

## Induction Motors

# 6 W (1/125 HP)

Frame Size: □60 mm (□2.36 in.)



(Gearhead sold separately)

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

### Specifications – Continuous Rating



Product Name		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type	W HP	VAC	Hz	A	mN·m oz·in	mN·m oz·in	r/min	
<b>2IK6GN-SW2</b>	<b>2IK6A-SW2</b>	6	Three-Phase 220	60	0.076	41	41	1500	ZP
		1/125	Three-Phase 230		0.079	5.8	5.8		

ZP: Impedance protected.

### Product Line

#### Motor

Type	Product Name		List Price
	Pinion Shaft Type	Round Shaft Type	
Lead Wire	<b>2IK6GN-SW2</b>	<b>2IK6A-SW2</b>	\$76.00

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

#### Parallel Shaft Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>2GN□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$76.00
			<b>25, 30, 36</b>	\$83.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$91.00
		<b>2GN10XS</b> (Decimal Gearhead)	\$77.00	

The following items are included with each product.  
Gearhead, Installation Screws, Operating Manual

### Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio. The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor. In that case, the permissible torque is 3 N·m (26 lb-in).

Unit: Upper values: N·m/Lower values: lb-in

Product Name	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>2IK6GN-SW2</b>	<b>2GN□SA</b>	0.10 0.88	0.12 1.06	0.17 1.50	0.20 1.77	0.25 2.2	0.30 2.6	0.42 3.7	0.50 4.4	0.60 5.3	0.75 6.6	0.90 7.9	1.1 9.7	1.4 12.3	1.6 14.1	2.0 17.7	2.4 21	2.7 23	3 26	3 26	3 26

### Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17  
Gearhead → Page C-17

### Permissible Inertia J of Gearhead

→ Page C-18

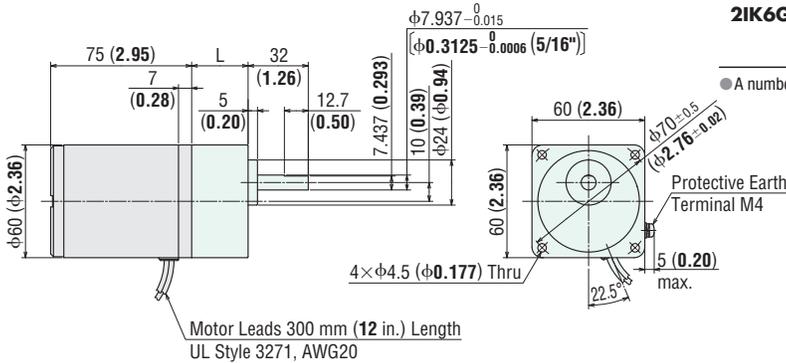
● A number indicating the gear ratio is entered where the box □ is located within the product name.

## Dimensions Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

### ◇ Motor/Gearhead

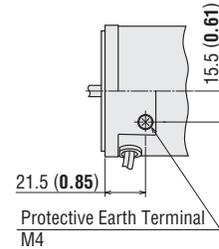
Mass: Motor 0.7 kg (1.54 lb.)  
Gearhead 0.4 kg (0.88 lb.)



Motor Leads 300 mm (12 in.) Length  
UL Style 3271, AWG20

2D & 3D CAD				
Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>2IK6GN-SW2</b>	<b>2GN□SA</b>	<b>3~18</b>	30 (1.18)	A443AU
		<b>25~180</b>	40 (1.57)	A443BU

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

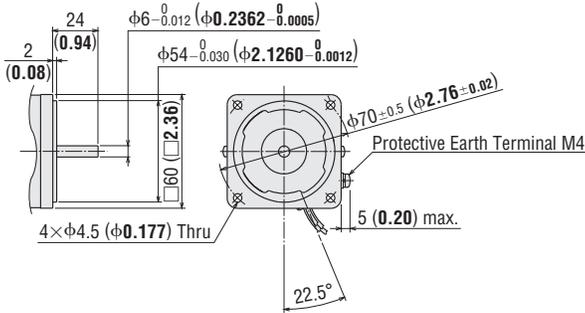


Detail Drawing of Protective Earth Terminal

### ◇ Shaft Section of Round Shaft Type

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

2D & 3D CAD		
Motor Product Name	Mass	2D CAD
<b>2IK6A-SW2</b>	0.7 kg (1.54 lb.)	A444

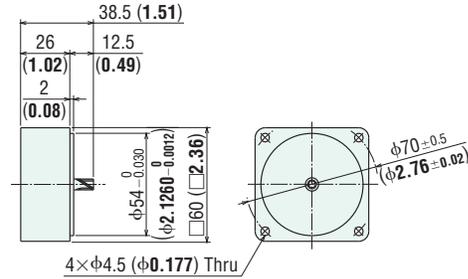


### ◇ Decimal Gearhead

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

**2GN10XS**  
Mass: 0.2 kg (0.44 lb.)

2D CAD A003 3D CAD



Overview, Product Series

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

# Power Off Activated Type Electromagnetic Brake Motors

## 6 W (1/125 HP)

Frame Size: 60 mm (2.36 in.)



(Gearhead sold separately)

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

### Specifications

#### Motor



Product Name		Rating	Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m oz·in	Rated Torque mN·m oz·in	Rated Speed r/min	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type									
<b>2IK6GN-SW2M</b>	<b>2IK6A-SW2M</b>	Continuous	6 1/125	Three-Phase 220	60	0.076	41 5.8	41 5.8	1500	ZP
				Three-Phase 230		0.079				

● This type of motor does not contain a built-in friction brake mechanism similar to the reversible motors.  
ZP: Impedance protected.

#### Electromagnetic Brake (Power Off Activated Type)

Motor Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m oz·in
<b>2IK6GN-SW2M</b>	Single-Phase 220	60	0.02	3	30
<b>2IK6A-SW2M</b>	Single-Phase 230				4.2

### Product Line

#### Motor

Product Name		List Price
Pinion Shaft Type	Round Shaft Type	
<b>2IK6GN-SW2M</b>	<b>2IK6A-SW2M</b>	\$178.00

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

#### Parallel Shaft Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead			
		<b>25, 30, 36</b>	\$83.00	
		<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$91.00	
		<b>2GN10XS</b> (Decimal Gearhead)	\$77.00	

The following items are included with each product.  
Gearhead, Installation Screws, Operating Manual

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

## Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 3 N·m (26 lb-in).

Unit: Upper values: N·m/Lower values: lb-in

Product Name	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>2IK6GN-SW2M</b>	<b>2GN</b> □ <b>SA</b>	0.10 0.88	0.12 1.06	0.17 1.50	0.20 1.77	0.25 2.2	0.30 2.6	0.42 3.7	0.50 4.4	0.60 5.3	0.75 6.6	0.90 7.9	1.1 9.7	1.4 12.3	1.6 14.1	2.0 17.7	2.4 21	2.7 23	3 26	3 26	3 26

## Permissible Radial Load and Permissible Axial Load

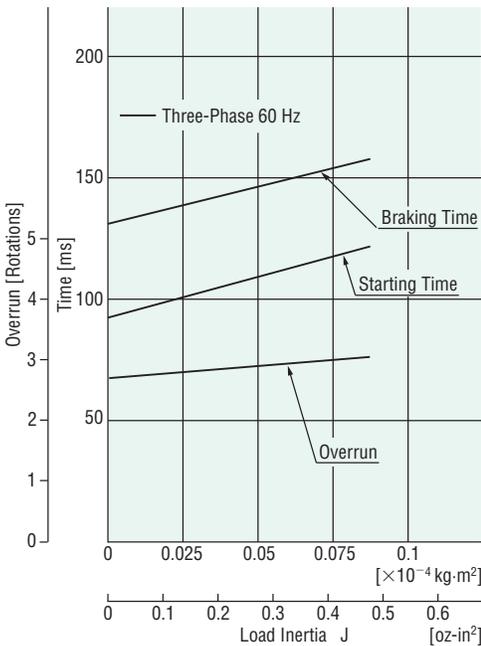
Motor (Round shaft type) → Page C-17

Gearhead → Page C-17

## Permissible Inertia J of Gearhead

→ Page C-18

## Starting and Braking Characteristics (Reference Values)



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

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

**Dimensions** Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

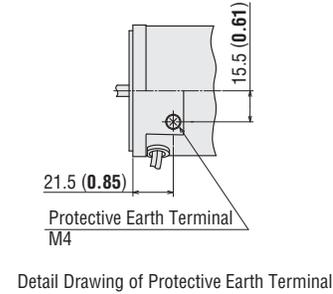
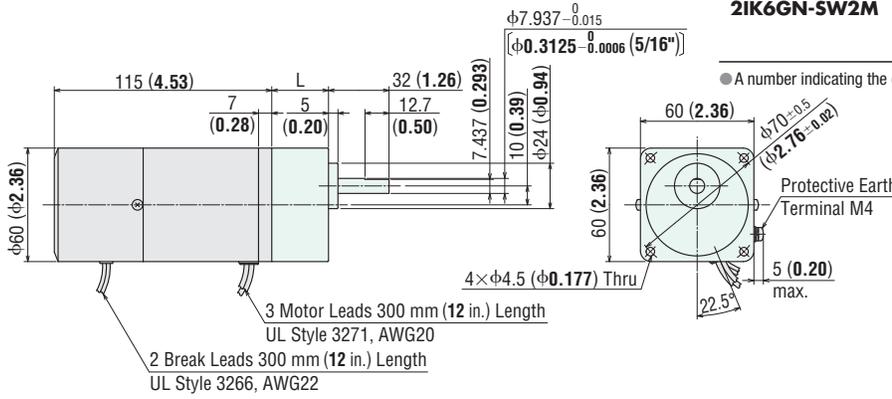
◇ **Motor/Gearhead**

Mass: Motor 0.9 kg (1.98 lb.)  
Gearhead 0.4 kg (0.88 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>2IK6GN-SW2M</b>	<b>2GN□SA</b>	<b>3~18</b>	30 (1.18)	A462AU
		<b>25~180</b>	40 (1.57)	A462BU

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

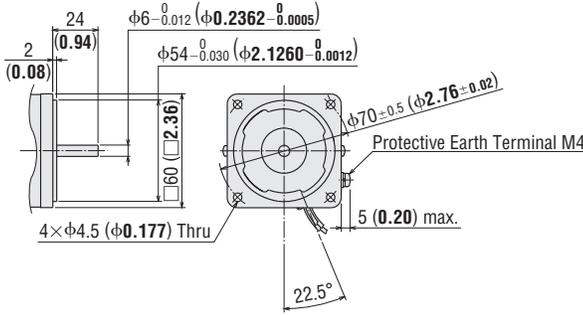


◇ **Shaft Section of Round Shaft Type**

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

Mass: 0.9 kg (1.98 lb.)

2D CAD A463 3D CAD



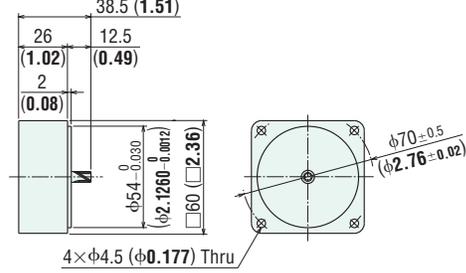
◇ **Decimal Gearhead**

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

**2GN10XS**

Mass: 0.2 kg (0.44 lb.)

2D CAD A003 3D CAD



- Induction Motors
- Electromagnetic Brake Motors
- High-Efficiency KIIS Series
- 60 W (1/12 HP)
- 100 W (1/8 HP)
- Induction Motors
- 6 W (1/125 HP)
- 15 W (1/150 HP)
- 25 W (1/30 HP)
- 40 W (1/19 HP)
- 60 W (1/12 HP)
- 90 W (1/8 HP)
- BH Series 200 W (1/4 HP)
- 2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## Induction Motors

# 15 W (1/50 HP)

Frame Size: □70 mm (□2.76 in.)



(Gearhead sold separately)

Overview, Product Series

Constant Speed Induction Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

## Specifications – Continuous Rating



Product Name		Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m oz-in	Rated Torque mN·m oz-in	Rated Speed r/min	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type								
<b>3IK15GN-SW2</b>	<b>3IK15A-SW2</b>	15 1/50	Three-Phase 220	60	0.15	100	100	1650	TP
			Three-Phase 230		0.16	14.2	14.2		

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

## Product Line

### ● Motor

Type	Product Name		List Price
	Pinion Shaft Type	Round Shaft Type	
Lead Wire	<b>3IK15GN-SW2</b>	<b>3IK15A-SW2</b>	\$82.00

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

### ● Parallel Shaft Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>3GN□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$81.00
			<b>25, 30, 36</b>	\$89.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$97.00
		<b>3GN10XS</b> (Decimal Gearhead)	\$82.00	

The following items are included with each product.  
Gearhead, Installation Screws, Operating Manual

## Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio. The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor. In that case, the permissible torque is 5 N·m (44 lb-in).

Unit: Upper values: N·m/Lower values: lb-in

Product Name	Speed r/min	Gear Ratio																				
		600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	
<b>3IK15GN-SW2</b>		<b>3GN□SA</b>																				
	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>180</b>	
		0.24 2.1	0.29 2.5	0.41 3.6	0.49 4.3	0.61 5.3	0.73 6.4	1.0 8.8	1.2 10.6	1.5 13.2	1.8 15.9	2.2 19.4	2.6 23	3.3 29	4.0 35	5 44	5 44	5 44	5 44	5 44	5 44	

## Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17

Gearhead → Page C-17

## Permissible Inertia J of Gearhead

→ Page C-18

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

**Dimensions** Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

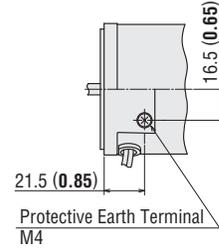
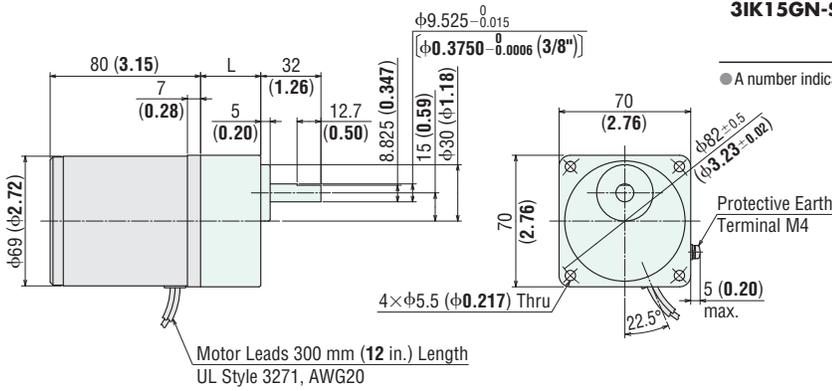
◇ **Motor/Gearhead**

Mass: Motor 1.1 kg (2.4 lb.)  
Gearhead 0.55 kg (1.21 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>3IK15GN-SW2</b>	<b>3GN□SA</b>	<b>3~18</b>	32 (1.26)	A447AU
		<b>25~180</b>	42 (1.65)	A447BU

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



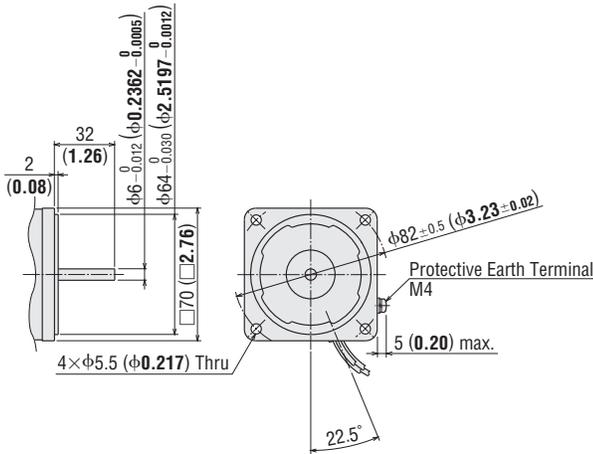
Detail Drawing of Protective Earth Terminal

◇ **Shaft Section of Round Shaft Type**

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

2D & 3D CAD

Motor Product Name	Mass	2D CAD
<b>3IK15A-SW2</b>	1.1 kg (2.4 lb.)	A448



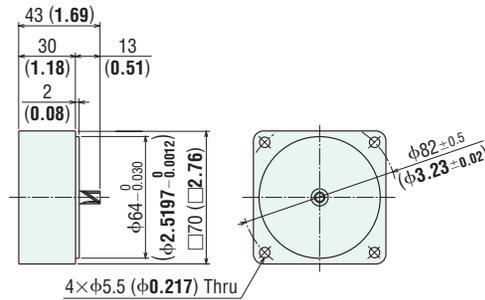
◇ **Decimal Gearhead**

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

**3GN10XS**

Mass: 0.3 kg (0.66 lb.)

2D CAD A009 3D CAD



Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## Power Off Activated Type Electromagnetic Brake Motors

### 15 W (1/50 HP)

Frame Size: □70 mm (□2.76 in.)



(Gearhead sold separately)

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

## Specifications

### Motor



Product Name		Rating	Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m oz·in	Rated Torque mN·m oz·in	Rated Speed r/min	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type									
<b>3IK15GN-SW2M</b>	<b>3IK15A-SW2M</b>	Continuous	15 1/50	Three-Phase 220	60	0.16	100	100	1650	TP
				Three-Phase 230		0.17				

● This type of motor does not contain a built-in friction brake mechanism similar to the reversible motors.

TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.

(The power supply to the electromagnetic brake is 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 power off before inspecting.

### Electromagnetic Brake (Power Off Activated Type)

Motor Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m oz·in
<b>3IK15GN-SW2M</b>	Single-Phase 220	60	0.05	7	80
<b>3IK15A-SW2M</b>	Single-Phase 230				11.3

## Product Line

### Motor

Product Name		List Price
Pinion Shaft Type	Round Shaft Type	
<b>3IK15GN-SW2M</b>	<b>3IK15A-SW2M</b>	\$197.00

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

### Parallel Shaft Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>3GN□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$81.00
			<b>25, 30, 36</b>	\$89.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$97.00
		<b>3GN10XS</b> (Decimal Gearhead)	\$82.00	

The following items are included with each product.  
Gearhead, Installation Screws, Operating Manual

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

### Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 5 N·m (44 lb-in).

