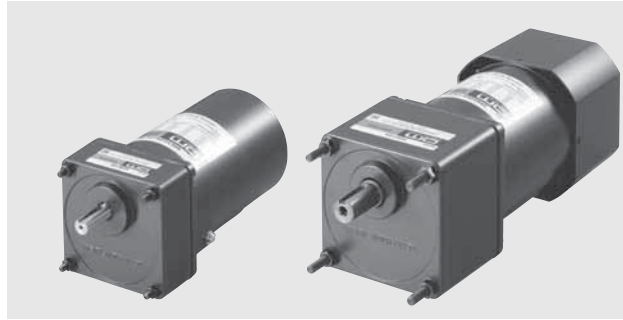


Electromagnetic Brake Motors



Features

Power Off Activated Type Electromagnetic Brake

These motors are directly coupled to an AC electromagnetic brake which is activated when power is not applied. When the power source is turned off, the motor stops instantaneously and holds the load. Since the electromagnetic brakes exert holding power even while the power is off, they are highly suitable for use as emergency brakes.

The holding brake force is, depending upon the size of the output, 30 mN·m~500 mN·m.

Safety Standards and CE Marking

Standards	Certification Body	Standards File No.	CE Marking
UL 1004 UL 2111	UL	E64199 (6 W Type)	Low Voltage Directives
CSA C22.2 No.100 CSA C22.2 No.77		E64197 (15 W~90 W Type)	
EN 60950-1 EN 60034-1 EN 60034-5 IEC 60664-1	Conform to EN/IEC Standards		
GB 12350	CQC	2003010401091525 (Single-Phase 6 W) 2003010401091527 (Three-Phase 6 W) 2003010401091522 (Single-Phase 15 W~90 W Type) 2003010401091520 (Three-Phase 25 W~90 W Type)	

● When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

System Configuration

Mounting Brackets (Accessories)
(→ Page 121)

Flexible Couplings (Accessories)
(→ Page 123)

Right-Angle Gearheads (Sold separately)
(→ Page 108)

Electromagnetic Brake Motor

Brake Pack SB50W (Sold separately)
Equipped with instantaneous stopping functions, thermal protector open detection functions.
(→ Page 114)

Programmable Controller

AC Power Supply

24 VDC Power Supply

Gearheads (Sold separately)

Capacitor (Included)

Capacitor Cap* (Included)
Insulating cap for capacitor terminal section.

● **Example of System Configuration**
(Body)

⊙: Required under this system.
○: Selectable according to necessity. Oriental Motor provides.

Motor (Pinion Shaft) 4RK25GN-CW2ME	Long Life/Low Noise GN-S Gearhead 4GN25S	Mounting Bracket SOL4M5	Flexible Coupling MCL401012	Brake Pack SB50W
	⊙	○	○	○

*Capacitor cap is included.

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

Product Number Code

● Motor

5 R K 40 GN - CW 2 M E

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	Motor Frame Size	2: 60 mm 3: 70 mm 4: 80 mm 5: 90 mm
②	Motor Type	I: Induction Motor R: Reversible Motor
③	Series	K: K Series
④	Output Power (W)	(Example) 40: 40 W
⑤	Motor Shaft Type	GN: GN Type Pinion Shaft GE: GE Type Pinion Shaft A: Round Shaft
⑥	Power Supply Voltage	AW: Single-Phase 100 VAC, 110/115 VAC CW: Single-Phase 200 VAC, 220/230 VAC SW: Three-Phase 200/220/230 VAC
⑦		2, 3: RoHS-Compliant
⑧		M: Power Off Activated Electromagnetic Brake
⑨	Included Capacitor*	J: For Single-Phase 100 VAC, 200 VAC U: For Single-Phase 110/115 VAC E: For Single-Phase 220/230 VAC Blank: Three-Phase Type

*For some products, type of capacitor varies. Refer to the pages where each product is listed.

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate.

When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

(Example) Model: **5RK40GN-CW2ME** → Motor nameplate and product approved under various safety standards: **5RK40GN-CW2M**

● Gearhead

5 GN 50 S

① ② ③ ④

①	Gearhead Frame Size	2: 60 mm 3: 70 mm 4: 80 mm 5: 90 mm
②	Type of Pinion	GN: GN Type Pinion GE: GE Type Pinion
③	Gear Ratio	(Example) 50: Gear Ratio of 1:50 10X denotes the decimal gear ratio of gear ratio 1:10
④		S: Long Life/Low Noise GN-S Gearhead, RoHS-Compliant RH: Right-Angle/Hollow Shaft Gearhead, RoHS-Compliant RA: Right-Angle/Solid Shaft Gearhead, RoHS-Compliant

General Specifications of Motors

Item	Specifications
Insulation Resistance	100 M Ω or more when 500 VDC megger is applied between the windings and the frame after rated motor operation under normal ambient temperature and humidity.
Dielectric Strength	Sufficient to withstand 1.5 kV at 50 Hz or 60 Hz applied between the windings and the frame for 1 minute after rated motor operation under normal ambient temperature and humidity.
Temperature Rise	Temperature rise of windings are 80°C or less measured by the resistance change method after rated motor operation under normal ambient temperature and humidity, with connecting a gearhead or equivalent heat radiation plate*. (Three-phase type: 70°C or less)
Insulation Class	Class B (130°C)
Overheat Protection	6 W type has impedance protection. All others have built-in thermal protector (automatic return type) Operating temperature; open: 130°C \pm 5°C, close: 82°C \pm 15°C
Ambient Temperature	Single-phase 100 VAC, Single-phase 200 VAC, Three-phase 200 VAC: -10°C~+50°C (nonfreezing) Other voltage: -10°C~+40°C (nonfreezing)
Ambient Humidity	85% or less (noncondensing)
Degree of Protection	6 W, 15 W, 25 W, 40 W Type: IP20 60 W, 90 W Type: IP40

* Heat radiation plate (Material: Aluminum)

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

Power Off Activated Type Electromagnetic Brake Motors

6 W

Frame Size: □60 mm



(Gearhead sold separately)

Specifications

● Motor (RoHS)

This type of motor does not contain a built-in simple brake mechanism.



Model		Rating	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF
Pinion Shaft Type	Round Shaft Type									
ZP 2RK6GN-AW2MJ	2RK6A-AW2MJ	30 minutes	6	Single-Phase 100	50	0.244	50	49	1150	4.5
					60	0.295	45	41	1400	
ZP 2RK6GN-AW2MU	2RK6A-AW2MU	30 minutes	6	Single-Phase 110 Single-Phase 115	60	0.235	45	41	1450	3.5
						0.242				
ZP 2RK6GN-CW2MJ	2RK6A-CW2MJ	30 minutes	6	Single-Phase 200	50	0.113	50	49	1150	1.0
					60	0.131	45	41	1400	
ZP 2RK6GN-CW2ME	2RK6A-CW2ME	30 minutes	6	Single-Phase 220 Single-Phase 230	50	0.107	50	49	1150	0.8
					60	0.109	45	41	1450	
					50	0.112	50	49	1200	
					60	0.113	45	41	1450	
ZP 2IK6GN-SW2M	2IK6A-SW2M	Continuous	6	Three-Phase 200 Three-Phase 220 Three-Phase 230	50	0.081	49	49	1200	-
					60	0.072	41	41	1400	
					60	0.076	41	41	1500	

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate.
When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

ZP: Impedance protected

● Electromagnetic Brake (Power Off Activated Type)

Motor Model	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m
2RK6GN-AW2MJ 2RK6A-AW2MJ	Single-Phase 100	50	0.03	3	30
		60			
2RK6GN-AW2MU 2RK6A-AW2MU	Single-Phase 110 Single-Phase 115	60	0.03	3	30
2RK6GN-CW2MJ 2RK6A-CW2MJ	Single-Phase 200	50	0.02	3	30
		60			
2RK6GN-CW2ME 2RK6A-CW2ME	Single-Phase 220 Single-Phase 230	50	0.02	3	30
		60			
		50			
		60			
2IK6GN-SW2M 2IK6A-SW2M	Single-Phase 200 Single-Phase 220 Single-Phase 230	50	0.02	3	30
		60			
		60			

Product Line

● Motor (RoHS)

Model	
Pinion Shaft Type	Round Shaft Type
2RK6GN-AW2MJ	2RK6A-AW2MJ
2RK6GN-AW2MU	2RK6A-AW2MU
2RK6GN-CW2MJ	2RK6A-CW2MJ
2RK6GN-CW2ME	2RK6A-CW2ME
2IK6GN-SW2M	2IK6A-SW2M

● Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/Low Noise/ Parallel Shaft	2GN□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	2GN10XS (Decimal gearhead)	

● Enter the gear ratio in the box (□) within the model name.

Gearmotor – Torque Table

- Gearheads and decimal gearheads are sold separately.
- Enter the gear ratio in the box (□) within the model name.
- A colored background □ indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- 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 - 20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio: 10) between the gearhead and the motor. In that case, the permissible torque is 3 N·m.

