50PG08−14
Single Package Rooftop Units
Electric Cooling with PURON® (R−410A) Refrigerant
and *COMFORT*Link™ Controls

Installation Instructions

IMPORTANT: This installation instruction contains basic unit installation information including installation of field control devices. For information on unit start-up, service, and operation, refer to the unit Controls, Start-Up, Operation, Service, and Troubleshooting Instructions also enclosed in the unit literature packet.

TABLE OF CONTENTS

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions of replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves. Use quenching cloth for unbrazing operations. Have fire extinguishers available for all brazing operations.

Recognize safety information. This is the safety−alert symbol ⚠. When you see this symbol on the furnace and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety−alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies a hazard which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could cause personal injury or death.

Before performing service or maintenance operations on unit, turn off main power switch to unit and install lockout tag. Ensure electrical service to rooftop unit agrees with voltage and amperage listed on the unit rating plate.

⚠ WARNING

UNIT OPERATION AND SAFETY HAZARD

Failure to follow this warning could cause personal injury, death and/or equipment damage.

Puron (R−410a) refrigerant systems operate at higher pressures than standard R−22 systems. Do not use R−22 service equipment or components on Puron refrigerant equipment.

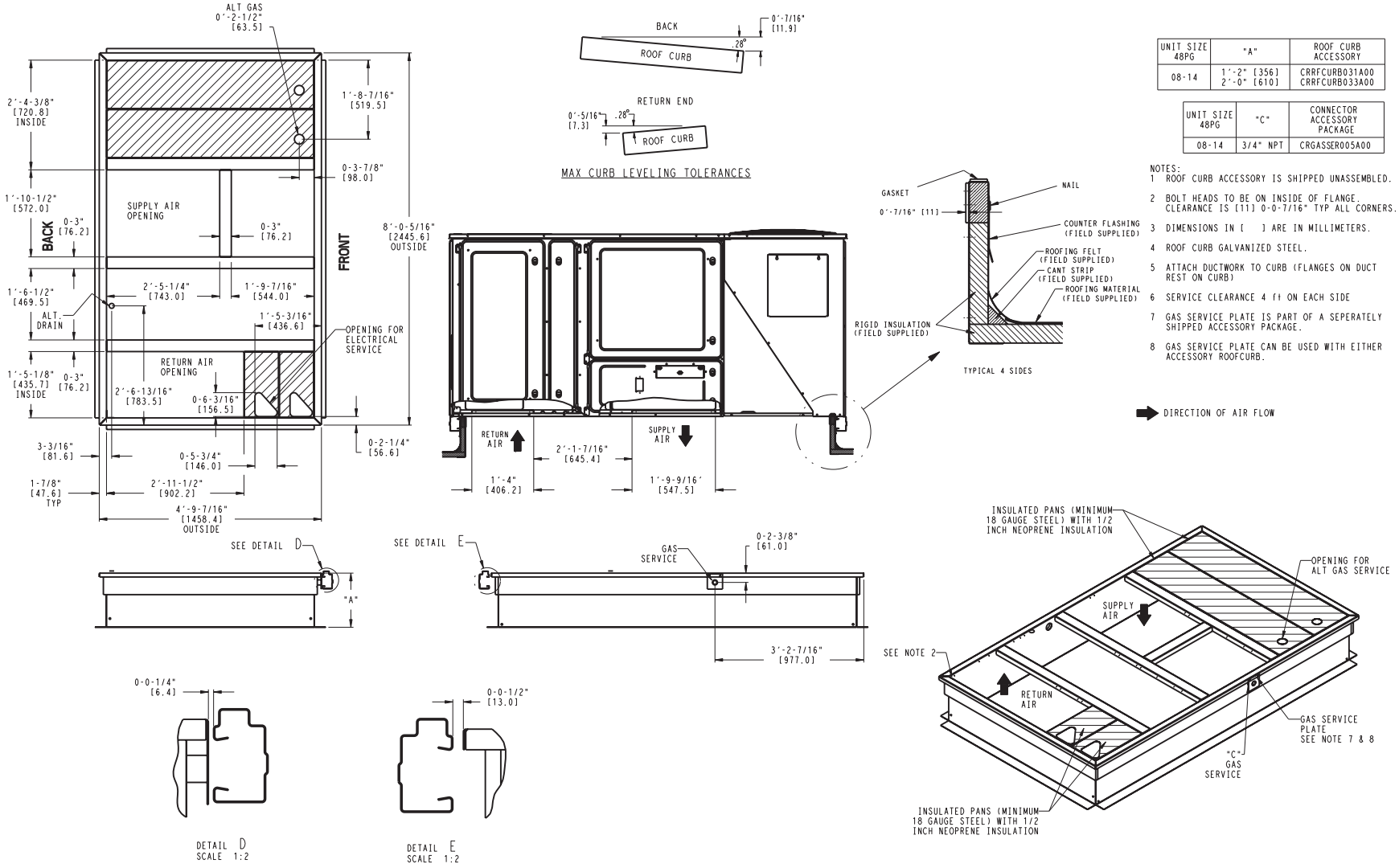
IMPORTANT: Units have high ambient operating limits. If limits are exceeded, the units will automatically lock the compressor out of operation. Manual reset will be required to restart the compressor.

INSTALLATION

Step 1 — Provide Unit Support

Roof Curb

Assemble or install accessory roof curb in accordance with instructions shipped with this accessory. (See Fig. 1.) Install insulation, cant strips, roofing, and counter flashing as shown. Ductwork can be installed to roof curb before unit is set in place. Ductwork must be attached to curb and not to the unit. Curb must be level. This is necessary to permit unit drain to function properly. Unit leveling tolerance is ± $^{1}/_{16}$-in. per linear ft in any direction. Refer to Accessory Roof Curb Installation Instructions for additional information as required. When accessory roof curb is used, unit may be installed on class A, B, or C roof covering material. Carrier roof curb accessories are for flat roofs or slab mounting.



UNIT SIZE 48PG	"A"	ROOF CURB ACCESSORY
08-14	1'-2" [356] 2'-0" [610]	CRRFCURB031A00 CRRFCURB033A00

UNIT SIZE 48PG	"C"	CONNECTOR ACCESSORY PACKAGE
08-14	3/4" NPT	CRGASSER005A00

NOTES:
1. ROOF CURB ACCESSORY IS SHIPPED UNASSEMBLED.
2. BOLT HEADS TO BE ON INSIDE OF FLANGE. CLEARANCE IS [11] 0-0-7/16" TYP ALL CORNERS.
3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
4. ROOF CURB GALVANIZED STEEL.
5. ATTACH DUCTWORK TO CURB (FLANGES ON DUCT REST ON CURB)
6. SERVICE CLEARANCE 4 ft ON EACH SIDE
7. GAS SERVICE PLATE IS PART OF A SEPERATELY SHIPPED ACCESSORY PACKAGE.
8. GAS SERVICE PLATE CAN BE USED WITH EITHER ACCESSORY ROOFCURB.

