

Reversible Motors

6 W (1/125 HP)

Frame Size: 2.36 in. (60 mm)



World **K** Series
(Gearhead Sold Separately)



V Series/Combination Type
(Pre-assembled Gearmotor)

Specifications — 30 Minute Rating

World K Series (General Purpose)



Model		Output Power		Voltage	Frequency	Current	Starting Torque		Rated Torque		Rated Speed	Capacitor
Upper Model Name: Pinion Shaft Type Lower Model Name(): Round Shaft Type		HP	W	VAC	Hz	A	oz-in	mN·m	oz-in	mN·m	r/min	μF
Lead Wire Type Dimension ①	Terminal Box Type Dimension ②											
Ⓟ	2RK6GN-AWU (2RK6A-AWU)	1/125	6	Single-Phase 110	60	0.25	6.3	45	5.8	41	1450	3.5
				Single-Phase 115	60	0.26						
Ⓟ	2RK6GN-CWE (2RK6A-CWE)	1/125	6	Single-Phase 220	50	0.12	6.3	45	6.9	49	1200	0.8
				Single-Phase 220	60	0.11	6.3	45	5.8	41	1450	
				Single-Phase 230	50	0.12	7.1	50	6.9	49	1200	
				Single-Phase 230	60	0.12	6.3	45	5.8	41	1450	

Ⓟ Impedance protected.

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

• The "U" and "E" at the end of the model name indicate that the unit includes a capacitor. These two 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. → Page G-10

• **Details of Safety Standards** → Page G-2

V Series (Quiet Operation, High Strength, Long Life)



Model Combination Type		Output Power		Voltage	Frequency	Current	Starting Torque		Rated Torque		Rated Speed	Capacitor
Lead Wire Type Dimension ③	Terminal Box Type	HP	W	VAC	Hz	A	oz-in	mN·m	oz-in	mN·m	r/min	μF
Ⓟ	VHR206A-<input type="checkbox"/>U	1/125	6	Single-Phase 110	60	0.25	6.3	45	5.8	41	1450	3.5
				Single-Phase 115	60	0.26						
Ⓟ	VHR206C-<input type="checkbox"/>E	1/125	6	Single-Phase 220	50	0.12	6.3	45	6.9	49	1200	0.8
				Single-Phase 220	60	0.11	6.3	45	5.8	41	1450	
				Single-Phase 230	50	0.12	7.1	50	6.9	49	1200	
				Single-Phase 230	60	0.12	6.3	45	5.8	41	1450	

Ⓟ Impedance protected.

• Values shown for rated torque and starting torque are measured for operation without the brake applied.

• The "U" and "E" at the end of the model name indicate that the unit includes a capacitor. These two 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. → Page G-12.

• **Details of Safety Standards** → Page G-2

• Models above are provided as combination types with motor and gearhead pre-assembled.

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

• The values in the table are for the motor only.

Gearheads for World K Series (Sold Separately)

Parallel Shaft

Gearhead Model	Gear Ratio
2GN<input type="checkbox"/>KA	3~180
2GN10XK (Decimal Gearhead)	

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

■ Gearmotor — Torque Table

● World K Series (General Purpose)

The maximum permissible torque with a decimal gearhead with a gear ratio of 10:1 is 26 lb-in (3 N-m).

◆ Single-Phase 115/230 VAC 60 Hz

Unit = Upper values: lb-in/Lower values: 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
	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
2RK6GN-AWU 2RK6GN-AWTU 2RK6GN-CWE 2RK6GN-CWTE / 2GN□KA		0.88	1.06	1.5	1.77	2.2	2.6	3.7	4.4	5.3	6.6	7.9	9.7	12.3	14.1	17.7	21	23	26	26	26
		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

◆ Single-Phase 230 VAC 50 Hz

Unit = Upper values: lb-in/Lower values: 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
	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
2RK6GN-CWE 2RK6GN-CWTE / 2GN□KA		1.06	1.23	1.77	2.1	2.6	3.1	4.4	5.3	6.2	7.8	9.7	11.5	14.1	16.8	21	25	26	26	26	26
		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

● V Series (Quiet Operation, High Strength, Long Life)

◆ Single-Phase 115/230 VAC 60 Hz

Unit = Upper values: lb-in/Lower values: N-m

Model	Speed r/min	360	300	200	120	100	60	50	30	20	15	10	6	5
	Gear Ratio	5	6	9	15	18	30	36	60	90	120	180	300	360
VHR206A-□U VHR206C-□E		1.59	1.94	2.9	4.8	5.8	9.7	11.5	18.5	28	37	53	53	53
		0.18	0.22	0.33	0.55	0.66	1.1	1.3	2.1	3.2	4.2	6	6	6

◆ Single-Phase 230 VAC 50 Hz

Unit = Upper values: lb-in/Lower values: N-m

Model	Speed r/min	300	250	166	100	83	50	41	25	16	12.5	8.3	5	4.2
	Gear Ratio	5	6	9	15	18	30	36	60	90	120	180	300	360
VHR206C-□E		1.94	2.3	3.5	5.8	6.9	11.5	13.2	22	33	45	53	53	53
		0.22	0.26	0.4	0.66	0.79	1.3	1.5	2.5	3.8	5.1	6	6	6

- Gearheads and decimal gearheads are sold separately. Decimal gearheads are not available for **V** Series.
- 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; a white background indicates rotation 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.