◇ 50 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
2RK6GN-AW2MJ 2RK6GN-CW2MJ 2RK6GN-CW2ME 2IK6GN-SW2M	2GN□S	0.12	0.14	0.20	0.24	0.30	0.36	0.50	0.60	0.71	0.89	1.1	1.3	1.6	1.9	2.4	2.9	3	3	3	3

◇ 60 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
2RK6GN-AW2MJ 2RK6GN-AW2MU 2RK6GN-CW2MJ 2RK6GN-CW2ME 2IK6GN-SW2M	2GN□S	0.10	0.12	0.17	0.20	0.25	0.30	0.42	0.50	0.60	0.75	0.90	1.1	1.4	1.6	2.0	2.4	2.7	3	3	3

Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

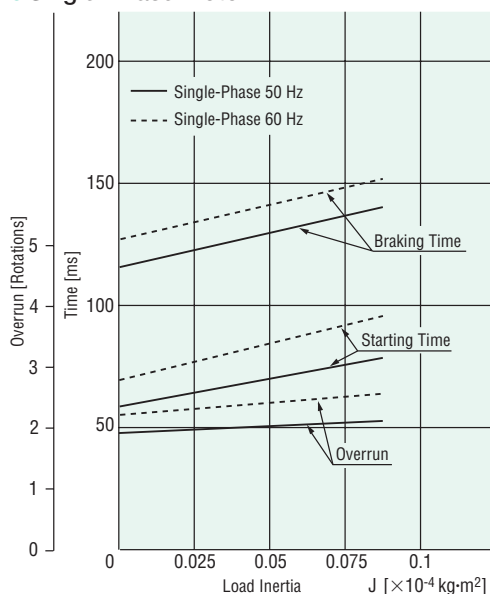
Gearhead → Page 107

Permissible Load Inertia J for Gearhead

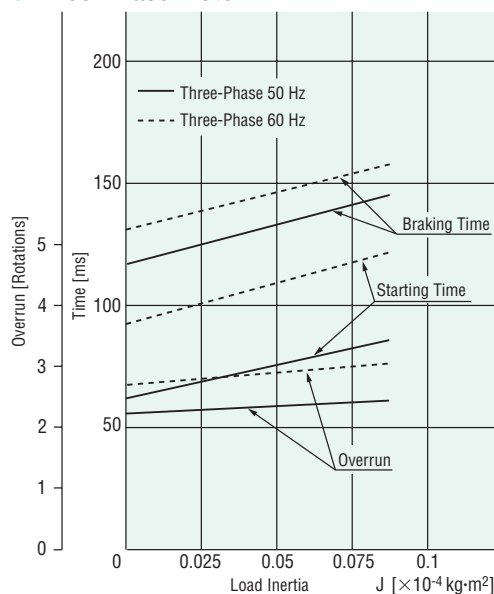
→ Page 107

Starting and Braking Characteristics (Reference Values)

● Single-Phase Motor



● Three-Phase Motor



Dimensions (Unit = mm)

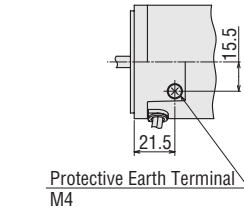
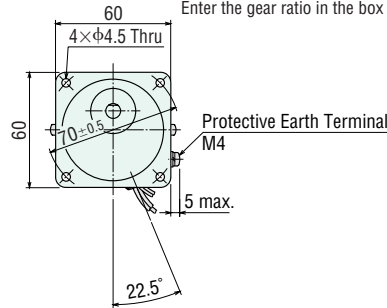
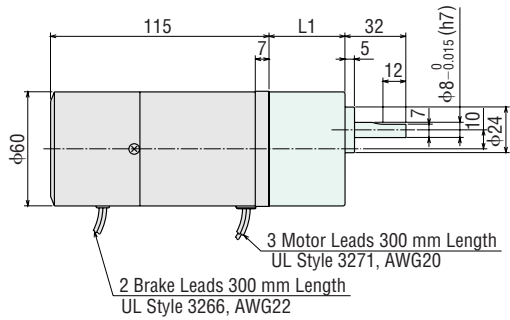
Mounting screws are included with gearheads.

Motor/Gearhead

Mass: Motor 0.9 kg
Gearhead 0.4 kg

Motor Model	Gearhead Model	Gear Ratio	L1
2RK6GN-AW2M <input type="checkbox"/>	2GN <input type="checkbox"/> S	3~18	30
2RK6GN-CW2M <input type="checkbox"/>		25~180	40
2IK6GN-SW2M			

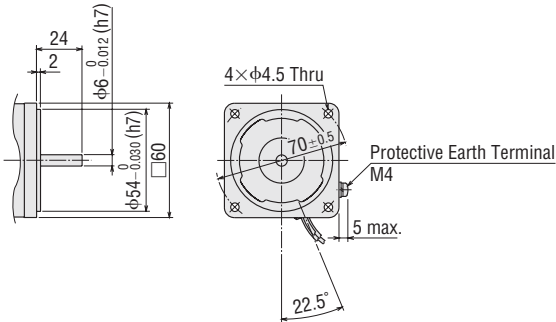
Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box () within the model name.
Enter the gear ratio in the box () within the model name.



Detail Drawing of Protective Earth Terminal

Shaft Section of Round Shaft Type

The mass and motor's dimensions (excluding the shaft section) are the same as those of the pinion shaft type.

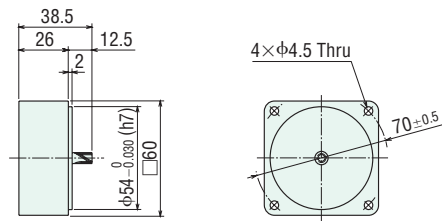


Decimal Gearhead

Can be connected to **GN** pinion shaft type.

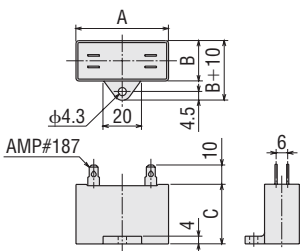
2GN10XS

Mass: 0.2 kg



Capacitor

(Included with single-phase motors)

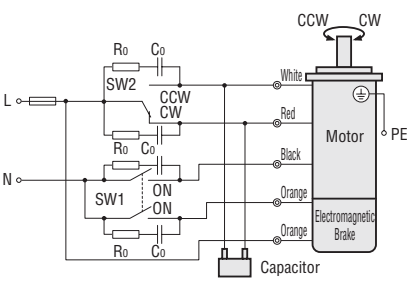
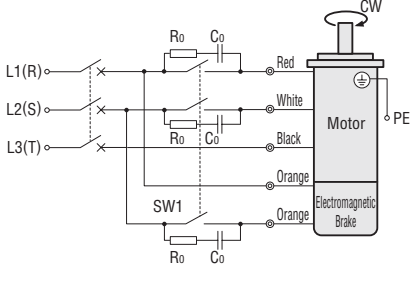


Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Pinion Shaft Type	Round Shaft Type						
2RK6GN-AW2MJ	2RK6A-AW2MJ	CH45FAUL2	37	18	27	30	Included
2RK6GN-AW2MU	2RK6A-AW2MU	CH35FAUL2	31	17	27	25	
2RK6GN-CW2MJ	2RK6A-CW2MJ	CH10BFAUL	37	18	27	30	
2RK6GN-CW2ME	2RK6A-CW2ME	CH08BFAUL	31	17	27	20	

Connection Diagrams

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.

Single-Phase Motor	<p>2RK6GN-AW2M □</p> <p>2RK6GN-CW2M □</p>	 <p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To rotate the motor in a clockwise (CW) direction, turn SW2 to CW. To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.</p> <table border="1" data-bbox="845 593 1460 739"> <thead> <tr> <th rowspan="2">Switch No.</th> <th colspan="2">Specifications</th> <th rowspan="2">Note</th> </tr> <tr> <th>Single-Phase 100 VAC, 110/115 VAC Input</th> <th>Single-Phase 200 VAC, 220/230 VAC Input</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>125 VAC 3 A minimum (Inductive Load)</td> <td>250 VAC 1.5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> <tr> <td>SW2</td> <td></td> <td></td> <td>—</td> </tr> </tbody> </table>	Switch No.	Specifications		Note	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input	SW1	125 VAC 3 A minimum (Inductive Load)	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously	SW2			—
Switch No.	Specifications			Note												
	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input														
SW1	125 VAC 3 A minimum (Inductive Load)	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously													
SW2			—													
Three-Phase Motor	<p>2IK6GN-SW2M</p>	 <p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To change the rotation direction, change any two connections between R, S and T.</p> <table border="1" data-bbox="845 1052 1460 1164"> <thead> <tr> <th>Switch No.</th> <th>Specifications</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>250 VAC 1.5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> </tbody> </table>	Switch No.	Specifications	Note	SW1	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously								
Switch No.	Specifications	Note														
SW1	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously														

PE: Protective Earth

● R_0 and C_0 indicate surge suppressor circuit. [$R_0=5\sim 200\ \Omega$, $C_0=0.1\sim 0.2\ \mu\text{F}$, 200 WV (400 WV)]

EPCR1201-2 is available as an optional surge suppressor. → Page 123

RoHS

Power Off Activated Type Electromagnetic Brake Motors

15 W

Frame Size: □70 mm



(Gearhead sold separately)

Specifications

● Motor (RoHS)

This type of motor does not contain a built-in simple brake mechanism.



Model		Rating	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF
Pinion Shaft Type	Round Shaft Type									
ⓉP	3RK15GN-AW2MJ	30 minutes	15	Single-Phase 100	50	0.40	100	125	1200	7.5
					60	0.50		105	1450	
ⓉP	3RK15GN-AW2MU	30 minutes	15	Single-Phase 110 Single-Phase 115	60	0.42	100	105	1450	6.0
						0.41				
ⓉP	3RK15GN-CW2MJ	30 minutes	15	Single-Phase 200	50	0.19	100	125	1200	1.8
					60	0.24		105	1450	
ⓉP	3RK15GN-CW2ME	30 minutes	15	Single-Phase 220	50	0.18	100	125	1200	1.5
					60	0.20		105	1450	
				Single-Phase 230	50	0.19	100	125	1200	
					60	0.20		105	1450	

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate.

When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

ⓉP: Contains a built-in thermal protector. If a motor overheats for any reason, the thermal protector is opened and the motor stops.

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

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

● Electromagnetic Brake (Power Off Activated Type)

Motor Model	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m
3RK15GN-AW2MJ 3RK15A-AW2MJ	Single-Phase 100	50	0.09	7	80
		60			
3RK15GN-AW2MU 3RK15A-AW2MU	Single-Phase 110 Single-Phase 115	60	0.09	7	80
3RK15GN-CW2MJ 3RK15A-CW2MJ	Single-Phase 200	50	0.05	7	80
		60			
3RK15GN-CW2ME 3RK15A-CW2ME	Single-Phase 220	50	0.05	7	80
		60			
	Single-Phase 230	50			
		60			

Product Line

● Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	3RK15GN-AW2MJ	3RK15A-AW2MJ
	3RK15GN-AW2MU	3RK15A-AW2MU
	3RK15GN-CW2MJ	3RK15A-CW2MJ
	3RK15GN-CW2ME	3RK15A-CW2ME

● Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/Low Noise/ Parallel Shaft	3GN□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	3GN10XS (Decimal gearhead)	

● Enter the gear ratio in the box (□) within the model name.

■ Gearmotor – Torque Table

- Gearheads and decimal gearheads are sold separately.
- Enter the gear ratio in the box (□) within the model name.
- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- 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 - 20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio: 10) between the gearhead and the motor. In that case, the permissible torque is 5 N·m.

