

FALL HEATING SPECIAL EDITION

EQUIPMENT MOUNTING | TOOLS | CONDENSATE MANAGEMENT
MAINTENANCE CHEMICALS | ELECTRICAL | CONTROLS | MOTORS

ALTEMP 

Swivel Brackets



Unit Heater Swivel Brackets

The Quick-Sling® line of unit heater swivel brackets are uniquely designed to provide fast and easy installation of most all ceiling mounted unit heaters. The innovative swivel design allows for 360° rotation for setting the perfect air flow direction prior to hard piping the unit. Multiple ceiling mounting options adopt to various installation applications.

Swivel "U" Mount with "H" or "I" Bracket

Item ID	Description
QSW11000	Quick-Swivel "U" Mount with H Bracket. Holds up to 200 lbs.
QSW12000	Quick-Swivel "U" Mount with I Bracket. Holds up to 200 lbs.



QSW11000 Illustrated

Swivel Flush Mount with "H" Bracket

Item ID	Description
QSWI3000	Quick-Swivel Flush Mount with H Bracket. Holds up to 200 lbs.
QSWI3001	Swivel for Concealed Ducted AH Hangers & BC Cont. 36" Spreader Bar
QSWI3002	Swivel for Concealed Ducted AH Hangers & BC Cont. 17" Spreader Bar
QSWI4000	Quick-Swivel Flush Mount with I Bracket. Holds up to 200 lbs.
QSWI4001	Quick-Swivel Flush Mount with I Bracket. Holds up to 240 lbs.



QSWI3000 Illustrated

Flush Mount - Heavy Duty

Item ID	Description
QSWI5001	Quick Swivel Heavy Duty Flush Mount with I Bracket, 34 in. Holds up to 400lbs.
QSWI5002	Quick Swivel Heavy Duty Flush Mount with I Bracket, 52 in. Holds up to 400lbs.
QSWI5003	Quick Swivel Heavy Duty Flush Mount with Large H Bracket. Holds up to 400lbs.



QSWI5001 Illustrated

Branch Circuit Controller Swivel Flush Mount with 2 "I" Brackets

Item ID	Description
QSWI6000	Swivel for Concealed Ducted AH Hangers & BC Cont. Holds up to 400lbs.



QSWI6000 Illustrated

Mounting Blocks



Furnace Mounting Blocks

The DiversiTech® furnace mounting block FB-1 is a base support for furnaces. The furnace block raises the furnace approximately 2 inches and includes an anti vibration pad to reduce noise and vibration. Each furnace block can support over 500 pounds. Its unique wedge shape and integrated lip around top edge insure quick and accurate placement on each corner of the furnace. Easy peel and stick attachment method, not tools needed.

Item ID	Description
FB-1	Furnace Mounting Block, 72/Case



Drain Guns



SWOOSH® Drain Guns

The SWOOSH® Drain Gun is designed to blow out drain lines instantly. New larger 20 gram SWOOSH CO2 cartridges deliver 800 PSI of oil free air to clear the line, with 25% more capacity. Each unit comes equipped with a tapered fitting to work on 3/8in. – 3/4in. drain openings. Flexible hose assembly maneuvers through cabinets, coils and hard to reach drains. Reduces labor costs and time on service calls.

SWOOSH® Drain Gun Big Shot

Item ID	Description
SG-1	20G SWOOSH Drain Gun Big Shot
SGC-12	20G SWOOSH Drain Gun Cartridge, Pack of 12



Drain Gun Portable Drain Cleaning Tool

Clears condensate drains with a SWOOSH®! A lightweight (3 oz.) portable tool designed to blow out drain lines instantly. SWOOSH® CO² cartridges deliver 800 PSI of oil free air to clear the line. Each unit comes equipped with a tapered fitting to work on 3/8in. – 3/4in. drain openings. Flexible hose assembly maneuvers through cabinets, coils and hard to reach drains. Cartridges are environmentally safe and recyclable. No need for air or nitrogen tanks. Reduces labor costs and time on service calls.

Item ID	Description
GG-1	Drain Gun
GGC-12	Drain Gun Cartridge, Pack of 12



Smoke Emitters

Cartridge Type Smoke Emitter

Item ID	Type	Burning Time (seconds)	Cartridge/Pack	Smoke Emitted (Cu. ft.)	Wight/Cartridge
61-S210-25	Splintax	20	25 matches/Pk	20	0.35 oz.



Pen Type Smoke Emitters

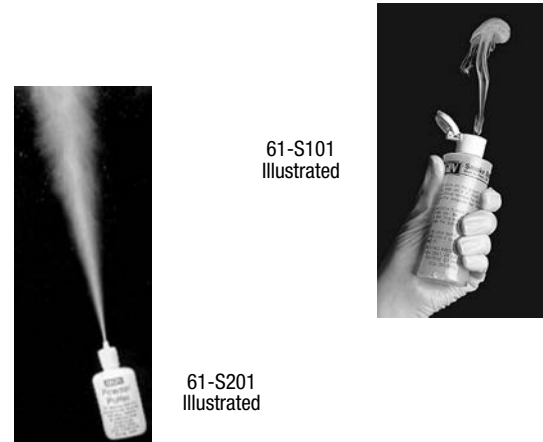
Item ID	Description
61-S220	Contains 1 pen with 6/pk replacement wicks. 6 wicks provide up to 3 hours of continuous smoke, or 360 individual 30 second tests.
61-S221	6 pack of replacement wicks in plastic case for 61-S220 smoke pen.



Smoke Bottles

Item ID	Description
61-S101	10 Smoke bottles. Each bottle can be used for 24 hours after ampule has been broken.

Note: The smoke generated by smoke bottles is corrosive.



Powder-Puffers

Item ID	Description
61-S201	10 Powder-Puffers

Heat Shields

The Insurance Pad™

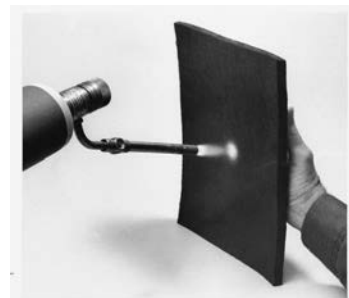
The Insurance Pad is the ultimate heat shield. Use wet or dry where ever higher temperature protection is required, up to 2500°F. The Insurance Pad is a fibrous felt heat shield with the safest specs in the industry. Repeated use of the product actually increases its heat resistance.

Applications

- Ideal for use with propane, MAPP gas, acetylene/ air and higher temperature torches.

Item ID	Description
61-71036	6" x 9"
61-71038	9" x 12"

Heat Resistant to 2500°F



Helping You Select the Right Condensate Management System

We make condensate management easy with useful resources at your fingertips. We offer quality products, and helpful resources to answer your questions. Understanding how to optimally install a condensate management system with proper checks and balances is made even easier with descriptive infographics. You will find that our website and Technical Support Team are valuable resources.

Water damage is a key homeowner worry. Why chance it?

asurityhvacr.com



YOUR COMPLETE SYSTEM FOR CONDENSATE MANAGEMENT

Vertical Installation with Furnace and Condensate Pump



- GARAGE
- BASEMENT
- UTILITY CLOSET

Techs Helping Techs

We take our responsibility to answer your questions seriously, which is why we have trained HVAC/R technicians providing you support. Techs who have dealt with the real-life situations that you deal with every day are here to help you every step of the way whether it be helping select the right product, answering installation questions, or troubleshooting.

For Technical Support: (800) 995-2222

Condensate Pumps



Pumps are often the heart of a complete condensate management system. With simple installation, high durability, and long-term reliability, they effortlessly pump water wherever it needs to go. Every pump is designed to help you get the job done right regardless of the application.

Condensate Pump Ultra

Asurity® ULTRACP-22 series pumps beat the industry standard of 20' lift height by 2 feet and come with innovative features such as: translucent tank for easy & fast inspection, vibration dampening feet & motor mounts, metal mounting tabs, four inlet holes (and 3 poly covers for the unused), LED indicators, float switch and duckbill-style check valve, and detailed installation instructions. Two 1/4in. quick connect terminals provide the installer fast and easy connections to the built-in overflow switch to shut-down the system and prevent flooding, an important safety feature.

Asurity® - Your Complete System for Condensate Management.

- Translucent Tank for Easy & Fast Inspection
- Removable Check Valve for Easy Cleaning
- LED Indicators Confirm Pump Status
- Built-in Safety Overflow Switch
- Handles Condensate up to 160° F



ULTRACP-22 Illustrated

Item ID	Description
ULTRACP-22	Condensate Pump, 120V, 60Hz, 22' Lift
ULTRACP-22-230	Condensate Pump, 230V, 60Hz, 22' Lift

Specialty ClearVue™ Condensate Pumps

- Translucent Tank for Easy & Fast Inspection
- Removable Check Valve for Easy Cleaning
- LED Indicators Confirm Pump Status
- Built-in Safety Overflow Switch
- Handles Condensate up to 160° F



ULTRACP-22T Illustrated

Item ID	Description
ULTRACP-22T	Condensate Pump, 120V, 60Hz, 22' Lift, 20' Clear Vinyl 3/8" Tubing
ULTRACP-22T-230	Condensate Pump, 230V, 60Hz, 22' Lift, 20' Clear Vinyl 3/8" Tubing

Condensate Pumps



Standard Condensate Pumps

- LED Indicators Confirm Pump Status
- Built-in Safety Overflow Switch
- Handles Condensate up to 160° F
- Sturdy Metal Hang Tabs

Item ID	Description
CP-22	Condensate Pump, 120V, 60Hz, 22' Lift
CP-22-230	Condensate Pump, 230V, 60Hz, 22' Lift
CP-22T	Condensate Pump, 120V, 60Hz, 22' Lift, 20' Clear Vinyl 3/8" Tubing
CP-22-230T	Condensate Pump, 230V, 60Hz, 22' Lift, 20' Clear Vinyl 3/8" Tubing



CP-22 Illustrated

General Purpose Condensate Pumps

More compact than the CP-22, it's designed to lift to a maximum of 16 feet. The CP-16 shares many of the great features of the CP-22, including hang tabs, four inlet holes, float switch, overflow switch, and a check valve. UL Listed File Numbers E253155 and E258186.

Item ID	Description
CP-16	Condensate Pump, 120V, 60Hz, 16' Lift
CP-16-230	Condensate Pump, 230V, 60Hz, 16' Lift



CP-16 Illustrated

Specialty Condensate Pumps - Acid & High Temperature Applications

- Handles Acidic and Non-Acidic Condensate up to 190° F
- Stationary PVC Pipe Inlets for Easy Tank Access
- LED Indicators Confirm Pump Status
- Built-In Safety Overflow Switch
- Remove Check Valve Without Tools for Easy Cleaning

Item ID	Description
FP-22	Furnace Condensate Pump, 120V, 60Hz, 22' Lift
FP-22-230	Furnace Condensate Pump, 230V, 60Hz, 22' Lift



FP-22 Illustrated

Specialty ClearVue™ Condensate Pumps

- Translucent Tank for Easy & Fast Inspection
- Variable Speed for Quieter Operation
- Senses Clog & Engages Pulse Mode for Cleaning
- Built-In Safety Overflow Switch with Alarm & Run Contacts
- LED Indicators & Audible Alarm Confirm Pump Status
- Floatless Sensor Technology

Item ID	Description
IQP-120	ClearVue Condensate Pump, 120V, 60Hz, 22' Lift
IQP-120T	ClearVue Condensate Pump, 120V, 60Hz, 22' Lift, 20' Clear Vinyl 3/8" Tubing



IQP-120 Illustrated

Ductless Condensate Pumps



**Low Profile Specialty Condensate Pumps
Standard Applications**

- Reduced Height for Restricted Spaces
- LED Indicators Confirm Pump Status
- Built-in Safety Overflow Switch
- Handles Condensate up to 160° F
- Sturdy Metal Hang Tabs



CP-22LP
Illustrated



CP-22LP-P
Illustrated

Item ID	Description
CP-22LP	Low Profile Condensate Pump, 120V, 60Hz, 22' Lift
CP-22LP-230	Low Profile Condensate Pump, 230V, 60Hz, 22' Lift
CP-22LP-P	Low Profile Condensate Pump, 120V, 60Hz, 22' Lift, Plenum Rated
CP-22LP-230-P	Low Profile Condensate Pump, 230V, 60Hz, 22' Lift, Plenum Rated

**Pro Condensate Pumps
Standard Applications**

- Handles Condensate up to 160° F
- Built-in Safety Overflow Switch
- Sturdy Metal Hang Tabs



PROCP-16
Illustrated



20' Clear Vinyl 3/8" Tubing only included with
PROCP-22ST
PROCP-22ST-230

Item ID	Description
PROCP-16*	Pro Series Condensate Pump, 120V, 60Hz, 16' Lift
PROCP-16-230*	Pro Series Condensate Pump, 230V, 60Hz, 16' Lift
PROCP-22S	Pro Series Condensate Pump, 120V, 60Hz, 22' Lift
PROCP-22S-230	Pro Series Condensate Pump, 230V, 60Hz, 22' Lift
PROCP-22ST	Pro Series Condensate Pump, 120V, 60Hz, 22' Lift, 20' Clear Vinyl 3/8" Tubing
PROCP-22ST-230	Pro Series Condensate Pump, 230V, 60Hz, 22' Lift, 20' Clear Vinyl 3/8" Tubing

*Note: Without Built-in Safety Overflow Switch

**Pro Condensate Pumps
Acidic, Max Temperature & High Lift/Flow Applications**

- Handles Acidic and Non-Acidic Condensate up to 212° F
- Large 1-Gallon Tank Instantly Reduces Temperature of Boiler & Steam Humidifier Discharge
- Flow Rate up to 190 Gallons Per Hour
- Quarter-Turn Removable Check Valve
- Built-In Safety Overflow Switch



PROCP-46
Illustrated

Item ID	Description
PROCP-46	Pro Series Condensate Pump, 120V, 60Hz, 49' Lift
PROCP-46-230	Pro Series Condensate Pump, 230V, 60Hz, 49' Lift

Ductless Condensate Pumps



**Ductless Condensate Pumps
Standard Applications**

- Quiet Operation (20.2 Decibels)
- Suction Lift 6.5'
- For Equipment up to 36K BTU/h
- Built-in Safety Overflow SwWitch with Alarm & Run Contacts
- For Wall Mounts & Ceiling Cassettes
- Includes Installation Accessories



Item ID	Description
CP-M115	Ductless Condensate Pump, 115V, 60Hz, 24' Lift
CP-M230	Ductless Condensate Pump, 230V, 60Hz, 24' Lift

**ClearVue™ Mini Ductless Condensate Pump
Standard Applications**

- Variable Speed for Silent Operation (19.0 Decibels)
- Suction Lift 6.5'
- For Equipment up to 120K BTU/h
- Built-in Safety Overflow Switch with Alarm & Run Contacts
- LED Indicators Confirm Pump Status
- Includes Installation Accessories
- Floatless Sensor Technology



Item ID	Description
CVMINI	ClearVue Mini Ductless Condensate Pump, 120-240V, 60Hz, 35' Lift

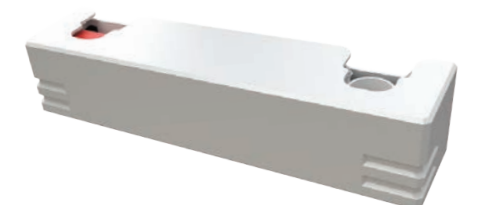
ClearVue™ Mini Clear Vinyl Tubing

Item ID	Description
7-CVMINITUBE	3/16in. ID ClearView CVT, 100ft



**Undermount Ductless Condensate Pump
Standard Applications**

- Undermount Pump for Ductless System
- Ultra Quiet (21dBA)
- Removable Reservoir for Easy Maintenance
- Built-in Safety Overflow Switch
- Max Unit Output 54,000 BTU/h, 16kW



Item ID	Description
QUIETMINI-M	Undermount Ductless Condensate Pump, 115-230V, 60Hz, 26' Lift

Drain Pans



Our drain pans are engineered to provide that extra level of confidence. We offer standard plastic and metal pans made with rolled edges for durability, ribbed bottoms for rigidity, and reinforced corners for strength; while our specialty high rise drain pans feature risers for additional height.

These drain pans are the backbone of our complete condensate system.

Specialty Plastic Drain Pans

Poly Drain Pan for Mini-Split Systems, drains condensation that has formed on the outdoor coils coils away from the structure to another location. The drain pan bolts on to the outdoor unit mounting brackets, and a drain line can be plumbed to a suitable location. All mounting hardware and drain pan outlet are included.

- UV-stabilized and Reinforced Polypropylene
- Powder-coated Steel
- Comes with Mounting Hardware and Drain Pan Outlet



Item ID	Description
230-DPPL	Large Poly Drain Pan for Mini-Split Systems, 16.75in x 38in
230-DPPM	Medium Poly Drain Pan for Mini-Split Systems, 16.75in x 32.25in

Specialty Plastic Drain Pans

CP-PAN Condensate Pump Pan provides extra redundancy needed in a condensate management system to prevent catastrophic water damage. While best practice is to place a condensate pump in the secondary drain pan, some situations occur where that is not possible. Now you don't have to compromise. The Asurity Condensate Pump Pan is perfectly sized to fit most condensate pumps and is designed specifically with room for a safety overflow switch, such as Asurity CS-3, to help minimize the possibility of water damage due to condensate overflow.

- Captures Pump Overflow for Extra Safety Layer
- Universal Fit for Most Condensate Tank Pumps
- Provides Space for CS-3 Safety Switch to Prevent System Overflow
- No Seams, No Rust, No Leakage, Providing Long Term Operation



Item ID	Description
CP-PAN	Condensate Pump Pan

Drain Pans



Plastic Drain Pans

Plastic Drain Pan are used to collect condensate from cooling and evaporator coils in locations where damage to any building component could occur as a result of overflow from the equipment drain pan or stoppage of the condensate drain piping. Drain line outlet on pan's long side. Includes 3/4 in. PVC fittings.

- Rolled Edges, Ribbed Bottom, Reinforced Corners
- PVC Fittings Included
- No Seams, No Rust, No Leakage

Item ID	Description
6-1838L	Plastic Drain Pan, 18x38L, Pack of 5
6-1838S	Plastic Drain Pan, 18x38S, Pack of 5
6-2424L	Plastic Drain Pan, 24x24L, Pack of 5
6-2626L	Plastic Drain Pan, 26x26L, Pack of 5
6-2739L	Plastic Drain Pan, 27x39L, Pack of 5
6-2748L	Plastic Drain Pan, 27x48L, Pack of 5
6-2763L	Plastic Drain Pan, 27x63L, Pack of 5
6-3030L	Plastic Drain Pan, 30x30L, Pack of 5
6-3050L	Plastic Drain Pan, 30x50L, Pack of 5
6-3060L	Plastic Drain Pan, 30x60LF, Pack of 5
6-3060S	Plastic Drain Pan, 30x60 S , Pack of 5
6-3263L	Plastic Drain Pan, 32x63L, Pack of 5
6-3263L-F	Plastic Drain Pan, 32x63LF, Pack of 5
6-3636L	Plastic Drain Pan, 36x36L, Pack of 5
6-3660L	Plastic Drain Pan, 36x60L, Pack of 5
6-3660S	Plastic Drain Pan, 36x60S, Pack of 5



Complies with Southern Building Code

High Rise Drain Pans

HR Drain Pan Kits allows placement of air handler above the pan lip without the need for separate, cumbersome mounting blocks. With a molded-in network of risers to give a 5 inch lift; positioned to accept a wide variety of air handler sizes. Includes a Condensate Cop float switch, 6 EVA anti-vibration pads, and 1 3/4in. PVC male adapter.

- Position AV Pads Where You Want Them
- Full 5" Rise from Bottom of Pan
- Heavy Reinforcement Throughout
- Water Flows Towards Sides
- Installation Kit Provided
(Condensate Safety Overflow Switch, Anti-Vibration Pads, Fitting)

Item ID	Description
6-HK2748	HR Drain Pan Kit 27x48, Pack of 5
6-HK2748-1	HR Drain Pan Kit 27x48, Pack of 1
6-HK2766	HR Drain Pan Kit 27x66, Pack of 5
6-HK2766-1	HR Drain Pan Kit 27x66, Pack of 1
6-HK3050	HR Drain Pan Kit 30x60, Pack of 5
6-HK3050-1	HR Drain Pan Kit 30x60, Pack of 1
6-HK3060	HR Drain Pan Kit 30x60, Pack of 5
6-HK3060-1	HR Drain Pan Kit 30x60, Pack of 1



Meets Requirements for Florida Building Code (307.23 Auxiliary and Secondary Drain Systems)

Drain Pans



HEAVY DUTY High Rise Pans

HDHR Drain Pan Kits are a thicker, tougher version of our regular High Rise Pans. Each pan includes an installation kit with one CS1200 float switch, six EVA anti-vibration pads and one 3/4inches PVC male adapter.

- Full 4.25" Rise from Bottom of Pan
- Heavy Reinforcement Throughout
- Suitable for Hanging Applications
- Water Flows Towards Sides
- Installation Kit Provided
(Condensate Safety Overflow Switch, Anti-Vibration Pads, Fitting)

Item ID	Description
6-HK3050HD	HDHR Drain Pan Kit 30x50, Pack of 5
6-HK3060HD	HDHR Drain Pan Kit 30x60, Pack of 5
6-HK3070HD	HDHR Drain Pan Kit 30x70, Pack of 5



Furnace Pan

Furnace Drain Pan Kits are designed specifically for furnace installations. One-piece construction provides strength and durability. Includes Installation Kit with a CS1200 float switch, eight HPR-6 risers, and a 6-1 3/4in. PVC male adapter.

- Heavy Duty Construction
- Installation Kit Provided
(Condensate Safety Overflow Switch, Heat Pump Risers, Fitting)

Item ID	Description
6-HK3364FUR	Furnace Drain Pan Kit 33x64, Pack of 1
6-HK3378FUR	Furnace Drain Pan Kit 33x78, Pack of 1



Seamless Metal Drain Pan

Metal Drain Pan, 27x48, 5PK is the ultimate in drain pan design, tailored for easy distribution and installation. With seamless one piece construction, these metal drain pans are designed with two optional drain locations. Fittings are packaged with the pan. Fully nestable for easy storage, each pack includes 5 pans.

- Single-Piece Design
- Rolled Edge
- Two Outlets
- Fittings Included

Item ID	Description
6-M2748	Metal Drain Pan, 27x48, Pack of 5
6-M2763	Metal Drain Pan, 27x63, Pack of 5
6-M3030	Metal Drain Pan, 30x30, Pack of 5
6-M3050	Metal Drain Pan, 30x50, Pack of 5
6-M3060	Metal Drain Pan, 30x60, Pack of 5
6-M3263	Metal Drain Pan, 32x63, Pack of 5



Switches



Our switches are the brains of the operation. Designed to detect problems and shut the entire system off in case of water overflow or a clog in the condensate drain line, our switches add another layer of protection.

- Flood Switch
- Primary Drain Pan Switches
- Inline Switches
- Secondary Drain Pan Switches

Wet Switch® Flood Detector

Wet Switch Flood Detector is designed to prevent flooding, damage to carpets, walls, furniture, and ceilings. Turns system off when detecting moisture due to condensate or drain leaks. Includes a built-in test and reset button. One or two drops is all it takes to turn system off, alerting homeowner or service person to potential moisture problems.

- Turns Off with as Few as 1-2 Drops of Water Detection
- LED Indicators
- Connect Multiple Switches to Expand Protection Area
- Flexible Placement Options

Item ID	Description	Plenum Rated	■	■
WS-1	Wet Switch Flood Detector	Plenum Rated	■	■



Dual Voltage Flood Detector

Wet Switch Dual Voltage Flood Detector has 12-Volt DC connections for installation into building automation systems and will transmit alarm signals to building maintenance if a flood is detected. Flood detector can also connect to a 24-Volt AC installation allowing integration with all HVAC systems, and will shut down the HVAC system if a flood is detected. Reset by simply drying the absorbent pad with a paper towel and pressing the reset switch. Connect multiple switches to expand protection area and connect to multiple pieces of equipment simultaneously.

- 12 Volt: Integrates into Building Automation Systems and Transmits Alarm Signal with as few as 1-2 Drops of Water Detection
- 24 Volt: Works with All HVAC Systems

Item ID	Description	Plenum Rated	■	■
WS-2DV	Dual Voltage Flood Detector	Plenum Rated	■	■



Switches



Condensate Safety Overflow Switch

Pipe-Mounted Tee Switch is simple to install and service, and extremely reliable. As water level in the drain pipe rises due to a clogged air conditioning condensate drain, the switch shuts off the system, preventing water from overflowing and causing damage to doors, walls and ceilings. The durable, precise magnetic reed switch will not rust, operating smoothly every time.

- LED Illuminates When Condensate Line is Blocked
- Built-In Protection Against Power Surges Provides Increased Reliability
- Three Installation Configurations for Increased Flexibility
- For Standard & Plenum Rated Installations in Primary or Auxiliary Lines



Item ID	Description		
CS-1	Pipe-Mounted Tee Switch	Plenum Rated	
CS-1-BULK50	Pipe-Mounted Tee Switch (Bulk)	Plenum Rated	

Condensate Safety Overflow Switch

Pipe-Mounted Elbow Switch is simple to install, easy to service and extremely reliable. As water level in the auxiliary fitting of the drain pan rises due to a clogged air conditioning condensate drain, the switch shuts off the system, thus preventing water from overflowing. The durable, precise magnetic reed switch will not rust, operating smoothly every time.

- LED Illuminates When Condensate Line is Blocked
- Built-In Protection Against Power Surges Provides Increased Reliability
- For Standard & Plenum Rated Installations in Auxiliary Lines

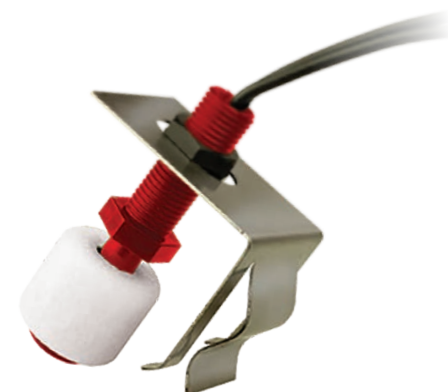


Item ID	Description		
CS-2	Pipe-Mounted Elbow Switch	Plenum Rated	
CS-2-BULK50	Pipe-Mounted Elbow Switch (Bulk)	Plenum Rated	

Condensate Safety Overflow Switch

Drain Pan Clip Switch is easy to install anywhere on the drain pan. After clipping the CS-3 anywhere along the drain pan wall, the stainless steel clip adapts to multiple pan thicknesses. Uses a magnetic red switch for condensate overflow protection. For standard rated installations in primary or secondary drain pans.

- Adjustable Activation Height
- Position Anywhere Along the Drain Pan
- For Standard Rated Installations in Primary or Secondary Drain Pans



Item ID	Description		
CS-3	Drain Pan Clip Switch		
CS-3-BULK50	Drain Pan Clip Switch (Bulk)		

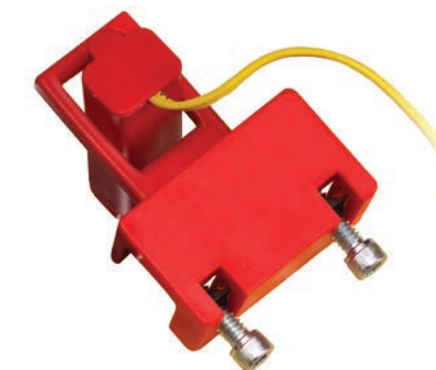
Switches



Condensate Safety Overflow Switch

CC-1 Safety Overflow Pan Switch is a unique clamp-on float switch intended for HVAC drain pan installation (both plastic and metal pans). Large over-clamping area fits easily over the edge of all types of drain pans; separate float/probe assembly accommodates drain pans with sloped sides. Magnetically actuated switch opens when rising water presents a potential flooding condition.

- Position Anywhere Along Drain Pan
- Adjustable Activation Height - Minimum 1.5"
- Sensor Assembly Swivels to Accommodate Drain Pans with Sloped Sides
- Clamps Easily Over the Edge of All Drain Pan Types, Including Formed Plastic and Galvanized Sheet Metal



Item ID	Description	
CC-1	Safety Overflow Pan Switch	

Condensate Safety Overflow Switch

CS1200 AC Shutoff Switch is a fast installing, reliable, condensate overflow detection float switch. It features a unique universal pan mount design to assure accurate detection in metal or plastic secondary drain pans.

- Position Anywhere Along Drain Pan
- Clamps Easily Over the Edge of All Secondary Drain Pan Types, Including Formed Plastic & Galvanized Sheet Metal
- Translucent Design for Easy & Fast Inspection
- LED Indicator Illuminates when Switch is Activated
- For Standard Rated Installations in Secondary Drain Pans



Item ID	Description	
CS1200	AC Shutoff Switch	

Condensate Safety Overflow Switch

SOS-1 Safety Overflow Switch detects clogs in condensate drain lines. By locating the switch away from the normal flow, it can be used to detect drain line overflows, responding by opening the circuit to the compressor contactor. When not detecting water, the SOS is normally closed and allows normal air conditioner operation.

- Fits Over 3/4" Standard Plastic Pipe without Cutting Drain Line
- Float Free Design, Ideal for Drier Environments
- Switch Orientation Adjusts Sensitivity
- Includes Easy to Attach Primary Drain Pan Fitting
- For Standard Rated Installations in Primary or Auxiliary Lines



Item ID	Description		
SOS-1	Safety Overflow Switch		

Installation Components



A variety of drain trap kits, some with switches, to meet different install requirements.



A/C Easy Tee

A/C Easy Tee is a simple and effective condensate drain service port that makes it easy to comply with IMC 307.2.5. Never cut condensate lines again. Flush blockages using nitrogen, water or a shop vac without valves or moving parts that can fail. The A/C Easy Tee gives you a solid connection to the drain line so you can get the line cleaned out correctly, the first time. This will help avoid nuisance callbacks, saving you precious time and money.

- Quickly Clear Condensate Lines
- Never Cut Condensate Lines Again
- Complies with Code 307.2.5



Item ID	Description
ET75	A/C Easy Tee Cleanout Port

A/C Easy Tee Service Tool Set

The Service Tool Kit allows the technician to close off backflow creating full discharge of water or nitrogen to clean out the drain line. It can also be used with a wet/dry vac to suction dirt, debris, and gunk out of a primary drain pan.

- Quickly Clear Condensate Lines
- Never Cut Condensate Lines Again
- Complies with Code 307.2.5

Item ID	Description
ST75	A/C Easy Tee Service Tool Set

Waterless Trap

WTRAP 3/4 in. Waterless Trap allows condensate to drain from HVAC equipment, while preventing air from entering or escaping the equipment. Eliminates the geyser effect caused with standard P traps. The WTRAP operates dry except when condensate is being produced, and will not freeze. For use on residential and light commercial HVAC equipment only. Not for use as a sanitary trap.

- Prevents Unwanted Air Leakage from Condensate Line
- Will Not Freeze or Dry Out
- Eliminates Sludge Buildup
- For Negative Pressure Applications



Item ID	Description
WTRAP	3/4" Waterless Trap

Installation Components

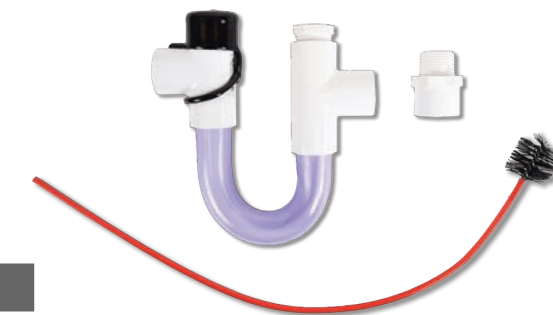


3/4 in. Clear U Drain Trap Kits contains everything required for a fast and complete installation. Clear PVC trap assures blockages are easily visible, heading off potential problems before they become severe. Ideal for condensate drain lines. Includes a 3/4 in. U trap with a 3 in. drop, and a 3/4 in. adapter. Asurity® Drain Trap Kits are available in multiple fitting styles.

Drain Trap Kit

U Trap, Cleaning Brush

- Easy Installation and Troubleshooting
- Schedule 40 PVC Fittings
- Cleanout Tee
- Fits 3/4" PVC; 1" Drop



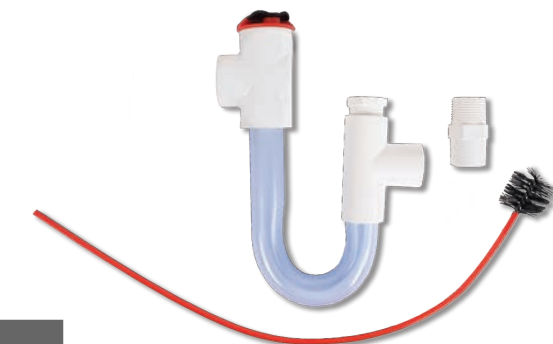
Item ID	Description
DTK113	3/4 in. Clear U Drain Trap Kit
DTK113B	3/4 in. Clear U Drain Trap Kit w/Brush

Drain Trap Kit

With Safety Overflow Switch

U Trap, Cleaning Brush, Float Switch

- Easy Installation and Troubleshooting
- Schedule 40 PVC Fittings
- Cleanout Tee
- Fits 3/4" PVC; 2.25" Drop



Item ID	Description
DTK205	3/4 in. Deep U Drain Trap Kit w/Overflow Switch

Drain Trap Kit

With Safety Overflow Switch

U Trap, Cleaning Brush, Float Switch, Cross

- Easy Installation and Troubleshooting
- Schedule 40 PVC Fittings
- Cleanout Tee
- Fits 3/4" PVC; 2.25" Drop



Item ID	Description
DTK207	3/4 in. Std.w/Float+ Drain Trap Kit

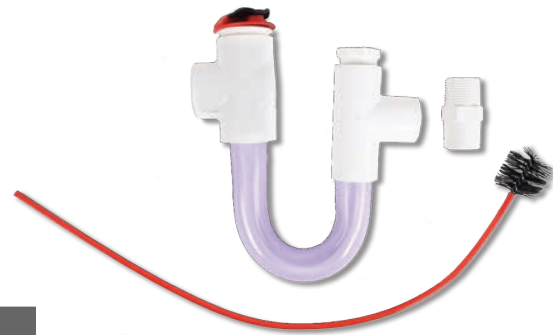
Installation Components



**Drain Trap Kit
With Safety Overflow Switch**

U Trap, Cleaning Brush, Float Switch

- Easy Installation and Troubleshooting
- Schedule 40 PVC Fittings
- Cleanout Tee
- Fits 3/4" PVC; 1" Drop



Item ID	Description
DTK210	3/4 in. Std.w/Float Drain Trap Kit

Drain Line, Tubing



For applications ranging from air conditioning and refrigeration condensate drains, condensate pump discharge lines to humidifier overflow lines.

Clear Vinyl Tubing

Clear vinyl hose applications include: air conditioning and refrigeration condensate drains, condensate pump discharge lines and humidifier overflows.

Item ID	Description
7-316	3/16" ID Clear Vinyl Tubing – 100' section
7-10	1" ID Clear Vinyl Tubing – 100' section
7-12	1/2" ID Clear Vinyl Tubing – 100' section
7-14	1/4" ID Clear Vinyl Tubing – 100' section
7-34	3/4" ID Clear Vinyl Tubing – 100' section
7-38	3/8" ID Clear Vinyl Tubing – 100' section
7-58	5/8" ID Clear Vinyl Tubing – 100' section
7-78	7/8" ID Clear Vinyl Tubing – 100' section



7-14 Illustrated

Gorilla Tube™ Clear Vinyl Tubing

Applications include: air conditioning and refrigeration condensate drains, condensate pump discharge lines, and humidifier overflows. Several sizes from 1/4" to 1" diameter. Non-toxic clear vinyl chloride. Select Gorilla Tube™ over standard clear vinyl tube because:

- Extra rigid design resists crimping and kinking due to durometer value of 80 (Shore A) and thicker wall
- Maximum service temperature 140°F (60°C)

Item ID	Description
7-10P	1", 1.000" I.D., 1.215" O.D., .108 wall thickness
7-12P	1/2", .500" I.D., .631" O.D., .066 wall thickness
7-14P	1/4", .250" I.D., .360" O.D., .055 wall thickness
7-34P	3/4", .750" I.D., .913" O.D., .082 wall thickness
7-38P	3/8", .375" I.D., .495" O.D., .060 wall thickness
7-58P	5/8", .625" I.D., .771" O.D., .073 wall thickness
7-78P	7/8", .875" I.D., 1.050" O.D., .088 wall thickness



7-14P Illustrated

Drain Line, Tubing



Gorilla Tube™ Braided Vinyl Tubing

Item ID	Description
7-12B	Braided Vinyl Tubing, 1/2in ID, 100ft
7-12B50	Braided Vinyl Tubing, 1/2in ID, 50ft
7-14B	Braided Vinyl Tubing, 1/4in ID, 100ft
7-14B50	Braided Vinyl Tubing, 1/4in ID, 50ft
7-34B	Braided Vinyl Tubing, 3/4in ID, 100ft
7-34B50	Braided Vinyl Tubing, 3/4in ID, 50ft
7-38B	Braided Vinyl Tubing, 3/8in ID, 100ft
7-38B50	Braided Vinyl Tubing, 3/8in ID, 50ft
7-58B	Braided Vinyl Tubing, 5/8in ID, 100ft
7-58B50	Braided Vinyl Tubing, 5/8in ID, 50ft



7-14B Illustrated

Pan Treatments & Disinfectant



Pro-Treat® Condensate Pan Treatment

Condensate Drain Pan Treatment controls odors and eliminates drain pan overflows and the resulting water damage. 100 tablet jar. (Initial application: 2 tablets; ongoing maintenance: 1 tablet per month). Pro-Treat pan treatment is available in several sizes to assure season-long, trouble-free condensate drain pan performance.

Item ID	Description
PROTREAT-152	12 King Size Tablets, 1 Tablet - 3 Tons/3Mo.
PROTREAT-161	100 Tablets, 2 Tablet - 3 Tons/Mo.
PROTREAT-200	200 Tablets, 2 Tablet - 3 Tons/Mo.
PROTREAT-217	200 Thin Tablets, 3 Tablet - 3 Tons/Mo.
PROTREAT-350**	100 Tablets

Notes: **Industrial Use Only.



Pro-Treat® Condensate Pan Treatment

Pro-Treat Strip, 1-2 Ton kills odor-causing bacteria, lasts up to 6 months. (10 strips/pack for 1 to 2 ton equipment.) Use in primary drain pan of cooling equipment including air conditioners and refrigerators. Controls foul-smelling odors caused by mildew, fungi, bacteria, algae, and slime. For use in hotels, schools, colleges, hospitals, nursing homes, airports, and many other locations.

Item ID	Description
PS-01	For Equipment From 1 to 2 Tons, 10 Applications
PS-03	For Equipment From 3 to 5 Tons, 6 Applications
PS-07	For Equipment From 7 to 12 Tons, 2 Applications
PS-20	For Equipment From 10 to 25 Tons, 1 Application
PS-40	For Equipment From 40 to 50 Tons, 1 Application

EPA Registered



Each Pan Strip is a 6-Month Treatment

Flow-Plus® Condensate Pan Treatment

Drain Pan Treatment has a unique polymer formula to maintain condensate flow and prevent drain pan overflow. 200 mini-tablet jar for use with 1/3 to 3 ton equipment. No residue, no waste, non-clogging - with a long-term activated release, environmentally safe, non-toxic, and non-corrosive. Available in several sizes to meet specific equipment tonnage requirements.

Item ID	Description
FLOW-PLUS-200	200 Mini Tabs, For 1/3 to 3 Ton Units
FLOW-PLUS-25	25 Mini Tabs, For 1/2 to 3 Ton Units
FLOW-PLUS-6	Light Tonnage, For 3 to 5 Ton Units
FLOW-PLUS-10	Medium Tonnage, For 5 to 20 Ton Units
FLOW-PLUS-125	High Tonnage, For 20 to 50 Ton Units
FLOW-PLUS-CP	6 Pump Treatment Tablets
SCM-185-8	Flow-Plus® Polymer Pan Treatment, (1) - 8lb Tub



Pan Treatments & Disinfectant



Horizontal Condensate Neutralizer

Neutralizer Cartridge, Wall Mount neutralizes condensate from natural gas or propane condensing boilers and furnaces. Low profile is suitable for drains near the floor; can be mounted horizontally or vertically. Prevents environmental harm, and drain and sewer corrosion. Maintains bacteria at a neutral level in septic systems. Includes neutralizing media.

