



*Innovative Products Since 1913*

# **HVAC/COMMERCIAL SB330 Motor Catalog**



*2005 - 2006*

***Motors for the Long Run!***

# Many Reasons to Choose Marathon Electric...

**ISO 9001:2000**

Our manufacturing and logistics operations are **ISO 9001:2000** certified, ensuring that the highest quality standards are attained in our products and services. We are the only motor manufacturer in North America certified by the American Bureau of Shipping-Product Quality Assurance (ABS-PQA).

We have one of the **broadest product lines** in the industry, providing **1/12 through 800 HP**, with literally thousands of motor configurations to choose from ... single phase, three phase, multi-speed, inverter duty, hazardous location, severe duty, medium voltage and PMDC!

Marathon Electric is the **only** American motor company that operates **its own foundry**. By utilizing our own grey iron and ductile iron castings, we can better control our quality and lead-time.

Certified by the National Voluntary Laboratory Accreditation Program (NVLAP), Underwriters Laboratory (UL), and Canadian Standards Association (CSA), our **state-of-the-art test facilities** are among the best equipped laboratories in the motor industry. We can test motors up to 4160 volts, 1000 HP and generators up to 13.2 KV, 3 MW!

The **REGAL-BELOIT Logistics Center** coordinates our truck fleet consisting of 100 trailers, **promptly** and **cost-effectively** serving our customers from coast to coast.

Marathon's web site, **www.marathonelectric.com**, and ecommerce site, **ME-business**, save our customers time and money, at the speed of business.

We are the industry leader in the application of AC variable speed motors with today's state-of-the-art drives, offering power-matched performance and the exclusive **MAX GUARD**® insulation system.

Our industry-leading **Blue Chip**® series of **cast iron motors** sets the standard for AC motors used in the most demanding industrial applications.

**Marathon Electric's people** are committed to providing the best customer service in the business!



Marathon Electric Manufacturing Corporation  
A REGAL-BELOIT COMPANY



100 East Randolph St. • P.O. Box 8003 • Wausau, Wisconsin 54401  
Call: (715) 675-3311 • Fax: (715) 675-8030 • [www.marathonelectric.com](http://www.marathonelectric.com)

# In This Catalog...



ME-Can-Do  
Multi-Horsepower Motors  
..... Pages 14-15 .....



Condenser Fan All Angle  
Thru-Bolt Mount  
..... Page 18 .....



General Purpose  
Dripproof C-Face Motors  
Single Phase  
..... Page 24 .....



Four-In-One Motors  
with Removable Rigid Base  
Now Available Through 10 HP  
..... Pages 26-27 .....



Pool & Spa Motors  
Dripproof C-Face, 1/2 HP through 2 HP  
..... Page 42 .....



Pool & Spa Motors  
Dripproof Square Flange, 1/2 HP through 2 HP  
..... Page 42 .....



Cooling Tower Replacement Motors  
for Marley Cooling  
Single Speed and Multi-Speed Designs  
..... Pages 36-37 .....



Refrigeration Three Phase 56 Frame  
Shaft Up and Horizontal Rigid  
..... Page 62 .....

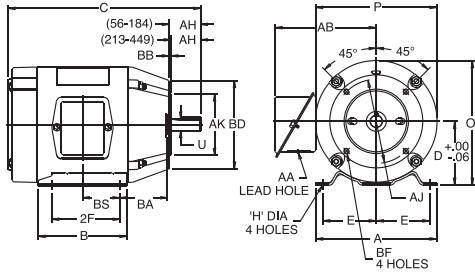
 **MARATHON**<sup>®</sup>  
**ELECTRIC**  
Marathon Electric Manufacturing Corporation  
A REGAL-BELOIT COMPANY

100 East Randolph St. • Wausau, Wisconsin 54401-8003  
Phone: (715) 675-3311 • Fax: (715) 675-8030  
[www.marathonelectric.com](http://www.marathonelectric.com)



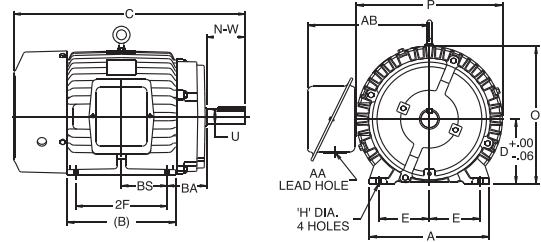
# NEMA Quick Reference Dimensional Chart

## Typical C-Face Motor



NEMA C-Face	BA Dimensions
143-5TC	2-3/4
182-4TC	3-1/2
213-5TC	4-1/4
254-6TC	4-3/4

## Typical Rigid Base Motor



Contact your Marathon Electric sales representative for "AB", "O", & "P" Dimensions.

Refer to your Marathon Electric catalog for "C" Dimensions.

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	.500	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	.625	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	.625	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	.875	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	.875	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	.875	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	.875	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



Marathon Electric Manufacturing Corporation  
A REGAL-BELOIT COMPANY

100 East Randolph St. • P.O. Box 8003 • Wausau, Wisconsin 54401

Call: (715) 675-3311 • Fax: (715) 675-8030 • [www.marathonelectric.com](http://www.marathonelectric.com)

## General Information

Dimension Prints	73-74
How to Read - Model Number	2
Nameplate	6-7
Motor Terminology	3-4
Variable Speed Operation	5
Terms & Conditions	98-101
Warnings & Cautions	103
Resale of Goods	102
Installation, Operation & Maintenance Instructions	104

## Index

Catalog Number Sort	75-85
Model Number Sort	86-97

## Product Family

<b>Accessories</b>	69-72
<b>Air Compressor</b>	8
<b>Attic Fan</b>	9
<b>Belted Fan &amp; Blower</b>	
Single Phase	9-13
Three Phase	13

## ME-CAN-DO (Multi-Horsepower)

Single Phase	
Condenser Fan	14
Direct Drive Fan and Blower	15

## Condenser Fan

Single Phase	
48 Frame	16-19
56 Frame	18-19
Three Phase	
56 Frame	20

## Direct Drive

Single Shaft	21-22
Double Shaft	23

## Exhaust Ventilator

## General Purpose, C-Face

Single Phase	
Dripproof	24

## General Purpose, C-Face with Removable Base

Single Phase	
Totally Enclosed	25
Three Phase	
Totally Enclosed	26-27

## General Purpose, Rigid Base

Single Phase	
Open Dripproof	28-29
Three Phase	
Open Dripproof	29-32
Totally Enclosed	33-34

## HVAC / Commercial Two Speed

Three Phase	
One Winding	35
Two Winding	35

## Cooling Tower (Marley Replacements)

Single Speed	36
Two Speed, One Winding	37

## JM Close-Coupled Pump

Single Phase	38
Three Phase	39-40

## JP Close-Coupled Pump

Single Phase	40
Three Phase	41

## Pool/Spa

Single Phase	
Dripproof, C-Face	42
Dripproof, Square Flange	42

## Jet Pump

Single Phase	43
Three Phase	44-45

## Laundry (Commercial)

## OEM Direct Replacement

## Oil Burner

Single Phase	58-59
Three Phase	59

## Pedestal Fan

## Power Tool / Woodworking

## Pressure Washer

## Refrigeration

## Unit Heater

## Washdown Duty

Single Phase	64-65
Three Phase	65-67

## Water Circulator

## Woodworking / Power Tool

# Model Number Information

## HOW TO READ A MODEL NUMBER:

Each Marathon Electric 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:

1 P C 48 C 17 D 2000 A P  
 1 2 3 4 5 6 7 10 11 12

This is a breakdown of the model in the catalog:

48 C 17 D 2000  
 4 5 6 7 10

Example (For Integral): 2QA215TBDR A7076ALL

This is a breakdown of the model on the nameplate:

2 Q A 215T B D R A 7076 AL L  
 1 2 3 4 5 7 8 9 10 11 12

This is a breakdown of the model in the catalog:

215T B D R A 7076  
 4 5 7 8 9 10

**1. Date Code** - Year of Manufacture  
 (Not shown in catalog listings.)

## 2. Thermal Protection

	UL Recognized Motor Protector Combination	UL Recognized Motor Construction
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 Manufacture (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

## 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, Totally enclosed, non-ventilated
- W = Washdown, Totally enclosed, 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
- U=Frameless - Sourced

**9. Style Letter** - (A, B, C, etc. indicate redesign)

## 10. Sequence Number

Fractional Models - For internal use only.  
 Integral Models - Last 3 digits refer to RPMs.

## 11. Minor Modification Letter(s)

Fractional - 1 letter; Integral - 2 letters

**12. Manufacturing Code** - The factory where the motor was manufactured.

## **AMBIENT (AMB)**

The temperature of the air surrounding the motor. Normally rated at 40 deg C (104 deg F).

## **AMPERE (AMP)**

A measure of the rate of current through the motor.

## **BEARING (BRG)**

Located in the end bell, it supports the shaft and provides for smooth rotation. Sleeve (SLV) bearing motors are found in the home where a very low noise level is required. Ball bearing motors can handle higher load capacities, used in industrial and agricultural motors.

## **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 Electric offers standard, high efficient (EPACT), and premium efficient (XRI®) ratings. The high efficient motor line is in compliance with the Energy Policy Act of 1992 (EPACT) and/or Canadian efficiencies as set by NRCAN. The XRI® line is a premium efficiency line of motors that exceed the mandated EPACT and/or NRCAN efficiencies. XRI® motors meet the new NEMA PREMIUM efficiency levels promoted by NEMA and the Consortium of Energy Efficiency (CEE). Standard efficiency motors may only be used on applications that are exempt from EPACT.

## **ENCLOSURES (ENCL)**

**Open dripproof (ODP or DP)** - openings in the frame body and or end brackets.

**Totally enclosed fan cooled (TEFC)** - no openings in the frame or brackets. Equipped with an external fan to blow air over the motor.

**Totally enclosed, air-over (TEAO)** - no openings in the frame or brackets. Requires auxiliary air flow over the motor.

**Totally enclosed, non-ventilated (TENV)** - no openings in the frame or brackets. No external fan.

## **HERTZ (HZ)**

Number of cycles per second of alternating current 60HZ used primarily in the United States, 50HZ normally used overseas.

## **INSULATION (INSL)**

Insulation's are classified by their ability to withstand certain temperatures for the normal life of the motor and is noted by the following insulation's classes.

**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 Electric 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 limit of 180°C and maximum allowable temperature rise of 125°C. All Marathon Electric motors that employ a Class H system are designed to operate between "B" and "F" rise, giving the user a generous thermal cushion.

**"CR<sup>200</sup>"** – 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 the catalog page for product lines that employ the use of CR<sup>200</sup> magnet wire. Motors with the CR<sup>200</sup> 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®, 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 (CR<sup>200</sup>) 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. Motors that employ the MAX GUARD® system can be operated at any cable length and/or carrier frequency.

# Electric Motor Terminology



## INVERTER DUTY

"Inverter Duty" describes a class of motors that are capable of operation from a variable frequency drive. Often a general purpose, three phase, NEMA Design B motor, these products are suitable for most variable torque and some limited speed range constant torque applications. Consult the application chart on page 5 to determine the maximum continuous duty constant torque speed range. These motors do not have provisions for mounting encoders, but are suitable for use with volts/hertz or open loop vector controls. As required under Federal law, these motors comply with EPAact efficiencies when operating from utility power. See statement of compliance with NEMA MG1-2003 Part 31, Section 4.4.2. Model numbers may contain the letter "H" in the "Electrical Type" field.

## NEMA

The National Electrical Manufacturer's Association. This organization sets the electrical and mechanical standards for electric motors.

## OEM

Original equipment manufacturer.

## OVERLOAD OR THERMAL PROTECTION

A protective device built into the motor which protects the motor from over heating.

**Automatic-reset(Auto)**- When the motor cools to the proper temperature level the motor will automatically turn on.

**Manual-reset(Man)**- Motor is equipped with an external button that needs to be pushed to restart the motor.

## MOUNTING (MNTG)

**Lug mount** - mounted by brackets extending from the motor frame.

**Resilient** - rubber rings on end brackets to fit in mounting base.

**Rigid** - base is welded to the motor frame, bolt holes in the base for mounting.

**Stud** - thru-bolts extending from either ends of end brackets for mounting.

## ROTATION (ROT)

Direction in which the shaft(s) turns, clockwise (cw) or counter clockwise (ccw). Motors in this catalog are viewed facing opposite shaft end (OSE), lead end (LE), or opposite pullyend (OPE). All three phase motors are reversible by electrical reconnection.

## SERVICE FACTOR (SF)

Percentage over the rated horsepower that the motor can safely operate at.

**Example:** 1.15 service factor will operate at 1.15 x HP or 115% of rated horsepower.  
1.0 service factor the motor will only perform at 1.0 X HP rating or 100% of rated horsepower.

## SPEED (RPM)

The running speed of an A.C. motor is determined by the number of poles in the winding.

Number of poles	Approx. running speed
2	3450
4	1725
6	1075
8	825

## VOLTAGE

A unit of electrical pressure.



# Variable Speed Operation

## Guidelines for Application of General Purpose, Three Phase, Single Speed Motors on Variable Frequency Drives Meets NEMA MG1-2003 Part 30 and Part 31 Section 4.4.2

PRODUCT TYPE	VARIABLE TORQUE	CONSTANT TORQUE			
	ALL FRAMES	56	140-210	250-320	360-440
Dripproof (EPAct) and XRI® Dripproof	10:1	2:1	2:1	2:1	2:1
Totally Enclosed (EPAct)	10:1	10:1	10:1	10:1 thru 280 fr	2:1
Explosion Proof	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.				
XRI® Totally Enclosed	10:1	NA	20:1	20:1	20:1
XR® Severe Duty and IEEE841	10:1	NA	20:1	20:1	20:1
	Contact Marathon factory representative for Division 2 and Inverter Duty.				
PowerWash™ XT	10:1	10:1	10:1	NA	NA
PowerWash™ SXT	10:1	10:1	10:1	NA	NA
PowerWash™ SXT-Plus	10:1	10:1	10:1	NA	NA

PRODUCT TYPE	VARIABLE TORQUE	CONSTANT TORQUE	
	ALL FRAMES	56	140-210
IEC Globetrotter™	10:1	2:1	2:1

- Motors with inherent overload protectors cannot be used on Variable Frequency Drives.
- Single Phase motors should not be used on Variable Frequency Drives.
- Multi-speed motors should not be used on Variable Frequency Drives.
- Motors with 1.0 Service factor cannot be used on Variable Frequency Drives.
- Motors to be used in Division 2 locations - consult the Marathon factor for use on Variable Frequency Drives.
- Marathon Electric recommends that the above motors have ground brushes installed (For more information on ground brushes and bearing currents see our VARIABLE SPEED OPERATION section. For installation cost see Marathon's MODIFICATION section.
- All TENV ratings are suitable for 1000:1 CT.

### Maximum Cable Lengths from the Motor to Drive

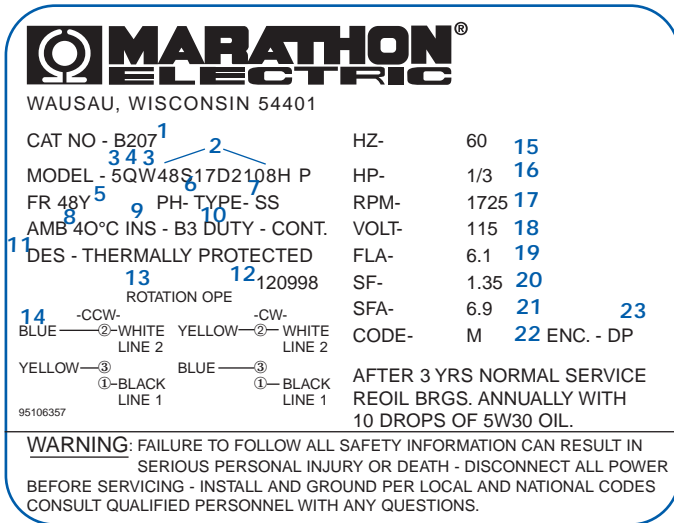
PRODUCT DESCRIPTION	3 HKz CARRIER FREQUENCY (PHASE TO PHASE)*		
	230 VOLT	460 VOLT	575 VOLT
56-326 NEMA, 100-225 IEC Frames	600 ft.	125 ft.	40 ft.
364-5013 NEMA, 250-315 IEC Frames	1000 ft.	225 ft.	60 ft.
Motors with CR <sup>200</sup> Corona Resistant Magnet Wire	1500 ft.	475 ft.	140 ft.
Motors with 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.

# Marathon Electric Nameplate Information

## HOW TO READ A MARATHON ELECTRIC NAMEPLATE

The nameplate is the key to selecting the proper replacement motor.



Suffix letters after the frame size indicate variances in mounting and shaft sizes determined by NEMA.

C = NEMA C face mounting (specify with or without base)

D = NEMA D flange mounting (specify with our without base)

H = Indicates a rigid frame motor having a dual set of mounting holes (2F dimensions) for 56 frame and 140 frame mounting

J = NEMA C face mounting and threaded shaft for pump motor

M = M flange mounting for oil burner motors with 6 3/4" bolt circle dimension

N = N flange mounting for oil burners motors with a 7 3/4" bolt circle dimension

Y = Non-NEMA standard mount. Indicates a special mounting configuration i.e., thru bolts, special face or flange

Z = Non-NEMA standard shaft. Indicates that the shaft has special requirements i.e., longer length, frame material, threading, tapped

6. **Phase** will either be noted as a 1 for single phase power or 3 for three phase power.

7. **Electrical type** is a letter abbreviation for the electrical type of the motor.

SS	=	Split Phase
SCS	=	Capacitor Start Induction Run
B	=	Capacitor Start Capacitor Run
TS	=	Three Phase

8. **AMB.** is the maximum allowable temperature of the air surrounding the motor in centigrade.

- Catalog number** is a reference number that correlates to the model number which is assigned by the manufacturer.
- Model number** is a set of numbers and letters signifying some of the physical and electrical characteristics of the product. For further clarification see: "How to read a model number" on page 2.
- Date code** is a sequence of numbers and letters representing the month and year when the motor was manufactured. This is also listed in numeric form under #12.
- Thermal protection** is designated by a letter referring to what type of protection is in the motor and if it is U.L. recognized. For U.L. recognition see: "How to read a model number" #2 on page 2.

Automatic reset	Manual reset	None
Q	P	V
S	Z	
W	X	

- Frame size** of the motor is determined by NEMA. If there is a dash number after the frame size this is an internal number and does not relate to the frame size for any cross reference purposes.

Example: FR 56Y-10

# Marathon Electric Nameplate Information

9. **Insulations** are classified by their ability to withstand certain temperatures for the normal life of the motor and is noted by the following insulation classes.

Class A 105 deg C    Class F 155 deg C  
Class B 130 deg C    Class H 180 deg C

10. **Duty rating** is the time the motor will operate without overheating. Generally this is continuous duty but 60 minute duty can also be stated.

11. **Design** denotes the electrical design type per NEMA. Only shown on three phase product.

12. **Manufacturing date code** - month, date and year when the motor was manufactured.

13. **Direction the shaft is rotating** when viewed from the OPE (opposite pulley end) or OSE (opposite shaft end).

Examples: cw= clockwise  
ccw=counter clockwise

14. **Wiring diagram** showing the connection for a certain rotation and or voltage.

15. **Frequency of the power supply** the motor will operate at.

Examples:        60hz  
                      50hz  
                      60/50hz

16. **Rated horsepower** the motor will produce.

17. **Speed** in revolutions per minute at the rated horsepower.

18. **Voltage rating** of the motor.

Examples:        115V  
                      208-230/460V  
                      575V

19. **Full load current** at the rated horsepower.

20. **Percentage over the rated horsepower** the motor can safely operate at:

Examples:        1.15SF (115% over rated hp)  
                      1.25SF (125% over rated hp)  
                      1.0SF (motor is at it's peak rating and cannot be over loaded)

21. **Maximum current rating** (service factor amps) when the motor is operating at the service factor load.

22. **NEMA code letter** for locked-rotor KVA per horsepower.

23. **Type of enclosure** - For further clarification of the different enclosures see "Electric Motor Terminology" on page 3.

# Air Compressor

## Single Phase, Capacitor Start, 56 - 215T Frame Dripproof, Rigid Base



**Applications:** For use in compressors, pumps, pressure washers, and other applications requiring high starting and breakdown torques and used in relatively clean and dry environments. For additional ratings suitable for air compressor applications see the General Purpose Single Phase or General Purpose Three Phase sections.

- Features:**
- Capacitor start and capacitor start/capacitor run designs for reduced amperage and high starting and breakdown torque
  - Heavy gauge steel frame and base
  - Ball bearings
  - Continuous duty at nameplated horsepower, not "special" or "compressor" duty
  - Manual reset thermal protectors, as noted
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/2	1725	115/208-230	56	MANUAL	G912	56C17D2013	\$202	F1	8.6/4.1-4.3	23	11.72	
3/4	1725	115/208-230	56	MANUAL	K016	56B17D56	\$246	F1	11.0/5.5	25	11.47	1
1	1725	115/208-230	56	MANUAL	G936	56C17D5305	\$268	F1	13.4/6.8-6.7	29	11.44	
1 1/2	3450	115/208-230	56	MANUAL	D018	56B34D133	\$262	F1	14.8/8.0-7.4	26	11.72	1
	1725	115/208-230	56H	MANUAL	G951	56C17D5308	\$315	F1	18.0/9.3-9.0	40	12.44	5
2	3450	115/208-230	56H	MANUAL	D012	56B34D5318	\$328	F1	19.2/10.5-9.6	35	11.53	1,5
	1725	115/208-230	145T	MANUAL	I127	145TBDR5337	\$378	S1	18.8/10.2-9.4	50	13.49	1
3	3450	230	56H	MANUAL	D013	56B34D5332	\$428	F1	14.0	34	11.44	1,5
	1725	230	184T	NONE	Z502	184TBDR5326	\$395	S1	12.6	55	14.27	1
5	3450	230	184T	NONE	Z504	184TBDR5301	\$555	S1	20.0	62	14.77	1
	3450	230	56H	MANUAL	D017	56B34D5302	\$455	F1	20.0	55	13.94	1,5
	1760	208-230	184T	MANUAL	I119	184TBDR7375	\$630	S1	25.0-24.1	83	16.22	1
	1725	208-230	184T	NONE	I114	184TBDB7026	\$488	S1	23.0-21.0	102	15.70	1
7 1/2	3600	208-230	213T	NONE	I105	213TCDW7001	\$740	S1	40.0-37.0	112	16.55	
	1735	208-230	215T	NONE	I115	215TBDW7026	\$730	S1	37.2-34.5	118	18.05	1
10	1730	208-230	215T	NONE	I116	215TBDW7028	\$940	S1	49.0-44.0	140	19.3	1

**Footnotes:**

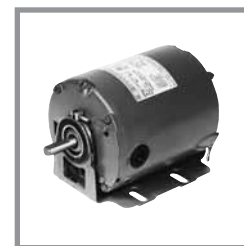
- 1 Capacitor Start/Capacitor Run design for reduced amperage  
 5 56H, 143T, and 145T Combination Base with 12 mounting holes



## Attic Fan

Single Phase, *Split Phase*, 48 & 56 Frame  
Dripproof, Air Over, Resilient Base

**Applications:** Belted and direct drive attic fans where the motor is placed within the airstream and low to moderate torque is required. Intended for use in relatively clean and dry environments.



- Features:**
- Variable torque on two speed motors
  - Quiet, all angle sleeve bearings
  - Heavy gauge steel frame and resilient, "cradle" style base
  - Wiring entrance at shaft end
  - **56Z frame with 3" shaft height, 1/2" diameter shaft, and 5/8" adapter with keyway included**
  - 1.0 Service factor
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/3	1725/1140	115	48	AUTO	B402	48S17D7209	\$147	F1	5.3/2.9	21	10.31	
	1725	115	48	AUTO	B400	48S17D997	\$97	F1	6.6	14	9.34	
1/2	1725	115	56Z	AUTO	B401	56S17D2062	\$121	F1	7.8	18	10.47	53

## Belted Fan & Blower

Single Phase, *Split Phase*, 48 & 56 Frame  
Dripproof, Resilient Base

**Applications:** Residential & commercial fans & blowers where low starting torque is required (air conditioning, roof ventilators, & exhaust fans).



- Features:**
- All angle sleeve or ball bearings
  - NEMA service factors where noted
  - Variable torque on two speed motors
  - Extended Thru-bolts where noted
  - Heavy gauge steel frame with resilient "cradle" style base
  - **48Y Frame has 48/56 Frame mounting holes**
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/6	1725/1140	115	48Z	BALL	NONE	B604	48S17D7206	\$120	F1	1.35	3.4/1.9	16	10.22	32,52
	1725	115	48	SLEEVE	AUTO	D107	48S17D2017	\$85	F1	1.35	3.6	12	8.99	
	1725	115	48Z	BALL	NONE	B300	48S17D2052	\$93	F1	1.35	3.6	13	9.32	31,52
	1725	115	48Z	BALL	AUTO	B322	48S17D2053	\$98	F1	1.35	3.6	13	9.32	31,52
1/4	1725/1140	115	48Z	BALL	AUTO	B384	48S17D7201	\$143	F1	1.35	4.1/2.5	18	10.72	32,52
	1725/1140	115	48Z	BALL	NONE	B383	48S17D7200	\$138	F1	1.35	4.1/2.5	19	10.72	32,52
	1725	115	48	SLEEVE	NONE	S102	48S17D2042	\$84	F1	1.00	6.0	13	9.06	31
	1725	115	48	SLEEVE	AUTO	D127	48S17D2083	\$92	F1	1.35	5.0	14	9.09	
	1725	115	48YZ	SLEEVE	AUTO	S126	48S17D2104	\$89	F1	1.00	6.0	14	9.72	53
	1725	115	48YZ	SLEEVE	AUTO	B206	48S17D2107	\$92	F1	1.35	4.7	13	9.50	53
	1725	115	48Z	BALL	NONE	B302	48S17D2054	\$100	F1	1.35	4.7	14	9.57	31,52
	1725	115	48Z	BALL	AUTO	B303	48S17D2055	\$105	F1	1.35	4.7	14	9.57	31,52
	1725	115	56Z	SLEEVE	AUTO	B201	56S17D2047	\$95	F1	1.35	5.0	14	9.47	32,53
	1725	230	48	SLEEVE	AUTO	D129	48S17D2084	\$98	F1	1.35	2.5	13	9.09	

Continued on next page.

**Footnotes:**

- 31 5/8" Thru-bolts, shaft end
- 32 3/4" Thru-bolts, shaft end
- 52 1/2" x 1-7/8" Shaft with 1-5/8" Flat
- 53 1/2" Shaft with 5/8" adapter with Key

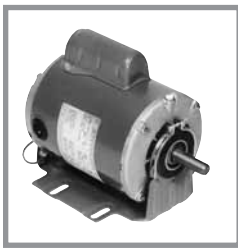
## Belted Fan & Blower

Single Phase, *Split Phase*, 48 & 56 Frame  
Dripproof, Resilient Base

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/3	1725/1140	115	56	BALL	NONE	B387	56S17D7202	\$174	F1	1.35	5.3/2.9	21	10.72	31
	1725/1140	115	56	BALL	AUTO	B388	56S17D7203	\$179	F1	1.35	5.3/2.9	20	10.72	31
	1725	115	48	SLEEVE	NONE	S106	48S17D2093	\$92	F1	1.00	6.6	14	9.31	31
	1725	115	48	SLEEVE	AUTO	D143	48S17D2086	\$107	F1	1.35	6.1	15	9.34	
	1725	115	48	BALL	AUTO	B703	48N17D14	\$144	F1	1.35	3.2	18	9.84	74
	1725	115	48YZ	SLEEVE	AUTO	S127	48S17D2105	\$97	F1	1.00	6.6	14	9.72	53
	1725	115	48YZ	SLEEVE	AUTO	B207	48S17D2108	\$107	F1	1.35	5.9	15	9.50	53
	1725	115	48Z	BALL	NONE	B304	48S17D2056	\$115	F1	1.35	5.9	15	9.32	31,52
	1725	115	48Z	BALL	AUTO	B305	48S17D2057	\$120	F1	1.35	5.9	15	9.32	31,52
	1725	115	56Z	SLEEVE	AUTO	B202	56S17D2048	\$110	F1	1.35	6.1	15	9.72	32,53
1725	230	48	SLEEVE	AUTO	D145	48S17D2027	\$113	F1	1.35	3.1	15	9.34		
1/2	1725/1140	115	56	BALL	NONE	B389	56S17D5700	\$220	F1	1.25	8.1/4.5	30	11.85	31
	1725/1140	115	56	BALL	AUTO	B600	56S17D5701	\$225	F1	1.25	8.1/4.5	30	11.85	31
	1725	115	48	SLEEVE	AUTO	D162	48S17D2087	\$146	F1	1.25	7.2	19	10.09	
	1725	115	48YZ	SLEEVE	AUTO	S128	48S17D2106	\$118	F1	1.00	9.2	17	10.22	53
	1725	115	48YZ	SLEEVE	AUTO	B208	48S17D2109	\$146	F1	1.25	6.7	17	10.31	53
	1725	115	48Z	BALL	NONE	B306	48S17D2058	\$154	F1	1.25	6.7	17	10.32	31,52
	1725	115	48Z	BALL	AUTO	B307	48S17D2059	\$159	F1	1.25	6.7	17	10.32	31,52
	1725	115	56	SLEEVE	NONE	S120	56S17D2023	\$116	F1	1.00	9.2	18	10.22	31
	1725	115	56	SLEEVE	AUTO	D149	56S17D2050	\$149	F1	1.25	7.2	20	10.47	
	1725	115	56	BALL	AUTO	B348	56S17D2059	\$162	F1	1.25	7.2	20	10.47	31
	1725	115	56Z	SLEEVE	AUTO	B200	56S17D2049	\$149	F1	1.25	7.2	20	10.47	32,53
	1725	115/230	56	SLEEVE	AUTO	B100	56S17D2064	\$157	F1	1.25	7.2/3.6	20	10.47	
	1725	230	48	SLEEVE	AUTO	D163	48S17D2088	\$153	F1	1.25	3.6	19	10.09	
	3/4	1725	115	56	SLEEVE	AUTO	D164	56S17D2060	\$194	F1	1.15	10.6	23	11.72

## Belted Fan & Blower

Single Phase, *Capacitor Start*, 48 - 145T Frame  
Dripproof, Resilient Base



**Applications:** Residential & commercial fans & blowers where high starting torque is required.

- Features:**
- All angle sleeve or ball bearings, as noted
  - Heavy gauge steel frame with resilient "cradle" style base
  - NEMA service factors where noted
  - UL Recognized and CSA Certified
  - Variable torque on two speed motors

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	115/230	48	SLEEVE	NONE	S118	48C17D2045	\$116	F1	1.00	6.6/3.3	14	9.09	
	1725	115/230	48	SLEEVE	AUTO	S119	48C17D2046	\$123	F1	1.00	6.6/3.3	13	9.09	
	1725	115/230	48	SLEEVE	AUTO	G115	48C17D2018	\$130	F1	1.35	5.4/2.7	17	10.34	
	1725	115/208-230	48	SLEEVE	NONE	G114	48C17D2036	\$123	F1	1.35	5.0/2.3-2.5	14	9.84	
	1725	115/208-230	48Z	BALL	AUTO	B313	48C17D2042	\$143	F1	1.35	5.2/2.8-2.6	15	9.95	31,52

**Footnotes:**

- 31 5/8" Thru-bolts, shaft end  
 32 3/4" Thru-bolts, shaft end  
 52 1/2" x 1-7/8" Shaft with 1-5/8" Flat  
 53 1/2" Shaft with 5/8" adapter with Key  
 74 Split phase/capacitor run electrical design

*Continued on next page.*

# Belted Fan & Blower

Single Phase, *Capacitor Start*, 48 - 145T Frame  
Dripproof, Resilient Base

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/3	1725	115/230	48	SLEEVE	NONE	S110	48C17D2028	\$123	F1	1.00	7.0/3.5	16	9.34	
	1725	115/230	48	SLEEVE	AUTO	S111	48C17D2029	\$130	F1	1.00	7.0/3.5	16	9.34	
	1725	115/230	48Z	SLEEVE	AUTO	D119	48C17D2055	\$154	F1	1.35	5.8/2.9	17	10.22	31,52
	1725	115/230	56	SLEEVE	AUTO	G135	56C17D2088	\$157	F1	1.35	6.4/3.2	19	10.22	
	1725	115/208-230	48Z	BALL	AUTO	B315	48C17D2044	\$167	F1	1.35	5.8/3.1-2.9	17	10.22	31,52
	1725	115/208-230	56	BALL	AUTO	B210	56C17D2100	\$171	F1	1.35	5.8/3.1-2.9	18	10.22	31
1/2	3450	115/208-230	48	SLEEVE	AUTO	D110	48C34D2022	\$125	F1	1.25	7.4/3.5-3.7	18	10.34	
	1725	115/230	56	SLEEVE	NONE	S112	56C17D2097	\$151	F1	1.00	9.2/4.6	19	10.22	
	1725	115/230	56	SLEEVE	AUTO	S113	56C17D2099	\$157	F1	1.00	9.2/4.6	20	10.22	
	1725	115/230	56	SLEEVE	AUTO	D111	56C17D2079	\$187	F1	1.25	7.2/3.6	21	10.72	
	1725	115/230	56	SLEEVE	AUTO	G151	56C17D2025	\$187	F1	1.25	8.6/4.3	24	11.72	
	1725	115/208-230	56	BALL	NONE	B316	56C17D2071	\$184	F1	1.25	7.2/3.6	21	10.47	31
	1725	115/208-230	56	BALL	AUTO	B317	56C17D2072	\$200	F1	1.25	8.0/4.1-4.0	17	10.32	31
	1725	277	56	BALL	NONE	B608	56C17D2113	\$208	F1	1.25	3.6	25	11.72	
3/4	3450	115/208-230	56	SLEEVE	AUTO	D117	56C34D2095	\$162	F1	1.25	9.8/4.8-4.9	20	11.22	
	1725/1140	115	56	BALL	NONE	B331	56B17D5700	\$328	F1	1.25	8.9/6.1	40	12.85	1,31
	1725/1140	208-230	56	BALL	NONE	B350	56B17D5706	\$335	F1	1.25	4.5/3.1	40	12.85	1,31
	1725	115/230	56	SLEEVE	NONE	S114	56C17D2060	\$180	F1	1.00	10.4/5.2	26	11.97	
	1725	115/230	56	SLEEVE	AUTO	S115	56C17D2061	\$187	F1	1.00	10.4/5.2	26	11.97	
	1725	115/230	56	SLEEVE	AUTO	D113	56C17D2080	\$231	F1	1.25	10.6/5.3	25	11.72	
	1725	115/208-230	56	BALL	NONE	B318	56C17D2073	\$228	F1	1.25	10.6/5.2-5.0	19	10.72	31
	1725	115/208-230	56	BALL	NONE	G156	56B17D2012	\$230	F1	1.25	11.0/5.5-5.5	27	11.47	1
	1725	115/208-230	56	BALL	AUTO	B319	56C17D2074	\$244	F1	1.25	10.0/5.2-5.0	19	10.72	31
	1725	277	56	BALL	NONE	B609	56B17D2013	\$254	F1	1.25	4.3	26	11.47	1,31
	1	3450	115/208-230	56	BALL	AUTO	K136	56C34D5314	\$202	F1	1.25	13.6/6.9-6.8	28	11.35
3450		115/208-230	56	SLEEVE	AUTO	D118	56C34D2106	\$189	F1	1.15	12.0/6.2-6.0	25	12.22	
1725/1140		115	56	BALL	NONE	B334	56B17D5702	\$410	F1	1.15	11.5/7.0	39	12.85	1,31
1725		115/230	56	BALL	NONE	S116	56C17D5339	\$241	F1	1.00	13.6/6.8	34	11.35	
1725		115/230	56	BALL	AUTO	S117	56C17D5340	\$248	F1	1.00	13.6/6.8	29	11.35	
1725		115/208-230	56	BALL	NONE	B310	56C17D5321	\$245	F1	1.15	12.8/6.4-6.4	29	11.35	32
1725		115/208-230	56	BALL	AUTO	D114	56C17D5345	\$262	F1	1.15	12.8/6.4-6.4	28	11.35	
1725		115/208-230	56	BALL	AUTO	B311	56C17D5322	\$264	F1	1.15	12.8/6.4-6.4	29	11.35	32
1725		277	56	BALL	NONE	B337	56C17D5348	\$272	F1	1.25	5.6	31	11.85	32
1 1/2	3450	115/208-230	56	BALL	AUTO	D115	56B34D2027	\$263	F1	1.15	13.4/7.4-6.7	32	11.72	1
	1725	115/208-230	56H	BALL	NONE	B336	56C17D5347	\$293	F1	1.15	18.0/9.3-9.	41	12.85	5,32
	1725	115/208-230	56H	BALL	AUTO	B330	56C17D5316	\$305	F1	1.15	18.0/9.3-9.	41	12.85	5,32
	1725	115/208-230	145T	BALL	NONE	I146	145TCDR5331	\$298	S1	1.15	18.0/9.3-9.	42	13.22	32
2	3450	115/208-230	56H	BALL	AUTO	D116	56B34D5340	\$320	F1	1.2	18.2/9.8-9.1	36	11.85	1,5
	3450	115/208-230	56H	BALL	AUTO	K152	56B34D5320	\$320	F1	1.15	19.2/10.5-9.6	32	11.85	1,5
	1725	115/208-230	56H	BALL	AUTO	B352	56B17D5331	\$389	F1	1.15	21/11.3-10.5	50	13.85	1,32
	1725	115/208-230	145T	BALL	NONE	I147	145TBDR5345	\$313	S1	1.15	21/11.3-10.5	50	14.22	1

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 31 5/8" Thru-bolts, shaft end
- 32 3/4" Thru-bolts, shaft end
- 52 1/2" x 1-7/8" Shaft with 1-5/8" Flat

# Belted Fan & Blower

Single Phase, Split Phase & Capacitor Start, 48 - 215T Frame  
Dripproof, Rigid Base



**Applications:** General purpose use on compressors, pumps, conveyors, blowers, and other machinery requiring high starting torque in environments that are relatively clean and dry.

- Features:**
- Sleeve or ball bearing as noted
  - Heavy gauge steel frame and base
  - NEMA service factors where noted
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	115	48	SLEEVE	NONE	S003	48S17D2089	\$80	F1	1.00	6.0	12	9.09	3
	1725	115/208-230	48	BALL	NONE	G076	48C17D2033	\$133	F1	1.35	5.0/2.3-2.5	17	9.84	2
	1725	115/208-230	48	BALL	MANUAL	G078	48C17D2034	\$144	F1	1.35	5.0/2.3-2.5	17	9.84	2
1/3	1725	115	48	SLEEVE	NONE	S006	48S17D2090	\$89	F1	1.00	6.6	14	9.34	3
	1725	115/230	48	SLEEVE	NONE	S010	48C17D2023	\$120	F1	1.00	7.0/3.5	15	9.34	2
	1725	115/230	48	SLEEVE	AUTO	S011	48C17D2024	\$126	F1	1.00	7.0/3.5	15	9.34	2
	1725	115/230	48	BALL	MANUAL	S030	48C17D2027	\$144	F1	1.00	7.0/3.5	15	9.34	2
	1725	115/208-230	56	BALL	NONE	G093	56C17D2087	\$161	F1	1.35	6.4/3.0-3.2	18	10.22	2
	1725	115/208-230	56	BALL	AUTO	G094	56C17D2009	\$167	F1	1.35	6.4/3.0-3.2	18	10.22	2
	1725	115/208-230	56	BALL	MANUAL	G095	56C17D2010	\$172	F1	1.35	6.4/3.0-3.2	18	10.22	2
	1140	115/208-230	56	BALL	NONE	G096	56C11D2032	\$240	F1	1.15	8.0/3.8-4.0	24	11.97	2
1/2	3450	115/208-230	48	BALL	NONE	G098	48C34D2023	\$128	F1	1.25	8.4/3.8-4.2	18	10.34	2
	1725	115	56	SLEEVE	NONE	S022	56S17D2046	\$113	F1	1.00	9.2	18	10.22	3
	1725	115/230	56	SLEEVE	NONE	S012	56C17D2098	\$148	F1	1.00	9.2/4.6	18	10.22	2
	1725	115/230	56	SLEEVE	AUTO	S013	56C17D2051	\$154	F1	1.00	9.2/4.6	18	10.22	2
	1725	115/230	56	BALL	MANUAL	S033	56C17D2064	\$172	F1	1.00	9.2/4.6	19	10.22	2
	1725	115/208-230	56	BALL	NONE	G910	56C17D2011	\$180	F1	1.25	8.6/4.1-4.3	22	11.72	2
	1725	115/208-230	56	BALL	AUTO	G911	56C17D2012	\$197	F1	1.25	8.6/4.1-4.3	22	11.72	2
	1725	115/208-230	56	BALL	MANUAL	G912	56C17D2013	\$202	F1	1.25	8.6/4.1-4.3	23	11.72	2
	1140	115/208-230	56	BALL	NONE	G913	56C11D5301	\$308	F1	1.25	10.6/5.1-5.3	30	11.82	2
	3/4	3450	115/208-230	56	BALL	NONE	G915	56C34D2100	\$166	F1	1.25	9.6/4.4-4.8	21	10.97
1725		115/230	56	SLEEVE	NONE	S014	56C17D2054	\$177	F1	1.00	10.4/5.2	24	11.97	2
1725		115/230	56	SLEEVE	AUTO	S015	56C17D2055	\$184	F1	1.00	10.4/5.2	24	11.97	2
1725		115/230	56	BALL	MANUAL	S036	56C17D2067	\$202	F1	1.00	10.4/5.2	25	11.97	2
1725		115/208-230	56	BALL	NONE	G917	56B17D2008	\$226	F1	1.25	11.0/5.5-5.5	26	11.47	1
1725		115/208-230	56	BALL	AUTO	G918	56B17D2009	\$241	F1	1.25	11.0/5.5-5.5	25	11.47	1
1725		115/208-230	56	BALL	MANUAL	G919	56B17D2010	\$246	F1	1.25	11.0/5.5-5.5	25	11.47	1
1140		115/208-230	56	BALL	NONE	G930	56C11D5302	\$394	F1	1.15	12.8/6.3-6.4	38	12.44	2
1		3450	115/208-230	56	BALL	NONE	G932	56B34D2030	\$188	F1	1.25	10.6/5.5-5.3	23	11.72
	1725	115/230	56	BALL	NONE	S037	56C17D5319	\$238	F1	1.00	13.6/6.8	28	10.94	2
	1725	115/230	56	BALL	AUTO	S038	56C17D5343	\$244	F1	1.00	13.6/6.8	28	10.94	2
	1725	115/230	56	BALL	MANUAL	S039	56C17D5320	\$262	F1	1.00	13.6/6.8	28	10.94	2
	1725	115/208-230	56	BALL	NONE	G934	56C17D5303	\$240	F1	1.15	13.4/6.8-6.7	30	11.44	2
	1725	115/208-230	56	BALL	AUTO	G935	56C17D5304	\$259	F1	1.15	13.4/6.8-6.7	29	11.44	2
	1725	115/208-230	56	BALL	MANUAL	G936	56C17D5305	\$268	F1	1.15	13.4/6.8-6.7	29	11.44	2
	1730	115/208-230	143T	BALL	NONE	I110	143TCDR5326	\$244	S1	1.15	13.4/6.8-6.7	33	11.49	2
	1 1/2	3450	115/208-230	56	BALL	NONE	G937	56B34D2026	\$251	F1	1.15	14.8/8.0-7.4	25	11.72
1725		115/208-230	56H	BALL	NONE	G939	56C17D5306	\$290	F1	1.15	18.0/9.3-9.0	40	12.44	2,5
1725		115/208-230	56H	BALL	AUTO	G950	56C17D5307	\$302	F1	1.15	18.0/9.3-9.0	40	12.44	2,5
1725		115/208-230	56H	BALL	MANUAL	G951	56C17D5308	\$315	F1	1.15	18.0/9.3-9.0	40	12.44	2,5
1725		115/208-230	145T	BALL	NONE	I111	145TCDR5326	\$295	S1	1.15	18.0/9.3-9.0	41	12.49	2
2	3450	115/208-230	56H	BALL	NONE	G952	56B34D5321	\$302	F1	1.15	19.2/10.5-9.6	35	11.44	1,5
	3490	115/208-230	145T	BALL	NONE	I102	145TBDR5302	\$310	S1	1.15	19.2/10.5-9.6	40	11.49	1
	1725	115/208-230	145T	BALL	NONE	I118	145TBDR5326	\$308	S1	1.15	21.0/11.3-10.5	49	13.49	1
	1740	115/208-230	182T	BALL	NONE	I112	182TCDR7026	\$344	S1	1.15	23.0/12.0-11.5	65	13.72	2
3	3460	115/208-230	182T	BALL	NONE	I103	182TCDR7001	\$387	S1	1.15	32.0/17.5-16.0	57	13.22	2
	1750	115/208-230	184T	BALL	NONE	I113	184TCDR7026	\$402	S1	1.15	33.0/16.5	78	15.22	2

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage  
2 Capacitor Start Induction Run design

- 3 Split Phase design  
5 56H, 143T, and 145T Combination Base with 12 mounting holes

*Continued on next page.*



# Belted Fan & Blower

Single Phase, Capacitor Start, 48 - 215T Frame  
Drip-proof, Rigid Base

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
5	3510	208-230	184T	BALL	NONE	I104	184TCDR7001	\$520	S1	1.15	27.0-24.0	78	14.72	2
	1750	208-230	184T	BALL	NONE	I114	184TBDB7026	\$488	S1	1.15	23.0-21.0	87	15.72	1
7 1/2	3470	208-230	213T	BALL	NONE	I105	213TCDW7001	\$740	S1	1.15	40-37	112	16.55	2
	1735	208-230	215T	BALL	NONE	I115	215TBDW7026	\$730	S1	1.15	37.2-34.5	118	18.05	1
10	1730	208-230	215T	BALL	NONE	I116	215TBDW7028	\$940	S1	1.15	49-44	140	19.3	1

# Belted Fan & Blower

Three Phase, 56 Frame  
Drip-proof, Resilient Base

**Applications:** Commercial and industrial fans and blowers that require moderate starting torque and are installed in relatively clean and dry environments.

**Features:**

- Single and two-speed models, as noted
- Variable torque on two speed ratings
- Ball bearings
- Heavy gauge steel frame and resilient, "cradle" style base
- Automatic reset thermal protector, as noted
- NEMA service factors
- 60/50 Hz except where noted
- Patented VCD™ Voltage Change Device, where footnoted "VC"
- UL Recognized and CSA Certified



HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/3	1725	208-230/460	56	AUTO	G106	56T17D2104	\$197	F1	1.35	1.5-1.6/8	16	9.97	
	1725	575	56	NONE	G964	56T17D2117	\$164	F1	1.35	0.64	17	9.97	70
1/2	1765/1175	200-230	56	NONE	G165	56T17D5702	\$269	F1	1.25	1.9-1.85/1.16	32	11.85	70
	1760/1180	460	56	NONE	G166	56T17D5703	\$269	F1	1.25	0.9/0.7	32	11.85	70
	1725	208-230/460	56	AUTO	G107	56T17D2097	\$218	F1	1.25	2.1-2.2/1.1	19	10.47	
	1725	208-230/460	56	NONE	G109	56T17D2096	\$185	F1	1.25	2.1-2.2/1.1	18	10.47	
	1725	208-230/460	56	AUTO	G140	56T17D5345	\$228	F1	1.25	2.3-2.4/1.2	22	10.85	VC
3/4	1725	575	56	NONE	G961	56T17D2118	\$185	F1	1.25	0.9	19	10.47	70
	1760/1155	200-230	56	NONE	G168	56T17D5704	\$320	F1	1.25	2.6-2.5/1.6	39	12.85	70
	1725/1140	460	56	NONE	G169	56T17D5705	\$320	F1	1.25	1.2/0.8	33	12.35	70
	1725	208-230/460	56	AUTO	G101	56T17D2099	\$239	F1	1.25	2.7-2.8/1.4	22	10.97	
	1725	208-230/460	56	AUTO	G141	56T17D5346	\$249	F1	1.25	2.9-3.0/1.5	24	10.85	VC
1	1725	208-230/460	56	NONE	G966	56T17D2098	\$207	F1	1.25	2.7-2.8/1.4	22	10.97	
	1725	575	56	NONE	G962	56T17D2119	\$207	F1	1.25	1.1	20	10.97	70
	3450	208-230/460	56	AUTO	G180	56T34D5307	\$223	F1	1.25	3.7-3.7/1.85	24	10.85	
	1725/1140	200-230	56	NONE	G181	56T17D5706	\$331	F1	1.15	3.4-3.2/2.0	43	13.35	70
	1725/1160	460	56	NONE	G182	56T17D5707	\$331	F1	1.15	1.5/1.0	39	12.85	70
	1725	208-230/460	56	AUTO	G142	56T17D5347	\$254	F1	1.15	3.5-3.6/1.8	26	11.35	VC
1 1/2	1725	208-230/460	56	AUTO	G100	56T17D2101	\$244	F1	1.15	3.4-3.4/1.7	24	11.47	
	1725	208-230/460	56	NONE	G120	56T17D2100	\$212	F1	1.15	3.4-3.4/1.7	24	11.47	
	1725	575	56	NONE	G963	56T17D2120	\$212	F1	1.15	1.4	24	11.47	70
	3450	208-230/460	56	AUTO	G183	56T34D5308	\$266	F1	1.15	4.9-5.0/2.5	25	10.85	
	1725	208-230/460	56	NONE	G122	56T17D5329	\$235	F1	1.15	4.8-4.8/2.4	29	11.35	
2	1725	208-230/460	56	AUTO	G126	56T17D5330	\$267	F1	1.15	4.8-4.8/2.4	29	11.35	
	1725	208-230/460	56	AUTO	G143	56T17D5348	\$277	F1	1.15	4.8-4.8/2.4	29	11.35	VC
	3450	208-230/460	56	AUTO	G186	56T34D5309	\$307	F1	1.15	6.4-6.2/3.1	26	10.85	
	1725	208-230/460	56H	AUTO	G144	56T17D5349	\$307	F1	1.15	6.2-6.2/3.1	35	12.35	VC,5
3	1725	208-230/460	56H	NONE	G127	56T17D5332	\$257	F1	1.15	6.2-6.2/3.1	35	12.35	5
	1725	208-230/460	56H	AUTO	G128	56T17D5333	\$290	F1	1.15	6.2-6.2/3.1	35	12.35	5
	3450	208-230/460	56HZ	AUTO	B193	56T34D5357	\$344	F1	1.15	8.9-8.4/4.2	35	12.22	Z,5
5	1725	208-230/460	56HZ	AUTO	G145	56T17D5350	\$323	F1	1.15	9.2-8.6/4.3	49	14.22	Z,VC,5
	3450	208-230/460	56HZ	AUTO	X251	56T34D5364	\$461	F1	1.0	13.5-12.4/6.2	50	13.49	Z,5,12,70

**Footnotes:**

VC Voltage Change Device feature for quick voltage changes  
Z 56HZ with 7/8" shaft dia., 3-1/2" shaft height, and slotted 56 frame base

- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 2 Capacitor Start Induction Run design
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 12 With Rigid Base
- 70 Not Nameplated 50 hz

# "ME-CAN-DO" Multi-Horsepower Motors

The new Marathon Electric "ME-Can-Do" line of motors is a Multi-horsepower motor that replaces many different ratings by simply changing the capacitor.

## Here are some of the advantages of the ME-Can-Do motor:

1. Saves money! Eliminates unnecessary inventory on shelves or in repair trucks.
2. Saves time! No more long drives for replacement motors. No more late hour or emergency shop openings.
3. This motor "Can Do" the job the first time! Offers multiple options in just one motor, no need for temporary substitutions.

## Here are some of the motors that the ME-Can-Do motors replaces today:

### Condenser Fan Motors

Marathon	Emerson	A.O. Smith
X072	5462	FSE6000
X076	5465	-----

### Direct Drive Fan and Blower Motors

Marathon	Emerson	A.O. Smith
X077	5460	FDL6001
X073	5461	FD6000
X074	5470	-----
X075	5471	-----

# "ME-CAN-DO" Multi-Horsepower Motors Condenser Fan

Single Phase, PSC, 48 Frame  
Totally Enclosed, Air Over, Thru-Bolt



**Applications:** Direct drive fans for shaft up or horizontal mount. These motors need to be mounted within the airflow of the fan for proper cooling.