◇ 50 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
3RK15GN-AW2MJ 3RK15GN-CW2MJ 3RK15GN-CW2ME	3GN□S	0.30	0.36	0.51	0.61	0.76	0.91	1.3	1.5	1.8	2.3	2.7	3.3	4.1	5	5	5	5	5	5	5

◇ 60 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
3RK15GN-AW2MJ 3RK15GN-AW2MU 3RK15GN-CW2MJ 3RK15GN-CW2ME	3GN□S	0.26	0.31	0.43	0.51	0.64	0.77	1.1	1.3	1.5	1.9	2.3	2.8	3.5	4.2	5	5	5	5	5	5

■ Permissible Overhung Load and Permissible Thrust Load

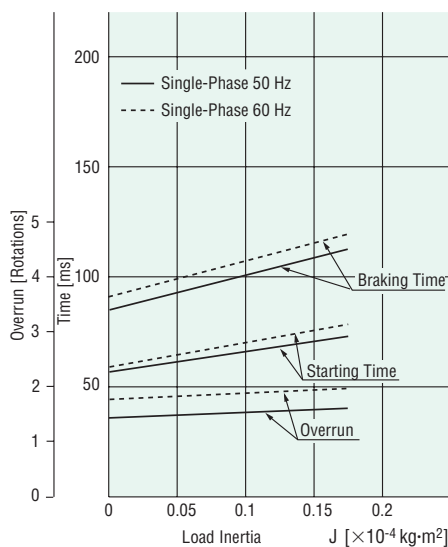
Motor (Round shaft type) → Page 107

Gearhead → Page 107

■ Permissible Load Inertia J for Gearhead

→ Page 107

■ Starting and Braking Characteristics (Reference Values)

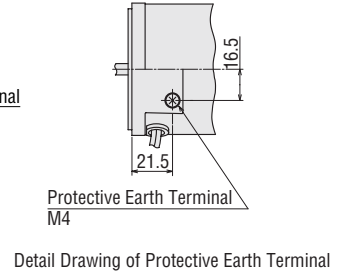
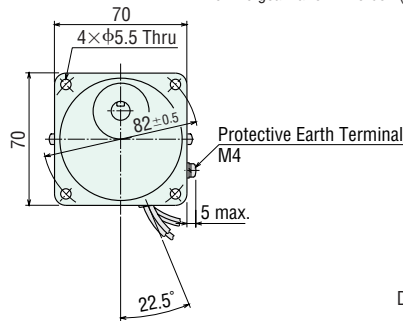
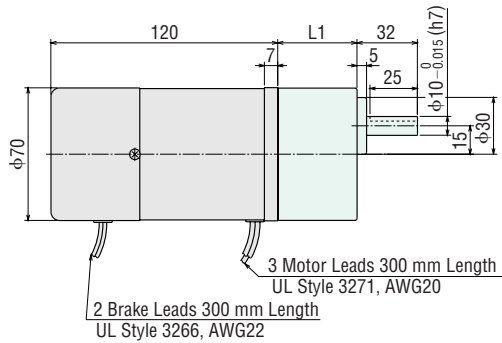


Dimensions (Unit = mm)

Mounting screws are included with gearheads.

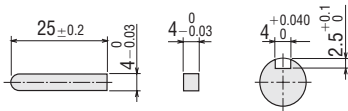
Motor/Gearhead

Mass: Motor 1.3 kg
Gearhead 0.55 kg



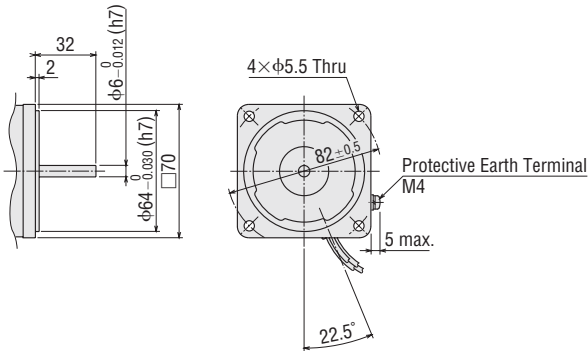
Key and Key Slot

(The key is included with the gearhead)



Shaft Section of Round Shaft Type

The mass and motor's dimensions (excluding the shaft section) are the same as those of the pinion shaft type.



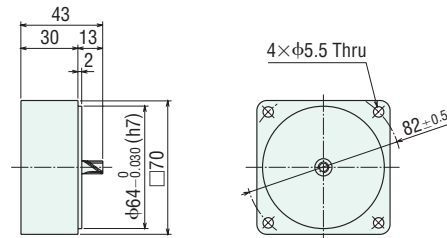
Motor Model	Gearhead Model	Gear Ratio	L1
3RK15GN-AW2M <input type="checkbox"/>	3GN <input type="checkbox"/>	3~18	32
3RK15GN-CW2M <input type="checkbox"/>		25~180	42

Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box () within the model name.
Enter the gear ratio in the box () within the model name.

Decimal Gearhead

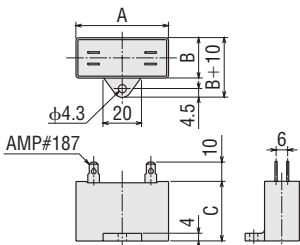
Can be connected to **GN** pinion shaft type.

3GN10XS
Mass: 0.3 kg



Capacitor

(Included with the motors)



Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Pinion Shaft Type	Round Shaft Type						
3RK15GN-AW2MJ	3RK15A-AW2MJ	CH75CFAUL2	48	21	31	45	Included
3RK15GN-AW2MU	3RK15A-AW2MU	CH60CFAUL2	38	21	31	40	
3RK15GN-CW2MJ	3RK15A-CW2MJ	CH18BFAUL	38	21	31	35	
3RK15GN-CW2ME	3RK15A-CW2ME	CH15BFAUL	38	21	31	35	

Connection Diagrams

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.

3RK15GN-AW2M □

3RK15GN-CW2M □

SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.

If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).

Direction of Rotation
To rotate the motor in a clockwise (CW) direction, turn SW2 to CW.
To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.

Switch No.	Specifications		Note
	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input	
SW1	125 VAC 3 A minimum (Inductive Load)	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously
SW2			—

PE: Protective Earth

- R_0 and C_0 indicate surge suppressor circuit. [$R_0=5\sim 200\ \Omega$, $C_0=0.1\sim 0.2\ \mu\text{F}$, 200 WV (400 WV)]

EPCR1201-2 is available as an optional surge suppressor. → Page 123

RoHS

Power Off Activated Type Electromagnetic Brake Motors

25 W

Frame Size: □80 mm



(Gearhead sold separately)

Right-angle gearheads (hollow shaft or solid shaft) can be combined.

Right-Angle Gearheads → Page 108



Specifications

● Motor (RoHS)

This type of motor does not contain a built-in simple brake mechanism.



Model		Rating	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF	
Pinion Shaft Type	Round Shaft Type										
TP	4RK25GN-AW2MJ	30 minutes	25	Single-Phase 100	50	0.55	160	205	1200	10	
					60	0.64	140	170	1450		
TP	4RK25GN-AW2MU	30 minutes	25	Single-Phase 110	60	0.54	140	170	1450	8.0	
											Single-Phase 115
TP	4RK25GN-CW2MJ	30 minutes	25	Single-Phase 200	50	0.27	160	205	1200	2.5	
					60	0.34	140	170	1450		
					Single-Phase 220	50	0.27	160	205		1200
					60	0.28	140	170	1450		
TP	4RK25GN-CW2ME	30 minutes	25	Single-Phase 220	50	0.27	160	205	1200	2.0	
					60	0.28	140	170	1450		
					Single-Phase 230	50	0.25	160	205		1200
					60	0.28	140	170	1450		
TP	4IK25GN-SW2M	Continuous	25	Three-Phase 200	50	0.23	240	190	1300	-	
					60	0.21	160	160	1550		
					Three-Phase 220	60	0.20	160	150		1600
					Three-Phase 230	60	0.21	160	150		1600

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate.

When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

● **TP**: Contains a built-in thermal protector. If a motor overheats for any reason, the thermal protector is opened and the motor stops.

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

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

● Electromagnetic Brake (Power Off Activated Type)

Motor Model	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m
4RK25GN-AW2MJ 4RK25A-AW2MJ	Single-Phase 100	50	0.09	6	100
		60			
4RK25GN-AW2MU 4RK25A-AW2MU	Single-Phase 110 Single-Phase 115	60	0.09	6	100
4RK25GN-CW2MJ 4RK25A-CW2MJ	Single-Phase 200 Single-Phase 220	50	0.05	7	100
		60			
		50			
		60			
4RK25GN-CW2ME 4RK25A-CW2ME	Single-Phase 220 Single-Phase 230	60	0.05	7	100
		50			
		60			
		60			
4IK25GN-SW2M 4IK25A-SW2M	Single-Phase 200 Single-Phase 220 Single-Phase 230	50	0.05	7	100
		60			
		60			

Product Line

● Motor (RoHS)

Model	
Pinion Shaft Type	Round Shaft Type
4RK25GN-AW2MJ	4RK25A-AW2MJ
4RK25GN-AW2MU	4RK25A-AW2MU
4RK25GN-CW2MJ	4RK25A-CW2MJ
4RK25GN-CW2ME	4RK25A-CW2ME
4IK25GN-SW2M	4IK25A-SW2M

● Gearhead/Right-Angle Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/Low Noise/ Parallel Shaft	4GN□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	4GN10XS (Decimal gearhead)	
Right-Angle/ Hollow Shaft	4GN□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
Right-Angle/ Solid Shaft	4GN□RA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180

● Enter the gear ratio in the box (□) within the model name.

Gearmotor – Torque Table

- Gearheads and decimal gearheads are sold separately.
- Enter the gear ratio in the box (□) within the model name.
- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- 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 - 20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio: 10) between the gearhead and the motor. In that case, the permissible torque is 8 N·m. When a gearhead of 1/25~1/36 is connected, the value for permissible torque is 6 N·m.

