

# REVERSIBLE MOTORS

## Single-Phase

# 25W (1/30 HP)

Frame Size 3.15 in.sq. (80mm sq.)



### Specifications — 30 Minutes Rating



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					oz-in	mN·m	oz-in	mN·m				
Lead Wire Type	Terminal Box Type	HP	W	V AC	Hz	A	oz-in	mN·m	oz-in	mN·m	r/min	μF	
Dimension ①	Dimension ②												
SA	4RK25GN-AWU (4RK25A-AWU)	4RK25GN-AWTU (4RK25A-AWTU)	1/30	25	110	60	0.54	19.4	140	23.6	170	1450	8
					115	60							
SA	4RK25GN-CWE (4RK25A-CWE)	4RK25GN-CWTE (4RK25A-CWTE)	1/30	25	220	60	0.28	19.4	140	23.6	170	1450	2
					230	50							
					230	60							
SE	4RK25GN-AUL (4RK25A-AULA)	—	1/27.5	27	115	60	0.55	16.0	115	23.6	170	1550	7

- Values shown for starting torque and rated torque are measured for operation without the brake applied.
- The product contains a built-in thermal protector. When 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.
- 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 nameplate is adopted.

### Gearmotor—Torque Table

The permissible torque with decimal gearhead with a gear ratio of 10:1 is 70 lb-in (8N·m). The value is 52 lb-in (6N·m) when 25:1~36:1 gearheads are connected.

#### Single-Phase 115V/230V 60Hz

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

Model	Speed r/min	Gear Ratio																			
		600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
4RK25GN-AWU 4RK25GN-AWTU 4RK25GN-CWE 4RK25GN-CWTE	4GN □ KA	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
		3.6	4.3	6.0	7.2	9.0	11	15	18	22	27	32	39	49	58	69	69	69	69	69	69
4RK25GN-AUL	4GN □ KA	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
		3.6	4.3	6.0	7.2	9.0	11	15	18	22	27	32	39	49	58	69	69	69	69	69	69

#### Single-Phase 230V 50Hz

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

Model	Speed r/min	Gear Ratio																			
		500	416	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3
4RK25GN-CWE 4RK25GN-CWTE	4GN □ KA	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
		4.3	5.2	7.2	8.7	11	13	18	22	26	33	39	47	59	69	69	69	69	69	69	69

- Gearheads are sold separately.
- Enter the gear ratio in the box (□) within the model number. 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.

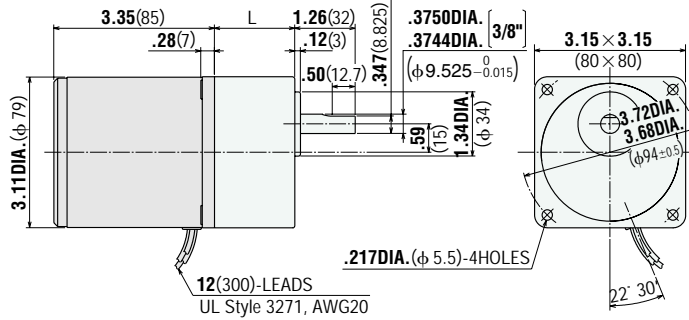
## ■ Dimensions Scale 1/4, Unit = inch (mm)

① **4RK25GN-AWU**  
**4RK25GN-CWE**  
**4RK25GN-AUL**

Weight (Mass): 3.3 lb.(1.5 kg)

**4GN□KA**

Weight (Mass): 1.43 lb.(0.65 kg)

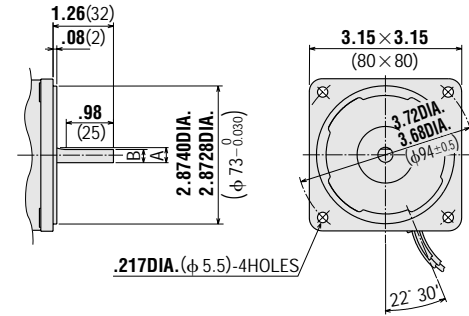


L = 1.26(32) **4GN3KA~18KA**  
 L = 1.67(42.5) **4GN25KA~180KA**

**4RK25A-AWU** Round Shaft Type

**4RK25A-CWE**  
**4RK25A-AULA**

Weight (Mass): 3.3 lb.(1.5 kg)