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Fig. 1 - Roof Curb Dimensions

NOTES:

1. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
2. ⊕ CENTER OF GRAVITY.
3. ➡ DIRECTION OF AIR FLOW.
4. ON VERTICAL DISCHARGE UNITS, DUCTWORK TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. FOR HORIZONTAL DISCHARGE UNITS FIELD SUPPLIED FLANGES SHOULD BE ATTACHED TO HORIZONTAL DISCHARGE OPENINGS, AND ALL DUCTWORK SHOULD BE ATTACHED TO THE FLANGES.
5. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY PREVAIL):
   a. ON VERTICAL DISCHARGE UNITS, CLEARANCE TO COMBUSTIBLE FOR FIRST 12" OF DUCT TUBE 1"
   b. BOTTOM OF UNIT TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB) 1 INCH.
      BOTTOM OF BASE RAIL TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB) 0 INCHES.
   c. CONDENSER COIL, FOR PROPER AIR FLOW, 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
   d. OVERHEAD, 60 INCHES TO ASSURE PROPER CONDENSER FAN OPERATION.
   e. BETWEEN UNITS, CONTROL BOX SIDE, 42 IN. PER NEC.
   f. BETWEEN UNIT AND UNGROUNDED SURFACES, CONTROL BOX SIDE, 36 IN. PER NEC.
   g. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, CONTROL BOX SIDE, 42 IN. PER NEC.
   h. HORIZONTAL SUPPLY AND RETURN END, 0 INCHES.
6. WITH THE EXCEPTION OF THE CLEARANCE FOR THE CONDENSER COIL, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
7. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B, OR C ROOF COVERING MATERIAL IF SET ON BASE RAIL.
8. THE VERTICAL CENTER OF GRAVITY IS 1'-6"[457] UP FROM FROM THE BOTTOM OF THE BASE RAIL.

UNIT	STD. UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)	
	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG
50PG08	1098	498	243	110	214	97	300	136	341	155
50PG09	1105	501	244	111	215	98	302	137	343	156
50PG12	1199	544	265	120	234	106	328	149	372	169
50PG14	1310	594	290	131	235	116	358	163	407	185

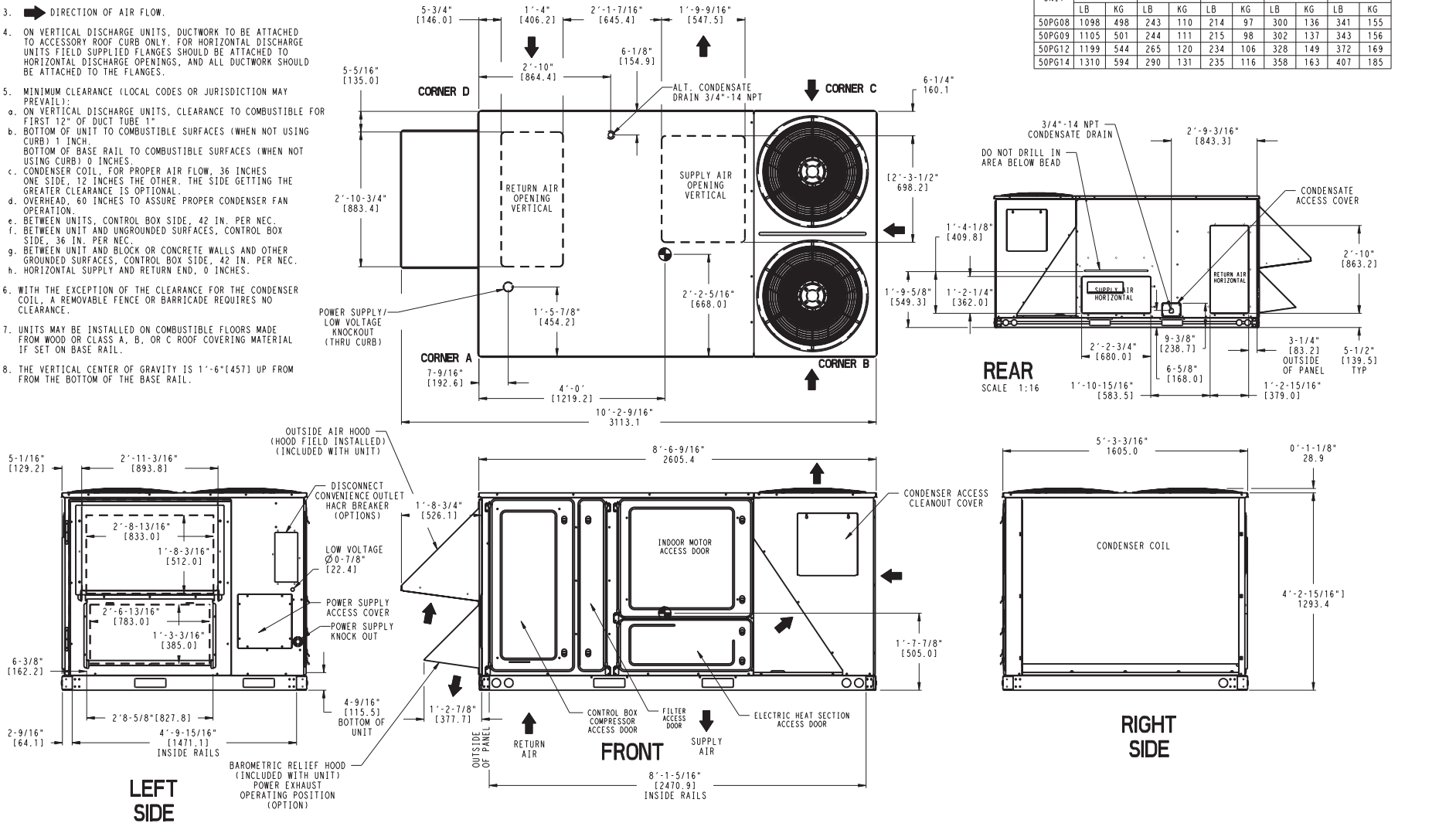

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Fig. 2 - Base Unit Dimensions

IMPORTANT: The gasketing of the unit to the roof curb is critical for a watertight seal. Install gasket with the roof curb as shown in Fig. 1. Improperly applied gasket can also result in air leaks and poor unit performance. Do not slide unit to position on roof curb.

Alternate Unit Support

When a curb cannot be used, install unit on a noncombustible surface. Support unit with sleepers, using unit curb support area. If sleepers cannot be used, support long sides of unit with a minimum of 3 equally spaced 4-in. x 4-in. pads on each side.

Step 2 — Rig and Place Unit

Inspect unit for transportation damage. See Table 1 for physical data. File any claim with transportation agency.

⚠ CAUTION

PERSONAL INJURY AND PROPERTY DAMAGE HAZARD

Failure to follow this caution may result in damage to roof.

All panels must be in place when rigging.

Do not drop unit; keep upright. Use wooden top skid or spreader bars over unit to prevent sling or cable damage. Rollers may be used to move unit across a roof. Level by using unit rail as a reference; leveling tolerance is ± $^1/_{16}$-in. per linear ft in any direction. See Fig. 3 for additional information. Unit rigging weight is shown in Fig. 3.