- Suitable for 400,000 BTU/h at 93% Efficiency
- Prevents Acidic Condensate from Corroding Drains and Sewer Systems
- Helps Maintain a Neutral Environment for Bacteria in Septic Systems
- Suitable for Use on All Types of Natural Gas and Propane Appliances
- Includes Initial Charge of Neutralization Media



Item ID	Description
CNH-4K	Horizontal Neutralizer Cartridge

Vertical Condensate Neutralizer

Neutralizer Cartridge, Vertical Mount is a wall-mount cartridge designed for vertical installation that neutralizes condensate from natural gas or propane condensing boilers and furnaces. Prevents environmental harm, and drain and sewer corrosion. Maintains bacteria at a neutral level in septic systems. Includes neutralizing media.

- Has the Same Features as Horizontal Condensate Neutralizer
- Float System Indicates if Unit has Become Plugged
- Integral Bypass Feature Prevents Condensate Backflow into Appliance
- 3/4" FNTP Inlet and Outlet Connections
- Includes Initial Charge of Neutralization Media



Item ID	Description
CNV-4K	Vertical Neutralizer Cartridge

Neutralization Tank

Neutralizer Tank, Low Profile neutralizes condensate from natural gas or propane condensing boilers and furnaces. Low profile is suitable for drains located near the floor. Prevents environmental harm, and drain and sewer corrosion. Maintains bacteria at a neutral level in septic systems. Includes neutralizing media.

- Suitable for 3 Million BTU/h at 93% Efficiency
- Prevents Acidic Condensate from Corroding Drains and Sewer Systems
- Helps Maintain a Neutral Environment for Bacteria in Septic Systems
- Suitable for Use on All Types of Natural Gas and Propane Appliances



Item ID	Description
CNT-3M	Low Profile Neutralization Tank

Neutralization Media Prevents Acidic Condensate from Corroding Drains and Sewer Systems

Replacement For

CNM-4K	CNH-4K CNH-4K CNHK-4K
CNM-BULK	CNH-4K CNH-4K CNHK-4K
CNM-3M	CNT-3M

Coil Cleaners



Triple-D®

Triple-D® is a universal, medium-duty coil cleaner. It's low foaming, alkaline detergent is metal safe and fin friendly, and is microchannel and mini-split safe. Use this coil cleaner indoor or outdoor to degrease and deodorize condensers and evaporators.

- Ultimate medium-duty coil cleaner for condensers & evaporators
- Indoor & outdoor low-foaming alkaline detergent
- Metal safe & fin friendly
- Economical: 1 gallon makes 7 gallons of coil cleaner
- NSF approved
- More convenience to choose from with NEW packaging options: 4 times concentrate quart & handy 1 shot 4 oz. bottle



Item ID	Description
TRIPLE-D	Triple-D® – 1 gallon concentrate
TRIPLE-D-32	Triple-D® – 32 oz. bottle – concentrate
TRIPLE-D-AER	Triple-D® – 19 oz. Aerosol
TRIPLE-D-AER-6	Triple-D® – 19 oz. Aerosol
TRIPLE-D-RTU	Triple-D® – 1 quart trigger sprayer – pre-diluted
TRIPLE-D-1SHOT	Coil Cleaner, Triple-D 1 Shot 4oz
TRIPLE-D-4X	Coil Cleaner, Triple-D, 4x Concentrated 32oz

Pro-Green™

Pro-Green™ Coil Cleaner, 1 gal. is a no-rinse, mild alkaline coil cleaner designed for air-cooled condensers, evaporators, electronic and permanent filters, fan blades, grilles, mini-split and microchannel applications. Pro-Green cleans deposits on coils and rids condensate pans of slime.

- No-rinse mild alkaline
- Non-fuming for indoor use
- Aluminum safe for microchannel and mini-splits
- Non-toxic, non-corrosive
- Economical: 1 gal. makes 4 gallons of coil cleaner
- NSF approved
- More convenience to choose from with NEW packaging options: 4 times concentrate quart & handy 1 shot 4 oz. bottle



Item ID	Description
PRO-GREEN	Pro-Green™ No Rinse (non-toxic) – 1 gallon container
PRO-GREEN-5	Pro-Green™ No Rinse (non-toxic) – 5 gallon pail
PRO-GREEN-32	Pro-Green™ No Rinse (non-toxic) – 32 oz. bottle
PRO-GREEN-AER	Pro-Green™ Foaming Concentrate (non-acid) – Aerosol
PRO-GREEN-1SHOT	Coil Cleaner, Pro-Green 1 Shot 4oz
PRO-GREEN-4X	Coil Cleaner, Pro-Green, 4x Concentrated 32oz

Coil Cleaners



Pro-Blue™

Pro-Blue™ is a heavy duty foaming alkaline-based solution designed for condensers that penetrates dirt, grime and oxide deposits while degreasing resulting in clean and brightened coils. Pro-Blue is biodegradable, NSF approved, and available in numerous packaging configurations.

- Heavy-duty foaming outdoor coil cleaner
- Brightens coils
- Penetrates dirt, grease & grime
- Great for small condensers
- Economical: 1 gallon makes 4 gallons of coil cleaner
- NSF approved
- More convenience to choose from with NEW packaging options: 4 times concentrate quart & handy 1 shot 4 oz. bottle.



Item ID	Description
PRO-BLUE	Pro-Blue™ Foaming Concentrate (non-acid) – 1 gallon container
PRO-BLUE-5	Pro-Blue™ Foaming Concentrate (non-acid) – 5 gallon pail
PRO-BLUE-55	Pro-Blue™ Foaming Concentrate (non-acid) - 55 gallon container
E	Pro-Blue™ Foaming Concentrate - 32oz. bottle
PRO-BLUE-AER	Pro-Blue™ Foaming Concentrate (non-acid) – Aerosol
PRO-BLUE-1SHOT	Coil Cleaner, Pro-Blue 1 Shot 4oz
PRO-BLUE-4X	Coil Cleaner, Pro-Blue, 4x Concentrated 32oz

Pro-Red+™

Pro-Red+™ is a fast acting alkaline coil cleaning solution that foams and lifts away stubborn deposits including tarnish and corrosion. Its non-acid formula is as effective as conventional cleaners without the use of hydrofluoric acid. The vigorous foaming action eliminates the need for prolonged soaking (three to five minutes), steam cleaning, or scrubbing coils. It will not emit corrosive fumes or rust ferrous metals. Pro-Red+ brightens, removes condensate "gunk," dirt, grime, and oxide deposits while degreasing. It is ideal for small and large condensers.

- Foaming alkaline detergent
- Lifts away grime
- Corrosion-inhibiting formula
- Great for condensers
- Economical: 1 gallon makes 4 gallons of coil cleaner
- NSF approved
- More convenience to choose from with NEW packaging options: 4 times concentrate quart & handy 1 shot 4 oz. bottle.



Item ID	Description
PRO-RED+	Pro-Red Plus™ Cleaner and Brightener (non-acid) – 1 gallon container
PRO-RED+5	Pro-Red Plus™ Cleaner and Brightener (non-acid) – 5 gallon pail
PRO-RED+-55	Pro-Red Plus™ Cleaner and Brightener (non-acid) – 55 gallon container
PRO-RED+32	Pro-Red Plus™ Cleaner and Brightener (non-acid) – 32 oz. bottle
PRO-RED+AER	Pro-Red+ Aerosol
PRO-RED-1SHOT	Coil Cleaner, Pro-Red 1 Shot 4oz
PRO-RED-4X	Coil Cleaner, Pro-Red, 4x Concentrated 32oz

Coil Cleaners



Pro-Yellow™

Pro-Yellow™ is a powerful heavy foaming alkaline coil cleaner that removes debris and targets large concentrations of dirt and grime. Pro-Yellow brightens, removes condensate "gunk," dirt, grime, and oxide deposits while degreasing. Pro-Yellow is ideal for small and large condensers and requires a soak time of three to five minutes.

- Aggressive cleaning agents & detergents for stubborn jobs
- Foaming alkaline cleaner
- Ideal for small & large condensers
- Brightens coils
- Penetrates dirt, grime & oxide deposits
- Economical: 1 gallon makes 3 gallons of coil cleaner
- NSF approved



PRO-YELLOW Illustrated

Item ID	Description
PRO-YELLOW	Pro-Yellow™ (non-toxic) – 1 gallon container
PRO-YELLOW-32	Pro-Yellow™ (non-toxic) – 32 oz. bottle
PRO-YELLOW-AER	Pro-Yellow Aerosol

Pro-Brown™

Pro-Brown™ is a heavy duty foaming alkaline coil cleaner that pulls out deeply embedded dirt removing greasy soils and oxidation. Pro-Brown brightens, removes condensate "gunk," dirt, grime, and oxide deposits while degreasing. Pro-Brown is ideal for small and large condensers and requires a soak time for four to six minutes.

- Powerful cleaning agents & detergents for outdoor jobs
- Foaming alkaline cleaner
- Ideal for aluminum heating & cooling coils
- Brightens coils
- Penetrates dirt, grime & oxide deposits
- Economical: 1 gallon makes 4 gallons of coil cleaner
- NSF approved



PRO-BROWN Illustrated

Item ID	Description
PRO-BROWN	Pro-Brown™ Foaming Coil Cleaner – 1 gallon container
PRO-BROWN-5	Pro-Brown™ Foaming Coil Cleaner – 5 gallon pail
PRO-BROWN-AER	Pro-Brown Aerosol

Leak Detection



Bubble-N-Trouble™

Bubble-N-Trouble™ Leak Detector, 1 gal. is non-corrosive, non-toxic, and biodegradable. Does not attack metal or interfere with brazing or soldering. Spray-on application allows easy access for hard to reach places. Tacking agent holds solution on test surface making Bubble-N-Trouble™ very economical. Also available in 32 oz. trigger spray bottle.



Item ID	Description
BNT-1	Bubble-N-Trouble™ Freeze Protected Spray-On Leak Detector

Soldering & Heat Sheilding

Solder Paste Flux

Clean fit solder paste flux is used in all industries and is a non-aggressive formula used to sweat copper and brass fittings. Not for electronic use unless so stated. The all purpose formula stays stiff in hot weather and stays soft and sticky, even in cold weather.



Item ID	Description
61-71030	2 oz. (carded)
61-71031	Solder paste flux kit: includes 2 oz. flux, abrasive cloth, acid brush.



61-71030 Illustrated



Solder Paste Flux

Cool Gel Spray

Heat dissipating spray helps prevent heat damage to components and surrounding materials during soldering, brazing, and welding. It protects painted and finished surfaces from discoloration due to adjacent torch operations. This product also reduces the danger of fire to surrounding surfaces such as studs, drywall, and insulation. The unique non-staining gelled formula sticks to surfaces without dripping or running off and leaves no residue. Safe, nontoxic, and odorless spray liberally on adjacent surfaces needing protection. The spray pattern is adjustable from stream to mist. One quart spray bottles sold in cases of 12.

Item ID	Description
15-11509	Cool Gel Spray 12/Case



Bloc-It Paste

Heavy paste effectively absorbs surface heat and protects adjoining surfaces that may be damaged by excessive heat. Typically used to protect rubber, plastic, prevent metal distortion, painted and finished surfaces during soldering, brazing or welding. Safe to use, Bloc-It is nontoxic, harmless to skin, odorless, and does not contain asbestos. Wipe off with cloth or wash with water, Bloc-It will not leave stains. 10 oz. tubes sold in cases of 24.

Item ID	Description
15-11511	Bloc-It Heat Absorbing Paste - 10oz 12/Case



Spray Nine Cleaners

Multi-Purpose / Degreaser / Disinfectant

Spray Nine - The First & Still The Best!

Spray Nine cleans hard surfaces such as stainless steel, plastic, tile, rubber, vinyl, fiberglass, porcelain and formica with "spray on, wipe off" ease.

Digs Out Tough Soils Fast!

Enriched with a powerful germicidal, Spray Nine can be used to disinfect and deodorize hospitals, nursing homes, schools, and other institutions where housekeeping is of prime importance. Also controls mold and mildew while destroying bacterial odors.

30 second disinfecting time*!

When used as directed, Spray Nine will disinfect hard non-porous surfaces such as walls, floors, tables, chairs and countertops. Spray Nine kills many bacteria and destroys powerful odors. Used as a hospital grade disinfectant, Spray Nine has been registered by Health and Welfare Canada to kill HIV-1 virus (associated with AIDS), Salmonella, Staphylococci, and Pseudomonas on inanimate surfaces in just 30 seconds. Used regularly, Spray Nine greatly reduces the risk of cross infection.

* Most disinfectant products require a 10 minute contact time to kill germs.

Item ID	Description	Package
15-C26822	650 ml pump bottle	12/ctn
15-26832	946 ml spray bottle	12/ctn
15-26804	4 L jug	4/ctn



Spray Nine Industrial

The In-process Cleaning & Degreasing Solution!

No other product removes really tough industrial soils as quickly and effectively from manufacturing equipment, engines and machinery to countertops, floors and even washrooms as Spray Nine Industrial. The ready to use formula saves time, labour and money by effectively serving as a all in one cleaner.

Item ID	Description	Package
15-13532	946 ml spray bottle	12/ctn



Penetrating Oil & Lubricants

Break•Away Fast Penetrating Oil

Break•Away is a pure oil-based product that penetrates faster and lubricates longer. It leaves a thicker, longer lasting film vs. light duty solvent-based water displacement formulas. Brake•Away is famous for completing the cycle of lubrication and reducing the coefficient of friction on hot or cold moving parts. Whether it be freeing frozen parts, lubricating moving components or protecting tools and equipment from rust or corrosion, Brake•Away's fast penetrating oil is your anywhere, anytime solution. Contains no ozone depleting CFC's. (pin point applicator straw included).

Item ID	Description	Package
15-C10	369g aerosol can style	12/ctn

Silicone Spray

Synthetic Polymer Lube - The Heavy Duty, Industrial Grade Lubricant!

Silicone Spray's industrial grade formula is an extra heavy-duty concentrate of high quality silicone for maximum performance. Silicone Spray lubricates mechanical parts, conditions rubber, waterproofs and protects against rust or corrosion. Silicone is a stain-free synthetic polymer lubricant that virtually dries to the touch. It reduces friction and lubricates without petroleum oil or grease. Contains no ozone depleting CFC's. (pin point applicator straw included).

Item ID	Description	Package
15-C33	450 ml aerosol can style	12/ctn

Pull-A-Spout Oiler

All purpose oiler with a 14in. telescoping spout. Zooms out for long shots, and in for short shots, even zooms around corners. Squeeze bottle action. Perfect lubricant for general industrial use. Contains four ounces of finest quality carbon free, rust and oxidation inhibited lubricating oil. Plastic container won't short out around electrical connections. No leakage.

Item ID	Description	Package
CR-1	Lubricant, Rust Breaker – 4 oz.	12/ctn



Ball Valves

Fireplace Forged Gas Ball Valves

- Brass ball valves
- Red wing handle
- 600 WOG



Brass Indoor	Plated Outdoor	Description
06-FGV38	06-FGV38P	3/8" FNPT x 3/8" FNPT, 5/Case
06-FGV12	06-FGV12P	1/2" FNPT x 1/2" FNPT, 5/Case
06-FGV34	06-FGV34P	3/4" FNPT x 3/4" FNPT, 5/Case
06-FGV1	06-FGV1P	1" FNPT x 1" FNPT, 2/Case
-	06-FGV114P	1 1/4" FNPT x 1 1/4" FNPT, 2/Case
06-FGV112	06-FGV112P	1 1/2" FNPT x 1 1/2" FNPT, 2/Case
-	06-FGV2P	2" FNPT x 2" FNPT, 2/Case

Appliance Forged Gas Ball Valves

- Brass ball valves
- Red wing handle
- 600 WOG



Item ID	Description
06-GWH12	1/2" FNPT x 1/2" FNPT, 3/8" port, 10/Case
06-GWH34	3/4" FNPT x 3/4" FNPT, 1/2" port, 10/Case

Boiler Drain Valves

Forged Boiler Gate Valves

- Forged drain valves
- Green Handle



Item ID	Description
06-BGV12	1/2" MNPT x Hose, 5/Case
06-BGV34	3/4" MNPT x Hose, 5/Case

Fireplace Forged Gas Ball Valves

- Brass ball valves
- Red wing handle
- 600 WOG



Item ID	Description
06-FP1238	1/2" FNPT x 3/8" Male flare, 10/Case
06-FP1212	1/2" FNPT x 1/2" Male flare, 10/Case

Appliance Forged Gas Ball Valves

- Brass ball valves
- Yellow flat head
- 600 WOG



Item ID	Description
06-FHGV34	3/4" FNPT x 3/4" FNPT, 1/2" port, 12/Case

Water Valves

Brass Wided Ball Valves

- Full Port
- Female sweat connection
- 600 WOG
- Green lever handle



Brass Indoor	Description
06-SWV12	1/2" Sweat x 1/2" Sweat, 5/Case

Gas Connectors



DiversiTech Gas Connector 1/2"

Combining flexibility, durability, and functionality, DiversiTech stainless steel gas connectors are CSA design certified and 100% leak tested for quality and security. DiversiTech gas connectors are durable and reliable to give you everything you need. Available in a variety of sizes and lengths.

Item ID	Description
D20-3132-18	18" long, 1/2" OD x 3/8" ID, M x F, 12/Case
D20-3132-24	24" long, 1/2" OD x 3/8" ID, M x F, 12/Case
D20-3132-36	36" long, 1/2" OD x 3/8" ID, M x F, 12/Case
D20-3132-48	48" long, 1/2" OD x 3/8" ID, M x F, 12/Case



D20-3132-24 Illustrated

DiversiTech Gas Connector 5/8"

Combining flexibility, durability, and functionality, DiversiTech stainless steel gas connectors are CSA design certified and 100% leak tested for quality and security. DiversiTech gas connectors are durable and reliable to give you everything you need. Available in a variety of sizes and lengths.

Item ID	Description
D30-3131-24	24" long, 5/8" OD x 1/2" ID, M x M, 12/Case
D30-3131-36	36" long, 5/8" OD x 1/2" ID, M x M, 12/Case
D30-3131-48	48" long, 5/8" OD x 1/2" ID, M x M, 12/Case
D30-3132-18	18" long, 5/8" OD x 1/2" ID, M x F, 12/Case
D30-3132-24	24" long, 5/8" OD x 1/2" ID, M x F, 12/Case
D30-3132-36	36" long, 5/8" OD x 1/2" ID, M x F, 12/Case
D30-3132-48	48" long, 5/8" OD x 1/2" ID, M x F, 12/Case



D30-3131-36 Illustrated

Epoxy Coated Gas Connectors

Yellow coated gas connectors include an epoxy coating for added durability and extra protection from corrosion, chemical stains from common household products, and plumbing repairs.

Item ID	Description
DC20-3131-18	Gas Connector coated – 18" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC20-3131-24	Gas Connector coated – 24" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC20-3131-36	Gas Connector coated – 36" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC20-3131-48	Gas Connector coated – 48" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC20-3132-18	Gas Connector coated – 18" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC20-3132-24	Gas Connector coated – 24" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC20-3132-36	Gas Connector coated – 36" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC20-3132-48	Gas Connector coated – 48" long, 1/2" OD x 3/8" ID. M x F, 12/Case
DC30-3131-18	Gas Connector coated – 18" long, 5/8" OD x 1/2" ID. M x M, 12/Case
DC30-3131-24	Gas Connector coated – 24" long, 5/8" OD x 1/2" ID. M x M, 12/Case
DC30-3131-36	Gas Connector coated – 36" long, 5/8" OD x 1/2" ID. M x M, 12/Case
DC30-3131-48	Gas Connector coated – 48" long, 5/8" OD x 1/2" ID. M x M, 12/Case
DC30-3132-18	Gas Connector coated – 18" long, 5/8" OD x 1/2" ID. M x F, 12/Case
DC30-3132-24	Gas Connector coated – 24" long, 5/8" OD x 1/2" ID. M x F, 12/Case
DC30-3132-36	Gas Connector coated – 36" long, 5/8" OD x 1/2" ID. M x F, 12/Case
DC30-3132-48	Gas Connector coated – 48" long, 5/8" OD x 1/2" ID. M x F, 12/Case



DC30-3132-18 Illustrated

Flue Caps



Flue Caps

PVC Flue Caps are an affordable way to protect today's high efficiency furnaces from dirt, moisture and other debris. It protects high efficiency furnaces and reduces draft inducer motor rust. The Universal flue cap fits 1.5", 2" and 3" PVC Pipe. It helps to eliminate pressure switch service calls, is resistant to UV radiation and oxidative degradation and is CSA approved for use in 90% AFUE heating applications.

Item ID	Description
EC-1	E Capp Flue Cap, 12/Case



High Heat Spray Paint



High Heat Spray Paint

Ultra high temperature coating formulated to resist temperatures up to 1300 degrees F. It's great for use on boilers, furnaces, steam pipes, chimney collars, compressors and engine manifolds. Meets most recent VOC legislation and is currently compliant.

Item ID	Description
799-040	High Heat Spray Paint – Aluminum, 6/Case
799-041	High Heat Spray Paint – Black, 6/Case



Slugs & Cords



Wraptite Slugs & Cords

Sealing slugs & cord are soft, permanently pliable, water-resistant sealants having a wide variety of applications. The product has the unique quality of retaining the same consistency throughout its application range of -7°C to 60°C (20°F to 140°F). Non- asbestos and non-hardening, remains flexible to -7°C (20°F).

Sealing slugs & cords are used widely in the air conditioning and refrigeration industries to seal around outer cases, behind hinges and under breaker strips. They can be used to seal out air or moisture around utility panels, cables, ducts, window frames and metal joints. This product adheres to metal, wood, glass, plastic and most clean surfaces to provide an effective barrier against water, moisture, dirt and dust. It is non-staining, non-bleeding, odorless and can be painted.

Item ID	Description
84-PC-30	3/8" x 25' Cord
84-PS-30	2 lb. Slug
84-PS30-B	50 lb. Bulk Slug



Tapes



Wraptite Rubberized Cork Insulation Tape

Formulated to provide insulation and to prevent condensation on hot or cool pipes, fittings and tubing used in heating, air conditioning, refrigeration and plumbing applications. Cork Insulation Tape adheres well to most clean, dry surfaces and to itself, making it possible to apply more than one layer without adding fasteners or adhesives.

It is sufficiently soft and pliable enabling it to be molded around most fittings or connections. The material retains its flexibility and adhesion after prolonged exposure to UV and over a service temperature range of -29°C to 88°C (-20°F to 190°F). Cork Insulation Tape is black in colour and has a grainy, rubber-like consistency which is non-toxic and non-asbestos.

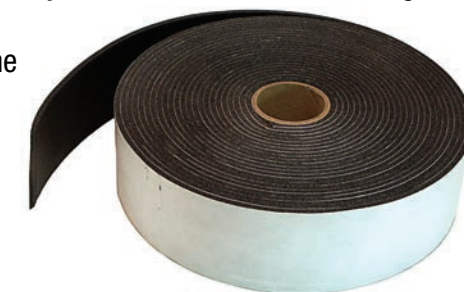


Item ID	Description
84-PT-30	1/8" x 2" x 30' Roll

Wraptite Foam Insulation Tape

Foam Insulation Tape is designed to seal, insulate and isolate vibration in air conditioning and refrigeration applications. The soft, flexible, closed cell sponge tape with paper covered self-adhesive backing seals out air and moisture while reducing heat loss or transfer. Cold water pipes, valves, chilled water and refrigeration lines can be wrapped to prevent sweating or condensation while hot water pipes and pipe heaters can be wrapped to insulate against heat loss.

Easily applied by hand, Wraptite Foam Insulation Tape adheres well to most clean, dry surfaces and to itself, making it possible to apply more than one layer. The formulated operating temperature of Wraptite Foam Insulation Tape is between -34°C to 82°C (-30°F to 180°F) with the ability to intermittently tolerate temperature of 98°C (210°F).



Item ID	Description
84-FT-30	1/8" x 2" x 30' Roll

Stick-E-Tape

Self-adhesive aluminum tape with temperature range of -40degree F to 200 degree F. Easily painted. Excellent vapor barrier; effective UV and water shield over urethane foam. Preferred duct and pipe wrap.



Item ID	Description
50302	AFT-701-2 – 2" x 50' Roll, 24/Case

Aluminum Foil Tape

Prevents heating and cooling losses. Blocks odors and moisture. Easy to handle. Use for HVAC and refrigeration systems. 35 degree F to plus 260 degree F working temperatures. 3-5 year shelf life. Made in USA.



Item ID	Description
640-AF2	2" Aluminum Foil Tape – 50 yds. 24/Case
640-AF25	2-1/2" Aluminum Foil Tape – 50 yds. 20/Case
640-AF3	3" Aluminum Foil Tape – 50 yds. 16/Case

Tapes



Foil Scrim Kraft Tape

Non tearable, diamond patterned backing with an aggressive rubber based adhesive system for consistently dependable performance. Made in the USA.



Item ID	Description
640-FSK2	Foil Scrim Kraft Tape – 2" – 50 Yards. 24/Case
640-FSK3	Foil Scrim Kraft Tape – 3" – 50 Yards. 16/Case

Cloth Duct Tapes

High tack, excellent strength. Superior performance in sealing air handling systems. Heavy cloth content for easier tearing and additional strength. Made in the USA.



Item ID	Description
PC-622-S	2" x 60 Yards – Premium Grade – Silver, 24/Case
PC-622-B	2" x 60 Yards – Premium Grade – Black, 24/Case
PC-609-S	2" x 60 Yards – Industrial Grade – Silver, 24/Case
PC-609-B	2" x 60 Yards – Industrial Grade – Black, 24/Case
PC-600-S	2" x 60 Yards – Contractor Grade – Silver, 24/Case
PC-600-B	2" x 60 Yards – Contractor Grade – Silver, 24/Case
PC-857	2" x 60 Yards – Metallized UL181B-FX Flex Duct Tape, 24/Case

Duct Straps

Duct Strap – Woven Polypropylene

Webbed duct strap possessing high tensile and abrasion resistance. This can be used for flex duct as it is easy to cut and staple to joists. The product is chemical resistant and tested to meet UL Standard 2043.



Item ID	Description
710-100	1-3/4" x 100 Yards – Black, 24/Case
710-101	1-3/4" x 100 Yards – Silver, 24/Case
710-102	3" x 100 Yards – Black, 8/Case
710-103	3" x 100 Yards – Silver, 8/Case

Flex Duct Tape

Specially designed to meet new UL181B FX code for flex duct. Higher adhesion and tack than traditional cloth duct tapes. Conformable, hand tearable foil; 3 mil thickness. 2 in. x 120 yds. Code identification printed on the tape. Acrylic adhesive for superior performance in extreme environments. (35°F to 260°F)



Item ID	Description
640-FD2S	Flex Duct Tape - Silver - 2", 24/Case
640-FD2B	Flex Duct Tape - Black - 2", 24/Case
640-FD3S	Flex Duct Tape - Silver - 3", 16/Case

UL Listed Foil Tape

Unique acrylic adhesive for airtight bonds on joints and seams of fiberglass duct systems. Flexible, easy to use. Meets or exceeds performance standard AFLS 100 73 and UL 181 A P.



Item ID	Description
640-UL25	UL 181 Listed Foil Tape – 2-1/2" – 60 Yards, 16/Case
640-UL3	UL 181 Listed Foil Tape – 3" – 60 Yards, 16/Case



Duct Strap – Metallic – Roll

Galvanized duct strap in a convenient cardboard dispenser is not only easy to drill or nail, but also solid strapping. Plenum rated.



Item ID	Description
710-001	26 Gauge – 1" x 100'
710-002	30 Gauge – 1" x 100'
710-003	30 Gauge – 1-1/2" x 100'
710-004	26 Gauge – 1-1/2" x 100'
710-005	22 Gauge – 1" x 100'

Silicone

• NSF Approved • 100% Silicone • 100% RTV

NuFlex® 302 General Purpose

302 (GP) General Purpose is available in multiple colours. The ideal multiple purpose silicone sealant for all weather applications.



Item ID	Description
83-30280	Clear 302 GP Squeeze Tube 83ml/2.8oz, 24/Case
83-30283	Black 302 GP Squeeze Tube 83ml/2.8oz, 24/Case
83-30201	White 302 GP Cartridge 300ml/10.15oz, 12/Case
83-30200	Clear 302 GP Cartridge 300ml/10.15oz, 12/Case
83-30202	Aluminium 302 GP Cartridge 300ml/10.15oz, 12/Case
83-30203	Black 302 GP Cartridge 300ml/10.15oz, 12/Case

NuFlex® 302 High Temperature

302 (HT) High Temperature withstands temperatures of 260°C(500°F) constant and 316°C(600°F) intermittent. An ideal silicone for extreme temperature applications.

Item ID	Description
83-30289	Red 302 HT Squeeze Tube 83ml/2.8oz, 24/Case
83-30293	Black 302 HT Squeeze Tube 83ml/2.8oz, 24/Case
83-30209	Red 302 HT Cartridge 300ml/10.15oz, 12/Case
83-30213	Black 302 HT Cartridge 300ml/10.15oz, 12/Case

Caulking Guns

113 Series

Economy grade
310ml/10.15oz
Clean out tool on barrel.



15-CG000113

138 Series

Professional grade
310ml/10.15oz
Clean out tool on barrel.



15-CG000138

Aluminum Pulleys

Blower Pulleys

Item ID	Bore	Diameter
67-650*		5"
67-660		6"
67-670		7"
67-680	3/4"	8"
67-690		9"
67-610		10"
67-612		12"
67-860		6"
67-870		7"
67-880	1"	8"
67-890		9"
67-810		10"
67-812		12"



67-660 Illustrated

Note: * 5" Pulley is solid.

Variable Speed Pulleys

Item ID	Bore	Diameter
67-4325		3 1/4"
67-4350	1/2"	3 1/2"
67-4375		3 3/4"
67-4400		4"
67-5325		3 1/4"
67-5350	5/8"	3 1/2"
67-5400		4"



67-4325 Illustrated

Cast aluminum pulley mfg'd to OEM specs

Bearings

Ball Bearings

Bearings complete with collar.

Item ID	Bore	OD	Cross Reference
67-4336-1	3/4"	1 13/16"	LRCR
67-4336-2			(2) Bearings & (2) Collars
67-4346-1	1"	2 1/4"	RCR



Sleeve Bearing Packs

Kits include 2 bearings & 2 rubber sleeves.

Item ID	Bore	OD	Type	Cross Reference
67-4036-2	3/4"	1 25/32"	Oil	Delhi
67-4135-2	5/8"	1 7/8"		Lau
67-4136-2	3/4"	1 13/16"	Sealed	Delhi
67-4137-2				Lau & Lennox
67-4138-2				Torin
67-4147-2	1"	2 1/2"		Lau & Lennox
67-4148-2			Torin	



Bearings & Sleeves

Item ID	Bore	Type
67-4136-B	3/4"	Sealed Bearing
67-4136-R		Rubber Sleeve



Thrust Collar Packs

Item ID	Description
67-2164	2) 5/8" collars & washers
67-2165	(2) 3/4" collars & washers



Cushioned Pillow Blocks

Item ID	Description	Industry No	Bearing Shaft Size
535-BB1	Bronze Bearing Pillow Block	NAH8A	1/2"



Shafts

Shafts

- Sized to bearing manufacturers specifications
- Slabbed on pulley end
- Rust protected
- Individually wrapped
- Protective end caps
- Part number and size listed on every shaft



Item ID	Diameter	Length	Cross Reference
67-61110		11 5/8"	Lennox
67-61212		12 3/4"	8-5-495C, 2100002
67-61400		14"	8-5-245C, 2100159
67-61600		16"	8-6-23608, WW15X36, 2100162, 2100163, 2100198
67-61610	3/4"	16 5/8"	8-5-240C, G10, G110, 2100011, 2100161
67-61920		19 1/8"	G12, 2100168
67-62000		20"	M90-256, RS620
67-62200		22"	2100013
67-62400		24"	8-5-243C
67-63600		36"	
67-82000	1"	20"	G15-72, 2100165, 2100078, 2100081, 2100076
67-83600		36"	P-S-209, M90-270, 2100168, 2100052, 210054

Control Transformers

Control transformers are designed for use in 2.5, 12 or 24 volt alternating current (AC) control systems, including air conditioning circuits, thermostats, gas valves, relays and or other applications that do not exceed the listed ratings. These transformers can be used to replace any transformers of the same primary voltage and equal or smaller VA ratings.

- Compact superior design • Individually boxed with instructions • Includes necessary mounting hardware • Complete cross-reference

SPECIALLY DESIGNED FOR LOW VOLTAGE CONTROL APPLICATIONS IN THE INDUSTRIAL HEATING & COOLING INDUSTRY!

Foot Mount

Item ID	VA	Primary Voltage	Secondary Voltage	Connections
34-20241	20	120	24	Wire
34-40244	40	120	24	Wire
34-40240W	40	240	24	Wire
34-40245	40	120/ 208/ 240	24	Wire
34-50254	50	575	24	QC

Multi Mount (Foot, Plate, Conduit)

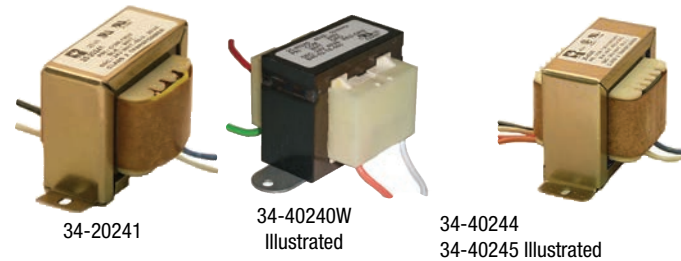
- 34-52C6 mounting plate, (2) screws & (2) wire connectors included.

Item ID	VA	Primary Voltage	Secondary Voltage	Connections
34-40241	40	120	24	Screw
34-40242	40	208/ 240 / 277	24	Screw
34-40243	40	120/ 208/ 240	24	Screw
34-48003	48	120/ 208/ 240	2.5 / 12 / 24	Wire
34-50243	50	120/ 208/ 240	24	Wire

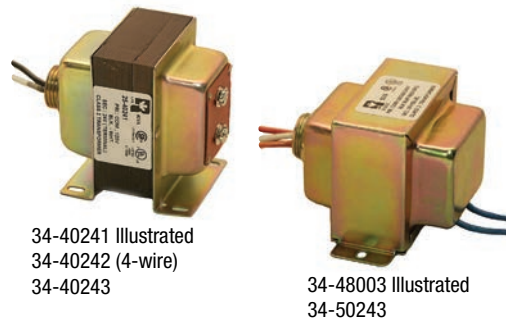
Foot Mount

Heavy Duty (c/w Circuit Breaker)

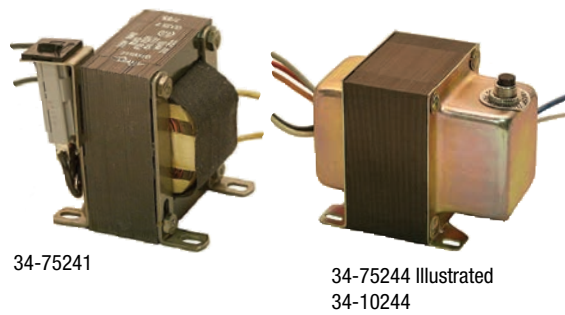
Item ID	VA	Primary Voltage	Secondary Voltage	Connections
34-75241	75	120	24	Wire
34-75244	75	120/ 208/ 240/ 480	24	Wire
34-75254	75	120/ 208/ 240/575	24	Wire
34-10244	96	120/ 240/ 277/ 480	24	Wire



34-20241
34-40240W Illustrated
34-40244
34-40245 Illustrated



34-40241 Illustrated
34-40242 (4-wire)
34-40243
34-48003 Illustrated
34-50243



34-75241
34-75244 Illustrated
34-10244



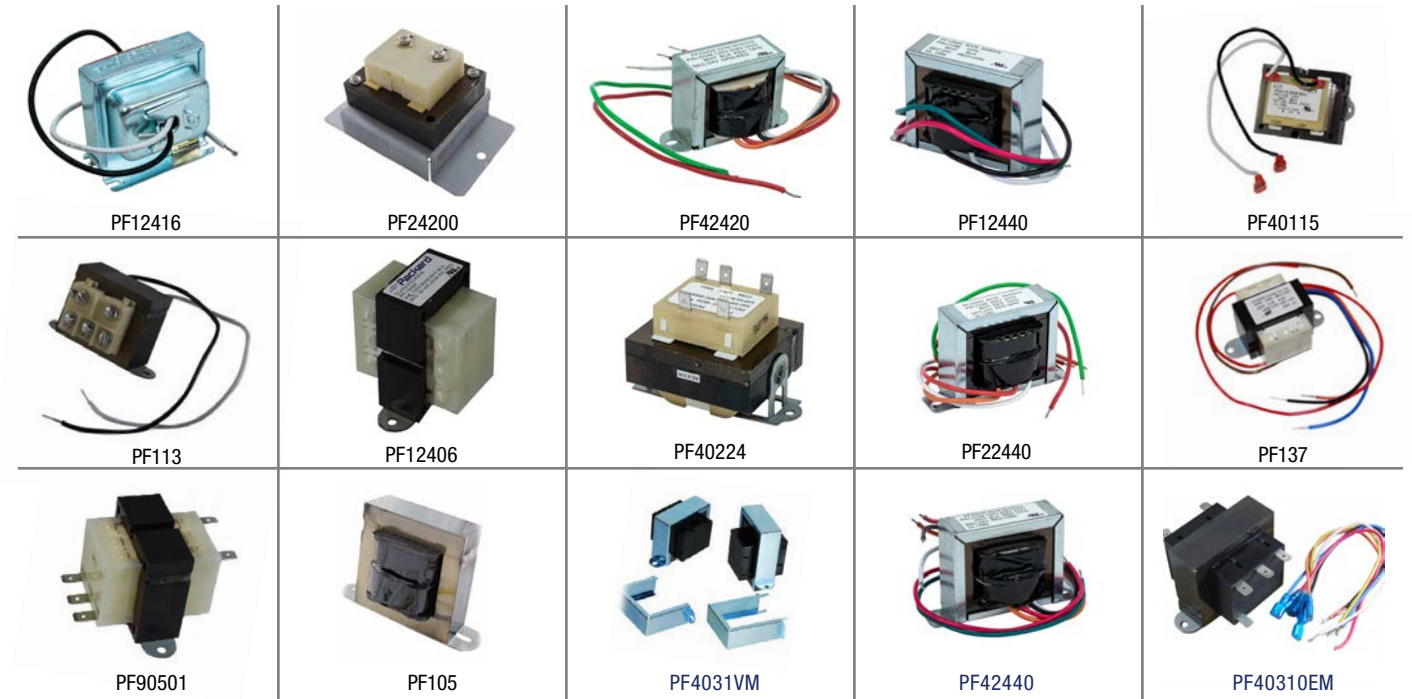
25-52C6 Mounting Plate & Hardware
25-FA112 Optional Mounting Plate



Transformers

Class II Foot Mount Transformers

- Packard transformers replace models with equal or lower VA rating
- Foot mount
- Class II transformers



