



*Tecumseh*

# Electrical Service Parts Guidebook

Wholesale Distribution  
North America



*Tecumseh*

ELECTRICAL  
SERVICE PARTS  
GUIDE BOOK

Tecumseh Products Company  
Ann Arbor, Michigan 48108

# Contents

<b>General Service Safety Information</b>	<b>SAK-Solid State Start Assist Kits</b> . . . . .
Introduction . . . . .	19
Trained Personnel Only . . . . .	<b>SSR3-Solid State Relay</b> . . . . .
Terminal Venting and Electrocution . . . . .	21
Refrigerants and Other Chemicals . . . . .	<b>Start Capacitor Ratings</b> . . . . .
Compressor Removal . . . . .	23
System Flushing, Purging, and Pressure Testing for Leaks . . . . .	<b>Run Capacitor Ratings</b> . . . . .
System Charging . . . . .	24
Prevention of Water-Utilizing System Explosions . . . . .	<b>Introduction to ESP Master Replacement Guide</b> . . . . .
Start Capacitor Overheating . . . . .	25
System Evacuation . . . . .	<b>ESP Master Replacement Guide</b> . . . . .
Follow the Labels . . . . .	26
Additional Information . . . . .	<b>Introduction to Electrical Drawings</b> . . . . .
Serial Label Information . . . . .	62
	<b>Trouble Shooting and Service Chart</b> . . . . .
	84

## Introduction

Tecumseh Products Company has prepared this guidebook to assist service personnel in safely working with refrigeration and air conditioning equipment that uses Tecumseh Products Company hermetic compressors. It is not designed to replace the training required for professional service personnel. It is also not intended to replace other information available from refrigeration and air conditioning equipment manufacturers.

## Trained Personnel Only

Servicing, repairing, and troubleshooting refrigeration and air conditioning systems should be done only by those with the necessary knowledge, training, and equipment.

### **WARNING**

Never service, repair, or troubleshoot unless you are qualified to perform these functions. Improper servicing can lead to serious injury or death from fire, electrical shock, or explosion.

## Terminal Venting and Electrocutation

Improperly servicing, repairing, or troubleshooting a compressor can lead to electrocution or fire due to terminal venting with ignition. Follow the precautions below to avoid serious injury or death from electrocution or terminal venting with ignition.

### Fire Hazard from Terminal Venting with Ignition

Oil and refrigerant can spray out of the compressor if one of the terminal pins is ejected from the hermetic terminal. This “terminal venting” can occur as a result of a ground fault (also known as a short circuit to ground) in the compressor. The oil and refrigerant spray from terminal venting can be ignited by electricity and produce flames that can lead to serious burns or death. See figures 1 through 3 for detail.

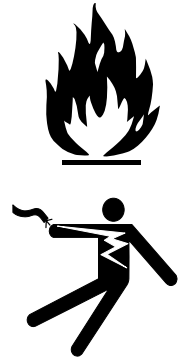
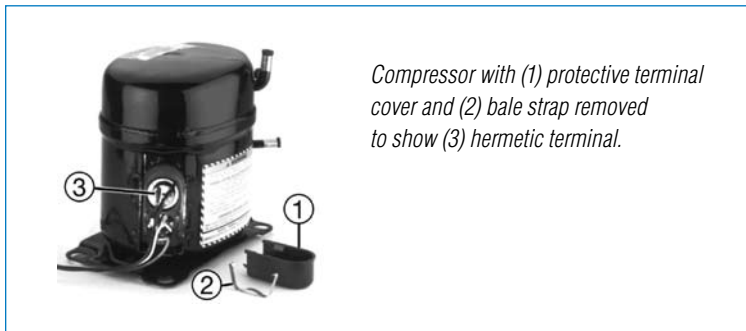
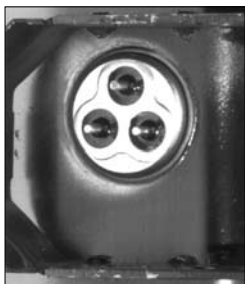


Figure 1



*Compressor with (1) protective terminal cover and (2) bale strap removed to show (3) hermetic terminal.*

Figure 2



*Close-up view of hermetic terminal showing individual terminal pins with power leads removed.*

Figure 3



*Close-up view of hermetic terminal after it has vented.*

## Terminal Venting and Electrocution Precautions

To reduce the risk of electrocution or serious burns or death from terminal venting with ignition:

*Be alert for sounds or arcing (sizzling, sputtering or popping) inside the compressor, IMMEDIATELY GET AWAY if you hear these sounds.*

*Disconnect ALL electrical power before removing the protective terminal cover.*

Make sure that all power legs are open. (NOTE: the system may have more than one power supply.)

*Never energize the system unless: 1) the protective terminal cover is securely fastened, and 2) the compressor is properly connected to ground.*

Figures 4 through 6 illustrate the different means of fastening protective terminal covers.

Figure 4



Compressor with (1) protective terminal cover held in place by (2) metal bale strap.

Figure 5



Compressor with (1) protective terminal cover held in place by (2) nut.

Figure 6



Compressor with (1) snap-in protective terminal cover.

*Never reset a breaker or replace a fuse without first checking for a ground fault (a short circuit to ground).*

An open fuse or tripped circuit breaker is a strong indication of a ground fault (also known as a short circuit to ground). Use only a megohmmeter (“megger”) or a Hi-Potential Ground tester (Hi-Pot) to check for a ground fault. A conventional ohmmeter will not reliably detect a ground fault under certain circumstances. See the Service Handbook for more information on checking for a ground fault. Also, always follow the megger or Hi-Pot manufacturer’s procedures and safety rules.

If a ground fault does exist, keep the power off. **WARNING!** *To avoid electric shock, electrocution, and terminal venting with ignition, do not energize a compressor that has a ground fault.* Mark and red tag the compressor to indicate that there is a ground fault. Do not reconnect the power leads. Tape and insulate each power lead separately.

*Disconnect power before servicing.*

Always disconnect power before servicing, unless it is required for a specific troubleshooting technique. In these situations, use extreme caution to avoid electrical shock.

## Refrigerants and Other Chemicals

Contact with refrigerant, mixtures of refrigerant and oil, or other chemicals can cause a variety of injuries including burns and frostbite. For example, if refrigerant contacts skin or eyes it can cause severe frostbite. Also, in the event of a compressor motor failure, some refrigerant and oil mixtures can be acidic and cause chemical burns.

To avoid injury, wear appropriate protective eyewear, gloves, and clothing when servicing an air conditioning or refrigeration system. Refer to your refrigerant supplier for more information.

If refrigerant or mixtures of refrigerant and oil come in contact with skin or eyes, flush the exposed area with water and get medical attention immediately.

## Compressor Removal

Failure to properly remove the compressor can result in serious injury or death from electrocution, fire, or sudden release of refrigerant and oil.

Follow these precautions when removing a compressor from a system:

### *Disconnect ALL electrical power.*

Disconnect all electrical power supplies to the system, making sure that all power legs are open. (NOTE: The system may have more than one power supply.)

### *Be sure refrigerant is recovered before removing compressor.*

Attempting to remove the compressor before removing all refrigerant from the system can cause a sudden release of refrigerant and oil. Among other things, this can:

- Cause a variety of injuries including burns or frostbite.
- Cause a fire if a torch is used to disconnect tubing.
- Expose the service person to toxic gas.

To avoid serious injury or death, be sure to remove and recover all refrigerant before removing the compressor.

### *Use a tubing cutter, not a torch.*

Use a tubing cutter to remove the compressor. A torch can cause even trace amounts of refrigerant to decompose and release toxic fumes. In addition, using a torch to remove the compressor can cause a fire. If you ignore this recommendation and use a torch, be prepared to extinguish a fire.



## System Flushing, Purging, and Pressure Testing for Leaks

Failure to properly flush, purge, or pressure test a system for leaks can result in serious injury or death from explosion, fire, or contact with acid-saturated refrigerant or oil mists.

Follow these precautions when flushing/purging a system or pressure testing a system for leaks:

*Use flushing products according to the manufacturer's instructions.*

*To purge a system, use only dry nitrogen.*

*When pressure testing for leaks, use only regulated dry nitrogen or dry nitrogen plus trace amounts of the serial label refrigerant.*

*When purging or pressure testing any refrigeration or air conditioning system for leaks, never use air, oxygen or acetylene.*

- Oxygen can explode on contact with oil.
- Acetylene can decompose and explode when exposed to pressures greater than approximately 15 psig.
- Combining an oxidizing gas, such as oxygen air, with an HCFC or HFC refrigerant under pressure can result in a fire or explosion.

*Use a pressure regulating valve and pressure gauges.*

Commercial cylinders of nitrogen contain pressures in excess of 2000 psig at 70°F. At pressures much lower than 2000 psig, compressors can explode and cause serious injury or death. To avoid overpressurizing the system, always use a pressure regulating valve on the nitrogen cylinder discharge (see Figure 7). The pressure regulator must be able to reduce the pressure down to 1 or 2 psig and maintain this pressure.

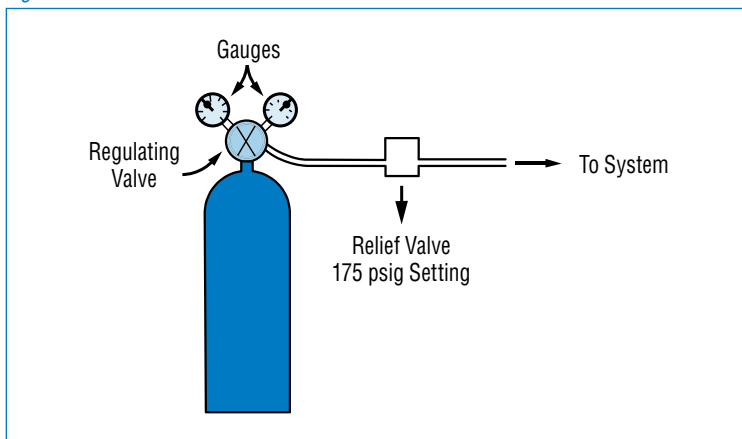
The regulating valve must be equipped with two pressure gauges:

- one gauge to measure cylinder pressure, and
- one gauge to measure discharge or downstream pressure.

*Use a pressure relief valve.*

In addition to pressure regulating valve and pressure gauges, always install a pressure relief valve. This can also be a frangible disc type pressure relief device. This device should have a discharge port of at least ½" MPT size. The valve or frangible disc device must be set to release at 175 psig (see Figure 7).

*Figure 7*



*Dry nitrogen cylinder with attached pressure regulating and relief valves and pressure gauges needed for pressure testing for leaks and purging.*

*Do not pressurize the system beyond 150 psig field leak test pressure.*

When field testing a system for leaks, 150 psig is adequate test pressure.

*Disconnect nitrogen cylinder and evacuate the system before connecting the refrigerant container.*

Disconnect the nitrogen cylinder and release the pressure in the system before connecting a refrigerant container to the system. The higher pressure gas in the system can explode the refrigerant container.

## System Charging

Failure to properly charge the system can result in serious injury or death from explosion or fire.

Follow these precautions when charging a system:

***Do not operate the compressor without charge in the system.***

Operating the compressor without a charge in the system can damage the hermetic terminal. As always, to avoid serious injury or death from terminal venting with ignition, never energize the compressor unless the protective terminal cover is securely fastened.

***Use proper refrigerant.***

Use only the compressor serial label refrigerant when charging the system. Using a different refrigerant can lead to excess system pressure and an explosion. Use of a refrigerant other than the serial label refrigerant voids the compressor warranty.

***Do not overcharge a refrigeration or air conditioning system.***

Overcharging a refrigeration or air conditioning system can result in an explosion. To avoid serious injury or death, never overcharge the system. Always use proper charging techniques. Limit charge amounts to those specified on the system equipment serial label or in the original equipment manufacturer's service information.

Overcharging the system immerses the compressor motor, piston, connecting rods, and cylinders in liquid refrigerant. This creates a hydraulic block preventing the compressor from starting. The hydraulic block is also known as locked rotor.

Continued supply of electricity to the system causes heat to build in the compressor. This heat will eventually vaporize the refrigerant and rapidly increase system pressure. If, for any reason, the thermal protector fails to open the electrical circuit, system pressure can rise to high enough levels to cause a compressor housing explosion.

# Prevention of Water-Utilizing System Explosions

In certain water-utilizing refrigeration systems, water can leak into the refrigerant side of the system. This can lead to an explosion of system components, including but not limited to the compressor. If such an explosion occurs, the resulting blast can kill or seriously injure anyone in the vicinity.

## Systems at Risk of Explosion

Water-utilizing systems that have single-wall heat exchangers may present a risk of explosion. Such systems may include:

- water source heat pump/air conditioning systems, and
- water cooling systems, such as icemakers, water coolers, and juice dispensers.

Water-utilizing systems that have single-wall heat exchangers present a risk of explosion unless they have either:

- a high pressure cut-out which interrupts power to ALL leads to compressor, or
- an external pressure relief valve.

## How an Explosion Occurs

If the refrigerant tubing in the heat exchanger develops a leak, water can enter the refrigerant side of the system. Water entering the refrigerant side can come in contact with live electrical connections in the compressor causing a short circuit or a path to ground. When this occurs, extremely high temperatures can result. The heat build-up creates steam vapor that can cause excessive pressure throughout the entire system. This system pressure can lead to an explosion of the compressor or other system components.

## Service Procedures

In light of the risk of explosion, be especially alert for signs of water leaking into the refrigerant side of the system. Whenever servicing or troubleshooting a water-utilizing system, always check to see if it has either a pressure relief valve or a high pressure cut-out as previously described. If the system does not have at least one of these, DISCONNECT ALL ELECTRICAL POWER and look for indications that water has leaked into the refrigerant side of the system. These indications may include:

- Observation of a report of a blown fuse or tripped circuit breaker.
- Signs that water has leaked to the outside of the system.
- Reports that the system has made gurgling or percolating noises.
- A history of loss of refrigerant charge without a leak being found in the system. NOTE: Common leak detection methods will not detect a water-to-refrigerant leak in the system's heat exchanger(s).
- Observation of or a report of the compressor giving off an unusual amount of heat.

If ANY of these indications are present, do the following checks to determine if water has leaked into the refrigerant side:

### Step 1: Check for a Ground Fault (a short to ground)

Use only a megohmmeter ("megger") or a Hi-Potential Ground tester ("Hi-Pot") to check for a ground fault. A conventional ohmmeter will not reliably detect a ground fault under certain circumstances. See the Service Handbook for more information on checking for a ground fault. Also, always follow the megger or Hi-Pot manufacturer's procedures and safety rules.

- If a ground fault does not exist, go to Step 2.
- If a ground fault does exist, keep the power off.

**WARNING!** To avoid electric shock, electrocution, and terminal venting with ignition, do not energize a compressor that has a ground fault. Mark and red tag the compressor to indicate that there is a ground fault. Do not reconnect the power leads. Tape and insulate each power lead separately. Proceed to Step 2. Do not replace the compressor or energize the system before performing Step 2.

## Step 2: Check for Water in the System

Once the compressor is cool to the touch, open the system process valve slightly to see if any water comes out of the system. **WARNING!** *Opening the system process valve while the compressor is hot can cause severe burns from steam coming out of the valve.*

If ANY water comes out of the process valve, the entire system **must** be replaced. See “Replacing a Single-Wall Water-Utilizing System” below.

If water does not come out of the process valve, there is still a possibility that some water has leaked into the refrigerant side of the system. To address this possibility, determine if the system has a history of losing refrigerant charge without a leak being found or repaired.

If you find ANY indication of a history of losing refrigerant charge without detection of a leak, this is a sign that refrigerant has leaked in the water inside the heat exchanger. The entire system **must** be replaced. See “Replacing a Single-Wall Water-Utilizing System” below.

If you do not find any indication of a history of loss of charge without detection of a leak, you still need to install:

- a high pressure cut-out which interrupts power to ALL leads to the compressor, or
- an external pressure relief valve.

Also, if you found a ground fault in the compressor in Step 1, replace the compressor before applying power to the system.

## Replacing a Single-Wall Water-Utilizing System

When replacing a single-wall water-utilizing system, replace the system with one that has:

- a double-wall heat exchanger(s), or
- a high-pressure cut-out which interrupts power to ALL leads to the compressor, or
- an external pressure relief valve.

## Start Capacitor Overheating

An overheated start capacitor can burst and spray or splatter hot material which can cause burns. Applying voltage to a start capacitor for more than a few seconds can cause the capacitor to overheat.

Check capacitors with a capacitance meter, and never check a capacitor with the power on.

## System Evacuation

Never use a compressor to evacuate a system. Instead, use a high vacuum pump specifically designed for that purpose.

Never start the compressor while it is under deep vacuum. Always break a vacuum with refrigerant charge before energizing the compressor.

Failure to follow these instructions can damage the hermetic terminal. As always, to avoid serious injury or death from terminal venting with ignition, never energize the compressor unless the protective terminal cover is securely fastened.

## Follow the Labels

Tecumseh Products Company compressors have labels and markings with important information. For your safety and the safety of others, read the labels and markings on the product.

## Additional Information

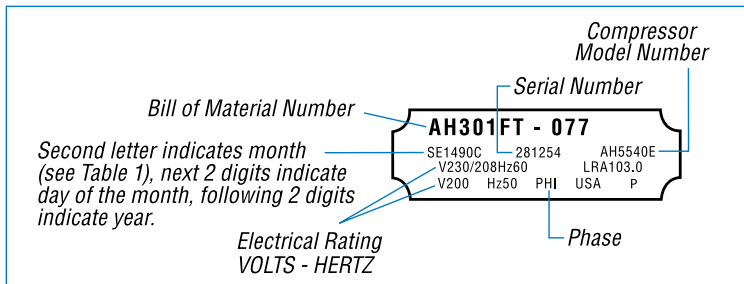
For additional information, request a Tecumseh Service Handbook (call 1-800-211-3427), contact a Tecumseh Authorized Wholesale Distributor, or visit [www.tecumseh.com](http://www.tecumseh.com).

## Serial Label Information

The only source for complete compressor information is on the compressor serial label. On earlier compressors, the serial plate is usually spot welded on the upper housing of the compressor. For current compressors, the serial label is affixed in the same location. Both describe the characteristics of the compressor.

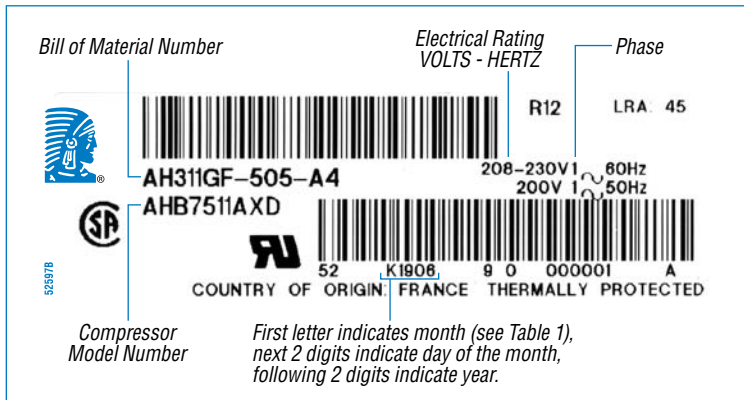
The months are identified in Table 1.

Figure 8



Example compressor serial plate

Figure 9



Example compressor serial label

### Table 1: Serial Label Month Identifiers

A – January	D – April	G – July	K – October
B – February	E – May	H – August	L – November
C – March	F – June	J – September	M – December

Figure 10


**Manufacturing Code Date**

Month = September

OJO




Year = 2000

The letter represents the month (see Table 1).  
The numbers represent the year.

COMPRESSORS		THERMALLY PROTECTED		VOLTAGE		EVAP. RANGE (...F)	
NO.	R.L.A. E.A.	L.R.A. E.A.	PH.	60 HZ			
1	8.8	58.8	1	115	-10F TO +45F		
FANS:		HP.	PROTECTED THERMALLY	PH.	MIN. CIRCUIT AMPS	HI SIDE	LO SIDE
NO.	F.L.A. E.A.	35W		1	12.4	350	150
SER	0J00066332		MAX. FUSE	MAX. CKT. BKR. (HACR. TYPE PERNEC.)	REFRIG.	OZ. CHARGE	
BM	2C234-9		20		R-22	14	
MOD	AKA9446EXAXC		<i>Tecumseh</i> ®		MADE IN USA		52994-1
(1P)							

Example indoor condensing unit serial label

Figure 11

MODEL		<b>AVA2510ZXNHG</b>		REFRIGERANT	CHARGE
				<b>R404A</b>	(lbs)
SERIAL NO.		<b>16F291000123</b>		EVAP. TEMP RANGE (F)	COMP. DATE
				<b>-40F to 10F</b>	<b>C1510</b>
UNIT B. O. M.		VOLTAGE - HZ - PHASE		Remote defrost heater (max. load (A))	
<b>2H2128 - 20</b>		<b>208 - 230V - 60HZ</b>		<b>35</b>	
COMPRESSOR MODEL		COMPRESSOR B. O. M.	VOLTAGE - HZ - PHASE	RLA	LRA
<b>AVA2490ZXN</b>		<b>AV195ET - 001 - P4</b>	<b>208 - 230V - 60HZ</b>	<b>11.4</b>	<b>106.6</b>
FAN MOTORS (S)	QTY	VOLTAGE - HZ - PHASE	FAN HORSEPOWER	FLRA	PROTECTION
	<b>1</b>		<b>50 Watts</b>	<b>.7</b>	<b>THERMALLY</b>
DESIGN PRESSURE (PSIG)	HI	LO	 <b>TECUMSEH PRODUCTS OF CANADA LIMITED</b> LONDON, ONTARIO, N5W 5S1		
	<b>450</b>	<b>181</b>			
REMOTE CONDENSER MIN PRESSURE (PSIG)					

First letter indicates month (see Table 1),  
next 2 digits indicate day of the month,  
following 2 digits indicate year.