Rigging holes are provided in the unit base rails as shown in Fig. 3. Refer to rigging instructions on unit.

Positioning

Maintain clearance, per Fig. 2, around and above unit to provide minimum distance from combustible materials, proper airflow, and service access. See Fig. 4 for panel and filter locations.

Do not install unit in an indoor location. Do not locate air inlets near exhaust vents or other sources of contaminated air.

After unit is in position, remove top crating and polyethylene sheet.

Roof Mount

Check building codes for weight distribution requirements. Unit operating weight is shown in Table 1.

Installation Onto Curb

The 50PG units are designed to fit on the accessory full perimeter curb. In either case, correct placement of the unit onto the curb is critical to operating performance. To aid in correct positioning, place unit on roof curb to maintain $^1/_4$-in. gap between the inside of rail and roof curb on long sides and a $^1/_2$-in. gap between the inside of rail and roof curb on both duct and condenser ends. Refer to Fig. 1 and 2, to assure proper duct opening alignment.

NOTE: Make sure the bottom drain condensate connection plug is tight before installing unit on curb. See Step 5 – Install External Trap for Condensate Drain.

⚠ CAUTION

UNIT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage.

Do not slide unit to position when it is sitting on the curb. Curb gasketing material may be damaged and leaks may result.

Slab Mount (Horizontal Units Only)

Provide a level concrete slab that extends a minimum of 6-in. beyond unit cabinet. Install a gravel apron in front of condenser coil air inlet to prevent grass and foliage from obstructing airflow.

NOTE: Horizontal units may be installed on a roof curb if required.

⚠ CAUTION - NOTICE TO RIGGERS:
ACCESS PANEL MUST BE IN PLACE WHEN RIGGING.

Hook rigging shackles through holes in base rail, as shown in Detail A. Holes in base rails are centered around the unit center of gravity. Use wooden top skid, when rigging, to prevent rigging straps from damaging unit.

UNIT SIZE	A		B		C		D		E		MAX. WEIGHT	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb	kg
08-14	90.4	2296	36-54	914-1371	52.4	1331	48.0	1219	26.3	668	1617	735

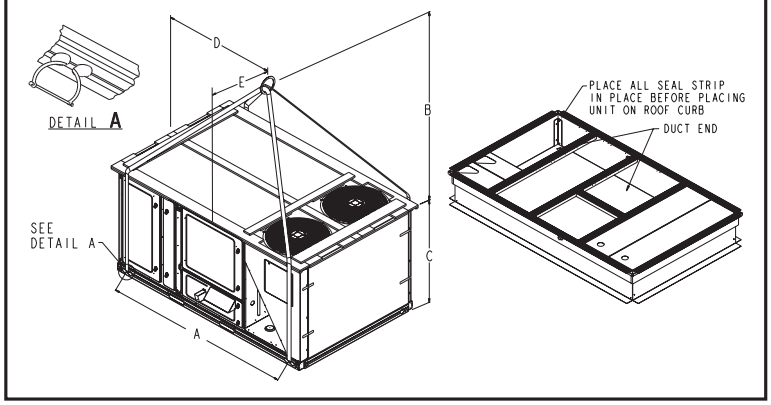

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Fig. 3 – 50PG Rigging Label

Table 1 – Physical Data

BASE UNIT 50PG		08	09	12	14
NOMINAL CAPACITY (Tons)		7.5	8.5	10	12.5
OPERATING WEIGHT (lb)					
Unit*		1098	1105	1199	1310
Economizer					
Vertical		57	57	57	57
Horizontal		59	59	59	59
Humidi-MiZer™ Adaptive Dehumidification System		45	45	44	45
Roof Curb					
14-in.		180	180	180	180
24-in.		268	268	268	268
COMPRESSOR		Fully Hermetic Scroll			
Quantity		2	2	2	2
Oil Type Sys A		Copeland 3MA	Copeland 3MA	Copeland 3MA	Copeland 3MA
Sys B		Copeland 3MA	Copeland 3MA	Copeland 3MA	Copeland 3MA
Number of Refrigerant Circuits		2	2	2	2
Oil (oz) Sys A		42	42	66	56
Sys B		42	42	66	56
REFRIGERANT TYPE		R-410A (Puron® Refrigerant)			
Expansion Device		TXV	TXV	TXV	TXV
Operating Charge (lb) Sys A		11.8	11.3	13.7	17.2
Sys B		11.8	11.3	13.7	17.2
Operating Charge Total All Systems (lb)		23.5	22.6	27.4	34.4
Unit with Humidi-MiZer Adaptive Dehumidification System					
Operating Charge (lb)					
Sys A		16.5	16.25	17.7	22.5
Sys B		16.7	16.25	18.2	21.8
Total All Systems (lb)		33.2	32.5	35.9	44.3
CONDENSER COIL		Enhanced Copper Tubes, Aluminum Lanced Fins, Face Split			
Condenser A (Outer)					
Rows...Fins/in.		2…17	2…17	2…17	3…17
Face Area (sq ft)		17.4	17.4	17.4	17.4
Condenser B (Inner)					
Rows...Fins/in.		2...17	2...17	2...17	3...17
Face Area (sq ft)		17.4	17.4	17.4	17.4
Humidi-MiZer Coil		Enhanced Copper Tubes, Aluminum Lanced Fins			
Rows...Fins/in.		1...17	1...17	1...17	1...17
Face Area (sq ft)		14.9	14.9	14.9	14.9
CONDENSER FAN		Propeller			
Quantity…Diameter (in.)		2...24	2...24	2...24	2...24
Nominal Cfm (Total, all fans)		7204	7204	8341	7300
Motor Hp		1/4	1/4	1/3	1/3
Nominal Rpm — High Speed		1100	1100	1100	1100
Nominal Rpm — Low Speed		900	900	900	900
EVAPORATOR COIL		Enhanced Copper Tubes, Aluminum Double-Wavy Fins, Face Split			
Rows…Fins/in.		3…15	3…15	4…15	4…15
Face Area (sq ft)		14.9	14.9	14.9	14.9
EVAPORATOR FAN		Centrifugal Type, Belt Drive			
Quantity…Size (in.)	Low	1...15 x 15	1...15 x 15	1...15 x 15	1...15 x 15
	High	1...15 x 15	1...15 x 15	1...15 x 15	1...15 x 15
Type Drive	Low	Belt	Belt	Belt	Belt
	High	Belt	Belt	Belt	Belt
Nominal Cfm		3000	3400	4000	5000
Maximum Continuous Bhp	Low	2.40	2.40	3.10	3.70
	High	3.10	3.70	3.70	5.25
Motor Nominal Rpm		1725	1725	1725	1725
Motor Frame Size	Low	56Y	56Y	56Y	56Y
	High	56Y	56Y	56Y	56Y
Fan Rpm Range	Low	568-771	568-771	690-893	690-893
	High	812-1015	812-1015	852-1055	852-1055
Motor Bearing Type		Ball	Ball	Ball	Ball
Maximum Fan Rpm		1600	1600	1600	1600
Motor Pulley Pitch Diameter Range (in.)	Low	2.8-3.8	2.8-3.8	3.4-4.4	3.4-4.4
	High	4.0-5.0	4.0-5.0	4.6-5.6	4.6-5.6
Fan Pulley Pitch Diameter	Low	8.5	8.5	8.5	8.5
	High	8.5	8.5	8.5	8.5
Nominal Motor Shaft Diameter (in.)	Low	5/8	5/8	7/8	7/8
	High	7/8	7/8	7/8	7/8
Belt…Pitch Length (in.)	Low	63.3	63.3	63.3	63.3
	High	65.3	65.3	65.3	65.3
Belt…Type	Low	AX	AX	AX	AX
	High	AX	AX	AX	AX
Pulley Center Line Distance Min. (in.)	Low	21.0	21.0	21.0	21.0
	High	21.0	21.0	21.0	21.0
Pulley Center Line Distance Max. (in.)	Low	23.4	23.4	23.4	23.4
	High	23.4	23.4	23.4	23.4
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Low	41	41	41	41
	High	41	41	41	41
Movable Pulley Maximum Full Turns from Closed Position	Low	5	5	5	5
	High	5	5	5	5
Factory Pulley Setting (rpm)	Low	568	568	690	690
	High	812	812	852	852
Fan Shaft Diameter at Pulley (in.)		1	1	1	1
HIGH-PRESSURE SWITCH (psig)					
Cutout		660 ± 10	660 ± 10	660 ± 10	660 ± 10
Reset (Auto.)		505 ± 20	505 ± 20	505 ± 20	505 ± 20
RETURN-AIR FILTERS		Throwaway Type			
Quantity…Size (in.)		4...20 x 25 x 2	4...20 x 25 x 2	4...20 x 25 x 2	4...20 x 25 x 2

