

Induction Motors

15 W

□ 70 mm



Lead Wire Type



Terminal Box Type

Gearhead shown in the photograph is sold separately.

Specifications – Continuous Rating (RoHS)



| Product Name and Type Upper Product Name: Pinion Shaft Type Lower Product Name in (): Round Shaft Type | | Output Power W | Voltage VAC | Frequency Hz | Current A | Starting Torque mN·m | Rated Torque mN·m | Rated Speed r/min | Capacitor μF |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------|------------------|-----------------|--------------|-------------------------|----------------------|----------------------|-----------------|
| Lead Wire Type Dimensions ① | Terminal Box Type Dimensions ② | | | | | | | | |
| (TP) 3IK15GN-CW2E (3IK15A-CW2E) | (TP) 3IK15GN-CW2BE (3IK15A-CW2BE) | 15 | Single-Phase 220 | 50 | 0.19 | 70 | 125 | 1200 | 1.0 |
| | | | | 60 | 0.16 | 65 | 105 | 1450 | |
| | | | Single-Phase 230 | 50 | 0.19 | 75 | 125 | 1200 | |
| | | | | 60 | 0.16 | 65 | 105 | 1450 | |
| (TP) 3IK15GN-SW2 (3IK15A-SW2) | (TP) 3IK15GN-SW2B (3IK15A-SW2B) | 15 | Three-Phase 200 | 50 | 0.17 | 110 | 110 | 1350 | - |
| | | | | 60 | 0.14 | 85 | 100 | 1600 | |
| | | | Three-Phase 220 | 60 | 0.15 | 100 | 100 | 1650 | |
| Three-Phase 230 | 60 | 0.16 | | 100 | 100 | 1650 | | | |

- The product name listed on the motor nameplate does not include the code (E) that indicates the type of capacitor. Certification regarding various safety standards is acquired for the product name on the motor nameplate, please visit www.orientalmotor.eu.
- Safety standards → Page H-2
- (TP): This indicates that there is a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. When the motor temperature drops, the thermal protector closes and the motor restarts automatically. Be sure to turn the power supply off before inspecting.

Degree of Protection

| Type | Product Name | | Degree of Protection |
|--------------|---------------------------------------------|---------------------------------------------|----------------------|
| | Pinion Shaft Type | Round Shaft Type | |
| Lead Wire | 3IK15GN-CW2E 3IK15GN-SW2 | 3IK15A-CW2E 3IK15A-SW2 | IP20 |
| Terminal Box | 3IK15GN-CW2BE 3IK15GN-SW2B | 3IK15A-CW2BE* 3IK15A-SW2B* | IP65 |

*Excluding the installation surface of the round shaft type.

Product Line

Motors (RoHS)

| Type | Product Name | |
|--------------|----------------------|---------------------|
| | Pinion Shaft Type | Round Shaft Type |
| Lead Wire | 3IK15GN-CW2E | 3IK15A-CW2E |
| | 3IK15GN-SW2 | 3IK15A-SW2 |
| Terminal Box | 3IK15GN-CW2BE | 3IK15A-CW2BE |
| | 3IK15GN-SW2B | 3IK15A-SW2B |

The following items are included in each product.
 Motor, Capacitor*, Capacitor Cap*, Operating Manual
 *Single-Phase Motors only

Parallel Shaft Gearheads (Sold separately) (RoHS)

These products can be attached to pinion shafts.

| Gearhead Type | | Gearhead Product Name | Gear Ratio |
|----------------|----------------------|-----------------------------------|--------------|
| Parallel Shaft | Long Life, Low Noise | 3GN□S | 3~180 |
| | GN-S Gearhead | 3GN10XS (Decimal gearhead) | |

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

The following items are included in each product.
 Gearhead, Mounting Screws, Parallel Key, Operating Manual

High Strength, Long Life, Low Noise V Series

Highest Maximum Permissible torque, 10,000 hours* of life and quiet operation. For more details on V Series see page C-149.
 *For the rated life time definition, refer to "Service Life of Gearheads" on page G-35.