Example outdoor condensing unit serial label

## **Electrical Parts Program**

*While Tecumseh compressors are designed and manufactured to the most exacting standards, a small percentage will require service, primarily due to the normal wear of electrical component parts such as compressor motor relays and overloads.*

*Replacement relays and overloads must be accurately matched to the specific compressor involved in order to assure proper performance and prevent equipment failure.*

*The Tecumseh Electrical Parts Program together with the comprehensive Parts Guidebook are designed to assist the service engineer in obtaining correct Tecumseh parts for Tecumseh compressors regardless of the end product in which the compressor is installed.*

*Your Tecumseh Authorized Wholesaler Distributor has complete stock of these parts, detailed wiring diagrams, cross reference data and the know-how to help you.*

*Any part numbers removed from this cross reference is due to obsolescence of the part. This also means that no current replacement parts are available to replace the old numbers and their existence has outlasted the lifetime expectations of the product.*

## Tecumseh Start Assist Kit – SAK2

The solid state start assist is a popular method of improving the starting ability of a PSC compressor. Its low cost in comparison to a potential relay and start capacitor as well as the fact that **one rating works on all PSC compressors** are of prime interest.

We offer the following comments regarding the SAK2 Tecumseh start assist kit.

**What It Is:** A solid state device utilizing PTC material which when wired in parallel with the run capacitor of a PSC compressor, provides additional starting torque.

**How It Works:** The PTC material performs much the same function of a small start capacitor by momentarily increasing the motor start winding current. As the PTC material heats up, its resistance increases immediately to a point where it becomes essentially non-conductive and the compressor motor returns to PSC operation.

**Its Limitations:** The starting torque provided by SAK2 is equal to that provided by the specified relay and start capacitor for AE, AK, AJ, RG, and RK PSC models but may be somewhat less than that provided by the specified relay and start capacitor for AB, AH, AV, AG, AW, and CL models. For unusually severe problems, the specified relay and start capacitor may have to be used.

For additional information as well as installation and wiring procedures, please refer to the sample instruction sheet on the following page.

# Instruction Sheet

## Start Assist Kit – SAK2 and SAK4

**SAK2:** This kit includes a solid state start assist device, a mounting clip, and two wiring leads. It is to be used only with a PSC air conditioning or heat pump compressor in self-equalizing systems to provide increased starting ability when starting problems are encountered.

**SAK4:** This kit includes a solid state start assist device, a mounting clip, and two wiring leads. It is a required part for the AVD5558EXN Compressor.

### No SAK Kit is to be used:

- With PSC air conditioning or heat pump compressors in non-self equalizing systems.
- With compressors wired for capacitor type off-cycle heat.
- As a replacement for the specified relay and start capacitor on any capacitor start and run compressor in any type system.

### Notes:

This device requires a 3 minute cool-down period between starts. Should this kit fail to start the compressor due to unusually severe starting problems, remove kit and install optional relay and start capacitor specified in Electrical Service Parts Guidebook.

### Installing and Wiring:

1. Secure mounting clip over run capacitor lip and snap device into place.
2. Connect (reversible) terminals of leads to device.
3. Connect (piggyback) terminals to run capacitor. These terminals have provision for attaching additional leads needed if run capacitor has only two terminals.
4. Refer to Figure 12 for additional wiring information.

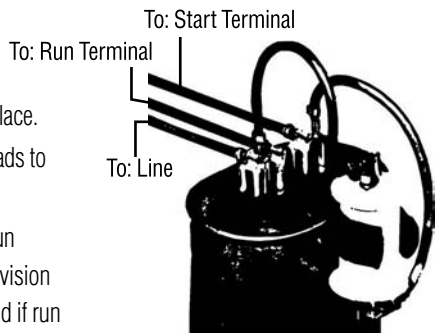


Figure 12

## Tecumseh Solid State Relay – SSR3

The SSR3 solid state relay may be used as a replacement for the current type on certain Tecumseh 115 volt RSIR compressors. Below and on the following page is information concerning the Tecumseh SSR3 relay.

### Instruction Sheet Solid State Relay – SSR3

This relay is intended to replace all current type push-on relays now specified for Tecumseh resistance start induction run (RSIR) compressors applied in household refrigerators and freezers. It is restricted to 115 volt operation.

#### It is not to be used

- to replace current type relays now specified for Tecumseh RSIR compressors applied in rapid-cycling systems such as water coolers, etc.
- to replace current or potential type relays on Tecumseh capacitor start induction run (CSIR) compressors; it cannot be used along with a start capacitor.

#### Note:

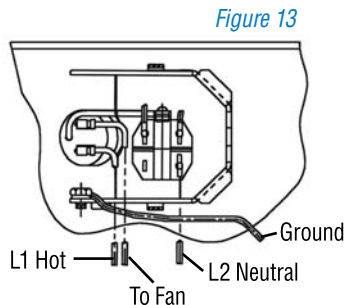
For the above applications refer to Electrical Service Parts Guidebook for proper relay selection.

#### Caution:

This relay runs very hot during compressor operation. Temperatures in excess of 150°F (66°C) are not uncommon. Allow a cool down period after compressor shut down before attempting to handle or remove.

#### Installing and Wiring:

1. Disconnect power before removing protective cover.
2. Remove faulty relay and replace with SSR3.
3. Install and wire as shown in Figure 13.
4. If screw type relay termination is required, use adapter and screw provided.
5. Replace protective cover.



## Use of Solid State Relays

Tecumseh's position limiting the use of solid state relays to normal cycling 115 volt RSIR compressors is as follows:

- A. It must be realized that a solid state relay is actuated on a thermal basis through the use of a material designated PTC. This PTC material is of a given cold resistance. It heats up rapidly as power is supplied, becomes non-conductive, and effectively opens the start winding circuit.
- B. The usage of a CSIR compressor is generally one of intent in that high starting torque is needed in the application involved. Usually, this is because the compressor will be called upon to restart prior to complete pressure equalization (example, expansion valve systems). If a solid state relay is used on a CSIR compressor, the resistance added to the start winding circuit substantially reduced the starting torque. The result may be that the compressor will not start when required and will cycle on the overload for an undesirable length of time.
- C. Additionally, if a solid state relay is used on an RSIR compressor applied in a rapid-cycling system, again a no-start situation could result. This is due to the cool-down period required of the PTC material, usually 4 to 6 minutes. In effect, the relay may still be hot (non-conductive) when called upon, the start winding will not be energized and the compressor will not restart.

The preceding comments apply to the Tecumseh SSR3 as well as all other solid state relays on the market.

## Start Capacitor Ratings

<b>Start Cap P/N</b>	<b>MFD/Voltage</b>
85626	21-25/250
85704	340-408/110
85PS110C76	243-292/110
85PS110C90	145-175/110
85PS110C91	189-227/110
85PS110C92	270-324/110
85PS125D59	378-440/125
85PS165C27	270-324/165
85PS165C77	378-440/165
85PS165C96	161-193/165
85PS165C98	233-280/165
85PS220D02	72-88/220
85PS250A58	196-236/250
85PS250B87	216-259/250
85PS250C30	72-88/250
85PS250D05	47-56/250
85PS250D06	53-64/250
85PS250D07	64-77/250
85PS250D09	88-108/250
85PS250D10	130-156/250
85PS250D19	124-149/250
85PS330C23	88-108/330
85PS330C84	196-236/330
85PS330D12	72-88/330
85PS330D14	108-130/330
85PS330D15	124-149/330
85PS330D16	130-156/330
85PS330D17	145-175/330
85PS330D18	176-216/330
85PS330D23	161-193/330
85PS330D65	21-25/330

## Run Capacitor Ratings

<b>Run Cap P/N</b>	<b>MFD/Voltage</b>
85PR220F12	15/220
85PR240F37	35/240
85PR370E35	20/370
85PR370E36	15/370
85PR370E63	40/370
85PR370F17	35/370
85PR370F20	25/370
85PR370F21	45/370
85PR370F23	30/370
85PR440E65	45/440
85PR440E90	55/440
85PR440F18	35/440
85PR440F19	20/440
85PR440F22	25/440
85PR440F24	15/440
85PR440F27	30/440
85PR440F28	40/440
85PR440F90	65/440

## Introduction to ESP Master Replacement Guide

This Guide should be used if the model number, voltage and application of the compressor are known.

Attention should be given to any explanation of information covered under the "Remarks" column. Coding is as follows:

S/Cap Start Capacitor

R/Cap Run Capacitor

Opt. Optional

All voltage shown are 60 hertz and unless otherwise specified are single phase.

All 3450 RPM air conditioning compressors have PSC motors but can be operated CSR by adding the optional starting components. When PSC starting problems are encountered, either the specified relay and start capacitor or the SAK2 start assist may be used.

Certain refrigeration compressors may be serviced with either the specified current type relay or the SSR3 solid state relay.

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AB5513G, H	208-230/60/1	~	~	~	~	~	85PS330C23	85PR370E35	K71-19	INTERNAL	
AB5515G, H	208-230/60/1	7.18	43.0	~	~	~	85PS330D65	85PR370E35	K71-19	INTERNAL	
AB5515G, H	265/60/1	6.60	39.5	~	~	~	85PS330C23	85PR440F19	K71-19	INTERNAL	
AB5517G, H	208-230/60/1	7.80	49.0	~	~	~	85PS330C23	85PR440F19	K71-19	INTERNAL	
AB5517G, H	265/60/1	7.30	45.0	~	~	~	85PS330C23	85PR440F19	K71-19	INTERNAL	
AB5519F, G, H	208-230/60/1	9.00	53.0	~	~	~	85PS250D09	85PR370F20	K71-19	INTERNAL	
AB5519F, G, H	265/60/1	8.50	46.0	~	~	~	85PS330C23	85PR440F22	82964	INTERNAL	
AB5520F, G, H	208-230/60/1	9.40	56.0	~	~	~	85PS250D09	85PR370F20	82965	INTERNAL	
AB5520F, G	265/60/1	8.90	54.0	~	~	~	85PS330C23	85PR440F22	82964	INTERNAL	
AB5522F, G, H	208-230/60/1	10.50	63.0	~	~	~	85PS250D09	85PR370F20	82965	INTERNAL	
AB5522F, G	265/60/1	9.60	59.2	~	~	~	85PS330C23	85PR440F22	82964	INTERNAL	
AB5524F, G, H	208-230/60/1	11.00	64.0	~	~	~	85PS250D09	85PR370F17	82965	INTERNAL	
AB5524F, G	265/60/1	10.20	61.0	~	~	~	85PS330C23	85PR440F28	82964	INTERNAL	
AB5527H	208-230/60/1	12.90	77.0	~	~	~	85PS330C23	85PR370F17	82965	INTERNAL	
AB5528G, H	208-230/60/1	13.30	80.0	~	~	~	85PS250D09	85PR370F17	82965	INTERNAL	
AB5528G	265/60/1	11.90	72.0	~	~	~	85PS330C23	85PR440F18	82966	INTERNAL	
AB5530G, H	208-230/60/1	14.00	87.0	~	~	~	85PS330C23	85PR370F17	82965	INTERNAL	
AEA0415EXA	115/60/1	3.70	28.0	12.33	1.55	~	~	~	82453	8300MRPK59	
AEA0415ZXA	115/60/1	4.00	28.0	12.33	1.55	~	~	~	82453	8300MRTJ36	Condenser Fan Required
AEA0415ZXD	208-230/60/1	2.80	21.8	32.28	4.23	~	~	~	82008EAJ54	83004TMN72	
AEA0418AXA	115/60/1	4.30	28.0	13.50	1.60	~	~	~	8200EMBE47	K90-11	Condenser Fan Required
AEA0423AXA	115/60/1	6.70	40.0	17.27	0.96	~	~	~	820ARR12C06	8300MRTJ37	Condenser Fan Required
AEA1316YXA	115/60/1	1.20	11.7	16.41	7.64	~	~	~	820RR12E91	83781	Static Condenser
AEA1320AXA	115/60/1	1.20	11.7	16.41	7.64	~	~	~	82418	83643	Static Condenser

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AEB1320AXA	115/60/1	1.00	12.9	~	~	~	~	~	82418	83643	Static Condenser
AEA1326YXA	115/60/1	1.20	14.0	13.20	4.20	~	~	~	8200EMB92	8300MRPG06	Static Condenser
AEA1332AXA	115/60/1	1.40	13.9	15.72	5.15	~	~	~	82404	83643	
AEB1332AXA	115/60/1	1.30	14.0	~	~	~	~	~	820RR12B99	83974	Static Condenser
AEA1332YXA	115/60/1	1.55	14.6	15.72	5.15	~	~	~	82404	83613	Static Condenser
AEA1336AXA	115/60/1	1.70	14.6	15.72	5.15	~	85PS110C91	~	82404	K90-01	
AEB1336AXA	115/60/1	1.70	14.6	15.72	5.15	~	~	~	82404	83613	Static Condenser
AEA1338YXA	115/60/1	2.10	18.0	16.36	3.36	~	~	~	K71-05	K90-03	Condenser Fan Required
AEA1343AXA	115/60/1	2.30	18.0	16.36	3.36	~	85PS110C91	~	K71-05	K90-02	
AEB1343AXA	115/60/1	1.75	18.0	12.50	3.50	~	~	~	K71-08	8300MRPJ91	Static Condenser
AEA1360AXA	115/60/1	2.50	22.0	9.18	2.69	~	85PS110C91	~	K71-08	K90-07	
AEB1360AXA	115/60/1	2.15	22.1	~	~	~	~	~	~	8300MRPG15	
AEA1360YXA	115/60/1	2.05	20.7	13.30	2.30	~	~	~	K71-08	K90-04	Static Condenser
AEA1380AXA	115/60/1	3.65	31.0	11.96	1.94	~	85PS110C91	~	82403	K90-07	
AEB1380AXA	115/60/1	2.75	26.6	11.98	1.59	~	~	~	820966J81	K90-08	
AEA1380YXA	115/60/1	2.60	24.0	11.82	1.69	~	~	~	820RR12G21	8300MRPG97	Condenser Fan Required
AEA1410AXA	115/60/1	4.10	35.0	6.69	1.54	~	~	~	820RR12B11	K90-14	
AEA1410YXA	115/60/1	3.20	28.0	12.33	1.55	~	~	~	82453	8300MRPH37	Condenser Fan Required
AEB1411AXA	115/60/1	3.80	32.0	10.45	1.27	~	~	~	8200EMB05	K90-09	
AEA1411EXA	115/60/1	4.50	31.0	12.42	1.40	~	85PS110C76	~	K71-09	K90-10	Condenser Fan Required
AEA1413AXA	115/60/1	4.60	35.0	6.69	1.54	~	~	~	820RR12B11	8300MRTC13	
AEB1413AXA	115/60/1	4.20	32.0	10.45	1.27	~	~	~	8200EMB05	K90-09	
AEA1413YXA	115/60/1	5.00	37.5	13.95	0.97	~	~	~	820RR12A10	8300MRTE48	Condenser Fan Required
AEA1415EXA	115/60/1	5.20	39.0	15.22	0.87	~	85PS110C76	~	820RR12A76	K90-16	Condenser Fan Required

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N	Run Cap P/N	Relay	Overload	Remarks
				Start	Run	Line to Line	or MFD/Volt	or MFD/Volt			
AEA2380ZXA	115/60/1	4.40	30.2	6.59	1.36	~	85PS110C76	~	K71-12	K90-11	Condenser Fan Required
AEA2410YXA	115/60/1	5.60	40.0	5.94	1.10	~	85PS110C92	~	K71-01	K90-17	Condenser Fan Required
AEA2411JXA	115/60/1	4.40	30.2	6.59	1.36	~	85PS110C76	~	K71-12	K90-11	Condenser Fan Required
AEA2411ZXA	115/60/1	5.90	40.0	5.94	1.10	~	85PS165C27	~	K71-01	K90-15	Condenser Fan Required
AEA2411ZXD	208-230/60/1	2.50	20.9	20.40	3.90	~	85PS250C30	~	820RR12L30	8300MRPG95	Condenser Fan Required
AEA2413AXA	115/60/1	4.80	30.2	6.59	1.36	~	85PS110C76	~	K71-12	K90-12	
AEA2413YXA	115/60/1	5.90	40.0	5.94	1.10	~	85PS110C92	~	K71-01	K90-17	Condenser Fan Required
AEA2415AAB	115/60/1	8.30	40.0	5.94	1.10	~	85PS110C92	~	K71-01	K90-17	Condenser Fan Required
AEA2415AXD	208-230/60/1	3.10	20.5	20.40	3.90	~	85PS220D02	~	82427	8300MRPD92	Condenser Fan Required
AEA3414APP	220-60-1	1.23	8.5	60.66	12.76	~	~	~	82407	83701	Condenser Fan Required
AEA2416JXA	115/60/1	5.90	40.0	5.94	1.10	~	85PS165C27	~	K71-01	K90-15	Condenser Fan Required
AEA3414AXA	115/60/1	2.90	18.0	16.36	3.36	~	85PS110C91	~	K71-05	K90-07	Condenser Fan Required
AEA3414YXA	115/60/1	3.14	14.43	16.36	3.36	~	85PS110C91	~	K71-05	K90-07	Condenser Fan Required
AEA3414YXP	220-60-1	1.60	8.5	60.66	12.76	~	~	~	8200EMB66	8300MRPF31	Condenser Fan Required
AEA3415ZXA	115/60/1	3.30	22.0	9.18	2.69	~	~	~	K71-08	8300MRPE07	Condenser Fan Required
AEA3417AXA	115/60/1	3.40	22.0	9.18	2.69	~	85PS110C91	~	K71-08	K90-07	Condenser Fan Required
AEA3417YXA	115/60/1	3.40	22.0	9.18	2.69	~	85PS110C91	~	K71-08	K90-07	Condenser Fan Required
AEA3417YXD	208-230/60/1	1.90	13.7	44.81	6.86	~	~	~	82415	K90-01	
AEA3425AXA	115/60/1	4.40	24.0	11.85	2.29	~	85PS110C91	~	82403	K90-08	Condenser Fan Required
AEB3425AXA	115/60/1	4.00	26.6	~	~	~	~	~	82403	K90-07	Condenser Fan Required
AEA3425YXA	115/60/1	4.40	24.0	11.85	2.29	~	85PS110C91	~	820RR12L01	K90-10	
AEA3425YXD	208-230/60/1	2.20	13.7	44.81	6.86	~	53-64/220	~	82415	8300MRAN80	
AEA3430AXA	115/60/1	5.40	28.0	12.24	1.83	~	85PS110C91	~	K71-09	K90-10	Condenser Fan Required
AEA3430YXA	115/60/1	5.40	28.0	12.24	1.83	~	85PS110C91	~	K71-09	K90-10	Condenser Fan Required