LEGEND

TXV – Thermostatic Expansion Valve

* Aluminum evaporator/aluminum condenser coil fin material

Step 3 — Field Fabricate Ductwork

On vertical units, secure all ducts to roof curb and building structure. *Do not connect ductwork to unit.* For horizontal applications, field-supplied flanges should be attached to horizontal discharge openings and all ductwork secured to the flanges. Insulate and weatherproof all external ductwork, joints, and roof openings with counter flashing and mastic in accordance with applicable codes.

Ducts passing through an unconditioned space must be insulated and covered with a vapor barrier.

If a plenum return is used on a vertical unit, the return should be ducted through the roof deck to comply with applicable fire codes.

A minimum clearance is not required around ductwork. Cabinet return-air static pressure (a negative condition) shall not exceed 0.35-in. wg with economizer or 0.45-in. wg without economizer.

Step 4 — Make Unit Duct Connections

Vertical Supply/Return Configuration

Unit is shipped in vertical supply/return configuration. Ductwork openings are shown in Fig. 1 and 2. Attach the ductwork to the roof curb. Do not attach duct directly to the unit.

⚠ WARNING

PERSONAL INJURY HAZARD

Failure to follow this warning could result in personal injury.

For vertical supply and return units, tools or parts could drop into ductwork and cause an injury. Install a 90-degree turn in the return ductwork between the unit and the conditioned space. If a 90-degree elbow cannot be installed, then a grille of sufficient strength and density should be installed to prevent objects from falling into the conditioned space.

Horizontal Supply/Return Applications

Unit can be field-converted from vertical supply/return to horizontal supply/return. Remove all screws securing horizontal duct covers to duct panel. Save panels. Install duct covers in the vertical duct openings in the basepan with the insulation side up. Covers will drop into openings and can be secured using field-supplied self-tapping screws. Ductwork can be attached to duct flanges provided on unit. When securing ductwork to unit, do not drill in area below bead or above top edge of duct opening.

Step 5 — Install External Trap for Condensate Drain

The unit's $^{3}/_{4}$-in. condensate drain connections are located on the bottom and side of the unit. If the down drain is used, drill a minimum of a 5/8-in. diameter hole but not larger than a $^{3}/_{4}$-in. diameter hole through the drain pan. A dimple of 2 mm in diameter and 1.5 mm deep will be provided in the drain pan to help locate the drill bit and to start the hole. Do not cut through the PVC pipe threads. Unit discharge connections do not determine the use of drain connections; either drain connection can be used with vertical or horizontal applications. See Fig. 2 for locations.

When using the standard side drain connection, make sure the plug (red) in the alternate bottom connection is tight before installing the unit. (See Fig. 5.)

To use the bottom drain connection for a roof curb installation, relocate the factory-installed plug (red) from the bottom connection to the side connection. A $^{1}/_{2}$-in. socket extension can be used to remove the plug. (See Fig. 5.) The piping for the condensate drain and external trap can be completed after the unit is in place.

All units must have an external trap for condensate drainage. Install a trap at least 4-in. deep and protect against freeze-up. If drain line is installed downstream from the external trap, pitch the line away from the unit at 1-in. per 10 ft of run. Do not use a pipe size smaller than the unit connection ($^{3}/_{4}$-in.). (See Fig. 6 and 7.)

The 50PG units are provided with a removable condensate pan for ease of cleaning. It is recommended that a union be placed between the unit and condensate drainage to ease the removal of the pan during servicing. Adequate clearance should be allowed if removal of condensate pan is required. Allow 54 in. between condensate pan access panel and any obstruction for complete removal.

