

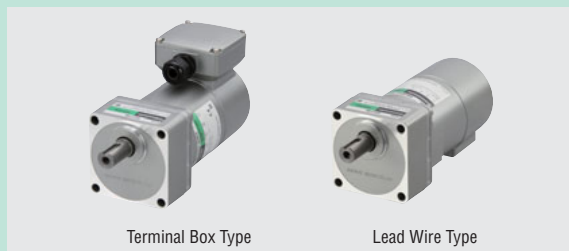
# Electromagnetic Brake Motors

<Additional Information>

- Technical reference → Page H-1
- Regulations & Standards → Page I-2



● For detailed information about regulations and standards, please see the Oriental Motor website.



Terminal Box Type

Lead Wire Type

- Power Off Activated Type Electromagnetic Brake Equipped
- Ideal for Applications Required Load Holding
- Hypoid Gear Right Angle Type is Available
- Compatible with Gearheads

## Features of Electromagnetic Brake Motors



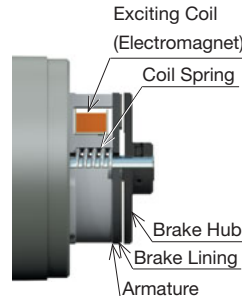




### ● Power Off Activated Type Electromagnetic Brake Equipped

An AC power off activated type electromagnetic brake is equipped to allow the motor to stop instantaneously when the power is cut off, while still holding the load in position.

### ● Ideal for Applications Required Load Holding

This configuration is ideal for vertical applications in which the load must be held.

## Types of Electromagnetic Brake Motors

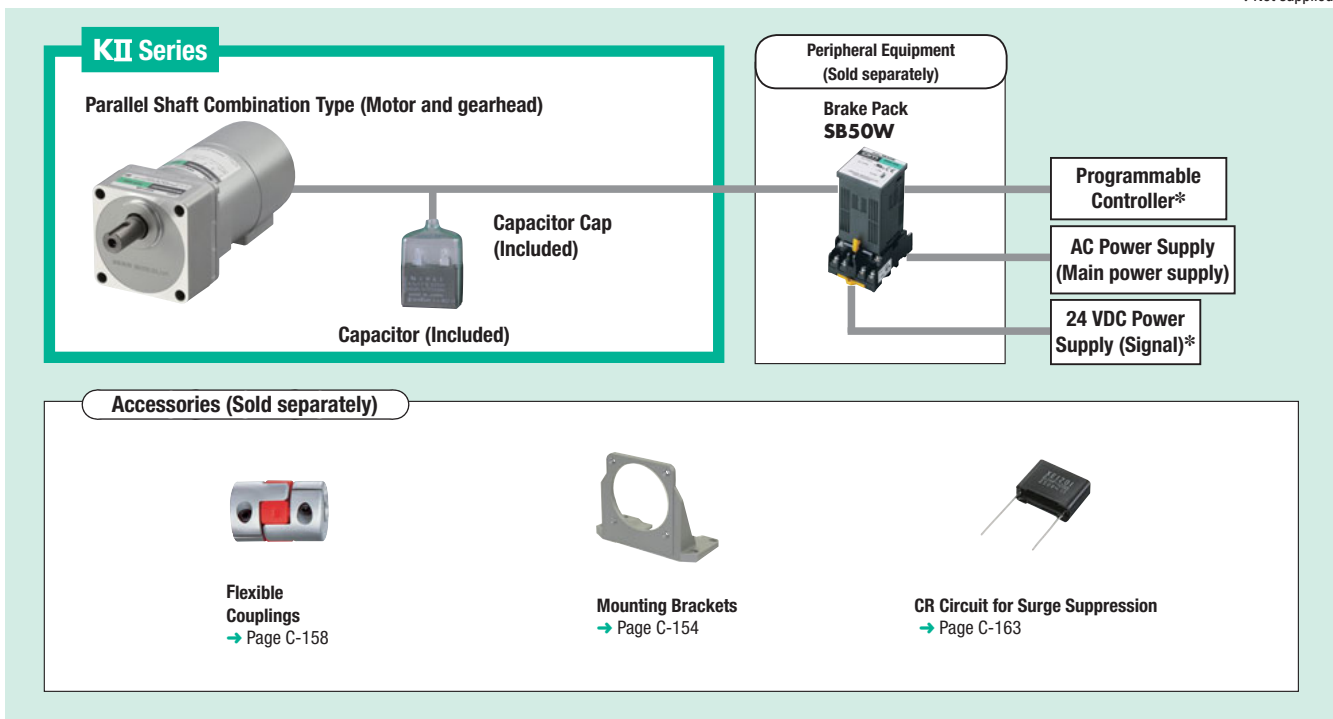
Series	Features, Product Line									
<div>KII Series</div> <div></div> <div></div>	<div><div>● New Global Standard</div><div>With a high performance gearhead built in, it is the new global standard for standard AC motors. Feature of the <b>KII Series</b> → Page C-92</div></div> <div><div>● Equipped with a High-Performance Gearhead</div></div>	<div><div>● Power Off Activated Type Electromagnetic Brake Equipped</div><div>An AC power off activated type electromagnetic brake is equipped. When the power source is turned OFF, the motor stops instantaneously and holds the load.</div><div><div>[Structural Drawing]</div></div><div><div>● Product Line</div><table><tr><td>Frame Size</td><td>□60 mm~□90 mm</td></tr><tr><td>Output Power</td><td>6 W~90 W</td></tr><tr><td>Type</td><td>Parallel Shaft, Round Shaft Type</td></tr><tr><td>Voltage</td><td>Single-Phase 220/230 VAC</td></tr></table></div></div>	Frame Size	□60 mm~□90 mm	Output Power	6 W~90 W	Type	Parallel Shaft, Round Shaft Type	Voltage	Single-Phase 220/230 VAC
Frame Size	□60 mm~□90 mm									
Output Power	6 W~90 W									
Type	Parallel Shaft, Round Shaft Type									
Voltage	Single-Phase 220/230 VAC									
<div>KIIS Series</div> <div></div> <div></div>	<div><div>● High Efficiency Three-Phase Motors through Optimal Design</div><div>A review of the basic motor design has yielded unprecedented high efficiency and energy savings.</div></div> <div><div>● Best Characteristics with Inverter Combination</div><div>Speed can be controlled over a wide range, and high torque is exerted even at low speeds. Because it is a high-performance motor with little speed reduction even with a large load, stabilized speed control is possible.</div></div>	<div><div>● Product Line</div><table><tr><td>Frame Size</td><td>□90 mm</td></tr><tr><td>Output Power</td><td>Right-Angle Geared: 100 W Parallel Shaft Combination: 60 W, 100 W Round Shaft: 60 W, 100 W</td></tr><tr><td>Voltage</td><td>Three-Phase 220/230 VAC</td></tr></table><div>Feature of the <b>KIIS Series</b> → Page C-116</div></div>	Frame Size	□90 mm	Output Power	Right-Angle Geared: 100 W Parallel Shaft Combination: 60 W, 100 W Round Shaft: 60 W, 100 W	Voltage	Three-Phase 220/230 VAC		
Frame Size	□90 mm									
Output Power	Right-Angle Geared: 100 W Parallel Shaft Combination: 60 W, 100 W Round Shaft: 60 W, 100 W									
Voltage	Three-Phase 220/230 VAC									

## Product Line of Electromagnetic Brake Motors

Series	Voltage (VAC)	Type	Motor Frame Size, Output Power						
			□60 mm	□70 mm	□80 mm	□90 mm			
			6 W	15 W	25 W	40 W	60 W	90 W	100 W
<b>KII</b> Series Parallel Shaft Combination Type Round Shaft Type	Single-Phase 220/230	Terminal Box Type				●	●	●	
		Lead Wire	●	●	●	●	●	●	
<b>KIS</b> Series Right-Angle Geared Type	Three-Phase 220/230	Terminal Box Type							●
		Lead Wire							●
<b>KIS</b> Series Parallel Shaft Combination Type Round Shaft Type	Three-Phase 220/230	Terminal Box Type					●		●
		Lead Wire					●		●

## System Configuration

\*Not supplied.



### ●Example of System Configuration

Electromagnetic Brake Motor	Sold Separately		
	Mounting Bracket	Flexible Coupling	CR Circuit for Surge Suppression
<b>5RK40GCM-25</b> €227.00	<b>SOL5M8F</b> €25.00	<b>MCL551818</b> €72.00	<b>EPCR1201-2</b> €3.00

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

Overview,  
Product  
SeriesConstant  
Speed  
MotorsSingle-Phase  
Induction  
MotorsThree-Phase  
Induction  
MotorsReversible  
MotorsElectromagnetic  
Brake MotorsTorque  
MotorsWatertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

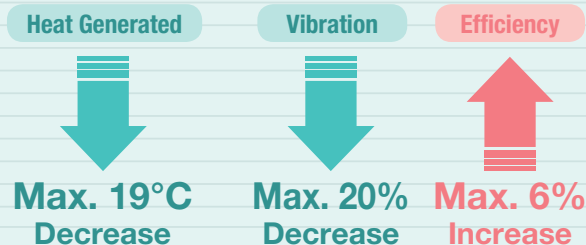
Installation

## Features of the KII Series

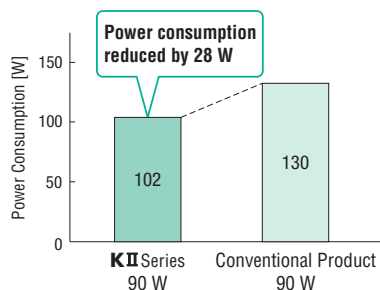
### Excellent Motor Performance

The magnetic balance for each input voltage has been re-examined and the motors have been specially designed to optimize their characteristics. Designing specifically for each voltage not only improves efficiency, but also contributes to equipment reliability by reducing heat and vibration generated by the motor.

#### Comparison with conventional product



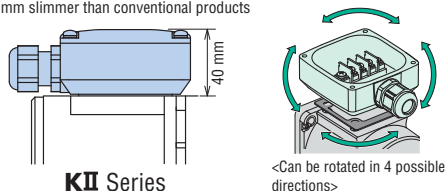
### Energy Savings



### Built-In Slim Body Terminal Box (Terminal box type)

A new shape of terminal box was designed to make wiring the terminal block easier. It is slimmer than conventional products, and the cable outlet can be rotated in 90° increments for 4 possible directions.

5 mm slimmer than conventional products



### IP66 Compliant Drip-proof Specification

The seal structure for the motor, gearhead and terminal box components has been strengthened. The terminal box type is compliant with the IP66 degree of protection.

IP66:

The IP indication that shows the watertight and dust-resistant performance are specified under IEC 60529 and IEC 60034-5.

