

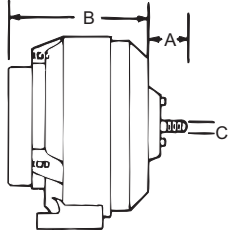
## EM&S ESP-L Shaded Pole Motors

### Features:

- Cast iron unit bearing
- Single speed
- End or side pad mounting
- Horizontal operation
- With flatted smooth shaft

### Specifications:

- Single phase, 60 Hertz
- Overload protection
- Continuous, air over



### For Tecumseh – Replaces No. 810M050A62

MARS NO.	EMS NO. ESP	WATTS OUTPUT	VOLTS	AMPS	RPM	ROT LE	DIMENSIONS			SHAFT TYPE
							A	B	C	
00507	OL50EMJR21	50	230	0.85	1500	CCW	2.00	4.25	5/16	with flat

### For Kelvinator – Replaces Nos. 24-0366, ESP-L15EMJR11

MARS NO.	EMS NO. ESP	WATTS OUTPUT	VOLTS	AMPS	RPM	ROT LE	DIMENSIONS			SHAFT TYPE
							A	B	C	
00152	OL15EMJR11	15	115	0.60	1500	CCW	7.00	3.50	5/16	with flat



## EM&S High Efficiency ESP-L Shaded Pole and PSC Motors



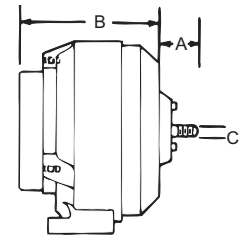
The ESP line of motors is a unique and patented design that makes possible a higher output in a smaller frame.

### Features:

- Cast iron unit bearing
- Single speed
- End or side pad mounting
- Horizontal operation
- Threaded or smooth shaft
- Heat isolated oil pump and reservoir

### Specifications:

- Single phase, 60 Hertz
- 22" leads
- Overload protection
- Continuous, air over



### 1550 RPM – 1/4" Threaded Shaft

MARS NO.	EMS NO. ESP	WATTS OUTPUT	VOLTS	AMPS	ROT OSE	DIMENSIONS		
						A	B	C
00251	L25EM1	25	115	1.1	CW	.50	3.50	1/4
00253	L25EM2	25	230	0.60	CW	.50	3.50	1/4
00351	L35EM1	35	115	1.4	CW	.50	3.50	1/4
00352	L35EMR1	35	115	1.4	CCW	.50	3.50	1/4
00353	L35EM2	35	230	0.70	CW	.50	3.50	1/4
00354	L35EMR2	35	230	0.70	CCW	.50	3.50	1/4

### 1550 RPM – 3/8" & 5/16" Smooth Flatted Shaft

MARS NO.	EMS NO. ESP	WATTS OUTPUT	VOLTS	AMPS	ROT OSE	DIMENSIONS		
						A	B	C
00501	OL50EM1	50	115	1.7	CW	1.50	4.50	3/8
00502	OL50EMR1	50	115	1.7	CCW	1.50	4.50	3/8
00505	OL50EM2B	50	230	0.85	CW	1.50	4.50	5/16
00503	OL50EM2	50	230	0.85	CW	1.50	4.50	3/8
00504	OL50EMR2	50	230	0.85	CCW	1.50	4.50	3/8
00508(1)	OL50EM1B1	50	115	1.7	CW	2.89	4.50	5/16
00513	OL60EM2	50	208-230	1.2	CW	2.89	4.50	3/8

(1) 2 female spade terminals at end of each wire



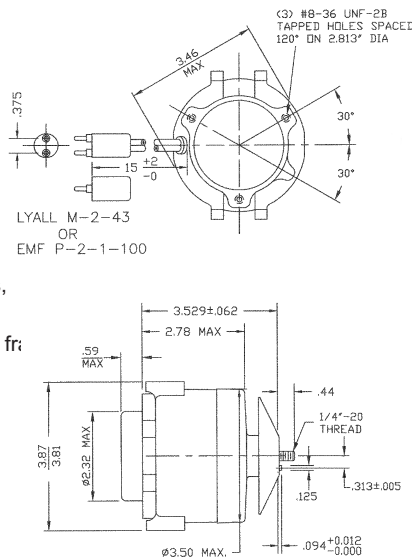
## ECM 51 Frame Commercial Refrigeration Motors



EM&S manufactures an ECM unit bearing construction motor that can serve as a drop-in replacement for the obsolete GE 55/44 frame ECM 1650 or 1850 rpm motor. This motor is available in a 9 watt and a 16 watt version. This promises substantial energy savings and potentially fast pay-back on the cost of conversion.

