RoHS

Power Off Activated Type Electromagnetic Brake Motors

15 W

Frame Size: □70 mm

(Gearhead sold separately)

Specifications

Motor RoHS

This type of motor does not contain a built-in simple brake mechanism.

cULus CE

Model		Rating	Output Power	Voltage	Frequency	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor
Pinion Shaft Type	Round Shaft Type		W	VAC	Hz	A	mN·m	mN·m	r/min	μF
TP **3RK15GN-AW2MJ**	**3RK15A-AW2MJ**	30 minutes	15	Single-Phase 100	50	0.40	100	125	1200	7.5
					60	0.50		105	1450	
TP **3RK15GN-AW2MU**	**3RK15A-AW2MU**	30 minutes	15	Single-Phase 110	60	0.42	100	105	1450	6.0
				Single-Phase 115		0.41				
TP **3RK15GN-CW2MJ**	**3RK15A-CW2MJ**	30 minutes	15	Single-Phase 200	50	0.19	100	125	1200	1.8
					60	0.24		105	1450	
TP **3RK15GN-CW2ME**	**3RK15A-CW2ME**	30 minutes	15	Single-Phase 220	50	0.18	100	125	1200	1.5
					60	0.20		105	1450	
				Single-Phase 230	50	0.19	100	125	1200	
					60	0.20		105	1450	

- 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. (The power supply to the electromagnetic brake is kept and the brake is released.) When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Electromagnetic Brake (Power Off Activated Type)

Motor Model	Voltage VAC	Frequency Hz	Current A	Input W	Holding Brake Torque mN·m
3RK15GN-AW2MJ **3RK15A-AW2MJ**	Single-Phase 100	50	0.09	7	80
		60			
3RK15GN-AW2MU **3RK15A-AW2MU**	Single-Phase 110	60	0.09	7	80
	Single-Phase 115				
3RK15GN-CW2MJ **3RK15A-CW2MJ**	Single-Phase 200	50	0.05	7	80
		60			
3RK15GN-CW2ME **3RK15A-CW2ME**	Single-Phase 220	50	0.05	7	80
		60			
	Single-Phase 230	50			
		60			

Product Line

Motor RoHS

Type	Model	
	Pinion Shaft Type	Round Shaft Type
Lead Wire	**3RK15GN-AW2MJ**	**3RK15A-AW2MJ**
	3RK15GN-AW2MU	**3RK15A-AW2MU**
	3RK15GN-CW2MJ	**3RK15A-CW2MJ**
	3RK15GN-CW2ME	**3RK15A-CW2ME**

Gearhead (Sold Separately) RoHS

Type	Gearhead Model	Gear Ratio
Long Life/Low Noise/ Parallel Shaft	**3GN□S**	**3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180**
	3GN10XS (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 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 5 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**
3RK15GN-AW2MJ **3RK15GN-CW2MJ** **3RK15GN-CW2ME**	**3GN□S**	0.30	0.36	0.51	0.61	0.76	0.91	1.3	1.5	1.8	2.3	2.7	3.3	4.1	5	5	5	5	5	5	5

◇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**
3RK15GN-AW2MJ **3RK15GN-AW2MU** **3RK15GN-CW2MJ** **3RK15GN-CW2ME**	**3GN□S**	0.26	0.31	0.43	0.51	0.64	0.77	1.1	1.3	1.5	1.9	2.3	2.8	3.5	4.2	5	5	5	5	5	5

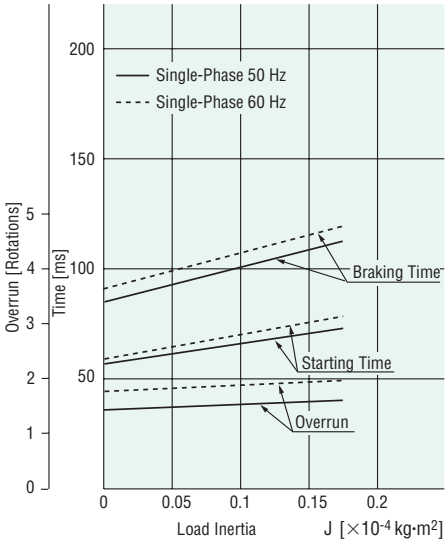
Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft type) ➜ Page 107
Gearhead ➜ Page 107

Permissible Load Inertia J for Gearhead

➜ Page 107

Starting and Braking Characteristics (Reference Values)



Dimensions (Unit = mm)

