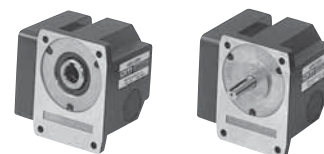


(Gearhead sold separately)

Right-angle gearheads (hollow shaft or solid shaft) can be combined.

Right-Angle Gearheads → Page 108



Specifications – 30 Minutes 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	VAC	Hz	A	mN-m	mN-m	r/min	μF
TP 4RK25GN-AW2J (4RK25A-AW2J)	4RK25GN-AW2TJ (4RK25A-AW2TJ)	25	Single-Phase 100	50	0.59	160	205	1200	10
				60	0.69	140	170	1450	
TP 4RK25GN-AW2U (4RK25A-AW2U)	4RK25GN-AW2TU (4RK25A-AW2TU)	25	Single-Phase 110	60	0.56	140	170	1450	8.0
				Single-Phase 115					
TP 4RK25GN-CW2J (4RK25A-CW2J)	4RK25GN-CW2TJ (4RK25A-CW2TJ)	25	Single-Phase 200	50	0.32	160	205	1200	3.0
				60	0.40	140	170	1450	
TP 4RK25GN-CW2E (4RK25A-CW2E)	4RK25GN-CW2TE (4RK25A-CW2TE)	25	Single-Phase 220	50	0.29	140	205	1200	2.5
				60	0.35		170	1450	
			Single-Phase 230	50	0.30	160	205	1200	
				60	0.35	140	170	1450	

● Values shown for rated torque and starting torque are measured for operation without the friction brake installed.

● 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.

TP: Contains a built-in thermal protector. If a motor overheats for any reason, the thermal protector is opened and the motor stops.

When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Product Line

Motor (RoHS)

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	4RK25GN-AW2J	4RK25A-AW2J
	4RK25GN-AW2U	4RK25A-AW2U
	4RK25GN-CW2J	4RK25A-CW2J
	4RK25GN-CW2E	4RK25A-CW2E
Terminal Box	4RK25GN-AW2TJ	4RK25A-AW2TJ
	4RK25GN-AW2TU	4RK25A-AW2TU
	4RK25GN-CW2TJ	4RK25A-CW2TJ
	4RK25GN-CW2TE	4RK25A-CW2TE

Gearhead/Right-Angle Gearhead (Sold Separately) (RoHS)

Type	Gearhead Model	Gear Ratio
Long Life/Low Noise/ Parallel Shaft	4GN□S	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
	4GN10XS (Decimal gearhead)	
Right-Angle/ Hollow Shaft	4GN□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180
Right-Angle/ Solid Shaft	4GN□RA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180

● 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 8 N·m. When a gearhead of 1/25~1/36 is connected, the value for permissible torque is 6 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
4RK25GN-AW2□J 4RK25GN-CW2□J 4RK25GN-CW2□E	4GN□S	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

◇ 60 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
4RK25GN-AW2□J 4RK25GN-AW2□U 4RK25GN-CW2□J 4RK25GN-CW2□E	4GN□S	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

Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) → Page 107

Gearhead → Page 107

Permissible Load Inertia J for Gearhead

→ Page 107

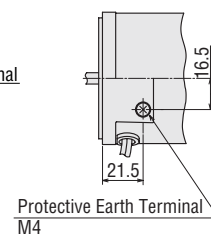
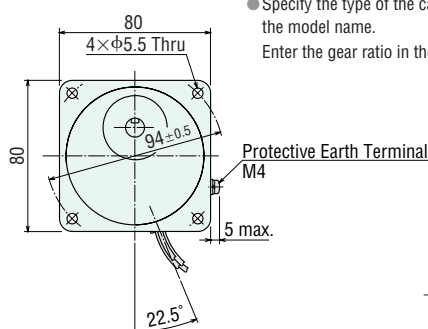
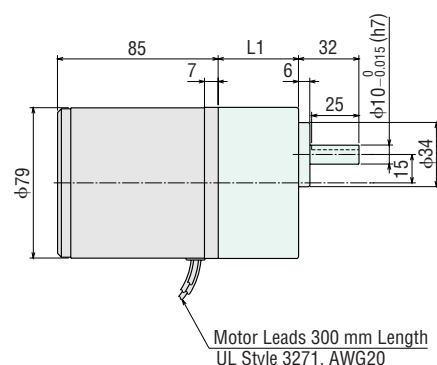
Dimensions (Unit = mm)

Mounting screws are included with gearheads.