#### Main Specifications

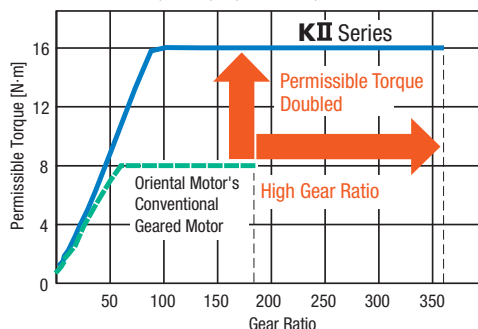
- Material
  - Case and terminal box: Aluminum
  - Output shaft: S45C
  - Screws: Stainless steel (externally facing screws only)
- Surface Treatment
  - Case and terminal box: Painted (excluding installation surface)

### Equipped with a High-Performance Gearhead

#### High Permissible Torque

The permissible torque is up to twice that of conventional products.

● 25 W Gearhead Output Torque (Permissible)



KII Series 4GV

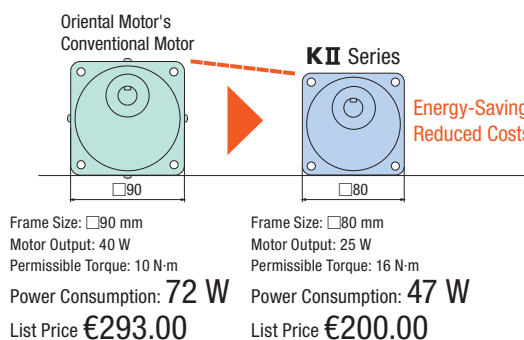
Max. Permissible Torque  
**16 N·m**

Oriental Motor Conventional Product 4GN-K

Max. Permissible Torque  
**8 N·m**

#### Downsizing is Possible with the Same Output Torque

Downsizing is possible by changing our company's conventional products with the KII Series. If a smaller size motor can be selected, not only the power consumption but also the purchase cost can be reduced.



### High Strength

The permissible radial load and the permissible axial load are up to twice that of conventional products.

Oriental Motor Conventional Product 4GN-K

KII Series 4GV



### Long-Life

At 10,000 hours, the rated life is twice that of a conventional product.

### Noise Reduction

The contact noise of the motor and gearhead is approximately 6 dB less compared to a conventional product.

## Product Number

### ● KII Series

#### ◇ Parallel Shaft Combination Type

**5 R K 40 GC M T2 - 100**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

#### ◇ Round Shaft Type

**5 R K 40 A - GC M T2**

① ② ③ ④ ⑧ ⑤ ⑥ ⑦

①	Motor Frame Size	<b>2:</b> 60 mm <b>3:</b> 70 mm <b>4:</b> 80 mm <b>5:</b> 90 mm
②	Product Name	<b>R:</b> Reversible Motor
③	Series Name	<b>K:</b> KII Series
④	Output Power	(Example) <b>40:</b> 40 W
⑤	Power Supply Voltage/ Number of Poles	<b>GC:</b> Single-Phase 220/230 VAC (50 Hz) 4-Pole <b>UC:</b> Single-Phase 220/230 VAC (60 Hz) 4-Pole
⑥	<b>M:</b> Type with a Power Off Activated Electromagnetic Brake	
⑦	<b>T2:</b> Terminal Box Type	Blank: Lead Wire Type or Cable Type
⑧	Gear Ratio and Shaft Type	Number: Gear Ratio for Combination Types <b>A:</b> Round Shaft Type

## General Specifications

### ● KII Series

Item	Specification
Insulation Resistance	100 MΩ or more when a 500 VDC megger is applied between the motor windings and the case after 30 minutes continuous operation under normal ambient temperature and humidity.
Dielectric Voltage	Sufficient to withstand 1.5 kVAC at 50 Hz or 60 Hz applied between the motor windings and the case for 1 minute after 30 minutes continuous operation under normal ambient temperature and humidity.
Temperature Rise	A gearhead or equivalent heat sink* is connected to the motor and the winding temperature rise is measured at 80°C or less using the resistance change method after 30 minutes continuous operation with no load under normal ambient temperature and humidity.
Thermal Class	130 (B)
Overheat Protection Device	6 W Impedance Protected Other Built-in Thermal Protector (Automatic return type) Open: 130±5°C Reset: 85±20°C
Operating Ambient Temperature	−10~+40°C (Non-freezing)
Operating Ambient Humidity	85% or less (Non-condensing)
Degree of Protection	Terminal Box Type : IP66 (40 W Excluding installation surface, refer to page C-92 for the materials and surface treatments.) : IP20 (60 W, 90 W) Lead Wire Type : IP20 (6 W, 15 W, 25 W) Cable Type : IP40 (40 W) : IP20 (60 W, 90 W)

\*Heat sink size (Material: Aluminum)

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

Overview,  
Product  
Series

Constant  
Speed  
Motors

Single-Phase  
Induction  
Motors

Three-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

Installation



## KII Series

6 W

□ 60 mm

## Parallel Shaft Combination Type, Round Shaft Type

## Specifications – 30 Minutes Rating



Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type	Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitance	Overheat Protection Device
Lead Wire Type									
<b>2RK6GCM-□</b> <b>2RK6A-GCM</b>	6	Single-Phase 220	50	0.105	50	45	1280	0.8	ZP
		Single-Phase 230		0.109	50	45	1280		
<b>2RK6UCM-□</b> <b>2RK6A-UCM</b>	6	Single-Phase 220	60	0.112	50	36	1600	0.8	
		Single-Phase 230		0.116	50	36	1600		

● The values in the table are characteristics for the motor only.

ZP: This indicates that it is impedance protected.

## Electromagnetic Brake (Power Off Activated Type)

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type	Voltage	Frequency	Current	Power Consumption	Static Friction Torque
Lead Wire Type	VAC	Hz	A	W	mN·m
<b>2RK6GCM-□</b> <b>2RK6A-GCM</b>	Single-Phase 220	50	0.02	3	30
	Single-Phase 230				
<b>2RK6UCM-□</b> <b>2RK6A-UCM</b>	Single-Phase 220	60	0.02	3	30
	Single-Phase 230				

● The values correspond to the specifications of a stand-alone motor.

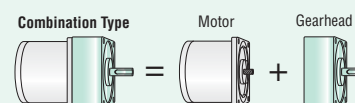
## Product Line

## Combination Type

Motor and gearhead are delivered pre-assembled.

The combination of motors and gearheads can be changed, and they are also available separately.

In addition, the gearhead can be removed and the assembly position can be changed in 90° increments.



For the single-phase 100 VAC, 110/115 VAC models and single-phase 200 VAC models, please contact the nearest Oriental Motor sales office.

## Parallel Shaft Combination Type Price includes motor and gearhead.

Product Name	Gear Ratio	List Price
<b>2RK6GCM-□</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18</b>	€155.00
	<b>25, 30, 36</b>	€160.00
	<b>50, 60, 75, 90, 100, 120, 150, 180</b>	€165.00
	<b>250, 300, 360</b>	€200.00
<b>2RK6UCM-□</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18</b>	€155.00
	<b>25, 30, 36</b>	€160.00
	<b>50, 60, 75, 90, 100, 120, 150, 180</b>	€165.00
	<b>250, 300, 360</b>	€200.00

The following items are included with each product.

Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

## Round Shaft Type

Product Name	List Price
<b>2RK6A-GCM</b>	€111.00
<b>2RK6A-UCM</b>	€111.00

The following items are included with each product.

Motor, Capacitor, Capacitor Cap, Operating Manual

● A number indicating the gear ratio is specified where the box □ is located in the product name.

## Permissible Torque

- 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 max. 30% less, depending on the load.

### 50 Hz

Unit: N·m

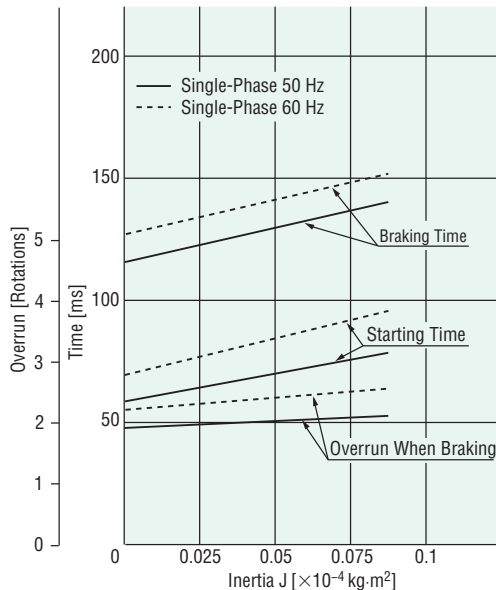
Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5	4.1
	Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
<b>2RK6GCM-</b> □		0.20	0.24	0.30	0.36	0.51	0.61	0.73	1.0	1.2	1.4	1.9	2.3	2.9	3.5	3.9	4.6	5.5	6	6	6	6

### 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
<b>2RK6UCM-</b> □		0.16	0.19	0.24	0.29	0.41	0.49	0.58	0.81	0.93	1.1	1.5	1.9	2.3	2.8	3.1	3.7	4.4	5.2	6	6	6

## Starting and Braking Characteristics (Reference Values - Motor only)



## Permissible Radial Load and Permissible Axial Load

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## Permissible Inertia J of Combination Types

→ Page C-18

● A number indicating the gear ratio is specified where the box □ is located in the product name.