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AEA3430YXU	100-60-1	5.70	36.0	9.71	1.03	~	~	~	82453	K90-15	Condenser Fan Required
AEA3440AXA	115/60/1	5.40	28.0	10.66	1.51	~	85PS110C91	~	K71-10	K90-16	Condenser Fan Required
AEB3440AXA	115/60/1	6.20	37.5	~	~	~	~	~	~	~	Condenser Fan Required
AEA3440YXA	115/60/1	6.90	35.0	10.66	1.51	~	85PS110C90	~	K71-10	K90-21	Condenser Fan Required
AEA3440YXD	208-230/60/1	3.60	21.8	32.28	4.23	~	~	~	K71-08	8300MRPM67	Condenser Fan Required
AEA3448AXA	115/60/1	8.70	40.0	16.13	0.98	~	~	~	820RR12C28	8300MRAJ87	Condenser Fan Required
AEA3448YXA	115/60/1	8.70	40.0	17.27	0.96	~	~	~	820RR12C28	8300MRAJ87	Condenser Fan Required
AEA4430AXA	115/60/1	5.00	29.0	5.05	1.83	~	85PS110C76	~	K71-09	K90-11	Condenser Fan Required
AEA4430AXD	208-230/60/1	2.80	14.4	14.75	5.63	~	53-64/220	~	82476	8300MRPB02	Condenser Fan Required
AEA4430YXA	115/60/1	5.30	29.0	5.05	1.83	~	85PS110C76	~	K71-09	K90-12	Condenser Fan Required
AEA4430YXD	208-230/60/1	2.80	14.4	14.75	5.63	~	85PS250D06	~	14949174	8300MRPM85	Condenser Fan Required
AEA4440AXA	115/60/1	6.80	32.7	10.60	1.27	~	85PS110C90	~	K71-10	K90-16	Condenser Fan Required
AEA4440AXD	208-230/60/1	3.60	16.8	26.67	4.80	~	85PS250D05	~	K71-08	8300MRPA97	Condenser Fan Required
AEA4440YXA	115/60/1	7.20	32.7	10.60	1.27	~	85PS110C90	~	K71-10	K90-16	Condenser Fan Required
AEA4440YXD	208-230/60/1	3.90	19.0	26.19	4.55	~	85PS250D05	~	K71-08	K90-08	Condenser Fan Required
AEA4448AXA	115/60/1	8.30	40.0	5.94	1.10	~	85PS110C92	~	K71-01	K90-19	Condenser Fan Required
AEA4448YXA	115/60/1	8.14	40.0	5.94	1.10	~	85PS110C92	~	K71-01	K90-22	Condenser Fan Required
AEA4448YXD	208-230/60/1	5.30	24.5	20.40	3.46	~	85PS250C30	~	820RR12L03	8300MRAN90	Condenser Fan Required
AEA5455EXA	115/60/1	6.20	28.0	13.63	1.36	~	85PS330D65	85PR370E36	K71-19	83949	
AEA5460EXA	115/60/1	7.00	31.0	12.78	1.13	~	85626	85PR370E36	K71-19	K90-21	
AEA5465EXA	115/60/1	7.70	34.0	11.80	0.87	~	85626	85PR370E36	K71-19	8300MRAA06	
AEA5465EXD	208-230/60/1	4.00	20.0	8.63	3.02	~	85PS330D65	85PR370E36	820ARR3B09	8300MRPC07	
AEA5465EXV	265/60/1	3.32	16.0	11.98	4.50	~	85PS330D65	85PR440F24	820ARR3B85	8300MRPB68	
AEA5470EXA	115/60/1	8.30	38.0	11.73	0.83	~	85626	85PR370E36	K71-19	8300MRAA94	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AEA8458EXA	115/60/1	5.20	24.0	13.31	1.56	~	85626	85PR370E36	K71-19	8300MARC45	
AEA8467EXA	115/60/1	6.00	34.0	~	~	~	85626	85PR370E36	K71-19	K90-10	
AEA8469EXA	115/60/1	6.20	34.0	~	~	~	85626	85PR370E36	K71-19	K90-10	
AEA8475EXA	115/60/1	7.00	34.0	12.44	1.02	~	85626	85PR370E36	K71-19	8300MRAB59	
AEA9415EXA	115/60/1	4.30	29.0	5.05	1.83	~	85PS110C76	~	K71-09	K90-12	Condenser Fan Required
AEA9415ZXA	115/60/1	4.50	29.0	5.05	1.83	~	85PS110C76	~	K71-09	K90-13	Condenser Fan Required
AEA9419YXA	115/60/1	5.40	38.0	6.08	0.97	~	85PS165C27	~	K71-01	8300MRPE79	
AEA9422EXA	115/60/1	6.10	40.0	5.94	1.10	~	85PS165C27	~	K71-01	K90-15	Condenser Fan Required
AEA9422EXD	208-230/60/1	3.20	20.5	20.40	3.90	~	85PS250C30	~	820RR12L30	8300MRAN11	
AEA9422ZXA	115/60/1	6.70	40.0	5.94	1.10	~	85PS165C27	~	K71-01	K90-21	Condenser Fan Required
AEA9422ZXD	208-230/60/1	3.40	21.0	17.25	3.31	~	85PS250C30	~	820RR12L30	8300MRPP74	
AEA9423YXA	115/60/1	7.70	45.0	5.82	0.82	~	85PS110C92	~	K71-06	8300MRTE81	
AGA4534AXG	460/60/3	5.50	32.0	~	~	5.59	~	~	~	INTERNAL	
AGA4534AXN	208-230/60/1	17.00	90.0	2.52	0.687	~	85PS330D16	85PR440F28	K71-20	INTERNAL	
AGA4534AXT	200-230/60/3	10.40	60.0	~	~	1.63	~	~	~	INTERNAL	
AGA4543AXG	460/60/3	7.00	47.0	~	~	3.83	~	~	~	INTERNAL	
AGA4543AXN	208-230/60/1	22.50	115.0	2.358	0.479	~	85PS330D16	85PR440F28	K71-20	INTERNAL	
AGA4543AXT	200-230/60/3	13.80	93.0	~	~	0.957	~	~	~	INTERNAL	
AGC5546EXG	460/60/3	7.00	47.0	~	~	3.83	~	~	~	INTERNAL	
AGA5546EXH	575/60/3	5.30	30.0	~	~	7.88	~	~	~	INTERNAL	
AGA5546EXN	208-230/60/1	22.70	115.0	2.358	0.479	~	85PS330D16	85PR440F28	K71-20	INTERNAL	
AGB5546EXN	208-230/60/1	20.80	130.0	~	~	~	85PS330D18	85PR370F17	K71-20	INTERNAL	2 R/Caps required
AGA5546EXT	200-230/60/3	13.50	93.0	~	~	0.957	~	~	~	INTERNAL	
AGC5553EXG	460/60/3	7.80	54.0	~	~	2.88	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AGA5553EXH	575/60/3	6.00	30.0	~	~	7.88	~	~	~	INTERNAL	
AGA5553EXN	208-230/60/1	26.20	132.0	2.05	0.395	~	85PS330D16	85PR440E65	K71-20	INTERNAL	
AGB5553EXN	208-230/60/1	24.60	148.0	~	~	~	85PS330D18	85PR370F17	K71-20	INTERNAL	2 R/Caps required
AGA5553EXT	200-230/60/3	15.50	103.0	~	~	0.824	~	~	~	INTERNAL	
AGB5553EXT	200-230/60/3	15.10	137.0	~	~	0.572	~	~	~	INTERNAL	
AGC5561EXG	460/60/3	9.50	62.0	~	~	2.48	~	~	~	INTERNAL	
AGA5561EXH	575/60/3	7.00	39.0	~	~	5.89	~	~	~	INTERNAL	
AGA5561EXN	208-230/60/1	30.50	165.0	1.673	0.359	~	85PS330D16	85PR440E90	K71-20	INTERNAL	
AGB5561EXN	208-230/60/1	27.80	180.0	~	~	~	85PS330D18	85PR370F21	820ARR3C64	INTERNAL	2 R/Caps required
AGA5561EXT	200-230/60/3	18.00	126.0	~	~	0.658	~	~	~	INTERNAL	
AGB5561EXT	200-230/60/3	18.00	158.0	~	~	0.421	~	~	~	INTERNAL	
AGC5568EXG	460/60/3	10.60	75.0	~	~	2.04	~	~	~	INTERNAL	
AGB5568EXH	575/60/3	7.70	49.0	~	~	3.38	~	~	~	INTERNAL	
AGA5568EXN	208-230/60/1	34.50	179.0	1.61	0.253	~	85PS330D16	85PR440E90	K71-20	INTERNAL	
AGA5568EXT	200-230/60/3	20.00	135.0	~	~	0.614	~	~	~	INTERNAL	
AGA5573EXG	460/60/3	11.80	79.0	~	~	1.68	~	~	~	INTERNAL	
AGA5573EXH	575/60/3	9.40	62.0	~	~	2.69	~	~	~	INTERNAL	
AGA5573EXT	200-230/60/3	22.20	165.0	~	~	0.428	~	~	~	INTERNAL	
AGA9530ZXC	460/60/3	7.50	62.0	~	~	2.48	~	~	~	INTERNAL	
AGA9530ZXN	208-230/60/1	25.00	165.0	1.673	0.359	~	85PS330D18	85PR440E90	K71-20	INTERNAL	
AGA9530ZXT	200-230/60/3	16.00	126.0	~	~	0.658	~	~	~	INTERNAL	
AGA9534ZXC	460/60/3	8.30	75.0	~	~	2.04	~	~	~	INTERNAL	
AGA9534ZXN	208-230/60/1	28.00	179.0	1.61	0.253	~	85PS330C84	85PR440F18	K71-20	INTERNAL	
AGA9534ZXT	200-230/60/3	17.10	135.0	~	~	0.614	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N	Run Cap P/N	Relay	Overload	Remarks
				Start	Run	Line to Line	or MFD/Volt	or MFD/Volt			
AHA2435AXD	208-230/60/1	6.40	45.0	2.50	1.83	~	85PS250A58	~	820RR18K24	INTERNAL	Relay needs 91112 brkt.
AHA2445AXD	208-230/60/1	8.20	51.0	2.60	1.24	~	85PS250A58	~	820RR18K26	INTERNAL	Relay needs 91112 brkt.
AHA2445AXF	208-230/60/3	3.80	34.0	~	~	2.78	~	~	~	INTERNAL	
AHA2445AXG	460/60/3	2.70	24.0	~	~	6.26	~	~	~	INTERNAL	
AHA2465ZXB	230/60/1	10.70	75.0	3.59	0.65	~	85PS330C84	85PR370E35	K71-17	INTERNAL	
AHA2465ZXF	208-230/60/3	6.00	47.0	~	~	1.72	~	~	~	INTERNAL	
AHA2466AXD	208-230/60/1	9.70	71.0	3.95	0.68	~	85PS250A58	85PR370E35	K71-17	INTERNAL	
AHA2466AXF	208-230/60/3	5.40	47.0	~	~	1.72	~	~	~	INTERNAL	
AHA2466AXG	460/60/3	2.70	24.0	~	~	6.26	~	~	~	INTERNAL	
AHA2480JXB	230/60/1	9.70	75.0	3.59	0.65	~	85PS250A58	85PR370E35	K71-17	INTERNAL	
AHA2480JXF	208-230/60/3	5.60	47.0	~	~	1.72	~	~	~	INTERNAL	
AH2490AT	208-230/60/1	8.20	51.0	~	~	~	85PS250A58	~	8206409A50	INTERNAL	2 Relays and S/Caps required
AHA2490ZXD	208-230/60/1	14.20	103.0	2.08	0.52	~	85PS330D16	85PR440F18	K71-20	INTERNAL	
AHA2490ZXF	208-230/60/3	8.10	65.0	~	~	1.50	~	~	~	INTERNAL	
AHA2490ZXG	460/60/3	3.80	27.0	~	~	6.05	~	~	~	INTERNAL	
AHA2511JXB	230/60/1	11.40	108.0	~	~	~	85PS250A58	85PR370F17	K71-17	INTERNAL	
AHB2511JXD	208-230/60/1	11.40	94.8	2.41	0.53	~	85PS330D18	85PR370F20	820ARR3C44	INTERNAL	
AHB2511JXF	208-230/60/3	7.00	65.0	~	~	1.50	~	~	~	INTERNAL	
AHB2511JXG	460/60/3	3.80	27.0	~	~	6.05	~	~	~	INTERNAL	
AH2513AT	208-230/60/1	9.70	71.0	~	~	~	85PS250A58	85PR370E35	K71-17	INTERNAL	2 ea req'd: Relays, S/Caps, and R/Caps
AHA4518AXD	208-230/60/1	10.00	45.0	3.65	1.27	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA4518AXF	208-230/60/3	6.20	34.0	~	~	2.78	~	~	~	INTERNAL	
AHA4518AXG	460/60/3	3.60	24.0	~	~	6.26	~	~	~	INTERNAL	
AHA4520EXD	208-230/60/1	10.0	51.0	3.74	1.04	~	85PS250D09	85PR370F17	K71-19	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AHA4520EXF	208-230/60/3	5.00	55.5	~	~	1.57	~	~	~	INTERNAL	
AHA4520EXG	460/60/3	3.20	24.0	~	~	6.26	~	~	~	INTERNAL	
AHA4522EXD	208-230/60/1	11.00	51.0	3.74	1.04	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA4522EXF	208-230/60/3	7.00	55.5	~	~	1.57	~	~	~	INTERNAL	
AHA4524EXD	208-230/60/1	12.20	60.0	3.65	0.87	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA4524EXF	208-230/60/3	8.00	55.5	~	~	1.57	~	~	~	INTERNAL	
AHA4524EXG	460/60/3	3.80	24.0	~	~	6.26	~	~	~	INTERNAL	
AHA4525AXD	208-230/60/1	15.00	71.0	2.75	0.864	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA4525AXG	460/60/3	4.50	24.0	~	~	6.26	~	~	~	INTERNAL	
AHA4531EXD	208-230/60/1	16.50	76.0	3.81	0.63	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA4531EXF	208-230/60/3	9.75	65.0	~	~	1.50	~	~	~	INTERNAL	
AHA4531EXG	460/60/3	4.90	27.0	~	~	6.05	~	~	~	INTERNAL	
AHA4540EXD	208-230/60/1	22.50	103.0	2.08	0.52	~	85PS330D16	85PR440F18	K71-20	INTERNAL	
AHA4540EXF	208-230/60/3	12.50	72.0	~	~	1.13	~	~	~	INTERNAL	
AHA4540EXG	460/60/3	6.20	35.0	~	~	4.58	~	~	~	INTERNAL	
AH4550AT	208-230/60/1	12.00	71.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	2 ea req'd: Relays, S/Caps, and R/Caps
AH5519E	208-230/60/1	11.50	50.0	4-7	5-9	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5520E, F	208-230/60/1	10.00	51.0	2-5	3-7	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5520E, F	265/60/1	11.00	60.0	~	~	~	85PS330C23	85PR440F18	K71-20	INTERNAL	
AH5520E, F	200-230/60/3	6.00	51.0	~	~	1.63	~	~	~	INTERNAL	
AH5522E, F	208-230/60/1	10.50	55.0	2-5	3-7	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5522E, F	265/60/1	11.50	65.0	2-7	4-7	~	85PS330C23	85PR440F18	K71-20	INTERNAL	
AH5522E	200-230/60/3	6.00	51.0	~	~	1.63	~	~	~	INTERNAL	
AH5524E, F	208-230/60/1	10.40	60.0	2-5	3-7	~	85PS250D09	85PR370F17	K71-19	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AH5524E, F	265/60/1	11.50	65.0	2-5	3-7	~	85PS330C23	85PR440F18	K71-20	INTERNAL	
AH5524E	200-230/60/3	6.50	60.0	~	~	1.63	~	~	~	INTERNAL	
AHA5527EXD	208-230/60/1	14.40	71.0	1-5	2-6	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5527E, F	265/60/1	11.50	73.0	1-5	2-6	~	85PS330C23	85PR440F18	K71-20	INTERNAL	
AH5527E	200-230/60/3	7.60	63.4	~	~	1.28	~	~	~	INTERNAL	
AH5530E, F	208-230/60/1	15.00	76.0	2-5	2-6	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5531E, F	208-230/60/1	16.50	76.0	2-5	2-6	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5531E, F	265/60/1	14.40	71.0	2-5	3-6	~	85PS330C23	85PR440F18	K71-20	INTERNAL	
AH5531E	200-230/60/3	8.20	63.4	~	~	1.28	~	~	~	INTERNAL	
AH5533E	208-230/60/1	16.50	76.0	2-5	3-6	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5533E	265/60/1	14.40	71.0	~	~	~	85PS330C23	85PR440F18	K71-20	INTERNAL	
AH5534E	208-230/60/1	15.80	88.0	1-5	2-5	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH5534E	200-230/60/3	9.70	65.1	~	~	1.58	~	~	~	INTERNAL	
AH5534E	460/60/3	4.76	32.8	~	~	6.27	~	~	~	INTERNAL	
AH5540E	208-230/60/1	22.00	103.0	1-5	1-5	~	85PS330D16	85PR440F18	K71-20	INTERNAL	
AH5540E	200-230/60/3	10.80	73.4	~	~	1.31	~	~	~	INTERNAL	
AH5540E	460/60/3	5.30	37.7	~	~	5.25	~	~	~	INTERNAL	
AHA7480AXD	208-230/60/1	6.50	41.0	4.28	1.80	~	85PS330D16	85PR370E36	K71-17	INTERNAL	
AHA7480AXF	208-230/60/3	4.20	34.0	~	~	2.78	~	~	~	INTERNAL	
AHA7511AXD	208-230/60/1	9.00	41.0	4.28	1.80	~	85PS330D16	85PR370F20	K71-17	INTERNAL	
AHB7511AXD	208-230/60/1	8.60	45.0	3.65	1.27	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA7511AXF	208-230/60/3	5.70	34.0	~	~	2.78	~	~	~	INTERNAL	
AHA7513ZXD	208-230/60/1	11.70	67.4	3.48	0.81	~	85PS330D15	85PR370F17	K71-16	INTERNAL	
AHA7513ZXF	208-230/60/3	7.75	55.5	~	~	1.57	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AHA7514AXD	208-230/60/1	10.40	60.0	3.48	0.80	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA7514AXF	208-230/60/3	7.30	55.5	~	~	1.57	~	~	~	INTERNAL	
AHA7515JXB	230/60/1	11.50	60.0	3.65	0.87	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AHA7515JXF	208-230/60/3	7.50	55.0	~	~	1.57	~	~	~	INTERNAL	
AHA7521ZXD	208-230/60/1	18.40	103.0	2.08	0.52	~	85PS330D16	85PR440F18	K71-20	INTERNAL	
AHA7521ZXF	208-230/60/3	10.40	65.0	~	~	1.50	~	~	~	INTERNAL	
AHA7524JXB	230/60/1	21.00	103.0	2.08	0.52	~	85PS330D16	85PR440F18	K71-20	INTERNAL	
AHA7524ZXF	208-230/60/3	11.00	65.0	~	~	1.50	~	~	~	INTERNAL	
AH8524E	208-230/60/1	9.70	57.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH8526E	208-230/60/1	10.20	57.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH8526E	265/60/1	9.20	50.0	~	~	~	85PS330C23	85PR440F18	K71-19	INTERNAL	
AH8529E	208-230/60/1	11.20	57.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH8529E	265/60/1	10.00	50.0	~	~	~	85PS330C23	85PR440F18	K71-19	INTERNAL	
AH8532E	208-230/60/1	13.00	65.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH8532E	265/60/1	11.30	61.0	~	~	~	85PS330C23	50/440	K71-20	INTERNAL	
AH8538E	208-230/60/1	14.90	75.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH8538E	265/60/1	12.80	70.0	~	~	~	85PS330C23	50/440	K71-20	INTERNAL	
AH8539E	208-230/60/1	16.40	88.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH8543E	208-230/60/1	17.10	88.0	~	~	~	85PS250D09	85PR370F17	K71-19	INTERNAL	
AH8543E	265/60/1	14.80	76.0	~	~	~	85PS330C23	50/440	K71-20	INTERNAL	
AH8548E	208-230/60/1	20.50	104.0	~	~	~	85PS330D16	85PR370F17	K71-20	INTERNAL	
AH8548E	265/60/1	17.80	92.0	~	~	~	85PS330D16	50/440	K71-20	INTERNAL	
AJ1416A	115/60/1	5.60	35.0	~	~	~	~	~	~	~	
AJ1420E	115/60/1	6.40	48.0	~	~	~	~	~	~	~	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AJA1420EXA	115/60/1	6.40	48.0	6-10	6-9	~	85PS165C98	~	~	K90-31	
AJA2416AXA	115/60/1	6.80	38.2	8.19	0.89	~	85PS165C96	~	K71-11	K90-17	
AJ2416B	115/60/1	5.90	36.0	~	~	~	145-175/165	~	~	~	
AJA2419YXA	115/60/1	6.80	68.0	3.06	0.48	~	85PS110C92	85PR370E36	K71-13	K90-30	
AJA2419ZXA	115/60/1	6.70	68.0	3.06	0.48	~	85PS110C92	85PR370E36	K71-13	K90-30	
AJA2419ZXD	208-230/60/1	3.00	34.0	3.43	1.84	~	85PS330D23	85PR370E36	820ARR3B89	K90-09	
AJA2424JXA	115/60/1	6.60	68.0	3.06	0.48	~	85PS110C92	85PR370E36	K71-13	8300CRBL10	
AJA2424JXD	208-230/60/1	3.00	34.0	3.43	1.84	~	161-193/250	85PR370E36	820ARR3B89	K90-09	
AJA2425AXA	115/60/1	7.90	57.0	3.78	0.56	~	85PS165C27	~	K71-15	8300CSTH11	
AJA2425AXD	208-230/60/1	4.30	30.0	13.40	1.93	~	85PS220D02	~	82488-1	K90-09	
AJA2425ZXA	115/60/1	7.90	68.4	3.06	0.48	~	85PS165C27	85PR370E36	K71-18	K90-35	
AJA2425ZXD	208-230/60/1	4.40	38.7	3.66	1.75	~	85PS330D23	85PR370E36	K71-16	K90-18	
AJA2430JXA	115/60/1	8.90	57.0	3.78	0.56	~	85PS125D59	~	K71-02	8300CSTL02	
AJB2433ZXA	115/60/1	10.00	67.0	2.52	0.46	~	85PS165C98	85PR370F23	K71-19	K90-29	
AJB2433ZXD	208-230/60/1	4.80	37.0	8.14	1.61	~	85PS330C23	85PR370E36	K71-17	K90-20	
AJB2444ZXD	208-230/60/1	6.50	55.0	1.00	4.10	~	85PS330D15	85PR370E35	820ARR3K15	K90-29	
AJ4443A	115/60/1	~	~	~	~	~	145-175/165	~	~	~	
AJA4461AXA	115/60/1	9.10	47.0	4.65	0.80	~	85PS165C98	~	K71-02	K90-34	
AJB4461AXA	115/60/1	9.50	45.0	8.28	0.764	~	85PS165C96	~	K71-02	8300MRTA19	
AJA4461AXD	208-230/60/1	4.50	24.0	17.3	2.77	~	85PS250D07	~	82484-1	K90-11	
AJB4461AXD	208-230/60/1	4.80	25.0	20.9	2.64	~	85PS250D06	~	82484	8300MRTA26	
AJA4492AXA	115/60/1	13.70	69.0	2.90	0.446	~	85704	~	K71-14	K90-38	
AJ4492A	208-230/60/1	7.00	41.8	9.99	1.48	~	85PS250D09	~	K71-11	K90-21	
AJA4492AXD	208-230/60/1	7.00	41.8	9.99	1.48	~	85PS250D09	~	K71-11	K90-21	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N	Run Cap P/N	Relay	Overload	Remarks
				Start	Run	Line to Line	or MFD/Volt	or MFD/Volt			
AJA4492YXA	115/60/1	13.00	69.0	2.90	0.446	~	85PS165C77	~	K71-14	K90-38	
AJA4492YXD	208-230/60/1	7.00	41.8	9.99	1.48	~	85PS250D09	~	K71-11	K90-21	
AJA4512AXD	208-230/60/1	7.00	41.0	6.57	1.47	~	85PS330C23	85PR370E36	K71-16	K90-24	
AJA4512YXD	208-230/60/1	7.00	41.0	6.57	1.47	~	85PS330C23	85PR370E36	K71-16	K90-23	
AJB5513EXA	115/60/1	14.90	70.0	~	~	~	85PS330D65	85PR370F20	~	8300CRAC08	
AJB5513EXD	208-230/60/1	7.50	37.5	9.5	1.8	~	85626	17.5/370	K71-19	83927	
AJB5515EXD	208-230/60/1	8.50	41.0	7.33	1.49	~	85626	85PR370E35	K71-19	K90-34	
AJB5515EXV	265/60/1	7.40	42.0	8.59	1.69	~	85PS330D65	85PR440F19	K71-21	K90-31	
AJA5517EXD	208-230/60/1	10.20	55.0	4.94	1.20	~	85PS330D65	85PR370E35	K71-19	K90-36	
AJA5517EXV	265/60/1	9.20	52.0	6.13	1.29	~	85PS330D65	85PR440F19	K71-21	83726	
AJA5518EXD	208-230/60/1	11.20	54.0	4.49	1.20	~	85626	85PR370F20	K71-19	83735	
AJA5518EXV	265/60/1	8.80	47.0	5.77	1.37	~	85PS330D65	85PR440F27	K71-21	K90-34	
AJA5519EXD	208-230/60/1	11.60	57.0	4.49	1.20	~	85PS330D65	85PR370F20	K71-19	K90-39	
AJA5519EXV	265/60/1	10.00	55.0	6.13	1.29	~	85PS330D65	85PR440F22	K71-21	K90-36	
AJC5519EXD	208-230/60/1	11.60	57.0	5.14	1.17	~	85PS330D65	85PR370F20	K71-19	K90-39	
AJA6435AXA	115/60/1	8.20	38.2	8.50	0.80	~	88-108/165	~	K71-11	83918	
AJA7441AXA	115/60/1	8.80	49.5	2.83	0.675	~	85PS125D59	~	K71-02	K90-33	
AJA7441AXD	208-230/60/1	5.00	29.0	6.28	2.25	~	85PS250D19	~	K71-02	K90-13	
AJA7455ZXA	115/60/1	11.20	65.0	2.88	0.55	~	340-408/165	85PR370E36	820ARR3H38	INTERNAL	
AJA7455ZXD	208-230/60/1	5.10	34.0	3.74	1.96	~	161-193/250	85PR370E36	K71-16	INTERNAL	
AJB7461JXA	115/60/1	11.20	65.0	2.76	0.55	~	340-408/165	85PR370E36	820ARR3H38	INTERNAL	
AJB7461JXD	208-230/60/1	5.15	34.0	3.55	1.96	~	85PS330D23	85PR370E36	K71-16	INTERNAL	
AJA7461YXA	115/60/1	10.10	68.0	3.06	0.48	~	85PS110C92	85PR370E36	K71-13	K90-38	
AJA7461YXD	208-230/60/1	6.40	46.0	6.33	1.34	~	85PS330C23	~	K71-11	K90-18	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AJ7465K	115/60/1	~	~	~	~	~	85PS110C92	85PR370E36	820ARR3A17	K90-38	
AJA7465AXA	115/60/1	11.60	68.0	3.06	0.48	~	85PS110C92	85PR370E36	K71-13	K90-38	
AJB7465AXD	208-230/60/1	7.00	46.0	6.61	1.34	~	85PS330C23	~	K71-02	K90-18	
AJA7490ZXD	208-230/60/1	6.90	40.6	2.74	1.52	~	85PS330C23	85PR370F21	K71-16	K90-24	
AJA7494ZXD	208-230/60/1	8.90	54.0	2.55	1.08	~	85PS250B87	85PR370F20	K71-16	INTERNAL	
AJB7510JXD	208-230/60/1	8.80	54.0	2.55	1.08	~	85PS250B87	85PR370F20	820ARR3B61	INTERNAL	
AJA8520EXD	208-230/60/1	7.80	40.6	2.82	1.43	~	85PS330D65	85PR370F21	820ARR3B16	K90-24	
AJD8520EXV	265/60/1	6.20	34.0	2.46	2.02	~	85PS330D65	85PR370E63	820ARR3B16	INTERNAL	
AJA9484EXD	208-230/60/1	6.90	54.0	2.71	1.23	~	85PS250B87	85PR370F20	K71-16	K90-35	
AKA2415ZXA	115/60/1	4.90	30.0	3.43	1.05	~	85PS330D14	85PR370F17	820ARR3K52	8300MSTH07	
AKA2415ZXD	208-230/60/1	2.30	20.0	4.66	3.67	~	85PS330D14	85PR370E35	820ARR3K53	8300MRPT82	
AKA2419ZXD	208-230/60/1	2.60	20.0	7.46	3.34	~	85PS330D12	85PR370E36	K71-16	8300RBCT81	
AKA2425ZXD	208-230/60/1	3.20	27.0	3.43	3.04	~	85PS330D14	85PR370F20	82759	8300RBCT81	
AKA4460YXA	115/60/1	9.50	48.0	4.60	0.66	~	85PS165C96	~	K71-02	K90-35	
AKA4460YXD	208-230/60/1	8.40	23.0	6.23	2.75	~	85PS330D12	~	K71-22	K90-13	
AKA4476YXA	115/60/1	11.30	58.8	4.22	0.59	~	85PS125D59	~	K71-02	K90-27	
AKB4476YXA	115/60/1	10.00	43.5	6.65	0.71	~	161-193/250	85PR370E36	820ARR3K56	8300MRAT53	
AKA4476YXD	208-230/60/1	5.70	27.4	4.70	2.23	~	85PS250D10	~	K71-22	K90-19	
AKA4482YXA	115/60/1	12.30	59.0	10.17	0.56	~	85PS250D07	~	K71-11	K90-27	
AKA5460EXA	115/60/1	6.00	29.8	~	~	~	85PS330D65	85PR370F20	820ARR3B09	8300MRAC75	
AKA5470EXA	115/60/1	7.10	35.0	10.01	1.03	~	85PS330D65	85PR370E36	K71-19	K90-22	
AKA5470YXA	115/60/1	11.30	58.8	4.22	0.59	~	85PS330D65	85PR370E36	K71-19	K90-19	
AKA5470EXD	208-230/60/1	3.50	22.4	~	~	~	85PS330D65	85PR370E36	820ARR3H13	8300MRAD31	
AKA5470EXV	265/60/1	3.00	19.0	~	~	~	85PS330D65	85PR370E36	~	~	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AKA5483EXA	115/60/1	9.00	43	12.09	0.72	~	85PS330D65	85PR370E36	K71-19	K90-26	
AKA5483EXD	208-230/60/1	4.40	21.3	7.76	2.86	~	85PS330D65	85PR370E36	K71-19	K90-16	
AKA5483EXV	265/60/1	3.90	22.3	13.80	4.17	~	85PS330D65	85PR370E36	K71-19	8300MRAB55	
AKA5494EXA	115/60/1	10.40	46.0	~	~	~	85626	85PR370E36	K71-19	K90-25	
AKA5494EXD	208-230/60/1	5.50	26.0	~	~	~	85626	85PR370E36	~	8300MRAC72	
AKA5510EXA	115/60/1	10.50	47.0	6.19	0.69	~	85PS330D65	85PR370F20	K71-19	K90-25	
AKA5510EXD	208-230/60/1	5.70	28.0	8.90	2.59	~	85626	85PR370E36	K71-19	K90-19	
AKA5510EXV	265/60/1	5.00	27.4	9.63	3.04	~	85PS330D65	85PR370E36	K71-19	K90-14	
AKA5511EXA	115/60/1	11.00	50.0	5.95	0.69	~	85626	85PR370F20	K71-19	K90-39	
AKA5511EXD	208-230/60/1	6.00	31.0	10.43	1.77	~	85PS330D12	85PR370E36	82243	8300MRAC46	
AKA5512EXA	115/60/1	12.50	62.0	7.17	0.557	~	85PS330D65	85PR370F20	K71-21	K90-39	
AKA5512EXD	208-230/60/1	6.80	34.0	10.23	1.72	~	85PS330D12	85PR370E36	K71-16	K90-22	
AKA5512EXV	265/60/1	5.50	33.0	8.78	2.34	~	85PS330D65	85PR440F24	K71-21	K90-18	
AKA8475EXA	115/60/1	5.60	29.8	4.97	1.24	~	85626	85PR370F20	820ARR3B09	8300MRAC75	
AKA8475EXD	208-230/60/1	2.80	15.9	6.54	3.93	~	85PS330D65	85PR370E36	K71-19	8300MRAE77	
AKA8475EXV	265/60/1	2.60	12.3	8.57	5.96	~	85PS330D65	85PR370E36	K71-19	8300MRAE78	
AKA8483EXA	115/60/1	6.60	35.0	~	~	~	85PS330D65	85PR370E36	K71-19	~	
AKA8494EXA	115/60/1	7.00	40.0	3.09	0.80	~	85626	85PR370F17	820ARR3B09	8300MRAD64	
AKA8494EXD	208-230/60/1	3.50	20.0	7.19	3.26	~	85PS330D65	85PR370E36	K71-19	8300MRAD96	
AKA8494EXV	265/60/1	3.00	16.0	7.80	4.15	~	85PS330D65	85PR370E36	K71-19	8300MRAD97	
AKA8511EXA	115/60/1	8.90	50.0	5.95	0.69	~	85626	85PR370F20	K71-19	K90-39	
AKA8511EXD	208-230/60/1	4.80	31.0	10.43	1.77	~	85626	17.5/370	K71-19	8300MRAC46	
AKA8511EXV	265/60/1	3.80	26.3	7.11	2.69	~	85PS330D65	85PR370E36	K71-19	8300MRAF48	
AKA8512CXV	265/60/1	4.00	26.3	7.15	2.75	~	85PS330D65	85PR370E36	K71-19	8300MRAD17	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N	Run Cap P/N	Relay	Overload	Remarks
				Start	Run	Line to Line	or MFD/Volt	or MFD/Volt			
AKA8512EXA	115/60/1	9.40	53.0	~	~	~	~	~	~		
AKA8512EXD	208-230/60/1	4.60	31.2	4.44	2.36	~	85PS330D65	85PR370F20	820ARR3C24	8300MRAF10	
AKA8512EXV	265/60/1	4.20	26.3	7.11	2.69	~	85PS330D65	85PR370E36	K71-19	8300MRAD17	
AKA8513EXA	115/60/1	10.80	50.0	5.95	0.69	~	85626	85PR370F20	K71-19	K90-39	
AKA8513EXD	208-230/60/1	5.80	31.0	10.43	1.77	~	85626	85PR370E36	K71-19	8300MRAC46	
AKA8513EXV	265/60/1	4.70	26.3	7.11	2.69	~	85PS330D65	85PR370E36	K71-19	8300MARD17	
AKA8514EXA	115/60/1	10.75	53.0	2.95	0.65	~	85626	85PR370F21	820ARR3B16	8300CRAC05	
AKA8514EXD	208-230/60/1	5.50	31.2	4.61	2.25	~	85PS330D65	85PR370F20	820ARR3C24	8300MRAE61	
AKA8514EXV	265/60/1	4.80	27.0	8.19	2.75	~	85PS330D65	85PR440F24	K71-19	8300MRAE57	
AKA8515CXV	265/60/1	4.90	33.0	8.78	2.38	~	85PS330D65	85PR440F24	K71-21	K90-18	
AKA8515EXA	115/60/1	13.00	75.0	7.77	0.438	~	85PS330D65	85PR370F17	K71-19	8300CRAK78	
AKA8515EXD	208-230/60/1	6.20	36.0	6.09	2.15	~	85PS330D65	85PR370F20	K71-19	8300MSTE14	
AKA8515EXV	265/60/1	5.40	33.0	8.78	2.34	~	85PS330D65	85PR440F24	K71-21	K90-18	
AKA9427ZXA	115/60/1	7.80	48.0	4.60	0.66	~	85PS165C96	~	K71-02	K90-19	
AKA9427ZXD	208-230/60/1	3.80	23.0	6.23	2.75	~	72-88/370	~	82484-1	K90-09	
AKA9428EXA	115/60/1	7.30	48.0	4.60	0.66	~	85PS165C96	~	K71-02	K90-35	
AKA9428EXD	208-230/60/1	3.70	23.0	6.23	2.75	~	85PS330D12	~	82484-1	K90-13	
AKA9428ZXA	115/60/1	7.30	48.0	4.60	0.66	~	85PS165C96	~	K71-02	K90-35	
AKA9428ZXD	208-230/60/1	3.70	23.0	6.23	2.75	~	85PS330D12	~	82484-1	K90-13	
AKA9434AXA	115/60/1	7.75	48.0	4.60	0.66	~	85PS165C96	~	K71-02	K90-23	
AKA9434AXD	208-230/60/1	4.20	23.0	4.60	0.66	~	85PS330D12	~	K71-02	K90-23	
AKA9438ZXA	115/60/1	9.20	58.8	4.22	0.59	~	85PS125D59	85PR370F23	K71-02	K90-34	
AKA9438ZXD	208-230/60/1	4.30	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	K90-12	
AKA9441AXA	115/60/1	9.20	58.8	4.22	0.59	~	85PS125D59	~	K71-02	K90-23	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N	Run Cap P/N	Relay	Overload	Remarks
				Start	Run	Line to Line	or MFD/Volt	or MFD/Volt			
AKA9441AXD	208-230/60/1	4.60	27.4	4.70	2.23	~	85PS250D10	~	8200EMBJ93	K90-19	
AKA9442EXA	115/60/1	8.80	58.8	4.22	0.59	~	85PS125D59	~	K71-02	K90-37	
AKA9442EXD	208-230/60/1	4.00	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	K90-16	
AKA9451ZXA	115/60/1	9.40	50.0	5.95	0.69	~	85PS250C30	85PR370F20	K71-19	K90-24	
AKA9451ZXD	208-230/60/1	5.20	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	8300MRAM71	
AKA9455EXD	208-230/60/1	4.90	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	K90-20	
AKA9455ZXA	115/60/1	10.10	50.0	5.95	0.69	~	85PS250C30	85PR370F20	K71-19	K90-27	
AKA9455ZXD	208-230/60/1	5.70	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	K90-20	
AKA9458JXA	115/60/1	9.30	50.0	5.95	0.69	~	85PS250C30	85PR370F20	K71-19	K90-27	
AKA9458JXD	208-230/60/1	5.20	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	K90-16	
AKA9462EXD	208-230/60/1	5.30	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	K90-20	
AKA9462ZXA	115/60/1	11.90	68.0	7.12	0.45	~	85PS250C30	85PR370F20	K71-19	K90-40	
AKA9462ZXD	208-230/60/1	6.80	34.0	10.23	1.72	~	85PS330D12	85PR370E36	K71-16	K90-22	
AKA9466JXA	115/60/1	10.40	50.0	5.95	0.69	~	85PS250C30	85PR370F20	K71-19	8300MRAG76	
AKA9466JXD	208-230/60/1	5.90	31.0	10.43	1.77	~	85PS330D12	85PR370E36	K71-17	K90-20	
AKA9474JXA	115/60/1	12.20	68.0	7.12	4.50	~	85PS330D12	85PR370F20	K71-16	K90-40	
AKA9474JXD	208-230/60/1	6.80	34.0	10.23	1.72	~	85PS250C30	85PR370E36	K71-16	K90-22	
ANA5590EXG	460/60/3	13.70	86.1	~	~	1.35	~	~	~	INTERNAL	
ANB5590EXG	460/60/3	13.70	86.1	~	~	1.35	~	~	~	INTERNAL	
ANC5590EXG	460/60/3	13.70	86.1	~	~	1.35	~	~	~	INTERNAL	
AND5590EXG	460/60/3	13.70	86.1	~	~	1.35	~	~	~	INTERNAL	
ANA5590EXT	200-230/60/3	27.00	172.0	~	~	0.343	~	~	~	INTERNAL	
ANB5590EXT	200-230/60/3	27.00	172.0	~	~	0.343	~	~	~	INTERNAL	
ANC5590EXT	200-230/60/3	27.00	172.0	~	~	0.343	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AND5590EXT	200-230/60/3	27.00	172.0	~	~	0.343	~	~	~	INTERNAL	
ANA5610EXG	460/60/3	14.40	93.3	~	~	1.33	~	~	~	INTERNAL	
ANB5610EXG	460/60/3	14.40	93.3	~	~	1.33	~	~	~	INTERNAL	
ANC5610EXG	460/60/3	14.40	93.3	~	~	1.33	~	~	~	INTERNAL	
AND5610EXG	460/60/3	14.40	93.3	~	~	1.33	~	~	~	INTERNAL	
ANA5610EXT	200-230/60/3	29.00	183.0	~	~	0.330	~	~	~	INTERNAL	
ANB5610EXT	200-230/60/3	29.00	183.0	~	~	0.330	~	~	~	INTERNAL	
ANC5610EXT	200-230/60/3	29.00	183.0	~	~	0.330	~	~	~	INTERNAL	
AND5610EXT	200-230/60/3	29.00	183.0	~	~	0.330	~	~	~	INTERNAL	
ANA5612EXG	460/60/3	17.80	116.0	~	~	0.918	~	~	~	INTERNAL	
ANB5612EXG	460/60/3	17.80	116.0	~	~	0.918	~	~	~	INTERNAL	
ANC5612EXG	460/60/3	17.80	116.0	~	~	0.918	~	~	~	INTERNAL	
AND5612EXG	460/60/3	17.80	116.0	~	~	0.918	~	~	~	INTERNAL	
ANA5612EXH	575/60/3	14.50	91.0	~	~	1.61	~	~	~	INTERNAL	
ANB5612EXH	575/60/3	14.50	91.0	~	~	1.61	~	~	~	INTERNAL	
ANC5612EXH	575/60/3	14.50	91.0	~	~	1.61	~	~	~	INTERNAL	
AND5612EXH	575/60/3	14.50	91.0	~	~	1.61	~	~	~	INTERNAL	
ANA5612EXT	200-230/60/3	36.00	229.0	~	~	0.255	~	~	~	INTERNAL	
ANB5612EXT	200-230/60/3	36.00	229.0	~	~	0.255	~	~	~	INTERNAL	
ANC5612EXT	200-230/60/3	36.00	229.0	~	~	0.255	~	~	~	INTERNAL	
AND5612EXT	200-230/60/3	36.00	229.0	~	~	0.255	~	~	~	INTERNAL	
ANA5614EXG	460/60/3	20.80	135.0	~	~	0.839	~	~	~	INTERNAL	
ANB5614EXG	460/60/3	20.80	135.0	~	~	0.839	~	~	~	INTERNAL	
ANC5614EXG	460/60/3	20.80	135.0	~	~	0.839	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AND5614EXG	460/60/3	20.80	135.0	~	~	0.839	~	~	~	INTERNAL	
ANA5614EXH	575/60/3	15.80	99.0	~	~	1.31	~	~	~	INTERNAL	
ANB5614EXH	575/60/3	15.80	99.0	~	~	1.31	~	~	~	INTERNAL	
ANC5614EXH	575/60/3	15.80	99.0	~	~	1.31	~	~	~	INTERNAL	
AND5614EXH	575/60/3	15.80	99.0	~	~	1.31	~	~	~	INTERNAL	
ANA5614EXT	200-230/60/3	42.00	269.0	~	~	0.220	~	~	~	INTERNAL	
ANB5614EXT	200-230/60/3	42.00	269.0	~	~	0.220	~	~	~	INTERNAL	
ANC5614EXT	200-230/60/3	42.00	269.0	~	~	0.220	~	~	~	INTERNAL	
AND5614EXT	200-230/60/3	42.00	269.0	~	~	0.220	~	~	~	INTERNAL	
AVA2490ZGX	460/60/3	3.60	38.3	~	~	3.432	~	~	~	INTERNAL	
AVA2490ZNX	208-230/60/1	11.40	106.6	1.84	0.47	~	85PS330D17	85PR440E65	K71-20	INTERNAL	
AVA2490ZXT	200-230/60/3	7.40	65.1	~	~	1.58	~	~	~	INTERNAL	
AVA2512ZGX	460/60/3	4.60	38.3	~	~	3.432	~	~	~	INTERNAL	
AVA2512ZNX	208-230/60/1	16.90	120.3	1.67	0.419	~	85PS330D18	85PR440E65	K71-20	INTERNAL	
AVA2512ZXT	200-230/60/3	9.30	65.1	~	~	1.58	~	~	~	INTERNAL	
AVA4542EXN	208-230/60/1	19.70	108.0	2.20	0.641	~	85PS330D16	85PR440F28	K71-20	INTERNAL	Non self equalizing application
AVA5532EXG	460/60/3	4.35	32.8	~	~	6.20	~	~	~	INTERNAL	
AVA5532EXN	208-230/60/1	14.50	78.0	2.83	0.775	~	85PS330D16	85PR370F17	K71-20	INTERNAL	Non self equalizing application
AVC5532EXN	208-230/60/1	13.40	78.8	1.367	0.697	~	85PS330C23	85PR370F21	K71-19	INTERNAL	
AVA5532EXT	200-230/60/3	8.90	59.5	~	~	1.58	~	~	~	INTERNAL	
AVA5532EXV	265/60/1	12.20	73.8	2.98	0.96	~	85PS330C23	85PR440F18	K71-19	INTERNAL	
AVB5533EXH	575/60/3	3.50	26.0	~	~	10.20	~	~	~	INTERNAL	
AVB5533EXN	208-230/60/1	13.50	78.8	1.367	0.697	~	85PS330C23	85PR370F21	K71-19	INTERNAL	
AVD5533EXN	208-230/60/1	13.20	76.0	1.26	0.576	~	90669-5	85PR370F21	~	INTERNAL	Start device specific to this model