- Features:**
- Ball Bearings
  - **60 degrees C ambient**
  - Automatic reset thermal protector
  - Weather resistant reversing plug
  - Reversible by reconnection
  - 36" long leads
  - Extended thru-bolts, 8-32 1/2" on drive end, 3/4" on non-drive end
  - Shaft slinger
  - 1/2" x 5" long shaft with two flats 4.50" 90° apart
  - Four Locating screws on frame, 90° apart
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**

HP	RPM	VOLTS	FRAME	CAPACITOR (MFD)	SPEED RANGE	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	FOOT NOTES
1/3		230		5.0	HI					2.3			
1/3		208		7.5	HI					2.3			
1/4		230		5.0	HI					2.0			
1/4	1075/2	208	48Y	7.5	HI	X072	48A11T646	\$135	F1	1.4	15	5	21
1/5		230		5.0	LO								
1/5		208		7.5	LO					1.4			
1/6		230		5.0	LO					1.2			
1/6		208		7.5	LO					1.2			
1/2		230		10.0	HI					2.5			
1/2		208		12.5	HI					2.6			
1/3		230		10.0	HI					2.1			
1/3	1075/2	208	48Y	12.5	HI	X076	48A11T11006	\$145	F1	2.0	21	5 1/2	21
1/4		230		10.0	LO								
1/4		208		12.5	LO					1.4			
1/5		230		10.0	LO					1.2			
1/5		208		12.5	LO					1.2			

Footnotes:  
21 60 Degrees C Ambient

# "ME-CAN-DO" Multi-Horsepower Motors Direct Drive Fan and Blower

Single Phase, PSC, 48 Frame  
Open Air Over, Resilient Ring Thru-Bolt

**Applications:** Residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments.



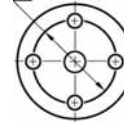
- Features:**
- Open end brackets
  - 2 1/4" Resilient rings
  - 1/2" x 5" long shaft with two flats 4.50" 90° apart
  - Automatic reset thermal protector
  - Weather resistant reversing plug
  - Reversible by reconnection
  - 36" long leads
  - Extended thru-bolts, 8-32 1/2" on shaft end and 3/4" on lead end
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**

HP	RPM	VOLTS	FRAME	BRGS.	CAPACITOR (MFD)	SPEED RANGE	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH
1/2					10.0	ALL					6.1		
1/3					5.0	ALL					5.2		
1/3					7.5	ALL					4.7		
1/4					5.0	MED-HI					3.6		
1/4	1075/4	115	48Y	SLEEVE	7.5	MED-LO, LO	X077	48A11O11066	\$102	F1	3.2	15	5
1/5					5.0	MED-LO					2.8		
1/5					7.5	LO					2.5		
1/6					5.0	LO					2.4		
1/6					7.5	LO					2.0		
1/2					10.0	ALL					2.7		
1/3					5.0	ALL					2.3		
1/3					7.5	ALL					2.1		
1/4					5.0	MED-HI					1.6		
1/4	1075/4	208-230	48Y	BALL	7.5	MED-LO, LO	X073	48A11O11064	\$105	F1	1.4	14	4 3/4
1/5					5.0	MED-LO					1.3		
1/5					7.5	LO					1.1		
1/6					5.0	LO					1.1		
1/6					7.5	LO					0.9		
3/4					20.0	ALL					7.8		
1/2					10.0	ALL					7.1		
1/3	1075/4	115	48Y	BALL	10.0	MED-HI, MED-LO, LO	X074	48A11O11042	\$122	F1	4.9	21	6
1/4					10.0	MED-LO, LO					3.7		
1/5					10.0	LO					2.9		
3/4					20.0	HI					3.8		
1/2					20.0	MED-HI					2.7		
1/2					10.0	HI					3.7		
1/3	1075/4	208-230	48Y	BALL	20.0	MED-LO	X075	48A11O11063	\$130	F1	1.9	23	6
1/3					10.0	MED-HI					2.8		
1/4					20.0	LO					1.4		
1/4					10.0	MED-LO					2.6		
1/5					10.0	LO					1.6		

# Condenser Fan

Single Phase, PSC, 48 Frame  
Open Air Over, Shaft Up Thru-Bolt Mount

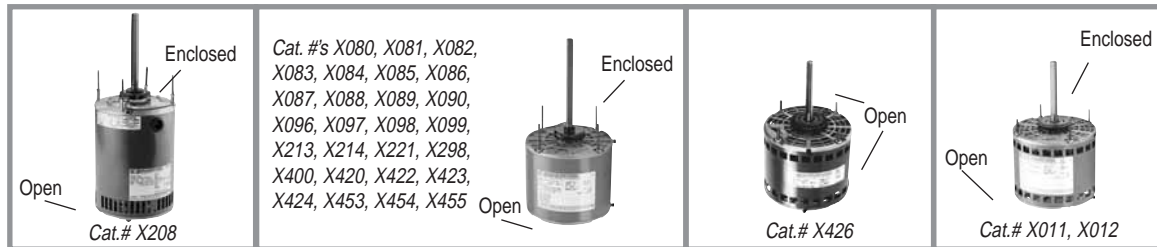
Bolt Pattern - 5.12" Diameter  
2.56" Radius



**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. X426 has open frame and brackets
- **Single and multi-speed models as noted**
- Sleeve or ball bearings, as noted
- Weather resistant reversing plug
- 30" long leads
- Shaft with flat, unless otherwise 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**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/4	1625/1	208-230	48Y	SLEEVE	X012	48A17O2006	\$104	F1	1.8	11	4 1/2	1/2 x 6	30,34,44
	1625/1	460	48Y	BALL	X420	48A17O169	\$139	F1	1.0	12	4	1/2 x 6	34
	1075/2	208-230	48Y	BALL	X081	48A11O2031	\$116	F1	1.9	11	4 1/4	1/2 x 6	
	1075/2	208-230	48Y	SLEEVE	X080	48A11O2030	\$103	F1	1.9	14	4 1/4	1/2 x 6	
	1075/1	208-230	48Y	SLEEVE	X213	48A11O1524	\$91	F1	1.5	12	4 1/4	1/2 x 6	21
	1075/1	208-230	48Y	SLEEVE	X087	48A11O2029	\$94	F1	2.0	12	4 1/4	1/2 x 6	
	1075/1	460	48Y	BALL	X423	48A11O2055	\$107	F1	1.0	13	4 1/4	1/2 x 6	36
	825/1	208-230	48Y	BALL	X097	48A8O182	\$139	F1	1.8	13	4 1/2	1/2 x 6	
1/3	1625/3	208-230	48Y	SLEEVE	X011	48A17O2005	\$111	F1	2.3	16	4 3/4	1/2 x 6	30,34,44
	1075/2	208-230	48Y	BALL	X083	48A11O2034	\$123	F1	3.0	14	4 3/4	1/2 x 6	
	1075/2	208-230	48Y	SLEEVE	X082	48A11O2033	\$112	F1	3.0	14	4 3/4	1/2 x 6	
	1075/1	208-230	48Y	SLEEVE	X214	48A11O1525	\$98	F1	2.6	13	4 1/2	1/2 x 6	21
	1075/1	208-230	48Y	SLEEVE	X088	48A11O2032	\$101	F1	3.0	12	4 3/4	1/2 x 6	
	1075/1	460	48Y	BALL	X424	48A11O2054	\$121	F1	1.4	20	4 3/4	1/2 x 6	36
	825/1	208-230	48Y	BALL	X086	48A8O2001	\$156	F1	2.4	17	5 1/4	1/2 x 6	
1/2	1625/1	460	48Y	BALL	X422	48A17O172	\$176	F1	1.7	15	5	1/2 x 6	34
	1625/1	575	48Y	BALL	X454	48A17O250	\$176	F1	1.35	15	5	1/2 x 6	35
	1075/2	208-230	48Y	SLEEVE	X084	48A11O663	\$126	F1	4.2	18	5 1/2	1/2 x 6	
	1075/2	208-230	48Y	BALL	X096	48A11O840	\$135	F1	4.2	19	5 1/2	1/2 x 6	
	1075/1	208-230	48Y	SLEEVE	X089	48A11O2035	\$114	F1	4.2	17	5 1/4	1/2 x 6	
	1075/1	208-230	48Y	SLEEVE	X221	48A11O1526	\$111	F1	2.7	15	5	1/2 x 6	21
	1075/1	460	48Y	BALL	X400	48A11O2017	\$136	F1	1.8	17	5	1/2 x 6	34
	1075/1	575	48Y	BALL	X453	48A11O1771	\$136	F1	1.15	17	5	1/2 x 6	35
	825/1	208-230	48Y	BALL	X098	48A8O181	\$187	F1	3.4	18	5 1/2	1/2 x 6	
	825/1	208-230	48YZ	BALL	X208	56A8O5	\$287	F1	3.4	21	8 5/8	5/8 x 6 w/key/flat	30
3/4	1075/2	208-230	48Y	BALL	X085	48A11O678	\$156	F1	5.1	18	5 1/2	1/2 x 6	
	1075/1	208-230	48Y	SLEEVE	X298	48A11O2059	\$130	F1	4.2	17	5 1/4	1/2 x 6	
	1075/1	208-230	48Y	BALL	X090	48A11O2007	\$147	F1	4.6	17	5 1/2	1/2 x 6	
	1075/1	460	48Y	BALL	X099	48A11O2016	\$157	F1	2.5	20	5 1/2	1/2 x 6	34
	1075/1	460	48YZ	BALL	X426	48A11O1375	\$190	F1	2.2	19	5 1/2	5/8 x 4 1/2 w/key	69
	1075/1	575	48Y	BALL	X455	48A11O1770	\$157	F1	1.7	19	5 1/2	1/2x6	35

**Footnotes:**

- 21 60 Degree C Ambient
- 30 Resilient ring mount, base not included
- 34 1" Thru-bolts, shaft end
- 35 1-1/8" Thru-bolts, shaft end
- 36 1-1/4" Thru-bolts, shaft end
- 44 1" Thru-bolts, opposite shaft end
- 69 50 Degree C Ambient

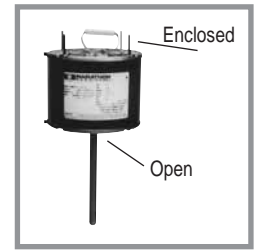


# Condenser Fan

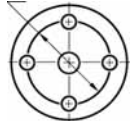
## Single Phase, PSC, 48 Frame Open Air Over, Shaft Down Thru-Bolt Mount

**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 opposite shaft end, except where noted
  - Automatic reset thermal protector
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**



Bolt Pattern - 5.12" Diameter  
2.56" Radius



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/8	825	208-230	48Y	SLEEVE	X278	48A8O206	\$127	F1	.9	12	4 1/4	1/2 x 4 3/4	37,44
1/6	1075	208-230	48Y	SLEEVE	X440	48A11O2065	\$84	F1	1.3	10	4	1/2 x 6	
1/5	1075	208-230	48Y	SLEEVE	X216	48A11O1097	\$94	F1	1.6	10	3 3/4	1/2 x 6	37,44,60
1/4	1075	208-230	48Y	SLEEVE	X441	48A11O2062	\$103	F1	1.9	11	4 1/4	1/2 x 6	
1/3	1075	208-230	48Y	SLEEVE	X442	48A11O2064	\$110	F1	2.7	14	4 3/4	1/2 x 6	
	1075	208-230	48Y	SLEEVE	X297	48A11T509	\$99	F1	1.8	11	4 1/4	1/2 x 3 3/4	N,29,41,60
1/2	1075	208-230	48Y	SLEEVE	X443	48A11O2063	\$122	F1	3.9	18	5 1/4	1/2 x 6	
3/4	1075	208-230	48Y	SLEEVE	X444	48A11O1596	\$162	F1	4.7	18	5 1/2	1/2 x 6	

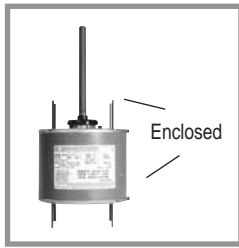
**Footnotes:**

- N Totally Enclosed, Non-Ventilated
- 29 Weep holes with removable plugs on end brackets. Remove bottom plug after installation.
- 37 1-1/2" Thru-bolts, shaft end
- 41 5/8" Thru-bolts, opposite shaft end
- 44 1" Thru-bolts, opposite shaft end
- 60 Four locating Set Screws on frame, 90 Degrees apart

# Condenser Fan

Single Phase, PSC, 48 Frame  
Totally Enclosed Air Over, All Angle Thru-Bolt Mount

Bolt Pattern - 5.12" Diameter  
2.56" Radius



**Applications:** Direct drive condenser fans for all angle mounting. These motors need to be mounted within the airflow of the fan for proper cooling.

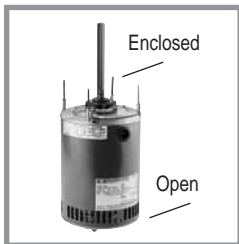
- Features:**
- Frame and end brackets enclosed
  - **Single and multi-speed models, as noted**
  - Sleeve or ball bearings, as noted
  - Weather resistant reversing plug
  - 30" long leads
  - Shaft slinger
  - 1-1/2" Thru-bolts on shaft end, 1" thru-bolts on lead end
  - Automatic reset thermal protector
  - Weep holes with removable plugs on end brackets. Remove bottom plug after installation.
  - Lug mount kits and other accessories available (see Accessories section)
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
<b>1/6</b>	1075/2	208-230	48Y	BALL	X429	48A11T2020	\$113	F1	1.3	11	4	1/2 x 6	36
	1075/1	208-230	48Y	BALL	X427	48A11T2017	\$107	F1	1.3	10	3 3/4	1/2 x 6	
	1075/1	208-230	48Y	SLEEVE	X411	48A11T2008	\$94	F1	1.3	10	3 3/4	1/2 x 6	
	825/1	208-230	48Y	SLEEVE	X465	48A8T11002	\$109	F1	1.1-1.1	17	4 1/4	1/2 x 6	21
<b>1/4</b>	1625/2	208-230	48Y	SLEEVE	X463	48A17T356	\$116	F1	1.4	13	4 1/2	1/2 x 6	21,94
	1075/2	208-230	48Y	BALL	X430	48A11T463	\$123	F1	1.8	19	4 1/2	1/2 x 6	36
	1075/1	208-230	48Y	SLEEVE	X412	48A11T568	\$103	F1	1.5	11	4 1/4	1/2 x 6	d,21
	1075/1	208-230	48Y	SLEEVE	X412	48A11TB569	\$103	F1	1.4	11	4 1/4	1/2 x 6	DS,21
	1075/1	208-230	48Y	BALL	X428	48A11T2018	\$119	F1	1.9	12	4 1/4	1/2 x 6	
	1075/1	460	48Y	BALL	X456	48A11T578	\$123	F1	.75	15	4 1/2	1/2 x 6	21
	840/1	208-230	48Y	SLEEVE	X450	48A8T71	\$116	F1	1.9	14	5 1/4	1/2 x 6	21
<b>1/3</b>	1075/2	208-230	48Y	BALL	X415	48A11T2012	\$131	F1	2.6	16	5	1/2 x 6	36
	1075/1	208-230	48Y	SLEEVE	X413	48A11TB529	\$110	F1	1.9	14	4 3/4	1/2 x 6	DS,21
	1075/1	460	48Y	BALL	X457	48A11T579	\$130	F1	.90	17	5	1/2 x 6	21,36
	825/1	208-230	48Y	SLEEVE	X451	48A8T72	\$122	F1	2.3	19	5 3/4	1/2 x 6	21,36
<b>1/2</b>	1625/2	208-230	48Y	SLEEVE	X464	48A17T359	\$140	F1	3.1-2.9	17	5 1/4	1/2 x 6	21,94
	1075/2	208-230	48Y	BALL	X416	48A11T2013	\$144	F1	4.2	19	5 1/2	1/2 x 6	36
	1075/1	208-230	48Y	SLEEVE	X414	48A11T530	\$122	F1	2.7	16	5	1/2 x 6	d,21,36
	1075/1	208-230	48Y	SLEEVE	X414	48A11TB571	\$122	F1	2.7	16	5	1/5 x 6	DS,21
	1075/1	460	48Y	BALL	X458	48A11T580	\$144	F1	1.4	20	5 1/2	1/2 x 6	21,36
	825/1	208-230	48Y	SLEEVE	X452	48A8T73	\$150	F1	3.2	21	6 1/4	1/2 x 6	21
<b>3/4</b>	1075/1	460	48Y	BALL	X459	48A11T581	\$162	F1	2.1	23	6	1/2 x 6	21,32
<b>1</b>	1075/1	460	48Y	BALL	X462	48A11T619	\$192	F1	3.4	25	7 1/4	1/2 x 6	21,32

NEW

# Condenser Fan

Single Phase, PSC, 56 Frame  
Open Air Over, Shaft Up Resilient Ring, Thru-Bolt Mount



**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
  - Threaded lead hole exit
  - Ball bearings
  - 30" long leads
  - Shaft slinger
  - **60 Degrees C ambient**
  - Automatic reset thermal protector
  - Flat & keyway on shaft
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	BODY LENGTH	SHAFT DIM.	FOOT NOTES
<b>3/4</b>	1075	208-230/460	56Y	BALL	X207	56A11O5311	\$266	F1	3.9-3.6/1.8	31	8 1/4	5/8 x 6	37
<b>1</b>	1075	208-230/460	56Y	BALL	X206	56A11O5310	\$280	F1	5.4-5.2/2.6	35	8 3/4	5/8 x 6	37
<b>1 1/2</b>	1075	208-230/460	56Y	BALL	X271	56A11O5305	\$320	F1	7.7-7.6/3.8	43	9 3/4	5/8 x 6	34

Footnotes:  
 d To be discontinued after current stock is gone  
 DS Sourced  
 21 60 Degree C Ambient  
 32 3/4" Thru-bolts, shaft end  
 34 1" Thru-bolts, shaft end  
 36 1-1/4" Thru-bolts, shaft end  
 37 1-1/2" Thru-bolts, shaft end  
 94 1/2" Thru-bolts, shaft end

# Condenser Fan

Single Phase, PSC, 48 & 56 Frame  
Open Air Over, Shaft Up Belly Band Mount

**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 degrees C ambient where noted**
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**



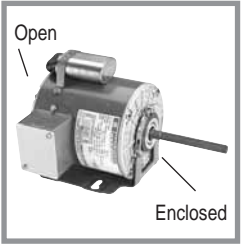
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
.4	1075	200-230/460	48Y	BALL	X445	48A11O1732	\$144	F1	3.0-2.8/1.4	17	5 1/2	1/2 x 4	
.6	1075	200-230/460	48Y	BALL	X446	48A11O1643	\$158	F1	3.0-3.6/1.8	20	6 7/8	1/2 x 4	
.8	1075	200-230/460	48Y	BALL	X447	48A11O1642	\$212	F1	5.0-4.4/2.2	26	8 3/4	1/2 x 4	21
1	1075	200-230/460	56Y	BALL	X448	56A11O5314	\$229	F1	6.0-5.2/2.6	36	8 3/4	5/8 x 4 w /key/flat	21

# Condenser Fan

Single Phase, PSC, 48 Frame  
Open Air Over, Resilient Base

**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 brackets enclosed
  - Resilient "cradle" style base
  - Automatic reset thermal protector
  - UL Recognized and CSA Certified
  - **Capacitor included**



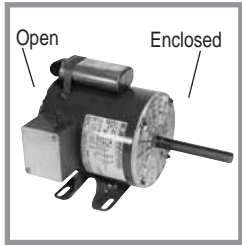
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	SHAFT DIM.	FOOT NOTES
1/2	1075	208-230/460	48YZ	BALL	X431	48A11O1461	\$186	F1	3.0/1.5	19	11.94	1/2 x 4 1/2	

# Condenser Fan

Single Phase, PSC, 56 Frame  
Open Air Over, Rigid Base

**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 brackets enclosed
  - Heavy gauge steel frame and base
  - 56Y frame has non-NEMA BA dimension of 1.97"
  - Automatic reset thermal protector
  - Flat and keyway on shaft
  - UL Recognized and CSA Certified
  - **Capacitor included on X432, see Accessories section to order capacitor for X433**



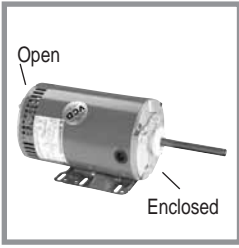
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	SHAFT DIM.	FOOT NOTES
3/4	1075	208-230/460	56YZ	BALL	X432	56A11O29	\$236	F1	4.4/2.2	22	11.88	5/8 x 4 1/2	
1	1075	208-230/460	56YZ	BALL	X433	56A11O30	\$280	F1	5.4/2.7	27	12.38	5/8 x 4 1/2	

Footnotes:  
21 60 Degree C Ambient

Prices and Specifications are subject to change without notice.

# Condenser Fan

Three Phase, 56 Frame  
Open Air Over, Shaft Up or Horizontal Rigid Base



**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:**
- Enclosed shaft end bracket vented frame
  - Continuous duty, air over
  - Automatic reset thermal protector
  - Shaft slinger
  - Threaded lead exit
  - **60 degrees C ambient**
  - Nameplated 60/50 hertz 190/380 volts, at next lower HP
  - Double sealed ball bearings
  - Flat and keyway on shaft
  - Patented Voltage Change Device (VCD), where footnoted "VC"
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	SHAFT DIM.	FOOT NOTES
1/3	1140	208-230/460	56Z	BALL	X532	56T11011001	\$250	F1	2.6-2.5/1.25	25	13.37	5/8 x 5	VC
1/2	850	208-230/460	56HZ	BALL	X529	56T805531	\$364	F1	2.9-3.0/1.5	39	14.68	5/8 x 5	VC,5
	1140	208-230/460	56Z	BALL	X533	56T11011002	\$269	F1	2.2-2.0/1.0	25	13.37	5/8 x 5	VC
1	1140	208-230/460	56HZ	BALL	X513	56T1105305	\$307	F1	4.1-4.2/2.1	30	14.68	5/8 x 5	VC,5
	850	208-230/460	56HZ	BALL	X528	56T805306	\$408	F1	5.1-5.3/2.65	46	14.68	5/8 x 5	VC,5
1 1/2	1140	208-230/460	56HZ	BALL	X523	56T1105306	\$333	F1	5.45-5.4/2.7	38	15.68	5/8 x 5	VC,5
	850	208-230/460	56HZ	BALL	X531	56T8015504	\$444	F1	7.1-7.0/3.5	48	14.56	5/8 x 5	VC,5
2	1140	208-230/460	56HZ	BALL	X525	56T1105310	\$361	F1	7.2-6.8/3.4	47	16.68	5/8 x 5	VC,5

# Condenser Fan

Three Phase, 56 Frame  
Open Air Over, Belly Band/Resilient Mount



**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:**
- Enclosed shaft end bracket, vented frame
  - **60 degrees C ambient**
  - Automatic reset thermal protector
  - Nameplate 60/50 hertz 190/380 volts, at next lower HP
  - Double sealed ball bearings
  - 5/8" Dia. x 5" long shaft with flat and keyway
  - Shaft slinger
  - Threaded lead exit
  - Patented Voltage Change Device (VCD), where footnoted "VC"
  - 4 Locating screws 90 degrees apart, 3.33" from outer edge of shaft slinger
  - **Will accept resilient base kits (see Accessories section)**
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	BODY LENGTH	FOOT NOTES
1/3	850	208-230/460	56Y	BALL	X511	56T805303	\$328	F1	2.3-2.5/1.3	23	9 1/2	VC
1/2	1140	200-230/460	56Y	BALL	X500	56T1105300	\$261	F1	2.4-2.7/1.3	22	9	VC
3/4	1140	200-230/460	56Y	BALL	X501	56T1105301	\$289	F1	3.1-3.2/1.6	25	9 1/2	VC
	850	208-230/460	56Y	BALL	X506	56T805301	\$382	F1	3.6-3.6/1.8	39	11	VC
1	1140	200-230/460	56Y	BALL	X502	56T1105302	\$302	F1	4.0-4.2/2.1	29	10	VC
	1140	575	56Y	BALL	X522	56T1105308	\$302	F1	1.7	30	10	VC,70
	850	200-230/460	56Y	BALL	X507	56T805302	\$397	F1	5.3-5.3/2.6	46	12	VC
	850	575	56Y	BALL	X527	56T805304	\$397	F1	2.1	54	12	VC,70
1 1/2	1140	200-230/460	56Y	BALL	X503	56T1105303	\$330	F1	5.5-5.4/2.7	37	11	VC
	1140	575	56Y	BALL	X524	56T1105307	\$330	F1	2.2	37	11	VC,73
	850	208-230/460	56Y	BALL	X530	56T805307	\$427	F1	7.5-6.8/3.4	47	11 1/4	VC
2	1140	208-230/460	56Y	BALL	X509	56T1105304	\$358	F1	7.2-6.8/3.4	46	12	VC
	1140	575	56Y	BALL	X526	56T1105309	\$358	F1	2.7	46	11 5/8	VC,73

NEW

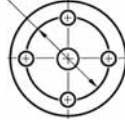
**Footnotes:**

5 56H, 143T, and 145T Combination Base with 12 mounting holes  
70 Not Nameplated 50 hz  
73 No hubs

VC Voltage Change Device feature for quick voltage changes



Bolt Pattern - 5.12" Diameter  
2.56" Radius



# Direct Drive Fan & Blower

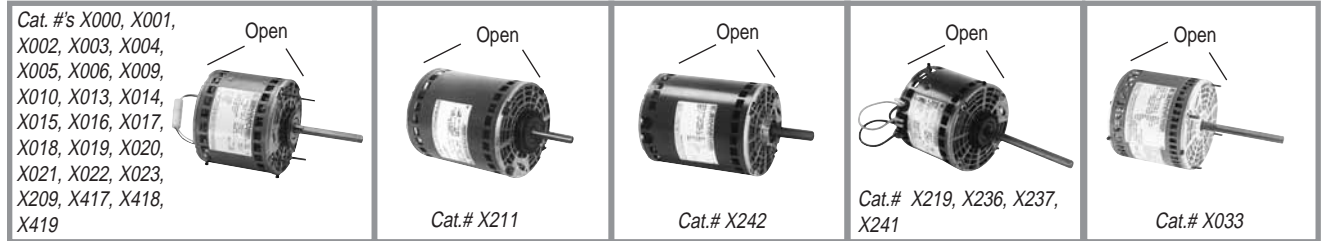
Single Phase, PSC, 48 Frame

Open Air Over, Round Body

With Resilient Ring and/or Thru-Bolt Mount

**Applications:** Residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments.

- Features:**
- Open frame 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
  - Sleeve or ball bearings as noted
  - 2-1/4" resilient rings except where noted
  - 2 1/2" adaptor rings supplied, shipped loose in box
  - Extended thru-bolts on shaft end
  - 30" long leads
  - Automatic reset thermal protector
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/5	1075/3	115	48Y	SLEEVE	X219	48A11O2047	\$93	F1	3.5	11	4	1/2 x 4	39,51
1/4	1625/3	115	48Y	SLEEVE	X013	48A17O152	\$102	F1	4.0	12	4 1/2	1/2 x 4	32
	1625/3	208-230	48Y	SLEEVE	X014	48A17O154	\$104	F1	1.8	11	4 1/4	1/2 x 4	32
	1625/1	208-230	48Y	SLEEVE	X012	48A17O2006	\$104	F1	1.8	11	4 1/2	1/2 x 6	34,44
	1075/3	115	48Y	SLEEVE	X000	48A11OB1798	\$98	F1	3.4	12	4 1/4	1/2 x 4	DS,32
	1075/3	208-230	48Y	SLEEVE	X001	48A11O1799	\$101	F1	1.5	12	4 1/2	1/2 x 4	32
	1075/3	277	48Y	SLEEVE	X018	48A11O1350	\$105	F1	1.6	10	4 1/4	1/2 x 4	32
	1075/1	208-230	48Y	SLEEVE	X006	48A11O2001	\$96	F1	2.0	12	4 1/4	1/2 x 4	32
	1075/1	208-230	48Y	BALL	X417	48A11O2051	\$103	F1	2.2	12	4 1/4	1/2 x 6	37,51
	1/3	1625/3	115	48Y	SLEEVE	X015	48A17O151	\$108	F1	4.1	14	4 3/4	1/2 x 4
1625/3		208-230	48Y	SLEEVE	X011	48A17O2005	\$111	F1	2.3	16	4 3/4	1/2 x 6	34,44
1075/4		115	48Y	SLEEVE	X236	48A11O699	\$122	F1	6.4	13	4 3/4	1/2 x 6	39
1075/3		115	48Y	SLEEVE	X002	48A11OB1769	\$105	F1	4.6	14	4 3/4	1/2 x 4	DS,32
1075/3		208-230	48Y	SLEEVE	X003	48A11OB2042	\$107	F1	3.3	14	4 3/4	1/2 x 4	DS,32
1075/3		277	48Y	SLEEVE	X019	48A11O1351	\$112	F1	2.7	15	4 3/4	1/2 x 4	32
1075/1		208-230	48Y	BALL	X418	48A11O2052	\$109	F1	3.1	13	4 1/2	1/2 x 6	37,51
825/1		230	48Y	SLEEVE	X209	48A8O183	\$134	F1	3.0	18	5 3/4	1/2 x 5 1/2	34,50
1/2	1625/3	115	48Y	SLEEVE	X016	48A17O153	\$121	F1	7.4	16	5 1/4	1/2 x 4	32
	1625/3	208-230	48Y	SLEEVE	X017	48A17O155	\$123	F1	4.1	16	5 1/4	1/2 x 4	32
	1075/4	115	48Y	SLEEVE	X033	48A11O1674	\$102	F1	6.1	14	5	1/2 x 5	31,73
	1075/3	115	48Y	SLEEVE	X004	48A11OB1755	\$118	F1	6.2	17	5 1/2	1/2 x 4	DS,32
	1075/3	208-230	48Y	SLEEVE	X005	48A11O1756	\$120	F1	2.6	17	5 1/2	1/2 x 4	32
	1075/3	277	48Y	SLEEVE	X020	48A11O1352	\$125	F1	3.6	17	5 1/2	1/2 x 4	32
	1075/1	208-230	48Y	BALL	X419	48A11O2053	\$122	F1	4.2	17	5 1/4	1/2 x 6	37,51
3/4	1625/3	230	48Y	SLEEVE	X022	48A17O174	\$135	F1	5.5	18	5 1/2	1/2 x 5 1/2	39,50
	1075/4	208-230	48Y	SLEEVE	X241	48A11O697	\$157	F1	5.4	17	5 1/2	1/2 x 6	39
	1075/3	115	48Y	SLEEVE	X009	48A11O787	\$138	F1	10.2	20	5 3/4	1/2 x 4	32
	1075/3	208-230	48Y	SLEEVE	X010	48A11O2046	\$140	F1	5.6	18	5 1/2	1/2 x 4	32
	1075/3	277	48Y	SLEEVE	X021	48A11O1353	\$144	F1	5.0	20	5 3/4	1/2 x 4	32
1	1625/2	208-230	48Y	BALL	X211	48A17O125	\$175	F1	6.2	20	6 1/4	1/2 x 2 1/2	39,42,50
	1075/3	230	48Y	BALL	X023	48A11O1583	\$160	F1	5.3	24	6 1/2	1/2 x 5 1/2	34,51
	1000/3	208-230	48YZ	BALL	X242	48A11O756	\$266	F1	6.2	26	7 1/4	5/8 x 4	39,51,68

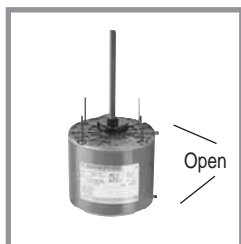
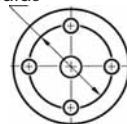
**Footnotes:**

- |    |                              |    |                                                         |
|----|------------------------------|----|---------------------------------------------------------|
| DS | Sourced                      | 42 | 3/4" Thru-bolts, opposite shaft end                     |
| 31 | 5/8" Thru-bolts, shaft end   | 44 | 1" Thru-bolts, opposite shaft end                       |
| 32 | 3/4" Thru-bolts, shaft end   | 50 | 2-1/2" Resilient Rings included                         |
| 34 | 1" Thru-bolts, shaft end     | 51 | Does not include resilient rings, see Accessory Section |
| 37 | 1-1/2" Thru-bolts, shaft end | 68 | Nameplated 60/50 hz                                     |
| 39 | No Thru-bolts, shaft end     | 73 | No Hubs                                                 |

## Direct Drive Fan & Blower

Single Phase, PSC, 48 Frame  
Open Air Over, Thru-Bolt Mount

Bolt Pattern - 5.12" Diameter  
2.56" Radius



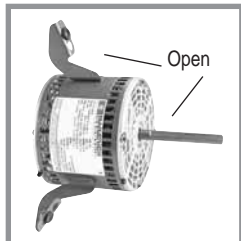
**Applications:** Residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments.

- 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
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1075/2	460	48Y	BALL	X037	48A11O1876	\$211	F1	1.0	15	4 3/4	1/2 X 6	51
1/2	1075/2	460	48Y	BALL	X038	48A11O1874	\$215	F1	1.6	17	5 1/4	1/2 X 6	51
3/4	1075/2	460	48Y	BALL	X039	48A11O1875	\$219	F1	2.1	20	5 1/2	1/2 X 6	51

## Direct Drive Fan & Blower

Single Phase, PSC, 48 Frame  
Open Air Over, Flex Mount



**Applications:** Residential and commercial furnaces, air conditioners, exhaust fans, and other air handling equipment installed in clean and dry environments.

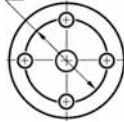
- Features:**
- Open frame and brackets
  - **Multi-speed capability**
  - Three lug mount fits 9" or 10" bolt circle. Mounting holes on lugs are .435" dia., with grommets and sleeves for .26" dia. option.
  - Weather resistant reversing plug
  - 30" long leads
  - Automatic reset thermal protector
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/4	1075/4	115	48Y	SLEEVE	X034	48A11O1773	\$113	F1	3.3	14	4 1/4	1/2 x 6	
1/3	1075/4	115	48Y	SLEEVE	X035	48A11O1774	\$121	F1	4.5	15	4 1/2	1/2 x 6	
1/2	1075/4	115	48Y	SLEEVE	X036	48A11O1772	\$134	F1	6.0	18	5	1/2 x 6	

**Footnotes:**

51 Does not include resilient rings, see Accessory section

Bolt Pattern - 5.12" Diameter  
2.56" Radius

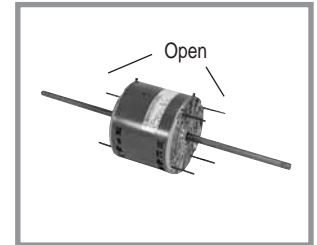


# Double Shaft Fan & Blower

Single Phase, PSC, 48 Frame  
Open Air Over, Belly Band Thru-Bolt Mount

**Applications:** Continuous air over applications, such as room air conditioners, fan coil units, and other air moving applications.

- Features:**
- Open frame and brackets
  - **Multi-speed capability**
  - Automatic reset thermal protector
  - 30" leads
  - **CCW rotation, fixed lead end**
  - 1" extended thru-bolts both ends
  - 20" overall length
  - Length adapter kits included where noted
  - UL Recognized and CSA Certified
  - **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
<b>1/8</b>	1075/3	115	48Y	SLEEVE	X064	48A11O2011	\$93	F1	2.4	18	4	8 1/5 x 1/2 x 7 7/8	
	1075/3	115	48Y	SLEEVE	X056	48A11O901	\$103	F1	2.4	13	4	8 1/5 x 1/2 x 7 7/8	71
	1075/3	208-230	48Y	SLEEVE	X065	48A11O2012	\$93	F1	1.0	10	4	8 1/5 x 1/2 x 7 7/8	
<b>1/6</b>	1075/3	115	48Y	SLEEVE	X042	48A11O653	\$105	F1	3.0	11	4	8 1/5 x 1/2 x 7 7/8	71
	1075/3	208-230	48Y	SLEEVE	X049	48A11O773	\$94	F1	1.5	9	4	8 1/5 x 1/2 x 7 7/8	
	1075/3	208-230	48Y	SLEEVE	X043	48A11O654	\$105	F1	1.5	11	4	8 1/5 x 1/2 x 7 7/8	71
<b>1/4</b>	1625/3	208-230	48Y	SLEEVE	X059	48A17O2002	\$104	F1	1.8	12	4 1/4	8 x 1/2 x 7 7/8	
	1625/3	208-230	48Y	SLEEVE	X040	48A17O69	\$115	F1	1.8	12	4 1/4	8 x 1/2 x 7 7/8	71
	1075/3	115	48Y	SLEEVE	X066	48A11O2013	\$101	F1	4.2	15	4 1/2	7 5/8 x 1/2 x 7 7/8	
	1075/3	115	48Y	SLEEVE	X061	48A11O2022	\$112	F1	4.8	13	4 1/4	8 x 1/2 x 7 7/8	71
	1075/3	208-230	48Y	SLEEVE	X050	48A11O774	\$101	F1	2.2	13	4 1/4	8 x 1/2 x 7 7/8	
	1075/3	208-230	48Y	SLEEVE	X044	48A11O655	\$112	F1	2.2	16	4 1/4	8 x 1/2 x 7 7/8	71
<b>1/3</b>	1625/3	208-230	48Y	SLEEVE	X060	48A17O2003	\$111	F1	2.5	14	4 3/4	7 1/2 x 1/2 x 7 7/8	
	1625/3	208-230	48Y	SLEEVE	X041	48A17O70	\$121	F1	2.5	15	4 3/4	7 1/2 x 1/2 x 7 7/8	71
	1075/3	115	48Y	SLEEVE	X070	48A11O2024	\$118	F1	7.8	15	4 3/4	7 1/2 x 1/2 x 7 7/8	71
	1075/3	208-230	48Y	SLEEVE	X052	48A11O775	\$107	F1	3.4	15	4 3/4	7 1/2 x 1/2 x 7 7/8	
	1075/3	208-230	48Y	SLEEVE	X045	48A11O656	\$118	F1	3.4	17	4 3/4	7 1/2 x 1/2 x 7 7/8	71
	1075/3	208-230	48Y	SLEEVE	X258	48A11O1167	\$104	F1	2.3	1.4	4 1/4	6 7/8 x 1/2 x 6 7/8	
<b>1/2</b>	1625/3	208-230	48Y	SLEEVE	X058	48A17O2001	\$136	F1	4.1	17	5 1/4	7 x 1/2 x 7 7/8	71
	1625/3	208-230	48Y	SLEEVE	X069	48A17O2004	\$125	F1	4.1	16	5 1/4	7 x 1/2 x 7 7/8	
	1075/3	115	48Y	SLEEVE	X071	48A11O2026	\$133	F1	9.4	20	5 1/2	6 5/8 x 1/2 x 7 7/8	71
	1075/3	208-230	48Y	SLEEVE	X062	48A11O2009	\$133	F1	4.7	17	5 1/2	6 5/8 x 1/2 x 7 7/8	71
	1075/3	208-230	48Y	SLEEVE	X067	48A11O2014	\$122	F1	4.7	18	5 1/2	6 5/8 x 1/2 x 7 7/8	
<b>3/4</b>	1075/3	208-230	48Y	SLEEVE	X068	48A11O2015	\$139	F1	5.0	15	5 3/4	6 3/4 x 1/2 x 6 7/8	
	1075/3	208-230	48Y	SLEEVE	X063	48A11O2028	\$149	F1	5.4	19	5 1/2	6 5/8 x 1/2 x 7 7/8	71

**Footnotes:**

71 Includes length adapter bracket

# Exhaust Ventilators

Single Phase, *Split Phase & Capacitor Start* 48 & 56 Frame  
Dripproof, C-Face



**Applications:** Commercial and industrial fan and blower exhaust ventilators.

- Features:**
- No thermal overload protection
  - NEMA service factor
  - 56CZ frame has 5/8" dia. x 2 1/4" long shaft with keyway

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/6</b>	1725	115	56CZ	BALL	B308	56S17D2053	<b>\$102</b>	F1	3.6	12	10.31	3
	1140	115	56C	BALL	B380	48S11D53	<b>\$156</b>	F1	3.3	19	11.19	3
<b>1/4</b>	1725	115	56CZ	BALL	B309	56S17D2054	<b>\$108</b>	F1	5.0	13	10.31	3
	1140	115	56C	BALL	B381	56S11D2021	<b>\$185</b>	F1	6.4	22	11.44	3
<b>1/3</b>	1725	115	56CZ	BALL	B320	56S17D2055	<b>\$123</b>	F1	6.1	15	10.56	3
<b>1/2</b>	1725	115	56CZ	BALL	B321	56S17D2056	<b>\$162</b>	F1	7.2	19	11.31	3
	1140	115/208-230	56C	BALL	G278	56C11D5304	<b>\$317</b>	F1	10.6/5.1-5.3	33	11.94	2

## General Purpose, Single Phase

Single Phase, *Capacitor Start*, 56 Frame  
Dripproof, C-Face



**Applications:** General purpose use on gear reducers, pumps, machine tools, and other direct-coupled equipment requiring high starting torque in environments that are relatively clean and dry. For use outdoors an enclosure or drip cover may be required (see Accessories section).

- Features:**
- Double sealed ball bearings, mechanically locked on shaft end
  - Heavy gauge steel frame
  - Capacitor start design for high starting torque
  - NEMA Service factors
  - No thermal overload protection
  - UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/4</b>	1800	115/208-230	56C	NONE	G212	56C17D2084	<b>\$144</b>	F1	5.0/2.3-2.5	17	10.69	2
<b>1/3</b>	3600	115/208-230	56C	NONE	G216	56C34D2117	<b>\$123</b>	F1	4.4/2.2-2.2	16	10.19	2
	1800	115/208-230	56C	NONE	G230	56C17D2085	<b>\$169</b>	F1	6.4/3.0-3.2	17	10.69	2
<b>1/2</b>	3600	115/208-230	56C	NONE	G232	56C34D2108	<b>\$136</b>	F1	8.4/3.8-4.2	17	10.69	2
	1800	115/208-230	56C	NONE	G234	56C17D2044	<b>\$198</b>	F1	8.6/4.1-4.3	21	11.19	2
	1200	115/208-230	56C	NONE	G278	56C11D5304	<b>\$317</b>	F1	10.6/5.1-5.3	33	11.94	2
<b>3/4</b>	3600	115/208-230	56C	NONE	G238	56C34D2101	<b>\$174</b>	F1	9.6/4.4-4.8	19	10.94	2
	1800	115/208-230	56C	NONE	G250	56B17D2011	<b>\$243</b>	F1	11.0/5.5-5.5	25	11.72	1
<b>1</b>	3600	115/208-230	56C	NONE	G254	56B34D2031	<b>\$200</b>	F1	10.6/5.5-5.3	24	11.68	1
	1800	115/208-230	56C	NONE	G256	56C17D5310	<b>\$261</b>	F1	13.4/6.8-6.7	29	11.44	2
<b>1 1/2</b>	3600	115/208-230	56C	NONE	G258	56B34D2023	<b>\$259</b>	F1	14.8/8.0-7.4	26	11.68	1
	1800	115/208-230	56C	NONE	G270	56C17D5311	<b>\$303</b>	F1	18.0/9.3-9.0	39	12.44	2
<b>2</b>	3600	115/208-230	56C	NONE	G272	56B34D5319	<b>\$318</b>	F1	19.2/10.5-9.6	35	11.44	1
	1800	115/208-230	56C	NONE	G274	56B17D5303	<b>\$370</b>	F1	21.0/11.3-10.5	48	13.44	1

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 2 Capacitor Start Induction Run design
- 3 Split phase design

# General Purpose

## Single Phase, Capacitor Start, 56 Frame Totally Enclosed, C-Face With Removable Base (Four-In-One)

**Applications:** Unique design allows for replacement of Dripproof, TEFC, C- Face, or Rigid Base motors in a broad range of industrial and commercial applications. General purpose use on gear reducers, pumps, machine tools, fans, blowers, material handling, and other base mount or direct-coupled equipment requiring high starting torques and installed in damp, dusty, or dirty environments.



- Features:**
- Double sealed ball bearings, mechanically locked on shaft end
  - Heavy gauge steel frame
  - Bolt-on, easily removable rigid base
  - Suitable for horizontal or vertical mounting
  - 1.15 Service factor except where noted
  - No thermal overload protection
  - **Will accept drip cover A234, see Accessories section**
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/4</b>	1140	115/208-230	56C	G577	56C11F5302	\$253	F2	6.8/3.1-3.4	25	11.82	2
<b>1/3</b>	1725	115/208-230	56C	G570	56C17F5320	\$197	F2	6.6/3.1-3.3	24	11.82	2,68
	1140	115/208-230	56C	G576	56C11F5303	\$282	F2	7.8/3.6-3.9	29	12.32	2
<b>1/2</b>	3450	115/208-230	56C	D311	56C34F5301	\$167	F2	8.4/4.0-4.2	23	11.82	2
	1725	115/208-230	56C	G571	56C17F5321	\$226	F2	8.8/4.2-4.4	26	11.82	2,68
	1140	115/208-230	56C	G578	56B11F5303	\$344	F2	9.6/4.7-4.8	37	13.32	1,68
<b>3/4</b>	3450	115/208-230	56C	D312	56C34F5302	\$202	F2	10.6/5.3-5.3	28	12.32	2
	1725	115/208-230	56C	G572	56C17F5322	\$271	F2	11.0/5.4-5.5	31	12.32	2,68
	1140	115/208-230	56C	G579	56B11F5302	\$430	F2	11.4/5.8-5.7	41	13.82	1,68
<b>1</b>	3450	115/208-230	56C	D313	56C34F5303	\$228	F2	11.2/5.7-5.6	31	12.32	2
	1725	115/208-230	56HC	G573	56C17F5323	\$289	F2	13.4/6.8-6.7	33	12.82	2,5,68
<b>1 1/2</b>	3450	115/208-230	56C	D314	56B34F5326	\$287	F2	14.2/7.7-7.1	34	12.82	1
	1725	115/208-230	56HC	G574	56B17F5305	\$331	F2	15.2/8.2-7.6	41	13.82	1,5,68
<b>2</b>	3450	115/208-230	56HC	D315	56B34F5327	\$346	F2	16.6/9.1-8.3	38	13.82	1,5
	1725	115/208-230	56HC	G575	56B17F5306	\$415	F2	20.0/10.8-10.0	51	14.82	1,5,17
<b>3</b>	3450	208-230	56HC	D316	56B34F5328	\$462	F2	13.1-11.8	51	14.82	1,5

**Footnotes:**

- |   |                                                             |    |                     |
|---|-------------------------------------------------------------|----|---------------------|
| 1 | Capacitor Start/Capacitor Run design for reduced amperage   | 17 | 1.0 Service Factor  |
| 2 | Capacitor Start Induction Run design                        | 68 | Nameplated 60/50 hz |
| 5 | 56H, 143T, and 145T Combination Base with 12 mounting holes |    |                     |



# General Purpose

Three Phase, 56-215T Frame

Totally Enclosed, C-Face With Removable Base, (Four-In-One)

Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPCAT and/or Canadian NRCan standards.



**Applications:** Unique design allows for replacement of Dripproof, TEFC, C- Face, or Rigid Base motors in a broad range of industrial and commercial applications. General purpose use on gear reducers, pumps, machine tools, fans, blowers, material handling, and other base mount or direct-coupled equipment installed in damp, dusty, or dirty environments.

- Features:**
- Ball bearings, mechanically locked on shaft end for horizontal or vertical mounting
  - Heavy gauge steel frame
  - Bolt-on, easily removable rigid base
  - Class F insulation
  - CR<sup>200</sup> Corona resistant magnet wire for use on Variable Speed Drive
  - 1.15 Service factor except where noted
  - Nameplated 60/50 hertz, 190/380 volts, at next lower horsepower as footnoted
  - Will accept drip cover kit
  - UL Recognized and CSA Certified



Suitable for use on VFD per guidelines on page 5.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/4</b>	1200	208-230/460	56C	G586	56T11F5311	<b>\$243</b>	F2	52.5	1.7-2.0/1.0	21	11.32	13,20
<b>1/3</b>	3600	208-230/460	56C	D390	56T34F5303	<b>\$154</b>	F2	66.0	1.7-1.8/0.9	21	10.44	N,13,20,24
	1800	208-230/460	56C	G580	56T17T5305	<b>\$197</b>	F2	68.0	1.5-1.6/0.8	20	9.94	N,13,20,24
	1800	575	56C	K703	56T17T5316	<b>\$197</b>	F2	68.0	.65	21	9.94	N,13,24
	1200	208-230/460	56C	G587	56T11F5310	<b>\$256</b>	F2	62.0	1.9-2.2/1.1	23	11.32	13,20
<b>1/2</b>	3600	208-230/460	56C	D391	56T34F5301	<b>\$171</b>	F2	66.0	2.1-2.2/1.1	22	11.82	13,20
	1800	208-230/460	56C	G581	56T17F5321	<b>\$218</b>	F2	68.0	2.3-2.4/1.2	23	11.82	13,20
	1800	575	56C	K705	56T17F5336	<b>\$218</b>	F2	68.0	1.0	25	11.82	13
	1200	208-230/460	56C	G588	56T11F5309	<b>\$279</b>	F2	68.0	2.4-2.7/1.3	24	11.82	13,20
<b>3/4</b>	3600	208-230/460	56C	D392	56T34F5302	<b>\$200</b>	F2	68.0	3.0-3.2/1.6	23	11.82	13,20
	1800	208-230/460	56C	G582	56T17F5322	<b>\$239</b>	F2	75.5	2.9-3.0/1.5	25	11.82	13,20
	1800	575	56C	K707	56T17F5337	<b>\$239</b>	F2	75.5	1.2	25	11.82	13
	1200	208-230/460	56C	G589	56T11F5308	<b>\$287</b>	F2	74.0	3.1-3.2/1.6	28	12.32	13,20
<b>1</b>	3600	208-230/460	56C	D393	56T34F5303	<b>\$223</b>	F2	74.0	3.7-3.7/1.8	25	11.82	13,20
	1800	208-230/460	56HC	G583	56T17F5323	<b>\$244</b>	F2	77.0	3.5-3.6/1.8	28	12.32	5,13,20
	1800	575	56HC	K709	56T17F5338	<b>\$244</b>	F2	77.0	1.45	29	12.32	5,13
	1200	208-230/460	56HC	K701	56T11F5307	<b>\$307</b>	F2	77.0	3.95-4.0/2.0	33	12.82	5,13,20
<b>1 1/2</b>	3600	208-230/460	56C	D394	56T34F5304	<b>\$266</b>	F2	80.0	4.7-4.6/2.3	27	11.82	13,20
	1800	208-230/460	56HC	G584	56T17F5324	<b>\$267</b>	F2	80.0	4.8-4.8/2.4	31	12.32	5,13,20
	1800	575	56HC	K722	56T17F5339	<b>\$267</b>	F2	80.0	1.9	31	12.32	5,13
<b>2</b>	3600	208-230/460	56HC	D395	56T34F5305	<b>\$307</b>	F2	80.0	6.0-6.0/3.0	30	12.32	5,13,20
	1800	208-230/460	56HC	G585	56T17F5325	<b>\$290</b>	F2	82.5	6.0-5.8/2.9	41	13.82	5,13,20
	1800	575	56HC	K724	56T17F5340	<b>\$290</b>	F2	82.5	2.25	41	13.82	5,13
	1200	208-230/460	184TC	<b>C380</b>	184TTFR4380	<b>\$510</b>	E8	86.5	6.0/3.0	72	15.29	20
<b>3</b>	3600	208-230/460	56HC	D396	56T34F5306	<b>\$341</b>	F2	84.0	8.4-7.6/3.8	41	13.32	5,13,20
	3600	208-230/460	182TC	<b>C381</b>	182TTFR4320	<b>\$520</b>	E8	85.5	8.2-7.4/3.7	65	15.69	20
	1800	230/460	56HCZ	G590	56T17F5355	<b>\$326</b>	F2	85.5	8.6/4.3	42	14.87	Z,5,13,17,20
	1800	208-230/460	182TC	<b>C382</b>	182TTFR4340	<b>\$465</b>	E8	87.5	8.4-4.2	77	15.69	20
	1800	575	182TC	<b>C383</b>	182TTFR4345	<b>\$465</b>	E8	87.5	3.4	77	15.69	
	1200	208-230/460	213TC	<b>C384</b>	213TTFW4380	<b>\$650</b>	E8	87.5	9.2/4.6	106	20.97	20
<b>5</b>	3600	208-230/460	184TC	<b>C385</b>	184TTFR4320	<b>\$555</b>	E8	87.5	12.4/6.2	81	16.69	20
	1800	208-230/460	184TC	<b>C386</b>	184TTFR4340	<b>\$490</b>	E8	87.5	13.0/6.5	87	16.69	20
	1800	575	184TC	<b>C387</b>	184TTFR4345	<b>\$490</b>	E8	87.5	5.2	87	16.69	
	1200	208-230/460	215TC	<b>C388</b>	215TTFW4380	<b>\$775</b>	E8	87.5	14.0/7.0	143	20.97	20

**Footnotes:**

- N Totally Enclosed, Non-Ventilated
- Z 56HZ with 7/8" shaft diameter, 3 1/2" height and slotted 56 frame base
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 13 F1 Mounting only cannot reassemble to F2
- 17 1.0 Service Factor
- 20 Rated 60/50 Hertz, 190/380 or 380 volt at next lower horsepower

Continued on next page.

Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.

## General Purpose

### Three Phase, 56-215T Frame

### Totally Enclosed, C-Face With Removable Base, (Four-In-One)

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>7 1/2</b>	3600	208-230/460	213TC	<b>C389</b>	213TTFW4320	<b>\$721</b>	E8	89.5	18.4/9.2	114	20.97	20
	1800	208-230/460	213TC	<b>C390</b>	213TTFW4340	<b>\$650</b>	E8	89.5	20.0/10.0	122	19.47	20
	1800	575	213TC	<b>C391</b>	213TTFW4345	<b>\$650</b>	E8	89.5	8.0	122	19.47	
<b>10</b>	3600	208-230/460	215TC	<b>C392</b>	215TTFW4320	<b>\$750</b>	E8	89.5	24.0/12.0	128	20.97	20
	1800	208-230/460	215TC	<b>C393</b>	215TTFW4340	<b>\$715</b>	E8	89.5	36.0/13.0	135	20.97	20
	1800	575	215TC	<b>C394</b>	215TTFW4345	<b>\$715</b>	E8	89.5	10.4	135	20.97	

### Drip Cover Kits (Four-In-One)

CAT. NO.	FRAME	LIST PRICE	MULT. SYMB.
A234	56-143T-145T	<b>\$15</b>	S4
A197	182T-184T	<b>\$17</b>	S4
A199	213T-215T	<b>\$20</b>	S4

**Footnotes:**

20 Rated 60/50 Hertz, 190/380 or 380 volt at next lower horsepower

# General Purpose

## Single Phase, *Split Phase & Capacitor Start*, 48 - 215T Frame Dripproof, Rigid Base



**Applications:** General purpose use on compressors, pumps, conveyors, blowers, and other machinery requiring high starting torque in environments that are relatively clean and dry.