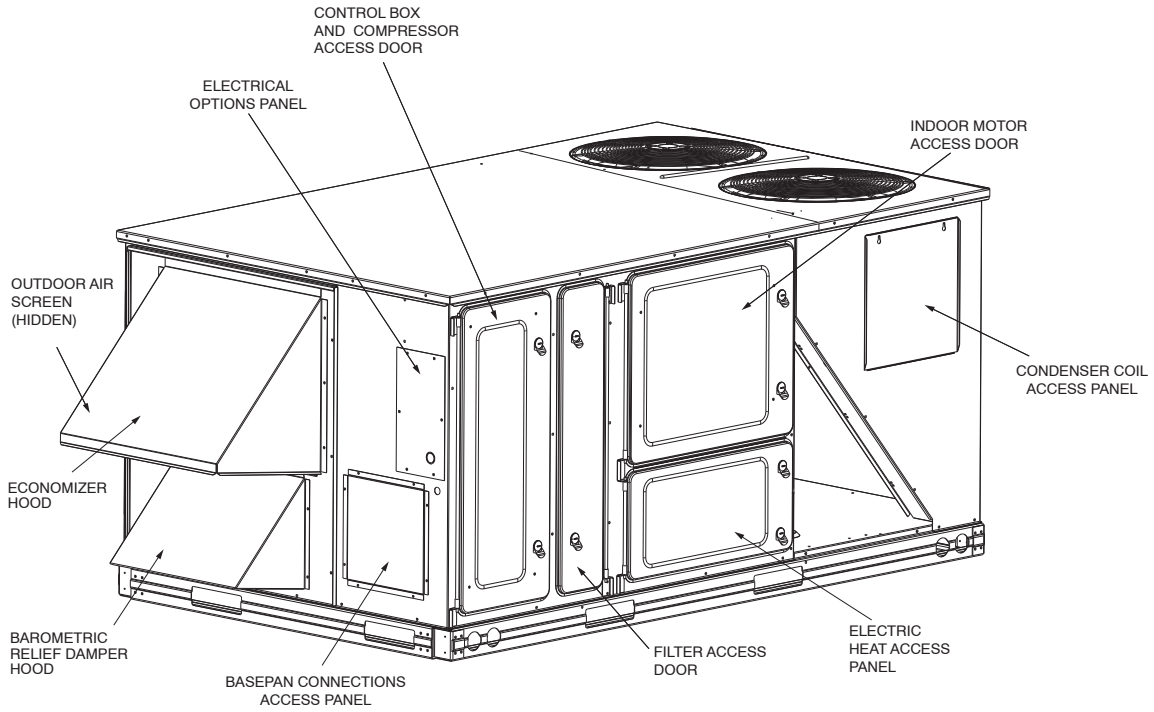

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Fig. 4 - Panel and Filter Locations

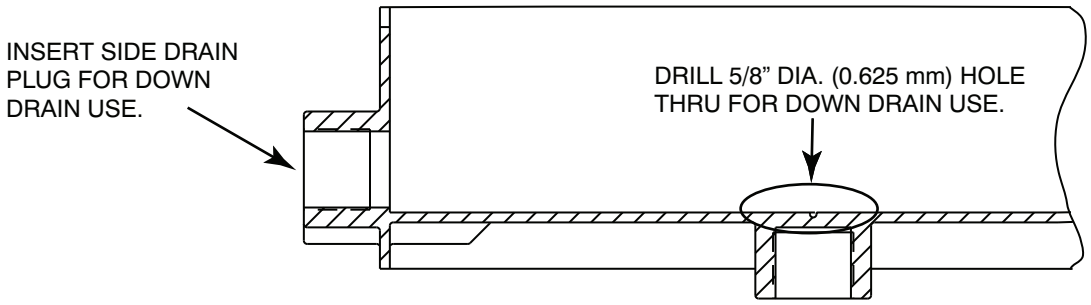

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Fig. 5 - Condensate Drain Pan

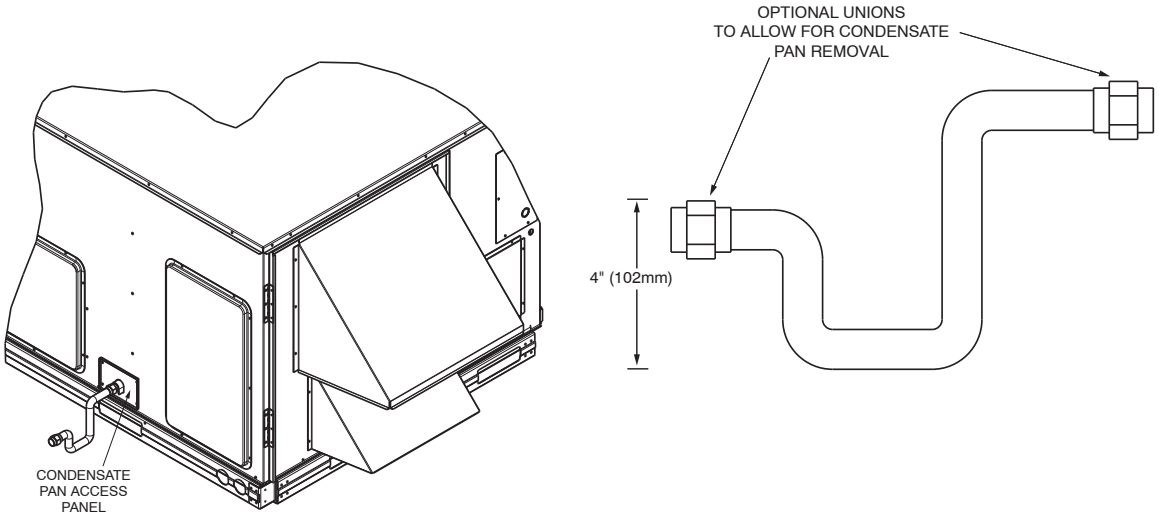

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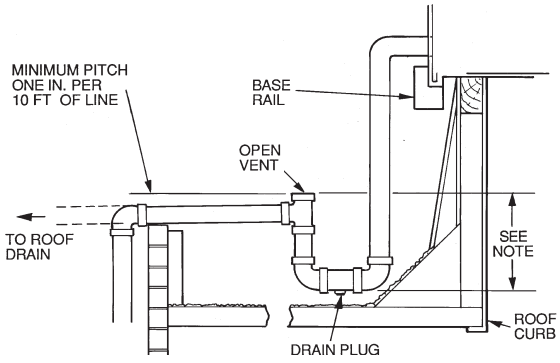
Fig. 6 - External Trap for Condensate Drain



NOTE: Trap should be deep enough to offset maximum unit static difference. A 4-in. trap is recommended.

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Fig. 7 - Condensate Drain Piping Details

Step 6 — Make Electrical Connections

Field Power Supply

(For more details, refer to the Controls, Start-up, Operation and Troubleshooting manual).

All 208/230-v units are factory wired for 230-v power supply. If the 208/230-v unit is to be connected to a 208-v power supply, the transformers (TRAN1 and TRAN2) must be rewired by moving the black wire with the $^1/_4$-in. female quick connect from the 230-v connection and moving to the 200-v $^1/_4$-in. male terminal on the primary side of the transformer.

Refer to unit label diagram for additional information. Leads are provided for field wire connections. Use UL (Underwriters Laboratories) approved copper/aluminum connector.

When installing units, provide safety disconnect per NEC (National Electrical Code) Article 440 or local codes. For non-fused disconnects, size the disconnect according to the sizing data provided in the electrical data tables. If a fused disconnect is used, determine the minimum size for the switch based on the disconnect sizing data provided in the electrical data tables and then coordinate the disconnect housing size to accommodate the Maximum Overcurrent Protection (MOCP) device size as marked on the unit informative plate. (See Table 2 and 3.) All field wiring must comply with NEC and local codes. Size wire based on MCA (Minimum Circuit Amps) on the unit informative plate. See Fig. 8 for power wiring connection to the unit leads and equipment ground.

Route power and ground lines through control box end panel or unit basepan (see Fig. 2) to connections as shown on unit wiring diagram and Fig. 8. Factory leads may be wired directly to the disconnect.

⚠ CAUTION

UNIT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage.

The correct power phasing is critical to the operation of the scroll compressors. An incorrect phasing will result in an alarm being generated and compressor operation lockout. Should this occur, power phase correction must be made to the incoming power. Damage to compressor could result.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Unit cabinet must have an uninterrupted, unbroken electrical ground to minimize the possibility of personal injury if an electrical fault should occur. This ground may consist of electrical wire connected to unit ground lug in control compartment, or conduit approved for electrical ground when installed in accordance with NEC; ANSI (American National Standards Institute)/NFPA (National Fire Protection Association), latest edition, and local electrical codes.