Unit: Upper values: N·m/Lower values: lb-in

Product Name	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>3IK15GN-SW2M</b> / <b>3GN□SA</b>		0.24 2.1	0.29 2.5	0.41 3.6	0.49 4.3	0.61 5.3	0.73 6.4	1.0 8.8	1.2 10.6	1.5 13.2	1.8 15.9	2.2 19.4	2.6 23	3.3 29	4.0 35	5 44	5 44	5 44	5 44	5 44	5 44

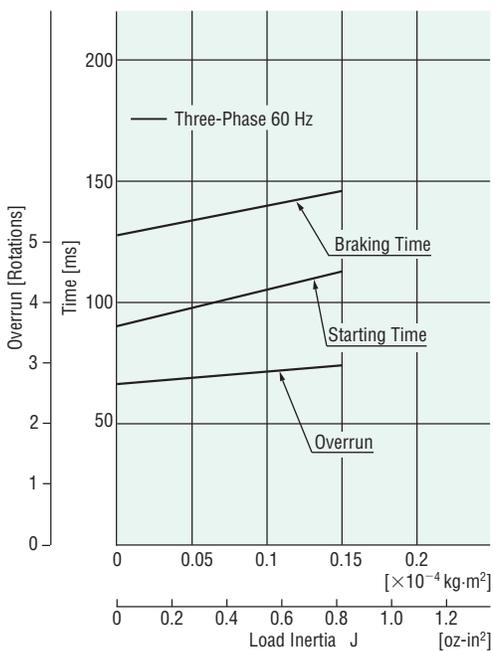
### Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17  
Gearhead → Page C-17

### Permissible Inertia J of Gearhead

→ Page C-18

### Starting and Braking Characteristics (Reference values)



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

## Dimensions Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

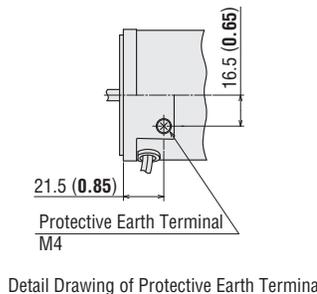
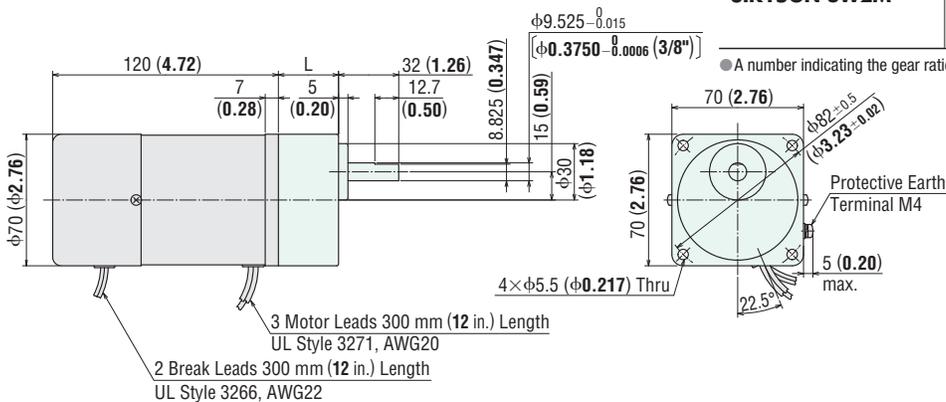
### ◇ Motor/Gearhead

Mass: Motor 1.3 kg (2.9 lb.)  
Gearhead 0.55 kg (1.21 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>3IK15GN-SW2M</b>	<b>3GN□SA</b>	<b>3~18</b>	32 (1.26)	A464AU
		<b>25~180</b>	42 (1.65)	A464BU

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

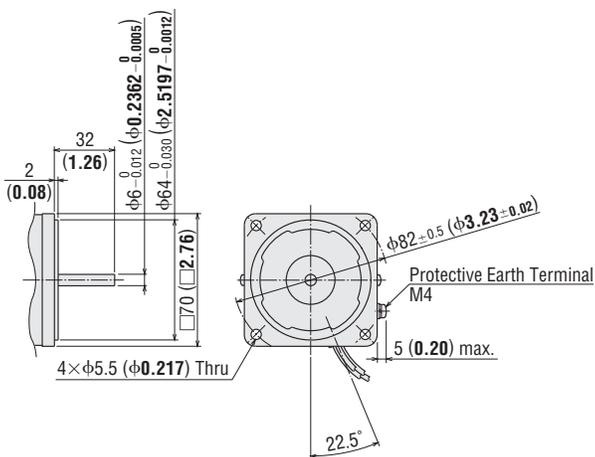


### ◇ Shaft Section of Round Shaft Type

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

Mass: 1.3 kg (2.9 lb.)

2D CAD A465 3D CAD



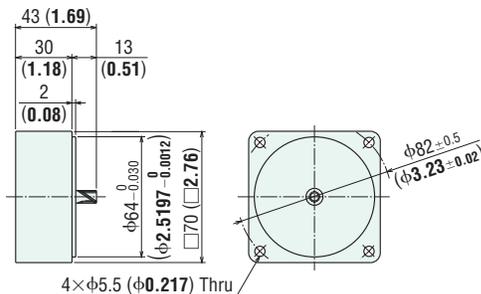
### ◇ Decimal Gearhead

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

#### 3GN10XS

Mass: 0.3 kg (0.66 lb.)

2D CAD A009 3D CAD



Overview, Product Series

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

# Induction Motors

## 25 W (1/30 HP)

Frame Size: □80 mm (□3.15 in.)



Terminal Box Type



Lead Wire Type

(Gearhead sold separately)

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

### Specifications – Continuous Rating



Product Name Upper Product Name: Pinion Shaft Type Lower Product Name: Round Shaft Type			Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Overheat Protection Device
Terminal Box Type Dimension ①	Lead Wire Type Dimension ②	Conduit Box Type Dimension ③	W HP	VAC	Hz	A	mN·m oz·in	mN·m oz·in	r/min	
<b>4IK25GN-SW2T</b> <b>4IK25A-SW2T</b>	<b>4IK25GN-SW2</b> <b>4IK25A-SW2</b>	<b>4IK25GN-SH</b> <b>4IK25AA-SH</b>	25 1/30	Three-Phase 220	60	0.21	160	160	1600	TP
				Three-Phase 230		0.22	22	22		

\*Conduit box type is not certified under the China Compulsory Certification System (CCC System).

TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.

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

### Product Line

#### ● Motor

Type	Product Name		List Price
	Pinion Shaft Type	Round Shaft Type	
Terminal Box	<b>4IK25GN-SW2T</b>	<b>4IK25A-SW2T</b>	\$126.00
Lead Wire	<b>4IK25GN-SW2</b>	<b>4IK25A-SW2</b>	\$93.00
Conduit Box	<b>4IK25GN-SH</b>	—	\$112.00
	—	<b>4IK25AA-SH</b>	\$109.00

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

#### ● Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>4GN□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$83.00
			<b>25, 30, 36</b>	\$90.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$99.00
Right-Angle Shaft	Hollow Shaft	<b>4GN□RH</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$96.00
			<b>25, 30, 36</b>	\$103.00
	Solid Shaft	<b>4GN□RAA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$81.00
			<b>25, 30, 36</b>	\$89.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$98.00
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>4GN10XS</b> (Decimal Gearhead)		\$84.00

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Gasket, Operating Manual

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

## ■ Gearmotor – Torque Table

- Enter the code that represents the terminal box type "T" in the box □ within the motor product name.
- A number indicating the gear ratio is entered where the box □ is located within the product name.
- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 8 N·m (70 lb-in). When a gearhead of 25:1~36:1 is connected, the value for permissible torque is 6 N·m (53 lb-in).

Unit: Upper values: N·m/ Lower values: lb-in

Product Name 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	<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>180</b>
<b>4IK25GN-SW2</b> □ <b>4IK25GN-SH</b>	<b>4GN</b> □ <b>SA</b>	0.39 3.4	0.47 4.1	0.65 5.7	0.78 6.9	0.97 8.5	1.2 10.6	1.6 14.1	1.9 16.8	2.3 20	2.9 25	3.5 30	4.2 37	5.3 46	6.3 55	7.9 69	8 70	8 70	8 70	8 70	8 70

## ■ Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17  
Gearhead → Page C-17

## ■ Permissible Inertia J of Gearhead

→ Page C-18

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

**Dimensions** Unit = mm (in.)

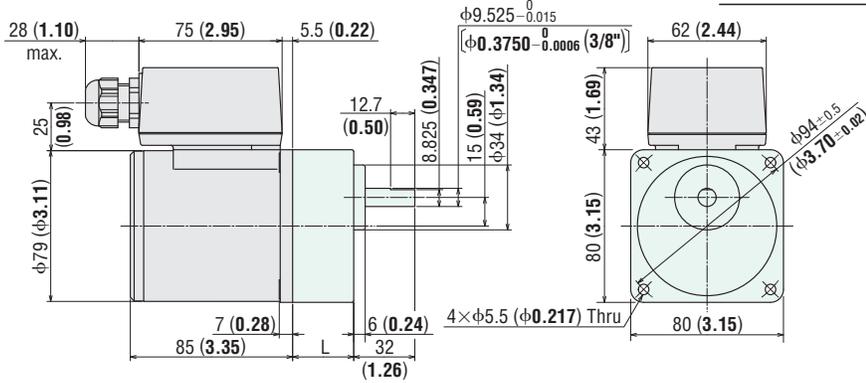
● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

◇ Terminal Box Type ①

Mass: Motor 1.7 kg (3.7 lb.)  
Gearhead 0.65 kg (1.43 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>4IK25GN-SW2T</b>	<b>4GN□SA</b>	<b>3~18</b>	32 (1.26)	A451AU
		<b>25~180</b>	42.5 (1.67)	A451BU



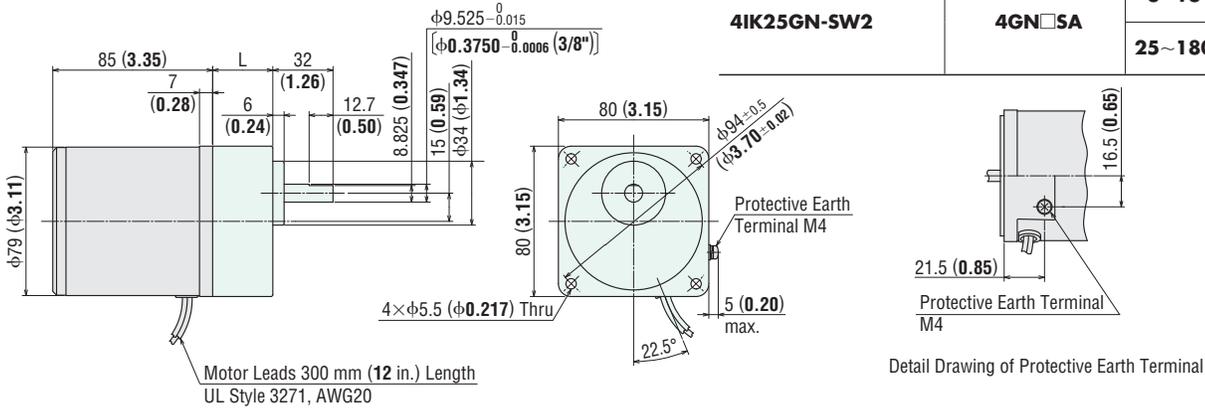
- Use cable with a diameter of φ6 ~ φ12 mm (φ0.24 ~ φ0.47 in.).
- Details of terminal box → Page C-214

◇ Lead Wire Type ②

Mass: Motor 1.5 kg (3.3 lb.)  
Gearhead 0.65 kg (1.43 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>4IK25GN-SW2</b>	<b>4GN□SA</b>	<b>3~18</b>	32 (1.26)	A449AU
		<b>25~180</b>	42.5 (1.67)	A449BU

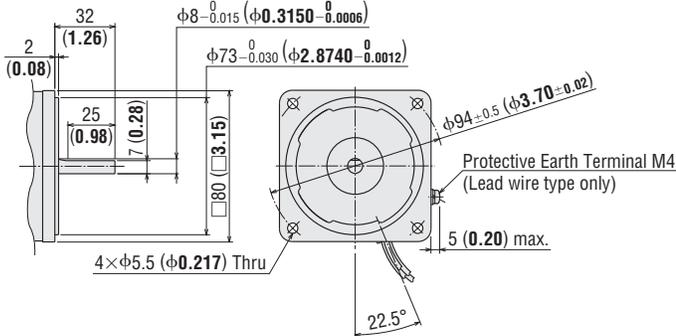


◇ Shaft Section of Round Shaft Type

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

2D & 3D CAD

Motor Product Name	Mass	2D CAD
<b>4IK25A-SW2</b>	1.5 kg (3.3 lb.)	A450
<b>4IK25A-SW2T</b>	1.7 kg (3.7 lb.)	A328



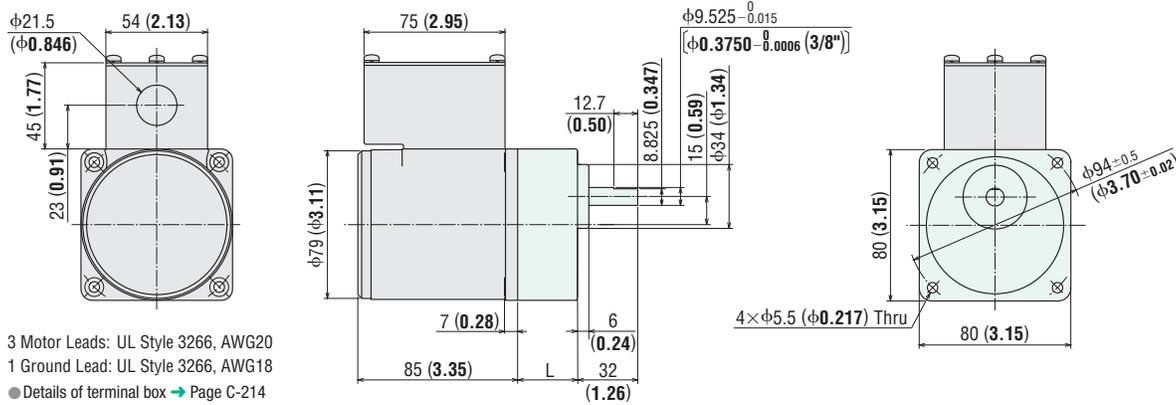
● A number indicating the gear ratio is entered where the box □ is located within the product name.

## ◇ Conduit Box Type ③

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>4IK25GN-SH</b>	<b>4GN□SA</b>	<b>3~18</b>	32 (1.26)	A901AU
		<b>25~180</b>	42.5 (1.67)	A901BU

Mass: Motor 1.7 kg (3.7 lb.)  
Gearhead 0.65 kg (1.43 lb.)

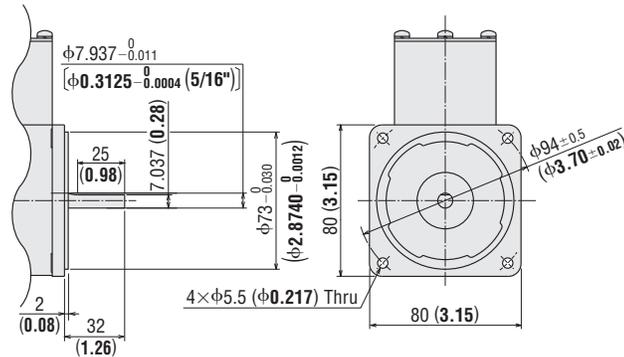


## ◇ Shaft Section of Round Shaft Type

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

2D & 3D CAD

Motor Product Name	Mass	2D CAD
<b>4IK25AA-SH</b>	1.7 kg (3.7 lb.)	A810



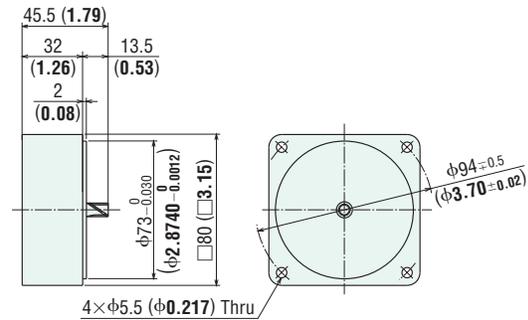
## ◇ Decimal Gearhead

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

**4GN10XS**

Mass: 0.4 kg (0.88 lb.)

2D CAD A013 3D CAD



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

# Power Off Activated Type Electromagnetic Brake Motors

## 25 W (1/30 HP)

Frame Size: □80 mm (□3.15 in.)



(Gearhead sold separately)

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)



### Specifications

#### ● Motor

Product Name		Rating	Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m oz·in	Rated Torque mN·m oz·in	Rated Speed r/min	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type									
<b>4IK25GN-SW2M</b>	<b>4IK25A-SW2M</b>	Continuous	25 1/30	Three-Phase 220	60	0.20	160 22	150 21	1600	TP
				Three-Phase 230		0.21				

● This type of motor does not contain a built-in friction brake mechanism similar to the reversible motors.  
 TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.  
 (The power supply to the electromagnetic brake is 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 power off before inspecting.

#### ● Electromagnetic Brake (Power Off Activated Type)

Motor Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m oz·in
<b>4IK25GN-SW2M</b>	Single-Phase 220	60	0.05	7	100
<b>4IK25A-SW2M</b>	Single-Phase 230				14.2

### Product Line

#### ● Motor

Product Name		List Price
Pinion Shaft Type	Round Shaft Type	
<b>4IK25GN-SW2M</b>	<b>4IK25A-SW2M</b>	\$222.00

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

#### ● Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>4GN□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$83.00
			<b>25, 30, 36</b>	\$90.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$99.00
Right-Angle Shaft	Hollow Shaft	<b>4GN□RH</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$96.00
			<b>25, 30, 36</b>	\$103.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$113.00
	Solid Shaft	<b>4GN□RAA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$81.00
			<b>25, 30, 36</b>	\$89.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$98.00
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>4GN10XS</b> (Decimal Gearhead)		\$84.00

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Gasket, Operating Manual

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

## Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 8 N·m (70 lb-in). When a gearhead of 25:1~36:1 is connected, the value for permissible torque is 6 N·m (53 lb-in).

Unit: Upper values: N·m/Lower values: lb-in

Product Name	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-SW2M</b> / <b>4GN□SA</b>		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
		3.1	3.8	5.3	6.4	8.0	9.7	13.2	15.9	19.4	23	29	34	44	52	65	70	70	70	70	70

## Permissible Radial Load and Permissible Axial Load

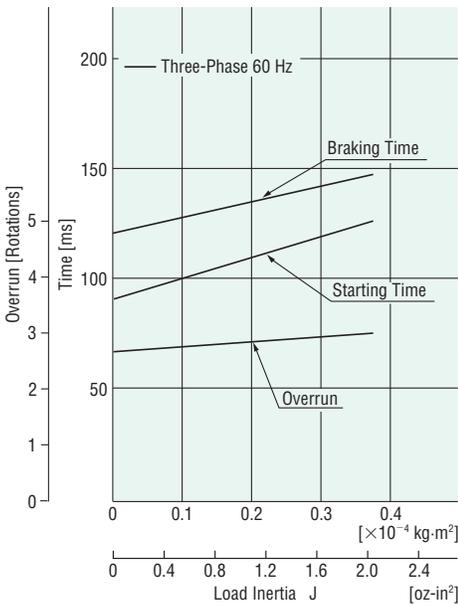
Motor (Round shaft type) → Page C-17

Gearhead → Page C-17

## Permissible Inertia J of Gearhead

→ Page C-18

## Starting and Braking Characteristics (Reference values)



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

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

**Dimensions** Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

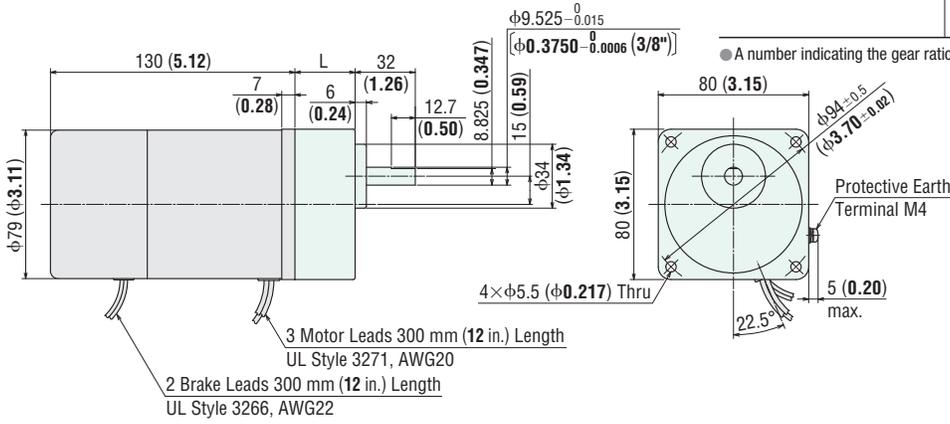
◇ **Motor/Gearhead**

Mass: Motor 2.0 kg (4.4 lb.)  
Gearhead 0.65 kg (1.43 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>4IK25GN-SW2M</b>	<b>4GN□SA</b>	<b>3~18</b>	32 (1.26)	A466AU
		<b>25~180</b>	42.5 (1.67)	A466BU

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



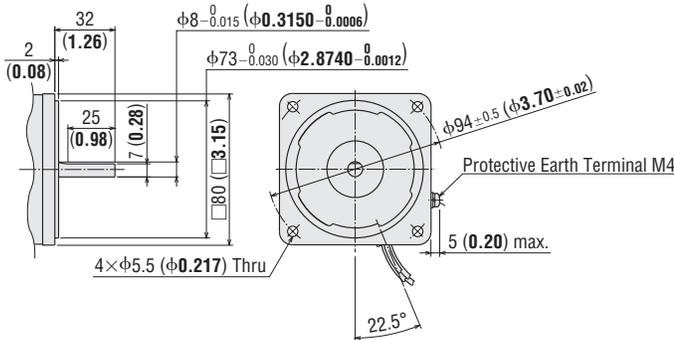
Detail Drawing of Protective Earth Terminal

◇ **Shaft Section of Round Shaft Type**

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

Mass: 2.0 kg (4.4 lb.)