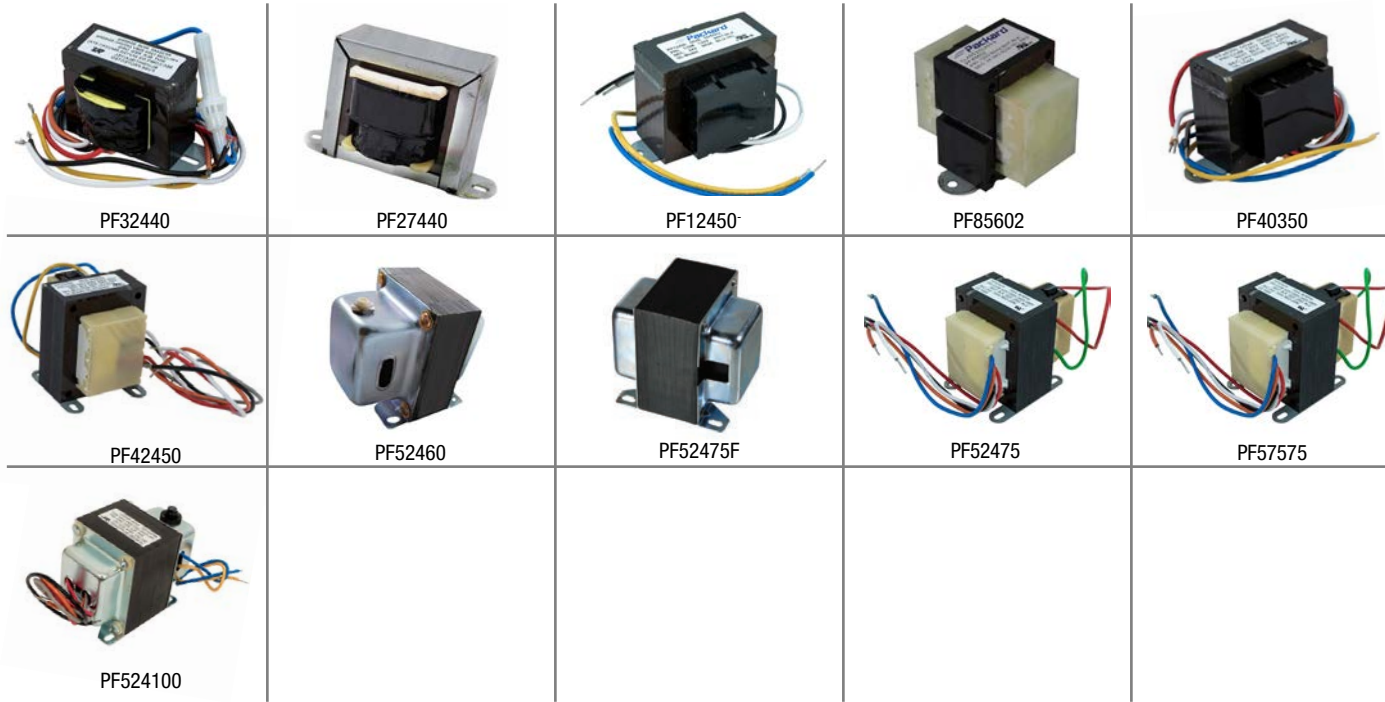
Item ID	Primary Voltage	VA Rating	Secondary Rating	Mounting Option	Connection	Cross Reference
PF12416	120	10	16	Foot	Wire Lead / Term	UET 10A
PF24200	120	20	24	Foot	Wire Lead / Term	Williams Furnace 24200
PF42420	120/208/240	20	24	Foot	Wire Lead	"Jard 2031F , UET 114"
PF12440	120	40	24	Foot	Wire Lead	Jard 4011F
PF40115	120	40	24	Bracket	1/4" QC Term.	Goodman 013M00140S
PF113	120	40	24	Foot	Wire Lead/Term	90-113 Fan Center Transformer
PF12406	120	40	24	Foot	Wire Lead	46-24124-06
PF40224	208/240	40	24	Foot	Terminals	Goodman 013M00138S
PF22440	208/240	40	24	Foot	Wire Lead	Jard 4021F
PF137	208/240	40	24	Foot	Wire Lead	First Company E137
PF90501	208/240	40	24	Foot	1/4" QC Term.	46-101905-01
PF105	120/208/240	40	24	Foot	Wire Lead	UET 105
PF4031VM	120/208/240	40	24	Foot	Wire Lead	Jard 4031VM, Rheem 46-24124-06
PF42440	120/208/240	40	24	Foot	Wire Lead	Jard 4031F, UET 115
PF40310EM	120/208/240	40	24	Foot	Terminals	Jard 40310EM, Rheem 46-101905-01

Transformers



Class II Foot Mount Transformers

- Packard transformers replace models with equal or lower VA rating
- Foot mount
- Class II transformers



Item ID	Primary Voltage	VA Rating	Secondary Rating	Mounting Option	Connection	Cross Reference
PF32440 ⁻¹	120/208/240	40	24/12/2.5	Foot	Wire Lead	Jard 4032F, UET 101
PF27440	277	40	24	Foot	Wire Lead	Jard 40271F
PF12450 ⁻²	120	50	24	Foot	Wire Lead	Rheem 46-102856-02
PF85602	120	50	24	Foot	Wire Lead	46-102856-02
PF40350	120/208/240	50	24	Foot	Wire Lead	Jard 5031F
PF42450 ⁻³	120/208/240/480	50	24	Foot	Wire Lead	Jard 5041C
PF52460 ⁻³	120/208/240	60	24	Foot	Wire Lead	Jard 6041C, UET 160
PF52475F ⁻¹	120/208/240/480	75	24	Foot	Wire Lead	Jard 7541M, UET 175
PF52475 ⁻³	120/208/240/480	75	24	Foot	Wire Lead	Jard 7541C, UET 179R
PF57575 ⁻³	120/208/240/575	75	24	Foot	Wire Lead	Mars 50375
PF524100 ⁻³	120/208/240/480	100	24	Foot	Wire Lead	Jard 10041C

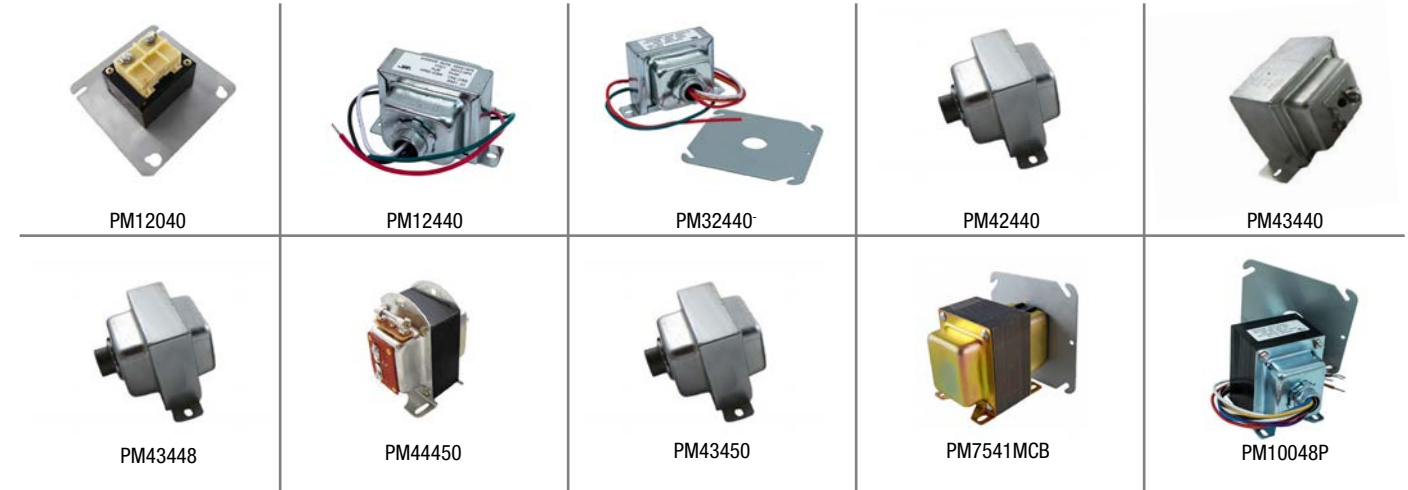
Notes: ⁻¹ Built-in fuse included. ⁻² Includes an Internal 2.5 Amp, 250V, Slow Blow Fuse. ⁻³ Equipped with a circuit breaker.

Transformers



Class II Multi-Mount Transformers

- Packard transformers replace models with equal or lower VA rating
- Multi-mount transformers
- 4 1/4" x 4 1/4" mounting plate included
- 1/2" conduit hub for electrical knockout mounting
- Class II transformers



Item ID	Primary Voltage	VA Rating	Secondary Rating	Mounting Option	Connection	Cross Reference
PM12040	120	40	24	Plate	Wire Lead/Term.	Universal Replacement
PM12440	120	40	24	Multi	Wire Lead	Jard 4011M, UET 112
PM32440 ⁻¹	120/240	40	24	Multi	Wire Lead	Jard 4021M, UET 113
PM42440	120/208/240	40	24	Multi	Wire Lead	Jard 4031M
PM43440 ⁻¹	120/208/240	40	24/12/2.5	Multi	Wire Lead	UET 111
PM43448	120/208/240	48	24/12/2.5	Multi	Wire Lead	Universal Replacement
PM44450 ⁻¹	120/208/240	50	24	Multi	Wire Lead/Term.	Jard 5031M, UET 150
PM43450	120/208/240	50	24/12/2.5	Multi	Wire Lead	Jard 5032M
PM7541MCB ⁻³	120/208/240/480	75	24	Multi	Wire Lead	Jard 7541MCB
PM10048P	208/240/480	100	24/120	Multi	Wire Lead	Jard 10048P

Notes: ⁻¹ Built-in fuse included. ⁻³ Equipped with a circuit breaker.

Definite Purpose Magnetic Contactors - Economy



1 Pole with Shunt & 2 Pole Models

- 1.5 pole (1 pole with shunt) 30 & 40 amp to 2 pole 20, 25, 30 & 40 amp.
- Features lug, spade terminals and protective covers
- Compact size
- Universal galvanized mounting plates
- ARI 780/790 standards
- Brass/copper terminals
- Quick connect and screw terminals on coil
- Snap on auxiliary contacts available
- cURus approved



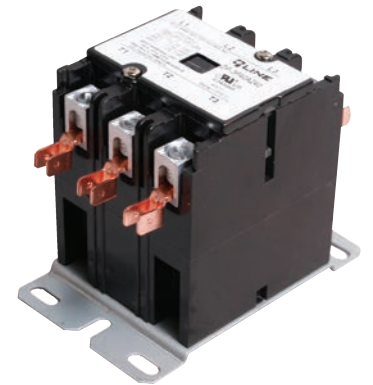
Item ID	Poles	FLA	Coil Voltage 50/60	Locked Rotor Amps			Resistive Amps.	Termination	Furnas #
				240V	480V	600V			
DP-1P30A24	1.5	30	24	180	150	120	40	Box Lug	45EG10AJA
DP-1P30A120	1.5	30	120	180	150	120	40	Screw Type	45EG10AFA
DP-1P30A240	1.5	30	208/240	180	150	120	40		45EG10AGA
DP-1P40A24	1.5	40	24	240	200	160	50	Box Lug	45GG10AJAL, 45FG10AJA, 45GG10AJA
DP-1P40A120	1.5	40	120	240	200	160	50		45GG10AFAL, 45FG10AFA, 45GG10AFA
DP-1P40A240	1.5	40	208/240	240	200	160	50		45GG10AGAL, 45FG10AGA, 45GG10AGA
DP-2P20A24	2	20	24	120	100	80	30	Box Lug	45CG20AJ
DP-2P20A120	2	20	120	120	100	80	30		45CG20AF
DP-2P25A24	2	25	24	150	125	100	35	Box Lug	45DG20AJ
DP-2P25A120	2	25	120	150	125	100	35		45DG20AF
DP-2P25A240	2	25	208/240	150	125	100	35		45DG20AG
DP-2P30A24	2	30	24	180	150	120	40	Box Lug	45EG20AJ
DP-2P30A120	2	30	120	180	150	120	40		45EG20AF
DP-2P30A240	2	30	208/240	180	150	120	40		45EG20AG
DP-2P40A24	2	40	24	240	200	160	50	Box Lug	45GG20AJL
DP-2P40A120	2	40	120	240	200	160	50		45GG20AFL
DP-2P40A240	2	40	208/240	240	200	160	50		45GG20AGL

Definite Purpose Magnetic Contactors - Economy



3 Pole Models

- 3 pole 20, 25, 30, 40, 50 & 60 amp
- Totally enclosed
- Features lug, spade terminals and protective covers
- Compact size
- Universal galvanized mounting plates
- ARI 780/790 standards
- Brass/copper terminals
- Quick connect and screw terminals on coil
- Snap on auxiliary contacts available
- cURus approved



Item ID	Poles	FLA	Coil Voltage 50/60	Locked Rotor Amps			Resistive Amps.	Termination	Furnas #
				240V	480V	600V			
DP-3P20A24	3	20	24	120	100	80	30	Box Lug	-
DP-3P20A120	3	20	120	120	100	80	30		-
DP-3P20A240	3	20	208/240	120	100	80	30		-
DP-3P25A120	3	25	120	150	125	100	35	Box Lug	-
DP-3P30A24	3	30	24	180	150	120	40	Box Lug	42BF35AJ
DP-3P30A120	3	30	120	180	150	120	40		42BF35AF
DP-3P30A240	3	30	208/240	180	150	120	40		42BF35AG
DP-3P40A24	3	40	24	240	200	160	50	Box Lug	42CF35AJ
DP-3P40A120	3	40	120	240	200	160	50		42CF35AF
DP-3P40A240	3	40	208/240	240	200	160	50		42CF35AG
DP-3P50A24	3	50	24	300	250	200	65	Box Lug	42DF35AJ
DP-3P50A120	3	50	120	300	250	200	65		42DF35AF
DP-3P50A240	3	50	208/240	300	250	200	65		42DF35AG
DP-3P60A24	3	60	24	360	300	240	75	Box Lug	42EF35AJ
DP-3P60A120	3	60	120	360	300	240	75		42EF35AF
DP-3P60A240	3	60	208/240	360	300	240	75		42EF35AG
DP-3P75A24	3	75	24	450	375	300	90	Box Lug	42FE35AJ106
DP-3P75A120	3	75	120	450	375	300	90		42FE35AF106
DP-3P75A240	3	75	208/240	450	375	300	90		42FE35AG106
DP-3P90A120	3	90	120	540	450	360	120	Box Lug	42GE35AF106
DP-3P90A240	3	90	208/240	540	450	360	120		42GE35AG106



4 Pole Models

- 4 pole 20, 25, 30 & 40 amp
- Totally enclosed
- Features lug, spade terminals and protective covers
- Compact size
- Universal galvanized mounting plates
- ARI 780/790 standards
- Push to test button
- Brass/copper terminals
- Quick connect and screw terminals on coil
- Snap on auxiliary contacts available
- cURus approved



Item ID	Poles	FLA	Coil Voltage 50/60	Locked Rotor Amps			Resistive Amps.	Termination	Furnas #
				240V	480V	600V			
DP-4P20A24	4	20	24	120	100	80	30	Box Lug	-
DP-4P20A120	4	20	120	120	100	80	30	Box Lug	-
DP-4P25A120	4	25	120	150	125	100	35	Box Lug	-
DP-4P30A24	4	30	24	180	150	120	40	Screw Type	42BF25AJ
DP-4P30A120	4	30	120	180	150	120	40	Box Lug	42BF25AF
DP-4P30A240	4	30	208/240	180	150	120	40		42BF25AG
DP-4P40A24	4	40	24	240	200	160	50	Box Lug	42CF25AJ
DP-4P40A120	4	40	120	240	200	160	50		42CF25AF
DP-4P40A240	4	40	208/240	240	200	160	50		42CF25AG



- Auxilliary switches for 3 & 4 pole 30 - 90 amp "DP" series contactors
- Compact size
- cURus approved



Switch Size	Item ID	Cont. Amps	Voltage Rating	Description	Connection
3 Pole, 20-60 Amp 4 Pole 30-60 Amp	DP-AS3	10	600	2 x SPST, N.O. & N.C.	Quick
	DP-AS6	10	600	2 x SPST, N.O. & N.C.	Screw
	DP-AS6N	10	600	2 x SPST, N.O. & N.C.	Screw
	DP-AS7	10	300	SPDT, N.O. & N.C.	Quick
	DP-AS7N	10	300	SPDT, N.O. & N.C.	Quick
	DP-AS8	10	300	2 x SPDT, N.O. & N.C.	Quick
	DP-AS11	10	300	2 x SPDT, N.O. & N.C.	Quick
	DP-AS1	10	600	SPST, N.O.	Quick
	DP-AS4	10	600	SPST, N.O.	Screw
	DP-AS4N	10	600	SPST, N.O.	Screw
	DP-AS2	10	600	SPST, N.C.	Quick
3 Pole, 50-60 Amp	DP-AS5	10	600	SPST, N.C.	Screw
	DP-AS5N	10	600	SPST, N.C.	Screw
	DP-AS10	10	300	SPDT, N.O. & N.C.	Quick
3 Pole, 75-90 Amp	DP-AS9	10	300	SPDT, N.O. & N.C.	Quick
	DP-AS9N	10	300	SPDT, N.O. & N.C.	Quick

General Purpose Fan Relays



25-90290
Illustrated

Contact Rating
- 125/250 VAC

FLA	LRA	Inductive Amps	Resistive Amps
8	18	8 Amp Continuous	16 Amp Continuous

Specifications

- Temperature Range: -20°C (-4°F) to 40°C (104°F).
- Mechanical Life: 1,000,000 operations.
- Electrical Life: 100,000 operations (@ 16amp 240VAC Res.)
- Operate Time (typical): 25 ms at nominal coil voltage.
- Release Time (typical): 25 ms at nominal coil voltage.
- Dielectric Strength (at sea level for 1 min.):
- 2500 Vrms coil to contact.
- 1000 Vrms between open contacts.
- Coil Frequency: 50/60 Hz.
- Coil Insulation: Class A (105°C / 221°F).
- Coil Duty Cycle: Continuous.
- Terminals: ¼" quick-connects.
- Contact Material: Silver cerium
- Enclosure: Phenolic.

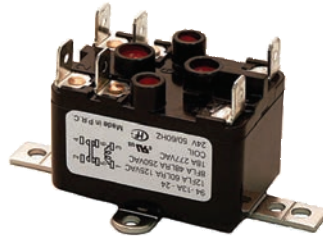
Features

- Designed for switching single or two speed fan motor, relays, solenoids, resistive loads in cooling, heating or general purpose switching applications.
- Replace WR/ Essex/ RBM & Mars type 84 models
- Totally enclosed compact design.
- Quiet & reliable operations.
- UL & cUR (file E44211)
- Universal mounting bracket.

2-Pole HVAC Standard Duty Relays

Coil Voltage	Item ID SPST	Item ID SPDT	Coil Resistance DC OHMS ±10%	Nominal Current MA	Nominal VA Sealed	Inrush VA
24	25-90290	25-90293	90	146		
120	25-90291	25-90294	2,000	29	3.5	4
240	25-90292	25-90295	7,200	15		

Totally Enclosed Fan Relays - Heavy Duty



25-90380
Illustrated

Specifications

- Temperature Range: -20°C (-4°F) to 40°C (104°F).
- Mechanical Life: 1,000,000 operations.
- Electrical Life: 100,000 operations (@ 25amp 277VAC Res.)
- Operate Time (typical): 25 ms at nominal coil voltage.
- Release Time (typical): 25 ms at nominal coil voltage.
- Dielectric Strength (at sea level for 1 min.):
- 2500 Vrms coil to contact.
- 1000 Vrms between open contacts.
- Coil Frequency: 50/60 Hz.
- Coil Insulation: Class A (105°C / 221°F).
- Coil Duty Cycle: Continuous.
- Terminals: ¼" quick-connects.
- Contact Material: Silver cadmium oxide.
- Enclosure: Phenolic.

Features

- Designed for cooling, heating or general purpose switching equipment operating heavier loads.
- Replace WR/ Essex/ RBM & Mars type 184 models
- Totally enclosed compact design.
- Quiet & reliable operations.
- Universal mounting bracket
- UL & cUR (file E44211)
- SPST, SPDT & SPNO/SPNC models.

Heavy Duty Relays

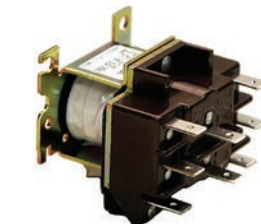
Coil Voltage	SPST Item ID	SPDT Item ID	SPNO-SPNC* Item ID	Coil Resistance DC OHMS ±10%	Nominal Current MA	Nominal VA Sealed	Inrush VA
24	25-90360	25-90370	25-90380	77	167		
120	25-90362	25-90372	25-90382	2,000	33	4	4
240	-	25-90374	25-90384	7,200	17		

*Isolated Contacts

Contact Rating

VAC	Amps	FLA	LRA	Inductive Amps	Resistive Amps
125VAC		14	84	14 Amp Continuous	25 Amp
250VAC	25	8	48	8 Amp Continuous	Continuous @ 277 VAC
277VAC		7	42	7 Amp Continuous	

Totally Enclosed Relay - 2 Pole HVAC Switching Relays



25-90340
Illustrated

Specifications

- Temperature Range: -40°C (-40°F) to 54°C (130°F).
- Mechanical Life: 750,000 operations.
- Electrical Life: 100,000 operations.
- Coil Frequency: 50/60 Hz.
- Coil Insulation: Class B.
- Coil Duty Cycle: Continuous.
- Terminals: ¼" quick-connects.
- Contact Material: Silver cadmium oxide.
- Enclosure: Phenolic.
- Dimensions 2.13" x 1.88" x 2.25"

Features

- Intended for many applications in air conditioning, refrigeration, heating and general purpose switching.
- Cross Reference Honeywell, White-Rodgers/RBM & Mars (cross reference in packaging)
- Semi-enclosed compact design.
- Quiet & reliable operations.
- Universal mounting bracket
- Molded terminal numbers and circuit diagram on top of relay.
- UL & cUR (file E44211).
- 2 Pole DT mode

Contact Rating

Coil Voltage	DPDT Item ID	Terminals 1,2,3.	Terminals 4,5,6.	Resistance DC OHMS ±10%	Nominal Current MA	Nominal VA Sealed Max.	Inrush VA Max.	Cross Reference			VAC	Amps General Use	HP	LRA	FLA
								WR/ RBM	Honeywell	Mars					
24	25-90340			15	334			90-340	R4222B1082	90340	125V			82.8	13.8
120	25-90341	Power	Power	400	66	8	21.5	90-341	R4222B1090	90341	208V	15	3/4	45.6	7.6
240	25-90342			1415	38			90-342	R4222D1013	90342	250V			41.4	6.9
											277V			36.0	6.0

Heat Sequencers



Features

- Solid State PTC Heaters
- Quick-Connect Terminals
- Shock & Vibration Resistant
- Mounts in any position
- Contact Ratings - to 25 Amps at 120 or 240 Volts, and 12.5A at 480 Volts
- Full-Load Rated Auxilliary Contacts
- Standard Operating Ambience Between -50°F (-45.5°C) and 165°F (73.8°C)

Applications

- Electric Furnaces
- Baseboard Heaters
- Duct Heaters
- Suspension Heaters
- Recreational vehicle blower and element control
- Heat pump blower and heating element control
- Motor speed switching in air conditioning (high speed) / heating systems handle combination motor and heater element loading in the heater function
- Control circuits requiring definite sequence on both start up and shut down

Part #	Timings	Switches	Timings (seconds) - On					Timings (seconds) - Off						
			M1-M2	M3-M4	M5-M6	M7-M8	M9-M10	M1-M2	M3-M4	M5-M6	M7-M8	M9-M10		
HS-24A34-21	1	1	1-20					1-60						
HS-24A34-22	1	1	15-45					1-30						
HS-24A34-23	1	1	25-60					15-45						
HS-24A34-24	1	1	30-90					1-40						
HS-24A34-25	1	1	30-90					1-30						
HS-24A34-26	2	2	1-20	30-90				40-90	1-30					
HS-24A34-27	3	1	1-160					1-160						
HS-24A34-29	1	1	15-35					25-55						
HS-24A34-36	2	2	1-20	30-90				45-110	1-30					
HS-24A34-37	3	1	1-110					1-110						

Notes

- M1-M2 and M3-M4 are always the first switches to turn on and the last to turn off. All other switches are random on and random off.
- ON TIME - Elapsed time to make contacts after heater is energized
- OFF TIME - Elapsed time to make contacts after heater is de-energized
- OFF timings determined after PTC heater has been electrified for a total of 5 minutes
- Standard Timings determined at 25°C. Timings at temperatures above or below 25° will vary

Heater Pole

24 Vac 0.18A (anticipator)
0.75A Max Inrush
0.16 to 0.20 amps Steady State
Ambient Rating: - 50° to 160°F

VAC	Resistive (non-inductive)		Motor Ratings (inductive)		Pilot Duty
	Watts	Amps	Full Load	Locked Rotor	
120	3000	25.0	10.0A	60.0A	125VA
240	6000	25.0	5.0A	30.0A	125VA

Combined Load Ratings

(all models):
30A @ 240 VAC - Total: 23 A non-inductive + 7 FLA/42 LRA Inductive
Life at rated current: 100,000 cycles



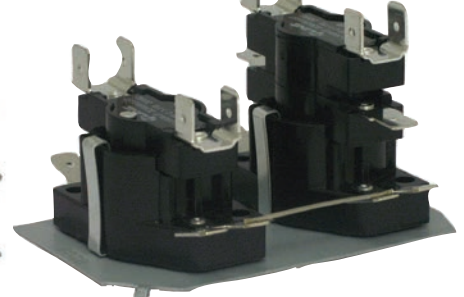
HS-24A34-21, 22, 23, 24, 25



HS-24A34-29



HS-24A34-26,, 36



HS-24A34-37

Flame Sensors

- For use with Spark ignition, Flame sensing and Hot Surface Ignition (H.S.I.) systems
- High quality alumina ceramic insulator
- High temperature Kanthal® flame rod material that can withstand 1800° F
- Flame rod can be trimmed down to match the application

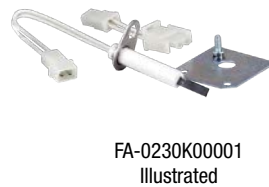
Item ID	Description
FA-AIC54301	Flame Sensor Replaces Rheem 62-23543-01
FA-AIC71075	Flame Sensor Replaces GSW 71075
FA-AICLH13	Flame Sensor Replaces Carrier LH680013
FA-AICLH14	Flame Snesor Replaces Carrier LH680014
FA-AICPSEHW1	Flame Sensor Replaces White Rogers 760-401
FA-AICY700	Flame Sensor Replaces York 025-27773-700
900-3	TrueStart Flame Sensor Replaces Carrier/Bryant LH33WZ516, LH680013
900-5	TrueStart Flame Sensor Replaces Carrier/Bryant LH33WZ518
900-6	TrueStart Flame Sensor Replaces Carrier/Bryant LH33WZ520
PFS010	Flame Sensor Replaces Goodman/Amana/Janitrol 20488501, B1172606, Goodman 0130F00010
PFS053	Flame Sensor Replaces York York S1-SCP-9007053
PFS081	90 Degree Flame Sensor Replaces Lennox 40L81
PFS114	75 Degree Flame Sensor Replaces Trane SEN01114
PFS029	Flame Sensor Replaces Lennox 52W29
PFS043	90 Degree Flame Sensor Replaces Lennox 69W43
PFS027	90 Degree Flame Sensor Replaces ICP/Heil Quaker 1172827
PFS087	Flame Snesor Replaces ICP/Heil Quaker 1172827
PFS097	90 Degree Flame Sensor Replaces Lennox/Ducane 28M97



Igniters

Silicon Nitride Igniters (cont. next page)

Item ID	Description	Cross Reference
FA-0230K00001	Hot Surface Igniter	Goodman 0120K00001
FA-AICHSIURK120	Universal Round Nitride Igniter • 120V	
FA-1409	Nitride Igniter	Carrier LH33ZS001, 002, 003, 004
IG1412N	Nitride Igniter • 120 Volts • 5.5" Leads with connector	Goodman B1401009
IG1414N	Nitride Igniter • 120 Volts • 5.5" Leads with connector • Wire nuts and bracket included	Norton MB457025
IG0001	Nitride Igniter • 120 Volts • Includes mini-igniter, flat mounting plate screw, instruction sheet and adapter harness	Goodman 023K000005
IG0004N	Nitride Igniter • 120 Volts	Garrier LH33ZS004



Igniters

Silicon Nitride Igniters (cont. next page)

Item ID	Description	
IG1000N	Nitride Igniter • 120 Volts • Universal round glo-stix	Norton 201D
IG00145N	Nitride Igniter • 80 Volts • Round	Trane IGN00104
IG00152N	Nitride Igniter • 120 Volts • Round	Trane IGN00146
IG9500	Nitride Igniter • 24 Volts	Honeywell Q3450
IG1408N	Nitride Igniter • 120 Volts • Round • 5.5" Leads with connector	Amana 340039P01
IGN-2	Flat Universal Hot Surface Igniter Kit • 120VAC • 15.7" Lead Wire	
IGN-2-6P	6 Pack Flat Universal Hot Surface Igniter Kit • 120VAC • 15.7" Lead Wire	
IGN-001	Flat Universal Hot Surface Igniter • 120VAC • 19.0" Lead Wire	
IGN-401	Flat Silicon Nitride Hot Surface Igniter • 120VAC • 5.5" Lead Wire • Molex Internally Keyed Connector With .084" Pins	Amana 10041601, B1336102, D99182, Eaton F1-401, Grainger 5JA28 Heatmaker 2400-408, 2400-286, 2600-359, 3079-100, 9330-102, Honeywell Q4100C9042/U, Johnstone Supply L37-698, Lennox/Allied Air 96P01 MARS 67914, 67975, Norton 201A, 271A, 271Q, MB258909, Packard IG1401, Robertshaw 41-401, Starlite 11120-100-1401, 1401, Supco IG401, Surface Igniter DS401, FA003KL, Uni-Line 63466, Whirlpool 99794322, White Rodgers 767A-309, 767A-352, 767A-356, 767A-369
IGN-402	Flat Silicon Nitride Hot Surface Igniter • 120VAC • 19.125" Lead Wire • Stripped Ends	Amana 10735003A, 10755002, American Water Heater 6905032 Arco Aire 100-9980, Armstrong 38322B001, Clare Brothers C-238, C-242 Coleman/Evcon 1474-051, 1474-052, DMO Industries 20834, 26789, Dornback 271W, Eaton F1-402, Enerco 10399, Frigidaire 6320770, 6320880, 6323540, Goodman B11726-06, Grimsby Stove ZCO-350, Honeywell Q4100C9046/U, Hupp 9050, Johnstone Supply L37-699, L.B. Manufacturing 120-07549, Lennox/Allied Air 25N40, Majestic 75-92-104, 75-92-105, MARS 67909, 67915, 67923, 67977, Nordyne 105141000, 632-0770, 632-0880, Norton 201K, 201L, 201N, 201P, 201R, 201W, 271N, 271W, MB258911, MB478264, Olsen 20834, 26789, Packard IG1402, Rheem 62-22441-01, 62-22868-02, 62-22868-93, Roberts Gordon 90436600, Robertshaw 41-402, 41-238, 41-242, Starlite 11120-100-1402, 1402, Supco IG402, Surface Igniter DS402, FC058KL, Trane/American Standard 340039P01, IGN00023, Uni-Line 63467, Whirlpool 99794323, White Rodgers 767A-402, 767A-371, York 025-32625-000



Igniters

Silicon Nitride Igniters (cont. next page)

Item ID	Description
IGN-403	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 5.5" Lead Wire • Stripped Ends <p>Amana B138196P01, Eaton F1-403,eneral Electric WG37X11, WG37X34 Grainger 1TGF6,Heil/Quaker/ICP/Comfort Maker/Tempstar 1380654, Honeywell Q4100C9056/U, Johnstone Supply L37-700, Lennox/Allied Air 36N77,MARS 67916, 67978, Norton 271M, MB258910, Packard IG1403 Reznor 625016, Robertshaw 41-403, Snyder General 1380654, Starlite 11120-100-1403, 1403, Supco IG403, Surface Igniter DS403, FC059KL Trane/American Standard IGN00026, IGN00030, B138196P01, Uni-Line 63468, Weil Mclain 511-330-193, White Rodgers 767A-366</p>
IGN-405	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 5.5" Lead Wire • Stripped Ends <p>Eaton F1-405, Grainger 5E811, Heil/Quaker/ICP/Comfort Maker/Tempstar 1001344, 1148145, Honeywell Q4100C9068/U, Johnstone Supply L37-812, Lennox/Allied Air 98P77, MARS 67917, 67979, Norton 201D, 271D, 271P, MB457026, MB478267, Packard IG1405, Reznor 625023, Robertshaw 41-405, Starlite 11120-100-1405, 1405, Supco IG405 Surface Igniter DS405, FC060KL, Uni-Line 63470, White Rodgers 767A-301, 767A-306, 767A-350, 767A-354, 767A-361, York 025-27766-000, 025-27774-000, 025-29403-000, 025-29050-000</p>
IGN-406	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 11" Lead Wire • Stripped Ends <p>American Water Heater 6901800, 6903767, 6903768, Eaton F1-406 Honeywell Q4100C9050/U, Johnstone Supply L37-813, Lennox/Allied Air 25N41, Lochinvar LCVT27021G, PLT2400, PLT2702, MARS 67925, 67960 Norton 201B, 201J, 201M, 201Y, 271M, 271Y, MB457027, MB478268, MB478601, Packard IG1406, Reznor 625018, Robertshaw 41-406, Starlite 11120-100-1406, 1406, Supco IG406, Surface Igniter DS406, FY012KL Uni-Line 63471, Weil Mclain 511-330-188, 511-330-193, Whirlpool 99794326, White Rodgers 767A-374</p>



IG-406 Illustrated

TrueStart Pilot Burners

TrueStart® pilot burners are a replacement for Carrier/BDP pilot burners. Available in 2 wire and 3 wire versions. The 3 wire is also field convertible to a 2 wire. TrueStart® pilot burners are not manufactured by Carrier Corporation.

Item ID	Description
FC-73	2 Wire Pilot - Replacement for the Carrier 732. 2 wire pilot burner commonly known as Carrier/BDP part number LH33JZ053



Igniters

Silicon Carbide Igniters (cont. next page)

Item ID	Description	Cross Reference
IGN-407	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 5" Lead Wire • Molex Front Lock Connector With .092" Male Pins 	Eaton F1-407, Honeywell Q4100C9052/U, Johnstone Supply L37-814, MARS 67918, 67980, Norton 271M, MB457038, Packard IG1407, Reznor 625014, Robertshaw 41-407, Starlite 11120-100-1407, 1407, Supco IG407, Surface Igniter DS407, FC061KL, Trane/American Standard B144676P02, Uni-Line 63472, Whirlpool 99794327, White Rodgers 767A-376
IGN-408	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 5.25" Lead Wire • Molex Side Lock Connector With .092" Male Pins 	Eaton F1-408, Grainger 1TGF3, Honeywell Q4100C9054/U Johnstone Supply L37-815, Lennox/Allied Air 98P78 MARS 67919, 67981, 68015, Norton 271N, MB457025, MB478266 Packard IG1408, Rheem 62-22441-01, 62-22668-93, 62-22669-01, 62-22669-02, 62-22669-81, 62-22669-82, 62-22669-92, 62-22868-92, 62-23493-01, Robertshaw 41-408, Starlite 11120-100-1408, 1408 Supco IG408, Surface Igniter DS408, FC062KL, Trane/American Standard IGN00034, IGN00054, B340039P01, Uni-Line 63473, Whirlpool 99794328 White Rodgers 767A-372
IGN-409	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 5.25" Lead Wire • Receptacle With .093" Male Pins 	Carrier/Bryant LH33ZS001, LH33ZS002, LH33ZS003, LH33ZS004 Ducane 20015201, Eaton F1-409, Grainger 1TGF4, Heil/Quaker/ICP/Comfort Maker/Tempstar 1380672, 1380680, Johnstone Supply L37-816 Lennox/Allied Air 25N42, MARS 67920, 67982, Norton MB457555 Packard IG1409, Roberts Gordon 90434300, 90436600, Robertshaw 41-409, Snyder General 1380654, 1380672, 1380680, Starlite 11120-100-1409, 1409, Supco IG409, Surface Igniter DS409, FC063KL, Trane/American Standard IGN00026, Uni-Line 63474, Weil Mclain 511-330-139 Whirlpool 99911680, White Rodgers 767A-370
IGN-410	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 5.25" Lead Wire • Molex Front Lock Connector With .092" Male Pins 	Eaton F1-410, Honeywell Q4100C9058/U, Johnstone Supply L39-627 MARS 68016, 67983, Norton MB457551, MB478270, Packard IG1410 Robertshaw 41-410, Starlite 11120-100-1410, 1410, Supco IG410 Surface Igniter DS410, FC064KL, Trane/American Standard B144676P01 Uni-Line 63475, White Rodgers 767A-377
IGN-412	<p>Flat Silicon Nitride Hot Surface Igniter</p> <ul style="list-style-type: none"> • 120VAC • 5.25" Lead Wire • Receptacle With .093" Male Pins 	Eaton F1-412, Goodman B1401009, Grainger 1TGF5, GSW 71082, 86483 Heil/Quaker/ICP/Comfort Maker/Tempstar 10096047, 10096048, Honeywell Q4100C9062/U, Johnstone Supply L39-089, MARS 68014, 67964 Norton 271NM, MB458902, MB478272, Packard IG1412, Robertshaw 41-412, Starlite 11120-100-1412, 1412, Supco IG412, Surface Igniter DS412, FC065KL, Uni-Line 10530, Whirlpool 99911683, White Rodgers 767A-373
IG0148	<p>Silicon Carbide Igniter</p> <ul style="list-style-type: none"> • 120 Volt • 5.5" Leads with connector • For Weil Mclain AHE, GV, and HE II Boilers 	Weil Mclain 511330148
IG0184	<p>Silicon Carbide Igniter</p> <ul style="list-style-type: none"> • 120 Volt • 5.5" Leads with connector • Wire nuts and bracket included 	Norton 201
IG1121	<p>Silicon Carbide Igniter</p> <ul style="list-style-type: none"> • 120 Volt • 5.5" Leads with connector • Mounting bracket included 	Modine 5H0750328
IG1401	<p>Silicon Carbide Igniter</p> <ul style="list-style-type: none"> • 120 Volt • 5.5" Leads with connector • Gasket included 	Amana D99182
IG1402	<p>Silicon Carbide Igniter</p> <ul style="list-style-type: none"> • 120 Volt • 19" Leads with wire nuts 	Dornback 271W



IG-407 Illustrated

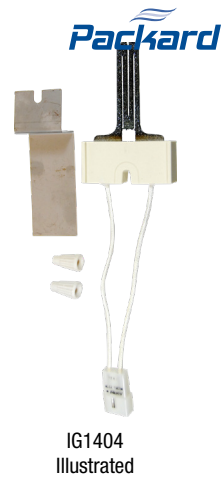


IG0148 Illustrated

Igniters

Silicon Carbide Igniters (cont. next page)

Item ID	Description	Cross Reference
IG1403	Silicon Carbide Igniter • 120 Volt • 5.5" Leads with wire nuts	Trane IGN26
IG1404	Silicon Carbide Igniter • 120 Volt • 5.5" Leads with wire nuts	White Rodgers 767A382
IG-1106	Hot Surface Igniters • Attached shield • 20" leads with sleeving and connector	GSW/John Woods/Giant Water Heater - 86483, 71082, 5260001425 Norton - 271R
IG-1109	Hot Surface Igniters • Gasket included • 19" leads with connector	Lochinvar - PLT3400 Glowcore - HSRK-5, 1950006
IG-1408	Hot Surface Igniters • 5.5" leads with connector	Rheem - 62-22868-92, 62-22868-93, 62-22686-82, 62-22441-0 Trane - B340039P01, IGN34 Uni-Line - 41-408, 41-411 White Rodgers - 767A-372
FA-DS001	Universal Flat Igniter Kit	
FA-DS009	Hot Surface Igniter	Nordyne 632363, 903758
FA-DS010	Hot Surface Igniter • 5" leads	Trane B144676P01
FA-DS014	Hot Surface Igniter • 15" leads with connector	Rheem AP12553
FA-DS015	Hot Surface Igniter • 20" leads with sleeving, harness and shield	GSW 63994
FA-DS016	Hot Surface Igniter • 5" leads	York 025-32625-000
FA-DS401	Hot Surface Igniter • 5.5" leads	Amana 10041601
FA-DS402	Hot Surface Igniter	Armstrong 38322B001
FA-DS405	Mini Hot Surface Igniter • 120V	York 025-27766-000, 025-29043-000
FA-DS406	Hot Surface Igniter • 115V	Glowcore HSRK-7
FA-DS408	Hot Surface Igniter • 5.5" leads with connector	Rheem 62-22868-92, 62-22868-93



Igniters

Silicon Carbide Starlite Hot Surface Igniters Continued

Item ID	Description	Cross Reference
FA-DS410	Hot Surface Igniter • 5" leads	Trane B144676P01, 41-410
FA-DS411	Hot Surface Igniter	Rheem 62-22868-82
FA-DS412	Hot Surface Igniter	Goodman B1401009
FA-DS418	Hot Surface Igniter	Goodman B1401015S
FA-FC046	Round Hot Surface Igniter	York 025-32626-000
FA-FC047	Round Hot Surface Igniter Kit	Nordyne 62313, 903110
FA-FC051	Round Hot Surface Igniter	Clare C238-1
FA-FC067	Round Universal Hot Surface Igniter	
FA-FF003	Round Hot Surface Igniter Kit	Rheem AP12143
FA-SN402	Universal Flat Mini Hot Surface Igniter Kit	
FA-XSLURK24	Hot Surface Igniter Kit	Honeywell



Furnace Igniter Kit

Kit Part # **IG-1090**

Compatible with 17, 34, & 45 second warm-up modules

Specially designed kit for the replacement of 120 volt igniters in furnaces, boilers, space heaters, and water heaters. Cross Reference igniters in over 60 furnace models manufactured by more than 20 OEM's.

