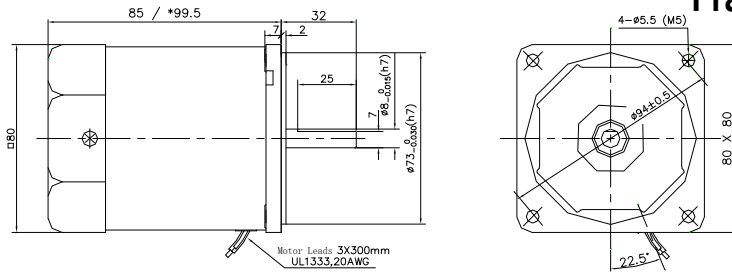


• Motor Dimensions:



**Reversible Motors 25W**  
**Frame Size: □80mm (□3.15 in.)**

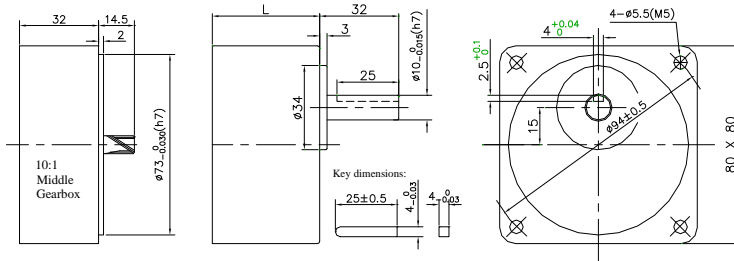


• Reversible motor specifications-30 minute rating (leads wire type)

Model		Output Power	Voltage	Freq.	Current	Starting Torque	Rated Torque	Rated Speed	Capacitor
Pinion Shaft	Round Shaft	W	Vac	Hz	Amp	mN.m	mN.m	r/min	μF/V
4RK25GN-A	4RK25A-A	25	1ph100	50	0.59	160	200	1250	10
				60	0.69	140	165	1550	
4RK25GN-C	4RK25A-C	25	1ph220	50	0.29	140	200	1250	1.8
			1ph230		0.3			160	

• These motors have built in thermal protectors: If a motor overheats the thermal protector opens and the motor stops. When the motor temperature drops to the rated level, the thermal protector closes and the motor restarts.

• Gearhead dimensions:



Item	Ratio	Weight		
		L mm	Kg	lb
Gearhead (4GNxxK)	3 - 18	32	0.43	0.95
	25 - 50	42	0.57	1.25
	60 - 200		0.61	1.34
Middle gearbox(10:1)			0.4	0.88
Motor			1.64	3.61

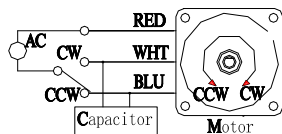
• Gear Motor-Torque Table

Model	Gear Ratio	X:1	Efficiency %																					
			81					73					66											
			3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200	
4RK25GN-A 4RK25GN-C	4GN□K	50Hz	RPM	500	417	300	250	200	166	120	100	83	60	50	41	30	25	20	16	15	12.5	10	8.3	7.5
			Nm	0.49	0.58	0.81	0.97	1.2	1.5	2	2.4	2.9	3.7	4.4	5.3	6.6	7.9	8	8	8	8	8	8	8
4RK25GN-A 4RK25GN-C	4GN□K	60Hz	RPM	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	9
			Nm	0.4	0.48	0.67	0.8	1	1.2	1.7	2	2.4	3	3.6	4.3	5.4	6.5	8	8	8	8	8	8	8
4RK25GN-A 4RK25GN-C	4GN□K	50Hz	Kg.cm	5	5.91	8.26	9.89	12.2	15.3	20.4	24.4	29.6	37.7	44.9	54.1	67.3	80	80	80	80	80	80	80	80
			Kg.cm	4.08	4.89	6.83	8.16	10.2	12.2	17.3	20.4	24.4	30.6	36.7	43.8	55.1	66.3	80	80	80	80	80	80	80