2D CAD A467 3D CAD



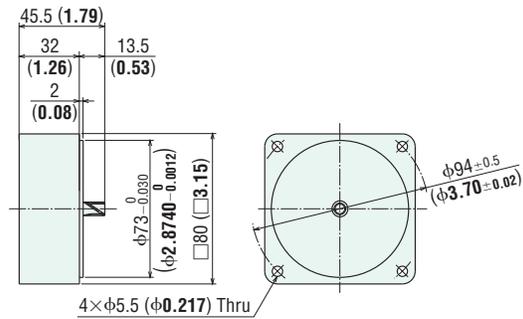
◇ **Decimal Gearhead**

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

**4GN10XS**

Mass: 0.4 kg (0.88 lb.)

2D CAD A013 3D CAD



Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## Induction Motors

### 40 W (1/19 HP)

Frame Size: □90 mm (□3.54 in.)



Terminal Box Type



Lead Wire Type

(Gearhead sold separately)

Overview, Product Series

Constant Speed Induction Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

## Specifications – Continuous Rating



Product Name Upper Product Name: Pinion Shaft Type Lower Product Name: Round Shaft Type			Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Overheat Protection Device
Terminal Box Type Dimension ①	Lead Wire Type Dimension ②	Conduit Box Type Dimension ③	W HP	VAC	Hz	A	mN·m oz·in	mN·m oz·in	r/min	
<b>5IK40GN-SW2T</b> <b>5IK40A-SW2T</b>	<b>5IK40GN-SW2</b> <b>5IK40A-SW2</b>	<b>5IK40GN-SH</b> <b>5IK40AA-SH</b>	40	Three-Phase 220	60	0.30	260	260	1600	TP
			1/19	Three-Phase 230		0.31	36	36		

\*Conduit box type is not certified under the China Compulsory Certification System (CCC System).

TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.

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

## Product Line

### Motor

Type	Product Name		List Price
	Pinion Shaft Type	Round Shaft Type	
Terminal Box	<b>5IK40GN-SW2T</b>	<b>5IK40A-SW2T</b>	\$146.00
Lead Wire	<b>5IK40GN-SW2</b>	<b>5IK40A-SW2</b>	\$112.00
Conduit Box	<b>5IK40GN-SH</b>	—	\$131.00
	—	<b>5IK40AA-SH</b>	\$127.00

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

### Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>5GN□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$97.00
			<b>25, 30, 36</b>	\$107.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$118.00
Right-Angle Shaft	Hollow Shaft	<b>5GN□RH</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$123.00
			<b>25, 30, 36</b>	\$137.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$147.00
	Solid Shaft	<b>5GN□RAA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$108.00
			<b>25, 30, 36</b>	\$116.00
		<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$131.00	
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>5GN10XS</b> (Decimal Gearhead)		\$103.00

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Gasket, Operating Manual

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

### ■ Gearmotor – Torque Table

- Enter the code that represents the terminal box type "T" in the box □ within the motor product name.
- A number indicating the gear ratio is entered where the box □ is located within the product name.
- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 10 N·m (88 lb-in).

Unit: Upper values: N·m/Lower values: lb-in

Product Name	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>5IK40GN-SW2</b> □	<b>5GN</b> □ <b>SA</b>	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	10
<b>5IK40GN-SH</b>		5.5	6.7	9.7	11.5	14.1	16.8	23	28	33	41	50	60	76	88	88	88	88	88	88	88	88

### ■ Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17

Gearhead → Page C-17

### ■ Permissible Inertia J of Gearhead

→ Page C-18

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## Dimensions Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

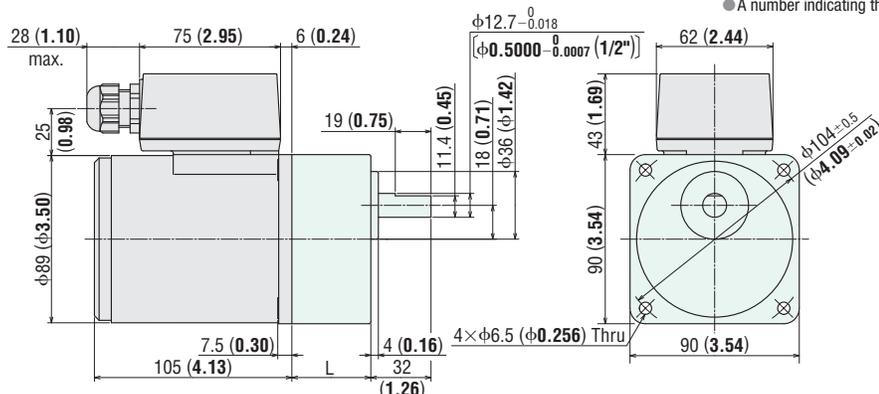
### ◇ Terminal Box Type ①

Mass: Motor 2.6 kg (5.7 lb.)  
Gearhead 1.5 kg (3.3 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>5IK40GN-SW2T</b>	<b>5GN□SA</b>	<b>3~18</b>	42 (1.65)	A454AU
		<b>25~180</b>	60 (2.36)	A454BU

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



● Use cable with a diameter of  $\phi 6 \sim \phi 12$  mm ( $\phi 0.24 \sim \phi 0.47$  in.).

● Details of terminal box → Page C-214

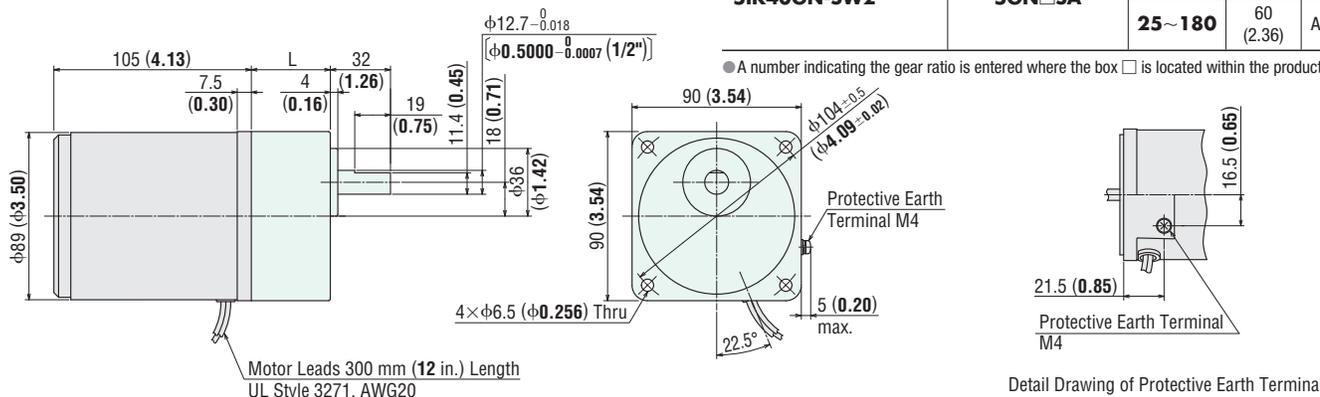
### ◇ Lead Wire Type ②

Mass: Motor 2.5 kg (5.5 lb.)  
Gearhead 1.5 kg (3.3 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>5IK40GN-SW2</b>	<b>5GN□SA</b>	<b>3~18</b>	42 (1.65)	A452AU
		<b>25~180</b>	60 (2.36)	A452BU

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

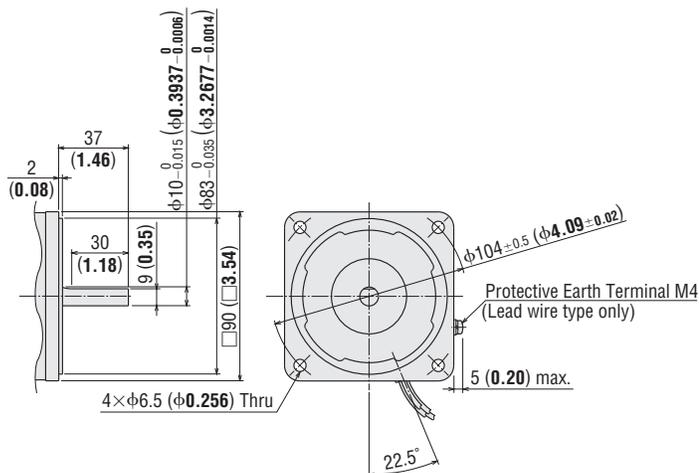


### ◇ Shaft Section of Round Shaft Type

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

2D & 3D CAD

Motor Product Name	Mass	2D CAD
<b>5IK40A-SW2</b>	2.5 kg (5.5 lb.)	A453
<b>5IK40A-SW2T</b>	2.6 kg (5.7 lb.)	A330

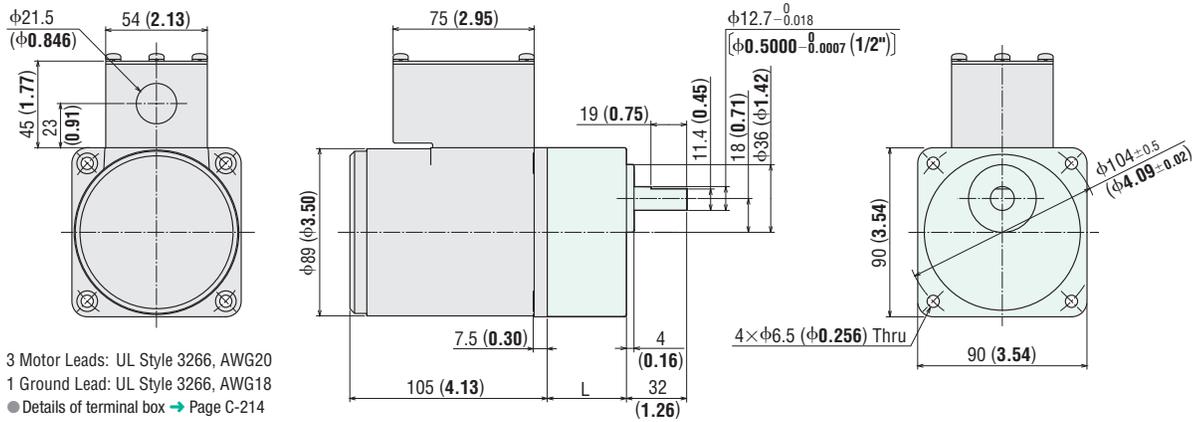


## ◇ Conduit Box Type ③

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>5IK40GN-SH</b>	<b>5GN□SA</b>	<b>3~18</b>	42 (1.65)	A903AU
		<b>25~180</b>	60 (2.36)	A903BU

Mass: Motor 2.5 kg (5.5 lb.)  
Gearhead 1.5 kg (3.3 lb.)

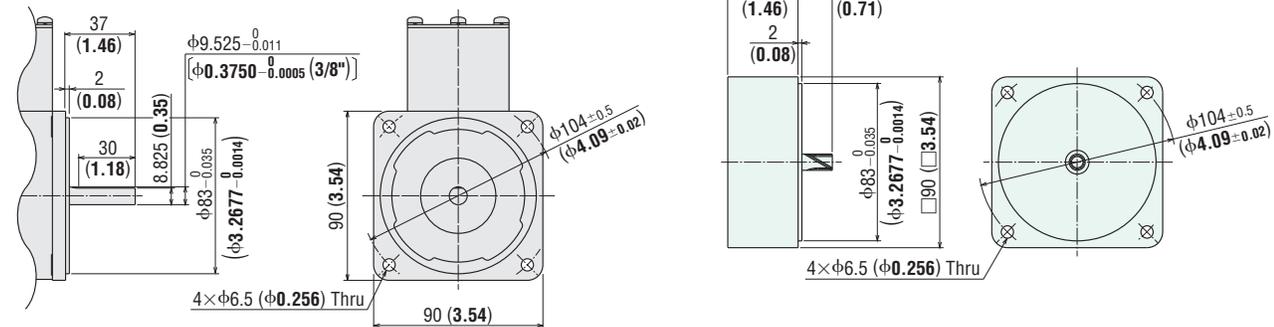


## ◇ Shaft Section of Round Shaft Type

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

2D & 3D CAD

Motor Product Name	Mass	2D CAD
<b>5IK40AA-SH</b>	2.5 kg (5.5 lb.)	A812



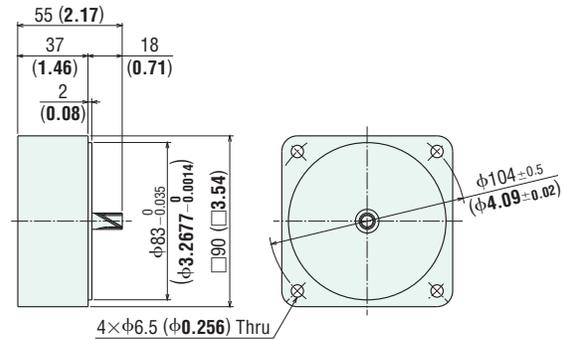
## ◇ Decimal Gearhead

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

### 5GN10XS

Mass: 0.6 kg (1.32 lb.)

2D CAD A022 3D CAD



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

## Power Off Activated Type Electromagnetic Brake Motors

### 40 W (1/19 HP)

Frame Size: □90 mm (□3.54 in.)



(Gearhead sold separately)

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

## Specifications

### Motor



Product Name		Rating	Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m oz·in	Rated Torque mN·m oz·in	Rated Speed r/min	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type									
<b>5IK40GN-SW2M</b>	<b>5IK40A-SW2M</b>	Continuous	40 1/19	Three-Phase 220	60	0.30	260 36	260 36	1600	TP
				Three-Phase 230		0.31				

● This type of motor does not contain a built-in friction brake mechanism similar to the reversible motors.

TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.

(The power supply to the electromagnetic brake is 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 power off before inspecting.

### Electromagnetic Brake (Power Off Activated Type)

Motor Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m oz·in
<b>5IK40GN-SW2M</b>	Single-Phase 220	60	0.05	7	200
<b>5IK40A-SW2M</b>	Single-Phase 230				28

## Product Line

### Motor

Product Name		List Price
Pinion Shaft Type	Round Shaft Type	
<b>5IK40GN-SW2M</b>	<b>5IK40A-SW2M</b>	\$278.00

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

### Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>5GN□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$97.00
			<b>25, 30, 36</b>	\$107.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$118.00
Right-Angle Shaft	Hollow Shaft	<b>5GN□RH</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$123.00
			<b>25, 30, 36</b>	\$137.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$147.00
	Solid Shaft	<b>5GN□RAA</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18</b>	\$108.00
			<b>25, 30, 36</b>	\$116.00
		<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$131.00	
Parallel Shaft	Long Life, Low Noise <b>GN-S</b> Gearhead	<b>5GN10XS</b> (Decimal Gearhead)		\$103.00

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Gasket, Operating Manual

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

### Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 10 N·m (88 lb-in).

Unit: Upper values: N·m/Lower values: lb-in

Product Name	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>5IK40GN-SW2M</b> / <b>5GN□SA</b>		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
		5.5	6.7	9.7	11.5	14.1	16.8	23	28	33	41	50	60	76	88	88	88	88	88	88	88

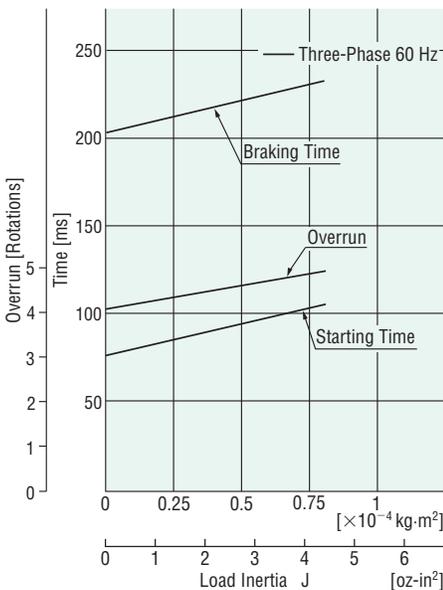
### Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17  
Gearhead → Page C-17

### Permissible Inertia J of Gearhead

→ Page C-18

### Starting and Braking Characteristics (Reference values)



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

## Dimensions Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

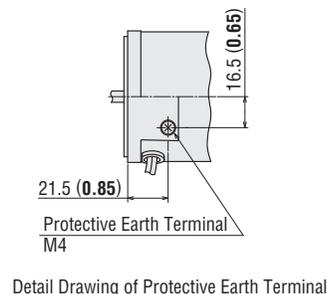
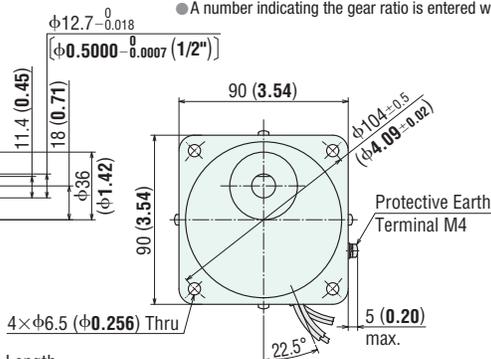
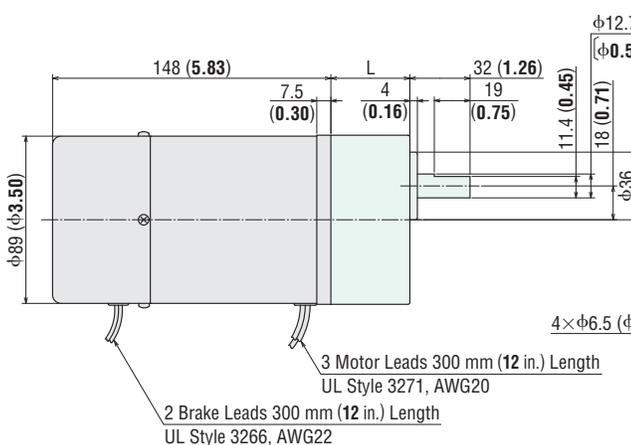
### ◇ Motor/Gearhead

Mass: Motor 2.8 kg (6.2 lb.)  
Gearhead 1.5 kg (3.3 lb.)

