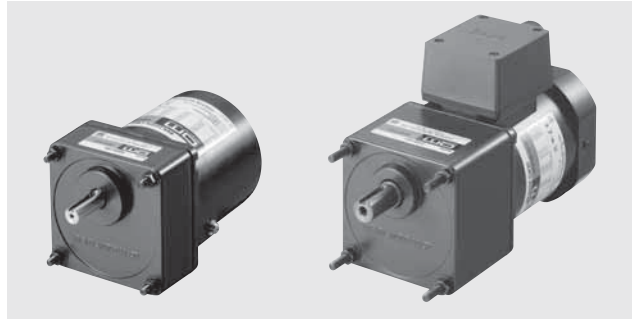


# Induction Motors



## Features

### ● Optimal for Uni-Directional Continuous Operation

Induction motors are optimal for uni-directional continuous operation such as a conveyor system.

## Safety Standards and CE Marking

Standards	Certification Body	Standards File No.	CE Marking
UL 1004 UL 2111 CSA C22.2 No.100 CSA C22.2 No.77	UL	E64199 (1 W~6 W Type) E64197 (15 W~150 W Type)	Low Voltage Directives
EN 60950-1 EN 60034-1 EN 60034-5 IEC 60664-1		Conform to EN/IEC Standards	
GB 12350	CQC	2005010401150786 (Single-Phase 1 W, 3 W Type) 2003010401091525 (Single-Phase 6 W Type) 2003010401091527 (Three-Phase 6 W Type) 2003010401091522 (Single-Phase 15 W~90 W Type) 2003010401091520 (Three-Phase 25 W~90 W Type) 2005010401150785 (2-Pole, High-Speed Type, Single-Phase 40 W~150 W Type) 2005010401150788 (2-Pole, High-Speed Type, Three-Phase 60 W~150 W Type)	


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

● The following products are not applicable to the table above.


**4IK25GN-UT4, 4IK25A-UT4, 5IK40GN-UT4, 5IK40A-UT4,  
5IK60GE-UT4F, 5IK60A-UT4F, 5IK90GE-UT4F, 5IK90A-UT4F**

Standards	Certification Body	Standards File No.	CE Marking
EN 60950-1 EN 60034-1 EN 60034-5 IEC 60034-11	TÜV Rheinland	R50079501	Low Voltage Directives


## System Configuration



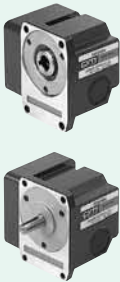
**Mounting Brackets  
(Accessories)**  
(→ Page 121)



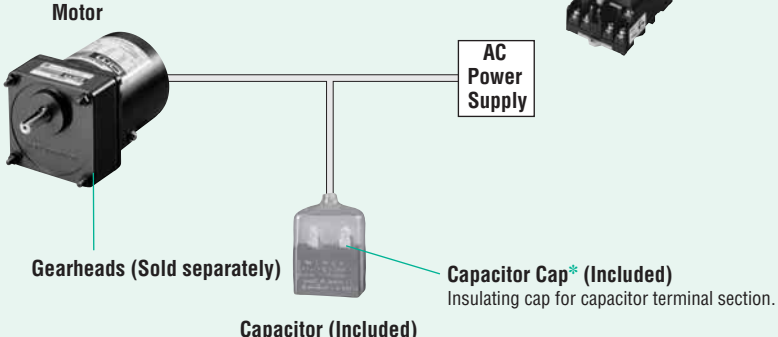
**Flexible Couplings (Accessories)**  
(→ Page 123)



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



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



**Motor**  
**AC Power Supply**  
**Gearheads (Sold separately)**  
**Capacitor (Included)**  
**Capacitor Cap\* (Included)**  
Insulating cap for capacitor terminal section.

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

Motor (Pinion Shaft)	Long Life/Low Noise GN-S Gearhead	Mounting Bracket	Flexible Coupling
<b>4IK25GN-CW2E</b>	<b>4GN25S</b>	<b>SOL4M5</b>	<b>MCL301012</b>
+	⊙	○	○

⊙: Required under this system.  
 ○: Selectable according to necessity. Oriental Motor provides.  
 \*Capacitor cap is included.

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

## Product Number Code

### ● Motor

# 5 I K 40 GN - CW 2 T E

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	Motor Frame Size	<b>0:</b> 42 mm <b>2:</b> 60 mm <b>3:</b> 70 mm <b>4:</b> 80 mm <b>5:</b> 90 mm		
②	Motor Type	<b>I:</b> Induction Motor		
③	Series	<b>K:</b> K Series		
④	Output Power (W)	(Example) <b>40:</b> 40 W		
⑤	Motor Shaft Type	<b>GN:</b> GN Type Pinion Shaft <b>GE:</b> GE Type Pinion Shaft <b>A:</b> Round Shaft		
⑥	Power Supply Voltage/ Number of Poles	<b>AW:</b> Single-Phase 100 VAC, 110/115 VAC 4-Pole <b>DW:</b> Single-Phase 200 VAC, 220/230 VAC 2-Pole <b>U:</b> Three-Phase 400 VAC 4-Pole	<b>BW:</b> Single-Phase 100 VAC, 110/115 VAC 2-Pole <b>SW:</b> Three-Phase 200/220/230 VAC 4-Pole	<b>CW:</b> Single-Phase 200 VAC, 220/230 VAC 4-Pole <b>TW:</b> Three-Phase 200/220/230 VAC 2-Pole
⑦	<b>2, 3:</b> RoHS-Compliant			
⑧	<b>T, T4, T4F:</b> Terminal Box Type			
⑨	Included Capacitor <b>J:</b> For Single-Phase 100 VAC, 200 VAC <b>U:</b> For Single-Phase 110/115 VAC <b>E:</b> For Single-Phase 220/230 VAC Blank: Three-Phase Type			

● 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: **5IK40GN-CW2E** → Motor nameplate and product approved under various safety standards: **5IK40GN-CW2**

### ● Gearhead

# 5 GN 50 S

① ② ③ ④

①	Gearhead Frame Size	<b>0:</b> 42 mm <b>2:</b> 60 mm <b>3:</b> 70 mm <b>4:</b> 80 mm <b>5:</b> 90 mm		
②	Type of Pinion	<b>GN:</b> GN Type Pinion <b>GE:</b> GE Type Pinion		
③	Gear Ratio	(Example) <b>50:</b> Gear Ratio of 1:50 <b>10X</b> denotes the decimal gearhead of gear ratio 1:10		
④	GN Type Pinion	<b>S:</b> Long Life/Low Noise <b>GN-S</b> Gearhead, RoHS-Compliant	<b>K:</b> GN-K Gearhead	<b>RA:</b> Right-Angle/Solid Shaft Gearhead, RoHS-Compliant
	GE Type Pinion	<b>S:</b> Long Life <b>GE-S</b> Gearhead	<b>RH:</b> Right-Angle/Hollow Shaft Gearhead, RoHS-Compliant	<b>RA:</b> Right-Angle/Solid Shaft Gearhead, RoHS-Compliant

\*GN-K gearhead of frame size 42 mm complies to RoHS directive.

## General Specifications of Motors

### ● 1 W, 3 W Type

Item	Specifications
Insulation Resistance	100 MΩ 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 75°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 <sup>*1</sup> .
Insulation Class	UL/CSA standards: Class A (105°C), EN standards: Class E (120°C)
Overheat Protection	Impedance protected
Ambient Temperature	-10°C ~ +40°C (nonfreezing)
Ambient Humidity	85% or less (noncondensing)
Degree of Protection	IP20

### ● 6 W ~ 90 W Type, 2-Pole, High-Speed Type

Item	Specifications
Insulation Resistance	100 MΩ 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 (three-phase 400 VAC: 2 kV) at 50 Hz and 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 under normal ambient temperature and humidity, after rated motor operation with connecting a gearhead or equivalent heat radiation plate <sup>*1</sup> . (Three-phase type: 70°C or less)
Insulation Class <sup>*2</sup>	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 ± 5°C, close: 82°C ± 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	Lead Wire Type: IP20 Terminal Box Type: 6 W Type IP65 (excluding the installation surface of the round shaft type) 25 W, 40 W, 60 W, 90 W Type (Pinion Shaft Type) IP54 25 W, 40 W, 60 W, 90 W Type (Round Shaft Type) IP40

\*1 Heat radiation plate (Material: Aluminum)

Motor Type	Size (mm)	Thickness (mm)
1 W, 3 W Type	80×80	5
6 W Type	115×115	
15 W Type	125×125	
25 W Type (2-Pole, High-Speed <b>4IK40</b> Type, <b>4IK60</b> Type)	135×135	
40 W Type (2-Pole, High-Speed <b>5IK60</b> Type)	165×165	
60 W, 90 W, 150 W Type	200×200	

\*2 The following products are recognized as class E (120°C).

