

DELIVERING CONFIDENCE TO THE HVAC/R INDUSTRY FOR OVER 70 YEARS

Motors Components Service & Installation Parts & Accessories CATALOG



In This Catalog...



Motors						M-1 to M-54
MARS	JARD	EM&S	Morrill	Elco	Genteq	
Fasco						F-1 to F-96
Marathon						ME-1 to ME-52
One-On-One						O-1 to O-34
Air Moving Components						AM-1 to AM-28
Components						C-1 to C-54
Service & Installation						SI-1 to SI-106
JARD by MARS						J-1 to J-16
Part No. Index						i to xxiv



DELIVERING CONFIDENCE TO THE HVAC/R INDUSTRY FOR OVER 70 YEARS

- 1946** Sol Chernoff leaves Apex Refrigeration and starts Motors & Armatures, Inc., a motor repair shop.
- 1957** Moves to Long Island City to obtain GE motor repair franchise. Opens Relay Division Motors & Armatures, Inc. to distribute refrigeration and air conditioning electrical components. First catalog is 6 pages. Relay division occupies 2,500 square feet.
- 1961** Opens distribution warehouses in Los Angeles and Ft Worth.
- 1962** Exits motor repair business to focus on HVAC/R component distribution.
- 1963** Introduces MARS 6-Pak - 6 relays (MARS 41, 42, 43, 44, 45, 46, 47) replace thousands of OEM relays - huge success. First use of MARS trademark - Motors & Armatures Replacement Sales.
- 1965** Motors & Armatures International, Inc. is created to sell products around the world.
- 1965** Company moves to New Hyde Park - 6,000 square feet.
- 1969** Atlanta and Chicago distribution centers are opened.
- 1972** Company moves to Hicksville - 15,000 square feet.
- 1973** Opens Toronto distribution center.

- 1975** Acquires Arvind Electric - motor distributor.
- 1976** Company implements first computer system - IBM System/3 Model 8 - 8 inch floppy disc.
- 1977** Hicksville expands to 20,000 square feet.
- 1979** Current MARS logo is created.
- 1981** Company moves to Hauppauge - 40,000 square feet.
- 1985** Acquires Star for Parts and expands the vacuum business nationally.
- 1986** Sol and Ray Chernoff pass away.
- 1998** Regional warehouses are consolidated into Earth City distribution center - 200,000 square feet.
- 2006** JARD Acquisition.
- 2008** Earth City distribution center expanded to 250,000 square feet.
- 2013** Heat Controller Acquisition.
- 2016** Over 1/2 million square feet in four distribution centers.

Motors

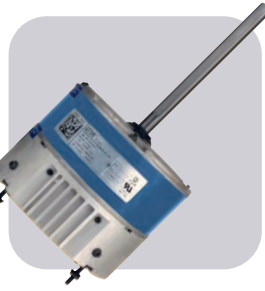


Table of Contents

MARS Motors Page No.

HVAC Motors:

Azure® Digi-Motor®, Direct Drive	M-3
Azure® Digi-Motor®, Condenser Fan	M-3
Azure® Digi-Motor®, 3.3" Commercial Refrigeration	M-4
Azure® Accessories	M-5
60°C Condenser Fan Motors	M-5-M-6
60°C Condenser Fan Motors (Shaft Up Only)	M-6
70°C Condenser Fan Motors (208-230V).....	M-7
80°C Condenser Fan Motors (208-230V).....	M-7
Multi-HP 60°C Condenser Fan Motors	M-8
Multi-HP 70°C Condenser Fan Motors	M-8
70°C Condenser Fan Motors (460V).....	M-9
70°C Condenser Fan Motors Shaft Up Only (460V)	M-9
80°C Condenser Fan Motors Shaft Up Only (460V)	M-10
Super-Fit™ Multi-HP 42 Frame Condenser Fan Motors	M-10
Direct Drive Blower Motors	M-11
Direct Drive Torsion Flex Mount Motors	M-12
Multi-HP Direct Drive Blower Motors	M-12
Direct Drive Blower Motors (460V).....	M-12
Belted Fan and Blower Motors.....	M-13-M-14
Direct Drive Belted Fan and Blower Motors	M-14
Commercial Condenser Fan Motors Three Phase	M-15
Commercial Fan and Blower Motors Three Phase	M-16
Unit Heater Motors	M-16
Oil Burner Motors	M-17
5" Direct Drive Blower Motors	M-22
Fan Coil Motors	M-22
Draft Inducer Blower Motors.....	M-22

Refrigeration Motors:

Azure® Digi-Motor®, 3.3" Commercial Refrigeration	M-4
Azure® Watt Motor.....	M-4
Unit Bearing Motors	M-17-M-18, M-39
Shaded Pole Motors.....	M-18
Super-Fit™ C Frame Replacement Motors.....	M-19
3.3" Commercial Refrigeration Motors	M-20-M-21
21/29 Frame Commercial Refrigeration Replacement Motors	M-21
One-On-One™ Direct Replacement Motors	M-23
One-On-One™ Direct Replacement Motors for Copeland.....	M-23
11 Frame Unit Bearing Motor	M-40

Cross Reference:.....M-24-M-29

JARD Motors Page No.

Refrigeration Motors:

Unit Bearing Motors.....	M-30
--------------------------	------

HVAC Motors:

Condenser Fan Motors.....	M-30
Direct Drive Blower Motors.....	M-31
Multi-HP Direct Drive Blower Motors	M-32

Cross Reference:.....M-32

EM&S Motors Page No.

Refrigeration Motors:

Unit Bearing Motors	M-33-M-35
ECM 51 Frame.....	M-35, M-36
ECM Fan Motor/Motor System.....	M-36
ECplus™ Refrigeration Motors.....	M-37
Hussman Refrigeration OEM Direct Replacement Motors	M-39
PSC Type Replacement for GE.....	M-39
Copeland OEM Direct Replacement Motors	M-39

Morrill Page No.

Refrigeration Motors:

Arktic 59	M-38
Arktic 142	M-38
Tyler Refrigeration OEM Direct Replacement Motors	M-39

Elco Page No.

Refrigeration Motors:

NU Series Shaded Pole Motors	M-40
ECM High Efficiency Motors	M-41

Genteq Page No.

Refrigeration Motors:

5KCP29-Form G PSC Motors	M-41
--------------------------------	------

HVAC Motors:

Vertical Shaft Down Condenser Fan and Heat Pump Motors	M-42
Multi-HP Direct Drive Blower Motors	M-42
Condenser Fan Motors Shaft Up/All Angle.....	M-43
Condenser Fan Motors Shaft Up/Down	M-44
Condenser Fan Motors Shaft Up.....	M-45
Condenser Fan Motors (460V).....	M-45
Direct Drive Blower Motors (460V).....	M-46
Permanent Split Capacitor Motors	M-46
Furnace Blower Motors	M-47
Direct Drive PSC Torsion Flex Mount Motors	M-47
Unit Heater Motors	M-48
Double Shaft and Fan Blower Motors	M-48-M-49
Evergreen IM Direct Drive Blower Motors	M-49

Motor Accessories Page No.

TECMate Pro™ Service Tool	M-50
Motor Speed Controllers	M-50-M-51
ECM Protectors	M-52
ECM Repair Kit.....	M-52
Variable Speed Zebra.....	M-52
Universal Zebra	M-52
Motor Mounting Bases	M-53
Vibration Insulators.....	M-53
Plastic Rain Shields.....	M-53
Mounting Brackets.....	M-54
Belly Bands	M-54

Azure® Digi-Motor®

Direct Drive Blower Applications

Ball Bearing

Azure® Digi-Motor® from MARS is a high efficiency variable speed direct drive blower motor for a multitude of applications. Azure® is a replacement for both standard PSC and Genteq X13 motors. These motors cover ratings from 1/5 HP to 1 HP at 115V or 230V and CW or CCW. Azure® features an auto sizing learn mode. In start-up learn mode, Azure® runs for approximately 2 minutes measuring the external static pressure of the system application. Azure® then assigns torque values to each of its speed taps self-programming itself to the correct horsepower for the application.

If none of the four speeds provides perfect airflow for the application or if duplicate speeds are desired on 2 or more taps, an optional hand held programmer (MARS No. 08502) can be used. The programmer connects to Azure® and displays the percentage of torque applied to the speed tap being energized. The percentage (motor speed) can then be increased or decreased and permanently set with the programmer. This tool overrides the motor torques established in the auto sizing mode.

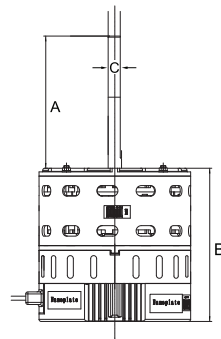
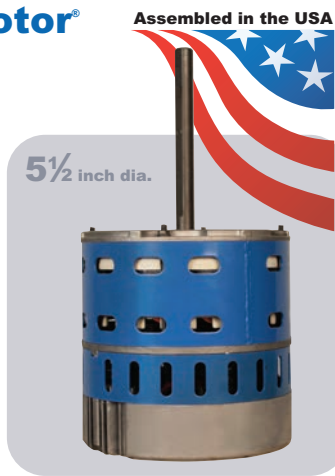
Unlike other electronically commutated motors, an outboard surge protector is included within Azure's® wire harness. This is a replaceable device (MARS No. 08593).

Features:

- Outboard replaceable surge protector
- Adjustable speeds (with optional MARS No. 08502)
- 4 speeds plus 625 RPM constant fan mode
- High efficiency 85%
- Multi-horsepower, dual voltage
- Belly band mount

Specifications:

- Class "B" insulation
- Thermal overload protected
- Operating temperature range: -20°C to 55°C (-4°F to 131°F)
- UL Recognized
- For accessories see page M-5



MARS NO.	HP	VOLTS	RPM	ROTATION	DIMENSIONS		
					A	B	C
10860	1/5-1/2	115/230	1075	Rev	4.93	5.72	1/2
10861	1/2-1	115/230	1075	Rev	4.93	6.66	1/2
10867	1/8-1/3	115/230/277	1075	Rev	5.00	5.00	1/2

MARS No.	External Surge Protection	Auto Sizing	Replaces
10860	Yes	Yes	PSC/X13
10861	Yes	Yes	PSC/X13
10867	No	No	PSC

Azure® Digi-Motor®

Condenser Fan Applications

Ball Bearing

Azure® is an electronically controlled motor (ECM) that replaces a multitude of applications. These motors cover ratings from 1/8 HP to 1/3 HP at 208-230V 825/1075 RPM and 1/3 HP to 1/2 HP 208-230V 825/1075 RPM and CW or CCW.

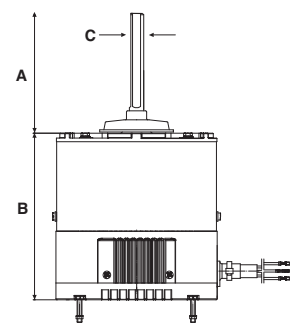
These motors are simple to install. The Azure® condenser fan motors connect the same as a standard PSC condenser fan motor, BUT WITHOUT the capacitor. Just plug the motor into a 115V power source (using supplied programming cable) and select 1 of 4 operating modes and then install the motor:

- 1) 1075 RPM CW (LE) - Factory Default
- 2) 1075 RPM CCW (LE)
- 3) 825 RPM CW (LE)
- 4) 825 RPM CCW (LE)

Unlike other ECM motors, an outboard surge protector is included with the Azure® wiring harness. This is a replaceable device that is much less expensive to replace than replacing the entire motor in the event of a power surge.

Specifications:

- Multi horsepower, self-adjusting
- 825/1075 RPM, single speed
- Reversible rotation
- High efficiency ECM
- No capacitor required
- Water slinger on shaft
- UL Recognized
- For accessories see page M-5



MARS NO.	HP	VOLTS	RPM	ROTATION	ORIENTATION	RHEEM HOLES	DIMENSIONS		
							A	B	C
10874	1/8 - 1/3	208-230	825/1075	Rev	Shaft Down	Yes	6.50	4.33	1/2
10870	1/3 - 1/2	208-230	825/1075	Rev	Shaft Up/Down	No	6.00	5.95	1/2
10875	1/8 - 1/3	208-230	1075	Rev	Horizontal	No	6.50	4.33	1/2
10872	1/3 - 1/2	208-230	1075	Rev	Horizontal	No	6.00	5.95	1/2

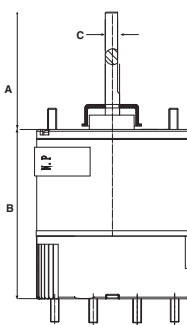
Tech Tip

The Azure ECM direct drive blower motor sizes itself for each installation to provide optimal airflow.

Azure® Digi-Motor®

3.3" Commercial Refrigeration Evaporator Fan Motor Ball Bearing

Azure® is an electronically controlled 3.3" motor (ECM) that replaces all 1/15 - 1/25 HP, 115/230V, and 1550/600 RPM commercial refrigeration evaporator fan motors for walk in cooler/freezer applications. For 1550 RPM, this motor connects easily to the fan controller via a standard Lyall plug. For 2-speed applications, the Lyall plug can be removed and the motor can be wired directly to a separate 2-speed control module using the included second speed tap for 600 RPM. Motor rotation is set using a simple jumper wire. Azure® is rated for 115V or 230V with nothing to set; plug it in to either voltage and it adapts to the correct voltage.



Specifications:

- Operating temperature range: -40° to 131°F
- Multi horsepower, self adjusting from 1/15 to 1/25HP
- Reversible rotation
- Auto voltage select (115/230V)
- High efficiency ECM technology
- No capacitor required
- UL Recognized
- For accessories see page M-5

MARS NO.	HP	VOLTS	RPM	SPEEDS	ROTATION	DIMENSIONS		
						A	B	C
10850	1/15 - 1/25	115/230	1550	1	Rev	2.5	3.74	5/16
10852	1/15 - 1/25	115/230	1550 ¹	1 or 2 ²	CCWLE ³	2.5	3.74	5/16
10853	1/15 - 1/25	115/230	1550	1	CWLE	2.5	3.74	5/16
10854	1/15 - 1/25	115/230	1550	1	CCWLE	2.5	3.74	5/16

¹ 1550 default; adjustable 600-2000 RPM with optional wireless programmer kit (MARS No. 08505)

² 2-speeds attainable with optional wireless programmer (MARS No. 08505) and optional thermistor kit (MARS No. 08515)

³ CCWLE default; reversible with optional wireless programmer (MARS No. 08505)

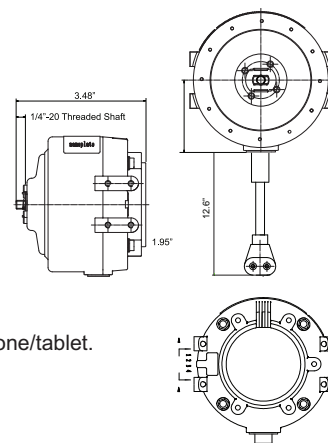
Tech Tip

All ECM motors are more energy efficient than standard motors even though the amp draw may be similar. ECM motors have lower power factors and thus consume fewer watts. Power Consumption (Watts) = Volts x Amps x Power Factor.

Azure® Digi-Motor®

Commercial Refrigeration Watt (Reach-In) Motor Ball Bearing

MARS ECM watt motor is a Drop in replacement for most OEM / ECM / PSC and standard shaded pole commercial refrigeration evaporator and condenser fan motors. Capable of replacing most 1550 RPM case motors 4 - 25W for reach-in cooler/freezer applications. The microprocessor sets power output to match the fan load ensuring correct CFM and maximum efficiency in every installation. Automatically senses and adapts to the system voltage (115/230V). MARS No. 10890 - Optional software kit allows the speed to be set anywhere between 600 RPM and 2000 RPM, and the rotation to be reversed making the Azure® motor the most versatile case motor available. MARS No. 10891 - Wirelessly Programmable. Download Azure® Programmer App to your smart phone/tablet.



Specifications:

- Operating temperature range: -40° to 131°F
- Self adjusting from 4 to 25 Watts
- 1550^{1,3} RPM
- CWLE^{1,4} Rotation
- Auto Voltage Select (115/230V)
- High efficiency ECM technology: 68%
- Estimated Energy Savings: \$33/year (\$46/year total)²
- 90° Angle Lyall Plug
- Water Resistant: Yes
- UL Recognized
- For accessories see page M-5

Fan Load	Power Consumption	
	Standard Motor Power Consumption	Azure® Power Consumption
4 W	28 W	6 W
9 W	47 W	14 W
16 W	77 W	30 W

MARS NO.	WATTS OUTPUT	VOLTS	RPM	ROTATION	LEAD LENGTH
10890	4 - 25	115/230	1550 ¹	CWLE ¹	13"
10891	4 - 25	115/230	1550 ³	CWLE ⁴	13"

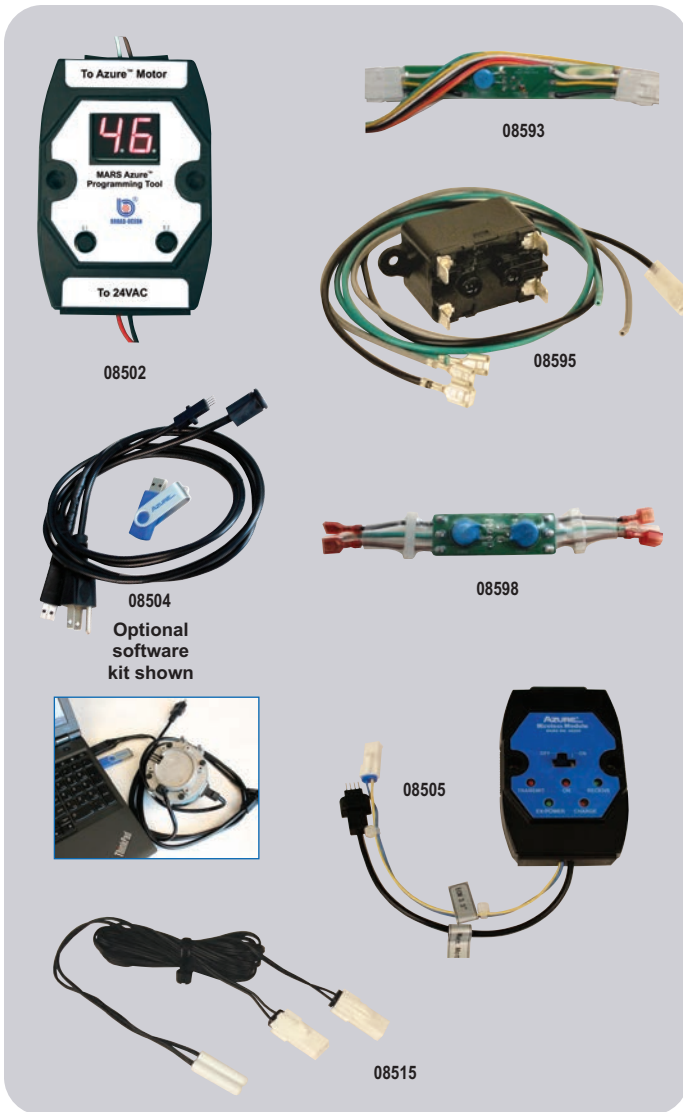
¹ Rotation is reversible, and speed is adjustable from 600 - 2000 RPM with optional software kit (MARS No. 08504)

² Estimated energy savings based on replacement of a 9W shaded pole evaporator fan motor with Azure® at \$0.11/kWh. \$33 savings is based solely on the reduction of power consumption. An additional savings of approximately 40% will result from the reduction of the refrigeration load due to Azure®'s lower operating temperature.

³ 1550 default; adjustable 600-2000 RPM with optional wireless programmer kit (MARS No. 08505)

⁴ CWLE default; reversible with optional wireless programmer kit (MARS No.08505)

Accessories for Azure® Digi-Motor®



MARS NO.	DESCRIPTION
08502	Hand Held Programmer 10860/10861
08593	Replacement Surge Protector 10860/10861
08595	Constant Fan Kit 10860/10861
08598	Replacement Surge Protector 10870
08504	Software Kit for Adjusting Speed and Rotation for 10890
08505	Wireless Programmer Kit; Requires Azure Programmer App and Smart Device (sold separately)
08515	Thermistor Kit for 2-Speed Operation (2/PK); Controls up to 5 Motors

Outdoor Condenser Fan Motors

MARS up/down outdoor condenser fan motors are designed for either vertical shaft-up or shaft-down applications. Shell and end shields are enclosed for weather protection. A weep hole is provided in each end shield to allow condensate to drain. All of these motors are suitable for air conditioning or heat pump applications.

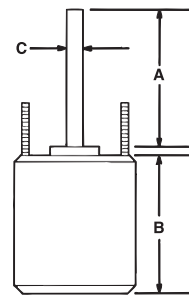


Features:

- All angle, sleeve or ball bearing
- Rheem mounting holes w/screws installed
- Water slinger on shaft
- Thru bolt or band mounting
- Capacitor requirement noted on motor label
- Double full flatted shaft

Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- Thermal overload protected
- Fan duty, continuous, air over
- Totally enclosed non-ventilated
- 26 & 36 inch leads
- UL Recognized



Reversible Rotation – Single Speed

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
1075 RPM										
10725	1/8	208-230	0.72	5/370	TEAO	Sleeve	6.50	4.12	1/2	36"
10727	1/6	208-230	0.90	5/370	TEAO	Sleeve	6.50	4.23	1/2	26"
10726	1/5	208-230	1.17	5/370	TEAO	Sleeve	6.50	4.12	1/2	36"
10728	1/4	208-230	1.8	5/370	TEAO	Sleeve	6.50	4.23	1/2	26"
10729	1/3	208-230	2.4	7.5/370	TEAO	Sleeve	6.50	5.23	1/2	26"
10730	1/2	208-230	3.5	10/370	TEAO	Sleeve	6.50	5.73	1/2	26"
10731	3/4	208-230	5.2	10/370	TEAO	Ball	6.50	6.23	1/2	30.5"

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
825 RPM										
10411	1/8	208-230	0.80	5/370	TEAO	Sleeve	6.50	4.13	1/2	36"
10403	1/6	208-230	1.0	5/370	TEAO	Sleeve	6.50	4.23	1/2	36"
10412	1/5	208-230	1.3	5/370	TEAO	Sleeve	6.50	4.40	1/2	36"
10404	1/4	208-230	2.2	5/370	TEAO	Sleeve	6.50	4.48	1/2	36"
10405	1/3	208-230	1.9	7.5/370	TEAO	Sleeve	6.50	5.23	1/2	36"
10746	1/2	208-230	2.8	12.5/370	TEAO	Sleeve	6.50	5.70	1/2	36"

Condenser Fan Motors

Outdoor Condenser Fan Motors

Ball Bearing

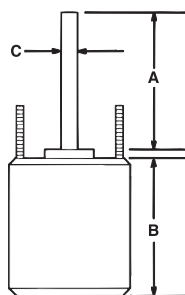
MARS up/down outdoor condenser fan motors are designed for either vertical shaft-up or shaft-down applications. Shell and end shields are enclosed for weather protection. A weep hole is provided in each end shield to allow condensate to drain. All of these motors are suitable for air conditioning or heat pump applications.

Features:

- All angle
- Rheem mounting holes w/screws installed
- Water slinger on shaft
- Thru-bolt or band mounting
- Capacitor requirement noted on motor label
- Extra set of nuts & star washers on mounting studs
- Double full flattened shaft

Specifications:

- Class "B" insulation
- Single phase, 60 hertz
- Thermal overload protected
- Totally enclosed non-ventilated
- 36 inch leads
- UL Recognized



Outdoor Condenser Fan Motors - Shaft Up Only

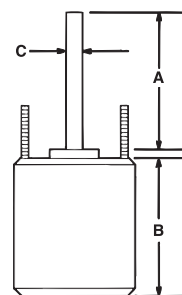
MARS outdoor condenser fan motors are designed for shaft up only used in condenser fan and heat pump units requiring vertical shaft up positioning with "belly band" or extended clamp screw mounting.

Features:

- Rheem mounting holes w/screws installed
- For shaft up application
- Reversible rotation
- Water slinger on shaft
- Full flattened six inch shaft length
- Capacitor requirement noted on motor label

Specifications:

- Class "B" insulation
- Single phase, 60/50 Hertz
- Automatic thermal overload protected
- Fan duty, continuous, air over
- 36 inch leads
- Lead end endshield open construction
- UL Recognized



Reversible Rotation – Single Speed

MARS NO.	HP	VOLTS	AMPS	RPM	CAP REQ.	DIMENSIONS		
						A	B	C
1075 RPM								
10732	1/6	208-230	0.90	1075	5/370	6.50	4.13	1/2
10733	1/4	208-230	1.8	1075	5/370	6.50	4.25	1/2
10734	1/3	208-230	2.4	1075	7.5/370	6.50	5.10	1/2
10735	1/2	208-230	3.5	1075	10/370	6.50	5.70	1/2
10736	3/4	208-230	5.2	1075	10/370	6.50	5.11	1/2

MARS NO.	HP	VOLTS	AMPS	RPM	CAP REQ.	DIMENSIONS		
						A	B	C
825 RPM								
10203	1/6	208-230	1.0	825	5/370	5.50	4.10	1/2
10204	1/4	208-230	2.2	825	5/370	5.50	4.40	1/2
10205	1/3	208-230	1.9	825	7.5/370	5.50	5.10	1/2
10747	1/2	208-230	2.8	825	12.5/370	6.50	5.70	1/2

1075 RPM – Shaft-Up – Single Speed – Sleeve Bearings

MARS NO.	HP	VOLTS	AMPS	ROTATION	CAP REQ.	DIMENSIONS		
						A	B	C
10327	1/6	208-230	0.9	REV	5/370	6.0	4.15	1/2
10328	1/4	208-230	1.8	REV	5/370	6.0	4.15	1/2
10329	1/3	208-230	2.4	REV	7.5/370	6.0	5.11	1/2
10330	1/2	208-230	3.5	REV	10/370	6.0	5.70	1/2
10331	3/4	208-230	5.2	REV	10/370	6.0	6.09	1/2

Outdoor Condenser Fan Motors

Ball Bearing - 70°C

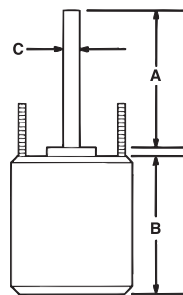
MARS 70°C SunSlinger totally enclosed condenser fan motors are designed for either vertical shaft-up or shaft-down applications in a variety of ambient conditions. Shell and end shields are enclosed for weather protection. A weep hole is provided in each end shield to allow condensate to drain. All of these motors are suitable for air conditioning or heat pump applications.

Features:

- All angle
- Rheem mounting holes w/screws installed
- Trane 4.33 bolt circle mounting holes with self tapping screws
- Thru bolt or band mounting
- Water slinger on shaft
- Capacitor requirement noted on motor label
- Extra set of nuts on mounting studs

Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- 70°C/158°F
- Thermal overload protected
- Fan duty, continuous, air over
- Totally enclosed non-ventilated
- 36 inch leads
- UL Recognized



Outdoor Condenser Fan Motors

Ball Bearing - 80°C

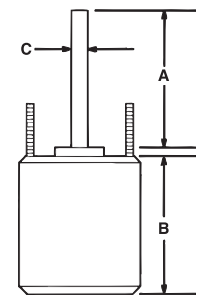
MARS 80°C SunSlinger Max totally enclosed condenser fan replacement motors are designed for all major brands of HVAC equipment applications in a variety of ambient conditions. These 48 frame motors offer the highest performance and available from 1/6HP thru 3/4HP, 1075 RPM and 825 RPM, and 208-230V.

Features:

- All angle
- Rheem mounting holes w/screws installed
- Trane 4.33 bolt circle mounting holes with self tapping screws
- Thru bolt or belly band mounting
- Water slinger on shaft
- Capacitor requirement noted on motor label
- Extra set of nuts on mounting studs

Specifications:

- Class "F" insulation
- Single phase, 60 Hz
- 80°C (176°F) max ambient
- Thermal overload protection
- Fan duty, continuous, air over
- Totally enclosed
- 36 inch leads
- UL Recognized



Reversible Rotation – Single Speed

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	DIMENSIONS		
						A	B	C
1075 RPM								
20727	1/6	208-230	0.90	5/370	TEAO	6.50	4.25	1/2
20728	1/4	208-230	1.8	5/370	TEAO	6.50	4.72	1/2
20729	1/3	208-230	2.4	7.5/370	TEAO	6.50	5.24	1/2
20730	1/2	208-230	3.5	10/370	TEAO	6.50	5.91	1/2
20731	3/4	208-230	5.2	10/370	TEAO	6.50	5.90	1/2

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	DIMENSIONS		
						A	B	C
825 RPM								
20402	1/8	208-230	0.75	5/370	TEAO	6.50	4.30	1/2
20403	1/6	208-230	1.0	5/370	TEAO	6.50	4.52	1/2
20404	1/4	208-230	2.2	5/370	TEAO	6.50	4.92	1/2
20405	1/3	208-230	1.9	7.5/370	TEAO	6.50	5.31	1/2
20746	1/2	208-230	2.8	12.5/370	TEAO	7.00	5.90	1/2

Reversible Rotation

MARS NO.	HP	VOLTS	AMPS	RPM	CAP REQ.	ENCL.	DIMENSIONS		
							A	B	C
1075 RPM									
20797	1/6	208-230	0.90	1075	5/370	TEAO	6.50	4.25	1/2
20798	1/4	208-230	1.8	1075	5/370	TEAO	6.50	4.72	1/2
20799	1/3	208-230	2.4	1075	7.5/370	TEAO	6.50	5.24	1/2
20790	1/2	208-230	2.6	1075	10/370	TEAO	6.50	5.91	1/2
20791	3/4	208-230	4.5	1075	10/370	TEAO	6.50	6.50	1/2
825 RPM									
20492	1/8	208-230	0.75	825	5/370	TEAO	6.50	4.41	1/2
20493	1/6	208-230	0.80	825	5/370	TEAO	6.50	4.53	1/2
20494	1/4	208-230	1.8	825	5/370	TEAO	6.50	4.92	1/2
20495	1/3	208-230	1.9	825	7.5/370	TEAO	6.50	5.31	1/2
20796	1/2	208-230	2.8	825	12.5/370	TEAO	7.00	6.42	1/2

Condenser Fan Motors

Multi-Horsepower Condenser Fan Motors

Ball Bearing

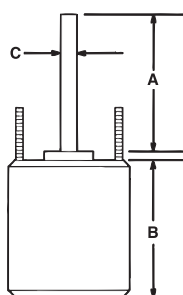
MARS multi-horsepower condenser fan motors are ideal for truck stock. Three 1075 RPM models cover 208-230 volt applications from 1/6 to 1/2 HP. Two 825 RPM models cover 208-230 volt applications from 1/8 to 1/3 HP.

Features:

- Rheem mounting holes w/screws installed
- Thru bolt or band mounting
- Water slinger on shaft
- Air conditioning or heat pump duty

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- UL Recognized



Multi-Horsepower Condenser Fan Motors

Ball Bearing - 70°C

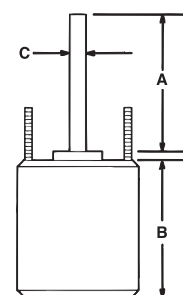
MARS 70°C multi-horsepower SunSlinger condenser fan motors are ideal for truck stock. They are designed to provide reliable operation in a wide range of ambient temperatures. Three 1075 RPM models cover 208-230 volt applications from 1/6 to 1/2 HP. Two 825 RPM models cover 208-230 volt applications from 1/8 to 1/3 HP.

Features:

- All angle
- Rheem shell mounting holes with screws installed
- Trane 4.33 bolt circle mounting holes with self tapping screws
- Thru bolt or band mounting
- Water slinger on shaft
- Extra set of nuts on mounting studs

Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- 70°C/158°F
- 36 inch leads
- Thermal overload protected
- Fan duty, continuous, air over
- Totally enclosed
- UL Recognized



MARS NO.	HP	ROT	RPM/SP.	VOLTS	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
10458	1/6 - 1/3	Rev	1075	208-230	TEAO	Ball	6.50	3.82	1/2	36"
10459	1/8 - 1/3	Rev	825	208-230	TEAO	Ball	6.50	5.48	1/2	36"
10465	1/6 - 1/3	Rev	1075/2	208-230	TEAO	Ball	5.00	4.73	1/2	38"
10468	1/5 - 1/2	Rev	1075/2	208-230	TEAO	Ball	5.00	5.48	1/2	38"
10469	1/6 - 1/3	Rev	825/2	208-230	TEAO	Ball	5.00	5.48	1/2	42"

The Wiz

20458 & 20459:

- Short shell length
- Just ONE capacitor rating per motor
- Quick & Simple 2 wire installation

Multi-Horsepower – Reversible Rotation

MARS NO.	HP	RPM/SPDS	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS		
								A	B	C
20458	1/6-1/3	1075	208-230	2.8	7.5/370	TEAO	Ball	6.50	5.00	1/2
20459	1/8-1/3	825	208-230	1.9	10/370	TEAO	Ball	6.50	5.71	1/2
20465	1/6-1/3	1075/2	208-230	2.5	5/7.5/370	TEAO	Ball	7.00	5.16	1/2
20468	1/5-1/2	1075/2	208-230	3.6	10/12.5/370	TEAO	Ball	5.00	6.10	1/2
20469	1/6-1/3	825/2	208-230	1.9	10/7.5/370	TEAO	Ball	5.00	6.10	1/2

The Wiz

One-On-One™ Replacement Motors

MARS NO.	HP	ROT	RPM/SPDS	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS		
									A	B	C
Emerson 5462H											
20462	1/3, 1/4, 1/5, 1/6	REV	1075/2	208-230	2.0	5/7.5/370	TEAO	Ball	5.00	4.91	1/2
Emerson 5482H											
20471	1/4, 1/3, 1/2, 3/4	REV	1075/2	208-230	4.2/3.6	15/440	TEAO	Ball	5.5	6.5	1/2
AO Smith FE6003F											
20470	1/4, 1/2	REV	825/2	208-230	2.6	10/12.5/440	TEAO	Ball	6.5	6.1	1/2
AO Smith ORM5854BF											
20457	1/8, 1/10, 1/12, 1/15	REV	825/1	208-230	0.75	5/440	TEAO	Ball	6.5	4.7	1/2
AO Smith ORM5454BF											
20463	1/8 - 1/15	REV	1075/1	208-230	0.65	5/440	TEAO	Ball	6.5	4.4	1/2

* CW Rotation-opposite shaft end

MARS 460V Outdoor Condenser Fan Motors

Ball Bearing - 70°C

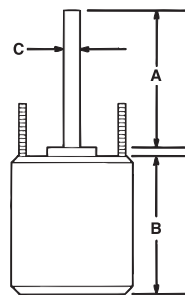
MARS 70°C SunSlinger totally enclosed outdoor condenser fan motors are designed for all angle air conditioning or heat pump applications. A weep hole is provided in each end shield to allow condensate to drain.

Features:

- All angle
- Rheem mounting holes w/screws installed
- Trane 4.33 bolt circle mounting holes and self tapping screws
- Extended thru bolt or band mounting and extra nuts
- Capacitor requirement noted on motor label
- Water slinger on shaft
- End shield drain holes w/plugs

Specifications:

- Single phase, 60 Hz
- 70°C/158°F
- Thermal overload protected
- Totally enclosed non-ventilated
- 48 inch leads, Multi-HP
- 36 inch leads
- UL Recognized



MARS 460V Outdoor Condenser Fan Motors – Shaft Up Only

Ball Bearing - 70°C

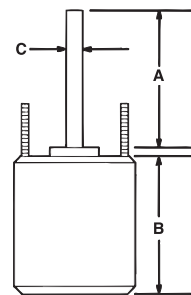
MARS 70°C SunSlinger totally enclosed outdoor condenser fan motors are designed for Shaft Up Only. All of these motors are suitable for air conditioning or heat pump applications. A weep hole is provided in each end shield to allow condensate to drain.

Features:

- Shaft up only
- Rheem mounting holes w/screws installed
- Extended thru bolt or band mounting
- Capacitor requirement noted on motor label

Specifications:

- Single Phase, 60 Hz
- 70°C/158°F
- Thermal overload protected
- Totally enclosed non-ventilated
- UL Recognized



Reversible Rotation

MARS NO.	HP	VOLTS	AMPS	RPM	CAP REQ.	DIMENSIONS		
						A	B	C

1075 RPM - Single Speed

20835	1/6	460	0.48	1075	5/440	6.50	4.32	1/2
20836	1/4	460	0.65	1075	7.5/440	6.50	4.52	1/2
20837	1/3	460	0.90	1075	7.5/440	6.50	5.38	1/2
20838	1/2	460	1.3	1075	10/440	6.50	5.86	1/2
20842	3/4	460	2.0	1075	10/440	6.50	6.29	1/2

MARS NO.	HP	VOLTS	AMPS	RPM	CAP REQ.	DIMENSIONS		
						A	B	C

825 RPM - Single Speed

20859 *	1/6	460	0.53	825	5/440	3.22	4.52	1/2
20880	1/4	460	0.90	825	5/440	6.50	5.00	1/2
20881	1/3	460	1.0	825	7.5/440	6.50	5.62	1/2
20882	1/2	460	1.55	825	10/440	6.50	6.34	1/2

MARS NO.	HP	VOLTS	AMPS	RPM	CAP REQ.	DIMENSIONS		
						A	B	C

1075 RPM - Multi-HP

20478	1/3 - 1/6	460	1.2	1075	7.5/370	6.50	4.90	1/2
20479	1/2 - 1/5	460	1.5	1075	10/370	6.50	5.60	1/2
20480	1/2 - 1/6	460	1.46	1075	10/440	5.50	5.70	1/2
20481	3/4 - 1/4	460	2.12	1075	15/440	5.50	6.48	1/2

One-On-One™ Replacement Motor for AO Smith ORM4688BF

MARS NO.	HP	ROT	RPM/SPDS	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS		
									A	B	C
20884	1/8, 1/6, 1/5, 1/4, 1/3	REV	825/1	460	1.0	7.5/370	TEAO	Ball	6.50	5.3	1/2

Condenser Fan Motors

MARS 460V Outdoor Condenser Fan Motors

Ball Bearing - 80°C

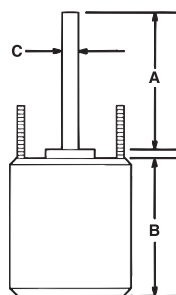
MARS 80°C SunSlinger MAX totally enclosed condenser fan replacement motors are designed for all major brands of HVAC equipment applications in a variety of ambient conditions. These 48 frame motors offer the highest performance and available from 1/6HP thru 3/4HP, 1075 RPM and 825 RPM, and 460V.

Features:

- All angle
- Rheem mounting holes w/screws installed
- Trane 4.33 bolt circle mounting holes with self tapping screws
- Thru bolt or belly band mounting
- Water slinger on shaft
- Capacitor requirement noted on motor label
- Extra set of nuts on mounting studs

Specifications:

- Class "F" insulation
- Single phase, 60 Hz
- 80°C (176°F) max ambient
- Thermal overload protection
- Fan duty, continuous, air over
- Totally enclosed
- 36 inch leads
- UL Recognized



Super-Fit™ Multi-Horsepower Condenser 42 Frame Fan Motors

Ball Bearing

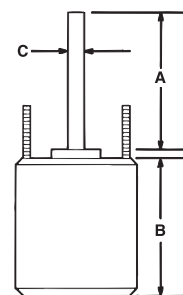
MARS 42 frame Super-Fit™ multi-horsepower condenser fan motors are ideal for truck stock. Two models cover 208-230V applications from 1/12 HP through 1/4 HP replacing many AOS, Westinghouse, Fasco, Emerson and GE motor designs.

Features:

- Super-Fit™ mounting holes for Trane 4.33, 4.42 and 4.62 bolt circle mounting. Includes self threading screws.
- All angle mount
- Reversible rotation
- Multi-HP
- Capacitor requirement noted on motor label
- 1/2 inch dia. flatted shaft
- Totally enclosed

Specifications:

- Class "B" insulation
- 42 frame
- Single phase, 60 Hz
- Continuous air over
- Thermal overload protected
- Continuous duty
- 36 inch leads
- UL Recognized



Reversible Rotation

MARS NO.	HP	VOLTS	AMPS	RPM	CAP REQ.	DIMENSIONS		
						A	B	C
1075 RPM								
20895	1/6	460	0.48	1075	5/440	6.50	4.41	1/2
20896	1/4	460	0.65	1075	7.5/440	6.50	4.61	1/2
20897	1/3	460	0.90	1075	7.5/440	6.50	5.51	1/2
20898	1/2	460	1.3	1075	10/440	6.50	5.91	1/2
20892	3/4	460	2.0	1075	10/440	6.50	6.30	1/2
825 RPM								
20899	1/6	460	0.53	825	5/440	3.22	4.53	1/2
20890	1/4	460	0.90	825	5/440	6.50	5.12	1/2
20891	1/3	460	1.0	825	7.5/440	6.50	5.71	1/2

Reversible Rotation – Single Speed

MARS NO.	HP	VOLTS	AMPS	RMP	CAP	ENCL.	BRG.	DIMENSIONS		
								A	B	C
10722	1/8, 1/10, 1/12	208-230	0.75	1075	5/370	TEAO	Ball	3.00	4.13	1/2
10723	1/4, 1/5, 1/6	208-230	1.5	1075	7.5/370	TEAO	Ball	3.00	4.72	1/2
10724	1/4, 1/5, 1/6	208-230	1.35	1625	5/370	TEAO	Ball	3.00	4.60	1/2

Direct Drive Furnace Blower Motors

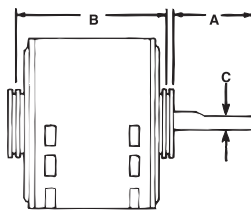
MARS direct drive furnace blower motors are three speed standard efficiency models. All models are electrically reversible and include 2-1/4 inch resilient rings for base mounting. These models have all angle sleeve bearings and have open air over enclosures.

Features:

- Sleeve bearing
- Rheem mounting holes
- 3 speeds
- 1/2 inch extended thru bolts
- 2-1/4 inch resilient rings
- For accessories see pages M-50 – M-54

Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- Thermal overload protected
- Fan duty, continuous, air over
- Open construction
- 26 & 30 inch leads
- UL Recognized



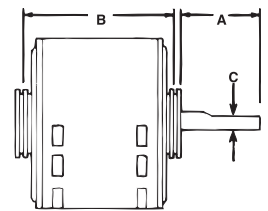
High Efficiency Direct Drive Blower Motors – MARS Energy Master

Ball Bearing

MARS High Efficiency direct drive blower motors save ENERGY. Designed for continuous air over applications, such as furnace blowers or central air handling units with single shaft requirements.

Features:

- Optimized high efficiency design
- 12-15% more efficient compared to standard motors
- Permanently lubricated ball bearings
- Rheem mounting holes
- Extended thru bolts, shaft end
- 3 Speeds
- Open Construction
- 2-1/4 resilient rings - plus 2-1/2 split rings included



Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- Fan duty, continuous air over
- Automatic thermal overload protection
- 36 inch leads
- UL Recognized

1075 RPM – Three Speed – Reversible Rotation

MARS NO.	HP	ROT	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
								A	B	C	
10583	1/4	Rev	115	4.2	5/370	OAO	Slv	4.50	4.89	1/2	26"
10584	1/4	Rev	208-230	1.8	5/370	OAO	Slv	4.50	4.89	1/2	26"
10585	1/3	Rev	115	6.1	5/370	OAO	Slv	4.50	5.14	1/2	30"
10586	1/3	Rev	208-230	2.7	5/370	OAO	Slv	4.50	5.14	1/2	26"
10587	1/2	Rev	115	7.5	10/370	OAO	Slv	4.50	5.89	1/2	29.33"
10588	1/2	Rev	208-230	3.2	7.5/370	OAO	Slv	4.50	5.64	1/2	29"
10589	3/4	Rev	115	11.2	15/370	OAO	Slv	4.50	6.14	1/2	30.25"
10590	3/4	Rev	208-230	4.5	10/370	OAO	Slv	4.50	6.14	1/2	30.25"
10591	1	Rev	115	11.8	20/370	OAO	Slv	4.50	5.80	1/2	36"
10592	1	Rev	208-230	5.6	15/370	OAO	Slv	4.50	5.80	1/2	36"

1075 RPM – Reversible Rotation

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS		
							A	B	C
10573	1/4	115	2.9	7.5/370	OPAO	Ball	4.50	8.57	1/2
10574	1/4	208-230	1.3	5/370	OPAO	Ball	4.50	8.57	1/2
10575	1/3	115	3.9	10/370	OPAO	Ball	4.50	9.08	1/2
10576	1/3	208-230	1.6	7.5/370	OPAO	Ball	4.50	9.08	1/2
10577	1/2	115	5.2	15/370	OPAO	Ball	4.50	9.78	1/2
10578	1/2	208-230	2.5	10/370	OPAO	Ball	4.50	9.78	1/2
10579	3/4	115	8.0	20/370	OPAO	Ball	4.50	10.10	1/2
10580	3/4	208-230	3.5	15/370	OPAO	Ball	4.50	10.10	1/2

Direct Drive Blower Motors

MARS 48 Frame Torsion Flex Mount Motors

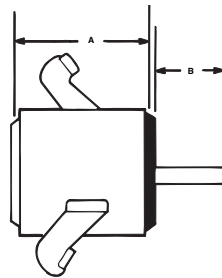
MARS torsion flex mount motors are designed for direct drive furnace blower applications. The unique torsion flex mounting speeds installation while the special steel of the torsion flex bracket absorbs vibration for quieter operations. All models are electrically reversible, 3 speed motors.

Features:

- Sleeve bearing
- Torsion flex mount
- 3 speeds
- 4-1/2 inch long, 1/2 inch diameter shaft
- Torsion mount sleeves and grommets included

Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- Thermal overload protected
- Fan duty, continuous, air over
- Open construction
- 36 inch leads
- UL Recognized



1075 RPM – Three Speed – Reversible Rotation

MARS NO.	HP	ROTATION	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS		
								A	B	C
10683	1/4	REV	115	4.2	5/370	OAO	SLV	4.50	4.89	1/2
10684	1/4	REV	208-230	1.8	5/370	OAO	SLV	4.50	4.89	1/2
10685	1/3	REV	115	6.1	5/370	OAO	SLV	4.50	5.14	1/2
10686	1/3	REV	208-230	2.7	5/370	OAO	SLV	4.50	5.14	1/2
10687	1/2	REV	115	7.5	10/370	OAO	SLV	4.50	5.89	1/2
10688	1/2	REV	208-230	3.2	7.5/370	OAO	SLV	4.50	5.64	1/2
10689	3/4	REV	115	11.2	15/370	OAO	SLV	4.50	6.14	1/2
10690	3/4	REV	208-230	4.5	10/370	OAO	SLV	4.50	6.14	1/2

Multi-Horsepower Direct Drive Furnace Blower Motors

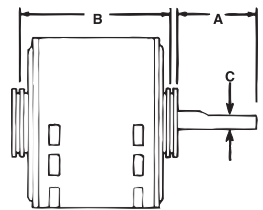
MARS multi-horsepower direct drive blower motors are ideal for truck stock. Four models cover both 115 volt and 208-230 volt applications from 1/6 through 3/4 HP. All MARS multi-horsepower motors feature Rheem shell mounting holes.

Features:

- Rheem mounting holes
- 2-1/4 inch resilient rings

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- 36 & 41 inch leads
- UL Recognized



Four Speed

MARS NO.	HP	ROT	VOLTS	RPM	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
10463	1/6 - 1/2	Rev	115	1075	OAO	Slv	5.50	4.73	1/2	41"
10464	1/6 - 1/2	Rev	230	1075	OAO	Slv	5.50	4.73	1/2	41"
10466	1/5 - 3/4	Rev	115	1075	OAO	Ball	5.80	5.73	1/2	41"
10467	1/5 - 3/4	Rev	230	1075	OAO	Ball	5.60	5.23	1/2	41"
10479	1/8 - 1/3	Rev	230	825	OAO	Slv	4.50	5.30	1/2	36"

MARS 460V Direct Drive Blower Motors

Ball Bearing

MARS direct drive blower motors are installed in residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment.

Features:

- All angle • 2 speeds
- Extended studs
- 2-1/4 inch resilient rings

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- 36 inch leads • UL Recognized



Reversible Rotation

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS		
							A	B	C
20538	1/2	460	1.8	10/370	OAO	Ball	6.50	5.25	1/2

Muti-Horsepower – Reversible Rotation

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS		
							A	B	C
20580	1/3 - 1/4	460	0.95	7.5/370	OAO	Ball	6.50	4.50	1/2
20581	3/4 - 1/2	460	2.1	15/370	OAO	Ball	4.50	5.80	1/2

See diagram above for dimensions

Belted Fan & Blower Motors

Ball Bearing

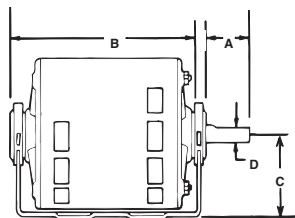
MARS belted blower motors are designed to meet manufacturer's requirements for belted fan or blowers.

Features:

- Resilient base mounted
- Single speed
- Slotted holes in base match 48 or 56 frame bolt patterns
- 1/2 inch shaft diameter

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- Open construction
- Continuous duty
- UL Recognized



1725 RPM – Single Speed – Reversible Rotation

MARS NO.	HP	VOLTS	FLA	SF	DIMENSIONS				NEMA FRAME
					A	B	C	D	
10401	1/4	115	4.3	1.35	1.85	6.25	3.00	1/2	48/56
10406	1/3	115	5.8	1.35	1.85	6.25	3.00	1/2	48/56
10408	1/2	115	7.7	1.25	1.85	6.88	3.00	1/2	48/56

Tech Tip

When replacing a blower or fan motor, inspect the blower wheel or fan and replace or clean as necessary to optimize performance.

Belted Fan & Blower Motors, Split Phase

Ball Bearing

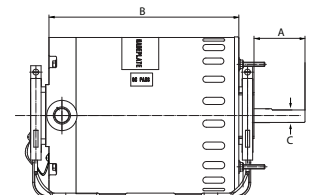
MARS belted blower motors are designed to meet manufacturer's requirements for belted fan or blowers.

Features:

- Single speed, split phase
- 48/56 frame mounting holes
- Heavy gauge steel construction frame and base
- 1/2" x 1-7/8" Shaft with 1-5/8" Flat
- Extended thru bolts

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Continuous duty
- Automatic thermal overload protection, as noted
- cULus



Cross Reference:

MARS No.	AO Smith/ Century	Baldor	Emerson/ US Motors	Genteq	Magnetek	Marathon
10300	917L	-	D16B2N4Z9	-	-	B300
10301	RB2014	-	D16BA2N4Z9	-	918	B322
10302	919L	-	DB14B2N4Z	-	919	B302
10303	920L, GF2024	RSP1441A	8000, 3618	4701, 4730	808	B303, B206
10304	921L, RB2034L	-	D13B2N4Z9	-	921	B304
10305	922L, RB2034	-	8100, PD6004	-	922	B305, B207
10306	-	-	D12C2J49	-	-	B306
10307	GF2054	RSP3451A	8200, PD6006	4708, 4733	-	B307
10309	F680, F681	-	4115	-	-	4338

1725 RPM - Reversible - Dripproof

MARS NO.	HP	VOLTS	AMPS	S.F	ENCL.	BRG.	NEMA FRAME	DIMENSIONS		
								A	B	C
10301*	1/6	115	3.6	1.35	DP	Ball	48Y	1.85	6.25	1/2
10303*	1/4	115	4.3	1.35	DP	Ball	48Y	1.85	6.25	1/2
10305*	1/3	115	5.8	1.35	DP	Ball	48Y	1.85	6.25	1/2
10307*	1/2	115	7.7	1.25	DP	Ball	48Y	1.85	6.88	1/2
10309*	3/4	115	11.4	1.00	DP	Ball	56	1.92	7.74	5/8
10300	1/6	115	3.6	1.35	DP	Ball	48Y	1.85	6.25	1/2
10302	1/4	115	4.3	1.35	DP	Ball	48Y	1.85	6.25	1/2
10304	1/3	115	5.8	1.35	DP	Ball	48Y	1.85	6.25	1/2
10306	1/2	115	5.8	1.35	DP	Ball	48Y	1.85	6.88	1/2

* Automatic Thermal Overload Protection

Fan & Blower Motors

Fan & Blower Motors, Capacitor Start

Ball Bearing

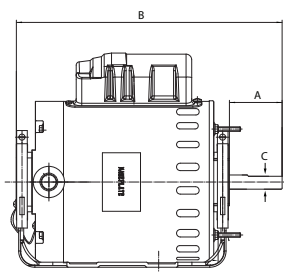
MARS fan & blower motors are designed for applications like commercial fans and blowers, direct and belt drive air handlers and exhaust fans.

Features:

- Single speed, capacitor start
- 48/56 frame mounting holes
- Heavy gauge steel construction frame and base
- 5/8" Shaft dia. with keyway
- Extended thru bolts

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Continuous duty
- Automatic thermal overload Protection, as noted
- cULus



Cross Reference:

MARS No.	AO Smith/ Century	Baldor	Emerson/ US Motors	Fasco	Leeson	Magnetek	Marathon
10313	C196L	RL1203A	D12CPA2P49	-	100109.00	C196	B313
10315	RBF1034A	-	180	-	-	-	B315
10317	BK1054, C412V1	-	D12CPA2PH9	D6084	100011.00	-	B317
10319	C426V1, RB1074A	RL1307A	1893	-	100012.00	-	B319
10321	C523V1	RL1310A	D1CPA2PH9	D6088	110007.00	-	4688
10322	-	-	D12CP2PH9	-	-	-	B1316
10323	C666	-	D34CP2PH9	-	100016.00	C666	B318
10324	C524	-	D1CP2PH9	-	-	-	C235

1725 RPM - Reversible - Dripproof

MARS NO.	HP	VOLTS	AMPS	S.F	ENCL.	BRG.	NEMA FRAME	DIMENSIONS		
								A	B	C
10313*	1/4	115/208-230	5.0/2.4-2.5	1.35	DP	Ball	48YZ	1.85	10.30	1/2
10315*	1/3	115/208-230	5.4/2.6-2.7	1.35	DP	Ball	48Z	1.93	10.22	1/2
10317*	1/2	115/208-230	8.0/4.1-4.0	1.25	DP	Ball	56	1.93	10.41	5/8
10319*	3/4	115/208-230	10.0/5.2-5.0	1.25	DP	Ball	56	1.93	11.00	5/8
10321*	1	115/208-230	14.4/7.2-7.2	1.00	DP	Ball	56	1.95	11.26	5/8
10322	1/2	115/208-230	9.2/4.2-4.6	1.25	DP	Ball	56	1.95	10.24	5/8
10323	3/4	115/208-230	10.0/6.2-5.8	1.25	DP	Ball	56	1.93	11.00	5/8
10324	1	115/208-230	14/6.9-7.0	1.15	DP	Ball	56	1.95	11.25	5/8

* Automatic Thermal Overload Protection

Direct Drive Fan & Blower Motors Ball Bearing

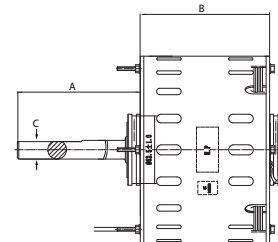
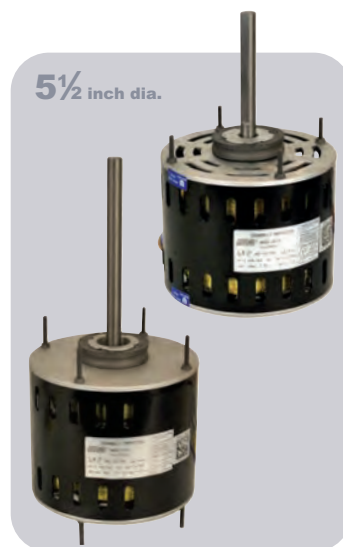
MARS Direct Drive Fan & Blower Motors are designed to replace PSC and Shaded pole motors, used in direct drive furnace, air conditioners, and other blowers.

Features:

- Single Speed, reversible
- Resilient ring or thru-bolt mounting
- Ring kit allows 2-1/4" & 2-1/2" resilient ring mounting
- 3/4 inch Extended thru-bolts shaft end

Specifications:

- Class "B" insulation
- Single Phase, 60 Hz
- Continuous air over
- Automatic reset thermal overload protection
- 30 inch leads
- cULus



Cross Reference:

MARS No.	AO Smith/ Century	Emerson/ US Motors	Fasco	Marathon
30013	FDL1024	1690	-	X013
30014	FD1024	1693	-	X014
30015	FDL1034	1692	D780	X015
30016	FDL1054	1694	D785	X016
30017	FD1054	1695	D784	X017
30022	FD1074	1697	D786	X022
30111	FC3056F	1693	D781	X011
30211	-	1700	D825	X211

1625 RPM - Single Speed - Reversible

MARS NO.	HP	VOLTS	AMPS	CAPACITOR REQUIRED	ENCL.	BRG.	DIMENSIONS		
							A	B	C
30013	1/4	115	2.65	7.5/370	OPAO	Ball	4.50	4.95	1/2
30014	1/4	208-230	1.3-1.2	5/370	OPAO	Ball	4.50	4.65	1/2
30015	1/3	115	3.55	7.5/370	OPAO	Ball	4.50	5.22	1/2
30111 (1)	1/3	208-230	1.9-1.6	5/370	OAO	Ball	4.50	4.95	1/2
30016	1/2	115	4.9	15/370	OPAO	Ball	4.50	5.70	1/2
30017	1/2	208-230	2.95-2.45	5/370	OPAO	Ball	4.50	5.70	1/2
30022 (2)	3/4	230	4.2-3.6	7.5/370	OPAO	Ball	6.00	6.00	1/2
30211	1	208-230	4.8-3.8	10/370	OPAO	Ball	3.00	6.68	1/2

(1) Enclosed shaft end bracket

(2) Thru-bolts on shaft end and OSE

Commercial Condenser Fan Motors, Rigid Base, 3 Phase

Ball Bearing

MARS Commercial condenser fan motors may be installed outdoors. These motors need to be mounted within the airflow of the fan for proper cooling. 56Z or 56HZ rigid base is easy to remove and provides mounting flexibility. Use on Trane, Carrier, Climatrol and York units, 5 tons and larger.

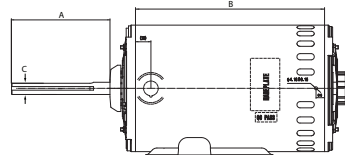


Features:

- 70°C ambient except as noted
- Water slinger on shaft
- Rigid Base - Horizontal or Vertical mounting
- Enclosed shaft end bracket, vented frame
- Flat and keyway on shaft

Specifications:

- Class "H1" insulation
- Three Phase, 60/50 Hz
- Continuous duty, air over
- Automatic thermal overload protected
- cULus



Cross Reference:

MARS No.	AO Smith/ Century	Baldor	Emerson/ US Motors	Leeson	Marathon
10513	H1050A	-	1820H, 1820V	-	X513
10523	H1051A	CFM3166A	1821H, 1821V	111148	X523
10528	H1053A	-	1833H, 1833V	-	X528
10529	-	-	-	-	X529
10531	H1054A	-	1831H, 1831V, 1100	-	X531

MARS NO.	HP	VOLTS	AMPS	S.F	ENCL.	BRG.	NEMA FRAME	DIMENSIONS		
								A	B	C

1140 RPM - Reversible - Three Phase

10533*	1/2	208-230/460	2.1-2.0/1.0	1.0	OPAO	Ball	56Z	5.50	7.14	5/8
10513	1	208-230/460	4.1-4.5/2.3	1.0	OPAO	Ball	56HZ	5.00	7.66	5/8
10523	1-1/2	208-230/460	5.7-5.8/2.9	1.0	OPAO	Ball	56HZ	5.00	8.45	5/8

850 RPM - Reversible - Three Phase

10529	1/2	208-230/460	3.3-1.0/1.55	1.0	OPAO	Ball	56Y	5.00	7.27	5/8
10528	1	208-230/460	5.1-5.3/2.66	1.0	OPAO	Ball	56HZ	5.00	9.23	5/8
10531	1-1/2	208-230/460	6.5-6.7/3.4	1.0	OPAO	Ball	56HZ	5.00	9.23	5/8

* 60 Deg C

Commercial Condenser Fan Motors, Belly Band, 3 Phase

Ball Bearing

MARS Commercial condenser fan motors may be installed outdoors. These motors need to be mounted within the airflow of the fan for proper cooling. Use on Trane, Carrier, Climatrol and York units, 5 tons and larger.

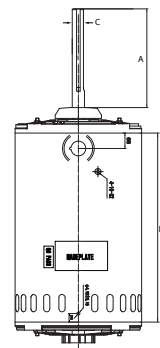


Features:

- 70°C ambient
- Water slinger on shaft
- Four locating screws 90° apart, 3-3/8" from outer edge of shaft slinger
- Enclosed shaft end bracket, vented frame
- Flat and keyway on shaft
- Belly Band and Resilient Ring Mounting

Specifications:

- Class "H1" insulation
- Three Phase, 60/50 Hz, 575V - 60 Hz only
- Continuous duty, air over
- Automatic thermal overload protected
- cULus



Cross Reference:

MARS No.	AO Smith/ Century	Baldor	Emerson/ US Motors	Fasco	Magnetek	Marathon
10500	FC3056F	-	1828H	-	-	X500
10501	FC3076F	CFM3146A	1817H	-	H567	X501
10502	FC3106F	CFM3156A	1818H	-	H667	X502
10503	H1051A	CFM3166A	1819H	D6610	H767	X503
10507	H1053A	-	1828H, 1828V	-	H686	X507
10509	H698	-	8987V	-	-	X509
10524	-	-	-	-	-	X524
10526	-	-	-	-	-	X526
10527	-	-	-	-	-	X527
10530	H1054A, H1053A	-	1832H, 1832V	-	-	X530

MARS NO.	HP	VOLTS	AMPS	S.F	ENCL.	BRG.	NEMA FRAME	DIMENSIONS		
								A	B	C

1140 RPM - Reversible - Three Phase

10500	1/2	208-230/460	2.45-2.75/1.35	1.0	OPAO	Ball	56Y	5.00	6.68	5/8
10501	3/4	208-230/460	3.3-3.0/1.64	1.0	OPAO	Ball	56Y	5.00	7.27	5/8
10502	1	208-230/460	4.18-4.38/2.19	1.0	OPAO	Ball	56Y	5.00	7.66	5/8
10503	1-1/2	208-230/460	5.3-5.09/2.55	1.0	OPAO	Ball	56Y	5.00	8.84	5/8
10509	2	208-230/460	7.3-7.0/3.7	1.0	OPAO	Ball	56Y	5.00	9.62	5/8

850 RPM - Reversible - Three Phase

10507	1	208-230/460	5.1-5.1/2.53	1.0	OPAO	Ball	56Y	5.00	8.84	5/8
10530	1-1/2	208-230/460	7.05-6.7/3.57	1.0	OPAO	Ball	56Y	5.00	9.62	5/8

1140 RPM - Reversible - Three Phase

10522	1	575	1.78	1.0	OPAO	Ball	56Y	5.00	7.66	5/8
10524	1-1/2	575	3.4	1.0	OPAO	Ball	56Y	5.00	8.45	5/8
10526	2	575	3.1	1.0	OPAO	Ball	56Y	5.00	9.23	5/8

850 RPM - Reversible - Three Phase

10527	1	575	2.0	1.0	OPAO	Ball	56Y	5.00	9.62	5/8
-------	---	-----	-----	-----	------	------	-----	------	------	-----

Commercial Condenser Fan & Heating Motors

Commercial Fan & Blower Motors, 3 Phase

Ball Bearing

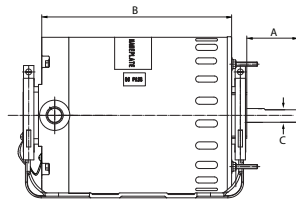
MARS three phase commercial fan & blower motors are designed for applications like commercial fans and blowers, direct and belt drive air handlers and exhaust fans.

Features:

- Single speed, drip-proof
- Reversible Rotation
- Dual Voltage
- Resilient base mounting
- Heavy gauge steel construction frame and base
- 5/8" Shaft dia. with keyway
- Extended thru bolts

Specifications:

- Class "B" insulation
- Three phase, 60 Hz
- Continuous duty, air over
- Automatic thermal overload protection
- cULus



Cross Reference:

MARS No.	AO Smith/ Century	Emerson/ US Motors	Marathon
30317	H850L	8488	K1408
30319	H851V2	8489	K1410
30321	RB3104A	8498	K1412
30323	H853V2	-	K1415
30325	RB3204A	8493P	K1418

1725 RPM - Reversible - Dripproof

MARS NO.	HP	VOLTS	AMPS	S.F	ENCL.	BRG.	NEMA FRAME	DIMENSIONS		
								A	B	C
30317	1/2	208-230/460	2.1-2.0/1.0	1.25	DP	Ball	56	1.77	9.73	5/8
30319	3/4	208-230/460	3.0-2.8/1.4	1.25	DP	Ball	56	1.93	10.76	5/8
30321	1	208-230/460	3.3-3.4/1.7	1.15	DP	Ball	56	1.89	11.40	5/8
30323	1-1/2	208-230/460	5.3-5.4/2.7	1.15	DP	Ball	56H	1.89	11.86	5/8
30325	2	208-230/460	6.2-6.0/3.0	1.15	DP	Ball	56H	1.89	13.75	5/8

Unit Heater Motors, PSC

Ball Bearing

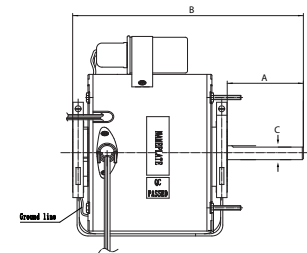
MARS replacement unit heater motors need to be mounted within the airstream for proper cooling.

Features:

- Totally enclosed, air over
- Horizontal or vertical mount
- 1" extended thru-bolts
- * Reversing plug
- BX connector mounted in frame

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Continuous duty
- Automatic reset thermal overload
- 37 inch leads
- cULus



Cross Reference:

MARS No.	AO Smith/ Century	Emerson/ US Motors	Marathon
30301	UH1016, US1016	1386	X302
30303	566A, UH1026	1384	X303
30305	UH1036	1388	X304

1725 RPM - Reversible - Dripproof

MARS NO.	HP	VOLTS	AMPS	CAPACITOR INCLUDED	ENCL.	BRG.	NEMA FRAME	DIMENSIONS		
								A	B	C
30301	1/6	115	3.0	5/370	TEAO	Ball	48Y	2.75	8.25	1/2
30303	1/4	115	4.1	7.5/370	TEAO	Ball	48Y	2.75	8.25	1/2
30305	1/3	115	6.5	7.5/370	TEAO	Ball	48Y	2.75	9.70	1/2

MARS Oil Burner Motors

Ball Bearing

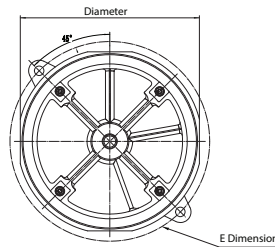
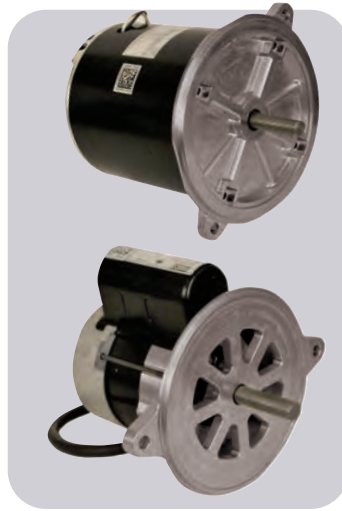
MARS Oil Burner Motors are replacement motors for residential and commercial oil burners, hot water pressure/steam cleaners and other applications where 48M or 48N flange mounting is required.

Features:

- All angle
- Split Phase and PSC
- Semi or totally enclosed
- Two bolt direct mounting for 48M and 48N

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Continuous duty
- Manual reset overload protection
- Auto reset protection for PSC
- cULus

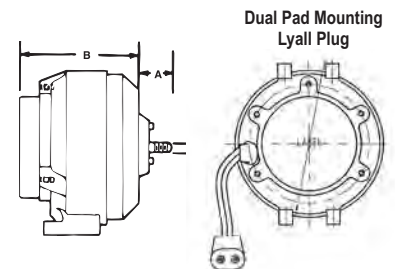


51 Frame Unit Bearing Cast Iron Motors

MARS 51 frame motors are used on refrigerators, freezers, food & beverage coolers, vending machines, display cases, and many other fan duty applications.

Features:

- Cast iron construction
- Packed with vibration dampener, speed nut & screws
- Shaded pole, single phase
- Fan duty, continuous, air over
- Impedance protected
- For accessories see pages M-50 – M-54
- Class "A" insulation
- 60/50 Hertz



Cross Reference:

MARS No.	AO Smith/ Century	Beckett	Emerson/ US Motors	Marathon
30004	EL2022	-	2302	O004
30011	OI2052D	-	3267	O011
30100	EL2002	-	3083	O100
30600	EL2004V1	-	3196	O600
30601	EL2014V1	-	3250	O601
30701	-	21805U	3274	O701

MARS NO.	DIA.	HP	RPM/ SPD	VOLTS	AMPS	ROT.	FRAME	ENCL.	S.F.	SHAFT LGTH	SHAFT DIA.	E DIM.
----------	------	----	----------	-------	------	------	-------	-------	------	------------	------------	--------

Split Phase

30100	5-1/2	1/7	3450/1	115	2.4	Rev	48M	Semi Enclosed	1.0	1-3/4	1/2	6-3/4
30600	6-1/2	1/8	1725/1	115	2.7	Rev	48N	TENV	1.0	1-3/4	1/2	7-1/4
30601	6-1/2	1/6	1725/1	115	2.8	Rev	48N	TENV	1.0	1-3/4	1/2	6-1/2
30004	6-1/2	1/4	3450/1	115	3.8	Rev	48N	Semi Enclosed	1.0	1-13/16	1/2	7-1/4

Oil Burner, PSC

30701	5-1/2	1/7	3450/1	115	1.5	CCW SE	-	Semi Enclosed	-	1-3/4	1/2	5-1/4
30011	6-1/2	1/2	3450/1	115/208-230	8.2/4.1	Rev	48N	Semi Enclosed	1.0	1-3/4	1/2	7-1/4

MARS NO.	WATTS	ROT OSE	VOLTS	AMPS	LEAD LENGTH	DIMENSIONS		
						A	B	C

1000 RPM—1/4-20 Threaded Shaft

05111(1)	2.5	CW	115	0.30	26"	0.66	2.64	1/4
----------	-----	----	-----	------	-----	------	------	-----

1550 RPM—1/4-20 Threaded Shaft - Dual Pad Mounting - Lyall Plug

05211(1)	4	CW	115	0.33	24"	0.66	2.64	1/4
05212(1)	4	CCW	115	0.33	24"	0.66	2.64	1/4
05221(1)	4	CW	230	0.19	24"	0.66	2.64	1/4
05222(1)	4	CCW	230	0.19	24"	0.66	2.64	1/4
05311	6	CW	115	0.46	24"	0.66	3.14	1/4
05312	6	CCW	115	0.46	24"	0.66	3.14	1/4
05411	9	CW	115	0.62	24"	0.66	3.14	1/4
05412	9	CCW	115	0.62	24"	0.66	3.14	1/4
05421	9	CW	230	0.33	24"	0.66	3.14	1/4
05422	9	CCW	230	0.33	24"	0.66	3.14	1/4
05811(2)	16	CW	115	0.95	24"	0.66	3.34	1/4
05812(2)	16	CCW	115	0.95	24"	0.66	3.34	1/4
05821(2)	16	CW	230	0.48	24"	0.66	3.34	1/4
05822(2)	16	CCW	230	0.48	24"	0.66	3.34	1/4

1500 RPM—1/4-20 Threaded Shaft

05711(2)	35	CW	115	1.4	22"	0.50	3.50	1/4
05721(2)	35	CW	230	0.70	22"	0.50	3.50	1/4

1500 RPM—Smooth Shaft

05511(2)	50	CW	115	1.7	22"	1.50	4.50	3/8
05521(2)	50	CW	230	0.85	22"	1.50	4.50	3/8

(1) Class A Insulation (2) Automatic Reset Overload Protection

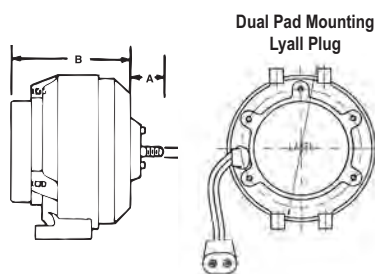
Unit Bearing Motors

51 Frame Unit Bearing Aluminum Motors

MARS aluminum 51 frame motors are economical replacements for cast iron motors. They feature an improved oiling system and class B insulation for longer life.

Features:

- Aluminum construction
- Unit bearing design
- Packed with vibration dampener, speed nut & screws
- Shaded pole, single phase
- Fan duty, continuous, air over
- Impedance protected
- For accessories see pages M-50 – M-54
- Class "A" insulation
- 60/50 Hertz



MARS NO.	WATTS	ROT OSE	VOLTS	AMPS	LEAD LENGTH	DIMENSIONS		
						A	B	C
1550 RPM—1/4-20 Threaded Shaft - Dual Pad Mounting - Lyall Plug								
05213(1)	4	CW	115	0.33	24"	0.66	2.64	1/4
05223(1)	4	CW	230	0.19	24"	0.66	2.64	1/4
05313	6	CW	115	0.46	24"	0.66	3.14	1/4
05413	9	CW	115	0.62	24"	0.66	3.14	1/4
05414	9	CCW	115	0.62	24"	0.66	3.14	1/4
05423	9	CW	230	0.33	24"	0.66	3.14	1/4
05813(1)(2)	16	CW	115	0.95	24"	0.66	3.34	1/4
05814(1)(2)	16	CCW	115	0.95	24"	0.66	3.34	1/4
05823(1)(2)	16	CW	230	0.48	24"	0.66	3.34	1/4

1500 RPM—1/4-20 Threaded Shaft - Lyall Plug								
05119	9	CW	115	.55	13" w/ Lyall plug	0.66	3.14	1/4

(1) Class A insulation (2) Automatic reset overload protection

MARS Shaded Pole Motors

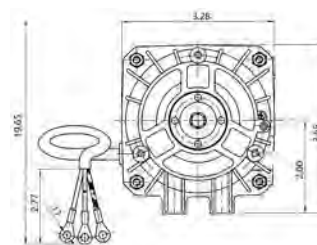
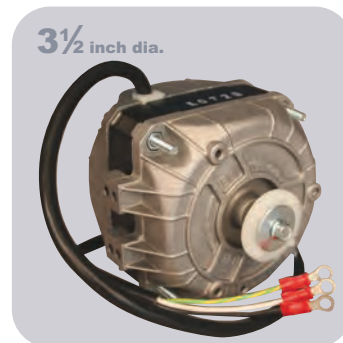
MARS shaded pole motors are widely used in the HVAC & Refrigeration industry. These motors are suitable for all angle operation and have multiple mounting features and are used in industrial and commercial refrigeration for condensing and evaporating units, ventilating units, freezers, walk-in and reach-in coolers, food and beverage coolers and many other fan duty applications.

Features:

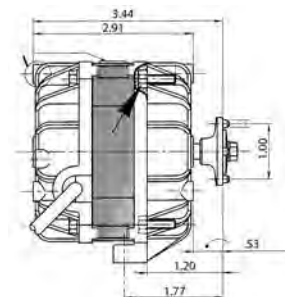
- All angle, sleeve bearing
- Single speed
- Output 9 and 16 watts
- Totally enclosed
- Hardware included: screws and nuts
- Continuous air over
- 3 core cable equipped with ring fast-on terminals

Specifications:

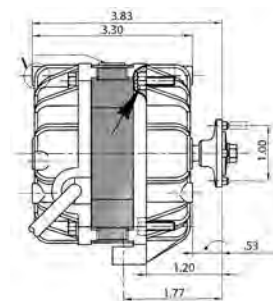
- Class "B" insulation
- 60 Hz
- Thermal overload protected
- UL approved



00907



00909



MARS NO.	WATTS	ROT SE	HP	VOLTS	AMPS	RPM
00907	9	CCW	1/83	115	0.50	1550
00909	16	CCW	1/47	115	0.70	1550

Super-Fit™ 3000 RPM Replacement Motors*

The MARS 90999 Super-Fit™ replacement fan motor is designed to replace virtually any refrigerator evaporator fan motor.

The MARS 90999 motor incorporates a unique new system which duplicates any OEM mounting quickly and easily. The rotor is reversible in the field for either clockwise or counterclockwise rotation.

In addition the MARS 90999 motor has the power to perform in even the largest refrigerators. The MARS 90999 Super-Fit™ motor comes complete with mounting accessories and hardware.

*U.S. Patent

Features:

- Reversible rotation
- Duplicates any OEM motor
- Break-off shaft
- Easy-to-use, fewer parts to assemble than competitive motors
- Stock one motor - save on inventory
- Complete with accessories and instructions

Specifications:

- Electrical rating: 90999, 115V, 50/60 Hertz
90998, 220V, 50/60 Hertz
- Overload protection: impedance protected
- Speed: 3000 RPM
- Shaft: 1/8 inch diameter with adaptors for 3/16 inch and hubless fans

MARS NO.	DESCRIPTION	VOLTS
90999	"Super-Fit" motor with accessories	115V, 50/60 Hz
90998	"Super-Fit" motor with accessories	220V, 50/60 Hz



Replaces these popular motors... and hundreds more!

WHIRLPOOL/COLDSPOT

FRIGIDAIRE

GIBSON

WESTINGHOUSE

PHILCO

Super-Fit™ 3000 RPM Commercial Replacement Motor*

MARS 90970 Super-Fit™ commercial evaporator fan motor is the most versatile, easy-to-use, heavy-duty replacement evaporator fan motor available.

MARS 90970 is the first motor of this type with a dual voltage coil so you can stock one motor for both 115 volt and 230 volt applications. The unique system of slide locator screws lets you match OEM mountings quickly and easily.

The reversible 90970 features rugged, die cast bearing housings with self-aligning bearings and generous oil reservoir. The break-off shaft has adaptors to fit 1/8, 3/16, 1/4, 5/16 inch bores and hubless fan blades.

Each kit includes: Motor, 5.5" white plastic blade, accessory package.

*U.S. Patent

Features:

- Dual voltage coil, 110-120/208-240 VAC
- 50/60 Hertz
- Mechanically reversible

Specifications:

- Electrical: 110-120/208-240 VAC; 50/60 Hertz
- Protection: thermal overload protected
- HP: 1/50
- RPM: 3000

3000 RPM – Mechanically Reversible

MARS NO.	HP	AMPS	STACK HT. IN.	SHAFT	VOLTS
90970	1/50	1.33	.75	2.174 X .1875	110-120/208-240

Super-Fit™ 3000 RPM Replacement Motor Kit With Fan Blades

The MARS 90971 Super-Fit™ replacement motor kit with fan blades is designed to provide all the material necessary to replace virtually any existing application that requires a 3/8", 1/2", or 5/8" stack motor.

The motor features a specially designed recirculating oil system for long life.

Each kit includes: MARS Super-Fit™ Motor, hardware plus a 4" diameter fan blade and a 5.5" diameter fan blade.

Features:

- Sleeve bearings
- All angle mount
- UL and CSA recognized
- Impedance protection
- Mechanically reversible
- Recirculating oil system

Specifications:

- Class "A" insulation
- 3000 RPM
- 60 Hz

3000 RPM – Mechanically Reversible

MARS NO.	HP	VOLTS	AMPS	SHAFT	STACK
90971	1/130	120	0.41	1.42" x 3/16"	5/8"



MARS 90970 Replaces:

ACME MIAMI	GEM	UNI-LINE ROBERT SHAW
750	EM675 EM680	14011
7502	EM675 EM683	14019
780		



Cross Reference:

MARS NO.	ACME MIAMI	GEM	UNI-LINE ROBERT SHAW	SUPCO
90971	600 700 710 AM-4670	EM670	33-670 (14001)	SM-670

Refrigeration Fan Motors

MARS 3.3" Commercial Refrigeration Multi-Horsepower Motors

These motors replace hundreds of OEM shaded pole evaporator fan motors found in Bohn, Nutone, Chandler, Larkin, Kramer, Climate Control, McQuay, Heatcraft and reduce truck stock costs.

These PSC type motors deliver more power and lower amp draw compared to shaded pole.

Features:

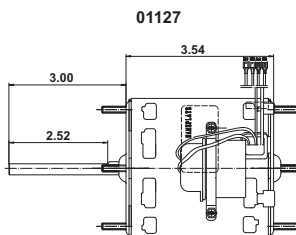
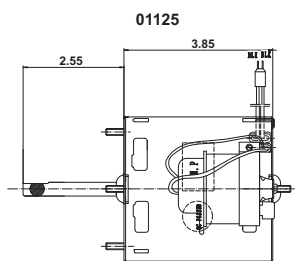
- Sleeve bearing, single speed
- Mounting - extended thru-bolt with nuts
- Low temp lubricant
- Capacitor included
- Open ventilation

Specifications:

- Class "B" insulation
- 60 Hz
- Thermal overload protected

Replaces 12 Motor Ratings:

- 1/12HP CW or CCW 115V or 230V
- 1/15HP CW or CCW 115V or 230V
- 1/20HP CW or CCW 115V or 230V



1550 RPM

MARS NO.	HP	VOLTS	ROT	AMPS	CAP INCLUDED	SHAFT LENGTH AND DIAMETER
01125	1/12, 1/15, 1/18	208-230	CW LE	0.56/0.50	4 MFD 370V	2.55 x 5/16
01127	1/12, 1/15, 1/20	115/230	REV	1.1/0.60	7.5 MFD 370V	3.00 x 5/16

MARS Super-Fit™ 3.3" Commercial Refrigeration Evaporator Fan and Blower Motors

Application:

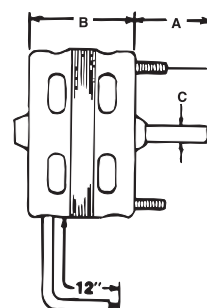
Can be used to replace virtually all popular 3.3" dia. commercial refrigeration evaporator fan motors.

Features:

- Adaptable to front or rear mount
- All angle operation
- Specially selected low temp. oil
- Full flatted black oxide shafts
- U.L. and C.S.A. recognized thermal protection

Specifications:

- Single phase, 60 Hertz
- Thermal overload protected
- 12 inch leads



1550 RPM

MARS NO.	HP	VOLTS	AMPS	ROT OLE	DIMENSIONS		
					A	B	C
09916	1/30	115	1.2	CW	2.50	2.96	5/16
09917	1/20	115	1.7	CW	2.50	2.96	5/16
09927	1/20	208/230	0.96	CW	2.50	2.96	5/16

MARS One-On-One™ 3.3" Commercial Refrigeration Evaporator Fan and Blower Motors

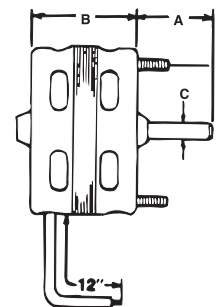
These motors feature original OEM-type plugs, wiring harness and conduit box (where appropriate).

Features:

- Sleeve bearing
- Original OEM-type mounting
- Original OEM-type wiring
- Specially selected low temp oil
- Full flatted black oxide shafts

Specifications:

- Single phase
- Thermal overload protected
- 12-1/2 inch leads



MARS 21/29 Frame Commercial Refrigeration Replacement Motors

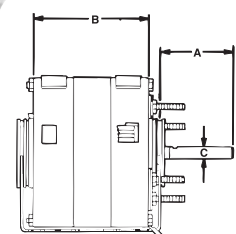
MARS 21/29 frame refrigeration replacement motors have been designed to provide the contractor with tremendous versatility. Dual voltage and mechanical reversibility make these ideal [truck stock for today's busy refrigeration contractor.

Features:

- All angle sleeve bearings
- 115/208-230 volt
- Simple mechanical reversibility, lead exit provided at both ends
- 3/8" shaft diameter with 1/2" adapter included
- Extended studs with double nuts
- Mounting washers included
- 2-1/4 inch resilient rings for base mounting
- CCW (lead end) rotation as factory assembled
- Base and clamps included

Specifications:

- Single phase, 50/60 Hertz
- Thermal overload protected
- 30 inch color coded leads



Bohn Applications/with Lyall Plug

MARS NO.	HP	RPM	VOLTS	AMPS	ROT OLE	DIMENSIONS		
						A	B	C
09930	1/20	1550	115	1.7	CW	3	3	5/16
09931	1/15	1550	230	1.1	CW	3	3.5	5/16
09938	1/12	1400	230	0.55	CW	2.6	4	5/16

1550 RPM – Larkin Applications/with Lyall Plug

MARS NO.	HP	VOLTS	AMPS	ROT OLE	DIMENSIONS		
					A	B	C
09932	1/20	115	1.7	CCW	2.25	2.75	5/16
09933	1/20	208/230	1.0	CCW	2.25	3	5/16

1550 RPM – McQuay Applications

MARS NO.	HP	VOLTS	AMPS	ROT OLE	DIMENSIONS		
					A	B	C
09934	1/15	115/230	2.1/1.1	CW	2.5	3.5	5/16

1550 RPM – Mechanically Reversible

MARS NO.	HP	VOLTS	LE ROT	F.L.A. 115/208-230V	DIMENSIONS		
					A	B	C
10611	1/20	115/230	CCW	3.8/1.9	2.25	4.92	3/8
10615	1/20	115/230	CCW	4.0/2.0	2.25	4.92	3/8

Direct Drive Blower Motors & Fan Coil Motors & Draft Inducer Blowers

MARS Shaded Pole Direct Drive Furnace Blower Motors

MARS shaded pole direct drive furnace blower motors are excellent, economic choices for a wide variety of direct drive blower applications. These class "B" insulated motors will provide long life and quiet operation.

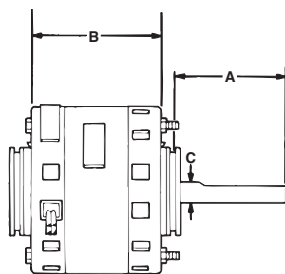


Features:

- Sleeve bearings
- Resilient ring mounting
- Extended studs
- CCW lead end rotation
- NEMA 42 (29) frame
- All angle mounting

Specifications:

- Class "B" insulation
- Automatic thermal overload protection
- 60 Hertz
- Fan duty continuous air over
- UL and C.S.A. approved

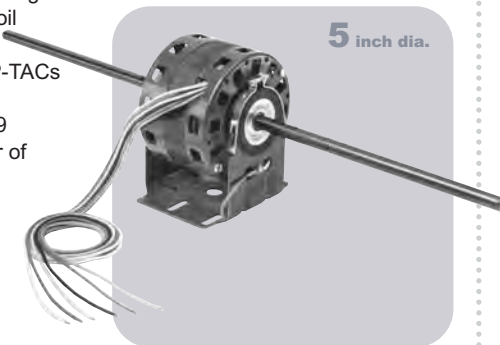


1050 RPM – Three Speed

MARS NO.	HP	VOLTS	AMPS	ROT OSE.	DIMENSIONS		
					A	B	C
10810	1/5	115	6.5	CCW	4.75	5.17	1/2

MARS Fan Coil Replacement Motor

The MARS fan coil replacement motor, with removable resilient mounting base is used for a wide range of dual blower wheel fan/coil assemblies. This motor is especially suited for P-TACs (package terminal air conditioning). The 10889 replaces a large number of OEM designs.

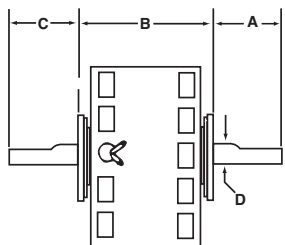


Features:

- Thermal protection
- Includes resilient mounting base
- Includes female 1/4" spade terminals
- Quiet sleeve bearings

Specifications:

- Single phase, 60 Hertz
- Fan duty continuous air over
- Open enclosure



1050 RPM – Five Speed

MARS NO.	HP	VOLTS	AMPS	ROT LE.	DIMENSIONS			
					A	B	C	D
10889	1/10	115	3.5	CCW	10.3	3.34	10.3	1/2

Draft Inducer Blowers

Ball Bearing

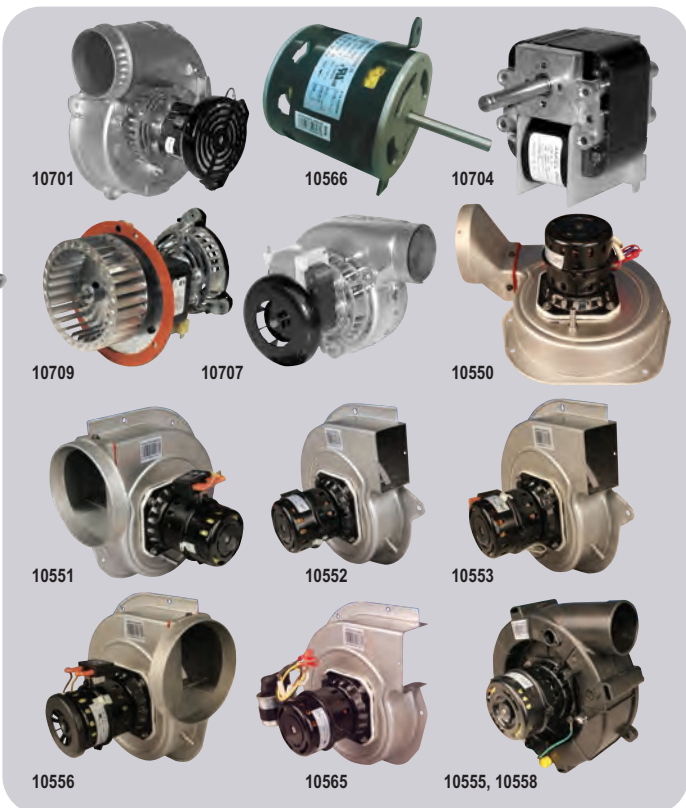
MARS draft inducer blower assemblies are designed and manufactured to serve as drop-in, exact replacements.

Specifications:

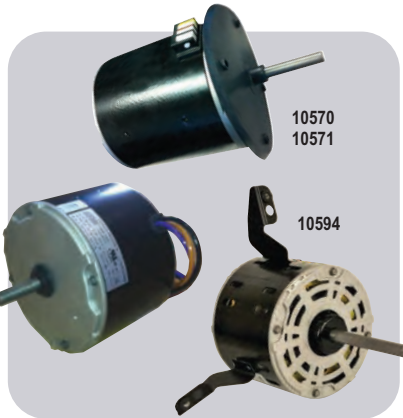
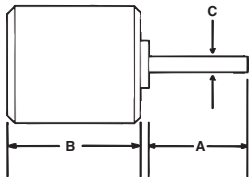
- C-Frame
- Single Speed
- 60 Hz
- Thermal protected, air over
- Single phase

Draft Inducer Blowers

MARS NO.	OEM	OEM NO.	APPL.	HP	VOLTS	AMPS	RPM	CAP INCL.
10701	Rheem	70-24157-03	80+ Furnace	1/30	120	1.71	3400	-
10566	Carrier	HC27Q118	80+ Furnace	1/4	115	0.38	3030	5MFD/370
10704	Carrier	HC21ZE117	80+ Furnace	1/22	115	1.9	-	-
10709	Carrier	HC24HE230	80+ Furnace	1/40	208/230	1.0	-	-
10707	Lennox	88K8401	80+ Furnace	1/60	120	1.3	3000	-
10556	Nordyne	622567	80+ Furnace	1/33	115	0.43	3000	4MFD/250V
10558	Nordyne	622302	90+ Furnace	1/31	115	0.46	3300	6MFD/250V
10550	Goodman	0131G00007	80+ Furnace	1/50	230	0.24	3000	2MFD/370V
10551	Goodman	0131G00009	80+ Furnace	1/32	230	0.24	3000	2MFD/370V
10552	Goodman	0131M00121	80+ Furnace	1/50	230	0.22	3000	2MFD/370V
10553	Goodman	0131M00002P	80+ Furnace	1/50	115	0.40	3000	6MFD/250V
10555	Goodman	0271F00126	90+ Furnace	1/32	115	0.46	3150/2950	6MFD/250V
10563	Trane	D965130P01	80+ Furnace	1/39	230	0.22	2800/1500	2MFD/370V
10564	Trane	D965129P01	80+ Furnace	1/39	230	0.22	2800/1500	2MFD/370V
10565	Trane	D965128P01	80+ Furnace	1/34	230	0.24	3000	2MFD/370V



**One-On-One™
Direct Replacement Motors**



Replaces: Carrier HC33GE233

5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 5 MFD @ 370V (MARS No. 12005, 12905), CW OSE

MARS NO.	HP	VOLTS	RPM/SPEEDS	ROT OSE	AMPS	DIMENSIONS		
						A	B	C
10234	1/10	208/230	1100/1	CW	0.77	1.8	3.8	1/2

Replaces: Goodman 0131M00019P

5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 5 MFD @ 370V (MARS No. 12005, 12905), CCW OSE

MARS NO.	HP	VOLTS	RPM/SPEEDS	ROT OSE	AMPS	DIMENSIONS		
						A	B	C
10230	1/4	208/230	1100/1	CCW	1.26	3	4.1	1/2

Replaces: Goodman 0131M00060

5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 5 MFD @ 370V (MARS No. 12005, 12905), CCW OSE

MARS NO.	HP	VOLTS	RPM/SPEEDS	ROT OSE	AMPS	DIMENSIONS		
						A	B	C
10232	1/6	208/230	810/1	CCW	1.1	3	4.1	1/2

Replaces: Goodman 0131M00294

5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 5 MFD @ 370V (MARS No. 12005, 12905), CCW OSE

MARS NO.	HP	VOLTS	RPM/SPEEDS	ROT OSE	AMPS	DIMENSIONS		
						A	B	C
10233	1/8	208/230	1050/1	CCW	0.70	2.5	4.1	1/2

Replaces: Goodman 0131F00022

5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 20 MFD @ 370V (MARS No. 12014, 12914), CW OSE

MARS NO.	HP	VOLTS	RPM/SPEEDS	ROT OSE	AMPS	DIMENSIONS		
						A	B	C
10594	1/2	115	1130/4	CW	8.1	4	5.1	1/2

Replaces: For use with Coleman and Evcon Equipment

5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 5 MFD @ 440V (MARS No. 12029, 12929, 14029), CCW OSE

MARS NO.	HP	VOLTS	RPM/SPEEDS	ROT OSE	AMPS	DIMENSIONS		
						A	B	C
10570	1/3	575	850/1	CCW	0.66	2.5	6.6	1/2

Replaces: For use with Coleman and Evcon Equipment

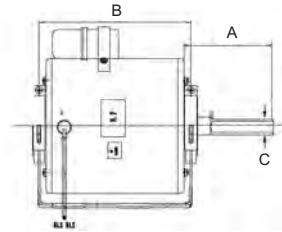
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 10 MFD @ 440V (MARS No. 12032, 12932, 14032), CCW OSE

MARS NO.	HP	VOLTS	RPM/SPEEDS	ROT OSE	AMPS	DIMENSIONS		
						A	B	C
10571	3/4	575	1100/1	CCW	1.35	3.5	5.7	1/2

OEM Direct Replacement Motors For Copeland

Specifications:

- Class "B" insulation
- 50/60 Hz
- Single phase
- Single speed
- Thermal overload protected
- Continuous air over



MARS NO.	HP	VOLTS	ROT OSE	AMPS	RPM	CAP INCLUDED	ENCL.	DIMENSIONS		
								A	B	C
10227	1/3	230	CW	2.2	1625	4MFD/370V	TEAO	1.75	5.87	1/2
10228	1/6	208-230	CW	1.1	1550	3MFD/370V	OAO	3.07	3.69	1/2
10229	1/4	208-230	CW	1.5	1625	5MFD/370V	OAO	3.07	4.32	1/2
10264	1/4	230	CW	2.1	1550	5MFD/370V	ODP	3.00	4.20	1/2
10265	1/6	208-230	Rev	1.1	1550	3MFD/370V	OAO	3.00	3.73	1/2

Tech Tip

Always replace the capacitor when replacing a PSC motor.

Cross Reference / MARS Motors

MARS No.	Description	Century / AO Smith	US Motors/ Emerson	Fasco	GE/ Genteq	Marathon	Packard	Nordyne/ Partners Choice	Rheem/Ruud Protech	Carrier/ Totaline RCD	Wagner	York Source 1	ROTHOM
Condenser Fan													
10727	1/6 HP, 208-230 V, 1075 RPM	FSE1016S	1859	D917	3727	X411	43727	01-0160	W51-16CJA1-01	P257-8727	WG840727	S1-FHM3727	-
10728	1/4 HP, 208-230 V, 1075 RPM	FSE1026S	1860	D909	3728	X412	43728	01-0161	W51-14CJA1-01	P257-8728	WG840728	S1-FHM3728	-
10729	1/3 HP, 208-230 V, 1075 RPM	FSE1036S	1861	D908	3729	X413	43729	01-0162	W51-13CJA1-01	P257-8729	WG840729	S1-FHM3729	-
10730	1/2 HP, 208-230 V, 1075 RPM	FSE1056S	1862	D907	3730	X414	43730	01-0163	W51-12CJA1-01	P257-8730	WG840730	S1-FHM3730	-
10731	3/4 HP, 208-230 V, 1075 RPM, B/B	FSE1076S	1868	D933	3731	-	43731	01-0164	51-42534-19	P257-8731	WG840731	S1-FHM3731	-
10403	1/6 HP, 208-230 V, 825 RPM	FSE1018SF	1873	D798	3403	X465	60825	0165	51-23055-12	-	-	-	-
10404	1/4 HP, 208-230 V, 825 RPM	FSE1028SF	1874	D934	3404	-	40825	0166	51-23054-13	-	WG840204	S1-FHM3204	R22445
10405	1/3 HP, 208-230 V, 825 RPM	FSE1038SF	1875	D796	3405	X451	30825	0167	-	P257-8026	WG840205	S1-FHM3205	R22345
10746	1/2 HP, 208-230 V, 825 RPM	FSE1058SF	1870	D713	3746	X452	-	0168	-	-	-	-	R22245
10203	1/6 HP, 208-230 V, 825 RPM, B/B	FE1018SF, FSE1018SF	-	D793	3203	X465	3203	-	-	-	-	-	CF-816
10204	1/4 HP, 208-230 V, 825 RPM, B/B	FE1028SF, FSE1028SF	1874	-	3204	X450	40825	-	-	-	-	S1-FHM3204	CF-814
10205	1/3 HP, 208-230 V, 825 RPM, B/B	FE1038SF, FSE1038SF	1875	-	3205	X451	30825	-	-	-	-	S1-FHM3205	-
10747	1/2 HP, 208-230 V, 825 RPM	F1058	-	-	3736	X452	-	-	-	-	-	-	-
10732	1/6 HP, 208-230 V, 1075 RPM, B/B	-	2246	-	3726	X427	-	-	-	-	-	-	CF-3726
10733	1/4 HP, 208-230 V, 1075 RPM, B/B	F1026S, FE1026SF, FSE1026SV1	1876	D7909	3732	X428	51876	-	-	-	-	-	CF-3732
10734	1/3 HP, 208-230 V, 1075 RPM, B/B	F1036S, FE1036S	1877	D7908	3733	X413	51877	-	-	-	-	-	CF-3733
10735	1/2 HP, 208-230 V, 1075 RPM, B/B	F1056S, FE1056SF	1878	D7907	3734	X414	51878	-	-	-	-	-	CF-3734
10736	3/4 HP, 208-230 V, 1075 RPM, B/B	F1076SF, FS1076S	1879	-	3735	-	51879	-	-	-	-	-	CF-3735
10327	1/6 HP, 208-230 V, 1075 RPM	-	8661	D718	3327	-	-	-	W51-16CJA1-01	-	-	-	-
10328	1/4 HP, 208-230 V, 1075 RPM	FS1026S	3851	D823	3328	-	-	-	W51-14CJA1-01	-	-	-	-
10329	1/3 HP, 208-230 V, 1075 RPM	FS1036S	6880	D748/D749	3329	-	-	-	W51-13CJA1-01	-	-	-	-
10330	1/2 HP, 208-230 V, 1075 RPM	FS1056S	3852	D745/D804	3330	-	-	-	W51-12CJA1-01	-	-	-	-
10331	3/4 HP, 208-230 V, 1075 RPM	FS1076S	3097	D929	3331	-	-	-	-	-	-	-	-
Multi-Horsepower Condenser Fan													
10458	1/6, 1/5, 1/4, 1/3, 1075 RPM, 208-230 V, WIZ, B/B	ORM5458	5458	-	3458	-	-	-	W51-MHCJA1-01	-	-	-	R22402
10459	1/8, 1/6, 1/5, 1/4, 1/3, 825RPM, 208-230 V, WIZ, B/B	ORM5488B	5464	-	3459	-	-	-	-	-	-	-	-
10465	1/6, 1/5, 1/4, 1/3, 1075 RPM, 208-230 V, B/B	FE6000	5462	D2827	3465	X072	-	01-0695	51-23053-21	P257-E5462	WG840465	S1-FHM3465	R22605
10468	1/5, 1/4, 1/3, 1/2, 1075 RPM, 208-230 V, B/B	FE6002	5465	-	3468	X076	-	01-0697	-	P257-E5465	WG840468	S1-FHM3468	R22602
10469	1/6, 1/5, 1/4, 1/3, 825 RPM, 208-230 V, B/B	FE6001	5464	D2826	3469	-	-	01-0696	51-20760-11	P257-E5464	WG840469	S1-FHM3469	R22601
Direct Drive													
10583	1/4 HP, 115 V, 1075 RPM	DL1026	1863	D721	3583	X000	43583	01-0169	W51-14BAA3-01	P257-8583	WG840583	S1-FHM3583	DD-3583
10584	1/4 HP, 208-230 V, 1075 RPM	D1026	1971	D725	3584	X001	43584	01-0173	W51-14BJA3-01	P257-8584	WG840584	S1-FHM3584	DD-3584
10585	1/3 HP, 115 V, 1075 RPM	DL1036	1864	D727	3585	X002	43585	01-0170	W51-13BAA3-01	P257-8585	WG840585	S1-FHM3585	DD-3585
10586	1/3 HP, 208-230 V, 1075 RPM	D1036	1972	D923	3586	X003	43586	01-0174	W51-13BJA3-01	P257-8586	WG840586	S1-FHM3586	DD-3586
10587	1/2 HP, 115 V, 1075 RPM	DL1056	1865	D701	3587	X004	43587	01-0171	W51-12BAA3-01	P257-8587	WG840587	S1-FHM3587	DD-3587
10588	1/2 HP, 208-230 V, 1075 RPM	D1056	1973	D703	3588	X005	43588	01-0175	W51-12BJA3-01	P257-8588	WG840588	S1-FHM3588	DD-3588
10589	3/4 HP, 115 V, 1075 RPM	DL1076	8904	D728	3589	X009	43589	01-0172	W51-34BAA3-01	P257-8589	WG840589	S1-FHM3589	DD-3589
10590	3/4 HP, 208-230 V, 1075 RPM	D1076	8905	D729	3590	X010	43590	01-0176	W51-34BJA3-01	P257-8590	WG840590	S1-FHM3590	DD-3590
10591	1 HP, 115 V, 1075 RPM	BDL1106	8906	D712	3595	-	-	-	-	-	WG840595	S1-FHM3595	R6-R42812
10592	1 HP, 208-230 V, 1075 RPM	BD1106	8907	D711	3596	X023	48907	-	-	-	WG840596	S1-FHM3596	R6-R42842
10683	1/4 HP, 115 V, 1075 RPM	FML1026	3783	D1730	3783	-	-	-	-	-	-	-	-
10684	1/4 HP, 208-230 V, 1075 RPM	FM1026	3784	D1733	3784	-	-	-	-	-	-	-	-
10685	1/3 HP, 115 V, 1075 RPM	FML1036	3785	D1731	3785	-	-	-	-	-	-	-	-
10686	1/3 HP, 208-230 V, 1075 RPM	FM1036	3786	D1734	3786	-	-	-	-	-	-	-	-
10687	1/2 HP, 115 V, 1075 RPM	FML1056	3787	D1732	3787	-	-	-	-	-	-	-	-
10688	1/2 HP, 208-230 V, 1075 RPM	FM1056	3788	D1735	3788	-	-	-	-	-	-	-	-
10689	3/4 HP, 115 V, 1075 RPM	FML1076V1	-	-	3789	-	-	-	-	-	-	-	-
10690	3/4 HP, 208-230 V, 1075 RPM	FM1076	-	-	3790	-	-	-	-	-	-	-	-
Multi-Horsepower Direct Drive													
10463	1/6, 1/5, 1/4, 1/3, 1/2 HP, 115 V, 1075 RPM	FDL6001	5460	D2835	3463	X077	-	01-0698	51-23012-41	P257-E5460	WG840463	S1-FHM3463	R43600
10464	1/6, 1/5, 1/4, 1/3, 1/2 HP, 208-230 V, 1075 RPM	FD6000	5461	D833	3464	X073	-	01-0699	51-23022-41	P257-E5461	WG840464	S1-FHM3464	R43601
10466	1/5, 1/4, 1/3, 1/2, 3/4 HP, 115 V, 1075 RPM, B/B	FDL6002	5470	D2832	3466	X074	-	01-0702	51-23017-42	P257-E5470	WG840466	S1-FHM3466	R43602
10467	1/5, 1/4, 1/3, 1/2, 3/4 HP, 208-230 V, 1075 RPM, B/B	FD6001	5471	D2833	3467	X075	-	01-0701	51-23022-41	P257-E5471	WG840467	S1-FHM3467	R43603
10479	1/8, 1/4, 1/3 HP, 825 RPM, 208-230 V	-	5469	-	-	-	-	-	-	-	-	-	-
20538	1/2 HP, 460 V, 1075 RPM, B/B	-	-	-	-	X038	-	-	-	-	-	-	-
20580	1/4, 1/3 HP, 460 V, 1075 RPM, B/B	BDH1036*	-	-	3280	-	-	-	-	-	-	-	M2-R32712
20581	3/4, 1/2 HP, 460 V, 1075 RPM, B/B	BDH1076*	8947	-	3290	-	-	-	-	-	-	-	M2-R32426

Disclaimer: Every effort has been made to insure the accuracy of motor data and cross reference information. Design changes may result in different operating characteristics or dimensional changes from one manufacturer to another. Therefore, MARS cannot accept responsibility for the ultimate selection. For additional information, please contact MARS.

Note: B/B – Ball Bearing
* 2 Speed Motor

MARS No.	Description	Century/AO Smith	US Motors/Emerson	Fasco	GE/Genteq	Rheem/Ruud Protec	Wagner	York Source 1	ROTOM
Sunslinger Condenser Fan 70°C									
20727	1/6 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1016SF	1859H	-	3726HS	-	WG840727HT	-	-
20728	1/4 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1026SF	1860H	-	3732HS	-	WG840728HT	S1-FHM3728HT	-
20729	1/3 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1036SF	1861H	-	3733HS	-	WG840729HT	S1-FHM3729HT	-
20730	1/2 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1056SF	1862H	-	3734HS	-	WG840730HT	S1-FHM3730HT	-
20731	3/4 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1076SF	1868H	-	3735HS	-	WG840731HT	-	-
20402	1/8 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1008SF	1872H	-	3202HS	-	-	-	-
20403	1/6 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1018SF	1873H	-	3203HS	-	-	-	-
20404	1/4 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1028SF	1874H	-	3204HS	-	WG840204HT	S1-FHM3204HT	-
20405	1/3 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1038SF	1875H	-	3205HS	-	WG840205HT	S1-FHM3205HT	-
20746	1/2 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1058SF	1870H	-	3747HS	-	-	-	-
20846	1/4 HP Condenser Fan, 460 V, 1075 RPM, B/B, Shaft Up	FEH1026S	3736H	D980	3736HS	51-19704-01	WG840736HT	S1-FHM3736HT	R31710
20847	1/3 HP Condenser Fan, 460 V, 1075 RPM, B/B, Shaft Up	FEH1036S	3737H	D982	3737HS	51-23063-11	WG840737HT	S1-FHM3737HT	R31712
20848	1/2 HP Condenser Fan, 460 V, 1075 RPM, B/B, Shaft Up	FEH1056S	3738H	D802	3738HS	51-20929-01	WG840738HT	S1-FHM3738HT	R31718
20849	3/4 HP Condenser Fan, 460 V, 1075 RPM, B/B, Shaft Up	FEH1076S	3739H	-	3739HS	-	WG840739HT	-	-
Sunslinger Multi-Horsepower Condenser Fan 70°C									
20458	1/6, 1/5, 1/4, 1/3 Multi-HP, Condenser Fan, 1075 RPM, 208-230 V, WIZ, B/B	ORM5458BF	3323H	-	3458HS	-	-	-	-
20459	1/8, 1/6, 1/5, 1/4, 1/3 Multi-HP, Condenser Fan, 825RPM, 208-230 V, WIZ B/B	ORM5488BF	1874H	-	3459HS	-	-	-	-
20465	1/6, 1/5, 1/4, 1/3 Multi-HP, Condenser Fan, 1075 RPM, 208-230 V, B/B	-	5462H	-	3465HS	-	-	S1-FHM3465HT	-
20468	1/5, 1/4, 1/3, 1/2 Multi-HP, Condenser Fan, 1075 RPM, 208-230 V, B/B	ORM5459BF	5465H	-	3468HS	-	-	-	-
20469	1/6, 1/5, 1/4, 1/3 Multi-HP, Condenser Fan, 825 RPM, 208-230 V, B/B	-	5464H	-	3469HS	-	-	S1-FHM3469HT	-
Sunslinger 460V Condenser Fan 70°C									
20859	1/6 HP Condenser Fan, 460 V, 825 RPM, B/B	-	-	-	-	51-101774-06	-	-	R31716
20880	1/4 HP Condenser Fan, 460 V, 825 RPM, B/B	FEH1028S	1880	-	-	51-23064-12	-	-	R22275
20881	1/3 HP Condenser Fan, 460 V, 825 RPM, B/B	-	1881	D960	-	51-100998-26	-	-	R32714
20882	1/2 HP Condenser Fan, 460 V, 825 RPM, B/B	-	1882	D961	-	-	-	-	-
20835	1/6 HP Condenser Fan, 460 V, 1075 RPM, B/B	-	-	-	-	-	-	-	-
20836	1/4 HP Condenser Fan, 460 V, 1075 RPM, B/B	788A, FEH1026SF	3736H	D980	3736	51-19704-01	WG840736HT	S1-FHM3736HT	R31710
20837	1/3 HP Condenser Fan, 460 V, 1075 RPM, B/B	789A, FEH1036SF	3737H	D982	3737	51-23063-11	WG840737HT	S1-FHM3737HT	R31712
20838	1/2 HP Condenser Fan, 460 V, 1075 RPM, B/B	790A, FEH1056SF	3738H	D802	3738	51-20929-01	WG840738HT	S1-FHM3738HT	R31718
20842	3/4 HP Condenser Fan, 460 V, 1075 RPM, B/B	FEH1076SF	3742H	-	3739	-	WG840739HT	-	-
Sunslinger 460V Multi-Horsepower Condenser Fan 70°C									
20478	1/5, 1/4, 1/3, 1/2 Multi-HP, Condenser Fan, 1075 RPM, 460 V, B/B	ORM4658BF	-	-	-	-	-	-	-
20479	1/6, 1/5, 1/4, 1/3, Multi-HP, Condenser Fan, 1075 RPM, 460 V, B/B	ORM4659BF	-	-	-	-	-	-	-
20480	1/6, 1/5, 1/4, 1/3, 1/2 Multi-HP, Condenser Fan, 1075 RPM, 460 V, B/B	-	5480H	-	-	-	-	-	-
20481	3/4, 1/2, 1/3, 1/4 Multi-HP, Condenser Fan, 1075 RPM, 460 V, B/B	-	5481H	-	-	-	-	-	-
Sunslinger MAX Condenser Fan 80°C									
20797	1/6 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	-	-	-	-	-	-	-	-
20798	1/4 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1026SU	-	-	-	-	-	-	-
20799	1/3 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1036SU	-	-	-	-	-	-	-
20790	1/2 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1056SU	-	-	-	-	-	-	-
20791	3/4 HP Condenser Fan, 208-230 V, 1075 RPM, B/B	FE1076SU	-	-	-	-	-	-	-
20492	1/6 HP Condenser Fan, 208-230 V, 825 RPM, B/B	-	-	-	-	-	-	-	-
20493	1/4 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1028SU	-	-	-	-	-	-	-
20494	1/3 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1038SU	-	-	-	-	-	-	-
20495	1/2 HP Condenser Fan, 208-230 V, 825 RPM, B/B	FE1058SU	-	-	-	-	-	-	-
20796	3/4 HP Condenser Fan, 208-230 V, 825 RPM, B/B	-	-	-	-	-	-	-	-
Sunslinger 460V Condenser Fan 70°C									
20895	1/6 HP Condenser Fan, 460 V, 1075 RPM, B/B	-	-	-	-	-	-	-	-
20896	1/4 HP Condenser Fan, 460 V, 1075 RPM, B/B	FEH1026SU	-	-	-	-	-	-	-
20897	1/3 HP Condenser Fan, 460 V, 1075 RPM, B/B	FEH1036SU	-	-	-	-	-	-	-
20898	1/2 HP Condenser Fan, 460 V, 1075 RPM, B/B	FEH1056SU	-	-	-	-	-	-	-
20892	3/4 HP Condenser Fan, 460 V, 1075 RPM, B/B	-	-	-	-	-	-	-	-
20899	1/6 HP Condenser Fan, 460 V, 825 RPM, B/B	-	-	-	-	-	-	-	-
20890	1/4 HP Condenser Fan, 460 V, 825 RPM, B/B	-	-	-	-	-	-	-	-
20891	1/3 HP Condenser Fan, 460 V, 825 RPM, B/B	-	-	-	-	-	-	-	-

Disclaimer: Every effort has been made to insure the accuracy of motor data and cross reference information. Design changes may result in different operating characteristics or dimensional changes from one manufacturer to another. Therefore, MARS cannot accept responsibility for the ultimate selection. For additional information, please contact MARS.

Note: B/B – Ball Bearing

Cross Reference / MARS Motors

MARS No.	Century/ AO Smith	US Motors/ Emerson	Fasco	Marathon
Direct Drive - Fan & Blower - Open Frame				
30013	FDL1024	1690	-	X013
30014	FD1024	1693	-	X014
30015	FDL1034	1692	D780	X015
30016	FDL1054	1694	D785	X016
30017	FD1054	1695	D784	X017
30022	FD1074	1697	D786	X022
30111	FC3056F	1693	D781	X011
30211	-	1700	D825	X211

MARS No	Century/ AO Smith	US Motors/ Emerson	Fasco	Genteq	Magnetek	Marathon	Packard	Rheem/Ruud	ROTOM	Wagner
High Efficiency Direct Drive Motors										
10573	DL1026, FDL1026	5460, 1863	D721, D2836	3983, 3583	0533	X000	43583, 63983	51-17947-11, 51-23012-41, 51-23014-32	R43600	WG840463, WG840583
10574	D1026, FD1026	5461, 1971	D725	3984, 3584	0530	X001	43884, 63984	51-23022-41, 51-23024-31	DD3584, R43584	WG840584
10575	DL1036, FDL1036	5460, 1864	D727	3985, 3585	0532	X002	43585, 63985	-	-	-
10576	D1036, FD1036	5461, 1972	D923	3986, 3586	0529	X003	43586, 63986	-	-	-
10577	DL1056, FDL1056	5460, 1865	D701	3987, 3587	0531	X004	43587, 63987	-	-	-
10578	D1056, FD1056, F1076SV1	5461, 1973	D703	3988, 3588	0528	X005	43588, 63988	-	-	-
10579	DL1076, FDL1076	5470, 8904	D728	3989, 3589	0678	X009	43589, 63989	-	-	-
10580	D1076, FD1076	5471, 8905	D729	3990, 3590	0679	X010	43590, 63990	-	-	-

MARS No.	Century/ AO Smith	Baldor	US Motors/ Emerson	Leeson	Marathon
Commercial Condenser Fan - Three Phase - Rigid Base					
10513	H1050A	-	1820H	-	X513
10523	H1051A	CFM3166A	1821H	111148	X523
10528	-	-	-	-	X528
10529	-	-	-	-	X529
10531	H1054A	-	1831H	-	X531
10533	-	-	-	-	X533

MARS No.	Century/ AO Smith	Baldor	US Motors/ Emerson	Fasco	Magnetek	Marathon
Commercial Condenser Fan - Three Phase - Belly Band						
10500	FC3056F	-	1828H	-	-	X500
10501	FC3076F	CFM3146A	1817H	-	H567	X501
10502	FC3106F	CFM3156A	1818H	-	H667	X502
10503	H1051A	CFM3166A	1819H	D6610	H767	X503
10507	H1053A	-	1828H	-	H686	X507
10509	H698	-	-	-	-	X509
10524	-	-	-	-	-	X524
10526	-	-	-	-	-	X526
10527	-	-	-	-	-	X527
10530	H1054A	-	1832H	-	-	X530

Disclaimer: Every effort has been made to insure the accuracy of motor data and cross reference information. Design changes may result in different operating characteristics or dimensional changes from one manufacturer to another. Therefore, MARS cannot accept responsibility for the ultimate selection. For additional information, please contact MARS.

Note: B/B – Ball Bearing

MARS No.	Century/ AO Smith	Emerson/ US Motors	Marathon
3 Phase Heating - Cap Start Fan & Blower			
30317	H850L	8488	K1408
30319	H851V2	8489	K1410
30321	RB3104A	8498	K1412
30323	H853V2	-	K1415
30325	RB3204A	8493P	K1418

MARS No.	Century/ AO Smith	Baldor	US Motors/ Emerson	Genteq	Magnetek	Marathon
1 Phase Heating - Split Phase Fan & Blower						
10300	917L	-	D16B2N4Z9	-	-	B300
10301	RB2014	-	D16BA2N4Z9	-	918	B322
10302	919L	-	DB14B2N49	-	919	B302
10303	920L, GF2024	RSP1441A	8000, 3618	4701, 4730	808	B303, B206
10304	921L, RB2034L	-	D13B2N4Z9	-	921	B304
10305	922L, RB2034	-	8100	-	922	B305, B207
10306	-	-	D12C2J49	-	-	B306
10307	GF2054	RSP3451A	8200, PD6006	4708, 4733	-	B307
10309	F680, F681	-	4115	-	-	4338.00

MARS No.	Century/ AO Smith	Baldor	US Motors/ Emerson	Fasco	Leeson	Magnetek	Marathon
1 Phase Heating - Cap Start Fan & Blower							
10313	C196L	RL1203A	D14CA2P4Z9	-	100109.00	C196	B313
10315	RB1034A	-	D13CA3J9	-	-	-	B315
10317	BK1054, C412V1	-	D12CA2J9	D6084	100011.00	-	B317
10319	C426V1, RB1074A	RL1307A	D34CA2JH9	-	100012.00	-	B319
10321	C523V1	RL1310A	D1CA2JH9	D6088	110007.00	-	4688
10322	-	-	D12CP2PH9	-	-	-	B1316
10323	C666	-	D34C2J9	-	100016.00	C666	B318
10324	C524	-	D1CP2PH9	-	-	-	C235

MARS No.	Century/ AO Smith	US Motors/ Emerson	Marathon
Oil Burner Motors			
30004	EL2022	2302	O004
30011	-	3267	O011
30100	EL2002	3083	O100
30600	EL2004V1	3196	O600
30601	EL2014V1	3250	O601
30701	-	3247	O701

MARS No.	Century/ AO Smith	US Motors/ Emerson	Marathon
Unit Heater - PSC, TEAO			
30301	UH1016, US1016	1386	X302
30303	566A, UH1026	1384	X303
30305	UH1036	1388	X304

Disclaimer: Every effort has been made to insure the accuracy of motor data and cross reference information. Design changes may result in different operating characteristics or dimensional changes from one manufacturer to another. Therefore, MARS cannot accept responsibility for the ultimate selection. For additional information, please contact MARS.

Note: B/B - Ball Bearing

Cross Reference / MARS Motors

MARS No.	Description	Azure®	Century/ AO Smith	US Motors/ Emerson	GE/Genteq
Azure® Digi-Motor® Direct Drive					
10860	1/5-1/2 HP, Direct Drive ECM, 115/230 V, 1075 RPM, B/B	10800	Comfort Select: CS1056, CSL1056	Rescue Ecotech: 5522ET, 5532ET, 5542ET (1/3HP & 1/2HP), 5552ET (1/2HP), 6631RS (1/2-1/3HP), 6630RS (1/2-1/3HP)	6001, 6002, 6005, 6103E, 6203E, 6105E, 6205E
10861	1/2-1 HP, Direct Drive ECM, 115/230 V, 1075 RPM, B/B	10801	Comfort Select: CS1106, CSL1106	Rescue Ecotech: 5552ET, 5542ET (3/4HP), 6651RS (1HP), 6641RS (3/4HP), 6650RS (1HP), 6640RS (3/4HP)	6003, 6004, 6010, 6107E, 6207E, 6110E, 6210E

MARS No.	Description	Replaces
Azure® Digi-Motor® Condenser Fan		
10874	1/8 - 1/3 HP, Condenser Fan ECM, 208-230 V, 825/1075 RPM	PSC motors 1/8 - 1/3 HP
10870	1/3 - 1/2 HP, Condenser Fan ECM, 208-230 V, 825/1075 RPM	PSC motors 1/3 - 1/2 HP

MARS No.	Description	Regal Beloit/Morrill	Wellington	US Motors
Azure® Digi-Motor® 3.3" Commercial Refrigeration				
10850	1/15-1/25 HP, 3.3" Commercial Refrigeration ECM, 115/230 V, 1550/800 RPM	5100, 5105, 5106, 5101, 5111, 5200, 5201, 5205, 5206, 5211	ECR 85/95	EC5404D, EC5405D

MARS No.	Description	Replaces
Azure® Commercial Refrigeration Watt (Reach-In) Motor		
10890	4-25 Watts, Commercial Refrigeration ECM, 115/230 V, 1550 RPM	All standard watt motors up to 25W; Morrill SSC ECM and US Motors Rescue ECM (EC5411, EC5421) up to 25W

MARS No.	Description	Century/ AO Smith	US Motors/ Emerson	GE/Genteq	Magnetek	Marathon	Packard	ROTOM
Belted Fan & Blower								
10401	1/4 HP, Belted Fan & Blower, 115 V, 1725 RPM	GF2024, RB2024	2889, 8000	4701	808, 802	B303, B206	45014	BF-4701
10406	1/3 HP, Belted Fan & Blower, 115 V, 1725 RPM	GF2034, RB2034	2888, 8100	4706	922, 805	B305, B207	45013	BF-4706
10408	1/2 HP, Belted Fan & Blower, 115 V, 1725 RPM	GF2054, BF2054	2887, 8200	4708	F681, 811	B208	45012	BF-4708

MARS No.	Description	Century/ AO Smith	US Motors/ Emerson	Fasco	GE/Genteq	Magnetek	
21/29 Frame Replacement Commercial Refrigeration							
10611	1/20 HP, Commercial z, 115/230 V, 1550 RPM	-	-	F1468	D484, D485	2331, 2332, 2341, 2342	610, 611
10615	1/10 HP, Commercial, 115/230 V, 1550 RPM	329P118, 326P119, RF4400, RF4401	-	F1469, F1470	D480, D481, D482, D483	2131, 2132, 2141, 2142, 2231, 2232, 2241, 2242	614, 615, 612, 613

MARS No.	Description	Century/ AO Smith	US Motors/ Emerson	Fasco	GE/Genteq	Heil Quaker	York Source 1
Super-Fit™ Multi-Horsepower Condenser Fan							
10722	1/8, 1/10, 1/12 HP, Multi-HP, Condenser Fan, 208-230 V, 1075 RPM, B/B	9722	5440*	-	5KCP29DCA323S, 5KCP29ECA328S, 5KCP29DCA329S, 5KCP29FCA322S, 02243, 02248, 02249, 02251	-	17416, 17465, 17483, 17484
10723	1/4, 1/5, 1/6 HP, Multi-HP, Condenser Fan, 208-230 V, 1075 RPM, B/B	9723	5441*, 1901	D1071	5KCP29JCA324S, 5KCP29JCA325S, 5KCP29HCA326S, 5KCP29JCA327S, 5KCP29ECA321S, 02244, 02245, 02246, 02247, 02250	HQ1052662EM	-
10724	1/4, 1/5, 1/6 HP, Multi-HP, Condenser Fan, 208-230 V, 1675 RPM, B/B	9724	-	-	-	-	-

*70°C Heat Shield

MARS No.	Description	Century/ AO Smith	US Motors/ Emerson	Fasco	GE/Genteq	Packard	
3.3" Multi-Horsepower Commercial Refrigeration							
01125	1/12, 1/15, 1/18 HP, Evap Fan Motor, 208-230 V, 1550 RPM	9720A	9656, 8658, 9664	-	7190-0442, D1125	41125	
01127	1/12, 1/15, 1/20 HP, Evap Fan Motor, 115/230 V, 1550 RPM	9721	9650, 9651, 9652, 9653, 9656, 9662, 9664	-	D1101, D1103, D1122, D1123, D1124, D1125, D1126, D1127, D1152, D1154, PD1125, PD1127, 7163-2113, 7163-3371 7190-0442, 7190-2084, 7190-2255, 7190-2285, 7190-2969	5KSM59ES2001 5KSM59JSK143S 5KSM59JS5036S 5KSM59LS2262AS	49101

Disclaimer: Every effort has been made to insure the accuracy of motor data and cross reference information. Design changes may result in different operating characteristics or dimensional changes from one manufacturer to another. Therefore, MARS cannot accept responsibility for the ultimate selection. For additional information, please contact MARS.

Note: B/B – Ball Bearing

MARS No.	Description	Century/ AO Smith	US Motors/ Emerson	Fasco	Magnetek	Packard	RMR
3.3" Commercial Refrigeration							
09916	1/30 HP, Evap Fan Motor, 115 V 1550 RPM	AO126, AO127	-	D532, D181	28, 29	-	RR-1106
09917	1/20 HP, Evap Fan Motor, 115 V 1550 RPM	AO132, AO133	-	D132, D133	572, 574, 30, 31	40132	RR-1107
09927	1/20 HP, Evap Fan Motor, 208-230 V 1550 RPM	AO188, AO189	-	D188, D189	575	40188	RR-4107
09938	1/30 HP, Evap Fan Motor, 115 V 1550 RPM	-	9656	D1125	-	-	-

MARS No.	Description	Century/ AO Smith	Fasco	GE	Magnetek/UE
Fan Coil Replacement Motor					
10889	1/10 HP, 115 V 1050 RPM	DBL6409	D289	2089	89

One-On-One™ Replacement Motors

MARS No.	Description	Copeland	US Motors/Emerson	GE/Genteq	Packard
One-On-One™ Replacement Motor for Copeland					
10227	1/3 HP, Condenser Fan, 208-230 V, 1625 RPM	050-0108-00	6127, K55HXECE2645	5KCP32KG2598, 5KCP32KG175	-
10228	1/6 HP, Condenser Fan, 208-230 V, 1550 RPM	050-0251-00	6128, K55HSJNG-2974	5KCP32KG221	40251
10229	1/4 HP, Condenser Fan, 208-230 V, 1625 RPM	050-0250-00	6129, K55HXJZJ-3126		40250
10264	1/4 HP, Condenser Fan, 230 V, 1550 RPM	050-0238-00, 050-0107-01	6124, K55BZY-1439	5KCP39GG357S	-
10265	1/6 HP, Condenser Fan, 208-230 V, 1550 RPM	050-0265-00	K55PGP5104		40265

MARS No.	Description	Carrier
10234	1/10 HP, 208-230 V, 1100/1, CW OSE	HC33GE233
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CW Shaft End		

MARS No.	Description	Goodman
10230	1/4 HP, 208-230 V, 1100/1, CCW OSE	0131M00019P
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CCW Shaft End		
10232	1/6 HP, 208-230 V, 810/1 CCW OSE	0131M00060
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CCW Shaft End		
10233	1/8 HP, 208-230 V, 1050/1 CCW OSE	0131M00294
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CCW Shaft End		
10594	1/2 HP, 115 V, 1130/4 CW OSE	0131F00022
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required 20 MFD @ 370V (MARS No. 12014, 12914), CW Shaft End		

MARS No.	Description	York Source 1
10570	1/3 HP, 575 V, 850, CCW OSE	S1-02434550003
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 5 MFD @ 370V (MARS No. 12005, 12905, 14005), CCW OSE		
10571	3/4 HP, 575 V, 1100, CCW OSE	S1-02434551003
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required, 10 MFD @ 440V (MARS No. 12032, 12932, 14032), CCW OSE		

Sunslinger One-On-One™ Replacement Motor

MARS No.	Description	Century/AO Smith
20884	1/8, 1/6, 1/5, 1/4, 1/3 HP, 460 V, 825/1 Reversible	ORM4688BF
5-1/2 inch diam., totally enclosed, ball bearing, capacitor required 7.5 MFD @ 370V (MARS No. 12007, 12907, 14007), Reversible		

Disclaimer: Every effort has been made to insure the accuracy of motor data and cross reference information. Design changes may result in different operating characteristics or dimensional changes from one manufacturer to another. Therefore, MARS cannot accept responsibility for the ultimate selection. For additional information, please contact MARS.

Note: B/B – Ball Bearing



Unit Bearing & Condenser Fan Motors

Unit Bearing Motors

JARD Unit Bearing Cast Iron Motors are used on refrigerators, freezers, food & beverage coolers, vending machines, display cases, and many other fan duty applications.

Features:

- Cast iron construction
- Universal mount
- Mounting screws included
- Individually boxed

Specifications:

- Class "A" insulation
- UL Recognized



MARS NO.	WATTS	VOLTAGE	ROTATION	AMPS	LEAD LENGTH
15109	2	115	CW	0.28	24"
15211	4	115	CW	0.33	24"
15212	4	115	CCW	0.33	24"
15221	4	230	CW	0.19	24"
15222	4	230	CCW	0.19	24"
15311	6	115	CW	0.46	24"
15312	6	115	CCW	0.46	24"
15119*	9	115	CW	0.62	13"
15411	9	115	CW	0.62	24"
15412	9	115	CCW	0.62	24"
15421	9	230	CW	0.33	24"
15422	9	230	CCW	0.33	24"
15811	16	115	CW	0.95	24"
15812	16	115	CCW	0.95	24"
15821	16	230	CW	0.48	24"
15822	16	230	CCW	0.48	24"

* Note: 13" lead with lyall plug

Condenser Fan Motors



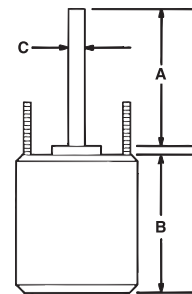
JARD replacement condenser fan motors are designed for residential and light commercial HVAC/R applications suitable for either vertical shaft-up or shaft-down mounting. Shell and end shields are enclosed for weather protection. A weep hole is provided in each end shield to allow condensate to drain.

Features:

- All angle, sleeve or ball bearing
- Rheem mounting holes w/screws
- Reversible rotation
- Thru bolt or band mounting
- Capacitor requirement noted on motor label
- Up/Down design

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- Fan duty, continuous air over
- 26 & 36 inch leads
- UL Recognized



Reversible Rotation – Single Speed

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
1075 RPM										
22727	1/6	208-230	0.90	5/370	TEAO	Sleeve	6.50	4.23	1/2	26"
22728	1/4	208-230	1.8	5/370	TEAO	Sleeve	6.50	4.23	1/2	26"
22729	1/3	208-230	2.4	7.5/370	TEAO	Sleeve	6.50	5.23	1/2	26"
22730	1/2	208-230	3.5	10/370	TEAO	Sleeve	6.50	5.73	1/2	26"
22731	3/4	208-230	5.2	10/370	TEAO	Ball	6.50	6.23	1/2	30.5"

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
825 RPM										
22403	1/6	208-230	1.0	5/370	TEAO	Sleeve	6.50	4.23	1/2	36"
22404	1/4	208-230	2.2	5/370	TEAO	Sleeve	6.50	4.48	1/2	36"
22405	1/3	208-230	1.9	7.5/370	TEAO	Sleeve	6.50	5.23	1/2	36"
22746	1/2	208-230	2.8	12.5/370	TEAO	Sleeve	6.50	5.70	1/2	36"

Direct Drive Furnace Blower Motors



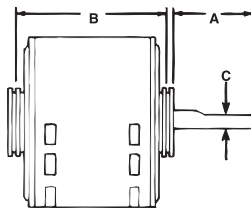
JARD direct drive blower motors are ideal for use in commercial and residential furnaces and air-conditioners. All models are three speed standard efficiency and are electrically reversible.

Features:

- All angle sleeve bearing
- Rheem mounting holes
- 3 speeds
- 1/2 inch extended thru bolts
- 2-1/4 inch resilient rings
- 4 inch long, 1/2 inch diameter shaft

Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- Thermal overload protected
- Fan duty, continuous, air over
- Open construction
- 26 & 30 inch leads
- UL Recognized



1075 RPM – Three Speed – Reversible Rotation

MARS NO.	HP	ROT	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
								A	B	C	
22583	1/4	Rev	115	4.2	5/370	OAO	Sleeve	4.50	4.89	1/2	26"
22584	1/4	Rev	208-230	1.8	5/370	OAO	Sleeve	4.50	4.89	1/2	26"
22585	1/3	Rev	115	6.1	5/370	OAO	Sleeve	4.50	5.14	1/2	30"
22586	1/3	Rev	208-230	2.7	5/370	OAO	Sleeve	4.50	5.14	1/2	26"
22587	1/2	Rev	115	7.5	10/370	OAO	Sleeve	4.50	5.89	1/2	30"
22588	1/2	Rev	208-230	3.2	7.5/370	OAO	Sleeve	4.50	5.64	1/2	30"
22589	3/4	Rev	115	11.2	15/370	OAO	Sleeve	4.50	6.14	1/2	30"
22590	3/4	Rev	208-230	4.5	10/370	OAO	Sleeve	4.50	6.14	1/2	30"

Multi-Horsepower Direct Drive Motors



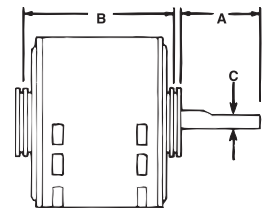
JARD multi-horsepower direct drive blower motors are used in residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments. Four models cover both 115 and 208-230 volt applications from 1/6 through 3/4 HP. All models feature Rheem shell mounting holes.

Features:

- Rheem mounting holes
- Reversible rotation
- 2-1/4 inch resilient rings

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- 41 inch leads
- UL Recognized



1075 RPM - Four Speed - Reversible Rotation

MARS NO.	HP	ROT	VOLTS	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
						A	B	C	
22463	1/6 - 1/2	Rev	115	OAO	Sleeve	5.50	4.73	1/2	42"
22464	1/6 - 1/2	Rev	230	OAO	Sleeve	5.50	4.73	1/2	41"
22466	1/5 - 3/4	Rev	115	OAO	Ball	5.80	5.73	1/2	41"
22467	1/5 - 3/4	Rev	230	OAO	Ball	4.60	5.23	1/2	41"

Tech Tip

Motor leads are for carrying electrical current, only. Carrying your motor by the leads may cause internal damage to the motor.

Multi-Horsepower Condenser Fan Motors

Ball Bearing

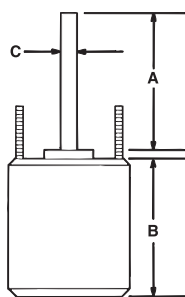
JARD multi-horsepower condenser fan motors are designed for either shaft up or shaft down applications. All motors are suitable for air conditioning or heat pump applications. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Rheem mounting holes w/screws installed
- Thru bolt or band mounting
- Water slinger on shaft
- Air conditioning or heat pump duty

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- UL Recognized



JARD Cross Reference:

JARD NO.	ECONOMASTER	SMART ELECTRIC	WAGNER/DIVERSITECH	PACKARD	US MOTORS/EMERSON
22403	EM3403	-	-	60825	1873
22404	EM3404	SE3338	WG840204	40825	1874
22405	EM3405	SE3339	WG840205	30825	1875
22746	EM3746	-	-	-	1870
22727	EM3727	SE3727	WG840727	43727	1859
22728	EM3728	SE3728	WG840728	43728	1860
22729	EM3729	SE3729	WG840729	43729	1861
22730	EM3730	SE3730	WG840730	43730	1862
22731	EM3731	SE3731	WG840731	43731	1868
22583	EM3583	SE3583	WG840583	43583	1863
22584	EM3584	SE3584	WG840584	43584	1971
22585	EM3585	SE3585	WG840585	43585	1864
22586	EM3586	SE3586	WG840586	43586	1972
22587	EM3587	SE3587	WG840587	43587	1865
22588	EM3588	SE3588	WG840588	43588	1973
22589	EM3589	SE3589	WG840589	43589	8904
22590	EM3590	SE3590	WG840590	43590	8905
22463	EM3463	SE3463	WG840463	45460	5460
22464	EM3464	SE3464	WG840464	45461	5461
22466	EM3466	SE3466	WG840466	45470	5470
22467	EM3467	SE3467	WG840467	45471	5471
22458	EM3458	-	-	45458BF	5458
22459	EM3459	-	-	45488BF	5464
22465	EM3465	SE3465	WG840465	45458B	5462
22468	EM3468	SE3468	WG840468	-	5465
22469	EM3469	SE3469	WG840469	-	5464

Reversible Rotation – Single Speed

MARS NO.	HP	ROT	RPM/SPEED	VOLTS	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
22458	1/6 - 1/3	Rev	1075	208-230	TEAO	Ball	6.50	3.82	1/2	36"
22459	1/8 - 1/3	Rev	825	208-230	TEAO	Ball	6.50	5.48	1/2	36"
22465	1/6 - 1/3	Rev	1075/2	208-230	TEAO	Ball	5.00	4.73	1/2	38"
22468	1/8 - 1/2	Rev	1075/2	208-230	TEAO	Ball	5.00	5.48	1/2	38"
22469	1/6 - 1/3	Rev	825/2	208-230	TEAO	Ball	5.00	5.48	1/2	42"

EM&S ESP-L Shaded Pole Motors

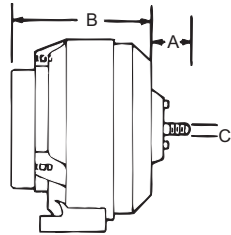


Features:

- 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 ESP-L Shaded Pole Motors

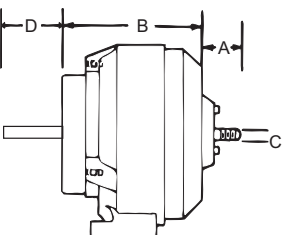


Features:

- Cast iron unit bearing
- Single speed
- End or side pad mounting
- Threaded shaft (except 00256)
- All angle, shaft down

Specifications:

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



MARS NO.	EMS NO. ESP	WATTS OUTPUT	VOLTS	AMPS	RPM	ROT LE	DIMENSIONS			SHAFT TYPE
							A	B	C	
00255	L20EMA1	23	115	0.80	1500	CW	.50	3.5	1/4	thread

For Ideal Bottle Dispenser

MARS NO.	EMS NO. ESP	WATTS OUTPUT	VOLTS	AMPS	RPM	ROT LE	DIMENSIONS			SHAFT TYPE
							A	B	C	
00256	L25ERD1	25	115	1.1	1500	CCW	1.00	4.0	5/16	3.5 smooth

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



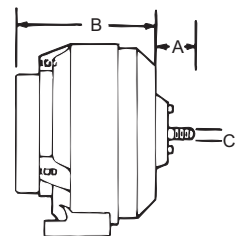
The ESP line of motors is a unique and patented design that makes possible a higher output in a smaller frame.

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



1500 RPM – 1/4" Threaded Shaft

MARS NO.	EMS NO. ESP	WATTS OUTPUT	VOLTS	AMPS	ROT OSE	DIMENSIONS		
						A	B	C
00201	L16EM1	16	115	0.80	CW	.50	3.50	1/4
00251	L25EM1	25	115	1.1	CW	.50	3.50	1/4
00252	L25EMR1	25	115	1.1	CCW	.50	3.50	1/4
00253	L25EM2	25	230	0.60	CW	.50	3.50	1/4
00254	L25EMR2	25	230	0.60	CCW	.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

1500 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

EM&S Agitator Motors

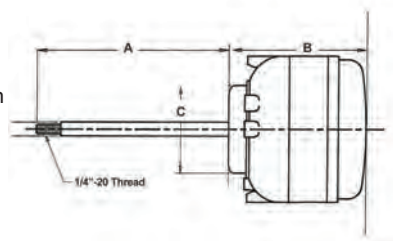
These motors are designed for the needs of the beverage dispensing industry. The motors are totally enclosed for moisture protection and operate in a no air-over ambient installation.

Features:

- Cast iron unit bearing
- End or side pad mounting
- Pressurized oil system
- Rear/foot mounting

Specifications:

- 60 Hertz
- Hardened stainless steel shaft
- Totally enclosed non-ventilated
- Automatic thermal protection



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPEEDS	ROT OLE	AMPS	DIMENSIONS		
							A	B	C
00402	ESP-LI5EMJR1B1	15W	115	1500/1	CCW	0.60	7.00	3.17	-

3-7/8 inch diam., cast iron unit bearing motor, 5/16" shaft with 1/4 - 20 threaded end 11 No. 8-36 mounting screws, end or side pad mounting, 13 inches external lead length with two 1/4" quick connects

REPLACES: 31-4072, 309369, Reed 37-033-24-165, Rotom R6203

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPEEDS	ROT OLE	AMPS	DIMENSIONS		
							A	B	C
00404	ESP-L25EMJR1B1	25W	115	1500/1	CCW	1.1	7.00	3.17	-

3-7/8 inch diam., cast iron unit bearing motor, 5/16" shaft with 1/4 - 20 threaded end 11 No. 8-36 mounting screws, end or side pad mounting, 13 inches external lead length with two 1/4" quick connects

REPLACES: Alco 36115; Booth 106-134; Cornelius 31-0154; Multiplex 00753715, 00753716; Rowe 555-4583

Walk-In Cooler Evaporator EC Fan Motors

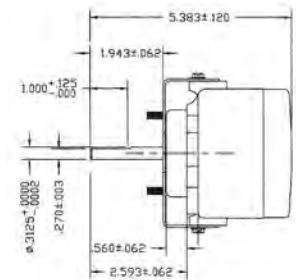
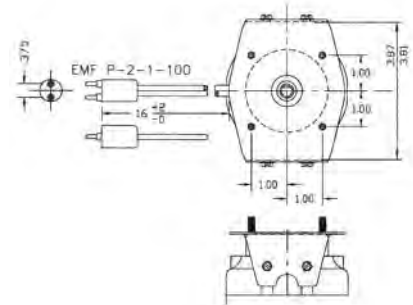
MARS American Iron Motors are high efficiency designs that are made in America incorporating EM&S patented, permanent magnet ECM technology that brings outstanding energy savings.

Features:

- 3.3 Interchangeability
- Shaft down and horizontal mounting
- Cast iron unit bearing construction
- Front mount studs
- Rotation: shaft end

Specifications:

- Universal, fits most 1/15HP and smaller applications, 1550 RPM
- 230 Volt 60/50 Hz; 115 Volt 60 Hz.
- 22.5" Leads with EMF/ Lyall Plug
- 4 10-32 Hex Flange nuts are supplied with each motor
- UL and cUL recognized



SEE THIS MOTOR IN ACTION!
Scan for video

1550 RPM – Single Speed

MARS NO.	APPLICATIONS	HP	VOLTS	AMPS	ROT SE	RPM	MARS PACK
00211*	Evaporator/Condenser	1/15	115	1.25	CW	1550	1
00212*	Evaporator/Condenser	1/15	115	1.25	CCW	1550	1
00221*	Evaporator/Condenser	1/15	230	0.77	CW	1550	1
00222*	Evaporator/Condenser	1/15	230	0.77	CCW	1550	1

1550/1000 RPM – Two Speed

MARS NO.	APPLICATIONS	HP	VOLTS	AMPS	ROT SE	RPM	MARS PACK
00225*	Evaporator/Condenser	1/15	115	1.25	CW	1550/1000	1
00226*	Evaporator/Condenser	1/15	230	0.77	CW	1550/1000	1

* Shaft and leads are on the same end

Evaporator/Condenser

The Unitronix Double Duty is an electronically commutated motor that brings outstanding energy savings to the refrigeration market in the form of a direct drop-in replacement for practically all unit bearing motors. No additional labor or sheet metal work is required to replace an existing shaded pole unit bearing motor with a Unitronix Double Duty.

Heat in a refrigerated space has always been a necessary evil in the food marketing industry. Lights, motors and defrost heating elements are the culprits. But, heat shortens food storage life and adds to the load placed on the refrigeration system. The new Unitronix Double Duty dramatically reduces (by as much as 75%) the waste heat generated by refrigerated case evaporator motors.

Features:

- Special wide temperature range lubrication system
- High capacity oil reservoir spiral grooved shaft for efficient distribution of oil to the bearing surface
- Mounting hardware included
- Water shield included
- Tapped & Drilled Mounting Holes:

Universal Evaporator Mount

- Standard 3-Hole
- Custom 4-Hole Hussmann Style

Universal Condenser Mount

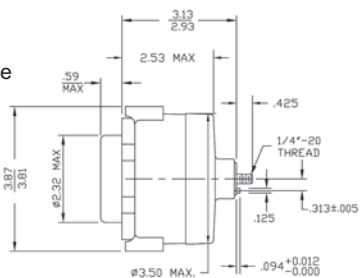
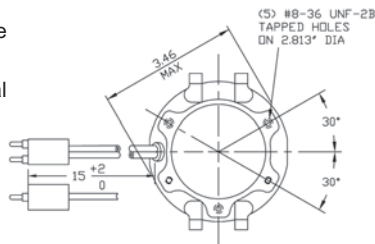
- Double Boss

Specifications:

- 1550 RPM standard
- Cast iron
- Unit bearing
- EMF P-2-1A lyall power plug
- 15" Leads
- UL file no. E128044



The universal 5 rear mounting hole configuration and the double boss with 4 drilled and tapped mounting holes on each boss mean no additional labor or sheet metal work!



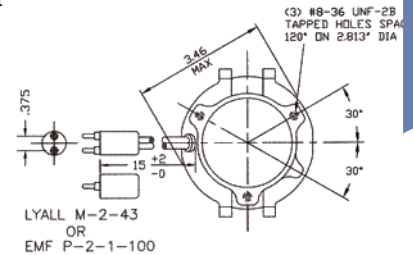
ECM 51 Frame Commercial Refrigeration Motors



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.

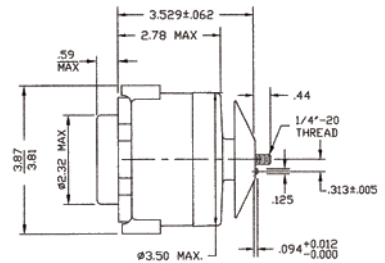
Features:

- 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 frame motors



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 SE	VOLTS	AMPS	LEAD LENGTH
05443	9	1650	CW	115	0.32	12"
05444	16	1850	CW	115	0.40	12"

MARS NO.	APPLICATIONS	OUTPUT WATTS	VOLTS	NOMINAL AMPS	ROT SE	RPM	MARS PACK
00621	Evaporator/Condenser	6-12	115	0.25	CW	1550	1
00621BULK	Evaporator/Condenser	6-12	115	0.25	CW	1550	6
00622	Evap/Cond, 90° Lyall Plug	6-12	115	0.25	CW	1550	1
00624	Evaporator/Condenser	14-16	115	0.50	CW	1550	1
00625	Evap/Cond, 90° Lyall Plug	14-16	115	0.50	CW	1550	1

58 MM Series Replacement ECM Fan/Motor System

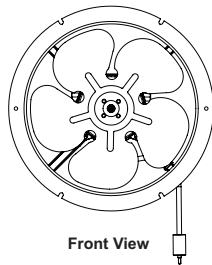
The 58MM Series replacement ECM Fan/Motor systems are primarily used in commercial refrigeration air moving applications demanding high efficiency and dependability. These motors are moisture resistant, reliable, quiet unit bearing design with efficiencies three times higher than shaded pole motors and 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:

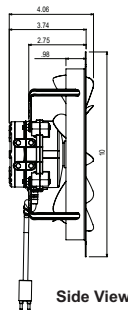
- Lyall plug
- Class B insulation
- 60 Hertz
- Thermal protection
- Single phase

Specifications:

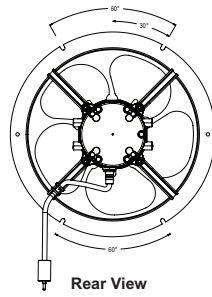
- -40 to 55°C ambient operating temp.
- Single speed
- Maximum watts 36



Front View



Side View



Rear View

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.	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

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

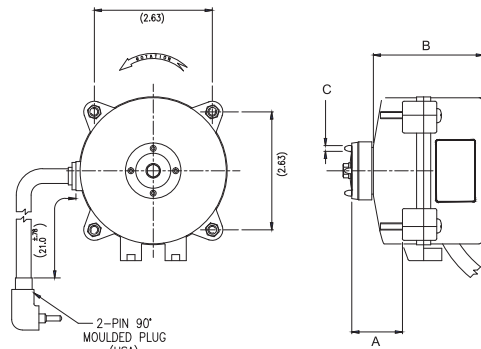
ECplus™ Wide Range Universal Refrigeration Motor

The ECplus™ electronically commutated ball bearing motor is used in commercial refrigeration applications and can replace standard shaded pole or other EC type motors ranging in size from 1 W to 22 W. The ECplus™ is approximately 3 times more efficient than standard shaded pole motors making it an excellent choice for upgrade retrofit projects. The robust IP55 rating ensures protection against water spray from maintenance wash downs.



Applications:

- Light commercial ventilation units
- Bottle coolers
- Vending machines
- Small walk in coolers
- Display/refrigeration display units
- Freezer cabinets
- Ice machines



Features:

- **Double side mounting pads**
- **5-hole universal rear mount**
- Peak efficiency greater than 65%
- Incorporating 'soft start' feature ensures quiet ramp up to desired speed which assists in eliminating vibration noise & increasing life expectancy of integrated electronics
- One model covers 1 Watt to 22 Watt shaft power
- Support 6", 7", 8" & 10" (maximum 10" 28 degree pitch) fan blades

Specifications:

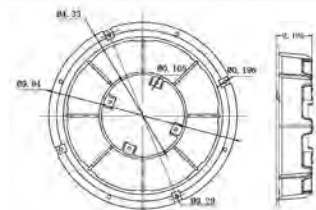
- Thermally protected with electronic overload protection
- IP55 Rating
- 1550 RPM
- Approvals UL & CUL



SEE THIS MOTOR IN ACTION!
Scan for video

1550 RPM – 1/4 – 20 Threaded Shaft - Dual Pad Mounting

MARS NO.	WATTS	VOLTS	MAX AMPS	ROT OSE	DIMENSIONS		
					A	B	C
05620	1 - 22 Watts	120	0.42	CW	1.14	2.48	.125



MARS NO.	DESCRIPTION
08030*	8" Plastic Basket for ECplus™ Motor

* Sold Separately

PTAC-ECM Motor Replacement

The MARS double shaft PTAC-ECM motors are high efficiency motors for direct replacement for shaded pole and PSC motors used in a wide range of fan coil assemblies and PTAC applications as an energy saving retrofit.



Applications:

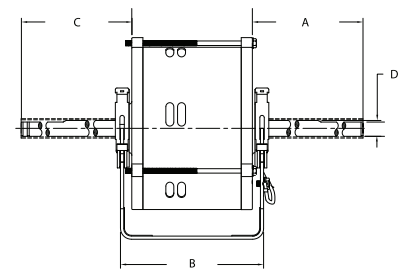
- Fan Coils, Air Conditioners, Blowers, Shaded Pole, PTAC Units

Features:

- Single phase
- Energy efficient
- Includes resilient mounting base
- 54 Inch leads

Specifications:

- 42 Frame
- 60 Hertz
- Class "B" insulation



1100/900/700 RPM

MARS NO.	HP	VOLTS	AMPS	ROT OSE	DIMENSIONS			
					A	B	C	D
10820	1/10	120	1.6	CCW	9.30	4.52	9.30	1/2

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 lyaall 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

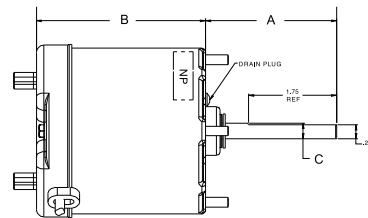
1550 RPM - Front Or Rear Thru-Bolt Mount

MARS NO.	MFG MODEL 5SME59	NOMINAL HP	VOLTS	AMPS	OSE ROT	DIMENSIONS		
						A	B	C
05104	BVA1036	1/15	115	1.1	CW	2.61	3.36	5/16
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
05227	BVA2070	1/15	208-230	0.63	CCW	2.61	3.36	5/16
05228	BVA2071	1/15	208-230	0.63	CW	2.61	3.36	5/16

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



ARKTIC™ 142

Ball Bearing

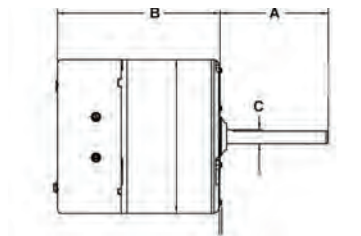
The ARKTIC 142 Series of ECM's manufactured by Morrill, offers significant energy savings over traditional PSC or shaded pole designs. ARKTIC 142 ECM's can be applied in condenser or evaporator applications requiring 1/5 or 1/3 HP output at 1050 RPM.

Applications:

Designed for condenser and evaporator fans for walk-in refrigerators, walk-in freezers and similar applications.

Features:

- Three phase drive, NEMA 48FR BLDC motor; TEAO
- 77% Motor efficiency @ 1050 RPM full load
- Regulated speed; +/-6% full scale
- -40 Deg C to 55 Deg C Amb.
- 1/2" Diameter, single flat shaft ext. up to 6.0"
- Totally enclosed, non-vented (air-over ECM required)
- Shaft water slinger
- 26" cord set attached to motor
- Horizontal-vertical down orientation desired
- RoHS compliant
- 60/50 Hz



1050 RPM

MARS NO.	MFG MODEL 5SME59	NOMINAL HP	VOLTS	AMPS	OSE ROT	DIMENSIONS		
						A	B	C
03604	DLHE044	1/5	115	4.6	CW	3.92	5.45	1/2
03605	DLHE053	1/5	208-230	1.9-2.8	CW	3.92	5.45	1/2
03606	DLHE052	1/3	115	5.8	CCW	3.92	5.95	1/2
03607	DLHE043	1/3	208-230	2.6-3.5	CCW	3.92	5.95	1/2

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-50 – M-54



1550

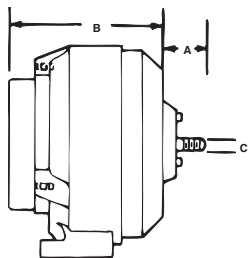
MARS NO.	GE NO. 5KS	WATTS	ROT OSE	VOLTS	AMPS	SHAFT	REPLACES	MARS PACK
05109	M81FFL0065	2	CW	115	0.25	1/4-20 threaded	most refrigerators	12
05110(1)*	M51AG3144	2	CW	115	0.25	1/4-20 threaded	and freezers	1

(1) Push-on terminals, no leads * Limited quantities available, while supplies last

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

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

Hussmann OEM Direct Replacement Refrigeration Motors



Features:

- Cast iron construction
- Universal 5 hole rear mount
- Dual mounting pads



MARS NO.	WATTS	VOLTS	RPM	AMPS	HUSSMANN NO.
00666	4	115	1700	0.12	0477653, 4410544

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

11 Frame Unit Bearing Shaded Pole Motors

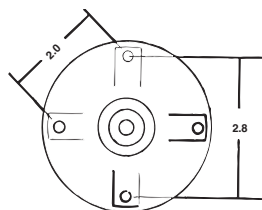
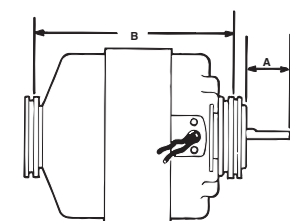
MARS unit bearing shaded pole motors are suitable for use in a wide variety of fan duty applications. Proven all-angle unit bearing design for trouble free operation. Can be resilient base, strap, or end mounted.

Features:

- All angle unit sleeve bearings
- Resilient base, strap, or end mounting
- 5/16 inch shaft diameter ground lead
- 12 inch leads
- For accessories see pages M-50 – M-54
- See the airMARS section of this catalog for fan blades & accessories

Specifications:

- Single phase, 60 Hertz
- Overload protection
- Fan duty, continuous, air over
- Shaft end has four 8-32 tapped holes
- UR/CSA



1550 RPM – 4 Pole

MARS NO.	GE NO. 5KSM92	HP	VOLTS	AMPS	ROT OSE	ENCL	DIMENSIONS		BASE NO.
							A	B	
01431	KFL2005S	1/30	115	1.74	CW	OPEN	1.25	4.82/4.70	08042
01441	KFL2003S	1/30	115	1.74	CCW	OPEN	1.25	4.82/4.70	08042
01432	KFL2009S	1/20	208-230	0.76	CW	OPEN	1.25	4.82/4.70	08042
01442	KFL1009S	1/30	208-230	0.87	CCW	OPEN	1.25	4.82/4.70	08042
01332(1)	KFL2007S	1/20	208-230	1.1	CW	OPEN	2.00	4.82/4.70	08042
01342(1)	KFL2012S	1/20	208-230	1.1	CCW	OPEN	2.00	4.82/4.70	08042
01232(2)(3)	KFL3006S	1/15	230	1.2	CW	OPEN	1.50	4.875	NONE

(1) 34 inch leads
 (2) 30 inch leads
 (3) 60/50 Hertz

NU Series Shaded Pole Motors



MARS is proud to introduce Elco NU Series shaded pole motors which are widely used in the HVAC & Refrigeration industry. These motors are suitable for all angle operation and have multiple mounting features. The NU series motors are used in industrial and commercial refrigeration for condensing and evaporating units, ventilating units, freezers, walk-in and reach-in coolers, food and beverage coolers and many other fan duty applications.

Features:

- Single speed
- Output 4 to 34 watts
- Totally enclosed
- Continuous air over
- 1 year Limited warranty

Specifications:

- Impedance or thermally protected
- All angle, sleeve bearing
- Class B insulation
- 50/60 Hz
- Standard operating temperature: -40°F to 104°F (-40°C to 40°C)
- 3 Tapped holes @ 120° & 2 @ 180°
- Single side pad mounting
- 4 Shaft end studs
- UL Recognized, CSA and CE Certified



MARS NO.	MFG STOCK NO.	WATTS	ROT. S.E	HP	VOLTS	AMPS	PROT.	BLADE DIA. IN.	BLADE PITCH	AIR FLOW (CFM) @ 0 IN. STATIC		
										28	137	69
00801	EC4W115	4	CCW	1/185	115	0.36	Imp	6	7	28	137	69
										22	141	72
00805	EC6W115	6	CCW	1/125	115	0.41	Imp	7	8	31	206	119
										28	306	220
00807	EC9W115	9	CCW	1/83	115	0.58	Therm	8	9	22	262	186
										28	325	240
00808	EC9W230				230	0.35				28	418	301
										28	476	395
00809	EC16W115	18	CCW	1/47	115	0.89	Therm	9		31	490	410
										34	557	466
00810	EC16W230	16			230	0.50		10		22	510	425
										28	610	470
00817	EC34W115	34	CCW	1/20	115	1.6	Therm	12		19	796	697
00818	EC34W230									28	1024	785
00891	Mounting Adaptor kit NU condenser motor											

ECM High Efficiency Motors



Elco Hi Efficiency ECM motors are drop in replacements of the traditional front mount shaded pole motors. They use all the same accessories with no extra work for an easy and hassle-free installation. These are built with ECM technology to run more efficiently, reduced CO2 emissions, longer life expectancy and quieter than the normal PSC shaded pole motors. They offer better airflow control than a PSC, up to 70%, 4 to 5 times more efficient than a regular shaded pole motor. Higher efficiency means cooler motor operation and reduced heat delivered to the refrigeration cycle, for a combined energy saving advantage and improved refrigeration quality. The ECM Series offers IP65 moisture protection grade, one of the highest in the industry. These motors are designed to satisfy the growing demands of energy savings.



Features:

- Life expectancy of 60,000+ hrs.
- Protection rating - IP65 moisture protection grade
- Totally enclosed
- All angle
- Continuous air over
- Long life sealed ball bearings

Specifications:

- Working temp: -40°C +55°C
- 50/60 Hz
- M4 Studs on 3.72" B.C. for shroud/guard
- UL recognized & CE Certified

Cross Reference:

EDA12153UC0147	Arneg Canada & US	34410013, 34410009, 24681010
EDA15253UC0176	Hill Phoenix	P078449H
EDA10153UC0182	Hill Phoenix	P079441C, P066237A

MARS NO.	MFG NO.	WATTS	HP	VOLTS	RPM	ROT. S.E	AMPS	A DIM	CORD LENGTH	TERM. PLUG
00851	EDA12153UC0147	12	1/63	115	1450	CCW	0.18	3.61	14"	3 Pin 90°
00852	EDA15253UC0176	15	1/50	115	1600	CCW	0.22	4.00	16"	2 Pin 90°
00858	EDA10153UC0182	10	1/75	115	1550	CCW	0.19	3.61	16"	2 Pin 90°

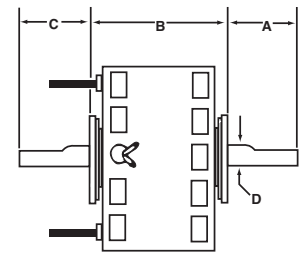
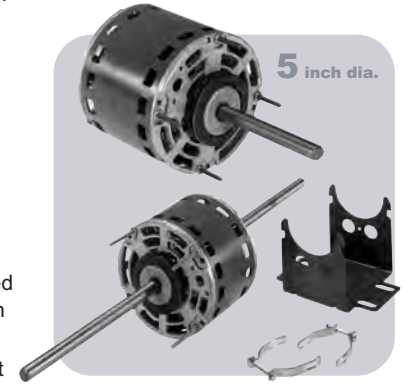
5KCP29 — Form G PSC Motors



Designed for virtually every fan and blower application.

Features:

- All angle sleeve bearings
- Open construction
- Aluminum end shields
- 26 inch color-coded leads
- 2-1/2 inch resilient ring mounting
- Double shaft models shipped with base mounted (3.5 inch shaft height)
- Extended thru bolts on shaft end—extended 3/4 inch on single shaft and 1-1/2 inch on double shaft motors (on 4.6 inch bolt circle)
- Energy Saver® design
- Motor reversing leads have terminals for quick change to opposite rotation
- For accessories see pages M-50 – M-54



Specifications:

- Single phase, 60 Hertz
- Automatic reset overload protection
- Fan duty, continuous, air over
- Advanced Class B insulation
- 5 Mfd @ 370V capacitor required (MARS No. 12005)

MARS NO.	GE NO. 5KCP29	HP	VOLTS	AMPS	ROT LE	RPM	DIMENSIONS			
							A	B	C	D
1075 RPM - Single Shaft - Three Speed - 6 Pole										
02840(1)	BG5866S	1/30	115	.61	REV	1075	8.00	6.00/4.50	—	1/2
02824	EG5854S	1/8	115	2.45	REV	1075	4.00	5.06	—	1/2
02825	KG5855S	1/5	115	3.51	REV	1075	4.00	5.56	—	1/2
02826	KG5856S	1/5	208-230	1.67	REV	1075	4.00	5.56	—	1/2
02827	LG5857S	1/4	115	4.78	REV	1075	4.00	5.81	—	1/2
02828	LG5858S	1/4	208-230	2.22	REV	1075	4.00	5.81	—	1/2
02829(2)	MG5859AS	1/3	115	5.8	REV	1075	4.00	5.81	—	1/2
1075 RPM - Double Shaft - Four Speed - 6 Pole										
02830	BG5860S	1/15	115	1.4	CCW	1075	8.00	4.67	8.00	1/2
02832	EG5862S	1/8	115	2.69	CCW	1075	8.00	5.17	8.00	1/2
02833	LG5863S	1/4	115	4.7	CCW	1075	8.00	6.45	8.00	1/2
02834	LG5864S	1/4	208-230	2.1	CCW	1075	8.00	6.17	8.00	1/2
02836	EG5868S	1/8	208-230	1.2	CCW	1075	8.00	5.17	8.00	1/2
1625 RPM - Double Shaft - Four Speed - 4 Pole										
02835	EG5867S	1/10	115	1.3	CCW	1625	8.00	5.17	8.00	1/2
02837	FG5869S	1/6	115	2.1	CCW	1625	8.00	5.42	8.00	1/2

(1) Model has resilient ring length adapter kit included in carton (2) 15mfd @370V capacitor required

“Cap-Can” Construction Vertical Shaft Down Condenser Fan And Heat Pump Motors

Ball Bearing

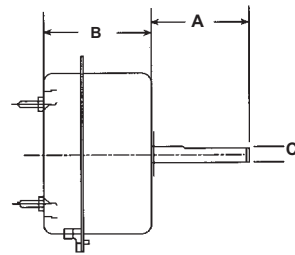
These new permanent split capacitor motors from GE are designed for use in residential outdoor condenser fan and heat pump units (primarily up to 3.5 tons), requiring vertical shaft down with stud or flange mounting.

Features:

- “Cap-Can” construction
- Automatic thermal overload protection
- #8-32 extended stud or flange mount
- Water slinger on shaft
- Vertical shaft down mounting orientation
- CW or CCW rotation in several ratings
- Designed for 370 volt capacitor (not furnished)
- Class B insulation
- For accessories see pages M-50 – M-54

Specifications:

- All models are single-speed
- 60 Hz
- 208-230 Volts
- 1/2" Shaft diameter
- 26" Leads
- Continuous duty, air-over



MARS NO.	GE NO.	HP	RPM	AMPS	ROT OSE	370V CAP REQUIRED	DIMENSIONS		
							A	B	C
02243	5KCP29DCA323S	1/10	1100	0.74	CW	5 MFD	2.75	3.35	1/2"
02244	5KCP29JCA324S	1/4	1075	1.7	CW	7.5 MFD	2.75	3.85	1/2"
02245	5KCP29JCA325S	1/4	1075	1.7	CCW	7.5 MFD	2.75	3.85	1/2"
02246	5KCP29HCA326S	1/5	1060	1.6	CW	5 MFD	2.75	3.85	1/2"
02247	5KCP29JCA327S	1/6	1100	1.3	CCW	5 MFD	2.75	3.85	1/2"
02248	5KCP29ECA328S	1/8	1075	0.86	CW	5 MFD	2.75	3.85	1/2"
02249	5KCP29DCA329S	1/8	1075	0.75	CCW	5 MFD	2.75	3.35	1/2"

SOS™ Multi-Horsepower Direct Drive Blower Motors



MARS SOS™ multi-horsepower direct drive blower motors are ideal for truck stock. Four models cover both 115 volt and 208-230 volt applications from 1/6 through 3/4 HP.

All SOS™ motors feature easy mounting in Rheem applications.

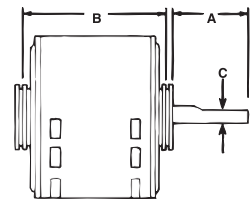
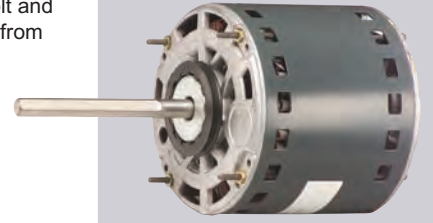
Features:

- Multi-HP
- Open end shields
- Extended mounting studs
- 2-1/2 inch resilient rings
- Reversible rotation
- All angle sleeve or ball bearings
- Capacitor requirement noted on motor label
- For accessories see pages M-50 – M-54

Specifications:

- Single phase, 60 Hz
- Overload protection
- Fan duty, continuous air over
- Open construction

5 1/2 inch dia.



Cross Reference:

MARS No.	A.O. SMITH	EMERSON
03463	FDL6001	5460
03464	FD6000	5461
03466	FDL6002	5470
03467	FD6001	5471

1075 RPM Multi-Horsepower Reversible Rotation – 6 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	DIMENSIONS		
					A	B	C
03463	KGV804AS	1/2, 1/3, 1/4, 1/5, 1/6	115	6.2	5.00	4.73	1/2
03464	KGV805AS	1/2, 1/3, 1/4, 1/5, 1/6	208-230	2.7	5.00	4.73	1/2
03466*	SGU363AS	3/4, 1/2, 1/3, 1/4, 1/5	115	8.4	5.00	5.98	1/2
03467*	SGU364AS	3/4, 1/2, 1/3, 1/4, 1/5	208-230	4.2	5.00	5.23	1/2

* Ball Bearing

SOS™ Multi-Horsepower Outdoor Condenser Fan Motors

Ball Bearing

MARS SOS™ multi-horsepower condenser fan motors are ideal for truck stock. Three 1075 RPM models cover 208-230 volt applications from 1/6 to 1/2 HP. New Slim Stack™ #03458, **WIZARD**, and the new **WIZARD 825** fit in many 1/3 HP installations that will not accept other manufacturer's motors. The 03458 is a single speed "wide-range" motor that will run at any fan load from 1/6 to 1/3 HP at a nominal 1075 RPM. MARS #03459, the new **WIZARD 825**, will run at any fan load from 1/8 to 1/3 HP at a nominal 825 RPM. All SOS™ motors feature easy mounting in Rheem applications.

Features:

- Multi-HP
- Thru bolt or band mounting
- Rheem mounting capability
- Water slinger on shaft
- Air conditioning or heat pump duty
- Capacitor requirement noted on motor label
- End Shield drain holes w/plugs

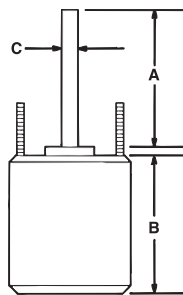
Specifications:

- Single phase, 60 Hz
- Overload protection
- Fan duty, continuous air over
- Totally enclosed, Non-ventilated
- Class B insulation

Multi-Horsepower, Reversible Rotation

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	DIMENSIONS		
					A	B	C
1075 RPM - 6 Pole							
Wizard 03458	JGU530S	1/3, 1/4, 1/5, 1/6	208-230	2.8	6.75	4.48	1/2
Wizard 03458HS*	LGU7215	1/3, 1/4, 1/5, 1/6	208-230	2.6	6.50	5.23	1/2
Wizard 03460*	RGU709S	1/2, 1/3, 1/4, 1/5, 1/6	208-230	3.0	6.75	4.48	1/2
03465*	LGU735S	1/3, 1/4, 1/5, 1/6	208-230	2.5	5.00	4.73	1/2
03468*	RGU733S	1/2, 1/3, 1/4, 1/5	208-230	3.1	5.00	5.48	1/2
825 RPM - 8 Pole							
Wizard 825 03459*	NFBA87S	1/3, 1/4, 1/5, 1/6, 1/8	208-230	1.8	6.50	5.48	1/2
Wizard 825 03461*	TFBA86S	1/2, 1/3, 1/4, 1/5, 1/6	208-230	2.8	6.50	6.48	1/2
03469*	SGU732S	1/3, 1/4, 1/5, 1/6	208-230	2.0	6.50	5.98	1/2

* Heat Shield

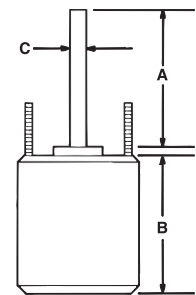


* Heat Shield

Cross Reference:

MARS No.	A.O. SMITH	EMERSON
03458	ORM5458	5458
03459	ORM5488B	5464
03465	FSE6000, FE6000	5462
03468	FE6002	5465
03469	FE6001	5464

All Angle And Shaft Up Outdoor Condenser Fan Motors



GE outdoor condenser fan motors are available for vertical shaft-up or vertical shaft-down applications. Vertical shaft-up models are also suitable for horizontal mounting. Add MARS No. 08105 resilient rings to base mount. All are electrically reversible and have full six inch shaft lengths. Models are available with sleeve or ball bearings, single or two speed in high efficiency or standard efficiency ratings.

Features:

- Reversible rotation
- Thru bolt or band mounting
- Water slinger on shaft
- Serrated end caps on vertical shaft-up models
- Full six inch shaft length
- For accessories see pages M-50 – M-54
- 6" shaft extension with 2 flats 90° apart

Specifications:

- Class "B" insulation
- Single phase, 60/50 Hertz
- Automatic thermal overload protected
- Fan duty, continuous, air over
- 26 inch leads

1075 RPM – Reversible Rotation – Energy Saver® – 6 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	RPM (2)	CAP REQ.	DIMENSIONS		
							A	B	C

Two Speed - Sleeve Bearings - Vertical Shaft Up/Down - 6 Pole

03227(3)	EGG401T	1/6	208-230	1.0	1075	5/370	6.0	4.00	1/2
03228(3)	HGG402T	1/4	208-230	1.6	1075	5/370	6.0	4.50	1/2
03229(3)	MGG403T	1/3	208-230	2.4	1075	7.5/370	6.0	5.00	1/2
03230(3)	PGG404T	1/2	208-230	3.8	1075	10/370	6.0	5.50	1/2

Shaft-Up - Two Speed - Sleeve Bearings - 6 Pole

03027(1)	DGA768T	1/6	208-230	0.9	1075	5/370	6.0	3.75	1/2
03028(1)	GGA769T	1/4	208-230	1.5	1075	5/370	6.0	4.25	1/2
03029(1)	LGA770T	1/3	208-230	2.1	1075	7.5/370	6.0	5.00	1/2
03030(1)	NGS429S	1/2	208-230	3.2	1075	10/370	6.0	5.50	1/2

Shaft-Up - Two Speed - Ball Bearings - 6 Pole

03031(1)	LGC003T	1/3	208-230	2.1	1075	7.5/370	6.0	4.98	1/2
03032(1)	NGL785S	1/2	208-230	3.2	1075	10/370	6.0	5.48	1/2
03048(1)	NGL762S	3/4	208-230	3.9	1075	15/370	6.0	5.48	1/2

(1) Lead-end endshield open construction

(2) Low speed approximately 300 RPM less than high speed depending on fan load

(3) 60 Hz operation only

Vertical Outdoor Condenser Fan Motors Shaft-Up/Down

Ball Bearing

GE up/down outdoor condenser fan motors are designed for either vertical shaft-up or shaft-down applications. Shell and end shields are enclosed for weather protection. A weep hole is provided in each end shield to allow condensate to drain. A plastic plug is provided to seal the weep hole in the end shield exposed to the weather. All of these motors are suitable for air conditioning or heat pump applications. All feature reversible rotation, 208-230 volts, six inch shaft length and extended thru bolts extending from both ends.

Features:

- Thru bolt or band mounting
- All angle mounting
- Water slinger on shaft
- Serrated end cap on shaft end only
- For air conditioning or heat pumps
- Full six inch shaft length with two full flats at 90°
- Reversible rotation
- For accessories see pages M-50 – M-54
- Rheem mtg. holes (mtg. hardware included)

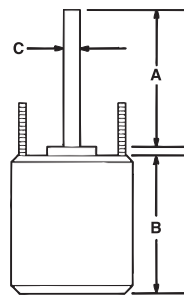
Specifications:

- 60 Hertz
- Single phase
- Overload protected
- Fan duty, continuous, air over
- 48 inch leads
- Totally enclosed, non-ventilated
- Class B insulation

Reversible Rotation

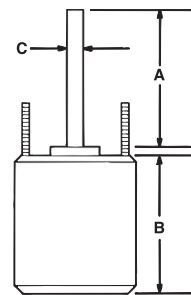
MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	RPM (1)	CAP REQ.	DIMENSIONS		
							A	B	C
825 RPM - Single Speed - Standard Efficiency - 8 Pole									
03201(3)	EGL248S	1/10	208-230	0.80	825	5/370	6.0	4.30	1/2
03202*	DFBA81S	1/8	208-230	0.85	825	5/370	6.0	4.30	1/2
03203*	HFBA79S	1/6	208-230	0.90	825	5/370	6.0	4.30	1/2
03204*	JFBA83	1/4	208-230	1.3	825	7.5/370	6.0	5.03	1/2
03205*	NFBA82S	1/3	208-230	1.8	825	10/370	6.0	5.80	1/2
1075 RPM - Single Speed - Standard Efficiency - 6 Pole									
03726*	HGU722S	1/6	208-230	1.0	1075	5/370	6.5	3.98	1/2
03732(2)*	GGU714S	1/4	208-230	1.7	1075	5/370	6.0	4.23	1/2
03733(2)*	LGU715S	1/3	208-230	2.6	1075	7.5/370	6.0	4.48	1/2
03734(2)*	RGU718S	1/2	208-230	3.0	1075	10/370	6.0	5.23	1/2
03735(2)*	SGU717S	3/4	208-230	4.1	1075	10/370	6.0	5.98	1/2

(1) Low speed approximately 300 RPM less than high speed depending on fan load
 (2) Both end shields flat, no serrated end cap (3) 26" leads



* Heat Shield

Vertical Outdoor Condenser Fan Motors Shaft-Up/Down



* Heat Shield

GE up/down outdoor condenser fan motors are designed for either vertical shaft-up or shaft-down applications. Shell and end shields are enclosed for weather protection. A weep hole is provided in each end shield to allow condensate to drain. A plastic plug is provided to seal the weep hole in the end shield exposed to the weather. All of these motors are suitable for air conditioning or heat pump applications. All feature reversible rotation, 208-230 volts, six inch shaft length and extended thru bolts extending from both ends.

Specifications:

- 60 Hertz
- Single phase
- Overload protected
- Fan duty, continuous, air over
- 26 inch leads
- Totally enclosed, non-ventilated
- Class B insulation

Features:

- Up/down design
- Thru bolt or band mounting
- All angle sleeve bearings
- Water slinger on shaft
- Serrated end cap on shaft end only
- For air conditioning or heat pumps
- Full six inch shaft length with two full flats at 90°
- Reversible rotation
- 48 inch leads
- For accessories see pages M-50 – M-54

Reversible Rotation

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	RPM	CAP REQ.	DIMENSIONS		
							A	B	C
825 RPM - Single Speed - 8 Pole									
03404*	JFAD07S	1/4	208-230	1.3	825	7.5/370	6.0	5.23	1/2
03405*	NFAD09S	1/3	208-230	1.8	825	10/370	6.0	5.73	1/2
1075 RPM - Single Speed - Standard Efficiency - 6 Pole									
03727	DGS375S	1/6	208-230	1.0	1075	5/370	6.0	4.71	1/2
03727HS*	DGY797S	1/6	208-230	1.0	1075	5/370	6.0	4.71	1/2
03728	FGM599S	1/4	208-230	1.8	1075	5/370	6.0	4.25	1/2
03728HS*	GGY769S	1/4	208-230	1.7	1075	5/370	6.0	4.25	1/2
03729	LGS407S	1/3	208-230	2.3	1075	7.5/370	6.0	5.70	1/2
03729HS*	LGY801S	1/3	208-230	2.6	1075	7.5/370	6.0	5.70	1/2
03730	PGS618S	1/2	208-230	3.5	1075	10/370	6.0	6.50	1/2
03730HS*	RGY799S	1/2	208-230	3.0	1075	10/370	6.0	6.50	1/2
03731	SGT039S	3/4	208-230	4.7	1075	10/370	6.0	5.75	1/2
03731HS*	SGY805S	3/4	208-230	4.1	1075	10/370	6.0	5.75	1/2

Shaft-Up Outdoor Condenser Fan Motors



GE outdoor condenser fan motors for vertical shaft-up applications are also suitable for horizontal mounting. GE vertical shaft-up outdoor condenser fan motors are designed for 60°C ambient temperature. Add MARS No. 08105 resilient rings to base mount.

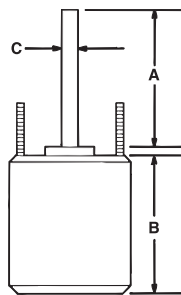
GE commercial 460 volt outdoor condenser fan motors are designed for 70°C ambient so lower operating temperatures = improved life and reliability.

Features:

- Reversible rotation
- Thru bolt or band mounting
- Water slinger on shaft
- Serrated end caps on vertical shaft-up models
- Full six inch shaft length
- For accessories see pages M-50 – M-54

Specifications:

- Class B insulation
- Single phase, 60/50 Hertz
- Automatic thermal overload protected
- Fan duty, continuous, air over
- 26 inch leads shaft-up, 46 inch leads all angle
- Lead end endshield open construction



* Heat Shield

Reversible Rotation

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	RPM ⁽¹⁾	CAP REQ.	DIMENSIONS		
							A	B	C

1075 RPM - Shaft-Up - Single Speed - Sleeve Bearings - Standard Efficiency - 6 Pole

03327 ⁽¹⁾	DGP081S	1/6	208-230	0.9	1075	5/370	6.0	4.56	1/2
03328 ⁽¹⁾⁽³⁾	EGP697S	1/4	208-230	1.8	1075	5/370	6.0	5.06	1/2
03329 ⁽¹⁾⁽³⁾	HGP698S	1/3	208-230	2.4	1075	7.5/370	6.0	5.31	1/2
03330 ⁽¹⁾⁽³⁾	MGK209S	1/2	208-230	3.6	1075	10/370	6.0	6.60	1/2
03331 ⁽¹⁾⁽³⁾	PFM210S	3/4	208-230	5.1	1075	10/370	6.0	6.06	1/2

825 RPM - Shaft-Up - Single Speed - Ball Bearings - Energy Saver[®] - 8 Pole

03040	MGL789S	1/4	208-230	1.5	825	7.5/370	6.0	4.48	1/2
03026	NFBA66S	1/3	208-230	2.2	825	10/370	6.0	5.98	1/2

1075 RPM - 460V - Single Speed - All Angle Ball Bearing - 6 Pole

03736 ^{(1)(4)*}	HGU722S	1/4	460	.7	1075	7.5/370	6.0	4.30	1/2
03737 ^{(1)(4)*}	NGU724S	1/3	460	1.2	1075	7.5/370	6.0	5.30	1/2
03738 ^{(1)(4)*}	RGU723S	1/2	460	1.7	1075	10/370	6.0	5.80	1/2
03739 ^{(1)(4)*}	SGU725S	3/4	460	2.0	1075	15/370	6.0	6.50	1/2

(1) 60 Hertz only (2) Two full flats at 90° (3) Class A Insulation (4) Rheem shell mtg. holes

460 Volt Outdoor Condenser Fan Motors



Ball Bearing

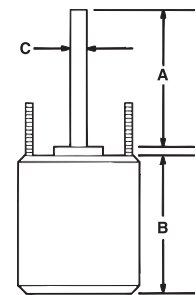
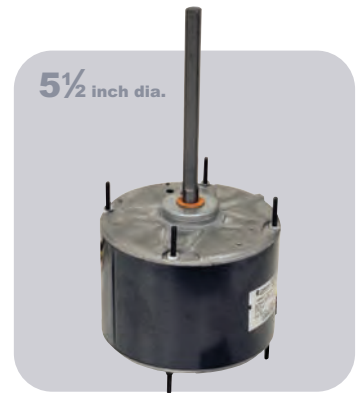
GE outdoor condenser fan motors are available for vertical shaft-up or vertical shaft-down applications. Vertical shaft-up models are also suitable for horizontal mounting. Add MARS No. 08105 resilient rings to base mount.

Features:

- Reversible rotation
- Thru bolt or band mounting
- Water slinger on shaft
- Serrated end caps on vertical shaft-up models only
- Full 6 inch double flat shaft
- For accessories see pages M-50 – M-54

Specifications:

- Class "B" insulation
- Single phase, 60/50 HZ
- Automatic thermal overload protected
- Fan duty, continuous air over
- 26 inch leads



Cross Reference:

MARS NO.	A.O. SMITH	Emerson	GE Stock No.
03039	786	-	3035
03209	-	1881	3209
03743	-	1882	3740

825 RPM - Reversible Rotation - Standard Efficiency

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	RPM ⁽¹⁾	CAP REQ.	DIMENSIONS		
							A	B	C

Shaft-Up Or Horizontal Mount

03039	NFBA73S	1/3	460	1.10	825	10/370	6.0	6.38	1/2
-------	---------	-----	-----	------	-----	--------	-----	------	-----

All Angle

03209	NFBA76S	1/3	460	1.10	825	7.5/370	6.0	5.71	1/2
03743	TFBA85S	1/2	460	1.80	825	10/370	6.0	6.71	1/2

5KCP39 PSC 460 Volt Motors

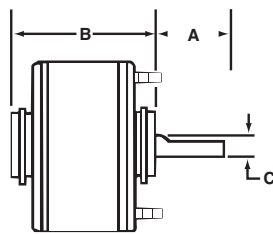
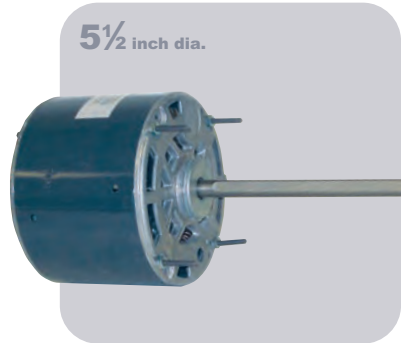
Ball Bearing

Features:

- Energy Saver®
- For use in air moving applications
- 460 volt, 2-speed
- All angle
- Extended thru bolts
- Capacitor included
- 08105 for cradle mount, serrated end caps
- For accessories see pages M-50 – M-54

Specifications:

- Single phase, 60/50 Hz
- Overload protection
- Fan duty, continuous, air over
- Enclosed shell, open end shields
- 26 inch leads
- Class A insulation



1075 RPM – Reversible Rotation - 6 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	CAP. (FURNISHED)	DIMENSIONS			BASE NO.
						A	B	C	
03280	KGC519ET	1/3	460	1.1	7.5/370	6.0	5.56	1/2	08058
03290	PGC520ET	3/4	460	2.1	15/370	6.0	6.31	1/2	08060

1625 RPM – Reversible Rotation - 4 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	CAP. (FURNISHED)	DIMENSIONS			BASE NO.
						A	B	C	
03470	GGC521ET	1/4	460	0.8	5/370	6.0	5.31	1/2	08057
03490	NGC522ES	1/2	460	1.7	7.5/370	6.0	6.31	1/2	08060



5KCP39 Permanent Split Capacitor Motors

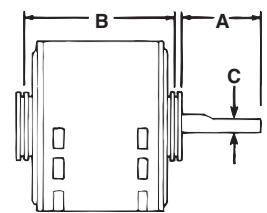


Features:

- Energy Saver®
- For use in air moving applications
- Single speed
- All angle sleeve bearings
- 2-1/4 inch resilient rings
- 4.0 inch long, 1/2 inch diameter shaft
- For accessories see pages M-50 – M-54

Specifications:

- Single phase, 60/50 Hertz
- Overload protection
- Open construction
- Fan duty, continuous, air over
- 26 inch leads
- Class A insulation



1075 RPM - 6 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	ROT OSE	CAP. REQ.	DIMENSIONS		BASE NO.
							A	B	
03251	DG3304T	1/6	115	2.3	CCW ⁽¹⁾	5/370	4.0	4.23/4.39	08053
03252	CG3306T	1/6	208-230	0.9	CCW ⁽¹⁾	5/370	4.0	4.23/4.39	08053
03272 ⁽²⁾	EG3314T	1/4	208-230	1.5	CCW	5/370	4.0	4.48/4.64	08054
03281 ⁽²⁾	KG3316T	1/3	115	5.0	CCW	5/370	4.0	4.98/5.14	08056
03282 ⁽²⁾	JG3318T	1/3	208-230	2.4	CCW	5/370	4.0	4.98/5.14	08056
03292	NGD123T	1/2	208-230	3.4	CCW	7.5/370	4.0	5.73/5.89	—

(1) Mechanically reversible(2) Class B insulation

1625 RPM - 4 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	ROT OSE	CAP. REQ.	DIMENSIONS		BASE NO.
							A	B	
03452	CG3326ES	1/6	208-230	.9	CCW	5/370	4.0	4.23/4.39	08053
03472	DG3334ES	1/4	208-230	1.4	CCW	5/370	4.0	4.73/4.89	08055
03482	GG3338ES	1/3	208-230	2.2	CCW	5/370	4.0	4.98/5.14	08056

PSC Furnace Blower Motors



These GE 5KCP39 PSC motors are designed for use as direct drive furnace blower motors. All are three speed, high efficiency, Energy Saver® models and are electrically reversible. Motors have 2-1/4 inch resilient rings for base mounting. Four (4) split rings included if 2-1/2 inch diameter is required. Bases are sold separately.

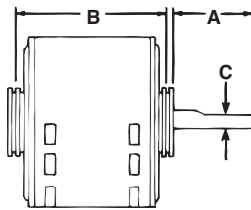


Features:

- All angle sleeve bearings
- 3 speeds
- 1/2 inch extended thru bolts
- Ring kit allows 2-1/4 inch & 2-1/2 inch resilient ring mounting
- Reversible rotation
- 4 inch long, 1/2 inch diameter shaft
- For accessories see pages M-50 – M-54

Specifications:

- Single phase, 60/50 Hertz
- Overload protection
- Fan duty, continuous, air over
- Open construction
- 26 inch leads
- Class B insulation



Reversible Rotation — Energy Saver®

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	CAP. REQ.	DIMENSIONS			BASE NO.
						A	B	C	

1075 RPM⁽¹⁾ — Three Speed - 6 Pole

03983 ⁽²⁾	GG9708T	1/4	115	3.7	7.5/370	4.0	5.39/5.23	1/2	08057
03984	FG9478T	1/4	208-230	1.7	5/370	4.0	5.39/5.23	1/2	08057
03985 ⁽²⁾	LG9683T	1/3	115	4.9	7.5/370	4.0	5.39/5.23	1/2	08057
03986	JG9479T	1/3	208-230	2.5	5/370	4.0	5.39/5.23	1/2	08057
03987	PG9710T	1/2	115	7.3	10/370	4.0	5.89/5.73	1/2	NA
03988	NG9709T	1/2	208-230	3.5	7.5/370	4.0	5.89/5.73	1/2	NA
03989 ⁽²⁾	PGE413T	3/4	115	9.1	15/370	4.0	5.89/5.73	1/2	NA
03990 ⁽²⁾	PGE414T	3/4	208-230	4.4	10/370	4.0	5.89/5.73	1/2	NA

1625 RPM⁽¹⁾ — Three Speed - 4 Pole

03992	FGE211T	1/4	115	2.7	10/370	4.0	4.89	1/2	08055
03993	FGE212T	1/4	208-230	1.2	5/370	4.0	4.89	1/2	08055
03994	HGE213T	1/3	115	3.9	15/370	4.0	5.39	1/2	08057
03996	MGE215T	1/2	115	6.0	15/370	4.0	5.64	1/2	08058
03997	LGE216T	1/2	208-230	2.8	7.5/370	4.0	5.64	1/2	08058
03998	PGE415T	3/4	115	8.5	15/370	4.0	6.14	1/2	08060
03999	PGE416T	3/4	208-230	4.0	7.5/370	4.0	6.14	1/2	08060

1075 RPM — Reversible Rotation - Standard Efficiency - 6

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	CAP. REQ.	DIMENSIONS			BASE NO.
						A	B	C	

Three Speed⁽¹⁾

03583 ⁽²⁾	FGN651T	1/4	115	4.2	5/370	4.0	4.89	1/2	08055
03584 ⁽²⁾	FGN652T	1/4	208-230	2.0	5/370	4.0	4.89	1/2	08055
03585 ⁽²⁾	JGN653T	1/3	115	6.2	5/370	4.0	5.14	1/2	08056
03586 ⁽²⁾	JGN654T	1/3	208-230	2.9	5/370	4.0	5.14	1/2	08056
03587 ⁽²⁾	PGN655T	1/2	115	9.0	5/370	4.0	6.14	1/2	08060
03588 ⁽²⁾	NGN656T	1/2	208-230	4.3	5/370	4.0	5.89	1/2	NA
03589 ⁽²⁾	PGN657T	3/4	115	10.3	15/370	4.0	6.14	1/2	08060
03590 ⁽²⁾	PGN658T	3/4	208-230	4.6	10/370	4.0	6.14	1/2	08060
03595 ⁽²⁾	SGL854S	1	115	11.8	20/370	4.0	6.90	1/2	08060
03596 ⁽²⁾	SGL853S	1	208-230	5.59	15/370	4.0	6.90	1/2	08060

Two Speed⁽³⁾

03383 ⁽²⁾	FGM421S	1/4	115	4.2	5/370	4.0	4.89	1/2	08055
03384	FGM433S	1/4	208-230	2.0	5/370	4.0	4.89	1/2	08055
03385 ⁽²⁾	JGM439S	1/3	115	6.2	5/370	4.0	5.14	1/2	08056
03386	JGM440S	1/3	208-230	2.9	5/370	4.0	5.14	1/2	08056
03387	PGM438S	1/2	115	9.0	5/370	4.0	6.14	1/2	08060
03388	NGM437S	1/2	208-230	4.3	5/370	4.0	5.89	1/2	NA
03389	PGN091T	3/4	115	10.3	15/370	4.0	6.14	1/2	08060
03390	PGN092T	3/4	208-230	4.4	10/370	4.0	6.14	1/2	08060

(1) Approximately 150RPM differential between speeds depending on fan load (2) 60 Hz only (3) Approximately 300RPM differential between speeds depending on fan load

5KCP39 PSC Torsion Flex Mount Motors



GE torsion-flex mount motors are designed for direct drive furnace blower applications. The unique torsion- flex mounting speeds installation while the special steel of the torsion-flex bracket absorbs vibration for quieter operation. All models are electrically reversible, 3-speed motors of high efficiency Energy Saver® design.

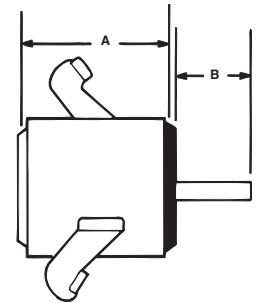


Features:

- Energy Saver®
- All angle sleeve bearings
- 3-Speed 1075/925/775 RPM(1)
- Torsion-flex mounting, grommets and sleeves included
- 5.0 inch long, 1/2 inch diameter shaft
- Reversible rotation

Specifications:

- Class A insulation
- Single phase, 60/50 Hertz
- Overload protection
- Fan duty, continuous, air over
- Open construction
- 26 inch leads



1075 RPM⁽¹⁾ — Three Speed – Reversible Rotation - 6 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	CAP. REQ.	DIMENSIONS		BLOWER SIZE
						A	B	
03783 ⁽²⁾	GGP730S	1/4	115	3.7	7.5/370	5.0	4.23	9 in.
03784	FGP731S	1/4	208-230	1.7	5/370	5.0	4.23	9 in.
03785 ⁽²⁾	LGP732S	1/3	115	4.9	7.5/370	5.0	4.98	9 in.
03786	JGP733S	1/3	208-230	2.5	5/370	5.0	4.73	9 in.
03787	PGP734S	1/2	115	7.3	10/370	5.0	5.48	10 in.
03788	NGP735S	1/2	208-230	3.5	7.5/370	5.0	5.23	10 in.
03789 ⁽²⁾	PGP736S	3/4	115	9.1	15/370	5.0	5.48	10 in.
03790 ⁽²⁾	PGP737S	3/4	208-230	4.4	10/370	5.0	5.48	10 in.

(1) Approximately 150RPM differential between speeds depending on fan load (2) 60 Hz only

Ball Bearing Unit Heater Motors

Ball Bearing

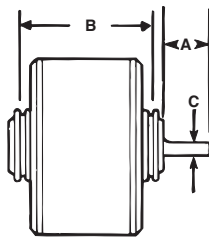
GE 5KCP39 ball bearing motors are designed for unit heater applications. Each motor includes base and capacitor, and also features extended thru bolts. These electrically reversible motors are totally enclosed with a BX connector on the shell and 60 inch leads.

Features:

- Energy \$aver®
- Mounting base and capacitor included
- Totally enclosed with BX connector and extended Thru bolts
- 5.0 inch long, 1/2 inch diameter shaft

Specifications:

- Single phase, 60/50 Hertz
- Overload protection
- Fan duty, continuous, air over
- Totally enclosed
- 60 inch leads
- Class A insulation



5KCP39 Double Shaft Motors • Three Speed



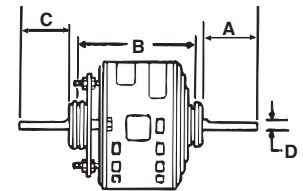
GE 5KCP39 double shaft Energy \$aver® motors are designed for a wide variety of air moving applications. All motors feature double 1/2 inch diameter shafts and include length adapter mounting kit.

Features:

- All angle sleeve bearings
- Extended thru bolts, 2.25 inch resilient rings
- Length adapter and mounting kit included
- For accessories see pages M-50 – M-54

Specifications:

- Class A insulation
- Single phase, 60/50 Hertz
- Overload protected
- Open construction
- Fan duty, continuous, air over
- 14 inch leads



3-Speed⁽¹⁾ — Energy \$aver®

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	ROT LE	CAP. REQ.	DIMENSIONS				BASE NO.
							A	B	C	D	
1075 RPM - 6 Pole											
03632	CG5823T	1/10	208-230	0.8	CCW	3/370	7.0	4.19-5.44	9.00	1/2	08052
03641	CG5824T	1/8	115	1.8	CCW	5/370	7.0	4.19-5.44	9.00	1/2	08052
03651	DG5826T	1/6	115	2.4	CCW	5/370	7.0	4.44-5.69	8.75	1/2	08053
03652 ⁽²⁾	CG5827T	1/6	208-230	1.0	CCW	5/370	7.0	4.44-5.69	8.75	1/2	08053
03671	GG5828T	1/4	115	3.7	CCW	5/370	8.0	4.69-5.81	7.52	1/2	08054
03672 ⁽²⁾	FG5829T	1/4	208-230	1.7	CCW	5/370	8.0	4.69-5.81	7.52	1/2	08054
03681	LG5830T	1/3	115	5.1	CCW	5/370	7.5	5.38-6.63	7.27	1/2	08057
03682 ⁽²⁾	JG5831T	1/3	208-230	2.5	CCW	5/370	7.5	5.38-6.63	7.27	1/2	08057
03691	PG5081T	1/2	115	7.3	CCW	10/370	7.0	5.75	7.27	1/2	—
03692	NG5082T	1/2	208-230	3.5	CCW	7.5/370	7.0	5.75	7.27	1/2	—
03698	PGA854T	3/4	208-230	5.0	CCW	7.5/370	7.0	5.75	7.27	1/2	—

1625 RPM - 4 Pole

03851	CG9044T	1/6	115	2.0	CCW	5/370	7.0	4.44-5.69	8.77	1/2	08053
03862	CG9047T	1/5	208-230	1.1	CCW	5/370	8.5	4.69-5.81	7.02	1/2	08054
03871	FG9048T	1/4	115	2.9	CCW	5/370	7.0	4.88-6.13	8.27	1/2	08055
03872	EG9049T	1/4	208-230	1.2	CCW	5/370	7.0	4.94-6.19	8.27	1/2	08055
03881	HG9050T	1/3	115	4.1	CCW	5/370	7.0	5.44-6.69	8.27	1/2	08057
03882	HG9051T	1/3	208-230	1.9	CCW	5/370	6.5	5.44-6.69	8.27	1/2	08057
03891	MG5312T	1/2	115	6.4	CCW	5/370	7.0	5.50	7.52	1/2	08058
03892	MG5313T	1/2	208-230	3.0	CCW	5/370	7.0	5.50	7.52	1/2	08058

(1) Approximately 150 RPM differential between speeds depending on fan load

(2) Available without mounting kit-see page M-54

1075 RPM – Reversible Rotation - 6 Pole

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	CAP. (FURNISHED)	DIMENSIONS		
						A	B	C
03206	EGC336T	1/6	115	2.2	5/370	5.0	4.89	1/2
03208	JGC337T	1/4	115	3.3	10/370	5.0	5.14	1/2
03210	HGC338T	1/4	208-230	1.4	7.5/370	5.0	5.14	1/2
03212	NGC339T	1/3	115	4.9	10/370	5.0	6.14	1/2

PSC Motors Replace 5KCP32 & 5KCP38



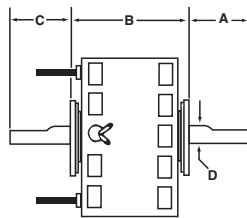
Features:

- Energy \$aver®
- Replace GE 5KCP32-38
- All angle sleeve bearings
- Two-speed, 1075/775 RPM(2) double shaft
- Extended thru bolts, base included, plus 4 split rings
- 14 inch leads
- For accessories see pages M-50 – M-54



Specifications:

- Single phase, 60/50 Hertz
- Open construction
- Overload protected
- Fan duty, continuous, air over
- 3 inch shaft height when base mounted



1075/775 RPM⁽¹⁾

MARS NO.	GE NO. 5KCP	HP	VOLTS	AMPS	ROT LE	CAP. REQ.	DIMENSIONS			
							A	B	C	D
03092 ⁽²⁾	39NGD369T	1/2	208-230	3.8	CCW	5/370	8.00	6.46	8.50	1/2

(1) Approximately 300 RPM differential between speeds depending on fan load

(2) 60 Hertz only

Evergreen IM is the world's first high-efficiency ECM replacement motor that is designed to replace factory PSC blower motors in HVAC systems. Built from the same trusted, field-proven ECM technology that is found in millions of OEM systems nationwide, Evergreen uses up to 25% fewer watts in operating mode and up to 74% fewer Watts than a PSC motor in constant fan.

Evergreen's ECM controls combine thermostat commands with an advanced permanent-magnet design to run more efficiently and quietly while offering better airflow control than a PSC. The Evergreen IM is a great replacement for any PSC air-handler motor, adding up to 1 SEER point to an existing system. The motor's airflow benefits are especially important to homeowners who run (or would like to run) in constant fan mode for better comfort, improved IAQ products, or improved zoning airflow.



Average Annual Energy Savings

Heat and Cool Operation-
up to \$60 at 10¢ / kWh

Constant Fan Operation-
up to \$268 at 10¢ / kWh

Applications:

- Direct drive, 115 or 230VAC motor systems
- Clock-wise (CW) or counter clock-wise (CCW) rotation
- Residential split and packaged systems
- Air conditioning or heat pump systems
- Natural gas, propane and oil heat furnaces
- Dual fuel systems
- Hot water coil and geothermal air handlers

Features:

- Two motors cover all applications
- Multi-volt 115/230 and reversible rotation
- Integrated with HVAC system controls/operation
- Four speed selections for heating and cooling
- Optimized constant fan speed
- Two (2) year warranty
- Reduce truck stock, no capacitors to change out or stock
- For accessories see pages M-50 – M-54

5KCP39 PSC Double Shaft Motors

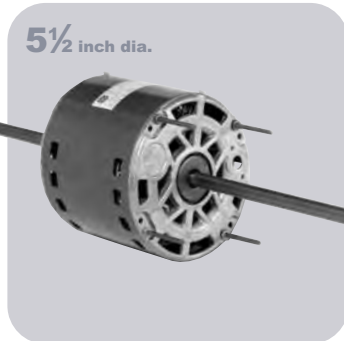


GE Commercial Motors

By Regal-Beloit

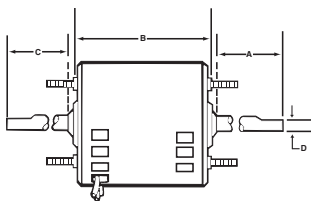
Features:

- All angle sleeve bearings
- 3 speed, 1075/925/775 RPM
- Extended thru bolts
- Base mount using mounting kit 08095 and appropriate base
- Double 1/2 inch diameter shafts
- For accessories see pages M-50 – M-54



Specifications:

- Single phase, 60/50 Hertz
- Overload protected
- Fan duty, continuous, air over
- Open construction
- Requires 5 mfd, 370 volt capacitor (MARS No. 12005)
- 14 inch numbered leads



1075/925/775 RPM⁽¹⁾

MARS NO.	GE NO. 5KCP39	HP	VOLTS	AMPS	RPM ⁽¹⁾	ROT LE	DIMENSIONS				BASE NO. ⁽²⁾
							A	B	C	D	
03656	CGA402T	1/6	208-230	1.0	1075/975/775	CCW	7.50	3.75	8.75	1/2	08053
03686	JGA406T	1/3	208-230	2.5	1075/975/775	CCW	7.75	4.75	7.50	1/2	08057
03696	NGA407T	1/2	208-230	3.5	1075/975/775	CCW	7.50	5.25	7.25	1/2	08060

(1) Approximately 150 RPM differential between speeds depending on fan load

(2) Requires base and 08095 mounting kit

600 - 1075 RPM

MARS NO.	MODEL NO.	HP	VOLTS	ROT	MARS PACK
06005	5SME39HXL110	1/5, 1/4, 1/3, 1/2	115/230	REV	1
06010	5SME39SXL111	1/2, 3/4, 1	115/230	REV	1

GE TECMate Pro™ Service Tool



The Tecmate Pro™ Service Tool, MARS stock #08500 is the latest advance in ECM technology developed by and for Genteq Motors. The Tecmate allows the service technician to analyze a Genteq ECM motor independently of the HVAC system in which it is installed. The Tecmate can test all the basic settings of a Genteq ECM motor, and can detect and isolate motor failures from HVAC system failures.

Genteq is the leader in ECM motor technology. ECM motor applications are a fast growing segment of the residential and light commercial HVAC market. Genteq's advanced designs in ECM motors are at the forefront of high efficiency equipment design.

Compact

Easy To Use

See Additional ECM Accessories on page 48



MARS NO.	DESCRIPTION
08500	TECMate Pro ECM Motor Tester

Broad Ocean ECM Motor Tester (Digimotor Test Tool)

Save time and money with the Broad Ocean ECM Motor Tester

- Isolates any issues to either the motor or the control board and the control wiring

NOTE: This tool is for Broad Ocean OEM Digi-Motors only. This tool is not compatible with Azure®.

Kit Contents:

- Broad Ocean ECM Tool
- Type A test Connector (Furnaces, AH & Packaged)
- Type B Test Connector (Packaged Units)
- Type C Test Connector (Air Handlers)
- Type D Test Connector (Outdoor Condenser Fan Motors)



MARS NO.	DESCRIPTION	MARS PACK
08503	Broad Ocean ECM Motor Tester	1

760-ECM Motor Speed Controller

The 760-ECM motor speed controller is designed to provide manually adjustable proportional speed control for all sizes and voltages of ECM DC Brushless motors.

Manual speed control is accomplished by adjusting the control pot in the clock-wise direction to increase motor speed. Adjusting the pot in the counter clockwise direction will slow down and eventually stop the motor as the PWM signal is removed.

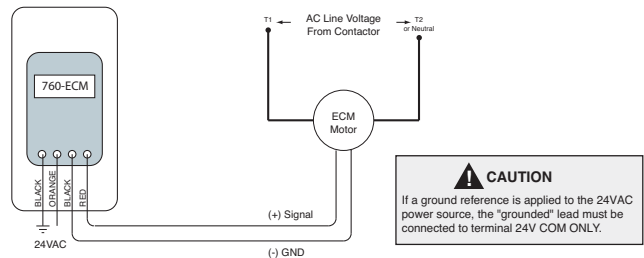
The 760-ECM is line voltage independent and requires only a 24VAC supply. This unit is fully enclosed and can be mounted in standard electrical boxes.

Variable speed control is accomplished via a Pulse Width Modulated (PWM) output signal. The PWM signal operates at a nominal 13.5VDC at 80Hz and is capable of sourcing up to 5mA drive current to drive a single motor.



Specifications:

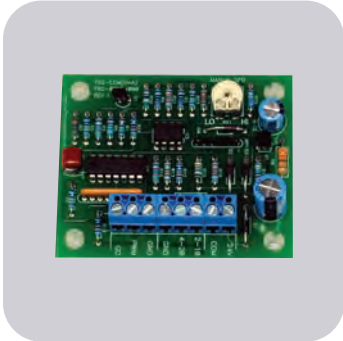
- Motor speed: Manual adjustable
- Input voltage: 24VAC (+20%/-10%)
- Output: 0% to 100% PWM @ 80 Hz
 - 13.5VDC, 5mA (max.)
 - Max wire length (twisted pair) 100 ft.
- Humidity: 95% non-condensing
- Operating ambient temperature: 32°F - 120° F
- Dimensions (L x W x H): 4.25" x 2.40" x 1.25"



MARS NO.	DESCRIPTION	MARS PACK
08032	ECM Motor Manual Speed Controller	1

792-ECM Motor Speed Controller

The 792-ECM (Vma) motor speed controller is designed to provide both continuously variable and/or manually adjustable proportional speed control for all sizes and voltages of ECM DC Brushless motors. The 792-ECM (Vma) controller also includes an output to "enable" operation of ECM motors that require such a signal for operation. Continuously variable speed control is accomplished via 2-10VDC or 4-20mA input signal to the control. This controller provides a linear increase of the output as the input signal increases over the 2-10VDC or 4-20mA span.



Manual Speed Control is accomplished by adjusting the control pot in the clock-wise direction to increase motor speed. Adjusting the pot in the counter clock-wise direction will slow down and eventually stop the motor as the PWM signal is removed.

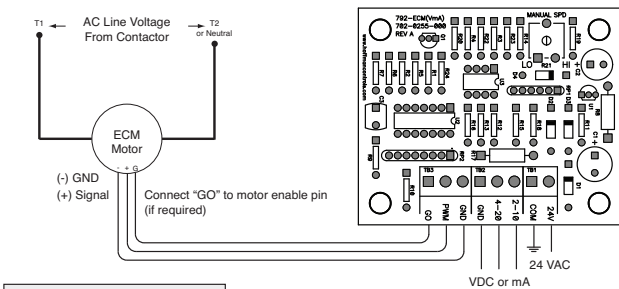
The two control methods may be used together by manually setting a minimum speed for the motor to always maintain, regardless of input signal. When the input signal exceeds the level set manually, full variable speed control is resumed as long as the input is above the manually set level.

The 792-ECM is line voltage independent and requires only a 24VAC supply. This unit is circuit board on standoffs for mounting directly to control panel surfaces.

Variable speed control is accomplished via a Pulse Width Modulated (PWM) output signal. The PWM signal operates at a nominal 13.5VDC at 80 Hz and is capable of sourcing up to 5mA drive current to drive a single motor.

Specifications:

- Motor speed: Continuously variable/manually adjustable/Off
- Input voltage: 24VAC (+20%/-10%)
- Input signal:
 - DC Volts: 2-10VDC
 - Input impedance: 10,000 Ohms Min.
 - DC milliAmps: 4-20mA DC
 - Input impedance: 500 Ohms
- Output: 0% to 100% PWM @ 80Hz
 - 13.5VDC, 5mA (max.)
 - Max wire length (twisted pair) 100 ft.
- Operating ambient: 32°F to 120°F
- Humidity: 95% non-condensing
- Dimensions: (L x W x H): 2.50" x 3.00" x 1.25

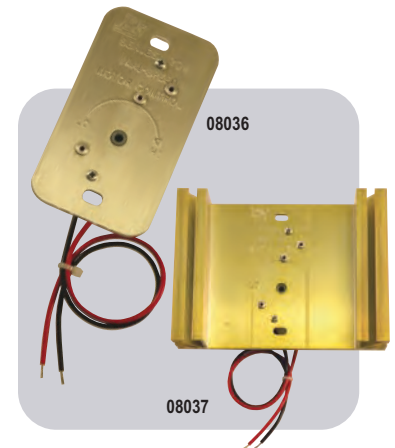


CAUTION
If a ground reference is applied to the 24VAC power source, the "grounded" lead must be connected to terminal 24V COM ONLY.

MARS NO.	DESCRIPTION	MARS PACK
08033	ECM Motor Variable Speed Controller	1

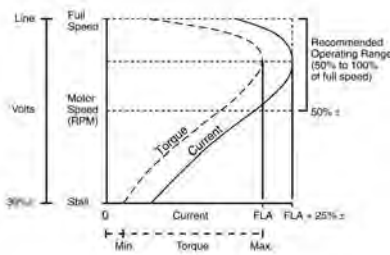
Manual Motor Speed Controllers

MARS 08036 and MARS 08037 manual motor speed controllers are designed to provide proportional speed control for single phase shaded pole or permanent split capacitor (open frame) motors. These modules may be used for any nominal voltage between 120 and 277 volts. The design is for direct connected propeller (blade) or blower (squirrel cage) fan type applications, but may be applicable to other non-air moving type motor drive requirements typical of pumps, etc. Typical performance will provide speed adjustment approaching stall with a separate minimum speed limit. Minimum speed setting may be limited depending upon the ventilating characteristics of the motor. The minimum speed limit sets minimum RPM preventing motor stall. Minimum Speed varies with motor loading.

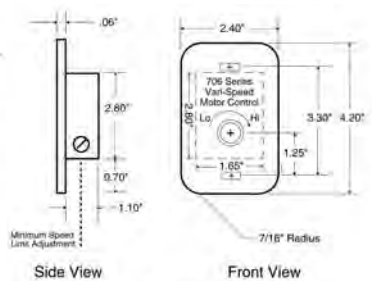


Specifications:

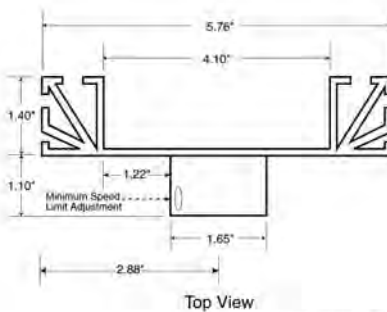
- Minimum Speed: Field Adjustable
- Humidity: Condensation Free
- Operating Ambient Temperature: 0°C- 60° C
- UL Recognized



Typical Variable Motor Speed Performance



706-123S



706-123SB (10 Amp)

MARS NO.	AMPS	VOLTS	MARS PACK
08036	5	120 through 277	1
08037	10	120 through 277	1

ECM Protectors

Saves Equipment

ECM protectors plug into existing motor connectors or plugs. They help to protect these valuable motors from voltage spikes, surges, and transients that often damage them.

Fast Installation

These protectors simply plug in between the motor connector and the existing wiring harness.

A ground strap with a ring terminal is provided for additional protection.

Protect Your Investment

The most common cause of ECM motor failure is damage to the electronics module as a result of poorly conditioned incoming power.

MARS NO.	USED ON	MARS PACK
08552	GE X-13 ECM	1
08553	OEM ECM Applications	1



08552

08553



ECM Repair Kit

Repairs many ECM motor modules that have been damaged by voltage problems and power surges

- Full instructions included in kit
- Kit includes **OCPD** device and helpful circuit board releaser tool
- Using the kit requires a soldering gun or iron and rosin core solder

ECM's have ***Over Current Protection Devices** that are designed to keep excessive power from damaging other system components. Frequently, only this part needs replacement to restore an expensive ECM to an operation condition.

Not every ECM module can be repaired. Because of this, the repair kit is not guaranteed to fix every motor-but because of the motor's high cost vs. the repair kit's low cost- it's often worth the effort.