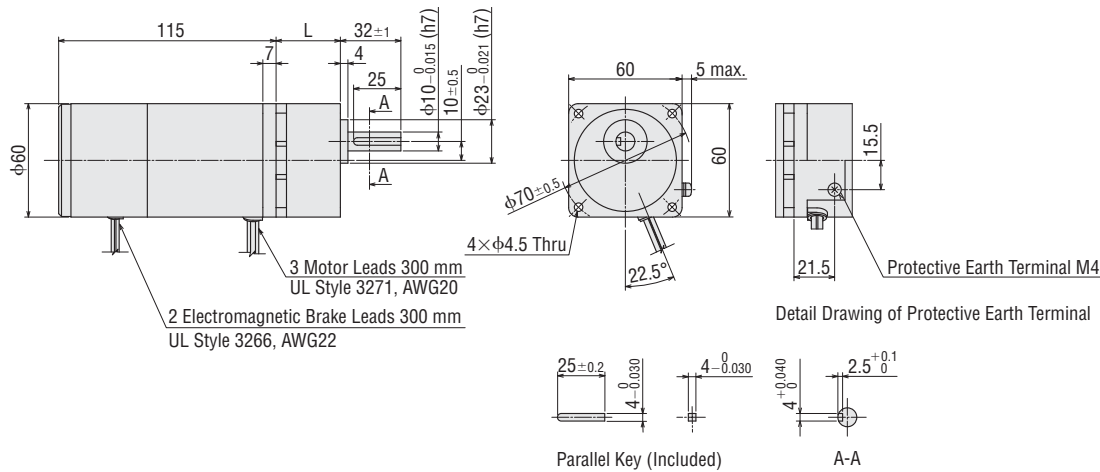
## ■ Dimensions Unit = mm

● Installation screws are included with the parallel shaft combination type. Dimensions for installation screws → Page C-170

- Lead Wire Type

### ◆ Parallel Shaft Combination Type

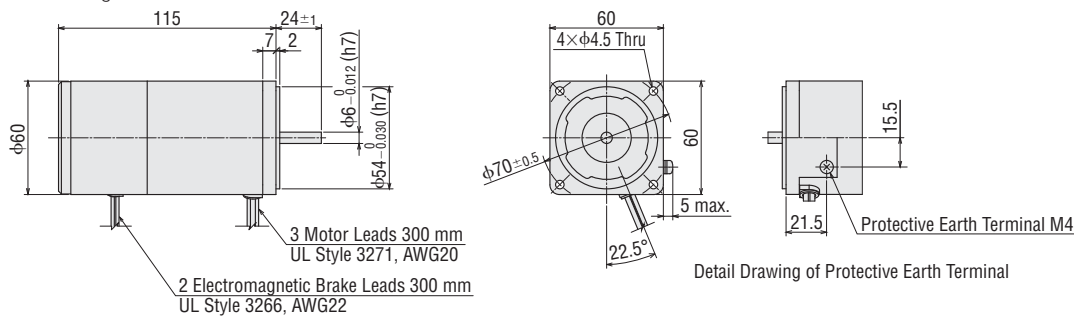
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>2RK6UCM-</b> <input type="checkbox"/> <b>2RK6GCM-</b> <input type="checkbox"/>	2RK6GV-UCM	2GV□B	<b>5~25</b>	34	1.5
	2RK6GV-GCM		<b>30~120</b>	38	
			<b>150~360</b>	43	



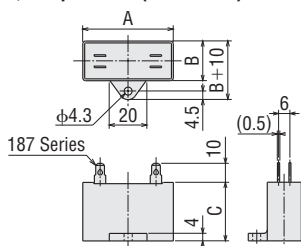
### ◆Round Shaft Type

**2RK6A-UCM, 2RK6A-GCM**

Mass: 1.0 kg



◆ **Capacitor (Included)**



Product Name		Capacitor Product Name	A	B	C	Mass g
Parallel Shaft Combination Type	Round Shaft Type					
<b>2RK6GCM-□</b>	<b>2RK6A-GCM</b>	CH08BFAUL	31	17	27	23
<b>2RK6UCM-□</b>	<b>2RK6A-UCM</b>	CH08BFAUL	31	17	27	23

- A capacitor cap is included.

● A number indicating the gear ratio is specified where the box □ is located in the product name.

## KII Series

15 W

□ 70 mm

## Parallel Shaft Combination Type, Round Shaft Type

Overview,  
Product  
SeriesConstant  
Speed  
MotorsSingle-Phase  
Induction  
MotorsThree-Phase  
Induction  
MotorsReversible  
MotorsElectromagnetic  
Brake MotorsTorque  
MotorsWatertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

Installation

## Specifications – 30 Minutes Rating



Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type	Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitance	Overheat Protection Device
Lead Wire Type	W	VAC	Hz	A	mN·m	mN·m	r/min	μF	
<b>3RK15GCM-□</b> <b>3RK15A-GCM</b>	15	Single-Phase 220	50	0.177	110	109	1330	1.5	TP
		Single-Phase 230		0.184	125		1330		
<b>3RK15UCM-□</b> <b>3RK15A-UCM</b>	15	Single-Phase 220	60	0.173	90	90	1610	1.3	
		Single-Phase 230		0.177	100		1610		

● The values in the table are characteristics for 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.

(The power supply to the electromagnetic brake is maintained and the brake is released.)

When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

## Electromagnetic Brake (Power Off Activated Type)

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type	Voltage	Frequency	Current	Power Consumption	Static Friction Torque
Lead Wire Type	VAC	Hz	A	W	mN·m
<b>3RK15GCM-□</b> <b>3RK15A-GCM</b>	Single-Phase 220	50	0.05	7	80
	Single-Phase 230				
<b>3RK15UCM-□</b> <b>3RK15A-UCM</b>	Single-Phase 220	60	0.05	7	80
	Single-Phase 230				

● The values correspond to the specification of a stand-alone motor.

## Product Line

Combination Type	<p>Motor and gearhead are delivered pre-assembled.</p> <p>The combination of motors and gearheads can be changed, and they are also available separately.</p> <p>In addition, the gearhead can be removed and the assembly position can be changed in 90° increments.</p>	
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For the single-phase 100 VAC, 110/115 VAC models and single-phase 200 VAC model, please contact the nearest Oriental Motor sales office.

## Parallel Shaft Combination Type Price includes motor and gearhead.

Product Name	Gear Ratio	List Price
<b>3RK15GCM-□</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18</b>	€165.00
	<b>25, 30, 36</b>	€169.00
	<b>50, 60, 75, 90, 100, 120, 150, 180</b>	€175.00
	<b>250, 300, 360</b>	€209.00
<b>3RK15UCM-□</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18</b>	€165.00
	<b>25, 30, 36</b>	€169.00
	<b>50, 60, 75, 90, 100, 120, 150, 180</b>	€175.00
	<b>250, 300, 360</b>	€209.00

The following items are included with each product.

Motor, Gearhead, Capacitor, Capacitor Cap, Installation Screws, Parallel Key, Operating Manual

## Round Shaft Type

Product Name	List Price
<b>3RK15A-GCM</b>	€117.00
<b>3RK15A-UCM</b>	€117.00

The following items are included with each product.

Motor, Capacitor, Capacitor Cap, Operating Manual

● A number indicating the gear ratio is specified where the box □ is located in the product name.



Permissible Torque

- 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 max. 30% less, depending on the load.

50 Hz

Unit: N·m

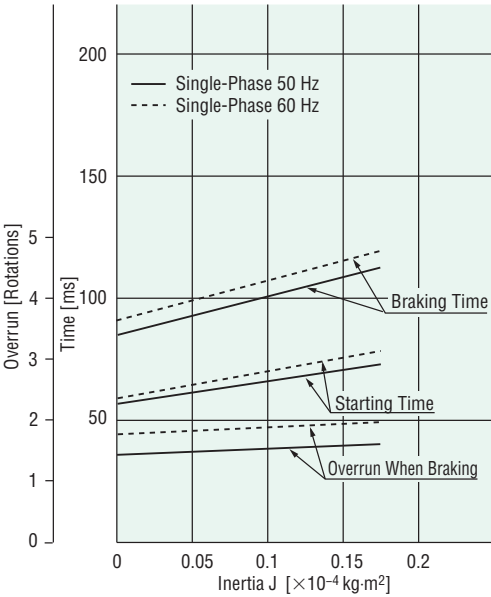
Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5	4.1
	Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
3RK15GCM-□		0.49	0.59	0.74	0.88	1.2	1.5	1.8	2.5	2.8	3.4	4.7	5.6	7.0	8.4	9.4	10	10	10	10	10	10

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
3RK15UCM-□		0.41	0.49	0.61	0.73	1.0	1.2	1.5	2.0	2.3	2.8	3.9	4.6	5.8	7.0	7.7	9.3	10	10	10	10	10

Starting and Braking Characteristics (Reference Values - Motor only)



Permissible Radial Load and Permissible Axial Load

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Permissible Inertia J of Combination Types

→ Page C-18

A number indicating the gear ratio is specified where the box □ is located in the product name.

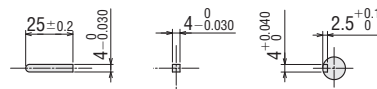
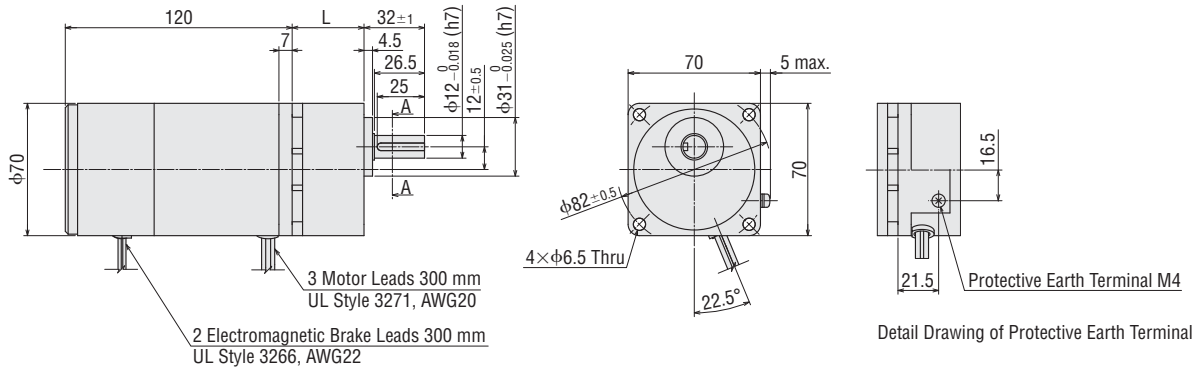
## Dimensions Unit = mm

● Installation screws are included with the parallel shaft combination type. Dimensions for installation screws → Page C-170

### Lead Wire Type

#### Parallel Shaft Combination Type

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>3RK15UCM-</b> □ <b>3RK15GCM-</b> □	3RK15GV-UCM 3RK15GV-GCM	3GV□B	<b>5~25</b>	38	2.0
			<b>30~120</b>	43	
			<b>150~360</b>	48	



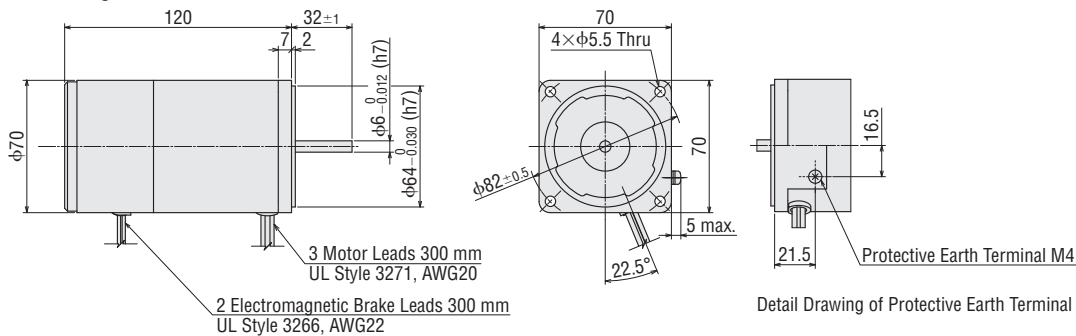
Parallel Key (Included)

A-A

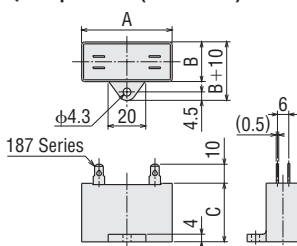
#### Round Shaft Type

**3RK15A-UCM, 3RK15A-GCM**

Mass: 1.4 kg



#### Capacitor (Included)



Unit: mm

Product Name		Capacitor			
Parallel Shaft Combination Type	Round Shaft Type	Product Name	A	B	C
<b>3RK15GCM-</b> □	<b>3RK15A-GCM</b>	CH15BFAUL	38	21	31
<b>3RK15UCM-</b> □	<b>3RK15A-UCM</b>	CH13BFAUL	38	19	29

● A capacitor cap is included.