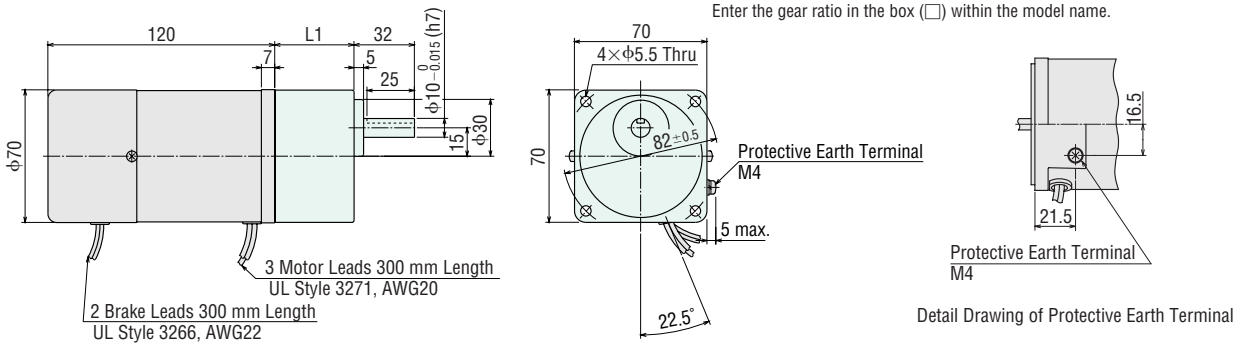
Mounting screws are included with gearheads.

◇Motor/Gearhead

Mass: Motor 1.3 kg
Gearhead 0.55 kg

Motor Model	Gearhead Model	Gear Ratio	L1
3RK15GN-AW2M□ **3RK15GN-CW2M□**	**3GN□S**	**3~18**	32
		25~180	42

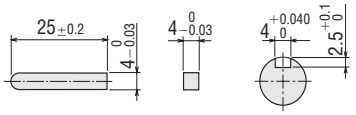
● Specify the type of the capacitor to be included by entering **J**, **U** or **E** in the box (□) within the model name.
Enter the gear ratio in the box (□) within the model name.



Detail Drawing of Protective Earth Terminal

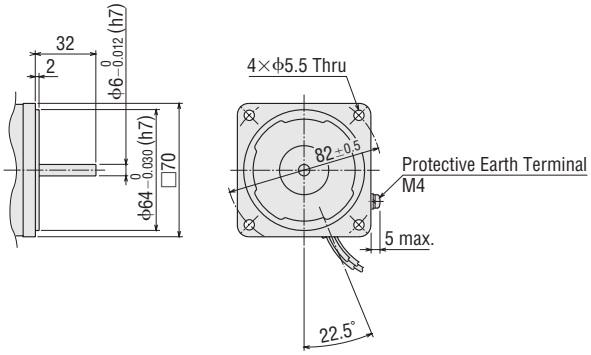
◇Key and Key Slot

(The key is included with the gearhead)



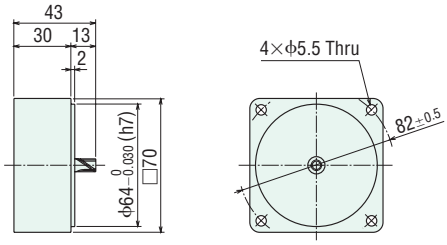
◇Shaft Section of Round Shaft Type

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



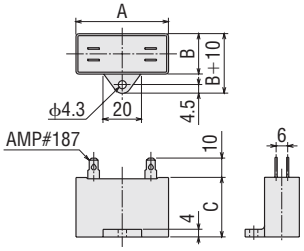
◇Decimal Gearhead

Can be connected to **GN** pinion shaft type.
3GN10XS
Mass: 0.3 kg



◇Capacitor

(Included with the motors)



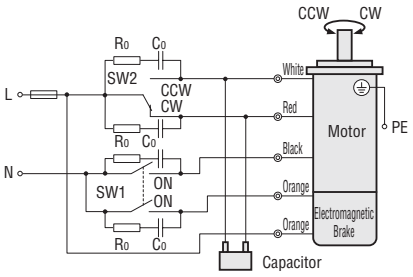
◇Capacitor Dimensions (mm)

Model		Capacitor Model	A	B	C	Mass (g)	Capacitor Cap
Pinion Shaft Type	Round Shaft Type						
3RK15GN-AW2MJ	**3RK15A-AW2MJ**	CH75CFAUL2	48	21	31	45	Included
3RK15GN-AW2MU	**3RK15A-AW2MU**	CH60CFAUL2	38	21	31	40	
3RK15GN-CW2MJ	**3RK15A-CW2MJ**	CH18BFAUL	38	21	31	35	
3RK15GN-CW2ME	**3RK15A-CW2ME**	CH15BFAUL	38	21	31	35	

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.

3RK15GN-AW2M□
3RK15GN-CW2M□



SW1 operates both motor and electromagnetic brake action.
The motor will rotate when SW1 is switched simultaneously to ON.
When SW1 is switched simultaneously to OFF, the motor stops immediately with the electromagnetic brake and holds the load.

If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (orange).

Direction of Rotation
To rotate the motor in a clockwise (CW) direction, turn SW2 to CW.
To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.

Switch No.	Specifications		Note
	Single-Phase 100 VAC, 110/115 VAC Input	Single-Phase 200 VAC, 220/230 VAC Input	
SW1	125 VAC 3 A minimum (Inductive Load)	250 VAC 1.5 A minimum (Inductive Load)	Switched Simultaneously
SW2			—

PE: Protective Earth

- R_0 and C_0 indicate surge suppressor circuit. [R_0=5～200 Ω, C_0=0.1～0.2 μF, 200 WV (400 WV)]
  EPCR1201-2 is available as an optional surge suppressor. ➜ Page 123