Field wiring must conform to temperature limitations for type "T" wire. All field wiring must comply with NEC and local requirements.

Operating voltage to compressor must be within voltage range indicated on unit nameplate. Voltages between phases must be balanced within 2%.

Unit failure as a result of operation on improper line voltage or excessive phase imbalance constitutes abuse and may cause damage to electrical components.

Field Control Wiring (Units Without Optional Humidi-MiZer™ Adaptive Dehumidification System)

Unit can be controlled with either a Carrier approved accessory thermostat or a Carrier approved space temperature sensor. Install thermostat according to the installation instructions included with accessory. Locate thermostat assembly or space temperature sensor on a solid interior wall in the conditioned space to sense average temperature.

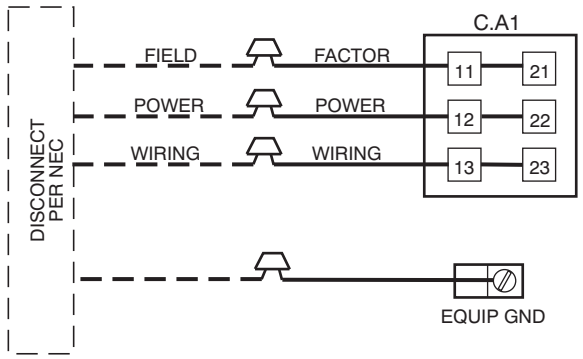
Route thermostat or space temperature sensor cable or equivalent single leads of colored wire from subbase terminals through conduit into unit to low-voltage connections as shown on unit label wiring diagram and in Fig. 9 and 10.

NOTE: For wire runs up to 50 ft, use no. 18 AWG (American Wire Gauge) insulated wire (35°C minimum). For 50 to 75 ft, use no. 16 AWG insulated wire (35°C minimum). For over 75 ft, use no. 14 AWG insulated wire (35°C Minimum). All wire larger than no. 18 AWG cannot be directly connected at the thermostat and will require a junction box and splice at the thermostat.

Set heat anticipator settings as follows:

VOLTAGE	STAGE 1 (W1) ON	STAGE 1 AND 2 (W1 AND W2) ON
All	0.2	0.4

Settings may be changed slightly to provide a greater degree of comfort for a particular installation.



LEGEND

C.A1 -- Compressor Contactor (A1)
EQUIP -- Equipment
GND -- Ground
NEC -- National Electrical Code

NOTE: The maximum wire size for C.A1 is 2/0.

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Fig. 8 - Field Power Wiring Connections

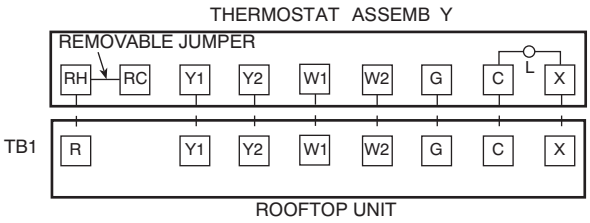

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Fig. 9 - Field Control Thermostat Wiring

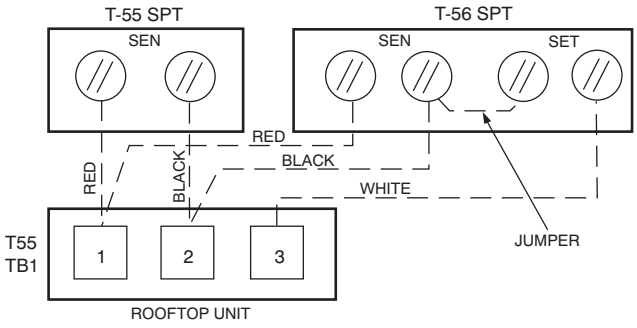

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Fig. 10 - Field Control Space Temperature Sensor Wiring

Field Control Wiring (Units With Optional Humidi-MiZer™ Adaptive Dehumidification System)

Units require temperature control inputs for cooling and heating operation and humidity control inputs for Humidi-MiZer operation.

Temperature Control

The unit can be controlled with either a Carrier approved space temperature sensor, a Carrier accessory Thermidistat™ device, or a Carrier approved accessory thermostat. Install the temperature control device according to the installation instructions included with the accessory. Locate the device on a solid interior wall in the conditioned space to sense average temperature. Carrier space temperature sensor wiring connections are shown in Fig. 10. General thermostat field control wiring connections are shown in Fig. 9. Carrier Thermidistat device wiring connections are shown in Fig. 11. Configuration of the unit control is required to specify the control input type before unit operation.

Route thermostat or space temperature sensor cable or equivalent single leads of colored wire from subbase terminals through conduit into unit to low-voltage connections as shown on unit label wiring diagram and in Fig. 9-11.

NOTE: For wire runs up to 50 ft, use no. 18 AWG (American Wire Gauge) insulated wire (35°C minimum). For 50 to 75 ft, use no. 16 AWG insulated wire (35°C minimum). For over 75 ft, use no. 14 AWG insulated wire (35°C Minimum). All wire larger than no. 18 AWG cannot be directly connected at the thermostat and will require a junction box and splice at the thermostat.

Set heat anticipator settings as follows:

VOLTAGE	STAGE 1 (W1) ON	STAGE 1 AND 2 (W1 AND W2) ON
All	0.2	0.4

Settings may be changed slightly to provide a greater degree of comfort for a particular installation.

Humidity Control

Unit can be controlled with either a Carrier accessory Thermidistat device or a Carrier-approved accessory humidistat (switch output). The input for an accessory humidity sensor with 4 to 20 mA output is another option available when an economizer board is installed. Install the humidity control device according to the installation instructions included with the accessory. Locate the device on a solid interior wall in the conditioned space to sense average humidity. Carrier Thermidistat device wiring connections are shown in Fig. 11. General humidistat wiring connections are shown in Fig. 12. Configuration of the unit control is required to specify the control input type before unit operation. Refer to the Controls, Start-up, Operation and Troubleshooting manual for configuration.

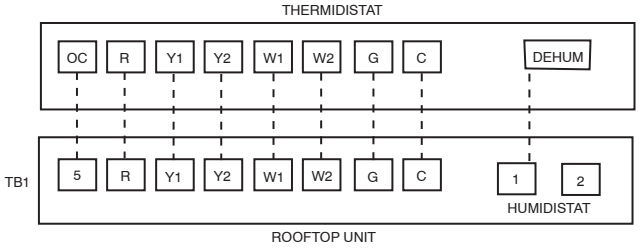
Units with the Humidi-MiZer option receive a discrete input from a field-installed device (such as from the Carrier humidistat or Thermidistat device). The discrete input is connected to the TB1 terminal strip points labeled Humidistat 1 and 2. As this is a discrete input, one of the connection points is for power to the switch and the other is the return path. (See Fig. 12.)

