RoHS

Induction Motors

6 W

Frame Size: □60 mm

Lead Wire Type

(Gearhead sold separately)

Specifications – Continuous Rating RoHS

cULus CE

Model Upper Model Name: Pinion Shaft Type Lower Model Name ( ): Round Shaft Type Lead Wire Type Dimension ①	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque mN·m	Rated Torque mN·m	Rated Speed r/min	Capacitor μF
ZP **2IK6GN-AW2J (2IK6A-AW2J)**	6	Single-Phase 100	50	0.199	45	49	1200	3.5
			60	0.217	40	41	1450	
ZP **2IK6GN-AW2U (2IK6A-AW2U)**	6	Single-Phase 110	60	0.178	40	41	1450	2.5
		Single-Phase 115		0.182				
ZP **2IK6GN-CW2J (2IK6A-CW2J)**	6	Single-Phase 200	50	0.100	45	49	1150	0.8
			60	0.103	40	41	1450	
ZP **2IK6GN-CW2E (2IK6A-CW2E)**	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)**	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	1500	

● 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**

● 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■**	**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■**	**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

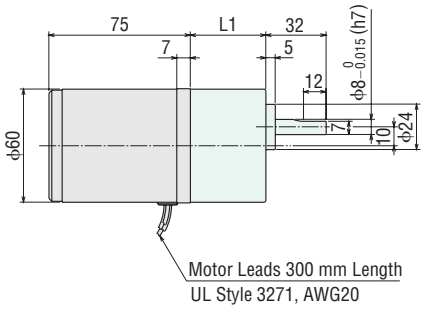
➜ Page 107

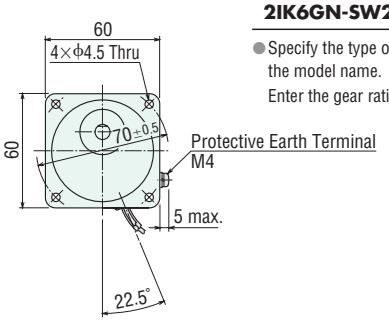
Dimensions (Unit = mm)

Mounting screws are included with gearheads.

◇Lead Wire Type ①

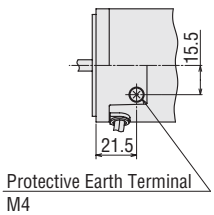
Mass: Motor 0.7 kg
Gearhead 0.4 kg





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

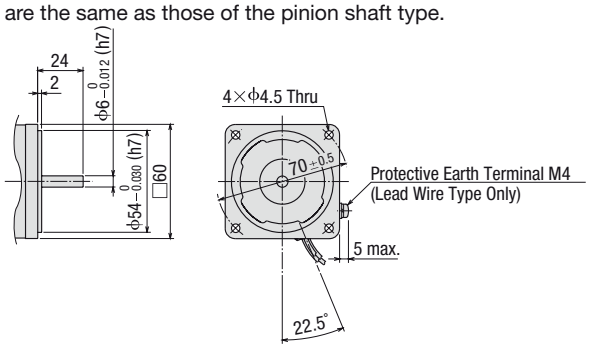
- Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (■) within the model name.
  Enter the gear ratio in the box (□) within the model name.



Detail Drawing of Protective Earth Terminal

◇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.

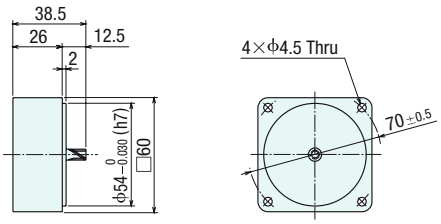


◇Decimal Gearhead

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

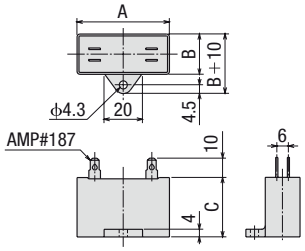
2GN10XS

Mass: 0.2 kg



◇Capacitor

(Included with single-phase motors)



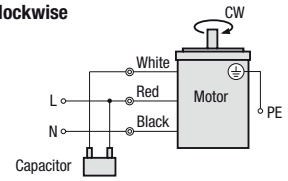
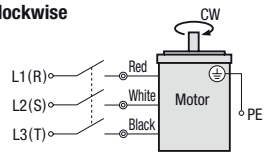
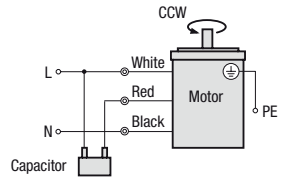
◇Capacitor Dimensions (mm)

Model Upper Model Name: Pinion Shaft Type Lower Model Name ( ): Round Shaft Type Lead Wire Type	Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
2IK6GN-AW2J **(2IK6A-AW2J)**	**CH35FAUL2**	31	17	27	25	Included
2IK6GN-AW2U **(2IK6A-AW2U)**	**CH25FAUL2**	31	17	27	25	
2IK6GN-CW2J **(2IK6A-CW2J)**	**CH08BFAUL**	31	17	27	20	
2IK6GN-CW2E **(2IK6A-CW2E)**	**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

2IK6GN-AW2□ **2IK6GN-CW2□**	**2IK6GN-SW2**
Clockwise  	**Clockwise**  **Counterclockwise** To change the rotation direction, change any two connections between R, S and T.
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.