

RoHS

Induction Motors

6 W

Frame Size: □60 mm



Lead Wire Type



Terminal Box Type

(Gearhead sold separately)

Specifications – Continuous Rating (RoHS)



Model Upper Model Name: Pinion Shaft Type Lower Model Name (): Round Shaft Type		Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor	
Lead Wire Type Dimension ①	Terminal Box Type Dimension ②									W
ZP	2IK6GN-AW2J (2IK6A-AW2J)	2IK6GN-AW2TJ (2IK6A-AW2TJ)	6	Single-Phase 100	50	0.199	45	49	1200	3.5
					60	0.217	40	41	1450	
ZP	2IK6GN-AW2U (2IK6A-AW2U)	2IK6GN-AW2TU (2IK6A-AW2TU)	6	Single-Phase 110	60	0.178 0.182	40	41	1450	2.5
				Single-Phase 115						
ZP	2IK6GN-CW2J (2IK6A-CW2J)	2IK6GN-CW2TJ (2IK6A-CW2TJ)	6	Single-Phase 200	50	0.100	45	49	1150	0.8
					60	0.103	40	41	1450	
ZP	2IK6GN-CW2E (2IK6A-CW2E)	2IK6GN-CW2TE (2IK6A-CW2TE)	6	Single-Phase 220	50	0.103	38	49	1150	0.6
					60	0.091	40	41	1450	
				Single-Phase 230	50	0.107	45	49	1200	
					60	0.094	40	41	1450	
ZP	2IK6GN-SW2 (2IK6A-SW2)	2IK6GN-SW2T (2IK6A-SW2T)	6	Three-Phase 200	50	0.081	49	49	1200	—
					60	0.072	41	41	1400	
				Three-Phase 220	60	0.076	41	41	1500	
					Three-Phase 230	60	0.079	41	41	

● The **J**, **U** and **E** at the end of the model name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate.

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

(ZP): Impedance protected

Product Line

● Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	2IK6GN-AW2J	2IK6A-AW2J
	2IK6GN-AW2U	2IK6A-AW2U
	2IK6GN-CW2J	2IK6A-CW2J
	2IK6GN-CW2E	2IK6A-CW2E
	2IK6GN-SW2	2IK6A-SW2
Terminal Box	2IK6GN-AW2TJ	2IK6A-AW2TJ
	2IK6GN-AW2TU	2IK6A-AW2TU
	2IK6GN-CW2TJ	2IK6A-CW2TJ
	2IK6GN-CW2TE	2IK6A-CW2TE
	2IK6GN-SW2T	2IK6A-SW2T

● Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/Low Noise/ Parallel Shaft	2GN□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	2GN10XS (Decimal gearhead)	

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

Gearmotor – Torque Table

- Gearheads and decimal gearheads are sold separately.
- Enter the code that represents the terminal box type "T" in the box (□) within the model name.
- Enter the gear ratio in the box (□) within the model name.
- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.
The actual speed is 2 ~ 20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a decimal gearhead (gear ratio: 10) between the gearhead and the motor.
In that case, the permissible torque is 3 N·m.

◇ 50 Hz

Unit = N·m

Model	Speed r/min	500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
Motor/ Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
2IK6GN-AW2 J 2IK6GN-CW2 J 2IK6GN-CW2 E 2IK6GN-SW2 J	2GN S	0.12	0.14	0.20	0.24	0.30	0.36	0.50	0.60	0.71	0.89	1.1	1.3	1.6	1.9	2.4	2.9	3	3	3	3

◇ 60 Hz

Unit = N·m

Model	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
Motor/ Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
2IK6GN-AW2 J 2IK6GN-AW2 U 2IK6GN-CW2 J 2IK6GN-CW2 E 2IK6GN-SW2 J	2GN S	0.10	0.12	0.17	0.20	0.25	0.30	0.42	0.50	0.60	0.75	0.90	1.1	1.4	1.6	2.0	2.4	2.7	3	3	3

Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

Gearhead → Page 107

Permissible Load Inertia J for Gearhead

→ Page 107

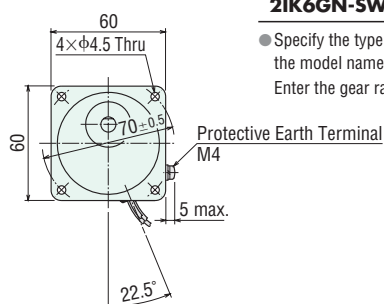
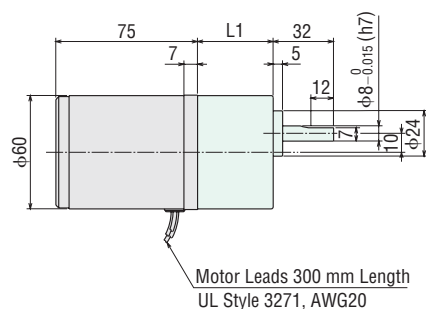
Dimensions (Unit = mm)

Mounting screws are included with gearheads.