A space relative humidity sensor input (SP.RH) is only available if an economizer board (ECB) is installed in the unit and then the sensor can be connected to the OAQ point TB1-4. (See Fig. 12.) This input is used instead of the discrete humidistat or thermidistat inputs. The input controls the Humidi-MiZer using the 4 to 2 0mA as percent humidity. The relative humidity value (measured by the relative humidity sensor) can be displayed on the Scrolling Marquee, in the space through a System Pilot™ device, or can be read by other CCN devices where it can be used to perform more advanced functions. The humidity sensor must be configured correctly. Refer to the Controls, Start-up, Operation, and Troubleshooting manual for details.

If the customer also wishes to install a smoke detector into a Humidi-MiZer equipped 50PG unit, the fire shutdown connection points are on Plug PL-19, located in the economizer section. See the unit wiring schematic for wiring. For third-party smoke detector, see Fig. 13.

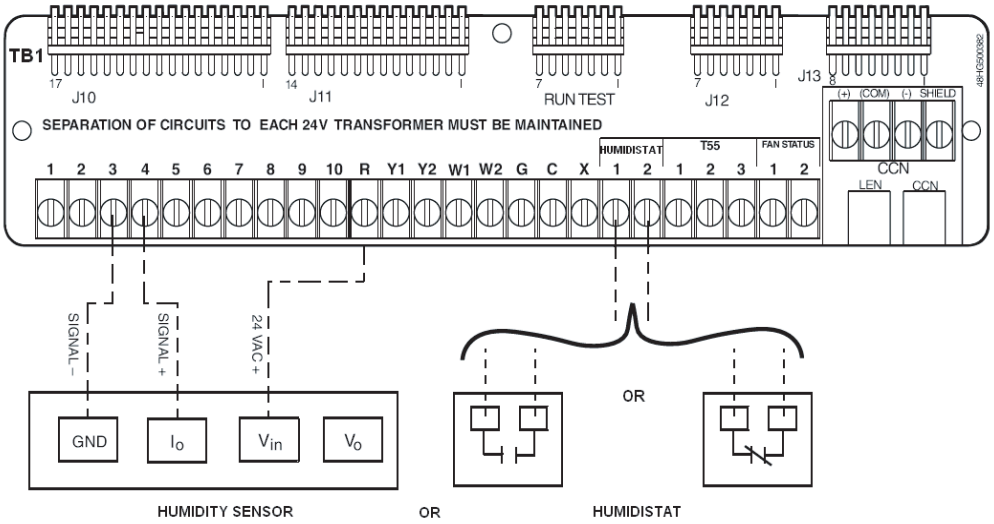
Point 19-3 is the 24 vac power source for the detector and point 19-5 is the 24 vac signal input for fire shutdown.

More information is available in the third party control section of the Controls, Start-up, Operation, and Troubleshooting manual.



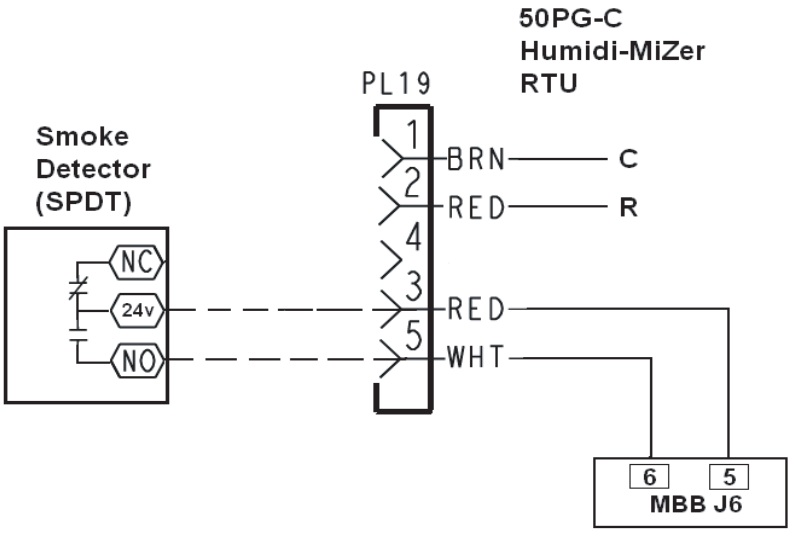
C07055

Fig. 11 - Field Control Thermidistat Wiring



C07045

Fig. 12 - Humidi-MiZer Low-Voltage Terminal Strip - Humidity Sensor/Humidity Wiring



C07191

Fig. 13 - Third Party Smoke Detector on Humidi-MiZer™

Table 2 – Electrical Data — Units Without Optional Powered Convenience Outlet

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
08	208/230-3-60	187	253	13.5	88	2	1.5	—	Low	5.2	—	—	38.6/ 38.6	40/ 40	40/ 40	212/212
											20.0/23.1	7.5/10.0	38.6/ 38.6	40/ 40	40/ 40	212/212
											30.0/34.6	11.3/15.0	44.0/ 49.8	45/ 50	40/ 46	212/212
											50.0/57.7	18.8/25.0	69.0/ 78.6	70/ 80	63/ 72	212/212
											70.0/80.8	26.3/35.0	94.0/107.5	100/110	86/ 99	212/212
											80.0/92.4	30.0/40.0	106.5/122.0	110/125	98/112	212/212
									High	7.5	—	—	40.9/ 40.9	45/ 45	43/ 43	238/238
											20.0/23.1	7.5/10.0	40.9/ 40.9	45/ 45	43/ 43	238/238
											30.0/34.6	11.3/15.0	46.9/ 52.6	50/ 60	43/ 48	238/238
											50.0/57.7	18.8/25.0	71.9/ 81.5	80/ 90	66/ 75	238/238
											70.0/80.8	26.3/35.0	96.9/110.4	100/125	89/102	238/238
											80.0/92.4	30.0/40.0	109.4/124.9	110/125	101/115	238/238
								3.0	Low	5.2	—	—	41.6/ 41.6	45/ 45	44/ 44	216/216
											20.0/23.1	7.5/10.0	41.6/ 41.6	45/ 45	44/ 44	216/216
											30.0/34.6	11.3/15.0	47.8/ 53.5	50/ 60	44/ 49	216/216
											50.0/57.7	18.8/25.0	72.8/ 82.4	80/ 90	67/ 76	216/216
											70.0/80.8	26.3/35.0	97.8/111.3	100/125	90/102	216/216
											80.0/92.4	30.0/40.0	110.3/125.8	125/150	101/116	216/216
									High	7.5	—	—	43.9/ 43.9	45/ 45	47/ 47	242/242
											20.0/23.1	7.5/10.0	43.9/ 43.9	45/ 45	47/ 47	242/242
											30.0/34.6	11.3/15.0	50.6/ 56.4	60/ 60	47/ 52	242/242
											50.0/57.7	18.8/25.0	75.6/ 85.3	80/ 90	70/ 78	242/242
											70.0/80.8	26.3/35.0	100.6/114.1	110/125	93/105	242/242
											80.0/92.4	30.0/40.0	113.1/128.6	125/150	104/118	242/242
	460-3-60	414	506	6.4	39	2	0.8	—	Low	2.6	—	—	18.6	20	20	97
											11.5	10.0	18.6	20	20	97
											17.3	15.0	24.9	25	23	97
											28.9	25.0	39.4	40	36	97
											40.4	35.0	53.8	60	49	97
											46.2	40.0	61.0	70	56	97
									High	3.4	—	—	19.4	20	20	110
											11.5	10.0	19.4	20	20	110
											17.3	15.0	25.9	30	24	110
											28.9	25.0	40.4	45	37	110
											40.4	35.0	54.8	60	50	110
											46.2	40.0	62.0	70	57	110
								1.2	Low	2.6	—	—	19.8	20	21	100
											11.5	10.0	19.8	20	21	100
											17.3	15.0	26.4	30	24	100
											28.9	25.0	40.9	45	38	100
											40.4	35.0	55.3	60	51	100
											46.2	40.0	62.5	70	58	100
									High	3.4	—	—	20.6	25	22	113
											11.5	10.0	20.6	25	22	113
											17.3	15.0	27.4	30	25	113
											28.9	25.0	41.9	45	39	113
											40.4	35.0	56.3	60	52	113
											46.2	40.0	63.5	70	58	113