MARS NO.	DESCRIPTION	MARS PACK
08551	ECM Repair Kit	1



OCPD*

Variable Speed Zebra

Complete diagnostics for systems where an ECM motor is not working properly

Uses simple-to-operate microprocessor controlled tests to:

- accurately diagnose exactly which component has failed in a variable speed system that is not working correctly
- assist in system setup by reporting CFM airflow and motor RPM as room vents and other controls are adjusted
- allows easy adjustment of all available settings and options on ECM blower motors to obtain maximum customer comfort



MARS NO.	DESCRIPTION	MARS PACK
08550	ECM Diagnostic System	1
08562	2 Pc Adapter Set for New GE X-13 & Evergreen Motors (Variable Speed)	1
08564	2 Pc Adapter Set for New GE Condenser Fan Motors (Multi-Speed, Variable torque)	1

Universal Zebra

A tool designed to troubleshoot every ECM motor in HVAC/R systems!

- Three 3-position switches test up to 6 speeds
- LED's indicate power and signals being sent
- Rugged case protects your tools & leads

Adapters for Universal Zebra

- Adapters quickly plug into motor and Universal Zebra
- Magnetic reference cards show what each switch does & what each LED means for that motor

MARS NO.	DESCRIPTION	MARS PACK
08554	Universal ECM Diagnostic System	1

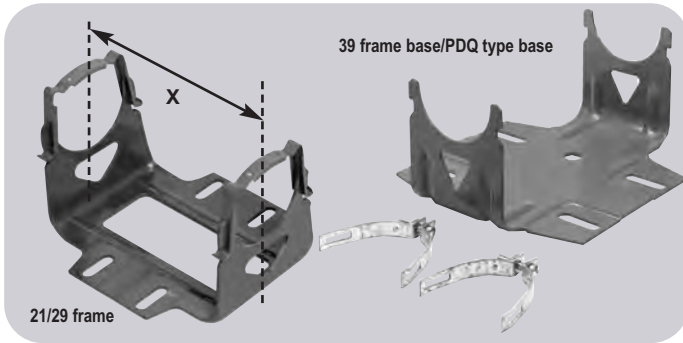
MARS

- 08555 Adapter "A" – for GE 2.0 & 2.3 ECM's
- 08556 Adapter "B" – for Genteq 3.0 ECM's
- 08557 Adapter "C" – for X-13 & X-mtr ECM's
- 08558 Adapter "E" – for ECM 142 & Signal Select ECM's
- 08559 Adapter "F" – for Evergreen IM
- 08560 24" Main Harness for Universal Zebra (Extension or Replacement)



Motor Mounting Bases

Designed for use with GE motors.
Bases include clips.



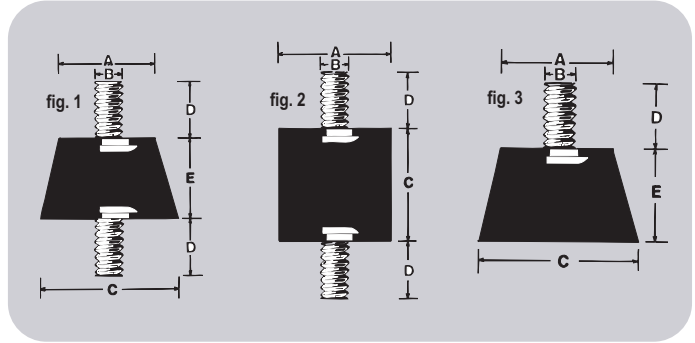
Mounting Bases

MARS NO.	FOR USE ON	GE NO.	SHAFT HEIGHT	X DIMENSION
08052	39 frame motors	-	3-1/2	4.13
08053	39 frame motors	920AB3	3-1/2	4.23/4.39
08054	39 frame motors	920AB4	3-1/2	4.48/4.64
08055	39 frame motors	920AB5	3-1/2	4.73/4.89
08056	39 frame motors	920AB6	3-1/2	4.98/5.14
08057	39 frame motors	920AB7	3-1/2	5.23/5.39
08058	39 frame motors	920AB8	3-1/2	5.48/5.64
08059	39 frame motors	920AB9	3-1/2	6.48/6.64
08060	39 frame motors	920AB10	3-1/2	5.98/6.14

Mounting Accessories

MARS NO.	USED ON	DESCRIPTION	PAK QUAN
08096	39 frame	clips for 39 frame motor bases	2 pieces
08103	21/29 and 39 frame motors	2-1/2 in. unbonded resilient ring	2 pieces
08031	21/29 and 39 frame motors	split rings to convert 2-1/4 in. to 2-1/2 in. rings	4 pieces
08105	21/29 and 39 frame motors	2-1/4 in. bonded resilient ring	2 pieces

Vibration Insulators



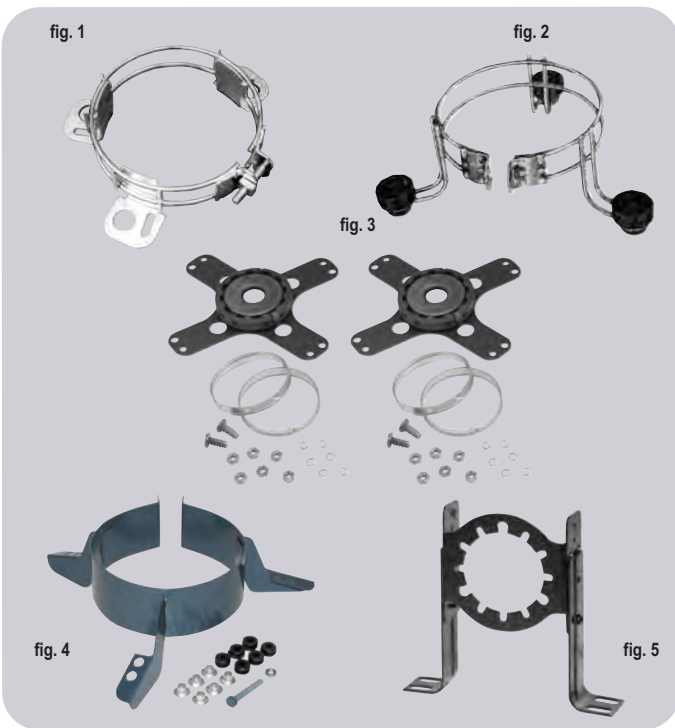
MARS NO.	MFR. NO.	DIMENSIONS						MAX. LOAD IN POUNDS		FIG. NO.
		A	B	C	D	E	THD.	COMPRESSION	SHEAR	
07801	K30	1-3/16	5/16	1-5/8	5/8	1-1/2	18	60	-	1
07802	K33	1-3/8	5/16	1-5/8	5/8	1.0	18	100	-	1
07804	K44	1.0	5/16	1.0	5/8	-	18	40	10	2
07805	K47	1.0	1/4	3/4	1/2	-	20	50	10	2
07807	K133	1-3/8	5/16	1-5/8	5/8	1.0	18	100	-	3

Plastic Rain Shields



MARS NO.	DESCRIPTION	MARS PACK
93581	6-3/4 in. diameter for motors with 1/2 in. diameter shaft	1 piece
93582	6-3/4 in. diameter for motors with 5/8 in. diameter shaft	1 piece

Mounting Brackets



MARS NO.	USED ON	DESCRIPTION	FIG. NO.
08020	39 frame and 5-1/2 in. diam. motors	adj. lug mounting bracket fits triangular bolt patterns of 6-1/8 in. to 6-9/16 in. bolt to bolt (1/4 in. x 7/8 in. and 3/4 in. x 1-3/8 in. knockouts)	1
08021	5-1/2 in. fixed motor mtg. bracket with grommets	for mounting blower motor with large wheel opening fits any 5-1/2 in. diameter motor	2
08024	5 in. fixed motor mtg. bracket with grommets	for mounting blower motor with large wheel opening fits any 5 in. diameter motor	2
08095	39 frame and 5-1/2 in. diam. motors	mounting adapter kit for base mounting 5-1/2 in. diameter motors with flat end shields	3
08049	29 and 39 frame motors, 5 in. motors	Torsion-Flex mounting adapter kit for 9 in. and 10 in. blowers	4
08050	48 frame, 5-5/8 in. and 5-1/2 in. diam. motors	Torsion-Flex mounting adapter kit for 9 in. and 10 in. blowers	4
08004	51 frame motors	shaft height adjustable 4-1/8 in. to 5-3/8 in.	5

Premium Belly Bands

Applications::

Residential HVAC,
Direct Drive Blowers

- Welded 3-ring bracket
- Anodized steel rod construction
- Includes 3 sets of rubber grommets, 3 sheet metal screws, 3 galvanized steel sleeves, 1 bolt, 1 nut



MARS NO.	DESCRIPTION
08025	10" Bolt Pattern
08026	11" Bolt Pattern

Applications::

Residential HVAC,
Direct Drive Blowers

- Welded 4-ring bracket
- Anodized steel rod construction
- Includes 4 sets of rubber grommets, 4 sheet metal screws, 4 galvanized steel sleeves, 1 bolt, 1 nut



MARS NO.	DESCRIPTION
08027	13" Bolt Pattern

Rheem Adapter Belly Bands

Applications::

Rheem Blower Assemblies

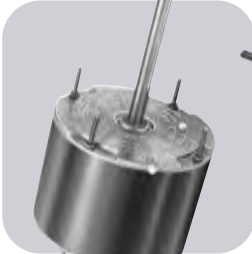
This kit allows the use of standard 5.5" blower motors (without Rheem mounting holes) in Rheem original equipment blower applications.

- Welded 4-ring bracket
- Anodized steel rod construction
- Includes bracket, blower housing tabs, hardware & grommets



MARS NO.	DESCRIPTION
08028	Rheem Adapter

Fasco



Description	Page No.
Motor Scope Selection Guide	3-12
C-Frame Motors	13-14
Unit Bearing Motors	15-16
3.3" Diameter Motors	17-26
General Purpose Motors	17-21
Refrigeration Fan Motors	21
Evaporator Coil Motors	22
Self Cooled Motors.....	23
Window A/C Motors.....	24
Flue Exhaust and Draft Booster Blower Motors	25-26
4.4" Diameter Motors	27-28
General Purpose Motors	27
Fan Coil Air-Conditioning and Heating Unit Motors.....	28
Refrigeration Fan Motors	28
5.0" Diameter Motors	29-32
Condenser Fan & Heat Pump - Cap-Can Construction	29
Fan Coil Air-Conditioning and Heating Unit Motors.....	30
Direct Drive Blower Motors.....	31
Ventilator and Unit Heater Motors	32
5.6" Diameter Motors	33-39
Condenser Fan Motors	33-34, 35-36
Multi-Purpose Motors	35
Direct Drive Blower Motors.....	37-38
Unit Heater Motors	38
Window A/C Motors.....	38
50Hz Export Motors	39
Pedestal Fan Motors	39
NEMA 48 and 56 Frame Motors	40
Blowers	41-51
Centrifugal Blowers	52-57
Transflo® Blowers	58
OEM Direct - Water Heater Draft Inducers	59
OEM Direct Replacement Models	60-87
Accessories	90
Notes Glossary	95-96

FASCO reserves the right to change or modify product revision levels without notice.
PSC Motors use 5M 370V capacitors unless otherwise indicated.



C-FRAME - K-LINE - SHADED POLE								
MODEL	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.
K102	1/500	120	1100	1	0.57	CW	SLV	.1811 X 1.50
K114	1/500	120	1100	1	0.74	CW	SLV	.1811 X 1.75
K120	1/260	120	3000	2	.50 - .29	CW	SLV	.2178 X 1.55
K145	1/250	115	3000	1	.53	CW	SLV	.1814 X 1.00
K628	1/200	208/230	3000	1	0.25	CW	SLV	.2500 x 1.60
K101	1/150	240	1260	1	0.52	CCW	SLV	.2178 X 1.34
K130	1/150	115	3000	1	0.47	CW	SLV	.1811 X 1.00
K614	1/150	120	3000	1	0.59	CW	SLV	.2178 X 1.65
K670	1/150	120	3000	1	0.61	CCW	SLV	.1875 X 1.30
K672	1/150	240	3000	1	0.29	CCW	SLV	.1875 X 1.30
K673	1/150	120	3000	2	.51 - .27	CW	SLV	.1875 X 1.30
K111	1/120	120	3000	1	0.82	CCW	SLV	.2178 X 1.97
K100	1/100	120	2750	1	0.73	CW	SLV	.1811 X 1.05
K115	1/100	115	3000	1	0.57	CCW	SLV	.2178 X 1.85
K611	1/100	120	3000	1	0.63	CCW	SLV	.2500 X 2.45
K683	1/100	240	3000	1	0.30	CW	SLV	.1875 X 1.30
K629	1/85	120	2950	1	0.55	CW	SLV	.2500 x 1.13
K109	1/75	115	3000	1	0.77	CCW	SLV	.2178 X 2.37
K110	1/75	115	3000	1	0.77	CCW	SLV	.2178 X 2.44
K113	1/70	120	3000	1	0.90	CCW	SLV	.2178 X 1.19
K141	1/70	120	3000	1	0.65	CW	SLV	1.0 x .1814 x 0.75
K142	1/70	120	3000	1	0.63	CW	SLV	.1814 X 1.00
K143	1/70	220-240	3000	1	0.32	CW	SLV	.1814 X 1.00
K612	1/65	120	3000	1	0.73	CW	SLV	.2500 X 2.70
K610	1/60	120	3000	2	.75 - .63	CCW	SLV	.2178 X 1.33
K112	1/50	120	3000	2	.86 - .44	CW	SLV	.2178 X 1.44
K161	1/50	120	3000	1	0.90	CCW	SLV	.2178 X 1.21
K144	1/40	120	3000	1	1.00	CCW	SLV	.2178 x 1.50
K147	1/30	220-240	3000	1	0.69	CW	SLV	.2499 X 1.00
K146	1/20	120	3000	1	2.1	CW	SLV	.2499 X 1.00

UNIT BEARING MOTORS									
MODEL	WATT RATING	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	THREADED SHAFT
D550	2	115	1550	1	0.24	Totally Encl.	CWLE	SLV	1/4 - 20
D551	2	115	1550	1	0.24	Totally Encl.	CCWLE	SLV	1/4 - 20
D552	2	230	1550	1	0.12	Totally Encl.	CWLE	SLV	1/4 - 20
D553	2	230	1550	1	0.12	Totally Encl.	CCWLE	SLV	1/4 - 20
D554	4	115	1550	1	0.34	Totally Encl.	CWLE	SLV	1/4 - 20
D555	4	115	1550	1	0.34	Totally Encl.	CCWLE	SLV	1/4 - 20
D556	4	230	1550	1	0.16	Totally Encl.	CWLE	SLV	1/4 - 20
D557	4	230	1550	1	0.16	Totally Encl.	CCWLE	SLV	1/4 - 20
D558	6	115	1550	1	0.42	Totally Encl.	CWLE	SLV	1/4 - 20
D559	6	115	1550	1	0.42	Totally Encl.	CCWLE	SLV	1/4 - 20
D560	6	230	1550	1	0.21	Totally Encl.	CWLE	SLV	1/4 - 20
D561	6	230	1550	1	0.21	Totally Encl.	CCWLE	SLV	1/4 - 20
D562	9	115	1550	1	0.55	Totally Encl.	CWLE	SLV	1/4 - 20
D563	9	115	1550	1	0.55	Totally Encl.	CCWLE	SLV	1/4 - 20
D564	9	230	1550	1	0.33	Totally Encl.	CWLE	SLV	1/4 - 20
D565	9	230	1550	1	0.33	Totally Encl.	CCWLE	SLV	1/4 - 20
D566	16	115	1550	1	1.1	Totally Encl.	CWLE	SLV	1/4 - 20
D567	16	115	1550	1	1.1	Totally Encl.	CCWLE	SLV	1/4 - 20
D568	16	230	1550	1	0.6	Totally Encl.	CWLE	SLV	1/4 - 20
D569	16	230	1550	1	0.6	Totally Encl.	CCWLE	SLV	1/4 - 20
D570	25	115	1550	1	1.2	Totally Encl.	CWLE	SLV	1/4 - 20
D571	25	115	1550	1	1.2	Totally Encl.	CCWLE	SLV	1/4 - 20
D572	25	230	1550	1	0.66	Totally Encl.	CWLE	SLV	1/4 - 20
D573	25	230	1550	1	0.66	Totally Encl.	CCWLE	SLV	1/4 - 20

UNIT BEARING MOTORS

MODEL	WATT RATING	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	THREADED SHAFT
D574	35	115	1550	1	1.5	Totally Encl.	CWLE	SLV	1/4 - 20
D575	35	115	1550	1	1.5	Totally Encl.	CCWLE	SLV	1/4 - 20
D576	35	230	1550	1	0.7	Totally Encl.	CWLE	SLV	1/4 - 20
D577	35	230	1550	1	0.7	Totally Encl.	CCWLE	SLV	1/4 - 20
D578	50	115	1550	1	1.8	Open Vent.	CWLE	SLV	3/8 x 1-1/2
D579	50	115	1550	1	1.8	Open Vent.	CCWLE	SLV	3/8 x 1-1/2
D580	50	230	1550	1	0.9	Open Vent.	CWLE	SLV	3/8 x 1-1/2
D581	50	230	1550	1	0.9	Open Vent.	CCWLE	SLV	3/8 x 1-1/2

PSC - 3.3 DIAMETER

MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D1144	3.3	1/25 - 1/35 - 1/65	115	1200	3	1.1-.9-.6	Open Vent.	CW	SLV	3/8 X 5 3/8
D1102	3.3	1/20	115/230	1550	1	.75-.4	Open Vent.	CW	SLV	5/16 X 2-5/8
D1129	3.3	1/20	115/230	1550	1	0.7/.35	Totally Encl.	CW	BALL	5/16 x 1 5/8
D1243	3.3	1/20	115	1550	1	0.8	Open Vent.	CCW	SLV	5/16 X 2 3/4
D1245	3.3	1/20	208-230	1550	1	0.3	Open Vent.	CCW	SLV	5/16 X 2 3/4
D218	3.91	1/20	115	3000	1	0.8	Totally Encl.	REV	BALL	5/16 X 2 1/4
D1122	3.3	1/16	208-230	1650/1300	1	0.4	Open Vent.	CW	SLV	5/16 X 1 5/8
D1182	3.3	1/16	208-230	3450	1	0.57	Open Vent.	CCW	SLV	5/16 X 3 1/3
D1184	3.3	1/16	460	3450	1	0.3	Open Vent.	CCW	BALL	5/16 X 3 1/3
D1186	3.3	1/16	460	3450	1	0.3	Open Vent.	CCW	BALL	5/16 X 3 1/3
D1176	3.3	1/15 - 1/25	115	1550	2	.9-.8	Totally Encl.	DS	SLV	4 7/8 X 3/8 X 4 7/8
D323	3.3	1/15 - 1/20 - 1/35	115	1550	3	1-.8-.6	Totally Encl.	DS	SLV	2 3/4 X 5/16 X 2 3/4
D1123	3.3	1/15	208-230	1550	1	0.5	Open Vent.	CCW	SLV	5/16 X 2 5/8
D1178	3.3	1/15	208-230	3450	1	0.45	Open Vent.	CW	BALL	1/4 X 2 3/4
D1125	3.3	1/12	208-230	1550	1	0.5	Open Vent.	CCW	SLV	5/16 X 2 5/8
D1140	3.3	1/10 - 1/12 - 1/15	115	1500	3	2.2-2-1.7	Open Vent.	DS	SLV	5-5/8 X 3/8 X 5 5/8
D326	3.3	1/10 - 1/20 - 1/25	115	1550	3	2.2-1.8-1.5	Open Vent.	DS	BALL	5 1/2 X 5/16 X 3
D404	3.3	1/10	208-230	3000	1	0.8	Open Vent.	REV	BALL	5/16 X 3 1/4
D405	3.3	1/10	115	3000	1	1.4	Open Vent.	REV	BALL	5/15 X 3 1/4
D410	3.3	1/10	115	3000	1	1.5	Open Vent.	REV	BALL	1/4 X 3 3/4
D503	3.3	1/10	230	1500	1	0.95	Open Vent.	REV	SLV	5/16 X 3 3/4
D412	3.3	1/9	230	3000	1	0.7	Open Vent.	REV	BALL	1/4 X 3 3/4
D219	3.91	1/8	115	3000	1	1.8	Totally Encl.	REV	BALL	5/16 X 2 1/4
D461	3.3	1/8	480	3200	1	0.32	Totally Encl.	CCW	SLV	5/16 X 3 1/3
D504	3.91	1/8	115/230	1500	1	1.6-.8	Open Vent.	REV	SLV	5/16 X 3 1/2

SP - 3.3" DIAMETER

MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D200	3.25	1/85	115	3000	1	0.6	Open Vent.	CW	SLV	2 3/8 X 1/4 X 3/4
D201	3.25	1/85	115	3000	1	0.6	Open Vent.	CCW	SLV	1/4 X 1 3/8
D429	3.3	9 Watts	115	1550	1	0.6	Totally Encl.	CCW	SLV	HUB
D431	3.3	9 Watts	230	1550	1	0.3	Totally Encl.	CCW	SLV	HUB
D437	3.3	16 Watts	115	1550	1	1.1	Totally Encl.	CCW	SLV	HUB
D1130	3.3	1/200	115	1550	1	0.5	Open Vent.	-	SLV	None
D107	3.3	1/160	208-240	600	1	0.5	Open Vent.	CCW	SLV	5/16 X 1
D408	3.3	1/150	115	3000	1	0.5	Open Vent.	CW	SLV	1/4 X 1 1/2
D1159	3.3	1/130	115	1500	1	0.45	Totally Encl.	CCW	SLV	5/16 X 1 1/8
D129	3.3	1/125 - 1/200	115	1500	2	.4 - .3	Open Vent.	DS	SLV	3 1/4 X 1/4 X 3 1/4
D1160	3.3	1/110	115	1480	1	0.58	Totally Encl.	CW	SLV	5/16 X 1-1/2
D1109	3.3	1/100	115	1500	1	0.65	Totally Encl.	CCW	SLV	1/4 X 1 1/4
D1155	3.3	1/100	115	1085	1	0.5	Totally Encl.	CCW	SLV	1/4 X 1
D1162	3.3	1/100	115	1500	1	0.6	Open Vent.	REV	SLV	5/16 X 1
D229	3.3	1/100	115	3000	1	0.55	Open Vent.	CCW	SLV	1/4 X 3 1/2
D230	3.3	1/100	115	3000	1	0.55	Open Vent.	CW	SLV	1/4 X 3 1/2
D540	3.3	1/100	115	1500	1	0.6	Totally Encl.	CW	SLV	1/4 X 2 1/4



SP - 3.3" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D541	3.3	1/100	115	1500	1	0.6	Totally Encl.	CCW	SLV	1/4 X 2 1/4
D1119	3.3	1/90	240	1500	1	0.34	Open Vent.	CCW	SLV	1/4 X 1 1/2
D202	3.3	1/85	115	3000	1	0.6	Open Vent.	CW	SLV	1/4 X 2 1/4
D122	3.3	1/80	115	1500	1	0.6	Totally Encl.	CW	SLV	1/4 X 2 1/4
D123	3.3	1/80	115	1500	1	0.6	Totally Encl.	CCW	SLV	1/4 X 2 1/4
D228	3.3	1/80	115	3000	1	0.8	Open Vent.	CW	SLV	1/4 X 2
D441	3.3	1/80	115	1500	1	0.6	Totally Encl.	CCW	SLV	1/4 X 1
D120	3.3	1/70	115	1500	1	0.7	Open Vent.	CW	SLV	1/4 X 2 1/4
D121	3.3	1/70	115	1500	1	0.7	Open Vent.	CCW	SLV	1/4 X 2 1/4
D167	3.3	1/70	115	1500	1	0.7	Open Vent.	CW	SLV	1/4 X 3
D169	3.3	1/70	115	1500	1	0.7	Open Vent.	CCW	SLV	1/4 X 3
D1117	3.3	1/65	115	1590	1	0.6	Open Vent.	CW	SLV	5/16 X 2 1/4
D182	3.3	1/60	115	1500	1	0.6	Totally Encl.	CW	SLV	5/16 X 2 1/4
D402	3.3	1/60	115	3000	1	0.75	Totally Encl.	CW	SLV	1/4 X 1 3/4
D403	3.3	1/60	115	3000	1	0.75	Totally Encl.	CCW	SLV	1/4 X 2 1/4
D1110	3.3	1/55	115	1300	1	.7	Open Vent.	CW	BALL	1/4 X 1 7/8
D1138	3.91	1/50 - 1/80 - 1/140	115	1500	3	.9-.6-.5	Open Vent.	CW	SLV	5/16 X 2 1/2
D1139	3.3	1/50 - 1/80 - 1/125	115	1500	3	0.88	Open Vent.	CW	SLV	2 1/2 X 5/16 X 1 1/8
D1134	3.3	1/50 - 1/65 - 1/80	115	1500	3	1.1-.8-.6	Open Vent.	CW	SLV	1/4 X 1 3/4
D1100	3.3	1/50	115	1550/900	2	1.2/.7	Open Vent.	CW	SLV	5/16 X 2 3/8
D1104	3.3	1/50	115	1550	1	.9	Open Vent.	DS	SLV	2.9 X 5/16 X 2.9
D124	3.3	1/50	115	1500	1	0.75	Totally Encl.	CW	SLV	1/4 X 2 1/4
D125	3.3	1/50	115	1500	1	0.75	Totally Encl.	CCW	SLV	1/4 X 2 1/4
D418	3.3	1/50	115	1550	1	1.1	Open Vent.	CW	BALL	1/4 X 3
D601	3.3	1/50	115	1500	1	0.9	Totally Encl.	CCW	SLV	1/4 X 2 1/4
D602	3.3	1/50	115	1500	1	0.9	Totally Encl.	CW	SLV	1/4 X 2 1/4
D603	3.3	1/50	115	1500	1	0.9	Open Vent.	CW	SLV	1/4 X 2 3/8
D608	3.3	1/50	230	3000	1	0.6	Open Vent.	CW	SLV	1/4 X 1 5/16
D609	3.3	1/50	115	1500	1	0.9	Open Vent.	CCW	SLV	1/4 X 2 1/4
D624	3.3	1/50	230	1500	1	0.4	Totally Encl.	CW	SLV	1/4 X 2 1/4
D205	3.3	1/40 - 1/70	115	3000	1	1-5	Totally Encl.	DS	SLV	3 X 1/4 X 3
D128	3.3	1/40 - 1/50 - 1/80	115	1500	3	1.3-.9-.6	Open Vent.	DS	SLV	4 X 5/16 X 4
D106	3.3	1/40	115	1500	1	0.9	Open Vent.	CCW	SLV	1/4 X 1 3/4
D1151	3.3	1/40	115	1500	1	1.2	Totally Encl.	CCW	SLV	5/16 X 3 1/4
D1167	3.3	1/40	208-230	3000	1	0.55	Open Vent.	CCW	SLV	5/16 X 1
D1191	3.3	1/40	460	3200	1	0.37	Open Vent.	CCW	BALL	1/4 X 2 1/2
D1192	3.3	1/40	115	3000	1	0.7	Open Vent.	CCW	SLV	5/16 X 1 1/2
D126	3.3	1/40	115	1500	1	1.1	Open Vent.	CW	SLV	5/16 X 2 1/4
D127	3.3	1/40	115	1500	1	1	Open Vent.	CCW	SLV	5/16 X 2 1/4
D130	3.3	1/40	115	1500	1	1	Open Vent.	CW	SLV	5/16 X 4 1/8
D131	3.3	1/40	115	1500	1	1	Open Vent.	CCW	SLV	5/16 X 2 1/4
D190	3.3	1/40	230	1500	1	0.6	Open Vent.	CW	SLV	1/4 X 2 1/4
D203	3.3	1/40	115	3000	1	1	Open Vent.	CCW	SLV	1/4 X 2 1/4
D330	3.3	1/40	230	1500	1	0.5	Open Vent.	CW	SLV	5/16 X 2 1/4
D415	3.3	1/40	115	1550	1	1.1	Open Vent.	CCW	BALL	1/4 X 3
D105	3.3	1/37	115	1500	1	0.94	Open Vent.	CCW	SLV	1/4 X 1 1/2
D534	3.3	1/35 - 1/100	115	1500	2	1.4-.5	Totally Encl.	CW	SLV	1/4 X 1
D477	3.3	1/35	208-230	1550	1	0.75	Open Vent.	CCW	SLV	5/16 X 1 5/8
D1196	3.3	1/33	115	3200	1	1.5	Open Vent.	CCW	SLV	5/16 X 2 1/3
D137	3.3	1/30 - 1/65	115	1500	2	1-.7	Totally Encl.	DS	SLV	3 X 5/16 X 3
D181	3.3	1/30 - 1/40	115	1500	2	1.3-1	Open Vent.	CCW	SLV	5/16 X 2 1/4
D532	3.3	1/30 - 1/112	115	1500	2	1.4-.8	Open Vent.	CW	SLV	5/16 X 1 1/2
D1118	3.3	1/30	240	1500	1	0.6	Open Vent.	CW	BALL	5/16 X 3 1/2
D1173	3.3	1/30	115	1500	1	1.2	Open Vent.	CW	BALL	5/16 X 2 1/2
D1179	3.3	1/30	115	3000	1	1.5	Open Vent.	CW	SLV	5/16 X 2
D1190	3.3	1/30	115	3000	1	1.6	Open Vent.	CW	SLV	5/16 X 1 3/4
D1198	3.3	1/30	115	3200	1	1.5	Open Vent.	CCW	SLV	5/16 X 2 1/4
D136	3.3	1/30	115	1500	1	1.3	Open Vent.	DS	SLV	2 X 5/16 X 2
D206	3.3	1/30	115	3000	1	1.2	Open Vent.	CW	SLV	1/4 X 2 1/4
D207	3.3	1/30	230	3000	1	0.6	Open Vent.	DS	SLV	2 1/4 X 1/4 X 2 1/4

SP - 3.3" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D208	3.3	1/30	115	3000	1	1.1	Open Vent.	CW	SLV	1/4 X 3
D209	3.3	1/30	115	3000	1	1.1	Open Vent.	DS	SLV	3 1/4 X 1/4 X 3 1/4
D454	3.3	1/30	115	3000	1	1.5	Open Vent.	CW	SLV	1/4 X 1 1/2
D455	3.3	1/30	115/230	3000	1	1.3-.7	Open Vent.	CCW	BALL	1/4 X 3 7/8
D463	3.3	1/30	208-230	3000	1	0.65	Open Vent.	CW	BALL	5/16 X 2 1/2
D514	3.3	1/30	115	1500	1	1.3	Open Vent.	CW	SLV	5/16 X 2 1/4
D515	3.3	1/30	115	1500	1	1.3	Open Vent.	CCW	SLV	5/16 X 2 1/4
D332	3.3	1/25 - 1/65	115	1500	2	1.5-.8	Open Vent.	CW	SLV	5/16 X 2
D1164	3.3	1/25	115/230	1550	1	1.3-.65	Totally Encl.	CW	SLV	5/16 X 2 1/2
D1194	3.3	1/25	115	3200	1	1.7	Open Vent.	CW	BALL	5/16 X 1 1/3
D134	3.91	1/25	115	1500	1	1.6	Totally Encl.	CW	SLV	5/16 X 2 1/4
D135	3.91	1/25	115	1500	1	1.6	Totally Encl.	CCW	SLV	5/16 X 2 1/4
D138	3.91	1/25	115	1500	1	1.6	Totally Encl.	CW	SLV	5/16 X 2 5/8
D184	3.3	1/25	115	1500	1	1.2	Open Vent.	CW	SLV	5/16 X 1 7/8
D192	3.91	1/25	230	1500	1	0.9	Totally Encl.	CW	SLV	5/16 X 2 1/4
D210	3.3	1/25	115	3000	1	1.3	Open Vent.	CW	SLV	1/4 X 2 1/4
D216	3.3	1/25	230	3000	1	0.65	Open Vent.	CW	SLV	1/4 X 2 1/4
D222	3.81	1/25	115	1500	1	1.6	Totally Encl.	DS	SLV	2 1/4 X 5/16 X 2 1/4
D364	3.3	1/25	115	1500	1	1.8	Open Vent.	DS	SLV	1 7/8 X 5/16 X 1 7/8
D365	3.3	1/25	115	1500	1	1.8	Open Vent.	DS	SLV	1 7/8 X 5/16 X 1 7/8
D636	3.3	1/25	230	1500	1	0.69	Open Vent.	DS	SLV	2 1/4 X 5/16 X 2 1/4
D1193	3.3	1/22	115	3000	1	1.2	Open Vent.	CCW	SLV	5/16 X 2 1/3
D520	3.3	1/20 - 1/50 - 1/100	115	1500	3	2.1-.7	Totally Encl.	CW	SLV	1/4 X 2 1/4
D1101	3.3	1/20	115	1500	1	1.9	Open Vent.	CCW	SLV	5/16 X 2 1/4
D1103	3.3	1/20	208-230	1500	1	1.15	Open Vent.	CCW	SLV	5/16 X 2 1/4
D1121	3.3	1/20	208-230	1550	1	1	Open Vent.	CW	SLV	5/16 X 2 1/2
D1120	3.3	1/20	115	1550	1	2.1	Open Vent.	CW	SLV	5/16 X 2 1/2
D1124	3.3	1/20	115	1550	1	2.1	Open Vent.	CW	SLV	5/16 X 3
D1152	3.3	1/20	115	1500	1	1.7	Open Vent.	CW	SLV	5/16 X 2 3/8
D1154	3.3	1/20	230	1550	1	1	Open Vent.	CW	SLV	5/16 X 2 3/8
D1158	3.3	1/20	115/208-230	1550	1	1.4-.8	Open Vent.	CW	BALL	5/16 X 1 5/8
D1165	3.3	1/20	115	1550	1	2	Open Vent.	DS	SLV	3 1/2 X 5/16 X 3 1/2
D1180	3.3	1/20	115	3300	1	1.9	Open Vent.	CW	SLV	5/16 X 2 1/8
D1189	3.3	1/20	115/208-230	1550	1	1.4-.76	Totally Encl.	CW	BALL	5/16 X 1 5/8
D132	3.3	1/20	115	1500	1	1.8	Open Vent.	CW	SLV	5/16 X 2 1/4
D133	3.3	1/20	115	1500	1	1.8	Open Vent.	CCW	SLV	5/16 X 2 1/4
D186	3.3	1/20	460	1500	1	0.4	Open Vent.	CW	SLV	5/16 X 2 1/3
D188	3.3	1/20	230	1500	1	0.9	Open Vent.	CW	SLV	5/16 X 2 1/4
D189	3.3	1/20	230	1500	1	0.9	Open Vent.	CCW	SLV	5/16 X 2 1/4
D214	3.91	1/20	115/230	3000	1	1.7-.8	Totally Encl.	CW	SLV	5/16 X 6 1/2
D215	3.91	1/20	115/230	3000	1	1.7-.8	Totally Encl.	CCW	BALL	5/16 X 6 1/2
D220	3.91	1/20	115/230	3000	1	1.7-.8	Totally Encl.	CW	BALL	5/16 X 6 1/2
D226	3.91	1/20	115	1500	1	1.6	Totally Encl.	CW	BALL	5/16 X 2 1/4
D227	3.91	1/20	115	1500	1	1.7	Totally Encl.	CCW	BALL	5/16 X 2 1/4
D470	3.3	1/20	208-230	1550	1	0.94	Open Vent.	CW	SLV	5/16 X 2 5/8
D471	3.3	1/20	208-230	1550	1	1.1	Open Vent.	CCW	SLV	5/16 X 2 1/2
D472	3.3	1/20	115	1550	1	1.9	Open Vent.	CW	SLV	5/16 X 2 5/8
D473	3.3	1/20	115	1550	1	2	Open Vent.	CCW	SLV	5/16 X 2 5/8
D1111	3.3	1/18 - 1/30	115	1330	2	2.4-1.6	Open Vent.	CCW	SLV	3 1/8 X 5/16 X 2 3/8
D1161	3.3	1/15 - 1/25	115	1600	2	2.9-2	Open Vent.	CCW	SLV	5/16 X 2
D109	3.3	1/15	115	1600	1	2.1	Open Vent.	CW	SLV	5/16 X 3
D1126	3.3	1/15	208-230	1550	1	1.1	Open Vent.	CW	SLV	5/16 X 3
D1142	3.3	1/15	115/230	1500	1	1.7-.9	Open Vent.	CW	SLV	5/16 X 2 1/2
D1171	3.3	1/15	460	3000	1	0.6	Open Vent.	CCW	BALL	1/4 X 2 1/2
D1174	3.3	1/15	460	3000	1	0.6	Open Vent.	CW	BALL	1/4 X 2 1/2
D1188	3.3	1/15	208-230/460	3000	1	1.1-.6	Open Vent.	CW	BALL	5/16 X 2
D211	3.3	1/15	230	3000	1	1.1	Open Vent.	DS	SLV	2 1/2 X 1/4 X 2 1/2
D213	3.3	1/15	115	3000	1	2.1	Open Vent.	DS	SLV	2 3/4 X 1/4 X 2 3/4
D234	3.91	1/15	115	1500	1	2.2	Totally Encl.	CW	SLV	5/16 X 2 1/4

SP - 3.3" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D456	3.3	1/15	115/230	3000	1	2-1	Totally Encl.	CW	BALL	1/4 X 2 3/4
D457	3.3	1/15	115/230	3000	1	2-1	Open Vent.	CCW	BALL	1/4 X 2 3/4
D458	3.3	1/15	208-230	3000	1	1	Open Vent.	CW	BALL	1/4 X 2 3/4
D459	3.3	1/15	230/460	3000	1	1.2-6	Open Vent.	CW	BALL	1/4 X 3
D475	3.3	1/15	460	1550	1	0.5	Open Vent.	CCW	SLV	5/16 X 2 1/2
D366	3.3	1/14 - 1/25	115	1550	2	2.5-1.5	Open Vent.	DS	SLV	6 3/8 X 5/16 X 6 3/8
D367	3.3	1/12 - 1/20 - 1/30	115	1550	3	3-2.1-1.7	Open Vent.	DS	SLV	5 3/4 X 5/16 X 5 3/4
D469	3.3	1/12	208-230	1550	1	1.3	Open Vent.	CCW	SLV	5/16 X 2 1/8
D1114	3.3	1/11	115	1250	1	.5	Open Vent.	CW	SLV	1/4 X 3 1/8
D325	3.3	1/10 - 1/30	115	1550	2	2.5-2.3	Open Vent.	CCW	SLV	1 3/4 X 5/16 X 2 3/8
D1107	3.3	1/10	115	1550	1	3.2	Open Vent.	CCW	BALL	5/16 X 1 3/8
D1169	3.3	1/10	208-230	3000	1	1.5	Open Vent.	CCW	SLV	5/16 X 1
D238	3.91	1/15	115	1500	1	2.3	Totally Encl.	CW	SLV	5/16 X 2 5/8
D334	3.91	1/15	230	1500	1	1.4	Totally Encl.	CW	BALL	5/16 X 3
D235	3.91	1/12	115	1580	1	2.2	Totally Encl.	CCW	SLV	5/16 X 2 1/4

SP - 4.4" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D333	4.4	1/25	115	1550	1	1.4	Open Vent.	DS	SLV	7 1/4 X 3/8 X 7 1/4
D1061	4.4	1/20 - 1/30 - 1/60	115	1500	3	2-1.7-1.4	Open Vent.	CCW	SLV	1/2 X 2 3/4
D335	4.4	1/20 - 1/30 - 1/40 - 1/60	115	1550	4	2.1-1.4-1.2-1.1	Open Vent.	DS	SLV	8 X 1/2 X 8
D170	4.4	1/20	115	1500	1	1.7	Open Vent.	CW	SLV	5/16 X 2 1/4
D484	4.4	1/20	115/208-230	1550	1	2.2-1.1	Open Vent.	CW	SLV	3/8 X 3 1/8
D485	4.4	1/20	115/208-230	1550	1	2.2-1.1	Open Vent.	CCW	SLV	3/8 X 3 1/8
D118	4.4	1/15 - 1/30	115	1500	2	2.4-1.4	Open Vent.	CW	SLV	3/8 X 2 3/8
D117	4.4	1/15 - 1/25 - 1/30 - 1/40	115	1550	4	2.4-1.4-1.1-9	Open Vent.	CCW	SLV	1/2 X 7 1/2
D1012	4.4	1/15 - 1/20 - 1/25	115	1550	3	2.3-1.9-1.6	Totally Encl.	DS	SLV	3 X 3/8 X 3
D116	4.4	1/15	115	1500	1	2.4	Open Vent.	CW	SLV	3/8 X 2 3/8
D1170	4.4	1/15	115	1500	1	2.1	Open Vent.	CW	BALL	3/8 X 2 1/2
D1246	4.4	1/15	115	1550	1	2.3	Open Vent.	CCW	SLV	3/8 X 1 3/4
D312	4.4	1/15	115	1500	1	2.7	Open Vent.	CW	SLV	1/2 X 5
D329	4.4	1/15	115	1550	1	2.5	Open Vent.	DS	SLV	7 1/2 X 3/8 X 7 1/2
D482	4.4	1/15	115/208-230	1550	1	3.2-1.6	Open Vent.	CW	SLV	3/8 X 3 1/8
D483	4.4	1/15	115/208-230	1550	1	3.2-1.6	Open Vent.	CCW	SLV	3/8 X 3 1/8
D113	4.4	1/12	115/230	1550	1	2.5-1.3	Totally Encl.	CCW	SLV	3/8 X 3
D114	4.4	1/12	115/230	1550	1	2.5-1.3	Totally Encl.	CW	SLV	3/8 X 3
D115	4.4	1/12	115/230	1550	1	2.5-1.3	Totally Encl.	CCW	SLV	1/2 X 2
D310	4.4	1/12	115	1500	1	4	Open Vent.	CW	SLV	3/8 X 2
D377	4.4	1/12	115	1500	1	3.1	Open Vent.	CCW	SLV	3/8 X 2
D119	4.4	1/11 - 1/25 - 1/70	115	1500	3	2.9-1.5-1	Open Vent.	CCW	BALL	1/2 X 2 5/8
D635	4.4	1/10 - 1/20 - 1/35	230	1550	3	1.8-1.3-1	Open Vent.	DS	SLV	10 X 1/2 X 10
D236	4.4	1/10 - 1/15 - 1/25	115	1550	3	3.5-2.4-1.8	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2
D336	4.4	1/10 - 1/15 - 1/25	115	1550	3	3.5-2.4-1.8	Open Vent.	DS	SLV	7 1/2 X 3/8 X 7 1/2
D674	4.4	1/10 - 1/15	230	1500	2	2-1.3	Open Vent.	CW	SLV	3/8 X 2 1/2
D1008	4.4	1/10	115	1500	1	4.4	Open Vent.	CW	SLV	1/2 X 1 3/4
D1039	4.4	1/10	115	1610	1	3.1	Open Vent.	CCW	SLV	1/2 X 2 3/8
D112	4.4	1/10	115	1500	1	3.6	Open Vent.	CW	SLV	3/8 X 2 5/8
D174	4.4	1/10	115	1500	1	3.5	Open Vent.	CW	SLV	3/8 X 2 7/8
D435	4.4	1/10	230	1500	1	1.7	Open Vent.	CCW	SLV	3/8 X 2 5/8
D480	4.4	1/10	115/208-230	1550	1	4.5-2.2	Open Vent.	CW	SLV	3/8 X 3 1/8
D481	4.4	1/10	115/208-230	1550	1	4.5-2.2	Open Vent.	CCW	SLV	3/8 X 3 1/8
D374	4.4	1/8 - 1/20	115	1500	2	4-2.5	Open Vent.	CW	SLV	3/8 X 2 1/2
D339	4.4	1/8 - 1/12	230	1550	2	2-1.4	Open Vent.	DS	SLV	6 1/2 X 1/2 X 6 1/2
D337	4.4	1/8 - 1/10 - 1/12 - 1/15	115	1550	4	4.1-2.7-2.3-1.9	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2
D338	4.4	1/6 - 1/10 - 1/12 - 1/15	115	1550	4	5.4-3.2-2.5-2.1	Open Vent.	DS	SLV	7 1/4 X 1/2 X 7 1/4
D1006	4.4	1/4	115	1600	1	7.2	Open Vent.	CW	SLV	1/2 X 2 3/4

PSC -.50" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D1045	5	1/30	115-127	1100	3	0.53	Open Vent.	CW	SLV	1/2 X 9
D1053	5	1/30	265	1075	3	0.38	Open Vent.	CW	SLV	1/2 X 7 1/8
D382	5	1/25 - 1/40 - 1/50	115	1550	3	.6-.4-.3	Open Vent.	DS	SLV	6 7/8 X 1/2 X 6 7/8
D1051	5	1/25 - 1/40	115	1060 - 500	2	.6-.4	Open Vent.	DS	SLV	11 1/8 X 1/2 X 11 1/8
D1056	5	1/20 - 1/30 - 1/40	208-230	1100	3	.4-.3-.2	Open Vent.	CW	SLV	1/2 X 3
D1058	5	1/20 - 1/30 - 1/40	265	1100	3	.5-.3-.2	Open Vent.	CW	SLV	1/2 X 2 1/2
D1062	5	1/20 - 1/30 - 1/40	265	1100	3	.4-.3-.2	Open Vent.	CW	SLV	1/2 X 3 1/2
D1047	5	1/20	208-230	1075	3	1.6	Open Vent.	CW	SLV	1/2 X 7 1/8
D1048	5	1/20	277	1075	3	0.5	Open Vent.	CW	SLV	1/2 X 7 1/4
D1049	5	1/20	265	1075	3	0.4	Open Vent.	CW	SLV	1/2 X 7 1/8
D488	5	1/20	115/208-230	1550	1	1.2-.6	Open Vent.	REV	SLV	3/8 X 3 1/3
D1041	5	1/15	265	1075	3	0.6	Open Vent.	CW	SLV	1/2 X 7 1/8
D1089	5	1/15	115	850	3	1.3	Open Vent.	REV	SLV	1/2 X 3
D1090	5	1/15	115	1100	3	0.8	Open Vent.	CW	SLV	10 1/2 X 1/2 X 11 1/2
D489	5	1/15	115/208-230	1550	1	1.2-.6	Open Vent.	REV	SLV	3/8 X 3 1/3
D1086	5	1/12 - 1/25	277	1625	2	.6-.2	Open Vent.	CCW	SLV	6 1/2 X 1/2 X 6 1/2
D1055	5	1/12	115-127	1375	3	1.4	Open Vent.	DS	SLV	9 1/8 X 1/2 X 9 1/2
D294	5	1/10 - 1/20 - 1/25 - 1/35 - 1/50	115	1050	5	1.3-1-.7-.6-.5	Open Vent.	DS	SLV	10 3/4 X 3/8 X 10 3/4
D290	5	1/10 - 1/15 - 1/25 - 1/40	115	1050	4	2.2-1.4-1-7	Open Vent.	REV	SLV	1/2 X 8 1/2
D291	5	1/10 - 1/15 - 1/25 - 1/40	115	1050	4	2.2-1.4-1-7	Open Vent.	DS	SLV	10 3/4 X 1/2 X 10 3/4
D292	5	1/10 - 1/15 - 1/25 - 1/35	208-230	1050	4	1-.7-.4-.3	Open Vent.	DS	SLV	10 3/4 X 1/2 X 10 3/4
D277	5	1/10 - 1/12 - 1/20	277	1050	3	.7-.5-.4	Open Vent.	DS	SLV	8 1/2 X 1/2 X 8 1/2
D1005	5	1/10	460	1075	2	0.5	Open Vent.	DS	SLV	9 5/8 X 1/2 X 9 5/8
G2243	5	1/10	208-230	1100	1	0.74	Totally Encl.	CWLE	BALL	
D474	5	1/10	115/208-230	1550	1	1.9-1	Open Vent.	REV	SLV	3/8 X 3 1/3
D486	5	1/10	115/208-230	1550	1	2.5-1.3	Open Vent.	REV	SLV	3/8 X 3 1/8
D487	5	1/10	115/208-230	1550	1	2.7-1.4	Open Vent.	REV	BALL	3/8 X 3 1/8
D497	5	1/10	115/208-230	1050	1	2-1	Open Vent.	REV	BALL	3/8 X 3 1/8
D261	5	1/8 - 1/15	115	1075	2	2.3-1.1	Totally Encl.	REV	SLV	1/2 X 3
D347	5	1/8 - 1/10 - 1/15 - 1/20	115	1550	4	2.3-1.6-1.2-.7	Open Vent.	DS	SLV	10 1/2 X 1/2 X 10 1/2
G2248	5	1/8	208-230	1075	1	0.86	Totally Encl.	CWLE	BALL	
G2249	5	1/8	208-230	1075	1	0.75	Totally Encl.	CCWLE	BALL	
D1050	5	1/8	230	1550	1	1.1	Open Vent.	CW	SLV	1/2 X 3
D1050	5	1/8	230	1550	1	1.1	Open Vent.	CW	SLV	1/2 X 3
D264	5	1/8	230	1550	1	1.1	Open Vent.	REV	SLV	1/2 X 5
D247	5	1/6 - 1/8 - 1/12	230	1550	3	1-.7-.5	Open Vent.	DS	SLV	8 X 1/2 X 8
D1081	5	1/6 - 1/8 - 1/10	115	1625	3	2.4-1.9-1.5	Totally Encl.	REV	SLV	3 1/2 X 1/2 X 3 5/8
D354	5	1/6 - 1/10 - 1/20	115	1050	3	2.8-1.8-1	Open Vent.	DS	SLV	8 1/2 X 1/2 X 8 1/2
D1059	5	1/6	115-127	1450	3	2.3	Open Vent.	DS	SLV	8 3/4 X 1/2 X 9
D1065	5	1/6	277	1600	1	0.9	Totally Encl.	CCW	SLV	1/2 X 2 1/2
G2247	5	1/6	208-230	1100	1	1.3	Totally Encl.	CCWLE	BALL	
D1071	5	1/6	208-230	1100	1	0.99	Totally Encl.	REV	SLV	1/2 X 2 1/8
D260	5	1/6	115	1075	1	2.9	Totally Encl.	CW	SLV	1/2 X 3
D1022	5	1/5 - 1/6 - 1/8	208-230	1100	3	1.6-1.1-1	Open Vent.	CW	SLV	2 3/8 X 1/2 X 2 3/4
D1033	5	1/5 - 1/6 - 1/8	208-230	1400	3	1.6-1.5-1.3	Open Vent.	DS	SLV	2 3/4 X 1/2 X 3 1/2
D258	5	1/5 - 1/10	208-230	1550	2	2.8-1.3	Open Vent.	DS	SLV	8 X 1/2 X 8
G2246	5	1/5	208-230	1080	1	1.6	Totally Encl.	CWLE	BALL	
D1032	5	1/5	208-230	1550	1	1.6	Open Vent.	DS	SLV	6 1/4 X 1/2 X 6 1/4
D1040	5	1/5	208/240	925	3	1.6	Open Vent.	CW	SLV	1/2 X 8
D1042	5	1/5	208-230	1075	1	1.2	Open Vent.	DS	SLV	6 1/2 X 1/2 X 6 1/2
D262	5	1/5	230	925	1	2.3	Open Vent.	REV	SLV	1/2 X 4
D152	5	1/4 - 1/5 - 1/6 - 1/8	277	1050	4	1.6-1.1-.9-.7	Open Vent.	REV	SLV	1/2 X 6
D150	5	1/4 - 1/5 - 1/6	115	1050	3	4.1-3.2-2.5	Open Vent.	REV	SLV	1/2 X 6
D151	5	1/4 - 1/5 - 1/6	230	1050	3	1.7-1.2-1	Open Vent.	REV	SLV	1/2 X 6
D1016	5	1/4	230	1100	1	2	Open Vent.	CW	SLV	1/2 X 4 1/8
D1043	5	1/4	265	1075	3	1.6	Open Vent.	CW	SLV	1/2 X 6 1/4
D1044	5	1/4	115	970	3	6	Open Vent.	CW	SLV	1/2 X 8
G2244	5	1/4	208-230	1075	1	1.7	Totally Encl.	CWLE	BALL	
G2245	5	1/4	208-230	1075	1	1.7	Totally Encl.	CCWLE	BALL	
D1091	5	1/4	208-230	1075	1	2.2	Open Vent.	CCW	SLV	1/2 X 2 3/4
D245	5	1/3 - 1/5	230	1050	2	2.9-1.7	Open Vent.	DS	SLV	8 X 1/2 X 8
D1025	5	1/3	208-230	1625	1	2.3	Open Vent.	DS	SLV	7 1/8 X 1/2 X 7 1/4

SP -5.0" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D249	5	1/50 - 1/80 - 1/160	115	1050	3	1.1-6-.4	Open Vent.	DS	SLV	7 5/8 X 3/8 X 7 5/8
D340	5	1/40	115	1050	1	1.1	Totally Encl.	CW	SLV	3/8 X 2 5/8
D143	5	1/30 - 1/40	115	1050	2	1.5-1	Open Vent.	CCW	SLV	1/2 X 1 5/8
D250	5	1/25 - 1/50 - 1/80	115	1050	3	1.5-1-6	Open Vent.	DS	SLV	8 X 3/8 X 8
D255	5	1/25 - 1/50 - 1/80	115	1050	3	1.5-1-6	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2
D655	5	1/25 - 1/40 - 1/70	230	1050	3	.7-.5-.3	Open Vent.	DS	SLV	10 X 1/2 X 10
D1038	5	1/25	115	1050	1	1.4	Open Vent.	CW	SLV	1/2 X 2 1/2
D252	5	1/20 - 1/40 - 1/70	115	1050	3	1.6-.8-.5	Open Vent.	DS	SLV	7 1/2 X 3/8 X 7 1/2
D253	5	1/20 - 1/40 - 1/50	115	1050	3	2.2-1.4-.8	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2
D1036	5	1/20	115	1045	1	1.95	Open Vent.	CW	SLV	3/8 X 2 1/8
D242	5	1/20	115	1050	1	2	Totally Encl.	CW	SLV	3/8 X 3
D494	5	1/20	115/208-230	1050	1	3-1.6	Open Vent.	CW	SLV	3/8 X 3 1/8
D495	5	1/20	115/208-230	1050	1	3-1.6	Open Vent.	CCW	SLV	3/8 X 3 1/8
D251	5	1/15 - 1/35 - 1/50	208-230	1050	3	1.2-.5-.4	Open Vent.	DS	SLV	9 1/4 X 1/2 X 8 1/2
D254	5	1/15 - 1/30 - 1/50	115	1050	3	2.1-1.3-.8	Open Vent.	DS	SLV	8 X 3/8 X 8
D142	5	1/15 - 1/25	115	1050	2	2.6-1.6	Open Vent.	CW	SLV	3/8 X 2 3/8
D389	5	1/15 - 1/20 - 1/30 - 1/50	115	1050	4	2.4-1.6-1.1-.8	Open Vent.	DS	SLV	10 1/4 X 1/2 X 10 1/4
D257	5	1/15 - 1/20 - 1/25	277	1050	3	1.1-.7-.6	Totally Encl.	DS	SLV	9 X 1/2 X 9
D1001	5	1/15	115	1000	1	3.2	Open Vent.	CW	SLV	3/8 X 3 1/4
D140	5	1/15	115	1050	1	2.7	Open Vent.	CW	SLV	3/8 X 2 3/8
D342	5	1/15	115	1050	1	2.3	Open Vent.	CW	SLV	3/8 X 2 1/2
D492	5	1/15	115/208-230	1050	1	3.4-1.7	Open Vent.	CW	SLV	3/8 X 3 1/8
D493	5	1/15	115/208-230	1050	1	3.4-1.7	Open Vent.	CCW	SLV	3/8 X 3 1/8
D1054	5	1/12 - 1/20 - 1/25	115	1050	3	3.1-2.1-1.5	Open Vent.	CW	SLV	1/2 X 2 1/2
D1087	5	1/12	115	1050	1	2.9	Open Vent.	CW	SLV	1/2 X 2 1/3
D289	5	1/10 - 1/30 - 1/40 - 1/45 - 1/50	115	1050	5	3.6-1.6-1.2-.8-.6	Open Vent.	DS	SLV	10 3/4 X 1/2 X 10 3/4
D293	5	1/10 - 1/30 - 1/40 - 1/45 - 1/50	115	1050	5	3.6-1.6-1.2-.8-.6	Open Vent.	DS	SLV	10 3/4 X 3/8 X 10 3/4
D256	5	1/10 - 1/20 - 1/30	115	1050	3	3.4-1.7-1	Open Vent.	DS	SLV	8 X 1/2 X 8
D176	5	1/10 - 1/20	115	1050	2	3.9-1.7	Open Vent.	CW	SLV	3/8 X 3
D177	5	1/10 - 1/20	115	1050	2	3.9-1.7	Open Vent.	CCW	SLV	3/8 X 3 5/8
D1069	5	1/10 - 1/15	115	1040	2	3.5-2.2	Open Vent.	DS	SLV	3 X 3/8 X 3
D160	5	1/10 - 1/12 - 1/15	115	1050	3	3.4-2.8-2.4	Open Vent.	CW	SLV	3/8 X 3 7/8
D1066	5	1/10	115	1050	1	3.6	Open Vent.	CW	BALL	1/2 X 2 3/4
D144	5	1/10	115	1050	1	3.6	Open Vent.	CW	SLV	1/2 X 4 1/2
D148	5	1/10	115	1050	1	3.6	Open Vent.	CW	SLV	3/8 X 3 1/2
D154	5	1/10	115	1050	1	5	Open Vent.	CW	SLV	3/8 X 2 3/4
D490	5	1/10	115/208-230	1050	1	5-2.5	Open Vent.	CW	SLV	3/8 X 3 1/8
D491	5	1/10	115/208-230	1050	1	5-2.5	Open Vent.	CCW	SLV	3/8 X 3 1/8
D1066	5	1/10	115	1050	1	3.6	Open Vent.	CW	BALL	1/2 X 2 3/4
D314	5	1/8 - 1/15	230	1050	2	2.3-1.5	Open Vent.	CW	SLV	1/2 X 5
D1010	5	1/8 - 1/12 - 1/15	115	1050	3	4.4-3-2.3	Open Vent.	DS	SLV	3 1/3 X 1/2 X 2 3/4
D178	5	1/8 - 1/11	115	1050	2	4.5-3.4	Open Vent.	CW	SLV	1/2 X 4
D180	5	1/8 - 1/11	115	1050	2	4.5-3.4	Open Vent.	CW	SLV	1/2 X 4
D356	5	1/8 - 1/10 - 1/12	115	1050	3	4.7-3.7-3.2	Open Vent.	CW	SLV	1/2 X 3 1/2
D316	5	1/8 - 1/10	230	1050	2	2.1-1.8	Open Vent.	CW	SLV	1/2 X 3 1/2
D1028	5	1/8	115	1050	1	3.3	Open Vent.	CW	BALL	1/2 X 2 1/2
D1046	5	1/8	115	1070	1	5.1	Open Vent.	CW	SLV	1/2 X 2 1/4
D1082	5	1/8	115	1070	1	6	Open Vent.	CW	BALL	1/2 X 3 1/4
D656	5	1/8	230	1050	1	2.1	Open Vent.	CW	SLV	1/2 X 3 7/8
D166	5	1/6 - 1/9	115	1050	2	7.2-3.8	Open Vent.	CW	SLV	1/2 X 3 1/2
D224	5	1/6 - 1/8 - 1/12	230	1050	3	3.2-2.3-1.8	Open Vent.	DS	SLV	10 X 1/2 X 10
D164	5	1/6 - 1/8 - 1/10 - 1/2	115	1050	4	6.5-4.8-4.3-3.7	Open Vent.	CW	SLV	1/2 X 4 1/2
D318	5	1/6 - 1/8	230	1050	2	3.1-2.2	Open Vent.	CW	SLV	1/2 X 3 1/2
D1011	5	1/6 - 1/12 - 1/15	208-230	1050	3	2.5-1.6-1.2	Open Vent.	DS	SLV	3 1/3 X 1/2 X 2 3/4
D1080	5	1/6	115	1050	1	7.9	Open Vent.	CW	BALL	1/2 X 4
D156	5	1/6	115	1050	1	6.6	Open Vent.	CW	SLV	1/2 X 3 7/8
D240	5	1/6	115	1050	1	6.2	Open Vent.	CW	SLV	1/2 X 3 1/2
D158	5	1/5 - 1/6 - 1/7	115	1050	3	6.7-5.3-4.7	Open Vent.	CW	SLV	1/2 X 4 1/8
D658	5	1/5 - 1/6 - 1/7 - 1/8	208-230	1050	4	4-3.4-3.1-2.4	Open Vent.	CW	SLV	1/2 X 5 1/4

3 PH - 5.6" DIAMETER											
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	
D2720	5.6	3/4	200-230	1140	1	3	Open Vent.	REV	BALL	5/8 X 5 7/8 Keyed	

PSC - 5.6" DIAMETER											
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	
D2844	5.6	1/10	208/230	825	1	0.8	Open Vent.	CW	SLV	1/2 X 4 1/4	
D5459	5.6	1/8, 1/6	208-230	1075	1	1.0	Totally Encl.	REV	SLV	1/2 X 6 3/4	
D857	5.6	1/8 - 1/10 - 1/15	115	1100	3	1.7	Open Vent.	DS	SLV	3 1/8 X 1/2 X 4 1/8	
D799	5.6	1/8	208-230	825	1	0.9	Totally Encl.	REV	SLV	1/2 X 6	
D827	5.6	1/8	115	700	1	2.5	Open Vent.	CCW	BALL	1/2 X 2	
D832	5.6	1/8	208-230	825	1	1.1	Totally Encl.	REV	SLV	1/2 X 4 3/4	
D847	5.6	1/8	208-230	1125	1	0.9	Totally Encl.	CCW	SLV	1/2 X 3 1/2	
D895	5.6	1/8	208-230	1650	1	0.8	Totally Encl.	CW	SLV	1/2 X 1 1/2	
D919	5.6	1/8	208-230	1075	1	0.9	Totally Encl.	REV	SLV	1/2 X 6 1/2	
D5488	5.6	1/6-1/8	208-230	825	1	1	Totally Encl.	REV	BALL	1/2 X 6 5/8	
D3752	5.6	1/6 - 1/8 - 1/10	230	900	3	1.2-8-6	Totally Encl.	DS	SLV	7 1/2 X 1/2 X 7 1/2	
D3775	5.6	1/6 - 1/8 - 1/10	230	1350	3	8-6-5	Totally Encl.	DS	SLV	7 3/4 X 1/2 X 7 3/4	
D2842	5.6	1/6	208/230	825	1	1.2	Open Vent.	CW	SLV	1/2 X 4 1/4	
D793	5.6	1/6	208-230	825	1	1	Totally Encl.	REV	BALL	1/2 X 6	
D798	5.6	1/6	208-230	825	1	1.3	Totally Encl.	REV	SLV	1/2 X 6	
D894	5.6	1/6	277	1650	1	0.8	Open Vent.	CW	SLV	1/2 X 2 1/4	
D917	5.6	1/6	208-230	1075	1	1	Totally Encl.	REV	SLV	1/2 X 6 1/2	
D5458	5.6	1/5, 1/4, 1/3	208-230	1075	1	2.0	Totally Encl.	REV	SLV	1/2 X 6 3/4	
D896	5.6	1/5 - 1/8	208-230	1625	2	1.1-7	Totally Encl.	CCWLE	SLV	2 7/8 X 1/2 X 2 1/4	
D2840	5.6	1/5	208/230	1075	1	1.3	Totally Encl.	CW	SLV	1/2 X 4 1/8	
D743	5.6	1/5	208-230	1075	1	1.2	Open Vent.	REV	SLV	1/2 X 6	
D794	5.6	1/5	208-230	825	1	1.3	Totally Encl.	REV	SLV	1/2 X 6	
D906	5.6	1/5	208-230	1075	1	1.2	Totally Encl.	REV	SLV	1/2 X 6 1/2	
D1702	5.6	1/4 - 1/8	208-230	1075	2	1.7-8	Totally Encl.	REV	BALL	1/2 X 6	
D1703	5.6	1/4 - 1/6 - 1/8	115	1075	3	4.1-3-2.3	Totally Encl.	DS	SLV	8 X 1/2 X 8	
D1706	5.6	1/4 - 1/6 - 1/8	208-230	1075	3	1.7-1.3-1	Totally Encl.	DS	SLV	8 X 1/2 X 8	
D725	5.6	1/4 - 1/6 - 1/8	208-230	1075	3	2.2-1.5-1.1	Open Vent.	REV	SLV	1/2 X 6	
D3755	5.6	1/4 - 1/5 - 1/6	230	900	3	2-1.4-1	Totally Encl.	DS	SLV	7 1/4 X 1/2 X 7 1/4	
D3774	5.6	1/4 - 1/5 - 1/6	230	1350	3	1.5-1.1-8	Totally Encl.	DS	SLV	7 1/2 X 1/2 X 7 1/2	
D721	5.6	1/4 - 1/5 - 1/6	115	1075	3	4.8-3.3-2.6	Open Vent.	REV	SLV	1/2 X 6	
D742	5.6	1/4	208-230	1075	1	2.1	Open Vent.	REV	SLV	1/2 X 6	
D7749	5.6	1/4	208-230	1075	1	1.7	Open Vent.	REV	BALL	1/2 X 6 1/2	
D783	5.6	1/4	208-230	1625	1	1.5	Open Vent.	REV	SLV	1/2 X 6	
D7909	5.6	1/4	208-230	1075	1	1.8	Totally Encl.	REV	BALL	1/2 X 6 1/2	
D792	5.6	1/4	208-230	825	1	1.8	Open Vent.	REV	BALL	1/2 X 6	
D797	5.6	1/4	208-230	825	1	1.8	Open Vent.	REV	SLV	1/2 X 6	
D829	5.6	1/4	115	825	1	3.8	Open Vent.	REV	SLV	1/2 X 2	
D880	5.6	1/4	115	1050	1	4.3	Open Vent.	CCW	BALL	1/2 X 1 1/2	
D909	5.6	1/4	208-230	1075	1	1.8	Totally Encl.	REV	SLV	1/2 X 6 1/2	
D934	5.6	1/4	208-230	825	1	1.9	Totally Encl.	REV	SLV	1/2 X 6	
D5489	5.6	1/3-1/4	208-230	825	1	1.8	Totally Encl.	REV	BALL	1/2 X 6 5/8	
D859	5.6	1/3 - 1/5 - 1/8	230	1100	3	1.7-1.5-1.3	Open Vent.	DS	SLV	4 1/4 X 1/2 X 5 1/4	
D818	5.6	1/3 - 1/5 - 1/6	115	825	3	7.3-5.1-3.9	Open Vent.	CW	SLV	1/2 X 3	
D1704	5.6	1/3 - 1/4 - 1/6	115	1075	3	4.9-3.1-2.2	Totally Encl.	DS	SLV	8 X 1/2 X 8	
D1707	5.6	1/3 - 1/4 - 1/6	230	1075	3	2.3-1.5-1.1	Totally Encl.	DS	SLV	8 X 1/2 X 8	
D723	5.6	1/3 - 1/4 - 1/6	208-230	1075	3	3.3-2.3-1.8	Open Vent.	REV	SLV	1/2 X 6	
D770	5.6	1/3 - 1/4 - 1/6	115	1625	3	5.9-4.4-3.5	Open Vent.	DS	SLV	8 3/4 X 1/2 X 8 3/4	
D854	5.6	1/3 - 1/4 - 1/6	208-230	1365	3	2.8-1.7-1.2	Open Vent.	CCW	SLV	4 1/2 X 1/2 X 2 5/8	
D1731	5.6	1/3 - 1/4 - 1/5	115	1075	3	5.9-4.6-3.8	Open Vent.	REV	SLV	1/2 X 6	
D3758	5.6	1/3 - 1/4 - 1/5	230	900	3	2.6-1.7-1.3	Open Vent.	DS	SLV	7 X 1/2 X 6 3/4	
D3771	5.6	1/3 - 1/4 - 1/5	230	1350	3	2.1-1.5-1.1	Open Vent.	DS	SLV	7 1/4 X 1/2 X 7 1/4	
D727	5.6	1/3 - 1/4 - 1/5	115	1075	3	5.9-4.6-3.8	Open Vent.	REV	SLV	1/2 X 6	
D855	5.6	1/3 - 1/4 - 1/5	230	1365	3	2.7-2-1.7	Open Vent.	DS	SLV	8 X 1/2 X 8 3/4	
D856	5.6	1/3 - 1/4 - 1/5	230	1300	3	3.1	Open Vent.	CW	SLV	5 1/4 X 1/2 X 3	
D923	5.6	1/3 - 1/4 - 1/5	208-230	1075	3	2.9-2.2-1.7	Open Vent.	REV	SLV	1/2 X 6	
D1853	5.6	1/3 - 1/4 - 1/5	230	1090	3	2-1.9-1.8	Open Vent.	CW	SLV	6 X 1/2 X 2 7/8	
D2817	5.6	1/3	230	825	1	3.2	Open Vent.	REV	SLV	1/2 X 6	
D2826	5.6	1/3	208-230	825		1.9	Totally Encl.	REV	BALL	1/2 X 5	
D748	5.6	1/3	208-230	1075	1	2.9	Open Vent.	REV	SLV	1/2 X 6 1/2	
D7748	5.6	1/3	208-230	1075	1	2.9	Open Vent.	REV	BALL	1/2 X 6 1/2	



PSC - 5.6" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D7908	5.6	1/3	208-230	1075	1	2.6	Totally Encl.	REV	BALL	1/2 X 6 1/2
D791	5.6	1/3	208-230	825	1	2.6	Open Vent.	REV	BALL	1/2 X 6
D795	5.6	1/3	115	825	1	6.1	Open Vent.	REV	BALL	1/2 X 6
D796	5.6	1/3	208-230	825	1	2.6	Open Vent.	REV	SLV	1/2 X 6
D908	5.6	1/3	208-230	1075	1	2.4	Totally Encl.	REV	SLV	1/2 X 6 1/2
D921	5.6	1/3	230/460	825	1	2.7/1.4	Open Vent.	REV	BALL	1/2 X 6 3/8
D960	5.6	1/3	460	825	1	1.3	Open Vent.	REV	BALL	1/2 X 6
D701	5.6	1/2 - 1/3 - 1/4 - 1/5	115	1075	4	7.7-5.5-4.2-3.3	Open Vent.	REV	SLV	1/2 X 5 1/2
D1705	5.6	1/2 - 1/3 - 1/4	115	1075	3	8.7-6.2- 4.9	Totally Encl.	DS	SLV	8 X 1/2 X 8
D1708	5.6	1/2 - 1/3 - 1/4	230	1075	3	4.1- 3-2.3	Totally Encl.	DS	SLV	8 X 1/2 X 8
D1732	5.6	1/2 - 1/3 - 1/4	115	1075	3	7.7-5.5-4.2	Open Vent.	REV	SLV	1/2 X 6
D2700	5.6	1/2 - 1/3 - 1/4	115	1075	3	7.7/5.5/4.2	Open Vent.	REV	BALL	1/2 X 5 1/2
D2701	5.6	1/2 - 1/3 - 1/4	208/230	1075	3	4.0/2.7/2.0	Open Vent.	REV	BALL	1/2 X 6 1/4
D3760	5.6	1/2 - 1/3 - 1/4	230	900	3	4.2-2.2-1.5	Open Vent.	DS	SLV	7 X 1/2 X 7
D3772	5.6	1/2 - 1/3 - 1/4	230	1350	3	3-1.9-1.3	Open Vent.	DS	SLV	7 X 1/2 X 7
D703	5.6	1/2 - 1/3 - 1/4	208-230	1075	3	4-2.7-2	Open Vent.	REV	SLV	1/2 X 6
D860	5.6	1/2 - 1/3 - 1/4	230	1075	3	3.2	Open Vent.	DS	SLV	4 1/4 X 1/2 X 4 3/8
D974	5.6	1/2 - 1/3 - 1/4	277	825	3	2.3-1.6-1.3	Open Vent.	REV	SLV	1/2 X 5
D2729	5.6	1/2	200-230/460	1075	1	4.6/2.3	Open Vent.	REV	BALL	1/2 X 3 1/2
D2800	5.6	1/2	208/230	1075	1	2.9	Totally Encl.	REV	SLV	1/2 X 5
D713	5.6	1/2	208-230	825	1	3.0	Totally Encl.	REV	SLV	1/2 X 6
D7745	5.6	1/2	208-230	1075	1	3.7	Open Vent.	REV	BALL	1/2 X 6 1/2
D790	5.6	1/2	208-230	825	1	3.5	Open Vent.	REV	BALL	1/2 X 6
D7907	5.6	1/2	208-230	1075	1	3.7	Totally Encl.	REV	BALL	1/2 X 6 1/2
D920	5.6	1/2	460	825	1	2.1	Open Vent.	REV	SLV	1/2 X 4 1/2
D938	5.6	1/2	208-230	825	1	3.4	Open Vent.	REV	SLV	1/2 X 6
D961	5.6	1/2	460	825	1	1.9	Open Vent.	REV	BALL	1/2 X 6
D998	5.6	1/2	115/230	825	1	6-3	Totally Encl.	CW	BALL	5/8 X 2 5/8
D2818	5.6	3/4 - 1/3	230	1075	2	5-2.2	Open Vent.	REV	BALL	5/8 X 4 1/2 Keyed
D724	5.6	3/4 - 1/2 - 1/3 - 1/4	115	1075	4	9.5-7.2-5.6-3.5	Open Vent.	REV	SLV	1/2 X 6
D2702	5.6	3/4 - 1/2 - 1/3	115	1075	3	10.5/5.6/4.8	Open Vent.	REV	BALL	1/2 X 6 1/4
D2703	5.6	3/4 - 1/2 - 1/3	208/230	1075	3	5.4/3.8/2.9	Open Vent.	REV	BALL	1/2 X 6 1/4
D728	5.6	3/4 - 1/2 - 1/3	115	1075	3	10.5-6.9-4.8	Open Vent.	REV	SLV	1/2 X 6
D729	5.6	3/4 - 1/2 - 1/3	208-230	1075	3	5.4-3.8-2.9	Open Vent.	REV	SLV	1/2 X 6
D970	5.6	3/4 - 1/2 - 1/3	277	1075	3	3.9-2.2-1.6	Open Vent.	REV	SLV	1/2 X 5 1/2
D929	5.6	3/4	208-230	1075	1	5	Open Vent.	REV	SLV	1/2 X 6 1/4
D2704	5.6	1 - 1/2 - 1/3	208/230	1075	3	5.3/2.8/1.8	Open Vent.	REV	BALL	1/2 X 6 1/4
D2705	5.6	1 - 1/2 - 1/3	115	1075	3	11.6/6.3/3.9	Open Vent.	REV	BALL	1/2 X 6 1/4
D2816	5.6	1 - 1/2 - 1/3	115	1075	3	11.8-6.3-3.9	Open Vent.	REV	BALL	5/8 X 4

PSC - 5.6" DIAMETER										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D1710	5.6	1	460	1075	1	3	Open Vent.	REV	BALL	1/2 X 6 1/2
D2714	5.6	.8	200-230/460	1075	1	4.6/2.3	Open Vent.	REV	BALL	1/2 X 5 1/2
D2715	5.6	.8	200-230/460	1075	1	4.6/2.3	Open Vent.	REV	BALL	5/8 X 5 1/2 Keyed
D2711	5.6	.6	200-230/460	1075	1	4 / 2	Open Vent.	REV	BALL	1/2 X 5 1/2
D2712	5.6	.6	200-230/460	1075	1	4 / 2	Open Vent.	REV	BALL	5/8 X 5 1/2 Keyed
D2713	5.6	.6	575	1075	1	1.5	Open Vent.	REV	BALL	1/2 X 5 1/2
D2710	5.6	.4	200-230/460	1075	1	3.2/1.6	Open Vent.	REV	BALL	1/2 X 5 1/2

3 PHASE - NEMA 48 AND 56										
MODEL	DIA.	HP	VOLTS	RPM	SPD.	FLA	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D6608	6.58	1	208-230/460	1140	1	4 / 2	OPEN VENTILATED	REV	BALL	5/8 X 3-3/4
D6610	6.58	1.5	208-230/460	1140	1	5.6 / 2.8	OPEN VENTILATED	REV	BALL	5/8 X 3-3/4
D6622	NEMA 56	1/3	208-230/460	1725	1	1.6 / .8	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6624	NEMA 56	1/2	208-230/460	1725	1	2 / 1	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6628	NEMA 56	3/4	208-230/460	1725	1	2.8 / 1.4	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6628	NEMA 56	1	208-230/460	1725	1	3.4 / 1.7	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6630	NEMA 56	1.5	208-230/460	1725	1	4.6 / 2.3	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6631	NEMA 56	2	208-230/460	1725	1	6.2 / 3.1	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6633	NEMA 56	3	208-230/460	1725	1	8 / 4	OPEN DRIP PROOF	REV	BALL	7/8 X 2-3/8

CAPACITOR START - NEMA 48 AND 56

MODEL	DIA.	HP	VOLTS	RPM	SPD.	FLA	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D6082	NEMA 56	1/3	115/208-230	1725	1	6.2 / 3.1	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6084	NEMA 56	1/2	115/208-230	1725	1	8.8 / 4.4	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6066	NEMA 56	3/4	115/208-230	3450	1	9.6 / 4.8	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6086	NEMA 56	3/4	115/208-230	1725	1	10.8 / 5.4	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6068	NEMA 56	1	115/208-230	3450	1	12 / 6	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6088	NEMA 56	1	115/208-230	1725	1	12.8 / 6.4	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6070	NEMA 56	1.5	115/208-230	3450	1	17.2 / 8.6	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6090	NEMA 56	1.5	115/208-230	1725	1	14.4 / 7.2	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6073	NEMA 56	2	115/208-230	3450	1	24 / 12	OPEN DRIP PROOF	REV	BALL	5/8 X 2
D6093	NEMA 56	2	115/208-230	1725	1	20 / 10	OPEN DRIP PROOF	REV	BALL	5/8 X 2

SPLIT PHASE

MODEL	DIA.	HP	VOLTS	RPM	SPD.	FLA	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.
D6002	NEMA 48	1/4	115/230	1725	1	5.2 / 2.6	OPEN DRIP PROOF	REV	BALL	1/2 X 1-1/2
D6004	NEMA 48	1/3	115/230	1725	1	6.2 / 3.1	OPEN DRIP PROOF	REV	BALL	1/2 X 1-1/2
D6006	NEMA 48	1/2	115/230	1725	1	8.6 / 4.3	OPEN DRIP PROOF	REV	BALL	1/2 X 1-1/2



FIG. A K114, K102



FIG. B K120



FIG. C K145, K130



FIG. D K628



FIG. E K614



FIG. F K673, K670, K672



FIG. G K101



FIG. H K111



FIG. I K683



FIG. J K100



FIG. K K611



FIG. L K115



FIG. M K629



FIG. N K109, K110

FASCO MODEL	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	STACK (IN.)	FIG.	NOTES
K114	1/500	120	1100	1	0.74	CW	SLV	.1811 X 1.75	.50	A	43
K102	1/500	120	1100	1	0.57	CW	SLV	.1811 X 1.50	.50	A	43, 120
K120	1/260	120	3000	2	.50 - .29	CW	SLV	.2178 X 1.55	.50	B	43, 121
K145	1/250	115	3000	1	.53	CW	SLV	.1814 X 1.00	.50	C	43
K628	1/200	208/230	3000	1	0.25	CW	SLV	.2500 x 1.60	.75	D	44
K614	1/150	120	3000	1	0.59	CW	SLV	.2178 X 1.65	.50	E	43
K673	1/150	120	3000	2	.51 - .27	CW	SLV	.1875 X 1.30	.62	F	44, 121
K670	1/150	120	3000	1	0.61	CCW	SLV	.1875 X 1.30	.62	F	44
K130	1/150	115	3000	1	0.47	CW	SLV	.1811 X 1.00	.62	C	43, 120
K101	1/150	240	1260	1	0.52	CCW	SLV	.2178 X 1.34	1.12	G	43
K672	1/150	240	3000	1	0.29	CCW	SLV	.1875 X 1.30	.62	F	44
K111	1/120	120	3000	1	0.82	CCW	SLV	.2178 X 1.97	.50	H	43
K683	1/100	240	3000	1	0.30	CW	SLV	.1875 X 1.30	1.00	I	43
K100	1/100	120	2750	1	0.73	CW	SLV	.1811 X 1.05	.62	J	43, 120
K611	1/100	120	3000	1	0.63	CCW	SLV	.2500 X 2.45	.75	K	43
K115	1/100	115	3000	1	0.57	CCW	SLV	.2178 X 1.85	.75	L	43
K629	1/85	120	2950	1	0.55	CW	SLV	.2500 x 1.13	1.00	M	44
K109	1/75	115	3000	1	0.77	CCW	SLV	.2178 X 2.37	.75	N	43
K110	1/75	115	3000	1	0.77	CCW	SLV	.2178 X 2.44	.75	N	43, 122

NOTES: 43: Packed 6 per carton , 44: Packed 1 per carton, 120: Use Fan Blades with round hub I.D., 121: Two Speed Motor, 122: K110 has maximum flat length

Products on page F-13 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.

Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A K-FAN4032, K-FAN4031



FIG. B K-FAN6009, K-FAN6046



FIG. C K-FAN6010



FIG. D K-FAN6012



FIG. E K-FAN6013



FIG. F K-FAN6011



FIG. G K-NUT, K-NUT6002



FIG. H K113



FIG. I K141



FIG. J K142, K143



FIG. K K612



FIG. L K610



FIG. M K112



FIG. N K161



FIG. O K144



FIG. P K147, K146

FASCO MODEL	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	STACK (IN.)	FIG.	NOTES
K113	1/70	120	3000	1	0.90	CCW	SLV	.2178 X 1.19	.75	H	43
K141	1/70	120	3000	1	0.65	CW	SLV	1.0 x .1814 x 0.75	1.15	I	43, 123
K142	1/70	120	3000	1	0.63	CW	SLV	.1814 X 1.00	1.00	J	43
K143	1/70	220-240	3000	1	0.32	CW	SLV	.1814 X 1.00	1.00	J	43
K612	1/65	120	3000	1	0.73	CW	SLV	.2500 X 2.70	1.00	K	43
K610	1/60	120	3000	2	.75 - .63	CCW	SLV	.2178 X 1.33	1.00	L	43, 121
K112	1/50	120	3000	2	.86 - .44	CW	SLV	.2178 X 1.44	1.00	M	43, 121
K161	1/50	120	3000	1	0.90	CCW	SLV	.2178 X 1.21	1.00	N	43
K144	1/40	120	3000	1	1.00	CCW	SLV	.2178 x 1.50	1.00	O	43
K147	1/30	220-240	3000	1	0.69	CW	SLV	.2499 X 1.00	1.50	P	43
K146	1/20	120	3000	1	2.1	CW	SLV	.2499 X 1.00	1.50	P	43

NOTES: 43: Packed 6 per carton 121: Two Speed Motor 123: Double Shafted

Fan Blades Used With K-Line Motors

FASCO MODEL	ROT.	DESCRIPTION	BORE DIA.	FAN DIA.	FITS SHAFT DIA.	FIG.
K-FAN4032		"D" SHAPED HUB	0.2178	4 5/8		A
K-FAN4031		ROUND BORE HUB	0.1811	4 5/8		A
K-FAN6009	CW	"D" SHAPED HUB	0.2178	6 5/8		B
K-FAN6010	CW	ROUND BORE HUB	0.1811	4		C
K-FAN6012	CW	ROUND BORE HUB	0.1811	3 1/2		D
K-FAN6013	CCW	ROUND BORE HUB	0.1811	5 1/2		E
K-FAN6011	CW	ROUND BORE HUB	0.1811	4		F
K-FAN6046	CCW	ROUND BORE HUB	0.1811	5 1/2		B
K-NUT		PUSH NUT			0.1811	G
K-NUT6002		PUSH NUT			0.2178	G

Products on page F-14 & 15 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.





FIG. A D550, D551, D552, D553, D554, D555, D556, D557, D582, D583, D558, D559, D560, D561, D562, D563, D564, D565



FIG. B D566, D567, D568, D569



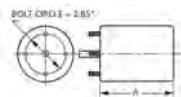
FIG. C D570, D571, D572, D573, D574, D575, D576, D577



FIG. D D578, D579, D580, D581

FASCO MODEL	WATT RATING	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	"A" DIM.	MATERIAL	THERMAL PROTECTION	THREADED SHAFT	FIG.	NOTES
D550	2	115	1550	1	0.24	Totally Encl.	CWLE	SLV	2.37	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D551	2	115	1550	1	0.24	Totally Encl.	CCWLE	SLV	2.37	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D552	2	230	1550	1	0.12	Totally Encl.	CWLE	SLV	2.37	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D553	2	230	1550	1	0.12	Totally Encl.	CCWLE	SLV	2.37	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D554	4	115	1550	1	0.34	Totally Encl.	CWLE	SLV	2.42	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D555	4	115	1550	1	0.34	Totally Encl.	CCWLE	SLV	2.42	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D556	4	230	1550	1	0.16	Totally Encl.	CWLE	SLV	2.42	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D557	4	230	1550	1	0.16	Totally Encl.	CCWLE	SLV	2.42	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D582	5	115	1550	1	0.35	Totally Encl.	CWLE	SLV	2.6	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D583	5	115	1550	1	0.35	Totally Encl.	CCWLE	SLV	2.6	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D558	6	115	1550	1	0.42	Totally Encl.	CWLE	SLV	2.61	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D559	6	115	1550	1	0.42	Totally Encl.	CCWLE	SLV	2.61	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D560	6	230	1550	1	0.21	Totally Encl.	CWLE	SLV	2.61	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D561	6	230	1550	1	0.21	Totally Encl.	CCWLE	SLV	2.61	Aluminum	Impedence	1/4 - 20	A	45, 124, 143
D562	9	115	1550	1	0.55	Totally Encl.	CWLE	SLV	2.65	Aluminum	Auto Reset	1/4 - 20	A	45, 124, 143
D563	9	115	1550	1	0.55	Totally Encl.	CCWLE	SLV	2.65	Aluminum	Auto Reset	1/4 - 20	A	45, 124, 143
D564	9	230	1550	1	0.33	Totally Encl.	CWLE	SLV	2.65	Aluminum	Auto Reset	1/4 - 20	A	45, 124, 143
D565	9	230	1550	1	0.33	Totally Encl.	CCWLE	SLV	2.65	Aluminum	Auto Reset	1/4 - 20	A	45, 124, 143
D566	16	115	1550	1	1.1	Totally Encl.	CWLE	SLV	3.34	Iron	Auto Reset	1/4 - 20	B	45, 124, 143
D567	16	115	1550	1	1.1	Totally Encl.	CCWLE	SLV	3.34	Iron	Auto Reset	1/4 - 20	B	45, 124, 145
D568	16	230	1550	1	0.6	Totally Encl.	CWLE	SLV	3.34	Iron	Auto Reset	1/4 - 20	B	45, 124, 143
D569	16	230	1550	1	0.6	Totally Encl.	CCWLE	SLV	3.34	Iron	Auto Reset	1/4 - 20	B	45, 124, 143
D570	25	115	1550	1	1.2	Totally Encl.	CWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D571	25	115	1550	1	1.2	Totally Encl.	CCWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D572	25	230	1550	1	0.66	Totally Encl.	CWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D573	25	230	1550	1	0.66	Totally Encl.	CCWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D574	35	115	1550	1	1.5	Totally Encl.	CWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D575	35	115	1550	1	1.5	Totally Encl.	CCWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D576	35	230	1550	1	0.7	Totally Encl.	CWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D577	35	230	1550	1	0.7	Totally Encl.	CCWLE	SLV	3.6	Iron	Auto Reset	1/4 - 20	C	45, 124, 143
D578	50	115	1550	1	1.8	Open Vent.	CWLE	SLV	4.67	Iron	Auto Reset	3/8 x 1-1/2	D	124, 143
D579	50	115	1550	1	1.8	Open Vent.	CCWLE	SLV	4.67	Iron	Auto Reset	3/8 x 1-1/2	D	124, 143
D580	50	230	1550	1	0.9	Open Vent.	CWLE	SLV	4.67	Iron	Auto Reset	3/8 x 1-1/2	D	124, 143
D581	50	230	1550	1	0.9	Open Vent.	CCWLE	SLV	4.67	Iron	Auto Reset	3/8 x 1-1/2	D	124, 143

NOTES: 45: Speed nut and vibration damper included. 124: All mounting holes drilled and tapped. 143: All motors individually boxed. 145: Interchangeable with GE 21 & 29 Frame motors and other Emerson, Universal and Franklin refrigeration motors



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at lead end (unit bearing motors this page only).

Unit Bearing - Refrigeration Motors



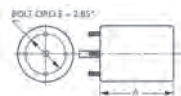
UB550	UB555	UB558	UB564	UB587	UB592
UB551	UB556	UB559	UB565	UB588	UB594
UB552	UB557	UB560	UB584	UB589	UB595
UB553	UB582	UB562	UB585	UB590	UB596
UB554	UB583	UB563	UB586	UB591	UB597

FASCO

FASCO MODEL	MOTOR DIA.	WATTS	RPM	SPEEDS	VOLTS	AMPS	ROTATION (OSE)	BEARING	ENCLOSURE	SHAFT DIA. LENGTH	"A"	CROSS REFERENCE	NOTES
UB550	2-5/8"	2	1550	1	115	0.22	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB02CWLA	1, 3, 5
UB551	2-5/8"	2.3	1300	1	115	0.15	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB023CWLA	1, 3, 5
UB552	2-5/8"	2.3	1300	1	230	0.08	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	N/A	1, 3, 5
UB553	2-5/8"	2.3	1300	1	230	0.08	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	N/A	1, 3, 5
UB554	2-5/8"	4	1450	1	115	0.29	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB04CWLA	1, 3, 5
UB555	2-5/8"	4	1450	1	115	0.29	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB04CCLA	1, 3, 5
UB556	2-5/8"	4	1450	1	230	0.14	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB04CWHA	1, 3, 5
UB557	2-5/8"	4	1450	1	230	0.14	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB04CCHA	1, 3, 5
UB582	2-5/8"	5	1550	1	115	0.34	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB05CWLA2F	1, 3, 5
UB583	2-5/8"	5	1550	1	115	0.34	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-5/8"	UB05CCLA2F	1, 3, 5
UB558	2-5/8"	6	1550	1	115	0.36	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB06CWLA	1, 3, 5
UB559	2-5/8"	6	1550	1	115	0.36	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB06CCLA2F	1, 3, 5
UB560	2-5/8"	6	1550	1	230	0.18	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	N/A	1, 3, 5
UB562	2-5/8"	9	1550	1	115	0.53	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB09CWLA2F	1, 3, 5
UB563	2-5/8"	9	1550	1	115	0.53	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB09CCLA	1, 3, 5
UB564	2-5/8"	9	1550	1	230	0.27	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB09CWHA	1, 3, 5
UB565	2-5/8"	9	1550	1	230	0.27	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB09CCHA2F	1, 3, 5
UB584	2-5/8"	2	1550	1	115	0.22	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB02CWL	2, 3, 4
UB585	2-5/8"	2.3	1300	1	115	0.15	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	N/A	2, 3, 4
UB586	2-5/8"	2.3	1300	1	230	0.08	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	N/A	2, 3, 4
UB587	2-5/8"	2.3	1300	1	230	0.08	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	N/A	2, 3, 4
UB588	2-5/8"	4	1450	1	115	0.29	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB04CWL	2, 3, 4
UB589	2-5/8"	4	1450	1	115	0.29	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB04CCL	2, 3, 4
UB590	2-5/8"	4	1450	1	230	0.14	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB04CWH	2, 3, 4
UB591	2-5/8"	4	1450	1	230	0.14	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB04CCH	2, 3, 4
UB592	2-5/8"	5	1550	1	115	0.34	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB05CWL2F	2, 3, 4
UB594	2-5/8"	6	1550	1	115	0.36	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB06CWL	2, 3, 4
UB595	2-5/8"	6	1550	1	115	0.36	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB06CCL	2, 3, 4
UB596	2-5/8"	6	1550	1	230	0.18	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	N/A	2, 3, 4
UB597	2-5/8"	9	1550	1	115	0.53	CW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB09CWL	2, 3, 4
UB598	2-5/8"	9	1550	1	115	0.53	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB09CCL	2, 3, 4
UB599	2-5/8"	9	1550	1	230	0.27	CW	Unit	Totally Encl.	11/4" x 20" Thread	2-7/8"	UB09CWH	2, 3, 4
UB600	2-5/8"	9	1550	1	230	0.27	CCW	Unit	Totally Encl.	1/4" x 20" Thread	2-7/8"	UB09CCH	2, 3, 4
UB566	2-5/8"	16	1550	1	115	0.80	CW	Unit	Totally Encl.	1/4" x 20" Thread	3-1/32"	UB16CWL1	2, 3, 4
UB567	2-5/8"	16	1550	1	115	0.80	CCW	Unit	Totally Encl.	1/4" x 20" Thread	3-1/32"	UB16CCL1	2, 3, 4
UB568	2-5/8"	16	1550	1	230	0.40	CW	Unit	Totally Encl.	1/4" x 20" Thread	3-1/32"	UB16CWH1	2, 3, 4
UB569	2-5/8"	16	1550	1	230	0.40	CCW	Unit	Totally Encl.	1/4" x 20" Thread	3-1/32"	UB16CCH1	2, 3, 4

NOTES:

1. Aluminum Body
2. Cast Iron Body
3. 2 Mounting Feet
4. 3 Rear Mounting holes
5. 5 Rear Mounting holes



Products on page F-16 & 17 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



3.3 inch dia.



FIG. A D200, D201



FIG. B D1130



FIG. C D229, D230



FIG. D D202, D203, D206, D210, D216



FIG. E D228



FIG. F D207



FIG. G D213, D211



FIG. H D402, D403



FIG. I D205



FIG. J D608, D208



FIG. K D209



FIG. L D214, D215, D220



FIG. M D218, D219



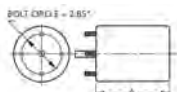
FIG. N D404, D405



FIG. O D503

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D200	SP	1/85	115	3000	1	0.6	Open Vent.	CW	SLV	2 3/8 X 1/4 X 3/4	2	A	85, 165, 166
D201	SP	1/85	115	3000	1	0.6	Open Vent.	CCW	SLV	1/4 X 1 3/8	2 1/4	A	85, 165, 166
D1130	SP	1/200	115	1550	1	0.5	Open Vent.	-	SLV	None	3 1/8	B	112, 85
D229	SP	1/100	115	3000	1	0.55	Open Vent.	CCW	SLV	1/4 X 3 1/2	2 1/2	C	85
D230	SP	1/100	115	3000	1	0.55	Open Vent.	CW	SLV	1/4 X 3 1/2	2 1/2	C	85
D202	SP	1/85	115	3000	1	0.6	Open Vent.	CW	SLV	1/4 X 2 1/4	2 3/8	D	85
D228	SP	1/80	115	3000	1	0.8	Open Vent.	CW	SLV	1/4 X 2	2 1/2	E	85
D203	SP	1/40	115	3000	1	1	Open Vent.	CCW	SLV	1/4 X 2 1/4	2 3/4	D	85
D206	SP	1/30	115	3000	1	1.2	Open Vent.	CW	SLV	1/4 X 2 1/4	2 3/4	D	85
D207	SP	1/30	230	3000	1	0.6	Open Vent.	DS	SLV	2 1/4 X 1/4 X 2 1/4	2 3/4	F	85
D210	SP	1/25	115	3000	1	1.3	Open Vent.	CW	SLV	1/4 X 2 1/4	3 1/4	D	85
D216	SP	1/25	230	3000	1	0.65	Open Vent.	CW	SLV	1/4 X 2 1/4	3 1/4	D	85
D213	SP	1/15	115	3000	1	2.1	Open Vent.	DS	SLV	2 3/4 X 1/4 X 2 3/4	3 7/8	G	85
D211	SP	1/15	230	3000	1	1.1	Open Vent.	DS	SLV	2 1/2 X 1/4 X 2 1/2	3 7/8	G	85
D402	SP	1/60	115	3000	1	0.75	Totally Encl.	CW	SLV	1/4 X 1 3/4	2 3/8	H	85
D403	SP	1/60	115	3000	1	0.75	Totally Encl.	CCW	SLV	1/4 X 2 1/4	2 3/8	H	85
D205	SP	1/40 - 1/70	115	3000	1	1-.5	Totally Encl.	DS	SLV	3 X 1/4 X 3	2 7/8	I	85
D608	SP	1/50	230	3000	1	0.6	Open Vent.	CW	SLV	1/4 X 1 5/16	3 3/4	J	167
D209	SP	1/30	115	3000	1	1.1	Open Vent.	DS	SLV	3 1/4 X 1/4 X 3 1/4	3 5/8	K	167
D208	SP	1/30	115	3000	1	1.1	Open Vent.	CW	SLV	1/4 X 3	3 5/8	J	167
D214	SP	1/20	115/230	3000	1	1.7-.8	Totally Encl.	CW	SLV	5/16 X 6 1/2	4 5/8	L	74, 167
D215	SP	1/20	115/230	3000	1	1.7-.8	Totally Encl.	CCW	BALL	5/16 X 6 1/2	4 5/8	L	167
D220	SP	1/20	115/230	3000	1	1.7-.8	Totally Encl.	CW	BALL	5/16 X 6 1/2	4 5/8	L	167
D218	PSC	1/20	115	3000	1	0.8	Totally Encl.	REV	BALL	5/16 X 2 1/4	4 3/8	M	29, 167
D219	PSC	1/8	115	3000	1	1.8	Totally Encl.	REV	BALL	5/16 X 2 1/4	5 1/8	M	29, 167
D404	PSC	1/10	208-230	3000	1	0.8	Open Vent.	REV	BALL	5/16 X 3 1/4	4 1/4	N	29, 85
D405	PSC	1/10	115	3000	1	1.4	Open Vent.	REV	BALL	5/15 X 3 1/4	4 1/4	N	29, 85
D503	PSC	1/10	230	1500	1	0.95	Open Vent.	REV	SLV	5/16 X 3 3/4	4 5/8	O	85

NOTES: 29: 4M 370V capacitor included 74: Popular Ice Machine pump motor 85: Air Over 112: Vibration motor 165: Skeleton Motor 166: 3.25" Diameter 167: Self-Cooled 168: 10M 440V Capacitor



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

3.3 inch dia.



FIG. A D1127



FIG. B D107



FIG. C D129, D128, D136



FIG. D D1119



FIG. E D120, D121, D609, D603, D126, D127, D190, D532, D181



FIG. F D1134



FIG. G D106, D105



FIG. H D514, D515



FIG. I D332



FIG. J D364



FIG. K D365



FIG. L D184



FIG. M D636

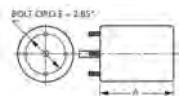


FIG. N D132, D133, D188

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D1127	PSC	1/12	115/230	1550	1	1.1 / 0.6	Open Vent.	REV	SLV	5/16 X 3	3 1/2	A	75
D107	SP	1/160	208-240	600	1	0.5	Open Vent.	CCW	SLV	5/16 X 1	2 5/8	B	85
D129	SP	1/125 - 1/200	115	1500	2	.4 - .3	Open Vent.	DS	SLV	3 1/4 X 1/4 X 3 1/4	2 1/8	C	76, 85
D1119	SP	1/90	240	1500	1	0.34	Open Vent.	CCW	SLV	1/4 X 1 1/2	2 1/4	D	85
D120	SP	1/70	115	1500	1	0.7	Open Vent.	CW	SLV	1/4 X 2 1/4	2 1/8	E	85
D121	SP	1/70	115	1500	1	0.7	Open Vent.	CCW	SLV	1/4 X 2 1/4	2 1/8	E	85
D1134	SP	1/50 - 1/65 - 1/80	115	1500	3	1.1-8-6	Open Vent.	CW	SLV	1/4 X 1 3/4	2 1/4	F	85
D609	SP	1/50	115	1500	1	0.9	Open Vent.	CCW	SLV	1/4 X 2 1/4	2 3/16	E	85
D603	SP	1/50	115	1500	1	0.9	Open Vent.	CW	SLV	1/4 x 2 3/8	2 3/16	E	85
D126	SP	1/40	115	1500	1	1.1	Open Vent.	CW	SLV	5/16 X 2 1/4	2 1/2	E	85
D127	SP	1/40	115	1500	1	1	Open Vent.	CCW	SLV	5/16 X 2 1/4	2 1/2	E	85
D128	SP	1/40 - 1/50 - 1/80	115	1500	3	1.3-9-6	Open Vent.	DS	SLV	4 X 5/16 X 4	2 1/2	C	85
D190	SP	1/40	230	1500	1	0.6	Open Vent.	CW	SLV	1/4 X 2 1/4	2 1/2	E	85
D106	SP	1/40	115	1500	1	0.9	Open Vent.	CCW	SLV	1/4 X 1 3/4	2 1/8	G	85
D105	SP	1/37	115	1500	1	0.94	Open Vent.	CCW	SLV	1/4 X 1 1/2	2 1/8	G	85
D136	SP	1/30	115	1500	1	1.3	Open Vent.	DS	SLV	2 X 5/16 X 2	3 1/4	C	85
D514	SP	1/30	115	1500	1	1.3	Open Vent.	CW	SLV	5/16 X 2 1/4	2 3/4	H	85
D515	SP	1/30	115	1500	1	1.3	Open Vent.	CCW	SLV	5/16 X 2 1/4	2 5/8	H	85
D532	SP	1/30 - 1/112	115	1500	2	1.4-8	Open Vent.	CW	SLV	5/16 X 1 1/2	2 3/4	E	85
D181	SP	1/30 - 1/40	115	1500	2	1.3-1	Open Vent.	CCW	SLV	5/16 X 2 1/4	2 5/8	E	85
D332	SP	1/25 - 1/65	115	1500	2	1.5-8	Open Vent.	CW	SLV	5/16 X 2	3 1/4	I	85
D364	SP	1/25	115	1500	1	1.8	Open Vent.	DS	SLV	1 7/8 X 5/16 X 1 7/8	2 7/8	J	85
D365	SP	1/25	115	1500	1	1.8	Open Vent.	DS	SLV	1 7/8 X 5/16 X 1 7/8	2 7/8	K	77, 85
D184	SP	1/25	115	1500	1	1.2	Open Vent.	CW	SLV	5/16 X 1 7/8	3	L	78, 85
D636	SP	1/25	230	1500	1	0.69	Open Vent.	DS	SLV	2 1/4 X 5/16 X 2 1/4	3 1/4	M	85
D132	SP	1/20	115	1500	1	1.8	Open Vent.	CW	SLV	5/16 X 2 1/4	2 3/4	N	85
D133	SP	1/20	115	1500	1	1.8	Open Vent.	CCW	SLV	5/16 X 2 1/4	2 3/4	N	85
D188	SP	1/20	230	1500	1	0.9	Open Vent.	CW	SLV	5/16 X 2 1/4	2 7/8	N	85

NOTES: 75: Shell Turbo 68, low temp. oil (-40°F) 76: Impedance Protected 77: Has hubs for end rings 78: Closed construction 85: Air Over

Products on page F-18 & 19 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



3.3 inch dia.



FIG. A D189, D186



FIG. B D109



FIG. C D1161



FIG. D D540, D541



FIG. E D1109



FIG. F D1162



FIG. G D122, D123, D182, D124, D125, D601, D602, D624



FIG. H D1139



FIG. I D534



FIG. J D137



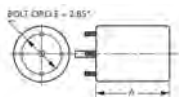
FIG. K D1118



FIG. L D1164

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D189	SP	1/20	230	1500	1	0.9	Open Vent.	CCW	SLV	5/16 X 2 1/4	2 7/8	A	85
D186	SP	1/20	460	1500	1	0.4	Open Vent.	CW	SLV	5/16 X 2 1/3	2 7/8	A	85
D109	SP	1/15	115	1600	1	2.1	Open Vent.	CW	SLV	5/16 X 3	3	B	85, 131
D1161	SP	1/15 - 1/25	115	1600	2	2.9-2	Open Vent.	CCW	SLV	5/16 X 2	4 1/4	C	85, 131
D540	SP	1/100	115	1500	1	0.6	Totally Encl.	CW	SLV	1/4 X 2 1/4	2 1/8	D	85
D541	SP	1/100	115	1500	1	0.6	Totally Encl.	CCW	SLV	1/4 X 2 1/4	2 1/8	D	85
D1109	SP	1/100	115	1500	1	0.65	Totally Encl.	CCW	SLV	1/4 X 1 1/4	2 1/16	E	85
D1162	SP	1/100	115	1500	1	0.6	Open Vent.	REV	SLV	5/16 X 1	3 1/2	F	85
D122	SP	1/80	115	1500	1	0.6	Totally Encl.	CW	SLV	1/4 X 2 1/4	2 1/8	G	85
D123	SP	1/80	115	1500	1	0.6	Totally Encl.	CCW	SLV	1/4 X 2 1/4	2 1/8	G	85
D182	SP	1/60	115	1500	1	0.6	Totally Encl.	CW	SLV	5/16 X 2 1/4	2 3/4	G	85
D124	SP	1/50	115	1500	1	0.75	Totally Encl.	CW	SLV	1/4 X 2 1/4	2 1/2	G	85
D125	SP	1/50	115	1500	1	0.75	Totally Encl.	CCW	SLV	1/4 X 2 1/4	2 1/2	G	85
D601	SP	1/50	115	1500	1	0.9	Totally Encl.	CCW	SLV	1/4 X 2 1/4	2 3/16	G	85
D602	SP	1/50	115	1500	1	0.9	Totally Encl.	CW	SLV	1/4 X 2 1/4	2 3/16	G	85
D624	SP	1/50	230	1500	1	0.4	Totally Encl.	CW	SLV	1/4 X 2 1/4	2 1/2	G	85
D1139	SP	1/50 - 1/80 - 1/125	115	1500	3	0.88	Open Vent.	CW	SLV	2 1/2 X 5/16 X 1 1/8	2 13/16	H	85
D534	SP	1/35 - 1/100	115	1500	2	1.4-5	Totally Encl.	CW	SLV	1/4 X 1	2 1/2	I	85
D137	SP	1/30 - 1/65	115	1500	2	1-7	Totally Encl.	DS	SLV	3 X 5/16 X 3	2 7/8	J	85
D1118	SP	1/30	240	1500	1	0.6	Open Vent.	CW	BALL	5/16 X 3 1/2	2 13/16	K	85
D1164	SP	1/25	115/230	1550	1	1.3-.65	Totally Encl.	CW	SLV	5/16 X 2 1/2	3 1/8	L	85

NOTES: 85: Air Over 131: Motors include shaft bushing



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

General Purpose Motors

FASCO

3.3 inch dia.



D369



D370



D0540



D0314



D0562



D0307



D0030



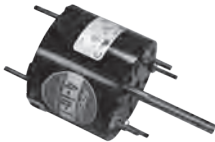
D031



D0534



D535



D3325CCW



D3325CW



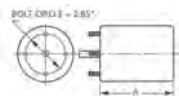
D0041



D419

FASCO MODEL	MOTOR DIA.	HP	RPM	SPEEDS	VOLTS	AMPS	ROTATION	BEARING	ENCLOSURE	SHAFT DIA. LENGTH	"A"	CROSS REFERENCE
D369	3.3"	1/60	900	3	115	1.8	CCWSE	Sleeve	Open	5/16" x 2-1/2"	3-3/8"	Century 369
D370	3.3"	1/75	1550	1	115	0.6	CCWSE	Sleeve	Open	1/4" x 2-1/2"	2-1/8"	Century 370
D0540	3.3"	1/75	1550	1	115	0.62	CWSE	Sleeve	Open	1/4" x 2-1/2"	2-1/8"	Century 540
D0314	3.3"	1/40	1550	1	115	0.9	CWSE	Sleeve	Open	2-3/8" x 5/16" x 2-3/8"	2-1/2"	Century 314
D0562	3.3"	1/25	1400/1630	1	115	1.8/1.5	CWSE	Sleeve	Open	5/16" x 1-1/2"	2-3/4"	Century 562, 459A, JA2P107
D0307	3.3"	1/25	1550	1	115	1.15	CWSE	Sleeve	Open	5/16" x 2-1/2"	3-1/2"	Century 307
D0030	3.3"	1/25	1550	1	115	1.7	CCWSE	Sleeve	Open	5/16" x 2-1/2"	2-3/4"	Century 307
D031	3.3"	1/25	1550	1	115	1.71	CCWSE	Sleeve	Open	5/16" x 2-1/2"	2-3/4"	Century 14
D0534	3.3"	1/25	1550	3	115	1.5	CWSE	Ball	Open	5/16" x 2-1/2"	3-1/4"	Century 534
D535	3.3"	1/25	1550	3	115	1.5	CCWSE	Ball	Open	5/16" x 2-1/2"	3-1/4"	Century 535
D3325CCW	3.3"	1/25-1/30-1/40-1/50	1550	1	115	1.7	CCWSE	Ball	Open	5/16" x 2-1/2"	2-3/4"	Century 3325CCW
D3325CW	3.3"	1/25-1/30-1/40-1/50	1550	1	115	1.7	CWSE	Ball	Open	5/16" x 2-1/2"	2-3/4"	Century 3325CW
D0041	3.3"	1/20	1550	1	115	1.6	CCWSE	Sleeve	Totally Encl.	5/16" x 2-1/2"	4-1/8"	Century 41
D419	3.3"	1/20	1550	1	115/230	1.53/0.76	CCWSE	Ball	Totally Encl.	5/16" x 2-1/4"	4-1/4"	Century 419

Products on page F-20 & 21 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



3.3 inch dia.



FIG. A D429, D437



FIG. B D431



FIG. C D477, D471, D470, D472, D473



FIG. D D417



FIG. E D1129



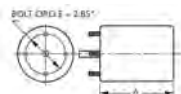
FIG. F D475



FIG. G D469

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D429	SP	9 Watts	115	1550	1	0.6	Totally Encl.	CCW	SLV	HUB	2 1/8	A	169, 170, 171, 172
D431	SP	9 Watts	230	1550	1	0.3	Totally Encl.	CCW	SLV	HUB	2 1/8	B	169, 170, 171, 172
D437	SP	16 Watts	115	1550	1	1.1	Totally Encl.	CCW	SLV	HUB	2 7/8	A	169, 170, 171, 172
D477	SP	1/35	208-230	1550	1	0.75	Open Vent.	CCW	SLV	5/16 X 1 5/8	4 1/4	C	173, 174
D471	SP	1/20	208-230	1550	1	1.1	Open Vent.	CCW	SLV	5/16 X 2 1/2	4 1/4	C	173, 174
D417	SP	1/20	208-230	1550	1	1.1	Open Vent.	CCW	BALL	5/16 X 2 1/2	4 1/4	D	173, 174
D470	SP	1/20	208-230	1550	1	0.94	Open Vent.	CW	SLV	5/16 X 2 5/8	4 1/4	C	173, 174
D472	SP	1/20	115	1550	1	1.9	Open Vent.	CW	SLV	5/16 X 2 5/8	4 1/4	C	173, 174
D473	SP	1/20	115	1550	1	2	Open Vent.	CCW	SLV	5/16 X 2 5/8	4 1/4	C	173, 174
D1129	PSC	1/20	115/230	1550	1	0.7/.35	Totally Encl.	CW	BALL	5/16 x 1 5/8	3 1/8	E	113, 23
D475	SP	1/15	460	1550	1	0.5	Open Vent.	CCW	SLV	5/16 X 2 1/2	4 1/2	F	79, 130, 173, 174
D469	SP	1/12	208-230	1550	1	1.3	Open Vent.	CCW	SLV	5/16 X 2 1/8	4 1/3	G	173, 174

NOTES: 79: See Tecumseh OEM section for cross references 113: PSC version of D1189 (OEM Replacement for Krack Refrigeration. 130: Do not have extended hubs or rubber rings for base mount 169: Mounting bracket designed to match the original motor (four 8-36 drilled and tapped holes) 170: Mounting hardware included 171: Has 22" leads with 1/16" thick insulation 172: Three studs opposite shaft end are 8-32 on a standard 2.84" bolt circle, 120° apart 173: 3.9" diameter 174: Includes 1/2" studs for mounting



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

3.3 inch dia.



FIG. A D1152, D1154, D1101, D1103



FIG. B D1102



FIG. C D1120, D1121



FIG. D D1124, D1126



FIG. E D1125



FIG. F D1142



FIG. G D1144



FIG. H D1164

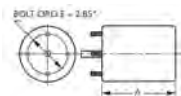


FIG. I D1243, D1245

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
BOHN													
D1124	SP	1/20	115	1550	1	2.1	Open Vent.	CW	SLV	5/16 X 3	3	D	75
D1126	SP	1/15	208-230	1550	1	1.1	Open Vent.	CW	SLV	5/16 X 3	3 1/2	D	75
D1125	PSC	1/12	208-230	1550	1	0.5	Open Vent.	CCW	SLV	5/16 X 2 5/8	3 3/4	E	29
KEEPRITE													
D1120	SP	1/20	115	1550	1	2.1	Open Vent.	CW	SLV	5/16 X 2 1/2	3 1/2	C	
D1121	SP	1/20	208-230	1550	1	1	Open Vent.	CW	SLV	5/16 X 2 1/2	3 1/2	C	
D1243	PSC	1/20	115	1550	1	0.8	Open Vent.	CCW	SLV	5/16 X 2 3/4	4 1/8	I	29
D1245	PSC	1/20	208-230	1550	1	0.3	Open Vent.	CCW	SLV	5/16 X 2 3/4	4	I	29
KRAMER/TRENTON													
D1152	SP	1/20	115	1500	1	1.7	Open Vent.	CW	SLV	5/16 X 2 3/8	2 7/8	A	
D1154	SP	1/20	230	1550	1	1	Open Vent.	CW	SLV	5/16 X 2 3/8	3 1/8	A	
LARKIN COIL													
D1101	SP	1/20	115	1500	1	1.9	Open Vent.	CCW	SLV	5/16 X 2 1/4	2 3/4	A	75
D1103	SP	1/20	208-230	1500	1	1.15	Open Vent.	CCW	SLV	5/16 X 2 1/4	3	A	75, 201
MCQUAY													
D1144	PSC	1/25 - 1/35 - 1/65	115	1200	3	1.1-9-6	Open Vent.	CW	SLV	3/8 X 5 3/8	4 3/4	G	1
D1142	SP	1/15	115/230	1500	1	1.7-9	Open Vent.	CW	SLV	5/16 X 2 1/2	3 1/2	F	175
SINGER													
D1164	SP	1/25	115/230	1550	1	1.3-.65	Totally Encl.	CW	SLV	5/16 X 2 1/2	3 1/8	H	
WITT													
D1102	PSC	1/20	115/230	1550	1	.75-4	Open Vent.	CW	SLV	5/16 X 2-5/8	3 1/2	B	

NOTES: 1: 4M 370V capacitor 29: 4M 370V capacitor included 75: Shell Turbo 68, low temp. oil (-40°F) 175: Bolt circle = 3.15"

Products on page F-22 & 23 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



3.3 inch dia.



FIG. A D134, D135, D227



FIG. B D1138



FIG. C D192, D226, D334, D234, D235



FIG. D D138, D238



FIG. E D167, D169, D130, D131, D330



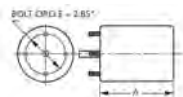
FIG. F D1173



FIG. G D504

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D134	SP	1/25	115	1500	1	1.6	Totally Encl.	CW	SLV	5/16 X 2 1/4	4 1/4	A	
D1138	SP	1/50 - 1/80 - 1/140	115	1500	3	.9-.6-.5	Open Vent.	CW	SLV	5/16 X 2 1/2	4	B	
D135	SP	1/25	115	1500	1	1.6	Totally Encl.	CCW	SLV	5/16 X 2 1/4	4 1/4	A	
D192	SP	1/25	230	1500	1	0.9	Totally Encl.	CW	SLV	5/16 X 2 1/4	4 1/4	C	
D226	SP	1/20	115	1500	1	1.6	Totally Encl.	CW	BALL	5/16 X 2 1/4	4 1/4	C	
D227	SP	1/20	115	1500	1	1.7	Totally Encl.	CCW	BALL	5/16 X 2 1/4	4 1/4	A	
D334	SP	1/15	230	1500	1	1.4	Totally Encl.	CW	BALL	5/16 X 3	4 3/4	C	
D234	SP	1/15	115	1500	1	2.2	Totally Encl.	CW	SLV	5/16 X 2 1/4	4 3/4	C	
D235	SP	1/12	115	1580	1	2.2	Totally Encl.	CCW	SLV	5/16 X 2 1/4	4 3/4	C	
D138	SP	1/25	115	1500	1	1.6	Totally Encl.	CW	SLV	5/16 X 2 5/8	4 1/2	D	
D238	SP	1/15	115	1500	1	2.3	Totally Encl.	CW	SLV	5/16 X 2 5/8	4 1/2	D	80
D167	SP	1/70	115	1500	1	0.7	Open Vent.	CW	SLV	1/4 X 3	2 7/8	E	
D169	SP	1/70	115	1500	1	0.7	Open Vent.	CCW	SLV	1/4 X 3	3	E	
D130	SP	1/40	115	1500	1	1	Open Vent.	CW	SLV	5/16 X 4 1/8	3 1/3	E	
D131	SP	1/40	115	1500	1	1	Open Vent.	CCW	SLV	5/16 X 2 1/4	3 1/3	E	
D330	SP	1/40	230	1500	1	0.5	Open Vent.	CW	SLV	5/16 X 2 1/4	3 7/8	E	
D1173	SP	1/30	115	1500	1	1.2	Open Vent.	CW	BALL	5/16 X 2 1/2	3 7/8	F	
D504	PSC	1/8	115/230	1500	1	1.6-.8	Open Vent.	REV	SLV	5/16 X 3 1/2	5 1/2	G	81, 173

NOTES: 80: With conduit box 81: PSC motor requiring a 10 MFD 370V cap 173: 3.9" diameter



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

3.3 inch dia.



FIG. A D1111



FIG. B D366, D367



FIG. C D325



FIG. D D1176



FIG. E D323

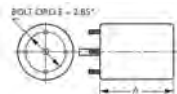


FIG. F D326

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D1111	SP	1/18 - 1/30	115	1330	2	2.4-1.6	Open Vent.	CCW	SLV	3 1/8 X 5/16 X 2 3/8	3 1/2	A	82
D366	SP	1/14 - 1/25	115	1550	2	2.5-1.5	Open Vent.	DS	SLV	6 3/8 X 5/16 X 6 3/8	3 1/4	B	
D367	SP	1/12 - 1/20 - 1/30	115	1550	3	3-2.1-1.7	Open Vent.	DS	SLV	5 3/4 X 5/16 X 5 3/4	3 5/8	B	
D325	SP	1/10 - 1/30	115	1550	2	2.5-2.3	Open Vent.	CCW	SLV	1 3/4 X 5/16 X 2 3/8	3 1/2	C	82
D1176	PSC	1/15 - 1/25	115	1550	2	.9-.8	Totally Encl.	DS	SLV	4 7/8 X 3/8 X 4 7/8	4	D	1
D323	PSC	1/15 - 1/20 - 1/35	115	1550	3	1-.8-.6	Totally Encl.	DS	SLV	2 3/4 X 5/16 X 2 3/4	3 3/4	E	83, 9
D326	PSC	1/10 - 1/20 - 1/25	115	1550	3	2.2-1.8-1.5	Open Vent.	DS	BALL	5 1/2 X 5/16 X 3	4 1/8	F	84

NOTES: 1: 4M 370V capacitor 9: 3M 370V capacitor 82: Rotation determined by viewing lug end 83: Totally enclosed, Sears-Whirlpool 5000-8000 BTU units. 84: 4M 370V capacitor (similar to GE WJ94X306)

Products on page F-24 & 25 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



3.3 inch dia.



FIG. A D418, D415



FIG. B D1191



FIG. C D1192



FIG. D D1196



FIG. E D1198



FIG. F D1194



FIG. G D1193



FIG. H D1188



FIG. I D408



FIG. J D1167



FIG. K D455



FIG. L D222



FIG. M D520



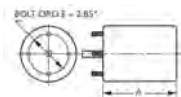
FIG. N D1186, D1184



FIG. O D410, D412

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D418	SP	1/50	115	1550	1	1.1	Open Vent.	CW	BALL	1/4 X 3	5 1/2	A	33, 41
D415	SP	1/40	115	1550	1	1.1	Open Vent.	CCW	BALL	1/4 X 3	5 1/2	A	33, 41
D1191	SP	1/40	460	3200	1	0.37	Open Vent.	CCW	BALL	1/4 X 2 1/2	5 3/4	B	33, 41, 131
D1192	SP	1/40	115	3000	1	0.7	Open Vent.	CCW	SLV	5/16 X 1 1/2	5 1/3	C	41
D1196	SP	1/33	115	3200	1	1.5	Open Vent.	CCW	SLV	5/16 X 2 1/3	3 1/4	D	33
D1198	SP	1/30	115	3200	1	1.5	Open Vent.	CCW	SLV	5/16 X 2 1/4	3 1/8	E	33
D1194	SP	1/25	115	3200	1	1.7	Open Vent.	CW	BALL	5/16 X 1 1/3	5 1/2	F	41
D1193	SP	1/22	115	3000	1	1.2	Open Vent.	CCW	SLV	5/16 X 2 1/3	2 7/8	G	33
D1188	SP	1/15	208-230/460	3000	1	1.1-.6	Open Vent.	CW	BALL	5/16 X 2	6 5/8	H	33, 41
D408	SP	1/150	115	3000	1	0.5	Open Vent.	CW	SLV	1/4 X 1 1/2		I	86, 131, 41
D1167	SP	1/40	208-230	3000	1	0.55	Open Vent.	CCW	SLV	5/16 X 1		J	41
D455	SP	1/30	115/230	3000	1	1.3-.7	Open Vent.	CCW	BALL	1/4 X 3 7/8		K	131, 41
D222	SP	1/25	115	1500	1	1.6	Totally Encl.	DS	SLV	2 1/4 X 5/16 X 2 1/4	2 7/8	L	85
D520	SP	1/20 - 1/50 - 1/100	115	1500	3	2-1.6	Totally Encl.	CW	SLV	1/4 X 2 1/4	3 1/8	M	85, 49, 176
D1186	PSC	1/16	460	3450	1	0.3	Open Vent.	CCW	BALL	5/16 X 3 1/3	4 3/4	N	29
D1184	PSC	1/16	460	3450	1	0.3	Open Vent.	CCW	BALL	5/16 X 3 1/3	4 3/4	N	10, 29
D410	PSC	1/10	115	3000	1	1.5	Open Vent.	REV	BALL	1/4 X 3 3/4	7 1/8	O	17, 131, 33, 41
D412	PSC	1/9	230	3000	1	0.7	Open Vent.	REV	BALL	1/4 X 3 3/4	6 5/8	O	29, 131, 33, 41

NOTES: 10: Has hall effect sensor 17: 7.5M 370V Cap installed 29: 4M 370V capacitor included 33: Stainless steel shaft 41: Includes centrifugal switch 49: Mechanically Reversible 85: Air Over 86: Drilled & Tapped Holes (No. 8-32NC) in face of case at shaft end for mounting in various Coleman mobile home furnace applications, also has mounting studs. 131: Motors include shaft bushing 176: Endshield on D520 is easily removed, allowing rotor and shaft to be rotated, thereby reversing motor rotation.



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Flue Exhaust and Draft Booster Blower Motors

FASCO

3.3 inch dia.



D454



D456, D458, D457, D1174, D1171



D1169



D1179, D1180

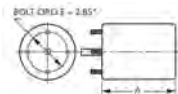


D1190

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	FIG.	NOTES
D454	SP	1/30	115	3000	1	1.5	Open Vent.	CW	SLV	1/4 X 1 1/2	A	177, 131, 41
D456	SP	1/15	115/230	3000	1	2-1	Totally Encl.	CW	BALL	1/4 X 2 3/4	B	33, 131, 41
D458	SP	1/15	208-230	3000	1	1	Open Vent.	CW	BALL	1/4 X 2 3/4	B	33, 131, 41
D457	SP	1/15	115/230	3000	1	2-1	Open Vent.	CCW	BALL	1/4 X 2 3/4	B	33, 131, 41
D1174	SP	1/15	460	3000	1	0.6	Open Vent.	CW	BALL	1/4 X 2 1/2	B	41
D1171	SP	1/15	460	3000	1	0.6	Open Vent.	CCW	BALL	1/4 X 2 1/2	B	131, 41
D1169	SP	1/10	208-230	3000	1	1.5	Open Vent.	CCW	SLV	5/16 X 1	C	41
D1179	SP	1/30	115	3000	1	1.5	Open Vent.	CW	SLV	5/16 X 2	D	33
D1190	SP	1/30	115	3000	1	1.6	Open Vent.	CW	SLV	5/16 X 1 3/4	E	33
D1180	SP	1/20	115	3300	1	1.9	Open Vent.	CW	SLV	5/16 X 2 1/8	D	33

NOTES: 33: Stainless steel shaft , 41: Includes centrifugal switch, 131: Motors include shaft bushing, 177: Used in Economite, "E-20", LS1/Miller and Mid Continent gas units.

Products on page F-26 & 27 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



4.4 inch dia.



FIG. A D1061



FIG. B D170, D116, D118, D377, D310, D674, D374



FIG. C D1170



FIG. D D119



FIG. E D174



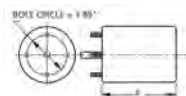
FIG. F D1039



FIG. G D312, D112, D435

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D1061	SP	1/20 - 1/30 - 1/60	115	1500	3	2-1.7-1.4	Open Vent.	CCW	SLV	1/2 X 2 3/4	4 1/8	A	65
D170	SP	1/20	115	1500	1	1.7	Open Vent.	CW	SLV	5/16 X 2 1/4	2 3/4	B	66
D116	SP	1/15	115	1500	1	2.4	Open Vent.	CW	SLV	3/8 X 2 3/8	3	B	
D118	SP	1/15 - 1/30	115	1500	2	2.4-1.4	Open Vent.	CW	SLV	3/8 X 2 3/8	3	B	
D1170	SP	1/15	115	1500	1	2.1	Open Vent.	CW	BALL	3/8 X 2 1/2	4 3/4	C	67
D377	SP	1/12	115	1500	1	3.1	Open Vent.	CCW	SLV	3/8 X 2	2 3/4	B	68
D310	SP	1/12	115	1500	1	4	Open Vent.	CW	SLV	3/8 X 2	2 3/4	B	69
D119	SP	1/11 - 1/25 - 1/70	115	1500	3	2.9-1.5-1	Open Vent.	CCW	BALL	1/2 X 2 5/8	3 3/4	D	70
D174	SP	1/10	115	1500	1	3.5	Open Vent.	CW	SLV	3/8 X 2 7/8	3 3/8	E	
D674	SP	1/10 - 1/15	230	1500	2	2-1.3	Open Vent.	CW	SLV	3/8 X 2 1/2	3 5/8	B	
D1039	SP	1/10	115	1610	1	3.1	Open Vent.	CCW	SLV	1/2 X 2 3/8	4 1/2	F	
D374	SP	1/8 - 1/20	115	1500	2	4-2.5	Open Vent.	CW	SLV	3/8 X 2 1/2	3 5/8	B	
D312	SP	1/15	115	1500	1	2.7	Open Vent.	CW	SLV	1/2 X 5	4 1/4	G	178, 179
D112	SP	1/10	115	1500	1	3.6	Open Vent.	CW	SLV	3/8 X 2 5/8	4 1/2	G	179
D435	SP	1/10	230	1500	1	1.7	Open Vent.	CCW	SLV	3/8 X 2 5/8	4 1/2	G	179

NOTES: 65: For use with Greenheck Fan 66: Shaft stepped down from 3/8" dia. Shaft 67: OEM direct replacement for Jenn Air 80CR 68: Used in Jenn Air units. P/N 7108-2101 69: Used in Leslie Locke ventilators original P/N 7108-5056 70: Used in Acme Eng. Roof Vents 178: External oil retainer to accommodate resilient rings and cradle base, drilled and tapped holes in case for mounting in Coleman applications. (2 holes each end on case OD). 179: Self cooled for mechanical duty



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Fan Coil Air-Conditioning and Heating Unit Motors

4.4 inch dia.



FIG. A D333, D335



FIG. B D117



FIG. C D329



FIG. D D236, D336, D635, D337, D339, D338



FIG. E D1006



FIG. F D113, D114, D115

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.
D333	SP	1/25	115	1550	1	1.4	Open Vent.	DS	SLV	7 1/4 X 3/8 X 7 1/4	2 7/8	A
D335	SP	1/20 - 1/30 - 1/40 - 1/60	115	1550	4	2.1-1.4-1.2-1.1	Open Vent.	DS	SLV	8 X 1/2 X 8	3 1/4	A
D117	SP	1/15 - 1/25 - 1/30 - 1/40	115	1550	4	2.4-1.4-1.1-9	Open Vent.	CCW	SLV	1/2 X 7 1/2	3	B
D329	SP	1/15	115	1550	1	2.5	Open Vent.	DS	SLV	7 1/2 X 3/8 X 7 1/2	3 3/8	C
D236	SP	1/10 - 1/15 - 1/25	115	1550	3	3.5-2.4-1.8	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2	3 3/8	D
D336	SP	1/10 - 1/15 - 1/25	115	1550	3	3.5-2.4-1.8	Open Vent.	DS	SLV	7 1/2 X 3/8 X 7 1/2	3 1/2	D
D635	SP	1/10 - 1/20 - 1/35	230	1550	3	1.8-1.3-1	Open Vent.	DS	SLV	10 X 1/2 X 10	3 3/8	D
D337	SP	1/8 - 1/10 - 1/12 - 1/15	115	1550	4	4.1-2.7-2.3-1.9	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2	3 5/8	D
D339	SP	1/8 - 1/12	230	1550	2	2-1.4	Open Vent.	DS	SLV	6 1/2 X 1/2 X 6 1/2	4 1/8	D
D338	SP	1/6 - 1/10 - 1/12 - 1/15	115	1550	4	5.4-3.2-2.5-2.1	Open Vent.	DS	SLV	7 1/4 X 1/2 X 7 1/4	4 1/8	D
D1006	SP	1/4	115	1600	1	7.2	Open Vent.	CW	SLV	1/2 X 2 3/4	4 1/8	E
D113	SP	1/12	115/230	1550	1	2.5-1.3	Totally Encl.	CCW	SLV	3/8 X 3	4 1/8	F
D114	SP	1/12	115/230	1550	1	2.5-1.3	Totally Encl.	CW	SLV	3/8 X 3	4 1/8	F
D115	SP	1/12	115/230	1550	1	2.5-1.3	Totally Encl.	CCW	SLV	1/2 X 2	4 1/8	F

Refrigeration Fan Motors

4.4 inch dia.

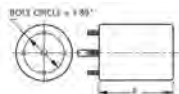


FIG. A D484, D482, D480, D485, D483, D481

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
D484	SP	1/20	115/208-230	1550	1	2.2-1.1	Open Vent.	CW	SLV	3/8 X 3 1/8	4	GE 2341,2342	A	49, 126, 148, 154, 180
D482	SP	1/15	115/208-230	1550	1	3.2-1.6	Open Vent.	CW	SLV	3/8 X 3 1/8	4	GE 2241,2242	A	49, 126, 148, 154, 180
D480	SP	1/10	115/208-230	1550	1	4.5-2.2	Open Vent.	CW	SLV	3/8 X 3 1/8	4 5/8	GE 2141,2142	A	49, 126, 148, 154, 180
D485	SP	1/20	115/208-230	1550	1	2.2-1.1	Open Vent.	CCW	SLV	3/8 X 3 1/8	4	GE 2331, 2332	A	49, 126, 148, 154, 180
D483	SP	1/15	115/208-230	1550	1	3.2-1.6	Open Vent.	CCW	SLV	3/8 X 3 1/8	4	GE 2231,2232	A	49, 126, 148, 154, 180
D481	SP	1/10	115/208-230	1550	1	4.5-2.2	Open Vent.	CCW	SLV	3/8 X 3 1/8	4 5/8	GE 2131, 2132	A	49, 126, 148, 154, 180

NOTES: 49: Mechanically Reversible 126: 3/8" shaft diameter with adapter to convert to 1/2" diameter 148: Weld nuts on 3.5" B.C. for stud mount
154: Extended hubs with rubber rings for base mount 180: Can be operated on 50Hz with air-over applications

Products on page F-28 & 29 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



5.0 inch dia.



FIG. A G2243, G2248, G2249, G2247, G2246, G2244, G2245



FIG. B D494, D492, D490, D495, D493, D491



FIG. C D486



FIG. D D487, D497



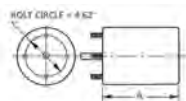
FIG. E D488, D489, D474

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	"C" DIM.	FIG.	NOTES
G2243	PSC	1/10	208-230	1100	1	0.74	Totally Encl.	CWLE	BALL	6.1	A	111, 142
G2248	PSC	1/8	208-230	1075	1	0.86	Totally Encl.	CWLE	BALL	6.1	A	111, 142
G2249	PSC	1/8	208-230	1075	1	0.75	Totally Encl.	CCWLE	BALL	6.1	A	111, 142
G2247	PSC	1/6	208-230	1100	1	1.3	Totally Encl.	CCWLE	BALL	6.7	A	111, 142
G2246	PSC	1/5	208-230	1080	1	1.6	Totally Encl.	CWLE	BALL	6.51	A	111, 142
G2244	PSC	1/4	208-230	1075	1	1.7	Totally Encl.	CWLE	BALL	6.7	A	111, 142
G2245	PSC	1/4	208-230	1075	1	1.7	Totally Encl.	CCWLE	BALL	6.7	A	111, 142

NOTES: 111: Application: Designed for use in residential outdoor condenser fan and heat pump units (primarily up to 3.5 ton)
 142: Vertical shaft down application.

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
D494	SP	1/20	115/208-230	1050	1	3-1.6	Open Vent.	CW	SLV	3/8 X 3 1/8	4	GE 2321, 2322	B	49, 126, 167, 148, 154
D492	SP	1/15	115/208-230	1050	1	3.4-1.7	Open Vent.	CW	SLV	3/8 X 3 1/8	4 5/8	GE 2223	B	49, 126, 167, 148, 154
D490	SP	1/10	115/208-230	1050	1	5-2.5	Open Vent.	CW	SLV	3/8 X 3 1/8	4 5/8	GE 2121, 2122	B	49, 126, 167, 148, 154
D495	SP	1/20	115/208-230	1050	1	3-1.6	Open Vent.	CCW	SLV	3/8 X 3 1/8	4	GE 2311, 2312	B	49, 126, 167, 148, 154
D493	SP	1/15	115/208-230	1050	1	3.4-1.7	Open Vent.	CCW	SLV	3/8 X 3 1/8	4 5/8	GE 2213	B	49, 126, 167, 148, 154
D491	SP	1/10	115/208-230	1050	1	5-2.5	Open Vent.	CCW	SLV	3/8 X 3 1/8	4 5/8	GE 2113	B	49, 126, 167, 148, 154
D486	PSC	1/10	115/208-230	1550	1	2.5-1.3	Open Vent.	REV	SLV	3/8 X 3 1/8	4 1/8		C	50, 167
D487	PSC	1/10	115/208-230	1550	1	2.7-1.4	Open Vent.	REV	BALL	3/8 X 3 1/8	4 7/8		D	50, 167
D497	PSC	1/10	115/208-230	1050	1	2-1	Open Vent.	REV	BALL	3/8 X 3 1/8	4 7/8		D	50, 167
D488	PSC	1/20	115/208-230	1550	1	1.2-6	Open Vent.	REV	SLV	3/8 X 3 1/3	4 9/16	GE 2341, 2342 2331, 2332	E	50, 127, 85
D489	PSC	1/15	115/208-230	1550	1	1.2-6	Open Vent.	REV	SLV	3/8 X 3 1/3	4 13/16	GE 2241, 2342 2231, 2232	E	50, 127, 85
D474	PSC	1/10	115/208-230	1550	1	1.9-1	Open Vent.	REV	SLV	3/8 X 3 1/3	4 13/16	GE 2141, 2142 2131, 2132	E	50, 127, 85

NOTES: 49: Mechanically Reversible 50: 3M 370V Capacitor Included 85: Air Over 126: 3/8" shaft diameter with adapter to convert to 1/2" diameter
 127: Front endshield drilled and tapped with four 10-32 threads on 3.5" bolt circle 148: Weld nuts on 3.5" B.C. for stud mount 154: Extended hubs with rubber rings for base mount 167: Self-Cooled



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Fan Coil Air-Conditioning and Heating Unit Motors

FASCO

5.0 inch dia.



FIG. A D249, D255, D250, D655, D252, D253, D254, D389, D256, D224, D247, D1025



FIG. B D251, D293, D289, D1005



FIG. C D257



FIG. D D290



FIG. E D291, D294, D292



FIG. F D277, D354, D258



FIG. G D245, D221, D382



FIG. H D1050

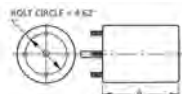


FIG. I D347

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D249	SP	1/50 - 1/80 - 1/160	115	1050	3	1.1-6-4	Open Vent.	DS	SLV	7 5/8 X 3/8 X 7 5/8	2 5/8	A	147
D255	SP	1/25 - 1/50 - 1/80	115	1050	3	1.5-1-6	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2	3 1/4	A	147
D250	SP	1/25 - 1/50 - 1/80	115	1050	3	1.5-1-6	Open Vent.	DS	SLV	8 X 3/8 X 8	3 1/4	A	147
D655	SP	1/25 - 1/40 - 1/70	230	1050	3	.7-5-3	Open Vent.	DS	SLV	10 X 1/2 X 10	3 1/4	A	147
D252	SP	1/20 - 1/40 - 1/70	115	1050	3	1.6-8-5	Open Vent.	DS	SLV	7 1/2 X 3/8 X 7 1/2	2 5/8	A	147
D253	SP	1/20 - 1/40 - 1/50	115	1050	3	2.2-1.4-8	Open Vent.	DS	SLV	7 1/2 X 1/2 X 7 1/2	2 5/8	A	
D254	SP	1/15 - 1/30 - 1/50	115	1050	3	2.1-1.3-8	Open Vent.	DS	SLV	8 X 3/8 X 8	3 1/4	A	147
D251	SP	1/15 - 1/35 - 1/50	208-230	1050	3	1.2-5-4	Open Vent.	DS	SLV	9 1/4 X 1/2 X 8 1/2	2 5/8	B	
D257	SP	1/15 - 1/20 - 1/25	277	1050	3	1.1-7-6	Totally Encl.	DS	SLV	9 X 1/2 X 9	3 1/4	C	147
D389	SP	1/15 - 1/20 - 1/30 - 1/50	115	1050	4	2.4-1.6-1.1-8	Open Vent.	DS	SLV	10 1/4 X 1/2 X 10 1/4	3 1/8	A	147
D256	SP	1/10 - 1/20 - 1/30	115	1050	3	3.4-1.7-1	Open Vent.	DS	SLV	8 X 1/2 X 8	3 7/8	A	147
D293	SP	1/10 - 1/30 - 1/40 - 1/45 - 1/50	115	1050	5	3.6-1.6-1.2-8-6	Open Vent.	DS	SLV	10 3/4 X 3/8 X 10 3/4	3 1/4	B	
D289	SP	1/10 - 1/30 - 1/40 - 1/45 - 1/50	115	1050	5	3.6-1.6-1.2-8-6	Open Vent.	DS	SLV	10 3/4 X 1/2 X 10 3/4	3 1/4	B	
D224	SP	1/6 - 1/8 - 1/12	230	1050	3	3.2-2.3-1.8	Open Vent.	DS	SLV	10 X 1/2 X 10		A	147
D290	PSC	1/10 - 1/15 - 1/25 - 1/40	115	1050	4	2.2-1.4-1-7	Open Vent.	REV	SLV	1 1/2 X 8 1/2	3 1/4	D	29, 128, 147
D291	PSC	1/10 - 1/15 - 1/25 - 1/40	115	1050	4	2.2-1.4-1-7	Open Vent.	DS	SLV	10 3/4 X 1/2 X 10 3/4	3 1/4	E	
D294	PSC	1/10 - 1/20 - 1/25 - 1/35 - 1/50	115	1050	5	1.3-1-7-6-5	Open Vent.	DS	SLV	10 3/4 X 3/8 X 10 3/4	3 1/4	E	
D292	PSC	1/10 - 1/15 - 1/25 - 1/35	208-230	1050	4	1-7-4-3	Open Vent.	DS	SLV	10 3/4 X 1/2 X 10 3/4	3 1/4	E	
D277	PSC	1/10 - 1/12 - 1/20	277	1050	3	.7-5-4	Open Vent.	DS	SLV	8 1/2 X 1/2 X 8 1/2	3 7/8	F	29, 147
D1005	PSC	1/10	460	1075	2	0.5	Open Vent.	DS	SLV	9 5/8 X 1/2 X 9 5/8	3 1/3	B	
D354	PSC	1/6 - 1/10 - 1/20	115	1050	3	2.8-1.8-1	Open Vent.	DS	SLV	8 1/2 X 1/2 X 8 1/2	3 7/8	F	53, 147
D245	PSC	1/3 - 1/5	230	1050	2	2.9-1.7	Open Vent.	DS	SLV	8 X 1/2 X 8	4 1/2	G	53, 147
D221	PSC	1/6 - 1/8 - 1/10 - 1/12	115	1550	4	3.2-1.7-1.3-1	Open Vent.	DS	SLV	8 X 1/2 X 8	3 5/8	G	
D382	PSC	1/25 - 1/40 - 1/50	115	1550	3	.6-4-3	Open Vent.	DS	SLV	6 7/8 X 1/2 X 6 7/8	3	G	54, 147
D1050	PSC	1/8	230	1550	1	1.1	Open Vent.	CW	SLV	1/2 X 3	3 1/4	H	147, 199
D347	PSC	1/8 - 1/10 - 1/15 - 1/20	115	1550	4	2.3-1.6-1.2-7	Open Vent.	DS	SLV	10 1/2 X 1/2 X 10 1/2	3	I	29
D247	PSC	1/6 - 1/8 - 1/12	230	1550	3	1-7-5	Open Vent.	DS	SLV	8 X 1/2 X 8	3 7/8	A	29, 147
D258	PSC	1/5 - 1/10	208-230	1550	2	2.8-1.3	Open Vent.	DS	SLV	8 X 1/2 X 8	3 3/8	F	54, 147
D1025	PSC	1/3	208-230	1625	1	2.3	Open Vent.	DS	SLV	7 1/8 X 1/2 X 7 1/4	4 1/8	A	54

NOTES: 29: 4M 370V capacitor included 53: 4M 370 capacitor included 54: 5M 370V capacitor included 128: Electrically Reversible
 147: COMES WITH 2 1/2" O.D. RUBBER MOUNTING RINGS 199: Original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing shaft end of motor to prevent moisture from entering motor

Products on page F-30 & 31 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.



5.0 inch dia.



FIG. A D154, D1046, D178, D156, D166, D164, D158, D658



FIG. B D177



FIG. C D176



FIG. D D160, D656



FIG. E D314



FIG. F D180, D318, D262



FIG. G D316



FIG. H D356



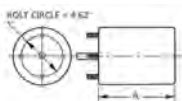
FIG. I D150, D151, D152



FIG. J D264

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D154	SP	1/10	115	1050	1	5	Open Vent.	CW	SLV	3/8 X 2 3/4	4 5/8	A	182
D177	SP	1/10 - 1/20	115	1050	2	3.9-1.7	Open Vent.	CCW	SLV	3/8 X 3 5/8	2 5/8	B	
D176	SP	1/10 - 1/20	115	1050	2	3.9-1.7	Open Vent.	CW	SLV	3/8 X 3	2 5/8	C	
D160	SP	1/10 - 1/12 - 1/15	115	1050	3	3.4-2.8-2.4	Open Vent.	CW	SLV	3/8 X 3 7/8	3 7/8	D	
D656	SP	1/8	230	1050	1	2.1	Open Vent.	CW	SLV	1/2 X 3 7/8	3 7/8	D	
D1046	SP	1/8	115	1070	1	5.1	Open Vent.	CW	SLV	1/2 X 2 1/4	3	A	
D178	SP	1/8 - 1/11	115	1050	2	4.5-3.4	Open Vent.	CW	SLV	1/2 X 4	3 1/4	A	183
D314	SP	1/8 - 1/15	230	1050	2	2.3-1.5	Open Vent.	CW	SLV	1/2 X 5	4 3/8	E	183, 163
D180	SP	1/8 - 1/11	115	1050	2	4.5-3.4	Open Vent.	CW	SLV	1/2 X 4	3 1/4	F	
D316	SP	1/8 - 1/10	230	1050	2	2.1-1.8	Open Vent.	CW	SLV	1/2 X 3 1/2	3 7/8	G	
D356	SP	1/8 - 1/10 - 1/12	115	1050	3	4.7-3.7-3.2	Open Vent.	CW	SLV	1/2 X 3 1/2	3 1/8	H	
D156	SP	1/6	115	1050	1	6.6	Open Vent.	CW	SLV	1/2 X 3 7/8	3 7/8	A	
D166	SP	1/6 - 1/9	115	1050	2	7.2-3.8	Open Vent.	CW	SLV	1/2 X 3 1/2	3 7/8	A	
D164	SP	1/6 - 1/8 - 1/10 - 1/2	115	1050	4	6.5-4.8-4.3-3.7	Open Vent.	CW	SLV	1/2 X 4 1/2	3 7/8	A	
D318	SP	1/6 - 1/8	230	1050	2	3.1-2.2	Open Vent.	CW	SLV	1/2 X 3 1/2	4	F	
D158	SP	1/5 - 1/6 - 1/7	115	1050	3	6.7-5.3-4.7	Open Vent.	CW	SLV	1/2 X 4 1/8	3 7/8	A	
D658	SP	1/5 - 1/6 - 1/7 - 1/8	208-230	1050	4	4-3.4-3.1-2.4	Open Vent.	CW	SLV	1/2 X 5 1/4	3 7/8	A	
D150	PSC	1/4 - 1/5 - 1/6	115	1050	3	4.1-3.2-2.5	Open Vent.	REV	SLV	1/2 X 6	4 1/8	I	
D151	PSC	1/4 - 1/5 - 1/6	230	1050	3	1.7-1.2-1	Open Vent.	REV	SLV	1/2 X 6	4 1/8	I	
D152	PSC	1/4 - 1/5 - 1/6 - 1/8	277	1050	4	1.6-1.1-9-.7	Open Vent.	REV	SLV	1/2 X 6	4 1/8	I	
D264	PSC	1/8	230	1550	1	1.1	Open Vent.	REV	SLV	1/2 X 5	3 1/3	J	57
D262	PSC	1/5	230	925	1	2.3	Open Vent.	REV	SLV	1/2 X 4	3 7/8	F	57

NOTES: 57: Luxaire/Whisperaire 163: Internal cooling fan 182: Has internal fan & 3.5" BC mounting holes for GE 21/29 Frame replacement. 183: Drilled and tapped holes in case for Coleman mounting



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

5.0 inch dia.



FIG. A D340, D242



FIG. B D143



FIG. C D1038



FIG. D D1036, D342



FIG. E D140, D144



FIG. F D142



FIG. G D1054



FIG. H D148



FIG. I D1066



FIG. J D1028



FIG. K D240



FIG. L S156

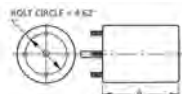


FIG. M D261, D260

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D340	SP	1/40	115	1050	1	1.1	Totally Encl.	CW	SLV	3/8 X 2 5/8	2 5/8	A	
D143	SP	1/30 - 1/40	115	1050	2	1.5-1	Open Vent.	CCW	SLV	1/2 X 1 5/8	2 1/4	B	
D1038	SP	1/25	115	1050	1	1.4	Open Vent.	CW	SLV	1/2 X 2 1/2	4	C	185
D1036	SP	1/20	115	1045	1	1.95	Open Vent.	CW	SLV	3/8 X 2 1/8	2 3/8	D	
D342	SP	1/15	115	1050	1	2.3	Open Vent.	CW	SLV	3/8 X 2 1/2	2 9/16	D	
D140	SP	1/15	115	1050	1	2.7	Open Vent.	CW	SLV	3/8 X 2 3/8	2 5/8	E	
D142	SP	1/15 - 1/25	115	1050	2	2.6-1.6	Open Vent.	CW	SLV	3/8 X 2 3/8	2 1/4	F	185
D1054	SP	1/12 - 1/20 - 1/25	115	1050	3	3.1-2.1-1.5	Open Vent.	CW	SLV	1/2 X 2 1/2	2 5/8	G	
D148	SP	1/10	115	1050	1	3.6	Open Vent.	CW	SLV	3/8 X 3 1/2	2 5/8	H	185
D144	SP	1/10	115	1050	1	3.6	Open Vent.	CW	SLV	1/2 X 4 1/2	2 5/8	E	185
D1066	SP	1/10	115	1050	1	3.6	Open Vent.	CW	BALL	1/2 X 2 3/4	3 7/8	I	185
D1028	SP	1/8	115	1050	1	3.3	Open Vent.	CW	BALL	1/2 X 2 1/2	3 1/2	J	185
D240	SP	1/6	115	1050	1	6.2	Open Vent.	CW	SLV	1/2 X 3 1/2	4	K	
S156	SP	1/6	115	1050	1	6.6	Open Vent.	CW	SLV	1/2 X 3 7/8	3 1/2	L	
D242	SP	1/20	115	1050	1	2	Totally Encl.	CW	SLV	3/8 X 3	3 1/8	A	64, 186
D261	PSC	1/8 - 1/15	115	1075	2	2.3-1.1	Totally Encl.	REV	SLV	1/2 X 3	3 5/8	M	29, 186
D260	PSC	1/6	115	1075	1	2.9	Totally Encl.	CW	SLV	1/2 X 3	3 7/8	M	29, 129, 186

NOTES: 29: 4M 370V capacitor included 64: Sterling Radiator Co. 129: Repl. For ITT REZNOR 185: Rooftop Ventilator 186: Unit Heater

Products on page F-32 & 33 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



5.6 inch dia.



FIG. A S719, D743, D742



FIG. C D7749



FIG. D D929



FIG. G D748



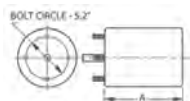
FIG. H D7748



FIG. I D7745

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
SHAFT DOWN OR HORIZONTAL													
S719	PSC	1/5 - 1/8	208-230	1075	2	1.3-.8	Open Vent.	REV	SLV	1/2 X 6 1/2	3 3/4	A	36, 128, 189, 97
D743	PSC	1/5	208-230	1075	1	1.2	Open Vent.	REV	SLV	1/2 X 6	3 1/2	A	36, 128, 189, 97
D742	PSC	1/4	208-230	1075	1	2.1	Open Vent.	REV	SLV	1/2 X 6	4	A	36, 128, 189, 97
SHAFT UP OR HORIZONTAL													
D7749	PSC	1/4	208-230	1075	1	1.7	Open Vent.	REV	BALL	1/2 X 6 1/2	3 3/4	C	128, 187, 188, 189, 97
D7748	PSC	1/3	208-230	1075	1	2.9	Open Vent.	REV	BALL	1/2 X 6 1/2	4 1/4	H	128, 187, 188, 189, 97
D748	PSC	1/3	208-230	1075	1	2.9	Open Vent.	REV	SLV	1/2 X 6 1/2	4 1/4	G	128, 187, 188, 189, 97
D7745	PSC	1/2	208-230	1075	1	3.7	Open Vent.	REV	BALL	1/2 X 6 1/2	4 3/4	I	12, 128, 187, 188, 189
D929	PSC	3/4	208-230	1075	1	5	Open Vent.	REV	SLV	1/2 X 6 1/4	5 1/4	D	12, 128, 187, 188, 189

NOTES: 12: 10M 370V Capacitor 36: Has 4 drilled and tapped holes in shell 97: All angle mount bearings 128: Electrically Reversible 187: Includes shaft water slinger
188: 60° ambient temperature rating 189: Closed end shield shaft end



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

5.6 inch dia.



FIG. A D799, D798, D794



FIG. B D793



FIG. C D5488, D934, D792, D5489, D791, D795, D790



FIG. D D797, D796



FIG. E D938



FIG. F D713



FIG. H D919, D917, D906, D909, D908



FIG. J D7909, D7908

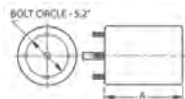


FIG. K D7907

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
825 RPM MOTORS													
D799	PSC	1/8	208-230	825	1	0.9	Totally Encl.	REV	SLV	1/2 X 6	4	A	36, 128, 188, 190
D793	PSC	1/6	208-230	825	1	1	Totally Encl.	REV	BALL	1/2 X 6	4	B	190, 128, 188
D5488	PSC	1/6-1/8	208-230	825	1	1	Totally Encl.	REV	BALL	1/2 X 6 5/8	4	C	36, 128, 188, 190
D798	PSC	1/6	208-230	825	1	1.3	Totally Encl.	REV	SLV	1/2 X 6	4 1/3	A	36, 128, 188, 190
D794	PSC	1/5	208-230	825	1	1.3	Totally Encl.	REV	SLV	1/2 X 6	4 1/3	A	36, 128, 188, 190
D934	PSC	1/4	208-230	825	1	1.9	Totally Encl.	REV	SLV	1/2 X 6	4 1/3	C	36, 128, 188, 190
D792	PSC	1/4	208-230	825	1	1.8	Open Vent.	REV	BALL	1/2 X 6	4 1/4	C	36, 92, 128, 188, 190
D797	PSC	1/4	208-230	825	1	1.8	Open Vent.	REV	SLV	1/2 X 6	4 1/4	D	36, 133, 128, 188, 190
D796	PSC	1/3	208-230	825	1	2.6	Open Vent.	REV	SLV	1/2 X 6	5	D	36, 133, 128, 188, 190
D5489	PSC	1/3-1/4	208-230	825	1	1.8	Totally Encl.	REV	BALL	1/2 X 6 5/8	4 3/4	C	36, 139, 128, 188
D791	PSC	1/3	208-230	825	1	2.6	Open Vent.	REV	BALL	1/2 X 6	5	C	36, 92, 128, 188, 190
D795	PSC	1/3	115	825	1	6.1	Open Vent.	REV	BALL	1/2 X 6	5 3/4	C	92, 139, 128, 188
D938	PSC	1/2	208-230	825	1	3.4	Open Vent.	REV	SLV	1/2 X 6	5 1/2	E	128, 188, 98
D790	PSC	1/2	208-230	825	1	3.5	Open Vent.	REV	BALL	1/2 X 6	5	C	128, 188, 98
D713	PSC	1/2	208-230	825	1	3.0	Totally Encl.	REV	SLV	1/2 X 6	5 1/3	F	128, 190
TOTALLY ENCLOSED MOTORS													
D919	PSC	1/8	208-230	1075	1	0.9	Totally Encl.	REV	SLV	1/2 X 6 1/2	3 3/4	H	36, 97, 128, 188
D917	PSC	1/6	208-230	1075	1	1	Totally Encl.	REV	SLV	1/2 X 6 1/2	3 3/4	H	36, 97, 128, 188
D906	PSC	1/5	208-230	1075	1	1.2	Totally Encl.	REV	SLV	1/2 X 6 1/2	4	H	36, 97, 128, 188
D7909	PSC	1/4	208-230	1075	1	1.8	Totally Encl.	REV	BALL	1/2 X 6 1/2	4	J	36, 97, 128, 188
D909	PSC	1/4	208-230	1075	1	1.8	Totally Encl.	REV	SLV	1/2 X 6 1/2	4	H	36, 97, 128, 188
D7908	PSC	1/3	208-230	1075	1	2.6	Totally Encl.	REV	BALL	1/2 X 6 1/2	4 1/2	J	13, 36, 128, 190, 188
D908	PSC	1/3	208-230	1075	1	2.4	Totally Encl.	REV	SLV	1/2 X 6 1/2	4 1/2	H	13, 36, 128, 190, 188
D7907	PSC	1/2	208-230	1075	1	3.7	Totally Encl.	REV	BALL	1/2 X 6 1/2	5	K	12, 128, 188, 97

NOTES: 12: 10M 370V Capacitor 13: 7.5M 370V Capacitor 36: Has 4 drilled and tapped holes in shell 91: 7.5MFD 370VAC capacitor 92: Shaft up or horizontal applications 93: Motor has increased stack for higher ambient temperatures 97: All angle mount bearings 128: Electrically Reversible 133: Shaft down or horizontal applications 188: 60° ambient temperature rating 190: All angle mount bearings. Use rain shield when necessary.

Products on page F-34 & 35 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



5.6 inch dia.



FIG. C D2826

FASCO MODEL	TYPE	HP	VOLTS	COOLING	HEATING	SPEED CONN.	CAP	CAP. @ 208V	CAP. @ 230V	RPM	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
CONDENSED FAN MOTORS																		
D2826	PSC	1/3	208-230			HIGH			7.5 MFD	825	1.9	Totally Encl.	REV	BALL	1/2 X 5	5 1/4	C	36
	PSC	1/4				HIGH			7.5 MFD	825	1.5	Totally Encl.	REV	BALL	1/2 X 5	5 1/4	C	36
	PSC	1/5				LOW		10 MFD		825	1.2	Totally Encl.	REV	BALL	1/2 X 5	5 1/4	C	36
	PSC	1/6				LOW		10 MFD		825	1.0	Totally Encl.	REV	BALL	1/2 X 5	5 1/4	C	36

NOTES: 36: Has 4 drilled and tapped holes in shell

Condenser Fan Motors

5.6 inch dia.



FIG. A D5458, D5459



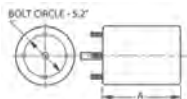
FIG. B S2846



FIG. C S2848

FASCO MODEL	TYPE	HP	VOLTS	RPM	AMPS	ENCLOSURE	ROT.	BRING.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
208/230 VAC MOTORS												
D5458	PSC	1/5, 1/4, 1/3	208-230	1075	2.0	Totally Encl.	REV	SLV	1/2 X 6 3/4	4 1/4	A	13, 128, 36
D5459	PSC	1/8, 1/6	208-230	1075	1.0	Totally Encl.	REV	SLV	1/2 X 6 3/4	3 3/4	A	128, 36
230/460 VAC MOTORS WITH INTERNAL COOLING FAN												
S2846	PSC	1/2	230/460	1075	3.9/2	Open Vent.	REV	BALL	1/2 X 5 3/8	6 1/2	B	14, 188, 97, 95, 128
S2848	PSC	3/4	230/460	1075	4.7/2.4	Open Vent.	REV	BALL	1/2 X 6	7 3/4	C	15, 128, 188, 97, 95

NOTES: 13: 7.5M 370V Capacitor 14: 7.5M 440V Capacitor 15: 20M 370V Capacitor 36: Has 4 drilled and tapped holes in shell 95: Comes with unmounted conduit box. 97: All angle mount bearings 128: Electrically Reversible 188: 60° ambient temperature rating



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

5.6 inch dia.



FIG. A D2710, D2713, D2714



FIG. B D2711



FIG. C D2712, D2715, D2720



FIG. D D2729



FIG. G D960, D961



FIG. H D921

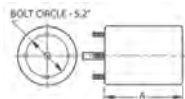


FIG. I D920

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRING.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
200-575 VAC FAN SHELTERED MOTORS													
D2710	PSC	.4	200-230/460	1075	1	3.2/1.6	Open Vent.	REV	BALL	1/2 X 5 1/2	5 1/4	A	128, 188, 11
D2711	PSC	.6	200-230/460	1075	1	4 / 2	Open Vent.	REV	BALL	1/2 X 5 1/2	6 3/4	B	128, 188, 13
D2712	PSC	.6	200-230/460	1075	1	4 / 2	Open Vent.	REV	BALL	5/8 X 5 1/2 Keyed	6 3/4	C	128, 188, 13
D2713	PSC	.6	575	1075	1	1.5	Open Vent.	REV	BALL	1/2 X 5 1/2	7	A	128, 188, 14
D2714	PSC	.8	200-230/460	1075	1	4.6/2.3	Open Vent.	REV	BALL	1/2 X 5 1/2	8	A	128, 188, 95
D2715	PSC	.8	200-230/460	1075	1	4.6/2.3	Open Vent.	REV	BALL	5/8 X 5 1/2 Keyed	8	C	128, 188, 95
D2729	PSC	1/2	200-230/460	1075	1	4.6/2.3	Open Vent.	REV	BALL	1/2 X 3 1/2	6 1/4	D	128, 188, 13
3 PHASE MOTORS													
D2720	3 PH	3/4	200-230	1140	1	3	Open Vent.	REV	BALL	5/8 X 5 7/8 Keyed	8	C	
460 VAC MOTORS													
D960	PSC	1/3	460	825	1	1.3	Open Vent.	REV	BALL	1/2 X 6	5	G	
D921	PSC	1/3	230/460	825	1	2.7/1.4	Open Vent.	REV	BALL	1/2 X 6 3/8	5 1/4	H	95
D961	PSC	1/2	460	825	1	1.9	Open Vent.	REV	BALL	1/2 X 6	5 3/4	G	13
D920	PSC	1/2	460	825	1	2.1	Open Vent.	REV	SLV	1/2 X 4 1/2	5 1/2	I	24, 136

NOTES: 11: 5M 440V Capacitor 13: 7.5M 370V Capacitor 14: 7.5M 440V Capacitor 24: 15M 370V Capacitor 95: Comes with unmounted conduit box.
128: Electrically Reversible 136: Does not come with conduit box. 188: 60° ambient temperature rating

Products on page F-36 & 37 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



5.6 inch dia.



FIG. A D721, D727, D701, D728, D2700, D2702, D2705



FIG. C D724



FIG. D D1731



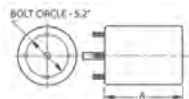
FIG. E D2701, D2703, D725, D923, D703, D729



FIG. F D2704

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
OPEN VENTILATION													
D928	PSC	1/6 - 1/8 - 1/10	115	1075	3	2.7-2.1-1.7	Open Vent.	REV	SLV	1/2 X 5 1/4	3 3/4	A	99, 137, 128
D721	PSC	1/4 - 1/5 - 1/6	115	1075	3	4.8-3.3-2.6	Open Vent.	REV	SLV	1/2 X 6	4	A	99, 137, 128
D727	PSC	1/3 - 1/4 - 1/5	115	1075	3	5.9-4.6-3.8	Open Vent.	REV	SLV	1/2 X 6	4 1/4	A	99, 137, 128
D701	PSC	1/2 - 1/3 - 1/4 - 1/5	115	1075	4	7.7-5.5-4.2-3.3	Open Vent.	REV	SLV	1/2 X 5 1/2	5 1/4	A	99, 137, 12, 128
D724	PSC	3/4 - 1/2 - 1/3 - 1/4	115	1075	4	9.5-7.2-5.6-3.5	Open Vent.	REV	SLV	1/2 X 6	5 3/4	C	99, 137, 24, 155, 128
D1731	PSC	1/3 - 1/4 - 1/5	115	1075	3	5.9-4.6-3.8	Open Vent.	REV	SLV	1/2 X 6	4 1/4	D	
D2700	PSC	1/2 - 1/3 - 1/4	115	1075	3	7.7/5.5/4.2	Open Vent.	REV	BALL	1/2 X 5 1/2	5 1/3	A	100
D2701	PSC	1/2 - 1/3 - 1/4	208/230	1075	3	4.0/2.7/2.0	Open Vent.	REV	BALL	1/2 X 6 1/4	5 1/8	E	101
D2702	PSC	3/4 - 1/2 - 1/3	115	1075	3	10.5/5.6/4.8	Open Vent.	REV	BALL	1/2 X 6 1/4	5 1/2	A	100
D2703	PSC	3/4 - 1/2 - 1/3	208/230	1075	3	5.4/3.8/2.9	Open Vent.	REV	BALL	1/2 X 6 1/4	5 1/2	E	100
D2704	PSC	1 - 1/2 - 1/3	208/230	1075	3	5.3/2.8/1.8	Open Vent.	REV	BALL	1/2 X 6 1/4	5 1/2	F	102
D2705	PSC	1 - 1/2 - 1/3	115	1075	3	11.6/6.3/3.9	Open Vent.	REV	BALL	1/2 X 6 1/4	6	A	102, 138
D725	PSC	1/4 - 1/6 - 1/8	208-230	1075	3	2.2-1.5-1.1	Open Vent.	REV	SLV	1/2 X 6	4	E	98, 128
D923	PSC	1/3 - 1/4 - 1/5	208-230	1075	3	2.9-2.2-1.7	Open Vent.	REV	SLV	1/2 X 6	4 1/4	E	98, 128
D703	PSC	1/2 - 1/3 - 1/4	208-230	1075	3	4-2.7-2	Open Vent.	REV	SLV	1/2 X 6	5	E	98, 13, 128
D729	PSC	3/4 - 1/2 - 1/3	208-230	1075	3	5.4-3.8-2.9	Open Vent.	REV	SLV	1/2 X 6	5 1/2	E	98, 12, 128

NOTES: 12: 10M 370V Capacitor 13: 7.5M 370V Capacitor 24: 15M 370V Capacitor 98: All angle mount bearings. Use rainshield when necessary. 99: All angle mount bearings. 100: 10 MFD 370V 101: 7.5 MFD 370V 102: 20 MFD 370V 128: Electrically Reversible 137: Ideal for blowers and fans used in furnaces and air-conditioners. 138: Not CSA certified 155: Includes 8 drilled and tapped holes in shell.



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Direct Drive Blower & Unit Heater Motors

FASCO

5.6 inch dia.



FIG. A D970



FIG. C D974



FIG. D D1703, D1704, D1705, D1706, D1707, D1708

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D974	PSC	1/2 - 1/3 - 1/4	277	825	3	2.3-1.6-1.3	Open Vent.	REV	SLV	1/2 X 5	5 1/3	C	103, 24, 97
D970	PSC	3/4 - 1/2 - 1/3	277	1075	3	3.9-2.2-1.6	Open Vent.	REV	SLV	1/2 X 5 1/2	5 1/4	A	103, 15, 97
D1703	PSC	1/4 - 1/6 - 1/8	115	1075	3	4.1-3-2.3	Totally Encl.	DS	SLV	8 X 1/2 X 8	4 1/4	D	
D1704	PSC	1/3 - 1/4 - 1/6	115	1075	3	4.9-3.1-2.2	Totally Encl.	DS	SLV	8 X 1/2 X 8	4 3/4	D	
D1705	PSC	1/2 - 1/3 - 1/4	115	1075	3	8.7-6.2- 4.9	Totally Encl.	DS	SLV	8 X 1/2 X 8	5 3/4	D	
D1706	PSC	1/4 - 1/6 - 1/8	208-230	1075	3	1.7-1.3-1	Totally Encl.	DS	SLV	8 X 1/2 X 8	4 1/4	D	
D1707	PSC	1/3 - 1/4 - 1/6	230	1075	3	2.3-1.5-1.1	Totally Encl.	DS	SLV	8 X 1/2 X 8	4 3/4	D	
D1708	PSC	1/2 - 1/3 - 1/4	230	1075	3	4.1- 3-2.3	Totally Encl.	DS	SLV	8 X 1/2 X 8	5 3/4	D	

NOTES: 15: 20M 370V Capacitor 24: 15M 370V Capacitor 97: All angle mount bearings 103: Ideal for blowers and fans used in furnaces and air-conditioners
104: The capacitor and base are included

Window A/C, Condenser Fan & Direct Drive Blower Motors

5.6 inch dia.



FIG. B D783

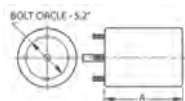


FIG. D D770

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D783	PSC	1/4	208-230	1625	1	1.5	Open Vent.	REV	SLV	1/2 X 6	4	B	191
D770	PSC	1/3 - 1/4 - 1/6	115	1625	3	5.9-4.4-3.5	Open Vent.	DS	SLV	8 3/4 X 1/2 X 8 3/4	4 1/2	D	192, 162

NOTES: 162: Ideal for lug mounting using lug Kit 55L or 55S 191: Should not be used for replacements where original motor is rated below 1500 RPM
192: Ideal versatility using Kit 200 "X" brackets to accommodate various cradle base lengths

Products on page F-38 & 39 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



5.6 inch dia.



FIG. A D3775, D3774, D3752, D3755



FIG. B D3771, D3772, D3758, D3760

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D3775	PSC	1/6 - 1/8 - 1/10	230	1350	3	.8-6-5	Totally Encl.	DS	SLV	7 3/4 X 1/2 X 7 3/4	3.5/89	A	139
D3774	PSC	1/4 - 1/5 - 1/6	230	1350	3	1.5-1.1-8	Totally Encl.	DS	SLV	7 1/2 X 1/2 X 7 1/2	4.0/102	A	106, 139
D3771	PSC	1/3 - 1/4 - 1/5	230	1350	3	2.1-1.5-1.1	Open Vent.	DS	SLV	7 1/4 X 1/2 X 7 1/4	4.5/114	B	139
D3772	PSC	1/2 - 1/3 - 1/4	230	1350	3	3-1.9-1.3	Open Vent.	DS	SLV	7 X 1/2 X 7	4.8/122	B	12, 139
D3752	PSC	1/6 - 1/8 - 1/10	230	900	3	1.2-8-6	Totally Encl.	DS	SLV	7 1/2 X 1/2 X 7 1/2	4.0/102	A	139
D3755	PSC	1/4 - 1/5 - 1/6	230	900	3	2-1.4-1	Totally Encl.	DS	SLV	7 1/4 X 1/2 X 7 1/4	4.5/114	A	106, 139
D3758	PSC	1/3 - 1/4 - 1/5	230	900	3	2.6-1.7-1.3	Open Vent.	DS	SLV	7 X 1/2 X 6 3/4	5.3/135	B	139
D3760	PSC	1/2 - 1/3 - 1/4	230	900	3	4.2-2.2-1.5	Open Vent.	DS	SLV	7 X 1/2 X 7	5.5/140	B	12, 139

NOTES: 12: 10M 370V Capacitor 106: Includes dust seal 139: All angle mount bearings. Use rainshield when necessary

Pedestal Fan Motors

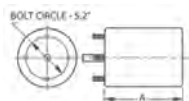
5.6 inch dia.



FIG. C D998

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	AMPS	ENCLOSURE	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	FIG.	NOTES
D998	PSC	1/2	115/230	825	1	6-3	Totally Encl.	CW	BALL	5/8 X 2 5/8	7 1/2	C	109, 141, 153, 193

NOTES: 109: No pedestal yoke mount 141: Keyed shaft 153: Agricultural applications 193: Poultry and Hog House fan motor



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A D6002, D6004, D6006



FIG. B D6082, D6084, D6066, D6086



FIG. C D6068, D6088, D6070, D6090, D6073, D6093



FIG. D D6622, D6624, D6626



FIG. E D6628, D6630, D6631, D6633



FIG. F D6608, D6610

FASCO MODEL	TYPE	HP	VOLTS	RPM	SPD.	ENCLOSURE	ROT.	BRING.	SHAFT DIM.	RING TO RING	FIG.	NOTES
FRAME MOTORS												
D6002	SPLIT PHASE	1/4	115/230	1725	1	OPEN DRIP PROOF	REV	BALL	1/2 X 1-1/2	7.435	A	46, 125, 144
D6004	SPLIT PHASE	1/3	115/230	1725	1	OPEN DRIP PROOF	REV	BALL	1/2 X 1-1/2	7.935	A	46, 125, 144
D6006	SPLIT PHASE	1/2	115/230	1725	1	OPEN DRIP PROOF	REV	BALL	1/2 X 1-1/2	8.435	A	46, 125, 144
D6082	CAPACITOR START	1/3	115/208-230	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	7.945	B	144, 125
NEMA 56 FRAME CAPACITOR START MOTORS												
D6084	CAPACITOR START	1/2	115/208-230	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	8.445	B	144, 125
D6066	CAPACITOR START	3/4	115/208-230	3450	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.445	B	144, 125
D6086	CAPACITOR START	3/4	115/208-230	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.445	B	144, 125
D6068	CAPACITOR START	1	115/208-230	3450	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.445	C	144, 125
D6088	CAPACITOR START	1	115/208-230	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.445	C	144, 125
D6070	CAPACITOR START	1.5	115/208-230	3450	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.445	C	144, 125
D6090	CAPACITOR START	1.5	115/208-230	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	10.445	C	47, 125, 144
D6073	CAPACITOR START	2	115/208-230	3450	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	10.445	C	144, 125
D6093	CAPACITOR START	2	115/208-230	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	10.945	C	47, 125, 144
NEMA 56 FRAME DRIP PROOF												
D6622	3 PHASE	1/3	208-230/460	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	8.445	D	144, 125
D6624	3 PHASE	1/2	208-230/460	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	8.945	D	144, 125
D6626	3 PHASE	3/4	208-230/460	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.945	D	144, 125
D6628	3 PHASE	1	208-230/460	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.445	E	144, 125
D6630	3 PHASE	1.5	208-230/460	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.945	E	144, 125
D6631	3 PHASE	2	208-230/460	1725	1	OPEN DRIP PROOF	REV	BALL	5/8 X 2	9.945	E	47, 125, 144
D6633	3 PHASE	3	208-230/460	1725	1	OPEN DRIP PROOF	REV	BALL	7/8 X 2-3/8	11.445	E	48, 125, 144
NEMA 56Y FRAME CONDENSER FAN MOTORS												
D6608	3 PHASE	1	208-230/460	1140	1	OPEN VENTILATED	REV	BALL	5/8 X 3-3/4		F	194
D6610	3 PHASE	1.5	208-230/460	1140	1	OPEN VENTILATED	REV	BALL	5/8 X 3-3/4		F	194

Products on page F-40 & 41 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A087



FIG. B A120



FIG. C A129



FIG. D A158



FIG. E A160



FIG. F A085



FIG. G A155



FIG. H A161



FIG. I A088



FIG. J A128



FIG. K A156



FIG. L A100



FIG. M A159



FIG. N B23617



FIG. O B23618



FIG. P A110



FIG. Q A111

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A087	PSC	115/230	1	2.8/1.1	Air Plus 7062-4687, Scherba Industries 7062-3496	A	
A120	SP	120	2	1.1	Aladdin Steel 7002-2983	B	
A129	SP	115	1	1.95	Amana 7021-9064, 7021-9259	C	
A158	PSC	115	1	0.7	Amana 7062-3151	D	
A160	SP	115	1	1.6	Amana 7002-2407	E	
A085	SP	230	1	0.7	AO Smith 464, Johnson Furnace	F	
A155	SP	115	1	1.4	Armstrong 7021-10046	G	
A161	SP	230	1	0.6	Brinkley/ Fedders 8353920103	H	
A088	SP	115	1	1.3	Coleman 7021-6759, Dornback 7021-5478, York 7021-8629, 7021-7105	I	
A128	SP	120	1	0.9	Consolidated Ind. 7021-6376, 7021-9404	J	
A156	SP	115	1	1.1	Evcon 7021-8935	K	
A100	SP	115	1	1.21	Excel Comfort 7058-0280	L	
A159	SP	230	1	0.5	Fedders 11-7096, AK4K84BX	M	
B23617	SP	115/230	1	.9/4	Franklin 80270	N	
B23618	SP	115/208-230	1	.95/4.9	Franklin 80270	O	
A110	SP	115	1	0.76	Frymaster 7002-3512	P	
A111	SP	208-240	1	0.8	Frymaster 7021-11714	Q	

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Specific Purpose Blowers

FASCO



FIG. A A065



FIG. B A140, A285



FIG. C A157



FIG. D A162



FIG. E A180



FIG. F A181, A289



FIG. G A182



FIG. H A184



FIG. I A185, A286, A287, A288



FIG. J A187



FIG. K A188



FIG. L A189, A280, A283



FIG. M A281, A284



FIG. N A282



FIG. O A290

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A065	SP	115	1	1.22	Goodman 0131M00002P, 110276-00	A	
A140	SP	115	1	1.4	Goodman 7021-9087, 7021-9000	B	
A157	SP	115	1	1.3	Goodman 7002-2307	C	
A162	SP	208-230	1	0.5	Goodman 7021-8656	D	
A180	SP	115	1	1.8	Goodman 7021-9625, 20190601	E	
A181	SP	115	1	1.5	Goodman 7058-0136, 20044403	F	
A182	SP	115	1	1.2	Goodman 7002-3036, B4059000	G	
A184	SP	115	1	1.55	Goodman 7058-0229, B40590-01	H	
A185	SP	115	1	1.15	Goodman 7021-9316, 105854-04	I	
A187	SP	208-230	1	0.8	Goodman 7021-10006, 20028901	J	
A188	SP	115	1	1.6	Goodman 7021-10958, B4833000	K	
A189	SP	115	1	1.5	Goodman 7021-7302, D9868620	L	
A280	SP	115	1	1.5	Goodman 7021-7794, D986868	L	
A281	SP	115	1	0.9	Goodman 7021-8252, D6996405	M	
A282	SP	220	1	0.45	Goodman 7021-8448, B1859050S	N	
A283	SP	115	1	1.5	Goodman 7021-8730, D9868617	L	
A284	SP	208/240	1	.59/1.5	Goodman 7021-9227, D9886202	M	
A285	SP	115	2	1.4	Goodman 7021-9236, B2833002	B	
A286	SP	208/230	1	0.6	Goodman 7021-9398, 11096904	I	
A287	SP	115	1	1.15	Goodman 7021-9655, 10585405	I	
A288	SP	115	2	1.4/1.65	Goodman 7021-9727, 11177202	I	
A289	SP	208/230	1	0.75	Goodman 7058-0081, 20351402	F	
A290	PSC	115	2	0.7	Goodman 7062-5015, 20245903	O	

Products on page F-42 & 43 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.





FIG. A A133



FIG. B A064



FIG. C A051



FIG. D A067



FIG. E A134, A177, A302, A304



FIG. F A145



FIG. G A141, A174, A301



FIG. H A148



FIG. I A151



FIG. J A169



FIG. K A170



FIG. L A171



FIG. M A172



FIG. N A173



FIG. O A175



FIG. P A176



FIG. Q A178



FIG. R A179



FIG. S A306



FIG. T A307

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	ROT.	CROSS REF.	FIG.	NOTES
A133	SP	115	1	1.2		Heat n' Glow 7002-1241	A	
A064	SP	115	1	0.7		Heil Quaker 610172, 7021-5043, 7021-7102	B	
A051	SP	115	1	1.6		ICP 1013833, J238-1393	C	
A067	SP	115	1	2.6		ICP 1014338, 119225-00	D	
A134	SP	115	1	1.5	CW	ICP 7021-9335, 7021-8735, 7021-9499, 7021-8736, 7021-7700	E	
A145	PSC	115	1	0.7	CCW	ICP 7062-4061	F	
A141	SP	115	1	1	CW	ICP 7021-8741, 7021-8742	G	
A148	SP	208-230	1	0.5	CCW	ICP 7021-7617, 7021-9237	H	
A151	SP	230	1	0.3	CW	ICP HQ1050144	I	
A169	SP	230	1	0.75	CW	ICP 7021-10048, 7021-10580	J	
A170	SP	115	1	2.3		ICP 7021-10299, 7021-10702	K	
A171	PSC	115	1	0.7		ICP 7062-4783, 1011412, 7062-4705, 7062-4274, 7062-4201, 7062-4549	L	
A172	SP	115	1	1.6		ICP 7002-2792, 1010975P, 7002-2633	M	
A173	PSC	115	1	0.8		ICP 1011350, Alltemp (Rotom)7062-4578, 7062-4832	N	
A174	SP	115	1	0.8		ICP 7021-9188, 1010239	G	
A175	SP	115	1	1		ICP 7002-1891, 1708-600P	O	
A176	SP	115	1	2.2		ICP 7002-2946, 1011899, 7002-3071, 1011899P	P	
A177	SP	115	2	1.4		ICP 7021-10363, 1011632, 7021-10597, 1011632P	E	
A178	SP	115	1	1.8		ICP 7021-10928, 10113388FA	Q	
A179	SP	115	1	0.9		ICP 7021-8693, 1006168P	R	
A301	SP	115	1	0.8		ICP 7021-9498, 1010239P	G	
A302	SP	115	1	1.5		ICP 7021-9499, 1010324P, 7021-7700, 1708-607	E	
A304	SP	115	1	1.5		ICP 7021-9701, 1011021	E	
A306	PSC	208-230	2	0.3		ICP 7062-4532, 1097245	S	
A307	PSC	115	1	0.7		ICP 7062-5165	T	

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Specific Purpose Blowers

FASCO



FIG. A A068



FIG. B A135, A205



FIG. C A138



FIG. D A163, A213, A216



FIG. E A164



FIG. F A200



FIG. G A201



FIG. H A202



FIG. I A203



FIG. J A204



FIG. K A206



FIG. L A207



FIG. M A208



FIG. N A209



FIG. O A210



FIG. P A211



FIG. Q A217

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A068	SP	120	1	1.15	Lennox 88K8401, J238-8171	A	
A135	SP	120	1	0.7	Lennox 7021-8812, 7021-8819	B	
A138	SP	120	1	0.7	Lennox 7021-8657, 7021-8825	C	
A163	SP	115	1	1.8	Lennox 7021-9450	D	
A164	SP	120	1	0.8	Lennox 7021-9593	E	
A200	SP	115	1	1.95	Lennox 7002-2975	F	
A201	SP	208-230	1	0.65	Lennox 7021-10055, 7021-10743	G	
A202	SP	115	1	1.8	Lennox 7021-10602, 7021-11106, 7021-11174	H	
A203	SP	115	1	1.8	Lennox 7021-10841	I	
A204	SP	115	1	1.8	Lennox 7021-11406	J	
A205	SP	120	1	0.7	Lennox 7021-8372, 7021-9001	B	
A206	SP	115	1	1.5	Lennox 7021-8473, 7021-8983	K	
A207	SP	115	1	1.75	Lennox 7058-0217	L	
A208	SP	115	1	1.75	Lennox 7058-0322	M	
A209	PSC	115	2	0.8	Lennox 7062-5441	N	
A210	SP	115	2	1.7	Lennox 7021-11063	O	
A211	SP	115	1	2.35	Lennox 7021-11634	P	
A213	SP	115	2	2.1	Lennox 7021-10376, 18L0401	D	
A216	SP	115	2	2.1	Lennox 7021-10915, 60L1401	D	
A217	SP	230	1	0.83	Lennox 7021-11231, 25M5501	Q	

Products on page F-44 & 45 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A218



FIG. B A219, A320



FIG. C A322



FIG. D A324



FIG. E A325



FIG. F A329



FIG. G A330, A331



FIG. H A081



FIG. I A131



FIG. J A132



FIG. K A121



FIG. L A122



FIG. M A123



FIG. N A124



FIG. O A126



FIG. P A079



FIG. Q A090

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A218	SP	220-240	1	.60/.52	Lennox 7021-10676, 39L4201, 7021-8959, 60J4201	A	
A219	SP	120	1	0.7	Lennox 7021-9262, 88J3901	B	
A320	SP	115	1	.8	Lennox 7021-9646, 101154-01 7021-9466	B	
A322	SP	120	2	1.1	Lennox 7021-9884, 83L8201	C	
A324	PSC	230	1	.44	Lennox 7062-1909, 28G6601, 7062-1794	D	
A325	PSC	208-230	1	0.6	Lennox 7062-2845, 7062-4751, 98G8701	E	
A329	PSC	208-230	1	0.5	Lennox 7062-4819, 19L1501	F	
A330	PSC	208-230	1	0.55	Lennox 7062-5546, 7062-4517, 7062-4608, 7062-4083, 69M3301	G	
A331	PSC	460	1	.38/.33	Lennox 7062-5554, 69M3201, 7062-4051, 7062-4518, 97J8101	G	
A081	SP	230	1	0.5	Magic Chef/HWC Series 48HWC24A, 48HWC181, 35HWC181, 60HW, 60HWC24A, 60HWC181, 48HW, 60HWC30A, 66HWC18A, 36HWC241, 66HW, 60HWC241, 66HWC181, 66HWC241, 60HWC301, 48HWC241, 66HWC301, 48HWC18A, 60HWC18A, 36HWC18A, 66HWC24A, 36HW, 36HWC24A	H	
A131	SP	115	1	1.1	Nordyne 7021-9132, 7021-10171, 7021-10159, 7021-9661	I	
A132	SP	115	1	1.1	Nordyne 7021-7975, 6212850	J	
A121	SP	240	1	0.51	Nordyne 7021-10381, 6217930	K	
A122	SP	115	1	1.75	Nordyne 7021-11227, 6219490	L	
A123	SP	115	1	1.95	Nordyne 7021-11385, 622064	M	
A124	SP	115	1	1.75	Nordyne 7021-11379, 6219290	N	
A126	SP	115	1	1.8	Nordyne 7002-3158, 6219500	O	
A079	SP	115	1	1.1	Rheem Ruud 74-70-21496-03-01, 74-70-21504-03-04, Goodman B1859000, 7021-6804, JA1M106, JA1M137, Trane B1W24, WG94X167	P	
A090	SP	115	1	1.1	70-21496-01, 7021-5239, JA1M102, 7021-5715	Q	

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Specific Purpose Blowers

FASCO



FIG. A A136



FIG. B A139



FIG. C A086



FIG. D A142



FIG. E A066



FIG. F A240



FIG. G A241



FIG. H A242



FIG. I A243



FIG. J A244



FIG. K A245



FIG. L A246



FIG. M A247



FIG. N A251



FIG. O A073



FIG. P A143



FIG. Q A146



FIG. R A069



FIG. S A075

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A136	PSC	115	1	0.75	Rheem 7062-3861	A	
A139	SP	115	1	0.95	Rheem 7021-7577	B	
A086	SP	115	1	1.3	Rheem JA1N065, 7021-5239, JA1N062, Universal JA1N069, 20th Century 7021-5853, 7021-7104	C	
A142	PSC	115	1	0.7	Rheem 7062-1881, 7062-2615, PMI/Vulcan Hart 7062-2513, 416673-00003	D	
A066	SP	120	1	1.27	Rheem 70-24157-03, 117847-00	E	
A240	SP	115	1	1.1	Rheem 7021-8183	F	
A241	SP	208-230	1	0.62	Rheem 7021-9567	G	
A242	SP	115	1	1.36	Rheem 7021-7150	H	
A243	SP	115	1	1.36	Rheem 7021-7790	I	
A244	SP	208-230	1	0.85	Rheem 7021-6967	J	
A245	SP	208-230	1	.95/.85	Rheem 7021-7490	K	
A246	PSC	115	2	0.85	Rheem 7062-3925S, 7062-5272	L	
A247	PSC	115	2	0.95	Rheem 7062-5519S	M	
A251	SP	208-230	1	1.1	Skyarmk 7021-9136	N	
A073	SP	115-230	1	.7/.35	Tappan, Janitrol, SJC, Arkla, Franklin 8251560133, 829932, 8351520243	O	
A143	SP	115	1	0.95	Trane 7021-8428, 7021-8013, 7021-8924, 7021-9639, 7021-9055	P	
A146	SP	115	2	1-35	Trane 7021-7986, 7002-2531, 7021-8925	Q	
A069	SP	208-240	1	0.5	Trane 38040252, 82252, 7021-6682	R	
A075	SP	230	1	0.4	Trane 38050005, 7021-6681, Franklin 82005	S	

Products on page F-46 & 47 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A130



FIG. B A150



FIG. C A191



FIG. D A192



FIG. E A193



FIG. F A194



FIG. G A195



FIG. H A196



FIG. I A197



FIG. J A198, A199, A260, A261, A262, A263, A264, A265, A266, A267, A268



FIG. K A269



FIG. L A270



FIG. M A271

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A130	PSC	115	1	0.7	Trane 7062-3956, 7021-4004, 7062-5247, D330757P04, 7062-3616, 7062-5575, D342094P04 Nordyne 7062-4159, 7062-4639	A	
A150	SP	208-230	1	0.5	Trane 7021-7833, 7021-8928	B	
A191	SP	208-230	1	0.8	Trane 7021-6683	C	
A192	SP	115	1	1	Trane 7021-8569	D	
A193	SP	208-240	1	.59/1.5	Trane 7021-8591	E	
A194	SP	115	2	1/1.5	Trane 7021-9561	F	
A195	SP	115	1	1.75	Trane 7021-11543S, 7021-11543	G	
A196	SP	115	1	1.35	Trane 7021-11544S, 7021-11544, 7021-9065	H	
A197	3 PHASE	33-110	VAR.	1	Trane 7092-0238S, 7092-0238	I	
A198	SP	115	1	1.75	Trane 7058-0259	J	
A199	SP	115	1	1.75	Trane 7058-0260	J	
A260	SP	115	1	1	Trane 7058-0261	J	
A261	SP	115	1	1	Trane 7058-0262	J	
A262	SP	115	1	1	Trane 7058-0263	J	
A263	SP	115	1	1	Trane 7058-0264	J	
A264	SP	115	2	0.75	Trane 7002-3443	J	
A265	SP	115	2	0.75	Trane 7002-3444	J	
A266	SP	115	2	1	Trane 7002-3445	J	
A267	SP	115	2	1.4	Trane 7002-3446	J	
A268	SP	115	2	1.4	Trane 7002-3447	J	
A269	SP	208-230	1	.58/1.6	Trane 7021-11054	K	
A270	PSC	208-230	2	.42/1.50	Trane 7062-5033	L	
A271	PSC	208-230	2	0.62	Trane 7062-3969	M	

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Specific Purpose Blowers

FASCO



FIG. A A272, A273, A274



FIG. B A276



FIG. C A278, A279, A360, A362



FIG. D A361



FIG. E A367



FIG. F A368



FIG. G A369, A370



FIG. H A373



FIG. I A118



FIG. J A080



FIG. K A063



FIG. L A083



FIG. M A137



FIG. N A144



FIG. O A154

FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A272	PSC	208-230	2	0.65	Trane 7062-3971	A	
A273	PSC	208-230	2	0.62	Trane 7062-3972	A	
A274	PSC	208-230	1	.28	Trane 7062-3973	A	
A276	SP	115	1	1	Trane 7021-9011	B	
A278	SP	115	2	1.4	Trane 7002-2530	C	
A279	SP	115	2	0.75	Trane 7002-2531	C	
A360	SP	115	2	1	Trane 7002-2532	C	
A361	SP	115	1	1.6	Trane 7002-2558	D	
A362	SP	115	1	1.6	Trane 7002-3273	C	
A367	SP	115	2	.95	Trane 7021-8051	E	
A368	PSC	115	2	0.8	Trane 7062-3782	F	
A369	PSC	208-230	2	.34	Trane 7062-3915	G	
A370	PSC	208-230	2	0.18	Trane 7062-3918	G	
A373	SP	208-230	1	0.6	Trane 7021-9396	H	
A118	SP	115	1	1.8	Williamson 7021-6999, 7021-7042	I	
A080	SP	115	1	1.1	Williamson 7021-5510, 02-568, Franklin F3670-1, Rotron RFB6	J	
A063	SP	230	1	0.6	York 026-22239-700, 7021-4314	K	
A083	SP	230	1	0.8	York 026-16323-0000, 02620224-000, 7021-1373	L	
A137	PSC	115	1	0.7	York 7062-2442, 7062-3484, 024-25057-000	M	
A144	SP	208-230	1	0.5	York 7021-6770	N	
A154	SP	115	1	1.2	York 7021-9428	O	

Products on page F-48 & 49 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A165



FIG. B A168



FIG. C A220

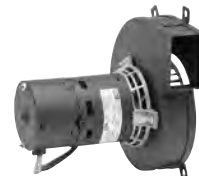


FIG. D A221



FIG. E A222



FIG. F A223



FIG. G A224



FIG. H A225



FIG. I A226



FIG. J A227



FIG. K A228



FIG. L A229



FIG. M A230



FIG. N A231



FIG. O A234

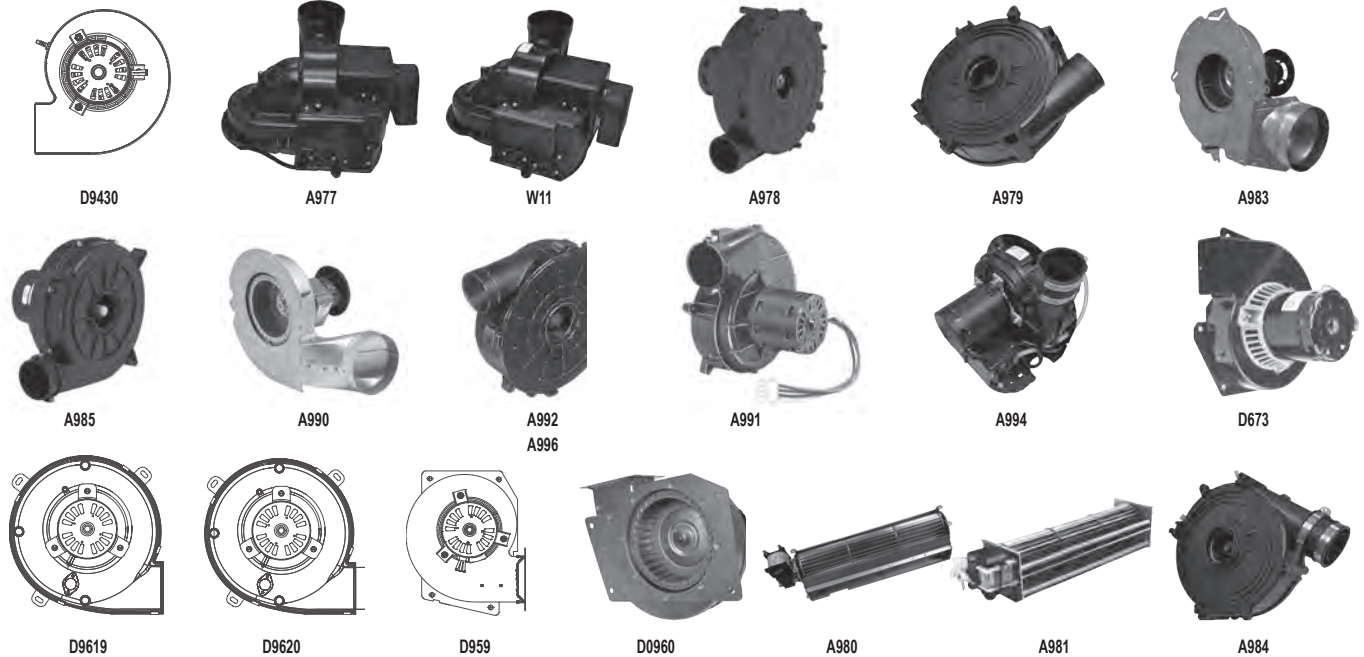
FASCO MODEL	TYPE	VOLTS	SPD.	AMPS	CROSS REF.	FIG.	NOTES
A165	PSC	115	1	0.7	York 7062-3958	A	
A168	PSC	115	1	0.7	York, Excel, Ducane 7062-5019	B	
A220	SP	115	1	1.6	York 7021-5838, 026-27510-700, 7021-7217, 7021-9054	C	
A221	SP	208-230	1	0.55	York 7021-8318, 026-30614-700, 7021-6691	D	
A222	SP	115	1	1.05	York 7021-8317, 026-32067-700, 7021-7481	E	
A223	SP	208-230	1	0.64	York 7021-10096, 026-33999-001, 7021-9656	F	
A224	SP	115	2	0.8	York 7062-5048, 024-27654-000, 7062-4743	G	
A225	SP	115	1	2.25	York 7021-11577, 17503, 7021-11577S, 7021-11830, 024-34558-000	H	
A226	SP	115	1	1.7	York 7058-0266, 7058-0266S	I	
A227	PSC	115	1	0.7	York 7062-4708S, 024-27641-000, 17450, 7062-4708	J	
A228	SP	115	1	2	York 7002-3285, 024-31957-000, 7002-2941	K	
A229	SP	115	1	1.75	York 7058-0267S, 17499, 7058-0267	L	
A230	PSC	115	2	0.8	York 7062-5094S, 17476, 7062-5094	M	
A231	SP	115	2	1.3	York 7021-10213, 17452	N	
A234	PSC	208-230	1	0.5	York 7062-5155, 102529	O	

Thermally protected • UL recognized • CSA or ULc certified

NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Draft Inducer Blowers

FASCO



FASCO MODEL	MOTOR DIA.	RPM	SPEEDS	VOLTS	AMPS	ROTATION (OSE)	BEARING	ENCLOSURE	CROSS REFERENCE	OEM	NOTES
D9430	3.3"	3000	1	208-230	0.65-0.75	CW	Ball	Blower	Century 9430, UE JB1N075, Armstrong 42250-001	Armstrong	1
A977	C Frame	3000	1	120	3.1	CCW	Ball	Blower	119388-00, 265-45583-00	Bradford White	2
W11	C Frame	3000	1	120	3.1	CCW	Ball	Blower	7021-12654, 265-45584-00, 239-45584-00	Bradford White	2
A978	3.3"	3000/2300	2	115	1.3/1.15	CCW	Ball	Blower	119449-00	Carrier	1
D9619	3.3"	3000	1	115	1.6	CCW	Sleeve	Blower	Century 9619, UE JA1N107, Consolidated 490950, 4246100	Consolidated Industries	1
D9620	3.3"	3200	1	115	1.6	CCW	Sleeve	Blower	Century 9620, UE JA1N114, Consolidated 422030, 4246101	Consolidated Industries	1
D959	3.3"	3300	1	115	1.05	CCW	Sleeve	Blower	Century 959, UE JA1P082, Consolidated 401570	Consolidated Industries	1
D0960	3.3"	3000	1	115	1.5	CCW	Sleeve	Blower	Century 960, UE JA1P090, Consolidated 401450	Consolidated Industries	1
A979	C Frame	3000	1	120	0	CW	Ball	Blower	119351-00	Goodman	1
A983	C Frame	3000	1	115	1.5	CW	Ball	Blower	119290-00, 1014433, 1014529	Intercity	1
A985	C Frame	3000	1	115	2.4	CW	Ball	Blower	7058-1124, 330701-701FA	Intercity	1
A990	C Frame	3000	1	115	1.54	CW	Ball	Blower	7058-0464, 101202-01	Lennox	1
A992	3.3"	3400	1	115	2.35	CW	Ball	Blower	7021-11634, 81M1601	Lennox	1
A991	3.3"	3450	1	115	0.75	CCW	Ball	Blower	7062-3861, 70-24033-01-12	Rheem	1
A994	3.3"	3000	1	120	2.1	CCW	Ball	Blower	7021-10979, AP13605-3	Rheem	2
A996	3.3"	3000	1	120	2.1	CW	Ball	Blower	7021-11445	Rheem	1
D673	3.3"	3000	1	115	0.95	CCW	Sleeve	Blower	Century 673, Rheem 51-21504-01	Rheem	1
A980	C Frame	2250	1	120	0.65	CCW	Sleeve	Blower	J238-7230	Whirlpool	3
A981	C Frame	3000	1	120	0.59	CCW	Sleeve	Blower	J238-8244, 8303972	Whirlpool	3
A984	C Frame	3000	1	115	2.63	CCW	Ball	Blower	7058-1023, 341449	York	1

Notes:

1. Draft Inducer - Furnace
2. Draft Inducer - Water Heater
3. Transflo Blowers

Products on page F-50 & 51 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





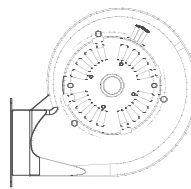
50764-D500



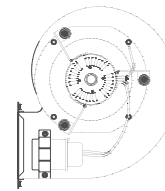
D2803



D013



D383



D9459



K674



EX1008 EX2010 EX2110
EX2008 EX1108
EX1010 EX2108



KIT155



KIT415
KIT416

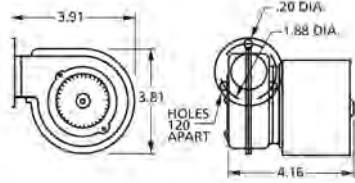
FASCO MODEL	MOTOR DIA.	HP	RPM	SPEEDS	VOLTS	AMPS	ROTATION (OSE)	BEARING	ENCLOSURE	SHAFT DIA. LENGTH	"A"	NOTES
EX1008	5-5/8"	3/4	650-1600	5	115	2.8	CW	Ball	Totally Encl.	1/2" X 3-1/2"	10-1/2"	(HEB) High Efficiency Blower
EX2008	5-5/8"	3/4	650-1600	5	208-230	6.0	CW	Ball	Totally Encl.	1/2" X 3-1/3"	10-1/2"	(HEB) High Efficiency Blower
EX1010	5-5/8"	3/4	800-2000	5	115	8.4	CW	Ball	Totally Encl.	1/2" X 3-1/4"	13-1/8"	(HEB) High Efficiency Blower
EX2010	5-5/8"	3/4	800-2000	5	208-230	6.0	CW	Ball	Totally Encl.	1/2" X 3-1/5"	13-1/8"	(HEB) High Efficiency Blower
EX1108	5-5/8"	3/4	1575-2185	5	115	8.4	CW	Ball	Totally Encl.	1/2" X 3-1/6"	10-1/2"	(HEB) High Efficiency Blower
EX2108	5-5/8"	3/4	1575-2185	5	208-230	6.0	CW	Ball	Totally Encl.	1/2" X 3-1/7"	10-1/2"	(HEB) High Efficiency Blower
EX2110	5-5/8"	1	2000-2620	5	208-230	7.6	CW	Ball	Totally Encl.	1/2" X 3-1/8"	13-1/8"	(HEB) High Efficiency Blower
50764-D500	3.3"	1/30	1500	1	115	0.7	CW	Ball	Open	5/16" X 1-3/8"	2-15/16"	
D013	3.3"	1/50	2500/3000	1	115	1.05/0.92	CW	Sleeve	Blower	5/16" X 1"	2-1/2"	Century 13
D383	3.3"	1/50	3000	1	115	0.92	CW	Sleeve	Blower	5/16" X 1"	2-1/2"	Century 383
D9459	3.3"	1/5	1200/1450	2	115	3.2/3.0/ 1.7/1.6	CW	Sleeve	Blower	3/8" X 2"	4-5/8"	Century 9459
D2803	5-5/8"	1/8	700	1	115	2.5	CCW	Ball	Open	1/2" X 2"	5-1/2"	Like D827 except loose leads
K674	C-Frame	1/22	3000	1	115	1.9	CW	Ball	Open	1.93 X .3116 X .75	Stack 1.5"	
KIT155												Kit 155 - 87256257D Grommet & Eyelet 12
KIT415												Kit 415 - 87256254D 8-32 Serrated Nut 32 pieces
KIT416												Kit 416 - 87256255D 10-32 Serrated Nut 32 pieces

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

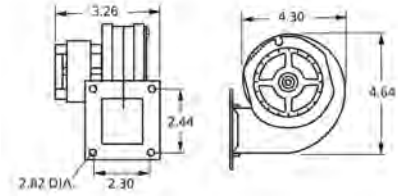
15 to 65 Free Air Output



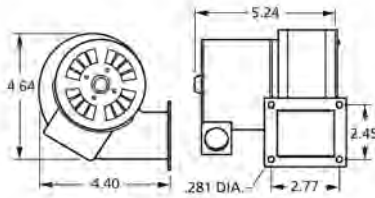
50745-D500



A167

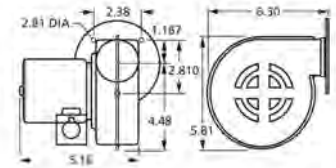


B30



50747-D500

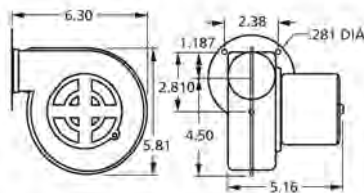
50747-D600



50747-D230

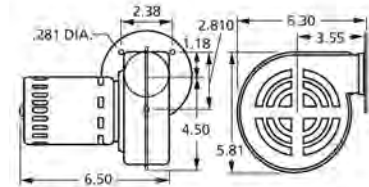


50747-D401

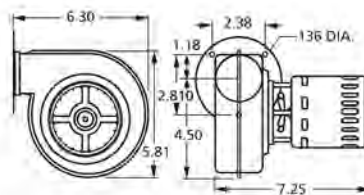


50748-D500

50748-D700



A063



FASCO MODEL	CFM AT STATIC PRESSURE SHOWN										NAME-PLATE CFM	VOLTS	FREQ.	NO. OF SPEEDS	RPM@ FREE AIR	AMPS@ FREE AIR	BRNG.
	STATIC PRESSURE (INCHES OF WATER)																
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0							
50745-D500	6.5	-	-	-	-	-	-	-	-	-	15	115	60	1	3100	0.2	SLV
A167	30	27	25	5	-	-	-	-	-	-	30	115	60	1	2900	0.4	SLV
B30	40	37	32	22	6	-	-	-	-	-	45	115	60	1	3200	0.59	SLV
50747-D500	47	42	37	33	21	7	-	-	-	-	60	115	60	1	3200	0.52	SLV
50747-D600	47	42	37	33	21	7	-	-	-	-	60	115	60	1	3200	0.52	SLV
50747-D230	47	42	37	33	21	7	-	-	-	-	60	208-230	50/60	1	3200	0.26	SLV
50747-D401	47	42	37	33	21	7	-	-	-	-	60	115	50/60	1	3200	0.49	SLV
50748-D500	64	60	56	52	47	42	37	-	-	-	65	115	60	1	2900	0.81	SLV
50748-D700	64	60	56	52	47	42	37	-	-	-	65	115	60	1	2900	0.74	SLV
A063	69	65	62	57	52	42	37	30	-	-	65	230	60	1	3100	0.6	BALL

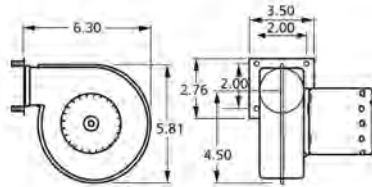
Products on page F-52 & 53 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



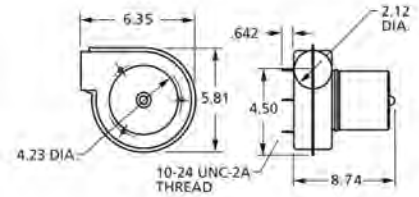
69 to 75 Free Air Output



A069



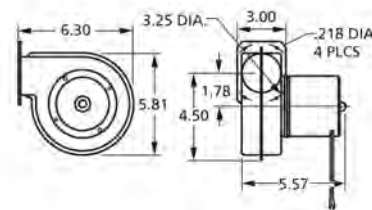
B23617



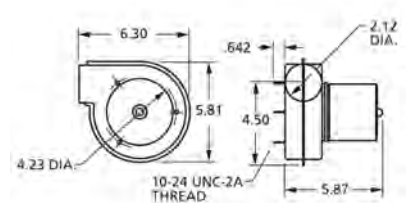
B23618



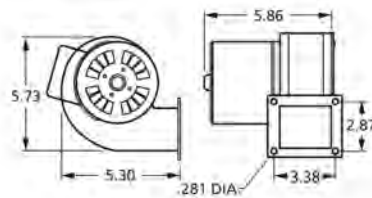
A071



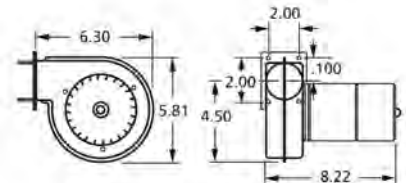
A073



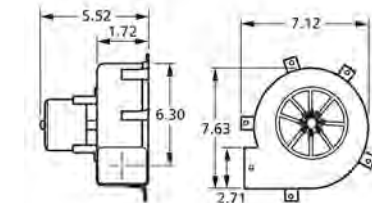
B75



A075



A082



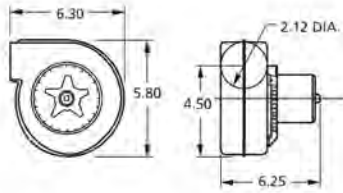
FASCO MODEL	CFM AT STATIC PRESSURE SHOWN STATIC PRESSURE (INCHES OF WATER)										NAME-PLATE CFM	VOLTS	FREQ.	NO. OF SPEEDS	RPM@ FREE AIR	AMPS@ FREE AIR	BRNG.
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0							
A069	72	67	63	60	53	52	50	43	40	-	69	208-230	60	1	3000	0.45	SLV
B23617	72	67	64	62	57	55	50	46	41	33	70	115/230	60	1	3000	.9/45	SLV
B23618	72	67	64	62	57	55	50	46	41	33	70	115/208-230	60	1	3000	.95/45	BALL
A071	70	67	63	58	57	55	51	35	-	-	71	115	60	1	2850	0.7	SLV
A073	72	69	67	63	61	57	53	48	43	37	73	115 - 230	50/60	1	3200	.7/35	BALL
B75	68	63	57	47	34	14	-	-	-	-	75	115	60	1	3200	0.59	SLV
A075	73	69	65	62	58	55	50	45	40	35	75	230	60	1	3200	0.4	BALL
A082	66	62	53	52	47	42	23	-	-	-	75	115	60	1	2800	0.95	SLV

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

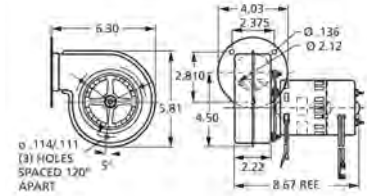
80 to 125 Free Air Output



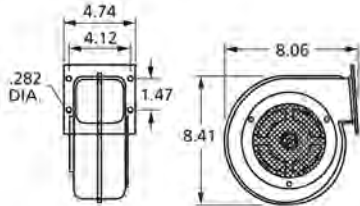
A081



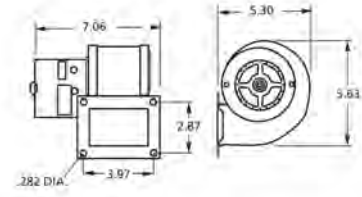
A083



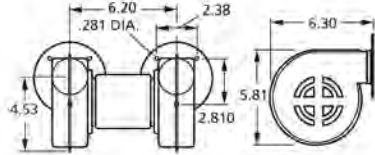
50757-D500



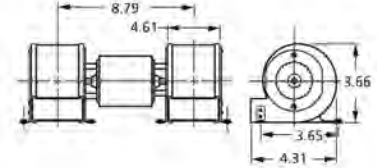
A166



50746-D500



A125



FASCO MODEL	CFM AT STATIC PRESSURE SHOWN STATIC PRESSURE (INCHES OF WATER)										NAME-PLATE CFM	VOLTS	FREQ.	NO. OF SPEEDS	RPM@ FREE AIR	AMPS@ FREE AIR	BRNG.
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0							
A081	70	67	64	62	57	53	48	42	-	-	80	230	60	1	3100	0.45	BALL
A083	71	68	66	63	59	54	47	43	37	-	83	230	60	1	3000	0.8	BALL
50757-D500	80	63	45	-	-	-	-	-	-	-	105	115	60	1	1560	0.55	SLV
A166	110	100	95	85	82	60	40	10	-	-	115	115	50/60	1	3200	1.4	SLV
50746-D500	94	87	77	67	48	18	-	-	-	-	120	115	60	1	3100	0.72	SLV
A125	110	92	71	-	-	-	-	-	-	-	125	115	60	1	3200	1.1	SLV

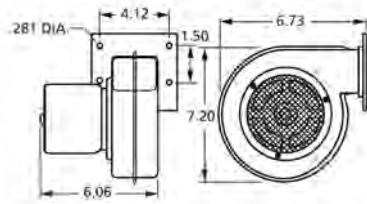
Products on page F-54 & 55 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



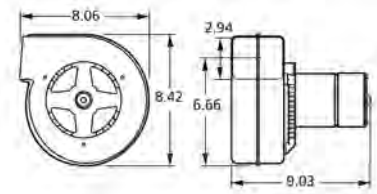
80 to 125 Free Air Output



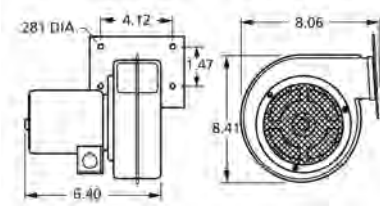
50752-D500,
50752-D230



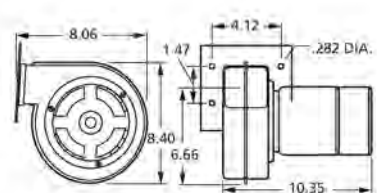
A159



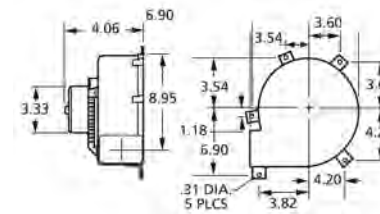
50755-D500,
50755-D230



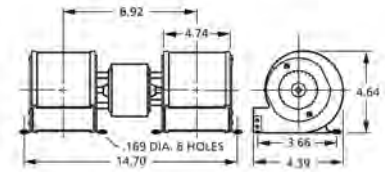
A161



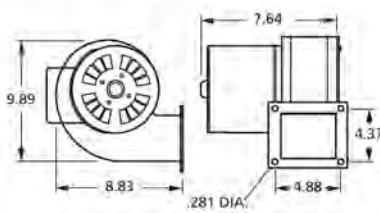
B47120



A212



B45227,
B45227-2



B160

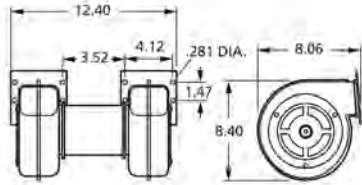
FASCO MODEL	CFM AT STATIC PRESSURE SHOWN										NAME-PLATE CFM	VOLTS	FREQ.	NO. OF SPEEDS	RPM@ FREE AIR	AMPS@ FREE AIR	BRNG.
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0							
50752-D500	108	105	97	93	90	83	77	65	32	-	135	115	60	1	3100	1.1	SLV
50752-D230	108	105	97	93	90	83	77	65	32	-	135	208-230	50/60	1	3100	0.67	SLV
B160	135	130	115	100	75	20	-	-	-	-	150	115	60	1	3000	1.56	SLV
A159	140	138	118	105	-	-	-	-	-	-	159	230	60	1	1600	0.45	BALL
50755-D500	140	128	118	105	-	-	-	-	-	-	160	115	60	1	1600	1	SLV
50755-D230	140	128	118	105	-	-	-	-	-	-	160	208-230	50/60	1	1600	0.51	SLV
A161	140	138	118	105	-	-	-	-	-	-	161	230	60	1	1600	0.55	BALL
B47120	180/144/112	170/140/109	165/134/106	165/130/100	150/122/90	140/117/76	130/87/58	110/72	90	-	180	115	60	3	1360/1100/830	1.95	SLV
A212	190	173	142	110	70	22	-	-	-	-	212	115	60	1	2500	1.25	SLV
B45227	230	212	191	175	130	27	-	-	-	-	265	115	60	1	1650	1.86	SLV
B45227-2	230	212	191	175	130	27	-	-	-	-	265	230	50/60	1	1650	0.93	SLV

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

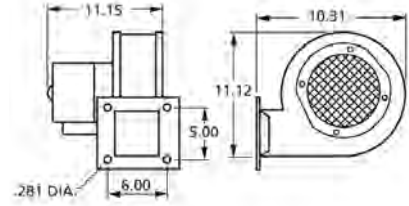
320 to 1000 Free Air Output



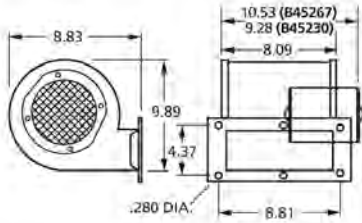
50756-D500,
50756-D230



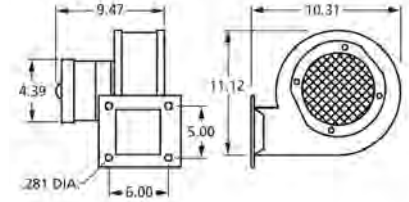
A455



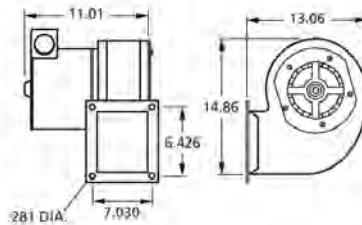
B45267,
B45230



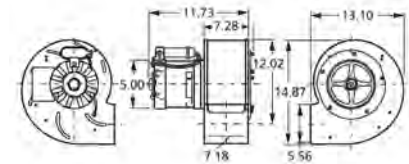
50769-D500,
50769-D230



B68042



A1000



FASCO MODEL	CFM AT STATIC PRESSURE SHOWN										NAME-PLATE CFM	VOLTS	FREQ.	NO. OF SPEEDS	RPM@ FREE AIR	AMPS@ FREE AIR	BRNG
	STATIC PRESSURE (INCHES OF WATER)																
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0							
50756-D500	245	225	200	160	-	-	-	-	-	-	320	115	60	1	1500	1.3	SLV
50756-D230	245	225	200	160	-	-	-	-	-	-	320	230	50/60	1	1500	0.65	SLV
A455	440/318	417/307	390/290	375/275	350/250	319/228	275/170	231/108	150/75	68/40	455	115	60	2	1500/1100	1.5	SLV
B45267	393/356	359/331	318/297	254/240	187/167	64/58	-	-	-	-	460	115	60	2	1600/1400	2.9	SLV
B45230	393/356	359/331	318/297	254/240	187/167	64/58	-	-	-	-	460	208-230	50/60	2	1600/1400	1.2	SLV
50769-D500	391/331	370/315	349/280	318/273	292/241	250/203	204/138	91/70	47/40	-	480	115	60	2	1200/1400	3.55	SLV
50769-D230	391/331	370/316	349/281	318/274	292/242	250/204	204/139	91/71	47/41	-	480	208-230	50/60	2	1200/1400	1.9	SLV
B68042	694	674	652	585	557	483	127	51	-	-	815	115	60	1	1100	5.6	SLV
A1000	950/-	920/-	880/-	850/799	800/750	730/700	660/640	580/500	300/260	120/120	1000	115/230	60	2	1100/1100	4-2.9/2-1.4	SLV

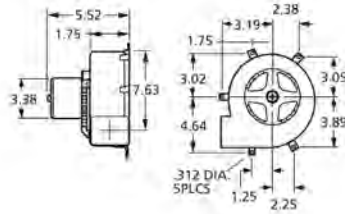
Products on page F-56 & 57 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



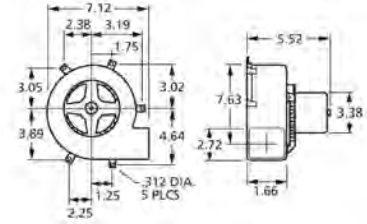
64 to 1200 Free Air Output



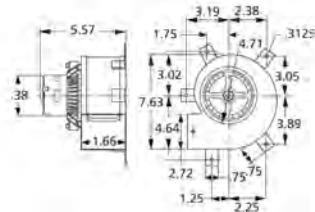
A064



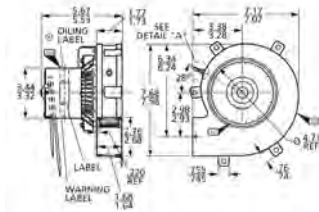
A079



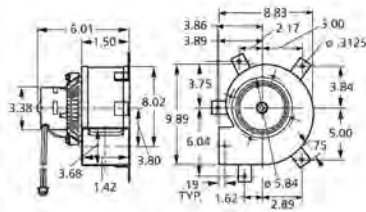
A080



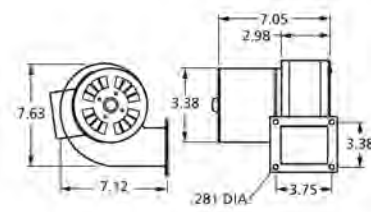
A090



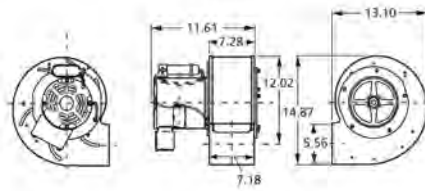
A118



B24220



A1200



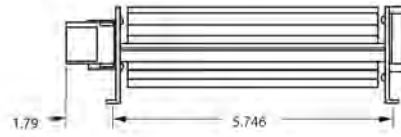
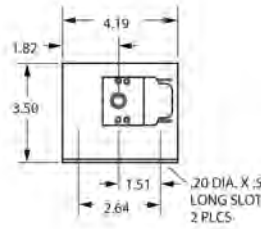
FASCO MODEL	CFM AT STATIC PRESSURE SHOWN											NAME-PLATE CFM	VOLTS	FREQ.	NO. OF SPEEDS	RPM@ FREE AIR	AMPS@ FREE AIR	BRNG		
	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2								2.4	2.6
A064	-	66	65	64	58	48	25	-	-	-	-	-	-	64	115	60	1	2400	0.65	SLV
A079	85	81	77	73	65	51	22	-	-	-	-	-	-	89	115	60	1	2200	1.1	SLV
A080	78	75	72	68	63	60	47	-	-	-	-	-	-	80	115	60	1	2100	1.1	SLV
A090	86	84	78	73	66	57	24	-	-	-	-	-	-	90	115	60	1	2300	1.1	SLV
A118	112	110	106	102	97	90	83	73	60	39	22	18	10	118	115	60	1	2600	1.8	SLV
B24220	-	140	130	120	110	45	22	-	-	-	-	-	-	135	115	50/60	1	2600	1.3	SLV
A1200	1260/1065	1240/1060	1200/1050	1150/1000	1075/950	1000/900	925/800	800/675	200/200	-	-	-	-	1200	115/230	60	2	1500/1400	8-6.8/4-3.4	SLV

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

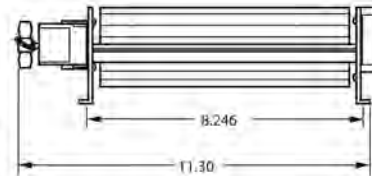
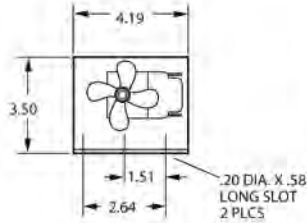
80 to 215 CFM Free Air Output



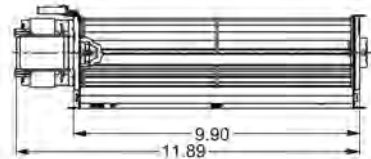
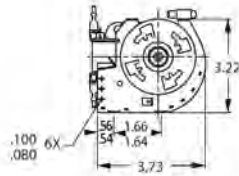
B22505



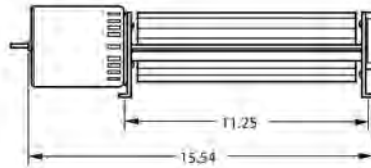
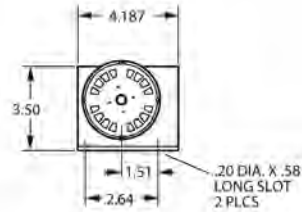
B22507



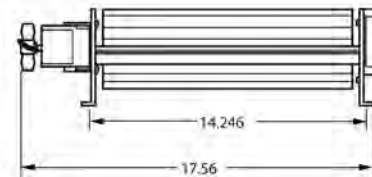
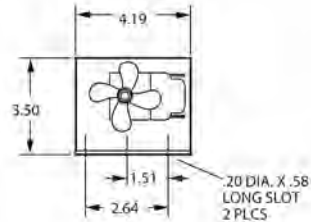
B22508



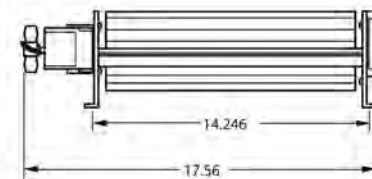
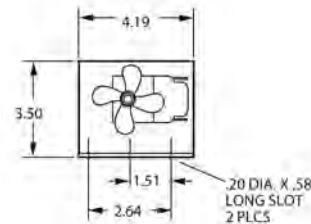
B22510



B22515



B22513



FASCO MODEL	CFM AT STATIC PRESSURE SHOWN										NAME-PLATE CFM	VOLTS	FREQ.	NO. OF SPEEDS	RPM@ FREE AIR	AMPS@ FREE AIR	BRNG
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0							
B22505	57	22	-	-	-	-	-	-	-	-	80	115	50/60	1	3200	0.55	SLV
B22507	90	40	-	-	-	-	-	-	-	-	115	115	50/60	1	3100	0.85	SLV
B22508	100	60	5	-	-	-	-	-	-	-	105	115	60	1	1500	0.7	SLV
B22510	125	83	-	-	-	-	-	-	-	-	150	115	50/60	1	3100	1	SLV
B22515	145	125	50	-	-	-	-	-	-	-	150	115	60	1	2200	0.81	SLV
B22513	196	70	-	-	-	-	-	-	-	-	215	115	60	1	2780	1.3	SLV

Products on page F-58 & 59 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A W1



FIG. B W2



FIG. C W4



FIG. D W3



FIG. E W5



FIG. F W6



FIG. G W7



FIG. H W8



FIG. I W9



FIG. J W10

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRING.	CROSS REF.	FIG.	NOTES
AMERICAN WATER HEATER												
W1	SP	3.3	1/25	115	3210	1	1.9	CW	SLV	7021-10060, 3000288	A	
AO SMITH												
W2	SP	3.3	1/14	115	3275	1	2.3	CW	BALL	7021-10770, 183505-000	B	
W4	SP	3.3	1/20	115	3300	1	1.8	CCW	SLV	7021-10910, 183381-000	C	
BRADFORD WHITE												
W3	SP	3.3	1/17	115	3000	1	1.8	CCW	SLV	117524-00, 239-39785-00	D	
W5	SP	3.3	1/14	115	3275	1	2.5	CW	BALL	7021-10712, 239-42133-00B	E	
W6	SP	3.3	1/15	115	3000	1	2.2	CCW	SLV	7021-9764, 239-4061 4-00C	F	
GSW												
W7	SP	3.3	1/25	115	3200	1	1.3	CW	SLV	7021-8347, 63217	G	
W8	SP	3.3	1/25	115	3200	1	1.3	CW	SLV	7021-9756, 63172	H	
STATE IND.												
W9	SP	3.3	1/60	115	3000	1	0.95	CW	SLV	7021-10548, 0012400500	I	
W10	SP	3.3	1/20	115	3400	1	1.8	CCW	SLV	7021-11086, 0012400540	J	

Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A D1028



FIG. B A087



FIG. C A120



FIG. D D1062



FIG. E D1056



FIG. F D1058



FIG. G A129



FIG. H A158



FIG. I A160



FIG. J A180



FIG. K A185, A286, A287



FIG. L A280, A283



FIG. M A289



FIG. N D1065



FIG. O D827

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
AIR AMERICA CORP.														
D1028	SP	5	1/8	115	1050	1	3.3	CW	BALL	1/2 X 2 1/2	3 1/2	A0510B2008	A	
AIR PLUS														
A087	PSC	3.3	1/6	115/230	2400	1	2.8/1.1	CCW	SLV			7062-4687	B	195
ALADDIN STEEL														
A120	SP	-	1/40	120	3000	2	1.1	CW OLE	BALL			230-1460, 7002-2983	C	
AMANA														
D1062	PSC	5	1/20 - 1/30 - 1/40	265	1100	3	.4-.3-.2	CW	SLV	1/2 X 3 1/2	3 3/4	Amana C-6397902 Emerson K48HXCNB-1458 5KCP29FK5258S	D	1
D1056	PSC	5	1/20 - 1/30 - 1/40	208-230	1100	3	.4-.3-.2	CW	SLV	1/2 X 3	3 5/8	Amana 900 Unit C61147-5 5KCP29FK886S	E	1, 18
D1058	PSC	5	1/20 - 1/30 - 1/40	265	1100	3	.5-.3-.2	CW	SLV	1/2 X 2 1/2	3 5/8	5KCP29FK885S Amana C-61147-6	F	
A129	SP	3.3	1/20	115	3250	1	1.95	CW	SLV			Amana, 7021-9064 7021-9259	G	
A158	PSC	3.3	1/25	115	1550	1	0.7	CW	SLV			7062-3151	H	
A160	SP	3.3	1/30	115	3000	1	1.6	CW	SLV			Amana, 7002-2407	I	
A180	SP	3.3	1/30	115	3400	1	1.8	CCW	BALL			7021-9625, 20190601	J	
A185	SP	3.3	1/30	115	3000	1	1.15	CW	SLV			7021-9316, 105854-04	K	
A280	SP	3.3	1/25	115	3000	1	1.5	CW	SLV			7021-7794, D986868	L	
A283	SP	3.3	1/25	115	3000	1	1.5	CCW	SLV			7021-8730, D9868617	L	
A286	SP	3.3	1/35	208/230	3125	1	0.6	CW	SLV			7021-9398, 11096904	K	
A287	SP	3.3	1/25	115	3000	1	1.15	CW	SLV			7021-9655, 10585405	K	
A289	SP	-	1/32	208/230	3125	1	0.75	CW	BALL			7058-0081, 20351402	M	
AMERICAN AIR FILTER														
D1065	PSC	5	1/6	277	1600	1	0.9	CCW	SLV	1/2 X 2 1/2	3 1/3	ZCAABWY15141, IWQC5827 5KCP29DK3697T	N	1
D827	PSC	5.6	1/8	115	700	1	2.5	CCW	BALL	1/2 X 2	5 1/2	7-150444-02	O	3

NOTES: 1: 4M 370V capacitor 3: 6M 370V capacitor 18: Rotation is determined by viewing lug end. 195: 50/60 Hz

Products on page F-60 & 61 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.

