AC Gearmotors

MULTI PRODUCTS Company, Inc.

Your Partner. In Motion.

Line of shaded pole, permanent split capacitor, and synchronous AC gearmotors.
Customized winding, stack size, gear ratio, and output shafts.

From Foodservice Equipment...

To Gaming and Amusement...

To Agriculture and HVAC...

Tailor-Engineered Gearmotors For Your Application.

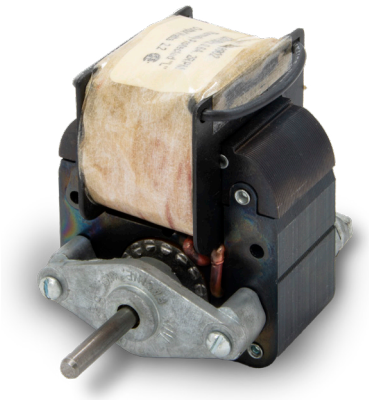
High quality, attention to detail, on-time delivery, and quick lead times have been the pillars of Multi for over 60 years. We are committed to being the partner you can count on.

AC Motor Options

Long-lasting, economical, hardworking solutions that are best for continuous duty.

Single Phase AC Induction Motors

SHADED POLE MOTOR



Standard Shaded Pole AC

Single phase AC induction motor. Economical, very reliable, simple in construction. Shaded pole AC motors offer long motor life with little-to-no maintenance required due to the lack of common wear parts.

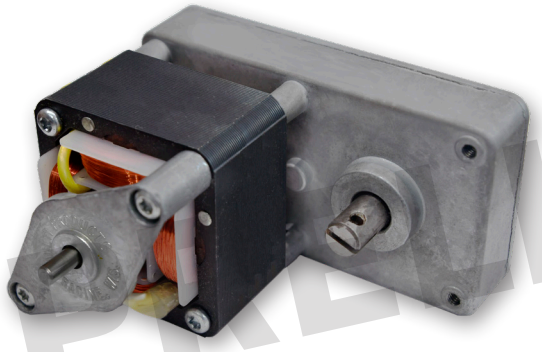
Shaded pole motor is the standard AC motor option for all Multi Products standard parallel shaft gearboxes.

Features:

- Medium starting and high stall torque
- Long life; little maintenance
- Stack sizes: .625", .75", 1.06" 1.125", 1.25", 2.00"
- Cone friction or pawl brake
- Continuous or intermittent duty

Specifications	
Voltage	24 - 480 V
Frequency	50 / 60 Hz
Rated Speed	3000 RPM
Rated Torque	Up to 11 in-oz
Rotation	Uni-directional
Shaft Size	1/4"

PSC MOTOR - 5000 SERIES



Permanent Split Capacitor AC - Available Q4 2021

Reversible AC induction motor. High starting torque and moderate electrical efficiency. The motor produces uniform torque and low noise. Best for intermittent duty applications. 3000 RPM rated speed.

PSC reversing AC motor available with 5000 Series gearbox as standard

Features:

- High starting torque
- Equivalent stall torque
- Reversible AC motor
- Run capacitor required
- Stack sizes: 1.0", 1.25", 1.5", 2.0"
- Cone friction brake
- Continuous or intermittent duty

Model 5000 Specifications	
Voltage	120 or 240 V
Frequency	50 / 60 Hz
Rated Speed	10 - 200 RPM
Rated Torque	Up to 50 in-lb.
Amps	0.3 A
Rotation	Reversible
Shaft Size	1/4" to 3/8"

SYNCHRONOUS TIMING MOTOR

Constant Speed - Reversible AC

Synchronous timing motors are used in applications in which a constant and precise speed is required, regardless of torque. Typical applications include positioning machines, robot actuators, record players, and turntables.

Compatible Gearboxes: 1600, 3000, 6000, 7000, 7000x, 9000

Features:

- High starting torque
- 55mm frame size
- Reversible AC motor
- Run capacitor required
- Dual coil can-stack design
- Bronze sleeve bearings
- Continuous or intermittent duty

Specifications	
Voltage	120/230/240 V
Frequency	50 / 60 Hz
Power	7 W
Rated Speed	250 / 300 RPM
Rated Torque	8.5 oz-in.
Capacitor MFD	0.22 / 0.18
Rotation	Reversible

AC Gearboxes / Reducers

Crafted gearmotors to drive commercial, industrial, and consumer applications.