- Features:**
- Ball bearing
  - Heavy gauge steel frame and base
  - NEMA service factors where noted
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	115/208-230	48	BALL	MANUAL	G078	48C17D2034	\$144	F1	1.35	5.0/2.3-2.5	17	9.84	2
	1725	115/208-230	48	BALL	NONE	G076	48C17D2033	\$133	F1	1.35	5.0/2.3-25	17	9.84	2
	1725	115	48	SLEEVE	NONE	S003	48S17D2089	\$ 80	F1	1.00	6.0	12	9.09	3
1/3	1725	115/208-230	56	BALL	NONE	G093	56C17D2087	\$161	F1	1.35	6.4/3.0-3.2	18	10.22	2
	1725	115	48	SLEEVE	NONE	S006	48S17D2090	\$89	F1	1.00	6.6	14	9.34	3
	1725	115/230	48	SLEEVE	NONE	S010	48C17D2023	\$120	F1	1.00	7.0/3.5	15	9.34	2
	1725	115/230	48	BALL	MANUAL	S030	48C17D2027	\$144	F1	1.00	7.0/3.5	15	9.34	2
	1725	115/230	48	SLEEVE	AUTO	S011	48C17D2024	\$126	F1	1.00	7.0/3.5	15	9.34	2
	1725	115/208-230	56	BALL	AUTO	G094	56C17D2009	\$167	F1	1.35	6.4/3.0-3.2	18	10.22	2
	1725	115/208-230	56	BALL	MANUAL	G095	56C17D2010	\$172	F1	1.35	6.4/3.0-3.2	18	10.22	2
	1/2	3450	115/208-230	48	BALL	NONE	G098	48C34D2023	\$128	F1	1.25	8.4/3.8-4.2	18	10.34
1725		115/208-230	56	BALL	AUTO	G911	56C17D2012	\$197	F1	1.25	8.6/4.1-4.3	22	11.72	2
1725		115/208-230	56	BALL	MANUAL	G912	56C17D2013	\$202	F1	1.25	8.6/4.1-4.3	23	11.72	2
1725		115/208-230	56	BALL	NONE	G910	56C17D2011	\$180	F1	1.25	8.6/4.1-4.3	22	11.72	2
1725		115	56	SLEEVE	NONE	S022	56S17D2046	\$113	F1	1.00	9.2	18	10.22	3
1725		115/230	56	SLEEVE	NONE	S012	56C17D2098	\$148	F1	1.00	9.2/4.6	18	10.22	2
1725		115/230	56	BALL	MANUAL	S033	56C17D2064	\$172	F1	1.00	9.2/4.6	19	10.22	2
1725		115/230	56	SLEEVE	AUTO	S013	56C17D2051	\$154	F1	1.00	9.2/4.6	18	10.22	2
1140		115/208-230	56	BALL	NONE	G913	56C11D5301	\$308	F1	1.25	10.6/5.1-5.3	30	11.82	2
3/4	3450	115/208-230	56	BALL	NONE	G915	56C34D2100	\$166	F1	1.25	9.6/4.4-4.8	21	10.97	2
	1725	115/230	56	BALL	MANUAL	S036	56C17D2067	\$202	F1	1.00	10.4/5.2	25	11.97	2
	1725	115/230	56	SLEEVE	AUTO	S015	56C17D2055	\$184	F1	1.00	10.4/5.2	24	11.97	2
	1725	115/230	56	SLEEVE	NONE	S014	56C17D2054	\$177	F1	1.00	10.4/5.2	24	11.97	2
	1725	115/208-230	56	BALL	MANUAL	G919	56B17D2010	\$246	F1	1.25	11.0/5.5-5.5	25	11.47	1
	1725	115/208-230	56	BALL	AUTO	G918	56B17D2009	\$241	F1	1.25	11.0/5.5-5.5	25	11.47	1
	1725	115/208-230	56	BALL	NONE	G917	56B17D2008	\$226	F1	1.25	11.0/5.5-5.5	26	11.47	1
	1140	115/208-230	56	BALL	NONE	G930	56C11D5302	\$394	F1	1.15	12.8/6.3-6.4	38	12.44	2
1	3450	115/208-230	56	BALL	NONE	G932	56B34D2030	\$188	F1	1.25	10.6/5.5-5.3	23	11.72	1
	1725	115/208-230	56	BALL	AUTO	G935	56C17D5304	\$259	F1	1.15	13.4/6.8-6.7	29	11.44	2
	1725	115/208-230	56	BALL	NONE	G934	56C17D5303	\$240	F1	1.15	13.4/6.8-6.7	30	11.44	2
	1725	115/208-230	56	BALL	MANUAL	G936	56C17D5305	\$268	F1	1.15	13.4/6.8-6.7	29	11.44	2
	1725	115/208-230	143T	BALL	NONE	I110	143TCDR5326	\$244	S1	1.15	13.4/6.8-6.7	33	11.49	2
	1725	115/230	56	BALL	MANUAL	S039	56C17D5320	\$262	F1	1.00	13.6/6.8	28	10.94	2
	1725	115/230	56	BALL	AUTO	S038	56C17D5343	\$244	F1	1.00	13.6/6.8	28	10.94	2
	1725	115/230	56	BALL	NONE	S037	56C17D5319	\$238	F1	1.00	13.6/6.8	28	10.94	2
1 1/2	3450	115/208-230	56	BALL	NONE	G937	56B34D2026	\$251	F1	1.15	14.8/8.0-7.4	25	11.72	1
	1725	115/208-230	56H	BALL	MANUAL	G951	56C17D5308	\$315	F1	1.15	18.0/9.3-9.0	40	12.44	2,5
	1725	115/208-230	56H	BALL	NONE	G939	56C17D5306	\$290	F1	1.15	18.0/9.3-9.0	40	12.44	2,5
	1725	115/208-230	56H	BALL	AUTO	G950	56C17D5307	\$302	F1	1.15	18.0/9.3-9.0	40	12.44	2,5
	1725	115/208-230	145T	BALL	NONE	I111	145TCDR5326	\$295	S1	1.15	18.0/9.3-9.0	41	12.49	2
2	3450	115/208-230	56H	BALL	NONE	G952	56B34D5321	\$302	F1	1.15	19.2/10.5-9.6	35	11.44	1,5
	3490	115/208-230	145T	BALL	NONE	I102	145TBDR5302	\$310	S1	1.15	19.2/10.5-9.6	40	11.49	1
	1725	115/208-230	145T	BALL	NONE	I118	145TBDR5326	\$308	S1	1.15	21.0/11.3-10.5	49	13.49	1
	1740	115/208-230	182T	BALL	NONE	I112	182TCDR7026	\$344	S1	1.15	23.0/12.0-11.5	65	13.72	2

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage  
 2 Capacitor Start Induction Run design

- 3 Split Phase design  
 5 56H, 143T, and 145T Combination Base with 12 mounting holes

*Continued on next page.*

# General Purpose

## Single Phase, Capacitor Start, 48 - 215T Frame Dripproof, Rigid Base

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>3</b>	3460	115/208-230	182T	BALL	NONE	I103	182TCDR7001	\$387	S1	1.15	32.0/17.5-16.0	57	13.22	2
	1750	115/208-230	184T	BALL	NONE	I113	184TCDR7026	\$402	S1	1.15	33.0/16.5	78	15.22	2
<b>5</b>	3510	208-230	184T	BALL	NONE	I104	184TCDR7001	\$520	S1	1.15	27.0-24.0	78	14.72	
	1750	208-230	184T	BALL	NONE	I114	184TBDB7026	\$488	S1	1.15	23.0-21.0	87	15.72	1
<b>7-1/2</b>	3470	208-230	213T	BALL	NONE	I105	213TCDW7001	\$740	S1	1.15	40-37	112	16.55	
	1735	208-230	215T	BALL	NONE	I115	215TBDW7026	\$730	S1	1.15	37.2-34.5	118	18.05	1
<b>10</b>	1730	208-230	215T	BALL	NONE	I116	215TBDW7028	\$940	S1	1.15	49-44	140	19.3	1

# General Purpose

## Three Phase, 48 - 447T Frame Dripproof, Rigid Base

**Applications:** General purpose use on compressors, pumps, conveyors, fans, blowers, and other machinery in environments that are relatively clean and dry.

- Features:**
- Ball bearings
  - NEMA service factors
  - Patented VCD™ Voltage Change Device on motors with footnote "VC".
  - UL Recognized and CSA Certified



Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.



Suitable for use on VFD per guidelines on page 5.

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/4</b>	1725	208-230/460	48	BALL	NONE	G044	48T17D2000	\$138	F1	62.0	1.2-1.3/0.6	19	9.34	20
<b>1/3</b>	1725	208-230/460	56	BALL	NONE	G047	56T17D2095	\$161	F1	67.0	1.5-1.6/0.8	15	9.97	20
<b>1/2</b>	1725	200-208	56	BALL	NONE	G062	56T17D2114	\$182	F1	70.0	2.5-2.65	17	10.47	
	1725	208-230/460	56	BALL	NONE	G063	56T17D2094	\$182	F1	70.0	2.1-2.2/1.1	17	10.32	20
	1725	208-230/460	56	BALL	AUTO	G905	56T17D5336	\$225	F1	68.0	2.3-2.4/1.2	25	10.44	VC,20
	1725	575	56	BALL	NONE	G065	56T17D2112	\$182	F1	70.0	0.9	17	10.47	
	1140	208-230/460	56	BALL	NONE	G067	56T11D5302	\$243	F1	68.0	2.4-2.7/1.3	22	10.44	20
<b>3/4</b>	3450	208-230/460	56	BALL	NONE	G080	56T34D5301	\$164	F1	74.0	3.0-3.2/1.6	21	10.44	20
	1725	200-208	56	BALL	NONE	G082	56T17D2111	\$203	F1	75.5	3.2-3.3	23	10.97	
	1725	208-230/460	56	BALL	NONE	G084	56T17D2093	\$203	F1	74.5	2.8-2.8/1.4	20	10.97	20
	1725	208-230/460	56	BALL	AUTO	G908	56T17D5339	\$246	F1	75.5	2.9-3.0/1.5	25	10.44	VC,20
	1725	575	56	BALL	NONE	G086	56T17D2110	\$203	F1	75.5	1.1	20	10.97	
<b>1</b>	1145	208-230/460	143T	BALL	NONE	H150	143TTDR5376	\$228	E6	74.0	3.1-3.2/1.6	26	10.99	5,20
	3450	208-230/460	56	BALL	NONE	K000	56T34D5302	\$187	F1	74.0	3.7-3.7/1.8	24	10.44	
	1750	200	143T	BALL	NONE	<b>E901</b>	143TTDR5348	\$211	E2	82.5	3.6	40	12.49	5,13
	1730	200-208	143T	BALL	NONE	H601	143TTDR5327	\$187	E6	77.0	4.15-4.3	27	10.99	5,13
	1725	208-230/460	56	BALL	NONE	K004	56T17D2092	\$208	F1	78.7	3.4-3.2/1.6	22	11.32	20
	1725	208-230/460	56	BALL	AUTO	G921	56T17D5342	\$251	F1	77.0	3.5-3.6/1.8	25	10.94	VC,20
	1725	208-230/460	56HZ	BALL	AUTO	K063	56T17D3301	\$267	F1	77.0	3.5-3.6/1.8	28	10.99	Z,5,20
	1725	208-230/460	56HZ	BALL	AUTO	K067	56T17D3305	\$277	F1	77.0	3.5-3.6/1.8	27	10.99	VC,Z,5,20
	1750	208-230/460	143T	BALL	NONE	<b>E715</b>	143TTDR5347	\$211	E2	82.5	3.3-3.1/1.55	34	12.49	5,13,20
	1750	208-230/460	143T	BALL	AUTO	<b>U417</b>	143TTDR4052	\$301	E2	82.5	3.3-3.1/1.5	27	12.49	5,13,20
	1750	208-230/460	143T	BALL	AUTO	<b>U418</b>	143TTDR4051	\$313	E2	82.5	3.3-3.1/1.5	28	12.49	VC,5,3,20
	1725	575	56	BALL	NONE	K049	56T17D2130	\$208	F1	76.5	1.4	22	10.94	

Continued on next page.

**Footnotes:**

- VC Voltage Change Device feature for quick voltage changes
- Z 56HZ with 7/8" shaft dia., 3-1/2" shaft height, and slotted 56 frame base
- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 3 Split Phase design
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 13 F1 Mounting Only, Cannot reassemble to F2
- 20 Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower

# General Purpose

## Three Phase, 48 - 447T Frame Dripproof, Rigid Base

Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1</b>	1735	575	143T	BALL	NONE	<b>E912</b>	143TTDR5351	\$211	E2	82.5	1.1	40	12.49	5,13
	1155	230/460	145T	BALL	NONE	<b>E728</b>	145TTDR4076	\$277	E2	80.0	3.6/1.8	48	13.49	5,13,20
<b>1 1/2</b>	3450	208-230/460	56	BALL	NONE	K009	56T34D5303	\$230	F1	80.0	4.9-5.0/2.5	23	10.44	20
	3450	208-230/460	143T	BALL	NONE	<b>E783</b>	143TTDR5313	\$235	E2	82.5	4.2-4.2/2.1	28	10.99	5,13,20
	1750	200	145T	BALL	NONE	<b>E902</b>	145TTDR5632	\$230	E2	84.0	5.0	39	12.49	5,13
	1735	200-208	145T	BALL	NONE	H604	145TTDR5327	\$205	E6	80.0	5.5-5.9	30	10.99	5,13
	1750	200-208	145T	BALL	AUTO	<b>U419</b>	145TTDR4128	\$320	E2	84.0	5.0-4.9	31	12.49	5,13
	1725	208-230/460	56H	BALL	NONE	K022	56T17D5309	\$231	F1	80.0	4.8-4.8/2.4	28	10.94	5,20
	1725	208-230/460	56H	BALL	AUTO	G923	56T17D5344	\$274	F1	80.0	4.8-4.8/2.4	28	10.94	VC,5,20
	1725	208-230/460	56HZ	BALL	AUTO	K064	56T17D3302	\$283	F1	80.0	4.8-4.8/2.4	30	10.99	Z,5,20
	1725	208-230/460	56HZ	BALL	AUTO	K068	56T17D3306	\$290	F1	80.0	4.8-4.8/2.4	30	10.99	VC,Z,5,20
	1750	208-230/460	145T	BALL	NONE	<b>E716</b>	145TTDR5630	\$230	E2	84.0	4.6-4.4/2.2	40	12.49	5,13,20
	1750	208-230/460	145T	BALL	AUTO	<b>U420</b>	145TTDR4126	\$320	E2	84.0	4.6-4.4-2.2	43	12.49	5,13,20
	1750	208-230/460	145T	BALL	AUTO	<b>U421</b>	145TTDR4127	\$332	E2	84.0	4.6-4.4/2.2	39	12.49	VC,5,13,20
	1725	575	56H	BALL	NONE	K061	56T17D5369	\$231	F1	80.0	1.9	28	10.94	5
	1750	575	145T	BALL	NONE	<b>E913</b>	145TTDR5640	\$230	E2	84.0	1.8	39	12.49	5,13
	1155	200	182T	BALL	NONE	<b>E799</b>	182TTDR4083	\$304	E2	84.0	5.5	102	14.22	13
1155	230/460	182T	BALL	NONE	<b>E729</b>	182TTDR4076	\$304	E2	84.0	4.8/2.4	74	14.22	13,20	
<b>2</b>	3454	208-230/460	56H	BALL	NONE	K025	56T34D5304	\$271	F1	80.0	6.4-6.2/3.1	25	10.44	5,20
	3450	208-230/460	145T	BALL	NONE	<b>E702</b>	145TTDR5304	\$277	E2	84.0	5.4-5.2/2.6	29	11.49	5,13,20
	1735	200	145T	BALL	NONE	<b>E903</b>	145TTDR5633	\$254	E2	84.0	6.7	46	12.99	5,13
	1740	200-208	145T	BALL	NONE	H607	145TTDR5332	\$226	E6	81.5	7.1-7.2	37	11.99	5,13
	1735	200-208	145T	BALL	AUTO	<b>U422</b>	145TTDR4134	\$345	E2	84.0	6.7-6.6	43	12.99	5,13
	1725	208-230/460	56H	BALL	NONE	K041	56T17D5310	\$254	F1	81.5	6.2-6.2/3.1	34	11.94	5,20
	1725	208-230/460	56HZ	BALL	AUTO	K065	56T17D3303	\$303	F1	81.5	6.2-6.2/3.1	35	11.99	Z,5,20
	1725	208-230/460	56HZ	BALL	AUTO	K069	56T17D3307	\$313	F1	81.5	6.2-6.2/3.1	34	11.99	VC,Z,5,20
	1735	208-230/460	145T	BALL	NONE	<b>E717</b>	145TTDR5631	\$254	E2	84.0	6.2-5.8/2.9	43	12.99	5,13,20
	1735	208-230/460	145T	BALL	AUTO	<b>U423</b>	145TTDR4132	\$345	E2	84.0	6.2-5.8/2.9	43	12.99	5,13,20
	1735	208-230/460	145T	BALL	AUTO	<b>U424</b>	145TTDR4133	\$357	E2	84.0	6.2-5.8/2.9	42	12.99	VC,5,13,20
	1725	575	56H	BALL	NONE	K062	56T17D5370	\$254	F1	81.5	2.5	34	11.94	5
	1735	575	145T	BALL	NONE	<b>E914</b>	145TTDR5665	\$254	E2	84.0	2.3	42	12.99	5,13
	1165	200	184T	BALL	NONE	<b>E918</b>	184TTDR4178	\$391	E2	85.5	7.1	89	15.22	13
	1165	230/460	184T	BALL	NONE	<b>E730</b>	184TTDR4076	\$391	E2	85.5	6.2/3.1	87	15.22	13,20
<b>3</b>	3490	208-230/460	145T	BALL	NONE	<b>E784</b>	145TTDR5325	\$290	E2	84.0	8.4-7.6/3.8	34	11.49	5,13,20
	1760	200	182T	BALL	NONE	<b>E904</b>	182TTDR4027	\$297	E2	86.5	9.9	58	14.22	13
	1730	200-208	182T	BALL	NONE	L102	182TTDR5327	\$252	E6	84.0	9.9-9.7	50	14.27	13
	1735	200-208	182T	BALL	AUTO	<b>U425</b>	182TTDR4074	\$406	E2	86.5	9.9-9.5	72	14.22	13
	1730	208-230/460	56HZ	BALL	NONE	H803	56T17D5398	\$277	F1	84.0	9.2-8.6/4.3	48	13.49	Z,13,20
	1725	208-230/460	56HZ	BALL	AUTO	K066	56T17D3304	\$310	F1	84.0	9.2-8.6/4.3	48	13.49	Z,5,20
	1725	208-230/460	56HZ	BALL	AUTO	K080	56T17D3308	\$320	F1	84.0	9.2-8.6/4.3	50	13.49	VC,Z,5,20
	1760	208-230/460	182T	BALL	NONE	<b>E718</b>	182TTDB4026	\$297	E2	86.5	8.8-8.2/4.1	81	13.72	DS,13,20
	1760	208-230/460	182T	BALL	NONE	<b>E930</b>	182TTDR6026	\$364	E2	89.5	8.4-7.6/3.8	76	14.22	X,13,20
	1760	230/460	182T	BALL	AUTO	<b>U426</b>	182TTDR4156	\$406	E2	86.5	8.6/4.3	63	13.72	13
	1760	575	182T	BALL	NONE	<b>E915</b>	182TTDR4030	\$297	E2	86.5	3.3	72	13.19	13
	1165	200	213T	BALL	NONE	<b>U907</b>	213TTDW4078	\$528	E2	86.5	9.7	121	17.30	13
1165	230/460	213T	BALL	NONE	<b>E731</b>	213TTDW4076	\$528	E2	86.5	8.4/4.2	104	17.30	20	
<b>5</b>	3475	208-230/460	182T	BALL	NONE	<b>E704</b>	182TTDR4001	\$333	E2	85.5	13.2-12.2/6.1	74	13.72	13,20
	1740	200	184T	BALL	NONE	H613	184TTDR7627	\$284	E6	85.5	14.8	76	13.72	13
	1745	200	184T	BALL	NONE	<b>E905</b>	184TTDR4027	\$323	E2	87.5	15.0	83	13.69	13
	1740	200-208	184T	BALL	AUTO	<b>U427</b>	184TTDR4153	\$460	E2	87.5	15.0-14.5	76	15.22	13
	1745	208-230/460	184T	BALL	NONE	<b>E719</b>	184TTDB4026	\$323	E2	87.5	14.4-13.0/6.5	89	14.72	DS,13,20

**Footnotes:**

- DS Sourced
- VC Voltage Change Device feature for quick voltage changes
- X XRI, NEMA Premium efficiency design
- Z 56HZ with 7/8" shaft dia., 3-1/2" shaft height, and slotted 56 frame base
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 13 F1 Mounting Only, Cannot reassemble to F2
- 20 Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower

*Continued on next page.*



Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.

# General Purpose

## Three Phase, 48 - 447T Frame Driproof, Rigid Base

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>5</b>	1740	230/460	184T	BALL	AUTO	<b>U428</b>	184TTDR4166	\$460	E2	87.5	12.6/6.3	74	15.22	
	1750	208-230/460	184T	BALL	NONE	<b>E931</b>	184TTDR6026	\$389	E2	89.5	13.8-12.6/6.3	91	15.22	X,13,20
	1745	575	184T	BALL	NONE	<b>E916</b>	184TTDR4030	\$323	E2	87.5	5.3	91	15.22	13
	1165	200	215T	BALL	NONE	<b>E935</b>	215TTDW4078	\$615	E2	87.5	17.0	154	19.30	13
	1165	230/460	215T	BALL	NONE	<b>E732</b>	215TTDW4076	\$615	E2	87.5	14.8/7.4	135	19.30	13,20
<b>7 1/2</b>	3465	208-230/460	184T	BALL	NONE	<b>E705</b>	184TTDR4001	\$431	E2	87.5	20.0-18.0/9.0	88	14.72	13,20
	1760	200	213T	BALL	NONE	<b>E906</b>	213TTDBA4028	\$449	E2	88.5	22.1	113	18.05	13
	1745	200	213T	BALL	NONE	H616	213TTDW7028	\$408	E6	84.0	24.8	90	15.80	
	1760	208-230/460	213T	BALL	NONE	<b>E720</b>	213TTDBA4026	\$449	E2	88.5	21.4-19.6/9.8	125	17.30	DS,13
	1760	208-230/460	213T	BALL	TSTAT	<b>U763</b>	213TTDC6026	\$562	E2	91.0	20.6-19.8/9.9	160	16.38	X,DS,13
	1760	208-230/460	213T	BALL	AUTO	<b>U430</b>	213TTDW4054	\$655	E2	88.5	20.0-19.2/9.6	123	18.05	13,20
	1760	575	213T	BALL	NONE	<b>E758</b>	213TTDW4030	\$449	E2	88.5	7.7	113	17.30	13
	1165	230/460	254T	BALL	NONE	<b>E733</b>	254TTDX4076	\$769	E2	88.5	21.4/10.7	150	20.57	20
	<b>10</b>	3515	208-230/460	213T	BALL	NONE	<b>E706</b>	213TTDW4001	\$559	E2	88.5	25.9-23.4/11.7	111	17.30
1760		200	215T	BALL	NONE	<b>E907</b>	215TTDW4028	\$577	E2	89.5	28.7	125	17.30	13
1750		200	215T	BALL	NONE	H619	215TTDW7028	\$516	E6	87.5	30.5	102	17.30	
1760		208-230/460	215T	BALL	NONE	<b>E721</b>	215TTDBA4026	\$577	E2	89.5	28.6-26.4/13.2	136	17.30	DS,13
1760		208-230/460	215T	BALL	TSTAT	<b>U765</b>	215TTDC6026	\$664	E2	91.7	28.5-25.6/12.8	220	17.87	X,DS,13
1760		575	215T	BALL	NONE	<b>E759</b>	215TTDW4030	\$577	E2	89.5	10.0	123	17.30	13
1165		230/460	256T	BALL	NONE	<b>E734</b>	256TTDX4076	\$897	E2	90.2	28.0/14.0	221	22.32	
<b>15</b>	3510	208-230/460	215T	BALL	NONE	<b>E707</b>	215TTDW4001	\$860	E2	90.2	37.6-34.0/17.0	120	18.55	13,20
	1760	200	254T	BALL	NONE	<b>E908</b>	254TTDX4028	\$864	E2	91.0	44.2	198	22.32	
	1745	200	254T	BALL	NONE	H622	254TTDX7028	\$677	E6	87.5	45.1	142	20.57	
	1760	208-230/460	254T	BALL	NONE	<b>E722</b>	254TTDX4026	\$864	E2	91.0	42.0-39.0/19.2	215	20.56	20
	1760	208-230/460	254T	BALL	TSTAT	<b>U767</b>	254TTDC6026	\$884	E2	93.0	40.0-37.0/18.5	310	20.94	A,X,DS
	1760	575	254T	BALL	NONE	<b>E760</b>	254TTDX4030	\$864	E2	91.0	15.4	184	22.32	
	1165	230/460	284T	BALL	NONE	<b>E735</b>	284TTDP4076	\$1,290	E2	90.2	39.0/19.5	328	23.49	
<b>20</b>	3520	208-230/460	254T	BALL	NONE	<b>E708</b>	254TTDX4001	\$1,014	E2	91.0	51.1-46.2/23.1	164	22.32	20
	1750	200	256T	BALL	NONE	H625	256TTDX7358	\$843	E6	88.5	60.7	200	22.32	
	1760	200	256T	BALL	NONE	<b>E909</b>	256TTDX4027	\$1,055	E2	91.0	60.0	236	22.32	
	1760	208-230/460	256T	BALL	NONE	<b>E723</b>	256TTDX4026	\$1,055	E2	91.0	55.0-52.0/26.0	233	22.32	20
	1760	208-230/460	256T	BALL	TSTAT	<b>U769</b>	256TTDC6026	\$1,079	E2	93.0	55.0-51.0/25.5	360	22.60	X,DS
	1760	575	256T	BALL	NONE	<b>E761</b>	256TTDX4032	\$1,055	E2	91.0	20.8	189	22.32	
	1165	230/460	286T	BALL	NONE	<b>E736</b>	286TTDP4076	\$1,582	E2	91.0	53.0/26.5	483	24.99	
<b>25</b>	3520	208-230/460	256T	BALL	NONE	<b>E709</b>	256TTDX4001	\$1,237	E2	91.0	64.1-58.0/29.0	175	22.32	20
	1765	200	284T	BALL	NONE	<b>E910</b>	284TTDP4029	\$1,225	E2	91.7	70.0	350	23.49	
	1760	200	284T	BALL	NONE	H628	284TTDP7644	\$993	E6	88.5	76.0	340	23.49	
	1770	208-230/460	284T	BALL	NONE	<b>E724</b>	284TTDC4026	\$1,225	E2	93.0	66.0-60.0/30.0	270	23.50	DS,20
	1780	208-230/460	284T	BALL	TSTAT	<b>U771</b>	284TTDC6026	\$1,344	E2	93.6	66.0-59.6/29.8	424	23.54	X,DS,20
	1765	575	284T	BALL	NONE	<b>E762</b>	284TTDP4035	\$1,225	E2	91.7	24.5	351	23.49	
	1175	230/460	324T	BALL	NONE	<b>E737</b>	324TTDP4076	\$1,877	E2	91.7	66.0/33.0	480	26.00	20
<b>30</b>	3530	230/460	284TS	BALL	NONE	<b>E710</b>	284TSTDP4001	\$1,477	E2	91.0	72.0/36.0	286	22.06	20
	1765	200	286T	BALL	NONE	<b>E911</b>	286TTDP4027	\$1,425	E2	92.4	83.0	350	24.99	
	1760	200	286T	BALL	NONE	H632	286TTDP7641	\$1,160	E6	89.5	91.0	289	24.99	
	1765	208-230/460	286T	BALL	NONE	<b>E725</b>	286TTDC4026	\$1,425	E2	92.4	80.0-70.0/35.0	411	24.99	DS,20
	1780	208-230/460	286T	BALL	TSTAT	<b>U773</b>	286TTDC6026	\$1,458	E2	94.1	78.0-71.0/35.5	483	25.00	A,X,DS
	1765	575	286T	BALL	NONE	<b>E763</b>	286TTDP4034	\$1,425	E2	92.4	28.8	285	24.99	
	1170	230/460	326T	BALL	NONE	<b>E738</b>	326TTDP4076	\$2,147	E2	92.4	82.0/41.0	525	27.50	
<b>40</b>	3525	230/460	286TS	BALL	NONE	<b>E711</b>	286TSTDP4001	\$1,889	E2	91.7	94.0/47.0	321	23.56	20
	1765	200	324T	BALL	NONE	H636	324TTDP7649	\$1,446	E6	89.5	122	521	26.00	
	1770	230/460	324T	BALL	NONE	<b>E726</b>	324TTDC4026	\$1,772	E2	93.0	93.0/46.5	336	26.00	DS,20
	1780	208-230/460	324T	BALL	TSTAT	<b>U775</b>	324TTDC6026	\$1,922	E2	94.1	104.0-96.0/48.0	581	26.02	X,DS
	1770	230/460	324TS	BALL	NONE	<b>E789</b>	324TSTDP4032	\$1,772	E2	93.0	97.0/48.5	340	24.50	

**Footnotes:**

- A NEMA Design A
- DS Sourced
- X XRI, NEMA Premium efficiency design
- 13 F1 Mounting Only, Cannot reassemble to F2
- 20 Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower

*Continued on next page.*

Blue shaded areas are cast iron frames.

# General Purpose

## Three Phase, 48 - 447T Frame Dripproof, Rigid Base

Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCAN standards.

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>40</b>	1770	575	324T	BALL	NONE	<b>E764</b>	324TTDP4028	<b>\$1,772</b>	E2	93.0	39.0	474	26.00	
	1185	230/460	364T	BALL	NONE	<b>E746</b>	364TTDS4086	<b>\$3,156</b>	E2	93.0	104/52.0	688	28.62	
<b>50</b>	3555	230/460	324TS	BALL	NONE	<b>E712</b>	324TSTDP4001	<b>\$2,245</b>	E2	92.4	117/58.5	437	24.50	20
	1760	200	326T	BALL	NONE	H640	326TTDP7626	<b>\$1,688</b>	E6	90.2	150	460	27.50	
	1770	230/460	326T	BALL	NONE	<b>E727</b>	326TTDC4026	<b>\$2,066</b>	E2	93.0	118/59.0	510	27.50	DS,20
	1780	208-230/460	326T	BALL	TSTAT	<b>U777</b>	326TTDC6026	<b>\$2,322</b>	E2	94.5	129-118/59.0	710	27.52	X,DS
	1770	230/460	326TS	BALL	NONE	<b>E791</b>	326TSTDP4036	<b>\$2,066</b>	E2	93.0	123/61.5	520	26.00	20
	1770	575	326T	BALL	NONE	<b>E765</b>	326TTDP4048	<b>\$2,066</b>	E2	93.0	49.0	510	27.50	
	1185	230/460	365T	BALL	NONE	<b>E747</b>	365TTDS4086	<b>\$3,686</b>	E2	93.0	130/65.0	743	29.62	20
<b>60</b>	3555	230/460	326TS	BALL	NONE	<b>E713</b>	326TSTDP4001	<b>\$2,553</b>	E2	93.0	135/67.5	454	26.00	20
	1785	208-230/460	364T	BALL	TSTAT	<b>U779</b>	364TTDC6060	<b>\$2,556</b>	E2	94.1	152-139/69.5	716	28.01	X,DS
	1775	230/460	364T	BALL	NONE	<b>E739</b>	364TTDC4036	<b>\$2,532</b>	E2	93.6	142/71.0	751	28.62	DS
	1775	230/460	364TS	BALL	NONE	<b>E768</b>	364TSTDC4026	<b>\$2,532</b>	E2	93.6	142/71.0	750	26.50	DS,20
	1185	230/460	404T	BALL	NONE	<b>E748</b>	404TTDS4086	<b>\$4,300</b>	E2	93.6	143/71.5	1135	32.50	20
<b>75</b>	3560	230/460	364TS	BALL	NONE	<b>E714</b>	364TSTDS4001	<b>\$3,403</b>	E2	93.0	183/92.0	710	26.50	20
	1780	230/460	365T	BALL	TSTAT	<b>U783</b>	365TTDC6060	<b>\$3,153</b>	E2	94.1	190-172/86.0	856	31.18	X,DS
	1775	230/460	365T	BALL	NONE	<b>E740</b>	365TTDC4036	<b>\$3,084</b>	E2	94.1	176/88.0	820	29.62	DS,20
	1775	230/460	365TS	BALL	NONE	<b>E782</b>	365TSTDC4026	<b>\$3,084</b>	E2	94.1	176/88.0	779	27.50	DS,20
<b>100</b>	3550	230/460	365TS	BALL	NONE	<b>E753</b>	365TSTDS4001	<b>\$4,470</b>	E2	93.0	240/120	736	27.50	20
	1780	230/460	404T	BALL	NONE	<b>E741</b>	404TTDS4036	<b>\$3,933</b>	E2	94.1	236/118	1040	32.50	20
	1785	230/460	404T	BALL	NONE	<b>E922</b>	404TTDS6060	<b>\$4,130</b>	E2	95.4	226/113	1025	32.50	X,YD,20
	1780	230/460	404TS	BALL	NONE	<b>E780</b>	404TSTDS4026	<b>\$3,933</b>	E2	94.1	236/118	1013	29.50	20
<b>125</b>	3520	460	404TS	BALL	NONE	<b>E754</b>	404TSTDS4001	<b>\$5,248</b>	E2	93.6	142	975	29.50	PW
	1782	460	405T	BALL	NONE	<b>E923</b>	405TTDS6060	<b>\$4,944</b>	E2	95.4	141	1150	34.00	X,YD,20
	1780	460	405T	BALL	NONE	<b>E742</b>	405TTDS4036	<b>\$4,709</b>	E2	94.5	147	1112	34.00	PW
	1780	460	405TS	BALL	NONE	<b>E781</b>	405TSTDS4026	<b>\$4,709</b>	E2	94.5	147	1068	31.00	PW
<b>150</b>	3560	460	405TS	BALL	NONE	<b>E755</b>	405TSTDS4001	<b>\$6,765</b>	E2	93.6	169	1028	31.00	PW
	1785	460	444T	BALL	NONE	<b>E924</b>	444TTDS6060	<b>\$7,141</b>	E2	95.8	170	1275	37.75	X,YD,20
	1785	460	444T	BALL	NONE	<b>E743</b>	444TTDS4036	<b>\$6,801</b>	E2	95.0	176	1335	37.75	PW
	1785	460	444TS	BALL	NONE	<b>E792</b>	444TSTDS4026	<b>\$6,801</b>	E2	95.0	176	1276	34.00	
<b>200</b>	3565	460	444TS	BALL	NONE	<b>E756</b>	444TSTDS4001	<b>\$8,842</b>	E2	94.5	225	1338	34.00	PW
	1785	460	445T	BALL	NONE	<b>E925</b>	445TTDS6060	<b>\$9,022</b>	E2	95.8	225	1500	39.75	X,YD,20
	1780	460	445TS	BALL	NONE	<b>U400</b>	445TSTDS4026	<b>\$8,592</b>	E2	95.0	233	1405	36.00	PW
<b>250</b>	1780	460	445T	ROLLER	NONE	H149	445TTDS7372	<b>\$8,863</b>	E6	95.0	287	1410	39.75	RB
<b>300</b>	3565	460	447TS	BALL	NONE	H178	447TSTDN7001	<b>\$12,028</b>	E6	94.5	336	2255	39.50	F,YD
	1780	460	447TS	BALL	NONE	H812	447TSTDN7026	<b>\$9,832</b>	E6	95.4	345	1952	39.50	F,YD
<b>350</b>	3565	460	447TS	BALL	NONE	H193	447TSTDN7003	<b>\$13,727</b>	E6	95.4	385	2068	39.50	F,YD
	1785	460	447TS	BALL	NONE	H813	447TSTDN7027	<b>\$10,851</b>	E6	95.8	405	2064	39.50	F,YD
<b>400</b>	3560	460	447TS	BALL	NONE	H817	447TSTDN7005	<b>\$15,676</b>	E6	95.4	440	2150	39.50	F,YD
	1785	460	447TS	BALL	NONE	H814	447TSTDN7028	<b>\$11,516</b>	E6	95.8	450	2214	39.50	F,YD

Blue shaded areas are cast iron frames.

**Footnotes:**

- DS Sourced
- F Class F Insulation
- PW Part Winding Start Capability
- RB Roller Bearing on shaft end for belted loads only
- X XRI, NEMA Premium efficiency design
- YD 12 Leads for WYE-DELTA, Part Winding, or across-the-line starting
- 20 Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower

# General Purpose

## Three Phase, 56 - 256T Frame Totally Enclosed, Rigid Base

**Applications:** General purpose use on pumps, fans, blowers, compressors, and other industrial machinery installed in damp, dusty, or dirty environments.

- Features:**
- Ball bearings
  - 1.15 Service factor
  - Items with footnote 20 are nameplated 60/50 hertz at next lowest horsepower
  - UL Recognized and CSA Certified



Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.



Suitable for use on VFD per guidelines on page 5.

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/4</b>	1140	208-230/460	56	BALL	G301	56T11F5300	<b>\$226</b>	F1	52.5	1.7-2.0/1.0	20	11.32	20
<b>1/3</b>	1725	208-230/460	56	BALL	G303	56T17F2034	<b>\$170</b>	F1	65.5	1.5-1.6/8	16	10.22	20,25
	1725	575	56	BALL	G304	56T17F2043	<b>\$170</b>	F1	65.5	0.64	23	10.22	25
	1140	208-230/460	56	BALL	G306	56T11F5301	<b>\$239</b>	F1	62.0	1.9-2.2/1.1	22	11.32	20,25
<b>1/2</b>	3450	208-230/460	56	BALL	G308	56T34F5328	<b>\$154</b>	F1	66.0	2.1-2.2/1.1	22	11.82	20
	3450	575	56	BALL	G309	56T34F5333	<b>\$154</b>	F1	66.0	0.9	23	11.82	
	1725	208-230/460	56	BALL	G321	56T17F2035	<b>\$190</b>	F1	70.0	2.1-2.2/1.1	18	10.72	20,25
	1725	575	56	BALL	G322	56T17F2044	<b>\$190</b>	F1	70.0	0.9	18	10.72	25
	1140	208-230/460	56	BALL	G324	56T11F5302	<b>\$262</b>	F1	68.0	2.4-2.7/1.3	24	11.82	20
<b>3/4</b>	3450	208-230/460	56	BALL	G326	56T34F5329	<b>\$184</b>	F1	74.0	3.0-3.2/1.6	23	11.82	20
	3450	575	56	BALL	G327	56T34F5334	<b>\$184</b>	F1	74.0	1.3	23	11.82	
	1725	208-230/460	56	BALL	G329	56T17F2037	<b>\$210</b>	F1	75.5	2.7-2.8/1.4	30	11.22	20,25
	1725	575	56	BALL	G340	56T17F2046	<b>\$210</b>	F1	75.5	1.1	26	11.22	25
	1140	208-230/460	56	BALL	G342	56T11F5303	<b>\$271</b>	F1	74.0	3.1-3.2/1.6	28	12.32	20
	1145	208-230/460	143T	BALL	H700	143TTFR5376	<b>\$264</b>	E6	74.0	3.1-3.2/1.6	29	12.37	20
<b>1</b>	3450	575	56	BALL	G345	56T34F5335	<b>\$207</b>	F1	74.0	1.5	24	11.82	
	1725	208-230/460	56	BALL	G347	56T17F5302	<b>\$220</b>	F1	77.0	3.5-3.6/1.8	27	12.32	20
	1745	208-230/460	143T	BALL	<b>E950</b>	143TTFR4026	<b>\$247</b>	E8	82.5	3.2-3.0/1.5	38	12.87	20
	1725	575	56	BALL	G348	56T17F5307	<b>\$220</b>	F1	77.0	1.45	27	12.32	
	1755	575	143T	BALL	<b>E827</b>	143TTFR4030	<b>\$247</b>	E8	82.5	1.2	38	12.87	
	1140	208-230/460	56H	BALL	G360	56T11F5304	<b>\$290</b>	F1	77.0	4.0-4.0/2.0	35	12.82	5,20
	1140	230/460	145T	BALL	<b>E979</b>	145TTFR4076	<b>\$315</b>	E8	80.0	3.4/1.7	39	13.37	20
<b>1 1/2</b>	3500	208-230/460	143T	BALL	<b>E832</b>	143TTFR4001	<b>\$260</b>	E8	82.5	4.4-4.0/2.0	34	12.87	20
	1735	200-208	145T	BALL	H665	145TTFR5328	<b>\$241</b>	E6	80.0	5.5-5.9	31	12.37	
	1725	208-230/460	56	BALL	G365	56T17F5303	<b>\$251</b>	F1	80.0	4.8-4.8/2.4	30	12.32	5,20
	1740	208-230/460	145T	BALL	<b>E951</b>	145TTFR4026	<b>\$275</b>	E8	84.0	4.5-4.2/2.1	45	14.37	20
	1735	575	145T	BALL	<b>E838</b>	145TTFR4038	<b>\$275</b>	E8	84.0	1.8	45	14.37	
	1175	230/460	182T	BALL	<b>E982</b>	182TTFR4076	<b>\$325</b>	E8	85.5	5.0/2.5	80	14.97	20
<b>2</b>	3490	208-230/460	145T	BALL	<b>E994</b>	145TTFR4001	<b>\$302</b>	E8	84.0	5.7-5.2/2.6	35	12.87	20
	1730	200-208	145T	BALL	H666	145TTFR5330	<b>\$265</b>	E6	82.5	6.8-6.8	40	13.87	
	1755	208-203/460	145T	BALL	<b>E952</b>	145TTFR4027	<b>\$302</b>	E8	84.0	6.0-5.6/2.8	42	14.37	20
	1755	575	145T	BALL	<b>E847</b>	145TTFR4039	<b>\$302</b>	E8	84.0	2.2	42	14.37	
	1170	230/460	184T	BALL	<b>E995</b>	184TTFR4076	<b>\$357</b>	E8	86.5	6.0/3.0	72	15.97	20
<b>3</b>	3480	208-230/460	182T	BALL	<b>E967</b>	182TTFR4001	<b>\$341</b>	E8	85.5	8.2-7.4/3.7	69	14.97	20
	1730	200	182T	BALL	L633	182TTFR5327	<b>\$296</b>	E6	84.0	9.9	51	15.65	
	1760	208-230/460	182T	BALL	<b>E953</b>	182TTFB4026	<b>\$323</b>	E8	87.5	8.8-8.2/4.1	74	13.96	DS,20
	1170	230/460	213T	BALL	<b>E980</b>	213TTFW4076	<b>\$474</b>	E8	87.5	9.2/4.6	130	20.23	20
<b>5</b>	3475	208-230/460	184T	BALL	<b>E963</b>	184TTFR4001	<b>\$422</b>	E8	87.5	13.4-12.4/6.2	81	15.97	20
	1745	200	184T	BALL	<b>U616</b>	184TTFR4038	<b>\$377</b>	E8	87.5	14.7	82	15.97	
	1730	200	184T	BALL	H668	184TTFR7727	<b>\$344</b>	E6	84.0	15.2	78	15.97	
	1745	208-230/460	184T	BALL	<b>E954</b>	184TTFB4026	<b>\$377</b>	E8	87.5	14.2-13/6.5	105	14.96	DS,20
	1745	575	184T	BALL	<b>U619</b>	184TTFR4040	<b>\$377</b>	E8	87.5	5.2	78	14.96	
	1165	230/460	215T	BALL	<b>E970</b>	215TTFW4076	<b>\$682</b>	E8	87.5	14.0/7.0	143	21.48	20

Continued on next page.

**Footnotes:**

- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 20 Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower
- 25 Motor will not accept C-Face Kits

# General Purpose

Three Phase, 56 - 256T Frame

Totally Enclosed, Rigid Base

Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>7 1/2</b>	3530	230/460	213T	BALL	<b>E972</b>	213TTFW4001	\$551	E8	89.5	18.4/9.2	114	18.73	20
	1750	200	213T	BALL	H669	213TTFW7028	\$494	E6	87.5	22.3	103	18.73	
	1760	208-230/460	213T	BALL	<b>E955</b>	213TTFW4026	\$540	E8	89.5	21.6-20.0/10.0	118	20.23	20
	1760	575	213T	BALL	<b>U630</b>	213TTFW4030	\$540	E8	89.5	8.0	135	18.73	
	1165	230/460	254T	BALL	<b>U632</b>	254TTFL4076	\$897	E8	89.5	22.0/11.0	175	22.99	AL,20
<b>10</b>	3525	230/460	215T	BALL	<b>E969</b>	215TTFW4001	\$644	E8	89.5	24.0/12.0	128	20.23	20
	3525	575	215T	BALL	<b>E821</b>	215TTFW4005	\$644	E8	89.5	9.6	145	20.23	
	1740	200	215T	BALL	H670	215TTFW7028	\$614	E6	88.5	28.7	130	20.23	
	1765	208-230/460	215T	BALL	<b>E956</b>	215TTFW4026	\$654	E8	89.5	28.0-25.6/12.8	143	20.23	20
	1765	575	215T	BALL	<b>U640</b>	215TTFW4030	\$654	E8	89.5	10.4	138	20.23	
	1155	230/460	256T	BALL	<b>E973</b>	256TTFL4076	\$1,144	E8	89.5	26.0/13.0	212	26.24	AL,20
<b>15</b>	3520	230/460	215T	BALL	<b>U670</b>	215TTFW4007	\$893	E8	90.2	36.0/18.0	154	20.23	20
	3510	230/460	254T	BALL	<b>E977</b>	254TTFL4001	\$893	E8	91.0	35.0/17.5	265	22.99	AL,20
	1740	200	254T	BALL	H623	254TTFL5747	\$811	E6	88.5	44.4	178	22.99	AL
	1750	230/460	254T	BALL	<b>E996</b>	254TTFL4026	\$887	E8	91.0	42.0-40.0/20.0	186	22.99	AL,20
	1750	575	254T	BALL	<b>E997</b>	254TTFL4030	\$887	E8	91.0	16.0	198	22.99	AL
<b>20</b>	3510	230/460	256T	BALL	<b>E974</b>	256TTFL4001	\$1,173	E8	90.2	47.0/23.5	198	24.24	AL,20
	1750	208-230/460	256T	BALL	<b>E965</b>	256TTFL4026	\$1,092	E8	91.0	55.0-51.0/25.5	302	26.24	AL,20
	1750	575	256T	BALL	<b>E998</b>	256TTFL4030	\$1,092	E8	91.0	20.4	201	26.24	AL

**Footnotes:**

AL Aluminum Frame Construction

20 Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower

# HVAC/Commercial Two Speed

Three Phase, 145T - 286T Frame  
Dripproof, Rigid Base

**Applications:** Commercial and industrial fans, blowers, pumps, and other machinery that have variable torque characteristics. Prolonged use at low speed can result in significant energy savings. Dripproof motors are intended for use in environments that are relatively clean and dry. For use outdoors an enclosure or drip cover may be required (see Accessories section).



- Features:**
- Variable torque, energy efficient designs
  - **One and two windings as noted**
  - Ball bearings
  - 1.15 Service factor
  - UL Recognized and CSA Certified

## One Winding

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>3/1.75</b>	1725/850	200-230	182T	Y484	182TTDR7412	\$437	S3	82.5	8.8-8/3.8-3.6	64	14.19	F,13
	1750/870	460	182T	Y485	182TTDR7203	\$437	S3	84.0	3.8/1.6	58	13.22	
<b>5/1.25</b>	1755/865	200-230	184T	Y486	184TTDR7287	\$612	S3	85.5	15.0-14.0/6.0-6.2	87	14.72	F,13
	1745/865	460	184T	Y487	184TTDR7209	\$612	S3	84.0	6.8/2.8	79	14.72	13
<b>7.5/1.88</b>	1765/875	200-230	213T	Y488	213TTDW7202	\$759	S3	86.5	21.6-19.8/7.6-7.8	110	17.30	
	1760/875	460	213T	Y489	213TTDW7201	\$759	S3	87.5	9.6/3.6	118	17.30	

## Two Winding

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/1.25</b>	1725/860	460	145T	Y465	145TTDR5701	\$527	S3	79.5	1.5/0.75	43	12.99	5,13
<b>1/1.44</b>	1725/1140	200-230	145T	Y449	145TTDR5703	\$527	S3	80.0	3.4-3.2/2.0-2.0	42	12.99	5,13
	1750/1160	460	145T	Y450	145TTDR5704	\$527	S3	78.5	1.5/1.0	39	12.49	5,13
<b>1.5/1.37</b>	1740/855	460	145T	Y466	145TTDR5702	\$578	S3	78.5	2.2/1.1	47	13.49	5,13
<b>1.5/1.67</b>	1740/1150	200-230	145T	Y451	145TTDR5705	\$578	S3	80.0	5.0-4.8/2.6-2.9	48	13.49	5,13
	1725/1140	460	145T	Y452	145TTDR5706	\$578	S3	78.5	2.3/1.3	44	12.99	5,13
<b>2/1.5</b>	1755/870	460	182T	Y467	182TTDR7411	\$637	S3	80.0	3.0/1.2	61	13.72	13
<b>2/1.88</b>	1760/1155	200-230	182T	Y453	182TTDR7413	\$637	S3	81.0	6.5-6.3/3.5-3.5	64	13.72	13
<b>2/1.9</b>	1730/1160	460	182T	Y409	182TTDR7211	\$637	S3	80.0	3.0/1.7	53	12.72	13
<b>3/1.75</b>	1755/870	460	184T	Y468	184TTDR7230	\$663	S3	82.5	4.3/1.8	72	13.72	
<b>3/1.3</b>	1750/1160	200-230	184T	Y454	184TTDR7286	\$663	S3	82.5	9.3-8.5/4.9-4.6	79	14.72	13
	1760/1175	460	184T	Y412	184TTDR7215	\$663	S3	82.5	4.6/2.7	69	13.72	
<b>5/1.25</b>	1765/885	460	215T	Y469	215TTDW7205	\$928	S3	84.0	6.8/3.1	118	17.30	
<b>5/2.22</b>	1770/1175	200-230	215T	Y455	215TTDW7204	\$928	S3	85.5	14.5-13.0/7.3-7.0	119	17.30	
	1765/1175	460	215T	Y415	215TTDW7203	\$928	S3	85.5	6.5/3.5	106	17.30	
<b>7.5/1.9</b>	1765/880	460	254T	Y470	254TTDX7201	\$1,151	S3	85.5	10.5/4.1	135	20.57	
<b>7.5/3.3</b>	1770/1180	200-230	254T	Y456	254TTDX7278	\$1,151	S3	87.5	20.8-18.4/11.0-10.2	198	22.32	
	1755/1175	460	254T	Y418	254TTDX7208	\$1,151	S3	84.0	10.0/5.6	144	20.57	
<b>10/2.5</b>	1760/880	460	256T	Y471	256TTDX7253	\$1,427	S3	86.5	12.9/5.6	145	22.32	
<b>10/4.4</b>	1760/1175	460	256T	Y458	256TTDX7264	\$1,427	S3	87.5	12.0/6.5	185	22.32	
<b>15/6.7</b>	1770/1180	460	284T	Y459	284TTDP7221	\$1,909	S3	87.5	18.5/9.5	325	23.49	

Blue shaded areas are cast iron frames.

**Footnotes:**

- F Class F Insulation
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 13 F1 Mounting Only, Cannot reassemble to F2



# Cooling Tower, Single-Speed

Three Phase, 182T - 445T Frame  
Totally Enclosed, Rigid Base



Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPCACT and/or Canadian NRCan standards.



**Applications:**

Cooling towers, Fan and Blowers, and other severe duty environments where long life and high efficiency are desired. Replacement for single speed Marley cooling tower motors.

**Features:**

- Blue Chip® quality, 100% cast iron construction for rigidity and reduced vibration
- Internal and external epoxy paint
- Double shielded ball bearings
- Class F insulation
- 1.15 Service factor
- Extended grease tubes, regreasable in service
- T drains (Plastic)
- Shaft Slinger
- Forseda seals on both ends
- Actual test and vibration data supplied with each motor
- Stainless steel nameplate
- UL Recognized and CSA Certified



Suitable for use on VFD per guidelines on page 5.

HP	RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>3</b>	1800	230/460	182T	BALL	U867	182TTFS4557	<b>\$600</b>	S3	87.5	8.4/4.2	136	15.19	20
<b>5</b>	1800	230/460	184T	BALL	U868	184TTFS4555	<b>\$655</b>	S3	87.5	13.0/6.5	118	16.19	20
<b>7 1/2</b>	1800	230/460	213T	BALL	U869	213TTFS4550	<b>\$827</b>	S3	89.5	20.0/10.0	190	18.22	20
<b>10</b>	1800	230/460	215T	BALL	U870	215TTFS4546	<b>\$947</b>	S3	91.0	26.0/13.0	200	19.72	20
<b>15</b>	1800	230/460	254T	BALL	U871	254TTFNA4549	<b>\$1,222</b>	S3	91.0	39.0/19.5	463	23.52	
<b>20</b>	1800	230/460	256T	BALL	U872	256TTFNA4532	<b>\$1,437</b>	S3	91.0	50.0/25.0	340	25.27	
<b>25</b>	1800	230/460	284T	BALL	U873	284TTFPA4545	<b>\$1,703</b>	S3	92.4	63.0/31.0	285	26.27	20
<b>30</b>	1800	230/460	286T	BALL	U874	286TTFPA4544	<b>\$1,993</b>	S3	92.4	74.0/37.0	435	27.77	20
<b>40</b>	1800	230/460	324T	BALL	U875	324TTFPA4540	<b>\$2,583</b>	S3	93.0	100/50.0	515	28.96	20
<b>50</b>	1800	230/460	326T	BALL	U876	326TTFPA4550	<b>\$3,193</b>	S3	93.0	122/61.0	585	30.47	20
<b>60</b>	1800	230/460	364T	BALL	U877	364TTFS4550	<b>\$4,553</b>	S3	93.6	144/72.0	984	31.50	20
<b>75</b>	1800	230/460	365T	BALL	U878	365TTFS4560	<b>\$5,668</b>	S3	94.1	178/89.0	1080	32.50	20
<b>100</b>	1800	230/460	405T	BALL	U879	405TTFS4560	<b>\$7,019</b>	S3	94.5	228/114	1325	37.12	20
<b>125</b>	1800	460	444T	BALL	U880	444TTFS4546	<b>\$9,036</b>	S3	94.5	142	1809	41.25	20
<b>150</b>	1800	460	445T	BALL	U881	445TTFN4826	<b>\$10,760</b>	S3	95.0	172	2145	43.26	20
<b>200</b>	1800	460	445T	BALL	U882	445TTFN4574	<b>\$12,844</b>	S3	95.0	225	2324	43.26	20
<b>250</b>	1800	460	445T	BALL	U884	445TTFN4575	<b>\$14,512</b>	S3	95.0	285	2409	43.26	20

Blue shaded areas are Cast Iron Frames

**Footnotes:**

20 Rated 60/50 hertz, 190/380 or 380 volt at next lower horsepower

# Cooling Tower, Two-Speed, One-Winding Variable Torque

Three Phase, 184T - 444T Frame  
Totally Enclosed, Rigid Base

**Applications:** Cooling towers, Fan and Blowers, and other severe duty environments where long life and ultra-high efficiency are desired. Guaranteed efficiencies offer an **eXtra** Return on your **I**nvestment when using these premium efficiency motors on high cycle or long run applications. Replacement for two-speed Marley cooling tower motors.

- Features:**
- Blue Chip® quality, 100% cast iron construction
  - Internal and external epoxy paint
  - Class F insulation
  - 1.15 Service factor
  - Extended grease tubes, regreasable in service
  - T drains (Plastic)
  - Actual test and vibration data supplied with each motor
  - V-Ring Shaft seals
  - Stainless steel nameplate
  - UL Recognized and CSA Certified
  - Three year warranty

Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.



HP	RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>3/7.5</b>	1800/900	460	184T	BALL	<b>Y380</b>	184TTFS7290	<b>\$929</b>	S3	85.5	4/1.8	141	16.19	
<b>5/1.25</b>	1800/900	460	213T	BALL	<b>Y381</b>	213TTFS7238	<b>\$1,027</b>	S3	89.5	6/2.4	326	19.72	
<b>7.5/1.9</b>	1800/900	460	215T	BALL	<b>Y382</b>	215TTFS7290	<b>\$1,331</b>	S3	89.5	9/3.1	189	20.97	
<b>10/2.5</b>	1800/900	460	254T	BALL	<b>Y383</b>	254TTFNA7210	<b>\$1,604</b>	S3	90.2	12/4	360	23.52	
<b>15/3.67</b>	1800/900	460	256T	BALL	<b>Y384</b>	256TTFNA7250	<b>\$2,004</b>	S3	90.2	18/6	350	25.27	
<b>20/5</b>	1800/900	460	284T	BALL	<b>Y385</b>	284TTFNA7240	<b>\$2,500</b>	S3	91.7	24/8.5	382	26.34	
<b>25/6.25</b>	1800/900	460	286T	BALL	<b>Y386</b>	286TTFNA7260	<b>\$2,918</b>	S3	91.7	31/11	489	27.84	
<b>30/7.5</b>	1800/900	460	324T	BALL	<b>Y387</b>	324TTFS7290	<b>\$3,561</b>	S3	91.0	36/11.5	623	28.87	
<b>40/10</b>	1800/900	460	326T	BALL	<b>Y388</b>	326TTFS9210	<b>\$4,450</b>	S3	91.7	51/16.5	668	30.37	
<b>50/13</b>	1800/900	460	364T	BALL	<b>Y389</b>	364TTFS9234	<b>\$5,660</b>	S3	92.4	61/24	975	31.50	
<b>60/15</b>	1800/900	460	365T	BALL	<b>Y390</b>	365TTFS9230	<b>\$8,192</b>	S3	92.4	75/25	1000	32.50	
<b>75/18.75</b>	1800/900	460	405T	BALL	<b>Y391</b>	405TTFS7297	<b>\$10,596</b>	S3	94.1	83/27	1331	37.12	
<b>100/25</b>	1800/900	460	444T	BALL	<b>Y392</b>	444TTFS7262	<b>\$12,816</b>	S3	94.1	113/38	1781	41.25	

Blue shaded areas are Cast Iron Frames

## JM Close-Coupled Pump,

Single Phase, *Capacitor Start*, 182JM - 215JM Frame  
Drip-proof, C-Face with Rigid Base



**Applications:** Close-coupled pumps where the pump impeller is mounted directly on the motor shaft in environments that are relatively clean and dry. For use outdoors an enclosure or drip cover may be required (see Accessories section).