● A number indicating the gear ratio is specified where the box □ is located in the product name.



KII Series

25 W

80 mm

Parallel Shaft Combination Type, Round Shaft Type

Specifications – 30 Minutes Rating



Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type	Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitance	Overheat Protection Device
Lead Wire Type									
<b>4RK25GCM</b> -□ <b>4RK25A-GCM</b>	25	Single-Phase 220	50	0.24	170	180	1330	2.0	TP
		Single-Phase 230		0.25	190		1330		
<b>4RK25UCM</b> -□ <b>4RK25A-UCM</b>	25	Single-Phase 220	60	0.25	160	145	1650	2.0	
		Single-Phase 230		0.26	180		1650		

● The values in the table are characteristics for 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.  
(The power supply to the electromagnetic brake is maintained and the brake is released.)  
When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

Electromagnetic Brake (Power Off Activated Type)

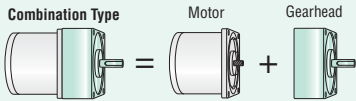
Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type	Voltage	Frequency	Current	Power Consumption	Static Friction Torque
Lead Wire Type	VAC	Hz	A	W	mN·m
<b>4RK25GCM-</b> <input type="checkbox"/> <b>4RK25A-GCM</b>	Single-Phase 220	50	0.05	7	100
	Single-Phase 230				
<b>4RK25UCM-</b> <input type="checkbox"/> <b>4RK25A-UCM</b>	Single-Phase 220	60	0.05	7	100
	Single-Phase 230				

● The values correspond to the specification of a stand-alone motor.

Product Line

Combination Type

Motor and gearhead are delivered pre-assembled.  
The combination of motors and gearheads can be changed, and they are also available separately.  
In addition, the gearhead can be removed and the assembly position can be changed in 90° increments.



For the single-phase 100 VAC, 110/115 VAC models and single-phase 200 VAC models, please contact the nearest Oriental Motor sales office.

Parallel Shaft Combination Type Price includes motor and gearhead.

Product Name	Gear Ratio	List Price
4RK25GCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€190.00
	25, 30, 36	€194.00
	50, 60, 75, 90, 100, 120, 150, 180	€200.00
	250, 300, 360	€236.00
4RK25UCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€190.00
	25, 30, 36	€194.00
	50, 60, 75, 90, 100, 120, 150, 180	€200.00
	250, 300, 360	€236.00

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

Round Shaft Type

Product Name	List Price
4RK25A-GCM	€141.00
4RK25A-UCM	€141.00

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

● A number indicating the gear ratio is specified where the box □ is located in the product name.

## Permissible Torque

- 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 max. 30% less, depending on the load.

### 50 Hz

Unit: N·m

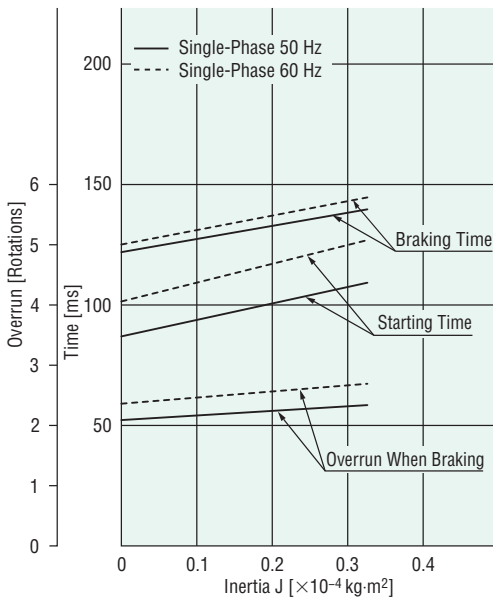
Product Name	Speed r/min	300	250	200	166	120	100	83	60	50	41	30	25	20	16.6	15	12.5	10	8.3	6	5	4.1
	Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
4RK25GCM-□		0.81	0.97	1.2	1.5	2.0	2.4	2.9	4.1	4.6	5.6	7.7	9.3	11.6	13.9	15.5	16	16	16	16	16	16

### 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
4RK25UCM-□		0.65	0.78	0.98	1.2	1.6	2.0	2.3	3.3	3.7	4.5	6.2	7.5	9.4	11.2	12.5	15.0	16	16	16	16	16

## Starting and Braking Characteristics (Reference Values - Motor only)



## Permissible Radial Load and Permissible Axial Load

→ Page C-16

## Permissible Inertia J of Combination Types

→ Page C-18

● A number indicating the gear ratio is specified where the box □ is located in the product name.

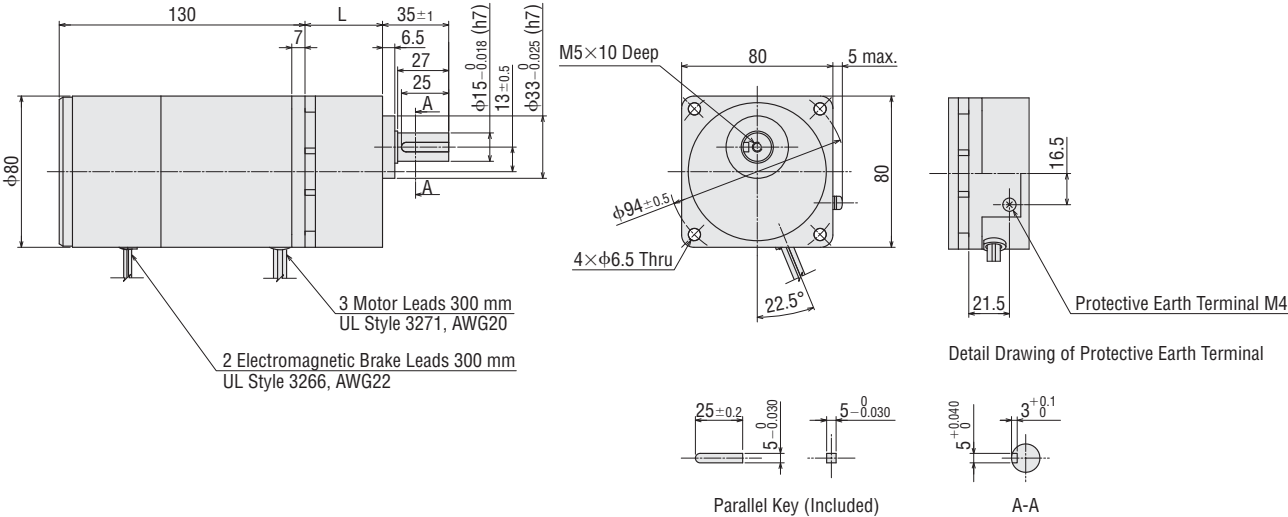
Dimensions Unit = mm

● Installation screws are included with the parallel shaft combination type. Dimensions for installation screws → Page C-170

Lead Wire Type

Parallel Shaft Combination Type

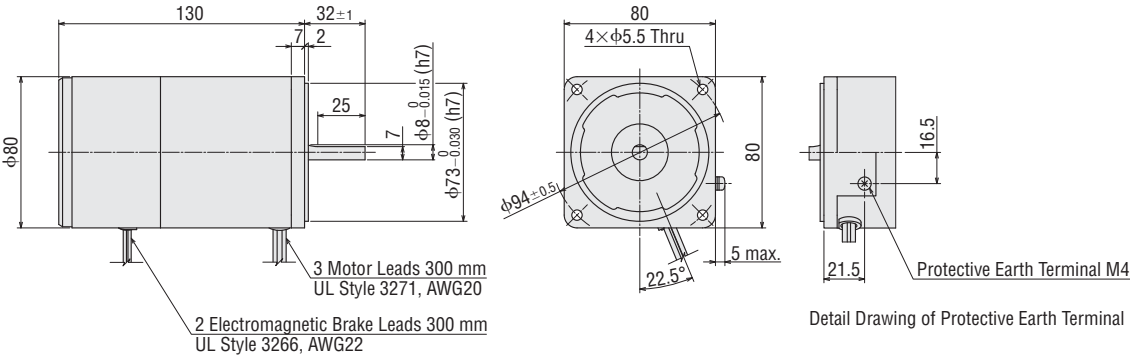
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>4RK25UCM-</b> □ <b>4RK25GCM-</b> □	4RK25GV-UCM 4RK25GV-GCM	4GV□B	<b>5~25</b>	41	3.05
			<b>30~120</b>	46	
			<b>150~360</b>	51	



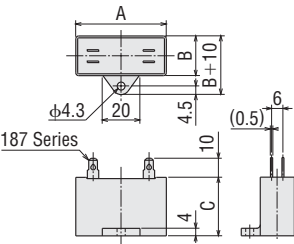
Round Shaft Type

**4RK25A-UCM, 4RK25A-GCM**

Mass: 2.1 kg



Capacitor (Included)



Product Name		Capacitor Product Name	A	B	C	Mass g
Parallel Shaft Combination Type	Round Shaft Type					
<b>4RK25GCM-</b> □	<b>4RK25A-GCM</b>	CH20BFAUL	48	19	29	36
<b>4RK25UCM-</b> □	<b>4RK25A-UCM</b>	CH20BFAUL	48	19	29	36

● A capacitor cap is included.

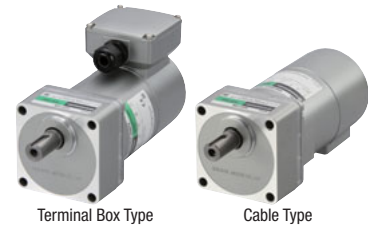
● A number indicating the gear ratio is specified where the box □ is located in the product name.