302 SERIES

Heavy Duty - Compact Package

Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.625”	120 - 240 VAC	0.5 - 48 in-lbs.	4 - 400 RPM	Uni-directional	1/4”, 5/16, or 3/8”
1.00”	120 - 240 VAC	0.7 - 81 in-lbs.	4 - 400 RPM	Uni-directional	1/4”, 5/16, or 3/8”
1.25”	120 - 240 VAC	1.1 - 150 in-lbs.	4 - 400 RPM	Uni-directional	1/4”, 5/16, or 3/8”
2.00”	120 - 240 VAC	1.5 - 150 in-lbs	4 - 400 RPM	Uni-directional	1/4”, 5/16, or 3/8”

400 SERIES

Light Duty - Open Frame

Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.425”	24 - 240 VAC	0.5 - 45 in-lbs.	2 - 400 RPM	Uni-directional	1/4” or 5/16”
0.685”	24 - 240 VAC	0.7 - 50 in-lbs.	2 - 400 RPM	Uni-directional	1/4” or 5/16”

440 SERIES

Low Profile - Oscillation Option

Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.425”	24 - 240 VAC	0.5 - 80 in-lbs.	0.25 - 400 RPM	Uni-Directional / Oscillator	1/4” or 5/16”

1600 SERIES

Heavy Duty - Sealed Housing

Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.625”	120 - 240 VAC	0.7 - 48 in-lbs.	4 - 200 RPM	Uni-directional	3/8” to 1/2”
0.75”	120 - 240 VAC	1.0 - 81 in-lbs.	4 - 200 RPM	Uni-directional	3/8” to 1/2”
1.0625”	120 - 240 VAC	1.4 - 150 in-lbs.	4 - 200 RPM	Uni-directional	3/8” to 1/2”
2.00”	120 - 240 VAC	2.1 - 150 in-lbs	4 - 200 RPM	Uni-directional	3/8” to 1/2”

6000 SERIES

Medium Duty - Retrofit Option

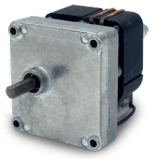
Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.625”	120 - 240 VAC	5.5 - 24 in-lbs.	8 - 25 RPM	Uni-directional	1/4”, 5/16, or 3/8”
0.75”	120 - 240 VAC	8 - 41 in-lbs.	8 - 25 RPM	Uni-directional	1/4”, 5/16, or 3/8”
1.0625”	120 - 240 VAC	11 - 75 in-lbs.	8 - 25 RPM	Uni-directional	1/4”, 5/16, or 3/8”
2.00”	120 - 240 VAC	17 - 75 in-lbs	8 - 25 RPM	Uni-directional	1/4”, 5/16, or 3/8”

7000 SERIES

Medium Duty - Most Versatile

Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.625”	120 - 240 VAC	0.7 - 48 in-lbs.	4 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
0.75”	120 - 240 VAC	1.0 - 75 in-lbs.	4 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
1.0625”	120 - 240 VAC	1.4 - 75 in-lbs.	4 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
2.00”	120 - 240 VAC	2.1 - 75 in-lbs	4 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”

7000X SERIES



Medium Duty - Offset Shaft

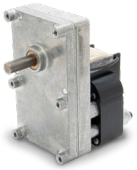
Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.625”	120 - 240 VAC	0.7 - 75 in-lbs.	1 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
0.75”	120 - 240 VAC	1.0 - 75 in-lbs.	1 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
1.0625”	120 - 240 VAC	1.4 - 75 in-lbs.	1 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
2.00”	120 - 240 VAC	2.1 - 75 in-lbs	1 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”

8000 SERIES

Light Duty - Most Compact

Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.625”	120 - 240 VAC	0.7 - 48 in-lbs.	8 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
0.75”	120 - 240 VAC	1.0 - 50 in-lbs.	8 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
1.0625”	120 - 240 VAC	1.4 - 50 in-lbs.	8 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”
2.00”	120 - 240 VAC	2.1 - 50 in-lbs	8 - 200 RPM	Uni-directional	1/4”, 5/16, or 3/8”