- Features:**
- NEMA JM pump shaft dimensions
  - Ball bearings, mechanically locked on shaft end
  - Capacitor start design
  - Continuous duty
  - 1.15 Service Factor
  - UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>2</b>	1740	115/230	182JM	Z405	182TCDR7074	\$385	S2	72.0	23.0/11.5	66	16.09	2
<b>3</b>	3460	115/230	182JM	Z406	182TCDR7318	\$428	S2	74.0	32.0/16.0	61	15.59	2
	1750	115/230	184JM	Z407	184TCDR7047	\$500	S2	75.5	33.0/16.5	81	17.59	2
<b>5</b>	3510	230	184JM	Z408	184TCDR7011	\$626	S2	80.0	24.0	93	17.09	2
	1730	230	213JM	Z409	213TCDW7027	\$687	S2	78.5	28.0	115	19.92	2
<b>7 1/2</b>	3470	230	213JM	Z410	213TCDW7002	\$782	S2	78.5	37.0	106	18.42	2
	1735	230	215JM	Z411	215TBDW7029	\$949	S2	84.0	34.5	120	19.92	1
<b>10</b>	3465	230	215JM	Z412	215TCDW7002	\$1,006	S2	81.5	47.0	132	19.92	2
	1730	230	215JM	Z413	215TBDW7027	\$1,151	S2	82.5	44.0	147	21.17	1

## JM Close-Coupled Pump

Single Phase, *Capacitor Start*, 184JM - 215JM Frame  
Totally Enclosed, C-Face with Rigid Base

**Applications:** Close-coupled pumps where the pump impeller is mounted directly on the motor shaft in damp, dusty, or dirty environments.

- Features:**
- NEMA JM pump shaft dimensions
  - Ball bearings, mechanically locked on shaft end
  - Capacitor start design
  - Continuous duty
  - 1.0 Service Factor except where footnoted
  - UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>5</b>	3510	230	184JM	Z433	184TBFR7315	\$648	S2	80.0	22.4	87	19.75	1
<b>7 1/2</b>	3450	230	213JM	Z434	213TBF7010	\$870	S2	81.5	32.0	90	20.59	1
<b>10</b>	3500	230	215JM	Z435	215TBF7010	\$1,060	S2	85.5	41.5	236	22.09	1,18

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage  
2 Capacitor Start Induction Run design  
18 1.15 Service Factor

# JM Close-Coupled Pump

## Three Phase, 143JM - 256JM Frame Dripproof, C-Face/Vertical with Drip Cover and C-Face with Rigid Base

**Applications:** Close-coupled pumps where the pump impeller is mounted directly on the motor shaft in environments that are relatively clean and dry. For use outdoors, an enclosure or drip cover may be required (see Accessories Section).

- Features:**
- NEMA JM pump shaft dimensions
  - JMV frame includes drip cover for vertical mount without base
  - JM frame has rigid base, drip cover not included
  - Ball bearings, mechanically locked on shaft end
  - Continuous duty
  - 1.15 Service Factor
  - UL Recognized and CSA Certified



Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.

Suitable for use on VFD per guidelines on page 5.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1</b>	1730	208-203/460	143JM	M301	143TTDR5336	<b>\$200</b>	S2	77.0	3.5-3.6/1.8	30	13.12	
	1730	208-203/460	143JMV	M302	143TTDR5334	<b>\$229</b>	S2	77.0	3.5-3.6/1.8	27	13.42	27
<b>1 1/2</b>	3500	208-230/460	143JM	M303	143TTDR5309	<b>\$228</b>	S2	80.0	4.9-5.0/2.5	27	13.12	
	1735	208-230/460	145JM	M305	145TTDR5348	<b>\$218</b>	S2	80.0	4.8-4.8/2.4	31	13.12	
	1735	208-230/460	145JMV	M306	145TTDR5346	<b>\$247</b>	S2	80.0	4.8-4.8/2.4	31	13.42	27
	1750	230/460	145JM	<b>E102</b>	145TTDR4034	<b>\$273</b>	S2	84.0	4.4/2.2	44	14.62	
<b>2</b>	3480	208-230/460	145JM	M307	145TTDR5313	<b>\$256</b>	S2	80.0	6.4-6.2/3.1	30	13.12	
	3480	208-230/460	145JMV	M308	145TTDR5314	<b>\$286</b>	S2	80.0	6.4-6.2/3.1	35	12.92	27
	1740	208-230/460	145JM	M309	145TTDR5352	<b>\$228</b>	S2	81.5	6.2-6.2/3.1	38	14.12	
	1740	208-230/460	145JMV	M310	145TTDR5350	<b>\$258</b>	S2	81.5	6.2-6.2/3.1	37	14.42	27
	1735	230/460	145JM	<b>E104</b>	145TTDR4060	<b>\$286</b>	S2	84.0	5.8/2.9	48	15.12	
<b>3</b>	3490	208-230/460	145JM	M311	145TTDR5315	<b>\$287</b>	S2	84.0	8.9-8.4/4.2	35	13.62	
	3490	208-230/460	145JMV	M312	145TTDR5316	<b>\$317</b>	S2	84.0	8.9-8.4/4.2	39	13.92	27
	1730	208-230/460	182JM	M313	182TTDB7355	<b>\$267</b>	S2	85.5	9.0-8.6/4.3	75	15.35	DS
	1730	208-230/460	182JM	M360	182TTDR5336	<b>\$267</b>	S2	84.0	9.2-8.6/4.3	56	16.59	13
	1730	208-230/460	182JMV	M361	182TTDR5337	<b>\$327</b>	S2	84.0	9.2-8.6/4.3	56	16.94	13,27
	1730	208-230/460	182JMV	M314	182TTDR7350	<b>\$340</b>	S2	81.5	9.4-9.0/4.5	57	17.87	27
	1760	230/460	182JM	<b>E106</b>	182TTDR4033	<b>\$333</b>	S2	86.5	9.2/4.6	70	16.09	
<b>5</b>	3490	208-230/460	182JM	M362	182TTDR5303	<b>\$344</b>	S2	84.0	13.5-12.4/6.2	60	16.59	13
	3500	208-230/460	182JM	M315	182TTDR7325	<b>\$356</b>	S2	82.5	14.2-13.2/6.6	55	14.82	
	3490	208-230/460	182JMV	M363	182TTDR5304	<b>\$404</b>	S2	84.0	13.5-12.4/6.2	56	16.94	13,27
	3500	208-230/460	182JMV	M316	182TTDR7601	<b>\$417</b>	S2	82.5	14.2-13.2/6.6	54	19.24	27
	3475	230/460	182JM	<b>E107</b>	182TTDR4002	<b>\$430</b>	S2	86.5	12.0-6.0	87	16.35	
	1725	208-230/460	184JM	M317	184TTDB7357	<b>\$344</b>	S2	82.5	14.8-13.4/6.7	75	16.35	DS
	1740	208-230/460	184JMV	M318	184TTDB7356	<b>\$404</b>	S2	86.5	14.6-13.6/6.8	79	18.87	DS,27
<b>7 1/2</b>	3450	208-230/460	184JM	M319	184TTDR7322	<b>\$413</b>	S2	84.0	19.8-18.4/9.2	68	15.82	
	3450	208-230/460	184JMV	M320	184TTDR7325	<b>\$473</b>	S2	84.0	19.8-18.4/9.2	67	20.24	27
	1750	208-230/460	213JM	M321	213TTDBA7047	<b>\$497</b>	S2	87.5	22.0-20.4/10.2	100	17.66	DS
	1745	208-230/460	213JMV	M322	213TTDW7048	<b>\$576</b>	S2	84.0	22.0-21.6/10.8	88	18.94	27
	1760	230/460	213JM	<b>E110</b>	213TTDW4047	<b>\$622</b>	S2	88.5	19.2/9.6	100	19.16	
<b>10</b>	3470	208-203/460	213JM	M323	213TTDW7022	<b>\$531</b>	S2	85.5	28.0-25.0/12.5	96	17.66	
	3470	208-203/460	213JMV	M324	213TTDW7023	<b>\$609</b>	S2	85.5	28.0-25.0/12.5	91	18.94	27
	1755	208-203/460	215JM	M325	215TTDBA7047	<b>\$590</b>	S2	88.5	28.4-26.4/13.2	150	19.16	DS
	1750	208-203/460	215JMV	M326	215TTDW7048	<b>\$668</b>	S2	87.5	29.0-26.4/13.2	132	20.44	27
	1750	230/460	215JM	<b>E112</b>	215TTDW4047	<b>\$737</b>	S2	89.5	25.0/12.5	135	19.16	
<b>15</b>	3480	208-230/460	215JM	M327	215TTDW7022	<b>\$656</b>	S2	86.5	42.0-38.0/19.0	105	19.16	
	3480	208-230/460	215JMV	M328	215TTDW7023	<b>\$735</b>	S2	86.5	42.0-38.0/19.0	105	20.44	27
	1745	208-230/460	254JM	M329	254TTDX7044	<b>\$797</b>	S2	87.5	43.0-39.2/19.6	235	22.42	
	1745	208-230/460	254JMV	M353	254TTDX7046	<b>\$910</b>	S2	87.5	43.0-39.2/19.6	155	23.70	27
<b>20</b>	3470	208-230/460	254JM	M330	254TTDX7008	<b>\$828</b>	S2	88.5	52.6-47.0/23.5	156	22.42	
	1750	230/460	256JM	M331	256TTDX7074	<b>\$962</b>	S2	88.5	56.4-53.0/26.5	230	24.17	

**Footnotes:**

- DS Sourced
- 13 F1 mounting only. Cannot reassemble to F2
- 27 Drip cover included

# JM Close-Coupled Pump

Three Phase, 143JM - 256JM Frame  
Totally Enclosed, C-Face with Rigid Base



**Applications:** Close-coupled pumps where the pump impeller is mounted directly on the motor shaft in damp, dusty, or dirty environments.

**Features:**



- NEMA JM pump shaft dimensions
- Ball bearings, mechanically locked on shaft end
- Continuous duty
- 1.15 Service Factor
- UL Recognized and CSA Certified

Suitable for use on VFD per guidelines on page 5.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1</b>	1730	208-203/460	143JM	M401	143TTFR5332	\$249	S2	77.0	3.5-3.6/1.8	31	14.50	
<b>1 1/2</b>	1735	208-203/460	145JM	M402	145TTFR5336	\$272	S2	80.0	4.8-4.8/2.4	33	14.50	
<b>2</b>	3495	208-230/460	145JM	M403	145TTFR5303	\$315	S2	80.0	6.0-6.0/3.0	33	14.50	
	1730	208-203/460	145JM	M404	145TTFR5338	\$285	S2	82.5	6.0-5.8/2.9	43	16.00	
<b>3</b>	3480	208-230/460	145JM	M418	145TTFR5310	\$324	S2	84.0	8.4-7.6/3.8	43	15.50	
	3480	208-230/460	182JM	M405	182TTFR5302	\$362	S2	84.0	8.4-7.6/3.8	49	16.47	
	1730	208-203/460	182JM	M422	182TTFR5330	\$331	S2	85.5	9.2-8.6/4.3	58	17.97	13
<b>5</b>	3450	208-230/460	184JM	M423	184TTFR5302	\$431	S2	84.0	13.4-12.6/6.3	62	17.97	13
	3500	208-230/460	184JM	M407	184TTFR7908	\$444	S2	85.5	13.6-12.4/6.2	77	15.59	
	1730	208-230/460	184JM	M408	184TTFR7760	\$431	S2	84.0	14.4-13.2/6.6	81	19.35	
<b>7 1/2</b>	3500	208-230/460	184JM	M416	184TTFR8915	\$474	S2	85.5	20.0-19.0/9.5	86	18.85	
	3470	208-230/460	213JM	M409	213TTFW7022	\$536	S2	84.0	21.2-19.2/9.6	98	20.59	
	1750	208-230/460	213JM	M410	213TTFW7047	\$613	S2	87.5	22.0-19.4/9.7	106	20.59	
<b>10</b>	3465	208-230/460	215JM	M411	215TTFW7303	\$656	S2	86.5	27.0-24.0/12.0	143	22.09	
	1740	208-203/460	215JM	M412	215TTFW7047	\$733	S2	88.5	28.0-25.0/12.5	140	22.09	
<b>15</b>	3520	208-230/460	215JM	M417	215TTFW7022	\$781	S2	88.5	40.0-37.0/18.5	143	22.09	
	3495	208-230/460	254JM	M413	254TTFL5004	\$821	S2	85.5	40.5-36.0/18.0	170	24.74	AL
	1740	208-230/460	254JM	M420	254TTFL5751	\$995	S2	88.5	41.0-38.6/19.3	197	24.74	AL
<b>20</b>	3500	230/460	256JM	M414	256TTFL5023	\$1,105	S2	88.5	49.6/24.8	185	26.99	AL
	1755	230/460	256JM	M421	256TTFL5055	\$1,208	S2	88.5	52.0/26.0	232	26.99	AL

# JP Close-Coupled Pump

Single Phase, Capacitor Start, 184JP - 215JP Frame  
Drip-proof, C-Face with Rigid Base



**Applications:** Close-coupled pumps where the pump impeller is mounted directly on the motor shaft in environments that are relatively clean and dry. For use outdoors an enclosure or drip cover may be required (see Accessories section).

**Features:**

- NEMA JP pump shaft dimensions
- Ball bearings, mechanically locked on shaft end
- Capacitor start design
- Continuous duty
- 1.15 Service factor
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>5</b>	3510	230	184JP	Z427	184TCDR7909	\$626	S2	80.0	24.0	86	20.15	2,95
<b>7 1/2</b>	3470	230	213JP	Z429	213TCDW7003	\$782	S2	78.5	37.0	118	22.29	2,95
<b>10</b>	3465	230	215JP	Z431	215TCDW7004	\$1,006	S2	81.5	47.0	135	23.79	2,95

**Footnotes:**

- AL Aluminum frame construction
- 2 Capacitor Start Induction Run design
- 13 F1 mounting only. Cannot reassemble to F2
- 95 Will not accept drip cover kit



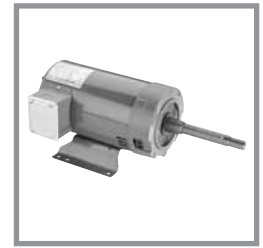
# JP Close-Coupled Pump

Three Phase, 145JP - 256JP Frame

Dripproof, C-Face/Vertical with Drip Cover and C-Face with Rigid Base

**Applications:** Close-coupled pumps where the pump impeller is mounted directly on the motor shaft in environments that are relatively clean and dry. For use outdoors an enclosure or drip cover may be required (see Accessories section).

- Features:**
- NEMA JP pump shaft dimensions
  - JPV frame includes drip cover for vertical mount without base
  - JP frame has rigid base, drip cover not included
  - Ball bearings, mechanically locked on shaft end
  - Continuous duty
  - 1.15 Service factor
  - UL Recognized and CSA Certified



Suitable for use on VFD per guidelines on page 5.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1 1/2</b>	1800	208-230/460	145JP	M105	145TTDR5354	\$218	S2	80.0	4.8-4.8/2.4	33	16.18	
<b>2</b>	1800	208-230/460	145JP	M109	145TTDR5356	\$228	S2	81.5	6.2-6.2/3.1	38	17.18	
<b>3</b>	3600	208-230/460	145JP	M111	145TTDR5319	\$287	S2	84.0	8.9-8.4/4.2	35	16.68	
	1800	208-230/460	182JP	M170	182TTDR5338	\$267	S2	84.0	9.2-8.6/4.3	57	19.65	13
<b>5</b>	3600	208-230/460	182JP	M172	182TTDR5305	\$344	S2	88.5	13.5-12.4/6.2	62	19.65	13
	3600	208-230/460	182JP	M114	182TTDR7605	\$356	S2	82.5	15.0-14.0/7.0	81	18.41	
	1800	208-230/460	184JP	M115	184TTDR7358	\$344	S2	84.0	14.4-14.2/7.1	74	17.38	
<b>7 1/2</b>	3600	208-230/460	184JP	M116	184TTDR7604	\$413	S2	84.5	21.0-19.4/9.7	70	19.41	
	1800	208-230/460	213JP	M117	213TTDW7049	\$497	S2	84.0	22.0-21.6/10.8	111	21.53	
<b>10</b>	3600	208-230/460	213JP	M118	213TTDW7024	\$531	S2	85.5	28.0-25.0/12.5	100	21.53	
	1800	208-230/460	215JP	M119	215TTDW7049	\$590	S2	87.5	29.2-26.4/13.2	115	23.03	
<b>15</b>	3600	208-230/460	215JP	M120	215TTDW7024	\$656	S2	86.5	42.0-38.0/19.0	117	23.03	
	1800	208-230/460	254JP	M121	254TTDX7042	\$797	S2	87.5	43.0-39.2/19.6	158	25.29	
	1800	208-230/460	254JPV	M122	254TTDX7043	\$910	S2	87.5	43.0-39.2/19.6	174	26.58	27
<b>20</b>	3600	208-230/460	254JP	M123	254TTDX7007	\$828	S2	88.5	52.6-47.0/23.5	210	25.29	
	1800	208-230/460	256JP	M124	256TTDX7054	\$962	S2	88.5	56.4-52.8/26.5	250	27.04	

# JP Close-Coupled Pump

Three Phase, 184JP - 254JP Frame

Totally Enclosed, C-Face with Rigid Base

**Applications:** Close-coupled pumps where the pump impeller is mounted directly on the motor shaft in damp, dusty, or dirty environments.

- Features:**
- NEMA JP pump shaft dimensions
  - Ball bearings, mechanically locked on shaft end
  - Continuous duty
  - 1.15 Service factor
  - UL Recognized and CSA Certified



Suitable for use on VFD per guidelines on page 5.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>7 1/2</b>	3600	208-230/460	184JP	M216	184TTFR8914	\$474	S2	85.5	20.0-19.0/9.5	84	21.91	
<b>15</b>	3600	208-230/460	215JP	M217	215TTFW7024	\$781	S2	88.5	40.0-37.0/18.5	187	25.96	AL
	3600	208-230/460	254JP	M213	254TTFL5003	\$821	S2	85.5	41.0-36.0/18.0	188	27.55	AL

**Footnotes:**

- AL Aluminum Frame Construction
- 13 F1 mounting only. Cannot reassemble to F2
- 27 Drip Cover included

## Pool and Spa

Single Phase, PSC, 56 Frame  
Dripproof, C-Face



**Applications:** For use on residential and commercial pool pump filtration systems.

- Features:**
- UL "1081" Design
  - Double sealed ball bearings
  - Permanent Split Capacitor (PSC) design
  - Capacitor and thermal protector in separate water tight compartment
  - Fixed CW rotation, viewed opposite shaft end
  - Automatic reset thermal protector
  - Class F insulation
  - 50 degrees C ambient
  - 56C = Keyed shaft, shaft slinger, C-face round body
  - 56J = Threaded shaft, shaft slinger, C-face round body
  - 304 stainless steel shaft on all models
  - UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"AG" DIM.	FOOT NOTES
1/2	3600	115/230	56C	AUTO	J070	56A34DB11011	\$160	F1	1.95	11.6/5.8	24	9.69	DS
	3600	115/230	56J	AUTO	J071	56A34DB11001	\$160	F1	1.95	11.6/5.8	26	9.69	DS
3/4	3600	115/230	56C	AUTO	J072	56A34DB11004	\$190	F1	1.95	13.0/6.5	25	9.69	DS
	3600	115/230	56J	AUTO	J073	56A34DB11013	\$190	F1	1.95	13.0/6.5	25	9.69	DS
1	3600	115/230	56C	AUTO	J074	56A34DB11003	\$210	F1	1.5	13.0/6.5	32	10.67	DS
	3600	115/230	56J	AUTO	J075	56A34DB11012	\$210	F1	1.5	13.0/6.5	32	10.67	DS
1 1/2	3600	230	56C	AUTO	J076	56A34DB11002	\$250	F1	1.4	8.8	38	11.65	DS
	3600	230	56J	AUTO	J077	56A34DB11014	\$250	F1	1.4	8.8	38	11.65	DS
2	3600	230	56C	AUTO	J078	56A34DB11015	\$300	F1	1.15	9.5	38	11.65	DS
	3600	230	56J	AUTO	J079	56A34DB11010	\$300	F1	1.15	9.5	38	11.65	DS

## Pool and Spa

Single Phase, PSC, 56 Frame  
Dripproof, Square Flange



**Applications:** For use on residential and commercial pool pump filtration systems.

- Features:**
- UL "1081" Design
  - Double sealed ball bearings
  - Permanent Split Capacitor (PSC) design
  - Capacitor and thermal protector in separate water tight compartment
  - Fixed CW rotation, viewed opposite shaft end
  - Automatic reset thermal protector
  - Class F insulation
  - 50 degrees C ambient
  - 56Y = Threaded shaft, shaft slinger, square flange
  - 304 stainless steel shaft on all models
  - UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"AG" DIM.	FOOT NOTES
1/2	3600	115/230	56Y	AUTO	J080	56A34DB11009	\$160	F1	1.95	11.6/5.8	24	9.69	DS
3/4	3600	115/230	56Y	AUTO	J081	56A34DB11008	\$190	F1	1.95	13.0/6.5	25	9.69	DS
1	3600	115/230	56Y	AUTO	J082	56A34DB11007	\$210	F1	1.5	13.0/6.5	32	10.67	DS
1 1/2	3600	230	56Y	AUTO	J083	56A34DB11006	\$250	F1	1.4	8.8	38	11.65	DS
2	3600	230	56Y	AUTO	J084	56A34DB11005	\$300	F1	1.15	9.5	38	11.65	DS

Footnotes:  
DS Sourced

# Jet Pump

## Single Phase, Capacitor Start, 56 Frame Dripproof, C-Face

**Applications:** Commercial and industrial water pumps and water systems.

- Features:**
- Jet Pump service factors
  - Double sealed ball bearings, mechanically locked on shaft end
  - Capacitor start design for high starting torque
  - **Fixed CW rotation, viewed opposite shaft end as noted**
  - Automatic reset thermal protector
  - **56C = carbon steel shaft with key, drip cover not included, see Accessories Section**
  - **56J = 416 stainless steel threaded shaft with slinger, drip cover included**
  - UL Recognized and CSA Certified
  - See dimension section for typical outline drawing



HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/3</b>	3450	115/208-230	56C	BALL	AUTO	J025	56C34D2111	\$109	F1	1.75	5.6/2.7-2.8	15	10.44	15
	3450	115/208-230	56J	BALL	AUTO	J033	56C34D2110	\$115	F1	1.75	5.6/2.7-2.8	15	10.94	15
<b>1/2</b>	3450	115/208-230	56C	BALL	AUTO	J009	56C34D2097	\$119	F1	1.6	7.4/3.5-3.7	17	10.69	15
	3450	115/208-230	56J	BALL	AUTO	J034	56C34D2096	\$125	F1	1.6	7.4/3.5-3.7	17	11.19	15
<b>3/4</b>	3450	115/208-230	56C	BALL	AUTO	J013	56C34D2103	\$140	F1	1.5	9.8/4.8-4.9	21	10.94	15
	3450	115/208-230	56J	BALL	AUTO	J035	56C34D2102	\$146	F1	1.5	9.8/4.8-4.9	22	11.44	15
<b>1</b>	3450	115/208-230	56C	BALL	AUTO	J017	56C34D1173	\$157	F1	1.4	12.0/6.2-6.0	23	11.94	15
	3450	115/208-230	56J	BALL	AUTO	J036	56C34D1172	\$162	F1	1.4	12.0/6.2-6.0	23	12.44	15
<b>1 1/2</b>	3450	115/208-230	56C	BALL	AUTO	J019	56B34D2025	\$215	F1	1.3	13.4/7.4-6.7	26	11.97	1,15
	3450	115/208-230	56J	BALL	AUTO	J037	56B34D2024	\$228	F1	1.3	13.4/7.4-6.7	31	12.43	1,15
<b>2</b>	3450	115/208-230	56C	BALL	AUTO	J021	56B34D5325	\$267	F1	1.2	18.2/9.8-9.1	32	11.44	1
	3450	115/208-230	56J	BALL	AUTO	J038	56B34D5326	\$280	F1	1.2	18.2/9.8-9.1	33	11.94	1,15
<b>3</b>	3450	230	56C	BALL	AUTO	J023	56B34D5327	\$423	F1	1.15	12.7	38	11.94	1

# Jet Pump

## Single Phase, Capacitor Start, 56 Frame Dripproof, C-Face with Rigid Base

**Applications:** Commercial and industrial water pumps and water systems.

- Features:**
- Jet Pump service factors
  - Double sealed ball bearings, mechanically locked on shaft end
  - Capacitor start design for high starting torque
  - **Fixed CW rotation, viewed opposite shaft end**
  - Automatic reset thermal protection
  - **416 Stainless steel threaded shaft with slinger**
  - Dripcover included
  - UL Recognized and CSA Certified



HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/3</b>	3450	115/208-230	56J	BALL	AUTO	J054	56C34D2118	\$118	F1	1.75	5.6/2.7-2.8	15	10.94	
<b>1/2</b>	3450	115/208-230	56J	BALL	AUTO	J055	56C34D2119	\$128	F1	1.6	7.4/3.5-3.7	17	11.19	
<b>3/4</b>	3450	115/208-230	56J	BALL	AUTO	J056	56C34D2120	\$149	F1	1.5	9.8/4.8-4.9	22	11.44	
<b>1</b>	3450	115/208-230	56J	BALL	AUTO	J057	56C34D2121	\$166	F1	1.4	12.0/6.2-6.0	23	12.44	
<b>1 1/2</b>	3450	115/208-230	56J	BALL	AUTO	J058	56B34D2033	\$231	F1	1.3	13.4/7.4-6.7	31	12.43	1
<b>2</b>	3450	115/208-230	56J	BALL	AUTO	J059	56B34D5341	\$284	F1	1.2	18.2/9.8-9.1	33	11.94	1

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor

## Jet Pump

Three Phase, 56 Frame  
Dripproof, C-Face



**Applications:** Commercial and industrial centrifugal or hydraulic pumps, water pumps and water systems. May also be used on industrial compressors requiring NEMA C-Face mount.

- Features:**
- Jet Pump service factors
  - Nameplated 60/50 hertz, 190/380 volts at next lower HP
  - Double sealed ball bearings, mechanically locked on shaft end
  - **56C = carbon steel shaft with key**
  - **56J = 416 stainless steel threaded shaft with slinger**
  - UL Recognized and CSA Certified
  - **Drip cover not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/3	3450	208-230/460	56C	BALL	NONE	P001	56T34D5310	\$115	F1	1.75	1.2-1.1/1.55	19	9.94	
	3450	208-230/460	56J	BALL	NONE	J040	56T34D5347	\$125	F1	1.75	1.2-1.1/1.55	19	10.44	
1/2	3450	208-230/460	56C	BALL	NONE	P002	56T34D5311	\$125	F1	1.6	2.1-2.2/1.1	19	10.44	
	3450	208-230/460	56J	BALL	NONE	J041	56T34D5348	\$134	F1	1.6	2.1-2.2/1.1	20	10.94	
3/4	3450	208-230/460	56C	BALL	NONE	P003	56T34D5312	\$144	F1	1.5	3.0-3.2/1.6	20	10.44	
	3450	208-230/460	56J	BALL	NONE	J042	56T34D5349	\$154	F1	1.5	3.0-3.2/1.6	21	10.94	
1	3450	208-230/460	56C	BALL	NONE	P004	56T34D5313	\$167	F1	1.4	3.7-3.7/1.85	20	10.44	
	3450	208-230/460	56J	BALL	NONE	J043	56T34D5350	\$177	F1	1.4	3.7-3.7/1.85	22	10.94	
1 1/2	3450	208-230/460	56C	BALL	NONE	P005	56T34D5314	\$225	F1	1.3	4.9-5.0/2.5	22	10.44	
	3450	208-230/460	56J	BALL	NONE	J044	56T34D5351	\$238	F1	1.3	4.9-5.0/2.5	25	10.94	
2	3450	208-230/460	56C	BALL	NONE	P006	56T34D5315	\$271	F1	1.2	6.4-6.2/3.1	24	10.44	
	3450	208-230/460	56J	BALL	NONE	J045	56T34D5352	\$284	F1	1.2	6.4-6.2/3.1	26	10.94	
3	3450	208-230/460	56C	BALL	NONE	P007	56T34D5316	\$313	F1	1.15	8.9-8.4/4.2	34	11.44	
	3450	208-230/460	56J	BALL	NONE	J046	56T34D5353	\$336	F1	1.15	8.9-8.4/4.2	31	11.94	

## Jet Pump

Three Phase, 56 Frame  
Dripproof, C-Face with Rigid Base



**Applications:** Commercial and industrial centrifugal or hydraulic pumps, water pumps and water systems.

- Features:**
- Jet Pump service factors
  - Nameplated 60/50 hertz, 190/380 volts at next lower HP
  - Double sealed ball bearings, mechanically locked on shaft end
  - **416 stainless steel threaded shaft with slinger**
  - Drip cover included
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/3	3450	208-230/460	56J	BALL	NONE	J047	56T34D5368	\$128	F1	1.75	1.2-1.1/1.55	19	10.44	
1/2	3450	208-230/460	56J	BALL	NONE	J048	56T34D5367	\$138	F1	1.6	2.1-2.2/1.1	20	10.94	
3/4	3450	208-230/460	56J	BALL	NONE	J049	56T34D5365	\$157	F1	1.5	3.0-3.2/1.6	21	10.94	
1	3450	208-230/460	56J	BALL	NONE	J050	56T34D5366	\$180	F1	1.4	3.7-3.7/1.85	22	10.94	
1 1/2	3450	208-230/460	56J	BALL	NONE	J051	56T34D5369	\$241	F1	1.3	4.9-5.0/2.5	25	10.94	
2	3450	208-230/460	56J	BALL	NONE	J052	56T34D5370	\$287	F1	1.2	6.4-6.2/3.1	26	10.94	
3	3450	208-230/460	56J	BALL	NONE	J053	56T34D5371	\$339	F1	1.15	8.9-8.4/4.2	31	11.94	

## Jet Pump

### Three Phase, 56 Frame Totally Enclosed, C-Face

**Applications:** Commercial and industrial centrifugal or hydraulic pumps, water pumps and water systems. May also be used on industrial compressors requiring NEMA C-Face mount.

- Features:**
- Double sealed ball bearings, mechanically locked on shaft end
  - Nameplated 60/50 hertz, 190/380 volts at next lower HP
  - 1.15 Service factor
  - UL Recognized and CSA Certified
  - **Drip cover not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/3</b>	3450	208-230/460	56C	BALL	NONE	P101	56T34T5306	<b>\$146</b>	F1	1.35	1.7-2.0/1.0	19	9.94	N
<b>1/2</b>	3450	208-230/460	56C	BALL	NONE	P102	56T34F5321	<b>\$162</b>	F1	1.15	2.1-2.2/1.1	22	11.82	
<b>3/4</b>	3450	208-230/460	56C	BALL	NONE	P103	56T34F5322	<b>\$192</b>	F1	1.15	3.0-3.2/1.6	22	11.82	
<b>1</b>	3450	208-230/460	56C	BALL	NONE	P104	56T34F5323	<b>\$215</b>	F1	1.15	3.7-3.7/1.85	24	11.82	
<b>1 1/2</b>	3450	208-230/460	56C	BALL	NONE	P105	56T34F5324	<b>\$250</b>	F1	1.15	4.7-4.6/2.3	26	11.82	
<b>2</b>	3450	208-230/460	56C	BALL	NONE	P106	56T34F5325	<b>\$290</b>	F1	1.15	6.0-6.0/3.0	29	12.32	
<b>3</b>	3450	208-230/460	56C	BALL	NONE	P107	56T34F5326	<b>\$315</b>	F1	1.15	8.4-7.6/3.8	40	13.32	

## Jet Pump

### Three Phase, 56 Frame Totally Enclosed, C-Face with Removable Rigid Base

**Applications:** Commercial and industrial centrifugal or hydraulic pumps, water pumps and water systems.

- Features:**
- Bolt on, easily removable rigid base
  - Double sealed ball bearings, mechanically locked on shaft end
  - 416 stainless steel threaded shaft with slinger
  - Nameplated 60/50 hertz, 190/380 volts at next lower HP
  - 1.15 Service factor
  - UL Recognized and CSA Certified



HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/2</b>	3450	208-230/460	56J	BALL	NONE	J061	56T34F5342	<b>\$175</b>	F1	1.15	2.1-2.2/1.1	22	11.82	
<b>3/4</b>	3450	208-230/460	56J	BALL	NONE	J062	56T34F5343	<b>\$205</b>	F1	1.15	3.0-3.2/1.6	23	11.82	
<b>1</b>	3450	208-230/460	56J	BALL	NONE	J063	56T34F5344	<b>\$228</b>	F1	1.15	3.7-3.7/1.85	25	11.82	
<b>1 1/2</b>	3450	208-230/460	56J	BALL	NONE	J064	56T34F5345	<b>\$274</b>	F1	1.15	4.7-4.6/2.3	27	11.82	
<b>2</b>	3450	208-230/460	56J	BALL	NONE	J065	56T34F5346	<b>\$315</b>	F1	1.15	6.0-6.0/3.0	30	12.32	
<b>3</b>	3450	208-230/460	56J	BALL	NONE	J066	56T34F5347	<b>\$359</b>	F1	1.15	8.4-7.6/3.8	41	13.32	

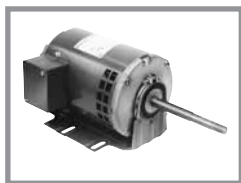
**Footnotes:**

N Totally Enclosed, Non-Ventilated



## Commercial Laundry Dryer

Single Phase, *Capacitor Start*, 48 & 56 Frame  
Dripproof, Resilient Base or Rigid Base



**Applications:** Commercial laundry dryer motors.

- Features:**
- Replaces Huebsch commercial laundry dryer motors
  - Automatic reset thermal protection
  - Special threaded shaft extension
  - X602 has 3/4" shaft adapter included
  - Ball bearings

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	100-120/200-240	48Z	BALL	X600	48C17D2057	\$169	F1	5.4-6.6/2.7-3.3	17	12.02	16,68
1/3	1725	115/208-230	56Z	BALL	X601	56C17D2101	\$200	F1	5.8/2.8-2.9	19	14.41	16
1/2	1725	115/208-230	56Z	BALL	X602	56C17D2102	\$246	F1	8.0/4.0-4.0	23	15.41	16
3/4	1725	115/208-230	56Z	BALL	X603	56C17D5346	\$310	F1	12.0/5.8-6.0	31	15.10	16

## Commercial Laundry Dryer

Three Phase, 48 & 56 Frame  
Dripproof, Resilient Base or Rigid Base

**Applications:** Commercial laundry dryer motors.

- Features:**
- Replaces Huebsch commercial laundry dryer motors
  - Automatic reset thermal protection
  - Special threaded shaft extension
  - Ball bearings

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	200-240/460	48Z	BALL	X605	48T17D2002	\$189	F1	1.3-1.8/0.8-0.9	20	12.02	12,16,68
1/3	1725	230/460	56	BALL	X606	56T17D3318	\$220	F1	1.6/0.8-1.6	21	10.35	68
1/2	1725	230/460	56Z	BALL	X607	56T17D3320	\$264	F1	1.7/0.85-2.0	28	15.10	68
3/4	1725	230/460	56Z	BALL	X608	56T17D3319	\$320	F1	2.4/1.2-2.8	30	15.60	68
	1140	208-203/460	56	BALL	X609	56T11D5317	\$410	F1	3.1-3.1/1.55	29	11.44	12

## Commercial Laundry Dryer

Three Phase, 56 Frame  
Dripproof, C-Face

**Applications:** Commercial laundry dryer motors.

- Features:**
- Replaces Huebsch commercial laundry dryer motors
  - Automatic reset thermal protection
  - Special threaded shaft extension
  - Ball bearings

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	3450	200-240/460	56CZ	BALL	X610	56T34D5375	\$230	F1	1.4-1.8/0.8-0.9	21	11.80	68

**Footnotes:**

- 12 With rigid base
- 16 Fixed CCW rotation, viewing opposite shaft (or lead end) of motor
- 68 Nameplated 60/50 Hertz

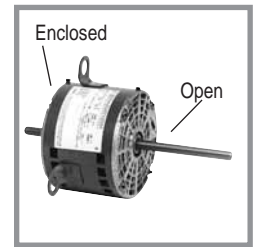
# OEM

## Admiral-Emerson

### Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - 3 lug mounting
  - Replaces Fasco No. D853
  - **Capacitor not included, see Accessories section**



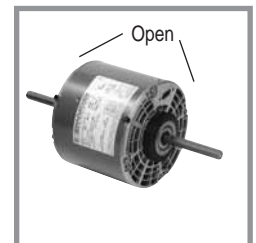
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1300/3	230	48Y	SLEEVE	X204	48A17O126	\$123	F1	2.5	10	4 3/8	2 1/8 x 1/2 x 4 7/8	16

## Amana/Rheem/Luxaire/Rooftop Package Unit

### Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient ring mount
  - Replaces Fasco No. D831.
  - **Capacitor not included, see Accessories section**



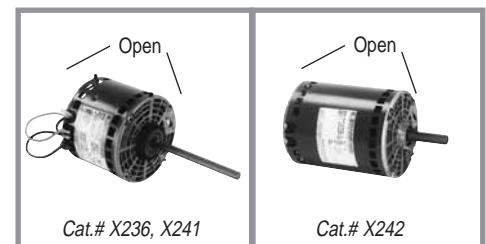
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/2	1075/2	208-230	48Y	SLEEVE	X231	48A11O1179	\$121	F1	4.0	20	7	6 3/8 x 1/2 x 6 1/2	

## Carrier

### Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient ring/belly band mount
  - X236 Replaces Carrier Nos. HC41SE117, P251-2306 & -2307
  - X241 Replaces Carrier Nos. HC45SE651 & P251-5701
  - X242 Replaces Carrier Nos. HC52AL230, 231, & 232 HC52SE208, P251-5101 & -5102
  - **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	FL. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1075/4	115	48Y	SLEEVE	X236	48A11O699	\$122	F1	6.4	13	4 3/4	1/2x6	
3/4	1075/4	208-230	48Y	SLEEVE	X241	48A11O697	\$157	F1	5.4	17	5 1/2	1/2x6	
1	1000/3	208-230	48YZ	BALL	X242	48A11O756	\$266	F1	6.2	26	7 1/4	5/8x4	51,68

**Footnotes:**

- 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor    68 Nameplated 60/50 hz  
 51 Does not include resilient rings, see Accessory Section

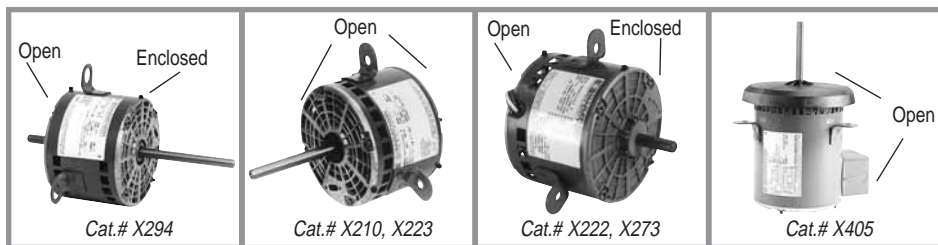
# Carrier

## Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

**Features:**

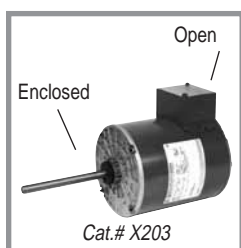
- Open/air over
- 3 lug mounting
- X223 Replaces Carrier No. HC37VE230 & Fasco No. D842
- X273 Replaces Carrier No. HC37ME268, Fasco No. D844, A.O. Smith No. OCA1024, & Magnetek No. 624
- X210 Replaces Carrier Nos. HC37MZ220, HC39VE608, HC39ML706, HC37ME720, HC37ML702
- X210 Replaces Emerson No. 3303, Fasco No. D843, Magnetek No. 514, & A.O. Smith No. OCB1026
- X222 Replaces Carrier Nos. HC41VE700 & 701, Emerson No. 3225, Magnetek No. 536, & A.O. Smith No. OCB1036
- X294 Replaces Carrier No. HC43CE230
- X405 Replaces A.O. Smith No. OCA1056
- **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/5	1075/1	230	48Y	SLEEVE	X223	48A11O2050	\$103	F1	1.3	10	3 3/4	1/2 x 2 3/4	16
1/4	1625/1	230	48Y	SLEEVE	X273	48A17O161	\$96	F1	1.5	12	4 1/4	1/2 x 1 5/8	16
	1075/2	208-230	48Y	SLEEVE	X210	48A11O1068	\$103	F1	2.2	12	4 1/8	1/2 x 4 1/4	
1/3	1075/2	230	48Y	SLEEVE	X222	48A11O1109	\$128	F1	2.6	15	4 3/4	1/2 x 3	
1/2	1075/3	208-230	48Y	SLEEVE	X294	48A11O1377	\$195	F1	3.2	17	5	2 3/4 x 1 1/2 x 7	16
	1075/1	208-230/460	48Y	BALL	X405	48A11O1744	\$167	F1	3.6/1.8	24	6 7/8	1/2 x 4	21

# Carrier

## Single Phase, PSC, 48 Frame



**Applications:** Replacements listed may not be an exact duplicate of original motor.

**Features:**

- Open/air over
- Round body belly band mounting
- X203 Replaces Carrier No. HC44SL230, Fasco No. D804, & Magnetek No. 655
- **Capacitor not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/2	1075	208-230	48Y	BALL	X203	48A11O1062	\$152	F1	5.3	19	6 1/2	1/2 x 5 1/2	16

**Footnotes:**

- 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor
- 21 60 Degree C Ambient

## Carrier

### Three Phase, 56 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Round belly band mounting
  - Replaces Carrier No. HD52VE214 & Marathon No. 56T11D33



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	FL. AMPS	WGHT. LBS.	BODY LENGTH	SHAFT DIM.	FOOT NOTES
1	1140	200-230/460	56Y	BALL	X235	56T11D5209	\$330	F1	6.6-6.0/3.0	37	10 1/2	5/8 x 2 7/8	72

## Carrier

### Three Phase, 56 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Rigid base mounting
  - Replaces Carrier No. HD60AZ660 & Marathon No. 56T34D903



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	FL. AMPS	WGHT. LBS.	"C" DIM.	SHAFT DIM.	FOOT NOTES
5	3450	208-230/460	56HZ	BALL	X251	56T34D5364	\$461	F1	13.5-12.4/6.2	50	13.49	7/8 x 2 1/4	5

**Footnotes:**

- 5 56H, 143T, and 145T Combination Base with 12 mounting holes  
 72 70 Degree C Ambient

## Cornelius

### Single Phase, *Split Phase*, 48 Frame



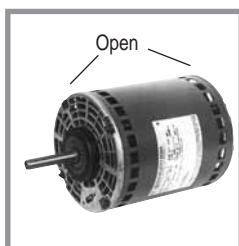
**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient ring mounting
  - Replaces "Beater" Motor for the Cornelius "Slurpee" machine

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/6	1140	230	48Y	SLEEVE	X290	48S11D58	\$109	F1	1.9	13	6 7/8	1/2 x 1 1/2	16

## Evans/Armstrong/LSI Home

### Single Phase, *PSC*, 48 Frame



**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient ring thru-bolt mounting
  - Replaces Fasco No. D825 & GE No. 5KCP35G644S
  - **Capacitor not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1	1625/2	208-230	48Y	BALL	X211	48A17O125	\$175	F1	6.2	20	6 1/4	1/2 x 2 1/2	

**Footnotes:**

- 15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor  
 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor

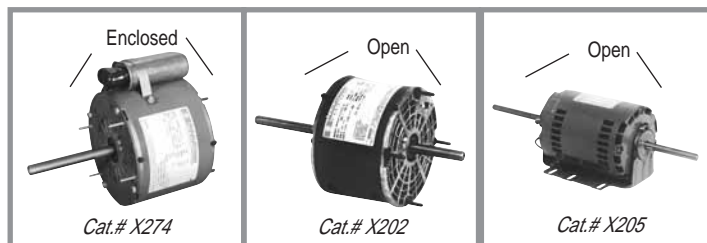


# Fedders

## Single Phase, PSC, 48 & 56 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Replaces X274 Fedders No. S196-179-1, Fasco No. D882, & A.O. Smith No. OFE6512, thru-bolt mount
  - Replaces X202 Fedders No. S196-58-2, Fasco No. D881, thru-bolt mount
  - Replaces X205 Fedders No. K65TXMR1109, Emerson No. K2328, resilient base
  - **Capacitor not included on X202 and X205, see Accessories section**



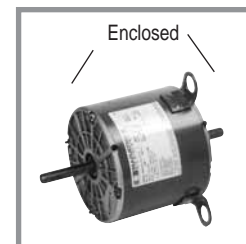
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/5	1075/1	230	48Y	SLEEVE	X274	48A11T407	\$127	F1	1.4	11	4 1/8	1/2 x 4 1/8	15
1/4	1075/3	208-230	48Y	SLEEVE	X202	48A11O1063	\$98	F1	2.2	10	3 7/8	2 1/2 x 1/2 x 4 1/2	16
3/4	1075/1	208-230	56HZ	BALL	X205	56A11O5312	\$257	F1	3.6	32	8 5/8	7 x 5/8 x 4 1/2	5,16,21

# Friedrich

## Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- TENV air over
  - 3 lug mounting
  - Replaces A.O. Smith No. OFR1036, Magnetek No. 168, Emerson No. 2328, Fasco D868
  - GE Nos. 3002, 5KCP39MG9096S, 5KCP39KGE992S, 5KCP39LG804S, 5KCP39LGM011T,
  - GE Nos. 5KCP39LG720S, 5KCP39LGK010T, 5KCP39MG7145S, & 5KCP39MG9679S
  - **Capacitor not included, see Accessories section**



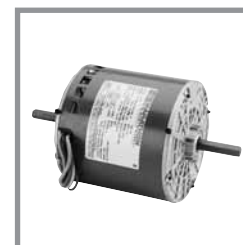
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1075/5	230	48Y	SLEEVE	X233	48A11T342	\$136	F1	2.0	16	5	2 1/4 x 1/2 x 2 1/2	16

# Gaffers & Sattler

## Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient ring mounting
  - Replaces Rooftop A/C Direct Pak 1.5 & 2.0 ea, & Fasco No. D862
  - **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/2	1075/2	208-230	48Y	SLEEVE	X225	48A11O1176	\$144	F1	3.0	18	5 1/2	2 x 1/2 x 2	16

**Footnotes:**

- 5 56H, 143T, and 145T Combination Base with 12 mounting holes
- 15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor
- 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor
- 21 60 Degree C Ambient

# Gibson-Belding & Kelvinator

Single Phase, PSC, 48 Frame



**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Thru-bolt mounting
  - X217 Replaces Fasco No. D855, Magnetek No. 399
  - **Capacitor not included, see Accessories section**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1365/3	230	48Y	SLEEVE	X217	48A17O129	\$119	F1	3.0	12	4 1/2	8 1/2 x 1/2 x 8	16

# Greenheck Fan

Single Phase, PSC, 48 Frame



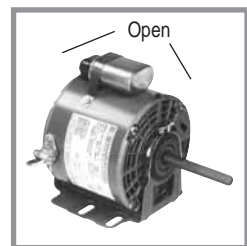
**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Thru-bolt mounting
  - Automatic reset thermal protector
  - Internal cooling fan
  - X261 replaces Greenheck No. 300008
  - X260 replaces Greenheck No. 300010
  - **Capacitor included**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/8	825	115	48Y	BALL	X261	48A8O151	\$137	F1	2.1	13	5 1/2	1/2 X 2 1/2	
1/6	1140	115	48Y	BALL	X260	48A11O251	\$130	F1	2.2	13	5 1/4	1/2 X 2 1/2	

# Hill Refrigeration

Single Phase, PSC, 48 Frame



**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient base
  - Replaces Magnetek No. 160, Steveco No. S3001, Fasco No., D801, GE No. 5KCP39KG1369S
  - **Capacitor included**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/3	1625	208-230	48Y	SLEEVE	X230	48A17O136	\$127	F1	1.8	15	4 3/4	1/2x3 1/2	15

**Footnotes:**

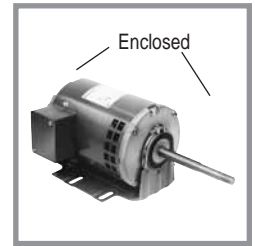
- 15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor
- 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor

## Huebsch/Speed Queen Dryers

Single Phase, *Capacitor Start*, 48 & 56 Frame  
Dripproof, Resilient Base or Rigid Base

**Applications:** Commercial laundry dryer motors

- Features:**
- Replaces Huebsch commercial laundry dryer motors
  - Automatic reset thermal protection
  - Special threaded shaft extension
  - X602 has 3/4" shaft adapter included
  - Ball bearings



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	100-120/200-240	48Z	BALL	X600	48C17D2057	\$169	F1	5.4-6.6/2.7-3.3	17	12.02	16,68
1/3	1725	115/208-230	56Z	BALL	X601	56C17D2101	\$200	F1	5.8/2.8-2.9	19	14.41	16
1/2	1725	115/208-230	56Z	BALL	X602	56C17D2102	\$246	F1	8.0/4.0-4.0	23	15.41	16
3/4	1725	115/208-230	56Z	BALL	X603	56C17D5346	\$310	F1	12.0/5.8-6.0	31	15.10	16

## Huebsch/Speed Queen Dryers

Three Phase, 48 & 56 Frame  
Dripproof, Resilient Base or Rigid Base

**Applications:** Commercial laundry dryer motors

- Features:**
- Replaces Huebsch commercial laundry dryer motors
  - Automatic reset thermal protection
  - Special threaded shaft extension
  - Ball bearings

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	200-240/460	48Z	BALL	X605	48T17D2002	\$189	F1	1.3-1.8/0.8-0.9	20	12.02	12,16,68
1/3	1725	230/460	56	BALL	X606	56T17D3318	\$220	F1	1.6/0.8-1.6	21	10.35	68
1/2	1725	230/460	56Z	BALL	X607	56T17D3320	\$264	F1	1.7/0.85-2.0	28	15.10	68
3/4	1725	230/460	56Z	BALL	X608	56T17D3319	\$320	F1	2.4/1.2-2.8	30	15.60	68
	1140	208-203/460	56	BALL	X609	56T11D5317	\$410	F1	3.1-3.1/1.55	29	11.44	12

## Huebsch/Speed Queen Dryers

Three Phase, 56 Frame  
Dripproof, C-Face

**Applications:** Commercial laundry dryer motors

- Features:**
- Replaces Huebsch commercial laundry dryer motors
  - Automatic reset thermal protection
  - Special threaded shaft extension
  - Ball bearings

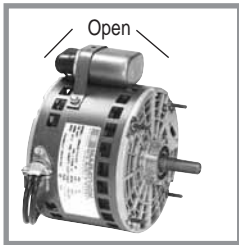
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	3450	200-240/460	56CZ	BALL	X610	56T34D5375	\$230	F1	1.4-1.8/0.8-0.9	21	11.80	68

**Footnotes:**

- 12 With rigid base
- 16 Fixed CCW rotation, viewing opposite shaft (or lead end) of motor
- 68 Nameplated 60/50 Hertz

# Hussman Refrigeration

Single Phase, PSC, 48 Frame



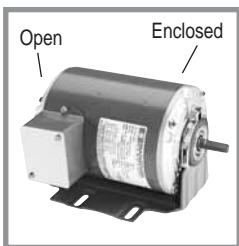
**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Thru-bolt mounting
  - Replaces Fasco No. D807, GE No. 5KCP39EGC2447, Magnetek No. 174, Emerson No. 1645
  - **Capacitor included**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/6	1625	208-230	48Y	BALL	X269	48A17O147	\$142	F1	1.2	11	4 1/8	1/2 x 1 1/2	15

# Liebert

Three Phase, 48 Frame



**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- 5 5/8" body diameter
  - 56 frame mounting dimensions
  - Replaces GE 5K36PN294S

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	SHAFT DIM.	FOOT NOTES
1/3	1140	208-230/460	48Y	BALL	X259	56T11O15	\$176	F1	1.9-1.8/9	21	10.06	1/2x1 1/2	

# Lennox

Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- X411 replaces Lennox No. 47F9901, Magnetek No. 9402, & Marathon Nos. 48A11T300 & 48A11T247
  - X209 replaces Fasco No. D2817 & GE No. 5KCP39PG9701S, open/air over
  - X236 replaces Lennox No. P-8-7505, Magnetek No. 565, A.O. Smith No. OLE1036, & Fasco No. D812, oen/air over
  - X281 replaces Lennox No. P-8-2702, Fasco No. D814, GE No. 5KCP39GGA124S, & Emerson No. 8054, open/air over
  - **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/6	1075/1	208-230	48Y	SLEEVE	X411	48A11T2008	\$94	F1	1.3	10	3 3/4	1/2 x 6	
1/4	1075/1	230	48Y	SLEEVE	X281	48A11O1408	\$111	F1	2.2	19	3 3/4	1/2 x 2 1/2	16
1/3	825/1	230	48Y	SLEEVE	X209	48A8O183	\$134	F1	3.0	18	5 3/4	1/2 x 5 1/2	34,50
	1075/4	115	48Y	SLEEVE	X236	48A11O699	\$122	F1	6.4	13	4 3/4	1/2 x 6	39

**Footnotes:**  
 15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor  
 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor  
 34 1" Thru-bolts, shaft end  
 39 No Thru-bolts, shaft end  
 50 2-1/2" Resilient Rings included

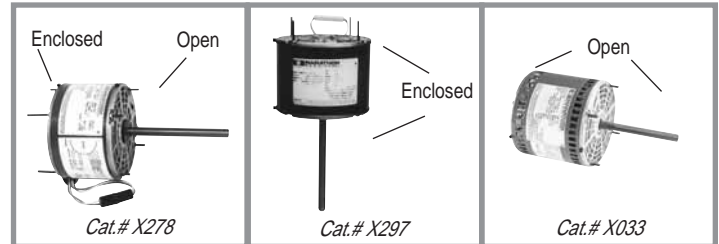
# Rheem/Ruud

## Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

**Features:**

- X278 Replaces Rheem Nos. 21276-02, 21276-01, 51207-01& Fasco No. D832
- X216 Replaces Emerson No. 5454, Magnetek No. 619, Fasco No. D2840 & A.O. Smith No. ORM1026
- X297 Replaces A.O. Smith No. ORM1036, Magnetek 620, & Fasco No. D2834
- X033 replaces Rheem Time-Savers, Emerson No. K55HXMDA-4122, and Rheem/Ruud No. 51-23012-41
- **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/8	825/1	208-230	48Y	SLEEVE	X278	48A8O206	\$127	F1	.9	12	4 1/4	1/2 x 4 3/4	37,44
1/5	1075/1	208-230	48Y	SLEEVE	X216	48A11O1097	\$94	F1	1.6	10	3 3/4	1/2 x 6	37,44,60
1/3	1075/1	208-230	48Y	SLEEVE	X297	48A11T509	\$99	F1	1.8	11	4 1/4	1/2 x 3 3/4	N,29,41,60
1/2	1075/4	115	48Y	SLEEVE	X033	48A11O1674	\$102	F1	6.1	14	5	1/2 x 5 1/2	31,60

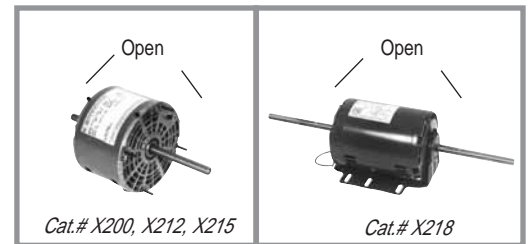
## Sears/Whirlpool

### Single Phase, PSC, 48 & 56 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

**Features:**

- Open/air over
- X215 replaces Delco inside out window a/c, Fasco No. D857, A.O. Smith No.OWL1006, & Emerson No. 1142
- X212 replaces Delco inside out window a/c, Fasco No. D858, & A.O. Smith No. OWR1016
- X200 replaces Delco inside out window a/c, Fasco No. D859, Emerson No. 855, & A.O. Smith No. OWR1036
- X218 replaces Steveco Package unit 3100, Magnetek No. C024
- **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/8	1100/3	115	48Y	SLEEVE	X215	48A11O1081	\$102	F1	1.7	10	3 7/8	4 x 1/2 x 2 3/4	16
1/6	1100/3	230	48Y	SLEEVE	X212	48A11O1065	\$102	F1	1.1	10	3 7/8	4 x 1/2 x 2 3/4	16
1/3	1100/3	230	48Y	SLEEVE	X200	48A11O1060	\$104	F1	1.7	12	4 1/3	6 x 1/2 x 4	16
3/4	1075/1	208-230	56HZ	BALL	X218	56A11O5313	\$271	F1	3.9-3.6	34	8 5/8	7 x 5/8 x 7	16,21

**Footnotes:**

- |                                                                      |                                                                                            |                                                        |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------|
| N Totally Enclosed, Non-Ventilated                                   | 21 60 Degree C Ambient                                                                     | 37 1-1/2" Thru-bolts, shaft end                        |
| 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor | 29 Weep holes with removable plugs on end brackets. Remove bottom plug after installation. | 41 5/8" Thru-bolts, opposite shaft end                 |
|                                                                      | 31 5/8" Thru-bolts, shaft end                                                              | 44 1" Thru-bolts, opposite shaft end                   |
|                                                                      |                                                                                            | 60 Four locating set screws on frame, 90 Degrees apart |



# Taco

## Single Phase, *Split Phase*, 48 Frame



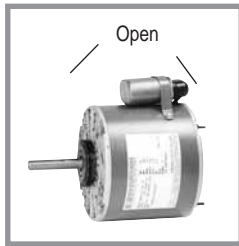
**Applications:** Direct replacement for Taco hot water circulator.