◇ 50 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
4RK25GN-AW2MJ 4RK25GN-CW2MJ 4RK25GN-CW2ME / 4GN□S		0.50	0.60	0.83	1.0	1.2	1.5	2.1	2.5	3.0	3.7	4.5	5.4	6.8	8	8	8	8	8	8	8
4IK25GN-SW2M / 4GN□S		0.46	0.55	0.77	0.92	1.2	1.4	1.9	2.3	2.8	3.5	4.2	5.0	6.3	7.5	8	8	8	8	8	8

◇ 60 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
4RK25GN-AW2MJ 4RK25GN-AW2MU 4RK25GN-CW2MJ 4RK25GN-CW2ME / 4GN□S		0.41	0.50	0.69	0.83	1.0	1.2	1.7	2.1	2.5	3.1	3.7	4.5	5.6	6.7	8	8	8	8	8	8
4IK25GN-SW2M (200 VAC) / 4GN□S		0.39	0.47	0.65	0.78	0.97	1.2	1.6	1.9	2.3	2.9	3.5	4.2	5.3	6.3	7.9	8	8	8	8	8
4IK25GN-SW2M (220/230 VAC) / 4GN□S		0.36	0.44	0.61	0.73	0.91	1.1	1.5	1.8	2.2	2.7	3.3	3.9	5.0	5.9	7.4	8	8	8	8	8

Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

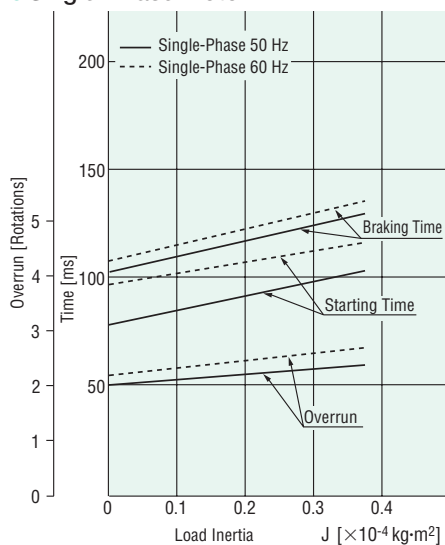
Gearhead → Page 107

Permissible Load Inertia J for Gearhead

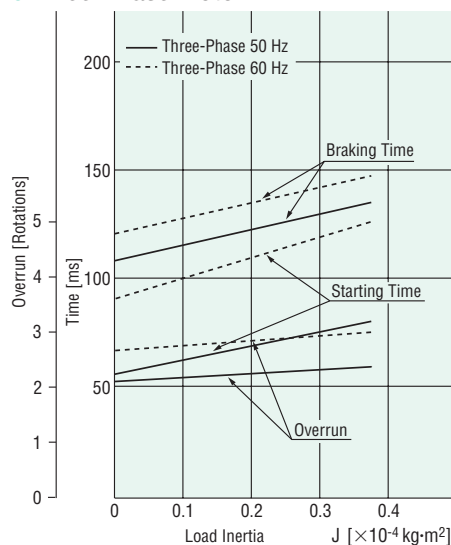
→ Page 107

Starting and Braking Characteristics (Reference Values)

● Single-Phase Motor



● Three-Phase Motor



Dimensions (Unit = mm)

Mounting screws are included with gearheads.

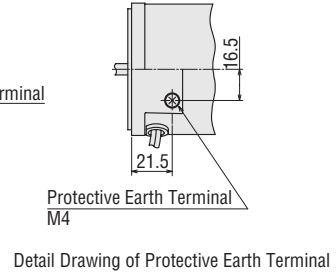
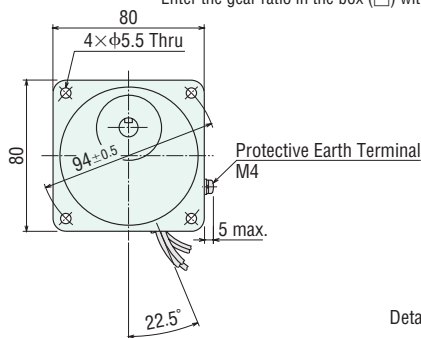
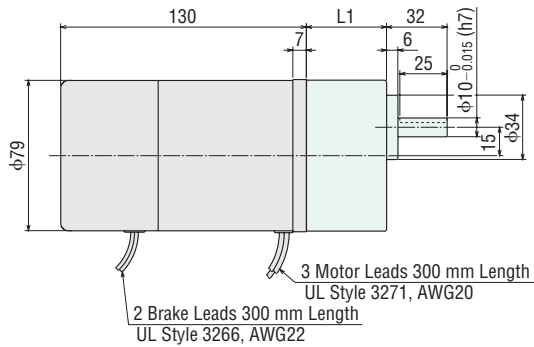
Motor/Gearhead

Mass: Motor 2.0 kg
Gearhead 0.65 kg

Motor Model	Gearhead Model	Gear Ratio	L1
4RK25GN-AW2M <input type="checkbox"/>	4GN <input type="checkbox"/> S	3~18	32
4RK25GN-CW2M <input type="checkbox"/>		25~180	42.5
4IK25GN-SW2M			

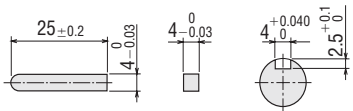
Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box () within the model name.

Enter the gear ratio in the box () within the model name.



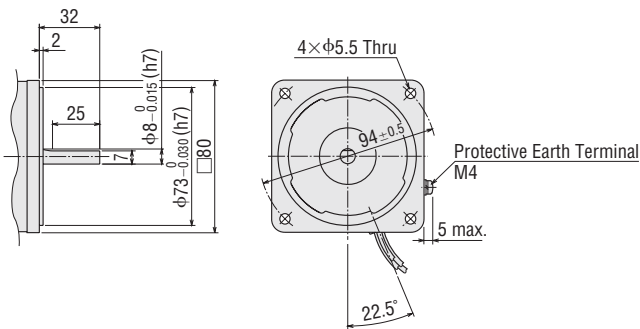
Key and Key Slot

(The key is included with the gearhead)



Shaft Section of Round Shaft Type

The mass and motor's dimensions (excluding the shaft section) are the same as those of the pinion shaft type.

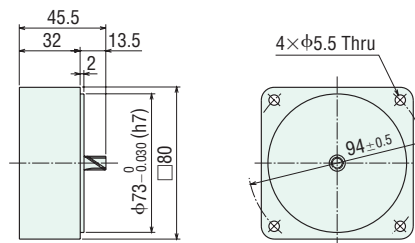


Decimal Gearhead

Can be connected to **GN** pinion shaft type.

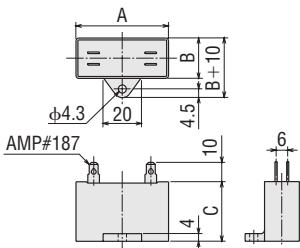
4GN10XS

Mass: 0.4 kg



Capacitor

(Included with single-phase motors)

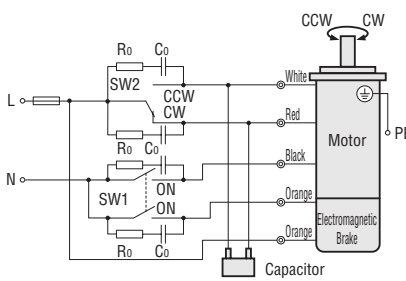
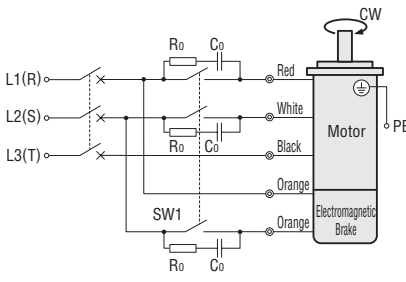


Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Pinion Shaft Type	Round Shaft Type						
4RK25GN-AW2MJ	4RK25A-AW2MJ	CH100CFAUL2	58	21	31	50	Included
4RK25GN-AW2MU	4RK25A-AW2MU	CH80CFAUL2	48	21	31	45	
4RK25GN-CW2MJ	4RK25A-CW2MJ	CH25BFAUL	48	21	31	45	
4RK25GN-CW2ME	4RK25A-CW2ME	CH20BFAUL	48	19	29	35	

Connection Diagrams

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.

Single-Phase Motor 4RK25GN-AW2M □ 4RK25GN-CW2M □	 <p>The diagram shows a single-phase AC input (L and N) connected to a motor with an electromagnetic brake. Two switches, SW1 and SW2, control the motor and brake. SW1 is a double-throw switch that controls both the motor and the brake. SW2 is a selector switch for rotation direction, with positions for CCW and CW. Each switch position includes a surge suppressor circuit (R₀ and C₀). The motor terminals are White, Red, Black, and Orange. The brake terminals are Orange and Orange. A PE terminal is also shown. A capacitor is connected to the motor and brake circuits.</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To rotate the motor in a clockwise (CW) direction, turn SW2 to CW. To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.</p> <table border="1" data-bbox="842 582 1460 728"> <thead> <tr> <th rowspan="2">Switch No.</th> <th colspan="2">Specifications</th> <th rowspan="2">Note</th> </tr> <tr> <th>Single-Phase 100 VAC, 110/115 VAC Input</th> <th>Single-Phase 200 VAC, 220/230 VAC Input</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>125 VAC 3 A minimum (Inductive Load)</td> <td>250 VAC 1.5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> <tr> <td>SW2</td> <td></td> <td></td> <td>—</td> </tr> </tbody> </table>	Switch No.	Specifications		Note	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input	SW1	125 VAC 3 A minimum (Inductive Load)	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously	SW2			—
Switch No.	Specifications			Note												
	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input														
SW1	125 VAC 3 A minimum (Inductive Load)	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously													
SW2			—													
Three-Phase Motor 4IK25GN-SW2M	 <p>The diagram shows a three-phase AC input (L1(R), L2(S), L3(T)) connected to a motor with an electromagnetic brake. A single switch, SW1, controls both the motor and the brake. Each switch position includes a surge suppressor circuit (R₀ and C₀). The motor terminals are Red, White, Black, and Orange. The brake terminals are Orange and Orange. A PE terminal is also shown. A capacitor is connected to the motor and brake circuits.</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To change the rotation direction, change any two connections between R, S and T.</p> <table border="1" data-bbox="842 1052 1460 1176"> <thead> <tr> <th>Switch No.</th> <th>Specifications</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>250 VAC 1.5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> </tbody> </table>	Switch No.	Specifications	Note	SW1	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously								
Switch No.	Specifications	Note														
SW1	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously														

PE: Protective Earth

- R₀ and C₀ indicate surge suppressor circuit. [R₀=5~200 Ω, C₀=0.1~0.2 μF, 200 WV (400 WV)]

EPCR1201-2 is available as an optional surge suppressor. → Page 123

RoHS

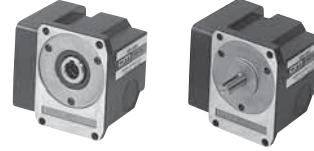
Power Off Activated Type Electromagnetic Brake Motors

40 W

Frame Size: □90 mm



Right-angle gearheads (hollow shaft or solid shaft) can be combined.
Right-Angle Gearheads → Page 108



Specifications

● Motor (RoHS)

This type of motor does not contain a built-in simple brake mechanism.



