

Induction Motors

40 W

□ 90 mm



Specifications – Continuous Rating (RoHS)



Product Name and Type Upper Product Name: Pinion Shaft Type Lower Product Name (): 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	Terminal Box Type Dimensions ③								
(TP) 5IK40GN-CW2E (5IK40A-CW2E)	(TP) 5IK40GN-CW2TE (5IK40A-CW2TE)	-	40	Single-Phase 220	50	0.39	200	315	1250	2.3
					60	0.35		260	1500	
					50	0.39		300	1300	
					60	0.34		260	1500	
(TP) 5IK40GN-SW2 (5IK40A-SW2)	(TP) 5IK40GN-SW2T (5IK40A-SW2T)	-	40	Three-Phase 200	50	0.32	400	300	1300	-
					60	0.30	260	260	1550	
					60	0.30	260	260	1600	
(TP) 5IK40GN-UW2* (5IK40A-UW2*)	-	(TP) 5IK40GN-UW2T2* (5IK40A-UW2T2*)	40	Three-Phase 380	50	0.172	400	300	1300	-
					60	0.154	340	260	1550	
				Three-Phase 400	50	0.178	400	300	1300	
					60	0.156	340	260	1550	
				Three-Phase 415	50	0.183	400	300	1300	
					60	0.183	400	300	1300	

● 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	5IK40GN-CW2E 5IK40GN-SW2 5IK40GN-UW2	5IK40A-CW2E 5IK40A-SW2 5IK40A-UW2	IP20
Terminal Box	5IK40GN-CW2TE 5IK40GN-SW2T 5IK40GN-UW2T2	5IK40A-CW2TE* 5IK40A-SW2T* 5IK40A-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	5IK40GN-CW2E	5IK40A-CW2E
	5IK40GN-SW2	5IK40A-SW2
	5IK40GN-UW2	5IK40A-UW2
Terminal Box	5IK40GN-CW2TE	5IK40A-CW2TE
	5IK40GN-SW2T	5IK40A-SW2T
	5IK40GN-UW2T2	5IK40A-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	5GN□S	3~180
	GN-S Gearhead	5GN10XS (Decimal gearhead)	
Right-Angle Shaft	Hollow Shaft Gearhead	5GN□RH	3~180
	Solid Shaft Gearhead	5GN□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 than the displayed value, 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 10 N·m.

◇ 50 Hz

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	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5IK40GN-CW2E (220 VAC) / 5GN□S		0.77	0.92	1.3	1.5	1.9	2.3	3.2	3.8	4.6	5.7	6.9	8.3	10	10	10	10	10	10	10	10
5IK40GN-CW2E (230 VAC) / 5GN□S		0.73	0.87	1.2	1.5	1.8	2.2	3.0	3.6	4.4	5.5	6.6	7.9	9.9	10	10	10	10	10	10	10
5IK40GN-SW2□																					
5IK40GN-UW2□																					

Unit = N·m

◇ 60 Hz

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	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
5IK40GN-CW2E / 5GN□S		0.63	0.76	1.1	1.3	1.6	1.9	2.6	3.2	3.8	4.7	5.7	6.8	8.6	10	10	10	10	10	10	10
5IK40GN-SW2□																					
5IK40GN-UW2□																					

Unit = N·m

Gearmotor – Torque Table When Right-Angle Gearhead is Attached

→ Page C-216

Permissible Overhung Load and Permissible Thrust Load

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

Permissible Load Inertia: J of Gearhead

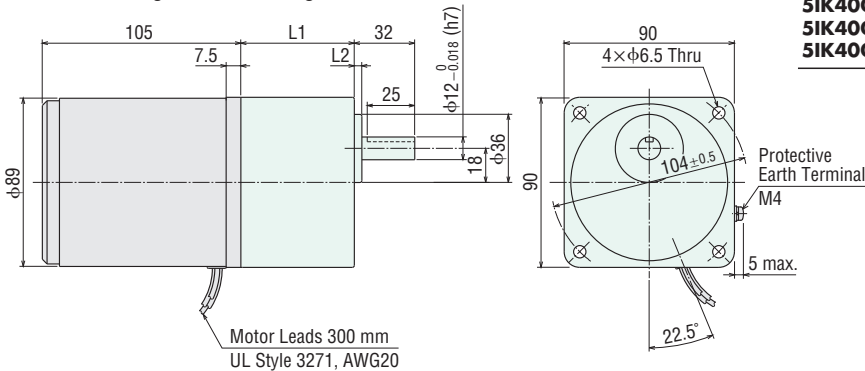
→ Page C-17

Dimensions (Unit = mm)

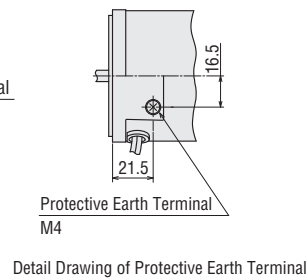
- Mounting screws are included with gearheads. Dimensions for mounting screws → Page C-254
- A number indicating the gear ratio is entered where the box □ is located within the product name.