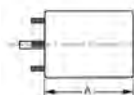




FIG. A D1110



FIG. B D1114



FIG. C D795



FIG. D A155



FIG. E D1124, D1126



FIG. F D1125



FIG. G 9721



FIG. H K610



FIG. I K612



FIG. J K611



FIG. K D1087



FIG. L K110



FIG. M D633



FIG. N D632



FIG. O D1179, D1180

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
APRILAIR														
D1110	SP	3.3	1/55	115	1300	1	.7	CW	BALL	1/4 X 1 7/8	3 5/8	7163-8633, 10002351	A	
D1114	SP	3.3	1/11	115	1250	1	.5	CW	SLV	1/4 X 3 1/8	2 1/2	7163-7448, 33110076	B	
ARKLA														
D795	PSC	5.6	1/3	115	825	1	6.1	REV	BALL	1/2 X 6	5 3/4	Gas Heat Pump, K55HXSFN8042	C	
ARMSTRONG														
A155	SP	3.3	1/30	115	3000	1	1.4	CCW	BALL			7021-10046	D	
BOHN														
D1124	SP	3.3	1/20	115	1550	1	2.1	CW	SLV	5/16 X 3	3	5KSM59JSK143S & 5KSM59JS5036S	E	75
D1126	SP	3.3	1/15	208-230	1550	1	1.1	CW	SLV	5/16 X 3	3 1/2	5KSM59LS2262AS	E	75
D1125	PSC	3.3	1/12	208-230	1550	1	0.5	CCW	SLV	5/16 X 2 5/8	3 3/4	7190-0442	F	29
9721		3.3	1/12-1/20	115/230	1550	1	0.9/0.43/1.1/.049	REV	BALL	5/16 X 3 1/2	3 1/2	Century 9721	G	
BROAN														
K610	SP	-	1/60	115	3000	2	.88-.68	CCW	SLV	.217 X 1.3		Motor 30080011, Model Y2-52000	H	
K612	SP	-	1/65	115	3000	1	0.8	CW	SLV	.25 X 2.7		Model 162 (Before 1980)	I	
K611	SP	-	1/100	115	3000	1	0.67	CCW	SLV	.25 X 2.45		Model 162 (After 1980)	J	
D1087	SP	5	1/12	115	1050	1	2.9	CW	SLV	1/2 X 2 1/3	2 5/8	99-08-0178, 7151-3160	K	
K110	SP	-	1/75	115	3000	1	0.9	CCW	SLV	.217 X 2.37		99-08-0165, 670A	L	
D633		3.3	1/50	120	1400	1	0.76	CCW	SLV	5/16 X 1 3/8	2 1/2	Century 633, 99080274, 99080273, JA2M373, JA2C396	M	
D632		3.3	1/45	120	1625	1	1.0	CW	SLV	1/4 x 1 3/8	2 3/4	Century 63299080345, JA2C229	N	
BRYANT/CARRIER														
D1179	SP	3.3	1/30	115	3000	1	1.5	CW	SLV	5/16 X 2	3 1/2	BDP P251-2916 FRANKLIN 8251510360	O	
D1180	SP	3.3	1/20	115	3300	1	1.9	CW	SLV	5/16 X 2 1/8	3 5/8	Carrier HC27UE120, BDP 398A, BDP P251-2307 U.E. JAIP053N, UE Stock 580	O	

NOTES: 29: 4M 370V capacitor included 75: Shell Turbo 68, low temp. oil (-40°F)



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A D847



FIG. B D1138



FIG. C D1139



FIG. D D1066



FIG. E D1119



FIG. F D455



FIG. G D456, D457, D458, D1174



FIG. H D1178



FIG. I D463



FIG. J D1182



FIG. K D459



FIG. L S2846



FIG. M S2848

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
BRYANT/PAYNE														
D847	PSC	5.6	1/8	208-230	1125	1	0.9	CCW	SLV	1/2 X 3 1/2	3 3/4	K1543, HC35VE-230 KA55CGD-9658	A	
BUCK STOVE														
D1138	SP	3.3	1/50 - 1/80 - 1/140	115	1500	3	.9-6-.5	CW	SLV	5/16 X 2 1/2	4	R22CCW270ZD 7163-6045	B	
D1139	SP	3.3	1/50 - 1/80 - 1/125	115	1500	3	0.88	CW	SLV	2 1/2 X 5/16 X 1 1/8	2 13/16	R22CW206MD	C	
BUTLER VENTILATOR														
D1066	SP	5	1/10	115	1050	1	3.6	CW	BALL	1/2 X 2 3/4	3 7/8	846PY4V, 2414	D	
CAMCO														
D1119	SP	3.3	1/90	240	1500	1	0.34	CCW	SLV	1/4 X 1 1/2	2 1/4	Universal JBIP04410V Electrohome 2868-405-173, Rotom R302	E	
CARRIER														
D455	SP	3.3	1/30	115/230	3000	1	1.3-.7	CCW	BALL	1/4 X 3 7/8	5 7/8		F	7, 196
D456	SP	3.3	1/15	115/230	3000	1	2-1	CW	BALL	1/4 X 2 3/4	6 1/2		G	7, 196
D457	SP	3.3	1/15	115/230	3000	1	2-1	CCW	BALL	1/4 X 2 3/4	6 1/2		G	7, 196
D458	SP	3.3	1/15	208-230	3000	1	1	CW	BALL	1/4 X 2 3/4	6 1/2		G	7, 196
D1174	SP	3.3	1/15	460	3000	1	0.6	CW	BALL	1/4 X 2 1/2	6 3/4	Carrier HC34AU725A Universal JB1P044NV HC24AU725	G	8
D1178	PSC	3.3	1/15	208-230	3450	1	0.45	CW	BALL	1/4 X 2 3/4	6 3/4	Carrier HC680001, Fasco 7162-3829	H	
D463	SP	3.3	1/30	208-230	3000	1	0.65	CW	BALL	5/16 X 2 1/2	3 7/8	HC24HE230	I	
D1182	PSC	3.3	1/16	208-230	3450	1	0.57	CCW	SLV	5/16 X 3 1/3	4 1/2	7162-3367 HC30GB230B K33HXCCP-915 HC30GB230	J	
D459	SP	3.3	1/15	230/460	3000	1	1.2-.6	CW	BALL	1/4 X 3	7	HC24AU725A, JB1P044 AB1S078, JB1R039 AB1S029	K	
S2846	PSC	5.6	1/2	230/460	1075	1	3.9-2	REV	BALL	1/2 X 5 3/8	6 1/2	Canopy Type Outdoor Condenser Fan Motor	L	
S2848	PSC	5.6	3/4	230/460	1075	1	4.7-2.4	REV	BALL	1/2 X 6	7 3/4	Canopy Type Outdoor Condenser Fan Motor	M	

NOTES: 7: Includes shaft bushing 8: Does not have shaft bushing 196: Draft Booster/ Flue Exhaust/ Switch Motors

Products on page F-62 & 63 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.

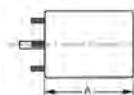




FIG. A D1176



FIG. B D351



FIG. C D0563



FIG. D D0418



FIG. E D091



FIG. F D0042



FIG. G D043



FIG. H D671B



FIG. I D672B



FIG. J D0447



FIG. K D032



FIG. L D033



FIG. M D616



FIG. N D011

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
CARRIER/WHIRLPOOL														
D1176	PSC	3.3	1/15 - 1/25	115	1550	2	.9-.8	DS	SLV	4 7/8 X 3/8 X 4 7/8	4	130096, 202466	A	1
CENTURY														
D351		3.3	1/20	115/230	1550	1	1.52/0.76	CWSE	Ball	5/16 x 4 1/2	4-1/4	Century 351	B	
D0563		3.3	1/15	115	1600	2	2.2	CCWSE	Sleeve	5/16 x 2 1/2	4-1/2	Century 563, 460, JA2R159	C	
D0418		3.3	1/15	115/230	3000	1	2.0/1.0	CCWSE	Ball	5/16 x 5	4-1/2	Century 418	D	
D091		3.3	1/15	115/230	3000	1	2.0/1.0	CWSE	Ball	5/16 x 5	4-1/2	Century 91	E	
D0042		3.3	1/15	115	1550	1	2.18	CWSE	Sleeve	5/16 x 2 1/2	3-1/8	Century 42	F	
D043		3.3	1/15	115	1550	1	2.18	CCWSE	Sleeve	5/16 x 2 1/2	3-1/8	Century 43	G	
D671B		3.3	1/15	115/208-230	1550	1	1.9/.84-.94	CCWSE	Ball	5/16 x 2 1/2	4-1/2	Century 672B, 1231	H	
D672B		3.3	1/15	115/208-230	1550	1	1.9/.84-.94	CWSE	Ball	5/16 x 2 1/2	4-1/2	Century 672B, 1441	I	
D0447		3.3	1/12	115	1550	3	1.32	CWSE	Sleeve	6 x 5/16 x 6	4	Century 447	J	
D032		3.3	1/70	115	3000	1	0.58	CCWSE	Sleeve	1/4 x 2 1/2	2-1/2	Century 32	K	
D033		3.3	1/70	115	3000	1	0.59	CWSE	Sleeve	1/4 x 2 1/2	2-1/2	Century 33	L	
D616		3.3	1/70	115	3000	1	0.67	CCWSE	Sleeve	1/4 x 1	2-1/4	Century 616	M	
D011		3.3	1/730	115	3000	1	1.3	CWSE	Sleeve	1-1/2 x 1/4 x 1 1/2	3	Century 11	N	

NOTES: 1: 4M 370V capacitor



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A D1069



FIG. B 9721



FIG. C D1118



FIG. D D1022



FIG. E A088



FIG. F D178



FIG. G D408



FIG. H A128



FIG. I D783



FIG. J D359



FIG. K D1080



FIG. L D1081



FIG. M D1001

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
CHAMPION COOL														
D1069	SP	5	1/10 - 1/15	115	1040	2	3.5-2.2	DS	SLV	3 X 3/8 X 3	2 5/8	7151-2925, 7151-0109, MP2500	A	
CHANDLER														
9721		3.3	1/12-1/20	115/230	1550	1	0.9/0.43/ 1.1/.049	REV	BALL	5/16 X 3 1/2	3 1/2	Century 9721	B	
CHROMALOX														
D1118	SP	3.3	1/30	240	1500	1	0.6	CW	BALL	5/16 X 3 1/2	2 13/16	2868-811-005B, 2868-505-016, 2686-511-027A	C	
CHRYSLER AIRTE														
D1022	PSC	5	1/5 - 1/6 - 1/8	208-230	1100	3	1.6-1.1-1	CW	SLV	2 3/8 X 1/2 X 2 3/4	3 7/8	3704387, 2874493, 2874495	D	16
CLIMATE CONTROL														
9721		3.3	1/12-1/20	115/230	1550	1	0.9/0.43/ 1.1/.049	REV	BALL	5/16 X 3 1/2	3 1/2	Century 9721	B	
COLEMAN														
A088	SP	3.3	1/25	115	3200	1	1.3	CW	SLV			7021-5478	E	
D178	SP	5	1/8 - 1/11	115	1050	2	4.5-3.4	CW	SLV	1/2 X 4	3 1/4	Blower Motor	F	
D408	SP	3.3	1/150	115	3000	1	0.5	CW	SLV	1/4 X 1 1/2	5 1/2	7995-316, 7121-5906	G	
CONSOLIDATED INDUSTRIES														
A128	SP	3.3	1/50	120	3000	1	0.9	CW	SLV			7021-6376, 7021-9404	H	
COPELAND														
D783	PSC	5.6	1/4	208-230	1625	1	1.5	REV	SLV	1/2 X 6	4	3047, 050-0238-00	I	
DAY / NIGHT / PAYNE														
D359		3.3	1/20	115	1550	2	2.2	CW	SLV	4 X 5/16 X 4	3 1/8	Century 63299080345, JA2C229	J	
DUOTHERM														
D1080	SP	5	1/6	115	1050	1	7.9	CW	BALL	1/2 X 4	4 1/2	3-14826; 100,000 BTU Furnaces	K	
D1081	PSC	5	1/6 - 1/8 - 1/10	115	1625	3	2.4-1.9- 1.5	REV	SLV	3 1/2 X 1/2 X 3 5/8	4 7/8	3-9650; 12,000 - 13,000 BTU's 5KCP29MG40115 8743810260, 3-18440	L	12
D1001	SP	5	1/15	115	1000	1	3.2	CW	SLV	3/8 X 3 1/4	2 1/3	3-9930	M	

NOTES: 12: 10M 370V Capacitor 16: Rotation is determined by viewing lug end

Products on page F-64 & 65 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A D1151



FIG. B D1033



FIG. D K629



FIG. E A156



FIG. F A100



FIG. G K102



FIG. H K100



FIG. I K101



FIG. J D1159, D1160



FIG. K D1162



FIG. L D1161

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
ECONOMITE/MID-CONTINENT GAS BURNER														
D1151	SP	3.3	1/40	115	1500	1	1.2	CCW	SLV	5/16 X 3 1/4	2 3/4	AA2P026N	A	
EMERSON														
D1033	PSC	5	1/5 - 1/6 - 1/8	208-230	1400	3	1.6-1.5-1.3	DS	SLV	2 3/4 X 1/2 X 3 1/2	3 3/4	Quiet Cool	B	
EVCON														
K629	SP	-	1/85	115	2950	1	0.67	CW	SLV	1/4 X 1 1/8		7102-2187	D	
A156	SP	3.3	1/35	115	3000	1	1.1	CW	SLV			Evcon, 7021-8935	E	
EXCEL COMFORT														
A100	SP	-	1/45	115	2900	1	1.21	CW	SLV			7058-0280, 20093603/B	F	
FASCO														
➤ K102	SP	-	1/200	115	3000	1	0.64	CW	SLV	.181 X 1.5		Model 2435	G	
➤ K100	SP	-	1/100	115	3000	1	0.71	CW	SLV	.181 X 1.11		0648-0027 Ventilator	H	
➤ K101	SP	-	1/150	230	3000	1	0.58	CCW	SLV	.217 X 1.34		Model 2540; 7102-0001 Motor	I	
➤ D1159	SP	3.3	1/130	115	1500	1	0.45	CCW	SLV	5/16 X 1 1/8	2 1/8	7163-1845, VENT 656, VENT 293A, VENT PV7896	J	
➤ D1160	SP	3.3	1/100	115	1480	1	0.58	CW	SLV	5/16 X 1 1/2	2 1/8	7163-2593, 663, 668, 763, 768, 661, 761	J	
➤ D1162	SP	3.3	1/100	115	1500	1	0.6	REV	SLV	5/16 X 1	3 1/2	7163-9809 7163-1541, Model 659 Vent	K	
➤ D1161	SP	3.3	1/15 - 1/25	115	1600	2	2.9-2	CCW	SLV	5/16 X 2	4 1/4	Several Blower Applications	L	



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A D441



FIG. B D186



FIG. C D1012



FIG. D D1010, D1011



FIG. E D1016



FIG. F A159



FIG. G A161



FIG. H D0396



FIG. I A110



FIG. J A111

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
FEDDERS														
D441	SP	3.3	1/80	115	1500	1	0.6	CCW	SLV	1/4 X 1	2 1/8	Fedders, Oasis, Whirlpool Port Dehumidifiers	A	
D186	SP	3.3	1/20	460	1500	1	0.4	CW	SLV	5/16 X 2 1/3	2 7/8	Roof Top A/C	B	
D1012	SP	4.4	1/15 - 1/20 - 1/25	115	1550	3	2.3-1.9-1.6	DS	SLV	3 X 3/8 X 3	3 3/8	RMR, RY1302, 5206-00025-001 Y24CW50, 7190-0163	C	
D1010	SP	5	1/8 - 1/12 - 1/15	115	1050	3	4.4-3-2.3	DS	SLV	3 1/3 X 1/2 X 2 3/4	3 3/8	Window AC Motor; S196-20-2	D	
D1011	SP	5	1/6 - 1/12 - 1/15	208-230	1050	3	2.5-1.6-1.2	DS	SLV	3 1/3 X 1/2 X 2 3/4	3 1/4	Window AC Motors; S196-42-1, S296-161-3	D	
D1016	PSC	5	1/4	230	1100	1	2	CW	SLV	1/2 X 4 1/8	3 7/8	Condenser Fan; S196-18-2	E	
A159	SP	3.3	1/40	230	1550	1	0.5	CCW	BALL			AK4K84BX; 11-7096	F	
A161	SP	3.3	1/40	230	1600	1	0.6	CCW	BALL			Brinkley 8353920103; Fedders	G	
D0396		3.3	1/20	208-230	1450	1	0.9-1.0	CCW	Sleeve	5/16 X 2 1/2	3 1/4	Century 396, S196-47-2, S196-47-3	H	
FRYMASTER														
A110	SP	-	1/70	115	3212	1	0.76	CW	BALL			7021-0898	I	195
A111	SP	3.3	1/40	208-240	3200	1	0.8	CWLE	BALL			7021-11294, 8073637	J	

NOTES: 195: 50/60 Hz

Products on page F-66 & 67 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.





FIG. B D896



FIG. D D894



FIG. E D1050, D264



FIG. F D1086



FIG. H D1853



FIG. I D854



FIG. J D855



FIG. K D856

FASCO MODEL	TY E	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
GENERAL ELECTRIC														
D896	PSC	5.6	1/5 - 1/8	208-230	1625	2	1.1-.7	CCWLE	SLV	2 7/8 X 1/2 X 2 1/4	3 3/4	KCP39DGD7795, WJ94X0518	B	1
D894	PSC	5.6	1/6	277	1650	1	0.8	CW	SLV	1/2 X 2 1/4	3 3/4	5KCP39CGP7275	D	
D1050	PSC	5	1/8	230	1550	1	1.1	CW	SLV	1/2 X 3	3 1/4	A/C Condenser; KSP29DK1728S	E	202
D264	PSC	5	1/8	230	1550	1	1.1	REV	SLV	1/2 X 5	3 1/4	A/C Cond. Fan Motor	E	
D1086	PSC	5	1/12 - 1/25	277	1625	2	.6-.2	CCW	SLV	6 1/2 X 1/2 X 6 1/2	3 1/4	5KCP29CK3586AS	F	
GIBSON-BELDING & KELVINATOR														
D1853	PSC	5.6	1/3 - 1/4 - 1/5	230	1090	3	2-1.9-1.8	CW	SLV	6 X 1/2 X 2 7/8	4 1/4	G519243, G505976, K55HXNEC-6830	H	21
D854	PSC	5.6	1/3 - 1/4 - 1/6	208-230	1365	3	2.8-1.7-1.2	CCW	SLV	4 1/2 X 1/2 X 2 5/8	4 1/2	Franklin X157668, X152275, 82181	I	9, 21
D855	PSC	5.6	1/3 - 1/4 - 1/5	230	1365	3	2.7-2-1.7	DS	SLV	8 X 1/2 X 8 3/4	4 1/4	RAK7024	J	9
D856	PSC	5.6	1/3 - 1/4 - 1/5	230	1300	3	3.1	CW	SLV	5 1/4 X 1/2 X 3	5	G519244, G505971, K55HXNEM6844	K	21

NOTES: 1: 4M 370V capacitor 9: 3M 370V capacitor 21: Rotation is determined from viewing lug end 202: Original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing shaft end of motor to prevent moisture from entering motor.



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A A065



FIG. B A140



FIG. C A157



FIG. D A162



FIG. E A079



FIG. F A181



FIG. G A182



FIG. H A184



FIG. I A187



FIG. J A188



FIG. K A189



FIG. L A281, A284



FIG. M A282



FIG. N A288



FIG. O A290

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	CROSS REF.	FIG.	NOTES
GOODMAN												
A065	SP	-	1/50	115	3000	1	1.22	CCW	BALL	0131M00002P, 119276-00	A	
A140	SP	3.3	1/50	115	3400	1	1.4	CW	SLV	7021-9087, 7021-9000	B	
A157	SP	-	1/35	115	3000	1	1.3	CCW	SLV	7002-2307	C	
A162	SP	3.3	1/50	208-230	3000	1	0.5	CCW	SLV	7021-8656	D	
A079	SP	3.3	1/50	115	3000	1	1.1	CCW	SLV	7021-6804	E	
A181	SP	3.3	1/30	115	3192	1	1.5	CW	BALL	7058-0136, 20044403	F	
A182	SP	3.3	1/35	115	3125	1	1.2	CCW	SLV	7002-3036, B4059000	G	
A184	SP	3.3	1/35	115	3125	1	1.55	CCW	BALL	7058-0229, B40590-01	H	
A187	SP	3.3	1/20	208-230	3250	1	0.8	CW	SLV	7021-10006, 20028901	I	
A188	SP	3.3	1/18	115	3250	1	1.6	CW	SLV	7021-10958, B4833000	J	
A189	SP	3.3	1/24	115	3000	1	1.5	CW	SLV	7021-7302, D9868620	K	
A281	SP	3.3	1/40	115	3000	1	0.9	CW	SLV	7021-8252, D6996405	L	
A282	SP	3.3	1/60	220	2600	1	0.45	CCW	SLV	7021-8448, B1859050S	M	
A284	SP	3.3	1/30	208/240	3000	1	.59/.5	CW	SLV	7021-9227, D9886202	L	
A285	SP	3.3	1/40	115	3250	2	1.4	CW	SLV	7021-9236, B2833002	B	
A288	SP	3.3	1/30	115	3100	2	1.4/.65	CW	BALL	7021-9727, 11177202	N	
A290	PSC	3.3	1/20	115	3200/2400	2	0.7	CCW	BALL	7062-5015, 20245903	O	

Products on page F-68 & 69 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A D1061



FIG. B A133



FIG. C D1122



FIG. D D1123



FIG. E D1132, D1133

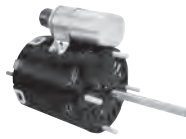


FIG. F D1127



FIG. G 9721



FIG. H A064



FIG. I D1071



FIG. J A148



FIG. K A151



FIG. L D829



FIG. M D880, D827

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
GREENHECK FAN														
D1061	SP	4.4	1/20-1/30-1/60	115	1500	3	2-1.7-1.4	CCW	SLV	1/2 X 2 3/4		7108-2425	A	
HEAT N GLOW														
A133	SP	-	1/50	115	3000	1	1.2	CCW	SLV			7002-1241	B	
HEATCRAFT														
D1122	PSC	3.3	1/16	208-230	1650/1300	1	0.4	CW	SLV	5/16 X 1 5/8	3 5/8	7190-2255, 25308601	C	22
D1123	PSC	3.3	1/15	208-230	1550	1	0.5	CCW	SLV	5/16 X 2 5/8	3 7/8	7190-2285, 25309101	D	1
D1132		3.3	1/20	208-230	1550	2	1.07/0.96	CW	SLV	5/16 X 3 1/16	3 1/16	25300201	E	
D1133		3.3	1/20	115	1550	1	1.7	CW	SLV	5/16 X 2 5/8	3 1/16	25300101	E	
D1127		3.3	1/12	115/230	1550	1	1.1/0.6	REV	SLV	5/16 X 3 1/16	3 1/2	Heatcraft Models	F	
9721		3.3	1/12-1/20	115/230	1550	1	0.9/0.43/1.1/0.49	REV	BALL	5/16 X 3 1/2	3 1/2	Century 9721	G	
HEIL-QUAKER														
A064	SP	3.3	1/55	115	3150	1	0.7	CW	SLV			610172, 7021-5043	H	
D1071	PSC	5	1/6	208-230	1100	1	0.99	REV	SLV	1/2 X 2 1/8		HQ 1052662EM; 48HXCLW-1562	I	
A148	SP	3.3	1/50	208-230	3000	1	0.5	CCW	SLV			HEIL QUAKER, 7021-9237	J	
A151	SP	3.3	1/90	230	2800	1	0.3	CW	SLV			INTER CITY, HQ1050144	K	
HERMAN NELSON														
D829	PSC	5.6	1/4	115	825	1	3.8	REV	SLV	1/2 X 2	5 5/8		L	
D880	PSC	5.6	1/4	115	1050	1	4.3	CCW	BALL	1/2 X 1 1/2	5 1/2		M	
D827	PSC	5.6	1/8	115	700	1	2.5	CCW	BALL	1/2 X 2	5 1/2	7-150444-02	M	

NOTES: 1: 4M 370V capacitor 22: 2M 370V Capacitor



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. C D1054



FIG. F K114



FIG. G D1040, D1044



FIG. H D1041, D1047, D1049, D1053



FIG. I D1043



FIG. J D1045



FIG. K D1048



FIG. L D1055, D1059



FIG. M D115



FIG. N D1039

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
HONEYWELL AIR CLEANER														
D1054	SP	5	1/12-1/20-1/25	115	1050	3	3.1-2.1-1.5	CW	SLV	1/2 X 2 1/2	2 5/8	190386A; 5KSP29DK1906S	C	
HUSSMAN														
K114	SP	-	1/500	115	3000	1	0.64	CCW	SLV	.181 X 1.75		301-5734	F	25
IEC														
D1040	PSC	5	1/5	208/240	925	3	1.6	CW	SLV	1/2 X 8	4 1/3	5KCP29KK8385S, S89209	G	197
D1041	PSC	5	1/15	265	1075	3	0.6	CW	SLV	1/2 X 7 1/8	3 7/8	5KCP29DK8389S, S89206	H	
D1043	PSC	5	1/4	265	1075	3	1.6	CW	SLV	1/2 X 6 1/4	4 5/8	5KCP29DK8386S, 289211	I	
D1044	PSC	5	1/4	115	970	3	6	CW	SLV	1/2 X 8	4 1/3	5KCP29DK8387S, S89210	G	
D1045	PSC	5	1/30	115-127	1100	3	0.53	CW	SLV	1/2 X 9	3 1/8	5KCP29BK8382S, S89202	J	29
D1047	PSC	5	1/20	208-230	1075	3	1.6	CW	SLV	1/2 X 7 1/8	3 7/8	5KCP29FK8028S, S88935	H	
D1048	PSC	5	1/20	277	1075	3	0.5	CW	SLV	1/2 X 7 1/4	3 7/8	5KCP29FK8132S, S89205	K	
D1049	PSC	5	1/20	265	1075	3	0.4	CW	SLV	1/2 X 7 1/8	3 7/8	5KCP29FK8388S, S89204	H	
D1053	PSC	5	1/30	265	1075	3	0.38	CW	SLV	1/2 X 7 1/8	3 1/3	5KCP29BK8094S, S89203	H	
D1055	PSC	5	1/12	115-127	1375	3	1.4	DS	SLV	9 1/8 X 1/2 X 9 1/2	3 1/8	5KCP29BK8383S, S89207	L	3
D1059	PSC	5	1/6	115-127	1450	3	2.3	DS	SLV	8 3/4 X 1/2 X 9	3 1/3	5KCP29DK8384S, S89208	L	31
ILG														
D115	SP	4.4	1/12	115/230	1550	1	2.5-1.3	CCW	SLV	1/2 X 2	4 1/8	78-27-721T; Fasco 7108-2237	M	
D1039	SP	4.4	1/10	115	1610	1	3.1	CCW	SLV	1/2 X 2 3/8	4 1/2	78-27-611N; Fasco 7108-2171	N	

NOTES: 3: 6M 370V capacitor 25: Equipped with KFAN6046 fan blade 29: 4M 370V capacitor included 31: 5M 370V Capacitor 197: For 208V use 7.5M 370V Capacitor and 240V use 6M 370V Capacitor

Products on page F-70 & 71 are NOT SUITABLE for unattended equipment unless indicated by ➤. See inside back cover for additional information.

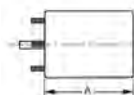




FIG. A D1167



FIG. B A051



FIG. C A067



FIG. D A134



FIG. E A145



FIG. F A141, A174



FIG. G A148



FIG. H A151



FIG. I A169



FIG. J A170



FIG. K A171



FIG. L A172



FIG. M A173



FIG. N A175

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	CROSS REF.	FIG.	NOTES
INTERCITY PRODUCTS												
D1167	SP	3.3	1/40	208-230	3000	1	0.55	CCW	SLV	1708-518, 7121-5854	A	
A051	SP	-	1/60	115	3000	1	1.6	CW	BALL	1013833, J238-1393	B	
A067	SP	3.3	1/20	115	3000	1	2.6	CW	BALL	1014338, 119225-00	C	
A134	SP	3.3	1/25	115	3060	1	1.5	CW	SLV	7021-9335, 7021-8735, 7021-9499, 7021-8736	D	
A145	PSC	3.3	1/25	115	3450	1	0.7	CCW	BALL	7062-4061	E	26
A141	SP	3.3	1/60	115	2800	1	1	CW	BALL	7021-8741, 7021-8742	F	
A148	SP	3.3	1/50	208-230	3000	1	0.5	CCW	SLV	7021-7617, 7021-9237	G	
A151	SP	3.3	1/90	230	2800	1	0.3	CW	SLV	HEIL QUAKER, HQ1050144	H	
A169	SP	3.3	1/25	230	2800	1	0.75	CW	SLV	7021-10048, 7021-10580	I	
A170	SP	3.3	1/25	115	3400	1	2.3	CCW	BALL	7021-10702, 7021-10299	J	
A171	PSC	3.3	1/25	115	3450	1	0.7	CCW	BALL	7062-4783, 1011412	K	
A172	SP	-	1/35	115	3000	1	1.6	CW	BALL	7002-2792, 1010975P	L	
A173	PSC	3.3	1/18	115	3450	1	0.8	CCW	BALL	7062-4578, 1011350	M	
A174	SP	3.3	1/100	115	2350	1	0.8	CW	SLV	7021-9188, 1010239	F	
A175	SP	-	1/40	115	3300	1	1	CCW	SLV	7002-1891, 1708-600P	N	

NOTES: 26: 4M 250V Capacitor included

Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A A176



FIG. B A177, A302, A304



FIG. C A178



FIG. D A179



FIG. E A301



FIG. F A306



FIG. G A307



FIG. H D404, D405

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
INTERCITY PRODUCTS														
A176	SP	-	1/25	115	3100	1	2.2	CW	BALL			7002-2946, 1011899, 7002-3071, 1011899P	A	
A177	SP	3.3	1/36	115	3000	2	1.4	CW	BALL			7021-10363, 1011632, 7021-10597, 1011632P	B	
A178	SP	3.3	1/30	115	3400	1	1.8	CW	BALL			7021-10928, 1013388FA	C	
A179	SP	3.3	1/60	115	3300	1	0.9	CW	SLV			7021-8693, 1006168P	D	
A301	SP	3.3	1/100	115	2350	1	0.8	CW	SLV			7021-9498, 1010239P	E	
A302	SP	3.3	1/25	115	3060	1	1.5	CW	SLV			7021-9499, 1010324P, 7021-7700, 1708-607	B	
A304	SP	3.3	1/25	115	3060	1	1.5	CW	SLV			7021-9701, 1011021	B	
A306	PSC	3.3	1/30	208-230	3350/2900	2	0.3	CCW	SLV			7062-4532, 1097245	F	195
A307	PSC	3.3	1/24	115	3450	1	0.7	CW	SLV			7062-5165, 1149097, 7062-3794, 1008416P	G	
ITT REZ														
D404	PSC	3.3	1/10	208-230	3000	1	0.8	REV	BALL	5/16 X 3 1/4	4 1/4	CW175-40069, 7162-0293 CCW505-43424, 7162-0348 CCW175-40070, 7162-0294	H	29, 85
D405	PSC	3.3	1/10	115	3000	1	1.4	REV	BALL	5/16 X 3 1/4	4 1/4	CCW77162-0311 CCW175-43846 CW7162-0224, CW36860	H	29

NOTES: 29: 4M 370V capacitor included 85: Air Over 195: 50/60 Hz

Products on page F-72 & 73 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.

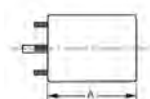




FIG. A A072



FIG. B A073



FIG. C A079



FIG. D D1173



FIG. E D1170



FIG. F D377



FIG. G A081



FIG. H A085



FIG. I D1243, D1245



FIG. J D1120, D1121



FIG. K D1246



FIG. L D1158



FIG. M D1189



FIG. N D1156



FIG. O D1157

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
JAKEL														
A072	SP	-	1/45	115	3000	1	1.15	CW	BALL			J238-1344	A	
JANITROL														
A073	SP	3.3	1/40	115-230	3000	1	.7/35	CCW	BALL			82932, 8251560133	B	
A079	SP	3.3	1/50	115	3000	1	1.1	CCW	SLV			7021-6804	C	
JENN AIR														
D1173	SP	3.3	1/30	115	1500	1	1.2	CW	BALL	5/16 X 2 1/2	3 7/8	70CR	D	
D1170	SP	4.4	1/15	115	1500	1	2.1	CW	BALL	3/8 X 2 1/2	4 3/4	80CR	E	
D377	SP	4.4	1/12	115	1500	1	3.1	CCW	SLV	3/8 X 2	2 3/4	7108-2101	F	
JOHNSON FURNACE														
A081	SP	3.3	1/40	230	3000	1	0.5	CCW	BALL		3 1/2	HWC Series Unit	G	
A085	SP	3.3	1/30	230	3000	1	0.7	CCW	BALL			AO Smith 464, Johnson Furnace	H	
KEEPRITE														
D1243	PSC	3.3	1/20	115	1550	1	0.8	CCW	SLV	5/16 X 2 3/4	4 1/8	501899, 7164-1243, 7164-1854, R370	I	29
D1245	PSC	3.3	1/20	208-230	1550	1	0.3	CCW	SLV	5/16 X 2 3/4	4	501909, 7164-1313, 7164-1853, R371	I	29
D1120	SP	3.3	1/20	115	1550	1	2.1	CW	SLV	5/16 X 2 1/2	3 1/2	7163-8722, 1043336	J	
D1121	SP	3.3	1/20	208-230	1550	1	1	CW	SLV	5/16 X 2 1/2	3 1/2	7163-8861, 1043766	J	
D1246	SP	4.4	1/15	115	1550	1	2.3	CCW	SLV	3/8 X 1 3/4	3 1/2	81356, 7108-2206	K	
KRACK REFRIGERATION														
D1158	SP	3.3	1/20	115/208-230	1550	1	1.4-.8	CW	BALL	5/16X 1 5/8	3 5/16	Commercial Refrigeration Units	L	
D1189	SP	3.3	1/20	115/208-230	1550	1	1.4-.76	CW	BALL	5/16 X 1 5/8	3 1/8	11528, 11529, JB2P046N, JA2P216N JA2P217N, JB2P047N, 8354110940, 8254111030	M	
D1156		3.3	1/15	115/208-230	1350/1300 1630/1550	1	2.2/1.2/ 1.9/1.0	CCW	SLV	5/16 X 1 1/2	3 1/2	Century 9631 and 9632, E206444, E206445, JA2Y031, JA2Y030	N	
D1157		3.3	1/15	115/208-230	1350/1640	1	1.0/0.38/ 0.66/0.36	CCW	SLV	5/16 X 2 1/2	3 1/2	Century 9633 and 9634, E206447, E206448, JE2F029, JE2F030	O	

NOTES: 29: 4M 370V capacitor included



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A D1152, D1154, D1101, D1103



FIG. B D0396



FIG. C 9721



FIG. D D1046



FIG. E A068



FIG. F A138



FIG. G A135, A205



FIG. H A163



FIG. I A164



FIG. J A200



FIG. K A201



FIG. L A202



FIG. M A203



FIG. N A204



FIG. O A206

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
KRAMER/TRENTON														
D1152	SP	3.3	1/20	115	1500	1	1.7	CW	SLV	5/16 X 2 3/8	2 7/8	5KSM59ES2001	A	
D1154	SP	3.3	1/20	230	1550	1	1	CW	SLV	5/16 X 2 3/8	3 1/8	JA2R140N	A	
D0396		3.3	1/20	208-230	1450	1	0.9-1.0	CCW	SLV	5/16 X 2 1/2	3 1/4	Century 396, S196-47-2, S196-47-3	B	
LARKIN COIL														
D1101	SP	3.3	1/20	115	1500	1	1.9	CCW	SLV	5/16 X 2 1/4	2 3/4	Larkin No. 253-1194 Fasco No. 7163-2113	A	75
D1103	SP	3.3	1/20	208-230	1500	1	1.15	CCW	SLV	5/16 X 2 1/4	3	Fasco No. 7163-3371, 252-1195	A	75, 201
9721		3.3	1/12-1/20	115/230	1550	1	0.9/0.43/ 1.1/.049	REV	BALL	5/16 X 3 1/2	3 1/2	Century 9721	C	
LEAR SIEGLER														
D1046	SP	5	1/8	115	1070	1	5.1	CW	SLV	1/2 X 2 1/4	3	305313-000-165, 7151-0073, 7151-2826	D	
LENNOX														
A068	SP	-	1/60	120	3000	1	1.15	CCW	BALL			88K8401, J238-8171	E	
A138	SP	3.3	1/70	120	3000	1	0.7	CCW	SLV			LENNOX, 7021-8657, 7021-8825	F	
A135	SP	3.3	1/60	120	3000	1	0.7	CCW	SLV			LENNOX, 7021-8812, 7021-8819	G	
A163	SP	3.3	1/20	115	3400	1	1.8	CCW	BALL			LENNOX, 7021-9450	H	
A164	SP	3.3	1/50	120	3400	1	0.8	CCW	SLV			LENNOX, 7021-9593	I	
A200	SP	-	1/30	115	3000	1	1.95	CCW	SLV			7002-2975, 31L5501	J	
A201	SP	3.3	1/30	208-230	3000	1	0.65	CCW	BALL			7021-10055, 41144-002	K	
A202	SP	3.3	1/30	115	3400	1	1.8	CCW	BALL			7021-10602, 45037-001	L	
A203	SP	3.3	1/20	115	3400	1	1.8	CCW	BALL			7021-10841, 49L5301	M	
A204	SP	3.3	1/20	115	3400	1	1.8	CCW	BALL			7021-11406, 83L4101	N	
A205	SP	3.3	1/20	120	3000	1	0.7	CCW	SLV			7021-8372, T6-2118	G	
A206	SP	3.3	1/25	115	3000	1	1.5	CW	SLV			7021-8473, 65204100/20J8901	O	

NOTES: 75: Shell Turbo 68, low temp. oil (-40°F) 201: Not a direct replacement for 253-1194, but is an acceptable substitute

Products on page F-74 & 75 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A207



FIG. B A208



FIG. C A209



FIG. D A210



FIG. E A211



FIG. F A213, A216



FIG. G A217



FIG. H A218



FIG. I A219, A320



FIG. J A322



FIG. K A324



FIG. L A325



FIG. M A329



FIG. N A330, A331



FIG. O D1198

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
LENNOX														
A207	SP	-	1/28	115	3000	1	1.75	CCW	BALL			7058-0217, 60M7901	A	
A208	SP	-	1/28	115	3000	1	1.75	CCW	BALL			7058-0322, 60M8101	B	
A209	PSC	3.3	1/20	115	3200/2800	2	0.8	CCW	BALL			7062-5441, 38M5001	C	
A210	SP	3.3	1/30	115	3000	2	1.7	CCW	BALL			7021-11063, 18M6701	D	
A211	SP	3.3	1/15	115	3400	1	2.35	CCW	BALL			7021-11634, 81M1601	E	
A213	SP	3.3	1/25	115	3200	2	2.1	CCW	BALL			7021-10376, 18L0401	F	
A216	SP	3.3	1/25	115	3200	2	2.1	CCW	BALL			7021-10915, 60L1401	F	
A217	SP	3.3	1/16	230	3000	1	0.83	CCW	BALL			7021-11231, 25M5501	G	
A218	SP	3.3	1/28	220-240	3000	1	.60/.52	CCW	BALL			7021-10676, 39L4201, 7021-8959, 60J4201	H	
A219	SP	3.3	1/65	120	3000	1	0.7	CCW	SLV			7021-9262, 88J3901	I	
A320	SP	3.3	1/60	115	3000	1	.8	CCW	SLV			7021-9646, 101154-01, 7021-9466	I	
A322	SP	3.3	1/70	120	3000	2	1.1	CCW	SLV			7021-9884, 83L8201	J	
A324	PSC	3.3	1/12	230	3200	1	.44	CW	BALL			7062-1909, 28G6601, 7062-1794	K	
A325	PSC	3.3	1/10	208-230	3200	1	0.6	CW	BALL			7062-2845, 7062-4751, 98G8701	L	
A329	PSC	3.3	1/12	208-230	3200	1	0.5	CW	BALL			7062-4819, 19L1501	M	
A330	PSC	3.3	1/12	208-230	3200	1	0.55	CW	BALL			7062-5546, 7062-4517, 7062-4608, 7062-4083, 69M3301	N	
A331	PSC	3.3	1/10	460	3200	1	.38/.33	CW	BALL			7062-5554, 69M3201, 7062-4051, 7062-4518, 97J8101	N	
D1198	SP	3.3	1/30	115	3200	1	1.5	CCW	SLV	5/16 X 2 1/4	3 1/8	7121-8774	O	33

NOTES: 33: Stainless steel shaft



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. C D818



FIG. D D2817



FIG. G D2818, D2816



FIG. H D1008



FIG. I D1100



FIG. J D1104



FIG. K D1117



FIG. L D1091



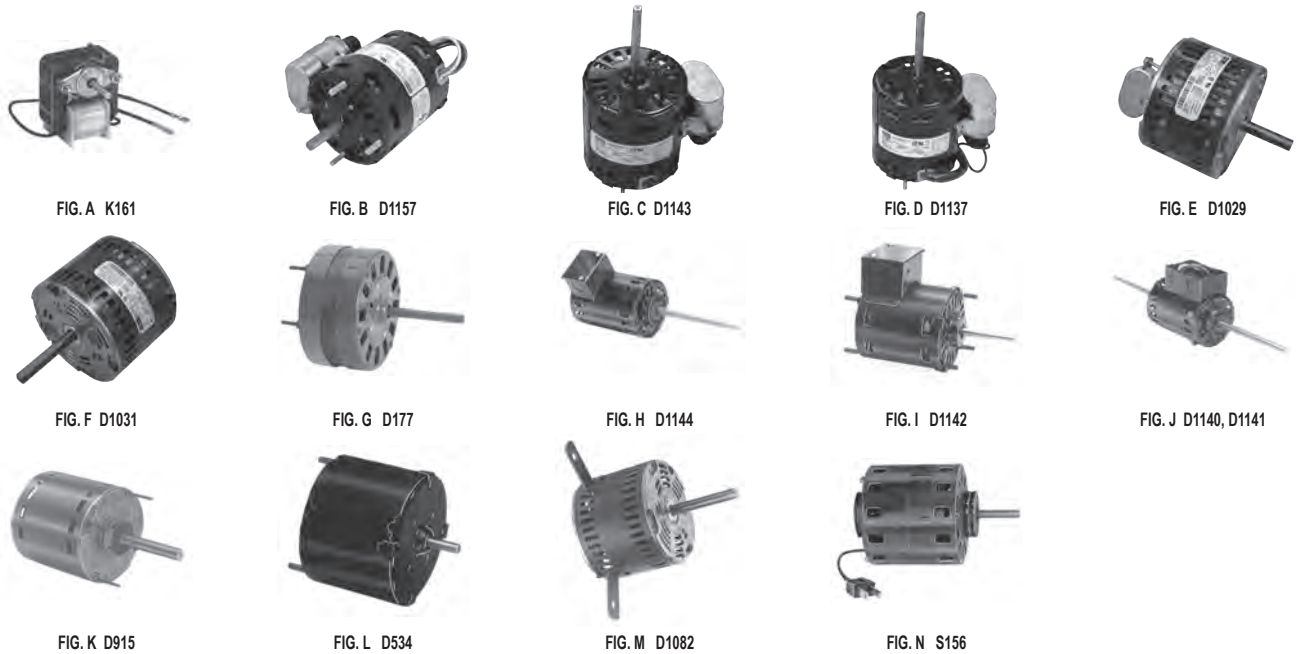
FIG. M A081

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
LENNOX														
D818	PSC	5.6	1/3 - 1/5 - 1/6	115	825	3	7.3-5.1-3.9	CW	SLV	1/2 X 3	6 3/4	P-8-8325, 5KCP39PGD698S	C	27
D2817	PSC	5.6	1/3	230	825	1	3.2	REV	SLV	1/2 X 6	5 3/4	5KCP39PG9701S, 5KCP39PG34P0AS	D	
D2818	PSC	5.6	3/4 - 1/3	230	1075	2	5-2.2	REV	BALL	5/8 X 4 1/2 Keyed	7 3/4	P-8-8711, 5KCP49SG1010S	G	24, 200
D2816	PSC	5.6	1 - 1/2 - 1/3	115	1075	3	11.8-6.3-3.9	REV	BALL	5/8 X 4	7 3/4	P-8-8326, 5KCP49SG1053S	G	15
LOMANCO														
D1008	SP	4.4	1/10	115	1500	1	4.4	CW	SLV	1/2 X 1 3/4	3	OLM6151, 322P151	H	
LOREN COOK														
D1100	SP	3.3	1/50	115	1550/900	2	1.2/7	CW	SLV	5/16 X 2 3/8	2 7/8	7173-1580, GC/GN 142/144	I	
D1104	SP	3.3	1/50	115	1550	1	.9	DS	SLV	2.9 X 5/16 X 2.9	3	7163-6714, 5-10	J	
D1117	SP	3.3	1/65	115	1590	1	0.6	CW	SLV	5/16 X 2 1/4	2 7/8	7163-7818, 615049, GC140	K	195
MAGIC CHEF														
D1091	PSC	5	1/4	208-230	1075	1	2.2	CCW	SLV	1/2 X 2 3/4	4 1/2	35035B001, 322P859, DE3L038	L	
A081	SP	3.3	1/40	230	3000	1	0.5	CCW	BALL			35035B001, 322P859, DE3L038	M	33, 116

NOTES: 15: 20M 370V Capacitor 24: 15M 370V Capacitor 27: 12.5M 370V Capacitor 33: Stainless steel shaft 116: Replacement for Airease 195: 50/60 Hz
200: Not a direct replacement for 5KCP49SG1010S, but is an acceptable substitute.

Products on page F-76 & 77 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG. NOTES
MATHIESEN													
K161	SP	-	1/50	115	3000	1	1.05	CCW	SLV	.217 X 1.21		Many Freezer Case Applications	A
MANITOWOC													
D1157		3.3	1/15	115/208-230	1350/1640	1	1.0/0.38 / 0.66/0.36	CCW	SLV	5/16 X 1 1/2	3 1/2	Century 9633 and 9634, E206447, E206448, JE2F029, JE2F030	B
D1143		3.3	1/20	115	1550	1	0.9	CCW	BALL	5/16 X 2 3/4	3 11/16	2008243, 71902830	C
D1137		3.3	1/20	208-230	1550	1	0.34	CCW	BALL	5/16 X 2 3/4	3 11/16	2008253, 71902831	D
D1029		5 1/8	1/8	208-230	1350/1620	1	0.8	CCW		1/2 X 2-1/4	3 9/16	2009653, 71850274	E
D1031		5 1/8	1/5	208-230	1050	1	1.8	CCW		1/2 X 3	4 5/64	2009663, 71870263	F
MCMILLAN													
D177	SP	5	1/10 - 1/20	115	1050	2	3.9-1.7	CCW	SLV	3/8 X 3 5/8	2 5/8	6152-366/6	G
MCQUAY													
D1144	PSC	3.3	1/25 - 1/35 - 1/65	115	1200	3	1.1-9-6	CW	SLV	3/8 X 5 3/8	4 3/4	BA2H015	H 1
D1142	SP	3.3	1/15	115/230	1500	1	1.7-9	CW	SLV	5/16 X 2 1/2	3 1/2	879-382-562-ZB-00	I 175
D1140	PSC	3.3	1/10 - 1/12 - 1/15	115	1500	3	2.2-2-1.7	DS	SLV	5-5/8 X 3/8 X 5 5/8	4 3/4	879-382564B-00	J 13
D1141	PSC	3.3	1/15-1/25-1/35	115	1000	3	1.3-1.1-0.9	DS	SLV	5-5/8 X 3/8 X 5-5/8	4 3/4	879-382563B-00	J 1
D915	PSC	5.6	3/4 - 1/2	460	1075	2	2.5/1.6	REV	BALL	5/8 X 4 1/2	5 1/3	F2417-121479, Marathon EW-B48A110558AE	K 24, 115
MIAMI/CAREY													
D534	SP	3.3	1/35 - 1/100	115	1500	1	1.4 - .5	CW	SLV	1/4 X 1	2 1/2	12324L	L
MILLER													
D1082	SP	5	1/8	115	1070	1	6	CW	BALL	1/2 X 3 1/4	4	MILLER 103080002, FASCO 7152-0020 U.E.; DA3F130N	M
S156	SP	5	1/6	115	1050	1	6.6	CW	SLV	1/2 X 3 7/8	3 1/2	MMG Series 80 & 100 MOC Series 80 & 100 CFM Series 80 & 100	N



NOTES: 1: 4M 370V capacitor 13: 7.5M 370V Capacitor
 24: 15M 370V Capacitor 115: Not a direct replacement
 for 253-1194, but is an acceptable substitute 175: Bolt
 circle = 3.15"

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A A131



FIG. B A132



FIG. C A121



FIG. D A122



FIG. E A123



FIG. F A124



FIG. G A126

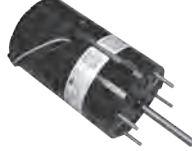


FIG. H D9623



FIG. I D540, D541



FIG. J D1109



FIG. K D1107



FIG. L D0636



FIG. M D637



FIG. N D342, D1036



FIG. O D0343



FIG. P D0746

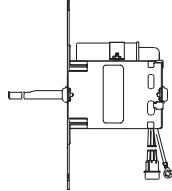


FIG. Q D0346

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
NORDYNE														
A131	SP	3.3	1/50	115	3000	1	1.1	CW	SLV			7021-9132, 7021-10171, 7021-10159 7021-9661	A	
A132	SP	3.3	1/50	115	3000	1	1.1	CW	SLV			7021-7975, 6212850	B	
A121	SP	3.3	1/45	240	3000	1	0.5	CW	SLV			7021-10381, 6217930	C	
A122	SP	3.3	1/17	115	3000	1	1.75	CW	SLV			7021-11227, 6219490	D	
A123	SP	3.3	1/18	115	3300	1	1.95	CW	BALL			7021-11385, 622064	E	
A124	SP	3.3	1/15	115	3000	1	1.75	CW	SLV			7021-11379, 6219290	F	
A126	SP	-	1/45	115	3000	1	1.8	CW	BALL			7002-3158, 6219500	G	
D9623		3.3	1/40	115	1500	1	1.0	CW	SLV	5/16 X 2 1/2	5 1/2	Century 9623, JA2N218, 6210806	H	
NUTONE														
▶ D540	SP	3.3	1/100	115	1500	1	0.6	CW	SLV	1/4 X 2 1/4	2 1/8	Bathroom and Kitchen Vents	I	
▶ D541	SP	3.3	1/100	115	1500	1	0.6	CCW	SLV	1/4 X 2 1/4	2 1/8	26750 Bathroom and Kitchen Vents	I	
▶ D1109	SP	3.3	1/100	115	1500	1	0.65	CCW	SLV	1/4 X 1 1/4	2 1/16	23405, 23388	J	
▶ D1107	SP	3.3	1/10	115	1550	1	3.2	CCW	BALL	5/16 X 1 3/8	4.00	Nutone 67176, 32997 UE-JA2S034N, JB2K016N	K	
D0636		3.3	1/88	115	1320	1	0.85	CCW	SLV	1/4 X 1 1/4	2	Century 636, 30434	L	
D637		3.3	1/75	115	1550	1	0.5	CW	SLV	1/4 X 1-1/8	2 1/8	Century 637, 53581	M	
PENN VENTILATOR														
▶ D342	SP	5	1/15	115	1050	1	2.3	CW	SLV	3/8 X 2 1/2	2 5/8	7151-3081, 7151-3565	N	34
▶ D1036	SP	5	1/20	115	1045	1	1.95	CW	SLV	3/8 X 2 1/8	2 3/8	7151-2139 ROOF TOP VENT Z8	N	
D0343		3.3	1/40	115	1050/1550	2	0.6/1.3	CCW	SLV	3/8" x 5-1/2"	2-3/4"	Century OPV343, 56343-0, JA2M414	O	
D0746		3.3	1/12	115	1550/1300	2	1.1/0.73	CCW	SLV	3/8" x 3-3/8"	4"	Century OPV746, 63746-0, JE2H057	P	
D0346		3.3	1/4	115	1550	2	2.9	CCW	SLV	3/8" x 5-3/8"	4-5/8"	Century OPV346, 56346-0, JE2K077	Q	

NOTES: 34: Mounts on (3) P/N 0061-1518 Coleman Mounts

Products on page F-78 & 79 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A142



FIG. B A066



FIG. C A240



FIG. D A241



FIG. E A242



FIG. F A243



FIG. G A244



FIG. H A245



FIG. I A246



FIG. J A247



FIG. K D724



FIG. L D2800



FIG. M D2840



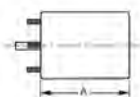
FIG. N D2842, D2844



FIG. O D832

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
PMI FOOD EQUIPMENT/ VALCUN HART														
A142	PSC	3.3	1/20	115	3450	1	0.7	CW	SLV			7062-2513, 416673-00003	A	1
RHEEM/RUUD														
A066	SP	-	1/30	120	3000	1	1.27	CW	BALL			70-24157-03, 117847-00	B	
A240	SP	3.3	1/50	115	3000	1	1.1	CCW	SLV			7021-8183, 70-21496-83	C	
A241	SP	3.3	1/25	208-230	3200	1	0.62	CW	SLV			7021-9567, 70-23641-81	D	
A242	SP	3.3	1/50	115	3400	1	1.36	CW	SLV			7021-7150, 70-22436-01	E	
A243	SP	3.3	1/50	115	3400	1	1.36	CW	SLV			7021-7790, 70-22436-02	F	
A244	SP	3.3	1/20	208-230	3300	1	0.85	CCW	BALL			7021-6967, 70-42241-01	G	
A245	SP	3.3	1/15	208-230	3000	1	.95/.85	CW	BALL			7021-7490, 70-42278-02	H	
A246	PSC	3.3	1/20	115	3400/2400	2	0.85	CW	BALL			7062-3925, 70-24206-01	I	
A247	PSC	3.3	1/40	115	3250/2800	2	.95	CW	SLV			7062-5519	J	
D724	PSC	5.6	3/4 - 1/2 - 1/3 - 1/4	115	1075	4	9.5-7.2-5.6-3.5	REV	SLV	1/2 X 6	5 3/4	VARIOUS	K	
D2800	PSC	5.6	1/2	208/230	1075	1	2.9	REV	SLV	1/2 X 5	5	K55HXMYC-4445, 51-23052-11	L	36
D2840	PSC	5.6	1/5	208/230	1075	1	1.3	CW	SLV	1/2 X 4 1/8	3 3/4	51-21853-82	M	
D2842	PSC	5.6	1/6	208/230	825	1	1.2	CW	SLV	1/2 X 4 1/4	4	51-20760-11	N	
D832	PSC	5.6	1/8	208-230	825	1	1.1	REV	SLV	1/2 X 4 3/4	4	21276-02, 21276-01, 512076-01	O	
D2844	PSC	5.6	1/10	208/230	825	1	0.8	CW	SLV	1/2 X 4 1/4	3 3/4	51-20761-11	N	

NOTES: 1: 4M 370V capacitor 36: Has 4 drilled and tapped holes in shell



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A D459



FIG. B K628



FIG. C A079



FIG. D A086



FIG. E A090



FIG. F A136



FIG. G A139



FIG. H A142



FIG. I D653



FIG. J D461



FIG. K D1092



FIG. L A087



FIG. M D137



FIG. N D1111



FIG. O D323



FIG. P D325

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
RHEEM/RUUD														
D459	SP	3.3	1/15	230/460	3000	1	1.2-6	CW	BALL	1/4 X 3	7	HC24AU725A, JB1P044, AB1S078, JB1R039, AB1S029, S88-556	A	
K628	SP	-	1/200	208-230	3000	1	0.25	CW	SLV	1/4 X 1 1/2	5	51-21964-01, 7102-0628	B	
A079	SP	3.3	1/50	115	3000	1	1.1	CCW	SLV			74-70-21504-03-04, 74-70-21496-03-01, JAIM106, JAIM137, 7021-5615	C	
A086	SP	3.3	1/25	115	3200	1	1.3	CW	SLV			7021-5990	D	
A090	SP	3.3	1/50	115	3000	1	1.1	CW	SLV			RHEEM 70-21496-01, 7021-5239 JAIM102	E	
A136	PSC	3.3	1/20	115	3450	1	0.75	CW	SLV			RHEEM, 7062-3861	F	38
A139	SP	3.3	1/55	115	3000	1	0.95	CW	SLV			RHEEM, 7021-7577	G	
A142	PSC	3.3	1/20	115	3450	1	0.7	CW	SLV			RHEEM, 7062-1881	H	39
D653		3.3	1/20	230/460	3000/3430	1	1.1/0.44	CW	BALL	1/4 X 2 1/8	6 1/2	Century 653, JB1R040, JB1R042	I	
REZTOR														
D461	PSC	3.3	1/8	480	3200	1	0.32	CCW	SLV	5/16 X 3 1/3	4 1/4	7162-0396	J	
RV PRODUCTS														
D1092		5.0	1/3	115	1675/1080	2	3.4	DS	SLV	3 1/2 X 12 X 8	3 1/2	1468-306, 7855MVA-A11U, 71840156	K	
SCHERBA IND.														
A087	PSC	3.3	1/6	115/230	2400	1	2.8/1.1	CCW	SLV			7062-4687, 7062-3496	L	195
SEARS/WHIRLPOOL														
D137	SP	3.3	1/30 - 1/65	115	1500	1	1-7	DS	SLV	3 X 5/16 X 3	2 7/8	Rangehood	M	
D1111	SP	3.3	1/18 - 1/30	115	1330	2	2.4-1.6	CCW	SLV	3 1/8 X 5/16 X 2 3/8	3 1/2	JA2S094, JA2S110, JA2S121N, A456301 A495601, A495603, 5500 BTU Window A/C; G000519549; G519549	N	
D323	PSC	3.3	1/15 - 1/20 - 1/35	115	1550	3	1.8-6	DS	SLV	2 3/4 X 5/16 X 2 3/4	3 3/4	Small Window A/C	O	9
D325	SP	3.3	1/10 - 1/30	115	1550	2	2.5-2.3	CCW	SLV	1 3/4 X 5/16 X 2 3/8	3 1/2	Small Window A/C	P	18

NOTES: 9: 3M 370V capacitor 18: Rotation is determined by viewing lug end. 38: 4MFD, 370VAC capacitor rating (not included) 39: 4MFD, 370VAC capacitor rating (included) 195: 50/60 Hz

Products on page F-80 & 81 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A D857, D859



FIG. B D860



FIG. C D1169



FIG. D D1164



FIG. E D1167



FIG. F A251



FIG. G A073



FIG. H D475



FIG. I D9487



FIG. J D1033



FIG. K D1165



FIG. L D1155



FIG. M D002



FIG. N D1006



FIG. O D13

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
SEARS/WHIRLPOOL (cont.)														
D857	PSC	5.6	1/8 - 1/10 - 1/15	115	1100	3	1.7	DS	SLV	3 1/8 X 1/2 X 4 1/8	3 1/2	Window A/C Using Delco Inside-Outside Motor 485932, KCP39PG9769S	A	
D859	PSC	5.6	1/3 - 1/5 - 1/8	230	1100	3	1.7-1.5-1.3	DS	SLV	4 1/4 X 1/2 X 5 1/4	4 1/4		A	205
D860	PSC	5.6	1/2 - 1/3 - 1/4	230	1075	3	3.2	DS	SLV	4 1/4 X 1/2 X 4 3/8	5 3/4		B	13, 205
SINGER														
D1169	SP	3.3	1/10	208-230	3000	1	1.5	CCW	SLV	5/16 X 1	5 3/4	FASCO 7121-4066 Comfor Maker 1708-507	C	
D1164	SP	3.3	1/25	115/230	1550	1	1.3-.65	CW	SLV	5/16 X 2 1/2	3 1/8	JA2P091N, JA2P0901N	D	
D1167	SP	3.3	1/40	208-230	3000	1	0.55	CCW	SLV	5/16 X 1	4 7/8	1708-518, 7121-5854	E	
SKYMARK														
A251	SP	3.3	1/35	208-230	3000	1	1.1	CCW	SLV			7021-9136, MTR-136PK	F	
TAPPAN														
A073	SP	3.3	1/40	115-230	3000	1	.7/35	CCW	BALL			82932, 8251560133	G	
TECUMSEH														
D475	SP	3.3	1/15	460	1550	1	0.5	CCW	SLV	5/16 X 2 1/2	4 1/2	Tecumseh 810G037A47, 5KCP11FG1197CS	H	
D9487		3.3	1/12	230	1500/1300	1	1.2/1.3	CW	SLV	5/16 X 2 1/8	4 3/4	Century 9487, TFM262, 810E026A81, F33HXDJ-3668	I	
TEMPMASTER/OTASCO														
D1033	PSC	5	1/5 - 1/6 - 1/8	208-230	1400	3	1.6-1.5-1.3	DS	SLV	2-3/4 X 1/2 X 3 1/2		M11730, 322P373, M12100, 322P454	J	
THERMADOR (TRADEWINDS)														
D1165	SP	3.3	1/20	115	1550	1	2	DS	SLV	3 1/2 X 5/16 X 3 1/2		Tradewinds/Blower Motors	K	
D1155	SP	3.3	1/100	115	1085	1	0.5	CCW	SLV	1/4 X 1		17-09-679, VQT-90, JA2M087R	L	
D002		3.3	1/15	115	1550	1	2.54		SLV	2 X 5/16 X 2	3	Century 02, 19-09-239	M	
THERMAL TRANSFER														
D1006	SP	4.4	1/4	115	1600	1	7.2	CW	SLV	1/2 X 2 3/4		7108-6544, 66098	N	
TJERNLUND														
D130	SP	3.3	1/40	115	1500	1	1	CW	SLV	5/16 X 4 1/8		7163-6058	O	

NOTES: 13: 7.5M 370V Capacitor 205: Window A/C Using Delco Inside-Outside Motor 485932, KCP39PG9769S

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.





FIG. A A069



FIG. B A075



FIG. C A143



FIG. D A146



FIG. E A130



FIG. F A150



FIG. G A191



FIG. H A192



FIG. I A193



FIG. J A194



FIG. K A195



FIG. L A196



FIG. M A197

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	CROSS REF.	FIG.	NOTES
TRANE												
A069	SP	3.3	1/70	208-240	3000	1	0.5	CCW	SLV	38040252, 82252	A	
A075	SP	3.3	1/40	230	3000	1	0.4	CCW	BALL	38050005	B	
A143	SP	3.3	1/50	115	3000	1	0.95	CW	SLV	7021-8428, 7021-8013, 7021-8924	C	
A146	SP	3.3	1/100	115	3000	2	1-.35	CW	SLV	7021-7986, 7021-8925, 7002-2531	D	
A130	PSC	3.3	1/20	115	3450	1	0.7	CW	SLV	7062-3956, 7062-3616, 7062-5247, 7062-5575, D330757P04, D342094P04	E	
A150	SP	3.3	1/35	208-230	3000	1	0.5	CCW	SLV	7021-7833, 7021-8928	F	
A191	SP	3.3	1/15	208-230	3000	1	0.8	CCW	SLV	7021-6683, X38040251-01-7	G	
A192	SP	3.3	1/40	115	3000	1	1	CCW	BALL	7021-8569, X38040253057	H	
A193	SP	3.3	1/35	208-240	3480	1	.59/.5	CCW	BALL	7021-8591, X38040050-01-0	I	
A194	SP	3.3	1/80	115	3000/1950	2	1/.5	CW	SLV	7021-9561, X38020420017	J	
A195	SP	3.3	1/16	115	3400	1	1.75	CW	BALL	7021-11543, X38040313070	K	
A196	SP	3.3	1/25	115	3200	1	1.35	CW	SLV	7021-11544, D342094P02, 7021-9010, D330757P02	L	
A197	3 PHASE	3.3	1/70	33-110	1500-4700	VAR.	1	CW	BALL	7092-0238, D342097P01	M	

Products on page F-82 & 83 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A198, A199, A260, A261, A262, A263, A264, A265, A266, A267, A268



FIG. B A269



FIG. C A270



FIG. D A271, A272, A273, A274



FIG. E A276



FIG. F A278, A279

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	CROSS REF.	FIG.	NOTES
TRANE (cont.)												
A198	SP	-	1/45	115	3000	1	1.75	CW	BALL	7058-0259, D342077P01	A	
A199	SP	-	1/45	115	3000	1	1.75	CW	BALL	7058-0260, D342077P02	A	
A260	SP	-	1/45	115	3250	1	1	CW	BALL	7058-0261, D342077P03	A	
A261	SP	-	1/45	115	3250	1	1	CW	BALL	7058-0262, D342077P04	A	
A262	SP	-	1/45	115	3250	1	1	CW	BALL	7058-0263, D34077P05	A	
A263	SP	-	1/45	115	3250	1	1	CW	BALL	7058-0264, D34077P06	A	
A264	SP	-	1/120	115	3000	2	0.75	CW	BALL	7002-3443, D342078P01	A	
A265	SP	-	1/125	115	3000	2	0.75	CW	BALL	7002-3444, D342078P02	A	
A266	SP	-	1/125	115	3000	2	1	CW	BALL	7002-3445, D342078P04	A	
A267	SP	-	1/125	115	3000	2	1.4	CW	BALL	7002-3446, D342078P05	A	
A268	SP	-	1/45	115	3000	2	1.4	CW	BALL	7002-3447, D342078P06	A	
A269	SP	3.3	1/35	208-230	2500/3000	1	.58/1.6	CCW	BALL	7021-11054, X38040363010	B	195
A270	PSC	3.3	1/15	208-230	3350/2800	2	.42/1.50	CCW	BALL	7062-5033, X38040369010	C	195
A271	PSC	3.3	1/18	208-230	3500	2	0.62	CW	BALL	7062-3969, X38040308-01	D	195
A272	PSC	3.3	1/12	208-230	3500	2	0.65	CW	BALL	7062-3971, X38040309-01	D	195
A273	PSC	3.3	1/8	208-230	3500	2	0.62	CW	BALL	7062-3972, X38040310-01	D	195
A274	PSC	3.3	1/24	208-230	3500	1	.28	CW	BALL	7062-3973, X38040311-01	D	195
A276	SP	3.3	1/55	115	3000	1	1	CW	SLV	7021-9011, D330757P01	E	
A278	SP	-	1/50	115	3000	2	1.4	CW	BALL	7002-2530, D341095P02	F	
A279	SP	-	1/125	115	3000	2	0.75	CW	BALL	7002-2531, D341095P04, 7002-3275, D341663P04	F	

NOTES: 195: 50/60 Hz

Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A A360, A362



FIG. B A361



FIG. C A367



FIG. D A368



FIG. E A369, A370



FIG. F A373



FIG. G D1050



FIG. H D895



FIG. I D1005



FIG. J D1089



FIG. K D1090



FIG. L D1051



FIG. M D1058

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	CROSS REF.	FIG.	NOTES
TRANE (cont.)													
A360	SP	-	1/25	115	2700	2	1	CW	BALL		7002-2532, D341095P01, 7002-3274, D341663P01	A	
A361	SP	-	1/42	115	3000	1	1.6	CW	BALL		7002-2558, D330787P01	B	
A362	SP	-	1/42	115	3000	1	1.6	CW	BALL		7002-3273, D341663P05	A	
A367	SP	3.3	1/60	115	3000	2	.95	CW	SLV		7021-8051, 21D340096P02	C	
A368	PSC	3.3	1/20	115	3200	2	0.8	CW	SLV		7062-3782, D340623P01	D	
A369	PSC	3.3	1/45	208-230	2800	2	.34	CCW	BALL		7062-3915, C663946P01	E	
A370	PSC	3.3	1/100	208-230	2920	2	0.18	CCW	BALL		7062-3918, C664099P01	E	
A373	SP	3.3	1/35	280-230	3000	1	0.6	CCW	BALL		7021-9396, C665662P01	F	
D1050	PSC	5	1/8	230	1550	1	1.1	CW	SLV	1/2 X 3	WW94X236SP, WW94X936PSC	G	199
D895	PSC	5.6	1/8	208-230	1650	1	0.8	CW	SLV	1/2 X 1 1/2	5KCP39BGR426S, MOT 6363	H	1
D1005	PSC	5	1/10	460	1075	2	0.5	DS	SLV	9 5/8 X 1/2 X 9 5/8	5KCP29DK3857BT, MOT 4590	I	
D1089	PSC	5	1/15	115	850	3	1.3	REV	SLV	1/2 X 3	5KCP39DGM458AS, K48HXCF-1327 MOT3589, MOT 3591, FASCO 7176-3020	J	1
D1090	PSC	5	1/15	115	1100	3	0.8	CW	SLV	10 1/2 X 1/2 X 11 1/2	MOT1877, K48HXBLA-956	K	
D1051	PSC	5	1/25 - 1/40	115	1060 - 500	2	.6-4	DS	SLV	11 1/8 X 1/2 X 11 1/8	FAN COIL	L	3
D1058	PSC	5	1/20 - 1/30 - 1/40	265	1100	3	.5-3-2	CW	SLV	1/2 X 2 1/2	5 KCP29FK885S	M	1

NOTES: 1: 4M 370V capacitor 3: 6M 370V capacitor 199: Original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing shaft end of motor to prevent moisture from entering motor

Products on page F-84 & 85 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.

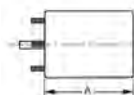




FIG. A A086



FIG. B D1190



FIG. C D1134



FIG. D D262



FIG. E D1032

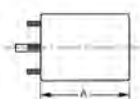


FIG. F D1111, D1111



FIG. G D1102

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	"A" DIM.	CROSS REF.	FIG.	NOTES
20TH CENTURY														
A086	SP	3.3	1/25	115	3200	1	1.3	CW	SLV			7021-5853	A	
WEIL MCLAIN														
D1190	SP	3.3	1/30	115	3000	1	1.6	CW	SLV	5/16 X 1 3/4	4 7/8	7121-5750, JA1N074	B	
WEST BEND/MCGRAW EDISON														
D1134	SP	3.3	1/50 - 1/65 - 1/80	115	1500	3	1.1-8-6	CW	SLV	1/4 X 1 3/4	2 1/4	Portable Humidifier Motors	C	
WESTINGHOUSE														
D262	PSC	5	1/5	230	925	1	2.3	REV	SLV	1/2 X 4	3 7/8	Whisperaire 319P300A	D	
D1032	PSC	5	1/5	208-230	1550	1	1.6	DS	SLV	6 1/4 X 1/2 X 6 1/4	3 7/8	Model No. 319P367A	E	
D1111	SP	3.3	1/18 - 1/30	115	1330	2	2.4-1.6	CCW	SLV	3 1/8 X 5/16 X 2 3/8	3 1/2	JA2S094, JA2S110, JA2S121N, A456301 A495601, A495603, 5308013815, 5500 BTU WINDOW A/C; G000519549; G519549	F	
WHITE CONSOLIDATED INDUSTRIES														
D1111	SP	3.3	1/18 - 1/30	115	1330	2	2.4-1.6	CCW	SLV	3 1/8 X 5/16 X 2 3/8	3 1/2	JA2S094, JA2S110, JA2S121N, A456301 A495601, A495603, 5308013815, 5500 BTU WINDOW A/C	F	
WITT														
D1102	PSC	3.3	1/20	115/230	1550	1	.75-4	CW	SLV	5/16 X 2-5/8	3 1/2	7190-2158, 8216073, 7190-2159, 8216074	G	



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.



FIG. A A080



FIG. B A118



FIG. C D1191



FIG. D D1171



FIG. E D1042



FIG. F A063



FIG. G A083



FIG. H A144



FIG. I A137



FIG. J A154



FIG. K A165



FIG. L A168

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	SHAFT DIM.	CROSS REF.	FIG.	NOTES
WILLIAMSON													
A080	SP	3.3	1/45	115	3000	1	1.1	CW	SLV		7021-5510, 02-568	A	
A118	SP	3.3	1/15	115	3000	1	1.8	CW	SLV		100,000 BTU Furnace 7021-6999, 7021-7042, Leads must be modified	B	
YORK													
D1191	SP	3.3	1/40	460	3200	1	0.37	CCW	BALL	1/4 X 2-1/2	7121-7255	C	33, 41, 131
D1171	SP	3.3	1/15	460	3000	1	0.6	CCW	BALL	1/4 X 2-1/2	024-24115-004 F33HXJBB3621	D	41
D1042	PSC	5	1/5	208-230	1075	1	1.2	DS	SLV	6 1/2 X 1/2 X 6 1/2	Cond. Fan, D1041 F47HXBGM-927	E	
A063	SP	3.3	1/56	230	3000	1	0.6	CCW	BALL		26-22239	F	
A083	SP	3.3	1/60	230	3000	1	0.8	CCW	BALL		026-16323-0000, 026-20224-000, 7021-1373	G	
A144	SP	3.3	1/40	208-230	3000	1	0.5	CW	SLV		7021-6770	H	41
A137	PSC	3.3	1/25	115	3450	1	0.7	CW	SLV		7062-2442, 7062-3342, 7062-3484	I	
A154	SP	3.3	1/30	115	3000	1	1.2	CW	SLV		7021-9428	J	
A165	PSC	3.3	1/25	115	3450	1	0.7	CW	BALL		7062-3958	K	
A168	PSC	3.3	1/20	115	3450	1	0.7	CW	BALL		7062-5019	L	

NOTES: 33: Stainless steel shaft 41: Includes centrifugal switch 131: Motors include shaft bushing

Products on page F-86 & 87 are NOT SUITABLE for unattended equipment unless indicated by ▶. See inside back cover for additional information.





FIG. A A220



FIG. B A221



FIG. C A222



FIG. D A223



FIG. E A224



FIG. F A225



FIG. G A226



FIG. H A227



FIG. I A228



FIG. J A229



FIG. K A230



FIG. L A231



FIG. M A234

FASCO MODEL	TYPE	DIA.	HP	VOLTS	RPM	SPD.	AMPS	ROT.	BRNG.	CROSS REF.	FIG.	NOTES
YORK (cont.)												
A220	SP	3.3	1/20	115	3000	1	1.6	CW	BALL	7021-5838, 026-27510-700, 7021-7217, 7021-9054	A	
A221	SP	3.3	1/40	208-230	3000	1	0.55	CCW	SLV	7021-8318, 026-30614-700, 7021-6991	B	
A222	SP	3.3	1/35	115	3000	1	1.05	CCW	BALL	7021-8317, 026-32067-700, 7021-7481	C	
A223	SP	3.3	1/30	208-230	3200	1	0.64	CW	SLV	7021-10096, 026-33999-001, 7021-9656	D	
A224	SP	3.3	1/18	115	3450	2	0.8	CW	SLV	7062-5048, 024-27654-000, 7062-4743	E	
A225	SP	3.3	1/15	115	3200	1	2.25	CW	BALL	7021-11577, 17503, 7021-11830, 024-34558-000	F	
A226	SP	-	1/35	115	3000	1	1.7	CW	BALL	7058-0266, 7058-0266S	G	
A227	PSC	3.3	1/25	115	3450	1	0.7	CW	SLV	7062-4708S, 024-27641-000, 17450, 7062-4708	H	
A228	SP	-	1/25	115	3000	1	2	CW	BALL	7002-3285, 024-31957-000, 7002-2941	I	
A229	SP	-	1/25	115	3000	1	1.75	CW	BALL	7058-0267S, 17499, 7058-0267	J	
A230	PSC	3.3	1/20	115	3450	2	0.8	CW	SLV	7062-5094S, 17476, 7062-5094	K	
A231	SP	3.3	1/75	115	3000	2	1.3	CW	SLV	7021-10213, 17452	L	
A234	PSC	3.3	1/12	208-230	3200	1	0.5	CW	BALL	7062-5155, 102529	M	

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Fan Blade Accessories

Hex Hub Features

- Sizes to fit most applications
- Simple screw design
- Zinc plated steel
- Pre-tapped holes with mounting and set screws started



INTERCHANGEABLE HEX HUBS		
PART NO.	BORE	NO. SET SCREWS
H5	5/16	1
H6	3/8	1
H8	1/2	2
H10	5/8	2

Packaged 12 per carton.

Bushing Features

- Two bolt design
- Two 1/4-20 x 3/4" cap screws provided
- Malleable iron construction
- For 1/2"-13/8" bore ranges



SPLIT TAPERED BUSHINGS "H" SERIES	
PART NO.	BORE
STB1	1/2
STB2	5/8
STB3	3/4
STB4	7/8
STB5	1
STB6	1 1/8
STB7	1 3/16
STB8	1 3/8

Packaged one per kit.

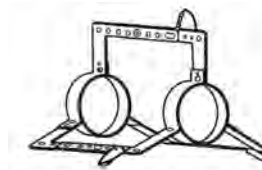
Fas Mount Bracket Kits

FM50

Motor diameter 5.0"
Bolt circle 9" and 10.18"

FM55

Motor diameter 5.5"
Bolt circle 9" and 10.18"
These kits are designed for direct drive blower motors using the flexible bracket mounting arrangement. Grommets and eyelets are included.



FM55 replaces this type bracket

Band Mounting Kits



PART NO.	MOTOR DIA.	LUG SIZE	BOLT CIRCLE RANGE
NO55L	5.5"	Large	8 1/8 - 12 1/8
NO55S	5.5"	Small	6 7/8 - 8 1/8
KIT34	3.3"	Large	4 11/16 - 9 7/8
KIT50	5.0"	Large	6 7/16 - 11 11/16
KIT49		3 small lugs for Kit 55S	
KIT150		4 grommets to fit lugs on Kits 34, 49, 50, 55L, 55S	
NO50L	4.4" & 5.0"	Large	6 1/2 - 11 8/16
NO33L	3.3"	Large	4 1/2 - 10
KIT315	5.0"	Large	9.8
KIT317	5.6"	Large	9.8

Products on page F-88 & 89 are NOT SUITABLE for unattended equipment unless indicated by ►. See inside back cover for additional information.



Conduit Boxes

KIT142

Black box for 3.3" diameter motors.

Packaged one per kit.



KIT144

Gray, tie-rod mountable box for 4.4", 5.0" and 5.6" diameter motors.

Packaged one per kit.



Conduit Kits

KIT100

For 5/16" and 3/8" Greenfield (flexible conduit).

Packaged two per kit.



KIT102

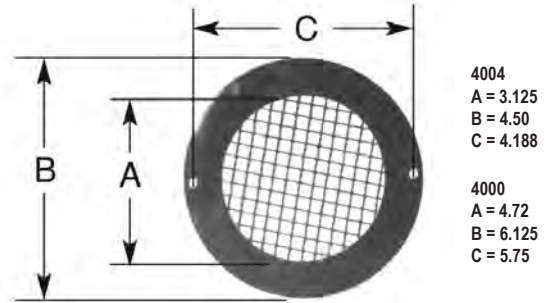
3/8" conduit connector Allen Stevens type, complete with mounting screws.

Packaged three per kit.



Blower Accessories

INLET SCREENS



INLET4004

For Air Rotors of less than 3 7/8" diameter, Inlet 4004 can be used on the following blowers: 50746-D500, 50747-D230, 50747-D401, 50747-D500, 50747-D600, 50748-D500, 50748-D700, 50752-D230, 50752-D500, A069, A071, A073, A075, A081, A083, B23617 or B23618

Packaged one per kit.

INLET4000

For Air Rotors of less than 4" to 5 1/2" diameter, Inlet 4000 can be used on the following blowers: 50755-D230, 50755-D500, 50756-D230, 50756-D500, 50757-D500, A159 or A161

Packaged one per kit.

Flanges

KIT280

Meeting hole diameter .281" Packaged one per kit.

KIT282

Meeting hole diameter .136" Packaged one per kit.

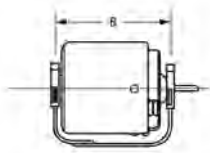
KIT284

Packaged one per kit.



Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Two base clamps ship with each base.



Specify shaft height 3.00" or 3.50" and motor model.



NOTE: The current base numbering system uses the first two numbers to indicate shaft height (30 is 3.0" and 35 is 3.5") and the last three numbers represent distance between cradle arms (386 is 3.86" etc.). Example: 35-417 has a 3.5" shaft height and 4.17" cradle base. To achieve the shaft height listed, the 2 1/2" diameter rings must be used.

For motors not listed: Add .8 to a "A" dimension of 4 7/16" diameter motors for base "B" dimension. Add .9 to "A" dimension of 5" diameter motors for base "B" dimension. Add .5 to "A" dimension of 5 5/8" diameter motors for base "B" dimension.



CRADLE BASE "B" DIMENSION	3-1/2" BASE NO.	3" BASE NO.
3.54	35-354	30-354
3.86	35-386	30-386
4.08	35-408	30-408
4.17	35-417	-
4.35	35-435	30-435
4.61	35-461	30-461
4.79	35-479	30-479
4.92	35-492	30-492
5.17	35-517	30-517
5.42	35-542	30-542
5.58	35-558	30-558
5.95	35-595	30-595
7.05	35-705	30-705

RESILIENT MOTOR BASES											
FASCO MODEL	RECOMM. BASE	FASCO MODEL	RECOMM. BASE	FASCO MODEL	RECOMM. BASE	FASCO MODEL	RECOMM. BASE	FASCO MODEL	RECOMM. BASE	FASCO MODEL	RECOMM. BASE
D112	517*	D337	435	D701	595	D812	492	D937	461	D1748	461
D117	386	D338	492	D703	558	D816	461	D939	461	D1749	461
D148	354	D339	492	D711	595	D818	705*	D940	595*	D1853	492
D150	492*	D347	386	D721	461	D821	542	D951	595*	D1910	595
D151	492*	D356	417	D723	517	D823	595	D966	517*	D1911	558
D152	492*	D435	517*	D725	461	D825	705	D967	558	D2700	595
D154	558	D474	542	D726	558*	D838	595	D968	595	D2701	558
D156	479*	D480	542	D727	479	D860	595	D970	595	D2702	595*
D158	479*	D481	542	D728	595	D870	542	D971	542	D2703	595*
D160	479*	D482	492	D729	595	D896	435	D972	492	D2704	595*
D164	479*	D483	492	D730	595	D897	435	D973	461	D2705	705*
D166	479*	D484	492	D733	492	D902	595	D974	595	D2814	595*
D174	417	D485	492	D735	595	D910	595	D975	461	D2816	NONE
D176	354*	D486	517*	D737	517	D911	558	D1016	479	D2817	595*
D178	417	D487	517*	D739	492	D912	479	D1025	492	D2818	NONE
D236	435	D488	517	D745	517	D913	479	D1033	479	D2832	595*
D253	354	D489	542	D748	492	D914	595	D1042	492	D2833	595
D260	479	D490	558	D780	517	D915	595	D1046	386	D7745	517
D261	461	D491	558	D782	492	D916	595	D1051	408	D7748	492
D264	408*	D492	558	D783	461	D918	479	D1061	492	D7749	435
D312	492	D493	558	D784	558	D920	595	D1065	408*	S2846	705
D314	517*	D494	492	D785	542	D923	492	D1086	435	S2848	NONE
D316	461*	D495	492	D786	595	D927	435	D1089	435	S156	435
D329	435	D497	542	D787	492	D928	435	D1246	435		
D333	386*	D635	435	D788	558	D929	558*	D1709	595*		
D335	408	D656	479	D789	592	D930	558*	D1710	705*		
D336	435	D658	479	D807	435	D935	558	D1745	558		

* May need to reverse one or more mounting rings

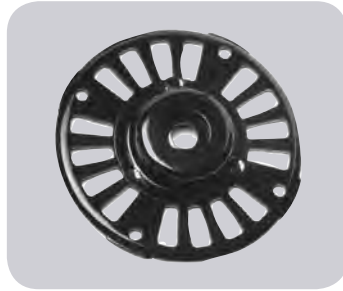
Products on page F-90 & 91 are NOT SUITABLE for unattended equipment unless indicated by . See inside back cover for additional information.



For 3.3" Diameter Motors

KIT216

Special end plate for 3.3" diameter motors for base mounting. Use with KIT180 mounting cups. Packaged one per kit.



KIT225

Triangular bracket with grommets for 3.3" diameter motors. Packaged one per kit.



Mounting Cup

KIT265

Used to mount 3.3" motors to some blower housings. Packaged one per kit.



For Shaft End Of 48 Frame Motors

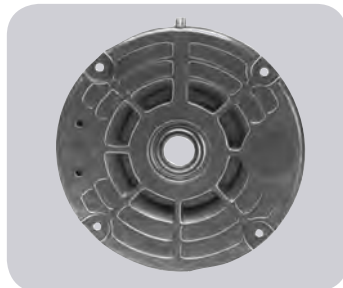
SHLD6301

Ventilated with flat face 1/2" Sleeve Bearing.



SHLD6312

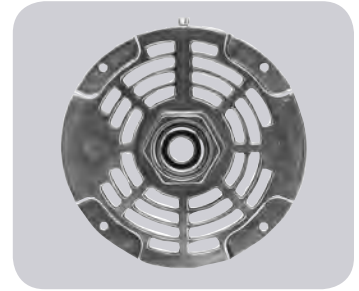
Non-Ventilated with flat face 5/8" Sleeve Bearing.



For Shaft End Of 48 Frame Motors

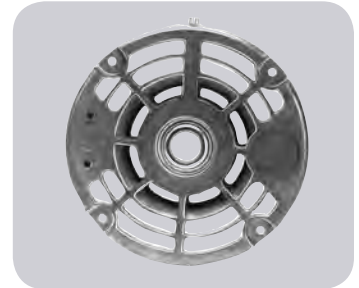
SHLD6303

Ventilated with double oiling hub 1/2" Sleeve Bearing.



SHLD6311

Ventilated with flat face 5/8" Sleeve Bearing.



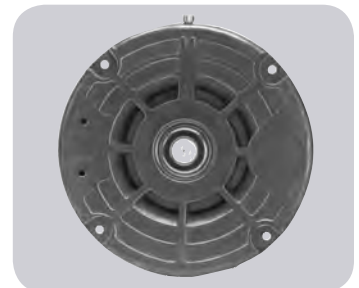
SHLD6302

Non-Ventilated with double oiling hub 1/2" Sleeve Bearing.



SHLD6304

Non-Ventilated with flat face 1/2" Sleeve Bearing.



KIT410

End Shield caps for 48 frame. 10 per kit (5 open, 5 closed).



Thermally protected • UL recognized • CSA or ULc certified
 NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Mounting Kits

KIT200

Holes for 4.4" and 5.6" diameter motors.

One kit will adapt both ends of motor for base mounting.



KIT199

Motor length adapter kit.

Provides means to base mount Fasco 5" diameter motors.

Two kits needed to adapt both ends of motor for base mounting.



KIT380

Rheem mounting adapter plate.

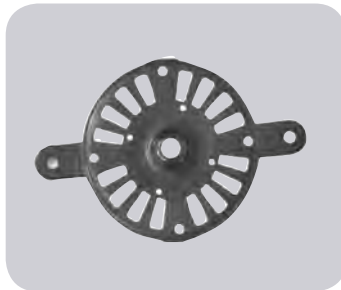
Packaged one per kit.



KIT214

Special end plate for 3.3" diameter motor.

Packaged one per kit.



KIT218

Aluminum stand-off bracket for motor-blower mounting.

Matches 3.3" mounting pattern.

KIT214 required to mount to motor.

Packaged one per kit.



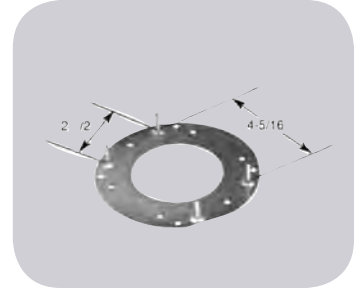
Adapter Plates

KIT207

Provides rectangular mounting stud pattern on 5.0" or 5.6" diameter Fasco motors to match Fedders stud motors.

Similar to Emerson and RMR rectangular mounting stud patterns.

Packaged one per kit.



KIT205

Franklin Redmond 4 1/8" diameter mounting adapter plate.

Packaged one per kit.



Adapter Kits

H33

Special mounting kit for 3.3" diameter to replace motors in Nu-tone units.

Includes four nuts and two hex hub brackets.

Use KIT187 mounting rings.



KIT414

Adjustable casebolt mounting kit.

Four bolt adapters per kit.



Products on page F-92 & 93 are NOT SUITABLE for unattended equipment unless indicated by . See inside back cover for additional information.

Rheem Mounting Cables

PART NO.	LENGTH	MOTOR H.P.
KIT325	3-1/4	1/6
KIT350	3-1/2	1/4
KIT378	3-1/8	1/3

Special mounting cables for Rheem. Four per pkg.



Coleman "Lord" Mount

KIT208

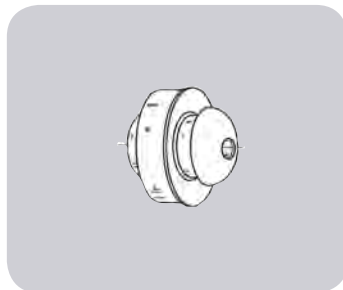
Studs: 3/8" x 8-32 x 3/8"
 Bushing: 1/2" x 1/2"
 Four per kit.



Mounting Grommets

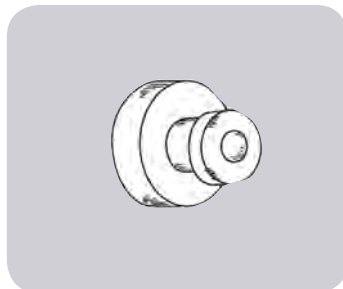
GROM6008

For 3/4" slot.
 Shipped individually.
 Includes a Steel Sleeve



GROM6000

For 1/2" slot.
 Shipped individually.



For 5.6", 5.0" and 4.4" Diameter Motors

KIT184

Henrite 2.50
 Packaged two per kit.



KIT183

Henrite 2.25 O.D.
 Packaged two per kit.



KIT186

All Rubber 2.50 O.D.
 Packaged two per kit.



For 3.3" Diameter Motors

KIT180

Henrite 1.80 O.D.
 Packaged two per kit.



KIT187

Rubber mounting rings;
 use with H33 in Nutone and
 Broan applications.
 Packaged two per kit.



Henrite are rubber mounting rings with steel band, used with cradle bases and knife edge motor supports.
 All Rubber rings are used with direct drive blower motors and "Clamp" type supports.

Thermally protected • UL recognized • CSA or ULc certified
NOTE: Rotation is determined by looking at shaft end. Shaft length is measured from motor face.

Capacitor Mounting Kit

KIT6001

Rubber boot and bracket.

RUBBERBOOT

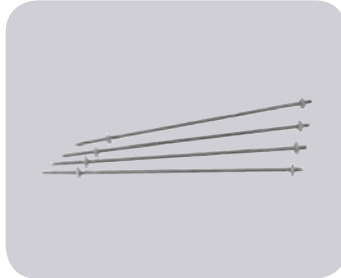
Rubber boot sold separately.



Staked Tie Rods Qty. 4

KIT220

8" long 8-32 NC for Fasco 5.6" diameter motors.
Includes one staked nut and one regular nut.



KIT221

8" long 10-32 NC for Fasco 4.4" diameter motors.

KIT832

8-32 Nuts, 32 pieces



KIT1032

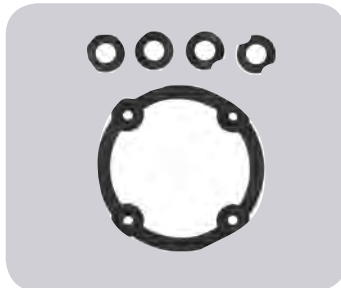
10-32 Nuts, 32 pieces



Neoprene Gasket

GASKET0167

Includes one gasket and four grommets.
3.3" diameter motors
2.84" Bolt Circle diameter



Shaft Bushings Qty. 4

KIT240

1/4" ID x 5/16" OD

KIT242

3/8" ID x 1/2" OD

KIT244

5/16" ID x 3/8" OD

KIT246

1/2" ID x 5/8" OD



KIT465

Anderol 465 synthetic lubricating oil (3 oz.).
Packaged one per carton.

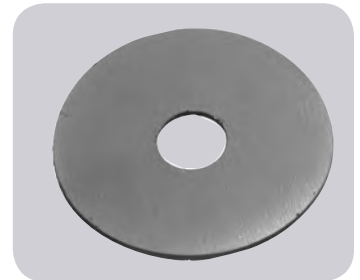


Water Slinger

SLINGR6002

1/2" ID x 2" OD

Shipped individually.



Rain Shields

KIT170

For 1/2" shaft diameter motors.

RAIN6000

For 5/8" shaft diameter motors.

RAIN6017

RAIN6018



Cooling Fan Kit For Draft Booster Motors

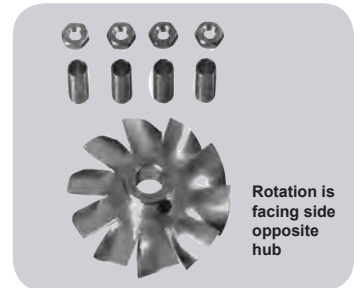
FK100

C.W. rotation
1 3/4" diameter
1/4" Hub ID

FK101

C.C.W. rotation
1 3/4" diameter
1/4" Hub ID

Shipped one fan per kit.



Rotation is facing side opposite hub

Products on page F-94 are NOT SUITABLE for unattended equipment unless indicated by . See inside back cover for additional information.



Below is a quick reference listing of numbers you will find in the notes column of FASCO's model charts throughout the catalog, and their respective meanings.

- 1 4M 370V capacitor
- 2 7.5M 370V capacitor not included
- 3 6M 370V capacitor
- 4 Water Heater Draft Inducer
- 5 Special low-temperature oil
- 6 Includes 4M 370V capacitor
- 7 Includes shaft bushing
- 8 Does not have shaft bushing
- 9 3M 370V capacitor
- 10 Has hall effect sensor
- 11 5M 440V Capacitor
- 12 10M 370V Capacitor
- 13 7.5M 370V Capacitor
- 14 7.5M 440V Capacitor
- 15 20M 370V Capacitor
- 16 Rotation is determined by viewing lug end
- 17 7.5M 370V Cap installed
- 18 Rotation is determined by viewing lug end.
- 19 Original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing shaft end of motor to prevent moisture from entering motor.
- 20 Not a direct replacement, but suitable for referenced models.
- 21 Rotation is determined from viewing lug end
- 22 2M 370V Capacitor
- 23 4 MFD 370V Capacitor
- 24 15M 370V Capacitor
- 25 Equipped with KFAN6046 fan blade
- 26 4M 250V Capacitor included
- 27 12.5M 370V Capacitor
- 28 4MFD 370V Capacitor included
- 29 4M 370V capacitor included
- 30 Special low temperature oil
- 31 5M 370V Capacitor
- 32 Not a direct replacement for 5KCP49SG1010S, but is an acceptable substitute.
- 33 Stainless steel shaft
- 34 Mounts on (3) P/N 0061-1518 Coleman Mounts
- 35 Has 8 drilled and tapped holes in shell
- 36 Has 4 drilled and tapped holes in shell
- 37 Includes 8 drilled and tapped holes in shell
- 38 4MFD, 370VAC capacitor rating (not included)
- 39 4MFD, 370VAC capacitor rating (included)
- 40 Original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing shaft end of motor to prevent moisture from entering motor.
- 41 Includes centrifugal switch
- 42 25M 370V Capacitor
- 43 Packed 6 per carton
- 44 Packed 1 per carton
- 45 Speed nut and vibration damper included.
- 46 Belted Fan & Blower Motor
- 47 56H Mounting
- 48 145T Frame
- 49 Mechanically Reversible
- 50 3M 370V Capacitor Included
- 51 3-1/2" SHAFT HEIGHT
- 52 6M 370V capacitor included
- 53 4M 370 capacitor included
- 54 5M 370V capacitor included
- 55 Has internal fan & 3.5" BC mounting holes for GE 21/29 Frame replacement.
- 56 Drilled and tapped holes in case for Coleman mounting
- 57 Luxaire/Whisperaire
- 58 With plug for Penn Ventilator
- 59 Repl. For Siegler & Williams Wall Heaters
- 60 Penn Ventilator
- 61 Repl. For Butler & Leslie-Locke Roof Ventilator--BX Connector
- 62 Hub only on shaft end
- 63 Repl. For Leslie-Locke Roof Ventilator
- 64 Sterling Radiator Co.
- 65 For use with Greenheck Fan
- 66 Shaft stepped down from 3/8" dia. Shaft
- 67 OEM direct replacement for Jenn Air 80CR
- 68 Used in Jenn Air units. P/N 7108-2101
- 69 Used in Leslie Locke ventilators original P/N 7108-5056
- 70 Used in Acme Eng. Roof Vents
- 71 ILG ventilator 7108-2171. Has internal fan.
- 72 External oil retainer to accommodate resilient rings and cradle base, drilled and tapped holes in case for mounting in Coleman applications. (2 holes each end on case OD).
- 73 Mechanically Reversible
- 74 Popular Ice Machine pump motor
- 75 Shell Turbo 68, low temp. oil (-40°F)
- 76 Impedence Protected
- 77 Has hubs for end rings
- 78 Closed construction
- 79 See Tecumseh OEM section for cross references
- 80 With conduit box
- 81 PSC motor requiring a 10 MFD 370V cap
- 82 Rotation determined by viewing lug end
- 83 Totally enclosed, Sears-Whirlpool 5000-8000 BTU units.
- 84 4M 370V capacitor (similar to GE WJ94X306)
- 85 Air Over
- 86 Drilled & Tapped Holes (No. 8-32NC) in face of case at shaft end for mounting in various Coleman mobile home furnace applications, also has mounting studs.
- 87 Used in Economite, "E-20", LS1/Miller and Mid Continent gas units.
- 88 3 small lugs for Kit 55S
- 89 4 grommets to fit lugs on Kits 34, 49, 50, 55L, 55S
- 90 15 MFD 370V
- 91 7.5MFD 370VAC capacitor
- 92 Shaft up or horizontal applications
- 93 Motor has increased stack for higher ambient temperatures
- 94 7.5 m 440V Capacitor
- 95 Comes with unmounted conduit box.
- 96 Has maximum ventilation for high ambient temperatures
- 97 All angle mount bearings
- 98 All angle mount bearings. Use rainshield when necessary.
- 99 All angle mount bearings.
- 100 10 MFD 370V
- 101 7.5 MFD 370V
- 102 20 MFD 370V
- 103 Ideal for blowers and fans used in furnaces and air-conditioners
- 104 The capacitor and base are included
- 105 Ideal versatility using Kit 200 "X" brackets to accommodate various cradle base lengths
- 106 Includes dust seal
- 107 Includes pull-chain switch
- 108 12.5MFD 370V capacitor included
- 109 No pedestal yoke mount
- 110 Blower system designed to enhance heat output from home fireplaces. Kit includes variable speed control and temperature sensor switch.
- 111 Application: Designed for use in residential outdoor condenser fan and heat pump units (primarily up to 3.5 ton)
- 112 Vibration motor
- 113 PSC version of D1189 (OEM Replacement for Krack Refrigeration.
- 114 Separate connection for each voltage
- 115 Not a direct replacement for 253-1194, but is an acceptable substitute
- 116 Replacement for Airease
- 117 Not a direct replacement for 253-1194, but is an acceptable substitute
- 118 10M 370V capacitor not included
- 119 Has special OEM wiring configuration. Not for general purpose 3 speed applications
- 120 Use Fan Blades with round hub I.D.
- 121 Two Speed Motor
- 122 K110 has maximum flat length
- 123 Double Shafted
- 124 All mounting holes drilled and tapped.
- 125 Continuous Duty
- 126 3/8" shaft diameter with adapter to convert to 1/2" diameter
- 127 Front endshield drilled and tapped with four 10-32 threads on 3.5" bolt circle
- 128 Electrically Reversible
- 129 Repl. For ITT REZNOR
- 130 Do not have extended hubs or rubber rings for base mount
- 131 Motors include shaft bushing
- 132 Open vented on opposite shaft end
- 133 Shaft down or horizontal applications
- 134 Does not have removable conduit boxes
- 135 Special wiring configuration. Cannot be used with SPDT switching.
- 136 Does not come with conduit box.
- 137 Ideal for blowers and fans used in furnaces and air-conditioners.
- 138 Not CSA certified
- 139 All angle mount bearings. Use rainshield when necessary
- 140 Has 10' cordset
- 141 Keyed shaft
- 142 Vertical shaft down application.
- 143 All motors individually boxed.
- 144 Resilient Base
- 145 Interchangeable with GE 21 & 29 Frame motors and other Emerson, Universal and Franklin refrigeration motors
- 146 Interchangeable with GE 21/29 Frame and Universal Motors
- 147 Comes with 2 1/2" O.D. Rubber Mounting Rings
- 148 Weld nuts on 3.5" B.C. for stud mount
- 149 Wiring slightly different from OEM PSC; check nameplate connection diagram. Capacitor and Bracket included. Replaces 2 and 3 speed SP and PSC motor. Motor in Gibson/Belding window units.
- 150 Endshield on D520 is easily removed, allowing rotor and shaft to be rotated, thereby reversing motor rotation.
- 151 Has keyed shaft
- 152 Ideal for unit heaters
- 153 Agricultural applications
- 154 Extended hubs with rubber rings for base mount
- 155 Includes 8 drilled and tapped holes in shell.
- 156 Interchangeable with GE 21 & 29 Frame motors & other Emerson, Universal & Franklin Refrigeration motors
- 157 All angle mount sleeve bearings
- 158 All Rubber rings are used with direct drive blower motors and "Clamp" type supports.
- 159 D180 for International Oil Burner Co.- Furnaces MAC5A, 1045, 1052, 1060, 1145, 1155, 1165, 1175, 1265, 1380, 7040, 7060.
- 160 Henrite are rubber mounting rings with steel band, used with cradle bases and knife edge motor supports.
- 161 Hubless endshields for flush mounting
- 162 Ideal for lug mounting using lug Kit 55L or 55S
- 163 Internal cooling fan
- 164 Rotation is facing side opposite hub
- 165 Skeleton Motor
- 166 3.25" Diameter
- 167 Self-Cooled
- 168 10M 440V Capacitor
- 169 Mounting bracket designed to match the original motor (four 8-36 drilled and tapped holes)
- 170 Mounting hardware included
- 171 Has 22" leads with 1/16" thick insulation
- 172 Three studs opposite shaft end are 8-32 on a standard 2.84" bolt circle, 120° apart
- 173 3.9" diameter
- 174 Includes 1/2" studs for mounting
- 175 Bolt circle = 3.15"
- 176 Endshield on D520 is easily removed, allowing rotor and shaft to be rotated, thereby reversing motor rotation.
- 177 Used in Economite, "E-20", LS1/Miller and Mid Continent gas units.
- 178 External oil retainer to accommodate resilient rings and cradle base, drilled and tapped holes in case for mounting in Coleman applications. (2 holes each end on case OD).
- 179 Self cooled for mechanical duty
- 180 Can be operated on 50Hz with air-over applications
- 181 3 1/2" shaft height
- 182 Has internal fan & 3.5" BC mounting holes for GE 21/29 Frame replacement.
- 183 Drilled and tapped holes in case for Coleman mounting
- 184 D180 for International Oil Burner Co.- Furnaces MAC5A, 1045, 1052, 1060, 1145, 1155, 1165, 1175, 1265, 1380, 7040, 7060.
- 185 Rooftop Ventilator
- 186 Unit Heater
- 187 Includes shaft water slinger
- 188 60° ambient temperature rating
- 189 Closed end shield shaft end
- 190 All angle mount bearings. Use rain shield when necessary.
- 191 Should not be used for replacements where original motor is rated below 1500 RPM
- 192 Ideal versatility using Kit 200 "X" brackets to accommodate various cradle base lengths
- 193 Poultry and Hog House fan motor
- 194 Condenser Fan Motor
- 195 50/60 Hz
- 196 Draft Booster/ Flue Exhaust/ Switch Motors
- 197 For 208V use 7.5M 370V Capacitor and 240V use 6M 370V Capacitor
- 198 Has special OEM wiring configuration. Not for general purpose 3 speed applications
- 199 Original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing shaft end of motor to prevent moisture from entering motor
- 200 Not a direct replacement for 5KCP49SG1010S, but is an acceptable substitute.
- 201 Not a direct replacement for 253-1194, but is an acceptable substitute
- 202 Original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing shaft end of motor to prevent moisture from entering motor.
- 203 Leads require modification
- 204 100,000 BTU Furnaces
- 205 Window A/C Using Delco Inside-Outside Motor 485932, KCP39PG9769S

NOTE:

Underwriters Laboratories has developed additional safety requirements for motors used in equipment where abnormal unit operation could likely be undetected by the user, thus increasing the risk of personal injury or property damage.

For example, a motor with a locked shaft could operate undetected for an extended period of time in an attic ventilator fan, thus increasing the risk of fire.

Fasco General Replacement and OEM Direct Replacement products for use in attic ventilators, bathroom ventilators, whole house fans, wall furnaces and other units in the category have been modified to meet these new standards.

Special attention must be given to ensure that ONLY the modified products are supplied to customers with units of this type.

Motors that are NOT SUITABLE for use in unattended equipment are clearly marked as such with a warning label indicating the increased risk of fire.

The new safety requirements for air moving equipment used in unattended locations within a structure are documented in UL Standard 507, Electric Fans.

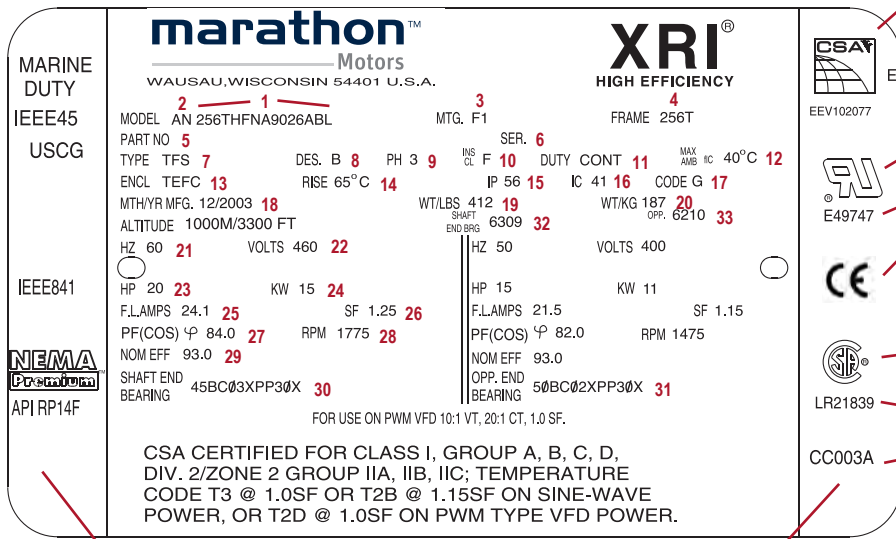
Marathon



Description	Page No.
General Information	ME-3 – ME-5
Application Information	ME-6 – ME-11
Variable Speed Information	ME-12 – ME-15
General Purpose Single Phase (NEMA Service Factor)	
Dripproof	
Rigid Base	ME-16 – ME-17
Extended Thru-Bolt, Split Phase, Steel endshield	ME-17
Rigid Base (1.0 Service Factor)	ME-18
Resilient Base (Single and Two-Speed)	ME-19
Resilient Base (1.0 Service Factor)	ME-20
C-Face Footless	ME-21
Totally Enclosed	
Rigid Base	ME-22
C-Face Footless	ME-23
C-Face Footed (Removable Base) - Four in One	ME-23
General Purpose Three Phase (NEMA Service Factor)	
Dripproof	
Rigid Base,	ME-24 - ME-25
Rigid Base, NEMA Premium® XRI® Efficiency	ME-25
Rigid Base, NEMA Premium® Globetrotter®	ME-26
Totally Enclosed	
Rigid Base,	ME-26
C-Face Footless	ME-27
C-Face Footed (Rigid and Removable Base)-Four in One	ME-27
Rigid Base, NEMA Premium® XRI® Efficiency	ME-28
Rigid Base, NEMA Premium® Globetrotter®-NEMA Efficiency	ME-29
HVAC Motors (Air Moving)	
Condenser Fan/Heat Pump, PSC, Open Air Over, Thru-Bolt, Shaft Up or Horizontal	ME-30
Condenser Fan/Heat Pump, PSC, Open Air Over, Thru-Bolt, Shaft Down	ME-31
Condenser Fan/Heat Pump, PSC, Open Air Over, Thru-Bolt, All-Angle	ME-32
Condenser Fan/Heat Pump, PSC, Open Air Over, Rigid Base, Shaft Up or Horizontal	ME-32
Condenser Fan/Heat Pump, Three Phase, Open Air Over, Belly Band/Resilient Ring, Shaft Up or Horizontal ...	ME-33
Commercial Condenser Fan/Heat Pump, PSC, Open Air Over, Belly Band, Shaft Up	ME-33
Commercial Condenser Fan/Heat Pump, PSC, Resilient Base, Shaft Up or Horizontal	ME-34
Commercial Condenser Fan/Heat Pump, Three Phase Open Air Over, Rigid Base, Shaft Up or Horizontal ..	ME-34
Commercial Condenser Fan/Heat Pump, Three Phase, Dripproof, Rigid Base, Shaft Up or Horizontal	ME-35
Exhaust Ventilator, Single Phase, Dripproof, C-Footless, Single Speed	ME-43
Fan & Blower - Direct Drive, PSC, Open Air Over, Resilient Ring	ME-37
Fan & Blower - Direct Drive, PSC, Open Air Over, Resilient Ring, Thru-Bolt mount	ME-36
Fan & Blower - Direct Drive, PSC, Open Air Over, Extended Thru-Bolt, 460 Volt	ME-37
Fan & Blower - Direct Drive, PSC, Open Air Over, Torsion Flex mount	ME-37
Fan & Blower - Split Phase, Dripproof, Resilient Base - Single and Two Speed	ME-38 – ME-39
Fan & Blower - Capacitor Start, Dripproof, Resilient Base - Single and Two Speed	ME-40
Fan & Blower - Split Phase and Capacitor Start, Totally Enclosed, Resilient Base - Single and Two Speed ..	ME-41
Fan & Blower - Three Phase, Dripproof, Resilient Base - Single and Two Speed	ME-41
Fan & Blower - Three Phase, TEAO, Resilient Base	ME-41 – ME-42
Furnace Blower - PDQ mount	ME-43
Oil Burner, PSC, 48M flange mount	ME-44
Oil Burner, Split Phase and Capacitor Start, 48M and 48N flange mount	ME-44
Oil Burner, Split Phase and Capacitor Start, 56C Footless	ME-45
Refrigeration Fan Motors, Three Phase Open Air Over, Shaft Up & Horizontal Rigid Base Mount	ME-45
Unit Heater Fan, PSC, TEAO, Resilient Base	ME-46
Accessory Kits	ME-47 – ME-49
NEMA Quick Reference Dimensional Chart	ME-50
Footnotes	ME-51

Marathon Motors Nameplate Information – How To Read The Nameplate

The nameplate is the key to selecting the proper replacement motor.



CSA Verification Mark - Complies with CSA's Energy Efficiency Verification Service and their Standard C390 - C390 is the Canadian efficiency equivalent of EPCAct.

Underwriters Laboratories, Inc. UL Recognized Component Mark
UL file #

CE (Conformité Européene) Marking
This mark signifies the motor complies with the European Low Voltage Directive.

CSA Mark - Certified by the Canadian Standards Association

CSA file #

CC# - Compliance Certification Number as per assigned by the Department of Energy. Motors meeting EPCAct efficiencies or higher will have this number.

Motor Specifications (Example)

Agency Symbols

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. MODEL - The ID number 2. DATE CODE - The month and year manufactured 3. MTG. - Mounting 4. FRAME - The size & mounting 5. PART NO. - Customer part number 6. SER. - Serial number 7. TYPE - Electrical type 8. DES. - Code by NEMA or IEC 9. PH - Electrical phase usually 1 or 3 10. INS CL - Insulation Class 11. DUTY - Time rating under load 12. MAX AMB - The allowable surrounding air temperature 13. ENCL - Enclosure (i.e. TEFC) 14. RISE - The temperature rise over ambient expressed in degrees Celsius when the motor operates at nameplated HP or KW 15. IP - Inherent Protection of the enclosure to solids and liquids as defined by IEC 34-5 16. IC - Inherent Cooling 17. CODE - NEMA locked-rotor KVA | <ol style="list-style-type: none"> 18. MTH/YR MFG. - Month and year motor was manufactured 19. WT/LBS - Motor weight in pounds 20. WT/KG - Motor weight in kilograms 21. HZ - Input frequency of the power supply, usually 50 or 60 HZ 22. VOLTS - Voltage rating of the motor at the operating frequency 23. HP - Rated horsepower the motor will produce 24. KW - Rated output in watts 25. F.L. AMPS - The rated load current expressed in amps at nameplated horsepower with nameplate voltage and frequency 26. S.F. - Percentage of the rated horsepower the motor can safely operate at:
Example: 1.15 SF (115% of rated HP) 27. PF / COS - Power Factor / Cosine is the ratio of actual power to the apparent power 28. RPM - Full load speed at rated frequency 29. NOM EFF - Average Efficiency 30. SHAFT END BEARING - Manufacturer drive end bearing number 31. OPP. END BEARING - Manufacturer opposite drive end bearing number 32. SHAFT END BRG - Drive end bearing size 33. OPP - Opposite drive end bearing size |
|---|--|

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

How To Read A Model Number:

Each Marathon Motors motor carries a model number that can be used to define some of the motor's physical and electrical characteristics.

Example (For Fractional): 1PC48C17D2000AP

This is a breakdown of the model on the nameplate:

<u>1</u>	<u>P</u>	<u>C</u>	<u>48</u>	<u>C</u>	<u>17</u>	<u>D</u>	<u>2000</u>	<u>A</u>	<u>P</u>
1	2	3	4	5	6	7	10	11	12

This is a breakdown of the model in the catalog:

<u>48</u>	<u>C</u>	<u>17</u>	<u>D</u>	<u>2000</u>
4	5	6	7	10

Example (For Integral): 2QA215TBDR A 7076 AL L

This is a breakdown of the model on the nameplate:

<u>2</u>	<u>Q</u>	<u>A</u>	<u>215T</u>	<u>B</u>	<u>D</u>	<u>R</u>	<u>A</u>	<u>7076</u>	<u>AL</u>	<u>L</u>
1	2	3	4	5	7	8	9	10	11	12

This is a breakdown of the model in the catalog:

<u>215T</u>	<u>B</u>	<u>D</u>	<u>R</u>	<u>A</u>	<u>7076</u>
4	5	7	8	9	10

1. **Date Code** - Year of Manufacture
(Not shown in catalog listings.)

2. **Thermal Protection** (Not shown in catalog listings.)

	UL Recognized Motor Protector <u>Combination</u>	UL Recognized Motor <u>Construction</u>
Automatic Reset	Automatic Reset	Automatic Reset
Q	Yes	Yes
S	No	No
U	No	Yes
W	#	Yes
Manual Reset	Manual Reset	Manual Reset
P	Yes	Yes
Z	No	Yes
X	No	No
None	None	None
V	No	Yes

Motor protector combination is U.L. recognized only if motor is used in direct drive fan duty application, and is under locked rotor condition, or is running under no-load condition.

3. **Date Code** - Month of Manufacturer (Not shown in catalog listings.)

4. **NEMA Frame Size** - (Integral motors - T and U designate standard shaft, TS and US designate short shaft)

5. Electrical Type

Single Phase:

- A = Permanent split capacitor
- B = Capacitor start, capacitor run
- C = Capacitor start, induction run
- N = Split phase start, capacitor run
- S = Split phase

Three Phase:

- T = Three phase
- H = Inverter Duty/IEEE841 Inverter Duty
- V = Medium Voltage

DC Power:

- E = Permanent Magnet DC

6. RPM or Speed at 60 Hz (Fractional Only)

- 34=2-Pole, 3600 rpm
- 17=4-Pole, 1800 rpm
- 11=6-Pole, 1200 rpm
- 8 = 8-Pole, 900 rpm

7. Enclosure

- D = Dripproof
- E = Explosion proof, non-ventilated
- F = Totally enclosed, fan cooled
- G = Explosion proof, fan cooled
- O = Open
- P = Partial
- S = Semi-enclosed
- T = Totally enclosed, non-ventilated
- V = Washdown, non-ventilated
- W = Washdown, fan cooled

8. Frame Construction

Integral

- L = Aluminum (Full Frame)
- Y = Aluminum (Full Frame)
- Z = Aluminum (High Mount Down Frame)
- H = Aluminum - Sourced
- R = Rolled Steel (Full Frame)
- W = Rolled Steel (Full Frame)
- X = Rolled Steel (High Mount Down Frame)
- B = Rolled Steel - Sourced
- S = Cast Iron (Full Frame)
- N = Cast Iron (Full Frame)
- P = Cast Iron (High Mount Down Frame)
- C = Cast Iron - Sourced
- D = Stainless Steel

Fractional

- B = Rolled Steel - Sourced
- D = Stainless Steel - Sourced
- U = Frameless - Sourced

9. **Style Letter** (A, B, C, etc. indicate redesign)

10. **Sequence Number**

11. **Minor Modification Letter(s)**

Fractional - 1 letter; Integral - 2 letters

12. **Manufacturing Code** - A code for the factory where the motor was manufactured.

How To Read A Model Number: Continued

Example (“harmonized” motor design):

A	B	C	D	E	F	G	H	I
5	KH	3	6	K	G	142	-	X

A. Rotating Device

B. Type of Winding

- KH - Split Phase
- KC - Capacitor Start, Induction Run
- K - Polyphase
- KCP - Permanent Split Capacitor
- KCR - Capacitor Start, Capacitor Run

C. Lamination Size

3 - 48 frame, 4 - 56 frame

D. Length of Frame

	48 frame	56 frame
2	5.17	5.73
3	5.42	6.63
4	None	None
5	5.80	7.11
6	6.23	None
7	6.63	7.63
8	7.23	8.44
9	Spec.	Spec.

E. Stack Length

A - 5/8"	F - 1-1/4"	L - 1-7/8"	S - 3.0"
B - 3/4"	G - 1-3/8"	M - 2.0"	T - 3-1/4"
C - 7/8"	H - 1-1/2"	N - 2-1/4"	U - 3-1/2"
D - 1.0"	J - 1-5/8"	P - 2-1/2"	W - 4.0"
E - 1-1/8"	K - 1-3/4"	R - 2-3/4"	Q - Spec.

F. Endshield Construction

- G & N - Aluminum
- K - Steel
- C - Cap/Can

G. Sequence Number

H. Current Revision (blank if original)

I. Type of Overload

- X - UL Auto running & locked rotor
- Y - UL Manual running & locked rotor
- S - UL Auto locked rotor
- T - Non-UL Auto running & locked rotor
- U - Non-UL Manual running & locked rotor
- V - Thermostat
- W - UL Motor Parts

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Agency Listings

UL and CSA

Marathon Motors's Fire Pump and Explosion Proof motors are UL Listed. Other motor types are UL Recognized, including models with inherent overheating protection as noted (i.e. thermally protected models). Marathon motors are also CSA Certified for both explosion proof and non-explosion proof enclosures.

AC Motors

Non-Explosion Proof	UL File No.	CSA File No.
NEMA 48-449 Frame	E49747	LR2025
All 5K type models numbers NEMA 500 and 5000 Frame	E46035	MC236833 LR2025*
IEC 63-90 Frame	E49747	LR2025
IEC 100-280 Frame	E49747	LR2025#
Thermally Protected motors	E6312	LR2025
Thermally Protected 5K motors	E14133	MC236833
Insulation Systems	E37900	LR2025
* Does not include coverage for use with VFD		
# Domestic product only		
Explosion Proof	UL File No.	CSA File No.
NEMA 56-326 Frame	E12044	LR47504
NEMA 364-449 Frame	E12044	LR21839
Fire Pump Motors	UL File No.	CSA File No.
NEMA 143-510	EX5190	LR2025
Class I, Division 2/Zone 2	UL File No.	CSA File No.
NEMA 48-449, 5000 Frame	—	LR21839
European ATEX Zone 2	Intertek Certificate No.	
NEMA 143-449, IEC 112-280	ITS06ATEX45370	

PMDC Motors

Non-Explosion Proof	UL File No.	CSA File No.
NEMA 56-145	E49747	E49747

CE (Conformity Europeanne)

CE marking on the nameplates of Marathon Motors motors is available upon request for most motors rated 600V or less. We do not apply the CE Marking to explosion proof motors. The European "Low Voltage" Directive applies to electric motors. Contact a factory representative for details. Non-explosion proof microMAX™, BlackMax® and BlueMax® (TENV and TEFC) standard (catalog) models have the CE Mark on the nameplate.

ATEX Directive (ATmospheres EXplosibles)

Mandatory by law, the European Union (EU) Directive 94/9/EC requires that electric motors for use in explosive atmospheres carry the CE mark, notified body identifier, Ex symbol, equipment group and category, plus the date code. See "European Installations" for additional details, located on the next page.

NEMA (National Electrical Manufacturers Association)

Marathon Motors motors are manufactured in accordance with all applicable areas of NEMA standards in MG1-2006. When applied in accordance with the "Guidelines for Application of Three Phase Motors on Variable Frequency Drives", **Marathon Motors motors are in**

full compliance with NEMA MG1-2006, Part 31, Section 4.4.2, as pertaining to voltage spikes. 460 volt motors must withstand voltage spikes of up to 1426 volts; 575 volt motors must withstand spikes up to 1788 volts. See "Insulation Systems" for additional detail on this subject.

Commitment to RoHS and WEEE European Directives

European Directive 2002/95/EC "Restriction of Use of Certain Hazardous Substances" (RoHS) and Directive 2002/96/EC "Directives on Waste Electrical and Electronic Equipment" (WEEE) were enacted to control the amount of certain hazardous substances contained in products shipped into the E.U. Restricted substances include lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated dipheynl ethers.

The scope of products covered, affecting motors, is:

- Large household appliances
- Small household appliances
- IT and telecommunications equipment
- Consumer equipment
- Electrical and electronic tools (except large scale stationary and industrial tools)
- Toys, leisure and sports equipment
- Automatic dispensers

The Directives do not currently apply to medical devices, monitoring and control instruments, spare parts for the repair or reuse of electrical and electronic equipment placed on the market before July 1, 2006, and most military and state security equipment.

Regal Beloit Corporation worked closely with suppliers to assure that product falling within the scope of these Directives meets the specified levels of these substances. The Directives took affect July 1st, 2006 however many products were converted in May and June. The products converted are motors in NEMA frame size 145 and below, both AC and DC motors with the following exceptions:

- Sleeve bearing motors
- Brake motors in 56-145 frame will have to be ordered specifically as RoHS compliant.
- Some motors with specialty electro-mechanical components.

Bearings

Frame Size	Standard Type	Comments
48	Shield Ball	
56 - 184T	Sealed Ball	
182 - 444T	Double Shield Ball	
284 - 449TS	Single Shield Ball	
445T - 6805	Double Shield Ball	Direct - coupled loads
445T - 6805	Roller (DE)/Ball	Belted loads

* **Beltting data must be provided on all belted applications**

Standard horizontal motors can be mounted in a vertical shaft down orientation (except brakemotors). Contact a factory representative for shaft up mounting arrangements.

Motors for use in vertical shaft up or shaft down configurations must be reviewed by Engineering before ordering.

Continued on next page.

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Marathon Motors motors employ the use of Mobil POLYREX® EM grease, a specially formulated bearing grease designed for electric motors. POLYREX® EM provides superior lubricity, durability and resists corrosion, rust and washout. POLYREX® EM is a registered trademark of Mobil Corporation.

Maximum safe mechanical speed capability is a function of bearing size, type and grease selection, as well as rotor balance specifications. Consult the "Maximum Safe Mechanical Speed Limits" chart in the "Overspeed Capability" section.

Note that these values do not imply maximum constant horsepower RPM.

Efficiency

The efficiency of a motor is the ratio of its useful power output to its total power input and is usually expressed in a percentage. Marathon Motors offers standard, high efficient EPC, and NEMA Premium® efficient (XRI) ratings. Standard efficiency motors may only be used on applications that are exempt from legislated efficiencies. The high efficient motor line is in compliance with the Energy Policy Act of 1992 (EPC) and/or Canadian efficiencies as set by NRCAN. The Energy Independence and Security Act of 2007 (EISA07) will become law on December 19, 2010, requiring current EPC-compliant motors to meet NEMA Premium® efficiencies, and most EPC-exempt motors to meet EPC levels. XRI Premium efficient motors in this catalog meet NEMA Premium® unless otherwise noted.

The XRI® line is a premium efficiency line, which exceeds mandated efficiencies of EPC and /or NRCAN. Unless otherwise noted, XRI® premium efficient motors in this catalog meet NEMA Premium® the newly promoted efficiency levels by NEMA and the Consortium for Energy Efficiency (CEE).

Electrical Type/Starting Method

Motors in this catalog are capacitor start, split phase, permanent split capacitor, or three phase. Capacitor Start motors have high starting torque, high breakdown torque, and relatively low starting current. Split phase motors have medium starting torque and medium starting current. Permanent split capacitor motors have low starting torque and low starting current. Three phase motors have high starting, extra breakdown torque, and typically very low starting current. Single phase motors cannot be applied on variable frequency drives with three phase output.

Enclosure And Method Of Cooling

Marathon Motors motors are available in various enclosures; Dripproof (DP), Dripproof Force Ventilated (DPFV), Totally Enclosed Fan Cooled (TEFC), Totally Enclosed Non-Ventilated (TENV), Totally Enclosed (TEAO) and Totally Enclosed Blower Cooled (TEBC). Application conditions will determine the type of motor enclosure required.

Dripproof motors have open enclosures and are suitable for indoor use and in relatively clean atmospheres. Dripproof motors have ventilating openings constructed so that drops of liquid or solid particles falling on the machine at an angle of not greater than 15 degrees from the vertical cannot enter the machine.

Totally enclosed motors are suitable for use in humid environments or dusty, contaminated atmospheres. Totally enclosed non-ventilated motors are NOT cooled by external means. Totally enclosed fan cooled motors are cooled by external means that are part of the motor

but not in the internal workings of the motor. Totally enclosed air over motors are sufficiently cooled by external means, provided by the customer.

Hazardous Duty™

Hazardous Duty™ motors are totally enclosed (fan cooled or non-ventilated) motors designed for applications in hazardous atmospheres containing explosive gases and/or combustible dusts.

North American installations

North American standards for electric motors generally fall into one of two divisions. Division 1 Explosion Proof motors are UL Listed in accordance with NFPA Class I (Flammable Gases) or Class II (Combustible Dusts) and Groups (gases or dusts), depending upon the atmosphere. Division 2 motors are CSA Certified and are marked similarly to Division 1 equipment. Inverter Duty motors through 449T frames are CSA Certified for use in Division 2 locations.

European installations

Motors for hazardous locations in Europe must meet a different set of standards and require different markings than those of North America. CENELEC sets the standards for equipment in hazardous locations for Europe. Motors for use in explosive atmospheres in Europe are often referred to as flameproof (Zone 1) or non-sparking (Zone 2) motors. These motors must comply with the ATEX Directive. The ATEX Directive covers all electrical equipment used in explosive atmospheres. To ensure compliance with the Directive, equipment must meet the essential ATEX requirements and carry the CE mark on the nameplate. Other information required on the nameplate includes the Ex symbol, group & category, Ex protection method, gas group, and temperature code, example (Ex)II 3 G Ex nA IIC T3).

The tables on the next page describe Marathon Motors's capabilities by Area Classification and by Temperature Code.

IEC Degrees Of Protection vs. Marathon Motor's Standard Construction

The enclosure terminology for an IEC motor is a combination of the IP (Ingress Protection) and IC (Inherent Cooling) codes. Each number in the IP code stands for a different degree of protection.

- IP12 - Dripproof
- IP22 - Dripproof with screens, or die cast aluminum bracket
- IP43 - Totally Enclosed
- IP54 - Totally Enclosed Severe Duty
- IP55 - Totally Enclosed Severe Duty with V-Ring Shaft seals, and/or "Smart Ring" rotating shaft seal and Neoprene gaskets
- IP56 - Totally Enclosed Severe Duty with rotating Shaft seals (eg. Inpro/Seal® VBX bearing isolator) and Neoprene gaskets

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Marathon Motors Hazardous Duty Motor Area Classification Chart

Class I Area Classification (Flammable Gases, Vapors or Mists)				Class II Area Classification (Combustible Dusts)			
North America		Europe - ATEX (Category G - Gases)		North America		Europe - ATEX (Category D - Dusts)	
Division 1 Explosion Proof	Division 2 TEFC & TENV	Zone 1 Flameproof	Zone 2 Non-Sparking	Division 1 Explosion Proof	Division 2	Zone 21 Flameproof	Zone 22 Non-Sparking
Group A	Group A	Contact Marathon Motors for ATEX Zone 1 capabilities	Group IIC, Category G	-	-	-	-
Group B	Group B		Group IIC, Category G	-	-	-	-
Group C	Group C		Group IIB, Category G	-	-	-	-
Group D	Group D		Group IIA, Category G	-	-	-	-
-	-	-	-	Group E	-	Category D	Category D
-	-	-	-	Group F	Group F ^①	Category D	Category D
-	-	-	-	Group G	Group G ^②	Category D	Category D

- Group is not applicable to that Division or Zone, or is not defined.

① Group is not available from Marathon Motors.

② Contact factory representative for availability.

Marathon Motors Hazardous Duty Motor Temperature Code Chart

Temperature Codes			Division 1 Explosion Proof/Zone 1 Flameproof		Division 2/Zone 2 Non-Sparking
			Class I Area Classification (Flammable Gases, Vapors or Mists)	Class II Area Classification* (Combustible Dusts)	Class I Area Classification (Flammable Gases, Vapors or Mists)
Temp.	UL/CSA	ATEX	Division 1/Zone 1	Division 1/Zone 21	Division 2/Zone 2
280°C	T2A	T2(280)			
260°C	T2B	T2(260)			XRI® Severe Duty & IEEE-841 @ 1.15 S.F., Class I, Groups A,B,C,D (Sine wave power)
215°C	T2D	T2(215)			Available through Marathon's Mod Central on Totally Enclosed EPAct, XRI®, XRI® Severe Duty or IEEE-841 @ 1.0 S.F. on PWM VFD, Class I, Groups A, B, C, D
200°C	T3	T3			Available through Marathon's Mod Central on Totally Enclosed EPAct, XRI®, XRI® Severe Duty or IEEE-841 @ 1.0 S.F., Sine wave power Class I, Groups A, B, C, D
165°C	T3B	T3(165)	Explosion Proof - Class I, Group D (Group C as noted), Sine wave or PWM power	Explosion Proof - Class II, Groups F & G, Sine wave or PWM power	
160°C	T3C	T3(160)	Available through Marathon's Mod Central on Explosion Proof - Class I, Group C & D @ 1.0 S.F. - Contact Factory	Available through Marathon's Mod Central on Explosion Proof - Class II, Group F & G @ 1.0 S.F. - Contact Factory	
135°C	T4	T4	ATEX compliant motors	ATEX compliant motors	

Division I & II ambient range is -25°C to +40°C

ATEX ambient range is -20°C to +40°C

Consult Marathon Motors for higher ambients

Insulation Systems

Class B – General Purpose motors that employ Class B insulation systems have a total temperature rating of 130°C and maximum allowable temperature rise of 80°C at 1.0 S.F.

Class F – Motors with a Class F system have a total temperature rating of 155°C, with a maximum temperature rise of 105°C at 1.0 S.F. Many Marathon Motors designs utilize a Class F system but limit temperature rise to no higher than “B” rise, providing thermal “headroom” for longer insulation life.

Class H – Class H insulated motors have a total temperature rating of 180°C and maximum allowable temperature rise of 125°C. All Marathon Motors motors that employ a Class H system are designed to operate between “B” and “F” rise, giving the user a generous thermal cushion.

“**CR200**” – Corona Resistant, 200° rated magnet wire is utilized in numerous general purpose and inverter duty motor designs to extend insulation life under the rigors of steep fronted voltage spikes, common with today’s IGBT inverters. Refer to page 17 for product lines that employ the use of CR200 magnet wire.

Motors with the CR200 insulation system can be operated at up to 475 feet from the drive on 460 volt systems, at 3 KHz carrier frequency. For other voltages and/or carrier frequency combinations, contact a factory representative.

MAX GUARD® – All Black Max®, Blue Max®, Blue Chip®, XRI® Severe Duty and XRI®-841 (IEEE841) motors feature the MAX GUARD® insulation system, either in conjunction with Class F or Class H materials. Combining corona-resistant magnet wire (CR200) with our patented “low stress” winding configuration and uncompromising quality standards, MAX GUARD® delivers long, dependable motor life under the adverse thermal and dielectric stresses imposed by IGBT-based variable frequency drives. MAX GUARD® surpasses the requirements of NEMA MG1-2006, Part 31, Section 4.4.2.

460 Volt (or lower) motors equipped with MAX GUARD® can be operated at any distance from the drive and at any carrier frequency. 575 Volt motors can be operated at up to 650 feet cable length at 3 KHz.

Mounting

Most Marathon Motors motors are designed for horizontal mounting (shaft parallel with ground), unless designed otherwise, such as Vertical P Base motors. As a general rule, a horizontal motor can also be mounted in a vertical shaft down orientation. Horizontal motors should never be mounted in a vertical shaft up orientation without consulting your application engineer, as this practice can cause damage to the motor, which is not covered under warranty. Brakemotors should not be mounted vertically (up or down), unless the brake has been specifically designed for such.

Nema Service Factor Ratings

The table below lists the NEMA service factors for single phase, dripproof motors. Totally enclosed and explosion proof motors have 1.0 service factor except where noted.

Single Phase

NEMA SERVICE FACTOR @ RPM LISTED

HP	3600	1800	1200	900
1/12	1.4	1.4	1.4	1.4
1/8	1.4	1.4	1.4	1.4
1/6	1.35	1.35	1.35	1.35
1/4	1.35	1.35	1.35	1.35
1/3	1.35	1.35	1.35	1.35
1/2	1.25	1.25	1.25	1.15
3/4	1.25	1.25	1.15	1.15
1	1.25	1.15	1.15	1.15
1.5 & Up	1.15	1.15	1.15	1.15

Overload Protection

There are four choices in protection: manual (inherent type), automatic (inherent type), thermostats, and none. A manual overload must be physically reset to restart the motor. An automatic thermal overload will stop the motor when it is overloaded or overheated and restart it after the motor has cooled down. None means the motor has no protection. Thermostats are embedded in the winding and connected to the motor starter control circuit. Marathon Motors’s standards are normally closed thermostats, one per phase.



A motor with an automatic reset protector must not be used where automatic restarting (after motor cool-down) would endanger personnel or equipment. Such applications should use a manual reset protector.

Phase/Power Supply

Is the power supply three phase or single phase? Most home and farm applications require single phase motors, while most factories, large commercial and industrial users require three phase motors. Single phase motors can be used on three phase systems. Three phase motors, however, cannot be operated from single phase systems. Motor damage will result.

Rotation

Most motors in this catalog are reversible by electrical reconnection or by physical orientation. Marathon Motors’s standard rotation from the factory for single phase motors is counterclockwise, when viewing the opposite shaft end of the motor.

Speed/Rpm

3600, 1800, and 1200 are the most common 60 HZ synchronous speeds with full load speed equivalents of 3450, 1725, and 1150.

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Terminology

Ambient Temperature – Temperature of the medium, such as air, water or earth, into which the heat of the equipment is dissipated.

Across The Line Start – A method of motor starting that applies full line voltage to the motor. The motor is connected directly to the power source.

Base Speed – Nameplate rating where the motor will develop rated HP at rated load and voltage. With AC systems, it is commonly the point where 60 Hz is applied to the induction motor.

Breakaway Torque – The torque required to start a machine from standstill.

Breakdown Torque (BDT) – The maximum torque that an AC motor will develop with rated voltage applied at rated frequency while rotating.

Cogging – A condition in which a motor does not rotate smoothly but “steps” or “jerks” from one position to another during shaft revolution. Cogging is most pronounced at low motor speeds and can cause objectionable vibrations in the driven machine.

Continuous Duty – The continuous rating is the maximum constant load that can be carried continuously without exceeding established temperature rise limitations under prescribed conditions of load and within the limitations of established standards.

Definite Purpose Motor – Any motor design, listed and offered in standard ratings with standard operating characteristics and mechanical construction, for use under service conditions other than usual or for use on a particular type of application (NEMA).

Duty Cycle – The relationship between the operating and resting times or repeatable operation at different loads and/or speeds.

Efficiency – Ratio of power output to power input indicated as a percentage. In motors, it is the effectiveness with which a motor converts electrical power into mechanical power.

Frequency – Number of cycles per second of alternating current 60HZ used primarily in the United States, 50HZ normally used overseas.

Full Load Torque (FLT) – The torque necessary to produce rated horsepower at full load speed.

General Purpose Motor – This motor has a continuous duty rating and NEMA A or B design, listed and offered in standard ratings with standard operating characteristics and mechanical construction for use under usual service conditions without restriction to a particular application or type of application (NEMA).

Inertia – A measure of a body's resistance to changes in velocity, whether the body is at rest or moving at a constant velocity. The velocity can be either linear or rotational. The moment of inertia (WK²) is the product of the weight (W) of an object and the square of the radius of gyration (K²). The radius of gyration is a measure of how the mass of the object is distributed about the axis of rotation. WK² is usually expressed in units of lb-ft².

Inrush Current – The initial surge of current into the windings. Inrush current can be up to ten times higher than the continuously needed current because there is low initial resistance.

Intermittent Duty – A motor that never reaches equilibrium temperature, but is permitted to cool down (to ambient temperature) between operations. For example, a crane, hoist or machine tool motor is often rated for 15, 30 or 60 minute duty.

Load Sharing – An application condition in which two or more similar-sized AC Induction motors are mechanically connected to each other and powered from the same inverter. Optimum load sharing is achieved with higher slip (NEMA Design B or C) motors.

Locked Rotor Current (LRA) – Steady state current taken from the line with the rotor at standstill, at rated voltage and frequency. This is the current when starting the motor and load across the line.

Locked Rotor Torque (LRT) – The minimum torque that a motor will develop at rest for all angular positions of the rotor, with rated voltage applied at rated frequency.

No Load (Conditions) – The state of a machine rotating at normal speed under rated conditions, but when no output is required from it.

Part Winding Start (PWS) – A method of reduced voltage starting that applies power to only one set of windings, then to the other set as the motor comes up to speed.

Power Factor – Power factor is the ratio of real power (kW) to total kVA, or the ratio of actual power (W) to apparent power (volt-amperes).

Reactance – The opposition to the flow of current made by an induction coil or a capacitor. Performance data expresses stator reactance as X1 and rotor reactance as X2.

Resistance – The opposition to voltage or current in an electrical circuit. Performance data expresses stator resistance as R1 and rotor resistance as R2.

Rotor – The rotating member of a machine with a shaft.

Service Factor (SF) – When used on a motor nameplate, a number which indicates how much above the nameplate rating a motor can be loaded intermittently without causing serious degradation (i.e. a motor with 1.15 SF can produce 15% greater torque than one with 1.0 SF, within temperature constraints).

Continued on next page.

Terminology

Squirrel Cage Induction Motor – When used on a motor nameplate, a number which indicates how much above the nameplate rating a motor can be loaded without causing serious degradation (i.e. a motor with 1.15 SF can produce 15% greater torque than one with 1.0 SF, within temperature constraints).

Shock Load – The load seen by a clutch, brake or motor in a system that transmits high peak loads. This type of load is present in crushers, separators, grinders, conveyors, winches and cranes.

Slip – The difference between the speed of the rotating magnetic field (synchronous speed) and mechanical rotational speed (rotor speed) of AC induction motors. Usually expressed as a percentage of synchronous speed.

Special Purpose Motor – A motor with special operating characteristics, special mechanical construction, or both, designed for a particular application and not falling within the definition of a general purpose or definite purpose motor (NEMA).

Speed Range – The minimum and maximum speeds at which a motor must operate under constant or variable torque load conditions. A 50:1 speed range for a motor with top speed of 1800 RPM means the motor must operate as low as 36 RPM and still operate within specifications.

Starting Torque – The torque exerted by the motor during the starting period.

Stator – The stationary portion of the magnetic circuit and the associated windings and leads of a rotating machine.

Synchronous Speed – The speed of an AC induction motor's rotating magnetic field. It is determined by the frequency applied to the stator and the number of magnetic poles present in each phase of the stator windings. Mathematically, it is expressed as Sync Speed (RPM) = 120 x Applied Frequency (Hz)/Number of Poles per phase.

Torque – A turning force applied to a shaft, tending to cause rotation. Torque is normally measured in "pound-feet" and is equal to the force applied times the radius through which it acts.

Torque-to-Inertia Ratio – The rated motor torque divided by its rotor inertia. Helps determine a motor's ability to accelerate loads and/or respond to commands from a drive to change speed or direction.

Voltage Drop – The reduction in voltage level from the source to the load caused by conductor resistance.

Wye Start Delta Run (YD) – A method of reduced voltage starting that first connects a motor in a wye to reduce voltage, then reconnects the motor in a delta to provide full line voltage.

Formulas & Conversion Factors

$$\text{Horsepower (HP)} = \text{Torque (lb-ft)} \times \text{RPM} / 5252$$

$$\text{Horsepower (HP)} = \text{Torque (lb-in)} \times \text{RPM} / 63025$$

$$\text{Torque (lb-ft)} = \text{HP} \times 5252 / \text{RPM}$$

$$\text{Torque (lb-in)} = \text{HP} \times 63025 / \text{RPM}$$

$$\text{Efficiency} = \text{Power Out} / \text{Power In}$$

$$\text{Synchronous RPM} = 120 \times \text{Frequency} / \# \text{ Poles}$$

$$\text{Ohms} = \text{Volts} / \text{Amperes} (R = E/I)$$

$$\text{Amperes} = \text{Volts} / \text{Ohms} (I = E/R)$$

$$\text{Volts} = \text{Amperes} \times \text{Ohms} (E = IR)$$

$$\begin{aligned} \text{Static Torque (T)} &= F \times R \text{ (lb-ft),} \\ F &= \text{Force (lb),} \\ R &= \text{pulley or drum radius (ft)} \end{aligned}$$

$$\text{Pound-feet (torque)} = .7376 \times \text{Newton-meters}$$

$$\text{Newton-meters (torque)} = 1.3558 \times \text{lb-ft}$$

$$\text{Power (HP)} = \text{Torque (lb-ft)} \times 2\pi \times \text{RPM} / 33000$$

$$\text{Temperature (Celsius)} = 5/9 \times (F^\circ - 32)$$

$$\text{Temperature (Fahrenheit)} = (9/5 \times C^\circ) + 32$$

$$1 \text{ Kilowatt (KW)} = 1.341 \text{ Horsepower}$$

$$1 \text{ Horsepower} = 746 \text{ watts (.746 KW)}$$

$$\text{Brake Torque} = (5252 \times P / N) \times \text{SF}, P = \text{HP}, N = \text{RPM}, \text{SF} = 1.4$$

Use 2.0 to 2.5 SF for cranes and hoists
(consult crane manufacturer or end-user).

Variable Speed Operation

Guidelines for Application of General Purpose, Three Phase, Single Speed Motors on Variable Frequency Drives Meets NEMA MG1-2006 Part 30 and Part 31 Section 4.4.2 Unless stated otherwise, motor nameplates do NOT include listed speed range.

Enclosure	Efficiency	Variable Torque	Constant Torque								
			All Frames	56	143-215		254-286		324-365		404-449
NEMA Motors		All Poles	All Poles	2-Pole	4 & 6 Pole	2-Pole	4 & 6 Pole	2-Pole	4 & 6 Pole	2-Pole	4 & 6 Pole
ODP	Standard (EPAct exempt)	10:1	2:1	2:1	2:1	Contact Engineering					
	EPAct compliant	10:1	N/A	2:1	2:1	2:1	2:1	Contact Engineering			
	NEMA Premium	10:1	N/A	10:1	10:1	10:1	10:1	10:1	10:1	2:1	2:1
TEFC	Standard (EPAct exempt)	10:1	2:1	2:1	2:1	Contact Engineering					
	EPAct compliant	10:1	N/A	2:1	10:1	2:1	10:1	2:1	2:1	2:1	2:1
	NEMA Premium	10:1	N/A	2:1	20:1	2:1	20:1	2:1	20:1 (1)	2:1	20:1 (1)
TENV	EPAct compliant	10:1	N/A	N/A	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1
	NEMA Premium	10:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1
Washdown TEFC	Standard (EPAct exempt)	10:1	10:1 (2)	10:1 (2)	10:1 (2)	N/A	N/A	N/A	N/A	N/A	N/A
	EPAct compliant	10:1	10:1 (2)	10:1 (2)	10:1 (2)	N/A	N/A	N/A	N/A	N/A	N/A
	NEMA Premium	10:1	10:1 (2)	10:1 (2)	10:1 (2)	N/A	N/A	N/A	N/A	N/A	N/A
Washdown TENV	Standard (EPAct exempt)	10:1	1000:1	1000:1	1000:1	N/A	N/A	N/A	N/A	N/A	N/A
	EPAct compliant	10:1	1000:1	1000:1	1000:1	N/A	N/A	N/A	N/A	N/A	N/A
	NEMA Premium	10:1	1000:1	1000:1	1000:1	N/A	N/A	N/A	N/A	N/A	N/A
Explosion Proof	All efficiency levels	Explosion Proof motors must be properly nameplated with inverter duty information prior to use on VFD. See Marathon catalog pages for specific rating capabilities. Motors with automatic overload protectors cannot be used on VFDs.									
IEC Motors		All Frames	63-90			100-225		250-315			
All Enclosures	All efficiency levels	10:1	20:1		Up to 20:1		Up to 2:1				

Notes: (1) 324-449T, 4 & 6 Pole XRI motors are rated for 20:1 C.T. with fan modification; otherwise rated for 2:1 C.T. continuous duty, or 20:1 C.T. 60 minute duty at lowest RPM.

(2) Washdown TEFC motors are rated for 10:1 C.T. 60 minute duty or 2:1 C.T. continuous duty at lowest RPM. Model numbers beginning with 5K are not suitable for use with Variable Frequency Drives.

Application Notes

Bearing currents Marathon Motors recommends that any motors used with Variable Frequency Drives be equipped with suitable means to protect the motor bearings from shaft currents caused by common mode voltages inherent with operation on a non-sinusoidal power supply. Marathon Motors offers several options for motors in non-classified (non-hazardous) locations, including ground brushes, insulated bearings and non-contact shaft grounding rings. For more information on ground brushes and bearing currents, see the VARIABLE SPEED OPERATION section. For installation cost and available options, see the MOD CENTRAL section.

Restricted use DO NOT APPLY THE FOLLOWING MOTORS ON VARIABLE FREQUENCY DRIVES:
 Single Phase motors, Motors with inherent overload protection, Multi-Speed motors, Motors with 1.0 Service Factor on sine wave power.
 Fire Pump motors should not be used with variable frequency power supplies, due to the critical nature of these applications.

Hazardous Locations Consult with Marathon Motors when applying motors and drives into Hazardous Locations, either Division/Zone 1 or Division/Zone 2 areas.
 UL and CSA policies prohibit the installation of bearing protection devices, such as shaft grounding brushes, rings or insulated bearings on motors in Hazardous Locations.

Maximum Cable Lengths from the Motor to Drive

Product Description	3 kHz CARRIER FREQUENCY (PHASE TO PHASE)		
	230 Volt	460 Volt	575 Volt
56-326 NEMA, 100-225 IEC Frames	600 ft.	125 ft.	40 ft.
364-5013 NEMA, 250-315 IEC Frames	1000 ft.	225 ft.	60 ft.
Motors with CR ²⁰⁰ Corona Resistant Magnet Wire	1500 ft.	475 ft.	140 ft.
Motors with MAX GUARD [®] insulation system	Unlimited	Unlimited	650 ft.
Form-wound low voltage motors	Unlimited	Unlimited	650 ft.

* Higher carrier frequencies require shorter cable length to obtain normal (50Khrs) insulation life.

Standard Motor Insulation Systems

CR200 Corona-Resistant Magnet Wire	Max Guard [®]
microMAX [®] inverter duty *4 - in - 1" Three Phase, C-Face with Removable Base Standard Three Phase stock Brakemotors Blue Chip [®] Severe Duty Explosion Proof, EPAct Efficiency Max +	Black Max [®] Vector Duty - All Product Blue Max [®] Vector Duty - All Products PowerWash [™] XT, SXT, and SXT-Plus Washdown Duty - Three Phase Blue Chip [®] XRI Severe Duty Blue Chip [®] XRI-841 (IEEE841 compliant) Automotive Duty "T" Frame Blue Chip [®] Explosion Proof, XRI [®] Premium Efficiency Globetrotter [®] IEC Metric motors

Variable Speed Information

Marathon Motors Vector-Duty and Inverter-Duty motors, unless otherwise stated, are rated for continuous operation in a 40°C ambient and for altitudes up to 3300 feet (1000 meters) above sea level. Special application considerations, such as high or low ambient, intermittent ratings, high altitude, duty cycle rated, extended constant horsepower range, special base speed, voltage or frequency, or any other special requirements, should be reviewed by a factory representative.

It is the responsibility of the startup personnel during commissioning of the VFD/motor system to properly tune the drive to the motor for the specific application. The correct voltage boost and volts/hertz settings are application dependent and unique to each motor design. Procedures for these adjustments should be in your VFD user manual. Many Vector Duty and Inverter Duty motors in this catalog are equipped with thermostats; warranty coverage may be denied if they are not properly utilized.



Power factor correction capacitors should never be installed between the drive and the motor.



Inverter Duty Or Inverter Rated

“Inverter Duty” (often called “Inverter Rated”) motors are suitable for use with Variable Frequency Drives, as long as operation is within the application guidelines published in this catalog. In general, Marathon Motors’s three phase, general purpose, NEMA Design B motors are considered “Inverter Duty”, and meet or exceed the requirements of NEMA MG1, Part 30. As required under Federal law, these motors comply with EPCa efficiencies when operating from utility power.

Many of Marathon’s motor product lines have been enhanced to facilitate reliable operation on today’s variable speed drives, including wider constant torque speed range (up to 20:1) and improved insulation systems that withstand voltage spikes common with variable frequency operation.

Inverter Duty (Rated) motors are most often used in 10:1 speed range, variable torque or constant torque applications. A vector control is usually required for operation beyond 10:1 CT.

Refer to “Guidelines for Application of General Purpose, Single Speed Three Phase Motors on Variable Frequency Drives” in this section of this catalog for the allowable speed range and cable length restrictions (from VFD to motor). Additional detail regarding a specific product’s capabilities is available on its catalog page, or by consulting your application engineer.

Vector Duty – “Vector Duty” describes a class of motors that are used in conjunction with Open- (without encoder) or Closed-Loop (with encoder) Vector controls, that provide enhanced performance under low speed operating conditions, or in cases where torque (rather than speed) must be controlled. “Vector Duty” motors can be applied to Volts/Hertz (scalar) drives, as well.

Marathon Motors’s “MAX” family, consisting of Blue Max®, Black Max® and microMAX™ motors, have been specifically designed for optimal operation on vector or volts/hertz controls. These motors feature a wide constant torque (up to 2000:1) and/or constant horsepower (up to 4:1) speed range and are performance-matched to all current technology IGBT drives. Vector Duty motors meet or exceed the requirements of NEMA MG1, Part 31, and are equipped with an enhanced insulation system (MAX GUARD® or CR200) to provide many years of trouble-free service. Consult the catalog page for each product’s capabilities and features. As these motors are specifically designed for operation through an inverter, they are exempt from EPCa legislation. Model numbers contain the letter “H” in the “Electrical Type” field.

Variable Torque Loads – Applications include fans, blowers and centrifugal pumps. Torque varies as the square of the speed, and horsepower as the cube of the speed. Operation below base speed significantly lightens the load on the motor. While most variable torque applications do not require the motor to operate below half speed, the motor is fully capable of operation to zero speed. Operation above base speed significantly adds to the load on the motor; therefore, a factory representative must review applications requiring variable torque above base speed. Refer to the application chart found on page 14 for use of general purpose three phase motors on variable frequency drives. Marathon’s microMAX™, Black Max® or Blue Max® motors are not necessarily required for operation of variable torque loads. A bypass circuit is often employed in Variable Torque applications. If this device is intended to be used, selection of a NEMA Design B motor is recommended, to withstand the inrush current during across-the-line starting.

Constant Torque Loads – Applications include conveyors, elevators, hoists, extruders, positive displacement pumps, mixers and converting equipment. Torque remains constant throughout the range of operation, and extra care should be taken in the proper application of motors, especially at very low speeds. Most constant torque applications don’t require operation below 10:1 (i.e. 6 Hz operation on a 60 Hz motor), but an increasing number of applications historically reserved for servo and/or stepper systems are being served with motors capable of operation beyond 20:1, up to 2000:1 (zero speed, constant torque). Refer to the application chart found on page 17 for use of general purpose three phase motors on variable frequency drives.

Continued on next page.

Constant Torque Loads (Cont'd.)

Applications requiring greater than 20:1 C.T. are ideal for microMAX™, Black Max® or Blue Max® motors. These motors provide full rated torque within their listed speed range, without exceeding a Class F temperature rating while under inverter power (many operate at Class B). Ratings in this catalog have been developed, based on extensive testing on IGBT inverters, set at a minimum 3 KHz (or equivalent) carrier frequency.

Vector Duty and Inverter Duty motors from Marathon Motors are designed for operation at 150% of rated load for one minute, up to the base speed of the motor (overload capability declines to 100% as the motor reaches maximum constant HP speed). These motors accommodate constant horsepower operation to 1-1/2 to 2 times base speed, subject to the motor's maximum safe mechanical speed limit. Refer to the Maximum Safe Mechanical Speed Chart, as well as the performance section for each motor's capability.

Motors rated for zero RPM continuous duty (1000:1 or 2000:1) must be powered by vector drives to produce rated torque without overheating. Optimum zero speed and low-speed full torque performance may require a closed loop vector drive (with encoder feedback).

Constant Horsepower Loads – Applications include coil winders, band saws, grinders, and turret lathes. Operation requires the motor to deliver the same horsepower rating, regardless of shaft speed. Torque increases at low speed and decreases at higher speed. Most general purpose motors can deliver constant horsepower up to 1 1/2 times base speed (consult a factory representative to verify performance). However, many constant HP applications require operation to twice base speed, and some, such as coil winders, up to 4 times base speed. microMAX™, Black Max® and Blue Max® motors are designed for 1 1/2 to 2 times base speed, and the Wide CHP motors, found in Marathon's SB371 Catalog, deliver up to 4 times constant horsepower performance.

Bearing Currents – As stated in NEMA MG1-31.4.4.3, to protect a motor from inverter-sourced shaft voltages, either both bearings must be insulated or the motor shaft must be effectively grounded. Marathon Motors offers several effective means to protect the bearings from inverter sourced EDM (electrical discharge machining). A Shaft Grounding device is standard in Blue Max® motors, in frame sizes 444T and larger. Insulating the motor bearings will not prevent damage to bearings of a connected load, and insulated couplings should be employed to protect the load. Adding a ground brush to a motor with insulated bearings will divert motor shaft currents and help protect the bearings of the connected load. At this time, UL policy prohibits the use of ground brushes or insulated bearings in Hazardous Locations (Div 1 & 2, Zones 1, 2, 21 & 22).

The Marathon Solution to Bearing Currents
Any motor with a “-P” behind the catalog number
and a “P” footnote features a current mitigation device.



Motor Grounding - Frames and accessories of all motors must be grounded in accordance with the National Electric Code (NEC) Article 430. Refer to NEC Article 250 for general information on grounding. Proper grounding of inverter-driven motors is essential to protect personnel and livestock from inverter-sourced common mode voltages, which may reach hazardous levels on the frame of ungrounded or poorly grounded motors.

Low Input Voltage – If, due to lower utility supply voltage, the input voltage from the VFD to the motor is lower than the motor's rated voltage, de-rating of the motor's base frequency, horsepower, full load RPM, and constant HP RPM is required. The revised values can be calculated by multiplying by the ratio of the voltage change. For example, to operate a 460 volt motor from an inverter fed by 50 or 60 HZ, 400 volt utility power, the multiplier is 400/460 or 0.87.

The VFD can be reprogrammed to match the new base point values, allowing the motor to provide rated torque at rated current from the new base speed down to its original minimum Constant torque speed. The motor's CHP range will begin at the new base frequency and will be shortened by the same ratio as described above.

Overspeed Capability – Maximum safe mechanical speed capability is a function of bearing size and type, lubrication, rotor balancing technique and specifications, air gap, enclosure, frame construction and connection to the driven load. In addition, consideration must be given to ambient noise levels, as operation above base speed will increase motor noise and vibration, and reduce bearing life. Under no circumstances should bearing hub temperature exceed 100°C. Belted loads should not exceed 60 Hz operating RPM by more than 25% (NEMA “TS” shafts are not suitable for belted loads). Due to external cooling fans, TEFC (and Explosion Proof Fan Cooled) motors are limited to 4000 RPM maximum speed.

Marathon Motors, through extensive testing in our state-of-the-art laboratory and in actual field experience, has developed a number of high speed motors whose maximum safe mechanical speed exceeds the values in the table below. The following table depicts maximum safe speed limits for continuous operation, direct-coupled, non-explosion proof motors, and does not imply constant horsepower capability. Please consult a factory representative for requirements beyond those listed, or for intermittent duty limits.

Maximum Safe Mechanical Speed Limits (ODP, TENV, DPFV OR TEBC ENCLOSURES)

60 Hz base frequency

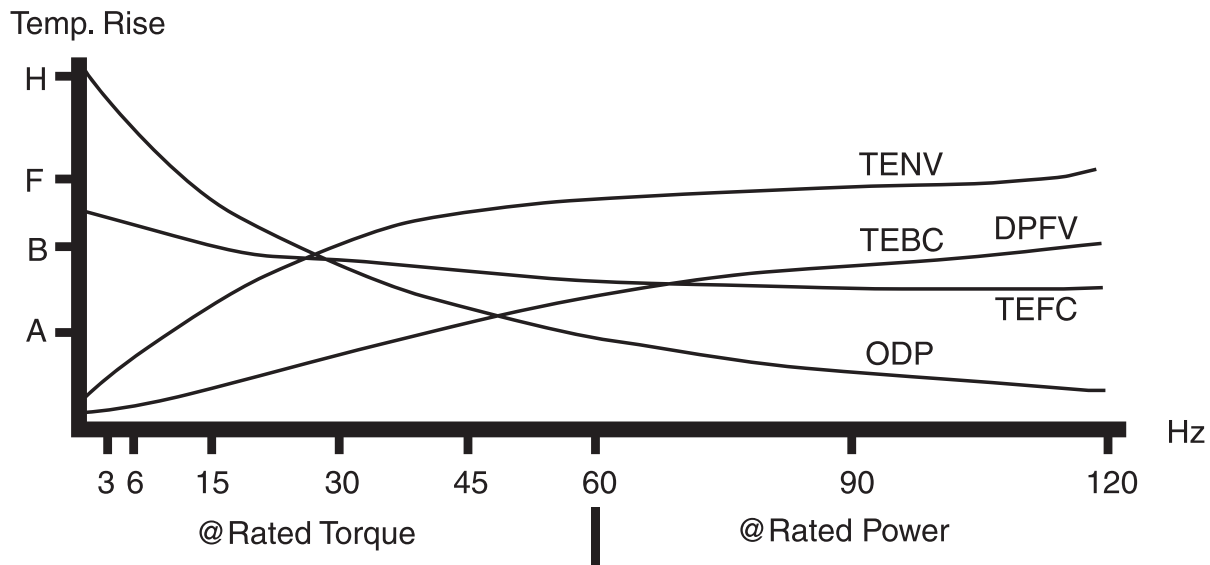
Frame Size	2-Pole	4, 6 or 8-Pole
56-184	7200	5400
213-256	5400	4200
284-286	5400	3600
324-326	4000	3600
364-365	4000	2800
404-449	3600	2800
5000 Fr	N/A	CALL
6800 Fr	N/A	CALL

Other Application Consideration

For proper selection, the following should be considered:

- Horsepower or torque requirements at various speeds.
- Desired speed range of the load and motor.
- Acceleration and deceleration rate requirements of the process being controlled.
- Starting requirements including the frequency of starting and a description of the load (reflected inertia at the motor, load torque during starting).
- Whether the application is a continuous process or duty cycle of starts, stops and speed changes.
- A general description of the type of application including the environment in which the VFD system components must operate (determines motor enclosure and/or explosion proof classification).
- Description of the available electrical power supply and wiring.
- Special performance requirements, if any.
- Whether the drive will be configured with a by-pass circuit. In case of its deployment, the motor will operate like its fixed speed counterpart and may require a NEMA B design which limits in-rush current, or selection of a larger motor starter or other protective circuitry.
- Load sharing
- Mounting and other mechanical considerations

Typical Temperature Rise Of Various Enclosures



√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

General Purpose, Single Phase

(NEMA Service Factor), Dripproof

Features:

- Heavy gauge steel frame and base
- Ball bearings (except as noted)
- Economical split phase or capacitor start designs, as noted
- Service Factor, as noted
- UL Recognized and CSA Certified



Rigid Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES	
1/6	1800	115	48	AUTO	4349	5KH39QN9537X	✓	\$143	F1	3.9	12	8.94	3,20	
1/4	1800	115	48	NONE	4354	5KH39QN9538	✓	\$146	F1	5.1	13	8.94	3,20	
	1800	115	48	NONE	H239	5KH33FN6	✓	\$197	F1	5.6	13	8.87	d,3,20	
	1800	115	48	AUTO	4362	5KH39QN9686X	✓	\$151	F1	5.1	13	8.94	3,20	
	1800	115/208-230	48	NONE	C147	5KC35JN10	✓	\$187	F1	5.2/2.7-2.6	16	9.25	2,20	
	1800	115/208-230	48	AUTO	C148	5KC35JN10X	✓	\$253	F1	5.2/2.7-2.6	16	9.25	2,20	
	1800	115/230	48	AUTO	C145	5KC35JN8X	✓	\$227	F1	5.2/2.6	16	9.57	d,2,20	
	1500	110/220	48	NONE	C431	5KC36LN18	✓	\$275	F1	5.6/2.8	17	9.66	2,20,50	
1/3	3600	115/208-230	48	NONE	G091	048C34D2025		\$161	F1	4.4/2.2-2.2	17	10.09	2,20	
	1800	115/208-230	48	NONE	C153	5KC36LN30	✓	\$268	F1	6.0/3.2-3.0	18	9.66	2,20,68	
	1800	115/208-230	48	AUTO	C154	5KC36LN30X	✓	\$280	F1	6.0/3.2-3.0	18	9.66	2,20,68	
	1800	115/208-230	56	NONE	C158	5KC36LN7	✓	\$227	F1	6.0/3.2-3.0	18	10.32	2,20,68	
	1800	100-120/200-240	56	NONE	E253	5KCR46JN0085	✓	\$327	F1	4.0-3.8/2.0-1.9	23	10.77	ES,1,20,68	
	1800	115/208-230	56	AUTO	C159	5KC36LN7X	✓	\$235	F1	6.0/3.2-3.0	18	10.32	2,20,68	
	1200	115/230	56	NONE	G1252	5KC49PN6070	✓	\$338	F1	8.6/4.3	89	11.48	2,20,68	
1/2	3600	115/230	48	NONE	G1098	5KC36JN266	✓	\$180	F1	7.6/3.8	15	9.66	2,19	
	3600	115	56	MANUAL	9031	5KC49MN2043Y	✓	\$215	F1	11.5	20	11.14	2,17	
	3000	110/220	48	NONE	C459	5KC37MN96	✓	\$300	F1	7.8/3.9	20	10.06	2,19,50	
	1800	115/230	48	NONE	C164	5KC37NN15	✓	\$332	F1	9.2/4.6	20	10.40	2,19	
	1800	110-120/200-240	56	NONE	E262	5KCR46MN0092	✓	\$384	F1	5.8-5.6/2.9-2.8	27	10.77	ES,1,19,68	
	1800	115/208-230	56	NONE	C167	5KC49GN0010	✓	\$253	F1	8.8/4.2-4.4	21	10.38	2,19	
	1800	115/230	56	AUTO	C168	5KC49GN0010X	✓	\$277	F1	8.8/4.4	21	10.38	2,19	
	1200	115/230	56	NONE	C1263	5KC48UN6073	✓	\$433	F1	9.4/4.7	34	12.76	2,19	
	3/4	3600	115/208-230	56	NONE	G915	056C34D2100	✓	\$233	F1	9.6/4.4-4.8	21	10.97	2,19
		1800	100-120/200-240	56	NONE	EG271	5KCR49PN0097	✓	\$482	F1	9.0-8.8/4.5-4.4	31	11.37	ES,1,19,68
1800		115/208-230	56	NONE	C175	5KC46LN0153	✓	\$317	F1	13.2/6.2-6.6	25	10.78	2,19	
1800		115/230	56	AUTO	C176	5KC46LN0153X	✓	\$366	F1	13.2/6.6	24	10.78	2,19	
1200		115/230	56	NONE	C178	5KCR49WN6075	✓	\$554	F1	12.6/6.3	44	13.96	ES,1,18	
1	3600	115/208-230	56	NONE	C179	5KC38RN60	✓	\$264	F1	12.4/6.4-6.2	24	11.04	2,19	
	3600	115/208-230	56	AUTO	C180	5KC38RN60X	✓	\$338	F1	12.4/6.4-6.2	24	11.04	2,19	
	1800	100-120/200-240	56H	NONE	E280	5KCR48UN0104	✓	\$343	F1	11.8-11.4/5.9-5.7	39	12.66	ES,1,18	
	1800	115/208-230	56	NONE	C181	5KC49PN0161	✓	\$343	F1	13.6/6.7-6.8	31	11.38	2,18	
	1800	115/208-230	56	AUTO	C182	5KC49PN0161X	✓	\$365	F1	13.6/6.6-6.8	31	11.38	2,18	
	1800	115/208-230	143T	NONE	C188	5KC49PN0162	✓	\$343	S1	13.6/6.7-6.8	31	11.77	2,11,18	
	1200	115/230	56H	NONE	C183	5KCR49QN6076	✓	\$499	F1	12.6/6.3	54	14.93	ES,1,18	
	1200	115/230	182T	NONE	I141	182TCDR17079		\$574	S1	15.0/7.5	87	15.72	13,18	

Continued on next page.

General Purpose, Single Phase

(NEMA Service Factor), Dripproof

Features:

- Heavy gauge steel frame and base
- Ball bearings (except as noted)
- Economical split phase or capacitor start designs, as noted
- Service Factor, as noted
- UL Recognized and CSA Certified



Rigid Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1 1/2	3600	115/208-230	56	NONE	G937	056B34D2026	√	\$353	F1	14.8/8.0-7.4	25	11.72	1,18
	3600	115/208-230	143T	NONE	I101	143TCDR5303		\$366	S1	18.8/9.7-9.4	30	10.99	2,14,18
	1800	115/230	56	NONE	C1299	5KCR48WN0756Y		\$443	F1	13.4/6.7	35	12.45	ES,1,110
	1800	115/208-230	56H	NONE	C185	5KCR49SN0068	√	\$408	F1	18.2/9.1-9.1	35	11.90	ES,1,18
	1800	115/208-230	56H	AUTO	C186	5KCR49SN0068X	√	\$424	F1	18.2/9.1	35	11.90	ES,1,18
	1800	115/208-230	145T	NONE	C191	5KCR49SN0065	√	\$415	S1	18.2/9.1-9.1	35	12.30	ES,1,18
	1200	115/230	184T	NONE	I142	184TCDR7076		\$714	S1	23.0/11.5	72	15.72	2,13,18
2	3600	115/230	56	NONE	C187	5KC48TN2169	√	\$424	F1	21.2 / 10.6	38	12.66	2,18
	3600	115/208-230	145T	NONE	I102	145TBDR5302	√	\$436	S1	19.2/10.5-9.6	35	11.49	1,18
	1800	115/208-230	56HZ	NONE	C193	5KCR49WN0270	√	\$433	F1	22.0/10.9-11.0	44	14.33	ES,1,11,18
	1800	115/208-230	56HZ	AUTO	CG381	5KCR49WN0270T	√	\$556	F1	22.0/10.9-11.0	44	14.33	ES,1,11,18
	1800	115/208-230	182T	NONE	I112A	182TCDW7026	√	\$484	S1	23.0/12.3-11.5	62	13.19	2,13,18
	1200	115/208-230	213T	NONE	I143	213TCDW7076	√	\$887	S1	30.0/15.5-15.0	138	16.55	2,18
3	3600	115/230	145T	NONE	C194	5KCR48TN8062	√	\$610	S1	29.4/14.7	38	13.13	ES,1,18
	3600	115/208-230	182T	NONE	I103A	182TCDW7001	√	\$544	S1	32.0/17.1-16.1	62	13.69	2,13,18
	1800	115/208-230	184T	NONE	I113A	184TCDW7026	√	\$566	S1	33.5/17.4-16.8	78	14.21	2,13,18
	1200	230	215T	NONE	I144	215TBDW7079		\$1,222	S1	16.0	134	18.05	1,18
5	3600	208-230	184T	NONE	I104A	184TBDW17008	√	\$731	S1	24.0-22.0	79	14.69	2,13,18
	1800	208-230	184T	NONE	I114A	184TBDW7026	√	\$686	S1	23.0-21.0	82	14.71	1,13,18
	1800	208-230	213T	NONE	I117	213TCDW7026		\$934	S1	30.5-28.0	108	16.55	2,18

Extended Thru-Bolts, Split Phase - Steel Endshields

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115	48Z	NONE	H901	5KH32DNA612	√	\$126	F1	5.1	11	9.83	9,18,28
	1800	115	48Z	AUTO	H902	5KH32DNA612X	√	\$131	F1	5.1	11	9.83	9,18,28
1/3	1800	115	48Z	NONE	H903	5KH32FNA611	√	\$130	F1	5.5	14	9.83	9,18,28
	1800	115	48Z	AUTO	H904	5KH32FNA611X	√	\$135	F1	5.5	12	9.83	9,18,28
1/2	1800	115	56Z	NONE	H905	5KH36JNA769	√	\$153	F1	8.1	16	10.89	10,18,28
	1800	115	56Z	AUTO	H906	5KH36JNA769X	√	\$158	F1	8.1	16	10.89	10,18,28
3/4	1800	115	56Z	NONE	H907	5KH37NNA768	√	\$187	F1	11.2	18	11.29	10,17
	1800	115	56Z	AUTO	H908	5KH37NNA768X	√	\$192	F1	11.2	33	11.29	10,17

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Special Purpose, Single Phase

(1.0 Service Factor), Dripproof

Features:

- Heavy gauge steel frame and base
- Ball bearings (except as noted)
- Economical split phase or capacitor start designs, as noted
- 1.0 Service Factor
- UL Recognized and CSA Certified



Rigid Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115	48	NONE	S003	048S17D2089	√	\$112	F1	5.7	12	9.09	3
	1500	110/220	48	AUTO	H689	5KH35JN603X	√	\$230	F1	5.2/2.6	15	9.23	3,50
1/3	1800	115	48	AUTO	S026	048S17D2113	√	\$130	F1	6.6	14	9.34	3
	1800	115	48	NONE	S006	048S17D2090	√	\$125	F1	6.6	14	9.34	3
	1800	115	48	NONE	H229	5KH35HN9		\$204	F1	6.8	15	9.25	3
	1800	115/230	48	NONE	S010	048C17D2023	√	\$169	F1	7.0/3.5	15	9.34	2
	1800	115/230	48	AUTO	S011	048C17D2024	√	\$177	F1	7.0/3.5	16	9.34	
	1800	115	56	NONE	S022	056S17D2046	√	\$159	F1	9.2	17	10.22	3
1/2	1800	115/230	56	NONE	S012	056C17D2098	√	\$208	F1	9.2/4.6	18	10.22	2
	1800	115/230	56	MANUAL	S033	056C17D2064	√	\$242	F1	9.2/4.6	18	10.22	2
	1800	115/230	56	AUTO	S013	056C17D2051	√	\$217	F1	9.2/4.6	18	10.22	2
	1800	115/230	56	AUTO	S015	056C17D2055	√	\$259	F1	10.4/5.2	24	11.97	2
3/4	1800	115/230	56	NONE	S014	056C17D2054	√	\$249	F1	10.4/5.2	24	11.97	2
	1800	115/230	56	AUTO	S038	056C17D5343	√	\$343	F1	13.6/6.8	27	10.94	2
1	1800	115/230	56	NONE	S037	056C17D5319	√	\$335	F1	13.6/6.8	28	10.94	2

**Fan and Blower Duty, Single Phase
(NEMA Service Factor), Dripproof**

Features:

- Heavy gauge steel frame and base
- Ball bearings (except as noted)
- Thermal protection, as noted
- Capacitor start design for high starting torque
- Capacitor start/capacitor run design for higher efficiency, as noted
- 48Y and 48YZ have 48/56 Fr mounting holes
- Service Factor, as noted
- UL Recognized and CSA Certified



MARATHON

Resilient Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115/230	48	NONE	G1114	5KC35JN7	✓	\$173	F1	5.2/2.6	16	9.57	20
	1800	115/230	48	AUTO	G1115	5KC35JN7X	✓	\$183	F1	5.2/2.6	16	9.57	20
1/3	3600	115/230	48	AUTO	C208	5KC35FN51X	✓	\$237	F1	6.8/3.4	15	9.57	20
	1800	115/208-230	48	NONE	C209	5KC36LN26	✓	\$269	F1	6.0/3.2-3.0	18	10.00	20,68
	1800	115/208-230	48	AUTO	C210	5KC36LN26X	✓	\$284	F1	6.0/3.2-3.0	18	10.00	20,68
	1800	115/208-230	56	NONE	C215	5KC36LN1	✓	\$292	F1	6.0/3.2-3.0	18	10.32	20,68
	1800	115/208-230	56	AUTO	C216	5KC36LN1X	✓	\$241	F1	6.0/3.2-3.0	18	10.32	20,68
	1200	115/230	56	NONE	C1258	5KC49PN6051	✓	\$396	F1	8.6/4.3	28	11.38	20
	1200	115/230	56	AUTO	C548	5KC49PN6051X	✓	\$407	F1	8.6/4.3	28	11.38	20
	1/2	1800	115/208-230	56	NONE	B1316	5KC49GN0001	✓	\$259	F1	8.8/4.2-4.4	21	10.38
1800		115/208-230	56	AUTO	B317	056C17D2072	✓	\$299	F1	8.0/4.1-4.0	20	10.47	CF,19,31
1800		115/230	56	AUTO	CG223	5KC49GN0001X		\$314	F1	8.8/4.4	21	10.38	19
1800		115/230	56	AUTO	G151	056C17D2025	✓	\$263	F1	8.6/4.3	24	11.72	19
1200		115/230	56	NONE	C1264	5KC48UN6052	✓	\$564	F1	9.4/4.7	40	12.76	19
1200		115/230	56	AUTO	C552	5KC48UN6052X	✓	\$576	F1	9.4/4.7	36	12.76	19
3/4	1800	115/208-230	56	NONE	G156	056B17D2012	✓	\$324	F1	11.0/5.5-5.5	26	11.47	1,19
	1800	115/208-230	56	AUTO	B319	056C17D2074	✓	\$363	F1	10.0/5.2-5.0	23	11.72	CF,19,31
	1800	115/208-230	56	NONE	CG230	5KC46LN0158	✓	\$326	F1	13.2/6.2-6.6	25	10.78	19
	1800	115/208-230	56	NONE	B318	056C17D2073	✓	\$337	F1	10.0/5.2-5.0	24	11.72	CF,19,31
	1800	115/208-230	56	AUTO	C138	5KC46JN0002X	✓	\$352	F1	11.4/5.6-5.7	23	10.78	19
1	1800	115/208-230	56	AUTO	C1158	5KC49PN0164X	✓	\$369	F1	14.7/7.2-7.4	29	11.38	18
	1800	115/208-230	56	NONE	C235	5KC49PN0155	✓	\$344	F1	13.6/6.7-6.8	31	11.38	5,18
1 1/2	1800	115/208-230	56H	NONE	B336	056C17D5347	✓	\$413	F1	18.0/9.3-9.	39	12.85	2,5,18,32
	1800	115/208-230	56H	AUTO	CG239	5KCR49SN0012X	✓	\$491	F1	18.2/9.1	35	11.91	ES,1,5,18
	1800	115/208-230	56H	AUTO	C1160	5KCR49SN0150X	✓	\$429	F1	16.4/8.4-8.2	35	11.90	ES,1,18
2	1800	115/208-230	56H	AUTO	B352	056B17D5331	✓	\$547	F1	21.0/11.3-10.5	50	13.85	1,5,18
	1800	115/208-230	145T	NONE	I147	145TBDR5345	✓	\$440	S1	21/11.3-10.5	49	14.22	1,18

✓ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Fan and Blower Duty, Single Phase (1.0 Service Factor), Dripproof

Features:

- Heavy gauge steel frame and base
- Ball bearings (except as noted)
- 1.0 Service Factor
- Economical split phase or capacitor start designs, as noted
- 48Y and 48YZ have 48/56 Fr mounting holes
- UL Recognized and CSA Certified



Resilient Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115	48	NONE	S102	048S17D2042	√	\$119	F1	5.7	13	9.06	3,7
	1800	115/230	48	AUTO	S119	048C17D2046	√	\$173	F1	6.2/3.1	13	9.06	2,7
	1800	115/230	48	NONE	S118	048C17D2045	√	\$164	F1	6.2/3.1	14	9.06	2,7
	1800	115	48Z	AUTO	S126	048S17D2104	√	\$125	F1	5.3	14	9.72	3,53
1/3	1800	115	48	NONE	4369	5KH39QN5508	√	\$139	F1	6.2	14	8.94	3
	1800	115	48	NONE	S106	048S17D2093	√	\$141	F1	6.5	14	9.31	3,31,CF
	1800	115/230	48	AUTO	C129	5KC35JN23X	√	\$183	F1	6.4/3.2	16	9.57	2
	1800	115/230	48	AUTO	S111	048C17D2029	√	\$183	F1	7.0/3.5	16	9.31	2
	1800	115/230	48	NONE	S110	048C17D2028	√	\$173	F1	7.0/3.5	16	9.31	2
	1800	115	48	AUTO	4310	5KH39QN5508X	√	\$137	F1	6.2	14	8.94	3
	1800	115	48Y	AUTO	S127	048S17D2105	√	\$137	F1	6.6	14	9.72	3,53
	1800	115	48	NONE	H674	5KH35JNA231	√	\$212	F1	6.6	15	9.57	3
	1800	115	56Z	NONE	4377	5KH39QN5524	√	\$180	F1	6.2	15	9.19	3,7
	1800	115	56Z	AUTO	4381	5KH39QN5528X	√	\$184	F1	6.2	15	9.19	3,7
	1800	115	56Z	AUTO	4776	5KH39QN5539T	√	\$184	F1	6.2	16	9.19	d,3,7,57
	1800	230	48	NONE	4371	5KH39QN5529	√	\$180	F1	3.3	14	8.94	3
	1800	230	48	AUTO	4311	5KH39QN5529X	√	\$184	F1	3.3	14	8.93	3
	1500	110/220	56Z	AUTO	HG692	5KH36LN489X	√	\$254	F1	7.0/3.5	17	9.94	3,50
	1500	220	56Z	NONE	H673	5KH33KN5594	√	\$242	F1	3.5	17	9.19	3,7,50
1/2	1800	115	48Z	AUTO	HG710	5KH33JNA511T	√	\$166	F1	7.9	15	9.93	3,9
	1800	115	48Z	AUTO	S128	048S17D2106	√	\$166	F1	9.2	17	10.22	3,53
	1800	115	56	NONE	S120	056S17D2023	√	\$164	F1	9.2	18	10.22	3,31
	1800	115	56Z	AUTO	4778	5KH39QN9639T	√	\$254	F1	8.3	20	9.57	3,7
	1800	115/230	56Z	AUTO	S113	056C17D2099	√	\$221	F1	9.1/4.5	19	10.22	2
	1800	115/230	56	NONE	S112	056C17D2097	√	\$213	F1	9.1/4.5	19	10.22	2
	1800	115/230	48	AUTO	C133	5KC36MN27X	√	\$308	F1	8.2/4.1	19	10.00	2
	1800	230	56	AUTO	4602	5KH39QN9518X	√	\$275	F1	4.2	19	10.32	3
	1800	230	56	NONE	4387	5KH39QN9684	√	\$267	F1	4.2	19	10.32	3
	1500	110/220	56	AUTO	H693	5KH46JN0329X	√	\$283	F1	9.2/4.6	23	10.55	3
	3/4	1800	115/230	56	NONE	S114	056C17D2060	√	\$253	F1	10.4/5.2	25	11.97
1800		115	56	NONE	4422	5KH39QN9687	√	\$314	F1	11.2	21	10.72	3
1800		115/230	56	AUTO	C1483	5KC46LN0254X	√	\$263	F1	13.2/6.6	25	10.78	2
1800		115/230	56	AUTO	S115	056C17D2061	√	\$263	F1	10.4/5.2	25	11.97	2
1	1800	115/230	56	AUTO	S117	056C17D5340	√	\$348	F1	13.6/6.8	28	11.35	2
	1800	115/230	56	NONE	S116	056C17D5339	√	\$339	F1	13.6/6.8	29	11.35	2

**General Purpose, Single Phase
(NEMA Service Factor), Dripproof**

Features:

- Ball bearings mechanically locked on shaft end (excludes 5K models)
- Heavy gauge steel frame and base
- Capacitor start design for high starting torque
- Capacitor start/capacitor run design for higher efficiency, as noted
- Service Factor, as noted
- UL Recognized and CSA Certified



MARATHON

C-Face Footless

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115/208-230	56C	NONE	G212	056C17D2084	✓	\$202	F1	5.0/2.3-2.5	17	10.69	20
	1800	115/208-230	56C	AUTO	C354	5KC35JN70X	✓	\$265	F1	5.2/2.7-2.6	15	9.61	20
1/3	3600	115/208-230	56C	NONE	G216	056C34D2117	✓	\$173	F1	4.4/2.2-2.2	17	10.19	20
	1800	100-120/200-240	56C	NONE	E251	5KCR46JN0084	✓	\$390	F1	4.0-3.8/2.0-1.9	23	10.77	ES,1,20,68
	1800	115/208-230	56C	AUTO	C356	5KC36LN83X	✓	\$307	F1	6.0/3.2-3.0	16	10.35	20,68
	1800	115/208-230	56C	NONE	G230	056C17D2085	✓	\$237	F1	6.4/3.0-3.2	17	10.69	20
1/2	3600	115/208-230	56C	NONE	G232	056C34D2108	✓	\$191	F1	8.4/3.8-4.2	17	10.69	19
	1800	100-120/200-240	56C	NONE	E260	5KCR46MN0091	✓	\$445	F1	5.8-5.6/2.9-2.8	25	10.77	ES,1,19,68
	1800	115/208-230	56C	NONE	G234	056C17D2044	✓	\$279	F1	8.6/4.1-4.3	21	11.19	19
	1800	115/230	56C	AUTO	C359	5KC49GN0009X	✓	\$348	F1	8.8/4.4	21	10.38	19
	1200	115/208-230	56C	NONE	G278	056C11D5304	✓	\$446	F1	10.6/5.1-5.3	32	11.94	19
	1200	115/230	56C	NONE	C1422	5KC48UN6072	✓	\$483	F1	9.4/4.7	40	12.61	19
3/4	3600	115/208-230	56C	NONE	G238	056C34D2101	✓	\$245	F1	9.6/4.4-4.8	20	10.94	19
	1800	100-120/200-240	56C	NONE	E269	5KCR49PN0096	✓	\$482	F1	9.0-8.8/4.5-4.4	31	11.38	ES,1,19,68
	1800	115/230	56C	AUTO	CG362	5KC46LN0159X	✓	\$419	F1	13.2/6.6	24	10.78	19
	1800	115/208-230	56C	NONE	G250	056B17D2011	✓	\$342	F1	11.0/5.5-5.5	25	11.72	1,19
1	3600	115/208-230	56C	NONE	G254	056B34D2031	✓	\$281	F1	10.6/5.5-5.3	23	11.68	1,19
	1800	100-120/200-240	56C	NONE	E278	5KCR48UN0103	✓	\$555	F1	11.8-11.4/5.9-5.7	37	12.65	ES,1,18,68
	1800	115/230	56C	AUTO	CG363	5KC49PN0163X	✓	\$468	F1	13.6/6.8	24	11.38	18
	1800	115/208-230	56C	NONE	G256	056C17D5310	✓	\$367	F1	13.4/6.8-6.7	29	11.44	18
1 1/2	3600	115/208-230	56C	NONE	G258	056B34D2023		\$365	F1	14.2/7.7-7.1	26	11.68	1,18
	1800	115/208-230	56C	NONE	G270	056C17D5311	✓	\$427	F1	18.0/9.3-9.0	39	12.44	18
2	3600	115/208-230	56C	NONE	G272	056B34D5319	✓	\$447	F1	19.2/10.5-9.6	32	11.44	1,18
	1800	115/208-230	56C	NONE	G274	056B17D5303	✓	\$521	F1	21.0/11.3-10.5	47	13.44	1,18
3	3600	115/208-230	182TC	NONE	C173	182TCDR8007		\$598	S1	32.0/17.5-16.0	76	13.96	18
	1800	115/230	184TC	NONE	C174	184TCDR9627		\$584	S1	33.0/16.5	52	15.96	18

✓ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

General Purpose, Single Phase

Totally Enclosed

Features:

- Ball bearings
- Heavy gauge steel constructions
- Economical split phase or capacitor start designs, as noted
- Service Factor, as noted
- UL Recognized and CSA Certified



Rigid Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115	48	NONE	HG120	5KH32FN3123	✓	\$238	F1	5.1	15	9.92	3,17
	1800	115/230	48	AUTO	C243	5KC32GN9X	✓	\$294	F1	5.4/2.7	17	10.00	2,17
	1800	115/230	48	NONE	C242	5KC32GN9	✓	\$281	F1	5.4/2.7	17	10.00	2,17
	1800	115/230	56	AUTO	CG251	5KC32GN19X	✓	\$306	F1	5.4/2.7	17	10.38	2,17
	1800	115/230	56	NONE	G1312	5KC32GN19	✓	\$219	F1	5.4/2.7	16	10.38	2,17
	1200	115/230	56	NONE	G1316	5KC49MN6061	✓	\$332	F1	6.2/3.1	27	11.43	2,17
1/3	1800	115/230	56	AUTO	G1331	5KC35MN43X	✓	\$255	F1	6.0/3.0	20	10.93	2,18
	1800	115/230	56	NONE	G1330	5KC35MN43	✓	\$245	F1	6.0/3.0	17	10.93	2,18
	1200	115/230	56	NONE	C1333	5KC49PN6062	✓	\$374	F1	8.6/4.3	31	12.43	2,18
1/2	1800	115/230	56	AUTO	C262	5KC42GN0014X	✓	\$293	F1	8.6/4.3	21	11.00	2,18
	1800	115/208-230	56	NONE	C261	5KC42GN0014	✓	\$276	F1	8.6/4.1-4.3	21	11.00	2,18
	1200	115/230	56	NONE	C264	5KC49UN6065	✓	\$474	F1	9.4/4.7	40	12.96	2,18
3/4	3600	115/208-230	56	NONE	G352	056C34F5308	✓	\$260	F1	10.6/5.3-5.3	26	12.32	2,14,18
	1800	115/230	56	AUTO	C269	5KC46PN0015X	✓	\$359	F1	11.0/5.5	31	11.83	2,17
	1800	115/208-230	56	NONE	C268	5KC46PN0015	✓	\$340	F1	11.0/5.4-5.5	31	11.83	2,18
	1200	115/230	56	NONE	C271	5KCR48WN6066	✓	\$566	F1	10.6/5.3	44	13.82	ES,1,17
1	1800	115/230	56	NONE	C275	5KC49TN0034	✓	\$383	F1	13.2/6.6	38	12.96	2,17
	1800	115/230	56	AUTO	C276	5KC49TN0034X	✓	\$392	F1	13.2/6.6	36	12.96	2,17
1 1/2	1800	115/208-230	56H	NONE	G1376	5KCR48WN0273	✓	\$436	F1	14.5/7.1-7.3	44	13.82	ES,1,5,18
	1800	115/208-230	56H	AUTO	G1377	5KCR48WN0273X	✓	\$451	F1	14.5/7.1-7.3	44	13.82	ES,1,5,18
2	1800	115/230	145T	NONE	I700	145TBFR5334	✓	\$567	S1	18.8/9.4	50	14.87	1,14,18
	1800	115/208-230	182T	NONE	I212	182TBFR5326	✓	\$613	S1	20.0/10.8-10.0	52	15.65	F,1,18

General Purpose, Single Phase

Totally Enclosed

Features:

- Ball bearings mechanically locked on shaft end (excludes 5K models)
- Heavy gauge steel constructions
- Suitable for horizontal or vertical mounting
- Economical split phase or capacitor start designs, as noted
- Will accept brake kits, see Accessory section (except as noted)
- Service Factor, as noted
- UL Recognized and CSA Certified



C-Face Footless

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115/230	56C	NONE	G1511	5KC32GN25	√	\$231	F1	5.4/2.7	16	10.30	2,17,24
1/3	1800	115/230	56C	NONE	G1513	5KC35MN73	√	\$266	F1	6.0/3.0	19	10.93	2,18,24
1/2	1800	115/230	56C	AUTO	C446	5KC42GN0018X	√	\$375	F1	8.6/4.3	21	11.01	2,18,24
	1800	115/230	56C	NONE	G1515	5KC42GN0018	√	\$307	F1	8.6/4.3	21	11.01	2,18,24
3/4	1800	115/230	56C	NONE	G1517	5KC46PN0032	√	\$369	F1	11.0/5.5	31	11.84	2,17,24
1	1800	115/230	56C	NONE	G1519	5KC49TN0035	√	\$393	F1	13.2/6.6	36	12.97	2,17,24

General Purpose, Single Phase

Totally Enclosed, Four in One

Features:

- Double sealed ball bearings, mechanically locked on shaft end
- Heavy gauge steel constructions
- Bolt-on, removable rigid base
- Suitable for horizontal or vertical mounting
- Capacitor start design for high starting torque
- Capacitor start/capacitor run design for higher efficiency, as noted
- 1.15 Service Factor (except as noted)
- Will accept brake kits, see Accessory section
- Will accept drip cover kits, see Accessories section
- UL Recognized and CSA Certified



C-Face Footed (Removable Base)

HP	RPM	VOLTS	FOUR-N ONE	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1200	115/208-230	YES	56C	NONE	G577	056C11F5302	√	\$356	F2	6.8/3.1-3.4	24	11.82	
1/3	1800	115/208-230	YES	56C	NONE	G570	056C17F5320	√	\$277	F2	6.6/3.1-3.3	23	11.82	68
	1200	115/208-230	YES	56C	NONE	G576	056C11F5303	√	\$397	F2	7.8/3.6-3.9	27	12.32	
1/2	3600	115/208-230	YES	56C	NONE	D311	056C34F5301	√	\$235	F2	8.4/4.0-4.2	22	11.82	
	1800	115/208-230	YES	56C	NONE	G571	056C17F5321	√	\$317	F2	8.8/4.2-4.4	24	11.82	68
	1200	115/208-230	YES	56C	NONE	G578	056B11F5303	√	\$484	F2	9.6/4.7-4.8	35	13.32	1,68
3/4	3600	115/208-230	YES	56C	NONE	D312	056C34F5302	√	\$284	F2	10.6/5.3-5.3	27	12.32	
	1800	115/208-230	YES	56C	NONE	G572	056C17F5322	√	\$382	F2	11.0/5.4-5.5	30	12.32	68
	1200	115/208-230	YES	56C	NONE	G579	056B11F5302	√	\$605	F2	11.4/5.8-5.7	39	13.82	1
1	3600	115/208-230	YES	56C	NONE	D313	056C34F5303	√	\$321	F2	11.2/5.7-5.6	30	12.32	
	1800	115/208-230	YES	56HC	NONE	G573	056C17F5323	√	\$406	F2	13.4/6.8-6.7	31	12.82	5,68
1 1/2	3600	115/208-230	YES	56C	NONE	D314	056B34F5326	√	\$404	F2	14.2/7.7-7.1	32	12.82	1
	1800	115/208-230	YES	56HC	NONE	G574	056B17F5305	√	\$466	F2	15.2/8.2-7.6	40	13.82	1,5,68
2	3600	115/208-230	YES	56HC	NONE	D315	056B34F5327	√	\$486	F2	16.6/9.1-8.3	37	13.82	1,5
	1800	115/208-230	YES	56HC	NONE	G575	056B17F5306	√	\$584	F2	20.0/10.8-10.0	51	14.82	1,5,17
3	3600	208-230	YES	56HC	NONE	D316	056B34F5328	√	\$650	F2	13.1-11.8	50	14.82	1,5

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

General Purpose Three Phase

General Purpose, Three Phase Drip-proof, Rigid Base

Features:

- EISA compliant efficiencies, as noted
- Ball bearings (except where noted)
- NEMA Service Factors
- Will accept C-Face Kits, see Accessories Section (except as noted)
- UL Recognized and CSA Certified



As Noted



Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES	C-FACE KITS
1/4	1800	208-230/460	48	NONE	G044A	048T17D2000	√	\$195	F1	62.0	1.2-1.3/1.65	13	9.34	25,68	N/A
1/3	1800	208-230/460	48	NONE	K527	5K35JN198	√	\$227	F1	66.5	1.5-1.6/0.8	15	9.25		N/A
	1800	208-230/460	56	NONE	G047A	056T17D2095	√	\$227	F1	67.0	1.5-1.6/0.8	15	9.97	25,68	N/A
1/2	1800	208-230/460	56	NONE	G063A	056T17D2094	√	\$262	F1	70.0	2.1-2.2/1.1	17	10.47	25,68,CF	N/A
	1800	208-230/460	56	NONE	K116	5K42HN4106	√	\$254	F1	74.7	2.3-2.2/1.1	19	10.05	19	A534
	1800	208-230/460	56	AUTO	G905	056T17D5336	√	\$316	F1	68.0	2.3-2.4/1.2	21	10.44	VC,68	A435
	1200	208-230/460	56	NONE	G067	056T11D5302	√	\$342	F1	68.0	2.4-2.7/1.35	23	10.44	68	A435
3/4	1800	208-230/460	56	NONE	G084A	056T17D2093	√	\$305	F1	75.5	2.7-2.8/1.4	20	10.97	25,68,CF	N/A
	1800	208-230/460	56	NONE	K119	5K46KN4071	√	\$295	F1	74.3	3.3-3.0/1.5	24	10.78	19	A534
	1800	208-230/460	56	AUTO	G908	056T17D5339	√	\$346	F1	75.5	2.9-3.0/1.5	22	10.44	68	A435
1	3600	208-230/460	56	NONE	K000	056T34D5302	√	\$263	F1	74.0	3.7-3.7/1.85	23	10.44		A435
	1800	208-230/460	56	NONE	K004A	056T17D2092	√	\$310	F1	76.5	3.4-3.4/1.7	23	11.47	25,68,CF	N/A
	1800	208-230/460	56	NONE	K122	5K46MN4072	√	\$300	F1	79.2	3.6-3.8/1.9	27	10.78	19	A534
	1800	208-230/460	56	AUTO	G921	056T17D5342	√	\$353	F1	77.0	3.5-3.6/1.8	24	10.94	VC,68	A436
	1800	208-230/460	56HZ	AUTO	K063	056T17D3301	√	\$375	F1	77.0	3.5-3.6/1.8	27	10.99	Z,5,68	A436

General Purpose, Three Phase Dripproof, NEMA Premium® XRI® Efficiency

Applications:

General purpose use on compressors, pumps, conveyors, blowers, and other machinery in environments that are relatively clean and dry. Substantial energy savings can be realized when using these high efficiency motors. Guaranteed efficiencies offer an eXtra Return on your Investment when using these premium efficiency motors on high cycle or long run time applications.

Features:

⚙️ **Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007**

- Motors are suitable for 10:1 VT on all frame sizes and 10:1 CT up to 365T frame (Except where noted)
- 1.15 Service Factor
- Normally closed thermostats, as noted
- Class F Insulation
- Nameplated 60/50 hertz
- UL Recognized, CSA Certified and CE Marked
- Three year warranty



Rigid Base

Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES	C-FACE KITS
1	1800	208-230/460	143T	U758	143TTDR6027	√	\$463	E2	85.5	3.2/1.6	30	12.12	TS	A600
	1200	208-230/460	145T	U265	145TTDR6076	√	\$539	E2	82.5	3.8-4.4/2.2	41	12.62	TS	A600
1 1/2	1800	208-230/460	145T	U759	145TTDR6028	√	\$483	E2	86.5	4.8-5.6/2.4	35	12.62	TS	A600
	1200	208-230/460	182T	U1266	182TTDW6076	√	\$634	E2	86.5	6.2/3.1	68	13.19	13,TS	A666
2	1800	208-230/460	145T	U760	145TTDR6029	√	\$547	E2	86.5	5.8/2.9	37	13.62	TS	A600
	1200	208-230/460	184T	U1267	184TTDW6076	√	\$646	E2	87.5	7.2/3.6	90	15.19	13,TS	A666
3	1800	208-230/460	182T	E1930	182TTDW6030	√	\$561	E2	89.5	8.4-8.0/4.0	76	14.19	13,TS	A666
	1200	208-230/460	213T	U268	213TTDC6076	√	\$886	E2	88.5	10.2-10.0/5.0	156	16.38		A602
5	1800	208-230/460	184T	E1931	184TTDW6031	√	\$631	E2	89.5	13.6-12.8/6.4	89	14.19	13,TS	A666
	1800	208-230/460	184T	E1931-P	184TTDW16061	√	\$665	E2	89.5	13.6-12.8/6.4	89	14.56	13,P	A666
7 1/2	1800	208-230/460	213T	U763	213TTDC6026	√	\$817	E2	91.0	20.6-19.8/9.9	160	16.38		A602
	1800	208-230/460	213T	U430A-P	213TTDW16075	√	\$862	E2	91.0	21.0-19.2/9.6	135	19.67	13,P	A606
10	1800	208-230/460	215T	U431A-P	215TTDW16073	√	\$1,017	E2	91.7	29.0-26.2/13.1	175	22.15	13,P	A606
	1800	208-230/460	215T	U765	215TTDC6026	√	\$964	E2	91.7	28.5-25.6/12.8	220	17.87		A602
15	1800	208-230/460	254T	U767	254TTDC6026	√	\$1,335	E2	93.0	40.5-37.0/18.5	310	20.94	A,YD	A622
	1800	230/460	254T	E722A-P	254TTDX16043	√	\$1,408	E2	93.0	38.0/18.9	230	22.50	P	N/A
20	1800	230/460	256T	E723B-P	256TTDX16033	√	\$1,744	E2	93.6	49.0/24.5	259	22.50	P	N/A
	1800	208-230/460	256T	U769	256TTDC6026	√	\$1,653	E2	93.0	55.0-51.0/25.5	360	22.60	YD	A622

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet EISA requirements

Blue shaded areas are Cast Iron Frames

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

General Purpose Three Phase

General Purpose, Three Phase Globetrotter® NEMA Premium® Efficiency

Features:

- Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007
- 182T-215T models steel frame, 254T-449T models cast iron frame
- Inverter Duty 10:1 Variable Torque and 2:1 Constant Torque, 1.0 SF
- 1.15 Service Factor
- Class F Insulation
- Standard assembly F1, reversible to F2 assembly
- UL Recognized, CSA Certified, CE Mark
- Three year warranty



Rigid Base

Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES	C-FACE KITS
3	1800	208-230/460	182T	GT0010	182TTDB6026	√	\$551	E1	89.5	8.4-7.8/3.9	76	13.72		A160
5	3600	208-230/460	182T	GT0012	182TTDB6001	√	\$581	E1	86.5	13.2-11.8/5.9	126	13.72		A160
	1800	208-230/460	184T	GT0013	184TTDB6026	√	\$620	E1	89.5	13.6-12.4/6.2	86	14.72		A160
7 1/2	3600	208-230/460	184T	GT0015	184TTDB6001	√	\$714	E1	88.5	19.0-17.0/8.5	143	14.72	A	A160
	1800	230/460	213T	GT0016	213TTDB6026	√	\$802	E1	91.0	20.7-19.0/9.5	160	17.52		A161
10	3600	208-230/460	213T	GT0018	213TTDB6001	√	\$916	E1	89.5	25.5-23.0/11.5	150	17.52		A161
	1800	230/460	215T	GT0019	215TTDB6026	√	\$947	E1	91.7	26.9-25.0/12.5	220	17.52		A161
15	3600	208-230/460	215T	GT0021	215TTDB6001	√	\$1,342	E1	90.2	38.0-34.0/17.0	184	17.52		A161
	1800	208-230/460	254T	GT0022	254TTDCA6026	√	\$1,311	E1	93.0	40.0-38.0/19.0	310	22.64		A163
20	3600	208-230/460	254T	GT0024	254TTDCA6001	√	\$1,546	E1	91.0	51.0-46.0/23.0	300	22.64	YD	A162
	1800	208-230/460	256T	GT0025	256TTDCA6026	√	\$1,623	E1	93.0	53.0-49.0/24.5	360	24.22	YD	A163

General Purpose, Three Phase

Totally Enclosed

Applications:

General purpose use on pumps, fans, blowers, compressors, conveyors, and other industrial machinery installed in damp, dusty, or dirty environments. Additionally, cast iron frame motors may be suitable for the process industries.