Permissible Torque When Gearhead is Attached

- A code **(B)** indicating the terminal box type is entered where the box is located within the motor product name.
A number indicating the gear ratio is entered where the box is located within the gearhead product name.
- A colored background indicates gear shaft rotation in the same direction as the motor shaft. Others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
The actual speed is 2 to 20% less, depending on the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead of gear ratio 1:10 between the gearhead and the motor.
In that case, the permissible torque is 5 N·m.

◇ 50 Hz

Unit = N·m

| Product Name | Speed r/min | 500 | 417 | 300 | 250 | 200 | 167 | 120 | 100 | 83 | 60 | 50 | 42 | 30 | 25 | 20 | 17 | 15 | 12.5 | 10 | 8.3 |
|-----------------------------------------------|---------------------------------------|------------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|------|----|-----|
| | | Gear Ratio | | | | | | | | | | | | | | | | | | | |
| 3IK15GN-CW2 <input type="checkbox"/> E | 3GN <input type="checkbox"/> S | 0.30 | 0.36 | 0.51 | 0.61 | 0.76 | 0.91 | 1.3 | 1.5 | 1.8 | 2.3 | 2.7 | 3.3 | 4.1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 3IK15GN-SW2 <input type="checkbox"/> | 3GN <input type="checkbox"/> S | 0.27 | 0.32 | 0.45 | 0.53 | 0.67 | 0.80 | 1.1 | 1.3 | 1.6 | 2.0 | 2.4 | 2.9 | 3.6 | 4.4 | 5 | 5 | 5 | 5 | 5 | 5 |

◇ 60 Hz

Unit = N·m

| 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 | | | | | | | | | | | | | | | | | | | |
| 3IK15GN-CW2 <input type="checkbox"/> E | 3GN <input type="checkbox"/> S | 0.26 | 0.31 | 0.43 | 0.51 | 0.64 | 0.77 | 1.1 | 1.3 | 1.5 | 1.9 | 2.3 | 2.8 | 3.5 | 4.2 | 5 | 5 | 5 | 5 | 5 | 5 |
| 3IK15GN-SW2 <input type="checkbox"/> | 3GN <input type="checkbox"/> S | 0.24 | 0.29 | 0.41 | 0.49 | 0.61 | 0.73 | 1.0 | 1.2 | 1.5 | 1.8 | 2.2 | 2.6 | 3.3 | 4.0 | 5 | 5 | 5 | 5 | 5 | 5 |

Permissible Overhung Load and Permissible Thrust Load

Motors (Round shaft type) → Page C-16

Gearheads → Page C-16

Permissible Load Inertia: J of Gearhead

→ Page C-17

Dimensions (Unit = mm)

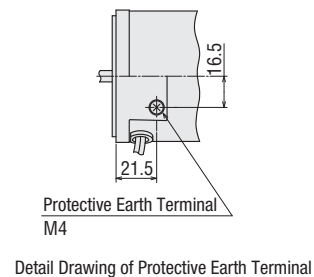
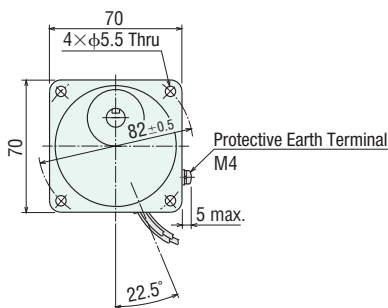
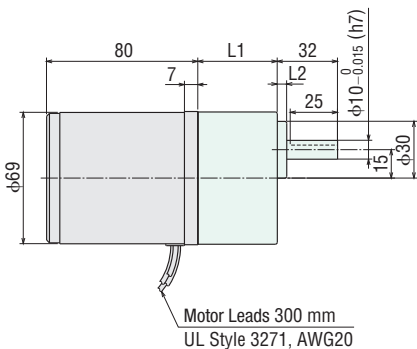
- Mounting screws are included with gearheads. Dimensions for mounting screws → Page C-254
- A number indicating the gear ratio is entered where the box is located within the product name.

