MC MOTORS

AC Hysteresis Synchronous and Induction Motors

B-2000

general design specification: MIL-M-7969

power rating:

Induction — Up to 1.5 oz. in.
Hysteresis Synchronous — Up to 0.85 oz. in.

voltage and frequency: 115 and 200 VAC @ 400 Hz

weight: 6.5 ounces

inertia:

Induction — 8 x 10^{-5} oz. in. sec.^{2}
Hysteresis Synchronous — 2 Pole: 7.7 x 10^{-5} oz. in. sec.^{2}
— 4 Pole: 6.4 x 10^{-5} oz. in. sec.^{2}
— 6 Pole: 7.1 x 10^{-5} oz. in. sec.^{2}

shaft: Precision-ground No. 303 or 416 stainless steel. Options: length, smaller diameter, flats, pinions, gears, holes (through or tapped), threaded ends and tapers. Type of steel used may change depending upon variation selected

bearings: Double shielded, life-lubricated for –55°C to + 85°C operation. Special lubricants available for temperature extremes

cables/leads: 8" #26 AWG leads per MIL-W-16878/4

housing: Aluminum

marking: Per MIL-STD-130

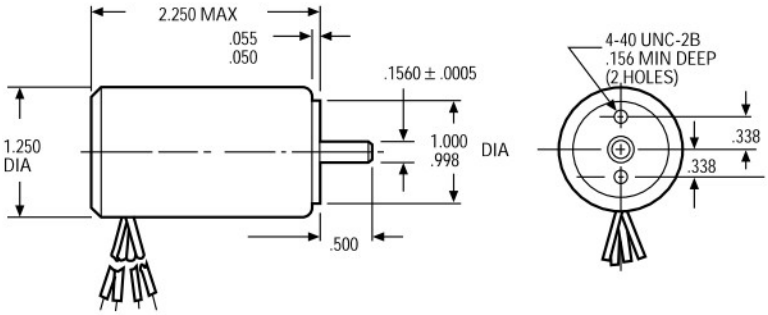
life: 200 to 1,000 hours continuous duty depending upon the voltage, frequency and number of poles

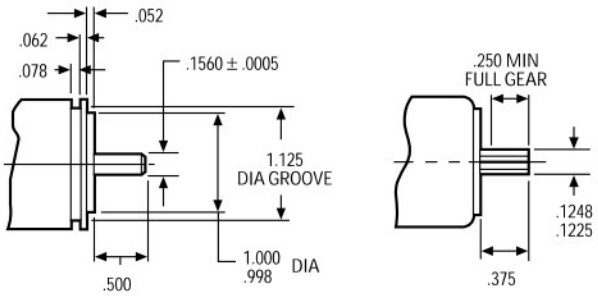
options available:

- Gear train (see B-2030 for details)
- Length. MC motors are available in 4 lengths with output torque being proportional to length as follows:

TYPE	LENGTH (in.)	TORQUE
MC (Standard)	2.25	See Chart, opposite page
MCS	1.75	0.5 x standard torque
MCL	2.75	1.5 x standard torque
MCLL	3.25	2.0 x standard torque

Dimensions





PINION DATA: NUMBER OF TEETH —13
DIAMETRAL PITCH — 120°
PRESSURE ANGLE — 20°
AGMA 9 IS STANDARD
OTHER PINIONS ARE AVAILABLE