Features:

- Frame constructions are heavy gauge steel or Aluminum, as noted
- Ball bearings (except as noted)
- 1.15 Service Factor (except as noted)
- 60/50 hertz at next lower horsepower, as noted
- Will accept C-Face Kits as noted, also see Accessories section
- UL Recognized and CSA Certified



Rigid Base

Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES	C FACE KITS
1/4	1800	208-230/460	48	K151	5K32GN30	√	----	\$221	F1	62.9	1.3-1.4/0.7	14	9.92	20	N/A
	1200	230/460	56	K321	5K35MN75	√	----	\$317	F1	66.0	1.4/0.7	17	10.93	20,68	AG215
1/3	3600	208-230/460	48	K153	5K33FN30	√	----	\$221	F1	61.0	1.5-1.8/0.9	16	10.20	17	N/A
	1800	208-230/460	56	K154	5K49FN4136	√	----	\$239	F1	69.2	1.5-1.6/8	20	10.73	20,68	A536
	1200	230/460	56	K155	5K36PN30	√	----	\$336	F1	67.3	1.8/0.9	20	11.40	20,68	AG215
1/2	1800	208-230/460	56	K158	5K35MNB117	√	----	\$267	F1	76.1	2.1-2.2/1.1	17	10.93	19	AG215
	1200	208-230/460	56	K159	5K49MNB079	√	----	\$369	F1	72.0	2.6-2.6/1.3	27	11.43	5,19	A536
3/4	1800	208-230/460	56	K161	5K36PNB111	√	----	\$295	F1	78.9	2.8-2.8/1.4	20	11.36	19	AG215
	1200	208-230/460	56	K162	5K46PN6082	√	----	\$382	F1	76.1	2.9-2.8/1.4	31	11.83	68	AG215

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet EISA requirements

Blue shaded areas are Cast Iron Frames

* Requires nameplate modification

marathon
Motors

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

General Purpose, Three Phase

Totally Enclosed

Applications:

General purpose use on gear reducers, pumps, machine tools, and other direct-coupled equipment installed in damp, dusty, or dirty environments. Additionally, cast iron frame motors may be suitable for the process industries.

Features:

- Ball bearings, mechanically locked on shaft end (excludes 5K models)
- Rated 60/50 hertz, 190/380 or 380 volt, at next lower horsepower (as noted)
- 1.15 Service Factor (except as noted)
- Rolled steel 56-145T frame motors accept brake kits, see Accessories section (except as noted)
- UL Recognized and CSA Certified



C-Face Footless

Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	208-230/460	56C	K252	5K49DN4130	√	----	\$237	F1	67.4	1.1-1.2/0.6	16	9.52	N,20,24,68
1/3	1800	208-230/460	56C	K253	5K33JNA943	√	----	\$253	F1	68.8	1.5-1.6/0.8	16	10.60	24,68,111
1/2	1800	208-230/460	56C	K254	5K35MNB114	√	----	\$295	F1	76.1	2.1-2.2/1.1	17	10.93	19,24
3/4	1800	208-230/460	56C	K255	5K36PNB116	√	----	\$325	F1	78.9	2.8-2.8/1.4	20	11.36	19,24,68

General Purpose, Three Phase

Totally Enclosed (Four in One)

Features:

- Ball bearings, mechanically locked on shaft end (excludes 5K models)
- 1.15 Service Factor (except as noted)
- Class F insulation (except as noted)
- Rated 60/50 hertz, 190/380 or 380 volt, at next lower horsepower (as noted) 56-145T frame motors, accept brake kits, see accessory kits
- UL Recognized and CSA Certified

Additional features for "Four-In-One" motors only:

- CR200 Corona resistant magnet wire
- Bolt-on, removable rigid base
- Suitable for horizontal and vertical mounting
- Will accept drip cover kits, see Accessories section



C-Face Footed (Rigid and Removable Base)

Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	"FOUR IN-ONE"	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/3	1800	208-230/460	56C		K1322	5K42FN4035	√	----	\$270	F1	69.2	1.5-1.6/0.8	20	11.01	20,24,68
	1800	208-230/460	56C	YES	G580	056T17T5305	√	1000:1	\$278	F2	68.0	1.4-1.6/0.8	20	9.93	N,6,13,24,68
1/2	3600	208-230/460	56C	YES	D391	056T34F5301	√	10:1	\$242	F2	66.0	2.1-2.2/1.1	22	11.81	6,13,68
	1800	208-230/460	56C	YES	G581	056T17F5321	√	10:1	\$308	F2	68.0	2.3-2.4/1.2	24	11.81	6,13,68
	1200	208-230/460	56C	YES	G588	056T11F5309	√	10:1	\$393	F2	68.0	2.4-2.7/1.35	23	11.81	6,13,68
3/4	3600	208-230/460	56C	YES	D392	056T34F5302	√	4:1	\$282	F2	68.0	3.0-3.2/1.6	23	11.81	6,13,68
	1800	208-230/460	56C	YES	G582	056T17F5322	√	10:1	\$337	F2	75.5	2.6-3.0/1.5	40	11.81	6,13,68
	1200	208-230/460	56C	YES	G589	056T11F5308	√	4:1	\$405	F2	74.0	3.1-3.2/1.6	27	12.31	6,13,68

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet EISA requirements

Blue shaded areas are Cast Iron Frames

* Requires nameplate modification

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

marathon
Motors



Toll Free (800) 445-4155 • Fax (631) 348-7160 • www.marsdelivers.com

General Purpose Three Phase

NEMA Premium® XRI® Efficiency

Three Phase, Totally Enclosed

Applications:

General purpose use on compressors, pumps, conveyors, blowers, and other machinery in dirty and dusty environments. Substantial energy savings can be realized when using these high efficiency motors. Guaranteed efficiencies offer an eXtra Return on your Investment when using these premium efficiency motors on high cycle or long run time applications.

Features:

⊕ Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007

- 1.15 Service Factor on sinewave, 1.0 Service Factor on IGBT power
- F1 conduit box on Rigid Base, F3 on C-Face Footed (Rigid Base) motors
- Bearing Current Protection (BCP), as noted
- Shaft slinger
- Class F insulation
- 1.15 Service Factor
- Ball bearings (except as noted)
- C-Face Footed models are rated 60/50 Hz, same HP
- Motors accept C-face kits, as noted
- UL Recognized, CSA Certified and CE Mark
- Three year warranty



Rigid Base



Rigid Base

Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES	C FACE KITS
1	1800	230/460	143T	E2101	143TTFR15642	√	10:1	\$465	E9	85.5	3.2/1.6	32	13.75		A642
	1200	230/460	145T	E2102	145TTFR16078	√	10:1	\$555	E9	82.5	3.8/1.9	42	13.75		A642
1 1/2	1800	230/460	145T	E2104	145TTFR16033	√	10:1	\$478	E9	86.5	4.8/2.4	34	13.75		A642
	1200	230/460	182T	E2105	182TTFW16076	√	10:1	\$710	E9	87.5	5.6/2.8	89	14.97	13	A666
2	1800	230/460	145T	E2107	145TTFR16035	√	10:1	\$525	E9	86.5	5.8/2.9	50	14.75		A642
	1200	230/460	184T	E2108	184TTFW16076	√	10:1	\$839	E9	88.7	6.4/3.2	89	14.97	13	A666
3	1800	230/460	182T	E2110	182TTFW16026	√	10:1	\$693	E9	89.5	7.8/3.9	80	13.97	13	A666
	1800	230/460	182T	E2210-P	182TTFN16047	√	10:1	\$909	E9	89.5	8.0/4.0	104	15.87	P	A644
	1200	230/460	213T	E2111	213TTFW16076	√	10:1	\$1,026	E9	89.5	8.8/4.4	115	18.73		A609
5	1800	230/460	184T	E2113	184TTFW16026	√	10:1	\$810	E9	89.5	12.8/6.4	94	14.97	13	A666
7 1/2	1800	230/460	213T	E2116	213TTFW16026	√	10:1	\$1,000	E9	91.7	21.6/10.8	144	18.70		A667
	1800	230/460	213T	E203-P	213TTFN16326	√	10:1	\$1,234	E9	91.7	20.1/10.0	185	19.63	P	A206

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet EISA requirements

* Requires nameplate modification

Blue shaded areas are Cast Iron Frames

General Purpose, Three Phase Globetrotter® NEMA Premium® Efficiency

Totally Enclosed

Features:

⚡ Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007

- Cast iron frame and brackets
- Inverter Duty 10:1 Variable Torque and 10:1 Constant Torque, 1.0 SF (except as noted)
- 1.15 Service Factor
- Class F Insulation
- Standard assembly F1, reversible to F2 assembly
- UL Recognized, CSA Certified, CE Mark
- Three year warranty



MARATHON

Rigid Base

Suitable for use on VFD per guidelines on page ME-12.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	APPROX WGT. LBS	"C" DIM.	FOOT NOTES	C-FACE KITS
1 1/2	1200	230/460	182T	GT1005	182TTFC6076	√	\$697	E1	87.5	4.8/2.4	89	14.80	75	A644
2	1200	208-230/460	184T	GT1008	184TTFC6076	√	\$840	E1	88.5	6.0/3.0	125	15.81	75	A644
3	3600	208-230/460	182T	GT1009	182TTFC6001	√	\$814	E1	86.5	7.6/3.8	94	14.80	A, 75	A644
	1800	208-230/460	182T	GT1010	182TTFC6026	√	\$761	E1	89.5	7.8/3.9	102	14.80	75	A644
	1200	208-230/460	213T	GT1011	213TTFC6076	√	\$1,143	E1	89.5	8.6/4.3	173	18.23	75	A206
5	3600	208-230/460	184T	GT1012	184TTFC6001	√	\$905	E1	88.5	12.0/6.0	109	15.81	A, 75	A644
	1800	208-230/460	184T	GT1013	184TTFC6026	√	\$856	E1	90.2	12.4/6.2	117	15.81	A, 75	A644
	1200	208-230/460	215T	GT1014	215TTFC6076	√	\$1,418	E1	90.2	14/7.0	203	19.73	75	A206
7 1/2	3600	208-230/460	213T	GT1015	213TTFC6001	√	\$1,186	E1	89.5	17.8/8.9	185	18.23	A, 75	A206
	1800	230/460	213T	GT1016	213TTFC6026	√	\$1,126	E1	91.7	18.6/9.3	194	18.23	75	A206
	1200	208-230/460	254T	GT1017	254TTFCA6076	√	\$1,876	E1	91.0	20.4/10.2	223	23.70	75	A173
10	3600	208-230/460	215T	GT1018	215TTFC6001	√	\$1,385	E1	90.2	22.8/11.4	217	19.73	75	A206
	1800	230/460	215T	GT1019	215TTFC6026	√	\$1,356	E1	91.7	24.4/12.2	225	19.73	75	A206
	1200	208-230/460	256T	GT1020	256TTFCA6076	√	\$2,291	E1	91.0	26.8/13.4	368	25.43	75	A173
15	3600	208-230/460	254T	GT1021	254TTFCA6001	√	\$1,854	E1	91.0	34/17.0	350	23.70	75	A172
	1800	208-230/460	254T	GT1022	254TTFCA6026	√	\$1,741	E1	92.4	37/18.5	375	23.70	75	A173
	1200	208-230/460	284T	GT1023	284TTFCA6076	√	\$2,981	E1	91.7	39.5/19.8	475	27.83		A175
20	3600	208-230/460	256T	GT1024	256TTFCA6001	√	\$2,253	E1	91.0	46.0/23.0	375	27.80	75	A172
	1800	208-230/460	256T	GT1025	256TTFCA6026	√	\$2,189	E1	93.0	48.0/24.0	425	27.80	75	A173
	1200	208-230/460	286T	GT1026	286TTFCA6076	√	\$3,414	E1	91.7	52.0/26.0	550	31.34		A175

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet EISA requirements

Blue shaded areas are Cast Iron Frames

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Condenser Fan/Heat Pump, PSC, Open Air Over Thru-Bolt, Shaft Up or Horizontal

Applications:

Direct drive condenser fans mounted vertically, shaft up. Models with open brackets should be mounted where they are shielded from rain. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Frame and shaft end bracket enclosed, except X011, X012, and X208 have open frames and X426 has open frame and brackets
- Single and multi-speed models as noted
- Ball bearings
- Weather resistant reversing plug
- 30" long leads
- Shaft with flat, unless otherwise noted
- 60°C ambient (as noted)
- Shaft slinger
- 1-5/8" Extended thru-bolts on shaft end, except where noted
- Automatic reset thermal protector
- Lug mount kits and other accessories available, see Accessories section
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



X208



X081



X426



X011

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/4	1625/1	208-230	48Y	X012	48A17O2006	✓	\$147	F1	1.8-1.8	12	4 1/2	1/2 x 6	30,34,44
	1625/1	460	48Y	X420	48A17O169	✓	\$197	F1	1.0	12	4	1/2 x 6	34
	1075/2	208-230	48Y	X081	48A11O2031	✓	\$164	F1	1.9-1.9	12	4 1/4	1/2 x 6	
	1075/1	208-230	48Y	X213	48A11O1524	✓	\$140	F1	1.4-1.2	12	4 1/4	1/2 x 6	21
	1075/1	208-230	48Y	X087	48A11O2029	✓	\$133	F1	2.0-2.0	12	4 1/4	1/2 x 6	
	1075/1	460	48Y	X423	48A11O2055	✓	\$152	F1	1.0	13	4 1/4	1/2 x 6	36
	825/1	208-230	48Y	X097	48A8O182	✓	\$197	F1	1.8-1.8	13	4 1/2	1/2 x 6	
1/3	1625/3	208-230	48Y	X011	48A17O2005	✓	\$158	F1	2.3-2.3	14	4 3/4	1/2 x 6	30,34,44
	1075/2	208-230	48Y	X083	48A11O2034	✓	\$174	F1	3.0-3.0	18	4 3/4	1/2 x 6	
	1075/1	208-230	48Y	X214	048A11O1525	✓	\$139	F1	2.3-2.6	139	4 1/2	1/2 x 6	45
	1075/1	208-230	48Y	X088	048A11O2032	✓	\$143	F1	3.0-3.0	143	4 3/4	1/2 x 6	
	1075/1	460	48Y	X424	048A11O2054	✓	\$172	F1	1.4	172	4 3/4	1/2 x 6	36
	825/1	208-230	48Y	X086	048A8O2001	✓	\$221	F1	2.4-2.4	221	5 1/4	1/2 x 6	
1/2	1625/1	460	48Y	X422	048A17O172	✓	\$249	F1	1.7	249	5	1/2 x 6	36
	1625/1	575	48Y	X454	048A17O250	✓	\$249	F1	1.35	249	5	1/2 x 6	36
	1075/1	208-230	48Y	X096	048A11O840	✓	\$191	F1	4.2-4.2	191	5 1/2	1/2 x 6	
	1075/1	208-230	48Y	X089	048A11O2035	✓	\$161	F1	4.2-4.2	17	5 1/4	1/2 x 6	45
	1075/1	208-230	48Y	X221	048A11O1526	✓	\$169	F1	2.7-2.6	169	5	1/2 x 6	45
	1075/1	460	48Y	X400	048A11O2017	✓	\$194	F1	1.8	194	5	1/2 x 6	35
	1075/1	575	48Y	X453	048A11O1771	✓	\$194	F1	1.15	194	5	1/2 x 6	35
	825/1	208-230	48Y	X098	048A8O181	✓	\$266	F1	3.3-3.3	266	5 1/2	1/2 x 6	
	825/1	208-230	56Z	X208	056A8O5	✓	\$407	F1	3.4-3.4	407	8 5/8	5/8 x 6 w/key/flat	30
	3/4	1075/2	208-230	48Y	X085	048A11O678	✓	\$221	F1	5.1-5.1	221	5 1/2	1/2 x 6
	1075/1	208-230	48Y	X298	048A11O2059	✓	\$185	F1	4.0-4.2	185	5 1/4	1/2 x 6	
	1075/1	208-230	48Y	X090	048A11O2007	✓	\$209	F1	4.6-4.6	209	5 1/2	1/2 x 6	
	1075/1	460	48Y	X099	048A11O2016	✓	\$223	F1	2.5	223	5 1/2	1/2 x 6	34
	1075/1	460	48YZ	X426	048A11O1375	✓	\$270	F1	2.2	270	5 1/2	5/8 x 4.5 w/key	69
	1075/1	575	48Y	X455	048A11O1770	✓	\$223	F1	1.7	223	5 1/2	1/2 x 6	35
1	1075/1	200-230/460	56Z	P190	5KCP49Z9N617T	✓	\$477	F1	6.7-6.8/3.4	477	9.0	5/8 x 4	

**Condenser Fan/Heat Pump, PSC, Open Air Over
Thru-Bolt Mount, Shaft Down**

Applications:

Direct drive condenser fans mounted vertically, shaft down. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Frame and opposite shaft end bracket are enclosed for vertical shaft down mounting
- Weather resistant reversing plug
- 30" Long leads
- Shaft slinger
- 1-1/4" Extended thru-bolts on shaft end, except where noted
- Automatic reset thermal protector
- Ball Bearings
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section
- Lug mount kits and other accessories available, see Accessories section
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/8	825	208-230	48Y	X278	048A8O206	√	\$181	F1	0.9-0.9	11	4 1/4	1/2 X 4 3/4	37,44
1/6	1075	208-230	48Y	X440	048A11O2065	√	\$119	F1	1.0-0.9	10	4	1/2 X 6	
1/5	1075	208-230	48Y	X216	048A11O1097	√	\$133	F1	1.8-1.6	10	3 3/4	1/2 X 6	37,44,60
1/4	1075	208-230	48Y	X441	048A11O2062	√	\$146	F1	1.35-1.35	12	4 1/4	1/2 X 6	
1/3	1075	208-230	48Y	X442	048A11O2064	√	\$156	F1	2.0-1.95	14	4 3/4	1/2 X 6	
	1075	208-230	48Y	X297	048A11T509	√	\$141	F1	1.8-1.8	12	4 1/4	1/2 X 3 3/4	N,29,41,60
1/2	1075	208-230	48Y	X443	048A11O2063	√	\$173	F1	3.9-3.9	18	5 1/4	1/2 X 6	
3/4	1075	208-230	48Y	X444	048A11O1596	√	\$230	F1	4.3-4.7	18	5 1/2	1/2 X 6	

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Condenser Fan/Heat Pump, PSC, Open Air Over 48 Frame, Thru-Bolt, All-Angle

Applications:

Direct drive condenser fans for all angle mounting. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Frame and end brackets enclosed
- Single and multi-speed models, as noted
- Ball bearings (except as noted)
- Weather resistant reversing plug
- 30" long leads
- Shaft slinger
- 1-1/2" Thru-bolts on shaft end, 1" thru-bolts on lead end (except as noted)
- Automatic reset thermal protector
- Weep holes with removable plugs on end brackets. Remove bottom plug after installation.
- Lug mount kits and other accessories available (see Accessories section)
- 60°C ambient, as noted
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/6	1075/2	208-230	48Y	X429	048A11T2020	√	\$160	F1	1.3-1.3	11	4	1/2 x 6	36
	1075/1	208-230	48Y	X411	048A11T2008	√	\$152	F1	1.3-1.3	10	3 3/4	1/2 x 6	
	1075/1	208-230	48Y	X427	048A11T2017	√	\$152	F1	1.3-1.3	10	3 3/4	1/2 x 6	
	825/1	208-230	48Y	X465	048A8T11002	√	\$160	F1	1.1-1.1	12	4 1/4	1/2 x 6	45
1/4	1625/1	208-230	48Y	X467	048A47T87	√	\$143	F1	2.0-2.0	12	4 1/2	1/2 x 6	21,36
	1625/2	208-230	48Y	X463	048A17T356	√	\$164	F1	1.4-1.4	13	4 1/2	1/2 x 6	45,94
	1075/2	208-230	48Y	X430	048A11T463	√	\$174	F1	1.8-1.8	16	4 1/2	1/2 x 6	36
	1075/1	208-230	48Y	X412	048A11T569	√	\$169	F1	1.4-1.4	16	4 1/4	1/2 x 6	45
	1075/1	460	48Y	X456	048A11T578	√	\$174	F1	0.75	15	4 1/2	1/2 x 6	45
	840/1	208-230	48Y	X450	048A8T71	√	\$164	F1	1.9-1.9	17	5 1/4	1/2 x 6	45
1/3	1625/1	208-230	48Y	X466	048A17T86	√	\$157	F1	2.0-2.0	15	5	1/2 x 6	21,36
	1075/2	208-230	48Y	X415	048A11T2012	√	\$186	F1	2.6-2.6	16	5	1/2 x 6	36
	1075/1	208-230	48Y	X413	048A11T529	√	\$183	F1	1.9-1.9	14	4 3/4	1/2 x 6	45
	1075/1	460	48Y	X457	048A11T579	√	\$185	F1	0.9	17	5	1/2 x 6	36,45
	825/1	208-230	48Y	X451	048A8T72	√	\$173	F1	2.3-2.3	19	5 3/4	1/2 x 6	34,45
1/2	1625/1	208-230	48Y	X468	048A17T96	√	\$177	F1	2.9-2.6	16	5 1/4	1/2 x 6	21
	1625/2	208-230	48Y	X464	048A17T359	√	\$199	F1	3.1-2.9	17	5 1/4	1/2 x 6	45
	1075/2	208-230	48Y	X416	048A11T2013	√	\$204	F1	4.2-4.2	19	5 1/2	1/2 x 6	36
	1075/1	208-230	48Y	X414	048A11T571	√	\$201	F1	2.7-2.7	17	5	1/2 x 6	36,45
	1075/1	460	48Y	X458	048A11T580	√	\$204	F1	1.4	20	5 1/2	1/2 x 6	36,45
	825/1	208-230	48Y	X452	048A8T73	√	\$213	F1	3.1	21	6 1/4	1/2 x 6	45
3/4	1075/1	208-230	48Y	X469	048A11T276	√	\$177	F1	4.2-3.65	21	6	1/2 x 6	21,63
	1075/1	460	48Y	X459	048A11T581	√	\$230	F1	2.1	23	6	1/2 x 6	32,45
1	1075/1	460	48Y	X462	048A11T619	√	\$272	F1	3.4	27	7 1/4	1/2 x 6	32,45

Condenser Fan/Heat Pump, PSC, Open Air Over Rigid Base, Shaft Up or Horizontal

Applications:

Condenser fans, installed outdoors. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Frame and shaft end bracket enclosed
- Heavy gauge steel constructions
- 56Y frame has non-NEMA BA dimension of 1.97"
- Automatic reset thermal protector
- Flat and keyway on shaft
- Ball Bearings
- UL Recognized and CSA Certified
- Capacitor included on X432, see Accessories section to order capacitor for X433



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
3/4	1075	208-230/460	56YZ	X432	056A11O29	√	\$334	F1	4.6-4.4/2.2	22	11.88	5/8 x 4 1/2	36
1	1075	208-230/460	56YZ	X433	056S11O30	√	\$398	F1	5.8-5.4/2.7	27	12.38	5/8 x 4 1/2	

Condenser Fan/Heat Pump, Single Phase, PSC
56 Frame, Resilient Ring, Thru-Bolt

Applications:

Direct drive condenser fans mounted vertically, shaft up or horizontal. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Enclosed shaft end bracket with vented frame
- Ball bearings
- 30" long leads (except P243)
- Shaft slinger
- 60°C ambient, as noted
- Automatic reset thermal protector
- Flat & keyway on shaft
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



Open Air Over, Shaft Up

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
3/4	1075	208-230/460	56Y	X207	056A1105311	√	\$377	F1	3.9-3.6/1.8	31	8 1/4	5/8 x 6	37,45
1	1075	208-230/460	56Y	X206	056A1105310	√	\$398	F1	5.4-5.2/2.6	34	10 1/16	5/8 x 6	37
1 1/2	1075	208-230/460	56Y	X271	056A1105305	√	\$454	F1	7.7-7.6/3.8	43	9 3/4	5/8 x 6	34,45

Dripproof

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/2	825/1	115/208-230	56Y	P245	5KCP49PN9812S	√	\$513	F1	6.2/3.8-3.1	31	13.66	5/8 X 6	
3/4	1075/1	208-230/460	56Y	P243	5KCP49RN9611S	√	\$486	F1	4.9-3.8/1.9	33	13.66	5/8 X 6	
	825/1	208-230	56Y	P246	5KCP49UN9811S	√	\$556	F1	5.8-5.6	32	14.47	5/8 X 6	
1	1075/3	115	56Y	P184	5KCP49UN9612S	√	\$532	F1	10.8	40	14.87	5/8 x 6	
	1075/3	200-230	56Y	P185	5KCP49UN9614S	√	\$532	F1	4.8-5.0	34	14.87	5/8 X 6	
	1075/1	208-230/460	56Y	P244	5KCP49UN9613S	√	\$511	F1	6.3-5.0/2.5	40	14.47	5/8 X 6	
	825/1	208-230/460	56Y	P180	5KCP49WN9813S	√	\$586	F1	6.3-6.4/3.2	39	11.24	5/8 x 6	

Commercial Condenser Fan/Heat Pump, PSC

Open Air Over, Belly Band, Shaft Up

Applications:

Heavy duty design for commercial direct drive condenser fans mounted vertically, shaft up. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Open frame and end brackets
- Shaft with flat, unless otherwise noted
- Unique Rain Shield fits over shaft to protect motor in vertical shaft up position
- Shaft slinger
- Automatic reset thermal protector
- 60°C ambient (as noted)
- Ball bearings
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
0.4	1075	200-230/460	48Y	X445	048A1101732		\$204	F1	3.0-2.8/1.4	29	5 1/2	1/2 x 4	
0.6	1075	200-230/460	48Y	X446	048A1101643	√	\$225	F1	3.0-3.6/1.8	20	6 7/8	1/2 x 4	
0.8	1075	200-230/460	48Y	P193	5KCP39SNB480S		\$252	F1	4.0/2.0	21	14 1/5	1/2 x2 3/4	
	1075	200-230/460	48Y	P194	5KCP39SNB481S		\$301	F1	4.0/2.0	21	9 1/3	5/8 x 4 7/8	
	1075	200-230/460	48Y	X447	048A1101642	√	\$301	F1	5.0-4.4/2.2	27	8 3/4	1/2 x 4	45
1	1075	200-230/460	48Y	P195	5KCP39SNB482S	√	\$325	F1	5.6/2.8	21	10 5/8	5/8 x 5 1/4 w/key/flat	
	1075	200-230/460	56Y	X448	056A1105314	√	\$325	F1	6.0-5.2/2.6	33	8 3/4	5/8 x 4 w/key/flat	45
	1075	575	56Y	P196	5KCP39TNB763T	√	\$325	F1	2.6	22	10 1/4	1/2 x 5 1/4	
1.5	1075	200-230/460	56Y	P197	5KCP39UNB767T	√	\$373	F1	8.1-7.8/3.9	23	10 1/4	5/8 spcl.	d
	1075	200-230/460	56Y	X449	056A1105315		\$373	F1	7.0-7.0/3.5	39	9 1/4	5/8 x 4	45
	1075	575	56Y	P198	5KCP39UNB764T	√	\$373	F1	3.5	23	10 1/4	1/2 x 5 1/4	

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Commercial Condenser Fan/Heat Pump, PSC

Resilient Base, Shaft Up or Horizontal

Applications:

Condenser fans, installed outdoors. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Frame and shaft end bracket enclosed
- Automatic reset thermal protector
- Ball bearings
- UL Recognized and CSA Certified
- Capacitor included



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/2	1075	208-230/460	48YZ	X431	048A1101461	√	\$263	F1	3.0-3.0/1.5	19	11.94	1/2 x 4 1/2	

Commercial Condenser Fan/Heat Pump, Three Phase

Open Air Over, Rigid Base, Shaft Up or Horizontal

Applications:

Commercial condenser fans may be installed outdoors. These motors need to be mounted within the airflow of the fan for proper cooling. Used on Trane, Carrier, Climtrol and York units, 5 tons and larger.

Features:

- 70°C ambient (except as noted)
- Enclosed shaft end bracket, vented frame
- Continuous duty, air over
- Automatic reset thermal protector
- Shaft slinger
- Threaded lead exit
- Nameplated 60/50 hertz 190/380 volts, at next lower HP
- Double sealed ball bearings
- Flat and keyway on shaft
- Patented VCD™ - Voltage Change Device (as noted)
- Ball Bearings
- UL Recognized and CSA Certified



As Noted



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1140	208-230/460	56Z	X532	056T11011001	√	\$355	F1	1.8-1.8/0.9	22	13.37	1/2 x 5	45,50
1/2	1140	208-230/460	56Z	X533	056T11011002	√	\$382	F1	2.1-2.0/1.0	20	13.37	5/8 x 5	45,50
		208-230/460	56HZ	X529	056T805531	√	\$547	F1	2.9-3.0/1.5	31	14.68	5/8 x 5	VC,5
3/4	1140	208-230/460	56HZ	X512	056T11015511		\$425	F1	2.7-3.0/1.5	27	14.18	5/8 x 5	VC,5
1	1140	208-230/460	56HZ	K1485	5K49RN6118S		\$435	F1	4.2-4.0/2.0	33	16.02	5/8 X 6	46
		208-230/460	56HZ	X513	056T1105305	√	\$461	F1	4.1-4.2/2.1	29	14.68	5/8 x 5	VC,5
		850	208-230/460	56HZ	X528	056T805306	√	\$614	F1	5.1-5.3/2.65	49	17.06	5/8 x 5
1 1/2	1140	208-230/460	56HZ	K1486	5K48TN6119S		\$473	F1	5.1-5.0/2.5	38	16.77	5/8 X 6	46
		208-230/460	56HZ	X523	056T1105306	√	\$501	F1	5.45-5.4/2.7	36	15.68	5/8 x 5	VC,5
		850	208-230/460	56HZ	X531	056T8015504	√	\$668	F1	7.0-7.0/3.5	47	16.68	5/8 x 5
2	1140	208-230/460	56HZ	X525	056T1105310	√	\$543	F1	7.2-6.8/3.4	47	16.68	5/8 x 5	VC,5

Condenser Fan/Heat Pump, Three Phase
Open Air Over, Belly Band/Resilient Ring

Applications:

Commercial condenser fans may be installed outdoors. These motors need to be mounted within the airflow of the fan for proper cooling. Used on Trane, Carrier, Climatrol and York units, 5 tons and larger.

Features:

- 70°C ambient (except as noted)
- Enclosed shaft end bracket, vented frame
- Automatic reset thermal protector
- Nameplate 60/50 hertz 190/380 volts, at next lower HP (except as noted)
- Double sealed ball bearings
- 5/8" Dia. x 5" long shaft with flat and keyway
- Ball bearings
- Threaded lead exit
- Patented VCD™ - Voltage Change Device
- 4 Locating screws 90 degrees apart, 3.33" from outer edge of shaft slinger
- Hubs on both ends will accept resilient base kits, see Accessories section (except X524 and X526 - horizontal only)
- UL Recognized and CSA Certified
- External shaft slinger on all, internal slinger on 5K models



As Noted



MARATHON

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	FOOT NOTES
1/3	850	208-230/460	56Y	X511	056T8O5303	✓	\$493	F1	2.3-2.5/1.25	23	9 1/2	VC
1/2	1140	200-230/460	56Y	X500	056T11O5300	✓	\$392	F1	2.4-2.7/1.35	21	9.00	VC
	1140	575	56Y	K1500	5K49MN6432S	✓	\$467	F1	1.0	27	9.49	33,46
3/4	1140	208-230/460	56Y	K378	5K46LN6033S		\$410	F1	3.0-3.4/1.7	25	8.89	46
	1140	200-230/460	56Y	X501	056T11O5301	✓	\$434	F1	3.1-3.2/1.6	24	9.50	VC
	1140	575	56Y	K1505	5K46LN6428S	✓	\$490	F1	1.5	25	8.89	33,46
	850	208-230/460	56Y	X506	056T8O5301		\$574	F1	3.6-3.6/1.8	39	11.00	VC
1	1140	208-230/460	56Y	K379	5K49RN6034S		\$429	F1	4.2-4.0/2.0	33	10.02	46
	1140	200-230/460	56Y	X502	056T11O5302	✓	\$455	F1	4.0-4.2/2.1	28	10.00	VC
	1140	575	56Y	X522	056T11O5308	✓	\$427	F1	1.7	28	10.00	70
	1140	575	56Y	K1510	5K49RN6429S		\$427	F1	1.6	33	16.02	33,46
	850	208-230/460	56Y	K1482	5K48WN3013S		\$563	F1	5.1-5.2/2.6	44	10.77	46
	850	200-230/460	56Y	X507	056T8O5302	✓	\$597	F1	5.3-5.3/2.6	46	12.00	VC
	850	575	56Y	K1511	5K48WN3181S	✓	\$563	F1	2.0	44	10.77	d,33,46
	850	575	56Y	X527	056T8O5304	✓	\$597	F1	2.1	46	12.00	70
1 1/2	1140	200-230/460	56Y	X503	056T11O5303	✓	\$497	F1	5.5-5.4/2.7	35	11.00	VC
	1140	575	56Y	X524	056T11O5307	✓	\$497	F1	2.2	35	11.00	73
	1140	575	56Y	K1515	5K48TN6430S		\$467	F1	2.2	38	10.77	33,46
	850	208-230/460	56Y	X530	056T8O5307	✓	\$643	F1	7.5-6.8/3.4	47	11.25	VC
2	1140	208-230/460	56Y	X509	056T11O5304	✓	\$539	F1	7.2-6.8/3.4	49	12.00	VC
	1140	575	56Y	K1520	5K49ZN6433S	✓	\$497	F1	2.5	49	11.97	d,33,46
	1140	575	56Y	X526	056T11O5309	✓	\$539	F1	2.7	45	11.63	73

Shaft Up with Fan Canopy / Rainshield

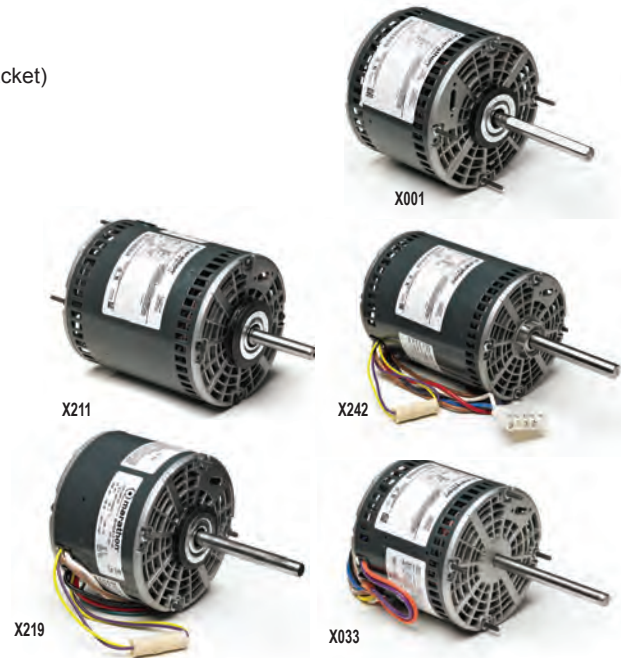
HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	FOOT NOTES
1/2	1140	200-230/460	48Y	K1403	5K36PN345S	✓	\$465	F1	2.2-2.6/1.3	20	7.95	46
3/4	1140	200-230/460	48Y	K1404	5K38SN267S	✓	\$489	F1	3.3-3.8/1.9	24	8.95	46
	1140	575	48Y	K1405	5K39SNB765T	✓	\$519	F1	1.5	21	8.50	46
1	1140	200-230/460	48Y	K1402	5K39SNB505S	✓	\$539	F1	4.4-4.0/2.0	21	8.50	46
1 1/2	1140	200-230/460	48Y	K1407	5K39SNB587S	✓	\$590	F1	6.0-5.8/2.9	21	10.63	46

✓ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Fan and Blower - Direct Drive, PSC Open Air Over, Resilient Ring, Thru-Bolt Mount

Features:

- Open frames and brackets (except X011 and X012 have enclosed shaft end bracket)
- Single and multi-speed models as noted
- Grommeted lead exit
- Weather resistant reversing plug
- 2-1/4" resilient ring mounting except where noted (base not included, see Accessories section)
- 2 1/2" adapter rings supplied, shipped loose in box
- Extended thru-bolts on shaft end
- 30" long leads
- Automatic reset thermal protector
- Ball bearings
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/5	1075/3	115	48Y	X219	048A11O2047	√	\$132	F1	3.5	11	4	1/2 x 4	39
1/4	1625/3	115	48Y	X013	048A17O152	√	\$145	F1	2.9	12	5	1/2 x 4	32
	1625/3	208-230	48Y	X014	048A17O154	√	\$147	F1	1.8-1.35	11	4 1/4	1/2 x 4	32
	1625/1	208-230	48Y	X012	048A17O2006	√	\$147	F1	1.8-1.8	12	4 1/2	1/2 x 6	34,44
	1075/3	115	48Y	X000	048A11O1798	√	\$139	F1	3.4	12	4 1/4	1/2 x 4	32
	1075/3	208-230	48Y	X001	048A11O1799	√	\$143	F1	1.5-1.5	12	4 1/2	1/2 x 4	32
	1075/3	277	48Y	X018	048A11O1350	√	\$149	F1	1.6	11	4 1/4	1/2 x 4	32
	1075/1	208-230	48Y	X006	048A11O2001	√	\$137	F1	2.0-2.0	11	4 1/4	1/2 x 4	32
	1075/1	208-230	48Y	X417	048A11O2051	√	\$146	F1	2.0-2.2	13	4 1/4	1/2 x 6	51,116
	1075/3	277	48Y	X019	048A11O1351	√	\$159	F1	2.7	15	4 3/4	1/2 x 4	32
1/3	1625/3	115	48Y	X015	048A17O151	√	\$154	F1	4.0	13	4 3/4	1/2 x 4	32
	1625/3	208-230	48Y	X011	048A17O2005	√	\$158	F1	2.3-2.3	14	4 3/4	1/2 x 6	34,44
	1075/4	115	48Y	X236	048A11O699	√	\$173	F1	6.4	16	4 3/4	1/2 x 6	39
	1075/4	208-230	48Y	X237	048A11O694	√	\$176	F1	4.8-4.8	16	5 1/4	1/2 x 6	39
	1075/3	115	48Y	X002	048A11O1769	√	\$149	F1	4.6	14	4 3/4	1/2 x 4	32
	1075/3	208-230	48Y	X003	048A11OB2042	√	\$152	F1	3.3-3.3	14	4 3/4	1/2 x 4	32
	1075/3	277	48Y	X019	048A11O1351	√	\$159	F1	2.7	15	4 3/4	1/2 x 4	32
	1075/2	460	48Y	X037	048A11O1876	√	\$299	F1	1.0	14	4 3/4	1/2 x 6	51
	1075/1	208-230	48Y	X418	048A11O2052	√	\$155	F1	3.1-3.1	14	4 1/2	1/2 x 6	51,116
	825/1	230	48Y	X209	048A8O183	√	\$190	F1	2.8	17	5 3/4	1/2 x 5 1/2	34,43
1/2	1625/3	115	48Y	X016	048A17O153	√	\$172	F1	5.0	16	5 1/4	1/2 x 4	32
	1625/3	208-230	48Y	X017	048A17O155	√	\$174	F1	4.1-4.1	16	5 1/4	1/2 x 4	32
	1075/4	115	48Y	X033	048A11O1674	√	\$145	F1	6.1	15	5	1/2 x 5	31,73
	1075/3	115	48Y	X004	048A11O1755	√	\$168	F1	6.2	17	5 1/2	1/2 x 4	32
	1075/3	208-230	48Y	X005	048A11O1756	√	\$170	F1	2.65-2.6	17	5 1/2	1/2 x 4	32
	1075/3	277	48Y	X020	048A11O1352	√	\$177	F1	3.6	17	5 1/2	1/2 x 4	32
	1075/1	208-230	48Y	X419	048A11O2053	√	\$173	F1	4.2	17	5 1/4	1/2 x 6	51,116
	1075/3	230	48Y	X022	048A17O174	√	\$191	F1	3.7	18	5 1/2	1/2 x 5 1/2	39,43
3/4	1075/4	208-230	48Y	X241	048A11O697	√	\$223	F1	5.4-5.4	17	5 1/2	1/2 x 6	39
	1075/3	115	48Y	X009	048A11O787	√	\$196	F1	10.2	20	5 3/4	1/2 x 4	32
	1075/3	208-230	48Y	X010	048A11O2046	√	\$199	F1	5.6	19	5 1/2	1/2 x 4	32
	1075/3	277	48Y	X021	048A11O1353	√	\$204	F1	5.0	20	5 3/4	1/2 x 4	32
	1075/1	208-230	48Y	X211	048A17O125	√	\$248	F1	6.2	20	6 1/4	1/2 x 2 1/2	39,42,43
1	1075/3	230	48Y	X023	048A11O1583	√	\$227	F1	5.3	24	6 1/2	1/2 x 5	34
	1075/3	208-230	48YZ	X242	048A11O756	√	\$377	F1	6.2	26	7 1/4	5/8 x 4	39,51

Fan and Blower - Direct Drive, PSC

Open Air Over, Resilient Ring

Applications:

Single speed PSC motors designed to replace PSC and Shaded pole motors, used in direct drive furnace, air conditioners, and others blowers.

Features:

- Open frame and brackets
- Heavy gauge steel frame and base
- Shaft with flat
- 70°C ambient
- 37" Leads
- Thermal overload protection
- 1/4" terminals on the capacitor leads
- 2 1/4" resilient rings, includes 2 1/2" expanders
- Capacitor not included, see Accessories section



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/6	1625	115	48Y	X477	48A170128	√	\$138	F1	2.6	9	4	1/2 x 4	
	1625	230	48Y	X475	48A170123	√	\$138	F1	1.3	9	4	1/2 x 4	
	1075	115	48Y	X473	48A1101046	√	\$133	F1	2.9	9	4	1/2 x 4	
	1075	230	48Y	X471	48A1101044	√	\$133	F1	1.3	10	4	1/2 x 4	
1/4	1625	230	48Y	X476	48A170124	√	\$147	F1	1.8	10	4 1/4	1/2 x 4	
	1075	115	48Y	X472	48A1101045	√	\$139	F1	4.0	11	4 1/4	1/2 x 4	
	1075	230	48Y	X474	48A1101047	√	\$139	F1	2.0	11	4 1/4	1/2 x 4	

Fan and Blower - Direct Drive, PSC

Open Air Over, Torsion Flex Mount

Applications:

Residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments.

Features:

- Open frames and brackets
- Three lug mount fits 9" or 10" bolt circle. Mounting holes on lugs are .435" dia., with gromets and sleeves for .26" dia. option.
- Multi-speed capacity
- Weather resistant reversing plug
- 30" long leads
- Automatic reset thermal protector
- Ball Bearings
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/4	1075/4	115	48Y	X034	48A1101773	√	\$160	F1	3.3	14	4 1/2	1/2 x 6	
1/3	1075/4	115	48Y	X035	48A1101774	√	\$172	F1	4.5	15	4 1/2	1/2 x 6	
1/2	1075/4	115	48Y	X036	48A1101772	√	\$190	F1	6.0	19	5	1/2 x 6	

Fan and Blower - Direct Drive, PSC

Open Air Over, Extended Thru-Bolt, 460 Volt

Applications:

Residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments.

Features:

- Enclosed frame and open end brackets
- Multi-speed capability
- Grommeted lead exit
- Weather resistant reversing plug
- Automatic reset thermal protector
- 7/8" extended thru-bolts on shaft end
- Ball Bearings
- UL Recognized and CSA Certified
- Capacitor not included, see Accessories section



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1075/2	460	48Y	X037	48A1101876	√	\$299	F1	1.0	14	4 3/4	1/2 X 6	51
1/2	1075/2	460	48Y	X038	48A1101874	√	\$305	F1	1.6	17	5 1/4	1/2 X 6	51
3/4	1075/2	460	48Y	X039	48A1101875	√	\$311	F1	2.1	19	5 1/2	1/2 X 6	51

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Fan and Blower, Split Phase, Dripproof Resilient Base (Single & Two Speed)

Features:

- Ball bearings (except as noted)
- Service factor, as noted
- Thermal protection, as noted
- Variable torque on two speed motors
- Extended thru-bolts, as noted
- Heavy gauge steel frame and base
- 48Y and 48YZ frame have 48/56 frame mounting holes
- UL Recognized and CSA certified



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/12	1140	115	48Z	AUTO	HG152	5KH32GN140X	√	\$247	F1	2.4	15	9.32	8,112
1/8	1140	115	48Z	AUTO	HG154	5KH36KN113X	√	\$273	F1	3.8	17	10.38	8,112
	850	115	56	AUTO	HG155	5KH46MN3021X	√	\$439	F1	4.6	32	10.88	112
1/6	1725/1140	115	48Z	NONE	H169	5KH36KN114	√	\$170	F1	3.4/1.9	17	10.38	8,20,54
	1725/1140	115	48Z	AUTO	H170	5KH36KN114X	√	\$177	F1	3.4/1.9	17	10.38	8,20,54
	1725/1140	115	48	NONE	4322	5KH39QN9548	√	\$204	F1	3.4/1.9	15	10.00	20
	1725/1140	115	48	AUTO	4389	5KH39QN9548X	√	\$217	F1	3.4/1.9	18	10.00	20
	1725	115	48Y	AUTO	D107	48S17D2017	√	\$151	F1	3.6	12	8.99	CF,20
	1725	115	48	NONE	4304	5KH39QN5543	√	\$146	F1	3.9	12	8.93	20
	1725	115	48Z	AUTO	H913	5KH32DNA700X	√	\$155	F1	4.4	12	9.74	9,20,28
	1725	115	48Z	NONE	HG156	5KH32DN3085	√	\$143	F1	3.9	12	9.32	8,20
	1725	115	48Z	NONE	H912	5KH32DNA700	√	\$105	F1	4.4	12	9.74	9,20,28
	1725	115	48YZ	NONE	B300	48S17D2052	√	\$145	F1	3.6	13	9.32	CF,20,31,52
	1725	115	48Z	AUTO	H157	5KH32DN3085X	√	\$151	F1	3.9	12	9.32	8,20
	1725	115	48YZ	AUTO	B322	48S17D2053	√	\$153	F1	3.6	13	9.32	CF,20,31,52
	1725	115	56Z	AUTO	4350	5KH39QN5538X	√	\$154	F1	3.9	13	9.19	8,20,26
	1140	115	48	NONE	H112	5KH37PN39	√	\$242	F1	4	20	10.40	20
	1140	115	48Z	AUTO	H159	5KH37PN41X	√	\$300	F1	4	21	10.78	8,20
	1140	115	48	NONE	HG695	5KH37PNA233	√	\$244	F1	4	24	10.40	20
	1140	115	48Z	NONE	H158	5KH37PN41	√	\$293	F1	4	21	10.78	8,20
	1140	115	48	AUTO	HG113	5KH37PN39X	√	\$250	F1	4	20	10.40	20
	850	115	56	NONE	H620	5KH49PN3043	√	\$487	F1	6.1	31	11.48	20
1/4	1725/1140	115	48Y	AUTO	D180	48S17D7204	√	\$185	F1	4.1/2.5	18	10.06	20
	1725/1140	115	48Z	AUTO	H172	5KH37PN33X	√	\$203	F1	4.2/2.7	21	10.69	8,20,54
	1725/1140	115	48Z	NONE	H171	5KH37PN33	√	\$196	F1	4.2/2.7	21	10.69	8,20,54
	1725/1140	115	48	AUTO	4399	5KH39QN9551X	√	\$250	F1	4.2/2.7	22	10.40	20,54
	1725/1140	115	56Z	AUTO	HG704	5KH35MNA568T	√	\$255	F1	5.2/2.8	17	10.18	17,20,48
	1725/1140	230	48	AUTO	4412	5KH39QN9550X	√	\$281	F1	2.1/1.3	22	10.40	20,39
	1725	115	48	AUTO	4305	5KH39QN5511X	√	\$130	F1	5.1	13	8.93	20
	1725	115	48	NONE	4355	5KH39QN5225	√	\$154	F1	5.1	13	8.93	20,47
	1725	115	48Y	AUTO	4701	5KH39QN5512T	√	\$128	F1	5.1	12	9.12	CF,20,53
	1725	115	48YZ	AUTO	B206	48S17D2107	√	\$134	F1	5	14	9.62	8,20,26
	1725	115	48Z	NONE	H160	5KH32FN3083	√	\$153	F1	5.1	14	9.32	CF,20,31,52
	1725	115	48YZ	NONE	B302	48S17D2054	√	\$156	F1	5	14	9.57	9,20,28
	1725	115	48Z	AUTO	H915	5KH33FNA722X	√	\$167	F1	5.6	14	9.99	7,20,26
	1725	115/230	48Y	AUTO	4702	5KH33HN5725X	√	\$162	F1	5.2/2.6	15	9.62	20,48
	1725	115	48Y	AUTO	HG701	5KH32DN5618X	√	\$139	F1	5.1	13	8.94	9,20
	1725	115/208-230	48Z	AUTO	4680	5KH32FN3120T	√	\$219	F1	5.0/2.5	13	9.94	8,20
	1725	115	48Z	AUTO	HG161	5KH32FN3083X	√	\$160	F1	5.1	14	9.32	CF,20,31,52
	1725	115	48YZ	AUTO	B303	48S17D2055	√	\$163	F1	5	14	9.57	20,32,53
	1725	115	56Z	AUTO	B201	56S17D2047	√	\$134	F1	5	14	9.47	8,20,26
	1725	115	56Z	AUTO	4363	5KH39QN5526X	√	\$176	F1	5.1	14	9.19	20
	1725	230	48	AUTO	4306	5KH39QN5537X	√	\$139	F1	2.5	13	9.09	20
	1725	230	48	NONE	4360	5KH39QN5548	√	\$170	F1	2.5	13	8.93	20,31,52
	1725	277	48YZ	NONE	B606	48S17D2116	√	\$174	F1	2.1	13	9.47	20,31
	1140/850	115	56	NONE	H300	5KH49SN3048	√	\$514	F1	5.8/3.6	30	12.01	20
	1140	115	56	AUTO	H163	5KH46MN6053X	√	\$356	F1	5.6	23	10.88	20
	1140	115	56	NONE	H162	5KH46MN6053	√	\$348	F1	5.6	27	10.88	19
	850	115	56	NONE	H296	5KH49SN3046	√	\$598	F1	6.9	30	12.01	20
1/3	3450	115	48	NONE	H114	5KH35FN124	√	\$198	F1	5.6	15	9.57	20
	3450	115	48	AUTO	HG115	5KH35FN124X	√	\$211	F1	5.6	15	9.57	9,20
	3450	115/230	48Z	AUTO	4798	5KH35FN153T	√	\$230	F1	6.8/3.4	13	10.25	9,20

Continued on next page.

**Fan and Blower, Split Phase, Dripproof
Resilient Base (Single & Two Speed)**

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES	
1/3	1725/1140	115	48	AUTO	4319	5KH39QN9429T	√	\$256	F1	6.3/3.1	22	10.40	20,94	
	1725/1140	115	48	NONE	4396	5KH39QN9683	√	\$246	F1	6.3/3.1	21	10.40	17,54	
	1725/1140	115	48Y	AUTO	D181	048S17D7205	√	\$230	F1	5.3/2.9	20	10.06	20	
	1725/1140	115	56	NONE	H173	5KH46MN3025	√	\$247	F1	5.7/3.2	24	10.88	20,31	
	1725/1140	115	56	AUTO	H174	5KH46MN3025X	√	\$254	F1	5.7/3.2	32	10.88	20,31	
	1725/1140	115	56Z	AUTO	HG706	5KH37PNA569T	√	\$292	F1	6.0/3.8	20	11.01	17,48	
	1725/850	115	56Z	AUTO	HG705	5KH46NN3039T	√	\$444	F1	4.7/2.6	25	10.90	17,48	
	1725	115	48Y	AUTO	D143	048S17D2086	√	\$152	F1	6.1	15	9.34	20	
	1725	115	48Y	AUTO	B703	048N17D14	√	\$204	F1	3.2	17	9.84	20,74	
	1725	115	48Y	AUTO	HG711	5KH32HN5620T	√	\$149	F1	6.6	14	8.94	4,20,26,48	
	1725	115	48Y	AUTO	HG700	5KHC37NNA167T	√	\$261	F1	3.7	24	10.39	ES,20,26,47	
	1725	115	48YZ	AUTO	B207	048S17D2108	√	\$152	F1	5.5	15	9.62	CF,20,53	
	1725	115	48Z	NONE	H164	5KH32JN3128	√	\$177	F1	6.2	15	9.32	8,20	
	1725	115	48YZ	NONE	B304	048S17D2056	√	\$180	F1	5.5	15	9.32	CF,20,31,52	
	1725	115	48Z	AUTO	H917	5KH35JNA723X	√	\$190	F1	6.9	15	10.37	9,20,28	
	1725	115	48Z	AUTO	H165	5KH32JN3128X	√	\$183	F1	6.2	16	9.32	8,20	
	1725	115	48YZ	AUTO	B305	048S17D2057	√	\$186	F1	5.5	15	9.32	CF,20,31,52	
	1725	115	56Z	AUTO	B202	56S17D2048	√	\$156	F1	6.1	15	9.72	20,32,53	
	1725	230	48Z	AUTO	H167	5KH35JN26X	√	\$160	F1	3.3	16	9.95	8,20	
	1725	230	48	AUTO	4309	5KH39QN9514X	√	\$232	F1	3.1	15	9.18	20	
	1725	115	48	NONE	4370	5KH39QN9682	√	\$213	F1	6.2	15	9.18	20	
	1725	115/208-230	56Z	AUTO	4682	5KH35JN3132T	√	\$246	F1	6.2/3.1	16	10.26	9,20,26,72	
	1725	230	48Z	NONE	H166	5KH35JN26	√	\$235	F1	3.3	16	9.95	8,20	
	1725	230	56Z	AUTO	4757	5KH39QN9636T	√	\$243	F1	3.1	16	9.19	7,20,26	
	1725	277	48YZ	NONE	B607	048S17D2117	√	\$196	F1	2.5	15	9.72	20,31,52	
	1725	115	56Z	AUTO	4383	5KH39QN9513X	√	\$228	F1	6.2	15	9.19	8,26	
	1140	115/230	56	NONE	H168	5KH49PN6055	√	\$404	F1	7.0/3.5	27	11.48	20	
	1140	115/230	56	AUTO	HG621	5KH49PN6055X	√	\$419	F1	7.0/3.5	26	11.48	20	
	1/2	1725/1140	115	56	NONE	H175	5KH49PN3026	√	\$312	F1	8.0/4.2	31	11.48	19,31
		1725/1140	115	56	AUTO	H176	5KH49PN3026X	√	\$319	F1	8.0/4.2	31	11.48	19,31
1725/1140		115	56	NONE	H130	5KH39QN9632	√	\$350	F1	8.4/4.8	22	10.32	17	
1725/1140		115	56	AUTO	H131	5KH39QN9631T	√	\$362	F1	8.4/4.8	22	10.32	17,31	
1725/1140		115	56Z	AUTO	HG715	5KH38SNA731T	√	\$412	F1	7.8/4.8	25	11.44	17,48	
1725/1140		230	56	NONE	H275	5KH49PN3045	√	\$436	F1	3.8/1.9	28	11.48	19,31	
1725/1140		230	56	AUTO	H133	5KH39QN9642T	√	\$378	F1	4.1/2.4	22	10.32	17,31	
1725		115	48Y	AUTO	D162	048S17D2087	√	\$207	F1	7.2	19	10.09	19	
1725		115	48Y	AUTO	HG703	5KH35MNA519T	√	\$200	F1	7.9	15	10.32	19,48	
1725		115	48YZ	AUTO	B208	048S17D2109	√	\$207	F1	7.5	20	10.43	CF,19,53	
1725		115	48YZ	NONE	B306	048S17D2058	√	\$218	F1	7.5	18	10.32	CF,19,31,52	
1725		115	48	AUTO	HG694	5KH39QN9767X	√	\$231	F1	7.1	19	9.99	19	
1725		115	48YZ	AUTO	B307	048S17D2059	√	\$237	F1	7.5	18	10.32	CF,19,31,52	
1725		115	56Z	AUTO	H919	5KH36MNA735X	√	\$234	F1	8.7	18	10.80	10,19,28	
1725		115	56	AUTO	4392	5KH39QN9405X	√	\$230	F1	7.9	21	10.32	19	
1725		115	56	NONE	4390	5KH39QNA039	√	\$258	F1	7.9	17	10.32	19	
1725		115	56	AUTO	D149	056S17D2050	√	\$212	F1	7.2	19	10.47	19	
1725		115	56	AUTO	H248	5KH36MN3106X	√	\$262	F1	9.3	18	10.32	19	
1725		115	56	NONE	H286	5KH36MN3106	√	\$258	F1	9.3	18	10.32	19	
1725		115	56Z	AUTO	B200	056S17D2049	√	\$212	F1	7.2	19	10.47	19,32,53	
1725		115	56Z	AUTO	4758	5KH39QN9698T	√	\$269	F1	7.9	22	9.99	7,19,26	
1725		115/230	56	AUTO	B100	056S17D2064	√	\$223	F1	7.2/3.6	20	10.47	19	
1725		115/230	56Z	AUTO	4684	5KH36MN3127T	√	\$304	F1	8.9/4.5	18	10.69	9,26	
1725		230	56	AUTO	4393	5KH39QN9544X	√	\$281	F1	4.5	21	10.32	19	
1725		230	56Z	AUTO	4759	5KH39QN9697T	√	\$217	F1	4.0	17	9.99	19	
1725		230	48Y	AUTO	D163	048S17D2088	√	\$217	F1	3.6	19	10.09	19	
1140		115/230	56	AUTO	H298	5KH48UN6054X	√	\$536	F1	9.0/4.5	32	12.76	19	
3/4		1725	115	56	AUTO	4338	5KH39QN9541T	√	\$275	F1	11.4	21	10.72	18

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Fan and Blower - Capacitor Start, Dripproof Resilient Base (Single & Two-Speed)

Features:

- Ball bearings
- Heavy gauge steel frame and base
- Service Factor, as noted
- Capacitor start / capacitor run as noted
- Thermal protection, as noted
- 48Y and 48YZ Frame have 48/56 Frame mounting holes
- UL Recognized and CSA Certified



MARATHON

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1725	115/230	48	NONE	G1114	5KC35JN7J	✓	\$173	F1	5.2/2.6	16	9.57	20
	1725	115/208-230	48YZ	AUTO	B313	48C17D2042	✓	\$203	F1	5.2/2.8-2.6	16	9.95	CF,20,31,52
	1725	115/208-230	48YZ	NONE	B312	48C17D2041	✓	\$194	F1	6.2/2.8-3.1	15	9.72	20,31,52
	1725	115/230	48	AUTO	G1115	5KC35JN7X	✓	\$183	F1	5.2/2.6	16	9.57	20
1/3	1725	115/208-230	48YZ	NONE	B314	48C17D2043	✓	\$229	F1	5.8/3.1-2.9	18	10.22	20,31,52
	1725	115/208-230	48YZ	AUTO	B315	48C17D2044	✓	\$237	F1	5.8/3.1-2.9	17	10.22	20,31,52
	1725	115/208-230	56	AUTO	C216	5KC36LN1X	✓	\$241	F1	6.0/3.2-3.0	18	10.32	20,50
	1725	115/230	48YZ	AUTO	D119	48C17D2055	✓	\$218	F1	5.8/2.9	12	10.22	20,31,52
	1725	115/230	56	AUTO	G135	56C17D2088	✓	\$221	F1	6.4/3.2	18	10.22	20
1/2	3450	115/208-230	48	AUTO	C1152	5KC39QN3220X	✓	\$175	F1	8.2/3.9-4.1	19	11	19
	1725/1140	115	56	AUTO	C419	5KC49PN3027X	✓	\$499	F1	8.2/3.9	28	11.38	19
	1725	115/208-230	56	NONE	B1316	5KC49GN0001	✓	\$259	F1	8.8/4.2-4.4	21	10.38	19
	1725	115/208-230	56	AUTO	C1153	5KC49GN0022X	✓	\$293	F1	8.6/4.1-4.3	21	10.38	19
	1725	115/208-230	56	AUTO	B317	56C17D2072	✓	\$299	F1	8.0/4.1-4.0	20	10.32	CF,19,31
	1725	115/208-230	56Y	AUTO	B353	56B17D67	✓	\$320	F1	6.2/3-3.1	24	12.92	1,19,55
	1725	115/230	56	AUTO	D111	56C17D2079	✓	\$263	F1	7.2/3.6	20	10.72	19
	1725	115/230	56	AUTO	G151	56C17D2025	✓	\$263	F1	8.6/4.3	24	11.72	19
	1725	277	56	NONE	B608	56C17D2113	✓	\$296	F1	3.6	23	11.72	19
	3/4	3450	115/208-230	56	AUTO	C1155	5KC38NN410X	✓	\$229	F1	10.0/4.9-5.0	17	11.32
3450		115/208-230	48	AUTO	C1154	5KC38NN413X	✓	\$322	F1	9.8/5.0-4.9	17	11.1	19
1725/1140		115	56	AUTO	B332	56B17D5701	✓	\$473	F1	8.9/6.1	40	12.85	1,19,31
1725/1140		115	56	NONE	C420	5KCR49PN3011	✓	\$463	F1	9.0/6.4	31	11.48	ES,1,19
1725/1140		208-230	56	NONE	C486	5KCR49PN3012X	✓	\$472	F1	4.3-4.4/3.1-3.2	38	11.48	ES,1,19
1725/1140		115	56	AUTO	C474	5KCR49PN3011X	✓	\$545	F1	9.0/6.4	31	11.48	ES,1,19
1725		115/208-230	56	AUTO	C1156	5KC46LN0149X	✓	\$353	F1	13.3/6.5-6.6	27	10.78	19
1725		115/208-230	56	AUTO	B319	56C17D2074	✓	\$363	F1	10.0/5.2-5.0	23	10.72	CF,19,31
1725		115/208-230	56	NONE	CG230	5KC46LN0158	✓	\$326	F1	13.2/6.2-6.6	25	10.78	19
1725		115/208-230	56	NONE	B318	56C17D2073	✓	\$337	F1	10.0/5.2-5.0	24	10.72	CF,19,31
1725		115/208-230	56	NONE	G156	56B17D2012	✓	\$324	F1	11.0/5.5-5.5	26	11.47	1,19
1725		115/208-230	56Z	AUTO	4686	5KC46LN0269X	✓	\$385	F1	13.3/6.5-6.6	25	11.15	10,19
1725		115/230	56	AUTO	D1113	5KC46LN0158X	✓	\$325	F1	13.2/6.6	25	10.78	19
1725		277	56	NONE	B609	56B17D2013	✓	\$360	F1	4.3	27	11.47	1,19,31
1		3450	115/208-230	56	AUTO	C1157	5KC39RN383X	✓	\$284	F1	13.4/6.7-6.6	25	11.85
	3450	115/208-230	56	AUTO	D118	56C34D2106	✓	\$266	F1	12.0/6.2-6.0	25	12.22	18
	1725/1140	115	56	AUTO	B335	56B17D5703	✓	\$589	F1	11.5/7.0	39	12.85	1,18,31
	1725/1140	115	56	NONE	C475	5KCR49SN3009	✓	\$578	F1	10.8/7.4	35	12.01	ES,1,18
	1725/1140	115	56	AUTO	C1478	5KCR49SN3009X	✓	\$604	F1	10.8/7.4	30	12.01	ES,1,18
	1725/1140	208-230	56	NONE	C476	5KCR49SN3010	✓	\$601	F1	5.3-5.4/3.6-3.7	35	12.01	ES,1,18
	1725/1140	208-230/190-380	56H	AUTO	C1479	5KCR48TN3084X	✓	\$613	F1	5.3-5.4/3.6-3.7	36	12.54	ES,1,17
	1725	115/208-230	56	AUTO	C1158	5KC49PN0164X	✓	\$369	F1	14.7/7.2-7.4	29	11.38	18
	1725	115/208-230	56Z	AUTO	4688	5KC49NN0061T	✓	\$374	F1	14.4/7.2-7.4	28	11.75	10,18
	1725	115/208-230	56H	NONE	C235	5KC49PN0155	✓	\$344	F1	13.6/6.7-6.8	31	11.38	18
	1725	277	56	NONE	B337	56C17D5348	✓	\$386	F1	5.6	29	11.85	19,32
	1 1/2	3450	115/208-230	56H	AUTO	D115	56B34D2027	✓	\$370	F1	13.4/7.4-6.7	28	11.72
1725		115/208-230	145T	NONE	I146	145TCDR5331	✓	\$419	S1	18.0/9.3-9.0	42	13.22	18,32
1725		115/208-230	56H	NONE	B336	56C17D5347	✓	\$413	F1	18.0/9.3-9.0	39	12.85	5,18,32
1725		115/208-230	56H	AUTO	C1160	5KCR49SN0150X	✓	\$429	F1	16.4/8.4-8.2	35	11.91	ES,1,18
1725		277	56H	NONE	B338	56C17D5349	✓	\$447	F1	7.5	41	12.85	5,18,32
2	3450	115/208-230	56H	AUTO	C1161	5KCR49RN2148T	✓	\$451	F1	19.6/10.4-9.8	33	11.91	ES,1,110
	1725	115/208-230	56H	AUTO	B352	56B17D5331	✓	\$547	F1	21/11.3-10.5	50	13.85	1,5,32
	1725	115/208-230	145T	NONE	I147	145TBDR5345	✓	\$440	S1	21/11.3-10.5	49	14.22	1,18

Fan and Blower, Split Phase and Capacitor Start
Totally Enclosed, Resilient Base (Single & Two-Speed)

Features:

- Thermal protection, as noted
- 1.0 Service Factor (except as noted)
- Heavy gauge steel frame and base
- Split phase (except as noted)
- Ball bearings
- UL Recognized and CSA Certified



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/6	1725	115	48	NONE	HG178	5KH32EN79	√	\$242	F1	4.0	15	9.92	
	1725	115	48	AUTO	H291	5KH32EN72X	√	\$255	F1	4.0	15	9.92	CF,31
	1140	115	48	NONE	H233	5KH36PN109	√	\$335	F1	4.0	23	10.98	
1/4	1725	115	48	AUTO	H234	5KH39QN9105X	√	\$177	F1	5.1	17	9.92	
	1725	115	48	NONE	B1502	5KH39QN9105	√	\$170	F1	5.1	17	9.92	
	1725	115/230	48	NONE	C247	5KC32GN13	√	\$300	F1	5.4/2.7	17	9.92	2
	1725/1140	115	48	NONE	HG189	5KH36PN108	√	\$335	F1	4.2/2.7	23	10.98	
	1140	115/230	56	NONE	HG182	5KH49MN6060	√	\$386	F1	5.6/2.8	25	11.54	
1/3	1725	115	56	NONE	B1504	5KH35MN56	√	\$210	F1	5.9	20	10.93	
	1725	115	56	AUTO	H236	5KH35MN56X	√	\$217	F1	5.9	20	10.93	
	1725/1140	115	56	NONE	H190	5KH49MN3035	√	\$416	F1	5.7/3.2	27	11.54	
	1140	115	56	NONE	HG186	5KH46PN6059	√	\$444	F1	7.0	31	11.94	
1/2	1725	115	56	AUTO	B506	56S17F5303		\$298	F1	8.4	27	12.30	
	1725	115	56	NONE	B1507	5KH42GN0336	√	\$252	F1	8.0	21	11.11	19
	1725	115/230	56	AUTO	C289	5KC42GN0309X	√	\$405	F1	8.6/4.3	21	11.11	2, 18
	1725/1140	115	56	NONE	HG191	5KH46PN3033	√	\$463	F1	8.0/4.2	29	11.94	
	1725/1140	230	56	NONE	H293	5KH46PN3034	√	\$475	F1	3.8/1.9	31	11.94	
	1140	115	56	NONE	HG188	5KH49UN6064	√	\$565	F1	9.0	40	13.07	
3/4	1725	115/230	56	AUTO	C806	5KC49PN0281X	√	\$471	F1	11.0/5.5	32	12.54	2, 17
1	1725	115/230	56	AUTO	C292	5KC49TN0285X	√	\$520	F1	13.2/6.6	38	13.07	2

Fan & Blower - Three Phase

TEAO, Resilient Base

Applications:

Designed for applications like commercial fans and blowers, direct and belt drive air handlers and exhaust fans.

Features:

- Ball bearings
- 1.0 Service Factor
- .62" extended thru-bolts
- UL Recognized and CSA Certified



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	230/460	48	K281	5K32GN48	√	\$282	F1	1.4/0.7	14	8.94	
	1200	230/460	56	K282	5K35MN294	√	\$405	F1	1.4/0.7	18	9.89	
1/3	1800	230/460	48	K283	5K33KN52	√	\$316	F1	1.5/0.8	16	9.19	
1/2	1800	208-230/460	56	K284	5K42HN4128	√	\$355	F1	2.3-2.2/1.1	22	10.05	
	1200	208-230/460	56	K285	5K49MN6080	√	\$475	F1	2.6-2.6/1.3	24	10.48	
	1200	208-230/460	56	K541	5K49MN6081	√	\$514	F1	2.6-2.6/1.3	27	11.54	
3/4	1800	208-230/460	56	K286	5K49KN4142	√	\$383	F1	3.3-3.0/1.5	21	10.48	
1	1800	208-230/460	56	K525	5K49MN4114	√	\$402	F1	3.6-3.8/1.9	25	10.48	

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Fan & Blower - Three Phase, Dripproof Resilient Base (Single and Two-Speed)

Features:

- Single and two-speed models, as noted
- Variable torque on two speed ratings
- Ball bearings
- Heavy gauge steel frame and base
- Thermal protection, as noted
- Service Factor, as noted
- Nameplated 60/50 Hz at next lower horsepower (except as noted)
- Patented VCD™, Voltage Change Device where footnoted "VC"
- UL Recognized and CSA Certified



As Noted



MARATHON

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	230/460	48Z	NONE	K275	5K33GN45	✓	\$267	F1	1.4/0.7	14	9.57	20
1/3	1800/1200	460	56	NONE	G161	056T17D5701		\$352	F1	0.6/0.4	33	12.35	20
	1800	208-230/460	56	AUTO	G106	056T17D2104	✓	\$280	F1	1.5-1.6/1.8	16	9.97	20
	1800	208-230/460	56	NONE	G162	056T17D2121	✓	\$232	F1	1.5-1.6/1.8	16	9.97	20
1/2	1800	575	56	NONE	G964	056T17D2117		\$232	F1	0.64	16	9.97	20,70
	1800/1200	200-230	56	NONE	K544	5K42JN3051	✓	\$382	F1	2.4-2.8/1.5-1.7	23	10.05	19
	1800/1200	460	56	NONE	K546	5K42JN3050	✓	\$382	F1	1.1/0.6	22	10.05	19
	1800	208-230/460	56	AUTO	K1408	5K42HN4089X	✓	\$310	F1	2.3-2.2/1.1	20	10.05	19
	1800	208-230/460	56	NONE	K381	5K42HN4089	✓	\$262	F1	2.3-2.2/1.1	20	10.05	19
	1800	208-230/460	56	AUTO	G140	056T17D5345	✓	\$324	F1	2.3-2.4/1.2	22	10.85	VC,19
3/4	1800	575	56	NONE	G961	056T17D2118	✓	\$261	F1	0.9	18	10.47	19,70
	3600	208-230/460	56	AUTO	K1409	5K37MN252X	✓	\$284	F1	2.6-2.6/1.3	16	10.72	19
	1800/1200	200-230	56	NONE	K279	5K49PN3053	✓	\$454	F1	2.8-3.0/1.6-1.8	31	11.48	19
	1800/1200	460	56	NONE	K280	5K49PN3052	✓	\$454	F1	1.3/0.7	28	11.48	19
	1800	208-230/460	56	AUTO	K1410	5K46KN4085X	✓	\$339	F1	3.3-3.0/1.5	21	10.88	19
	1800	208-230/460	56	AUTO	G141	056T17D5346	✓	\$354	F1	2.9-3.0/1.5	23	10.85	VC,19
1	1800	208-230/460	56	NONE	K277	5K46KN4085	✓	\$293	F1	3.3-3.0/1.5	25	10.88	19
	1800	575	56	NONE	G962	056T17D2119	✓	\$292	F1	1.1	21	10.97	19,70
	3600	208-230/460	56	AUTO	K1411	5K38PN258X	✓	\$316	F1	3.3-3.2/1.6	18	11.32	19
	1800/1200	200-230	56	NONE	K518	5K49SN3054	✓	\$470	F1	3.7-3.9/2.0-2.2	35	12.01	18
	1800/1200	460	56	NONE	K519	5K49SN3055	✓	\$470	F1	1.8/1.1	35	12.01	18
	1800	208-230/460	56	AUTO	K1412	5K46MN4087X		\$360	F1	3.6-3.8/1.9	27	10.88	18
1 1/2	1800	208-230/460	56	AUTO	G142	056T17D5347	✓	\$360	F1	3.5-3.6/1.8	25	11.35	VC,18
	1800	208-230/460	56H	AUTO	G100	056T17D2101	✓	\$346	F1	3.4-3.4/1.7	24	11.47	5,18
	1800	208-230/460	56	NONE	K278	5K46MN4087	✓	\$301	F1	3.6-3.8/1.9	27	10.88	18
	1800	575	56H	NONE	G963	056T17D2120	✓	\$300	F1	1.4	23	11.47	5,18,70
	3600	208-230/460	56H	AUTO	K1413	5K49KN2150X	✓	\$377	F1	5.0-4.8/2.4	26	12.01	18
	1800/1200	200-230	56H	NONE	K520	5K48UN3056	✓	\$484	F1	5.0-5.3/2.8-3.1	40	12.76	18
2	1800/1200	460	56H	NONE	K549	5K48UN3057	✓	\$484	F1	2.3/1.4	40	12.76	18
	1800	208-230/460	56	NONE	G122	056T17D5329	✓	\$333	F1	4.8-4.8/2.4	28	11.35	18
	1800	208-230/460	56H	AUTO	K1415	5K49PN4088X	✓	\$378	F1	5.5-5.6/2.8	31	12.01	18
	1800	208-230/460	56	AUTO	G143	056T17D5348	✓	\$393	F1	4.8-4.8/2.4	28	11.35	VC,18
	1800	208-230/460	145T	AUTO	K2030	5KE49TN8384T		\$409	E6	4.5-4.4/2.2	40	13.19	18,70
	1800	575	56H	AUTO	G965	056T17D5357		\$377	F1	1.9	29	11.35	18,70
3	3600	208-230/460	56H	AUTO	K1416	5K49NN2147X	✓	\$435	F1	6.0-6.0/3.0	30	12.01	18
	1800	208-230/460	56H	AUTO	G144	056T17D5349	✓	\$435	F1	6.2-6.2/3.1	35	12.35	VC,5,18
	1800	208-230/460	56H	NONE	G127	056T17D5332	✓	\$364	F1	6.2-6.2/3.1	34	12.35	5,18
	1800	208-230/460	56H	AUTO	K1418	5K49UN4086X	✓	\$412	F1	6.2-6.0/3.0	39	13.96	5,18
	1800	575	56H	AUTO	G967	056T17D5385		\$411	F1	2.5	36	12.35	5,18,70
5	3600	208-230/460	56HZ	AUTO	B193	056T34D5357	✓	\$488	F1	8.9-8.4/4.2	34	12.22	Z,5,18
	3600	208-230/460	145T	AUTO	K2037	5KE49UN8376T		\$476	E6	8.4-7.6/3.8	34	13.19	18,70
	1800	208-230/460	56HZ	AUTO	G145	056T17D5350	✓	\$458	F1	9.2-8.6/4.3	48	14.22	Z,VC,5,18
	1800	208-230/460	56HZ	AUTO	K1497	5K49WN4335X	✓	\$508	F1	10.2/4.8	44	15.31	11,18
5	3600	208-230/460	56HZ	AUTO	X251	056T34D5364	✓	\$654	F1	13.5-12.4/6.2	50	13.49	Z,5,12,17,70
	3600	230/460	145T	AUTO	K2038	5KE49QN8375T		\$541	E6	12.4/6.2	54	14.19	17,70

Exhaust Ventilator, Single Phase
Dripproof, C-Face Footless, Single Speed

Features:

- Split phase (except as noted)
- Thermal protection, as noted
- Service Factor, as noted
- Motors with 56CZ frames have 2-1/4 x 5/8 shaft dimensions
- Ball Bearings



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/12	1140	115	56CZ	NONE	H204	5KH32GN142	✓	\$247	F1	2.4	13	9.62	112
	850	115	56CZ	NONE	H205	5KH37PN37X	✓	\$358	F1	3.2	19	11.08	112
	850	115	56CZ	AUTO	H278	5KH37PN37X	✓	\$367	F1	3.2	19	11.08	112
1/8	1140	115	56CZ	AUTO	H287	5KH36KN112X	✓	\$285	F1	3.8	15	10.68	112
	1140	115	56CZ	NONE	H206	5KH36KN112	✓	\$271	F1	3.8	15	10.68	112
	850	115	56CZ	NONE	H207	5KH46MN3041	✓	\$439	F1	4.6	22	11.15	112
1/6	1725	115	56CZ	NONE	H208	5KH32DN111	✓	\$145	F1	4.2	11	9.62	20
	1140/850	115	56CZ	NONE	H222	5KH49PN3047	✓	\$431	F1	4.2/2.9	43	11.70	20
	1140	115	56CZ	AUTO	H210	5KH37PN36X	✓	\$316	F1	4.0	19	11.08	20
	1140	115	56CZ	NONE	H209	5KH37PN36	✓	\$221	F1	4.0	19	11.08	20
1/4	1725	115	56CZ	NONE	H212	5KH33FN77	✓	\$154	F1	5.6	13	9.87	20
	1725	115	56CZ	AUTO	H213	5KH33FN77X	✓	\$231	F1	5.6	13	9.87	20
	1725/1140	115	56CZ	NONE	H223	5KH37PN40	✓	\$296	F1	4.2/2.7	20	11.08	20
	1140/850	115	56CZ	NONE	H224	5KH49SN3049	✓	\$525	F1	5.8/3.6	29	11.91	20
	1140	115	56CZ	NONE	H214	5KH46MN6071	✓	\$262	F1	5.6	22	11.15	20
	1140	115	56CZ	AUTO	H215	5KH46MN6071X	✓	\$361	F1	5.6	22	11.15	20
1/3	850	115	56CZ	AUTO	H288	5KH49SN3023X	✓	\$617	F1	6.9	31	13.59	20
	1725	115	56CZ	NONE	H217	5KH35JN121	✓	\$174	F1	6.6	14	10.25	20
	1725	115	56CZ	AUTO	H218	5KH35JN121X	✓	\$261	F1	6.6	14	10.25	20
	1725/1140	115	56CZ	NONE	H225	5KH46MN3040	✓	\$368	F1	5.7/3.2	22	11.15	20
	1140	115	56CZ	NONE	H219	5KH49PN6069	✓	\$432	F1	7.0	31	11.70	20
1/2	850	115	56CZ	AUTO	H280	5KH49UN3024X	✓	\$647	F1	9.2	40	13.59	20
	1725	115	56CZ	NONE	H290	5KH36MN137	✓	\$230	F1	7.2	16	11.31	19
	1725/1140	115	56CZ	AUTO	H282	5KH49PN3042X	✓	\$444	F1	8.0/4.2	31	11.70	19
	1725/1140	115	56CZ	NONE	H226	5KH49PN3042	✓	\$432	F1	8.0/4.2	26	11.70	19
	1140	115	56CZ	NONE	H221	5KH48UN6074	✓	\$490	F1	9.0	34	12.66	19
1140	115/208-230	56C	NONE	G278	56C11D5304	✓	\$448	F1	10.6/5.1-5.3	32	11.94	2,19	

Furnace Blower, Split Phase
Open, PDQ Mounting

Applications:

Designed for replacement of virtually any NEMA 48 and 56 frame belt drive furnace blower motors. PDQ models have 1 1/2" extended splined hub on opposite shaft end for quick and easy positioning of resilient ring to properly fit the pre-existing motor base.

Features:

- Ball bearings
- Reversible rotation connected for CCW rotation from factory
- NEMA service factors
- 4733, 4734 and 4735 have both 48 and 56 frame mounting holes and includes mounting base
- UL Recognized and CSA Certified



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	MIN/MAX BASE DIM'S	FOOT NOTES
1/4	1725	115	48Y	AUTO	4733	5KH39DNA533T	✓	\$159	F1	5.1	13	9.78	6.62" & 7.91"	
	1725	115	48Y	AUTO	4730	5KH39QN9725T	✓	\$146	F1	5.0	13	9.78	6.62" & 7.91"	30
1/3	1725	115	48Y	AUTO	4734	5KH32HNA532T	✓	\$171	F1	6.6	15	10.03	6.87" & 8.16"	
	1725	115	48Y	AUTO	4731	5KH39QN9696X	✓	\$157	F1	5.8	15	10.28	7.12" & 8.41"	30
	1725	230	48Y	AUTO	4738	5KH39QN9703T	✓	\$256	F1	3.1	15	10.28	7.12" & 8.41"	30
1/2	1725	115	48Y	AUTO	4732	5KH39QN9702T	✓	\$207	F1	7.9	17	10.66	7.50" & 8.79"	30
	1725	115	48Y	AUTO	4735	5KH33JNA534T	✓	\$224	F1	7.9	15	10.28	6.62" & 7.91"	
	1725	230	48Y	AUTO	4739	5KH39QN9704T	✓	\$323	F1	4.0	17	10.66	7.50" & 8.79"	30

✓ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Oil Burner, Split Phase and Capacitor Start NEMA 48M and 48N Flange Mount

Applications:

Direct replacement motors for residential and commercial oil burners and hot water pressure/steam cleaners.

Features:

- Ball Bearings (except as noted)
- Semi- or totally enclosed steel frame
- 20" Long leads from a 1/2" NPT opening (totally enclosed footnoted with N)
- Split phase and capacitor start designs
- Two-bolt, NEMA N- or M-Flange direct
- Catalog numbers 4781, 4788, O010 mounting and O011 have dripproof enclosures
- 1.0 Service Factor



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/8	3450	115	48N	MANUAL	O005	48S34S2004	√	\$128	F1	2.4	9	7.09	3,61
	1725	115	48N	MANUAL	O600	48S17T286	√	\$112	F1	2.8	11	7.7	CF,N,3
1/7	3450	115	48M	MANUAL	O100	48S34S361	√	\$138	F1	2.8	11	7.7	CF,3
	3450	115	48M	MANUAL	O102	48S34S2005	√	\$146	F1	3.0	11	7.25	3
1/6	1725	115	48N	MANUAL	O601	48S17T290	√	\$120	F1	2.7	12	7.59	CF,N,3
	3450	115/230	48N	MANUAL	O012	48C34S24	√	\$170	F1	3.0/1.5	14	8.35	2,61
1/4	3450	115	48N	MANUAL	O004	48S34S2003	√	\$170	F1	4.2	13	8.13	CF,3
	3450	115/230	48N	MANUAL	O013	48C34S2001	√	\$177	F1	4.4/2.2	19	8.6	2
	1725	115	48N	MANUAL	O002	48S17S25	√	\$145	F1	4.2	12	7.59	3
1/3	3450	115/230	48N	MANUAL	4788	5KC37EN3900U	√	\$186	F1	6.0/3.0	14	10.13	d
	3450	115/208-230	48N	MANUAL	O010	48C34D2024	√	\$186	F1	5.6/2.7-2.8	14	10.34	2
	3450	115	48N	MANUAL	4774	5KH33GN5014U	√	\$173	F1	4.9	15	8.38	3,4
	1725	115	48N	MANUAL	O003	48S17S24	√	\$168	F1	5.0	17	8.34	3
1/2	3450	115/230	48N	MANUAL	4781	5KC37HN3898U	√	\$229	F1	8.2/4.1	15	10.13	
	3450	115/208-230	48N	MANUAL	O011	48C34D2028	√	\$229	F1	7.4/3.5-3.7	17	10.84	2

Oil Burner, PSC NEMA 48M Flange Mount

Applications:

Replacement motors for mini pumps in residential or light commercial furnaces.

Features:

- High efficiency design
- 14" cord for easy connection
- Ultra quiet performance
- UL Recognized and CSA Certified



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/7	3450	115	48M	AUTO	O701	48A34SU1001	√	\$119	F1	1.7	8	6.61	3,61

**Oil Burner, Split Phase and Capacitor Start
Dripproof, NEMA 56C, C-Face Footless**

Features:

- Ball Bearings
- Manual or automatic reset thermal
- Split Phase and capacitor start designs protector
- NEMA 56C direct mounting
- NEMA Jet Pump Service Factors
- Moderate starting torque
- UL Recognized and CSA Certified



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	"C" DIM.	FOOT NOTES
1/4	3600	115	56C	MAN	O200	56S34D2000	√	\$139	F1	4.3	14	10.19	3,15,115
1/3	3600	115	56C	AUTO	O201	56S34D93	√	\$132	F1	5.6	14	10.44	2,3,15
	3600	115/230	56C	AUTO	J1025	5KC37FN71X	√	\$154	F1	6.4/3.2	14	10.71	2,115
	3600	115/208-230	56C	MAN	O211	56C34D2109	√	\$161	F1	5.6/2.7-2.8	14	10.44	2,115
	3600	115/208-230	56C	AUTO	O210	56C34D2114	√	\$154	F1	5.6/2.7-2.8	14	10.44	2,115
1/2	3600	115/208-230	56C	MAN	O213	56C34D2099	√	\$176	F1	7.4/3.5-3.7	16	10.69	2,114
	3600	115/208-230	56C	AUTO	O212	56C34D2098	√	\$169	F1	7.4/3.5-3.7	17	10.69	2,114
	3600	115/230	56C	AUTO	C330	5KC36JN268X	√	\$205	F1	7.6/3.8	17	10.31	2,114
3/4	3600	115/208-230	56C	MAN	O215	56C34D2112	√	\$199	F1	9.8/4.8-4.9	18	10.94	2,113
	3600	115/208-230	56C	AUTO	O214	56C34D2104	√	\$199	F1	9.8/4.8-4.9	20	10.94	2,113
	3600	115/230	56C	AUTO	C332	5KC39NN50X	√	\$199	F1	11.2/5.6	22	11.84	2,113
1	3600	115/230	56C	AUTO	C334	5KC39RN44X	√	\$223	F1	13.2/6.6	22	12.59	2,112
	3600	115/208-230	56C	MAN	O217	56C34D2105	√	\$230	F1	12.0/6.2-6.0	24	11.94	2,112
1 1/2	3600	115/208-230	56C	MAN	O231	56B34D2028	√	\$312	F1	13.4/7.4-6.7	25	11.97	1,111
	3600	115/208-230	56C	AUTO	C336	5KC49NN2140X	√	\$304	F1	18.4-9.8/9.2	27	11.38	1,111
2	3600	115/208-230	56C	AUTO	C338	5KC49TN2141X	√	\$377	F1	21.2-11.5/10.6	38	13.22	1,110
	3600	115/208-230	56C	MAN	O232	56B34D5337	√	\$386	F1	19.2/10.3-9.6	33	11.44	1,110
3	3600	115/230	56C	AUTO	C340	5KCR48TN2142T	√	\$599	F1	29.4/14.7	38	12.66	1,18

**Refrigeration Fan Motors, Three Phase
Open Air Over, Shaft Up & Horizontal Rigid Base Mount**

Applications:

Replacement motor for refrigeration equipment.

Features:

- 70°C ambient
- Enclosed shaft end bracket, vented frame
- Continuous duty
- Automatic reset thermal protector
- Shaft slinger
- Threaded lead exit
- Nameplated 60/50 hertz 190/380 volts, at next lower HP
- Double sealed ball bearings
- Flat and keyway on shaft
- Patented VCD, Voltage Change Device
- Ball Bearings
- UL Recognized and CSA Certified



As Noted

X507 (Footless)

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	"C" DIM.	FOOT NOTES
1/2	850	208-230/460	56HZ	X529	056T8O5531	√	\$547	F1	2.9-3.0/1.5	31	9.62	5/8 x 5	VC,5
1	850	208-230/460	56HZ	X528	056T8O5306	√	\$614	F1	5.1-5.3/2.65	49	10.62	5/8 x 5	VC,5
	850	208-230/460	56Y	X507	056T8O5302	√	\$597	F1	5.3-5.3/2.6	46	12.00	5/8 x 5	VC
	850	575	56Y	K1511	5K48WN3181S	√	\$563	F1	2.0	44	10.77	5/8 X 6	
1 1/2	1140	208-230/460	56HZ	X523	056T11O5306	√	\$501	F1	5.45-5.4/2.7	36	11.00	5/8 x 5	VC,5
	850	208-230/460	56HZ	X531	056T8O15504	√	\$668	F1	7.0-7.0/3.5	47	11.50	5/8 x 5	VC,5
2	1140	208-230/460	56HZ	X525	056T11O5310	√	\$543	F1	7.2-6.8/3.4	47	12.00	5/8 x 5	VC,54

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

Unit Heater Fan, PSC, TEAO

Resilient Base

Applications:

Replacement motors for unit heaters. Air over motors need to be mounted within the airstream for proper cooling.

Features:

- Totally enclosed
- Direct drive, air over
- Ball Bearings
- Horizontal or vertical mount
- Weather resistant reversing plug
- BX connector mounted in frame
- 1" Extended thru-bolts
- 48Y Frame has non-standard BA dimension
- Automatic reset thermal protection
- UL Recognized and CSA Certified
- Capacitor included



HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	LIST PRICE	MULT. SYMB.	F.L. AMPS	WEIGHT	FRAME LENGTH	"C" DIM.	FOOT NOTES
1/6	1625	115	48Y	X305	48A17T2001	√	\$164	F1	2.0	13	4 3/4	1/2 x 2 3/4	
	1625	115	48Y	X301	48A17T72	√	\$146	F1	2.0	13	5 1/4	1/2 x 2 3/4	
	1075	115	48Y	X302	48A11T199	√	\$170	F1	3.0	13	4 3/4	1/2 x 2 3/4	
1/4	1075	115	48Y	X303	48A11T198	√	\$178	F1	4.1	14	4 3/4	1/2 x 2 3/4	
1/3	1075	115	48Y	X304	48A11T201	√	\$197	F1	6.5	21	21	1/2 x 2 3/4	

Split Mounting Rings

Used for adapting a 2-1/4" Resilient Mounting Ring to 2-1/2".
Kit includes: 4 split rings.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A104	KIT 104	\$8	1

Resilient Ring Kit

Used to mount Resilient Rings onto Hubbed PSC Brackets.
Kit includes: 2 rubber resilient rings and 4 split rings.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT	NOTES
A110	KIT 110	\$11	1	2-1/4" (48 frame)
A114	KIT 114	\$16	1	2-1/2" (56 frame)

Rubber Mounting Hardware

Used for mounting the resilient base to a resilient ring.
Kit includes: 4 clamps, 2 screws, and 2 nuts.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT	NOTES
A112	KIT 112	\$10	1	56 Frame
A113	KIT 113	\$10	1	48 Frame
AG195	161L110AA1	\$10	1	2 1/2" dia; 30 or 40
A518	161L110AA4	\$10	1	2 1/2" dia; 40

48 Frame Lug Mounts Kits



A249
Single Strap,
Dual Slot
2" L, 1/4" & 3/4" W
\$35

A250
Double Strap,
Dual Slot
2" L, 1/4" & 3/4" W
\$35



A251
Double Strap,
Dual Slot
4" L, 1/4" & 3/4" W
\$35

A252
Single Strap,
Single Slot
2" L x 3/8" W
\$35



A253
Double Strap,
Single Slot
2" L x 3/8" W
\$35

A254
Double Wire,
Single Slot
2" L x 3/8" W
\$35

All Kits Listed on This Page are Stock

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

marathon
Motors

Accessory Kits

MARATHON

Length Adapter Kit

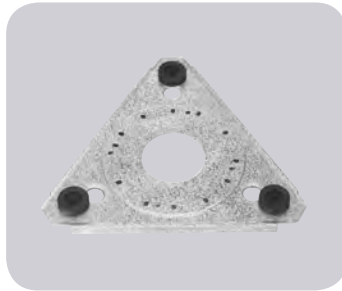
Used to convert Hubless motors to Resilient Ring mount. One adapter bracket can be mounted directly to original motor bracket and the other is mounted on the motor's thru-bolts and can be adjusted to desired length. Kit includes: 2 adapters, 2 resilient rings, 4 split rings, a nd the necessary nuts, screws, and washers.



CAT. NO.	KIT NO.	DESCRIPTION	LIST PRICE	WEIGHT
MA111	KIT 111	Two Adapters	\$20	1

Fedders Mounting Kit

Used in Fedders air conditioners.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A277	KIT 277	\$25	2

Capacitor Mounting Kit

Used for mounting a capacitor on the frame of a Permanent Split Capacitor motors. Kit includes: mounting strap, mounting screws, and terminal protection boot. (4 screws are included - 2#10 screws and 2#8 screws). Fits 10mfd. and smaller capacitors only.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A100	KIT 100	\$8	2

Rheem/Ruud Mounting Kit

Used to replace a Rheem/Ruud condenser fan motor where the original was held in place by four cables. Kit includes: prepunched plated steel plate, 4-8x32 nuts with washer fastened, 4-10x32 nuts with washers fastened and 4-1/4" sheet metal screws. Instructions included.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A259	Kit 259	\$25	2

Fedders Adapter Plate

Used to match Fedders rectangular mounting stud pattern on 5-5/8" motors.

CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A278	KIT 278	\$13	3

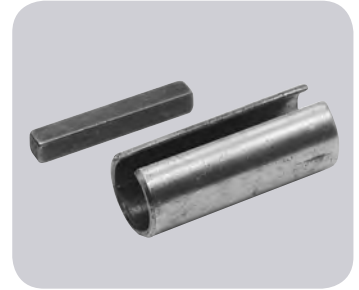
Capacitor with Mounting Kit

Kit includes 370 volt capacitor, mounting strap, mounting screws and terminal protection boot.

CAT. NO.	KIT NO.	SIZE	LIST PRICE	WEIGHT
A243	KIT 243	5.0 mfd	\$16	2
A244	KIT 244	7.5 mfd	\$19	2
A245	KIT 245	10.0 mfd	\$21	2

Shaft Adapter Sleeve

Used to increase the diameter of a shaft to a larger size. Available sizes include converting from a 1/2" dia. shaft with flat to a 5/8" dia. with key and from a 5/8" dia. with key to a 3/4" dia. with key. Kit includes adapter sleeve and key.



CAT. NO.	KIT NO.	TO CHANGE SHAFT	LIST PRICE	WEIGHT
A105	KIT 105	1/2" to 5/8"	\$8	3

Shaft Lock Device

Used as a pry point for prying the blade off. Instructions included.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A257	KIT 257	\$47	2

All Kits Listed on This Page are Stock

Blower Wheel Remover

Used to pull off corroded, rusted, stubborn blower wheels from 5/8" diameter shafts and smaller. Comes with complete instructions.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A256	KIT 256	\$148	2

Tapered Fork

Used for prying off pulleys, fan blades, etc., from any shaft 5/8" diameter or smaller. Long 16" handle gives good leverage. Instructions included.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A258	KIT 258	\$62	4

Brass Punch

Used for placing between your hammer and a motor's shaft or bearing. 3/4" diameter x 6" length.

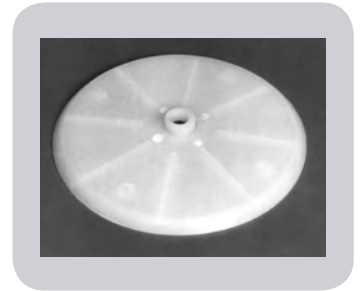


CAT. NO.	KIT NO.	LIST PRICE	WEIGHT
A261	KIT 261	\$21	6

Motor Rainshield/Fan Canopy

Sizes to fit 1/2" or 5/8" diameter shafts. 6.88" diameter. Shield has 8 air vanes to provide air circulation for motor. For vertical shaft up applications Rain shield mounts over shaft

056 Type Model Numbers



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT	SHAFT DIA.
A248	KIT 248	\$8	2	5/8"

5K Type Model Numbers

Includes clamp and black plastic cover.



CAT. NO.	KIT NO.	LIST PRICE	WEIGHT	WHERE USED
A549	52A101229AAG1	\$57	2	5.5" Dia. Motors, 1/2" shaft dia.

Drip Cover Kits

Mounts with two screws into the end bracket. Kit includes: drip cover, mounting screws, washers, and instructions. Contact Marathon Motors to determine compatibility with motor. For vertical shaft down applications.

Note: Kit 234, the mounting holes have a 4.80 bolt circle.

CAT. NO.	FRAME	KIT NO.	ENCLOSURE	LIST PRICE	WEIGHT
A234	48-184T("629")	KIT 234	ODP OR TEFC	\$24	2
AG234	48-56	161L528AAG1	5K MDLS ODP	\$24	2
A201	182T-184T	KIT 201	ODP	\$27	3
A662	182T-184T	KIT 175614	ODP (TTDW)	\$62	15
A197	182T-184T	KIT 197	TEFC (4-IN-1)	\$27	3
A202	213T-215T	KIT 202	ODP (TTDR)	\$31	5
A198	213T-215T	KIT 198	ODP (TTDW)	\$31	5
A199	213T-215T	KIT 199	TEFC (4-IN-1)	\$31	5
A311	254T-256T	KIT 311	ODP (TTDX) Rigid Base	\$31	8

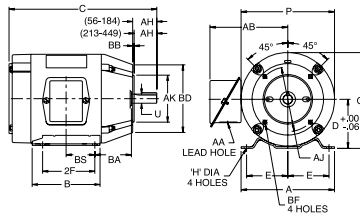
All Kits Listed on This Page are Stock

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

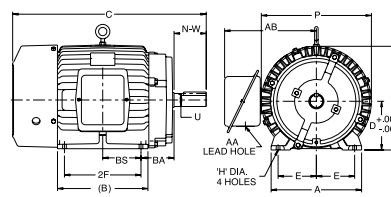
NEMA Quick Reference Dimensional Chart

NEMA Quick Reference Dimensional Chart

Typical C-Face Motor



Typical Rigid Base Motor



NEMA C-Face	BA Dim.
143-5TC	2-3/4
182-4TC	3-1/2
213-5TC	4-1/4
254-6TC	4-3/4

Contact your Marathon sales rep. for "AB", "O", & "P" Dim.

Refer to your Marathon catalog for "C" Dim.

FRAME	D	E	2F	H	U	N-W	AA	AH	AJ	AK	BA	BB (MIN)	BD (MAX)	BF
48	3.00	2.12	2.75	.34 SLOT	.5000	1.50	1/2	1.69	3.750	3.000	2.50	.13	5.62	1/4-20
56	3.50	2.44	3.00	.34 SLOT	.6250	1.88	1/2	2.06	5.875	4.500	2.75	.13	6.50	3/8-16
56H	3.50	2.44	5.00	.34 SLOT	.6250	1.88	1/2	2.06	5.875	4.500	2.75	.13	6.50	3/8-16
143T	3.50	2.75	4.00	.34	.8750	2.25	3/4	2.12	5.875	4.500	2.25	.13	6.50	3/8-16
145T	3.50	2.75	5.00	.34	.8750	2.25	3/4	2.12	5.875	4.500	2.25	.13	6.50	3/8-16
182	4.50	3.75	4.50	.41	.8750	2.25	3/4	2.12	5.875	4.500	2.75	.13	6.50	3/8-16
184	4.50	3.75	5.50	.41	.8750	2.25	3/4	2.12	5.875	4.500	2.75	.13	6.50	3/8-16
182T	4.50	3.75	4.50	.41	1.125	2.75	3/4	2.62	7.250	8.500	2.75	.25	9.00	1/2-13
184T	4.50	3.75	5.50	.41	1.125	2.75	3/4	2.62	7.250	8.500	2.75	.25	9.00	1/2-13
213	5.25	4.25	5.50	.41	1.125	3.00	1	2.75	7.250	8.500	3.50	.25	9.00	1/2-13
215	5.25	4.25	7.00	.41	1.125	3.00	1	2.75	7.250	8.500	3.50	.25	9.00	1/2-13
213T	5.25	4.25	5.50	.41	1.375	3.38	1	3.12	7.250	8.500	3.50	.25	9.00	1/2-13
215T	5.25	4.25	7.00	.41	1.375	3.38	1	3.12	7.250	8.500	3.50	.25	9.00	1/2-13
254U	6.25	5.00	8.25	.53	1.375	3.75	1-1/4	3.50	7.250	8.500	4.25	.25	10.00	1/2-13
256U	6.25	5.00	10.00	.53	1.375	3.75	1-1/4	3.50	7.250	8.500	4.25	.25	10.00	1/2-13
254T	6.25	5.00	8.25	.53	1.625	4.00	1-1/4	3.75	7.250	8.500	4.25	.25	10.00	1/2-13
256T	6.25	5.00	10.00	.53	1.625	4.00	1-1/4	3.75	7.250	8.500	4.25	.25	10.00	1/2-13
284U	7.00	5.50	9.50	.53	1.625	4.88	1-1/2	4.62	9.000	10.500	4.75	.25	11.25	1/2-13
286U	7.00	5.50	11.00	.53	1.625	4.88	1-1/2	4.62	9.000	10.500	4.75	.25	11.25	1/2-13
284T	7.00	5.50	9.50	.53	1.875	4.62	1-1/2	4.38	9.000	10.500	4.75	.25	11.25	1/2-13
286T	7.00	5.50	11.00	.53	1.875	4.62	1-1/2	4.38	9.000	10.500	4.75	.25	11.25	1/2-13
284TS	7.00	5.50	9.50	.53	1.625	3.25	1-1/2	3.00	9.000	10.500	4.75	.25	11.25	1/2-13
286TS	7.00	5.50	11.00	.53	1.625	3.25	1-1/2	3.00	9.000	10.500	4.75	.25	11.25	1/2-13
324U	8.00	6.25	10.50	.66	1.875	5.62	2	5.38	11.000	12.500	5.25	.25	14.00	5/8-11
326U	8.00	6.25	12.00	.66	1.875	5.62	2	5.38	11.000	12.500	5.25	.25	14.00	5/8-11
324T	8.00	6.25	10.50	.66	2.125	5.25	2	5.00	11.000	12.500	5.25	.25	14.00	5/8-11
326T	8.00	6.25	12.00	.66	2.125	5.25	2	5.00	11.000	12.500	5.25	.25	14.00	5/8-11
324TS	8.00	6.25	10.50	.66	1.875	3.75	2	3.50	11.000	12.500	5.25	.25	14.00	5/8-11
326TS	8.00	6.25	12.00	.66	1.875	3.75	2	3.50	11.000	12.500	5.25	.25	14.00	5/8-11
364U	9.00	7.00	11.25	.66	2.125	6.38	2-1/2	6.12	11.000	12.500	5.88	.25	14.00	5/8-11
365U	9.00	7.00	12.25	.66	2.125	6.38	2-1/2	6.12	11.000	12.500	5.88	.25	14.00	5/8-11
364T	9.00	7.00	11.25	.66	2.375	5.88	2-1/2	5.62	11.000	12.500	5.88	.25	14.00	5/8-11
365T	9.00	7.00	12.25	.66	2.375	5.88	2-1/2	5.62	11.000	12.500	5.88	.25	14.00	5/8-11
364TS	9.00	7.00	11.25	.66	1.875	3.75	2-1/2	3.50	11.000	12.500	5.88	.25	14.00	5/8-11
365TS	9.00	7.00	12.25	.66	1.875	3.75	2-1/2	3.50	11.000	12.500	5.88	.25	14.00	5/8-11
404U	10.00	8.00	12.25	.81	2.375	7.12	3	6.88	11.000	12.500	6.62	.25	15.50	5/8-11
405U	10.00	8.00	13.75	.81	2.375	7.12	3	6.88	11.000	12.500	6.62	.25	15.50	5/8-11
404T	10.00	8.00	12.25	.81	2.875	7.25	3	7.00	11.000	12.500	6.62	.25	15.50	5/8-11
405T	10.00	8.00	13.75	.81	2.875	7.25	3	7.00	11.000	12.500	6.62	.25	15.50	5/8-11
404TS	10.00	8.00	12.25	.81	2.125	4.25	3	4.00	11.000	12.500	6.62	.25	15.50	5/8-11
405TS	10.00	8.00	13.75	.81	2.125	4.25	3	4.00	11.000	12.500	6.62	.25	15.50	5/8-11
444U	11.00	9.00	14.50	.81	2.875	8.62	3	8.38	14.000	16.000	7.50	.25	18.00	5/8-11
445U	11.00	9.00	16.50	.81	2.875	8.62	3	8.38	14.000	16.000	7.50	.25	18.00	5/8-11
444T	11.00	9.00	14.50	.81	3.375	8.50	3	8.25	14.000	16.000	7.50	.25	18.00	5/8-11
445T	11.00	9.00	16.50	.81	3.375	8.50	3	8.25	14.000	16.000	7.50	.25	18.00	5/8-11
444TS	11.00	9.00	14.50	.81	2.375	4.75	3	4.50	14.000	16.000	7.50	.25	18.00	5/8-11
445TS	11.00	9.00	16.50	.81	2.375	4.75	3	4.50	14.000	16.000	7.50	.25	18.00	5/8-11
447T	11.00	9.00	20.00	.81	3.375	8.50	3	8.25	14.000	16.000	7.50	.25	18.00	5/8-11
449T	11.00	9.00	25.00	.81	3.375	8.50	3	8.25	14.000	16.000	7.50	.25	18.00	5/8-11
447TS	11.00	9.00	20.00	.81	2.375	4.75	4 NPT	4.50	14.000	16.000	7.50	.25	18.00	5/8-11
449TS	11.00	9.00	25.00	.81	2.375	4.75	4 NPT	4.50	14.000	16.000	7.50	.25	18.00	5/8-11

Footnotes

1	Capacitor Start/Capacitor Run design for reduced amperage
2	Capacitor Start Induction Run design
3	Split Phase design
4	Sleeve bearing
5	56H, 143T, and 145T Combination Base with 12 mounting holes
6	Bolt-on removable base for footless mounting option
7	Shaft extension 1-1/2" long by 1/2" diameter
8	Shaft extension 1-7/8" long by 1/2" diameter
9	Shaft extension 2-1/4" long by 1/2" diameter
10	Shaft extension 2-1/4" long by 5/8" diameter
11	Shaft extension 2-1/4" long by 7/8" diameter
12	With rigid base
13	F1 Mounting only, cannot reassemble to F2
14	Will accept C-Face kit, see Accessory Section
15	Fixed CW Rotation, viewing opposite shaft (or lead end) of motor
16	Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor
17	1.0 Service Factor
18	1.15 Service Factor
19	1.25 Service Factor
20	1.35 Service Factor
21	Double shaft extension 1-1/2" long by 1/2" diameter with flat each end
22	Double shaft extension 1-7/8" long by 5/8" diameter each end
23	Shaft extension 3/8" diameter
24	Motor will NOT accept a Brake kit
25	Motor will NOT accept C-Face Kits
26	5/8" shaft adapter included
27	Drip Cover included
28	Steel Endshields
29	Weep holes with removable plugs on end brackets. Remove bottom plug after installation
30	Resilient ring mount, base not included
31	5/8" Thru-bolts, shaft end
32	3/4" Thru bolts, shaft end
33	Shaft extension 6" long by 5/8" diameter with full flat and key 90° apart
34	1" Thru-bolts, shaft end
35	1-1/8" Thru-bolts, shaft end
36	1-1/4" Thru-bolts, shaft end
37	1-1/2" Thru-bolts, shaft end
38	2" Thru-bolts, shaft end
39	No Thru-bolts, shaft end
40	Space heaters and 100 ohm platinum stator RTDs included
41	1/2" Thru-bolts, opposite shaft end
42	3/4" Thru-bolts, opposite shaft end
43	2-1/2" Resilient Rings included
44	1" Thru-bolts, opposite shaft end
45	60° C ambient
46	65° C ambient
47	Connected for CCW rotation (U.S. standard) facing opposite shaft end. Reversible by reconnection of leads
48	Connected for CW rotation (Canadian standard) facing opposite shaft end. Reversible by reconnection of leads
49	Shaft extension 1-13/16" long by 1/2" diameter with 6-3/8" mounting flange
50	Designed for 50 Hz operation
51	Does not include resilient rings, see Accessory Section
52	1/2" x 1-7/8" Shaft with 1-5/8" Flat
53	1/2" Shaft with 5/8" adapter and Key
54	30 minute duty cycle, not rated for continuous duty
55	Shaft extension 3-13/16" long by 5/8" diameter with 3.5" keyway
56	1-5/8" Thru-bolts, shaft end
57	Open construction
58	Capacitor supplied with motor
59	TEAO construction
60	Foot locating Set Screws on frame, 90 apart
61	10" Leads
62	43" Leads
63	1-1/2" Thru-bolts, opposite shaft end
65	Mounting accessories and resilient ring for pulley end are not included. Use accessory kit 161L131AB1 for resilient ring mounting
67	Capacitor not included, see Accessory Section
68	Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower
69	50° C Ambient
70	Not Nameplated 50 hz
71	Includes length adapter bracket
72	Usable on 200 Volts at 1.0 service factor
73	No hubs
74	Split phase/capacitor run electrical design
75	Addition of C-Face Kits may result in non-NEMA "BA" dimension. For the resulting "BA" dimension consult chart found in modification section
76	Addition of C-Face Kits in non-NEMA "AH" dimension. "AH" is 2.12, Rework "AH" is 2.38
77	Frame size is drilled with three sets of footholes, 5010, 5011, and 5012 as standard. Foothole drilling for 5009 available upon request, as a build-up
78	Frame size is drilled with two sets of footholes, 5012 and 5013 standard
79	Ball brgs on both ends suitable for direct connection. For belted applications, refer to Customer Service
80	Rolled steel fan guard on 143T-145T
81	24" long #18 SO 2-conductor cord out shell at 11 o'clock position
82	Welded Rigid Base
83	Shaft extension 1-7/8" long by 5/8" diameter with 6-3/8" mounting flange
84	NEMA 145T C-Face mounting with removable 182T rigid base
85	Not tach adaptable
86	2:1 constant torque speed range; RTM for greater torque capability
87	10:1 Constant Torque available as build-up, RTM for price and availability
88	182T base and shaft height, 145TC mounting face and shaft dimensions
89	Threaded NPT opening in conduit box
90	Not UL Recognized
91	Suitable for use on VFD at 208 volt
92	7/8" Thru-bolts, shaft end
93	Permanent split capacitor-switchless
94	1/2" Thru-bolts, shaft end
95	Will not accept drip cover kit
96	3 lead reversible design works with single pole, double throw reversing switch
97	Addition of D-Flange kit will result in non-NEMA "BA" dimension (1/2" longer than NEMA) and non-NEMA shaft extension (1/2" shorter than NEMA).
98	Not UL Listed for Fire Pump applications
99	Suitable for 2:1 CT operation
100	6" shaft extension with 2 flats 90° apart
110	1.20 Service Factor
111	1.30 Service Factor
112	1.40 Service Factor
113	1.50 Service Factor
114	1.60 Service Factor
115	1.75 Service Factor
116	1-3/4" thru-bolt extension on shaft-end
2:1	Suitable for 2:1 CT operation; consult "R164 Rework" table for fan change pricing to upgrade to 10:1 CT
A	NEMA Design A
B	NEMA Design B
C	NEMA Design C
D	Will become build-up item when current stock is gone
E	Design incorporates electronic switch
F	Class F Insulation
H	Class H Insulation
I	Reduced HP @ 120 HZ
N	Totally Enclosed, Non-Ventilated
P	BCP (Bearing Current Protection)
Q	Quick Connect™ terminal board
S	Steel Frame Construction
V	Suitable for 10:1 CT 60 minute duty, otherwise 2:1 CT
X	XRI, Ultra High Efficiency Design
Z	56HZ with 7/8" shaft dia., 3-1/2" shaft height, and slotted 56 frame base
AH	Conforms to GM 7EH and satisfies Ford EM-1 and GM 7EQ
AL	Aluminum Frame Construction
AQ	Conforms to GM 7EQ and satisfies Daimler Chrysler NPem-100, and Ford EM-1
BI	Class B Insulation
BP	Separate power supply required for blower motor
CD	Suitable for Group C
CF	Consult Factory for Accessory Kit and/or Modification Selection
CT	Suitable for 20:1 CT on Vector Drive, continuous duty or 2000:1
ES	Energy Saver Design
FN	Drive has cooling fan
NE	Exempt from NEMA Premium efficiency requirement
NP	Does not meet NEMA PremiumR efficiency
NS	Single Shielded Ball Bearings
PW	Part Winding Start Capability
RB	Roller Bearing on shaft end for belted load only
SH	Space heaters
SL	Sound level exceeds standard
TS	Normally Closed Thermostats installed
VB	Vibration not met
VC	Voltage Change Device feature for quick voltage changes
YD	12 Leads for WYE-DELTA, Part Winding on low voltage, or across-the-line starting

√ Stock model for Marathon and/or MARS. Prices and Specifications are subject to change without notice.

One-On-One™ Direct Replacement Motors

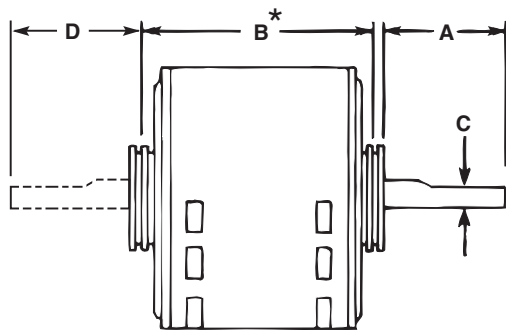


Table of Contents

ONE-ON-ONE

OEM Name	Page No.	OEM Name	Page No.	OEM Name	Page No.
20th Century	O-3	First Company	O-11	McMillan	O-22
Air America Corp.	O-3	Friedrich	O-11	McQuay	O-22
Air Plus	O-3	Frymaster	O-11	Miami/Carey	O-23
Aladdin Steel	O-3	Gaffers and Sattler	O-11	Miller	O-23
Amana	O-3-4	General Electric	O-11	Nordyne	O-23
American Air Filter	O-4	Goodman	O-12-13	Nutone	O-23-24
American Water Heater	O-4	Greenheck Fan	O-13	Patton	O-24
AO Smith/Century	O-4	GSW	O-13	Penn Ventilator	O-24
Aprilaire	O-4	Heat N Glow	O-14	PMI/Valcun Hart	O-24
Arkla	O-4	Heatcraft	O-14	Prestcold	O-24
Armstrong	O-4	Heil-Quaker	O-14	Reznor	O-25
Bohn	O-5	Herman Nelson	O-14	Rheem/Ruud	O-25-27
Bradford White	O-5	Hill Refrigeration	O-14-15	Scherba Ind.	O-27
Broan	O-5	Honeywell Air Cleaner	O-15	Sears/Whirlpool	O-27
Bryant/Carrier	O-5-6	Hussman	O-15	Singer	O-27
Bryant/Payne	O-6	IEC	O-15	Skymark	O-28
Buck Stove	O-6	ILG	O-15	Snyder/Arco	O-28
Butler Ventilator	O-6	Inter City	O-16-17	State Ind.	O-28
Camco	O-6	Interthem-Addison	O-17	Taco	O-28
Carrier	O-6-8	ITT Reznor	O-17	Tappan	O-28
Carrier/Bryant	O-8	Jakel	O-17	Tecumseh	O-28
Carrier/Whirlpool	O-8	Janitrol	O-17	Thermador (Tradewinds)	O-28
Champion Cooler	O-8	Jenn Air	O-18	Thermal Transfer	O-28
Chromalox	O-8	Johnson Furnace	O-18	Tjernlund	O-29
Coleman	O-8	Keeprite	O-18	Trane	O-29-31
Consolidated Industries	O-8	Kelvinator	O-18	Tyler	O-31-32
Copeland	O-9	Krack Refrigeration	O-18	Various OEM's	O-32
Cornelius	O-9	Kramer/Trenton	O-18-19	Warren	O-32
Duotherm	O-9-10	Larkin Coil	O-19	Weil McLain	O-32
Economite/Mid-Continent Gas Burner	O-10	Lear Siegler	O-19	West Bend/McGraw Edison	O-32
Evans/Armstrong/LSI Home	O-10	Lennox	O-19-21	Westinghouse	O-32
Evcon	O-10	Liebert	O-21	Westinghouse/Small Motor Division	O-32
Excel Comfort	O-10	Lomanco	O-22	Williamson	O-32
Fasco	O-10	Loren Cook	O-22	Witt	O-32
Fedders	O-11	Magic Chef	O-22	York	O-32-34
		Mathiesen	O-22		

DIMENSIONS



- Shaft diameter is 1/2 inch on all motors unless otherwise noted.
- * "B" dimension is the center to center of resilient ring dimension or the overall length of the shell and end shields if the motor does not have resilient rings.

20th Century



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A086	-	1/25	115	3200/1	CW	1.3	-	-	-
3.3 inch, Shaded pole motor									
Replaces: JA1N065, 7021-5239, JA1N062, JA1N069, 7021-5853, 7021-7104, 70217104, 70215853, Rheem 703020									

Air America Corp



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1028	-	1/8	115	1050/1	CW	3.3	2.50	3.50	-
5 inch, Shaded pole motor, sleeve bearing									
Replaces: A0510B2008									

Air Plus



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A087	-	1/6	115/230	2400/1	CCW	2.8/1.1	-	-	-
3.3 inch, PSC, sleeve bearing, 50/60Hz									
Replaces: 7062-4687, 7062-3496									

Aladdin Steel



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A120	-	1/40	120	3000/2	CW	1.1	-	-	-
Shaded pole, ball bearing									
Replaces: 230-1460, 7002-2983									

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A129	-	1/20	115	3250/1	CW	1.95	-	-	-
3.3 inch, Shaded pole									
Replaces: Amana, 7021-9064, 7021-9259									

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A158	-	1/25	115	1550/2	CW	0.70	-	-	-
3.3 inch, PSC, sleeve bearing									
Replaces: Amana, 7062-3151									

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A160	-	1/30	115	3000/1	CW	1.6	2.50	3.50	-
3.3 inch, Shaded pole sleeve bearing									
Replaces: Amana 7002-2407									

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A180	-	1/30	115	3400/1	CCW	1.8	2.50	3.50	-
3.3 inch, Shaded pole, ball bearing									
Replaces: 7021-9625, 20190601									

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A185	-	1/30	115	3000/1	CW/SE	1.15	2.50	3.50	-
3.3 inch, Shaded pole, sleeve bearing									
Replaces: 7021-9316, 105854-04									

Amana



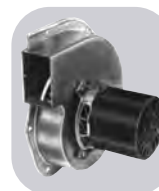
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A280	-	1/25	115	3000/1	CW/SE	1.5	2.50	3.50	-
3.3 inch, Shaded pole, sleeve bearing									
Replaces: 7021-7794, D986868									

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A286	-	1/35	208/230	3125/1	CW	0.60	-	3.50	-
3.3 inch, Shaded pole, sleeve bearing									
Replaces: 7021-9398, 11096904									

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A287	-	1/25	115	3000/1	CW	1.15	-	-	-
3.3 inch, Shaded pole, sleeve bearing									
Replaces: 7021-9655, 10585405									

One-On-One™ Direct Replacement Motors

ONE-ON-ONE

Amana



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A289	-	1/32	208/230	3125/1	CW	0.75	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0081, 20351402



American Air Filter



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03134	5KCP39KGB909S	1/8	115	700/1	CW/OSE	2.0	1.50	6.50	-

PSC, ball bearing, 6@370V capacitor required (MARS # 12006)

Replaces: 5KCP36KG246S, 5KCP36KG317S, 5KCP36KG583S, 5KCP38PG200S



American Air Filter



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1065	-	1/6	277	1600/1	CCW	0.90	2.50	3.33	-

5 inch, PSC, sleeve bearing, 4@370V capacitor required (MARS # 12004)

Replaces: ZCAABWY15141, IWCQ5827, 5KCP29DK3697T



American Air Filter



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D827	-	1/8	115	700/1	CCW	2.5	2.00	5.50	-

5.6 inch, PSC, ball bearing, 6@370V capacitor required (MARS # 12006)

Replaces: 7-150444-02



American Water Heater



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
W1	-	1/25	115	3210/1	CCW	1.9	-	-	-

Shaded pole, sleeve bearing, water heater draft inducer

Replaces: 7021-10060, 3000288



A O Smith/Century



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
20884	-	1/8, 1/6, 1/5, 1/4, 1/3	460	825/1	REV	1.0	6.50	5.30	0.50

5.5 inch, Outdoor Condenser Fan, ball bearing, TEAO, 7.5 MFD @370 cap required

Replaces: ORM4688BF



A O Smith/Century



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D5488	-	1/6-1/8	208-230	825/1	REV	1.0	6.63	4.00	-

5.6 inch PSC, ball bearing, 4 drilled & tapped holes in shell, totally enclosed

Replaces: ORM5488B



A O Smith/Century



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D5489	-	1/3-1/4	208-230	825/1	REV	1.8	6.63	4.75	-

5.6 inch, PSC, ball bearing, 4 drilled & tapped holes in shell, totally enclosed

Replaces: ORM5488B



A O Smith/Century



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
W2	-	1/14	115	3275/1	CW	2.3	-	-	-

3.3 inch, Shaded pole, ball bearing, water heater draft inducer

Replaces: 7021-10770, 183505-000



A O Smith/Century



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
W4	-	1/20	115	3300/1	CCW	1.8	-	-	-

3.3 inch, Shaded pole, sleeve bearing, water heater draft inducer

Replaces: 7021-10910, 183381-000



Aprilaire



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1110	-	1/55	115	1300/1	CW	0.70	1.88	3.63	0.25

3.3 inch, Shaded pole, ball bearing, 1/4 inch dia. shaft

Replaces: 7163-8633, 10002351



Aprilaire



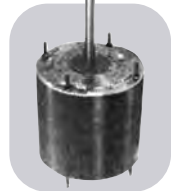
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1114	-	1/11	115	1250/1	CW	0.50	3.13	2.50	-

3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia shaft

Replaces: 7163-7448, 33110076



Arkla



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D795	-	1/3	115	825/1	REV	6.1	6.00	5.75	-

3.3 inch, PSC, ball bearing

Replaces: Gas Heat Pump K55HXSFN8042



Armstrong



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A155	-	1/30	115	3000/1	CCW	1.4	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10046



Bohn



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
09930	-	1/20	115	1550/1	CW SE	2.0	3.00	3.00	-

3.3 inch diameter, open 5/16 inch shaft, shaded pole with lyall plug

Replaces: AO Smith AO1124 Bohn 5KSM59JSK143 5008SS
Fasco D1124, Magentek 572



Bohn



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
09931	-	1/15	230	1550/1	CW SE	0.57	3.00	3.50	-

3.3 inch diameter, open 5/16 inch shaft, shaded pole with lyall plug

Replaces: AO Smith AO1126 Bohn 5KSM59S262AS 5034MS
5008TS Fasco D1126 Magnetek 573



Bohn



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1124	-	1/20	115	1550/1	CW	2.1	3.00	3.00	0.31

3.3 inch Shaded pole, sleeve bearing, 5/16 inch dia. shaft, shell turbo 68, low temp. oil (-40°F)

Replaces: 5KSM59JSK143S & 5KSM59JS5036S



Bohn



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1126	-	1/15	208-230	1550/1	CCW	1.1	3.00	3.50	0.31

3.3 inch Shaded pole, sleeve bearing, shell turbo 68, low temp. oil (-40°F), 5/16 inch dia. Shaft

Replaces: 5KSM59LS2262AS



Bohn



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1125	-	1/12	208-230	1550/1	CW	0.50	2.63	3.75	0.31

3.3 inch PSC, sleeve bearing, 4@370V capacitor included, bolt circle 3.15", 5/16 inch dia. Shaft

Replaces: 7190-0442



Bradford White



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
W5	-	1/14	115	3275/1	CW	2.5	-	-	-

3.3 inch Shaded pole, ball bearing, water heater draft inducer

Replaces: 7021-10712, 239-42133-00B



Bradford White



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
W6	-	1/15	115	3000/1	CCW	2.2	-	-	-

3.3 inch Shaded pole, sleeve bearing, water heater draft inducer

Replaces: 239-4061 4-00C



Broan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K610	-	1/60	115	3000/2	CCW	0.88 - 0.68	1.30	-	-

Shaded pole, sleeve bearing, 5/23 inch dia. Shaft

Replaces: Motor 30080011 Model Y2-52000



Broan



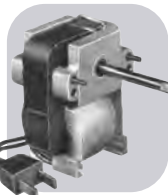
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K612	-	1/65	115	3000/1	CW	0.80	2.70	-	-

Shaded pole, sleeve bearing, 1/4 inch dia shaft

Replaces: Model 162 (Before 1980)



Broan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K611	-	1/100	115	3000/1	CCW	0.67	2.45	-	-

Shaded pole, sleeve bearing, 1/4 inch dia shaft

Replaces: Model 162 (After 1980)



Broan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1087	-	1/12	115	1050/1	CW	2.9	2.33	2.63	0.50

5 inch Shaded pole, sleeve bearing

Replaces: 99-08-0178, 7151-3160



Broan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K110	-	1/75	115	3000/1	CCW	0.90	2.37	-	0.31

Shaded pole, sleeve bearing, 5/23 inch dia. shaft

Replaces: 99-08-0165, 670A



Bryant/Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D803	-	1/3 - 1/4	230	1075/2	REV	2.6 - 2.2	3.50	4.50	-

5.6 inch PSC, sleeve bearing

Replaces: K55HXLKK-5918 HC41VB701



Bryant/Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1179	-	1/30	115	3000/1	CW	1.5	2.00	3.50	.31

3.3 inch Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: BDP P251-2916 FRANKLIN 8251510360



One-On-One™ Direct Replacement Motors

ONE-ON-ONE

Bryant/Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1180	-	1/20	115	3300/1	CW	1.9	2.13	3.63	0.31

3.3 inch Shaded pole, sleeve bearing, 5/16 inch dia. Shaft

Replaces: Carrier HC27UE120, BDP 398A, BDP P251-2307, U.E. JAIP053N, UE Stock 580



Bryant/Payne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D847	-	1/8	208-230	1125/1	CCW	0.90	3.50	3.75	0.50

5.6 inch, PSC, sleeve bearing

Replaces: K1543HC35VE-230 KA55CGD-9658



Buck Stove



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1138	-	1/50 - 1/80 - 1/140	115	1500/3	CW	0.90-0.60-0.50	2.50	4.00	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: R22CCW270ZD 7163-6045



Buck Stove



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1139	-	1/50 - 1/80 - 1/125	115	1500/3	CW	0.88	2.50	2.81	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: R22CW206MD



Butler Ventilator



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1066	-	1/10	115	1050/1	CW	3.6	2.75	3.88	0.50

5 inch, Shaded pole, sleeve bearing

Replaces: 846PY4V, 2414



Camco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1119	-	1/90	240	1500/1	CCW	0.34	1.50	2.25	-

3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft

Replaces: Universal JBIP04410V, Electrohome 2868-405-173, Rotom R302



Carrier



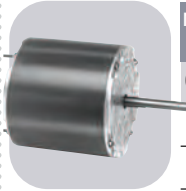
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
10234	-	1/10	208-230	1100/1	CCW OSE	0.77	1.80	3.80	0.50

5 1/2 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CW OSE

Replaces: Carrier HC33GE233



Carrier



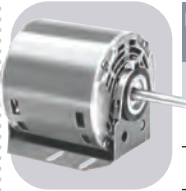
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03474	5KCP39HGW04S	1/4	460/400	1100/900/1	CW	0.80	2.5	4.48	0.50

5.5 inch diameter, enclosed, ball bearings, 5 MFD @ 370V

Replaces: HC39GE464, 5KCP39HGS239S, Genteq # 3S051



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03476	5KCP39PGWB12S	1	208-230	1620/1	CW	4.9	2.5	6.48	0.625

5.5 inch diameter, open construction, ball bearings, 15 MFD @ 370V

Replaces: HC52ER230, 5KCP39PGU661CS, Genteq # 3S053



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03166	5KCP39MGP041S	1/2	208-230	1075/3	CCW OSE	2.9	7.00	5.60	-

5.5 inch diam. partially enclosed, lug mount, one 2 1/2 inch resilient ring, 7.5 MFD @ 440V capacitor required (MARS 12031)

Replaces: 5KCP37PG190S, 5KCP37PG361S Carrier HC445L230, HC445L230 Fasco D804, Universal 655



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
P190	5KCP49ZN9617T	1	200-230/460	1075/1	REV	6.7-6.8/3.4	4.00	11.21	0.625

5.5 inch diam. open air over, ball bearings, capacitor not included G21-913

Replaces: 5KCP49UG1007S, 5KCP49UG1027S, 5KCP49UG1028S, 5KCP49ZG171S, 5KCP49ZG189S, 5KCP49ZG190S, 5KCP49ZG24S and 5KCP49ZN9622S



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03288	5KCP39SGU073S	1/2	200-230/460	1075/1	CCW OSE	4.6/2.3	2.92	7.31	-

5.5 inch diam. Open, lug mount, 7.5 MFD @ 370V capacitor required (MARS 12007)

Replaces: 5KCP39SGL288S



Carrier



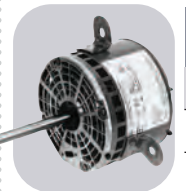
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03905	5KCP39EGY823S	1/4	208-230	1100/1	CW OSE	1.4	1.50	4.45	-

5.5 inch diam., condenser fan motor, 5 MFD @ 370V capacitor required (MARS 12005), sleeve bearing, band mounting

Replaces: HC39GE237A, 5KCP39EGS070S



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
X210	048A1101068	1/4	208-230	1075/2	REV	2.2	4.25	4.12	-

48Y frame, three lug mount, open air over, ball bearings, 5@370V capacitor required (MARS No. 12005)

Replaces: Emerson 3303, FASCO D843, Magnetek 514,AOS OCB1026



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
X222	048A1101109	1/3	230	1075/2	REV	2.6	3.00	4.75	-

48Y frame, three lug mount, open air over, ball bearings, 7.5@370V capacitor required (MARS No. 12007)
Replaces: Carrier HC41VE700, HC41VE701, Emerson 3225, Magnetek 536, AOS OCB1036



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1174	-	1/15	460	3000/1	CW	0.60	2.50	6.75	0.25

3.3 inch, Shaded pole, ball bearing, does not have shaft bushing, 1/4 inch dia. shaft
Replaces: Carrier HC34AU725A, Universal JB1P044NVHC24AU725



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
X405	048A1101744	1/2	208-230/460	1075/1	REV	3.6/1.8	4.00	6.88	-

48Y frame, open air over, three lug mount, ball bearings, double shaft extension 1 1/2" long by 1/2" dia. with flat each end, 7.5@440V capacitor required (MARS No. 12031)
Replaces: AOS OCA1056



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1178	-	1/15	208-230	3450/1	CW	0.45	2.75	6.75	-

3.3 inch, PSC, ball bearing, 1/4 inch dia. shaft
Replaces: Carrier HC680001, Fasco 7162-3829



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
X235	056T11D5209	1	200-230/460	1140/1	REV	6.6-6.0/3.0	2.88	10.50	-

56Y frame, three phase, open air over, belly band mount, footless, ball bearings, 70°C ambient, 5/8" shaft dia.
Replaces: Carrier HD52VE214, Marathon 56T11D33



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D864	-	1/6-1/8-1/10	208-230	1040/3	CW	1.3-1.2-1.1	7.25	3.75	0.50

5.6 inch, PSC, sleeve bearing, rotation determined by viewing lug end, 3@370V capacitor required (MARS # 12003)
Replaces: 124279, 128560, 124276, 7126-0103, 7126-0043



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D455	-	1/30	115/230	3000/1	CCW	1.3-0.70	3.88	5.88	0.25

3.3 inch, Shaded pole, ball bearing, includes shaft bushing, 1/4 inch dia. shaft
Replaces: Draft Booster/Flue Exhaust Switch Motors



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D458	-	1/15	208-230	3000/1	CW	1.0	2.75	6.50	0.25

3.3 inch, Shaded pole, ball bearing, includes shaft bushing, 1/4 inch dia. shaft
Replaces: Draft Booster/Flue Exhaust Switch Motors



Carrier

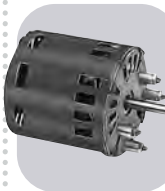


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D456	-	1/15	115/230	3000/1	CW	2.0-1.0	2.75	6.50	0.25

3.3 inch, Shaded pole, ball bearing, includes shaft bushing, 1/4 inch dia. shaft
Replaces: Draft Booster/Flue Exhaust Switch Motors



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D463	-	1/30	208-230	3000/1	CW	0.65	2.50	3.88	0.31

3.3 inch, Shaded pole, ball bearing, 5/16 inch dia. shaft
Replaces: HC24HE230



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D457	-	1/15	115/230	3000/1	CCW	2.0-1.0	2.75	6.50	0.25

3.3 inch, Shaded pole, ball bearing, includes shaft bushing, 1/4 inch dia. shaft
Replaces: Draft Booster/Flue Exhaust Switch Motors



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1182	-	1/16	208-230	3450/1	CCW	0.57	3.33	4.50	-

3.3 inch, PSC, sleeve bearing, hall effect sensor, 5/16 inch dia. shaft
Replaces: 7162-3367, HC30GB230B, K33HXCCP-915, HC30GB230



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D458	-	1/15	208-230	3000/1	CW	1.0	2.75	6.50	0.25

3.3 inch, Shaded pole, ball bearing, includes shaft bushing, 1/4 inch dia. shaft
Replaces: Draft Booster/Flue Exhaust Switch Motors



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D459	-	1/15	230/460	3000/1	CW	1.2-0.60	3.00	7.00	0.25

3.3 inch, Shaded pole, ball bearing, 1/4 inch dia. shaft
Replaces: HC24AU725A, JB1P044, AB1S078, JB1R039, AB1S029, S88-556



One-On-One™ Direct Replacement Motors

ONE-ON-ONE

Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D844	-	1/4	230	1625/1	CW	1.5	3.00	3.50	0.50

5.6 inch, PSC, sleeve bearing, 4@370V capacitor required (MARS # 12004)
Replaces: HC37ME268, 5KCP39BG7524S



Carrier

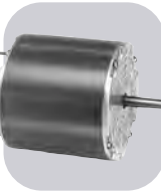


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D843	-	1/4 - 1/5	208 - 230	1075/1	REV	2.2 - 0.20	4.25	4.00	0.50

5.6 inch, PSC, sleeve bearing, 5@440V capacitor required (MARS # 12029)
Replaces: F48SG6MA10, F48SG6MA16, F48SG6MA28, F48SG6MA37, F48SJ6MA28, HC37MZ220, HC39VE608, HC39ML706, HC39ME720



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D802	-	1/2	460	1050/1	REV	0.90	3.33	5.50	0.50

5.6 inch, PSC, ball bearing, 10@370V capacitor required (MARS # 12008)
Replaces: Carrier HC44VL463A, AO Smith FEH1056S, GE 5KCP39PGH600CS



Carrier



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D838	-	3/4 - 1/2 - 1/3 - 1/4	115	1075/4	REV	11.2 - 9.7 - 7.5 - 6.4	6.50	5.25	0.50

5.6 inch, PSC, ball bearing, 20@370V capacitor required (MARS # 12014)
Replaces: HC45SE116, SC435X101, HC43SE116



Carrier/Bryant



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D803	-	1/3 - 1/4	230	1075/2	REV	2.6 - 2.2	3.50	4.50	0.50

5.6 inch, PSC, sleeve bearing
Replaces: K55HXLKK-5918, HC41VB701



Carrier/Bryant



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1179	-	1/30	115	3000/1	CW SE	1.5	2.00	3.50	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: BDP P251-2916, FRANKLIN 8251510360



Carrier/Bryant

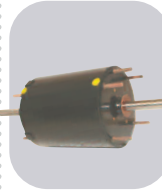


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1180	-	1/20	115	3300/1	CW SE	1.9	2.12	3.62	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. Shaft
Replaces: Carrier HC27UE120, BDP 398A, BDP P251-2307, U.E. JAIP053N, UE Stock 580



Carrier/Whirlpool

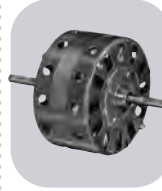


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1176	-	1/15 - 1/25	115	1550/2	DS	0.90 - 0.80	4.88	4.00	0.37

3.3 inch, PSC, sleeve bearing, 3/8 inch dia. Shaft, 4@370V capacitor required (MARS # 12004)
Replaces: 130096, 202466



Champion Cooler

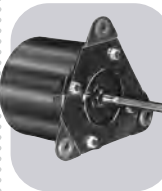


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1069	-	1/10 - 1/15	115	1040/2	DS	3.5 - 2.2	3.00	2.63	0.37

5 inch, Shaded pole, sleeve bearing, 3/8 inch dia. shaft, 4@370V capacitor required (MARS # 12004)
Replaces: 7151-2925, 7151-0109, MP2500



Chromalox

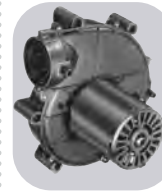


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1118	-	1/30	240	1500/1	CW	0.60	3.50	2.81	-

Shaded pole, ball bearing, 5/16 inch dia. shaft
Replaces: 2868-811-005B, 2868-505-016, 2686-511-027A



Coleman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A088	-	1/25	115	3200/1	CW	1.3	-	-	-

3.3 inch, Shaded pole, sleeve bearing
Replaces: 7021-5478



Coleman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D178	-	1/8 - 1/11	115	1050/2	CW	4.5 - 3.4	4.00	3.25	0.50

5 inch, Shaded pole, sleeve bearing
Replaces: Blower Motor



Coleman

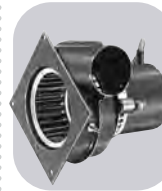


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D408	-	1/150	115	3000/1	CW	0.50	1.50	5.50	0.25

Shaded pole, sleeve bearing, 1/4 inch dia. shaft
Replaces: 7995-316, 7121-5906



Consolidated Industries



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A128	-	1/50	120	3000/1	CW	0.90	-	-	-

3.3 inch, Shaded pole, sleeve bearing
Replaces: 7021-6376, 7021-9404



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
10227	-	1/3	230	1625	CW OSE	2.2	1.75	5.87 0.50
1/3HP, Condenser Fan, 208-230V, 1625 RPM, TEAO, capacitor included 4 MFD @ 370V, sleeve bearing								
Replaces: 050-0108-00, 5KCP32KG2598, 5KCP32KG175, 5KCP32KG221, 6127, K55HXECE2645								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03005	5KCP39PGC092S	1/3	230	825/1	CW OSE	2.4	3.50	6.10 -
5 1/2 inch diam., shell enclosed, band mount, ball bearing, 12.5 MFD @ 370V capacitor required (MARS No. 12009)								
Replaces: HC41AE117A, 5KCP39GGS336S								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
10228	-	1/6	208-230	1550	CW OSE	1.1	3.07	3.69 0.50
1/6HP, Condenser Fan, 208-230V, 1550 RPM, OAO, capacitor included 3 MFD @ 370V, sleeve bearing								
Replaces: 050-0251-00, 998-0251-00, 6128, K55HSJNG-2974, 40251								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03047	5KCP39GGD320S	1/4	230	1625/1	CW OSE	1.5	2.50	5.10 -
5.5 inch diam., shell enclosed band mount, 5 MFD @ 370V capacitor required (MARS No. 12005)								
Replaces: 5KCP39GG3537S, Copeland 050-0107-01 and 050-0238-00								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
10229	-	1/4	208-230	1625	CW OSE	1.5	3.07	4.32 0.50
1/4HP, Condenser Fan, 208-230V, 1625 RPM, OAO, capacitor included 5 MFD @ 370V, sleeve bearing								
Replaces: 050-0250-00, 950-0250-00, 03242, 5KCP39EG755S, 6129, K55HXJZJ-3126, 40250, OCP0250								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03124	5KCP39KGB906AS	1/3	230	1625/1	CW OSE	3.2	1.50	7.50 -
5.5 inch diam., enclosed, 3 inch resilient base and capacitor included								
Replaces: 5KCP32KG175S and 5KCP32KG259S								



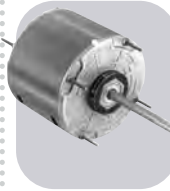
Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
10264	-	1/4	230	1550	CW OSE	2.1	3.00	4.20 0.50
1/4HP, Condenser Fan, 230V, 1550 RPM, ODP, capacitor included 5 MFD @ 370V, sleeve bearing								
Replaces: 050-0238-00, 5KCP-39GG357S, 6124, K55BZY-1439								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D783	-	1/4	208 - 230	1625/1	REV	1.5	6.00	4.00 0.50
5.6 inch diam., PSC, sleeve bearing								
Replaces: 3047, 050-0238-00								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
10265	-	1/6	208-230	1550	REV	1.1	3.00	3.73 0.50
1/6HP, Condenser Fan, 208-230V, 1550 RPM, OAO, capacitor included 3 MFD @ 370V, sleeve bearing								
Replaces: 050-0265-00, K55PGP5104, 40265								



Cornelius



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
00402	ESP-L15EMJR1B1	15W	115	1500/1	CCW OSE	0.6	7.00	3.17 -
3 7/8 inch diam., cast iron unit bearing motor, 5/16" shaft with 1/4 - 20 threaded end 11 No. 8-36 mounting screws, end or side pad mounting, 13 inches external lead length with two 1/4" quick connects								
Replaces: Marathon X222, 48A1101109								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
00353	ESP-L35EM2	35W	230	1500/1	CW OSE	0.70	0.50	3.50 -
3 7/8 inch diam., cast iron unit bearing motor, end or side pad mounting, horizontal operation, 1/4" threaded shaft								
Replaces: Copeland 050-0227-02 ESP-L35EMV2, ESP-L35E22 Gem EM-33502								



Cornelius



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
00508	ESP-OL50EM1B1	50W	115	1500/1	CW OSE	1.7	2.89	4.50 -
3 7/8 inch diam., cast iron unit bearing motor, end or side pad mounting evaporator fan motor .312 shaft dia., 2 female spade terminals at end of each wire								
Replaces: Rotom 6206								



Copeland



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
00503	ESP-OL50EM2	50W	230	1500/1	CW OSE	0.85	1.50	4.50 -
3 7/8 inch diam., cast iron unit bearing motor, end or side pad mounting, horizontal operation, 3/8" dia, flatted shaft								
Replaces: Copeland 050-0011-00, 050-0237-00, 050-0244-00, use 00513 for 2080 units								



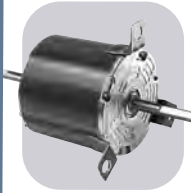
Duotherm



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1080	-	1/6	115	1050/1	CW	7.9	4.00	4.50 0.50
5 inch, Shaded pole, ball bearing								
Replaces: 3-14826 100,000 BTU Furnaces								



Duotherm



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1081	-	1/6 - 1/8 - 1/10	115	1625/3	REV	2.4 - 1.9 - 1.5	3.50	4.88	0.50

5 inch, PSC, sleeve bearing, 10@370V capacitor required (MARS # 12008)
Replaces: 3-9650 12,000 - 13,000 BTU's 5KCP29MG40115 8743810260, 3-18440



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K100	-	1/100	115	3000/1	CW	0.71	1.11	-	-

Shaded pole, sleeve bearing, .181 inch dia. shaft
Replaces: 0648-0027 Ventilator



Economite/Mid-Continent Gas Burner



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1151	-	1/40	115	1500/1	CCW	1.2	3.25	2.75	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: AA2P026N



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K101	-	1/150	230	3000/1	CCW	0.58	1.34	-	-

Shaded pole, sleeve bearing, .217 inch dia. shaft
Replaces: Model 2540 7102-0001 Motor



Evans/Armstrong/LSI/Home



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
X211	048A170125	1	208-230	1625/2	REV	6.2	2.50	6.25	-

48Y frame, open air over, resilient ring thru-bolt mount, ball bearings, 10@370V capacitor required (MARS No.12008)
Replaces: FASCO D825, GE 5KCP35G644S



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1159	-	1/130	115	1500/1	CCW	0.45	1.13	2.13	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: 7163-1845, VENT 656, VENT 293A, VENT PV7896



Evans/Armstrong/LSI/Home



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D825	-	1-3/4	230	1625/2	REV	6.2 - 5.6	3.00	6.75	-

5.6 inch, PSC, sleeve bearing, 10@370V capacitor required (MARS # 12008)
Replaces: 5KCP35SG6445



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1160	-	1/110	115	1480/1	CW	0.58	1.50	2.13	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. Shaft
Replaces: 7163-2593, 663, 668, 763, 768, 661



Evcon



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A156	-	1/35	115	3000/1	CW	1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing
Replaces: Evcon, 7021-8935



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1162	-	1/100	115	1500/1	REV	0.60	1.00	3.50	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: 7163-8909 7163-1541, Model 659 Vent



Excel Comfort



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A100	-	1/45	115	3000/1	CW	1.21	-	-	-

Shaded pole, sleeve bearing
Replaces: 7058-0280, 20093603/B



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1161	-	1/15 - 1/25	115	1600/1	CCW	2.9-2.0	2.00	4.25	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: Several Blower Applications



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K102	-	1/200	115	3000/1	CW	0.64	1.50	-	-

Shaded pole, .181 inch dia. shaft
Replaces: Model 2435



Fasco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D824	-	1/4 - 1/8	115	1100/2	REV	3.2 - 2.4	3.50	5.75	0.50

5.6 inch, PSC, ball bearing, 4@370V capacitor required (MARS # 12004)
Replaces: 7126-0485, 7126-0922



Fedders



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D441	-	1/80	115	1500/1	CCW 0.60	1.00	2.13	0.25

3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft

Replaces: Fedders, Oasis, Whirlpool Port Dehumidifiers

Fedders



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D186	-	1/20	460	1500/1	CW 0.40	2.33	2.88	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: Roof Top A/C

Fedders

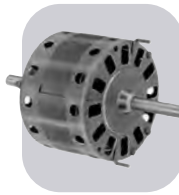


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1012	-	1/15 - 1/20	115	1550/3	DS 2.3 - 1.9	3.00	3.38	0.37
		- 1/25			- 1.6			

4.4 inch, Shaded pole, sleeve bearing, 3/8 inch dia. shaft

Replaces: RMR, RY1302, 5206-00025-001 Y24CW50, 7190-0163

Fedders

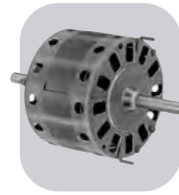


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1010	-	1/8 - 1/12	115	1050/3	DS 4.4 - 3.0-2.3	3.33	3.38	0.50
		- 1/15						

5 inch, Shaded pole, sleeve bearing

Replaces: Window AC Motor S196-20-2

Fedders



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1011	-	1/6 - 1/12	208 - 230	1050/3	DS 2.5 - 1.6	3.33	3.25	0.50
		- 1/15			- 1.2			

5 inch, Shaded pole, sleeve bearing

Replaces: Window AC Motors S196-42-1, S296-161-3

Fedders



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1016	-	1/4	230	1100/1	CW 2.0	4.13	3.88	-

5 inch, PSC, sleeve bearing

Replaces: Condenser Fan S196-18-2

Fedders



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A161	-	1/40	230	1600/1	CCW 0.60	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: Brinkley 835392103 Fedders

First Company



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
02350	5KCP29FK6443S	1/4	208-230	1625/2	CCW OSE 2.0	7.25	4.62	0.50

5 inch diam., shaft ends open, resilient ring mount, sleeve bearing, capacitor included

Replaces: First Company M10, M9

Friedrich

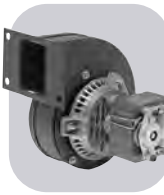


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D868	-	1/3-1/4-1/5	230	1075/5	CCW 2.1-1.5-1.2	2.75	4.75	0.50
		- 1/6-1/7			- 1.0-0.90			

5.6 inch, PSC, sleeve bearing, rotation determined by viewing lug end

Replaces: 5KCP39MG90965, 5KCP39KGE9925, 5KCP39LGD8045, 5KCP39LGG7205, 5KCP39LGK010T, 5KCP39MG7145S 5KCP39MG9679S, 5KCP39LGM011T

Frymaster

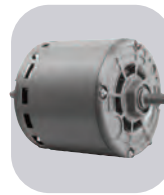


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A110	-	1/70	115	3200/1	CW 0.76	-	-	-

Shaded pole, ball bearing, 50/60Hz

Replaces: 7021-0898

Gaffers & Sattler



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D862	-	1/2 - 1/3	208 - 230	1075/2	DS 3.2-3.0	2.63	-	0.50

5.6 inch, PSC, sleeve bearing, 7.5@370V capacitor required (MARS # 12007)

Replaces: Roof Top A/C Direct Pak 1.5 & 2.0 EA

General Electric



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1050	-	1/8	230	1550/1	CW 1.1	3.00	3.25	0.50

5 inch, PSC, sleeve bearing, original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing of shaft end to prevent moisture from entering

Replaces: WW94X236SP, WW94X936PSC

General Electric

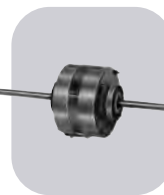


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D264	-	1/8	230	1550/1	REV 1.1	5.00	3.25	0.50

5 inch, PSC, sleeve bearing

Replaces: A/C Cond. Fan Motor

General Electric



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1086	-	1/12 - 1/25	277	1625/2	CCW 0.60-0.20	6.50	3.25	0.50

5 inch, PSC, sleeve bearing

Replaces: 5KCP29CK3586AS

One-On-One™ Direct Replacement Motors

ONE-ON-ONE

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
10230	-	1/4	208-230	1100/1	CCW OSE	1.26	3.00	4.10 0.50
5.5 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CCW OSE								
Replaces: Goodman 0131M00019P								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
10232	-	1/6	208-230	810/1	CCW OSE	1.1	3.00	4.10 0.50
5.5 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CCW OSE								
Replaces: Goodman 0131M00060								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
10233	-	1/8	208-230	1050/1	CCW OSE	0.70	2.50	4.10 0.50
5.5 inch diam., totally enclosed, ball bearing, capacitor required 5 MFD @ 370V (MARS No. 12005, 12905), CCW OSE								
Replaces: Goodman 0131M00294								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
10594	-	1/2	115	1130/4	CW OSE	8.1	4.00	5.10 0.50
5.5 inch diam., totally enclosed, ball bearing, capacitor required 20 MFD @ 370V (MARS No. 12014, 12914), CW OSE								
Replaces: Goodman 0131F00022								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
02250	5KCP29ECA321S	1/6	208-230	1075/1	CCW OSE	1.0	2.50	3.35 -
5 inch diam., totally enclosed, 41" leads, 5 MFD @ 370V capacitor required (MARS No. 12005)								
Replaces: GOODMAN, 5KCP29ECA033S								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
03242	5KCP39BGY926S	1/6	208-230	1075/1	CCW OSE	1.0	2.75	3.73 -
5.5 inch diam., condenser, 5 MFD @ 370V capacitor required (MARS No. 12005)								
Replaces: 5KCP39BP870S								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
03912	5KCP39GGY833S	1/3	115	1075/4	CCW OSE	5.3	4.00	4.30 -
5.5 inch diam., furnace, 12.5 MFD @ 370 cap required (MARS No. 12009), sleeve bearing, torsion flex mounting								
Replaces: B1340025, 5KCP39GGY022AS								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
03913	5KCP39NGY835S	1/2	115	1130/4	CCW OSE	8.8	4.00	5.30 -
5.5 inch diam., furnace, 20 MFD @ 370V cap required (MARS No. 12014), sleeve bearing, torsion flex mounting								
Replaces: B1340024, 5KCP39NGV995AS								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
A140	-	1/50	115	3400/1	CW	1.4	-	- -
Shaded pole, sleeve bearing								
Replaces: 7021-9087, 7021-9000								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
A157	-	1/35	115	3000/1	CCW	1.3	-	- -
Shaded pole, sleeve bearing								
Replaces: 7002-2307								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
A162	-	1/50	208-230	3000/1	CCW	0.50	-	- -
3.3 inch, Shaded pole, sleeve bearing								
Replaces: 7021-8656								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
A079	-	1/50	115	3000/1	CCW	1.1	-	- -
Shaded pole, sleeve bearing								
Replaces: 74-70-21504-03-04, 74-70-21496-03-01, JAIM106, JAIM137, 7021-5615								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
A181	-	1/30	115	3192/1	CW	1.5	-	- -
Shaded pole, ball bearing								
Replaces: 7058-0136, 20044403								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
A	B	C						
A182	-	1/35	115	3125/1	CCW	1.3	-	- -
3.3 inch, Shaded pole, sleeve bearing								
Replaces: 7002-3036, B4059000								

Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A184	-	1/35	115	3125/1	CCW 1.55	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7058-0229, B40590-01



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A187	-	1/20	208-230	3250/1	CW 0.80	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-10006, 20028901



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A188	-	1/18	115	3250/1	CW 1.6	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-10958, B4833000



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A189	-	1/24	115	3000/1	CW 1.5	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-7302, D9868620



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A281	-	1/40	115	3000/1	CW 0.90	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-8252, D6996405



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A284	-	1/30	208/240	3000/1	CW 0.59/ 0.50	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9227, D9886202



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A285	-	1/40	115	3250/2	CW 1.4	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9236, B2833002



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A288	-	1/30	115	3100/2	CW 1.4/ 0.65	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-9727, 11177202



Goodman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A290	-	1/20	115	3200/ 2400/2	CCW 0.70	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-5015, 20245903



Greenheck Fan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
X261	048A80151	1/8	115	825/1	REV 2.1	2.50	5.50	-

48Y frame, open air over, thru-bolt mount, ball bearings, automatic reset thermal protector, internal cooling fan, capacitor included

Replaces: Greenheck 300008



Greenheck Fan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
X260	048A110251	1/6	115	1140/1	REV 2.2	2.50	5.25	-

48Y frame, open air over, thru-bolt mount, ball bearings, automatic reset thermal protector, internal cooling fan, capacitor included

Replaces: Greenheck 300010



Greenheck Fan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1061	-	1/20 - 1/30 - 1/60	115	1500/3	CCW 2.0- 1.7-1.4	2.75	-	0.50

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7108-2425



GSW



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
W7	-	1/25	115	3200/1	CW 1.3	-	-	-

3.3 inch, Shaded pole, sleeve bearing, water heater draft inducer

Replaces: 7021-8347, 63217



GSW



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
W8	-	1/25	115	3200/1	CW 1.3	-	-	-

3.3 inch, Shaded pole, sleeve bearing, water heater draft inducer

Replaces: 7021-9756, 63172



Heat N Glow



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A133	-	1/50	115	3000/1	CCW	1.2	-	-	-
Shaded pole, sleeve bearing									
Replaces: 7002-1241									

Heatcraft



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1122	-	1/16	208-230	1650/1300/1	CW	0.40	1.63	3.63	0.31
3.3 inch, PSC, sleeve bearing, 5/16 inch dia. shaft, 2@370V capacitor required (MARS # 12002)									
Replaces: 7190-2255, 25308601									

Heatcraft



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1123	-	1/15	208-230	1550/1	CCW	0.50	2.63	3.88	0.31
3.3 inch, PSC, sleeve bearing, 5/16 inch dia. shaft, 50/60 Hz, 4@370V capacitor required (MARS # 12004)									
Replaces: 7190-2285, 25309101									

Heil-Quaker



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A064	-	1/55	115	3150/1	CW	0.70	-	-	0.31
3.3 inch, Shaded pole, sleeve bearing									
Replaces: 610172, 7021-5043									

Heil-Quaker



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1071	-	1/6	208-230	1100/1	REV	0.99	2.13	-	0.50
5 inch, PSC, sleeve bearing									
Replaces: HQ 1052662EM 48HXCLW-1562									

Heil-Quaker



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A148	-	-	208-230	3000/1	CCW	0.50	-	-	-
5 inch, Shaded pole, sleeve bearing									
Replaces: 7021-7617, 7021-9237									

Heil-Quaker



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A151	-	1/90	230	2800/1	CW	0.30	-	-	-
3.3 inch, Shaded pole, sleeve bearing									
Replaces: HEIL QUAKER, HQ1050144									

Herman Nelson



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D827	-	1/8	115	700/1	CCW	2.5	2.00	5.50	0.50
5.6 inch, PSC, ball bearing, 6@370V capacitor required (MARS # 12006)									
Replaces: 7-150444-02									

Herman Nelson



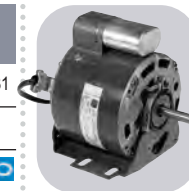
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D829	-	1/4	115	825/1	REV	3.8	2.00	5.63	0.50
5.6 inch, PSC, sleeve bearing									

Hill Refrigeration



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D801	-	1/3	208-230	1625/1	CCW	2.9	4.00	4.50	0.50
5.6 inch, PSC, sleeve bearing									
Replaces: 5KCP39KG1369S									

Hill Refrigeration



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03001	5KCP39KG1369S	1/3	208-230	1625/1	CW OSE	2.9	3.50	5.70	0.50
5.5 inch diam., shell only enclosed, 3 inch resilient base and capacitor included									
Replaces: Fasco D801 Hill No. PP3955B Universal 160									

Hill Refrigeration



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03067	5KCP39PGC910S	1	208-230	1075/1	CCW OSE	2.9	7.10	3.30	-
5.5 inch diam., open 3 inch resilient base included, ball bearing, 15 MFD @ 370V capacitor required (MARS No. 12010), shaft length 6 1/2 inch									
Replaces: Hill No. PP19162G, 5KCP39PGC030S, A.O. SMITH OHR 1106									

Hill Refrigeration



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
05095	5KSM81FFL0036	5W	115	1550/1	CW OSE	0.45	0.50	2.50	-
3.5 inch diam., totally enclosed, 3 tapped holes, shaded pole, 1/4 inch threaded shaft									
Replaces: 5KSP51AL486H, 5KSM51AG3005, Hill No. PP7577 Also Replaces: 5KSP51AL380H used by WARREN									

Hill Refrigeration



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
05096	5KSM81FFL0036	5W	115	1550/1	CW OSE	0.45	0.50	2.50	-
3.5 inch diam., totally enclosed, 3 tapped holes, shaded pole, 1/4 inch threaded shaft with 90° Lyall plug									
Replaces: 5KSP51AL486H, 5KSM51AG3005, Hill No. PP7577 Also Replaces: 5KSP51AL380H used by WARREN									


Hill Refrigeration



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
X230	048A17O136	1/3	208-230	1625/1	CW	1.8	3.50	4.75

48Y frame, open air over, resilient base, ball bearings, capacitor included

Replaces: Magnetek 160, Steveco S3001, FASCO D801, GE 5KCP39KG1369S




Hussman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
05119	5KSM81FFL1032	9W	115	1550	CW OSE	0.55	0.50	3.31

3.5 inch diam., enclosed, 3 tapped holes, shaded pole, threaded shaft, Lyall plug, 1/4" threaded shaft

Replaces: Hussman 47000, 58698, 5KSM51ECG5133




Honeywell Air Cleaner



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1054	-	1/12 - 1/20 - 1/25	115	1050/3	CW	3.1 - 2.1 - 1.5	2.50	2.63

5 inch, Shaded pole, sleeve bearing

Replaces: 190386A 5KSP29DK1906S




IEC



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1044	-	1/4-1/6-1/12	115	970/3	CW	6.0	8.00	4.33

5 inch, PSC, sleeve bearing

Replaces: 5KCP29DK8387S, S89210




Hussman



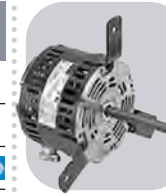
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D807	-	1/6	208 - 230	1625/1	CCW	1.2	4.88	3.75

5.6 inch, PSC, ball bearing, 4@370V capacitor required (MARS # 12004)

Replaces: 5KCP39EGC244T, 5KSP39FG4771S




IEC



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1048	-	1/20	277	1075/3	CW	0.50	7.25	3.88

5 inch, PSC, sleeve bearing

Replaces: 5KCP29FK8132S, S89205




Hussman



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
K114	-	1/500	115	3000/1	CCW	0.64	1.75	-

Shaded pole, sleeve bearing, equipped with KFAN6046 fan blade, .181 inch dia. shaft

Replaces: 301-5734




IEC



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1049	-	1/20	265	1075/3	CW	0.40	7.13	3.88

5 inch, PSC, sleeve bearing

Replaces: 5KCP29FK8388S, S89204




Hussman



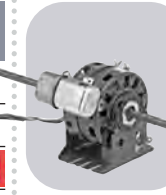
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
00091	RS4BEB9E13	9W	115	1660/1	CW OSE	0.26	0.39	2.56

3.43 inch diam., enclosed, end or side pad mounting, capacitor mounted inside shell, water resistant

Replaces: RS4BEB9E16, RS4BEB9E12




IEC



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1059	-	1/6-1/12-1/50	115-127	1450/3	DS	2.3	8.75	3.33

5 inch, PSC, sleeve bearing

Replaces: 5KCP29DK8384S, S89208




Hussman



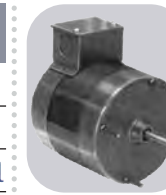
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03008	5KCP39GGC052T	1/5	230	1075/1	CW OSE	1.7	2.50	3.90

5.5 inch diam., open, thru bolt mount, capacitor included, ball bearing

Replaces: 5KCP39GG765S, 5KCP39GN765




ILG



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D115	-	1/12	115/230	1550/1	CCW	2.5-1.3	2.00	4.13

4.4 inch, Shaded pole, sleeve bearing

Replaces: 78-27-721T Fasco 7108-2237




Hussman



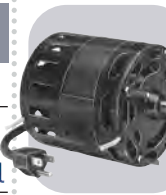
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03012	5KCP39GG5606S	1/5	208-230	1075/1	CW OSE	1.7	2.50	4.80

5.5 inch diam., shell enclosed, thru bolt mount, capacitor included

Replaces: 5KCP39GGA967T




ILG



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1039	-	1/10	115	1610/1	CCW	3.1	2.38	4.50

4.4 inch, Shaded pole, sleeve bearing

Replaces: 78-27-611N Fasco 7108-2171





Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1167	-	1/40	208-230	3000/1	CCW	0.55	1.00	4.88	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: 1708-518, 7121-5854



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A169	-	1/25	230	2800/1	CW	0.75	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-10048, 7021-10580



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A067	-	1/20	115	3000/1	CW	2.6	-	-	-

3.3 inch, shaded pole, ball bearing

Replaces: 1014338, 119225-00



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A170	-	1/25	115	3400/1	CCW	2.3	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10702, 7021-10299



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A134	-	1/25	115	3060/1	CW	1.5	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-9335, 7021-8735, 7021-9499, 7021-8736



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A171	-	1/25	115	3450/1	CCW	0.70	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-4783, 1011412



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A145	-	1/25	115	3450/1	CCW	0.70	-	-	-

3.3 inch, PSC, 4@250V capacitor included, ball bearing

Replaces: 7062-4061



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A172	-	1/35	115	3000/1	CW	1.6	-	-	-

Shaded pole, ball bearing

Replaces: 7002-2792, 1010975P



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A141	-	1/25	115	2800/1	CW	1.0	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-8741, 7021-8742, 7021-9498



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A173	-	1/18	115	3450/1	CCW	0.80	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-4578, 1011350



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A148	-	1/50	208-230	3000/1	CCW	0.50	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-7617, 7021-9237



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A174	-	1/100	115	2350/1	CW	0.80	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9188, 1010239



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A151	-	1/90	230	2800/1	CW	0.30	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: HEIL QUAKER, HQ1050144



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A175	-	1/40	115	3300/1	CCW	1.0	-	-	-

Shaded pole, sleeve bearing

Replaces: 7002-1891, 1708-600P





Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A176	-	1/25	115	3100/1	CW	2.2	-	-	-

Shaded pole, ball bearing

Replaces: 7002-2946, 1011899, 7002-3071, 1011899P



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A306	-	1/30	208-230	3350/290 0/2	CCW	0.30	-	-	-

3.3 inch, PSC, sleeve bearing

Replaces: 7062-4532, 1097245



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A177	-	1/36	115	3000/2	CW	1.4	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10363, 1011632, 7021-10597, 1011632P



Interthem-Addison

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D872	-	3/4 - 1/2	230	1075/2	DS	4.3 - 3.5	2.00	5.50	0.50

5.6 inch, PSC, sleeve bearing, 12.5@370V capacitor required (MARS # 12009)

Replaces: 5KCP39MGN341T

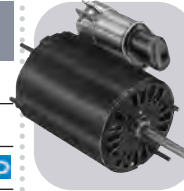


Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A178	-	1/30	115	3400/1	CW	1.8	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10928, 1013388FA



ITT Reznor

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D404	-	1/10	208 - 230	3000/1	REV	0.80	3.25	4.25	0.31

3.3 inch, PSC, ball bearing, 5/16 inch dia. shaft, 10@440V capacitor included

Replaces: CW175-40069, 7162-0293, CCW505-43424, 7162-0348, CCW175-40070, 7162-0294

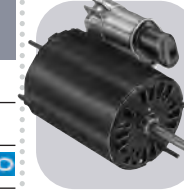


Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A179	-	1/60	115	3300/1	CW	0.90	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-8693, 1006168P



ITT Reznor

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D405	-	1/10	115	3000/1	REV	1.4	3.25	4.25	0.31

3.3 inch, PSC, ball bearing, 5/15 inch dia. shaft, 10@440V capacitor included

Replaces: CCW77162-0311, CCW175-43846, CW7162-0224, CW36860

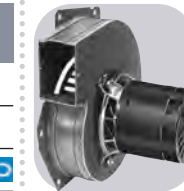


Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A301	-	1/100	115	2350/1	CW	0.80	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9498, 1010239P



Jakel

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A143	-	1/50	115	3000/1	CW	0.95	-	-	-

3.3 dia., shaded pole, sleeve bearing

Replaces: J238-138-1344, 7021-8428, 7021-8013, 7021-8924



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A302	-	1/25	115	3060/1	CW	1.5	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9499, 1010324P, 7021-7700, 1708-607



Janitrol

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A073	-	1/40	115 - 230	3000/1	CCW	0.70/ 0.35	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 82932, 8251560133



Inter City

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A304	-	1/25	115	3060/1	CW	1.5	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9701, 1011021



Janitrol

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A079	-	1/50	115	3000/1	CCW	1.1	-	-	0.50

3.3 inch, Shaded pole, sleeve bearing

Replaces: 74-70-21504-03-04, 74-70-21496-03-01, JA1M106, JA1M137, 7021-5615, 7021-6804



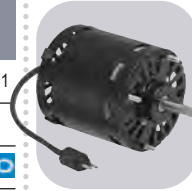


Jenn Air

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1173	-	1/30	115	1500/1	CW	1.2	2.50	3.88 0.31

3.3 inch, Shaded pole, ball bearing, 5/16 inch dia. shaft

Replaces: 70CR



Keeprite

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1121	-	1/20	208-230	1550/1	CW	1.0	2.50	3.50 0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: 7163-8861, 1043766



Jenn Air

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1170	-	1/15	115	1500/1	CW	2.1	2.50	4.75 0.38

4.4 inch, Shaded pole, ball bearing, 3/8 inch dia. shaft

Replaces: 80CR



Keeprite

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1246	-	1/15	115	1550/1	CCW	2.3	1.75	3.50 0.38

4.4 inch, Shaded pole, sleeve bearing, 3/8 inch dia. shaft

Replaces: 81356, 7108-2206



Jenn Air

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D377	-	1/12	115	1500/1	CCW	3.1	2.00	2.75 0.38

4.4 inch, Shaded pole, sleeve bearing, 3/8 inch dia. shaft

Replaces: 7108-2101



Kelvinator

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
00152	ESP-OL15EMJR11	15W	115	1500/1	CCW/OSE	0.60	7.00	3.17 -

3 7/8 inch diam., enclosed, 3 tapped holes or side pad mount, shaded pole, 5/16 inch diam. flattened shaft

Replaces: Kelvinator No. 24-0366 ESP-L15EMJR11

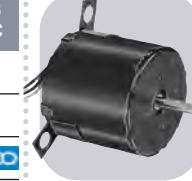


Johnson Furnace

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A081	-	1/40	230	3000/1	CCW	0.50	-	3.50 -

3.3 inch, Shaded pole, ball bearing

Replaces: HWC Series Unit, 35035B001, 322P859, DE3L038



Krack Refrigeration

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1189	-	1/20	115 / 208-230	1550/1	CW	1.4-0.76	1.63	3.13 0.31

3.3 inch, Shaded pole, ball bearing, 5/16 inch dia. shaft

Replaces: 11528, 11529, JB2P046N, JA2P216N, JA2P217N, JB2P047N, 8354110940, 8254111030



Johnson Furnace

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A085	-	1/30	230	3000/1	CCW	0.70	-	- -

3.3 inch, Shaded pole

Replaces: AO Smith 464, Johnson Furnace



Kramer/Trenton

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1152	-	1/20	115	1500/1	CW	1.7	2.38	2.88 0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: 5KSM59ES2001



Keeprite

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1243	-	1/20	115	1550/1	CCW	0.80	2.75	4.13 0.31

3.3 inch, PSC, sleeve bearing, 5/16 inch dia. shaft, @370V capacitor included

Replaces: 501899, 7164-1243, 7164-1854, R370



Kramer/Trenton

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1154	-	1/20	230	1550/1	CW	1.0	2.37	3.13 -

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: JA2R140N

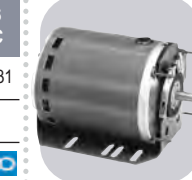


Keeprite

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1120	-	1/20	115	1550/1	CW	2.1	2.50	3.50 0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: 7163-8722, 1043336



Kramer/Trenton

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D2862	-	1/2	208-230	1075/1	REV	4.0	3.00	6.50 0.50

5.6 inch, PSC, ball bearing, 7.5@370V capacitor required (MARS # 12007)

Replaces: 5KCP37PN244BS, MTG3041



Kramer/Trenton



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03041	5KCP37PN244S	1/2	208-230	1075/1	CCW OSE 4.0	2.50	8.30	-

5.5 inch diam., shaft end and shell enclosed, resilient base and capacitor included

Replaces: 5KCP37PG244S and 5KCP39PGC054T

Kramer/Trenton



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03128	5KCP39KGC100T	1/4	115/208-230	1075/1	CW OSE 3.4/1.7	2.00	6.10	-

5.5 inch diam., end shields enclosed, 3 inch resilient base and capacitor included, ball bearing

Replaces: A0510B2008

Kramer/Trenton



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
09932	253-1194	1/20	115	1550/1	CCW OSE 1.9	2.25	2.75	0.31

3.3 inch diam., open, 5/16 inch shaft, shaded pole with Lyall plug

Replaces: A.O Smith 1101 Fasco D1101 Larkin 253-1194 Magnetek 574

Kramer/Trenton



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
09933	253-1195	1/20	208-230	1550/1	CCW OSE 1.3	2.25	5.00	0.31

3.3 inch diam., open, 5/16 inch shaft, shaded pole with Lyall plug

Replaces: A.O. Smith 1103 Fasco D1103 Larkin 253-1195 Magnetek 575

Larkin Coil



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1101	-	1/20	115	1500/1	CCW 1.9	2.25	2.75	0.31

3.3 inch diam., Shaded pole, sleeve bearing, 5/16 inch dia. shaft, Shell-Turbo 68, low temp oil (-40°F)

Replaces: Larkin No. 253-1194, Fasco No. 7163-2113

Larkin Coil



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1103	-	1/20	208-230	1500/1	CCW 1.15	2.25	3.00	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft, Shell Turbo 68, low temp oil (-40°F), not a direct replacement for 253-1194, but is an acceptable substitute

Replaces: Fasco No. 7163-3371, 252-1195

Larkin Coil



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D863	-	1/2	208-230	1075/1	REV 4.0	3.00	6.75	0.50

5.6 inch, PSC, sleeve bearing, 7.5@370V capacitor required (MARS # 12007)

Replaces: SCS0500HI-CPM120-3, 5KCP39PGH728T

Lear Siegler



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1046	-	1/8	115	1070/1	CW 5.1	2.25	3.00	0.50

5 inch, Shaded pole, sleeve bearing

Replaces: 305313-000-165, 7151-0073, 7151-2826

Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A138	-	1/70	120	3000/1	CCW 0.70	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: LENNOX, 7021-8657, 7021-8825

Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A135	-	1/60	120	3000/1	CCW 0.70	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: LENNOX, 7021-8812, 7021-8819

Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A163	-	1/20	115	3400/1	CCW 1.8	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: LENNOX, 7021-9450

Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A164	-	1/50	120	3400/1	CCW 0.80	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: LENNOX, 7021-9593

Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A200	-	1/30	115	3000/1	CCW 1.95	-	-	-

Shaded pole, sleeve bearing

Replaces: 7002-2975, 31L5501

Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A201	-	1/30	208-230	3000/1	CCW 0.65	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10055, 41144-002



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A202	-	1/30	115	3400/1	CCW	1.8	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10602, 45037-001



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A209	-	1/20	115	3200/2800/2	CCW	0.80	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-5441, 38M5001



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A203	-	1/20	115	3400/1	CCW	1.8	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10841, 49L5301



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A210	-	1/30	115	3000/2	CCW	1.7	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-11063, 18M6701



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A204	-	1/20	115	3400/1	CCW	1.8	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-11406, 83L4101



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A211	-	1/15	115	3400/1	CCW	2.35	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-11634, 81M1601



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A205	-	1/20	120	3000/1	CCW	0.70	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-8372, T6-2118



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A213	-	1/25	115	3200/2	CCW	2.1	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10376, 18L0401



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A206	-	1/25	115	3000/1	CW	1.5	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-8473, 65204100/20J8901



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A216	-	1/25	115	3200/2	CCW	2.1	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-10915, 68L1401



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A207	-	1/28	115	3000/1	CCW	1.75	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0217, 60M7901



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A217	-	1/16	230	3000/1	CCW	0.83	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-11231, 25M5501



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A208	-	1/28	115	3000/1	CCW	1.75	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0322, 60M8101



Lennox

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A219	-	1/65	120	3000/1	CCW	0.70	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9262, 88J3901



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A320	-	1/60	115	3000/1	CCW 0.80	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9646, 101154-01, 7021-9466



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A322	-	1/70	120	3000/2	CCW 1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9884, 83L8201



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A324	-	1/12	230	3200/1	CW 0.50	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-1909, 28G6601, 7062-1794



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A325	-	1/10	208-230	3200/1	CW 0.60	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-2845, 7062-4751, 98G8701



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A330	-	1/12	208-230	3200/1	CW 0.55	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-5546, 7062-4517, 7062-4608, 7062-4083, 69M3301



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A331	-	1/10	460	3200/1	CW 0.38/ 0.33	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-5554, 69M3201, 7062-4051, 7062-4518, 97J8101



Lennox



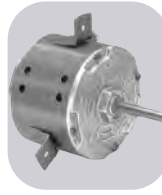
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D1198	-	1/30	115	3200/1	CCW 1.5	2.25	3.13	0.31	

3.3 inch, Shaded pole, sleeve bearing, stainless steel shaft, 5/16 inch dia. shaft

Replaces: 7121-8774



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D816	-	1/3	208-230	1075/1	CW 2.2	3.75	4.00	0.50	

5.6 inch, PSC, sleeve bearing

Replaces: P-8-8041-A3048, 5KCP39HG0766T



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D818	-	1/3 - 1/5 - 1/6	115	825/3	CW 7.3 - 5.1 - 3.9	3.00	6.75	0.50	

5.6 inch, PSC, sleeve bearing, 12.5@370V capacitor required (MARS # 12009)

Replaces: P-8-8325, 5KCP39PGD698S



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D2816	-	1 - 1/2 - 1/3	115	1075/3	REV 11.8 - 6.3 - 3.9	4.00	7.75	0.625	

5.6 inch, PSC, ball bearing, 5/8 inch dia. Shaft, 20@370V capacitor required (MARS # 12014)

Replaces: P-8-8326, 5KCP49SG1053S



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
02745	5KSP29KK7537S	1/5	115	1050/3	CCW OSE 7.6	2.50	4.75	-	

5 inch diam., open, resilient

Replaces: GE 5KSP29KK1542S Lennox P-8-9662



Lennox



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
03275	5KCP39PGS511S	3/4	115	1075/5	CCW OSE 9.0	2.50	5.48	-	

5-5/8 inch diam., PSC, 5 speed, capacitor required (MARS #12021)

Replaces: GE 5KCP39PGD852S and Lennox air handlers



Lennox



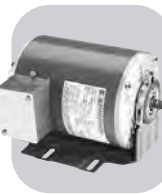
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
X411	048A11T2008	1/6	208-230	1075/1	CCW/CW OSE 1.3	6.00	3.75	-	

48Y frame, totally enclosed, ball bearings, 3@370V capacitor required (MARS No. 12003)

Replaces: Lennox 47F9901, Magnetek 9402, Marathon 048A11T300, 048A11T247



Liebert



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
X259	056T11O15	1/3	208-230/460	1140	- 1.9-1.8/0.9	1.50	10.06	-	

48Y frame, three phase, resilient base, ball bearings

Replaces: GE 5K36PN294S





Lomanco

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1008	-	1/10	115	1500/1	CW	4.4	1.75	3.00	0.50

4.4 inch, Shaded pole, sleeve bearing
Replaces: OLM6151, 322P151



Loren Cook

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1100	-	1/50	115	1550/900/2	CW	1.2/0.70	2.38	2.88	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: 7173-1580, GC/GN 142/144



Loren Cook

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1104	-	1/50	115	1550/1	DS	0.90	2.90	3.00	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: 7163-6714, 5-10



Loren Cook

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1117	-	1/65	115	1590/1	CW	0.60	2.25	2.88	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft
Replaces: 7163-7818, 615049, GC140



Magic Chef

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1091	-	1/4	208-230	1075/1	CCW	2.2	2.75	4.50	0.50

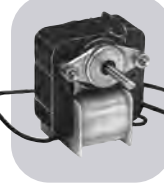
5 inch, PSC, sleeve bearing
Replaces: 35035B001, 322P859, DE3L038



Magic Chef

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A081	-	1/40	230	3000/1	CCW	0.50	-	3.50	-

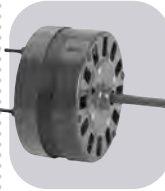
3.3 inch, Shaded pole, ball bearing
Replaces: HWC Series Unit, 35035B001, 322P859, DE3L038



Mathiesen

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
K161	-	1/50	115	3000/1	CCW	1.05	1.21	-	.217

Shaded pole, sleeve bearing, .217 inch dia. shaft
Replaces: Many Freezer Case Applications



McMillan

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D177	-	1/10 - 1/20	115	1050/2	CCW	3.9-1.7	3.63	2.63	0.38

5 inch, Shaded pole, sleeve bearing, 3/8 inch dia. shaft
Replaces: 6152-366/6



McQuay

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1144	-	1/25 - 1/35 - 1/65	115	1200/3	CW	1.1-0.90-0.60	5.38	4.75	0.38

3.3 inch, PSC, sleeve bearing, 3/8 inch dia. shaft, 4@370V capacitor required (MARS # 12004)
Replaces: BA2H015



McQuay

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1142	-	1/15	115 / 230	1500/1	CW	1.7-0.90	2.50	3.50	0.31

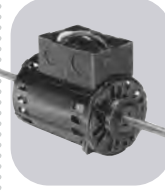
3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft, bolt circle=3.15"
Replaces: 879-382-562-ZB-00



McQuay

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1140	-	1/10 - 1/12 - 1/15	115	1500/3	DS	2.2-2.0-1.7	5.63	4.75	0.625

3.3 inch, PSC, sleeve bearing, 5/8 inch dia. shaft, 7.5@370V capacitor required (MARS # 12007)
Replaces: 879-382564B-00



McQuay

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1141	-	1/15 - 1/25 - 1/5	115	1000/3	DS	1.3-1.9-0.90	5.63	4.75	0.625

3.3 inch, PSC, sleeve bearing, 5/8 inch dia. shaft, 4@370V capacitor required (MARS # 12004)
Replaces: 879-382563B-00



McQuay

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D915	-	3/4 - 1/2	460	1075/2	REV	2.5-1.6	4.50	5.33	0.625

5.6 inch, PSC, ball bearing, 5/8 inch dia. shaft, 15@370V capacitor required (MARS # 12010), not a direct replacement for 253-1194, but is an acceptable substitute
Replaces: F2417-121479, Marathon EWB48A110558AE

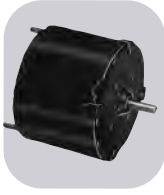


McQuay

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
09934	-	1/15	155/230	1550/1	CW OSE	2.2/1.1	2.50	3.50	0.31

3.3 inch diam., open, shaded pole, wiring harness and conductor box
Replaces: AO Smith A0142 Fasco D1142 Magnetek 342 McQuay 879-382562B-00, BA2H015

Miami/Carey



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D534	-	1/35 - 1/100	115	1500/1	CW 1.4-0.50	1.00	2.50	0.25

3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft

Replaces: 12324L

Miller



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1082	-	1/8	115	1070/1	CW 6.0	3.25	4.00	0.25

5 inch, Shaded pole, sleeve bearing

Replaces: MILLER 103080002, FASCO 7152-0020 U.E. DA3F130N

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A131	-	1/50	115	3000/1	CW 1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9132, 7021-10171, 7021-10159, 7021-9661

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A132	-	1/50	115	3000/1	CW 1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-7975, 6212850

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A121	-	1/45	240	3000/1	CW 0.51	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-10381, 6217930

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A122	-	1/17	115	3000/1	CW 1.75	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-11227, 6219490

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A123	-	1/18	115	3300/1	CW 1.95	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-11385, 622064

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A124	-	1/15	115	3000/1	CW 1.75	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-11379, 6219290

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A126	-	1/45	115	3000/1	CW 1.8	-	-	-

Shaded pole, ball bearing

Replaces: 7002-3158, 6219500

Nordyne



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
02251	5KCP29FCA322S	1/8	208-230	1075/1	CW OSE 1.1	2.25	3.85	-

5 inch diam., totally enclosed, 41" leads, capacitor required 5 MFD @ 370 (MARS No. 12005)

Replaces: NORDYNE

Nutone

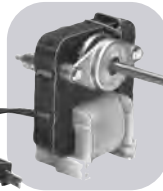


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
K109	-	1/75	115	3000/1	CCW 0.9	2.37	-	.217

C-frame, shaded pole, sleeve bearing, .217 inch dia. shaft

Replaces: C-68626, C-68627, 9425F, 9415F, Vent. 9424FA, 9415FA Fan

Nutone



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
K111	-	1/120	115	3000/1	CCW 1.1	1.94	-	.217

C-frame, shaded pole, sleeve bearing, .217 inch dia. shaft

Replaces: 65878, Vent fan

Nutone



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
K113	-	1/70	115	3000/1	CCW 1.2	1.15	-	.217

C-frame, shaded pole, sleeve bearing, .217 inch dia. shaft

Replaces: 63675, 9605-N, 9665-N Vent fan

Nutone



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D540	-	1/100	115	1500/1	CW 0.60	2.25	2.13	0.25

3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft

Replaces: Bathroom and Kitchen Vents

Nutone



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D541	-	1/100	115	1500/1	CCW	0.60	2.25	2.13	0.25
3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft									
Replaces: 26750 Bathroom and Kitchen Vents									

Nutone



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1109	-	1/100	115	1500/1	CCW	0.65	1.25	2.06	0.25
3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft									
Replaces: 23405, 23388									

Nutone



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1107	-	1/10	115	1550/1	CCW	3.2	1.38	4.00	0.31
3.3 inch, Shaded pole, ball bearing, 5/16 inch dia. shaft									
Replaces: Nutone 67176, 32997 UE-JA2S034N, JB2K016N									

Patton



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D824	-	1/4 - 1/8	115	1100/2	REV	3.2 - 2.4	3.50	5.75	0.50
5.6 inch, PSC, ball bearing, 4@370V capacitor required (MARS # 12004)									
Replaces: 7126-0485, 7126-0922									

Penn Ventilator



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D342	-	1/15	115	1050/1	CW	2.3	2.50	2.63	0.38
5 inch, Shaded pole, sleeve bearing, mounts on (3) P/N 0061-1518 Coleman mounts, 3/8 inch dia. shaft									
Replaces: 7151-3081, 7151-3565									

Penn Ventilator



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1037	-	1/20	115	1045/1	CW	1.95	2.13	2.38	-
5 inch diam. Shaded pole, sleeve bearing, 3/8 inch x 2-1/8 inch shaft									
Replaces: 7151-2139 ROOF TOP VENT Z8									

PMI Food Equipment/Valcun Hart



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A142	-	1/20	115	3450/1	CW	0.70	-	-	-
3.3 inch, PSC, 4@370V capacitor required (MARS # 12004)									
Replaces: 7062-2513, 416673-00003, RHEEM, 7062-1881									

Prestcold



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03026	5KCP39PGC070T	1/3	208-230	828/1	REV	2.5	6.00	6.00	1/2
5.5 inch diam., shell and shaft end enclosed, strap or thru bolt mount, 10 MFD @ 370V capacitor required (MARS No. 12008)									
Replaces: Prestcold No. 401-0048-01									

Prestcold



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03251	5KCP39DG3304T	1/6	115	1075/1	CCW OSE	2.3	4.00	4.30	1/2
5.5 inch diam., open 2 1/4 inch resilient rings, 5 MFD @ 370V capacitor required (MARS No. 12005)									
Replaces: Prestcold No. 401-0037-01									

Prestcold



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03252	5KCP39CGT945S	1/6	208-230	1075/1	CCW OSE	0.90	4.00	4.30	1/2
5.5 inch diam., open 2 1/4 inch resilient rings, 5 MFD @ 370V capacitor required (MARS No. 12005)									
Replaces: Prestcold No. 401-0039-01									

Prestcold



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03272	5KCP39FGT946S	1/4	208-230	1075/1	CCW OSE	1.5	4.00	4.50	1/2
5.5 inch diam., open 2 1/4 inch resilient rings, 5 MFD @ 370V capacitor required (MARS No. 12005)									
Replaces: Prestcold No. 401-0043-01									

Prestcold



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
4306	5KH39QN5537X	1/4	230	1725/1	REV	2.5	1.50	6.40	1/2
5.5 inch diam., open 3 inch resilient base included, 1.35 SF, split phase									
Replaces: Prestcold No. 401-0044-01, GE 5XBG019									

Prestcold



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
05811	5KSM81HFL3004T16W	115	1550/1	CW OSE	1.1	0.50	3.50	1/4	-
3.5 inch diam., enclosed, 3 tapped holes or side pad mount, shaded pole, 1/4 inch threaded shaft									
Replaces: Prestcold No. 401-0032-01									

Prestcold



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
05821	5KSM81HFL3006T16W	230	1550/1	CW OSE	0.55	0.50	3.50	-	-
3.5 inch diam., enclosed 3 tapped holes or side pad, shaded pole, 1/4 inch threaded shaft									
Replaces: Prestcold No. 401-0033-01									

Reznor



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D461	-	1/8	480	3200/1	CCW	0.32	3.33	4.25	-

3.3 inch, PSC, sleeve bearing, 5/16 inch dia. shaft

Replaces: 7162-0396



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03149	5KCP39FGT318S	1/3	460	1075/1	REV	0.90	3.75	4.48	0.50

5.5 inch diam., totally enclosed, sleeve bearing, 5 MFD @ 370V capacitor required (MARS No. 12005), thru bolt or shell mount

Replaces: Rheem 51-23063-11



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03153	5KCP39CGN330T	1/5	208-230	1075/1	CCW OSE	1.7	3.75	3.73	0.50

5.5 inch diam., totally enclosed thru bolts out lead end, 3 MFD @ 370V capacitor required (MARS No. 12003)

Replaces: Rheem 51-20672-01, 51-20673-01, 51-20674-01, 51-20675-01, 51-20679-01, 51-20679-11, 51-20680-01, 51-20681-01, 51-20682-01, Packard 82680; Universal 442; GE 5KCP39CGE171S, 5KCP39CGK787S; AO Smith ORM1016, F48SD6L12; Franklin 873-5660-271, 873-5660-301, 80672; Emerson K136



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03154	5KCP39FGN329T	1/3	208-230	1075/1	CCW OSE	1.8	3.75	3.98	0.50

5.5 inch diam., totally enclosed thru bolts out lead end, 5 MFD @ 370V capacitor required (MARS No. 12005)

Replaces: GE 5KCP39FGK786S, 5KCP39GGE879S Rheem 51-20687-01, 51-20688-01, 51-20689-01, 51-20690-01, 51-21185-01, 51-21185-11 Packard 82688 AO Smith ORM 1036, F48SJ6L11 Universal 444 Emerson K591



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03155	5KCP39GGN333T	1/8	208-230	825/1	CCW OSE	1.2	3.75	4.23	0.50

5.5 inch diam., totally enclosed, thru bolt out lead, 5 MFD @ 370V capacitor required (MARS No. 12005)

Replaces: Rheem 51-20760-01, 51-20160-02, 51-20160-11, 51-20163-01, 51-21276-01, 51-41404-01 GE 5KCP39GGD121S, 5KCP39GGK789S Emerson K9735, K55MFG-6350 Packard 70525 AO Smith ORM1008, F48SG6LZ, Universal 542



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03220	5KCP39CGP088S	1/5	208-230	1075/1	CCW OSE	1.0	4.00	4.10	0.50

5 inch diam., totally enclosed, shell mounting screws, 3 MFD @ 370V capacitor required (MARS No. 12003) sleeve bearing

Replaces: 5KCP39CGN409S, 5KCP39CGK082S Rheem 51-21853-82



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D459	-	1/15	230/ 460	3000/1	CW	1.2- 0.60	3.00	7.00	0.25

3.3 inch, Shaded pole, ball bearing, 1/4 inch dia. shaft

Replaces: HC24AU725A, JB1P044, AB1S078, JB1R039, AB1S029, S88-556



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A142	-	1/20	115	3450/1	CW	0.70	-	-	-

3.3 inch, PSC, sleeve bearing, 4@370V capacitor required (MARS # 12004)

Replaces: RHEEM, 7062-1881



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A066	-	1/30	120	3000/1	CW	1.27	-	-	-

Shaded pole, ball bearing

Replaces: 70-24157-03, 117847-00



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A240	-	1/50	115	3000/1	CCW	1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-8183, 70-21496-83



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A241	-	1/25	208-230	3200/1	CW	0.62	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9567, 70-23641-81



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A242	-	1/50	115	3400/1	CW	1.36	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-7150, 70-22436-01



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A243	-	1/50	115	3400/1	CW	1.36	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-7790, 70-22436-02



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A244	-	1/20	208-230	3300/1	CCW	0.85	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-6967, 70-42241-01



One-On-One™ Direct Replacement Motors

ONE-ON-ONE



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A245	-	1/15	208-230	3000/1	CW	0.95/ 0.85	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-7490, 70-42278-02



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A246	-	1/20	115	3400/ 2400/2	CW	0.85	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-3925, 70-24206-01



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A247	-	1/40	115	3250/ 2800/2	CW	0.95	-	-	-

3.3 inch, PSC, sleeve bearing

Replaces: 7062-5519



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D724	-	3/4 - 1/2 - 1/3 - 1/4	115	1075/4	REV	9.5 - 7.2 - 5.6 - 3.5	6.00	5.75	-

5.6 inch, PSC, sleeve bearing, 15@370V capacitor required (MARS # 12010), includes 8 drilled and tapped holes in shell

Replaces: VARIOUS



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
10463	-	1/2 - 1/3 - 1/4 - 1/6	115	1075/4	REV	6.2	5.50	4.73	0.50

5.5 inch dia., open endshields, sleeve bearing, capacitor required noted on motor label, direct drive blower motor

Replaces: 51-23012-41



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D2840	-	1/5	208/230	1075/1	CW	1.3	4.13	3.75	0.50

5.6 inch, PSC, sleeve bearing, 4 drilled and tapped holes in shell

Replaces: 51-21853-82



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D2842	-	1/6	208/230	825/1	CW	1.2	4.25	4.00	0.50

5.6 inch, PSC, sleeve bearing, 4 drilled and tapped holes in shell

Replaces: 51-20760-11



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D832	-	1/8	208 - 230	825/1	REV	1.1	4.75	4.00	0.50

3.3 inch, PSC, sleeve bearing, 4 drilled and tapped holes in shell

Replaces: 21276-02, 21276-01, 512076-01

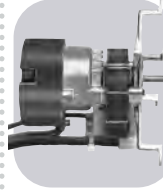


Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D459	-	1/15	230 / 460	3000/1	CW	1.2- 0.60	3.00	7.00	0.25

3.3 inch, Shaded pole, ball bearing, 1/4 inch dia. shaft

Replaces: HC24AU725A, JB1P044, AB1S078, JB1R039, AB1S029, S88-556

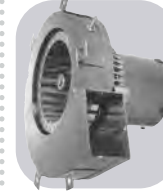


Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
K628	-	1/200	208 - 230	3000/1	CW	0.25	1.50	4.90	0.25

Shaded pole, sleeve bearing, 1/4 inch dia. shaft

Replaces: 51-21964-01, 7102-0628



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A079	-	1/50	115	3000/1	CCW	1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 74-70-21504-03-04, 74-70-21496-03-01, JAIM106, JAIM137, 7021-5615

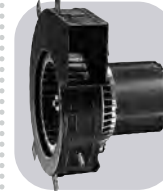


Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A086	-	1/25	115	3200/1	CW	1.3	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-5853



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A090	-	1/50	115	3000/1	CW	1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: RHEEM 70-21496-01, 7021-5239 JAIM102



Rheem/Ruud

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A136	-	1/20	115	3450/1	CW	0.75	-	-	-

3.3 inch, PSC, sleeve bearing 4@370V capacitor required (MARS # 12004)

Replaces: RHEEM, 7062-3861



Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A139	-	1/20	115	3000/1	CW	0.95	-	-	-
3.3 inch, Shaded pole, sleeve bearing									
Replaces: RHEEM, 7021-7577									

Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A142	-	1/20	115	3450/1	CW	0.70	-	-	-
3.3 inch, PSC, sleeve bearing, 4@370V capacitor included									
Replaces: RHEEM, 7062-1881									

Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03463	5KCP39KG V804AS	1/2, 1/3, 1/4, 1/5, 1/6	115	1075/4	REV	6.2	5.00	4.73	0.50
5.5 inch dia., open endshields, sleeve bearing, capacitor required noted on motor label, direct drive blower motor									
Replaces: Emerson 5460, Rheem 51-23012-41, Global E5460									

Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03464	5KCP39KG V805AS	1/2, 1/3, 1/4, 1/5, 1/6	208-230	1075/4	REV	2.7	5.00	4.73	0.50
5.5 inch dia., open endshields, sleeve bearing, capacitor required noted on motor label, direct drive blower motor									
Replaces: Emerson 5461, Rheem 51-23022-41, Global E5461									

Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
03465	5KCP39KGU36 1AS	1/3, 1/4, 1/5, 1/6	208-230	1075/2	REV	2.6	5.00	4.73	0.50
5.5 inch dia., totally enclosed, ball bearing, capacitor required noted on motor label, condenser fan motor									
Replaces: Emerson 5462, Rheem 51-23053-21, Global E5462									

Rheem/Ruud



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
X216	048A1101097	1/5	208-230	1075/1	REV	1.6	6.00	3.75	-
48Y frame, open partial air over, 1 1/2" thru-bolts shaft end, 1" thru-bolts opposite shaft end, ball bearings, foot locating set screws on frame 90° apart, 5@370V capacitor required (MARS No. 12005)									
Replaces: Emerson 5454, Magnetek 619									

Scherba Ind.



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A087	-	1/6	115/230	2400/1	CCW	2.8/1.1	-	-	-
3.3 inch, PSC, sleeve bearing, 50/60Hz									
Replaces: 7062-4687, 7062-3496									

Sears/Whirlpool



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D137	-	1/30 - 1/65	115	1500/1	DS	1.0 - 0.70	3.00	2.88	0.31
3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft									
Replaces: Rangehood									

Sears/Whirlpool



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D323	-	1/15 - 1/20 - 1/35	115	1550/3	DS	1.0-0.80-0.60	2.75	3.75	0.31
3.3 inch, PSC, sleeve bearing, 5/16 inch dia. shaft, 3@370V capacitor required (MARS # 12003)									
Replaces: Small Window A/C									

Sears/Whirlpool



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D325	-	1/10 - 1/30	115	1550/2	CCW	2.5 - 2.3	1.75	3.50	0.31
3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft, rotation determined by viewing lug end									
Replaces: Small Window A/C									

Singer



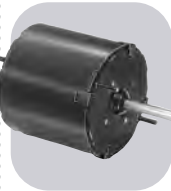
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
X218	056A1105313	3/4	208-230	1075/1	CCW	3.9-3.6	7.00	8.62	0.50
56Z frame, open air over, double shaft extension 1 1/2" long by 1/2" dia. with flat each end, 5/8" dia. shaft, 17.5@370V capacitor required (MARS NO. 12012)									
Replaces: Steveco Package unit 3100									

Singer



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1169	-	1/10	208 - 230	3000/1	CCW	1.5	1.00	5.75	0.31
3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft									
Replaces: FASCO 7121-4066 Comfor Maker 1708-507									

Singer



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1164	-	1/25	115 / 230	1550/1	CW	0.65	2.50	3.13	0.31
3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft									
Replaces: JA2P091N, JA2P0901N									

Singer



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
D1167	-	1/40	208 - 230	3000/1	CCW	0.55	1.00	4.88	0.31
3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft									
Replaces: 1708-518, 7121-5854									

Skymark



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A251	-	1/35	208-230	3000/1	CCW 1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing, 50/60Hz

Replaces: 7021-9136, MTR-136PK



Snyder/Arco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
03219	5KCP39D GP089S	1/10	208-230	825/1	CCW OSE 0.70	3.00	3.70	-

5.5 inch diam., totally enclosed, extended clamp screws, 5 @ 370V cap required (MARS No. 12005)

Replaces: 5KCP39DGGK093S



State Ind.



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
W9	-	1/60	115	3000/1	CW 0.95	-	-	-

3.3 inch, Shaded pole, sleeve bearing, water heater draft inducer

Replaces: 7021-10548, 0012400500



State Ind.



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
W10	-	1/20	115	3400/1	CCW 1.80	-	-	-

3.3 inch, Shaded pole, sleeve bearing, water heater draft inducer

Replaces: 7021-11086, 0012400540



Taco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
4722	5KH39QN5 558T	1/12	115	1800/1	CCW OSE 2.1	1.00	7.29	-

48Y frame, open air over, single split phase, resilient ring mount, sleeve bearing, former MARS # X700

Replaces: Taco 110-388, Marathon 48S17D1027, 48S17D2102



Taco



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
4404	5KH39QN5 550X	1/8	115	1800/1	CCW OSE 2.6	1.50	8.93	-

48Y frame, open air over, single split phase, resilient ring mount, sleeve bearing, former MARS No. X701

Replaces: GE 5KH32EG129GA, Marathon 48S17D1084



Tappan



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A073	-	73CF M 230	115	3000/1	CCW 0.70/0. 35	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 82932, 8251560133



Tecumseh



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D475	-	1/12	460	1550/1	CCW 0.50	2.50	4.50	5/16	

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: Tecumseh 810G037A47, 5KCP11FG1197CS



Tecumseh



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
00353	ESP-L35EM2	35W	230	1500/1	CCW OSE 0.70	0.50	3.50	1/4	

3.875 inch diam., cast iron unit bearing motor, end or side pad mounting, horizontal operation, 1/4" threaded shaft

Replaces: Tecumseh TFM352, 810A10-B, 810M035A21, 810M035A28, 81091-R



Tecumseh



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
00507	ESP- OL50EMJR21	50W	230	1500/1	CCW OSE 0.85	-	4.30	5/16	

3.875 inch diam., open 3 tapped holes shaft end or side pad mount, shaded pole, 5/16 inch shaft dia. 2" shaft length

Replaces: Tecumseh No. 810M050A62, 810E02674



Tecumseh



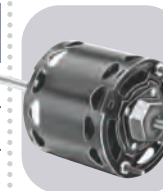
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
01336	5KSM92K FL2008S	1/20	230	1550	CW OSE 1.1	2.00	4.20	-	

4 inch diam., open, end mounting, shaded pole, 5/16 inch shaft

Replaces: 5KSP11FG1377, 5KSP11FG1541SEmerson F33HXFRH-2649 Tecumseh 810G037A48 and 810E026A74



Thermador (Tradewinds)



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D1165	-	1/20	115	1550/1	DS 2.0	3.50	-	5/16	

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: Tradewinds/Blower Motors



Thermador (Tradewinds)



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D1155	-	1/100	115	1085/1	CCW 0.50	1.00	-	1/4	

3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft

Replaces: 17-09-679, VQT-90, JA2M087R



Thermal Transfer



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
						A	B	C	
D1006	-	1/4	115	1600/1	CW 7.2	2.75	-	1/2	

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7108-6544, 66098



Tjernlund



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D130	-	1/40	115	1500/1	CW	1.0	4.13	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: 7163-6058



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A069	-	1/70	208-240	3000	CCW	0.50	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 38040252, 82252



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A075	-	1/40	230	3000/1	CCW	0.40	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 38050005



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A143	-	1/50	115	3000/1	CW	0.95	-	-

3.3 inch, Shaded pole sleeve bearing

Replaces: TRANE, 7021-8428, 7021-8013, 7021-8924



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A146	-	1/100	115	3000/2	CW	1.0-0.35	-	-

3.3 inch, Shaded pole sleeve bearing

Replaces: TRANE, 7021-7986, 7021-8925, 7002-2531



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A130	-	1/20	115	3450/1	CW	0.70	-	-

3.3 inch, PSC sleeve bearing

Replaces: TRANE, 7062-3956, 7062-3616



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A150	-	1/35	208-230	3000/1	CCW	0.50	-	-

3.3 inch, Shaded pole sleeve bearing

Replaces: TRANE, 7021-7833, 7021-8928



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A191	-	1/15	208-230	3000/1	CCW	0.80	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-6683, X380-40251-01-7



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A192	-	1/40	115	3000/1	CCW	1.0	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-8569, X38040253057



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A193	-	1/35	208-240	3480/1	CCW	0.59-0.50	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-8591, X38040050-01-0



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A194	-	1/80	115	3000/1950/2	CW	1.0/0.50	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9561, X38020420017



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A195	-	1/16	115	3400/1	CW	1.75	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7021-11543, X38040313070



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A196	-	1/25	115	3200/1	CW	1.35	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-11544, D342094P02 7021-9010, D330757P02



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A197	-	1/70	33-110	1500-4700/VAR.	CW	1.0	-	-

3 phase, ball bearing

Replaces: 7092-0238, D342097P01





Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A198	-	1/45	115	3000/1	CW	1.75	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0259, D342077P01



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A260	-	1/45	115	3250/1	CW	1.0	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0261, D342077P03



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A261	-	1/45	115	3250/1	CW	1.0	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0262, D342077P04



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A262	-	1/45	115	3250/1	CW	1.0	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0263, D34077P05



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A263	-	1/45	115	3250/1	CW	1.0	-	-	-

Shaded pole, ball bearing

Replaces: 7058-0264, D34077P06



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A266	-	1/125	115	3000/2	CW	1.0	-	-	-

Shaded pole, ball bearing

Replaces: 7002-3445, D342078P04



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A268	-	1/45	115	3000/2	CW	1.4	-	-	-

Shaded pole, ball bearing

Replaces: 7002-3447, D342078P06



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A270	-	1/15	208-230	3350/2800/2	CCW	.42/.50	-	-	-

3.3 inch, PSC, ball bearing, 50/60Hz

Replaces: 7062-5033, X38040369010



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A271	-	1/18	208-230	3500/2	CW	0.62	-	-	-

3.3 inch, PSC, ball bearing, 50/60Hz

Replaces: 7062-3969, X38040308-01



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A272	-	1/12	208-230	3500/2	CW	0.65	-	-	-

3.3 inch, PSC, ball bearing, 50/60Hz

Replaces: 7062-3971, X38040309-01



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A273	-	1/8	208-230	3500/2	CW	0.62	-	-	-

3.3 inch, PSC, ball bearing, 50/60Hz

Replaces: 7062-3972, X38040310-01



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A274	-	1/24	208-230	3500/1	CW	0.28	-	-	-

3.3 inch, PSC, ball bearing, 50/60Hz

Replaces: 7062-3973, X38040311-01



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A276	-	1/55	115	3000/1	CW	1.0	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-9011, D330757P01



Trane

MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
A	B	C							
A278	-	1/50	115	3000/2	CW	1.4	-	-	-

3.3 inch, Shaded pole, ball bearing

Replaces: 7002-2530, D341095P02



Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
A279	-	1/125	115	3000/2	CW	0.75	-	-	-
Shaded pole, ball bearing									
Replaces: 7002-2531, D341095P04, 7002-3275, D341663P04									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
A361	-	1/42	115	3000/1	CW	1.6	-	-	-
Shaded pole, ball bearing									
Replaces: 7002-2558, D330787P01									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
A362	-	1/42	115	3000/1	CW	1.6	-	-	-
Shaded pole, ball bearing									
Replaces: 7002-3273, D341663P05									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
A368	-	1/20	115	3200/2	CW	0.80	-	-	-
3.3 inch, PSC, sleeve bearing									
Replaces: 7062-3782, D340623P01									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
A369	-	1/45	208-230	2800/2	CCW	0.34	-	-	-
3.3 inch, PSC, ball bearing									
Replaces: 7062-3915, C663946P01									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
A370	-	1/100	208-230	2920/2	CCW	0.18	-	-	-
3.3 inch, PSC, ball bearing									
Replaces: 7062-3918, C664099P01									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
D1050	-	1/8	230	1550/1	CW	1.1	3.00	3.25	0.50
PSC, sleeve bearing, original motor is SP, D1050 is PSC to provide greater motor efficiency and permit closing of shaft end to prevent moisture from entering motor									
Replaces: WW94X236SP, WW94X936PSC									

Trane



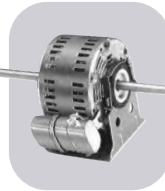
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
D895	-	1/8	208-230	1650/1	CW	0.80	1.50	-	0.50
5 inch, PSC, sleeve bearing, 4@370V capacitor required (MARS # 12004)									
Replaces: 5KCP39BGR426S, MOT 6363									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
D1089	-	1/15	115	850/3	REV	1.3	3.00	-	0.50
5 inch, PSC, sleeve bearing, 4@370V capacitor required (MARS # 12004)									
Replaces: 5KCP39DGM458AS, K48HXCFE-1327, MOT3589, MOT 3591, FASCO 7176-3020									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
D1090	-	1/15	115	1100/3	CW	0.80	10.50	-	0.50
5 inch, PSC, sleeve bearing									
Replaces: MOT1877, K48HXBLA-956									

Trane



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
02743	5KCP29BK8219S	1/8	208-230	1650/1	CCW OSE	0.83	3.00	3.75	-
5 inch diam., totally enclosed, 4 MFD @ 370V capacitor required (MARS No. 12004)									
Replaces: GE 5KCP29BK6319S Trane X70670847-01-0, MOT 3438, FASCO D1050 MARS 10668 AO SMITH OTR4513									

Tyler



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
D870	-	1/4	230	1625/1	CW	1.9	3.00	4.75	-
PSC, ball bearing, 4@370V capacitor included (MARS # 12004)									
Replaces: 5KCP39EGC053T, UNIT NO. 760									

Tyler



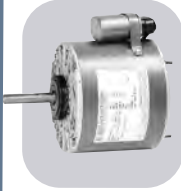
MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
00091	RS4BEB9E13	9W	115	1660/1	CW OSE	0.26	0.39	2.56	-
3.43 inch diam., enclosed, end or side pad mounting, capacitor mounted inside shell, water resistant									
Replaces: RS4BEB9E16, RS4BEB9E12									

Tyler



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS			
A	B	C							
03042	5KCP39EGC053T	1/4	230	1625/1	CCW OSE	1.7	1.40	5.40	1/2
5.5 inch diam., shell only enclosed, resilient base and capacitor included, ball bearing									
Replaces: 5KCP39EG755S & 5KCP39EN81S									

Tyler



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
X270	048A1 70149	1/4	208-230	1625/1	CCW OSE	1.9	2.50	4.75	-

48Y frame, open air over, resilient ring thru-bolt mount, ball bearings, capacitor included

Replaces: Tyler 760, FASCO D870, AOS OTY1024

Various OEM's



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
02362	5KCP29CK 4534AS	1/10	115	1075/4	CW OSE	1.7	10.50	14.50	0.50

5 inch diam., open, resilient base, sleeve bearing, 4 MFD @ 370V capacitor required

Replaces: 5KCP29CK4534T

Warren



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
03007	5KCP39KGC056T	1/3	208-230	1075/1	CW OSE	3.1	3.00	5.50	0.50

5.5 inch diam., open resilient base and capacitor included, ball bearing

Replaces: 5KCP39KGC884S

Weil McLain



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1190	-	1/30	115	3000/1	CW	1.6	1.75	4.88	0.31

3.3 inch, Shaded pole, sleeve bearing, 5/16 inch dia. shaft

Replaces: 7121-5750, JA1N074

West Bend/McGraw Edison



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1134	-	1/50 - 1/65 - 1/80	115	1500/3	CW	1.1-0.80-0.60	1.75	2.25	-

3.3 inch, Shaded pole, sleeve bearing, 1/4 inch dia. shaft

Replaces: Portable Humidifier Motors

Westinghouse



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D262	-	1/5	230	925/1	REV	2.3	4.00	3.88	0.50

5 inch, PSC, sleeve bearing

Replaces: Whisperaire 319P300A

Westinghouse

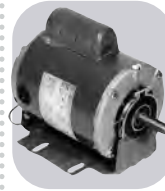


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1032	-	1/5	208-230	1550/1	DS	1.6	6.25	3.88	0.50

5 inch, PSC, sleeve bearing, 4@370V capacitor included

Replaces: Model No. 319P367A

Westinghouse

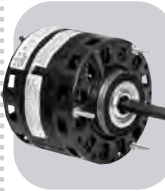


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
C138	-	3/4	115/208-230	1550/3	DBL SHFT	11.4/5.6 -5.7	-	-	0.625

56 Frame, Shaded pole, open, sleeve bearing, 5/16 inch dia. shaft

Replaces: 8264H2290 6000 BTU Window Units

Westinghouse/Small Motor Division



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
10810	-	1/5	115	1050/3	CCW OSE	6.5	4.75	5.17	0.50

5 inch, Shaded pole direct drive sleeve bearing motor

Replaces: Westinghouse 319P852, 322P115 Packard 70852, AO Smith BL6414

Williamson



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A080	-	1/45	115	3000/1	CW	1.1	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 7021-5510, 02-568

Williamson



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A118	-	1/15	115	3000/1	CW	1.8	-	-	-

3.3 inch, Shaded pole, sleeve bearing

Replaces: 100,000 BTU Furnace 7021-6999, 7021-7042 Leads must be modified

Witt



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1102	-	1/20	115/230	1550/1	CW	0.75-0.40	2.63	3.50	0.31

3.3 inch, PSC, sleeve bearing, 5/16 inch dia. shaft

Replaces: 7190-2158, 8216073, 7190-2159, 8216074

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1191	-	1/40	460	3200/1	CCW	0.37	2.50	5.75	0.25

3.3 inch, Shaded Pole, Ball Bearing, Includes shaft bushing, 1/4" diam. Stainless Steel Shaft, Includes Centrifugal Switch,

Replaces: 7121-7255

York

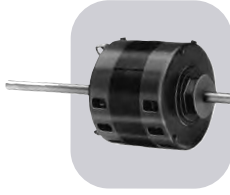


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
D1171	-	1/15	460	3000/1	CCW	0.60	2.50	6.75	0.25

3.3 inch, Shaded Pole, Ball Bearing

Replaces: 024-24115-004, F33HXJBB3621

York

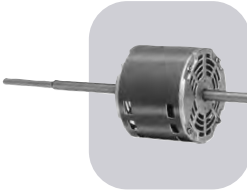


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D1042	-	1/5	208-230	1075/1	DS 1.2	6.50	4.13	0.50

5 inch, PSC Condenser Fan Motor, Sleeve Bearing

Replaces: Cond. Fan, D1041, F47HXBGM-927

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D873	-	1/2	230	1050/1	DS 3.2	9.75	4.50	0.50

5.6 inch, PSC, Sleeve Bearing

Replaces: K44HXJAF-4955

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
D2871	-	1 - 3/4 - 1/2	460	1100/3	REV 3.3-2.3 -1.9	3.50	6.00	0.50

5.6 inch, PSC, Sleeve Bearing

Replaces: 024-21673, K55HXJFJ-2832, 5KCP39SGH913BS

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A063	-	1/56	230	3000/1	CCW 0.60	-	-	-

3.3 inch, Shaded Pole, ball bearing

Replaces: 26-22239

York

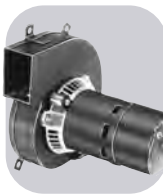


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A083	-	1/60	230	3000/1	CCW 0.80	-	-	-

3.3 inch, Shaded Pole, Ball Bearing

Replaces: 026-16323-0000, 026-20224-000, 7021-1373

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A144	-	1/40	208-230	3000/1	CW 0.50	-	-	-

3.3 inch, Shaded Pole, sleeve bearing

Replaces: 7021-6770

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A137	-	-	115	3450/1	CW 0.70	-	-	-

3.3 inch, PSC, sleeve bearing

Replaces: 7062-2442, 7062-3342, 7062-3484, 7062-3342, 024-25007-700

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A154	-	1/30	115	3000/1	CW 1.2	-	-	-

3.3 inch, Shaded Pole, sleeve bearing

Replaces: 7021-9428

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A165	-	1/25	115	3450/1	CW 0.70	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-3958

York

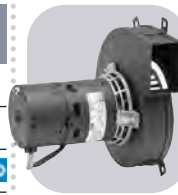


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A168	-	1/20	115	3450/1	CW 0.70	-	-	-

3.3 inch, PSC, ball bearing

Replaces: 7062-5019

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A221	-	1/40	208-230	3000/1	CCW 0.55	-	-	-

3.3 inch, Shaded Pole, Sleeve Bearing

Replaces: 7021-8318, 026-30614-700, 7021-6991

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A222	-	1/35	115	3000/1	CCW 1.05	-	-	-

3.3 inch, Shaded Pole, Ball Bearing

Replaces: 7021-8317, 026-32067-700, 7021-7481

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A223	-	1/30	208-230	3200/1	CW 0.64	-	-	-

3.3 inch, Shaded Pole, Sleeve Bearing

Replaces: 7021-10096, 026-33999-001, 7021-9656

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT AMPS	DIMENSIONS		
						A	B	C
A224	-	1/18	115	3450/2	CW 0.80	-	-	-

3.3 inch, Shaded Pole, Sleeve Bearing

Replaces: 7062-5048, 024-27654-000, 7062-4743

One-On-One™ Direct Replacement Motors

ONE-ON-ONE

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A225	-	1/15	115	3200/1	CW	2.25	-	-	-

3.3 inch, Shaded Pole, Sleeve Bearing

Replaces: 7021-11577, 17503, 7021-11830, 024-34558-000

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A226	-	1/35	115	3000/1	CW	1.7	-	-	-

Shaded Pole, Ball Bearing

Replaces: 7058-0266, 7058-0266S

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A227	-	1/25	115	3450/1	CW	0.70	-	-	-

3.3 inch, PSC, Sleeve Bearing

Replaces: 7062-4708S, 024-27641-000, 17450, 7062-4708

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A228	-	1/25	115	3000/1	CW	2.0	-	-	-

Shaded Pole, Ball Bearing

Replaces: 7002-3285, 024-31957-000, 7002-2941

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A229	-	1/25	115	3000/1	CW	1.75	-	-	-

Shaded Pole, Ball Bearing

Replaces: 7058-0267S, 17499, 7058-0267

York



MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A230	-	1/20	115	3450/2	CW	0.80	-	-	-

3.3 inch, PSC, Sleeve Bearing

Replaces: 7062-5094S, 17476, 7062-5094

York

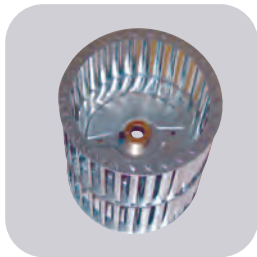
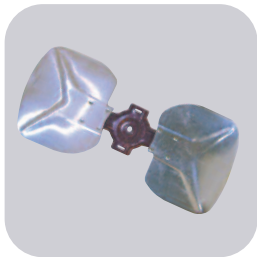


MARS NO.	MFG. NO.	HP	VOLTS	RPM/SPD	ROT	AMPS	DIMENSIONS		
							A	B	C
A231	-	1/75	115	3000/2	CW	1.3	-	-	-

3.3 inch, Shaded Pole, Sleeve Bearing

Replaces: 7021-10213, 17452

Air Moving Components



Description	Page No.
Air Moving Components	
3-Wing Adapter Heavy Duty Condenser Fan Blades	.AM-3, AM-4
4-Wing Adapter Heavy Duty Condenser Fan Blades	.AM-4, AM-5
5-Wing Adapter Heavy Duty Condenser Fan Blades	.AM-6
2-Wing Fixed Hub Fan Blades	.AM-7
3-Wing Fixed Hub Fan Blades	.AM-7
4-Wing Fixed Hub Fan Blades	.AM-8
5-Wing Fixed Hub Fan Blades	.AM-8
4-Wing Single Piece Aluminum Blades with Hub	.AM-8
5-Wing Single Piece Aluminum Blades with Hub	.AM-9
4-Wing Single Piece Aluminum Blades, Hubless, Unit Bearing Mount	.AM-10
5-Wing Single Piece Aluminum Blades, Hubless, Unit Bearing Mount	.AM-10
Belt Drive Blower Wheels	.AM-15
Direct Drive Blower Wheels	.AM-13, AM-14
Gates V-Belts	.AM-18 to AM-20
A & B Belts	.AM-18 to AM-20
3L, 4L, & 5L Belts	.AM-18 to AM-20
AX, BX & 5VX Belts	.AM-18 to AM-20
Trouble Shooting Sources of Drive Problems	.AM-21
KC & KH Fan Blades	.AM-6
MARS Accu-Link Adjustable V-Belts	.AM-22, AM-24
MARS Cogged V-Belts	.AM-22 to AM-24
MARS FHP V-Belts	.AM-22, AM-23
MARS Multiple V-Belts	.AM-22, AM-23

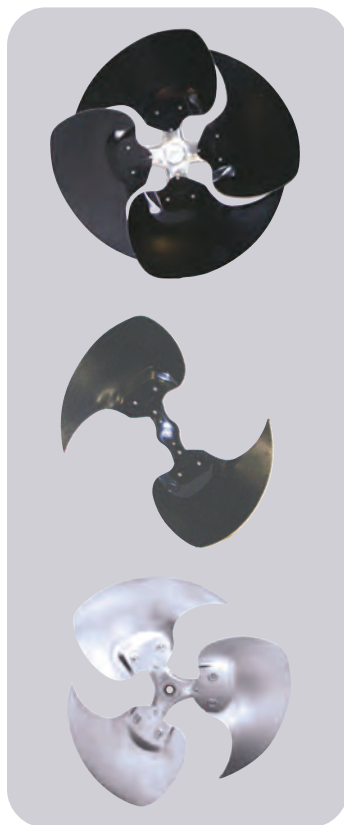
Description	Page No.
MARS Wedge V-Belts	.AM-22, AM-24
OEM Blower Wheels	.AM-11
Plastic Double Inlet Blower Wheel	.AM-11
Plastic Fan Blades	.AM-8
Small Double Inlet Wheels	.AM-11
Single Inlet Blower Wheels	.AM-12
Swept Wing Fan Blades	.AM-3
airMARS Accessories	
Bearings	.AM-15, AM-17
Bearing Brackets	.AM-17
Belt Drive Blower Accessories	.AM-15 to AM-17
Belt Measuring Device	.AM-20
Fan Blade & Hub Puller	.AM-11
Gates Accessories	.AM-20
Merchandiser Display	.AM-20
Pitch Gauge	.AM-11
Pulleys	.AM-16
Shafts	.AM-16
Taper Lock Bushings	.AM-7
Tension Tester	.AM-20
Thrust Collars & Thrust Spacer Kits	.AM-16
Universal Adapter Hex Hubs	.AM-11
Cross Reference	.AM-25 to AM-27
Special Order Instructions	.AM-28

Swept Wing Fan Blades

High SEER central air conditioning systems require unique condenser fan blade designs to provide maximum air flow with a minimum of noise. Motors & Armatures, Inc. is proud to offer some of the latest models of high efficiency condenser fan blades, designed and manufactured by Revcor, Inc. for the airMARS line of air moving components. Revcor, Inc. is a leader in advanced fan blade design and a major supplier to the HVAC/R Industry. All Revcor assembled fans go through a rigorous set of quality checks and are individually balanced at the factory. This ensures smooth, quiet performance and ultra high efficiency.