**4IK25GN-UT4, 4IK25A-UT4, 5IK40GN-UT4, 5IK40A-UT4,  
5IK60GE-UT4F, 5IK60A-UT4F, 5IK90GE-UT4F, 5IK90A-UT4F**



(Gearhead sold separately)

Specifications – Continuous Rating (RoHS)



Model Lead Wire Type		Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF
Pinion Shaft Type	Round Shaft Type								
ZP OIK1GN-AW2J	OIK1A-AW2J	1	Single-Phase 100	50	0.107	8	9.5	1000	1.5
				60	0.102		8	1200	
ZP OIK1GN-AW3U	OIK1A-AW3U	1	Single-Phase 110 Single-Phase 115	60	0.074	8	8	1200	1.0
					0.078				
ZP OIK1GN-CW2J	OIK1A-CW2J	0.8	Single-Phase 200	50	0.057	7	8	1000	0.35
		1		60	0.055			1200	
ZP OIK3GN-BW2J	OIK3A-BW2J	3	Single-Phase 100	50	0.109	6	12	2400	1.8
				60	0.123		10	3000	
ZP OIK3GN-BW3U	OIK3A-BW3U	3	Single-Phase 110 Single-Phase 115	60	0.115	6	10	3000	1.5
					0.118				
ZP OIK3GN-DW2J	OIK3A-DW2J	2.5	Single-Phase 200	50	0.057	5	9.5	2500	0.45
		3		60	0.064			3100	

● The **J** and **U** 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

Product Line

Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	OIK1GN-AW2J	OIK1A-AW2J
	OIK1GN-AW3U	OIK1A-AW3U
	OIK1GN-CW2J	OIK1A-CW2J
	OIK3GN-BW2J	OIK3A-BW2J
	OIK3GN-BW3U	OIK3A-BW3U
	OIK3GN-DW2J	OIK3A-DW2J

Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Parallel Shaft	OGN□K	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 are sold separately. Decimal gearheads are not available.
- 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 (4-pole type; 50 Hz: 1500 r/min, 60 Hz: 1800 r/min, 2-pole type; 50 Hz: 3000 r/min, 60 Hz: 3600 r/min) by the gear ratio. The actual speed is 2 - 33% less than the displayed value, depending on the size of the load.

### ◇ 50 Hz

Unit = N·m

Model	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
		Motor/ Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120
<b>OIK1GN-AW2J</b>	<b>OGN□K</b>	0.023	0.028	0.038	0.046	0.058	0.069	0.087	0.1	0.12	0.16	0.19	0.23	0.31	0.38	0.42	0.5	0.56	0.67	0.84	1
<b>OIK1GN-CW2J</b>	<b>OGN□K</b>	0.019	0.023	0.032	0.039	0.049	0.058	0.073	0.088	0.11	0.13	0.16	0.19	0.26	0.32	0.35	0.42	0.47	0.57	0.71	0.85

Unit = N·m

Model	Speed r/min	1000	833	600	500	400	333	240	200	166	120	100	83	60	50	40	33	30	25	20	16
		Motor/ Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120
<b>OIK3GN-BW2J</b>	<b>OGN□K</b>	0.029	0.035	0.049	0.058	0.073	0.087	0.11	0.13	0.16	0.2	0.24	0.29	0.4	0.48	0.53	0.64	0.71	0.85	1	1
<b>OIK3GN-DW2J</b>	<b>OGN□K</b>	0.023	0.028	0.038	0.046	0.058	0.069	0.087	0.1	0.12	0.16	0.19	0.23	0.31	0.38	0.42	0.5	0.56	0.67	0.84	1

### ◇ 60 Hz

Unit = N·m

Model	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
		Motor/ Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120
<b>OIK1GN-AW2J</b> <b>OIK1GN-AW3U</b> <b>OIK1GN-CW2J</b>	<b>OGN□K</b>	0.019	0.023	0.032	0.039	0.049	0.058	0.073	0.088	0.11	0.13	0.16	0.19	0.26	0.32	0.35	0.42	0.47	0.57	0.71	0.85

Unit = N·m

Model	Speed r/min	1200	1000	720	600	480	400	288	240	200	144	120	100	72	60	48	40	36	30	24	20
		Motor/ Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120
<b>OIK3GN-BW2J</b> <b>OIK3GN-BW3U</b>	<b>OGN□K</b>	0.024	0.029	0.041	0.049	0.061	0.073	0.091	0.11	0.13	0.17	0.2	0.24	0.33	0.4	0.44	0.53	0.59	0.71	0.89	1
<b>OIK3GN-DW2J</b>	<b>OGN□K</b>	0.023	0.028	0.038	0.046	0.058	0.069	0.087	0.1	0.12	0.16	0.19	0.23	0.31	0.38	0.42	0.5	0.56	0.67	0.84	1

## Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

Gearhead → Page 107

## Permissible Load Inertia J for Gearhead

→ Page 107

## Dimensions (Unit = mm)

Mounting screws are included with gearheads.

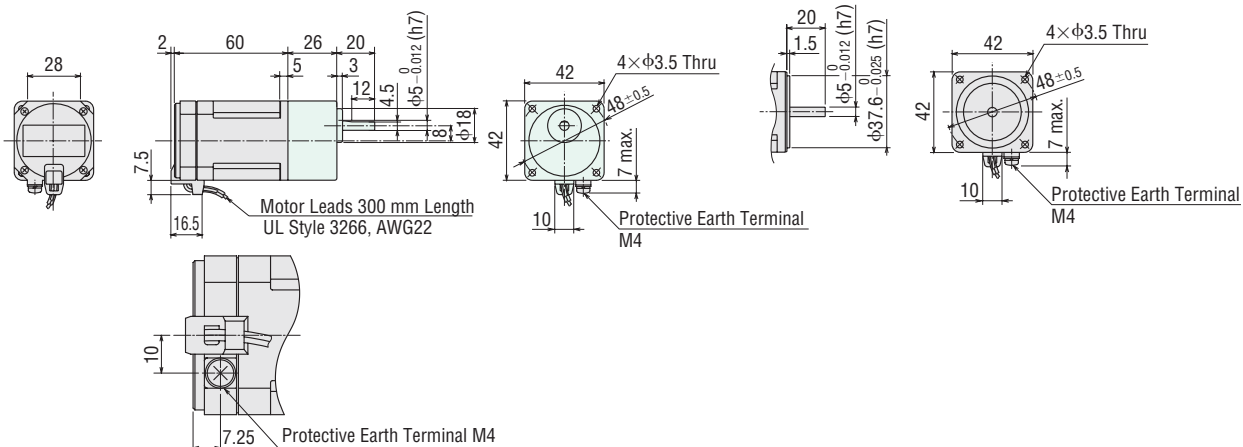
### ◇ Lead Wire Type

Mass: Motor 0.3 kg

Gearhead 0.2 kg

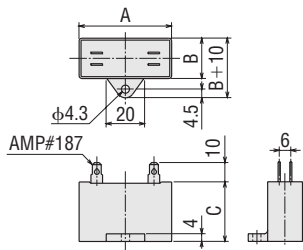
### ◇ Shaft Section of Round Shaft Type

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



Detail Drawing of Protective Earth Terminal

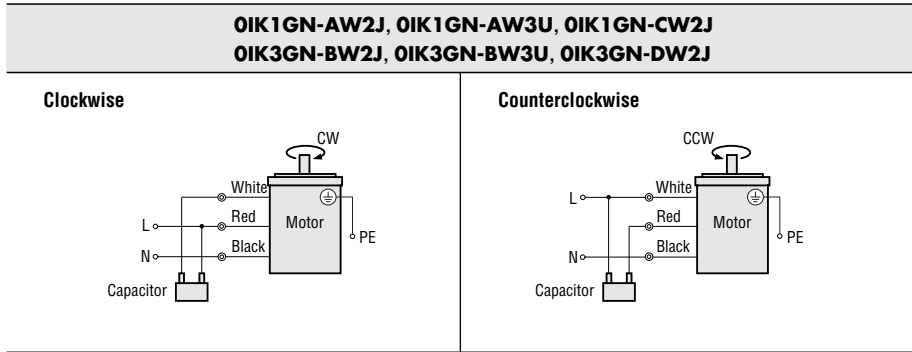
◇ Capacitor (Included with the motors) ◇ Capacitor Dimensions (mm)



Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Pinion Shaft Type	Round Shaft Type						
<b>OIK1GN-AW2J</b>	<b>OIK1A-AW2J</b>	CH15FAUL	31	14.5	23.5	18	Included
<b>OIK1GN-AW3U</b>	<b>OIK1A-AW3U</b>	CH10FAUL	31	14.5	23.5	18	
<b>OIK1GN-CW2J</b>	<b>OIK1A-CW2J</b>	CH035BFAUL	31	17	27	24	
<b>OIK3GN-BW2J</b>	<b>OIK3A-BW2J</b>	CH18FAUL	31	14.5	23.5	18	
<b>OIK3GN-BW3U</b>	<b>OIK3A-BW3U</b>	CH15FAUL	31	14.5	23.5	18	
<b>OIK3GN-DW2J</b>	<b>OIK3A-DW2J</b>	CH045BFAUL	31	17	27	24	

■ 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.