- Features:**
- Open/air over with enclosed end brackets
  - Resilient ring mounting
  - X700 replaces Taco No. 110-388, Marathon No. 48S17D1027
  - X701 replaces GE No. 5KH32EG129GA

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	SHAFT DIM.	FOOT NOTES
1/12	1725	115	48YZ	SLEEVE	X700	48S17D2102	\$82	F1	2.7	10	7.22	1/2 x 1	16
1/8	1725	115	48Y	SLEEVE	X701	48S17D1084	\$89	F1	3.0	11	8.84	1/2 x 1 1/2	16

# Tyler

## Single Phase, *PSC*, 48 Frame



**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient ring thru-bolt mounting
  - Replaces Tyler No. 760, Fasco No. D870, & A.O. Smith No. OTY1024
  - **Capacitor included**

HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
1/4	1625/1	208-230	48Y	BALL	X270	48A17O149	\$152	F1	1.9	12	4 3/4	1/2 x 2 1/2	16

**Footnotes:**

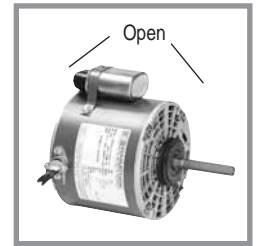
16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor

# Warren

## Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Resilient ring mounting
  - Replaces Fasco No. D809
  - **Capacitor included**



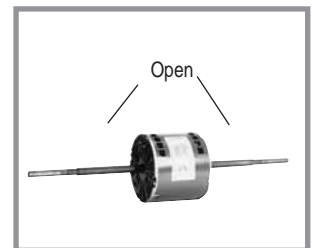
HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
<b>1/3</b>	1075/1	208-230	48Y	BALL	X268	48A11O1239	\$156	F1	3.1	14	4 3/4	1/2 x 2 7/8	15

# York

## Single Phase, PSC, 48 Frame

**Applications:** Replacements listed may not be an exact duplicate of original motor.

- Features:**
- Open/air over
  - Round belly band mounting
  - Replaces York No. K44HXJAF-4955 & Fasco No. D873, A.O. Smith No. OYK1056, Magnetek No. 468
  - **Capacitor not included, see Accessories section**



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
<b>1/2</b>	1050/1	230	48Y	BALL	X295	48A11O1410	\$139	F1	3.9	19	5	9 1/4x1 1/2x9 1/8	15

**Footnotes:**

15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor

## Oil Burner

Single Phase, *Split Phase & Capacitor Start*, 48 Frame  
Semi- and Totally Enclosed, NEMA N & M Flange Mount



**Applications:** Direct replacement motors for residential and commercial oil burners and hot water pressure/steam cleaners.

- Features:**
- Quiet, economical sleeve bearings
  - Semi- or totally enclosed steel frame (totally enclosed footnoted with N)
  - 20" Long leads from a 1/2" NPT opening
  - **Catalog numbers O010 and O011 have dripproof enclosures**
  - Two-bolt, NEMA N- or M-Flange direct mounting
  - See dimension section for typical outline drawing

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/8</b>	3450	115	48N	SLEEVE	MANUAL	O005	48S34S2004	<b>\$90</b>	F1	1.0	2.4	9	7.09	3,61
	1725	115	48N	SLEEVE	MANUAL	O600	48S17T286	<b>\$79</b>	F1	1.0	2.9	11	7.40	3,N
<b>1/7</b>	3450	115	48M	SLEEVE	MANUAL	O100	48S34S361	<b>\$97</b>	F1	1.0	2.3	11	7.70	3
<b>1/6</b>	3450	115	48M	SLEEVE	MANUAL	O102	48S34S2005	<b>\$103</b>	F1	1.0	3.0	11	7.25	3
	1725	115	48N	SLEEVE	MANUAL	O601	48S17T290	<b>\$85</b>	F1	1.0	3.3	12	7.60	3,N
<b>1/5</b>	3450	115/230	48N	SLEEVE	MANUAL	O012	48C34S24	<b>\$120</b>	F1	1.0	3.0/1.5	14	8.35	2,61
<b>1/4</b>	3450	115	48N	SLEEVE	MANUAL	O004	48S34S2003	<b>\$116</b>	F1	1.0	4.2	13	8.13	3
	1725	115	48N	SLEEVE	MANUAL	O002	48S17S25	<b>\$102</b>	F1	1.0	4.2	12	7.59	3
<b>1/3</b>	3450	115/208-230	48N	SLEEVE	MANUAL	O010	48C34D2024	<b>\$131</b>	F1	1.0	5.6/2.7-2.8	14	10.34	2
	1725	115	48N	SLEEVE	MANUAL	O003	48S17S24	<b>\$118</b>	F1	1.0	5.0	17	8.34	3
<b>1/2</b>	3450	115/208-230	48N	SLEEVE	MANUAL	O011	48C34D2028	<b>\$161</b>	F1	1.0	7.4/3.5-3.7	16	10.84	2

## Oil Burner

Single Phase, *Split Phase & Capacitor Start*, 56 Frame  
Dripproof, C-Face Mount



**Applications:** Replacement motors for commercial and industrial oil burners.

- Features:**
- Sleeve or ball bearings as noted
  - NEMA 56C direct mounting
  - Moderate starting torque
  - UL Recognized and CSA Certified
  - Manual or automatic reset thermal protector
  - NEMA Jet Pump service factors

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/4</b>	3450	115	56C	SLEEVE	MANUAL	O200	56S34D2000	<b>\$98</b>	F1	1.75	4.3	13	10.19	3,15
<b>1/3</b>	3450	115/208-230	56C	BALL	AUTO	J025	56C34D2111	<b>\$109</b>	F1	1.75	5.6/2.7-2.8	15	10.44	2,15
	3450	115/208-230	56C	BALL	MANUAL	O211	56C34D2109	<b>\$114</b>	F1	1.75	5.6/2.7-2.8	14	10.44	2
	3450	115/208-230	56C	BALL	AUTO	O210	56C34D2114	<b>\$109</b>	F1	1.75	5.6/2.7-2.8	14	10.44	2
<b>1/2</b>	3450	115/208-230	56C	BALL	MANUAL	O213	56C34D2099	<b>\$124</b>	F1	1.6	7.4/3.5-3.7	16	10.69	2
	3450	115/208-230	56C	BALL	AUTO	O212	56C34D2098	<b>\$119</b>	F1	1.6	7.4/3.5-3.7	17	10.69	2
	3450	115/208-230	56C	BALL	AUTO	J009	56C34D2097	<b>\$119</b>	F1	1.6	7.4/3.5-3.7	17	10.69	2,15
<b>3/4</b>	3450	115/208-230	56C	BALL	MANUAL	O215	56C34D2112	<b>\$145</b>	F1	1.5	9.8/4.8-4.9	18	10.94	2
	3450	115/208-230	56C	BALL	AUTO	O214	56C34D2104	<b>\$140</b>	F1	1.5	9.8/4.8-4.9	20	10.94	2
	3450	115/208-230	56C	BALL	AUTO	J013	56C34D2103	<b>\$140</b>	F1	1.5	9.8/4.8-4.9	21	10.94	2,15
<b>1</b>	3450	115/208-230	56C	BALL	AUTO	J017	56C34D1173	<b>\$157</b>	F1	1.4	12.0/6.2-6.0	23	11.94	2,15
	3450	115/208-230	56C	BALL	MANUAL	O217	56C34D2105	<b>\$162</b>	F1	1.4	12.0/6.2-6.0	22	11.94	2
<b>1 1/2</b>	3450	115/208-230	56C	BALL	MANUAL	O231	56B34D2028	<b>\$220</b>	F1	1.3	13.4/7.4-6.7	25	11.97	1
	3450	115/208-230	56C	BALL	AUTO	J019	56B34D2025	<b>\$215</b>	F1	1.3	13.4/7.4-6.7	26	11.97	1,15
<b>2</b>	3450	115/208-230	56C	BALL	AUTO	J021	56B34D5325	<b>\$267</b>	F1	1.2	18.2/9.8-9.1	32	11.44	1
<b>3</b>	3450	230	56C	BALL	AUTO	J023	56B34D5327	<b>\$423</b>	F1	1.15	12.7	38	11.94	1

**Footnotes:**

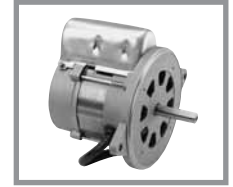
- N Totally Enclosed, Non-Ventilated
- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 2 Capacitor Start Induction Run design
- 3 Split Phase design
- 15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor
- 61 10" Leads

## Oil Burner

Single Phase, PSC, 48 Frame  
Semi-Enclosed, NEMA M Flange Mount

**Applications:** Replacement motors for mini pumps in residential or light commercial furnaces.

- Features:**
- High efficiency design
  - Ultra quiet performance
  - 14" cord for easy connection
  - UL Recognized and CSA Certified



HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/7	3450	115	48M	BALL	MANUAL	O700	48A34SU1000	\$89	F1	1.7	8	6.61	
	3450	115	48M	BALL	AUTO	O701	48A34SU1001	\$84	F1	1.7	8	6.61	

## Oil Burner

Three Phase, 56 Frame  
Dripproof, C-Face Mount

**Applications:** Replacement motors for commercial and industrial oil burners.

- Features:**
- Double sealed ball bearings
  - NEMA Jet Pump service factors
  - NEMA 56C direct mounting
  - Rated 60/50 hertz 190/380 or 380 volt at next lower horsepower
  - UL Recognized and CSA Certified



HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/3	3450	208-230/460	56C	BALL	NONE	P001	56T34D5310	\$115	F1	1.75	1.2-1.1/1.55	19	9.94	
1/2	3450	208-230/460	56C	BALL	NONE	P002	56T34D5311	\$125	F1	1.6	2.1-2.2/1.1	19	10.44	
3/4	3450	208-230/460	56C	BALL	NONE	P003	56T34D5312	\$144	F1	1.5	3.0-3.2/1.6	20	10.44	
1	3450	208-230/460	56C	BALL	NONE	P004	56T34D5313	\$167	F1	1.4	3.7-3.7/1.85	20	10.44	
1 1/2	3450	208-230/460	56C	BALL	NONE	P005	56T34D5314	\$225	F1	1.3	4.9-5.0/2.5	22	10.44	
2	3450	208-230/460	56C	BALL	NONE	P006	56T34D5315	\$271	F1	1.2	6.4-6.2/3.1	24	10.44	
3	3450	208-230/460	56C	BALL	NONE	P007	56T34D5316	\$313	F1	1.15	8.9-8.4/4.2	34	11.44	

## Pedestal Fan

Single Phase, PSC, 48 Frame  
Totally Enclosed Air Over, Yoke Mount

**Applications:** Commercial duty air circulators where motor is mounted directly to fan column or pedestal. For floor, ceiling, and wall mounting.

- Features:**
- Heavy gauge steel frame and yoke fan shroud mounted by four 7/8" extended stud bolts on 5-1/8" bolt circle
  - **Single and multi-speed models as noted**
  - Automatic reset thermal protector
  - 1/2" x 2-1/2" long shaft with two flats, 90° apart
  - UL recognized and CSA certified
  - **Capacitor included**
  - 1.0 service factor
  - See dimension section for typical outline drawing



HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	FOOT NOTES
1/4	1625/1	115/230	48Y	BALL	X920	48A17T2005	\$143	F1	3.6/1.8	19	7.25	
	1075/2	115	48Y	BALL	X923	48A11T2024	\$167	F1	3.2	17	6.50	
1/3	1625/1	115/230	48Y	BALL	X921	48A17T2006	\$156	F1	3.8/1.9	19	7.75	
	1075/2	115	48Y	BALL	X924	48A11T2025	\$180	F1	4.2	19	6.50	
1/2	1625/1	115/230	48Y	BALL	X922	48A17T2007	\$172	F1	5.4/2.7	20	8.00	
	1075/2	115	48Y	BALL	X925	48A11T2026	\$201	F1	5.7	25	7.50	

## Pressure Washer

Single Phase, *Capacitor Start*, 56 - 184T Frame  
Drip-proof, Rigid Base



**Applications:** Portable or stationary high pressure washers and steam cleaners, compressors, and other reciprocating pumps and applications where high starting torque and low running amps are required and motors are installed in a relatively clean, dry environment.

- Features:**
- Ball bearings
  - Heavy gauge steel frame and base
  - Capacitor start/capacitor run design for low amps and high efficiency
  - Continuous duty, 1.15 service factor
  - Manual reset thermal protectors on some models
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>3/4</b>	1725	115/208-230	56	MANUAL	K016	56B17D56	\$246	F1	11.0/5.5-5.5	25	11.47	1
<b>1</b>	1725	115/208-230	56	MANUAL	G936	56C17D5305	\$268	F1	13.4/6.8-6.7	29	11.44	2
<b>1 1/2</b>	1725	115/208-230	56H	MANUAL	G958	56B17D5323	\$326	F1	13.2/7.2-6.6	39	11.94	1,5
<b>2</b>	1725	115/208-230	145T	MANUAL	I127	145TBDR5337	\$378	S1	18.8/10.2-9.4	50	13.49	1
<b>3</b>	1750	208-230	184T	NONE	I128	184TBDR7631	\$441	S1	15.4-13.7	75	15.22	1
	1750	208-230	184T	MANUAL	I130	184TBDR7630	\$478	S1	15.4-13.7	75	15.22	1
<b>5</b>	1760	208-230	184T	NONE	I131	184TBDR7632	\$636	S1	25.0-24.1	87	16.22	1

## Pressure Washer

Single Phase, *Capacitor Start*, 56 Frame  
Drip-proof, C-Face with Rigid Base



**Applications:** Portable or stationary high pressure washers and steam cleaners, compressors, and other reciprocating pumps and applications where high starting torque and low running amps are required and motors are installed in a relatively clean, dry environment. NEMA C-Face mounting provisions for direct-coupled applications.

- Features:**
- Ball bearings, mechanically locked on shaft end
  - Heavy gauge steel frame and base
  - Capacitor start/capacitor run design for low amps and high efficiency
  - Continuous duty, 1.15 service factor
  - Manual reset thermal protector
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>2</b>	1725	115/208-230	56HC	MANUAL	K232	56B17D5322	\$421	F1	18.8/10.2-9.4	50	13.44	1,5
<b>3</b>	3450	208-230	56HC	MANUAL	K219	56B34D5336	\$449	F1	14.2-12.5	42	12.44	1,5

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 2 Capacitor Start Induction Run design
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes



## Pressure Washer

### Single Phase, *Capacitor Start*, 56 - 145T Frame Totally Enclosed Fan Cooled, Rigid Base

**Applications:** Portable or stationary high pressure washers and steam cleaners, compressors, and other reciprocating pumps and applications where high starting torque and low running amps are required and motors are installed in a dirty or dusty environment.

- Features:**
- Ball bearings
  - Heavy gauge steel frame and base
  - Capacitor start/capacitor run design for low amps and high efficiency
  - Continuous duty, 1.15 service factor
  - Manual reset thermal protector
  - UL Recognized and CSA Certified



HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>3/4</b>	3450	115/208-230	56	MANUAL	G379	56C34F5309	\$197	F1	10.6/5.3-5.3	26	12.32	2
	1725	115/208-230	56	MANUAL	G356	56C17F5308	\$271	F1	11.0/5.4-5.5	30	12.32	2
<b>1</b>	3450	115/208-230	56	MANUAL	G390	56C34F5311	\$223	F1	12.4/6.7-6.2	31	12.32	2
	1725	115/208-230	56	MANUAL	G373	56C17F5311	\$284	F1	13.4/6.8-6.7	32	12.82	2
<b>1 1/2</b>	1725	115/208-230	56H	MANUAL	G378	56B17F5302	\$326	F1	15.2/8.2-7.6	41	13.82	1,5
<b>2</b>	1725	115/230	145T	MANUAL	I702	145TBFR5336	\$418	S1	18.8/9.4	52	14.87	1

## Pressure Washer

### Single Phase, *Capacitor Start*, 56 Frame Totally Enclosed Fan Cooled, C-Face with Rigid Base

**Applications:** Portable or stationary high pressure washers and steam cleaners, compressors, and other reciprocating pumps and applications where high starting torque and low running amps are required and motors are installed in a dirty or dusty environment. NEMA C-Face mounting provisions for direct-coupled applications.

- Features:**
- Ball bearings, mechanically locked on shaft end
  - Heavy gauge steel frame and base
  - Capacitor start/capacitor run design for low amps and high efficiency
  - Continuous duty, 1.15 service factor
  - Manual reset thermal protector
  - UL Recognized and CSA Certified



HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1 1/2</b>	3450	115/208-230	56C	MANUAL	K612	56B34F5306	\$313	F1	12.1/6.9-6.1	39	13.32	1
	1725	115/208-230	56HC	MANUAL	G396	56B17F5310	\$358	F1	13.6/7.5-6.1	45	13.82	1,5
<b>2</b>	3450	115/230	56HC	MANUAL	K615	56B34F5312	\$372	F1	17.5/8.7	42	13.32	1,5
	1725	115/230	56HC	MANUAL	K319	56B17F5319	\$425	F1	18.8/9.4	51	14.82	1,5
<b>3</b>	3450	230	56HC	MANUAL	K618	56B34F5318	\$469	F1	11.8	52	14.82	1,5
	1800	230	184TC	MANUAL	I314	184TBFR7041	\$637	S1	13.7	104	17.61	1
<b>5</b>	1800	230	184TC	MANUAL	I315	184TBFR7034	\$760	S1	21.0	98	18.72	1,17

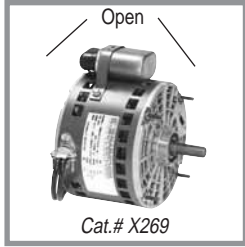
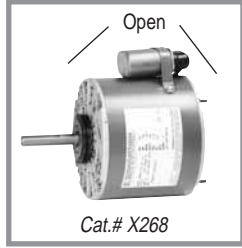
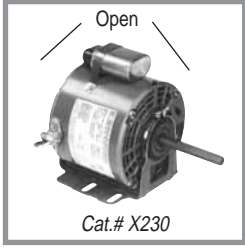
**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 2 Capacitor Start Induction Run design
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes

# Refrigeration Fan Motors

Single Phase, PSC, 48 Frame

Open Air Over, Resilient Ring & Thru-Bolt Mount



**Applications:** Replacement motor for refrigeration equipment.

**Features:**

- Open end bracket
- Sleeve or Ball bearing as noted
- Automatic reset thermal protector
- BX connector included in frame (except on Catalog # X262)
- Catalog # X263 and X264 have 12" cord and molded plug
- UL Recognized and CSA Certified
- **Capacitor included (except on Catalog # X262)**

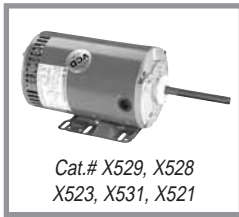
HP	RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	BODY LENGTH	SHAFT DIM.	FOOT NOTES
1/6	1625	208-230	48Y	BALL	X269	48A17O147	\$142	F1	1.2	11	5.00	1/2 x 1 1/2	15
1/4	1625	208-230	48Y	BALL	X270	48A17O149	\$152	F1	1.9	12	5.69	1/2 x 2 1/2	16
	1075	208-230	48Y	BALL	X263	48A11O11041	\$122	F1	2.0	11	4.25	1/2 X 3 3/4	16
	1075	208-230	48YZ	BALL	X262	48A11D245	\$128	F1	1.8	12	7.25	1/2 x 1 5/8	67,69,82
	1075	460	48Y	BALL	X264	48A11O11040	\$124	F1	0.8	11	4.50	1/2 X 3 3/4	16
1/3	1625	208-230	48YZ	SLEEVE	X230	48A17O136	\$127	F1	1.8	15	5.69	1/2 x 3 1/2	15
	1075	208-230	48YZ	BALL	X268	48A11O1239	\$156	F1	3.1	14	5.69	1/2 x 2 1/2	15
3/4	1075	460	48YZ	BALL	X426	48A11O1375	\$190	F1	2.2	19	6.38	5/8 X 4 1/2 w/key	67,69

NEW  
NEW  
NEW

# Refrigeration Fan Motors

Three Phase, 56 Frame

Open Air Over, Shaft Up & Horizontal Rigid Base Mount



**Applications:** Replacement motor for refrigeration equipment.

**Features:**

- Enclosed shaft end bracket, vented frame
- Continuous duty, air over
- Automatic reset thermal protector
- Shaft slinger
- Threaded lead exit
- UL Recognized and CSA Certified
- 60 degrees C ambient
- 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

HP	RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	BODY LENGTH	SHAFT DIM.	FOOT NOTES
1/2	850	208-230/460	56HZ	BALL	X529	56T8O5531	\$364	F1	2.9-3.0/1.5	39	9.62	5/8 X 5	VC,5
1	850	208-230/460	56HZ	BALL	X528	56T8O5306	\$408	F1	5.1-5.3/2.65	46	10.62	5/8 X 5	VC,5
	850	208-230/460	56Y	BALL	X507	56T8O5302	\$397	F1	5.3-5.3/2.6	46	12.00	5/8 X 5	VC
1 1/2	1140	208-230/460	56HZ	BALL	X523	56T11O5306	\$333	F1	5.45-5.4/2.7	38	11.00	5/8 X 5	VC,5
	850	208-230/460	56HZ	BALL	X531	56T8O15504	\$444	F1	7.1-7.0/3.5	48	11.50	5/8 X 5	VC,5
2	1140	208-230/460	56HZ	BALL	X525	56T11O5310	\$361	F1	7.2-6.8/3.4	40	12.00	5/8 X 5	VC,5

**Footnotes:**

- VC Voltage Change Device feature for quick voltage changes
- 5 56H, 143T, AND 145T Combination Base with 12 mounting holes
- 15 Fixed CW Rotation, viewing opposite shaft (or lead end) of motor
- 16 Fixed CCW Rotation, viewing opposite shaft (or lead end) of motor

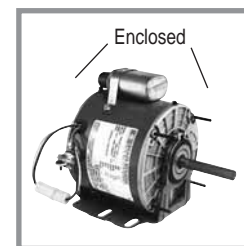
- 67 Capacitor not included, see Accessory Section
- 69 50 Degree C Ambient
- 82 Welded rigid base

# Unit Heater

Single Phase, PSC, 48 Frame  
Totally Enclosed Air Over, 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
  - Sleeve or ball bearings, as noted
  - 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**

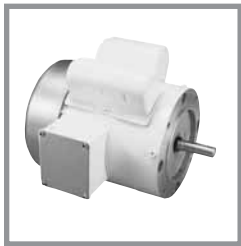


HP	N/P RPM	VOLTS	FRAME	BRGS.	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	FRAME LENGTH	SHAFT DIM.	FOOT NOTES
<b>1/6</b>	1625	115	48Y	BALL	X305	48A17T2001	\$116	F1	2.0	13	4 3/4	1/2 x 2 3/4	
	1625	115	48Y	SLEEVE	X301	48A17T72	\$103	F1	2.0	13	5 1/4	1/2 x 2 3/4	
	1075	115	48Y	BALL	X306	48A11T2005	\$120	F1	3.0	13	4 3/4	1/2 x 2 3/4	
	1075	115	48Y	SLEEVE	X302	48A11T199	\$107	F1	3.0	12	4 3/4	1/2 x 2 3/4	
<b>1/4</b>	1075	115	48Y	BALL	X307	48A11T2006	\$126	F1	4.1	15	4 3/4	1/2 x 2 3/4	
	1075	115	48Y	SLEEVE	X303	48A11T198	\$113	F1	4.1	14	4 3/4	1/2 x 2 3/4	
<b>1/3</b>	1075	115	48Y	SLEEVE	X304	48A11T201	\$126	F1	6.5	21	6	1/2 x 2 3/4	
	1075	115	48Y	BALL	X308	48A11T2007	\$139	F1	6.5	20	6	1/2 x 2 3/4	

## PowerWash XT Washdown Duty

Single Phase, *Capacitor Start*, 56 Frame

White Epoxy, Totally Enclosed, C-Face with Rigid Base



**Applications:** Gear reducers, pumps, fans, blowers, conveyors, and other machinery found in food processing, dairies, slaughter houses, beverage plants, car washes, and other high humidity or wet environments or where motor is subject to high pressure washdowns.

- Features:**
- Double sealed ball bearings
  - 303 Stainless steel shaft with spring loaded contact seals in each endshield
  - Electronic encapsulated starting switch is impervious to moisture
  - Cast conduit box with threaded openings, stainless steel cover
  - Internal corrosion resistant coatings on frame, base, endshields, rotor and stator
  - USDA-approved, white epoxy paint
  - Plugged drain holes in each endshield for all angle mounting
  - Capacitor start design for high starting torque
  - Class F insulation
  - NEMA service factors

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/3</b>	1725	115/208-230	56C	N557	56C17W5331	\$320	F3	6.4/3.2-3.2	28	10.69	2
<b>1/2</b>	3450	115/208-230	56C	N558	56C34W5307	\$320	F3	7.2/3.6-3.6	25	10.69	2
	1725	115/208-230	56C	N559	56C17W5332	\$329	F3	8.8/4.4-4.4	27	11.19	2
<b>3/4</b>	3450	115/208-230	56C	N540	56C34W5308	\$323	F3	10.0/5.0-5.0	30	11.69	2
	1725	115/208-230	56C	N541	56C17W5333	\$373	F3	10.8/5.4-5.4	30	11.69	2
<b>1</b>	3450	115/208-230	56C	N542	56C34W5309	\$324	F3	12.0/6.0-6.0	30	12.19	2
	1725	115/208-230	56C	N543	56C17W5334	\$430	F3	12.8/6.4-6.4	34	12.19	2
	1725	115/208-230	56C	N553	56B17T5304	\$383	F3	8.8/4.9-4.4	35	13.62	d,N,1,6
<b>1 1/2</b>	3450	115/208-230	56C	N544	56C34W5310	\$473	F3	17.0/8.5-8.5	36	12.69	2
	1725	115/208-230	56HC	N545	56C17W5335	\$549	F3	19.0/9.5-9.5	44	13.69	2,5

## PowerWash XT Washdown Duty

Single Phase, *Capacitor Start*, 56 Frame

White Epoxy, Totally Enclosed, C-Face

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/3</b>	3450	115/208-230	56C	N530	56C34W5301	\$311	F3	5.2/2.6-2.6	22	10.69	2
	1725	115/208-230	56C	N531	56C17W5326	\$317	F3	6.4/3.2-3.2	27	10.69	2
<b>1/2</b>	3450	115/208-230	56C	N532	56C34W5302	\$317	F3	7.2/3.6-3.6	25	10.69	2
	1725	115/208-230	56C	N523	56C17W5327	\$325	F3	8.8/4.4-4.4	29	11.19	2
<b>3/4</b>	3450	115/208-230	56C	N524	56C34W5303	\$320	F3	10.0/5.0-5.0	27	11.69	2
	1725	115/208-230	56C	N525	56C17W5328	\$376	F3	10.8/5.4-5.4	31	11.69	2
<b>1</b>	3450	115/208-230	56C	N526	56C34W5304	\$322	F3	12.0/6.0-6.0	29	12.19	2
	1725	115/208-230	56C	N527	56C17W5329	\$426	F3	12.8/6.4-6.4	37	12.19	2
<b>1 1/2</b>	1725	115/208-230	56C	N529	56C17W5330	\$546	F3	19.0/9.5-9.5	43	13.69	2

**Footnotes:**

- d To be discontinued after current stock is gone
- N Totally Enclosed, Non-Ventilated
- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 2 Capacitor Start/Induction Run design
- 5 56H, 143T, and 145T combination base with 12 mounting holes
- 6 Bolt-on, removable base for footless mounting option

# PowerWash XT Washdown Duty

## Single Phase, Capacitor Start, 56 - 145T Frame White Epoxy, Totally Enclosed, Rigid Base

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/2	1725	115/208-230	56	N680	56C17W5336	\$320	F3	8.8/4.4-4.4	25	10.69	2
3/4	1725	115/208-230	56	N681	56C17W5337	\$374	F3	10.8/5.4-5.4	27	11.69	2
1	1725	115/208-230	56	N682	56C17W5338	\$428	F3	12.8/6.4-6.4	29	12.19	2
1 1/2	1740	115/208-230	145T	N683	145TCWR5326	\$546	F3	19.0/9.5-9.5	47	12.69	2

# PowerWash XT Washdown Duty

## Three Phase, 56 - 215T Frame White Epoxy, Totally Enclosed, C-Face

**Applications:** Gear reducers, pumps, fans, blowers, conveyors, and other machinery found in food processing, dairies, slaughter houses, beverage plants, car washes, and other high humidity or wet environments or where motor is subject to high pressure washdowns.

- Features:**
- Double sealed ball bearings
  - 303 Stainless steel shaft with spring loaded contact seals in each endshield
  - Cast conduit box with threaded openings, stainless steel cover
  - Internal corrosion resistant coatings on frame, endshields, rotor and stator
  - USDA-approved, white epoxy paint
  - Plugged drain holes in each endshield for all angle mounting
  - Stainless steel fan guard (56-145T frames) or epoxy coated fan guard (182T-215T frames)
  - MAX GUARD Class F insulation system
  - 1.15 Service factor



Suitable for use on VFD per guidelines on page 5.

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
1/4	1725	208-230/460	56C	N640	56T17V5326	\$304	F3	68.0	1.1-1.1/6	19	9.56	N
1/3	1725	208-230/460	56C	N641	56T17V5327	\$324	F3	72.0	1.3-1.3/65	21	9.56	N
1/2	1725	208-230/460	56C	N642	56T17V5328	\$333	F3	78.5	1.8-1.8/9	24	10.06	N
3/4	3450	208-230/460	56C	N643	56T34V5301	\$337	F3	75.5	2.4-2.4/1.2	23	10.06	N
	1725	208-230/460	56C	N644	56T17V5329	\$343	F3	80.0	2.5-2.5/1.3	30	10.56	N
1	3450	208-230/460	56C	N645	56T34V5302	\$393	F3	78.0	2.6-2.6/1.3	36	11.56	N
	1725	208-230/460	56C	N646	56T17V5330	\$403	F3	80.0	3.2-3.2/1.6	41	11.56	N
	1740	208-230/460	143TC	N647	143TTVR5326	\$403	F3	80.0	3.2-3.2/1.6	35	11.75	N
1 1/2	3450	208-230/460	56C	N648	56T34V5303	\$416	F3	80.0	3.8-3.8/1.9	43	12.56	N
	1725	208-230/460	56C	N649	56T17V5331	\$420	F3	80.0	4.2-4.2/2.1	46	13.06	N
	1740	208-230/460	143TC	N650	143TTVR5327	\$420	F3	80.0	4.2-4.2/2.1	47	13.25	N
2	3450	208-230/460	56C	N651	56T34V5304	\$478	F3	78.0	5.0-5.0/2.5	47	13.06	N
	1725	208-230/460	56C	N653	56T17W5326	\$518	F3	81.5	6.2-6.2/3.1	48	12.69	
	1740	208-230/460	145TC	N654	145TTWR5326	\$518	F3	81.5	6.2-6.2/3.1	38	12.75	
3	3450	208-230/460	145TC	N655	145TTWR5301	\$583	F3	80.0	8.0-8.0/4.0	40	13.25	
	1740	208-230/460	182TC	N656	182TTWR7026	\$647	F3	84.0	8.8-8.8/4.4	70	13.96	
5	3450	208-230/460	184TC	N657	184TTWR7001	\$814	F3	85.5	12.4-12.4/6.2	80	14.47	
	1725	208-230/460	184TC	N658	184TTWR7026	\$739	F3	86.0	13.4-13.4/6.7	73	13.96	
7 1/2	3480	208-230/460	213TC	N659	213TTWR7001	\$1,009	F3	86.5	18.4-18.4/9.2	85	15.47	
	1760	208-230/460	213TC	N660	213TTWR7026	\$924	F3	87.0	19.0-19.0/9.5	139	17.63	
10	1760	208-230/460	215TC	N661	215TTWR7026	\$1,105	F3	89.0	24.8-24.8/12.4	180	20.63	

**Footnotes:**

- 2 Capacitor Start/Induction Run design
- N Totally Enclosed, Non-Ventilated



# PowerWash XT Washdown Duty

Three Phase, 56 - 215T Frame

White Epoxy, Totally Enclosed, C-Face with Rigid Base

Catalog numbers highlighted in **bold** have efficiency levels that meet or exceed U.S. EPACT and/or Canadian NRCan standards.



**Applications:** Gear reducers, pumps, fans, blowers, conveyors, and other machinery found in food processing, dairies, slaughter houses, beverage plants, car washes, and other high humidity or wet environments or where motor is subject to high pressure washdowns.

**Features:**

- Double sealed ball bearings
- 303 Stainless steel shaft with spring loaded contact seals in each endshield
- Cast conduit box with threaded openings, stainless steel cover
- Internal corrosion resistant coatings on frame, endshields, rotor and stator
- USDA-approved, white epoxy paint
- Plugged drain holes in each endshield for all angle mounting
- Stainless steel fan guard (56-145T frames) or epoxy coated fan guard (182T-215T frames)
- MAX GUARD® Class F insulation system
- 1.15 Service factor
- UL Recognized and CSA Certified, CE Mark

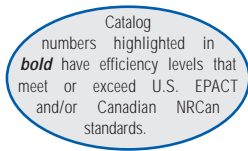


Suitable for use on VFD per guidelines on page 5.

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/4</b>	1725	208-230/460	56C	N564	56T17V5332	\$306	F3	68.0	1.1-1.1/6	24	10.08	N
	1725	575	56C	N620	56T17W5333	\$306	F3	68.0	0.44	24	10.69	
<b>1/3</b>	1725	208-230/460	56C	N570	56T17W5334	\$336	F3	68.0	1.7-1.7/9	23	10.69	
<b>1/2</b>	3450	208-230/460	56C	N566	56T34V5305	\$305	F3	76.0	1.5-1.5/8	26	10.56	N
	1725	208-230/460	56C	N567	56T17V5336	\$343	F3	78.5	1.8-1.8/9	27	10.06	N
	1725	575	56C	N622	56T17V5337	\$343	F3	78.5	0.8	27	10.06	N
	1140	208-230/460	56C	N568	56T11V5376	\$427	F3	77.0	2.3-2.3/1.2	24	11.56	N
<b>3/4</b>	3450	208-230/460	56C	N569	56T34V5306	\$335	F3	75.5	2.4-2.4/1.2	24	10.06	N
	1725	208-230/460	56C	N599	56T17V5338	\$396	F3	80.0	2.5-2.5/1.3	30	10.56	N
	1140	208-230/460	56HC	N600	56T11V5377	\$465	F3	78.5	3.0-3.0/1.5	25	13.08	N,5
<b>1</b>	3450	208-230/460	56C	N601	56T34V5307	\$392	F3	78.0	2.6-2.6/1.3	37	11.56	N
	1725	208-230/460	56C	N602	56T17V5340	\$414	F3	80.0	3.6-3.6/1.8	31	11.56	N
	1725	575	56C	N624	56T17V5341	\$414	F3	80.0	1.5	30	11.56	N
	1740	208-230/460	143TC	<b>N626</b>	143TTWR4028	\$414	F3	82.5	3.2-3.2/1.6	35	13.25	
	1140	208-230/460	56HC	N604	56T11W5377	\$499	F3	77.0	4.0-4.0/2.0	26	13.08	5
<b>1 1/2</b>	3450	208-230/460	56C	N605	56T34V5308	\$434	F3	80.0	3.8-3.8/1.9	44	12.56	N
	1725	208-230/460	56C	N606	56T17V5342	\$431	F3	80.0	5.0-5.0/2.5	36	13.06	N
	1725	208-230/460	145TC	<b>N607</b>	145TTVR5326	\$431	F3	80.0	4.2-4.2/2.1		13.25	N
	1140	230/460	56HCZ	N608	56T11W5378	\$527	F3	77.0	5.7/2.8	31	14.18	5
<b>2</b>	3450	208-230/460	56HC	N609	56T34V5309	\$481	F3	78.0	5.0-5.0/2.5	48	13.06	N, 5,17
	3450	208-230/460	145TC	<b>N610</b>	145TTVR5302	\$481	F3	85.0	5.0-5.0/2.5	41	13.25	N
	1725	208-230/460	56C	N611	56T17W5327	\$495	F3	81.5	6.2-6.2/3.1	38	12.69	
	1740	208-230/460	145TC	<b>N612</b>	145TTWR4026	\$533	F3	84.0	6.0-6.0/3.0	39	14.25	
<b>3</b>	3480	208-230/460	145TC	<b>N613</b>	145TTWR4001	\$629	F3	85.5	7.4-7.4/3.7	45	13.25	
	1770	208-230/460	182TC	<b>N614</b>	182TTWR4026	\$701	F3	87.5	8.2-8.2/4.1	77	13.96	
<b>5</b>	3510	208-230/460	184TC	<b>N615</b>	184TTWR4001	\$878	F3	87.5	12.8-12.0/6.0	76	14.47	
	1750	208-230/460	184TC	<b>N616</b>	184TTWR4026	\$793	F3	87.5	13.8-13.0/6.5	76	14.96	
<b>7 1/2</b>	3505	208-230/460	213TC	<b>N617</b>	213TTWR4002	\$1,090	F3	88.5	17.6-16.8/8.4	108	17.47	
	1760	208-230/460	213TC	<b>N618</b>	213TTWR4026	\$1,005	F3	89.5	20.4-20.4/10.2	131	17.71	
<b>10</b>	1760	208-230/460	215TC	<b>N619</b>	215TTWR4026	\$1,143	F3	89.5	26.0-26.0/13.0	140	18.71	

**Footnotes:**

- N Totally Enclosed, Non-Ventilated
- 5 56H, 143T, and 145T combination base with 12 mounting holes
- 17 1.0 Service Factor



# PowerWash XT Washdown Duty

Three Phase, 56 - 215T Frame  
White Epoxy, Totally Enclosed, Rigid Base

**Applications:** Gear reducers, pumps, fans, blowers, conveyors, and other machinery found in food processing, dairies, slaughter houses, beverage plants, car washes, and other high humidity or wet environments or where motor is subject to high pressure washdowns.



- Features:**
- Double sealed ball bearings
  - 303 Stainless steel shaft with spring loaded contact seals in each endshield
  - Cast conduit box with threaded openings, stainless steel cover
  - Internal corrosion resistant coatings on frame, base, endshields, rotor and stator
  - USDA-approved, white epoxy paint
  - Plugged drain holes in each endshield for all angle mounting
  - Stainless steel fan guard (56-145T frames) or epoxy coated fan guard (182T-215T frames)
  - MAX GUARD® Class F insulation system
  - 1.15 Service factor
  - UL Recognized and CSA Certified

Suitable for use on VFD per guidelines on page 5.

HP	N/P RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/2</b>	1725	208-230/460	56	N307	56T17V5344	<b>\$327</b>	F3	74.0	2.0-2.0/1.0	27	10.06	N
<b>3/4</b>	1725	208-230/460	56	N320	56T17W5340	<b>\$343</b>	F3	77.0	2.8-2.8/1.4	30	10.56	
<b>1</b>	1725	208-230/460	56	N309	56T17V5346	<b>\$359</b>	F3	77.0	3.2-3.2/1.6	30	11.56	N
	1745	208-230/460	143T	N310	143TTVR5329	<b>\$392</b>	F3	80.0	3.2-3.1/1.5	45	12.75	N
<b>1 1/2</b>	1725	208-230/460	145T	<b>N321</b>	145TTWR4029	<b>\$431</b>	F3	84.0	4.2-4.2/2.1	46	12.75	
<b>2</b>	1740	208-230/460	145T	<b>N312</b>	145TTWR4027	<b>\$518</b>	F3	84.0	6.0-6.0/3.0	38	13.25	
<b>3</b>	1740	208-230/460	56HZ	N313	56T17W5328	<b>\$489</b>	F3	82.5	8.6-8.6/4.3	52	14.25	Z,5
	1770	208-230/460	182T	<b>N314</b>	182TTWR4027	<b>\$647</b>	F3	87.5	8.2-8.2/4.1	66	13.97	
<b>5</b>	3510	208-230/460	184T	<b>N315</b>	184TTWR4004	<b>\$739</b>	F3	87.5	12.8-12.0/6.0	75	14.46	
	1760	208-230/460	184T	<b>N316</b>	184TTWR4027	<b>\$739</b>	F3	87.5	13.0-13.0/6.5	76	14.97	
<b>7 1/2</b>	3505	208-230/460	184T	<b>N317</b>	184TTWR4003	<b>\$924</b>	F3	88.5	17.6-16.8/8.4	87	15.96	
	1760	208-230/460	213T	<b>N318</b>	213TTWR4027	<b>\$924</b>	F3	89.5	20.4-20.4/10.2	149	17.71	
<b>10</b>	1760	208-230/460	215T	<b>N319</b>	215TTWR4027	<b>\$1,105</b>	F3	89.5	26.0-26.0/13.0	165	18.71	

**Footnotes:**

- N Totally Enclosed, Non-Ventilated
- Z 56HZ with 7/8" shaft dia., 3-1/2" shaft height, and slotted 56 frame base
- 5 56H, 143T, and 145T combination base with 12 mounting holes

## Water Circulator Motors

Single Phase, *Split Phase*, 48 Frame  
Dripproof, Resilient Ring Mount



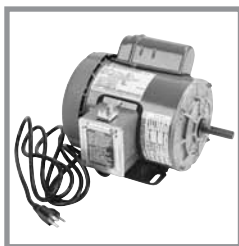
**Applications:** Direct replacements for Taco hot water circulators.

- Features:**
- Economical split phase design
  - Quiet sleeve bearing construction
  - 48Z frame with 1/2" diameter shaft, 1" long without flat
  - 1.40 Service factor
  - **Fixed CCW rotation, viewed opposite shaft end**
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	BRGS.	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	SERVICE FACTOR	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/12</b>	1725	115	48YZ	SLEEVE	AUTO	X700	48S17D2102	<b>\$82</b>	F1	1.4	2.7	10	7.22	
<b>1/8</b>	1725	115	48Y	SLEEVE	AUTO	X701	48S17D1084	<b>\$89</b>	F1	1.4	3.0	11	8.84	

## Woodworking/Power Tool

Single Phase, *Capacitor Start*, 56 & 145T Frame  
Totally Enclosed, Rigid Base



**Applications:** Replacement motors for table saws, planers, lathes, and other equipment found in the woodworking and metalworking trades. These totally enclosed, fan cooled motors are well suited for use in dusty and dirty environments or where wood or metal shavings are present.

- Features:**
- On/off toggle switch and 8 foot cord with 115 volt plug included **on 1/2 to 1-1/2 HP models**
  - Double sealed ball bearings
  - Heavy gauge steel frame and base
  - 1.15 Service factor
  - Manual reset thermal protector
  - Dependable, dust-proof centrifugal starting switch
  - UL Recognized and CSA Certified

HP	N/P RPM	VOLTS	FRAME	OVER LOAD	CAT. NO.	MODEL NO.	LIST PRICE	MULT. SYMB.	F.L. AMPS	WGHT. LBS.	"C" DIM.	FOOT NOTES
<b>1/2</b>	1725	115/208-230	56	MANUAL	T010	56C17F5351	<b>\$259</b>	F1	8.8/4.2-4.4	26	11.82	
<b>3/4</b>	3450	115/208-230	56	MANUAL	T013	56C34F5340	<b>\$235</b>	F1	10.6/5.3-5.3	22	12.32	
	1725	115/208-230	56	MANUAL	T014	56C17F5350	<b>\$303</b>	F1	11.0/5.4-5.5	28	12.32	
<b>1</b>	3450	115/208-230	56	MANUAL	T015	56C34F5339	<b>\$261</b>	F1	12.4/6.7-6.2	28	12.32	
	1725	115/208-230	56	MANUAL	T016	56C17F5349	<b>\$321</b>	F1	13.4/6.8-6.7	32	12.82	
<b>1 1/2</b>	3450	115/208-230	56	MANUAL	T017	56B34F5332	<b>\$320</b>	F1	14.2/7.7-7.1	38	12.82	1
	1725	115/208-230	56	MANUAL	T018	56B17F5328	<b>\$390</b>	F1	13.6/7.5-6.8	48	13.82	1
<b>2</b>	3450	115/230	56H	MANUAL	T019	56B34F5333	<b>\$349</b>	F1	17.5/8.7	40	13.41	1,5
	1725	115/230	56H	MANUAL	T030	56B17F5329	<b>\$430</b>	F1	18.8/9.4	51	14.82	1,5
<b>3</b>	3510	208/230	145T	MANUAL	T031	145TBFR5309	<b>\$483</b>	S1	13.1/11.8	48	14.87	1

**Footnotes:**

- 1 Capacitor Start/Capacitor Run design for reduced amperage
- 5 56H, 143T, and 145T Combination Base with 12 mounting holes

Multiplier Symbol S4

**Fedders Adapter Plate**

Used to match Fedders rectangular mounting stud pattern on 5-5/8" motors.

CAT. NO.	KIT NO.	LIST PRICE
A278	KIT 278	\$9

**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, and the necessary nuts, screws, and washers.

CAT. NO.	KIT NO.	LIST PRICE
A111	KIT 111	\$11



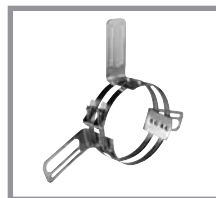
**48 Frame Lug Mounts Kits**



**A249**  
Single Strap,  
Dual Slot  
2" L, 1/4" & 3/4" W  
\$12



**A250**  
Double Strap,  
Dual Slot  
2" L, 1/4" & 3/4" W  
\$12



**A251**  
Double Strap,  
Dual Slot  
4" L, 1/4" & 3/4" W  
\$12



**A252**  
Single Strap,  
Single Slot  
2" L x 3/8" W  
\$12



**A253**  
Double Strap,  
Single Slot  
2" L x 3/8" W  
\$12

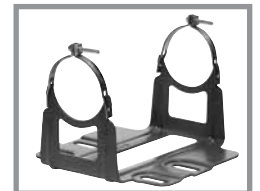


**A254**  
Double Wire,  
Single Slot  
2" L x 3/8" W  
\$12

**48 Frame Resilient Mounting Base Kit**

Used to add a resilient base to models having resilient rings. Results in 3" shaft height. Kit includes: mounting base and 2 latch assemblies.

CAT. NO.	KIT NO.	RING TO RING DIMENSION	LIST PRICE
A107	KIT 107-637	6.37"	\$8



**56 Frame Resilient Mounting Base Kit**

Used to add a resilient base to models having hubs. Results in 3-1/2" shaft height. Kit includes: mounting base, 2 resilient rings, 2 latch assemblies, 2 end caps and a slinger.

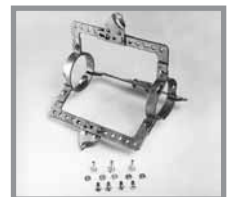
CAT. NO.	KIT NO.	USED WITH CAT. NO.	BASE LENGTH	LIST PRICE
A279	KIT 279	X500	8-5/8"	\$14
A280	KIT 280	X501, X208	9-1/8"	\$14
A281	KIT 281	X507, X509	11-5/8"	\$30
A282	KIT 282	X503	10-5/8"	\$27
A283	KIT 283	X502	9-5/8"	\$27



**48 Frame Resilient Mount Kit**

Fits motors with 2-1/2" diameter resilient rings. Available in 3 sizes to fit 9", 10" and 12" blowers.

CAT. NO.	KIT NO.	SIZE	LIST PRICE
A240	KIT 240	9"	\$26
A241	KIT 241	12"	\$39
A242	KIT 242	10"	\$32



## Accessories

### Multiplier Symbol S4



#### 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	NOTES
A110	KIT 110	\$7	2-1/4"
A114	KIT 114	\$10	2-1/2"



#### 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: pre-punched plated steel plate, 4-8x32 nuts with washer fastened, 4-10x32 nuts with washers fastened and 4-1/4" sheet metal screws. Instructions included.

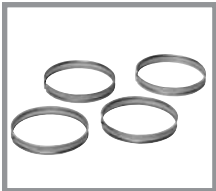
CAT. NO.	KIT NO.	LIST PRICE
A259	KIT 259	\$16



#### Rubber Mounting Hardware

Used for mounting the resilient base to a resilient ring. Kit includes: 4 clamps, 2 screws, and 2 nuts.

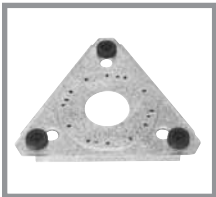
CAT. NO.	KIT NO.	LIST PRICE	NOTES
A112	KIT 112	\$5	56 Frame
A113	KIT 113	\$5	48 Frame



#### 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
A104	KIT 104	\$5



#### Triangular Bracket

Used in Fedders air conditioners.

CAT. NO.	KIT NO.	LIST PRICE
A277	KIT 277	\$16



#### Capacitor Mounting Kit

Used for mounting a capacitor on the frame of a Permanent Split Capacitor motor. Kit includes: mounting strap, mounting screws, and terminal protection boot. (4 screws are included - 2#10 screws and 2#8 screws).

**Fits 15mfd. and smaller capacitors.**

CAT. NO.	KIT NO.	LIST PRICE
A100	KIT 100	\$5



#### Capacitor with Mounting Kit

Kit includes 370 volt capacitor, mounting strap, mounting screws and terminal protection boot.

CAT. NO.	KIT NO.	SIZE	LIST PRICE
A243	KIT 243	5.0 mfd	\$10
A244	KIT 244	7.5 mfd	\$12
A245	KIT 245	10.0 mfd	\$14

### Oval Run Capacitors

SIZE	CAT. NO.	KIT NO.	LIST PRICE
3mfd/370v	A371	KIT 370-3	\$6
4mfd/370v	A372	KIT 370-4	\$6
5mfd/370v	A373	KIT 370-5	\$6
7.5mfd/370v	A375	KIT 370-7.5	\$7
10mfd/370v	A376	KIT 370-10	\$7
15mfd/370v	A378	KIT 370-15	\$12
17.5mfd/370v	A379	KIT 370-17.5	\$12
20mfd/370v	A380	KIT 370-20	\$14
25mfd/370v	A381	KIT 370-25	\$15
30mfd/370v	A382	KIT 370-30	\$17
7.5mfd/440v	A445	KIT 440-7.5	\$11
10mfd/440v	A446	KIT 440-10	\$12



### Capacitor Selection Guide for Stock PSC Motors

370 VOLT													440 VOLT				
3.0 mfd	4.0 mfd	5.0 mfd					7.5 mfd	10.0 mfd	15.0 mfd	17.5 mfd	20.0 mfd	25.0 mfd	30.0 mfd	7.5 mfd	10.0 mfd		
X411	X223	X001	X050	X082	X219	X423	X000	X294	X004	X416	X009	X433	X206	X449	X271	X454	X241
X427	X273	X003	X052	X083	X222	X428	X002	X413	X010	X451	X016		X447	X242	X448	X446	
X429	X281	X006	X056	X086	X233	X430	X005	X415	X021	X453	X023			X462		X405	
		X011	X058	X087	X234	X440	X013	X422	X033	X458	X036						
		X012	X059	X088	X236	X441	X015	X424	X035		X039						
		X014	X060	X089	X258	X442	X018	X426	X038		X085						
		X017	X061	X097	X262	X443	X020	X450	X063		X090						
		X019	X062	X200	X278	X445	X022	X456	X068		X099						
		X034	X064	X202	X287	X463	X037	X465	X084		X205						
		X040	X065	X204	X295	X464	X071	X457	X096		X207						
		X041	X066	X209	X297		X203		X098		X218						
		X042	X067	X210	X412		X213		X208		X298						
		X043	X069	X212	X417		X214		X211		X444						
		X044	X070	X215	X418		X225		X221		X452						
		X045	X080	X216	X419		X231		X400		X455						
		X049	X081	X217	X420		X283		X414		X459						

### 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
A256	KIT 256	\$95



### 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
A261	KIT 261	\$14



### Rain Shields

Sizes to fit 1/2" or 5/8" diameter shafts. 6-7/8" body diameter. Shield has 8 air vanes to provide cooling air circulation for motor.