## KII Series

40 W

□ 90 mm

Parallel Shaft Combination Type, Round Shaft Type

Overview,  
Product  
SeriesConstant  
Speed  
MotorsSingle-Phase  
Induction  
MotorsThree-Phase  
Induction  
MotorsReversible  
MotorsElectromagnetic  
Brake MotorsTorque  
MotorsWatertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

Installation

## Specifications – 30 Minutes Rating

CE

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitance	Overheat Protection Device
Terminal Box Type	Cable Type									
<b>5RK40GCMT2-□</b> <b>5RK40A-GCMT2</b>	<b>5RK40GCM-□</b> <b>5RK40A-GCM</b>	40	Single-Phase 220	50	0.37	320	290	1330	3.5	TP
			Single-Phase 230		0.37	320	290	1330		
<b>5RK40UCMT2-□</b> <b>5RK40A-UCMT2</b>	<b>5RK40UCM-□</b> <b>5RK40A-UCM</b>	40	Single-Phase 220	60	0.36	295	240	1640	3.0	
					Single-Phase 230	0.36	320	240		

● The values in the table are characteristics for 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.

(The power supply to the electromagnetic brake is maintained and the brake is released.)

When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

## ● Electromagnetic Brake (Power Off Activated Type)

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type		Voltage	Frequency	Current	Power Consumption	Static Friction Torque
Terminal Box Type	Cable Type					
<b>5RK40GCMT2-□</b> <b>5RK40A-GCMT2</b>	<b>5RK40GCM-□</b> <b>5RK40A-GCM</b>	Single-phase 220	50	0.04	6	200
		Single-Phase 230				
<b>5RK40UCMT2-□</b> <b>5RK40A-UCMT2</b>	<b>5RK40UCM-□</b> <b>5RK40A-UCM</b>	Single-Phase 220	60	0.04	6	200
		Single-Phase 230				

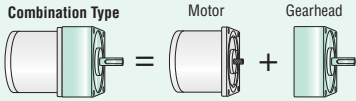
● The values correspond to the specification of a stand-alone motor.

● A number indicating the gear ratio is specified where the box □ is located in the product name.

Product Line

Combination Type

Motor and gearhead are delivered pre-assembled.  
The combination of motors and gearheads can be changed, and they are also available separately.  
In addition, the gearhead can be removed and the assembly position can be changed in 90° increments.



For the single-phase 100 VAC, 110/115 VAC models and single-phase 200 VAC models, please contact the nearest Oriental Motor sales office.

Parallel Shaft Combination Type Price includes motor and gearhead.

Terminal Box Type

Product Name	Gear Ratio	List Price
5RK40GCMT2-□	5, 6, 7.5, 9, 12.5, 15, 18	€239.00
	25, 30, 36	€244.00
	50, 60, 75, 90, 100, 120, 150, 180	€249.00
	250, 300	€310.00
5RK40UCMT2-□	5, 6, 7.5, 9, 12.5, 15, 18	€239.00
	25, 30, 36	€244.00
	50, 60, 75, 90, 100, 120, 150, 180	€249.00
	250, 300	€310.00

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

Cable Type

Product Name	Gear Ratio	List Price
5RK40GCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€222.00
	25, 30, 36	€227.00
	50, 60, 75, 90, 100, 120, 150, 180	€232.00
	250, 300	€293.00
5RK40UCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€222.00
	25, 30, 36	€227.00
	50, 60, 75, 90, 100, 120, 150, 180	€232.00
	250, 300	€293.00

Round Shaft Type

Terminal Box Type

Product Name	List Price
5RK40A-GCMT2	€181.00
5RK40A-UCMT2	€181.00

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

Cable Type

Product Name	List Price
5RK40A-GCM	€164.00
5RK40A-UCM	€164.00

Permissible Torque

- 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 max. 30% 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
5RK40GCM-□		1.3	1.6	2.0	2.3	3.3	3.9	4.7	6.2	7.5	9.0	12.5	15.0	18.7	22.4	24.9	28.2	30	30	30	30

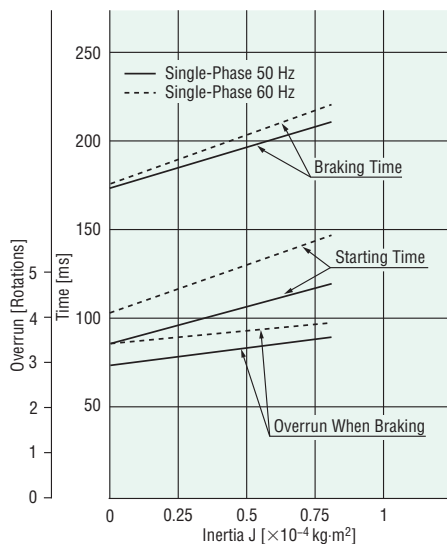
60 Hz

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
5RK40UCM-□		1.1	1.3	1.6	1.9	2.7	3.2	3.9	5.2	6.2	7.4	10.3	12.4	15.5	18.6	20.6	23.3	29.2	30	30	30

A code (T2) indicating the terminal box type is specified where the box □ is located in the product name.  
A number indicating the gear ratio is specified where the box □ is located in the product name.

## Starting and Braking Characteristics (Reference Values - Motor only)



## Permissible Radial Load and Permissible Axial Load

→ Page C-16

## Permissible Inertia J of Combination Types

→ Page C-18

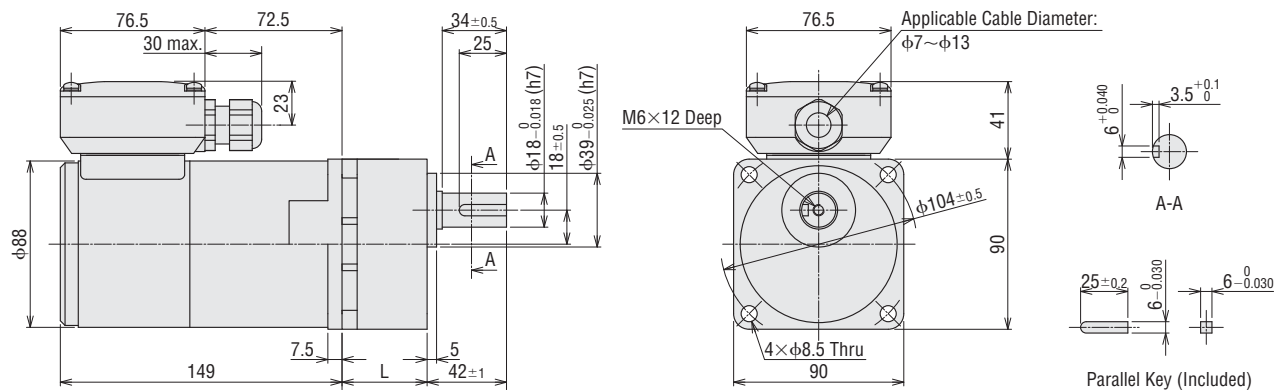
## Dimensions Unit = mm

- Installation screws are included with the parallel shaft combination type. Dimensions for installation screws → Page C-170
- The terminal box cable outlet can be rotated and affixed in 4 possible directions. Details about terminal boxes → Page C-169

### Terminal Box Type

#### Parallel Shaft Combination Type

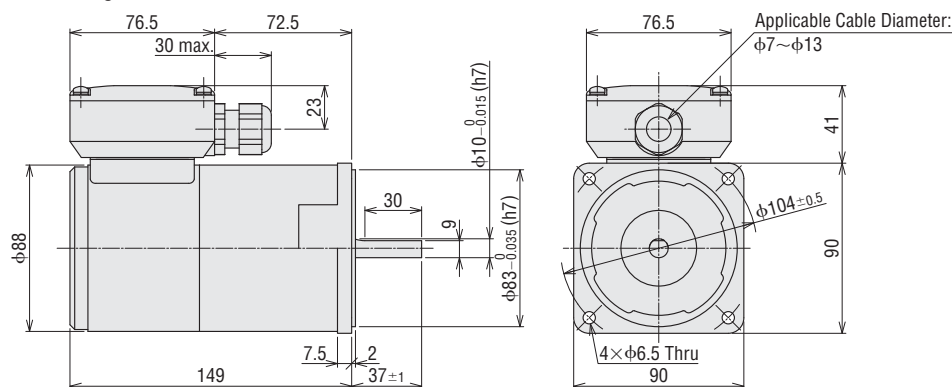
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>5RK40UCMT2</b> -□	5RK40GV-UCMT2	5GV□B	<b>5~18</b>	45	5.0
<b>5RK40GCMT2</b> -□	5RK40GV-GCMT2		<b>25~100</b>	58	
			<b>120~300</b>	64	



#### Round Shaft Type

#### 5RK40A-UCMT2, 5RK40A-GCMT2

Mass: 3.5 kg



● A number indicating the gear ratio is specified where the box □ is located in the product name.