◇ Lead Wire Type ①

Mass: Motor 2.5 kg, Gearhead 1.5 kg

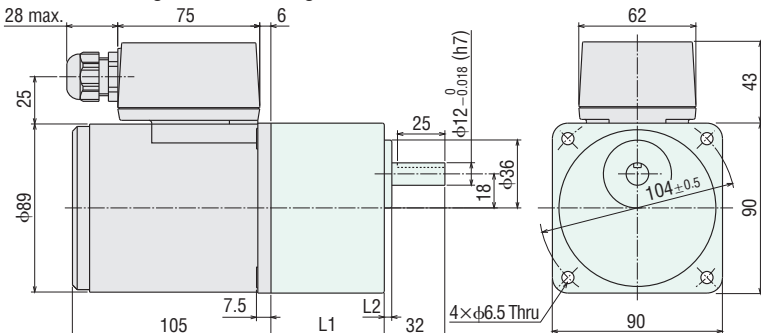


Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2
5IK40GN-CW2E 5IK40GN-SW2 5IK40GN-UW2	5GN□S	3~18	42	4
		25~180	60	



◇ Terminal Box Type ②

Mass: Motor 2.6 kg, Gearhead 1.5 kg

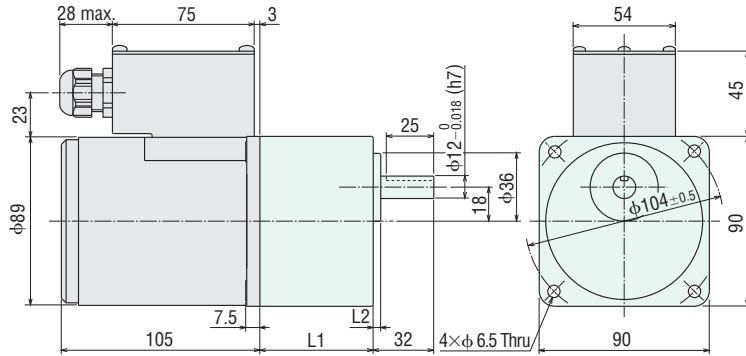


Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2
5IK40GN-CW2TE 5IK40GN-SW2T	5GN□S	3~18	42	4
		25~180	60	

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

◇ Terminal Box Type ③

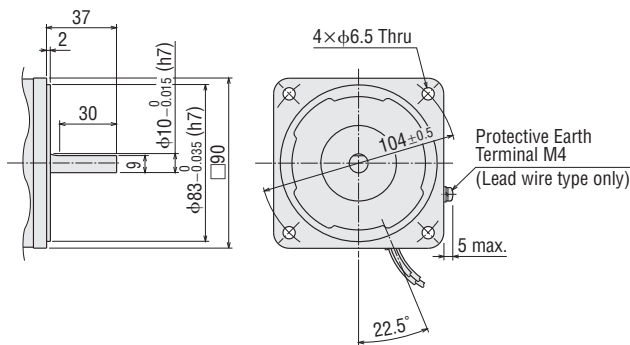
Mass: Motor 2.6 kg
Gearhead 1.5 kg



◇ Shaft Section of Round Shaft Type

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

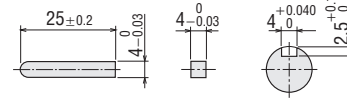
Mass: 2.5 kg (Lead wire type)
2.6 kg (Terminal box type)



Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2
5IK40GN-UW2T2	5GN□S	3~18	42	4
		25~180	60	

◇ Key and Key Slot

(The key is included with the gearhead.)



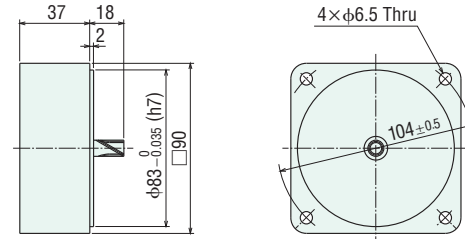
- Applicable cable diameter is φ6~φ12.
- Cable glands can be installed in three directions.
- Details of terminal box → Page C-255

◇ Decimal Gearhead

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

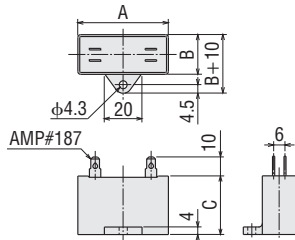
5GN10XS

Mass: 0.6 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						
5IK40GN-CW2E (5IK40A-CW2E)	5IK40GN-CW2TE (5IK40A-CW2TE)	CH23BFAUL	48	21	31	43	Included

Connection Diagrams

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Gearhead, Peripheral Equipment

Space Saving

Right-Angle Gearheads
→ Page C-213

Instantaneous Stop

Brake Pack
→ Page C-229

Speed Control

Inverters
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Accessories

Mounting Brackets
→ Page C-240

Couplings

→ Page C-245

Introduction
Induction Motors
Reversible Motors
Constant Speed Motors
Electromagnetic Brake Motors
V Series
TM Series Torque Motors
Torque Motors
Watertight, Dust-Resistant Motors
Right-Angle Gearheads
Brake Pack
Accessories
Installation