Features:

- Includes hardware and installation instructions for replacement of flat and spiral hot surface igniters.
- Convenient cross reference list included with every kit.
- Designed to reach ignition temperature in 17 seconds making kit compatible with 17, 34, and 45 second warm-up modules.
- Hot zone designed to replace competitive igniters for prompt and reliable ignition.
- All Starlite igniters are CSA approved.

Each Kit Includes:

- Starlite 120 volt igniter with 14" leads
- 3 adapter brackets
- Mounting screw
- Ceramic wire nuts
- 4" length of protective sleeving
- Cross reference list



Electric Heating Restraining Coil Kits



General Purpose Restraining Coil Kits

- Restraining kits are complete with terminal insulators, screws, washers and nuts
- Tight coil wire with 1 1/32" maximum outer diameter
- Packaged in a poly bag

Item ID	Connector	Watts @ 240V	Watts @ 208V	Min (In)	Max (In)
PH500*	Bolt	5000	3750	40	125
PH501	Bolt	3500	2625	32	105
PH502	Bolt	2000	1500	28	93
PH520	Bolt	6600	4950	47	156

*WITH 300° FUSE LINK



PH500 Illustrated

5/8" O.D. General Purpose Coil Kits

- Large open coil heaters for wall furnaces, duct heaters, electric furnaces, bathroom heaters and combination units
- Coil is terminated with 1/4" spade terminal
- Butt screws, bushings, nuts and instructions are included

Item ID	Connector	Watts @ 240V	Watts @ 208V	Min (In)	Max (In)
PH500FC	1/4" Spade	5000	3750	25	70
PH500FCB	Bolt	5000	3750	25	70
PH501FC	1/4" Spade	3500	2625	32	105
PH501FCB	Bolt	3500	2625	32	105

Item ID	Connector	Watts @ 480V	Min (In)	Max (In)
PH500-3FC	1/4" Spade	5000	30	90



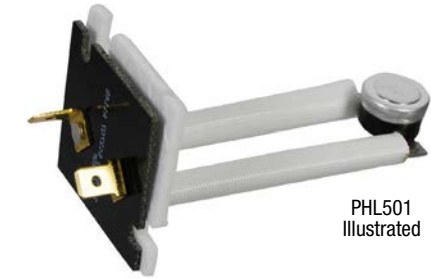
PH501FCB Illustrated

Thermostats



Plenum Thermostats

- Opens when furnace plenum area temperature is too high
- Shuts furnace down until the temperature returns to normal



PHL501 Illustrated

Item ID	Close Temp. °F	Open Temp. °F	Thermodisc	Carrier	Cross Reference				
					Bryant	Goodman	Rheem	Trane	York
PHL501	130	170	L170-40 SPST	P331-2203	HH12ZA174A HH127A176A		47-21711-06		025-29041-007
PHL502	150	180	L180-30 SPST		HH12ZA178A	B1370001			
PHL503	150	190	L190-40 SPST	P331-2205	HH12ZA189 HH12ZB190 HH12ZA193A		47-21711-03		025-29041-012
PHL504	200	240	L240-40 SPST	P331-2217	HH12ZA240 HH12ZA252A				
PHL505	100	140	L140-40 SPST		HH12ZB140				SWT1258
PHL506	130	170	L170-40 SPST		HH12ZB170				
PHL507	110	140	L140-30 SPST		HH12ZA140				025-29041-005
PHL508	170	190	L150-20 SPST	P331-2005	HH12ZB190 HH12ZA193 HH12ZA189	B1370913		SWT1260	
PHL509	210	240	L240-30 SPST	P331-2217	HH12ZB240 HH12ZA252 HH12ZA240	B1370903			
PHL510	210	150	L150-20 SPST		HH12ZB150				
PHL511	140	160	L160-20 SPST		HH12ZB160				025-29041-004
PHL512	150	170	L170-20 SPST		HH12ZB170				
PHL513	130	170	L170-40 SPST						
PHL514	104	180	L180-40 SPST		HH12ZB180				025-29031-711
PHL515	160	200	L200-40 SPST		HH12ZB200 HH12ZA199 HH12ZA201				025-29041-006
PHL516	170	210	L210-40 SPST		HH12ZB210			SWT1263	
PHL517	180	220	L220-50 SPST	48NHT042	HH12ZB220 HH12ZA219 HH12ZA223			SWT1273	
PHL518	210	250	L250-40 SPST	P331-2208	HH12ZB250 HH12ZA251	B1370012S		SWT1261 SWT1272	
PHL519	125	155	L155-30 SPST			B1370006			

Thermostats



Fixed Temperature Thermostats

- The 78-SC055 to 78-SC075S series of thermostats are low cost single set point thermostats intended for temporary heating or cooling to allow drywall to dry during construction. Can also be used for low ambient cut-off switch.
- Rugged utility thermostat for temporary applications.
- deal for new or ongoing construction areas.
- Five fixed set point models to choose from (55°, 60°, 65°, 70°, 75°F).
- Hardwired.

Specifications

Electrical Rating

- 24 Volt AC (18-30 VAC)
- 2 Amp Maximum

Temperature Control Range

- Accuracy ±5°F 55°, 60°, 65°, 70°, 75°F

Applications

Ideal for warehouses & new home construction!

"Dry Out" Thermostats



78-SC075 Illustrated



78-SC075S Illustrated

Item ID	Description
78-SC045	2 Wire Fixed Thermostat 45° Cool
78-SC055	2 Wire Fixed Thermostat 55° Cool
78-SC060	2 Wire Fixed Thermostat 60° Heat
78-SC060S	3 Wire Fixed Thermostat 60° w/ Switch - Fan/Off/Heat
78-SC065	2 Wire Fixed Thermostat 65° Heat
78-SC070	2 Wire Fixed Thermostat 70° Heat
78-SC075	2 Wire Fixed Thermostat 75° Cool
78-SC075S	3 Wire Fixed Thermostat 75° w/ Switch - Fan/Off/Cool

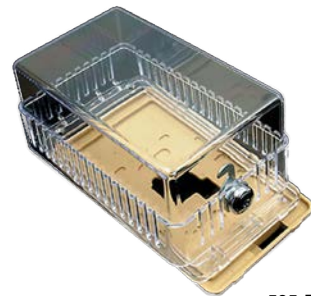
Thermostat Guards



Plastic Thermostat Guards

Use to prevent tampering with thermostats. The covers are clear, allowing complete viewing of the thermostat and current settings. Furnished complete with ring and/or solid base. Includes vent holes for easy airflow across the thermostat. Lockable with universal key. Internal dimensional clearance/sizing for thermostats as noted.)

Item ID	Description	T-Stat Clearance	Cross Reference
585-TG	Clear Plastic w/Two Bases	8-1/4" x 4-1/2" x 3-1/4"	Beko BTG-UK2 Bramec 13012 Mars 70220
585-TG1	Clear Plastic w/Two Bases	5-3/4" x 3-1/2" x 2-3/4"	Beko BTG-RK Bramec 13016 Mars 70210
585-TG2	Clear Plastic w/Two Bases	4-3/4" x 4-1/4" x 2-3/4"	Beko BTG-K Bramec 13008 Mars 70205
585-TG5	Clear Plastic w/Solid Base	3-1/2" x 3-1/4" x 2-1/4"	Beko BTG-EK Bramec 13004 Mars 70201
585-TG6	Clear Plastic w/Two Bases	6-1/4" x 3-3/4" x 1-3/4"	Beko BTG-DK Bramec 13018 Mars 70217
585-F336	Key for Thermostat Guard		



585-TG1 Illustrated

Thermostat Guards



Steel Thermostat Guards

Steel thermostat guards are used to prevent tampering with thermostats. The covers are steel, giving complete tamper protection of the thermostat, and physical impact protection. Great for warehouse and industrial locations. Furnished complete with ring and/or solid base as noted. Includes vent holes for easy airflow across the thermostat. Lockable with universal key. Internal dimensional clearance/sizing for thermostats as noted.

- Durable steell guards
- Horizontal and vertical mounting
- Heavy duty lock and key
- Comes with complete mounting hardware



77-MG3 Illustrated



585-TG4 Illustrated



77-MG12 Illustrated

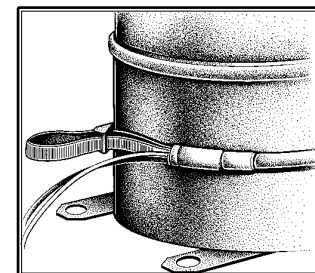
Item ID	Description	T-Stat Clearance	Cross Reference
585-TG3	Beige Steel w/Solid Base	6" x 4" x 3"	
77-MG3	Off White Steel w/Solid or Ring Base	5.31" x 4.31" x 3.00"	Solid: BTG-KM, KMST Ring: BTG-KWM, KMR
585-TG4	Beige Steel w/Ring Base	6" x 4" x 3"	
585-TG7	Beige Steel w/Solid Base	5-1/2" x 3-1/2" x 2-3/4"	
585-TG8	Beige Steel w/Ring Base	5" x 3" x 2-3/4"	Beko BTG-54VLW Bramec 13001 Mars 70216
585-TG9	Beige Steel w/Two Bases	6" x 4" x 3"	
77-MG12S	Off White Steel w/Solid Base	6.37" x 4.25" x 3.00"	BTG-54VL, F29-0255

Crankcase Heaters



Crankcase Compressor Heaters

- When a refrigeration compressor shuts down or enters a long-off cycle, liquid refrigerant migrates into its crankcase oil. Lubrication decreases and crankcase burnout can occur when operation resumes.
- Energy efficient, self-regulating design automatically varies output to maintain adequate oil temperature while permitting wrapping and crossover without burnout.
- Handles compressors up to 5 Hp, 120 or 240 volt applications.
- Fits all crankcases with circumferences smaller than 49".



"Compressor Burnout Protection!"

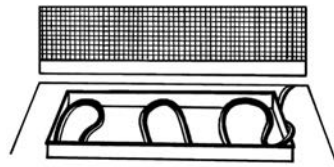
Item ID	Volts	Output @ -18°C (0°F)	Output @ 16°C (60°F)	Weight
75-HCCH1	120	60W	35W	0.5 lbs
75-HCCH2	240	60W	35W	0.5lbs

Heat Cable

Self Regulating Heat Cable

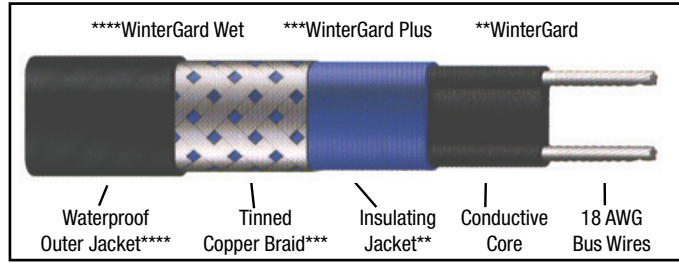
"Self Regulating" Heating Tape

- Easy installation
- Won't burn out
- Won't overheat
- OK to overlap
- OK to insulate
- OK for plastic
- No thermostat required
- Cut to desired length
- Higher efficiency
- UL & CSA approved



Keep Wet Areas From Freezing
With WinterGard Wet for tracing air conditioner drain pans to prevent freezing or gut tracing freezer drain lines to prevent backup problems.

Protect Pipes
With WinterGard or WinterGard Plus for freeze protection of short & small diameter piping. Pre-cut lengths or custom cut lengths.



WinterGard Heating Cable

- Economical solution for residential/ commercial pipes up to 2" diameter and circuit length up to 250'.
- Dry applications only.
- Tough - steel braided.



WinterGard Plus Heating Cable

- Designed for more demanding residential/ commercial with larger plastic or metal pipes with diameters up to 8" and circuit lengths up to 250'.
- Dry applications only.
- Tough - steel braided.

Applications
- Ideal freeze protection for pipes in unheated attics, basements and garages.
- Use it for intake and drain lines, water meters, outside pipes and taps.



WinterGard Wet Heating Cable

- The answer for freeze protection in wet or high moisture residential/ commercial locations such as drain lines with larger plastic or metal pipes. Suitable for pipe diameters up to 8" and circuit lengths up to 1000'.
- Wet or dry applications.
- Tough - steel braided & waterproof outer jacket.

Applications
- Ideal for residential & commercial buildings.
- Use it to freeze protect water service & fire protection systems.
- Roof & gutter de-icing.

120V

- Blue Cable - Steel Braid

Item ID	Watts/ft	Power	Length	Weight
75-H611050	6	120V	50' Box	3.0 lbs.
75-H611100*	6	120V	100' Truck Pack	9.0 lbs.
75-H611250	6	120V	250' Reel	17.0 lbs.

* 100' Truck Packs include (2) 75-H900, (1) 75-H903 & (1) 75-H910.

240V

- Red Cable - Steel Braid

Item ID	Watts/ft	Power	Length	Weight
75-H621050	6	240V	50' Box	3.0 lbs.
75-H621100*	6	240V	100' Truck Pack	9.0 lbs.
75-H621250	6	240V	250' Reel	17.0 lbs.

* 100' Truck Packs include (2) 75-H900, (1) 75-H903 & (1) 75-H910.

120V

- Blue Cable - Steel Braid - Black Jacket

Item ID	Watts/ft	Power	Length	Weight
75-H612050	6	240V	50' Box	4.0 lbs.
75-H612100*	6	240V	100' Truck Pack	10.0 lbs.
75-H612250	6	240V	250' Reel	20.0 lbs.
75-H612500	6	240V	500' Reel	43.0 lbs.
75-H6121000	6	240V	1000' Reel	77.0 lbs.

240V

- Red Cable - Steel Braid - Black Jacket

Item ID	Watts/ft	Power	Length	Weight
75-H622050	6	240V	50' Box	4.0 lbs.
75-H622100*	6	240V	100' Truck Pack	10.0 lbs.
75-H622250	6	240V	250' Reel	20.0 lbs.
75-H622500	6	240V	500' Reel	43.0 lbs.
75-H6221000	6	240V	1000' Reel	77.0 lbs.

* 100' Truck Packs include (2) 75-H900, (1) 75-H903 & (1) 75-H910.

Heat Cable

Self Regulating Heat Cable



Standard Packaging

- Winter Guard.
- Winter Guard Plus.
- Winter Guard Wet.

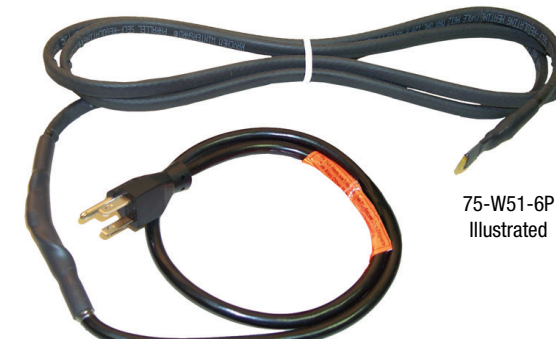
75-H611050
50' Box Illustrated

75-H611100
100' Truck Pack Illustrated

75-H611250
250' Reel Illustrated

Gardian Pre-assembled Heating Cable Kits

- Perfect for residential or commercial small applications with short pipe runs up to 100', 2" diameter.
- Rugged copper braid provides abrasion and damage protection.
- 120V (30" power cord & plug) 240V (hardwired).



75-W51-6P
Illustrated



Gardian
Pre-assembled
Heating Cable

120V

Item ID	Watts/ft	Power	Length	Weight
75-W51-6P	5	120V	6' Kit	1.0 lbs.
75-W51-12P	5	120V	12' Kit	1.3 lbs.
75-W51-18P	5	120V	18' Kit	1.6 lbs.
75-W51-24P	5	120V	24' Kit	2.0 lbs.
75-W51-75P	5	120V	75' Kit	5.4 lbs.
75-W51-100P	5	120V	100' Kit	6.9 lbs.

240V

Item ID	Watts/ft	Power	Length	Weight
75-W52-6L	5	240V	6' Kit	1.0 lbs.
75-W52-12L	5	240V	12' Kit	1.3 lbs.

FrostGuard Pre-assembled Heating Cable Kits

- Perfect for freeze protection of pipes and roof and gutter de-icing applications
- 120V version in 6, 12, 18, 24, 36, 50, 75 and 100 ft lengths each with a 6 ft power cord and 3-prong, grounded, lighted plug to show the system is on



75-FG1-12P
Illustrated

120V

Item ID	Watts/ft	Power	Length
75-FG1-6P	6	120V	6' Kit
75-FG1-12P	6	120V	12' Kit
75-FG1-18P	6	120V	18' Kit
75-FG1-24P	6	120V	24' Kit
75-FG1-75P	6	120V	75' Kit
75-FG1-100P	6	120V	100' Kit

240V

Item ID	Watts/ft	Power	Length
75-FG2-6L	6	240V	6' Kit
75-FG2-12L	6	240V	12' Kit

Heat Cable

Accessories - Self Regulating Heat Cable



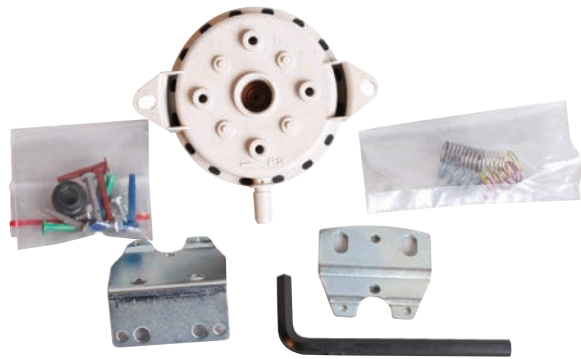
75-FGK-P-RS Termination Kit Illustrated

Item ID	Description	Weight
75-H900	Power connection kit.	0.5 lbs.
75-H903	Fibreglass application tape & "Electric traced" labels.	0.3 lbs.
75-H908	Plug-in Power connection kit.	1.0 lbs.
75-H910	Splice & tee kit.	0.3 lbs.
75-FGK-P-RS	Original termination kit.	0.3 lbs.
75-H912	Gel-filled end seal kit (2 ea.)	0.3 lbs.
75-H913	Roof clips (10 ea.)	1.0 lbs.
75-H915	Downspout hanger bracket.	0.5 lbs.
75-AMC-F5	Fixed point thermostat 5°C (40°F).	1.5 lbs.
75-TC-3	2 receptacle thermo cube thermostatically controlled outlet (120V, 15 amp). - ON @ 2°C (35°F), OFF @7°C (45°F).	1.0 lbs.

Specialty Products

Universal Air Switch

The NS2 Switch has a glass-filled polycarbonate housing containing a sensing diaphragm and an integral snap-acting switch with three male 90° quick-connect terminals. The switch can be actuated by a pressure or vacuum air flow or the differential between two air flows. The field adjustable set point range of this switch is 0.10"w.c. to 10.0"w.c. Using the switch accessories contained in this kit, the NS2 switch can be applied to a wide variety of residential and light commercial HVAC applications.



Item ID	Description
AS-NS2-0000-03	Air Switch

Specifications

- Operating Range - .10"w.c. to 10"w.c.
- Max Pressure Rating - 14"w.c.
- Mounting - vertical or custom angle
- Operating Temp. - -40°C to 88°C
- Sample Line Connections - Black positive, Gray negative
- Sample Medium - Air and by-products of combustion that will not degrade silicone or polycarbonate
- Product Life - 100,000 Cycles

Kit Includes:

- (1) FIELD ADJUSTABLE NS2-0000-00 SWITCH
- (1) BLACK SET POINT ADJUSTMENT SCREW
- (1) HEXAGON KEY WRENCH
- (5) COLOUR-CODED SPRINGS
- (4) COLOUR-CODED ORIFICES
- (1) HALF STRAP MOUNTING BRACKET
- (1) ANGLE BRACKET
- (1) MOUNTING SCREW FOR OPTIONAL BRACKETS
- (2) #6-3/8 MOUNTING SCREW FOR OPTIONAL BRACKETS

Specialty Products

Universal Humidifier Solenoid

Introducing the first universal solenoid replacement. This one unit will replace over 32 different direct OEM solenoids in the field. Just wrench in the appropriate fittings on the inlet and outlet, and even change water flow from left to right tor right to left. Cross Reference many Aprilaire, General, Honeywell, Skuttle, and many other models for a fraction of the



Item ID	Description
71-UHS24	Universal Humidifier Solenoid
71-UHS99	24V Universal Humidifier Solenoid

Kit Includes:

- SOLENOID
- 1/4" COMPRESSION x 18" MPT WITH FILTER SCREEN
- 3/16" BARB x 1/8" MPT
- 1/8" MPT x 1/4" COMPRESSION
- 1/8" MPT x 5/16" COMPRESSION
- 1/4" INSERT (FOR PLASTIC TUBE)
- 1/4" DELRIN SLEEVE (FOR PLASTIC TUBE)

Cross Reference

- Aprilaire - #4040
- General - #990-53
- Honeywell - #32001639-002
- Skuttle - #A01-0814-148

Li'L Popper

Li'L Popper control circuit breaker saves the technician dozens of blown fuses while he diagnoses control circuit failures. Simply plug the leads in to the ATC fuse receptacle on the board, and manually reset the Li'L Popper each time the breaker blows. Has a quick setting thermal cut out. Self adhering backing allows the contractor to leave the unit on the job site overnight if he is out of fuses. Free counter display by request. Alligator clip versions are available.

Item ID	Description
12-POP3	3 Amp control board circuit breaker
12-POP5	5 Amp control board circuit breaker



In-Line Air Duct Booster Fans

Air Duct Booster

Features electrical junction box for UL and code compliant electrical connection. An efficient way to increase air circulation, keep room temperatures consistent, and lower heating and cooling costs. Metal construction, powerful no-maintenance motors and a one-use thermal fuse mean these fans will be up to the task for years. Straightforward installation into any 120V system with detailed instructions, templates, and diagrams. Available in many sizes. A great way to give slow vents a boost. Conforms to UL STD 507, Certified to CSA STD C22.2 #113

Item ID	Diameter	CFM	Watts
625-AF6	6"	240	37
625-AF8	8"	420	37
625-AF10	10"	650	35
625-AF12	12"	975	65
625-AF14	14"	1350	65



626-AF8 Illustrated

In-Line Air Duct Booster Fans

Air Duct Booster

Designed to be installed at any angle in the branch duct of under-ventilated rooms to increase either hot or cool air flow supply. One year limited warranty.



Control Options

- | | |
|--|---|
| <p>Manual Control</p> <ul style="list-style-type: none"> • 115V Source - continuous operation • 115V Switch - manual ON/ OFF ctrl | <p>Automatic Control</p> <ul style="list-style-type: none"> • Wire to furnace fan • Wire to fan switch • Wire to a sail switch • Wire to a pressure switch • Wire to thermostat |
|--|---|

Standard Air Duct Boosters - Corded

Item ID	Description	Max Boosted CFM	Free Air CFM	Watts	Amps	dBA	Blade	Housing Length
T9-DB204C	4" Round	80	40	30	0.30	52	Polycarbonate	6"
T9-DB205C	5" Round	225	140	30	0.35	51	Polycarbonate	6"
T9-DB200C	6" Round	250	160	30	0.35	50	Polycarbonate	-
T9-DB206C	6" Round	250	160	30	0.35	50	Polycarbonate	6"
T9-DB208C	8" Round	500	210	60	0.75	54	Polycarbonate	8"
T9-DB210C	10" Round	650	300	120	1.50	55	Aluminium	8"



T9-DB205C Illustrated

Two Speed Air Duct Boosters

Item ID	Description	Max Boosted CFM	Free Air CFM	Watts	Amps	dBA	Blade
T9-DB306E	6" Round 2 Speed	300	160/180	30	0.35	5/52	Polycarbonate
T9-DB308E	8" Round 2 Speed	600	210/250	60	0.85	50/55	Polycarbonate
T9-DB10-2	10" Round 2 Speed	650/900	300/460	135	1.70	56/59	Aluminium



T9-DB10-2 Illustrated

Four Pole Air Duct Boosters

Item ID	Description	Max Boosted CFM	Free Air CFM	Watts	Amps	dBA	Blade
T9-DB412E	12" Round 4-Pole	1160	700	180	1.57	61	Aluminium
T9-DB414E	14" Round 4-Pole	1580	900	180	1.57	61	Aluminium
T9-DB416P	16" Round 4-Pole	1760	1100	180	1.57	6	Aluminium



T9-DB412E Illustrated

Duct Thermostat

Plug-In Duct Stat The T9-DS45110 duct stat simplifies installation of in-line duct booster fans by eliminating electrical connections at the furnace.

- Economical and reliable automatic on/off control for in-line duct booster fans
- Mounts on duct or wall to control ambient room temperature
- Adjustable temperature range: 45° F (7° C) to 110° F (43° C) and differential
- 6' Grounded cord
- Year round use, ON/ OFF, AUTO heating and AUTO cooling
- Controls various devices, including alarms, heat lamps, lights, louvers, etc



T9-DS45110 Illustrated

Two Plug-In Switch - Thermostatically Controlled

Item ID	Description	Volts	Dimensions	Weight
T9-DS45110	5 Amp maximum load (Replaceable 5A fuse)	115	5.50" x 3.25" x 2.25"	1.25lbs.

In-Line Air Duct Booster Fans

Features

- High Volume & Pressure
- Installs In Any Position
- Ball Bearings Are Permanently Sealed & Lubricated
- Backwards Inclined Blades
- Vibration Absorbing Material
- Class B TP Auto Reset
- UB Protected / Flame Retardant - Thermal Plastic Resin
- 140°F(60°C) Maximum Air Stream Temperature

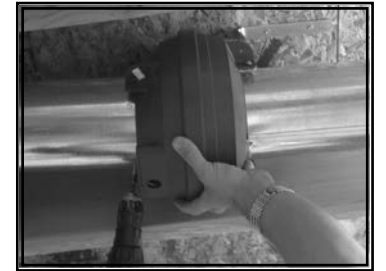
Applications

- Ventilation
- Exhaust
- In-Line Boosting
- Radon Mitigation
- Dryer Vent Boosting

5 YEAR LIMITED WARRANTY

Item ID	Amps	Watts	Duct Dia.	Volts	Hz	CFM
T9-TF104	0.53	40	4"	115	60	200
T9-TF106	1.00	70	6"	115	60	409

Serious Air Power With Quiet Operation



THE POWER OF BLUE CENTRAX

- Accessories**
- Speed Control
 - Power Cord
 - Auto Switch
 - Duct Mufflers

Duct Muffler

The DuctMuffler™ reduces noise traveling through ductwork. Sound reduction for composite noise averages 9dBA to 20dBA.

Item ID	Diameter	Length
T9-DM106	6"	24"
T9-DM112	12"	36"





IN-LINE NOISE MUFFLER™ DUCTMUFFLER™

Building Code Compliant, Meets NFPA standards 90A And 90 B. UL® Listed Acoustic Liner, Class 1 Air Duct

Head Pressure Controls

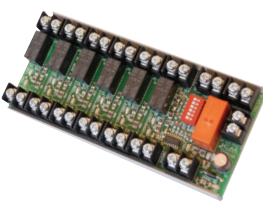



Dual ON/ OFF Delays Control Fan

Item ID	Features & Applications	Specifications	Cross Reference
 24-ICM325HNVC-LF 120-600VAC	<ul style="list-style-type: none"> Integral heat pump bypass circuitry allows electronic bypass of speed control. Eliminates overshoots common to on/off and pressure switch controls. Helps prevent evaporator freeze-ups, low pressure cut-outs and liquid-slugged compressors in low ambient conditions. One model covers 120 to 480 VAC. Features hard start (adj. 1 to 5 sec.), low speed cut-off (adj.), high temperature bypass, isolated 24 VAC supply. Controls up to 3 refrigerant circuits. Typical application: heat pumps. 4.5" x 3" x 1.75". 	Input <ul style="list-style-type: none"> Control: 18-30 VAC. Frequency: 50/ 60 Hz. 1.8 VA max. Line input: 120-600 VAC. Output <ul style="list-style-type: none"> Max: 10 amps. Min: 100 mA. 	One ICM model Cross Reference: Ranco • E31 Series Johnson Controls • P66 ACT • FM2000 Hoffman • 800 • 800A • 800AA • 814-50 • 816-10
 24-ICM326HN 120 or 208/ 240 VAC	<ul style="list-style-type: none"> Built-in transformer eliminates cost, reduces installation time and simplifies wiring. Helps prevent evaporator freeze-ups, low pressure cut-outs and liquid-slugged compressors in low ambient conditions. Features hard start, low temperature cut-off, high temperature bypass. 4.5" x 3" x 2". Typical application: ideal for heat pumps, line voltage air conditioning and refrigeration. 	24-ICM326H • Control: 120 or 208/ 240 VAC. 24-ICM327H • Control: 480 VAC. • Frequency: 50/ 60 Hz. Output current: • Max: 10 amps. • Min: 100 mA.	Ranco • E31 Series Johnson Controls • P66 Hoffman • 800 • 800A • 800AA • 814-50 • 816-10



Fan Coil Relay Controls







Item ID	Features and Applications	Specifications
 24-ICM6100	Fan safety alarm circuit Outputs provided ensure that a DDC controller can determine the root cause of a shutdown Dip switch to bypass inputs not in use Ideal for Air Handling Unit safety shutdown 2.75" mounting track provided	Input: 24VAC; 50-60Hz (4A max) Output: Relay outputs (6): 2A @ 24 VAC/DC per output Master Relay 24VAC (2): 1.5A @ 24 VAC per output Master Relay Dry Contacts: 10A @ 250 VAC Alarm Status: Green LED ON = Activated Red LED ON = Not activated Cross Reference: Functional devices: RIBMNLB-6
 24-ICM6201	Ability to operate line voltage 3 speed fan motor with low voltage controls Ability to operate line voltage electric heating element with low voltage controls Compatible with 4-pipe, 2 pipe, aquastat auto-changeover, and heat pump 20 VA 24 VAC power supply Suitable for 1/8 HP motors Screw terminal receptacles mounts with standard 3" track	Input: Transformer Primary (L1 & L2): 115VAC; 50-60Hz Hi, Med, Low (8,7,6): Nominal 17mA @ 24 VAC Inputs 1,2,3,4,5, Auqa Heat & Cool: 1.5A @ 250 VAC Output: Transformer Secondary: 24 VAC; 20 VA Relay outputs H, M, L: 1/8 HP @115 VAC 10A @ 240VAC resistive max HTR Output: 30A @ 240 VAC resistive Heat & Cool Valves: 1.5A @ 250 VAC Cross Reference: Honeywell W6380B, BSR/Xactone FC/H1

Fan Blower Controls



Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM253	UL 873 recognition for compressor applications Post-purge fan delay timer Interrogation delay eliminates nuisance trips due to thermostat bounce/tampering	Voltage: 18-30VAC 1 Amp Max 40 mA Min. 10 Amp Inrush Adjustable time delay 12-390 seconds Dimensions: 2" x 3"	Field Controls: 46144700 Gemline: 1C216 Mars: 32393
 24-ICM255	Low cost open board design High power, relay output Dual function fan delay timer Controls the circulating fan in heat pump, A/C and forced air systems OFF delay purges ducts of residual air ON delay allows air to reach the proper comfort level prior to energizing the fan	Input: Voltage – 18-30 VAC' Output: N.O.: 20 amps @ 240 VAC N.C.: 20 amps @ 240 VAC Fixed Time Delays: ON: 1 second OFF: 60 seconds	A-1: 5893 Bard: 8201-056 Mars: 32574 Rheem: 42-22515-01, 42-22515-02, 42-22515-03 Snyder General/ICP: 1395336

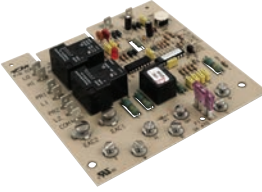





Direct OEM Replacement Parts

Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM270	Dual function fan delay timer Controls the circulating fan in a heat pump, A/C and forced air systems OFF delay purges ducts of residual air ON delay allows air to reach the proper comfort level prior to energizing the fan	Voltage Range: 18-30 VAC Contact Ratings: Heat/cool speed N.O.: 20 amps @ 240 VAC N.C.: 10 amps @ 240 VAC Time Delays: Blower ON delay: 30 Seconds Blower OFF delay: 90,120,150,180 seconds	Evcon: 2702-300 Rheem: 47-22827-01 47-22827-81/82/83 47-22828-01/02 Robertshaw: 695-003
 24-ICM271	Reliable solid state fan blower Specifically designed to replace popular gas furnace centers Pin selectable blower delays High power, relay output Dual function fan delay timer Controls the circulating fan in heat pump, A/C and forced air systems OFF delay purges ducts for residual air ON delay allows air to reach the proper comfort level prior to energizing the fan	Voltage Range: 18-30 VAC Contact Ratings: N.O.: 20 amps N.C.: 10 amps Time Delays: Heat ON delay: 75 Seconds Heat OFF delay: 105 seconds Cool OFF delay: 90 seconds	Carrier: 302075-3 CES0110017 CES0110018 HH84AA010 HH84AA011 HH84AA012 HH84AA013/020 P771-7002 Robertshaw: 695-100
 24-ICM273	Solid state output Silent operation, "no clicking" Controls the circulating fan in heat pump A/C and forced air systems OFF delay purges ducts of residual air	Voltage Range: 18-30 VAC Output: 2 amps @ 240 VAC Time Delays: Blower OFF delay: 60 seconds	EMI: 240000-969
 24-ICM274	Microprocessor-based fan blower control Built in humidity relay Manually adjustable post-purge off delay from 60-240 seconds Electronic air cleaner output	Voltage Range: 18-30 VAC Contact Ratings: Y out: 1.5 amps Fan: 2 amps Elec. Heat Relay: 30 amps @ 240 VAC Time Delays: Blower OFF delay: 60-240 seconds	EMI: 240-1764

Fan Blower Controls






Direct OEM Replacement Parts

Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM275	Heavy duty heat relay Purges ducts of residual air Integral short cycle protection	Voltage Range: 18-30 VAC Contact Ratings: High: 20 amps @ 240 VAC Low: 10 amps @ 240 VAC Time Delays: Heat ON delay: 60 Seconds Heat OFF delay: 60-240 seconds Cool OFF delay: 90 seconds	Carrier: HH84AA001, HH84AA003 HH84AA005, H84AA009 HH84AA014, H84AA015 HH84AA021 Robertshaw: 695-101
 24-ICM277	Microprocessor based fan blower For circulating fan in heat pump, A/C and forced air systems	Voltage Range: 18-30 VAC Contact Ratings: Heat/cool speed N.O.: 20 amps N.C.: 10 amps Time Delays: Blower ON delay: 7 Seconds Blower OFF delay: 65 seconds	Goodman: B1370735S
 24-ICM280	Low cost, Cross Reference board for Goodman, Janitrol, TI, White-Rodgers and UTEC Microprocessor based design for precise timing Functions with all 24 VAC thermostats For 80+ and 90+ applications UL recognized	Voltage Range: Line (98 to 132 VAC) @ 60Hz Cool Blower: 10A, 2 HP, 240 VAC Heat: 5A, 240 VAC Inducer Motor: 4A, FLA-8.0 LRA @ 120 VAC Gas Valve: 1.5A @ 30 VAC Heat Blower on Delay: 30 seconds Heat Blower Off Delays: 90, 120 and 150 sec Cool Blower on Delay: 5 seconds Cool Blower Off Delay: 60 seconds	Goodman: B1809906/08/10/13/13S UTEC:1012-933D Texas Instruments: 41F-5 White-Rodgers: 50T35-730/743
 24-ICM281	Low cost, Cross Reference board for Carrier CES011005700/01/02 Controls gas valve, ignitor, blower motor, inducer, humidifier and air cleaner Microprocessor-based for precise timing Functions with all 24 VAC thermostats Designed for 100% gas shutoff in case of ignition failure Twinning compatible with another ICM281 board	Voltage Range: Line (98 to 132 VAC) @ 60Hz Cool Blower: 10A, 2 HP, 240 VAC Heat: 5A, 1/2 HP, 240 VAC Inducer Motor: 4A, FLA-8.0 LRA @ 120 VAC Gas Valve: 1.5A @ 30 VAC Heat Blower on Delay: 40 seconds Heat Blower Off Delays: 90, 135, 180, and 225 seconds Fan (Low) On/Off: 1-second Cool Blower on Delay: 5 seconds Cool Blower Off Delay: 90 seconds	Carrier: CES0110057-00/01/02
 24-ICM282A	Low cost, Cross Reference for Carrier HK-42FZ004/007/008/009/011/013/016 Controls gas valve, ignitor, blower motor, inducer, humidifier and air cleaner Microprocessor-based Designed for 100% gas shutoff in case of ignition failure Twinning compatible with another ICM282 board Diagnostic fault codes (blinking LED) to aid in troubleshooting	Voltage Range: Line (98 to 132 VAC) @ 60Hz Cool Blower: 10A, 2 HP, 240 VAC Heat: 5A, 1/2 HP, 240 VAC Inducer Motor: 4A, FLA-8.0 LRA @ 120 VAC Gas Valve: 1.5A @ 30 VAC Heat Blower On: 60 seconds Heat Blower Off: 90, 120, 150, and 180 sec Fan (Heat) On/Off: 1-second Cool On: 2 seconds Cool Off: 90 seconds with jumper JW2 uncut; 5 seconds with jumper JW2 cut	Carrier: HK-42FZ004/007/008/009/011/013/016
 24-ICM288	Microprocessor-based design Monitors pressure, roll-out and limit switches Controls gas valve, inducer draft motor, circulating blower and hot surface ignitor Reverse polarity detection Twinning compatible with other ICM288 control boards Diagnostic LEDs for testing/troubleshooting	Voltage Range: Line 98-132 VAC @ 60HZ Ignitor: 5A, 120 VAC Cool Blower: 10A, 2HP, 240 VAC Heat: 5A, 1/2 HP, 250 VAC Inducer Blower: 4A, 120 VAC Gas Valve: 1A, 24 VAC Humidifier Motor: 0.5A, 24 VAC Electronic Air Cleaner: 1A, 120 VAC	Rheem 62-24084-82

Fan Blower Controls







Direct OEM Replacement Parts

Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM289	Low cost, Cross Reference board for Lenox Controls inducer fan motor, blower fan and monitors limit switches. Microprocessor based design Functions with all 24 VAC thermostats	Voltage Range: Line (98 to 132 VAC) @ 60 Hz Cool Blower: 20A @ 120 VAC Heat Blower: 20A @ 120 VAC Inducer Motor: 5A @ 120 VAC Cool Blower On Delay: 1 second Cool Blower Off Delay: 1 second Heat Blower On Delay: 45 seconds Heat Blower Off Delay: 90, 150, 210, 270 seconds	Lennox: 45K98, 45K48, 68H08, 65K29, G20, G23, G26, 023, 0F23, 0HR, BCC1, BCC2, BCC3
 24-ICM291	Direct Spark Ignition (DSI) control board Microprocessor-based Controls combustion, blower and indoor motor; spark ignitor and the gas valve Monitors timing, trial for ignition and lockout 100% lockout safety feature Compatible with LP or natural gas Status LED for fault codes to aid in troubleshooting	Control Voltage: 24 VAC (18-30 VAC), 60Hz Line Voltage: 208/230 VAC, 60Hz Power Consumption: 03A plus gas valve current @ 24 VAC Operating Temperature: -40°C(-40°F) to 75°C(176°F) Timing: Pre-purge: 45 seconds Trial for Ignition: 5+2 seconds Retry Period: every 20 seconds for 15 minutes Lockout: manual reset Post-purge: 45 seconds Inputs: Power: RT and C Thermostat Interface: R, W and G Safety Switches: RS, LS and CS Combustion Motor Hall Effect Sensor Flame Sensing Outputs: Spark Gas Valve: GV Combustion Motor: BM Indoor Fan Motor: IFO LED Indicators: Red LED: Steady ON - Normal operation Flashing - Fault codes	Carrier: LH33WP003/3A
 24-ICM292	Direct Spark Ignition (DSI) control board Microprocessor-based Controls Induced Draft and indoor blower motors; humidifier output, spark ignitor and gas valve Monitors timing, trial for ignition and lockout 100% lockout safety feature Compatible with LP or natural gas Status LED for fault codes to aid in troubleshooting	Control Voltage: 24 VAC (18-30 VAC), 60Hz Line Voltage: 115/23 VAC, 60Hz Power Consumption: 03A plus gas valve curreny @ 24 VAC Operating Temperature: -40°C(-40°F) to 75°C(176°F) Timing: Pre-purge: 20 seconds Trial for Ignition: 6.5 seconds Number of Trials: 4 (2+2, 3 minutes apart) Lockout: 1 Hour Post-purge: dip switch selectable 90, 120, 160, 180 seconds apart Inputs: Power: SEC and COM Thermostat Interface: R, W, Y and G Safety Switches: Limit and Vent Combustion Motor Hall Effect Sensor Flame Sensing Outputs: Spark Gas Valve: GV Induced Draft Motor Multi speed indoor blower motor Humidifier LED Indicators: PWR(green): Steady ON - power to the board OK(green): Steady ON - no fault Flashing - fault code Flame(yellow): Steady On - flame sensed, flashing two times -flame out of sequence	Rheem: 62-24140-04