Overview,  
Product  
Series

Constant  
Speed  
Induction  
Motors

Single-Phase  
Induction  
Motors

Three-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

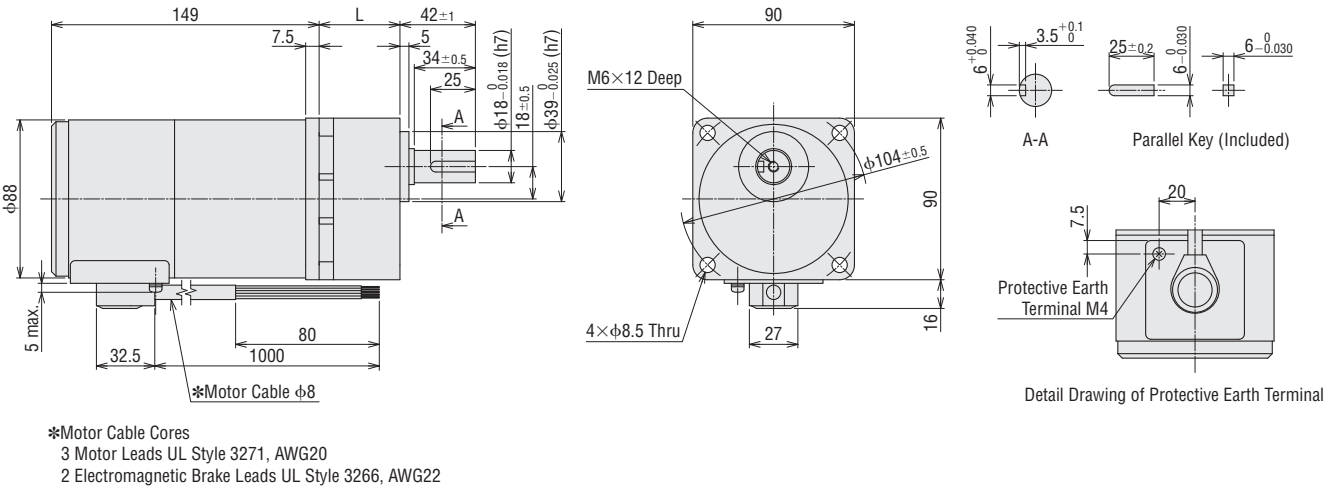
Installation



● Cable Type

◇ Parallel Shaft Combination Type

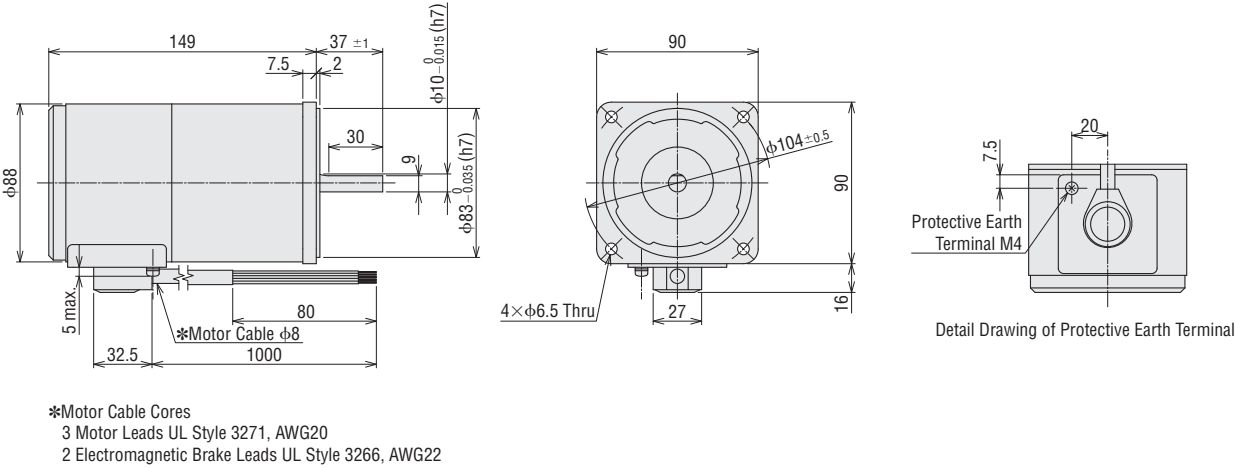
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>5RK40UCM-</b> □ <b>5RK40GCM-</b> □	5RK40GV-UCM 5RK40GV-GCM	5GV□B	<b>5~18</b>	45	4.7
			<b>25~100</b>	58	
			<b>120~300</b>	64	



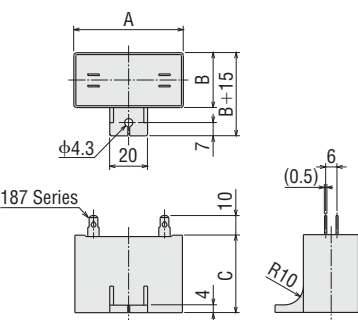
◇ Round Shaft Type

**5RK40A-UCM, 5RK40A-GCM**

Mass: 3.2 kg



◇ Capacitor (Included)



Product Name		Unit: mm			
Parallel Shaft Combination Type	Round Shaft Type	Capacitor Product Name	A	B	C
<b>5RK40GCMT2-</b> □ <b>5RK40GCM-</b> □	<b>5RK40A-GCMT2</b> <b>5RK40A-GCM</b>	CH35BFAUL	58	22	35
<b>5RK40UCMT2-</b> □ <b>5RK40UCM-</b> □	<b>5RK40A-UCMT2</b> <b>5RK40A-UCM</b>	CH30BFAUL	58	21	31

● A capacitor cap is included.

● A number indicating the gear ratio is specified where the box □ is located in the product name.

## KII Series

60 W

□90 mm

Parallel Shaft Combination Type, Round Shaft Type



Terminal Box Type

Cable Type

Overview,  
Product  
SeriesConstant  
Speed  
MotorsSingle-Phase  
Induction  
MotorsThree-Phase  
Induction  
MotorsReversible  
MotorsElectromagnetic  
Brake MotorsTorque  
MotorsWatertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

Installation

## Specifications – 30 Minutes Rating

CE

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitance	Overheat Protection Device
Terminal Box Type	Cable Type									
<b>5RK60GCMT2-□</b> <b>5RK60A-GCMT2</b>	<b>5RK60GCM-□</b> <b>5RK60A-GCM</b>	60	Single-Phase 220 Single-Phase 230	50	0.55 0.57	465 490	430	1340 1340	5.0	TP
<b>5RK60UCMT2-□</b> <b>5RK60A-UCMT2</b>	<b>5RK60UCM-□</b> <b>5RK60A-UCM</b>	60	Single-Phase 220 Single-Phase 230	60	0.56 0.57	485 490	350	1650 1650	5.0	

● The values in the table are characteristics for 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.

(The power supply to the electromagnetic brake is maintained and the brake is released.)

When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

## ● Electromagnetic Brake (Power Off Activated Type)

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type		Voltage  VAC	Frequency  Hz	Current  A	Power Consumption  W	Static Friction Torque  mN·m
Terminal Box Type	Cable Type					
<b>5RK60GCMT2-□</b> <b>5RK60A-GCMT2</b>	<b>5RK60GCM-□</b> <b>5RK60A-GCM</b>	Single-Phase 220	50	0.04	6	500
		Single-Phase 230				
<b>5RK60UCMT2-□</b> <b>5RK60A-UCMT2</b>	<b>5RK60UCM-□</b> <b>5RK60A-UCM</b>	Single-Phase 220	60	0.04	6	500
		Single-Phase 230				

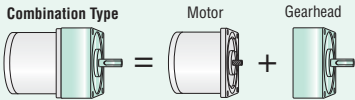
● The values correspond to the specification of a stand-alone motor.

● A number indicating the gear ratio is specified where the box □ is located in the product name.

Product Line

Combination Type

Motor and gearhead are delivered pre-assembled.  
The combination of motors and gearheads can be changed, and they are also available separately.  
In addition, the gearhead can be removed and the assembly position can be changed in 90° increments.



For the single-phase 100 VAC, 110/115 VAC models and single-phase 200 VAC models, please contact the nearest Oriental Motor sales office.

Parallel Shaft Combination Type Price includes motor and gearhead.

Terminal Box Type

Product Name	Gear Ratio	List Price
5RK60GCMT2-□	5, 6, 7.5, 9, 12.5, 15, 18	€296.00
	25, 30, 36, 50, 60, 75, 90, 100	€305.00
	120, 150, 180	€313.00
	250, 300	€339.00
5RK60UCMT2-□	5, 6, 7.5, 9, 12.5, 15, 18	€296.00
	25, 30, 36, 50, 60, 75, 90, 100	€305.00
	120, 150, 180	€313.00
	250, 300	€339.00

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

Cable Type

Product Name	Gear Ratio	List Price
5RK60GCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€279.00
	25, 30, 36, 50, 60, 75, 90, 100	€288.00
	120, 150, 180	€296.00
	250, 300	€322.00
5RK60UCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€279.00
	25, 30, 36, 50, 60, 75, 90, 100	€288.00
	120, 150, 180	€296.00
	250, 300	€322.00

Round Shaft Type

Terminal Box Type

Product Name	List Price
5RK60A-GCMT2	€210.00
5RK60A-UCMT2	€210.00

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

Cable Type

Product Name	List Price
5RK60A-GCM	€193.00
5RK60A-UCM	€193.00

Permissible Torque

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 max. 30% 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
5RK60GCM-□		1.9	2.3	2.9	3.5	4.8	5.8	7.0	9.2	11.1	13.3	18.5	22.2	27.7	30	30	30	30	30	30	30

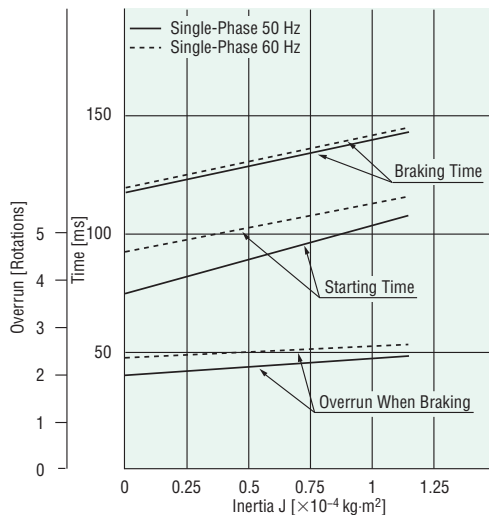
60 Hz

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
5RK60UCM-□		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

A code (T2) indicating the terminal box type is specified where the box □ is located in the product name.  
A number indicating the gear ratio is specified where the box □ is located in the product name.

## Starting and Braking Characteristics (Reference Values - Motor only)



## Permissible Radial Load and Permissible Axial Load

→ Page C-16

## Permissible Inertia J of Combination Types

→ Page C-18

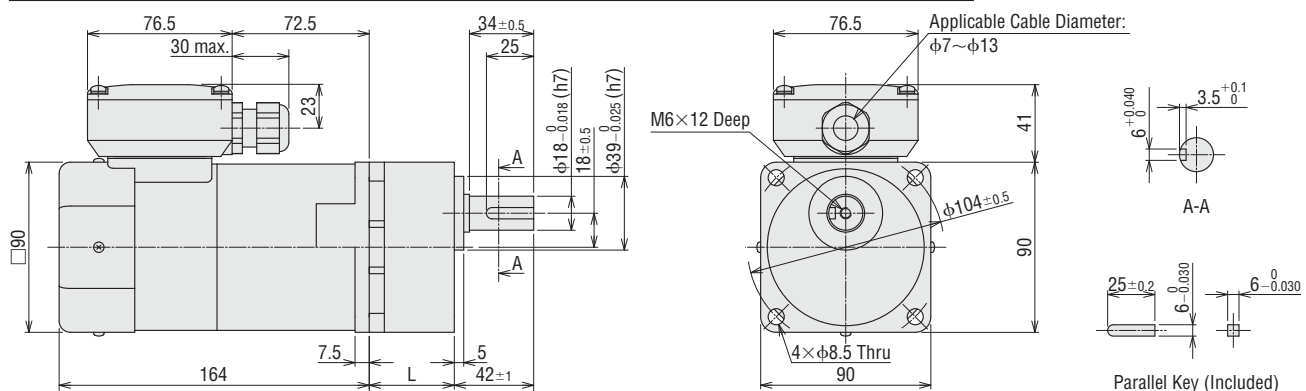
## Dimensions Unit = mm

- Installation screws are included with the parallel shaft combination type. Dimensions for installation screws → Page C-170
- The terminal box cable outlet can be rotated and affixed in 4 possible directions. Details about terminal boxes → Page C-169