Features:

- Low Noise
- Replaces many new OEM high efficiency, low noise condenser fan blades



MARS NO.	DIA.	BLADES	DEGREES PITCH	BORE	ROTATION	HUB POSITION	MATERIAL	MARS PACK
40420	18	3	26	0.5	CW	Intake	Galv. Alum.	2
40421	20	3	34	0.5	CW	Intake	Alum.	2
40422	22	3	22	0.5	CW	Intake	Alum.	2

3 Wing Adapter Heavy Duty Condenser Fan Blades

airMARS 3 wing adapter, heavy duty condenser fan blades are designed for rigorous R/HVAC low pressure applications. They will accommodate universal hex/round adapter hubs. airMARS adapter fan blades are durable, efficient & quiet. They are manufactured using high strength aluminum alloy for the blades & sturdy steel for the blade spiders.

Blade depths and pitches specified for airMARS adapter fan blades allow for the replacement of a broad range of commonly used fan blades.



Typical applications are:

- | | |
|---|---------------------------|
| Air Cooled Condensers | Heat Pumps |
| Power Roof Ventilators | Fan Coil Units |
| Residential Air Conditioners Unit Heaters | Roof Top Air Conditioners |

Universal Hex Adapter Hubs on page AM-11

MARS NO.	MODEL NO.	BLADE DIA.	PITCH DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
					RPM	CFM	BHP	RPM	CFM	BHP	
40027	1027-3CW	10	27	2.19	825	104	0.006	825	N.A.	N.A.	2
					1075	241	0.01	1075	N.A.	N.A.	
					1725	572	0.03	1725	336	0.05	
40061	1219-3CW	12	19	1.56	825	121	0.008	825	N.A.	N.A.	2
					1075	295	0.01	1075	N.A.	N.A.	
					1725	625	0.04	1725	429	0.05	
40030	1223-3CCW	12	23	1.88	825	209	0.01	825	N.A.	N.A.	2
					1075	385	0.02	1075	N.A.	N.A.	
					1725	769	0.05	1725	580	0.07	
40031	1227-3CW	12	27	2.19	825	289	0.01	825	N.A.	N.A.	2
					1075	468	0.02	1075	N.A.	N.A.	
					1725	914	0.07	1725	714	0.09	
40033 40034	1423-3CW 1423CCW	14	23	2.67	825	568	0.02	825	N.A.	N.A.	2
					1075	892	0.04	1075	N.A.	N.A.	
					1725	1573	0.16	1725	1387	0.17	
40035 40036	1427-3CW 1427CCW	14	27	3.06	825	664	0.03	825	N.A.	N.A.	2
					1075	1006	0.05	1075	531	0.08	
					1725	1757	0.21	1725	1568	0.23	
40063	1619-3CW	16	19	2.56	825	610	0.02	825	N.A.	N.A.	2
					1075	1017	0.05	1075	305	0.06	
					1725	1811	0.17	1725	1549	0.20	
40037 40038	1622-3CW 1622-3CCW	16	22	2.94	825	748	0.03	825	N.A.	N.A.	2
					1075	1164	0.06	1075	481	0.08	
					1725	2039	0.23	1725	1815	0.25	
40039 40040	1627-3CW 1627-3CCW	16	27	3.56	825	1064	0.05	825	110	0.06	2
					1075	1525	0.10	1075	969	0.11	
					1725	2601	0.39	1725	2401	0.41	
40041 40042	1823-3CW 1823-3CCW	18	23	3.70	825	1202	0.06	825	464	0.10	2
					1075	1870	0.10	1075	972	0.13	
					1725	2487	0.32	1725	2629	0.33	

MAX RPM 10" - 18" DIA. 1725 RPM

3 Wing Adapter Heavy Duty Condenser Fan Blades (cont.)



Universal Hex Adapter Hubs on page AM-11

MARS NO.	MODEL NO.	BLADE DIA.	PITCH DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
					RPM	CFM	BHP	RPM	CFM	BHP	
40043 40044	1827-3CW 1827-3CCW	18	27	4.31	825	1711	0.08	825	637	0.12	2
					1075	2305	0.12	1075	1312	0.17	
					1725	4089	0.56	1725	3784	0.63	
40065 40066	1830-3CW 1830-3CCW	18	30	4.75	825	1882	0.09	825	794	0.14	2
					1075	2502	0.14	1075	1526	0.19	
					1725	4438	0.65	1725	4136	0.72	
40045 40046	1833-3CW 1833-3CCW	18	33	5.17	825	1993	0.11	825	914	0.15	2
					1075	2682	0.17	1075	1681	0.22	
					1725	4790	0.80	1725	4403	0.86	
40047 40048	2024-3CW 2024-3CCW	20	24	3.86	825	2306	0.12	825	1290	0.16	2
					1075	3052	0.18	1075	2063	0.22	
					1140	3383	0.26	1140	2781	0.31	
40049 40050	2028-3CW 2028-3CCW	20	28	4.47	825	2639	0.14	825	1513	0.18	2
					1075	3473	0.22	1075	2462	0.26	
					1140	3841	0.32	1140	3245	0.37	
40068	2031-3CCW	20	31	4.91	825	2884	0.16	825	1707	0.21	2
					1075	3790	0.26	1075	2727	0.30	
					1140	4186	0.38	1140	3552	0.43	
40051 40052	2033-3CW 2033-3CCW	20	33	5.17	825	3035	0.19	825	1851	0.23	2
					1075	3993	0.29	1075	2854	0.34	
					1140	4412	0.43	1140	3687	0.47	
40053 40054	2227-3CW 2227-3CCW	22	27	4.31	825	3383	0.18	825	2111	0.26	2
					1075	4478	0.28	1075	3323	0.34	
					1140	4969	0.41	1140	4169	0.47	
40069 40024	2230-3CW 2230-3CCW	22	30	4.75	825	3580	0.21	825	2376	0.31	2
					1075	4951	0.34	1075	3807	0.39	
					1140	5483	0.49	1140	4675	0.54	
40055 40056	2233-3CW 2233-3CCW	22	33	5.17	825	3982	0.26	825	2639	0.35	2
					1075	5259	0.41	1075	3978	0.48	
					1140	5828	0.60	1140	4923	0.65	
40057 40058	2426-3CW 2426-3CCW	24	26	4.17	825	4433	0.27	825	3028	0.33	2
					1075	5793	0.43	1075	4792	0.46	
					1140	6382	0.63	1140	5649	0.68	
40059 40060	2433-3CW 2433-3CCW	24	33	5.17	825	5287	0.40	825	3772	0.46	2
					1075	6906	0.65	1075	5782	0.68	
					1140	7607	0.96	1140	6763	1.00	

MAX RPM 10"- 18" DIA. 1725 RPM 20"-24" DIA. 1140 RPM

4 Wing Adapter Heavy Duty Condenser Fan Blades



airMARS 4 wing adapter, heavy duty condenser fan blades are designed for rigorous R/HVAC pressure applications. They will accommodate universal hex/round adapter hubs for unlimited versatility. airMARS adapter fan blades are durable, efficient, and quiet. They are manufactured using high strength aluminum alloy for the blades and sturdy steel for the blade spiders.

Blade depths and pitches specified for airMARS adapter fan blades allow for the replacement of a broad range of commonly used fan blades.

Typical applications are:

- Air Cooled Condensers
- Power Roof Ventilators
- Residential Air Conditioners Unit Heaters
- Heat Pumps
- Fan Coil Units
- Roof Top Air Conditioners

Universal Hex Adapter Hubs on page AM-11

MARS NO.	MODEL NO.	BLADE DIA.	PITCH DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
					RPM	CFM	BHP	RPM	CFM	BHP	
40070 40071	1023-4CW 1023-4CCW	10	23	2.28	825	100	0.008	825	N.A.	N.A.	2
					1075	250	0.009	1075	N.A.	N.A.	
					1625	550	0.03	1625	350	0.04	
40072 40073	1027-4CW 1027-4CCW	10	27	2.64	825	150	0.007	825	N.A.	N.A.	2
					1075	300	0.01	1075	N.A.	N.A.	
					1625	600	0.03	1625	400	0.04	
40074 40075	1033-4CW 1033-4CCW	10	33	3.16	825	220	0.01	825	N.A.	N.A.	2
					1075	360	0.02	1075	N.A.	N.A.	
					1625	720	0.06	1625	480	0.09	
40076 40077	1223-4CW 1223-4CCW	12	23	2.28	825	260	0.01	825	N.A.	N.A.	2
					1075	450	0.03	1075	140	0.04	
					1625	890	0.08	1625	480	0.11	
40078	1227-4CW	12	27	2.64	825	300	0.01	825	N.A.	N.A.	2
					1075	570	0.03	1075	N.A.	N.A.	
					1625	1010	0.07	1625	790	0.09	
40080 40081	1233-4CW 1233-4CCW	12	33	3.16	825	410	0.02	825	N.A.	N.A.	2
					1075	690	0.03	1075	380	0.06	
					1625	1210	0.12	1625	960	0.12	
40126 40127	1416-4CW 1416-4CCW	14	16	1.91	825	435	0.02	850	N.A.	N.A.	2
					1075	698	0.03	1075	N.A.	N.A.	
					1725	1237	0.09	1725	N.A.	N.A.	

MAX RPM 10"- 16" DIA. 1725 RPM

continued on next page

4 Wing Adapter Heavy Duty Condenser Fan Blades (cont.)

Universal Hex Adapter Hubs on page AM-11

MARS NO.	MODEL NO.	BLADE PITCH DIA.	BLADE DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
					RPM	CFM	BHP	RPM	CFM	BHP	
40128	1420-4CW	14	20	2.34	825	518	0.02	825	N.A.	N.A.	2
					1075	809	0.03	1075	373	0.05	
					1625	1339	0.13	1625	1184	0.14	
40082 40083	1423-4CW 1423-4CCW	14	23	2.672	825	580	0.02	825	N.A.	N.A.	2
					1075	890	0.04	1075	440	0.06	
					1625	1470	0.14	1625	1100	0.13	
40084 40085	1427-4CW 1427-4CCW	14	27	3.063	825	650	0.02	825	N.A.	N.A.	2
					1075	970	0.04	1075	550	0.06	
					1625	1600	0.15	1625	1320	0.15	
40086 40087	1433-4CW 1433-4CCW	14	33	3.672	825	780	0.04	825	120	0.05	2
					1075	1180	0.07	1075	730	0.10	
					1625	1940	0.18	1625	1730	0.19	
40088 40089	1623-4CW 1623-4CCW	16	23	3.063	825	1050	0.05	825	450	0.06	2
					1075	1520	0.08	1075	890	0.11	
					1625	2480	0.26	1625	2150	0.27	
40090 40091	1627-4CW 1627-4CCW	16	27	3.563	825	1180	0.07	825	730	0.10	2
					1075	1670	0.09	1075	1130	0.14	
					1625	2700	0.29	1625	2350	0.32	
40092 40093	1633-4CW 1633-4CCW	16	33	4.281	825	1420	0.05	825	930	0.09	2
					1075	2020	0.12	1075	1250	0.16	
					1625	3190	0.44	1625	2490	0.46	
40132	1819-4CW	18	19	3.09	825	1318	0.06	825	646	0.09	2
					1075	1815	0.08	1075	1080	0.13	
					1140	2802	0.50	1140	1196	0.53	
40094 40095	1823-4CW 1823-4CCW	18	23	3.703	825	1630	0.07	825	860	0.11	2
					1075	2160	0.12	1075	1470	0.17	
					1140	2310	0.14	1140	1780	0.19	
40096 40097	1827-4CW 1827-4CCW	18	27	4.313	825	1810	0.09	825	950	0.12	2
					1075	2430	0.15	1075	1820	0.19	
					1140	2690	0.18	1140	2250	0.26	
40134 40135	1830-4CW 1830-4CCW	18	30	4.75	825	1991	0.11	825	1132	0.14	2
					1075	2700	0.16	1075	1827	0.21	
					1140	2990	0.78	1140	2023	0.84	
40098 40099	1833-4CW 1833-4CCW	18	33	5.172	825	2150	0.12	825	1300	0.16	2
					1075	2880	0.20	1075	1970	0.25	
					1140	3190	0.28	1140	2240	0.29	
40100 40101	2023-4CW 2023-4CCW	20	23	3.703	825	2120	0.13	825	1080	0.15	2
					1075	3120	0.24	1075	2150	0.26	
					1140	3110	0.25	1140	2360	0.30	

MAX RPM 10"-16" DIA. 1725 RPM 18"-26" DIA. 1140 RPM

4 Wing Adapter Heavy Duty Condenser Fan Blades (cont.)

Universal Hex Adapter Hubs on page AM-11

MARS NO.	MODEL NO.	BLADE PITCH DIA.	BLADE DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
					RPM	CFM	BHP	RPM	CFM	BHP	
40102 40103	2027-4CW 2027-4CCW	20	27	4.313	825	2340	0.14	825	1250	0.17	2
					1075	3250	0.26	1075	2550	0.32	
					1140	3430	0.28	1140	2820	0.41	
40137 40138	2029-4CW 2029-4CCW	20	29	4.63	825	2975	0.02	825	2022	0.25	2
					1075	3706	0.03	1075	2934	0.36	
					1140	4286	0.13	1140	3760	0.51	
40104 40105	2033-4CW 2033-4CCW	20	33	5.172	825	3170	0.17	825	1650	0.26	2
					1075	3880	0.39	1075	3095	0.44	
					1140	4120	0.45	1140	3210	0.49	
40106 40107	2223-4CW 2223-4CCW	22	23	3.703	825	3070	0.18	825	1990	0.23	2
					1075	4120	0.37	1075	3580	0.46	
					1140	4400	0.40	1140	3900	0.50	
40108 40109	2227-4CW 2227-4CCW	22	27	4.313	825	3560	0.21	825	2260	0.27	2
					1075	4780	0.44	1075	4270	0.54	
					1140	5210	0.44	1140	4640	0.57	
40110 40111	2233-4CW 2233-4CCW	22	33	5.172	825	4230	0.30	825	2450	0.37	2
					1075	5210	0.60	1075	4600	0.69	
					1140	5860	0.74	1140	5220	0.80	
40139	2235-4CW	22	35	5.44	825	4431	0.32	825	3197	0.42	2
					1075	5932	0.51	1075	4778	0.60	
					1140	6385	0.75	1140	5624	0.81	
41816	2420-4CW	24	20	3.25	825	3648	0.20	825	2857	0.28	2
					1075	1848	0.33	1075	4296	0.40	
					1140	5199	0.48	1140	4781	0.57	
40112 40113	2423-4CW 2423-4CCW	24	23	3.703	825	3700	0.22	825	2280	0.30	2
					1075	5200	0.45	1075	4340	0.54	
					1140	5400	0.53	1140	4600	0.61	
40114 40115	2427-4CW 2427-4CCW	24	27	4.313	825	4300	0.34	825	2860	0.36	2
					1075	5900	0.55	1075	5170	0.64	
					1140	6220	0.66	1140	5500	0.75	
40116 40117	2433-4CW 2433-4CCW	24	33	5.172	825	4800	0.39	825	3000	0.50	2
					1075	6600	0.85	1075	5820	0.92	
					1140	7100	1.02	1140	6310	1.10	
40145 40146	2624-4CW 2624-4CCW	26	24	3.86	825	5383	0.39	825	4399	0.47	2
					1075	7129	0.61	1075	6376	0.70	
					1140	7629	0.89	1140	7099	1.00	
40118 40119	2627-4CW 2627-4CCW	26	27	4.313	825	5300	0.43	825	3590	0.51	2
					1075	7110	0.92	1075	6550	1.02	
					1140	7520	1.12	1140	7180	1.20	
40120 40121	2633-4CW 2633-4CCW	26	33	5.172	825	6050	0.52	825	4220	0.58	2
					1075	8200	1.13	1075	7250	1.18	
					1140	8810	1.30	1140	8100	1.42	

MAX RPM 10"-16" DIA. 1725 RPM 18"-26" DIA. 1140 RPM

5 Wing Adapter Heavy Duty Condenser Fan Blades

airMARS 5 wing adapter, heavy duty condenser fan blades are designed for rigorous R/HVAC pressure applications. They will accommodate universal hex/round adapter hubs for unlimited versatility. airMARS adapter fan blades are durable, efficient, and quiet. They are manufactured using high strength aluminum alloy for the blades and sturdy steel for the blade spiders.

Blade depths and pitches specified for airMARS adapter fan blades allow for the replacement of a broad range of commonly used fan blades.

Typical applications are:

- Air Cooled Condensers
- Heat Pumps
- Roof Top Air Conditioners
- Fan Coil Units
- Residential Air Conditioners Unit Heaters
- Power Roof Ventilators



KC & KH Blades

airMARS KC series blades are designed for use in air circulators, cooling towers, air cooled condensing units, and small cooling towers. Performance figures are based on applicable standards such as ASHRAE 51/AMCA 210. Suitability for an application is the responsibility of the customer.

See page AM-11 for KC blades with fixed 5/8" hubs. Taper lock bushings for KC and KH blades are also listed on page AM-11.



Features:

- 4 wing blades
- High quality steel
- Viewing from air discharge side - CW rotation

Universal Hex Adapter Hubs on page AM-11

MARS NO.	MODEL NO.	BLADE DIA.	PITCH DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
					RPM	CFM	BHP	RPM	CFM	BHP	
40150 40151	1627-5CW 1627-5CCW	16	27	3.33	825	1180	0.08	825	590	0.09	2
					1075	1570	0.11	1075	1250	0.14	
					1140	1800	0.13	1140	1450	0.16	
40152	1633-5CW	16	33	3.98	825	1440	0.09	825	680	0.11	2
					1075	1920	0.15	1075	1410	1.17	
					1140	2200	0.18	1140	1600	0.22	
40155	1827-5CCW	18	27	4.25	825	1800	0.10	825	1100	0.14	2
					1075	2400	0.15	1075	1800	0.23	
					1140	2750	0.23	1140	2030	0.26	
40156	1833-5CW	18	33	5.15	825	2120	0.13	825	1290	0.17	2
					1075	3150	0.28	1075	2199	0.34	
					1140	3270	0.31	1140	2331	0.37	
40158	2027-5CW	20	27	4.28	825	2620	0.14	825	1600	0.18	2
					1075	3520	0.35	1075	3050	0.38	
					1140	3790	0.40	1140	3300	0.46	
40160	2033-5CW	20	33	5.15	825	3155	0.19	825	1917	0.23	2
					1075	4230	0.14	1075	3796	0.46	
					1140	4503	0.48	1140	4132	0.54	
40164	2233-5CW	22	33	5.15	825	4130	0.34	825	2950	0.41	2
					1075	5530	0.74	1075	5100	0.87	
					1140	5780	0.90	1140	5540	1.02	
40166	2427-5CW	24	27	4.31	825	4400	0.41	825	3500	0.47	2
					1075	6060	0.82	1075	5500	0.96	
					1140	6240	0.99	1140	5980	1.06	
40168	2433-5CW	24	33	5.15	825	5500	0.53	825	4350	0.62	2
					1075	7470	1.22	1075	6950	1.26	
					1140	7800	1.45	1140	7500	1.52	
40170	2627-5CW	26	27	4.31	720	4358	0.40	720	3477	.46	2
					825	5677	0.52	825	4489	.60	
40178	3027-5CW	30	27	5.52	720	7519	0.67	720	5946	.74	2
					825	8718	0.99	825	6895	1.16	

MAX RPM 16"-18" DIA. 1725 RPM 20"-24" DIA. 1140 RPM

MARS NO.	MODEL NO.	NO. OF BLADES	BLADE DIA.	PITCH DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
						RPM	CFM	BHP	CFM	BHP		
40202	5-3298	4	26	28	2.63	850	5621	0.38	4352	0.42	1140	
						1000	6794	0.60	5812	0.65		
						1140	7867	0.88	7025	0.94		
40203	5-2225	4	26	38	3.25	850	7629	0.52	5906	0.57	1140	
						1000	9220	0.81	7888	0.88		
						1140	10676	1.19	9534	1.27		
40204	5-3660	4	28	38	3.25	850	9516	0.75	7367	0.81	1140	
						1000	11195	1.22	8667	1.35		
						1140	12763	1.80	9881	1.92		
40205	5-3300	4	30	22	2.19	850	6691	0.40	5176	0.43	1140	
						1000	8070	0.63	7051	0.69		
						1140	9337	0.92	8446	1.00		
40206	5-3299	4	30	30	2.88	850	8985	0.73	7209	0.79	1140	
						1000	10809	1.16	9471	1.25		
						1140	12482	1.70	11354	1.81		
40208	5-3301	4	36	32	3.63	720	13226	1.26	11247	1.33	850	
						850	15892	2.04	14340	2.14		
40216	5-2192	4	48	38	4.25	500	26413	2.44	23059	2.76	700	
						600	32170	4.14	29749	4.55		
						700	37853	6.51	35938	6.94		

KC Blades with 5/8" Hub

MARS NO.	MODEL NO.	NO. OF BLADES	BLADE DIA.	PITCH DEG.	BLADE DEPTH	STATIC PRESSURE .10"			STATIC PRESSURE .30"			MARS PACK
						RPM	CFM	BHP	CFM	BHP		
40396	5-3484	4	28	34	3.25	850	8374	0.67	6482	0.71	1140	
						1000	9851	1.07	7627	1.18		
						1140	11231	1.58	8697	1.69		
40397	5-2223	4	30	30	2.88	850	8985	0.73	7209	0.79	1140	
						1000	10809	1.16	9471	1.25		
						1140	12482	1.70	11354	1.81		

Taper Lock Bushings

H Bushing for 24"- 48" Blades

MARS NO.	BORE	KEYWAY
40232	5/8"	Shaft
40231	3/4"	Shaft
40233	13/16"	Shaft
40234	7/8"	Shaft
40235	1"	Shaft
40237	1-1/8"	Shaft

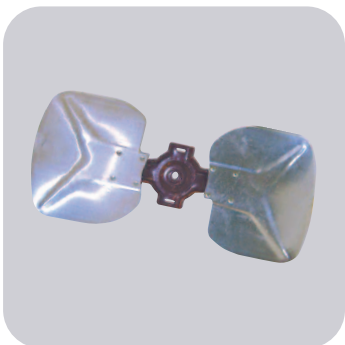


Fixed Hub Blades

airMARS 2 and 3 wing blades are designed for lower static pressure applications. They will fit OEM's such as Carrier, Rheem Rudd, GE, Trane, Singer-climate control, York and others.

Available from 14" to 24" blade diameter with 1/2" assembled hub.

Always note original fan blade hub location (intake or discharge) and match when selecting fixed hub replacement fan blades.



2-Wing Blades with 1/2" Hub

MARS NO.	MODEL NO.	ROTATION	BLADE DIA.	PITCH DEG.	HUB LOCATION	MARS PACK
40300	6-9871-BP	CW	14	36°	Discharge	2
40301	6-9788	CCW	14	36°	Intake	2
40302	601274	CCW	18	19°	Intake	2
40305	T1802-24	CW	18	24°	Intake	2
40307	6-9250	CW	18	29°	Intake	2
40308	6-9205	CCW	18	29°	Intake	2
40408	T1802-32	CCW	18	33°	Intake	2
40309	6-9254	CCW	18	36°	Intake	2
40313	6-9252	CCW	20	25°	Intake	2
40314	6-9251	CW	20	29°	Intake	2
40315	6-9206	CCW	20	29°	Intake	2
40316	6-9253	CCW	20	34°	Intake	2
40319	T2202-22	CCW	22	22°	Intake	2
40320	600041	CCW	22	27°	Intake	2
40321	600455	CCW	22	29°	Intake	2
40324	6-9299	CCW	24	24°	Intake	2
40325	T2402-26	CW	24	26°	Discharge	2

Fixed Hub Blades

airMARS 2 and 3 wing blades are designed for lower static pressure applications. They will fit OEM's such as Carrier, Rheem Rudd, GE, Trane, Singer-climate control, York and others.

Available from 14" to 26" blade diameter with 1/2" assembled hub.

Always note original fan blade hub location (intake or discharge) and match when selecting fixed hub replacement fan blades.



3-Wing Blades with 1/2" Hub

MARS NO.	MODEL NO.	ROTATION	BLADE DIA.	PITCH DEG.	HUB LOCATION	MARS PACK
40328	6-9255	CW	14	32°	Discharge	2
40331	T1403-28	CW	16	28°	Intake	2
40333	6-9257	CW	16	33°	Discharge	2
40334	600893	CCW	16	33°	Intake	2
40338	T1803-26	CW	18	26°	Discharge	2
40339	T1803-27	CCW	18	26°	Intake	2
40340	601276	CW	18	27°	Discharge	2
40343	6-9259	CW	18	33°	Discharge	2
40347	6-0316	CW	20	23°	Discharge	2
40348	601278	CCW	20	25°	Intake	2
40349	601279	CW	20	31°	Discharge	2
40350	T2203-20	CW	22	20°	Intake	2
40353	600240	CW	22	24°	Intake	2
40352	UT Series	CW	22	24°	Discharge	2
40355	T2203-28	CW	22	28°	Intake	2
40357	600916	CCW	22	33°	Intake	2
40358	602048	CW	24	22°	Intake	2
40323	601280	CCW	24	22°	Intake	2
40359	601383	CW	24	30°	Intake	2
40360	602297	CW	24	33°	Intake	2
40362	601291	CW	26	26°	Discharge	2
40407	T2603-26	CCW	26	26°	Intake	2
40363	T2603-27	CW	26	27°	Intake	2
40364	601282	CW	26	37°	Intake	2

12"- 18" DIA. MAX. RPM 1725 20"- 28" DIA. MAX. RPM 1140 30" DIA. MAX. RPM 850

3-Wing Blades with 5/8" Hub

MARS NO.	MODEL NO.	ROTATION	BLADE DIA.	PITCH DEG.	HUB LOCATION	MARS PACK
40365	KA3018	CW	30	18°	Discharge	2

12"- 18" DIA. MAX. RPM 1725 20"- 28" DIA. MAX. RPM 1140 30" DIA. MAX. RPM 850

Fixed Hub Blades

airMARS fixed hub heavy duty condenser fan blades have been designed to serve as drop-in replacements for many OEM applications.

Hub location is on the intake side unless otherwise noted.

Always note original fan blade hub location (intake or discharge) and match when selecting fixed hub replacement fan blades.



4-Wing Blades with Hub

MARS NO.	MODEL NO.	ROTATION	BLADE DIA.	PITCH DEG.	BORE & LOCATION	MARS PACK
40369	6-9256	CW	14	33°	1/2"	2
40372	6-9258	CW	16	33°	1/2" Discharge	2
40375	601375	CW	18	30°	1/2"	2
40376	6-9260	CW	18	33°	1/2" Discharge	2
40377	T2004	CW	20	20°	1/2" Discharge	2
40378	6-9992	CW	20	33°	1/2"	2
40379	602689	CW	20	36°	1/2"	2
40380	6-8745	CW	22	24°	1/2" Discharge	2
40381	T2204-26	CW	22	26°	1/2"	2
40382	600895	CCW	22	33°	1/2"	2
40383	T2404-20	CW	24	20°	1/2" Discharge	2
40384	T2404	CW	24	22°	1/2"	2
40387	600794	CCW	24	27°	1/2"	2
40389	601748	CW	26	30°	5/8" Discharge	2
40391	601293	CW	28	29°	1/2" Discharge	2
40392	601296	CW	30	22°	5/8"	2
40393	6-8154	CW	30	27°	5/8" Discharge	2

12" - 18" DIA. MAX. RPM 1725 20" - 28" DIA. MAX. RPM 1140 30" DIA. MAX. RPM 850

5-Wing Blades with Hub

MARS NO.	MODEL NO.	ROTATION	BLADE DIA.	PITCH DEG.	BORE & LOCATION	MARS PACK
40402	600176	CW	16	33°	1/2" Discharge	2
40403	600177	CCW	16	33°	1/2" Discharge	2
40404	600178	CW	18	33°	1/2" Discharge	2
40405	F1805-33	CCW	18	33°	1/2" Discharge	2
40406	601292	CW	26	29°	5/8" Discharge	2

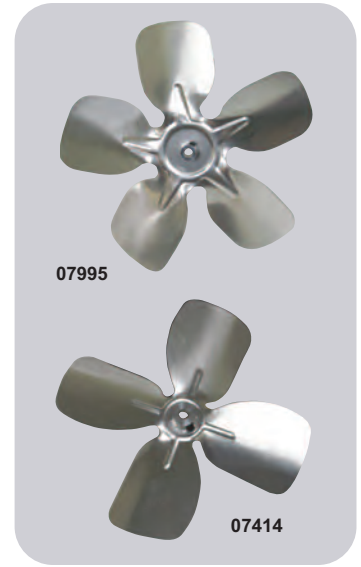
16" - 18" DIA. MAX. RPM 1725 26" DIA. MAX. RPM 1140

Single Piece Aluminum and Plastic Fan Blades

airMARS one piece aluminum fan blades feature a patented hubbing method. airMARS fan blades are designed for low noise and energy efficient operation.

Applications:

- Walk-in coolers and freezers
- Icemakers
- Refrigerators
- Condensers
- Vending Machines



4 Wing Single Piece Aluminum Fan Blades

MARS NO.	WINGS	BLADE DIA.	DEG. PITCH	ROT.	BORE	HUB	APPROX. CFM 3000 RPM	LAU NO.	ACME	FASCO	PACKARD
07411	4	6.00	19	CW	3/16"	I	85	-	-	-	A61469
07414	4	6.00	19	CW	1/4"	I	85	-	-	-	A61470

5 Wing Single Piece Aluminum Fan Blades Hub on Discharge

MARS NO.	WINGS	BLADE DIA.	DEG. PITCH	ROT.	BORE	HUB	APPROX. CFM 3000 RPM	LAU NO.	ACME	FASCO	PACKARD
07081	5	8.00	24	CW	1/4"	D	300	-	-	5FR824-1	-
07993	5	10.00	20	CW	5/16"	D	450	-	-	-	-
07997	5	10.00	28	CW	5/16"	D	600	-	-	-	-
07995	5	10.00	31	CW	5/16"	D	650	-	-	-	-
07996	5	10.00	31	CCW	5/16"	D	650	60-8367-01	-	-	-
07998	5	10.00	40	CW	5/16"	D	850	-	-	-	-
07921	5	12.00	23	CW	5/16"	D	970	-	-	-	-
07922	5	12.00	23	CCW	5/16"	D	970	-	-	-	-

Single Piece Aluminum Fan Blades

airMARS one piece aluminum fan blades feature a patented hubbing method. airMARS fan blades are designed for low noise and energy efficient operation.

Applications:

Walk-in coolers and freezers
 Ice makers
 Refrigerators
 Condensers
 Vending Machines



5 Wing Hub on Intake

MARS NO.	WINGS	BLADE DIA.	DEG. PITCH	ROT.	BORE	HUB	APPROX. CFM 1550 RPM	LAU NO.	ACME	FASCO	TORIN AIRDEX	PACKARD
07451	5	5.50	27	CW	1/4"	I	85		35504			A65504
07452	5	5.50	27	CCW	1/4"	I	85		35514			A65515
07551	5	5.50	27	CW	5/16"	I	85					
07552	5	5.50	27	CCW	5/16"	I	85					
07471	5	7.00	27	CW	1/4"	I	200	60-8348-01	30704	5FR727-1		A60704
07472	5	7.00	27	CCW	1/4"	I	200	60-8349-01	30714	5FL727-1		A60714
07571	5	7.00	27	CW	5/16"	I	200	60-8350-01	30705	5FR727-2		
07572	5	7.00	27	CCW	5/16"	I	200	60-8351-01	30715	5FL727-2		
07481	5	8.00	24	CW	1/4"	I	300	60-8352-01		5FR824-1	1010352 CW	
07482	5	8.00	24	CCW	1/4"	I	300	60-8353-01		5FL824-1	1010632 CCW	
07581	5	8.00	24	CW	5/16"	I	300	60-8352-01		5FR824-2	1010642 CW	
07582	5	8.00	24	CCW	5/16"	I	300	60-8353-01		5FL824-2	1010652 CCW	
07484	5	8.00	32	CCW	1/4"	I	330					
07584	5	8.00	32	CCW	5/16"	I	330			5FL832-2		
07591	5	9.00	26	CW	5/16"	I	345	60-8362-01		5FR926-2		
07592	5	9.00	26	CCW	5/16"	I	345	60-8363-01		5FL926-2		
07493	5	10.00	20	CW	1/4"	I	450			5FR1020-1		
07494	5	10.00	20	CCW	1/4"	I	450			5FL1020-1		
07593	5	10.00	20	CW	5/16"	I	450	60-8368-01		5FR1020-2		
07594	5	10.00	20	CCW	5/16"	I	450	60-8369-01		5FL1020-2		
07595	5	10.00	31	CW	5/16"	I	650	60-8370-01		5FR1031-2	1010362 CW	
07596	5	10.00	31	CCW	5/16"	I	650	60-8371-01		5FL1031-2	1010692 CCW	
07521	5	12.00	23	CW	5/16"	I	920					

Single Piece Aluminum Fan Blades

airMARS one piece aluminum fan blades for unit bearing motors are designed for low noise and energy efficient operation.

Applications:

- Evaporator Coils
- Refrigerators
- Vending Machines



4 & 5 Wing Unit Bearing Mount

MARS NO.	WINGS	BLADE DIA.	DEG. PITCH	ROT.	BORE	HUB	APPROX. CFM 1550 RPM	LAU NO.	ACME	FASCO	TORIN AIRDEX	PACKARD
07004	4	10.00	-	REV	UB	NONE	414			S-7004		
95131	5	5.50	31	CW	UB	NONE	100					
95628	5	6.00	28	CW	UB	NONE	134					
95629	5	6.00	28	CCW	UB	NONE	134					
95721	5	7.00	21	CW	UB	NONE	150	60-8372-01	3706	5FR721		
95722	5	7.00	21	CCW	UB	NONE	150		3716			
95723	5	7.00	25	CW	UB	NONE	170					
95731	5	7.00	31	CW	UB	NONE	199	60-8373-01	3706-31		1010412 CW	
95732	5	7.00	31	CCW	UB	NONE	199		3716-31		1010472 CCW	
95741	5	7.00	40	CW	UB	NONE	300					
95735	5	7.75	23	CW	UB	NONE	250					
95821	5	8.00	20	CW	UB	NONE	210					
95822	5	8.00	20	CCW	UB	NONE	210					
95823	5	8.00	25	CW	UB	NONE	280	60-8376-01	3806			A63816
07709	5	8.00	31	CCW		NONE						
95831	5	8.00	31	CW	UB	NONE	300	60-8377-01	3806-31	1010432 CW		
95832	5	8.00	31	CCW	UB	NONE	300		3816-31	1010492 CCW		
95841	5	8.00	40	CW	UB	NONE	400					
95842	5	8.00	40	CCW	UB	NONE	400					
95865	5	8.00	50	CW	UB	NONE	500					
95866	5	8.00	50	CCW	UB	NONE	500					
07712	5	10.00	31	CW		NONE						
07713	5	10.00	31	CCW		NONE						
95875	5	8.75	25	CW	UB	NONE	300					
95923	5	9.00	25	CW	UB	NONE	335					
95931	5	9.00	31	CW	UB	NONE	370	60-8379-01	3906-31	1010452 CW		
95932	5	9.00	31	CCW	UB	NONE	370		3916-31	1010512 CCW		
95941	5	9.00	40	CW	UB	NONE	425					
95021	5	10.00	20	CW	UB	NONE	450					
95022	5	10.00	20	CCW	UB	NONE	450					
95027	5	10.00	28	CW	UB	NONE	425			3106		A63126
95031	5	10.00	31	CW	UB	NONE	650	60-8381-01	3106-31	1010442 CW		A61108
95032	5	10.00	31	CCW	UB	NONE	650		3116-31	1010502 CCW		A63117
95041	5	10.00	40	CW	UB	NONE	880					

Small Wheels

Double Inlet

airMARS plastic precision blower wheels are molded for reliable, efficient performance.



Plastic Wheels - Double Inlet

MARS NO.	MODEL NO.	WHEEL DIA.	WIDTH	BORE	MATERIAL
41500	2169-A	5.75	7.8	1/2	Poly-Pro CC

OEM Blower Wheels Single Inlet Blower Wheels

Special orders are available. Check with MARS customer service for minimum quantities on non-stock items.

Please review special order information request on page AM-??



MARS NO.	MODEL NO.	ROTATION	WHEEL DIA.	WHEEL WIDTH	BORE	MAX RPM
41204	1-6444	CCW	7.12	1.87	1/2	4000
41212	108389	CCW	8.50	2.00	5/8	3350
41208	107139	CCW	9.12	1.75	5/8	3500
41202	1-3266	CCW	9.87	2.00	5/8	3000
41213	101891	CCW	9.87	1.50	5/8	3475
41241	BC987-150S	CCW	9.87	1.50	5/8	3000
41221	106107	CW	10.75	2.00	5/8	1750

airMARS Accessories

Universal Hex Hubs

MARS Universal Hex Hubs are designed to provide a firm mechanical fit with hex or round bore adapter fan blades. These hubs are machined steel, designed with tri-point mount for secure spider/hub connections. MARS Universal Hex Hubs include 2 set screws, for shaft fastening, offset at 90 degrees.



MARS NO.	BORE	PER PACK
40002	1/4"	1
40003	5/16"	1
40004	3/8"	1
40005	1/2"	1
40006	5/8"	1

airMARS Tools

Follow these steps to measure propeller rotation and pitch:

- Step 1: Position the faceplate of the gauge on the blade of the fan.
- Step 2: Place the foot of the wire body of the Pitch Gauge on the center section (spider) of the fan.
- Step 3: The pointer gives a direct reading of the pitch in degrees, and the clockwise/counter-clockwise markings indicate the rotation.



MARS NO.	DESCRIPTION
40851	Fan Blade Pitch Gauge
40852	Fan Blade & Hub Puller



Small Wheels

Single Inlet

airMARS Single Inlet wheels are used in a variety of commercial and residential applications, for room air conditioners, power burners, draft inducers, other heating and appliance devices. Rotation is determined viewing the closed end of the wheel.



MARS NO.	MODEL NO.	ROTATION	WHEEL DIA.	WHEEL WIDTH	HUB
40564	1-6696	CCW	4	1-1/2	5/16
40565	2-2443	CCW	4.25	2-7/8	1/4

MARS NO.	MODEL NO.	ROTATION	WHEEL DIA.	WHEEL WIDTH	HUB	RPM	.1" S.P.		.3" S.P.	
							CFM	BHP	CFM	BHP
40615	2-0353	CW	5.75	4.00	1/2	1000 1725	250 481	0.025 0.150	- 431	- 0.131

4" - 5.25" DIA. MAX. RPM 3600 RPM 5.25" DIA. MAX. RPM 2800 RPM

MARS NO.	MODEL NO.	ROTATION	WHEEL DIA.	WHEEL WIDTH	HUB	RPM	.1" S.P.		.3" S.P.	
							CFM	BHP	CFM	BHP
40618	1-7890	CCW	6.31	2.00	1/2	3450	831	1.294	818	1.274
40619	1-3414	CW	6.31	2.50	1/2	1000 3450	268 1013	0.035 1.669	179 996	0.022 1.633
40638	1-1992	CCW	8.50	4.00	1/2	1000 1550	902 1428	0.266 1.023	825 1387	0.229 0.977
40641	1-5266	CW	9.125	4.25	1/2	1000	1005	0.122	896	0.108
40642	1-8189	CW	9.875	2.00	5/8	1000	632	0.209	588	0.191

Small Wheels

Double Inlet

airMARS Double inlet wheels are used in many popular air handlers. The wheels below are made of galvanized steel unless indicated otherwise. Rotation is determined viewing the hub extension.



MARS NO.	MODEL NO.	ROTATION	WHEEL DIA.	WHEEL WIDTH	HUB	RPM	.1" S.P.		.3" S.P.	
							CFM	BHP	CFM	BHP
41102	2-0414	CW	4.75	7.00	1/2	1725	555	0.115	455	0.092
		CCW								
41107	2-0223	CW	5.25	7.00	1/2	1725	710	0.090	620	0.075
41108	2-0891	CCW	5.25	7.00	1/2	1725	710	0.090	620	0.075
41111	2-2402	CW	5.75	5.16	1/2	1000	396	0.035	-	-
						1725	725	0.217	682	0.205
41112	2-0464	CW	5.75	5.88	1/2	1000	396	0.042	-	-
						1725	765	0.254	681	0.217
41113	2-2406	CW	5.75	6.88	1/2	1000	439	0.047	-	-
						1725	854	0.278	755	0.241
41114	2-0600	CW	5.75	7.625	1/2	1000	439	0.047	-	-
41115	2-0678	CCW	5.75	7.625	1/2	1725	854	0.278	755	0.241
41116	2-2408	CW	5.75	8.00	1/2	1000	500	0.065	-	-
41117	2-0304	CCW	5.75	8.00	1/2	1725	976	0.390	863	0.35
41118	106729	CW	5.75	8.50	1/2	1000	710	0.078	-	-
41121	103307 Alum.	CW	5.75	7.875	1/2	1000	455	0.047	105	0.011
41123	2-2405	CW	6.22	7.00	1/2	1000	626	0.040	406	0.120
41124	2-0089 Alum.	CCW	6.22	7.625	1/2	1725	274	0.063	212	0.047
41125	2-2407	CW	6.22	8.00	1/2	1000	705	0.042	500	1.250
41126	1-0439	CW	6.25	7.00	1/2	1000	625	0.077	415	0.046
41127	1-0438	CCW	6.25	7.00	1/2	1000	625	0.077	415	0.046
41130	106730	CW	6.31-25	7.625	1/2	1000	733	0.112	537	0.074
41132	802653	CW	7.50	9.00	1/2	1000	830	0.125	603	0.087

Direct Drive Furnace Blower Wheels

44 separate quality checks ensure the production process for airMARS belt drive blower wheels. Rigorous quality standards, high quality raw material and experienced manufacturing all work together to make airMARS blower wheels your best choice.

airMARS Direct Drive Blower Wheels are designed to work as "drop in" replacements for all major HVAC OEM equipment



MARS NO.	DESCRIPTION	ROT.	CENTER DISC	DIA.	WIDTH	BORE	LAU#	RPM	.1" S.P.		.3" S.P.	
									CFM	BHP	CFM	BHP
41303	9-6 DD Blower Wheel	CW	Convex	9.50	6.06	0.50	013335-01	1000	1395	.40	1240	.36
41302	9-6 DD Blower Wheel	CCW	Convex	9.50	6.06	0.50		1250	1744	.77	1650	.74
41301	9-6 DD Blower Wheel	CW	Concave	9.50	6.06	0.50		1000	1395	.40	1240	.36
41300	9-6 DD Blower Wheel	CCW	Concave	9.50	6.06	0.50		1250	1744	.77	1650	.74
41307	9-7 DD Blower Wheel	CW	Convex	9.50	7.12	0.50	013336-02	1000	1600	.50	1400	.42
41306	9-7 DD Blower Wheel	CCW	Convex	9.50	7.12	0.50	013336-03	1250	1950	1.01	1850	.89
41305	9-7 DD Blower Wheel	CW	Concave	9.50	7.12	0.50		1000	1600	.50	1400	.42
41311	9-8 DD Blower Wheel	CW	Convex	9.50	8.06	0.50	013337-01	1000	1720	.50	1460	.42
41310	9-8 DD Blower Wheel	CCW	Convex	9.50	8.06	0.50	013337-03	1200	2000	.86	1850	.79
41309	9-8 DD Blower Wheel	CW	Concave	9.50	8.06	0.50		1000	1720	.50	1460	.42
41365	9-9 DD Blower Wheel	CW	Convex	9.50	9.50	0.50	013332-01					
41312	9-9 DD Blower Wheel	CW	Concave	9.50	9.50	0.50		1000	1750	.51	1550	.43
41361	9-9 DD Blower Wheel	CCW	Concave	9.50	9.50	0.50	013332-03	1200	2150	.93	2000	.83
41314	10-4 DD Blower Wheel	CW	Convex	10.62	4.50	0.50	013327-01	1000	1130	.36	1050	.33
41316	10-6 DD Blower Wheel	CW	Concave	10.62	6.06	0.50		1200 1000	1395 1680	.63 .36	1300 1550	.57 .31
41318	10-6 DD Blower Wheel	CW	Convex	10.62	6.06	0.50	013326-01	1200	2010	.62	1910	.59
41321	10-6 DD Blower Wheel	CW	Convex	10.62	6.06	0.62	013326-14	1000	1680	.36	1550	.31
41317	10-6 DD Blower Wheel	CCW	Convex	10.62	6.06	0.50	013326-02	1200	2010	.62	1910	.59
41320	10-6 DD Blower Wheel	CW	Concave	10.62	6.06	0.62		1000	1680	.36	1550	.31
41319	10-6 DD Blower Wheel	CCW	Concave	10.62	6.06	0.62						
41323	10-7 DD Blower Wheel	CW	Convex	10.62	7.12	0.50	013325-01	1000	2150	.85	1990	.71
41362	10-7 DD Blower Wheel	CCW	Convex	10.62	7.12	0.50	027102-04	1200	2600	1.57	2490	1.36
41322	10-7 DD Blower Wheel	CW	Concave	10.62	7.12	0.50						
41327	10-8 DD Blower Wheel	CW	Convex	10.62	8.06	0.50	013324-01	1000	2300	.83	2100	.71
41326	10-8 DD Blower Wheel	CCW	Convex	10.62	8.06	0.50	013324-02	1200	2800	1.49	2620	1.34
41325	10-8 DD Blower Wheel	CW	Concave	10.62	8.06	0.50		1000	2300	.83	2100	.71
41324	10-8 DD Blower Wheel	CCW	Concave	10.62	8.06	0.50		1200	2800	1.49	2620	1.34

Direct Drive Furnace Blower Wheels

44 separate quality checks ensure the production process for airMARS belt drive blower wheels. Rigorous quality standards, high quality raw material and experienced manufacturing all work together to make airMARS blower wheels your best choice.

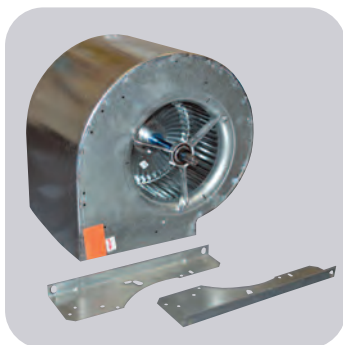
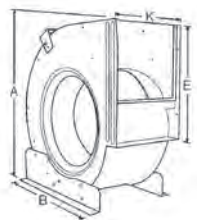
airMARS Direct Drive Blower Wheels are designed to work as "drop in" replacements for all major HVAC OEM equipment.



MARS NO.	DESCRIPTION	ROT.	CENTER DISC	DIA.	WIDTH	BORE	LAU#	RPM	.1" S.P.		.3" S.P.	
									CFM	BHP	CFM	BHP
41331	10-9 DD Blower Wheel	CW	Convex	10.62	9.50	0.50	013323-01	1000	2520	.90	2350	.81
41330	10-9 DD Blower Wheel	CCW	Convex	10.62	9.50	0.50		1150	2900	1.44	2780	1.29
41329	10-9 DD Blower Wheel	CW	Concave	10.62	9.50	0.50	013317-01	1000	2520	.90	2350	.81
41328	10-9 DD Blower Wheel	CCW	Concave	10.62	9.50	0.50	013317-04	1150	2900	1.44	2780	1.29
41335	10-10 DD Blower Wheel	CW	Convex	10.62	10.68	0.50	013322-03	1000	2700	1.07	2520	.95
41334	10-10 DD Blower Wheel	CCW	Convex	10.62	10.68	0.50		1150	3100	1.64	2990	1.51
41337	10-10 DD Blower Wheel	CW	Convex	10.62	10.68	0.62		1000	2700	1.07	2520	.95
41333	10-10 DD Blower Wheel	CW	Concave	10.62	10.68	0.50	013316-02	1150	3100	1.64	2990	1.51
41336	10-10 DD Blower Wheel	CW	Concave	10.62	10.68	0.62		1000	2700	1.07	2520	.95
41332	10-10 DD Blower Wheel	CCW	Concave	10.62	10.68	0.50	013316-06	1150	3100	1.64	2990	1.51
41341	11-7 DD Blower Wheel	CW	Convex	11.93	7.12	0.50	026940-05	1000	2350	1.01	2250	.93
								1150	2720	1.51	2610	1.40
41344	11-8 DD Blower Wheel	CCW	Convex	11.93	8.06	0.50	026940-08	1000	2680	1.19	2500	1.05
41343	11-8 DD Blower Wheel	CW	Concave	11.93	8.06	0.50	026941-07	1150	3100	1.78	3000	1.64
41342	11-8 DD Blower Wheel	CCW	Concave	11.93	8.06	0.50		1000	2680	1.19	2500	1.05
								1150	3100	1.78	3000	1.64
41349	11-9 DD Blower Wheel	CW	Convex	11.93	9.50	0.50	026940-09	1000	2880	1.25	2660	1.08
41348	11-9 DD Blower Wheel	CCW	Convex	11.93	9.50	0.50	026940-10	1150	3300	1.92	3280	1.78
41347	11-9 DD lower Wheel	CW	Concave	11.93	9.50	0.50		1000	2880	1.25	2660	1.08
41346	11-9 DD Blower Wheel	CCW	Concave	11.93	9.50	0.50		1150	3300	1.92	3280	1.78
41352	11-10 DD Blower Wheel	CW	Convex	11.93	10.68	0.50						
41351	11-10 DD Blower Wheel	CW	Concave	11.93	10.68	0.50	026941-11	1000	3100	1.31	2910	1.21
								1150	3600	2.05	3450	1.92
41350	11-10 DD Blower Wheel	CCW	Concave	11.93	10.68	0.50	026941-12					
41370	11-11 DD Blower Wheel	CCW	Concave	11.93	11.93	0.50		1000	3300	1.45	3090	1.29
41364	12-9 DD Blower Wheel	CW	Convex	12.87	9.50	0.50	013693-25	1000	3800	1.96	3620	1.79
								1150	4400	2.94	4300	2.78
41355	12-12 DD Blower Wheel	CW	Concave	12.87	12.62	0.50	015565-07	1000	4700	2.56	4500	2.38
								1150	5500	3.83	5250	3.70

Belt Drive Blower Wheel with Housing Assembly

MARS #41405 is a belt drive blower assembly with a 10 x 10 belt drive blower wheel included. The 41405 features universal mounting.



MARS NO.	HOUSING DIMENSIONS					BLOWER WHEEL		
	K	E	A	B	TYPE	DIA.	WIDTH	BORE
41405	13-1/6"	11-3/8"	17-1/4"	16-1/2"	BD	10-1/2"	10-5/8"	3/4"

Belt Drive Blower Wheels

airMARS belt drive blower wheels with forward curved blades are constructed out of galvanized steel with offset tab-locked blades for superior strength. The unique design allows higher operating speeds and lower noise levels on blower wheels from 9" to 40". All wheels are balanced both statically and dynamically to a factor of Q=6.3. 44 separate quality checks ensure the production process for airMARS belt drive blower wheels. Rigorous quality standards, high quality raw material and experienced manufacturing all work together to make airMARS blower wheels your best choice.



MARS NO.	DESCRIPTION	WHEEL DIA.	WHEEL WIDTH	BORE	NOMINAL DIA. X W.	LAU #	MAX. RPM
41533	15-15 BD 1.00 WHL	15.12	15.00	1.00	15-15	008276-16	1600

airMARS Belt Drive Blower Accessories

Bearings

All airMars bearings and bearing assemblies are designed and manufactured to precise tolerance. Dedication to quality assures good fit and long life.



MARS NO.	TYPE	BORE	O.D.	PHOTO	BAG QTY.
40863	Cartridge	3/4"	1-13/16"	A	2
40865	Cartridge w/journal	3/4"	1-13/16"	B	2
40867	Oil	5/8"	1-13/16"	H	2
40868	Oil	3/4"	1-13/16"	H	2
40871	Sealed	3/4"	1-13/16"	I	2
40872	Sealed H.D.	1"	2-1/2"	I	2
40873	Randall Type	3/4"	1-27/32"	J	2
40874	Randall Oil	1"	1-27/32"	J	2
40876	Pillow Block	5/8"	-	C	2
40877	Pillow Block	3/4"	-	C	2
40878	Pillow Block	1"	-	C	2
40879	Pillow Block H.D.	1"	-	C	2
40880	Pillow Block-Ball Brg.	3/4"	-	E	2
40881	Pillow Block-Ball Brg.	1"	-	E	2
40882	Pillow Block-Ball Brg.	1-3/16"	-	E	2
40884	Flange Bearing	3/4"	1-13/16"	K	2

airMARS Belt Drive Blower Accessories

Variable Pitch Pulleys

MARS NO.	DIA	BORE	MATERIAL
40829	2.5"	1/2"	Cast Iron
40830 (1)	2.5"	5/8"	Cast Iron
40831	3.25"	1/2"	Cast Iron
40832 (1)	3.25"	5/8"	Cast Iron
40833	3.25"	3/4"	Cast Iron
40834	3.75"	1/2"	Cast Iron
40835 (1)	3.75"	5/8"	Cast Iron
40836	3.75"	3/4"	Cast Iron
40837 (1)	3.75"	7/8"	Cast Iron
40847	3.75"	1-1/8"	Cast Iron
40838	4.15"	1/2"	Cast Iron
40839 (1)	4.15"	5/8"	Cast Iron
40840	4.15"	3/4"	Cast Iron
40841 (1)	4.15"	7/8"	Cast Iron
40842	4.15"	1-1/8"	Cast Iron
40844 (1)	4.75"	7/8"	Cast Iron
40845	5.35"	5/8"	Cast Iron

(1) with keyway



Blower Pulleys

MARS NO.	DIA	BORE	MATERIAL
40804	6"	5/8"	Cast Iron
40805	6"	3/4"	Cast Iron
40806	6"	1"	Cast Iron
40808	7"	3/4"	Cast Iron
40809	7"	1"	Cast Iron
40811	8"	3/4"	Cast Iron
40812	8"	1"	Cast Iron
40813	9"	3/4"	Cast Iron
40814	9"	1"	Cast Iron
40815	10"	3/4"	Cast Iron
40816	10"	1"	Cast Iron
40820	12"	1"	Cast Iron

Fixed Pulleys

MARS NO.	DIA	BORE	MATERIAL
40846	2.0"	1/2"	Cast Iron
40848	2.5"	1/2"	Cast Iron

airMARS Belt Drive Blower Accessories

Shafts, Miscellaneous Accessories, etc.

All airMars bearings and bearing assemblies are designed and manufactured to precise tolerance. Dedication to quality assures good fit and long life.



Miscellaneous Accessories

MARS NO.	TYPE	PHOTO	PER PACK	WT. EACH
40897	5/8" Thrust Collar Kit	A	1	.20
40898	3/4" Thrust Collar Kit	A	2	.30
40899	1" Thrust Collar Kit	A	1	.50
40901	3/4" Thrust Spacer Kit	-	1	.10
40903	3/4" Thrust Spacer Kit	-	8	.10

Solid Shafts

MARS NO.	BLADE DIA	LENGTH	FLATTED OR KEYWAY	WT. EACH
40906	5/8"	20"	Flatted	2.10
40907	3/4"	20"	Flatted	3.00
40908	1"	25"	Flatted	6.40
40910	1"	35"	Flatted	9.00
40911	1-3/16"	48"	Flatted	17.60
40912	1-3/16"	68"	Flatted	24.30
40913	1-7/16"	52"	Flatted	27.30
40909	3/4"	35"	Flatted	5.30
40914	3/4"	20"	Keyway	3.00
40915	1"	25"	Keyway	6.40

Note: excess can be cut off

airMARS Belt Drive Blower Accessories

Bearings and Brackets

All airMars bearings and bearing assemblies are designed and manufactured to precise tolerance. Dedication to quality assures good fit and long life.



Bearings

MARS NO.	TYPE	BORE	O.D.	PHOTO	BAG QTY.
40885	Sealed Ball Bearing	3/4"	1-13/16"	D	2
40887	Sealed Ball Bearing	1"	2-27/32"	D	2
40888	Sealed Ball Bearing	1-3/16"	2-27/32"	D	2
40886	Sealed Ball Bearing	3/4"	2-27/32"	D	2
40889	Sealed Brundage Repl.	3/4"	2-1/16"	B	2
40891	Oil Brundage Repl.	3/4"	2-1/16"	B	2

3-Wing Bearing Brackets

MARS NO.	TYPE	BORE	O.D.	PHOTO	BAG QTY.
40916	Universal 3-Wing Bracket	3/4"		F	1
40917	Universal 3-Wing Bracket	1"		F	1
40918	3-Wing Bracket w/Hardware	3/4"	w/ 3/4" x 20" shaft	-	1 Kit
40919	3-Wing Bracket w/Hardware	1"	w/ 1" x 20" shaft	-	1 Kit

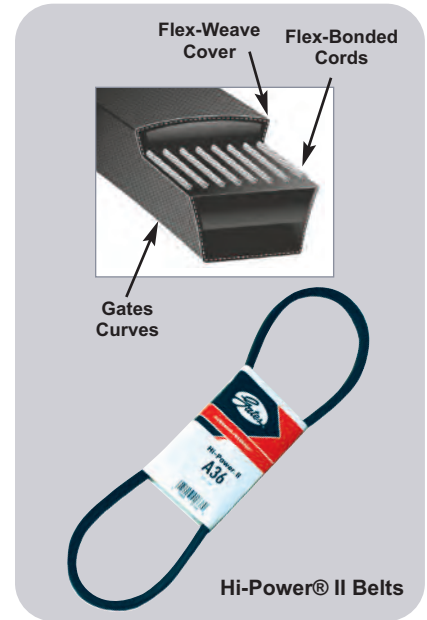


Hi-Power® II Belts

Gates Hi-Power II belts are engineered for classical applications. They have patented concave sidewalls to distribute wear evenly while providing proper belt support for improved service life. Flex-bonded cords and flex-weave covers make them the No. 1 choice for heavy-duty conventional V-belt drives. Hi-Power II belts also resist the effects of oil, heat, ozone, weather and aging while meeting RMA standards for static conductivity.

Features & Benefits:

- See page AM-40
- MARS Pack 1

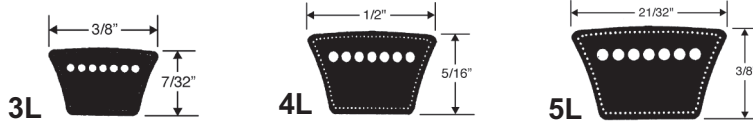


Truflex® V-Belts

Gates Truflex® belts offer improved performance on light duty, fractional horsepower (FHP) V-belt drives. Their unique patented construction provides smooth, quiet operation with less vibration.

Features & Benefits:

- Gates Curves provide proper cord support and full contact with the sheave-groove for uniform loading, uniform wear, and increased belt life.
- Flex-Bonded Cords are strongly bonded to the body of the belt resulting in equal load distribution and the absorption of bending stress without cord reduction.
- Flex-Weave® Cover is a patented fabric construction for longer cover life, providing extended protection to the belt core from oil, dirt and heat.
- Meets RMA static conductivity requirements.
- Meets RMA oil and heat resistant standards.
- MARS Pack 1



Tri-Power® Belts-AX, BX

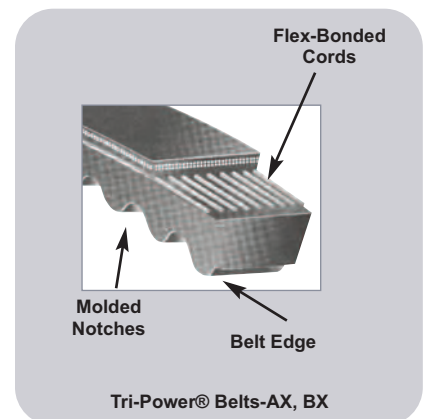
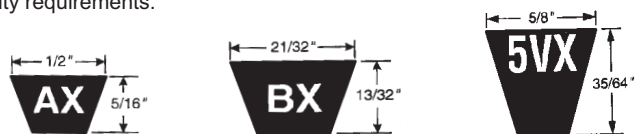
Constructed with Gates proprietary Vextra® construction, this belt has a superior combination of flex and load carrying capacity, as well as less stretch resulting in less maintenance. Suitable for all industrial applications, particularly where small or subminimal sheave diameters are required.

Super HC® Molded Notch Belts-5VX

Constructed with Gates proprietary construction, this belt has a superior combination of flex and load carrying capacity, as well as transmitting more horsepower than the classical cross sections in the same amount of drive space. Suitable for all industrial applications, particularly where space, weight and horsepower capacity are critical.

Features & Benefits:

- Notches molded in to the belt during manufacturing, make this belt well suited for drives with smaller diameter sheaves.
- Belt edge is machined for even sheave groove contact resulting in less slip and wear.
- Flex bonded cords are strongly bonded to the body of the belt resulting in equal load distribution and the absorption of bending stress without cord deterioration.
- Meets RMA oil and heat resistant standards
- Meets RMA static conductivity requirements.
- MARS Pack 1



MARS NO.	DESC.	CASE QTY.
----------	-------	-----------

MARS NO.	DESC.	CASE QTY.
----------	-------	-----------

MARS NO.	DESC.	CASE QTY.
----------	-------	-----------

MARS NO.	DESC.	CASE QTY.
----------	-------	-----------

MARS NO.	DESC.	CASE QTY.
----------	-------	-----------

MARS NO.	DESC.	CASE QTY.
----------	-------	-----------

MARS NO.	DESC.	CASE QTY.
----------	-------	-----------

A Belts

74364	A20	1
74325	A21	1
74326	A22	1
74327	A23	1
74328	A24	185
74329	A25	185
74330	A26	150
74331	A27	150
74332	A28	150
74333	A29	150
74334	A30	150
74335	A31	150
74336	A32	150
74337	A33	150
74338	A34	150
74339	A35	130
74340	A36	130
74341	A37	110
74342	A38	110
74343	A39	110
74344	A40	110
74345	A41	90
74346	A42	90
74347	A43	90
74348	A44	90
74349	A45	90
74350	A46	90
74351	A47	90
74352	A48	90
74353	A49	90
74354	A50	90
74355	A51	90
74356	A52	50
74357	A53	50
74358	A54	50
74359	A55	50
74360	A56	50
74361	A57	50
74362	A58	50
74363	A59	50
74366	A60	50
74367	A61	50
74368	A62	50
74369	A63	50
74370	A64	50
74371	A65	75
74372	A66	75
74373	A67	75
74374	A68	50
74375	A69	7
74376	A70	42
74377	A71	75
74378	A72	75
74379	A73	75
74380	A74	42
74381	A75	75
74382	A76	75
74383	A77	75

A Belts cont.

74384	A78	75
74385	A79	50
74386	A80	75
74387	A81	25
74388	A82	50
74389	A83	60
74390	A84	25
74391	A85	50
74392	A86	10
74393	A87	10
74394	A88	30
74395	A89	60
74396	A90	60
74397	A91	60
74398	A92	60
74399	A93	60
74400	A94	60
74401	A95	60
74402	A96	50
74531	A97	5
74532	A98	4
74403	A100	35
74404	A103	50
74405	A105	25
74406	A110	5
74407	A112	45
74408	A120	35
74409	A128	35
74410	A133	2
74411	A136	2
74412	A144	15
74416	A158	2
74417	A173	2
74415	A180	2

B Belts

74517	B28	10
74526	B280	2
74518	B29	95
74422	B30	20
74423	B31	95
74424	B32	10
74425	B33	10
74426	B34	25
74427	B35	100
74428	B36	25
74429	B37	20
74430	B38	90
74431	B39	20
74432	B40	75
74433	B41	75
74434	B42	75
74435	B43	75
74436	B44	75
74437	B45	75
74438	B46	65
74439	B47	60
74440	B48	60

B Belts cont.

74441	B49	60
74442	B50	40
74443	B51	40
74444	B52	40
74445	B53	40
74446	B54	40
74447	B55	30
74448	B56	20
74449	B57	40
74450	B58	35
74451	B59	35
74452	B60	35
74453	B61	35
74454	B62	35
74455	B63	35
74456	B64	35
74457	B65	35
74458	B66	35
74459	B67	25
74460	B68	25
74461	B69	25
74462	B70	20
74463	B71	25
74464	B72	25
74465	B73	35
74466	B74	35
74467	B75	35
74468	B76	35
74469	B77	35
74470	B78	35
74471	B79	35
74472	B80	35
74473	B81	35
74474	B82	30
74475	B83	30
74476	B84	30
74477	B85	35
74478	B86	30
74479	B87	25
74480	B88	20
74481	B89	30
74482	B90	30
74528	B91	25
74483	B92	30
74484	B93	30
74485	B94	30
74486	B95	30
74487	B96	30
74488	B97	30
74489	B98	5
74490	B99	15
74491	B100	30
74519	B101	30
74520	B102	30
74492	B103	30
74493	B105	30
74494	B106	30
74495	B108	30

B Belts cont.

74530	B109	25
74496	B110	25
74497	B112	15
74521	B114	30
74498	B115	30
74499	B116	30
74500	B118	30
74501	B120	30
74529	B122	5
74502	B124	30
74503	B126	35
74504	B128	30
74509	B130	1
74505	B131	20
74525	B133	20
74506	B136	20
74507	B140	20
74522	B142	20
74508	B144	20
74510	B150	15
74511	B154	2
74512	B158	10
74513	B162	20
74533	B191	1

3L Belts

74103	3L170	100
74104	3L180	100
74105	3L190	100
74106	3L200	100
74107	3L210	100
74108	3L220	100
74109	3L230	100
74110	3L240	100
74111	3L250	100
74112	3L260	100
74113	3L270	100
74114	3L280	10
74115	3L290	100
74116	3L300	10
74117	3L310	1
74118	3L320	100
74119	3L330	150
74120	3L340	100
74121	3L350	100
74122	3L360	100
74123	3L370	1
74124	3L380	1
74125	3L390	1
74126	3L400	1
74128	3L420	1
74129	3L430	150
74130	3L440	50
74132	3L460	1

4L Belts

74153	4L150	5
74154	4L160	124

4L Belts cont.

74155	4L170	25
74156	4L180	100
74157	4L190	100
74158	4L200	100
74159	4L210	150
74160	4L220	100
74162	4L230	100
74163	4L240	100
74164	4L250	100
74165	4L260	100
74166	4L270	100
74167	4L280	100
74168	4L290	50
74169	4L300	50
74170	4L310	70
74171	4L320	50
74172	4L330	50
74173	4L340	50
74174	4L350	50
74175	4L360	75
74176	4L370	50
74177	4L380	50
74178	4L390	100
74179	4L400	50
74180	4L410	50
74181	4L420	50
74182	4L430	110
74183	4L440	50
74184	4L450	110
74185	4L460	50
74186	4L470	110
74187	4L480	50
74188	4L490	50
74189	4L500	110
74190	4L510	75
74191	4L520	75
74192	4L530	74
74193	4L540	60
74194	4L550	60
74195	4L560	60
74196	4L570	60
74197	4L580	60
74198	4L590	60
74199	4L600	80
74200	4L610	40
74201	4L620	80
74202	4L630	50
74203	4L640	75
74204	4L650	50
74205	4L660	75
74206	4L670	70
74207	4L680	74
74208	4L690	75
74209	4L700	75
74210	4L710	75
74211	4L720	75
74212	4L730	75
74213	4L740	75

4L Belts cont.

74214	4L750	75
74215	4L760	75
74216	4L770	75
74217	4L780	75
74218	4L790	75
74219	4L800	75
74220	4L810	75
74221	4L820	75
74222	4L830	5
74223	4L840	60
74224	4L850	2
74225	4L860	2
74226	4L870	75
74227	4L880	55
74228	4L890	55
74229	4L900	55
74230	4L910	55
74231	4L920	55
74232	4L930	55
74233	4L940	1
74234	4L950	1
74235	4L960	55
74236	4L970	55
74237	4L980	1
74238	4L990	55
74239	4L1000	55

5L Belts

74246	5L240	150
74247	5L250	150
74248	5L260	150
74249	5L270	50
74250	5L280	35
74251	5L290	130
74252	5L300	130
74253	5L310	50
74254	5L320	10
74255	5L330	10
74256	5L340	90
74257	5L350	10
74258	5L360	90
74259	5L370	10
74260	5L380	20
74261	5L390	90
74262	5L400	90
74263	5L410	75
74264	5L420	75
74265	5L430	75
74266	5L440	75
74267	5L450	75
74268	5L460	75
74269	5L470	75
74270	5L480	75
74271	5L490	75
74272	5L500	75
74273	5L510	55
74274	5L520	60
74275	5L530	60

5L Belts cont.

74276	5L540	25
74277	5L550	50
74278	5L560	25
74279	5L570	15
74280	5L580	25
74281	5L590	15
74282	5L600	35
74283	5L610	35
74284	5L620	20
74285	5L630	60
74286	5L640	60

Gates V-Belts cont.

MARS NO.	DESC.	CASE QTY.	MARS NO.	DESC.	CASE QTY.	MARS NO.	DESC.	CASE QTY.	MARS NO.	DESC.	CASE QTY.
AX Belts cont.			BX Belts			BX Belts cont.			5VX Belts cont.		
74563	AX29	20	74650	BX28	1	74645	BX85	2	74689	5VX750	12
74564	AX30	10	74662	BX30	1	74721	BX86	1	74708	5VX780	1
74565	AX31	10	74605	BX32	1	74678	BX88	1	74704	5VX800	1
74554	AX32	50	74684	BX33	1	74679	BX89	1	74676	5VX850	1
74567	AX33	14	74666	BX34	10	74659	BX90	1	74677	5VX880	1
74568	AX34	15	74609	BX35	1	74665	BX91	1	74690	5VX900	13
74569	AX35	15	74610	BX36	5	74672	BX92	1	74691	5VX930	5
74570	AX36	15	74611	BX37	1	74661	BX93	1	74706	5VX950	1
74571	AX37	15	74612	BX38	4	74680	BX94	1	74692	5VX960	10
74572	AX38	10	74613	BX39	40	74660	BX95	1	74693	5VX1000	10
74562	AX39	10	74614	BX40	15	74606	BX96	1	74694	5VX1030	10
74573	AX40	10	74615	BX41	1	74681	BX97	30	74718	5VX1050	1
74574	AX41	10	74616	BX42	4	74683	BX99	5	74695	5VX1060	1
74575	AX42	15	74617	BX43	5	74647	BX100	1	74696	5VX1080	10
74576	AX43	30	74618	BX44	10	74649	BX103	1	74697	5VX1120	10
74604	AX44	10	74710	BX45	10	74653	BX105	1	74698	5VX1150	10
74608	AX45	10	74619	BX46	15	74654	BX106	1	74699	5VX1180	1
74577	AX46	55	74719	BX47	1	74685	BX108	1	74673	5VX1230	1
74579	AX47	10	74620	BX48	10	74670	BX112	30	74700	5VX1320	10
74578	AX48	5	74663	BX49	1	74671	BX113	1	74701	5VX1400	20
74580	AX49	20	74621	BX50	20	74686	BX116	1			
74598	AX50	10	74607	BX51	50	74668	BX120	1	AP Belts		
74581	AX51	10	74622	BX52	10	74669	BX124	1	74725	5V630	1
74599	AX52	5	74623	BX53	5	74687	BX128	1	74726	5V710	1
74551	AX53	5	74624	BX54	20	74705	BX133	10	74728	5V750	1
74582	AX54	15	74625	BX55	1	74748	BX162	1	74729	5V800	1
74583	AX55	5	74626	BX56	5	74759	BX173	1	74746	AP46	1
74600	AX56	10	74664	BX57	1				74751	AP51	1
74601	AX57	10	74629	BX58	10	3VX Belts			74755	AP55	1
74584	AX58	5	74630	BX59	25	74515	3VX315	1	74756	AP56	1
74552	AX59	10	74631	BX60	25	74516	3VX355	1	74758	AP58	1
74585	AX60	4	74627	BX61	15	74418	3VX475	1	74760	AP59	1
74586	AX61	5	74632	BX62	20	74667	3VX630	1			
74587	AX62	5	74628	BX63	20	74547	3VX670	1	Misc. Belts		
74588	AX63	15	74633	BX64	10	74523	3VX710	1	74991	C85	1
74589	AX64	10	74634	BX65	15	74548	3VX750	5	74990	C100	5
74602	AX65	5	74635	BX66	10				74998	C136	1
74603	AX66	5	74636	BX67	10	5VX Belts			74796	CX96	1
74559	AX67	5	74637	BX68	5	74550	5VX800	1			
74590	AX68	5	74707	BX69	10	74524	5VX850	1			
74592	AX69	5	74638	BX70	10	74527	5VX900	1			
74749	AX70	5	74639	BX71	10	74712	5VX450	1			
74757	AX71	5	74641	BX72	15	74711	5VX500	1			
74514	AX72	5	74640	BX73	5	74688	5VX530	10			
74591	AX75	5	74657	BX74	1	74674	5VX550	1			
74593	AX80	5	74646	BX75	10	74713	5VX560	1			
74750	AX82	1	74648	BX76	5	74714	5VX570	1			
74594	AX85	1	74651	BX77	5	74682	5VX590	1			
74595	AX87	1	74655	BX78	5	74715	5VX600	1			
74596	AX90	5	74656	BX79	5	74722	5VX630	1			
74549	AX92	1	74642	BX80	5	74702	5VX670	1			
74597	AX96	5	74643	BX81	10	74716	5VX680	1			
			74658	BX82	5	74703	5VX710	1			
			74644	BX83	5	74675	5VX730	1			
			74652	BX84	5						

Belt Sizer

Measures FHP belts up to 107" to determine equivalent Truflex® belt numbers.

MARS NO.	GATES NO.
74100	7401-0012



Tension Tester

Pencil type tension tester is for use with all small v-belts and synchronous belts. Maximum deflection force 30 lbs.

MARS NO.	GATES NO.
74101	7401-0076



Gates Merchandiser

Includes 12 three foot long strips with 8 hooks each.

MARS NO.	GATES NO.
74000	7645-0003



An effective preventive maintenance program saves time and money. Inspecting and replacing belts and faulty drive components **before** they fail will reduce costly downtime.

A comprehensive, effective program of preventive maintenance consists of several elements:

- Maintaining a safe work environment
- Regularly scheduled belt drive inspections
- Proper belt installation procedures
- Belt drive performance evaluations
- Belt product knowledge
- Belt storage and handling
- Trouble shooting

Sources of Drive Problems

- Rolling or prying on belts
- Misalignment
- Incorrect tension
- Improper handling of belts
- Mis-matched belts and/or pulley used
- Idler not taking tension up correctly
- Guard interference

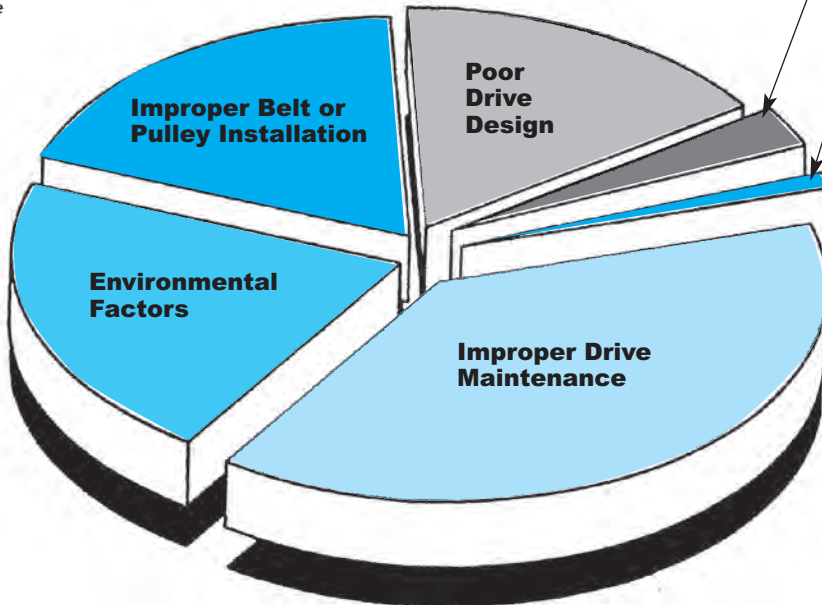
- Sub-minimal diameters
- Under-designed drive
- Over-designed drive
- Excessive rim speed
- Incorrect belt type

Improper Belt Storage or Handling

- Temperature
- High Humidity
- Storing for too long
- Too near ozone generating equipment
- Exposed to sunlight

Defective Drive Components

- Check for worn pulleys or sheaves
- Check for cracked or weakened bracketry
- Check for weak mounting brackets
- Check for worn belts
- Check for nonfunctioning idlers
- Check for damaged guards



- Dust
- Debris
- Water/humidity
- Oil/grease
- Heat/cold
- Rust

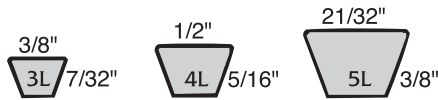
- No retensioning
- Not replacing worn sheave
- Not cleaning guards
- Not checking for weak bracketry & drive components
- Not checking alignment

Ask your MARS Sales Representative about how MARS & Gates can help you provide your customers with superior product and superior product application knowledge.

MARS V-Belts

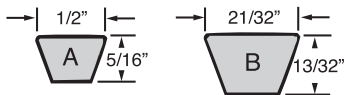
MARS FHP V-Belts

The airMARS FHP V-belt has been designed specifically for solving the problems of minimum space, small pulley diameters, large ratios and fractional horsepower requirements. Excellent for air conditioning, refrigeration and appliance equipment. This series of airMARS belts uses only top quality material in order to have superior performance. All belts are manufactured under strict quality control standards.



MARS Dual Rated V-Belts

MARS is pleased to offer our dual rated v-belts. These belts are a combination of the classical multiple belt and the FHP belt, allowing the wholesaler and contractor to consolidate inventory. There is no need to stock both the FHP and multiple belts when you use the MARS dual brand v-belts. These unimatch belts are the same size and type and will measure within the RMA matching limits.



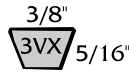
Cogged Raw Edge V-Belts

airMARS cogged raw edge V-belts are designed to keep drive costs and maintenance costs at a minimum. These belts are more compact and offer greater flexibility. Oil and heat resistant.



MARS Wedge V-Belts

airMARS Wedge V-belts allow for compact drives and higher (lower cost) RPM motors. These belts are oil and heat resistant and static conducting.



MARS Accu-Link Adjustable V-belts

airMARS Wedge V-belts allow for compact drives and higher (lower cost) RPM motors. These belts are oil and heat resistant and static conducting.



- Solves HVAC v-belt drive problems, quickly and accurately
- Ideal temporary or permanent replacement for conventional rubber belts
- Easy snap & twist assembly
- No special tools needed
- Ideal for emergency repairs & replacements
- Keep Accu-Link in every contractor truck and you will never be without a belt in any circumstance.
- 5 ft. sleeve

MARS NO.	DESCRIPTION	MARS PACK	QTY.
94670	3L Accu-Link	1	25
94671	A/4L Accu-Link	1	25
94672*	B/5L Accu-Link	1	25

MARS NO.	DESC.	MARS PACK	CASE QTY.
----------	-------	-----------	-----------

MARS FHP-2L & 3L V-Belts-3/8" Top Width

94240	2L160	1	10
94101	3L150	1	10
94102	3L160	1	10
94103	3L170	1	10
94104	3L180	1	10
94105	3L190	1	10
94106	3L200	1	10
94107	3L210	1	10
94108	3L220	1	10
94109	3L230	1	10
94110	3L240	1	10
94111	3L250	1	10
94112	3L260	1	10
94113	3L270	1	10
94114	3L280	1	10
94115	3L290	1	10
94116	3L300	1	10
94117	3L310	1	10
94118	3L320	1	10
94119	3L330	1	10
94120	3L340	1	10
94121	3L350	1	10
94122	3L360	1	10
94123	3L370	1	10
94124	3L380	1	10
94125	3L390	1	10
94126	3L400	1	10
94127	3L410	1	10
94128	3L420	1	10
94129	3L430	1	10
94130	3L440	1	10
94131	3L450	1	10
94132	3L460	1	10
94133	3L470	1	10
94134	3L480	1	10
94135	3L490	1	10
94136	3L500	1	10
94137	3L510	1	10
94138	3L520	1	10
94139	3L530	1	10
94140	3L540	1	10
94141	3L550	1	10
94142	3L560	1	10
94143	3L570	1	10
94144	3L580	1	10
94145	3L590	1	10
94146	3L600	1	10
94147	3L610	1	10
94148	3L620	1	10
94149	3L630	1	10

MARS FHP-4L V-Belts -1/2" Top Width

94154	4L160	1	20
94155	4L170	1	20
94156	4L180	1	20
94157	4L190	1	20
94239	4L1000	1	20

MARS FHP-5L V-Belts -21/32" Top Width

94245	5L230	1	10
94246	5L240	1	10
94247	5L250	1	10
94248	5L260	1	10
94249	5L270	1	10
94251	5L290	1	10

MARS NO.	DESC.	MARS PACK	CASE QTY.
----------	-------	-----------	-----------

MARS FHP-5L V-Belts -21/32" Top Width cont.

94252	5L300	1	10
94253	5L310	1	10
94254	5L320	1	10
94255	5L330	1	10
94256	5L340	1	10
94257	5L350	1	10
94258	5L360	1	10
94259	5L370	1	10
94260	5L380	1	10
94261	5L390	1	10
94262	5L400	1	10
94263	5L410	1	10
94264	5L420	1	10
94265	5L430	1	10
94266	5L440	1	10
94267	5L450	1	10
94268	5L460	1	10
94269	5L470	1	10
94270	5L480	1	10
94271	5L490	1	10
94272	5L500	1	10
94273	5L510	1	10
94274	5L520	1	10
94275	5L530	1	10
94276	5L540	1	10
94277	5L550	1	10
94278	5L560	1	10
94279	5L570	1	10
94280	5L580	1	10
94281	5L590	1	10
94282	5L600	1	10
94283	5L610	1	10
94284	5L620	1	10
94285	5L630	1	10
94286	5L640	1	10
94287	5L650	1	10
94288	5L660	1	10
94289	5L670	1	10
94290	5L680	1	10
94291	5L690	1	10
94292	5L700	1	10
94293	5L710	1	10
94294	5L720	1	10
94295	5L730	1	10
94297	5L750	1	10
94298	5L760	1	10
94299	5L770	1	10
94300	5L780	1	10
94301	5L790	1	10
94302	5L800	1	10
94303	5L810	1	10
94304	5L820	1	10
94306	5L840	1	10
94307	5L850	1	10
94308	5L860	1	10
94309	5L870	1	10
94310	5L880	1	10
94311	5L890	1	10
94313	5L910	1	10
94314	5L920	1	10
94315	5L930	1	10
94322	5L1000	1	10

A/4L Dual Rated V-Belts

94416	A-18/4L200	1	10
94323	A-19/4L210	1	10
94324	A-20/4L220	1	10
94325	A-21/4L230	1	10
94326	A-22/4L240	1	10

MARS NO.	DESC.	MARS PACK	CASE QTY.
----------	-------	-----------	-----------

A/4L Dual Rated V-Belts cont.

94327	A-23/4L250	1	10
94328	A-24/4L260	1	10
94329	A-25/4L270	1	10
94330	A-26/4L280	1	10
94331	A-27/4L290	1	10
94332	A-28/4L300	1	10
94333	A-29/4L310	1	10
94334	A-30/4L320	1	10
94335	A-31/4L330	1	10
94336	A-32/4L340	1	10
94337	A-33/4L350	1	10
94338	A-34/4L360	1	10
94339	A-35/4L370	1	10
94340	A-36/4L380	1	10
94341	A-37/4L390	1	10
94342	A-38/4L400	1	10
94343	A-39/4L410	1	10
94344	A-40/4L420	1	10
94345	A-41/4L430	1	10
94346	A-42/4L440	1	10
94347	A-43/4L450	1	10
94348	A-44/4L460	1	10
94349	A-45/4L470	1	10
94350	A-46/4L480	1	10
94351	A-47/4L490	1	10
94352	A-48/4L500	1	10
94353	A-49/4L510	1	10
94354	A-50/4L520	1	10
94355	A-51/4L530	1	10
94356	A-52/4L540	1	10
94357	A-53/4L550	1	10
94358	A-54/4L560	1	10
94359	A-55/4L570	1	10
94360	A-56/4L580	1	10
94361	A-57/4L590	1	10
94362	A-58/4L600	1	10
94363	A-59/4L610	1	10
94366	A-60/4L620	1	10
94367	A-61/4L630	1	10
94368	A-62/4L640	1	10
94369	A-63/4L650	1	10
94370	A-64/4L660	1	10
94371	A-65/4L670	1	10
94372	A-66/4L680	1	10
94373	A-67/4L690	1	10
94374	A-68/4L700	1	10
94375	A-69/4L710	1	10
94376	A-70/4L720	1	10
94377	A-71/4L730	1	10
94378	A-72/4L740	1	10
94379	A-73/4L750	1	10
94380	A-74/4L760	1	10
94381	A-75/4L770	1	10
94382	A-76/4L780	1	10
94383	A-77/4L790	1	10
94384	A-78/4L800	1	10
94385	A-79/4L810	1	10
94386	A-80/4L820	1	10
94387	A-81/4L830	1	10
94388	A-82/4L840	1	10
94389	A-83/4L850	1	10
94390	A-84/4L860	1	10
94391	A-85/4L870	1	10
94392	A-86/4L880	1	10
94393	A-87/4L890	1	10
94394	A-88/4L900	1	10
94395	A-89/4L910	1	10
94396	A-90/4L920	1	10
94397	A-91/4L930	1	10
94398	A-92/4L940	1	10

MARS NO.	DESC.	MARS PACK	CASE QTY.
----------	-------	-----------	-----------

94399	A-93/4L950	1	10
94400	A-94/4L960	1	10
94401	A-95/4L970	1	10
94402	A-96/4L980	1	10
94403	A-100	1	10
94404	A-103	1	10
94417	A-104	1	10
94405	A-105	1	10
94406	A-110	1	10
94407	A-112	1	10
94408	A-120	1	10
94409	A-128	1	10
94411	A-136	1	10

B/5L Dual Rated V-Belts

94526	B-20	1	10
94527	B-21/5L240	1	10
94418	B-22/5L250	1	10
94419	B-23/5L260	1	10
94420	B-24/5L270	1	10
94421	B-25/5L280	1	10
94422	B-30/5L330	1	10
94423	B-31/5L340	1	10
94424	B-32/5L350	1	10
94425	B-33/5L360	1	10
94426	B-34/5L370	1	10
94427	B-35/5L380	1	10
94428	B-36/5L390	1	10
94429	B-37/5L400	1	10
94430	B-38/5L410	1	10
94431	B-39/5L420	1	10
94432	B-40/5L430	1	10
94433	B-41/5L440	1	10
94434	B-42/5L450	1	10
94435	B-43/5L460	1	10
94436	B-44/5L470	1	10
94437	B-45/5L480	1	10
94438	B-46/5L490	1	10
94439	B-47/5L500	1	10
94440	B-48/5L510	1	10
94441	B-49/5L520	1	10
94442	B-50/5L530	1	10
94443	B-51/5L540	1	10
94444	B-52/5L550	1	10
94445	B-53/5L560	1	10
94446	B-54/5L570	1	10
94447	B-55/5L580	1	10
94448	B-56/5L590	1	10
94449	B-57/5L600	1	10
94450	B-58/5L610	1	10
94451	B-59/5L620	1	10
94452	B-60/5L630	1	10
94453	B-61/5L640	1	10
94454	B-62/5L650	1	10
94455	B-63/5L660	1	10
94456	B-64/5L670	1	10
94457	B-65/5L680	1	10
94458	B-66/5L690	1	10
94459	B-67/5L700	1	10
94460	B-68/5L710	1	10
94461	B-69/5L720	1	10
94462	B-70/5L730	1	10
94463	B-71/5L740	1	10
94464	B-72/5L750	1	10
94465	B-73/5L760	1	10
94466	B-74/5L770	1	10
94467	B-75/5L780	1	10
94468	B-76/5L790	1	10
94469	B-77/5L800	1	10
94470	B-78/5L810	1	10
94471	B-79/5L820	1	10
94472	B-80/5L830	1	10

MARS NO.	DESC.	MARS PACK	CASE QTY.
----------	-------	-----------	-----------

94473	B-81/5L840	1	10
94474	B-82/5L850	1	10
94475	B-83/5L860	1	10
94476	B-84/5L870	1	10
94477	B-85/5L880	1	10
94478	B-86/5L890	1	10
94479	B-87/5L900	1	10
94480	B-88/5L910	1	10
94481	B-89/5L920	1	10
94482	B-90/5L930	1	10
94528	B-91/5L940	1	10
94483	B-92/5L950	1	10
94484	B-93/5L960	1	10
94485</			

MARS NO.	DESC.	MARS PACK	CASE QTY.
----------	-------	-----------	-----------

AX Cogged Raw Edge V-Belts cont.

94559	AX49	1	10
94606	AX50	1	10
94579	AX51	1	10
94607	AX52	1	10
94580	AX53	1	10
94581	AX54	1	10
94582	AX55	1	10
94583	AX56	1	10
94673	AX57	1	10
94584	AX60	1	10
94674	AX61	1	10
94585	AX62	1	10
94675	AX63	1	10
94586	AX64	1	10
94587	AX66	1	10
94676	AX67	1	10
94588	AX68	1	10
94677	AX69	1	10
94589	AX70	1	10
94590	AX71	1	10
94678	AX72	1	10
94591	AX75	1	10
94592	AX78	1	10
94679	AX79	1	10
94593	AX80	1	10
94594	AX85	1	10
94595	AX90	1	10
94596	AX96	1	10
94597	AX105	1	10

BX Cogged Raw Edge V-Belts

94609	BX35	1	10
94610	BX36	1	10
94686	BX37	1	10
94611	BX38	1	10
94687	BX39	1	10
94612	BX40	1	10
94682	BX41	1	10
94613	BX42	1	10
94683	BX43	1	10
94650	BX44	1	10
94614	BX45	1	10
94615	BX46	1	10
94651	BX47	1	10
94616	BX48	1	10
94617	BX50	1	10
94618	BX51	1	10
94619	BX52	1	10
94620	BX53	1	10
94621	BX54	1	10
94622	BX55	1	10
94623	BX56	1	10
94664	BX57	1	10
94624	BX58	1	10
94625	BX59	1	10
94626	BX60	1	10
94627	BX61	1	10
94628	BX62	1	10
94629	BX63	1	10
94630	BX64	1	10
94631	BX65	1	10
94632	BX66	1	10
94633	BX67	1	10
94634	BX68	1	10
94684	BX69	1	10
94635	BX70	1	10
94636	BX71	1	10
94659	BX72	1	10

MARS NO.	DESC.	MARS PACK	CASE QTY.
----------	-------	-----------	-----------

BX Cogged Raw Edge V-Belts cont.

94685	BX73	1	10
94637	BX75	1	10
94638	BX77	1	10
94639	BX78	1	10
94640	BX79	1	10
94641	BX80	1	10
94642	BX81	1	10
94643	BX82	1	10
94644	BX83	1	10
94645	BX85	1	10
94646	BX90	1	10
94647	BX93	1	10
94648	BX95	1	10
94649	BX96	1	10
94652	BX100	1	10
94657	BX120	1	10
94658	BX124	1	10
94660	BX133	1	10
94663	BX150	1	10
94668	BX195	1	10

**Wedge V-Belts
3VX-3/8" x 5/16"
5VX-5/8" x 7/32"**

94530	3VX250	1	10
94533	3VX300	1	10
94536	3VX355	1	10
94537	3VX375	1	10
94538	3VX400	1	10
94539	3VX425	1	10
94540	3VX450	1	10
94541	3VX475	1	10
94542	3VX500	1	10
94544	3VX560	1	10
94545	3VX600	1	10
94546	3VX630	1	10
94547	3VX670	1	10
94548	3VX710	1	10
94549	3VX750	1	10
94550	3VX800	1	10
94551	3VX850	1	10
94552	3VX900	1	10
94553	3VX950	1	10
94554	3VX1000	1	10
94555	3VX1060	1	10
94680	5VX630	1	10
94688	5VX670	1	10
94681	5VX710	1	10
94689	5VX730	1	10
94691	5VX750	1	10
94690	5VX900	1	10

**MARS Accu-Link
Adjustable V-Belts**

94670	3L Accu-Link	1	25
94671	A/4L Accu-Link	1	25
94672*	B/5L Accu-Link	1	25

Enclosed you will find the airMARS cross reference guide. It is the result of Motors & Armatures' on going commitment to provide the most complete information possible to wholesalers, contractors and service technicians so they may select a desired product quickly and accurately.

In compiling this cross reference, every effort has been made to insure the accuracy of the information, however, Motors & Armatures cannot accept responsibility for errors which may be caused by changes in part numbers, specifications or by typographical or clerical errors in preparation. Manufacturers' and suppliers' part numbers within this cross reference and catalog are shown for identification and reference purposes only.

AAON MARS	Air Drive MARS	CARRIER MARS	EXCEL MARS	FASCO MARS	FASCO MARS	GOODMAN MARS
P47570 40053	A000108 95842	LA01AB200 40105	20391108 40100	3CL2230 40024	4CR4238 40213	10625733 40054
	A000277 95865	LA01AB203 40378	20391109 40339	3CL2233-4 40357	4CR6038 40220	10625739 40357
	A000603 95866	LA01AB243 40387	20391110 40097	3CL2426 40058	4FL1033 40075	10650802 40363
	A000412 95875	LA01AD021 40139	20391111 40099	3CL2426 40058	4FL1223 40077	11182905 40380
	A000811 95923	LA01AD022 40110	20391112 40107	3CL2433 40060	4FL1233 40081	150M00001P 40050
	A000309 95931	LA01AD027 40381	100060-03 40339	3CR1433-4 40328	4FR1033 40074	B1086756 40066
	A001117 95932	LA01AD028 40389	100060-19 40053	3CR1633-4 40333	4FR1223 40076	B1086775 40054
	A001483 95941	LA01AD030 40389		3CR1827 40043	4FR1233 40080	150M00001P 40050
		LA01AD032 40120		3CR1830 40065		10625719 40352
		LA01AH243 40113	FASCO MARS	3CR1833 40045		10625732 40046
	ALLIED MARS	LA01AT183 40095	H10 40006	3CR1833-4 40343	GEM MARS	10625739 40357
	10026601 40356	LA01AU183 40155	H5 40003	3CR2024 40047	FBG10423L 40071	0150M00001P 40050
	10026801 40362	LA01AX247 40145	H6 40004	3CR2028 40049	FBG10427L 40073	150M00001P 40050
	41141001 40094	LA01EA025 40053	H8 40005	3CR2031 40067	FBG10433L 40075	B1086756 40066
	41354001 40375	LA01EA031B 40069	STB1 40230	3CR2230 40069	FBG10433R 40074	B1086764 40107
	41355001 40132	LA01EA037 40352	STB2 40232	3CR2233-4 40356	FBG12423L 40077	B1086765 40109
	41518001 40100	LA01EA121 40053	STB3 40231	3CR2426 40057	FBG12423R 40076	B1086771 40045
	42686001 40343	LA01EB025 40363	STB4 40234	3CR2433 40059	FBG12433L 40081	B1086773 40054
	44931001 40096	LA01EC019 40338	STB5 40235	3CR2433-4 40360	FBG12433R 40080	B1086775 40054
	45582001 40340	LA01EW024 40112	STB6 40237	4CL1223 40082	FBT14423L 40083	
	100060-02 40382	LA01EW025 40110	STB7 40238	4CL1423 40083	FBT14423R 40082	Heatcraft MARS
	100060-03 40339	LA01EW041 40058	STB8 40239	4CL1433 40087	FBT14433L 40087	22901101 40168
	100060-04 40042	LA01EW044 40058	STBP5 40240	4CL1623 40089	FBT14433R 40086	5106B 40077
	100060-05 40099	LA01EW050 40328	STBP6 40242	4CL1633 40093	FBT16423L 40089	5108C 40083
	100060-07 40339	LA01LA019 40049	STBP7 40244	4CL1827 40097	FBT16433L 40093	5109B 40089
	100060-08 40097	LA01LA024 40057	STBP8 40241	4CL1830 40135	FBT16433R 40092	5110B 40091
	100060-09 40099	LA01LA026 40362	1-6002 40615	4CL1833 40099	FBT18227L 40308	5111B 40093
	100060-10 40382	LA01LB016 40068	1-6052 40565	4CL2026 40103	FBT18327L 40044	5113A 40097
	100060-13 40107	LA01RA015 40340	1-6058 40623	4CL2029 40138	FBT18332R 40043	
		LA01RA016 40350	1-6063 40630	4CL2033 40105	FBT18333L 40046	HTP Group MARS
	Armstrong MARS	LA01RA025 40350	1-6064 40631	4CL2223 40107	FBT18333R 40045	08221154 40381
	46238001 40151	LA01RA028B 40352	1-6071 40638	4CL2227 40109	FBT18427L 40097	
	46239001 40042	LA01RA038A 40053	1-6133 40563	4CL2235 40164	FBT18427R 40096	LAU MARS
	100060-02 40382	LA01RA320 40049	1-6141 40564	4CL2418 40144	FBT18430L 40135	008276-16 41533
	100060-03 40339	LA01RA321 40049	2-6012 41118	4CL2423 40113	FBT18430R 40134	008360-10 41509
	100060-04 40042	LA01RA323 40057	2-6013 41109	4CL2427 40115	FBT18433L 40099	008360-12 41510
	100060-05 40099	LA01RA324 40057	2-6014 41110	4CL2433 40117	FBT18433R 40098	008361-12 41507
	100060-07 40339	LA01RA329 40362	2-6018 41132	4CR1423 40082	FBT20225L 40313	008362-12 41508
	100060-08 40097	LA01RA331 40352	2-6019 41307	4CR1433 40086	FBT20324R 40047	008403-16 41520
	100060-09 40099	LA01RA332 40069	2-6020 41365	4CR1433-4 40369	FBT20328R 40049	008507-16 41514
	100060-10 40382	LA04LA161 40372	2-6022 41335	4CR1623 40088	FBT20331R 40067	008519-12 41502
	100060-13 40107	LA04LA200 40379	2-6030 41105	4CR1633 40092	FBT20426L 40103	008747-16 41525
	39062B001 40154	LA05LA016 40331	2-6032 41114	4CR1633-4 40372	FBT20426R 40102	009867-16 41517
		LA05LA021 40049	2-6033 41115	4CR1827 40096	FBT20429L 40138	013316-02 41333
	BARD MARS	LA580524 40347	2-6034 41131	4CR1830 40134	FBT20429R 40137	013316-06 41332
	5151048 40138	LA580530 40387	2-6037 41331	4CR1833 40098	FBT20433L 40105	013317-01 41329
		LA680506 40051	2-6081 41105	4CR1833-4 40376	FBT20433R 40104	013317-04 41328
	CARRIER MARS	LA680517 40135	2-6082 41123	4CR2026 40102	FBT22331R 40053	013322-03 41335
	LA01RA042 40358	LA680518 40101	2-6083 41123	4CR2029 40137	FBT22427R 40108	013323-01 41331
	LA01AA015 40096	LA680522 40054	2-6085 41130	4CR2033 40104	FBT22435R 40110	013324-01 41327
	LA01AA019 40375	LA680525 40100	2-6089 41303	4CR2033-4 40378	FBT24326L 40058	013324-02 41326
	LA01AA022 40164	LA680527 40356	2-6090 41311	4CR2223 40106	FBT24326R 40057	013325-01 41323
	LA01AA023 40378	LA680528 40139	2-6091 41314	4CR2227 40108	FBT24427L 40115	013326-01 41318
	LA01AA026 40379	LA680528 40139	2-6092 41318	4CR2235 40110	FBT24427R 40114	013326-02 41317
	LA01AA177 40338	LA680538 40166	2-6093 41323	4CR2418 40143	FBT24433R 40116	013326-14 41321
	LA01AA179 40404	LA680562 40118	2CL1827 40308	4CR2423 40112	FBT26427R 40119	013327-01 41314
	LA01AA198 40049	LA680562 40118	2CL2025 40313	4CR2427 40114		013332-01 41365
	LA01AA199 40349	LA01EA038 40352	2CL2227 40320	4CR2433 40116	GOODMAN MARS	013332-03 41361
	LA01AA201 40049	LA01RA027 40350	3CL1433-4 40329	4CR2627 40118	10625715 40307	013334-01 41360
	LA01AB017 40101		3CL1827 40044	4CR2633 40120	10625721 40065	013335-01 41303
	LA01AB018 40135	EXCEL MARS	3CL1830 40066	4CR3038 40207	10625731 40357	013336-02 41307
	LA01AB019 40105	20391101 40041	3CL1833 40046			
	LA01AB022 40105	20391102 40343	3CL2024 40048			
	LA01AB026 40105	20391106 40352	3CL2028 40050			
		20391107 40047	3CL2031 40068			

Air Moving Components

AIR MOVING COMPONENTS

LAU	MARS	LAU	MARS	LAU	MARS	LAU	MARS	LAU	MARS	LENNOX	MARS	MODINE	MARS
013336-03	41306	38-2241-01	74180	60-2670-01	40047	60-5611-01	40160	60-8041-01	40106	95C5901	40375	5H57845C0104	40033
013337-01	41311	38-2242-01	74181	60-2671-01	40048	60-5612-01	40161	60-8042-01	40107	98G5201	40101	5H57847C0104	40082
013337-03	41310	38-2243-01	74182	60-2693-01	40070	60-5613-01	40162	60-8043-01	40112	99K2101	40033	5H63036C0101	40061
013693-15	41354	38-2244-01	74183	60-2694-01	40071	60-5614-01	40163	60-8044-01	40113	99K4501	40057	5H63038C0104	40332
013693-25	41364	38-2245-01	74184	60-2853-01	40104	60-5615-01	40164	60-8142-01	40320	P-8-11098	40102	5H70435B0104	40057
015565-04	41356	38-2246-01	74185	60-2854-01	40105	60-5616-01	40165	60-8329-01	40200	P-8-8038	40137	5H63039B0104	40375
015565-07	41355	38-2247-01	74186	60-3315-01	40237	60-5617-01	40166	60-8330-01	40202			5H63980C0104	40069
020487-70	40638	38-2248-01	74187	60-3315-02	40238	60-5619-01	40168	60-8348-01	07471			5H73833B0101	40061
020553-02	40641	38-2249-01	74188	60-3315-03	40239	60-5622-01	40144	60-8349-01	07472	MAGNETEK	MARS	5H73834B0104	40031
024768-01	40833	38-2250-01	74189	60-3315-04	40230	60-5624-01	40113	60-8350-01	07571	1-0315	41130	5H73835B0101	40033
024768-09	40831	38-2272-01	40865	60-3315-05	40232	60-5626-01	40115	60-8351-01	07572	1-14721	41116	5H73835B0104	40033
024768-10	40832	38-2404-01	40867	60-3315-06	40231	60-6521-01	40408	60-8352-01	07481	1-2640	41335	5H73840B0104	40378
026940-03	41339	38-2431-01	40897	60-3315-07	40234	60-7161-01	40061	60-8353-01	07482	1-2657	41109		
026940-05	41341	38-2442-01	40868	60-3315-08	40235	60-7163-01	40029	60-8354-01	07483	1-2873	41110		
026940-07	41345	38-2443-01	40870	60-3315-09	40236	60-7164-01	40030	60-8355-01	07484	2-0223	41105	NORDYNE	MARS
026940-08	41344	38-2443-02	40871	60-3795-01	93581	60-7165-01	40033	60-8362-01	07591	2-0600	41114	667303	40057
026940-09	41349	38-2443-03	40872	60-3795-02	93582	60-7166-01	40034	60-8363-01	07592	2-0678	41115	667309	40375
026940-10	41348	38-2446-01	40806	60-5553-01	40094	60-7167-01	40035	60-8366-01	07595	6-4328	40074	667323	40100
026941-07	41343	38-2449-01	40874	60-5554-01	40095	60-7168-01	40036	60-8366-01	07595	6-4329	40075	667355	40049
026941-11	41351	38-2450-01	40873	60-5555-01	40096	60-7169-01	40063	60-8367-01	07596	6-4329	40075	667356	40349
026941-12	41350	38-2491-01	40900	60-5556-01	40097	60-7171-01	40037	60-8368-01	07593	6-4330	40076	667359	40358
027102-04	41362	38-2491-02	40901	60-5561-01	40043	60-7172-01	40038	60-8369-01	07594	6-4331	40077	6672780	40067
028957-43	40619	38-2491-03	40902	60-5562-01	40044	60-7175-01	40070	60-8370-01	07595	6-4334	40080	6672790	40049
028957-44	40620	38-2492-01	40910	60-5563-01	40065	60-7176-01	40071	60-8371-01	07596	6-4335	40091	6672820	40102
028957-74	40564	38-2508-01	40804	60-5564-01	40066	60-7177-01	40072	60-8372-01	95721	6-4368	40340	6673180	40376
028957-75	40563	38-2521-01	40904	60-5565-01	40045	60-7178-01	40073	60-8373-01	95737	6-4370	40065	667206D	40103
028958-02	41104	38-2523-01	40905	60-5566-01	40046	60-7179-01	40124	60-8375-01	95737	6-4372	40045	667212C	40359
028958-03	41105	38-2562-01	40888	60-5566-01	40046	60-7179-01	40124	60-8376-01	95823	6-4376	40049	667212D	40359
028958-04	41112	38-2565-01	40884	60-5568-01	40050	60-7181-01	40076	60-8377-01	95831	6-4378	40067	667262B	40065
028958-05	41113	38-2567-01	40880	60-5569-01	40067	60-7182-01	40077	60-8379-01	95931	6-4380	40069	667312A	40387
028958-06	41118	38-2568-01	40881	60-5570-01	40068	60-7183-01	40078	60-8380-01	95021	6-4384	40057		
028958-07	41130	38-2569-01	40882	60-5571-01	40051	60-7184-01	40079	60-8381-01	95031	6-4385	40058	RHEEM	MARS
028958-22	41114	38-2570-01	40883	60-5572-01	40052	60-7185-01	40128	60-8417-01	40384	6-4388	40082	702060801	40321
028958-23	41115	38-2588-01	40885	60-5573-01	40053	60-7187-01	40082	60-9972-01	40395	6-4388	40086	704226801	40024
028958-24	41116	38-2590-01	40887	60-5574-01	40054	60-7188-01	40083	725138-08	40240	6-4391	40087	701989703	40323
028958-25	41117	38-2601-01	40805	60-5575-01	40055	60-7189-01	40084	725138-10	40241	6-4392	40088	701989704	40058
029175-01	40918	38-2602-01	40808	60-5576-01	40056	60-7190-01	40085	725138-12	40244	6-4392	40089	702185905	40308
029176-01	40919	38-2602-02	40809	60-5577-01	40057	60-7191-01	40130			6-4393	40089	702185906	40319
050998-01	40851	38-2603-01	40811	60-5578-01	40058	60-7193-01	40088	LENNOX	MARS	6-4394	40092	704203501	40138
052141-01	40850	38-2603-02	40812	60-5579-01	40059	60-7199-01	40089	65248500	40328	6-4395	40093	7010132307	40052
270-069-01	40831	38-2604-01	40813	60-5580-01	40060	60-7195-01	40090	65257200	40072	6-4396	40096	7010132306	40320
270-072-01	40832	38-2605-01	40815	60-5581-01	40096	60-7196-01	40091	65258600	40033	6-4398	40134	7010132309	40315
270-089-12	40835	38-2605-02	40816	60-5582-01	40097	60-7434-01	40300	65258700	40035	6-4400	40098		
270-089-17	40834	38-2606-01	40817	60-5583-01	40134	60-7599-01	40074	100060-02	40382	6-4401	40099	SPRINGER	MARS
38-2086-01	40877	38-2606-02	40818	60-5584-01	40135	60-7600-01	40075	100060-03	40339	6-4402	40102	17601025	40338
38-2087-01	40878	38-2616-01	40818	60-5585-01	40098	60-7601-01	40080	100060-04	40042	6-4403	40103	17601026	40053
38-2091-01	40863	38-2617-01	40820	60-5585-01	40098	60-7602-01	40081	100060-05	40099	6-4404	40137	17604220	40053
38-2093-01	40879	38-2630-01	74169	60-5586-01	40099	60-7603-01	40086	100060-07	40339	6-4406	40104		
38-2094-01	40875	38-2631-01	74170	60-5587-01	40102	60-7604-01	40087	100060-08	40097	6-4407	40105	TORIN	MARS
38-2095-01	40908	38-2632-01	74171	60-5588-01	40103	60-7605-01	40092	100060-09	40099	6-4408	40108	B-2026-ACCW	40102
38-2096-01	40907	38-2633-01	74172	60-5589-01	40137	60-7606-01	40093	100060-10	40382	6-4409	40109	B-2029-ACCW	40138
38-2204-01	40876	38-2633-01	74172	60-5590-01	40138	60-7607-01	40145	100060-13	40107	6-4410	40139	B-2227-4CW	40114
38-2205-01	40906	38-2693-01	40909	60-5591-01	40104	60-7607-01	40145	16C0001	40057	6-4412	40114	B-2236-4CW	40110
38-2206-01	40898	38-2694-01	40889	60-5592-01	40105	60-7608-01	40146	24L2001	40137	6-4413	40115	B-2427-3CW	40057
38-2207-01	40899	38-2695-01	40890	60-5593-01	40108	60-7609-01	40118	27K7801	40072	6-4414	40116	B-2427-4CW	40117
38-2214-01	40805	38-2696-01	40891	60-5594-01	40109	60-7610-01	40119	32M9401	40382	6-4415	40117	B-2427-4CW	40117
38-2215-01	40808	38-2697-01	40892	60-5595-01	40110	60-7611-01	40120	33G0601	40100	6-4416	40118	B-2434-4CW	40116
38-2216-01	40809	60-2622-01	40076	60-5596-01	40111	60-7612-01	40121	37L4801	40334	6-4418	40120	B-2628-4CW	40119
38-2217-01	40811	60-2623-01	40077	60-5597-01	40114	60-7613-01	40170	37L5001	40099	6-4595	07481	B-2727-3CCW	40058
38-2218-01	40812	60-2628-01	40084	60-5598-01	40115	60-7615-01	40172	43G3801	40108	6-4597	07581	N-1024-4CCW	40071
38-2219-01	40813	60-2629-01	40085	60-5598-01	40115	60-7658-02	40002	45C5101	40114	6-4598	07582	N-1024-4CW	40070
38-2220-01	40814	60-2630-01	40100	60-5599-01	40117	60-7658-03	40004	45F5801	40380	6-4601	07583	N-1027-4CW	40072
38-2221-01	40815	60-2639-01	40101	60-5600-01	40117	60-7658-04	40005	54G3001	40112	6-4605	07591	N-1033-4CCW	40075
38-2222-01	40816	60-2640-01	40102	60-5601-01	40150	60-7658-05	40006	56L7201	40359	6-4606	07592	N-1033-4CW	40074
38-2234-01	74173	60-2641-01	40103	60-5602-01	40151	60-7658-06	40007	65C6801	40358	6-4609	07593	N-1223-4CCW	40077
38-2235-01	74174	60-2652-01	40027	60-5603-01	40152	60-7725-01	40308	68J2601	40339	6-4610	07594	N-1223-4CW	40076
38-2236-01	74175	60-2654-01	40029	60-5604-01	40153	60-7726-01	40315	68J2701	40097	6-4611	07595	N-1223-4CW	40076
38-2237-01	74176	60-2655-01	40030	60-5605-01	40154	60-7727-01	40317	68J2801	40099	6-4612	07596	N-1233-4CCW	40081
38-2238-01	74177	60-2656-01	40033	60-5606-01	40155	60-8002-01	40094	68J4301	40107	6-4941	40308	N-1233-4CW	40080
38-2239-01	74178	60-2658-01	40034	60-5607-01	40156	60-8003-01							

TORIN	MARS
N-1433-4CW	40086
N-1623-4CCW	40089
N-1623-4CW	40088
N-1633-4CCW	40093
N-1633-4CW	40092
N-1827-3CCW	40044
N-1827-3CW	40043
N-1827-4CCW	40097
N-1827-4CW	40096
N-1830-4CCW	40135
N-1830-4CW	40134
N-1832-4CCW	40099
N-1832-4CW	40098
N-1834-3CW	40045
N-2023-4CW	40102
N-2024-3CW	40047
N-2026-4CW	40137
N-2028-3CW	40049
N-2031-3CW	40067
N-2033-4CCW	40105
N-2033-4CW	40104
N-2231-3CW	40053
10334	40074
10338	40075
12234	40076
12238	40077
12334	40080
12338	40081
14234	40082
14238	40083
14334	40086
14338	40087
16234	40088
16238	40089
16334	40092
16338	40093
18273	40043
18274	40096
18277	40044
18278	40097
18304	40134
18308	40135
18324	40098
18328	40099
18343	40045
20234	40046
20243	40047
20264	40137
20268	40103
20283	40049
20294	40104
20298	40138
20313	40067
20334	40105
22274	40108
22313	40053
22364	40110
24273	40057
24274	40114
24278	40115
24344	40116
26284	40119
2700602	40043
2700612	40044
2700642	40045
2700652	40046
2700662	40047
2700682	40049
2700702	40067
2700722	40053
2700762	40057

TORIN	MARS
2700772	40058
2700802	40096
2700812	40097
2700822	40134
2700832	40135
2700842	40098
2700852	40099
2700862	40103
2700882	40137
2700892	40138
2700912	40138
2700922	40108
2700942	40110
2700962	40114
2700972	40115
2700982	40116
2760212	40075
2760262	40080
2760462	40119
2760682	40074
2760702	40076
2760712	40077
2760732	40081
2760742	40082
2760752	40083
2760762	40086
2760772	40087
2760782	40088
2760792	40089
2760802	40092
2760812	40093
2760822	40104
2760832	40105

TRANE	MARS
X38010305010	40069
X38010307050	40139
X38010309040	40098
X38010330010	40379

YORK	MARS
02628198000	40096
02629094000	40380
02634091000	40305
02634092000	40045
02634093000	40356

airMARS Special Orders

Special order requirements can be a way to provide an extra level of service to your customers. Motors & Armatures Inc. encourages our wholesale customers to take advantage of the opportunity to place special orders for airMARS products that are not in this catalog.

Special orders are processed as separate production runs by the factory. A minimum quantity will always be required. In most cases, the minimum will be 25 pieces. Because special orders are non-stock items, once ordered they are non-cancellable. Also, special orders are not returnable.

Quotes normally take 3 to 4 working days to process. Following is check list for various airMARS components.

Direct Drive Wheels

- Diameter
- Width
- Material (aluminum, steel?)
- Rotation
- Type of hub & bore
- Finish (galvanized, paint?)
- Assembly (housing?)
- Construction (strip or tablock?)

Small Blower Wheels

- Diameter
- Width
- Bore
- Material (Aluminum Steel, etc.)
- Single or Double Inlet?
- Construction
- Assembly
- Back Plate Configuration

Fan Blades

- Diameter
- Pitch
- Number of Wings
- Material
- Hub Type (attached, adapter, bushing?)
- Bore
- Construction

Important Note:

Because special orders cannot be returned, it is highly recommended that your customer signs off on the check list specifications before the order is entered with the factory.

Components

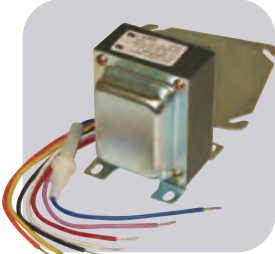


Table of Contents

Description	Page No.
Capacitors	
Accessories for Capacitors	C-9
Motor Run Capacitors	C-5 to C-8, C-10
Motor Start Capacitors	C-3
Turbo 200™ Universal Motor Run & Start Capacitors	C-4
Compressor and Crankcase Heaters	C-46 to C-48
Condensate Pumps	C-28, C-29
Contactors	
MARS 780 Dual Purpose Contactors	C-11 to C-16
Furnas NEMA Contactors & Starters	C-17
GE Definite Purpose Contactors	C-18
IEC Contactors	C-20
Magnetic Line Contactors	C-21
MARS Definite Purpose Contactors	C-19
Universal Contactor Enclosure	C-18
Crankcase Heaters	C-47, C-48
Defrost Thermostats	C-43
Electric Heat Coils	C-49
Fan Centers	
MARS Fan Centers	C-21
Fan & Limit Thermostats	C-52, C-53
Heat Pump Thermostats	C-45
Heat Pump Defrost Timer	C-45
Klixon Fan & Limit Switches	C-52, C-53
Klixon Motor Protectors	C-41

Description	Page No.
Klixon Pressure Switches	C-43, C-44
Klixon Thermostats	C-42
Leak Detectors / Renewal Parts	C-37
Hot Surface Igniters (Pilot Burners)	C-54
Relays	
Current Relays	C-33
Enclosed Relays	C-33
GE Relays	C-33, C-34
MARS Potential Relays	C-36
General Purpose Relays	C-31
General Purpose Switching Relays	C-31, C-32
MARS Potential Relays	C-35, C-36
Sequencers	C-50, C-51
Solid State Motor Starting Devices	C-38
Solid State Devices	C-45
Solid State Timers	C-38 to C-40
Start Assists	C-30
Surge Protection Devices	C-27
Thermocouples	C-53
Transformers	
GE IP Core & Coil Transformers	C-24
Jard Transformers	C-25, C-26
MARS Transformers	C-22 – C-26

Electrolytic Capacitors for Motor Starting Applications

Start capacitor case dimensions chart. Capacitor accessories on page C9.

Features:

- The largest assortment of replacements in the industry!
- Smallest dimensions for general replacements.
- Hermetically sealed black Bakelite case permanently protects the capacitor from oil, dirt, grease or moisture.
- New and improved terminal construction capable of withstanding increased heat. This terminal will generate less heat when applied under severe hot humid environment.
- 50/60 Hz
- UL/ULc



110/125 Dual Voltage AC

MARS NO.	MICROFARAD MIN - MAX.	CASE SIZE
11002	21-25	1
11003	25-30	1
11004	30-36	1
11005	36-43	1
11006	43-56	1
11007	56-72	1
11008	72-88	1
11009	88-108	1
11010	108-130	1
11112	124-156	1
11011	130-156	1
11013	145-175	1
11014	161-193	1
11015	189-227	1
11016	200-240	1
11017	216-259	1
11018	233-292	1
11019	270-324	1
11020	300-360	1
11021	324-388	1
11022	340-408	2
11023	378-440	2
11024	400-480	2
11071	430-516	2
11025	460-552	2
11026	540-648	4
11027	590-708	4
11047	645-774	4
11028	708-850	4
11072	815-970	4
11029	829-995	4
11073	850-1020	4
11030	1000-1200	7
11074	1290-1548	7

MARS suggests applying a bleed resistor (MARS PN 93007) on start capacitors used in conjunction with starting relays

*Capacitors may be put in different case sizes occasionally, but will not be larger than those stated.

165 Volts AC

MARS NO.	MICROFARAD MIN - MAX.	CASE SIZE
11075	72-88	1
11076	88-108	1
11077	108-130	1
11031	124-149	1
11032	145-175	1
11033	161-193	1
11034	189-227	1
11078	216-259	4
11035	233-292	4
11036	270-324	4
11079	340-408	4
11080	378-455	4
11037	400-480	4
11081	540-648	4
11082	710-850	7
11083	810-972	7

220/250 Dual Voltage AC

MARS NO.	MICROFARAD MIN - MAX.	CASE SIZE
11038	21-25	1
11039	25-30	1
11040	30-36	1
11041	36-43	1
11042	43-56	1
11043	56-72	1
11084	59-71	1
11137	64-77	4
11044	72-88	4
11045	88-108	4
11046	108-130	4
11148	124-156	4
11049	145-175	4
11050	161-193	6
11051	189-227	6
11052	216-259	6
11053	233-292	6
11054	270-324	6
11085	280-336	7
11086	320-384	7
11087	340-408	7
11088	378-455	7
11089	400-480	7
11090	430-516	7
11091	630-750	8

330 Volts AC

MARS NO.	MICROFARAD MIN - MAX.	CASE SIZE
11055	21-25	2
11056	25-30	2
11057	30-36	2
11058	36-43	2
11059	43-56	4
11060	56-72	4
11160	64-77	4
11061	72-88	4
11062	88-108	4
11063	108-130	7
11064	130-156	7
11165	124-156	7
11092	135-162	7
11066	145-175	7
11067	161-193	7
11068	189-227	7
11069	216-259	7
11070	270-324	7
11093	300-360	7

The Turbo® 200 Family Products

Universal Run & Start Capacitor Replacement. Have the right capacitor for the job every time.

The perfect solution for off hour emergency service calls.

Universal HardStart Replacement. One "2-Wire" Turbo® Easy-Start "4" Hardstart can replace any one of four compressor hardstart kits on the market.



MARS NO.	DESCRIPTION	MICROFARAD
12100	Turbo® 200 Mini	2.5 mfd - 12.5 mfd, 370V or 440V
12500	Turbo® 200 Mini - Oval	2.5 mfd - 12.5 mfd, 370V or 440V
12200	Turbo® 200	2.5 mfd - 67.5 mfd, 370V or 440V
12300	Turbo® 200 X	5.0 mfd - 97.5 mfd, 370V or 440V
11200	Turbolytic™ 50 Universal Motor Start Capacitor	23 mfd - 302 mfd, 125V to 330V
11100	Turbolytic™ JR	23 mfd - 208 mfd, 125V to 330V
86150	TurboMeter™ See the dual values develop simultaneously on the screen as you create the ratings needed.	
12400	Turbo® Easy-Start "4" Hardstart Universal Hardstart	Up to 1 ton 108-130 mfd 1 to 2 tons 189-227 mfd 2.5 to 3 tons 233-280 mfd 3.5 to 5 tons 270 to 324 mfd

MARS Capacitor Tester

Features:

- Easy to use
- 9V battery and test leads included
- Low battery indicator

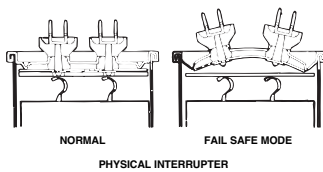
MARS NO.	RANGE	RESOLUTION	ACCURACY	TEST FREQUENCY
65746	200 pF	0, 1pF	± (0.5% rdg + 1 dgt + 0.5 pF)	820Hz
	2000 pF	1 pF	± (0.5% rdg + 1 dgt)	
	20 nF	10 pF		
	200 nF	100 pF		
	2 nF	1 nF	82 Hz	
	20 µF	10 nF		
200 µF	100 nF	± (2.0% rdg. + 1dgt)	8.2 Hz	
2000 µF	1 µF			
	20 mF	10 µF	± (4.0% rdg. + 1dgt)	

Single Section Run Capacitors

Capacitor accessories on page C9.

Features:

- MARS offers the widest selection of ratings in the industry
- Non-PCB capacitors. Physical interrupter makes our capacitors safe
- Perfect for general replacements—smallest dimensions available
- UL and CSA listings available
- 50/60 Hz



Single Section 370 Volt Oval

MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12002	2	A	1.500
12003	3	A	1.500
12004	4	A	1.500
12005	5	A	1.500
12006	6	A	1.500
12007	7.5	A	2.375
12008	10	A	2.625
12009	12.5	A	3.000
12010	15	A	3.750
12012	17.5	A	3.750
12014	20	C	2.375
12015	25	C	2.625
12017	30	C	2.625
12018	35	C	3.000
12021	40	C	3.750
12023	45	C	3.750
12025	50	C	3.750
12024	55	C	4.250
12087	60	C	4.750
12011	65	C	4.750
12089	70	C	4.750
12090	80	D	3.750

Single Section 370 Volt Round

MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12092	2	M	2.000
12093	3	M	2.000
12094	4	M	2.000
12095	5	M	2.000
12096	6	M	2.000
12097	7.5	M	2.000
12098	10	M	2.000
12099	12.5	M	2.000
12210	15	M	2.375
12211	16	M	2.375
12212	17.5	M	2.375
12214	20	M	2.625
12215	25	M	3.000
12217	30	M	3.000
12218	35	M	3.750
12221	40	M	3.750
12223	45	N	3.375
12225	50	N	3.750
12226	55	N	3.750
12227	60	N	4.750
12128	65	N	4.750
12229	70	N	4.750
12199	80	N	4.750
12116	100	P	4.750

Single Section 440/370 Volt Oval

MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12026	2	A	1.500
12019	2.5	A	1.500
12027	3	A	2.000
12028	4	A	2.000
12029	5	A	2.375
12030	6	A	2.375
12031	7.5	A	2.625
12032	10	A	3.750
12033	12.5	A	3.750
12034	15	C	2.375
12036	17.5	C	2.375
12037	20	C	2.625
12040	25	C	3.000
12041	30	C	3.750
12043	35	C	3.750
12045	40	C	4.750
12048	45	C	4.750
12049	50	C	4.750
12050	55	C	4.750
12051	60	D	3.750
12052	65	D	3.750
12130	70	D	3.750
12135	75	D	3.750
12140	80	D	4.750

Single Section 440/370 Volt Round

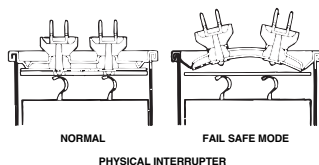
MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12102	2	M	2.000
12103	3	M	2.000
12104	4	M	2.000
12105	5	M	2.000
12106	6	M	2.000
12107	7.5	M	2.000
12232	10	M	2.375
12233	12.5	M	2.375
12234	15	M	2.625
12236	17.5	M	2.750
12237	20	M	3.000
12240	25	M	3.750
12241	30	N	3.375
12243	35	N	3.750
12245	40	N	3.750
12248	45	N	4.750
12251	50	P	3.375
12252	55	P	3.750
12254	60	P	3.750
12357	65	P	3.750
12258	70	P	4.750
12259	80	P	4.750
12068	90	P	4.750

Dual Section Motor Run Capacitors

Dual section run capacitors are used primarily to serve two microfarad applications. They can, however, by making various combinations of parallel connections, be used to obtain many other microfarad ratings. Capacitor accessories on page C9.

Features:

- MARS offers the widest selections of ratings in the industry
- Non-PCB capacitors. Physical interrupter makes our capacitors safe
- Perfect for general replacements—smallest dimensions available
- UL and CSA listings available
- 50/60 Hz



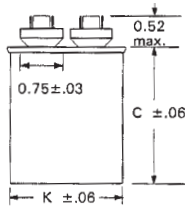
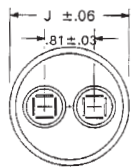
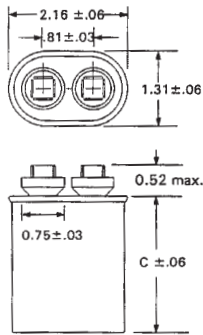
Dual Section 370 Volt Round

MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12121	15/3	N	3.125
12122	15/4	N	3.125
12203	15/5	N	3.125
12204	15/10	N	3.125
12205	17.5/4	N	3.125
12206	17.5/5	N	3.125
12207	20/4	N	3.125
12260	20/5	N	3.125
12016	20/7.5	N	3.125
12208	20/10	N	3.125
12209	20/15	N	3.125
12242	25/3	N	3.125
12175	25/4	N	3.125
12261	25/5	N	3.125
12262	25/7.5	N	3.125
12213	25/10	N	3.125
12244	30/3	N	3.125
12263	30/4	N	3.125
12264	30/5	N	3.125
12224	30/7.5	N	3.125
12228	30/10	N	3.125
12039	30/15	N	3.875
12082	35/3	N	3.875
12231	35/4	N	3.125
12266	35/5	N	3.875
12235	35/7.5	N	3.125
12238	35/10	N	3.875
12074	40/3	N	3.875
12267	40/4	N	3.875
12178	40/5	N	3.875
12268	40/7.5	N	3.875
12246	40/10	N	3.875
12073	45/3	N	3.875
12247	45/4	N	3.875
12269	45/5	P	3.875
12249	45/7.5	N	3.875
12250	45/10	N	3.875
12075	50/3	P	3.125
12191	50/5	N	3.875
12192	50/7.5	P	3.125
12239	50/10	P	3.875
12193	55/5	N	4.75
12194	55/7.5	N	4.75
12067	55/10	N	4.75
12076	60/3	P	3.875
12195	60/5	P	3.875
12196	60/7.5	N	4.75
12265	60/10	P	3.125
12042	65/5	N	4.75
12053	70/5	P	3.875
12054	70/7.5	P	3.875
12055	70/10	P	3.875
12044	75/5	P	3.875
12046	75/7.5	P	3.875
12084	75/10	P	3.875
12197	80/5	P	3.875
12198	80/7.5	P	3.875
12201	80/10	P	3.875
12202	80/12.5	P	4.75
12129	85/5	P	4.75
12230	85/7.5	P	4.75
12222	85/10	P	4.75

Dual Section 370 Volt Oval

MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12141	15/3	C	2.625
12056	15/4	C	2.625
12057	15/5	C	2.625
12058	15/10	C	3.000
12059	17.5/4	C	2.375
12060	17.5/5	C	2.375
12061	20/3	C	2.625
12062	20/4	C	2.625
12063	20/5	C	2.625
12064	20/10	C	2.625
12164	20/15	C	4.750
12142	25/3	C	2.625
12065	25/4	C	2.625
12066	25/5	C	2.625
12143	25/7.5	C	2.625
12131	25/8	C	3.000
12167	25/10	C	3.000
12133	25/15	C	3.000
12144	30/3	C	3.000
12145	30/4	C	3.000
12069	30/5	C	3.000
12146	30/7.5	C	3.000
12147	30/10	C	3.375
12148	35/3	C	3.000
12071	35/4	C	3.750
12072	35/5	C	3.750
12149	35/7.5	C	3.000
12150	35/10	C	3.750
12151	40/3	C	3.750
12158	40/4	C	3.750
12171	40/5	C	3.750
12152	40/7.5	C	3.750
12134	40/10	C	3.750
12173	45/3	C	3.750
12174	45/5	C	3.750
12153	45/7.5	C	3.750
12136	45/10	C	4.750
12137	45/15	C	4.750
12138	50/5	C	4.750
12154	55/5	C	4.750
12155	55/7.5	C	4.750
12139	60/5	D	4.750
12156	60/7.5	C	4.750
12157	60/10	C	4.750
12159	65/5	D	4.750
12163	80/5	D	4.750
12123	80/7.5	D	4.750

Capacitor Base Dimensions



Dual Section 440/370 Volt Round

MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12111	10/5	N	3.125
12118	15/5	N	3.125
12356	15/10	N	3.125
12350	17.5/5	N	3.125
12115	20/5	N	3.125
12354	20/7.5	N	3.125
12351	20/10	N	3.875
12112	20/15	N	3.875
12353	25/3	N	3.875
12355	25/4	N	3.875
12278	25/5	N	3.875
12279	25/7.5	N	3.875
12113	25/10	N	3.625
12114	25/15	N	3.875
12126	30/3	N	3.875
12120	30/4	N	3.875
12281	30/5	N	3.875
12282	30/7.5	N	3.875
12352	30/10	N	4.750
12077	35/3	N	3.875
12070	35/4	N	3.875
12283	35/5	N	3.875
12119	35/6	N	4.750
12284	35/7.5	P	3.875
12091	35/10	N	4.750
12078	40/3	P	3.125
12285	40/4	P	3.125
12286	40/5	P	3.125
12220	40/6	N	4.750
12287	40/7.5	P	3.875
12088	40/10	N	4.750
12079	45/3	P	3.875
12219	45/4	N	3.750
12288	45/5	P	3.875
12127	45/6	N	4.750
12289	45/7.5	N	3.875
12172	45/10	P	3.875
12290	50/5	P	3.875
12291	50/7.5	P	3.875
12124	50/10	P	3.875
12253	50/12.5	P	3.875
12292	55/5	P	3.875
12293	55/7.5	P	3.875
12299	55/10	P	3.875
12160	60/3	P	4.750
12294	60/5	P	3.875
12295	60/7.5	P	3.875
12296	60/10	P	3.875
12161	60/12.5	P	4.750
12358	65/5	P	4.750
12359	65/7.5	P	4.750
12162	65/10	P	4.750
12255	70/5	P	4.750
12166	70/7.5	P	4.750
12169	70/10	P	4.750
12168	75/5	P	4.750
12125	75/7.5	P	4.750
12047	75/10	P	4.750
12257	80/5	P	4.875
12216	80/7.5	P	4.750
12117	80/10	P	4.750
12022	85/5	P	4.750
12020	85/7.5	P	4.750
12001	85/10	P	4.750

Dual Section 440/370 Volt Oval

MARS NO.	MICROFARAD	BASE	HEIGHT IN.
12165	10/5	C	3.125
12170	10/10	C	3.125
12270	15/4	C	2.625
12271	15/5	C	2.625
12177	15/10	C	3.750
12180	20/5	C	2.625
12083	20/15	D	3.000
12184	25/5	D	3.000
12182	25/7.5	C	3.750
12183	25/10	C	3.750
12186	25/15	D	3.000
12181	30/4	C	3.750
12187	30/5	D	3.750
12038	30/7.5	C	3.750
12035	30/10	C	3.750
12085	35/3	C	4.750
12179	35/4	C	3.750
12185	35/5	C	4.750
12188	35/7.5	C	3.750
12176	35/8.5	C	3.750
12272	35/10	C	4.750
12080	40/3	C	4.750
12086	40/5	C	4.750
12189	40/7.5	C	4.750
12273	40/10	C	4.750
12190	45/5	D	4.750
12274	45/7.5	C	4.750
12108	50/5	D	4.750
12013	50/7.5	C	4.750
12275	55/5	D	4.750
12276	55/10	D	4.750
12109	60/5	D	4.750
12110	60/7.5	D	4.750
12101	65/10	D	4.750
12297	80/5	D	5.750
12298	80/7.5	D	5.750

Base Dimension Key - Oval

KEY	DEPTH IN.	WIDTH IN.	DESCRIPTION
A	1.31	2.16	oval fan size
C	1.91	2.91	oval
D	1.97	3.66	oval

Base Dimension Key - Round

KEY	DEPTH IN.	MOUNTING STRAP
M	1.75	93031
N	2.00	93032
P	2.50	93033

MARS USA Capacitors



Features:

- Product of USA
- Tested and approved by every major US motor company and compressor company
- 440/370 Dual Voltage Rated
- Meets EIA-456A Test Standard (simulates 60,000 hours of operation)
- Meets Tecumseh H-115
- OEM Grade
- CSA approved and UL recognized
- 5 year warranty



Single Section

MARS USA NO.	DESCRIPTION	BASE	HEIGHT
14005	5 MFD 370V Oval	A	1.500
14029	5 MFD 440/370V Oval	A	2.375
14105	5 MFD 440/370V Round	M	2.000
14007	7.5 MFD 370V Oval	A	2.375
14031	7.5 MFD 440/370V Oval	A	2.625
14107	7.5 MFD 440/370V Round	M	2.000
14008	10 MFD 370V Oval	A	2.625
14032	10 MFD 440/370V Oval	A	3.750
14232	10 MFD 440/370V Round	M	2.375
14009	12.5 MFD 370V Oval	A	3.000
14033	12.5 MFD 440/370V Oval	A	3.750
14010	15 MFD 370V Oval	A	3.750
14034	15 MFD 440/370V Oval	C	2.375
14234	15 MFD 440/370V Round	M	2.625
14237	20 MFD 440/370V Round	M	3.000
14240	25 MFD 440/370V Round	M	3.750
14241	30 MFD 440/370V Round	N	3.375
14243	35 MFD 440/370V Round	N	3.750
14245	40 MFD 440/370V Round	N	3.750
14248	45 MFD 440/370V Round	N	4.750
14251	50 MFD 440/370V Round	P	3.375
14252	55 MFD 440/370V Round	P	3.750
14254	60 MFD 440/370V Round	P	3.750
14256	65 MFD 440/370V Round	P	3.750
14258	70 MFD 440/370V Round	P	4.750
14259	80 MFD 440/370V Round	P	4.750

Dual Section

MARS USA NO.	DESCRIPTION	BASE	HEIGHT
14353	25/3 MFD 440/370V Round	N	3.875
14278	25/5 MFD 440/370V Round	N	3.875
14126	30/3 MFD 440/370V Round	N	3.875
14281	30/5 MFD 440/370V Round	N	3.875
14282	30/7.5 MFD 440/370V Round	N	3.875
14077	35/3 MFD 440/370V Round	N	3.875
14283	35/5 MFD 440/370V Round	N	3.875
14284	35/7.5 MFD 440/370V Round	P	3.875
14091	35/10 MFD 440/370V Round	N	4.750
14078	40/3 MFD 440/370V Round	P	3.125
14286	40/5 MFD 440/370V Round	P	3.125
14287	40/7.5 MFD 440/370V Round	P	3.875
14088	40/10 MFD 440/370V Round	N	4.750
14288	45/5 MFD 440/370V Round	P	3.875
14289	45/7.5 MFD 440/370V Round	N	3.875
14172	45/10 MFD 440/370V Round	P	3.875
14290	50/5 MFD 440/370V Round	P	3.875
14291	50/7.5 MFD 440/370V Round	P	3.875
14292	55/5 MFD 440/370V Round	P	3.875
14293	55/7.5 MFD 440/370V Round	P	3.875
14299	55/10 MFD 440/370V Round	P	3.875
14296	60/10 MFD 440/370V Round	P	3.875
14294	60/5 MFD 440/370V Round	P	3.875
14295	60/7.5 MFD 440/370V Round	P	3.875
14358	65/5 MFD 440/370V Round	P	3.875
14359	65/7.5 MFD 440/370V Round	P	3.875
14162	65/10 MFD 440/370V Round	P	4.750
14169	70/10 MFD 440/370V Round	P	4.750
14255	70/5 MFD 440/370V Round	P	4.750
14166	70/7.5 MFD 440/370V Round	P	4.750
14257	80/5 MFD 440/370V Round	P	4.875
14216	80/7.5 MFD 440/370V Round	P	4.750
14117	80/10 MFD 440/370V Round	P	4.750

Base Dimension Key - Oval

KEY	DEPTH IN.	WIDTH IN.	DESCRIPTION
A	1.31	2.16	oval fan size
C	1.91	2.91	oval
D	1.97	3.66	oval

Base Dimension Key - Round

KEY	DEPTH IN.	MOUNTING STRAP
M	1.75	93031
N	2.00	93032
P	2.50	93033

MARS Mini-Split Run Capacitors

MARS mini-split motor run capacitors are epoxy/resin sealed and widely used as the start-up and/or run capacitor for your motor. They feature very small dissipation factor and inherent temperature rise, high insulation resistance, and stable capacitance.





MARS NO.	DESCRIPTION	DIMENSIONS		
		H	D	W
12380	1 MFD X 450V	1-1/2	X 1/2	X 1
12381	1.5 MFD X 450V	1-1/2	X 1/2	X 1
12382	2 MFD X 450V	1-1/2	X 1/2	X 1
12383	2.5 MFD X 450V	1-1/2	X 3/4	X 1-1/4
12384	3 MFD X 450V	1-1/2	X 3/4	X 1-1/4
12385	3.5 MFD X 450V	1-7/8	X 3/4	X 1-3/8
12386	4 MFD X 450V	1-7/8	X 3/4	X 1-3/8
12388	5 MFD X 450V	1-7/8	X 7/8	X 1-3/8
12390	6 MFD X 450V	1-7/8	X 1	X 1-1/2



Technical Specification:

- Ambient temperature: 70° C
- Rated voltage: 450 VA
- Capacitance tolerance: ±5
- 50/60 Hz
- Standard: IEC252-2001









Accessories For Relays & Capacitors

QC-6 Kit	
93001	For conversion of screw-type connections on relays 
Resistor for Start Capacitors	
93007	2 watt (15,000 ohm) Resistors, 10/Pk 
QC-13 for Start Capacitors	
93106	10 pc 2 watt (15,000 ohm) resistors with .25-in female spade connectors, 10/Pk 
Snap-on Mounting Brackets for Motor Start Capacitors	
93026	2.75 in
93027	3.38 in
93028	4.38 in
Sold in 10 pack 	

Case Dimensions*

CASE SIZE	DIAMETER	LENGTH
1	1.44	2.75
2	1.44	3.38
4	1.81	3.38
5	1.81	4.38
6	2.06	3.38
7	2.06	4.38
8	2.56	4.38

*Capacitors may be put in different case sizes occasionally, but will not be larger than those stated.

Protector (boots) for Motor Run Capacitors	
93011	1 Hole Boot, 25/Pk 
93012	2 Hole Boot, 25/Pk 
Wrap-Around Brackets for Motor Run Capacitors	
93014	Oval 1.94 x 2.78 for base A, 10/Pk 
93015	Oval 1.97 x 2.94 for base C, 10/Pk 
93116	Oval 2.25 x 3.66 for base D, 10/Pk 
Mounting Brackets for Round Capacitors	
93031	For 1.63 in and 1.75 in diam
93032	For 2.0 in diam
93033	For 2.50 in diam
Sold in 5 pack 	
Bakelite End Caps for Motor Start Capacitors	
93018	BEC-1 1.44 in
93019	BEC-2 1.81 in
93020	BEC-3 2.06 in
93021	BEC-4 2.56 in
Sold in 10 pack 	
For mounting OFF MOTOR. Leads on top side.	
93022	TEC-1 1.44 in
93023	TEC-2 1.81 in
93024	TEC-3 2.06 in
93025	TEC-4 2.56 in
Sold in 10 pack 	

Single Section Run Capacitors

370 VOLT				
MFD	OVAL MARS NO.	ROUND MARS NO.	OVAL JARD NO.	OVAL JARD NO.
2	12002	12092	12902	12992
3	12003	12093	12903	12993
4	12004	12094	12904	12994
5	12005	12095	12905	12995
6	12006	12096	12906	12996
7.5	12007	12097	12907	12997
10	12008	12098	12908	12998
12.5	12009	12099	12909	12999
15	12010	12210	12910	12710
16		12211		12911
17.5	12012	12212	12912	12712
20	12014	12214	12914	12714
25	12015	12215	12915	12715
30	12017	12217	12917	12717
35	12018	12218	12918	12718
40	12021	12221	12921	12721
45	12023	12223	12923	12723
50	12025	12225	12925	12725
55	12024	12226	12924	12726
60	12087	12227	12987	12727
65	12011	12128	12988	12828
70	12089	12229	12989	12729
80	12090	12199	12990	12899
100		12116		12916

Dual Section Run Run Capacitors

370 VOLT				
MFD	OVAL MARS NO.	ROUND MARS NO.	OVAL JARD NO.	OVAL JARD NO.
15/3	12141	12121	12841	12701
15/4	12056	12122	12956	12702
15/5	12057	12203	12957	12703
15/10	12058	12204	12958	12704
17.5/4	12059	12205	12959	12705
17.5/5	12060	12206	12960	12706
20/3	12061		12961	
20/4	12062	12207	12962	12707
20/5	12063	12260	12963	12760
20/7.5		12016		12716
20/10	12064	12208	12864	12708
20/15	12164	12209	12964	12709
25/3	12142	12242	12842	12711
25/4	12065	12175	12965	12875
25/5	12066	12261	12966	12761
25/7.5	12143	12262	12843	12762
25/8	12131		12832	
25/10	12167	12213	12867	12713
25/15	12133		12833	
30/3	12144	12244	12844	12720
30/4	12145	12263	12845	12763
30/5	12069	12264	12969	12764
30/7.5	12146	12224	12846	12724
30/10	12147	12228	12847	12728
30/15		12039		12939
35/3	12148	12082	12848	12730
35/4	12071	12231	12971	12731
35/5	12072	12266	12972	12766
35/7.5	12149	12235	12849	12735
35/10	12150	12238	12850	12738
40/3	12151	12074	12851	12739
40/4	12158	12267	12858	12767
40/5	12171	12178	12871	12878
40/7.5	12152	12268	12852	12768
40/10	12134	12246	12834	12746
45/3	12173	12073		12747
45/4		12247		12947
45/5	12174	12269	12874	12769
45/7.5	12153	12249	12853	12749
45/10	12136	12250	12836	12750
45/15	12137		12837	
50/3		12075		12753
50/5	12138	12191	12838	12755
50/7.5		12192		12825
50/10		12239		12757
55/5	12154	12193	12854	12893
55/7.5	12155	12194	12855	12894
55/10		12067		12967
60/3		12076		12976
60/5	12139	12195	12839	12895
60/7.5	12156	12196	12856	12896
60/10	12157	12265	12857	12865
65/5	12159	12042	12859	12742
70/5		12053		12953
70/7.5		12054		12954
70/10		12055		12955
75/5		12044		12744
75/7.5		12046		12946
75/10		12084		12984
80/5	12163	12197	12863	12897
80/7.5	12123	12198	12817	12819
80/10		12201		12824
80/12.5		12202		12722
85/5		12129		12829
85/7.5		12230		12756
85/10		12222		12922

Dual Section Run Run Capacitors

440/370 VOLT				
MFD	OVAL MARS NO.	ROUND MARS NO.	OVAL JARD NO.	OVAL JARD NO.
10/5	12165	12111	12765	12811
15/4	12270		12770	
15/5	12271	12118	12771	12818
15/10	12177	12356	12777	12656
17.5/5		12350		12650
20/5	12180	12115	12880	12780
20/7.5		12354		12654
20/10		12351		12651
20/15	12083	12112	12983	12812
25/3		12353		12653
25/4		12355		12655
25/5	12184	12278	12884	12778
25/7.5	12182	12279	12882	12779
25/10	12183	12113	12883	12813
25/15	12186	12114	12886	12814
30/3		12126		12826
30/4	12181	12120	12881	12820
30/5	12187	12281	12887	12781
30/7.5	12038	12282	12982	12782
30/10	12035	12352	12835	12652
35/3	12085	12077	12985	12977
35/4	12179	12070	12879	12870
35/5	12185	12283	12885	12783
35/6		12119		
35/7.5	12188	12284	12888	12784
35/8.5	12176		12876	
35/10	12272	12091	12772	12797
40/3	12080	12078	12877	12978
40/4		12285		12785
40/5	12086	12286	12986	12786
40/6		12220		12920
40/7.5	12189	12287	12889	12787
40/10	12273	12088	12773	12798
45/3		12079		12979
45/4		12219		12891
45/5	12190	12288	12890	12788
45/6		12127		12827
45/7.5	12274	12289	12774	12789
45/10		12172		12872
50/5	12108	12290	12808	12790
50/7.5	12013	12291	12913	12791
50/10		12124		12892
50/12.5		12253		12719
55/5	12275	12292	12775	12792
55/7.5		12293		12793
55/10	12276	12299	12822	12799
60/3		12160		12860
60/5	12109	12294	12809	12794
60/7.5	12110	12295	12776	12795
60/10		12296		12796
60/12.5		12161		12861
65/5		12358		12642
65/7.5		12359		12659
65/10	12101	12162	12810	12862
70/5		12255		12823
70/7.5		12166		12866
70/10		12169		12869
75/5		12168		12968
75/7.5		12125		12901
75/10		12047		12935
80/5	12297	12257	12815	12801
80/7.5	12298	12216	12898	12816
80/10		12117		12821
85/5		12022		12938
85/7.5		12020		12942
85/10		12001		12944

440/370 VOLT				
MFD	OVAL MARS NO.	ROUND MARS NO.	OVAL JARD NO.	ROUND JARD NO.
2	12026	12102	12926	12802
2.5	12019		12919	
3	12027	12103	12927	12803
4	12028	12104	12928	12804
5	12029	12105	12929	12805
6	12030	12106	12930	12806
7.5	12031	12107	12931	12807
10	12032	12232	12932	12732
12.5	12033	12233	12933	12733
15	12034	12234	12934	12734
17.5	12036	12236	12936	12736
20	12037	12237	12937	12737
25	12040	12240	12940	12740
30	12041	12241	12941	12741
35	12043	12243	12943	12743
40	12045	12245	12945	12745
45	12048	12248	12948	12748
50	12049	12251	12949	12751
55	12050	12252	12950	12752
60	12051	12254	12951	12754
65	12052	12357	12952	12657
70	12130	12258	12830	12758
75	12135		12831	
80	12140	12259	12840	12759
90		12068		12868

MARS 780 Definite Purpose Contactors

MARS 780 - 1 pole with shunt contactors are designed for demanding applications. The enclosed body design provides quiet operation and improved durability by reducing the intrusion of dust and dirt. Silver-cadmium oxide contacts provide increased contact life when switching inductive loads.

Features:

- Enclosed body and coil – standard cover
- Push to test button
- Quad quick connects
- Box lugs - large window arch design
- Screw terminals and or box lugs available on 30 amp
- Coils - class F insulation



1 Pole with Shunt 30 - 40 Amps

MARS NO.	FURNAS NO.	FLA	LOCKED ROTOR AMPS		NON INDUCTIVE AMPS	COIL VOLTS	TERMINATION
			240V	277V			
61320	45EG10AJA, 45CG10AJA, 45DG10AJA					24	Screw Type
61321	45EG10AFA, 45CG10AFA, 45DG10AFA					120	
61322	45EG10AGA, 45CG10AGA, 45DG10AGA	30	180	180	40	208-240	
61323	45EG10ALA, 45CG10ALA, 45DG10ALA					277	
61324	45EG10AHA, 45CG10AHA, 45DG10AHA					480	
61720	45EG10AJAL					24	Box Lug
61721	45EG10AFAL					120	
61722	45EG10AGAL	30	180	180	40	208-240	
61723	45EG10ALAL					277	
61724	45EG10AHAL					480	
61730	45GG10AJAL, 45FG10AJA, 45GG10AJA					24	Box Lug
61731	45GG10AFAL, 45FG10AFA, 45GG10AFA					120	
61732	45GG10AGAL, 45FG10AGA, 45GG10AGA	40	240	240	50	208-240	
61733	45GG10ALAL, 45FG10ALA, 45GG10ALA					277	
61734	45GG10AHAL, 45FG10AHA, 45GG10AHA					480	

MARS 780 Definite Purpose Contactors

MARS 780 - 2 pole contactors are designed for demanding applications. The enclosed body design provides quiet operation and improved durability by reducing the intrusion of dust and dirt. Silver-cadmium oxide contacts provide increased contact life when switching inductive loads.

Features:

- Enclosed body and coil – standard cover
- Push to test button
- Quad quick connects
- Box lugs - large window arch design
- Screw terminals and or box lugs available on 30 amp
- Coils - class F insulated outdoor condenser fan motors are designed for all angle air conditioning or heat pump applications. A weep hole is provided in each end shield to allow condensate to drain.



2 Pole 30 - 40 Amps

MARS NO.	FURNAS NO.	FLA	LOCKED ROTOR AMPS			NON INDUCTIVE AMPS	COIL VOLTS	TERMINATION
			240V	480V	600V			
61345	45EG20AJ, 45CG20AJ, 45DG20AJ					24	Screw Type	
61346	45EG20AF, 45CG20AF, 45DG20AF					120		
61347	45EG20AG, 45CG20AG, 45DG20AG	30	180	150	120	208-240		
61348	45EG20AL, 45CG20AL, 45DG20AL					277		
61349	45EG20AH, 45CG20AH, 45DG20AH					480		
61745	45EG20AJL					24	Box Lug	
61746	45EG20AFL					120		
61747	45EG20AGL	30	180	150	120	208-240		
61748	45EG20ALL					277		
61749	45EG20AHL					480		
61755	45GG20AJL, 45FG20AJ, 45GG20AJ					24	Box Lug	
61756	45GG20AFL, 45FG20AF, 45GG20AF					120		
61757	45GG20AGL, 45FG20AG, 45GG20AG	40	240	200	160	208-240		
61758	45GG20ALL, 45FG20AL, 45GG20AL					277		
61759	45GG20AHL, 45FG20AH, 45GG20AH					480		

MARS 780 Definite Purpose Contactors

MARS 780 Definite Purpose Contactors

MARS 780 - 2 pole "Large Body" contactors feature a 2 pole configuration in a 3 pole body for increased durability in demanding applications.

Features:

- Large arch window box lugs
- Recessed push to test button
- Accepts MARS 780 and Furnas auxiliary switches
- Use standard MARS 780 replacement coils
- Dual QC coil terminals plus screw terminal for easy termination and jumper arrangements
- Coils - class F insulation



2 Pole - Large Body 30 - 40 Amp

MARS NO.	FURNAS NO.	FLA	LOCKED ROTOR AMPS			NON INDUCTIVE AMPS	COIL VOLTS	HORSEPOWER		TERMINATION
			240V	480V	600V			1 PH 240V	3 PH 240V	
61425	42BF15AJ, 42AF15AJ	30	180	150	120	40	24	3 HP	7.5 HP	Box Lug
61426	42BF15AF, 42AF15AF						120			
61427	42BF15AG, 42AF15AG						208-240			
61428	42BF15AL, 42AF15AL						277			
61440	42CF15AJ	40	240	200	160	50	24	5 HP	10 HP	Box Lug
61441	42CF15AF						120			
61442	42CF15AG						208-240			
61443	42CF15AL						277			

MARS 780 - 3 Pole Contactors

MARS 780 - 3 pole contactors are designed for demanding applications. The enclosed body design provides quiet operation and improved durability by reducing the intrusion of dust and dirt. Side attachment rails for auxiliary switches (30-60 amp contactors) allow attachment of MARS 780 or Furnas auxiliary switches. Silver-cadmium oxide contacts provide increased contact life when switching inductive loads.

Features:

- Large arch window box lugs
- SEMS screws or box lugs available on 30 amp contactors
- Recessed push to test button (not on 75 and 90 amp contactors)
- Enclosed body design
- Accepts MARS 780 and Furnas auxiliary switches
- Use standard MARS 780 replacement coils
- Dual QC coil terminals plus screw terminal for easy termination and jumper arrangements
- Coils - class F insulation • 600 volt rating • Foot print compatible

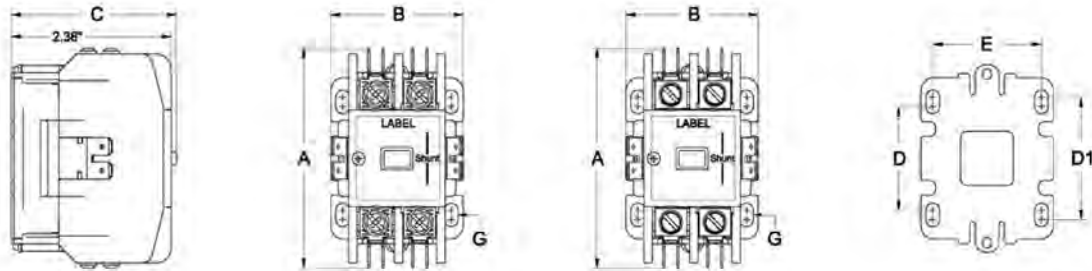


3 Pole 30 - 90 Amp

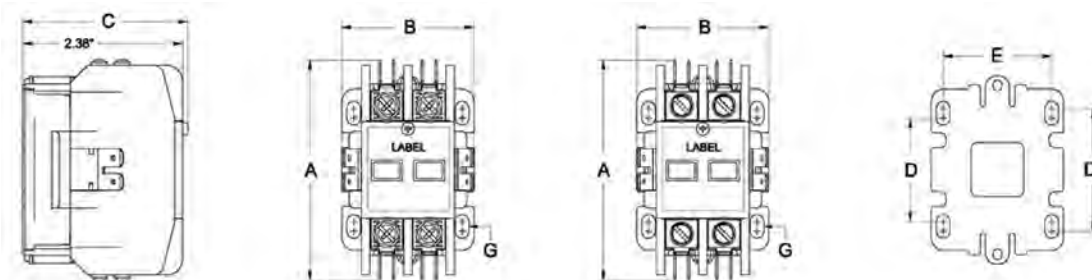
* For 25 Amp Contactors - Use 30 Amp in Place of 25Amp

MARS NO.	FURNAS NO.	FLA	LOCKED ROTOR AMPS			NON INDUCTIVE AMPS	COIL VOLTS	HORSEPOWER				TERMINATION
			240V	480V	600V			1 PH 240V	240V	3 PH 480V	600V	
61430*	42BF35AJ	30	180	150	120	40	24	3 HP	7.5 HP	10 HP	15 HP	Screw Type
61431*	42BF35AF						120					
61432*	42BF35AG						208-240					
61433*	42BF35AL						277					
61434*	42BF35AH						480					
61750	-	30	180	150	120	40	24	3 HP	7.5 HP	10 HP	15 HP	Box Lug
61751	-						120					
61752	-						208-240					
61753	-						277					
61754	-						480					
61445	42CF35AJ	40	240	200	160	50	24	5 HP	10 HP	15 HP	20 HP	Box Lug
61446	42CF35AF						120					
61447	42CF35AG						208-240					
61448	42CF35AL						277					
61449	42CF35AH						480					
61460	42DF35AJ	50	300	250	200	63	24	5 HP	15 HP	20 HP	25 HP	Box Lug
61461	42DF35AF						120					
61462	42DF35AG						208-240					
61463	42DF35AL						277					
61464	42DF35AH						480					
61470	42EF35AJ	60	360	300	240	75	24	7.5 HP	20 HP	25 HP	30 HP	Box Lug
61471	42EF35AF						120					
61472	42EF35AG						208-240					
61473	42EF35AL						277					
61474	42EF35AH						480					
61480	42FE35AJ106	75	450	375	300	94	24	15 HP	25 HP	40 HP	40 HP	Box Lug
61481	42FE35AF106						120					
61482	42FE35AG106						208-240					
61483	42FE35AL106						277					
61484	42FE35AH106						480					
61490	42GE35AJ106	90	540	450	360	120	24	15 HP	30 HP	50 HP	50 HP	Box Lug
61491	42GE35AF106						120					
61492	42GE35AG106						208-240					
61493	42GE35AL106						277					
61494	42GE35AH106						480					

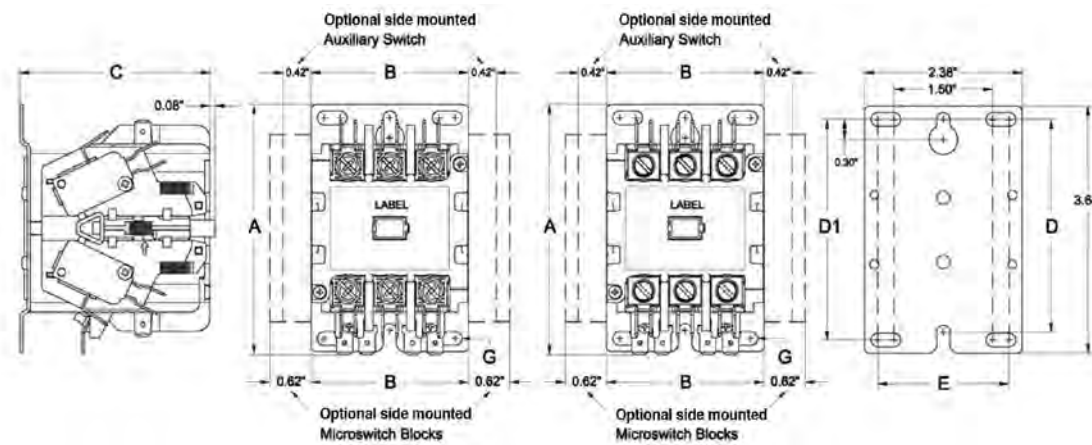
30-40A 1 Pole with Shunt



30-40A 2 Pole



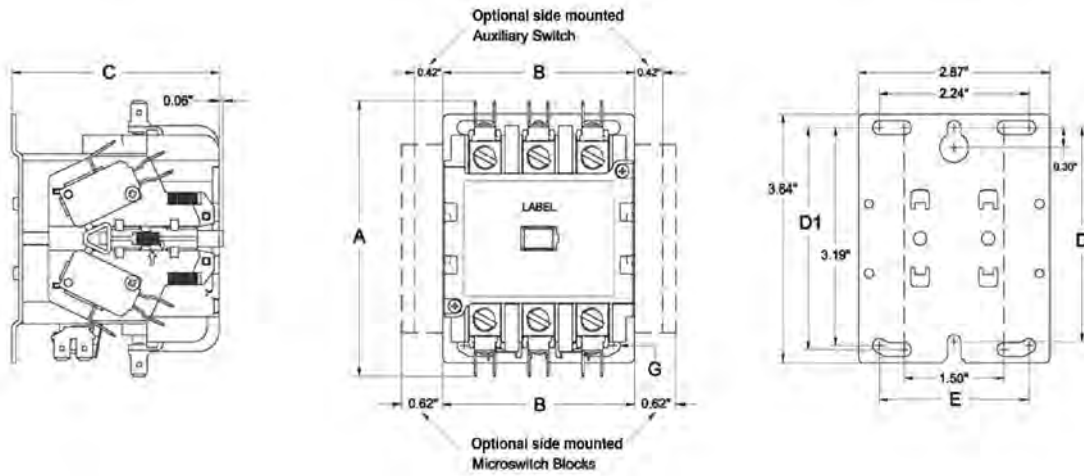
30-40A 2* Pole & 3 Pole



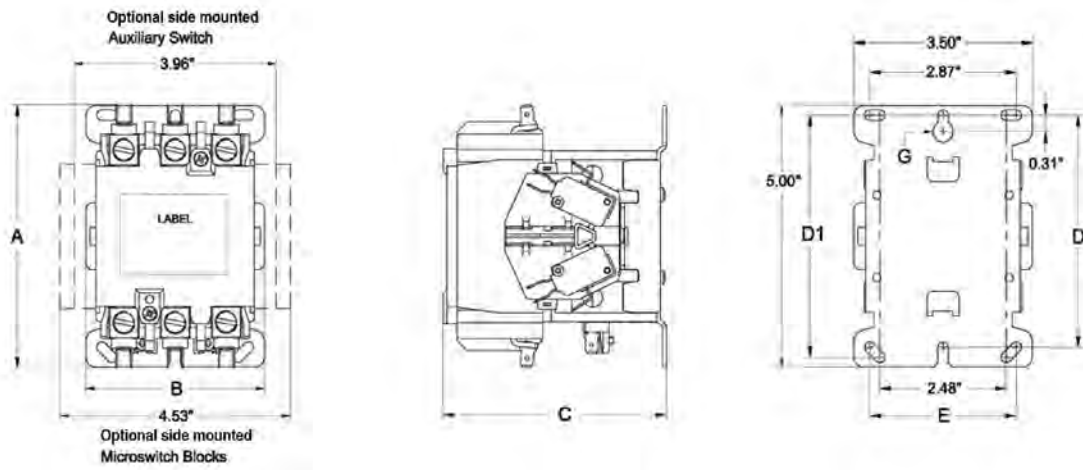
Note - 2* Pole is a 3 pole body with center contacts removed.

MARS NO.	FLA	POLES	A	B	C	D	D1	E	MTG SCREW G	MAX WIRE SIZE
61320-61324	30	1	3.19	1.97	2.46	1.5	1.77	1.61	10	8
61720-61724 61730-61734	30-40	1	3.19	1.97	2.46	1.5	1.77	1.61	10	4
61345-61349	30	2	3.19	1.97	2.46	1.5	1.77	1.61	10	8
61745-61749 61755-61759	30-40	2	3.19	1.97	2.46	1.5	1.77	1.61	10	4
61430-61434	30	3	3.69	2.38	2.87	3.13	3.25	1.98	10	8
61750-61754 61445-61449	30-40	3	3.69	2.38	2.87	3.13	3.25	1.98	10	4
61425-61428 61440-61443	30-40	2(at 3P)*	3.69	2.38	2.87	3.13	3.25	1.98	10	4

50-60A 3 Pole



75-90A 3 Pole



MARS NO.	FLA	POLES	A	B	C	D	D1	E	MTG SCREW G	MAX WIRE SIZE
61460-61464 61470-61474	50-60	3	4.04	2.87	3.11	3.13	3.25	2.24	10	2
61480-61484 61490-61494	75-90	3	5.02	3.5	4.39	4.43	4.63	2.87	10	1/10

MARS 780 Definite Purpose Contactors

Renewal Parts and Accessories

- Snap on side mounted auxiliary switches
- Replacement coils



Auxiliary Switches

MARS NO.	FURNAS NO.	DESCRIPTION	CONTACTOR F.L.A.	USED ON
61610	49ACRO	1 NO	30 - 60	61320-61324 61720-61724 61730-61734 61345-61349 61745-61749 61755-61759 61430-61434 61750-61754 61445-61449 61425-61428 61440-61443 61460-61464 61470-61474
61611	49ACRC	1 NC		
61612	49ACR6	1 NO- 1 NC		
61613	49ACR7	2 NO		
61614	49ACR8	2 NC		
61615	49D36098001	SPDT		
61616	49D36098003	DPDT		
61623	-	SPDT	75-90	61480-61484 61490-61494
61624	-	1 NO		
61625	-	1 NC		

MARS 780 Replacement Coils

MARS NO.	FURNAS NO.	CONTACTOR SIZE	COIL VOLTAGE
61679	-	3 Pole 30-40 Amp	24V
61680	-		120V
61681	-		208-240V
61682	-		277V
61683	-	3 Pole 50-60 Amp	480V
61684	-		24V
61685	-		120V
61687	-		208-240V
61690	-	3 Pole 75-90 Amp	277V
61691	-		480V
61692	-		24V
61693	-		120V
61694	-		208-240V
61695	-		277V
61696	-	480V	

Furnas NEMA Contactors & Starters

Application:

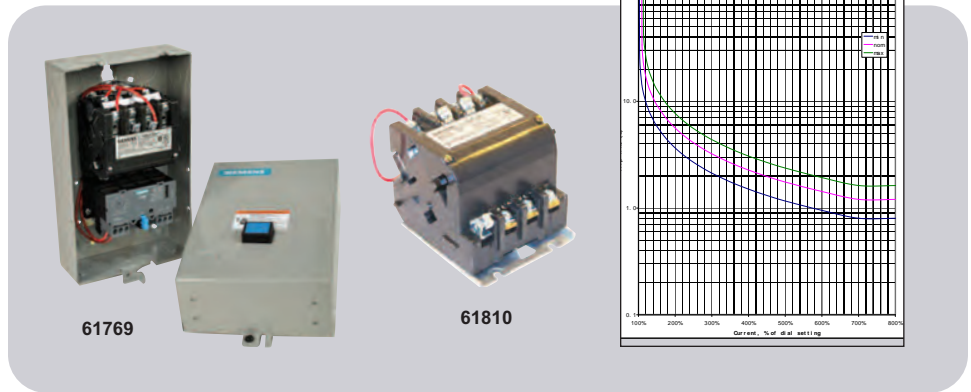
NEMA heavy duty contactors and starters are designed for across the line starting of 3 phase motors. Typical applications include cooling towers, refrigeration equipment, and commercial HVAC. NEMA contactors provide the switching (on/off) function. NEMA starters consist of a NEMA contactor with the addition of motor protection via a solid state overload relay which includes phase loss protection.

Standard NEMA Contactor Features:

- Rugged industrial design epoxy encapsulated coil seals out moisture, promotes heat transfer, and resists electrical, mechanical, and thermal stresses. The 45 degree wedge action contacts reduce tracking and provide faster arc quenching. The resulting self-cleaning and reduced contact bounce mean cooler operation and longer life for the large silver cadmium oxide contacts
- Dual Voltage Coils
120/240 VAC is standard
24 VAC and 240/480 VAC are available as accessories
- Easy coil access. Top mounted coil requires no tools to change

Standard NEMA Starter Features:

- NEMA Contactor
- True phase loss protection
Trips within 3 seconds and is self protected from short circuits
- High accuracy +/- 2% repeat trip accuracy
- Self powered requires no hard wiring or separate power source
- Heaterless construction minimizes energy costs. Does not require the use of complicated heater charts. Simply set the dial on the overload relay to the motor F.L.A.
- Overload trip class 20



NEMA Starters

MARS NO.	SEIMENS NO.	NEMA SIZE	AMP RATING	200V	HORSEPOWER 230V	460V	OVERLOAD RANGE	COIL VOLTAGE	ENCL.
61769	14BUB32BA	0	9	1/2	3/4	1-1/2	.75-3A	120/240	NEMA 1
61770	14CUC32BA	0	18	2	2	5	2.5-10A	120/240	NEMA 1
61771	14CUD32BA	0	18	3	3	-	9-18A	120/240	NEMA 1
61772	14DUC32BA	1	27	2	2	5	2.5-10A	120/240	NEMA 1
61773	14DUD32AA	1	27	3	3	10	9-18A	120/240	Not Included
61774	14DUD32BA	1	27	3	3	10	9-18A	120/240	NEMA 1
61775	14DUE32AA	1	27	7-1/2	7-1/2	-	13-27A	120/240	Not Included
61776	14DUE32BA	1	27	7-1/2	7-1/2	-	13-27A	120/240	NEMA 1
61777	14ESG32BA	1-3/4	27	10	10	15	10-40A	120/240	NEMA 1
61779	14FUF32AA	2	45	-	-	15	13-52A	120/240	Not Included
61780	14FUF32BA	2	45	10	15	25	22-45A	120/240	NEMA 1
61782	14HUG32BA	3	90	25	30	50	45-90A	120/240	NEMA 1
61783	14HUG32AA	3	90	25	30	50	45-90A	120/240	Not Included

NEMA Contactors

MARS NO.	SEIMENS NO.	NEMA SIZE	AMP RATING	200V	HORSEPOWER 230V	460V	COIL VOLTAGE	ENCL.
61810	40CP32AA	0	18	3	3	5	120/240	Not Included
61811	40DP32AA	1	27	7-1/2	7-1/2	10	120/240	Not Included
61813	40FP32AA	2	45	10	15	25	120/240	Not Included
61815	40HP32AA	3	90	25	30	50	120/240	Not Included

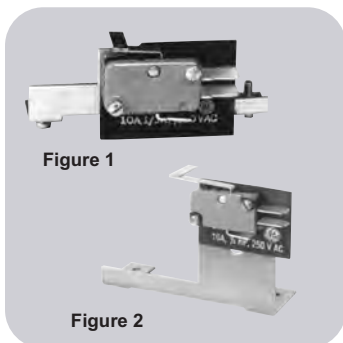
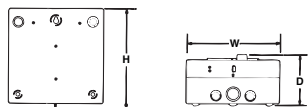
Parts & Accessories for Starters & Contactors

MARS NO.	SEIMENS NO.	DESCRIPTION	NEMA SIZE
61652	75D73070J	Coil 24VAC	0-2.5
61650	75D73070A	Coil 120/240V	0-2.5
61653	75D73070C	Coil 240/480V	0-2.5
61654	75D73070D	Coil 208V	0-2.5
61656	75CF14	Replacement Contact Kits*	0
61657	75DF14	Replacement Contact Kits*	1
61658	75FP14	Replacement Contact Kits*	2
61659	49AB10	N.O. Auxiliary Contact	0-3
61660	49AB01	N.C. Auxiliary Contact	0-3
61671	49SBBIX637	NEMA 1 Hand-Off Auto Kit	-

* Replacement contacts are sold in kits that will re-build 1 power pole. For example: Use (3) 75CF14 contact kits to re-build a 3 pole device.

Auxiliary Contacts & Enclosures for GE Contactors and Starters

Enclosure Dimensions (See Chart Below)



Auxiliary Contacts 10 Amp at 240 VAC

MARS NO.	SWITCH ACTION	USED ON MARS NOS.	GE NOS.	APPLICATION	FIG. NO.
92301	SPDT	13110-13118, 13413-13455, 13513-13555, 13613-13627	CR153A, B, C, D, DA, CR154BV, CV, DV, CR253DB CR253EB, FB, CR353AB, AC, AD, FE, FF, CR354AB, AC, AD, FE	One switch can be added	1
92302	SPDT	13200-13272, 13473-13495, 13573-13575	CR153EB, FB, GB, L, CR154EV, FV, GV, LV, CR253GB, LB, CR353EE, EF, EG, EH	One switch can be added to each side	2

Model 453 Definite Purpose Contactors

The compact models feature universal mount bases, taped coils, and combination phillips/slot head screws. All of the GE compact designs feature "no burn" coil design. These are self-protecting coils that meet the Trane specification. The Series 453 GE compact design contactors all meet ARI 780. Some other manufacturer's economy model compact contactors do not meet this rigorous spec. All of this is now available at attractive pricing!



Features:

- Compact overall size
- Combo phillips/slothead screws/hexhead on 30 amp
- Universal mount base

Specifications:

CR453C Compact, 30A, 40A, 1-Pole Plus Shunted Pole & 2-Pole

FULL LOAD AMPS	RESISTIVE AMPS PER POLE	LOCKED ROTOR AMPS SINGLE PHASE, 50/60 HZ			POLES
		240/277V	480V	600V	
30	40	180	150	120	1 + Shunt 2

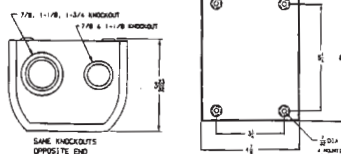
* Ratings shown are for 1-phase, 2-pole.

MARS NO.	FLA	RESISTIVE RATING PER POLE	POLES	VOLTAGE	GE MODEL	HEIGHT	DIM. WIDTH	DEPTH
13101	30	40	1-1/2	24	453CC3HAAAM	2-9/16	2	3-1/4
13104	30	40	2	24	453CC2HAAAM	2-3/4	2	2-7/16
13105				120	453CC2AAAAM			

Universal Enclosure

Universal Contactor Enclosure

The MARS 92680 Universal Contactor enclosure will fit contactors from 20 to 40 amp. This enclosure will also fit the new smaller frame ACC533 and ACC633 contactors. Each enclosure comes with all the necessary mounting screws.



MARS NO.	MFG. PART NO.	DESCRIPTION
92680	AHK425A	Universal Contactor Enclosure

MARS Definite Purpose Contactors

MARS definite purpose contactors are designed for use on refrigeration, air conditioning, and electric heating systems. They are available in one pole with shunt (one and one half pole) configurations, from 30 thru 40 amps. MARS brand definite purpose contactors are also available in 2 pole models (30 and 40 amp) and 3 pole models (30 through 75 amp). The universal mounting base allows replacement of most contactor brands. Straight-thru wiring and small size speeds installation.

Features:

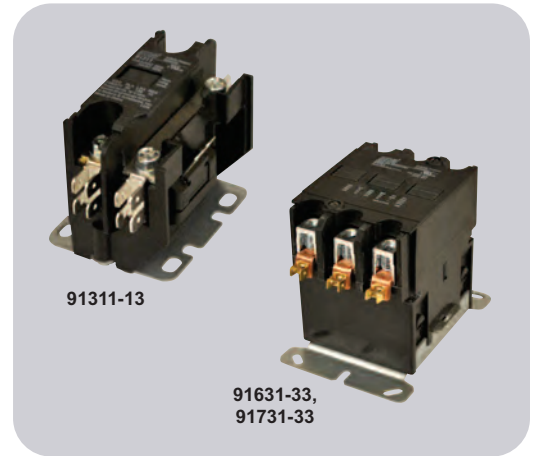
- Used in air conditioning, heating and refrigeration
- Box lug terminations speed installation
- Universal mounting base
- Contact cover and enclosed coils reduce dirt and insect intrusion
- Compact design
- Silver-Cadmium contacts

Specifications:

- Meets ARI 780/790 requirements
- cULus Approval
- 1,000,000 Cycle mechanical life

Auxiliary Switches

MARS NO	DESCRIPTION	USED ON
61623	SPDT	All 3 Pole 910
61624	1 NO	
61625	1 NC	



MARS NO.	FLA	POLES	LOCKED ROTOR AMPS				RES. AMPS	COIL VOLTS	TERMINATION	HORSEPOWER			
			240	277	480	600				1 PH 240	240	3 PH 480	600
91311	30	1 Pole w/Shunt	180	180			40	24	Screw Type	-	-	-	-
91312								120					
91313								208/230					
91315	30	1 Pole w/Shunt	180	180			40	24	Box Lug	-	-	-	-
91316								120					
91317								208/230					
91321	30	2	180	-	150	120	40	24	Screw Type	-	-	-	-
91322								120					
91323								208/230					
91325	30	2	180	-	150	120	40	24	Box Lug	-	-	-	-
91326								120					
91327								208/230					
91331	30	3	180	-	150	120	40	24	Screw Type	3 HP	7.5 HP	10 HP	15 HP
91332								120					
91333								208/230					
91335	30	3	180	-	150	120	40	24	Box Lug	3 HP	7.5 HP	10 HP	15 HP
91336								120					
91337								208/230					
91411	40	1 Pole w/Shunt	240	240	-	-	50	24	Box Lug	-	-	-	-
91421	40	2	240	-	200	160	50	24	Box Lug	-	-	-	-
91422								120					
91423								208/230					
91431	40	3	240	-	200	160	50	24	Box Lug	5 HP	10HP	15 HP	20 HP
91432								120					
91433								208/230					
91531	50	3	300	-	250	200	63	24	Box Lug	5 HP	15 HP	20 HP	25 HP
91532								120					
91533								208/230					
91631	60	3	360	-	300	240	75	24	Box Lug	7.5 HP	20 HP	25 HP	30 HP
91632								120					
91633								208/230					
91731	75	3	450	-	375	300	94	24	Box Lug	15 HP	25 HP	40 HP	40 HP
91732								120					
91733								208/230					

MARS IEC Contactors

MARS IEC Contactors are designed for demanding high reliability applications. Contactors are available with 3 Pole switching and integral auxiliary contacts with normally open or normally closed. MARS contactors are designed for modular snap together assembly and can be panel mounted or DIN rail mounted. Additional accessories allow contactors to be customized to fit numerous applications which require thermal overloads and additional auxiliary switches.

Features:

- Three pole switching plus a NO or NC auxiliary contact
- Design allows for snap on DIN rail mounting or direct panel mount with screws
- Efficient 50/60 Hz coils
- Thermal overloads
- Side mount and top mount auxiliary switches
- Finger safe terminals meet IP20 requirements
- Comply with UL, CSA and IEC standards



Specifications:

- 1,000,000 contact life cycle capability
- Insulation voltage 690V
- Dielectric strength 2500V for 1 minute

MARS NO.	CONTACT ARRANGEMENT	INDUCTIVE CONTACT RATING	COIL VOLTAGE
62000	3 Pole with NO Aux	12 Amps	24 VAC
62001	3 Pole with NC Aux	12 Amps	24 VAC
62002	3 Pole with NO Aux	12 Amps	110 VAC
62003	3 Pole with NC Aux	12 Amps	110 VAC
62004	3 Pole with NO Aux	12 Amps	220 VAC
62005	3 Pole with NC Aux	12 Amps	220 VAC
62006	3 Pole with NO Aux	18 Amps	24 VAC
62007	3 Pole with NC Aux	18 Amps	24 VAC
62008	3 Pole with NO Aux	18 Amps	110 VAC
62009	3 Pole with NC Aux	18 Amps	110 VAC
62010	3 Pole with NO Aux	18 Amps	220 VAC
62011	3 Pole with NC Aux	18 Amps	220 VAC
62012	3 Pole with NO Aux	25 Amps	24 VAC
62013	3 Pole with NC Aux	25 Amps	24 VAC
62014	3 Pole with NO Aux	25 Amps	110 VAC
62015	3 Pole with NC Aux	25 Amps	110 VAC
62016	3 Pole with NO Aux	25 Amps	220 VAC
62017	3 Pole with NC Aux	25 Amps	220 VAC
62018	3 Pole with NO Aux	32 Amps	24 VAC
62019	3 Pole with NC Aux	32 Amps	24 VAC
62020	3 Pole with NO Aux	32 Amps	110 VAC
62021	3 Pole with NC Aux	32 Amps	110 VAC
62022	3 Pole with NO Aux	32 Amps	220 VAC
62023	3 Pole with NC Aux	32 Amps	220 VAC
62024	3 Pole with 1NO/1NC Aux	40 Amps	24 VAC
62025	3 Pole with 1NO/1NC Aux	40 Amps	110 VAC
62026	3 Pole with 1NO/1NC Aux	40 Amps	220 VAC
62027	3 Pole with 1NO/1NC Aux	50 Amps	24 VAC
62028	3 Pole with 1NO/1NC Aux	50 Amps	110 VAC
62029	3 Pole with 1NO/1NC Aux	50 Amps	220 VAC

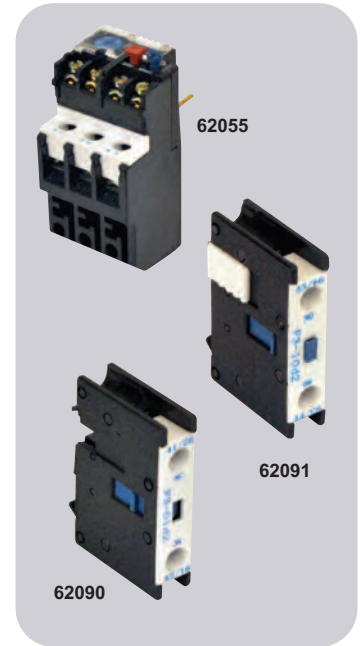
Accessories for IEC Contactors

Accessory Features:

- Thermal overloads
- Side mount and top mount auxiliary switches
- Modular snap together assembly

Specifications:

- Thermal overload ratings - 0.16 Amps through 40 Amps
- Auxiliary switches available with single pole or double pole action
- Auxiliary switch contact ratings – 10 Amps



Thermal Overloads

MARS NO.	DESCRIPTION	CURRENT RANGE	CURRENT RANGE
62055	Thermal Overload	0.1 to 0.16 A Overload Relay	09-32A
62056	Thermal Overload	0.16 to 0.25A Overload Relay	09-32A
62057	Thermal Overload	0.25 to 0.4A Overload Relay	09-32A
62058	Thermal Overload	0.4 to 0.63A Overload Relay	09-32A
62059	Thermal Overload	0.63 to 1.0A Overload Relay	09-32A
62060	Thermal Overload	1.0 to 1.6A Overload Relay	09-32A
62061	Thermal Overload	1.6 to 2.5A Overload Relay	09-32A
62062	Thermal Overload	2.5 to 4.0A Overload Relay	09-32A
62063	Thermal Overload	4 to 6A Overload Relay	09-32A
62069	Thermal Overload	5.5A to 8A Overload Relay	09-32A
62070	Thermal Overload	7A to 10A Overload Relay	09-32A
62071	Thermal Overload	9A to 13A Overload Relay	12-32A
62072	Thermal Overload	12A to 18A Overload Relay	18-32A
62064	Thermal Overload	17-25A Overload Relay	25-32A
62065	Thermal Overload	23-32A Overload Relay	32A
62066	Thermal Overload	28-36A Overload Relay	32A
62067	Thermal Overload	23-32A Overload Relay	40-80A
62068	Thermal Overload	30-40A Overload Relay	40-80A

Auxiliary Switches

MARS NO.	DESCRIPTION	CONFIGURATION	MOUNTING	FITS CONTRACTOR TYPE
62090	AUX Switch	SPNC	Top Mount	25-80A
62091	AUX Switch	SPNO	Top Mount	25-80A
62092	AUX Switch	1NO 1NC	Top Mount	09-80A
62093	AUX Switch	1NO 3NC	Top Mount	09-80A
62094	AUX Switch	1NO 1NC	Side Mount	09-80A
62095	AUX Switch	DPNO	Side Mount	09-80A

30 Amp Two Pole Contactors

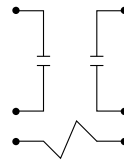
The MARS Series 180 contactors are designed primarily to replace contactors used in air conditioning and electric heating to control blower motors. In addition they are used to switch pumps and computer power supplies. Replace General Electric Contactors and other manufacturers including WR, Essex/RBM and Honeywell.

Features:

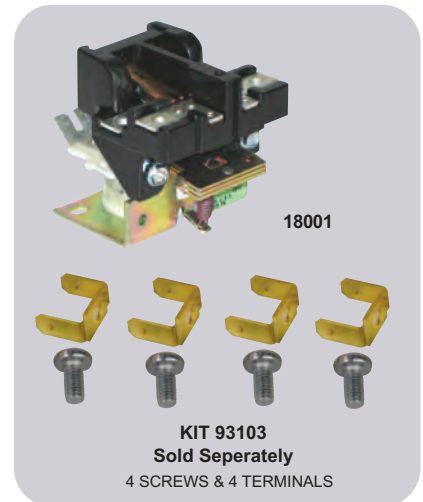
- Replace all 3ARR8, 9, 27, and 28 General Electric contactors
- Replace WR, Essex/RBM and Honeywell
- Instructions and cross reference chart included
- Non-positional
- UL and CSA listings available

Cross Reference

GEMLINE	HONEYWELL NO.	MARS REPLACEMENT
MC11	R850B1146	18001



COIL schematic



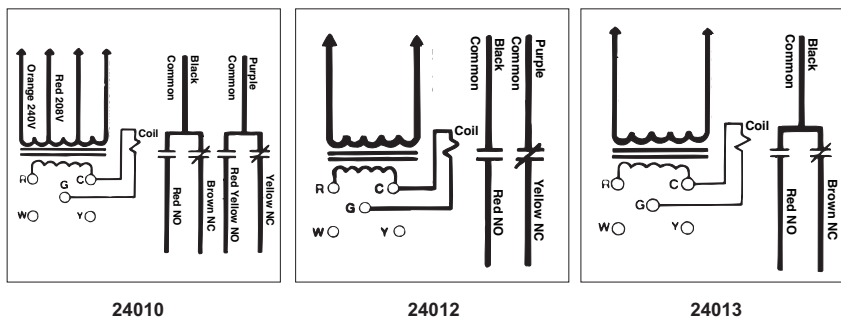
MARS NO.	DESCRIPTION	FULL LOAD AMPS	RESISTIVE AMPS	LOCKED ROTOR AMPS	COIL VOLTAGE	POLES	COIL VOLT	PICK-UP HOT	MAX COLD
18001	30 Amp 2 Pole Magnetic Line Contactor	30	30	120	24	2	24	20.5	19.2
93103	Push-On Terminals Adapters and Screws.								

Fan Centers

MARS Relay/Transformer Fan Control Centers

MARS series 240 fan centers provide convenient low voltage control of one and two speed fan motors and auxiliary circuits in heating, cooling, or heating/cooling applications. Each MARS fan center is a reliable, compact unit consisting of a

Schematic:



24 volt control transformer and a plug-in switching relay mounted on a 4" square electrical junction box cover. All line voltage connections are made inside the box with color coded pre-stripped leads. Low voltage connections are made at a convenient terminal board mounted to the transformer.

Features:

- Choice of SPDT, SPNO / SPNC or DPDT relay switching options
- UL 1585 40VA transformer
- Color coded leads
- Low voltage terminal board
- Mounts directly to 4" electrical box
- 50/60 Hertz

40VA 3/4 HP

MARS NO.	TRANSFORMER				RELAY	CONTACT RATINGS			
	PRIMARY		SECONDARY			120V AC (AMPS)		240V AC (AMPS)	
	VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS		FULL LOAD	LOCKED ROTOR	FULL LOAD	LOCKED ROTOR
24010	120/208/240	Color coded leads, pre-stripped	24V	Terminal board with 5 screw terminals	DPDT	13.8	82.8	6.9	41.4
24012	120	Color coded leads, pre-stripped	24V	Terminal board with 5 screw terminals	SPNO/SPNC	13.8	82.8	6.9	41.4
24013	120	Color coded leads, pre-stripped	24V	Terminal board with 5 screw terminals	SPDT	13.8	82.8	6.9	41.4

MARS Control Transformers NEMA Class II Open Construction

MARS compact open construction transformers are less than 2-1/4" in height. This makes them ideal as replacements within existing equipment.

MARS control transformers are available with various outputs and voltages for special applications.

Application:

Provide power source for control circuit for air conditioning, heating, or refrigeration systems.

Features:

- UL class 2 recognized
- Low heat rise
- Primary color coded leads
- Secondary color coded leads, or 1/4" male quick connects
- Foot-mount



Foot-Mount Open Construction

MARS NO.	FORMER MARS2 NO.	VA RATING	HZ	PRIMARY		SECONDARY	
				VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50351	-	20	50/60	120	Color coded leads	24	Color coded leads
50352	50201	40	50/60	120	Color coded leads	24	Color coded leads
50353	-	40	50/60	208/240	Color coded leads	24	Color coded leads
50354	50203	40	50/60	120/208/240	Color coded leads	24	Color coded leads
50355*	-	40	60	120	Color coded leads	12/24	Color coded leads
50350	-	20	50/60	120/208/240	Color coded leads	24	Color coded leads
50357	-	40	50/60	277	Color coded leads	24	Color coded leads
50359 ⁽¹⁾	-	40	50/60	120/208/240	Color coded leads	24/12/2.5	Color coded leads
50308	-	50	50/60	120/208/240	Color coded leads	24	Color coded leads

* Not UL listed (1) In line fuse protection

Foot-Mount Open Construction With Primary & Secondary Quick Connects

MARS NO.	VA RATING	HZ	PRIMARY		SECONDARY	
			VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50362	40	50/60	120	1/4" Male quick connects	24	1/4" Male quick connects
50364	40	50/60	120/208/240	1/4" Male quick connects	24	1/4" Male quick connects
50363	50	50/60	208/240	1/4" Male quick connects	24	1/4" Male quick connects

MARS Control Transformers NEMA Class II End Bell Type

MARS end bell transformers provide enclosures for the primary and secondary windings, MARS multi-mount models offer three mounting options - Foot, Plate, or Conduit mount.

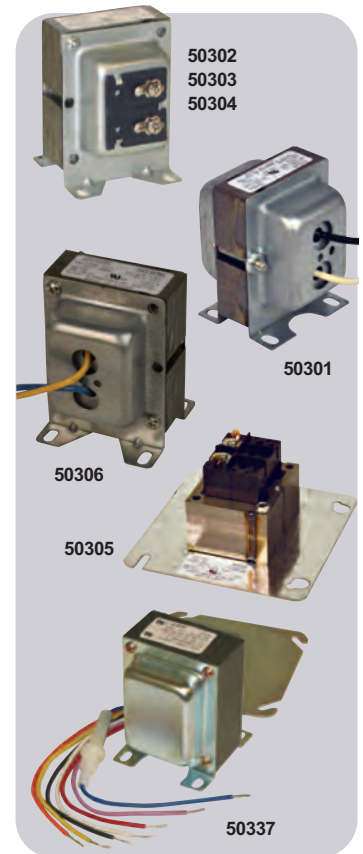
MARS control transformers are available with various outputs and voltages for special applications.

Application:

Provide power source for control circuit for air conditioning, heating, or refrigeration systems.

Features:

- UL class 2 recognized
- Low heat rise
- Primary color coded leads
- Secondary color coded leads, or screw terminals
- Multi-mount or plate-mount



Foot-Mount End Bell Type

MARS NO.	VA RATING	HZ	PRIMARY		SECONDARY	
			VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50301	20	60	120	Color coded leads	24	Color coded leads

Multi-Mount End Bell Type

MARS NO.	FORMER MARS2 NO.	VA RATING	HZ	PRIMARY		SECONDARY	
				VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50302	50210 ⁽¹⁾ , 50213	40	50/60	120	Color coded leads	24	Screw terminals
50303	-	40	50/60	208/240	Color coded leads	24	Screw terminals
50304	50215	40	60	120/208/240	Color coded leads	24	Screw terminals
50306*	-	48	60	277	Color coded leads	24	Color coded leads
50314	50212, 50216 ⁽²⁾	50	50/60	120/208/240	Color coded leads	24	Color coded leads
50333*	-	48	50/60	120/208/240	Color coded leads	24/12/2.5	Color coded leads
50337	-	75	50/60	120/208/240	Color coded leads	24	Color coded leads

* Not UL listed (1) Color coded leads on secondary, (2) Screw terminals on secondary

Plate-Mount End Bell Type

MARS NO.	VA RATING	HZ	PRIMARY		SECONDARY	
			VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50305	40	50/60	120	Color coded leads	24	Screw terminals

MARS Control Transformers NEMA Class II Hub-Mounted Transformers with Circuit Breakers and Multiple Inputs of 120/208/240/480 VAC

Available either in 50VA or 75VA, these 2 versatile transformers replace Honeywell® AT150F and AT175F. All leads pass through the chase nipple.

- MARS 50319, 50VA, MARS 50372, 75VA
- 3 Way mounting
- Four inputs including 120/208/240/480 VAC
- UL Recognized

Fully Enclosed Junction Box Ready

- Several models with dual voltage input
- Welded laminations for quiet operation
- Conservative heat rise characteristics
- UL 506



Hub Mount End Bell Type

MARS NO.	VA RATING	HZ	PRIMARY		SECONDARY	
			VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50319	50	50/60	120/208/240/480	Color coded leads	24	Color coded leads
50372	75	50/60	120/208/240/480	Color coded leads	24	Color coded leads

Fully Enclosed

MARS NO.	VA RATING	HZ	PRIMARY		SECONDARY	
			VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50332	50	50/60	240/480	Color coded leads	120	Color coded leads
50374	100	50/60	240/480	Color coded leads	120	Color coded leads

MARS Control Transformers NEMA Class II Heavy Duty End Bell Type

MARS control transformers are available with various outputs and voltages for special applications.

Application:

MARS heavy duty end bell transformers offer a wide variety of higher VA rated models. These models are the choice when extra power is the solution.

Features:

- UL class 2 recognized
- 50/60 Hz
- Low heat rise
- Color coded leads
- Foot-mount



Foot-Mount End Bell Type

MARS NO.	FORMER MARS2 NO.	VA RATING	HZ	PRIMARY		SECONDARY	
				VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50316	-	60	50/60	208/240	Color coded leads	24	Color coded leads
50320 ⁽¹⁾	50225	75	50/60	120/208/240/480	Color coded leads	24	Color coded leads
50324	-	75	50/60	208/240	Color coded leads	24	Color coded leads
50326	-	75	50/60	480	Color coded leads	24	Color coded leads
50340*	-	100	50/60	120/208/240/480	Color coded leads	24	Color coded leads

*100 VA does not qualify for NEMA Class II

(1) Inline fuse

Foot Mounted Open Construction

MARS NO.	VA RATING	HZ	PRIMARY		SECONDARY	
			VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50339 ⁽²⁾	75	50/60	480	Color coded leads	120	Color coded leads

(2) UL 506

MARS Control Transformers NEMA Class II Manual Reset Style

MARS control transformers are available with various outputs and voltages for special applications.

Application:

Provide power source for control circuit for air conditioning, heating, or refrigeration systems.

Features:

- UL class 2 recognized
- Low heat rise
- Color coded leads or quick connect terminals
- Foot-mount



Foot-Mount End Bell Type with Manual Reset

MARS NO.	FORMER MARS2 NO.	VA RATING	HZ	PRIMARY		SECONDARY	
				VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50327	50227	50	60	120/208/240/480	Color coded leads	24	Color coded leads
50321	50231	75	50/60	120/208/240/480	Color coded leads	24	Color coded leads
50375	-	75	50/60	120/208/240/575	Color coded leads	24	Color coded leads
50341*	50232	100	50/60	120/208/240/480	Color coded leads	24	Color coded leads
50312	50230	60	50/60	120/208/240/480	Color coded leads	24	Color coded leads
50370	-	75	50/60	120/277/380/575	Color coded leads	24	Color coded leads
50371	-	100	50/60	120/208/277/575	Color coded leads	24	Color coded leads

* 100VA and higher does not qualify for NEMA Class II

MARS Power Transformers

Application:

Provide 120V power source for air conditioning, heating, or refrigeration systems. MARS power transformers provide dual purpose options — 120V or 24V secondary with 208V/240V/480V primary connections. Three VA selections offer a true powerhouse!

Features:

- Color coded leads
- Compact size
- Low heat rise



Power Transformers Foot-Mount Open Construction

MARS NO.	VA RATING	HZ	PRIMARY		SECONDARY	
			VOLTAGE	CONNECTIONS	VOLTAGE	CONNECTIONS
50380 ⁽¹⁾	50	60	208/240/480	Color coded leads	120/24	Color coded leads
50381 ⁽²⁾	100	60	208/240/480	Color coded leads	120/24	Color coded leads

(1) Not UL listed

(2) UL 506

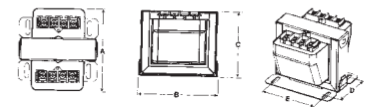
GE Type Ip Core and Coil Transformers

GE type IP transformers are core and coil units designed for industrial control, panel board, HVAC and general purpose applications. They conform to ANSI C89.2, and are UL listed and CSA certified. These transformers are lightweight, small and designed for minimum mounting dimensions.



Features:

- 60 Hz
- Encapsulated thru 500VA
- Control power applications
- UL listed, UL-506 File E2739
- CSA certified, C22.2 Number 66, File 3272
- 50 Hz available on special order basis



top view

front view

Encapsulated Style Views

Encapsulated

MARS NO.	CONT. KVA	PRIMARY	SECONDARY	DIMENSIONS				
				A	B	C	D	E
50502	.075	240/480	120/240	4.22	3.29	2.79	2.41	2.50
50503	.100	240/480	120/240	4.17	4.04	3.29	2.16	3.12
50504	.150	240/480	120/240	4.67	4.04	3.29	2.66	3.12
50505	.200	240/480	120/240	4.92	4.04	3.29	2.91	3.12
50506	.250	240/480	120/240	5.17	4.04	3.29	3.16	3.12
50507	.300	240/480	120/240	5.17	4.04	3.29	3.16	3.12
50509	.500	240/480	120/240	5.82	4.79	3.92	3.31	3.79

Hub-Mounted Transformers with Circuit Breakers and Multiple Inputs of 120/208/240/480 VAC



Available either in 50VA or 75 VA, these 2 versatile transformers replace Honeywell® AT150F and AT175F. All leads pass through the chase nipple.

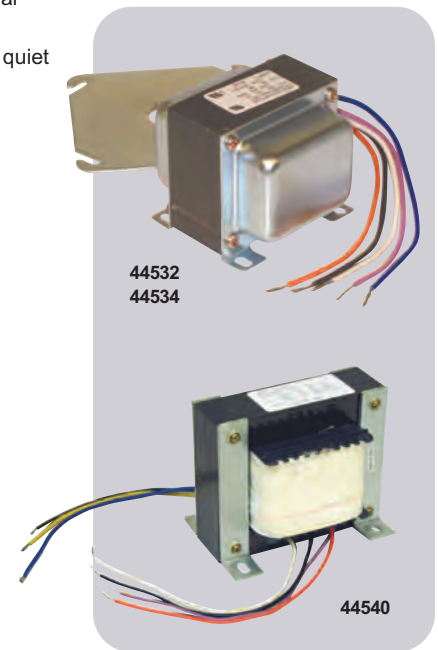
- Model 5041MCB, 50 VA, Model 7541MCB, 75 VA
- Plate mount or foot mount
- Four inputs including 120/208/240/480 VAC
- UL Recognized



Fully Enclosed Junction Box Ready



- Several models with dual voltage output
- Welded laminations for quiet operation
- Conservative heat rise characteristics
- UL 506



MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44519	5041MCB	50	120/208/240/480	24
44520	7541MCB	75	120/208/240/480	24

MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44532	5048PC	50	240/480	120
44533	5048STPC	50	208/277/575	120
44534	10048PC	100	240/480	120
44535	10048STPC	100	208/277/575	120

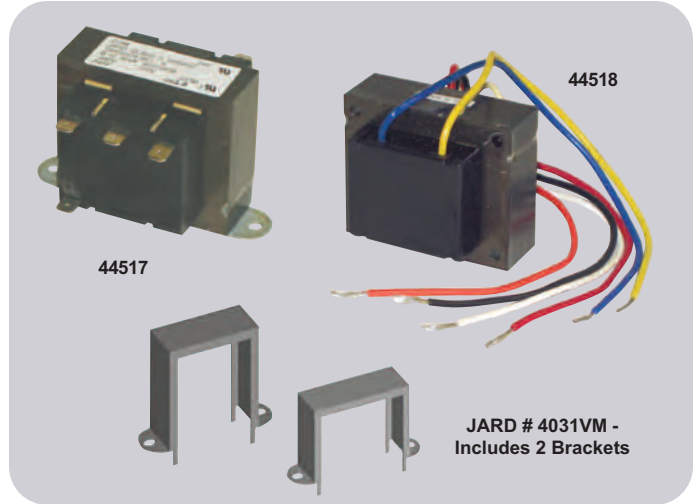
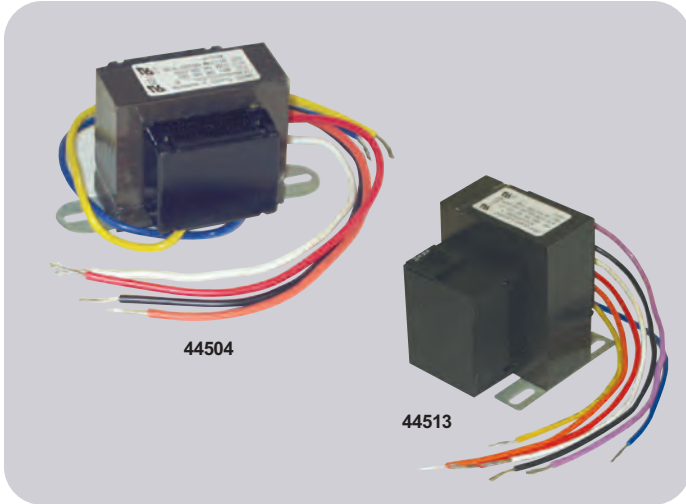
Multi-Mount Transformers Closed Construction, 4" x 4" Plate

- Optional 3-way mounting for maximum flexibility
- Safety agency approved
- Welded laminations for quiet operation

MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44522	4011M	40	120	24
44523	4021M	40	208/240	24
44524	4031M	40	120/208/240	24
44525	5031M	50	120/208/240	24
44526	5032M	48	120/208/240	2.5/12/24
44527	7541M	75	120/208/240/480	24
44528	7541STM	75	120/240/277/575	24

Open Construction Foot Mount Wire Leads

MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44536	5024P	50	208/240	120/24
44538	7524P	75	208/240	120/24
44539	75481P	75	480	120



Open Construction, Wire Leads

- Safety agency approved

MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44501	2031F	20	120/208/240	24
44502	4011F	40	120	24
44503	4021F	40	208/240	24
44504	4031F	40	120/208/240	24
44505	4032F	40	120/208/240	2.5/12/24
44506	40241F	40	240	24
44507	40271F	40	277	24
44508	5031F	50	120/208/240	24
44509	5032F	50	120/208/240	2.5/12/24
44510	7531F	75	120/208/240	24

Closed Construction Quick Connect

MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44517	4031OEM	40	120/208/240	24

Versatile 3-Way Mounting

MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44518	4031VM	40	120/208/240	24

Closed Construction With Circuit Breaker

- All models feature a UL recognized manual reset circuit breaker
- Safety agency approved

MARS NO.	JARD NO.	VA	PRIMARY VAC	SECONDARY VAC
44511	5041C	50	120/208/240/480	24
44512	6041C	60	120/208/240/480	24
44513	7541C	75	120/208/240/480	24
44514	7541STC	75	120/277/380/575	24
44515 ⁽¹⁾	10041C	100	120/208/240/480	24
44516 ⁽¹⁾	10041STC	100	120/208/277/575	24

(1) Not UL, UL506

MARS 60 Amp Non-Fused Disconnect with Internal Surge

MARS Disconnect with integrated surge protector provides a unitized design for quick and clean installation. The metal weather-resistant enclosure provides additional robustness and security. MARS Surge Protectors provide the performance necessary to protect critical components in high efficiency mini-split and unitary HVAC equipment.

Features:

- Side open disconnect
- Integrated internal surge protector
- Thermally Protected MOV's
- Metal-weather resistant enclosure
- External LED status indicator
- cULus rating
- \$7500 Connected equipment warranty
- 3 Year warranty

Specifications Disconnect:

- 60 Amp non-fused
- Single phase 240V
- 10,000 Amp rating
- NEMA 3R enclosure
- Weather proof enclosure

Surge Protector Ratings:

- Type 1 or 2 SPD
- UL 1449 4th Edition
- 120/240 Split phase 50-60Hz
- Nominal discharge (In): 10kA
- SCCR 22kA
- Max continuous overvoltage: (MCOV) L-N 150V / L-L 300V
- Voltage protection rating: (VPR) L-N 700V / L-L 1200V

Protects:

- Motors
- Compressors
- Control Boards
- Sensors
- Reversing valves



MARS NO.	DESCRIPTION	CASE QTY.
83915	60 amp non-fused, single phase w/surge protection	1

MARS HVAC Surge Protective Device

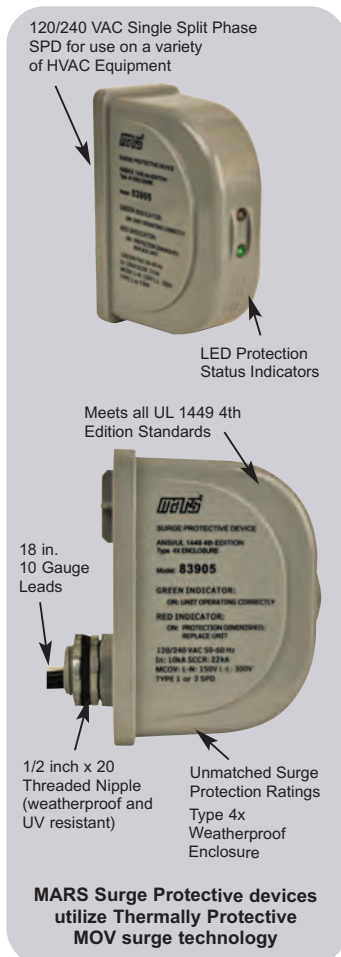
The MARS SPD is designed to protect your HVAC equipment from power spikes, surges and transients. Power spikes and surges can damage compressors, control boards, sensors and ECM motors resulting in costly repairs and down time. The MARS SPD utilizes Thermally Protected MOV technology to provide safe and reliable surge protection.

The MARS SPD is designed to protect HVAC equipment.

- Compressors
- Control Boards
- Heat Pumps
- Transformers
- Mini-Splits
- Sensors
- ECM Motors

Features:

- Easy installation to disconnect box or junction box
- Weatherproof 4X enclosure
- Fits 1/2" knockouts
- 18" leads for ease of installation
- Green & Red LED status indicators
- Thermally protected MOV
- 120/240V single (split) phase 50/60Hz
- Max surge current 10,000 A
- Max continuous overvoltage L-N 150V / L-L 300V
- Voltage protection rating L-N 800V / L-L 1200V
- 3 Year warranty
- \$7,500 Connected equipment warranty



MARS HVAC Surge Protective Device

The MARS 83904 SPD is designed specifically for 120V furnace and air handler applications. The furnace and air handler contain components that must be protected from surges such as, ECM motors, Control Boards, Transformers. The MARS Surge utilizes thermally protected MOV technology for safe and reliable protection of equipment. The 120V Surge Device is easy to install with only 2 wires to connect.

The MARS 120V SPD is designed to protect the following HVAC equipment and components:

- Furnace & Air Handlers
- ECM Motors
- Control Boards
- Transformers
- Relays
- Sensors

Features:

- Easy 2 wire installation
- Fits 1/2" Knockout
- Green LED Status Indicator
- Thermally Protected MOV
- 120V Single phase 50/60Hz
- SCCR 10kA
- MCOV L-N 150V
- Voltage Protection Rating L-N 700V
- UL 1449 4th Edition
- Type 1 or 2 SPD



MARS NO.	VOLTAGE	WIRE CONFIGURATION	SPD TYPE	MCOV	ENCLOSURE	UL 1449 4TH EDITION
83905	120/240	L1,L2,L/N-G	1 or 2	150/300	Type 4X	cULus

MARS NO.	VOLTAGE	WIRE CONFIGURATION	SPD TYPE	MCOV	ENCLOSURE	UL 1449 4TH EDITION
83904	120	L1,L2,L/N-G	1 or 2	150	Type 2	cULus

Condensate Pumps

MARS Condensate Pump - 24' Lift

MARS new line of medium condensate pumps are designed to out-perform the competition while providing quiet operation and reliability.

The MARS pump design couples industry leading performance with the installation flexibility and features you need to get the job done.

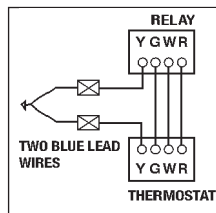
The quick release silicone check valve allows for quick and efficient servicing without the need to remove the condensate line. The integrated safety switch can be wired for equipment shut down or directly to a high level alarm.

