

Induction Motors

25 W

80 mm



Lead Wire Type



Terminal Box Type

Gearheads shown in the photograph are sold separately.

Specifications – Continuous Rating (RoHS)



Product Name and Type Upper Product Name: Pinion Shaft Type Lower Product Name ( ): Round Shaft Type			Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor	
Lead Wire Type Dimensions ①	Terminal Box Type Dimensions ②	Terminal Box Type Dimensions ③	W	VAC	Hz	A	mN·m	mN·m	r/min	μF	
(TP) 4IK25GN-CW2E (4IK25A-CW2E)	(TP) 4IK25GN-CW2TE (4IK25A-CW2TE)	-	25	Single-Phase 220	50	0.27	110	205	1200	1.5	
					60	0.23		170	1450		
Single-Phase 230	50	0.27		120	205	1200					
	60	0.23			170	1450					
(TP) 4IK25GN-SW2 (4IK25A-SW2)	(TP) 4IK25GN-SW2T (4IK25A-SW2T)	-	25	Three-Phase 200	50	0.23	240	190	1300	-	
					60	0.21		160	1550		
				Three-Phase 220	60	0.21	160	160	1600		
60	0.22	160			1600						
Three-Phase 380	-	(TP) 4IK25GN-UW2T* (4IK25A-UW2T*)		25	50	0.113	270	205	1200		-
						60		0.102	170		
			50		0.116	270	205	1200			
60	0.103	170			1450						
Three-Phase 415	-	(TP) 4IK25GN-UW2T* (4IK25A-UW2T*)	50		0.118	270	205	1200			

- 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
- \*These products only conform to the China Compulsory Certification (CCC) System. The CE Marking is affixed.

Note

- A three-phase 400 VAC specification motor cannot be used with an inverter. Using them together may lead to deterioration of the motor winding insulation and damage the products.
- (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	4IK25GN-CW2E 4IK25GN-SW2 4IK25GN-UW2	4IK25A-CW2E 4IK25A-SW2 4IK25A-UW2	IP20
Terminal Box	4IK25GN-CW2TE 4IK25GN-SW2T 4IK25GN-UW2T2	4IK25A-CW2TE* 4IK25A-SW2T* 4IK25A-UW2T2*	IP54

\*Excluding the installation surface of the round shaft type.

Product Line

Motors (RoHS)

Type	Product Name	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	4IK25GN-CW2E	4IK25A-CW2E
	4IK25GN-SW2	4IK25A-SW2
	4IK25GN-UW2	4IK25A-UW2
Terminal Box	4IK25GN-CW2TE	4IK25A-CW2TE
	4IK25GN-SW2T	4IK25A-SW2T
	4IK25GN-UW2T2	4IK25A-UW2T2

The following items are included in each product.  
Motor, Capacitor\*, Capacitor Cap\*, Operating Manual  
\*Single-phase motors only

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.



Parallel Shaft Gearheads/Right-Angle 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 GN-S Gearhead	4GN□S	3~180
		4GN10XS (Decimal gearhead)	
Right-Angle Shaft	Hollow Shaft Gearhead	4GN□RH	3~180
	Solid Shaft Gearhead	4GN□RA	3~180

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

## Permissible Torque When Gearhead is Attached

- A code (**T** or **T2**) 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 8 N·m. When a gearhead of 1/25 to 1/36 is attached, the value for permissible torque is 6 N·m.