Model		Rating	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF		
Pinion Shaft Type	Round Shaft Type											
TP	5RK40GN-AW2MJ	30 minutes	40	Single-Phase 100	50	0.85	300	315	1250	16		
					60		260		1450			
TP	5RK40GN-AW2MU	30 minutes	40	Single-Phase 110 Single-Phase 115	60	0.81	260	270	1450	12		
TP	5RK40GN-CW2MJ	30 minutes	40	Single-Phase 200	50	0.40	270	315	1250	4.0		
					60		260		1500			
					Single-Phase 220		50		0.40		270	315
TP	5RK40GN-CW2ME	30 minutes	40	Single-Phase 220	60	0.43	260	260	1500	3.5		
					50		270		315		1250	
					60		0.43		260		260	1500
TP	5IK40GN-SW2M	Continuous	40	Three-Phase 200	50	0.32	400	300	1300	-		
					60		0.30		260		260	1550
					60		0.30		260		260	1600

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate. When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

TP: Contains a built-in thermal protector. If a motor overheats for any reason, the thermal protector is opened and the motor stops. (The power supply to the electromagnetic brake is kept and the brake is released.)

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

● Electromagnetic Brake (Power Off Activated Type)

Motor Model	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m
5RK40GN-AW2MJ 5RK40A-AW2MJ	Single-Phase 100	50	0.09	6	200
		60			
5RK40GN-AW2MU 5RK40A-AW2MU	Single-Phase 110 Single-Phase 115	60	0.09	6	200
5RK40GN-CW2MJ 5RK40A-CW2MJ	Single-Phase 200	50	0.05	7	200
		60			
		Single-Phase 220			
5RK40GN-CW2ME 5RK40A-CW2ME	Single-Phase 220	60	0.05	7	200
		50			
		Single-Phase 230			
5IK40GN-SW2M 5IK40A-SW2M	Single-Phase 200	50	0.05	7	200
		60			
		Single-Phase 220			

Product Line

● Motor (RoHS)

Model	
Pinion Shaft Type	Round Shaft Type
5RK40GN-AW2MJ	5RK40A-AW2MJ
5RK40GN-AW2MU	5RK40A-AW2MU
5RK40GN-CW2MJ	5RK40A-CW2MJ
5RK40GN-CW2ME	5RK40A-CW2ME
5IK40GN-SW2M	5IK40A-SW2M

● Gearhead/Right-Angle Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/Low Noise/ Parallel Shaft	5GN□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	5GN10XS (Decimal gearhead)	
Right-Angle/ Hollow Shaft	5GN□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
Right-Angle/ Solid Shaft	5GN□RA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180

● Enter the gear ratio in the box (□) within the model name.

Gearmotor – Torque Table

- Gearheads and decimal gearheads are sold separately.
- Enter the gear ratio in the box (□) within the model name.
- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- 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 - 20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio: 10) between the gearhead and the motor. In that case, the permissible torque is 10 N·m.

◇ 50 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5RK40GN-AW2MJ 5RK40GN-CW2MJ 5RK40GN-CW2ME / 5GN□S		0.77	0.92	1.3	1.5	1.9	2.3	3.2	3.8	4.6	5.7	6.9	8.3	10	10	10	10	10	10	10	10
5IK40GN-SW2M / 5GN□S		0.73	0.87	1.2	1.5	1.8	2.2	3.0	3.6	4.4	5.5	6.6	7.9	9.9	10	10	10	10	10	10	10

◇ 60 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5RK40GN-AW2MJ 5RK40GN-AW2MU / 5GN□S		0.66	0.79	1.1	1.3	1.6	2.0	2.7	3.3	3.9	4.9	5.9	7.1	8.9	10	10	10	10	10	10	10
5RK40GN-CW2MJ 5RK40GN-CW2ME 5IK40GN-SW2M / 5GN□S		0.63	0.76	1.1	1.3	1.6	1.9	2.6	3.2	3.8	4.7	5.7	6.8	8.6	10	10	10	10	10	10	10

Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

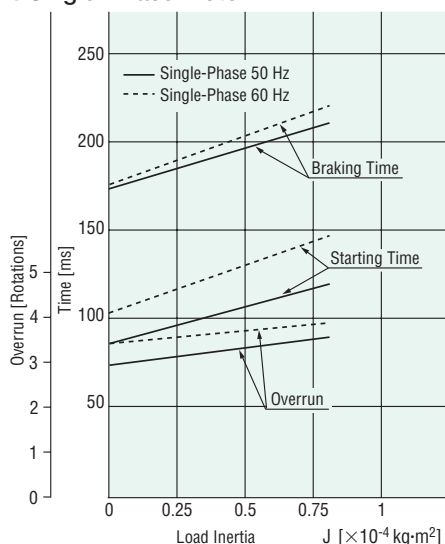
Gearhead → Page 107

Permissible Load Inertia J for Gearhead

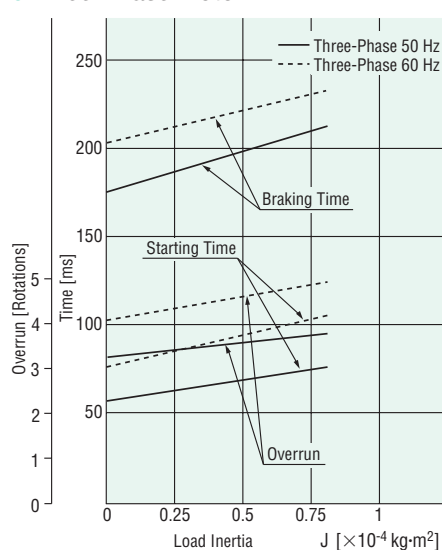
→ Page 107

Starting and Braking Characteristics (Reference Values)

● Single-Phase Motor



● Three-Phase Motor



Dimensions (Unit = mm)

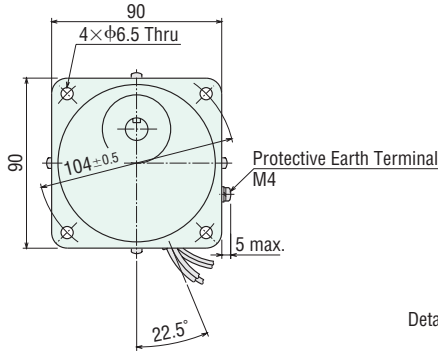
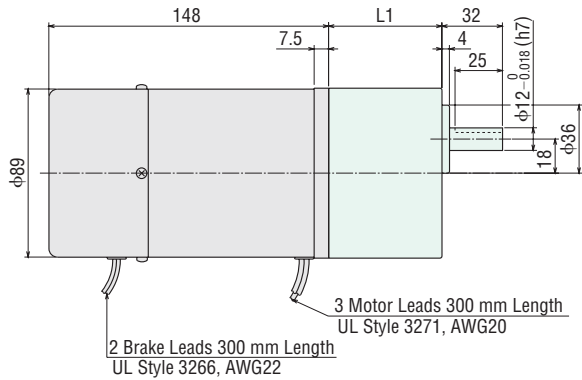
Mounting screws are included with gearheads.

Motor/Gearhead

Mass: Motor 2.8 kg
Gearhead 1.5 kg

Motor Model	Gearhead Model	Gear Ratio	L1
5RK40GN-AW2M	5GN □S	3~18	42
5RK40GN-CW2M		25~180	60
5IK40GN-SW2M			

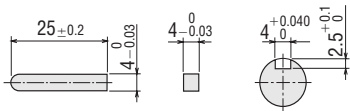
● Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.
Enter the gear ratio in the box (□) within the model name.



Detail Drawing of Protective Earth Terminal

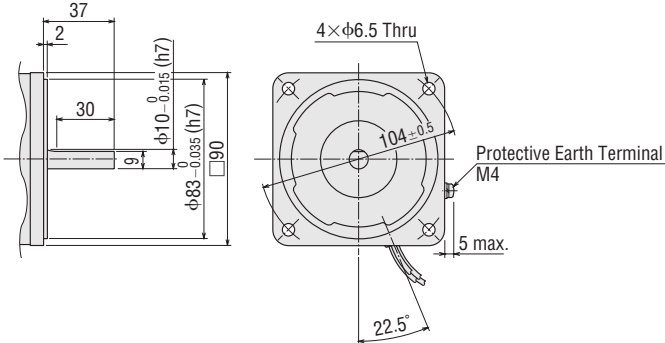
Key and Key Slot

(The key is included with the gearhead)



Shaft Section of Round Shaft Type

The mass and motor's dimensions (excluding the shaft section) are the same as those of the pinion shaft type.

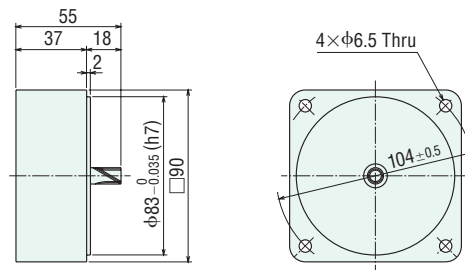


Decimal Gearhead

Can be connected to **GN** pinion shaft type.