◇ Lead Wire Type ①

Mass: Motor 1.5 kg

Gearhead 0.65 kg



Detail Drawing of Protective Earth Terminal

Motor Model	Gearhead Model	Gear Ratio	L1
4RK25GN-AW2□J 4RK25GN-CW2□J	4GN□S	3~18	32
		25~180	42.5

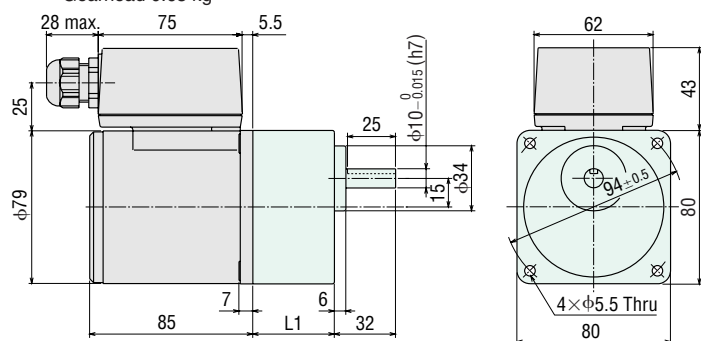
- Specify the type of the capacitor to be included by entering J, U or E in the box (□) within the model name.

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

◆Terminal Box Type ②

Mass: Motor 1.7 kg

Gearhead 0.65 kg



- Use cable with a diameter of $\phi 6 \sim \phi 12$ mm.

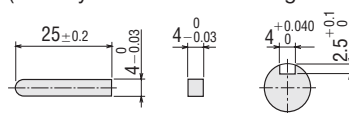
Motor Model	Gearhead Model	Gear Ratio	L1
4RK25GN-AW2T 	4GN  S	3~18	32
4RK25GN-CW2T 		25~180	42.5

- 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.

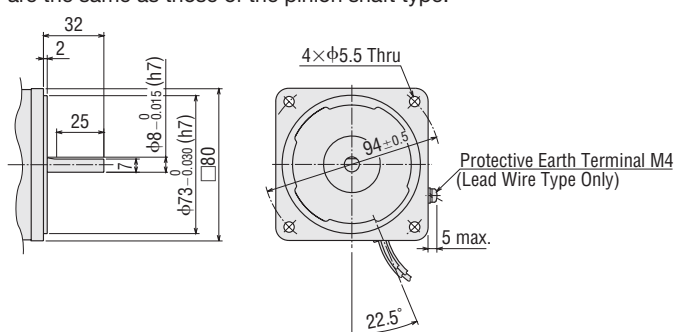
◆ Key and Key Slot

(The key is included with the gearhead)



◇ 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.

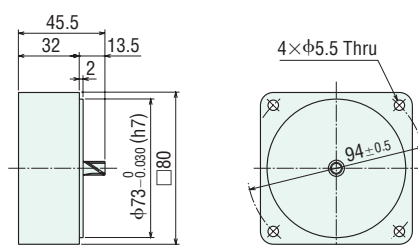


◆ Decimal Gearhead

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

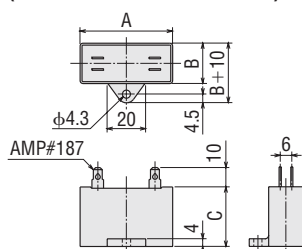
4GN10XS

Mass: 0.4 kg



◇ Capacitor

(Included with the 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						
4RK25GN-AW2J (4RK25A-AW2J)	4RK25GN-AW2TJ (4RK25A-AW2TJ)	CH100CFAUL2	58	21	31	50	Included
4RK25GN-AW2U (4RK25A-AW2U)	4RK25GN-AW2TU (4RK25A-AW2TU)	CH80CFAUL2	48	21	31	45	
4RK25GN-CW2J (4RK25A-CW2J)	4RK25GN-CW2TJ (4RK25A-CW2TJ)	CH30BFAUL	58	21	31	50	
4RK25GN-CW2E (4RK25A-CW2E)	4RK25GN-CW2TE (4RK25A-CW2TE)	CH25BFAUL	48	21	31	45	

■ 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
4RK25GN-AW2 ☐ 4RK25GN-CW2 ☐	4RK25GN-AW2T ☐ 4RK25GN-CW2T ☐
Clockwise To rotate the motor in a clockwise (CW) direction, turn the switch to CW. Counterclockwise To rotate the motor in a counterclockwise (CCW) direction, turn the switch to CCW.	Clockwise To rotate the motor in a clockwise (CW) direction, turn the switch to CW. Counterclockwise To rotate the motor in a counterclockwise (CCW) direction, turn the switch to CCW.

PE: Protective Earth

Note:

Connect a CR circuit to the forward/reverse select switch to protect the contact.

EPCR1201-2 is available as an optional surge suppressor. → Page 123