Features:

- 24 foot lift
- 125 gph
- 0.5 gal reservoir
- Patent pending, quick release check valve
- Field serviceable "duck bill" check valve
- Rubber isolation feet
- Drip proof housing design
- Solid float
- Integrated safety switch 250 volt and float switches
- ABS and stainless steel construction



21780



MARS NO.	DESCRIPTION
21780	115 V, 60 Hz, 0.91 Amps, 71 Watts 6' Cord, 3/8" Check Valve, Safety Switch Medium Reservoir
21781	115 V, 60 Hz, 0.91 Amps, 71 Watts 6' Cord, 3/8" Check Valve, Safety Switch 20' Tubing, Medium Reservoir
21782	230 V, 60 Hz, 0.6 Amps, 75 Watts 6' Cord, 3/8" Check Valve, Safety Switch Medium Reservoir
21783	230 V, 60 Hz, 0.6 Amps, 75 Watts 6' Cord, 3/8" Check Valve, Safety Switch 20' Tubing, Medium Reservoir

Gallons Per Hour Pump Performance Comparison Chart

FOOT LIFT	1	5	10	15	20	24
MARS	125	98	74	70	43	7
Comp. 1	84	75	60	42	10	0
Comp. 2	117	98	70	58	11	0
Comp. 3	105	95	73	36	0	0

Specifications: Performance-Gallons Per Hour @ Height In Feet

MODEL NO.	1	5	10	15	20	24
21780	125	98	74	70	43	7
21781	125	98	74	70	43	7
21782	139	119	70	50	28	7
21783	139	119	70	50	28	7

Check Valve Replacement

MARS NO.	DESCRIPTION
21787	Check Valve Replacement Kit



21787

MARS Low Profile 22' Pump

Features:

- Low profile pump
- Compact design
- Integrated safety switch
- Quick service check valve
- Drip proof housing
- Class leading performance



21784

MARS NO.	DESCRIPTION
21784	115 V, 60 Hz, 1.03 Amps, Low Profile, 22' Lift, 3/8 Check Valve, Safety Switch
21785	230 V, 60 Hz, 0.52 Amps, Low Profile, 22' Lift, 3/8 Check Valve, Safety Switch

MARS 16' Pump

Features:

- 16' lift pump
- Whisper quiet
- 1/2 gal reservoir
- Rubber isolation feet
- Quick service check valve
- Class leading performance



21786

MARS NO.	DESCRIPTION
21786	115 V, 60 Hz, 0.75 Amps, 16' Lift, 3/8 Check Valve, Safety Switch, Medium Reservoir

MODEL NO.	DIMENSIONS		
	LENGTH	WIDTH	HEIGHT
21780	10.25	5.125	6.375
21781	10.25	5.125	6.375
21782	10.25	5.125	6.375
21783	10.25	5.125	6.375
21784	10.25	5.04	5.28
21785	10.25	5.04	5.28
21786	10.25	5.125	6.375

Condensate Pump vs. Competition

FEATURE	MARS	COMP. 1	COMP. 2	COMP. 3
24 ft. Lift	●			
Motor Corrosion Protection	●			
Drip Proof Motor Housing	●	●		●
Drip Proof Motor & Switches	●			
Vibration Absorbing Rubber Feet	●	●	●	
Side Mount	●	●	●	●
Quick Release Check Valve	●	●		
Internal Safety Switch	●		●	
Solid Float	●	●		●

MERCURY Mini-Split Pump Kit

Mercury pumps are designed for wall mount ductless mini-split AC units and evaporator coil applications. Pump mounting is flexible and can be installed in the evaporator unit, duct channel or above the unit in the ceiling.

Kit Includes – Pump, reservoir with safety switch, adapter, cable ties, tubing to connect pump and reservoir, velcro mounting tape for ease of installation and service.

Features:

- Self priming, fully potted pump
- Silent operation
- 26 Ft lift
- 2.6 Gallon per hour condensate capacity
- Standard safety switch provides connections for unit shut down and alarm.
- For use with equipment up to 25,000 BTU's



MARS NO.	VOLTAGE	HEAD	0 FT.	13 FT.	20 FT.	26 FT.
21790	115V 60Hz	GPH	2.64	2.38	1.59	0.92
21791	115/220V 60Hz	GPH	2.64	2.38	1.59	0.92

MARS AllStart™ Hard Start Device

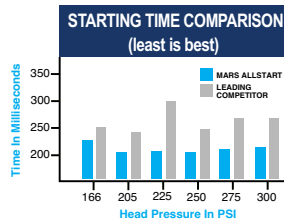
The MARS AllStart™ is a two wire hard start device designed to provide maximum starting torque for single phase PSC and CSIR compressors up through 10HP. The MARS AllStart™ recycles instantly for maximum convenience on troublesome hard start jobs.

Independent testing has determined that the MARS AllStart™ provides more starting torque than other competitive models, and this results in quicker starts. Test results on a range of head pressures from 166 to 300 PSI indicate that the MARS AllStart™ started the test compressor in an average of 21.7% less time than the leading competitor! More available starting torque means less time to get problem compressors started.

MARS offers the largest assortment of refrigeration and air conditioning compressor starting components. When the proper starting relay and capacitor combination is a must, they are available from MARS. When getting a problem compressor started in the field "NOW" is the job, rely on the new MARS AllStart.™

Features:

- Maximum starting torque!
- More than 20% faster starts!
- Easy two wire installation
- Recycles instantly
- Individually packaged with wiring instructions



SUPPLIER	PART NO.	MARS REPLACEMENT
KICKSTART	TO5	32708
SUPCO	SPP8	32708
WATSCO	WSX-1	32708

MARS NO.	MODEL NO.	H.P.	VOLT MAX.
32708	AllStart	1/2 to 10	115-277V

MARS Combination Starters

The MCS is a combination start relay, start capacitor, and motor overload. It is designed to replace those components on a 115 volt single phase refrigeration compressor installed on a capillary tube system.

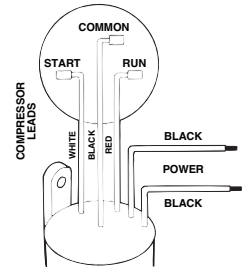
The MCS is factory wired and comes with a connection diagram on the product label for maximum convenience.



Features:

- Maximum starting torque!
- More than 20% faster starts!
- Easy two wire installation
- Recycles instantly
- Individually packaged with wiring instructions

SUPPLIER	PART NO.	MARS REPLACEMENT
GEMLINE	HS 410	32741
	HS 810	32781
ROBERTSHAW	600-410	32741
	600-810	32781
SUPCO	RCO 410	32741
	RCO 810	32781



MARS NO.	MODEL NO.	H.P.	VOLT MAX.
32741	MCS 41	1/4 TO 1/3	115V
32781	MCS 81	1/12 to 1/5	115V

MARS Motor Torque Multiplier

The MARS MTX 100, MTX 200 and MTX 300 motor torque multipliers feature a combination PTC solid state device, and start capacitor in one compact unit.

The MTX 100 is designed for use on PSC motors and compressors up to 5HP, 277V maximum; the MTX 200 is designed for use on PSC motors and compressors up to 10HP, 277V maximum; and the MARS MTX 300 is designed for use on PSC motors & compressors from 1-1/2 up to 10HP, 115-230V. These units are easily installed by connecting the two leads from the MTX unit to the motor run capacitor terminals.

Features:

- Totally solid state integrated design
- Fast, easy two wire installation
- Three mounting options; clip, screw, or capacitor bracket
- Individually packaged

SUPPLIER	PART NO.	MARS REPLACEMENT
GEMLINE	HS 600	32701
	HS 650	32702
ROBERTSHAW	600-052	32701
	600-057	32702
SUPCO	SPP5	32701
	SPP6	32702



MARS NO.	MODEL NO.	H.P.	VOLT MAX.
32701	100	1/2 to 5	277V
32702	200	1/2 to 10	277V

For Motor Starting Circuits up to One Horsepower

Features:

- Replace Potter & Brumfield PR series, Deltrol, Guardian, Magnacraft, etc.
- Plastic enclosed coil minimizes damage, resists dirt and moisture
- 5/16" diameter silver contacts for long life
- Tough phenolic base
- Reinforced screw terminals
- UL and CSA listings available



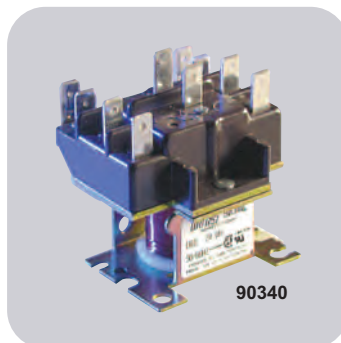
MARS NO.	P & B SERIES	CONTACTS ARRANGEMENT	AMP	COIL VOLTAGE	COIL RES. IN OHMS	NOM. POWER
43008	PRD7AY0	DPST-NO	25	120	290	9.8VA
43014	PRD11AY0	DPDT	25	120	290	9.8VA

Cross Reference Information

POTTER & BRUMFIELD	MARS NO.	DETROL NO.	MARS NO.
PR7AY0-120V	43008	20240-83D	43008
PR11AY0-120V	43014	20241-83D	43014

Replacement Relay for Fan Control Centers

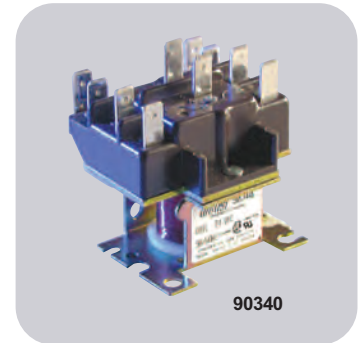
Provides quick and easy plug-in installation to restore like new operation without replacing the entire fan center. The universal relay will cover all MARS fan centers and many competitive brands.



MARS NO.	USED ON	DESCRIPTION
90340	24010, 24012, 24013	DPDT universal plug-in replacement relay

2-Pole Air Conditioning Relays

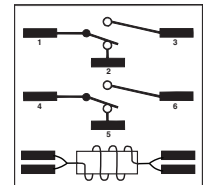
The MARS Series 903 switching relays are intended for many applications in air conditioning, refrigeration, and heating. Other uses include general purpose switching in appliances, fan controls, and vending machines. Our relays are available in 24, 110/120, and 208/240 coil voltages with various combinations of power and pilot duty contacts.



Features:

- Replaces Honeywell and White-Rodgers/RBM - cross reference on package
- Double quick-connect terminals on coil
- 2.13 x 1.88 x 2.25 in.
- Base is designed for easy replacement of competitive relays
- Molded terminal numbers and circuit diagram on top of relay
- UL and CSA listings available

	POWER		PILOT	
	120V	208/240V	120V	208/240V
Full Load Amps	12	6	-	-
Resistive Amps*	15	15	3	3
Locked Rotor Amps	60	35	-	-
Horsepower	3/4	3/4	1/10	1/10



*277 VAC

MARS NO.	COIL VOLTAGE	TERMINALS 1-2-3	TERMINALS 4-5-6
90340	24		
90341	110/120	Power	Power
90342	208/240		
90343	24		
90344	110/120	Power	Pilot
90345	208/240		
90346	24	Pilot	Pilot
90348	208/240		

Cross Reference Information

WR/RBM NO.	MARS REPLACEMENT	HONEYWELL NO.	MARS REPLACEMENT
90-340	90340	R4222B1082	90344
90-341	90341	R4222B1090	90345
90-342	90342	R4222D1013	90341
90-343	90343	R4222D1021	90342
90-344	90344	R4222N1010	90348
90-345	90345	R4222V1002	90344
90-346	90346	R4222V1010	90345
90-348	90348	R8222B1067	90343
		R4222D1014	90340
		R8222N1011	90346
		R8222V1003	90343

MARS General Purpose Switching Relays

SPST and SPDT Fan Relays

The MARS Series 903 relays are among the most popular relays used in air conditioning today. They will replace the WR/Essex/RBM Type 84 (90-290 thru 90-295) quick-connect and screw terminal versions.

Features:

- 0.25 inch quick-connect terminals
- Packaged with instructions and cross reference
- Replace 90-290 thru 90-295 and 90-290Q thru 90-295Q
- Dimensions: 2.38 x 1.63 x 1.50 in.
- UL and CSA listings available



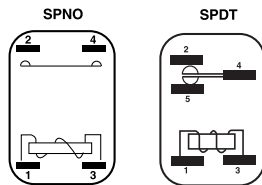
COIL VOLTAGE	MARS NO. SPST	MARS NO. SPDT
24	90290	90293
110/120	90291	90294
208/240	90292	90295

Contact Rating— All Models/Amps

VOLTAGE	FULL LOAD	LOCKED ROTOR	RESISTIVE
120	12	60	18
240	8	48	18
277	7	42	18

Cross Reference Information

WR/RBM NO.	MARS NO.	WR/RBM NO.	MARS NO.
90-290	90290	90-293	90293
90-290Q	90290	90-293Q	90293
90-291	90291	90-294	90294
90-291Q	90291	90-294Q	90294
90-292	90292	90-295	90295
90-292Q	90292	90-295Q	90295



Coil Data:
24-240 VAC @ 50/60 Hz;
5 VA Max. Inrush; 3.0 VA Max. Sealed

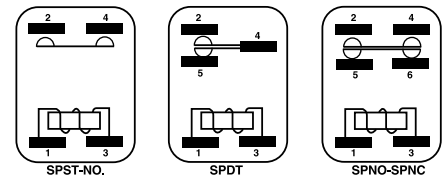
Heavy Duty Fan Relays

MARS Heavy Duty Fan Relays are used on heating and air conditioning equipment to provide switching of heavier loads with a compact size relay. MARS Heavy Duty Fan Relays replace WR/Essex/RBM type 184.



Features:

- 0.25 inch quick-connect terminals
- Packaged with instructions and cross reference
- Replaces WR/Essex/RBM Type 184
- Universal mounting bracket
- UL and CSA listings available



Contact Rating— All Models/Amps

VOLTAGE	FULL LOAD	LOCKED ROTOR	RESISTIVE
120	12	60	18
240	8	48	18
277	7	42	18

Coil Data

COIL VOLTAGE	MAX INRUSH	MAX SEALED
24	5 VA	3 VA
120	5 VA	3 VA
208/240	5 VA	3 VA

Cross Reference

COIL VOLTAGE	MARS NO. SPST	MARS NO. SPDT	MARS NO. SPNO-SPNC	WR/RBM NO.	MARS NO.	WR/RBM NO.	MARS NO.
24	90360	90370	90380	90-360	90-360	90-374	90374
110/120	90362	90372	90382	90-362	90-362	90-380	90380
208/240	90364	90374	90384	90-364	90-364	90-382	90382
277		90377		90-370	90-370	90-384	90384
				90-372	90-372		

MARS Enclosed Switching Relays

MARS enclosed switching relays are heavy duty general purpose relays suitable for a variety of applications. They are commonly used in heating, air conditioning, vending machines, office machines, control panels and other general purpose applications. They are available in single pole, two pole and three pole models for either bracket or plug-in mounting. All MARS enclosed switching relays are protected by a tough polycarbonate cover to keep out dust and dirt. Blade type terminals fit standard plug-in mounts plus allow use with 3/16 inch quick-connect terminals or direct soldering.

Features:

- Simple connections
- One, two and three pole models
- Plug-in or bracket mount
- See-through protective cover
- Three-way blade terminals, plug-in, quick-connect or solder
- UL and CSA listings available

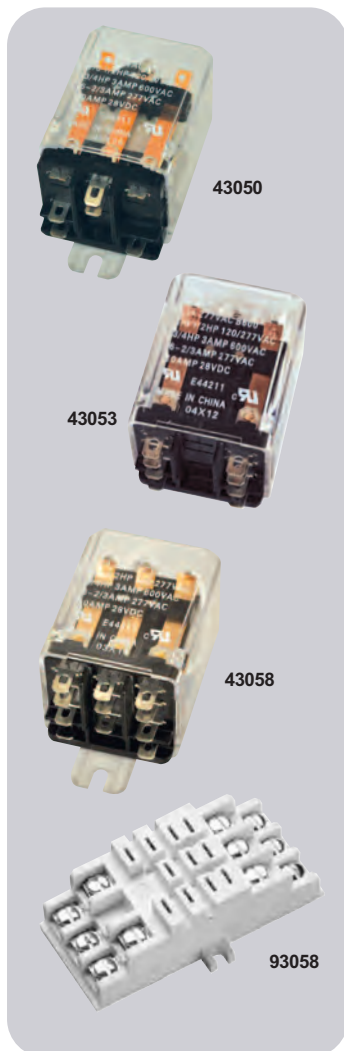
Specifications:

Dimensions: 2.0 X 1 1/2 X 1 3/8

Terminals: 3/16 blade

Coil Data: 2.0 VA

Contact Material: Silver alloy, gold flashed



MARS NO.	COIL VOLTAGE	HZ	AMP RATING	HORSEPOWER		SWITCH ACTION	TYPE MOUNT
				120V	240V		
43050	24	50/60	13	1/3	1/2	SPDT	bracket
43053	24	50/60	13	1/3	1/2	DPDT	bracket
43054	120						
43056	24						
43057	120	50/60	13	1/3	1/2	3PDT	bracket
43058	240						
43060	24	50/60	13	1/3	1/2	SPDT	plug-in
43063	24						
43064	120	50/60	13	1/3	1/2	DPDT	plug-in
43065	240						
43066	24						
43067	120	50/60	13	1/3	1/2	3PDT	plug-in
43068	240						
93058	Socket Base. Can be surface or DIN rail mounted.						

MARS Current Relays - Universal Replacement

MARS current relays manufactured by General Electric can replace almost any current relay found on refrigerators, freezers, water cooler, pumps and vending machines.



Features:

- Replace plug-on, bracket-type, split-phase, and capacitor-start current relays
- Covers replacement needs of 1/12 H.P. 115V to 1/8 H.P. 115V
- Clearly labeled terminals for fast wiring
- Each relay packaged with installation instructions and wiring diagrams
- UL and CSA listings available

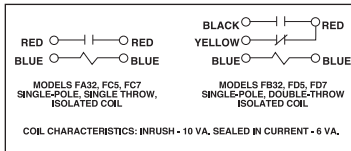
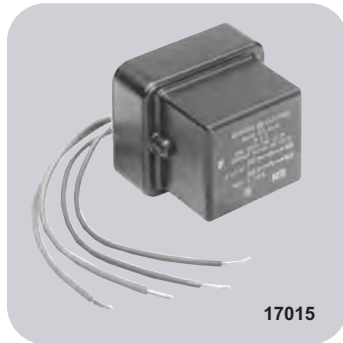
MARS NO.	GE NO. 3ARR12 PAC	MAX PICK-UP	MIN DROP OUT	APPLICATION SURVEY BY HORSEPOWER1 (AT 115)2							
				1/12	1/8	1/6	1/5	1/4	1/3	1/2	3/4
27001	309A	3.8	3.2	■	□	□	□	□	□	□	□
27002	310A	5.2	4.4	□	■	□	□	□	□	□	□

1. Current relays cannot be replaced by horsepower, amperage, or nameplate data alone. Refer to cross reference information for proper replacement of original equipment current relays by part numbers.
2. These current relays are often used on 230 volt applications, however this horsepower survey refers only to 115 volt applications.

Totally Enclosed Switching Relays

Features:

- Replaces GE, Honeywell, WR/Essex/RBM, White-Rodgers, etc.
- Designed for standard conduit box mounting for remote control of air conditioning and heating systems and remote power switching of motors, power tools, fans and blowers.
- Totally enclosed with heavy, impact resistant phenolic cover
- Non-positional
- Color-coded lead wires
- UL and CSA listings available



MARS NO.	GE NO.	COIL VOLTAGE	CONTACT ARR.	MAX. HP @ 240V		LOCKED MOTOR AMPS		LEAD LENGTH
				N.O.	N.C.	N.O.	N.C.	
17015	3ARR4 FA32	24				—		16 in.
17016	3ARR4 FC7	120	SPST	1-1/2	—	18	55	6 in.
†17019	3ARR4 FD7	120	SPDT	1-1/2	3/4	18	55	35

† S.P.D.T relays may be used on S.P.S.T. applications by eliminating use of yellow lead for normally open applications or eliminating use of black lead for normally closed applications.

Cross Reference Information

WHITE-RODGERS NO.	MARS NO.	HONEYWELL NO.	MARS NO.
90-120	17015		
90-121	17016	R8225B	17015
90-122	17017		
90-124	17019		

Switching and Shunt Relays

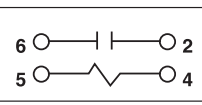
Features:

- MARS 17001—Economical replacement for SPST relays with 24 volt coil
- Reduce inventory on 3ARR4 relays.
- Used for remote control of heating and air conditioning systems and remote power switching of motors, power tools, fans and blowers on GE, Day & Night, Carrier, York, Bryant, American Standard, Lennox, etc.
- Purchase of 93001 QC-6 Kit converts screw-on to push-on type terminals for even more replacements
- UL and CSA listings available

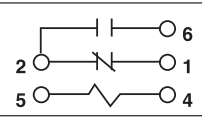


To replace relays w/quick-connect terminal use our relays in conjunction w/93001 QC-6 Kit.

WIRING DIAGRAMS



SPST-NO



SPDT



93001 QC-6 KIT

MARS NO.	GE CAT. NO.	COIL VOLTAGE	F.L.A.	LOCKED MOTOR AMPS		CONTACT ARRANGEMENT
				N.O. CONTACTS	N.C. CONTACTS	
17001	3ARR4 A32	24	18	55	—	SPST-NO
93001					QC-6	

Cross Reference Information

WHITE-RODGERS NO.	MARS NO.
90-104	17001

Coil Data: 24-240 VAC @ 50/60 Hz; 10 VA Max. inrush; 6 VA Max. Sealed

For Submersible Pump Applications

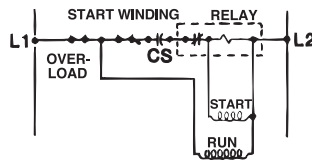
The MARS 550 and 551 relays were specifically developed for submersible pump and other motor starting applications in high moisture environments. Because the control panels for these are often located in areas of high humidity, the components on them must resist the effects of moisture. Chrome plating on the core and armature and the relatively small area of contact eliminates armature sticking due to organic contaminants which was the number one cause of relay failure.

Features:

- Used on F.E. Meyers, Franklin Electric, Jacuzzi, Red Jacket, Sta-Rite, and Tait
- 2 relays replace over 25 O.E.M. relays
- Universal break-off bracket on each relay. Simply snap off parts not needed
- UL and CSA listings available



19550



MARS NO.	MARS MODEL NO.	CONTINUOUS COIL VOLTAGE	PICK-UP		DROP-OUT	
			MIN.	MAX.	MIN.	MAX.
19550	MARS 550	130	111	134	15	40
19551	MARS 551	332	244	270	40	90

MARS NO.	G.E. NO.	USED BY
16104	3ARR3J3G3	Barnes [Burks, Decator] & Myers

MANUF.	OEM NO.	GE CAT. NO.	MARS NO.	MANUF.	OEM NO.	GE CAT. NO.	MARS NO.	
F.E. Meyers	13178-A	3ARR3D7J4	19550	Jacuzzi	23-1308-26	3ARR3EA9V5	19551	
	13179-A	3ARR3D3V4	19551		23-1308-00	3ARR3EA7J5	19550	
	13180-A	3ARR3D3A4	19551		23-1308-18	3ARR3EA7BB5	19550	
	17891-A	3ARR3EA3A4	19551		23-1308-34	3ARR3EA5U5	19551	
	17890-A	3ARR3EA3V4	19551		23-1308-42	3ARR3EA7M5	19550	
	17889-A	3ARR3EA7J4	19550		23-1308-49	3ARR3EA5C5	19551	
Franklin Electric	155031-101	3ARR3J7J4	19550	Red Jacket	71-69	3ARR3EA7M5	19550	
	155031-102	3ARR3J9V4	19551		71-70	3ARR3EA5B5	19551	
	155031-104	3ARR3J2P3	19550		71-47	3ARR3J3V2	19551	
	155031-103	3ARR3J9U4	19551		Sta-Rite	U18-325	3ARR3J3V3	19551
	155031-105	3ARR3J7M1	19550			U18-665	3ARR3J3A3	19551
Tait	A124P2	3ARR3EA5A5	19551	Tait	U18-810	3ARR3J2P3	19550	
	A124P1	3ARR3EA7K5	19550		A124P2	3ARR3EA5A5	19551	
					A124P1	3ARR3EA7K5	19550	

One-On-One™ Direct Replacement Potential Relays

The relays are exact replacements for Bristol & Copeland applications. They conform to specifications and in most cases are the one-on-one™ replacement relay used by the manufacturer

Other relays available on special order. Contact your local wholesaler or MARS Customer Service.



16028

BRISTOL	MARS	COPELAND	MARS	COPELAND	MARS
650058	16028	040-0001-34	16099	040-0001-64	16098
650855	16051	040-0001-35	16090	040-0001-68	16099
		040-0001-48	16093	040-0001-71	16116
		040-0001-50	16085	040-0001-74	16122
BRISTOL	MARS	040-0001-53	16095	040-0001-78	16121
650971	16083	040-0001-54	16089	040-0001-79	16152
		040-0001-55	16023		
COPELAND	MARS	040-0001-59	16090	COPELAND	MARS
040-0001-00	16086	040-0001-60	16091	040-0001-88	16151
040-0001-01	16093	040-0001-61	16086	040-0001-89	16155
040-0001-04	16085	040-0001-62	16035		
040-0001-12	16098				
040-0001-17	16095				
040-0001-19	16089				
040-0001-20	16023				
040-0001-25	16035				
040-0001-26	16022				

Universal Replacement

Quick Reference Relay Selection Chart For General Electric Relays

1. Determine the General Electric model number of the Relay to be replaced the "FORM" and "GROUP"

EXAMPLE:	3ARR3*	A	3B	3
	Basic Type	FORM	GROUP	Non-Positional

One number plus
1 or 2 Letters 1 or 2 Letters

Cross Reference Information

WR/RBM NO.	MARS NO.	WR/RBM NO.	MARS NO.
90-1	19002	90-25	19006
90-2	19009	90-26	19008
90-3	19004	90-27	19005
90-4	19003	90-40	19004
90-5	19006	90-41	19008
90-6	19006	90-63	19002
90-7	19004	90-64	19003
90-8	19003	90-65	19004
90-9	19007	90-66	19005
90-10	19008	90-67	19006
90-11	19003	90-68	19007
90-12	19007	90-69	19001
90-13	19005		
90-14	19003	TECUM. NO.	MARS NO.
90-15	19006	82777	19002
90-16	19007	82778	19004
90-17	19002	82779	19008
90-18	19008	82781	19010
90-19	19006	82783	19003
90-20	19007	82784	19009
90-21	19002	82785	19006
90-22	19003	82787	19007
90-23	19007		
90-24	19008		

2. Locate in the following table the Relay GROUP and select the corresponding MARS Replacement Relay from the kit.

19002	MARS 63 replaces Relay GROUPS 2J; 2K; 2L; 2M; 5N; 7J; 7K; 7L; 7M; 7N; 8L; 8M; 8N
19003	MARS 64 replaces Relay GROUPS 3A; 3B; 3AV; 3AU; 4A; 4B; 6A; 6B; 6AV; 10A; 10B; 10AU; 10AV
19004	MARS 65 replaces Relay GROUPS 3P; 3R; 3AP; 5P; 5R; 5S; 5T; 22S
19005	MARS 66 replaces Relay GROUPS 3U; 3V; 3AT; 6U; 6V; 6W
19006	MARS 67 replaces Relay GROUPS 3C; 3D; 3AA; 4C; 4D; 4BK; 6C; 6D; 6AA; 10C; 10D; 26A; 26B; 26C; 26D
19007	MARS 68 replaces Relay GROUPS 3E; 3F; 3AB; 3AC; 4E; 4F; 4G; 6E; 6F; 6G; 10H; 10AB; 10AC; 26E; 26F; 26G; 26H; 27E; 27F; 27G
19008	MARS 69 replaces Relay GROUPS 3S; 3T; 10S; 10T; 25S; 25T; 10AS
19009	MARS 70 replaces Relay GROUPS 5B; 5C; 5D; 5AA; 8B; 8C; 8D
19010	MARS 71 replaces Relay GROUPS 6TV; 6TW; 10V

3. Install relay in accordance with instructions in MARS Replacement Kit

MARS Potential Relays

MARS Universal Replacement

The MARS refrigeration potential relay service kit has become an industry standard since its introduction over fifty years ago. Its long-term reliability and easy replacement have been the key to its success. The wide calibration ranges and the universal bracket make the MARS potential relay service kit a must on every service truck.

Features:

- Genuine MARS relays replace thousands of O.E.M. models
- Non-positional
- Wide range of selectivity
- QC-6 Kit included with each relay to convert screw-on to push-on
- Instructions and wiring diagram included in each relay
- Universal break-off bracket on each relay. Simply snap-off parts not needed
- The six most popular relays available in a service kit—19001 MARS 6 PAK—complete cross reference guide included in each kit
- UL and CSA listings available

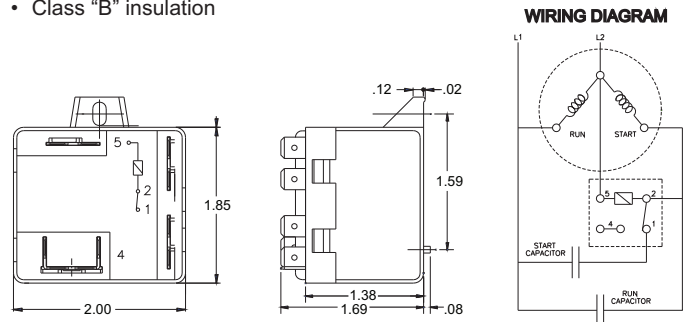
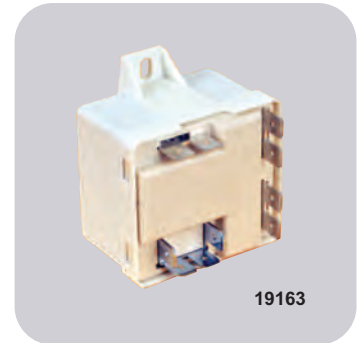


MARS HVAC Potential Relays

MARS series relays are manufactured for the HVAC industry. These relays meet all requirements for original equipment relays.

Features:

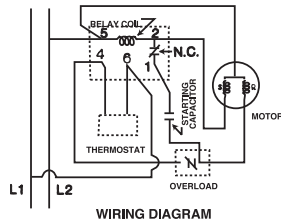
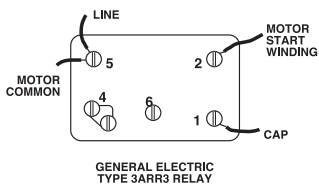
- 50/60 Hz
- cULus
- Contact rating 35 amp, 400 VAC
- Operating position tab up
- Instructions and wiring diagram included in each relay
- Class "B" insulation



Calibration Specifications

MARS NO.	MARS MODEL NO	CONTINUOUS COIL VOLTAGE	PICK-UP VOLTAGE	DROP-OUT VOLTAGE
19163	MARS 163	168	140-153	20-45
19164	MARS 164	420	242-272	60-121
19165	MARS 165	332	171-184	40-90
19166	MARS 166	420	204-233	60-121
19167	MARS 167	420	300-328	60-121
19168	MARS 168	502	314-342	60-135
19169	MARS 169	332	180-193	40-90
19170	MARS 170	253	285-305	35-77
19171	MARS 171	420	204-233	60-121

Note: If used on 50 Hz, the PU will be about 13% lower



Calibration Specifications

MARS NO.	MARS MODEL NO.	CONTINUOUS COIL VOLTAGE	PICK-UP		DROP-OUT
			MIN.	MAX	
19001	MARS 6 PAK	—	—	—	—
19002	MARS 63	170	139	153	55
19003	MARS 64	395	260	275	120
19004	MARS 65	332	168	182	90
19005	MARS 66	395	215	225	120
19006	MARS 67	420	295	315	125
19007	MARS 68	502	325	345	135
19008*	MARS 69	336	180	195	105
19009*	MARS 70	253	285	305	77
19010*	MARS 71	420	212	232	121
93001	QC-6				

MARS H-10 Pro Universal Refrigerant Leak Detector

The MARS H-10 Pro combines and enhances all the features of the previous H-10 Series models into one full featured unit. The H-10 Pro Refrigerant Leak Detector continues to be the universal standard for checking halogen-based refrigerant leaks in residential and commercial applications. With automatic auto zero balance control it's unique sensor calibration system will pinpoint small, medium and large leaks. The instrument uses a tried-and-true positive ion emission heated diode with audible and visual leak rate indicators. It is the most sensitive and accurate leak detector to detect all CFC, HFC, and HCFC non-flammable refrigerants. The unit is mounted in a durable carry case which houses the 4.5 foot probe with built in filter, carrying strap, wall adapter and operating instructions.



Features:

- Enhanced sensitivity detects all halogen-based, non-flammable CFC, HFC and HCFC refrigerants including: R12, R22, R134a, R404a, R410a, R502, R507 and many others
- Improved sensor responsiveness with ultra-sensitive detection
- Dual power sources include rechargeable battery or external DC powered (wall adapter included)
- Selectable sensitivity to pinpoint small, medium or large leaks
- Unique visual sensor calibration system (with included reference leak bottle)
- Rugged enclosure with shoulder strap included
- Manual or automatic zero modes
- Headphone port allows for optional headset use in high-noise environments

Specifications:

Nominal Leak Range: 0.006 oz/yr (stationary) | 0.1 oz/yr (moving probe per SAE J2791)

Power Supply: 12 VDC - internal rechargeable sealed lead acid battery; 100-240 VAC wall adapter/universal battery charger to charge or run continuously

Reference Leak: Approx. 0.006 oz/yr (stationary) | 0.1 oz/yr (moving probe per SAE J2791), 1 year life (typical)

Ambient Operating Temp: 32°F to 104°F (0°C to 40°C)

Battery Life: 3 hours (typically)

Warm Up Time: Approx. 2 min.

Response Time: 1 second

Gases Detected: All CFC, HFC and HCFC non-flammable refrigerants

Detection Principle: Positive Ion Emission Heated Diode

Probe Length: 4.5 feet

Dimensions: 10.5"L x 8.3"W x 5.4" H

NOTE: sensors are consumed in normal operation. It is good practice to have a spare sensor available at all times.

Renewal Parts

MARS stocks genuine renewal parts for MARS, GE, and Bacharach H-10 Series Leak Detectors.



Renewal Parts For H-10 Professional, H-10N, H-10G, and H-10B

MARS NO.	CATALOG NO.	DESCRIPTION	H-10 PRO/PM	H-10N	H-10G	H-10B
25310	M1101UD	Maintenance kit (100 filters, 3 rubber probe tips)	✓	✓	✓	✓
25315	H10N04	Plug-in sensor element	✓	✓	✓	✓
25308	M1101UV	Standard Probe assembly	✓	✓	✓	✓
25314	M1101UU	Probe tip - clear plastic	✓	✓	✓	✓
25309	E7076DX	Rubber tip for probe	✓	✓	✓	
25322	B9017MM	Metal probe extension, 14" long	✓	✓	✓	✓
25325	M1101AH	Battery charger - 120-240 VAC	✓			
25320	B9017LC	Battery charger (included with 25331)		✓		
25333	M1101VS	Cigarette lighter adapter	✓	✓		
25319	M1101HV	Power cord			✓	✓
25323	M1101UC	Super tune up kit; sensor, leak vial, 100 filters 3 flow balls and 3 rubber probe tips	✓	✓	✓	✓
25326	M1101AD	Battery for H-10 Pro	✓			
25321	K9344AH	Reference Leak Assembly	✓	✓	✓	✓
25346	3015-0880	Probe Assembly w/LED Indicator	✓	✓	✓	✓

MARS NO.	CATALOG NO.	DESCRIPTION
25301	H-10 Pro	Universal Refrigerant Leak Detector, Wall adapter or Battery Powered

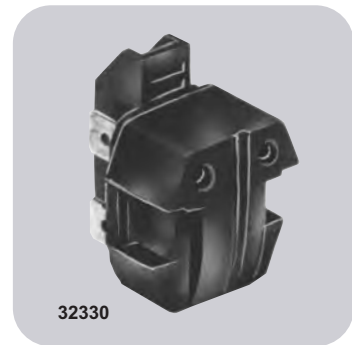
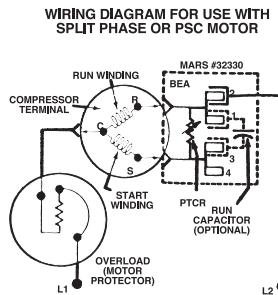
MARS Solid State Motor Starting Devices & Solid State Timers

MARS Solid State Motor Starting Relay for Refrigerators and Freezers

MARS 32330 is a solid state PTC motor starting relay that mounts directly to any 3-pin fuse connector. One model replaces thousands of current relays used on 1/12 HP to 1/3 HP compressors.

Features:

- Replaces Tecumseh Relays SSR2 and SSR3 for push-on applications.
- Non-positional
- One model for 1/12 HP to 1/3 HP, 120 volt
- UL and CSA listings available



MARS NO.	HORSEPOWER	VOLTAGE
32330	1/12 - 1/3	120

MARS Solid State Timers Delay On Make

The MARS 32391 is the top-selling timer in the industry. Its reliability has been proven in the field by knowledgeable contractors.

The MARS 32391 will not be fooled by the thermostat anticipator.

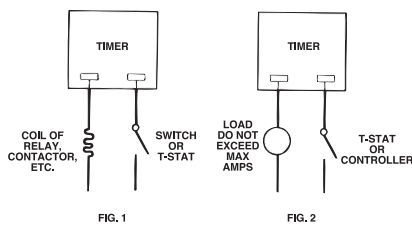
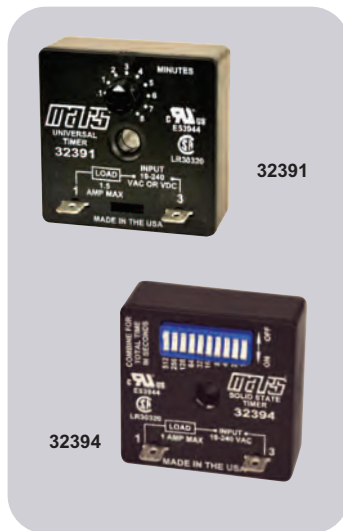
Heavy duty MARS timers are offered for higher current applications.

Features:

- Easy two-wire installation
- Proven reliability, all solid state
- .25 in. quick connect terminals
- Mounts in any position
- Compact size
- High accuracy
- Totally enclosed and encapsulated for proper heat dissipation

Specifications:

- .040 amps min. latch current



MARS NO.	TYPE DELAY	TIME DELAY RANGE	TYPE OF ADJUSTMENT	INPUT VOLTAGE	HZ	MAX AMPS.	VOLTAGE DROP	CONN. DIA.
32391	on make	6 sec...8 min.	dial	19...240VAC	50/60	1	2.5 at 1 amp.	1
32394	on make	1 sec...1023 sec.	slide switch adjustable in 1 second increments	19...144VAC	50/60	1	2.5 at 1 amp.	1

Heavy Duty

32399	on make	10...1000 sec.	dial	230 VAC	50/60	10	5 at 10 amp.	1 or 2
-------	---------	----------------	------	---------	-------	----	--------------	--------

MARS Solid State Timers Delay On Break

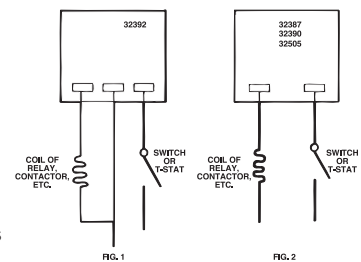
MARS solid state delay on break timers are designed to prevent short cycling of air conditioning, refrigeration and heat pump compressors. Upon application of power the load is energized. When the thermostat opens, or if there is a momentary loss of power, the load is de-energized and the delay period begins. The compressor will not start again during the delay period.

MARS number 32392 is a versatile three wire timer that features adjustable timing and can be used with any voltage from 19 thru 240 VAC, 50 or 60 Hz.

The MARS 32390 and the new 32505 are the most simple and economic ways to stop short cycling on 24 VAC controlled systems. Both devices are fixed 5 minute delay on break timers.

Features:

- 1 to 3 second random re-start
- Models for two-wire or three-wire connection
- Dial adjustable
- Compact size
- Mounts in any position
- .25 in. quick connect terminals
- Proven reliability
- MARS delay-on-break timers are not load sensitive
- MARS 32505 features two wire leads



Adjustable

MARS NO.	TYPE DELAY	TIME DELAY RANGE	TYPE OF ADJUSTMENT	INPUT VOLTAGE	HZ	MAX AMPS.	VOLTAGE DROP	CONN. DIA.
32392	on break	6 sec...5 min.	dial	19...240VAC	50/60	1	2.5 at 1 amp.	1

Fixed Delay

32390	on break	5 min.	none	24 VAC	50/60	1	2.5 at 1 amp.	1
32505	on break	5 min.	none	20-30 VAC	50/60	1	3 at 1 amp.	1

MARS Solid State Timers

The MARS Delay on Make Timer is designed to delay energization and prevent short cycling. This one unit covers all operating voltages and time delays. The compact timer mounts in any position and features easy two wire installation. UL recognized.

The MARS Delay on Break Timer, dial adjustable is designed to prevent short cycling of air conditioning and heat pump compressors. The compact timers mount in any position and are UL recognized.

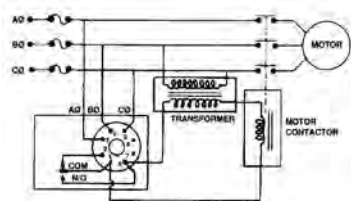


MARS NO.	REPLACES	VOLTAGE	DELAY TYPE	TIME DELAY RANGE	TYPE OF ADJUSTMENT
32091	ICM 105	19-240	On make	6 sec. - 10 min.	Dial
32001	ICM 203	19-240	On break	6 sec. - 10 min.	Dial adj. 2 terminal

MARS Phase Reversal Protector

Features:

- Disconnects the motor pilot circuit on loss of one or more phases or when the voltage imbalance between any of the two phases exceeds 7%
- Re-energizes the pilot circuit only when all 3 phases are present and the voltage imbalance is less than 7%
- 208-277VAC, 50-60Hz
- Contact Rating: NO/NC (type "C") 5A/240V, 10A/120V
- 1/4" male spade terminals
- Compact design: 2.35" x 2.425" x 1.1"



Phase Reversal Protector

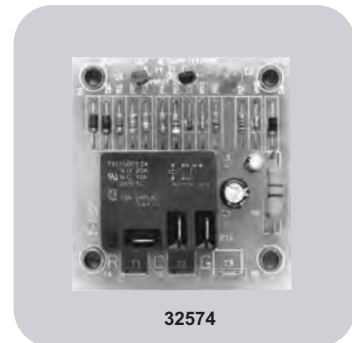
MARS NO.	NOMINAL VOLTAGE	INPUT VOLTAGE	SPDT RELAY CONTACTS AMP RATING
32532	240 VAC	175-255 VAC	10 amps res.
32534	480 VAC	380-500 VAC	8 amps res
93057*	8 Pin Octal Base, 35mm Din Rail or Surface Mount		

* Base not included

Fan Time Delay Module

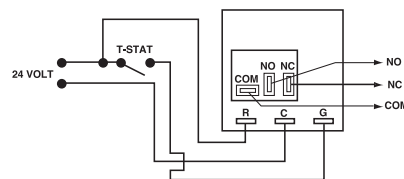
The MAHBC fan time delay module is a replacement for the direct motor control used by leading OEMs in high efficiency residential central air conditioning systems. The purpose of the control is to keep the blower motor running for 60 seconds after the thermostat has been satisfied. The result is an increase in residual cooling from the indoor coil without running the condensing unit, and thus, higher energy efficiency.

The MAHBC is ideal for retrofit where improved efficiency is desirable.



Features:

- Wide ambient temperature operating range -40°F to 175°F
- 1/4" male quick connect terminals
- Easy surface mount with four #6 screws
- UL and CSA recognized



Cross Reference

OEM	PART NO.
BARD	8201-056
RHEEM	42-22515-01
SNYDER GENERAL	0001395336

MARS NO.	MARS MODEL	VOLTAGE	OUTPUT 120V	OUTPUT 240V	TIME DELAY	ACTION
32574	MAHBC	24VAC	1 HP	2 HP	60 SEC.	SPDT

MARS Bypass Timer

MARS 32395 is an adjustable, multi-voltage bypass timer that allows the temporary bypass of a control or device during start-up. At the end of the delay period the control is returned to the circuit.

Eliminate nuisance trips!

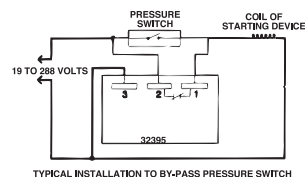


FIG. 1

Low pressure switch bypass application.

FIGURE 1
LOAD IS BYPASSED ON RETURNS TO CIRCUIT AFTER DELAY PERIOD.

MARS NO.	TYPE DELAY	TIME DELAY RANGE	TYPE OF ADJ.	INPUT VOLTAGE	HZ	MAX AMPS	VOLTAGE DROP	CONN. DIAGRAM
32395	by-pass	6 sec...8 min.	dial	19...240VAC	50/60	1	2 at 1 amp.	1

Compressor Anti-Short Cycle Timer with Low Voltage Brownout Protection

Delay on break.

OEM replacement timers for Lennox, Rheem, Ruud, Trane, Heil Quaker, Keep Rite, McQuay, Snyder General and others.

Features:

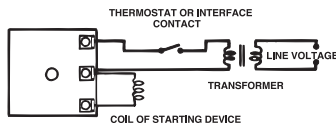
- Lockout delay prevents rapid cycling compensated resistor type wall thermostats
- Single hole mounting (.25 inch diameter)
- Non-positional
- Brownout protection prevents startup when voltage is below normal conditions
- Reduces nuisance service calls due to short cycling
- Delay on Break Lockout delay starts with opening of thermostat or loss of power
- .25 in. quick-connect terminals
- Eliminates relay chatter due to thermostat bounce
- Small size 2.00 x 2.00 x .75 in.
- UL and CSA listings available



Operation:

On initial closure of the thermostat, the compressor relay energizes immediately. When the thermostat opens, a lockout condition and a time delay is initiated. During this lockout time delay period, the compressor cannot be energized.

Brownout protection prevents energizing of the compressor when the line voltage is below normal conditions.



With Integral Brownout Protection

MARS NO.	MODEL NO.	OPERATING VOLTAGE (NOMINAL)	TIME DELAY (MIN.) ± 2%	MARS NO.
32381	TA24A3	24 VAC	3	1.5
32382	TA24A5	24 VAC	5	1.5

MARS Fan Delay/Post Purge Timers

These MARS solid state timers provide for convenient control of a variety of functions.

MARS number 32393 is a fixed 2 minute, 24V off-delay timer that allows the fan to continue to operate after the thermostat is satisfied to purge the ducts of conditioned air.

MARS number 32378 is versatile, high amp timers which, depending on installation (see connection diagrams 2 and 3), will perform either on-delay or off-delay functions. On-delay is especially useful for controlling unloader valves. Off-delay can be used for fan off-delay, pump down systems or post purge applications. The off-delay may also serve an anti-bounce function as a pump flutter bypass switch.

Features:

- Wide selection of models
- Easy installation
- Compact size
- Mounts in any position
- Totally solid state
- High accuracy

Specifications:

- 100 milliamps minimum latch current

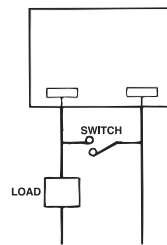
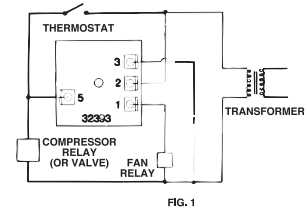


FIG. 2
POST PURGE

With the switch closed, the load is energized. when the switch opens, the load remains energized and the time delay begins. at the end of the delay period the load is de-energized.

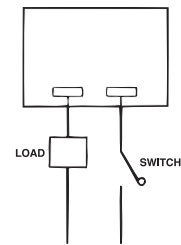


FIG. 3
INTERVAL - ON

When the switch closes, the time delay begins. at the end of the delay period, the load is de-energized.

MARS NO.	TYPE DELAY	TIME DELAY RANGE	TYPE OF ADJ.	INPUT VOLTAGE	HZ	MAX AMPS	VOLTAGE DROP	CONN. DIAGRAM
32393	off delay	2 min. fixed	—	24 VAC	50/60	1	2 at 1 amp.	1
32378	off delay/interval	6 sec... 10 min.	dial	120 VAC	50/60	10	2.1 at 10 amp.	2 or 3

MARS Universal Replacements for Refrigeration and Air Conditioning

30 MARS motor protectors solve the serviceman's most annoying problem—finding suitable replacements for motor overload protectors.

Features:

- Used in refrigeration, room air conditioners, heating, appliances, and electric motors
- Each overload has six-inch leads and two wire nuts for simple installation
- UL and CSA listings available



Application Survey By Horsepower*

MARS NO.	HORSEPOWER															
	110/115								208/240V							
	1/20	1/12	1/8	1/6	1/5	1/4	1/3	1/2	1/12	1/8	1/6	1/5	1/4	1/3	1/2	1
35009			■	■	■									■	■	
35010			■	■	■	■								■	■	
35011				■	■	■								■	■	
35012				■	■	■								■	■	
35014					■	■									■	
35015					■	■	■								■	
35016					■	■	■								■	
35017						■	■									■
35018						■	■	■								■
35019							■	■								
35020																

3/4" A/C Overloads

MARS NO.	TEMPERATURE CODE
35101	MRA-3763-529
35105	MRP-00-AIU-529

*Motor protectors cannot be replaced by horsepower, amperage, or nameplate data alone. Refer to cross reference information for proper replacement of original equipment motor protectors by part number.

On-Winding Overheat Protection

Klixon SL-11 kits are mounted on the windings of general purpose motors and hermetically sealed compressors. They supplement conventional current overload relays in magnetic starters providing modern total protection for most older motors in use today.



Features:

- Allow motors to perform at full-load capacity but will protect against dangerous running overloads
- Protect against blocked ventilation, high ambient temperatures, single phasing
- Each kit contains three matched motor-winding thermostats
- When starter overloads operate, the SL-11 will protect against re-starting at unsafe winding temperatures.
- These motor winding thermostats do not replace overloads in the starter
- UL & CSA listed

Installation:

SL-11 thermostats are tied in place on the end turns of appropriate winding bundles, one to each phase or buried in the windings during motor rewind. They are connected in series between the starter coil and its power supply.

Selection:

- Pick thermostat temperature to operate at the mid-point between the "maximum normal running" temperature and the "maximum allowed running temperature."
- Subtract the gradient temperature (outlined in the chart below) from the mid-point to obtain the operating temperature of the thermostat.

Epoxy-Sealed Thermostats For General- Purpose Motors

MARS NO.	KLIXON KIT NO	KLIXON CAT. NO	OPERATING TEMPERATURE
37075	SL-11-75	9700K51-146	75°C
37090	SL-11-90	9700K21-146	90°C
37100	SL-11-100	9700K26-146	100°C
37110	SL-11-110	9700K36-146	110°C
37120	SL-11-120	9700K01-146	120°C
37130	SL-11-130	9700K11-146	130°C
37135	SL-11-135	9700K06-146	135°C
37140	SL-11-140	9700K66-146	140°C
37145	SL-11-145	9700K76-146	145°C
37150	SL-11-150	9700K46-146	150°C

Three thermostats per package

Typical Gradients	Thermostat Location		Maximum Contact Rating Amps				
	Motor Type	Tied On End Turns	Buried In End Turns	Klixon #	24V	115V	230V
Open Type		30°C	15°C	9700K	18	18	12
Totally Enclosed		25°C	10°C				
Fan Cooled		25°C	10°C				
Totally Enclosed Non-Ventilated		20°C	5°C				

Commercial Refrigeration Thermostats

Refrigeration Cases and Coils

MARS has selected the most popular Klixon disc-type thermostats found in commercial refrigeration. These controls cover a wide assortment of applications including supermarket cases and walk-in, reach-in, and beverage coolers.

Features:

- Used on refrigeration cases, coils, with many other commercial applications
- Long lead wires supplied to satisfy most requirements
- Used by Hussman, Friedrich, Larkin, Schaefer, etc.
- 1 inch discs fully encapsulated for trouble-free use
- Mounts directly on coil tube or surface for maximum temperature response
- UL and CSA listings available
- 25 resistive amps maximum

ELECTRICAL RATING			
		TERM. 1-3	TERM. 1-2
Full load amps	120V	13	5.8
	240V	10	2.9
Locked rotor amps	120V	60	34.8
	240V	45	17.4
Pilot Duty	120/240V	125	125
Resistive amps	120/240V	25	25
	277V	15	15

Tube Mounting

MARS NO.	KLIXON NO.	O.E.M.	O.E.M. PART NO.	SWITCH ACTION	OPERATING TEMPERATURES F°		TUBE MT. IN	LEADS IN
					OPEN	CLOSE		
33405	20420D24-106-63	Bally	—	D	70	20	5/8	18
33415	20420D24-399-350	—	—	D	65	20	5/8	20
33420	20428F1-4-676	Friedrich	606-038-00	F	35	55	3/8	20
33425	20420L15-913-302	—	794-824-00	L	40	25	5/8	11
33430	20420D1-166-336	—	—	D	50	35	1/2	18
33435	20420L28-229-89	Hussman	P211-119696	L	20	5	3/4	40
33440	20420F32-381-533	—	—	F	20	30	3/4	48
33455	20420F19-63-294	Schaefer	C10872-19	F	20	60	5/8	36
33460	20420L19-202-274	—	C10872-6	L	35	5	5/8	54
33470	20420L15-376-218	—	125211	L	50	30	5/8	36
33475	20420L15-722-218	Tyler Ref.	146291	L	40	20	5/8	36
33480	20420L15-767-257	—	146739	L	80	50	5/8	90

Surface Mounting

MARS NO.	KLIXON NO.	O.E.M.	O.E.M. PART NO.	SWITCH ACTION	OPERATING TEMPERATURES F°		LEADS IN
					OPEN	CLOSE	
33017	20425L153-B22-B54	Heatcraft	5708L	L	75	40	18 w/ quick connects
33025	20425D56-520-B10	Heatcraft	5709L	D	55	35	18 w/ quick connects

1D=SPDT, no. 1 is common (white) - no label, no. 2 either opens or closes temp. rise - red label, no. 3 is opposite of no. 2 - blue label F= close on temperature rise, SPST L= open on temperature rise, SPST 2

KLIXON



Change-Over Switches for Fan-Coil Systems

The MARS Series 390 change-over switches are used for summer-winter change-over of electric thermostats in hydronic heating - cooling fan-coil units.

Features:

- Color coded leads allow easy installation
- SL-8 thermostat is enclosed in sealed case for trouble-free operation
- Snap-acting disc type, insures accurate temperature repeatability
- Can be mounted in any position
- UL and CSA listings available

Installation:

The SL-8 change-over switch is located on the main run of the supply line where it can quickly sense the maximum temperature of the hot or cold water passing through. If the SL-8 switch is exposed to surrounding temperatures, thermal insulation should be wrapped around the switch case to maintain desired thermal response.

Specifications:

Pipe size: 5/8 in O.D.

Leads: 12 in. color coded

Switch Action: SPDT

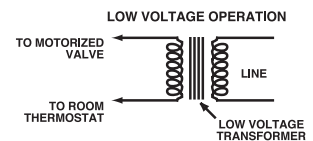
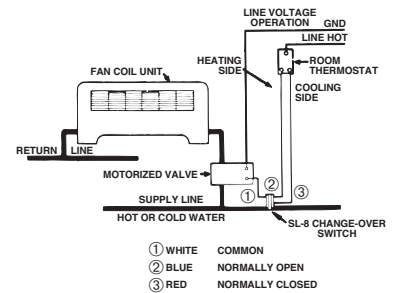
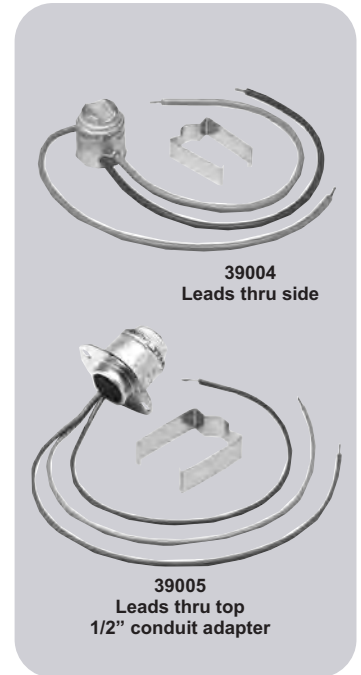
Temperature: 88°F (31°C)—terminals 1 & 2 close, 1 & 3 open
73°F (23°C)—terminals 1 & 3 close, 1 & 2 open

Mounting: mounting clip supplied with each kit

Electrical: terminals 1 & 3 25 amp at 120/240 VAC

Terminals 1 & 2 10 amp at 120 VAC, 5 amp at 240 VAC

KLIXON



Honeywell No.	MARS No.	White Rodgers No.	MARS No.
L6076A	39004	752-1	39004
L6076B	39005	752-2	39005

MARS NO.	KLIXON KIT NO.	KLIXON NO.	DESCRIPTION
39004	SL8-5	20425D27-160-356	leads thru side of cup
39005	SL8-5A	20425D69-160-287	leads thru top of cup with 1/2" conduit adapter

For Defrost Termination

MARS Series 330 defrost controls are designed to replace many defrost thermostats. The leads are of sufficient length for the connection to be made at the same location as was the control removed. The connection should be insulated in a manner similar to that on the original equipment.

The selection of the proper thermostat can be made by matching the temperature code of the thermostat removed to the code on the MARS Thermostat.



Features:

- Refrigerators, A/C units, & heat pumps, dehumidifiers, icemakers or any place where a fixed temperature control is required in a wet or dirty environment.
- Thermostats have 32" leads.

Temp. Code	Use MARS No.	Temp. Code	Use MARS No.	Temp. Code	Use MARS No.
L40-3.0	33008	L58-4.3	33011	L65-4.0	33012
L42-2.0		L60-2.0		L67-4.2	
L45-3.0		L60-2.5		L70-4.0	
L45-3.0		L60-3.0		L75-5.0	
L55-1.5	33010	L60-3.5	33020	L80-3.0	33020
L55-2.0		L60-4.0		L80-4.0	
L55-2.5		L60-4.5		L80-4.5	
L55-3.0				L80-5.0	
L55-3.5					
L55-4.0					

MARS NO.	TEMP. CODE	OPENING TEMP. F°	CLOSING TEMP. F°
33008	L45	45	25
33010	L55	55	35
33011	L60	60	40
33012	L70	70	50
33020	L80	80	60

VOLTS	INDUCTIVE	
	F.L.A.	L.R.A.
120	5.8	25
240	2.9	70

MARS Freeze Stat

The MARS 33101 is designed to help stop flood back to compressor crankcases caused by low ambient temperatures.

Features:

- Simple to install
- Refrigerators, freezers, A/C, food dispensing equipment
- For use with 1" pipe, 1/2' radius
- 24" leads



MARS NO.	OPENING TEMP. F°	CLOSING TEMP. F°
33101	34	45

Fixed Setting Pressure Controls

Low pressure controls.

Specifications:

- Contacts rated at 6 amps, 24-240 volts
- 18" leads

Features:

- Tamper proof construction
- Direct mounting on tubing
- UL & CSA recognized



The 4 - Series Klixon Pressure Switches. This newest set of designs delivers the reliability and performance that has made Klixon the most trusted name in the electromechanical sensor business. The 4 - Series line of pressure switches covers many new R410A applications along with traditional pressure setting switches.

Klixon Brand, UL and CUL, Compact size, light weight for direct mounting, Factory Set, Hermetically Sealed Sensor.

5.8 FLA - 34.8 LRA @ 120 VAC, 2.9 FLA - 15.0 LRA @ 240 VAC, 100,000 Cycle Life at Rated Current.

Low Pressure Cut-Out - Open on Pressure Drop, Automatic Reset Normally Open

4 SERIES MARS NO.	3 SERIES MARS NO.	OPENING PRESSURE	RESET PRESSURE	NOTES
43341	33329	5	20	1/4" Female Flare S.A.E. Mounting
43342		5	30	1/4" Female Flare S.A.E. Mounting
43343	33330	10	25	1/4" Female Flare S.A.E. Mounting
43344	33333	15	35	1/4" Female Flare S.A.E. Mounting
43371		15	40	1/4" Copper Clad SS Tube, 90 degree elbow w/36" leads
43345		20	45	1/4" Female Flare S.A.E. Mounting
43372		22	50	1/4" Copper Clad SS Tube w/38" leads
43373		25	40	Gold Contacts 1/4" Female Flare w/36" leads
43346	33362	25	50	1/4" Female Flare S.A.E. Mounting
43347	33336	25	65	1/4" Female Flare S.A.E. Mounting
43348	33363	25	80	1/4" Female Flare S.A.E. Mounting
43349		35	60	1/4" Female Flare S.A.E. Mounting
43350	33364	40	80	1/4" Female Flare S.A.E. Mounting
43351		45	60	1/4" Female Flare S.A.E. Mounting
43352	33339	50	90	1/4" Female Flare S.A.E. Mounting
43374		50	95	1/4" Copper Clad SS Tube w/36" leads
43353	33342	75	100	1/4" Female Flare S.A.E. Mounting
43375		90	120	1/4" Female Flare, w/18" leads
43354		150	225	1/4" Female Flare S.A.E. Mounting
43355		170	250	1/4" Female Flare S.A.E. Mounting
43361		165	215	1/4" Female Flare S.A.E. Mounting w/Quick Connects
43362		200	240	1/4" Female Flare S.A.E. Mounting w/Quick Connects, SPDT

Fixed Setting Pressure Controls High Pressure Cut-Outs

MARS offers the most complete line of high pressure cut-outs available.

Specifications:

- Contacts rated at 6 amps, 24-240 volts
- 1/4" female flare S.A.E. mounting
- 18" leads

Features:

- Tamper proof construction
- Direct mounting on tubing
- UL & CSA recognized



The 4 - Series Klixon Pressure Switches. This newest set of designs delivers the reliability and performance that has made Klixon the most trusted name in the electromechanical sensor business. The 4 - Series line of pressure switches covers many new R410A applications along with traditional pressure setting switches.

Klixon Brand, UL and CUL, Compact size, light weight for direct mounting, Factory Set, Hermetically Sealed Sensor.

5.8 FLA - 34.8 LRA @ 120 VAC, 2.9 FLA - 15.0 LRA @ 240 VAC, 100,000 Cycle Life at Rated Current.

High Pressure Cut-Out - Open on Pressure Rise, Automatic Reset, Normally Closed

4 SERIES MARS NO.	3 SERIES MARS NO.	OPENING PRESSURE	RESET PRESSURE	NOTES
43337	33353	200	150	1/4" Female Flare S.A.E. Mounting
43321		225	150	1/4" Female Flare S.A.E. Mounting
43322	33354	250	150	1/4" Female Flare S.A.E. Mounting
43324	33310	275	195	1/4" Female Flare S.A.E. Mounting
43325	33355	300	200	1/4" Female Flare S.A.E. Mounting
43326	33313	325	225	1/4" Female Flare S.A.E. Mounting
43320	33316	350	245	1/4" Female Flare S.A.E. Mounting
43327	33356	350	250	1/4" Female Flare S.A.E. Mounting
43328	33319	375	275	1/4" Female Flare S.A.E. Mounting
43329	33357	400	200	1/4" Female Flare S.A.E. Mounting
43330	33322	400	280	1/4" Female Flare S.A.E. Mounting
43340	33370	400	300	1/4" Female Flare S.A.E. Mounting w/24" leads (1 stripped, 1 w/1/4" female flag QC)
43331	33358	400	300	1/4" Female Flare S.A.E. Mounting w/24" leads (1 stripped, 1 w/1/4" female flag QC)
43311		410	290	1/4" Female Flare S.A.E. Mounting
43332	33325	425	300	1/4" Female Flare S.A.E. Mounting
43333		425	325	1/4" Female Flare S.A.E. Mounting
43334	33359	450	250	1/4" Female Flare S.A.E. Mounting
43365		590	418	1/4" Female Flare w/snubber
43335	33361	600	475	1/4" Female Flare S.A.E. Mounting
43366		610	420	1/4" Copper Clad SS Tube, 90 degree elbow w/snubber
43376		610	420	1/4" Copper Clad SS Tube w/snubber
43339	33369	630	480	1/4" Female Flare S.A.E. Mounting
43367		650	450	1/4" Copper Clad SS Tube w/snubber

Condenser Fan Cycling Switches

Fan cycling switches provide refrigeration and air conditioning from low ambient conditions.

Specifications:

- Contacts rated at 6 amps, 24-240 volts
- 1/4" female flare S.A.E. mounting
- 18" leads

Features:

- Tamper proof construction
- Direct mounting on tubing
- UL & CSA recognized



Fan Cycling - Close on Pressure Rise

4 SERIES MARS NO.	3 SERIES MARS NO.	OPENING PRESSURE	RESET PRESSURE	NOTES
43301		75	100	1/4" Female Flare S.A.E. Mounting
43302		110	170	1/4" Female Flare S.A.E. Mounting
43303	33340	125	265	1/4" Female Flare S.A.E. Mounting
43304		150	225	1/4" Female Flare S.A.E. Mounting
43305		190	275	1/4" Female Flare S.A.E. Mounting
43370		180	240	1/4" Female Flare, S.A.E. Mounting
43306	33341	210	275	1/4" Female Flare S.A.E. Mounting
43307		300	400	1/4" Female Flare S.A.E. Mounting

Manual Reset - High Pressure Cut Out Open on Pressure Rise



4 SERIES MARS NO.	3 SERIES MARS NO.	OPENING PRESSURE	RESET PRESSURE	NOTES
43312		375	Manual	1/4" Female Flare S.A.E. Mounting
43313	33365	410	Manual	1/4" Female Flare S.A.E. Mounting
43314	33350	415	Manual	Capillary Tube
43315	33352	440	Manual	Capillary Tube
43316		475	Manual	1/4" Female Flare S.A.E. Mounting
43368		590	Manual	1/4" Female Flare w/snubber
43369		610	Manual	1/4" Female Flare w/snubber

Heat Pump Defrost Thermostats

MARS heat pump defrost thermostats are designed for direct replacement of most existing controls of this type. The temperature settings and tubing sizes have been carefully selected from the most popular OEM settings. Each MARS thermostat comes complete with extra long 54 inch leads, mounting clamp, and installation instructions for fast and simple field installation.

Features:

- Four controls cover most requirements
- Tapered mounting edge for maximum heat transfer
- Extra long 54 inch leads for simple wiring
- Individually boxed with mounting clamp and instructions
- UL & CUL listed



Electrical Ratings:

Cycles X1000	Volts	FLA	LRA	Resistive Amps	VA
100	120VAC	5.8	34.8	10	125
100	240VAC	2.9	17.4	10	125
30	120VAC	10.0	40.0	-	-
30	240VAC	10.0	40.0	-	-
100	30VDC	-	-	1	-

MARS NO.	OPERATING TEMPERATURES F°		TUBE MOUNTING IN	LEADS IN
	OPEN	CLOSE		
33490	80	30	3/8	54
33492	80	30	1/2	54
33494	65	30	3/8	54
33496	65	30	1/2	54

MARS Heat Pump Defrost Timer

MARS Heat Pump Defrost Timer replaces General Electric and Paragon timers on heat pumps with time initiated and time or temperature terminated defrost systems.

The MARS Heat Pump Timer features a defrost interval adjustment that allows selection of either 90 minutes or 45 minutes between defrost periods.

The MARS Heat Pump Defrost Timer will replace Paragon timers used by Carrier, Bryant, and other OEMs with the addition of a mounting bracket.

Features:

- Adjustable 90 or 45 minute defrost interval
- Replaces GE directly
- Replaces Paragon with bracket
- Telechron S1 motor
- 50/60 Hertz
- UL and CSA listings available



Specifications:

Time Delays:	Digital interval delay duration: jumper selectable as 45 or 90 min. D faults to 45 min. if jumper wire is not connected.
Defrost Delay Duration:	10 min. or terminated upon the defrost thermostat opening
Defrost Window Delay Duration:	50 seconds
Operating Voltage:	240 VAC +10% - 25%
Output:	relay/contactor output Type - solid state Form - SPDT N.O. Rating - .50 amp steady state
Protection:	25% or greater shutdown
Surface Mount:	With two #6 screws .25 inch male quick connect terminal
Operating Temp:	-40°C to +85°C
Humidity:	95% relative

MARS NO.	DEFROST INTERVAL	DEFROST TIMING PERIOD	DEFROST INITIATION	SWITCHING
34790	90 or 45	10	50 Sec.	SPST N.O.

TUTCO™ Compressor Heaters for A/C and Refrigeration

Features:

- Corrosion resistant exterior
- High temperature silicone rubber element and insulated leads
- 30" leads
- Wattage for each model matches compressor requirements
- Completely moisture proof
- Installs quickly and easily
- Nominal power consumption
- UL & CSA Listed



Application Reference Chart for TUTCO™ Compressor Heaters

Manufacturer	Model	MARS No.
Aspera	H	32605-32608
Aspera	J	32609-32611
Bendix/Westinghouse	A	32613-32616
Bendix/Westinghouse	C, D	32601-32604
Bendix/Westinghouse	E	32605-32608
Bristol/Sundstrand	H10A, H21A, H2EA, H22A	32605-32608
Bristol/Sundstrand	H10B, H20B, H21B, H22B	32613-32616
Bristol/Sundstrand	H10G, H20G, H21G, H22GN2NG-144	32617-32620
Carrier	6A25, 26, 28, 29, 6A35, 38, 45, 48	32605-32608
Carrier	6A88	32617-32620
Carrier/Carlisle	6R	32625-32626
Carlisle	W (70-88)	32601-32604
Copeland	BR	32633-32635
Copeland	CR	32605-32608
Copeland	JR	32629-32630
Copeland	RR, SR	32613-32616
Copeland	VR	32621-32624
Copeland	Y	32601-32604
Fedders/Chrysler	3009	32617-32620
Fedders/Chrysler	2870908	32631
Hitachi	1500FH4-H	32617-32620
Hitachi	305FH2-HE, 402FH2-HE, 505FH2-HE	32613-32616
Hitachi	753FH3-H, 1001FH4-H	32601-32604
Sanyo	CR15F, CR20F, CR33F	32631
Tecumseh	AB, AW	32613, 32616
Tecumseh	AH	32605-32608
Tecumseh	AJ	32609-32611
Tecumseh	AK	32629-32630
Tecumseh	B, C, CL, AG, AV	32601-32604
Tecumseh	FE, FB	32617-32620
Trane	D4340/7669	32609-32611
Trane	D4340/7670	32621-32624
Trane	D4350/689, D4359/690	32605-32608
Westinghouse	CD072, CD090	32605-32608
Westinghouse	CD072, CD090	32621-32624

MARS NO.	DESCRIPTION	VOLTS	WATTS	INCHES		SHAPE
				MIN.	MAX.	
32601	CH-100	240		30 3/16	37	
32602	CH-100-1	208	50	30 3/16	37	OVL
32604	CH-100-3	480		30 3/16	37	
32605	CH-101	240		27 7/16	34 1/4	
32608	CH-101-3	480	54	27 7/16	34 1/4	OVL
32609	CH-102	240		25 3/4	32 9/16	
32610	CH-102-1	208	60	25 3/4	32 9/16	OVL
32611	CH-102-2	120		25 3/4	32 9/16	
32613	CH-103	240		24 3/4	31 9/16	
32616	CH-103-3	480	45	24 3/4	31 9/16	OVL
32617	CH-104	240		41 1/2	48 5/16	
32618	CH-104-1	208		41 1/2	48 5/16	
32619	CH-104-2	120	75	41 1/2	48 5/16	RND
32620	CH-104-3	480		41 1/2	48 5/16	
32621	CH-105	240		32 1/2	39 5/16	
32622	CH-105-1	208	50	32 1/2	39 5/16	RND
32624	CH-105-3	480		32 1/2	39 5/16	
32625	CH-115	240		30 3/16	37	
32626	CH-115-2	120	40	30 3/16	37	RND
32629	CH-135	240		20 5/16	27 1/8	
32630	CH-135-2	120	45	20 5/16	27 1/8	OVL
32631	CH-197	240	25	13 3/4	20 9/16	RND
32633	CH-202	240		33 3/4	36 3/4	
32634	CH-202-2	120	70	33 3/4	36 3/4	RND
32635	CH-202-3	480		33 3/4	36 3/4	

Direct Replacement Crankcase Heaters for Copeland

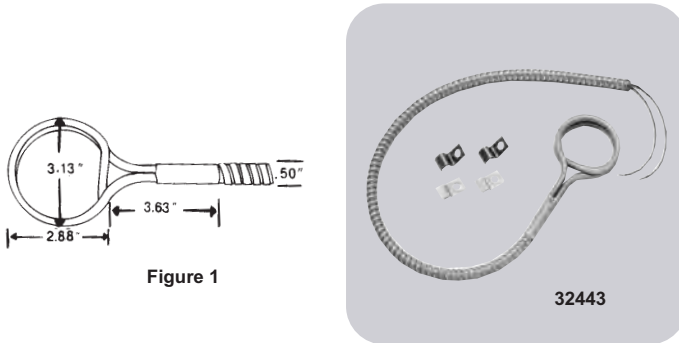


Figure 1

Direct Replacement Crankcase Heaters for Copeland

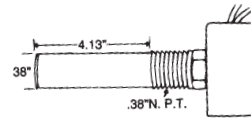


Figure 1

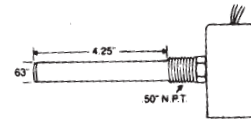


Figure 2

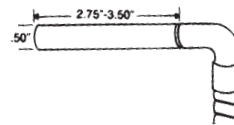
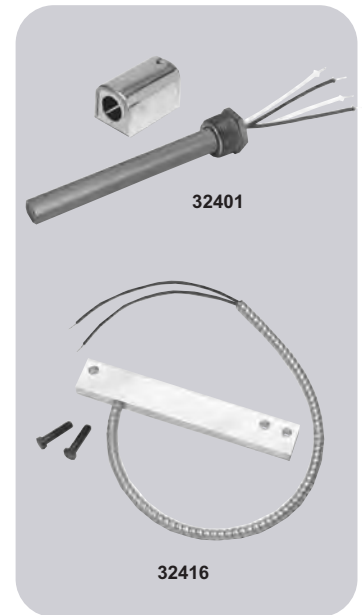


Figure 3



K&H Series Crankcase Heaters

MARS NO.	COPELAND NO.	WATTS	VOLTS	FIGURE	COMPRESSOR MODEL
32443	9980118-06(018-0028-02)	50	240	1	K & H

Universal Replacement Crankcase Heaters for Copeland

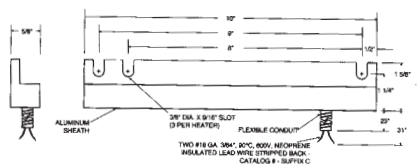


Figure 5

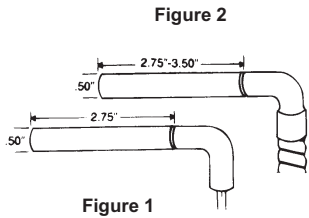
Crankcase Heaters for Copeland

NOTE: All heaters requiring clips or brackets are packaged with the appropriate clips or brackets required.

MARS NO.	COPELAND NO.	WATTS	VOLTS	HEATER LENGTH IN.	FIGURE	COMPRESSOR MODEL	ACCESSORIES
32401	518-0001-01	65	480	4.13	1	3D, 9D, 9R	-
32403	518-0001-02	65	240	4.13	1	3D,9D,9R	-
32408	518-0002-01	100	480	4.25	2	4R, 6R, 6T, 4D, 6D	-
32409	518-0002-02	100	240	4.25	2	4R,6R,6T,4D,6D	-
32410	518-0002-03	100	120	4.25	2	4R, 6R, 6T, 4D, 6D	-
32416	518-0009-01	65	240	10.00	6	E,9R,9W,MW,3A,3R,LA,MR,NR	2 bolts
32431	018-0021-04	200	120	3.50	4	6RJ, 4RV, 4RR	2 bolts
32432	018-0021-05	200	240	3.50	3	6RJ,4RJ,4RR	2 bolts
32437	018-0023-01	50	240	5.00	5	K & H	2 bolts
32439	018-0023-00	50	120	5.00	4	K & H	2 bolts

MARS NO.	COPELAND NO.	WATTS	VOLTS	HEATER LENGTH IN.	CAN REPLACE	ACCESSORIES
32490	018-0034-00	65	120	10	4R,6R,6T,9R,9T,9W,E, MW3A,3R,LA,MR,NR,EA, ER,LW,MD	2 bolts
32491	018-0034-01	65	240	10	4R,6R,6T,9R,9T,9W,E,MW 3A,3R,LA,MR,NR,EA, ER,LW,MD	2 bolts
32492	018-0034-02	65	480	10	E,9R,9W,MW,3A,3R,LA,M, NR,EA,ER,LW,MD	2 bolts

Direct Replacement Crankcase Heaters for Carrier



Crankcase Heaters for Carrier

MARS NO.	CARRIER NO.	WATTS	VOLTS	HEATER LENGTH IN.	LEAD LENGTH IN.	FIGURE	COMPRESSOR MODEL
32452	HT36DL172	125	120	2.75	25	2	
32456	HT36ES363	75	120	2.75	36.5	1	AB:AC:AD:38AA
32460	HT36NS377	75	120	2.75	88	2	EB:30EA:30HH: 30HJ:48DD:50DD
32462	HT36NS477	75	230	2.75	88	2	6D:06D
32464	HT36FS474	75	240	2.75	52	2	EM:6D:06D
32466	HT36XS575	75	240	2.75	36	1	
32468	HT36FL463	125	240	2.75	49	2	
32472	HT36FL379	125	120	2.75	60	2	EM:06DM: 306B:50EQ
32474	HT36FL479	125	240	2.75	68	2	EM:06DM: 30HR:30HS

One-On-One™ Crankcase Heaters

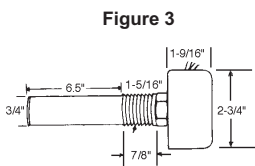
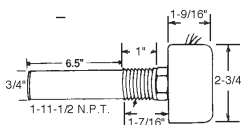


Figure 4



MARS NO.	OEM	OEM NO.	WATTS	VOLTS	LENGTH	DIA.	FIGURE
32475	Trane	661A-16093-12-4-C	100	115/230	6 1/2"	3/4"	4
32476	Trane	661A-13881-12-4-C	75	115/230	6 1/2"	3/4"	3
32478	Trane	X13140729-01	140	115/230	11"	3/4"	4

PTCR Crankcase Heaters

MARS solid state crankcase heater is a PTCR self regulating device which performs in a similar manner to a heater and thermostat combination. Unlike conventional resistance heater and thermostat combinations which provide only fully on or fully off operation, MARS solid state crankcase heater emits heat in proportion to the compressor requirements.

As compressor temperature decreases, current flow through the heater increases causing it to heat up. When the compressor is warm and additional heat is not required, current flow decreases. Only enough electricity is consumed to maintain the correct temperature. MARS solid state crankcase heaters are self adjusting to voltage variations.

Application:

MARS 32342 is for use on heaterless compressors to help correct refrigerant migration or as a preventative maintenance precaution. It will replace belly-band heaters on compressors up to 5 HP, 120 and 240 VAC. MARS 32342 attaches to the compressor using high temperature, pressure sensitive aluminum foil. If more heat is required, a second 32342 may be wired in parallel and applied to the opposite side of the compressor.

Features:

- Total solid state reliability
- Self regulating
- 32342—fast, easy installation
- UL E49372, SA5202
- CSA LR46861, LR80111



MARS NO.	TYPE	WATTS	VOLTS
32342	Heater with self-stick foil	35 - 45	600 Max

Self Regulating Crankcase Heaters

MARS self-regulating crankcase heaters are designed for use with refrigeration compressors up to 5HP and 40 inches in circumference. These heating cables provide peak heat during cold periods and reduced heat when the air temperature rises and should not be used in non-hazardous areas.

- Cold length: 30"
- Heat cable length: 50"



MARS NO.	TYPE	WATTS	VOLTS
70970	Self Regulating	32W @ 50°F • 60W @ 0°F	120
70971	Self Regulating	32W @ 50°F • 60W @ 0°F	240

Replacement Coil Kits and Accessories for Electric Heat

MARS Replacement coil kits for electric heat let you repair strip heaters quickly and economically. Each kit contains one close wound, stretch to length, resistance coil with welded terminal bolts; two each male and female ceramic terminal insulators; two each .375 and .450 inch standard ceramic bushings; two each .375 and .450 inch extra long ceramic bushings; necessary nuts, washers, and installation instructions.



Select the right MARS kit from the chart below and order one kit for each circuit to be repaired. Thermal fuse links are rated 25 amps res. at 120 and 240 VAC.

Features:

- Welded terminal bolts for low resistance and long life
- Close wound coil, stretch to fit many applications
- Complete with bushings, insulators and hardware

MARS NO.	WATTAGE AT				STRETCHED LENGTH			
	240V	208V	480V	277V	INCHES		METERS	
					MIN	MAX	MIN	MAX
34602	5000	3750	—	—	44.62	127.48	1.13	3.24
34604	—	—	5000	—	61.78	176.53	1.57	4.48
34606	—	—	—	5000	59.44	169.82	1.51	4.31
34608	3500	2625	—	—	50.75	145.00	1.29	3.68
34610	—	—	3500	—	42.27	120.76	1.07	3.07
34614	2000	1500	—	—	25.90	74.01	0.66	1.88
34616	2500	1875	—	—	30.89	88.26	0.78	2.24
34620	—	—	—	2500	27.61	78.87	0.70	2.00
34622	1500	1125	—	—	17.04	48.69	0.43	1.24
34624	4500	3375	—	—	42.33	120.95	1.07	3.07
34626	—	—	4500	—	46.05	131.98	1.17	3.35
34630	—	—	2000	—	32.00	108.00	0.81	2.74
34652	6600	4950	—	—	70.56	201.59	1.79	5.12
34654	—	—	6600	—	65.39	186.71	1.66	4.74
34656	6000	4500	—	—	54.43	155.50	1.38	3.95
34658	—	—	6000	—	71.88	205.38	1.83	5.22
34660 ⁽¹⁾	5000	3756	—	—	25.00	70.00	—	—

(1) Larger diameter coil - 5/8"

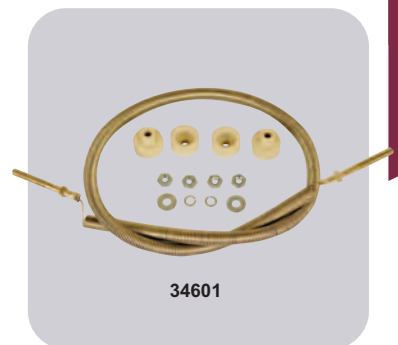
Thermal Fuse Links*



MARS NO.	°F	°C	DESCRIPTION
34700	204	95.56	Fuse Link
34702	283	139.45	Fuse Link
34704	333	167.22	Fuse Link
34706	300	148.89	Fuse Link
34708	300	148.89	Fuse Link—Round Ceramic Base
34710	227	108.33	Fuse Link—Oblong Ceramic Base
34712	300	148.89	Fuse Link—Oblong Ceramic Base

*10 per pack

Replacement Coil Economy Kits



MARS NO.	DESCRIPTION
34600	5000 Watt @ 240 V; includes coil, insulators & hardware
34601	5000 Watt @ 240 V; includes 300° fuse link, coil, insulators & hardware

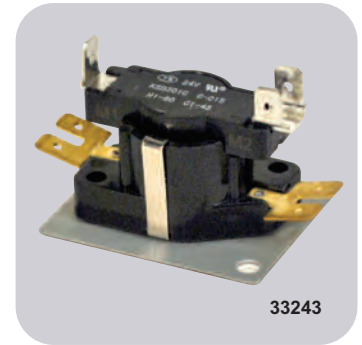
Electric Heat Sequencers

A new simple method for selecting and replacing electric heat sequencers with only five basic controls. Replace sequencers in almost any existing system.

Sequencer selection:

- A. Determine the number of circuits to be switched. (Electrical rating of auxiliary switch same as main switch.) When more than one (1) sequencer is required the sequencers are to be wired in series with the last switch in each sequencer energizing the control circuit of the next sequencer.
- B. Select from the chart the sequencers needed for the number of circuits to be switched. These sequencers may be wired in series to allow sequencing of virtually any number of heating elements and fans.

If the sequencers control the fan/blower circuit, the first switch (M1-M2) of each sequencer must always control the fan. This provides a fan interlock to insure that the fan will remain on until all elements are de-energized.

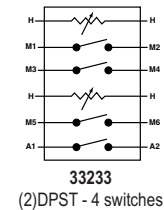
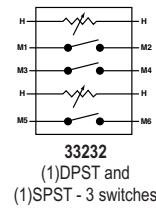
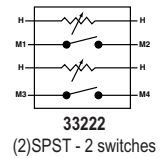
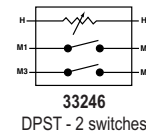
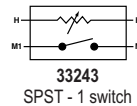


33243

Features:

- Solid State dependability
- Replaces Honeywell and White-Rodgers
- Ambient rated from 20°F to 160°F
- Used on both separate blower and element and combination blower and element systems
- Total 24 volt control
- Standard double quick-connect terminals for combination fan and element systems
- Full-load-rated auxiliary contacts
- 7.2 KW combination fan and element rated contacts (23A resistive, 7A motor load)
- Non-positional
- Voltage and ambient self compensating positive temperature coefficient (PTC) heater elements
- Individually packaged with wiring diagrams for up to seven element furnaces.
- UL and CSA listing available

Schematic



Contact Rating Chart

VAC	RES AMPS	FLA	LRA	PILOT DUTY VA
120	30	23	84	672
240	30	23	60	960
277	23	23	42	775
480	12.5	5	10	400

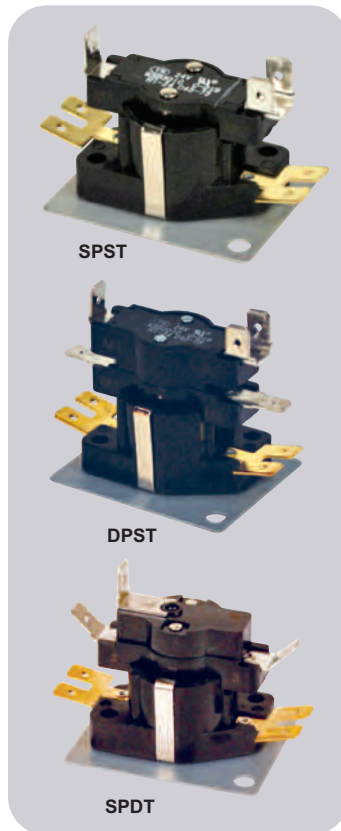
NO. OF SWITCHES	MARS NO.	REPLACES KLIXON NO.	SWITCH SEQUENCE		SWITCH TIMING: MIN-MAX IN SECONDS								
			FIRST ON LAST OFF	LAST ON FIRST OFF	SWITCH NO.1 TERMINALS M1 / M2		SWITCH NO.2 TERMINALS M3 / M4		SWITCH NO.3 TERMINALS M5 / M6		SWITCH NO.4 (2) TERMINALS A1 / A2		
1	33243	6000AOM	(1)		1-60	1-45							
2	33246	6000EOM	(1)		1-60	1-45	1-60	1-45					
2	33222	51172-22	No. 1	No. 2	1-24	45-75	30-70	1-40					
3	33232	51172-32	No. 1, No. 2	No. 3	1-24	45-75	1-24	45-75	30-70	1-40			
4	33233	51172-33	No. 1, No. 2	No. 3, No. 4	1-24	45-75	1-24	45-75	30-70	1-40	30-70	1-40	

Thermal Time Delay Relays Sequencers

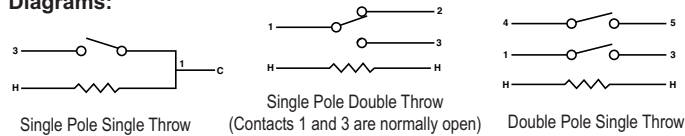
These time delay relays are used for a variety of applications in heating and air conditioning. They operate by means of a solid state PTC (positive temperature coefficient) device which heats up as current passes through it from the control circuit. This heat causes a positive, snap-acting disc to make or break the necessary contacts.

Features:

- Shock & vibration resistant internal snap action automatic reset switch mechanism assures positive make/break action
- Non-positional
- Wide selection for any application
- Voltage and ambient compensated
- UL and CSA listed
- Used for electric heat, air conditioning, heat pumps, gas & oil furnaces, unit heaters and commercial refrigeration



Diagrams:



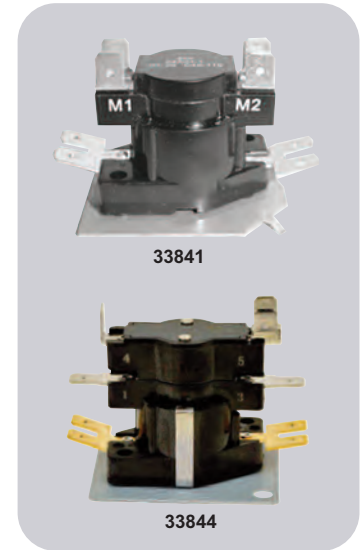
MARS NO.	REPLACES KLIXON NO.	SWITCH TYPE	CONTROL VOLTAGE	DELAY (SEC.)	
				ON	OFF
33215	G0-18		24	1-60	1-45
33217	G4-9		240	20-70	20-80
33241	AOM		24	1-24	45-75
33242	AOM	SPST N.O.	24	30-75	1-40
33243	AOM		24	1-60	1-45
33244	EOM		24	1-24	45-75
33245	EOM	DPST N.O.	24	30-75	1-40
33246	EOM		24	1-60	1-45
33247	COM-21	SPDT 1 & 3 N.O.	24	1-24	15-75
33255	E4	DPST N.O.	120	30-110	15-65
33256	E4		120	20-70	20-80
33265	E4	DPST N.O.	240	30-110	15-65
33266	E4		240	20-70	20-80
33267	C4M-13	SPDT 1 & 3 N.O.	240	20-70	20-80

Electric Heat Sequencers

The MARS heat sequencers are used in a variety of applications, including electric furnaces, baseboard heaters, heat pump blower control and heating element control. The sequencers stage electric heat to prevent circuit overload. These units operate by means of a PTC (positive temperature coefficient). The PTC is self current limiting, ensuring stable switching action over a wide range of voltages.

Features:

- Solid state dependability
- Replaces Honeywell, White Rodgers, and Klixon
- 12.5A to 25A contact ratings
- Quick connect terminals
- Various mounting positions
- Shock & vibration resistant
- Ambient rated from -50°F to 165°F
- Full-load rated auxiliary contacts



Single Load Contact Ratings

VAC	RESISTIVE (NON-INDUCTIVE)		MOTOR RATINGS (INDUCTIVE)		
	WATTS	AMPS	FULL LOAD	LOCKED ROTOR	PILOT DUTY
120	3000	25	10A	60A	125VA
240	6000	25	5A	30A	125VA
480	6000	12.5	3A	18A	480VA

Combined Load Ratings: 30A @ 240VAC - Total: 23A non-inductive + 7FLA / 42LRA inductive
Life at rated current: 10,000 cycles

MARS NO.	TIM.	SW.	M1-M2	M3-M4	M5-M6	M7-M8	M9-M10	M1-M2	M3-M4	M5-M6	M7-M8	M9-M10
33841	1	1	1-20	-	-	-	-	40-110	-	-	-	-
33842	1	1	-	-	30-90	-	-	■	-	1-30	-	-
33844 ⁽¹⁾	1	2	1-20	■ 1-20	-	-	-	40-110	40-110	■	-	-
33845	1	2	-	-	30-90	■ 30-90	-	-	■	-	1-30	1-30
33832 ⁽¹⁾	2	3	1-110	■ 1-110	1-110	-	-	1-110	■ 1-110	1-110	■	-
33833 ⁽¹⁾	2	4	1-110	■ 1-110	1-110	■ 1-110	-	1-110	■ 1-110	1-110	1-110	-
33848 ⁽¹⁾⁽²⁾	4	5	1-160	■ 1-160	1-160	1-110	1-160	1-160	1-160	1-160	1-160	1-160

(1) M1-M2 and M3-M4 are always first switches to turn ON and to turn OFF. All other switches are random ON and random OFF

(2) #33848 - switch contacts designated F1-F2 instead of M1-M2

■ These contacts switch simultaneously
ON TIME – Elapsed time to make contacts after heater is energized (Min. to Max.)
OFF TIME – Elapsed time to make contacts after heater is de-energized (Min. to Max.)
OFF Timings determined after PTC heater has been electrified for a total of 5 minutes.

Fan & Limit Disc Thermostats

Heating Applications

MARS Series 390 thermostats are designed for quick on-the-job replacements. One thermostat, when used in conjunction with only one listed, can solve almost any mounting problems you encounter.

Our thermostats have been carefully selected to cover the widest temperature ranges with the fewest models.

Features:

- Each 3/4" thermostat has an integral oval flange to match the most commonly used mounting option
- Widest range of replacements in the industry
- UL and CSA listings available

Electrical Rating

		Terminals	Terminals*
FL Amps	120v	1-3	1-2
	240v	10	5.8
Res. Amps	120v	5	2.9
	240/277v	25	10
	240/277v	25	5
Pilot Duty	120/240/277v	125va	125va

*For Spdt Thermostats

Fan Switches - Close On Temperature Rise

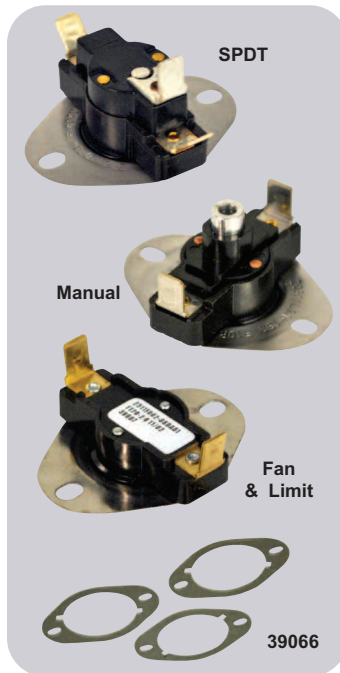
MARS NO.	KLIXON TEMP. CODE	TEMPERATURE °F	
		OPEN	CLOSE
39006	F110-2	90	110
39007	F120-2	100	120
39008	F130-2	110	130
39009	F140-2	120	140
39010	F150-2	130	150
39011	F160-2	140	160
39112	F175-2	155	175
39113	F195-2	175	195
39015	F210-2	190	210

Manual Reset Limit Switches - Open On Temperature Rise

MARS NO.	REPLACES KLIXON TEMP. CODE	TEMPERATURE °F
		OPEN °F
39099	MR125	125
39037	MR140	140
39038	MR150	150
39039	MR160	160
39095	MR170	170
39096	MR180	180
39097	MR190	190
39098	MR200	200
39040	MR210	210
39041	MR220	220
39042	MR240	240
39043	MR300	300

Mounting Flanges - 3 Per Package

MARS NO.	DESC.	TYPE OF MOUNTING	SWITCH DIA.
39066	small oval flat	flush	3/4"



Limit Switches - Open On Temperature Rise

MARS NO.	KLIXON TEMP. CODE	TEMPERATURE °F	
		CLOSE	OPEN
39086	L125-2	105	125
39087	L130-4	90	130
39018	L140-4	100	140
39019	L150-4	110	150
39020	L160-4	120	160
39021	L170-4	130	170
39022	L180-4	140	180
39023	L190-4	150	190
39024	L200-4	160	200
39025	L210-4	170	210
39026	L220-4	180	220
39027	L230-4	190	230
39028	L240-4	200	240
39029	L250-4	210	250
39030	L270-4	230	270
39130	L290-4	250	290
39031	L300-4	260	300
39032	L325-4	285	325
39033	L350-4	310	350

Single Pole Double Throw Switches

MARS NO.	KLIXON TEMP. CODE	TEMPERATURE °F	
		1-2 OPEN	1-2 CLOSE
39078	D140-2	120	140
39045	D150-2	130	150
39046	D160-2	140	160
39081	D170-2	150	170
39147	D195-4	155	195
39082	D205-4	165	205

Adjustable Fan or Limit Thermostats

MARS adjustable fan or limit thermostats let you reduce inventory and still have on hand the most popular thermostat ratings.

MARS adjustable thermostats are easily set for the desired temperature by turning the indicator dial built into the control. Each MARS adjustable thermostat features integral 2 hole oval mounting flanges.



Features:

- Easy dial adjustment
- Six controls cover most requirements
- Integral oval flange
- UL and CSA listings available

MARS NO.	TYPE	RANGE °F	DIFF. °F	SWITCHING ACTION
39205	Fan	90-130	20	Close on rise
39210	Fan	140-180	20	Close on rise
39220	Limit	135-175	40	Open on rise
39225	Limit	175-215	40	Open on rise
39230	Limit	210-250	40	Open on rise
39235	Limit	250-290	40	Open on rise

Cross Reference Information

GEM NO.	MARS NO.	WHITE-RODGERS NO.	MARS NO.	MARS 2	MARS NO.
AT 012	39220	3F05-1	39205	35205	39205
AT 013	39225	3F05-2	39210	35220	39220
AT 014	39230	3L05-1	39220	35225	39225
AT 015	39235	3L05-2	39225	35230	39230
AT 021	39205	3L05-3	39230	35235	39235
AT 022	39210				

Electric Heat High Limit Thermostats

MARS electric heat high limit thermostats are designed for easy accurate replacement of OEM thermostats on electric furnaces. Temperature ratings and differentials have been carefully selected for safe operation.

MARS electric heat high limit thermostats feature an exposed matte finish disc for fast response. Easy matching of OEM mountings using the integral round flange, accessory oval flange or the terminal mounting adapter.

Features:

- Exposed matte finish disc for fast response
- Oval mounting flange supplied to match many popular mounts
- Twelve models replace most popular OEM thermostats
- Individually bagged with instructions
- UL and CSA listings available



MARS NO.	TEMPERATURE °F		
	OPEN	CLOSE	DIFFERENTIAL
39310	110	90	20
39312	120	100	20
39314	130	100	30
39316	140	100	40
39318	145	105	40
39320	150	110	40
39322	155	115	40
39324	160	120	40
39326	170	130	40
39328	180	140	40
39330	190	150	40
39332	200	160	40

Pro-Series Heating Service Kit

MARS has selected the most popular fan and limit switches used in heating applications. Each switch has an integral small oval flange to duplicate the most popular mounting. UL and CSA listings available.



MARS NO.	SWITCH TYPE	KLIKON TEMP. CODE	TEMPERATURE °F		TEMPERATURE °C	
			CLOSE	OPEN	CLOSE	OPEN
39008	Fan	F130-2	130	110	54	43
39009	Fan	F140-2	140	120	60	49
39010	Fan	F150-2	150	130	66	54
39011	Fan	F160-2	160	140	71	60
39022	Limit	L180-4	140	180	60	82
39023	Limit	L190-4	150	190	66	88
39024	Limit	L200-4	160	200	71	93

Home Laundry Applications

MARS has carefully selected the most popular multi-purpose thermostats for home laundry and drier equipment. MARS Operating Limit Thermostats range from 125°F to 180°F and have narrow differentials (20°F).

Features:

- UL and CSA listings available.



Operating Limit Thermostats — Open On Temperature Rise

MARS NO.	KLIKON TEMP. CODE	TEMP °F-OPEN	TEMP. °F-CLOSE
39086	L125-2	125	105
39055	L130-2	130	110
39051	L150-2	150	130
39048	L180-2	180	160

Cross Reference Information

WR NO.	MARS REPLACEMENT	WR NO.	MARS REPLACEMENT	WR NO.	MARS REPLACEMENT
3F01-110	39006	3L01-120	39086	3L02-160	39039
3F01-120	39007	3L01-130	39087	3L02-170	39095
3F01-130	39008	3L01-140	39018	3L02-180	39096
3F01-140	39009	3L01-180	39022	3L02-190	39097
3F01-150	39010	3L01-190	39023	3L02-200	39098
3F01-160	39011	3L01-200	39024		
3F01-180	39112	3L01-230	39027	3L03-140	39078
3F01-200	39113	3L01-250	39029	3L03-190	39147
3F01-350	39017	3L01-300	39031	3L03-325	39093
		3L01-350	39033		
		3L01-550	39036		

MARS Thermocouples

MARS universal replacement thermocouples are fully equipped with fittings and necessary hardware for quick and easy installation.

Each kit is packaged on a display card for easy identification.

Features:

- High temperature stainless steel element for long life and dependable operation
- Fully equipped with fittings and necessary hardware for quick and easy installation
- Individually display packaged for protection and easy identification



MARS NO.	MODEL NO.	LENGTH INCHES
72218	TC-18P	18
72224	TC-24P	24
72230	TC-30P	30
72236	TC-36P	36
72248	TC-48P	48

Hot Surface Igniters

MARS Universal Silicon Nitride Igniter

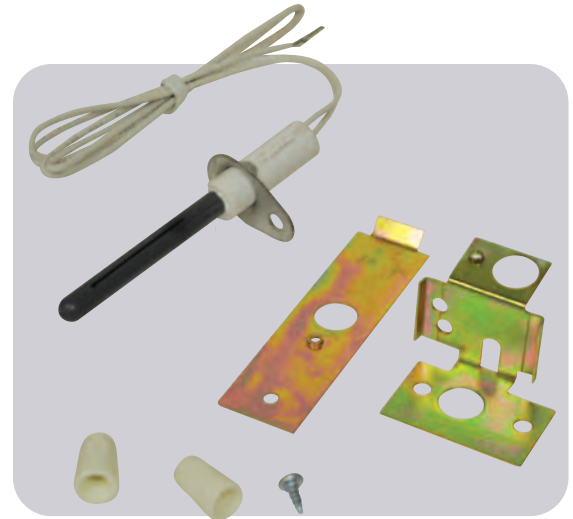
MARS Universal Silicon Nitride Igniter is designed to replace over 100 silicon nitride igniter applications. The universal bracket kit is used in a simple series of combinations for a quick and easy installation. Extremely low iron content makes the MARS Universal Silicon Nitride Igniter very durable and reliable. Low energy consumption makes it perfect for any 120 VAC application.

Features:

- Gas fired forced air furnaces and boilers
- Easy to install
- Universal bracket fits most furnaces
- Fits over 100 applications

Specifications:

- Input voltage 120vac
- Time to ignition temperature: 16 seconds
- CSA certified
- Steady current 1.3 amps (± 0.3 amps @ 120v)



MARS NO.	DESCRIPTION
68040	Universal SiN Round Silicone Nitride Igniter

Gas Furnace Igniters

- Compatible with 17, 34, and 45 second warm-up modules
- Full 115/120 volt rated (no step down module required for silicon nitride)
- Wire nuts or OEM plugs and mounting hardware included
- New laminated pictorial cross reference and contractor tri-folds available

Flat silicon carbide: The most economical solution.

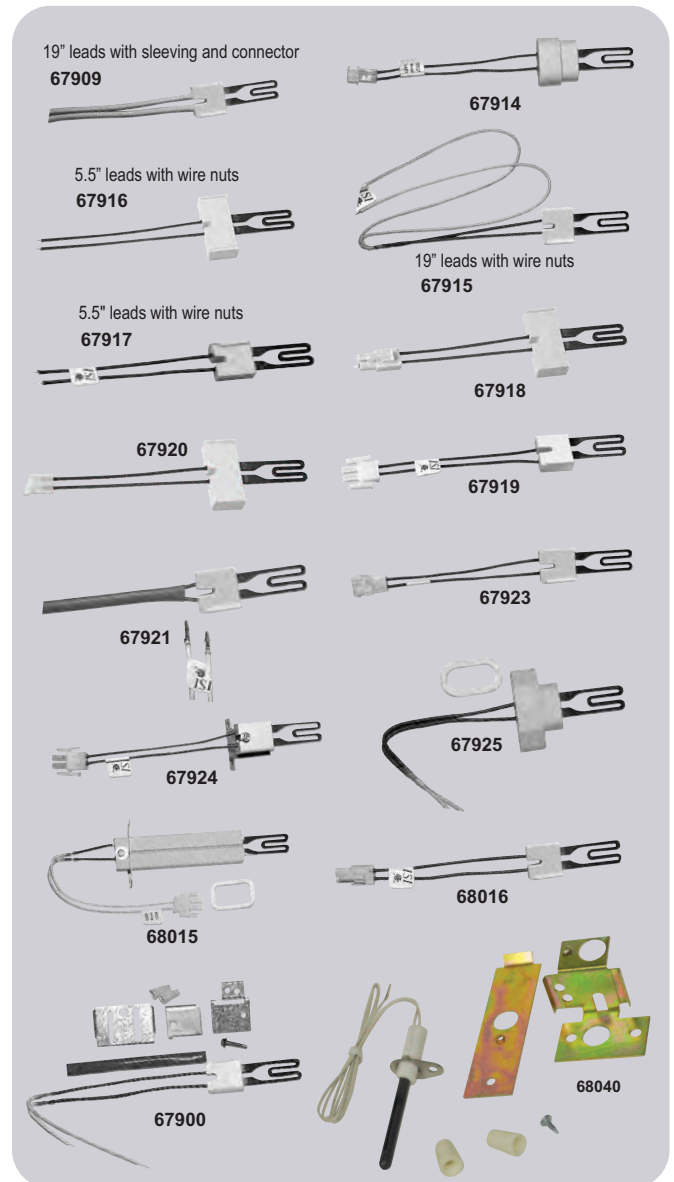
Silicon nitride: The newest technology is virtually indestructible.

Direct Replacements

FLAT SILICON CARBIDE	INDUSTRY RECOGNIZED REFERENCE
67914	41-401
67915	41-402
67916	41-403
68017	41-404
67917	41-405
67925	41-406
67918	41-407
67919	41-408
67920	41-409
68016	41-410
68013	41-411
68014	41-412/41-414
67915	41-238/41-242
68015	Rheem 62-22669-92
67909	Coleman 1474-051P / 052P
67921	Lennox 33J37
67924	Goodman B1401015 / B1401018S
67923	York 025-32625-000

Universal

FLAT SILICON CARBIDE	SILICON NITRIDE	SUPCO	WHITE-RODGERS
67900	N/A	SIG1100	
N/A	68040	SSN2000	21D64-2



*Cannot be sold in Canada

Service & Installation



Description	Page No.
A/C Condenser Pads	SI-3
A/C Mounting Brackets	SI-3
A/C Whips	SI-9
Abrasive Cloths	SI-80
Access Fittings & Valves	SI-38 – SI-39
Air Handler Block, Furnace	SI-4
Anti-Vibration Pads	SI-3
Batteries	SI-72
Brazing Alloys, Solders & Fluxes	SI-49 – SI-51, SI-59 – SI-60
Brushes	SI-78 – SI-79
Bulbs	SI-28 – SI-29
Cable Cutter	SI-28, SI-37
Caulking Guns	SI-90
Chemicals	SI-40, SI-96 – SI-101
Circuit Breaker Branch Panels	SI-12 – SI-13
Circuit Breakers	SI-11 – SI-12
Circuit Protection	SI-12, SI-69
Clipboards	SI-105
Compressor Terminal Repair Kit	SI-52, SI-55
Condensate Products	SI-68 – SI-69
Conduit	SI-9
Cords & Cord Sets	SI-33 – SI-34
Cylinder Cradles	SI-34
Disconnects & Safety Switches	SI-5 – SI-8
Duct Straps, Pipe Hangers & Hooks	SI-34 – SI-36
Electrical Fittings	SI-31 – SI-32
Expansion Valves	SI-43
Filters	SI-91 – SI-92
Filter & Heat Pump Driers	SI-41 – SI-44
Fittings, Nylon & Galvanized	SI-68
Flashlights & Accessories	SI-73 – SI-74
Furnace Blocks	SI-4
Fuses JARD	SI-21
Fuses & Power Blocks, Mersen	SI-18 – SI-21
Fuse Pullers	SI-81 – SI-82
Fuses, Zebra	SI-22
Garden Hoses & Sprayers	SI-102
Gas Appliance Fittings & Valves	SI-63 – SI-64
Gloves	SI-85
Glue	SI-97
Hand Cleaners	SI-86, SI-98
Hardware, Screws, Washers, Nuts, Anchors	SI-76 – SI-77
Heat Pump Risers	SI-4
Hose Clamps	SI-62
Knives, Repl. Blades & Sharpeners	SI-37, SI-84

Description	Page No.
Light Bulbs	SI-28 – SI-29
Lines & Tubing	SI-47, SI-56
Maintenance Products	SI-87 – SI-88, SI-94 – SI-101
Markers	SI-96
Outlet Boxes	SI-29 – SI-31
Plumbing & Piping Products	SI-57 – SI-61
PVC Cement, Cleaner & Primer	SI-57 – SI-61, SI-64 – SI-65, SI-92
PVC Fittings & Traps	SI-66 – SI-68
Refrigerant ID Labels	SI-75
Refrigerant Locking Caps	SI-39
Remote Control, Universal	SI-70
Roof Flashing & Furnace Legs	SI-4
Rooftop Support Systems	SI-5
Rope, Tie Downs and Tarps	SI-35
Safety Products	SI-84 – SI-85
Scales	SI-74
Sealant Products	SI-88 – SI-92, SI-96 – SI-101
Service Manifolds & Accessories	SI-47
Sight Glasses	SI-43
Solderless Terminals	SI-52 – SI-55
Specialty Tools	SI-51
Sprayers & Hoses	SI-102
Strut & Accessories	SI-48 – SI-49
Switches & Outlets	SI-22 – SI-24
Tape	SI-57, SI-69, SI-90 – SI-94
Tarps	SI-35
Test Instruments	SI-70 – SI-71, SI-74
Test Leads	SI-71
Textbooks	SI-105
Thermo Expansion Valves	SI-43
Thermometers	SI-75 – SI-76
Thermostat Guards	SI-10 – SI-11
Thermostat Wire	SI-27
Tool boxes & Bags	SI-103 – SI-104
Tools, Hand	SI-46, SI-80 – SI-84
Towels	SI-87 – SI-88
Tubing Tools	SI-44 – SI-46
Vibration absorbers, Stainless Steel	SI-47
Wire Caddy	SI-28
Wire Markers	SI-28
Wire Nuts	SI-24 – SI-25
Wire Products	SI-25 – SI-27
Wire Ties	SI-37
Wiring Devices	SI-22 – SI-24, SI-33
Wrot Copper Fittings	SI-49

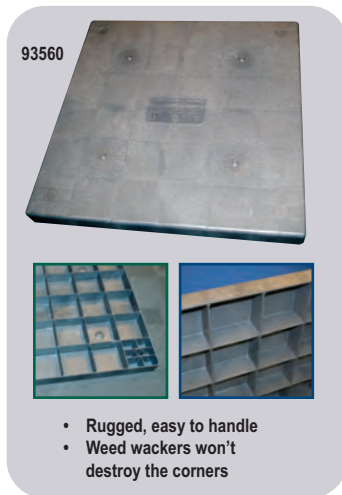


MARS A/C Condenser Pads

MARS is pleased to offer a full line of Air Conditioning Condenser Pads. These dark gray plastic pads are molded from polypropylene. The lightweight, one piece constructed pads are virtually unbreakable and built to last. Two and three inch thick pads are available.

Features & Benefits:

- UV stable – prevents weathering or cracking
- Chemical resistant
- Solid wall construction
- Will not chip or crack
- Lightweight
- Textured surface – prevents unit from sliding
- Unique footpads – prevent unit from sinking into ground
- Size molded in side of pad
- Drillable for attachment of unit



MARS NO.	DESCRIPTION	PALLET QTY.
93560	24" x 24" x 2"	88
93577	24" x 24" x 3"	64
93561	24" x 36" x 2"	22
93578	24" x 36" x 3"	16
93565	30" x 30" x 2"	22
93584	30" x 30" x 3"	16
93562	32" x 32" x 2"	22
93587	32" x 32" x 3"	16
93573	36" x 36" x 2"	22
93592	36" x 36" x 3"	16
93576	36" x 40" x 2"	22
93593	36" x 40" x 3"	16
93594	36" x 48" x 3"	16

MARS A/C Mounting Brackets

Heavy duty engineered steel A/C brackets are used for mounting A/C condensers and heat pumps on vertical walls. Brackets include mounting holes and are finished in a durable gray powder coat.



MARS NO.	DESCRIPTION	MARS PACK
93630	30" Powder Coated Steel Bracket	1 Pair
93631	36" Powder Coated Steel Bracket	1 Pair
93632	42" Powder Coated Steel Bracket	1 Pair
93636	48" Powder Coated Steel Bracket	1 Pair

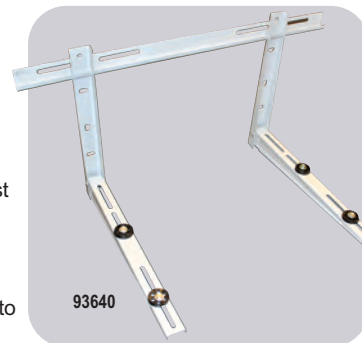
* load or wall load limitations is restricted by strength of hardware used

MARS Universal Mini-Split Condenser Wall Mount Brackets

MARS mini-split brackets are available in four sizes to accommodate mounting of popular mini-split compressors.

Bracket kits include mounting hardware and vibration absorbers for a professional installation. Pre-assembled vertical supports speed installation.

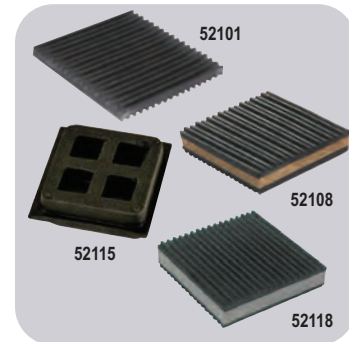
- Powder Coat Finish - resists rust and corrosion
- Mounting and attachment hardware included
- Bracket width and depth adjust to accommodate compressor size
- Vibration pads included for a durable and quiet installation
- Pre-assembled vertical supports reduce installation time



MARS NO.	SIZE H X L X W	LOAD CAPACITY (LBS)
93640	14.5" x 18" x 33.5"	260
93641	18" x 22" x 33.5"	330
93642	18" x 24" x 33.5"	400
93643	19" x 30" x 47.25"	440

Anti-Vibration Pads

MARS offers a complete line of anti-vibration pads. These high quality rubber pads provide maximum loading of 60 lbs. per square inch. Anti-vibration pads can be used on any type of mechanical/electrical machines such as pumps, motors, air conditioning units, generators, compressors, etc. The plain rubber pads have grooves on both sides. The cork rubber pads are the same but with the added advantage of reduction in sound level. The natural rubber Iso-Pads can be easily cut for odd sized dimensions under equipment legs and supports. The use of these pads eliminates the need for bolting down equipment to the floor. These Iso-Pads provide superior isolation, attenuation and vibration characteristics.

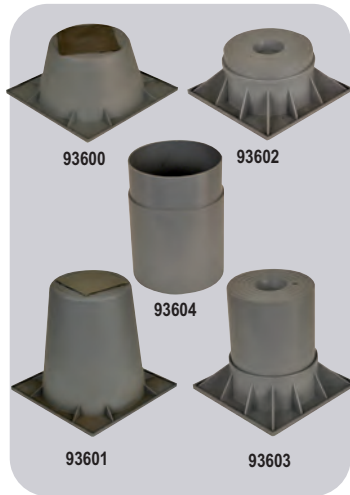


MARS NO.	DESCRIPTION	MARS PACK
52101	2" x 2" x 3/8" Rubber	1
52102	3" x 3" x 3/8" Rubber	1
52103	4" x 4" x 3/8" Rubber	1
52104	6" x 6" x 3/8" Rubber	1
52107	18" x 18" x 3/8" Rubber	1
52108	2" x 2" x 7/8" Cork/Rubber	1
52109	3" x 3" x 7/8" Cork/Rubber	1
52110	4" x 4" x 7/8" Cork/Rubber	1
52111	6" x 6" x 7/8" Cork/Rubber	1
52114	18" x 18" x 7/8" Cork/Rubber	1
52115	2" x 2" x 3/4" Iso-Pad	1
52116	4" x 4" x 3/4" Iso-Pad	1
52117	18" x 18" x 3/4" Iso-Pad	1
52119	2" x 2" x 7/8" Foam/Rubber	1
52118	4" x 4" x 7/8" Foam/Rubber	1
52120	6" x 6" x 7/8" Foam/Rubber	1
52122	18"x18"x7/8" Foam/Rubber	1

SERVICE & INSTALLATION

MARS Heat Pump Risers

Heavy duty composite heat pump risers are available in 2 popular heights in a cost effective 1 piece design as well as a 2 piece terrain adaptable design. Each riser includes factory installed buytl mastic patches on the top and bottom to absorb vibration and reduce noise.



MARS NO.	DESCRIPTION	MARS PACK
93600	3" 1 Piece Heat Pump Riser	48
93602	3" 2 Piece Heat Pump Riser	32
93601	6" 1 Piece Heat Pump Riser	24
93603	6" 2 Piece Heat Pump Riser	16
93604	4" Riser Extension	16

Roof Flashings

Galvanized no calk® roof flashings feature a one-piece construction which insures a positive leak proof installation every time. Specially formulated elastomeric collar allows the vent stack plenty of room for expansion and contraction. The patented double seal no-calk collar "gives" with the pipe, without breaking the water tight seal. The galvanized base is made from 24 gauge deep drawing steel extra high with no seams.

Flex Flash flashings are manufactured from a special formulated clastomer material which is extremely flexible and durable. They permit the vent stack to expand and contract freely without disrupting the seal between pipe and flashing collar. The flashing adjusts to most any angle and adapts to all type of pipe; copper, cast iron, galvanized or plastic. Fits up to 40° angle.



MARS NO.	DESCRIPTION	MARS PACK
79360	1 1/4" - 1 1/2" no calk galvanized, 9" x 12.5" base	12
79361	2" no calk galvanized, 9" x 12.5" base	12
79362	3" no calk galvanized, 11" x 14.5" base	12
79364	1/2", 3/4", 1" no calk galvanized solar, 9" x 12.5" base	12

MARS Air Handler Blocks

- Lightweight 2 lb styrofoam block
- 8" x 8" x 4"

Packaged in boxes of 20 (21 boxes per pallet)



MARS NO.	DESCRIPTION	MARS PACK
93637	8" x 8" x 4" Air Handler Block	20

MARS Easy Leveler™ Furnace Legs

- Includes 4 easy leveler legs & sheet metal screws
- Designed to level a furnace & air conditioning coil for proper drainage.
- Proper leveling helps eliminate standing water, thus reducing bacteria
- Easily adjustable even after installation
- Legs can support up to 400 lbs.
- Adjustable from 2-3/4" to 4" in height



MARS NO.	DESCRIPTION	MARS PACK
79095	Adjustable furnace legs	12

Economy Furnace Mounting Blocks

- Holds furnace 2" off the floor
- Absorbs vibration, reduces noise
- Composite construction
- Peel & stick installation



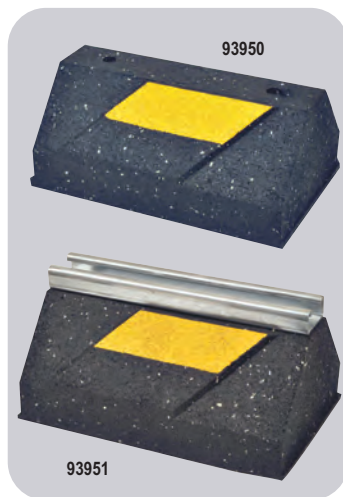
MARS NO.	DESCRIPTION	MARS PACK
79085	Economy furnace mounting blocks	12

Rooftop Support Systems

Economy CX-Series

- Base only
- Material – 100% recycled rubber, UV resistant
- Maximum Load – 2 – 800 lbs.

CX Series rooftop support is designed as an economic alternative when a high load bearing is not required. They are perfect for supporting conduit or smaller pipe.



C-Series

- Material – 100% recycled rubber, UV resistant
- Maximum Load – 750 lbs./ft

C Series channel support is designed for superior support of gas and refrigeration piping systems, cable tray, electrical conduit multiple lines, HVAC equipment and many other applications.

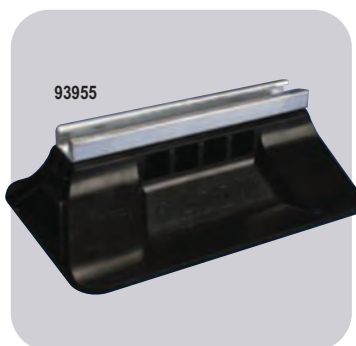
MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93950	CX-Series 4" H x 6" W x 9.6" L	1	170
93951	C-Series 4 7/8" H x 6" W x 9.6" L	1	170

Caddy® Pyramid ST Series Rooftop Support

Caddy® Pyramid ST Series Rooftop Support is roof-friendly, high-quality, versatile and durable for roofing applications.

Features:

- Thermoplastic base is UV stabilized and weatherproof for long lasting
- Fixed-height mounting platform 4" off the roof surface and 10" of usable strut length, provides excellent load distribution
- Structurally engineered to support up to 1,000 lbs
- Hot-dipped galvanized finish
- Superior corrosion protection
- Supports the green building requirements, bases are made from recycled material and can contribute toward earning LEED credit



MARS NO.	MFG NO.	HEIGHT	LENGTH (1)	LENGTH (2)	WIDTH	SURFACE AREA	MAX. REC. LOAD
93955	RPS360400	4"	10"	12.5"	8"	94.3"	1,000 lbs.

* Max. recommended load at 10.6 PSI roof loading. Contact project or roofing engineer for maximum allowable load on individual project roof system.

MARS Front Open Pullout Disconnect Boxes - NEMA 3R

MARS offers both fusible and non-fusible single phase air conditioner disconnects. These units provide a disconnecting means which should be located within sight from and readily accessible from the air conditioning or refrigerating equipment. UL listed. MARS #83315 is also CUL listed



MARS NO.	DESCRIPTION	CASE QTY.
83315	60 amp non-fused, single phase	6
83316	30 amp fused, single phase	6
83317	60 amp fused, single phase	6
83396	Compact 30 amp fused, single phase	6
83335	Generic brand 60 amp non-fused, single phase	6

MARS Side Open Pullout Disconnect Boxes - NEMA 3R

The MARS Side Open Disconnect Boxes are contractor friendly and feature a unique side opening door, allowing easy access to the work area. The powder coated UV rated finish provides superior esthetics and greater longevity. The patented "finger safe" pullout section prevents accidental contact with electrodes. Easy to remove knockouts and a secure locking mechanism are also featured. This Pullout Disconnect Box is the ideal choice for the busy contractor.

MARS 80328 features an on/off switch so there are no pullout handles to be lost.

Specifications:

- Single phase, 240V
- 10,000 amp rated
- NEMA 3R, rainproof
- UL & CUL rated

Patented "Finger Safe" Pullout section prevents accidental contact with electrodes

Unique side opening door permits greater visibility and access to work area

Easy to remove concentric knockouts & secure locking mechanism



MARS NO.	DESCRIPTION	STD. PACK	CASE QTY.
80315	60 amp non-fused	6	6
80316	30 amp fused	6	6
80317	60 amp fused	6	6
80328	60 amp fused – Switch Disconnect	6	6

SERVICE & INSTALLATION

Midwest A/C Disconnects - NEMA 3R



- Fusible disconnects are available in 30 and 60 Amp models
- Pullers are removable or reinstallable in the OFF position for the user safety during equipment maintenance

Specifications:

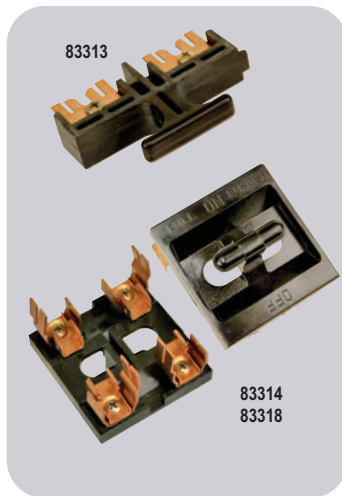
- 30-100 Amps
- 120/240V AC, Single Phase
- Accepts class H fuses (not included)



MARS NO.	DESCRIPTION	CASE QTY.
83385	60 amp non-fused, single phase	6
83386	30 amp fused, single phase	6
83387	60 amp fused, single phase	6

Pullouts For MARS Disconnect Boxes

MARS offers both fusible and non-fusible single phase non-metallic air conditioner disconnects. These horse power rated units are constructed of Noryl® thermoplastic for extended and rugged durability. Units are corrosion resistant, weatherproof, and maintenance free. UL listed and CSA certified.



MARS NO.	DESCRIPTION	CASE QTY.
83313	60 amp non-fused pullout for 83315	1
83314	30 amp fused pullout for 83316	1
83318	60 amp fused pullout for 83317	1
83319	30 amp fused pullout for 83396	1
80312	60 amp non-fused pullout for 80315 & 80308	1
80313	30 amp fused pullout for 80316	1
80314	60 amp fused pullout for 80317	1

MARS A/C Disconnect/GFCI Receptacle Combination

MARS A/C Disconnect/ GFCI Receptacle Combination disconnects provide a convenient low cost means to satisfy NEC Article 210.63 requirements for HVAC/R Equipment Outlets and Article 406.8(B)(1) for Receptacle – Wet Locations. The NEMA 3R design insures a safe, weather tight installation for residential, light commercial and even some industrial applications.

Features & Benefits:

- 60 amp, non-fused, pullout type
- 240 volt A/C, single phase
- UL & CUL listed
- Compact size – 5"x7"x4"
- Meets NEC #210.63 & #406.8(B) (1)
- Removable cover
- Heavy galvanized 'G90' steel with highest quality electro-deposition finish resists corrosion and fading
- NEMA 3R rated



MARS NO.	DESCRIPTION	MARS PACK
83308	60 Amp, Non-Fused, 15 Amp, 125V GFCI Duplex Receptacle	6
83309	60 Amp, Non-Fused, 20 Amp, 125V GFCI Duplex Receptacle	6

MARS Side Open Pullout Disconnect w/GFCI Receptacle

The MARS Side Open Disconnect w/GFCI Receptacle provides a convenient low cost means to satisfy NEC 2003 code changes requiring that a GFCI receptacle with a "while in use" cover be within a 25ft line of sight of the condenser unit. The pre-wired receptacle with stripped wire ends makes installation of disconnect and receptacle quick and easy. This unit provides a significantly lower "installed cost" to the contractor when compared to installing a standard disconnect and separate GFCI receptacle with "while in use" cover to comply with the new NEC code change.

Additional features and benefits include: Convenient electrical power cord channel w/retaining clip for easy and safe use of portable tools; Large wiring compartment for both disconnect switch and receptacle; Angled receptacle mounting to eliminate the possibility of crushing portable electrical plugs when closing "while in use" cover; Attractive side opening cover design for ease of installation; Ultra UV powder coating.

Specifications:

- 60 amp, non-fused, pullout type
- Pre-wired 15A, 125V GFCI receptacle included
- 240 volt, single phase
- 10,000 amp rated
- NEMA 3R & UL rainproof
- UL & CUL approved
- Rated for 10HP @ 240 volts
- Meets NEC #210.63 & #406.8(B)(1)
- Multiple patents pending



Midwest Non-Metallic Disconnects - NEMA 3R

Midwest Electric offers both fusible and non-fusible single phase non-metallic air conditioner disconnects. These horse power rated units are constructed of Noryl® thermoplastic for extended and rugged durability. Units are corrosion resistant, weatherproof, and maintenance free. UL listed and CSA certified.



MARS NO.	DESCRIPTION	CASE QTY.
83312	60 amp non-fused, single phase	6
83306	30 amp fused, single phase	6
83307	60 amp fused, single phase	6

Midwest Three Phase Pullout Disconnects - 240V - NEMA 3R

Midwest Electric three phase pull out disconnects and single phase non-automatic switches are manufactured of heavy zinc coated steel with highest quality electro-deposition paint finish for maximum corrosion resistance. The three phase disconnects are available with and without fuse protection. Fusible units require three fuses. NEMA 3R.



MARS NO.	DESCRIPTION	CASE QTY.
83321	60 amp non-fused, three phase	4
83322	30 amp fused, three phase	4
83323	60 amp fused, three phase	4

Midwest Non-Automatic Disconnects - Nema 3R

Midwest Electric has developed a new NEMA 3R, non-automatic A/C disconnect with a patent pending on/off switch mechanism so there is no pullout to lose. This UL and CSA listed disconnect features: a keyhole mounting slot for easy installation, a removable door for easy wiring access, straight in and out lugs for quick connections and six 1/2" x 3/4" x 1" concentric knockouts.

The single phase non-automatic disconnects do not provide overcurrent protection with manual internal on/off switch



MARS NO.	DESCRIPTION	CASE QTY.
83328	60 amp, 240V, 10 HP	6

Midwest Heat Pump Disconnects - NEMA 3R

Multiple disconnect devices are offered for heat pump applications that require individual disconnects for the heating and cooling cycles. The dual pull outs accommodate either a 30A/60A or 60A/60A puller combination. Units require four fuses.

Specifications:
• 120/240 AC



MARS NO.	DESCRIPTION	CASE QTY.
83324	90 amp fused	1
83325	100 amp fused	1

Midwest Evaporative Cooler Disconnects - NEMA 3R

Evaporative cooler applications not only require fusing but switching or receptacle functions depending on equipment type and local codes. The 40 ampere unit utilizes 3 S plug fuses.



MARS NO.	DESCRIPTION	CASE QTY.
83327	40 amp fused, receptacles	1

SERVICE & INSTALLATION

Midwest Non-Metallic, Non-Auto Switch Residential/Construction A/C Disconnect, NEMA 3R



MARS NO.	DESCRIPTION	CASE QTY
83388	60 amp non-fused, single phase	6

Midwest Metallic Residential/Construction, A/C Disconnects w/ Receptacle, NEMA 3R



MARS NO.	DESCRIPTION	CASE QTY
83398	60 amp non-fused, single phase	6

I-T-E Cartridge Fuse Type - UL Listed

1 Phase/2 wire, 3 Phase/3 wire, solid neutral



MARS NO.	DESCRIPTION	TYPE	CASE QTY
83330	30a - 240V 2 pole, exterior	3R	1
83331	60a - 240V 2 pole, exterior	3R	1
83333	30a - 240V 2 pole, interior	1	1
83334	60a - 240V 2 pole, interior	1	1
83336	30a - 240V 3 pole, exterior	3R	1
83337	60a - 240V 3 pole, exterior	3R	1
83339	30a - 240V 3 pole, interior	1	1
83340	60a - 240V 3 pole, interior	1	1
83368	100a - 240V 3 pole, interior	1	1

I-T-E Plug Fuse Type - UL Listed

1 Phase, solid neutral

MARS NO.	DESCRIPTION	TYPE	CASE QTY
83342	30a - 120V 1 pole, interior	1	6

I-T-E Unfused General Duty Enclosed Switches

1 Phase, solid neutral



MARS NO.	DESCRIPTION	TYPE	CASE QTY
83346	30a - 240V 2 or 3 pole, 3 phase exterior	3R	1
83347	60a - 240V 2 or 3 pole, 3 phase, exterior	3R	1
83349	30a - 240V 2 or 3 pole, 3 phase interior	1	1
83350	60a - 240V 2 or 3 pole, 3 phase interior	1	1
83352	60a - 240V 1 or 2 pole, 1 phase exterior	3R	1

I-T-E Heavy Duty 3PH 600V - Type 1 - Indoor



MARS NO.	DESCRIPTION	CASE QTY
83353	30a - 600V fused	1
83354	60a - 600V fused	1
83355	100a - 600V fused	1
83356	30a - 600V unfused	1

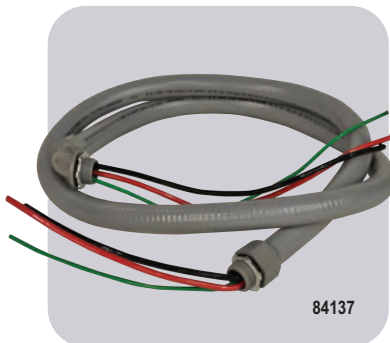
I-T-E Heavy Duty 3PH 600V - Type 3R - Outdoor



MARS NO.	DESCRIPTION	CASE QTY
83359	30a - 600V fused	1
83360	60a - 600V fused	1
83361	100a - 600V fused	1
83362	30a - 600V unfused	1
83363	60a - 600V unfused	1
83364	100a - 600V unfused	1

MARS A/C Whips Non-Metallic Fittings

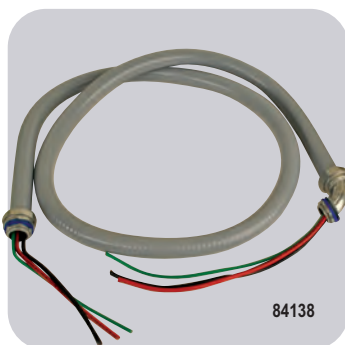
Non-metallic conduit with non-metal fittings.
Assembled with UL approved components.



MARS NO.	DESCRIPTION	MARS PACK
84131	4' x 1/2" #10 ga. non-metallic whip UL	1
84133	4' x 3/4" #8 ga. non-metallic whip UL	1
84135	6' x 1/2" #10 ga. non-metallic whip UL	1
84137	6' x 3/4" #8 ga. non-metallic whip UL	1
84139	8' x 1/2" #10 ga. non-metallic whip	1
84141	8' x 3/4" #8 ga. non-metallic whip	1
84143	10' x 3/4" #8 ga. non-metallic whip	1

MARS A/C Whips Metallic Fittings

Non-metallic conduit with metal fittings.
Assembled with UL approved components.



MARS NO.	DESCRIPTION	MARS PACK
84132	4' x 1/2" #10 ga. metallic whip UL	1
84134	4' x 3/4" #8 ga. metallic whip UL	1
84136	6' x 1/2" #10 ga. metallic whip UL	1
84138	6' x 3/4" #8 ga. metallic whip UL	1

MARS A/C Whips All Metallic

MARS NO.	DESCRIPTION	MARS PACK
84125	4' x 1/2" all metallic whip	1
84126	4' x 3/4" all metallic whip	1
84127	6' x 1/2" all metallic whip	1
84128	6' x 3/4" all metallic whip	1

All Whips Bagged

Sealtite® Flexible Metallic Conduit

Sealtite® flexible conduit provides protection for wet or oily locations. UL listed conduit has a continuous copper ground built into the core. All UL listed Sealtite® is UV resistant.



MARS NO.	DESCRIPTION	MARS PACK
84102	1/2", metallic conduit, UL, boxed 100 ft	1
84103	3/4", metallic conduit, UL, boxed 100 ft	1
84110	1/2", metallic conduit, boxed 100 ft	1
84111	3/4", metallic conduit, boxed 100 ft	1

Liquid-Tight Flexible Non-Metallic Conduit

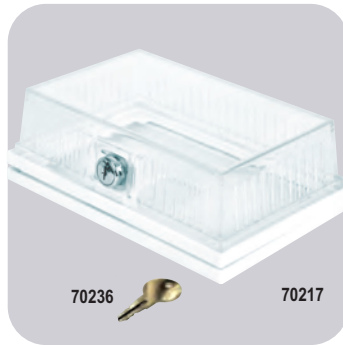
- Flexible PVC construction. Phthalate free.
- Lightweight and lower installed cost
- Oil/water resistant
- Sunlight resistant, direct burial
- Crush resistant
- Temperature rated: -18°C to 75°C
- UL listed, CSA certified



MARS NO.	DESCRIPTION	MARS PACK
84117	3/8", non-metallic conduit, UL, boxed 100 ft	1
84118	1/2", non-metallic conduit, UL, boxed 100 ft	1
84119	3/4", non-metallic conduit, UL, boxed 100 ft	1
84120	1", non-metallic conduit, UL, boxed 100 ft	1
84121	1/2", non-metallic conduit, UL, polybag 25 ft	1
84122	3/4", non-metallic conduit, UL, polybag 25 ft	1

MARS Designer Series - Plastic Cover And Base

MARS offers a broad selection of thermostat guards. Popular models available include metal, clear plastic and opaque plastic designs. MARS thermostat guards are ideal for protecting thermostats in schools, industrial plants institutions, public facilities and other areas where unauthorized tampering could be a problem. These attractive units feature a rugged, light weight and compact design. All units supplied with key. Extra keys are available. Order part #70236 for the BTG thermostat guard key.



INSIDE DIMENSIONS (INCHES)	BASE	HEIGHT	WIDTH	DEPTH
	Solid	8	5	2 1/8
	Ring	8	5	2 1/8

MARS NO.	DESCRIPTION	BASE	MARS PACK	CASE QTY.
70217	BTG-DK clear plastic	Dual	1	12
70236	F336, extra key for all BTG guards		1	1

MARS Universal Series

MARS offers a broad selection of thermostat guards. Popular models available include metal, clear plastic and opaque plastic designs. MARS thermostat guards are ideal for protecting thermostats in schools, industrial plants institutions, public facilities and other areas where unauthorized tampering could be a problem. These attractive units feature a rugged, light weight and compact design. All units supplied with key. Extra keys are available. Order part #70236 for the BTG thermostat guard key.

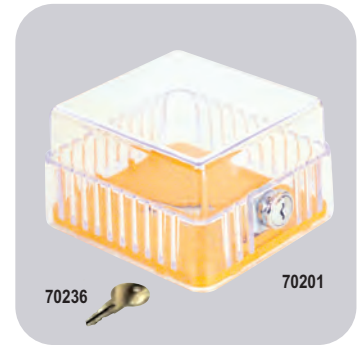


PLASTIC INSIDE DIMENSIONS (INCHES)	BASE	HEIGHT	WIDTH	DEPTH
	Solid	9 5/16	5 5/8	3 9/16
	Ring	9 5/16	5 5/8	3 9/16
	METAL	Solid	8	5 9/16
	Ring	8	5 9/16	3 5/8

MARS NO.	DESCRIPTION	BASE	MARS PACK	CASE QTY.
70220	BTG-UK2 clear plastic	Dual	1	12
70223	BTG-UM metal	Solid	1	12
70224	BTG-UWM metal	Ring	1	12
70236	F336, extra key for all BTG guards		1	1

MARS Elite Series - Plastic Base

MARS offers a broad selection of thermostat guards. Popular models available include metal, clear plastic and opaque plastic designs. MARS thermostat guards are ideal for protecting thermostats in schools, industrial plants institutions, public facilities and other areas where unauthorized tampering could be a problem. These attractive units feature a rugged, light weight and compact design. All units supplied with key. Extra keys are available. Order part #70236 for the BTG thermostat guard key.



INSIDE DIMENSIONS (INCHES)	BASE	HEIGHT	WIDTH	DEPTH
	Solid	4 3/4	4 1/2	2 3/4

MARS NO.	DESCRIPTION	BASE	MARS PACK	CASE QTY.
70201	BTG-EK clear plastic cover	Solid	1	12
70236	F336, extra key for all BTG guards		1	1

MARS Classic Series - Plastic Base

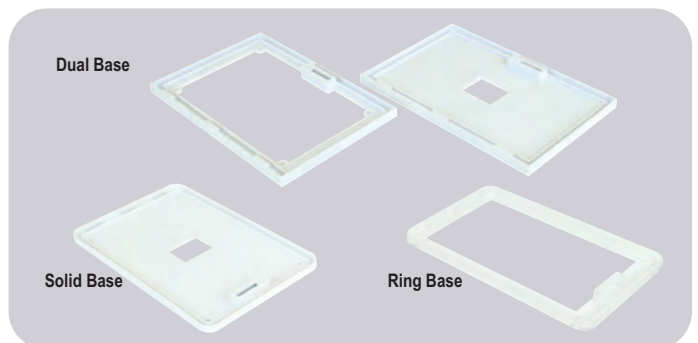
MARS offers a broad selection of thermostat guards. Popular models available include metal, clear plastic and opaque plastic designs. MARS thermostat guards are ideal for protecting thermostats in schools, industrial plants institutions, public facilities and other areas where unauthorized tampering could be a problem. These attractive units feature a rugged, light weight and compact design. All units supplied with key. Extra keys are available. Order part #70236 for the BTG thermostat guard key.



INSIDE DIMENSIONS (INCHES)	BASE	HEIGHT	WIDTH	DEPTH
	Solid	6 1/4	5 5/8	3 3/16
	Ring	6 1/4	5 5/8	3 3/16

MARS NO.	DESCRIPTION	BASE	MARS PACK	CASE QTY.
70205	BTG-K clear plastic cover	Dual	1	12
70236	F336, extra key for all BTG guards		1	1

Thermostat Guard Bases



MARS Regal Series - Plastic Base

MARS offers a broad selection of thermostat guards. Popular models available include metal, clear plastic and opaque plastic designs. MARS thermostat guards are ideal for protecting thermostats in schools, industrial plants institutions, public facilities and other areas where unauthorized tampering could be a problem. These attractive units feature a rugged, light weight and compact design. All units supplied with key. Extra keys are available. Order part #70236 for the BTG thermostat guard key.



INSIDE DIMENSIONS (INCHES)	BASE	HEIGHT	WIDTH	DEPTH
	Solid	7 3/8	4 1/8	3 1/8
Ring	7 3/8	4 1/8	3 1/8	

MARS NO.	DESCRIPTION	BASE	MARS PACK	CASE QTY.
70210	BTG-RK clear plastic cover	Dual	1	12
70236	F336, extra key for all BTG guards		1	1

MARS Sentinel Series - Metal Cover And Base

MARS offers a broad selection of thermostat guards. Popular models available include metal, clear plastic and opaque plastic designs. MARS thermostat guards are ideal for protecting thermostats in schools, industrial plants institutions, public facilities and other areas where unauthorized tampering could be a problem. These attractive units feature a rugged, light weight and compact design. All units supplied with key. Extra keys are available. Order part #70236 for the BTG thermostat guard key.



INSIDE DIMENSIONS (INCHES)	BASE	HEIGHT	WIDTH	DEPTH
	Solid	6 1/2	5	3 1/16
Ring	6 1/2	5	3 1/16	

MARS NO.	DESCRIPTION	BASE	MARS PACK	CASE QTY.
70215	BTG-54VL metal hinged	Solid	1	12
70216	BTG-54VLW metal hinged	Ring	1	12
70236	F336, extra key for all BTG guards		1	1

Thermostat Guards Cross Reference

MARS NO.	BEKO	D Teck	SUPCO
70201	BTG EK	585-TG5	BTG EK
70205	BTG K clear plst	585-TG2	BTG K
70210	BTG RK clear plastic	585-TG1	BTG-RK
70215	BTG 54VL metal	585-TG7	BTG-54 VL
70216	BTG 54VLW hinged metal	585-TG8	BTG-54VLW
70217	BTG DK clear plastic	585-TG6	BTG-DK
70220	BTG UK2 clear plastic	585-TG	BTG-UK2
70223	BTG UM metal	585-TG3	BTG-UM
70224	BTG UWM hinged metal	585-TG4	BTG-UWM
70236	F336 key		

I-T-E Circuit Breakers Plug-In Interchangeable Type-Bulk



- For applications that require plug in
- Space saving design allows to fit a 1" panel space
- UL listed



10,000 KA interrupting rating

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
83200	15a- 120/240 VAC, 1 pole	1	6
83201	20a- 120/240 VAC, 1 pole	1	6
83203	30a- 120/240 VAC, 1 pole	1	6
83220	15a- 120/240 VAC, 2 pole	1	3
83221	20a- 120/240 VAC, 2 pole	1	3
83222	25a- 120/240 VAC, 2 pole	1	3
83223	30a- 120/240 VAC, 2 pole	1	3
83224	35a- 120/240 VAC, 2 pole	1	3
83225	40a- 120/240 VAC, 2 pole	1	3
83226	45a- 120/240 VAC, 2 pole	1	3
83227	50a- 120/240 VAC, 2 pole	1	3
83228	60a- 120/240 VAC, 2 pole	1	3
83229	70a- 120/240 VAC, 2 pole	1	3
83230	80a- 120/240 VAC, 2 pole	1	3
83231	90a- 120/240 VAC, 2 pole	1	3
83232	100a- 120/240 VAC, 2 pole	1	3
83212	Dual 20a- 120/240 VAC, 1 pole	1	3

I-T-E Circuit Breakers Plug-In Interchangeable Type-Carded



- For applications that require plug in
- 10K AIC
- Space saving design allows to fit a 1" panel space
- UL listed



10,000 KA interrupting rating

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
83537	20a- 120/240 VAC, 2 pole	1	3
83538	30a- 120/240 VAC, 2 pole	1	3
83539	40a- 120/240 VAC, 2 pole	1	3
83540	50a- 120/240 VAC, 2 pole	1	3
83541	60a- 120/240 VAC, 2 pole	1	3

SERVICE & INSTALLATION

General Electric Circuit Breakers-Bulk



- Compact size, 1/2" THQP or 1" THQL
- Box type terminals
- Copper to copper connections with corrosion resisting tin plated stabs
- Exceeds UL, NEMA, ANSI, CSA requirements



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
83522	15a- 120/240 VAC, THQP 1 pole	1	10
83527	30a- 120/240 VAC, THQP 2 pole	1	5
83431	20a- 120/240 VAC, THQL 1 pole	1	10
83437	20a- 120/240 VAC, THQL 2 pole	1	5
83436	30a- 120/240 VAC, THQL 2 pole	1	5
83438	40a- 120/240 VAC, THQL 2 pole	1	5
83439	50a- 120/240 VAC, THQL 2 pole	1	5
83440	60a- 120/240 VAC, THQL 2 pole	1	5
83444	100a- 120/240 VAC, THQL 2 pole	1	5

GE Replacement Breakers For Square D



MARS offers GE replacement circuit breakers for Square D QO® load centers. These Q line series circuit breakers lower your inventory costs by providing a single source for new construction & Square D QO® retrofit. These UL classified GE breakers are for use in place of Square D type QO circuit breakers.



Square D QO® load centers for which GE/MARS offers UL classified replacement circuit breakers:

570A QO2-4L50TTS QO2-4L70FS QO2-4L70RB QO2-4L70TS QO2L30S QO2L30TTS QO2L40RB QO2TR QO4-7M70TTS	QO20-30M150RB QO20-30M150TF/S QO24L150 QO24M150 QO30L150 QO30L150RB QO30M150RB	QO6-12L100RBCU QO6-12L100TF/S QO6-12M125FTRB QO8-16L1000F/S QO8-16L1000FCU/S QO8-16L100TF/S QO8-16L100F/S QO8-16L100RB QO8-16L100RBCU QO8-16L100TF/S QO12M100RB QO12L100F/S QO16M100RB QO20M100RB	QO2100BNF/S QO24M100RB	125A QO8-12M125FTRB QO12-24L125 QO12-24L125RB QO12L125 QO12L125RB QO16-24L125 QO16-24L125RB QO16L125 QO20-24L125	QO20L125 QO2125BNF/S QO24L125 QO12L125RB QO24M125RB	225A QO40M225 QO42L225 QO42L225RB	200A QO8-16M200FTRB QO40M200RB	QO12L200 QO12L200RB QO20-30M200RB QO20-40M200 QO20-40M200TF/S QO24M200 QO30-40L200 QO30-40L200RB QO30-40M200 QO30L200 QO30L200RB QO30M200RB QO40M200RB
---	--	--	---------------------------	---	---	--	--------------------------------------	--

MARS NO.	DESCRIPTION	GENO.	SQUARE D NO.
83568	15A-1P	THQO1115	QO115
83569	20A-1P	THQO1120	QO120
83573	15A-2P	THQO2115	QO215
83574	20A-2P	THQO2120	QO220
83575	30A-2P	THQO2130	QO230
83576	40A-2P	THQO2140	QO240
83577	50A-2P	THQO2150	QO250
83578	60A-2P	THQO2160	QO260

Circuit Breakers

Zbreaker is the same circuit breaker now found on many high-end transformers and systems. It protects from damage caused by shorts, overheating, or wiring problems. A sticker is included so that, if the Tech desires, he can inform his customer where to press the "reset" button and possibly save a midnight service call. Kit includes wires and pre-installed terminals that allow you to easily plug it in to the connectors where a plastic-type fuse existed.

- Crystal-Clear Clamshell Package with Hanging Hole
- Full-Color Insert with Instructions



MARS NO.	DESCRIPTION	MARS PACK
08574	3 Amp Circuit Breaker	1
08575	5 Amp Circuit Breaker	1

I-T-E® EQ® Load Center Enclosures

SIEMENS
I-T-E® Electrical Products

I-T-E EQ® load centers with main lugs feature a combination trim boxed in one package.

- The trim fits both surface and flush mounting applications saving money and space
- Interiors offer removal in seconds
- Single phase, 3-wire design, 120/240 VAC
- One piece Albus bar construction. Designed for use only with I-T-E circuit breakers. UL listed
- Rated for 100,000 A IR
- Exclusive split neutral
- Main lugs and neutral on same plane, same drive
- Simple upper pan adjustment after trim is installed
- UL listed for 60/75 °C conductors
- 100% circuit breaker twistouts
- Indoor and outdoor enclosures available



MARS NO.	DESCRIPTION	MARS PACK
83271	60a-2 pole 4 circuit, surface branch panel - type 1	1
83273	125a-4 pole 8 circuit, surface branch panel - type 1	1



Outdoor Enclosures - Type 3R

- Single phase, 3 wire SN
- 120/240V
- Uses HA type hub



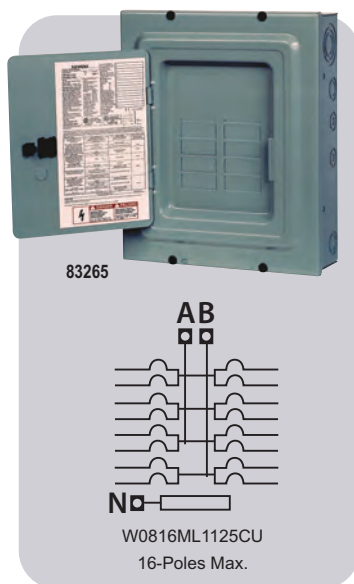
MARS NO.	DESCRIPTION	MARS PACK
83277	60a-2 pole 4 circuit, outdoor enclosure	1
83278	125a-4 pole 8 circuit, outdoor enclosure	1

EQ Load Center

Main Lug and Main Breaker with Copper Bus

Features:

- Interiors offer removal in seconds
- Single Phase
- One piece bus bar construction designed for use only with circuit breakers
- Positive load side circuit breaker hook rails
- Outdoor NEMA Type 3R devices use HS Type hubs
- UL listed



Specifications:

- 1000,000 IR
- 4-16 Circuits, 100-225 Amperes
- 1 Phase, 3-Wire, SN
- 120/240V AC

The EQ Load Center is suitable for use as service entrance equipment when a main breaker (125A maximum) is back-fed in a branch and used with main breaker retainer clip. Copper Bus load centers are recommended for those applications where the environment may be severe. (i.e. farm and coastal areas)

Main Lug Load Center - Outdoor

MARS NO.	AMP RATING	MAX 1 POLE NO. OF SPACES	NO OF CIRCUITS	QP MAX. 2-POLES	MARS PACK
83265	125	8	16	4	1

DIMENSIONS		
H	W	D
14-3/4	12-1/8	4-1/4

Cartridge Fuses, Type TRS



SmartSpot blown-fuse indicator

With SmartSpot you'll find the open fuse FAST. When a fuse opens, the SmartSpot indicator on the label of the fuse senses it and turns from SILVER to eye-catching RED.

And it stays RED so you can spot the open fuse quickly and safely.

Just open a panel and scan. Wherever you see any red in a SmartSpot indicator, you know the fuse is open.

This is a big advantage to contractors/service personnel because it helps them to identify very quickly what fuse needs to be changed thereby avoiding costly downtime.

You'll find SmartSpot on all of the most widely used industry standard fuses such as Class RK5, RK1, and Class J.

Time delay (class RK5, 600 volt)

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82103*	2/10a - 600V, TRS fuse	10	100
82106*	1/2a - 600V, TRS fuse	10	100
82109*	1a - 600V, TRS fuse	10	100
82110*	1.6a - 600V, TRS fuse	10	100
82111*	2a - 600V, TRS fuse	10	100
82112*	2.25a - 600V, TRS fuse	10	100
82124*	5a - 600V, TRS fuse	10	200
82125*	6a - 600V, TRS fuse	10	200
82132	10a - 600V, TRS fuse	10	200
82133	12a - 600V, TRS fuse	10	200
82134	15a - 600V, TRS fuse	10	200
82136	20a - 600V, TRS fuse	10	200
82137	25a - 600V, TRS fuse	10	200
82138	30a - 600V, TRS fuse	10	200
82139	35a - 600V, TRS fuse	10	100
82140	40a - 600V, TRS fuse	10	100
82147	45a - 600V, TRS fuse	10	100
82141	50a - 600V, TRS fuse	10	100
82142	60a - 600V, TRS fuse	10	100
82143	70a - 600V, TRS fuse	5	5
82144	80a - 600V, TRS fuse	5	5
82145	90a - 600V, TRS fuse	5	5
82146	100a - 600V, TRS fuse	5	5
82154	110a - 600V, TRS fuse	1	1
82148	125a - 600V, TRS fuse	1	1
82149	150a - 600V, TRS fuse	1	1
82150	175a - 600V, TRS fuse	1	1
82151	200a - 600V, TRS fuse	1	1
82152	250a - 600V, TRS fuse	1	1
82153	300a - 600V, TRS fuse	1	1

* NOTE: SmartSpot indicating fuse not available below 8 amps. 60a and up are blade type.

Cartridge Fuses, Type TRS Clamshell Packaging For Merchandisers

Time delay (class RK5, 600 volt)

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82632	10a - 600V, (3 pk) TRS fuse	1	1
82634	15a - 600V, (3 pk) TRS fuse	1	1
82636	20a - 600V, (3 pk) TRS fuse	1	1
82637	25a - 600V, (3 pk) TRS fuse	1	1
82638	30a - 600V, (3 pk) TRS fuse	1	1
82639	35a - 600V, (3 pk) TRS fuse	1	1
82640	40a - 600V, (3 pk) TRS fuse	1	1
82647	45a - 600V, (3 pk) TRS fuse	1	1
82641	50a - 600V, (3 pk) TRS fuse	1	1
82642	60a - 600V, (3 pk) TRS fuse	1	1

SERVICE & INSTALLATION

Cartridge Fuses, Type TR



SmartSpot blown-fuse indicator

With SmartSpot you'll find the open fuse FAST. When a fuse opens, the SmartSpot indicator on the label of the fuse senses it and turns from SILVER to eye-catching RED.

And it stays RED so you can spot the open fuse quickly and safely.

Just open a panel and scan. Wherever you see any red in a SmartSpot indicator, you know the fuse is open.

This is a big advantage to contractors/service personnel because it helps them to identify very quickly what fuse needs to be changed thereby avoiding costly downtime.

You'll find SmartSpot on all of the most widely used industry standard fuses such as Class RK5, RK1, and Class J.

Midget Fast Acting Fuses, Type ATM



Fast acting

Applications:

- For supplemental protection of wide variety of circuits up to 600VAC with 100kA I.R.



Time delay (class RK5, 250 volt)

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82006*	1/2a - 250V, TR fuse	10	100
82009*	1a - 250V, TR fuse	10	100
82016*	2a - 250V, TR fuse	10	100
82017*	2 1/2a - 250V, TR fuse	10	100
82019*	3a - 250V, TR fuse	10	100
82020*	3 2/10a - 250V, TR fuse	10	100
82021*	4a - 250V, TR fuse	10	100
82024*	5a - 250V, TR fuse	10	100
82025*	5 6/10a - 250V, TR fuse	10	100
82026*	6a - 250V, TR fuse	10	100
82027*	6 1/4a - 250V, TR fuse	10	100
82029*	7a - 250V, TR fuse	10	100
82030	8a - 250V, TR fuse	10	100
82032	10a - 250V, TR fuse	10	100
82033	12a - 250V, TR fuse	10	100
82034	15a - 250V, TR fuse	10	100
82035	17 1/2a - 250V, TR fuse	10	100
82036	20a - 250V, TR fuse	10	100
82037	25a - 250V, TR fuse	10	100
82038	30a - 250V, TR fuse	10	100
82039	35a - 250V, TR fuse	10	100
82040	40a - 250V, TR fuse	10	100
82041	45a - 250V, TR fuse	10	100
82042	50a - 250V, TR fuse	10	100
82043	60a - 250V, TR fuse	10	100
82044	70a - 250V, TR fuse	5	100
82045	80a - 250V, TR fuse	5	100
82046	90a - 250V, TR fuse	5	100
82047	100a - 250V, TR fuse	5	100
82048	110a - 250V, TR fuse	1	1
82049	125a - 250V, TR fuse	1	1
82050	150a - 250V, TR fuse	1	1
82051	175a - 250V, TR fuse	1	1
82052	200a - 250V, TR fuse	1	1
82053	225a - 250V, TR fuse	1	1
82054	350a - 250V, TR fuse	1	1
82056	400a - 250V, TR fuse	1	1
82055	600a - 250V, TR fuse	1	1

* NOTE: SmartSpot indicating fuse not available below 8 amps. 60a and up are blade type.

Cartridge Fuses, Type TR Clamshell Packaging For Merchandisers

Time delay (class RK5, 250 volt)

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82532	10a - 250V, (3 pk) TR fuse	1	1
82534	15a - 250V, (3 pk) TR fuse	1	1
82536	20a - 250V, (3 pk) TR fuse	1	1
82537	25a - 250V, (3 pk) TR fuse	1	1
82538	30a - 250V, (3 pk) TR fuse	1	1
82539	35a - 250V, (3 pk) TR fuse	1	1
82540	40a - 250V, (3 pk) TR fuse	1	1
82541	45a - 250V, (3 pk) TR fuse	1	1
82542	50a - 250V, (3 pk) TR fuse	1	1
82543	60a - 250V, (3 pk) TR fuse	1	1

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82907	1/2a - 600V, ATM fuse	10	100
82909	1a - 600V, ATM fuse	10	100
82910	1 1/2a - 600V, ATM fuse	10	100
82911	2a - 600V, ATM fuse	10	100
82916	3a - 600V, ATM fuse	10	100
82912	4a - 600V, ATM fuse	10	100
82913	5a - 600V, ATM fuse	10	100
82914	6a - 600V, ATM fuse	10	100
82918	7a - 600V, ATM fuse	10	100
82915	8a - 600V, ATM fuse	10	100
82917	10a - 600V, ATM fuse	10	100
82919	15a - 600V, ATM fuse	10	100
82920	20a - 600V, ATM fuse	10	100
82922	30a - 600V, ATM fuse	10	100

Specialty Fuses



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
----------	-------------	-----------	-----------

Small Dimension (Electronic) Fuses, 5 x 20mm — N. American Standards, Fast Acting

82881	GGM 2	250V fuse	5	5
82879	GGM .5	250V fuse	5	5
82882	GGM 10	250V fuse	10	10

Small Time Delay Fuses, Rejection Style (PC Boards and small Dimension Fuses)

82880	GMQ 3.2a,	300V fuse	5	100
82884	GMQ4a,	300V fuse	5	100

Fast Acting Size Rejection Special Type Fuse (PC Boards and small Dimension Fuses)

82980	GLQ 3.0a,	300V fuse	5	100
-------	-----------	-----------	---	-----

Fast Acting Non Rejecting Special Type Fuse (Low voltage supplementary fuses)

82886	GLR 1.5a,	300V fuse	5	100
82887	GLR 1.6a,	300V fuse	5	100
82891	GLR 10a,	300V fuse	5	100
82890	GLR 15a,	300V fuse	5	100
82883	GSC 1a,	300V fuse	5	100

Specialty Fuses (Cont.)



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
Slo Blo Fuses			
82439	3AB-326 1a, 250V fuse	5	100
82442	3AB-326 5a, 250V fuse	5	100
82445	3AB-326 15a, 250V fuse	5	100
82444	3AB-326 20a, 250V fuse	5	100
Time Delay, 1/4 x 1 1/4", Glass Type Fuses (PC Boards and small Dimension Fuses)			
82978	WVR heat limiter	10	10
82979	WUR heat limiter	10	10
Small Dimension Time Delay Non Rejecting Special Fuse (PC Boards and small Dimension Fuses)			
82888	SMF 3.2a, (LMF 3.2)	5	5
Low Voltage Supplementary Time Delay Fuse, 10X38 or 13/32 X 1-1/2 Size			
82956	TRM .2a, 250V fuse	10	100
82953	TRM .8a, 250V fuse	10	100
82958	TRM 1a, 250V fuse	10	100
82959	TRM 2a, 250V fuse	10	100
82960	TRM 3a, 250V fuse	10	100
82963	TRM 4a, 250V fuse	10	100
82965	TRM 5a, 250V fuse	10	100
82946	TRM 6a, 250V fuse	10	100
82954	TRM 8a, 250V fuse	10	100
82969	TRM 10a, 250V fuse	10	100
82970	TRM 15a, 250V fuse	10	100
82972	TRM 20a, 250V fuse	10	100
82973	TRM 25a, 250V fuse	10	100
82974	TRM 30a, 250V fuse	10	100
Low Voltage Branch Circuit Rated Fuses, R Class CC			
82977	ATMR -2a, 600V fuse	10	100
82966	ATMR -3a, 600V fuse	10	100
82967	ATMR -4a, 600V fuse	10	100
82971	ATMR -10a, 600V fuse	10	100
82976	ATMR -12a, 600V fuse	10	100
82968	ATMR -15a, 600V fuse	10	100
82981	ATMR 20a, 600V fuse	10	100

Specialty Fuses (Cont.)



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
Low Voltage Supplementary Fast Acting Fuses			
82608	BLS/BBS 1a, 250V fuse	10	100
82609	BLS/BBS 2a, 250V fuse	10	100
82610	BLS/BBS 3a, 250V fuse	10	100
82611	BLS/BBS 4a, 600V fuse	10	100
82612	BLS/BBS 5a, 600V fuse	10	100
Medium Voltage Fuses Class J Fast Acting			
82158	A4J - 6a, 600V fuse	10	100
82160	A4J - 15a, 600V fuse	10	100
82161	A4J - 20a, 600V fuse	10	100
82163	A4J - 30a, 600V fuse	10	100
82169	A3T - 40a, 600V fuse	10	100
82170	A6T - 25a, 600V fuse	10	100
82179	A6T - 30a, 600V fuse	10	100
82181	A6T - 35a, 600V fuse	10	100
82182	A6T - 60a, 600V fuse	10	100
82964	RFS - 40a, 600V fuse	10	100
Fuse Reducer			
82975	263M/H632 fuse reducer (1 pair)	1	10
Automotive Blade Type Fuse Acting 32V DC			
82230	ATC - 3a, auto blade fuse(5 pk)	1	5
82232	ATC - 4a, auto blade fuse	5	5
82231	ATC - 5a, auto blade fuse (5 pk)	1	5
82233	ATC - 7.5a, auto blade fuse	1	5
82234	ATC - 10a, auto blade fuse	5	5
82235	ATC - 15a, auto blade fuse	5	5
82236	ATC - 20a, auto blade fuse	5	5
82237	ATC - 25a, auto blade fuse	5	5
82238	ATC - 30a, auto blade fuse	5	5
ATDR Time Delay Class CC (Small motors, Contactors, Branch Circuit Protection)			
82226	ATDR - 6.25a, 600V fuse, class CC	10	10
82228	ATDR - 10a, 600V fuse	10	10
ATQR Time Delay Class CC (Control Transformers, Solenoids, Inductive Loads)			
82227	ATQR - 15a, 600V fuse	10	10

SERVICE & INSTALLATION

Gen. Purpose Cartridge Fuses, Type OT



One-Time non-renewable, Class K-5

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82210	10a - 250V, OT10 Fuse	10	100
82212	15a - 250V, OT15 Fuse	10	100
82213	20a - 250V, OT20 Fuse	10	100
82214	25a - 250V, OT25 Fuse	10	100
82215	30a - 250V, OT30 Fuse	10	100
82216	35a - 250V, OT35 Fuse	10	100
82217	40a - 250V, OT40 Fuse	10	100
82218	45a - 250V, OT45 Fuse	10	100
82219	50a - 250V, OT50 Fuse	10	100
82220	60a - 250V, OT60 Fuse	10	100
82221	70a - 250V, OT70 Fuse	5	100
82224	100a - 250V, OT100 Fuse	5	100

Gen. Purpose Cartridge Fuses, Type OTS



One time non-renewable, Class K-5

Applications:

- Feeders
- Branch circuits
- Resistive heating
- Residential and small commercial installations



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82249	10a - 600V, OTS fuse	10	100
82251	15a - 600V, OTS fuse	10	100
82252	20a - 600V, OTS fuse	10	100
82253	25a - 600V, OTS fuse	10	100
82254	30a - 600V, OTS fuse	10	100
82255	35a - 600V, OTS fuse	10	100
82256	40a - 600V, OTS fuse	10	100
82259	60a - 600V, OTS fuse	10	100
82264	100a - 600V, OTS fuse	5	100

Midget Fuses, Type OTM



Fast acting

Applications:

- Supplemental protection of circuits up to 250VAC and 10kA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82702	2a - 250V, OTM fuse	10	100
82705	5a - 250V, OTM fuse	10	100
82710	15a - 250V, OTM fuse	10	100
82711	20a - 250V, OTM fuse	10	100

Midget Time Delay Fuses, Type ATQ



Time delay (12 seconds @ 200% rating) for circuits with high inrush current

Applications:

- Supplemental protection if lighting, solenoid, motor and transformer circuits



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82932	1/4a - 500V, ATQ fuse	10	100
82933	1/2a - 500V, ATQ fuse	10	100
82936	1a - 500V, ATQ fuse	10	100
82941	2a - 500V, ATQ fuse	10	100
82942	3a - 500V, ATQ fuse	10	100
82943	4a - 500V, ATQ fuse	10	100
82944	5a - 500V, ATQ fuse	10	100
82945	6a - 500V, ATQ fuse	10	100
82714	7a - 500V, ATQ fuse	10	100
82947	10a - 500V, ATQ fuse	10	100
82940	12a - 500V, ATQ fuse	10	100
82952	15a - 500V, ATQ fuse	10	100
82948	20a - 500V, ATQ fuse	10	100
82949	25a - 500V, ATQ fuse	10	100
82951	30a - 500V, ATQ fuse	10	100

Midget Time Delay Fuse, Type ATQ Clamshell Packaging For Merchandisers

Time delay (12 seconds @ 200% rating) for circuits with high inrush current

Applications:

- Supplemental protection if lighting, solenoid, motor and transformer circuits



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82715	1a - 500V, (6 pk), ATQ fuse	1	1
82716	3a - 500V, (6 pk), ATQ fuse	1	1
82718	5a - 500V, (6 pk), ATQ fuse	1	1
82719	10a - 500V, (6 pk), ATQ fuse	1	1
82720	15a - 500V, (6 pk), ATQ fuse	1	1
82721	20a - 500V, (6 pk), ATQ fuse	1	1
82722	25a - 500V, (6 pk), ATQ fuse	1	1
82723	30a - 500V, (6 pk), ATQ fuse	1	1

Ceramic Body Fast Acting Fuses, Type GAB



- Ceramic body
- Fast acting
- 1/4" x 1-1/4"



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82403	1/2a - 250V, GAB ceramic fuse	5	5
82404	1a - 250V, GAB ceramic fuse	5	5
82402	1 1/2a - 250V, GAB ceramic fuse	5	5
82405	2a - 250V, GAB ceramic fuse	5	100
82406	2 1/2a - 250V, GAB ceramic fuse	5	5
82407	3a - 250V, GAB ceramic fuse	5	5
82408	4a - 250V, GAB ceramic fuse	5	5
82409	5a - 250V, GAB ceramic fuse	5	5
82410	6a - 250V, GAB ceramic fuse	5	5
82411	7a - 250V, GAB ceramic fuse	5	5
82412	8a - 250V, GAB ceramic fuse	5	5
82413	10a - 250V, GAB ceramic fuse	5	5
82414	12a - 250V, GAB ceramic fuse	5	5
82415	15a - 250V, GAB ceramic fuse	5	5
82416	20a - 250V, GAB ceramic fuse	5	5
82417	25a - 250V, GAB ceramic fuse	5	5
82418	30a - 250V, GAB ceramic fuse	5	5

Electronic/Glass Fuses, Type GGX



- Glass body
- Fast acting
- 1/4" x 1"



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82878	.4a - 250V, GGX glass fuse	5	5
82470	2/10a - 250V, GGX glass fuse	5	5
82484	1/2a - 250V, GGX glass fuse	5	100
82486	1a - 250V, GGX glass fuse	5	100
82488	2a - 250V, GGX glass fuse	5	5
82491	5a - 125V, GGX glass fuse	5	5
82877	3a - 125V, GGX glass fuse	5	5

Glass Body Non-Time Delay Fuses, Type GGC



- Glass body
- Fast acting
- 1/4" x 1-1/4"



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82448	1/10a - 250V, GGC glass fuse	5	5
82450	1/4a - 250V, GGC glass fuse	5	100
82451	3/10a - 250V, GGC glass fuse	5	5
82453	1/2a - 250V, GGC glass fuse	5	100
82455	3/4a - 250V, GGC glass fuse	5	5
82456	1a - 250V, GGC glass fuse	5	100
82457	1 1/4a - 250V, GGC glass fuse	5	5
82458	1 1/2a - 250V, GGC glass fuse	5	100
82460	2a - 250V, GGC glass fuse	5	100
82461	2 1/2a - 250V, GGC glass fuse	5	100
82462	3a - 250V, GGC glass fuse	5	100
82459	3 2/10a - 250V, GGC glass fuse	5	100
82463	4a - 250V, GGC glass fuse	5	100
82464	5a - 250V, GGC glass fuse	5	5
82465	6a - 250V, GGC glass fuse	5	100
82466	7 1/2a - 250V, GGC glass fuse	5	5
82467	8a - 250V, GGC glass fuse	5	100
82468	10a - 250V, GGC glass fuse	5	100
82474	12a - 125V, GGC glass fuse	5	100
82469	15a - 125V, GGC glass fuse	5	100
82471	20a - 32V, GGC glass fuse	5	100
82472	25a - 32V, GGC glass fuse	5	5
82473	30a - 32V, GGC glass fuse	5	5

Class G Fuses 480 Volt, 600 Volt Type AG = Type SC

Time delay (above 5A)
current limiting

Applications:

- Lighting
- Heating
- Appliances
- Branch circuits



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82271	1a - 600V, AG fuse	4	100
82290	2a - 600V, AG fuse	4	100
82272	3a - 600V, AG fuse	4	100
82291	4a - 600V, AG fuse	4	100
82273	5a - 600V, AG fuse	4	100
82274	6a - 600V, AG fuse	4	100
82275	8a - 600V, AG fuse	4	100
82276	10a - 600V, AG fuse	4	100
82278	15a - 600V, AG fuse	4	100
82279	20a - 600V, AG fuse	4	100
82280	25a - 480V, AG fuse	4	100
82281	30a - 480V, AG fuse	4	100
82282	35a - 480V, AG fuse	2	100
82283	40a - 480V, AG fuse	2	100
82285	50a - 480V, AG fuse	2	100
82286	60a - 480V, AG fuse	2	100

Glass Body Time Delay Fuses, Type GDL



- Glass body
- Time delay
- 1/4" x 1 1/4"



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82502	1a - 250V, GDL glass fuse	5	100
82505	1.5a - 250V, GDL glass fuse	5	100
82507	2a - 250V, GDL glass fuse	5	100
82508	2.5a - 250V, GDL glass fuse	5	100
82510	3a - 250V, GDL glass fuse	5	100
82512	4a - 250V, GDL glass fuse	5	100
82513	5a - 250V, GDL glass fuse	5	100
82514	7a - 250V, GDL glass fuse	5	100
82517	8a - 250V, GDL glass fuse	5	100
82518	10a - 125V, GDL glass fuse	5	100
82519	15a - 125V, GDL glass fuse	5	100

Dual Element, Time Delay (Type S) UL 125V



Plug fuses all UL listed;
CSA models also listed

Rejection Time delay,
tamper resistant



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82307	1 1/4a, S plug fuse	4	100
82308	1 6/10a, S plug fuse	4	100
82311	2a, S plug fuse	4	100
82313	2 1/2a, S plug fuse	4	100
82315	3a, S plug fuse	4	100
82316	3 2/10a, S plug fuse	4	100
82318	4a, S plug fuse	4	100
82320	5a, S plug fuse	4	100
82323	6 1/4a, S plug fuse	4	100
82325	8a, S plug fuse	4	100
82326	9a, S plug fuse	4	100
82327	10a, S plug fuse	4	100
82328	12a, S plug fuse	4	100
82330	15a, S plug fuse	4	100
82331	20a, S plug fuse	4	100
82332	25a, S plug fuse	4	100
82333	30a, S plug fuse	4	100

Dual Element Time Delay Type S Clamshell Packaging For Merchandisers



Rejection Time delay,
tamper resistant



MARS NO.	DESCRIPTION	MARS PACK
82745	15a, S plug fuse 125V, (6 pk)	1
82746	20a, S plug fuse 125V, (6 pk)	1
82747	25a, S plug fuse 125V, (6 pk)	1
82748	30a, S plug fuse 125V, (6 pk)	1

Dual Element, Time Delay (Type T) UL 125V



- Low melting point temperatures
- Electronic heating and cycling load circuits



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82334	1 1/4a, T plug fuse	4	100
82337	2a, T plug fuse	4	100
82344	2.5a, T plug fuse	4	100
82338	3.2a, T plug fuse	4	100
82339	4a, T plug fuse	4	100
82340	5a, T plug fuse	4	100
82341	6 1/4a, T plug fuse	4	100
82342	8a, T plug fuse	4	100
82343	10a, T plug fuse	4	100
82660	15a, T plug fuse	4	100
82661	20a, T plug fuse	4	100
82662	30a, T plug fuse	4	100
82663	25a, T plug fuse	4	100

Dual Element, Time Delay (Type TL) UL 125V



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82346	15a, TL plug fuse	4	100
82347	20a, TL plug fuse	4	100
82348	25a, TL plug fuse	4	100
82349	30a, TL plug fuse	4	100

Dual Element, Time Delay (Type TD) UL 125V



- Low melting temperature element
- Electronic heating and cycling load circuits



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82350	15a, TD plug fuse-CSA	4	100
82351	20a, TD plug fuse-CSA	4	100
82352	25a, TD plug fuse-CSA	4	100
82353	30a, TD plug fuse-CSA	4	100

Dual Element Time Delay Type TL Clamshell Packaging For Merchandisers



MARS NO.	DESCRIPTION	MARS PACK
82735	15a, 125V, TL plug fuse (6 pk)	1
82736	20a, 125V, TL plug fuse (6 pk)	1
82737	25a, 125V, TL plug fuse (6 pk)	1
82738	30a, 125V, TL plug fuse (6 pk)	1

S Plug Fuse Adapters, UL 125



Type S adapters screw into the base and allow Type S fuses to be installed. Type S adapters prevent the wrong size fuse from being used.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82375	2 1/2a, S plug fuse	4	100
82376	3 2/10a, S plug fuse	4	100
82379	6 1/4a, S plug fuse	4	100
82382	15a, S plug fuse	4	100
82383	20a, S plug fuse	4	100
82384	30a, S plug fuse	4	100

SERVICE & INSTALLATION

Fast Acting, (Type W) UL 125V



"W" Fuse

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82360	10a, W plug fuse	4	100
82363	15a, W plug fuse	4	100
82364	20a, W plug fuse	4	100
82365	25a, W plug fuse	4	100
82366	30a, W plug fuse	4	100

Dual Element, Time Delay Fuse - Type W Clamshell Packaging For Merchandisers



MARS NO.	DESCRIPTION	MARS PACK
82755	15a, 125V, W plug fuse (6 pk)	1
82756	20a, 125V, W plug fuse (6 pk)	1
82757	25a, 125V, W plug fuse (6 pk)	1
82758	30a, 125V, W plug fuse (6 pk)	1

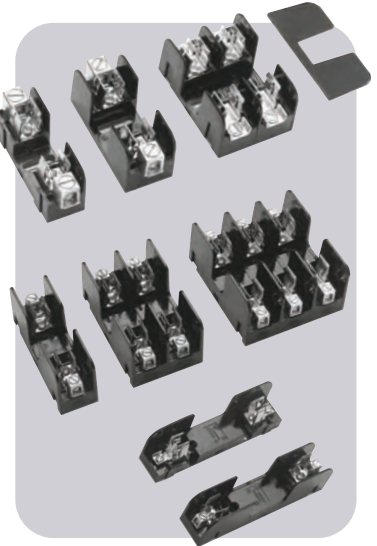
Fuse Blocks - Class H & K 250 Volts



Mersen manufactures the highest quality 250 to 600 volt fuse blocks handling current capacities of 30 to 600 amperes. These durable fuse blocks are designed for class H, J, K, R, CC and Midget fuses. All blocks are UL listed and CSA certified.

Mersen fuse blocks feature a unique adder block which can be snapped on to form multi-pole segmented blocks of as many poles as desired. Multiple pole blocks thus formed save valuable space, are permanent, and can be added to in the future.

Fuse block insulators are constructed of either phenolic or molded polycarbonate. Three types of wire connectors are used. Screw type is for copper wire with terminals. Pressure plate type is for bare copper wire where vibration may be a factor. Box type connectors are the most durable and versatile for stranded or solid wire. All fuse clips are one piece high-conductivity tin-plated copper for low resistance connections and cool operation.

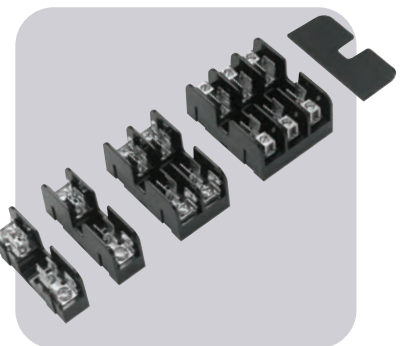


MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
83010	Adder 30 amp - Al box	1	50
83011	1 pole 30 amp - Al box	1	50
83012	1 pole 30 amp - screw	1	50
83013	2 pole 30 amp - screw	1	50
83015	Adder 60 amp - Al box	1	50
83017	2 pole 60 amp - Al box	1	25
83018	3 pole 60 amp - Al box	1	25

Fuse Blocks - Midget Fuses 600 Volts



Mersen power distribution blocks (pdb), afford a safe, convenient way of splicing cables, splitting primary power into a variety of secondary circuits or providing a fixed junction tap - off point. Insulators are virtually unbreakable polycarbonate. Standard aluminum box connectors accommodate aluminum and copper wire. Connector bars are all one piece and tin plated. The pdbs are UL listed and CSA certified.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
83061	1 pole 30 amp - screw	1	50
83062	2 pole 30 amp - screw	1	25
83063	3 pole 30 amp - screw	1	25
83065	1 pole 30 amp - plate	1	50
83066	2 pole 30 amp - plate	1	25
83067	3 pole 30 amp - plate	1	25

Power Distribution Blocks - 600 Volts



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
83090	1 pole pdb 1 to 4 #4-#14ga	1	50
83091	2 pole pdb 1 to 4 #4-#14ga	1	25
83092	3 pole pdb 1 to 4 #4-#14ga	1	25

Fuse Holders



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
82994	panel mount glass holder 1/4" x 1 1/4" screw type knob	1	100
82995	panel mount midget holder 13/32" x 1 1/2" bayonet knob	1	100
82996	base mount glass fuse block 1/4" x 1 1/4"	10	100
82997	in-line midget holder-screw cap	1	100
83001	in-line glass holder-screw cap (5 pk)	1	100
83002	in-line glass holder-snap cap (5 pk)	1	100
82987	HPF-EE fuse holder	10	100
82989	HPF-SC fuse holder-panel mount	10	100
82990	HFB fuse holder	10	100
82991	HKP-HH fuse holder	1	10
82993	HRK fuse holder	10	100

JARD Fuses



Applications:

- Recommended for AC power distribution system mains, feeders, and branch circuits.
- Protection of motors and motor branch circuits.
- Protection of transformers and other inductive loads.
- All general-purpose applications including lighting, heating and other non-inductive loads.

Benefits:

- Superior overload and cycling capabilities.
- Current limiting provides component short-circuit protection.

Specifications:

Dual-Element Time-Delay

Voltage Rating: RK5 - 250Vac, RK5 - 600Vac

Amp Rating: 1/10 - 600A

Interrupting Rating: 200,000 RMS Symmetrical Amps

Current Limiting: RK5 Fuse

Agency Approvals:

UL Listed, Class RK5, CSA Certified, DC listed to UL standard 248 TRS only

Voltage Rating: RK5 250V

- Volts: 250VAC
- : 250VDC (.1-2.8A; 35-400A)
- : 160VDC (3-30A; 450-600A)

RK5 600V

- Volts: 600VAC
- : 600VDC (.1-12A; 70-600A)
- : 160VDC (15-60A)



RK5 Time Delay Fuse 250V

Replaces: TR, ECNR, FRNR, FLNR

RK5 Time Delay Fuse 600V

Replaces: TRS, ECSR, FRSR, FLSR

MARS NO.	DESCRIPTION	MARS PACK
81006	.5A - 250V	10
81009	1A - 250V	10
81016	2A - 250V	10
81017	2.5A - 250V	10
81019	3A - 250V	10
81020	3.2A - 250V	10
81021	4A - 250V	10
81024	5A - 250V	10
81025	5.6A - 250V	10
81026	6A - 250V	10
81027	6.25A - 250V	10
81029	7A - 250V	10
81030	8A - 250V	10
81032	10A - 250V	10
81033	12A - 250V	10
81034	15A - 250V	10
81035	17.5A - 250V	10
81036	20A - 250V	10
81037	25A - 250V	10
81038	30A - 250V	10
81039	35A - 250V	10
81040	40A - 250V	10
81041	45A - 250V	10
81042	50A - 250V	10
81043	60A - 250V	10
81044	70A - 250V	5
81045	80A - 250V	5
81046	90A - 250V	5
81047	100A - 250V	5
81048	110A - 250V	1
81049	125A - 250V	1
81050	150A - 250V	1
81051	175A - 250V	1
81052	200A - 250V	1
81053	225A - 250V	1
81054	350A - 250V	1
81056	400A - 250V	1
81055	600A - 250V	1

MARS NO.	DESCRIPTION	MARS PACK
81103	.2A - 600V	10
81106	.5A - 600V	10
81109	1A - 600V	10
81110	1.6A - 600V	10
81111	2A - 600V	10
81112	2.25A - 600V	10
81077	4A - 600V	10
81124	5A - 600V	10
81125	6A - 600V	10
81078	8A - 600V	10
81132	10A - 600V	10
81133	12A - 600V	10
81134	15A - 600V	10
81076	17.5A - 600V	10
81136	20A - 600V	10
81137	25A - 600V	10
81138	30A - 600V	10
81139	35A - 600V	10
81140	40A - 600V	10
81147	45A - 600V	10
81141	50A - 600V	10
81142	60A - 600V	10
81143	70A - 600V	5
81144	80A - 600V	5
81145	90A - 600V	5
81146	100A - 600V	5
81154	110A - 600V	1
81148	125A - 600V	1
81149	150A - 600V	1
81150	175A - 600V	1
81151	200A - 600V	1
81152	250A - 600V	1
81153	300A - 600V	1

SERVICE & INSTALLATION

Fuses With A Resealable Plastic Pouch



MARS NO.	DESCRIPTION	MARS PACK
08569	3 Amp Standard Size Plastic, 25/pk	1
08570	5 Amp Standard Size Plastic, 25/pk	1
08571	Assorted Fuses, 25/pk	1

Fuses & Fuse Holders

Zebra Instruments offers a 4 pack Medium Duty (15A) standard size plastic fuses and fuse holder. This allows you to replace (or install) fuse protection for transformer outputs (and other devices) in HVAC systems.



MARS NO.	DESCRIPTION	MARS PACK
08568	Medium duty 15Amp Standard Size Plastic, 4/pk	1

Toggle Switches With Ground



- Quick wire push in and side wire
- Constructed of impact resistant thermo-plastic

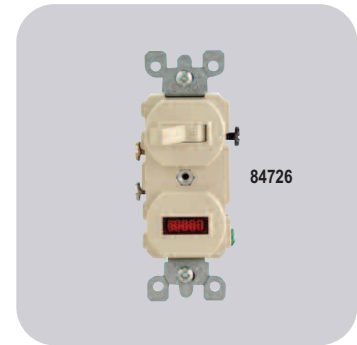


MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84712	15a -120V, 1P, silent, brown (bulk)	10	100
84800	15a -120V, 1P, silent, ivory (bulk)	10	100
84706	15a -120/277V, 1P, silent, ivory (bulk)	10	100
84727	20a -120/277V, 1P, silent, brown (bulk)	10	100
84707	20a -120/277V, 1P, silent, ivory (bulk)	10	100
84708	15a -120/277V, 2P, silent, ivory (bulk)	10	100
84709	20a -120/277V, 2P, silent, ivory (bulk)	10	100
84799	Combo switch/receptacle ivory (bulk) switch 15a-120/277V, 1P receptacle 15a-125V, 2P, 3W	10	100
84732	Tamper resistant smartlock pro combo switch/receptacle, white, 15a - 125V, 2P, 3W	10	100

Toggle Switches Without Ground



- Quick wire push in and side wire
- Constructed of impact resistant thermo-plastic



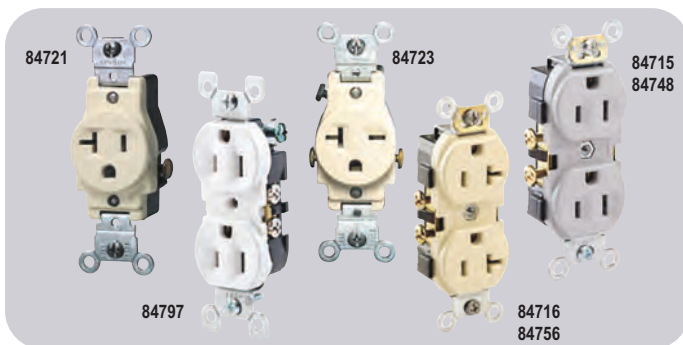
MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84798	15a -120V, 1P, silent, ivory (bulk)	10	100
84726	15a -120/277V, 1P, switch w/pilot light (card)	1	100

Metal Bat Handle Switches - Screw Terminals
10a-250V, 15a-125V,
3/4 HP 120/240



MARS NO.	DESCRIPTION	MARS PACK
84760	SPST on off	1

Straight Blade Receptacles With Ground

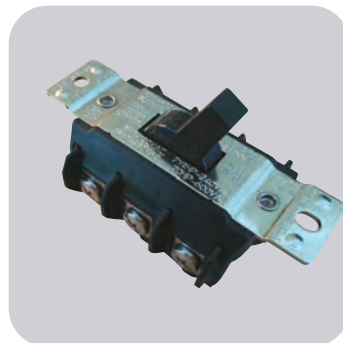


MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84721	Single, ivory, 20a, 125V, 2P, 3W (bulk)	10	100
84723	Single, ivory, 20a, 250V, 2P, 3W (bulk)	10	100
84715	Duplex, ivory, 15a, 125V, 2P, 3W (bulk)	10	100
84748	Duplex, brn, 15a, 125V, 2P, 3W (bulk)	10	100
84797	Dup, ivory, EZ wire/screw, 15a, 125V, (bulk)	10	100
84716	Dup, ivory, 20a, 125V, 2P, 3W (bulk)	10	100
84756	Dup, brn, 20a, 125V, 2P, 3W (bulk)	10	100

3 Pole Mini-Split Disconnect Switch

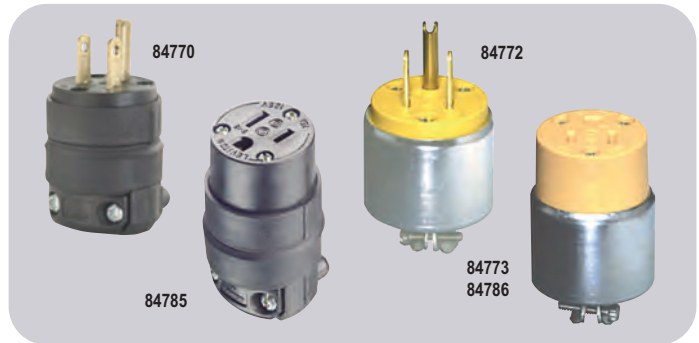
Local codes require a disconnect switch to safely shut off power for indoor mini-split AC and Heat Pumps. The disconnect switch will break both power lines L1 and L2 along with the high voltage communicating line to meet local code requirements.

- UL 30 amp rated motor disconnect
- 3 pole
- 600V max



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84711	30A-600V 3 Pole 3Ph AC Motor Switch(Bulk)	1	100

Plugs, Connectors And Adapters



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84770	Grnd rubr hndl plug, 2P, 3W, 15a, 125V, black	10	100
84772	Armrd plug, 2P, 3W, 15a, 125V,	10	100
84785	Blk rubr rnd conn, 2P, 3W, 15a, 125V	10	100
84773	Blk armored conn, 2P, 3W, 15a, 125V	10	100
84786	Blk amrd conn, 2P, 3W, 15a, 125V (card)	1	10

GFCI Duplex Receptacles



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84767	15a, 125V, ivory, EZ wire & screw	1	10

Wall Plates - Plastic



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84751	Single toggle ivory	25	250
84809	Duplex receptacle ivory	25	100

Pullchain Lampholders - White

- Medium base one-piece glazed porcelain outlet box mount incandescent lampholder, single circuit, 2 screws top wired, 15A 125V outlet grounding - white



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84719	Porcelain lampholder w/ receptacle	1	50

Box Cover Units - 125V - For T Plug Fuses



MARS NO.	DESCRIPTION	MARS PACK
84793	2 1/4" handy box receptacle cover, CRU	1
84795	2 1/4" handy box switch cover, CSU	1
84794	4" square box switch cover, CSY	1
84814	4" octagon box switch cover, CSX	1

Ideal Wire Nut® Wire Connectors



IDEAL' s Wire Nut® wire connectors are second to none and preferred by electricians industry wide. There are five color coded models covering every wiring combination. Some features include: positive grip design, flame retardant thermoplastic shell, longest fully seated square wire spring, threaded entry, deep skirt and wide throat entry. All Wire Nut® wire connectors are UL listed and CSA certified Greenie® grounding connectors enjoy all the benefits of the other Wire Nut® connectors, but are designed for making ground connections with a built-in hole for copper ground hook. They have a live action, square wire spring for easy and strong connections with built-in contoured wings.

Twister® wire connectors have become widely accepted due to their unsurpassed features: ribbed cap, fluted surface, compact, swept wings, hexagonal shape, tough thermoplastic shell, live action square wire spring and deep threaded skirt entry. Nutmaster™ nutdrivers can be used to install Twister® wire connectors quickly and securely. Twister® wires are UL and CSA approved. Exceptional wire range capacity for their size, just two Twister® wire connectors handle all wire combinations. This means reduced inventories and lower costs!

Wing Nut® wire connectors were first introduced by IDEAL in 1958 and remain the most comfortable, easy to use connector on the market. The wings act as a built in wrench to provide extra leverage for secure connections...every time. Wing Nut® wire connectors handle a wide range of branch circuit and fixture wiring requirements. Just three color coded models handle UL listed wire combinations from (2) No. 18's to (1) No. 6 with (2) No. 8's, solid or stranded wire.



MARS NO.	DESCRIPTION	BOX QTY.	MFG. NO	MARS PACK	CASE QTY.
25930	Gray wire nut, 22-14 AWG	100	30-071	1	10
25931	Blue wire nut, 22-14 AWG	100	30-072	1	10
25932	Orange wire nut, 22-14 AWG	100	30-073	1	10
25933	Yellow wire nut, 18-10 AWG	100	30-074	1	10
25934	Red wire nut, 18-8 AWG	100	30-076	1	10
25935	Greenie conn., 14-10 AWG	100	30-092	1	10
25936	Tan twister conn., 22-10 AWG	100	30-341	1	10
25976	Tan twister conn., 22-10 AWG	500	30-641	1	10
25937	Gray twister conn., 16-8 AWG	50	30-342	1	20
25938	Yellow wing nut, 18-10 AWG	100	30-451	1	10
25939	Red wing nut, 18-10 AWG	100	30-452	1	10
25979	Red wing nut, bag, 18-10 AWG	500	30-652	1	10
25940	Blue wing nut, 14-6 AWG	25	30-454	1	10

MARS Wire Connectors

MARS wire connectors are available in five color coded models: gray, blue, orange, yellow and red. Some features include a positive grip design and flame retardant thermoplastic shell. The large throat provides easy wire entrance and the deep skirt prevents shorts and grounds.



Stranded Copper Building Wire, 19 Strands, 10-14 Ga. THHN, 16-18 Ga. TFFN, 600V, 90°C



MARS NO.	DESCRIPTION	MARS PACK
25860	Gray wire connector, 300V (25/bag)	1
25880	Gray wire connector, 300V (100/bag)	1
25861	Blue wire connector, 300V (25/bag)	1
25881	Blue wire connector, 300V (100/bag)	1
25862	Orange wire connector, 600V (25/bag)	1
25882	Orange wire connector, 600V (100/bag)	1
25863	Yellow wire connector, 600V (25/bag)	1
25883	Yellow wire connector, 600V (100/bag)	1
25864	Red wire connector, 600V (25/bag)	1
25884	Red wire connector, 600V (100/bag)	1
25868	Yellow wing connector, 600V (25/bag)	1
25888	Yellow wing connector, 600V (100/bag)	1
25869	Red wing connector, 600V (25/bag)	1
25889	Red wing connector, 600V (100/bag)	1
25870	Blue wing connector, 600V (10/bag)	1
25800	Blue wing connector, 600V (50/bag)	1

MARS NO.	DESCRIPTION	MARS PACK
84292	16 gauge black 100' spool	1
84295	16 gauge white 100' spool	1
84301	16 gauge blue 100' spool	1
84308	14 gauge red 500' spool	1
84311	14 gauge black 500' spool	1
84319	14 gauge blue 100' spool	1

Wiregard Color-Coded Screw-On Wire Connectors



MARS now offers Gardner Bender wire connectors. The industry's standard screw-on connector, with high quality, performance and durability.

- UL listed, CSA approved.
- Color-coded for easy size selection.
- Makes quick, secure connections for positive continuity. Tightens without ratcheting, removable for re-use. Fluted shell surface allows for easy finger-tight connections.
- Thermoplastic shell shields against environmental extremes. Flame retardant up to 221 degrees F.
- Superior flash-over protection. High-dielectric shell features deep skirt design to prevent exposure of bare wire.
- Versatile size selection covers building wire combinations from #22 to #10 AWG.
- Complies with Federal Specification W-5-610d.



Solid Copper Building Wire, 10-14 Ga. THHN, 600V, 90°C



MARS NO.	DESCRIPTION	MARS PACK
84361	14 gauge black 500' spool	4
84362	14 gauge white 500' spool	4
84363	14 gauge green 500' spool	4

MARSNO.	MFG. NO	MODEL/SIZE	COLOR	BOX QTY.	CASE QTY.
25950	10-001	GB-1	Gray	100 Box	10
25941	10-002	GB-2	Blue	100 Box	10
25942	10-003	GB-3	Orange	100 Box	10
25943	10-004	GB-4	Yellow	100 Box	10
25944	10-006	GB-6	Red	100 Box	10

SERVICE & INSTALLATION

Stranded Copper Building Wire, 19 Strands 10-14 Ga. THHN, 16-18 Ga. TFFN, 600V, 90°C



MARS NO.	DESCRIPTION	MARS PACK
84322	12 gauge red 100' spool	1
84337	10 gauge red 100' spool	1
84341	10 gauge black 500' spool	1
84344	10 gauge white 500' spool	1
84349	10 gauge blue 100' spool	1

SJ Wire - 250 Foot Rolls



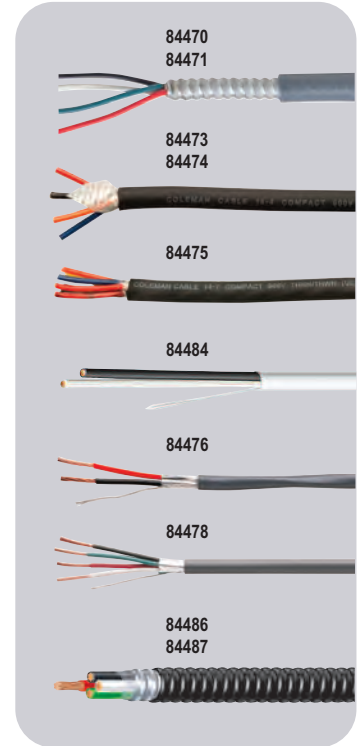
MARS NO.	DESCRIPTION	MARS PACK
84380	12/3 250 ft. reel	1
84381	14/3 250 ft. reel	1
84382	16/3 250 ft. reel	1

Mini-Split Installation Wire

Corra/Clad MC Cable consists of UL listed THHN soft drawn annealed solid copper conductors, cabled with fillers and wrapped with an overall solid Flexi-Rib aluminum sheath. The continuous sheath provides watertight protection and it is covered with a PVC outer jacket for outdoor use or direct burial. Cost effective, easy to strip and install. Meets all national codes and is suitable for outdoor use, under concrete, underground, and through interior walls and ceilings.

Compact 600 and Shielded Low Voltage Cables offer additional options to provide power and control to mini-split installations. Compact 600 uses a TPE jacket and is flexible, easy to strip, and is burial rated.

EZ-IN™ cable is an all-purpose cable that meets code for both interior and exterior use, increasing the speed of installation and making sure the job will pass inspection. EZ-IN™ Mini-Split Cable can be installed without the use of conduit and may be installed indoors and outdoors in wet locations.



MARS NO.	DESCRIPTION	MARS PACK
----------	-------------	-----------

Corra/Clad MC Cable: 600V, UL, NEC 330 Direct Burial

84470	14/3 Solid THHN w/Ground - 50' Roll	1
84471	14/3 Solid THHN w/Ground - 250' Reel	1

Compact 600 Cable: 600V, UL, UV Rated, Direct Burial

84473	14/4 Solid THHN Compact 600V - 50' Roll	1
84474	14/4 Solid THHN Compact 600V - 250' Reel	1
84479	14/4 Stranded THHN Compact 600V - 50' Roll	1
84480	14/4 Stranded THHN Compact 600V - 250' Reel	1
84475	14/7 Stranded THHN Compact 600V - 250' Reel	1

Shielded Low Voltage Cable: 300V, NEC 725/800, ETL, CMR/CL3R

84485	16/2 Stranded Shielded - 50' Roll	1
84484	16/2 Stranded Shielded - 250' Reel	1
84491	16/4 Stranded Shielded 300V - 50' Roll	1
84492	16/4 Stranded Shielded 300V - 250' Reel	1
84476	18/2 Stranded BC Shielded - 50' Roll	1
84482	18/2 OAS CMR/CL3R Gy - 500' Reel	1
84478	18/4 Stranded BC Shielded - 50' Roll	1
84483	18/4 OAS CMR/CL3R Gy - 500' Reel For LG Mini-Splits	1

EZ-IN™ Cable: 600V, UL, All Purpose, UV Rated, Direct Burial

84486	14/4 Stranded EZ-IN,™ 600V, 50' Roll	1
84487	14/4 Stranded EZ-IN,™ 600V, 250' Reel	1

MARS 18 Gauge Thermostat Cable - UL Listed

Specifications: UL type CL2. UV rated. Temp rating -20°C to +60°C. Meets UL subject 13 per article 725 of the 1990 National Electric Code (NEC) for power limited circuit cable. Soft drawn bare copper, semi-rigid pvc insulation and PVC overall jacket.



MARS NO.	DESCRIPTION	LBS. MFT	MARS PACK
84201	18 AWG, 2 conductors, 500 ft. spool	15	4
84202	18 AWG, 3 conductors, 500 ft. spool	21	4
84203	18 AWG, 4 conductors, 250 ft. spool	27	4
84204	18 AWG, 5 conductors, 250 ft. spool	34	4
84205	18 AWG, 6 conductors, 250 ft. spool	40	4
84206	18 AWG, 7 conductors, 250 ft. spool	45	4
84207	18 AWG, 8 conductors, 250 ft. spool	51	4
84209	18 AWG, 10 conductors, 250 ft. spool	63	4
84210	18 AWG, 12 conductors, 250 ft. spool	74	4
84231	18 AWG, 2 conductors, 250 ft. spool	15	4
84232	18 AWG, 3 conductors, 250 ft. spool	21	4

MARS 20 Gauge Thermostat Cable - UL Listed

Specifications: UL type CL2. UV rated. Temp rating -20°C to +60°C. Meets UL subject 13 per article 725 of the 1990 National Electric Code (NEC) for power limited circuit cable. Soft drawn bare copper, semi-rigid pvc insulation and PVC overall jacket.



MARS NO.	DESCRIPTION	LBS. MFT	MARS PACK
84211	20 AWG, 2 conductors, 500 ft. spool	11	4
84212	20 AWG, 3 conductors, 500 ft. spool	15	4
84213	20 AWG, 4 conductors, 250 ft. spool	20	4
84214	20 AWG, 5 conductors, 250 ft. spool	24	4
84215	20 AWG, 6 conductors, 250 ft. spool	27	4
84217	20 AWG, 8 conductors, 250 ft. spool	35	4

Shielded Plenum T-Stat Wire - UL Listed - Type CL2P-Stranded

MARS NO.	DESCRIPTION	LBS. MFT	MARS PACK
84461	18 AWG, 2 conductors, 500 ft spool	4	4
84462	18 AWG, 3 conductors, 500 ft spool	4	4
84466	18 AWG, 8 conductors, 500 ft spool	4	4

18 Ga UL Thermostat Wire – Self Dispensing Coils

MARS thermostat wire is now available in self dispensing coil packs. These shrink wrapped coils are easier to use and more convenient to store than the traditional thermostat wire sold on spools/reels.



Features & benefits:

- Heavy duty shrink wrapped coils for durability
- No reels to bend, break, or rust
- Compact coils are easier to store – takes up less space
- Easier to handle
- Stacks better
- Easy and convenient to use

How to use:

- Simply punch hole in center of wrap (Do not remove wrap)
- Pull loose end of wire from center (Wire will pull out easily)
- Snip off the required amount of wire
- Tuck loose end back into the coil for storage

MARS NO.	DESCRIPTION	MARS PACK
84401	18/2 500 ft. Coils	4
84402	18/3 500 ft. Coils	4
84403	18/4 250 ft. Coils	4
84404	18/5 250 ft. Coils	4
84405	18/6 250 ft. Coils	4
84406	18/7 250 ft. Coils	4
84407	18/8 250 ft. Coils	4

Plenum T-Stat Wire - Solid UL Listed

- Temp rating (-20°C to 75°C)
- UL type, CL2P
- Thermoplastic jacket (2500 PSI min)
- Thermoplastic insulation (2000 PSI min)
- Can be used in overhead plenum area without conduit



MARS NO.	DESCRIPTION	MARS PACK
84241	18 AWG, 2 conductors, 500 ft. spool	4
84242	18 AWG, 3 conductors, 500 ft. spool	4
84243	18 AWG, 4 conductors, 250 ft. spool	4
84244	18 AWG, 5 conductors, 250 ft. spool	4
84245	18 AWG, 6 conductors, 250 ft. spool	4
84246	18 AWG, 8 conductors, 250 ft. spool	4

BX & Flexible Cable Cutter

Cuts BX, MC, AC, and Liquid Tight 3/8".

Features

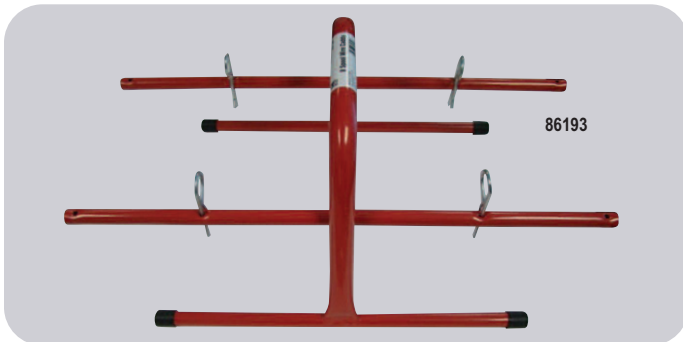
- High durability blade provides 2X normal wear
- Storage space for replacement blades
- 25 foot drop test
- Thumbwheel for easy blade change, no tools required
- Quick Clamp feature automatically adjusts to cable size and secures it for splitting
- Automatic release ejects cable
- Cutting depth adjustment ensures clean cuts without nicking cable



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
86191	BX Armor Cutter, & 1/4" Length	1	5

Hand Wire Caddy

Rugged Construction, epoxy coated to reduce chipping & peeling
Holds up to 8 reels, 7" D x 5" W,
or 4 reels 7" D x 6" to 10" W



MARS NO.	DESCRIPTION	MARS PACK
86193	Wire Hand Caddy, 22-1/2" L x 13-1/2" W x 9-1/2" H	1

Adhesive Wire Markers

Wire marker dispenser measures 3" x 6" and holds 10 tape rolls at once. Rugged, sturdy case fits in your pocket. Durable long lasting tapes are excellent for wire, pipe and conduit identification.

Wire marker booklets contain 10 pages each. Plastic impregnated cloth marker resists abrasion, moisture, dirt and oil. Markers are 1-1/2" in length and can be separated into half-length sizes.



MARS NO.	DESCRIPTION	MFG. NO	MARS PACK	CASE QTY.
25920	Wire marker dispenser, 0-9 legends	42-301	1	5
25921	Wire marker book, 0-9 legends	44-101	5	5
25922	Wire marker book, A-Z legends	44-102	5	5
25923	Wire marker book, 1-45 legends	44-103	5	5

Appliance Bulbs - 130 Volt

- 130 Volt
- 25 Watts
- 180 Lumens
- 2,000 rated life, hours



MARS NO.	DESCRIPTION	MFG. NO	CASE QTY.
79183	25W clear, intermediate screw base	25T61/2	25
79185	25W clear, intermediate base	25T8N	25

Rough Service Bulbs 130 Volt

Mars supplies 130V rough service, 130V rough service shatterproof, and 120V long life general service light bulbs. The 130V design provides an extended life cycle of filament and increases energy savings.

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79172	75 watt 130V bulb	4	120
79173	100 watt 130V bulb	4	120

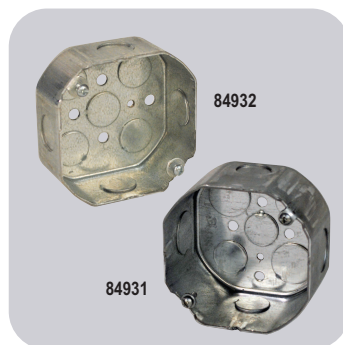
Rough Service Coated Shatterproof Bulbs 130 Volt

Mars supplies 130V rough service, 130V rough service shatterproof, and 120V long life general service light bulbs. The 130V design provides an extended life cycle of filament and increases energy savings.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79175	75 watt 130V bulb	12	120
79176	100 watt 130V bulb	12	120

4" Octagon Steel Boxes



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84931	2-1/8" D 1/2" & 3/4" K.O.	1	25
84932	1-1/2" D 1/2" K.O.	1	25

Square Steel Boxes



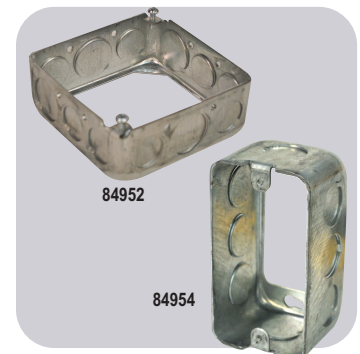
MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84936	4", 2-1/2"D 1/2" & 3/4" K.O.	1	25
84937	4", 1-1/2"D 1/2" K.O.	1	25
84938	4", 1-1/2"D 1/2" & 3/4" K.O.	1	25
84943	4-11/16", 2-1/8" D 1/2" & 3/4" K.O.	1	25

2-1/8" x 4" Steel Utility Boxes



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84947	1-1/2"D 1/2" K.O.	1	25
84948	1-7/8"D 1/2" K.O.	1	25
84949	2-1/8"D 1/2" K.O.	1	25
84950	1-7/8"D 3/4" K.O.	1	25

Steel Extension Rings



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84952	1-1/2"D 1/2" & 3/4" K.O. (4" sq.)	1	25
84954	1-7/8"D 1/2" K.O. (utility)	1	25

Square Steel Covers



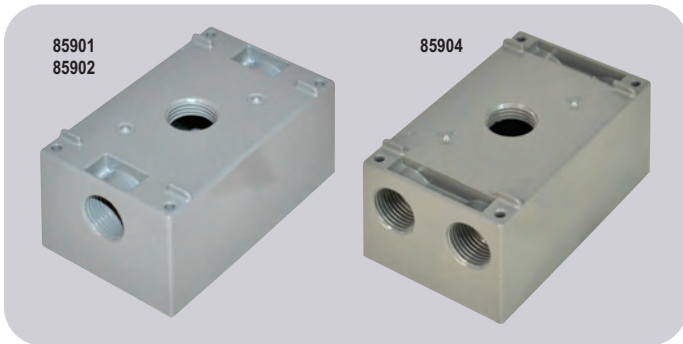
MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84962	4", flat blank	1	25
84963	4", 1/2" depth, single flush	1	25
84964	4", flat, 1/2" K.O. in center	1	25
84965	4", 1/2" raised, single toggle switch	1	25
84966	4", 1/2" raised, 1 duplex receptacle	1	25
84967	4", 1/2" raised, 2 toggle switch	1	25
84968	4", 1/2" raised, 1 toggle sw. & 1 dup. recept.	1	25
84969	4", 1/2" raised, 2 duplex receptacle	1	25

2-1/8" x 4" Steel Utility Box Covers



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84987	Duplex receptacle	1	25
84988	Toggle switch	1	25
84989	Blank	1	25
84990	Blank with 1/2" K.O. in center	1	25
84991	Single receptacle	1	25

One Gang - Weatherproof Outlet Boxes



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
85901	Three 1/2" holes with lugs	1	50
85902	Three 3/4" holes with lugs	1	50
85904	Five 1/2" holes with lugs	1	50

Two Gang - Weatherproof Outlet Boxes



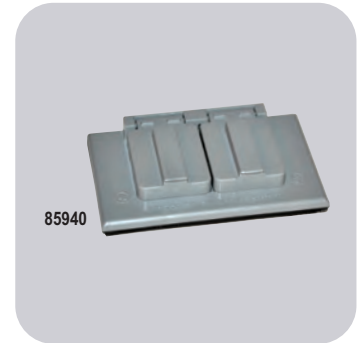
MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
85910	Three 1/2" holes with lugs	1	10
85911	Three 3/4" holes with lugs	1	10

Self Closing GFCI Weatherproof Covers



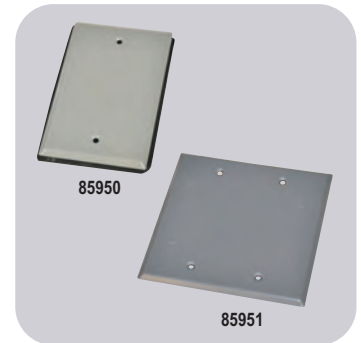
MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
85932	One gang for vertical devices	1	10

Self Closing Weatherproof Covers



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
85940	One gang for duplex receptacle, switches or combo devices	1	50

Weatherproof Blank Covers



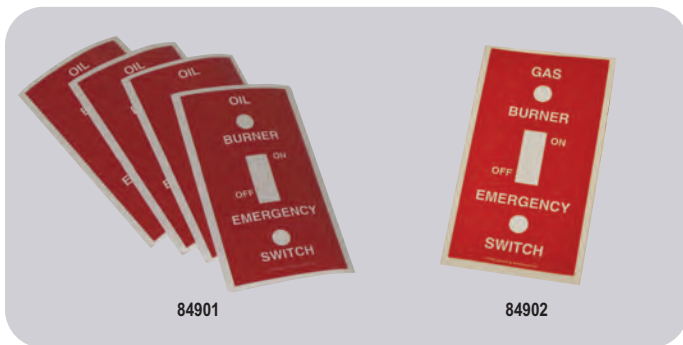
MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
85950	One gang for vertical devices	1	25
85951	Two gang with gasket and screws	1	10

4" Octagon Steel Covers



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84980	Flat blank	1	25

Emergency Switch Cover Labels



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84901	Oil burner switch label; 4" x 2 1/8"	10	1
84902	Gas burner switch label; 4" x 2 1/8"	10	1

PVC Switch Boxes - Angles Nails



MARS NO.	DESCRIPTION	MARS PACK
84910	18 cubic content inches, 2 3/4"D	100

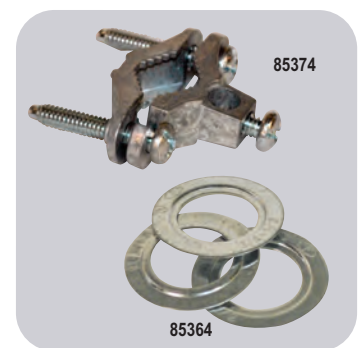
Electrical Fittings-EMT Type-Carded

• Zinc die cast construction



MARS NO.	DESCRIPTION	CASE QTY.
85115	1/2" EMT set screw connector, bulk	50
85326	3/4" EMT set screw connector, 2/cd	5
85327	1/2" EMT set screw coupling, 2/cd	10
85329	1/2" EMT compression connector, 3/cd	10
85330	3/4" EMT compression connector, 2/cd	5
85332	1/2" EMT compression coupling, 3/cd	10
85335	1/2" EMT one-hole strap, 5/cd	10
85336	3/4" EMT one-hole strap, 4/cd	10
85302	3/4" EMT one-hole strap, bulk	100
85337	1" EMT one-hole strap, 2/cd	10
85338	1 1/4" EMT one hole strap, 4/polybag	20
85306	1/2" rigid IMC strap, bulk	100
85307	3/4" rigid IMC strap, bulk	100
85308	1" rigid IMC strap, bulk	50

Electrical Fittings-Rigid Conduit-Carded



MARS NO.	DESCRIPTION	CASE QTY.
85364	3/4" x 1/2" reducing washer, 4/cd	10
85279	1 1/4" x 3/4" reducing washer, bulk	50
85280	1 1/4" x 1" reducing washer, bulk	50
85281	1 1/2" x 1/2" reducing washer, bulk	50
85282	1 1/2" x 3/4" reducing washer, bulk	50
85284	2" x 3/4" reducing washer, bulk	25
85374	1/2" - 1" ground clamps, 1/cd	10

SERVICE & INSTALLATION

Electrical Fittings- BX/Romex/Armored-Carded

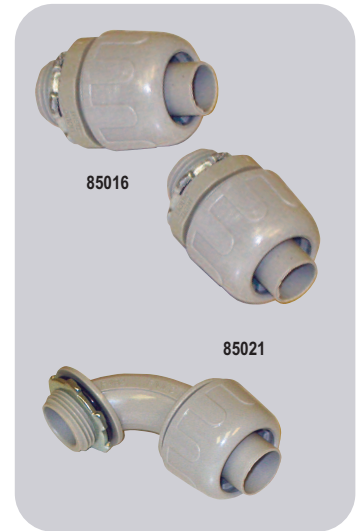
- Zinc die cast construction



MARS NO.	DESCRIPTION	CASE QTY.
85402	3/8" arm./flex. 90° squeeze conn, bulk	50
85155	1/2" arm./flex. 90° squeeze conn, bulk	25
85156	3/4" arm./flex. 90° squeeze conn, bulk	10
85175	3/8" arm./flex. duplex connector, bulk	25
85396	3/8" BX/MC/Romex connector, 3/cd	10
85403	3/8" BX/MC/Romex connector, bulk	100
85397	3/8" Romex squeeze connector, 4/cd	10
85185	3/8" Romex squeeze connector, bulk	100
85398	3/4" Romex squeeze connector, 2/cd	10
85186	3/4" Romex squeeze connector, bulk	25
85399	1" Romex squeeze connector, 2/bag	20
85187	1 1/2" Romex squeeze connector, bulk	50
85188	2" Romex squeeze connector, bulk	50

Liquid-Tight PVC Non-Metallic Fittings

- Molded of type nylon 6, resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents
- Complete conduit/connector system is reusable
- Suitable for indoor/outdoor use



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
85015	3/8" straight non-metallic connector	25	250
85016	1/2" straight non-metallic connector	25	250
85017	3/4" straight non-metallic connector	10	100
85018	1" straight non-metallic connector	5	50
85019	3/8" 90° non-metallic connector	10	100
85020	1/2" 90° non-metallic connector	10	100
85021	3/4" 90° non-metallic connector	10	100
85022	1" 90° non-metallic connector	5	50

Liquid-Tight Screw On Connectors

This attractive one pc design allows superior liquid-tight seal & Optimum pull strength without compression nut. PVC construction produced from UV rated material for long outdoor life. Ideal for conduit assemblies & installers. "O" ring & steel locknut included.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84992	1/2" Straight Screw On	25	100
84993	3/4" Straight Screw On	25	100
84994	1/2" 90 Deg Sweep Screw On	10	100
84995	3/4" 90 Deg Sweep Screw On	10	100

Liquid-Tight Metallic Fittings

- Zinc die cast construction
- Complete conduit/connector system is reusable
- Suitable for indoor/outdoor use



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
85001	1/2" straight metallic connector	20	250
85002	3/4" straight metallic connector	10	100
85005	1/2" 90° metallic connector	10	100
85006	3/4" 90° metallic connector	10	100

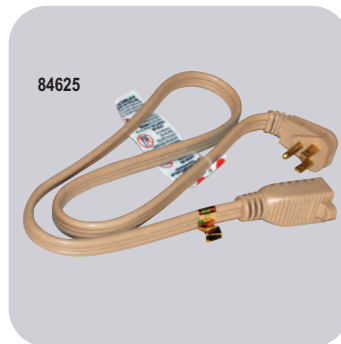
MARS Range And Dryer Receptacles

- 3 Pole, 3W surface mounting receptacles



MARS NO.	DESCRIPTION	CASE QTY.
84700	30a-250V, surface mount dryer receptacle	10
84701	30a-250V, flush mount dryer receptacle	25
84702	50a-250V, surface mount range receptacle	10
84699	30a-250V, srfc. mnt. dryer recept., 3P4W, ground	10
84705	50a-250V, srfc. mnt. range recept., 3P4W, ground	10

MARS Major Appliance Extension Cords, UL Listed



MARS NO.	DESCRIPTION	CASE QTY.
84625	15a-125V, 14/3 spt, 3 foot appliance ext.	30
84626	15a-125V, 14/3 spt, 6 foot appliance ext.	25
84627	15a-125V, 14/3 spt, 9 foot appliance ext.	15
84633	20a-250V, 12/3 spt, 6 foot appliance ext.	25

MARS Pigtails/Replacement Cords - 13 Amp, 125V



MARS NO.	DESCRIPTION	CASE QTY.
84669	16/3 pigtail 3 ft. SPT-3 RT	50
84670	16/3 pigtail 6 ft. SPT-3 RT	50
84671	16/3 pigtail 8 ft. SPT-3 RT	50
84673	16/3 pigtail 3 ft. SPT-3 STR	50
84674	16/3 pigtail 6 ft. SPT-3 STR	50
84679	16/3 pigtail 6 ft. SJT-BL STR	50
84681	14/3 pigtail 6 ft. SJT-BL STR	50
84682	14/3 pigtail 9 ft. SJT-BL STR	50

Power Block Type Extension Cords, 15a-125V - UL listed



MARS NO.	DESCRIPTION	CASE QTY.
84649	Power block ext. 12/3 sptwa, 2 foot	4

SERVICE & INSTALLATION

Outdoor Heavy Duty Ext. Cords, UL Listed - SJTWA



MARS NO.	DESCRIPTION	CASE QTY.
84652	Outdoor ext. 16/3, 13a-125V, 25 foot, orange	24
84653	Outdoor ext. 14/3, 15a-125V, 25 foot, red	14
84655	Outdoor ext. 16/3, 13a-125V, 50 foot, orange	12
84656	Outdoor ext. 14/3, 15a-125V, 50 foot, red	10
84657	Outdoor ext. 12/3, 15a-125V, 50 foot, yellow	6
84658	Outdoor ext. 16/3, 10a-125V, 100 foot, orange	6
84659	Outdoor ext. 14/3, 13a-125V, 100 foot, red	6

Trouble Lights, One Grounded Outlet - UL Listed



MARS NO.	DESCRIPTION	CASE QTY.
84696	Metal cage trouble light, 16/3, SJT, 13a, 25'	8
84697	Metal cage trouble light, 16/3, SJT, 13a, 50'	6

Portable Lighting



MARS NO.	DESCRIPTION	CASE QTY.
84689	8-1/2" clamp light - 6 ft cord	6

Cylinder Cradles and Strap

Cylinder cradles make transportation of cylinders easy and safe. The cradles are made with Maximum Visibility webbing for day or night work.