### Features:

- Ultra high efficiency
- Improved reliability
- Enhanced airflow performance
- Energy savings of 66 percent over a wide speed range
- Low operating temperature
- Lyall plug or EMF plug
- Accessories included with each motor; (1) speed nut, (1) resilient fan silencer, (3) 8-36 mounting screws, (1) rainshield
- Replaces GE ECM 55/44 fr:



### Specifications:

- Totally enclosed air over
- Unit bearing
- 1/4" - 20 Threaded shaft
- 60/50 Hertz

ECM installation's average annual energy savings versus shaded pole motors

05443	\$ 35
05444	\$ 55

@ 8¢ KWH and 1.75 multiplier on energy saving

MARS NO.	WATTS	RPM	ROT OSE	VOLTS	AMPS	LEAD LENGTH
05443	9	1650	CW	115	0.32	12"
05444	16	1850	CW	115	0.40	12"

## 58 MM Series Replacement ECM Fan/Motor System

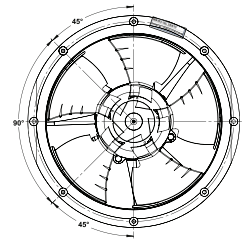
The 58MM Series replacement ECM Fan/Motor systems are primarily used in commercial refrigeration air moving applications demanding high efficiency and dependability. These motors are moisture resistant, reliable, quiet unit bearing design with efficiencies three times higher than shaded pole motors and 45% higher than PSC. These replacement ECM Fan/Motor systems are all metal in design and have 1 discrete speed, variable torque, low temperature lubrication system which makes them extremely quiet with low vibration.

### Features:

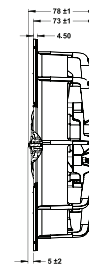
- Lyall plug
- Class B insulation
- 60 Hertz
- Thermal protection
- Single phase

### Specifications:

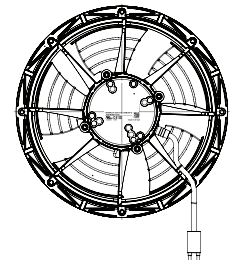
- -40 to 55°C ambient operating temp.
- Single speed
- Maximum watts 36



Front View



Side View



Rear View

MARS NO.	GE NO. 5SME58	REPLACES RPM	VOLTS	MAX AMPS	ROT. OSE	AT 0.05" CFM	AT 0.10" CFM	AT 0.15" CFM
05470	AAF1027	1340	115	0.30	CW	330	270	210
05471	AAF1026	1470	115	0.40	CW	370	300	200
05472	AAF1031	1650	115	0.40	CW	400	360	255

## ECM Technology

These 51 frame unit bearing motors are primarily used in commercial refrigeration applications, both evaporator and condenser, but can be used in any application demanding high efficiency and dependability with output ratings between 4 – 12 watts and 13 – 23 watts.

These motors significantly outperform both shaded pole and PSC technology. With efficiencies three times higher than shaded pole motors and 45% higher than PSC, in addition to the reliable and quiet unit bearing design, they provide users great reliability and excellent energy savings for their applications

### Environmental Summary:

- Storage Temps: -40 to 80° C ambient
- Operating Temps: -40 to 55° C ambient
- Design Life: 10 years, 83,720 hours on time

### Mechanical Summary

- 3.3" Electronically commutated aluminum or cast iron unit bearing
- 1/4" x 20 threaded shaft
- Aluminum enclosure (totally enclosed)
- Five .150" diameter cored mounting holes on rear
- Horizontal shaft (+/- 15°) or vertical shaft up operating position
- Standard 18 gauge, 2 conductor leads
- Lead cord may be terminated with 1/2" stripped wire, in-house molded plugs, eyelets, 1/4" quick connects, or special terminals
- RoHS compliant

### Applications:

- Bottle coolers
- Display cases
- Reach-In coolers
- Vending machines

### Features:

- Output 4 – 12W and 13 – 23W
- ~66% peak efficiency
- Speed regulated within +/-6%
- Regulated speed; +/-6% Full Scale
- 1 Discrete speed
- 51fr Unit bearing motor; cast aluminum frame
- Side pedestal mounting feet (2 sets standard)

MARS NO.	APPLICATIONS	OUTPUT WATTS	VOLTS	ROT	RPM	MARS PACK
00650	Evaporator/Condenser	4-12	115	CW	1550	1
00651	Evaporator/Condenser	4-12	230	CW	1550	1
00652	Evaporator/Condenser (90° lyall plug)	4-12	115	CW	1550	1
00654	Evaporator/Condenser	13-23	115	CW	1550	1
00655	Evaporator/Condenser	13-23	230	CW	1550	1
00656	Evaporator/Condenser	13-23	115	CCW	1550	1
00657	Evaporator/Condenser	13-23	230	CCW	1550	1