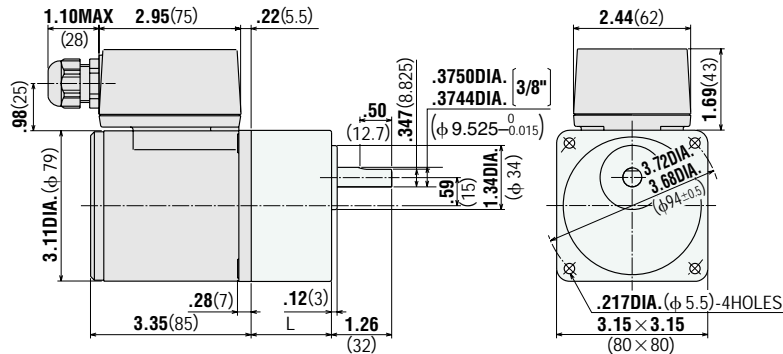
Model	A	B
<b>4RK25A-AWU</b>	.3150DIA. (φ 8.015)	.28(7)
<b>4RK25A-CWE</b>	.3144DIA.	
<b>4RK25A-AULA</b>	.3125DIA. [5/16"](φ 7.937 ± 0.011)	.28(7.037)
	.3120DIA.	

② **4RK25GN-AWTU**  
**4RK25GN-CWTE**

Weight (Mass): 3.7 lb.(1.7 kg)

**4GN□KA**

Weight (Mass): 1.43 lb.(0.65 kg)



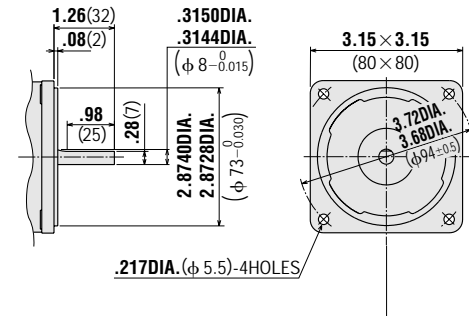
L = 1.26(32) **4GN3KA~18KA**  
 L = 1.67(42.5) **4GN25KA~180KA**

Use cabtyre cable with the diameter of .24DIA.(φ 6)~.47DIA.(φ 12).

**4RK25A-AWTE** Round Shaft Type

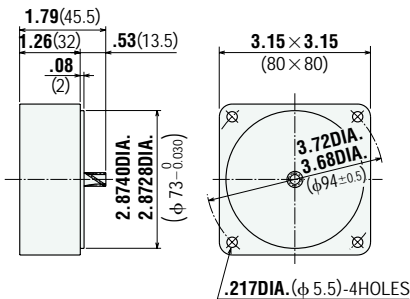
**4RK25A-CWTE**

Weight (Mass): 3.7 lb.(1.7 kg)