◇ Lead Wire Type ①

Mass: Motor 0.7 kg

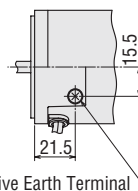
Gearhead 0.4 kg



Motor Model	Gearhead Model	Gear Ratio	L1
2IK6GN-AW2 J 2IK6GN-CW2 J 2IK6GN-SW2	2GN S	3~18	30
		25~180	40

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

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

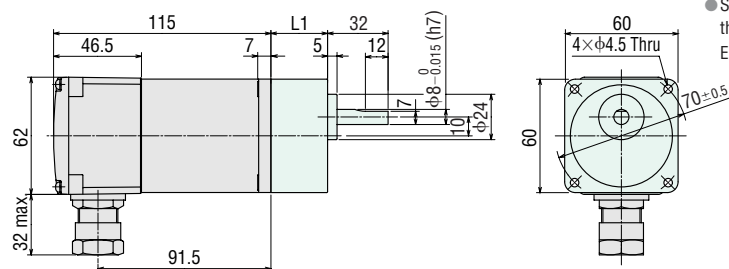


Detail Drawing of Protective Earth Terminal

◇ Terminal Box Type ②

Mass: Motor 0.9 kg

Gearhead 0.4 kg



● Use cable with a diameter of φ8 ~ φ12 mm.

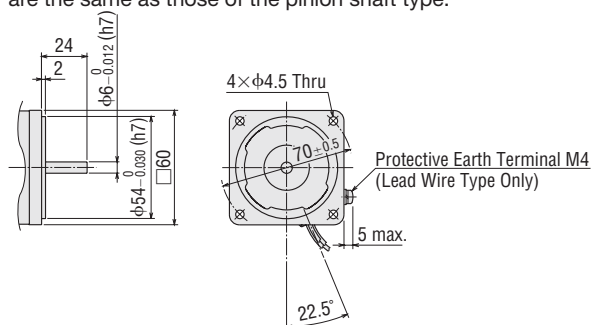
Motor Model	Gearhead Model	Gear Ratio	L1
2IK6GN-AW2T ☐	2GN ☐ S	3~18	30
2IK6GN-CW2T ☐		25~180	40
2IK6GN-SW2T			

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

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

◇ Shaft Section of Round Shaft Type

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

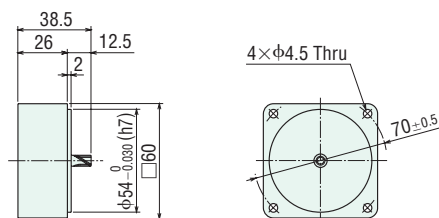


◇ Decimal Gearhead

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

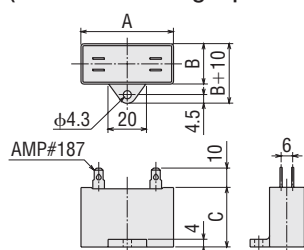
2GN10XS

Mass: 0.2 kg



◇ Capacitor

(Included with single-phase motors)



◇ Capacitor Dimensions (mm)

Model Upper Model Name: Pinion Shaft Type Lower Model Name (): Round Shaft Type		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Lead Wire Type	Terminal Box Type						
2IK6GN-AW2J (2IK6A-AW2J)	2IK6GN-AW2TJ (2IK6A-AW2TJ)	CH35FAUL2	31	17	27	25	Included
2IK6GN-AW2U (2IK6A-AW2U)	2IK6GN-AW2TU (2IK6A-AW2TU)	CH25FAUL2	31	17	27	25	
2IK6GN-CW2J (2IK6A-CW2J)	2IK6GN-CW2TJ (2IK6A-CW2TJ)	CH08BFAUL	31	17	27	20	
2IK6GN-CW2E (2IK6A-CW2E)	2IK6GN-CW2TE (2IK6A-CW2TE)	CH06BFAUL	31	14.5	23.5	15	

Connection Diagrams

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

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

PE: Protective Earth

Note:

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

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