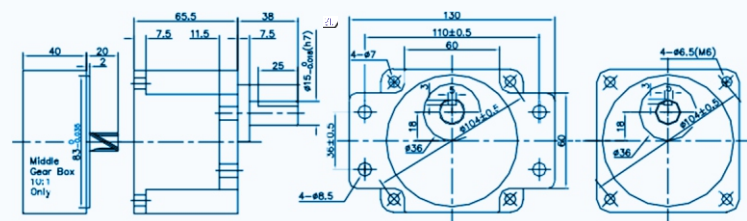


- Eiko Induction motor specifications-continuous Rating (lead wire)

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
51K90GU-AF	51K90A-AF	90	1ph100	50	1.55	450	700	1250	25/250
				60	1.85		570	1550	
51K90U-CF	51K90A-CF	90	1ph220	50	0.72	450	700	1250	5/450
			1ph230		0.70			1450	
51K90GU-SF	51K90A-SF	90	3ph220	50	0.60	1350	700	1250	-
				60	0.55	1100	570	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	Weight	
		mm	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	0.60	1.32
Motor		141	3.40	7.48

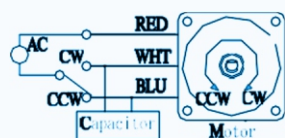
- Eiko Gear Motor - Torque Table

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	
51K90GU-A	5GU□K	50Hz	Nm	1.7	2.0	2.8	3.4	4.3	5.1	6.4	7.7	9.2	11.6	13.9	16.6	20	20	20	20	20	20	20	20	20	
51K90GU-C			Kg.cm	17.3	20.4	28.6	34.7	43.9	52	65.3	78.6	93.9	118	142	169	200	200	200	200	200	200	200	200	200	
51K90GU-S		60Hz	Nm	1.4	1.7	2.3	2.8	3.5	4.2	5.2	6.2	7.5	9.4	11.3	13.5	18.8	20	20	20	20	20	20	20	20	
			Kg.cm	14.3	17.3	23.5	28.6	35.7	42.9	53.1	63.3	76.5	95.9	115	128	192	200	200	200	200	200	200	200	200	

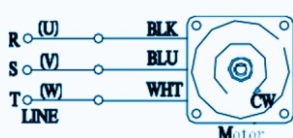
- Enter the gear ratio in the box (□) within the model name. Colored background indicates the output. Shaft rotate in the same direction as the motor shaft.
- The speed is calculated based on the synchronous speed (50Hz : 1500rpm, 60Hz : 1800rpm) by the gear ratio.
- Higher gear ratio (>200) can be achieved 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

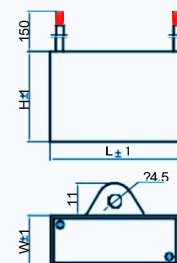


- Lead Wire Three Phase



- 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			



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-in	N.m	lb	N	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			112.4	300	157.3	700		

Heat Radiation Plate Dimension (Material: Aluminium) : 311 x 200 (for 51K GU motor)

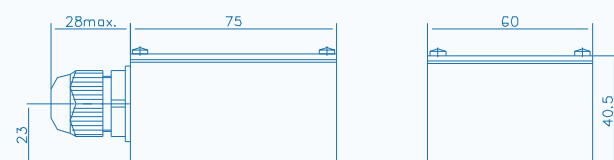
Product Number Codes for Motors:

5	I	K	90	R	GU	C	F
Frame Size	Motor Type	Series	Power	Control	Shaft	Voltage & Poles	Accessory
2: 60mm	I: Induction	K: k series	90 = 90W	R: speed control motor	A: round w/flat	A: Single Phase 100~120V AC, 4P	F: W/Fan
3: 70mm	R: Reversible				A1: round w/keyway	B: Single Phase 100~120V AC, 2P	FF: W/forced Fan
4: 80mm	T: Torque				GN: Normal Pinion	C: Single Phase 220~240V AC, 4P	M: W/Brake
5: 90mm					GU: Enhanced Pinion	D: Single Phase 220~240V AC, 2P	T: W/Terminal Box
6: 100mm						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	

Product Number Codes for Gearheads:

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

Terminal Boxes:



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