2D & 3D CAD

Motor Product Name	Gearhead Product Name	Gear Ratio	L	2D CAD
<b>5IK40GN-SW2M</b>	<b>5GN□SA</b>	<b>3~18</b>	42 (1.65)	A468AU
		<b>25~180</b>	60 (2.36)	A468BU

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

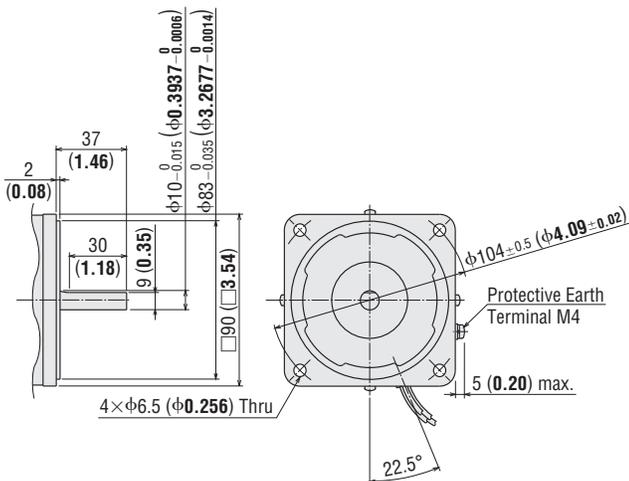


### ◇ Shaft Section of Round Shaft Type

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

Mass: 2.8 kg (6.2 lb.)

2D CAD A469 3D CAD



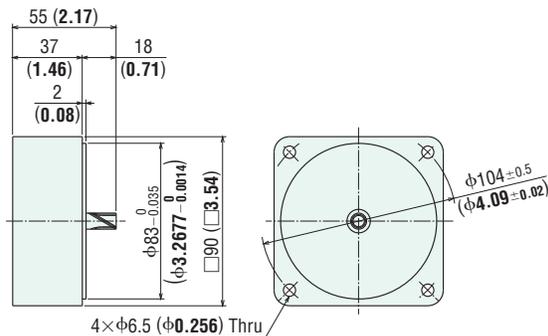
### ◇ Decimal Gearhead

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

**5GN10XS**

Mass: 0.6 kg (1.32 lb.)

2D CAD A022 3D CAD



Overview, Product Series

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

# Induction Motors

## 60 W (1/12 HP)

Frame Size: □90 mm (□3.54 in.)



(Gearhead sold separately)

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

### Specifications – Continuous Rating



Product Name Upper Product Name: Pinion Shaft Type Lower Product Name: Round Shaft Type	Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m oz·in	Rated Torque mN·m oz·in	Rated Speed r/min	Overheat Protection Device
<b>5IK60GE-SH</b> <b>5IK60A-SH</b>	60	Three-Phase 220	60	0.45	500	380	1600	TP
	1/12	Three-Phase 230		0.46	71	53		

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

### Product Line

#### Motor

Type	Product Name		List Price
	Pinion Shaft Type	Round Shaft Type	
Conduit Box Type	<b>5IK60GE-SH</b>	—	\$150.00
	—	<b>5IK60A-SH</b>	\$147.00

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

#### Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life <b>GE-S</b> Gearhead	<b>5GE□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$138.00
			<b>12.5, 15, 18</b>	\$151.00
			<b>25, 30, 36, 50, 60</b>	\$163.00
			<b>75, 90, 100, 120, 150, 180</b>	\$174.00
Right-Angle Shaft	Hollow Shaft	<b>5GE□RH</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25</b>	\$189.00
			<b>30, 36, 50, 60</b>	\$209.00
			<b>75, 90, 100, 120, 150, 180</b>	\$225.00
	Solid Shaft	<b>5GE□RAA</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$165.00
			<b>12.5, 15, 18</b>	\$167.00
			<b>25</b>	\$172.00
Parallel Shaft	Long Life <b>GE-S</b> Gearhead	<b>5GE10XS</b> (Decimal Gearhead)	<b>30, 36, 50, 60</b>	\$179.00
			<b>75, 90, 100, 120, 150, 180</b>	\$194.00

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

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Gasket, Operating Manual

## ■ Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 20 N·m (177 lb-in).

Unit: Upper values: N-m/Lower values: lb-in

Product Name	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>5IK60GE-SH</b>	<b>5GE□SA</b>	0.92 8.1	1.1 9.7	1.5 13.2	1.8 15.9	2.3 20	2.8 24	3.5 30	4.2 37	5.0 44	6.3 55	7.5 66	9.0 79	12.5 110	15.0 132	16.8 148	20 177	20 177	20 177	20 177	20

## ■ Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17

Gearhead → Page C-17

## ■ Permissible Inertia J of Gearhead

→ Page C-18

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

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

**Dimensions** Unit = mm (in.)

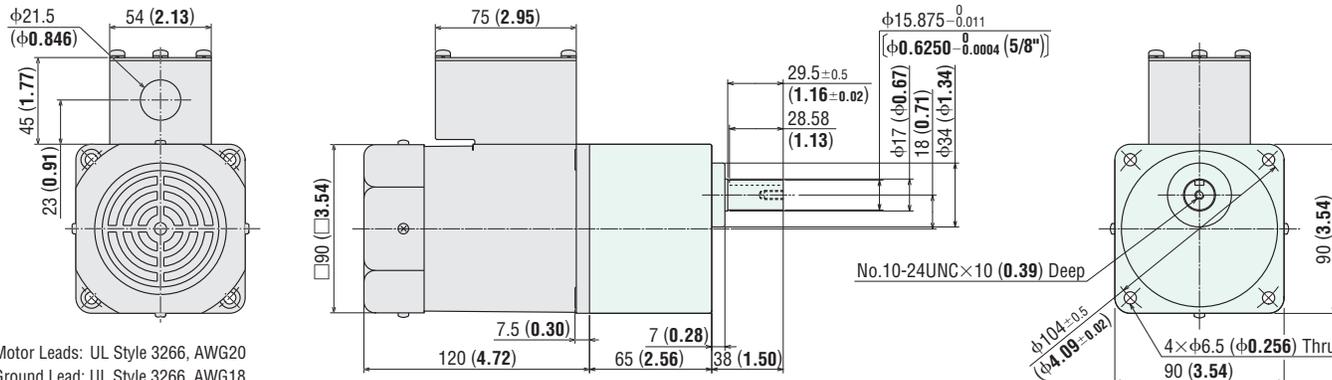
● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

◇ Conduit Box Type

2D & 3D CAD

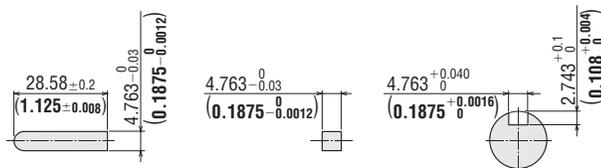
Motor Product Name	Gearhead Product Name	2D CAD
<b>5IK60GE-SH</b>	<b>5GE□SA</b>	A905U

Mass: Motor 2.8 kg (6.2 lb.)  
Gearhead 1.5kg (3.3 lb.)



3 Motor Leads: UL Style 3266, AWG20  
1 Ground Lead: UL Style 3266, AWG18  
● Details of terminal box → Page C-214

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

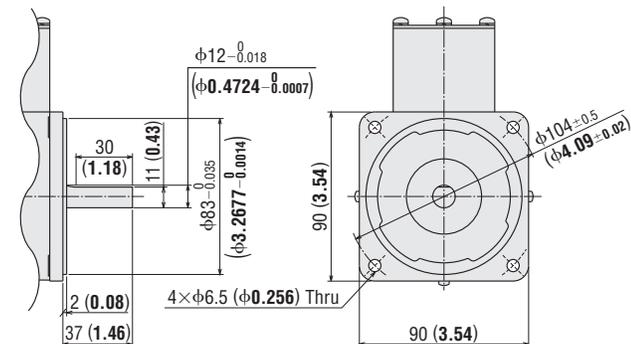


◇ Shaft Section of Round Shaft Type

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

2D & 3D CAD

Motor Product Name	Mass	2D CAD
<b>5IK60A-SH</b>	2.8 kg (6.2 lb.)	A814



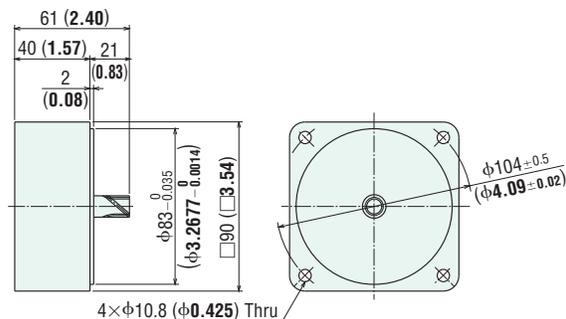
◇ Decimal Gearhead

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

**5GE10XS**

Mass: 0.6 kg (1.32 lb.)

2D CAD A029 3D CAD



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

## Power Off Activated Type Electromagnetic Brake Motors

### 60 W (1/12 HP)

Frame Size: □90 mm (□3.54 in.)



(Gearhead sold separately)

Overview, Product Series

## Specifications

### Motor



Product Name		Rating	Output Power W HP	Voltage		Frequency Hz	Current A	Starting Torque mN·m oz-in	Rated Torque mN·m oz-in	Rated Speed r/min	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type			VAC							
<b>5IK60GE-SW2M</b>	<b>5IK60A-SW2M</b>	Continuous	60 1/12	Three-Phase 220		60	0.45	500 71	380 53	1600	TP
				Three-Phase 230			0.46				

● This type of motor does not contain a built-in friction brake mechanism similar to the reversible motors.

TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.

(The power supply to the electromagnetic brake is 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 power off before inspecting.

### Electromagnetic Brake (Power Off Activated Type)

Motor Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m oz-in
<b>5IK60GE-SW2M</b>	Single-Phase 220	60	0.07	10	500
<b>5IK60A-SW2M</b>	Single-Phase 230				71

## Product Line

### Motor

Product Name		List Price
Pinion Shaft Type	Round Shaft Type	
<b>5IK60GE-SW2M</b>	<b>5IK60A-SW2M</b>	\$312.00

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

### Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life <b>GE-S</b> Gearhead	<b>5GE□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$138.00
			<b>12.5, 15, 18</b>	\$151.00
			<b>25, 30, 36, 50, 60</b>	\$163.00
			<b>75, 90, 100, 120, 150, 180</b>	\$174.00
Right-Angle Shaft	Hollow Shaft	<b>5GE□RH</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25</b>	\$189.00
			<b>30, 36, 50, 60</b>	\$209.00
			<b>75, 90, 100, 120, 150, 180</b>	\$225.00
	Solid Shaft	<b>5GE□RAA</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$165.00
			<b>12.5, 15, 18</b>	\$167.00
			<b>25</b>	\$172.00
			<b>30, 36, 50, 60</b>	\$179.00
			<b>75, 90, 100, 120, 150, 180</b>	\$194.00
Parallel Shaft	Long Life <b>GE-S</b> Gearhead	<b>5GE10XS</b> (Decimal Gearhead)		\$154.00

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

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Gasket, Operating Manual

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

### Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 20 N·m (177 lb-in).

Unit: Upper values: N-m/Lower values: lb-in

Product Name	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>5IK60GE-SW2M</b> / <b>5GE□SA</b>		<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>180</b>
		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
		8.1	9.7	13.2	15.9	20	24	30	37	44	55	66	79	110	132	148	177	177	177	177	177

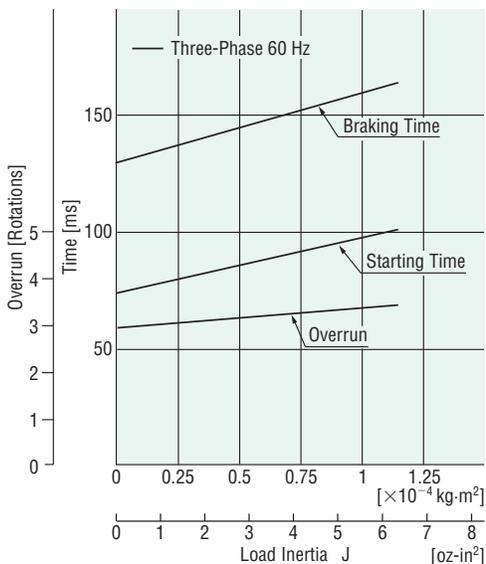
### Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17  
Gearhead → Page C-17

### Permissible Inertia J of Gearhead

→ Page C-18

### Starting and Braking Characteristics (Reference values)



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

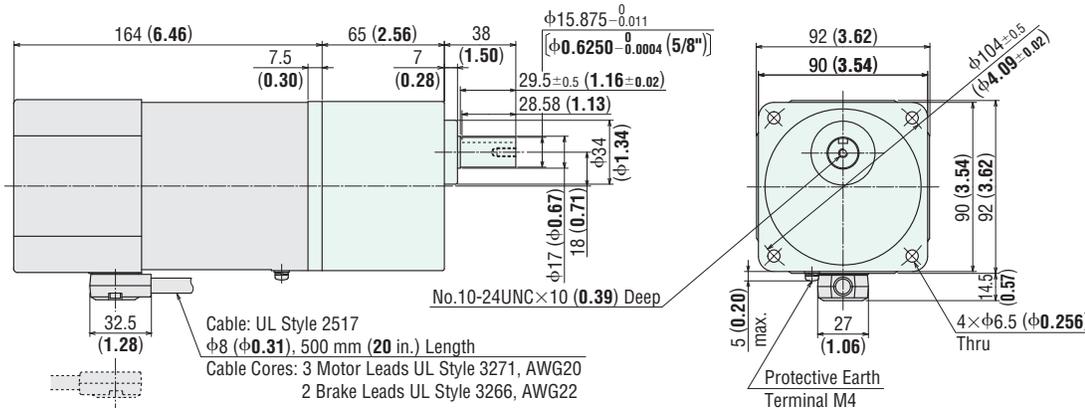
## Dimensions Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

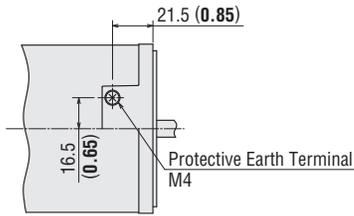
### ◇ Motor/Gearhead

Mass: Motor 3.4 kg (7.5 lb.)  
Gearhead 1.5 kg (3.3 lb.)

**2D CAD** A470U **3D CAD**



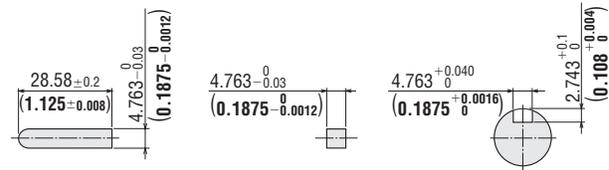
● Cable direction can be switched to the opposite direction.



Detail Drawing of Protective Earth Terminal

### ◇ Key and Key Slot

(The key is included with the gearhead)

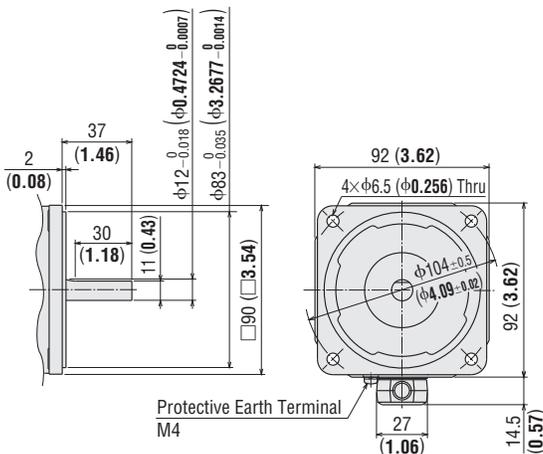


### ◇ Shaft Section of Round Shaft Type

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

Mass: 3.4 kg (7.5 lb.)

**2D CAD** A471 **3D CAD**



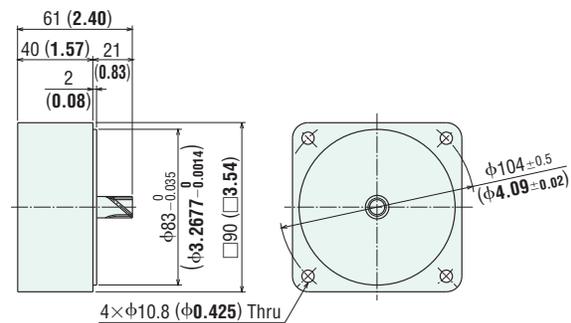
### ◇ Decimal Gearhead

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

**5GE10XS**

Mass: 0.6 kg (1.32 lb.)

**2D CAD** A029 **3D CAD**



Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

# Induction Motors

## 90 W (1/8 HP)

Frame Size: □90 mm (□3.54 in.)



(Gearhead sold separately)

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

### Specifications – Continuous Rating



Conduit Box Type	Product Name	Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Overheat Protection Device
	Upper Product Name: Pinion Shaft Type Lower Product Name: Round Shaft Type	W HP	VAC	Hz	A	mN·m oz·in	mN·m oz·in	r/min	
51K90GE-SH 51K90A-SH	90	1/8	Three-Phase 220	60	0.60	700	570	1600	TP
	Three-Phase 230		0.61		99	80			

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

### Product Line

#### ● Motor

Type	Product Name		List Price
	Pinion Shaft Type	Round Shaft Type	
Conduit Box Type	51K90GE-SH	—	\$169.00
	—	51K90A-SH	\$166.00

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

#### ● Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life GE-S Gearhead	5GE□SA	3, 3.6, 5, 6, 7.5, 9	\$138.00
			12.5, 15, 18	\$151.00
			25, 30, 36, 50, 60	\$163.00
			75, 90, 100, 120, 150, 180	\$174.00
Right-Angle Shaft	Hollow Shaft	5GE□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25	\$189.00
			30, 36, 50, 60	\$209.00
			75, 90, 100, 120, 150, 180	\$225.00
			3, 3.6, 5, 6, 7.5, 9	\$165.00
	Solid Shaft	5GE□RAA	12.5, 15, 18	\$167.00
			25	\$172.00
			30, 36, 50, 60	\$179.00
			75, 90, 100, 120, 150, 180	\$194.00
Parallel Shaft	Long Life GE-S Gearhead	5GE10XS (Decimal Gearhead)		\$154.00

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

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Gasket, Operating Manual

## ■ Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 20 N·m (177 lb-in).

Unit: Upper values: N-m/Lower values: lb-in

Product Name	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>5IK90GE-SH</b>	<b>5GE□SA</b>	1.4 12.3	1.7 15.0	2.3 20	2.8 24	3.5 30	4.2 37	5.2 46	6.2 54	7.5 66	9.4 83	11.3 100	13.5 119	18.8 166	20 177	20 177	20 177	20 177	20 177	20 177	20 177

## ■ Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17

Gearhead → Page C-17

## ■ Permissible Inertia J of Gearhead

→ Page C-18

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

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

**Dimensions** Unit = mm (in.)

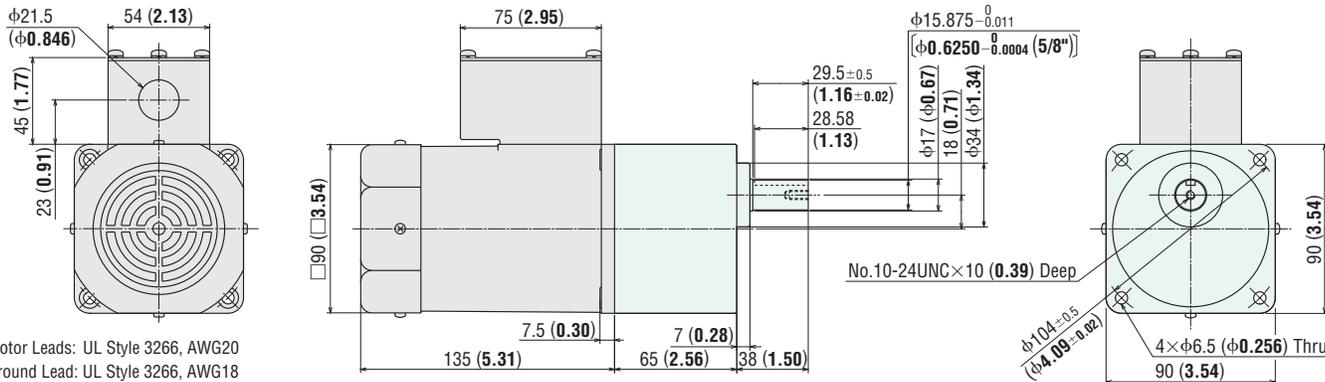
● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

◇ Conduit Box Type

2D & 3D CAD

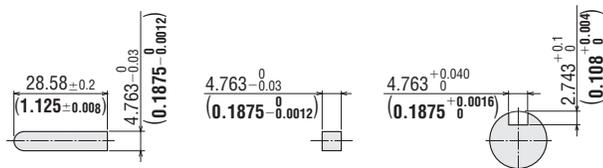
Motor Product Name	Gearhead Product Name	2D CAD
<b>5IK90GE-SH</b>	<b>5GE□SA</b>	A907U

Mass: Motor 3.3 kg (7.3 lb.)  
Gearhead 1.5 kg (3.3 lb.)