Fan Blower Controls






Direct OEM Replacement Parts

Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM292A	Direct Spark Ignition (DSI) control board Microprocessor-based Controls Induced Draft and indoor blower motors; humidifier output, spark ignitor and gas valve Monitors timing, trial for ignition and lockout 100% lockout safety feature Compatible with LP or natural gas Status LED for fault codes to aid in troubleshooting	Voltage: 24 VAC (18-30 VAC), 60 Hz Voltage: 115 VAC, 60 Hz Power consumption: 0.3A plus gas valve current at 24 VAC Operating temperature: -40°F to 176°F (-40°C to 75°C) Timing: Pre-purge: 30 seconds Trial for ignition: 7 seconds Lockout: 1 hour Power: 24 VAC and COM Post-purge: 90, 120, 160 and 180 seconds Inputs: Thermostat interface: R, W, Y and G Retries: 2 groups of 2, 30 seconds delay within the group and 3 minutes delay between groups System switches: Vent pressure and limit switches (main and over-temperature switches in series) LED indicators: Power, green LED: PWR Status, green LED: OK Flame status, yellow LED: FLAME	Rheem: 62-24140-04
 24-ICM2801	Controls vent motor, blower control, hot surface ignitor and gas valve Monitors timing, trial for ignition, flame sensing and lockout Microprocessor-based Reverse polarity protection 100% lockout safety feature Compatible with LP or natural gas Status LED for fault codes to aid in troubleshooting Twinning compatible with another ICM2801 control	Line Voltage: 98-132 VAC @ 60HZ Ignitor: 5A, 120 VAC Cool Blower: 10A, 2HP, 240 VAC Heat: 5A, .5 HP, 250 VAC Inducer Blower: 4A, 120 VAC Gas Valve: 1A, 24 VAC	York/Evcon: 7990-319
 24-ICM2804	Low cost form, fit and functional replacement for Carrier: CES0110074-01 Microprocessor-based Controls vent motor and blower control Monitors limit switch, pressure switch and gas valve 100% lockout safety feature Compatible with LP or Natural Gas Status LED for fault codes to aid in troubleshooting	Electrical: - Line Voltage Range: 98-132 VAC @ 60Hz - Cool Blower: 20A, 2 HP, 240 VAC - Heat: 10A, 240 VAC - Inducer Motor: 4A FLA, 8A LRA @ 120 VAC Timing: - Inducer Pre-Purge Time: 1 second - Heat Blower On Delay: 45 seconds - Heat Blower Off Delays: 120 or 180 second - Cool Blower On Delay: 1 second - Cool Blower Off Delay: 1 second	Carrier: CES0110074-00, CES0110074-01
 24-ICM2805A	Low cost form, fit and functional OEM replacement control board for Nordyne: 903106-Kit For use with G3, G4, G5, G6, M2 and M3 furnace modules Controls gas valve, inducer draft motor, circulating blower and hot surface ignitor Monitors timing, trial for ignition, flame sensing, lockout, plus pressure, rollout and limit switches Microprocessor-based precision Twinning compatible with another ICM2805A furnace control Diagnostic LEDs aid in testing and troubleshooting	Line Voltage Range: 120/240 VAC @ 60 Hz Ignitor: 5A, 120 VAC Cool Blower: 10A, 2HP, 240 VAC Heat: 5A, 1/2 HP, 250 VAC Inducer Blower: 4A, 120 VAC Gas Valve: 1A, 24 VAC Humidifier Motor: 0.5A, 24 VAC Electronic Air Cleaner: 1A, 120 VAC	Nordyne: 903106-Kit

Fan Blower Controls





Direct OEM Replacement Parts

Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM2807	Controls gas valve, ignitor, blower motor, inducer, humidifier and air cleaner Microprocessor-based precision Designed for 100% gas shutoff in case of ignition failure Twinning compatible with another ICM2807 control Reverse polarity protection Secondary brownout voltage protection Compatible with 24 VAC standard thermostat Continuous Blower Speed Jumper Limit Switch Lockout Time Limit Switch Lockout After Power Interruption Self-Diagnostics Provides diagnostic	Ambient Temperature - Operating: -40°F to 176°F - Humidity: 5% to 95% R.H. (non-condensing) @ +55°F Voltage Range: Line (98 to 132 VAC) @ 60Hz Ignitor: 5A @ 120 VAC Cool Blower: 10 HP, 120 VAC Low Heat: 5A, 1/2 HP, 120 VAC High Heat: 10A, 1 HP, 120 VAC Inducer Motor: 4A, FLA-8.0 LRA @ 120 VAC Gas Valve: 1.5A @ 30 VAC EAC: 1A@120 VAC Humidifier: 0.5A & 24 VAC	Carrier: HK42FZ005, HK42FZ010, HK42FZ015, HK42FZ017
 24-ICM2808	The ICM2808 is a low cost fit, form and functional replacement for the York S1-331-03010000 and S1-331-02956000 furnace control boards. Controls gas valve, Ignitor, blower motor, Inducer, humidifier, and air cleaner. Microprocessor-based precision Designed for 100% gas shutoff in case of ignition failure Twinning compatible with another ICM2808 control Reverse polarity protection Secondary brownout voltage protection Compatible with 24 VAC standard thermostat Provides dual-color diagnostic LED to aid in troubleshooting	Electrical Ratings Voltage Range: Line (98 to 132VAC) @ 60Hz Control Voltage Range: 18-30VAC @ 60Hz Relay Outputs: Meets or exceeds O.E.M. board Timing: Heat Blower On Delay: 30 seconds Heat Blower Off Delay: 90-180 seconds Environmental Ambient Temperature: - Operating: -40°F to 176°F - Storage: -40°F to 185°F Humidity: 5% to 95% R.H. (non-condensing) @ +55°F	York: S1-331-03010000, S1-331-02956000
 24-ICM2812-KIT	The ICM2812-KIT is a universal replacement board that comes packaged with a series of cable harnesses that make it a replacement for the White-Rodgers 50M56U-843 and more than 150 competitive part numbers. See the full cross reference information in the Cross Reference section below. Hot Surface Ignition (HSI) control board Microprocessor-based Monitors timing, trial for ignition, system switches, flame sensing and lockout. 100% lockout safety feature Compatible with LP or Natural Gas LED indication for status and fault codes to aid in troubleshooting	Electrical: Control voltage: 24 VAC (18-30 VAC) Line voltage: 120 VAC Operating temperature: -40° to 175°F (-40° to 80°C) HSI Hot Surface Ignitor: 6 amp @ 120 VAC Gas Valve: 1.5 amp @ 24 VAC Inducer draft motor: 2.2 FLA @120 VAC Blower motor: 14.5 FLA @ 120 VAC Environmental: Operating Temp Range: -40° to 176°F (-40° to 80°C) Humidity Range: 5 to 95% relative humidity (non-condensing)	White-Rodgers: Universal 50M56U-843, and 150+ other models from Goodman, Carrier, Lennox, York, Trane, White Rodgers, Whirlpool, Nordyne and more

Fan Blower Controls



Direct OEM Replacement Parts

Item ID	Features and Applications	Specifications	Cross Reference
24-ICM2813	 <p>The ICM2813 is a form, fit, and functional replacement for the Lennox SureLight(r) Series Boards and White Rodgers equivalent. The ICM2813 automated gas ignition control board monitors the ignition sequence including the inducer, pressure switch, hot surface igniter, gas valve, flame sense, and circulating blower while maintaining full safety circuit monitoring including the high limit switch, roll out switch and auxiliary limit switch circuits. Onboard diagnostics will indicate when a fault condition exists.</p> <p>Controls the gas valve, inducer draft motor, circulating blower and hot surface ignitor. Monitors system pressure and limit switches. Microprocessor based precision Diagnostic LEDs aid in testing and trouble shooting.</p>	<p>Electrical: Electrical Rating @ 77°F (25°C) Input Voltage: 18-30 VAC 50/60 Hz maximum Igniter Current: 2.0 amp @ 80 VAC 50/60 Hz (resistive) Inducer Relay: 2.2 FLA-3.5 LRA @ 120 VAC Blower Relay: 14.5 FLA-25.0 LRA @ 120 VAC (2spd-H/C) Gas Valve Relay: 1.5 amp @ 25 VAC 50/60 Hz 0.6 pf</p> <p>Environmental: Operating Temp Range: -40° to 176°F (-40° to 80°C) Humidity Range: 5 to 95% relative humidity (non-condensing)</p>	<p>Lennox: 10M9301, 12L6901, 32M8801, 56L8401, 24L8501, 63K8901, 97L4801, 100925-01, 100925-03, 17W9201, 23W5101, 30W2501, 69M0801, 69M1501, 83M00</p> <p>White-Rodgers: 50A65-120, 50A65-121, 50A62-120, 50A62-121, 50A62-820, 21D83M-843, 50A66-122, 50A66-123</p>
24-ICM6501	 <p>The ICM6501 air handler control board operates with hot water heating systems. When the thermostat calls for Heat, the control will energize the Water Pump, Valve and Boiler. The blower will energize at the selected speed after 90 seconds to allow the coil to preheat.</p> <p>Controls the water pump, valve, fan and boiler in a hot water heating system. Jumper selectable high and low speed fan speed selection for 2 speed blower operations. Integral fan delays for both heating and standard fan operation. Monitors safety switches including the pressure switch and freeze protection switch. Test mode feature for system diagnostic purposes. LED status Light to aid in diagnosing power issues.</p>	<p>Voltage: 24 VAC, 120/240 VAC, 50/60 Hz Valve: 24 VAC, 50/60 Hz, 5A HI/LO blower: 120/240 VAC, 50/60 Hz, 9.8 FLA Water pump: 120/240 VAC, 50/60 Hz, 1.5 FLA Boiler: 24 VAC, 50/60 Hz, 5A</p> <p>Timing: Fan ON delay: 0 seconds Fan OFF delay: 45 seconds Heat fan ON delay: 90 seconds Heat fan OFF delay: 20 seconds</p>	<p>ClimaTek/ First Company: CB201</p>

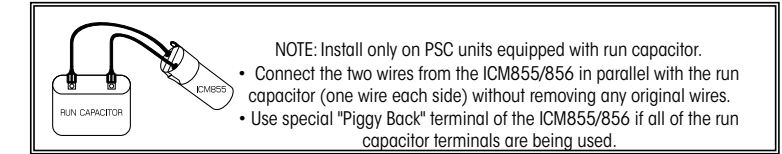
RapidStart® Motor Starters



Standard Hard Start Kits

Applications

- Low voltage situations.
- Tight or hard starting compressors.
- Use on any single phase A/C & refrigeration unit.



Item ID	Features & Applications	Specifications	Cross Reference
24-ICM855	<ul style="list-style-type: none"> • PTC - Positive Temperature Coefficient technology. • For PSC units with existing run capacitor only! • OEM approved. • Quick recycling. 	<ul style="list-style-type: none"> • Self-adjusting to voltage fluctuations. • Easy to install, 2 wires (clips or screws). • Boosts starting torque. • Most economical. 	<ul style="list-style-type: none"> • Voltage: 115 to 288 VAC. • Range: 1/2 to 10 HP • Recommended 1.5HP <p>A-1: WXS-5 MARS: 32701, 35701 Supco: SPP-5 Wagner/DiversiTech: DST-5</p>
24-ICM856	<ul style="list-style-type: none"> • PTC - Positive Temperature Coefficient technology. • For PSC units with existing run capacitor only! • OEM approved. • Quick recycling. 	<ul style="list-style-type: none"> • Self-adjusting to voltage fluctuations. • Easy to install, 2 wires (clips or screws). • Boosts starting torque. • Most economical. 	<ul style="list-style-type: none"> • Voltage: 115 to 288 VAC. • Range: 1/2 to 10 HP • Recommended 2.5HP <p>A-1: WXS-6 MARS: 32702, 35702 Supco: SPP-6 Wagner/DiversiTech: DST-6</p>
24-ICM857	For single-phase commercial and domestic capillary refrigeration systems and freezers	Pre-wired for fast installation • Overload: 12A • 145-175 mfd	<ul style="list-style-type: none"> • Voltage: 120 to 180VAC. • Range: 1/12HP to 1/5HP <p>MARS: 32481 Supco: RC0810</p>
24-ICM858	For single-phase commercial and domestic capillary refrigeration systems and freezers	Pre-wired for fast installation • Overload: 22A • 243-292 mfd	<ul style="list-style-type: none"> • Voltage: 120 to 180VAC. • Range: 1/4HP to 1/3HP <p>MARS: 32741 Supco: RC0410</p>
24-ICM859	For single-phase commercial and domestic capillary refrigeration systems and freezers	Pre-wired for fast installation Overload: 30A • 243-292 mfd	<ul style="list-style-type: none"> • Voltage: 120 to 180VAC. • Range: 1/3HP to 1/2HP <p>Supco: RC0210</p>

Current Sensing Hard Start Kits

By monitoring the compressor "current" upon start-up, RapidStart® is able to engage the hard start capacitor for precisely the correct amount of time, ensuring maximum starting torque without the risk of supplying too much current into the start winding. A timed safety circuit is provided in the event the motor fails to start within 2 seconds. Current sensing hard start precisely increases starting torque.



Item ID	Features & Applications	Specifications	Cross Reference
24-ICM803	<ul style="list-style-type: none"> • Operates from 95 to 288 VAC. • Max input voltage: 502 VAC. 	<ul style="list-style-type: none"> • Easy to install, 2 wires. • OEM approved. • Solid-state circuitry. • Boosts starting torque. • Disengages upon start. 	<ul style="list-style-type: none"> • Ideally suited for 1/2 thru 3 Hp. • 88 to 106 Mfd. capacitor. <p>Supco: SPP-8 Kickstart: T05, T0-5</p>
24-ICM805	<ul style="list-style-type: none"> • Patented current sensing circuitry. • Self-adjusting to voltage fluctuation. 	<ul style="list-style-type: none"> • Easy to install, 2 wires. • OEM approved. • Solid-state circuitry. • Boosts starting torque. • Disengages upon start. 	<ul style="list-style-type: none"> • Ideally suited for 2 thru 5 Hp. • 145 to 175 Mfd. capacitor. <p>Kickstart: KS1</p>
24-ICM810	<ul style="list-style-type: none"> • Patented current sensing circuitry. • Self-adjusting to voltage fluctuation. 	<ul style="list-style-type: none"> • Easy to install, 2 wires. • OEM approved. • Solid-state circuitry. • Boosts starting torque. • Disengages upon start. 	<ul style="list-style-type: none"> • Ideally suited for 3 1/2 thru 10 Hp. • 243 to 292 Mfd. capacitor. <p>N/A</p>

RapidStart® Motor Starters



Voltage Sensing Hard Start Kits

ICM's differential voltage sensing products employ patented circuitry which monitors differential compressor auxiliary voltage, determines the state of the motor and precisely engages and disengages the start capacitor. A timed safety circuit is provided in the event the motor fails to start within 2 seconds.




Part #	Features & Applications	Specifications	Cross Reference
24-ICM850	<ul style="list-style-type: none"> Increases starting torque up to 500%. Ensures precise starts. Reduces inventory. Not affected by ambient temperature. 	<ul style="list-style-type: none"> Voltage: 90 to 277 VAC. Max input voltage: 390 VAC. Recommended range: Up to 1 1/2 Hp applications. 	<ul style="list-style-type: none"> Oper. Temp. Range: -40°C to +65°C 43 to 52 Mfd 330 V Capacitor. Supco: SPP-5 Mars: 32701 A-1: WXS-5
24-ICM866U	<ul style="list-style-type: none"> Recycles instantly (less than one sec.). Multi-voltage operation... either 115 or 240 VAC motors. Fuse protection. Not effected by voltage or current fluctuations. 	<ul style="list-style-type: none"> Multi-voltage operation – 115 or 230 VAC motors 145-175 µF @ 330V Recommended Range: 1/12 to 5HP application UL Recognized 	<ul style="list-style-type: none"> Supco: SPP5, SPP6, SPP5E, SPP6E, SPP7E, SPP8E, SPP9E, SPP10E Kickstart: KS1, TO-5, KS8 5-2-1: CSR-U1, CSR-U2, CSR-U3 Watsco: WSX1 MARS: 32708, SS1, SS5, 32703, 32704, 32701, 32702 Diversitech: DST-5, DST-6

Surge Protectors




Single Phase Surge Protective Device

Designed to protect valuable single-phase equipment by dissipating momentary voltage spikes and transient power surges. motors, electronics, air conditioners, appliances, refrigeration systems, and more. Suitable for use on a circuit capable of delivering not more than 10,000 rms symmetrical amps, 240 volts maximum, when protected by a circuit breaker rated 15-60 amps maximum and 120 volts minimum.

Item ID	Features and Applications	Specifications	Cross Reference
24-ICM517	 <ul style="list-style-type: none"> Single-Phase Surge Protective Device UL Listed, Type 2 Device 100,000 amp 1,020 joules of protection Metal, NEMA 3R Rated Enclosure Rugged, Reliable Easy Indoor/Outdoor Installation LED Status Indicators Backed by a Limited Lifetime Protection Warranty 	<ul style="list-style-type: none"> Service Voltage: 120/240 volt, single phase Maximum Surge Current: 100,000 Amps Maximum Energy Dissipation: 1,020 Joules Installation Point: Electrical Panel Service Disconnect AC Protection Modes: L-L, L-N, L-G, N-G Conduit Connection: 3/4" 	<ul style="list-style-type: none"> SUPCO: SCM Plus, SCM150 Intermatic: AG3000

Split Phase Surge Protective Device

The ICM518 is a UL Listed Type 1&2 Whole Home Surge Protective Device for 240 VAC Split Phase configuration. When a surge occurs, the ICM518 will absorb the surge up to the limits expressed in the specifications section of this guide. The ICM518 incorporates thermal protection on the surge elements (TMOV's) which allows for safe disabling of the surge protector when a surge exceeds the thermal limits of the device.




Item ID	Features and Applications	Specifications	Cross Reference
24-ICM518	 <ul style="list-style-type: none"> 240 VAC split surge protective device Easy 3-wire installation 3/4" conduit connection Green LED indicator tells whether the device is operational Low cost, high performance Rugged and reliable UL Listed Type 1 or Type 2 SPD NEMA Type 4X watertight enclosure for indoor/outdoor use 	<ul style="list-style-type: none"> Service voltage: Split Phase 240 VAC Short Circuit Current Rating (SCCR): 200 kA Nominal discharge current (In): 20kA Maximum Surge Current: 100,000 amps SPD type: Type 1 (Can also be used in Type 2 applications) Surge protection technology: TFMov Protection mode: L1-L2, L1-N, L2-N Maximum Continuous Operation Voltage (MCOV): L-L: 300VAC, L-N: 150VAC Input power frequency: 50/60Hz 	<ul style="list-style-type: none"> ASCO: 420120S Eaton: SP1-240S, SP2-240S ERICO (Critec): TDX50C240 Generac: G0073000 Intermatic: AG2401C3, IG1200RC3, IG1240RC3, IG3240RC3 Leviton: 55240-ASA MARS: 83905 Siemens: TPS3A

Surge Protectors




3-Phase Surge Protective Devices

The ICM530'S are a series of Type 1 and Type 2 three-phase surge protective devices for three- phase Delta, three-phase Wye, or Delta High-leg configurations. When a surge occurs, the ICM three-phase surge protective device will absorb the surge up to the specified limitations of the device. ICM incorporates superior thermally protected metal oxide varistor technology into the three-phase surge suppressors, which allows for safe disabling of the surge elements when a surge exceeds the thermal limits of the device.




Item ID	Features and Applications	Specifications	Cross Reference
24-ICM530	 <ul style="list-style-type: none"> NEMA Type 4X watertight plastic enclosure for outdoor and indoor installation Green LED indicates surge protection present Easily connects to electrical panel or disconnect for indoor and outdoor applications UL Listed Type 1 or Type 2 SPD 	<ul style="list-style-type: none"> Service voltage (3-Phase): 240 VAC Delta or 120/208 VAC Wye Short Circuit Current Rating (SCCR): 200 kA Nominal discharge current (In): 20kA Maximum Surge Current: 150,000 amps Protection mode: 3 for Delta configuration, 6 for Wye configuration (neutral tied to ground) Maximum Continuous Operation Voltage (MCOV): L-L: 300 VAC, L-N: (for Wye configuration only): 150 VAC VPR: Delta L-L: 1200 VAC, Wye L-L: 1200 VAC, Wye L-N: 700 VAC SPD type: Type 1 (can also be used in Type 2 applications) Surge protection technology: TFMov Input power frequency: 50/60 Hz 	<ul style="list-style-type: none"> ABB: OVRHLDxx-120 ASCO: 420120Y, 420240D Eaton: SP1-208Y, SP1-240D, SP2-208Y, SP2-240D ERICO (Critec): TDX50C120/208, TDX50C120/240D Intermatic: AG2083C3, L5F13Y1DG1 Leviton: 55208-ASA Siemens: TPS3D, TPS3C Square D: SDSA2040, SDSA2040D
24-ICM531	 <ul style="list-style-type: none"> NEMA Type 4X watertight plastic enclosure for outdoor and indoor installation Green LED indicates surge protection present Easily connects to electrical panel or disconnect for indoor and outdoor applications UL Listed Type 1 or Type 2 SPD 	<ul style="list-style-type: none"> Service voltage (3-Phase): 480 VAC Delta or 277/480 VAC Wye Short Circuit Current Rating (SCCR): 200 kA Nominal discharge current (In): 20kA Maximum Surge Current: 150,000 amps Protection mode: 3 for Delta configuration, 6 for Wye configuration (neutral tied to ground) Maximum Continuous Operation Voltage (MCOV): L-L: 700 VAC, L-N: (for Wye configuration only): 350 VAC VPR: Delta L-L: 2500 VAC, Wye L-L: 2500 VAC, Wye L-N: 1200 VAC SPD type: Type 1 (can also be used in Type 2 applications) Surge protection technology: TFMov Input power frequency: 50/60 Hz 	<ul style="list-style-type: none"> ABB: OVRHLDxx-277 ASCO: 420277Y, 420480D Eaton: SP1-480Y, SP1-480D, SP2-480Y, SP2-480D ERICO (Critec): TDX50C277/480 Intermatic: AG4803C3, L5F13Y2DG1 Leviton: 55480-ASA Siemens: TPS3E, TPS3F Square D: SDSA2040, SDSA2040D
24-ICM532	 <ul style="list-style-type: none"> NEMA Type 4X watertight plastic enclosure for outdoor and indoor installation Green LED indicates surge protection present Easily connects to electrical panel or disconnect for indoor and outdoor applications UL Listed Type 1 or Type 2 SPD 	<ul style="list-style-type: none"> Service voltage (3-Phase): 600 VAC Delta or 347/600 VAC Wye Short Circuit Current Rating (SCCR): 200 kA Nominal discharge current (In): 20kA Maximum Surge Current: 150,000 amps Protection mode: 3 for Delta configuration, 6 for Wye configuration (neutral tied to ground) Maximum Continuous Operation Voltage (MCOV): L-L: 920 VAC, L-N: (for Wye configuration only): 460 VAC VPR: Delta L-L: 2500 VAC, Wye L-L: 2500 VAC, Wye L-N: 1500 VAC SPD type: Type 1 (can also be used in Type 2 applications) Surge protection technology: TFMov Input power frequency: 50/60 Hz 	<ul style="list-style-type: none"> ASCO: 420347Y, 420600D Eaton: SP1-600Y, SP1-600D, SP2-600Y ERICO (Critec): TDX50C347/600 Intermatic: AG6503, L5F13Y3DG1 Siemens: TPS3L, TPS3G Square D: SDSA3650, SDSA3650D

3-Phase Surge Protective Devices





Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM533	NEMA Type 4X watertight plastic enclosure for outdoor and indoor installation Green LED indicates surge protection present Easily connects to electrical panel or disconnect for indoor and outdoor applications UL Listed Type 1 or Type 2 SPD	Service voltage (3-Phase): 120/240 VAC Delta High-Leg Short Circuit Current Rating (SCCR): 200 kA Maximum Surge Current: 150,000 amps Nominal discharge current (In): 20kA Protection mode: 3 for Delta configuration Maximum Continuous Operation Voltage (MCOV): L-L: 300 VAC H-L: 450 VAC L-N: 150 VAC H-N: 300 VAC VPR: L-L: 1200 VAC H-L: 1500 VAC L-N: 700 VAC H-N: 900 VAC SPD type: Type 1 (can also be used in Type 2 applications) Surge protection technology: TFMOV Input power frequency: 50/60 Hz	ASCO: 420240H Eaton: SPD050240H1 Intermatic: AG2403C3, L5F13D1DG1 Siemens: TPS3B Square D: SDSA2040D

Ignition Controls

Gas Ignition Controls

Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM283	Hot Surface Ignition (HSI) Module Single/Dual rod sensing capabilities For gas fired furnaces, boilers and other heating appliances Switch selectable lockout times Works with both Natural & LP gas systems Diagnostic LED to aid in troubleshooting	Input Voltage: 120 & 24 VAC, 60Hz - HSI: 120V, 5A max - Valve: 24V, 2A max - Total: 24V Load = 0.4 + valve load Pre-purge time: 32 seconds Trial time: 4 or 7 seconds (switch selectable) Ignition trials to lockout: 1 or 3 (switch selectable) Flame sense: single rod or dual rod Gas type: Natural or LP	Honeywell: S8910U-1000 Robertshaw: H5780 White Rodgers: 50E47, 50F47
 24-ICM2901	For use with intermittent pilot boilers, furnaces and other heating appliances Microprocessor-based precision Monitors timing, trial for ignition, roll out switch, flame sensing and lockout Remote flame sensing 100% lockout safety feature Compatible w/ LP or natural gas	Voltage: 24 VAC (18-30 VAC), 50/60 Hz Anticipator setting: 0.3A plus valve load @ 24 VAC Prepurge: None Trial for ignition: 85 seconds Flame failure response time: 0.5 seconds Retry: None Relative humidity: 0% - 95% non-condensing Operating temperature: Min. ambient temperature rating is -40°F (-40°C) Max. ambient rating when used with 2.0A main valve is 160°F (71°C) Relative humidity: 0% to 95% non-condensing	<ul style="list-style-type: none"> • ICM: 294 • Johnson Controls: G770RJA-1 • York: 025-27762-700 and comparable ignition controls.
 24-ICM2904	Intermittent pilot gas ignition control module For use with intermittent pilot boilers, furnaces and other heating appliances Microprocessor-based Remote flame sensing Compatible with LP or natural gas	Voltage: 18-30 VAC, 50/60 Hz Pilot valve: 2A @ 24 VAC Main gas valve: 2A @ 24 VAC Current draw: 100mA maximum Pre-purge delay: 0 seconds Operating temp.: -40°F to 167°F Humidity: 5%-95% R.H. (non-condensing) @ +55°C	Reznor: 257009 United TCH: 1003-638A

Gas Ignition Controls

Item ID	Features and Applications	Specifications	Cross Reference
 24-ICM2905	Intermittent pilot gas ignition control module For use with intermittent pilot boilers, furnaces and other heating appliances Microprocessor-based. Monitor timing, trial for ignition, flame sensing & lockout Remote flame sensing 2 min. trial for ignition 60 minute lock out if pilot flame is not sensed in 2 minutes Compatible with LP or natural gas Damper control input	Voltage: 18-30 VAC Frequency: 50/60 Hz Humidity: 5%-95% R.H. (non-condensing) @ +55°C Operating temp.: -40°F to 167°F Pilot valve: 2A @ 24 VAC Main gas valve: 2A @ 24 VAC Current draw: 100 mA maximum Pre-purge delay: 0 seconds Trial for ignition: 2 minutes Lock out time: 60 minutes	Reznor: 257010 United TCH: 1003-514
 24-ICM2906	Direct Spark Ignition (DSI) control board Cooling and heating fan outputs Microprocessor-based Controls inducer & blower motor, air cleaner (if equipped), spark ignitor & Gas valve Monitors timing, trial for ignition, system switches, flame sensing and lockout Compatible with LP or natural gas LED indication for status and fault codes to aid in troubleshooting	Voltage: 18-30 VAC Frequency: 60 Hz Inducer blower type: Relay Rating: 1/6 HP @125 VAC Gas valves type: Relay Rating: 1A @ 24 VAC Heat blower type: Relay Rating: 1/4 HP @125 VAC Cool blower type: Relay Rating: 1 HP @125 VAC Operating Temp: -40°F to 165°F	Reznor: 195573 United TCH: 1097-211
 24-ICM2907	Direct Spark Ignition (DSI) control board Microprocessor-based Controls inducer & blower motor, air cleaner (if equipped), spark ignitor & gas valve Monitors timing, trial for ignition, system switches, flame sensing and lockout Compatible with LP or natural gas LED indication for status and fault codes to aid in troubleshooting	Voltage: 18-30 VAC Frequency: 60 Hz Inducer blower type: Relay Rating: 1/6 HP @125 VAC Blower type: Relay Rating: 1/4 HP @125 VAC Gas valves type: Relay Rating: 1A @ 24 VAC Operating temp: -40°F to 165°F	Reznor: 195265 United TCH: 1097-210
 24-ICM2909	Direct Spark Ignition (DSI) control board Microprocessor-based Monitors timing, trial for ignition, system switches, flame sensing and lockout 100% lockout safety feature Compatible with LP or Natural Gas LED indication for status and fault codes to aid in troubleshooting	Inputs: Line voltage: 208-230 VAC, 50/60 Hz Control voltage: 18-30 VAC, 50/60 Hz System switches: Vent pressure, limit and MRLC (Manual Reset Limit Control) Outputs: Heat N.C.: 16FLA/30 LRA @ 277 VAC, 30K @ 85°C Cool N.O.: 15FLA/36 LRA @ 277 VAC, 100K @ 85°C Inducer: 9.8FLA/58.8LRA, 1/2HP @ 120 VAC, 6K @ 75°C Gas valve: 2.3 A PILOT DUTY @ 240 VAC, 6K @ 75°C Heat Operation Timing: Pre-purge: 3 seconds Heat blower ON delay: 30 seconds Post-purge: 5 seconds Heat blower OFF delay: 90 seconds Ignition trial: 7 seconds Inter-purge (retrial): 15 seconds Ignition activation period: 5 seconds Flame establishing period: 2 seconds Flame failure response time: 0.8 seconds (maximum) Cooling Operation: Cool blower On delay: 1 second Cool blower Off delay: 30 seconds Lockout Timing: Auto reset lockout: 60 minutes Environmental: Operating temperature: -40°F to 175°F (-40°C to 80°C) Storage temperature: -40°F to 185°F (-40°C to 85°C) Humidity: 5% - 95% R.H. (non-condensing) at +55°C	Rheem: 62-23599-01, 62-23599-02, 62-23599-03, 62-23599-04, 62-23599-05

Gas Ignition Controls

The ICM2910 consists of a series of 11 Fenwal OEM Replacement DSI Controls. When the thermostat initiates a "Call for Heat", the ICM2910 will perform a hardware check. After the hardware check, the ICM2910 will start a pre-purge where applicable. Once the pre-purge has ended, the spark source and the gas valve relay are energized simultaneously for the duration of the trial for ignition period. A flame rectification circuit confirms the presence of the flame. Upon flame detection, the spark source is turned off. If flame is not sensed, the control will turn off the spark source and gas valve and start an inter-purge where applicable before the next trial for ignition. If flame is not detected after the trial(s) for ignition, the control will enter a hard lockout. To clear the hard lockout, remove the input voltage to the control or recycle the thermostat's heat call.

- Direct Spark Ignition (DSI) control modules
- Microprocessor-based
- Controls spark ignitor and gas valve
- Monitors timing, trial for ignition, flame sensing and lockout
- Compatible with LP or natural gas
- Redundant Gas valve design conforms to ANSI Z21.20
- Conforms to UL STDs 60730-1 and 60730-2-5.
- Certified to CSA STD E60730-1 and CSA STD C22.2#60730-2-5

Specifications

- Control Voltage: 102-138 VAC
- Flame Current: 1uA minimum
- Current Draw: 50mA maximum
- Gas Valve: 1.5A@120 VAC
- Flame Failure Response Time: 0.8 seconds maximum
- Operating temperature: -40°F to 175°F (-40°C to 80°C)
- Dimensions: 5.23"L x 2.53"W x 1.86"H
- Mounting: Surface mount using (2) #8 screws

Item ID	Cross Reference Fenwal Item ID	# Ignition Trials	Pre-Purge Time	Inter-Purge	Trial for Ignition Time
24-ICM2910-200-005	35-725200-005	1	None	None	10s
24-ICM2910-201-007	35-725200-007	1	None	None	15s
24-ICM2910-201-501	35-725201-501	1	5s	None	4s
24-ICM2910-201-505	35-725201-505	1	5s	None	10s
24-ICM2910-205-015	35-725205-015	3	None	15s	10s
24-ICM2910-205-017	35-725205-017	3	None	15s	15s
24-ICM2910-205-021	35-725205-021	3	None	25s	4s
24-ICM2910-205-115	35-725205-115	3	15s	15s	10s
24-ICM2910-205-521	35-725205-521	3	5s	25s	4s
24-ICM2910-206-515	35-725206-515	3	5s	15s	10s
24-ICM2910-405-013	* 35-725405-013	3	None	15s	7s



Item ID	Features and Applications	Specifications	Cross Reference
24-ICM2911	<p>Microprocessor-based</p> <p>Monitors system timing, trial for ignition, system switches, flame sensing and lockout</p> <p>100% lockout safety feature monitors for repeated over-temperature faults or flame losses and disables the heat operation for safety</p> <p>Continuously monitors the gas valve output to verify the gas valve does not turn on or off incorrectly</p> <p>Compatible with LP or natural gas</p> <p>LED indication for status and fault codes to aid in troubleshooting</p> <p>Twinning feature allows two furnace boards to be controlled with a single thermostat</p> <p>Field test mode</p>	<p>Input:</p> <p>Line voltage: 120 VAC</p> <p>Control voltage: 18 – 30 VAC</p> <p>Frequency: 50/60 Hz</p> <p>Output:</p> <p>Spark ignition: 12kV O.C.V., 60Hz</p> <p>Heat blower: 15 FLA/30 LRA @ 277 VAC</p> <p>Inducer fan: 1/2 HP, 9.8FLA/58.8LRA @120 VAC</p> <p>Gas valve: 2.3A Pilot Duty @ 240 VAC</p> <p>Environmental:</p> <p>Operating temperature: -40°F to 149°F (-40°C to 65°C)</p>	Modine Spark Ignition Control: 5H79749

Gas Ignition Controls

Item ID	Features and Applications	Specifications	Cross Reference
<p>24-ICM2913-16</p>	<p>Direct Spark Ignition (DSI) control board</p> <p>Microprocessor-based</p> <p>Monitors system timing, trial for ignition, system switches, flame sensing and lockout</p> <p>100% lockout safety feature monitors for repeated over-temperature faults or flame losses and disables the heat operation for safety</p> <p>Continuously monitors the gas valve output</p> <p>Compatible with LP or natural gas</p> <p>LED indication for status and fault codes to aid in troubleshooting</p> <p>On board fuse</p>	<p>Voltage: 230 VAC</p> <p>Control voltage: 18 – 30 VAC</p> <p>Frequency: 50/60 Hz</p>	Trane Spark Ignition Control: D674711P01
<p>24-ICM2918</p>	<p>Universal intermittent pilot gas ignition control</p> <p>Provides ignition sequence, flame monitoring and safety shutoff for single/dual rod intermittent pilot control applications For gas fired furnaces, boilers and other heating applications</p> <p>Switch selectable pre-purge and ignition trials with permanent lock</p> <p>Works with or without vent damper connected</p> <p>Works with both natural gas and LP gas systems</p>	<p>Voltage: 18-30 VAC @ 50/60 Hz</p> <p>Trial for ignition: 15 or 90 seconds (switch settable)</p> <p>Operating temperature: -40°F to 165°F (-40°C to 74°C)</p> <p>Relative humidity: 5% - 95% (non-condensing) at +55°C</p> <p>Pre-purge time: 0 sec or 30 sec (switch settable)</p> <p>Green status LED: System status and error codes</p> <p>Yellow flame LED: Flame presence and flame strength</p>	Honeywell: S8610U (and compatible Camstat, Fenwall, HSC, Johnson Controls, Robertshaw and White-Rodgers models).
<p>24-ICM6700</p>	<p>Direct Spark Ignition (DSI) control board.</p> <p>Monitors timing, Trial for ignition, flame sensing and lockout</p> <p>Status LED for fault codes to aid in troubleshooting</p> <p>Microprocessor-based precision</p> <p>Designed for 100% gas shutoff in the case of ignition failure</p>	<p>Voltage: 12 VDC</p> <p>Current draw: 100mA maximum</p> <p>Gas valve: N.O.: 0.5A @ 12 VDC</p> <p>Inducer blower: 3.7A @ 12 VDC</p> <p>Trial for ignition: 7 seconds</p> <p>ON delay: 15 seconds</p> <p>OFF delay: 90 seconds</p>	Suburban: 521099 Fenwal: 06-236879-002
<p>24-ICM6701</p>	<p>Direct Spark Ignition (DSI) control board</p> <p>Monitors timing, Trial for ignition, flame sensing and lockout</p> <p>Microprocessor-based precision</p> <p>Designed for 100% gas shutoff in the case of ignition failure</p>	<p>Voltage: 12 VDC</p> <p>Current draw: 100mA maximum</p> <p>Gas valve: N.O.: 0.5A @ 12 VDC</p> <p>Trial for ignition: 7 seconds</p> <p>ON delay: 15 seconds</p>	Suburban: 35-525900-113, 520814

Oil Primary Controls



1500 Series

ICM's Intermittent Ignition Oil Primary Control is ideal for residential oilfired burners used in boilers, forced air furnaces, water heaters and other oil burning appliances where pre/post-purge is not a safety requirement. It uses a C554A Cadmium Sulfide (cad cell) Flame Detector to monitor the burner flame.

In the event of flame failure or flame loss, the control will shut the system down. In the event of a lockout, pressing and holding in the red external reset button for three seconds will manually reset the safety switch. (For added safety, the button press is activated upon release to ensure that the button can not be permanently held in).

A status indicator LED on the control board indicates the function of the control and can be used to aid in testing and/or troubleshooting the control. To initiate a manual lockout of the system, press and hold the reset button when the status LED is off. There is a slight delay before the heat call is implemented. This is to verify the call is valid.