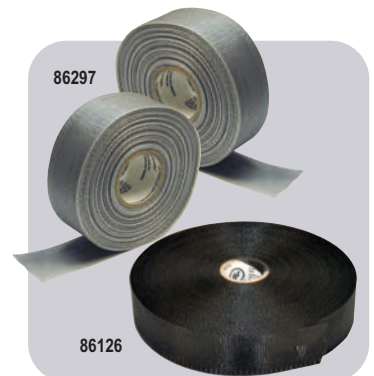
- Polyester webbing meets 5000 lb min breaking strength
- Hardware meets 5000 lb min breaking strength
- Specialized designed lifting solutions
- Individually colored for easy identification
- Cylinder transportation



MARS NO.	DESCRIPTION	MARS PACK
79061	Shoulder Comfort Strap - to transport cylinders safely using Cradles	1
79062	Recovery Cylinder Cradle	1
79063	B Tank Cylinder Cradle	1
79064	Refrigerant Cylinder Cradle	1
79065	Nitrogen Cylinder Cradle	1

Polypropylene Web Duct Strap

- Designed for hanging of flexible duct
- Made of high tensile strength - 400 lbs. min up to 460 lbs. max
- Abrasion and chemical resistant
- Easy to cut and staple to joists
- UL 723 Flame and Smoke

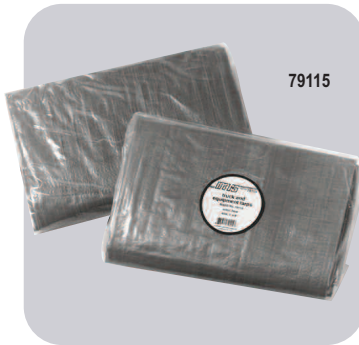


MARS NO.	DESCRIPTION	MARS PACK
86126	Black 1 3/4" x 100 yds.	24
86296	Black 3" x 100 yds	8
86297	Silver 1-3/4" x 100 yds	24
86298	Silver 3" x 100 yds	8

Truck And Equipment Tarps

MARS equipment tarps provide a durable blue protective covering for truck beds, construction material and contractors tools.

- Rust-proof aluminum grommets
- All edges heat-sealed and reinforced with woven polyethylene yarn for durability
- Waterproof and UV resistant



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79115	8' x 10' blue tarp	1	20
79116	12' x 12' blue tarp	1	12

Molded Rubber Straps

Molded rubber straps are made of high quality black rubber. Sturdy hooks will not loosen.



MARS NO.	DESCRIPTION	MARS PACK
79591	19" length - bulk	48
79592	24" length - bulk	24
79593	35" length - bulk	24

Nylon Tie-Down Straps And Tow Straps - Clamshell Pkg



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79596	10' universal tie down with non-slip cambuckle and vinyl coated steel hooks	1	12

Truck Rope-Polypropylene - USA

MARS truck rope is made of a polypropylene construction. All ropes are made in the USA. Applications range from hoisting, truck bed material tie down, job site tie off and a wide variety of other uses. MARS #79059 and #79060 include handy safety hook.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79053	3/8" x 50' yellow	1	12
79055	3/8" x 50' blk/orange	1	12
79056	3/8" x 100' blk/orange	1	12
79057	1/2" x 50' blk/orange	1	12
79059	3/8" x 50' blk/orange with safety hook	1	12
79060	1/2" x 50' blk/orange with safety hook	1	12

Galvanized Duct Straps

The perforated, galvanized duct strap has 1/4" and 9/64" holes for nails & bolts.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
86025	28 gauge 3/4" x 10' RL	bulk	100
86026	28 gauge 3/4" x 50' RL	boxed	1
86027	28 gauge 3/4" x 100' RL	boxed	1
86031	20 gauge 3/4" x 10' RL	bulk	100
86032	20 gauge 3/4" x 25' RL	boxed	6
86033	20 gauge 3/4" x 50' RL	boxed	1

Duct Straps And Hangers

The wire duct strap is used for all square duct run below the joist. Hammers right into duct and joist. No nails, screws or rivets are needed.

The DWV pipe hangers are designed for rapid installation of both ABS and PVC plastic DWV piping with standard flat head galvanized nails. Galvanized steel construction. The pipe hanger is the fastest way to install round 5", 6" or 7" heating pipes below the joist. No nails needed.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
86037	Duct strap	DS 3	100
86040	DWV pipe hanger	2" x 12"	50
86041	DWV pipe hanger	3" x 12"	50

Mechanics Hanging Wire

MARS No. 84418 Plasta-Reel conveniently unwinds and hangs over post or peg on truck bed, from a 2 x 4 or nail. Prevents tangling. This polyethylene reel is smooth and safe to handle. Never blisters, burns or cuts the skin as metal might do! 4,150 ft. per roll.

MARS No. 84419 is 18 gauge galvanized wire annealed to ensure the wire can be tied/bent with ease. The wire is packaged in spools, easy to work with.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
84418	18 gauge Black Ann 5 lbs.	50	500
84419	18 gauge Galvanized 5 lbs.	50	500

MARS Hanger Strap

- Flexible, non-conductive. 3/4" wide x .050 thick 100' roll
- 1/8" holes spaced every 3/4"
- Uses: pipe/duct hanging
- Convenient dispenser box keeps roll neat and tidy



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
86177	Hanger strap 100L	1	1

MARS Wire Ties, 100 Packs

MARS nylon wire ties and duct straps are available in a wide variety of styles, color and tensile strengths. They range in sizes from 4" to 36" with tensile strengths from 18 lbs. to 175 lbs. All MARS wire ties and duct straps feature the bent tip design for ease and insertion.



MARS NO.	DESCRIPTION				MARS PACK
86100	4"	natural	standard	3/4" dia. x 18 lbs.	1
86101	4"	black	standard	3/4" dia. x 18 lbs.	1
86104	5.5"	natural	standard	1 1/4" dia. x 40 lbs.	1
86105	5.5"	black	standard	1 1/4" dia. x 40 lbs.	1
86106	8"	natural	standard	1 3/4" dia. x 40 lbs.	1
86107	8"	black	standard	1 3/4" dia. x 40 lbs.	1
86151	8"	blue	standard	2" dia. x 50 lbs.	1
86108	11"	natural	standard	3" dia. x 50 lbs.	1
86109	11"	black	standard	3" dia. x 50 lbs.	1
86153	14"	black	standard	4" dia. x 120 lbs.	1
86110	14.5"	natural	standard	4" dia. x 50 lbs.	1
86111	14.5"	black	standard	4" dia. x 50 lbs.	1
86112	6"	natural	screw mount	1 1/4" dia. x 30 lbs.	1
86113	6"	black	screw mount	1 1/4" dia. x 30 lbs.	1
86114	7.5"	natural	screw mount	1 3/4" dia. x 50 lbs.	1
86115	7.5"	black	screw mount	1 3/4" dia. x 50 lbs.	1
86155	11"	black	screw mount	3" dia. x 50 lbs.	1
86156	14"	black	screw mount	4" dia. x 50 lbs.	1
86157	14"	natural	screw mount	4" dia. x 50 lbs.	1

MARS Wire Ties, Bulk Packs

MARS NO.	DESCRIPTION				MARS PACK
86116	8"	natural	standard	1 3/4" dia. x 40 lbs. (1000 pk)	1
86117	8"	black	standard	1 3/4" dia. x 40 lbs. (1000 pk)	1
86152	8"	blue	standard	2" dia. x 50 lbs. (1000 pk)	1
86118	11"	natural	standard	3" dia. x 50 lbs. (500 pk)	1
86119	11"	black	standard	3" dia. x 50 lbs. (500 pk)	1
86120	14.5"	natural	standard	4" dia. x 50 lbs. (500 pk)	1
86122	14.5"	black	standard	4" dia. x 50 lbs. (500 pk)	1

MARS Wire Ties, Assortment Packs

MARS NO.	DESCRIPTION				MARS PACK	
86123	(100) 4"	(100) 8"	natural	assortment	1	
86124	(100) 8"	(50) 11"	natural	assortment	1	
86125	(200) 5"	(200) 8"	(50) 11"	natural	assortment	1

MARS Duct Straps, 175 lbs., 50 Packs

MARS NO.	DESCRIPTION			MARS PACK
86127	24" duct strap for up to	6" duct	natural	1
86128	36" duct strap for up to	10" duct	natural	1
86129	48" duct strap for up to	14" duct	natural	1
86102	24" duct strap for up to	6" duct	black	1
86103	36" duct strap for up to	10" duct	black	1

Ready Utility Knife

- Featuring the QUICKEST blade change in the industry.
- Rugged all steel construction
- Folds to a very compact size
- Easily and quickly change blades with the push of a button
- Set includes knife, nylon carrying case, and 5 standard blades



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
25784	Utility knife	1	48

MARS Knife Sharpener

Finally, a Knife Sharpener anyone can use! No more messy oils or stones. Sharpen knives in about 10 seconds (even serrated knives), cleavers, axes, machetes, and many other cutting tools. The full length finger guard protects your fingers. Sharpening blades are Diamond Honed Tungsten Carbide for years of reliable use. AccuSharp Knife Sharpeners will not rust and can be cleaned with soap and water or in the dishwasher.



MARS NO.	DESCRIPTION	CASE QTY.
27520	MARS Knife Sharpener	12

Cable Tie Tool

Cable Tie Tools are economical, lightweight and easy to use. Ideal for heavy duty ties and duct straps. Constructed from high grade steel.

- Heavy duty construction
- Installer controls tensioning
- Squeeze to cut excess
- Cuts up to 60" 175 lbs. cable ties



MARS NO.	DESCRIPTION	COLOR	BAG	CASE QTY.
25683	Cable tie tool	Red	1	100

SERVICE & INSTALLATION

Braze-On Service Valves - Saddle Valves

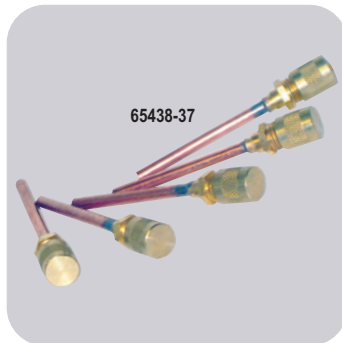
Braze-on self-piercing copper service valves are widely used and easily installed on a charged line. After brazing the saddle portion onto the line, the steel pin with valve core penetrates the line and is locked into place simply by tightening the cap. Available in sizes from 1/4" to 1-1/8".



MARS NO.	DESCRIPTION	MARS PACK
65425	1/4" qty 6 per bag	1
65426	5/16" qty 6 per bag	1
65427	3/8" qty 6 per bag	1
65428	1/2" qty 4 per bag	1
65429	5/8" qty 3 per bag	1
65430	3/4" qty 2 per bag	1
65431	7/8" qty 2 per bag	1
65432	1-1/8" qty 2 per bag	1

Economy Line Service Valves - Extended Copper Tubes

- With valve core & flat cap (#65408)
- 1/4" male flare access fitting



MARS NO.	DESCRIPTION	MARS PACK
65438	3/16" copper tube extension, qty. 6 / bag	1
65439	1/4" copper tube extension, qty. 6 / bag	1
65440	5/16" copper tube extension, qty. 6 / bag	1
65441	3/8" copper tube extension, qty. 6 / bag	1
65442	1/8" copper tube extension, qty. 6 / bag	1
65435	3/8" copper tube extension, bulk	100
65436	3/16" copper tube extension, bulk	100
65437	1/4" copper tube extension, bulk	100

Copper Tees - 1/4" Male Flare

Copper tees have bodies brazed on. Using copper for the tee portion allows tubing to be attached to each end and allows using a solderless than silver solder, such as 95-5. They are to be used where two line ends have not yet been attached or where it is desirable to cut a line rather than drive a hole on an uncharged system. Copper tees save time and money.

- Includes valve core and flat cap (#65408).



MARS NO.	DESCRIPTION	MARS PACK
65447	Tee for 1/4" O.D. tube (2 bag)	1
65448	Tee for 5/16" O.D. tube (2 bag)	1
65449	Tee for 3/8" O.D. tube (2 bag)	1
65450	Tee for 1/2" O.D. tube (2 bag)	1
65451	Tee for 5/8" O.D. tube (2 bag)	1
65452	Tee for 3/4" O.D. tube (2 bag)	1
65453	Tee for 7/8" O.D. tube (2 bag)	1

Tees Connectors

Tee connectors are used to connect controls to check oil pressure on larger compressors having positive pressure oil pumps and to check the accuracy of oil pressure gauges installed on the equipment by the manufacturer against your gauge with known accuracy.



MARS NO.	DESCRIPTION	MARS PACK
65459	1/4" m. flare x 1/4" f. flare nut w/ depressor tip x 1/4" m. flare on the branch w/one valve core (qty. 2 per bag)	1
65460	1/4" m. flare with valve core x 1/4" m. flare x 1/4" f. flare nut w/ depressor tip on the branch (qty. 2 per bag)	1
65461	All brass tee connector 1/4" m. flare with valve core & cap x 1/4" m. flare x 1/4" f. flare nut with depressor tip on branch (qty. 1 per bag)	1

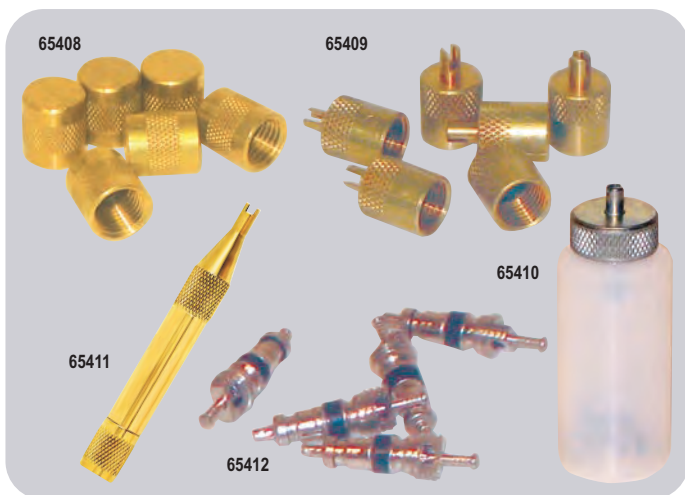
Brass Bodies - Half Unions

MARS brass bodies have a 1/4" standard male flare above the hex. Below the hex are various threads, outside diameters and inside diameters for accepting different sizes of tubing and connections. A flat top brass cap and teflon valve core are included.



MARS NO.	DESCRIPTION	MARS PACK
65401	1/4" MPT dry seal x 1/4" male flare 5/16" I.D. hole accommodates 5/16" O.D. tube. Qty. 2 per bag	1
65402	1/8" MPT dry seal x 1/4" male flare 1/4" I.D. hole accommodates 1/4" O.D. tube. Qty. 6 per bag	1
65403	1/4" male flare for 1/8" I.D hole - accommodates 1/8" O.D. tube. (3/16", 1/4", 5/16" O.D. steps) Qty 6 per bag	1

Brass Caps & Valve Cores



MARS NO.	DESCRIPTION	MARS PACK
65408	Round brass flat cap w/neoprene O-ring seal for 1/4" flare, qty 6 per bag	1
65409	Round brass cap w/ core wrench top and neoprene O-ring seal for 1/4" flare, qty 6 per bag	1
65410	Plastic core container - includes six valve cores and a core wrench and thread chaser	1
65411	Brass core remover container with wrench tip - includes three valve cores	1
65412	Valve core w/teflon seal, qty. 6 per bag	1

Core Removal Tools With Ball Valve

MARS core removal tools are used to remove and replace valve cores in a 1/4" flare without losing refrigerant. Because it has a ball valve inside rather than a stem-type valve, the tool can be closed with just a quarter turn. This convenient compact size tool is ideal for working in close quarters.



MARS NO.	DESCRIPTION	MARS PACK
65418	Core removal tool	1
65419	Core removal tool w/ 1/4" male flare side port	1

MARS Universal Refrigerant Locking Caps

Made in USA



MARS Universal Refrigerant Locking Caps meet or exceed local and national code requirements to prevent unauthorized refrigerant theft. Effective February 2009, the **International Mechanical Code 1101.10** and the **International Residential Code M1411.6** now require that all outdoor access ports on A/C Refrigerant circuits be made tamper resistant.

Features:

- Heavy duty brass construction
- Corrosion resistant
- Water/dust proof sleeve
- Exceeds local and national code requirements
- Protects against: refrigerant theft

Kit Includes:

- Locking cap key
- 10 Locking caps (1/4")
- 10 Waterproof sleeves
- 5 Warning labels



MARS NO.	DESCRIPTION	MARS PACK
65420	Universal Locking Caps, Blk, Qty. 10	1

Chemicals

Thawzone liquid dehydrant chemically "dries" all refrigerants (R12, R22, R134, etc.), methyl chloride, and methylene chloride. Thawzone frees frozen systems due to moisture in five minutes. It prevents refreezing, does not leave any residue, does not contain any dissolved solids or methanol, and works with or without solid dryers. Available in 1 oz., 4 oz. and 16 oz. plastic bottles.

Leak Lock joint sealer is a soft setting pipe joint compound for sealing threaded joints, flanged joints, gasket surfaces and mating surfaces. This resin based brushable paste remains permanently flexible, adheres to internal surfaces and fills voids. It is ideal for use on metal and plastic materials subject to extreme vibrations, temperatures from -100°F (-73°C) to 400°F (204°C) full vacuums to 10,000 PSI. Leak Lock seals all refrigerants (R12, R22, R502, R134A, etc.) petroleum products, natural and manufactured gases, steam, water, air, etc. Available in 1 1/3 oz. plastic tube and 4 oz. and 1 pint brush top plastic jars.

Red Epoxy aluminum sealer is a high performance heat cured, two part epoxy kit for patching or sealing on all metals and some plastics. Red Epoxy is cured within minutes and equipment is serviceable immediately. It is excellent for sealing threaded or unthreaded pipes and is great as a field repair kit for aluminum evaporators, coils, radiators, pipes, tanks, etc. Temperature range: -100°F (-73°C) to 300°F (149°C). Tensile strength: 600 PSI. working pressure tested in excess of 3000 PSI. Kit includes resin & hardener. (.5 oz. tube each)

Low-Temp Gas Leak Detector is non-toxic and non-hazardous and does not contain ethylene glycol. This non-freezing, viscous florescent, bubble type gas leak detector is rated to -30°F (-34°C). The leaks appear as large strong bubbles which cling to the applied surface and are florescent under a black light. For use on hot and cold piping and equipment containing most gases such as air, natural gas, all refrigerants (R12, R134A, R22, R502, etc.) ammonia, SO₂ etc.

The mid-temp gas leak detector is non-toxic and non-hazardous. It is a viscous, florescent, bubble-type gas leak detector rated to 27°F (-3°C). Leaks appear as large strong bubbles which cling to the applied surface and are florescent under a black light. For use on hot and cold piping equipment containing most gases such as air, natural gas, all refrigerants (R12, R134A, R22, R502A, etc.), ammonia, SO₂ etc.

Solderlene is a high quality, paste type, non-acid soldering flux with industrial strength wetting agents to promote solder flow. For use with all low and mid temperature soft solders, both lead bearing and lead-free, on all metals except aluminum and magnesium.

Trace is a red dye trace type internal leak detector for use with mineral oil base refrigerant lubricants and hydraulic systems. Leaks show as intense red stains Trace is non-volatile, will not sludge oil or deposit gum. Trace is soluble in the lubricant and liquid refrigerant but not the gas and travels with the lubricant. Oil separators will remove trace and should be bypassed. Trace passes through solid core dryers but the color intensity may be reduced.

MARS NO.	DESCRIPTION	MARS PACK
93801	Thawzone 1 oz. bottle	24
93802	Thawzone 4 oz. bottle	12
93815	Thawzone 16 oz. bottle	6
93803	Leak Lock 1 1/3 oz. tube	12
93804	Leak Lock 4 oz. brush top jar	12
93805	Leak Lock 1 pint brush top jar	12
93806	Red Epoxy kit .5 oz. tube	24
93807	Low Temp Gas Detector 8 oz. dauber bottle	24
93808	Low Temp Gas Detector 32 oz. trigger spray	12
93809	Mid-temp gas detector 8 oz. dauber bottle	24
93810	Mid-temp gas detector 32 oz. trigger spray	12
93811	Screwloose® Solderlene 4 oz. brush top jar	24
93812	Solderlene 1 pint brush top jar	12
93813	Trace® 4 oz. bottle	12
93814	Trace® 16 oz. bottle	6

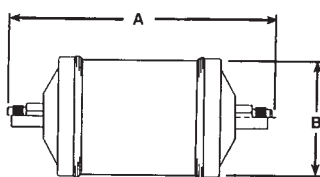


MARS Liquid Line Filter Driers

The MARS Liquid Line Filter Driers are designed to offer complete protection of your refrigerant system. The desiccant block is a carefully selected blend of molecular sieve and activated alumina, providing for maximum removal of moisture, acid, and foreign materials. This molded desiccant block allows for efficient filtration and retention of solid contaminants, while insuring minimum pressure drop. The solid molded block exposes maximum surface area and provides even distribution of filtered material as the refrigerant flows through the drier. These driers are intended for use on R-134A, R-404A, R-410A, R-507, R-12, R-500, R-502



20119



Features & Benefits:

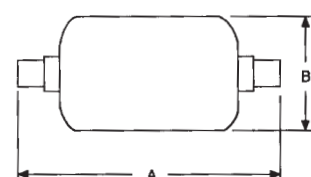
- High moisture removal
- High organic & inorganic acid removal
- Solid block desiccant core
- For use with HCFCs, CFCs, and the lubricants that go with them
- Nickel plated SAE flare and solid copper ODF fittings
- Corrosion resistant
- Maximum working pressure 600 PSIG
- Minimum burst pressure 2500 PSIG
- UL & CSA listed

MARS Bi-Flow Heat Pump Driers

The MARS Bi-Flow Heat Pump Driers are designed to provide complete protection to the heat pump or reverse cycle system. The molded block core exposes maximum surface area for efficient filtration and retention of solid contaminants. The internal check valves prevent the release of collected contaminants when the heat pump cycles from the heating to cooling modes.



20176



The use of molecular sieve and activated alumina in the desiccant core block provide the heat pump drier maximum moisture and acid removal. The addition of charcoal to the desiccant core allows for the removal of wax that may occur at low evaporator temperatures, giving protection to your expansion device.

Features & Benefits:

- For use on R134A, R12, R22, R500, R404A, R410A, R507
- For heat pump or reverse cycle applications
- High organic & inorganic acid removal
- Solid block desiccant core
- Proven, nylon internal check valves
- High moisture removal
- Nickel plated SAE flare and solid copper ODF fittings
- Corrosion resistant paint
- Maximum working pressure 600 PSIG
- Minimum burst pressure 2500PSIG
- UL & CSA listed

MARS NO.	MODEL NO	CONNECTIONS SIZE & TYPE	DIMENSIONS		FLOW CAPACITY ¹ TONS @ 1 PSI			CASE QTY.
			A	B	R-134A	R-22/R410A	R404A/R507	
20106	MLD-032	1/4 SAE	4.32	1.63	2.0	1.9	1.2	12
20107	MLD-032S	1/4 ODF	3.76	1.63	3.0	2.8	1.8	12
20108	MLD-052	1/4 SAE	4.88	2.50	2.1	2.0	1.3	12
20109	MLD-052S	1/4 ODF	4.33	2.50	3.0	2.9	1.9	12
20111	MLD-053S	3/8 ODF	4.53	2.50	6.0	5.8	3.8	12
20112	MLD-082	1/4 SAE	5.80	2.50	2.1	2.1	1.3	12
20113	MLD-082S	1/4 ODF	5.24	2.50	3.1	3.0	1.9	12
20114	MLD-083	3/8 SAE	6.10	2.50	4.9	4.7	3.0	12
20115	MLD-083S	3/8 ODF	5.43	2.50	6.2	5.9	3.9	12
20116	MLD-162	1/4 SAE	6.58	2.50	2.1	2.1	1.3	12
20118	MLD-163	3/8 SAE	6.89	2.50	5.1	4.9	3.2	12
20119	MLD-163S	3/8 ODF	6.22	2.50	6.4	6.2	4.0	12
20120	MLD-164	1/2 SAE	7.13	2.50	8.8	8.4	5.5	12
20121	MLD-164S	1/2 ODF	6.27	2.50	9.2	8.8	5.7	12
20123	MLD-165S	5/8 ODF	6.54	2.50	15.3	14.6	9.5	6
20125	MLD-303S	3/8 ODF	8.90	3.00	7.5	7.2	4.7	6
20126	MLD-304	1/2 SAE	9.80	3.00	9.9	9.5	6.2	6
20127	MLD-304S	1/2 ODF	8.94	3.00	12.3	11.8	7.7	6
20128	MLD-305	5/8 SAE	10.18	3.00	12.6	12.1	7.9	6
20129	MLD-305S	5/8 ODF	9.21	3.00	16.8	16.1	10.5	6
20130	MLD-306S	3/4 ODF	9.63	3.00	18.1	17.4	11.3	6
20131	MLD-307S	7/8 ODF	9.80	3.00	19.0	18.2	11.8	6

¹ All ratings in accordance with ARI standard 710-04, 86°F Liquid Refrigerant Temperature, 5°F Saturated Temperature 4.0 lbs./min./ton for R-134a, 2.9 lbs./min./ton for R-22, 4.0 lbs./min./ton for R-404A/R-507

MARS NO.	MODEL NO	CONNECTIONS SIZE & TYPE	DIMENSIONS		FLOW CAPACITY ¹ TONS @ 1 PSI	CASE QTY.
			A	B		
20176	MBF-083S	3/8 ODF	5.63	2.63	R-22/R410A 7.4	12
20178	MBF-084S	1/2 ODF	5.66	2.63	9.4	12
20181	MBF-163	3/8 SAE	6.97	3.09	6.7	12
20182	MBF-163S	3/8 ODF	6.31	3.09	7.5	12
20186	MBF-165S	5/8 ODF	6.63	3.09	12.4	12

¹ All ratings in accordance with ARI standard 710-04 2.9 lbs./min./ton for R-22

SERVICE & INSTALLATION

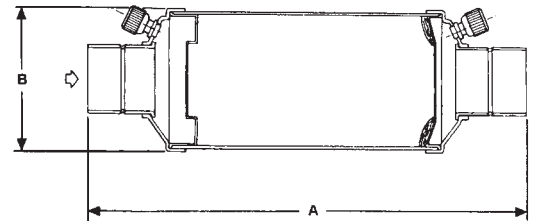
MARS suction line driers - flow capacities¹ in refrigerant tons at selected evaporator temps

The MARS Suction Line Filter Driers are designed to effectively clean up the refrigerant system by removing solid contaminants and harmful acids that were created during a motor burnout. As well as motor burnout applications, the MARS Suction Line Drier will collect and hold any dirt that is in the evaporator or suction line at start up. Any field built-up system requires the protection that the MARS Suction Line Drier offers.

The desiccant block core effectively removes and holds a maximum amount of contaminants with minimum pressure drop. The binding material in the core protects the core from acid decomposition and allows it to collect and hold organic and inorganic acids from motor burnout. An inlet deflector spreads the refrigerant flow evenly across the molded core to provide full filtration capacity and to prevent erosion of the core.

Features & Benefits:

- For use on R134A, R12, R22, R500, R404A, R410A, R507
- Dual access valve for accurate pressure drop readings
- Solid block desiccant core
- High organic & inorganic acid removal
- For use with HCFCs, CFCs and the lubricants that go with them
- Nickel plated SAE flare and solid copper ODF fittings
- Corrosion resistant paint
- Maximum working pressure 600 PSIG
- Minimum burst pressure 2500 PSIG
- UL & CSA listed



MARS NO.	+40°F	+20°F	0°F	-20°F	+40°F	+20°F	0°F	-20°F	-40°F	+40°F	+20°F	0°F	-20°F	-40°F	+40°F	+20°F	0°F	-20°F	-40°F
	R-134A PRESSURE DROP IN P.S.I.				R-22 PRESSURE DROP IN P.S.I.					R-502 PRESSURE DROP IN P.S.I.					R410A FLOW CAPACITY EVAPORATOR TEMPERATURE (F°)				
	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
20141	0.8	0.5	0.3	0.2	1.3	0.8	0.6	0.4	0.2	1.0	0.7	0.5	0.3	0.1	1.7	1.1	0.8	0.5	0.3
20143	1.7	1.2	0.7	0.4	2.7	1.8	1.2	0.8	0.4	2.2	1.4	1.0	0.6	0.3	2.8	1.9	1.3	0.8	0.5
20145	2.4	1.6	1.0	0.5	3.8	2.5	1.7	1.1	0.6	3.1	2.0	1.3	0.8	0.4	3.9	2.6	1.7	1.1	0.6
20149	2.2	1.5	0.9	0.5	3.4	2.2	1.5	1.0	0.5	2.8	1.8	1.2	0.8	0.4	3.5	2.2	1.5	1.0	0.5
20150	2.6	1.8	1.1	0.6	4.1	2.7	1.8	1.2	0.6	3.4	2.2	1.5	0.9	0.5	4.2	2.8	1.8	1.2	0.6
20151	2.7	1.8	1.1	0.6	4.6	2.8	1.9	1.1	0.6	4.3	2.6	1.7	1.0	0.6	4.2	2.8	1.8	1.2	0.6
20154	3.4	2.3	1.4	0.7	5.4	3.5	2.4	1.5	0.8	4.4	2.8	1.9	1.2	0.6	5.5	3.6	2.4	1.5	0.8
20155	3.8	2.5	1.6	0.8	5.9	3.9	2.6	1.7	0.9	4.9	3.1	2.1	1.3	0.7	6.0	4.0	2.6	1.7	0.9
20156	3.9	2.6	1.6	0.8	6.1	4.0	2.7	1.7	0.9	5.0	3.2	2.2	1.3	0.7	6.2	4.1	2.8	1.7	0.9

Flow Capacity In Tons Refrigerant¹ (For kW, Multiply Tons By 3.5)

¹ All ratings in accordance with ARI standard 730-04

² Example: 1.0 tons x 3.5 = 3.5 KW

MARS NO.	MODEL NO.	SIZE & TYPE	DIMENSION	
			A	B
20141	MSD-83S	3/8 ODF	5.43	2.5
20143	MSD-84S	1/2 ODF	5.48	2.5
20145	MSD-85S	5/8 ODF	5.74	2.5

MARS NO.	MODEL NO.	SIZE & TYPE	DIMENSION	
			A	B
20149	MSD-165S	5/8 ODF	6.54	2.5
20150	MSD-166S	3/4 ODF	6.95	2.5
20151	MSD-167S	7/8 ODF	7.13	2.5

MARS NO.	MODEL NO.	SIZE & TYPE	DIMENSION	
			A	B
20154	MSD-306S	3/4 ODF	9.63	3.0
20155	MSD-307S	7/8 ODF	9.80	3.0
20156	MSD-309S	1-1/8 ODF	9.80	3.0

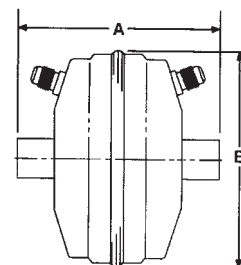
MARS compact suction line driers - flow capacities in refrigerant tons at selected evaporator temperatures

The MARS compact suction line driers are designed for use in air conditioning, heat pump, and refrigeration systems in which the available space in the suction line is limited. This is especially useful in heat pump systems where the drier must be placed between the reversing valve and the compressor. This compact suction drier should be used for motor burnout clean-up applications, and installed in remote systems with long refrigerant lines. The filter drier will collect and hold any dirt that is in the evaporator or suction line at start up.

The molded desiccant core block effectively removes and holds a maximum amount of contaminants with a minimum pressure drop. The binding material in the core protects the core from acid decomposition and allows it to collect and hold organic acids from a motor burnout. An inlet deflector, spreads the refrigerant flow evenly to prevent erosion and effectively uses the full filtration capacity of the filtering system.

Features & Benefits:

- For use on R134A, R12, R22, R500, R404A, R507, R502
- High organic & inorganic acid removal
- Dual access valves for accurate pressure drop readings
- Solid block desiccant core
- For use with HCFCs, CFCs and the lubricants that go with them
- Solid copper ODF fittings
- Corrosion resistant paint
- Maximum working pressure 302 PSIG
- Minimum burst pressure 1510 PSIG



MARS NO.	MODEL NO.	SIZE & TYPE	DIMENSION		+40 F	+20 F	0 F	-20 F	+40 F	+20 F	0 F	-20 F	-40 F	+40 F	+20 F	0 F	-20 F	-40 F
					R-134A PRESSURE DROP IN P.S.I.				R-22 PRESSURE DROP IN P.S.I.				R-502 PRESSURE DROP IN P.S.I.					
			A	B	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
20167	MCD-14S6	3/4 ODF	4.37	4.57	3.1	2.1	1.3	0.7	4.9	3.2	2.2	1.4	0.7	3.6	2.3	1.5	0.9	0.5
20168	MCD-14S7	7/8 ODF	4.55	4.57	3.3	2.2	1.4	0.7	5.2	3.4	2.3	1.5	0.8	3.6	2.3	1.5	0.9	0.5

MARS Sight Glass - Moisture Indicators

The MARS Moisture Indicators are constructed of forged brass bodies with brass fittings. The large viewing area of the sight glass allows for quick and easy inspection of the refrigerant as it flows through the system. Bubbles passing through the sight glass may be an indication of a low system charge or a restriction in the refrigerant system.

The moisture Indicators are designed to provide an accurate method of determining when the moisture content is dangerously wet in a refrigerant system and when the liquid line drier is no longer effective. An indicator element is highly sensitive to moisture and will gradually change color in reaction to the moisture content of the refrigerant system. Maximum working pressure is 680 PSIG. Minimum Burst pressure is 2500PSIG. UL and CSA listed.



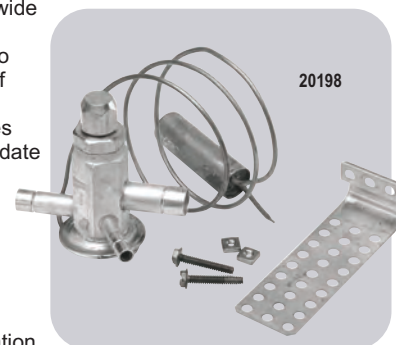
MARS NO.	MARS MODEL NO.	DESCRIPTION	LENGTH X HEIGHT INCHES	CASE QTY.
65639	MSG-3SS	3/8 Solder x Solder	4.69 x 1.11	12
65640	MSG-4SS	1/2 Solder x Solder	4.88 x 1.29	12
65641	MSG-5SS	5/8 Solder x Solder	4.88 x 1.38	12
65642	MSG-7SS	7/8 Solder x Solder	5.90 x 1.66	12

MARS Thermo Expansion Valves

The MARS Thermo Expansion Valves are used for heat pump, air conditioning, food service and commercial applications. These valves incorporate a high stability charge designed for R-22 HVAC applications. The wide range charge provides greater superheat stability, allowing two valves to cover a wide range of capabilities from 1 to 5 tons. These thermo expansion valves allow the wholesaler to consolidate inventory by replacing several valves with the two wide range valves we offer.

Features & Benefits:

- Hermetic construction eliminates external leakage
- Compact size allows installation in limited spaces
- External equalizer
- Stainless steel power element eliminates corrosion and prevents valve failure
- Integral check valve
- Maximum working pressure 600 PSIG
- Designed for R-22 applications



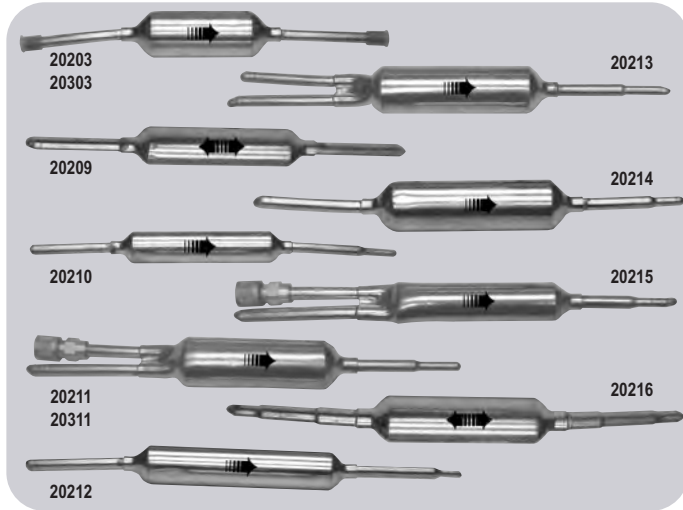
MARS NO.	MODEL NO.	CAPACITY	R-22 CAPACITY RANGE	CONNECTIONS	CAP. TUBE	CASE QTY.
20198	MXV2-1/2	2-1/2 Ton	1 - 3 Tons	3/8 x 1/2 ODF S/T	30"	12
20199	MXV5	5 Ton	1 - 5 Tons	3/8 x 1/2 ODF S/T	30"	12

SERVICE & INSTALLATION

MARS Spun Drier Capacity Table

Features:

- Recommended for use on original equipment, residential and commercial refrigerators, freezers and air conditioners
- XH-9 beaded molecular sieve for maximum water capacity in HFC refrigerants
- High quality – high capacity
- Hermetically sealed
- Easy break off grooved ends
- Copper shells and end tubes
- Compatible with R134



MARS NO.	DESCRIPTION	DROPS OF WATER REMOVED				RECOMMENDED TONNAGE	
		R-12		R-22		R-12	R-22
		75'	125'	75'	125'		
20203	Plugged Ends	37.5	34	34	32	1/3	1/2
20303	Plugged Ends	37.5	34	34	32	1/3	1/2
20209	Non-Directional	37.5	34	34	32	1/3	1/2
20210	Fused Ends	37.5	34	34	32	1/3	1/2
20211	Charging Drier	74	38	68	64	3/4	1
20311	Charging Drier	74	38	68	64	3/4	1
20212	Step Down Drier	99	93	95	90	1	2
20213	Double Inlet	74	68	68	64	3/4	1
20214	Fused Ends	74	68	68	64	3/4	1
20215	Charging Drier	37.5	34	34	32	1/3	1
20216	Step Down Drier	74	68	68	64	3/4	1

MARS Spun Copper Driers

MARS NO.	DESCRIPTION	INLET	OUTLET	LENGTH	DIA.	MARS PACK
20203	Plugged Ends	1/4" OD	1/4" OD	7-3/4"	1"	1
20303	Plugged Ends	1/4" OD	1/4" OD	7-3/4"	1"	50
20209	Non-Directional	1/4" OD	1/4" OD	8-1/2"	3/4"	1
20210	Fused Ends	1/4" OD	1/4" OD	8-3/4"	3/4"	1
20211	Charging Drier	1/4" OD 1/4" Flare	1/4" OD or Cap.	8-3/4"	1"	1
20311	Charging Drier	1/4" OD 1/4" Flare	1/4" OD or Cap.	8-3/4"	1"	50
20212	Step Down Drier	5/16" OD	5/16" OD or Cap.	10-3/4"	1"	1
20213	Double Inlet	(2) 1/4" OD	1/4" OD	8-3/4"	1"	1
20214	Fused Ends	1/4" ID 1/4" OD	1/4" OD or Cap.	9"	1"	1
20215	Charging Drier	1/4" ID 1/4" OD 1/4" Flare	1/4" OD or Cap.	9"	3/4"	1
20216	Step Down Drier	3/16, 1/4, 5/16" ID	5/16" ID or Cap.	8-3/4"	1"	1

Tubing Cutters And Accessories

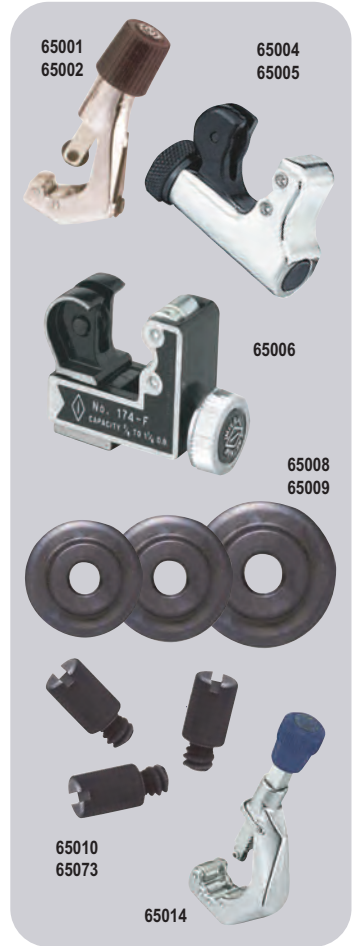


Imperial Eastman offers a quality line of tube working tools, well recognized as standards of excellence in the HVACR industry. All tubing tools are made in the U.S.A. and come with a limited lifetime warranty.

Imperial tube cutters can be used on hard or soft copper, aluminum, brass, thin wall steel, stainless steel, monel, titanium and other metal tubing. The Hi-Duty® tube cutters (MARS #65001 and #65002) feature rollers with flare cut-off groove, fold away reamer and a spare cutting wheel.

MARS #65004, Imp® tube cutter, requires only 1 1/4" swing radius and a 1 3/8" swing radius with 5/8" tube. This tube cutter features rollers on the bottom of the tool which allows for easier cutter engagement on tubing. The enclosed feed design minimizes contamination, assuring continued free operation. MARS #65005 requires only 1 11/16" swing radius.

The Big-Imp™ tube cutter, MARS #65006, requires only 1 15/16" swing radius and a 2 1/4" swing radius with 1 1/8" tube.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65001	TC1000	Hi-Duty® 1/8" to 1 1/8" OD	20
65002	312FC	Hi-Duty® 1/4" to 1 5/8" OD	10
65004	TC1050	Imp® cutter 1/8" to 5/8" OD	20
65005	TC2050	Imp® cutter 3/16" to 7/8" OD	10
65006	174F	Big Imp™ 3/8" to 1 1/8" OD	10
65008	S75015	Standard cutter wheel (10 pk) for use on #65001, 65002, 65003, 65006	10
65009	S75046	Cutter wheel for stainless steel and hard temper tubing (5 pk) for use on #65001, 65002, 65003, 65006	10
65010	S74762	Screws for cutter wheel (5 pk) for use on #65008, 65009	10
65011	TC1A	Cutter wheel service kit includes: 3 standard cutter wheels, 1 screw for cutter wheel	10
65013	TC1C	Cutter wheel service kit includes: 2 cutter wheels for #65004 1 screw for cutter wheel	10
65014	206FB	Adj.-O-Matic® 1/8" - 2-5/8" OD	1
65076	S77511	Screw for cutter wheel for #65072	1
65073	S26883	Screw for cutter wheel for 65056	1

Tube Benders

Imperial lever type tube benders are used for soft copper, aluminum, brass, steel and other metal tubing. Each tool bends one size. The open size design slips over tube at any point. Our tube benders make smooth short radius bends up to 180°. Each bender tool is calibrated to show angle of bend. The wide hook grips tubing securely and the new fixed hook has easy 90° start. Our line of lever tube benders feature a swivel handle which may be repositioned to regain leverage for bends greater than 90°, eliminating bender twisting and handle crossing. The enclosed swivel mechanism provides extended life. Ideal for bending stainless steel, as well as other tubing.

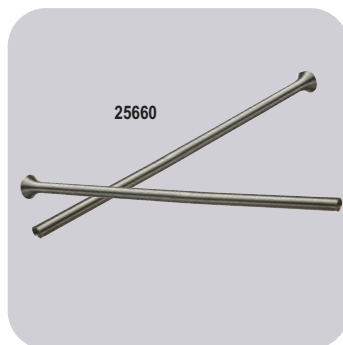
Imperial Imp® triple header benders feature calibrated markings for accurate left-hand, right-hand and offset bends. 90° start requires less effort - making bending fast and easy.

Imperial spring type tube benders are for use on soft copper and aluminum tubing. These tools allow hand bending of soft tubing to any shape without collapsing walls. Special spring steel, nickel finished. End belled for quick tube removal.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65024	368FH	Triple header; 1/4", 5/16", 3/8" OD 15/16" radius to center	10
65031	102F10	Spring type 5/8" OD	10
65032	102F12	Spring type 3/4" OD	10
65033	102F14	Spring type 7/8" OD	10
65029	163F	Spring set; 1/4", 3/8", 1/2", 5/8" OD	10

MARS Tube Benders



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
25660	External spring type tube benders, 1/4", 3/8", 1/2" & 5/8", set of 4	1	24

Tubing Tool Kits



MARS #65059, 45° flaring and swaging tool kit is for use on 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2" and 3/4" OD tubing. Flares or swages. Converts quickly. Features screw-type feed. Ideal close quarters tool. Swivel type swaging adapters and spreader cone are hard-chrome finished for easy operation. Self centering, slip-on forged steel yoke. Includes five swage adapters for 3/16", 1/4", 5/16", 3/8", 1/2" and 3/4" OD tubing. Packaged in a plastic kit.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65059	275FS	45° flaring and swaging tool	1

Flaring Tools



Imperial's 45° flaring tool, MARS #65037, is for 3/16", 1/4", 5/16", 3/8", 7/16", 1/2" and 5/8" OD tubing. This tool features a self-centering yoke with swivel-type, hard chrome finished flaring cone to form better flares with less effort. The yoke is designed to permit flaring where there is little space between nut and tube end. This flaring tool is for use on soft copper, aluminum and brass tubing.

The 45° Rol-Air® flaring tool, MARS #65038, is used for flaring and burnishing 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" OD tubing. The flares are rolled out above die bar by a super-smooth faceted cone. Automatically burnishes flare face. The slip-on yoke permits use in tight quarters. Heat treated dies grip tubing without scoring. For use on soft copper, aluminum and brass tubing.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65037	195FC	45° for 3/16" to 5/8" OD	10
65038	500FC	Rol-Air® 45° for 3/16" to 5/8" OD	10

SERVICE & INSTALLATION

Pinch Off Tool

Pinch-off tool temporarily closes soft copper, aluminum or steel tubing so no liquid or gas passes. Lets you disconnect line while making repairs without loss of liquid or gas. Also opens tubing and rounds it back into shape. For use on 1/4", 3/8" and 1/2" OD tubing.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65050	105FF	Pinch off tool (copper tubing)	1

Reamers, Swaging Tools, Wrenches & Tube Adapters

Imperial inner/outer reamers and deburring tools ream both inside and outside edges of tube with three hollow ground tool steel cutters. Fits comfortably in hand. MARS #65066, inner/outer reamer and deburring tool is used for copper, aluminum and brass tubing and has a blue finish.

MARS #65083 is for use on compressors with access valves in hard to reach places. This reversible ratchet is chrome plated.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65066	208F	Inner/outer reamer and deburring tool	10
65083	127C	1/4", 3/8", 3/16", 5/16" square ratchet	1

SURE CUT Ratchet Tubing Cutter

- Cuts copper, brass, aluminum tubing and thin-wall conduit
- Ratchets for fast, easy cuts in tight areas
- Self feeding action for automatic cutting
- Strong, lightweight nylon & fiberglass handle
- Spare cutting wheel is supplied in the handle



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
65201	5/16" to 1 1/8" OD	1	12
65202	1/4" to 7/8" OD	1	12
65203	Replacement Blades	1	12

EASY BEND Ratcheting Tubing Bender

- For bending OD tubing sizes from 3/8" to 7/8"
- Use on soft copper, coated soft copper, thin wall hydraulic tubing and plastic coated aluminum composite pipe
- Kit includes impact resistant carry case, tubing cutter and ID/OD reamer
- Single-hand manual ratchet operation



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
65210	Tubing Bender	1	3

Service Manifolds



Imperial and MARS offer refrigeration and air conditioning service manifolds. The Man Handler™ 4-valve manifolds feature up to four times faster system evacuation. The 4 valve efficiency provides vacuum, low side, high side and refrigerant lines individually connected and controlled. No need to switch charging lines. T-grip controls offer non-slip operation. Other features include swivel hanger, brass hose end closure bracket and a deep, vacuum valve design. The red and blue gauges are calibrated in PSI. MARS #65102 is a 4 valve manifold with four 60" std. fitting charging lines (one 3/8" line, three 1/4" lines). For R-12, R-22 and R-502 refrigerants.



Imperial's convertible 2 valve brass manifolds feature non-flutter gauges, tough gauge crystals, swivel hanger, brass hose end closure spuds, soft-seat valves and color coded controls. The red and blue gauges are calibrated in PSI. MARS #65105 is the 2 valve manifold with three 36" std. fitting charging lines. For R-12, R-22 and R-502 refrigerants.

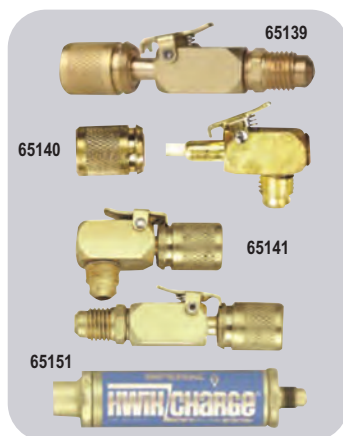
MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65102 ¹	621C	4 valve manifold with (4) 60" hoses	20
65105	496C	2 valve manifold with (3) 36" hoses	30
65108	400RL	Low side repair kit for 2 valve	1
65111	400RH	High side repair kit for 2 valve	1
65109	S8922562	Hook assembly for 4 valve	1
65110	S9449101	Closure bracket plate for 4 valve	1
65116	600R	Diaphragm replacement seal kit	1
65117	601R	Replacement VAC & REF knobs w/stems	1
65118	602R	Replacement HI & LO	1

¹ Patented, UL recognized for commercial refrigeration & A/C applications

Manifold Accessories



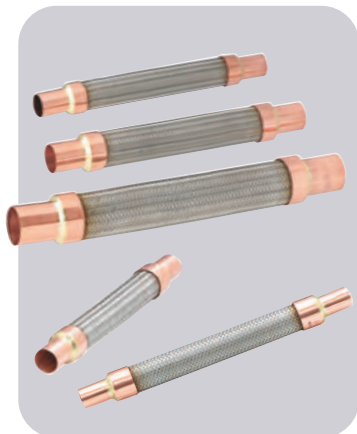
Imperial patented, UL recognized kwik-couplers are intended for use with refrigeration/air conditioning service manifold high and low side hoses, when connecting to core valve type service fittings. Simply push to connect and pull to disconnect. Valve cores are depressed automatically without adjustments or loss of refrigerant. An automatic shut off valve retains refrigerant pressure in disconnect hose.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65139	16C	Straight coupler (45° flare) 1/4"F x 1/4"M	20
65140	17C	90° elbow coupler (45° flare) 1/4"F x 1/4"M	20
65141	18C	Coupler set (#16C and 17C)	15
65151	535C	Kwik charge liquid low side	1

Stainless Steel Vibration Absorbers

- 100% Copper connections
- Hose and copper braze welded
- Each unit dehydrated and vacuum tested
- Units individually packaged in poly bags and corrugate boxes
- UL, cUL, and CE



MARS NO.	DESCRIPTION	MARS PACK
52329	1/4" Vibration Absorber	1
52330	3/8" Vibration Absorber	1
52331	1/2" Vibration Absorber	1
52332	5/8" Vibration Absorber	1
52333	3/4" Vibration Absorber	1
52334	7/8" Vibration Absorber	1
52335	1-1/8" Vibration Absorber	1
52336	1-3/8" Vibration Absorber	1
52337	1-5/8" Vibration Absorber	1
52338	2-1/8" Vibration Absorber	1
52339	2-5/8" Vibration Absorber	1
52340	3-1/8" Vibration Absorber	1

MARS Flexible Mini-Split Line Set Connectors

MARS flexible line set connectors provide ease of installation for mini-split indoor evaporator units. Flexible line sets allow for line set connection prior to mounting the unit on the wall. Flexible line sets eliminate copper line kinking during the installation process and provide for future ease of service of the AC unit. All flex line sets are 36in. in length to facilitate installation of wall mount evaporators.



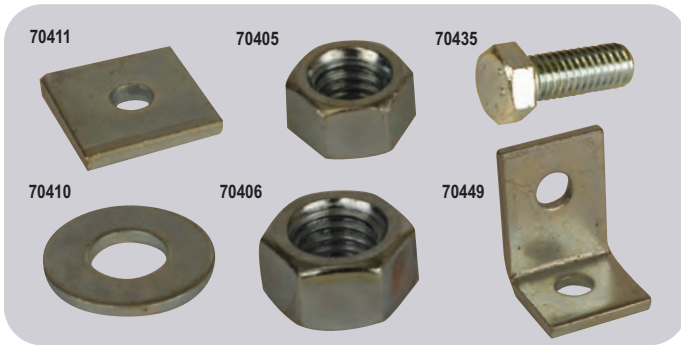
Features

- High pressure stainless steel braided line rated to 800 PSI
- R410a compatible
- 3 inch copper stubs
- 36 inch overall length

MARS NO.	DESCRIPTION	MARS PACK
52345	1/4" X 36" Mini-Split Flex Line Set	1
52346	3/8" X 36" Mini-Split Flex Line Set	1
52347	1/2" X 36" Mini-Split Flex Line Set	1
52348	5/8" X 36" Mini-Split Flex Line Set	1

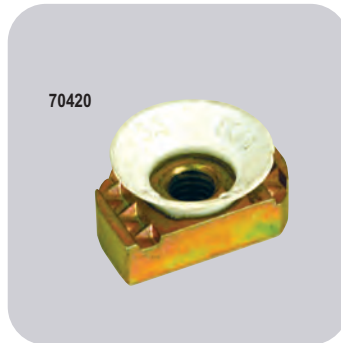
SERVICE & INSTALLATION

For Channels & Channel Fittings Hardware



MARS NO.	DESCRIPTION	MARS PACK
70401	Insulated Plastic Staple	50
70411	3/8" Steel Square Washer	100
70410	3/8" Steel Flat Washer	100
70405	3/8" Steel Standard Hex Nut	100
70406	1/2" Steel Standard Hex Nut	100
70435	3/8" x 1" Steel Hex Head Cap Screw	100
70449	90 Deg, 2 Hole, Steel Angle Fitting (1-5/8 x 2-1/4)	50

Top Spring Nuts For All Channels



MARS NO.	DESCRIPTION	MARS PACK
70420	3/8" Nylon Cone Nut	100

Beam Clamp

MARS C-Clamp's are used to replace various other clamps as top beam or bottom beam structural steel attachments. Made of malleable/ductile iron, set screw with hardened cup point, lock nut



MARS NO.	DESCRIPTION	MARS PACK
70416	3/8" C-Clamp with Locknut	100
70415	3/8" Top Beam C-Clamp	100

Rod Coupling

MARS NO.	DESCRIPTION	MARS PACK
70425	3/8" Steel Rod Coupling	50

Supports non-insulated, stationary lines, Rigid/IMC Conduit and pipe



MARS NO.	DESCRIPTION	MARS PACK
70430	1" IPS Clevis Steel Pipe Hanger	100
70432	1-1/2" IPS Clevis Steel Pipe Hanger	50
70431	2" IPS Clevis Steel Pipe Hanger	100

Conduit & Pipe Hangers

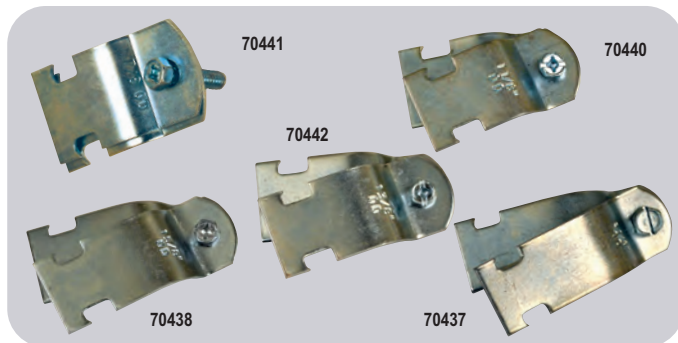
Supports EMT and Rigid conduit or pipe.



MARS NO.	DESCRIPTION	MARS PACK
70447	3/8 to 1/2" Conduit & Pipe Hanger w/bolt	100
70446	3/4" Conduit & Pipe Hanger w/bolt	100
70445	1" Conduit & Pipe Hanger w/bolt	100
70448	1-1/4" Conduit & Pipe Hanger w/bolt	100

Pipe Cushion Clamps

Pipe Straps are designed to be twist inserted anywhere along the slot side of the channel



MARS NO.	DESCRIPTION	MARS PACK
70441	7/8" to 2" Adjustable Clevis Pipe Hanger	100
70440	1-1/8" to 2" Adjustable Clevis Pipe Hanger	100
70442	1-3/8" to 2 1/2" Adjustable Clevis Pipe Hanger	100
70438	1-5/8" to 2-1/2" Adjustable Clevis Pipe Hanger	100
70437	2-1/8" to 3" Adjustable Clevis Pipe Hanger	50
70439	2-3/8" to 3" Adjustable Clevis Pipe Hanger	25

Cushion Clamps



MARS NO.	DESCRIPTION	MARS PACK
70436	1-5/8" Steel Pipe Clamp w/Copper Plated OD Tubing	10

9600 RS Couplings-Rolled Stop-Copper To Copper



MARS NO.	MODEL NO.	DESCRIPTION	MARS PACK	CASE QTY.
64722	W1003	1/4" O.D.	100	1000
64723	W1009	3/8" O.D.	100	2000
64725	W1022	5/8" O.D.	100	1000
64726	W1028	3/4" O.D.	100	500
64727	W1034	7/8" O.D.	50	500

9607-2LT 90° Street Elbows - Long Radius



MARS NO.	MODEL NO.	DESCRIPTION	MARS PACK	CASE QTY.
64816	W2828	3/4" O.D.	25	250

Sil-Fos Brazing Alloys - 1/8" X .05" X .20"- 1 Lb. Spool



Sil-Fos® alloys allow the joining of copper to copper without a flux and copper based alloys (brass and bronze) with a flux. Sil-Fos® is the workhorse filler metal used in the a/c and refrigeration industry. A key factor is the ductility of Sil-Fos® 15. It can be readily bent (without heating), thus permitting easier access to the backsides of joints.



The Sil-Fos® 15 is the best alloy for general copper-copper brazing in the Sil-Fos® family. The phosphorus in the Sil-Fos® product serves as the fluxing agent and no separate flux is necessary. For brass applications however, flux is recommended. For use where close fit-ups cannot be maintained Sil-Fos® 15 works well to "bridge" gaps. Sil-Fos® 15 is the most ductile of the entire Sil-Fos® family to best withstand the stresses inherent in refrigeration applications. Slow Flow.

The Sil-Fos® 6M is recommended for use where close fit-ups cannot be maintained. It has the ability to fill gaps and form fillets without affecting joint strength. Slow Flow.

The Sil-Fos® 5 is designed primarily for those applications where close fit-ups cannot be maintained. It has the ability to fill gaps and form fillets without adversely affecting joint strength. Slow Flow.

Fos-Flo® 7 is an economical, very fluid medium temperature filler metal for use with copper, brass and bronze. Withstands moderate vibration. Fast Flow.

MARS NO.	AWS SPEC	COMPOSITION %			TEMPERATURE		MARS CASE PACK QTY.		
		AG	CU	P	MELT	FLOW			
78301	Sil-Fos® 15	BCuP-5	15	80	5	1190° F	1475° F (1300°)	1	25
78302	Sil-Fos® 6M	BCuP-4	6	88	6	1190° F	1460° F (1300°)	1	25
78303	Sil-Fos® 5	BCuP-3	5	89	6	1125° F	1495° F (1300°)	1	25
78304	Fos-Flo® 7	BCuP-2	92.8	7.2		1310° F	1460° F (1350°)	1	25

SERVICE & INSTALLATION

High Silver Brazing Alloys - 1/16" Dia. Coils



In refrigeration applications, much of the brazing involves joining copper tubing. However, there are numerous applications where other materials need to be joined (steel, brass, stainless, etc.). These high silver brazing alloys facilitate the joining of these metals. The one alloy in particular which is highly recommended for virtually all above mentioned base metals is Braze® 505. It's advantages over 56% and 45% include:



- It contains 2% Nickel which enhances wetting and strength and facilitates the joining of steels, stainless steel, carbide, etc.
- It doesn't contain tin. This prevents the formation of brittle intermetallics which can cause joint failures when stresses accumulate.
- The flow characteristics can be easily manipulated by either fast or slow heating techniques - this allows bridging of gaps.
- It's available in flux-coated rod for added convenience and ease-of-use: No separate fluxing operation.

Braze® 450 is a general purpose filler metal for joining ferrous, non-ferrous and dissimilar metals with large joint clearances. Cadmium-free.

Braze® 505 is the best general purpose filler metal available. It is the only alloy recommended for stainless steel (as it retards/eliminates interface corrosion) and carbide applications. Nickel content provides superior adhesion ("wetting") to base metal surfaces. Available, and especially convenient, as flux coated rod. Cadmium-free.

Braze® 560 is the lowest temperature, Cadmium-free filler metal available. This is a good general purpose alloy for close joint tolerances.

MARS NO.	AWS SPEC	COMPOSITION %					TEMPERATURE		MARS CASE PACK	MARS CASE QTY.
		AG	CU	ZN	SN	OTHER	MELT	FLOW		
78305	Braze® 450 1oz	BAg-5	45	30	25		1225° F	1370° F	1	24
78306	Braze® 450 3oz								1	24
78308	Braze® 505 1oz	BAg-24	50	20	28	2 Ni	1220° F	1305° F	1	24
78309	Braze® 505 3oz								1	24
78310	Braze® 505 5oz								1	24
78314	Braze® 505 F/C, Flux coated rod, 18" stick x 1/4 lb tube								1	15

Brazing & Solder Fluxes



Where fluxing is required as part of the brazing operation, Handy Flux is recommended. Handy Flux is an all-purpose flux for use in brazing both ferrous and non-ferrous metals and alloys. Handy Flux conforms to: AWS Brazing Flux Type #3A, Federal Spec. O-F-499d (216185) Type B, Society of Automotive Engineers AMS-3410G. For soldering applications we offer two different flux products depending on the materials to be joined. They include Clean-n-Brite Flux for general purpose applications and TEC Liquid Flux where more aggressive fluxing is required for the more difficult-to-solder materials (e.g. steel, stainless steel, etc.).



For copper-copper, Clean-n-Brite Paste Flux is the flux of choice. For copper-steel applications, TEC Liquid Flux is recommended as it is more aggressive at keeping the metal surfaces to be joined free of oxides. TEC is a more corrosive flux however, and subsequent flux residue removal is recommended.

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
78315	Handy Flux - 7oz. jar w/brush cap	1	24
78319	TEC Liquid Flux - 4oz. squeeze bottle	1	48
78320	Clean-n-Brite Flux -4oz. paste w/brush	1	24

Silver Bearing Soft Solders - 1/8" X 1 Lb. Spool



Clean-n-Brite solders are a high strength general purpose solder. They offer a higher strength than Tin/Lead solders and are safe for potable water systems. These alloys are widely used in low stress, low pressure copper-copper and copper-steel applications (e.g. sight glasses where temperature must be kept low, etc.).



Clean-n-Brite is a Lead-free, silver-bearing high-strength solder used for applications requiring close joint clearances.

Clean-n-Brite 6 is a Lead-free, silver-bearing high-strength solder used for applications requiring large joint clearances. It is the easiest Silver-bearing soft solder to work with as temperature range permits "bridging" loose fit-ups if necessary.

Clean-n-Brite No Lead is a Silver-bearing solder with good strength used in potable water system applications requiring no lead.

MARS NO.	COMPOSITION %	TEMPERATURE		MARS CASE PACK	MARS CASE QTY.			
		AG	CU			P	MELT	FLOW
78316	Clean-n-Brite	3.6	96.4		431° F	431° F	1	24
78317	Clean-n-Brite 6	6	94		431° F	535° F	1	24
78318	Clean-n-Brite No Lead	0.5	4	95.5	428° F	446° F	1	24

MARS Cross Reference Guide

MARS NO.	HANDY HARMON	LUCAS MILHAUPT	J.W. HARRIS	ENGELHARD
78301	Sil-Fos15	95150	61035 (Stay-Silv 15)	Silvaloy 15
78302	Sil-Fos 6M	95120	66000 (Dynaflow)	Silvaloy 6
78303	Sil-Fos 5	95060	41035 (Stay-Silv 5)	Silvaloy 5
78304	Fos-Flo 7	95000	21035 (Stay-Silv 0)	Silvaloy 0
78305	Braze 450 (1oz.)	98000	76310 (Safety-Silv 45)	Silvaloy A-45
78306	Braze 450 (3oz.)	98001	76313 (Safety-Silv 45)	Silvaloy A-45
78307	Braze 450 (5oz.)	98002	76315 (Safety-Silv 45)	Silvaloy A-45
78308	Braze 505 (1oz.)	98070		
78309	Braze 505 (3oz.)	98071		
78310	Braze 505 (5oz.)	98072		
78311	Braze 560 (1oz.)	98060	75310 (Safety-Silv 56)	Silvaloy A-56
78314	Braze 505 F/C	98110		
78315	Handy Flux	97030	40022 (Stay-Silv Flux)	Ultra Flux
78316	Clean-n-Brite	96000	10001 (Stay-Brite)	Silvabrite
78317	Clean-n-Brite 6	96010	10009 (Stay-Brite 8)	Silvabrite S
78318	Clean-n-Brite (no lead)	96150	15000 (Stay-Safe 50)*	Silvabrite 100
78319	Tec Liquid Flux	97000	40002 (Stay-Clean)	70001
78320	Clean-n-Brite Flux	97020	40027 (Stay-Clean Solder Flux)	71003

* While this material does not have a chemistry exactly equivalent, it is similar in composition to Clean-n-Brite no lead and typically used in similar applications.

Specialty Tools

The MARS telescoping pilot match holder with magnet collapses to fit in shirt pocket. Extends to 25". Attractively packaged and barcoded for merchandising



MARS NO.	DESCRIPTION	MARS PACK
79130	Pilot match holder	1

Inspection Mirrors

MARS offers inspection mirrors for virtually any application! Telescoping types available, along with round glass, oval glass, rectangular glass, round metal and rectangular metal. Attractively carded and barcoded.



MARS NO.	DESCRIPTION	MARS PACK
79350	1 1/4" round dia.glass mirror with 6" arm, adjustable angle	1
79351	2 1/4 round dia.glass mirror with 10 1/2" arm, adjustable angle	1
79352	1" x 2" oval glass mirror with 6" arm, adjustable angle	1
79353	2 1/8" x 3-1/2" rectangle glass mirror with 11"-12" extendible arm	1
79357	2" x 3-3/4" rectangle inspection mirror	1
79358	2 1/4" dia.round magnifying glass mirror with vinyl grip handle 14 1/2"	1

Filter Reach Tool 2

The Filter Reach Tool 2 is the first tool to correctly pull filters from large tonnage Air Conditioning units and Air Handlers. A must have tool for all HVAC mechanics. The telescoping stainless steel shaft extends up to 8' to grab and remove the hardest to reach filters. The powder coated safety orange Hook pivots down so the tool doubles as a magnetic pickup to retrieve dropped parts and tools. The high strength magnet will save you time and money by retrieving dropped tools and hardware.



Made in the USA Domestic & Foreign Materials

- Hook pivots down for 5lb. magnetic pickup
- Fits in any bag
- 304 Stainless steel
- Anodized aluminum

MARS NO.	DESCRIPTION	MARS PACK
79348	Filter Reach & Magnetic Tool 2	6

Compressor Terminal Repair Kit

Zebra Instruments offers a compressor terminal repair kit. The terminals are high-temp soldered to the 10ga. Fine strand, color coded wires for the best connection. These special terminals allow clearance for compressor post, and lay flat under the safety cover, Twist on wire nuts also provided.

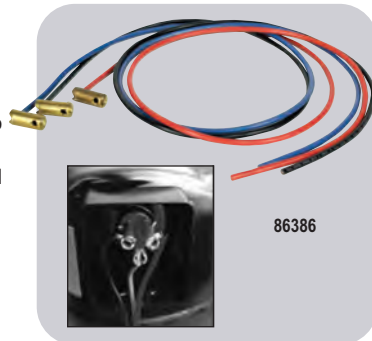


MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
08565	Compressor Terminal Repair Kit 1 set of 3, terminals/wires/connectors	1	24

MARS Compressor Stake On Repair Kits



MARS Term-Lok compressor stake on repair kits are designed with the technician in mind! During servicing of the air conditioning system or refrigeration system, it is not unusual for a technician to remove the compressor cover to find the electrical connector or spade terminal broken or melted away from the compressor. In reconnecting the electrical power, the metal plate is often found to have deteriorated to such an extent that the conventional female connector will no longer attach to the spade type male connector. Technology for reattaching a metal plate to the metal pin without damaging the encapsulated block is not normally available thus requiring the technician to attempt various types of crimping arrangements to avoid replacing the compressor assembly (which normally does not work).



The MARS Term-Lok is a brass cylindrical tube with a diameter large enough to slip over the pins and has a stainless set screw to lock onto the terminal. Term-Lok comes in packages of one or three terminal locks with color coded 65 strands, 600 volt permanently attached wire, with wrench provided for easy application. Once installed the compressor cover may be placed back over the terminals without any obstructions.

It takes approximately 15 minutes to install on most systems, thus saving the technician time and the customer money, with virtually no call backs.

MARS NO.	DESCRIPTION	MFG. NO.	CASE QTY.
86386	Brass stake on 12 gauge - 3 wire, 3' leads	TLC-3-12	1
86388	Brass stake on 10 gauge - 3 wire, 3' leads	TLC-3-10	1
86390	Brass stake on 8 gauge - 3 wire, 3' leads	TLC-3-8	1

Quick Disconnects - Insulated (105°C)

MARS solderless terminals are competitively priced, yet manufactured of superior quality materials to rigid quality control standards. Seams are brazed to ensure perfect crimps EVERY TIME!

MARS solderless terminals are UL listed and CSA certified. Terminals are all manufactured in the USA. They are provided in clear, reclosable plastic display boxes. These attractive boxes, with clear and easy-to-read labels provide for visual inspection of the product and encourage impulse buying.

All packages display a MARS bar code for your convenience. MARS solderless terminals are available in two different package sizes. Both sizes enhance contractor self service. The MARS mini-pak display boxes contain very reasonable quantities with all types and sizes sold at one price. Perfect for the handyman, do-it-yourselfer and your sales and counter people. The MARS mini-pak

is excellent for that small, unique HVACR odd job. The MARS super-pak contains much larger quantities of the more common solderless terminals at a super value. The contractor and tradesman will make great use of this size reclosable package. Ask your MARS sales representative about our solderless terminal merchandiser program!



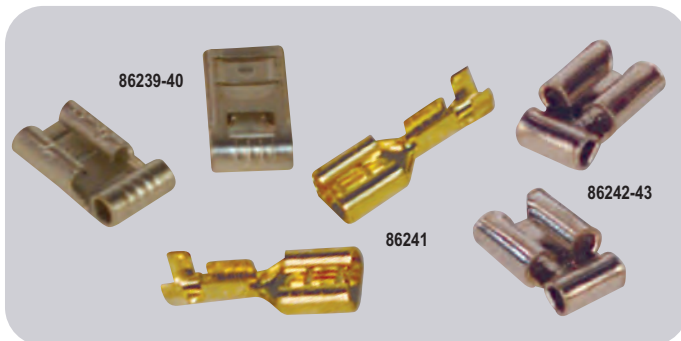
MARS NO.	MINI-PAK QTY.	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86200	20	22-18	.250 (1/4) female tab	86500	100
86201	20	16-14	.187 (3/16) female tab	86501	100
86202	20	16-14	.250 (1/4) female tab	86502	100
86203	15	12-10	.250 (1/4) female tab	86503	50
86219	20	22-18	.187 (3/16) female tab		
86205	20	16-14	.250 (1/4) male tab	86505	100
86207	12	22-18	.250 (1/4) female full insul.	86507	100
86208	12	16-14	.250 (1/4) female full insul.	86508	100
86209	8	12-10	.250 (1/4) female full insul.	86509	50
86220	7	16-14	.250 (1/4) female flag fully insul.	86520	25
86221	6 pair		combo of #86208, 09		
86211	12	16-14	.250 (1/4) male fully insul.		
86216	12	22-18	.250 (1/4) male/female p/back		
86217	12	16-14	.250 (1/4) male/female p/back	86517	100
86218	8	12-10	.250 (1/4) male/female p/back	86518	50

**Quick Disconnects -
Non-Insulated (149°C)**



MARS NO.	MINI-PAK QTY.	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86226	25	16-14	.250 (1/4) female tab	86526	100
86229	25	16-14	.250 (1/4) female flag	86529	100
86236	13	12-10	.250 (1/4) female flag		

**Quick Disconnects -
Hi Temp To 900°F**



MARS NO.	MINI-PAK QTY.	SIZE	DESCRIPTION
86239	15	16-14	.250 (1/4) female tab
86240	12	12-10	.250 (1/4) female tab
86241	15	16-14	.250 (1/4) female w/crimp
86242	15	16-14	.250 (1/4) female flag
86243	10	12-10	.250 (1/4) female flag

Rings - Insulated (105°C)



MARS NO.	MINI-PAK QTY.	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86251	20	22-18	#8 stud 11/64 i.d.	86551	100
86252	20	22-18	#10 stud 13/64 i.d.		
86253	20	16-14	#6 stud 9/64 i.d.		
86254	20	16-14	#8 stud 11/64 i.d.	86554	100
86255	20	16-14	#10 stud 13/64 i.d.	86555	100
86258	12	12-10	#8 stud 11/64 i.d.		
86259	12	12-10	#10 stud 13/64 i.d.	86559	50
86260	12	12-10	1/4 stud 17/64 i.d.		
86262	5	8	1/4 stud 17/64 i.d.	86562	25

**Rings - Non-Insulated
(149°C)**



MARS NO.	MINI-PAK QTY.	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
		22-18	#10 stud 13/64 i.d.	86569	100
86275	15	12-10	#10 stud 13/64 i.d.		

**Rings - High Temp
To 900°F**



MARS NO.	MINI-PAK QTY.	SIZE	DESCRIPTION
86283	20	16-14	#10 stud 13/64 i.d.
86285	15	12-10	#10 stud 13/64 i.d.

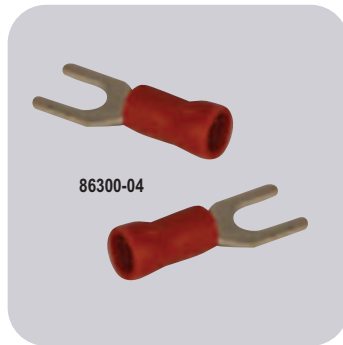
SERVICE & INSTALLATION

Spade Flanged - Insulated (105°C)



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION
86294	15	16-14	#10 stud 13/64 i.d.
86295	12	12-10	#10 stud 13/64 i.d.

Spade - Insulated (105°C)



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86300	20	22-18	#8 stud 11/64 i.d.	86600	100
86303	20	16-14	#8 stud 11/64 i.d.	86603	100
86304	20	16-14	#6 stud 9/64 i.d.		
86301	15	16-14	#10 stud 13/64 i.d.	86601	100
86302	12	12-10	#10 stud 13/64 i.d.	86602	50

Spade Flanged - Non- Insulated (149°C)



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION
86307	20	22-18	#8 stud 11/64 i.d.
86308	20	22-18	#10 stud 13/64 i.d.

Spade - Non- Insulated (149°C)



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION
86315	25	22-18	#10 stud 13/64 i.d.
86317	15	12-10	#10 stud 13/64 i.d.

Spade Hi Temp To 900°F



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86323	20	16-14	#10 stud 13/64 i.d.	86623	100

Butt Connectors And Plugs And Receptacles



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86329	20	22-18	Insulated	86629	100
86330	20	16-14	Insulated	86630	100
86331	15	12-10	Insulated	86631	50
		16-14	Non-insulated	86633	100
		8	Non-insulated	86635	25
		22-18	Plug insulated Recept - fully insulated	86637	50 pairs
		16-14	Plug insulated Recept - fully insulated	86638	50 pairs

Closed End Connectors (105°C)



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86341	25	22-18	Insulated crimp type		
86342	20	16-14	Insulated crimp type	86642	100
86343	15	12-10	Insulated crimp type	86643	50

Tab Adapters - Non Insulated (149°C)



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86350	20	-	.250 (1/4) 2 male x 1 female	86650	100
86351	15	-	.250 (1/4) 2 male x 1 female 8 stud, male tab, straight, .250	86651	50
86353	12	-	.250 (1/4) 2 male x 1 female		

Compressor Terminals - Non Insulated (149°C)



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86358	13	12-10	.250 (1/4) tab notched for bending	86658	50
86359	8	12-8	.250 (1/4) tab	86659	50

Spade Spring - Insulated (105°C)



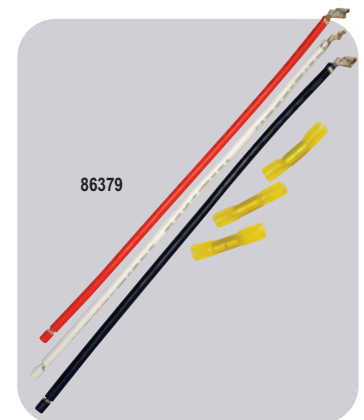
MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION	MARS NO.	SUPER PAK QTY.
86366	20	16-14	#8 stud	86666	100
86367	20	16-14	#6 stud		

Line Tap Connectors



MARS NO.	MINI-PAK QTY	SIZE	DESCRIPTION
86373	8	18-14	tap blue

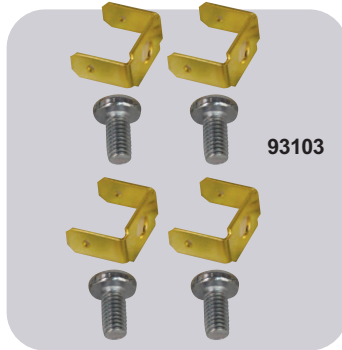
Compressor Terminal W/Wire Kit



MARS NO.	DESCRIPTION	MARS PACK
86379	Includes 3 color coded #10AWG type AWM extra flexible lead wires in 10" lengths. One end with .250" x .032" female tab 12-10 quick disconnect. Other end stripped 5/16". Supplied with three 12-10 shrink tube butt connectors.	1

Push-On Terminal Kit

The MARS push on terminal kit includes; four push on terminal adapters and four screws. Converts screw type terminals to push on. Use with the MARS 18000 series contactors.



MARS NO.	DESCRIPTION	MARS PACK
93103	(4) push on terminal adapters (4) screws	1

MARS Pilot Burner Gas Lines

MARS pilot burner gas line is 6.5 ft of clean aluminum tubing with compression nuts and sleeves. Coiled and individually polybagged.



MARS NO.	DESCRIPTION	MARS PACK
79126	1/4" OD x 6.5' aluminum tubing	1

MARS Clear Vinyl Tubing, - Boxed



MARS NO.	DESCRIPTION	CASE QTY.
79131	1/4" ID clear tubing 32 PSI - .375 O.D.	100 feet
79132	3/8" ID clear tubing 27 PSI - .500 O.D.	100 feet
79133	1/2" ID clear tubing 24 PSI - .625 O.D.	100 feet
79134	5/8" ID clear tubing 21 PSI - .750 O.D.	100 feet
79135	3/4" ID clear tubing 19 PSI - .890 O.D.	100 feet
79136	7/8" ID clear tubing 16 PSI - 1.015 O.D.	50 feet

MARS Heavy Duty PVC Braided Line Tubing

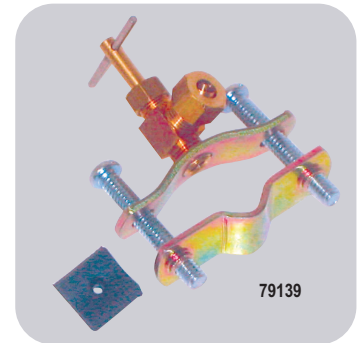
- 41°F (5°C) to 140°F (60°C)



MARS NO.	DESCRIPTION	WORKING PRESSURE	BURST PRESSURE	CASE QTY.
79045	1/4" ID - .407 OD	120 PSI	360 PSI	50 Feet
79046	3/8" ID - .532 OD	120 PSI	360 PSI	50 Feet
79047	1/2" ID - .673 OD	90 PSI	270 PSI	50 Feet
79048	5/8" ID - .822 OD	90 PSI	270 PSI	50 Feet
79049	3/4" ID - .986 OD	90 PSI	270 PSI	50 Feet
79050	7/8" ID - 1.111 OD	60 PSI	180 PSI	50 Feet

MARS Saddle Valve

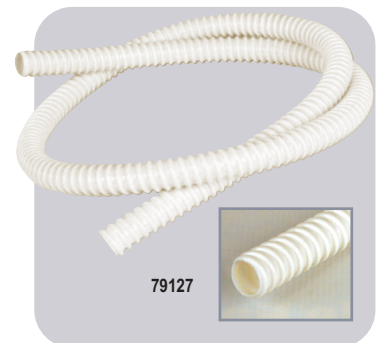
- Self-tapping
- Provides low volume water supply for a variety of appliances using 1/4" inlet tubes, with out the necessity of soldering, cutting pipe or drilling



MARS NO.	DESCRIPTION	CASE QTY.
79139	MARS saddle valve	1

MARS Corrugated Condensate Drain Line

- Ideal for Ductless Mini-Split
- 5/8" Diameter, 20 Ft. Long
- Flexible Ivory
- Corrugated non-kink



MARS NO.	DESCRIPTION	MARS PACK
79127	5/8" Diameter x 20 ft long, Condensate Drain Line	1

Slic-Tite® Paste - Thread Sealants



- Contains more Teflon particles for greater sealing power
- Use on metal, PVC, CPVC, and ABS plastic pipe threads
- For sealing water, air, steam, natural gas, LP gas, refrigerants, ammonia, gasoline, and oil
- Do not use on Oxygen service, use Teflon tape or Oxytite® Paste
- Washes off hands and clothing easily
- Non-toxic, non-drying
- Sealing temperature range: -50° F to 500° F (-46° C to 260° C)
- Working pressures: 3,000 PSI (204 BAR) for Gas, 10,000 PSI (680 BAR) for liquids
- USDA approved for use in federally inspected meat and poultry plants.
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95400*	1.5 oz. tube	12	24
95401	1/4 pt. w/ brushcap	24	24
95402	1/2 pt. w/ brushcap	24	24
95403	1 pt. w/ brushcap	24	24

* packaged in one dozen per display box

Slic-Tite® Stik w/ Teflon - Thread Sealant



- PTFE thread compound in handy stick form
- Use on metal and PVC pipe thread connections for water, air, natural gas, steam, gasoline, oil, refrigerants and ammonia
- Do not use on Oxygen service, use Teflon tape
- Working pressures: 5,000 PSI (340 BAR) - liquid to 500 PSI (34 BAR) -gas
- Temperature range: -50° F to 350° F (-46° C to 177° C)
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95407*	1 1/4 oz. stick	12	24

* packaged in one dozen per display box

Low Density Teflon Tape



- Thickness 3 mils.
- Standard grade, low density
- Provides a highly resistant seal on pipe threads for all types of service
- Suitable for use with solvents, chemicals, oxygen, and on food lines
- Non-toxic
- Permits easy disassembly, even after years of service
- Meets Mil. Spec. T-27730A
- Sealing temperature range: -450° F to 550° F (-268° C to 288° C)
- Working pressures: 2,000 PSI (136 BAR)
- Sold in case quantities only.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95409	1/2" x 260"	144	144
95410	1/2" x 520"	144	144
95412	3/4" x 520"	144	144

High Density Slic-Tite® Teflon Tape



- Thickness 3 mils.
- High density
- Provides a highly resistant seal on pipe threads for all types of service
- Made in USA
- Suitable for use with solvents, chemicals, oxygen, and on food lines
- Non-toxic
- Permits easy disassembly, even after many years
- Meets Mil. Spec. T-27730A
- Sealing temperature range: -450° F to 550° F, (-268° C to 288° C)
- Working pressures: 2,000 PSI (136 BAR)



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95525	1/4" x 300"	12	12
95526	1/4" x 600"	12	12
95527	1/2" x 300"	12	12
95528	1/2" x 600"	12	12
95530	3/4" x 300"	12	12

SERVICE & INSTALLATION

T.O.T.® Pipe Joint Compound



- No-drip, siliconized for fast application on metal threads
- For water, steam, air, and natural gas service
- Lead free, non-toxic
- Certified by NSF to meet ANSI/NSF Std. 61 for use on potable water
- Do not use on Oxygen service, use Teflon® tape or Oxytite
- Sealing temperature: up to 350° F (177° C)
- Working pressures: to 500 PSI (34 BAR) for liquids to 350 PSI (24 BAR) for gases
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95415	1/2 pt. w/ brushcap	48	48

Pipetite® Paste - Pipe Thread Compound



- Soft set pipe thread compound
- For refrigerants, butane, gasoline, oil, as well as water, steam, air, natural and lp gas
- Use on metal threads
- Classified by Underwriters Laboratories in USA and Canada
- Do not use on oxygen service, use Teflon® or Oxytite®
- Sealing temperature: up to 400° F (204° C)
- Pressures: to 5,000 PSI (340 BAR) for liquids to 2,600 PSI (177 BAR) for gases
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95419	1/4 pt. w/brush cap	24	24
95420	1/2 pt. w/brush cap	24	24

Anaerobic Pipe Thread Sealant



- Contains Teflon® for a positive seal
- Anaerobic adhesive provides locking power
- Contains no solvents, won't shrink and weaken seal
- Seals and locks in the absence of air
- Ideal for threads in heavy vibration areas such as compressors and reciprocating equipment
- Classified by Underwriters Laboratories in USA and Canada
- Do not use on Oxygen service, use Teflon® tape or Oxytite
- Sealing temperature range: -65° F to 400° F (-54° C to 204° C)
- Working pressures: to 10,000 PSI (680 BAR) for liquids to 3,000 PSI (204 BAR) for gases
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95421	50 ml (1.69 oz.)	12	12
95422	250 ml (8.45 oz.)	6	6

Teflon Cords



- Use as packing for faucets, valves, pumps, etc. Also as gasket between flanges
- Smaller sizes come packaged in a unique Visu-Kit that keeps cord clean and ready for use. The durable kit can be mounted over the work bench or carried in a tool box
- Sealing temperature range: -450° F to 550° F (-268° C to 288° C)
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95425	3/32" x 50'	6	6
95426	5/32" x 50'	6	6

Heat-Seal Stik®



- Fast repairs completed in 90 seconds
- One part epoxy, no mixing or measuring needed
- Stick melts, seals and cures in one operation
- Use on aluminum, copper and other metals, glass and ceramics
- Ideal for use on high and low side of refrigeration systems
- Sealing temperature : up to 350° F (177° C)
- Pressures: to 600 PSI (41 Bar)
- Made in USA



95430

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95430	3/8 oz. stick, carded	12	12

Bloc-it® Heat Absorbing Paste



- Effectively absorbs surface heat
- Protects adjoining surfaces that may be damaged by excessive heat
- Safe to use: non-toxic, no asbestos, harmless to skin, and odorless
- Easy to use: apply directly to surface from tube
- Easy to clean: wipe off with cloth or wash with water. Leaves no stains
- Typical uses: protects rubber and plastic components in ball, dielectric, and solenoid valves during soldering; protects painted or finished surfaces from adjacent soldering, brazing or welding; prevents distortion to light gauge metals during brazing or welding
- Made in USA



95455

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95455	10 oz. tube	24	24

Cool Gel - Heat Dissipating Spray



- Helps prevent heat damage to components and surrounding materials during soldering, brazing, and welding
- Unique gelled formula sticks to surfaces without dripping or running off
- Clear, non-staining gel leaves no residue, eliminating cleanup
- Safe, non-toxic, harmless to skin and odorless
- Saves time - by eliminating the costly disassembly of valves and other components before soldering, brazing or welding
- Protects the seals and seats in ball, dielectric, and solenoid valves
- Protects painted and finished surfaces from discoloration due to adjacent torch operations
- Protects soldered joints from loosening when soldering adjacent joints
- Made in USA



95536

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95536	1 quart	12	12

Regular Flux Paste

- Super detergent action cleans as it solders
- Non-acid, non-toxic, lead free
- Contains no zinc chloride
- Use with all common soft solders including: tin-silver, 96/4, 94/6, 95/5, 50/50, 40/60 and 60/40
- For use on copper, brass, galvanized iron, lead, zinc, tin, silver, nickel, mild steel, terne plate, and malleable iron
- Meets Mil. Spec. Mil-F4995 Type II, Meets ASTM B813
- Water soluble for faster flushing from pipe lines
- Made in USA



95443

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95441	2 oz	48	48
95443	4 oz. w/brushcap	48	48
95444	1 lb	24	24

SERVICE & INSTALLATION

Silver Brazing Flux Paste

LA-CO.

- Powerful cleaning action reduces waste of expensive silver solders
- Packed in break-resistant plastic jars
- Use with torch, furnace, resistance or induction heating
- Meets Mil. Spec. MIL-F-4883
- Certified by NSF to meet ANSI/NSF Std. 61 for use on potable water
- Temperature range: 1000° F to 1700° F (538° C to 927° C)
- Made in USA



95449

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95448	2 oz.	48	48
95449	6 oz. w/brushcap	24	24

Aluminum Flux Paste & Solder Kit

LA-CO.

- Complete repair kit for tradesmen and repairmen
- Solders aluminum easily
- For repairing aluminum evaporators and tubing, ducts, and gutters
- Also solders aluminum to copper
- Blister carded for impulse sales
- Made in USA



95454

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95454	1 oz. of alum. flux and 1/2 oz. of #60 solder	12	12

Flux-Rite 90® Flux

LA-CO.

- Meets ASTM B-813
- Completely water soluble for faster flushing from pipe lines
- Super detergent action cleans as it solders
- Non-acid, non-toxic, lead-free
- Contains no zinc chloride
- Use with all common soft solders including: tin-silver, 96/4, 94/6, 95/5, 50/50, 40/60 and 60/40
- For use on copper, brass, galvanized iron, lead, zinc, tin, silver, nickel, mild steel, terne plate, and malleable iron
- Made in USA



95456

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95456	4 oz.	24	24

Visu-Glow® Leak Detector

LA-CO.

- High visibility, fluorescent color shows brightly, even in dimly lit places
- High viscosity, stays on vertical surfaces
- Makes it easy to find leaks
- Temperature range: 15° F to 200° F (-9° C to 93° C)
- Safe for oxygen
- Non-corrosive, non-toxic
- Made in USA



95462

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95462	8 oz.	24	24

Sure-Check® All Temperature Leak Detector

LA-CO.

- All temperature formula: -55° F to 200° F (-48° C to 93° C)
- Ultra-sensitive, long-lasting bubbles
- Available in handy spray bottle
- Fluorescent for improved visibility
- Safe for oxygen
- Non-corrosive, non-toxic
- Green liquid
- Made in USA



95466

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95466	1 pint	24	24
95468	1 quart	12	12

Residential Self Regulating Pipe Tracing Cable



- Cut to length (3 watts/ft @ 120VAC) up to 75 ft.
- Braided metal jacket for dry location application
- Connection kit provides end seal and plugs into standard 120 VAC outlet
- Automatically varies heat output with changes in surrounding temperature
- For use on plastic or metal pipes



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
70701	100' Reel	1	1
70704	Connection Kit	1	10
70705	Pre-set Thermostat (38 degrees)	1	10

Commercial Pipe Freeze Protection Cable



- No thermostat, no plug
- 2 foot orange 14/3 cold lead
- Jacketed for wet or dry applications
- 120 VAC unless noted
- For use on metal pipes only



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
70720	3.28' length, 23 watts	1	20
70721	6.56' length, 46 watts	1	20
70722	6.56' length, 46 watts (240V)	1	20
70723	9.84' length, 69 watts	1	20
70724	13.12' length, 92 watts	1	20
70725	13.12' length, 92 watts (240V)	1	20
70726	16.41' length, 115 watts	1	20
70727	19.69' length, 138 watts	1	20
70728	19.69' length, 138 watts (240V)	1	20
70729	22.97' length, 161 watts	1	10
70730	26.25' length, 184 watts (240V)	1	10
70731	29.53' length, 207 watts	1	10
70732	32.81' length, 230 watts (240V)	1	10

Residential Pipe Freeze Protection Cable



- For use on plastic or metal pipes
- Jacketed for wet or dry applications
- Preassembled ready to install
- Plugs into standard 120 VAC outlet
- Built-In fixed thermostat



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
70710	3' length, 21 watts	1	10
70711	6' length, 42 watts	1	10
70712	9' length, 63 watts	1	10
70713	12' length, 84 watts	1	10
70714	15' length, 105 watts	1	10
70715	18' length, 126 watts	1	5
70716	24' length, 168 watts	1	5
70717	30' length, 210 watts	1	5
70718	40' length, 280 watts	1	5

Commercial Sr Trace Self Regulating Pipe Tracing Cable



- Cut to length, up to 458' (120VAC)
- Wet (J jacket) or dry (copper braid) applications
- Automatically varies heat output with changes in surrounding temperature



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
70742	250' reel, J jacket 5 watts/ft, (120V)	1	1
70744	Heat shrink end seal kit	1	5
70745	Heat shrink power/end connection kit	1	1
70746	Heat shrink splice and "T" connection kit	1	2

SERVICE & INSTALLATION

Ideal 52 Series - 1/2" Clamps

Ideal manufactures a broad line of standard worm drive and specialty hose clamps designed to satisfy a wide range of applications. The completely mechanical design locks the one piece housing directly to the band using the full strength of the material to provide maximum anti-shear protection. No spot welds to rupture under stress or corrosion, and a one piece housing can not come apart under high loading.

Ideal's 52 series clamps are comprised of a 1/2" stainless steel band with carbon steel housing and a 5/16" plated hex head screw.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79310	Size 06 3/8"-7/8" clamp dia.	10	100
79311	Size 08 7/16"-1" clamp dia.	10	100
79312	Size 10 1/2"-1 1/8" clamp dia.	10	100
79313	Size 12 1/2"-1 1/4" clamp dia.	10	100
79314	Size 16 3/4"-1 1/2" clamp dia.	10	100
79315	Size 20 3/4"-1 3/4" clamp dia.	10	100
79317	Size 24 1"-2" clamp dia.	10	100
79318	Size 28 1 5/16"-2 1/4" clamp dia.	10	100
79316	Size 32 1 9/16"-2 1/2" clamp dia.	10	100
79319	Size 36 7/8"-2 3/4" clamp dia.	10	100
79345	Size 40 1-1/8"-3" clamp dia.	10	100
79309	Size 72 3-1/8"-5" clamp dia.	10	100

Ideal 67-5 Series 1/2" Clamps

Ideal's 67-5 series clamps are all stainless steel. They are comprised of a 1/2" 300 series stainless steel band, housing and a 5/16 hex head screw.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79320	Size 06 3/8"-7/8" clamp dia.	10	100
79321	Size 08 7/16"-1" clamp dia.	10	100
79322	Size 10 1/2"-1 1/8" clamp dia.	10	100
79323	Size 12 1/2"-1 1/4" clamp dia.	10	100
79324	Size 16 3/4"-1 1/2" clamp dia.	10	100
79325	Size 20 3/4"-1 3/4" clamp dia.	10	100
79328	Size 24 1"-2" clamp dia.	10	100
79307	Size 28 1 5/16"-2 1/4" clamp dia.	10	100
79326	Size 32 1 9/16"-2 1/2" clamp dia.	10	100
79327	Size 36 7/8"-2 3/4" clamp dia.	10	100
79308	Size 72 3"-5" clamp dia.	10	100
79304	Size 128 6 1/2"-8 1/2" clamp dia.	50	100
79305	Size 152 8"-10" clamp dia.	50	100
79306	Size 188 10"-12" clamp dia.	50	50

Ideal 50 All Stainless 1/2" Clamp For Ducts



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79329	Size 248 14"-16" clamp dia.	50	100

Ideal 52 Series Micro Gear Clamps



Ideal's 52 series micro-gear clamps consist of a 5/16" stainless steel band with carbon steel housing and 1/4" plate hex-head screw.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79330	Size 04 7/32"-5/8" clamp dia.	10	100
79331	Size 06 5/16"-7/8" clamp dia.	10	100
79332*	Size 12 9/16"-1 1/4" clamp dia.	10	100
79333*	Size 16 11/16"-1 1/2" clamp dia.	10	100
79334*	Size 20 7/8"-1 3/4" clamp dia.	10	100

* size 12 and larger have a stainless steel housing

Ideal 62M Series Micro Gear Clamps



Ideal's 62M series micro gear clamps are all stainless. They are comprised of a 5/16" stainless steel band, housing and 1/4" hex-head screw.

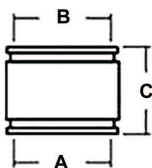


MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79340	Size 04 7/32"-5/8" clamp dia.	10	100
79341	Size 06 5/16"-7/8" clamp dia.	10	100
79342	Size 12 9/16"-1 1/4" clamp dia.	10	100
79343	Size 16 11/16"-1 1/2" clamp dia.	10	100
79344	Size 20 7/8"-1 3/4" clamp dia.	10	100

Flexible Couplings

Flexible rubber couplings are used to connect cast iron, plastic, steel or lead pipe to cast iron, plastic, steel or lead pipe.

- All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts.
- All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®
- Non constant temperature rating is 140°F.
- Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure) Tested and Certified to ASTM Standard 1173-2010.

MARS NO.	DESCRIPTION	A		B		C	MARS PACK	CASE QTY.
		MIN	MAX	MIN	MAX	HEIGHT		
85093	2" CI/PL/ST/LD x 2" CI/PL/ST/LD Flex coupling	2.20	2.50	2.20	2.50	3.50	1	100
85095	3" CI/PL/ST/LD x 3" CI/PL/ST/LD Flex coupling	2.60	3.18	2.20	3.18	2.75	1	100
85096	3" CI/PL/ST/LD x 2" CI/PL/ST/LD Flex coupling	2.60	3.18	2.20	2.50	2.75	1	100

Flexible Stainless Steel Gas Range Connectors 1/2" I.D. (5/8" O.D.) With Fittings

Brass Craft coated stainless steel gas connectors are known for superior quality and reliable performance. The ProCoat polymer based yellow coating resists corrosion from sea, salt, UV rays and the harsh chemical vapors from common household cleaning, plumbing repair and building products such as: ammonia, chlorine, solder flux, muratic acid, and bleach. These ProCoat gas connectors provide great strength and flexibility making installation easier.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
73402	18"L-1/2" MIP x 1/2" MIP	1	25
73403	24"L-1/2" MIP x 1/2" MIP	1	25
73404	36"L-1/2" MIP x 1/2" MIP	1	25
73405	48"L-1/2" MIP x 1/2" MIP	1	25
73418	36"L-1/2" FIP x 1/2" FIP	1	25
73419	48"L-1/2" FIP x 1/2" FIP	1	25
73423	18"L-3/4" FIP x 3/4" MIP	1	25
73424	24"L-3/4" FIP x 3/4" MIP	1	25
73425	36"L-3/4" FIP x 3/4" MIP	1	25
73427	60"L-3/4" FIP x 3/4" MIP	1	25
73429	12"L-1/2" FIP x 1/2" MIP	1	25
73430	18"L-1/2" FIP x 1/2" MIP	1	25
73431	24"L-1/2" FIP x 1/2" MIP	1	25
73432	36"L-1/2" FIP x 1/2" MIP	1	25
73433	48"L-1/2" FIP x 1/2" MIP	1	25
73434	60"L-1/2" FIP x 1/2" MIP	1	12

Flexible Stainless Steel Gas Dryer Connectors 3/8" I.D. (1/2" O.D.) With Fittings



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
73438	24"L-1/2" MIP x 1/2" MIP	1	25
73439	36"L-1/2" MIP x 1/2" MIP	1	25
73440	48"L-1/2" MIP x 1/2" MIP	1	25
73445	24"L-1/2" FIP x 1/2" MIP	1	25
73446	36"L-1/2" FIP x 1/2" MIP	1	25

Flexible Stainless Steel Gas Dryer Connectors 3/8" I.D. (1/2" O.D.) With Valves



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
73457	18"L-1/2" MIP x 1/2" FIP-BALL	1	25
73458	24"L-1/2" MIP x 1/2" FIP-BALL	1	25

Flexible Stainless Steel Gas Heater Connectors 1/4" I.D. (3/8" O.D.) With Fittings

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
73464	36"L-1/2" FIP x 1/2" MIP	1	25

Steel Gas Fittings For 7/8" O.D. Connectors

With MARS male gas fittings, wholesalers need fewer items on the shelf and contractors need fewer parts on the job. Tapped gas fittings hook up gas connectors to male or female iron pipe and female in-line gas valves. One fitting does many jobs.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
73480	straight-5/8" OD x 1/2" MIP (tapped 3/8" FIP)	25	25
73481	straight-5/8" OD x 3/4" MIP (tapped 1/2" FIP)	25	25

MARS Gas Ball Valves

MARS gas ball valves are for use with natural, manufactured and mixed gases, as well as liquified petroleum and LP gas/air mixtures. Corrosion fighting chrome plated brass ball and aluminum, quarter turn handle. MARS gas ball valves feature threads that conform to all appropriate standards.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
73492	straight-1/2" OD x 1/2" FIP	10	10
73494	straight-5/8" OD x 3/4" FIP	10	10
73495	straight-1/2" FIP x 1/2" FIP	10	10
73496	straight-3/4" FIP x 3/4" FIP	10	10

NIBCO Gas Ball Valves - Type GB1

- Tamper proof brass ball valve
- Female x Female threads
- Lever Handle
- 5 PSI for indoor shutoff
- 1/2 PSI for indoor appliance connections
- AGA 3-88, CGA 9.1, CGA 9.2, CR91-002, ANSI Z21.15



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
64317	1/2	2.21	1.34
64318	3/4	2.38	1.41

MARS Cross Reference Guide

MARS NO.	NIBCO	MUELLER	B & K	HAMMOND	LEGEND
64317	GB1 1/2	T220012	110-523	875 1/2	T3000 1/4
64318	GB1 3/4	T220034	110-524	875 3/4	T3000 3/4

Oatey All Purpose Cement - ABS, PVC, CPVC

Oatey all purpose cement is a heavy bodied, clear cement recommended for use on ABS, PVC or CPVC pipe and fittings. For all pipe schedules, potable water pressure pipe, gas, conduit, drain waste and vent pipe. Flows freely and provides a thick layer of cement on the pipe. Helps to fill gaps in larger diameter pipe and loose fitting joints. Apply at temperature 40°F to 100°F.

Exceeds performance requirements of ASTM D-2564, D-2864, D-2235, F-493. Special applicator brush cap for fast and easy installation.



MARS NO.	DESCRIPTION	MARS PACK
73161	4 oz. clear	24
73162	8 oz. clear	24
73163	16 oz. clear	24

Oatey Heavy Duty Cement - PVC

Oatey heavy duty cement is recommended for use on pvc pipe and fittings up to 12" in diameter for schedule 40 and schedule 80 potable water pressure pipe, gas, conduit, drain waste and vent pipe. This heavy bodied cement flows freely and provides a thick layer of cement on the pipe. A special brush cap applicator is provided. Apply at temperatures 40°F to 100°F. This clear cement helps to fill gaps in larger diameter pipe and loose fitting joints. Exceeds ASTM D-2564.



MARS NO.	DESCRIPTION	MARS PACK
73165	4 oz. clear	24
73166	8 oz. clear	24
73167	16 oz. clear	24

Oatey Regular Cement - PVC

Oatey regular cement is recommended for use on PVC pipe and fittings up to 4" for DWV or schedule 40 and up to 2" for schedule 80 potable water pressure pipe, gas, conduit, drain waste and vent pipe. It flows freely and sets up quickly. Apply at temperatures 40°F to 100°F. Exceeds ASTM D-2564. Special brush top applicator.



MARS NO.	DESCRIPTION	MARS PACK
73174	4 oz. clear	24
73175	8 oz. clear	24
73176	16 oz. clear	24
73177	32 oz. clear	12

Oatey Rain-R-Shine™ Cement - PVC

Oatey Rain-R-Shine™ is a blue colored cement recommended for PVC pipe and fittings up to 6" in diameter. A very fast setting cement formulated for wet conditions and/or when quick pressurization and fast installation is needed. For schedule 40 and schedule 80 potable water pressure pipe, irrigation, gas, conduit, drain waste and vent pipe. This medium bodied cement flows freely and covers with a thicker layer than regular PVC. Apply at temperatures 40°F to 100°F.



MARS NO.	DESCRIPTION	MARS PACK
73150	4 oz. blue	24
73151	8 oz. blue	24

Oatey Clear Primer - NSF Listed - PVC, CPVC

Oatey clear primer is a clear aggressive primer for use on PVC and CPVC pipe and fittings for all schedules and diameters. This NSF listed formula removes all surface dirt, grease and grime as well as softens pipe in preparation for solvent cement. Meets ASTM F-656.



MARS NO.	DESCRIPTION	MARS PACK
73186	16 oz. clear	24

Oatey All Weather Cement-PVC

Oatey all weather cement is recommended for use on PVC pipe and fittings up to 6" in diameter. Formulated for fast initial set up at temperatures down to 10°F, for schedule 40 and schedule 80 potable water pressure pipe, gas, conduit, drain waste and vent pipe. This medium bodied, clear cement flows freely and maintains good gap filling properties. Apply at temperatures 10°F to 100°F. Exceeds ASTM D-2564.



MARS NO.	DESCRIPTION	MARS PACK
73156	16 oz. clear	24

Oatey Purple Primer - PVC, CPVC

Oatey purple primer is recommended for use on PVC and CPVC pipe and fittings, all schedules and diameters. This purple tinted aggressive primer is formulated to remove surface dirt, grease and grime, as well as, soften the pipe surface to allow for a fast, secure and permanent solvent weld. For use in area where code calls for verification that a primer has been used. Exceeds ASTM F-656.



MARS NO.	DESCRIPTION	MARS PACK
73178	4 oz. purple	24
73179	8 oz. purple	24
73180	16 oz. purple	24

Oatey All Purpose Cleaner - PVC, CPVC, ABS

Oatey all purpose cleaner is recommended for use on ABS, PVC and CPVC pipe and fittings, all schedules and diameters. This fast acting cleaner removes surface dirt, grease and grime. Flows freely and evaporates quickly. Does not penetrate pipe surface. Apply at temperatures 40°F to 100°F.



MARS NO.	DESCRIPTION	MARS PACK
73170	8 oz. clear	24
73171	16 oz. clear	24
73172	32 oz. clear	12

Schedule 40 - PVC Couplings

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73001	1/2" slip x slip	100
73002	3/4" slip x slip	50
73003	1" slip x slip	50
73006	2" slip x slip	25

Schedule 40 - PVC Elbow 45°

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73013	3/4" slip x slip	50

Schedule 40 - PVC Elbow 90°

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73023	1/2" slip x slip	50
73024	3/4" slip x slip	50
73025	1" slip x slip	50
73033	3/4" slip x FPT	50

Schedule 40 - PVC Street Elbow 90°

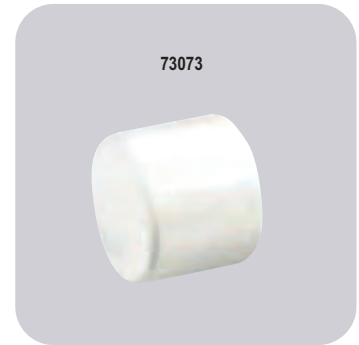
- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73045	3/4" slip x slip	50
73051	3/4" slip x MPT	50

Schedule 40 - PVC Caps

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73073	3/4" slip	100
73075	3/4" FPT	100

Schedule 40 - PVC Reducing Adapters

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73096	3/4" MPT x 1/2" slip	50

Schedule 40 - PVC Tees

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73059	1/2" all slip	50
73060	3/4" all slip	50
73061	1" all slip	50
73058	3/4" slip x FPT x slip	50
73066	3/4" clean-out tee (2 pk)	1

Schedule 40 - PVC Adapters

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73079	1/2" slip x MPT	50
73080	3/4" slip x MPT	50
73081	1" slip x MPT	50
73086	3/4" slip x FPT	50

Schedule 40 - PVC Reducing Bushings

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73101	3/4" slip x 1/2" slip	50
73102	1" slip x 3/4" slip	50

Schedule 40 - PVC Plugs

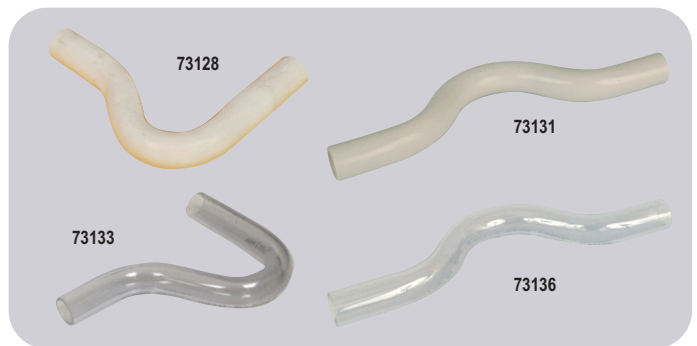
- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73110	3/4" MPT plug	50

Schedule 40 - PVC Traps

- Lightweight, durable and cost effective
- Maximum service temperature 140°F
- High corrosion and chemical resistant, will not rust, scale, pit or corrode



MARS NO.	DESCRIPTION	MARS PACK
73126	3/4" P-trap	1
73128	3/4" mini P-trap	1
73129	3/4" super P-trap	1
73131	3/4" R trap	1
73133	3/4" PVC P-trap Clear	1
73134	3/4" PVC Mini P-trap Clear	1
73135	3/4" PVC Super P-trap Clear	1
73136	3/4" PVC R-trap Clear	1

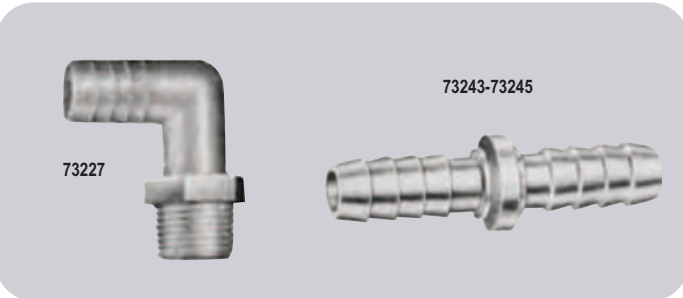
Adapter Nylon Fitting

- Nylon - white



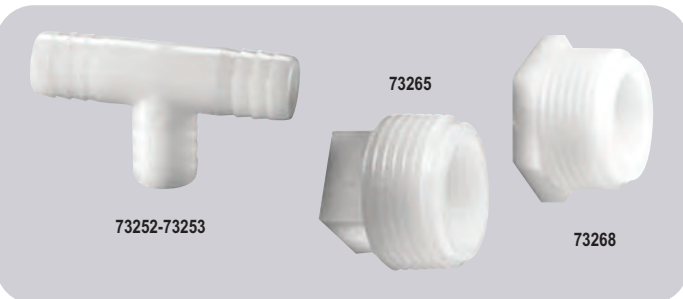
MARS NO.	DESCRIPTION	CASE QTY.
73201	Adapter 1/4 barb x 1/4 MPT - 10/pack	1
73203	Adapter 3/8 barb x 3/8 MPT - 10/pack	1
73204	Adapter 3/8 barb x 1/2 MPT - 8/pack	1
73206	Adapter 1/2 barb x 1/2 MPT - 6/pack	1
73207	Adapter 1/2 barb x 3/4 MPT - 4/pack	1
73208	Adapter 5/8 barb x 3/4 MPT - 4/pack	1

Elbow Nylon Fitting



MARS NO.	DESCRIPTION	CASE QTY.
73230	Elbow 1/2 barb x 3/4 MPT - 4/pack	1
73232	Elbow 5/8 barb x 3/4 MPT - 4/pack	1
73234	Elbow 3/4 barb x 3/4 MPT - 4/pack	1
73243	Hose mender 3/8 barb - 5/pack	1
73244	Hose mender 1/2 barb - 4/pack	1
73245	Hose mender 5/8 barb - 4/pack	1

Tee Nylon Fitting



MARS NO.	DESCRIPTION	CASE QTY.
73252	Tee 3/8 x 3/8 x 3/8 barb - 5/pack	1
73253	Tee 1/2 x 1/2 x 1/2 barb - 4/pack	1
73265	Drain plug 3/4 square head - 5/pack	1
73268	Drain plug 3/4 hex head - 5/pack	1

Excellent for clear vinyl tubing! All nylon parts are white.

MARS Condensate Clean-Out Tablets

MARS TAB™, condensate and drip pan clean-out tablets, prevent plugging of air conditioning condensate drip pans and drain lines.

MARS TAB™ does not release any chlorine or other noxious fumes. This economical, simple positive protection can be used on steel, copper, galvanized, painted surfaces and other materials without damage. It is one of the few treatments that will not stain exterior wall when line drains outside



MARS NO.	DESCRIPTION	MARS PACK
93202	MARS TAB™ (100 tablets per bottle)	18

MARS One-Shot® Kits - 12 Applications Per Can

MARS One-Shot® is all it takes to instantly clear clogs. MARS One-Shot® drain opener kit instantly clears blockages in all types of fixtures and drains while simultaneously delivering a specially designed enzyme ingredient. This enzyme continues to dissolve grease buildup in the drain long after the initial blockage was cleared. The kit includes: One-Shot drain opener can 7 oz., three foot extension hose and twist fit adapter for ice markers and condensate drain pans.

Benefits & Features:

- Enzyme activated
- No ozone depleting chemicals
- Safe for sewers & septic systems
- Works instantly
- Sanitary and easy to use
- Universal adapter for all types of fixtures
- Seamless aluminum container will not rust
- For drains from 3/8" i.d. to 7/8 i.d.
- Made in the USA
- 12 applications per can

For Use On:

- Condensate pans
- Ice machines
- Bar sinks
- Toilets
- Bathtubs
- Kitchen sinks
- Shower drains
- Floor drains.
- Lavatories



MARS NO.	DESCRIPTION	MARS PACK
93220	MARS One-Shot® drain opener (7 oz.)	25
93221	MARS One-Shot® refill can (7 oz.)	36

Panseal

Seals and Restores Leaking and Rusted Drain Pans

Panseal is a unique multi-component 2 part epoxy designed to quickly and permanently seal, repair, and restore leaking and corroded drain pans. The product is available in caulk gun cartridges for easy application, gallon size containers for larger surfaces such as cooling towers, patch kits for vertical surfaces and single use 250 gram burst-seal bags. All contain pre-measured amounts of resin and hardener.

- Works in standing water
- Seals leaks immediately
- No surface preparation
- No system down time
- Works on both metal and plastic pans
- 100% solids and entirely free of solvents and volatile organic compounds



MARS NO.	DESCRIPTION	MARS PACK
93526	Panseal Cartridge	1
93527	Panseal Gallon	1
93528	Panseal Patch	1
93579	Panseal Bag, covers 2 sq ft	1
93500	Cartridge Nozzle	12

X-Treme Tape

Originally developed for the military, X-Treme Tape is a high quality wrap made from a special silicone compound that adheres to itself when wrapped under tension. 1"W x 10'L roll is packaged in a clamshell and sold in 18 count display cases. Great for emergency repairs of all kinds:

- No Adhesive, bonds to itself
- Cures into a homogeneous mass
- Won't melt up to 500° F
- Remains flexible to -60° F
- Forms a permanent air & water tight seal
- Tensile strength of 600 PSI
- Insulates to 8,000 Volts
- Conforms to irregular shapes, stretches to 3x's its length



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93299	X-Treme tape	18	18

Circuit Protection

The ZBreaker set from Zebra Instruments protects systems that you install or service from damage caused by shorts, overheating, or wiring problems. A sticker is included so that, if the Tech desires, he can inform his customer where to press the "reset" button and possibly save a midnight service call.

The same circuit breakers now found on many high-end transformers and systems, but at a great price! Kit includes wires and pre-installed terminals that allow you to easily plug it in to the connectors where a plastic-type fuse existed. 3 Amp Size.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
08574	ZBreaker Set - 3A	1	24

The Short-Pro Tool is a 24 volt system "short-finder". This helps the tech locate a control voltage short. A built-in automatically resetting circuit breaker turns on a bright red LED when tripped. As the tech removes the short, the breaker automatically resets, the LED goes out, and the circuit is restored. Lightweight and compact, with two 18" leads.

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
08577	Short Finder Pro Tool	1	24

MARS Digital Clamp On Meter

Features:

- AC Current
- DC/AC Voltage
- Resistance
- Continuity Check
- Continuity check buzzer sounds at approx. | 50 ohm max
- Peak Hold & Data Hold
- 1.3" (33mm) Clamp Jaw Opening
- Large 0.68", 3-1/2 digit LCD with low battery indicator
- Includes test leads, manual and carry case
- Overload protection provided for all ranges
- Meets IEC 1010 Safety Standard
- 9 volt battery included

Range: 0-600 A

Resolution: 1 A

Frequency: 50/60 Hz (+/- 1.5% rdg +/- 4 dgt)
40-400 Hz (+/- 2.5% rdg +/- 4 dgt)



MARS NO.	DESCRIPTION	MARS PACK
65749	Digital clamp-on meter	1
65747	Replacement temp. leads for 65748	1

MARS Capacitor Tester

The MARS capacitor tester is a reliable precise 3-1/2-digit capacitance meter, which has 10 ranges. It is easy to use and is a very useful measurement tool.

Features:

- LCD display
- High accuracy
- Zeroing method: Adjust the "0 ADJ" knob
- Dual-slop integration A/D converter
- Over range indication: "1" shown on the display
- Operation condition: Temperature: 0°C~40°C (32°F~104°F)
Relative humidity: <75%
- 9V battery and test leads included
- Low battery indicator



Range	Resolution	Accuracy	Test Frequency
200pF	0.1pF	± (0.8% + 7)	800Hz
2000pF	1pF	± (0.8% + 5)	
20nF	10 pF	± (0.5% + 5)	
200nF	100pF	± (0.8% + 5)	80Hz
2 μF	1000pF	± (0.8% + 5)	
20 μF	0.01 μF	± (2.0% + 5)	8Hz
200 μF	0.1 μF	± (2.0% + 5)	
2000 μF	1 μF	± (2.0% + 5)	
20mF	10 μF	± (5.0% + 5)	

MARS NO.	DESCRIPTION	MARS PACK
65746	MARS capacitor tester	1

MARS Universal Remote Control for Mini-Split Units

MARS Universal Remote will operate with virtually any mini-split produced in any region of the world. Programming is accomplished by imputing your mini-split brand code or use the easy and intuitive self learn mode to set-up the remote to operate your mini-split. Operates with 2 AAA batteries.

- One touch function with LCD display
- Braille enabled
- Celsius or fahrenheit display
- Clock display
- 24 Hr. on/off timer for energy savings
- Displays room temperature
- Energy saver feature
- Automatically determines heat or cool mode



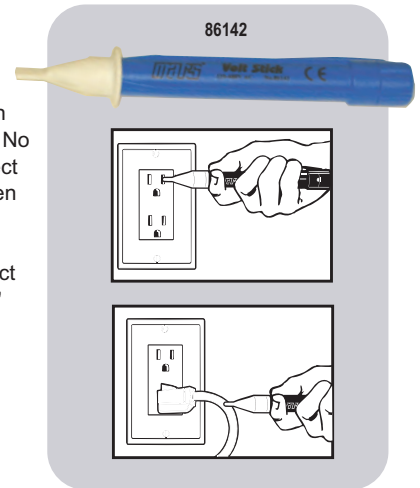
MARS NO.	DESCRIPTION	MARS PACK
65775	Mini-Split Universal Remote	1

MARS Volt Stick

The Volt Stick is an instrument for safely checking the presence of an AC voltage in cables, wall outlets, fuses, circuit breakers, junction boxes, power tools and appliances. Also, distinguishes between live and neutral wire in single or three phase supplies. No current flow is needed for correct operation of the Volt Stick. When a voltage is detected, a red indicator in the plastic tip of the Volt Stick illuminates. No contact is needed, unit operates at 1/8" distance from device.

Specifications

- Voltage range: 110 to 480 volts AC
- Not sensitive to stray electromagnetic static
- Response time: instantaneous
- Case breakdown: 4000 volts
- Operation temp: 0° to 120°F
- Batteries: two AAA, 1.5 volt alkalines included



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
86142	Volt Stick	1	12

Safety Power Adapters

Zebra'Dapter's provide visual indication of voltage levels before damage can occur. One is a fused power tap cordset & the other is a cheater cord used for a safer way to obtain and use 120V power. They are lighted to show the voltage level available, and if the indicator light is ignored, the fused circuit provides a last line of defense to protect you and your customer's equipment. These adapters are significantly a safer way to obtain 120V power.

MARS No. 08566 (Male end) has an in-Line fuse. (Two fuses included). Safer Power from Outlet to test Motors, Components & Systems

MARS No. 08567 (Female end) shows the voltage level at the plug. Used to check 120V power to run vacuum pumps, charging scales, drop lights, etc. lighting



Lighted Plug confirms Power

- No light means no power
- Normal light means 120VAC
- A brilliant light means you accidentally hooked it up to 240VAC

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
08566	Fused Cheater Power Cord (male end)	1	12
08567	Fused Power Tap Cordset (female end)	1	12

MARS Test Leads - Pkg'd In Poly Bags



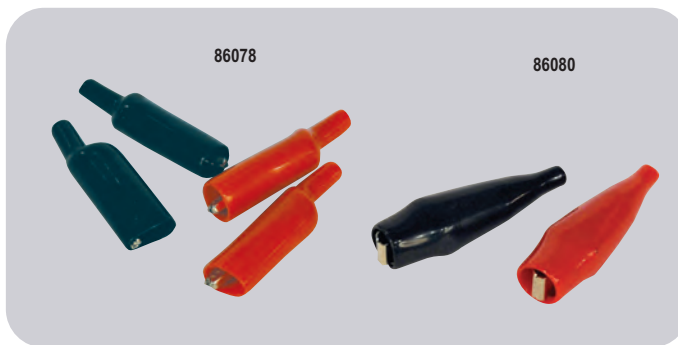
MARS NO.	CLIP SIZE	TYPE	CASE COLORS	WIRE SIZE	L	BAG QTY.
86070	Sm	Alligator	Wht, red, blk, yellow, grn	18	18"	10
86071	Med	Alligator	Red/blk w/boots	18	24"	2
86073	Lg	Alligator	Red/blk w/boots	14	24"	2
86074	Lg	Battery	Red/blk w/boots	16	36"	2

MARS Special Leads - Pkg'd In Poly Bags



MARS NO.	CLIP SIZE	DESCRIPTION	WIRE SIZE
86075	Med	6-2 wire test cord w/red & blk insul. clips	16
86076	Med	24" - 3 wire test cord w/fem plug & 3 insul. clips	16

MARS Alligator & Battery Clips - Pkg'd in Zip Lock Bag



MARS NO.	CLIP SIZE	TYPE	DESCRIPTION	BAG QTY.
86078	Med	Alligator	Red/blk (1 ea. color boot - 2 clips)	1 pr.
86080	Med	Battery	Red/blk (1 ea. color boot - 2 clips)	1 pr.

Zebra Alligator Leads - Clamshell



MARS NO.	CLIP SIZE	TYPE	DESCRIPTION	BAG QTY.
08572	Sm	Alligator	5 different colors (up to 6A)	5
08573	Med	Alligator	8 different colors (up to 15A)	8

SERVICE & INSTALLATION

Eveready Industrial Alkaline - Bulk



MARS and the Eveready Battery Company offer a complete line of alkaline, general purpose and lantern batteries. These high quality batteries are made in the U.S.A. and are competitively priced.

The Eveready Energizer Industrial Alkaline batteries are environmentally safe. The Eveready Energizer Industrial alkaline batteries are mercury-free, designed for long-lasting power in high drain, frequent use applications. Batteries are sealed and have excellent leakage resistance and a long storage life. This provides a better discharge rate, lower impedance and better low temperature performance than carbon zinc. These ZMA alkaline batteries are also less sensitive to changes in the discharge rate or duty cycle.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79401	D cell - 1.5V	12	72
79402	C cell - 1.5V	12	72
79403	AA - 1.5V	24	144
79404	AAA - 1.5V	24	144
79406	6V GP lantern battery	12	72
79405	9V	12	72
79458	lithium coin - 3V	6	6

Eveready Industrial Alkaline - Bulk



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79441	D cell - 2 pack	12	48
79442	C cell - 2 pack	12	48
79443	AA - 4 pack	12	48
79444	AAA - 4 pack	12	48
79445	9V - 2 pack	12	48
79457	AAAA - 2 pack	6	6

Eveready Specialty Batteries



- Long lasting, reliable, miniature batteries
- Type: Silver Oxide
- Volt: 1.5



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79468	#386 1.5V, repl. 10L124, 280-21, 280-41, 301/386, D301/386, SB-B8, SR1142W, SR43, SR43W	5	100
79469	#357 1.5V, repl. 280-03, 280-08, 303/357, D303/357, SB-A9, SR 1154 SW, SR 44 SW, SR 44SW, SR44SW, WS14	6	480

Eveready Lithium Batteries



- Holds power for 8 years in storage
- Type: Lithium Coin
- Volt: 3



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79458	ECR2032BP 3V, repl. 5004LC, BR2032, DL2032, ECR2032, ST-T15	6	480
79454	CR1632, 3V, repl. BR1632, DL1632, ECR1632, KCR1632, KECR1632, KL1632, L1632	5	100

MAGLITE® Flashlights



MARS and Maglite® are committed to providing a full selection of flashlight products designed for use by professionals. Features include anodized aircraft aluminum with knurled grip, o-ring sealed for minimum water resistance and adjustable beams from pinpoint spot to flood. All Maglite flashlights are designed and tested for high impact, precise illumination and longer use. All units have a limited lifetime warranty for repair and replacement of all internal and external components.



MARS NO.	DESCRIPTION	MAG. NO.	CASE QTY.
79205	Mini-mag AAA (black)	M3A016	12
79201	Mini-mag AA (black)	M2A016	12
79230	Mini-mag AA (blue)	M2A116	12
79252	Mini-mag AA (camouflage)	M2A026	12
79207	Mag-light 2C-cell (black)	S2C016	12
79203	Mag-light 2D-cell (black)	S2D016	12
79204	Mag-light 3D-cell (black)	S3D016	12
79210	Mag-light 4D-cell (black)	S4D016	12
79202	AA combo pack (black)	M2A01C	12
79215	AA mag holster combo (black)	M2A01H	12

MAGLITE® Led Flashlights



MARS NO.	DESCRIPTION	MAG. NO.	CASE QTY.
79239	Maglite 2D-cell LED (black)	SP221H	6
79240	Maglite Pro 2AA LED (black)	SP2P01H	6
79241	Maglite Pro + 2AA LED (black)	SP+P01H	6

MAGLITE® Accessories



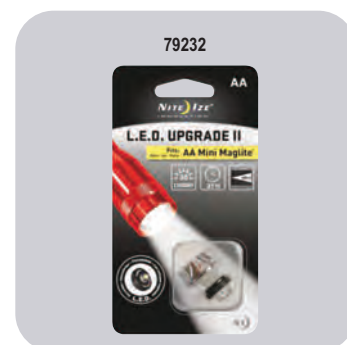
MARS NO.	DESCRIPTION	MAG. NO.	CASE QTY.
79222	AA nylon holster (black)	AM2A056	12
79226	AA leather holster (black)	AM2A026	12

MAGLITE® Replacement Lamps



MARS NO.	DESCRIPTION	MAG. NO.	CASE QTY.
79223	AA/AAA bulb 2 pack	LM2A001	12
79221	2D-2C krypton bulb	LMSA201	12
79220	3D-3C krypton bulb	LMSA301	12
79219	4D-4C krypton bulb	LMSA401	12
79278	Halogen Replacement lamp	LR00001	12

Upgrade LED Kits for MAGLITE®



MARS NO.	DESCRIPTION	MAG. NO.	CASE QTY.
79232	AA LED Upgrade II-White	LRB2-07	6

SERVICE & INSTALLATION

MARS Extendable Magnetic Flashlight

The extendable, flexible, lighted, magnetic pickup tool

Tool box utility in your shirt pocket

- Flexible shaft
- Telescopes from 6" to 21"
- 3 Super bright LED's
- Durable machined aluminum body
- Powerful magnetic head and tail
- Uses 4 LR44 batteries (included)



MARS NO.	DESCRIPTION
79479	Extendable Magnetic Flashlight

MARS Accessories

MARS NO.	DESCRIPTION	MARS PACK
79460	LR44, Batteries for 79479, 4 pk	1

MARS Infra-Red Laser Thermometer

- Built-in laser pointer
- Data hold & Auto power off
- Temperature Range: -50°C to 350°C (-58°F to 662°F)
- Accuracy: ±2% of reading or ±2°C/±4°F • D:S=8:1
- Complete with 9V battery
- Quickly and easily take the surface temperature of any object. Just point, pull the trigger, and read the temperature on the display.
- °C / °F switchable button
- Backlit LCD display



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
25580	Infrared thermometer	1	500

Pelouze Refrigerant Scales



MARS #79040, the 250 lb platform scale, is ideal for weighing heavy packages and containers. Activated by either hand or foot, the unique "memory lock" holds reading when dial is obscured. The platform and body feature a combination of steel subframe and glass fiber reinforced nylon. Scratch, rust and chemical resistant

The Pelouze electronic scale #79042 features a heavy duty "no-slip" platform, LCD display, and a wall mount control panel. Automatic shut off. Low battery indicator. Displays in 0.2lb/0.1kg increments. All steel construction. Tare functions and remote display head on a 9' cord. Operates on AC adapter (included) or a 9V battery (not included).

MARS #79043 is the ideal electronic scale for heavy duty weighing. This 400 lb x 1/2 lb scale features an easy to read LCD display, automatic shut off, and low battery indicator. The control panel can be wall mounted for easy viewing. Tare functions. Strain gauge weighing operates on AC adapter (included) or one 9V battery (not included).



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79040	250 lb. x 1 lb. platform scale	1	1
79042	150 lb. x .2 lb. electronic scale	1	4
79043	400 lb. x 1/2 lb. electronic scale	1	1

MARS Hand Held Scale

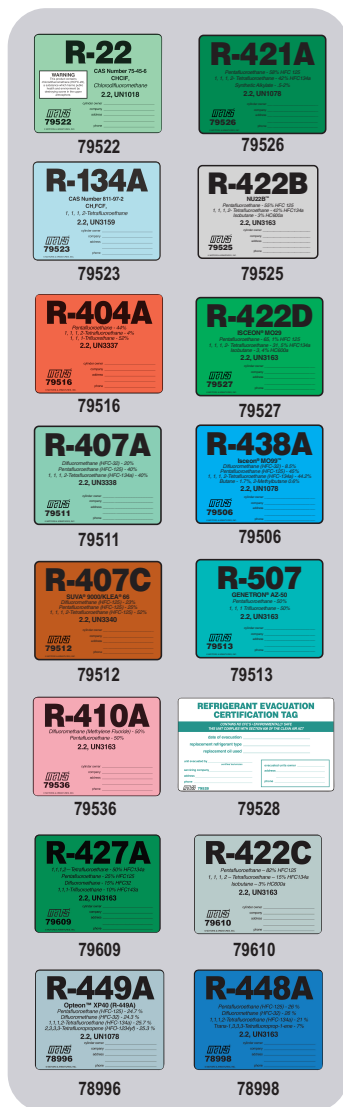
- Ideal for weighing and checking most gas and refrigerant cylinders
- Easy to use
- Push button for accuracy
- Auto shut off
- Max scale up to 55 lbs
- 9V battery included
- Accuracy up to +/- 2%
- LBS/KGS switch



MARS NO.	DESCRIPTION	MARS PACK
79039	Digital hand held scale	1

MARS Refrigerant I.D. Labels

MARS refrigerant I.D. labels are color coded to conform to each particular refrigerant. Each label specifies the type of refrigerant, the chemical name, the UN # and a space for the name and address of the cylinder owner. These self-adhering labels are 4 1/2" x 3 1/2", except for MARS #79528, Refrigerant Evacuation Certificate, which is 7 1/2" x 4 1/2".



MARS NO.	DESCRIPTION	MARS PACK
79522	R-22 Refrigerant I.D. Labels (10 pk)	1
79523	R-134A Refrigerant I.D. Labels (10 pk)	1
79516	R-404A SUVA® HP62 Refrig. Labels (10 pk)	1
79511	R-407A Refrigerant I.D. Labels (10 pk)	1
79512	R-407C Refrigerant I.D. Labels (10 pk)	1
79536	R-410A GENETRON® AZ-20 Refrig. Labels (10 pk)	1
79526	R-421A Refrigerant I.D. Labels (10 pk)	1
79525	R-422B Refrigerant I.D. Labels (10 pk)	1
79527	R-422D Refrigerant I.D. Labels (10 pk)	1
79506	R-438A Refrigerant I.D. Labels (10 pk)	1
79513	R-507 Refrigerant I.D. Labels (10 pk)	1
79528	Refrigerant evacuation certification (5 pk)	1
79609	R-427A Refrigerant I.D. Labels (10 pk)	1
79610	R-422C Refrigerant I.D. Labels (10 pk)	1
78996	R-449A Refrigerant I.D. Labels (10/pk)	1
78998	R-448A Refrigerant I.D. Labels (10/pk)	1

MARS Pocket Bi-Metal Dial Thermometers

MARS pocket dial thermometers consist of stainless steel cases with 5" stem. Thermometers are completely waterproof. Units are protected by flexible plastic case with clip. They can be recalibrated for accuracy.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
25510	1" dial -40° F to 160° F thermometer	1	12
25520	1" dial 0° F to 220° F thermometer	1	12

MARS Pocket Digital Thermometers

MARS #25531 deluxe digital pocket thermometer features an on/off switch and a data hold button. The easy to read LCD digits can be displayed in both fahrenheit and centigrade. The new slim design fits nicely in your pocket. Pocket clip and battery are included. ±2° accuracy. Uses MARS #79467 replacement battery. Water and drop resistant. Auto power off is also a new feature.



The multi feature round digital thermometer features an "on/off" switch and "clear" button. This pocket thermometer displays both fahrenheit and centigrade. A "min/max" button is also featured and a clear protective plastic sheath with pocket clip is included.

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
25531	Deluxe digital pocket, -40°F to 300°F, -50°C to +150°C	1	12
79468	#393 replacement battery for #25532	6	48

SERVICE & INSTALLATION

MARS Refrigerator/Oven Thermometers

Horizontal refrigerator/freezer thermometer is most often specified for commercial applications. Hang, stand, or permanent mount. Stainless steel refrigerator or oven models utilize 2" easy to read dial. Hang or stand.



MARS NO.	DESCRIPTION
25540	Horizontal glass tube refrig. -40°F to 80°F, -40°C + 0° to +26°C
25542	Stainless steel refrigerator -20°F to 80°F, -29°C to +26°C

MARS Hardware and Fasteners

Mars hardware and fasteners are competitively priced and exhibit superior quality required by the HVACR contractor and tradesman. All fasteners are available in two different package configurations. Both configurations enhance contractor self service and encourage impulse purchases.



Round Head Combo Slotted/Phillips Machine Screws - Steel Zinc Plated

MARS NO.	MINI-PAK QTY.	DESCRIPTION
79808	25	1/4-20 x 3/4

Hexagon Nuts - Steel Zinc Plated

MARS NO.	MINI-PAK QTY.	DESCRIPTION	MARS NO.	SUPER PAK QTY.
79837	25	8-32 for 5/32 bolt		
79838	25	1/4-20 for 1/4 bolt		
79839	25	3/8-16 for 3/8 bolt	80039	100

Pan Hd Combo Slotted/Phillips Tap Screws - Zinc Chromate

MARS NO.	MINI-PAK QTY.	DESCRIPTION
79860	25	12 x 1

Pan Hd Combo Slotted/Phillips Tap Screws - Zinc Chromate

MARS NO.	MINI-PAK QTY.	DESCRIPTION
79871	25	8 x 1/2 x 1/4 hd
79872	25	10 x 3/4 x 5/16 hd
79873	25	10 x 1 x 5/16 hd
79874	25	10 x 1 1/4 x 5/16 hd
79875	25	10 x 1 1/2 x 5/16 hd

Indented Hex Washer Hd Self Drill Screw - Steel Zinc Chrom.

MARS NO.	MINI-PAK QTY.	DESCRIPTION	MARS NO.	SUPER PAK QTY.
79887	25	8 x 1/2 x 1/4 hd		
		8 x 3/4 x 1/4 hd	80088	100
		10 x 3/4 x 5/16 hd	80090	100
79891	25	10 x 1 x 5/16 hd	80091	100

Drywall Screw - Bugle Hd Phillips 20 Ga. Max Steel Stud, Blk

MARS NO.	MINI-PAK QTY.	DESCRIPTION
79904	25	6 x 1 5/8
79905	25	6 x 2

Fender Washers - Steel Zinc Chromate

MARS NO.	MINI-PAK QTY.	DESCRIPTION
79916	25	1/4 x 1 for 1/4 bolt

Flat Wrought Washers - Steel Zinc Chromate

MARS NO.	MINI-PAK QTY.	DESCRIPTION
79939	25	1/4 USS for 1/4 bolt
79940	25	3/8 USS for 3/8 bolt

Flat SAE Washers - Steel Zinc Chromate

MARS NO.	SUPER PAK QTY.	DESCRIPTION
80132	100	3/8 SAE for 3/8 bolt

MARS Plastic Anchor Kits

Plastic anchors are designed to be used with either woodscrews or sheet metal screws. They are recommended for quick, easy fastening of fixtures such as thermostats, thermostat guards, shelf brackets, cabinets, mirrors, pictures, etc. All plastic anchor kits include plastic anchor, screws and carbide masonry drill bit. All kits are packaged in a durable, see-through reclosable plastic storage case.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79974	Plastic conical anchor with pan head combo kit contents: (100) 1/4 plastic anchors, (100) #10 x 1 pan combo hd screw zinc, (1) 1/4 x4 masonry drill	1	200
79975	Plastic conical anchor with hex washer head kit contents: (100) 1/4 plastic anchors, (100) #10 x 1 hex washer hd slot screws zinc, (1) 1/4 x4 masonry drill	1	200
79976	Plastic screw-in anchor with pan head combo kit contents: (50) plastic screw-in anchors, (50) #8 1 1/2 pan combo hd screw zinc	1	100
79977	Metal screw-in anchor with pan head combo kit contents: (50) metal screw-in anchors, (50) #8 1 1/2 pan combo hd screws zinc	1	100

Green Grounding Screws & Box Clips



MARSNO.	MINI-PAK QTY	DESCRIPTION	MARS PACK
80160	100	10-32 x 3/8" slotted hex head washer type	1

Plastic Anchor Kits

Plastic anchors are designed to be used with either woodscrews or sheet metal screws. They are recommended for quick, easy fastening of fixtures such as thermostats, thermostat guards, shelf brackets, cabinets, mirrors, pictures, etc. All plastic anchor kits include plastic anchor, screws and carbide masonry drill bit. All kits are packaged in a durable, see-through reclosable plastic storage case.



MARS NO.	DESCRIPTION	CASE QTY.
80168	8-10 x 7/8" plastic anchor kit with slotted pan screw, contains: (100) 8-10 conical anchors, (100) 8 x 1" slotted pan screw, (1) 3/16" x 4" carbide masonry drill bit	1
80169	8-10 x 7/8" plastic anchor kit with pan combo screw, contains: (100) conical anchors, (100) 8 x 1" phillips/slotted pan screw, (1) 3/16" x 4" carbide masonry drill bit	1
80171	10-12 x 1" plastic anchor kit with slotted pan screw, contains: (100) 1/4" conical anchors, (100) 10 x 1 1/4" phillips, slotted pan screw, (1) 1/4" x 4" carbide masonry drill bit	1
80172	10-12 x 1" plastic anchor kit with hex washer slotted screw, contains: (100) 1/4" conical anchors, (100) 10 x 1 1/4" hex washer slotted screw, (1) 1/4" x 4" carbide masonry drill bit	1
80174	14-16 x 1 3/8" plastic anchor kit with slotted pan screw, contains: (50) conical anchors, (50) 14 x 1" slotted pan screw, (1) 5/16" x 4" carbide masonry drill bit	1

Hollow Wall Anchor Kits

Plastic anchors are designed to be used with either woodscrews or sheet metal screws. They are recommended for quick, easy fastening of fixtures such as thermostats, thermostat guards, shelf brackets, cabinets, mirrors, pictures, etc. All plastic anchor kits include plastic anchor, screws and carbide masonry drill bit. All kits are packaged in a durable, see-through reclosable plastic storage case.



MARS NO.	DESCRIPTION	CASE QTY.
80179	#6 hollow wall anchor kit, contains: (50) #6 hollow wall plastic anchors (50) 6 x 1" slotted phillips pan screw	1
80180	#8 hollow wall anchor kit, contains: (50) #8 self drill hollow wall plastic anchors (50) 8 x 1 1/4" slotted phillips pan screw	1

Tube Fitting Brushes - Heavy Duty Stainless Steel



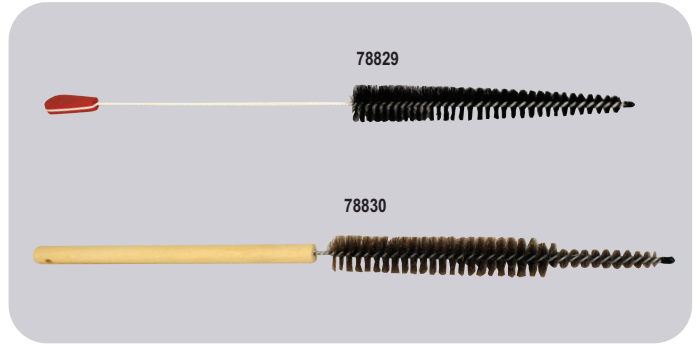
MARS NO.	DESCRIPTION	MARS PACK
78801	1/4" OD 1/8" ID fitting brush (2 bag)	6
78802	3/8" OD 1/4" ID fitting brush (2 bag)	6
78803	1/2" OD 3/8" ID fitting brush (2 bag)	6
78804	5/8" OD 1/2" ID fitting brush (2 bag)	6
78805	3/4" OD 5/8" ID fitting brush (2 bag)	6
78806	7/8" OD 3/4" ID fitting brush (2 bag)	6
78808	1 1/8" OD 1" ID fitting brush (2 bag)	6
78809	1 3/8" OD 1 1/4" ID fitting brush (2 bag)	3

Tube Cleaning Brushes



MARS NO.	DESCRIPTION	MARS PACK
78818	3/8" x 3/4" OD refrig. 4-1 brush tool	6
78819	1/2" x 3/4" OD refrig. 4-1 brush tool	6
78820	5/8" x 7/8" OD refrig. 4-1 brush tool	12

Refrigeration Coil Brush



MARS NO.	DESCRIPTION	MARS PACK
78828	5/8" to 1 5/8" fiber condenser cleaner 32"	12
78829	5/8" to 1 5/8" tapered condenser cleaner 29"	12
78830	3/4" to 1 5/8" tapered refrig. coil brush 28"	12

Fin And Coil Brushes



MARS NO.	DESCRIPTION	MARS PACK
78833	Fin and coil whiskbrush, 6 3/4"	12
78834	Fin and comb scraping tool, adjustable	1
78835	6-in-one fin comb (8, 9, 10, 12, 14, 15 fins per inch)	1

Acid And Flux Brushes



MARS NO.	DESCRIPTION	MARS PACK
78839	#1 acid brush 1/4" - 48 box	1
78840	#2 acid brush 3/8" - 48 box	1
78841	#1 acid brush 1/4" - 10 bag	10
78842	#2 acid brush 3/8" - 6 bag	10

Flue And Boiler Brushes



MARS NO.	DESCRIPTION	MARS PACK
78945	1-1/2" x 1-1/8", 30" OAL, Specialty Boiler Brushes - WEIL MCLAIN	6
78946	1/2" x 1", 27" OAL, Flat, Specialty Boiler Brushes - COLUMBIA	6
78947	2-1/4", 20" OAL, Tapered, Specialty Boiler Brushes - SLANT FIN	6
78948	1-1/2" x 1-1/8" x 36" OAL, HD, Gold Series Original, Specialty Boiler Brushes - WEIL MCLAIN	6
78949	1/2" - 1" Taper, 30" OAL, Horsehair, Specialty Boiler Brushes - TAPERED	6
78950	1-7/8" - 1-1/8" Taper, 42" OAL, Horsehair, Specialty Boiler Brushes - TAPERED	6
78951	1" Dia., 16" OAL, Horsehair Brushes for Boilers Burners, Radiators, Flues, Vents and Nozzles	6
78952	2" Dia., 27" OAL, Horsehair Brushes for Boilers Burners, Radiators, Flues, Vents and Nozzles	6
78953	3" Dia., 27" OAL, Tampico/Fiber Tube Brushes for Boilers Burners, Radiators, Flues, Vents and Nozzles	6
78954	2" Dia., 42" OAL, Horsehair Brushes for Boilers Burners, Radiators, Flues, Vents and Nozzles	6
78955	3" Dia., 42" OAL, Tampico/Fiber Tube Brushes for Boilers Burners, Radiators, Flues, Vents and Nozzles	6

These brushes have 3" brush lengths and 1/2" or 3/4" loop handles for easy hanging.

MARS NO.	DESCRIPTION	MARS PACK
78956	1/2" Dia., 18" OAL, Stainless Steel Fine-Wire Single Spiral Brushes for Small Boilers, Burners, Nozzles & Fans	12
78957	3/4" Dia., 24" OAL, Stainless Steel Fine-Wire Single Spiral Brushes for Small Boilers, Burners, Nozzles & Fans	12
78958	1-1/2" Dia., 42" OAL, Carbon Steel Fine-Wire Single Spiral Brushes for Small Boilers, Burners, Nozzles & Fans	6

Applicator Brushes, Natural Bristle



MARS NO.	DESCRIPTION	MARS PACK
78902	1 1/2" economy paint brush-wood handle	36
78903	2" economy paint brush-wood handle	24
78904	2 1/2" economy paint brush-wood handle	12
78905	3" economy paint brush-wood handle	12
78906	4" economy paint brush-wood handle	12

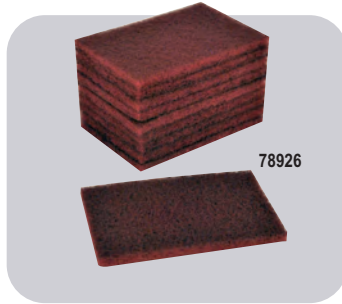
Utility And Appliance Brushes



MARS NO.	DESCRIPTION	MARS PACK
78910	Plastic handle stainless brush, 3 x 7 rows, 3 pk.	12
78911	Wood handle stainless brush, 2 x 9 rows, 3 pk.	12
78912	1 1/16" dia. parts cleaning brush	6
78913	Bent handle carbon scratch brush, 4 x 18 rows	12
78915	Shoe handle carbon scratch brush, 4 x 16 rows	12

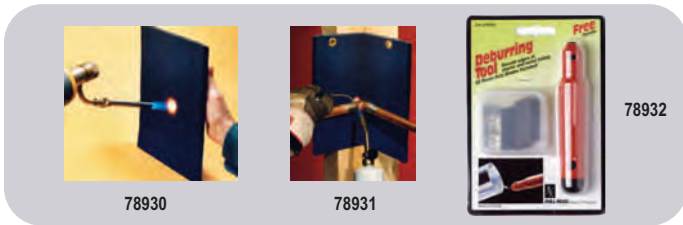
SERVICE & INSTALLATION

Abrasive Cloth And Pads



MARS NO.	DESCRIPTION	MARS PACK
78920	1 1/2" x 5 yds. open coat white cloth	24
78921	1 1/2" x 10 yds. open coat white cloth	24
78922	1 1/2" x 25 yds. open coat white cloth	20
78923	1 1/2" x 5 yds. open nylon mesh cloth	24
78924	1 1/2" x 10 yds open nylon mesh cloth	24
78925	1 1/2" x 25 yds. open nylon mesh cloth	20
78926	4" x 6" med. nylon abrasive pad, maroon, 10 pk	1
78928	1 1/2" x 10 yds competitive abrasive cloth	1
78918	1 1/2" x 25 yds. competitive abrasive cloth	1

Accessories



MARS NO.	DESCRIPTION	MARS PACK
78930	Solder/braze heat shield, 9" x 12" x 1/2" temperatures exceeding 2500°F	10
78931	Solder heat shield, 9" x 12" temperatures up to 2500°F	10
78932	Heavy duty deburring tool, 3 blades	10
78933	Deburring tool replacement blades, 5 pack	10

PowerCrown Outward Clinch Tackers

Model PC4000-OC1 & PC4000-OC2 Features:

- Easy squeeze design
- Compact, lightweight
- Convenient bottom load
- Unique design turns staple legs outward
- For pipe wrap, duct board and corrugated



MARS NO.	DESCRIPTION	MFG. NO.	CASE QTY
73349	Outward Clinch Tacker	T6-80C2	12
73347	3/8" Staples / 5M Box	STCR5019 3/8"	20
73350	1/2" Staples / 4M Box	STCR5019 1/2"	20
73351	9/16" Staples / 4M Box	STCR5019 9/16"	20

PowerCrown Outward Clinch Tacker - Model PC3000-OC2



Model PC3000-OC2 Features:

- Professional quality
- Drives 1/2" light wire Bostitch PowerCrown staples
- Powerful direct drive
- Unique design turns staple legs outward
- Convenient bottom load
- For pipe wrap, duct board and corrugated



MARS NO.	DESCRIPTION	MFG. NO.	CASE QTY
73343	Outward Clinch Tacker	T6-60C2	12
73348	1/2" Staples / 5.8M Box	STCR2619 1/2"	20

PowerClench™ Stapling Plier

Model P6C-8 Features:

- Ergonomic design
- Easy squeeze action
- Fast loading of staples
- Top loading



MARS NO.	DESCRIPTION	MFG. NO.	CASE QTY
73352	Stapling Plier	P6C-8	12
73353	3/8" staples / 5.8M Box	STH5019	20

MARS Ratchet Action Multi Purpose Cutter

Designed for quick, clean cuts through hose, plastic tubing, PVC schedule 40 pipe up 1".

- Blade can be sharpened or replaced
- Internal parts and pivots all stainless steel



MARS NO.	DESCRIPTION	MFG. NO.	CASE QTY
25656	Compound ratchet action cutter, cuts hose, 1-1/8" OD, replaceable blade	1	12

Channellock Pliers



For over a century Channellock has been the leader in manufacturing professional quality tools for all trades. All tools are made in the U.S.A. The MARS line of Channellock tools are housed in attractive merchandiser hang type style packaging to generate impulse sales and increase your profits.

Channellock pliers are hand honed perfectly matched cutters which are heat treated to hold their edge. These pliers are precision made of fine polished, high carbon drop forged steel and features blue plastic comfort grips.

Channellock Long Nose Pliers feature slender, perfectly matched jaws with no side wobble to provide a firm grip on fine work in tight places. MARS #28316 and #28317 also feature a side cutter.

The popular Tongue and Groove Pliers provide right angle teeth that grip in all directions for maximum bite and minimum wear. The undercut tongue and groove design assures the strongest non-slip jaw action and the patented PermaLock® fastener provides safer and smoother working than the old-time bolt and nut.



MARS NO.	DESCRIPTION	MFG. NO.	CASE QTY
28301	7" cutting plier - lap joint diagonal	337	20
28311	9" high leverage linemans plier	369	20
28316	7 1/2" Long Nose Plier with side cutter	317	20
28317	6" Long Nose Plier with side cutter	326	20
28323	9 1/2" Tongue & Groove Plier 5 Adjustments - 1 1/2" capacity	420	20
28324	6 1/2" Tongue & Groove Plier 7 adjustments - 7/8" capacity	426	20
28325	10" Tongue & Groove Plier 7 adjustments - 2" capacity	430	20
28326	12" Tongue & Groove Plier 7 adjustments - 2 1/2" capacity	440	20

Fuse Pullers



MARS #25915, medium fuse puller is molded of tough, high impact nylon for greater strength. Handles with no-slip gripping surface, protective finger stops and yellow color are provided for extra safety.



MARS NO.	DESCRIPTION	MFG. NO.	MARS PACK	CASE QTY.
25915	7-1/4" medium puller for 0-100A fuses	34-016	1	10

Terminal Strips, 600V, 30a, UL & CSA



- Heavy duty corrosion resistant screws
- Rugged polyester thermo-plastic base
- Accepts wire sizes from 10 - 22AWG
- Operating temperature rated from 130°C to -40°C
- Recommended torque: 16 in. - lb.
- UL Recognized, CSA Certified



MARS NO.	DESCRIPTION	MFG. NO.	MARS PACK	CASE QTY.
25952	3 circuit terminal strip	89-203	1	10
25953	4 circuit terminal strip	89-204	1	10
25954	6 circuit terminal strip	89-206	1	10
25955	8 circuit terminal strip	89-208	1	10
25956	10 circuit terminal strip	89-210	1	10
25957	12 circuit terminal strip	89-212	1	10

Tap-Pak® Fish Tape



IDEAL Tape-Pak® fish tape reels and winders provide maximum strength and flexibility for fishing long runs of conduit. The case is built of high impact plastic that never dents or rusts. Use as a handle for pulling on fish tape to eliminate the dangers of bare-handed pulling as well as handy tape storage system. High grade tempered steel tape is fully protected and locked in reel when not in use so tape cannot kink spring free. Excellent for snaking long runs of thermostat wire.



MARS NO.	DESCRIPTION	MFG. NO.	MARS PACK	CASE QTY.
25849	50' fish tape - 8 1/2" dia.	31-033	1	1

SERVICE & INSTALLATION

Safe-T-Grip® Fuse Pullers



IDEAL's Safe-T-Grip® Fuse Pullers provide maximum efficiency and convenience when removing or replacing cartridge fuses. Constructed of fully insulated, reinforced, high-dielectric engineering plastic. Notched handles for a no-slip safe grip. Clearly marked amperage ranges. Moisture resistant...will not warp. Bright yellow in color.



MARS NO.	DESCRIPTION	MFG. NO.	MARS PACK	CASE QTY.
25911	5" midjet for fuses 9/32-1/2 dia.	34-001	1	1
25912	7 1/2" pocket for 0-100A fuses	34-002	1	10
25913	11 3/4" giant for 31-600A fuses	34-003	1	1

Wire Strippers And Crimpers



Preferred by professionals for over three decades and originated by IDEAL, these quality built T®-strippers feature built in wire cutters, looping holes, cushioned plastic grips and precision knife-type blades that give an accurate, easy strip every time. The MARS #25705 stripper is a versatile seven-function tool featuring spring loaded handles for quick and easy use, cushioned grips for comfort and a locking panel to keep jaws closed when not in use. It strips, cuts wire, crimps terminals, cuts bolts and screw, gauges 6-18 AWG wire, loops wire and reams conduit (reams and de-burrs). The multi-crimp tool provides excellent leverage for sure, easy crimping and cutting...even in close quarters. Crimps bare or insulated terminals and splices on wire sizes 10-22 AWG



MARS NO.	DESCRIPTION	MFG. NO.	MARS PACK	CASE QTY.
25701	T®-5 Stripper 10-18 AWG solid	45-120	1	10
25702	T®-6 Stripper 16-26 AWG strand	45-121	1	10
25703	T®-8 Stripper 8-16 AWG strand	45-124	1	10
25705	7-in-1 Stripper Crimper	45-777	1	5
25711	Multi-crimp Tool	30-429	1	5

Refrigeration Wrenches



MARS #65083 is designed for use on compressors with access valves in hard to reach places. This reversible ratchet is chrome plated and square ratchet drives.



MARS NO.	MFG. NO.	DESCRIPTION	CASE QTY.
65083	127C	1/4", 3/8", 3/16", 5/16" square ratchet	1

Red Devil Putty Knives And Wall Scrapers

Red Devil offers professional high quality putty knives and wall scrapers. The black polypropylene comfort grip handles are shatterproof and solvent resistant for safety. Durable, high carbon, steel precision-ground blades extend through handles for maximum dependability. The blade has a mirror lacquered finish to prevent rust. Made in the U.S.A.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93402	1 1/4" wide stiff putty knife	12	72
93403	1 1/4" wide flexible putty knife	12	72
93404	3" wide flexible putty knife	6	72

MARS 6-in-1 Super Driver

The MARS Super driver features a comfort grip handle. The soft easy grip promotes excellent torque. This six-in-one driver includes 3/16" & 1/4" slotted bits, #1 & #2 phillips bits and 1/4" & 5/16" nutdriver. These screwdrivers are packaged twelve per counter display box.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
25984	MARS 6-in-1 super driver	12	12

MARS Drill Screw Chuck With Magnetic Insert

- Features a magnet holding to help improve fastening



MARS NO.	DESCRIPTION	MARS PACK
79990	1/4" hex x 1 5/8", 1/card	12
79991	5/16" hex x 1 5/8", 1/card	12

Magnetic Nut Setters

- Features a magnet with enhanced holding to help improve fastening



MARS NO.	DESCRIPTION	CASE QTY.
21620	1/4" mag nut setter 2 9/16"L (1/cd)	96
21621	5/16" mag nut setter 2 9/16"L (1/cd)	60
21627	1/4" mag nut setter 6"L (1/cd)	72
21628	5/16" mag nut setter 6"L (1/cd)	72

Flex A Bit™ (Patented Worldwide)

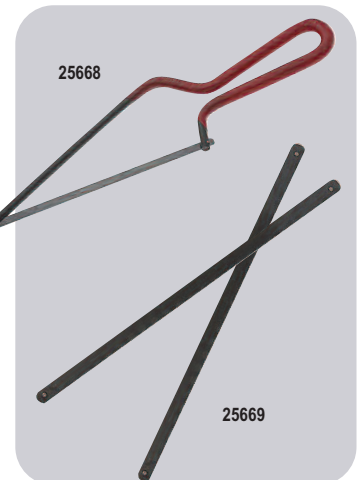
- 11" Long, 1/4" Hex
- Flex's to 90°
- The only flexible extension where entire outer surface does not rotate
- Used in hard to reach spaces



MARS NO.	DESCRIPTION	CASE QTY.
21669	11" industrial flex a bit plus (1/cd)	36

Superior Tool Mini Hacksaw And Blades

- Cuts wood, plaster, steel, brass, etc...
- Cushioned handle



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
25668	10" mini hacksaw,	1	6
25669	6" high carbon steel repl. blades (10/card)	1	6

Utility Knives And Blades

MARS #27401, retractable utility knife features a four position metal slider which accepts any utility blade. Zinc die cast construction. One heavy duty blade is provided with tool. Replacement heavy duty utility blades, MARS #27403, fits most utility knives. Used for cutting drywall, fiberglass, wood, plastic, cardboard and more!



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
27401	Retractable utility knife with blade	5	100
27403	H.D. utility blade (10 per dispenser)	10	60

Breakaway Knives And Blades

MARS #27410, is a heavy duty, retractable, 8 point, breakaway knife with a unique internal blade storage. The strong steel shank is molded into the durable plastic handle. Blade locks in place. Snap-cap tool accepts all standard 8 point blades. Ideal for cutting and trimming cardboard, wood, leather and more. Knife is carded.

The 13 point heavy duty retractable breakaway knife also features a unique internal blade storage where the steel shank is molded into the durable plastic handle. The blade locks in place and the snap-cap doubles as a pocket clip. Accepts all standard 13 point blades. Ideal for cutting and trimming wall coverings, vinyl, paper and more. Knife packaged with 3 blades.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
27410	H.D. 8 point knife	10	100
27411	8 point break blade (5/card)	10	60
27412	H.D. 13 point knife with 3 blades	10	200

Techni Edge

Red Devil Blades

- Heavy duty breakaway replacement blades



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93277	Repl, breakaway blades, 10/dispenser	12	144

Dust Masks



MARS NO.	DESCRIPTION	CASE QTY.
79170	50 pc. box, dust mask	12
79169	20 pc. box, dust & mist respirator	12

MARS Disposable Shoe Covers

Amphibious shoe covers are waterproof and made of a 6 MIL copolymer with a non slip embossed sole. In addition to providing protection to the customer's property, Amphibious shoe covers also keep the shoes dry when working in wet grass or hosing down equipment. Premium shoe covers are made of heavyweight breathable polypropylene with a non-slip PVC zigzag sole.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79195	Amphibious shoe covers - 300 XL covers/box	1	10
79100	Premium shoe covers - 300 XL covers/box	1	10
79103	Premium shoe covers - 50 XL covers/box	1	1
79199	Copolymer shoe covers - 5 XL covers/box	1	1

MARS Smoke Candles

- Quickly and efficiently produce dense white smoke
- Classic smoke provides the best results, allowing you to locate difficult leaks at greater distance
- Disposable and easy to use



MARS NO.	DESCRIPTION	CASE QTY.
79534	4000 cu. ft. smoke, 30 seconds	12
79535	8000 cu. ft. smoke, 1 minute	12

Cotton/Jersey Gloves



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79143	8 oz. cotton canvas gloves/individual pack	1	12
79149	10 oz. cotton hob nob/individual pack	1	12
79151	9 oz. brown jersey glove/individual pack	1	12
79148	9 oz. hob nob jersey	1	12
79153	Fleece lined cotton jersey/individual pack	1	12

Leather Gloves



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79157	Leather palm safety cuff/individual pack	1	12
79159	Split cowhide leather (suede)	1	12
79166	Grain cowhide leather	1	12
79162	Medium truckers glove	1	12
79165	Large truckers glove	1	12

PVC/Nitrile/Neoprene Gloves



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79145	PVC long gauntlet cuff gloves	1	12
79147	Coated neoprene gauntlet cuff	1	12

MARS Disposable Gloves

Disposable vinyl, latex, and nitrile gloves are heavy weight 5 mil and powdered. Packaged in a convenient dispenser box.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79096	Nitrile Gloves - L 100/box	1	10
79097	Nitrile Gloves - XL 100/box	1	10
79092	Latex Gloves - L 100/box	1	10
79098	Latex Gloves - XL 100/box	1	10
79093	Vinyl Gloves - L 100/box	1	10
79099	Vinyl Gloves - XL 100/box	1	10

Black Mamba Gloves

- Made with a patented NITREX® polymer
- Super strong (6.0 mils) powder free nitrile glove
- 3 times the chemical and puncture resistance of a comparable thickness latex or vinyl glove
- Grip rite finish for secure handling.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79200	Black Nitrile Gloves - L 100/box	1	10
79138	Black Nitrile Gloves - XL 100/box	1	10

Goop Hand Cleaners

For nearly 50 years, Goop has been the only name you need to know in hand cleaners. It's a name that wholesalers and contractors alike know and trust. Goop is non-toxic and biodegradable. Goop will remove almost anything...from almost everything. Use Goop to clean the dirtiest, greasiest hands. Use it for other tough cleaning jobs as well, such as removing stains from washable clothing, cleaning vinyl, plastic, canvas, floor tile - or whatever else gets dirty.



MARS NO.	DESCRIPTION	MARS PACK
93150	14 oz. can	12

Orange Goop Hand Cleaners

For customers who want a fresh orange scent in a tough, natural liquid hand cleaner, get the Orange Goop. There are no harsh solvents - just natural citrus. Available in regular or pumice formula. Biodegradable, too. Orange Goop...just another example of how we're giving today's contractors what they want.



MARS NO.	DESCRIPTION	MARS PACK
93157	14 oz. can	12
93160	16 oz. liquid squeeze bottle	12
93162	1/2 gallon orange pumice liquid w/ pump	6
93163	16 oz. liquid squeeze bottle w/ pumice	12

CRC Citrus Hand Cleaner

CRC Mechanix Orange™ citrus hand cleaners are petroleum solvent free, natural formulations that effectively remove grease, oil, grime, paint and inks safely and quickly. The citrus based formula is PH balanced, highly concentrated and fortified with aloe vera, and other conditioners to help keep hands soft and smooth. All this with the great new scent of citrus. Fine pumice is easy on your skin.



MARS NO.	DESCRIPTION	MARS PACK
93228	Mechanix Orange™, 16 oz.	12

Scrubs in-a-Bucket™

Scrubs in-a-Bucket™ provide fast, easy and effective hand cleaning with portability. Can be used anywhere, anyplace, anytime on the toughest soils, greases, tar, graphite...even printers ink. Each dispensing canister contains 10 1/2" x 12 1/4" perforated high-strength absorbant cleaning towels, treated with a gentle-to-the-skin but effective heavy duty grease cutting and soil lifting formulation. Pumice performance, without the messy, gritty pumice! Leaves skin lotion-soft, with a natural citrus fragrance. Contains germ fighting Triclosan. No rinsing, no drying, no residue. Also ideal for cleaning tools, work in process and for spills.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93201	Scrubs in-a-Bucket™ (72 towels)	6	42
93203	Scrubs in-a-Bucket™ (30 towels)	6	72

MARS Zoom Spout® Products

Used by virtually every mechanic and technician in the heating, ventilation, air conditioning and refrigeration field.

93240 Zoom Spout® Oiler

- Contains 4 oz. highest quality turbine oil
- Rust and oxidation inhibited
- Paraffin base...non-gumming
- Use on motor bearings and bushings
- Squeeze bottle action
- Spout extends to 14", wipes dry
- SAE 10 weight
- Non detergent

93241 Rust Buster

- Loosens rusted bolts, nuts, shafts, etc.
- Cleans corroded and dirty parts
- Contains no harsh chemicals such as acid or alkali
- Spout wipes itself dry
- Contents always visible
- Won't short out
- Spout extends to 14"



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93240	Zoom Spout® Oiler 4 oz.	12	72
93241	Rust Buster 4 oz.	12	72

MARS Maintenance Products

- Stops squeaks
- Removes and protects
- Loosens rusted parts
- Frees sticky mechanisms
- Smart straw helps to get into hard to reach areas
- Drives out moisture



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79036	WD-40 8 oz. spray smart straw, No CA	12	24
79037	WD-40 11 oz. spray smart straw, No CA	12	12
79006	WD-40 8 oz. spray smart straw CA	12	24
79007	WD-40 11 oz. spray smart straw CA	12	12

Kimberly-Clark Disposable Wiper/Towels

Kimberly-Clark® Kimtex® wipers are heavy duty oil and solvent wipers. Strong and durable, cloth-like feel and performance.

Kimberly-Clark® Kimtowels® are highly absorbent and versatile multi-ply tissue wipers. They quickly absorb water, oil and grease. Textured side for tough jobs and soft side for personal wiping. Contains no additives or glues.

Kimberly-Clark® Teri® wiper is durable for demanding jobs. Strong, even when wet. This 4-ply tissue wiper traps dirt and absorbs liquids quickly. Made with 100% recycled paper.

Workhorse™ manufactured rags by Kimberly-Clark® are made of a Hydroknit™ fast absorbing material. Workhorse™ rags stand up to water, oil, solvents and chemicals without falling apart. Amazingly strong when wet. Highly resistant to rips and tear wet or dry. Workhorse™ is the versatile and economical alternative to rags.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79110	Kimtex® 100 pc. pop-up™ box, 9-3/4" x 16-3/4"	1	5
79109	Kimtowels® 88 pc. pop-up™ box, 9-3/4" x 16-3/4"	1	10
79105	Teri®wipers 126 pc. pop-up™ box, 9-3/4" x 16-3/4"	1	10
79111	Workhorse™ manufactured rags, 150 pc. brag box, 12" x 16-3/4"	1	1

MARS Shop Towels

MARS shop towel rags are 100% cotton material. This 15" x 15" red cloth towel is extra absorbent and ideal for cleaning up grease on tools or machinery. Long lasting and machine washable. Hemmed edges.

The MARS 100% cotton terry towel is an all purpose, white terry cloth towel that can be used for drying, polishing, dusting and waxing.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79025	White terry towel (12 pack)	1	12
79026	Red cloth shop towel (12 pack)	1	18
79027	Red cloth shop towel (50 pack)	1	6

SERVICE & INSTALLATION

32 oz. Spray Bottle

- Polypropylene sprayer
- Nitrile O-ring and seating cup
- 3 finger trigger for comfort



MARS NO.	DESCRIPTION	MARS PACK
79009	32 oz. Spray Bottle	12

Blue Huck Towels

- Excellent absorbency!
- 5 lb. box
- Lint free
- Prewashed
- Approx. 22" x 13"
- 30-35 towels in box



MARS NO.	DESCRIPTION	MARS PACK
79024	Blue Huck Towels	1

MARS Micro Fiber Cloth Towels

- Quick drying, super soft and non-abrasive
- Lint free
- Super absorbent
- Very economical
- Use wet or dry
- Machine washable
- Wash separately in cool water; dry low heat or air dry
- Size: 12" x 16"



MARS NO.	DESCRIPTION	MARS PACK
79196	Micro Fiber Cloths All Purpose, Assorted	12
79197	Micro Fiber Cloths Economy, Ultra Absorbant	12

MARS RTV Silicone Sealants

MARS HVAC/R Silicone Sealant is a superior quality silicone which remains flexible from -85° to 500°F. Never dries out. Has excellent adhesion to metals and can be used for virtually every HVAC need.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93249	Silicone sealant clear	10.1 oz.	12
93251	Silicone sealant white	10.1 oz.	12
93252	Silicone sealant gray	10.1 oz.	12
93253	Silicone sealant clear	2.8 oz.	12
93254	Silicone sealant white	2.8 oz.	12

MARS Heat Resistant Silicone

MARS HVAC/R Hi-Temp Red Silicone Sealant is a superior quality silicone which was formulated to perform at temperatures ranging from -85°F to 500°F (-65°C to 260°C) for continuous operation and 600°F (316°C) for intermittent exposure. These features make MARS HVAC/R Hi-Temp red Silicone ideal for use around furnace vent pipes, restaurant hoods and heat exchangers.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93255	Hi-Temp. silicone red	10.1 oz.	12
93247	Heat resistant silicone red	2.8 oz.	12

Fire Stop Caulk

Red Devil Fire Stop Caulk effectively seals penetration openings against the spread of fire, smoke, toxic gases and water when applied properly.

- A Latex-based, high-solids Fire Stop compound
- No Shrinkage
- Withstands temperatures up to 2000° F and is up to 4 hour fire rated
- Sandable and Paintable
- Meets Fed. Specs ASTM E-814 (UL 1479) and ASTM E-84 (UL 723) and many UL Classifications



MARS NO.	DESCRIPTION	CASE QTY.
93293	Firestop Caulk, 10.5 FL Oz.- Red	12

Red Devil Celulon And Acrylic Caulk

Celulon™ plumbing and HVAC adhesive sealant is sometimes preferred over silicone. This easy to apply adhesive sealant adheres to all substances, is paintable, cleans up with water and has no offensive odor. Used to seal A/C ducts and lines. Application temp: 40 ° to 90°F. Service temp: -25° to 200°F.



MARS NO.	DESCRIPTION		MARS PACK	CASE QTY.
93256	Celulon HVAC sealant clear	10.1 oz.	12	12
93257	Celulon HVAC sealant white	10.1 oz.	12	12
93258	35 yr. acrylic caulk gray	10.1 oz.	12	12

Red Devil Butyl Sealants

Red Devil's butyl sealant is a high performance rubber-like sealant that is ideal for tough outdoor jobs and below grade applications. (marine usage above waterline) It can be used wherever watertight seal is required. This paintable sealant provides excellent adhesion to most building surfaces including aluminum, stone, wood, brick, fiberglass, plastic, metal, etc. This sealant is ideal for use on window/door frames, aluminum gutters, chimney roofs, concrete foundations etc. Sealant remains rubbery and flexible from 0°F to 225°F after full cure.



MARS NO.	DESCRIPTION		MARS PACK	CASE QTY.
93290	Butyl sealant white	10.1 oz.	12	12
93291	Butyl sealant aluminum gray	10.1 oz.	12	12



Red Devil Specialty Products

Red Devil's blacktop & roof repair is water resistant and stays flexible. This butyl rubber asphalt sealant adheres to cinder block, wood asphalt, concrete, brick and metal. Use on blacktop driveway cracks, chimney flashings, shingles & skylights. Apply at temperatures between 10°F & 100°F. Full cure in 72 hours

Red Devil speed demon latex caulk is a general purpose caulk that applies easily, dries quickly is paintable and won't stain or bleed. Red Devil's Kitchen & Bath caulk provides a long lasting water-tight seal around tubs, showers & sinks. This odorless and mildew resistant caulk is paintable & wont stain or bleed. The acrylic based caulk features a quick protection formula (QPF) which forms a protective outer covering in seconds allowing a bath or shower within 3-4 hours use of application.



MARS NO.	DESCRIPTION		MARS PACK	CASE QTY.
93244	Blacktop & roof repair black	10.1 oz.	12	12
93265	Speed demon latex caulk white	10.1 oz.	12	12
93248	Kitchen & bath caulk white	5.5 oz.	12	12

Expanding Foam Sealing Products

MARS foam sealant is a multi-purpose expanding polyurethane foam sealant, designed for the professional contractor. Excellent for HVAC projects and wall/floor penetrations. It is ideal for sealing around air conditioners, vents, ducts, electrical and plumbing penetrations. The Handi-Foam, MARS #93243, is a two component polyurethane foam to seal, bond, retrofit, insulate and dampen sound. Excellent for use in the HVAC, plumbing, roofing, cold storage, transportation and building maintenance applications, Expands and cures within seconds. Conforms to any shape. Each kit contains 2 cans (.88 lbs. ea.) of polyurethane expanding foam, two spray nozzles with 24" hoses and 1" clamp. Covers one cubic foot (12 board feet).



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93268	Foam sealant 12 oz.	12	12
93267	Foam sealant 24 oz.	12	12
93243	Handi-Foam	1	12

MARS Duct Seal Putty

MARS Duct Sealing Putty is a non-hardening, non-toxic, gray putty compound used for countless applications in the refrigeration, heating and cooling, electrical trade, and plumbing fields. It can be shaped by hand to any form, and reused if necessary, for plugging openings through foundations, sealing around electrical boxes, refrigeration tube entry and so much more.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93520	1 lb. slug - boxed	1	10
93521	5 lb. slug - boxed	1	10
93522	2 lb. slug - boxed	1	10

Caulking Guns

For your convenience, MARS also offers easy to load and operate caulking guns. Guns hold the standard 10.3 oz. cartridges. MARS #93269 skeleton gun is ideal for large jobs. This heavy duty but light weight unit saves time in loading for the busy contractor. The professional skeleton gun, MARS #93278, offers three times more thrusting power with a smooth rod parallel frame. The professional ratchet type caulking gun, MARS #93279, is a professional conventional type gun recommended for sealants from light to heavy consistencies.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93269	Skeleton caulking gun	1	24
93278	Professional skeleton caulking gun	1	12
93270	Econo conventional caulking gun	1	24
93279	Professional ratchet caulking gun	1	24

MARS Cork Tape - 1/8"x 2"x 30' Roll

MARS Cork Tape is ozone resistant and specially designed for all types of climate. It insulates cold pipes for all kinds of air conditioners, freezers, and refrigerators. Cork Tape helps stop condensation problems. It is ideal for retarding heat gain in cold pipes and prevents heat loss in hot pipes. Can also be used for gasketing purposes. MARS Cork Tape sticks to all kinds of dry metals. This flexible tape seals tightly without drying. Temperature range: -20°F to 200°F / -29°C to 93°C.

Corktape is made from virgin cork specially imported from Portugal & Spain and has the following characteristics:

1. Compared to other cork tapes - our cork tape features rubber/asphalt & 100% virgin cork instead of asbestos / saw dust as used by other manufacturers.
2. The width is always 2" wide unlike other brands where size varies from 1-3/4" - 2".
3. Very good adhesion property. It sticks on the metal pipe tightly and does not come out in one piece if unwrapped.
4. A wide service temperature range -29° F - +200°F
5. Once installed the outer surface dries creating a shield against unwanted dust and dirt while the inner side remains wet. So even after a year or two, the user can remove the cork tape and reapply elsewhere without any change in the properties of the tape. Other brands such as Prestite/Virgin are mostly wet outside and inside making it vulnerable to dust and dirt which eventually deteriorates its insulation properties.



Physical properties:

Composition:

Polymer based material containing synthetic rubbers, asphalt and approximately 50% cork by volume. It has a grainy rubber-like consistency and contains no asbestos.

Solid Contents:

99.8%

Color:

Black

Thermal Conductivity:

0.60 BTU/hr /ft²/F/in at 75° F

Moisture / Vapor Transmission:

0.02 perms.
(ASTM E-90 Procedure C)

Water Absorption:

0.01% by volume
(ASTM D-1056)

Ozone Resistance:

Good

Thickness To Prevent Pipe Condensation

Ambient Temperature & %RH	Pipe Temperature	
77° F (25° C) & 50% RH	50° F (10° C)	32° F (0° C)
85° F (29° C) & 70% RH	Double Layer	Triple Layer
	Double Layer	Triple Layer
	plus Double Layer	Plus Triple Layer

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93505	Cork Tape	1	12

MARS Foam Tape - 1/8"X 2"X 30' Roll

MARS Foam Tape is a self-adhering closed cell thermal insulation tape. This flexible tape is ideal for wrapping hot or cold pipings and fittings. The energy saving and very easy to use Foam Tape is excellent for preventing condensation problems. MARS Foam Tape is designed for retarding heat loss in hot pipings and preventing heat gain or frost formation on cold, chilled water pipings or refrigerant lines. Adheres firmly to all metals. Temperature range: -20°F to 200°F / -29°C to 93°C.

1. Good weather and UV resistant - reason being EPDM (Ethylene Propylene Diene Monomer) is the main compound in the manufacturing of Foamtape. In practice EPDM is also used in the manufacturing of glass window strips of cars, which lasts for more than 10 years outdoors without any replacement (inspite of being exposed to rain, heat & cold).
2. The specially coated acrylic adhesive provides extra adhering strength compared to other tapes. Once installed, the special adhesive will act as the bonding agent and won't let the tape delaminate.
3. Low thermal conductivity (0.26 BTU. in/sq. ft. hr. deg. F at 75°F) to prevent heat loss/heat gain and save energy.
4. An ozone friendly product manufactured under strict supervision of trained personnels with quality check at every production point.
5. Low halogen contents. Tests have proved that MARS Foam Tape (or FOAMTAPE excluding the adhesive) has chlorine and bromine content of 4.36% and 1.35% compared to NBR/PVC (Armstrong, Rubatex) based brand insulation which has 12.45% and 6.14% respectively.
6. Our vulcanization system uses negligible amount of Sulphur (chemical which corrodes copper tubings) and this special vulcanization process decomposes chemicals almost completely.



Physical properties:

Composition:
Closed cell, elastomeric thermal insulation.

Color:
Black

Density:
6±1 pounds per cubic feet.
(0.09-0.12 g/cm³)
(ASTM D-1667)

Thermal Conductivity:
0.26 BTU in./ft² hr. °F at 75°F
(0.04 W/mK at 24°C)
(ASTM C-177)

Water Absorption:
Max 5% by weight
(ASTM D-1056)

Water Vapor Permeability:
0.15 Perm-inch (ASTM C-355)

Temperature Range:
-20°F (-29°C) to +200°F (+93°C)

Thickness To Prevent Pipe Condensation

Ambient Temperature & %RH	Pipe Temperature	
	50°F (10°C)	35°F (0°C)
80°F (27°C) & 50% RH	Single Layer	50% Overlap
85°F (30°C) & 70% RH	50% Overlap	50% Overlap
	plus Single Layer	Plus 50% Overlap

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93506	Foam Tape	1	12

Mortite Pipe Wraps

Mortite's no-drip® tape stops cold water pipe sweating permanently. Won't dry out, crack or shrink. This self-adhering tape insulates hot water pipes up to 160°F. No-drip® tape molds around valves, joints, tees and irregular fittings. The 2"W x 30'L roll covers 30 lineal feet of 1/2" O.D. pipe. Provides clean, neat appearance.



MARS NO.	DESCRIPTION	CASE QTY.
93516	No-drip® tape - 2" x 30' roll	10

Mortite Weather Stripping Products

MARS #93507, air conditioner window seal, seals the gap between window sill and air conditioner. This permanent, all season foam strip prevents heat loss in winter, cooling loss in summer. Attractively packaged in a colorful poly bag for pegboard merchandising.

Mortite's closed-cell foam tape, MARS #93509 seals better in hot and cold climates. This durable vinyl tape stands up to extreme cold temperatures and will not freeze. Closed-cell means the cells prevent air from passing through the weatherstrip tape and won't absorb moisture. Self adhering, seals out drafts, dust and insects better than open-cell tape. MARS #93509 cushions and eliminates noisy vibrations around storm windows, A/C's and small appliances.



MARS NO.	DESCRIPTION	CASE QTY.
93507	Foam strip - 1/4" x 1-1/4" x 42"L	12

Mortite A/C Foam Filter

Mortite's air conditioner filter helps to keep the room free from outside dust and dirt while increasing efficiency. This polyurethane foam filter is easy to install. And the 15" x 24" size can be cut to fit all window and through-wall air conditioners. Easy to clean - requires only regular detergent and water. Reusable.



MARS NO.	DESCRIPTION	CASE QTY.
93524	Foam filter - 15" x 24"	24

SERVICE & INSTALLATION

FilterLock

FilterLock by AllergyZone utilizes a magnetic cover to seal your furnace or air conditioning system providing protection and reducing energy. The FilterLock is placed over the filter slot (or any seams in metal ductwork) to eliminate the entry of unfiltered air into your forced air system. It works to eliminate leaks in your system, decreasing your energy use. Sealing your air filter slot will keep contaminants out of your duct work by physically blocking allergens and dust from entering the system.

- Seals furnace and air conditioning air filter slots
- Eliminate leaks to help reduce utility bills and save energy
- Improve indoor air quality by blocking allergens and dust from entering your duct work
- Easy to install and take off by magnetically attaching to metal ducts
- Universal fit for 1 inch filter slot: includes 2 FilterLock seals: dimensions: 4-3/4" wide and 25" inch long



MARS NO.	DESCRIPTION	MARS PACK
93517	FilterLock Seals 1" up to 25" Length	25

Cloth Duct Tapes

MARS is committed to supply high quality tape products to the HVAC/R industry. MARS offers 5 grades of the most popular duct tapes for a wide variety of applications.

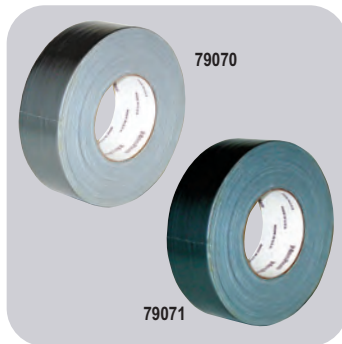
MARS #79070 is the tape of choice for professional contractors. This double-calendered adhesive system is designed to meet the most rigorous demands of HVAC and asbestos removal specialists. Also available in black.

MARS #79072 and 79073 are recommended for use in many heating, air conditioning, ventilating and refrigeration applications.

MARS #79074 and 79075 has an excellent adhesion for a wide variety of surfaces. Excellent for most industrial applications.

MARS econo grade is an all around economical duct tape product for binding, patching and repair applications.

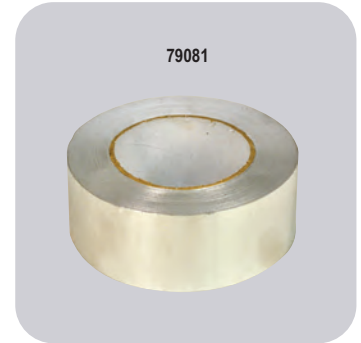
MARS #79088 is a heavy duty printed duct tape used to seal metal duct work, fiberglass insulations and to cover thermal insulations. Will not twist or curl during application. Meets UL723. Max temp 200°F with 4-1/2" repeat.



MARS NO.	DESCRIPTION	SIZE	MARS PACK
79070	Premium grade silver	2" x 60 yds.	24
79071	Premium grade black	2" x 60 yds.	24
79072	Professional grade silver	2" x 60 yds.	24
79073	Professional grade black	2" x 60 yds.	24
79074	Industrial grade silver	2" x 60 yds.	24
79075	Industrial grade black	2" x 60 yds.	24
79077	Mars econo grade silver	2" x 60 yds.	24
79088	Heavy duty printed black	2" x 60 yds.	24

MARS Foil Duct Tapes

Mars #79081 and 79082 are dead-soft aluminum foils with aggressive adhesive properties. The FSK foil scrim kraft tape is a fiberglass scrim reinforced foil that gives the tape high tensile strength, yet it is flexible and easy to use.



MARS NO.	DESCRIPTION	SIZE	MARS PACK
79081	Aluminum foil tape	2" x 50 yds.	24
79082	Aluminum foil tape	3" x 50 yds.	16
79083	Foil scrim kraft tape	2" x 50 yds.	24
79084	Foil scrim kraft tape	3" x 50 yds.	16

U.L. Listed Tapes

Mars #79087 is a UL181A-P listed foil. This foil product has a more technically sophisticated acrylic adhesive system designed to meet the more stringent demands of UL.



MARS NO.	DESCRIPTION	SIZE	MARS PACK
79087	U.L. 181 foil tape	2 1/2" x 60 yds.	16

Spray Adhesive

Mars #79094 is especially designed to bond polyethylene to itself, concrete block, wood and other hard to bind surfaces. Does not contain methylene chloride. Very quick, aggressive tack. Excellent for HVAC insulation applications.



MARS NO.	DESCRIPTION	MARS PACK
79094	Spray adhesive, 17 fl. oz.	12

Liquid Electrical Tape

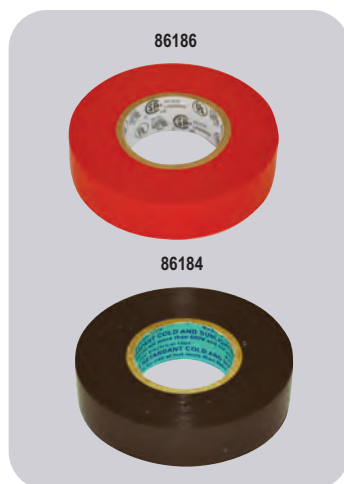
- Forms an airtight, protective, waterproof, UV resistant, dielectric coating
- Will not peel or unravel
- Patented, UL-tested, fast drying formula



MARS NO.	DESCRIPTION	MARS PACK
86135	Liquid electrical tape (black), 4oz.	1

PVC Electrical Tape

PVC electrical tape provides excellent adhesion to aluminum and copper conductors and plastic and rubber insulations where quick identification is most needed. Due to its primary use in low temperatures, it can be stretched to conform to any shape without breaking. UL listed and CSA approved. PVC electrical tape is designed for general splicing and as a protective outer jacket. Flame retardant and cold and weather resistant. UL listed and CSA approved.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
86186	3/4" x 66' - red	1	100
86187	3/4" x 66' - white	1	100
86188	3/4" x 66' - green	1	100
86189	3/4" x 66' - blue	1	100
86184	3/4" x 66' - black	1	100
86133*	3/4" x 60' - black	10	100

* Non-UL

Low Density Teflon Tape



- Thickness 3 mils.
- Standard grade, low density
- Provides a highly resistant seal on pipe threads for all types of service
- Suitable for use with solvents, chemicals, oxygen, and on food lines
- Non-toxic
- Permits easy disassembly, even after years of service
- Meets Mil. Spec. T-27730A
- Sealing temperature range: -450°F to 550°F (-268°C to 288°C)
- Working pressures: 2,000 PSI (136 BAR)
- Sold in case quantities only



MARS NO.	DESCRIPTION	CASE QTY.
95409	1/2" x 260"	144
95410	1/2" x 520"	144
95412	3/4" x 520"	144

High Density Slick-Tite® Teflon Tape



- Thickness 3 mils.
- High density
- Provides a highly resistant seal on pipe threads for all types of service
- Made in USA
- Suitable for use with solvents, chemicals, oxygen, and on food lines
- Non-toxic
- Permits easy disassembly, even after many years
- Meets Mil. Spec. T-27730A
- Sealing temperature range: -450°F to 5500F (-268°C to 288°C)
- Working pressures: 2,000 PSI (136 BAR)



MARS NO.	DESCRIPTION	MARS PACK
95525	1/4" x 300"	12
95526	1/4" x 600"	12
95527	1/2" x 300"	12
95528	1/2" x 600"	12
95530	3/4" x 300"	12

MARS Teflon Tapes

- PTFE Standard grade white thread seal
- 3000 PSI rating
- Temperature range:
-450°F to +500°F
Combustion: does not support combustion

MARS No. 78944 - yellow gas seal PTFE thread sealing tape is designed specifically for natural gas, propane and butane lines. Just 3 wraps for leak-proof joints.



MARS NO.	DESCRIPTION	MARS PACK
78940	1/2" x 260" - STD grade white teflon tape	12
78941	1/2" x 520" - STD grade white teflon tape	12
78942	1/2" x 260" - hi-density pink teflon tape	10
78944	1/2" x 260" - hi-density yellow (UL) gas tape	10

Plews Standard Grease Fitting



Standard grease fittings are precision engineered to withstand rugged use in most automotive and industrial applications. The feature steel fittings with corrosion resistant plated finish and built-in ball check.

The small grease fitting assortments contain the three most popular 1/4"-28 threaded fittings used when making a "change-over" from plugs to fittings. Ideal for the contractor.

Plews small 4-way grease fitting tool (MARS #93385) is for most popular 1/4"-28 and 6 mm fittings. Tap repairs 1/4"-28 threads. Wrench removes 5/16" and 3/8" hex fittings and plugs. Wrench installs new fittings. "Easy-out" removes broken fittings. Large tool (MARS #93384) is designed for 1/8" NPT fittings. Tap repairs 1/8" NPT threads. Wrench removes 7/16" and 3/8" hex fittings and plugs. Wrench installs new fittings. 1/8" NPT "Easy-out" removes broken fittings.



Standard fitting assortment includes:
93383

Qty.	Description	Thread
4	short-straight	1/4"-28
2	short 45°	1/4"-28
2	short 90°	1/4"-28

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93375	1/8" npt, short-straight fitting, 100/box	11-150	1
93376	1/8" npt, short-straight fitting, 10/card	11-151	10
93378	1/8" npt, short 45° fitting, 5/card	11-159	10
93372	1/8" npt, short-90° fitting, 5/card	11-167	10
93388	1/4" npt, straight fitting, 5/card	11-201	10
93383	8 assorted grease fitting kit	11-955	10
93384	Large 4-way grease fitting tool	11-901	5
93385	Small 4-way grease fitting tool	11-903	10
93386	1/4"-28 thread, short-straight fitng, 10/card	11-101	10

Plews Handled And Pistol Oilers



When you reach for an oiler, make sure it's a Plews! Plews oilers are truly the finest in the industry; for either the professional or the handyman. Epoxy finish handled oilers and pistol oilers are made of heavy duty, drawn steel bodies. Durable epoxy finish resists rust. Zinc plated, detachable flex spouts are featured.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93390	Pint oiler w/9" flexible spout	50-337	1 5
93393	6 oz. oiler w/6" flexible spout	50-516	1 10

Plews Funnels



MARS No. 93396 Plastic Utility funnel is durable, oil and gas resistant. Safe for all petroleum products, complete with handy storage hanging tab. 16 oz capacity, 5-1/2" H x 6" Dia., 3/4" OD tip.

MARS No. 93397 Polyethylene All Purpose Utility funnel is rugged, corrosion-resistant with fine mesh straining screen and handy hanging tab. 2 quart capacity, 9" total height, 7" diameter, 1" OD tip.

MARS No. 93398 Utility Funnel with Screen is the most popular all-purpose fluid dispenser. Galvanized steel. Includes screen and 12" flexible extension with tapered tip. Tip 4/16" OD / 9/16" ID.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93396	5 1/2" utility funnel, 1 pint	75-062	1 20
93397	7" heavy duty funnel, 2 quart	75-070	1 10
93398	5 3/4" utility funnel w/screen includes 13" flex extension	75-007	1 10

Plews Grease Guns

Plews grease guns allow one hand operation and are perfect for hard to reach jobs. Precision pump develops up to 7000 p.s.i. Easy three-way loading by standard 14 oz. cartridge or suction filled. There is a head cap port for adding air bleeder or bulk loader fitting. Available in two different styles. Both feature tough all-steel construction with rugged baked enamel finish and tough zinc plated handles. New non-slip knurl on barrel allows for positive grip.

The mini grease gun kit is a compact "tool box" size grease gun that goes where other grease guns can't.

Features include:

- Zinc die cast head cap
- Pistol grip for easy one hand operation combined with heavy duty performance
- Uses standard 3 oz. cartridge
- Kit includes gun with rigid pipe and coupler and one 3 oz. multi purpose grease cartridge

MARS #93353 is a general purpose grease gun with professional features. This grease gun offers 2 way loading: 14 oz. cartridge or suction. The lever action gun includes 5-3/8" pipe and coupler. Develops up to 6,000 PSI. Durable baked enamel finish.

MARS #93355, professional grease gun features variable/short stroke for easy use in confined areas. This lever action gun provides an air bleeder and bulk loader fitting for 3-way loading (14 oz. cartridge, bulk or suction). Grease gun includes 5-3/8" pipe and coupler. Plated lever with comfortable oversized grip is also featured. Develops up to 10,000 PSI.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93350	Pistol grease gun, 12" hose	30-416	1 5
93351	Pistol grease gun, with pipe ass'y	30-300	1 5
93352	Mini grease gun kit, 3 oz.	30-132	1 10
93353	Lever action grease gun, 14 oz.	30-200	1 10
93355	Professional grease gun, 14 oz.	30-475	1 10

Plews Multi Purpose Grease

Plews multi-purpose lithium grease is a long lasting, hard working formula which delivers high performance in a wide range of heavy duty applications. NLG1 #1-1/2, drop point 350° F.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93361	Multi purpose cartridge, 14 oz.	11-310	1 40
93362	Multi purpose cartridge, 3 oz./4 pk	11-300	1 10
93360	Multi purpose cartridge, 3 oz./3 pk	11-312	1 12

Plews Lubrication Accessories



Standard Coupler

Standard jaw-type coupler features spring-loaded ball check valve. Fits all 1/8" NPT threads. For hand operated lube equipment only. Recommended working pressure is 4,500 PSI. Length 1-7/16", width 5/8".

Heavy Duty Coupler

For hand operated grease guns only. Recommended working pressure is 6,000 PSI. All steel construction. Fits all 1/8" NPT threads. Four jaws. Length 1-1/2", width 3/4".

Standard Duty Flexible Grease Hoses

For use on hand operated grease guns only. Steel 1/8" NPT male fittings on each end. Recommended working pressure is 5,000 PSI.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93365	Standard grease gun coupler	05-031	1 10
93366	Heavy duty grease gun coupler	05-035	1 10
93367	Heavy duty grease hose, 12"	10-212	1 10
93369	Heavy duty grease hose, 18"	10-219	1 10

SERVICE & INSTALLATION

Epoxy-Stik™

- Cures rock hard with no shrinkage
- Safe on portable water systems
- Withstands temperatures up to 250° F
- Hardens in 5-10 minutes, full cure in 24 hours
- Can be applied under water
- After 1 hour can be drilled, tapped, filed, sawed, sanded and painted
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95522*	4 oz. stick	24	24

* Packaged in one dozen per display box

Sharpie® #15 Fiber Tip Marker (Dura-Ink #15)

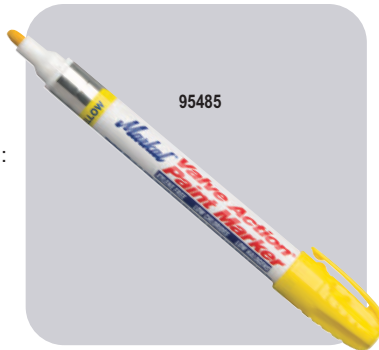
- Fine tip
- Ideal for fine line marking
- Extra tough tip, won't spread
- Smear resistant, water resistant
- Marks on metal, wood, cardboard, paper, plastic, glass, etc.
- For identification of parts, layout work, marking cartons and crates
- Meets U.S. Fed. Spec. TT-1-544



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95488	Black	12	72

Valve Action™ Paintmarker

- Marking range: -50° to 150° F / -46° to 66° C
- Marks w/ real paint, dries in minutes
- Valve action nib releases paint as needed for continuous marking
- Marks on all surfaces including: metal, wood, glass, plastic, rubber, cardboard and paper
- Lead - free, low halogens
- The fiber nib is replaceable to assure complete use of each marker
- Durable metal barrel
- Meets California VOC regulations



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95480	Black	12	48
95481	Red	12	48
95485	Yellow	12	48

LA-CO.

Dura-Ink® Fiber Tip Markers

- Larger ink supply, heavy duty metal barrel
- Water - resistant, fade - resistant
- Chisel tip makes fine lines or broad marks
- Meets Fed. Spec. TT-1- 544
- Use on cardboard, wood, metal, paper, ceramics, glass, etc.
- For identification of equipment, marking shipping cartons, sign making, etc.
- #20 is medium size, #25 is king size



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95500	Dura - Ink® #25 - black	12	48
95516	Markal Dura-Ink #25 Black Marker (2-pk)	1	24
95519	Black	1	36

LA-CO.

Pipetite-Stik®

- Efficient way to seal pipe
- Pressure: 350 PSI (24 BAR) for gas 2,000 PSI (136 BAR) for liquid
- Safe, non-toxic, non-drying
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95433	Pipetite Stick 1-1/4 oz.	12	144

LA-CO.

E-Z Break® Anti-Seize Compound

- Copper-based anti-seize and lubricating compound
- Resists rust and corrosion
- Recommended for coating nuts, bolts, valves, flanges, splines, for easy break out after years of service
- Meets Mil. Spec. Mil-A-907E
- Authorized by USDA for use in federally inspected meat and poultry plants
- Temperature: to 1800° F (982° C)
- Made in USA



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95472	10 oz. w/brushcap	24	24

Pierce® Rust Remover Penetrant

- Drives under rust and penetrates into the tightest crevices to protect against rust and corrosion
- Removes asphalt, tar, grease, dirt from metal surfaces
- Colorless moisture repellent film guards against continuing rust and corrosion
- Use on all equipment tools, chain saws, cables, ignition systems, threaded parts, and any rotating or sliding metal surfaces.
- Lubricates and eliminates squeaks
- Made in USA



95423

MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95423	12 oz. aerosol w/extension	24	24

Spray Weld

All-in-one cleaner, primer & cement in a handy aerosol can.

- Valve sprays in any angle, even when can is upside down!
- Commercial grade fast-setting, heavy-bodied, CFC's free aerosol propellant
- 11 oz. can yields up to 300 - 3/4" joints. That's over 100 more joints than a quart can of traditional brush-on cement!
- All-weather formula works Hot or Cold, Wet or Dry
- Sets in 1-2 minutes!
- Pressure test to 100 PSI in as little as 30 minutes!

For use on:

SDR 35CL200, Schedules 20, 40 & 80 up to 6" dia.



73010

73011

MARS NO.	DESCRIPTION	MARS PACK
73010	Clear	12
73011	Purple	12

Permatex® Adhesives & Sealants

Permatex® PermaPoxy™ 5 Minute General Purpose Epoxy and 30 Minute High Strength General Purpose Epoxy

- Versatile easy to use, clear appearance, 2 part adhesive and filler system. No need to weld or braze
- Fills gaps and will not shrink
- Temperature range -60°F to 180°F (-51°C to 82°C).
- 5 min. general purpose epoxy - permanent strength up to 3400 PSI
- 30 min high strength - permanent strength up to 3500 PSI

Permatex® Super Glue. This formulation was specially designed for a faster, long-lasting bond. It is easily applied and works on non-porous materials including metal, plastics, rubber, vinyl, paper, wood, textiles, and cork gaskets. Permanent transparent bond fills gaps to .004".



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
95555	5 Min Epoxy, .84 fl oz	12	12
95556	30 Min Epoxy, .84 fl oz dual syringe	12	12
95557	Super Glue Gel tube, 2 grams	12	12
95558	Super Glue tube, 2 grams	12	12

Permatex® High Performance Thread Sealant

Permatex® Thread Sealants seal and secure metal pipes and fittings by filling the space between threaded metal parts. Cures rapidly to with stand up to 10,000 PSI. By filling the space between threaded metal parts, Thread Sealants cure to a pliable seal to prevent leakage caused by vibration loosening, tape shredding, solvent evaporation, damaged threads, and temperature cycling. Designed for low and high pressure applications, thread Sealants seal instantly for on-line low pressure testing. When fully cured, they seal to the burst strength of most piping systems. Temperature Range:-65° to 300°F



95559

MARS NO.	DESCRIPTION	MARS PACK
95559	High Strength Thread Sealant, white	6

SERVICE & INSTALLATION

Permatex® Medium Strength Threadlocker BLUE

All-purpose, medium strength threadlocker. Ideal for all nut and bolt applications 1/4" to 3/4" (6mm to 20mm). Eliminates need for stocking expensive lock nuts and lock washers. Locks and seals while preventing parts loosening due to vibration. Protects threads from corrosion. Removable with hand tools for easy disassembly. Conforms to ASTM D 5363 AN0321 (Mil-S-46163A, Type II, Grade N). Threadlockers remain the most reliable way to lock and seal threaded fasteners of all shapes and sizes, before or after assembly.



95560

MARS NO.	DESCRIPTION	MARS PACK
95560	Med Strength Threadlocker Blue, 6 ml tube, carded	12

Permatex® Form-A-Gasket® No. 2 Sealant

Slow-drying, non-hardening sealant designed for sealing cut gaskets and stamped parts. Allows for easy disassembly if required. Temperature range -65°F to 400°F (-54°C to 204°C); resists common shop fluids and fuels. Use where sealing is more important than adhesion.

Suggested Applications: Valve cover gaskets, oil pan gaskets



95563

95564

MARS NO.	DESCRIPTION	MARS PACK
95563	Form-A-Gasket®, 3 oz., tube, carded	12
95564	Form-A-Gasket®, 11 oz., tube, carded	12

Permatex® Sensor-Safe Blue RTV Silicone Gasket Maker

Permatex Blue now with low odor formula. Will not foul oxygen sensors. Replaces almost any cut gasket. Makes reliable "formed-in-place" gaskets that resist cracking, shrinking and migrating. Coats pre-cut gaskets to increase reliability. Temperature range -65°F to 500°F (-54°C to 260°C) intermittent; resists auto and shop fluids.



95565

MARS NO.	DESCRIPTION	MARS PACK
95565	Blue RTV Silicone Gasket Maker, 3 oz. tube, carded	12

Permatex® Fast Orange® Fine Pumice Lotion Hand Cleaner

The #1 selling, biodegradable, waterless, petroleum solvent-free hand cleaner that contains no harsh chemicals, petroleum solvents or ammonia that can sting cuts or abrasions. Pure, fresh-smelling natural citrus power does the cleaning. Fortified with aloe, lanolin, glycerin, and other skin conditioners to soothe raw, rough hands. Fine Pumice deep cleans the toughest dirt. Works great on laundry stains (smooth lotion only), scuff marks, tile floors, pet odors and many other household cleaning needs. Readily Biodegradable according to OECD Method 301E



95561

95562

MARS NO.	DESCRIPTION	MARS PACK
95561	Fast Orange Fine Pumice Lotion Hand Cleaner, 15 Fl. oz., squeeze bottle	12
95562	Fast Orange Fine Pumice Lotion Hand Cleaner, Low Profile 1 gallon bottle w/pump	4

CRC Lubricants



CRC products incorporate the SDS(L)[™], a removable safety data sheet printed on the reverse side of the label. With this new labeling system, an SDS is always where you need it the most, right on the product you are using!

CRC 3-36 is a multi purpose lubricant and penetrant that forms a clear film that lubricates and stops corrosion. Its high affinity for metal allows it to penetrate and displace moisture leaving a long lasting rust preventing film. Available in aerosol with a nonflammable CO2 propellant and 360° valve.

CRC Screwloose[®] Penetrating Oil is a no compromise penetrant that attacks rust and corrosion, penetrating through oxides and soil to free corroded fasteners and mechanical components.

CRC Power Lube[®] is a unique new lubricant that incorporates a sophisticated additives package with Teflon[®] to provide long lasting protection against friction and wear. It is able to work longer and better than other lubricants under the extremes of pressure and the environment. Unlike most lubricants with Teflon[®], it contains no chlorinated solvents.

CRC Cutting Oil is a superior thread cutting lubricant for use on all types of metal. The low odor formula is safe for soft metals such as brass and aluminum, and is non-staining. The same formula is also used for steel and galvanized metal, and cuts without that strong sulphur smell. Aerosol formulation with viscosity improved for increased cling, and reduces waste.

CRC White Lithium grease with Teflon[®] is a high purity, high quality grade 2 white lithium based grease with an additive package that includes Teflon[®] for superior lubrication. It is truly white, smooth and buttery in consistency for optimum surface coverage. It has both rust and oxidation inhibitors to provide durable lubrication and protection in any application.



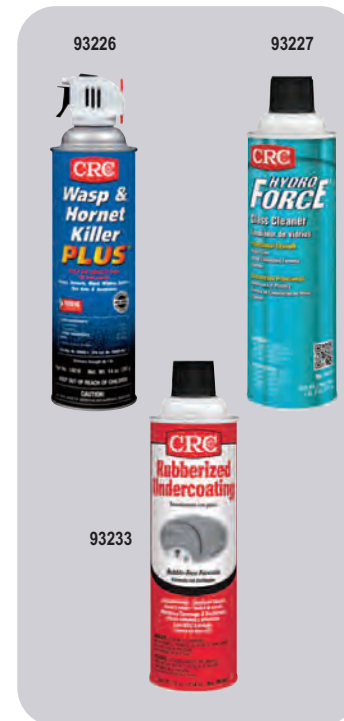
CRC Specialty Products



The Wasp and Hornet Killer Plus[™] is a fast acting, high strength insecticide that kills wasps, hornets, black widow spiders, fire ants and scorpions. Will not damage plastic connectors and other insulating materials. Provides a dense accurate spray that will reach over 20 feet. Excellent for the A/C contractor.

HydroForce[™] Glass Cleaner Professional Strength is formulated to clean streak-free – the first time and every time. The ammonia-fortified formula quickly cleans the toughest dirt, dust, fingerprint and haze deposits without leaving unsightly streaks due to residue. HydroForce[™] is versatile and safe to use on all glass surfaces. The foaming, ready-to-use formula allows for greater coverage and less run-off when cleaning vertical surfaces. HydroForce[™] is biodegradable, non-corrosive, non-flammable and non-abrasive. Let us prove it to you.

CRC Rubberized Spray Undercoating is a specially formulated rubberized product that dries quickly and is exceptionally resistant to abrasion, rust and corrosion. Seals underbody, fender, panels, frame, hood, doors, weld joints, etc., against moisture, salt and road debris.



MARS NO.	DESCRIPTION	MARS PACK
93226	Wasp and Hornet Killer Plus [™] , 14 oz.	12
93227	HydroForce Glass Cleaner, 18 oz.	12
93233	Rubberized spray undercoating, 16 oz.	12

MARS NO.	DESCRIPTION	MARS PACK
93208	3-36 Multi Purpose Lubricant, 11 oz.	12
93211	Screwloose [®] Penetrating Oil, 11 oz.	12
93212	Power Lube [®] Teflon Lubricant, 11 oz.	12
93213	Cutting Oil, 12 oz.	12
93214	White Lithium Grease, 10 oz.	12
93284	2-26 Lubricant, 11 oz.	12

SERVICE & INSTALLATION

CRC Cleaners/Degreasers

CRC Heavy Duty Degreaser is a chlorinated solvent based cleaner/degreaser that is chemically stable and extremely effective in most heavy duty applications. It has no fire or flash point, evaporates quickly with no residue and is non-conductive. New formula contains no ozone depleting compounds. Effectively removes grease, tar, oil, adhesives, etc. to increase operating efficiency.

CRC Industrial Contact Cleaner is designed to quickly and effectively clean sensitive electrical and electronic components. It has no flash point and evaporates quickly, leaving no residue. Contains no CFC's or VOC's

CRC QD Contact Cleaner is an alcohol based precision cleaner that is **100% free of CFC's**. For use on non-energized equipment, it evaporates rapidly and is harmless to most plastics. For use on electrical and electronic components where precision cleaning is necessary.

The CRC Contact Cleaner 2000™ is a revolutionary precision cleaning solvent designed to meet today's environmental challenges. This high purity solvent is a new generation HCFC and does not exhibit the same ozone depleting properties as conventional CFC solvents. It evaporates rapidly, has no flash point and leaves no residue (may affect some plastics).

CRC Gasket Remover is a solvent based high strength cleaner that effectively loosens and helps remove fiber gaskets, adhesives and sealants. It helps protect equipment surfaces by eliminating damage caused by scraping. Also removes paint and graffiti.



MARS NO.	DESCRIPTION	MARS PACK
93215	Heavy Duty Degreaser, 19 oz.	12
93217	Industrial Contact Cleaner, 14 oz.	12
93218	QD Contact Cleaner, 11 oz.	12
93219	Contact Cleaner 2000™, 14 oz.	12
93222	Gasket Remover, 12 oz.	12



CRC Food Grade Silicone

CRC Food Grade Silicone forms a colorless, tasteless, non-toxic and non-staining film that is authorized by the USDA for use in federally inspected meat and poultry plants. Its silicone lubrication film meets FDA specifications for incidental food contact.



MARS NO.	DESCRIPTION	MARS PACK
93210	Food Grade Silicone, 10 oz.	12

CRC RTV Silicone

CRC RTV Silicone Adhesive/Sealants are the perfect way to seal, bond and protect. With the press of the nozzle, a precise bead of high purity silicone is easily applied. No lumps, gaps, bubbles or waste. The package keeps the silicone fresh with the product in the nozzle forming a self sealing plug. Convenient and easy to use.



MARS NO.	DESCRIPTION	MARS PACK
93236	8 oz. clear	12

CRC Corrosion Inhibitors

CRC Zinc-It® Instant Cold Galvanize is a high performance 95% zinc-rich coating that restores hot dipped galvanized properties to ferrous metals. Its sacrificial coating helps fight rust and corrosion creepage with a durable, flexible film. CRC Belt Dressing extends the life of drive belts by improving traction and allowing runs under



MARS NO.	DESCRIPTION	MARS PACK
93223	Zinc-It®, 13 oz.	12
93224	Belt Dressing, 10 oz.	12



Spray-X Foaming Glass Cleaner



“Safe on Finished or Non-Porous Surface’s”

- The Most Versatile Glass Cleaner Available
- Sprays in Any Position
- Dissolves Dirt, Grease, Grit and Grime
- Heavy-Duty Foam Clings to Vertical Surfaces
- Guaranteed to Leave No Film - "Streak Free"
- Industrial Strength
- Pleasant Scent
- Premium Formula



93298



MARS NO.	DESCRIPTION	CASE QTY
93298	SPRAY-X Glass Cleaner, 19 oz.	12

Industrial All Purpose Spray Enamel



Krylon TOUGH COAT® acrylic alkyd enamels feature a high-solids formula that ensures maximum coverage and performance. Tough Coat delivers the ultimate in protection, durability, high gloss, color retention and applies with a smooth even coverage. Fast-drying to the touch in 15 minutes. Ideal for light to heavy duty painting projects both indoors & outdoors.