PE: Protective Earth

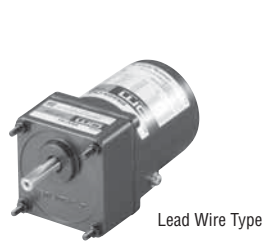
**Note:**

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

## Induction Motors

6 W

Frame Size: □60 mm



Lead Wire Type



Terminal Box Type

(Gearhead sold separately)

## Specifications – Continuous Rating (RoHS)



Model		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor	
Upper Model Name: Pinion Shaft Type Lower Model Name ( ): Round Shaft Type										
Lead Wire Type Dimension ①	Terminal Box Type Dimension ②	W	VAC	Hz	A	mN·m	mN·m	r/min	μF	
Ⓜ	21K6GN-AW2J (21K6A-AW2J)	21K6GN-AW2TJ (21K6A-AW2TJ)	6	Single-Phase 100	50	0.199	45	49	1200	3.5
					60	0.217	40	41	1450	
Ⓜ	21K6GN-AW2U (21K6A-AW2U)	21K6GN-AW2TU (21K6A-AW2TU)	6	Single-Phase 110	60	0.178	40	41	1450	2.5
				Single-Phase 115						
Ⓜ	21K6GN-CW2J (21K6A-CW2J)	21K6GN-CW2TJ (21K6A-CW2TJ)	6	Single-Phase 200	50	0.100	45	49	1150	0.8
					60	0.103	40	41	1450	
Ⓜ	21K6GN-CW2E (21K6A-CW2E)	21K6GN-CW2TE (21K6A-CW2TE)	6	Single-Phase 220	50	0.103	38	49	1150	0.6
					60	0.091	40	41	1450	
				Single-Phase 230	50	0.107	45	49	1200	
					60	0.094	40	41	1450	
Ⓜ	21K6GN-SW2 (21K6A-SW2)	21K6GN-SW2T (21K6A-SW2T)	6	Three-Phase 200	50	0.081	49	49	1200	-
					60	0.072	41	41	1400	
				Three-Phase 220	60	0.076	41	41	1500	
				Three-Phase 230	60	0.079	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.

Ⓜ: Impedance protected

## Product Line

## ● Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	21K6GN-AW2J	21K6A-AW2J
	21K6GN-AW2U	21K6A-AW2U
	21K6GN-CW2J	21K6A-CW2J
	21K6GN-CW2E	21K6A-CW2E
	21K6GN-SW2	21K6A-SW2
Terminal Box	21K6GN-AW2TJ	21K6A-AW2TJ
	21K6GN-AW2TU	21K6A-AW2TU
	21K6GN-CW2TJ	21K6A-CW2TJ
	21K6GN-CW2TE	21K6A-CW2TE
	21K6GN-SW2T	21K6A-SW2T

## ● 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 code that represents the terminal box type "T" in the box (□) within the model name.
- 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
<b>2IK6GN-AW2</b> □J <b>2IK6GN-CW2</b> □J <b>2IK6GN-CW2</b> □E <b>2IK6GN-SW2</b> □	<b>2GN</b> □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
<b>2IK6GN-AW2</b> □J <b>2IK6GN-AW2</b> □U <b>2IK6GN-CW2</b> □J <b>2IK6GN-CW2</b> □E <b>2IK6GN-SW2</b> □	<b>2GN</b> □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

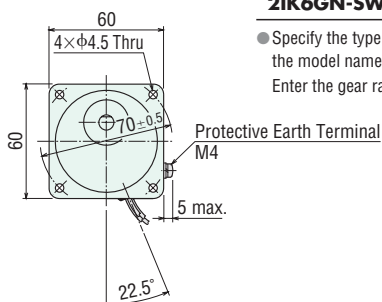
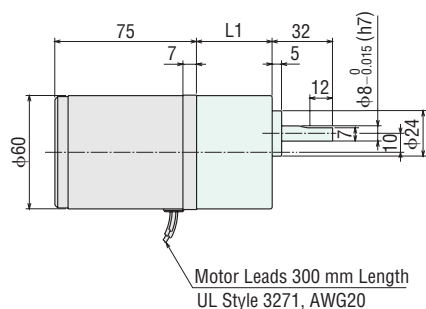
## Dimensions (Unit = mm)

Mounting screws are included with gearheads.

### ◇ Lead Wire Type ①

Mass: Motor 0.7 kg

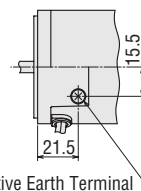
Gearhead 0.4 kg



Motor Model	Gearhead Model	Gear Ratio	L1
<b>2IK6GN-AW2</b> □	<b>2GN</b> □S	<b>3~18</b>	30
<b>2IK6GN-CW2</b> □		<b>25~180</b>	40
<b>2IK6GN-SW2</b>			

- 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





## 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.

Lead Wire Type		Terminal Box Type	
<b>2IK6GN-AW2</b> □ <b>2IK6GN-CW2</b> □	<b>2IK6GN-SW2</b>	<b>2IK6GN-AW2T</b> □ <b>2IK6GN-CW2T</b> □	<b>2IK6GN-SW2T</b>
<b>Clockwise</b> 	<b>Clockwise</b> 	<b>Clockwise</b> 	<b>Clockwise</b> 
<b>Counterclockwise</b> 	<b>Counterclockwise</b> To change the rotation direction, change any two connections between R, S and T.	<b>Counterclockwise</b> 	<b>Counterclockwise</b> To change the rotation direction, change any two connections between U, V and W.

PE: Protective Earth

### Note:

Change the direction of single-phase motor rotation only after bringing the motor to a stop.

If an attempt is made to change the direction of rotation while the motor is rotating, motor may ignore reversing command or change its direction of rotation after some delay.

## Induction Motors

15 W

Frame Size: □70 mm



(Gearhead sold separately)

## Specifications – Continuous Rating (RoHS)



Model Lead Wire Type		Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF	
Pinion Shaft Type	Round Shaft Type									
TP	3IK15GN-AW2J	3IK15A-AW2J	15	Single-Phase 100	50	0.36	80	125	1200	5.5
					60	0.37	65	105	1450	
TP	3IK15GN-AW2U	3IK15A-AW2U	15	Single-Phase 110 Single-Phase 115	60	0.33	65	105	1450	4.5
						0.34				
TP	3IK15GN-CW2J	3IK15A-CW2J	15	Single-Phase 200	50	0.18	80	125	1200	1.5
					60	0.19	65	105	1450	
TP	3IK15GN-CW2E	3IK15A-CW2E	15	Single-Phase 220 Single-Phase 230	50	0.19	70	125	1200	1.0
					60	0.16	65	105	1450	
					50	0.19	75	125	1200	
					60	0.16	65	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.

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

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

## Product Line

## ● Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	3IK15GN-AW2J	3IK15A-AW2J
	3IK15GN-AW2U	3IK15A-AW2U
	3IK15GN-CW2J	3IK15A-CW2J
	3IK15GN-CW2E	3IK15A-CW2E

## ● 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
<b>3IK15GN-AW2J</b> <b>3IK15GN-CW2J</b> <b>3IK15GN-CW2E</b>	<b>3GN□S</b>	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
<b>3IK15GN-AW2J</b> <b>3IK15GN-AW2U</b> <b>3IK15GN-CW2J</b> <b>3IK15GN-CW2E</b>	<b>3GN□S</b>	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

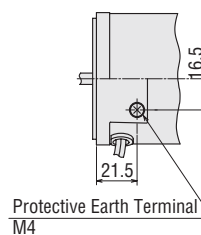
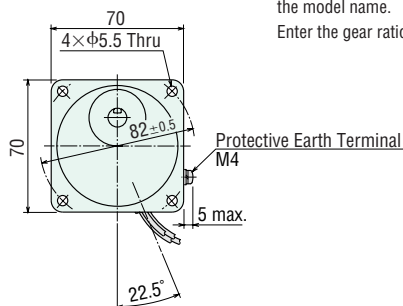
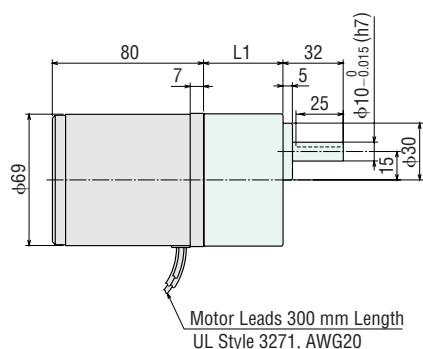
## Dimensions (Unit = mm)

Mounting screws are included with gearheads.