### Terminal Box Type

#### Parallel Shaft Combination Type

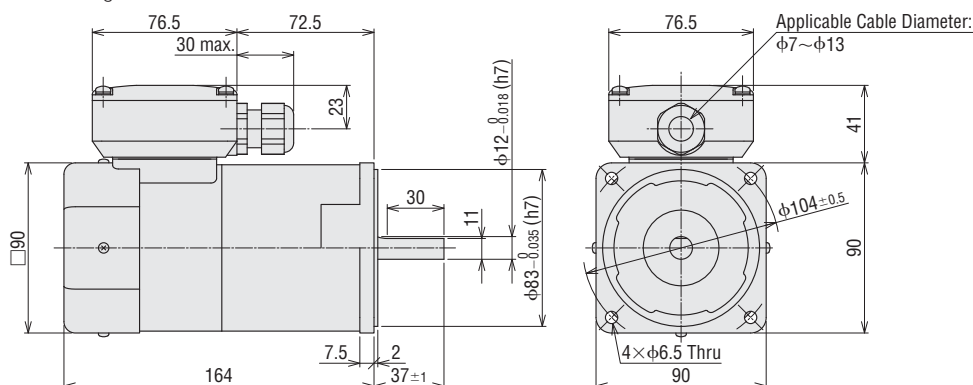
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>5RK60UCMT2</b> □	5RK60GVH-UCMT2	5GVH □ B	<b>5~18</b>	45	5.2
<b>5RK60GCMT2</b> □	5RK60GVH-GCMT2		<b>25~100</b>	58	
			<b>120~300</b>	64	



### Round Shaft Type

#### 5RK60A-UCMT2, 5RK60A-GCMT2

Mass: 3.7 kg



● A number indicating the gear ratio is specified where the box □ is located in the product name.

Overview,  
Product  
Series

Constant  
Speed  
Induction  
Motors

Single-Phase  
Induction  
Motors

Three-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Brake Pack

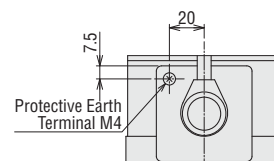
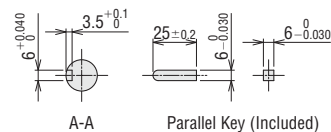
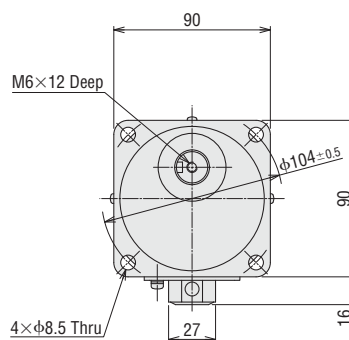
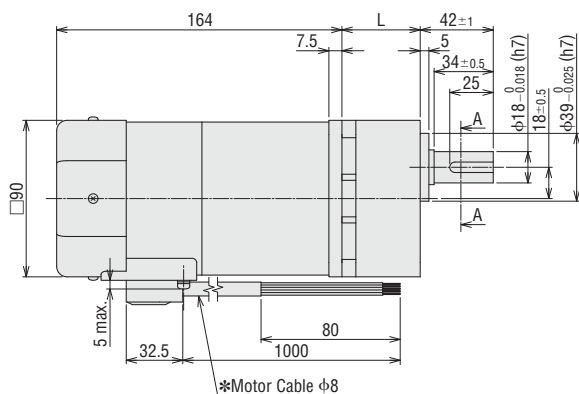
Accessories

Installation

### ● Cable Type

#### ◇ Parallel Shaft Combination Type

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>5RK60UCM-</b> □ <b>5RK60GCM-</b> □	5RK60GVH-UCM 5RK60GVH-GCM	5GVH□B	<b>5~18</b> <b>25~100</b> <b>120~300</b>	45 58 64	4.9



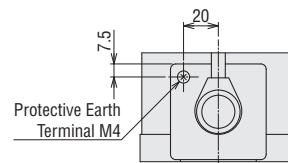
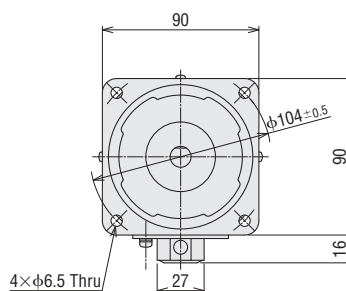
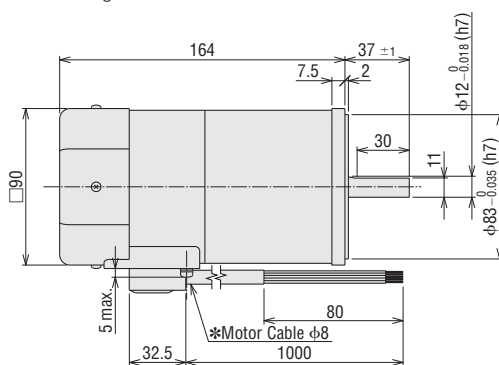
Detail Drawing of Protective Earth Terminal

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

#### ◇ Round Shaft Type

**5RK60A-UCM, 5RK60A-GCM**

Mass: 3.4 kg

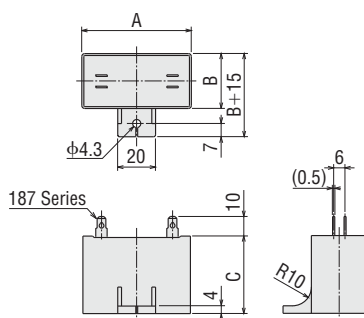


Detail Drawing of Protective Earth Terminal

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

#### ◇ Capacitor (Included)

Unit: mm



Product Name		Capacitor Product Name	A	B	C	Mass g
Parallel Shaft Combination Type	Round Shaft Type					
<b>5RK60GCM</b> T2-□ <b>5RK60GCM</b> -□	<b>5RK60A-GCMT2</b> <b>5RK60A-GCM</b>	CH50BFAUL	58	29	41	93
<b>5RK60UCM</b> T2-□ <b>5RK60UCM</b> -□	<b>5RK60A-UCMT2</b> <b>5RK60A-UCM</b>	CH50BFAUL	58	29	41	93

● A capacitor cap is included.

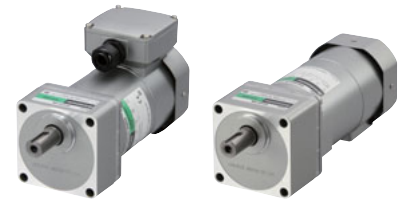
● A number indicating the gear ratio is specified where the box □ is located in the product name.

## KII Series

90 W

□ 90 mm

Parallel Shaft Combination Type, Round Shaft Type



Terminal Box Type

Cable Type

Overview,  
Product  
SeriesConstant  
Speed  
MotorsSingle-Phase  
Induction  
MotorsThree-Phase  
Induction  
MotorsReversible  
MotorsElectromagnetic  
Brake MotorsTorque  
MotorsWatertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

Installation

## Specifications – 30 Minutes Rating

CE

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitance	Overheat Protection Device
Terminal Box Type	Cable Type									
<b>5RK90GCMT2</b> -□ <b>5RK90A-GCMT2</b>	<b>5RK90GCM</b> -□ <b>5RK90A-GCM</b>	90	Single-Phase 220	50	0.77	655	710	1220	6.0	TP
			Single-Phase 230		0.78	720		1220		
<b>5RK90UCMT2</b> -□ <b>5RK90A-UCMT2</b>	<b>5RK90UCM</b> -□ <b>5RK90A-UCM</b>	90	Single-Phase 220	60	0.76	670	550	1570	6.0	
			Single-Phase 230		0.77	730		1570		

● The values in the table are characteristics for 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.

(The power supply to the electromagnetic brake is maintained and the brake is released.)

When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

## ● Electromagnetic Brake (Power Off Activated Type)

Product Name Upper Level: Parallel Shaft Combination Type Lower Level: Round Shaft Type		Voltage  VAC	Frequency  Hz	Current  A	Power Consumption  W	Static Friction Torque  mN·m
Terminal Box Type	Cable Type					
<b>5RK90GCMT2</b> -□ <b>5RK90A-GCMT2</b>	<b>5RK90GCM</b> -□ <b>5RK90A-GCM</b>	Single-Phase 220	50	0.04	6	500
		Single-Phase 230				
<b>5RK90UCMT2</b> -□ <b>5RK90A-UCMT2</b>	<b>5RK90UCM</b> -□ <b>5RK90A-UCM</b>	Single-Phase 220	60	0.04	6	500
		Single-Phase 230				

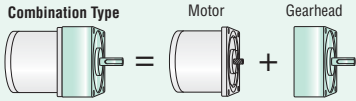
● The values correspond to the specification of a stand-alone motor.

● A number indicating the gear ratio is specified where the box □ is located in the product name.

Product Line

Combination Type

Motor and gearhead are delivered pre-assembled.  
The combination of motors and gearheads can be changed, and they are also available separately.  
In addition, the gearhead can be removed and the assembly position can be changed in 90° increments.



For the single-phase 100 VAC, 110/115 VAC models and single-phase 200 VAC models, please contact the nearest Oriental Motor sales office.

Parallel Shaft Combination Type Price includes motor and gearhead.