■ Permissible Overhung Load and Permissible Thrust Load

Motor (Round shaft motor) → Page A-11

Gearhead → Page A-11

■ Permissible Load Inertia J for Gearhead

→ Page A-12

Dimensions

Scale 1/4, Unit = inch (mm)

Mounting screws are included with gearheads. Dimensions for screws → A-223

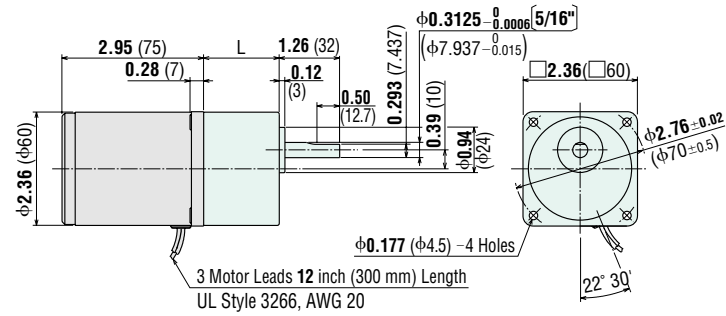
World K Series

Lead Wire Type ①

Motor
2RK6GN-AWU
2RK6GN-CWE
Weight: 1.5 lb. (0.7 kg)

Gearhead
2GN□KA
Weight: 0.88 lb. (0.4 kg)

DXF A004AU (2GN3KA~18KA)
A004BU (2GN25KA~180KA)



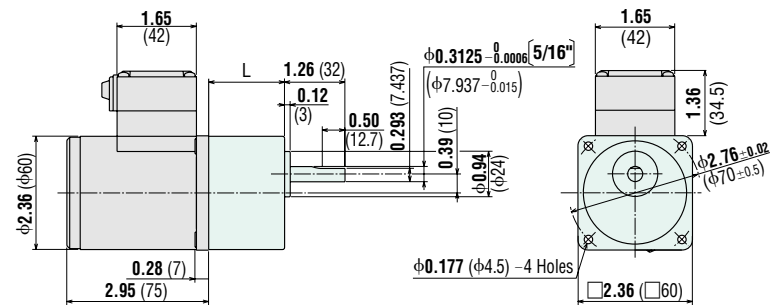
2GN3KA-18KA: L = 1.18 (30)
2GN25KA-180KA: L = 1.57 (40)

Terminal Box Type ②

Motor
2RK6GN-AWTU
2RK6GN-CWTE
Weight: 1.7 lb. (0.75 kg)

Gearhead
2GN□KA
Weight: 0.88 lb. (0.4 kg)

DXF A005AU (2GN3KA~18KA)
A005BU (2GN25KA~180KA)



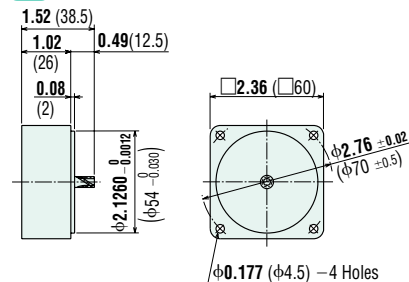
2GN3KA-18KA: L = 1.18 (30)
2GN25KA-180KA: L = 1.57 (40)

- Use cable (VCTF) with a diameter of $\phi 0.27$ inch ($\phi 6.8$ mm) ~ $\phi 0.34$ inch ($\phi 8.6$ mm).
- Cable entry is possible at any of the four sides of the terminal box.
- Details of Terminal Box → Page A-224

Decimal Gearhead (for World K Series)

2GN10XK Weight: 0.44 lb. (0.2 kg)

DXF A003



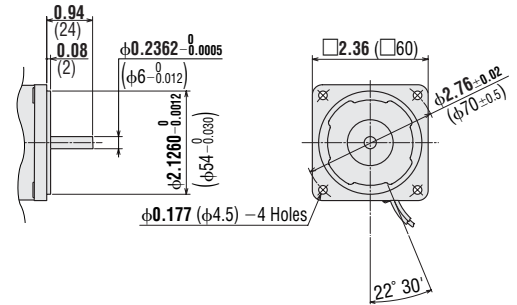
Round Shaft Type

2RK6A-AWU
2RK6A-CWE

Weight: 1.5 lb. (0.7 kg)

DXF A324

1/4 inch shaft motors are also available. Contact your Oriental Motor Representative for more information.

