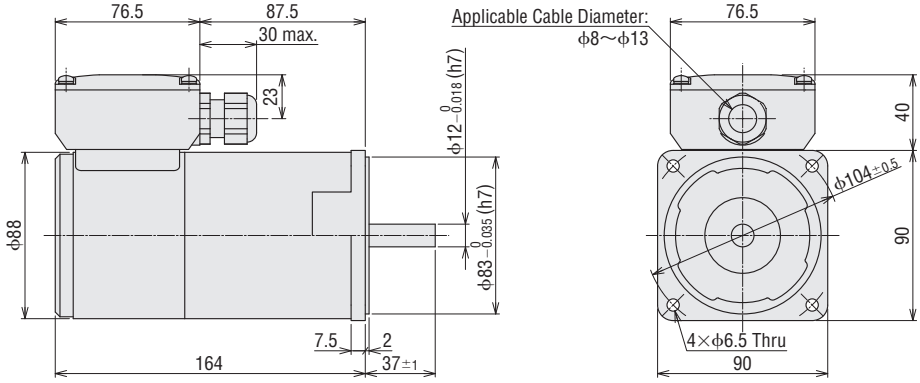


✻Motor Cable Cores
3 Motor Leads UL Style 3271, AWG20
2 Electromagnetic Brake Leads UL Style 3266, AWG22

●Round Shaft Type

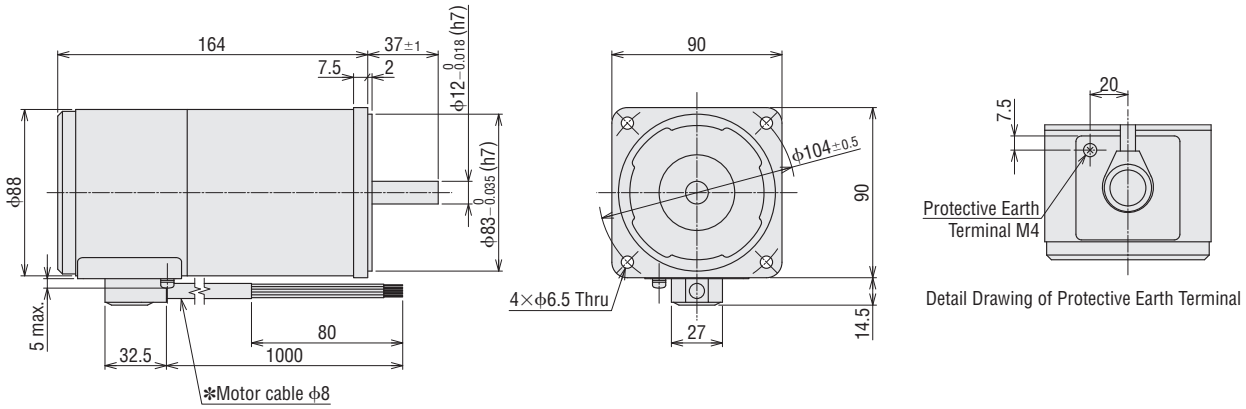
◇Terminal Box Type

5IK100VA-ESMT2 Mass: 3.9 kg 2D CAD A1324 3D CAD



◇Cable Type

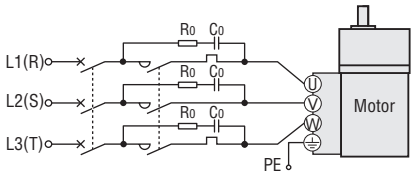
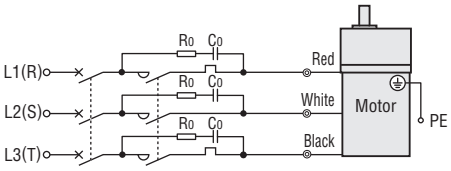
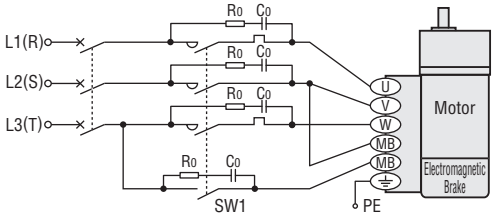
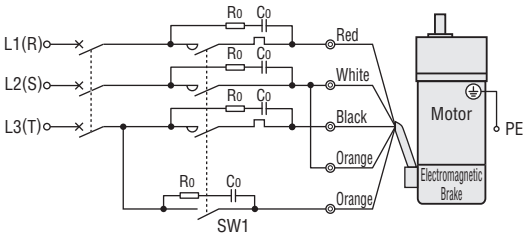
5IK100VA-ESM Mass: 3.6 kg 2D CAD A1287 3D CAD