### ◇ 50 Hz

Unit = N·m

Product Name Motor/Gearhead	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	<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-CW2E</b> □	/ <b>4GN</b> □ <b>S</b>	0.50	0.60	0.83	1.0	1.2	1.5	2.1	2.5	3.0	3.7	4.5	5.4	6.8	8	8	8	8	8	8	8
<b>4IK25GN-UW2</b> □		0.46	0.55	0.77	0.92	1.2	1.4	1.9	2.3	2.8	3.5	4.2	5.0	6.3	7.5	8	8	8	8	8	8
<b>4IK25GN-SW2</b> □	/ <b>4GN</b> □ <b>S</b>	0.46	0.55	0.77	0.92	1.2	1.4	1.9	2.3	2.8	3.5	4.2	5.0	6.3	7.5	8	8	8	8	8	8

### ◇ 60 Hz

Unit = N·m

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-CW2E</b> □	/ <b>4GN</b> □ <b>S</b>	0.41	0.50	0.69	0.83	1.0	1.2	1.7	2.1	2.5	3.1	3.7	4.5	5.6	6.7	8	8	8	8	8	8
<b>4IK25GN-UW2</b> □		0.39	0.47	0.65	0.78	0.97	1.2	1.6	1.9	2.3	2.9	3.5	4.2	5.3	6.3	7.9	8	8	8	8	8
<b>4IK25GN-SW2</b> □	/ <b>4GN</b> □ <b>S</b>	0.39	0.47	0.65	0.78	0.97	1.2	1.6	1.9	2.3	2.9	3.5	4.2	5.3	6.3	7.9	8	8	8	8	8

## Gearmotor – Torque Table When Right-Angle Gearhead is Attached

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## Permissible Overhung Load and Permissible Thrust Load

Motors (Round shaft type) → Page C-16, Gearheads → Page C-16

## Permissible Load Inertia: J of Gearhead

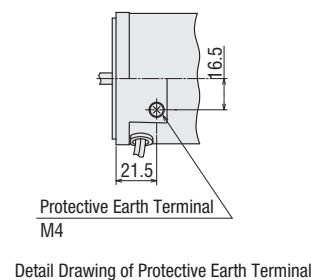
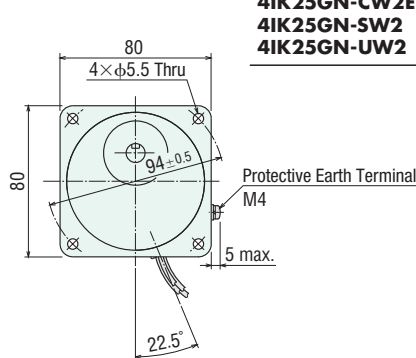
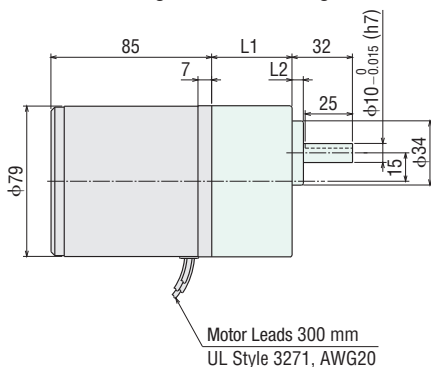
→ Page C-17

## 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 Type ①

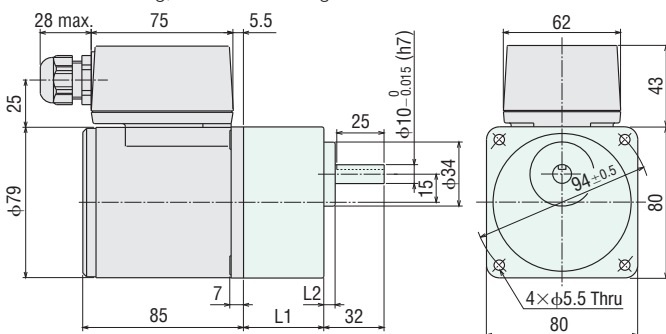
Mass: Motor 1.5 kg, Gearhead 0.65 kg



Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2
<b>4IK25GN-CW2E</b> <b>4IK25GN-SW2</b> <b>4IK25GN-UW2</b>	<b>4GN</b> □ <b>S</b>	<b>3~18</b>	32	6
<b>25~180</b>		42.5		