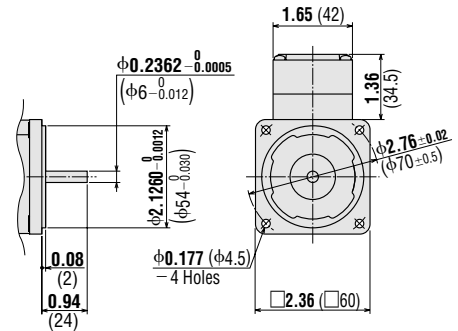


Round Shaft Type

2RK6A-AWTU
2RK6A-CWTE

Weight: 1.7 lb. (0.75 kg)

DXF A325



● **V Series**

◆ **Lead Wire Type ③**

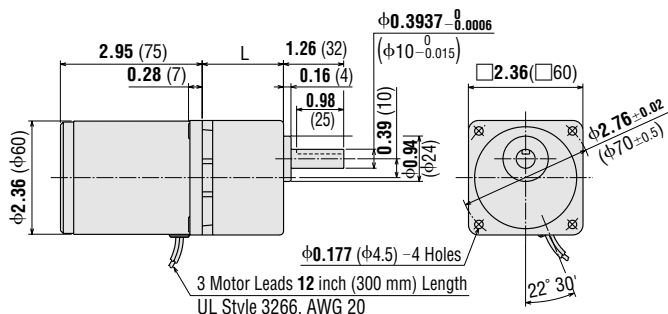
VHR206A-□U, VHR206C-□E (Combination Type)

Weight: 2.6 lb. (1.2 kg) including gearhead

Motor Model: VHR206A-GV, VHR206C-GV

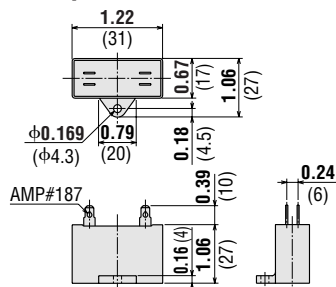
Gearhead Model: GV2G□

- DXF** A201A (GV2G5~18)
 A201B (GV2G30~120)
 A201C (GV2G180~360)



- GV2G5-GV2G18: L = 1.34 (34)
 GV2G30-GV2G120: L = 1.5 (38)
 GV2G180-GV2G360: L = 1.69 (43)

● **Capacitor** (included with the motors)

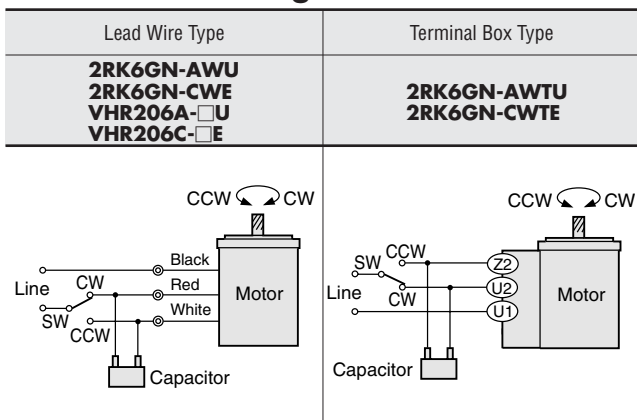


Motor Model	Capacitor Model	Weight oz. (g)
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2RK6GN-AW(T)U 2RK6A-AW(T)U VHR206A-□U	CH35FAUL	0.71 (20)
2RK6GN-CW(T)E 2RK6A-CW(T)E VHR206C-□E	CH08BFAUL	

- If you need to order a capacitor without a motor, add "-C" to the capacitor model number shown.
- A capacitor cap is included with a capacitor.

■ **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.
- **How to connect a capacitor** → Page A-225

Note:

- Connect a CR circuit to the forward/reverse select switch (SW) to protect the contact.
- Connecting CR circuit, contact capacity → Page A-226

■ **List of Motor and Gearhead Combinations for V Series**

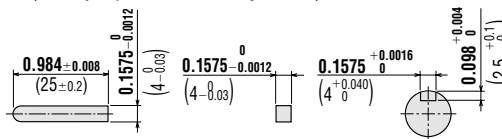
Model numbers for motor and gearhead combinations are shown below.

Model	Motor Model	Gearhead Model
VHR206A-□U	VHR206A-GV	GV2G□
VHR206C-□E	VHR206C-GV	

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

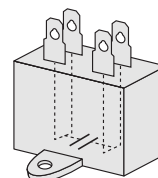
● **Key and Key Slot (Scale 1/2)**

(The key is provided with the gearhead)



● **Inner Connection Diagram for 4-Terminal Capacitor**

Terminals of the capacitor are connected as shown in the figure. For lead wire connection, use one lead wire per terminal.



Introduction

Induction Motors

Reversible Motors

Synchronous Motors

Torque Motors

Waterlight Motors

Magnetic Brake

Clutch & Brake

Brake Pack

Right-Angle Gearheads

Accessories

Before Using a Standard AC Motor