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AVB5533EXT	200-230/60/3	8.90	65.1	~	~	1.58	~	~	~	INTERNAL	
AVA5535EXG	460/60/3	4.76	32.8	~	~	6.20	~	~	~	INTERNAL	
AVD5535EXG	460/60/3	4.40	37.5	~	~	3.432	~	~	~	INTERNAL	
AVB5535EXH	575/60/3	4.00	31.0	~	~	8.16	~	~	~	INTERNAL	
AVA5535EXN	208-230/60/1	15.80	88.0	2.69	0.628	~	85PS330D16	85PR370E63	K71-20	INTERNAL	Non self equalizing application
AVB5535EXN	208-230/60/1	14.20	86.7	1.46	0.629	~	85PS330C23	85PR370F21	K71-19	INTERNAL	
AVC5535EXN	208-230/60/1	14.90	86.7	1.46	0.629	~	85PS330C23	85PR370F21	K71-19	INTERNAL	
AVD5535EXN	208-230/60/1	13.80	92.0	1.27	0.522	~	90669-5	85PR370F21	~	INTERNAL	Start device specific to this model
AVA5535EXT	200-230/60/3	9.70	65.1	~	~	1.58	~	~	~	INTERNAL	
AVB5535EXT	200-230/60/3	9.20	65.1	~	~	1.58	~	~	~	INTERNAL	
AVD5535EXT	200-230/60/3	8.80	75.0	~	~	0.858	~	~	~	INTERNAL	
AVA5538EXG	460/60/3	5.30	37.7	~	~	5.18	~	~	~	INTERNAL	
AVB5538EXG	460/60/3	5.30	37.7	~	~	5.18	~	~	~	INTERNAL	
AVB5538EXH	575/60/3	4.20	31.0	~	~	8.16	~	~	~	INTERNAL	
AVB5538EXN	208-230/60/1	15.40	97.6	1.666	0.558	~	85PS330D16	85PR440E65	820ARR3C80	INTERNAL	Non self equalizing application
AVC5538EXN	208-230/60/1	16.50	97.6	1.666	0.558	~	85PS330D16	85PR440E65	820ARR3C80	INTERNAL	Non self equalizing application
AVD5538EXN	208-230/60/1	15.10	92.0	1.27	0.522	~	90669-5	85PR370F21	~	INTERNAL	Start device specific to this model
AVA5538EXT	200-230/60/3	10.80	73.4	~	~	1.38	~	~	~	INTERNAL	
AVB5538EXT	200-230/60/3	10.30	73.4	~	~	1.30	~	~	~	INTERNAL	
AVA5538EXV	265/60/1	14.60	86.3	3.20	0.78	~	85PS330D12	35/500	K71-20	INTERNAL	
AVD5540EXG	460/60/3	5.00	42.0	~	~	3.09	~	~	~	INTERNAL	
AVD5540EXH	575/60/3	4.00	35.0	~	~	4.53	~	~	~	INTERNAL	
AVD5540EXN	208-230/60/1	16.16	92.0	1.27	0.522	~	90669-5	85PR370F21	~	INTERNAL	Start device specific to this model
AVD5540EXT	200-230/60/3	10.00	84.0	~	~	0.772	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AVA5542EXG	460/60/3	5.96	37.0	~	~	5.18	~	~	~	INTERNAL	
AVB5542EXG	460/60/3	5.65	37.0	~	~	5.18	~	~	~	INTERNAL	
AVB5542EXH	575/60/3	4.60	31.0	~	~	8.16	~	~	~	INTERNAL	
AVA5542EXN	208-230/60/1	19.70	108.0	2.20	0.641	~	85PS330D16	85PR370E63	K71-20	INTERNAL	Non self equalizing application
AVB5542EXN	208-230/60/1	17.10	107.4	1.70	0.515	~	85PS330D16	85PR440E65	820ARR3C80	INTERNAL	Non self equalizing application
AVC5542EXN	208-230/60/1	18.30	107.4	1.70	0.515	~	85PS330D16	85PR440E65	820ARR3C80	INTERNAL	Non self equalizing application
AVD5542EXN	208-230/60/1	16.90	110.0	1.31	0.446	~	90669-5	50/440	~	INTERNAL	Start device specific to this model
AVA5542EXT	200-230/60/3	12.00	74.0	~	~	1.30	~	~	~	INTERNAL	
AVB5542EXT	200-230/60/3	11.30	73.4	~	~	1.30	~	~	~	INTERNAL	
AVA5542EXV	265/60/1	16.00	95.2	~	~	~	~	~	~	INTERNAL	
AVD5545EXG	460/60/3	5.80	46.0	~	~	2.86	~	~	~	INTERNAL	
AVD5545EXH	575/60/3	4.65	37.0	~	~	4.53	~	~	~	INTERNAL	
AVD5545EXN	208-230/60/1	18.24	110.0	1.31	0.446	~	90669-5	50/370	~	INTERNAL	Start device specific to this model
AVD5545EXT	200-230/60/3	11.50	90.0	~	~	0.715	~	~	~	INTERNAL	
AVA5546EXG	460/60/3	6.60	46.0	~	~	4.36	~	~	~	INTERNAL	
AVA5546EXN	208-230/60/1	21.50	116.0	2.49	0.544	~	85PS330D12	85PR440F28	K71-20	INTERNAL	
AVC5546EXN	208-230/60/1	20.40	110.0	1.76	0.461	~	85PS330D12	85PR440E65	K71-20	INTERNAL	
AVA5546EXT	200-230/60/3	13.28	92.0	~	~	1.09	~	~	~	INTERNAL	
AVA5546EXV	265/60/1	18.25	102.0	2.14	0.684	~	85PS330D12	40/500	82270	INTERNAL	
AVD5548EXG	460/60/3	6.15	52.5	~	~	2.38	~	~	~	INTERNAL	
AVD5548EXH	575/60/3	5.00	44.0	~	~	4.53	~	~	~	INTERNAL	
AVD5548EXN	208-230/60/1	19.20	110.0	1.31	0.446	~	90669-5	55/370	~	INTERNAL	Start device specific to this model
AVD5548EXT	200-230/60/3	12.30	105.0	~	~	0.595	~	~	~	INTERNAL	
AVB5549EXG	460/60/3	6.70	46.0	~	~	4.27	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AVB5549EXH	575/60/3	5.40	44.0	~	~	4.06	~	~	~	INTERNAL	
AVB5549EXN	208-230/60/1	20.50	110.0	1.76	0.461	~	85PS330D12	85PR440E65	K71-20	INTERNAL	
AVB5549EXT	200-230/60/3	13.50	92.0	~	~	1.09	~	~	~	INTERNAL	
AVA5555EXG	460/60/3	7.80	55.0	~	~	2.84	~	~	~	INTERNAL	
AVA5555EXT	200-230/60/3	15.70	110.0	~	~	0.709	~	~	~	INTERNAL	
AVB5558EXG	460/60/3	7.80	55.0	~	~	2.836	~	~	~	INTERNAL	
AVD5558EXG	460/60/3	8.00	63.0	~	~	1.92	~	~	~	INTERNAL	
AVB5558EXH	575/60/3	6.30	44.0	~	~	4.06	~	~	~	INTERNAL	
AVD5558EXH	575/60/3	6.10	55.5	~	~	2.99	~	~	~	INTERNAL	
AVB5558EXN	208-230/60/1	24.80	141.0	1.67	0.379	~	85PS330D16	85PR440E65	K71-20	INTERNAL	Non self equalizing application
AVD5558EXN	208-230/60/1	24.00	123.0	1.15	0.378	~	90669-5	70/370	~	INTERNAL	Start device specific to this model
AVB5558EXT	200-230/60/3	15.70	110.0	~	~	0.709	~	~	~	INTERNAL	
AVD5558EXT	200-230/60/3	15.90	128.0	~	~	0.502	~	~	~	INTERNAL	
AVA7524ZXC	460/60/3	5.10	38.3	~	~	3.43	~	~	~	INTERNAL	
AVA7524ZXN	208-230/60/1	16.70	106.6	1.84	0.47	~	85PS330D16	85PR440E65	K71-20	INTERNAL	Non self equalizing application
AVA7524ZXT	200-230/60/3	10.90	65.1	~	~	1.58	~	~	~	INTERNAL	
AVA7528ZXC	460/60/3	6.20	38.3	~	~	3.43	~	~	~	INTERNAL	
AVA7528ZXN	208-230/60/1	22.20	120.3	1.67	0.42	~	85PS330D18	85PR440E65	820ARR3K72	INTERNAL	
AVA7528ZXT	200-230/60/3	12.20	75.0	~	~	0.858	~	~	~	INTERNAL	
AVA9519ZXC	460/60/3	4.60	37.7	~	~	5.18	~	~	~	INTERNAL	
AVA9519ZXN	208-230/60/1	14.50	95.0	3.35	0.61	~	85PS330C23	85PR440F18	K71-20	INTERNAL	
AVA9522ZXC	460/60/3	5.10	37.0	~	~	5.18	~	~	~	INTERNAL	
AVA9522ZXN	208-230/60/1	17.00	108.0	2.20	0.64	~	85PS330D17	85PR440E65	K71-20	INTERNAL	
AVA9522ZXT	200-230/60/3	10.30	74.0	~	~	1.30	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AVA9528ZXG	460/60/3	6.60	55.0	~	~	2.84	~	~	~	INTERNAL	
AVA9528ZXN	208-230/60/1	20.00	132.0	1.25	0.338	~	85PS330D17	85PR440F90	820ARR3K17	INTERNAL	
AVA9528ZXT	200-230/60/3	13.30	110.0	~	~	0.71	~	~	~	INTERNAL	
AWA2440ZXD	208-230/60/1	5.13	73.0	2.10	0.88	~	85PS330D17	85PR370F17	K71-19	INTERNAL	
AWA2440ZXG	460/60/3	1.80	20.3	~	~	8.72	~	~	~	INTERNAL	
AWA2440ZXT	200-230/60/3	3.80	40.5	~	~	2.26	~	~	~	INTERNAL	
AWA2450ZXD	208-230/60/1	5.90	56.0	3.25	1.10	~	85PS330D16	85PR370F23	K71-16	INTERNAL	
AWA2450ZXT	200-230/60/3	4.20	40.5	~	~	2.26	~	~	~	INTERNAL	
AWA2460ZXD	208-230/60/1	8.20	86.0	2.22	0.65	~	85PS330D17	85PR370F21	K71-19	INTERNAL	
AWA2460ZXG	460/60/3	2.90	36.0	~	~	5.10	~	~	~	INTERNAL	
AWA2460ZXT	200-230/60/3	5.60	63.4	~	~	1.28	~	~	~	INTERNAL	
AWA2480ZXN	208-230/60/1	8.40	73.1	2.38	0.82	~	85PS330D18	85PR440F28	K71-19	INTERNAL	
AWG4515EXG	460/60/3	2.40	25.0	~	~	6.52	~	~	~	INTERNAL	
AWG4520EXG	460/60/3	2.90	25.0	~	~	6.52	~	~	~	INTERNAL	
AWG4520EXN	208-230/60/1	9.30	52.0	2.72	1.32	~	85PS330D17	85PR370F20	K71-16	INTERNAL	
AWG4524EXG	460/60/3	3.40	25.0	~	~	6.52	~	~	~	INTERNAL	
AWG4524EXN	208-230/60/1	11.00	60.0	2.53	1.09	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWG4530EXG	460/60/3	4.20	36.0	~	~	5.10	~	~	~	INTERNAL	
AWG4530EXN	208-230/60/1	14.40	90.0	2.09	0.73	~	85PS330D17	85PR370F21	K71-19	INTERNAL	
AWH5513EXN	208-230/60/1	6.10	43.0	4.73	1.45	~	85PS330D17	85PR370E35	82765	INTERNAL	
AWA5515EXD	208-230/60/1	7.18	43.0	4.73	1.45	~	85PS330D17	85PR370E35	K71-19	INTERNAL	
AWC5515EXD	208-230/60/1	6.40	49.0	~	~	~	85PS330D17	85PR370F17	820ARR3C64	INTERNAL	
AWG5515EXN	208-230/60/1	6.90	43.0	4.73	1.45	~	85PS330D17	85PR370E35	820ARR3J44	INTERNAL	
AWJ5515EXN	208-230/60/1	6.90	43.0	4.73	1.45	~	85PS330D17	85PR370E35	82765	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N	Run Cap P/N	Relay	Overload	Remarks
				Start	Run	Line to Line	or MFD/Volt	or MFD/Volt			
AWG5515EXT	200-230/60/3	4.70	51.0	~	~	1.63	~	~	~	INTERNAL	
AWA5515EXV	265/60/1	6.10	39.5	~	~	~	85PS330C23	85PR440F22	K71-19	INTERNAL	
AWC5515EXV	265/60/1	5.60	41.0	~	~	~	85PS330D12	85PR440F22	K71-19	INTERNAL	
AWG5515EVA	265/60/1	6.20	39.0	6.49	1.78	~	85PS330D65	85PR370E35	K71-19	INTERNAL	
AWJ5515EVA	265/60/1	6.20	39.0	6.49	1.78	~	85PS330D65	85PR370E35	K71-19	INTERNAL	
AWD5516EXD	208-230/60/1	6.50	48.3	~	~	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWF5516EXN	208-230/60/1	6.60	48.3	2.53	1.21	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWH5516EXN	208-230/60/1	7.00	43.0	4.73	1.45	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWF5516EVA	265/60/1	5.80	41.0	2.81	1.79	~	85PS330D12	85PR440F22	82477	INTERNAL	
AWA5517EXD	208-230/60/1	7.60	43.0	~	~	~	85PS330D65	85PR370F20	K71-19	INTERNAL	
AWB5517EXD	208-230/60/1	7.20	49.0	~	~	~	85PS330D65	85PR370F20	K71-19	INTERNAL	
AWC5517EXD	208-230/60/1	6.80	49.0	~	~	~	85PS330D17	85PR370F17	820ARR3C64	INTERNAL	
AWD5517EXD	208-230/60/1	7.10	48.3	~	~	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWF5517EXN	208-230/60/1	6.70	48.3	2.53	1.21	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWG5517EXN	208-230/60/1	7.60	43.0	3.95	1.56	~	85PS330D65	85PR370F20	K71-19	INTERNAL	
AWJ5517EXN	208-230/60/1	7.60	43.0	3.95	1.56	~	85PS330D65	85PR370F20	K71-19	INTERNAL	
AWA5517EXV	265/60/1	6.60	45.0	~	~	~	85PS330C23	85PR440F22	K71-19	INTERNAL	
AWB5517EXV	265/60/1	6.40	46.5	~	~	~	85PS330C23	85PR440F22	820ARR3C64	INTERNAL	
AWC5517EXV	265/60/1	6.00	41.0	~	~	~	85PS330D12	85PR440F22	K71-19	INTERNAL	
AWG5517EVA	265/60/1	6.80	45.0	5.28	1.69	~	85PS330C23	85PR440F22	820ARR3G60	INTERNAL	
AWF5518EXN	208-230/60/1	7.10	48.3	2.53	1.21	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWF5518EVA	265/60/1	6.70	47.0	3.01	1.53	~	85PS330C23	85PR440F18	82464	INTERNAL	
AWA5519EXD	208-230/60/1	8.40	52.0	~	~	~	85PS330D17	85PR370F20	K71-19	INTERNAL	
AWB5519EXD	208-230/60/1	8.10	49.0	~	~	~	85PS330D65	85PR370F20	K71-19	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AWC5519EXD	208-230/60/1	8.00	49.0	~	~	~	85PS330D17	85PR370F17	820ARR3C64	INTERNAL	
AWF5519EXN	208-230/60/1	7.70	48.3	2.53	1.21	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWG5519EXN	208-230/60/1	8.60	52.0	2.72	1.32	~	85PS330D17	85PR370F20	K71-16	INTERNAL	
AWA5519EXV	265/60/1	4.30	45.0	~	~	~	85PS330C23	85PR440F22	K71-19	INTERNAL	
AWB5519EXV	265/60/1	7.10	46.5	~	~	~	85PS330C23	85PR440F22	820ARR3C64	INTERNAL	
AWC5519EXV	265/60/1	7.10	47.0	~	~	~	85PS330D12	85PR440F18	K71-19	INTERNAL	
AWF5519EVA	265/60/1	7.00	47.0	3.01	1.53	~	85PS330D12	85PR440F18	K71-19	INTERNAL	
AWG5519EVA	265/60/1	7.70	45.0	5.28	1.69	~	85PS330C23	85PR440F22	820ARR3G60	INTERNAL	
AWG5520EXG	460/60/3	2.90	25.0	~	~	6.52	~	~	~	INTERNAL	
AWF5520EXN	208-230/60/1	8.30	48.3	2.53	1.21	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWG5520EXN	208-230/60/1	9.30	52.0	2.72	1.32	~	85PS330D17	85PR370F20	K71-16	INTERNAL	
AWJ5520EXN	208-230/60/1	9.70	52.0	2.72	1.32	~	85PS330D17	85PR370F20	K71-16	INTERNAL	
AWG5520EXT	200-230/60/3	5.80	51.0	~	~	1.63	~	~	~	INTERNAL	
AWG5520EVA	265/60/1	8.20	51.0	4.68	1.43	~	85PS330C23	85PR440F22	820ARR3G60	INTERNAL	
AWF5522EXG	460/60/3	2.90	25.0	~	~	6.52	~	~	~	INTERNAL	
AWF5522EXN	208-230/60/1	9.00	60.0	2.48	0.98	~	85PS330D17	85PR370F17	K71-21	INTERNAL	
AWG5522EXN	208-230/60/1	10.10	60.0	2.89	1.09	~	85PS330C23	85PR370F20	K71-19	INTERNAL	
AWH5522EXN	208-230/60/1	10.00	60.0	2.89	1.09	~	85PS330C23	85PR370F20	K71-19	INTERNAL	
AWF5522EXT	200-230/60/3	5.60	50.0	~	~	1.63	~	~	~	INTERNAL	
AWF5522EVA	265/60/1	7.80	58.0	2.91	1.23	~	85PS330C23	85PR440F18	820ARR3H16	INTERNAL	
AWG5522EVA	265/60/1	8.60	51.0	4.68	1.43	~	85PS330C23	85PR440F22	820ARR3G60	INTERNAL	
AWJ5522EVA	265/60/1	8.80	51.0	4.68	1.43	~	85PS330C23	85PR440F22	820ARR3G60	INTERNAL	
AWF5524EXG	460/60/3	3.30	25.0	~	~	6.52	~	~	~	INTERNAL	
AWG5524EXG	460/60/3	3.40	25.0	~	~	6.52	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AWF5524EXN	208-230/60/1	9.95	60.0	2.44	0.974	~	85PS330D17	85PR370F17	820ARR3C44	INTERNAL	
AWG5524EXN	208-230/60/1	11.00	60.0	2.53	1.09	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWJ5524EXN	208-230/60/1	11.00	60.0	2.53	1.09	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWF5524EXT	200-230/60/3	6.50	50.0	~	~	1.63	~	~	~	INTERNAL	
AWG5524EXT	200-230/60/3	6.70	50.0	~	~	1.63	~	~	~	INTERNAL	
AWF5524EVA	265/60/1	7.80	58.0	2.91	1.23	~	85PS330C23	85PR440F18	820ARR3H16	INTERNAL	
AWG5524EVA	265/60/1	9.20	54.0	2.98	1.42	~	85PS330C23	85PR440F18	820ARR3G70	INTERNAL	
AWJ5524EVA	265/60/1	9.50	54.0	2.98	1.42	~	85PS330C23	85PR440F18	820ARR3G70	INTERNAL	
AWF5526EXN	208-230/60/1	10.90	69.4	1.642	0.83	~	85PS330D17	85PR370F21	K71-19	INTERNAL	
AWF5528EXG	460/60/3	3.30	36.0	~	~	5.10	~	~	~	INTERNAL	
AWF5528EXN	208-230/60/1	11.42	69.4	1.642	0.83	~	85PS330D17	85PR370F21	K71-19	INTERNAL	
AWG5528EXN	208-230/60/1	13.00	73.0	2.10	0.88	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWJ5528EXN	208-230/60/1	13.00	73.0	2.10	0.88	~	85PS330C23	85PR370F17	K71-19	INTERNAL	
AWF5528EXT	200-230/60/3	7.60	63.4	~	~	1.28	~	~	~	INTERNAL	
AWF5528EVA	265/60/1	10.50	65.0	3.23	1.01	~	85PS330C23	85PR440F18	K71-21	INTERNAL	
AWG5528EVA	265/60/1	10.90	65.0	2.55	1.15	~	85PS330C23	85PR440F18	K71-21	INTERNAL	
AWJ5528EVA	265/60/1	10.90	65.0	2.55	1.15	~	85PS330C23	85PR440F18	K71-21	INTERNAL	
AWF5530EXG	460/60/3	4.10	36.0	~	~	5.10	~	~	~	INTERNAL	
AWF5530EXN	208-230/60/1	12.50	84.0	1.62	0.67	~	85PS330D17	85PR370F21	K71-19	INTERNAL	
AWG5530EXN	208-230/60/1	14.40	90.0	2.09	0.73	~	85PS330D17	85PR370F21	K71-19	INTERNAL	
AWF5530EXT	200-230/60/3	8.20	63.4	~	~	1.28	~	~	~	INTERNAL	
AWG5530EXT	200-230/60/3	8.40	63.4	~	~	1.28	~	~	~	INTERNAL	
AWF5530EVA	265/60/1	12.00	83.0	2.54	0.82	~	85PS330C23	85PR440E65	820ARR3G70	INTERNAL	
AWG5530EVA	265/60/1	11.70	83.0	2.54	0.82	~	85PS330C23	85PR440E65	820ARR3G70	INTERNAL	



Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
AWA9514ZXG	460/60/3	3.60	36.0	~	~	5.10	~	~	~	INTERNAL	
AWA9514ZXN	208-230/60/1	12.00	90.0	2.09	0.73	~	85PS330D17	85PR370F21	K71-19	INTERNAL	
AWA9514ZXT	200-230/60/3	7.30	63.4	~	~	1.28	~	~	~	INTERNAL	
AWA9518ZXN	208-230/60/1	13.10	84.0	1.62	0.64	~	85PS330D18	85PR370F21	K71-19	INTERNAL	
AZA0335YXA	115/60/1	1.18	10.2	15.28	7.99	~	~	~	820RR12K80	8300MRPH38	Condenser Fan Required
AZA0345AXA	115/60/1	1.10	10.2	15.28	7.99	~	~	~	~	~	Static Condenser
AZA0349YXA	115/60/1	1.60	13.6	14.50	4.46	~	~	~	820RR12C20	8300MRPH91	Condenser Fan Required
AZA0360AXA	115/60/1	1.60	13.6	14.49	4.44	~	~	~	~	~	Condenser Fan Required
AZA0370YXA	115/60/1	2.20	18.5	12.84	3.08	~	~	~	K71-07	K90-04	Condenser Fan Required
AZA0374AXA	115/60/1	1.90	16.3	13.64	3.69	~	~	~	~	~	Condenser Fan Required
AZA0387AXA	115/60/1	2.13	18.5	12.81	3.06	~	~	~	~	~	Condenser Fan Required
AZA0395YXA	115/60/1	2.90	28.0	9.75	2.31	~	85PS165C96	~	K71-08	K90-06	Condenser Fan Required
AZA0411AXA	115/60/1	2.90	25.3	9.73	2.29	~	~	~	~	~	Condenser Fan Required
AZA1316YXA	115/60/1	0.82	8.40	23.20	10.18	~	~	~	82402	8300MRPG04	Static Condenser
AZB1320AXA	115/60/1	0.82	8.40	25.30	9.91	~	~	~	~	~	Static Condenser
AZA1326YXA	115/60/1	1.00	10.9	15.69	7.95	~	~	~	82461	8300MRPG04	Static Condenser
AZB1328AXA	115/60/1	1.04	10.9	15.42	7.95	~	~	~	~	~	Static Condenser
AZA1332YXA	115/60/1	1.15	13.2	14.09	5.18	~	~	~	82462	8300MRPG05	Static Condenser
AZB1335AXA	115/60/1	1.20	13.2	14.09	5.18	~	~	~	~	~	Static Condenser
AZA1338YXA	115/60/1	1.50	15.9	12.34	3.78	~	~	~	82451	8300MRPG06	Static Condenser
AZB1340AXA	115/60/1	1.45	15.9	14.81	3.77	~	~	~	~	~	Static Condenser
AZA1350YXA	115/60/1	1.90	18.8	2.66	9.59	~	~	~	~	~	Static Condenser
AZB1355AXA	115/60/1	1.86	18.8	9.59	2.66	~	~	~	~	~	Static Condenser
CL5538E	208-230/60/1	20.00	92.5	~	~	~	135-155/330	85PR440F18	K71-20	8308347A15	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
CL5540E	230/60/1	22.00	92.5	~	~	~	135-155/330	85PR440F18	K71-20	8308347A15	
CL5544E	208-230/60/1	23.00	115.0	~	~	~	135-155/330	85PR440F28	K71-20	8308347A15	
CL5544F	208-230/60/1	23.00	115.0	~	~	~	85PS330D12	85PR440F28	K71-20	8308347A15	
CL5550E	208-230/60/1	27.00	140.0	~	~	~	135-155/330	85PR440E65	K71-20	83749	
CL5550G	208-230/60/1	27.00	140.0	~	~	~	85PS330D12	85PR440E65	K71-20	83749	
CL5562E	208-230/60/1	34.00	147.0	~	~	~	135-155/330	85PR440E90	K71-20	83749	
CL5562G	208-230/60/1	36.00	175.0	~	~	~	85PS330D12	85PR440E90	K71-20	83749	
HGA0440EXA	115/60/1	4.80	36.2	3.60	1.10	~	85PS330C23	85PR240F37	K71-19	8300MRAN19	
HGA0450EXA	115/60/1	6.20	45.6	3.80	0.74	~	85PS330C23	85PR240F37	K71-19	8300MRAN94	
HGA0470EXA	115/60/1	10.20	58.4	4.00	0.58	~	85PS330C23	85PR370F17	K71-19	K90-27	
HGA0470EXD	208-230/60/1	4.10	27.9	5.90	2.30	~	85PS330C23	85PR370E35	K71-16	8300MRAP09	
HGA2425ZXA	115/60/1	6.02	46.5	2.64	0.79	~	270-324/250	85PR240F37	820ARR3K50	8300MSTT83	
HGA2425ZXD	208-230/60/1	2.90	23.0	5.93	2.91	~	85PS330C23	85PR370E35	820ARR3K63	8300MRAU04	
HGA2434ZXA	115/60/1	8.40	58.7	2.68	0.59	~	270-324/250	85PR240F37	820ARR3E39	8300MRTT20	
HGA5467EXA	115/60/1	5.60	36.2	3.54	1.02	~	85PS330C23	85PR240F37	K71-19	8300MRAN18	
HGA5467EXD	208-230/60/1	2.80	17.7	6.53	4.01	~	85PS330C23	85PR370E36	K71-16	8300MRAN93	
HGA5467EXV	265/60/1	2.40	15.0	6.77	5.29	~	~	85PR370E36	~	8300MRAP17	
HGA5480EXA	115/60/1	7.00	45.6	3.80	0.74	~	85PS330C23	85PR240F37	K71-19	K90-24	
HGA5480EXD	208-230/60/1	3.50	22.2	7.29	2.93	~	85PS330C23	85PR370E36	K71-16	8300MRAK04	
HGA5480EXV	265/60/1	2.90	18.8	10.56	4.27	~	~	10/440	~	8300MRAP15	
HGA5480YXD	208-230/60/1	3.60	27.9	5.90	2.30	~	~	85PR370E35	~	8300MSTT78	
HGA5492EXA	115/60/1	7.70	45.6	3.80	0.74	~	85PS330C23	85PR240F37	K71-19	8300MRAN99	
HGA5492EXD	208-230/60/1	3.70	22.2	7.29	2.93	~	85PS330C23	85PR370E36	K71-16	8300MRAK04	
HGA5492EXV	265/60/1	3.30	18.8	10.56	4.27	~	~	10/440	~	8300MRAP15	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N	Run Cap P/N	Relay	Overload	Remarks
				Start	Run	Line to Line	or MFD/Volt	or MFD/Volt			
HGA5510EXA	115/60/1	9.00	58.4	3.735	0.70	~	85PS330C23	85PR370F17	K71-19	8300MRAP11	
HGA5512EXA	115/60/1	10.20	58.4	4.09	0.634	~	85PS330C23	85PR370F17	K71-19	8300MRAP11	
HGA5512EXD	208-230/60/1	5.00	27.9	5.93	2.32	~	85PS330C23	85PR370E35	K71-16	8300MRAP09	
HGA5512EXV	265/60/1	4.30	22.2	8.55	3.43	~	~	85PR440F24	~	8300MRAP13	
HGA9430YXA	115/60/1	4.60	45.6	3.80	0.74	~	85PS330D15	85PR370F17	K71-19	8300MRAS17	
HGA9430YXD	208-230/60/1	2.10	22.2	7.35	2.95	~	64-77/330	85PR440F24	820ARR3K63	8300MSPU05	
HGA9443YXA	115/60/1	6.50	58.4	4.00	0.58	~	85PS330D15	85PR370F17	K71-19	8300MRAS17	
HGB9443YAA	115/60/1	7.20	58.4	4.00	0.58	~	85PS330D15	85PR370F17	K71-19	8300MRAS17	
HGA9443YXD	208-230/60/1	3.10	27.9	5.93	2.32	~	85PS330C23	85PR370E35	820ARR3K63	8300MSTT87	
HGA9450ZXD	208-230/60/1	4.10	32.5	4.76	2.63	~	85PS330D15	85PR370E35	820ARR3J44	8300MSTT84	
HGA9468ZXA	115/60/1	11.70	64.0	2.87	0.56	~	270-324/250	85PR240F37	820ARR3K34	K90-28	
HGA9468ZXD	208-230/60/1	5.20	34.0	5.92	2.21	~	85PS330C23	85PR440F19	K71-17	8300MRAT64	
RGA5450EXA	115/60/1	4.40	30.1	3.63	1.19	~	85PS330C23	85PR240F37	K71-19	K90-18	Opt. PTC Start device 90669-5
RGB5450EXA	115/60/1	4.08	30.7	2.68	1.24	~	~	85PR240F37	~	PURCH.BRAZIL	
RGA5453BAA	115/60/1	5.00	36.2	3.60	1.02	~	~	85PR240F37	~	8300MRAN19	
RGA5453BXD	208-230/60/1	2.50	17.7	6.63	4.08	~	~	85PR370E36	~	8300MSPT59	
RGA5457BAA	115/60/1	5.50	36.2	3.60	1.02	~	~	85PR240F37	~	8300MRAN19	
RGA5460BAA	115/60/1	5.70	36.2	3.60	1.02	~	~	85PR240F37	~	8300MRAN19	
RGA5460BXD	208-230/60/1	2.80	17.7	6.63	4.08	~	~	85PR370E36	~	8300MSPT59	
RGA5460EXA	115/60/1	5.00	30.1	3.63	1.19	~	85PS330C23	85PR240F37	K71-19	K90-18	Opt. PTC Start device 90669-5
RGB5460EXA	115/60/1	4.80	31.5	2.64	1.10	~	~	85PR240F37	~	PURCH.BRAZIL	
RGA5467CXA	115/60/1	5.40	36.2	3.54	1.02	~	~	85PR240F37	~	8300MRAN19	Opt. PTC Start device 90669-5
RGA5467CXD	208-230/60/1	2.60	17.7	6.53	4.01	~	~	85PR370E36	~	8300MRAN93	Opt. PTC Start device 90669-5
RGA5467EXA	115/60/1	5.70	36.2	3.54	1.02	~	85PS330C23	85PR240F37	K71-19	8300MRAN19	Opt. PTC Start device 90669-5