CAT. NO.	KIT NO.	SHAFT DIA.	LIST PRICE
A247	KIT 247	1/2"	\$5
A248	KIT 248	5/8"	\$5





## Accessories

### Multiplier Symbol S4

#### Rain Shield / Drip Cover Kit

Mounts with two screws into the end bracket. Kit includes: drip cover, mounting screws, washers, and instructions. Contact Marathon Electric to determine compatibility with motor.

Note: For Kit 109-1, the mounting holes have a 2.18 bolt circle. For Kit 234, the mounting holes have a 4.80 bolt circle.

CAT. NO.	KIT NO.	FRAME	ENCLOSURE	LIST PRICE
A234	KIT 234	48-56-145T	ODP OR TEFC	\$15
A201	KIT 201	182T-184T	ODP	\$17
A202	KIT 202	213T-215T	ODP (TTDR)	\$20
A198	KIT 198	213T-215T	ODP (TTDW)	\$20
A198	KIT 198	254T-256T	ODP (TTDX) RIGID BASE	\$20



#### 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.

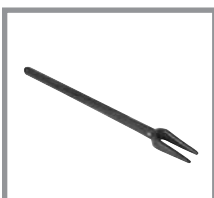
CAT. NO.	KIT NO.	TO CHANGE SHAFT	LIST PRICE
A105	KIT 105	1/2" to 5/8"	\$5
A106	KIT 106	5/8" to 3/4"	\$7



#### Shaft Lock Device

Used as a pry point for prying the blade off. Instructions included.

CAT. NO.	KIT NO.	LIST PRICE
A257	KIT 257	\$30

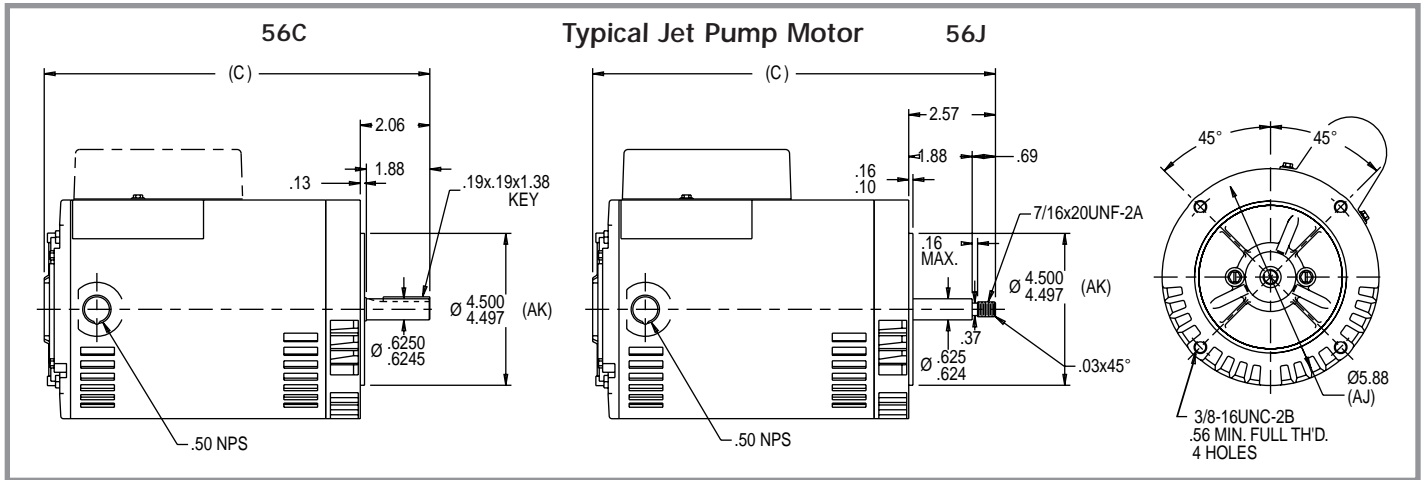


#### Tapered Fork

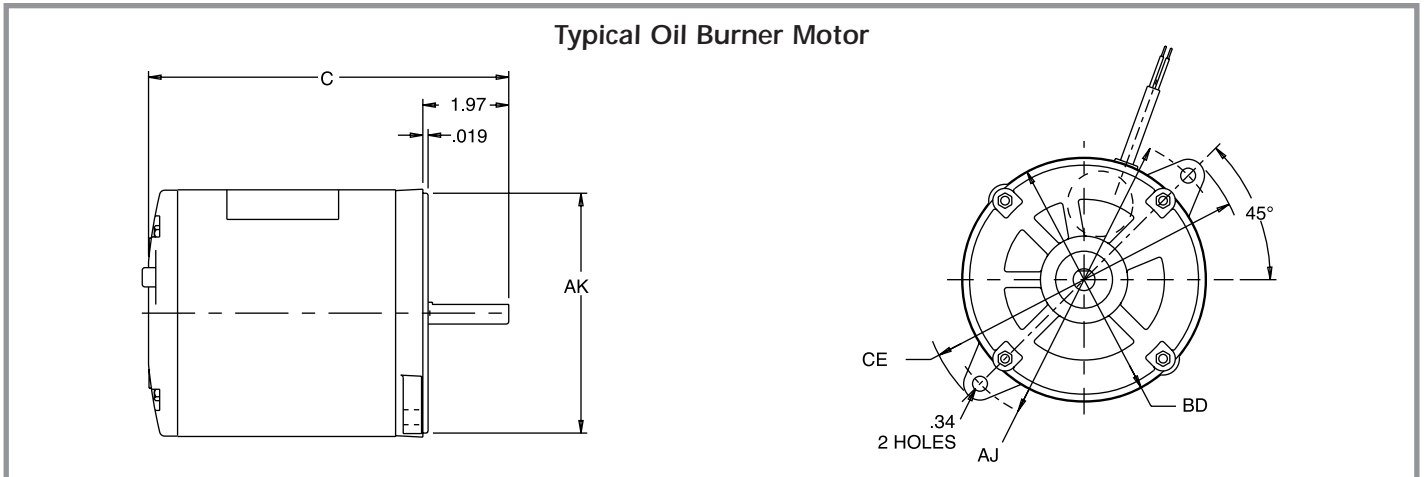
Used for prying off pulleys, fan blades, etc., from any shaft 5/8" diameter or smaller. Long 16" handle gives good leverage. Instructions included.

CAT. NO.	KIT NO.	LIST PRICE
A258	KIT 258	\$40

## Definite Purpose - Jet Pump Motors

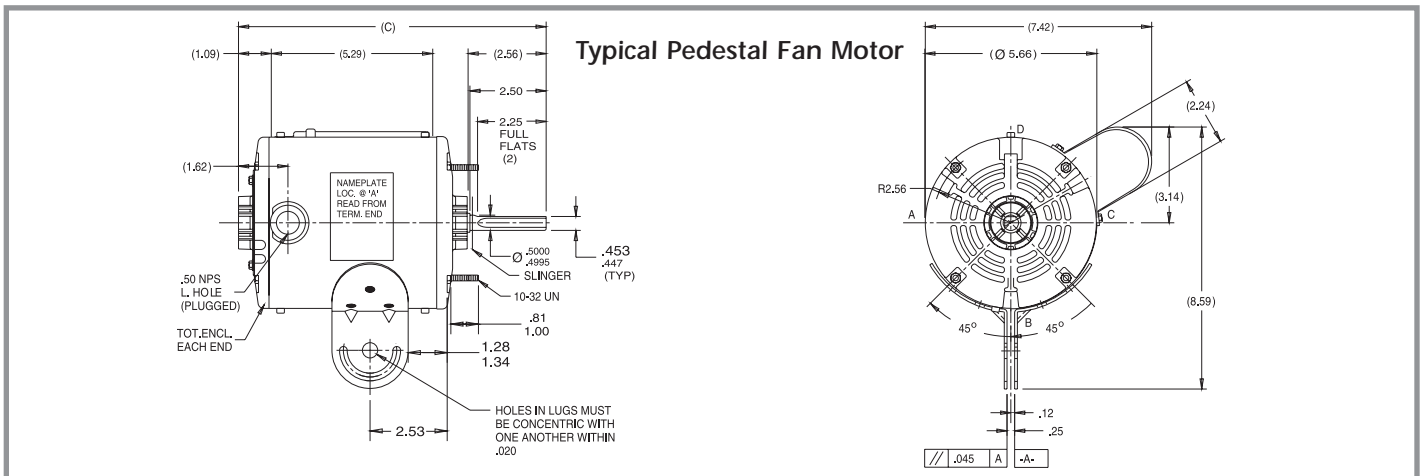


## Definite Purpose - Oil Burner Motors



FRAME	AJ	AK	BD MAX.	CE MAX.
48M	6.750	5.500	6.25	7.75
48N	7.250	6.375	7.00	8.25

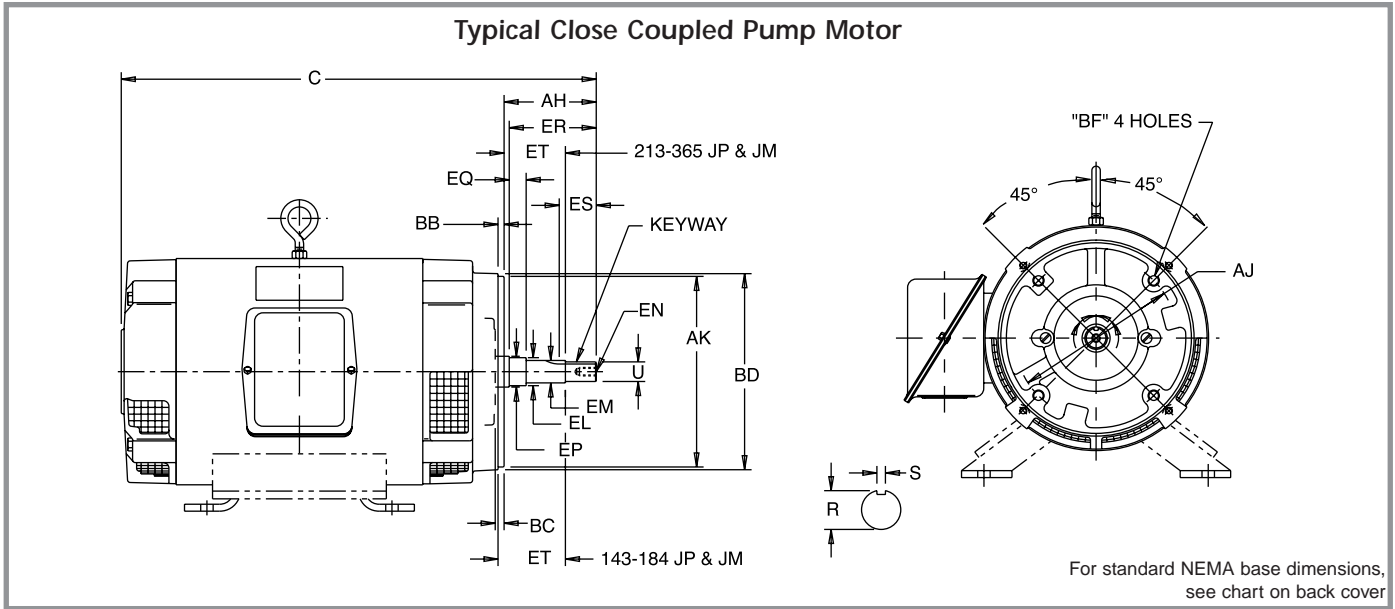
## Definite Purpose - Pedestal Fan Motors



All dimensions are measured in inches. For "C" dimensions, refer to the appropriate catalog page. Certified drawings are available upon request - contact Marathon Electric for details.

# Dimensions

## Definite Purpose - Close Coupled Pump Motors



### Dimensions for Type JM

Frame Desig.	U	AH	AJ	AK	BB	BD Max.	BF			EL	EM	EN			EP Min.	EQ	ER Min.	Keyseat			ET
							No.	Tap Size	Bolt Pen. Allow.			Tap Size	Tap Drill Depth Max.	Bolt Pen. Allow.				R	ES Min.	S	
143 & 145JM	0.8745	4.281	5.875	4.500	0.156	6.62	4	3/8-16	0.56	1.156	1.0000	3/8-16	1.12	0.75	1.156	0.640	4.25	0.771	1.65	0.190	2.890
182 & 184JM	0.8745	4.281	5.875	4.500	0.16	6.62	4	3/8-16	0.56	1.250	1.0000	3/8-16	1.12	0.75	1.250	0.640	4.25	0.771	1.65	0.190	2.890
213 & 215JM	0.8745	4.281	7.250	8.500	0.312	9.00	4	1/2-13	0.75	1.250	1.0000	3/8-16	1.12	0.75	1.750	0.640	4.25	0.771	1.65	0.190	2.890
254 & 256JM	1.2495	5.281	7.250	8.500	0.312	10.00	4	1/2-13	0.75	1.750	1.3750	1/2-13	1.50	1.00	1.750	0.640	5.25	1.112	2.53	0.252	3.015
284 & 286JM	1.2495	5.281	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	0.645	5.25	1.112	2.53	0.252	3.020
324 & 326JM	1.2495	5.281	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	0.645	5.25	1.112	2.53	0.252	3.020

### Dimensions for Type JP

Frame Desig.	U	AH	AJ	AK	BB	BD Max.	BF			EL	EM	EN			EP Min.	EQ	ER Min.	Keyseat			ET
							No.	Tap Size	Bolt Pen. Allow.			Tap Size	Tap Drill Depth Max.	Bolt Pen. Allow.				R	ES Min.	S	
143 & 145JP	0.8745	7.343	5.875	4.500	0.156	6.62	4	3/8-16	0.56	1.156	1.0000	3/8-16	1.12	0.75	1.156	1.578	7.312	0.771	1.65	0.190	5.952
182 & 184JP	0.8745	7.343	5.875	4.500	0.156	6.62	4	3/8-16	0.56	1.250	1.0000	3/8-16	1.12	0.75	1.250	1.578	7.312	0.771	1.65	0.190	5.952
213 & 215JP	1.2495	8.156	7.250	8.500	0.312	9.00	4	1/2-13	0.75	1.750	1.3750	1/2-13	1.50	1.00	1.750	2.390	8.125	1.112	2.53	0.252	5.890
254 & 256JP	1.2495	8.156	7.250	8.500	0.312	10.00	4	1/2-13	0.75	1.750	1.3750	1/2-13	1.50	1.00	1.750	2.390	8.125	1.112	2.53	0.252	5.890
284 & 286JP	1.2495	8.156	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	2.390	8.125	1.112	2.53	0.252	5.895
324JP & 326JP	1.2495	8.156	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	2.395	8.125	1.112	2.53	0.252	5.895
364JP & 365JP	1.6245	8.156	11.00	12.500	0.312	14.00	4	5/8-11	0.94	2.125	1.7500	1/2-13	1.50	1.00	2.500	2.395	8.125	1.416	2.53	0.377	5.895
	1.6240	8.094		12.495	0.250					2.13	1.7495				2.355		1.401		0.375		5.855

All dimensions are measured in inches. For "C" dimensions, refer to the appropriate catalog page. Certified drawings are available upon request - contact Marathon Electric for details.

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
A100	KIT 100	\$5.00	S4	70	A446	KIT 440-10	\$12.00	S4	71
A104	KIT 104	\$5.00	S4	70	B100	56S17D2064	\$157.00	F1	10
A105	KIT 105	\$5.00	S4	72	B193	56T34D5357	\$344.00	F1	13
A106	KIT 106	\$7.00	S4	72	B200	56S17D2049	\$149.00	F1	10
A107	KIT 107-637	\$8.00	S4	69	B201	56S17D2047	\$95.00	F1	9
A110	KIT 110	\$7.00	S4	70	B202	56S17D2048	\$110.00	F1	10
A111	KIT 111	\$11.00	S4	69	B206	48S17D2107	\$92.00	F1	9
A112	KIT 112	\$5.00	S4	70	B207	48S17D2108	\$107.00	F1	10
A113	KIT 113	\$5.00	S4	70	B208	48S17D2109	\$146.00	F1	10
A114	KIT 114	\$10.00	S4	70	B210	56C17D2100	\$171.00	F1	11
A197	KIT 197	\$17.00	S4	27	B300	48S17D2052	\$93.00	F1	9
A198	KIT 198	\$20.00	S4	72	B302	48S17D2054	\$100.00	F1	9
A199	KIT 199	\$20.00	S4	27	B303	48S17D2055	\$105.00	F1	9
A201	KIT 201	\$17.00	S4	72	B304	48S17D2056	\$115.00	F1	10
A202	KIT 202	\$20.00	S4	72	B305	48S17D2057	\$120.00	F1	10
A234	KIT 234	\$15.00	S4	27, 72	B306	48S17D2058	\$154.00	F1	10
A240	KIT 240	\$26.00	S4	69	B307	48S17D2059	\$159.00	F1	10
A241	KIT 241	\$39.00	S4	69	B308	56S17D2053	\$102.00	F1	24
A242	KIT 242	\$32.00	S4	69	B309	56S17D2054	\$108.00	F1	24
A243	KIT 243	\$10.00	S4	70	B310	56C17D5321	\$245.00	F1	11
A244	KIT 244	\$12.00	S4	70	B311	56C17D5322	\$264.00	F1	11
A245	KIT 245	\$14.00	S4	70	B313	48C17D2042	\$143.00	F1	10
A247	KIT 247	\$5.00	S4	71	B315	48C17D2044	\$167.00	F1	11
A248	KIT 248	\$5.00	S4	71	B316	56C17D2071	\$184.00	F1	11
A249	KIT 249	\$12.00	S4	69	B317	56C17D2072	\$200.00	F1	11
A250	KIT 250	\$12.00	S4	69	B318	56C17D2073	\$228.00	F1	11
A251	KIT 251	\$12.00	S4	69	B319	56C17D2074	\$244.00	F1	11
A252	KIT 252	\$12.00	S4	69	B320	56S17D2055	\$123.00	F1	24
A253	KIT 253	\$12.00	S4	69	B321	56S17D2056	\$162.00	F1	24
A254	KIT 254	\$12.00	S4	69	B322	48S17D2053	\$98.00	F1	9
A256	KIT 256	\$95.00	S4	71	B330	56C17D5316	\$305.00	F1	11
A257	KIT 257	\$30.00	S4	72	B331	56B17D5700	\$328.00	F1	11
A258	KIT 258	\$40.00	S4	72	B334	56B17D5702	\$410.00	F1	11
A259	KIT 259	\$16.00	S4	70	B336	56C17D5347	\$293.00	F1	11
A261	KIT 261	\$14.00	S4	71	B337	56C17D5348	\$272.00	F1	11
A277	KIT 277	\$16.00	S4	70	B348	56S17D2059	\$162.00	F1	10
A278	KIT 278	\$9.00	S4	69	B350	56B17D5706	\$335.00	F1	11
A279	KIT 279	\$14.00	S4	69	B352	56B17D5331	\$389.00	F1	11
A280	KIT 280	\$14.00	S4	69	B380	48S11D53	\$156.00	F1	24
A281	KIT 281	\$30.00	S4	69	B381	56S11D2021	\$185.00	F1	24
A282	KIT 282	\$27.00	S4	69	B383	48S17D7200	\$138.00	F1	9
A283	KIT 283	\$27.00	S4	69	B384	48S17D7201	\$143.00	F1	9
A371	KIT 370-3	\$6.00	S4	71	B387	56S17D7202	\$174.00	F1	10
A372	KIT 370-4	\$6.00	S4	71	B388	56S17D7203	\$179.00	F1	10
A373	KIT 370-5	\$6.00	S4	71	B389	56S17D5700	\$220.00	F1	10
A375	KIT 370-7.5	\$7.00	S4	71	B400	48S17D997	\$97.00	F1	9
A376	KIT 370-10	\$7.00	S4	71	B401	56S17D2062	\$121.00	F1	9
A378	KIT 370-15	\$12.00	S4	71	B402	48S17D7209	\$147.00	F1	9
A379	KIT 370-17.5	\$12.00	S4	71	B600	56S17D5701	\$225.00	F1	10
A380	KIT 370-20	\$14.00	S4	71	B604	48S17D7206	\$120.00	F1	9
A381	KIT 370-25	\$15.00	S4	71	B608	56C17D2113	\$208.00	F1	11
A382	KIT 370-30	\$17.00	S4	71	B609	56B17D2013	\$254.00	F1	11
A445	KIT 440-7.5	\$11.00	S4	71	B703	48N17D14	\$144.00	F1	10

# Index

## Catalog Number / Model Number

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
C380	184TTFR4380	\$510.00	E8	26	E110	213TTDW4047	\$622.00	S2	39
C381	182TTFR4320	\$520.00	E8	26	E112	215TTDW4047	\$737.00	S2	39
C382	182TTFR4340	\$465.00	E8	26	E702	145TTDR5304	\$277.00	E2	30
C383	182TTFR4345	\$465.00	E8	26	E704	182TTDR4001	\$333.00	E2	30
C384	213TTFW4380	\$650.00	E8	26	E705	184TTDR4001	\$431.00	E2	31
C385	184TTFR4320	\$555.00	E8	26	E706	213TTDW4001	\$559.00	E2	31
C386	184TTFR4340	\$490.00	E8	26	E707	215TTDW4001	\$860.00	E2	31
C387	184TTFR4345	\$490.00	E8	26	E708	254TTDX4001	\$1,014.00	E2	31
C388	215TTFW4380	\$775.00	E8	26	E709	256TTDX4001	\$1,237.00	E2	31
C389	213TTFW4320	\$721.00	E8	27	E710	284TSTDP4001	\$1,477.00	E2	31
C390	213TTFW4340	\$650.00	E8	27	E711	286TSTDP4001	\$1,889.00	E2	31
C391	213TTFW4345	\$650.00	E8	27	E712	324TSTDP4001	\$2,245.00	E2	32
C392	215TTFW4320	\$750.00	E8	27	E713	326TSTDP4001	\$2,553.00	E2	32
C393	215TTFW4340	\$715.00	E8	27	E714	364TSTDS4001	\$3,403.00	E2	32
C394	215TTFW4345	\$715.00	E8	27	E715	143TTDR5347	\$211.00	E2	29
D012	56B34D5318	\$328.00	F1	8	E716	145TTDR5630	\$230.00	E2	30
D013	56B34D5332	\$428.00	F1	8	E717	145TTDR5631	\$254.00	E2	30
D017	56B34D5302	\$455.00	F1	8	E718	182TTDB4026	\$297.00	E2	30
D018	56B34D133	\$262.00	F1	8	E719	184TTDB4026	\$323.00	E2	30
D107	48S17D2017	\$85.00	F1	9	E720	213TTDBA4026	\$449.00	E2	31
D110	48C34D2022	\$125.00	F1	11	E721	215TTDBA4026	\$577.00	E2	31
D111	56C17D2079	\$187.00	F1	11	E722	254TTDX4026	\$864.00	E2	31
D113	56C17D2080	\$231.00	F1	11	E723	256TTDX4026	\$1,055.00	E2	31
D114	56C17D5345	\$262.00	F1	11	E724	284TTDC4026	\$1,225.00	E2	31
D115	56B34D2027	\$263.00	F1	11	E725	286TTDC4026	\$1,425.00	E2	31
D116	56B34D5340	\$320.00	F1	11	E726	324TTDC4026	\$1,772.00	E2	31
D117	56C34D2095	\$162.00	F1	11	E727	326TTDC4026	\$2,066.00	E2	32
D118	56C34D2106	\$189.00	F1	11	E728	145TTDR4076	\$277.00	E2	30
D119	48C17D2055	\$154.00	F1	11	E729	182TTDR4076	\$304.00	E2	30
D127	48S17D2083	\$92.00	F1	9	E730	184TTDR4076	\$391.00	E2	30
D129	48S17D2084	\$98.00	F1	9	E731	213TTDW4076	\$528.00	E2	30
D143	48S17D2086	\$107.00	F1	10	E732	215TTDW4076	\$615.00	E2	31
D145	48S17D2027	\$113.00	F1	10	E733	254TTDX4076	\$769.00	E2	31
D149	56S17D2050	\$149.00	F1	10	E734	256TTDX4076	\$897.00	E2	31
D162	48S17D2087	\$146.00	F1	10	E735	284TTDP4076	\$1,290.00	E2	31
D163	48S17D2088	\$153.00	F1	10	E736	286TTDP4076	\$1,582.00	E2	31
D164	56S17D2060	\$194.00	F1	10	E737	324TTDP4076	\$1,877.00	E2	31
D311	56C34F5301	\$167.00	F2	25	E738	326TTDP4076	\$2,147.00	E2	31
D312	56C34F5302	\$202.00	F2	25	E739	364TTDC4036	\$2,532.00	E2	32
D313	56C34F5303	\$228.00	F2	25	E740	365TTDC4036	\$3,084.00	E2	32
D314	56B34F5326	\$287.00	F2	25	E741	404TTDS4036	\$3,933.00	E2	32
D315	56B34F5327	\$346.00	F2	25	E742	405TTDS4036	\$4,709.00	E2	32
D316	56B34F5328	\$462.00	F2	25	E743	444TTDS4036	\$6,801.00	E2	32
D390	56T34T5303	\$154.00	F2	26	E746	364TTDS4086	\$3,156.00	E2	32
D391	56T34F5301	\$171.00	F2	26	E747	365TTDS4086	\$3,686.00	E2	32
D392	56T34F5302	\$200.00	F2	26	E748	404TTDS4086	\$4,300.00	E2	32
D393	56T34F5303	\$223.00	F2	26	E753	365TSTDS4001	\$4,470.00	E2	32
D394	56T34F5304	\$266.00	F2	26	E754	404TSTDS4001	\$5,248.00	E2	32
D395	56T34F5305	\$307.00	F2	26	E755	405TSTDS4001	\$6,765.00	E2	32
D396	56T34F5306	\$341.00	F2	26	E756	444TSTDS4001	\$8,842.00	E2	32
E102	145TTDR4034	\$273.00	S2	39	E758	213TTDW4030	\$449.00	E2	31
E104	145TTDR4060	\$286.00	S2	39	E759	215TTDW4030	\$577.00	E2	31
E106	182TTDR4033	\$333.00	S2	39	E760	254TTDX4030	\$864.00	E2	31
E107	182TTDR4002	\$430.00	S2	39	E761	256TTDX4032	\$1,055.00	E2	31

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
E762	284TTDP4035	\$1,225.00	E2	31	E969	215TTFW4001	\$644.00	E8	34
E763	286TTDP4034	\$1,425.00	E2	31	E970	215TTFW4076	\$682.00	E8	33
E764	324TTDP4028	\$1,772.00	E2	32	E972	213TTFW4001	\$551.00	E8	34
E765	326TTDP4048	\$2,066.00	E2	32	E973	256TTFL4076	\$1,144.00	E8	34
E768	364TSTDC4026	\$2,532.00	E2	32	E974	256TTFL4001	\$1,173.00	E8	34
E780	404TSTDS4026	\$3,933.00	E2	32	E977	254TTFL4001	\$893.00	E8	34
E781	405TSTDS4026	\$4,709.00	E2	32	E979	145TTFR4076	\$315.00	E8	33
E782	365TSTDC4026	\$3,084.00	E2	32	E980	213TTFW4076	\$474.00	E8	33
E783	143TTDR5313	\$235.00	E2	30	E982	182TTFR4076	\$325.00	E8	33
E784	145TTDR5325	\$290.00	E2	30	E994	145TTFR4001	\$302.00	E8	33
E789	324TSTDP4032	\$1,772.00	E2	31	E995	184TTFR4076	\$357.00	E8	33
E791	326TSTDP4036	\$2,066.00	E2	32	E996	254TTFL4026	\$887.00	E8	34
E792	444TSTDS4026	\$6,801.00	E2	32	E997	254TTFL4030	\$887.00	E8	34
E799	182TTDR4083	\$304.00	E2	30	E998	256TTFL4030	\$1,092.00	E8	34
E821	215TTFW4005	\$644.00	E8	34	G044	48T17D2000	\$138.00	F1	29
E827	143TTFR4030	\$247.00	E8	33	G047	56T17D2095	\$161.00	F1	29
E832	143TTFR4001	\$260.00	E8	33	G062	56T17D2114	\$182.00	F1	29
E838	145TTFR4038	\$275.00	E8	33	G063	56T17D2094	\$182.00	F1	29
E847	145TTFR4039	\$302.00	E8	33	G065	56T17D2112	\$182.00	F1	29
E901	143TTDR5348	\$211.00	E2	29	G067	56T11D5302	\$243.00	F1	29
E902	145TTDR5632	\$230.00	E2	30	G076	48C17D2033	\$133.00	F1	12, 28
E903	145TTDR5633	\$254.00	E2	30	G078	48C17D2034	\$144.00	F1	12, 28
E904	182TTDR4027	\$297.00	E2	30	G080	56T34D5301	\$164.00	F1	29
E905	184TTDR4027	\$323.00	E2	30	G082	56T17D2111	\$203.00	F1	29
E906	213TTDBA4028	\$449.00	E2	31	G084	56T17D2093	\$203.00	F1	29
E907	215TTDW4028	\$577.00	E2	31	G086	56T17D2110	\$203.00	F1	29
E908	254TTDX4028	\$864.00	E2	31	G093	56C17D2087	\$161.00	F1	12, 28
E909	256TTDX4027	\$1,055.00	E2	31	G094	56C17D2009	\$167.00	F1	12, 28
E910	284TTDP4029	\$1,225.00	E2	31	G095	56C17D2010	\$172.00	F1	12, 28
E911	286TTDP4027	\$1,425.00	E2	31	G096	56C11D2032	\$240.00	F1	12
E912	143TTDR5351	\$211.00	E2	30	G098	48C34D2023	\$128.00	F1	12, 28
E913	145TTDR5640	\$230.00	E2	30	G100	56T17D2101	\$244.00	F1	13
E914	145TTDR5665	\$254.00	E2	30	G101	56T17D2099	\$239.00	F1	13
E915	182TTDR4030	\$297.00	E2	30	G106	56T17D2104	\$197.00	F1	13
E916	184TTDR4030	\$323.00	E2	31	G107	56T17D2097	\$218.00	F1	13
E918	184TTDR4178	\$391.00	E2	30	G109	56T17D2096	\$185.00	F1	13
E922	404TTDS6060	\$4,130.00	E2	32	G114	48C17D2036	\$123.00	F1	10
E923	405TTDS6060	\$4,944.00	E2	32	G115	48C17D2018	\$130.00	F1	10
E924	444TTDS6060	\$7,141.00	E2	32	G120	56T17D2100	\$212.00	F1	13
E925	445TTDS6060	\$9,022.00	E2	32	G122	56T17D5329	\$235.00	F1	13
E930	182TTDR6026	\$364.00	E2	30	G126	56T17D5330	\$267.00	F1	13
E931	184TTDR6026	\$389.00	E2	31	G127	56T17D5332	\$257.00	F1	13
E935	215TTDW4078	\$615.00	E2	31	G128	56T17D5333	\$290.00	F1	13
E950	143TTFR4026	\$247.00	E8	33	G135	56C17D2088	\$157.00	F1	11
E951	145TTFR4026	\$275.00	E8	33	G140	56T17D5345	\$228.00	F1	13
E952	145TTFR4027	\$302.00	E8	33	G141	56T17D5346	\$249.00	F1	13
E953	182TTFB4026	\$323.00	E8	33	G142	56T17D5347	\$254.00	F1	13
E954	184TTFB4026	\$377.00	E8	33	G143	56T17D5348	\$277.00	F1	13
E955	213TTFW4026	\$540.00	E8	34	G144	56T17D5349	\$307.00	F1	13
E956	215TTFW4026	\$654.00	E8	34	G145	56T17D5350	\$323.00	F1	13
E963	184TTFR4001	\$422.00	E8	33	G151	56C17D2025	\$187.00	F1	11
E965	256TTFL4026	\$1,092.00	E8	34	G156	56B17D2012	\$230.00	F1	11
E967	182TTFR4001	\$341.00	E8	33	G165	56T17D5702	\$269.00	F1	13



# Index

## Catalog Number / Model Number

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
G166	56T17D5703	\$269.00	F1	13	G576	56C11F5303	\$282.00	F2	25
G168	56T17D5704	\$320.00	F1	13	G577	56C11F5302	\$253.00	F2	25
G169	56T17D5705	\$320.00	F1	13	G578	56B11F5303	\$344.00	F2	25
G180	56T34D5307	\$223.00	F1	13	G579	56B11F5302	\$430.00	F2	25
G181	56T17D5706	\$331.00	F1	13	G580	56T17T5305	\$197.00	F2	26
G182	56T17D5707	\$331.00	F1	13	G581	56T17F5321	\$218.00	F2	26
G183	56T34D5308	\$266.00	F1	13	G582	56T17F5322	\$239.00	F2	26
G186	56T34D5309	\$307.00	F1	13	G583	56T17F5323	\$244.00	F2	26
G212	56C17D2084	\$144.00	F1	24	G584	56T17F5324	\$267.00	F2	26
G216	56C34D2117	\$123.00	F1	24	G585	56T17F5325	\$290.00	F2	26
G230	56C17D2085	\$169.00	F1	24	G586	56T11F5311	\$243.00	F2	26
G232	56C34D2108	\$136.00	F1	24	G587	56T11F5310	\$256.00	F2	26
G234	56C17D2044	\$198.00	F1	24	G588	56T11F5309	\$279.00	F2	26
G238	56C34D2101	\$174.00	F1	24	G589	56T11F5308	\$287.00	F2	26
G250	56B17D2011	\$243.00	F1	24	G590	56T17F5355	\$326.00	F2	26
G254	56B34D2031	\$200.00	F1	24	G905	56T17D5336	\$225.00	F1	29
G256	56C17D5310	\$261.00	F1	24	G908	56T17D5339	\$246.00	F1	29
G258	56B34D2023	\$259.00	F1	24	G910	56C17D2011	\$180.00	F1	12, 28
G270	56C17D5311	\$303.00	F1	24	G911	56C17D2012	\$197.00	F1	12, 28
G272	56B34D5319	\$318.00	F1	24	G912	56C17D2013	\$202.00	F1	8, 12, 28
G274	56B17D5303	\$370.00	F1	24	G913	56C11D5301	\$308.00	F1	28
G278	56C11D5304	\$317.00	F1	24	G915	56C34D2100	\$166.00	F1	12, 28
G301	56T11F5300	\$226.00	F1	33	G917	56B17D2008	\$226.00	F1	12, 28
G303	56T17F2034	\$170.00	F1	33	G918	56B17D2009	\$241.00	F1	12, 28
G304	56T17F2043	\$170.00	F1	33	G919	56B17D2010	\$246.00	F1	12, 28
G306	56T11F5301	\$239.00	F1	33	G921	56T17D5342	\$251.00	F1	29
G308	56T34F5328	\$154.00	F1	33	G923	56T17D5344	\$274.00	F1	30
G309	56T34F5333	\$154.00	F1	33	G930	56C11D5302	\$394.00	F1	12, 28
G321	56T17F2035	\$190.00	F1	33	G932	56B34D2030	\$188.00	F1	12, 28
G322	56T17F2044	\$190.00	F1	33	G934	56C17D5303	\$240.00	F1	12, 28
G324	56T11F5302	\$262.00	F1	33	G935	56C17D5304	\$259.00	F1	12, 28
G326	56T34F5329	\$184.00	F1	33	G936	56C17D5305	\$268.00	F1	8, 12, 28, 60
G327	56T34F5334	\$184.00	F1	33	G937	56B34D2026	\$251.00	F1	12, 28
G329	56T17F2037	\$210.00	F1	33	G939	56C17D5306	\$290.00	F1	12, 28
G340	56T17F2046	\$210.00	F1	33	G950	56C17D5307	\$302.00	F1	12, 28
G342	56T11F5303	\$271.00	F1	33	G951	56C17D5308	\$315.00	F1	8, 12, 28
G345	56T34F5335	\$207.00	F1	33	G952	56B34D5321	\$302.00	F1	12, 28
G347	56T17F5302	\$220.00	F1	33	G958	56B17D5323	\$326.00	F1	60
G348	56T17F5307	\$220.00	F1	33	G961	56T17D2118	\$185.00	F1	13
G356	56C17F5308	\$271.00	F1	61	G962	56T17D2119	\$207.00	F1	13
G360	56T11F5304	\$290.00	F1	33	G963	56T17D2120	\$212.00	F1	13
G365	56T17F5303	\$251.00	F1	33	G964	56T17D2117	\$164.00	F1	13
G373	56C17F5311	\$284.00	F1	61	G966	56T17D2098	\$207.00	F1	13
G378	56B17F5302	\$326.00	F1	61	H149	445TTDS7372	\$8,863.00	E6	32
G379	56C34F5309	\$197.00	F1	61	H150	143TTDR5376	\$228.00	E6	29
G390	56C34F5311	\$223.00	F1	61	H178	447TSTDN7001	\$12,028.00	E6	32
G396	56B17F5310	\$358.00	F1	61	H193	447TSTDN7003	\$13,727.00	E6	32
G570	56C17F5320	\$197.00	F2	25	H601	143TTDR5327	\$187.00	E6	29
G571	56C17F5321	\$226.00	F2	25	H604	145TTDR5327	\$205.00	E6	30
G572	56C17F5322	\$271.00	F2	25	H607	145TTDR5332	\$226.00	E6	30
G573	56C17F5323	\$289.00	F2	25	H613	184TTDR7627	\$284.00	E6	30
G574	56B17F5305	\$331.00	F2	25	H616	213TTDW7028	\$408.00	E6	31
G575	56B17F5306	\$415.00	F2	25	H619	215TTDW7028	\$516.00	E6	31

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
H622	254TTDX7028	\$677.00	E6	31	J040	56T34D5347	\$125.00	F1	44
H623	254TTFL5747	\$811.00	E6	34	J041	56T34D5348	\$134.00	F1	44
H625	256TTDX7358	\$843.00	E6	31	J042	56T34D5349	\$154.00	F1	44
H628	284TTDP7644	\$993.00	E6	31	J043	56T34D5350	\$177.00	F1	44
H632	286TTDP7641	\$1,160.00	E6	31	J044	56T34D5351	\$238.00	F1	44
H636	324TTDP7649	\$1,446.00	E6	31	J045	56T34D5352	\$284.00	F1	44
H640	326TTDP7626	\$1,688.00	E6	32	J046	56T34D5353	\$336.00	F1	44
H665	145TTFR5328	\$241.00	E6	33	J047	56T34D5368	\$128.00	F1	44
H666	145TTFR5330	\$265.00	E6	33	J048	56T34D5367	\$138.00	F1	44
H668	184TTFR7727	\$344.00	E6	33	J049	56T34D5365	\$157.00	F1	44
H669	213TTFW7028	\$494.00	E6	34	J050	56T34D5366	\$180.00	F1	44
H670	215TTFW7028	\$614.00	E6	34	J051	56T34D5369	\$241.00	F1	44
H700	143TTFR5376	\$264.00	E6	33	J052	56T34D5370	\$287.00	F1	44
H803	56T17D5398	\$277.00	F1	30	J053	56T34D5371	\$339.00	F1	44
H812	447TSTDN7026	\$9,832.00	E6	32	J054	56C34D2118	\$118.00	F1	43
H813	447TSTDN7027	\$10,851.00	E6	32	J055	56C34D2119	\$128.00	F1	43
H814	447TSTDN7028	\$11,516.00	E6	32	J056	56C34D2120	\$149.00	F1	43
H817	447TSTDN7005	\$15,676.00	E6	32	J057	56C34D2121	\$166.00	F1	43
I102	145TBDR5302	\$310.00	S1	12, 28	J058	56B34D2033	\$231.00	F1	43
I103	182TCDR7001	\$387.00	S1	12, 29	J059	56B34D5341	\$284.00	F1	43
I104	184TCDR7001	\$520.00	S1	13, 29	J061	56T34F5342	\$175.00	F1	45
I105	213TCDW7001	\$740.00	S1	8, 13, 29	J062	56T34F5343	\$205.00	F1	45
I110	143TCDR5326	\$244.00	S1	12, 28	J063	56T34F5344	\$228.00	F1	45
I111	145TCDR5326	\$295.00	S1	12, 28	J064	56T34F5345	\$274.00	F1	45
I112	182TCDR7026	\$344.00	S1	12, 28	J065	56T34F5346	\$315.00	F1	45
I113	184TCDR7026	\$402.00	S1	12, 29	J066	56T34F5347	\$359.00	F1	45
I114	184TBDB7026	\$488.00	S1	8, 13, 29	J070	56A34DB11011	\$160.00	F1	42
I115	215TBDW7026	\$730.00	S1	8, 13, 29	J071	56A34DB11001	\$160.00	F1	42
I116	215TBDW7028	\$940.00	S1	8, 13, 29	J072	56A34DB11004	\$190.00	F1	42
I118	145TBDR5326	\$308.00	S1	12, 28	J073	56A34DB11013	\$190.00	F1	42
I119	184TBDR7375	\$630.00	S1	8	J074	56A34DB11003	\$210.00	F1	42
I127	145TBDR5337	\$378.00	S1	8, 60	J075	56A34DB11012	\$210.00	F1	42
I128	184TBDR7631	\$441.00	S1	60	J076	56A34DB11002	\$250.00	F1	42
I130	184TBDR7630	\$478.00	S1	60	J077	56A34DB11014	\$250.00	F1	42
I131	184TBDR7632	\$636.00	S1	60	J078	56A34DB11015	\$300.00	F1	42
I146	145TCDR5331	\$298.00	S1	11	J079	56A34DB11010	\$300.00	F1	42
I147	145TBDR5345	\$313.00	S1	11	J080	56A34DB11009	\$160.00	F1	42
I314	184TBFR7041	\$637.00	S1	61	J081	56A34DB11008	\$190.00	F1	42
I315	184TBFR7034	\$760.00	S1	61	J082	56A34DB11007	\$210.00	F1	42
I702	145TBFR5336	\$418.00	S1	61	J083	56A34DB11006	\$250.00	F1	42
J009	56C34D2097	\$119.00	F1	43, 58	J084	56A34DB11005	\$300.00	F1	42
J013	56C34D2103	\$140.00	F1	43, 58	K000	56T34D5302	\$187.00	F1	29
J017	56C34D1173	\$157.00	F1	43, 58	K004	56T17D2092	\$208.00	F1	29
J019	56B34D2025	\$215.00	F1	43, 58	K009	56T34D5303	\$230.00	F1	30
J021	56B34D5325	\$267.00	F1	43, 58	K016	56B17D56	\$246.00	F1	8, 60
J023	56B34D5327	\$423.00	F1	43, 58	K022	56T17D5309	\$231.00	F1	30
J025	56C34D2111	\$109.00	F1	43, 58	K025	56T34D5304	\$271.00	F1	30
J033	56C34D2110	\$115.00	F1	43	K041	56T17D5310	\$254.00	F1	30
J034	56C34D2096	\$125.00	F1	43	K049	56T17D2130	\$208.00	F1	29
J035	56C34D2102	\$146.00	F1	43	K061	56T17D5369	\$231.00	F1	30
J036	56C34D1172	\$162.00	F1	43	K062	56T17D5370	\$254.00	F1	30
J037	56B34D2024	\$228.00	F1	43	K063	56T17D3301	\$267.00	F1	29
J038	56B34D5326	\$280.00	F1	43	K064	56T17D3302	\$283.00	F1	30

# Index

## Catalog Number / Model Number

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
K065	56T17D3303	\$303.00	F1	30	M313	182TTDB7355	\$267.00	S2	39
K066	56T17D3304	\$310.00	F1	30	M314	182TTDR7350	\$340.00	S2	39
K067	56T17D3305	\$277.00	F1	29	M315	182TTDR7325	\$356.00	S2	39
K068	56T17D3306	\$290.00	F1	30	M316	182TTDR7601	\$417.00	S2	39
K069	56T17D3307	\$313.00	F1	30	M317	184TTDB7357	\$344.00	S2	39
K080	56T17D3308	\$320.00	F1	30	M318	184TTDB7356	\$404.00	S2	39
K136	56C34D5314	\$202.00	F1	11	M319	184TTDR7322	\$413.00	S2	39
K152	56B34D5320	\$320.00	F1	11	M320	184TTDR7325	\$473.00	S2	39
K219	56B34D5336	\$449.00	F1	60	M321	213TTDBA7047	\$497.00	S2	39
K232	56B17D5322	\$421.00	F1	60	M322	213TTDW7048	\$576.00	S2	39
K319	56B17F5319	\$425.00	F1	61	M323	213TTDW7022	\$531.00	S2	39
K612	56B34F5306	\$313.00	F1	61	M324	213TTDW7023	\$609.00	S2	39
K615	56B34F5312	\$372.00	F1	61	M325	215TTDBA7047	\$590.00	S2	39
K618	56B34F5318	\$469.00	F1	61	M326	215TTDW7048	\$668.00	S2	39
K701	56T11F5307	\$307.00	F2	26	M327	215TTDW7022	\$656.00	S2	39
K703	56T17T5316	\$197.00	F2	26	M328	215TTDW7023	\$735.00	S2	39
K705	56T17F5336	\$218.00	F2	26	M329	254TTDX7044	\$797.00	S2	39
K707	56T17F5337	\$239.00	F2	26	M330	254TTDX7008	\$828.00	S2	39
K709	56T17F5338	\$244.00	F2	26	M331	256TTDX7074	\$962.00	S2	39
K722	56T17F5339	\$267.00	F2	26	M353	254TTDX7046	\$910.00	S2	39
K724	56T17F5340	\$290.00	F2	26	M360	182TTDR5336	\$267.00	S2	39
L102	182TTDR5327	\$252.00	E6	30	M361	182TTDR5337	\$327.00	S2	39
L633	182TTFR5327	\$296.00	E6	33	M362	182TTDR5303	\$344.00	S2	39
M105	145TTDR5354	\$218.00	S2	41	M363	182TTDR5304	\$404.00	S2	39
M109	145TTDR5356	\$228.00	S2	41	M401	143TTFR5332	\$249.00	S2	40
M111	145TTDR5319	\$287.00	S2	41	M402	145TTFR5336	\$272.00	S2	40
M114	182TTDR7605	\$356.00	S2	41	M403	145TTFR5303	\$315.00	S2	40
M115	184TTDR7358	\$344.00	S2	41	M404	145TTFR5338	\$285.00	S2	40
M116	184TTDR7604	\$413.00	S2	41	M405	182TTFR5302	\$362.00	S2	40
M117	213TTDW7049	\$497.00	S2	41	M407	184TTFR7908	\$444.00	S2	40
M118	213TTDW7024	\$531.00	S2	41	M408	184TTFR7760	\$431.00	S2	40
M119	215TTDW7049	\$590.00	S2	41	M409	213TTFW7022	\$536.00	S2	40
M120	215TTDW7024	\$656.00	S2	41	M410	213TTFW7047	\$613.00	S2	40
M121	254TTDX7042	\$797.00	S2	41	M411	215TTFW7303	\$656.00	S2	40
M122	254TTDX7043	\$910.00	S2	41	M412	215TTFW7047	\$733.00	S2	40
M123	254TTDX7007	\$828.00	S2	41	M413	254TTFL5004	\$821.00	S2	40
M124	256TTDX7054	\$962.00	S2	41	M414	256TTFL5023	\$1,105.00	S2	40
M170	182TTDR5338	\$267.00	S2	41	M416	184TTFR8915	\$474.00	S2	40
M172	182TTDR5305	\$344.00	S2	41	M417	215TTFW7022	\$781.00	S2	40
M213	254TTFL5003	\$821.00	S2	41	M418	145TTFR5310	\$324.00	S2	40
M216	184TTFR8914	\$474.00	S2	41	M420	254TTFL5751	\$995.00	S2	40
M217	215TTFW7024	\$781.00	S2	41	M421	256TTFL5055	\$1,208.00	S2	40
M301	143TTDR5336	\$200.00	S2	39	M422	182TTFR5330	\$331.00	S2	40
M302	143TTDR5334	\$229.00	S2	39	M423	184TTFR5302	\$431.00	S2	40
M303	143TTDR5309	\$228.00	S2	39	N307	56T17V5344	\$327.00	F3	67
M305	145TTDR5348	\$218.00	S2	39	N309	56T17V5346	\$359.00	F3	67
M306	145TTDR5346	\$247.00	S2	39	N310	143TTVR5329	\$392.00	F3	67
M307	145TTDR5313	\$256.00	S2	39	N312	145TTWR4027	\$518.00	F3	67
M308	145TTDR5314	\$286.00	S2	39	N313	56T17W5328	\$489.00	F3	67
M309	145TTDR5352	\$228.00	S2	39	N314	182TTWR4027	\$647.00	F3	67
M310	145TTDR5350	\$258.00	S2	39	N315	184TTWR4004	\$739.00	F3	67
M311	145TTDR5315	\$287.00	S2	39	N316	184TTWR4027	\$739.00	F3	67
M312	145TTDR5316	\$317.00	S2	39	N317	184TTWR4003	\$924.00	F3	67

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
N318	213TTWR4027	\$924.00	F3	67	N640	56T17V5326	\$304.00	F3	65
N319	215TTWR4027	\$1,105.00	F3	67	N641	56T17V5327	\$324.00	F3	65
N320	56T17W5340	\$343.00	F3	67	N642	56T17V5328	\$333.00	F3	65
N321	145TTWR4029	\$431.00	F3	67	N643	56T34V5301	\$337.00	F3	65
N523	56C17W5327	\$325.00	F3	64	N644	56T17V5329	\$343.00	F3	65
N524	56C34W5303	\$320.00	F3	64	N645	56T34V5302	\$393.00	F3	65
N525	56C17W5328	\$376.00	F3	64	N646	56T17V5330	\$403.00	F3	65
N526	56C34W5304	\$322.00	F3	64	N647	143TTVR5326	\$403.00	F3	65
N527	56C17W5329	\$426.00	F3	64	N648	56T34V5303	\$416.00	F3	65
N529	56C17W5330	\$546.00	F3	64	N649	56T17V5331	\$420.00	F3	65
N530	56C34W5301	\$311.00	F3	64	N650	143TTVR5327	\$420.00	F3	65
N531	56C17W5326	\$317.00	F3	64	N651	56T34V5304	\$478.00	F3	65
N532	56C34W5302	\$317.00	F3	64	N653	56T17W5326	\$518.00	F3	65
N540	56C34W5308	\$323.00	F3	64	N654	145TTWR5326	\$518.00	F3	65
N541	56C17W5333	\$373.00	F3	64	N655	145TTWR5301	\$583.00	F3	65
N542	56C34W5309	\$324.00	F3	64	N656	182TTWR7026	\$647.00	F3	65
N543	56C17W5334	\$430.00	F3	64	N657	184TTWR7001	\$814.00	F3	65
N544	56C34W5310	\$473.00	F3	64	N658	184TTWR7026	\$739.00	F3	65
N545	56C17W5335	\$549.00	F3	64	N660	213TTWR7026	\$924.00	F3	65
N553	56B17T5304	\$383.00	F3	64	N661	215TTWR7026	\$1,105.00	F3	65
N557	56C17W5331	\$320.00	F3	64	N680	56C17W5336	\$320.00	F3	65
N558	56C34W5307	\$320.00	F3	64	N682	56C17W5338	\$428.00	F3	65
N559	56C17W5332	\$329.00	F3	64	N683	145TCWR5326	\$546.00	F3	65
N564	56T17V5332	\$306.00	F3	66	N684	182TCWR7026	\$793.00	F3	65
N566	56T34V5305	\$305.00	F3	66	O002	48S17S25	\$102.00	F1	58
N567	56T17V5336	\$343.00	F3	66	O003	48S17S24	\$118.00	F1	58
N568	56T11V5376	\$427.00	F3	66	O004	48S34S2003	\$116.00	F1	58
N569	56T34V5306	\$335.00	F3	66	O005	48S34S2004	\$90.00	F1	58
N570	56T17W5334	\$336.00	F3	66	O010	48C34D2024	\$131.00	F1	58
N599	56T17V5338	\$396.00	F3	66	O011	48C34D2028	\$161.00	F1	58
N600	56T11V5377	\$465.00	F3	66	O012	48C34S24	\$120.00	F1	58
N601	56T34V5307	\$392.00	F3	66	O100	48S34S361	\$97.00	F1	58
N602	56T17V5340	\$414.00	F3	66	O102	48S34S2005	\$103.00	F1	58
N604	56T11W5377	\$499.00	F3	66	O200	56S34D2000	\$98.00	F1	58
N605	56T34V5308	\$434.00	F3	66	O210	56C34D2114	\$109.00	F1	58
N606	56T17V5342	\$431.00	F3	66	O211	56C34D2109	\$114.00	F1	58
N607	145TTVR5326	\$431.00	F3	66	O212	56C34D2098	\$119.00	F1	58
N608	56T11W5378	\$527.00	F3	66	O213	56C34D2099	\$124.00	F1	58
N609	56T34V5309	\$481.00	F3	66	O214	56C34D2104	\$140.00	F1	58
N610	145TTVR5302	\$481.00	F3	66	O215	56C34D2112	\$145.00	F1	58
N611	56T17W5327	\$495.00	F3	66	O217	56C34D2105	\$162.00	F1	58
N612	145TTWR4026	\$533.00	F3	66	O231	56B34D2028	\$220.00	F1	58
N613	145TTWR4001	\$629.00	F3	66	O600	48S17T286	\$79.00	F1	58
N614	182TTWR4026	\$701.00	F3	66	O601	48S17T290	\$85.00	F1	58
N615	184TTWR4001	\$878.00	F3	66	O700	48A34SU1000	\$89.00	F1	59
N616	184TTWR4026	\$793.00	F3	66	O701	48A34SU1001	\$84.00	F1	59
N617	213TTWR4002	\$1,090.00	F3	66	P001	56T34D5310	\$115.00	F1	44, 59
N618	213TTWR4026	\$1,005.00	F3	66	P002	56T34D5311	\$125.00	F1	44, 59
N619	215TTWR4026	\$1,143.00	F3	66	P003	56T34D5312	\$144.00	F1	44, 59
N620	56T17W5333	\$306.00	F3	66	P004	56T34D5313	\$167.00	F1	44, 59
N622	56T17V5337	\$343.00	F3	66	P005	56T34D5314	\$225.00	F1	44, 59
N624	56T17V5341	\$414.00	F3	66	P006	56T34D5315	\$271.00	F1	44, 59
N626	143TTWR4028	\$414.00	F3	66	P007	56T34D5316	\$313.00	F1	44, 59

