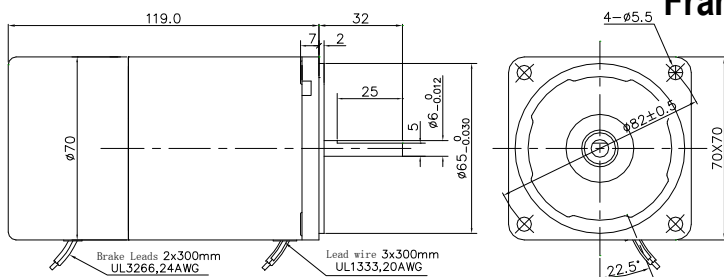


Magnetic Brake Motors 15W

Frame Size: □70mm (□2.76 in.)

● Motor Dimensions:



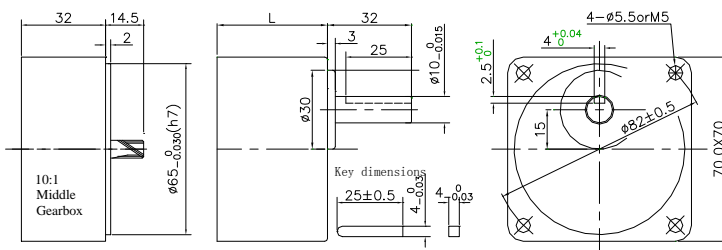
● Induction motor specifications-continuous Rating (leads wire type)



Model			Duty	Output power	Voltage	Freq.	Current	Starting torque	Rated torque	Rated speed	CAP
(Lead wire type)											
Pinion	Shaft	Round Shaft		W	V	Hz	A	mN.m	mN.m	r/min	μF/VAC
3RK15GN-AM		3RK15A-AM	30min	15	1ph110	50	0.4	110	125	1200	7/250
						60	0.56	105	105	1450	
3RK15GN-CM		3RK15A-CM	30min	15	1ph220	50	0.23	110	125	1200	1.5/450
					1ph230		0.15				
3IK15GN-SM		3IK15A-SM	Cont.	15	3ph220	50	0.14	220	125	1200	-
						60	0.12	180	105	1450	

- 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		
		mm	Kg	lb
Gearhead (3GNxxK)	3 - 18	32	0.38	0.84
	25 - 50	42	0.47	1.03
	60 - 200		0.52	1.14
Middle gearbox(10:1)			0.3	0.66
Motor			1.1	2.42

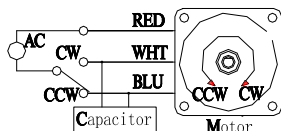
● Gear Motor-Torque Table

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	500	417	300	250	200	166	120	100	83	60	50	41	30	25	20	16
3RK15GN-AM 3RK15GN-CM 3IK15GN-SM	3GN□K	50Hz	Nm	0.3	0.36	0.51	0.61	0.76	0.91	1.3	1.5	1.8	2.3	2.7	3.3	4.1	5	5	5	5	5	5	5	5	5																	
			Kg.cm	3.06	3.06	5.2	6.22	7.75	9.28	13.2	15.3	18.3	23.4	27.5	33.7	41.8	50	50	50	50	50	50	50	50	50																	
		60Hz	Nm	0.26	0.31	0.43	0.51	0.64	0.77	1.1	1.3	1.5	1.9	2.3	2.8	3.5	4.2	5	5	5	5	5	5	5	5																	
			Kg.cm	2.65	3.16	4.38	5.2	6.53	7.85	11.2	13.2	15.3	19.3	23.4	28.5	35.7	42.8	50	50	50	50	50	50	50	50																	

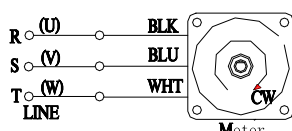
- Enter the gear ratio in the box □. Colored background indicates the output shaft rotate in the same direction as the motor shaft.
- The speed is calculated based on the synchronous speed (50 Hz: 1500rpm; 60Hz: 1800 rpm) by the gear ratio.
- Higher gear ratio (>200) can be achieved by adding a middle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

● Connection Diagrams:

● Lead Wire Single Phase

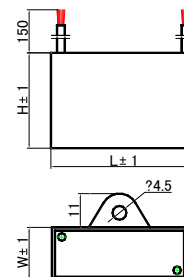


● Lead Wire Three Phase



● Capacitor:

Value	Dimensions	Dimensions		
		uF	V	L
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			



15W Frame Size: □70mm (□2.76 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		
□70	6	9.0	40	13.5	60	0.14	0.52

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	
		lb-in	N.m	10 mm		20 mm		lb	N
				lb	N	lb	N		
□70	3 - 18	44	5	18.0	80	27.0	120	9.0	40
	25 - 200			33.7	150	56.2	250		

● **Heat Radiation Plate Dimension (Material: Aluminum) : 125×125 (for 15W motor)**

● **Product Number Codes for Motors:**

3	I	K	15	R	GN	-	C	M
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 15 = 15W	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:**

3	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:**