3 Motor Leads: UL Style 3266, AWG20  
1 Ground Lead: UL Style 3266, AWG18  
● Details of terminal box → Page C-214

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

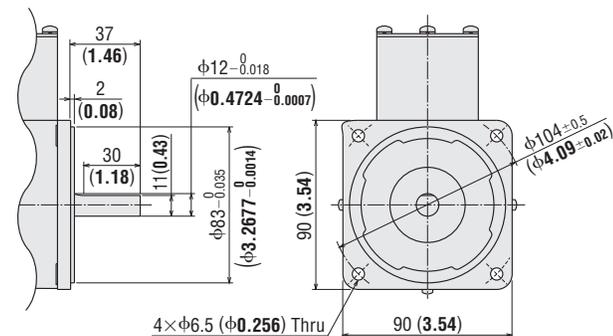


◇ Shaft Section of Round Shaft Type

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

2D & 3D CAD

Motor Product Name	Mass	2D CAD
<b>5IK90A-SH</b>	3.3 kg (7.3 lb.)	A816



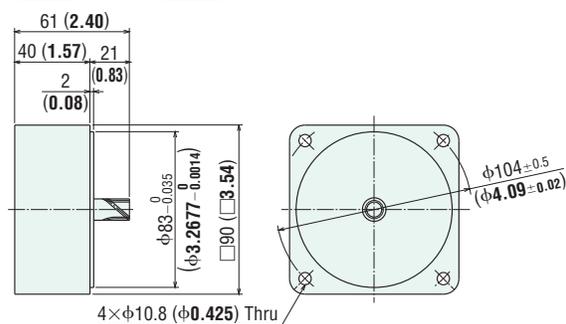
◇ Decimal Gearhead

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

**5GE10XS**

Mass: 0.6 kg (1.32 lb.)

2D CAD A029 3D CAD



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

## Power Off Activated Type Electromagnetic Brake Motors

### 90 W (1/8 HP)

Frame Size: □90 mm (□3.54 in.)



(Gearhead sold separately)

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

## Specifications

### Motor



Product Name		Rating	Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m oz·in	Rated Torque mN·m oz·in	Rated Speed r/min	Overheat Protection Device
Pinion Shaft Type	Round Shaft Type									
<b>5IK90GE-SW2M</b>	<b>5IK90A-SW2M</b>	Continuous	90 1/8	Three-Phase 220	60	0.60	700	570	1600	TP
				Three-Phase 230		0.61				

● This type of motor does not contain a built-in friction brake mechanism similar to the reversible motors.

TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.

(The power supply to the electromagnetic brake is 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 power off before inspecting.

### Electromagnetic Brake (Power Off Activated Type)

Motor Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m oz·in
<b>5IK90GE-SW2M</b>	Single-Phase 220	60	0.07	10	500
<b>5IK90A-SW2M</b>	Single-Phase 230				71

## Product Line

### Motor

Product Name		List Price
Pinion Shaft Type	Round Shaft Type	
<b>5IK90GE-SW2M</b>	<b>5IK90A-SW2M</b>	\$352.00

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

### Parallel Shaft Gearhead/Right-Angle Gearhead (Sold separately)

Gearhead Type		Gearhead Product Name	Gear Ratio	List Price
Parallel Shaft	Long Life <b>GE-S</b> Gearhead	<b>5GE□SA</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$138.00
			<b>12.5, 15, 18</b>	\$151.00
			<b>25, 30, 36, 50, 60</b>	\$163.00
			<b>75, 90, 100, 120, 150, 180</b>	\$174.00
Right-Angle Shaft	Hollow Shaft	<b>5GE□RH</b>	<b>3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25</b>	\$189.00
			<b>30, 36, 50, 60</b>	\$209.00
			<b>75, 90, 100, 120, 150, 180</b>	\$225.00
	Solid Shaft	<b>5GE□RAA</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$165.00
			<b>12.5, 15, 18</b>	\$167.00
			<b>25</b>	\$172.00
Parallel Shaft	Long Life <b>GE-S</b> Gearhead	<b>5GE10XS</b> (Decimal Gearhead)	<b>30, 36, 50, 60</b>	\$179.00
			<b>75, 90, 100, 120, 150, 180</b>	\$194.00

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

The following items are included with each product.

- Parallel Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Operating Manual
- Hollow Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
- Solid Shaft Gearhead  
Gearhead, Installation Screws, Parallel Key, Gasket, Operating Manual

### Gearmotor – Torque Table

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio 10:1) between the gearhead and the motor.  
In that case, the permissible torque is 20 N·m (177 lb-in).

Unit: Upper values: N-m/Lower values: lb-in

Product Name	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>5IK90GE-SW2M</b> / <b>5GE□SA</b>		1.4 12.3	1.7 15.0	2.3 20	2.8 24	3.5 30	4.2 37	5.2 46	6.2 54	7.5 66	9.4 83	11.3 100	13.5 119	18.8 166	20 177	20 177	20 177	20 177	20 177	20 177	20 177

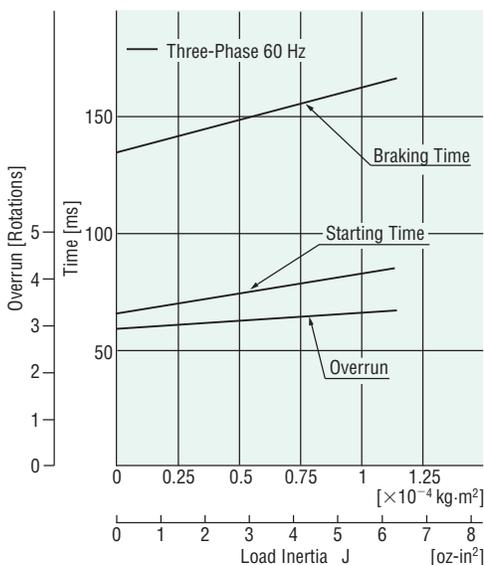
### Permissible Radial Load and Permissible Axial Load

Motor (Round shaft type) → Page C-17  
Gearhead → Page C-17

### Permissible Inertia J of Gearhead

→ Page C-18

### Starting and Braking Characteristics (Reference values)



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

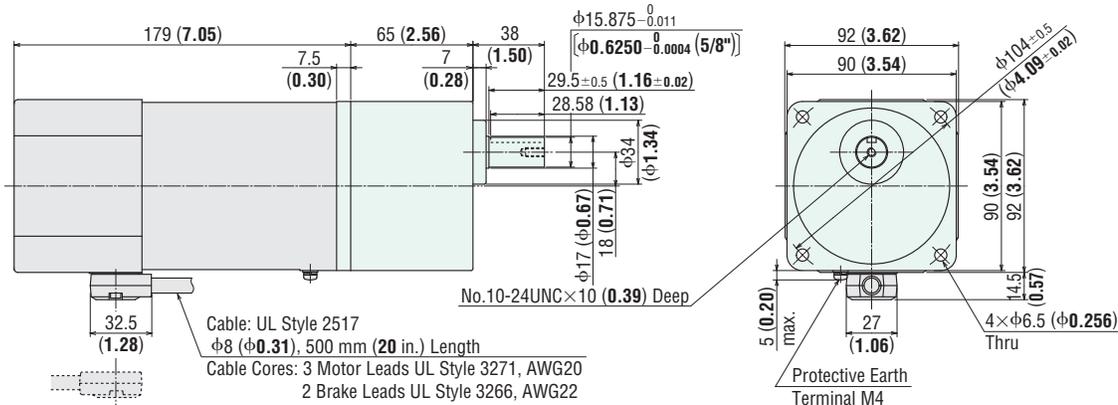
## Dimensions Unit = mm (in.)

● Installation screws are included with gearheads. Dimensions for installation screws → Page C-215

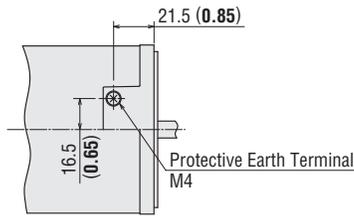
### ◇ Motor/Gearhead

Mass: Motor 3.9 kg (8.6 lb.)  
Gearhead 1.5 kg (3.3 lb.)

**2D CAD** A472U **3D CAD**



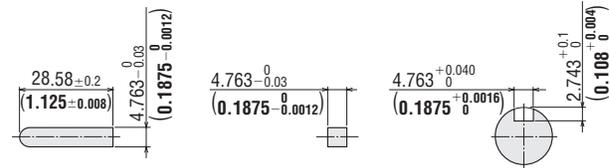
● Cable direction can be switched to the opposite direction.



Detail Drawing of Protective Earth Terminal

### ◇ Key and Key Slot

(The key is included with the gearhead)

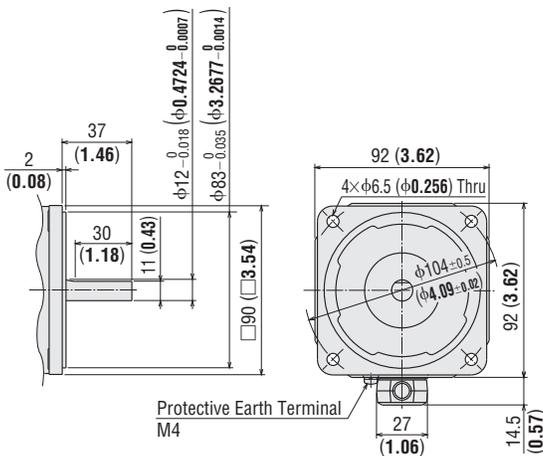


### ◇ Shaft Section of Round Shaft Type

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

Mass: 3.9 kg (8.6 lb.)

**2D CAD** A473 **3D CAD**



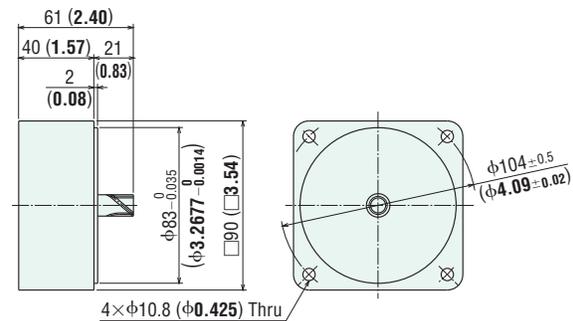
### ◇ Decimal Gearhead

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

**5GE10XS**

Mass: 0.6 kg (1.32 lb.)

**2D CAD** A029 **3D CAD**



Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
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Motors

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Low-Speed  
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Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

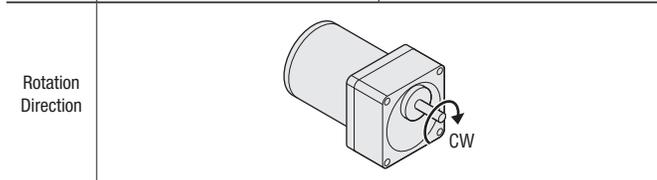
### Connection Diagrams

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

#### Induction Motors

##### ◇ Clockwise Rotation

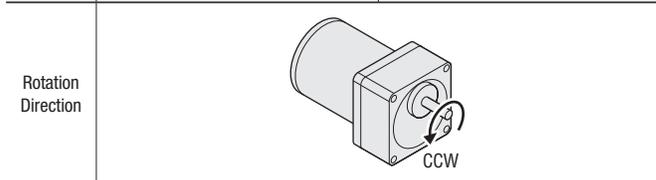
Output Power	Type and Gear Ratio	
6 W (1/125 HP) 15 W (1/50 HP) 25 W (1/30 HP) 40 W (1/19 HP)	Gear Ratio: <b>3~18, 50~180</b> Round shaft type	Gear Ratio: <b>25~36</b>
60 W (1/12 HP) 90 W (1/8 HP)	Gear Ratio: <b>3~9, 25~60</b> Round shaft type	Gear Ratio: <b>12.5~18, 75~180</b>



Three-Phase Motor*		
Terminal Box Type		
Lead Wire Type		
Conduit Box Type		

##### ◇ Counterclockwise Rotation

Output Power	Type and Gear Ratio	
6 W (1/125 HP) 15 W (1/50 HP) 25 W (1/30 HP) 40 W (1/19 HP)	Gear Ratio: <b>3~18, 50~180</b> Round shaft type	Gear Ratio: <b>25~36</b>
60 W (1/12 HP) 90 W (1/8 HP)	Gear Ratio: <b>3~9, 25~60</b> Round shaft type	Gear Ratio: <b>12.5~18, 75~180</b>



Three-Phase Motor*		
Terminal Box Type		
Lead Wire Type		
Conduit Box Type		

\*By switching any two connections between R, S and T, the rotation direction can be switched.

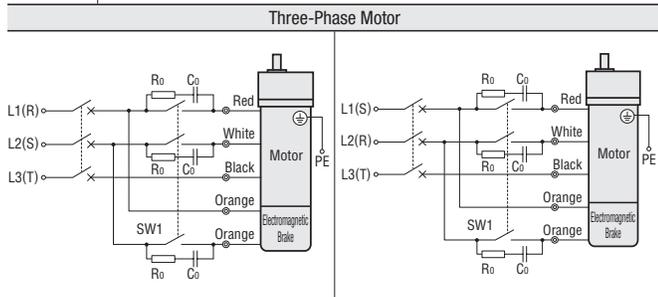
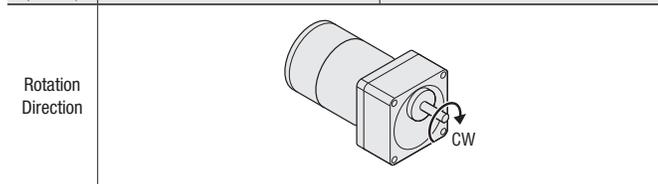
Induction Motors  
Electromagnetic Brake Motors  
High-Efficiency KIIS Series  
60 W (1/12 HP)  
100 W (1/8 HP)

Induction Motors  
6 W (1/125 HP)  
15 W (1/150 HP)  
25 W (1/30 HP)  
40 W (1/19 HP)  
60 W (1/12 HP)  
90 W (1/8 HP)  
BH Series 200 W (1/4 HP)  
2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## ● Electromagnetic Brake Motors

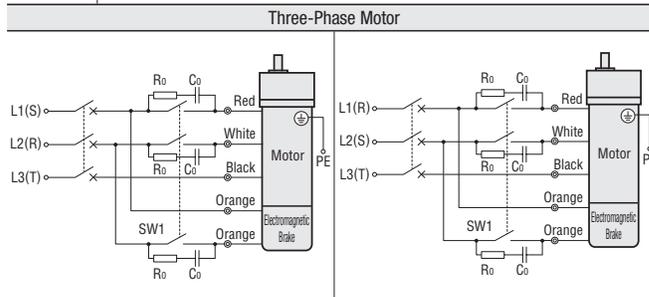
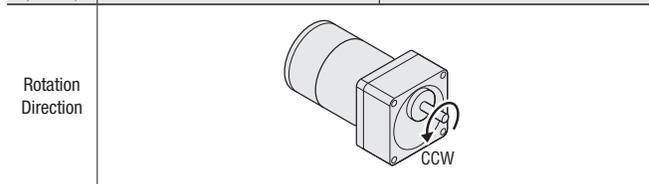
### ◇ Clockwise Rotation

Output Power	Type and Gear Ratio	
6 W (1/125 HP) 15 W (1/50 HP) 25 W (1/30 HP) 40 W (1/19 HP)	Gear Ratio: <b>3~18,</b> <b>50~180</b> Round Shaft Type	Gear Ratio: <b>25~36</b>
60 W (1/12 HP) 90 W (1/8 HP)	Gear Ratio: <b>3~9,</b> <b>25~60</b> Round Shaft Type	Gear Ratio: <b>12.5~18,</b> <b>75~180</b>



### ◇ Counterclockwise Rotation

Output Power	Type and Gear Ratio	
6 W (1/125 HP) 15 W (1/50 HP) 25 W (1/30 HP) 40 W (1/19 HP)	Gear Ratio: <b>3~18,</b> <b>50~180</b> Round Shaft Type	Gear Ratio: <b>25~36</b>
60 W (1/12 HP) 90 W (1/8 HP)	Gear Ratio: <b>3~9,</b> <b>25~60</b> Round Shaft Type	Gear Ratio: <b>12.5~18,</b> <b>75~180</b>



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

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

Switch No.	Contact Capacity of Switch	Remarks
	Three-Phase 220/230 VAC Input	
SW1	250 VAC 1.5 A or more (40 W (1/19 HP) or more: 5 A or more) Inductive load	Switched simultaneously

To protect the contact, connect a CR circuit (RoCo) for surge suppression as shown on the connection diagram.  
Ro = 5~200 Ω Co = 0.1~0.2 μF 200 WV (400 WV)  
Available from Oriental Motor as an accessory. Accessory Product Name **EPCR1201-2** (Sold separately) → Page C-208

Overview, Product Series

Constant Speed Induction Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

# High Power Induction Motors BH Series

## 200 W (1/4 HP)

### Frame Size: □104 mm (□4.09 in.)



Cable Type  
Right-Angle Hollow Shaft



Terminal Box Type  
Parallel Shaft

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KII Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## Features

### ● High Power 200 W (1/4 HP)

Smallest frame size among 200 W (1/4 HP) motors

### ● Hypoid Gear Right-Angle Gearheads

Right-angle gearheads employ hypoid gears. Hollow shafts and solid shafts are available to enable space-saving.

### ● Tapped Hole at the Shaft End

The gearhead shafts feature a tapped hole for convenient connection with loads.

### ● "Combination Type" for Easy Installation

The combination type comes with the motor and gearhead pre-assembled. This enables easy installation in equipment.

## Specifications – Continuous Rating



Product Name Combination Type ( ) : Round Shaft Type	Output Power W HP	Voltage VAC	Frequency Hz	Current A	Starting Torque N·m oz·in	Rated Torque N·m oz·in	Rated Speed r/min	Overheat Protection Device
<b>BHI62ST-□RH</b> <b>BHI62ST-□RA</b> <b>BHI62ST-□</b> <b>(BHI62ST-A)</b>	200 1/4	Three-Phase 220	60	0.95	1.23	1.23	1550	TP
					174	174		
<b>BHI62S-□RH</b> <b>BHI62S-□RA</b> <b>BHI62S-□</b> <b>(BHI62S-A)</b>	200 1/4	Three-Phase 230	60	0.95	1.18	1.18	1600	TP
					167	167		

● The values for each specification applies to the motor only.

TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped.