# Index

## Catalog Number / Model Number

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
P101	56T34T5306	\$146.00	F1	45	U421	145TTDR4127	\$332.00	E2	30
P102	56T34F5321	\$162.00	F1	45	U422	145TTDR4134	\$345.00	E2	30
P103	56T34F5322	\$192.00	F1	45	U423	145TTDR4132	\$345.00	E2	30
P104	56T34F5323	\$215.00	F1	45	U424	145TTDR4133	\$357.00	E2	30
P105	56T34F5324	\$250.00	F1	45	U425	182TTDR4074	\$406.00	E2	30
P106	56T34F5325	\$290.00	F1	45	U426	182TTDR4156	\$406.00	E2	30
P107	56T34F5326	\$315.00	F1	45	U427	184TTDR4153	\$460.00	E2	30
S003	48S17D2089	\$80.00	F1	12, 28	U428	184TTDR4166	\$460.00	E2	31
S006	48S17D2090	\$89.00	F1	12, 28	U430	213TTDW4054	\$655.00	E2	31
S010	48C17D2023	\$120.00	F1	12, 28	U630	213TTFW4030	\$540.00	E8	34
S011	48C17D2024	\$126.00	F1	12, 28	U632	254TTFW4076	\$897.00	E8	34
S012	56C17D2098	\$148.00	F1	12, 28	U640	215TTFW4030	\$654.00	E8	34
S013	56C17D2051	\$154.00	F1	12, 28	U670	215TTFW4007	\$893.00	E8	34
S014	56C17D2054	\$177.00	F1	12, 28	U763	213TTDC6026	\$562.00	E2	31
S015	56C17D2055	\$184.00	F1	12, 28	U765	215TTDC6026	\$664.00	E2	31
S022	56S17D2046	\$113.00	F1	12, 28	U767	254TTDC6026	\$884.00	E2	31
S030	48C17D2027	\$144.00	F1	12, 28	U769	256TTDC6026	\$1,079.00	E2	31
S033	56C17D2064	\$172.00	F1	12, 28	U771	284TTDC6026	\$1,344.00	E2	31
S036	56C17D2067	\$202.00	F1	12, 28	U773	286TTDC6026	\$1,458.00	E2	31
S037	56C17D5319	\$238.00	F1	12, 28	U775	324TTDC6026	\$1,922.00	E2	31
S038	56C17D5343	\$244.00	F1	12, 28	U777	326TTDC6026	\$2,322.00	E2	32
S039	56C17D5320	\$262.00	F1	12, 28	U779	364TTDC6060	\$2,556.00	E2	32
S102	48S17D2042	\$84.00	F1	9	U783	365TTDC6060	\$3,153.00	E2	32
S106	48S17D2093	\$92.00	F1	10	U867	182TTFS4557	\$600.00	S3	36
S110	48C17D2028	\$123.00	F1	11	U868	184TTFS4555	\$655.00	S3	36
S111	48C17D2029	\$130.00	F1	11	U869	213TTFS4550	\$827.00	S3	36
S112	56C17D2097	\$151.00	F1	11	U870	215TTFS4546	\$947.00	S3	36
S113	56C17D2099	\$157.00	F1	11	U871	254TTFNA4549	\$1,222.00	S3	36
S114	56C17D2060	\$180.00	F1	11	U872	256TTFNA4532	\$1,437.00	S3	36
S115	56C17D2061	\$187.00	F1	11	U873	284TTFPA4545	\$1,703.00	S3	36
S116	56C17D5339	\$241.00	F1	11	U874	286TTFPA4544	\$1,993.00	S3	36
S117	56C17D5340	\$248.00	F1	11	U875	324TTFPA4540	\$2,583.00	S3	36
S118	48C17D2045	\$116.00	F1	10	U876	326TTFPA4550	\$3,193.00	S3	36
S119	48C17D2046	\$123.00	F1	10	U877	364TTFS4550	\$4,553.00	S3	36
S120	56S17D2023	\$116.00	F1	10	U878	365TTFS4560	\$5,668.00	S3	36
S126	48S17D2104	\$89.00	F1	9	U879	405TTFS4560	\$7,019.00	S3	36
S127	48S17D2105	\$97.00	F1	10	U880	444TTFS4546	\$9,036.00	S3	36
S128	48S17D2106	\$118.00	F1	10	U881	445TTFN4826	\$10,760.00	S3	36
T010	56C17F5351	\$259.00	F1	68	U882	445TTFN4574	\$12,844.00	S3	36
T013	56C34F5340	\$235.00	F1	68	U884	445TTFN4575	\$14,512.00	S3	36
T014	56C17F5350	\$303.00	F1	68	U907	213TTDW4078	\$528.00	E2	30
T015	56C34F5339	\$261.00	F1	68	X000	48A11OB1798	\$98.00	F1	21
T016	56C17F5349	\$321.00	F1	68	X001	48A11O1799	\$101.00	F1	21
T017	56B34F5332	\$320.00	F1	68	X002	48A11OB1769	\$105.00	F1	21
T018	56B17F5328	\$390.00	F1	68	X003	48A11OB2042	\$107.00	F1	21
T019	56B34F5333	\$349.00	F1	68	X004	48A11OB1755	\$118.00	F1	21
T030	56B17F5329	\$430.00	F1	68	X005	48A11O1756	\$120.00	F1	21
T031	145TBFR5309	\$483.00	S1	68	X006	48A11O2001	\$96.00	F1	21
U400	445TSTDS4026	\$8,592.00	E2	32	X009	48A11O787	\$138.00	F1	21
U417	143TTDR4052	\$301.00	E2	29	X010	48A11O2046	\$140.00	F1	21
U418	143TTDR4051	\$313.00	E2	29	X011	48A17O2005	\$111.00	F1	16, 21
U419	145TTDR4128	\$320.00	E2	30	X012	48A17O2006	\$104.00	F1	16, 21
U420	145TTDR4126	\$320.00	E2	30	X013	48A17O152	\$102.00	F1	21



CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
X014	48A17O154	\$104.00	F1	21	X086	48A8O2001	\$156.00	F1	16
X015	48A17O151	\$108.00	F1	21	X087	48A11O2029	\$94.00	F1	16
X016	48A17O153	\$121.00	F1	21	X088	48A11O2032	\$101.00	F1	16
X017	48A17O155	\$123.00	F1	21	X089	48A11O2035	\$114.00	F1	16
X018	48A11O1350	\$105.00	F1	21	X090	48A11O2007	\$147.00	F1	16
X019	48A11O1351	\$112.00	F1	21	X096	48A11O840	\$135.00	F1	16
X020	48A11O1352	\$125.00	F1	21	X097	48A8O182	\$139.00	F1	16
X021	48A11O1353	\$144.00	F1	21	X098	48A8O181	\$187.00	F1	16
X022	48A17O174	\$135.00	F1	21	X099	48A11O2016	\$157.00	F1	16
X023	48A11O1583	\$160.00	F1	21	X200	48A11O1060	\$104.00	F1	55
X033	48A11O1674	\$102.00	F1	21, 55	X202	48A11O1063	\$98.00	F1	51
X034	48A11O1773	\$113.00	F1	22	X203	48A11O1062	\$152.00	F1	48
X035	48A11O1774	\$121.00	F1	22	X204	48A17O126	\$123.00	F1	47
X036	48A11O1772	\$134.00	F1	22	X205	56A11O5312	\$257.00	F1	51
X037	48A11O1876	\$211.00	F1	22	X206	56A11O5310	\$280.00	F1	18
X038	48A11O1874	\$215.00	F1	22	X207	56A11O5311	\$266.00	F1	18
X039	48A11O1875	\$219.00	F1	22	X208	56A8O5	\$287.00	F1	16
X040	48A17O69	\$115.00	F1	23	X209	48A8O183	\$134.00	F1	21, 54
X041	48A17O70	\$121.00	F1	23	X210	48A11O1068	\$103.00	F1	48
X042	48A11O653	\$105.00	F1	23	X211	48A17O125	\$175.00	F1	21, 50
X043	48A11O654	\$105.00	F1	23	X212	48A11O1065	\$102.00	F1	55
X044	48A11O655	\$112.00	F1	23	X213	48A11O1524	\$91.00	F1	16
X045	48A11O656	\$118.00	F1	23	X214	48A11O1525	\$98.00	F1	16
X049	48A11O773	\$94.00	F1	23	X215	48A11O1081	\$102.00	F1	55
X050	48A11O774	\$101.00	F1	23	X216	48A11O1097	\$94.00	F1	17, 55
X052	48A11O775	\$107.00	F1	23	X217	48A17O129	\$119.00	F1	52
X056	48A11O901	\$103.00	F1	23	X218	56A11O5313	\$271.00	F1	55
X058	48A17O2001	\$136.00	F1	23	X219	48A11O2047	\$93.00	F1	21
X059	48A17O2002	\$104.00	F1	23	X221	48A11O1526	\$111.00	F1	16
X060	48A17O2003	\$111.00	F1	23	X222	48A11O1109	\$128.00	F1	48
X061	48A11O2022	\$112.00	F1	23	X223	48A11O2050	\$103.00	F1	48
X062	48A11O2009	\$133.00	F1	23	X225	48A11O1176	\$144.00	F1	51
X063	48A11O2028	\$149.00	F1	23	X230	48A17O136	\$127.00	F1	52, 62
X064	48A11O2011	\$93.00	F1	23	X231	48A11O1179	\$121.00	F1	47
X065	48A11O2012	\$93.00	F1	23	X233	48A11T342	\$136.00	F1	51
X066	48A11O2013	\$101.00	F1	23	X235	56T11D5209	\$330.00	F1	49
X067	48A11O2014	\$122.00	F1	23	X236	48A11O699	\$122.00	F1	21, 47, 54
X068	48A11O2015	\$139.00	F1	23	X241	48A11O697	\$157.00	F1	21, 47
X069	48A17O2004	\$125.00	F1	23	X242	48A11O756	\$266.00	F1	21, 47
X070	48A11O2024	\$118.00	F1	23	X251	56T34D5364	\$461.00	F1	13, 49
X071	48A11O2026	\$133.00	F1	23	X258	48A11O1167	\$104.00	F1	23
X072	48A11T646	\$135.00	F1	14	X259	56T11O15	\$176.00	F1	54
X073	48A11O11064	\$105.00	F1	15	X260	48A11O251	\$130.00	F1	52
X074	48A11O11042	\$122.00	F1	15	X261	48A8O151	\$137.00	F1	52
X075	48A11O11063	\$130.00	F1	15	X262	48A11D245	\$128.00	F1	62
X076	48A11T11006	\$145.00	F1	14	X263	48A11O11041	\$122.00	F1	62
X077	48A11O11066	\$102.00	F1	15	X264	48A11O11040	\$124.00	F1	62
X080	48A11O2030	\$103.00	F1	16	X268	48A11O1239	\$156.00	F1	57, 62
X081	48A11O2031	\$116.00	F1	16	X269	48A17O147	\$142.00	F1	54, 62
X082	48A11O2033	\$112.00	F1	16	X270	48A17O149	\$152.00	F1	56, 62
X083	48A11O2034	\$123.00	F1	16	X271	56A11O5305	\$320.00	F1	18
X084	48A11O663	\$126.00	F1	16	X273	48A17O161	\$96.00	F1	48
X085	48A11O678	\$156.00	F1	16	X274	48A11T407	\$127.00	F1	51



# Index

## Catalog Number / Model Number

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
X278	48A8O206	\$127.00	F1	17, 55	X454	48A17O250	\$176.00	F1	16
X281	48A11O1408	\$111.00	F1	54	X455	48A11O1770	\$157.00	F1	16
X290	48S11D58	\$109.00	F1	50	X456	48A11T578	\$123.00	F1	18
X294	48A11O1377	\$195.00	F1	48	X457	48A11T579	\$130.00	F1	18
X295	48A11O1410	\$139.00	F1	57	X458	48A11T580	\$144.00	F1	18
X297	48A11T509	\$99.00	F1	17, 55	X459	48A11T581	\$162.00	F1	18
X298	48A11O2059	\$130.00	F1	16	X462	48A11T619	\$192.00	F1	18
X301	48A17T72	\$103.00	F1	63	X463	48A17T356	\$116.00	F1	18
X302	48A11T199	\$107.00	F1	63	X464	48A17T359	\$140.00	F1	18
X303	48A11T198	\$113.00	F1	63	X465	48A8T11002	\$109.00	F1	18
X304	48A11T201	\$126.00	F1	63	X500	56T11O5300	\$261.00	F1	20
X305	48A17T2001	\$116.00	F1	63	X501	56T11O5301	\$289.00	F1	20
X306	48A11T2005	\$120.00	F1	63	X502	56T11O5302	\$302.00	F1	20
X307	48A11T2006	\$126.00	F1	63	X503	56T11O5303	\$330.00	F1	20
X308	48A11T2007	\$139.00	F1	63	X506	56T8O5301	\$382.00	F1	20
X400	48A11O2017	\$136.00	F1	16	X507	56T8O5302	\$397.00	F1	20, 62
X405	48A11O1744	\$167.00	F1	48	X509	56T11O5304	\$358.00	F1	20
X411	48A11T2008	\$94.00	F1	18, 54	X511	56T8O5303	\$328.00	F1	20
X412	48A11T568	\$103.00	F1	18	X513	56T11O5305	\$307.00	F1	20
X412	48A11TB569	\$103.00	F1	18	X522	56T11O5308	\$302.00	F1	20
X413	48A11TB529	\$110.00	F1	18	X523	56T11O5306	\$333.00	F1	20, 62
X414	48A11T530	\$122.00	F1	18	X524	56T11O5307	\$330.00	F1	20
X414	48A11TB571	\$122.00	F1	18	X525	56T11O5310	\$361.00	F1	20, 62
X415	48A11T2012	\$131.00	F1	18	X526	56T11O5309	\$358.00	F1	20
X416	48A11T2013	\$144.00	F1	18	X527	56T8O5304	\$397.00	F1	20
X417	48A11O2051	\$103.00	F1	21	X528	56T8O5306	\$408.00	F1	20, 62
X418	48A11O2052	\$109.00	F1	21	X529	56T8O5531	\$364.00	F1	20, 62
X419	48A11O2053	\$122.00	F1	21	X530	56T8O5307	\$427.00	F1	20
X420	48A17O169	\$139.00	F1	16	X531	56T8O15504	\$444.00	F1	20, 62
X422	48A17O172	\$176.00	F1	16	X532	56T11O11001	\$250.00	F1	20
X423	48A11O2055	\$107.00	F1	16	X533	56T11O11002	\$269.00	F1	20
X424	48A11O2054	\$121.00	F1	16	X600	48C17D2057	\$169.00	F1	46, 53
X426	48A11O1375	\$190.00	F1	16, 62	X601	56C17D2101	\$200.00	F1	46, 53
X427	48A11T2017	\$107.00	F1	18	X602	56C17D2102	\$246.00	F1	46, 53
X428	48A11T2018	\$119.00	F1	18	X603	56C17D5346	\$310.00	F1	46, 53
X429	48A11T2020	\$113.00	F1	18	X605	48T17D2002	\$189.00	F1	46, 53
X430	48A11T463	\$123.00	F1	18	X606	56T17D3318	\$220.00	F1	46, 53
X431	48A11O1461	\$186.00	F1	19	X607	56T17D3320	\$264.00	F1	46, 53
X432	56A11O29	\$236.00	F1	19	X608	56T17D3319	\$320.00	F1	46, 53
X433	56A11O30	\$280.00	F1	19	X609	56T11D5317	\$410.00	F1	46, 53
X440	48A11O2065	\$84.00	F1	17	X610	56T34D5375	\$230.00	F1	46, 53
X441	48A11O2062	\$103.00	F1	17	X700	48S17D2102	\$82.00	F1	56, 68
X442	48A11O2064	\$110.00	F1	17	X701	48S17D1084	\$89.00	F1	56, 68
X443	48A11O2063	\$122.00	F1	17	X920	48A17T2005	\$143.00	F1	59
X444	48A11O1596	\$162.00	F1	17	X921	48A17T2006	\$156.00	F1	59
X445	48A11O1732	\$144.00	F1	19	X922	48A17T2007	\$172.00	F1	59
X446	48A11O1643	\$158.00	F1	19	X923	48A11T2024	\$167.00	F1	59
X447	48A11O1642	\$212.00	F1	19	X924	48A11T2025	\$180.00	F1	59
X448	56A11O5314	\$229.00	F1	19	X925	48A11T2026	\$201.00	F1	59
X450	48A8T71	\$116.00	F1	18	Y380	184TTFS7290	\$929.00	S3	37
X451	48A8T72	\$122.00	F1	18	Y381	213TTFS7238	\$1,027.00	S3	37
X452	48A8T73	\$150.00	F1	18	Y382	215TTFS7290	\$1,331.00	S3	37
X453	48A11O1771	\$136.00	F1	16	Y383	254TTFNA7210	\$1,604.00	S3	37

CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	CATALOG NO.	MODEL NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
Y384	256TTFNA7250	\$2,004.00	S3	37					
Y385	284TTFNA7240	\$2,500.00	S3	37					
Y386	286TTFNA7260	\$2,918.00	S3	37					
Y387	324TTFS7290	\$3,561.00	S3	37					
Y388	326TTFS9210	\$4,450.00	S3	37					
Y389	364TTFS9234	\$5,660.00	S3	37					
Y390	365TTFS9230	\$8,192.00	S3	37					
Y391	405TTFS7297	\$10,596.00	S3	37					
Y392	444TTFS7262	\$12,816.00	S3	37					
Y409	182TTDR7211	\$637.00	S3	35					
Y412	184TTDR7215	\$663.00	S3	35					
Y415	215TTDW7203	\$928.00	S3	35					
Y418	254TTDX7208	\$1,151.00	S3	35					
Y449	145TTDR5703	\$527.00	S3	35					
Y450	145TTDR5704	\$527.00	S3	35					
Y451	145TTDR5705	\$578.00	S3	35					
Y452	145TTDR5706	\$578.00	S3	35					
Y453	182TTDR7413	\$637.00	S3	35					
Y454	184TTDR7286	\$663.00	S3	35					
Y455	215TTDW7204	\$928.00	S3	35					
Y456	254TTDX7278	\$1,151.00	S3	35					
Y458	256TTDX7264	\$1,427.00	S3	35					
Y459	284TTDP7221	\$1,909.00	S3	35					
Y465	145TTDR5701	\$527.00	S3	35					
Y466	145TTDR5702	\$578.00	S3	35					
Y467	182TTDR7411	\$637.00	S3	35					
Y468	184TTDR7230	\$663.00	S3	35					
Y469	215TTDW7205	\$928.00	S3	35					
Y470	254TTDX7201	\$1,151.00	S3	35					
Y471	256TTDX7253	\$1,427.00	S3	35					
Y484	182TTDR7412	\$437.00	S3	35					
Y485	182TTDR7203	\$437.00	S3	35					
Y486	184TTDR7287	\$612.00	S3	35					
Y487	184TTDR7209	\$612.00	S3	35					
Y488	213TTDW7202	\$759.00	S3	35					
Y489	213TTDW7201	\$759.00	S3	35					
Z405	182TCDR7074	\$385.00	S2	38					
Z406	182TCDR7318	\$428.00	S2	38					
Z407	184TCDR7047	\$500.00	S2	38					
Z408	184TCDR7011	\$626.00	S2	38					
Z409	213TCDW7027	\$687.00	S2	38					
Z410	213TCDW7002	\$782.00	S2	38					
Z411	215TBDW7029	\$949.00	S2	38					
Z412	215TCDW7002	\$1,006.00	S2	38					
Z413	215TBDW7027	\$1,151.00	S2	38					
Z427	184TCDR7909	\$626.00	S2	40					
Z429	213TCDW7003	\$782.00	S2	40					
Z431	215TCDW7004	\$1,006.00	S2	40					
Z433	184TBFR7315	\$648.00	S2	38					
Z434	213TBFW7010	\$870.00	S2	38					
Z435	215TBFW7010	\$1,060.00	S2	38					
Z502	184TBDR5326	\$395.00	S1	8					
Z504	184TBDR5301	\$555.00	S1	8					

# Index

## Model Number / Catalog Number

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
48A34SU1000	O700	\$89.00	F1	59	48A11O2001	X006	\$96.00	F1	21
48A34SU1001	O701	\$84.00	F1	59	48A11O2007	X090	\$147.00	F1	16
48A11D245	X262	\$128.00	F1	62	48A11O2008	Replaced by 48A11O2022			
48A11O1060	X200	\$104.00	F1	55	48A11O2009	X062	\$133.00	F1	23
48A11O1062	X203	\$152.00	F1	48	48A11O2010	Replaced by 48A11O2028			
48A11O1063	X202	\$98.00	F1	51	48A11O2011	X064	\$93.00	F1	23
48A11O1065	X212	\$102.00	F1	55	48A11O2012	X065	\$93.00	F1	23
48A11O1068	X210	\$103.00	F1	48	48A11O2013	X066	\$101.00	F1	23
48A11O1081	X215	\$102.00	F1	55	48A11O2014	X067	\$122.00	F1	23
48A11O1097	X216	\$94.00	F1	17, 55	48A11O2015	X068	\$139.00	F1	23
48A11O11040	X264	\$124.00	F1	62	48A11O2016	X099	\$157.00	F1	16
48A11O11041	X263	\$122.00	F1	62	48A11O2017	X400	\$136.00	F1	16
48A11O11042	X074	\$122.00	F1	15	48A11O2022	X061	\$112.00	F1	23
48A11O11063	X075	\$130.00	F1	15	48A11O2024	X070	\$118.00	F1	23
48A11O11064	X073	\$105.00	F1	15	48A11O2026	X071	\$133.00	F1	23
48A11O11066	X077	\$102.00	F1	15	48A11O2028	X063	\$149.00	F1	23
48A11O1109	X222	\$128.00	F1	48	48A11O2029	X087	\$94.00	F1	16
48A11O1167	X258	\$104.00	F1	23	48A11O2030	X080	\$103.00	F1	16
48A11O1176	X225	\$144.00	F1	51	48A11O2031	X081	\$116.00	F1	16
48A11O1179	X231	\$121.00	F1	47	48A11O2032	X088	\$101.00	F1	16
48A11O1239	X268	\$156.00	F1	57, 62	48A11O2033	X082	\$112.00	F1	16
48A11O1350	X018	\$105.00	F1	21	48A11O2034	X083	\$123.00	F1	16
48A11O1351	X019	\$112.00	F1	21	48A11O2035	X089	\$114.00	F1	16
48A11O1352	X020	\$125.00	F1	21	48A11O2042	Replaced by 48A11OB2042			
48A11O1353	X021	\$144.00	F1	21	48A11O2046	X010	\$140.00	F1	21
48A11O1375	X426	\$190.00	F1	16, 62	48A11O2047	X219	\$93.00	F1	21
48A11O1377	X294	\$195.00	F1	48	48A11O2050	X223	\$103.00	F1	48
48A11O1408	X281	\$111.00	F1	54	48A11O2051	X417	\$103.00	F1	21
48A11O1410	X295	\$139.00	F1	57	48A11O2052	X418	\$109.00	F1	21
48A11O1461	X431	\$186.00	F1	19	48A11O2053	X419	\$122.00	F1	21
48A11O1524	X213	\$91.00	F1	16	48A11O2054	X424	\$121.00	F1	16
48A11O1525	X214	\$98.00	F1	16	48A11O2055	X423	\$107.00	F1	16
48A11O1526	X221	\$111.00	F1	16	48A11O2059	X298	\$130.00	F1	16
48A11O1583	X023	\$160.00	F1	21	48A11O2062	X441	\$103.00	F1	17
48A11O1596	X444	\$162.00	F1	17	48A11O2063	X443	\$122.00	F1	17
48A11O1642	X447	\$212.00	F1	19	48A11O2064	X442	\$110.00	F1	17
48A11O1643	X446	\$158.00	F1	19	48A11O2065	X440	\$84.00	F1	17
48A11O1674	X033	\$102.00	F1	21, 55	48A11O251	X260	\$130.00	F1	52
48A11O1732	X445	\$144.00	F1	19	48A11O636	Replaced by 48A11O1799			
48A11O1744	X405	\$167.00	F1	48	48A11O638	Replaced by 48A11O2042			
48A11O1755	Replaced by 48A11OB1755				48A11O639	Replaced by 48A11O1755			
48A11O1756	X005	\$120.00	F1	21	48A11O640	Replaced by 48A11O1756			
48A11O1769	Replaced by 48A11OB1769				48A11O653	X042	\$105.00	F1	23
48A11O1770	X455	\$157.00	F1	16	48A11O654	X043	\$105.00	F1	23
48A11O1771	X453	\$136.00	F1	16	48A11O655	X044	\$112.00	F1	23
48A11O1772	X036	\$134.00	F1	22	48A11O656	X045	\$118.00	F1	23
48A11O1773	X034	\$113.00	F1	22	48A11O660	Replaced by 48A11O2030			
48A11O1774	X035	\$121.00	F1	22	48A11O661	Replaced by 48A11O2033			
48A11O1798	Replaced by 48A11OB1798				48A11O662	Replaced by 48A11O2034			
48A11O1799	X001	\$101.00	F1	21	48A11O663	X084	\$126.00	F1	16
48A11O1874	X038	\$215.00	F1	22	48A11O678	X085	\$156.00	F1	16
48A11O1875	X039	\$219.00	F1	22	48A11O679	Replaced by 48A11O2031			
48A11O1876	X037	\$211.00	F1	22	48A11O697	X241	\$157.00	F1	21, 47

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
48A11O699	X236	\$122.00	F1	21, 47, 54	48A17O153	X016	\$121.00	F1	21
48A11O756	X242	\$266.00	F1	21, 47	48A17O154	X014	\$104.00	F1	21
48A11O773	X049	\$94.00	F1	23	48A17O155	X017	\$123.00	F1	21
48A11O774	X050	\$101.00	F1	23	48A17O161	X273	\$96.00	F1	48
48A11O775	X052	\$107.00	F1	23	48A17O169	X420	\$139.00	F1	16
48A11O787	X009	\$138.00	F1	21	48A17O172	X422	\$176.00	F1	16
48A11O788	Replaced by 48A11O2046				48A17O174	X022	\$135.00	F1	21
48A11O840	X096	\$135.00	F1	16	48A17O2001	X058	\$136.00	F1	23
48A11O901	X056	\$103.00	F1	23	48A17O2002	X059	\$104.00	F1	23
48A11OB1755	X004	\$118.00	F1	21	48A17O2003	X060	\$111.00	F1	23
48A11OB1769	X002	\$105.00	F1	21	48A17O2004	X069	\$125.00	F1	23
48A11OB1798	X000	\$98.00	F1	21	48A17O2005	X011	\$111.00	F1	16, 21
48A11OB2042	X003	\$107.00	F1	21	48A17O2006	X012	\$104.00	F1	16, 21
48A11T11006	X076	\$145.00	F1	14	48A17O250	X454	\$176.00	F1	16
48A11T198	X303	\$113.00	F1	63	48A17O69	X040	\$115.00	F1	23
48A11T199	X302	\$107.00	F1	63	48A17O70	X041	\$121.00	F1	23
48A11T2005	X306	\$120.00	F1	63	48A17T2001	X305	\$116.00	F1	63
48A11T2006	X307	\$126.00	F1	63	48A17T2005	X920	\$143.00	F1	59
48A11T2007	X308	\$139.00	F1	63	48A17T2006	X921	\$156.00	F1	59
48A11T2008	X411	\$94.00	F1	18, 54	48A17T2007	X922	\$172.00	F1	59
48A11T201	X304	\$126.00	F1	63	48A17T356	X463	\$116.00	F1	18
48A11T2012	X415	\$131.00	F1	18	48A17T359	X464	\$140.00	F1	18
48A11T2013	X416	\$144.00	F1	18	48A17T72	X301	\$103.00	F1	63
48A11T2017	X427	\$107.00	F1	18	48A8O111	Replaced by 48A8O2001			
48A11T2018	X428	\$119.00	F1	18	48A8O151	X261	\$137.00	F1	52
48A11T2020	X429	\$113.00	F1	18	48A8O181	X098	\$187.00	F1	16
48A11T2024	X923	\$167.00	F1	59	48A8O182	X097	\$139.00	F1	16
48A11T2025	X924	\$180.00	F1	59	48A8O183	X209	\$134.00	F1	21, 54
48A11T2026	X925	\$201.00	F1	59	48A8O2001	X086	\$156.00	F1	16
48A11T342	X233	\$136.00	F1	51	48A8O206	X278	\$127.00	F1	17, 55
48A11T407	X274	\$127.00	F1	51	48A8T11002	X465	\$109.00	F1	18
48A11T463	X430	\$123.00	F1	18	48A8T71	X450	\$116.00	F1	18
48A11T509	X297	\$99.00	F1	17, 55	48A8T72	X451	\$122.00	F1	18
48A11T529	Replaced by 48A11TB529				48A8T73	X452	\$150.00	F1	18
48A11T530	X414	\$122.00	F1	18	48C17D2018	G115	\$130.00	F1	10
48A11T568	X412	\$103.00	F1	18	48C17D2023	S010	\$120.00	F1	12, 28
48A11T578	X456	\$123.00	F1	18	48C17D2024	S011	\$126.00	F1	12, 28
48A11T579	X457	\$130.00	F1	18	48C17D2027	S030	\$144.00	F1	12, 28
48A11T580	X458	\$144.00	F1	18	48C17D2028	S110	\$123.00	F1	11
48A11T581	X459	\$162.00	F1	18	48C17D2029	S111	\$130.00	F1	11
48A11T619	X462	\$192.00	F1	18	48C17D2033	G076	\$133.00	F1	12, 28
48A11T646	X072	\$135.00	F1	14	48C17D2034	G078	\$144.00	F1	12, 28
48A11TB529	X413	\$110.00	F1	18	48C17D2036	G114	\$123.00	F1	10
48A11TB569	X412	\$103.00	F1	18	48C17D2042	B313	\$143.00	F1	10
48A11TB571	X414	\$122.00	F1	18	48C17D2044	B315	\$167.00	F1	11
48A17O125	X211	\$175.00	F1	21, 50	48C17D2045	S118	\$116.00	F1	10
48A17O126	X204	\$123.00	F1	47	48C17D2046	S119	\$123.00	F1	10
48A17O129	X217	\$119.00	F1	52	48C17D2055	D119	\$154.00	F1	11
48A17O136	X230	\$127.00	F1	52, 62	48C17D2057	X600	\$169.00	F1	46, 53
48A17O147	X269	\$142.00	F1	54, 62	48C34D2022	D110	\$125.00	F1	11
48A17O149	X270	\$152.00	F1	56, 62	48C34D2023	G098	\$128.00	F1	12, 28
48A17O151	X015	\$108.00	F1	21	48C34D2024	O010	\$131.00	F1	58
48A17O152	X013	\$102.00	F1	21	48C34D2028	O011	\$161.00	F1	58

# Index

## Model Number / Catalog Number

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
48C34S24	O012	\$120.00	F1	58	56A11O5311	X207	\$266.00	F1	18
48N17D14	B703	\$144.00	F1	10	56A11O5312	X205	\$257.00	F1	51
48S11D53	B380	\$156.00	F1	24	56A11O5313	X218	\$271.00	F1	55
48S11D58	X290	\$109.00	F1	50	56A11O5314	X448	\$229.00	F1	19
48S17D1084	X701	\$89.00	F1	56, 68	56A34DB11001	J071	\$160.00	F1	42
48S17D2017	D107	\$85.00	F1	9	56A34DB11002	J076	\$250.00	F1	42
48S17D2027	D145	\$113.00	F1	10	56A34DB11003	J074	\$210.00	F1	42
48S17D2042	S102	\$84.00	F1	9	56A34DB11004	J072	\$190.00	F1	42
48S17D2052	B300	\$93.00	F1	9	56A34DB11005	J084	\$300.00	F1	42
48S17D2053	B322	\$98.00	F1	9	56A34DB11006	J083	\$250.00	F1	42
48S17D2054	B302	\$100.00	F1	9	56A34DB11007	J082	\$210.00	F1	42
48S17D2055	B303	\$105.00	F1	9	56A34DB11008	J081	\$190.00	F1	42
48S17D2056	B304	\$115.00	F1	10	56A34DB11009	J080	\$160.00	F1	42
48S17D2057	B305	\$120.00	F1	10	56A34DB11010	J079	\$300.00	F1	42
48S17D2058	B306	\$154.00	F1	10	56A34DB11011	J070	\$160.00	F1	42
48S17D2059	B307	\$159.00	F1	10	56A34DB11012	J075	\$210.00	F1	42
48S17D2083	D127	\$92.00	F1	9	56A34DB11013	J073	\$190.00	F1	42
48S17D2084	D129	\$98.00	F1	9	56A34DB11014	J077	\$250.00	F1	42
48S17D2086	D143	\$107.00	F1	10	56A34DB11015	J078	\$300.00	F1	42
48S17D2087	D162	\$146.00	F1	10	56A8O5	X208	\$287.00	F1	16
48S17D2088	D163	\$153.00	F1	10	56B11F5302	G579	\$430.00	F2	25
48S17D2089	S003	\$80.00	F1	12, 28	56B11F5303	G578	\$344.00	F2	25
48S17D2090	S006	\$89.00	F1	12, 28	56B17D2000	Replaced by	56C17D5306		
48S17D2093	S106	\$92.00	F1	10	56B17D2002	Replaced by	56C17D5308		
48S17D2102	X700	\$82.00	F1	56, 68	56B17D2008	G917	\$226.00	F1	12, 28
48S17D2104	S126	\$89.00	F1	9	56B17D2009	G918	\$241.00	F1	12, 28
48S17D2105	S127	\$97.00	F1	10	56B17D2010	G919	\$246.00	F1	12, 28
48S17D2106	S128	\$118.00	F1	10	56B17D2011	G250	\$243.00	F1	24
48S17D2107	B206	\$92.00	F1	9	56B17D2012	G156	\$230.00	F1	11
48S17D2108	B207	\$107.00	F1	10	56B17D2013	B609	\$254.00	F1	11
48S17D2109	B208	\$146.00	F1	10	56B17D5303	G274	\$370.00	F1	24
48S17D7200	B383	\$138.00	F1	9	56B17D5322	K232	\$421.00	F1	60
48S17D7201	B384	\$143.00	F1	9	56B17D5323	G958	\$326.00	F1	60
48S17D7206	B604	\$120.00	F1	9	56B17D5331	B352	\$389.00	F1	11
48S17D7209	B402	\$147.00	F1	9	56B17D56	K016	\$246.00	F1	8, 60
48S17D997	B400	\$97.00	F1	9	56B17D5700	B331	\$328.00	F1	11
48S17S24	O003	\$118.00	F1	58	56B17D5702	B334	\$410.00	F1	11
48S17S25	O002	\$102.00	F1	58	56B17D5706	B350	\$335.00	F1	11
48S17T286	O600	\$79.00	F1	58	56B17F2002	Replaced by	56B17F5302		
48S17T290	O601	\$85.00	F1	58	56B17F5302	G378	\$326.00	F1	61
48S34S2001	Replaced by	48S34S2005			56B17F5305	G574	\$331.00	F2	25
48S34S2002	Replaced by	48S34S2004			56B17F5306	G575	\$415.00	F2	25
48S34S2003	O004	\$116.00	F1	58	56B17F5310	G396	\$358.00	F1	61
48S34S2004	O005	\$90.00	F1	58	56B17F5319	K319	\$425.00	F1	61
48S34S2005	O102	\$103.00	F1	58	56B17F5328	T018	\$390.00	F1	68
48S34S248	Replaced by	48S34S361			56B17F5329	T030	\$430.00	F1	68
48S34S361	O100	\$97.00	F1	58	56B17T5304	N553	\$383.00	F3	64
48T17D2000	G044	\$138.00	F1	29	56B34D133	D018	\$262.00	F1	8
48T17D2002	X605	\$189.00	F1	46, 53	56B34D2023	G258	\$259.00	F1	24
56A11O29	X432	\$236.00	F1	19	56B34D2024	J037	\$228.00	F1	43
56A11O30	X433	\$280.00	F1	19	56B34D2025	J019	\$215.00	F1	43, 58
56A11O5305	X271	\$320.00	F1	18	56B34D2026	G937	\$251.00	F1	12, 28
56A11O5310	X206	\$280.00	F1	18	56B34D2027	D115	\$263.00	F1	11



MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
56B34D2028	O231	\$220.00	F1	58	56C17D2074	B319	\$244.00	F1	11
56B34D2030	G932	\$188.00	F1	12, 28	56C17D2079	D111	\$187.00	F1	11
56B34D2031	G254	\$200.00	F1	24	56C17D2080	D113	\$231.00	F1	11
56B34D2033	J058	\$231.00	F1	43	56C17D2082	Replaced by 56C17D5321			
56B34D5300	Replaced by 56B34D5332				56C17D2083	Replaced by 56C17D5322			
56B34D5302	D017	\$455.00	F1	8	56C17D2084	G212	\$144.00	F1	24
56B34D5318	D012	\$328.00	F1	8	56C17D2085	G230	\$169.00	F1	24
56B34D5319	G272	\$318.00	F1	24	56C17D2087	G093	\$161.00	F1	12, 28
56B34D5320	K152	\$320.00	F1	11	56C17D2088	G135	\$157.00	F1	11
56B34D5321	G952	\$302.00	F1	12, 28	56C17D2097	S112	\$151.00	F1	11
56B34D5325	J021	\$267.00	F1	43, 58	56C17D2098	S012	\$148.00	F1	12, 28
56B34D5326	J038	\$280.00	F1	43	56C17D2099	S113	\$157.00	F1	11
56B34D5327	J023	\$423.00	F1	43, 58	56C17D2100	B210	\$171.00	F1	11
56B34D5332	D013	\$428.00	F1	8	56C17D2101	X601	\$200.00	F1	46, 53
56B34D5336	K219	\$449.00	F1	60	56C17D2102	X602	\$246.00	F1	46, 53
56B34D5340	D116	\$320.00	F1	11	56C17D2113	B608	\$208.00	F1	11
56B34D5341	J059	\$284.00	F1	43	56C17D5303	G934	\$240.00	F1	12, 28
56B34D85	Replaced by 56B34D2025				56C17D5304	G935	\$259.00	F1	12, 28
56B34F5306	K612	\$313.00	F1	61	56C17D5305	G936	\$268.00	F1	8, 12, 28, 60
56B34F5312	K615	\$372.00	F1	61	56C17D5306	G939	\$290.00	F1	12, 28
56B34F5318	K618	\$469.00	F1	61	56C17D5307	G950	\$302.00	F1	12, 28
56B34F5326	D314	\$287.00	F2	25	56C17D5308	G951	\$315.00	F1	8, 12, 28
56B34F5327	D315	\$346.00	F2	25	56C17D5310	G256	\$261.00	F1	24
56B34F5328	D316	\$462.00	F2	25	56C17D5311	G270	\$303.00	F1	24
56B34F5332	T017	\$320.00	F1	68	56C17D5316	B330	\$305.00	F1	11
56B34F5333	T019	\$349.00	F1	68	56C17D5319	S037	\$238.00	F1	12, 28
56C11D2032	G096	\$240.00	F1	12	56C17D5320	S039	\$262.00	F1	12, 28
56C11D5301	G913	\$308.00	F1	28	56C17D5321	B310	\$245.00	F1	11
56C11D5302	G930	\$394.00	F1	12, 28	56C17D5322	B311	\$264.00	F1	11
56C11D5304	G278	\$317.00	F1	24	56C17D5339	S116	\$241.00	F1	11
56C11F5302	G577	\$253.00	F2	25	56C17D5340	S117	\$248.00	F1	11
56C11F5303	G576	\$282.00	F2	25	56C17D5343	S038	\$244.00	F1	12, 28
56C17D2009	G094	\$167.00	F1	12, 28	56C17D5345	D114	\$262.00	F1	11
56C17D2010	G095	\$172.00	F1	12, 28	56C17D5346	X603	\$310.00	F1	46, 53
56C17D2011	G910	\$180.00	F1	12, 28	56C17D5347	B336	\$293.00	F1	11
56C17D2012	G911	\$197.00	F1	12, 28	56C17D5348	B337	\$272.00	F1	11
56C17D2013	G912	\$202.00	F1	8, 12, 28	56C17F125	Replaced by 56C17F5308			
56C17D2017	Replaced by 56C17D5303				56C17F126	Replaced by 56C17F5311			
56C17D2018	Replaced by 56C17D5304				56C17F5308	G356	\$271.00	F1	61
56C17D2019	Replaced by 56C17D5305				56C17F5311	G373	\$284.00	F1	61
56C17D2025	G151	\$187.00	F1	11	56C17F5320	G570	\$197.00	F2	25
56C17D2044	G234	\$198.00	F1	24	56C17F5321	G571	\$226.00	F2	25
56C17D2051	S013	\$154.00	F1	12, 28	56C17F5322	G572	\$271.00	F2	25
56C17D2054	S014	\$177.00	F1	12, 28	56C17F5323	G573	\$289.00	F2	25
56C17D2055	S015	\$184.00	F1	12, 28	56C17F5349	T016	\$321.00	F1	68
56C17D2060	S114	\$180.00	F1	11	56C17F5350	T014	\$303.00	F1	68
56C17D2061	S115	\$187.00	F1	11	56C17F5351	T010	\$259.00	F1	68
56C17D2064	S033	\$172.00	F1	12, 28	56C17W5326	N531	\$317.00	F3	64
56C17D2067	S036	\$202.00	F1	12, 28	56C17W5327	N523	\$325.00	F3	64
56C17D2068	Replaced by 56C17D5320				56C17W5328	N525	\$376.00	F3	64
56C17D2071	B316	\$184.00	F1	11	56C17W5329	N527	\$426.00	F3	64
56C17D2072	B317	\$200.00	F1	11	56C17W5330	N529	\$546.00	F3	64
56C17D2073	B318	\$228.00	F1	11	56C17W5331	N557	\$320.00	F3	64



# Index

## Model Number / Catalog Number

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
56C17W5332	N559	\$329.00	F3	64	56S17D2049	B200	\$149.00	F1	10
56C17W5333	N541	\$373.00	F3	64	56S17D2050	D149	\$149.00	F1	10
56C17W5334	N543	\$430.00	F3	64	56S17D2053	B308	\$102.00	F1	24
56C17W5335	N545	\$549.00	F3	64	56S17D2054	B309	\$108.00	F1	24
56C17W5336	N680	\$320.00	F3	65	56S17D2055	B320	\$123.00	F1	24
56C17W5338	N682	\$428.00	F3	65	56S17D2056	B321	\$162.00	F1	24
56C34D1172	J036	\$162.00	F1	43	56S17D2059	B348	\$162.00	F1	10
56C34D1173	J017	\$157.00	F1	43, 58	56S17D2060	D164	\$194.00	F1	10
56C34D2095	D117	\$162.00	F1	11	56S17D2062	B401	\$121.00	F1	9
56C34D2096	J034	\$125.00	F1	43	56S17D2064	B100	\$157.00	F1	10
56C34D2097	J009	\$119.00	F1	43, 58	56S17D5700	B389	\$220.00	F1	10
56C34D2098	O212	\$119.00	F1	58	56S17D5701	B600	\$225.00	F1	10
56C34D2099	O213	\$124.00	F1	58	56S17D7200	Replaced by 56S17D7202			
56C34D2100	G915	\$166.00	F1	12, 28	56S17D7201	Replaced by 56S17D7203			
56C34D2101	G238	\$174.00	F1	24	56S17D7202	B387	\$174.00	F1	10
56C34D2102	J035	\$146.00	F1	43	56S17D7203	B388	\$179.00	F1	10
56C34D2103	J013	\$140.00	F1	43, 58	56S34D2000	O200	\$98.00	F1	58
56C34D2104	O214	\$140.00	F1	58	56T11D5209	X235	\$330.00	F1	49
56C34D2105	O217	\$162.00	F1	58	56T11D5302	G067	\$243.00	F1	29
56C34D2106	D118	\$189.00	F1	11	56T11D5317	X609	\$410.00	F1	46, 53
56C34D2108	G232	\$136.00	F1	24	56T11F5300	G301	\$226.00	F1	33
56C34D2109	O211	\$114.00	F1	58	56T11F5301	G306	\$239.00	F1	33
56C34D2110	J033	\$115.00	F1	43	56T11F5302	G324	\$262.00	F1	33
56C34D2111	J025	\$109.00	F1	43, 58	56T11F5303	G342	\$271.00	F1	33
56C34D2112	O215	\$145.00	F1	58	56T11F5304	G360	\$290.00	F1	33
56C34D2114	O210	\$109.00	F1	58	56T11F5307	K701	\$307.00	F2	26
56C34D2117	G216	\$123.00	F1	24	56T11F5308	G589	\$287.00	F2	26
56C34D2118	J054	\$118.00	F1	43	56T11F5309	G588	\$279.00	F2	26
56C34D2119	J055	\$128.00	F1	43	56T11F5310	G587	\$256.00	F2	26
56C34D2120	J056	\$149.00	F1	43	56T11F5311	G586	\$243.00	F2	26
56C34D2121	J057	\$166.00	F1	43	56T11O15	X259	\$176.00	F1	54
56C34D5314	K136	\$202.00	F1	11	56T11O11001	X532	\$250.00	F1	20
56C34D871	Replaced by 56C34D1173				56T11O11002	X533	\$269.00	F1	20
56C34F5301	D311	\$167.00	F2	25	56T11O5300	X500	\$261.00	F1	20
56C34F5302	D312	\$202.00	F2	25	56T11O5301	X501	\$289.00	F1	20
56C34F5303	D313	\$228.00	F2	25	56T11O5302	X502	\$302.00	F1	20
56C34F5309	G379	\$197.00	F1	61	56T11O5303	X503	\$330.00	F1	20
56C34F5311	G390	\$223.00	F1	61	56T11O5304	X509	\$358.00	F1	20
56C34F5339	T015	\$261.00	F1	68	56T11O5305	X513	\$307.00	F1	20
56C34F5340	T013	\$235.00	F1	68	56T11O5306	X523	\$333.00	F1	20, 62
56C34W5301	N530	\$311.00	F3	64	56T11O5307	X524	\$330.00	F1	20
56C34W5302	N532	\$317.00	F3	64	56T11O5308	X522	\$302.00	F1	20
56C34W5303	N524	\$320.00	F3	64	56T11O5309	X526	\$358.00	F1	20
56C34W5304	N526	\$322.00	F3	64	56T11O5310	X525	\$361.00	F1	20, 62
56C34W5307	N558	\$320.00	F3	64	56T11V5376	N568	\$427.00	F3	66
56C34W5308	N540	\$323.00	F3	64	56T11V5377	N600	\$465.00	F3	66
56C34W5309	N542	\$324.00	F3	64	56T11W5377	N604	\$499.00	F3	66
56C34W5310	N544	\$473.00	F3	64	56T11W5378	N608	\$527.00	F3	66
56S11D2021	B381	\$185.00	F1	24	56T17D2092	K004	\$208.00	F1	29
56S17D2023	S120	\$116.00	F1	10	56T17D2093	G084	\$203.00	F1	29
56S17D2046	S022	\$113.00	F1	12, 28	56T17D2094	G063	\$182.00	F1	29
56S17D2047	B201	\$95.00	F1	9	56T17D2095	G047	\$161.00	F1	29
56S17D2048	B202	\$110.00	F1	10	56T17D2096	G109	\$185.00	F1	13

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
56T17D2097	G107	\$218.00	F1	13	56T17D5707	G182	\$331.00	F1	13
56T17D2098	G966	\$207.00	F1	13	56T17F2034	G303	\$170.00	F1	33
56T17D2099	G101	\$239.00	F1	13	56T17F2035	G321	\$190.00	F1	33
56T17D2100	G120	\$212.00	F1	13	56T17F2037	G329	\$210.00	F1	33
56T17D2101	G100	\$244.00	F1	13	56T17F2043	G304	\$170.00	F1	33
56T17D2104	G106	\$197.00	F1	13	56T17F2044	G322	\$190.00	F1	33
56T17D2110	G086	\$203.00	F1	29	56T17F2046	G340	\$210.00	F1	33
56T17D2111	G082	\$203.00	F1	29	56T17F5302	G347	\$220.00	F1	33
56T17D2112	G065	\$182.00	F1	29	56T17F5303	G365	\$251.00	F1	33
56T17D2114	G062	\$182.00	F1	29	56T17F5307	G348	\$220.00	F1	33
56T17D2117	G964	\$164.00	F1	13	56T17F5321	G581	\$218.00	F2	26
56T17D2118	G961	\$185.00	F1	13	56T17F5322	G582	\$239.00	F2	26
56T17D2119	G962	\$207.00	F1	13	56T17F5323	G583	\$244.00	F2	26
56T17D2120	G963	\$212.00	F1	13	56T17F5324	G584	\$267.00	F2	26
56T17D2130	K049	\$208.00	F1	29	56T17F5325	G585	\$290.00	F2	26
56T17D3301	K063	\$267.00	F1	29	56T17F5336	K705	\$218.00	F2	26
56T17D3302	K064	\$283.00	F1	30	56T17F5337	K707	\$239.00	F2	26
56T17D3303	K065	\$303.00	F1	30	56T17F5338	K709	\$244.00	F2	26
56T17D3304	K066	\$310.00	F1	30	56T17F5339	K722	\$267.00	F2	26
56T17D3305	K067	\$277.00	F1	29	56T17F5340	K724	\$290.00	F2	26
56T17D3306	K068	\$290.00	F1	30	56T17F5355	G590	\$326.00	F2	26
56T17D3307	K069	\$313.00	F1	30	56T17T5305	G580	\$197.00	F2	26
56T17D3308	K080	\$320.00	F1	30	56T17T5316	K703	\$197.00	F2	26
56T17D3318	X606	\$220.00	F1	46, 53	56T17V5326	N640	\$304.00	F3	65
56T17D3319	X608	\$320.00	F1	46, 53	56T17V5327	N641	\$324.00	F3	65
56T17D3320	X607	\$264.00	F1	46, 53	56T17V5328	N642	\$333.00	F3	65
56T17D5029	Replaced by	56T17D5330			56T17V5329	N644	\$343.00	F3	65
56T17D5030	Replaced by	56T17D5332			56T17V5330	N646	\$403.00	F3	65
56T17D5031	Replaced by	56T17D5333			56T17V5331	N649	\$420.00	F3	65
56T17D5309	K022	\$231.00	F1	30	56T17V5332	N564	\$306.00	F3	66
56T17D5310	K041	\$254.00	F1	30	56T17V5336	N567	\$343.00	F3	66
56T17D5329	G122	\$235.00	F1	13	56T17V5337	N622	\$343.00	F3	66
56T17D5330	G126	\$267.00	F1	13	56T17V5338	N599	\$396.00	F3	66
56T17D5332	G127	\$257.00	F1	13	56T17V5340	N602	\$414.00	F3	66
56T17D5333	G128	\$290.00	F1	13	56T17V5341	N624	\$414.00	F3	66
56T17D5336	G905	\$225.00	F1	29	56T17V5342	N606	\$431.00	F3	66
56T17D5339	G908	\$246.00	F1	29	56T17V5344	N307	\$327.00	F3	67
56T17D5342	G921	\$251.00	F1	29	56T17V5346	N309	\$359.00	F3	67
56T17D5344	G923	\$274.00	F1	30	56T17W5326	N653	\$518.00	F3	65
56T17D5345	G140	\$228.00	F1	13	56T17W5327	N611	\$495.00	F3	66
56T17D5346	G141	\$249.00	F1	13	56T17W5328	N313	\$489.00	F3	67
56T17D5347	G142	\$254.00	F1	13	56T17W5333	N620	\$306.00	F3	66
56T17D5348	G143	\$277.00	F1	13	56T17W5334	N570	\$336.00	F3	66
56T17D5349	G144	\$307.00	F1	13	56T17W5340	N320	\$343.00	F3	67
56T17D5350	G145	\$323.00	F1	13	56T34D5301	G080	\$164.00	F1	29
56T17D5369	K061	\$231.00	F1	30	56T34D5302	K000	\$187.00	F1	29
56T17D5370	K062	\$254.00	F1	30	56T34D5303	K009	\$230.00	F1	30
56T17D5398	H803	\$277.00	F1	30	56T34D5304	K025	\$271.00	F1	30
56T17D5702	G165	\$269.00	F1	13	56T34D5307	G180	\$223.00	F1	13
56T17D5703	G166	\$269.00	F1	13	56T34D5308	G183	\$266.00	F1	13
56T17D5704	G168	\$320.00	F1	13	56T34D5309	G186	\$307.00	F1	13
56T17D5705	G169	\$320.00	F1	13	56T34D5310	P001	\$115.00	F1	44, 59
56T17D5706	G181	\$331.00	F1	13	56T34D5311	P002	\$125.00	F1	44, 59