### ◇ Lead Wire Type

Mass: Motor 1.1 kg

Gearhead 0.55 kg



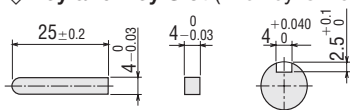
Detail Drawing of Protective Earth Terminal

Motor Model	Gearhead Model	Gear Ratio	L1
<b>3IK15GN-AW2</b> <span style="background-color: #e0f2f1; border: 1px solid #ccc; display: inline-block; width: 10px; height: 10px;"></span>	<b>3GN□S</b>	<b>3~18</b>	32
<b>3IK15GN-CW2</b> <span style="background-color: #e0f2f1; border: 1px solid #ccc; display: inline-block; width: 10px; height: 10px;"></span>		<b>25~180</b>	42

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

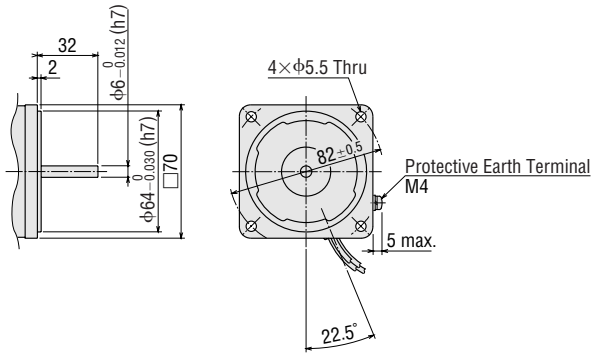
Enter the gear ratio in the box (□) within the model name.

### ◇ 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.

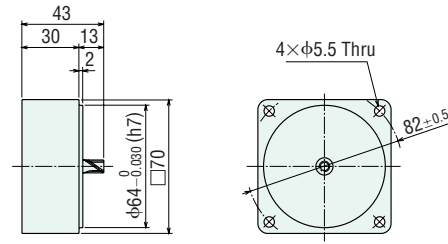


### ◇ Decimal Gearhead

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

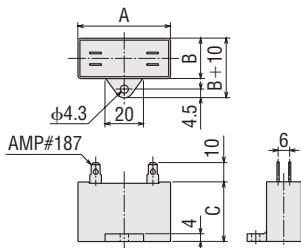
#### 3GN10XS

Mass: 0.3 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						
<b>3IK15GN-AW2J</b>	<b>3IK15A-AW2J</b>	CH55FAUL2	38	21	31	40	Included
<b>3IK15GN-AW2U</b>	<b>3IK15A-AW2U</b>	CH45FAUL2	37	18	27	30	
<b>3IK15GN-CW2J</b>	<b>3IK15A-CW2J</b>	CH15BFAUL	38	21	31	35	
<b>3IK15GN-CW2E</b>	<b>3IK15A-CW2E</b>	CH10BFAUL	37	18	27	30	

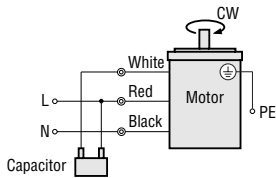
## ■ Connection Diagrams

- 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.

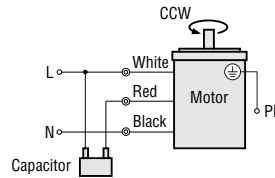
**3IK15GN-AW2**□

**3IK15GN-CW2**□

#### Clockwise



#### Counterclockwise

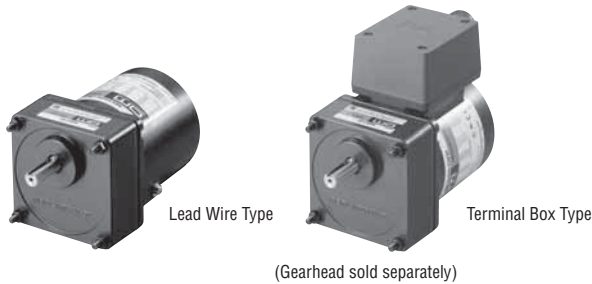


PE: Protective Earth

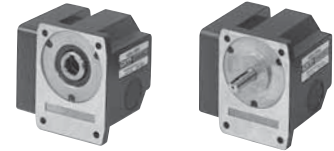
#### Note:

Change the direction of single-phase motor rotation only after bringing the motor to a stop.

If an attempt is made to change the direction of rotation while the motor is rotating, motor may ignore reversing command or change its direction of rotation after some delay.



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



Specifications – Continuous Rating (RoHS)



Model		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor
Upper Model Name: Pinion Shaft Type	Lower Model Name: Round Shaft Type								
Lead Wire Type Dimension ①	Terminal Box Type Dimension ②	W	VAC	Hz	A	mN-m	mN-m	r/min	μF
(TP) 4IK25GN-AW2J (4IK25A-AW2J)	4IK25GN-AW2TJ (4IK25A-AW2TJ)	25	Single-Phase 100	50	0.51	130	205	1200	8.0
				60	0.52	120	170	1450	
(TP) 4IK25GN-AW2U (4IK25A-AW2U)	4IK25GN-AW2TU (4IK25A-AW2TU)	25	Single-Phase 110	60	0.46	120	170	1450	6.5
				Single-Phase 115					
(TP) 4IK25GN-CW2J (4IK25A-CW2J)	4IK25GN-CW2TJ (4IK25A-CW2TJ)	25	Single-Phase 200	50	0.26	120	205	1200	2.0
				60			170	1450	
(TP) 4IK25GN-CW2E (4IK25A-CW2E)	4IK25GN-CW2TE (4IK25A-CW2TE)	25	Single-Phase 220	50	0.27	110	205	1200	1.5
				60			0.23	170	
			Single-Phase 230	50	0.27	120	205	1200	
				60	0.23		170	1450	
(TP) 4IK25GN-SW2 (4IK25A-SW2)	4IK25GN-SW2T (4IK25A-SW2T)	25	Three-Phase 200	50	0.23	240	190	1300	-
				60	0.21	160	160	1550	
				60	0.21	160	160	1600	
(TP) -	4IK25GN-UT4* (4IK25A-UT4*)	25	Three-Phase 400	50	0.12	240	190	1300	-

● 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.

\* Conforms to EN/IEC standards only. Bears the CE Marking.

Note:

A three-phase 400 VAC motor cannot be used with an inverter. Using them together may lead to deterioration of the motor wiring insulation and damage the products.

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

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

Product Line

● Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	4IK25GN-AW2J	4IK25A-AW2J
	4IK25GN-AW2U	4IK25A-AW2U
	4IK25GN-CW2J	4IK25A-CW2J
	4IK25GN-CW2E	4IK25A-CW2E
	4IK25GN-SW2	4IK25A-SW2
	4IK25GN-UT4	4IK25A-UT4
Terminal Box	4IK25GN-AW2TJ	4IK25A-AW2TJ
	4IK25GN-AW2TU	4IK25A-AW2TU
	4IK25GN-CW2TJ	4IK25A-CW2TJ
	4IK25GN-CW2TE	4IK25A-CW2TE
	4IK25GN-SW2T	4IK25A-SW2T
	4IK25GN-SW2T	4IK25A-SW2T

● 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 code that represents the terminal box type "T" in the box (□) within the model name.
- 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	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	<b>3</b>	<b>3.6</b>	<b>5</b>	<b>6</b>	<b>7.5</b>	<b>9</b>	<b>12.5</b>	<b>15</b>	<b>18</b>	<b>25</b>	<b>30</b>	<b>36</b>	<b>50</b>	<b>60</b>	<b>75</b>	<b>90</b>	<b>100</b>	<b>120</b>	<b>150</b>
<b>4IK25GN-AW2</b> □J <b>4IK25GN-CW2</b> □J <b>4IK25GN-CW2</b> □E	<b>4GN</b> □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
<b>4IK25GN-SW2</b> □ <b>4IK25GN-UT4</b>	<b>4GN</b> □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	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	<b>3</b>	<b>3.6</b>	<b>5</b>	<b>6</b>	<b>7.5</b>	<b>9</b>	<b>12.5</b>	<b>15</b>	<b>18</b>	<b>25</b>	<b>30</b>	<b>36</b>	<b>50</b>	<b>60</b>	<b>75</b>	<b>90</b>	<b>100</b>	<b>120</b>	<b>150</b>
<b>4IK25GN-AW2</b> □J <b>4IK25GN-AW2</b> □U <b>4IK25GN-CW2</b> □J <b>4IK25GN-CW2</b> □E	<b>4GN</b> □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
<b>4IK25GN-SW2</b> □	<b>4GN</b> □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

## Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

Gearhead → Page 107

## Permissible Load Inertia J for Gearhead

→ Page 107

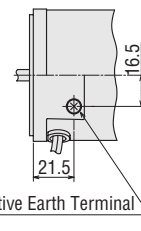
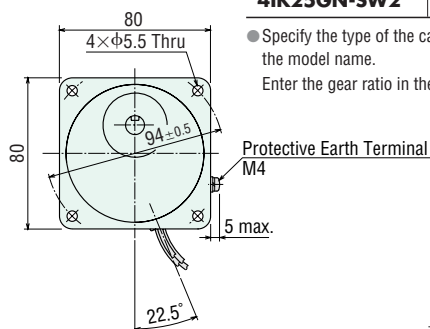
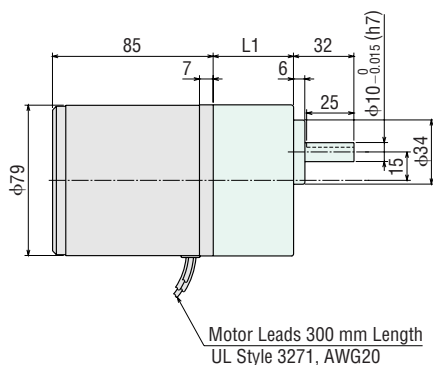
## Dimensions (Unit = mm)

Mounting screws are included with gearheads.