◇ Lead Wire Type①

Mass: Motor 1.1 kg

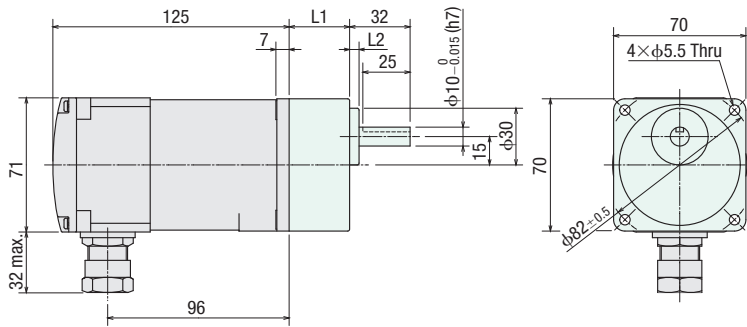
Gearhead 0.55 kg

| Motor Product Name | Gearhead Product Name | Gear Ratio | L1 | L2 |
|---------------------|---------------------------------------|---------------|----|----|
| 3IK15GN-CW2E | 3GN <input type="checkbox"/> S | 3~18 | 32 | 5 |
| 3IK15GN-SW2 | | 25~180 | 42 | |



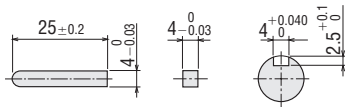
◇ Terminal Box Type②

Mass: Motor 1.4 kg
Gearhead 0.55 kg



- Applicable cables diameter is $\phi 8 \sim \phi 12$.
- Details of terminal box → Page C-255

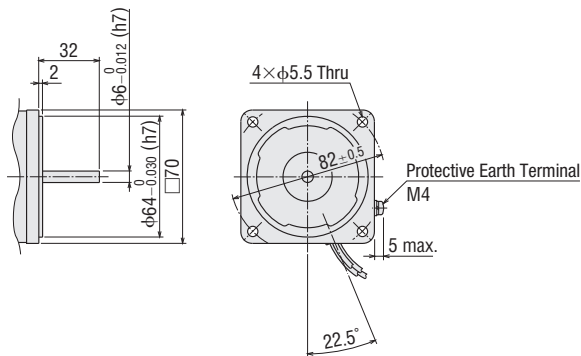
◇ Key and Key Slot (The key is included with the gearhead.)



◇ Shaft Section of Round Shaft Type

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

Mass: 1.1 kg (Lead Wire Type)
1.4 kg (Terminal Box Type)



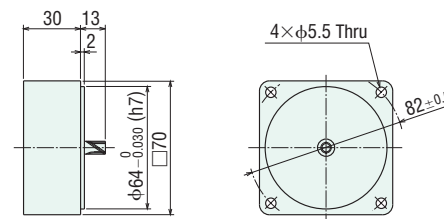
| Motor Product Name | Gearhead Product Name | Gear Ratio | L1 | L2 |
|-------------------------------|-----------------------|------------|----|----|
| 3IK15GN-CW2BE 3IK15GN-SW2B | 3GN□S | 3~18 | 32 | 5 |
| | | 25~180 | 42 | |

◇ Decimal Gearhead

This can be attached to the **GN** pinion shaft type.

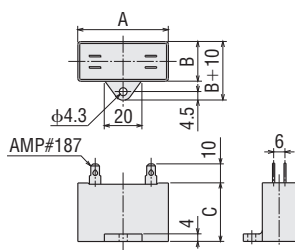
3GN10XS

Mass: 0.3 kg



◇ Capacitor

(Included with single-phase motors)



◇ Capacitor Dimensions (mm)

| Product Name | | Capacitor Product Name | A | B | C | Mass (g) | Capacitor Cap |
|---------------------------------------|---------------------------------------------|------------------------|----|----|----|----------|---------------|
| Upper Product Name: Pinion Shaft Type | Lower Product Name in (): Round Shaft Type | | | | | | |
| Lead Wire Type | Terminal Box Type | | | | | | |
| 3IK15GN-CW2E 3IK15A-CW2E | 3IK15GN-CW2BE 3IK15A-CW2BE | CH10BFAUL | 37 | 18 | 27 | 27 | Included |

Connection Diagrams

→ Page C-29

Peripheral Equipment

Instantaneous Stop

Brake Pack

→ Page C-229



Speed Control

Inverters

→ Page D-136



Accessories

Mounting Brackets

→ Page C-240



Couplings

→ Page C-245