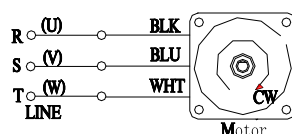
• Enter the gear ratio in the box □. Colored background indicates the output shaft rotate in the same direction as the motor shaft.  
 • The speed is calculated based on the synchronous speed (50 Hz: 1500rpm; 60Hz: 1800 rpm) by the gear ratio.  
 • Higher gear ratio (>200) can be achieved by adding a middle gearbox (10:1 only). Using Middle Gearbox limits Max.torque to 3Nm (30kg.cm)

• Connection Diagrams:

• Lead Wire Single Phase

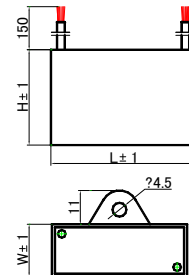


• Lead Wire Three Phase



• Capacitor:

Value	Dimensions	Dimensions		
		uF	V	L H W
2.0 - 2.5	250	37	14	28
0.5 - 1.5	450			
5.0 - 8.0	250	47	22	34
3.0 - 5.0	450			



# 25W Frame Size: □80mm (□3.15 in.)

● **General specifications for AC motors:**

Item	Specifications
Insulation Resistance	100 MΩ or more when 500VDC is applied between the windings and the frame
Dielectric Strength	Sufficient to withstand 1.5 kV at 50/60Hz applied between the windings and the frame for 1 minute
Temperature Rise	Temperature rise of windings should be lower than 80°C. (60°C with fan)
Insulation Class	Class B (130°C)
Overheat Protection	Build in thermal protector (automatic return); Class B (O: 120±5°C, C: 75±15°C)
Ambient Temperature	14°F-104°F (-10°C~+40°C) [three-Phase: 14°F-122°F (-10~+50°C)] (Nonfreezing)
Ambient Humidity	85% or less (Noncondensing)
Degree of Protection	Lead wire type: IP20; Terminal Box Type: IP54

Notes: Above specifications is for motor operated under normal ambient temperature and humidity conditions

● **Permissible load for round shaft motors & Permissible Load Inertia at the Motor Shaft**

Frame Size	Shaft Dia. mm	Permissible overhung load (from end of shaft)				Permissible Load Inertia at the Motor Shaft	
		10 mm		20 mm		J (×10 kg. m <sup>2</sup> )	GD (kg. m <sup>2</sup> )
		lb	N	lb	N		
□80	8	20.2	90	31.5	140	0.31	1.2
	10	24.7	110	27.0	120		

Permissible thrust load: Avoid thrust load as much as possible or keep it to no more than half the motor weight

● **Permissible load for gearheads**

Frame Size	Gear Ratio	Maximum Permissible torque		Permissible overhung load (from end of shaft)				Permissible thrust load	
				10 mm		20 mm			
		lb-in	N.m	lb	N	lb	N	lb	N
□80	3 - 18	71	8	22.5	100	33.7	150	11	50
	25 - 200			44.9	200	67.4	300		

● **Heat Radiation Plate Dimension (Material: Aluminum): 135×135 (for 25W motor)**

● **Product Number Codes for Motors:**

<b>4</b>	<b>I</b>	<b>K</b>	<b>25</b>	<b>R</b>	<b>GN</b>	<b>-</b>	<b>C</b>	<b>F</b>
Frame size	Motor Type	Series	Power	Control	Shaft		Voltage & Poles	Accessory
2: 60mm	I: Induction	K: k series	25 = 25W	R: speed control motor	A: round w/ flat A1: round w/keyway GN: Normal Pinion GU: Enhanced Pinion		A: Single phase 100~120VAC, 4P B: Single phase 100~120VAC, 2P C: Single phase 220~240VAC, 4P D: Single phase 220~240VAC, 2P S: Three phase 220~240VAC, 4P T: Three phase 220~240VAC, 2P S3: Three phase 380~415VAC, 4P T3: Three phase 380~415VAC, 2P	F: W/Fan FF: W/forced Fan M: W/Brake T: W/Terminal Box

● **Product Number Codes for Gearheads:**

<b>4</b>	<b>GN</b>	<b>50</b>	<b>K</b>
Frame size	Gear Type	Gear Ratio	Bearing
2: 60mm	GN: Normal Gear GU: Enhanced Gear	50 = 50:1	K: Normal Ball Bearing KB: Enhanced for GU Type B: Sleeve bearing
3: 70mm			
4: 80mm			
5: 90mm			
6: 100mm			

● **Terminal Boxes:**