◇ Lead Wire Type ①

Mass: Motor 1.5 kg

Gearhead 0.65 kg



Detail Drawing of Protective Earth Terminal

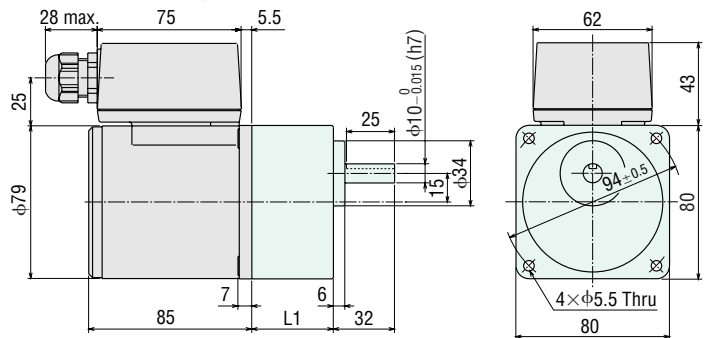
Motor Model	Gearhead Model	Gear Ratio	L1
<b>4IK25GN-AW2</b> □ <b>4IK25GN-CW2</b> □ <b>4IK25GN-SW2</b>	<b>4GN</b> □S	<b>3~18</b>	32
		<b>25~180</b>	42.5

● 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.

◇ Terminal Box Type ②

Mass: Motor 1.7 kg  
Gearhead 0.65 kg



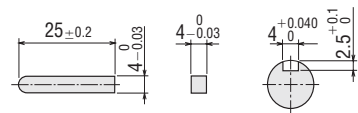
● Use cable with a diameter of φ6 ~ φ12 mm.

Motor Model	Gearhead Model	Gear Ratio	L1
4IK25GN-AW2T <input type="checkbox"/>	4GN <input type="checkbox"/> S	3~18	32
4IK25GN-CW2T <input type="checkbox"/> 4IK25GN-SW2T <input type="checkbox"/> 4IK25GN-UT4 <input type="checkbox"/>		25~180	42.5

● 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.

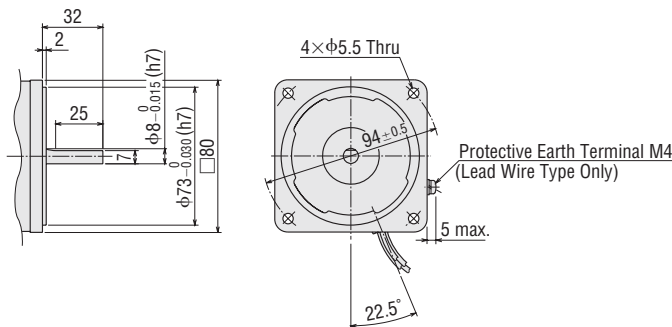
◇ Key and Key Slot

(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.

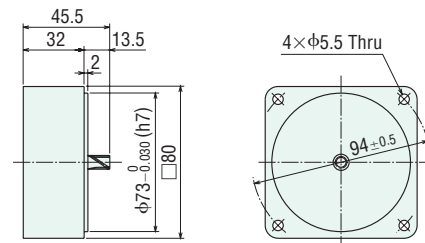


◇ Decimal Gearhead

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

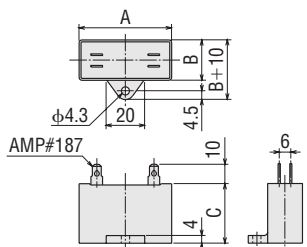
**4GN10XS**

Mass: 0.4 kg



◇ Capacitor

(Included with single-phase motors)



◇ Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Upper Model Name: Pinion Shaft Type Lower Model Name ( ): Round Shaft Type							
Lead Wire Type	Terminal Box Type						
4IK25GN-AW2J (4IK25A-AW2J)	4IK25GN-AW2TJ (4IK25A-AW2TJ)	CH80CFAUL2	48	21	31	45	Included
4IK25GN-AW2U (4IK25A-AW2U)	4IK25GN-AW2TU (4IK25A-AW2TU)	CH65CFAUL2	48	19	29	40	
4IK25GN-CW2J (4IK25A-CW2J)	4IK25GN-CW2TJ (4IK25A-CW2TJ)	CH20BFAUL	48	19	29	35	
4IK25GN-CW2E (4IK25A-CW2E)	4IK25GN-CW2TE (4IK25A-CW2TE)	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.

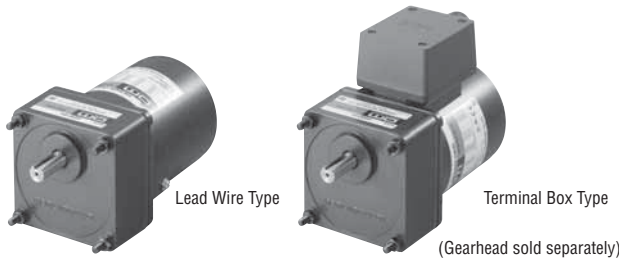
Lead Wire Type		Terminal Box Type	
<b>4IK25GN-AW2</b> □ <b>4IK25GN-CW2</b> □	<b>4IK25GN-SW2</b>	<b>4IK25GN-AW2T</b> □ <b>4IK25GN-CW2T</b> □	<b>4IK25GN-SW2T</b> <b>4IK25GN-UT4</b>
<b>Clockwise</b> 	<b>Clockwise</b> 	<b>Clockwise</b> 	<b>Clockwise</b> 
<b>Counterclockwise</b> 	<b>Counterclockwise</b> To change the rotation direction, change any two connections between R, S and T.	<b>Counterclockwise</b> 	<b>Counterclockwise</b> To change the rotation direction, change any two connections between U, V and W.

PE: Protective Earth

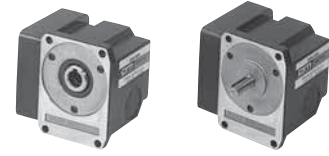
**Note:**

Change the direction of single-phase motor rotation only after bringing the motor to a stop.

If an attempt is made to change the direction of rotation while the motor is rotating, motor may ignore reversing command or change its direction of rotation after some delay.



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



Specifications – Continuous Rating (RoHS)



Model		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor
Upper Model Name: Pinion Shaft Type	Lower Model Name ( ): Round Shaft Type								
Lead Wire Type Dimension ①	Terminal Box Type Dimension ②	W	VAC	Hz	A	mN·m	mN·m	r/min	μF
TP 5IK40GN-AW2J (5IK40A-AW2J)	5IK40GN-AW2TJ (5IK40A-AW2TJ)	40	Single-Phase 100	50	0.76	200	315	1250	11
				60	0.74		260	1500	
TP 5IK40GN-AW2U (5IK40A-AW2U)	5IK40GN-AW2TU (5IK40A-AW2TU)	40	Single-Phase 110	60	0.68	200	260	1500	9.0
			Single-Phase 115		0.67				
TP 5IK40GN-CW2J (5IK40A-CW2J)	5IK40GN-CW2TJ (5IK40A-CW2TJ)	40	Single-Phase 200	50	0.39	200	315	1250	3.0
				60	0.40		260	1500	
TP 5IK40GN-CW2E (5IK40A-CW2E)	5IK40GN-CW2TE (5IK40A-CW2TE)	40	Single-Phase 220	50	0.39	200	315	1250	2.3
				60	0.35		260	1500	
			Single-Phase 230	50	0.39		300	1300	
				60	0.34		260	1500	
TP 5IK40GN-SW2 (5IK40A-SW2)	5IK40GN-SW2T (5IK40A-SW2T)	40	Three-Phase 200	50	0.32	400	300	1300	-
				60	0.30	260	260	1550	
				60	0.30	260	260	1600	
TP -	5IK40GN-SW2T (5IK40A-SW2T)	40	Three-Phase 230	60	0.31	260	260	1600	-
				50	0.16	500	315	1250	

● 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.

\* Conforms to EN/IEC standards only. Bears the CE Marking.

Note:

A three-phase 400 VAC motor cannot be used with an inverter. Using them together may lead to deterioration of the motor wiring insulation and damage the products.

