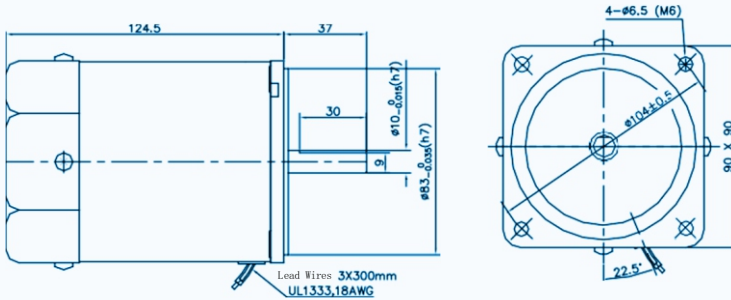


Induction Motors **60W**

Frame Size 90mm (3.54 inch)

EIKO AUTOMATION

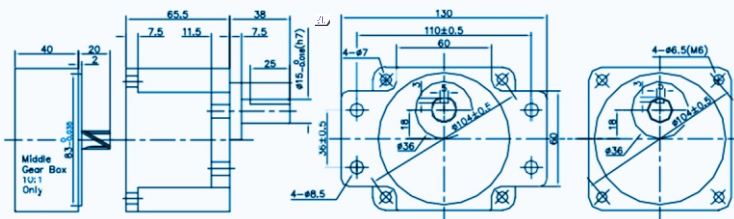


• Eiko Induction motor specifications-continuous Rating (lead wire)

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.m	μF/V
51K60GU-AF	51K60A-AF	60	1ph100	50	1	320	470	1250	20/250
				60	1.1		380	1550	
51K60U-CF	51K60A-CF	60	1ph220	50	0.5	340	470	1250	4/450
			1ph230	50	0.55			1450	
51K60GU-SF	51K60A-SF	60	3ph220	50	0.45	1000	470	1250	-
				60	0.4	800	380	1550	

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.

• Eiko Gear Head - Dimensions



Item	Ratio	L mm	Weight	
			Kg	lb
Gearhead (5GUxxK)	3 - 9	65.5	1.21	2.66
	10 - 18		1.30	2.86
	20 - 75		1.40	3.08
	90 - 200		1.45	3.19
Middle Gearbox (10:1)		40	0.6	1.32
Motor		126	2.40	5.28

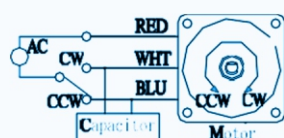
• Eiko Gear Motor - Torque Table

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						59					
Speed (r/min)		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	
		60Hz	RPM	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	9	
51K60GU-A	5GU□K	50Hz	Nm	1.1	1.4	1.9	2.3	2.9	3.4	4.8	5.7	6.8	8.6	10.3	12.4	15.5	18.6	20	20	20	20	20	20	20	
51K60GU-C			Kg.cm	11.2	14.2	19.3	23.4	29.6	34.7	48.9	58.1	69.3	87.7	105	126	158	189	200	200	200	200	200	200	200	
51K60GU-S		60Hz	Nm	0.92	1.1	1.5	1.8	2.3	2.8	3.8	4.6	5.5	6.9	8.3	10	12.5	15	18.8	20	20	20	20	20	20	
			Kg.cm	9.38	11.2	15.3	18.3	23.4	28.5	38.7	46.9	56.1	70.4	84.6	102	127	153	192	200	200	200	200	200	200	

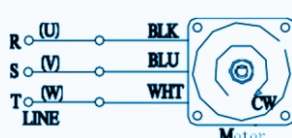
- Enter the gear ratio in the box (□) within the model name. Colored background indicates the output. Shaft rotate in the same direction as the motor shaft.
- The speed is calculated based on the synchronous speed (50Hz : 1500rpm, 60Hz : 1800rpm) by the gear ratio.
- Higher gear ratio (>200) can be achieved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

• Connection Diagrams

• Lead Wire Single Phase

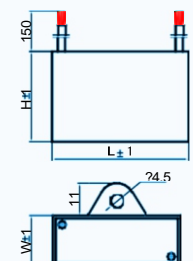


• Lead Wire Three Phase



• Capacitor

Value		Dimensions		
uF	V	L	H	W
3.5 - 4.0	250	37	18	28
1.8 - 2.5	450			
20 - 30	250	57	32	46
10 - 15	450			



TECHNICAL SPECIFICATIONS

General specifications for Eiko Motors

Item	Specifications
Insulation Resistance	100 MΩ or more when 500 VDC is applied between the windings and the frame
Dielectric Strength	Sufficient to withstand 1.5 kV at 50/60 Hz applied between the windings and the frame for 1 min
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°~+40°) [three phase: 14°F-122°F (-10°~+50°)] (Non freezing)
Ambient Humidity	85% or less (Non Condensing)
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 and permissible load inertia at the motor shaft

Frame Size	Shaft Diameter mm	Permissible Hung Load (from end of shaft)				Permissible Hung Inertia at the Motor Shaft	
		10mm		20mm		J (x10 kg.m²)	GD (kg.m²)
		lb	N	lb	N		
51K60	10	31.5	140	44.9	200	1.1	4.6
	12	53.9	240	60.7	270		

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

Permissible load for Eiko Gearheads

Frame Size	Gear Ratio	Maximum Permissible Torque		Permissible Overhung Load (from end of shaft)				Permissible Thrust Load	
				10mm		20mm		lb	N
		lb-in	N.m	lb	N	lb	N		
5GU	3 - 9	177	20	89.9	400	112.4	500	34	150
	125 - 18			101.1	450	134.8	600		
	25 - 200				300	157.3	700		

Heat Radiation Plate Dimension (Material: Aluminium) : 275 x 276 (for 40W motor)

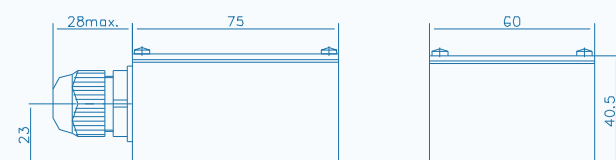
Product Number Codes for Motors:

5	I	K	60	R	GU	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 60 = 60W	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 100~120V AC, 4P B: Single Phase 100~120V AC, 2P C: Single Phase 220~240V AC, 4P D: Single Phase 220~240V AC, 2P S: Three Phase 220~240V AC, 4P T: Three Phase 220~240V AC, 2P S3: Three Phase 380~415V AC, 4P T3: Three Phase 380~415V AC, 2P	Accessory F: W/Fan FF: W/forced Fan M: W/Brake T: W/Terminal Box

Product Number Codes for Gearheads:

5	GU	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:



RELIABLE BEARINGS AND AUTOMATION

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