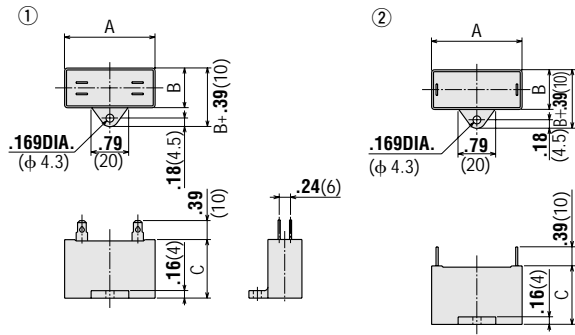


## ● Decimal Gearhead

**4GN10XK** Weight (Mass): 0.88 lb.(0.4 kg)



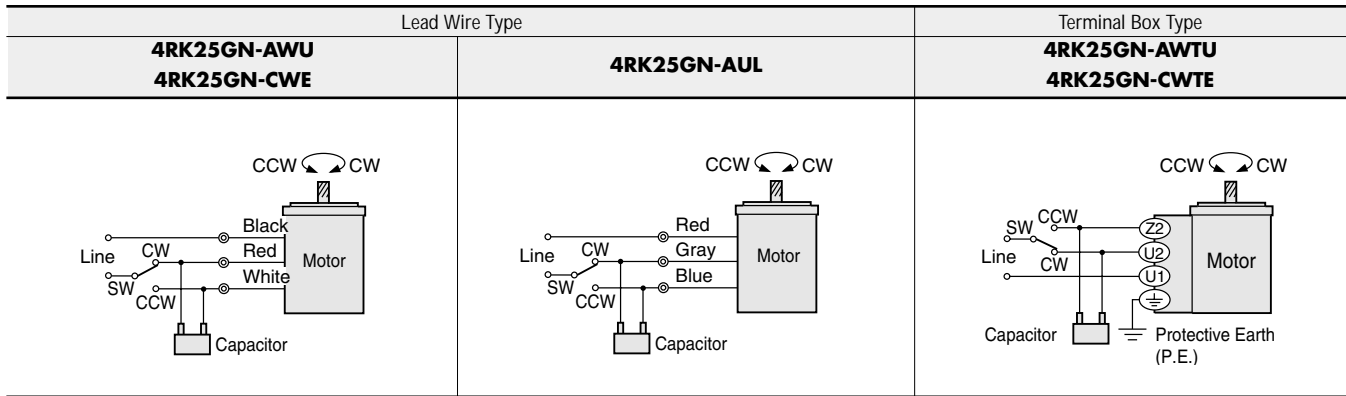
● **Capacitor** (included with the motor)



Motor Model	Capacitor Model	Dimensions inch (mm)			Weight (Mass) oz (g)	Dimension No.
		A	B	C		
<b>4R25GN-AW(T)U</b> <b>4R25A-AW(T)U</b>	CH80CFAUL	1.89 (48)	0.75 (19)	1.14 (29)	1.41 (40)	①
<b>4R25GN-CW(T)E</b> <b>4R25A-CW(T)E</b>	CH20BFAUL	1.89 (48)	0.75 (19)	1.14 (29)	1.23 (35)	①
<b>4R25GN-AUL</b> <b>4RK25A-AULA</b>	CH70UL	1.50 (38)	0.83 (21)	1.22 (31)	1.23 (35)	②

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

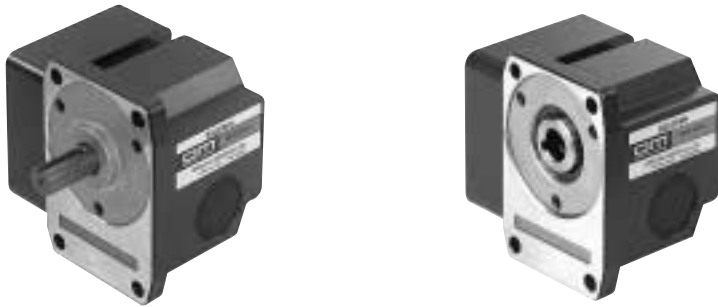
■ **Wiring Diagrams** The direction of motor rotation is as viewed from the shaft end of the motor.



To rotate the motor in a clockwise(CW)direction, flip switch SW to CW.  
To rotate it in a counterclockwise(CCW)direction, flip switch SW to CCW.

■ **Right-Angle Gearheads**

The right-angle gearhead provides an output shaft that is at a right angle to the motor's output shaft. See page [A-216] for specifications and other information.



■ **Accessories**

● **Motor Mounting Brackets**

Optional die-cast aluminum mounting brackets are available. They can be used to install motors without gearheads. See page [A-266] for the dimensions.  
Model name **SOL4U10**



● **Flexible Couplings**

Optional clamping couplings are available. See page[A-260] for the dimensions.