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
RGA5467EXD	208-230/60/1	2.76	17.7	6.53	4.01	~	85PS330C23	85PR370E36	K71-16	8300MRAN93	
RGA5467EXV	265/60/1	2.45	15.0	6.77	5.29	~	85PS330C23	85PR370E36	K71-19	8300MRAP17	
RGA5471BAA	115/60/1	7.00	45.6	3.48	0.71	~	~	85PR240F37	~	8300MRAT66	
RGA5471BXD	208-230/60/1	3.40	22.2	7.35	2.95	~	~	85PR370E36	~	8300MSTT62	
RGA5471BXV	265/60/1	2.90	18.8	10.74	4.27	~	~	10/440	~	8300MSPT89	
RGA5472EXA	115/60/1	6.20	36.2	3.54	1.02	~	85PS330C23	85PR240F37	K71-19	8300MRAN19	Opt. PTC Start device 90669-5
RGB5472EXA	115/60/1	5.97	41.1	2.86	0.82	~	~	85PR240F37	~	PURCH.BRAZIL	
RGA5472EXD	208-230/60/1	3.00	17.7	6.53	4.01	~	85PS330C23	85PR370E36	K71-16	8300MRAN93	
RGA5472EXV	265/60/1	2.65	15.0	6.77	5.29	~	85PS330C23	85PR370E36	K71-19	8300MRAP17	
RGA5479BAA	115/60/1	7.60	45.6	3.48	0.71	~	~	85PR240F37	~	8300MRAT66	
RGA5479BXD	208-230/60/1	3.60	22.2	7.35	2.95	~	~	85PR370E36	~	8300MRAT71	
RGA5480CXA	115/60/1	7.00	45.6	3.80	0.74	~	~	85PR240F37	~	K90-24	Opt. PTC Start device 90669-5
RGA5480EXA	115/60/1	7.00	45.6	3.80	0.74	~	85PS330C23	85PR240F37	K71-19	K90-24	Opt. PTC Start device 90669-5
RGA5480EXD	208-230/60/1	3.50	22.2	7.29	2.93	~	85PS330C23	85PR370E36	K71-16	8300MRAK04	Opt. PTC Start device 90669-5
RGA5485BAA	115/60/1	8.00	45.6	3.48	0.71	~	~	85PR240F37	~	8300MRAT85	
RGA5485BXD	208-230/60/1	4.00	22.2	7.35	2.95	~	~	85PR440F24	~	8300MRAT69	
RGA5485EXA	115/60/1	7.20	45.6	3.80	0.74	~	85PS330C23	85PR240F37	K71-19	8300MRAN94	Opt. PTC Start device 90669-5
RGA5485EXD	208-230/60/1	3.40	22.2	7.35	2.95	~	85PS330C23	85PR370E36	K71-16	8300MRAK04	Opt. PTC Start device 90669-5
RGA5485EXV	265/60/1	3.10	18.8	10.56	4.27	~	~	10/440	~	8300MRAP16	
RGA5492EXA	115/60/1	7.70	45.6	3.80	0.74	~	85PS330C23	85PR240F37	K71-19	8300MRAN99	Opt. PTC Start device 90669-5
RGB5492EXA	115/60/1	7.70	45.6	3.03	0.75	~	~	85PR240F37	~	8300MRAN99	
RGA5492EXD	208-230/60/1	3.70	22.2	7.29	2.93	~	85PS330C23	85PR370E36	K71-16	8300MRAK04	Opt. PTC Start device 90669-5
RGA5492EXV	265/60/1	3.30	18.8	10.56	4.27	~	~	10/440	~	8300MRAP16	
RGA5494BAA	115/60/1	9.60	58.4	4.00	0.58	~	~	85PR370F17	~	8300MSTT72	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
RGA5494BXD	208-230/60/1	4.60	27.9	5.90	2.30	~	~	85PR370E35	~	8300MSTT61	
RGA5494BXV	265/60/1	3.80	22.2	8.69	3.47	~	~	85PR440F24	~	8300MSTT91	
RGA5510BAA	115/60/1	11.80	63.0	3.89	0.54	~	~	85PR370F17	~	K90-27	
RGA5510BXD	208-230/60/1	5.60	32.5	5.70	2.15	~	~	85PR440F19	~	8300MRAT77	
RGA5510ENA	208-230/60/1	4.40	27.9	5.93	3.32	~	85PS330C23	85PR370E35	K71-16	8300MRAP10	
RGA5510EXA	115/60/1	9.00	58.4	3.735	0.70	~	85PS330C23	85PR370F17	K71-19	K90-27	Opt. PTC Start device 90669-5
RGB5510EXA	115/60/1	9.00	58.4	2.06	0.59	~	~	50/370	~	K90-27	
RGA5511BAA	115/60/1	12.50	63.0	3.89	0.54	~	~	85PR370F17	~	K90-27	
RGA5512BAA	115/60/1	12.70	63.0	3.49	0.54	~	~	85PR370E63	~	T80400-78	
RGA5512BXD	208-230/60/1	5.60	29.0	5.45	2.31	~	~	85PR440F22	~	8300MSTT80	
RGA5512BXV	265/60/1	4.60	20.0	7.39	3.58	~	~	85PR440F24	~	8300MRAT90	
RGA5512CXA	115/60/1	10.10	58.4	4.00	0.58	~	~	85PR370F17	~	K90-27	Opt. PTC Start device 90669-5
RGA5512CXD	208-230/60/1	4.70	27.9	5.93	2.32	~	~	85PR370E35	~	8300MRAP10	Opt. PTC Start device 90669-5
RGA5512ENA	208-230/60/1	5.00	27.9	5.93	2.32	~	85PS330C23	85PR370E35	K71-16	8300MRAP10	
RGA5512EXA	115/60/1	10.20	58.4	4.00	0.58	~	85PS330C23	85PR370F17	K71-19	K90-27	Opt. PTC Start device 90669-5
RGA5512EXV	265/60/1	4.30	22.2	8.55	3.43	~	~	85PR440F24	~	8300MRAP14	
RGA5513BAA	115/60/1	13.80	63.0	3.49	0.54	~	~	85PR370E63	~	T80400-78	
RKA5454YXA	115/60/1	5.50	39.2	5.01	0.88	~	85PS330D14	85PR370E36	820ARR3K58	K90-25	
RKA5454YXD	208-230/60/1	2.40	23.0	5.88	3.57	~	85PS330D12	85PR370E36	82759	8300MRAL20	
RKA5470YXA	115/60/1	6.00	48.3	4.27	0.65	~	85PS330C23	85PR370F20	820ARR3K57	8300MRAL22	
RKA5470YXD	208-230/60/1	3.20	27.0	3.97	3.03	~	85PS330C23	85PR370E36	820ARR3K59	K90-17	
RKA5480EXA	115/60/1	6.60	39.2	5.01	0.88	~	~	85PR370F20	~	K90-25	Must use SAK2 for hard start
RKA5480EXD	208-230/60/1	3.40	23.0	5.88	3.57	~	~	85PR370E36	~	8300MRAL20	Must use SAK2 for hard start
RKA5480EXV	265/60/1	3.20	16.0	3.85	4.80	~	~	85PR370F20	~	8300MRAL21	Must use SAK2 for hard start

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
RKA5486YXA	115/60/1	7.30	48.3	4.27	0.65	~	85PS330C23	85PR370F20	820ARR3K47	8300MRAL22	
RKA5486YXD	208-230/60/1	3.60	27.0	3.97	3.03	~	85PS330C23	85PR370F20	K71-21	K90-17	
RKA5490CXD	208-230/60/1	3.70	20.0	4.23	3.65	~	85PS330D12	85PR370F20	820ARR3H43	K90-16	
RKA5490EXA	115/60/1	7.40	44.0	3.96	0.94	~	~	85PR370F20	~	K90-25	Must use SAK2 for hard start
RKA5490EXD	208-230/60/1	3.80	20.0	4.23	3.65	~	~	85PR370F20	~	K90-16	Must use SAK2 for hard start
RKA5490EXV	265/60/1	3.30	18.6	3.61	4.01	~	~	85PR370F20	~	K90-12	Must use SAK2 for hard start
RKA5510CXA	115/60/1	8.60	48.3	4.27	0.65	~	~	85PR370F20	~	8300MRAR96	
RKA5510EXA	115/60/1	8.60	48.3	4.27	0.65	~	~	85PR370F20	~	8300MRAL22	Must use SAK2 for hard start
RKA5510EXD	208-230/60/1	4.30	27.0	3.97	3.03	~	~	85PR370F20	~	K90-17	Must use SAK2 for hard start
RKA5510EXV	265/60/1	4.20	22.0	3.83	3.76	~	~	85PR370F20	~	K90-12	Must use SAK2 for hard start
RKA5510YXA	115/60/1	8.40	57.0	2.93	0.56	~	85PS330D18	85PR240F37	820ARR3H43	83003HMT70	
RKA5510YXD	208-230/60/1	4.50	38.0	3.82	1.74	~	85PS330C23	85PR370F20	K71-21	8300MSTT52	
RKA5512CXD	208-230/60/1	4.60	26.3	3.61	2.54	~	~	85PR370F20	~	K90-19	
RKA5512EXA	115/60/1	9.70	54.0	4.42	0.63	~	85PS330C23	85PR370F20	K71-19	K90-27	
RKA5512EXD	208-230/60/1	4.80	26.3	3.61	2.54	~	85PS330C23	85PR370F20	~	K90-19	
RKA5512EXV	265/60/1	4.20	28.0	4.56	2.88	~	~	85PR440F22	~	K90-14	Must use SAK2 for hard start
RKA5512YXA	115/60/1	9.60	57.0	2.93	0.56	~	85PS330D18	85PR240F37	820ARR3H43	83003HMT70	
RKA5512YXD	208-230/60/1	4.90	38.0	3.82	1.74	~	85PS330C23	85PR370F20	K71-21	K90-24	
RKA5513CXA	115/60/1	11.00	67.0	4.01	0.55	~	~	85PR370F20	~	K90-28	
RKA5513CXD	208-230/60/1	5.20	29.0	5.00	2.37	~	~	85PR370F20	~	K90-21	
RKA5513EXA	115/60/1	11.40	67.0	4.01	0.55	~	85PS330C23	85PR370F20	K71-19	K90-28	
RKB5513EXA	115/60/1	11.00	54.0	4.42	0.63	~	85PS330C23	85PR370F23	K71-19	K90-28	Must use SAK2 for hard start
RKG5513EXA	115/60/1	10.80	54.0	4.10	0.63	~	85PS330C23	85PR370F21	K71-19	K90-28	
RKA5513EXD	208-230/60/1	5.40	29.0	5.00	2.37	~	85PS330C23	85PR370F20	K71-21	K90-21	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
RKA5513EXV	265/60/1	4.80	27.0	5.64	2.83	~	~	85PR440F22	~	8300MRAL29	Must use SAK2 for hard start
RKC5515EXA	115/60/1	13.00	71.0	3.24	0.45	~	85PS330C23	85PR370E63	820ARR3C24	83003HMR55	Must use SAK2 for hard start
RKA5515EXD	208-230/60/1	6.40	38.0	3.82	1.74	~	85PS330C23	85PR370F20	K71-21	K90-24	
RKA5515EXV	265/60/1	5.40	32.0	4.86	2.24	~	~	85PR440F22	~	K90-21	Must use SAK2 for hard start
RKA5518EXD	208-230/60/1	7.60	45.0	4.25	1.45	~	85PS330C23	85PR370F20	K71-16	K90-26	Must use SAK2 for hard start
RKA5518EXV	265/60/1	6.30	32.0	4.86	2.24	~	~	85PR440F22	~	8300MSTL34	Must use SAK2 for hard start
RKGB515EXA	115/60/1	9.00	54.0	4.10	0.63	~	85PS330C23	85PR370F21	K71-19	K90-28	
SFAA530ZXG	460/60/3	6.40	48.0	~	~	2.81	~	~	~	INTERNAL	
SFAA530ZXH	575/60/3	4.90	37.0	~	~	4.99	~	~	~	INTERNAL	
SFAA530ZXN	208-230/60/1	22.00	122.0	2.56	0.465	~	85PS330D17	85PR440F18	~	INTERNAL	
SFAA530ZXT	200-230/60/3	12.60	95.0	~	~	0.703	~	~	~	INTERNAL	
SFAA536ZXG	460/60/3	7.80	59.9	~	~	2.29	~	~	~	INTERNAL	
SFAA536ZXH	575/60/3	6.10	48.4	~	~	3.59	~	~	~	INTERNAL	
SFAA536ZXN	208-230/60/1	27.20	155.0	1.80	0.326	~	85PS330D17	85PR440E65	~	INTERNAL	
SFAA536ZXT	200-230/60/3	15.40	117.0	~	~	0.572	~	~	~	INTERNAL	
SFAA540ZXG	460/60/3	8.60	66.0	~	~	1.95	~	~	~	INTERNAL	
SFAA540ZXH	575/60/3	7.00	54.0	~	~	3.056	~	~	~	INTERNAL	
SFAA540ZXT	200-230/60/3	17.10	134.0	~	~	0.493	~	~	~	INTERNAL	
SFA5554EXG	460/60/3	7.00	60.0	~	~	2.29	~	~	~	INTERNAL	
SFA5554EXH	575/60/3	5.70	48.4	~	~	3.59	~	~	~	INTERNAL	
SFA5554EXN	208-230/60/1	22.50	155.0	1.80	0.326	~	85PS330D17	85PR440E65	~	INTERNAL	
SFA5554EXT	200-230/60/3	14.30	108.0	~	~	0.589	~	~	~	INTERNAL	
SFA5558EXG	460/60/3	7.65	66.0	~	~	1.952	~	~	~	INTERNAL	
SFA5558EXH	575/60/3	6.10	54.0	~	~	3.056	~	~	~	INTERNAL	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
SFA5558EXN	208-230/60/1	24.40	160.0	1.47	0.285	~	85PS330D17	85PR440E90	~	INTERNAL	
SFA5558EXT	200-230/60/3	15.00	125.0	~	~	0.493	~	~	~	INTERNAL	
SFA5560EXG	460/60/3	7.75	66.0	~	~	1.952	~	~	~	INTERNAL	
SFA5560EXH	575/60/3	6.40	54.0	~	~	3.056	~	~	~	INTERNAL	
SFA5560EXN	208-230/60/1	25.20	160.0	1.47	0.285	~	85PS330D17	85PR440E90	~	INTERNAL	
SFA5560EXT	200-230/60/3	15.70	125.0	~	~	0.493	~	~	~	INTERNAL	
SFA5572EXG	460/60/3	9.50	72.0	~	~	1.90	~	~	~	INTERNAL	
SFA5572EXH	575/60/3	7.60	58.0	~	~	2.92	~	~	~	INTERNAL	
SFA5572EXT	200-230/60/3	19.00	142.0	~	~	0.488	~	~	~	INTERNAL	
SFA5581EXG	460/60/3	10.50	75.9	~	~	1.82	~	~	~	INTERNAL	
SFA5581EXT	200-230/60/3	21.00	151.0	~	~	0.453	~	~	~	INTERNAL	
SFA5594EXG	460/60/3	12.40	89.0	~	~	1.48	~	~	~	INTERNAL	
SFA5594EXH	575/60/3	10.40	78.4	~	~	1.99	~	~	~	INTERNAL	
SFA5594EXT	200-230/60/3	25.00	185.0	~	~	0.372	~	~	~	INTERNAL	
SFA5611EXG	460/60/3	14.40	104.0	~	~	1.21	~	~	~	INTERNAL	
SFA5611EXH	575/60/3	11.40	78.4	~	~	1.99	~	~	~	INTERNAL	
SFA5611EXT	200-230/60/3	28.30	205.0	~	~	0.309	~	~	~	INTERNAL	
SFA5612EXG	460/60/3	17.00	119.0	~	~	1.03	~	~	~	INTERNAL	
SFA5612EXH	575/60/3	15.20	111.0	~	~	1.43	~	~	~	INTERNAL	
SFA5612EXT	200-230/60/3	34.50	239.0	~	~	0.258	~	~	~	INTERNAL	
SFA5615EXG	460/60/3	20.70	135.0	~	~	0.94	~	~	~	INTERNAL	
SFA5615EXH	575/60/3	17.20	111.0	~	~	1.43	~	~	~	INTERNAL	
SFA5615EXT	200-230/60/3	41.00	269.0	~	~	0.239	~	~	~	INTERNAL	
THA0412YXA	115/60/1	3.35	27.5	10.21	1.96	~	~	~	82008EAH05	8300T57T79	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
THA0414YXA	115/60/1	4.00	33.0	7.33	1.70	~	~	~	82008EAH05	83004TMT40	
THA1340YXA	115/60/1	0.96	16.4	9.20	3.77	~	~	10/220	K71-23	83004TMJ89	
THG1340YXA	115/60/1	~	~	9.16	~	~	~	~	K71-23	83004TMJ89	
THB1355YXA	115/60/1	2.15	22.2	6.60	2.59	~	~	~	82008EAH05	83004TMS11	
THG1374YXA	115/60/1	1.55	21.0	8.51	2.69	~	~	12/250	82008EAG74	PUR.BRAZIL	
TPA0413YXA	115/60/1	3.80	30.0	9.12	1.63	~	85PS110C91	~	K71-08	8300MRPS30	
TPA0413YXD	208-230/60/1	2.20	19.2	30.06	4.84	~	53-64/220	~	82767	8300MRAS43	
TPA0415YXA	115/60/1	4.00	30.0	9.12	1.63	~	85PS110C91	~	K71-08	8300MRPS44	
TPA0415YXD	208-230/60/1	2.30	19.2	30.06	4.84	~	53-64/220	~	82767	8300MRAS43	
TPA0421YXA	115/60/1	5.50	37.5	9.06	1.37	~	~	~	~	8300MRAR88	
TPA0421YXD	208-230/60/1	3.40	25.5	16.83	4.21	~	~	~	RP5610	8300MRPR89	
TPA0423YXA	115/60/1	6.10	42.5	10.62	0.987	~	~	~	8200EMBK21	8300MRRT07	
TPA1370YXA	115/60/1	1.20	21.3	4.27	2.58	~	~	85PR220F12	K71-23	K90-05	
TPB1370YXA	115/60/1	2.10	23.5	10.19	2.31	~	~	~	K71-23	K90-05	
TPE1370YXA	115/60/1	1.15	19.5	4.49	2.79	~	~	85PR220F12	K71-23	K90-05	
TPA1380YXA	115/60/1	1.40	21.3	4.27	2.58	~	~	85PR220F12	K71-23	K90-05	Condenser Fan Required
TPE1380YXA	115/60/1	1.35	19.5	4.49	2.79	~	~	85PR220F12	K71-23	K90-05	
TPG1380YXA	115/60/1	1.34	19.0	4.28	3.33	~	~	~	~	~	
TPA1390YXA	115/60/1	1.60	21.3	4.27	2.58	~	~	85PR220F12	K71-23	K90-05	Condenser Fan Required
TPB1390YXA	115/60/1	2.70	25.5	8.73	1.88	~	~	~	K71-23	83004TMR17	
TPE1390YXA	115/60/1	1.50	19.5	4.49	2.79	~	~	85PR220F12	K71-23	K90-05	
TPG1390YXA	115/60/1	1.44	19.0	4.28	3.33	~	~	~	~	~	
TPA1410YXA	115/60/1	1.80	21.3	4.27	2.58	~	~	85PR220F12	K71-23	K90-05	Condenser Fan Required
TPA1410YXD	208-230/60/1	1.09	15.8	19.19	6.08	~	~	85PR370E36	82008EAJ54	83004TMP67	

