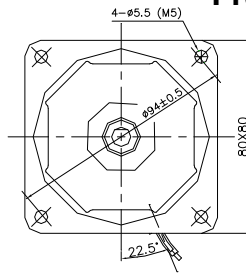
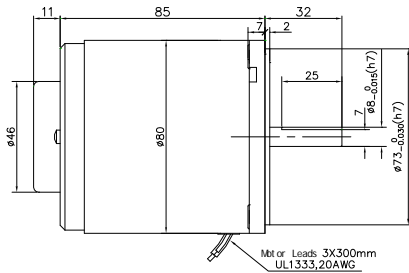


● Motor Dimensions:



Speed Control Motors 25W
Frame Size: 80mm (3.15 in.)



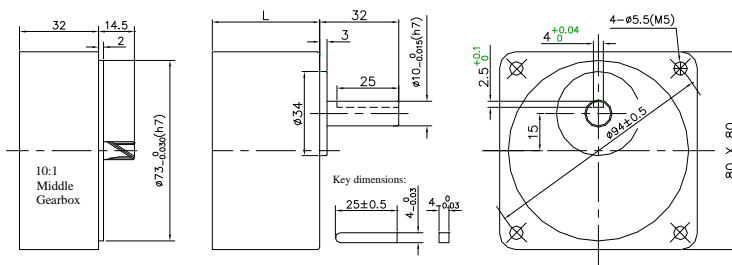
● Induction motor specifications-continuous Rating (leads wire type)



Model		Output Power	Voltage	Freq.	Speed Range	Allowable Torque		Starting Torque	Current	Capacitor
Pinion Shaft	Round Shaft	W	Vac	Hz	r/min	1200rpm	90rpm	mN.m	Amp	μF/V
4IK25RGN-A	4IK25RA-A	25	1ph100	50	90~1400	190	47	88	0.75	8/250
				60	90~1700	50	29	35	0.28	
4IK25RGN-C	4IK25RA-C	25	1ph220	50	90~1400	190	47	88	0.35	1.5/450

● 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 (3GNxxK)	3 - 18	32	0.43	0.95
	20 - 50	43.5	0.57	1.25
	60 - 200		0.61	1.34
10:1 middle gearbox		32	0.4	0.88
Motor		85	1.64	3.61

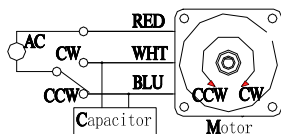
● Gear Motor-Torque Table

Model	Gear Ratio	X:1	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200																							
																								Efficiency	81										73					66						
																								Speed	50Hz RPM	50Hz Nm	50Hz Kg.cm	60Hz RPM	60Hz Nm	60Hz Kg.cm																
4IK25RGN-A 4IK25RGN-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	8																					
		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	8																					
			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																							

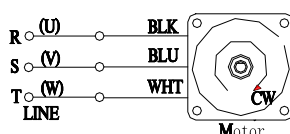
● Enter the gear ratio in the box □. Colored background indicates the output shaft rotate in the same direction as the motor shaft.
 ● The speed is calculated based on the synchronous speed (50 Hz: 1500rpm; 60Hz: 1800 rpm) by the gear ratio.
 ● Higher gear ratio (>200) can be achieved by adding a middle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

● Connection Diagrams:

● Lead Wire Single Phase

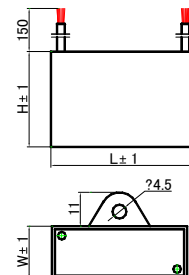


● Lead Wire Three Phase



● 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 ²)	GD (kg. m ²)
		lb	N	lb	N		
□80	8	20.2	90	31.5	140	0.31	1.2
	10	24.7	110	27.0	120		

Permissible trust load: Avoid trust 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 trust 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:**

4	I	K	25	R	GN	-	C	F
Frame size 2: 60mm 3: 70mm 4: 80mm 5: 90mm 6: 100mm	Motor Type I: Induction R: Reversible T: Torque	Series K: k series	Power 25 = 25W	Control R: speed control motor	Shaft A: round w/ flat A1: round w/keyway GN: Normal Pinion GU: Enhanced Pinion		Voltage & Poles 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	Accessory F: W/Fan FF: W/forced Fan M: W/Brake T: W/Terminal Box

● **Product Number Codes for Gearheads:**

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

● **Terminal Boxes:**