# Index

## Model Number / Catalog Number

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
56T34D5312	P003	\$144.00	F1	44, 59	56T34V5307	N601	\$392.00	F3	66
56T34D5313	P004	\$167.00	F1	44, 59	56T34V5308	N605	\$434.00	F3	66
56T34D5314	P005	\$225.00	F1	44, 59	56T34V5309	N609	\$481.00	F3	66
56T34D5315	P006	\$271.00	F1	44, 59	56T8O15504	X531	\$444.00	F1	20, 62
56T34D5316	P007	\$313.00	F1	44, 59	56T8O5301	X506	\$382.00	F1	20
56T34D5347	J040	\$125.00	F1	44	56T8O5302	X507	\$397.00	F1	20, 62
56T34D5348	J041	\$134.00	F1	44	56T8O5303	X511	\$328.00	F1	20
56T34D5349	J042	\$154.00	F1	44	56T8O5304	X527	\$397.00	F1	20
56T34D5350	J043	\$177.00	F1	44	56T8O5306	X528	\$408.00	F1	20, 62
56T34D5351	J044	\$238.00	F1	44	56T8O5307	X530	\$427.00	F1	20
56T34D5352	J045	\$284.00	F1	44	56T8O5531	X529	\$364.00	F1	20, 62
56T34D5353	J046	\$336.00	F1	44	143TCDR5326	I110	\$244.00	S1	12, 28
56T34D5357	B193	\$344.00	F1	13	143TCDR7026	Replaced by 143TCDR5326			
56T34D5364	X251	\$461.00	F1	13, 49	143TTDR4051	U418	\$313.00	E2	29
56T34D5365	J049	\$157.00	F1	44	143TTDR4052	U417	\$301.00	E2	29
56T34D5366	J050	\$180.00	F1	44	143TTDR5309	M303	\$228.00	S2	39
56T34D5367	J048	\$138.00	F1	44	143TTDR5313	E783	\$235.00	E2	30
56T34D5368	J047	\$128.00	F1	44	143TTDR5326	Replaced by 143TTDR5347			
56T34D5369	J051	\$241.00	F1	44	143TTDR5327	H601	\$187.00	E6	29
56T34D5370	J052	\$287.00	F1	44	143TTDR5334	M302	\$229.00	S2	39
56T34D5371	J053	\$339.00	F1	44	143TTDR5336	M301	\$200.00	S2	39
56T34D5375	X610	\$230.00	F1	46, 53	143TTDR5347	E715	\$211.00	E2	29
56T34F5301	D391	\$171.00	F2	26	143TTDR5348	E901	\$211.00	E2	29
56T34F5302	D392	\$200.00	F2	26	143TTDR5351	E912	\$211.00	E2	30
56T34F5303	D393	\$223.00	F2	26	143TTDR5376	H150	\$228.00	E6	29
56T34F5304	D394	\$266.00	F2	26	143TTDR7026	Replaced by 143TTDR5347			
56T34F5305	D395	\$307.00	F2	26	143TTDR7055	Replaced by 143TTDR5329			
56T34F5306	D396	\$341.00	F2	26	143TTDR7350	Replaced by 143TTDR5327			
56T34F5321	P102	\$162.00	F1	45	143TTFR4001	E832	\$260.00	E8	33
56T34F5322	P103	\$192.00	F1	45	143TTFR4026	E950	\$247.00	E8	33
56T34F5323	P104	\$215.00	F1	45	143TTFR4030	E827	\$247.00	E8	33
56T34F5324	P105	\$250.00	F1	45	143TTFR5326	Replaced by 143TTFR4026			
56T34F5325	P106	\$290.00	F1	45	143TTFR5332	M401	\$249.00	S2	40
56T34F5326	P107	\$315.00	F1	45	143TTFR5376	H700	\$264.00	E6	33
56T34F5328	G308	\$154.00	F1	33	143TTFR7727	Replaced by 143TTFR5327			
56T34F5329	G326	\$184.00	F1	33	143TTVR5326	N647	\$403.00	F3	65
56T34F5333	G309	\$154.00	F1	33	143TTVR5327	N650	\$420.00	F3	65
56T34F5334	G327	\$184.00	F1	33	143TTVR5329	N310	\$392.00	F3	67
56T34F5335	G345	\$207.00	F1	33	143TTWR4028	N626	\$414.00	F3	66
56T34F5342	J061	\$175.00	F1	45	145TBDR5302	I102	\$310.00	S1	12, 28
56T34F5343	J062	\$205.00	F1	45	145TBDR5326	I118	\$308.00	S1	12, 28
56T34F5344	J063	\$228.00	F1	45	145TBDR5337	I127	\$378.00	SI	8, 60
56T34F5345	J064	\$274.00	F1	45	145TBDR5345	I147	\$313.00	S1	11
56T34F5346	J065	\$315.00	F1	45	145TBFR5309	T031	\$483.00	S1	68
56T34F5347	J066	\$359.00	F1	45	145TBFR5336	I702	\$418.00	S1	61
56T34T5303	D390	\$154.00	F2	26	145TCDR5326	I111	\$295.00	S1	12, 28
56T34T5306	P101	\$146.00	F1	45	145TCDR5331	I146	\$298.00	S1	11
56T34V5301	N643	\$337.00	F3	65	145TCDR7026	Replaced by 145TCDR5326			
56T34V5302	N645	\$393.00	F3	65	145TCWR5326	N683	\$546.00	F3	65
56T34V5303	N648	\$416.00	F3	65	145TTDR4034	E102	\$273.00	S2	39
56T34V5304	N651	\$478.00	F3	65	145TTDR4060	E104	\$286.00	S2	39
56T34V5305	N566	\$305.00	F3	66	145TTDR4076	E728	\$277.00	E2	30
56T34V5306	N569	\$335.00	F3	66	145TTDR4126	U420	\$320.00	E2	30

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
145TTDR4127	U421	\$332.00	E2	30	145TTFR5338	M404	\$285.00	S2	40
145TTDR4128	U419	\$320.00	E2	30	145TTFR7728	Replaced by 145TTFR5328			
145TTDR4132	U423	\$345.00	E2	30	145TTFR7730	Replaced by 145TTFR5330			
145TTDR4133	U424	\$357.00	E2	30	145TTVR5302	N610	\$481.00	F3	66
145TTDR4134	U422	\$345.00	E2	30	145TTVR5326	N607	\$431.00	F3	66
145TTDR5304	E702	\$277.00	E2	30	145TTWR4001	N613	\$629.00	F3	66
145TTDR5313	M307	\$256.00	S2	39	145TTWR4026	N612	\$533.00	F3	66
145TTDR5314	M308	\$286.00	S2	39	145TTWR4027	N312	\$518.00	F3	67
145TTDR5315	M311	\$287.00	S2	39	145TTWR4029	N321	\$431.00	F3	67
145TTDR5316	M312	\$317.00	S2	39	145TTWR5301	N655	\$583.00	F3	65
145TTDR5319	M111	\$287.00	S2	41	145TTWR5326	N654	\$518.00	F3	65
145TTDR5325	E784	\$290.00	E2	30	182TCDR7001	I103	\$387.00	S1	12, 29
145TTDR5326	Replaced by 145TTDR5630				182TCDR7026	I112	\$344.00	S1	12, 28
145TTDR5327	H604	\$205.00	E6	30	182TCDR7074	Z405	\$385.00	S2	38
145TTDR5331	Replaced by 145TTDR5631				182TCDR7318	Z406	\$428.00	S2	38
145TTDR5332	H607	\$226.00	E6	30	182TCWR7026	N684	\$793.00	F3	65
145TTDR5346	M306	\$247.00	S2	39	182TTDB4026	E718	\$297.00	E2	30
145TTDR5348	M305	\$218.00	S2	39	182TTDB7355	M313	\$267.00	S2	39
145TTDR5350	M310	\$258.00	S2	39	182TTDR4001	E704	\$333.00	E2	30
145TTDR5352	M309	\$228.00	S2	39	182TTDR4002	E107	\$430.00	S2	39
145TTDR5354	M105	\$218.00	S2	41	182TTDR4026	Replaced by 182TTDB4026			
145TTDR5356	M109	\$228.00	S2	41	182TTDR4027	E904	\$297.00	E2	30
145TTDR5360	Replaced by 145TTDR4127				182TTDR4030	E915	\$297.00	E2	30
145TTDR5363	Replaced by 145TTDR4133				182TTDR4033	E106	\$333.00	S2	39
145TTDR5630	E716	\$230.00	E2	30	182TTDR4074	U425	\$406.00	E2	30
145TTDR5631	E717	\$254.00	E2	30	182TTDR4076	E729	\$304.00	E2	30
145TTDR5632	E902	\$230.00	E2	30	182TTDR4083	E799	\$304.00	E2	30
145TTDR5633	E903	\$254.00	E2	30	182TTDR4156	U426	\$406.00	E2	30
145TTDR5640	E913	\$230.00	E2	30	182TTDR5303	M362	\$344.00	S2	39
145TTDR5665	E914	\$254.00	E2	30	182TTDR5304	M363	\$404.00	S2	39
145TTDR5701	Y465	\$527.00	S3	35	182TTDR5305	M172	\$344.00	S2	41
145TTDR5702	Y466	\$578.00	S3	35	182TTDR5327	L102	\$252.00	E6	30
145TTDR5703	Y449	\$527.00	S3	35	182TTDR5336	M360	\$267.00	S2	39
145TTDR5704	Y450	\$527.00	S3	35	182TTDR5337	M361	\$327.00	S2	39
145TTDR5705	Y451	\$578.00	S3	35	182TTDR5338	M170	\$267.00	S2	41
145TTDR5706	Y452	\$578.00	S3	35	182TTDR6026	E930	\$364.00	E2	30
145TTDR7026	Replaced by 145TTDR5631				182TTDR7026	Replaced by 182TTDB4026			
145TTDR7371	Replaced by 145TTDR5335				182TTDR7203	Y485	\$437.00	S3	35
145TTDR7926	Replaced by 145TTDR5327				182TTDR7211	Y409	\$637.00	S3	35
145TTDR7927	Replaced by 145TTDR5332				182TTDR7325	M315	\$356.00	S2	39
145TTFR4001	E994	\$302.00	E8	33	182TTDR7350	M314	\$340.00	S2	39
145TTFR4026	E951	\$275.00	E8	33	182TTDR7355	Replaced by 182TTDB7355			
145TTFR4027	E952	\$302.00	E8	33	182TTDR7411	Y467	\$637.00	S3	35
145TTFR4038	E838	\$275.00	E8	33	182TTDR7412	Y484	\$437.00	S3	35
145TTFR4039	E847	\$302.00	E8	33	182TTDR7413	Y453	\$637.00	S3	35
145TTFR4076	E979	\$315.00	E8	33	182TTDR7601	M316	\$417.00	S2	39
145TTFR5303	M403	\$315.00	S2	40	182TTDR7605	M114	\$356.00	S2	41
145TTFR5310	M418	\$324.00	S2	40	182TTFL7726	Replaced by 182TTFR4026			
145TTFR5326	Replaced by 145TTFR4026				182TTFR4001	E967	\$341.00	E8	33
145TTFR5327	Replaced by 145TTFR4027				182TTFB4026	E953	\$323.00	E8	33
145TTFR5328	H665	\$241.00	E6	33	182TTFR4076	E982	\$325.00	E8	33
145TTFR5330	H666	\$265.00	E6	33	182TTFR4320	C381	\$520.00	E8	26
145TTFR5336	M402	\$272.00	S2	40	182TTFR4340	C382	\$465.00	E8	26

# Index

## Model Number / Catalog Number

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
182TTFR4345	C383	\$465.00	E8	26	184TTFR4076	E995	\$357.00	E8	33
182TTFR5302	M405	\$362.00	S2	40	184TTFR4320	C385	\$555.00	E8	26
182TTFR5327	L633	\$296.00	E6	33	184TTFR4340	C386	\$490.00	E8	26
182TTFR5330	M422	\$331.00	S2	40	184TTFR4345	C387	\$490.00	E8	26
182TTFR7726	Replaced by	182TTFR4026			184TTFR4380	C380	\$510.00	E8	26
182TTFS4557	U867	\$600.00	S3	36	184TTFR5302	M423	\$431.00	S2	40
182TTWR4026	N614	\$701.00	F3	66	184TTFR7726	Replaced by	184TTFB4026		
182TTWR4027	N314	\$647.00	F3	67	184TTFR7727	H668	\$344.00	E6	33
182TTWR7026	N656	\$647.00	F3	65	184TTFR7760	M408	\$431.00	S2	40
184TBDR5301	Z504	\$555.00	S1	8	184TTFR7908	M407	\$444.00	S2	40
184TBDR5326	Z502	\$395.00	S1	8	184TTFR8914	M216	\$474.00	S2	41
184TBDB7026	I114	\$488.00	S1	8, 13, 29	184TTFR8915	M416	\$474.00	S2	40
184TBDR7375	I119	\$630.00	S1	8	184TTFS4555	U868	\$655.00	S3	36
184TBDR7630	I130	\$478.00	S1	60	184TTFS7290	Y380	\$929.00	S3	37
184TBDR7631	I128	\$441.00	S1	60	184TTWR4001	N615	\$878.00	F3	66
184TBDR7632	I131	\$636.00	S1	60	184TTWR4003	N317	\$924.00	F3	67
184TBFR7034	I315	\$760.00	S1	61	184TTWR4004	N315	\$739.00	F3	67
184TBFR7041	I314	\$637.00	S1	61	184TTWR4026	N616	\$793.00	F3	66
184TBFR7315	Z433	\$648.00	S2	38	184TTWR4027	N316	\$739.00	F3	67
184TCDR7001	I104	\$520.00	S1	13, 29	184TTWR7001	N657	\$814.00	F3	65
184TCDR7011	Z408	\$626.00	S2	38	184TTWR7026	N658	\$739.00	F3	65
184TCDR7026	I113	\$402.00	S1	12, 29	213TBFW7040	Z434	\$870.00	S2	38
184TCDR7047	Z407	\$500.00	S2	38	213TCDW7001	I105	\$740.00	S1	8, 13, 29
184TCDR7909	Z427	\$626.00	S2	40	213TCDW7002	Z410	\$782.00	S2	38
184TTDB4026	E719	\$323.00	E2	30	213TCDW7003	Z429	\$782.00	S2	40
184TTDB7356	M318	\$404.00	S2	39	213TCDW7027	Z409	\$687.00	S2	38
184TTDB7357	M317	\$344.00	S2	39	213TTDB4026	Replaced by	213TTDBA4026		
184TTDR4001	E705	\$431.00	E2	31	213TTDBA4026	E720	\$449.00	E2	31
184TTDR4026	Replaced by	184TTDB4026			213TTDBA4028	E906	\$449.00	E2	31
184TTDR4027	E905	\$323.00	E2	30	213TTDBA7047	M321	\$497.00	S2	39
184TTDR4030	E916	\$323.00	E2	31	213TTDC6026	U763	\$562.00	E2	31
184TTDR4076	E730	\$391.00	E2	30	213TTDR7026	Replaced by	213TTDBA4026		
184TTDR4153	U427	\$460.00	E2	30	213TTDW4001	E706	\$559.00	E2	31
184TTDR4166	U428	\$460.00	E2	31	213TTDW4030	E758	\$449.00	E2	31
184TTDR4178	E918	\$391.00	E2	30	213TTDW4047	E110	\$622.00	S2	39
184TTDR6026	E931	\$389.00	E2	31	213TTDW4054	U430	\$655.00	E2	31
184TTDR7026	Replaced by	184TTDB4026			213TTDW4076	E731	\$528.00	E2	30
184TTDR7209	Y487	\$612.00	S3	35	213TTDW4078	U907	\$528.00	E2	30
184TTDR7215	Y412	\$663.00	S3	35	213TTDW7022	M323	\$531.00	S2	39
184TTDR7230	Y468	\$663.00	S3	35	213TTDW7023	M324	\$609.00	S2	39
184TTDR7286	Y454	\$663.00	S3	35	213TTDW7024	M118	\$531.00	S2	41
184TTDR7287	Y486	\$612.00	S3	35	213TTDW7028	H616	\$408.00	E6	31
184TTDR7322	M319	\$413.00	S2	39	213TTDW7047	Replaced by	213TTDBA7047		
184TTDR7325	M320	\$473.00	S2	39	213TTDW7048	M322	\$576.00	S2	39
184TTDR7356	Replaced by	184TTDB7356			213TTDW7049	M117	\$497.00	S2	41
184TTDR7357	Replaced by	184TTDB7357			213TTDW7054	Replaced by	213TTDW4054		
184TTDR7358	M115	\$344.00	S2	41	213TTDW7201	Y489	\$759.00	S3	35
184TTDR7604	M116	\$413.00	S2	41	213TTDW7202	Y488	\$759.00	S3	35
184TTDR7627	H613	\$284.00	E6	30	213TTFL7726	Replaced by	213TTFW4026		
184TTFL7726	Replaced by	184TTFB4026			213TTFS4550	U869	\$827.00	S3	36
184TTFR4001	E963	\$422.00	E8	33	213TTFS7238	Y381	\$1,027.00	S3	37
184TTFB4026	E954	\$377.00	E8	33	213TTFW4001	E972	\$551.00	E8	34



MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
213TTFW4026	E955	\$540.00	E8	34	215TTFW4345	C394	\$715.00	E8	27
213TTFW4030	U630	\$540.00	E8	34	215TTFW4380	C388	\$775.00	E8	26
213TTFW4076	E980	\$474.00	E8	33	215TTFW7022	M417	\$781.00	S2	40
213TTFW4320	C389	\$721.00	E8	27	215TTFW7024	M217	\$781.00	S2	41
213TTFW4340	C390	\$650.00	E8	27	215TTFW7028	H670	\$614.00	E6	34
213TTFW4345	C391	\$650.00	E8	27	215TTFW7047	M412	\$733.00	S2	40
213TTFW4380	C384	\$650.00	E8	26	215TTFW7303	M411	\$656.00	S2	40
213TTFW7022	M409	\$536.00	S2	40	215TTWR4026	N619	\$1,143.00	F3	66
213TTFW7028	H669	\$494.00	E6	34	215TTWR4027	N319	\$1,105.00	F3	67
213TTFW7047	M410	\$613.00	S2	40	215TTWR7026	N661	\$1,105.00	F3	65
213TTWR4002	N617	\$1,090.00	F3	66	254TTDC6026	U767	\$884.00	E2	31
213TTWR4026	N618	\$1,005.00	F3	66	254TTDX4001	E708	\$1,014.00	E2	31
213TTWR4027	N318	\$924.00	F3	67	254TTDX4026	E722	\$864.00	E2	31
213TTWR7026	N660	\$924.00	F3	65	254TTDX4028	E908	\$864.00	E2	31
215TBDW7026	I115	\$730.00	S1	8, 13, 29	254TTDX4030	E760	\$864.00	E2	31
215TBDW7027	Z413	\$1,151.00	S2	38	254TTDX4076	E733	\$769.00	E2	31
215TBDW7028	I116	\$940.00	S1	8, 13, 29	254TTDX7007	M123	\$828.00	S2	41
215TBDW7029	Z411	\$949.00	S2	38	254TTDX7008	M330	\$828.00	S2	39
215TBFW7010	Z435	\$1,060.00	S2	38	254TTDX7026	Replaced by 254TTDC4026			
215TCDW7002	Z412	\$1,006.00	S2	38	254TTDX7028	H622	\$677.00	E6	31
215TCDW7004	Z431	\$1,006.00	S2	40	254TTDX7042	M121	\$797.00	S2	41
215TTDB4026	Replaced by 215TTDBA4026				254TTDX7043	M122	\$910.00	S2	41
215TTDBA4026	E721	\$577.00	E2	31	254TTDX7044	M329	\$797.00	S2	39
215TTDBA7047	M325	\$590.00	S2	39	254TTDX7046	M353	\$910.00	S2	39
215TTDC6026	U765	\$664.00	E2	31	254TTDX7201	Y470	\$1,151.00	S3	35
215TTDR7026	Replaced by 215TTDBA4026				254TTDX7208	Y418	\$1,151.00	S3	35
215TTDW4001	E707	\$860.00	E2	31	254TTDX7278	Y456	\$1,151.00	S3	35
215TTDW4028	E907	\$577.00	E2	31	254TTFL4001	E977	\$893.00	E8	34
215TTDW4030	E759	\$577.00	E2	31	254TTFL4026	E996	\$887.00	E8	34
215TTDW4047	E112	\$737.00	S2	39	254TTFL4030	E997	\$887.00	E8	34
215TTDW4076	E732	\$615.00	E2	31	254TTFL4076	U632	\$897.00	E8	34
215TTDW4078	E935	\$615.00	E2	31	254TTFL5003	M213	\$821.00	S2	41
215TTDW7022	M327	\$656.00	S2	39	254TTFL5004	M413	\$821.00	S2	40
215TTDW7023	M328	\$735.00	S2	39	254TTFL5747	H623	\$811.00	E6	34
215TTDW7024	M120	\$656.00	S2	41	254TTFL5751	M420	\$995.00	S2	40
215TTDW7028	H619	\$516.00	E6	31	254TTFNA4549	U871	\$1,222.00	S3	36
215TTDW7047	Replaced by 215TTDBA4026				254TTFNA7210	Y383	\$1,604.00	S3	37
215TTDW7048	M326	\$668.00	S2	39	256TTDC6026	U769	\$1,079.00	E2	31
215TTDW7049	M119	\$590.00	S2	41	256TTDR7026	Replaced by 256TTDC4026			
215TTDW7203	Y415	\$928.00	S3	35	256TTDX4001	E709	\$1,237.00	E2	31
215TTDW7204	Y455	\$928.00	S3	35	256TTDX4026	E723	\$1,055.00	E2	31
215TTDW7205	Y469	\$928.00	S3	35	256TTDX4027	E909	\$1,055.00	E2	31
215TTFL7726	Replaced by 215TTFW4026				256TTDX4032	E761	\$1,055.00	E2	31
215TTFS4546	U870	\$947.00	S3	36	256TTDX4076	E734	\$897.00	E2	31
215TTFS7290	Y382	\$1,331.00	S3	37	256TTDX7054	M124	\$962.00	S2	41
215TTFW4001	E969	\$644.00	E8	34	256TTDX7074	M331	\$962.00	S2	39
215TTFW4005	E821	\$644.00	E8	34	256TTDX7253	Y471	\$1,427.00	S3	35
215TTFW4007	U670	\$893.00	E8	34	256TTDX7264	Y458	\$1,427.00	S3	35
215TTFW4026	E956	\$654.00	E8	34	256TTDX7358	H625	\$843.00	E6	31
215TTFW4030	U640	\$654.00	E8	34	256TTFL4001	E974	\$1,173.00	E8	34
215TTFW4076	E970	\$682.00	E8	33	256TTFL4026	E965	\$1,092.00	E8	34
215TTFW4320	C392	\$750.00	E8	27	256TTFL4030	E998	\$1,092.00	E8	34
215TTFW4340	C393	\$715.00	E8	27	256TTFL4076	E973	\$1,144.00	E8	34



# Index

## Model Number / Catalog Number

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
256TFFL5023	M414	\$1,105.00	S2	40	364TTDC7036	Replaced by	364TTDC4036		
256TFFL5055	M421	\$1,208.00	S2	40	364TTDS4086	E746	\$3,156.00	E2	32
256TFFNA4532	U872	\$1,437.00	S3	36	364TTDS7036	Replaced by	364TTDC4036		
256TFFNA7250	Y384	\$2,004.00	S3	37	364TTFS4550	U877	\$4,553.00	S3	36
284TSTDP4001	E710	\$1,477.00	E2	31	364TTFS9234	Y389	\$5,660.00	S3	37
284TTDC4026	E724	\$1,225.00	E2	31	365TSTDC4026	E782	\$3,084.00	E2	32
284TTDC6026	U771	\$1,344.00	E2	31	365TSTDS4001	E753	\$4,470.00	E2	32
284TTDC7026	Replaced by	284TTDC4026			365TTDC4036	E740	\$3,084.00	E2	32
284TTDP4026	Replaced by	284TTDC4026			365TTDC6060	U783	\$3,153.00	E2	32
284TTDP4029	E910	\$1,225.00	E2	31	365TTDC7036	Replaced by	365TTDC4036		
284TTDP4035	E762	\$1,225.00	E2	31	365TTDS4086	E747	\$3,686.00	E2	32
284TTDP4076	E735	\$1,290.00	E2	31	365TTDS7036	Replaced by	365TTDC4036		
284TTDP7221	Y459	\$1,909.00	S3	35	365TTFS4560	U878	\$5,668.00	S3	36
284TTDP7644	H628	\$993.00	E6	31	365TTFS9230	Y390	\$8,192.00	S3	37
284TTDR7026	Replaced by	284TTDC4026			404TSTDS4001	E754	\$5,248.00	E2	32
284TFFNA7240	Y385	\$2,500.00	S3	37	404TSTDS4026	E780	\$3,933.00	E2	32
284TFFPA4545	U873	\$1,703.00	S3	36	404TTDS4036	E741	\$3,933.00	E2	32
286TSTDP4001	E711	\$1,889.00	E2	31	404TTDS4086	E748	\$4,300.00	E2	32
286TTDC4026	E725	\$1,425.00	E2	31	404TTDS6060	E922	\$4,130.00	E2	32
286TTDC6026	U773	\$1,458.00	E2	31	404TTDS7036	Replaced by	404TTDS4036		
286TTDC7026	Replaced by	286TTDC4026			405TSTDS4001	E755	\$6,765.00	E2	32
286TTDP4027	E911	\$1,425.00	E2	31	405TSTDS4026	E781	\$4,709.00	E2	32
286TTDP4034	E763	\$1,425.00	E2	31	405TTDS4036	E742	\$4,709.00	E2	32
286TTDP4076	E736	\$1,582.00	E2	31	405TTDS6060	E923	\$4,944.00	E2	32
286TTDP7641	H632	\$1,160.00	E6	31	405TTDS7036	Replaced by	405TTDS4036		
286TFFNA7260	Y386	\$2,918.00	S3	37	405TTFS4560	U879	\$7,019.00	S3	36
286TFFPA4544	U874	\$1,993.00	S3	36	405TTFS7297	Y391	\$10,596.00	S3	37
324TSTDP4001	E712	\$2,245.00	E2	32	444TSTDS4001	E756	\$8,842.00	E2	32
324TSTDP4032	E789	\$1,772.00	E2	31	444TSTDS4026	E792	\$6,801.00	E2	32
324TTDC4026	E726	\$1,772.00	E2	31	444TTDS4036	E743	\$6,801.00	E2	32
324TTDC6026	U775	\$1,922.00	E2	31	444TTDS6060	E924	\$7,141.00	E2	32
324TTDC7026	Replaced by	324TTDC4026			444TTFS4546	U880	\$9,036.00	S3	36
324TTDP4028	E764	\$1,772.00	E2	32	444TTFS7262	Y392	\$12,816.00	S3	37
324TTDP4076	E737	\$1,877.00	E2	31	445TSTDS4026	U400	\$8,592.00	E2	32
324TTDP7649	H636	\$1,446.00	E6	31	445TTDS6060	E925	\$9,022.00	E2	32
324TTDR7026	Replaced by	324TTDC4026			445TTDS7372	H149	\$8,863.00	E6	32
324TFFPA4540	U875	\$2,583.00	S3	36	445TFFN4574	U882	\$12,844.00	S3	36
324TFFS7290	Y387	\$3,561.00	S3	37	445TFFN4575	U884	\$14,512.00	S3	36
326TSTDP4001	E713	\$2,553.00	E2	32	445TFFN4826	U881	\$10,760.00	S3	36
326TSTDP4036	E791	\$2,066.00	E2	32	447TSTDN7001	H178	\$12,028.00	E6	32
326TTDC4026	E727	\$2,066.00	E2	32	447TSTDN7003	H193	\$13,727.00	E6	32
326TTDC6026	U777	\$2,322.00	E2	32	447TSTDN7005	H817	\$15,676.00	E6	32
326TTDC7026	Replaced by	326TTDC4026			447TSTDN7026	H812	\$9,832.00	E6	32
326TTDP4048	E765	\$2,066.00	E2	32	447TSTDN7027	H813	\$10,851.00	E6	32
326TTDP4076	E738	\$2,147.00	E2	31	447TSTDN7028	H814	\$11,516.00	E6	32
326TTDP7626	H640	\$1,688.00	E6	32	KIT 100	A100	\$5.00	S4	70
326TTDR7026	Replaced by	326TTDC4026			KIT 104	A104	\$5.00	S4	70
326TFFPA4550	U876	\$3,193.00	S3	36	KIT 105	A105	\$5.00	S4	72
326TFFS9210	Y388	\$4,450.00	S3	37	KIT 106	A106	\$7.00	S4	72
364TSTDC4026	E768	\$2,532.00	E2	32	KIT 107-637	A107	\$8.00	S4	69
364TSTDS4001	E714	\$3,403.00	E2	32	KIT 110	A110	\$7.00	S4	70
364TTDC4036	E739	\$2,532.00	E2	32	KIT 111	A111	\$11.00	S4	69
364TTDC6060	U779	\$2,556.00	E2	32	KIT 112	A112	\$5.00	S4	70

MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.	MODEL NO.	CATALOG NO.	LIST PRICE	MULT. SYMBOL	PAGE NO.
KIT 113	A113	\$5.00	S4	70					
KIT 114	A114	\$10.00	S4	70					
KIT 197	A197	\$17.00	S4	27					
KIT 198	A198	\$20.00	S4	72					
KIT 199	A199	\$20.00	S4	27					
KIT 201	A201	\$17.00	S4	72					
KIT 202	A202	\$20.00	S4	72					
KIT 234	A234	\$15.00	S4	27, 72					
KIT 240	A240	\$26.00	S4	69					
KIT 241	A241	\$39.00	S4	69					
KIT 242	A242	\$32.00	S4	69					
KIT 243	A243	\$10.00	S4	70					
KIT 244	A244	\$12.00	S4	70					
KIT 245	A245	\$14.00	S4	70					
KIT 247	A247	\$5.00	S4	71					
KIT 248	A248	\$5.00	S4	71					
KIT 249	A249	\$12.00	S4	69					
KIT 250	A250	\$12.00	S4	69					
KIT 251	A251	\$12.00	S4	69					
KIT 252	A252	\$12.00	S4	69					
KIT 253	A253	\$12.00	S4	69					
KIT 254	A254	\$12.00	S4	69					
KIT 256	A256	\$95.00	S4	71					
KIT 257	A257	\$30.00	S4	72					
KIT 258	A258	\$40.00	S4	72					
KIT 259	A259	\$16.00	S4	70					
KIT 261	A261	\$14.00	S4	71					
KIT 277	A277	\$16.00	S4	70					
KIT 278	A278	\$9.00	S4	69					
KIT 279	A279	\$14.00	S4	69					
KIT 280	A280	\$14.00	S4	69					
KIT 281	A281	\$30.00	S4	69					
KIT 282	A282	\$27.00	S4	69					
KIT 283	A283	\$27.00	S4	69					
KIT 370-10	A376	\$7.00	S4	71					
KIT 370-15	A378	\$12.00	S4	71					
KIT 370-17.5	A379	\$12.00	S4	71					
KIT 370-20	A380	\$14.00	S4	71					
KIT 370-25	A381	\$15.00	S4	71					
KIT 370-3	A371	\$6.00	S4	71					
KIT 370-30	A382	\$17.00	S4	71					
KIT 370-4	A372	\$6.00	S4	71					
KIT 370-5	A373	\$6.00	S4	71					
KIT 370-7.5	A375	\$7.00	S4	71					
KIT 440-10	A446	\$12.00	S4	71					
KIT 440-7.5	A445	\$11.00	S4	71					

# Marathon Electric Manufacturing Corporation

## MPN411 Terms and Conditions of Sale

**ALL QUOTATIONS ARE MADE AND ALL ORDERS ARE ACCEPTED BY MARATHON ELECTRIC MANUFACTURING CORPORATION SUBJECT ONLY TO THESE TERMS AND CONDITIONS.**

### 1. MODIFICATIONS OF SALES TERMS

Any Terms and Conditions contained in any purchase order or other form of communication from Marathon's customers which are additional to or different from these Terms and Conditions shall be deemed rejected by Marathon unless expressly accepted in writing by Marathon. In general, no modification, amendment, waiver or other change of any of these Terms and Conditions and those contained on the reverse side hereof and/or in attachments hereto ("Terms and Conditions"), or of any of Marathon's rights or remedies thereunder, shall be binding on Marathon unless expressly accepted in writing by Marathon's authorized officers. No course of dealing, usage of trade or course of performance shall be relevant to explain or supplement any of these Terms and Conditions. In case of conflict between the Terms and Conditions printed on this page and those contained on the face side or in attachments hereto, the latter shall control. If any document issued by any party hereto is sent by facsimile or another form of electronic document transmission, the parties hereto agree that (a) the copy of any such document printed on the facsimile machine or printer of the recipient thereof is a counterpart original copy thereof and is a "writing", (b) delivery of any such document to the recipient thereof by facsimile or such other form of electronic document transmission is authorized by the recipient thereof and is legally sufficient for all purposes as if delivered by United States mail, (c) the typewritten name of an authorized agent of the party sending such document on any such document is sufficient as a signature thereon and behalf of such party and the intent of such signature is to authenticate the writing, and (d) an electronically stored and reproduced copy of any such document shall be deemed to be legally sufficient evidence of the terms of such document for all purposes.

### 2. ACCEPTANCE OF ORDERS

Acceptance by Marathon of Buyer's purchase order(s) is expressly conditioned upon Buyer's assent to these Terms and Conditions. Buyer will be deemed to have assented to such Terms and Conditions unless Marathon receives written notice of any objections within fifteen (15) days after Buyer's receipt of this form and in all events prior to any delivery or other performance by Marathon of Buyer's order.

### 3. QUOTATIONS

Quotations by Marathon shall be deemed to be offers by Marathon to sell the equipment described therein subject to these Terms and Conditions, and acceptance of such offers is expressly limited to acceptance by Buyer of all of these Terms and Conditions within thirty (30) days from the date of the quotation. Purchase orders submitted by Buyer for the equipment quoted by Marathon shall be subject to and will be deemed to constitute acceptance of these Terms and Conditions. All purchase orders will be subject to approval by Marathon.

### 4. PRICES; PRICE CHANGES

All prices are net F.O.B. shipping point and are subject to change without notice. In the event of a change in Marathon's prices, the price for equipment unshipped will be the price in effect on the date of shipment.

If Marathon's quoted price was based upon delivery to and acceptance by Buyer of a specified quantity of equipment, such price shall be subject to adjustment if Buyer does not accept the quantity at the times specified in Marathon's quotation, and Buyer will be invoiced at Marathon's standard price without quantity discounts, if any, for the quantity of equipment actually accepted by Buyer.

### 5. TAXES

In addition to any prices, Buyer shall pay the amount of any present or future manufacturer's tax, retailer's occupation tax, use tax, sales tax, excise tax, duty, custom, inspection or testing fee, or any other tax, fee or charge of any nature whatsoever imposed by any governmental authority, on or measured by the transaction between Marathon and Buyer. In the event Marathon is required to pay any such tax, fee or charge, Buyer shall reimburse Marathon therefor; or, in lieu of such payment, Buyer shall provide Marathon at the time the order is submitted with an exemption certificate or other document acceptable to the authority imposing such tax, fee or charge.

### 6. TERMS OF PAYMENT

All orders are subject to the approval of Marathon. Terms of payment are cash in full no later than thirty (30) days from date of shipment, without discount. If, during the period of performance of an order, the financial condition of Buyer is determined by Marathon not to justify the terms of payment specified, Marathon may demand full or partial payment in advance before proceeding with the work, or satisfactory security or guarantees that invoices will be promptly paid when due, or, at its option without prejudice to other lawful remedies, may defer delivery or cancel this contract. If delivery is deferred, the equipment may be stored as provided in Section 9 hereof and Marathon may submit a new estimate of cost for completion based on prevailing conditions. If Buyer defaults in any payment when due, or in the event any voluntary or involuntary bankruptcy or insolvency proceedings involving Buyer are initiated by or against Buyer, then the whole contract price shall immediately become due and payable upon demand, or Marathon, at its option without prejudice to its other lawful remedies, may defer delivery or cancel this contract.

Prorata payments shall become due as shipments are made. If shipments are delayed by the Buyer for any cause, payments shall become due from the date on which Marathon is prepared to make shipment and storage shall be the Buyer's risk and expense as provided in Section 9 hereof. If manufacture is delayed by the Buyer for any cause, a partial payment based upon the proportion of the order completed shall become due from the date on which Marathon is notified of the delay.

### 7. DELIVERY; RISK OF LOSS

All sales are F.O.B. Marathon's plant or other point of shipment designated by Marathon. Shipping dates are estimates only which are not guaranteed and are based upon prompt receipt from Buyer of all necessary shipping and other information. Marathon reserves the right to make delivery in installments, all installments to be separately invoiced and paid for by Buyer when due per invoice, without regard to subsequent deliveries.

Delivery of equipment to a commercial carrier at Marathon's plant or other loading point shall constitute delivery to Buyer, and any risk of loss and further cost and responsibility thereafter for claims, delivery, loss or damage, including, if applicable,

# Marathon Electric Manufacturing Corporation

## MPN411 Terms and Conditions of Sale

placement and storage, shall be borne by Buyer. When equipment is delivered by Marathon's truck, unloading at Buyer's dock shall constitute delivery to Buyer. Claims for shortages or other errors in delivery must be made in writing to Marathon within ten (10) days after receipt of shipment and failure to give such notice shall constitute unqualified acceptance and a waiver of all such claims by Buyer. Claims for loss or damage to equipment in transit by common carrier must be made to the carrier and not to Marathon.

Freight and handling charges by Marathon may not reflect actual freight charges prepaid to the carrier by Marathon due to incentive discounts earned by Marathon based upon Marathon's aggregate volume of freight tendered to a carrier or when a carrier must be used which charges a rate which is different than the rate upon which Marathon's freight and handling charges were based. When shipments are delivered in Marathon's private trucks, Buyer will be charged an amount approximating the prevailing common carrier rate.

### 8. EXCUSABLE DELAYS; FORCE MAJEURE

Marathon shall not be liable for any ordinary, incidental, or consequential loss or damage as a result of Marathon's delay in or failure of delivery or installation due to (i) any cause beyond Marathon's reasonable control, (ii) an act of God, act of the Buyer, embargo or other government act, authority, regulation or request, fire, theft, accident, strike, slowdown or other labor disturbance, war, riot, delay in transportation, or (iii) inability to obtain necessary labor, materials, components, or facilities.

Should any of the aforementioned events of force majeure occur, Marathon, at its option, may cancel Buyer's order with respect to any undelivered equipment or extend the delivery date for a period equal to the time lost because of delay. Notice of such election shall be given promptly to Buyer. In the event Marathon elects to so cancel the order, Marathon shall be released of and from all liability for failure to deliver the equipment, including, but not limited to, any and all claims on behalf of Buyer for lost profits, or any other claim of any nature which Buyer might have.

If shipping or progress of the work is delayed or interrupted by Buyer, directly or indirectly, Buyer shall pay Marathon for all additional charges resulting therefrom.

### 9. STORAGE

If the equipment is not shipped within thirty (30) days after notification has been made to Buyer that it is ready for shipping, for any reason beyond Marathon's control, including Buyer's failure to give shipping instructions, Marathon may store the equipment at Buyer's risk and expense in a warehouse or on Marathon's premises, and Buyer shall pay all handling, transportation and storage costs at the prevailing commercial rates promptly following Marathon's submission of invoices for such costs.

### 10. WARRANTIES TO DISTRIBUTORS AND INDUSTRIAL OR COMMERCIAL CUSTOMERS

This warranty is extended only to Marathon's distributors and industrial or commercial customers and does not apply to consumer purchasers.

**Warranty Period** - (a) Marathon warrants the Fractional motors and Integral motors manufactured by or for it to be free

from defects in materials and workmanship and to conform to Marathon's written specifications for a period of 12 months from date of first use, 18 months from date of manufacture, whichever period shall expire first. (b) Marathon warrants special products, as listed below, to be free from defects in materials and workmanship and to conform to Marathon's written specifications.

- Blue Chip® Severe Duty Explosion Proof and EAct compliant motors, 24 months from date of first use, 30 months from date of manufacture, whichever period shall expire first.
- Blue Max®, Black Max®, microMAX™ Inverter Duty motors and all XRI® motors, 36 months from date of first use, 42 months from date of manufacture, whichever period shall expire first.
- U-Frame Automotive Duty and IEEE-841 motors, 60 months from date of first use, 66 months from date of manufacture, whichever period shall expire first.

**Warranty Remedies** - If, prior to expiration of the foregoing applicable warranty period, any of such products shall be proved to Marathon's satisfaction to be defective or nonconforming, Marathon will repair or replace such defective equipment or components thereof, F.O.B. Marathon's plant or other destination designated by Marathon, or will refund or provide Buyer with a credit in the amount of the purchase price paid therefor by Buyer, at Marathon's sole option. Buyer's exclusive remedy and Marathon's sole obligation under this warranty shall be limited to such repair or replacement, F.O.B. Marathon's plant or other destination designated by Marathon, or refund or credit by Marathon, and shall be conditioned upon Marathon's receiving written notice of any defect within a reasonable period of time (but in no event more than sixty (60) days) after it was discovered or by reasonable care should have been discovered. In no event shall Marathon's liability for such defective or nonconforming products exceed the purchase price paid by Buyer therefor.

**Exclusions** - This warranty does not (i) cover shipping expenses to and from Marathon's factory or other destination designated by Marathon for repair or replacement of defective equipment or any tax, duty, custom, inspection or testing fee, or any other charge of any nature related thereto, nor does it cover the costs of disassembling or removing defective equipment or reassembling, reinstalling, or testing repaired or replaced equipment or finishing the reinstallation thereof, (ii) apply and shall be void with respect to equipment operated in excess of rated capacity or otherwise not in accordance with installation, maintenance, or operating instructions or requirements, to equipment repaired or altered by others than Marathon or Marathon's authorized service agencies, or to equipment which was subjected to abuse, negligence, misuse, misapplication, accident, damages by circumstances beyond Marathon's control, to improper installation (if by others than Marathon), operation, maintenance or storage, or to other than normal use or service, and (iii) apply to equipment or components not manufactured by or for Marathon. With respect to equipment or components not manufactured by Marathon, Marathon's warranty obligations shall in all respects conform and be limited to the warranty actually extended to Marathon by its suppliers, but in no event shall Marathon's obligations be greater than those provided under Marathon's warranty set forth in this Section 10.



# Marathon Electric Manufacturing Corporation

## MPN411 Terms and Conditions of Sale

**THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES (EXCEPT TITLE), INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO EMPLOYEE, REPRESENTATIVE, OR AGENT OF MARATHON OTHER THAN AN OFFICER OF MARATHON IS AUTHORIZED TO ALTER OR MODIFY ANY PROVISION OF THIS SECTION 10 OR TO MAKE ANY GUARANTEE, WARRANTY, OR REPRESENTATION, EXPRESS OR IMPLIED, ORALLY OR IN WRITING, WHICH IS CONTRARY TO THE FOREGOING.** Any description of the equipment, whether in writing or made orally by Marathon or Marathon's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with Buyer's order are for the sole purpose of identifying the equipment and shall not be construed as an express warranty. Any suggestions by Marathon or Marathon's agents regarding use, application or suitability of the equipment shall not be construed as an express warranty unless confirmed to be such in writing by Marathon's authorized officer.

### **11. LIMITATIONS OF LIABILITY; CONSEQUENTIAL DAMAGES**

**Nuclear Use Disclaimer** - Equipment sold by Marathon is not intended for use in connection with any nuclear facility or activity. If so used, Marathon disclaims all liability for any nuclear damage, injury or contamination, and Buyer shall indemnify and hold Marathon, its officers, agents, employees, successors, assigns and customers harmless from and against any and all losses, damages or expenses of whatever form or nature (including attorneys' fees and other costs of defending any action) which they or any of them may sustain or incur, whether as a result of breach of contract, warranty, tort (including negligence) or otherwise, by reason of such use.

**Consequential Damage Disclaimer** - Marathon's liability with respect to equipment proved to its satisfaction to be defective within the warranty period shall be limited to repair, replacement or refund as provided in Section 10 hereof, and in no event shall Marathon's liability exceed the purchase price of the equipment involved. Marathon shall not be subject to any other obligations or liabilities, whether arising out of breach of contract, warranty, tort (including negligence) or other theories of law, with respect to equipment sold or services rendered by Marathon, or any undertakings, acts or omissions relating thereto. Without limiting the generality of the foregoing, Marathon specifically disclaims any liability for property or personal injury damages, penalties, special or punitive damages, damages for lost profits or revenues, loss of use of equipment or any associated equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown, or slowdown costs, or for any other types of economic loss, and for claims of Buyer's customers for any such damages.

**MARATHON SHALL NOT BE LIABLE FOR AND DISCLAIMS ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER. EVEN IF THE REPAIR OR REPLACEMENT REMEDY SHALL BE DEEMED TO HAVE FAILED OF ITS ESSENTIAL PURPOSE UNDER SECTION 2-719 OF THE UNIFORM COMMERCIAL CODE, MARATHON SHALL HAVE NO LIABILITY TO BUYER FOR CONSEQUENTIAL DAMAGES, SUCH AS LOST PROFITS, LOST REVENUE, DAMAGE TO**

**OTHER EQUIPMENT OR LIABILITY OR INJURY TO A THIRD PARTY.**

### **12. INDEMNIFICATION BY BUYER**

Buyer shall indemnify, hold harmless, and defend Marathon and Marathon's employees and agents from and against any and all damages, liability, claims, losses, and expenses (including reasonable attorneys' fees, court costs, and out-of-pocket expenses) arising out of or resulting in any way from claims by customers of Buyer or third parties against Marathon alleging a breach of contract or warranty by Marathon to the extent that such damages, liability, claims, losses, and expenses which may be payable by Marathon to Buyer pursuant to and as limited by Marathon's warranty and damage obligations as contained in Sections 10 and 11 hereof so as to effectively limit Marathon's obligations to customers of Buyer or third parties to those set forth in Sections 10 and 11 hereof.

### **13. PATENT INDEMNIFICATION**

Marathon will, at its own expense, defend or settle any suits that may be instituted against Buyer for alleged infringement by the equipment of any United States patent, provided that (a) such alleged infringements consist of the use of the equipment for any of the purposes for which such equipment was sold, (b) Buyer shall have made all payments for such equipment then due hereunder, (c) Buyer shall give Marathon immediate notice in writing of any such suit and transmit to Marathon immediately upon receipt all processes and papers served upon Buyer, and (d) Buyer shall permit Marathon through its counsel, either in the name of Buyer or in the name of Marathon, to defend such suit(s) and give all needed information, assistance and authority to enable Marathon to do so.

In case of a final award of damages in any such suit, Marathon will pay such award but will not be responsible for any compromise or settlement made without its written consent. In case the equipment itself is in such suit held to infringe any valid patent issued in the United States and its use enjoined, or in the event of a settlement or compromise approved by Marathon which shall preclude future use of the equipment sold to Buyer hereunder, Marathon shall, at its own expense and at its sole option, either (a) procure rights to continue using such equipment, (b) modify the equipment to render it non-infringing, (c) replace the equipment with non-infringing equipment or (d) refund the purchase price paid by Buyer for the equipment after return of the equipment to Marathon. Notwithstanding the foregoing, Marathon shall not be held responsible for infringements of combination or process patents covering the use of equipment in combination with other goods or materials not furnished by Marathon.

The foregoing states the entire liability of Marathon for patent infringement, and **IN NO EVENT SHALL MARATHON BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES ATTRIBUTABLE TO AN INFRINGEMENT** nor for infringement based on the use of the equipment for a purpose other than that for which sold by Marathon. As to any equipment furnished by Marathon to Buyer manufactured in accordance with designs proposed or furnished by Buyer or any claim of contributory infringement resulting from the use or resale by Buyer of equipment sold hereunder, Buyer shall indemnify Marathon for any award made against Marathon or settlement by Marathon for any patent, trademark or copyright infringements, including attorneys' fees and defense costs.

# Marathon Electric Manufacturing Corporation

## MPN411 Terms and Conditions of Sale

### 14. SECURITY AGREEMENT AND FINANCING STATEMENTS

To secure payment of the purchase price and of all monies which may be due hereunder, and performance of all of Buyer's obligations hereunder, Buyer hereby grants to Marathon a security interest in all equipment sold by Marathon, and agrees to execute such other Security Agreements and Financing Statements as Marathon may reasonably request.

### 15. INSURANCE

Until payment in full of the purchase price, Buyer shall maintain insurance covering all equipment sold by Marathon to Buyer in such amounts and against such risks as is customary by companies engaged in the same or similar business and similarly located, and shall, upon Marathon's request, furnish evidence of such insurance satisfactory to Marathon.

### 16. DRAWINGS; OTHER DESIGN DATA

All specifications, drawings, designs, data, information, ideas, methods, tools, gages, dies, fixtures, patterns and/or inventions made, conceived, developed or acquired by Marathon in connection with procuring and/or executing Buyer's order will vest in and inure to Marathon's sole benefit notwithstanding any changes therefor which may have been or may be imposed by Marathon.

Buyer shall not give, loan, exhibit, sell or transfer to any person not then employed by Buyer and authorized to receive such information, or to any organization or entity, any drawing, photograph or specification furnished by Marathon or reproduction thereof which may enable such person, organization or entity to furnish similar goods or parts therefor.

### 17. RETURN OF EQUIPMENT

No equipment or part shall be returned to Marathon without written authorization and shipping instructions first having been obtained from Marathon.

### 18. ASSIGNMENT AND SUBCONTRACTING

None of the Buyer's rights under any order shall be assigned by the Buyer to any other person, whether by operation of law or otherwise, without Marathon's prior written approval. Marathon may, without the necessity of obtaining Buyer's prior written consent, subcontract the production of all or any portion of the equipment.

### 19. CANCELLATION

No order submitted to Marathon may be cancelled by Buyer without the prior written consent of Marathon, which consent will at all times be conditioned on Buyer's agreement to pay Marathon's cancellation charge. For finished equipment which in Marathon's judgment is readily resalable to others, the cancellation charge shall be 15% of the invoice price of the equipment. For all other cancellations, the cancellation charge shall amount to all costs and expenses incurred by Marathon and arising out of or in connection with Buyer's order, net of recoverability, but in no event less than 10% of the invoice price of the equipment or more than the invoice price.

### 20. GENERAL

**Governing Law** - These Terms and Conditions, and the contract of sale between Marathon and Buyer, shall be governed by and construed in accordance with the laws of the State of Wisconsin. Marathon and Buyer hereby agree that any legal action deemed necessary by either party hereto shall be brought in the Circuit Court in and for Marathon County, Wisconsin and hereby consent to the personal jurisdiction of such court in any such action over the parties hereto. The rights and obligations of Marathon and Buyer shall not be governed by the provisions of the United Nations Convention on Contracts for the International Sale of Goods.

**Attorneys' Fees** - Buyer agrees to pay all of Marathon's costs and expenses of collection and related litigation, including but not limited to attorneys' fees and costs.

**Salvatory Clause** - The invalidity, in whole or in part, of any of the provisions of these Terms and Conditions, shall not affect the enforceability of any of the other provisions thereof.

**Applicability** - The Terms and Conditions as stated herein are applicable as of the date of this printing and until such time as changed by Marathon.

Revised, January 2004



## Important Information

### Resale of Goods

In the event of the resale of any of the goods, in whatever form, Resellers/Buyers will include the following language in a conspicuous place and in a conspicuous manner in a written agreement covering such sale:

The manufacturer makes no warranty or representations, express or implied, by operation of law or otherwise, as to the merchantability or fitness for a particular purpose of the goods sold hereunder. Buyer acknowledges that it alone has determined that the goods purchased hereunder will suitably meet the requirements of their intended use. In no event will the manufacturer be liable for consequential, incidental or other damages. Even if the repair or replacement remedy shall be deemed to have failed of its essential purpose under Section 2-719 of the Uniform Commercial Code, the manufacturer shall have no liability to Buyer for consequential damages.

Resellers/Buyers agree to also include this entire document including the warnings and cautions above in a conspicuous place and in a conspicuous manner in writing to instruct users on the safe usage of the product.

This information should be read together with all other printed information supplied by Marathon Electric.



For more information contact: **Marathon Electric Manufacturing Corporation**, Subsidiary of REGAL-BELOIT CORPORATION, 100 E. Randolph St., Wausau, WI 54401 Phone: 715-675-3311 or Fax: 715-675-8030.

# IMPORTANT INFORMATION



## Please Read Carefully

This catalog is not intended to provide operational instructions. Appropriate Marathon Electric instructions provided with the motor and precautions attached to the motor should be read carefully prior to installation, operation and/or maintenance of the equipment. Injury to personnel or motor failure may be caused by improper installation, maintenance or operation.

**The following  and  information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your Marathon Electric product:**



- Disconnect power and lock out driven equipment before working on a motor.
- Always keep hands and clothing away from moving parts.
- The lifting support on the motor is not to be used to lift the entire machine. Only the motor attached directly to the support may be safely lifted by the support.
- Install and ground per local and national codes.
- Discharge all capacitors before servicing a single phase motor.
- Misapplication of a motor in a hazardous environment can cause fire or an explosion and result in serious injury. Only the end user, local authority having jurisdiction, and/or insurance underwriter are qualified to identify the appropriate class(es), group(s), division and temperature code. Marathon Electric personnel can not evaluate or recommend what motors may be suitable for use in hazardous environments. If a motor is nameplated for hazardous locations, do not operate the motor without all of the grease and drain plugs installed.
- Never attempt to measure the temperature rise of a motor by touch. Temperature rise must be measured by thermometer, resistance, imbedded detector or thermocouple.
- Motors with automatic reset thermal protectors will automatically restart when the protector temperature drops sufficiently. Do not use motors with automatic reset thermal protectors in applications where automatic restart will be hazardous to personnel or equipment.
- Motors with manual reset thermal protectors may start unexpectedly after the protector trips when the surrounding air is at +20°Fahrenheit or lower. If the manual reset protector trips, disconnect motor from its power supply. After the protector cools (five minutes or more), it can be reset and power may be applied to the motor.
- Connect all protective device leads, marked P1, P2, etc., per instructions supplied with the motor.
- Operation of a motor at other than its nameplate rating may result in fire, damage to equipment or serious injury to personnel.
- For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.



- Consult qualified personnel with questions and all electrical repairs must be performed by trained and qualified personnel only.
- For motors nameplated as “belted duty only”, do not operate the motor without belts properly installed.
- Motors and/or driven equipment should not be operated faster than their rated speed.
- For inverter applications, follow the inverter manufacturer’s installation guidelines.
- Make sure the motor is properly secured and aligned before operation.

# Installation, Operation & Maintenance Instructions

## 48 & 56 Frame Motors



1. Disconnect power to the motor before performing installation or maintenance.
2. Discharge all capacitors before servicing motor.
3. Always keep hands and clothing away from moving parts.
4. Electrical repairs should be performed by trained and qualified personnel only.
5. Be sure required safety guards are in place before starting equipment.
6. Failure to follow instructions and safe electrical procedures could result in serious injury.

### GENERAL INFORMATION:

Marathon Electric motors are all fully tested and inspected before shipment. The most common cause of troubles occur in either: shipment, improperly matched power supply, or failure to follow the following installation instructions. These instructions are intended as a guide to prevent these troubles from occurring.

### UNCRATING:

Check carefully for any damage that may have occurred in transit. Report any obvious damage to your freight claim agent immediately before uncrating. After uncrating, check further that no apparent damage has been incurred in handling. Check that the motor shaft turns freely.

### POWER SUPPLY:

Make certain that the line voltage of the power supply on which the motor is to operate corresponds with the motor nameplate voltage (also check frequency and phase against the motor nameplate). Be sure that dual voltage motors are properly connected to correspond to the power supply voltage (check motor connections with the diagram on the motor nameplate or decal). Check the size and ampere rating of the power supply and control box against the amperes marked on the nameplate (for voltage used) to insure adequate wiring capacity.

### EXPOSURE:

Check to determine that the motor has not been exposed to dirt, grit, or excessive moisture in either shipment or storage before installation. Never start a motor which has been wet without having it thoroughly dried (by a competent service shop). Clean the motor of any dirt or grit.

### INSTALLATION:

Now...properly mount, align, and connect the motor to a free turning load. With adequate power, wiring, and horsepower, you should experience dependable service from your new Marathon Electric motor for many years to come.

### OPERATION:

Before initial starting:

1. Check that voltage and frequency stamped on motor and control nameplates correspond with that of the line.

2. Check all connections to the motor and control with the wiring diagram.

If voltage and frequency are within the following range, motors will operate, but with somewhat different characteristics than obtained with correct nameplate values.

1. Voltage: Within 10% above or below the value stamped on the nameplate.
2. Frequency: Within 5% above or below the value stamped on the nameplate.

### CLEANLINESS:

Keep both the interior and exterior of the motor free from dirt, water, oil, and grease. Motors operating in dirty places should be periodically disassembled and thoroughly cleaned by a competent service shop.

### CARE AND MAINTENANCE:

Ball Bearings: Require no attention during the life of the bearings.

Sleeve Bearings: Recoil with 10 drops of 5W30 oil annually, after three years of normal service.

### TROUBLES:

If trouble is experienced in the operation of the motor, make sure that:

1. The bearings are in good condition and operating properly.
2. There is no mechanical obstruction to prevent rotation.
3. All bolts and nuts are tightened securely.
4. Proper connection and alignment to driven machine or load has been made.

In checking for electrical troubles, be sure that:

1. The power supply voltage and frequency correspond to the voltage and frequency stamped on the nameplate of the motor.
2. The voltage is actually available at the motor terminals.
3. The fuses and other protective devices are properly sized for the motor and are in proper operating condition.
4. All connections and contacts are properly made in the circuits between the control apparatus and motor.