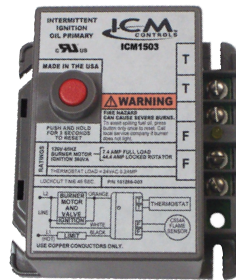
- Controls oil burner, oil valve (if desired) and the ignition transformer in response to a call for heat
- Solid state flame sensing circuit
- LED on terminal strip indicates system lockout
- Enclosed safety switch with external reset button
- Mounts on standard 4 x 4 in. junction box; select models may be mounted directly on burner housing
- C554A Cadmium sulfide flame detector and 24 VAC thermostat required
- Form, fit and functional replacement for popular competitive models

Specifications

- Ignition Type: Intermittent
- Timing, safety switch: 15, 30 or 45 seconds
- Mounting bracket: For mounting on a standard 4" X 4" junction box or direct mounting on burner housing
- Elec. rating, contacts (full load): 7.4 A @ 120 VAC; 3.7 A @ 240 VAC
- Elec. rating, contacts (locked rotor): 44.4 A @ 120 VAC; 22.2 A @ 240 VAC
- Temperature range: -30°F to +130°F (-34°C to +55°C)
- Approvals: Underwriters Laboratories Inc

Oil Primary Control - Intermittent Ignition

Item ID	Safety Timing	Cross Reference
24-ICM1501	15 Sec	Honeywell: R8184G4066, R8184G1161, R8184G1294
24-ICM1502	30 Sec	Honeywell: R8184G4074, R8184G1179, R8184G1302, R8184G4033
24-ICM1503	45 Sec	Carlin: 48245 - Tempstar/Heil: 1147017 - White Rodgers: 668-401 Honeywell: R8184G4009, R8184G1138, R8184G1427, R8184G4025

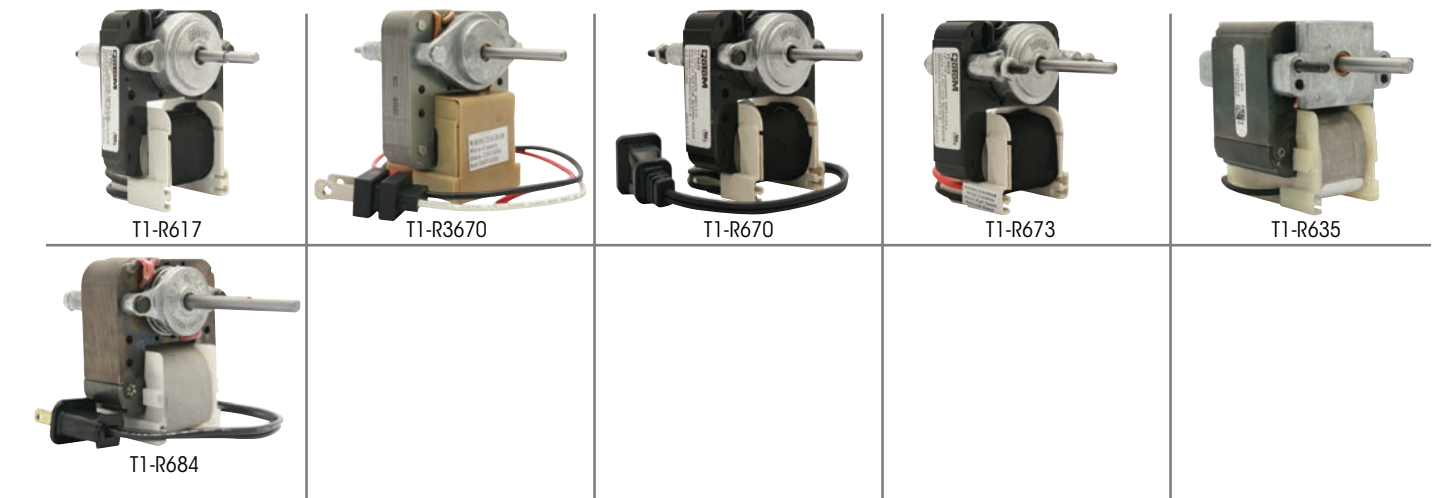


Skeleton Motors



Skeleton Motors & Fan kits

- Mechanically Reversible
- Shaded Pole
- Sleeve Bearing
- 60 Hertz



T1-R3670 Kit Components



T1-R670 Kit Components



T1-R673 Kit Components

- Applications**
- Electric Htrs.
 - Range Hoods
 - Exhaust Fans
 - Ventilators
 - Vending Machines

Item ID	Amps	Volts	RPM	HP	Stack	Rotation	Shaft	Features	Cross References
T1-R617	0.23	208/230	3300	1/285	0.40	CCW0SE	1.1"x.1811"	C-ring groove, Cord & spade terminal	CHROM. 04-290-004,12657004, 12657005,ELECTROHOME SM607
T1-R3670	.40/.25	120/240	3300	1/150	0.63	CCW0SE	1.5"x3/16"	KIT-Cord & plug c/w two fan blades & mounting kit	600, 602, 700, 702, 710, EM670, EM672, 14001, 14005
T1-R670	0.53	115	3300	1/140	0.65	CCW0SE	1.3"x3/16"	KIT-Cord & plug c/w two fan blades & mounting kit	65670,14001,600,700,710, EM-670,SM-670
T1-R673	.77/.48	115	2/3300	1/110	0.63	CCW0SE	1.25"x3/16"	KIT-Wire leads, two speed, c/w two fan blades & mounting kit	4673, 14007, 65673, AM-673, J673 K673, SM-673
T1-R684	1.20	120	3300	1/70	0.80	CCW0SE	2.1"x7/32"	Cord & plug	NUVENT 2000A, D90CB 2584SP WR. WHISPER FAN

3.3" Heating Motors



• Sleeve bearing unless indicated otherwise

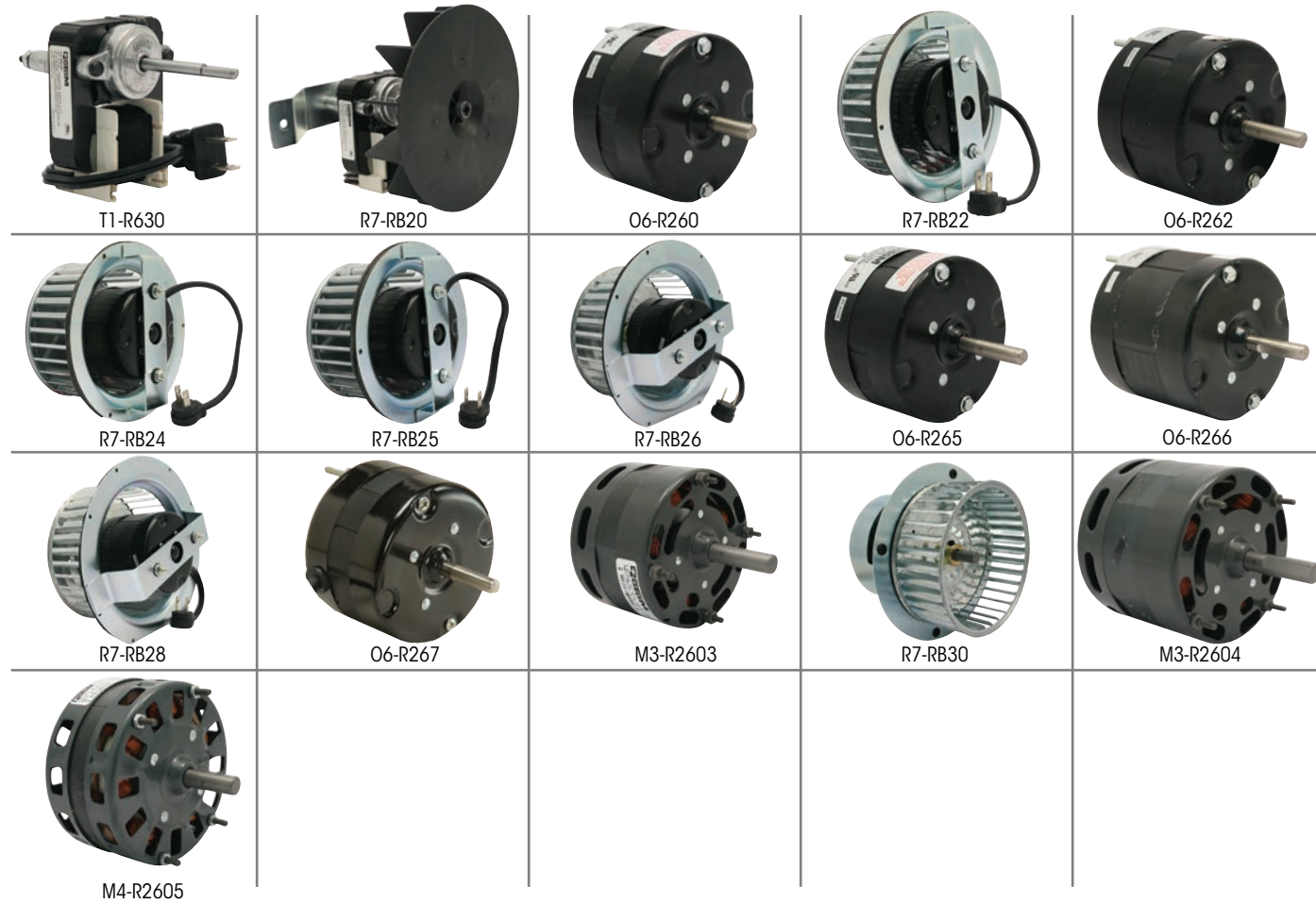
Item ID	HP	Volts	Amps	Spd/ RPM	Rot.	Type	Body	Shaft	Features	Cross Reference
O6-R401	1/165	115	0.35	1/1600	CCWOSE	SP/ TE	2.09"	1/4"×1.5"	Conduit Sleeve, Bare Wire Leads	Enterprise Fdry., SM401, 76401
O6-R215	1/115	240	0.22	1/1200	CCWOSE	SP/ TE	2.25"	5/16"×2.25"	Triangular Brk.Front	Electric Unit Htrs. Chromalox 01513005, Thermolec.
R2-R410	1/100	120	0.35	1/1550	CWLE	SP/ Open	2.79"	5/16"×2.0"	L.K.Fitting-Int.Fan Bare Wire Leads	Enterprise Fdry. 379135, SM410, 76410
O6-R511	1/100	240	0.28	1/1350	CWOSE	SP/ TE	2.10"	1/4"×2.0"	Shaft C-ring Groove Bare Wire Leads	Federal Pioneer Electric
O6-R210	1/50	230	0.40	1/1550	CCWLE	SP/ TE	2.19"	1/4"×1.5"	Bare Wire Leads	Caloritech, SM210,217, 76210, SS210, CGE, 12519-002
O6-R217	1/35	240	0.50	1/1450	CWOSE	SP/ TE	2.50"	1/4"×1.20"	Studs Front & Rear	Chromalox 02188001,2, 76217, FPE L82116A4,5
O6-R212	1/30	115	0.55	1/1550	CCWLE	SP/ TE	2.60"	5/16"×3.5"	Ball Bearing, Triangular Brk.	Chromalox 01513002,3,10,11,16, SM212, 76212 SS212, 7173-0951
R2-R480	1/30	208/240	0.80	1/1500	CCWLE	SP/ Open	4.20"	3/8"×2.4"	4 Ears Each End, Ins. Spade Term.	Chromalox/Westcan Unit Heaters Westcan A2001B
O6-R213	1/25	115	1.40	1/1550	CCWOSE	SP/ TE	2.95"	5/16"×1.8"	Triangular Brkt./ Box	Trane, Lincoln, Chromalox, SM213, SM302, 76213, SS213
R2-R303	1/25	115	1.40	1/1550	CCWLE	SP/ Open	3.84"	5/16"×3.3"	Ball Bearing, Triangular Brkt/ Int.Fan, Bare Wire Leads	Trane Unit Htr. 75270010, SM303, 76303, SS303
R3-R316	1/20	115	1.36	1/1550	CCWOSE	SP/ Open	2.77"	5/16"×1.37"	Ball Bearing, 30" Wire Leads 7" Grnd., Stud Mounting	Air 2000 HRV

3.3" Heating Motors



• Sleeve bearing unless indicated otherwise

Item ID	HP	Volts	Amps	Spd/ RPM	Rot.	Type	Body	Shaft	Features	Cross Reference
R2-R462	1/17	120	1.2/1.0	3/1660	CWLE	PSC/ Open	4.00"	3.5"×3/8"×3.5"	2 Side Studs	Venmar HRV 02101
R3-R373	1/15	115	0.90	1/1400	CCWOSE	PSC/ TE	4.40"	3/8"×3.3"	Plug 4/250 Cap Inc.	Dayton Greenhouse Fan, 7190-1004
R3-R348	1/15	115	1.1	2/1550 /1300	CCWOSE	PSC/ TE	4.10"	3/8"×3.4"	3 Ears/ Cap Inc. Pin & Ins. Spade Terms. Ring Term. Grnd.	Vanee HRV M1703
O1-R465	1/15	115	2.2	3/1550	CCW	SP/ Open	4.0"	2.3"×5/16"×2.3"	Internal Fan Pin Terms. Ring term. Grnd.	Nutech-Lifebreath 23202, Elmira stoves, 2868513152
US-R90671	1/15	115/208-230	1.1/2.1	1/1550	CWOSE	SP/ Open	5.00"	2.24"×5/16"	Mechanical Duty Removable Studs Resilient Rings Ball Bearing	671, 81671
US-R90672	1/15	115/208-230	1.1/2.1	1/1550	CCWOSE	SP/ Open	5.00"	2.24"×5/16"	Mechanical Duty Removable Studs Resilient Rings Ball Bearing	672, 81672
R2-R438	1/14	115	1.05/.85	2/1600	CWOSE	PSC/ Open	4.25"	5/16"×1.50"	3 Ears Mnt.	Venmar HRV 01038
R3-R366	1/7	120	1.7	3/1630	CWLE	PSC/ Open	4.75"	3.0"×3/8"×3.0"	2 Side Studs	Venmar HRV 02100
R2-R422	1/6	120	2.9	3/1690	CWOSE	PSC/ Open	4.90"	3/8"×2.0"	3 Ears	Venmar HRV 02209



Motor ID	Blower ID	HP	Amps	Spd/RPM	CFM	Shaft	Bracket Part #	Blower Part #	Dia.	Width	Bore	Rot.	Cross Reference
T1-R630	R7-RB20	1/185	0.76	1/1500	60	1.90"×7/32"	92-A8600	93-A7105	5"	1 1/8"	7/32"	CW	013005, EB50
O6-R260	R7-RB22	1/80	0.65	1/1500	75	1.10"×5/16"	92-A8602	66-A508202	5 1/16"	2"	5/16"	CW	B60, 013012, EB60, 4099
O6-R262	R7-RB24 R7-RB25	1/40	1.00	1/1550	116 125	1.50"×5/16"	92-A8602	66-A508216	5 1/16"	2 5/32"	5/16"	CW	B100, K100, 013011, 4105
O6-R264	R7-RB26	1/60	0.95	1/1100	141	1.85"×5/16"	92-A8604	66-A610215	6 1/16"	2 5/32"	5/16"	CW	QK100, 013020
O6-R265	-	1/75	0.65	1/1400	115	1.62"×5/16"	-	-	-	-	-	-	QB100
O6-R266	R7-RB28	1/20	1.65	1/1550	201	1.40"×5/16"	92-A8604	66-A610215	6 1/16"	2 5/32"	5/16"	CW	BK100, 013024, 4115
O6-R267	-	1/50	0.80	1/1550	118	1.50"×5/16"	-	-	-	-	-	-	BB-100, 013019
M3-R2603	R7-RB30	1/23	1.30	1/1550	268	2.20"×1/2"	92-A8606	66-A610220	6 1/16"	2 5/32"	1/2"	CW	DK260, DB200, 75003, 013041, 013040, 4143
M3-R2604	-	1/10	2.65	1/1550	300	2.20"×1/2"	-	-	-	-	-	-	DB300, 013062, 013042
M4-R2605	-	1/12	3.00	1/1050	450	1.60"×1/2"	-	-	-	-	-	-	QBD300



Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot	Body	Frame	Bearing	Cap	Shaft	Cross Reference
M4-R3206	1/40	115	1.1	SP	1/1050	CCWOSE	3.00"	5.0"	Ball	-	2.25"×3/8"	D340, Z-6 Model
R3-R343	1/40	115	1.3/0.6	SP	2/1550 /1050	CCWOSE	2.28"	3.3"	Sleeve	-	5.75"×3/8"	JA2M414-T, 56343-0
M4-R3975	1/20	115	2.3	SP	1/1045	CCWOSE	3.00"	5.0"	Sleeve	-	2.25"×3/8"	D1036, 7151-2139, S88-916, Z-8 Model
R3-R374	1/12	115	1.1/1.73	PSC	2/1550 /1300	CCWOSE	2.90"	3.3"	Sleeve	10/370	3.1"×3/8"	JE2H7057-T, 63746-0
M4-R3747	1/7 1/11 1/25	115	2.5/2.1 /1.6	PSC	3/1500 /1300 /1050	CCWOSE	4.25"	5.0"	Sleeve	5/370	2.5"×1/2"	DE2F7085-T, 63747-0
M4-R3748	1/6 1/12 1/20	115	2.1/1.9 /1.4	PSC	3/1550 /1300 /1050	CCWOSE	4.25"	5.0"	Sleeve	10/370	2.6"×1/2"	DE2F7088-T, 63748-0
R3-R346	.4	115	3.6/2.5	PSC	2/1550 /1050	CCWOSE	4.50"	3.3"	Sleeve	12.5/370	5.3"×3/8"	JE2K007-T, 56346-0

Direct Drive Motors



5.0" Direct Drive Motors



Cross Reference For:

- Coleman
- Carrier
- Lennox
- York

Item ID	HP	Volts	Amps	Cap.	Spd/RPM	Rotation	Body	Bearing	Shaft	Cross Reference
UE-98	1/12	115	5.1	-	3/1050	CWSE	3.8"	Sleeve	5.08" x 1/2"	Fasco D178, D356, UE98
M4-R2385	1/5	115	6.5	-	3/1050	CCWOSE	4.0"	Sleeve	5.5" x 1/2"	Fasco D158, UE385, 90
M4-R2390	1/5	115	3.2	7.5/370	3/1075	Rev	3.9"	Sleeve	5.5" x 1/2"	UE390, York 24-22489-000, Bohn 5002L, 5003F
M4-R2391	1/5	208/230	1.3	7.5/370	3/1075	Rev	3.9"	Sleeve	5.5" x 1/2"	Fasco D262, D1016, UE391, 515
M4-R2395	1/4	115	4.9	5/370	3/1075	Rev	4.1"	Sleeve	3.1" x 1/2"	Fasco D150

5.5" Direct Drive Motor

Features

- 48 Frame
- 5.5" Diameter
- Open Enclosure
- Mounting: Stud, Strap & Base (Resilient Rings)
- 60 Hz
- Sleeve Bearing
- Shaft: 1/2" x 6.0"
- Reversible
- Permanent Split Capacitor (P.S.C.)
- 60" Coloured Electrical Leads
- Insulation Class B
- Thermally Protected



24 Month Warranty



48 Frame - 4 Speed - Multi-HP - Direct Drive

Item ID	HP	Volts	Amps	Cap.	Spd/RPM	Rotation	A Dim.	Bearing	Shaft
DD-1314	1/3	115	6.0	7.5/370	4/1075	Rev	4.40"	Sleeve	1/2"x6"

Cross Reference

Rotom	HP	Voltage	AO Smith	Carrier	Coleman	Emerson	Lennox	ICP	GE	Marathon	Rotom
DD-1314	1/3	115	DL1026	HC41SE117	1486-236P	11864	P-8-7505	1009045	3583	X003	R43583
	1/4		DL1036	HC41SE121		1863	32663	1008415	3585		R43585
	1/6			P257 8583		1864	LFM13				
	1/7			P257 8585							

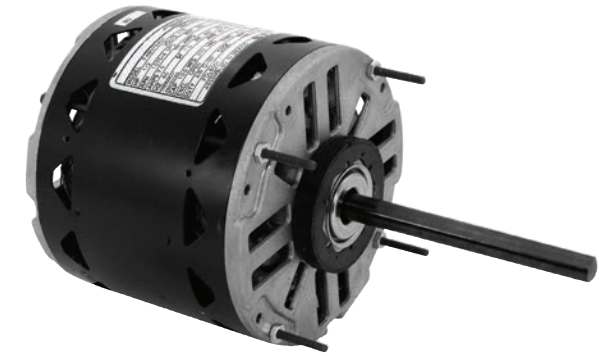
Direct Drive Motors



5.5" Direct Drive Replacement Motors

Features

- Less Inventory Required!
- Versatile!
- Time Saver!
- Energy Efficient
- Different Capacitor/Speed Combos
- Designed for 370V Cap
- Reversible Rotation
- Resilient Rings
- Extended Thru Bolts
- Automatic Protector
- Class B Insulation
- Continuous Duty-Over Air
- Mounts by Belly Band, Thru Bolts, or Shell Holes
- Rheem Mounting Holes in Shell
- 60 Hz



**Open Drip Proof
40°C Ambient**



Item ID	HP	Spd	RPM	Volts	Amps	Capacitor (370V)	Bearing	Leads	Dia	Shaft
R6-R43600	1/2	All			7.0	10 mfd				
	1/3	All			6.7					
	1/4	Lo, Med-Lo, Med-Hi	1075	115	4.4	5 mfd 7.5*	Sleeve	26"	4.86"	1/2"x5"
	1/5	Lo, Med-Lo			3.2					
	1/6	Lo			2.4					
R6-R43601	1/2	All			3.9	10 mfd				
	1/3	All			3.6					
	1/4	Lo, Med-Lo, Med-Hi	1075	208-230	2.5	5 mfd 7.5*	Sleeve	26"	4.86"	1/2"x5"
	1/5	Lo, Med-Lo			1.8					
	1/6	Lo			1.3					
R6-R43602	3/4	All			9.1	10 mfd				
	1/2	All			6.8					
	1/3	All	1075	115	5.5	5 mfd 7.5*	Ball	38"	4.86"	1/2"x5 1/2"
	1/4	Lo, Med-Lo, Med-Hi			3.0					
	1/5	Lo, Med-Lo			2.3					
R6-R43603	3/4	All			3.9	10 mfd				
	1/2	All			3.6					
	1/3	All	1075	208-230	3.0	5 mfd 7.5*	Ball	38"	4.86"	1/2"x5 1/2"
	1/4	Lo, Med-Lo, Med-Hi			2.3					
	1/5	Lo, Med-Lo			2.0					
R6-R43604	1/3	All			2.1					
	1/4	Lo, Med-Lo, Med-Hi	825	208-230	1.7	7.5 mfd	Sleeve	36"	5.24"	1/2"x5 1/2"
	1/6	Lo, Med-Lo			1.0					
	1/8	Lo			0.9					

* Motor is approximately 10% stronger and has higher starting torque for 1/6, 1/5, 1/4 and 1/3 HP rating with the 7.5 mfd 370VAC capacitor.

Cross Reference

Rotom	Emerson	Genteq	Fasco	Marathon	A.O. Smith
R6-R43600	5460	3463	D2835	X077	FDL6001A
R6-R43601	5461	3464	D833	X073	FD6000A
R6-R43602	5470	3466	D2834	X074	FDL6002A
R6-R43603	5471	3467	D2833	X075	FD6001A
R6-R43604	5469	-	-	-	FD6002A

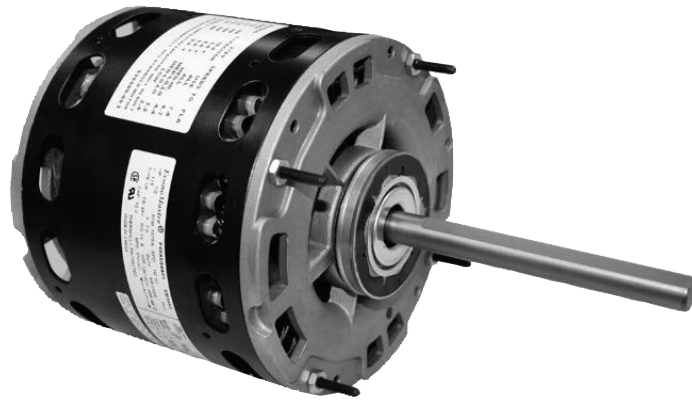
Direct Drive Motors



5.5" Direct Drive Motors

Features

- Economical TruckStock Option!
- Less Inventory Required!
- Versatile!
- Time Saver!
- Easy Installations!
- Energy Efficient
- Different Capacitor/Speed Combos
- Designed for 370V Cap
- Reversible Rotation
- Extended Thru Bolts
- Automatic Protector
- Class B Insulation
- Continuous Duty-Over Air
- Mounts by Belly Band, Thru Bolts or Shell Holes
- Rheem Mounting Holes in Shell
- 60 Hz



Direct Drive

Item ID	HP	Spd	RPM	Volts	Amps	Cap	Bearing	Leads	Body	Shaft
R6-R43463	1/2-1/6	Four	1075	115	7.0	10/370, 7.5/370, 5/370	Sleeve	38"	4.86"	1/2"×5"
R6-R43464	1/2-1/6	Four	1075	208-230	3.9	10/370, 7.5/370, 5/370	Sleeve	38"	4.86"	1/2"×5"
R6-R43466	3/4-1/5	Four	1075	115	9.1	10/370, 7.5/370, 5/370	Sleeve	38"	4.86"	1/2"×5"
R6-R43467	3/4-1/5	Four	1075	208-230	3.9	10/370, 7.5/370, 5/370	Sleeve	38"	4.86"	1/2"×5"

Cross Reference

Rotom	AO Smith	Emerson	Genteq	Fasco	Marathon	DiversiTech	Smart	Carrier	Carrier	York
R6-R43463	EM3463	5460	3463	D2835	X077	WG840463	SE3463	P257-E5460	T257-3463	S1-FHM3463
R6-R43464	EM3464	5461	3464	D833	X073	WG840464	SE3464	P257-E5461	T257-3464	S1-FHM3464
R6-R43466	EM3466	5470	3466	D2834	X074	WG840466	SE3466	P257-E5470	T257-3466	S1-FHM3466
R6-R43467	EM3467	5471	3467	D2833	X075	WG840467	SE3467	P257-E5471	T257-3467	S1-FHM3467

Direct Drive Motors



Direct Drive Motors

Features

- 48Y Frame
- 5.5" Diameter
- Open Enclosure
- Mounting: Stud, Strap & Base (Resilient Rings)
- 60 Hz
- Sleeve Bearing
- Shaft: 4.0" × 1/2"
- Reversible
- Permanent Split Capacitor (PSC)
- 40°C Ambient
- Insulation Class B
- Thermally Protected

40°C Ambient

24 Month Warranty



115 & 208/230 Volts, 3 Speed, 1075 RPM, Reversible Rotation

Item ID	HP	Volts	Amps	Cap.	Spd/RPM	Rotation	Body	Bearing	Shaft
DD-3583	1/4	115	4.40	5/370	3/1075	Rev	4.15"	Sleeve	1/2"×4.0"
DD-3584	1/4	208/230	2.20	5/370	3/1075	Rev	4.15"	Sleeve	1/2"×4.0"
DD-3585	1/3	115	6.00	5/370	3/1075	Rev	4.40"	Sleeve	1/2"×4.0"
DD-3586	1/3	208/230	2.90	5/370	3/1075	Rev	4.40"	Sleeve	1/2"×4.0"
DD-3587	1/2	115	10.2	10/370	3/1075	Rev	5.40"	Sleeve	1/2"×4.0"
DD-3588	1/2	208/230	5.00	10/370	3/1075	Rev	5.40"	Sleeve	1/2"×4.0"
DD-3589	3/4	115	11.30	15/370	3/1075	Rev	5.48"	Sleeve	1/2"×4.0"
DD-3590	3/4	208/230	5.40	10/370	3/1075	Rev	5.48"	Sleeve	1/2"×4.0"

Capacitor Not Included

Cross Reference

Rotom	AO Smith	AO Smith	Emerson	Genteq	Fasco	Marathon	Packard	DiversiTech	Smart	Carrier	Carrier	York	UE	Rotom
DD-3583	EM3583	DL1026	1863	3583	D721	X000	43583	WG840583	SE3583	P257-8583	P257-3583	S1-FHM3583	533	R43583
DD-3584	EM3584	D1026	1971	3584	D725	X001	43584	WG840584	SE3584	P257-8584	P257-3584	S1-FHM3584	530	R43584
DD-3585	EM3585	DL1036	1864	3585	D727	X002	43585	WG840585	SE3585	P257-8585	P257-3585	S1-FHM3585	532	R43585
DD-3586	EM3586	D1036	1972	3586	D923	X003	43586	WG840586	SE3586	P257-8586	P257-3586	S1-FHM3586	529	R43586
DD-3587	EM3587	DL1056	1865	3587	D701	X004	43587	WG840587	SE3587	P257-8587	P257-3587	S1-FHM3587	531	R43587
DD-3588	EM3588	D1056	1973	3588	D703	X005	43588	WG840588	SE3588	P257-8588	P257-3588	S1-FHM3588	528	R43588
DD-3589	EM3589	DL1076	8904	3589	D728	X009	43589	WG840589	SE3589	P257-8589	P257-3589	S1-FHM3589	678	R43589
DD-3590	EM3590	D1076	8905	3590	D729	X010	43590	WG840590	SE3590	P257-8590	P257-3590	S1-FHM3590	679	R43590



Direct Drive Motors



5.5" Flex Mount Direct Drive Motors

Features

- 48Y Frame
- 5.5" Diameter
- Open Enclosure
- Mounting: Flex
- 60 Hz
- Ball Bearing
- Shaft: 1/2" x 6"
- Reversible
- Permanent Split Capacitor (PSC)
- 60" Coloured Electrical Leads
- 45°C (113°F) Ambient
- Insulation Class B
- Thermally Protected

9" & 10" Bolt Circle

24 Month Warranty



DD-035 Illustrated

115 & 208/230 Volts, 4 Speed, 1075 RPM, Reversible Rotation

Item ID	HP	Volts	Amps	Cap.	A Dim.	Bearing	Shaft
DD-034	1/4	115	3.4	5/370	3.84"	Ball	1/2"x6"
DD-044	1/4	208/230	1.8/2.0	5/370	4.00"	Ball	1/2"x6"
DD-035	1/3	115	5.0	10/370	4.50"	Ball	1/2"x6"
DD-045	1/3	208/230	1.75/1.93	5/450	4.30"	Ball	1/2"x6"
DD-036	1/2	115	7.6	10/370	4.85"	Ball	1/2"x6"
DD-046	1/2	208/230	3.3/4.0	10/370	4.79"	Ball	1/2"x6"

Capacitor Not Included

Cross Reference

Rotom	AO Smith	Fasco	GE	Marathon	UE	Rotom
DD-034	FML1026	D1730	3783	X034	752	R42034, R42419
DD-044	-	D1733	3784	-	-	R42449
DD-035	FML1036	D1731	3785	X035	753, 947	R42035, R42319
DD-045	FM1036	D1734	3786	-	-	R42349
DD-036	FML1056	D1732	3787	X036	754	R42036, R42219
DD-046	FM1056	D1735	3788	-	-	R42249

Direct Drive Motors



5 5/8" Torsion Flex Direct Drive Motors

Features

- 48Y Frame
- Open Enclosure
- 60 Hz
- Single Phase
- Electronically Reversible
- Permanent Split Capacitor (PSC)
- Automatic Overload
- Continuous Air Over
- Energy Efficient



Item ID	HP	Volts	Amps	Type	Spd/RPM	Cap.	Rot.	Bearing	Shaft	Cross Reference
43782	1/6	115	2.50	PSC	3/1075	5/370	Rev	Sleeve	1/2" x 5"	NEW - 3782
43783	1/4	115	3.60	PSC	4/1075	5/370	Rev	Sleeve	1/2" x 6"	NEW - 3783
43784	1/4	208-230	1.80-2.00	PSC	4/1075	5/370	Rev	Sleeve	1/2" x 6"	NEW - 3784
43785	1/3	115	4.80	PSC	4/1075	10/370	Rev	Sleeve	1/2" x 6"	NEW - 3785, 9377
43786	1/3	208-230	2.30-2.60	PSC	4/1075	10/370	Rev	Sleeve	1/2" x 6"	NEW - 3786
43787	1/2	115	8.00	PSC	4/1075	10/370	Rev	Sleeve	1/2" x 6"	NEW - 3787
43788	1/2	208-230	3.30-4.00	PSC	4/1075	10/370	Rev	Sleeve	1/2" x 6"	NEW - 3788
43789	3/4	115	9.00	PSC	3/1075	15/370	Rev	Sleeve	1/2" x 5"	NEW - 3789
43790	3/4	208-230	4.50	PSC	3/1075	10/370	Rev	Sleeve	1/2" x 5"	NEW - 3790

5 5/8" Multi-Horsepower Direct Drive Motors

Features

- 48Y Frame
- Open Enclosure
- 60 Hz
- Single Phase
- Electronically Reversible
- Permanent Split Capacitor (PSC)
- Automatic Overload
- Continuous Duty, Air Over
- Mounting rings, thru bolts and holes in shell
- Multiple capacitor/speed combinations
- Class B insulation



Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Bearing	Encl.	Cross Reference
45460	1/2-1/3-1/4-1/5-1/6	115	5.80-5.10-3.50-3.20-2.20	PSC	3/1075	Rev	Sleeve	Open	NEW - Emerson 5460 Rheem 51-23012-41
45461	1/2-1/3-1/4-1/5-1/6	208-230	2.90-2.50-1.80-1.40-1.30	PSC	4/1075	Rev	Sleeve	Open	NEW - Emerson 5461 Rheem 51-23022-41
45470	3/4-1/2-1/3-1/4-1/5	115	9.10-6.50-5.50-4.00-2.30	PSC	4/1075	Rev	Sleeve	Open	NEW - Emerson 5470 Rheem 51-23017-41
45471	3/4-1/2-1/3-1/4-1/5	208-230	4.60-3.30-3.40-2.30-1.70	PSC	4/1075	Rev	Sleeve	Open	NEW - Emerson 5471 Rheem 51-21898-01

Direct Drive Motors



Electronically Commutated Direct Drive Motors

Features

- High Efficiency ECM: Up to 80% Efficient
- Cross Reference either PSC or X13 model of equivalent HP
- Dual Voltage Design: Replace 115 or 230V with one motor
- Wiring harness and simple installation guide included
- Rotation Sensing Technology
- Automatically selects rotation upon first start up
- 45" wiring harness
- Easy to install
- Internal MOV (Metal Oxide Varistors) surge protector



Item ID	HP	Volts	Amps	RPM	Hertz	Shaft
46013	1/3	115/230	5.0/3.0	1075	60/50	1/2"x 5"
46012	1/2	115/230	6.7/4.0	1075	60/50	1/2"x 5"
46034	3/4	115/230	8.2/4.9	1075	60/50	1/2"x 5"
46001	1	115/230	11.0/6.7	1075	60/50	1/2"x 5"

Evergreen® VS Motors and User Interface



Evergreen VS

The Evergreen® VS motor and Evergreen VS user interface are designed to replace Genteq® constant airflow (variable speed) ECM indoor blower motors. The Evergreen VS product line is designed specifically to replace GE® models 2.0 and 2.5, and Genteq models 2.3, 3.0 and Eon® motors (including models formerly branded GE or GE ECM by Regal Beloit).

Applications

The Evergreen VS motor is designed for use in the following types of HVAC systems:

- Furnace, air handler and package units
- Fossil fuel, electric strip heat, A/C, heat pump and geothermal units
- When replacing 2.0, 2.3 or Eon® motors, Evergreen VS motors can only be used in single stage or two stage HVAC systems
- When replacing 2.5 and 3.0 motors, Evergreen VS motors can be used in single stage, multi-stage, modulating and communicating HVAC systems

Features

- Pre-programmed
- Plug-n-play
- Dual voltage
- Dual rotation
- Truck stock
- Two year warranty*
- Complete calls same day including after hours calls
- Reduce time on call using part on truck
- Built by same manufacturer as original motor
- Maintains system performance and efficiency

Item ID	HP	Volts	Amps	RPM	Rot	Shaft
FA-6503V	1/3	120/240	5.0/2.8	1050	Rev	0.5"x 5"
FA-6505V	1/2	120/240	7.7/4.3	1050	Rev	0.5"x 5"
FA-6507V	3/4	120/240	10.1/6.1	1050	Rev	0.5"x 5"
FA-6510V	1	120/240	12.8/7.4	1050	Rev	0.5"x 5"



Item ID	Description
FA-5K010V	2 Gen Evergreen VS User Interface

The Evergreen VS motor and User Interface (5K010) are used together to replace the Genteq model 2.3 or Eon motor. All wires and harnesses provided.

Fan Coil Motors



ECM Fan Coil Motors

Features

- Drop-in replacement • Brushless DC • 3 Speeds • 5 1/8" Diameter • 54" lead length
- ECM with internal control • Long life ball bearings • Rotors are isolated from shaft to reduce motor vibration • Saves an average of 69% on energy usage • Runs cooler

Item ID	HP	Volts	Rot.	Amps	RPM Range	Shaft	Frame
M4-R2189	1/10	120	CWOSE	1.6	3/1100,900,700	9.3" x 1/2" x 9.3"	5.0"



PSC Fan Coil Motors

Features

- Type: PSC • Double Shaft • Volts: 115/60 Hz • Enclosure: Open end-bells • Thermally Protected
- Capacitor Included • Ball Bearing • Insulation Class B • Protection Class IP20 • Base Mount Included

Item ID	HP	Volts	Amps	Spd/RPM	Dia	Rot.	Type	Cap	Shaft
EC-FC-1893	1/15	115	0.96	6/1550	4.8"	CWOSE	PSC	6.3/450	1/2" x 7.26"
EC-FC-1895	1/4	115	3.80	6/1550	4.8"	CWOSE	PSC	18/450	1/2" x 7.26"



Tempspec Replacement Fan Coil Motors

9" or 10" Bolt Circle

Item ID	HP	Volts	Amps	Type	Cap	Spd/RPM	Rot.	Body	Frame	Bearing	Shaft	Cross Reference
M4-R799	1/8	115	2.10	PSC	5/370	5/1000	CCWOSE	3.87"	5.0"	Ball	5.0"x1/2"	L350, L450, L600, DA3E200, DA3F100, DA3G142
UE-799	1/8	115	2.60	PSC	5/370	5/1000	CWSE	3.5"	5.0"	Ball	5.0"x1/2"	L350,L450,L600, UE DA3E200, DA3F100, DA3G142

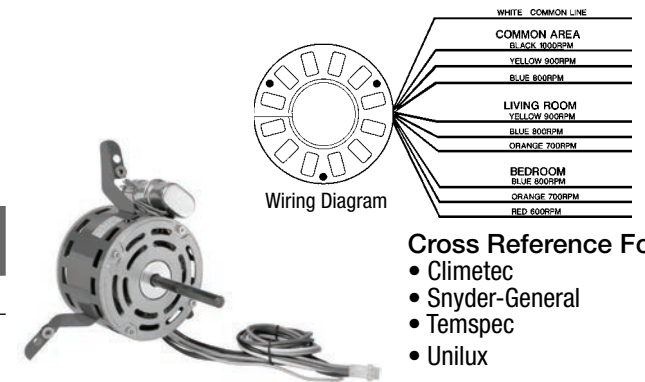


Fan Coil Motors

Heating & Air Conditioning • High Rise Apartment • Condominium • Hotel
ONE MOTOR DOES ALL THREE! Bedroom, Living Room, Common Area.