5GN10XS

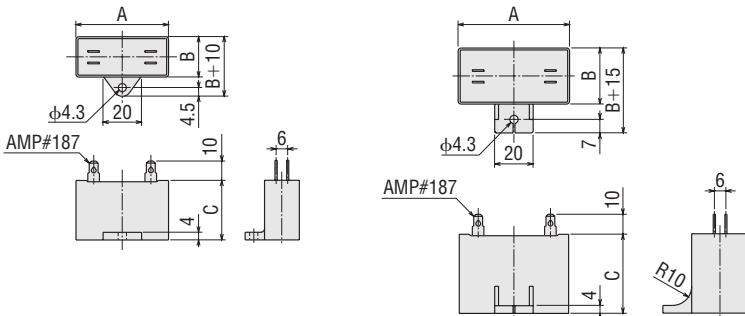
Mass: 0.6 kg



Capacitor (Included with single-phase motors)

Dimension No. ①

Dimension No. ②

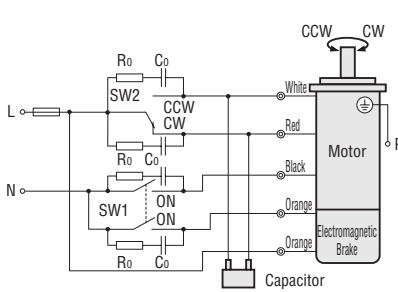
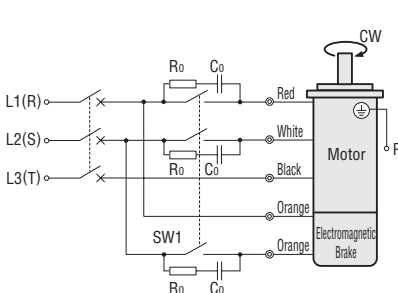


Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Dimension No.	Capacitor Cap
Pinion Shaft Type	Round Shaft Type							
5RK40GN-AW2MJ	5RK40A-AW2MJ	CH160CFAUL2	58	23.5	37	75	②	Included
5RK40GN-AW2MU	5RK40A-AW2MU	CH120CFAUL2	58	22	35	60	①	
5RK40GN-CW2MJ	5RK40A-CW2MJ	CH40BFAUL	58	23.5	37	70	②	
5RK40GN-CW2ME	5RK40A-CW2ME	CH35BFAUL	58	22	35	55	①	

Connection Diagrams

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.

<p>Single-Phase Motor</p> <p>5RK40GN-AW2M □ 5RK40GN-CW2M □</p>	 <p>The diagram shows a single-phase AC input (L and N) connected to a motor with an electromagnetic brake. Two switches, SW1 and SW2, control the motor and brake. SW1 is a double-throw switch that controls both the motor and the brake. SW2 is a selector switch for rotation direction: CCW (counterclockwise) and CW (clockwise). The motor has four main leads: White, Red, Black, and Orange. The brake has two leads: Orange and Orange. A capacitor is connected to the motor leads. Protective Earth (PE) is connected to the motor frame.</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To rotate the motor in a clockwise (CW) direction, turn SW2 to CW. To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.</p> <table border="1"> <thead> <tr> <th rowspan="2">Switch No.</th> <th colspan="2">Specifications</th> <th rowspan="2">Note</th> </tr> <tr> <th>Single-Phase 100 VAC, 110/115 VAC Input</th> <th>Single-Phase 200 VAC, 220/230 VAC Input</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>125 VAC 5 A minimum (Inductive Load)</td> <td>250 VAC 5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> <tr> <td>SW2</td> <td></td> <td></td> <td>—</td> </tr> </tbody> </table>	Switch No.	Specifications		Note	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input	SW1	125 VAC 5 A minimum (Inductive Load)	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously	SW2			—
Switch No.	Specifications			Note												
	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input														
SW1	125 VAC 5 A minimum (Inductive Load)	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously													
SW2			—													
<p>Three-Phase Motor</p> <p>5IK40GN-SW2M</p>	 <p>The diagram shows a three-phase AC input (L1(R), L2(S), L3(T)) connected to a motor with an electromagnetic brake. A single switch, SW1, controls both the motor and the brake. The motor has four main leads: Red, White, Black, and Orange. The brake has two leads: Orange and Orange. A capacitor is connected to the motor leads. Protective Earth (PE) is connected to the motor frame.</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To change the rotation direction, change any two connections between R, S and T.</p> <table border="1"> <thead> <tr> <th>Switch No.</th> <th>Specifications</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>250 VAC 5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> </tbody> </table>	Switch No.	Specifications	Note	SW1	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously								
Switch No.	Specifications	Note														
SW1	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously														

PE: Protective Earth

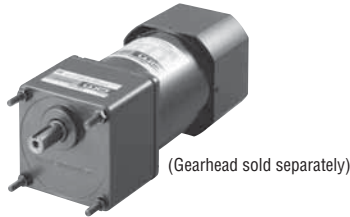
● R_0 and C_0 indicate surge suppressor circuit. [$R_0=5\sim 200\ \Omega$, $C_0=0.1\sim 0.2\ \mu\text{F}$, 200 WV (400 WV)]

EPCR1201-2 is available as an optional surge suppressor. → Page 123

Power Off Activated Type Electromagnetic Brake Motors

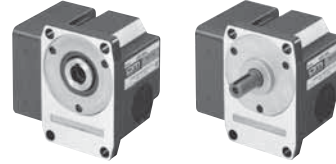
60 W

Frame Size: □90 mm



Right-angle gearheads (hollow shaft or solid shaft) can be combined.

Right-Angle Gearheads → Page 108



Specifications

● Motor (RoHS)

This type of motor does not contain a built-in simple brake mechanism.



Model		Rating	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF
Pinion Shaft Type	Round Shaft Type									
TP	5RK60GE-AW2MJ	30 minutes	60	Single-Phase 100	50	1.30	470	490	1200	25
					60	1.50	380	405	1450	
TP	5RK60GE-AW2MU	30 minutes	60	Single-Phase 110	60	1.24	380	405	1450	20
				Single-Phase 115						
TP	5RK60GE-CW2MJ	30 minutes	60	Single-Phase 200	50	0.61	450	490	1200	6.0
				Single-Phase 220	60	0.74	380	405	1450	
				Single-Phase 220	50	0.61	470	490	1200	
TP	5RK60GE-CW2ME	30 minutes	60	Single-Phase 220	60	0.61	380	405	1450	5.0
				Single-Phase 230	50	0.59	470	490	1200	
				Single-Phase 230	60	0.61	380	405	1450	
TP	5IK60GE-SW2M	Continuous	60	Three-Phase 200	50	0.50	600	450	1300	-
				Three-Phase 220	60	0.43	500	380	1550	
				Three-Phase 230	60	0.46	500	380	1600	

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate.

When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

TP: Contains a built-in thermal protector. If a motor overheats for any reason, the thermal protector is opened and the motor stops.

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

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

● Electromagnetic Brake (Power Off Activated Type)

Motor Model	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m
5RK60GE-AW2MJ 5RK60A-AW2MJ	Single-Phase 100	50	0.13	10	500
		60			
5RK60GE-AW2MU 5RK60A-AW2MU	Single-Phase 110 Single-Phase 115	60	0.13	10	500
5RK60GE-CW2MJ 5RK60A-CW2MJ	Single-Phase 200	50	0.07	10	500
		60			
		Single-Phase 220			
5RK60GE-CW2ME 5RK60A-CW2ME	Single-Phase 220	60	0.07	10	500
		50			
		Single-Phase 230			
5IK60GE-SW2M 5IK60A-SW2M	Single-Phase 200	50	0.07	10	500
		60			
		Single-Phase 220			
	Single-Phase 230	60			

Product Line

● Motor (RoHS)

Model	
Pinion Shaft Type	Round Shaft Type
5RK60GE-AW2MJ	5RK60A-AW2MJ
5RK60GE-AW2MU	5RK60A-AW2MU
5RK60GE-CW2MJ	5RK60A-CW2MJ
5RK60GE-CW2ME	5RK60A-CW2ME
5IK60GE-SW2M	5IK60A-SW2M

● Gearhead/Right-Angle Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/ Parallel Shaft	5GE□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	5GE10XS (Decimal gearhead)	
Right-Angle/ Hollow Shaft	5GE□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
Right-Angle/ Solid Shaft	5GE□RA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180

● Enter the gear ratio in the box (□) within the model name.

Gearmotor – Torque Table

- Gearheads and decimal gearheads are sold separately.
- Enter the gear ratio in the box (□) within the model name.
- A colored background □ indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- 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 - 20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio: 10) between the gearhead and the motor. In that case, the permissible torque is 20 N·m.

◇ 50 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5RK60GE-AW2MJ 5RK60GE-CW2MJ 5RK60GE-CW2ME / 5GE□S		1.2	1.4	2.0	2.4	3.0	3.6	4.5	5.4	6.4	8.1	9.7	11.6	16.2	19.4	20	20	20	20	20	20
5IK60GE-SW2M / 5GE□S		1.1	1.3	1.8	2.2	2.7	3.3	4.1	4.9	5.9	7.4	8.9	10.7	14.9	17.8	19.9	20	20	20	20	20

◇ 60 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5RK60GE-AW2MJ 5RK60GE-AW2MU 5RK60GE-CW2MJ 5RK60GE-CW2ME / 5GE□S		0.98	1.2	1.6	2.0	2.5	3.0	3.7	4.4	5.3	6.7	8.0	9.6	13.4	16.0	17.9	20	20	20	20	20
5IK60GE-SW2M / 5GE□S		0.92	1.1	1.5	1.8	2.3	2.8	3.5	4.2	5.0	6.3	7.5	9.0	12.5	15.0	16.8	20	20	20	20	20

Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

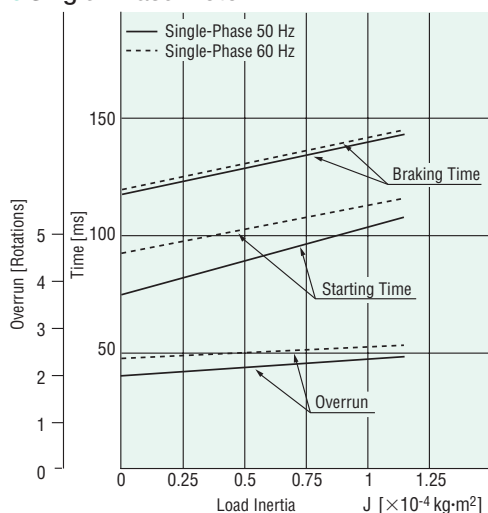
Gearhead → Page 107

Permissible Load Inertia J for Gearhead

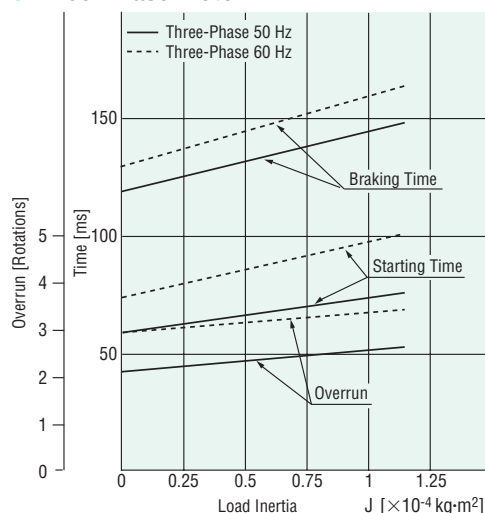
→ Page 107

Starting and Braking Characteristics (Reference Values)

● Single-Phase Motor



● Three-Phase Motor



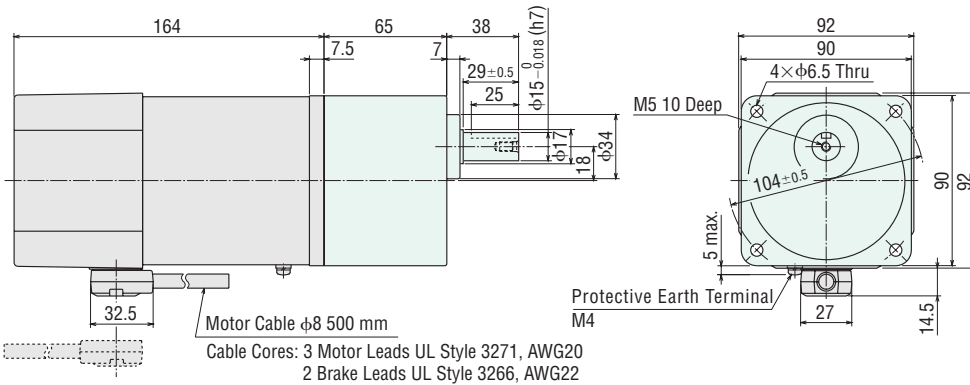
Dimensions (Unit = mm)

Mounting screws are included with gearheads.