✻Motor Cable Cores
3 Motor Leads UL Style 3271, AWG20
2 Electromagnetic Brake Leads UL Style 3266, AWG22

Connection Diagram

Combination Type, Round Shaft Type

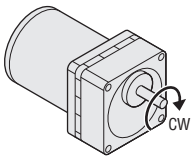
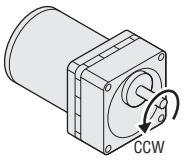
Type	Terminal Box Type	Lead Wire Type/Cable Type
Induction Motor	 To change the rotation direction to counterclockwise, switch any two connections between R, S, T.	 To change the rotation direction to counterclockwise, switch any two connections between R, S, T.
Electromagnetic Brake Type Motor	 To change the rotation direction to counterclockwise, switch any two connections between R, S, T.	 To change the rotation direction to counterclockwise, switch any two connections between R, S, T.

Note

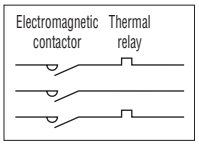
To prevent the motor from burning out when an excess load is applied or the output shaft is locked, make sure to use the electromagnetic switch. For the recommended electromagnetic switch, see the following.

◇Rotation Direction (for the wiring diagram above)

The rotation direction of the output shaft differs depending on the gear ratio as follows:

Type				
	60 W	Gear Ratio **5**～**18** **120**～**300** Round Shaft Type	60 W	Gear Ratio **25**～**100**
	100 W	Gear Ratio **5**～**15** **75**～**180** Round Shaft Type	100 W	Gear Ratio **18**～**60**
Rotation Direction	[Clockwise] 		[Counterclockwise] 	

[Electromagnetic switch]



[Measures for surge suppression]
Connect the CR circuit for surge suppression (-□-||-).
R_0=5～200 Ω
C_0=0.1～0.2 μF 200 WV

●**EPCR1201-2** (sold separately) is available as an accessory at Oriental Motor
➜ page 48

[Contact capacity of the switch SW1]
250 VAC Inductive load 5A or more
(Linked)

Recommended Electromagnetic Switch

When connecting the motor to a power supply, make sure to connect an electromagnetic switch.
For the setting current of the thermal relay, set the rated current of the motor.

- Product made by Fuji Electric FA Components & Systems Co., Ltd.
  For 60 W motor P/N: SC11AAN-□ 10TF
  For 100 W motor P/N: SC11AAN-□ 10TH
  ●The coil code is replaced with the □ in the product number.

Rated specification of the motor				
Motor Output Power	Voltage VAC	Frequency Hz	Rated Current A	Coil Code
60 W	220	50	0.37	M
		60	0.33	
	230	50	0.38	P
		60	0.33	
100 W	220	50	0.55	M
		60	0.48	
	230	50	0.57	P
		60	0.48	

- Product made by Mitsubishi Electric Corporation
  For 60 W motor P/N: MSO-N10 0.35A 200V □
  For 100 W motor P/N: MSO-N10 0.5A 200V □
  ●The coil size is replaced with the □ in the product number.

Rated specification of the motor				
Motor Output Power	Voltage VAC	Frequency Hz	Rated Current A	Coil Size
60 W	220	50	0.37	AC220V
		60	0.33	
	230	50	0.38	AC230V
		60	0.33	
100 W	220	50	0.55	AC220V
		60	0.48	
	230	50	0.57	AC230V
		60	0.48	

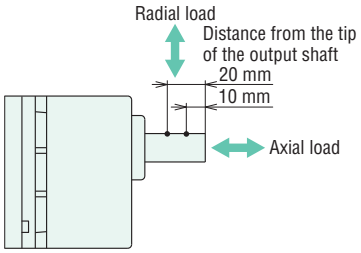
About use with an inverter

To combine with an inverter, meet the following condition on the frequency of the inverter.
· Combination type · Round shaft type: 120 Hz or less
For details on the settings and notes concerning the motor, see the operating manual.