9000 SERIES



Heavy Duty - The Strongest

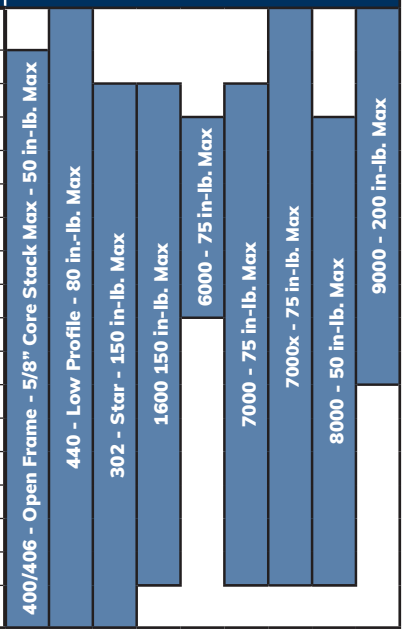
Core Stack Size	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
0.625”	120 - 240 VAC	3.5 - 190 in-lbs.	1 - 40 RPM	Uni-directional	3/8” to 1/2”
0.75”	120 - 240 VAC	5.0 - 200 in-lbs.	1 - 40 RPM	Uni-directional	3/8” to 1/2”
1.0625”	120 - 240 VAC	7.0 - 200 in-lbs.	1 - 40 RPM	Uni-directional	3/8” to 1/2”
2.00”	120 - 240 VAC	11 - 200 in-lbs	1 - 40 RPM	Uni-directional	3/8” to 1/2”

Shaded Pole AC Motor Performance Matrix

PERFORMANCE DATA - TORQUE/SPEED | **Data is based on in-lb running torque +/- 15%**

Reference RPM	0.625" Core Stack			0.75" Core Stack			1.063" Core Stack			1.125" Core Stack			2.0" Core Stack		
	Duty Cycle			Duty Cycle			Duty Cycle			Duty Cycle			Duty Cycle		
	100%	50%	25%	100%	50%	25%	100%	50%	25%	100%	50%	25%	100%	50%	25%
1	135	175	190	195	195	200	200	200	200	200	200	200	200	200	200
2	65	90	95	98	136	162	140	200	200	163	200	200	200	200	200
4	35	44	48	49	68	81	70	113	160	82	120	165	105	200	200
8	17	22	24	25	34	41	35	56	82	47	70	94	53	115	165
10	14	18	19	19	27	33	28	45	65	38	56	75	42	94	134
12	12	15	16	16	23	27	23	37	55	31	46	63	35	78	110
15	9	12	12.5	13	18	22	19	30	11	25	3	50	28	63	90
20	7	9	9.5	10	14	16	14	22.5	33	18	28	37	21	47	67
25	5.5	7	7.5	8	11	13	11	18	26	15	22	30	17	37	53
30	5	6	6.3	6.5	9	11	9.4	15	22	14	21	29	14	31	44
40	3.5	4.5	4.7	5	6.8	8	7	11	16.4	11	16	21	11	23	34
50	3	3.5	3.7	4	5.4	6.5	5.6	9	13	8.6	13	17	8.5	19	27
75	1.5	2	2.2	2.4	3.4	4	3.5	5.6	8.2	5.8	8.5	11.5	5.2	12	17
100	1.4	1.8	1.9	2	2.7	3.2	2.8	4.5	6.5	4.3	6.4	8.6	4.2	9.4	13
150	0.9	1.2	1.3	1.3	1.8	2.1	2.2	3.6	5.3	2.9	4.3	5.8	2.8	6.2	8.9
175	0.8	1	1.1	1.1	1.5	1.8	1.6	2.6	3.8	2.4	3.7	4.9	2.4	5.4	7.6
200	0.7	0.9	0.9	1	1.3	1.6	1.4	2.2	3.2	2.1	3.2	4	2.1	4.7	6.7
400	0.5	0.6	0.6	0.7	0.9	1.1	1	1.6	2	1.1	1.6	2	1.5	3	4.8

Gear Reducer Model RPM Range Reference



Based on in-lb running torque at 60 Hz. For 50 Hz applications, multiply speed by 0.83. Torque values apply to motors operating in normal room ambient temperature (25˚C). Mechanical brakes reduce above rated torques by 20%.

$$\text{DUTY CYCLE} = \frac{\text{Maximum "On Time"}}{\text{Max "On Time"} + \text{Max "Off Time"}}$$

Duty Cycle	Maximum Allowable Uninterrupted "On Time"
25%	1 Minute
50%	3 Minutes
100%	Over 10 Minutes

Contact Us for a Consultation

OUR SALES TEAM - YOUR PARTNERS. IN MOTION.

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