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

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

Product Line

Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	5IK40GN-AW2J	5IK40A-AW2J
	5IK40GN-AW2U	5IK40A-AW2U
	5IK40GN-CW2J	5IK40A-CW2J
	5IK40GN-CW2E	5IK40A-CW2E
	5IK40GN-SW2	5IK40A-SW2
Terminal Box	5IK40GN-AW2TJ	5IK40A-AW2TJ
	5IK40GN-AW2TU	5IK40A-AW2TU
	5IK40GN-CW2TJ	5IK40A-CW2TJ
	5IK40GN-CW2TE	5IK40A-CW2TE
	5IK40GN-SW2T	5IK40A-SW2T
	5IK40GN-SW2T	5IK40A-SW2T
	5IK40GN-UT4	5IK40A-UT4

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 code that represents the terminal box type "T" in the box (□) within the model name.
- 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
<b>5IK40GN-AW2</b> □J <b>5IK40GN-CW2</b> □J <b>5IK40GN-CW2</b> □E (Single-phase 220 VAC)	<b>5GN</b> □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
<b>5IK40GN-CW2</b> □E (Single-phase 230 VAC) <b>5IK40GN-SW2</b> □	<b>5GN</b> □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
<b>5IK40GN-UT4</b>	<b>5GN</b> □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

### ◇ 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
<b>5IK40GN-AW2</b> □J <b>5IK40GN-AW2</b> □U <b>5IK40GN-CW2</b> □J <b>5IK40GN-CW2</b> □E <b>5IK40GN-SW2</b> □	<b>5GN</b> □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

## Dimensions (Unit = mm)

Mounting screws are included with gearheads.

### ◇ Lead Wire Type ①

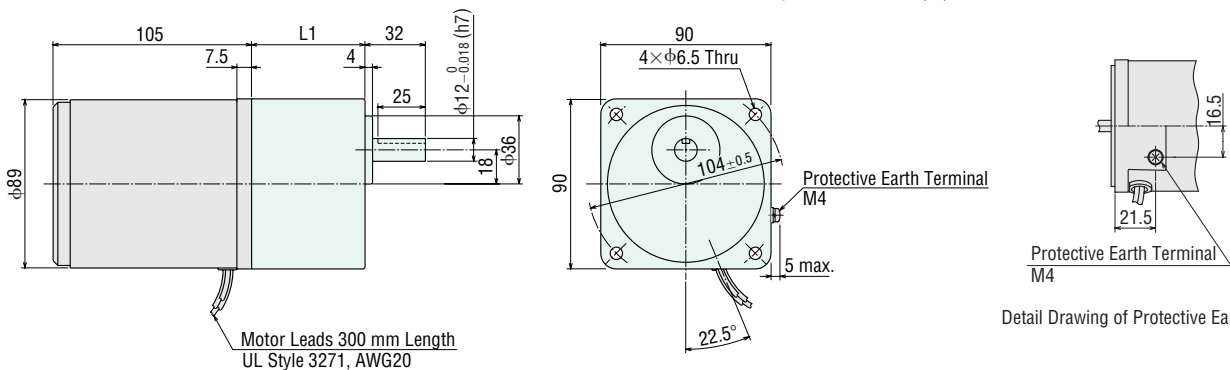
Mass: Motor 2.5 kg

Gearhead 1.5 kg

Motor Model	Gearhead Model	Gear Ratio	L1
<b>5IK40GN-AW2</b> □	<b>5GN</b> □S	<b>3~18</b>	42
<b>5IK40GN-CW2</b> □		<b>25~180</b>	60
<b>5IK40GN-SW2</b>			

● 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.





## 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.

Lead Wire Type		Terminal Box Type	
<b>5IK40GN-AW2</b> □ <b>5IK40GN-CW2</b> □	<b>5IK40GN-SW2</b>	<b>5IK40GN-AW2T</b> □ <b>5IK40GN-CW2T</b> □	<b>5IK40GN-SW2T</b> <b>5IK40GN-UT4</b>
<p><b>Clockwise</b></p>	<p><b>Clockwise</b></p>	<p><b>Clockwise</b></p>	<p><b>Clockwise</b></p>
<p><b>Counterclockwise</b></p>	<p><b>Counterclockwise</b>                      To change the rotation direction, change any two connections between R, S and T.</p>	<p><b>Counterclockwise</b></p>	<p><b>Counterclockwise</b>                      To change the rotation direction, change any two connections between U, V and W.</p>

PE: Protective Earth

**Note:**

Change the direction of single-phase motor rotation only after bringing the motor to a stop.

If an attempt is made to change the direction of rotation while the motor is rotating, motor may ignore reversing command or change its direction of rotation after some delay.

1 W / 3 W

6 W

15 W

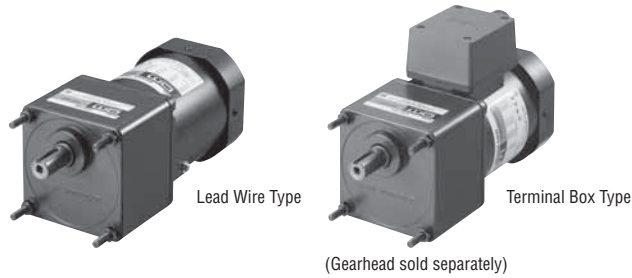
25 W

40 W

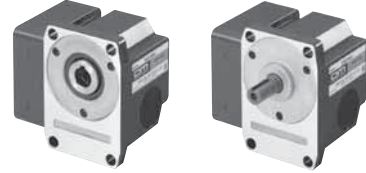
60 W

90 W

2-Pole, High-Speed  
40 W ~ 150 W



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



Specifications – Continuous Rating (RoHS)



Model Upper Model Name: Pinion Shaft Type Lower Model Name ( ): Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor
Lead Wire Type Dimension ①	Terminal Box Type Dimension ②	W	VAC	Hz	A	mN·m	mN·m	r/min	μF
ⓉP 5IK60GE-AW2J (5IK60A-AW2J)	5IK60GE-AW2TJ (5IK60A-AW2TJ)	60	Single-Phase 100	50	1.20	320	490	1200	20
				60	1.19		405	1450	
ⓉP 5IK60GE-AW2U (5IK60A-AW2U)	5IK60GE-AW2TU (5IK60A-AW2TU)	60	Single-Phase 110 Single-Phase 115	60	1.09	320	405	1450	18
					1.10				
ⓉP 5IK60GE-CW2J (5IK60A-CW2J)	5IK60GE-CW2TJ (5IK60A-CW2TJ)	60	Single-Phase 200	50	0.57	320	490	1200	5.0
				60	0.65		405	1450	
ⓉP 5IK60GE-CW2E (5IK60A-CW2E)	5IK60GE-CW2TE (5IK60A-CW2TE)	60	Single-Phase 220	50	0.55	320	490	1200	4.0
				60	0.54		405	1450	
			Single-Phase 230	50	0.57		490	1200	
				60	0.54		405	1450	
ⓉP 5IK60GE-SW2 (5IK60A-SW2)	5IK60GE-SW2T (5IK60A-SW2T)	60	Three-Phase 200 Three-Phase 220 Three-Phase 230	50	0.50	600	450	1300	-
				60	0.43	500	380	1550	
				60	0.45	500	380	1600	
ⓉP -	5IK60GE-UT4F* (5IK60A-UT4F*)	60	Three-Phase 400	50	0.25	550	470	1250	-

● 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.

\* Conforms to EN/IEC standards only. Bears the CE Marking.

Note:

A three-phase 400 VAC motor cannot be used with an inverter. Using them together may lead to deterioration of the motor wiring insulation and damage the products.

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

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

Product Line

● Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	5IK60GE-AW2J	5IK60A-AW2J
	5IK60GE-AW2U	5IK60A-AW2U
	5IK60GE-CW2J	5IK60A-CW2J
	5IK60GE-CW2E	5IK60A-CW2E
	5IK60GE-SW2	5IK60A-SW2
Terminal Box	5IK60GE-AW2TJ	5IK60A-AW2TJ
	5IK60GE-AW2TU	5IK60A-AW2TU
	5IK60GE-CW2TJ	5IK60A-CW2TJ
	5IK60GE-CW2TE	5IK60A-CW2TE
	5IK60GE-SW2T	5IK60A-SW2T
	5IK60GE-SW2TE	5IK60A-SW2TE
	5IK60GE-UT4F	5IK60A-UT4F

● 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 code that represents the terminal box type "T" in the box (□) within the model name.
- 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	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
5IK60GE-AW2□J 5IK60GE-CW2□J 5IK60GE-CW2□E	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-SW2□	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
5IK60GE-UT4F	5GE□S	1.1	1.4	1.9	2.3	2.9	3.4	4.3	5.1	6.2	7.8	9.3	11	16	19	20	20	20	20	20	20

◇ 60 Hz

Unit = N·m

Model	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
5IK60GE-AW2□J 5IK60GE-AW2□U 5IK60GE-CW2□J 5IK60GE-CW2□E	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-SW2□	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