Model	Volts/Hz/Ph	RLA	LRA	Winding Resistance			Start Cap P/N or MFD/Volt	Run Cap P/N or MFD/Volt	Relay	Overload	Remarks
				Start	Run	Line to Line					
TPA1413YXA	115/60/1	2.30	20.5	3.95	1.77	~	~	85PR220F12	K71-23	83004TMP65	
TPA9415YXA	115/60/1	3.90	26.5	4.48	1.92	~	85PS110C92	~	820RR12L02	8300MRAT22	
TPA9415YXD	208-230/60/1	2.00	15.5	16.58	5.72	~	88-108/165	~	82448	8300MRAT26	
TPA9417YXA	115/60/1	5.00	34.0	7.93	1.20	~	85PS110C76	~	K71-10	8300MRIT30	
TPA9419YXA	115/60/1	6.20	40.0	5.90	0.97	~	85PS165C96	~	K71-06	K90-14	
TPA9421YXA	115/60/1	6.40	40.0	5.90	0.97	~	85PS165C96	~	K71-06	K90-14	
TPA9421YXD	208-230/60/1	3.30	21.2	13.94	4.26	~	88-108/220	~	820RR12K99	8300MRPR89	
TPA9423YXA	115/60/1	6.90	44.5	4.77	0.86	~	216-259/220	~	K71-06	K90-17	
TPA9423YXD	208-230/60/1	3.60	24.0	15.35	3.29	~	85PS250D09	~	820RR12L04	8300MRAT74	
VSA9490ZXT	200-230/60/3	5.20	40.5	~	~	2.33	~	~	~	INTERNAL	
VSA9514ZNA	208-230/60/1	10.30	83.0	1.86	0.648	~	85PS330C23	85PR370F21	820ARR3K62	INTERNAL	
VSA9514ZXT	200-230/60/3	7.10	48.5	~	~	1.85	~	~	~	INTERNAL	
VSA9517ZNA	208-230/60/1	12.00	83.0	1.86	0.648	~	85PS330C23	85PR370F21	820ARR3K62	INTERNAL	
VSA9517ZXT	200-230/60/3	8.20	77.5	~	~	1.32	~	~	~	INTERNAL	
VSA9521ZXT	200-230/60/3	9.75	80.0	~	~	1.07	~	~	~	INTERNAL	
VSA9524ZTB	200-230/60/3	12.60	104.0	~	~	0.824	~	~	~	INTERNAL	
VSA9528ZXT	200-230/60/3	12.20	96.0	~	~	0.689	~	~	~	INTERNAL	
VSA9536ZXT	200-230/60/3	15.90	153.0	~	~	0.441	~	~	~	INTERNAL	
VSA9544ZXT	200-230/60/3	19.10	156.0	~	~	0.375	~	~	~	INTERNAL	

# Introduction to Electrical Drawings

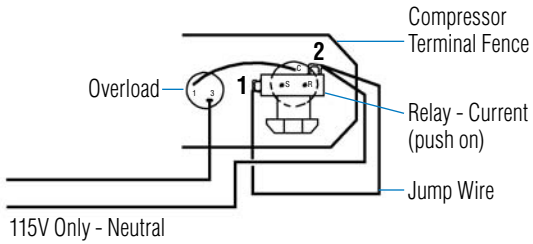
1. The drawings which follow cover both current production and obsolete compressor models.
2. For ease in determination of the proper drawing, indexes are provided.
3. Each drawing has a descriptive title, a representative compressor photograph.
4. The following general points should be considered:
  - A. All notations are important and must be heeded.
  - B. All ESP relays must be mounted as shown in the drawings or, in the case of remote installations, exactly as was the original.
  - C. The two terminal overloads shown in the drawings are typical examples. ESP overloads may be provided with terminals at #1 and #3 or #1 and #2 or may have factory applied leads or straps. Regardless, as long as they are wired as shown in the drawings, the circuit will be correct.
  - D. Fan motor leads, if not originally connected elsewhere in the equipment, are always connected to line terminals.

<b>Page</b>	<b>Model</b>	<b>Description</b>
64	AE	RSIR and CSIR with current relay
65	AE	PSC or CSR with potential relay
66	AG	PSC or CSR with potential relay
67	AH	CSIR with current relay
68	AH	PSC or CSR with potential relay
69	AJ	CSIR with current relay
70	AJ	CSIR with potential relay
71	AJ	PSC or CSR with potential relay
72	AK	CSIR with current relay
73	AK	PSC or CSR with potential relay
74	AV	PSC or CSR with potential relay
75	AW	PSC or CSR with potential relay
76	AZ	RSIR or CSIR with current relay
77	RG, RK	PSC or CSR with potential relay
78	SF	PSC or CSR with potential relay
79	TP	PTCS/CR
80	AB	PSC or CSR with potential relay
81	CL	PSC or CSR with potential relay (internal overload models)
82	CL	PSC or CSR with potential relay (internal thermostat models)
83	CL	3 Phase (internal thermostat models)

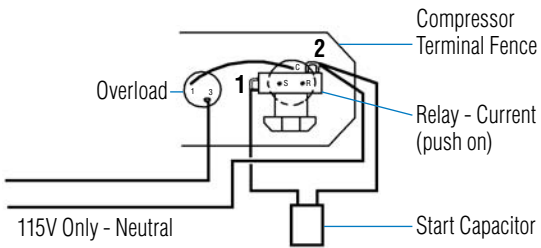
# AE Models



*Representative photo only  
Many variations possible*



(RSIR)

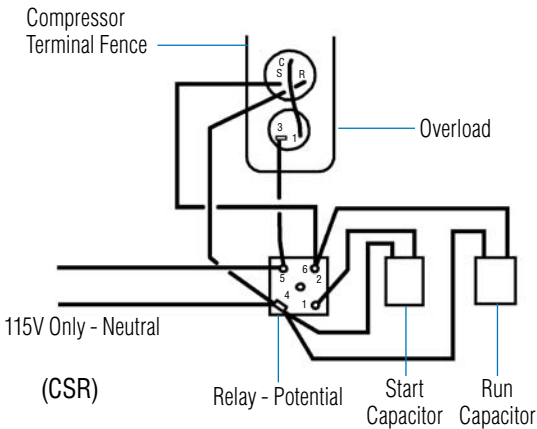
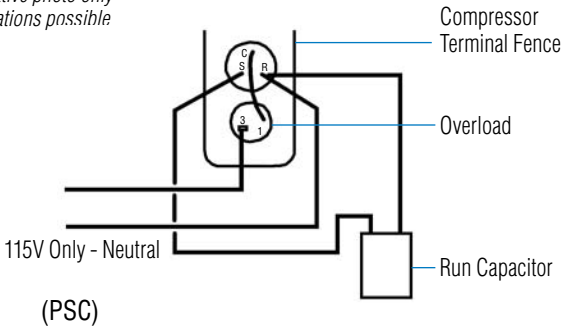


(CSIR)

# AE Models



*Representative photo only  
Many variations possible*

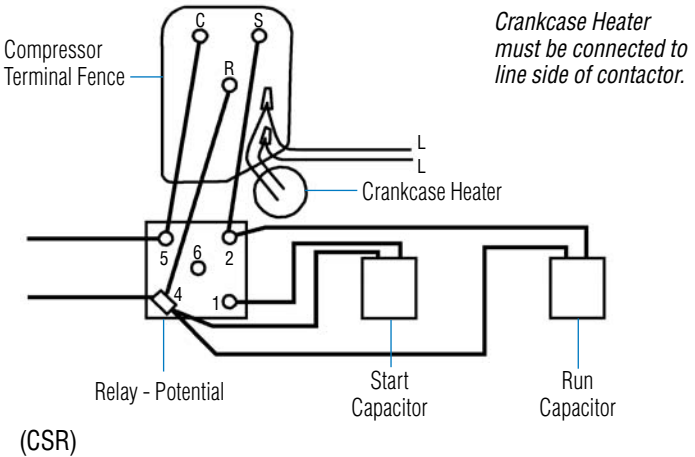
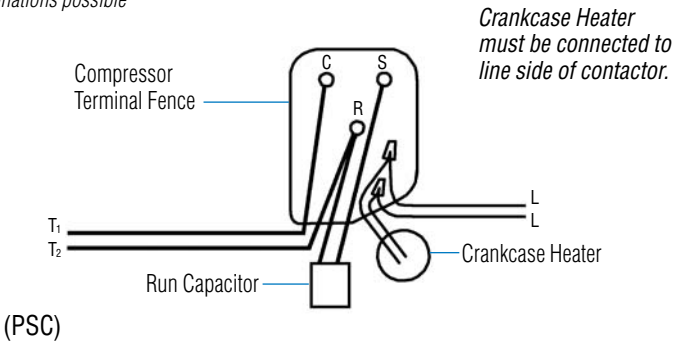


**NOTE:** Wire to relay as shown regardless of terminal location.

# AG Models



Representative photo only  
Many variations possible

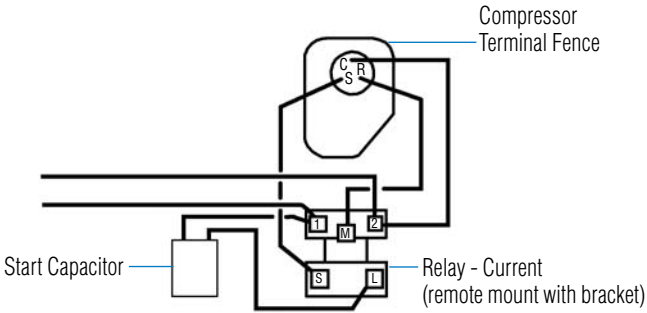


**NOTE:** Wire to relay as shown regardless of terminal location.

# AH Models



*Representative photo only  
Many variations possible*



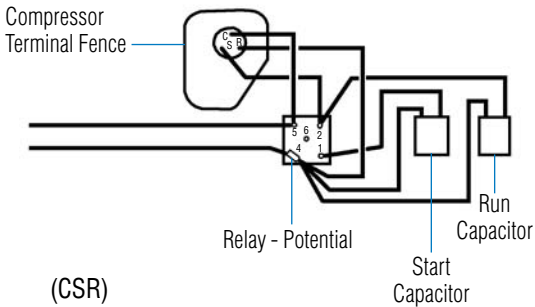
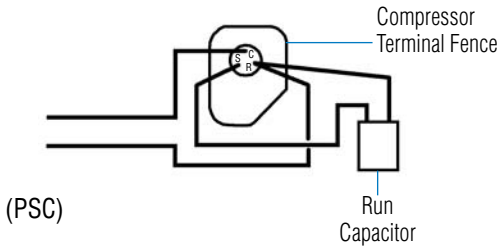
(CSIR)

**NOTE:** Wire to relay as shown regardless of terminal location.

# AH Models



*Representative photo only  
Many variations possible*

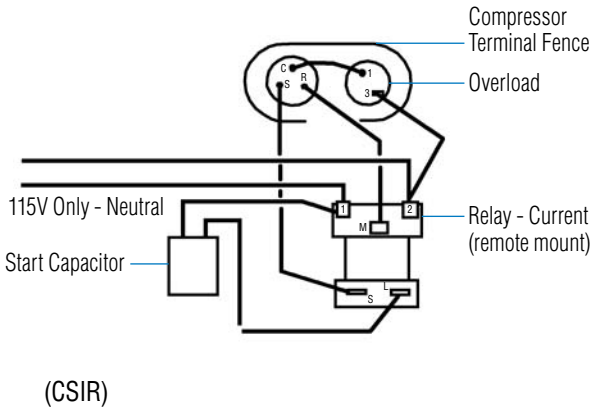


**NOTE:** Wire to relay as shown regardless of terminal location.

# AJ Models



*Representative photo only  
Many variations possible*

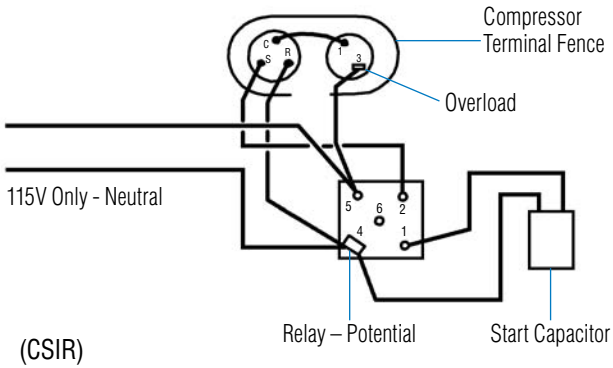


**NOTE:** Wire to relay as shown regardless of terminal location.

# AJ Models



*Representative photo only  
Many variations possible*

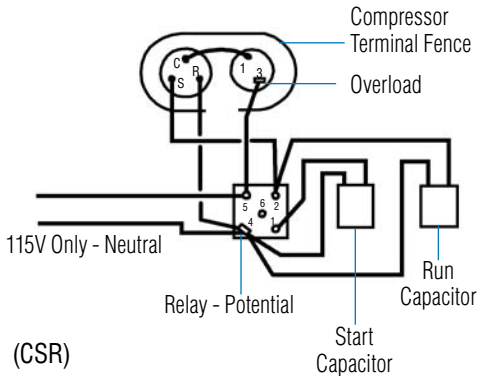
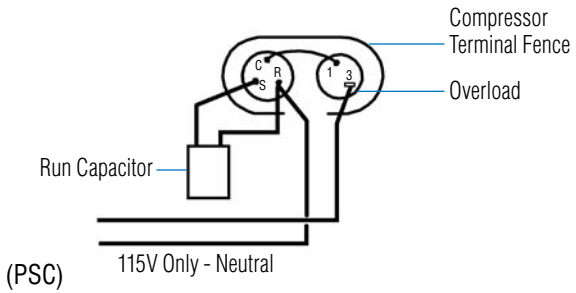


**NOTE:** Wire to relay as shown regardless of terminal location.

# AJ Models



*Representative photo only  
Many variations possible*

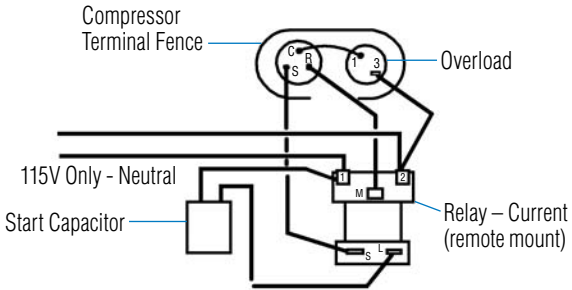


**NOTE:** Wire to relay as shown regardless of terminal location.

# AK Models



*Representative photo only  
Many variations possible*



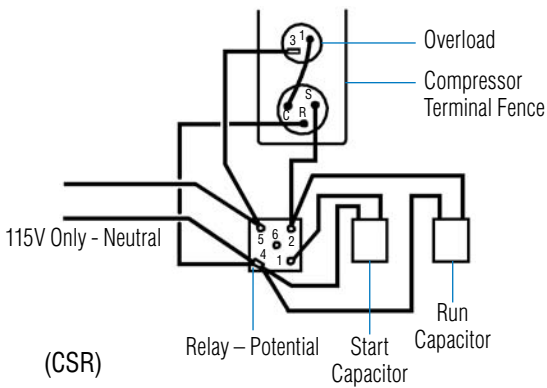
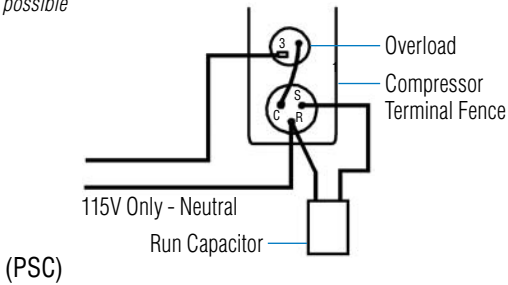
(CSIR)

**NOTE:** Wire to relay as shown regardless of terminal location.

# AK Models



Representative photo only  
Many variations possible



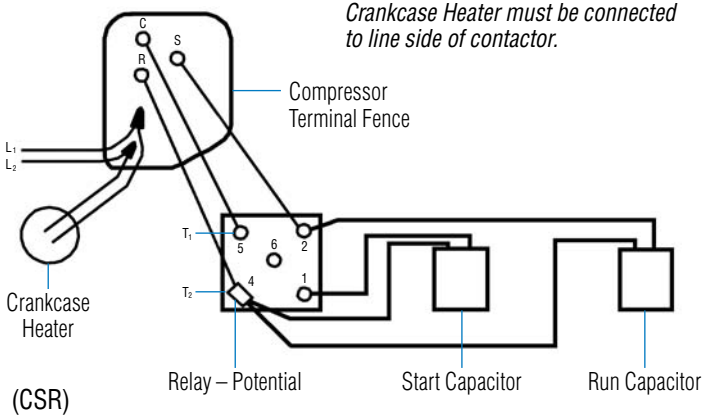
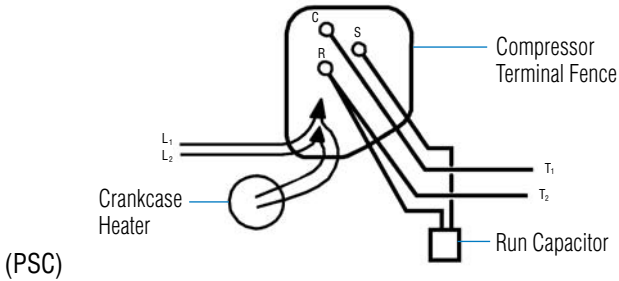
**NOTE:** Wire to relay as shown regardless of terminal location.