78976



MARS NO.	DESCRIPTION	REFRIG. ID #	CASE QTY.
78976	Machinery light gray	R-23	6
78987	Machinery dark gray	R-123	6
78981	OSHA white (gloss)	R-12, R-406A	6
78982	White (flat)		6
78983	OSHA black (gloss)		6
78984	Black (flat)		6
78985	Aluminum		6

Pipeseal

Pipeseal is a unique multi-component epoxy designed to quickly and permanently patch, seal and repair cracks, holes and leaks in all types of pipe.

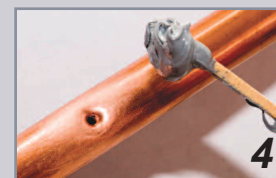
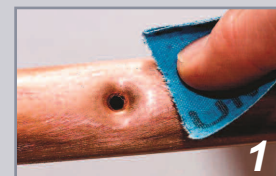
Seals Holes in Pipe to Full Pressure in Under Five Minutes!

- Works on all types of pipes including copper, steel, lead, cast iron and aluminum.
- Heat activated - Hardens fully in less than 1 minute.
- Withstands pressures up to 1200 PSI.
- No wrap/plug required.
- Suitable for refrigerant lines.
- Extreme chemical resistance
- 100% solids - No VOCs
- Permanently seals holes of up to 1/4 in. in diameter.

INSTRUCTIONS:

- 1 Prepare Surface around pipe hole/crack with sand paper or file.
- 2 Remove clip and cut-off the end with the clear material and apply entire content to mixing surface; ensure mixing surface is not porous.
- 3 Thoroughly mix entire contents.
- 4 Apply to pipe with a wooden stick or trowel.
- 5 Cover a 2-inch-wide area around pipe hole/crack.
- 6 Apply heat with a heat gun/hair dryer (approx. 140°) until Pipeseal cures and hardens (usually within 1 minute).

93629



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93629	Pipeseal	1	12

SERVICE & INSTALLATION

Chapin Sprayers & Accessories



MARS #79067, 2 gallon (1.5 gallon usable)

polyethylene sprayer is a high density sprayer that resists breaking, leaking and chemical corrosion. This sprayer has a polymer shut off with lock on feature and a polymer nozzle that adjusts from fine spray to 30' stream, with a poly/brass extension that rotates 360°. Reinforced 36" hose resists crimping, cracking and leaking.

The Chapin acid sprayer is the ideal sprayer for cleaning and degreasing air conditioning coils, engines and many other uses. This 2 gallon (1.5 gallon usable) heavy-duty polyethylene tank features a new built-in relief valve/pressure gauge for added safety and polymer shut offs with lock off features to prevent accidental spraying. A 12" extension tube with adjustable poly cone nozzle ensures for better control when spraying chemically active liquids. Sprays coarse stream to fine mist. 42" hose included

MARS #79069, hand held pressure sprayer is a 48 oz. multi purpose sprayer for small areas. Heavy duty, chemical resistant poly tank features adjustable nozzle control for fine mist or straight stream spraying.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79067	2 gallon polyethylene sprayer	1	1
79068	2 gallon acid sprayer	1	1
79069	48 oz. hand held sprayer	1	1

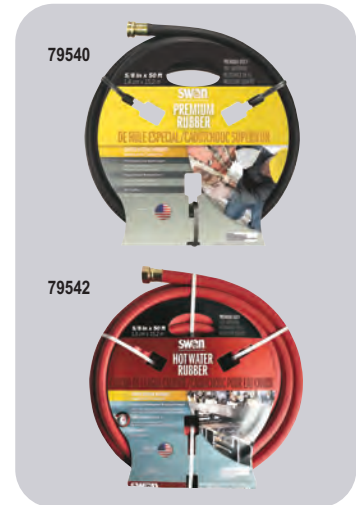
Swan Garden Hoses



MARS #79540, premium rubber hose, provide superior flexibility and pressure capacity. Maximum kink resistance and burst strength make this hose very durable. Handles hot water up to 160°F. Seal-tite™ washerless leakproof coupling. Lifetime warranty.

The professional hot water hose is designed for a wide range of applications requiring hot water use up to 200°F. The heavy duty rubber construction offers maximum wear and abrasion resistance. Industrial style reinforcing for high burst pressure and kink resistant. Seal-tite™ washerless leakproof coupling. All hoses are made in the U.S.A.

MARS #79642, WeatherFlex® Hose is an all-weather reinforced garden hose with its popular mint green Clear Tough™ jacket. Its medium duty construction makes it perfect in all seasons by staying pliable in cold weather. Comes with Eco couplings and patented Hose Armour™ to prevent kinking at the spigot.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79540	Premium rubber - 5/8" x 50'	1	5
79542	Hot water rubber - 5/8" x 50'	1	5
79641	All weather - 5/8" x 50'	1	5
79642	All weather - 5/8" x 75'	1	5

Gilmour Full Size Pistol Grip Nozzles



Features of Gilmour® Pistol Grip Nozzles

	79582	79583	79584
Nozzle features	chrome	metal plated, full-size	metalized full-size
All brass valve stem with permanent adjusting nut on all			
Hold-open clip on all			
Patented, insul. grip & industrial strength lever	yes	no	no
Unique features	rubber head guard, brass head insert	vinyl molded comfort grip	
Stainless steel spring on all			
Lifetime duck packing seal on all			
Male hose threaded for attaching accessories	yes	yes	yes
Pack carded on all			



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
79582	Insulated threaded front	1	24
79583	Vinyl cushioned grip	1	24
79584	Metalized threaded front	1	48
79560	Hose washers, fits 5/8" hoses, 20/pk	1	1

Custom Leather Craft Products

Professional contractors require professional tools and accessories. Carrying a CLC Softside Tool Carrier is like owning a workshop to go. Loads of pockets, rugged polyester fabric, reinforced bottom panels, heavy duty stitching and bar tacking at critical stress points are features that make CLC a requested brand.



MARS NO.	DESCRIPTION	MARS PACK
79279	25 Pocket Tool Pouch <ul style="list-style-type: none"> • 7" x 5-1/2" multi compartment tray slides into bottom of pouch • Box shaped design prevents tipping • Padded carrying handle and adjustable shoulder strap • 8"L x 8"W x 17"H 	1
79280	15 Pocket, 16" Center Tray Tool Bag <ul style="list-style-type: none"> • 13-1/2" x 9" multi compartment tray stores in middle of bag • 8 pockets outside and 7 pockets inside • Padded carrying handle and adjustable shoulder strap • 16"L x 9"W x 9"H 	1
79281	4 Pocket Tool Holder <ul style="list-style-type: none"> • Hang, strap, or clip on workbelts, suspenders, or pants • Securely holds small tools or accessories 	1
79282	23 Pocket Large Tool Carrier <ul style="list-style-type: none"> • 11" x 6" multi compartment plastic tray that slides into the bottom of the carrier • 16 multi use outside pockets and 7 inside to organize tools & accessories • Box shaped design prevents tipping • 11"L x 10"W x 19"H 	1
79285	Mini Cell Phone Holder <ul style="list-style-type: none"> • Specially designed to securely hold newer and smaller cell phones • Versatile 2-way attachment for belt pants, etc. • Elastic side panels and inside padding for protection 	1
79287	Plastic Cap Swivel Kneepads <ul style="list-style-type: none"> • One size fits all • Exclusive grooved cap design prevents thread abrasion • Foam padded with easy on/off hook and loop fasteners 	1
79270	Ultraflex® Non-Skid Professional Kneepads <ul style="list-style-type: none"> • One size fits all • Upper cap design for all day comfort and protection • Soft, flexible outer shell protects and grips most surfaces without scratching or scuffing • Slot n dot strap connections, Memory Flex™ synthetic rubber straps 	1
79288	Work Crew Gloves-L	1
79289	Work Crew Gloves-XL <ul style="list-style-type: none"> • Synthetic leather palm is tough, soft, and comfortable • Lycra side panels provide flexibility • Spandex back ensures snug fit 	1
79290	Work Right OC™-M <ul style="list-style-type: none"> • Padded synthetic palm material is soft and comfortable • Open cuff design with textured pull-on tab for easy-on, easy off • Textured fingertip pads provide added abrasion resistance • Padded knuckles for protection against bumps • Stretch spandex back for flexibility and fit 	1
79267	Mossy Oak® 16" Bigmouth® Bag <ul style="list-style-type: none"> • 12 Multi-use pockets inside and 10 outside to organize tools and accessories • Heavy duty stitching and bar tacking at all stress points • 16"L x 8.5"W x 10"H 	1
79276	50 Pocket Double Zipper Tote Bag <ul style="list-style-type: none"> • 9 Multi-use pockets inside and 41 outside to organize tools and accessories • Double pull zipper for easy access • Padded bottom will not scratch, mar countertops, floors and upholstery like metal tool boxes • 18"L x 6"W x 9"H 	1
79277	75 Pocket-Tool Backpack <ul style="list-style-type: none"> • 7"x 5" multi compartment plastic tray included • Adjustable padded shoulder straps and carry handles • 13"W x 17-1/2"H x 9"D 	1

SERVICE & INSTALLATION

Tool Boxes

All Plano tool boxes and stowaway boxes are constructed of premium quality impact resistant plastics. Solid brass hardware and sturdy ABS drawbolt type latches, withstands rugged wear. All boxes are made in the U.S.A. and have a lifetime warranty!

The Plano Tote-More®, MARS #79368, features a multi compartment drawer and convenient handle for portability. Open top for easy access. Unit measures 14 3/4" L x 9 1/8" W x 6 7/8" H.



* Tools and accessories not included

MARS NO.	DESCRIPTION	MARS PACK
79368	Tote More® w/draw - gray/black	4

Plano Tool Boxes



* Tools and accessories not included

MARS NO.	DESCRIPTION	MARS PACK
79643	Clear StowAway 18 Fixed Compartments, 11.13" x 7.94" x 11.63"	6
79644	Clear StowAway - 5 to 9 Adj. Compt. Pro-Latch, 1' Deep Storage, 8.38"x5.38"x 9.88"	6
79645	Graphite Gray & Black 16" Tool Box with bulk storage space and tray, Removable StowAway Organizer built into the top, 19.38" x 16" x 16.63"	4
79646	Graphite Gray & Black 20" tool box with bulk storage space and tray, Heavy Duty handle, 22.38" x 20.69" x 19"	4
79647	Graphite Gray & Iron Yellow 22" tool box with extra deep storage space and tray, 21.88"x12.75"x13.75"	1

Stowaways - Plastic

MARS stowaway boxes are ideal for the professionals or do-it-yourselfers. These utility boxes hold bolts, screws, washers, bits, solderless terminals and many other small items. MARS #79378 has 6-18 adjustable compartments and measures 11" L x 7 1/4"W x 1 3/4"H. MARS #79379 has 4-24 adjustable compartments and measures 13 3/4"L x 9 1/8"W x 2"H.



79379

MARS NO.	DESCRIPTION	MARS PACK
79378	6-18 adj. stowaway box - translucent gray	6
79379	4-24 adjustable stowaway box - translucent gray	6

Storage Bins

- Heavy duty bins securely stack on top of each other, sit on shelving and hang from racks, panels, rails and carts
- Anti slide stop prevents stacked bins from shifting forward
- Guaranteed not to crack or break under normal load conditions
- Sturdy one piece construction is water, rust and corrosion proof.
- Large front label are for easy coding and scanning
- Curved bottom hopper makes it easy to retrieve small parts



79764

MARS NO.	DESCRIPTION	MARS PACK
79764	12" Blue Shelf Bin 11 5/8" L x 4 1/8" W x 4" H	24
79765	12" Blue Shelf Bin 11 5/8" L x 6 5/8" W x 4" H	12
79766	12" Blue Shelf Bin 11 5/8" L x 8 3/8" W x 4" H	12

Nipple Caddies

- Nipple caddies are designed to help keep you organized
- Durable caddies are constructed of corrosion- and rust-resistant polyethylene
- Designed to hold nipples and keeps them out of water and other liquids
- Drain holes in bottom allows caddy to drain
- Strong enough to take the abuse yet half the weight of metal
- Tall (with handle in up position)



79245
79246

MARS NO.	DESCRIPTION	MARS PACK
79245	1/2" Nipple Caddy, Holds up to 77 nipples. Outside Dimensions: 11-1/4"x7-3/4"x8-3/4"	4
79246	3/4" Nipple Caddy, Holds up to 66 nipples. Outside Dimensions: 13-3/4"x8"x8-3/4"	4

MARS Clipboards And Formholders

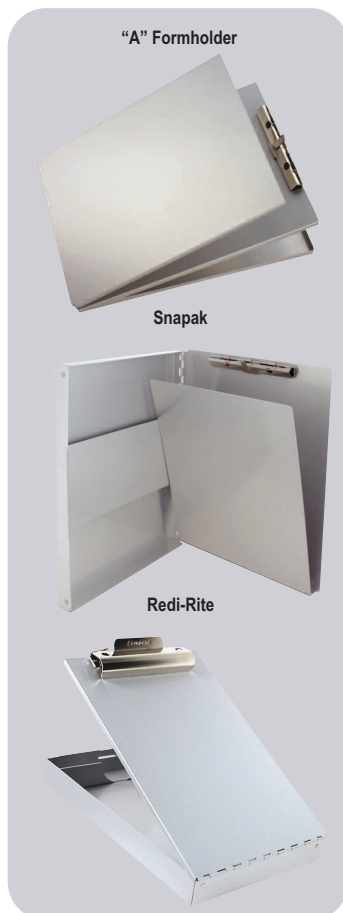


MARS aluminum Style A Formholder is versatile, efficient and easy to use. It can be used by both left and right handed people and will accommodate forms ruled either lengthwise or across the width. The storage compartment below keeps completed forms dry and protected.

The MARS Snapaks are very popular aluminum formholders that accommodate loose forms or sales books. Unit opens like a book. Clipboard is included on inside front cover. A hinged aluminum strap on inside back cover holds copies or sales books securely in place. The entire holder folds into a compact protective box to keep forms safe and dry.

The MARS #79558 Redi-Rite is a clipboard on a box. This is the holder to have when you need to carry many forms. Extra storage capacity. All aluminum construction.

- Made from durable RECYCLED aluminum with at least 30% post-consumer waste
- Made in the USA

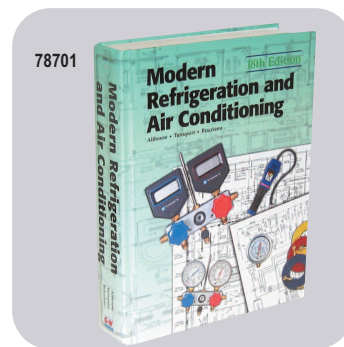


MARS NO.	DESCRIPTION	CASE QTY.
79552	"A" formholder	12
79555	Snapak	12
79558	Redi-Rite	6

Reference Textbooks

MARS is pleased to offer textbooks for the HVAC/R and electrical professionals.

Modern Refrigeration and Air Conditioning is the leader in the refrigeration and air conditioning field! It teaches fundamental principles and service techniques. The text tells and shows how to diagnose and remedy HVAC problems. It provides an excellent blend of theory with job-qualifying skills. Fully covers the practical application of refrigeration in all its branches including: Domestic, Commercial, Air Conditioning, Heat Pumps, Automotive Air Conditioning, Thermoelectric, Solar Energy, and Special Devices. Includes up-to-date information on refrigerant recovery, recycling, and reclaiming



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
78701	Modern refrigeration & A/C	1	8
78711	Doolin's trouble shooters spanish edition	1	22

SERVICE & INSTALLATION

JARD by MARS



Table of Contents

Description	Page No.
Capacitors	
Motor Run	J-3 – J-5
Motor Start	J-6
Accessories	J-7
Definite Purpose Contactors	J-8
Switching Relays	J-9
Pressure Switches	J-10, J-11
Fuses	J-11
Unit Bearing Motors	J-12
Condenser Fan Motors	J-12
Direct Drive Furnace Blower Motors	J-13
Multi-Horsepower Direct Drive Motors	J-13
Multi-Horsepower Condenser Fan Motors	J-14
JARD Cross Reference Guide	J-15

Single Section Run Capacitors

Features:

- JARD provides a low cost alternative to popular models and the widest selection of ratings in the industry
- Non-PCB capacitors. Physical interrupter makes our capacitors safe
- Perfect for general replacements
- Capacitor accessories – see page J-7
- UL and CSA listings available



SINGLE SECTION 370 VOLT OVAL				
JARD NO.	MICROFARAD	CASE HEIGHT INCHES	WIDTH INCHES	DEPTH INCHES
12902	2	1.63	2.06	1.21
12903	3	1.63	2.06	1.21
12904	4	1.63	2.06	1.21
12905	5	1.63	2.06	1.21
12906	6	1.63	2.06	1.21
12907	7.5	1.63	2.06	1.21
12908	10	2.00	2.06	1.21
12909	12.5	2.38	2.06	1.21
12910	15	2.63	2.06	1.21
12912	17.5	2.63	2.06	1.21
12914	20	3.00	2.06	1.21
12915	25	3.38	2.06	1.21
12917	30	3.75	2.06	1.21
12918	35	3.75	2.06	1.21
12921	40	2.63	2.81	1.81
12923	45	3.00	2.81	1.81
12925	50	3.00	2.81	1.81
12924	55	3.38	2.81	1.81
12987	60	3.13	2.81	1.81
12988	65	3.75	2.81	1.81
12989	70	3.75	2.81	1.81
12990	80	4.00	2.81	1.81

SINGLE SECTION 370 VOLT ROUND			
JARD NO.	MICROFARAD	CASE HEIGHT INCHES	DEPTH INCHES
12992	2	2.00	1.75
12993	3	2.00	1.75
12994	4	2.00	1.75
12995	5	2.00	1.75
12996	6	2.00	1.75
12997	7.5	2.00	1.75
12998	10	2.00	1.75
12999	12.5	2.00	1.75
12710	15	2.00	1.75
12911	16	2.00	1.75
12712	17.5	2.00	1.75
12714	20	2.00	1.75
12715	25	2.38	1.75
12717	30	2.63	1.75
12718	35	2.75	1.75
12721	40	3.00	1.75
12723	45	3.38	1.75
12725	50	3.75	1.75
12726	55	3.75	1.75
12727	60	4.00	1.75
12828	65	3.38	2.00
12729	70	3.75	2.00
12899	80	4.00	2.00
12916	100	3.38	2.50

SINGLE SECTION 440/370 VOLT OVAL				
JARD NO.	MICROFARAD	CASE HEIGHT INCHES	WIDTH INCHES	DEPTH INCHES
12926	2	1.63	2.06	1.21
12919	2.5	1.63	2.06	1.21
12927	3	1.63	2.06	1.21
12928	4	1.63	2.06	1.21
12929	5	1.63	2.06	1.21
12930	6	1.63	2.06	1.21
12931	7.5	2.00	2.06	1.21
12932	10	2.38	2.06	1.21
12933	12.5	2.75	2.06	1.21
12934	15	3.00	2.06	1.21
12936	17.5	3.75	2.06	1.21
12937	20	4.00	2.06	1.21
12940	25	4.75	2.06	1.21
12941	30	3.00	2.81	1.81
12943	35	3.00	2.81	1.81
12945	40	3.38	2.81	1.81
12948	45	3.75	2.81	1.81
12949	50	3.75	2.81	1.81
12950	55	4.75	2.81	1.81
12951	60	4.75	2.81	1.81
12952	65	4.75	2.81	1.81
12830	70	4.75	2.81	1.81
12831	75	3.75	3.56	1.88
12840	80	3.75	3.56	1.88

SINGLE SECTION 440/370 VOLT ROUND			
JARD NO.	MICROFARAD	CASE HEIGHT INCHES	DEPTH INCHES
12802	2	2.00	1.75
12803	3	2.00	1.75
12804	4	2.00	1.75
12805	5	2.00	1.75
12806	6	2.00	1.75
12807	7.5	2.00	1.75
12732	10	2.00	1.75
12733	12.5	2.00	1.75
12734	15	2.38	1.75
12736	17.5	2.38	1.75
12737	20	2.63	1.75
12740	25	3.00	1.75
12741	30	3.38	1.75
12743	35	3.75	1.75
12745	40	4.00	1.75
12748	45	3.38	2.00
12751	50	3.75	2.00
12752	55	3.75	2.00
12754	60	4.75	2.00
12657	65	4.75	2.00
12758	70	4.75	2.00
12759	80	3.75	2.50
12868	90	4.00	2.50

Dual Section Motor Run Capacitors

Dual section run capacitors are used primarily to serve two microfarad applications. They can, however, by making various combinations of parallel connections, be used to obtain many other microfarad ratings.



12841

Features:

- Non-PCB capacitors. Physical interrupter makes our capacitors safe
- Perfect for general replacements
- Capacitor accessories – see page J-7
- UL and CSA listings available

DUAL SECTION 370 VOLT OVAL

JARD NO.	MICROFARAD	CASE HEIGHT INCHES	WIDTH INCHES	DEPTH INCHES
12841	15/3	2.63	2.81	1.81
12956	15/4	2.63	2.81	1.81
12957	15/5	2.63	2.81	1.81
12958	15/10	2.38	2.81	1.81
12959	17.5/4	2.63	2.81	1.81
12960	17.5/5	2.63	2.81	1.81
12961	20/3	2.63	2.81	1.81
12962	20/4	3.13	2.81	1.81
12963	20/5	2.63	2.81	1.81
12864	20/10	2.63	2.81	1.81
12964	20/15	2.63	2.81	1.81
12842	25/3	2.63	2.81	1.81
12965	25/4	2.63	2.81	1.81
12966	25/5	2.63	2.81	1.81
12843	25/7.5	2.63	2.81	1.81
12832	25/8	2.63	2.81	1.81
12867	25/10	2.63	2.81	1.81
12833	25/15	2.63	2.81	1.81
12844	30/3	2.63	2.81	1.81
12845	30/4	2.63	2.81	1.81
12969	30/5	2.63	2.81	1.81
12846	30/7.5	2.63	2.81	1.81
12847	30/10	2.63	2.81	1.81
12848	35/3	2.63	2.81	1.81
12971	35/4	3.00	2.81	1.81
12972	35/5	2.63	2.81	1.81
12849	35/7.5	2.63	2.81	1.81
12850	35/10	2.63	2.81	1.81
12851	40/3	3.00	2.81	1.81
12858	40/4	2.63	2.81	1.81
12871	40/5	3.00	2.81	1.81
12852	40/7.5	2.63	2.81	1.81
12834	40/10	3.00	2.81	1.81
12874	45/5	3.00	2.81	1.81
12853	45/7.5	3.00	2.81	1.81
12836	45/10	3.75	2.81	1.81
12837	45/15	3.75	2.81	1.81
12838	50/5	3.75	2.81	1.81
12854	55/5	3.75	2.81	1.81
12855	55/7.5	3.75	2.81	1.81
12839	60/5	4.75	2.81	1.81
12856	60/7.5	3.75	2.81	1.81
12857	60/10	3.75	2.81	1.81
12859	65/5	4.75	2.81	1.81
12863	80/5	4.75	3.56	1.88
12817	80/7.5	4.75	2.81	1.81

DUAL SECTION 370 VOLT ROUND

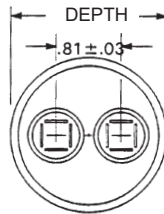
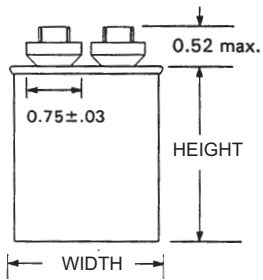
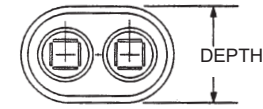
JARD NO.	MICROFARAD	CASE HEIGHT INCHES	DEPTH INCHES
12701	15/3	3.13	2.00
12702	15/4	3.13	2.00
12703	15/5	3.13	2.00
12704	15/10	3.13	2.00
12705	17.5/4	3.13	2.00
12706	17.5/5	3.13	2.00
12707	20/4	3.13	2.00
12760	20/5	3.13	2.00
12716	20/7.5	2.63	2.00
12708	20/10	3.13	2.00
12709	20/15	3.13	2.00
12711	25/3	3.13	2.00
12875	25/4	3.13	2.00
12761	25/5	3.63	2.00
12762	25/7.5	3.13	2.00
12713	25/10	3.13	2.00
12720	30/3	3.13	2.00
12763	30/4	3.13	2.00
12764	30/5	3.13	2.00
12724	30/7.5	3.13	2.00
12728	30/10	3.13	2.00
12939	30/15	3.63	2.00
12730	35/3	3.13	2.00
12731	35/4	3.13	2.00
12766	35/5	3.13	2.00
12735	35/7.5	2.63	2.00
12738	35/10	3.13	2.00
12739	40/3	3.13	2.00
12767	40/4	3.13	2.00
12878	40/5	3.13	2.00
12768	40/7.5	3.13	2.00
12746	40/10	3.13	2.00
12747	45/3	3.13	2.00
12947	45/4	3.13	2.00
12769	45/5	3.13	2.00
12749	45/7.5	3.13	2.00
12750	45/10	3.13	2.00
12753	50/3	3.13	2.00
12755	50/5	3.13	2.00
12825	50/7.5	3.88	2.00
12757	50/10	3.88	2.00
12893	55/5	3.88	2.00
12894	55/7.5	3.88	2.00
12967	55/10	3.88	2.00
12976	60/3	3.88	2.00
12895	60/5	3.88	2.00
12896	60/7.5	3.88	2.00
12865	60/10	3.88	2.00
12742	65/5	3.88	2.00
12953	70/5	4.75	2.00
12954	70/7.5	4.75	2.00
12955	70/10	4.75	2.00
12744	75/5	4.75	2.00
12946	75/7.5	4.75	2.00
12984	75/10	4.75	2.00
12897	80/5	4.75	2.00
12819	80/7.5	4.75	2.00
12824	80/10	4.75	2.00
12722	80/12.5	4.75	2.00
12829	85/5	4.75	2.00
12756	85/7.5	4.75	2.00
12922	85/10	4.75	2.00

*Capacitors may be put in different case sizes occasionally, but will not be larger than those stated.

Base Dimensions on page J-5

Capacitor Base Dimensions

Capacitor accessories – see page J-7



DUAL SECTION 440/370 VOLT ROUND

JARD NO.	MICROFARAD	CASE HEIGHT INCHES	DEPTH INCHES
12811	10/5	3.13	2.00
12818	15/5	3.13	2.00
12656	15/10	3.63	2.00
12650	17.5/5	3.63	2.00
12780	20/5	3.63	2.00
12654	20/7.5	3.63	2.00
12651	20/10	3.13	2.00
12812	20/15	3.13	2.00
12653	25/3	3.13	2.00
12655	25/4	3.13	2.00
12778	25/5	3.63	2.00
12779	25/7.5	3.13	2.00
12813	25/10	3.13	2.00
12814	25/15	3.13	2.00
12826	30/3	3.13	2.00
12820	30/4	3.13	2.00
12781	30/5	3.13	2.00
12782	30/7.5	3.13	2.00
12652	30/10	3.88	2.00
12977	35/3	3.88	2.00
12870	35/4	3.88	2.00
12783	35/5	3.13	2.00
12719	35/6	3.88	2.00
12784	35/7.5	3.88	2.00
12797	35/10	3.88	2.00
12978	40/3	3.88	2.00
12785	40/4	3.88	2.00
12786	40/5	3.88	2.00
12920	40/6	3.88	0.00
12787	40/7.5	3.88	2.00
12798	40/10	3.88	2.00
12979	45/3	3.88	2.00
12891	45/4	3.88	2.00
12788	45/5	3.88	2.00
12827	45/6	3.88	2.00
12789	45/7.5	3.88	2.00
12872	45/10	3.88	2.00
12790	50/5	3.88	2.00
12791	50/7.5	4.75	2.00
12892	50/10	4.75	2.00
12719	50/12.5	3.88	2.00
12792	55/5	4.75	2.00
12793	55/7.5	4.75	2.00
12799	55/10	4.75	2.00
12860	60/3	4.75	2.00
12794	60/5	4.75	2.00
12795	60/7.5	4.75	2.00
12796	60/10	4.75	2.00
12861	60/12.5	4.75	2.00
12642	65/5	4.75	2.00
12659	65/7.5	4.75	2.00
12862	65/10	3.88	2.50
12823	70/5	3.88	2.50
12866	70/7.5	3.88	2.50
12869	70/10	3.88	2.50
12968	75/5	3.88	2.50
12901	75/7.5	3.88	2.50
12935	75/10	3.88	2.50
12801	80/5	3.88	2.50
12816	80/7.5	3.88	2.50
12821	80/10	3.88	2.50
12938	85/5	4.75	2.50
12942	85/7.5	4.75	2.50
12944	85/10	4.75	2.50

DUAL SECTION 440/370 VOLT OVAL

JARD NO.	MICROFARAD	CASE HEIGHT INCHES	WIDTH INCHES	DEPTH INCHES
12765	10/5	2.63	2.81	1.81
12770	15/4	2.63	2.81	1.81
12771	15/5	2.63	2.81	1.81
12777	15/10	2.63	2.81	1.81
12880	20/5	2.63	2.81	1.81
12983	20/15	3.00	3.56	1.88
12884	25/5	2.63	2.81	1.81
12882	25/7.5	3.00	2.81	1.81
12883	25/10	3.00	2.81	1.81
12886	25/15	3.75	2.81	1.81
12881	30/4	3.75	2.81	1.81
12887	30/5	3.00	2.81	1.81
12982	30/7.5	3.75	2.81	1.81
12835	30/10	3.75	2.81	1.81
12985	35/3	3.00	2.81	1.81
12879	35/4	3.75	2.81	1.81
12885	35/5	3.75	2.81	1.81
12888	35/7.5	3.00	2.81	1.81
12876	35/8.5	3.00	2.81	1.81
12772	35/10	3.75	2.81	1.81
12877	40/3	3.75	2.81	1.81
12986	40/5	3.75	2.81	1.81
12889	40/7.5	3.75	2.81	1.81
12773	40/10	3.75	2.81	1.81
12890	45/5	4.75	2.81	1.81
12774	45/7.5	4.75	2.81	1.81
12808	50/5	4.75	2.81	1.81
12913	50/7.5	4.75	2.81	1.81
12775	55/5	4.75	2.81	1.81
12822	55/10	4.75	2.81	1.81
12809	60/5	4.75	2.81	1.81
12776	60/7.5	4.75	2.81	1.81
12810	65/10	4.75	3.56	1.88
12815	80/5	4.75	3.56	1.88
12898	80/7.5	4.75	3.56	1.88

*Capacitors may be put in different case sizes occasionally, but will not be larger than those stated.

Motor Start Capacitors

JARD Motor Start Capacitors provide a low cost alternative to popular models available. MARS offers the largest assortment of capacitor ratings in the industry.

These electrolytic capacitors feature a hermetically sealed black bakelite case which permanently protects the capacitor from oil, dirt, grease or moisture.

Capacitor accessories – see page J-7



110/125 DUAL VOLTAGE AC		
JARD NO.	MICROFARAD	CASE SIZE
11902	21-25	1
11903	25-30	1
11904	30-36	1
11905	36-43	1
11906	43-56	1
11907	56-67	1
11908	72-88	1
11909	88-107	1
11910	108-130	1
11912	124-155	1
11911	130-156	1
11913	145-174	1
11914	161-193	1
11915	189-227	1
11916	200-240	1
11917	216-259	1
11918	233-291	1
11919	270-324	1
11920	300-360	1
11921	324-388	2
11922	340-408	2
11923	378-438	2
11924	400-480	4
11971	430-516	4
11925	460-552	4
11926	540-648	4
11927	590-708	4
11947	645-774	4
11928	708-850	4
11972	815-970	5
11929	829-995	5
11973	850-1020	5
11930	1000-1200	5
11974	1290-1548	5

165 VOLTAGE AC		
JARD NO.	MICROFARAD	CASE SIZE
11975	72-88	1
11976	88-107	1
11977	108-130	1
11931	124-149	1
11932	145-174	1
11933	161-193	1
11934	189-227	1
11978	216-259	2
11935	233-292	2
11936	270-324	2
11979	340-408	4
11980	378-455	4
11994	400-480	4
11981	540-648	4
11982	710-852	5
11983	810-972	5

220/250 DUAL VOLTAGE AC		
JARD NO.	MICROFARAD	CASE SIZE
11938	21-25	1
11939	25-30	1
11940	30-36	1
11941	36-43	1
11942	43-56	1
11943	56-70	1
11984	59-71	1
11937	64-77	1
11944	72-88	1
11945	88-107	2
11946	108-130	4
11948	124-155	4
11949	145-175	4
11950	161-193	5
11951	189-227	5
11952	216-259	5
11953	233-292	5
11954	270-324	5
11985	280-336	4
11986	320-384	4
11987	340-408	4
11988	378-454	5
11989	400-480	5
11990	430-516	5
11991	630-756	8

330 VOLTAGE AC		
JARD NO.	MICROFARAD	CASE SIZE
11955	21-25	1
11956	25-30	1
11957	30-36	1
11958	36-43	1
11959	43-56	4
11995	56-67	2
11960	64-77	4
11961	72-88	4
11962	88-108	4
11963	108-130	4
11964	130-156	5
11965	124-156	5
11992	135-162	5
11966	145-174	5
11967	161-193	5
11968	189-227	5
11969	216-259	7
11970	270-324	7
11993	300-360	8

CASE DIMENSIONS		
CASE SIZE	DIAMETER IN INCHES	LENGTH INCHES
1	1.44	2.75
2	1.44	3.38
4	1.81	3.38
5	1.81	4.38
6	2.06	3.38
7	2.06	4.38
8	2.56	4.38

*Capacitors may be put in different case sizes occasionally, but will not be larger than those stated.

QC-6 Kit

93001

For conversion of screw-type connections on relays



Resistor for Start Capacitors

93007

2 watt (15,000 ohm) Resistors



Snap-on Mounting Brackets for Motor Start Capacitors

93026 2.75 in

93027 3.38 in

93028 4.38 in



Protector (boots) for Motor Run Capacitors

93011 1 Hole Boot

93012 2 Hole Boot



Wrap-Around Brackets for Oval Motor Run Capacitors

93014 1.94 x 2.78 for base A

93015 1.97 x 2.94 for base C

93116 2.25 x 3.66 for base D



Mounting Brackets for Round Capacitors

93031 For 1.63 in and 1.75 in dia.

93032 For 2.0 in dia.

93033 For 2.50 in dia.



Bakelite End Caps for Motor Start Capacitors

93018 BEC-1 1.44 in

93019 BEC-2 1.81 in

93020 BEC-3 2.06 in

93021 BEC-4 2.56 in

For mounting OFF MOTOR. Leads on top side.

93022 TEC-1 1.44 in

93023 TEC-2 1.81 in

93024 TEC-3 2.06 in

93025 TEC-4 2.56 in



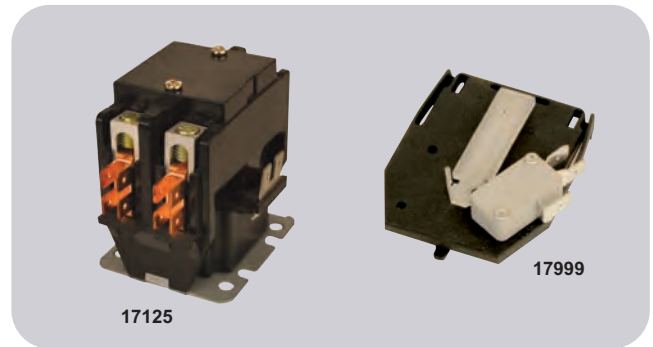
Definite Purpose Contactors

“A Low Cost Alternative By The Name You Trust”

JARD Definite Purpose Contactors are designed for use on refrigeration, air conditioning, and electric heating systems. The universal mounting base allows replacement of most contactor brands. Power connections can be made with either screws & quick connects or lugs & quick connects depending on the style.

Features:

- 2 styles: screw terminals with quick connects or lug terminals with quick connects
- UL (both styles)
- CSA (screw terminal style)
- CUL (lug terminal style)



JARD W/LUGS	JARD W/SCREWS	FULL LOAD AMPS	RESISTIVE AMPS	COIL VOLTAGE	POLES
17125	17121	20	30	24	2
17126	17122	20	30	120	2
17127	17123	20	30	240	2
17215	-	25	35	24	1-1/2
17216	-	25	35	120	1-1/2
17217	-	25	35	240	1-1/2
17225	17221	25	35	24	2
17226	17222	25	35	120	2
17227	17223	25	35	240	2
17315	17311	30	40	24	1-1/2
17316	17312	30	40	120	1-1/2
17317	17313	30	40	240	1-1/2
17325	17321	30	40	24	2
17326	17322	30	40	120	2
17327	17323	30	40	240	2
17335	17331	30	40	24	3
17336	17332	30	40	120	3
17337	17333	30	40	240	3
17415	-	40	50	24	1-1/2
17416	-	40	50	120	1-1/2
17417	-	40	50	240	1-1/2

JARD W/LUGS	JARD W/SCREWS	FULL LOAD AMPS	RESISTIVE AMPS	COIL VOLTAGE	POLES
17425	-	40	50	24	2
17426	-	40	50	120	2
17427	-	40	50	240	2
17435	-	40	50	24	3
17436	-	40	50	120	3
17437	-	40	50	240	3
17535	-	50	65	24	3
17536	-	50	65	120	3
17537	-	50	65	240	3
17635	-	60	75	24	3
17636	-	60	75	120	3
17637	-	60	75	240	3
17735	-	75	90	24	3
17736	-	75	90	120	3
17737	-	75	90	240	3
17935	-	90	120	24	3
17936	-	90	120	120	3
17937	-	90	120	240	3
17997		Auxiliary Contact- Fits 75 & 90A 3P models			
17998		Auxiliary Contact- Fits 50 & 60A 3P models			
17999		Auxiliary Contact- Fits 40A 3P models			

General Purpose Switching Relays

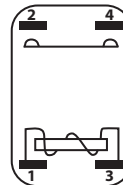
JARD SPST and SPDT Fan Relays are among the most popular electromechanical relays used in air conditioning, heating and refrigeration today.

Features:

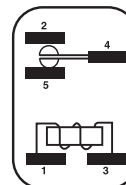
- 16 Amp switching
- 55 Amp inrush current
- Quick-connect terminals
- Universal mounting bracket
- UL and CUR

JARD NO.	NORMALLY OPEN COIL VOLTAGE	CONTACT RATING 125/250 VAC		REPLACES ESSEX/RBM NO.
		INDUCTIVE	RESISTIVE	
SPST				
92290	24	8 amps	16 amps	90-290, 90-290Q
92291	110-120	continuous	16 amps	90-291, 90-291Q
92292	208/240	25 amps inrush	16 amps	90-292, 90-292Q
SPDT				
92293	24	8 amps	16 amps	90-293, 90-293Q
92294	110-120	continuous	16 amps	90-294, 90-294Q
92295	208/240	25 amps inrush	16 amps	90-295, 90-295Q

Switch Diagrams



92290
92291
92292



92293
92294
92295



Heavy Duty Fan Switching Relays

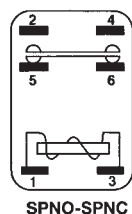
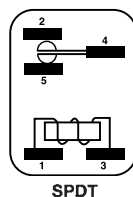
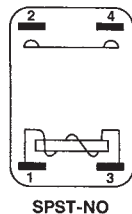
JARD Heavy Duty Fan Relays are used on heating and air conditioning equipment to provide switching of heavier loads with a compact size relay.

Features:

- 25 Amp switching
- Compact and totally enclosed
- Quick-connect terminals
- UL and CUR



Terminal Identification



Model Identification

COIL VOLTAGE	JARD NO. SPST-NO.	JARD NO. NO. SPDT	JARD NO. SPNO-SPNC
24	92360	92370	92380
110/120	92362	92372	92382
208/240	92364	92374	92384

Contact Rating

VOLTAGE	FULL LOAD	LOCKED ROTOR	RESISTIVE
120	12	60	18
240	8	48	18
277	7	42	18

Cross Reference:

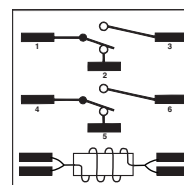
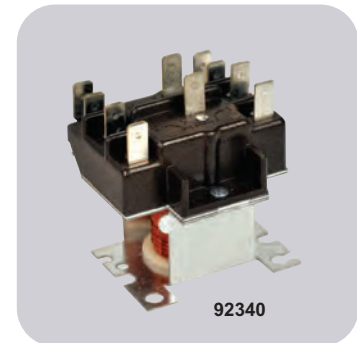
ESSEX/RBM	JARD NO.	ESSEX/RBM	JARD NO.
90-360Q	92360	90-374Q	92374
90-362Q	92362	90-380Q	92380
90-364Q	92364	90-382Q	92382
90-370Q	92370	90-384Q	92384
90-372Q	92372		

2PDT HVAC Relays

JARD Heavy Duty Fan Relays are used on heating and air conditioning equipment to provide switching of heavier loads with a compact size relay.

Features:

- 25 Amp switching
- Universal mounting bracket
- Quick-connect terminals
- UL and CUR



COIL
Terminals 1 & 2, 4 & 5 are normally closed
Terminals 1 & 3, 4 & 6 are normally open

Contact Rating

	POWER 208/240V		PILOT 208/240V	
	120V	277V	120V	277V
Full load Amps	12	6	-	-
Resistive	15	15	3	3
Locked Rotor Amps	60	35	-	-
Horsepower	3/4	3/4	1/10	1/10

JARD NO.	COIL VOLTAGE	TERMINALS 1-2-3	TERMINALS 4-5-6	CROSS REFERENCE ESSEX / RBM	HONEYWELL
92340	24			90-340	R822D1014
92341	110/120	Power	Power	90-341	R422D1013
92342	208/240			90-342	R422N1021

Fixed Setting Pressure Controls

High Pressure Cut-Outs

JARD offers the most complete line of high pressure cut-outs available.

Features:

- Tamper proof construction
- Direct mounting on tubing

Specifications:

- Contacts rated at 6 amps, 24-240 volts
- 1/4" female flare S.A.E. mounting
- 18" leads
- UL & CSA recognized



Low Pressure Controls

Features:

- Tamper proof construction
- Direct mounting on tubing

Specifications:

- Contacts rated at 6 amps, 24-240 volts
- 1/4" female flare S.A.E. mounting
- 18" leads
- UL & CSA recognized



High Pressure Cut-Outs, Open on Pressure Rise, Automatic Reset, Normally Closed

JARD NO.	FORMER MARS2 NO.	DESCRIPTION	OPENING PRESSURE	RESET PRESSURE	MOUNTING
43922	33954	200/150 HP Open on rise	250	150	1/4" Female Flare Fitting S.A.E. Mounting
43924	33910	275/195 HP Open on rise	275	195	1/4" Female Flare Fitting S.A.E. Mounting
43925	33955	300/200 HP Open on rise	300	200	1/4" Female Flare Fitting S.A.E. Mounting
43926	33913	325/225 HP Open on rise	325	225	1/4" Female Flare Fitting S.A.E. Mounting
43920	33916	350/245 HP Open on rise	350	245	1/4" Female Flare Fitting S.A.E. Mounting
43927	33956	350/250 HP Open on rise	350	250	1/4" Female Flare Fitting S.A.E. Mounting
43928	33919	375/275 HP Open on rise	375	275	1/4" Female Flare Fitting S.A.E. Mounting
43929	33957	400/200 HP Open on rise	400	200	1/4" Female Flare Fitting S.A.E. Mounting
43930	33922	400/280 HP Open on rise	400	280	1/4" Female Flare Fitting S.A.E. Mounting
43931	33958	400/300 HP Open on rise	400	300	1/4" Female Flare Fitting S.A.E. Mounting
43911		410/290 HP Open on rise	410	290	1/4" Female Flare Fitting S.A.E. Mounting
43932	33925	425/300 HP Open on rise	425	300	1/4" Female Flare Fitting S.A.E. Mounting
43933		425/325 HP Open on rise	425	325	1/4" Female Flare Fitting S.A.E. Mounting
43934	33959	450/250 HP Open on rise	450	250	1/4" Female Flare Fitting S.A.E. Mounting
43965		590/418 HP Open on rise	590	418	1/4" Female Flare Fitting S.A.E. Mounting
43935		600/475 HP Open on rise	600	475	1/4" Female Flare Fitting S.A.E. Mounting
43939		630/480 HP Open on rise	630	480	1/4" Female Flare Fitting S.A.E. Mounting

Low Pressure Controls, Open on Pressure Fall, Automatic Reset, Normally Open

JARD NO.	FORMER MARS2 NO.	DESCRIPTION	OPENING PRESSURE	RESET PRESSURE	MOUNTING
43941	33929	5/20 LP Open on fall	5	20	1/4" Female Flare Fitting S.A.E. Mounting
43942	33930	5/30 LP Open on fall	5	30	1/4" Female Flare Fitting S.A.E. Mounting
43943		10/25 LP Open on fall	10	25	1/4" Female Flare Fitting S.A.E. Mounting
43944	33933	15/35 LP Open on fall	15	35	1/4" Female Flare Fitting S.A.E. Mounting
43945		20/45 LP Open on fall	20	45	1/4" Female Flare Fitting S.A.E. Mounting
43946	33962	25/50 LP Open on fall	25	50	1/4" Female Flare Fitting S.A.E. Mounting
43947	33936	25/65 LP Open on fall	25	65	1/4" Female Flare Fitting S.A.E. Mounting
43948	33963	25/80 LP Open on fall	25	80	1/4" Female Flare Fitting S.A.E. Mounting
43949		35/60 LP Open on fall	35	60	1/4" Female Flare Fitting S.A.E. Mounting
43950	33964	40/80 LP Open on fall	40	80	1/4" Female Flare Fitting S.A.E. Mounting
43951		45/60 LP Open on fall	45	60	1/4" Female Flare Fitting S.A.E. Mounting
43952	33939	50/90 LP Open on fall	50	90	1/4" Female Flare Fitting S.A.E. Mounting
43953		75/100 LP Open on fall	75	100	1/4" Female Flare Fitting S.A.E. Mounting
43975		90/120 LP Open on fall	90	120	1/4" Female Flare Fitting S.A.E. Mounting
43954		150/225 LP Open on fall	150	225	1/4" Female Flare Fitting S.A.E. Mounting
43955		170/225 LP Open on fall	170	225	1/4" Female Flare Fitting S.A.E. Mounting

Condenser Fan Cycling Switch

Manual Reset high pressure controls

Specifications:

- UL & CSA recognized



JARD NO.	FORMER MARS2 NO.	DESCR.	OPENING PRESSURE	RESET PRESSURE	MOUNTING	SWITCH ACTION (OPEN ON PRESSURE)
43901		75/100 FC Close on rise	75	100	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43902		110/170 FC Close on rise	110	170	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43903	33940	125/265 FC Close on rise	125	265	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43904		150/225 FC Close on rise	150	225	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43970		180/240 FC Close on rise	180	240	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43905		19/275 FC Close on rise	190	275	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43906	33941	210/275 FC Close on rise	210	275	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43907		300/400 FC Close on rise	300	400	1/4" Female Flare Fitting S.A.E. Mounting	Fall
43912		375/Man. Open on rise	375	Manual	1/4" Female Flare Fitting S.A.E. Mounting	Rise
43913	33965	410/Man. Open on rise	410	Manual	1/4" Female Flare Fitting S.A.E. Mounting	Rise
43916		475/Man. Open on rise	475	Manual	1/4" Female Flare Fitting S.A.E. Mounting	Rise

JARD Fuses

Applications:

- Recommended for AC power distribution system mains, feeders, and branch circuits.
- Protection of motors and motor branch circuits.
- Protection of transformers and other inductive loads.
- All general-purpose applications including lighting, heating and other non-inductive loads.

Benefits:

- Superior overload and cycling capabilities.
- Current limiting provides component short-circuit protection.

Specifications:

Dual-Element Time-Delay

Voltage Rating: RK5 - 250Vac,

RK5 - 600Vac

Amp Rating: 1/10 - 600A

Interrupting Rating: 200,000 RMS Symmetrical Amps

Current Limiting: RK5 Fuse

Agency Approvals:

UL Listed, Class RK5, CSA Certified, DC listed to UL standard 248 TRS only

Voltage Rating: RK5 250V

Volts: 250VAC

: 250VDC (.1-2.8A; 35-400A)

: 160VDC (3-30A; 450-600A)

RK5 600V

Volts: 600VAC

: 600VDC (.1-12A; 70-600A)

: 160VDC (15-60A)



RK5 Time Delay Fuse 250V

Replaces: TR, ECNR, FRNR, FLNR

RK5 Time Delay Fuse 600V

Replaces: TRS, ECSR, FRSR, FLSR

MARS NO.	DESCRIPTION	MARS PACK
81006	.5A - 250V	10
81009	1A - 250V	10
81016	2A - 250V	10
81017	2.5A - 250V	10
81019	3A - 250V	10
81020	3.2A - 250V	10
81021	4A - 250V	10
81024	5A - 250V	10
81025	5.6A - 250V	10
81026	6A - 250V	10
81027	6.25A - 250V	10
81029	7A - 250V	10
81030	8A - 250V	10
81032	10A - 250V	10
81033	12A - 250V	10
81034	15A - 250V	10
81035	17.5A - 250V	10
81036	20A - 250V	10
81037	25A - 250V	10
81038	30A - 250V	10
81039	35A - 250V	10
81040	40A - 250V	10
81041	45A - 250V	10
81042	50A - 250V	10
81043	60A - 250V	10
81044	70A - 250V	5
81045	80A - 250V	5
81046	90A - 250V	5
81047	100A - 250V	5
81048	110A - 250V	1
81049	125A - 250V	1
81050	150A - 250V	1
81051	175A - 250V	1
81052	200A - 250V	1
81053	225A - 250V	1
81054	350A - 250V	1
81056	400A - 250V	1
81055	600A - 250V	1

MARS NO.	DESCRIPTION	MARS PACK
81103	.2A - 600V	10
81106	.5A - 600V	10
81109	1A - 600V	10
81110	1.6A - 600V	10
81111	2A - 600V	10
81112	2.25A - 600V	10
81077	4A - 600V	10
81124	5A - 600V	10
81125	6A - 600V	10
81078	8A - 600V	10
81132	10A - 600V	10
81133	12A - 600V	10
81134	15A - 600V	10
81076	17.5A - 600V	10
81136	20A - 600V	10
81137	25A - 600V	10
81138	30A - 600V	10
81139	35A - 600V	10
81140	40A - 600V	10
81147	45A - 600V	10
81141	50A - 600V	10
81142	60A - 600V	10
81143	70A - 600V	5
81144	80A - 600V	5
81145	90A - 600V	5
81146	100A - 600V	5
81154	110A - 600V	1
81148	125A - 600V	1
81149	150A - 600V	1
81150	175A - 600V	1
81151	200A - 600V	1
81152	250A - 600V	1
81153	300A - 600V	1

Unit Bearing Motors

JARD Unit Bearing Cast Iron Motors are used on refrigerators, freezers, food & beverage coolers, vending machines, display cases, and many other fan duty applications.

Features:

- Cast iron construction
- Universal mount
- Mounting screws included
- Individually boxed

Specifications:

- Class "A" insulation
- UL Recognized



JARD NO.	WATTS	VOLTAGE	ROTATION	AMPS	LEAD LENGTH
15109	2	115	CW	0.28	24"
15211	4	115	CW	0.33	24"
15212	4	115	CCW	0.33	24"
15221	4	230	CW	0.19	24"
15222	4	230	CCW	0.19	24"
15311	6	115	CW	0.46	24"
15312	6	115	CCW	0.46	24"
15119*	9	115	CW	0.62	13"
15411	9	115	CW	0.62	24"
15412	9	115	CCW	0.62	24"
15421	9	230	CW	0.33	24"
15422	9	230	CCW	0.33	24"
15811	16	115	CW	0.95	24"
15812	16	115	CCW	0.95	24"
15821	16	230	CW	0.48	24"
15822	16	230	CCW	0.48	24"

* Note: 13" lead with lyall plug

Condenser Fan Motors

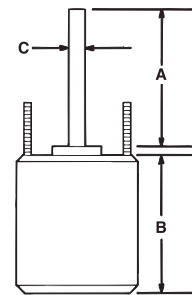
JARD replacement condenser fan motors are designed for residential and light commercial HVAC/R applications suitable for either vertical shaft-up or shaft-down mounting. Shell and end shields are enclosed for weather protection. A weep hole is provided in each end shield to allow condensate to drain.

Features:

- All angle, sleeve or ball bearing
- Rheem mounting holes w/screws
- Reversible rotation
- Thru bolt or band mounting
- Capacitor requirement noted on motor label
- Up/Down design

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- Fan duty, continuous air over
- 26 & 36 inch leads
- UL Recognized



Cross Reference:

JARD NO.	ECONOMASTER	SMART ELECTRIC	WAGNER/DIVERSITECH	PACKARD	US MOTORS/EMERSON
22403	EM3403	-	-	60825	1873
22404	EM3404	SE3338	WG840204	40825	1874
22405	EM3405	SE3339	WG840205	30825	1875
22746	EM3746	-	-	-	1870
22727	EM3727	SE3727	WG840727	43727	1859
22728	EM3728	SE3728	WG840728	43728	1860
22729	EM3729	SE3729	WG840729	43729	1861
22730	EM3730	SE3730	WG840730	43730	1862
22731	EM3731	SE3731	WG840731	43731	1868

Reversible Rotation – Single Speed

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
1075 RPM										
22727	1/6	208-230	0.90	5/370	TEAO	Sleeve	6.50	4.23	1/2	26"
22728	1/4	208-230	1.8	5/370	TEAO	Sleeve	6.50	4.23	1/2	26"
22729	1/3	208-230	2.4	7.5/370	TEAO	Sleeve	6.50	5.23	1/2	26"
22730	1/2	208-230	3.5	10/370	TEAO	Sleeve	6.50	5.73	1/2	26"
22731	3/4	208-230	5.2	10/370	TEAO	Ball	6.50	6.23	1/2	30.5"

MARS NO.	HP	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
825 RPM										
22403	1/6	208-230	1.0	5/370	TEAO	Sleeve	6.50	4.23	1/2	36"
22404	1/4	208-230	2.2	5/370	TEAO	Sleeve	6.50	4.48	1/2	36"
22405	1/3	208-230	1.9	7.5/370	TEAO	Sleeve	6.50	5.23	1/2	36"
22746	1/2	208-230	2.8	12.5/370	TEAO	Sleeve	6.50	5.70	1/2	36"

Direct Drive Furnace Blower Motors

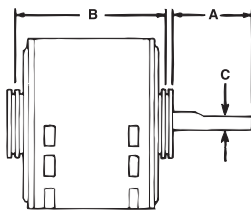
JARD direct drive blower motors are ideal for use in commercial and residential furnaces and air-conditioners. All models are three speed standard efficiency and are electrically reversible.

Features:

- All angle sleeve bearing
- Rheem mounting holes
- 3 speeds
- 1/2 inch extended thru bolts
- 2-1/4 inch resilient rings
- 4 inch long, 1/2 inch diameter shaft

Specifications:

- Class "B" insulation
- Single phase, 60 Hertz
- Thermal overload protected
- Fan duty, continuous, air over
- Open construction
- 26 & 30 inch leads
- UL Recognized



Multi-Horsepower Direct Drive Motors

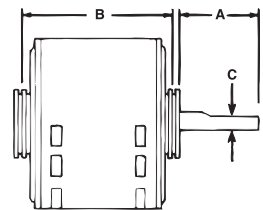
JARD multi-horsepower direct drive blower motors are used in residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments. Four models cover both 115 and 208-230 volt applications from 1/6 through 3/4 HP. All models feature Rheem shell mounting holes.

Features:

- Rheem mounting holes
- Reversible rotation
- 2-1/4 inch resilient rings

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- 41 inch leads
- UL Recognized



Cross Reference:

JARD NO.	ECONOMASTER	SMART ELECTRIC	WAGNER/DIVERSITECH	PACKARD	US MOTORS/EMERSON
22583	EM3583	SE3583	WG840583	43583	1863
22584	EM3584	SE3584	WG840584	43584	1971
22585	EM3585	SE3585	WG840585	43585	1864
22586	EM3586	SE3586	WG840586	43586	1972
22587	EM3587	SE3587	WG840587	43587	1865
22588	EM3588	SE3588	WG840588	43588	1973
22589	EM3589	SE3589	WG840589	43589	8904
22590	EM3590	SE3590	WG840590	43590	8905

Cross Reference:

JARD NO.	ECONOMASTER	SMART ELECTRIC	WAGNER/DIVERSITECH	PACKARD	US MOTORS/EMERSON
22463	EM3463	SE3463	WG840463	45460	5460
22464	EM3464	SE3464	WG840464	45461	5461
22466	EM3466	SE3466	WG840466	45470	5470
22467	EM3467	SE3467	WG840467	45471	5471

1075 RPM – Three Speed – Reversible Rotation

MARS NO.	HP	ROT	VOLTS	AMPS	CAP REQ.	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
								A	B	C	
22583	1/4	Rev	115	4.2	5/370	OAO	Sleeve	4.50	4.89	1/2	26"
22584	1/4	Rev	208-230	1.8	5/370	OAO	Sleeve	4.50	4.89	1/2	26"
22585	1/3	Rev	115	6.1	5/370	OAO	Sleeve	4.50	5.14	1/2	30"
22586	1/3	Rev	208-230	2.7	5/370	OAO	Sleeve	4.50	5.14	1/2	26"
22587	1/2	Rev	115	7.5	10/370	OAO	Sleeve	4.50	5.89	1/2	30"
22588	1/2	Rev	208-230	3.2	7.5/370	OAO	Sleeve	4.50	5.64	1/2	30"
22589	3/4	Rev	115	11.2	15/370	OAO	Sleeve	4.50	6.14	1/2	30"
22590	3/4	Rev	208-230	4.5	10/370	OAO	Sleeve	4.50	6.14	1/2	30"

1075 RPM - Four Speed - Reversible Rotation

MARS NO.	HP	ROT	VOLTS	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
						A	B	C	
22463	1/6 - 1/2	Rev	115	OAO	Sleeve	5.50	4.73	1/2	42"
22464	1/6 - 1/2	Rev	230	OAO	Sleeve	5.50	4.73	1/2	41"
22466	1/5 - 3/4	Rev	115	OAO	Ball	5.80	5.73	1/2	41"
22467	1/5 - 3/4	Rev	230	OAO	Ball	4.60	5.23	1/2	41"

Multi-Horsepower Condenser Fan Motors

Ball Bearing

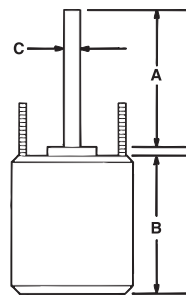
JARD multi-horsepower condenser fan motors are designed for either shaft up or shaft down applications. All motors are suitable for air conditioning or heat pump applications. These motors need to be mounted within the airflow of the fan for proper cooling.

Features:

- Rheem mounting holes w/screws installed
- Thru bolt or band mounting
- Water slinger on shaft
- Air conditioning or heat pump duty

Specifications:

- Class "B" insulation
- Single phase, 60 Hz
- Thermal overload protected
- UL Recognized



Cross Reference:

JARD NO.	ECONOMASTER	SMART ELECTRIC	WAGNER/DIVERSITECH	PACKARD	US MOTORS/EMERSON
22458	EM3458	-	-	45458BF	5458
22459	EM3459	-	-	45488BF	5464
22465	EM3465	SE3465	WG840465	45458B	5462
22468	EM3468	SE3468	WG840468	-	5465
22469	EM3469	SE3469	WG840469	-	5464

Reversible Rotation – Single Speed

MARS NO.	HP	ROT	RPM/SPEED	VOLTS	ENCL.	BRG.	DIMENSIONS			LEAD LENGTHS
							A	B	C	
22458	1/6 - 1/3	Rev	1075	208-230	TEAO	Ball	6.50	3.82	1/2	36"
22459	1/8 - 1/3	Rev	825	208-230	TEAO	Ball	6.50	5.48	1/2	36"
22465	1/6 - 1/3	Rev	1075/2	208-230	TEAO	Ball	5.00	4.73	1/2	38"
22468	1/8 - 1/2	Rev	1075/2	208-230	TEAO	Ball	5.00	5.48	1/2	38"
22469	1/6 - 1/3	Rev	825/2	208-230	TEAO	Ball	5.00	5.48	1/2	42"

Part No. Index

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
00091	O-15, O-31	02350	O-11	03388	M-47	03871	M-48	07482	AM-9
00114	M-39	02362	O-32	03389	M-47	03872	M-48	07484	AM-9
00117	M-39	02743	O-31	03390	M-47	03881	M-48	07493	AM-9
00152	M-33, O-18	02745	O-21	03404	M-44	03882	M-48	07494	AM-9
00201	M-33	02824	M-41	03405	M-44	03891	M-48	07521	AM-9
00211	M-34	02825	M-41	03452	M-46	03892	M-48	07551	AM-9
00212	M-34	02826	M-41	03458	M-43	03905	O-6	07552	AM-9
00221	M-34	02827	M-41	03458HS	M-43	03912	O-12	07571	AM-9
00222	M-34	02828	M-41	03459	M-43	03913	O-12	07572	AM-9
00225	M-34	02829	M-41	03460	M-43	03983	M-47	07581	AM-9
00226	M-34	02830	M-41	03461	M-43	03984	M-47	07582	AM-9
00251	M-33	02832	M-41	03463	M-42, O-27	03985	M-47	07584	AM-9
00252	M-33	02833	M-41	03464	M-42, O-27	03986	M-47	07591	AM-9
00253	M-33	02834	M-41	03465	M-43, O-27	03987	M-47	07592	AM-9
00254	M-33	02835	M-41	03466	M-42	03988	M-47	07593	AM-9
00255	M-33	02836	M-41	03467	M-42	03989	M-47	07594	AM-9
00256	M-33	02837	M-41	03468	M-43	03990	M-47	07595	AM-9
00351	M-33	02840	M-41	03469	M-43	03992	M-47	07596	AM-9
00352	M-33	03001	O-14	03470	M-46	03993	M-47	07709	AM-10
00353	M-33, O-28, O-9	03005	O-9	03472	M-46	03994	M-47	07712	AM-10
00354	M-33	03007	O-32	03474	O-6	03996	M-47	07713	AM-10
00402	M-34, O-9	03008	O-15	03476	O-6	03997	M-47	07801	M-53
00404	M-34	03012	O-15	03482	M-46	03998	M-47	07802	M-53
00501	M-33	03026	M-45, O-24	03490	M-46	03999	M-47	07804	M-53
00502	M-33	03027	M-43	03583	M-47	05095	O-14	07805	M-53
00503	M-33, O-9	03028	M-43	03584	M-47	05096	O-14	07807	M-53
00504	M-33	03029	M-43	03585	M-47	05104	M-38	07921	AM-8
00505	M-33	03030	M-43	03586	M-47	05105	M-38	07922	AM-8
00507	M-33, O-28	03031	M-43	03587	M-47	05109	M-39	07993	AM-8
00508	M-33, O-9	03032	M-43	03588	M-47	05110	M-39	07995	AM-8
00511	M-39	03039	M-45	03589	M-47	05111	M-17	07996	AM-8
00512	M-39	03040	M-45	03590	M-47	05119	M-18, O-15	07997	AM-8
00513	M-33	03041	O-19	03595	M-47	05127	M-38	07998	AM-8
00621	M-35	03042	O-31	03596	M-47	05128	M-38	08004	M-54
00621BULK	M-35	03047	O-9	03604	M-38	05204	M-38	08020	M-54
00622	M-35	03048	M-43	03605	M-38	05205	M-38	08021	M-54
00624	M-35	03092	M-49	03606	M-38	05211	M-17	08024	M-54
00625	M-35	03124	O-9	03607	M-38	05212	M-17	08025	M-54
00650	M-36	03128	O-19	03632	M-48	05213	M-18	08026	M-54
00651	M-36	03134	O-4	03641	M-48	05221	M-17	08027	M-54
00652	M-36	03149	O-25	03651	M-48	05222	M-17	08028	M-54
00654	M-36	03153	O-25	03652	M-48	05223	M-18	08030	M-37
00655	M-36	03154	O-25	03656	M-49	05227	M-38	08031	M-53
00656	M-36	03155	O-25	03671	M-48	05228	M-38	08032	M-50
00657	M-36	03166	O-6	03672	M-48	05311	M-17	08033	M-51
00660	M-39	03201	M-44	03681	M-48	05312	M-17	08036	M-51
00661	M-39	03202	M-44	03682	M-48	05313	M-18	08037	M-51
00666	M-39	03203	M-44	03686	M-49	05411	M-17	08040	M-38
00801	M-40	03204	M-44	03691	M-48	05412	M-17	08049	M-54
00805	M-40	03205	M-44	03692	M-48	05413	M-18	08050	M-54
00806	M-40	03206	M-48	03696	M-49	05414	M-18	08052	M-53
00807	M-40	03208	M-48	03698	M-48	05421	M-17	08053	M-53
00808	M-40	03209	M-45	03726	M-44	05422	M-17	08054	M-53
00809	M-40	03210	M-48	03727	M-44	05423	M-18	08055	M-53
00810	M-40	03212	M-48	03727HS	M-44	05443	M-35	08056	M-53
00817	M-40	03219	O-28	03728	M-44	05444	M-35	08057	M-53
00818	M-40	03220	O-25	03728HS	M-44	05470	M-36	08058	M-53
00851	M-41	03227	M-43	03729	M-44	05471	M-36	08059	M-53
00852	M-41	03228	M-43	03729HS	M-44	05472	M-36	08060	M-53
00858	M-41	03229	M-43	03730	M-44	05511	M-17	08095	M-54
00891	M-40	03230	M-43	03730HS	M-44	05521	M-17	08096	M-53
00907	M-18	03242	O-12	03731	M-44	05620	M-37	08103	M-53
00909	M-18	03251	M-46, O-24	03731HS	M-44	05711	M-17	08105	M-53
01125	M-20	03252	M-46, O-24	03732	M-44	05721	M-17	08500	M-50
01127	M-20	03272	M-46, O-24	03733	M-44	05811	M-17, O-24	08502	M-5
01232	M-40	03275	O-21	03734	M-44	05812	M-17	08503	M-50
01332	M-40	03280	M-46	03735	M-44	05813	M-18	08504	M-5
01336	O-28	03281	M-46	03736	M-45	05814	M-18	08550	M-52
01342	M-40	03282	M-46	03737	M-45	05821	M-17, O-24	08551	M-52
01431	M-40	03288	O-6	03738	M-45	05822	M-17	08552	M-52
01432	M-40	03290	M-46	03739	M-45	05823	M-18	08553	M-52
01441	M-40	03292	M-46	03743	M-45	06005	M-49	08554	M-52
01442	M-40	03327	M-45	03783	M-47	06010	M-49	08555	M-52
02243	M-42	03328	M-45	03784	M-47	07004	AM-10	08556	M-52
02244	M-42	03329	M-45	03785	M-47	07081	AM-8	08557	M-52
02245	M-42	03330	M-45	03786	M-47	07411	AM-8	08558	M-52
02246	M-42	03331	M-45	03787	M-47	07414	AM-8	08559	M-52
02247	M-42	03383	M-47	03788	M-47	07451	AM-9	08560	M-52
02248	M-42	03384	M-47	03789	M-47	07452	AM-9	08562	M-52
02249	M-42	03385	M-47	03790	M-47	07471	AM-9	08564	M-52
02250	O-12	03386	M-47	03851	M-48	07472	AM-9	08565	SI-52
02251	O-23	03387	M-47	03862	M-48	07481	AM-9	08566	SI-71



Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
08567	SI-71	10523	M-15	11003	C-3	11088	C-3	11971	J-6
08568	SI-22	10524	M-15	11004	C-3	11089	C-3	11972	J-6
08569	SI-22	10526	M-15	11005	C-3	11090	C-3	11973	J-6
08570	SI-22	10527	M-15	11006	C-3	11091	C-3	11974	J-6
08571	SI-22	10528	M-15	11007	C-3	11092	C-3	11975	J-6
08572	SI-71	10529	M-15	11008	C-3	11093	C-3	11976	J-6
08573	SI-71	10530	M-15	11009	C-3	11100	C-4	11977	J-6
08574	SI-12	10531	M-15	11010	C-3	11112	C-3	11978	J-6
08574	SI-69	10533	M-15	11011	C-3	11137	C-3	11979	J-6
08575	SI-12	10550	M-22	11013	C-3	11148	C-3	11980	J-6
08577	SI-69	10551	M-22	11014	C-3	11160	C-3	11981	J-6
08593	M-5	10552	M-22	11015	C-3	11165	C-3	11982	J-6
08595	M-5	10553	M-22	11016	C-3	11200	C-4	11983	J-6
08598	M-5	10555	M-22	11017	C-3	11902	J-6	11984	J-6
09916	M-20	10556	M-22	11018	C-3	11903	J-6	11985	J-6
09917	M-20	10558	M-22	11019	C-3	11904	J-6	11986	J-6
09927	M-20	10563	M-22	11020	C-3	11905	J-6	11987	J-6
09930	M-21, O-5	10564	M-22	11021	C-3	11906	J-6	11988	J-6
09931	M-21, O-5	10565	M-22	11022	C-3	11907	J-6	11989	J-6
09932	M-21, O-19	10566	M-22	11023	C-3	11908	J-6	11990	J-6
09933	M-21, O-19	10570	M-23	11024	C-3	11909	J-6	11991	J-6
09934	M-21, O-22	10571	M-23	11025	C-3	11910	J-6	11992	J-6
10203	M-6	10573	M-11	11026	C-3	11911	J-6	11993	J-6
10204	M-6	10574	M-11	11027	C-3	11912	J-6	11994	J-6
10205	M-6	10575	M-11	11028	C-3	11913	J-6	11995	J-6
10227	M-23, O-9	10576	M-11	11029	C-3	11914	J-6	12001	C-7
10228	M-23, O-9	10577	M-11	11030	C-3	11915	J-6	12002	C-5
10229	M-23, O-9	10578	M-11	11031	C-3	11916	J-6	12003	C-5
10230	M-23, O-12	10579	M-11	11032	C-3	11917	J-6	12004	C-5
10232	M-23, O-12	10580	M-11	11033	C-3	11918	J-6	12005	C-5
10233	M-23, O-12	10583	M-11	11034	C-3	11919	J-6	12006	C-5
10234	M-23, O-6	10584	M-11	11035	C-3	11920	J-6	12007	C-5
10264	M-23, O-9	10585	M-11	11036	C-3	11921	J-6	12008	C-5
10265	M-23, O-9	10586	M-11	11037	C-3	11922	J-6	12009	C-5
10300	M-13	10587	M-11	11038	C-3	11923	J-6	12010	C-5
10301	M-13	10588	M-11	11039	C-3	11924	J-6	12011	C-5
10302	M-13	10589	M-11	11040	C-3	11925	J-6	12012	C-5
10303	M-13	10590	M-11	11041	C-3	11926	J-6	12013	C-7
10304	M-13	10591	M-11	11042	C-3	11927	J-6	12014	C-5
10305	M-13	10592	M-11	11043	C-3	11928	J-6	12015	C-5
10306	M-13	10594	M-23, O-12	11044	C-3	11929	J-6	12016	C-6
10307	M-13	10611	M-21	11045	C-3	11930	J-6	12017	C-5
10309	M-13	10615	M-21	11046	C-3	11931	J-6	12018	C-5
10313	M-14	10683	M-12	11047	C-3	11932	J-6	12019	C-5
10315	M-14	10684	M-12	11049	C-3	11933	J-6	12020	C-7
10317	M-14	10685	M-12	11050	C-3	11934	J-6	12021	C-5
10319	M-14	10686	M-12	11051	C-3	11935	J-6	12022	C-7
10321	M-14	10687	M-12	11052	C-3	11936	J-6	12023	C-5
10322	M-14	10688	M-12	11053	C-3	11937	J-6	12024	C-5
10323	M-14	10689	M-12	11054	C-3	11938	J-6	12025	C-5
10324	M-14	10690	M-12	11055	C-3	11939	J-6	12026	C-5
10327	M-6	10701	M-22	11056	C-3	11940	J-6	12027	C-5
10328	M-6	10704	M-22	11057	C-3	11941	J-6	12028	C-5
10329	M-6	10707	M-22	11058	C-3	11942	J-6	12029	C-5
10330	M-6	10709	M-22	11059	C-3	11943	J-6	12030	C-5
10331	M-6	10722	M-10	11060	C-3	11944	J-6	12031	C-5
10401	M-13	10723	M-10	11061	C-3	11945	J-6	12032	C-5
10403	M-5	10724	M-10	11062	C-3	11946	J-6	12033	C-5
10404	M-5	10725	M-5	11063	C-3	11947	J-6	12034	C-5
10405	M-5	10726	M-5	11064	C-3	11948	J-6	12035	C-7
10406	M-13	10727	M-5	11066	C-3	11949	J-6	12036	C-5
10408	M-13	10728	M-5	11067	C-3	11950	J-6	12037	C-5
10411	M-5	10729	M-5	11068	C-3	11951	J-6	12038	C-7
10412	M-5	10730	M-5	11069	C-3	11952	J-6	12039	C-6
10458	M-8	10731	M-5	11070	C-3	11953	J-6	12040	C-5
10459	M-8	10732	M-6	11071	C-3	11954	J-6	12041	C-5
10463	M-12, O-26	10733	M-6	11072	C-3	11955	J-6	12042	C-6
10464	M-12	10734	M-6	11073	C-3	11956	J-6	12043	C-5
10465	M-8	10735	M-6	11074	C-3	11957	J-6	12044	C-6
10466	M-12	10736	M-6	11075	C-3	11958	J-6	12045	C-5
10467	M-12	10746	M-5	11076	C-3	11959	J-6	12046	C-6
10468	M-8	10747	M-6	11077	C-3	11960	J-6	12047	C-7
10469	M-8	10810	M-22, O-32	11078	C-3	11961	J-6	12048	C-5
10479	M-12	10820	M-37	11079	C-3	11962	J-6	12049	C-5
10500	M-15	10850	M-5	11080	C-3	11963	J-6	12050	C-5
10501	M-15	10860	M-3	11081	C-3	11964	J-6	12051	C-5
10502	M-15	10861	M-3	11082	C-3	11965	J-6	12052	C-5
10503	M-15	10870	M-3	11083	C-3	11966	J-6	12053	C-6
10507	M-15	10874	M-3	11084	C-3	11967	J-6	12054	C-6
10509	M-15	10889	M-22	11085	C-3	11968	J-6	12055	C-6
10513	M-15	10890	M-5	11086	C-3	11969	J-6	12056	C-6
10522	M-15	11002	C-3	11087	C-3	11970	J-6	12057	C-6

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
12058	C-6	12142	C-6	12224	C-6	12358	C-7	12760	J-4
12059	C-6	12143	C-6	12225	C-5	12359	C-7	12761	J-4
12060	C-6	12144	C-6	12226	C-5	12380	C-9	12762	J-4
12061	C-6	12145	C-6	12227	C-5	12381	C-9	12763	J-4
12062	C-6	12146	C-6	12228	C-6	12382	C-9	12764	J-4
12063	C-6	12147	C-6	12229	C-5	12383	C-9	12765	J-5
12064	C-6	12148	C-6	12230	C-6	12384	C-9	12766	J-4
12065	C-6	12149	C-6	12231	C-6	12385	C-9	12767	J-4
12066	C-6	12150	C-6	12232	C-5	12386	C-9	12768	J-4
12067	C-6	12151	C-6	12233	C-5	12388	C-9	12769	J-4
12068	C-5	12152	C-6	12234	C-5	12390	C-9	12770	J-5
12069	C-6	12153	C-6	12235	C-6	12400	C-4	12771	J-5
12070	C-7	12154	C-6	12236	C-5	12500	C-4	12772	J-5
12071	C-6	12155	C-6	12237	C-5	12642	J-5	12773	J-5
12072	C-6	12156	C-6	12238	C-6	12650	J-5	12774	J-5
12073	C-6	12157	C-6	12239	C-6	12651	J-5	12775	J-5
12074	C-6	12158	C-6	12240	C-5	12652	J-5	12776	J-5
12075	C-6	12159	C-6	12241	C-5	12653	J-5	12777	J-5
12076	C-6	12160	C-7	12242	C-6	12654	J-5	12778	J-5
12077	C-7	12161	C-7	12243	C-5	12655	J-5	12779	J-5
12078	C-7	12162	C-7	12244	C-6	12656	J-5	12780	J-5
12079	C-7	12163	C-6	12245	C-5	12657	J-3	12781	J-5
12080	C-7	12164	C-6	12246	C-6	12659	J-5	12782	J-5
12082	C-6	12165	C-7	12247	C-6	12701	J-4	12783	J-5
12083	C-7	12166	C-7	12248	C-5	12702	J-4	12784	J-5
12084	C-6	12167	C-6	12249	C-6	12703	J-4	12785	J-5
12085	C-7	12168	C-7	12250	C-6	12704	J-4	12786	J-5
12086	C-7	12169	C-7	12251	C-5	12705	J-4	12787	J-5
12087	C-5	12170	C-7	12252	C-5	12706	J-4	12788	J-5
12088	C-7	12171	C-6	12253	C-7	12707	J-4	12789	J-5
12089	C-5	12172	C-7	12254	C-5	12708	J-4	12790	J-5
12090	C-5	12173	C-6	12255	C-7	12709	J-4	12791	J-5
12091	C-7	12174	C-6	12257	C-7	12710	J-3	12792	J-5
12092	C-5	12175	C-6	12258	C-5	12711	J-4	12793	J-5
12093	C-5	12176	C-7	12259	C-5	12712	J-3	12794	J-5
12094	C-5	12177	C-7	12260	C-6	12713	J-4	12795	J-5
12095	C-5	12178	C-6	12261	C-6	12714	J-3	12796	J-5
12096	C-5	12179	C-7	12262	C-6	12715	J-3	12797	J-5
12097	C-5	12180	C-7	12263	C-6	12716	J-4	12798	J-5
12098	C-5	12181	C-7	12264	C-6	12717	J-3	12799	J-5
12099	C-5	12182	C-7	12265	C-6	12718	J-3	12801	J-5
12100	C-4	12183	C-7	12266	C-6	12719	J-5	12802	J-3
12101	C-7	12184	C-7	12267	C-6	12720	J-4	12803	J-3
12102	C-5	12185	C-7	12268	C-6	12721	J-3	12804	J-3
12103	C-5	12186	C-7	12269	C-6	12722	J-4	12805	J-3
12104	C-5	12187	C-7	12270	C-7	12723	J-3	12806	J-3
12105	C-5	12188	C-7	12271	C-7	12724	J-4	12807	J-3
12106	C-5	12189	C-7	12272	C-7	12725	J-3	12808	J-5
12107	C-5	12190	C-7	12273	C-7	12726	J-3	12809	J-5
12108	C-7	12191	C-6	12274	C-7	12727	J-3	12810	J-5
12109	C-7	12192	C-6	12275	C-7	12728	J-4	12811	J-5
12110	C-7	12193	C-6	12276	C-7	12729	J-3	12812	J-5
12111	C-7	12194	C-6	12278	C-7	12730	J-4	12813	J-5
12112	C-7	12195	C-6	12279	C-7	12731	J-4	12814	J-5
12113	C-7	12196	C-6	12281	C-7	12732	J-3	12815	J-5
12114	C-7	12197	C-6	12282	C-7	12733	J-3	12816	J-5
12115	C-7	12198	C-6	12283	C-7	12734	J-3	12817	J-4
12116	C-5	12199	C-5	12284	C-7	12735	J-4	12818	J-5
12117	C-7	12200	C-4	12285	C-7	12736	J-3	12819	J-4
12118	C-7	12201	C-6	12286	C-7	12737	J-3	12820	J-5
12119	C-7	12202	C-6	12287	C-7	12738	J-4	12821	J-5
12120	C-7	12203	C-6	12288	C-7	12739	J-4	12822	J-5
12121	C-6	12204	C-6	12289	C-7	12740	J-3	12823	J-5
12122	C-6	12205	C-6	12290	C-7	12741	J-3	12824	J-4
12123	C-6	12206	C-6	12291	C-7	12742	J-4	12825	J-4
12124	C-7	12207	C-6	12292	C-7	12743	J-3	12826	J-5
12125	C-7	12208	C-6	12293	C-7	12744	J-4	12827	J-5
12126	C-7	12209	C-6	12294	C-7	12745	J-3	12828	J-3
12127	C-7	12210	C-5	12295	C-7	12746	J-4	12829	J-4
12128	C-5	12211	C-5	12296	C-7	12747	J-4	12830	J-3
12129	C-6	12212	C-5	12297	C-7	12748	J-3	12831	J-3
12130	C-5	12213	C-6	12298	C-7	12749	J-4	12832	J-4
12131	C-6	12214	C-5	12299	C-7	12750	J-4	12833	J-4
12133	C-6	12215	C-5	12300	C-4	12751	J-3	12834	J-4
12134	C-6	12216	C-7	12350	C-7	12752	J-3	12835	J-5
12135	C-5	12217	C-5	12351	C-7	12753	J-4	12836	J-4
12136	C-6	12218	C-5	12352	C-7	12754	J-3	12837	J-4
12137	C-6	12219	C-7	12353	C-7	12755	J-4	12838	J-4
12138	C-6	12220	C-7	12354	C-7	12756	J-4	12839	J-4
12139	C-6	12221	C-5	12355	C-7	12757	J-4	12840	J-3
12140	C-5	12222	C-6	12356	C-7	12758	J-3	12841	J-4
12141	C-6	12223	C-5	12357	C-5	12759	J-3	12842	J-4



Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
12843	J-4	12927	J-3	14091	C-8	16155	C-35	19550	C-35
12844	J-4	12928	J-3	14105	C-8	17001	C-34	19551	C-35
12845	J-4	12929	J-3	14107	C-8	17015	C-34	20106	SI-41
12846	J-4	12930	J-3	14117	C-8	17016	C-34	20107	SI-41
12847	J-4	12931	J-3	14126	C-8	17019	C-34	20108	SI-41
12848	J-4	12932	J-3	14162	C-8	17121	J-8	20109	SI-41
12849	J-4	12933	J-3	14166	C-8	17122	J-8	20111	SI-41
12850	J-4	12934	J-3	14169	C-8	17123	J-8	20112	SI-41
12851	J-4	12935	J-5	14172	C-8	17125	J-8	20113	SI-41
12852	J-4	12936	J-3	14216	C-8	17126	J-8	20114	SI-41
12853	J-4	12937	J-3	14232	C-8	17127	J-8	20115	SI-41
12854	J-4	12938	J-5	14234	C-8	17215	J-8	20116	SI-41
12855	J-4	12939	J-4	14237	C-8	17216	J-8	20118	SI-41
12856	J-4	12940	J-3	14240	C-8	17217	J-8	20119	SI-41
12857	J-4	12941	J-3	14241	C-8	17221	J-8	20120	SI-41
12858	J-4	12942	J-5	14243	C-8	17222	J-8	20121	SI-41
12859	J-4	12943	J-3	14245	C-8	17223	J-8	20123	SI-41
12860	J-5	12944	J-5	14248	C-8	17225	J-8	20125	SI-41
12861	J-5	12945	J-3	14251	C-8	17226	J-8	20126	SI-41
12862	J-5	12946	J-4	14252	C-8	17227	J-8	20127	SI-41
12863	J-4	12947	J-4	14254	C-8	17311	J-8	20128	SI-41
12864	J-4	12948	J-3	14255	C-8	17312	J-8	20129	SI-41
12865	J-4	12949	J-3	14256	C-8	17313	J-8	20130	SI-41
12866	J-5	12950	J-3	14257	C-8	17315	J-8	20131	SI-41
12867	J-4	12951	J-3	14258	C-8	17316	J-8	20141	SI-42
12868	J-3	12952	J-3	14259	C-8	17317	J-8	20143	SI-42
12869	J-5	12953	J-4	14278	C-8	17321	J-8	20145	SI-42
12870	J-5	12954	J-4	14281	C-8	17322	J-8	20149	SI-42
12871	J-4	12955	J-4	14282	C-8	17323	J-8	20150	SI-42
12872	J-5	12956	J-4	14283	C-8	17325	J-8	20151	SI-42
12874	J-4	12957	J-4	14284	C-8	17326	J-8	20154	SI-42
12875	J-4	12958	J-4	14286	C-8	17327	J-8	20155	SI-42
12876	J-5	12959	J-4	14287	C-8	17331	J-8	20156	SI-42
12877	J-5	12960	J-4	14288	C-8	17332	J-8	20167	SI-43
12878	J-4	12961	J-4	14289	C-8	17333	J-8	20168	SI-43
12879	J-5	12962	J-4	14290	C-8	17335	J-8	20176	SI-41
12880	J-5	12963	J-4	14291	C-8	17336	J-8	20178	SI-41
12881	J-5	12964	J-4	14292	C-8	17337	J-8	20181	SI-41
12882	J-5	12965	J-4	14293	C-8	17415	J-8	20182	SI-41
12883	J-5	12966	J-4	14294	C-8	17416	J-8	20186	SI-41
12884	J-5	12967	J-4	14295	C-8	17417	J-8	20198	SI-43
12885	J-5	12968	J-5	14296	C-8	17425	J-8	20199	SI-43
12886	J-5	12969	J-4	14299	C-8	17426	J-8	20203	SI-44
12887	J-5	12971	J-4	14353	C-8	17427	J-8	20209	SI-44
12888	J-5	12972	J-4	14358	C-8	17435	J-8	20210	SI-44
12889	J-5	12976	J-4	14359	C-8	17436	J-8	20211	SI-44
12890	J-5	12977	J-5	15109	J-12, M-30	17437	J-8	20212	SI-44
12891	J-5	12978	J-5	15119	J-12, M-30	17535	J-8	20213	SI-44
12892	J-5	12979	J-5	15211	J-12, M-30	17536	J-8	20214	SI-44
12893	J-4	12982	J-5	15212	J-12, M-30	17537	J-8	20215	SI-44
12894	J-4	12983	J-5	15221	J-12, M-30	17635	J-8	20216	SI-44
12895	J-4	12984	J-4	15222	J-12, M-30	17636	J-8	20303	SI-44
12896	J-4	12985	J-5	15311	J-12, M-30	17637	J-8	20311	SI-44
12897	J-4	12986	J-5	15312	J-12, M-30	17735	J-8	20402	M-7
12898	J-5	12987	J-3	15411	J-12, M-30	17736	J-8	20403	M-7
12899	J-3	12988	J-3	15412	J-12, M-30	17737	J-8	20404	M-7
12901	J-5	12989	J-3	15421	J-12, M-30	17935	J-8	20405	M-7
12902	J-3	12990	J-3	15422	J-12, M-30	17936	J-8	20457	M-8
12903	J-3	12992	J-3	15811	J-12, M-30	17937	J-8	20458	M-8
12904	J-3	12993	J-3	15812	J-12, M-30	17997	J-8	20459	M-8
12905	J-3	12994	J-3	15821	J-12, M-30	17998	J-8	20462	M-8
12906	J-3	12995	J-3	15822	J-12, M-30	17999	J-8	20463	M-8
12907	J-3	12996	J-3	16022	C-35	18001	C-21	20465	M-8
12908	J-3	12997	J-3	16023	C-35	19001	C-36	20468	M-8
12909	J-3	12998	J-3	16028	C-35	19002	C-36	20469	M-8
12910	J-3	12999	J-3	16035	C-35	19003	C-36	20470	M-8
12911	J-3	13101	C-18	16051	C-35	19004	C-36	20471	M-8
12912	J-3	13104	C-18	16085	C-35	19005	C-36	20478	M-9
12913	J-5	13105	C-18	16086	C-35	19006	C-36	20479	M-9
12914	J-3	14005	C-8	16089	C-35	19007	C-36	20480	M-9
12915	J-3	14007	C-8	16090	C-35	19008	C-36	20481	M-9
12916	J-3	14008	C-8	16091	C-35	19009	C-36	20492	M-7
12917	J-3	14009	C-8	16093	C-35	19010	C-36	20493	M-7
12918	J-3	14010	C-8	16095	C-35	19163	C-36	20494	M-7
12919	J-3	14029	C-8	16098	C-35	19164	C-36	20495	M-7
12920	J-5	14031	C-8	16099	C-35	19165	C-36	20538	M-12
12921	J-3	14032	C-8	16104	C-35	19166	C-36	20580	M-12
12922	J-4	14033	C-8	16116	C-35	19167	C-36	20581	M-12
12923	J-3	14034	C-8	16121	C-35	19168	C-36	20727	M-7
12924	J-3	14077	C-8	16122	C-35	19169	C-36	20728	M-7
12925	J-3	14078	C-8	16151	C-35	19170	C-36	20729	M-7
12926	J-3	14088	C-8	16152	C-35	19171	C-36	20730	M-7

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
20731	M-7	25321	C-37	28301	SI-81	32613	C-46	33435	C-42
20746	M-7	25322	C-37	28311	SI-81	32616	C-46	33440	C-42
20790	M-7	25323	C-37	28316	SI-81	32617	C-46	33455	C-42
20791	M-7	25325	C-37	28317	SI-81	32618	C-46	33460	C-42
20796	M-7	25326	C-37	28323	SI-81	32619	C-46	33470	C-42
20797	M-7	25333	C-37	28324	SI-81	32620	C-46	33475	C-42
20798	M-7	25346	C-37	28325	SI-81	32621	C-46	33480	C-42
20799	M-7	25510	SI-75	28326	SI-81	32622	C-46	33490	C-45
20835	M-9	25520	SI-75	30004	M-17	32624	C-46	33492	C-45
20836	M-9	25531	SI-75	30011	M-17	32625	C-46	33494	C-45
20837	M-9	25540	SI-76	30013	M-14	32626	C-46	33496	C-45
20838	M-9	25542	SI-76	30014	M-14	32629	C-46	33832	C-51
20842	M-9	25580	SI-74	30015	M-14	32630	C-46	33833	C-51
20846	M-9	25656	SI-80	30016	M-14	32631	C-46	33841	C-51
20847	M-9	25660	SI-45	30017	M-14	32633	C-46	33842	C-51
20848	M-9	25668	SI-83	30022	M-14	32634	C-46	33844	C-51
20849	M-9	25669	SI-83	30100	M-17	32635	C-46	33845	C-51
20859	M-9	25683	SI-37	30111	M-14	32701	C-30	33848	C-51
20880	M-9	25701	SI-82	30211	M-14	32702	C-30	34600	C-49
20881	M-9	25702	SI-82	30301	M-16	32708	C-30	34601	C-49
20882	M-9	25703	SI-82	30303	M-16	32741	C-30	34602	C-49
20884	M-9, O-4	25705	SI-82	30305	M-16	32781	C-30	34604	C-49
20890	M-10	25711	SI-82	30317	M-16	33008	C-43	34606	C-49
20891	M-10	25784	SI-37	30319	M-16	33010	C-43	34608	C-49
20892	M-10	25800	SI-25	30321	M-16	33011	C-43	34610	C-49
20895	M-10	25849	SI-81	30323	M-16	33012	C-43	34614	C-49
20896	M-10	25860	SI-25	30325	M-16	33017	C-42	34616	C-49
20897	M-10	25861	SI-25	30600	M-17	33020	C-43	34620	C-49
20898	M-10	25862	SI-25	30601	M-17	33025	C-42	34622	C-49
20899	M-10	25863	SI-25	30701	M-17	33101	C-43	34624	C-49
21620	SI-83	25864	SI-25	32001	C-39	33215	C-51	34626	C-49
21621	SI-83	25868	SI-25	32091	C-39	33217	C-51	34630	C-49
21627	SI-83	25869	SI-25	32330	C-38	33222	C-50	34652	C-49
21628	SI-83	25870	SI-25	32342	C-48	33232	C-50	34654	C-49
21669	SI-83	25880	SI-25	32378	C-40	33233	C-50	34656	C-49
21780	C-28	25881	SI-25	32381	C-40	33241	C-51	34658	C-49
21781	C-28	25882	SI-25	32382	C-40	33242	C-51	34660	C-49
21782	C-28	25883	SI-25	32390	C-38	33243	C-50, C-51	34700	C-49
21783	C-28	25884	SI-25	32391	C-38	33244	C-51	34702	C-49
21784	C-28	25888	SI-25	32392	C-38	33245	C-51	34704	C-49
21785	C-28	25889	SI-25	32393	C-40	33246	C-50, C-51	34706	C-49
21786	C-28	25911	SI-82	32394	C-38	33247	C-51	34708	C-49
21787	C-28	25912	SI-82	32395	C-39	33255	C-51	34710	C-49
21790	C-29	25913	SI-82	32399	C-38	33256	C-51	34712	C-49
21791	C-29	25915	SI-81	32401	C-47	33265	C-51	34790	C-45
22403	J-12, M-30	25920	SI-28	32403	C-47	33266	C-51	35009	C-41
22404	J-12, M-30	25921	SI-28	32408	C-47	33267	C-51	35010	C-41
22405	J-12, M-30	25922	SI-28	32409	C-47	33310	C-44	35011	C-41
22458	J-12, M-32	25923	SI-28	32410	C-47	33313	C-44	35012	C-41
22459	J-12, M-32	25930	SI-24	32416	C-47	33316	C-44	35014	C-41
22463	J-12, M-31	25931	SI-24	32431	C-47	33319	C-44	35015	C-41
22464	J-13, M-31	25932	SI-24	32432	C-47	33322	C-44	35016	C-41
22465	J-14, M-32	25933	SI-24	32437	C-47	33325	C-44	35017	C-41
22466	J-13, M-31	25934	SI-24	32439	C-47	33329	C-43	35018	C-41
22467	J-13, M-31	25935	SI-24	32443	C-47	33330	C-43	35019	C-41
22468	J-14, M-32	25936	SI-24	32452	C-48	33333	C-43	35020	C-41
22469	J-14, M-32	25937	SI-24	32456	C-48	33336	C-43	35101	C-41
22583	J-13, M-31	25938	SI-24	32460	C-48	33339	C-43	35105	C-41
22584	J-13, M-31	25939	SI-24	32462	C-48	33340	C-44	37075	C-41
22585	J-13, M-31	25940	SI-24	32464	C-48	33341	C-44	37090	C-41
22586	J-13, M-31	25941	SI-25	32466	C-48	33342	C-43	37100	C-41
22587	J-13, M-31	25942	SI-25	32468	C-48	33350	C-44	37110	C-41
22588	J-13, M-31	25943	SI-25	32472	C-48	33352	C-44	37120	C-41
22589	J-13, M-31	25944	SI-25	32474	C-48	33353	C-44	37130	C-41
22590	J-13, M-31	25950	SI-25	32475	C-48	33354	C-44	37135	C-41
22727	J-12, M-30	25952	SI-81	32476	C-48	33355	C-44	37140	C-41
22728	J-12, M-30	25953	SI-81	32478	C-48	33356	C-44	37145	C-41
22729	J-12, M-30	25954	SI-81	32490	C-47	33357	C-44	37150	C-41
22730	J-12, M-30	25955	SI-81	32491	C-47	33358	C-44	39004	C-42
22731	J-12, M-30	25956	SI-81	32492	C-47	33359	C-44	39005	C-42
22746	J-12, M-30	25957	SI-81	32505	C-38	33361	C-44	39006	C-52
24010	C-21	25976	SI-24	32532	C-39	33362	C-43	39007	C-52
24012	C-21	25979	SI-24	32534	C-39	33363	C-43	39008	C-52, C-53
24013	C-21	25984	SI-82	32574	C-39	33364	C-43	39009	C-52, C-53
25301	C-37	27001	C-33	32601	C-46	33365	C-44	39010	C-52, C-53
25308	C-37	27002	C-33	32602	C-46	33369	C-44	39011	C-52, C-53
25309	C-37	27401	SI-84	32604	C-46	33370	C-44	39015	C-52
25310	C-37	27403	SI-84	32605	C-46	33405	C-42	39018	C-52
25314	C-37	27410	SI-84	32608	C-46	33415	C-42	39019	C-52
25315	C-37	27411	SI-84	32609	C-46	33420	C-42	39020	C-52
25319	C-37	27412	SI-84	32610	C-46	33425	C-42	39021	C-52
25320	C-37	27520	SI-37	32611	C-46	33430	C-42	39022	C-52, C-53

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
39023	C-52, C-53	40053	AM-4	40160	AM-6	40564	AM-12	41113	AM-12
39024	C-52, C-53	40054	AM-4	40164	AM-6	40565	AM-12	41114	AM-12
39025	C-52	40055	AM-4	40166	AM-6	40618	AM-12	41115	AM-12
39026	C-52	40056	AM-4	40168	AM-6	40619	AM-12	41116	AM-12
39027	C-52	40057	AM-4	40170	AM-6	40638	AM-12	41117	AM-12
39028	C-52	40058	AM-4	40178	AM-6	40641	AM-12	41118	AM-12
39029	C-52	40059	AM-4	40202	AM-6	40642	AM-12	41121	AM-12
39030	C-52	40060	AM-4	40203	AM-6	40804	AM-16	41123	AM-12
39031	C-52	40061	AM-3	40204	AM-6	40805	AM-16	41124	AM-12
39032	C-52	40063	AM-3	40205	AM-6	40806	AM-16	41125	AM-12
39033	C-52	40065	AM-4	40206	AM-6	40808	AM-16	41126	AM-12
39037	C-52	40066	AM-4	40208	AM-6	40809	AM-16	41127	AM-12
39038	C-52	40068	AM-4	40216	AM-6	40811	AM-16	41130	AM-12
39039	C-52	40069	AM-4	40300	AM-7	40812	AM-16	41132	AM-12
39040	C-52	40070	AM-4	40301	AM-7	40813	AM-16	41202	AM-11
39041	C-52	40071	AM-4	40302	AM-7	40814	AM-16	41204	AM-11
39042	C-52	40072	AM-4	40305	AM-7	40815	AM-16	41208	AM-11
39043	C-52	40073	AM-4	40307	AM-7	40816	AM-16	41212	AM-11
39045	C-52	40074	AM-4	40308	AM-7	40820	AM-16	41213	AM-11
39046	C-52	40075	AM-4	40309	AM-7	40829	AM-16	41221	AM-11
39066	C-52	40076	AM-4	40313	AM-7	40830	AM-16	41241	AM-11
39078	C-52	40077	AM-4	40314	AM-7	40831	AM-16	41300	AM-13
39081	C-52	40078	AM-4	40315	AM-7	40832	AM-16	41301	AM-13
39082	C-52	40080	AM-4	40316	AM-7	40833	AM-16	41302	AM-13
39086	C-52	40081	AM-4	40319	AM-7	40834	AM-16	41303	AM-13
39087	C-52	40082	AM-5	40320	AM-7	40835	AM-16	41305	AM-13
39095	C-52	40083	AM-5	40321	AM-7	40836	AM-16	41306	AM-13
39096	C-52	40084	AM-5	40323	AM-7	40837	AM-16	41307	AM-13
39097	C-52	40085	AM-5	40324	AM-7	40838	AM-16	41309	AM-13
39098	C-52	40086	AM-5	40325	AM-7	40839	AM-16	41310	AM-13
39099	C-52	40087	AM-5	40328	AM-7	40840	AM-16	41311	AM-13
39112	C-52	40088	AM-5	40331	AM-7	40841	AM-16	41312	AM-13
39113	C-52	40089	AM-5	40333	AM-7	40842	AM-16	41314	AM-13
39130	C-52	40090	AM-5	40334	AM-7	40844	AM-16	41316	AM-13
39147	C-52	40091	AM-5	40338	AM-7	40845	AM-16	41317	AM-13
39205	C-52	40092	AM-5	40339	AM-7	40846	AM-16	41318	AM-13
39210	C-52	40093	AM-5	40340	AM-7	40847	AM-16	41319	AM-13
39220	C-52	40094	AM-5	40343	AM-7	40848	AM-16	41320	AM-13
39225	C-52	40095	AM-5	40347	AM-7	40851	AM-11	41321	AM-13
39230	C-52	40096	AM-5	40348	AM-7	40852	AM-11	41322	AM-13
39235	C-52	40097	AM-5	40349	AM-7	40863	AM-15	41323	AM-13
39310	C-53	40098	AM-5	40350	AM-7	40865	AM-15	41324	AM-13
39312	C-53	40099	AM-5	40352	AM-7	40867	AM-15	41325	AM-13
39314	C-53	40100	AM-5	40353	AM-7	40868	AM-15	41326	AM-13
39316	C-53	40101	AM-5	40355	AM-7	40871	AM-15	41327	AM-13
39318	C-53	40102	AM-5	40357	AM-7	40872	AM-15	41328	AM-14
39320	C-53	40103	AM-5	40358	AM-7	40873	AM-15	41329	AM-14
39322	C-53	40104	AM-5	40359	AM-7	40874	AM-15	41330	AM-14
39324	C-53	40105	AM-5	40360	AM-7	40876	AM-15	41331	AM-14
39326	C-53	40106	AM-5	40362	AM-7	40877	AM-15	41332	AM-14
39328	C-53	40107	AM-5	40363	AM-7	40878	AM-15	41333	AM-14
39330	C-53	40108	AM-5	40364	AM-7	40879	AM-15	41334	AM-14
39332	C-53	40109	AM-5	40365	AM-7	40880	AM-15	41335	AM-14
40002	AM-11	40110	AM-5	40369	AM-8	40881	AM-15	41336	AM-14
40003	AM-11	40111	AM-5	40372	AM-8	40882	AM-15	41337	AM-14
40004	AM-11	40112	AM-5	40375	AM-8	40884	AM-15	41341	AM-14
40005	AM-11	40113	AM-5	40376	AM-8	40885	AM-17	41342	AM-14
40006	AM-11	40114	AM-5	40377	AM-8	40886	AM-17	41343	AM-14
40024	AM-4	40115	AM-5	40378	AM-8	40887	AM-17	41344	AM-14
40027	AM-3	40116	AM-5	40379	AM-8	40888	AM-17	41346	AM-14
40030	AM-3	40117	AM-5	40380	AM-8	40889	AM-17	41347	AM-14
40031	AM-3	40118	AM-5	40381	AM-8	40891	AM-17	41348	AM-14
40033	AM-3	40119	AM-5	40382	AM-8	40897	AM-16	41349	AM-14
40034	AM-3	40120	AM-5	40383	AM-8	40898	AM-16	41350	AM-14
40035	AM-3	40121	AM-5	40384	AM-8	40899	AM-16	41351	AM-14
40036	AM-3	40126	AM-4	40387	AM-8	40901	AM-16	41352	AM-14
40037	AM-3	40127	AM-4	40389	AM-8	40903	AM-16	41355	AM-14
40038	AM-3	40128	AM-5	40391	AM-8	40906	AM-16	41361	AM-13
40039	AM-3	40132	AM-5	40392	AM-8	40907	AM-16	41362	AM-13
40040	AM-3	40134	AM-5	40393	AM-8	40908	AM-16	41364	AM-14
40041	AM-3	40135	AM-5	40396	AM-6	40909	AM-16	41365	AM-13
40042	AM-3	40137	AM-5	40397	AM-6	40910	AM-16	41370	AM-14
40043	AM-4	40138	AM-5	40402	AM-8	40911	AM-16	41405	AM-15
40044	AM-4	40139	AM-5	40403	AM-8	40912	AM-16	41500	AM-11
40045	AM-4	40145	AM-5	40404	AM-8	40913	AM-16	41533	AM-15
40046	AM-4	40146	AM-5	40405	AM-8	40914	AM-16	41816	AM-5
40047	AM-4	40150	AM-6	40406	AM-8	40915	AM-16	43008	C-31
40048	AM-4	40151	AM-6	40407	AM-7	41102	AM-12	43014	C-31
40049	AM-4	40152	AM-6	40408	AM-7	41107	AM-12	4304	ME-38
40050	AM-4	40155	AM-6	40420	AM-3	41108	AM-12	4305	ME-38
40051	AM-4	40156	AM-6	40421	AM-3	41111	AM-12	43050	C-33
40052	AM-4	40158	AM-6	40422	AM-3	41112	AM-12	43053	C-33

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
43054	C-33	4360	ME-38	44520	C-25	50505	C-24	61460	C-13
43056	C-33	4362	ME-16	44524	C-25	50506	C-24	61461	C-13
43057	C-33	4363	ME-38	44525	C-25	50507	C-24	61462	C-13
43058	C-33	4369	ME-20	44526	C-25	50509	C-24	61463	C-13
4306	ME-38, O-24	4370	ME-39	44527	C-25	50745-D500	F-52	61464	C-13
43060	C-33	4371	ME-20	44528	C-25	50746-D500	F-54	61470	C-13
43063	C-33	4377	ME-20	44532	C-25	50747-D230	F-52	61471	C-13
43064	C-33	4381	ME-20	44533	C-25	50747-D401	F-52	61472	C-13
43065	C-33	4383	ME-39	44534	C-25	50747-D500	F-52	61473	C-13
43066	C-33	4387	ME-20	44535	C-25	50747-D600	F-52	61474	C-13
43067	C-33	4389	ME-38	44536	C-25	50748-D500	F-52	61480	C-13
43068	C-33	4390	ME-39	44538	C-25	50748-D700	F-52	61481	C-13
4309	ME-39	43901	J-11	44539	C-25	50752-D230	F-55	61482	C-13
4310	ME-20	43902	J-11	4602	ME-20	50752-D500	F-55	61483	C-13
4311	ME-20	43903	J-11	4680	ME-38	50755-D230	F-55	61484	C-13
4319	ME-39	43904	J-11	4682	ME-39	50755-D500	F-55	61490	C-13
4322	ME-38	43905	J-11	4684	ME-39	50756-D230	F-56	61491	C-13
43301	C-44	43906	J-11	4686	ME-40	50756-D500	F-56	61492	C-13
43302	C-44	43907	J-11	4688	ME-40	50757-D500	F-54	61493	C-13
43303	C-44	43911	J-10	4701	ME-38	50769-D230	F-56	61494	C-13
43304	C-44	43912	J-11	4702	ME-38	50769-D500	F-56	61610	C-16
43305	C-44	43913	J-11	4722	O-28	52101	SI-3	61611	C-16
43306	C-44	43916	J-11	4730	ME-43	52102	SI-3	61612	C-16
43307	C-44	4392	ME-39	4731	ME-43	52103	SI-3	61613	C-16
43311	C-44	43920	J-10	4732	ME-43	52104	SI-3	61614	C-16
43312	C-44	43922	J-10	4733	ME-43	52107	SI-3	61615	C-16
43313	C-44	43924	J-10	4734	ME-43	52108	SI-3	61616	C-16
43314	C-44	43925	J-10	4735	ME-43	52109	SI-3	61623	C-16, C-19
43315	C-44	43926	J-10	4738	ME-43	52110	SI-3	61624	C-16, C-19
43316	C-44	43927	J-10	4739	ME-43	52111	SI-3	61625	C-16, C-19
43320	C-44	43928	J-10	4757	ME-39	52114	SI-3	61650	C-17
43321	C-44	43929	J-10	4758	ME-39	52115	SI-3	61652	C-17
43322	C-44	4393	ME-39	4759	ME-39	52116	SI-3	61653	C-17
43324	C-44	43930	J-10	4774	ME-44	52117	SI-3	61654	C-17
43325	C-44	43931	J-10	4776	ME-20	52118	SI-3	61656	C-17
43326	C-44	43932	J-10	4778	ME-20	52119	SI-3	61657	C-17
43327	C-44	43933	J-10	4781	ME-44	52120	SI-3	61658	C-17
43328	C-44	43934	J-10	4788	ME-44	52122	SI-3	61659	C-17
43329	C-44	43935	J-10	4798	ME-38	52329	SI-47	61660	C-17
43330	C-44	43939	J-10	50301	C-22	52330	SI-47	61671	C-17
43331	C-44	43941	J-10	50302	C-22	52331	SI-47	61679	C-16
43332	C-44	43942	J-10	50303	C-22	52332	SI-47	61680	C-16
43333	C-44	43943	J-10	50304	C-22	52333	SI-47	61681	C-16
43334	C-44	43944	J-10	50305	C-22	52334	SI-47	61682	C-16
43335	C-44	43945	J-10	50306	C-22	52335	SI-47	61683	C-16
43337	C-44	43946	J-10	50308	C-22	52336	SI-47	61684	C-16
43339	C-44	43947	J-10	50312	C-24	52337	SI-47	61685	C-16
43340	C-44	43948	J-10	50314	C-22	52338	SI-47	61687	C-16
43341	C-43	43949	J-10	50316	C-23	52339	SI-47	61690	C-16
43342	C-43	43950	J-10	50319	C-23	52340	SI-47	61691	C-16
43343	C-43	43951	J-10	50320	C-23	52345	SI-47	61692	C-16
43344	C-43	43952	J-10	50321	C-24	52346	SI-47	61693	C-16
43345	C-43	43953	J-10	50324	C-23	52347	SI-47	61694	C-16
43346	C-43	43954	J-10	50326	C-23	52348	SI-47	61695	C-16
43347	C-43	43955	J-10	50327	C-24	61320	C-11	61696	C-16
43348	C-43	4396	ME-39	50332	C-23	61321	C-11	61720	C-11
43349	C-43	43965	J-10	50333	C-22	61322	C-11	61721	C-11
43350	C-43	43970	J-11	50337	C-22	61323	C-11	61722	C-11
43351	C-43	43975	J-10	50339	C-23	61324	C-11	61723	C-11
43352	C-43	4399	ME-38	50340	C-23	61345	C-11	61724	C-11
43353	C-43	4404	O-28	50341	C-24	61346	C-11	61730	C-11
43354	C-43	4412	ME-38	50350	C-22	61347	C-11	61731	C-11
43355	C-43	4422	ME-20	50351	C-22	61348	C-11	61732	C-11
43361	C-43	44501	C-26	50352	C-22	61349	C-11	61733	C-11
43362	C-43	44502	C-26	50353	C-22	61425	C-12	61734	C-11
43365	C-44	44503	C-26	50354	C-22	61426	C-12	61745	C-11
43366	C-44	44504	C-26	50355	C-22	61427	C-12	61746	C-11
43367	C-44	44505	C-26	50357	C-22	61428	C-12	61747	C-11
43368	C-44	44506	C-26	50359	C-22	61430	C-13	61748	C-11
43369	C-44	44507	C-26	50362	C-22	61431	C-13	61749	C-11
43370	C-44	44508	C-26	50363	C-22	61432	C-13	61750	C-13
43371	C-43	44509	C-26	50364	C-22	61433	C-13	61751	C-13
43372	C-43	44510	C-26	50370	C-24	61434	C-13	61752	C-13
43373	C-43	44511	C-26	50371	C-24	61440	C-12	61753	C-13
43374	C-43	44512	C-26	50372	C-23	61441	C-12	61754	C-13
43375	C-43	44513	C-26	50374	C-23	61442	C-12	61755	C-11
43376	C-44	44514	C-26	50375	C-24	61443	C-12	61756	C-11
4338	ME-39	44515	C-26	50380	C-24	61445	C-13	61757	C-11
4349	ME-16	44516	C-26	50381	C-24	61446	C-13	61758	C-11
4350	ME-38	44517	C-26	50502	C-24	61447	C-13	61759	C-11
4354	ME-16	44518	C-26	50503	C-24	61448	C-13	61769	C-17
4355	ME-38	44519	C-25	50504	C-24	61449	C-13	61770	C-17

Part No. Index



Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
61771	C-17	65008	SI-44	65775	SI-70	70720	SI-61	73204	SI-68
61772	C-17	65009	SI-44	67900	C-54	70721	SI-61	73206	SI-68
61773	C-17	65010	SI-44	67909	SI-44	70722	SI-61	73207	SI-68
61774	C-17	65011	SI-44	67914	C-54	70723	SI-61	73208	SI-68
61775	C-17	65013	SI-44	67915	C-54	70724	SI-61	73230	SI-68
61776	C-17	65014	SI-44	67916	SI-44	70725	SI-61	73232	SI-68
61777	C-17	65024	SI-45	67917	C-54	70726	SI-61	73234	SI-68
61779	C-17	65029	SI-45	67918	C-54	70727	SI-61	73243	SI-68
61780	C-17	65031	SI-45	67919	C-54	70728	SI-61	73244	SI-68
61782	C-17	65032	SI-45	67920	C-54	70729	SI-61	73245	SI-68
61783	C-17	65033	SI-45	67921	C-54	70730	SI-61	73252	SI-68
61810	C-17	65037	SI-45	67923	C-54	70731	SI-61	73253	SI-68
61811	C-17	65038	SI-45	67924	C-54	70732	SI-61	73265	SI-68
61813	C-17	65050	SI-46	67925	C-54	70742	SI-61	73268	SI-68
61815	C-17	65059	SI-45	68013	C-54	70744	SI-61	73343	SI-80
62000	C-20	65066	SI-46	68014	C-54	70745	SI-61	73347	SI-80
62001	C-20	65073	SI-44	68015	C-54	70746	SI-61	73348	SI-80
62002	C-20	65076	SI-44	68016	C-54	70970	C-48	73349	SI-80
62003	C-20	65083	SI-82	68017	C-54	70971	C-48	73350	SI-80
62004	C-20	65083	SI-46	68040	C-54	72218	C-53	73351	SI-80
62005	C-20	65102	SI-47	70201	SI-10	72224	C-53	73352	SI-80
62006	C-20	65105	SI-47	70201	SI-11	72230	C-53	73353	SI-80
62007	C-20	65108	SI-47	70205	SI-10	72236	C-53	73402	SI-63
62008	C-20	65109	SI-47	70205	SI-11	72248	C-53	73403	SI-63
62009	C-20	65110	SI-47	70210	SI-11	73001	SI-66	73404	SI-63
62010	C-20	65111	SI-47	70210	SI-47	73002	SI-66	73405	SI-63
62011	C-20	65116	SI-47	70215	SI-11	73003	SI-66	73418	SI-63
62012	C-20	65117	SI-47	70215	SI-11	73006	SI-66	73419	SI-63
62013	C-20	65118	SI-47	70216	SI-47	73010	SI-97	73423	SI-63
62014	C-20	65139	SI-47	70216	SI-11	73011	SI-97	73424	SI-63
62015	C-20	65140	SI-47	70217	SI-10	73013	SI-66	73425	SI-63
62016	C-20	65141	SI-47	70217	SI-11	73023	SI-66	73427	SI-63
62017	C-20	65151	SI-47	70220	SI-10	73024	SI-66	73429	SI-63
62018	C-20	65201	SI-46	70220	SI-11	73025	SI-66	73430	SI-63
62019	C-20	65202	SI-46	70223	SI-10	73033	SI-66	73431	SI-63
62020	C-20	65203	SI-46	70223	SI-11	73045	SI-66	73432	SI-63
62021	C-20	65210	SI-46	70224	SI-10	73051	SI-66	73433	SI-63
62022	C-20	65401	SI-39	70224	SI-11	73058	SI-67	73434	SI-63
62023	C-20	65402	SI-39	70236	SI-10	73059	SI-67	73438	SI-63
62024	C-20	65403	SI-39	70236	SI-10	73060	SI-67	73439	SI-63
62025	C-20	65408	SI-39	70236	SI-10	73061	SI-67	73440	SI-63
62026	C-20	65409	SI-39	70236	SI-10	73066	SI-67	73445	SI-63
62027	C-20	65410	SI-39	70236	SI-11	73073	SI-66	73446	SI-63
62028	C-20	65411	SI-39	70236	SI-11	73075	SI-66	73457	SI-63
62029	C-20	65412	SI-39	70236	SI-11	73079	SI-67	73458	SI-63
62055	C-20	65418	SI-39	70401	SI-48	73080	SI-67	73464	SI-63
62056	C-20	65419	SI-39	70405	SI-48	73081	SI-67	73480	SI-63
62057	C-20	65420	SI-39	70406	SI-48	73086	SI-67	73481	SI-63
62058	C-20	65425	SI-38	70410	SI-48	73096	SI-66	73492	SI-64
62059	C-20	65426	SI-38	70411	SI-48	73101	SI-67	73494	SI-64
62060	C-20	65427	SI-38	70415	SI-48	73102	SI-67	73495	SI-64
62061	C-20	65428	SI-38	70416	SI-48	73110	SI-67	73496	SI-64
62062	C-20	65429	SI-38	70420	SI-48	73126	SI-67	74103	AM-19
62063	C-20	65430	SI-38	70425	SI-48	73128	SI-67	74104	AM-19
62064	C-20	65431	SI-38	70430	SI-48	73129	SI-67	74105	AM-19
62065	C-20	65432	SI-38	70431	SI-48	73131	SI-67	74106	AM-19
62066	C-20	65435	SI-38	70432	SI-48	73133	SI-67	74107	AM-19
62067	C-20	65436	SI-38	70435	SI-48	73134	SI-67	74108	AM-19
62068	C-20	65437	SI-38	70436	SI-49	73135	SI-67	74109	AM-19
62069	C-20	65438	SI-38	70437	SI-49	73136	SI-67	74110	AM-19
62070	C-20	65439	SI-38	70438	SI-49	73150	SI-65	74111	AM-19
62071	C-20	65440	SI-38	70439	SI-49	73151	SI-65	74112	AM-19
62072	C-20	65441	SI-38	70440	SI-49	73156	SI-65	74113	AM-19
62090	C-20	65442	SI-38	70441	SI-49	73161	SI-64	74114	AM-19
62091	C-20	65447	SI-38	70442	SI-49	73162	SI-64	74115	AM-19
62092	C-20	65448	SI-38	70445	SI-48	73163	SI-64	74116	AM-19
62093	C-20	65449	SI-38	70446	SI-48	73165	SI-64	74117	AM-19
62094	C-20	65450	SI-38	70447	SI-48	73166	SI-64	74118	AM-19
62095	C-20	65451	SI-38	70448	SI-48	73167	SI-64	74119	AM-19
64317	SI-64	65452	SI-38	70449	SI-48	73170	SI-65	74120	AM-19
64318	SI-64	65453	SI-38	70701	SI-61	73171	SI-65	74121	AM-19
64722	SI-49	65459	SI-38	70704	SI-61	73172	SI-65	74122	AM-19
64723	SI-49	65460	SI-38	70705	SI-61	73174	SI-64	74123	AM-19
64725	SI-49	65461	SI-38	70710	SI-61	73175	SI-64	74124	AM-19
64726	SI-49	65639	SI-43	70711	SI-61	73176	SI-64	74125	AM-19
64727	SI-49	65640	SI-43	70712	SI-61	73177	SI-64	74126	AM-19
64816	SI-49	65641	SI-43	70713	SI-61	73178	SI-65	74128	AM-19
65001	SI-44	65642	SI-43	70714	SI-61	73179	SI-65	74129	AM-19
65002	SI-44	65746	SI-70	70715	SI-61	73180	SI-65	74130	AM-19
65004	SI-44	65746	C-4	70716	SI-61	73186	SI-65	74132	AM-19
65005	SI-44	65747	SI-70	70717	SI-61	73201	SI-68	74153	AM-19
65006	SI-44	65749	SI-70	70718	SI-61	73203	SI-68	74154	AM-19

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
74593	AM-20	74675	AM-20	78310	SI-51	78982	SI-101	79145	SI-85
74594	AM-20	74676	AM-20	78311	SI-51	78983	SI-101	79147	SI-85
74595	AM-20	74677	AM-20	78314	SI-50	78984	SI-101	79148	SI-85
74596	AM-20	74678	AM-20	78314	SI-51	78985	SI-101	79149	SI-85
74597	AM-20	74679	AM-20	78315	SI-50	78987	SI-101	79151	SI-85
74598	AM-20	74680	AM-20	78315	SI-51	78996	SI-75	79153	SI-85
74599	AM-20	74681	AM-20	78316	SI-50	78998	SI-75	79157	SI-85
74600	AM-20	74682	AM-20	78316	SI-51	79006	SI-87	79159	SI-85
74601	AM-20	74683	AM-20	78317	SI-50	79007	SI-87	79162	SI-85
74602	AM-20	74684	AM-20	78317	SI-51	79009	SI-88	79165	SI-85
74603	AM-20	74685	AM-20	78318	SI-50	79024	SI-88	79166	SI-85
74604	AM-20	74686	AM-20	78318	SI-51	79025	SI-87	79169	SI-84
74605	AM-20	74687	AM-20	78319	SI-50	79026	SI-87	79170	SI-84
74606	AM-20	74688	AM-20	78319	SI-51	79027	SI-87	79172	SI-28
74607	AM-20	74689	AM-20	78320	SI-50	79036	SI-87	79173	SI-28
74608	AM-20	74690	AM-20	78320	SI-51	79037	SI-87	79175	SI-29
74609	AM-20	74691	AM-20	78701	SI-105	79039	SI-74	79176	SI-29
74610	AM-20	74692	AM-20	78711	SI-105	79040	SI-74	79183	SI-28
74611	AM-20	74693	AM-20	78801	SI-78	79042	SI-74	79185	SI-28
74612	AM-20	74694	AM-20	78802	SI-78	79043	SI-74	79195	SI-84
74613	AM-20	74695	AM-20	78803	SI-78	79045	SI-56	79196	SI-88
74614	AM-20	74696	AM-20	78804	SI-78	79046	SI-56	79197	SI-88
74615	AM-20	74697	AM-20	78805	SI-78	79047	SI-56	79199	SI-84
74616	AM-20	74698	AM-20	78806	SI-78	79048	SI-56	79200	SI-85
74617	AM-20	74699	AM-20	78808	SI-78	79049	SI-56	79201	SI-73
74618	AM-20	74700	AM-20	78809	SI-78	79050	SI-56	79202	SI-73
74619	AM-20	74701	AM-20	78818	SI-78	79053	SI-35	79203	SI-73
74620	AM-20	74702	AM-20	78819	SI-78	79055	SI-35	79204	SI-73
74621	AM-20	74703	AM-20	78820	SI-78	79056	SI-35	79205	SI-73
74622	AM-20	74704	AM-20	78828	SI-78	79057	SI-35	79207	SI-73
74623	AM-20	74705	AM-20	78829	SI-78	79059	SI-35	79210	SI-73
74624	AM-20	74706	AM-20	78830	SI-78	79060	SI-35	79215	SI-73
74625	AM-20	74707	AM-20	78833	SI-78	79061	SI-34	79219	SI-73
74626	AM-20	74708	AM-20	78834	SI-78	79062	SI-34	79220	SI-73
74627	AM-20	74710	AM-20	78835	SI-78	79063	SI-34	79221	SI-73
74628	AM-20	74711	AM-20	78839	SI-78	79064	SI-34	79222	SI-73
74629	AM-20	74712	AM-20	78840	SI-78	79065	SI-34	79223	SI-73
74630	AM-20	74713	AM-20	78841	SI-78	79067	SI-102	79226	SI-73
74631	AM-20	74714	AM-20	78842	SI-78	79068	SI-102	79230	SI-73
74632	AM-20	74715	AM-20	78902	SI-79	79069	SI-102	79232	SI-73
74633	AM-20	74716	AM-20	78903	SI-79	79070	SI-92	79239	SI-73
74634	AM-20	74718	AM-20	78904	SI-79	79071	SI-92	79240	SI-73
74635	AM-20	74719	AM-20	78905	SI-79	79072	SI-92	79241	SI-73
74636	AM-20	74721	AM-20	78906	SI-79	79073	SI-92	79245	SI-104
74637	AM-20	74722	AM-20	78910	SI-79	79074	SI-92	79246	SI-104
74638	AM-20	74725	AM-20	78911	SI-79	79075	SI-92	79252	SI-73
74639	AM-20	74726	AM-20	78912	SI-79	79077	SI-92	79267	SI-103
74640	AM-20	74728	AM-20	78913	SI-79	79081	SI-92	79270	SI-103
74641	AM-20	74729	AM-20	78915	SI-79	79082	SI-92	79276	SI-103
74642	AM-20	74746	AM-20	78918	SI-80	79083	SI-92	79277	SI-103
74643	AM-20	74748	AM-20	78920	SI-80	79084	SI-92	79277	SI-103
74644	AM-20	74749	AM-20	78921	SI-80	79085	SI-4	79278	SI-73
74645	AM-20	74750	AM-20	78922	SI-80	79087	SI-92	79279	SI-103
74646	AM-20	74751	AM-20	78923	SI-80	79088	SI-92	79280	SI-103
74647	AM-20	74755	AM-20	78924	SI-80	79092	SI-85	79281	SI-103
74648	AM-20	74756	AM-20	78925	SI-80	79093	SI-85	79282	SI-103
74649	AM-20	74757	AM-20	78926	SI-80	79094	SI-92	79285	SI-103
74650	AM-20	74758	AM-20	78928	SI-80	79095	SI-4	79287	SI-103
74651	AM-20	74759	AM-20	78930	SI-80	79096	SI-85	79288	SI-103
74652	AM-20	74760	AM-20	78931	SI-80	79097	SI-85	79289	SI-103
74653	AM-20	74796	AM-20	78932	SI-80	79098	SI-85	79290	SI-103
74654	AM-20	74990	AM-20	78933	SI-80	79099	SI-85	79304	SI-62
74655	AM-20	74991	AM-20	78940	SI-94	79100	SI-84	79305	SI-62
74656	AM-20	74998	AM-20	78941	SI-94	79103	SI-84	79306	SI-62
74657	AM-20	78301	SI-49	78942	SI-94	79105	SI-87	79307	SI-62
74658	AM-20	78301	SI-51	78944	SI-94	79109	SI-87	79308	SI-62
74659	AM-20	78302	SI-49	78945	SI-79	79110	SI-87	79309	SI-62
74660	AM-20	78302	SI-51	78946	SI-79	79111	SI-87	79310	SI-62
74661	AM-20	78303	SI-49	78947	SI-79	79115	SI-35	79311	SI-62
74662	AM-20	78303	SI-51	78948	SI-79	79116	SI-35	79312	SI-62
74663	AM-20	78304	SI-49	78949	SI-79	79126	SI-56	79313	SI-62
74664	AM-20	78304	SI-51	78950	SI-79	79127	SI-56	79314	SI-62
74665	AM-20	78305	SI-50	78951	SI-79	79130	SI-51	79315	SI-62
74666	AM-20	78305	SI-51	78952	SI-79	79131	SI-56	79316	SI-62
74667	AM-20	78306	SI-50	78953	SI-79	79132	SI-56	79317	SI-62
74668	AM-20	78306	SI-51	78954	SI-79	79133	SI-56	79318	SI-62
74669	AM-20	78307	SI-51	78955	SI-79	79134	SI-56	79319	SI-62
74670	AM-20	78308	SI-50	78956	SI-79	79135	SI-56	79320	SI-62
74671	AM-20	78308	SI-51	78957	SI-79	79136	SI-56	79321	SI-62
74672	AM-20	78309	SI-50	78958	SI-79	79138	SI-85	79322	SI-62
74673	AM-20	78309	SI-51	78976	SI-101	79139	SI-56	79323	SI-62
74674	AM-20	78310	SI-50	78981	SI-101	79143	SI-85	79324	SI-62

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
79325	SI-62	79643	SI-104	81034	SI-21	81140	SI-21	82139	SI-13
79326	SI-62	79644	SI-104	81034	J-11	81140	J-11	82140	SI-13
79327	SI-62	79645	SI-104	81035	SI-21	81141	SI-21	82141	SI-13
79328	SI-62	79646	SI-104	81035	J-11	81141	J-11	82142	SI-13
79329	SI-62	79647	SI-104	81036	SI-21	81142	SI-21	82143	SI-13
79330	SI-62	79764	SI-104	81036	J-11	81142	J-11	82144	SI-13
79331	SI-62	79765	SI-104	81037	SI-21	81143	SI-21	82145	SI-13
79332	SI-62	79766	SI-104	81037	J-11	81143	J-11	82146	SI-13
79333	SI-62	79808	SI-76	81038	SI-21	81144	SI-21	82147	SI-13
79334	SI-62	79837	SI-76	81038	J-11	81144	J-11	82148	SI-13
79340	SI-62	79838	SI-76	81039	SI-21	81145	SI-21	82149	SI-13
79341	SI-62	79839	SI-76	81039	J-11	81145	J-11	82150	SI-13
79342	SI-62	79860	SI-76	81040	SI-21	81146	SI-21	82151	SI-13
79343	SI-62	79871	SI-76	81040	J-11	81146	J-11	82152	SI-13
79344	SI-62	79872	SI-76	81041	SI-21	81147	SI-21	82153	SI-13
79345	SI-62	79873	SI-76	81041	J-11	81147	J-11	82154	SI-13
79348	SI-51	79874	SI-76	81042	SI-21	81148	SI-21	82158	SI-15
79350	SI-51	79875	SI-76	81042	J-11	81148	J-11	82160	SI-15
79351	SI-51	79887	SI-76	81043	SI-21	81149	SI-21	82161	SI-15
79352	SI-51	79891	SI-76	81043	J-11	81149	J-11	82163	SI-15
79353	SI-51	79904	SI-76	81044	SI-21	81150	SI-21	82169	SI-15
79357	SI-51	79905	SI-76	81044	J-11	81150	J-11	82170	SI-15
79358	SI-51	79916	SI-76	81045	SI-21	81151	SI-21	82179	SI-15
79360	SI-4	79939	SI-76	81045	J-11	81151	J-11	82181	SI-15
79361	SI-4	79940	SI-76	81046	SI-21	81152	SI-21	82182	SI-15
79362	SI-4	79974	SI-77	81046	J-11	81152	J-11	82210	SI-16
79364	SI-4	79975	SI-77	81047	SI-21	81153	SI-21	82212	SI-16
79368	SI-104	79976	SI-77	81047	J-11	81153	J-11	82213	SI-16
79378	SI-104	79977	SI-77	81048	SI-21	81154	SI-21	82214	SI-16
79379	SI-104	79990	SI-83	81048	J-11	81154	J-11	82215	SI-16
79401	SI-72	79991	SI-83	81049	SI-21	82006	SI-14	82216	SI-16
79402	SI-72	80039	SI-76	81049	J-11	82009	SI-14	82217	SI-16
79403	SI-72	80088	SI-76	81050	SI-21	82016	SI-14	82218	SI-16
79404	SI-72	80090	SI-76	81050	J-11	82017	SI-14	82219	SI-16
79405	SI-72	80091	SI-76	81051	SI-21	82019	SI-14	82220	SI-16
79406	SI-72	80132	SI-76	81051	J-11	82020	SI-14	82221	SI-16
79441	SI-72	80160	SI-77	81052	SI-21	82021	SI-14	82224	SI-16
79442	SI-72	80168	SI-77	81052	J-11	82024	SI-14	82226	SI-15
79443	SI-72	80169	SI-77	81053	SI-21	82025	SI-14	82227	SI-15
79444	SI-72	80171	SI-77	81053	J-11	82026	SI-14	82228	SI-15
79445	SI-72	80172	SI-77	81054	SI-21	82027	SI-14	82230	SI-15
79454	SI-72	80174	SI-77	81054	J-11	82029	SI-14	82231	SI-15
79457	SI-72	80179	SI-77	81055	SI-21	82030	SI-14	82232	SI-15
79458	SI-72	80180	SI-77	81055	J-11	82032	SI-14	82233	SI-15
79458	SI-72	80308	SI-6	81056	SI-21	82033	SI-14	82234	SI-15
79460	SI-74	80312	SI-6	81056	J-11	82034	SI-14	82235	SI-15
79468	SI-72	80313	SI-6	81076	SI-21	82035	SI-14	82236	SI-15
79468	SI-75	80314	SI-6	81076	J-11	82036	SI-14	82237	SI-15
79469	SI-72	80315	SI-5	81077	SI-21	82037	SI-14	82238	SI-15
79479	SI-74	80316	SI-5	81077	J-11	82038	SI-14	82249	SI-16
79506	SI-75	80317	SI-5	81078	SI-21	82039	SI-14	82251	SI-16
79511	SI-75	80328	SI-5	81078	J-11	82040	SI-14	82252	SI-16
79512	SI-75	81006	SI-21	81103	SI-21	82041	SI-14	82253	SI-16
79513	SI-75	81006	J-11	81103	J-11	82042	SI-14	82254	SI-16
79516	SI-75	81009	SI-21	81106	SI-21	82043	SI-14	82255	SI-16
79522	SI-75	81009	J-11	81106	J-11	82044	SI-14	82256	SI-16
79523	SI-75	81016	SI-21	81109	SI-21	82045	SI-14	82259	SI-16
79525	SI-75	81016	J-11	81109	J-11	82046	SI-14	82264	SI-16
79526	SI-75	81017	SI-21	81110	SI-21	82047	SI-14	82271	SI-18
79527	SI-75	81017	J-11	81110	J-11	82048	SI-14	82272	SI-18
79528	SI-75	81019	SI-21	81111	SI-21	82049	SI-14	82273	SI-18
79534	SI-85	81019	J-11	81111	J-11	82050	SI-14	82274	SI-18
79535	SI-85	81020	SI-21	81112	SI-21	82051	SI-14	82275	SI-18
79536	SI-75	81020	J-11	81112	J-11	82052	SI-14	82276	SI-18
79540	SI-102	81021	SI-21	81124	SI-21	82053	SI-14	82278	SI-18
79542	SI-102	81021	J-11	81124	J-11	82054	SI-14	82279	SI-18
79552	SI-105	81024	SI-21	81125	SI-21	82055	SI-14	82280	SI-18
79555	SI-105	81024	J-11	81125	J-11	82056	SI-14	82281	SI-18
79558	SI-105	81025	SI-21	81132	SI-21	82103	SI-13	82282	SI-18
79560	SI-102	81025	J-11	81132	J-11	82106	SI-13	82283	SI-18
79582	SI-102	81026	SI-21	81133	SI-21	82109	SI-13	82285	SI-18
79583	SI-102	81026	J-11	81133	J-11	82110	SI-13	82286	SI-18
79584	SI-102	81027	SI-21	81134	SI-21	82111	SI-13	82290	SI-18
79591	SI-35	81027	J-11	81134	J-11	82112	SI-13	82291	SI-18
79592	SI-35	81029	SI-21	81136	SI-21	82124	SI-13	82307	SI-18
79593	SI-35	81029	J-11	81136	J-11	82125	SI-13	82308	SI-18
79596	SI-35	81030	SI-21	81137	SI-21	82132	SI-13	82311	SI-18
79598	SI-35	81030	J-11	81137	J-11	82133	SI-13	82313	SI-18
79609	SI-75	81032	SI-21	81138	SI-21	82134	SI-13	82315	SI-18
79610	SI-75	81032	J-11	81138	J-11	82136	SI-13	82316	SI-18
79641	SI-102	81033	SI-21	81139	SI-21	82137	SI-13	82318	SI-18
79642	SI-102	81033	J-11	81139	J-11	82138	SI-13	82320	SI-18



Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
82323	SI-18	82484	SI-17	82907	SI-14	83201	SI-11	83538	SI-11
82325	SI-18	82486	SI-17	82909	SI-14	83203	SI-11	83539	SI-11
82326	SI-18	82488	SI-17	82910	SI-14	83212	SI-11	83540	SI-11
82327	SI-18	82491	SI-17	82911	SI-14	83220	SI-11	83541	SI-11
82328	SI-18	82502	SI-18	82912	SI-14	83221	SI-11	83568	SI-12
82330	SI-18	82505	SI-18	82913	SI-14	83222	SI-11	83569	SI-12
82331	SI-18	82507	SI-18	82914	SI-14	83223	SI-11	83573	SI-12
82332	SI-18	82508	SI-18	82915	SI-14	83224	SI-11	83574	SI-12
82333	SI-18	82510	SI-18	82916	SI-14	83225	SI-11	83575	SI-12
82334	SI-19	82512	SI-18	82917	SI-14	83226	SI-11	83576	SI-12
82337	SI-19	82513	SI-18	82918	SI-14	83227	SI-11	83577	SI-12
82338	SI-19	82514	SI-18	82919	SI-14	83228	SI-11	83578	SI-12
82339	SI-19	82517	SI-18	82920	SI-14	83229	SI-11	83904	C-27
82340	SI-19	82518	SI-18	82922	SI-14	83230	SI-11	83905	C-27
82341	SI-19	82519	SI-18	82932	SI-16	83231	SI-11	83915	C-27
82342	SI-19	82532	SI-14	82933	SI-16	83232	SI-11	84102	SI-9
82343	SI-19	82534	SI-14	82936	SI-16	83265	SI-13	84103	SI-9
82344	SI-19	82536	SI-14	82940	SI-16	83271	SI-12	84110	SI-9
82346	SI-19	82537	SI-14	82941	SI-16	83273	SI-12	84111	SI-9
82347	SI-19	82538	SI-14	82942	SI-16	83277	SI-13	84117	SI-9
82348	SI-19	82539	SI-14	82943	SI-16	83278	SI-13	84118	SI-9
82349	SI-19	82540	SI-14	82944	SI-16	83306	SI-7	84119	SI-9
82350	SI-19	82541	SI-14	82945	SI-16	83307	SI-7	84120	SI-9
82351	SI-19	82542	SI-14	82946	SI-15	83308	SI-6	84121	SI-9
82352	SI-19	82543	SI-14	82947	SI-16	83309	SI-6	84122	SI-9
82353	SI-19	82608	SI-15	82948	SI-16	83312	SI-7	84125	SI-9
82360	SI-20	82609	SI-15	82949	SI-16	83313	SI-6	84126	SI-9
82363	SI-20	82610	SI-15	82951	SI-16	83314	SI-6	84127	SI-9
82364	SI-20	82611	SI-15	82952	SI-16	83315	SI-5	84128	SI-9
82365	SI-20	82612	SI-15	82953	SI-15	83316	SI-5	84131	SI-9
82366	SI-20	82632	SI-13	82954	SI-15	83317	SI-5	84132	SI-9
82375	SI-19	82634	SI-13	82956	SI-15	83318	SI-6	84133	SI-9
82376	SI-19	82636	SI-13	82958	SI-15	83319	SI-6	84134	SI-9
82379	SI-19	82637	SI-13	82959	SI-15	83321	SI-7	84135	SI-9
82382	SI-19	82638	SI-13	82960	SI-15	83322	SI-7	84136	SI-9
82383	SI-19	82639	SI-13	82963	SI-15	83323	SI-7	84137	SI-9
82384	SI-19	82640	SI-13	82964	SI-15	83324	SI-7	84138	SI-9
82402	SI-17	82641	SI-13	82965	SI-15	83325	SI-7	84139	SI-9
82403	SI-17	82642	SI-13	82966	SI-15	83327	SI-7	84141	SI-9
82404	SI-17	82647	SI-13	82967	SI-15	83328	SI-7	84143	SI-9
82405	SI-17	82660	SI-19	82968	SI-15	83330	SI-8	84201	SI-27
82406	SI-17	82661	SI-19	82969	SI-15	83331	SI-8	84202	SI-27
82407	SI-17	82662	SI-19	82970	SI-15	83333	SI-8	84203	SI-27
82408	SI-17	82663	SI-19	82971	SI-15	83334	SI-8	84204	SI-27
82409	SI-17	82702	SI-16	82972	SI-15	83335	SI-5	84205	SI-27
82410	SI-17	82705	SI-16	82973	SI-15	83336	SI-8	84206	SI-27
82411	SI-17	82710	SI-16	82974	SI-15	83337	SI-8	84207	SI-27
82412	SI-17	82711	SI-16	82975	SI-15	83339	SI-8	84209	SI-27
82413	SI-17	82714	SI-16	82976	SI-15	83340	SI-8	84210	SI-27
82414	SI-17	82715	SI-16	82977	SI-15	83342	SI-8	84211	SI-27
82415	SI-17	82716	SI-16	82978	SI-15	83346	SI-8	84212	SI-27
82416	SI-17	82718	SI-16	82979	SI-15	83347	SI-8	84213	SI-27
82417	SI-17	82719	SI-16	82980	SI-14	83349	SI-8	84214	SI-27
82418	SI-17	82720	SI-16	82981	SI-15	83350	SI-8	84215	SI-27
82439	SI-15	82721	SI-16	82987	SI-21	83352	SI-8	84217	SI-27
82442	SI-15	82722	SI-16	82989	SI-21	83353	SI-8	84231	SI-27
82444	SI-15	82723	SI-16	82990	SI-21	83354	SI-8	84232	SI-27
82445	SI-15	82735	SI-19	82991	SI-21	83355	SI-8	84241	SI-27
82448	SI-17	82736	SI-19	82993	SI-21	83356	SI-8	84242	SI-27
82450	SI-17	82737	SI-19	82994	SI-21	83359	SI-8	84243	SI-27
82451	SI-17	82738	SI-19	82995	SI-21	83360	SI-8	84244	SI-27
82453	SI-17	82745	SI-18	82996	SI-21	83361	SI-8	84245	SI-27
82455	SI-17	82746	SI-18	82997	SI-21	83362	SI-8	84246	SI-27
82456	SI-17	82747	SI-18	83001	SI-21	83363	SI-8	84292	SI-25
82457	SI-17	82748	SI-18	83002	SI-21	83364	SI-8	84295	SI-25
82458	SI-17	82755	SI-20	83010	SI-20	83368	SI-8	84301	SI-25
82459	SI-17	82756	SI-20	83011	SI-20	83385	SI-6	84308	SI-25
82460	SI-17	82757	SI-20	83012	SI-20	83386	SI-6	84311	SI-25
82461	SI-17	82758	SI-20	83013	SI-20	83387	SI-6	84319	SI-25
82462	SI-17	82877	SI-17	83015	SI-20	83388	SI-8	84322	SI-26
82463	SI-17	82878	SI-17	83017	SI-20	83396	SI-5	84337	SI-26
82464	SI-17	82879	SI-14	83018	SI-20	83398	SI-8	84341	SI-26
82465	SI-17	82880	SI-14	83061	SI-20	83431	SI-12	84344	SI-26
82466	SI-17	82881	SI-14	83062	SI-20	83436	SI-12	84349	SI-26
82467	SI-17	82882	SI-14	83063	SI-20	83437	SI-12	84361	SI-25
82468	SI-17	82883	SI-14	83065	SI-20	83438	SI-12	84362	SI-25
82469	SI-17	82884	SI-14	83066	SI-20	83439	SI-12	84363	SI-25
82470	SI-17	82886	SI-14	83067	SI-20	83440	SI-12	84380	SI-26
82471	SI-17	82887	SI-14	83090	SI-21	83444	SI-12	84381	SI-26
82472	SI-17	82888	SI-15	83091	SI-21	83522	SI-12	84382	SI-26
82473	SI-17	82890	SI-14	83092	SI-21	83527	SI-12	84401	SI-27
82474	SI-17	82891	SI-14	83200	SI-11	83537	SI-11	84402	SI-27

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
84403	SI-27	84797	SI-23	85396	SI-32	86203	SI-52	86603	SI-54
84404	SI-27	84798	SI-22	85397	SI-32	86205	SI-52	86623	SI-54
84405	SI-27	84799	SI-22	85398	SI-32	86207	SI-52	86629	SI-54
84406	SI-27	84800	SI-22	85399	SI-32	86208	SI-52	86630	SI-54
84407	SI-27	84809	SI-23	85402	SI-32	86209	SI-52	86631	SI-54
84418	SI-36	84814	SI-24	85403	SI-32	86211	SI-52	86633	SI-54
84419	SI-36	84901	SI-31	85901	SI-30	86216	SI-52	86635	SI-54
84461	SI-27	84902	SI-31	85902	SI-30	86217	SI-52	86637	SI-54
84462	SI-27	84910	SI-31	85904	SI-30	86218	SI-52	86638	SI-54
84466	SI-27	84931	SI-29	85910	SI-30	86219	SI-52	86642	SI-55
84470	SI-26	84932	SI-29	85911	SI-30	86220	SI-52	86643	SI-55
84471	SI-26	84936	SI-29	85932	SI-30	86221	SI-52	86650	SI-55
84473	SI-26	84937	SI-29	85940	SI-30	86226	SI-53	86651	SI-55
84474	SI-26	84938	SI-29	85950	SI-30	86229	SI-53	86658	SI-55
84475	SI-26	84943	SI-29	85951	SI-30	86236	SI-53	86659	SI-55
84476	SI-26	84947	SI-29	86025	SI-36	86239	SI-53	86666	SI-55
84478	SI-26	84948	SI-29	86026	SI-36	86240	SI-53	90290	C-32
84479	SI-26	84949	SI-29	86027	SI-36	86241	SI-53	90291	C-32
84480	SI-26	84950	SI-29	86031	SI-36	86242	SI-53	90292	C-32
84482	SI-26	84952	SI-29	86032	SI-36	86243	SI-53	9031	ME-16
84483	SI-26	84954	SI-29	86033	SI-36	86251	SI-53	90340	C-31
84484	SI-26	84962	SI-29	86037	SI-36	86252	SI-53	90341	C-31
84485	SI-26	84963	SI-29	86040	SI-36	86253	SI-53	90342	C-31
84486	SI-26	84964	SI-29	86041	SI-36	86254	SI-53	90343	C-31
84487	SI-26	84965	SI-29	86070	SI-71	86255	SI-53	90344	C-31
84491	SI-26	84966	SI-29	86071	SI-71	86258	SI-53	90345	C-31
84492	SI-26	84967	SI-29	86073	SI-71	86259	SI-53	90346	C-31
84625	SI-33	84968	SI-29	86074	SI-71	86260	SI-53	90348	C-31
84626	SI-33	84969	SI-29	86075	SI-71	86262	SI-53	90360	C-32
84627	SI-33	84980	SI-31	86076	SI-71	86275	SI-53	90362	C-32
84633	SI-33	84987	SI-30	86078	SI-71	86283	SI-53	90364	C-32
84649	SI-33	84988	SI-30	86080	SI-71	86285	SI-53	90370	C-32
84652	SI-34	84989	SI-30	86100	SI-37	86294	SI-54	90372	C-32
84653	SI-34	84990	SI-30	86101	SI-37	86295	SI-54	90374	C-32
84655	SI-34	84991	SI-30	86102	SI-37	86296	SI-34	90377	C-32
84656	SI-34	84992	SI-32	86103	SI-37	86297	SI-34	90380	C-32
84657	SI-34	84993	SI-32	86104	SI-37	86298	SI-34	90382	C-32
84658	SI-34	84994	SI-32	86105	SI-37	86300	SI-54	90384	C-32
84659	SI-34	84995	SI-32	86106	SI-37	86301	SI-54	90970	M-19
84669	SI-33	85001	SI-32	86107	SI-37	86302	SI-54	90971	M-19
84670	SI-33	85002	SI-32	86108	SI-37	86303	SI-54	90998	M-19
84671	SI-33	85005	SI-32	86109	SI-37	86304	SI-54	90999	M-19
84673	SI-33	85006	SI-32	86110	SI-37	86307	SI-54	91311	C-19
84674	SI-33	85015	SI-32	86111	SI-37	86308	SI-54	91312	C-19
84679	SI-33	85016	SI-32	86112	SI-37	86315	SI-54	91313	C-19
84681	SI-33	85017	SI-32	86113	SI-37	86317	SI-54	91315	C-19
84682	SI-33	85018	SI-32	86114	SI-37	86323	SI-54	91316	C-19
84689	SI-34	85019	SI-32	86115	SI-37	86329	SI-54	91317	C-19
84696	SI-34	85020	SI-32	86116	SI-37	86330	SI-54	91321	C-19
84697	SI-34	85021	SI-32	86117	SI-37	86331	SI-54	91322	C-19
84699	SI-33	85022	SI-32	86118	SI-37	86341	SI-55	91323	C-19
84700	SI-33	85093	SI-63	86119	SI-37	86342	SI-55	91325	C-19
84701	SI-33	85095	SI-63	86120	SI-37	86343	SI-55	91326	C-19
84702	SI-33	85096	SI-63	86122	SI-37	86350	SI-55	91327	C-19
84705	SI-33	85115	SI-31	86123	SI-37	86351	SI-55	91331	C-19
84706	SI-22	85155	SI-32	86124	SI-37	86353	SI-55	91332	C-19
84707	SI-22	85156	SI-32	86125	SI-37	86358	SI-55	91333	C-19
84708	SI-22	85175	SI-32	86126	SI-34	86359	SI-55	91335	C-19
84709	SI-22	85185	SI-32	86127	SI-37	86366	SI-55	91336	C-19
84711	SI-23	85186	SI-32	86128	SI-37	86367	SI-55	91337	C-19
84712	SI-22	85187	SI-32	86129	SI-37	86373	SI-55	91411	C-19
84715	SI-23	85188	SI-32	86133	SI-93	86379	SI-55	91421	C-19
84716	SI-23	85279	SI-31	86135	SI-93	86386	SI-52	91422	C-19
84719	SI-24	85280	SI-31	86142	SI-70	86388	SI-52	91423	C-19
84721	SI-23	85281	SI-31	86150	C-4	86390	SI-52	91431	C-19
84723	SI-23	85282	SI-31	86151	SI-37	86500	SI-52	91432	C-19
84726	SI-22	85284	SI-31	86152	SI-37	86501	SI-52	91433	C-19
84727	SI-22	85302	SI-31	86153	SI-37	86502	SI-52	91531	C-19
84732	SI-22	85306	SI-31	86155	SI-37	86503	SI-52	91532	C-19
84748	SI-23	85307	SI-31	86156	SI-37	86505	SI-52	91533	C-19
84751	SI-23	85308	SI-31	86157	SI-37	86507	SI-52	91631	C-19
84756	SI-23	85326	SI-31	86177	SI-36	86508	SI-52	91632	C-19
84760	SI-23	85327	SI-31	86184	SI-93	86509	SI-52	91633	C-19
84767	SI-23	85329	SI-31	86186	SI-93	86517	SI-52	91731	C-19
84770	SI-23	85330	SI-31	86187	SI-93	86518	SI-52	91732	C-19
84772	SI-23	85332	SI-31	86188	SI-93	86520	SI-52	91733	C-19
84773	SI-23	85335	SI-31	86189	SI-93	86526	SI-53	92290	J-9
84785	SI-23	85336	SI-31	86191	SI-28	86529	SI-53	92291	J-9
84786	SI-23	85337	SI-31	86193	SI-28	86569	SI-53	92292	J-9
84793	SI-24	85338	SI-31	86200	SI-52	86600	SI-54	92293	J-9
84794	SI-24	85364	SI-31	86201	SI-52	86601	SI-54	92294	J-9
84795	SI-24	85374	SI-31	86202	SI-52	86602	SI-54	92295	J-9

Part No. Index



Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
92301	C-18	93257	SI-89	93632	SI-3	94247	AM-23	94339	AM-23
92302	C-18	93258	SI-89	93636	SI-3	94248	AM-23	94340	AM-23
92340	J-9	93265	SI-89	93637	SI-4	94249	AM-23	94341	AM-23
92341	J-9	93267	SI-89	93640	SI-3	94251	AM-23	94342	AM-23
92342	J-9	93268	SI-89	93641	SI-3	94252	AM-23	94343	AM-23
92360	J-9	93269	SI-90	93642	SI-3	94253	AM-23	94344	AM-23
92362	J-9	93270	SI-90	93643	SI-3	94254	AM-23	94345	AM-23
92364	J-9	93277	SI-84	93801	SI-40	94255	AM-23	94346	AM-23
92370	J-9	93278	SI-90	93802	SI-40	94256	AM-23	94347	AM-23
92372	J-9	93279	SI-90	93803	SI-40	94257	AM-23	94348	AM-23
92374	J-9	93284	SI-99	93804	SI-40	94258	AM-23	94349	AM-23
92380	J-9	93290	SI-89	93805	SI-40	94259	AM-23	94350	AM-23
92382	J-9	93291	SI-89	93806	SI-40	94260	AM-23	94351	AM-23
92384	J-9	93293	SI-88	93807	SI-40	94261	AM-23	94352	AM-23
92680	C-18	93298	SI-101	93808	SI-40	94262	AM-23	94353	AM-23
93001	C-9, C-34, C-36, J-7	93299	SI-69	93809	SI-40	94263	AM-23	94354	AM-23
93007	C-9, J-7	93350	SI-95	93810	SI-40	94264	AM-23	94355	AM-23
93011	C-9, J-7	93351	SI-95	93811	SI-40	94265	AM-23	94356	AM-23
93012	C-9, J-7	93352	SI-95	93812	SI-40	94266	AM-23	94357	AM-23
93014	C-9, J-7	93353	SI-95	93813	SI-40	94267	AM-23	94358	AM-23
93015	C-9, J-7	93355	SI-95	93814	SI-40	94268	AM-23	94359	AM-23
93016	J-7	93360	SI-95	93815	SI-40	94269	AM-23	94360	AM-23
93018	C-9, J-7	93361	SI-95	93950	SI-5	94270	AM-23	94361	AM-23
93019	C-9, J-7	93362	SI-95	93951	SI-5	94271	AM-23	94362	AM-23
93020	C-9, J-7	93365	SI-95	93955	SI-5	94272	AM-23	94363	AM-23
93021	C-9, J-7	93366	SI-95	94101	AM-23	94273	AM-23	94366	AM-23
93022	J-7	93367	SI-95	94102	AM-23	94274	AM-23	94367	AM-23
93023	J-7	93369	SI-95	94103	AM-23	94275	AM-23	94368	AM-23
93024	J-7	93372	SI-94	94104	AM-23	94276	AM-23	94369	AM-23
93025	J-7	93375	SI-94	94105	AM-23	94277	AM-23	94370	AM-23
93026	C-9, J-7	93376	SI-94	94106	AM-23	94278	AM-23	94371	AM-23
93027	C-9, J-7	93378	SI-94	94107	AM-23	94279	AM-23	94372	AM-23
93028	C-9, J-7	93383	SI-94	94108	AM-23	94280	AM-23	94373	AM-23
93031	C-9, J-7	93384	SI-94	94109	AM-23	94281	AM-23	94374	AM-23
93032	C-9, J-7	93385	SI-94	94110	AM-23	94282	AM-23	94375	AM-23
93033	C-9, J-7	93386	SI-94	94111	AM-23	94283	AM-23	94376	AM-23
93057	C-39	93388	SI-94	94112	AM-23	94284	AM-23	94377	AM-23
93058	C-33	93390	SI-94	94113	AM-23	94285	AM-23	94378	AM-23
93103	SI-56	93393	SI-94	94114	AM-23	94286	AM-23	94379	AM-23
93103	C-21	93396	SI-94	94115	AM-23	94287	AM-23	94380	AM-23
93106	C-9	93397	SI-94	94116	AM-23	94288	AM-23	94381	AM-23
93116	C-9	93398	SI-94	94117	AM-23	94289	AM-23	94382	AM-23
93150	SI-86	93402	SI-82	94118	AM-23	94290	AM-23	94383	AM-23
93157	SI-86	93403	SI-82	94119	AM-23	94291	AM-23	94384	AM-23
93160	SI-86	93404	SI-82	94120	AM-23	94292	AM-23	94385	AM-23
93162	SI-86	93500	SI-69	94121	AM-23	94293	AM-23	94386	AM-23
93163	SI-86	93505	SI-90	94122	AM-23	94294	AM-23	94387	AM-23
93201	SI-86	93506	SI-91	94123	AM-23	94295	AM-23	94388	AM-23
93202	SI-68	93507	SI-91	94124	AM-23	94297	AM-23	94389	AM-23
93203	SI-86	93516	SI-91	94125	AM-23	94298	AM-23	94390	AM-23
93208	SI-99	93517	SI-92	94126	AM-23	94299	AM-23	94391	AM-23
93210	SI-100	93520	SI-90	94127	AM-23	94300	AM-23	94392	AM-23
93211	SI-99	93521	SI-90	94128	AM-23	94301	AM-23	94393	AM-23
93212	SI-99	93522	SI-90	94129	AM-23	94302	AM-23	94394	AM-23
93213	SI-99	93524	SI-91	94130	AM-23	94303	AM-23	94395	AM-23
93214	SI-99	93526	SI-69	94131	AM-23	94304	AM-23	94396	AM-23
93215	SI-100	93527	SI-69	94132	AM-23	94306	AM-23	94397	AM-23
93217	SI-100	93528	SI-69	94133	AM-23	94307	AM-23	94398	AM-23
93218	SI-100	93560	SI-3	94134	AM-23	94308	AM-23	94399	AM-23
93219	SI-100	93561	SI-3	94135	AM-23	94309	AM-23	94400	AM-23
93220	SI-68	93562	SI-3	94136	AM-23	94310	AM-23	94401	AM-23
93221	SI-68	93565	SI-3	94137	AM-23	94311	AM-23	94402	AM-23
93222	SI-100	93573	SI-3	94138	AM-23	94313	AM-23	94403	AM-23
93223	SI-100	93576	SI-3	94139	AM-23	94314	AM-23	94404	AM-23
93224	SI-100	93577	SI-3	94140	AM-23	94315	AM-23	94405	AM-23
93226	SI-99	93578	SI-3	94141	AM-23	94322	AM-23	94406	AM-23
93227	SI-99	93579	SI-69	94142	AM-23	94323	AM-23	94407	AM-23
93233	SI-99	93581	M-53	94143	AM-23	94324	AM-23	94408	AM-23
93236	SI-100	93582	M-53	94144	AM-23	94325	AM-23	94409	AM-23
93240	SI-87	93584	SI-3	94145	AM-23	94326	AM-23	94411	AM-23
93241	SI-87	93587	SI-3	94146	AM-23	94327	AM-23	94416	AM-23
93243	SI-89	93592	SI-3	94147	AM-23	94328	AM-23	94417	AM-23
93244	SI-89	93593	SI-3	94148	AM-23	94329	AM-23	94418	AM-23
93247	SI-88	93594	SI-3	94149	AM-23	94330	AM-23	94419	AM-23
93248	SI-89	93600	SI-4	94154	AM-23	94331	AM-23	94420	AM-23
93249	SI-88	93601	SI-4	94155	AM-23	94332	AM-23	94421	AM-23
93251	SI-88	93602	SI-4	94156	AM-23	94333	AM-23	94422	AM-23
93252	SI-88	93603	SI-4	94157	AM-23	94334	AM-23	94423	AM-23
93253	SI-88	93604	SI-4	94239	AM-23	94335	AM-23	94424	AM-23
93254	SI-88	93629	SI-101	94240	AM-23	94336	AM-23	94425	AM-23
93255	SI-88	93630	SI-3	94245	AM-23	94337	AM-23	94426	AM-23
93256	SI-89	93631	SI-3	94246	AM-23	94338	AM-23	94427	AM-23

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
94428	AM-23	94515	AM-23	94616	AM-24	95410	SI-93	A065	F-42, F-68
94429	AM-23	94516	AM-23	94617	AM-24	95412	SI-57	A066	F-46, F-79, O-25
94430	AM-23	94525	AM-23	94618	AM-24	95412	SI-93	A067	F-43, F-71, O-16
94431	AM-23	94526	AM-23	94619	AM-24	95415	SI-58	A068	F-44, F-74
94432	AM-23	94527	AM-23	94620	AM-24	95419	SI-58	A069	F-46, F-53, F-82, O-29
94433	AM-23	94528	AM-23	94621	AM-24	95420	SI-58	A071	F-53
94434	AM-23	94530	AM-24	94622	AM-24	95421	SI-58	A072	F-73
94435	AM-23	94533	AM-24	94623	AM-24	95422	SI-58	A073	F-46, F-53, F-73,
94436	AM-23	94536	AM-24	94624	AM-24	95423	SI-97		F-81, O-17, O-28
94437	AM-23	94537	AM-24	94625	AM-24	95425	SI-58	A075	F-46, F-53, F-82, O-29
94438	AM-23	94538	AM-24	94626	AM-24	95426	SI-58	A079	F-45, F-57, F-68,
94439	AM-23	94539	AM-24	94627	AM-24	95430	SI-59		F-73, F-80, O-12, O-17, O-26
94440	AM-23	94540	AM-24	94628	AM-24	95433	SI-96	A080	F-48, F-57, F-86,
94441	AM-23	94541	AM-24	94629	AM-24	95441	SI-59		O-32
94442	AM-23	94542	AM-24	94630	AM-24	95443	SI-59	A081	F-45, F-54, F-73,
94443	AM-23	94544	AM-24	94631	AM-24	95444	SI-59		F-76, O-18, O-22
94444	AM-23	94545	AM-24	94632	AM-24	95448	SI-60	A082	F-53
94445	AM-23	94546	AM-24	94633	AM-24	95449	SI-60	A083	F-48, F-54, F-86, O-33
94446	AM-23	94547	AM-24	94634	AM-24	95454	SI-60	A085	F-41, F-73, O-18
94447	AM-23	94548	AM-24	94635	AM-24	95455	SI-59	A086	F-46, F-80, F-85,
94448	AM-23	94549	AM-24	94636	AM-24	95456	SI-60		O-3, O-26
94449	AM-23	94550	AM-24	94637	AM-24	95462	SI-60	A087	F-41, F-60, F-80,
94450	AM-23	94551	AM-24	94638	AM-24	95466	SI-60		O-3, O-27
94451	AM-23	94552	AM-24	94639	AM-24	95468	SI-60	A088	F-41, F-64, O-8
94452	AM-23	94553	AM-24	94640	AM-24	95472	SI-96	A090	F-45, F-57, F-80, O-26
94453	AM-23	94554	AM-24	94641	AM-24	95480	SI-96	A100	F-41, F-65, ME-48, O-10
94454	AM-23	94555	AM-24	94642	AM-24	95481	SI-96	A1000	F-56
94455	AM-23	94558	AM-23	94643	AM-24	95485	SI-96	A104	ME-47
94456	AM-23	94559	AM-24	94644	AM-24	95488	SI-96	A105	ME-48
94457	AM-23	94561	AM-23	94645	AM-24	95500	SI-96	A110	F-41, F-66, ME-47, O-11
94458	AM-23	94562	AM-23	94646	AM-24	95516	SI-96	A111	F-41, F-66
94459	AM-23	94563	AM-23	94647	AM-24	95519	SI-96	A112	ME-47
94460	AM-23	94564	AM-23	94648	AM-24	95522	SI-96	A113	ME-47
94461	AM-23	94565	AM-23	94649	AM-24	95525	SI-57	A114	ME-47
94462	AM-23	94566	AM-23	94650	AM-24	95525	SI-93	A118	F-48, F-57, F-86, O-32
94463	AM-23	94567	AM-23	94651	AM-24	95526	SI-57	A120	F-41, F-60, O-3
94464	AM-23	94568	AM-23	94652	AM-24	95526	SI-93	A1200	F-57
94465	AM-23	94569	AM-23	94657	AM-24	95527	SI-57	A121	F-45, F-78, O-23
94466	AM-23	94570	AM-23	94658	AM-24	95527	SI-93	A122	F-45, F-78, O-23
94467	AM-23	94571	AM-23	94659	AM-24	95528	SI-57	A123	F-45, F-78, O-23
94468	AM-23	94572	AM-23	94660	AM-24	95528	SI-93	A124	F-45, F-78, O-23
94469	AM-23	94573	AM-23	94663	AM-24	95530	SI-57	A125	F-54
94470	AM-23	94574	AM-23	94664	AM-24	95530	SI-93	A126	F-45, F-78, O-23
94471	AM-23	94575	AM-23	94668	AM-24	95536	SI-59	A128	F-41, F-64, O-8
94472	AM-23	94576	AM-23	94670	AM-24	95555	SI-97	A129	F-41, F-60, O-3, O-29
94473	AM-23	94577	AM-23	94671	AM-24	95556	SI-97	A130	F-47, F-82
94474	AM-23	94578	AM-23	94672	AM-24	95557	SI-97	A131	F-45, F-78, O-23
94475	AM-23	94579	AM-24	94673	AM-24	95558	SI-97	A132	F-45, F-78, O-23
94476	AM-23	94580	AM-24	94674	AM-24	95559	SI-97	A133	F-43, F-69, O-14
94477	AM-23	94581	AM-24	94675	AM-24	95560	SI-98	A134	F-43, F-71, O-16
94478	AM-23	94582	AM-24	94676	AM-24	95561	SI-98	A135	F-44, F-74, O-19
94479	AM-23	94583	AM-24	94677	AM-24	95562	SI-98	A136	F-46, F-80, O-26
94480	AM-23	94584	AM-24	94678	AM-24	95563	SI-98	A137	F-48, F-86, O-33
94481	AM-23	94585	AM-24	94679	AM-24	95564	SI-98	A138	F-44, F-74, O-19
94482	AM-23	94586	AM-24	94680	AM-24	95565	SI-98	A139	F-46, F-80, O-27
94483	AM-23	94587	AM-24	94681	AM-24	95628	AM-10	A140	F-42, F-68, O-12
94484	AM-23	94588	AM-24	94682	AM-24	95629	AM-10	A141	F-43, F-71, O-16
94485	AM-23	94589	AM-24	94683	AM-24	95721	AM-10	A142	F-46, F-79, F-80,
94486	AM-23	94590	AM-24	94684	AM-24	95722	AM-10		O-24, O-25, O-27
94487	AM-23	94591	AM-24	94685	AM-24	95723	AM-10	A143	F-46, F-82, O-17, O-29
94488	AM-23	94592	AM-24	94686	AM-24	95731	AM-10	A144	F-48, F-86, O-33
94489	AM-23	94593	AM-24	94687	AM-24	95732	AM-10	A145	F-43, F-71, O-16
94490	AM-23	94594	AM-24	94688	AM-24	95735	AM-10	A146	F-46, F-82, O-29
94491	AM-23	94595	AM-24	94689	AM-24	95741	AM-10	A148	F-43, F-69, F-71,
94492	AM-23	94596	AM-24	94690	AM-24	95821	AM-10		O-14, O-16
94493	AM-23	94597	AM-24	94691	AM-24	95822	AM-10	A150	F-47, F-82, O-29
94494	AM-23	94600	AM-23	94720	AM-23	95823	AM-10	A151	F-43, F-69, F-71,
94495	AM-23	94601	AM-23	95021	AM-10	95831	AM-10		O-14, O-16
94497	AM-23	94602	AM-23	95022	AM-10	95832	AM-10	A154	F-48, F-86, O-33
94498	AM-23	94603	AM-23	95027	AM-10	95841	AM-10	A155	F-41, F-61, O-4
94499	AM-23	94604	AM-23	95031	AM-10	95842	AM-10	A156	F-41, F-65, O-10
94500	AM-23	94605	AM-23	95032	AM-10	95865	AM-10	A157	F-42, F-68, O-12
94501	AM-23	94606	AM-24	95041	AM-10	95866	AM-10	A158	F-41, F-60, O-3
94502	AM-23	94607	AM-24	95131	AM-10	95875	AM-10	A159	F-41, F-55, F-66
94503	AM-23	94608	AM-23	95400	SI-57	95923	AM-10	A160	F-41, F-60, O-3
94504	AM-23	94609	AM-24	95401	SI-57	95931	AM-10	A161	F-41, F-55, F-66, O-11
94506	AM-23	94610	AM-24	95402	SI-57	95932	AM-10	A162	F-42, F-68, O-12
94507	AM-23	94611	AM-24	95403	SI-57	95941	AM-10	A163	F-44, F-74, O-19
94508	AM-23	94612	AM-24	95407	SI-57	9721	F-61, F-64, F-69, F-74	A164	F-44, F-74, O-19
94510	AM-23	94613	AM-24	95409	SI-57	A051	F-43, F-71	A165	F-49, F-86, O-33
94512	AM-23	94614	AM-24	95409	SI-93	A063	F-48, F-52, F-86, O-33	A166	F-54
94513	AM-23	94615	AM-24	95410	SI-57	A064	F-43, F-57, F-69, O-14	A167	F-52

Part No. Index



Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
A168	F-49, F-86, O-33	A263	F-47, F-83O-30	B22508	F-58	C181	ME-16	D1001	F-9, F-64
A169	F-43, F-71, O-16	A264	F-47, F-83	B22510	F-58	C182	ME-16	D1005	F-8, F-30, F-84
A170	F-43, F-71, O-16	A265	F-47, F-83	B22513	F-58	C183	ME-16	D1006	F-7, F-28, F-81, O-28
A171	F-43, F-71, O-16	A266	F-47, F-83, O-28	B22515	F-58	C185	ME-17	D1008	F-7, F-76, O-22
A172	F-43, F-71, O-16	A267	F-47, F-83	B23617	F-41, F-53	C186	ME-17	D1010	F-9, F-66, O-11
A173	F-43, F-71, O-16	A268	F-47, F-83, O-30	B23618	F-41, F-53	C187	ME-17	D1011	F-9, F-66, O-11
A174	F-43, F-71, O-16	A269	F-47, F-83	B24220	F-57	C188	ME-16	D1012	F-7, F-66, O-11
A175	F-43, F-71, O-16	A270	F-47, F-83, O-30	B30	F-52	C191	ME-17	D1016	F-8, F-66, F-90, O-11
A176	F-43, F-72, O-17	A271	F-47, F-83, O-30	B300	ME-38	C193	ME-17	D1022	F-8, F-64
A177	F-43, F-72, O-17	A272	F-48, F-83, O-30	B302	ME-38	C194	ME-17	D1025	F-8, F-30, F-90
A178	F-43, F-72, O-17	A273	F-48, F-83, O-30	B303	ME-38	C208	ME-19	D1028	F-9, F-32, F-60, O-3
A179	F-43, F-72, O-17	A274	F-48, F-83, O-30	B304	ME-39	C209	ME-19	D1029	F-77
A180	F-42, F-60, O-3	A276	F-48, F-83, O-30	B305	ME-39	C210	ME-19	D1031	F-77
A181	F-42, F-68, O-12	A277	ME-48	B306	ME-39	C215	ME-19	D1032	F-8, F-85, O-32
A182	F-42, F-68, O-12	A278	F-48, F-83, ME-48, O-30	B307	ME-39	C216	ME-19, ME-40	D1033	F-8, F-65, F-81, F-90
A184	F-42, F-68, O-13	A279	F-48, F-83, O-31	B312	ME-40	C235	ME-19, ME-40	D1036	F-9, F-32, F-78
A185	F-42, F-60, O-3	A280	F-42, F-60, O-3	B313	ME-40	C242	ME-22	D1037	O-24
A187	F-42, F-68, O-13	A281	F-42, F-68, O-13	B314	ME-40	C243	ME-22	D1038	F-9, F-32
A188	F-42, F-68, O-13	A282	F-42, F-68	B315	ME-40	C247	ME-41	D1039	F-7, F-27, F-70, O-15
A189	F-42, F-68, O-13	A283	F-42, F-60	B317	ME-19, ME-40	C261	ME-22	D1040	F-8, F-70
A191	F-47, F-82, O-29	A284	F-42, F-68, O-13	B318	ME-19, ME-40	C262	ME-22	D1041	F-8, F-70
A192	F-47, F-82, O-29	A285	F-42, F-68, O-13	B319	ME-19, ME-40	C264	ME-22	D1042	F-8, F-86, F-90, O-33
A193	F-47, F-82, O-29	A286	F-42, F-60, O-3	B322	ME-38	C268	ME-22	D1043	F-8, F-70
A194	F-47, F-82, O-29	A287	F-42, F-60, O-3	B332	ME-40	C269	ME-22	D1044	F-8, F-70, O-15
A195	F-47, F-82, O-29	A288	F-42, F-68, O-13	B335	ME-40	C271	ME-22	D1045	F-8, F-70
A196	F-47, F-82, O-29	A289	F-42, F-60, O-4	B336	ME-19, ME-40	C275	ME-22	D1046	F-9, F-31, F-74, F-90, O-19
A197	F-47, F-82, ME-49, O-29	A290	F-42, F-68, O-13	B337	ME-40	C276	ME-22	D1047	F-8, F-70
A198	F-47, F-83, ME-49, O-30	A301	F-43, F-72, O-17	B338	ME-40	C289	ME-41	D1048	F-8, F-70, O-15
A199	F-47, F-83, ME-49	A302	F-43, F-72, O-17	B352	ME-19, ME-40	C292	ME-41	D1049	F-8, F-70, O-15
A200	F-44, F-74, O-19	A304	F-43, F-72, O-17	B353	ME-40	C330	ME-45	D1050	F-8, F-70, O-15
A201	F-44, F-74, ME-49	A306	F-43, F-72, O-17	B45227	F-55	C332	ME-45	D105	F-5, F-18
A202	F-44, F-74, ME-49, O-20	A307	F-43, F-72	B45227-2	F-55	C334	ME-45	D1050	F-8, F-30, F-67, F-84, O-11, O-31
A203	F-44, F-74, O-20	A311	ME-49	B45230	F-56	C336	ME-45	D1051	F-8, F-84, F-90
A204	F-44, F-74, O-20	A320	F-45, F-75, O-21	B45267	F-56	C338	ME-45	D1053	F-8, F-70
A205	F-44, F-74, O-20	A322	F-45, F-75, O-21	B47120	F-55	C340	ME-45	D1054	F-9, F-32, F-70, O-15
A206	F-44, F-74, O-20	A324	F-45, F-75, O-21	B506	ME-41	C354	ME-21	D1055	F-8, F-70
A207	F-44, F-75, O-20	A325	F-45, F-75, O-21	B606	ME-38	C356	ME-21	D1056	F-8, F-60
A208	F-44, F-75, O-20	A329	F-45, F-75	B607	ME-39	C359	ME-21	D1058	F-8, F-60, F-84
A209	F-44, F-75, O-20	A330	F-45, F-75, O-21	B608	ME-40	C419	ME-40	D1059	F-8, F-70, O-15
A210	F-44, F-75, O-20	A331	F-45, F-75, O-21	B609	ME-40	C420	ME-40	D106	F-5, F-18
A211	F-44, F-75, O-20	A360	F-48, F-84	B68042	F-56	C431	ME-16	D1061	F-7, F-27, F-69, F-90, O-13
A212	F-55	A361	F-48, F-84, O-21	B703	ME-39	C446	ME-23	D1062	F-8, F-60
A213	F-44, F-75, O-20	A362	F-48, F-84, O-21	B75	F-53	C459	ME-16	D1065	F-8, F-60, F-90, O-4
A216	F-44, F-75, O-20	A367	F-48, F-84	C1152	ME-40	C474	ME-40	D1066	F-9, F-32, F-62, O-6
A217	F-44, F-75, O-20	A368	F-48, F-84, O-21	C1153	ME-40	C475	ME-40	D1069	F-9, F-64, O-8
A218	F-45, F-75	A369	F-48, F-84, O-21	C1154	ME-40	C476	ME-40	D107	F-4, F-18, ME-38
A219	F-45, F-75, O-20	A370	F-48, F-84, O-21	C1155	ME-40	C486	ME-40	D1071	F-8, F-69, O-14
A220	F-49, F-87	A373	F-48, F-84	C1156	ME-40	C548	ME-19	D1080	F-9, F-64, O-9
A221	F-49, F-87, O-33	A455	F-56	C1157	ME-40	C552	ME-19	D1081	F-8, F-64, O-10
A222	F-49, F-87, O-33	A518	ME-47	C1158	ME-19, ME-40	C806	ME-41	D1082	F-9, F-77, O-23
A223	F-49, F-87, O-33	A549	ME-49	C1160	ME-19, ME-40	CG223	ME-19	D1086	F-8, F-67, F-90, O-11
A224	F-49, F-87, O-33	A662	ME-49	C1161	ME-40	CG230	ME-19, ME-40	D1087	F-9, F-61, O-5
A225	F-49, F-87, O-34	A977	F-50	C1252	ME-16	CG239	ME-19	D1089	F-8, F-84, F-90, O-31
A226	F-49, F-87, O-34	A978	F-50	C1258	ME-19	CG251	ME-22	D109	F-6, F-19
A227	F-49, F-87, O-34	A979	F-50	C1263	ME-16	CG362	ME-21	D1090	F-8, F-84, O-31
A228	F-49, F-87, O-34	A980	F-50	C1264	ME-19	CG363	ME-21	D1091	F-8, F-76, O-22
A229	F-49, F-87, O-34	A981	F-50	C129	ME-20	CG381	ME-17	D1092	F-80
A230	F-49, F-87, O-34	A983	F-50	C1299	ME-17	D002	F-81	D1100	F-5, F-76, O-22
A231	F-49, F-87, O-34	A984	F-50	C133	ME-20	D0030	F-20	D1101	F-6, F-22, F-74, O-19
A234	F-49, F-87, ME-49	A985	F-50	C1333	ME-22	D0041	F-20	D1102	F-4, F-22, F-85, O-32
A240	F-46, F-79, O-25	A990	F-50	C138	ME-19, O-32	D0042	F-63	D1103	F-6, F-22, F-74, O-19
A241	F-46, F-79, O-25	A991	F-50	C1422	ME-21	D011	F-63	D1104	F-5, F-76, O-22
A242	F-46, F-79, O-25	A992	F-50	C145	ME-16	D013	F-51	D1107	F-7, F-78, O-24
A243	F-46, F-79, ME-48, O-25	A994	F-50	C147	ME-16	D0307	F-20	D1109	F-4, F-19, F-78, O-24
A244	F-46, F-79, ME-48, O-25	A996	F-50	C1478	ME-40	D031	F-20	D11	ME-40
A245	F-46, F-79, ME-48, O-26	AG195	ME-47	C1479	ME-40	D0314	F-20	D1110	F-5, F-61, O-4
A246	F-46, F-79, O-26	AG234	ME-49	C148	ME-16	D032	F-63	D1111	F-6, F-24, F-80, F-85
A247	F-46, F-79, O-26	B100	ME-39	C1483	ME-20	D033	F-63	D1113	ME-40
A248	ME-49	B1316	ME-19, ME-40	C153	ME-16	D0343	F-78	D1114	F-7, F-61, O-4
A249	ME-47	B1502	ME-41	C154	ME-16	D0346	F-78	D1117	F-5, F-76, O-22
A250	ME-47	B1504	ME-41	C158	ME-16	D0396	F-66, F-74	D1118	F-5, F-19, F-64, O-8
A251	F-46, F-81, ME-47, O-28	B1507	ME-41	C159	ME-16	D0418	F-63	D1119	F-5, F-18, F-62, O-6
A252	ME-47	B160	F-55	C164	ME-16	D043	F-63	D112	F-7, F-27, F-90
A253	ME-47	B193	ME-42	C167	ME-16	D0447	F-63	D1120	F-6, F-22, F-73, O-18
A254	ME-47	B200	ME-39	C168	ME-16	D0534	F-20	D1121	F-6, F-22, F-73, O-18
A256	ME-49	B201	ME-38	C173	ME-21	D0540	F-20	D1122	F-4, F-69, O-14
A257	ME-48	B202	ME-39	C174	ME-21	D0562	F-20	D1123	F-4, F-69, O-14
A258	ME-49	B206	ME-38	C175	ME-16	D0563	F-63	D1124	F-6, F-22, F-61, O-5
A259	ME-48	B207	ME-39	C176	ME-16	D0636	F-78	D1125	F-4, F-22, F-61, O-5
A260	F-47, F-83O-30	B208	ME-39	C178	ME-16	D0746	F-78	D1126	F-6, F-22, F-61, O-5
A261	F-47, F-83, ME-49O-30	B22505	F-58	C179	ME-16	D091	F-63		
A262	F-47, F-83O-30	B22507	F-58	C180	ME-16	D0960	F-50		



Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
D1127	F-18, F-69	D138	F-6, F-23	D240	F-9, F-32	D356	F-9, F-31, F-90	D541	F-5, F-19, F-78, O-24
D1129	F-4, F-21	D140	F-9, F-32	D242	F-9, F-32	D359	F-6, F-64	D5458	F-10, F-35
D113	F-7, F-28	D142	F-9, F-32	D245	F-8, F-30	D364	F-6, F-18	D5459	F-10, F-35
D1130	F-4, F-17	D143	F-9, F-32, ME-39	D247	F-8, F-30	D365	F-6, F-18	D5488	F-10, F-34, O-4
D1132	F-69	D144	F-9, F-32	D249	F-9, F-30	D366	F-7, F-24	D5489	F-10, F-34, O-4
D1133	F-69	D148	F-9, F-32, F-90	D250	F-9, F-30	D367	F-7, F-24	D550	F-3, F-15
D1134	F-5, F-18, F-85, O-32	D149	ME-39	D251	F-9, F-30	D369	F-20	D551	F-3, F-15
D1137	F-77	D150	F-8, F-31, F-90	D252	F-9, F-30	D370	F-20	D552	F-3, F-15
D1138	F-5, F-23, F-62, O-6	D151	F-8, F-31, F-90	D253	F-9, F-30, F-90	D374	F-7, F-27	D553	F-3, F-15
D1139	F-5, F-19, F-62, O-6	D152	F-8, F-31, F-90	D254	F-9, F-30	D3752	F-10, F-39	D554	F-3, F-15
D114	F-7, F-28	D154	F-9, F-31, F-90	D255	F-9, F-30	D3755	F-10, F-39	D555	F-3, F-15
D1140	F-4, F-77, O-22	D156	F-9, F-31, F-90	D256	F-9, F-30	D3758	F-10, F-39	D556	F-3, F-15
D1141	F-77, O-22	D158	F-9, F-31, F-90	D257	F-9, F-30	D3760	F-11, F-39	D557	F-3, F-15
D1142	F-6, F-22, F-77, O-22	D160	F-9, F-31, F-90	D258	F-8, F-30	D377	F-7, F-27, F-73, O-18	D558	F-3, F-15
D1143	F-77	D162	ME-39	D260	F-8, F-32, F-90	D3771	F-10, F-39	D559	F-3, F-15
D1144	F-4, F-22, F-77, O-22	D163	ME-39	D261	F-8, F-32, F-90	D3772	F-11, F-39	D560	F-3, F-15
D115	F-7, F-28, F-70, ME-40, O-15	D164	F-9, F-31, F-90	D262	F-8, F-31, F-85, O-32	D3774	F-10, F-39	D561	F-3, F-15
D1151	F-5, F-65, O-10	D166	F-9, F-31, F-90	D264	F-8, F-31, F-67, F-90, O-11	D3775	F-10, F-39	D562	F-3, F-15
D1152	F-6, F-22, F-74, O-18	D167	F-5, F-23	D2700	F-11, F-37, F-90	D382	F-8, F-30	D563	F-3, F-15
D1154	F-6, F-22, F-74, O-18	D169	F-5, F-23	D2701	F-11, F-37, F-90	D383	F-51	D564	F-3, F-15
D1155	F-4, F-81, O-28	D170	F-7, F-27	D2702	F-11, F-37, F-90	D389	F-9, F-30	D565	F-3, F-15
D1156	F-73	D1702	F-10	D2703	F-11, F-37, F-90	D391	ME-27	D566	F-3, F-15
D1157	F-73, F-77	D1703	F-10, F-38	D2704	F-11, F-37, F-90	D392	ME-27	D567	F-3, F-15
D1158	F-6, F-73	D1704	F-10, F-38	D2705	F-11, F-37, F-90	D402	F-5, F-17	D568	F-3, F-15
D1159	F-4, F-65, O-10	D1705	F-11, F-38	D2706	F-11, F-37, F-90	D403	F-5, F-17	D569	F-3, F-15
D116	F-7, F-27	D1706	F-10, F-38	D2707	F-11, F-36	D404	F-4, F-17, F-72, O-17	D570	F-3, F-15
D1160	F-4, F-65, O-10	D1707	F-10, F-38	D2711	F-11, F-36	D405	F-4, F-17, F-72, O-17	D571	F-3, F-15
D1161	F-6, F-19, F-65, O-10	D1708	F-11, F-38	D2712	F-11, F-36	D408	F-4, F-25, F-64, O-8	D572	F-3, F-15
D1162	F-4, F-19, F-65, O-10	D1709	F-90	D2713	F-11, F-36	D410	F-4, F-25	D573	F-3, F-15
D1164	F-6, F-19, F-22, F-81, O-27	D1710	F-11, F-90	D2714	F-11, F-36	D412	F-4, F-25	D574	F-4, F-15
D1165	F-6, F-81, O-28	D1731	F-10, F-37	D2715	F-11, F-36	D415	F-5, F-25	D575	F-4, F-15
D1167	F-5, F-25, F-71, F-81, O-16, O-27	D1732	F-11	D2720	F-10, F-36	D417	F-21	D576	F-4, F-15
D1169	F-7, F-26, F-81, O-27	D174	F-7, F-27, F-90	D2729	F-11, F-36	D418	F-5, F-25	D577	F-4, F-15
D117	F-7, F-28, F-90	D1745	F-90	D277	F-8, F-30	D419	F-20	D578	F-4, F-15
D1170	F-7, F-27, F-73, O-18	D1748	F-90	D2800	F-11, F-79	D429	F-4, F-21	D579	F-4, F-15
D1171	F-6, F-26, F-86, O-32	D1749	F-90	D2803	F-51	D431	F-4, F-21	D580	F-4, F-15
D1173	F-5, F-23, F-73, O-18	D176	F-9, F-31, F-90	D2814	F-90	D435	F-7, F-27, F-90	D581	F-4, F-15
D1174	F-6, F-26, F-62, O-7	D177	F-9, F-31, F-77, O-22	D2816	F-11, F-76, F-90, O-21	D437	F-4, F-21	D582	F-15
D1176	F-4, F-24, F-63, O-8	D178	F-9, F-31, F-64, F-90, O-8	D2817	F-10, F-76, F-90	D441	F-5, F-66, O-11	D583	F-15
D1177	F-4, F-62, O-7	D180	F-9, F-31, ME-38	D2818	F-11, F-76, F-90	D454	F-6, F-26	D6002	F-12, F-40
D1179	F-5, F-26, F-61, O-5, O-8	D181	F-5, F-18, ME-39	D2826	F-10, F-35	D455	F-6, F-25, F-62, O-7	D6004	F-12, F-40
D118	F-7, F-27, ME-40	D182	F-5, F-19	D2832	F-90	D456	F-7, F-26, F-62, O-7	D6006	F-12, F-40
D1180	F-6, F-26, F-61, O-6, O-8	D184	F-6, F-18	D2833	F-90	D457	F-7, F-26, F-62, O-7	D601	F-5, F-19
D1182	F-4, F-62, O-7	D1853	F-10, F-67, F-90	D2840	F-10, F-79, O-26	D458	F-7, F-26, F-62, O-7	D602	F-5, F-19
D1184	F-4, F-25	D186	F-6, F-19, F-66, O-11	D2842	F-10, F-79, O-26	D459	F-7, F-62, F-80, O-7, O-25, O-26	D603	F-5, F-18
D1186	F-4, F-25	D188	F-6, F-18	D2844	F-10, F-79	D461	F-4, F-80, O-25	D6066	F-12, F-40
D1188	F-6, F-25	D189	F-6, F-19	D2862	O-18	D463	F-6, F-62, O-7	D6068	F-12, F-40
D1189	F-6, F-73, O-18	D190	F-5, F-18	D2871	O-33	D469	F-7, F-21	D6070	F-12, F-40
D119	F-7, F-27, ME-40	D1910	F-90	D289	F-9, F-30	D470	F-6, F-21	D6073	F-12, F-40
D1190	F-5, F-26, F-85, O-32	D1911	F-90	D290	F-8, F-30	D471	F-6, F-21	D608	F-5, F-17
D1191	F-5, F-25, F-86, O-32	D192	F-6, F-23	D291	F-8, F-30	D472	F-6, F-21	D6082	F-12, F-40
D1192	F-5, F-25	D200	F-4, F-17	D292	F-8, F-30	D473	F-6, F-21	D6084	F-12, F-40
D1193	F-5, F-25	D201	F-4, F-17	D293	F-9, F-30	D474	F-8, F-29, F-90	D6086	F-12, F-40
D1194	F-6, F-25	D202	F-5, F-17	D294	F-8, F-30	D475	F-7, F-21, F-81, O-28	D6088	F-12, F-40
D1196	F-5, F-25	D203	F-5, F-17	D310	F-7, F-27	D477	F-5, F-21	D609	F-5, F-18
D1198	F-5, F-25, F-75, O-21	D205	F-5, F-17	D311	ME-23	D480	F-7, F-28, F-90	D6090	F-12, F-40
D120	F-5, F-18	D206	F-5, F-17	D312	F-7, F-27, F-90, ME-23	D481	F-7, F-28, F-90	D6093	F-12, F-40
D121	F-5, F-18	D207	F-5, F-17	D313	ME-23	D482	F-7, F-28, F-90	D616	F-63
D122	F-5, F-19	D208	F-6, F-17	D314	F-9, F-31, F-90, ME-23	D483	F-7, F-28, F-90	D624	F-5, F-19
D123	F-5, F-19	D209	F-6, F-17	D315	ME-23	D484	F-7, F-28, F-90	D632	F-61
D124	F-5, F-19	D210	F-6, F-17	D316	F-9, F-31, F-90, ME-23	D485	F-7, F-28, F-90	D633	F-61
D1243	F-4, F-22, F-73, O-18	D211	F-6, F-17	D318	F-9, F-31	D486	F-8, F-29, F-90	D635	F-7, F-28, F-90
D1245	F-4, F-22, F-73	D212	F-6, F-17	D323	F-4, F-24, F-80, O-27	D487	F-8, F-29, F-90	D636	F-6, F-18
D1246	F-7, F-73, F-90, O-18	D213	F-6, F-17	D325	F-7, F-24, F-80, O-27	D488	F-8, F-29, F-90	D637	F-78
D125	F-5, F-19	D214	F-6, F-17	D326	F-4, F-24	D489	F-8, F-29, F-90	D653	F-80
D126	F-5, F-18	D215	F-6, F-17	D329	F-7, F-28, F-90	D490	F-9, F-29, F-90	D655	F-9, F-30
D127	F-5, F-18	D216	F-6, F-17	D330	F-5, F-23	D491	F-9, F-29, F-90	D656	F-9, F-31, F-90
D128	F-5, F-18	D218	F-4, F-17	D332	F-6, F-18	D492	F-9, F-29, F-90	D658	F-9, F-31, F-90
D129	F-4, F-18	D219	F-4, F-17	D3325CCW	F-20	D493	F-9, F-29, F-90	D6608	F-11, F-40
D130	F-5, F-23, F-81, O-29	D220	F-6, F-17	D3325CW	F-20	D494	F-9, F-29, F-90	D6610	F-11, F-40
D131	F-5, F-23	D221	F-30	D333	F-7, F-28, F-90	D495	F-9, F-29, F-90	D6622	F-11, F-40
D132	F-6, F-18	D222	F-6, F-25	D334	F-7, F-23	D497	F-8, F-29, F-90	D6624	F-11, F-40
D133	F-6, F-18	D224	F-9, F-30	D335	F-7, F-28, F-90	D499	F-8, F-29, F-90	D6626	F-11, F-40
D134	F-6, F-23	D226	F-6, F-23	D336	F-7, F-28, F-90	D503	F-4, F-17	D6628	F-11, F-40
D135	F-6, F-23	D227	F-6, F-23	D337	F-7, F-28, F-90	D504	F-4, F-23	D6630	F-11, F-40
D136	F-5, F-18	D228	F-5, F-17	D338	F-7, F-28, F-90	D514	F-6, F-18	D6631	F-11, F-40
D137	F-5, F-19, F-80, O-27	D229	F-4, F-17	D339	F-7, F-28, F-90	D515	F-6, F-18	D6633	F-11, F-40
D138	F-6, F-18	D230	F-4, F-17	D340	F-9, F-32	D520	F-6, F-25	D671B	F-63
D139	F-6, F-18	D234	F-6, F-23	D342	F-9, F-32, F-78, O-24	D532	F-5, F-18	D672B	F-63
D140	F-9, F-32	D235	F-7, F-23	D347	F-8, F-30, F-90	D534	F-5, F-19, F-77, O-23	D673	F-50
D141	F-9, F-32	D236	F-7, F-23	D351	F-63	D535	F-20	D674	F-7, F-27
D142	F-9, F-32	D238	F-7, F-23	D354	F-8, F-30	D540	F-4, F-19, F-78, O-23	D701	F-11, F-37, F-90

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
D703	F-11, F-37, F-90	D897	F-90	FM50	F-88	G964	ME-42	H225	ME-43
D711	F-90	D902	F-90	FM55	F-88	G965	ME-42	H226	ME-43
D713	F-11, F-34	D906	F-10, F-34	G044A	ME-24	G967	ME-42	H229	ME-18
D721	F-10, F-37, F-90	D908	F-11, F-34	G047A	ME-24	GASKET0167	F-94	H233	ME-41
D723	F-10, F-90	D909	F-10, F-34	G063A	ME-24	GROM6000	F-93	H234	ME-41
D724	F-11, F-37, F-79, O-26	D910	F-90	G067	ME-24	GROM6008	F-93	H236	ME-41
D725	F-10, F-37, F-90	D911	F-90	G084A	ME-24	GSW	F-59	H239	ME-16
D726	F-90	D912	F-90	G091	ME-16	GT0010	ME-26	H248	ME-39
D727	F-10, F-37, F-90	D913	F-90	G100	ME-42	GT0012	ME-26	H275	ME-39
D728	F-11, F-90	D914	F-90	G106	ME-42	GT0013	ME-26	H278	ME-43
D729	F-11, F-37, F-90	D915	F-77, F-90, O-22	G1098	ME-16	GT0015	ME-26	H280	ME-43
D730	F-90	D916	F-90	G1114	ME-19, ME-40	GT0016	ME-26	H282	ME-43
D733	F-90	D917	F-10, F-34	G1115	ME-19, ME-40	GT0018	ME-26	H286	ME-39
D735	F-90	D918	F-90	G122	ME-42	GT0019	ME-26	H287	ME-43
D737	F-90	D919	F-10, F-34	G127	ME-42	GT0021	ME-26	H288	ME-43
D739	F-90	D920	F-11, F-36, F-90	G1312	ME-22	GT0022	ME-26	H290	ME-43
D742	F-10, F-33	D921	F-11, F-36	G1316	ME-22	GT0024	ME-26	H291	ME-41
D743	F-10, F-33	D923	F-10, F-37, F-90	G1330	ME-22	GT0025	ME-26	H293	ME-41
D745	F-90	D927	F-90	G1331	ME-22	GT1005	ME-29	H296	ME-38
D748	F-10, F-33, F-90	D928	F-37, F-90	G135	ME-40	GT1008	ME-29	H298	ME-39
D770	F-10, F-38	D929	F-11, F-33, F-90	G1376	ME-22	GT1009	ME-29	H300	ME-38
D7745	F-11, F-33, F-90	D930	F-90	G1377	ME-22	GT1010	ME-29	H33	F-92
D7748	F-10, F-33, F-90	D934	F-10, F-34	G140	ME-42	GT1011	ME-29	H5	F-88
D7749	F-10, F-33, F-90	D935	F-90	G141	ME-42	GT1012	ME-29	H6	F-88
D780	F-90	D937	F-90	G142	ME-42	GT1013	ME-29	H620	ME-38
D782	F-90	D938	F-11, F-34	G143	ME-42	GT1014	ME-29	H673	ME-20
D783	F-10, F-38, F-64, F-90, O-9	D939	F-90	G144	ME-42	GT1015	ME-29	H674	ME-20
D784	F-90	D940	F-90	G145	ME-42	GT1016	ME-29	H689	ME-18
D785	F-90	D9430	F-50	G151	ME-19, ME-40	GT1017	ME-29	H693	ME-20
D786	F-90	D9459	F-51	G1511	ME-23	GT1018	ME-29	H8	F-88
D787	F-90	D9487	F-81	G1513	ME-23	GT1019	ME-29	H901	ME-17
D788	F-90	D951	F-90	G1515	ME-23	GT1020	ME-29	H902	ME-17
D789	F-90	D959	F-50	G1517	ME-23	GT1021	ME-29	H903	ME-17
D790	F-11, F-34	D960	F-11, F-36	G1519	ME-23	GT1022	ME-29	H904	ME-17
D7907	F-11, F-34	D961	F-11, F-36	G156	ME-19, ME-40	GT1023	ME-29	H905	ME-17
D7908	F-11, F-34	D9619	F-50	G161	ME-42	GT1024	ME-29	H906	ME-17
D7909	F-10, F-34	D9620	F-50	G162	ME-42	GT1025	ME-29	H907	ME-17
D7909	F-10, F-34	D9623	F-78	G212	ME-21	GT1026	ME-29	H908	ME-17
D791	F-11, F-34	D966	F-90	G216	ME-21	H10	F-88	H912	ME-38
D792	F-10, F-34	D967	F-90	G2243	F-8, F-29	H112	ME-38	H913	ME-38
D793	F-10, F-34	D968	F-90	G2244	F-8, F-29	H114	ME-38	H915	ME-38
D795	F-11, F-34, F-61, O-4	D970	F-11, F-38, F-90	G2245	F-8, F-29	H130	ME-39	H917	ME-39
D796	F-11, F-34	D971	F-90	G2246	F-8, F-29	H131	ME-39	H919	ME-39
D797	F-10, F-34	D972	F-90	G2247	F-8, F-29	H133	ME-39	HG113	ME-38
D798	F-10, F-34	D973	F-90	G2248	F-8, F-29	H157	ME-38	HG115	ME-38
D799	F-10, F-34	D974	F-11, F-38, F-90	G2249	F-8, F-29	H158	ME-38	HG120	ME-22
D801	O-14	D975	F-90	G230	ME-21	H159	ME-38	HG152	ME-38
D802	O-8	D998	F-11, F-39	G232	ME-21	H160	ME-38	HG154	ME-38
D803	O-5, O-8	E1930	ME-25	G234	ME-21	H162	ME-38	HG155	ME-38
D807	F-90, O-15	E1931	ME-25	G238	ME-21	H163	ME-38	HG156	ME-38
D812	F-90	E1931-P	ME-25	G250	ME-21	H164	ME-39	HG161	ME-38
D816	F-90, O-21	E203-P	ME-28	G254	ME-21	H165	ME-39	HG178	ME-41
D818	F-10, F-76, F-90	E2101	ME-28	G256	ME-21	H166	ME-39	HG182	ME-41
D821	F-90, O-21	E2102	ME-28	G258	ME-21	H167	ME-39	HG186	ME-41
D823	F-90	E2104	ME-28	G270	ME-21	H168	ME-39	HG188	ME-41
D824	O-10, O-24	E2105	ME-28	G272	ME-21	H169	ME-38	HG189	ME-41
D825	F-90, O-10	E2107	ME-28	G274	ME-21	H170	ME-38	HG191	ME-41
D827	F-10, F-60, F-69, O-4, O-14	E2108	ME-28	G278	ME-21, ME-43	H171	ME-38	HG621	ME-39
D829	F-10, F-69, O-14	E2110	ME-28	G352	ME-22	H172	ME-38	HG692	ME-20
D832	F-10, F-79, O-26	E2111	ME-28	G570	ME-23	H173	ME-39	HG694	ME-39
D838	F-90, O-8	E2113	ME-28	G571	ME-23	H174	ME-39	HG695	ME-38
D843	O-8	E2116	ME-28	G572	ME-23	H175	ME-39	HG700	ME-39
D844	O-8	E2210-P	ME-28	G573	ME-23	H176	ME-39	HG701	ME-38
D847	F-10, F-62, O-6	E251	ME-21	G574	ME-23	H190	ME-41	HG703	ME-39
D854	F-10, F-67	E253	ME-16	G575	ME-23	H204	ME-43	HG704	ME-38
D855	F-10, F-67	E260	ME-21	G576	ME-23	H205	ME-43	HG705	ME-39
D856	F-10, F-67	E262	ME-16	G577	ME-23	H206	ME-43	HG706	ME-39
D857	F-10, F-81	E269	ME-21	G578	ME-23	H207	ME-43	HG710	ME-20
D859	F-10, F-81	E278	ME-21	G579	ME-23	H208	ME-43	HG711	ME-39
D860	F-11, F-81, F-90	E280	ME-16	G580	ME-27	H209	ME-43	HG715	ME-39
D862	O-11	E722A-P	ME-25	G581	ME-27	H210	ME-43	I101	ME-17
D863	O-19	E723B-P	ME-25	G582	ME-27	H212	ME-43	I102	ME-17
D864	O-7	EG271	ME-16	G588	ME-27	H213	ME-43	I103A	ME-17
D868	O-11	EX1008	F-51	G589	ME-27	H214	ME-43	I104A	ME-17
D870	F-90, O-31	EX1010	F-51	G905	ME-24	H215	ME-43	I112A	ME-17
D872	O-17	EX1108	F-51	G908	ME-24	H217	ME-43	I113A	ME-17
D873	O-33	EX2008	F-51	G915	ME-16	H218	ME-43	I114A	ME-17
D880	F-10, F-69	EX2010	F-51	G921	ME-24	H219	ME-43	I117	ME-17
D884	F-10, F-67	EX2108	F-51	G937	ME-17	H221	ME-43	I141	ME-16
D894	F-10, F-67	EX2110	F-51	G961	ME-42	H222	ME-43	I142	ME-17
D895	F-10, F-84, O-31	FK100	F-94	G962	ME-42	H223	ME-43	I143	ME-17
D896	F-10, F-67, F-90	FK101	F-94	G963	ME-42	H224	ME-43	I144	ME-17

Part No. Index

Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
I146	ME-40	K285	ME-41	K-NUT	F-14	SHLD6301	F-91	X006	ME-36
I147	ME-19, ME-40	K286	ME-41	K-NUT6002	F-14	SHLD6302	F-91	X009	ME-36
I212	ME-22	K321	ME-26	MA111	ME-48	SHLD6303	F-91	X010	ME-36
I700	ME-22	K378	ME-35	NO33L	F-88	SHLD6304	F-91	X011	ME-30, ME-36
INLET4000	F-89	K379	ME-35	NO50L	F-88	SHLD6311	F-91	X012	ME-30, ME-36
INLET4004	F-89	K381	ME-42	NO55L	F-88	SHLD6312	F-91	X013	ME-36
J1025	ME-45	K518	ME-42	NO55S	F-88	SLINGR6002	F-94	X014	ME-36
K000	ME-24	K519	ME-42	O002	ME-44	STB1	F-88	X015	ME-36
K004A	ME-24	K520	ME-42	O003	ME-44	STB2	F-88	X016	ME-36
K063	ME-24	K525	ME-41	O004	ME-44	STB3	F-88	X017	ME-36
K100	F-3, F-13, F-65, O-10	K527	ME-24	O005	ME-44	STB4	F-88	X018	ME-36
K101	F-3, F-13, F-65, O-10	K541	ME-41	O010	ME-44	STB5	F-88	X019	ME-36
K102	F-3, F-13, F-65, O-10	K544	ME-42	O011	ME-44	STB6	F-88	X020	ME-36
K109	F-3, F-13, O-23	K546	ME-42	O012	ME-44	STB7	F-88	X021	ME-36
K110	F-3, F-13, F-61, O-5	K549	ME-42	O013	ME-44	STB8	F-88	X022	ME-36
K111	F-3, F-13, O-23	K610	F-3, F-14, F-61, O-5	O100	ME-44	U1266	ME-25	X023	ME-36
K112	F-3, F-14	K611	F-3, F-13, F-61, O-5	O102	ME-44	U1267	ME-25	X033	ME-36
K113	F-3, F-14, O-23	K612	F-3, F-14, F-61, O-5	O200	ME-45	U265	ME-25	X034	ME-37
K114	F-3, F-13, F-70, O-15	K614	F-3, F-13	O201	ME-45	U268	ME-25	X035	ME-37
K115	F-3, F-13	K628	F-3, F-13, F-80, O-26	O210	ME-45	U430A-P	ME-25	X036	ME-37
K116	ME-24	K629	F-3, F-13, F-65	O211	ME-45	U431A-P	ME-25	X037	ME-36, ME-37
K119	ME-24	K670	F-3, F-13	O212	ME-45	U758	ME-25	X038	ME-37
K120	F-3, F-13	K672	F-3, F-13	O213	ME-45	U759	ME-25	X039	ME-37
K122	ME-24	K673	F-3, F-13	O214	ME-45	U760	ME-25	X081	ME-30
K130	F-3, F-13	K674	F-51	O215	ME-45	U763	ME-25	X083	ME-30
K1322	ME-27	K683	F-3, F-13	O217	ME-45	U765	ME-25	X085	ME-30
K1402	ME-35	K-FAN4031	F-14	O231	ME-45	U767	ME-25	X086	ME-30
K1403	ME-35	K-FAN4032	F-14	O232	ME-45	U769	ME-25	X087	ME-30
K1404	ME-35	K-FAN6009	F-14	O600	ME-44	UB550	F-16	X088	ME-30
K1405	ME-35	K-FAN6010	F-14	O601	ME-44	UB551	F-16	X089	ME-30
K1407	ME-35	K-FAN6011	F-14	O701	ME-44	UB552	F-16	X090	ME-30
K1408	ME-42	K-FAN6012	F-14	P180	ME-33	UB553	F-16	X096	ME-30
K1409	ME-42	K-FAN6013	F-14	P184	ME-33	UB554	F-16	X097	ME-30
K141	F-3, F-14	K-FAN6046	F-14	P185	ME-33	UB555	F-16	X098	ME-30
K1410	ME-42	KIT100	F-89	P190	ME-30	UB556	F-16	X099	ME-30
K1411	ME-42	KIT102	F-89	P193	ME-33	UB557	F-16	X206	ME-33
K1412	ME-42	KIT1032	F-94	P194	ME-33	UB558	F-16	X207	ME-33
K1413	ME-42	KIT142	F-89	P195	ME-33	UB559	F-16	X208	ME-30
K1415	ME-42	KIT144	F-89	P196	ME-33	UB560	F-16	X209	ME-36
K1416	ME-42	KIT150	F-88	P197	ME-33	UB562	F-16	X210	O-6
K1418	ME-42	KIT155	F-51	P198	ME-33	UB563	F-16	X211	ME-36, O-10
K142	F-3, F-14	KIT170	F-94	P243	ME-33	UB564	F-16	X213	ME-30
K143	F-3, F-14	KIT180	F-93	P244	ME-33	UB565	F-16	X214	ME-30
K144	F-3, F-14	KIT183	F-93	P245	ME-33	UB566	F-16	X216	ME-31, O-27
K145	F-3, F-13	KIT184	F-93	P246	ME-33	UB567	F-16	X218	O-27
K146	F-3, F-14	KIT186	F-93	RAIN6000	F-94	UB568	F-16	X219	ME-36
K147	F-3, F-14	KIT187	F-93	RAIN6017	F-94	UB569	F-16	X221	ME-30
K1482	ME-35	KIT199	F-92	RAIN6018	F-94	UB582	F-16	X222	O-7
K1485	ME-34	KIT200	F-92	RUBBERBOOT	F-94	UB583	F-16	X230	O-15
K1486	ME-34	KIT205	F-92	S003	ME-18	UB584	F-16	X235	O-7
K1497	ME-42	KIT207	F-92	S006	ME-18	UB585	F-16	X236	ME-36
K1500	ME-35	KIT208	F-93	S010	ME-18	UB586	F-16	X237	ME-36
K1505	ME-35	KIT214	F-92	S011	ME-18	UB587	F-16	X241	ME-36
K151	ME-26	KIT216	F-91	S012	ME-18	UB588	F-16	X242	ME-36
K1510	ME-35	KIT218	F-92	S013	ME-18	UB589	F-16	X251	ME-42
K1511	ME-35, ME-45	KIT220	F-94	S014	ME-18	UB590	F-16	X259	O-21
K1515	ME-35	KIT221	F-94	S015	ME-18	UB591	F-16	X260	O-13
K1520	ME-35	KIT225	F-91	S022	ME-18	UB592	F-16	X261	O-13
K153	ME-26	KIT240	F-94	S026	ME-18	UB594	F-16	X270	O-32
K154	ME-26	KIT242	F-94	S033	ME-18	UB595	F-16	X271	ME-33
K155	ME-26	KIT244	F-94	S037	ME-18	UB596	F-16	X278	ME-31
K158	ME-26	KIT246	F-94	S038	ME-18	UB597	F-16	X297	ME-31
K159	ME-26	KIT265	F-91	S102	ME-20	UB598	F-16	X298	ME-30
K161	F-3, F-14, F-77, ME-26, O-22	KIT280	F-89	S106	ME-20	UB599	F-16	X301	ME-46
		KIT282	F-89	S110	ME-20	UB600	F-16	X302	ME-46
K162	ME-26	KIT284	F-89	S111	ME-20	W1	F-59, O-4	X303	ME-46
K2030	ME-42	KIT315	F-88	S112	ME-20	W10	F-59, O-28	X304	ME-46
K2037	ME-42	KIT317	F-88	S113	ME-20	W11	F-50	X305	ME-46
K2038	ME-42	KIT325	F-93	S114	ME-20	W2	F-59, O-4	X400	ME-30
K252	ME-27	KIT34	F-88	S115	ME-20	W3	F-59	X405	O-7
K253	ME-27	KIT350	F-93	S116	ME-20	W4	F-59, O-4	X411	ME-32, O-21
K254	ME-27	KIT378	F-93	S117	ME-20	W5	F-59, O-5	X412	ME-32
K255	ME-27	KIT380	F-92	S118	ME-20	W6	F-59, O-5	X413	ME-32
K275	ME-42	KIT410	F-91	S119	ME-20	W7	F-59, O-13	X414	ME-32
K277	ME-42	KIT414	F-92	S120	ME-20	W8	F-59, O-13	X415	ME-32
K278	ME-42	KIT415	F-51	S126	ME-20	W9	F-59, O-28	X416	ME-32
K279	ME-42	KIT416	F-51	S127	ME-20	X000	ME-36	X417	ME-36
K280	ME-42	KIT465	F-94	S128	ME-20	X001	ME-36	X418	ME-36
K281	ME-41	KIT49	F-88	S156	F-32, F-77, F-90	X002	ME-36	X419	ME-36
K282	ME-41	KIT50	F-88	S2846	F-35, F-62, F-90	X003	ME-36	X420	ME-30
K283	ME-41	KIT6001	F-94	S2848	F-35, F-62, F-90	X004	ME-36	X422	ME-30
K284	ME-41	KIT832	F-94	S719	F-33	X005	ME-36	X423	ME-30

Part No. Index



Part #	Page #	Part #	Page #	Part #	Page #	Part #	Page #
X424	ME-30						
X426	ME-30						
X427	ME-32						
X429	ME-32						
X430	ME-32						
X431	ME-34						
X432	ME-32						
X433	ME-32						
X440	ME-31						
X441	ME-31						
X442	ME-31						
X443	ME-31						
X444	ME-31						
X445	ME-33						
X446	ME-33						
X447	ME-33						
X448	ME-33						
X449	ME-33						
X450	ME-32						
X451	ME-32						
X452	ME-32						
X453	ME-30						
X454	ME-30						
X455	ME-30						
X456	ME-32						
X457	ME-32						
X458	ME-32						
X459	ME-32						
X462	ME-32						
X463	ME-32						
X464	ME-32						
X465	ME-32						
X466	ME-32						
X467	ME-32						
X468	ME-32						
X469	ME-32						
X471	ME-37						
X472	ME-37						
X473	ME-37						
X474	ME-37						
X475	ME-37						
X476	ME-37						
X477	ME-37						
X500	ME-35						
X501	ME-35						
X502	ME-35						
X503	ME-35						
X506	ME-35						
X507	ME-35, ME-45						
X509	ME-35						
X511	ME-35						
X512	ME-34						
X513	ME-34						
X522	ME-35						
X523	ME-34, ME-45						
X524	ME-35						
X525	ME-34, ME-45						
X526	ME-35						
X527	ME-35						
X528	ME-34, ME-45						
X529	ME-34, ME-45						
X530	ME-35						
X531	ME-34, ME-45						
X532	ME-34						
X533	ME-34						



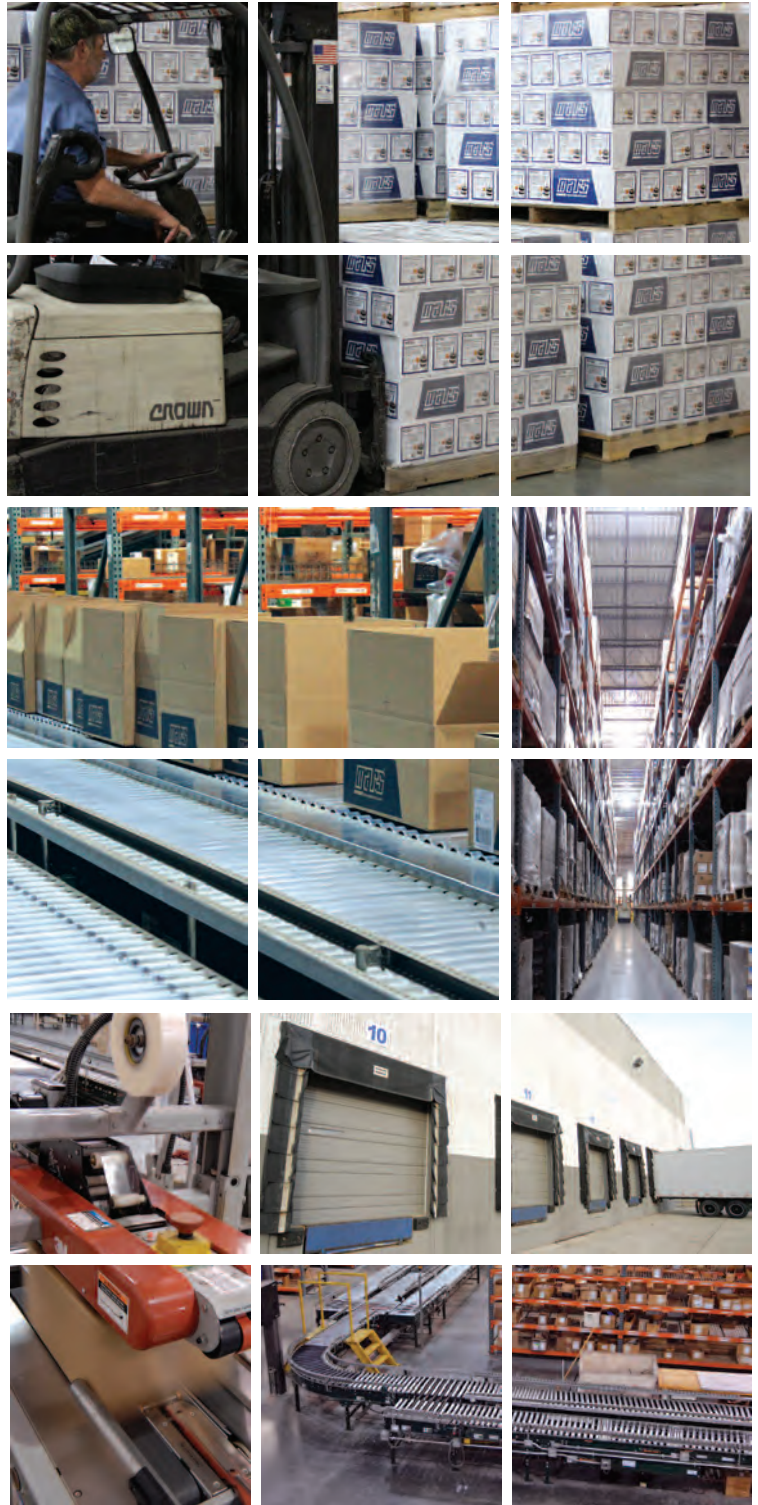
The Leading Brands You Trust For...

- Quality
- Innovation
- Design
- Leadership

MARS has been serving the HVAC/R market since 1946 and is proud to present the most complete motor, component and accessory product offering to serve your needs. Our capabilities include:

- Consolidation - One Stop Shop
- Over 14,000 combinable products
- Industry leading brands
- Innovative products
- Award winning distribution facilities
- High order fill rate
- Shipments within 24 hours
- Billing accuracy
- Sales coverage serving every customer location
- In-house Art Department for customer flexibility
- Bilingual Website
- On-line training – www.marsuniversity.com
- EDI capabilities

Thank you for your business!





Toll Free (800) 445-4155 • Fax (631) 348-7160 • www.marsdelivers.com