B-2000

Standard Part Numbers and Data

Hysteresis Synchronous

VOLTAGE (VAC)	FRE-QUENCY (Hz)	POLES	PHASE	SCHEMATIC	VARIABLE LEAD COLOR C	PHASING CAPACITOR (µF) (wvac)	SYNC SPEED (rpm)	MAX RATED LOAD @ SYNC. SPEED (oz. in.)	MIN PULL UP TORQUE (oz. in.)	MAX POWER (watts) no load	MAX POWER (watts) normal rated load	STANDARD PART NUMBER* TAPPED HOLE MOUNT
115	60	2	1	C	WHT	1.00 200	3,600	.70	.50	12	12	18A108
115	60	4	1	C	BLK	1.00 200	1,800	.65	.50	12	12	18A107
115	60	6	1	D	YLW	1.00 200	1,200	.50	.40	12	12	18A437
115	400	2	1	A	BLK	.180 350	24,000	.80	.55	23	33	18A1003-2
115	400	2	3	B	BLK	NOT REQ'D	24,000	.80	.80	20	30	18A1004-2
115	400	4	1	A	GRN	.082 500	12,000	.65	.45	17	20	18A1005-2
115	400	4	3	B	GRN	NOT REQ'D	12,000	.85	.85	16	21	18A1006-2
115	400	6	1	D	GRY	.150 400	8,000	.45	.25	16	18	18A250
200	400	2	3	B	BLK	NOT REQ'D	24,000	.80	.80	20	30	18A1008-2
200	400	4	3	B	GRN	NOT REQ'D	12,000	.75	.75	14	18	18A1009-2

Induction

VOLTAGE (VAC)	FRE-QUENCY (Hz)	POLES	PHASE	SCHEMATIC	VARIABLE LEAD COLOR C	PHASING CAPACITOR (µF) (wvac)	MIN SPEED @ RATED LOAD (rpm)	RATED LOAD (oz. in.)	MIN PULL UP TORQUE (oz. in.)	MAX POWER (watts) no load	MAX POWER (watts) normal rated load	STANDARD PART NUMBER* TAPPED HOLE MOUNT
115	400	2	1	A	BLK	.180 350	21,000	1.00	.80	16	32	18A1003-1
115	400	2	3	B	BLK	NOT REQ'D	22,000	1.50	1.50	16	40	18A1004-1
115	400	4	1	A	GRN	.082 500	10,000	1.00	1.00	17	28	18A1005-1
115	400	4	3	B	GRN	NOT REQ'D	10,500	1.50	1.50	14	28	18A1006-1
200	400	2	3	B	BLK	NOT REQ'D	22,000	1.50	1.50	16	40	18A1008-1
200	400	4	3	B	GRN	NOT REQ'D	10,500	1.50	1.50	14	28	18A1009-1

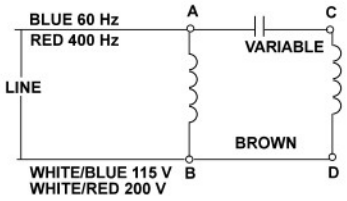
Note: All 3-phase voltages are line to line. MIL-STD-704 is 200v line to line

*When You Order

Units shown above are standard and may be ordered by part number.
Remember to include dash number, EXAMPLE: 18A1003-2.

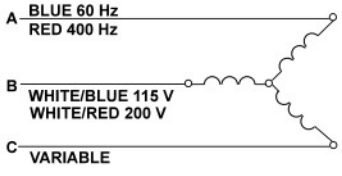
Schematic Wiring

A



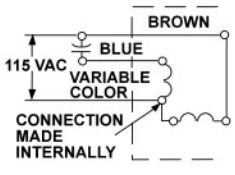
CW ROTATION (VIEWING SHAFT END). FOR CCW ROTATION REVERSE C & D

B



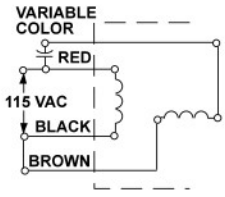
ABC PHASE SEQUENCE FOR CW ROTATION (VIEWING SHAFT END). FOR CCW ROTATION REVERSE ANY TWO LEADS

C



CW ROTATION (VIEWING SHAFT END). FOR CCW ROTATION CONNECT LINE TO BLUE INSTEAD OF BROWN

D



CW ROTATION (VIEWING SHAFT END). FOR CCW ROTATION REVERSE RED & BLACK

Issued: August 11, 2015