Terminal Box Type

Product Name	Gear Ratio	List Price
5RK90GCMT2-□	5, 6, 7.5, 9, 12.5, 15, 18	€310.00
	25, 30, 36, 50, 60	€326.00
	75, 90, 100, 120, 150, 180	€333.00
5RK90UCMT2-□	5, 6, 7.5, 9, 12.5, 15, 18	€310.00
	25, 30, 36, 50, 60	€326.00
	75, 90, 100, 120, 150, 180	€333.00

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

Cable Type

Product Name	Gear Ratio	List Price
5RK90GCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€293.00
	25, 30, 36, 50, 60	€309.00
	75, 90, 100, 120, 150, 180	€316.00
5RK90UCM-□	5, 6, 7.5, 9, 12.5, 15, 18	€293.00
	25, 30, 36, 50, 60	€309.00
	75, 90, 100, 120, 150, 180	€316.00

Round Shaft Type

Terminal Box Type

Product Name	List Price
5RK90A-GCMT2	€223.00
5RK90A-UCMT2	€223.00

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

Cable Type

Product Name	List Price
5RK90A-GCM	€206.00
5RK90A-UCM	€206.00

Permissible Torque

- 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 max. 30% 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
5RK90GCM-□		3.2	3.8	4.8	5.8	8.0	9.6	11.0	15.3	18.3	22.0	30.5	36.6	40	40	40	40	40	40

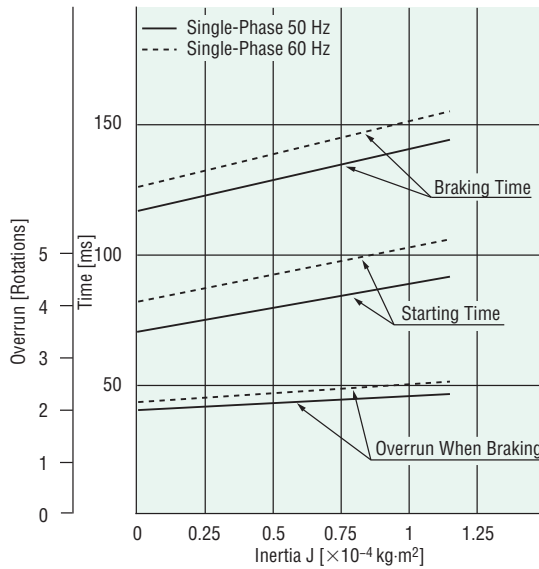
60 Hz

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
5RK90UCM-□		2.5	3.0	3.7	4.5	6.2	7.4	8.5	11.8	14.2	17.0	23.7	28.4	33.4	40	40	40	40	40

A code (T2) indicating the terminal box type is specified where the box □ is located in the product name.  
A number indicating the gear ratio is specified where the box □ is located in the product name.

## Starting and Braking Characteristics (Reference Values - Motor only)



## Permissible Radial Load and Permissible Axial Load

→ Page C-16

## Permissible Inertia J of Combination Types

→ Page C-18

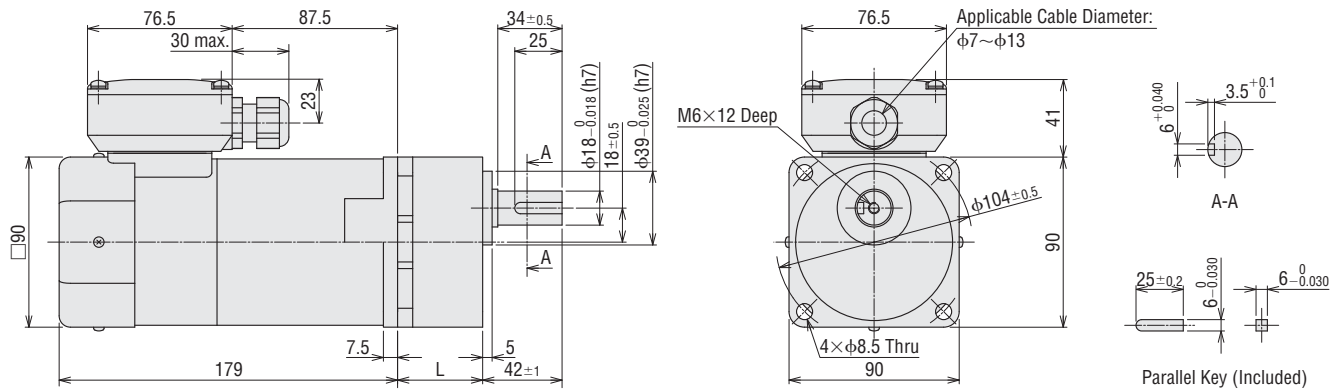
## Dimensions Unit = mm

● Installation screws are included with the parallel shaft combination type. Dimensions for installation screws → Page C-170  
The terminal box cable outlet can be rotated and affixed in 4 possible directions. Details about terminal boxes → Page C-169

### Terminal Box Type

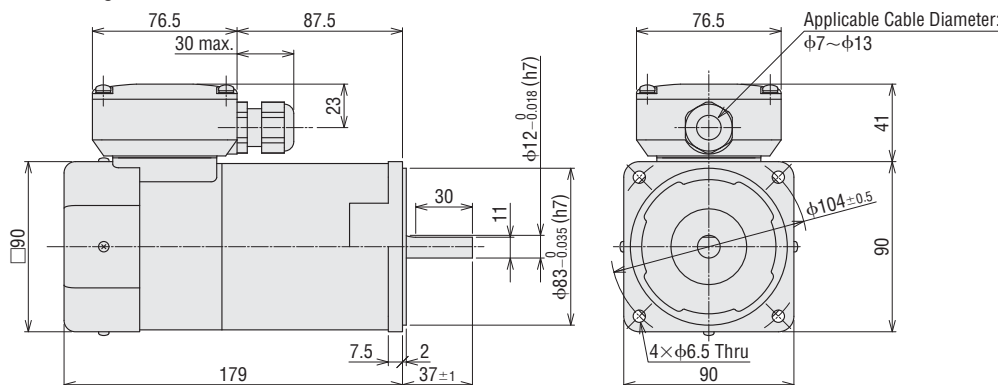
#### Parallel Shaft Combination Type

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg
<b>5RK90UCMT2</b> -□	5RK90GVR-UCMT2	5GVR□B	<b>5~15</b>	45	5.7
<b>5RK90GCMT2</b> -□	5RK90GVR-GCMT2		<b>18~36</b>	58	
			<b>50~180</b>	70	



#### 5RK90A-UCMT2, 5RK90A-GCMT2

Mass: 4.2 kg



● A code (T2) indicating the terminal box type is specified where the box □ is located in the product name.  
A number indicating the gear ratio is specified where the box □ is located in the product name.

Overview,  
Product  
Series

Constant  
Speed  
Motors

Single-Phase  
Induction  
Motors

Three-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

Installation



### ◆ Parallel Shaft Combination Type

6 W

6 W

15 W

25 W

40 W

60 W

90 W

High-Efficiency  
**KHS Series**

60 W

100 W

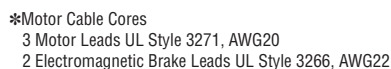


Mass: 3.9 kg

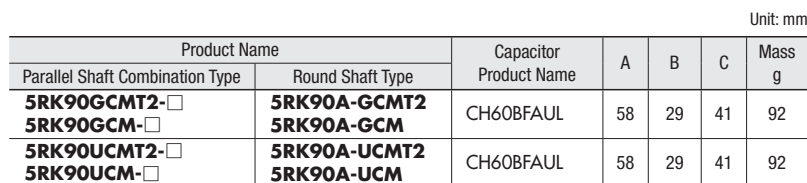
### ◆Round Shaft Type

**5RK90A-UCM, 5RK90A-GCM**

Mass: 3.9 kg



◆ Capacitor (Included)



● A capacitor cap is included.

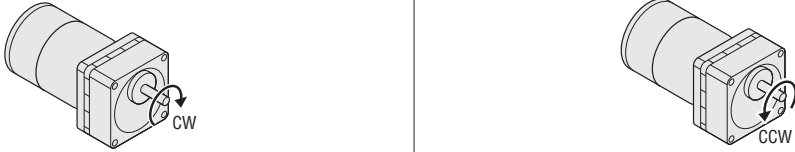
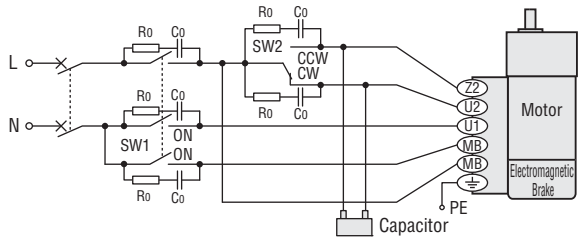
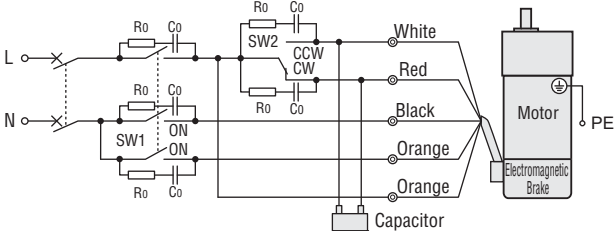
Unit: mm

● A number indicating the gear ratio is specified where the box ☐ is located in the product name.

## Connection Diagrams

- 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.
- With the parallel shaft combination type, the rotation direction varies according to the gear ratio. When the motor is connected as shown in the "Connection Diagrams," it rotates as shown in the figure below.

### Parallel Shaft Combination Type/Round Shaft Type

Output Power	Gear Ratio	
6 W 15 W 25 W	Gear Ratio: <b>5~25, 150~360</b> Round Shaft Type	Gear Ratio: <b>30~120</b>
40 W 60 W	Gear Ratio: <b>5~18, 120~300</b> Round Shaft Type	Gear Ratio: <b>25~100</b>
90 W	Gear Ratio: <b>5~15, 75~180</b> Round Shaft Type	Gear Ratio: <b>18~60</b>
Rotation Direction		
Connection Diagrams	Terminal Box Type	
		
Connection Diagrams	Lead Wire Type/Cable Type	
		

SW1 operates both motor operation/stop and electromagnetic brake activation. (Interlocking)  
The electromagnetic brake will be released and the motor will operate when SW1 is switched to ON.  
When SW1 is switched to OFF, the motor stops and the electromagnetic brake engages.

When the electromagnetic brake is released when the motor is in a stopped state,  
SW1 is not interlocked and only the orange lead wire is ON.

#### ● Contact Capacity of SW1 and SW2

Run/Stop	Model	Input Specification Single-Phase 220/230 VAC
	<b>2RK</b>	250 VAC
	<b>3RK</b>	1.5 A or more
	<b>4RK</b>	
	<b>5RK</b>	250 VAC
		5 A or more

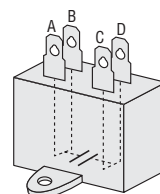
To protect the contact, connect a CR circuit (RoCo) for surge suppression as shown on the connection diagram.  
Ro=5~200 Ω Co=0.1~0.2 μF 250 WV

Available from Oriental Motor as an accessory. Accessory Product Name **EPCR1201-2** (Sold separately) → Page C-163

### How to Connect a Capacitor

The capacitor has 4 terminals: terminal A is connected internally to terminal B, and terminal C is connected internally to terminal D, as shown in the illustration.

Electrically, this creates 2 terminals.



Inner Wiring Diagram for 4-Terminal Capacitor

Overview,  
Product  
Series

Constant  
Speed  
Motors

Single-Phase  
Induction  
Motors

Three-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Brake Pack

Accessories

Installation