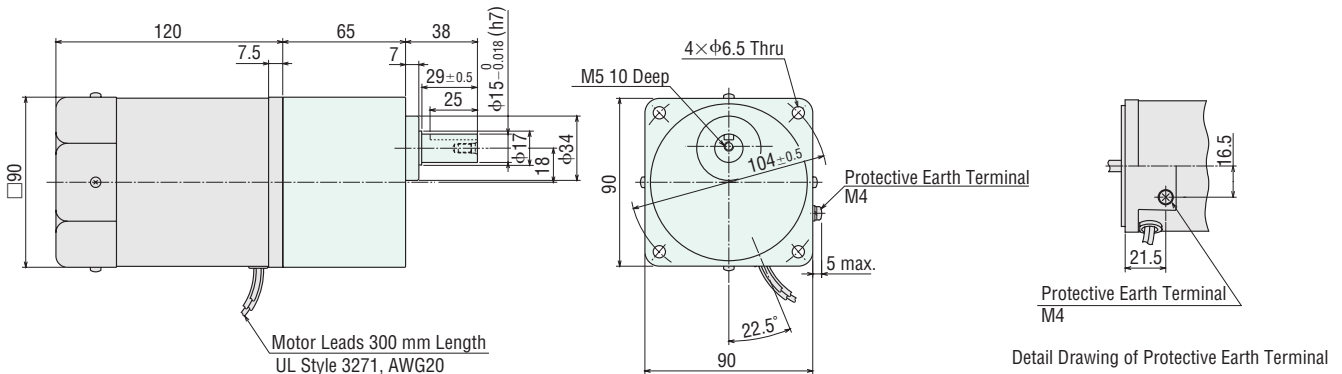
## Dimensions (Unit = mm)

Mounting screws are included with gearheads.

◇ Lead Wire Type ①

Mass: Motor 2.7 kg

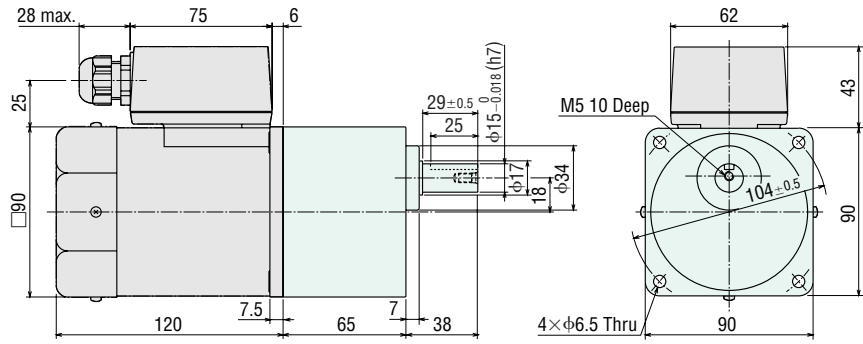
Gearhead 1.5 kg



◇ Terminal Box Type ②

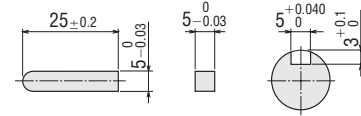
Mass: Motor 2.8 kg

Gearhead 1.5 kg



◇ Key and Key Slot

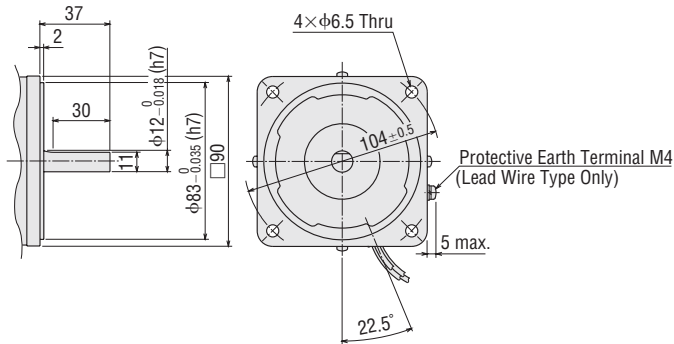
(The key is included with the gearhead)



● Use cable with a diameter of φ6 ~ φ12 mm.

◇ 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.

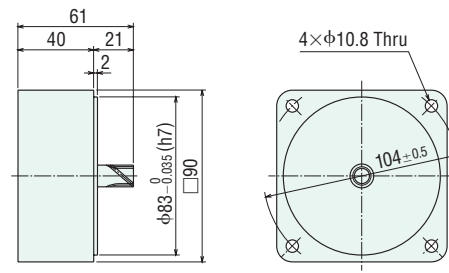


◇ Decimal Gearhead

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

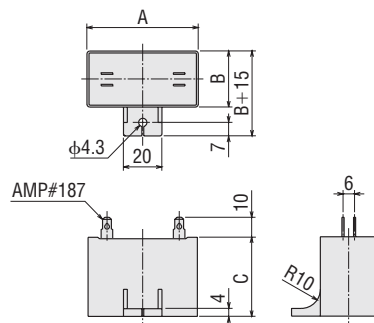
**5GE10XS**

Mass: 0.6 kg



◇ Capacitor

(Included with single-phase motors)



◇ Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Upper Model Name: Pinion Shaft Type	Lower Model Name ( ): Round Shaft Type						
Lead Wire Type	Terminal Box Type						
<b>5IK60GE-AW2J</b> (5IK60A-AW2J)	<b>5IK60GE-AW2TJ</b> (5IK60A-AW2TJ)	CH200CFAUL2	58	29	41	95	Included
<b>5IK60GE-AW2U</b> (5IK60A-AW2U)	<b>5IK60GE-AW2TU</b> (5IK60A-AW2TU)	CH180CFAUL2	58	29	41	95	
<b>5IK60GE-CW2J</b> (5IK60A-CW2J)	<b>5IK60GE-CW2TJ</b> (5IK60A-CW2TJ)	CH50BFAUL	58	29	41	85	
<b>5IK60GE-CW2E</b> (5IK60A-CW2E)	<b>5IK60GE-CW2TE</b> (5IK60A-CW2TE)	CH40BFAUL	58	23.5	37	70	



## Connection Diagrams

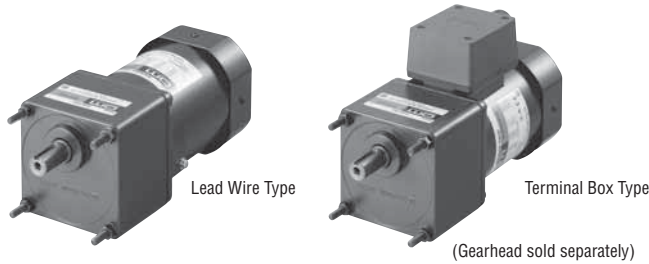
- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- Specify the type of the capacitor to be included by entering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

Lead Wire Type		Terminal Box Type	
<b>5IK60GE-AW2</b> □ <b>5IK60GE-CW2</b> □	<b>5IK60GE-SW2</b>	<b>5IK60GE-AW2T</b> □ <b>5IK60GE-CW2T</b> □	<b>5IK60GE-SW2T</b> <b>5IK60GE-UT4F</b>
<p><b>Clockwise</b></p>	<p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between R, S and T.</p>	<p><b>Clockwise</b></p>	<p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between U, V and W.</p>
<p><b>Counterclockwise</b></p>		<p><b>Counterclockwise</b></p>	

PE: Protective Earth

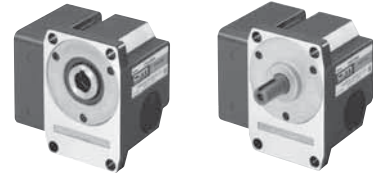
**Note:**

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



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

Right-Angle Gearheads → Page 108



Specifications – Continuous Rating (RoHS)



Model		Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF
Upper Model Name: Pinion Shaft Type Lower Model Name ( ): Round Shaft Type									
Lead Wire Type Dimension ①	Terminal Box Type Dimension ②								
TP 51K90GE-AW2J (51K90A-AW2J)	51K60GE-AW2TJ (51K90A-AW2TJ)	90	Single-Phase 100	50	1.64	450	700	1250	28
				60	1.67		585	1500	
TP 51K90GE-AW2U (51K90A-AW2U)	51K90GE-AW2TU (51K90A-AW2TU)	90	Single-Phase 110 Single-Phase 115	60	1.45	450	585	1500	20
					1.44				
TP 51K90GE-CW2J (51K90A-CW2J)	51K90GE-CW2TJ (51K90A-CW2TJ)	90	Single-Phase 200	50	0.80	450	730	1200	7.0
				60	0.93		605	1450	
TP 51K90GE-CW2E (51K90A-CW2E)	51K90GE-CW2TE (51K90A-CW2TE)	90	Single-Phase 220	50	0.74	450	730	1200	6.0
				60	0.82		605	1450	
			Single-Phase 230	50	0.76		730	1200	
				60	0.81		605	1450	
TP 51K90GE-SW2 (51K90A-SW2)	51K90GE-SW2T (51K90A-SW2T)	90	Three-Phase 200 Three-Phase 220 Three-Phase 230	50	0.64	850	680	1300	-
				60	0.59	700	570	1550	
				60	0.60	700	570	1600	
TP -	51K90GE-UT4F* (51K90A-UT4F*)	90	Three-Phase 400	50	0.35	850	700	1250	-

● 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.