Permissible Radial Load/Permissible Axial Load

Combination Type

Product Name	Gear Ratio	Permissible Radial Load N		Permissible Axial Load N
		Distance from the tip of the output shaft 10 mm	Distance from the tip of the output shaft 20 mm	
5IK60	**5~9**	400	500	150
	12.5~18	450	600	
	25~300	500	700	
5IK100	**5~9**	400	500	150
	12.5~18	450	600	
	25~180	500	700	



Round Shaft Type

Product Name	Permissible Radial Load N		Permissible Axial Load
	Distance from the tip of the output shaft 10 mm	Distance from the tip of the output shaft 20 mm	
5IK60 **5IK100**	240	270	Half of motor mass or less

Permissible Inertia J of Combination Types

Unit : × 10^{-4}kg·m^2

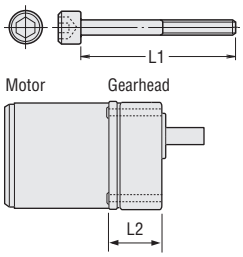
Product Name \ Gear Ratio		5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300
5IK60		45	65	100	150	300	420	620	1100	1600	2300	4500	6000	8000	10000	12000	17000	25000	25000	25000	25000
	At Instantaneous Stop	27.5	39.6	61.9	89.1	172	248	356	688	990	1426	2750	2750	2750	2750	2750	2750	2750	2750	2750	2750
5IK100		45	65	100	150	300	420	620	1100	1600	2300	4500	6000	8000	10000	12000	17000	25000	25000	—	—
	At Instantaneous Stop	27.5	39.6	61.9	89.1	172	248	356	688	990	1426	2750	2750	2750	2750	2750	2750	2750	2750	—	—

Note

- Do not perform instantaneous bi-directional operations.

Dimensions of Installation Screws

The following screws are included with the combination type.



Gearhead Product Name	Installation Screws		L2 (mm)
	L1 (mm)	Screw Size	
5GVH5B~18B	70	M8 P1.25	52.5
5GVH25B~100B	85		65.5
5GVH120B~300B	90		71.5
5GVR5B~15B	70		52.5
5GVR18B~36B	85		65.5
5GVR50B~180B	95		77.5

- Installation screws: 4 plain washers and 4 spring washers are included.
- The installation screw material is stainless steel.

Combination Type Motor and Gearhead Combinations

The combination type comes with a motor and a parallel shaft gearhead pre-assembled.

Induction Motor

Product Name	Motor Product Name	Gearhead Product Name
5IK60VEST2-□	5IK60VGVH-EST2	5GVH□B
5IK100VEST2-□	5IK100VGVR-EST2	5GVR□B
5IK60VES-□	5IK60VGVH-ES	5GVH□B
5IK100VES-□	5IK100VGVR-ES	5GVR□B

Electromagnetic Brake Type Motor

Product Name	Motor Product Name	Gearhead Product Name
5IK60VESMT2-□	5IK60VGVH-ESMT2	5GVH□B
5IK100VESMT2-□	5IK100VGVR-ESMT2	5GVR□B
5IK60VESM-□	5IK60VGVH-ESM	5GVH□B
5IK100VESM-□	5IK100VGVR-ESM	5GVR□B

Motor and Gearhead Mounting Brackets

These dedicated mounting brackets are for mounting motors and gearheads.

Product Line

Product Name	Applicable Product
SOL2M4F	**2IK6** Round Shaft Type **2IK6** Combination Type
SOL3M5F	**3IK15** Round Shaft Type
SOL3M6F	**3IK15** Combination Type
SOL4M5F	**4IK25** Round Shaft Type
SOL4M6F	**4IK25** Combination Type
SOL5M6F	**5IK** Round Shaft Type
SOL5M8F	**5IK** Combination Type

Flexible Couplings

A clamp type coupling for connecting the motor/gearhead shaft with the driven shaft. Once the gearhead is determined, the coupling can be selected.

- Couplings can also be used with round shaft types. Select a coupling with the same inner diameter size as the motor shaft diameter.

Product Line

Motor		Coupling Type
Uniform Load	Impact Load	
2IK6		**MCL30**
3IK15	–	**MCL30**
–	**3IK15**	**MCL40**
4IK25	–	**MCL40**
–	**4IK25**	**MCL55**
5IK40, **5IK60** **5IK90**, **5IK100**		**MCL55**

For details on the mounting brackets, dimensions of the flexible couplings, CAD data, and operating manual, visit our WEB site.

CR Circuit for Surge Suppression

This is used to protect the contacts of the relay or switch used in the bi-directional circuit of a motor.

Product Line

Product Name
EPCR1201-2

250 VAC (120 Ω, 0.1 μF)

Safety Precautions

- To ensure correct operation, carefully read the Operating Manual before using it.
- The products listed in this catalogue are for industrial use and for built-in component. Do not use for any other applications.

- The factories which manufacture the products listed in this catalogue have obtained Quality Management Systems ISO9001 and Environment Management Systems ISO14001.
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- The price of all products listed in this catalogue does not include the consumption tax etc.
- For details of the products, please contact the nearest dealer, sales office or the following "Order Support Center" or "Customer Support Center".
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