DD-030 Cross Reference: 5KCP39DGV279S

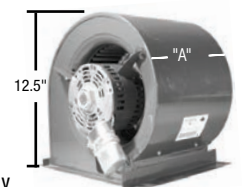
Item ID	HP	Amps	Cap	Spd/RPM	Body	Frame	Shaft
DD-030	1/6	2.6	Inc.	5/950	3.98"	48	1/2"x4.5"



Fan Coil Blowers

Heating & Air Conditioning • High Rise Apartment • Condominium • Hotel

Item ID	Motors Used	CFM	"A" Dim.
66-RFC300	UE-799	300	6.75"
66-RFC400	DD-030, UE-799	400	8.25"
66-RFC600	DD-030	600	9.00"



Motors Sold Separately

Unit Heater Motors



4.0" Unit Heater Motor

- Features**
- 115 Volt • CCWLE

Item ID	HP	Amps	RPM	Shaft	Cross Reference
M3-R2614	1/12	2.25	1550	2.5" x 3/8"	C16230

5.0" Unit Heater Motors

- Features**
- 115 Volt • Totally Enclosed

Item ID	Fig.	HP	Spd/RPM	Amps	Rot.	Type	Cross Reference
M4-R6920	A	1/15	1/1050	3.40	CCWOSE	SP	P8-6920, 54028, A0516, A2160, E62788, E62862, E62A15
T2-R2360	B	1/15	1/1050	3.30	CCWOSE	SP	45330, 45331, 45332, D143
T2-R2380	C	1/8	1/1075	2.60	CCWOSE	PSC	170-45888, 55681, 9775, 380, D260

Fig. A
Lennox
ICP
Keeprite



Fig. B
Reznor

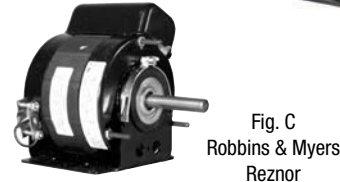
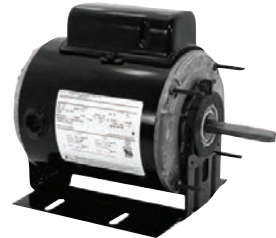


Fig. C
Robbins & Myers
Reznor

5.5" Unit Heater Motors - Dual Voltage

Item ID	HP	Volts	Amps	RPM	Rot.	A Dim.	Bearing	Shaft
UE-730A	1/6	115/208/230	2.1/1.1	1140	Rev	6.0"	Ball	1/2" x 5"
UE-731A	1/4	115/208/230	3.1/1.6	1140	Rev	6.25"	Ball	1/2" x 5"
UE-732A	1/3	115/208/230	3.3/1.7	1140	Rev	6.5"	Ball	1/2" x 5"
UE-733A	1/2	115/208/230	5.6/2.8	1140	Rev	7.25"	Ball	1/2" x 5"

Capacitor Included



5.5" Unit Heater Motors

- Features**
- 48 Frame
 - Totally Enclosed
 - Mounting: 4 Stud Pattern
 - 60 Hz
 - Permanent Split Capacitor
 - 60°C Ambient
 - Insulation Class B
 - Thermally Protected

Item ID	HP	Volts	Amps	Cap.	Spd/RPM	Rot.	A Dim.	Bearing	Shaft
UH-9034	1/6	115	2.4	5/370	1/1075	Rev	4.52"	Ball	1/2" x 3.4"
UH-9035	1/4	115	4.1	5/370	1/1075	Rev	4.52"	Ball	1/2" x 3.4"
UH-9036	1/3	115	5.0	7.5/370	1/1075	Rev	4.52"	Ball	1/2" x 3.4"

Capacitor Included

Cross Reference

Rotom	AO Smith	Emerson	Fasco	GE	Marathon	UE
UH-9034	UH1016, US1016, US1016NB	9034	D834	3206	X302, X306	177, 749
UH-9035	UH1026, US1026, US1026NB	9035	D734	3208	X303, X307	566, 734, 750
UH-9036	UH1036, US1036, US1036NB	9036	D732	3212	X304, X308	183, 751



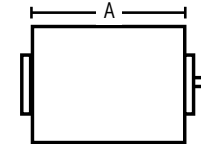
Belted Fan Motors



Belted Fan - One Speed

- Features**
- 48 Frame
 - 5.5" Diameter
 - Open Drip Proof
 - Resilient Ring & Base Included
 - 60 Hz
 - Sleeve Bearing
 - Shaft: 1/2" x 1.5" W/ Flat
 - Reversible
 - Split Phase
 - 45°C (113°F) Ambient
 - Insulation Class B
 - Thermally Protected

24 Month
Warranty



BF-4701
Illustrated

Item ID	HP	Volts	Amps	S.F.	Spd/RPM	Rot.	A Dim.	Bearing	Shaft
BF-4701	1/4	115/208-240	4.6/2.3	1.35	1/1725	Rev	6.25"	Sleeve	1/2" x 1.5"
BF-4706	1/3	115-230	6.0/3.0	1.35	1/1725	Rev	6.25"	Sleeve	1/2" x 1.5"
BF-4708	1/2	115	7.2	1.25	1/1725	Rev	6.25"	Sleeve	1/2" x 1.5"

Cross Reference

Rotom	AO Smith	Emerson	Fasco	GE	Marathon	UE	Rotom
BF-4701	GF2024	840CV	D6002	4701, H701	D127, B206, B303	-	R840
BF-4706	GF2034	841CV	-	4706, H711	D143, B207	-	R841
BF-4708	GF2054	1542C	-	4708	D162, B208	-	R1542

48/56 Frame, Split Phase Belt Drive Fan and Blower Motors



- Features**
- 48/56 Frame
 - 5 5/8" Diameter
 - Open Drip Proof Enclosure
 - Ball Bearing
 - Resilient Base has 48 and 56 Frame Mounting Holes
 - 60 Hz
 - Split Phase
 - Automatic Overload
 - Single Speed
 - Full Service Factor Ratings
 - 40°C Ambient
 - Continuous Duty
 - Insulation Class B
 - Thermally Protected



45013D
Illustrated

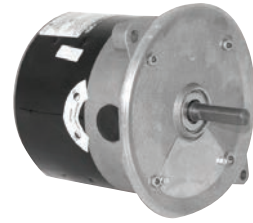
Item ID	HP	Volts	Amps	S.F.	Spd/RPM	Rot.	Bearing	Shaft Dim.	Length Less Shaft	Cross Reference
45016	1/6	115	3.60	1.35	1/1725	Rev	Sleeve	1/2" x 1-7/8"	7-1/2"	NEW - US Motors 3615
45014D	1/4	115/208-230	4.60/2.20-2.10	1.35	1/1725	Rev	Ball	1/2" x 1-7/8"	6.75"	NEW - Marathon B303
45013D	1/3	115/208-230	6.60/3.40-3.10	1.35	1/1725	Rev	Ball	1/2" x 1-7/8"	6.75"	NEW - Marathon B305
45012D	1/2	115/208-230	7.60/3.70-3.80	1.25	1/1725	Rev	Ball	1/2" x 1-7/8"	8.58"	NEW - Marathon B307
45230D	3/4	115/208-230	11.60/5.90-5.80	1.25	1/1725	Rev	Ball	5/8" x 1-7/8"	10.55"	NEW - Marathon 56S17D2060

Oil Burner Motors



Features

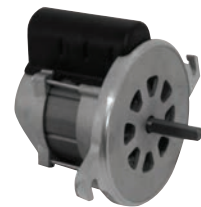
- 48M and 48N Flange Mounting
- Open & Totally Enclosed
- External Reversing Switch (most models)
- Sleeve Bearing
- Manual Reset Overload



Split Phase, 60Hz, Shaded Pole

Item ID	HP	Volts	Amps	Service Factor	Spd/ RPM	Rot.	Body	Frame	Bearing	Shaft	Features
T4-R6102	1/8	115	2.12	1.0	1/1725	Rev	5.22"	48N	Sleeve	1.82" x 1/2"	20" Leads
T4-R4782	1/8	115	2.5	1.0	1/1725	Rev	5.22"	48N	Sleeve	1.82" x 1/2"	20" Leads, open shaft end bracket, rotation switch.
T4-R2097	1/8	115	2.8	1.0	1/3450	Rev	5.93"	48N	Sleeve	1.88" x 1/2"	20" Leads, open shaft end bracket, rotation switch.
T4-R3083	1/7	115	2.8	1.0	1/3450	Rev	5.47"	48M	Sleeve	1.82" x 1/2"	15" Leads, rotation switch.
T4-R5866	1/7	115	2.5	1.0	1/3450	CCWOSE	5.47"	48M	Sleeve	1.82" x 1/2"	15" Leads, open shaft end brkt
T4-R3202	1/7	115	2.9	1.0	1/3450	CWOSE	5.97"	48M	Sleeve	1.82" x 1/2"	Beckett 21805U, 10.5" Leads, open shaft end bracket
T4-R3250	1/6	115	3.2	1.0	1/1725	Rev	5.72"	48N	Sleeve	1.82" x 1/2"	20" Leads
T4-R3252	1/6	115	3.2	1.0	1/1725	Rev	5.72"	48N	Sleeve	1.82" x 1/2"	20" Leads, open shaft end bracket, rotation switch.
T4-R3251	1/6	115	2.7	1.0	1/3450	Rev	5.97"	48M	Sleeve	1.82" x 1/2"	20" Leads, rotation switch.
T4-R3579	1/4	115	3.7	1.0	1/1725	Rev	6.72"	48N	Sleeve	1.82" x 1/2"	20" Leads, rotation switch.
T4-R2302	1/4	115	3.4	1.0	1/3450	Rev	6.72"	48N	Sleeve	1.82" x 1/2"	20" Leads, open shaft end bracket.
T4-R3234	1/3	115	4.3	1.0	1/1725	Rev	6.72"	48N	Sleeve	1.82" x 1/2"	20" Leads, open shaft end bracket.
T4-R2303	1/3	115	4.3	1.0	1/1725	Rev	9.22"	48N	Sleeve	1.88" x 1/2"	Terminal board
T4-R3268	1/3	115/230	4.2/2.1	1.0	1/3450	Rev	6.72"	48N	Sleeve	1.82" x 1/2"	12.25" Leads, open shaft end brkt.
T4-R4788	1/3	115/230	5.2/2.6	1.35	1/3450	Rev	9.91"	48N	Sleeve	1.88" x 1/2"	Cap start, open shaft end bracket, terminal board
T4-R3267	1/2	115/230	6.2/3.1	1.0	1/3450	Rev	6.72"	48N	Sleeve	1.82" x 1/2"	12.25" Leads, 50/60Hz, open shaft end bracket.
T4-R3105	1/2	115/230	7.3/3.7	1.25	1/3450	Rev	10.41"	48N	Sleeve	1.88" x 1/2"	Cap start, terminal board, open drip proof
T4-R3172	3/4	115/208-230	10/5	1.0	1/3450	Rev	8.75"	48CZ	Ball	2.06" x 5/8"	Cap start, terminal board, open constr. 5/8" keyed shaft

PSC Oil Burner Motor - Direct Beckett Replacement - 21805U



PSC, 60Hz

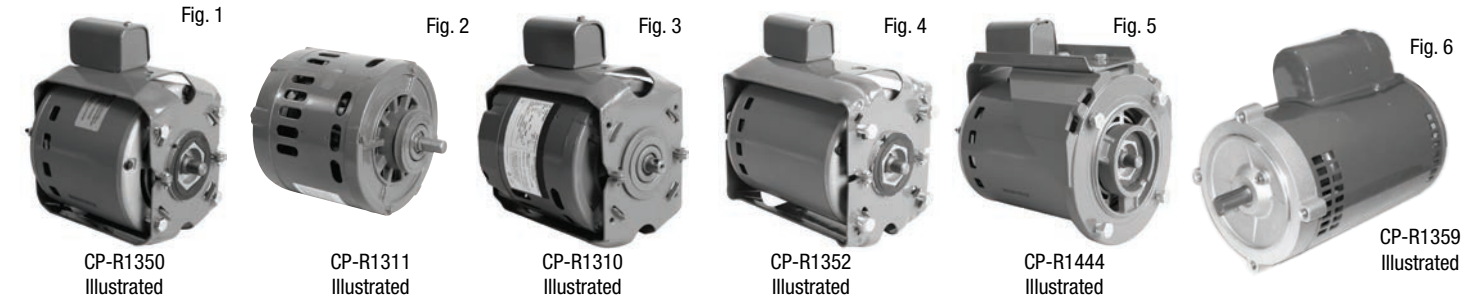
Item ID	HP	Volts	Amps	Service Factor	Spd/ RPM	Rot.	Body	Frame	Bearing	Shaft	Comments
T4-R21805U	1/7	115	1.7	1.0	1/3450	CWOSE	4.50	48M	Ball	1.88" x 1/2"	PSC, open drip proof, automatic protector

Circulator & Booster Pump Motors



Armstrong / B&G Cross Reference

Single Shaft • Single Speed • 1725 RPM
 115/230/460/575 Volts • Resilient Rings for Base Mount Models • Open Construction • Reversible
 Typical Applications : Hot Water Boiler & Booster Pumps



Item ID	HP	Volts	Fig.	Bearing	Cross Reference
CP-R1350	1/20	115/208/230	8	Ball	811757-001, 111044
CP-R1350	1/12	115	1	Ball	805316-010, 831000-61, 111034
CP-R1311	1/12	115	2	Sleeve	Taco Replacement
CP-R1310	1/8	115	3	Sleeve	OBG2004
CP-R1351	1/6	115	1	Ball	817025-005, 111061
CP-R1352	1/6	115	4	Ball	817025-001, 831001-061, 111031
CP-R1354	1/4	115	4	Ball	817025-007, 831002-061, 111040
CP-R1444	1/4	115	5	Ball	816141-001
CP-R1356	1/3	115	4	Ball	817025-013, 831003-061, 111042
CP-R1446	1/3	115	5	Ball	816141-002
CP-R1359	1/2	115/208/230	6	Ball	831009-061, 111044
CP-R1362	1/2	115/208/230	6	Ball	831010-062, 111047
CP-R1370	1/2	208/230/460	7	Ball	831012-083, 111049
CP-R1372	1/2	575	7	Ball	811757-006, 111049-5
CP-R1462	3/4	115/208/230	8	Ball	811757-002, 033, 111047
CP-R1470	3/4	208/230/460	9	Ball	811575-005, 111049
CP-R1472	3/4	575	9	Ball	811757-005, 024, 027, 111049-5
CP-R1363	1	115/230	6	Ball	816676-062, 111050
CP-R1371	1	208/230/460	7	Ball	816675-069, 169090
CP-R1373	1	575	7	Ball	816676-068, 169090-5
CP-R1463	1	115/230	8	Ball	811757-007, 028, 031, 111050
CP-R1471	1	208/230/460	9	Ball	811757-008, 169090
CP-R1473	1	575	9	Ball	811757-009, 028, 031, 169090-5
CP-R1375	1	575	7	Ball	816685-068, 196092-5



Pump Couplers

Easy Links - Spirolink



Item ID	Specification	Description
T6-10010	1/2" x 1/2"	1/2 to 1/3 HP Easy Link
T6-10010SL	1/2" x 1/2"	Spirolink
T6-10023	1/2" x 1/2" or 1/2" x 5/8"	1/2 to 3/4 HP Easy Link
T6-10023SL	1/2" x 1/2" or 1/2" x 5/8"	Spirolink
T6-10034SL	1/2" x 5/8" or 5/8" x 5/8"	Spirolink
T6-10045SL	1/2" x 5/8" or 5/8" x 5/8"	Taco

Flue Exhaust Motors



Item ID	HP	Spd/RPM	Amps	Volts	Rot	Shaft	Body	Type	Cross Reference
82521	1/100	1/1550	0.70	115	CCWSE	1-1/4"x1/4"	2-1/16"	SP	NEW - 23388, 23405
FM-RFM623	1/40	1/1500	0.80	115	CWOSE	2.5"x5/16"	5.60"	SP	D9623, S59-485
82121	1/33	1/3000	1.10	115	CCWLE	2-1/8"x5/16"	3.75"	SP	NEW - JA1M086, P251-2916
FM-RFM454	1/30	1/3000	1.50	115	CCWSE	2.5"x1/4"	6.25"	SP	D454 W/ 5/16" Shaft Adapter
FM-RFM890	1/25	1/3200	0.70	208/230	CCWSE	2.3"x5/16"	3.29"	SP	Lennox 98G8901, 7121-7091
82180	1/20	1/3300	1.54	115	CCWLE	2-1/8"x5/16"	3 5/8"	SP	NEW - JA1P053, P251-2307
FM-RFM11*	1/20	1/3200	1.80	115	CCWSE	1.5"x5/16"	3.60"	SP	Clare Bros. M045
FM-RFM653	1/20	1/3430	1.00	230/460	CWOSE	2.3"x1/4"	5.90"	SP	Carrier, York, Keeprite U653 Fasco 7131-0506, 5/16 Bushing
FM-RFM462	1/16	1/3450	0.30	460	CWOSE	3.3"x5/16"	4.80"	PSC/INC	ICP 1171347, Carrier HC30GB460
82520	1/15	1/3000	1.00/2.00	115/230	CWSE	2"x1/4"	6.00"	SP	NEW - HC24AU600, HC24AU600B, HC24A0701, HC24AU231, HC24AU701, HC30GU208A, HC30GU209A, HC680001
FM-RFM230	1/12	1/3200	0.60	230	Rev.Plug	2.5"x1/4"	7.00"	PSC/INC	024-24115-020, 714
FM-RFM460	1/10	1/3200	0.30	208/230/460	Rev	2.5"x1/4"	7.00"	PSC/INC	YVFM450, Fasco D1171 York 024-24115-700
FM-RFM78	1/9	1/3200	0.65/1.30	115/230	Rev	3.3"x5/16"	4.10"	PSC/INC	RFM7&8, Reznor 43846-115V, 43424-208/230V

* Note: Without Centrifugal Switch

Cooling Fan Kits

Item ID	Rotation	Kits Description
92-FMK	CW	<ul style="list-style-type: none"> • 1 3/4" Diameter. • 5/16" Hub I.D. with 1/4" adapter. • (4) Spacers, (4) 10/32 & (4) 8/32 nuts.



Direct Drive Blowers



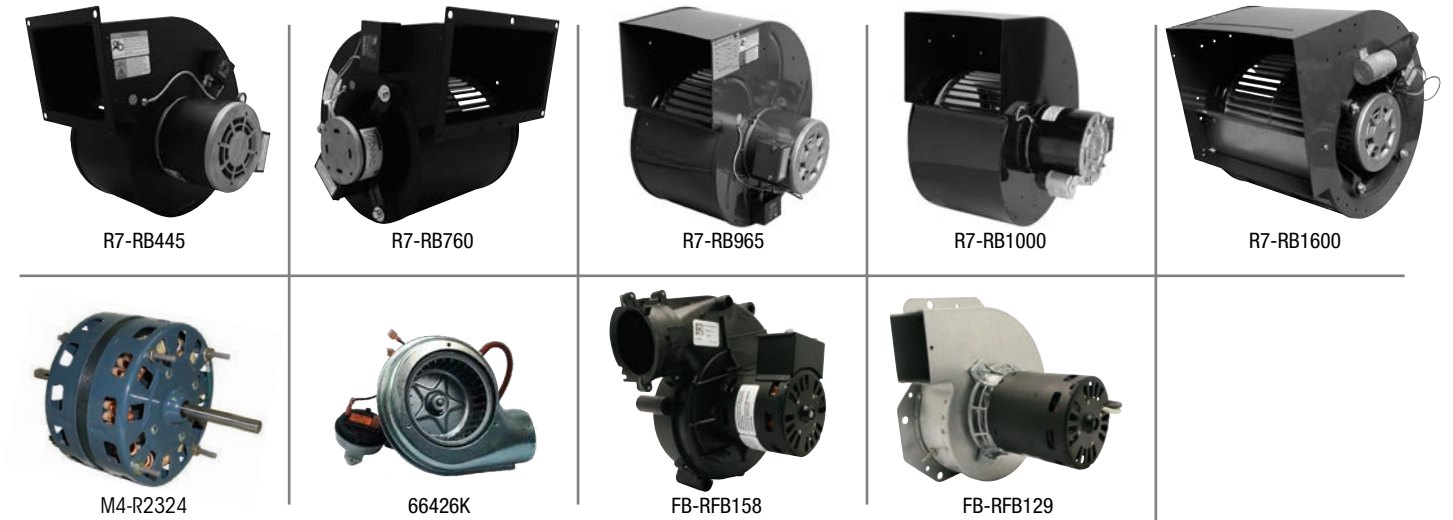
Item ID	CFM	Spd/RPM	Volts	Amps	Rot	Type	Encl	Bearing	Cross Reference
R7-RB440	50	1/3080	115	0.25	CWOSE	PSC	Open	Ball	Grainger 1TDN7, 4C440
R7-RB663	60	1/3000	115	0.60	CCWSE	SP	TE	Sleeve	AO Smith 9444
R7-RB661	60	1/3000	115	0.50	CCWSE	SP	Open	Ball	AO SMITH 9461, FASCO 50747-D500
R7-RB60	60	1/3200	115	0.60/0.80	CCWSE	SP	Open	Sleeve	AO SMITH 9470, FASCO 50747-D401
R7-RB665	65	1/3200	115	0.74	CCWSE	PSC	Open	Sleeve	AO SMITH 9462, FASCO 50748-D500, GRAINGER 4C443
R7-RB33	73	1/2800	120	0.60	CWOSE	PSC	Open	Ball	Newmac 204001 EB3 w/ Variable Spd Switch
R7-RB70	75	1/3000	115	0.59	CCWSE	SP	Open	Sleeve	AO Smith 989
R7-RB885	85	2/2800	115	0.65	CWOSE	SP	Open	Sleeve	AO SMITH 414
R7-RB90	90	1/3000	115	1.00	CWOSE	SP	Open	Sleeve	AO SMITH 13
R7-RB991	90	1/3000	115	1.00	CWOSE	SP	Open	Sleeve	AO SMITH 383
R7-RB4	100	1/3220	115	0.34	CWOSE	PSC	TE	Ball	Franklin 76012, 80042, Electrohome EB4
R7-RB3	100	1/3220	115	0.34	CWOSE	PSC	TE	Ball	Fasco B24220
R7-RB54	100	1/3420	115	0.43	CWOSE	PSC	TE	Ball	Easy Radiant
R7-RB120	120	1/3200	115	0.72	CWOSE	SP	Open	Sleeve	AO Smith 9445
R7-RB141	140	1/2860	115	1.10	CCWSE	SP	Open	Sleeve	AO Smith 9492, Fasco 50752-D500, GRAINGER 4C442

Flange Mounting Dimensions Available on Page 120 & 121



Item ID	CFM	Spd/RPM	Volts	Amps	Rot.	Type	Encl	Bearing	Cross Reference
R7-RB142	140	1/3000	208/240	0.50	CCWOSE	SP	Open	Sleeve	A0 Smith 9493, Fasco 50752-D230, Grainger 2C915
R7-RB446	146	1/3120	115	0.75	CCWOSE	PSC	Open	Ball	Grainger 4C446, 1TDP7, Fasco 7021-3469, A166
R7-RB155	148	1/2480	115	0.75	CCWOSE	PSC	TE	Ball	Grainger 1TDR6, 4C006, Fasco 7021-4933
R7-RB151	150	1/3000	115	1.10	CCWOSE	SP	Open	Sleeve	A0 Smith 9483
R7-RB165	165	1/3550	115	0.65	CCWOSE	PSC	Open	Ball	-
R7-RB312	222	1/2750	115	0.60	CCWOSE	PSC	TE	Ball	Grainger 1TDU8, 4C826, Fasco A212, 70219025
R7-RB245	245	1/1550	115	1.50	CCWOSE	SP	Open	Sleeve	AMU45, Airdex
R7-RB265	273	1/1640	115	0.77	CCWOSE	PSC	Open	Ball	Franklin 80224, U.E.459, Fasco B45227
R7-RB447	273	1/1640	115	0.77	CCWOSE	PSC	Open	Ball	Grainger 4C447, 1TDR3
R7-RB938	287	1/3280	115	1.30	CCWOSE	PSC	Open	Ball	ProFab 814320, Aspen, Empyre, Fasco 70625938
R7-RB350	350	2/1570/1320	115	3.00	CCWOSE	SP	Open	Sleeve	A0 Smith 9466, Grainger 4C444
R7-RB380	380	1/1420/1650	115	1.28/1.15	CCWOSE	PSC	Open	Ball	Grainger 4C444, 4C666, 4YJ31, 1TDR7, Century 9466
R7-RB465	465	1/1560	115	1.30	CWOSE	PSC	Open	Ball	Franklin 80546, U.E.460, Fasco B45267, Grainger 4C448
R7-RB495	495	1/1570	115	3.80	CCWOSE	SP	Open	Sleeve	A0 Smith 9465
R7-RB500	500	2/1550	115	3.50	CCWOSE	SP	Open	Sleeve	A0 Smith 9491, Fasco 50769-D500

Flange Mounting Dimensions Available on Page 120 & 121



Item ID	CFM	Spd/RPM	Volts	Amps	Rot.	Type	Encl	Bearing	Cross Reference
R7-RB445	549	1/1430	115	2.20	CCWOSE	PSC	Open	Ball	Grainger 1TDT2, 4C445, 4YJ32
R7-RB760	797	2/1350	115	3.30	CWOSE	PSC	Open	Ball	A0 Smith 9459, Grainger 5C508
R7-RB965	965	1/1080	115	3.50	CCWOSE	PSC	Open	Ball	Grainger 1TDT5
R7-RB1000	1000	2/1100	115/230	4.00	CCWOSE	PSC	Open	Sleeve	A0 Smith 9477, Fasco A1000
R7-RB1600	1638	4/1085	115	6.90	CCWOSE	PSC	Open	Ball	Grainger 1XJX9

Flange Mounting Dimensions Available on Pages 120 & 121

HRV Motors



Nutech

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
M4-R2324	1/12	120	1.40	PSC	1/1550	CCWOSE	3.6"	5.0"	Ball	3/370	2.8"×3/8"×2.6"	Nubreath 23-204, GE5K-CP298G8560BS, Fasco 7185-0242

OEM Replacement Motors



Amana

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
66426K	1/30	208-230	0.65	SP	1/3000	CWLE	-	3.3"	Ball	-	-	NEW - 35HWC, 36HWC, 48HWC, 60HWC, 66HWC, ACOMB605-1, R06428D426
FB-RFB158	1/25	115	0.7	PSC	1/3450	CCWOSE	6.4"	3.3"	Sleeve	4/250	-	Hi eff. Res., 9552099437, D98686-5, R0156744, 20000101, Fasco 7002-2407, 7021-8258, 7062-3151
FB-RFB129 ¹	1/20	115	1.95	SP	1/3480	CCWOSE	6.5"	3.3"	Sleeve	-	-	CUIC Mid eff., Res., 11009001, 11009002, Fasco 7021-9064, A129

OEM Replacement Motors



Armstrong

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
80280	1/50	208-230	0.55	SP	1/3000	CWLE	-	3.3"	Ball	-	-	NEW - 322P859, 35035B1, 35HWC181, 36HW, 36HWC18A, 36HWC241, 66HWC301, 7021-10264, 60HWC30A, 66HW, 66HWC181, 66HWC18A, 66HWC241, 66HWC24A, 60HW, 60HWC181, 60HWC18A, 60HWC241, 60HWC24A, 60HWC301, 36HWC24A, 48HW, 48HWC181, 48HWC18A, 48HWC241, 48HWC24A
FB-RFB250	1/30	208/230	0.70	SP	1/3000	CWOSE	5.75"	3.3"	Ball	-	-	Rooftop, 42250-001, 7021-10126
66426K	1/30	208-230	0.65	SP	1/3000	CWLE	-	3.3"	Ball	-	-	NEW - R06428D426
FB-RFB425	1/23	115	1.4	SP	1/3000	CWOSE	5.8"	3.3"	Sleeve	-	-	Air Ease Mid eff. Ultra 80, Res. 40425-002
FB-RFB676	1/20	115	0.57	PSC	2/3300	CWOSE	5.9"	3.3"	Ball	5/370	-	100676-01, 7062-5720, 7062-6350
FB-RFB547 ⁻²	1/20	115	1.80	SP	1/3400	CWOSE	5.8"	3.3"	Ball	-	-	Air Ease High eff. Ultra 90, 290, Res., 40404-003G-004, 40404-004, 2862-513-040, 367170004, 20190601, 7021-9625

Burnham

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
66056 ⁻¹	1/15	115	0.48	PSC	1/3400	-	-	3.3"	Ball	INC	-	NEW - 6116056, 8116227, 8116233

*Notes:
1 - Comes with gasket
2 - Comes with gaskets, mounting hardware

OEM Replacement Motors



Carrier (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
65123	1/40	115	1.55	SP	1/3000	CCWLE	2.54"	C-Frame	Ball	-	-	NEW - HC21ZE123A, HC21ZE123A, J238-150-15215AT
FB-RFB212 ⁻¹	1/30	115	1.60	SP	1/3000	CCWOSE	6.30"	Skel	Ball	-	-	Bryant, Payne Mid Eff., Res. HC21ZE117-13, 318984-753, 818984753, 58SSE08Q-BC Series 130 Blw. Whl. - 66-A8664
65118	1/30	115	1.8/.60	SP	2/2800/ 2500	-	2.75"	C-Frame	Ball	-	0.18"x1.35"	NEW - HC21ZE116, HC21ZE118, HC21ZE118B, J238-150-15315
FM-RFM653 ⁻¹	1/20	230/460	1.0/.51	SP	1/3430/ 3000	CWOSE	5.9"	3.3"	Ball	-	2.3"x1/4"	Comm. Magnetek 653 Blw. Whl. - 66-A8655
66816	1/16	460	0.25	PSC	1/3450	-	-	3.3"	Ball	-	-	NEW - 48SS400381, 48SS400607, 50DK406182
FM-RFM462 ⁻³	1/16	460	0.30	PSC	1/3450	CWOSE	4.8"	3.3"	Ball	INC	3.3"x5/16"	HC30GB460, 48TJE 90/120/150 Comm. Roof Top Blw. Whl. - 66-A8660(4x1") 66-A8665(4x2")
66815	1/16	208-230	0.48	PSC	1/3450	-	6.71"	3.3"	Ball	4/370	-	NEW - 1171314, 48SS400380, 48SS400606, 50DK406181, 50DK406815, HC30GB232
66649	1/16	208-230	0.48	PSC	1/3450	CCWSE	7.86"	3.3"	Ball	4/370	-	NEW - 48GS400649, 48GS400106, HC30GB232
FB-RFB756	1/16	115	1.02	PSC	1/3190	CWOSE	-	3.3"	Ball	INC	-	320725-756, HC28CQ116, HC27CB115, 66756, 1179081, JE1D013N, 34VH22, K33HX-CW-1017, X83-386
FB-RFB757	1/16	115	1.16	PSC	1/3026	CWOSE	-	3.3"	Ball	INC	-	320725-757, 320725-754, 320725-761, HC27CB119, HC27CB116, 66757, 40LW03, X83-387

*Notes:
1 - Comes with two (2) wiring harnesses
2 - Comes with 5/16" shaft adapter & Built-in centrifugal switch
3 - The rear magnetic centrifugal switch found on most replacements has been built into these Rotom models



Carrier (cont. from previous page)

Item ID	HP/Watts	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Stack Size	Shaft	Cross Reference
FB-RFB758	1/15	115	1.45	PSC	1/3222	CWSE	-	3.3"	Ball	Inc	-	320725-758, 317292-753, 320725-755, 325269-701, 325270-761, HC28QC115, YDZ-050L22541-01, 115U77, X83-388
66755	40	115	0.86	PSC	1/3300	CWSE	-	-	Ball	-	-	NEW - 309868755
65230	28	208-230	0.80	SP	1/3000	CWSE	-	C-Frame	Ball	-	-	NEW - 48SS400626, HC24HE230, J238-150-15103
65570	25MHP	230	0.80	SP	1/3000	CWSE	3-5/8"	C-Frame	Ball	1-1/2" 1"x5/16"x1-7/8"	-	NEW - HC24HE230, J238-15161, J238-15161
66752	25MHP	115	1.80	SP	1/3200	CWSE	-	C-Frame	Ball	-	-	NEW - 310371-752, HC23UE121, P251-2916
66763	28MHP	115	1.32/0.39	SP	2/3000	CCWSE	-	-	Ball	-	-	NEW - 326628-763
66765	25MHP	115	0.9/0.48	PSC	2/3000/1900	CWSE	-	-	Ball	-	-	NEW - 326628-765
66762	16MHP	115	1.06/0.28	SP	2/3000	CWSE	-	-	Ball	-	-	NEW - 326628-762
66761	8.2MHP	115	0.63/0.30	SP	2/3000	CWSE	-	-	Ball	-	-	NEW - 326628-761
66753	-	115	1.70	SP	1/3200	CWSE	-	-	Ball	1.57"	-	NEW - 318984-753



Consolidated Industries

Item ID	CFM	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB570	95	115	0.90	SP	1/3300	CCWSE	6.20"	3.3"	Sleeve	-	-	UE JA1P082, 401570
FB-RFB450	105	115	1.41	SP	1/3300	CCWSE	6.33"	3.3"	Sleeve	-	-	UE JA1P090, 401450

Clare

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB52	1/20	115	0.58	PSC	1/3450	CCWSE	7.85"	3.3"	Sleeve	INC	-	High Eff Universal Fit, Res: Clare V52 M053, HEG & HEHB 80A Series
FM-RFM11	1/18	120	1.80	SP	1/3200	CCWSE	3.6"	3.3"	Ball	-	1.5"x5/16"	Residential: Clare V15, Internal Fan, M045, 2862511004

Coleman

Item ID	HP	Volts	Amps	Type	RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
65475	1/150	115	0.40	SP	1/3315	CCWSE	2.36"	C-Frame	Ball	-	-	NEW - 373-19801-820, 373-19801-821, 373-19801-820, 373-19801-821
FB-RFB156	1/35	115	1.10	SP	1/3000	CCWSE	5.6"	3.3"	Sleeve	-	-	Roof Top Com: Evcon 2702-321, 7021-9404

Ducane

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB282	1/16	115	1.10	SP	1/3000	CCWSE	7.63"	3.3"	Sleeve	-	-	Ducane, Lennox Air-Flo High Eff. (New) CMPB50U2 - 50U3, 75U2 - 75U3 Res: 20282001, 20282002, R20434401, 92L14-01, 92L14, 7021-0948

Dunkirk

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
82052	1/50	115	1.00	SP	1/3000	-	7.62"	3.3"	Ball	-	-	NEW - 43300510

OEM Replacement Motors



Fedders

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
82618	1/50	115/230	0.90/0.45	SP	1/3000	-	7.93"	3.3"	Ball	-	-	NEW - 030-7059, 031-7059, 17-9-959-1, 30-7059

Goodman (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
66007	1/50	230	0.24	SP	1/3000	-	-	-	Ball	INC	-	NEW - 0131G00007P, 0131G00007P, 0131G00007P, 0131G00093, 0131G00093S, 0131G00007S
66121	1/50	230	0.22	PSC	1/3000	CCWSE	-	3	Ball	-	-	NEW - 0131M00121, 0131M00121P, 0131M00121S, 0131M00121SP
FB-RFB859	1/48	115	1.6	SP	1/3000	CWOSE	5.52"	Skel	Ball	-	-	66005, 7002-2307, 7002-2771, 7002-3219, 7058-0229, B1859005, A157, B40590-35, J238-112-11128, J238-1128
FB-RFB405 ²	1/33	115	1.5	SP	1/3000	CWOSE	5.89"	Skel	Ball	-	-	66590, 7002-3036, A182, B4059000, J238-112-11195, J238-11195
66009	1/32	230	0.24	PSC	1/3000	-	-	-	Ball	-	-	NEW - 0131G00009, 0131G00009P, 0131G00009S
66126	1/32	115	1.00	SP	2/3300/2600	-	-	-	Ball	-	-	NEW - 0271F00126, 0271F00126P, 0271F00126S,
66959	1/30	208/230	0.6/0.56	SP	1/3000	-	-	-	Sleeve	-	-	NEW - B2959000S, B2959000, 7021-8656
FB-RFB276	1/30	115	1.4	SP	1/3000	CWOSE	5.44"	Skel	Ball	-	-	0131M00002P
66743	1/24	115	1.5	SP	1/3000	-	-	-	Sleeve	-	-	NEW - R0156743

*Notes:
1 - Built-in end switch
2 - Comes with gasket attached

OEM Replacement Motors



Goodman (cont. from previous page)

Item ID	HP/Watts	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Stack Size	Cross Reference
FB-RFB501	1/16	115	2.8	SP	1/3000	CWOSE	5.00"	Skel	Ball	-	-	22307501, 071M00000, 7058-2108
FB-RFB483	1/8	115	1.8	SP	1/3200	CWLE	5.33"	Skel	Ball	-	-	B4833000, B4833000S, A188, 7021-10958, 5KSB46GF0001
66202	56	115	1.13/0.56	PSC	2/3000	CCWSE	-	-	Ball	-	-	NEW - 0131M00003, 0131M00003P, 0131M00003PS, 0131M00003S, B4059002, B4059002S, B4059004, B4059004S, Y3L248B01
66003	30	115	0.92	PSC	1/3250	CCWLE	6.67"	3.3"	Ball	-	-	NEW - 098862-1, 0988621-1, 11009001, 11009002, 11009003, 7021-10272, 7021-7006, 7021-7259, 7021-9064, 7021-9259, 7021-9574, 7021-9924
48332	-	115	1.80/1.10	SP	2/3200/2800	-	5.50"	3.3"	Ball	-	1.25"	NEW - 5KSB46GF0003, 5KSB-46GF0003S, B483001, B483001S, B48330001, B4833001, B4833001S
66000	-	230	1.40	SP	1/3000	-	-	-	Ball	-	1.50"	NEW - 0131G00000P, 0131G00000PS, 0131G00000S

G.S.W.

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB127 ²	1/25	115	1.3	SP	1/3200	CCWSE	7.00"	3.3"	Sleeve	-	-	GSW 63217, Fasco 7021-8347

Heil Quaker

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB672	1/100	115	0.60	SP	1/3150	CCWSE	5.71"	3.3"	Sleeve	-	-	A064, 610672, X89-455

*Notes:
1 - Feature an internal fan, stainless steel shaft and built-in centrifugal switch
2 - Includes coupling & hose clamps

OEM Replacement Motors



ICP (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB68 ¹	1/50	115	0.9	SP	1/3000	CCWOSE	5.25"	3.3"	Ball	-	-	Keeprite CUGE, CPGE, CULE, MGH Mid Eff. Res: 1006168
66254	1/50	230	0.30	PSC	1/3000	CCWLE	6.35"	3.3"	Ball	-	-	NEW - 1110008, 1085571, 1085571P, 7021-10048, 7021-10580, 119254-00
FB-RFB107 ²	1/33	230	0.3	PSC	2/3350/2900	CWOSE	8.70"	3.3"	Sleeve	3/370	-	Keeprite PGB, PGA, PGD, GPD, RGMA Com: Keeprite 1097245, 15-20-30 Ton
82148	1/30	208-230	0.16	PSC	1/3000	CCWSE	7.11"	3.3"	Ball	-	-	NEW - 1054268P, 1054268, HQ1054268FA
FB-RFB433	1/25	115	1.87	SP	1/2700	CWOSE	6.00"	Skel	Ball	-	-	1014433, 1014529
FB-RFB242	1/25	115	1.3	SP	1/3200	CCWOSE	7.0"	3.3"	Sleeve	-	-	Keeprite, 702111099, B24220, CRC
FB-RFB350	1/25	115	0.8	PSC	1/3450	CWOSE	7.10"	3.3"	Ball	5/370	-	Keeprite CGJ, CGK High Eff. 50, 75, 100, 125 Res: 1011350 Hardware Connection Kit - FB-RFB350-1
FB-RFB145 ¹	1/25	115	0.7	PSC	1/3450	CWOSE	5.3"	3.3"	Ball	4/250	-	Keeprite, Heil, Comfortmaker NTGM High Eff. Res: 1009924, 1009518, 1010527, 1011412, 1164280, Airco, Tempstar
FB-RFB330	1/25	115	2.4	SP	3000	CCWOSE	5.54"	Skel	Ball	-	-	1172823, 330701-701, 329148-701, 1013915, 1172823
FB-RFB170	1/25	115	2.3	SP	1/3400	CWOSE	5.74"	3.3"	Ball	-	-	Res: 7021-10048, 7021-10580
FB-RFB114	1/24	115	0.7	PSC	1/3450	CWOSE	7.75"	3.3"	Sleeve	4/250	-	Res: 7062-5165, 7062-3794, 7062-5922 Intercity 1149097, 1008416P A307
FB-RFB825	1/20	115	.75	PSC	2/3000/2000	CWOSE	4.40"	3.3"	Ball	6/370	-	70626158, 1172825
FB-RFB383	1/20	115	1.6	SP	1/3000	CCWOSE	6.50"	Skel	Ball	-	-	66833, 7021-7700, 7021-8735, 7021-8736, 7021-9335, 7021-9918, 7021-9744, 1708607, 1010238P, 1010324, 1013833, J238-13933

1 - Comes with two (2) gaskets, high temp. silicone, hardware & instructions
2 - Comes with gaskets

OEM Replacement Motors



ICP (cont. from previous page)

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FM-RFM462 ²	1/16	460	0.3	PSC	1/3450	CWOSE	4."	3.3"	Ball	4/370	3.3"x5/16"	HC30GB460, 48TJE 90/120/150 Com. Roof Top ICP 1171347 Blw. Whl. - 66-A8660(4x1") 66-A8665(4x2")
66420	1/16	208-230	0.46	PSC	1/2947	CCWSE	-	-	Ball	-	-	NEW - 1178420
66421	1/15	208-230	0.68	PSC	1/3180	CCWSE	-	-	Ball	-	-	NEW - 1178421
FB-RFB824	1/15	115	2.6	SP	1/3000	CWOSE	4.3"	3.3"	Ball	-	-	702112429, 1172824

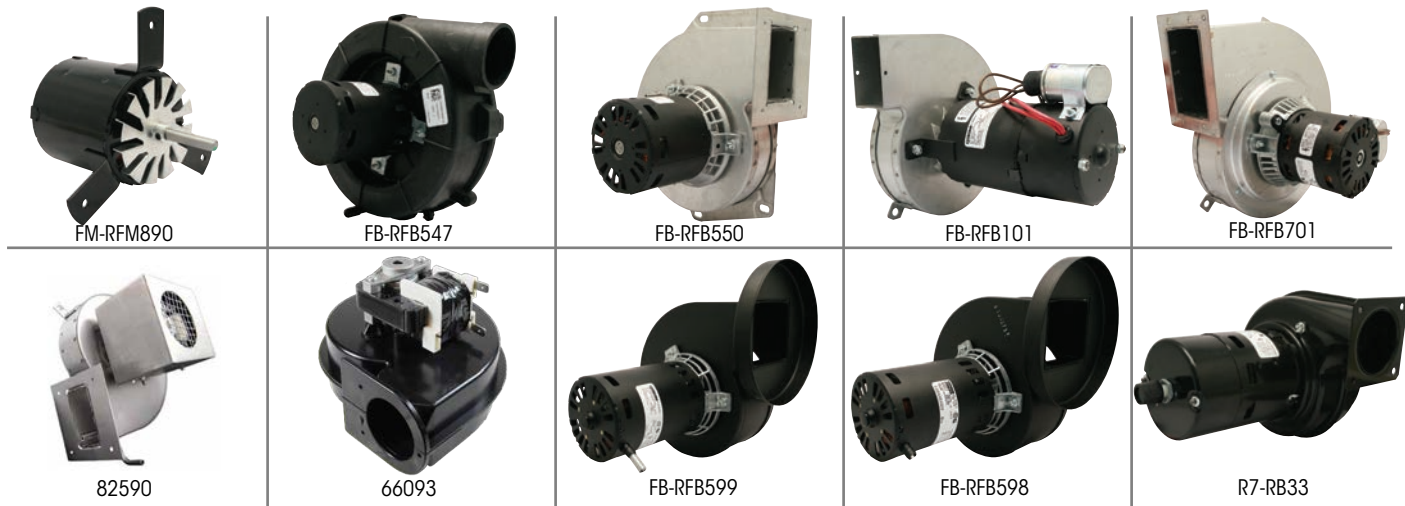
Lennox (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Stack Size	Cap	Shaft	Cross Reference
FB-RFB390	1/65	115	0.7	SP	1/3000	CCWOSE	5.75"	3.3"	Sleeve	-	-	-	Res: 88J3901, 7021-9262, A219
FB-RFB401	1/60	120	1.3	SP	1/2800	CWOSE	5.96"	Skel	Ball	-	-	-	66401, 7021-1108, 7021-9242, 7021-9311, 7021-9455, 7021-9640, 7021-9657, J238-8171, 85L4901, 88K8401, 67M5401, 10K5101, 10K5301, 10K5301P, 27K5201, 27K5201P
FB-RFB495	1/30	115	1.4	SP	1/3000	CWOSE	5.30"	Skel	Ball	-	-	-	24W95, 31L5501
FB-RFB790	1/30	115	1.8	SP	1/3000	CCWOSE	6.00"	Skel	Ball	-	-	-	Res: 60M7901, 7058-0217, A207
FB-RFB810	1/30	115	1.8	SP	1/3000	CCWOSE	6.00"	Skel	Ball	-	-	-	Com: 60M8101, 7058-0322, A208
66300	1/25	120	0.5	PSC	1/3300	CWSE	-	-	Ball	-	-	-	NEW - 20J89, 20J8901, 7021-8473, 76714300

*Notes:

1 - Vent Restrictor Orifice Plates: 92-1008696 ICP 50 & 75, 92-1008699 ICP 100, 92-1160415 ICP 125, Comes with coupling, pins, O-rings and gaskets
2 - The rear magnetic centrifugal switch found on most replacements has been built into these Rotom models

OEM Replacement Motors



Lennox (cont. from previous page)

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Stack Size	Cap	Shaft	Cross Reference
FM-RFM890	1/25	208/230	0.7	SP	1/3200	CCWOSE	3.29"	3.3"	Ball	-	-	2.3"x5/16"	GCS3 Roof Top Com: Lennox 98G8901 Fasco 7121-7091 BLW. WHL - 66-A8677
FB-RFB547 ¹	1/20	115	1.8	SP	1/3400	CWOSE	5.8"	3.3"	Ball	-	-	1.1"x5/16"	G26 High Eff. Series Res: 68K21, Fasco 7021-9450
FB-RFB550	1/16	230	0.83	SP	1/3000	CCWOSE	5.50"	3.3"	Ball	-	-	-	Com: 25M5501, 7021-11231, A217
FB-RFB101 ²	1/12	208/230	0.5	PSC	1/3200	CCWOSE	8.80"	3.3"	Ball	-	3/370	-	GCS Roof Top Com: Lennox 23G8101, 135327, 074, 28G6601, Fasco 7062-1794, 7062-3577
FB-RFB701	1/10	208/230	0.6	PSC	1/3200	CCWOSE	6.50"	3.3"	Ball	-	4/370	-	Roof Top Com: Lennox 98G8701
82590	-	115	1.20	SP	1/3000	CWLE	6.92"	C-Frame	Sleeve	-	-	-	NEW - 47H12, 47H1201
66093	-	120	0.43	SP	1/3000	-	-	C-Frame	Ball	5/8"	-	-	NEW - 80C93

Modine

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB599	1/15	115	2.45	SP	1/3000	CWOSE	9.03"	3.3"	Sleeve	-	-	5H073598-001, 7021-9045, 7021-12659
FB-RFB598	1/15	200/230	.95/1.1	SP	1/3000	CWOSE	8.50"	3.3"	Sleeve	-	-	5H73598-2

Newmac

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Comments
R7-RB33 ³	1/25	120	0.60	PSC	1/2800	CWOSE	6.60"	3.3"	Ball	-	-	Oil & Wood Furnace 2040001

*Notes:
 1 - Comes with gaskets and mounting hardware
 2 - Comes with gasket. Built-in centrifugal switch
 3 - Features a built-in variable speed control

OEM Replacement Motors



Nordyne, Frigidaire, Miller

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
65404	1/100	120	0.69	SP	1/3000	-	C-Frame		Ball	-	-	NEW - 903404, M1MB056ABW
80270	1/50	115/230	0.90/0.45	SP	1/3000	CWLE	5.33"	3.3"	Ball	-	-	NEW - 303875000
FM-RFM623	1/40	115	0.80	SP	1/1500	CWOSE	5.60"	3.3"	Sleeve	-	2.5" x 5/16"	D9623, S59-485
66567	1/33	115	0.43	PSC	1/3000	CCWSE	-	-	Ball	-	-	NEW - 622567
66798	1/20	115	0.46	PSC	1/3400	-	-	-	Ball	-	-	NEW - 622302, 622302

Olsen

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB200 ²	1/24	115	1.8	SP	1/3200	CCWOSE	6.60"	3.3"	Ball	-	-	HCS-2 High Eff. 60, 75, 81, 90 Right Hand Discharge Residential: 20082, 11051403
FB-RFB181 ²	1/22	115	1.2	SP	1/3320	CWOSE	6.60"	Skel	Ball	-	-	Airco High Eff HCS-2 60, 75, 81, 90 Left Hand Discharge Res: 18102

Reznor

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FM-RFM78 ²	1/9	115/230	1.3/0.65	PSC	1/3200	Rev	4.10"	3.3"	Ball	2/370	3.3"x5/16"	Commercial: Reznor 43846 (115V), 43424 (208/230), FM-RFM7, FM-RFM8 BLW. WHL - 66-A8675

*Notes:
 2 - Comes with three (3) brackets, fastening hardware, drain tubing & instructions.