\* Conforms to EN/IEC standards only. Bears the CE Marking.

Note:

A three-phase 400 VAC motor cannot be used with an inverter. Using them together may lead to deterioration of the motor wiring insulation and damage the products.

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

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

Product Line

Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	51K90GE-AW2J	51K90A-AW2J
	51K90GE-AW2U	51K90A-AW2U
	51K90GE-CW2J	51K90A-CW2J
	51K90GE-CW2E	51K90A-CW2E
	51K90GE-SW2	51K90A-SW2
Terminal Box	51K90GE-AW2TJ	51K90A-AW2TJ
	51K90GE-AW2TU	51K90A-AW2TU
	51K90GE-CW2TJ	51K90A-CW2TJ
	51K90GE-CW2TE	51K90A-CW2TE
	51K90GE-SW2T	51K90A-SW2T
	51K90GE-SW2TE	51K90A-SW2TE
	51K90GE-UT4F	51K90A-UT4F

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 code that represents the terminal box type "T" in the box (□) within the model name.
- 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
<b>5IK90GE-AW2</b> □J / <b>5GE</b> □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
<b>5IK90GE-CW2</b> □J / <b>5GE</b> □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
<b>5IK90GE-CW2</b> □E																					
<b>5IK90GE-SW2</b> □ / <b>5GE</b> □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
<b>5IK90GE-UT4F</b> / <b>5GE</b> □S		1.7	2.0	2.8	3.4	4.3	5.1	6.4	7.7	9.2	12	14	17	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
<b>5IK90GE-AW2</b> □J / <b>5GE</b> □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
<b>5IK90GE-AW2</b> □U																					
<b>5IK90GE-CW2</b> □J / <b>5GE</b> □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
<b>5IK90GE-CW2</b> □E																					
<b>5IK90GE-SW2</b> □ / <b>5GE</b> □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

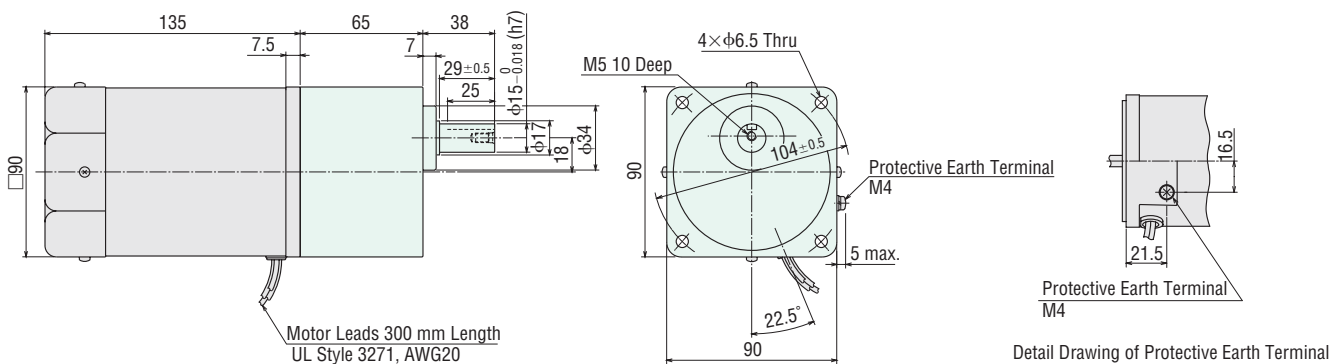
## Dimensions (Unit = mm)

Mounting screws are included with gearheads.

### ◇ Lead Wire Type ①

Mass: Motor 3.2 kg

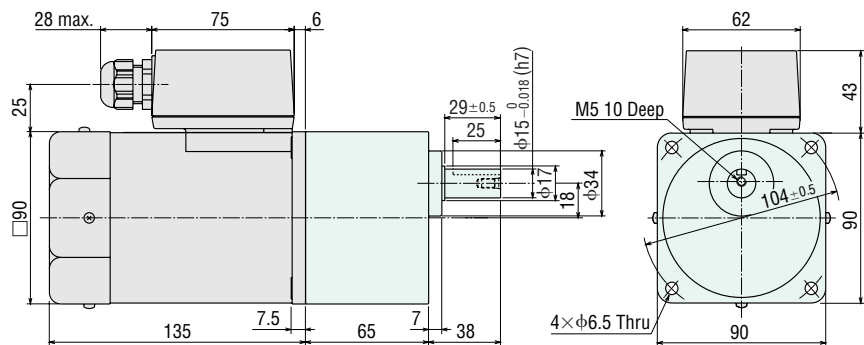
Gearhead 1.5 kg



◇ Terminal Box Type ②

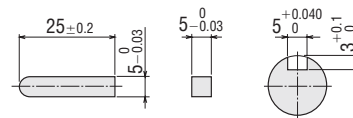
Mass: Motor 3.3 kg

Gearhead 1.5 kg



◇ Key and Key Slot

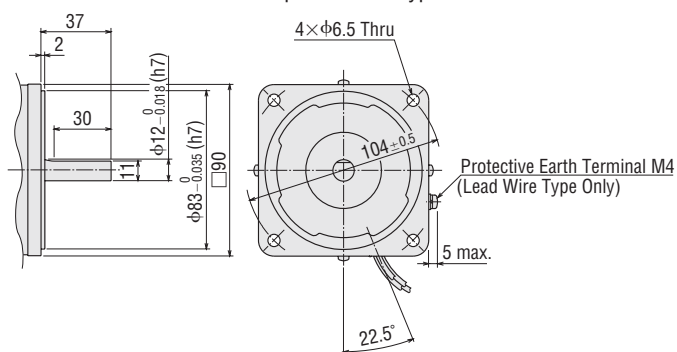
(The key is included with the gearhead)



● Use cable with a diameter of φ6 ~ φ12 mm.

◇ 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.

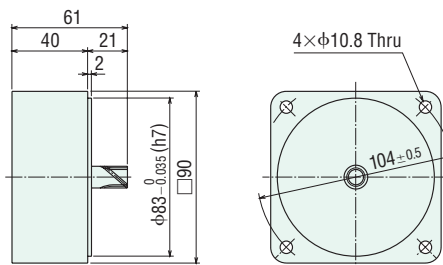


◇ Decimal Gearhead

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

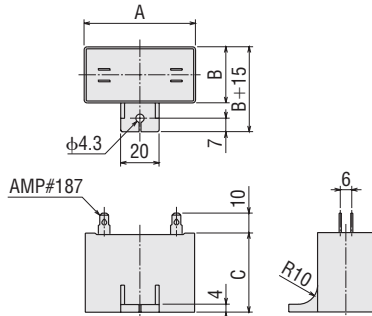
**5GE10XS**

Mass: 0.6 kg



◇ Capacitor

(Included with single-phase motors)



◇ Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Upper Model Name: Pinion Shaft Type	Lower Model Name ( ): Round Shaft Type						
Lead Wire Type	Terminal Box Type						
<b>5IK90GE-AW2J</b> (5IK90A-AW2J)	<b>5IK90GE-AW2TJ</b> (5IK90A-AW2TJ)	CH280CFAUL2	58	35	50	140	Included
<b>5IK90GE-AW2U</b> (5IK90A-AW2U)	<b>5IK90GE-AW2TU</b> (5IK90A-AW2TU)	CH200CFAUL2	58	29	41	95	
<b>5IK90GE-CW2J</b> (5IK90A-CW2J)	<b>5IK90GE-CW2TJ</b> (5IK90A-CW2TJ)	CH70BFAUL	58	35	50	130	
<b>5IK90GE-CW2E</b> (5IK90A-CW2E)	<b>5IK90GE-CW2TE</b> (5IK90A-CW2TE)	CH60BFAUL	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.

Lead Wire Type		Terminal Box Type	
<p><b>5IK90GE-AW2</b>□ <b>5IK90GE-CW2</b>□</p> <p><b>Clockwise</b></p> <p><b>Counterclockwise</b></p>	<p><b>5IK90GE-SW2</b></p> <p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between R, S and T.</p>	<p><b>5IK90GE-AW2T</b>□ <b>5IK90GE-CW2T</b>□</p> <p><b>Clockwise</b></p> <p><b>Counterclockwise</b></p>	<p><b>5IK90GE-SW2T</b> <b>5IK90GE-UT4F</b></p> <p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between U, V and W.</p>

PE: Protective Earth

**Note:**

Change the direction of single-phase motor rotation only after bringing the motor to a stop.

If an attempt is made to change the direction of rotation while the motor is rotating, motor may ignore reversing command or change its direction of rotation after some delay.