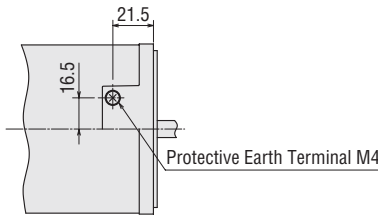
Motor/Gearhead

Mass: Motor 3.4 kg

Gearhead 1.5 kg

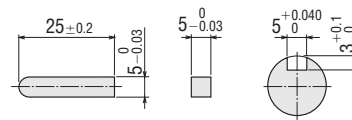


● Cable direction can be switched to the opposite direction.



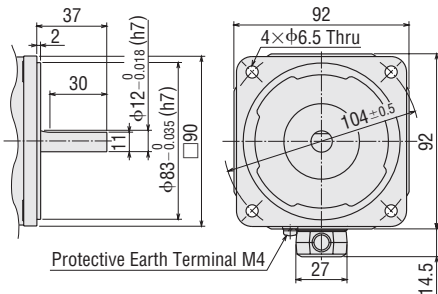
Detail Drawing of Protective Earth Terminal

Key and Key Slot (The key is included with the gearhead)



Shaft Section of Round Shaft Type

The mass and motor's dimensions (excluding the shaft section) are the same as those of the pinion shaft type.

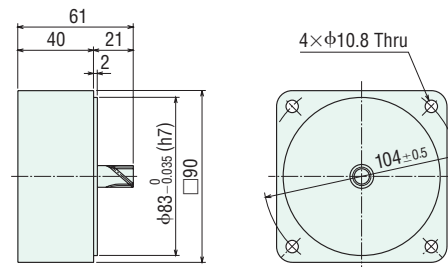


Decimal Gearhead

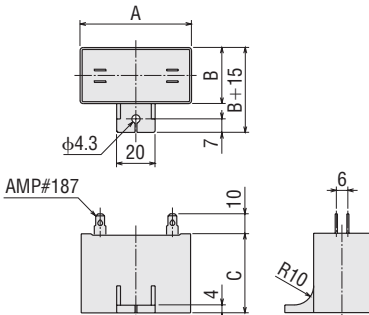
Can be connected to **GE** pinion shaft type.

5GE10XS

Mass: 0.6 kg



Capacitor (Included with single-phase motors)

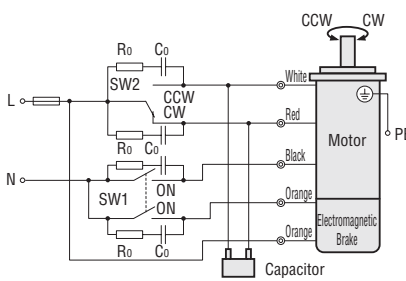
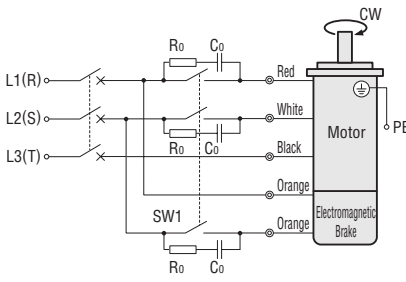


Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Pinion Shaft Type	Round Shaft Type						
5RK60GE-AW2MJ	5RK60A-AW2MJ	CH250CFAUL2	58	35	50	140	Included
5RK60GE-AW2MU	5RK60A-AW2MU	CH200CFAUL2	58	29	41	95	
5RK60GE-CW2MJ	5RK60A-CW2MJ	CH60BFAUL	58	29	41	85	
5RK60GE-CW2ME	5RK60A-CW2ME	CH50BFAUL	58	29	41	85	

Connection Diagrams

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.

Single-Phase Motor 5RK60GE-AW2M □ 5RK60GE-CW2M □	 <p>The diagram shows a single-phase AC supply (L and N) connected to a motor with an electromagnetic brake. Two switches, SW1 and SW2, are used to control the motor and brake. SW1 is a double-throw switch that controls both the motor and the brake. SW2 is a selector switch for rotation direction, with positions for CCW and CW. The motor has four leads: White, Red, Black, and Orange. The brake has two leads: Orange and Orange. A capacitor is connected to the motor leads. Protective Earth (PE) is also shown.</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To rotate the motor in a clockwise (CW) direction, turn SW2 to CW. To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.</p> <table border="1" data-bbox="842 582 1460 728"> <thead> <tr> <th rowspan="2">Switch No.</th> <th colspan="2">Specifications</th> <th rowspan="2">Note</th> </tr> <tr> <th>Single-Phase 100 VAC, 110/115 VAC Input</th> <th>Single-Phase 200 VAC, 220/230 VAC Input</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>125 VAC 5 A minimum (Inductive Load)</td> <td>250 VAC 5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> <tr> <td>SW2</td> <td></td> <td></td> <td>—</td> </tr> </tbody> </table>	Switch No.	Specifications		Note	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input	SW1	125 VAC 5 A minimum (Inductive Load)	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously	SW2			—
Switch No.	Specifications			Note												
	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input														
SW1	125 VAC 5 A minimum (Inductive Load)	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously													
SW2			—													
Three-Phase Motor 5IK60GE-SW2M	 <p>The diagram shows a three-phase AC supply (L1(R), L2(S), L3(T)) connected to a motor with an electromagnetic brake. A single switch, SW1, controls both the motor and the brake. The motor has four leads: Red, White, Black, and Orange. The brake has two leads: Orange and Orange. A capacitor is connected to the motor leads. Protective Earth (PE) is also shown.</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To change the rotation direction, change any two connections between R, S and T.</p> <table border="1" data-bbox="842 1052 1460 1176"> <thead> <tr> <th>Switch No.</th> <th>Specifications</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>250 VAC 5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> </tbody> </table>	Switch No.	Specifications	Note	SW1	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously								
Switch No.	Specifications	Note														
SW1	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously														

PE: Protective Earth

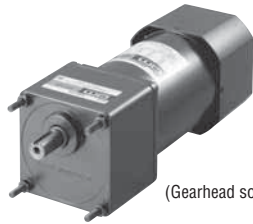
- R_0 and C_0 indicate surge suppressor circuit. [$R_0=5\sim 200\ \Omega$, $C_0=0.1\sim 0.2\ \mu\text{F}$, 200 WV (400 WV)]

EPCR1201-2 is available as an optional surge suppressor. → Page 123

Power Off Activated Type Electromagnetic Brake Motors

90 W

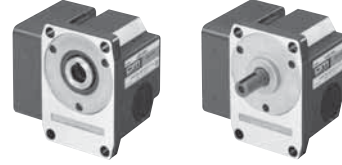
Frame Size: □90 mm



(Gearhead sold separately)

Right-angle gearheads (hollow shaft or solid shaft) can be combined.

Right-Angle Gearheads → Page 108



Specifications

● Motor (RoHS)

This type of motor does not contain a built-in simple brake mechanism.



Model		Rating	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF
Pinion Shaft Type	Round Shaft Type									
ⓉP	5RK90GE-AW2MJ	30 minutes	90	Single-Phase 100	50	1.78	630	700	1250	35
					60	2.10	590	585	1500	
ⓉP	5RK90GE-AW2MU	30 minutes	90	Single-Phase 110 Single-Phase 115	60	1.81	590	585	1500	30
ⓉP	5RK90GE-CW2MJ	30 minutes	90	Single-Phase 200	50	0.88	600	730	1200	8.0
					60	1.08	590	605	1450	
					Single-Phase 220	50	0.83	600	730	
ⓉP	5RK90GE-CW2ME	30 minutes	90	Single-Phase 220	60	0.96	590	605	1450	7.0
					50	0.82	600	730	1200	
					60	0.96	590	605	1450	
ⓉP	5IK90GE-SW2M	Continuous	90	Three-Phase 200	50	0.64	850	680	1300	-
					60	0.59	700	570	1550	
					60	0.60	700	570	1600	
				Three-Phase 220						
				Three-Phase 230		0.61				

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate. When the motor is approved under various safety standards, the model name on the nameplate is the approved model name.

ⓉP: Contains a built-in thermal protector. If a motor overheats for any reason, the thermal protector is opened and the motor stops.

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

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

● Electromagnetic Brake (Power Off Activated Type)

Motor Model	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m
5RK90GE-AW2MJ 5RK90A-AW2MJ	Single-Phase 100	50	0.13	10	500
		60			
5RK90GE-AW2MU 5RK90A-AW2MU	Single-Phase 110 Single-Phase 115	60	0.13	10	500
5RK90GE-CW2MJ 5RK90A-CW2MJ	Single-Phase 200	50	0.07	10	500
		60			
		Single-Phase 220			
5RK90GE-CW2ME 5RK90A-CW2ME	Single-Phase 220	60	0.07	10	500
		50			
		Single-Phase 230			
5IK90GE-SW2M 5IK90A-SW2M	Single-Phase 200	50	0.07	10	500
		60			
		Single-Phase 220			
		Single-Phase 230			

Product Line

● Motor (RoHS)

Model	
Pinion Shaft Type	Round Shaft Type
5RK90GE-AW2MJ	5RK90A-AW2MJ
5RK90GE-AW2MU	5RK90A-AW2MU
5RK90GE-CW2MJ	5RK90A-CW2MJ
5RK90GE-CW2ME	5RK90A-CW2ME
5IK90GE-SW2M	5IK90A-SW2M

● Gearhead/Right-Angle Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/ Parallel Shaft	5GE□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	5GE10XS (Decimal gearhead)	
Right-Angle/ Hollow Shaft	5GE□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
Right-Angle/ Solid Shaft	5GE□RA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180

● Enter the gear ratio in the box (□) within the model name.

