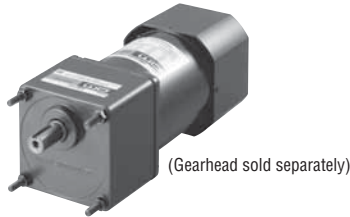


Power Off Activated Type Electromagnetic Brake Motors

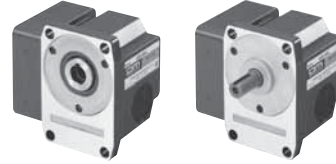
60 W

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 Single-Phase 220	50	0.07	10	500
		60			
		50			
5RK60GE-CW2ME 5RK60A-CW2ME	Single-Phase 220 Single-Phase 230	60	0.07	10	500
		50			
		60			
5IK60GE-SW2M 5IK60A-SW2M	Single-Phase 200 Single-Phase 220 Single-Phase 230	50	0.07	10	500
		60			
		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

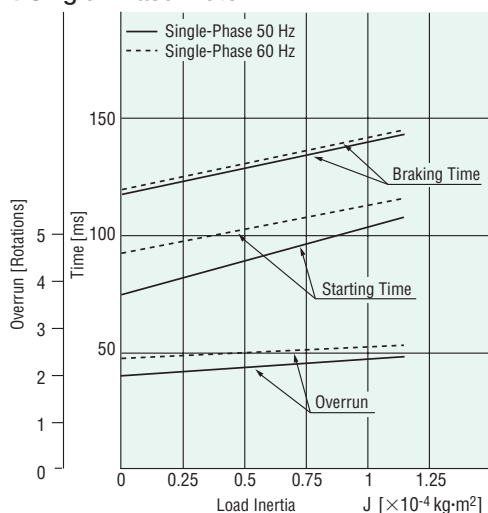
Gearhead → Page 107

Permissible Load Inertia J for Gearhead

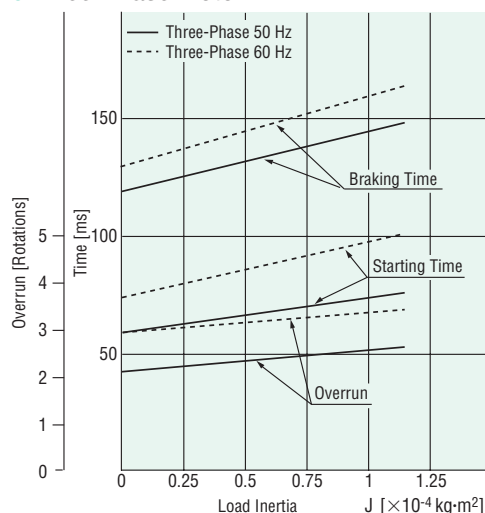
→ Page 107

Starting and Braking Characteristics (Reference Values)

● Single-Phase Motor



● Three-Phase Motor



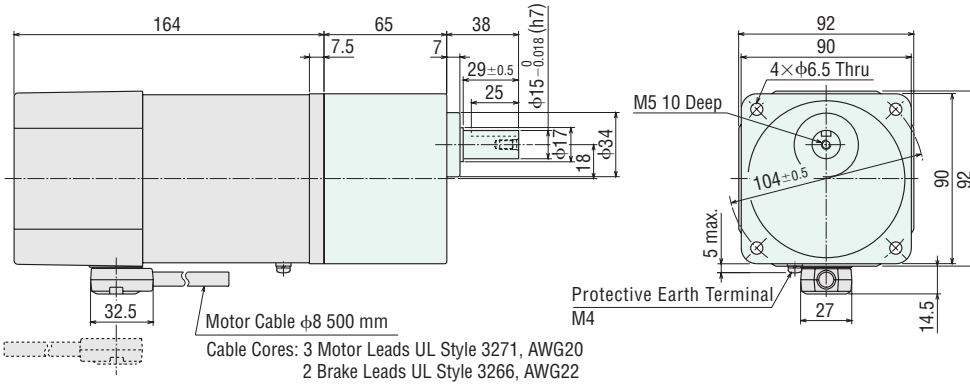
Dimensions (Unit = mm)

Mounting screws are included with gearheads.

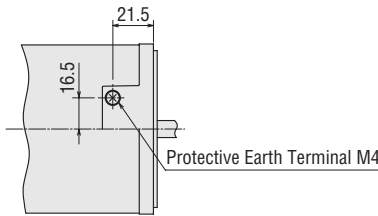
Motor/Gearhead

Mass: Motor 3.4 kg

Gearhead 1.5 kg

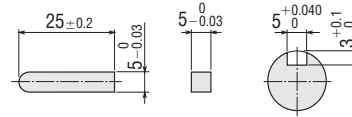


● Cable direction can be switched to the opposite direction.



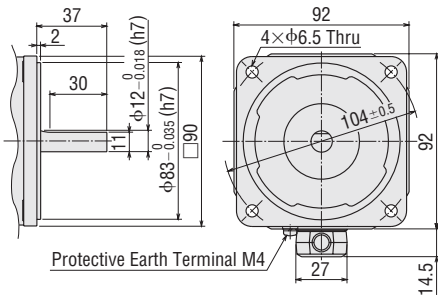
Detail Drawing of Protective Earth Terminal

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.

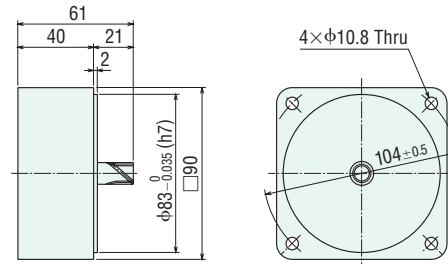


Decimal Gearhead

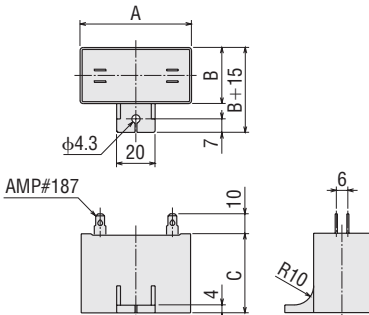
Can be connected to **GE** pinion shaft type.

5GE10XS

Mass: 0.6 kg



Capacitor (Included with single-phase motors)

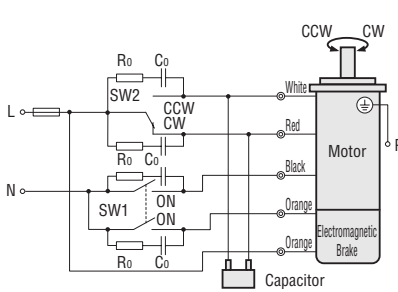
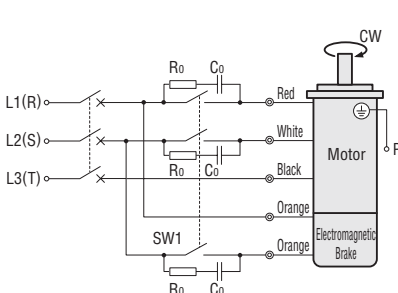


Capacitor Dimensions (mm)

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.

<p>Single-Phase Motor</p> <p>5RK60GE-AW2M □ 5RK60GE-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			—												
<p>Three-Phase Motor</p> <p>5IK60GE-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

● 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