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

## Product Line

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

### ● Combination Type

#### ◇ Right-Angle Shaft

Type	Voltage	Product Name	Gear Ratio	List Price
Hollow Shaft Terminal Box	Three-Phase 220/230 VAC	<b>BHI62ST-□RH</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36</b>	\$433.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$453.00
Hollow Shaft Cable	Three-Phase 220/230 VAC	<b>BHI62S-□RH</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36</b>	\$403.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$423.00
Solid Shaft Terminal Box	Three-Phase 220/230 VAC	<b>BHI62ST-□RA</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36</b>	\$427.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$447.00
Solid Shaft Cable	Three-Phase 220/230 VAC	<b>BHI62S-□RA</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36</b>	\$397.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$417.00

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

#### ◇ Parallel Shaft

Type	Voltage	Product Name	Gear Ratio	List Price
Terminal Box	Three-Phase 220/230 VAC	<b>BHI62ST-□</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$371.00
			<b>12.5, 15, 18, 25, 30, 36</b>	\$381.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$391.00
Cable	Three-Phase 220/230 VAC	<b>BHI62S-□</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$342.00
			<b>12.5, 15, 18, 25, 30, 36</b>	\$351.00
			<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$361.00

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

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

## ● Round Shaft Type

Type	Voltage	Product Name	List Price
Terminal Box	Three-Phase 220/230 VAC	<b>BHI62ST-A</b>	\$221.00
Cable	Three-Phase 220/230 VAC	<b>BHI62S-A</b>	\$191.00

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

## ■ Gearmotor – Torque Table for Combination Type

- Enter the code that represents the terminal box type “T” in the box  within the product name.
- A number indicating the gear ratio is entered where the box  is located within the product name.
- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
 The actual speed is 2~20% less than the displayed value, depending on the load.
- Decimal gearheads are not available for the **BH** series.

## ● Right-Angle Shaft

Unit: Upper values: N-m/Lower values: lb-in

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	<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>180</b>
<b>BHI62S</b> <input type="checkbox"/> - <input type="checkbox"/> RH, <b>BHI62S</b> <input type="checkbox"/> - <input type="checkbox"/> RA (220 VAC)		4.5 39	5.4 47	6.7 59	8.1 71	11.2 99	13.5 119	16.2 143	22.4 198	26.9 230	32.3 280	40.0 350	43.0 380	47.0 410	51.5 450	54.5 480	60 530	60 530	60 530
<b>BHI62S</b> <input type="checkbox"/> - <input type="checkbox"/> RH, <b>BHI62S</b> <input type="checkbox"/> - <input type="checkbox"/> RA (230 VAC)		4.3 38	5.2 46	6.5 57	7.8 69	10.8 95	12.9 114	15.5 137	21.5 190	25.8 220	31.0 270	40.0 350	43.0 380	47.0 410	51.5 450	54.5 480	60 530	60 530	60 530

## ● Parallel Shaft

Unit: Upper values: N-m/Lower values: lb-in

Product Name	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>180</b>
<b>BHI62S</b> <input type="checkbox"/> - <input type="checkbox"/> (220 VAC)		3.3 29	4.0 35	5.5 48	6.6 58	8.3 73	10.0 88	13.2 116	15.9 140	19.0 168	26.4 230	31.7 280	38.1 330	40 350	40 350	40 350	40 350	40 350	40 350	40 350	40 350
<b>BHI62S</b> <input type="checkbox"/> - <input type="checkbox"/> (230 VAC)		3.2 28	3.8 33	5.3 46	6.4 56	8.0 70	9.6 84	12.7 112	15.2 134	18.3 161	25.4 220	30.4 260	36.5 320	40 350	40 350	40 350	40 350	40 350	40 350	40 350	40 350

## ■ Permissible Radial Load and Permissible Axial Load

Combination Type → Page C-17  
 Round Shaft Type → Page C-17

## ■ Permissible Inertia J of Gearhead

→ Page C-18

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

**Dimensions** Unit = mm (in.)

● Installation screws are included with the combination type, parallel shaft. Dimensions for installation screws → Page C-215

● Induction Motors

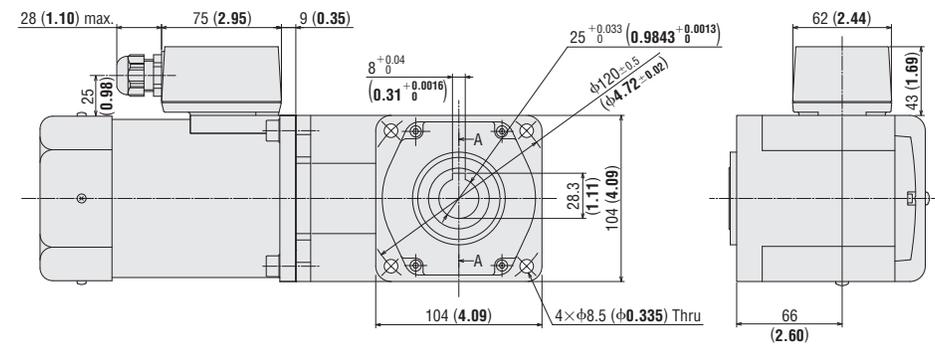
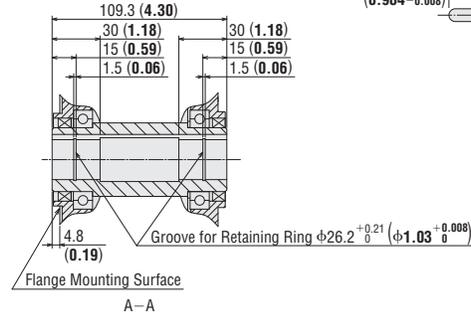
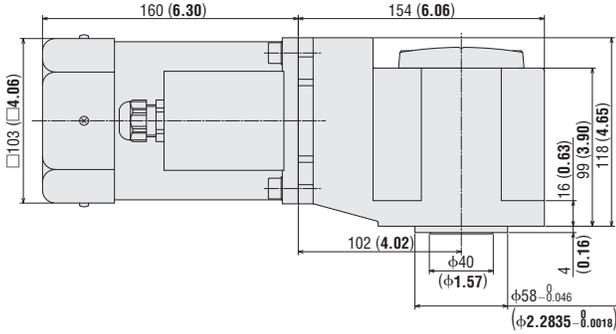
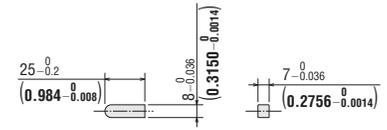
◇ Combination Type: Right-Angle, Hollow Shaft (Terminal Box Type)

**BHI62ST-□RH**

Mass: 10.0 kg (22 lb.) Motor: BHI62ST-G2

Gearhead: BH6G2-□RH **2D CAD** A301 **3D CAD**

◇ Key (Included)



- Use cable with a diameter of φ6~φ12 mm (φ0.24~φ0.47 in.).
- Details of terminal box → Page C-214

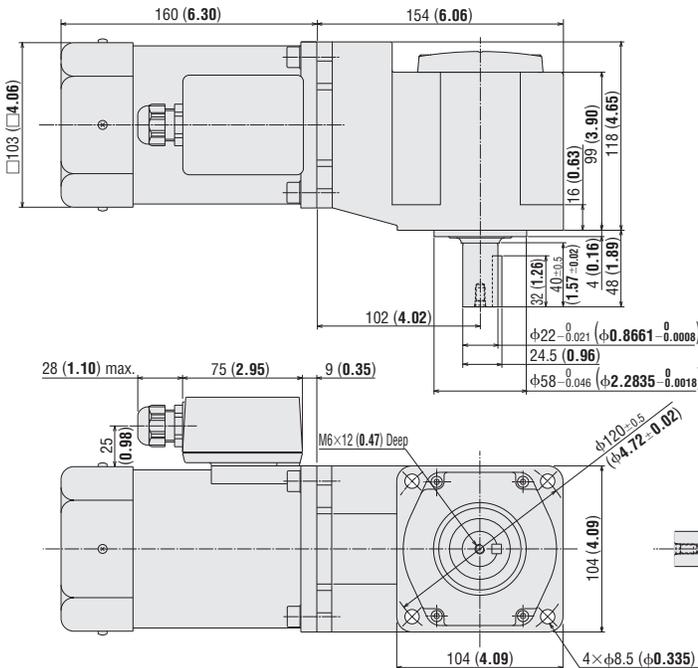
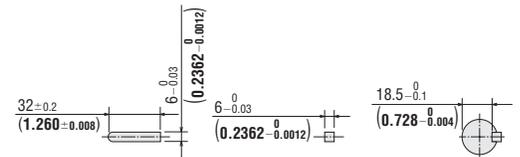
◇ Combination Type: Right-Angle, Solid Shaft (Terminal Box Type)

**BHI62ST-□RA**

Mass: 10.0 kg (22 lb.) Motor: BHI62ST-G2

Gearhead: BH6G2-□RA **2D CAD** A302 **3D CAD**

◇ Key and Key Slot (Included)



- Use cable with a diameter of φ6~φ12 mm (φ0.24~φ0.47 in.).
- Details of terminal box → Page C-214

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

Induction Motors  
Electromagnetic Brake Motors  
High-Efficiency KIIS Series  
60 W (1/12 HP)  
100 W (1/8 HP)

Induction Motors  
6 W (1/125 HP)  
15 W (1/150 HP)  
25 W (1/30 HP)  
40 W (1/19 HP)  
60 W (1/12 HP)  
90 W (1/8 HP)  
BH Series  
200 W (1/4 HP)  
2-Pole, High-Speed  
60-150 W (1/12-1/5 HP)

## ◇ Combination Type: Right-Angle, Hollow Shaft (Cable Type)

### BHI62S-□RH

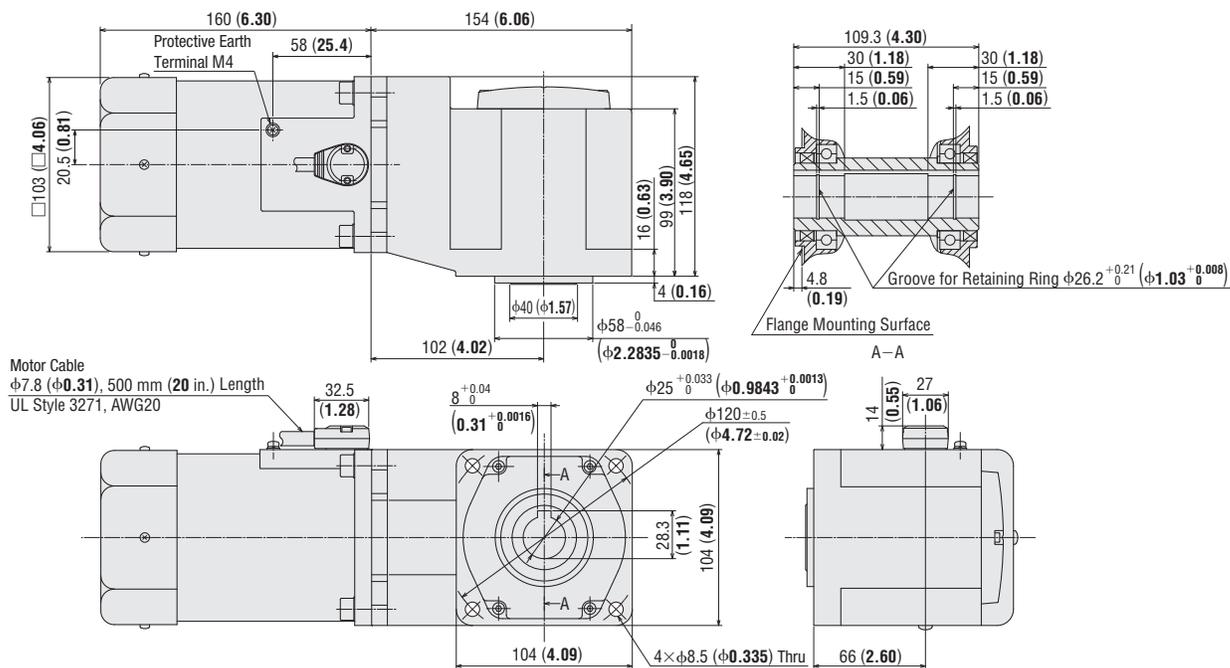
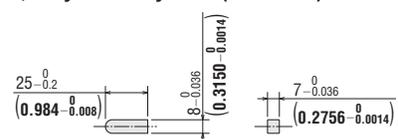
Mass: 10.0 kg (22 lb.)

Motor: BHI62S-G2

Gearhead: BH6G2-□RH

2D CAD A299 3D CAD

## ◇ Key and Key Slot (Included)



## ◇ Combination Type: Right-Angle, Solid Shaft (Cable Type)

### BHI62S-□RA

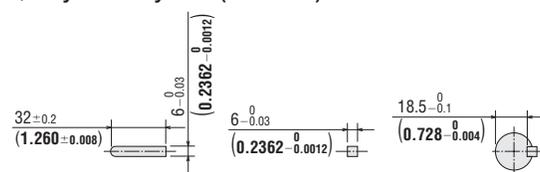
Mass: 10.0 kg (22 lb.)

Motor: BHI62S-G2

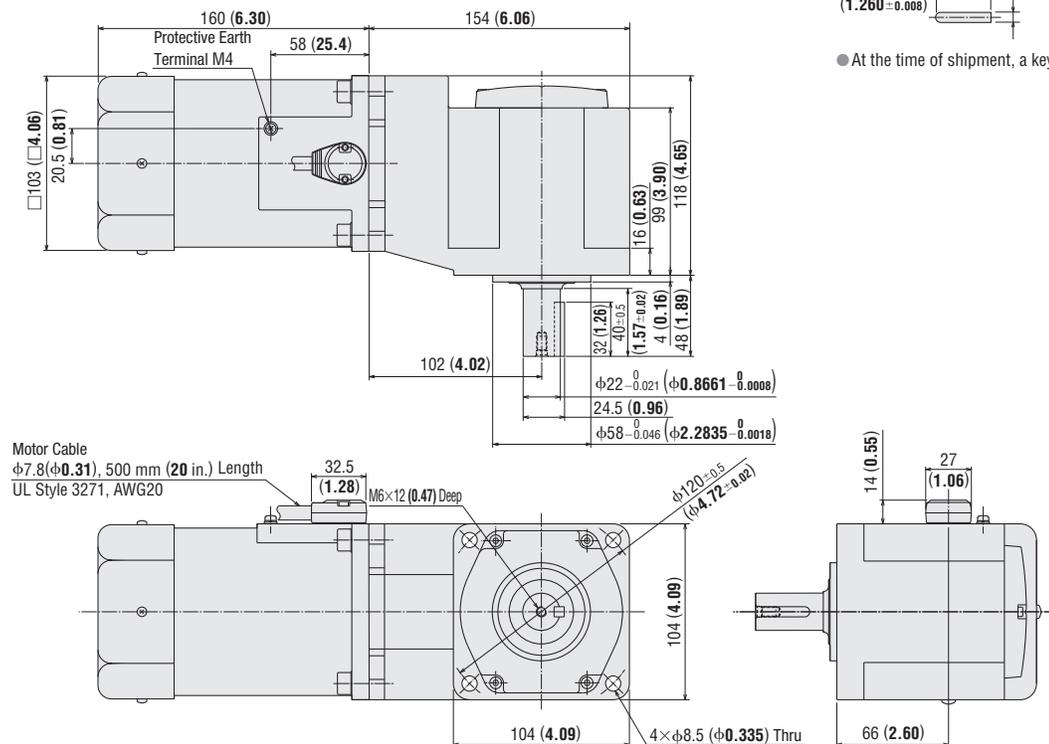
Gearhead: BH6G2-□RA

2D CAD A300 3D CAD

## ◇ Key and Key Slot (Included)



● At the time of shipment, a key is inserted on the gearhead's shaft.



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

Overview,  
Product  
Series

Constant  
Speed  
Induction  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

## ◇ Combination Type: Parallel Shaft (Terminal Box Type)

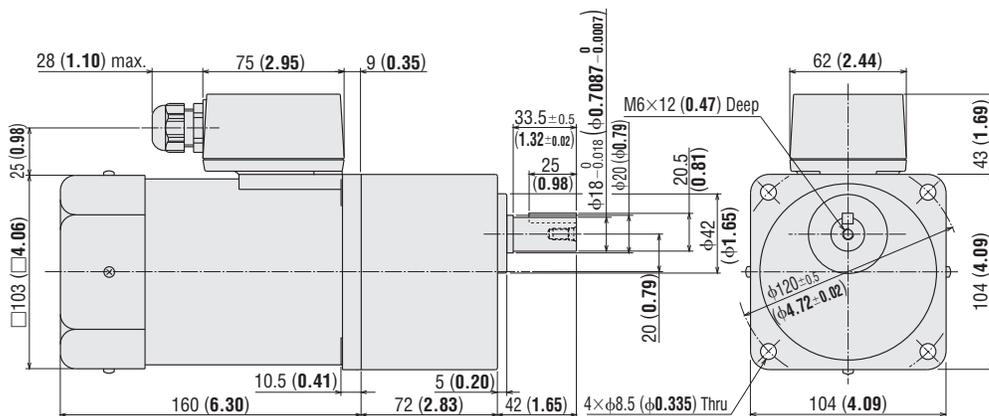
**BHI62ST**-□

Mass: 8.0 kg (18 lb.)

Motor: BHI62ST-G2

Gearhead: BH6G2-□

2D CAD A304 3D CAD



● Use cable with a diameter of φ6~φ12 mm (φ0.24~φ0.47 in.).

● Details of terminal box → Page C-214

## ◇ Combination Type: Parallel Shaft (Cable Type)

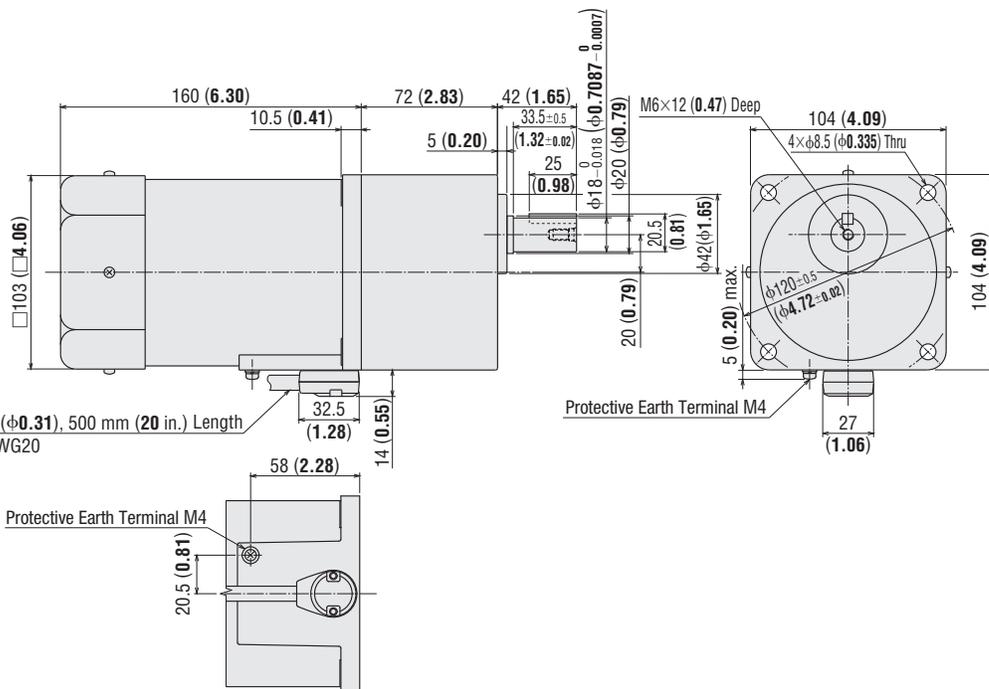
**BHI62S**-□

Mass: 8.0 kg (18 lb.)