## ARKTIC™ 59

### Ball Bearing

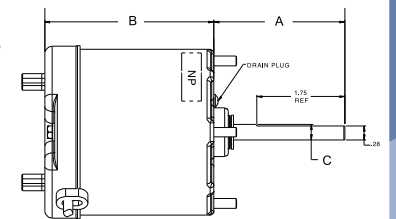
The Morrill ARKTIC 59 motor is primarily used in the evaporator of commercial refrigeration walk-in coolers and freezers, but can be used in any application demanding high efficiency and dependability with output ratings up to 50 watts. The ARKTIC 59 significantly outperforms both shaded pole and PSC technology with efficiencies three times higher than shaded pole motors and 40% higher than PSC. In addition to the reliable design, the ARKTIC 59 provides users the ease of drop-in replacement and extraordinary energy savings for their applications.

### Features:

- Universal "Drop-In" replacement for walk-in evaporator applications
- Totally enclosed, non-vented
- Shaft water slinger
- Standard thru-bolt configuration
- All angle mount
- Power cord with lyall plug

### Specifications:

- Automatic torque variation, constant speed
- Low temp (-20° F) lubrication system
- 50/60 Hz
- 1 Discrete speed
- CUL (CE & VDE pending) UL file # E306123
- Thermally protected



### 1550 RPM - Front Or Rear Thru-Bolt Mount

MARS NO.	MFG MODEL 5SME59	NOMINAL HP	VOLTS	AMPS	OSE ROT	DIMENSIONS		
						A	B	C
05105	BVA1038	1/15	115	1.1	CCW	2.61	3.36	5/16
05204	BVA2037	1/15	208-230	0.63	CW	2.61	3.36	5/16
05205	BVA2039	1/15	208-230	0.63	CCW	2.61	3.36	5/16

### 1550/800 RPM - Two Speed - Front or Rear Thru Bolt Mount

MARS NO.	MFG MODEL 5SME59	NOMINAL HP	VOLTS	AMPS	OSE ROT	DIMENSIONS		
						A	B	C
05127	BVA1065	1/15	115	1.1	CCW	2.61	3.36	5/16
05128	BVA1066	1/15	115	1.1	CW	2.61	3.36	5/16

MARS NO.	DESCRIPTION	MARS PACK
08040	Krack Refrigeration Retrofit Bracket Kit	1



# Unit Bearing Motors / OEM Direct Replacement Motors

## 51 Frame Motors For Domestic Refrigeration



**Features:**

- Single phase, shaded pole
- Fan duty, continuous, air over
- Class A insulation
- 60/50 Hertz
- Impedance protected
- For accessories see pages M-44 – M-46



**1550**

MARS NO.	GE NO. 5KS	WATTS	ROT OSE	VOLTS	AMPS	SHAFT	REPLACES	MARS PACK
05109	M81FFL0065	2	CW	115	0.25	1/4-20 threaded	most refrigerators and freezers	12

## Tyler Refrigeration OEM Direct Replacement Refrigeration Motors



**Features:**

- Universal 5 hole rear mount
- Dual mounting pads



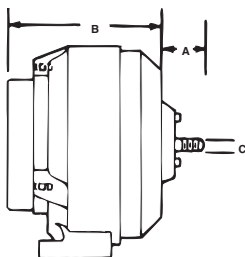
MARS NO.	WATTS	VOLTS	RPM	AMPS	ROTATION	CONSTRUCTION	TYLER NO.
00660	5	115	1550	0.34	CW	cast iron	51255320
00661	9	115	1550	0.53	CW	aluminum	52434980

## EM&S PSC Type Replacement For GE



**Features:**

- Drop-in replacement
- Single phase PSC
- Fan duty, continuous, air over
- Low temp oil
- Reliable unit bearing
- Internal capacitor



**1660 RPM 1/4" – 20 Threaded**

MARS NO.	GE NO. 5KS	WATTS	ROT OSE	VOLTS	AMPS	DIMENSIONS	
						A	B
00114	RS4BEB6E14	4	CW	115	0.20	0.40	2.50
00117*	RS4BEB9E12	9	CW	115	0.26	0.40	2.50

\* 00117 replaces Hussmann SVC 441-302

## Copeland OEM Direct Replacement Refrigeration Motors

**Features:**

- Single speed
- Cast iron
- Single foot pad, horizontal only
- Automatic thermal protection



MARS NO.	WATTS	VOLTS	RPM	AMPS	ROTATION	COPELAND NO.
00511	50	115	1500	1.7	CW	050-0344-01
00512	50	230	1500	1.0	CW	050-0344-00, 050-0344-10