Gearmotor – Torque Table

- Gearheads and decimal gearheads are sold separately.
- Enter the gear ratio in the box (□) within the model name.
- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- 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 - 20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio: 10) between the gearhead and the motor. In that case, the permissible torque is 20 N·m.

◇ 50 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5RK90GE-AW2MJ	5GE□S	1.7	2.0	2.8	3.4	4.3	5.1	6.4	7.7	9.2	11.6	13.9	16.6	20	20	20	20	20	20	20	20
5RK90GE-CW2MJ 5RK90GE-CW2ME	5GE□S	1.8	2.1	3.0	3.5	4.4	5.3	6.7	8.0	9.6	12.0	14.5	17.3	20	20	20	20	20	20	20	20
5IK90GE-SW2M	5GE□S	1.7	2.0	2.8	3.3	4.1	5.0	6.2	7.4	8.9	11.2	13.5	16.2	20	20	20	20	20	20	20	20

◇ 60 Hz

Unit = N·m

Model Motor/ Gearhead	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5RK90GE-AW2MJ 5RK90GE-AW2MU	5GE□S	1.4	1.7	2.4	2.8	3.6	4.3	5.3	6.4	7.7	9.7	11.6	13.9	19.3	20	20	20	20	20	20	20
5RK90GE-CW2MJ 5RK90GE-CW2ME	5GE□S	1.5	1.8	2.5	2.9	3.7	4.4	5.5	6.6	7.9	10.0	12.0	14.4	20	20	20	20	20	20	20	20
5IK90GE-SW2M	5GE□S	1.4	1.7	2.3	2.8	3.5	4.2	5.2	6.2	7.5	9.4	11.3	13.5	18.8	20	20	20	20	20	20	20

Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

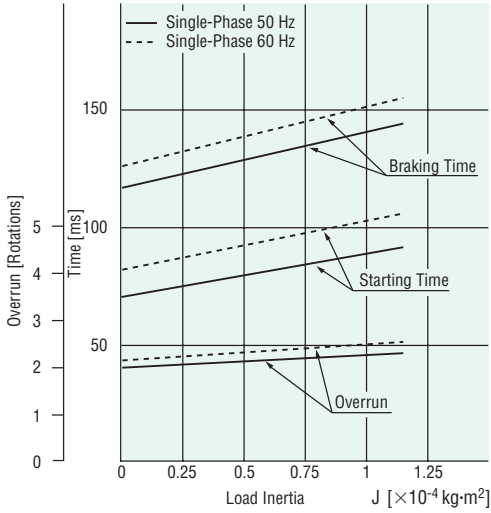
Gearhead → Page 107

Permissible Load Inertia J for Gearhead

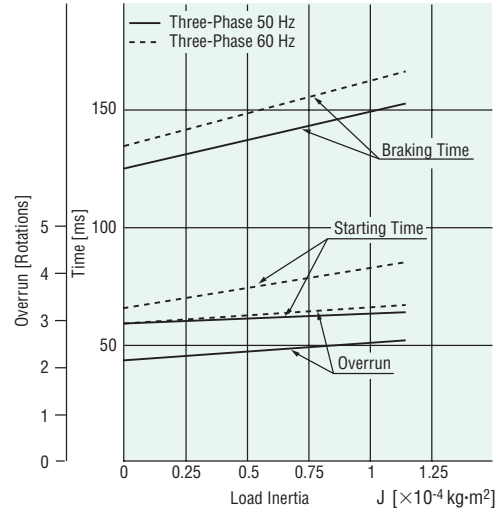
→ Page 107

Starting and Braking Characteristics (Reference Values)

Single-Phase Motor



Three-Phase Motor



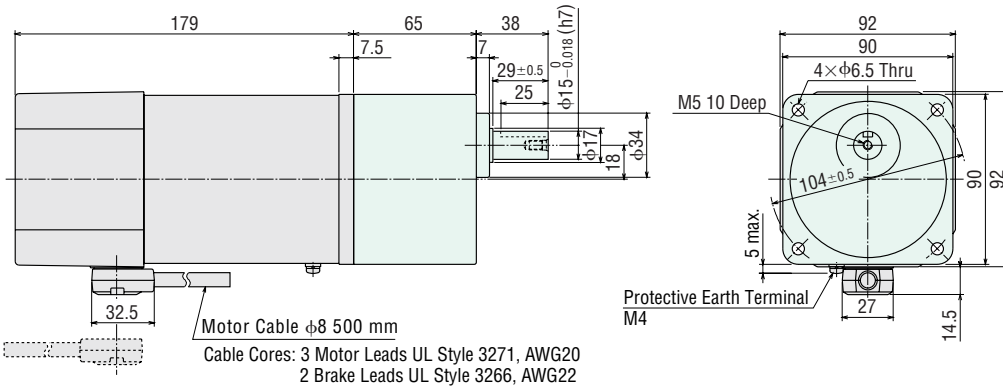
Dimensions (Unit = mm)

Mounting screws are included with gearheads.

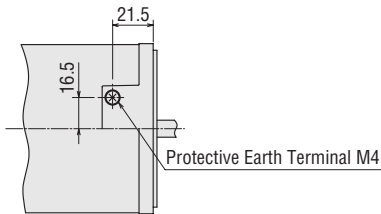
Motor/Gearhead

Mass: Motor 3.9 kg

Gearhead 1.5 kg



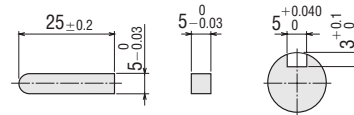
● Cable direction can be switched to the opposite direction.



Detail Drawing of Protective Earth Terminal

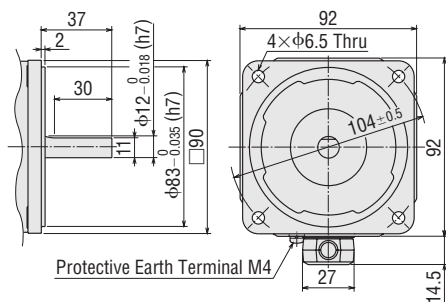
Key and Key Slot

(The key is included with the gearhead)



◇ Shaft Section of Round Shaft Type

The mass and motor's dimensions (excluding the shaft section) are the same as those of the pinion shaft type.

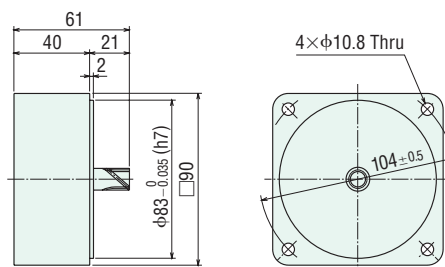


◇ Decimal Gearhead

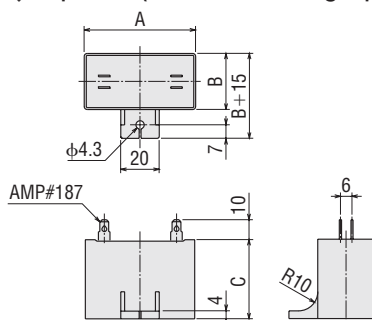
Can be connected to **GE** pinion shaft type.

5GE10XS

Mass: 0.6 kg



◇ Capacitor (Included with single-phase motors)



◇ Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Pinion Shaft Type	Round Shaft Type						
5RK90GE-AW2MJ	5RK90A-AW2MJ	CH350CFAUL2	58	41	58	180	Included
5RK90GE-AW2MU	5RK90A-AW2MU	CH300CFAUL2	58	35	50	140	
5RK90GE-CW2MJ	5RK90A-CW2MJ	CH80BFAUL	58	35	50	130	
5RK90GE-CW2ME	5RK90A-CW2ME	CH70BFAUL	58	35	50	130	

Connection Diagrams

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.

Single-Phase Motor	<p>5RK90GE-AW2M □</p> <p>5RK90GE-CW2M □</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To rotate the motor in a clockwise (CW) direction, turn SW2 to CW. To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.</p> <table border="1"> <thead> <tr> <th rowspan="2">Switch No.</th> <th colspan="2">Specifications</th> <th rowspan="2">Note</th> </tr> <tr> <th>Single-Phase 100 VAC, 110/115 VAC Input</th> <th>Single-Phase 200 VAC, 220/230 VAC Input</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>125 VAC 5 A minimum (Inductive Load)</td> <td>250 VAC 5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> <tr> <td>SW2</td> <td></td> <td></td> <td>—</td> </tr> </tbody> </table>	Switch No.	Specifications		Note	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input	SW1	125 VAC 5 A minimum (Inductive Load)	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously	SW2			—
	Switch No.	Specifications		Note												
Single-Phase 100 VAC, 110/115 VAC Input		Single-Phase 200 VAC, 220/230 VAC Input														
SW1	125 VAC 5 A minimum (Inductive Load)	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously													
SW2			—													
Three-Phase Motor	<p>5IK90GE-SW2M</p>	<p>SW1 operates both motor and electromagnetic brake action. The motor will rotate when SW1 is switched simultaneously to ON. When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.</p> <p>If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).</p> <p>Direction of Rotation To change the rotation direction, change any two connections between R, S and T.</p> <table border="1"> <thead> <tr> <th>Switch No.</th> <th>Specifications</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>SW1</td> <td>250 VAC 5 A minimum (Inductive Load)</td> <td>Switched Simultaneously</td> </tr> </tbody> </table>	Switch No.	Specifications	Note	SW1	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously								
Switch No.	Specifications	Note														
SW1	250 VAC 5 A minimum (Inductive Load)	Switched Simultaneously														

PE: Protective Earth

● R_0 and C_0 indicate surge suppressor circuit. [$R_0=5\sim 200\ \Omega$, $C_0=0.1\sim 0.2\ \mu\text{F}$, 200 WV (400 WV)]

EPCR1201-2 is available as an optional surge suppressor. → Page 123