### ◇ Terminal Box Type ②

Mass: Motor 1.7 kg, Gearhead 0.65 kg

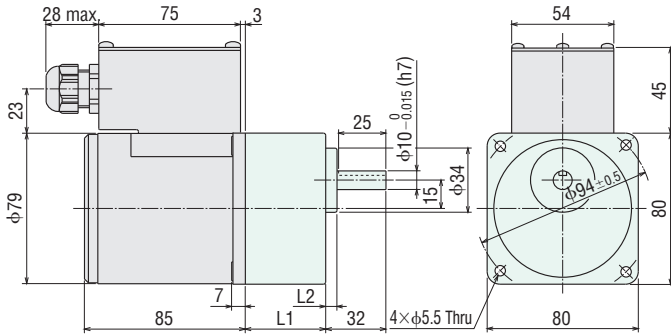


Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2
<b>4IK25GN-CW2TE</b> <b>4IK25GN-SW2T</b>	<b>4GN</b> □ <b>S</b>	<b>3~18</b>	32	6
<b>25~180</b>		42.5		

- Applicable cable diameter is φ6~φ12.
- Details of terminal box → Page C-255

## ◇ Terminal Box Type ③

Mass: Motor 1.7 kg  
Gearhead 0.65 kg

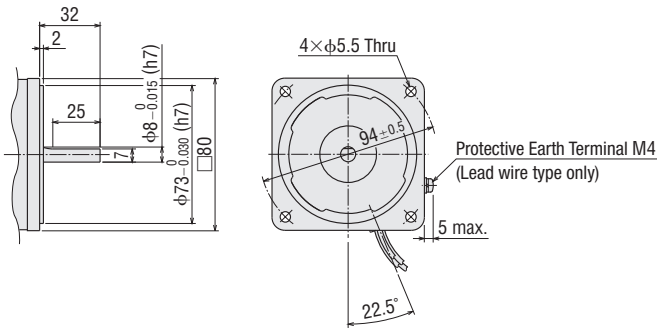


- Applicable cable diameter is  $\phi 6 \sim \phi 12$ .
- Cable glands can be installed in three directions.
- Details of terminal box → Page C-255

## ◇ Shaft Section of Round Shaft Type

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

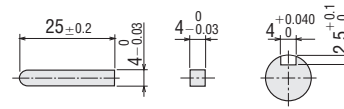
Mass: 1.5 kg (Lead wire type)  
1.7 kg (Terminal box type)



Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2
<b>4IK25GN-UW2T2</b>	<b>4GN□S</b>	<b>3~18</b>	32	6
		<b>25~180</b>	42.5	

## ◇ Key and Key Slot

(The key is included with the gearhead.)

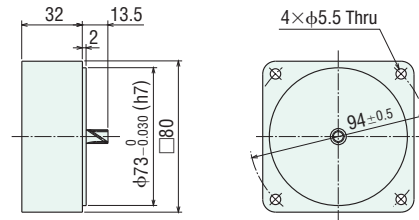


## ◇ Decimal Gearhead

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

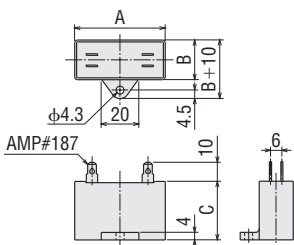
### **4GN10XS**

Mass: 0.4 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						
<b>4IK25GN-CW2E</b> ( <b>4IK25A-CW2E</b> )	<b>4IK25GN-CW2TE</b> ( <b>4IK25A-CW2TE</b> )	CH15BFAUL	38	21	31	37	Included

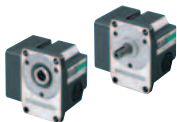
## ■ Connection Diagrams

→ Page C-29

### Gearheads, Peripheral Equipment

#### Space Saving

Right-Angle Gearheads  
→ Page C-213



#### Instantaneous Stop

Brake Pack  
→ Page C-229



#### Speed Control

Inverters  
→ Page D-136



#### Accessories

Mounting Brackets  
→ Page C-240



Couplings  
→ Page C-245