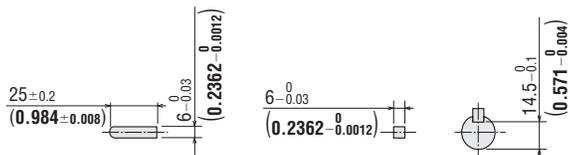
Motor: BHI62S-G2

Gearhead: BH6G2-□

2D CAD A303 3D CAD



## ◇ Key and Key Slot (Included, common as BHI62)



● At the time of shipment, a key is inserted on the gearhead's shaft.

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



# BH Series

## Power Off Activated Electromagnetic Brake

### 200 W (1/4 HP)

Frame Size: □104 mm (□4.09 in.)



Right-Angle Hollow Shaft

Parallel Shaft

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

### Features

- **High Power 200 W (1/4 HP)**  
Smallest frame size among 200 W (1/4 HP) motors
- **Hypoid Gear Right-Angle Gearheads**  
Right-angle gearheads employ hypoid gears. Hollow shafts and solid shafts are available to enable space-saving.
- **Tapped Hole at the Shaft End**  
The gearhead shafts feature a tapped hole for convenient connection with a load.

- **"Combination Type" for Easy Installation**  
The combination type comes with the motor and gearhead pre-assembled. This enables easy installation in equipment.

Combination Type:  
Motor and gearhead are delivered pre-assembled. The combination of motors and gearheads can be changed and they are also available separately.

### Specifications – Continuous Rating



Product Name		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Overheat Protection Device
Combination Type	Round Shaft Type	W HP	VAC	Hz	A	N-m oz-in	N-m oz-in	r/min	
<b>BHI62SMT-□RH</b> <b>BHI62SMT-□RA</b> <b>BHI62SMT-□</b>	<b>BHI62SMT-A</b>	200 1/4	Three-Phase 220	60	0.95	1.23 174	1.23 174	1550	TP
			Three-Phase 230			1.18 167	1.18 167	1600	

● The values for each specification applies to the motor only.  
TP: Contains a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. (The power supply to the electromagnetic brake is 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 power off before inspecting.

### Electromagnetic Brake (Power Off Activated Type)

Motor Product Name	Voltage	Frequency	Current	Input	Holding Brake Torque
	VAC	Hz	A	W	N-m oz-in
<b>BHI62SMT-□RH, BHI62SMT-□RA</b> <b>BHI62SMT-□, BHI62SMT-A</b>	Single-Phase 220	60	0.09	12	1.5
	Single-Phase 230				210

### Product Line

#### Combination Type

##### ◇ Right-Angle Shaft

Type	Product Name	Gear Ratio	List Price
Hollow Shaft	<b>BHI62SMT-□RH</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36</b>	\$693.00
		<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$713.00
Solid Shaft	<b>BHI62SMT-□RA</b>	<b>5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36</b>	\$687.00
		<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$707.00

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

##### ◇ Parallel Shaft

Voltage	Product Name	Gear Ratio	List Price
Three-Phase 220/230 VAC	<b>BHI62SMT-□</b>	<b>3, 3.6, 5, 6, 7.5, 9</b>	\$632.00
		<b>12.5, 15, 18, 25, 30, 36</b>	\$641.00
		<b>50, 60, 75, 90, 100, 120, 150, 180</b>	\$651.00

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

#### Round Shaft Type

Voltage	Product Name	List Price
Three-Phase 220/230 VAC	<b>BHI62SMT-A</b>	\$481.00

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

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

## Gearmotor – Torque Table for Combination Type

- The speed is calculated by dividing the motor's synchronous speed (60 Hz: 1800 r/min) by the gear ratio.  
The actual speed is 2~20% less than the displayed value, depending on the load.
- Decimal gearheads are not available for the **BH** Series.

### Right-Angle Shaft

Unit: Upper values: N-m/Lower values: lb-in

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	<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>180</b>
<b>BHI62SMT-□RH/RA</b> (220 VAC)	4.5 39	5.4 47	6.7 59	8.1 71	11.2 99	13.5 119	16.2 143	22.4 198	26.9 230	32.3 280	40.0 350	43.0 380	47.0 410	51.5 450	54.5 480	60 530	60 530	60 530	
<b>BHI62SMT-□RH/RA</b> (230 VAC)	4.3 38	5.2 46	6.5 57	7.8 69	10.8 95	12.9 114	15.5 137	21.5 190	25.8 220	31.0 270	40.0 350	43.0 380	47.0 410	51.5 450	54.5 480	60 530	60 530	60 530	

### Parallel Shaft

Unit: Upper values: N-m/Lower values: lb-in

Product Name	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>180</b>
<b>BHI62SMT-□</b> (220 VAC)	3.3 29	4.0 35	5.5 48	6.6 58	8.3 73	10.0 88	13.2 116	15.9 140	19.0 168	26.4 230	31.7 280	38.1 330	40 350	40 350	40 350	40 350	40 350	40 350	40 350	40 350	40 350
<b>BHI62SMT-□</b> (230 VAC)	3.2 28	3.8 33	5.3 46	6.4 56	8.0 70	9.6 84	12.7 112	15.2 134	18.3 161	25.4 220	30.4 260	36.5 320	40 350	40 350	40 350	40 350	40 350	40 350	40 350	40 350	40 350

## Permissible Radial Load and Permissible Axial Load

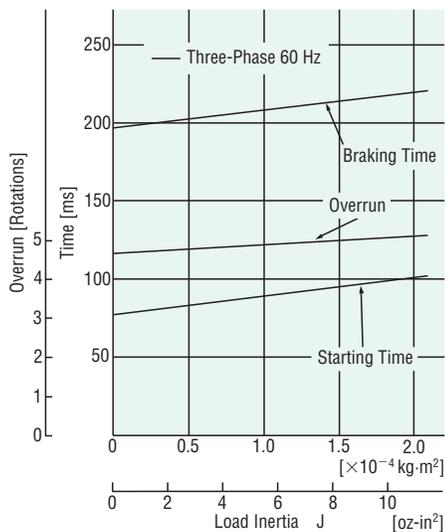
Combination Type → Page C-17

Round Shaft Type → Page C-17

## Permissible Inertia J of Gearhead

→ Page C-18

## Starting and Braking Characteristics (Reference values)



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

Overview, Product Series

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

**Dimensions** Unit = mm (in.)

● Installation screws are included with the combination type, parallel shaft. Dimensions for installation screws → Page C-215

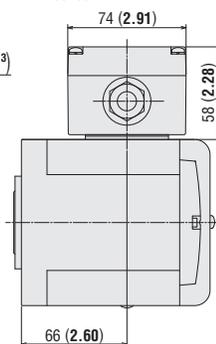
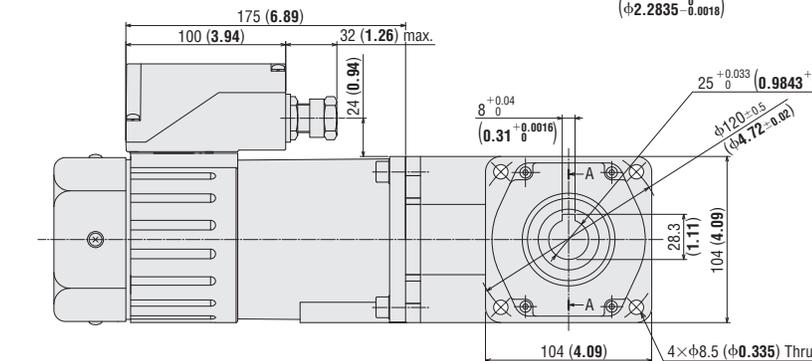
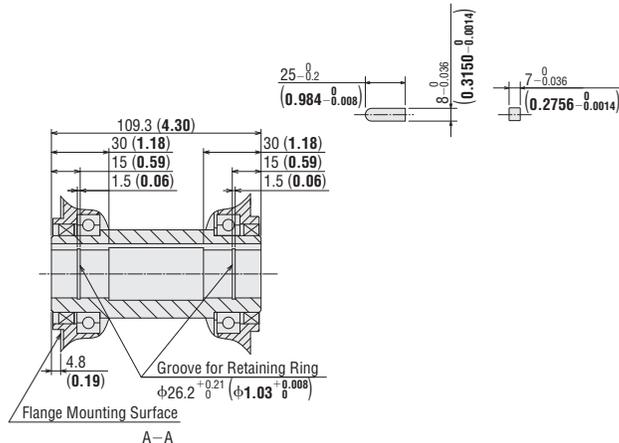
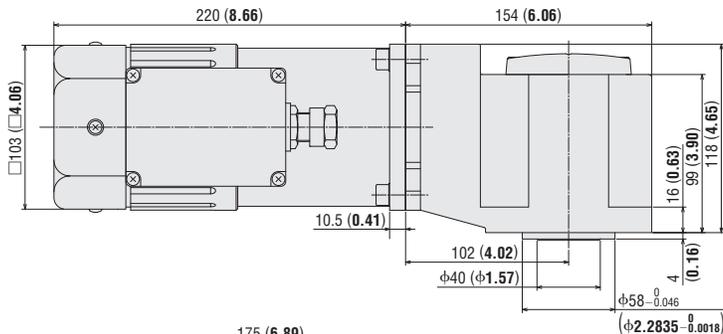
◇ Combination Type: Right-Angle, Hollow Shaft

◇ Key (Included)

**BHI62SMT-□RH**

Mass: 11.5 kg (25 lb.) Motor: BHI62SMT-G2

Gearhead: BH6G2-□RH **2D CAD** A384 **3D CAD**



- Use cable with a diameter of  $\phi 8 \sim \phi 12$  mm ( $\phi 0.31 \sim \phi 0.47$  in.).
- Details of terminal box → Page C-214

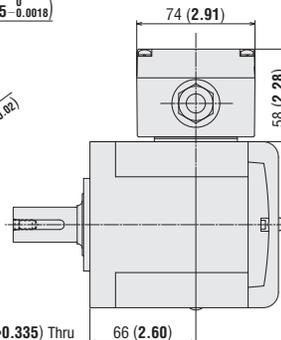
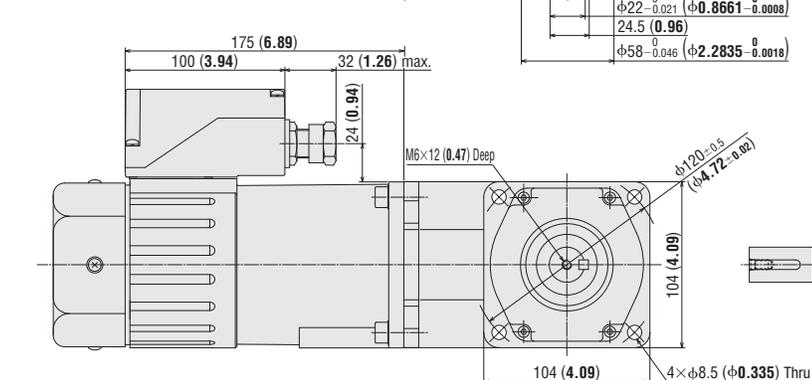
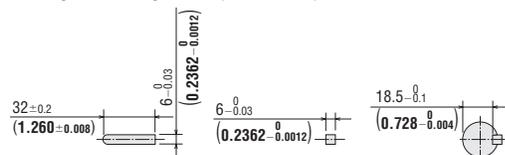
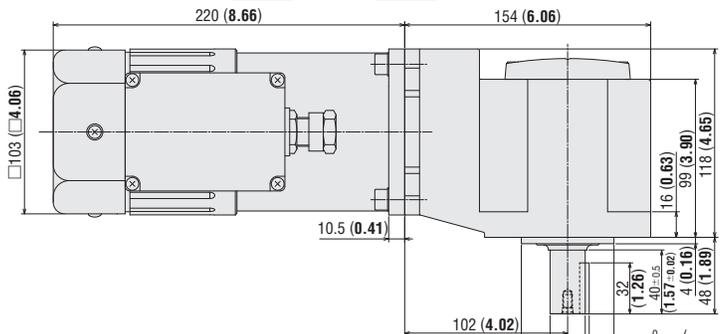
◇ Combination Type: Right-Angle, Solid Shaft

◇ Key and Key Slot (Included)

**BHI62SMT-□RA**

Mass: 11.5 kg (25 lb.) Motor: BHI62SMT-G2

Gearhead: BH6G2-□RA **2D CAD** A385 **3D CAD**



- Use cable with a diameter of  $\phi 8 \sim \phi 12$  mm ( $\phi 0.31 \sim \phi 0.47$  in.).
- Details of terminal box → Page C-214
- A number indicating the gear ratio is entered where the box □ is located within the product name.

## ◇ Combination Type: Parallel Shaft

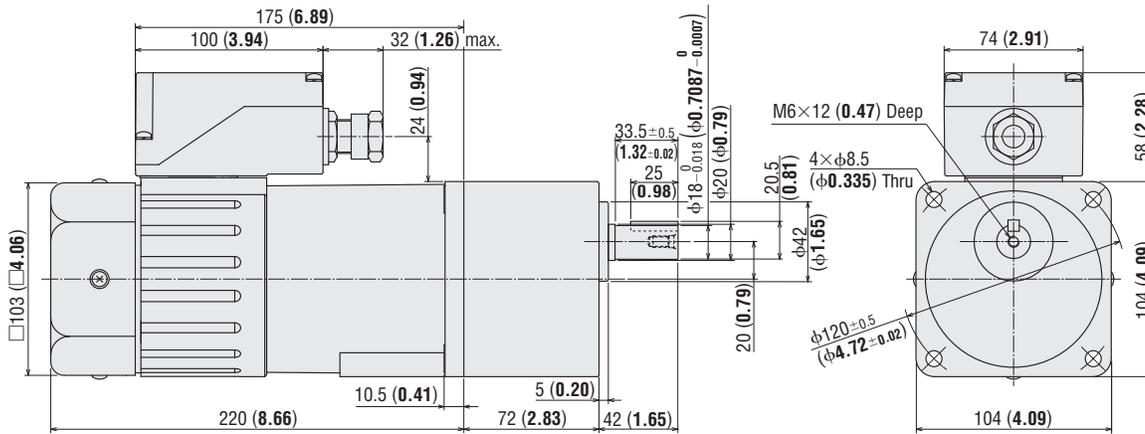
### BHI62SMT-□

Mass: 9.5 kg (21 lb.)

Motor: BHI62SMT-G2

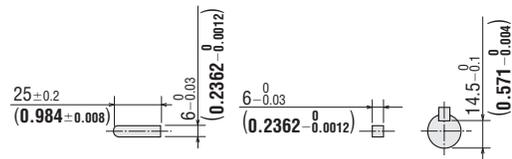
Gearhead: BH6G2-□

2D CAD A386 3D CAD



- Use cable with a diameter of  $\phi 8 \sim \phi 12$  mm ( $\phi 0.31 \sim \phi 0.47$  in.).
- Details of terminal box → Page C-214

## ◇ Key and Key Slot (Included)



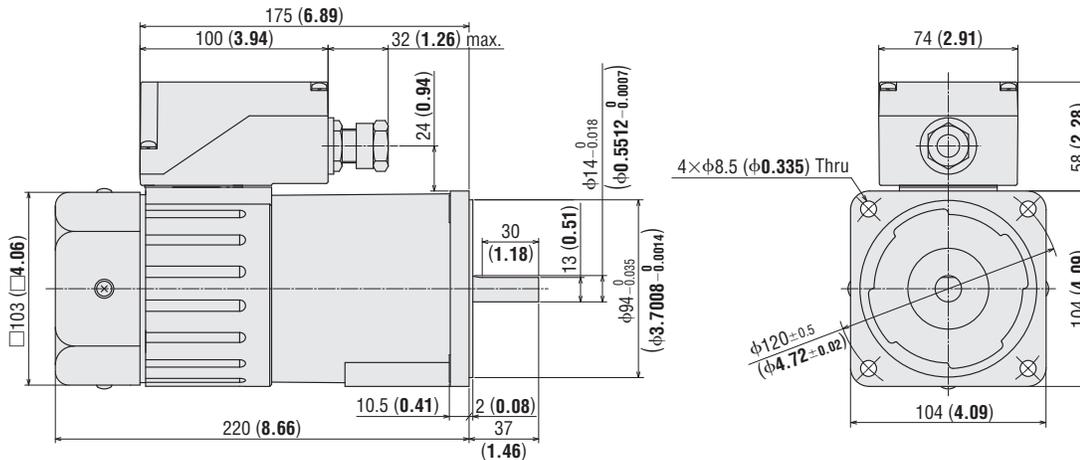
- At the shipment, a parallel key is inserted on the gearhead's shaft.

## ◇ Round Shaft Type

### BHI62SMT-A

Mass: 6.5 kg (14 lb.)

2D CAD A387 3D CAD



- Use cable with a diameter of  $\phi 8 \sim \phi 12$  mm ( $\phi 0.31 \sim \phi 0.47$  in.).
- Details of terminal box → Page C-214

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

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

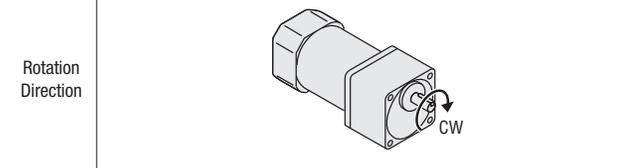
### Connection Diagrams

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

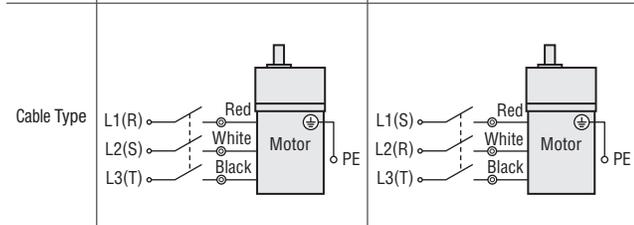
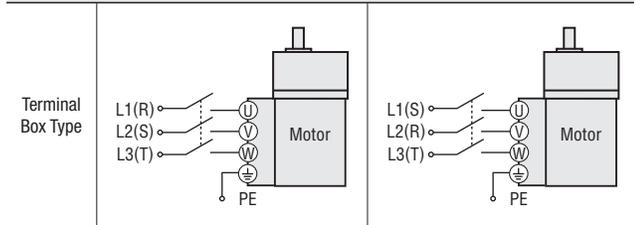
#### Induction Motors: Parallel Shaft, Round Shaft Type

##### ◇ Clockwise Rotation

Product Name	Type and Gear Ratio	
<b>BHI62</b>	Gear Ratio: <b>3~9, 50~180</b> Round shaft type	Gear Ratio: <b>12.5~36</b>



Three-Phase Motor\*



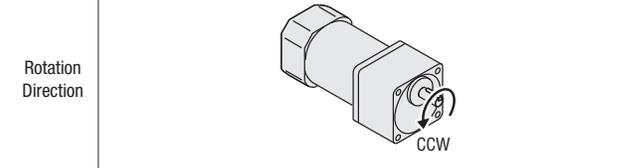
\*By switching any two connections between R, S and T, the rotation direction can be switched.