# AV Models



*Representative photo only  
Many variations possible*

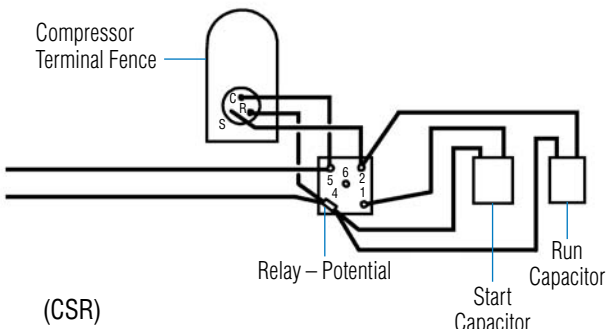
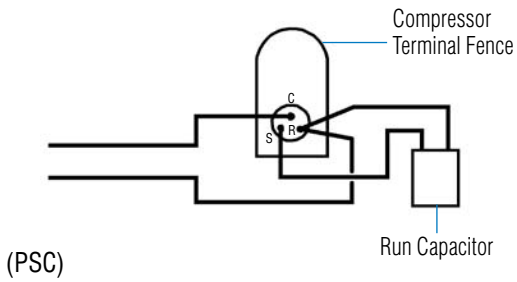
*Crankcase Heater must be connected  
to line side of contactor.*



# AW Models



*Representative photo only  
Many variations possible*

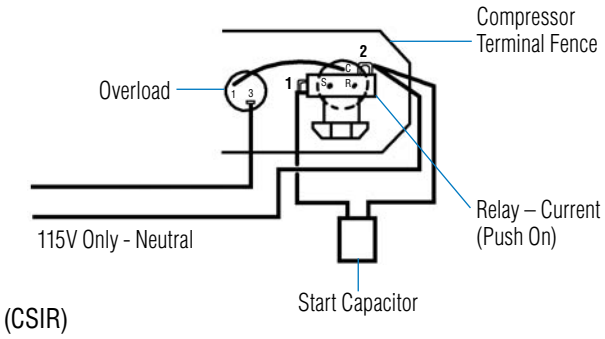
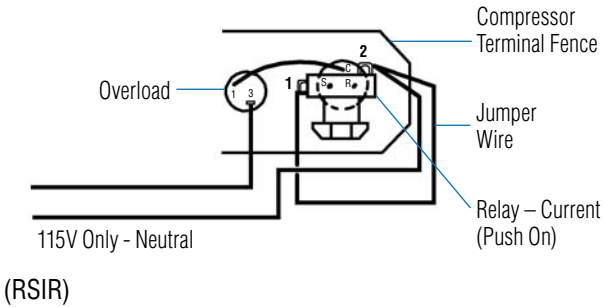


**NOTE:** Wire to relay as shown regardless of terminal location.

# AZ Models



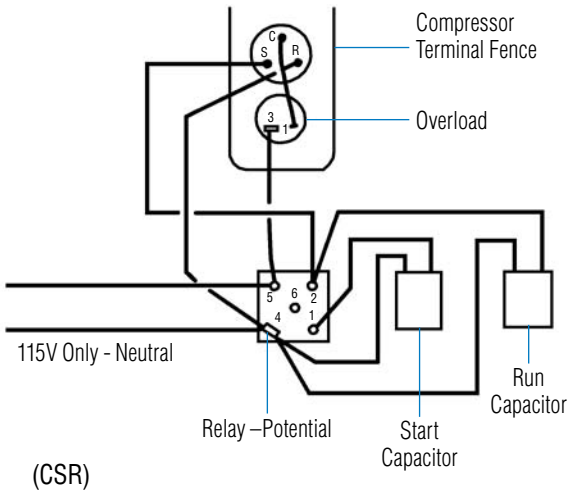
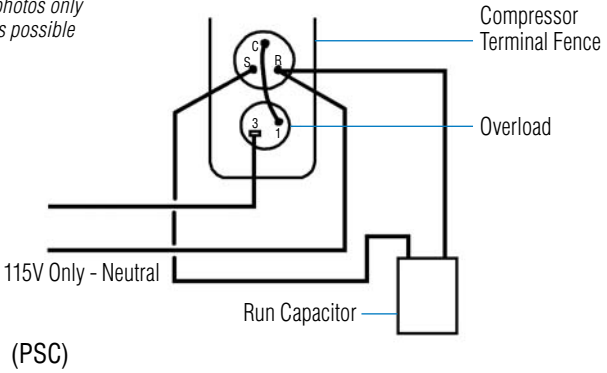
*Representative photo only  
Many variations possible*



# RG and RK Models

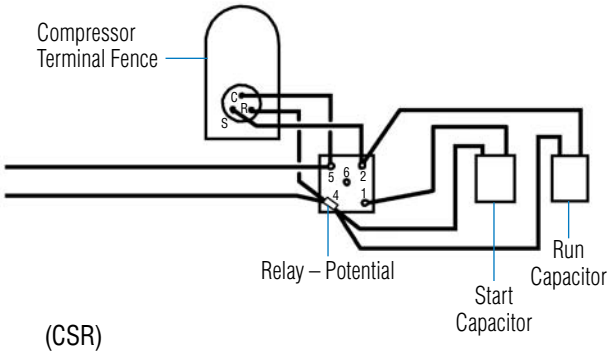
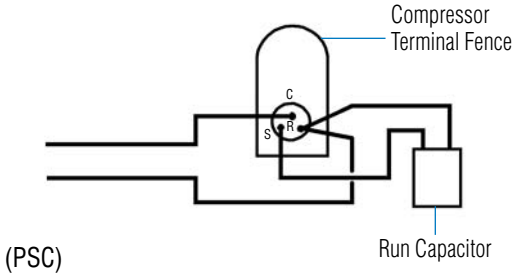


Representative photos only  
Many variations possible



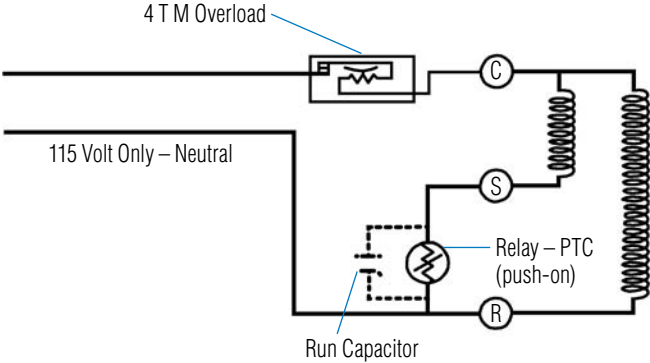
**NOTE:** Wire to relay as shown regardless of terminal location.

# SF Models



**NOTE:** Wire to relay as shown regardless of terminal location.

# TP Models

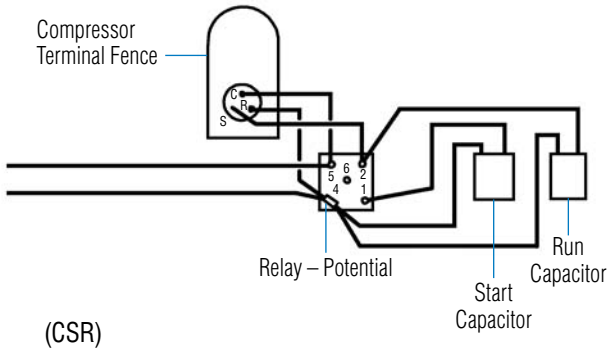
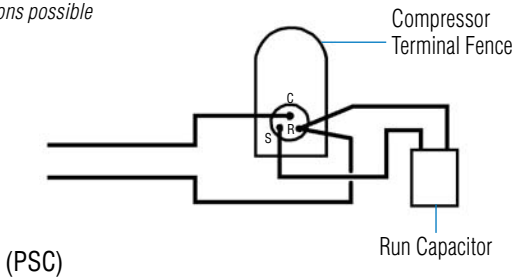


(PTCS/CR)

# AB Models



*Representative photo only  
Many variations possible*

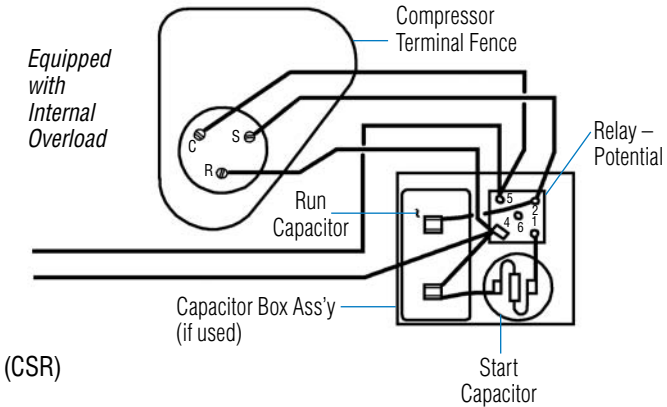
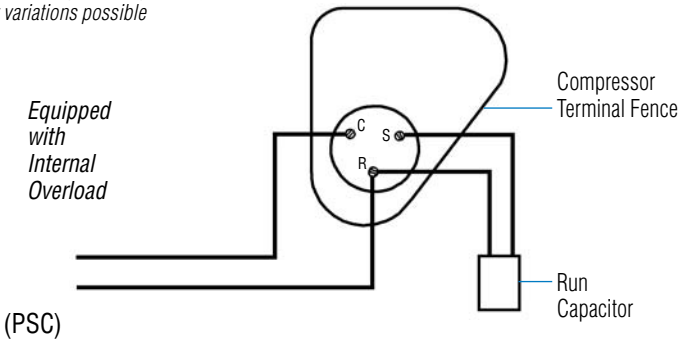


**NOTE:** Wire to relay as shown regardless of terminal location.

# CL Models



*Representative photo only  
Many variations possible*

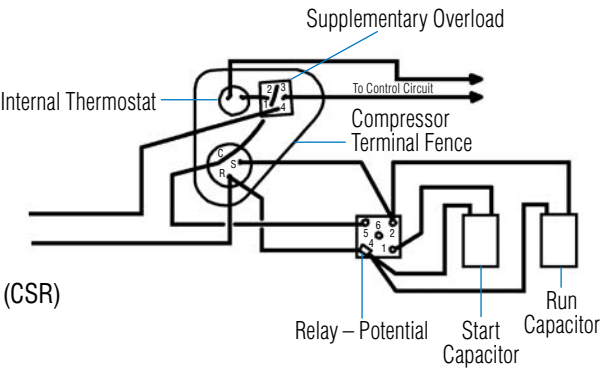
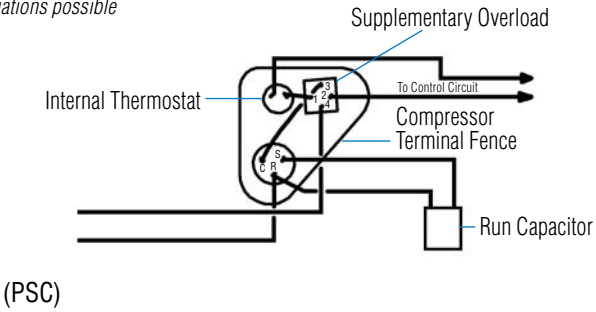


**NOTE:** Wire to relay as shown regardless of terminal location.

# CL Models

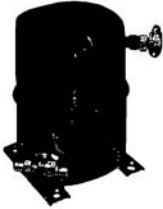


*Representative photo only  
Many variations possible*

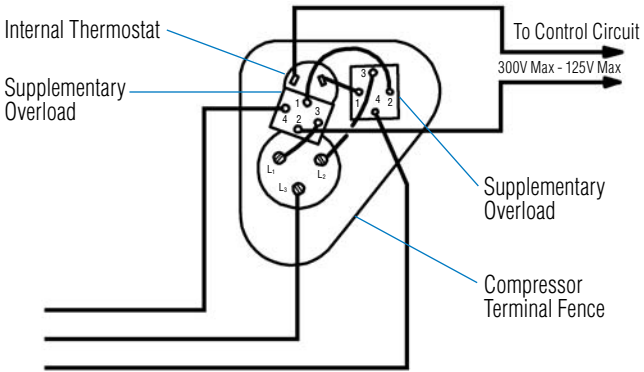


**NOTE:** Wire to relay as shown regardless of terminal location.

# CL Models



*Representative photo only  
Many variations possible*



(3 Phase)

# Trouble Shooting and Service Chart

Complaint	Possible Cause	Repair
<b>A</b> Compressor will not start - no hum	<ol style="list-style-type: none"> <li>1. Line disconnect open.</li> <li>2. Fuse removed or blown.</li> <li>3. Overload protector tripped.</li> <li>4. Control stuck in open position.</li> <li>5. Control off due to cold location.</li> <li>6. Wiring improper or loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close start or disconnect switch.</li> <li>2. Replace fuse.</li> <li>3. Refer to electrical section.</li> <li>4. Repair or replace control.</li> <li>5. Relocate control.</li> <li>6. Check wiring against diagram.</li> </ol>
<b>B</b> Compressor will not start - hums but trips on overload protector	<ol style="list-style-type: none"> <li>1. Improperly wired.</li> <li>2. Low voltage to unit.</li> <li>3. Starting capacitor defective.</li> <li>4. Relay failing to close.</li> <li>5. Compressor motor has a winding open or shorted.</li> <li>6. Internal mechanical trouble in compressor.</li> <li>7. Liquid refrigerant in compressor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring against diagram.</li> <li>2. Determine reason and correct.</li> <li>3. Determine reason and replace.</li> <li>4. Determine reason and correct, replace if necessary.</li> <li>5. Replace compressor.</li> <li>6. Replace compressor.</li> <li>7. Replace compressor.</li> </ol>
<b>C</b> Compressor starts, but does not switch off of start winding	<ol style="list-style-type: none"> <li>1. Improperly wired.</li> <li>2. Low voltage to unit.</li> <li>3. Relay failing to open.</li> <li>4. Run capacitor defective.</li> <li>5. Excessively high discharge pressure.</li> <li>6. Compressor motor has a winding open or shorted.</li> <li>7. Internal mechanical trouble in compressor (tight).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring against diagram.</li> <li>2. Determine reason and correct.</li> <li>3. Determine reason and correct, replace if necessary.</li> <li>4. Determine reason and replace.</li> <li>5. Check discharge shut-off valve, possible overcharge, or insufficient cooling on condenser.</li> <li>6. Replace compressor.</li> <li>7. Replace compressor.</li> </ol>
<b>D</b> Compressor starts and runs, but short cycles on overload protector	<ol style="list-style-type: none"> <li>1. Additional current passing through overload protector.</li> <li>2. Low voltage to unit (or unbalanced if three phase).</li> <li>3. Overload protector defective.</li> <li>4. Run capacitor defective.</li> <li>5. Excessive discharge pressure.</li> <li>6. Suction pressure too high.</li> <li>7. Compressor too hot - return gas hot.</li> <li>8. Compressor motor has a winding shorted.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring diagram. Check for added fan motors, pumps, etc., connected to wrong side of protector.</li> <li>2. Determine reason and correct.</li> <li>3. Check current, replace protector.</li> <li>4. Determine reason and replace.</li> <li>5. Check ventilation, restrictions in cooling medium, restrictions in refrigeration system.</li> <li>6. Check for possibility of mis-application. Use stronger unit.</li> <li>7. Check refrigerant charge (fix leak), add if necessary.</li> <li>8. Replace compressor.</li> </ol>

# Trouble Shooting and Service Chart

Complaint	Possible Cause	Repair
<b>E</b> Unit runs OK, but short cycles on	<ol style="list-style-type: none"> <li>1. Overload protector.</li> <li>2. Thermostat.</li> <li>3. High pressure cut-out due to:               <ol style="list-style-type: none"> <li>a - Insufficient air/water supply</li> <li>b - Overcharge</li> <li>c - Air in system</li> </ol> </li> <li>4. Low pressure cut-out due to:               <ol style="list-style-type: none"> <li>a - Liquid line solenoid leaking</li> <li>b - Compressor valve leak</li> <li>c - Undercharge</li> <li>d - Restriction in expansion device</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. See D on previous page.</li> <li>2. Differential set too close-widen.</li> <li>3.               <ol style="list-style-type: none"> <li>a -Check air/water supply to condenser - correct.</li> <li>b - Reduce refrigerant charge</li> <li>c -Purge</li> </ol> </li> <li>4.               <ol style="list-style-type: none"> <li>a - Replace</li> <li>b - Replace</li> <li>c - Fix leak, add refrigerant</li> <li>d - Replace device</li> </ol> </li> </ol>
<b>F</b> Unit operates long or continuously	<ol style="list-style-type: none"> <li>1. Shortage of refrigerant.</li> <li>2. Control contacts stuck or frozen closed.</li> <li>3. Refrigerated or air conditioned space has excessive load or poor insulation.</li> <li>4. System inadequate to handle load.</li> <li>5. Evaporator coil iced.</li> <li>6. Restriction(s) in refrigeration system.</li> <li>7. Dirty condenser.</li> <li>8. Filter dirty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fix leak, add charge.</li> <li>2. Clean contacts or replace control.</li> <li>3. Determine fault and correct.</li> <li>4. Replace with larger system.</li> <li>5. Defrost.</li> <li>6. Determine location and remove.</li> <li>7. Clean condenser.</li> <li>8. Clean or replace.</li> </ol>
<b>G</b> Start capacitor open, shorted, or blown	<ol style="list-style-type: none"> <li>1. Relay contacts not operating properly.</li> <li>2. Prolonged operation on start cycle due to:               <ol style="list-style-type: none"> <li>a - Low voltage to unit</li> <li>b - Improper relay</li> <li>c - Starting load too high</li> </ol> </li> <li>3. Excessive short cycling.</li> <li>4. Improper capacitor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean contacts or replace relay if necessary.</li> <li>2.               <ol style="list-style-type: none"> <li>a - Determine reason and correct</li> <li>b - Replace</li> <li>c - Correct by using pump down arrangement if necessary</li> </ol> </li> <li>3. Determine reason for short-cycle (E above) and correct.</li> <li>4. Determine reason and correct.</li> </ol>
<b>H</b> Run capacitor open, shorted, or blown	<ol style="list-style-type: none"> <li>1. Improper capacitor.</li> <li>2. Excessively high line voltage (110% of rated-max).</li> </ol>	<ol style="list-style-type: none"> <li>1. Determine correct size and replace.</li> <li>2. Determine reason and correct.</li> </ol>

# Trouble Shooting and Service Chart

Complaint	Possible Cause	Repair
<b>I</b> Relay defective or burned out	<ol style="list-style-type: none"><li>1. Incorrect relay.</li><li>2. Incorrect mounting angle.</li><li>3. Line voltage too high or too low.</li><li>4. Excessive short cycling.</li><li>5. Relay being influenced by loose mounting.</li><li>6. Incorrect run capacitor.</li></ol>	<ol style="list-style-type: none"><li>1. Check and replace.</li><li>2. Remount relay in correct position.</li><li>3. Determine reason and correct.</li><li>4. Determine reason (See E on previous page) and correct.</li><li>5. Remount rigidly.</li><li>6. Replace with proper capacitor.</li></ol>
<b>J</b> Conditioned space temperature too high	<ol style="list-style-type: none"><li>1. Control setting too high.</li><li>2. Expansion valve too small.</li><li>3. Cooling coils too small.</li><li>4. Inadequate air circulation.</li></ol>	<ol style="list-style-type: none"><li>1. Reset control.</li><li>2. Use larger valve.</li><li>3. Add surface area or replace.</li><li>4. Improve air movement.</li></ol>
<b>K</b> Suction line frosted or sweating	<ol style="list-style-type: none"><li>1. Expansion valve passing excess refrigerant or is oversized.</li><li>2. Expansion valve stuck open.</li><li>3. Evaporator fan not running.</li><li>4. Overcharge of refrigerant.</li></ol>	<ol style="list-style-type: none"><li>1. Adjust valve or replace with smaller valve.</li><li>2. Clean valve or foreign particles, replace if necessary.</li><li>3. Determine reason and correct.</li><li>4. Correct charge.</li></ol>
<b>L</b> Liquid line frosted or sweating	<ol style="list-style-type: none"><li>1. Restriction in filter-drier or strainer.</li><li>2. Liquid shut-off (king-valve) partially closed.</li></ol>	<ol style="list-style-type: none"><li>1. Replace part.</li><li>2. Open valve fully.</li></ol>
<b>M</b> Unit noisy	<ol style="list-style-type: none"><li>1. Loose parts or mounting.</li><li>2. Tubing rattle.</li><li>3. Bent fan blade causing vibration.</li><li>4. Fan motor bearings worn.</li></ol>	<ol style="list-style-type: none"><li>1. Find and tighten.</li><li>2. Reform to be free of contact.</li><li>3. Replace blade.</li><li>4. Replace motor.</li></ol>

When it comes to compressors...

# Think Safety!

**Be alert for sounds of arcing** (sizzling, sputtering or popping) inside the compressor. **IMMEDIATELY GET AWAY** if you hear these sounds.

**Disconnect ALL electrical power** before removing the protective thermal cover.

**Never energize the system unless:**

- the protective terminal cover is securely fastened and
- the compressor is properly connected to ground

**Never reset a breaker or replace a fuse** without first checking for a ground fault (also known as a short circuit to ground).