OEM Replacement Motors

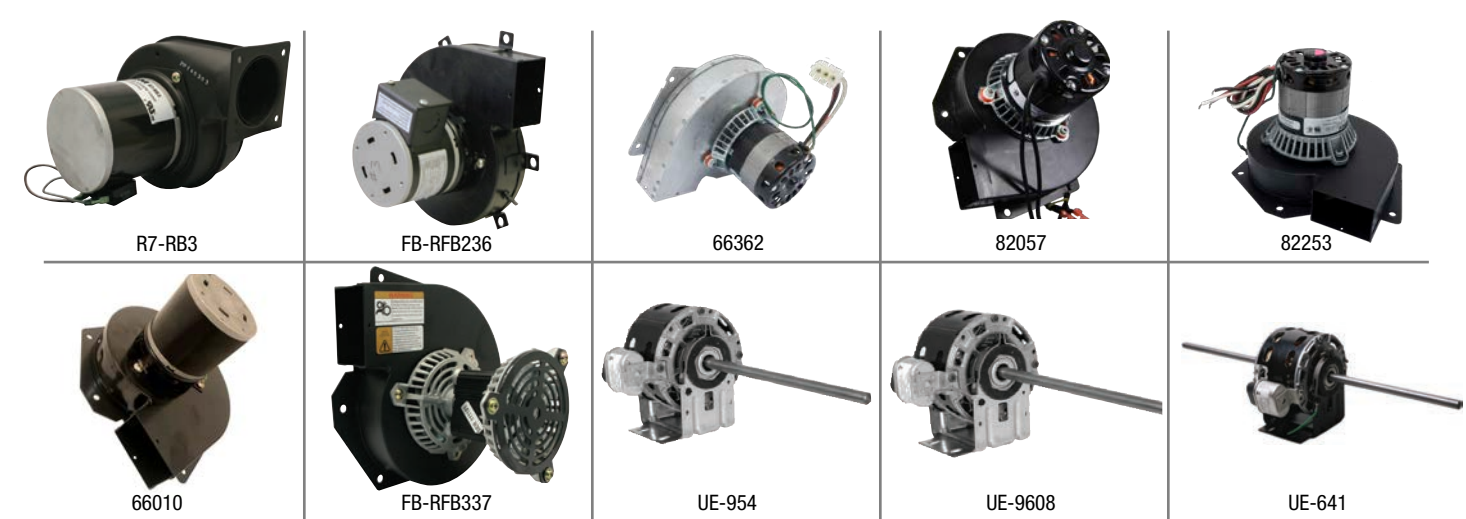


Rheem-Ruud

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Stack Size	Cap	Shaft	Cross Reference
FB-RFB139 ¹	1/50	115	0.95	SP	1/2970	CCWOSE	6.00"	3.3"	Sleeve	-	-	-	Hot Water Heater SP11608, Fasco 7062-7572
FB-RFB214 ²	1/50	115	1.1	SP	1/3000	CCWOSE	5.63"	3.3"	Sleeve	-	-	-	RGDE Mid Eff. Res: Fasco 70-214196-83, A079
66781	1/50	115	0.6	PSC	1/3000	CWLE	6.71"	3.3"	Ball	-	-	-	NEW - 70-101087-81, 70-21496-83, 70-24157-03, 7021-11559
FB-RFB189 ³	1/40	115	1.0	SP	1/3000	CCWOSE	5.50"	3.3"	Sleeve	-	-	2.3"x5/16"	Rheem-Ruud 09-189, UE JA1M161N
FB-RFB107 ²	1/33	230	0.3	PSC	2/3350 /2900	CWOSE	8.70"	3.3"	Sleeve	-	3/370	-	Roof Top, PGB, PGA, PGD, GPD, RGMA Com: Re-em-Rudd 1070770, 101070, 107701 15-20-30 Ton
82182 ²	1/30	460	0.35	SP	1/3300	CWSE	-	3.3"	Sleeve	-	-	-	NEW - 70-23641-02, 70-23641-82
FB-RFB641	1/25	208/230	0.62	SP	1/3200	CWOSE	5.75"	3.3"	Ball	-	-	-	Com: 70-23641-81, 7021-9567, A241
FB-RFB206	1/20	115	0.85	PSC	2/3400 /2400	CWOSE	6.75"	3.3"	Sleeve	-	4/370	-	Residential: 70-24206-01, 7062-3925, A246
FB-RFB241 ⁴	1/20	115	1.7	SP	1/3400	CCWOSE	6.30"	Skel	Ball	-	-	-	Weather King RGP Mid Eff. Conquest 800 Res: Fasco 70-24157-03, 70-22838-02
66181 ²	25MHP	115	0.92	PSC	1/3000	CWSE	-	-	Ball	-	-	-	NEW - 70-102691-81
21964K	-	208-230	0.25	SP	1/3000	CWSE	9.00"	C-Frame	Sleeve	3/4"	-	1-1/2"x1/4"	NEW - 51-21964-11

*Notes:
 1 - Includes coupling, adapter horn, plug, screws & tubing
 2 - Comes with gasket
 3 - Includes two (2) gaskets & 90° brass fitting
 4 - Comes with gasket mounted

OEM Replacement Motors



Roberts Gordon

Item ID	CFM	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
R7-RB3	100	115	0.34	PSC	1/3220	CWOSE	6.00"	3.3"	Ball	INC	-	Gordon Ray BH Series, GRP 90709700

Skymark

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB236	1/40	208/230	0.30	PSC	1/3000	CWOSE	5.00"	3.3"	Ball	INC	-	7021-9136, MTR-136PK, A251

Trane (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd/RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
66362	1/100	115	1.0/0.35	SP	2/3000	CWSE	-	-	Sleeve	-	-	NEW - 7021-8925, BLW00362
82057	1/40	115	1.00	SP	1/3000	CCWSE	5.53"	3.3"	Ball	-	-	NEW -
82253	1/35	208/240	0.6/0.5	SP	1/3000	CCWSE	6.31"	3.3"	Ball	-	-	NEW - 21C729631P1, 4MH39, 7021-10286, 7021-7833, 7021-8928, BLW-451, BLW00451, C661452P01, X38080029010
66010	1/35	208/230	0.50	SP	1/3000	-	-	3.3"	Sleeve	-	-	NEW - 21C729631P1, 7021-10286, 7021-7833, 7021-8928, BLW-451, BLW00451, C661452P01, X38080029010
FB-RFB337	1/30	120	1.3	SP	1/3100	CCWOSE	6.00"	Skel	Ball	-	-	D330787P01, 7021-10281, A361, 7021-10291, 7021-8013, 7021-9055, J238-1344, J238-138-1344, 787P01, BLW473, D330809P01, 21D340125, 21D330673
UE-954	1/30	115	0.6	PSC	3/1100	CWOSE	4.0"	5"	Sleeve	INC	8.5"x1/2"	MOT 1878, MOT 1875, X70500149-01-7, EM K48HX-BYH-954
UE-641	1/30	115	0.5	PSC	3/1075	CWOSE	3.5"	5"	Sleeve	INC	8.5"x1/2"x9"	MOT 1876, CX70500133-01, UE DE3E152

OEM Replacement Motors



Trane (cont. from previous page)

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
UE-9608	1/20	115	0.6	PSC	3/1100	Rev	3.25"	5"	Sleeve	INC	9-7/8"X 1/2"	MOT 1875, X70500149-02, EM K48HXBH2955
UE-953	1/15	115	0.8	PSC	3/1100	CWOSE	3.25"	5"	Sleeve	INC	10.5"×1/2"×10.5"	MOT 1877, X70 500149-04-7, EM K48HXBJA-956
FB-RFB310	1/8	208/230	0.62	PSC	1/3500	CCWOSE	7.10"	3.3"	Ball	INC	-	7062-3972, A273, X38040310-01
UE-945	1/8	115	1.2	PSC	3/1500	CWOSE	4.0"	5"	Sleeve	Inc.	9"×1/2"×7.5"	MOT 1978, MOT 481, X70 500149-11-7, EM K48HXCKT-1419
UE-955	1/6	115	2.0	PSC	3/1500	CWOSE	4.0"	5"	Sleeve	6/370	10.5"×1/2"×10.5"	MOT 1979, MOT 482, X70 500149-12-7, EM K48HXCKS-1418
UE-642	1/4	277	1.1	PSC	3/1475	CWOSE	4.0"	5"	Sleeve	4/370	8"×1/2"×8"	MOT 689, X70500354, UE DE2G101
66311 ²	19W	208/230	0.23/0.18	PSC	2/2800/ 1500	CCWSE	-	-	Ball	INC	-	NEW - BLW01311, D965130P01
66128 ¹	17W	208/230	0.19	PSC	1/3000	CCWSE	-	-	Ball	INC	-	NEW - 7021-7833, 7021-8928, BLW01310, D965128P01

Weil Mclain

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB356 ¹	1/12	115	2.8	SP	1/3250	CCWOSE	7.2"	3.3"	Sleeve	-	-	CG Series, 510-312-273, 381-356-499, 7021-10410
66312	1/8	115	1.80	PSC	1/3100	CWSE	-	-	Ball	INC	-	NEW - 510-312-312

*Notes:
1 - Comes with gasket
2 - Comes with gasket and 2 speed mox plug

OEM Replacement Motors



York (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
82702	1/50	115	1.2	SP	1/3000	CCWSE	-	-	Sleeve	-	-	NEW - 373-10337-702, 7021-8612, S1-37310337702
FB-RFB63	1/40	208/230	0.45	SP	1/3000	CWOSE	6.3"	3.3"	Ball	-	-	Roof Top, D8SA, D9SA Com: 026-22239-700, UE771, Fasco A063, U464E, 7021-4314
66067 ¹	1/35	115	1.13	SP	1/3000	CCWSE	-	-	Ball	-	-	NEW - 326-32067-000
82999	1/30	208/230	0.64	SP	1/3200	CWSE	-	-	Sleeve	-	-	NEW - 026-33999-001
FB-RFB154 ¹	1/30	115	1.2	SP	1/3000	CCWOSE	6.0"	3.3"	Sleeve	-	-	York Furnace P4-HUA012 Mid Eff. Blower N064000 Res: York 024-27519-000, Fasco 7021-9428, Luxaire
FB-RFB165 ¹	1/25	115	0.70	PSC	1/3450	CCWOSE	6.4"	3.3"	Sleeve	4/370	-	York Furnace P3-URB High Eff. Blower Res: York 024-25960-000, Coleman 2940391P, Fasco 7062-3958, A165, Luxaire

*Notes:
1 - Comes with gasket
2 - Comes with gasket. Built-in centrifugal switch

OEM Replacement Motors

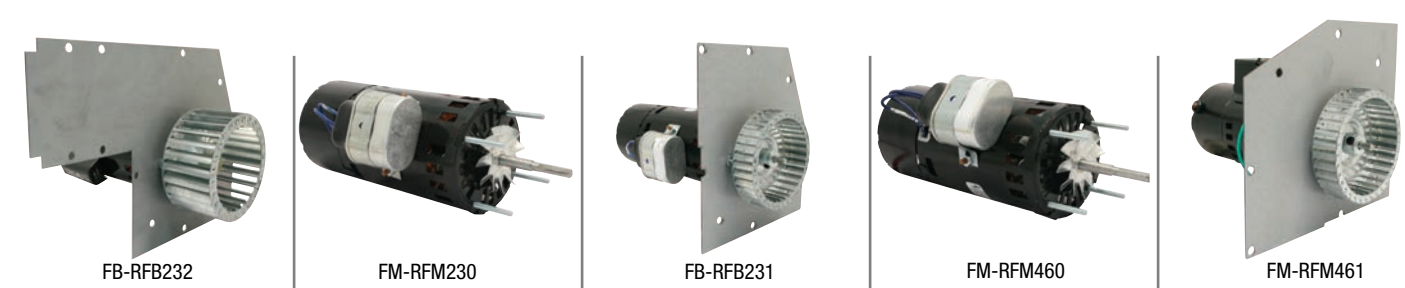


York (cont. from previous page) (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference	
FM-RFM653 ³	1/20	230/460	1.0/.51	SP	1/3000	CW	OSE	5.9"	3.3"	Ball	-	2.3"×1/4"	York D1, D2, D3 Roof Top Unit Magnetek 653, Fasco D1174 BLW. WHL - 66-A8650
FB-RFB654 ²	1/15	230/460	1.2/.6	SP	1/3000	CW	OSE	9.75"	3.3"	Ball	-	2.3"×1/4"	D1, D2 Roof Top Unit 3.5 To 5 Ton Com: 024-24115-017, 018, 020, 713, Fasco 7162-4547 BLW. WHL - 66-A8660(4"x1"x1/4")
FB-RFB655 ²	1/15	230/460	1.0/.51	SP	1/3000	CW	OSE	11.1"	3.3"	Ball	-	2.3"×1/4"	York D3CG076N105-25D Roof Top 7.5-20 Ton Com: 024-24115-017, 018, 020, Fasco 7162-4547 BLW. WHL-66-A8665(4"x2"x5/16")
FB-RFB225	1/15	115	2.25	SP	1/3200	CC	WOSE	6.50"	3.3"	Ball	-	-	A225, 7021-11577, 7021-11577S, 02434558000
FB-RFB227	1/15	115	0.7	PSC	1/3450	CC	WOSE	6.65"	3.3"	Sleeve	4/370	-	7062-4708S, 024-27641-000, 17450, 7062-4708, 373-20717- 001

*Notes:
 1 - Comes with gaskets
 2 - Includes blower wheels, plates, hardware, cooling disk and built in centrifugal switch
 3 - Built-in centrifugal switch
 4 - Includes 66-A8666 & 66-A8667 blower wheels and built in centrifugal switch

OEM Replacement Motors



York (cont. from previous page)

Item ID	HP	Volts	Amps	Type	Spd/ RPM	Rot.	Body	Frame	Bearing	Cap	Shaft	Cross Reference
FB-RFB232 ³	1/12	230	0.60	PSC	1/3200	Rev. Plug	7.0"	3.3"	Ball	4/370	2½"×¼"	York D1, D2 7.5 Ton Roof Top Unit Com: York 024-24115-714, 018 BLW. WHL - 66-A8665(4"x2"x5/16")
FM-RFM230 ²	1/12	230	0.60	PSC	1/3200	Rev. Plug	7.0"	3.3"	Ball	4/370	2½"×¼"	York D1, D2 Roof Top Unit 024-24115-020, 714
FB-RFB231 ³	1/12	230	0.60	PSC	1/3200	Rev. Plug	7.0"	3.3"	Ball	4/370	2½"×¼"	York D1, D2 5 Ton Roof Top Unit Com: York 024-24115-714, 018 BLW. WHL - 66-A8660(4"x1"x1/4")
FM-RFM460 ²	1/10	208/230 460	0.30	PSC	1/3200	Rev	7.0"	3.3"	Ball	4/370	2½"×¼"	York D1, D2 Roof Top Unit 024-24115-012, 017, 700, 709, 713, Fasco D1171, YVFM450
FB-RFB461 ⁴	1/10	460	0.30	PSC	1/3200	Rev. Plug	7.8"	3.3"	Ball	4/370	-	D1, D2, 7.5 Ton Roof Top Unit Com: 024-24115-017, 020, 713, Fasco 7162-4547 BLW. WHL - 66-A8660(4"x1"x1/4")

*Notes:
 1 - DOES NOT include 66-A8666 & 66-A8667 blower wheels and built in centrifugal switch.
 2 - Comes with 5/16" shaft adapter. Built-in centrifugal switch
 3 - Built-in centrifugal switch, mounting plate, blower wheel
 4 - Built-in centrifugal switch

OEM Replacement Motors - Fasco



Centrifugal Blowers

Item ID	CFM	Volts	Amps	Type	Speeds	RPM	Frame	Enclosure	Bearing	Cap	Comments
FA-50769-D230	500	230	1.6/1.0	SP	2	1525/1165	4.4"	Open	Sleeve	-	NEW - 19" Stripped Ends
FA-50755-D500	160	115	1.0	SP	1	1500	3.3"	Open	Sleeve	-	NEW - 7" Stripped Ends
FA-50752-D500	135	115	1.08	SP	1	3074	3.3"	Open	Sleeve	-	NEW - 7" Stripped Ends
FA-50747-D500	60	115	0.5	SP	1	2950	3.3"	Open	Sleeve	-	NEW - 19" Stripped Ends

Draft Inducer Blowers (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd.	RPM	Frame	Bearing	Cap	Comments
FA-A151	1/90	230	0.3	SP	1	2800	3.3"	Sleeve	-	NEW - 25" Leads w/Spade Terminals
FA-A071	1/70	120	0.7	SP	1	3200	3.3"	Sleeve	-	NEW - 72" Cord
FA-A197	1/70	33-110	1	3PH	1	1500-4700	3.3"	Ball	-	NEW - 5" Leads w/Socket Terminal
FA-A083	1/60	230	0.8	SP	1	3000	3.3"	Ball	-	NEW - 29" Leads w/ 1 Stripped, 1 Spade
FA-AIC605	1/60	120	1.0	SP	1	3000		Sleeve	-	NEW -
FA-A320	1/60	120	0.8	SP	1	3000	3.3"	Sleeve	-	NEW - 36" Leads
FA-A148	1/50	208-230	0.5	SP	1	3000	3.3"	Sleeve	-	NEW - 6.5-5.5" Leads
FA-A162	1/50	208/230	0.5	SP	1	3000	3.3"	Sleeve	-	NEW - (2) 33" & (1) 24" Leads w/Spade Terminals
FA-A164	1/50	120	0.8	SP	1	3000	3.3"	Sleeve	-	NEW - 6" Leads w/Socket Terminal
FA-A140	1/50	115	1.4	SP	1	3400	3.3"	Sleeve	-	NEW - 19" Leads w/Spade Terminals
FA-A131	1/50	115	1.1	SP	1	3000	3.3"	Sleeve	-	NEW - 11" Lead w/Socket Terminals

OEM Replacement Motors - Fasco



Draft Inducer Blowers (cont. from previous page) (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd.	RPM	Frame	Bearing	Cap	Comments
FA-A132	1/50	115	1.1	SP	1	3000	3.3"	Sleeve	-	NEW - 11" Lead w/Socket Terminals
FA-A090	1/50	115	1.1	SP	1	3000	3.3"	Sleeve	-	NEW - (1) 22" & (1) 33" Lead w/Stripped Ends
FA-A143	1/50	115	0.95	SP	1	3000	3.3"	Ball	-	NEW - 6" Lead w/Pin Housing Terminal
FA-A144	1/40	208-230	0.5	SP	1	3000	3.3"	Sleeve	-	NEW - 34" Leads w/Socket Terminals
FA-A081	1/40	230	0.45	SP	1	3000	3.3"	Ball	-	NEW - 25" Leads w/Stripped Ends
FA-A269	1/35	208-230	0.58/0.60	SP	1	2500/3000	3.3"	Ball	-	NEW - 5" Leads w/Socket Terminal
FA-A150	1/35	208-230	0.5	SP	1	3480	3.3"	Ball	-	NEW - 24" Lead w/Stripped Leads
FA-A172	1/35	115	1.6	SP	1	3000	C-Frame	Ball	-	NEW - 0.25 x .032 Male Terminals
FA-A178	1/30	115	1.8	SP	1	3400	3.3"	Ball	-	NEW - 11.5" Leads w/Spade Terminals
FA-A155	1/30	115	1.4	SP	1	3000	3.3"	Ball	-	NEW - 6" Leads w/Socket Terminal
FA-A070	1/25	115	2.35	SP	1	3400	3.3"	Ball	-	NEW - 8" Leads w/ Pin Terminal Housing
FA-A213	1/25	115	2.1	SP	2	3200	3.3"	Ball	-	NEW - 7" Leads w/Socket Terminals
FA-A166	1/25	115	1.50/1.37	SP	1	3160	3.3"	Sleeve	-	NEW - 7" Leads w/Stripped Ends
FA-A134	1/25	115	1.5	SP	1	3060	3.3"	Ball	-	NEW - 23" Leads w/Pin Terminals
FA-A206	1/25	115	1.5	SP	1	3000	3.3"	Sleeve	-	NEW - 55" Leads w/(1) Spade Terminal & (1) Stripped End

OEM Replacement Motors - Fasco



Draft Inducer Blowers (cont. from previous page) (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd.	RPM	Frame	Bearing	Cap	Comments
FA-A196	1/25	115	1.35	SP	1	3200	3.3"	Sleeve	-	NEW - (1) 6" Lead w/Pin Housing Terminal & 10" Lead w/Spade Terminal
FA-A169	1/25	230	0.75	SP	1	3060	3.3"	Sleeve	-	NEW - 13" Leads w/Spade terminals
FA-A165	1/25	115	0.7	PSC	1	3450	3.3"	Ball	INC	NEW - 8" Leads w/Pin Terminal Housing
FA-A171	1/25	115	0.7	PSC	1	3450	3.3"	Ball	INC	NEW - 7" Leads w/Spade terminals
FA-A227	1/25	115	0.7	PSC	1	3450	3.3"	Sleeve	INC	NEW - 8" Leads w/Socket Terminal
FA-AIC18219M	1/24	115	1.8	SP	1	3200	-	Ball	-	NEW -
FA-A130	1/20	115	0.71	PSC	1	3450	3.3"	Sleeve	-	NEW - (1) 6" Lead w/Amp Pin Housing Terminal & (1) 5" Lead w/ Amp Terminal Pin
FA-A168	1/20	115	7	PSC	1	3450	3.3"	Ball	INC	NEW - 43" Leads w/Spade terminals
FA-B45230	1/20	230	1.4/1.2	SP	2	1600	3.3"	Sleeve	-	NEW - 20-18" Leads w/Strip
FA-AIC501	1/20	115	2.8	SP	1	3000	3.3"	Ball	-	NEW -
FA-A067	1/20	115	2.6	SP	1	3000	C-Frame	Ball	-	NEW - 20" Leads Spade Terminals
FA-A204	1/20	115	1.8	SP	1	3400	3.3"	Ball	-	NEW - 7" Leads w/Socket Terminals
FA-A163	1/20	115	1.8	SP	1	3300	3.3"	Ball	-	NEW - 7" Leads w/Socket Terminals
FA-A209	1/20	115	0.8	PSC	2	3200/2800	3.3"	Ball	INC	NEW - 7" Leads w/Socket Terminals
FA-A136	1/20	115	0.75	PSC	1	3450	3.3"	Ball	-	NEW - 10" Lead w/Socket Terminals

OEM Replacement Motors - Fasco



Draft Inducer Blowers (cont. from previous page) (cont. next page)

Item ID	HP	Volts	Amps	Type	Spd.	RPM	Frame	Bearing	Cap	Comments
FA-A205	1/20	120	0.7	SP	1	3000	3.3"	Sleeve	-	NEW - 37" Leads w/(1) Spade Terminal & (1) Stripped End
FA-A173	1/18	115	0.8	PSC	1	3450	3.3"	Ball	5/370	NEW - 34" Lead w/Flag Terminal
FA-A217	1/16	230	0.83	SP	1	3000	3.3"	Ball	-	NEW - 15" Leads w/Spade Terminals
FA-A195	1/16	115	1.75	SP	1	3400	3.3"	Ball	-	NEW - (1) 6" Lead w/Pin Housing Terminal & 10" Lead w/Spade Terminal
FA-A124	1/15	115	1.75	SP	1	3450	3.3"	Sleeve	-	NEW - 13" Leads w/Socket Terminals
FA-A211	1/15	115	2.35	SP	1	3400	3.3"	Ball	-	NEW - 7" Leads w/Socket Terminals
FA-A225	1/15	115	2.25	SP	1	3200	3.3"	Ball	-	NEW - 8" Leads w/Socket Terminal
FA-A270	1/15	208-230	0.42/0.50	PSC	2	3350/2800	3.3"	Ball	INC	NEW - 8.5" Leads w/Pin Terminal Housing
FA-A330	1/12	208-230	0.55	PSC	1	3200	3.3"	Ball	INC	NEW - 21-19" Leads w/Pin Terminals, 7-5" Leads w/F Flag Terminals
FA-A234	1/12	208-230	0.5	PSC	1	3200	3.3"	Ball	INC	NEW - 33" Leads w/Spade Terminals
FA-A078	-	230	1.4	SP	1	3000	C-Frame	Sleeve	-	NEW - 37" Leads w/Spade Terminals
FA-A077	-	120	2.8	SP	1	3000	C-Frame	Sleeve	-	NEW - 12" Leads w/ 1 Male AMP & 1 Female AMP Terminals
FA-A248	-	120	1.2	SP	1	3250	C-Frame	Sleeve	-	NEW - 8" Leads w/Pin Terminal Housing
FA-A277	-	120	0.60/0.36	PSC	2	3300/2600	3.3"	Ball	INC	NEW - 8" Leads w/Pin Terminal Housing
FA-A253	-	120	0.24/0.13	PSC	2	3300/2200	3.3"	Ball	INC	NEW - 8" Leads w/Pin Terminal Housing

OEM Replacement Motors - Fasco



Draft Inducer Blowers (cont. from previous page)

Item ID	HP	Volts	Amps	Type	Spd.	RPM	Frame	Bearing	Cap	Comments
FA-A235	-	115	2.63	SP	1	3000	C-Frame	Sleeve	-	NEW - 7" Leads w/Spade Terminals
FA-A249	-	115	2.35	SP	1	3400	3.3"	Ball	-	NEW - 8" Leads w/Pin Terminal Housing
FA-A252	-	115	0.65/0.30	PSC	2	3200/2800	3.3"	Ball	INC	NEW - 8" Leads w/Pin Terminal Housing
FA-A236	-	115	0.58/0.27	PSC	2	3300/2700	3.3"	Ball	INC	NEW - 8" Leads w/Pin Terminal Housing
FA-A238	-	115	1.2	SP	1	2750	C-Frame	Sleeve	-	NEW - Male AMP Terminals
FA-A239	-	115	0.75	SP	1	2750	C-Frame	Sleeve	-	NEW - Male AMP Terminals
FA-A074	-	115	0.5	PSC	2	3300	3.3"	Ball	INC	NEW - 8"Leads w/ Pin Terminal Housing
FA-A076	-	115	0.5	PSC	2	3200/2000	3.3"	Ball	INC	NEW - 16" Leads w/ Pin Terminal Housing

Water Heater Blowers



Item ID	HP	Volts	Amps	Type	Speeds	RPM	Rot.	Frame	Bearing	Cap	Cross Reference
FA-W3	1/17	115	1.7	SP	1	3000	CW	3.3"	Ball	-	NEW - 117524-00, 239-39785-00
FA-W4	1/20	115	1.8	SP	1	3400	CCW	3.3"	Sleeve	-	NEW - 183381-000, 7021-10910, 7021-10195, 7021-10910
FA-W8	1/25	115	1.3	SP	1	3200	CW	3.3"	Sleeve	-	NEW - 7021-9756, 63172
FA-W9	1/60	115	0.95	SP	1	3000	CW	3.3"	Sleeve	-	NEW - 7021-10548, 0012400500, 12400500, 7021-10548
FA-W10	1/20	115	1.8	SP	1	3400	CCW	3.3"	Sleeve	-	NEW - 7021-11086

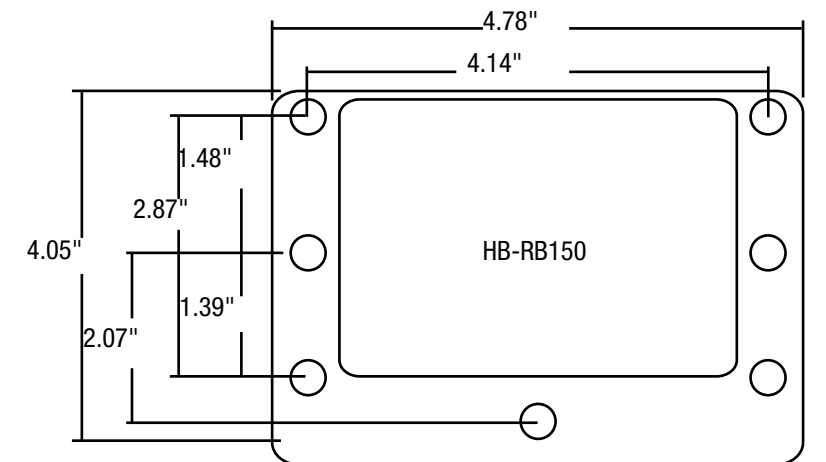
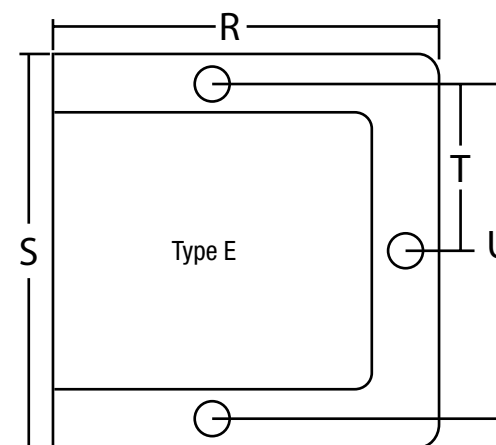
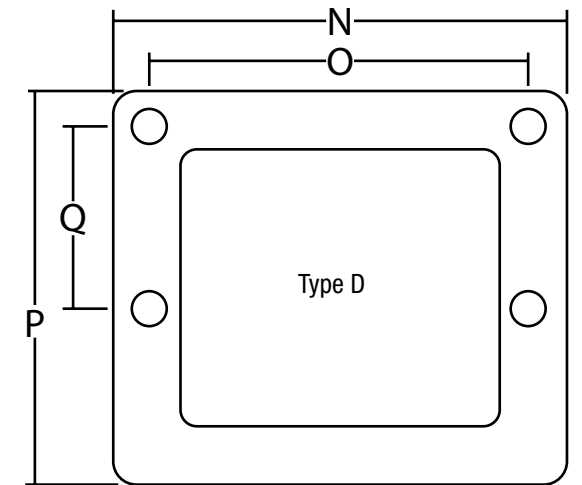
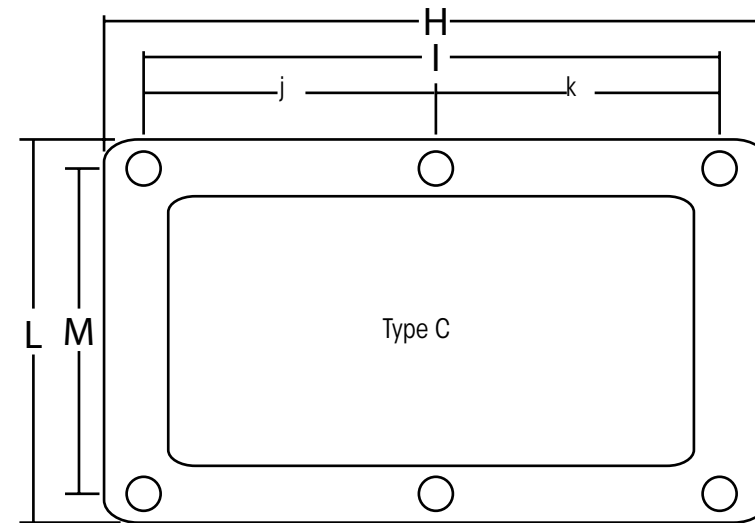
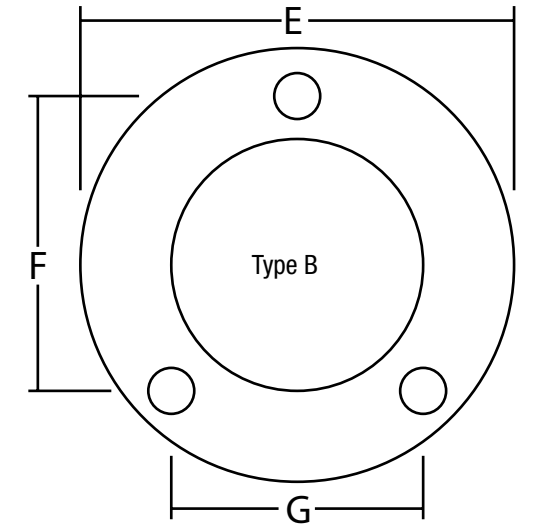
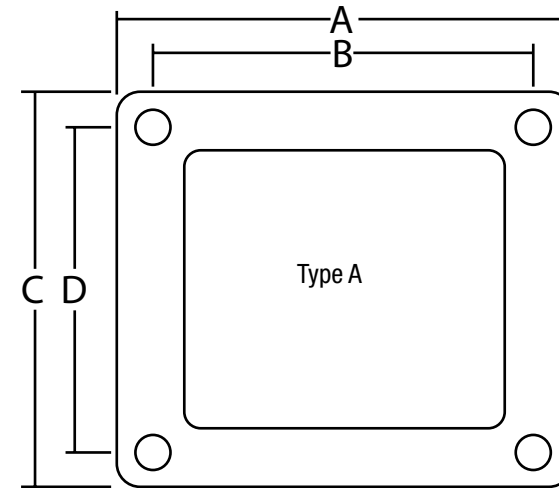
Blower Flange Dimensions



Part #	Type A				Type B			Type C						Type D				Type E				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
R7-RB3	4.60"	3.90"	3.50"	2.80"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB33	3.00"	2.30"	3.00"	2.30"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB34	4.5"	3.45"	4.0"	2.85"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB60	-	-	-	-	3.3"	2.77"	2.95"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB70	4.0"	3.38"	3.5"	2.88"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB120	-	-	-	-	4.0"	2.81"	2.33"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB141	-	-	-	-	-	-	-	-	-	-	-	-	-	5.13"	4.11"	4.00"	1.50"	-	-	-	-	
R7-RB142	-	-	-	-	-	-	-	-	-	-	-	-	-	5.13"	4.11"	4.00"	1.50"	-	-	-	-	
R7-RB155	4.0"	3.8"	4.0"	3.3"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB165	3.5"	2.9"	3.9"	3.37"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB265	5.5"	4.85"	5.0"	4.4"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB350	5.3"	4.7"	5.6"	5.0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB440	-	-	-	-	4.04"	2.81"	2.38"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB445	6.6"	6.0"	5.7"	5.0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB446	4.61"	3.96"	3.52"	2.87"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB447	6.6"	6.0"	5.7"	5.0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB465	-	-	-	-	-	-	-	9.43"	8.8"	4.4"	4.4"	5.0"	4.4"	-	-	-	-	-	-	-	-	
R7-RB495	6.6"	6.0"	5.6"	5.0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB500	6.6"	6.0"	5.6"	5.0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB661	-	-	-	-	3.3"	2.77"	2.36"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB665	-	-	-	-	3.3"	4.00"	2.33"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R7-RB760	-	-	-	-	-	-	-	9.33"	8.8"	4.4"	4.4"	5.63"	5.06"	-	-	-	-	-	-	-	-	
R7-RB938	-	-	-	-	-	-	-	-	-	-	-	-	-	4.75"	4.12"	4.75"	1.50"	-	-	-	-	
R7-RB991	3.00"	2.00"	3.00"	2.00"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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