**Note**

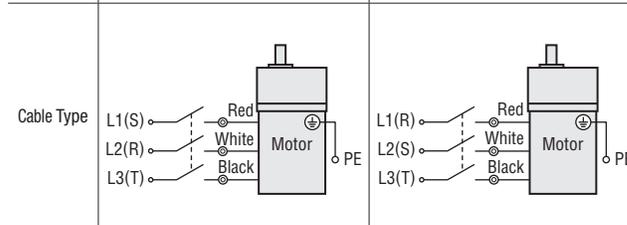
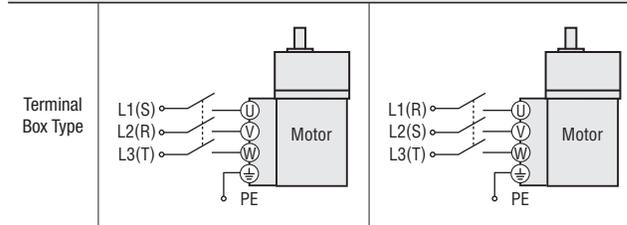
- Connect a CR circuit for contact protection of the switches. Connection of CR circuit, contact capacity → Page C-213
- For added safety, provide a breaker or fuse on the power-supply input.

##### ◇ Counterclockwise Rotation

Product Name	Type and Gear Ratio	
<b>BHI62</b>	Gear Ratio: <b>3~9, 50~180</b> Round shaft type	Gear Ratio: <b>12.5~36</b>



Three-Phase Motor\*

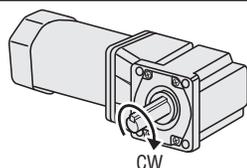


- Induction Motors
- Electromagnetic Brake Motors
- High-Efficiency KIIS Series
- 60 W (1/12 HP)
- 100 W (1/8 HP)
- Induction Motors
- 6 W (1/125 HP)
- 15 W (1/150 HP)
- 25 W (1/30 HP)
- 40 W (1/19 HP)
- 60 W (1/12 HP)
- 90 W (1/8 HP)
- BH Series 200 W (1/4 HP)
- 2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## ● Induction Motors: Right-Angle Shaft

### ◇ Clockwise Rotation

Type and Gear Ratio	
Solid Shaft Type	Gear Ratio: <b>5~180</b>
Hollow Shaft Type*1	Gear Ratio: <b>5~180</b>



Three-Phase Motor*2	
Terminal Box Type	
Cable Type	

\*1 The wiring for the hollow shaft type changes according to the installation direction of the load shaft.

\*2 By switching any two connections between R, S and T, the rotation direction can be switched.

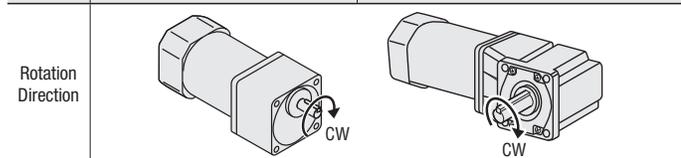
#### Note

- If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction of rotation after some delay.
- Connect a CR circuit for contact protection of the switches. Connection of CR circuit, contact capacity → Page C-213
- For added safety, provide a breaker or fuse on the power-supply input.

## ● Electromagnetic Brake Motors

### ◇ Clockwise Rotation

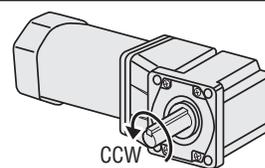
Product Name	Type and Gear Ratio	
<b>BHI62</b>	· Combination Type with Parallel Shaft	· Combination Type with Parallel Shaft
	Gear Ratio: <b>3~9, 50~180</b>	Gear Ratio: <b>12.5~36</b>
	· Round Shaft Type	· Combination Type with Right-Angle Shaft*1
		Gear Ratio: <b>5~180</b>



Three-Phase Motor*2	

### ◇ Counterclockwise Rotation

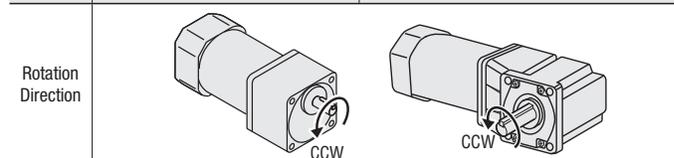
Type and Gear Ratio	
Solid Shaft Type	Gear Ratio: <b>5~180</b>
Hollow Shaft Type*1	Gear Ratio: <b>5~180</b>



Three-Phase Motor*2	
Terminal Box Type	
Cable Type	

### ◇ Counterclockwise Rotation

Product Name	Type and Gear Ratio	
<b>BHI62</b>	· Combination Type with Parallel Shaft	· Combination Type with Parallel Shaft
	Gear Ratio: <b>3~9, 50~180</b>	Gear Ratio: <b>12.5~36</b>
	· Round Shaft Type	· Combination Type with Right-Angle Shaft*1
		Gear Ratio: <b>5~180</b>



Three-Phase Motor*2	

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

Run/Stop	Switch No.	Contact Capacity of Switch	Remarks
	SW1	250 VAC 5 A or more Inductive load	

To protect the contact, connect a CR circuit (RoCo) for surge suppression as shown on the connection diagram.

Ro = 5~200 Ω Co = 0.1~0.2 μF 200 WV

Available from Oriental Motor as an accessory. Accessory Product Name **EPC1201-2** (Sold separately) → Page C-208

\*1 The wiring for the hollow shaft type changes according to the installation direction of the load shaft.

\*2 By switching any two connections between R, S and T, the rotation direction can be switched.

Overview,  
Product  
Series

Constant  
Speed  
Motors

Three-Phase  
Induction  
Motors

Single-Phase  
Induction  
Motors

Reversible  
Motors

Electromagnetic  
Brake Motors

Clutch &  
Brake Motors

Low-Speed  
Synchronous  
Motors

Torque  
Motors

Watertight,  
Dust-Resistant  
Motors

Right-Angle  
Gearheads

Linear  
Heads

Brake Pack

Accessories

Installation

## Mounting Method for Right-Angle, Hollow Shaft Types

### Example of Load Mounting Method

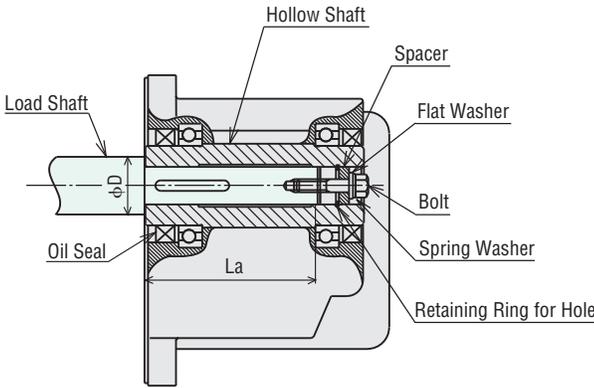
These figures below show how to install loads depending on the shape of the shaft.

- Install the load shaft to the hollow output shaft by aligning the center of the hollow shaft with that of the load shaft.
- The hollow output shaft has a key slot. Machine a matching key slot on the load shaft and use the supplied key to fix the two shafts across the slots.
- The recommended tolerance of the load shaft is h7.
- If the motor is intended to receive large shocks due to frequent instantaneous stops or carry a large radial load, use a stepped load shaft.

**Note**

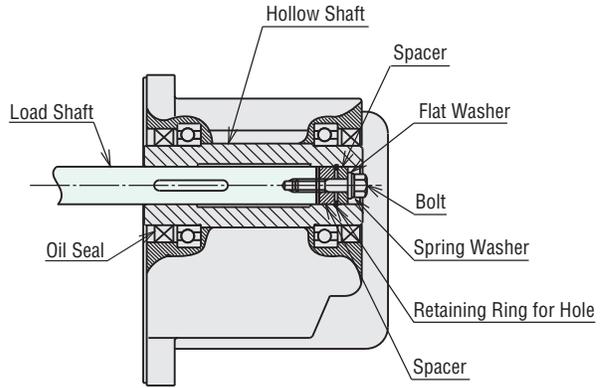
- When installing the load shaft to the hollow output shaft, be careful not to damage the hollow output shaft or bearing.
- To prevent sticking, apply a coat of molybdenum disulfide grease on the exterior surface of the load shaft and interior surface of the hollow output shaft.
- Do not attempt to modify or machine the hollow output shaft. It may damage the bearing and cause the hollow shaft type gearhead to break.

#### Stepped Load Shaft



● After securing a load, attach the safety cover included.

#### Straight Load Shaft



### Recommended Load Shaft Installation Dimensions

Unit: mm (in.)

Product Name	BH Series BH6G2-□RH
Inner Diameter of Hollow Shaft	$\phi 25^{+0.033}_0$ ( $\phi 0.9843^{+0.0013}_0$ )
Recommended Tolerance of Load Shaft	$\phi 25^0_{-0.021}$ ( $\phi 0.9843^0_{-0.0008}$ )
Nominal Diameter of Retaining Ring	$\phi 25$ ( $\phi 0.98$ ) C-shaped
Applicable Screw	M8
Spacer Thickness*	6 (0.24)
Outer Diameter of Step Part $\phi D$	$\phi 40$ ( $\phi 1.57$ )
Length of Stepped Shaft La	86~90 (3.39~3.54)

\* Determine the spacer thickness according to the dimensions in the table. If the spacer is thicker than the specified dimension, the screw will project from the surface and prevent connection of the safety cover.

● Retaining rings for holes, spacers, screws or other parts used to install the load shaft are not included. These parts must be purchased separately.

## List of Motor and Gearhead Combinations

Motor and gearhead combinations are shown below.

### Combination Type: Right Angle Shaft

Product Name	Motor Product Name	Gearhead Product Name
BH162S-□RH	BH162S-G2	BH6G2-□RH
BH162S-□RA		BH6G2-□RA
BH162ST-□RH	BH162ST-G2	BH6G2-□RH
BH162ST-□RA		BH6G2-□RA
BH162SMT-□RH	BH162SMT-G2	BH6G2-□RH
BH162SMT-□RA		BH6G2-□RA

### Combination Type: Parallel Shaft

Product Name	Motor Product Name	Gearhead Product Name
BH162S-□	BH162S-G2	BH6G2-□
BH162ST-□	BH162ST-G2	
BH162SMT-□	BH162SMT-G2	

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

## Induction Motors 2-Pole, High-Speed Type

# 60 W (1/12 HP), 90 W (1/8 HP), 150 W (1/5 HP)

Frame Size: □90 mm (□3.54 in.)



### Specifications – Continuous Rating

Product Name	Output Power		Voltage	Frequency	Current	Starting Torque		Rated Torque		Rated Speed	Overheat Protection Device
	W	HP				mN-m	oz-in	mN-m	oz-in		
<b>5IK60A-TW2</b>	60	1/12	Three-Phase 220	60	0.42	230	32	185	26	3200	TP
			Three-Phase 230	60	0.44	230	32	185	26	3200	
<b>5IK90A-TW2</b>	90	1/8	Three-Phase 220	60	0.57	400	56	285	40	3200	TP
			Three-Phase 230	60	0.59	400	56	285	40	3200	
<b>5IK150A-TW2T</b> <b>5IK150A-TW2</b>	150	1/5	Three-Phase 220	60	0.97	570	80	460	65	3150	TP
			Three-Phase 230	60	1.01	570	80	460	65	3200	

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

### Product Line

#### ● Motor

Output Power	Voltage	Product Name	List Price
60 W (1/12 HP)	Three-Phase 220/230 VAC	<b>5IK60A-TW2</b>	\$116.00
90 W (1/8 HP)	Three-Phase 220/230 VAC	<b>5IK90A-TW2</b>	\$138.00
150 W (1/5 HP)	Three-Phase 220/230 VAC	<b>5IK150A-TW2T</b>	\$206.00
		<b>5IK150A-TW2</b>	\$173.00

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

Overview, Product Series

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

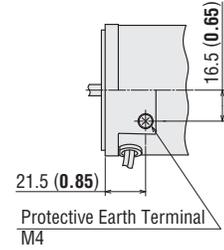
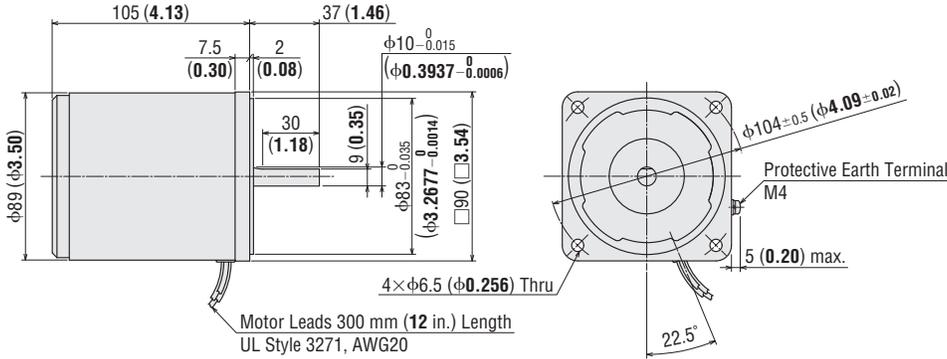
**Dimensions** Unit = mm (in.)

● 60 W (1/12 HP)

**5IK60A-TW2**

Mass: 2.5 kg (5.5 lb.)

2D CAD A453 3D CAD



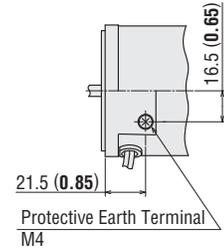
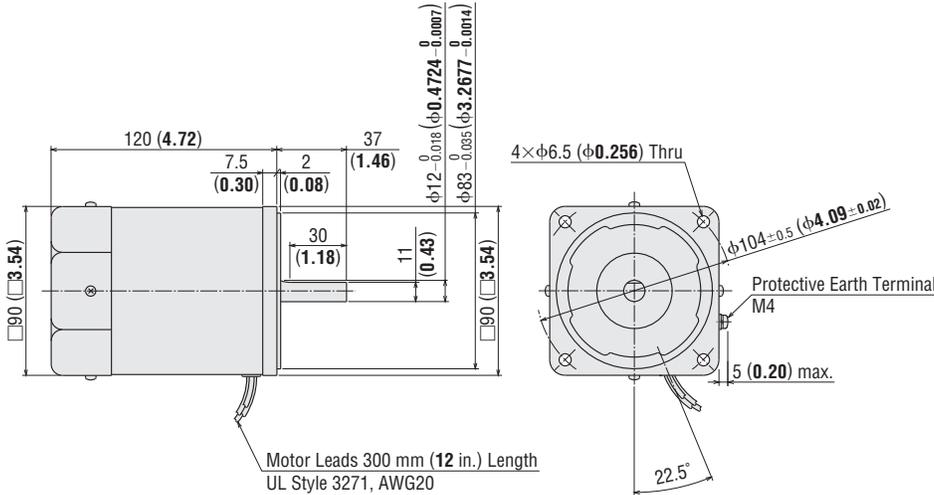
Detail Drawing of Protective Earth Terminal

● 90 W (1/8 HP)

**5IK90A-TW2**

Mass: 2.7 kg (5.9 lb.)

2D CAD A456 3D CAD



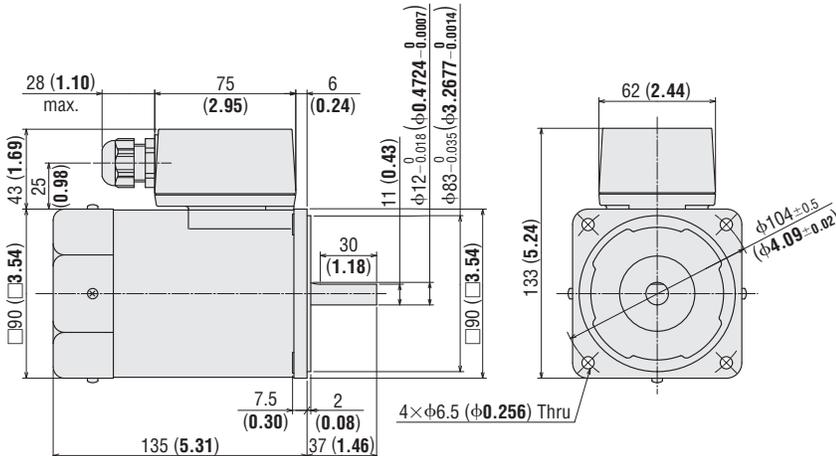
Detail Drawing of Protective Earth Terminal

● 150 W (1/5 HP)

**5IK150A-TW2T**

Mass: 3.3 kg (7.3 lb.)

2D CAD A334 3D CAD



- Use cable with a diameter of  $\phi 6 \sim \phi 12$  mm ( $\phi 0.24 \sim \phi 0.47$  in.).
- Details of terminal box → Page C-214

Induction Motors

Electromagnetic Brake Motors

High-Efficiency KIIS Series

60 W (1/12 HP)

100 W (1/8 HP)

Induction Motors

6 W (1/125 HP)

15 W (1/150 HP)

25 W (1/30 HP)

40 W (1/19 HP)

60 W (1/12 HP)

90 W (1/8 HP)

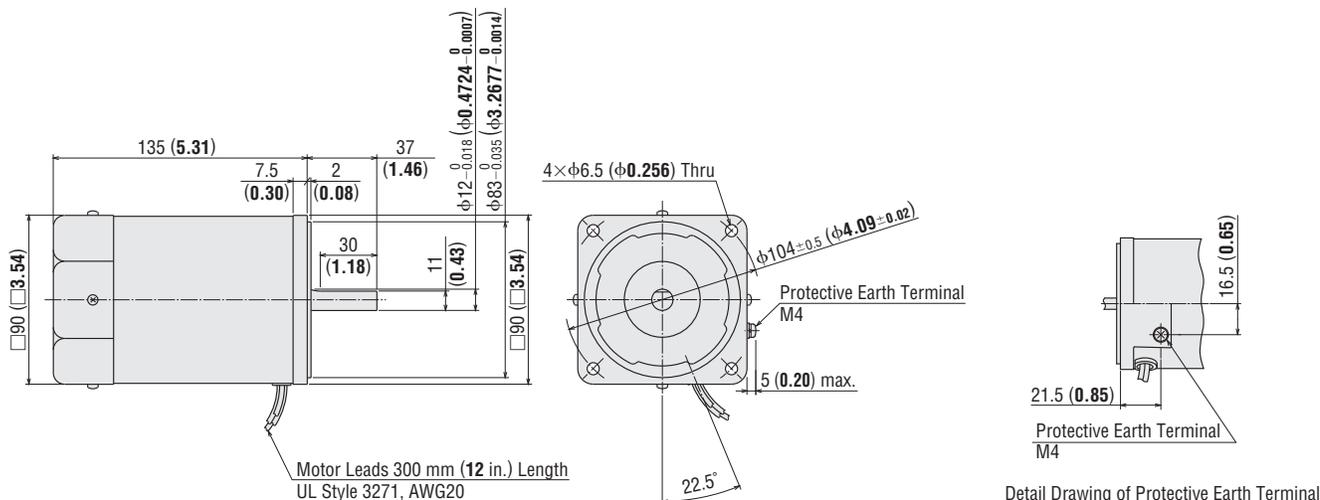
BH Series 200 W (1/4 HP)

2-Pole, High-Speed 60-150 W (1/12-1/5 HP)

## 5IK150A-TW2

Mass: 3.2 kg (7.0 lb.)

2D CAD A459 3D CAD



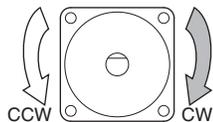
## Connection Diagrams

Three-Phase 220/230 VAC	
Terminal Box Type	Lead Wire Type
<b>5IK150A-TW2T</b>	<b>5IK60A-TW2</b> <b>5IK90A-TW2</b> <b>5IK150A-TW2</b>
<p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between L1(R), L2(S) and L3(T).</p>	<p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between L1(R), L2(S) and L3(T).</p>

PE: Protective Earth

### Rotation Direction

The rotation direction of the motor is indicated when viewed from the output shaft side of the motor. CW is used to indicate clockwise rotation and CCW is used for counterclockwise rotation.



The rotation direction when viewed from the output shaft side of the motor

Overview, Product Series

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