LEGEND

FLA – Full Load Amps
HACR – Heating, Air Conditioning and Refrigeration
IFM – Indoor (Evaporator) Fan Motor
LRA – Locked Rotor Amps
MCA – Minimum Circuit Amps
MOCP – Maximum Overcurrent Protection
NEC – National Electrical Code
OFM – Outdoor (Condenser) Fan Motor
RLA – Rated Load Amps

*Heater capacity (kW) is based on heater voltage of 208v, 240v, 480v, or 600v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

† Fuse or HACR circuit breaker.

NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.
2. **Unbalanced 3-Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 230–3–60

AB = 224 v
BC = 231 v
AC = 226 v

$$\text{Average Voltage} = \frac{224 + 231 + 226}{3} = \frac{681}{3} = 227$$

Determine maximum deviation from average voltage.
(AB) 227 – 224 = 3 v
(BC) 231 – 227 = 4 v
(AC) 227 – 226 = 1 v
Maximum deviation is 4 v.
Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227} = 1.76\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

3. Single point kits CRSINGLE028A00 and CRSINGLE031A00 are not required if field–supplied pressure connectors are used. Factory–installed heaters contain terminal blocks when combined MOCP is greater than 60 amps.

Table 2 — Electrical Data — Units Without Optional Powered Convenience Outlet (cont)

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
08 (cont)	575-3-60	518	633	5.1	34	2	0.8	—	Low	2.0	—	—	15.1	20	16	83
											13.9	15.0	19.9	20	18	83
											23.1	25.0	31.4	35	29	83
											32.3	35.0	42.9	45	39	83
											37.0	40.0	48.8	50	45	83
									High	2.8	—	—	15.9	20	17	94
											13.9	15.0	20.9	25	19	94
											23.1	25.0	32.4	35	30	94
											32.3	35.0	43.9	45	40	94
											37.0	40.0	49.8	50	46	94
								3.0	Low	2.0	—	—	18.1	20	19	87
											13.9	15.0	23.6	25	22	87
											23.1	25.0	35.1	40	32	87
											32.3	35.0	46.6	50	43	87
											37.0	40.0	52.5	60	48	87
									High	2.8	—	—	18.9	20	20	98
											13.9	15.0	24.6	25	23	98
											23.1	25.0	36.1	40	33	98
											32.3	35.0	47.6	50	44	98
											37.0	40.0	53.5	60	49	98
09	208/230-3-60	187	253	16.0	91	2	1.5	—	Low	5.2	—	—	44.2/ 44.2	45/ 45	46/ 46	218/218
											20.0/23.1	7.5/10.0	44.2/ 44.2	45/ 45	46/ 46	218/218
											30.0/34.6	11.3/15.0	44.2/ 49.8	45/ 50	46/ 46	218/218
											50.0/57.7	18.8/25.0	69.0/ 78.6	70/ 80	63/ 72	218/218
											70.0/80.8	26.3/35.0	94.0/107.5	100/110	86/ 99	218/218
											80.0/92.4	30.0/40.0	106.5/122.0	110/125	98/112	218/218
									High	10.2	—	—	49.2/ 49.2	50/ 50	52/52	261/261
											20.0/23.1	7.5/10.0	49.2/ 49.2	50/ 50	52/52	261/261
											30.0/34.6	11.3/15.0	50.3/ 56.0	60/ 60	52/52	261/261
											50.0/57.7	18.8/25.0	75.3/ 84.9	80/ 90	69/78	261/261
											70.0/80.8	26.3/35.0	100.3/113.8	110/125	92/105	261/261
											80.0/92.4	30.0/40.0	112.8/128.3	125/150	104/118	261/261
								3.0	Low	5.2	—	—	47.2/ 47.2	50/ 50	50/ 50	222/222
											20.0/23.1	7.5/10.0	47.2/ 47.2	50/ 50	50/ 50	222/222
											30.0/34.6	11.3/15.0	47.8/ 53.5	50/ 60	50/ 50	222/222
											50.0/57.7	18.8/25.0	72.8/ 82.4	80/ 90	67/ 76	222/222
											70.0/80.8	26.3/35.0	97.8/111.3	100/125	90/102	222/222
											80.0/92.4	30.0/40.0	110.3/125.8	125/150	101/116	222/222
									High	10.2	—	—	52.2/ 52.2	60/ 60	55/ 55	265/265
											20.0/23.1	7.5/10.0	52.2/ 52.2	60/ 60	55/ 55	265/265
											30.0/34.6	11.3/15.0	54.0/ 59.8	60/ 60	55/ 55	265/265
											50.0/57.7	18.8/25.0	79.0/ 88.6	80/ 90	73/ 82	265/265
											70.0/80.8	26.3/35.0	104.0/117.5	110/125	96/108	265/265
											80.0/92.4	30.0/40.0	116.5/132.0	125/150	107/121	265/265
	460-3-60	414	506	7.1	46	2	0.8	—	Low	2.6	—	—	20.2	25	21	111
											11.5	10.0	20.2	25	21	111
											17.3	15.0	24.9	25	23	111
											28.9	25.0	39.4	40	36	111
											40.4	35.0	53.8	60	49	111
											46.2	40.0	61.0	70	56	111
									High	4.8	—	—	22.4	25	24	133
											11.5	10.0	22.4	25	24	133
											17.3	15.0	27.6	30	25	133
											28.9	25.0	42.1	45	39	133
											40.4	35.0	56.5	60	52	133
											46.2	40.0	63.8	70	59	133
								1.2	Low	2.6	—	—	21.4	25	23	114
											11.5	10.0	21.4	25	23	114
											17.3	15.0	26.4	30	24	114
											28.9	25.0	40.9	45	38	114
											40.4	35.0	55.3	60	51	114
											46.2	40.0	62.5	70	58	114
									High	4.8	—	—	23.6	25	25	136
											11.5	10.0	23.6	25	25	136
											17.3	15.0	29.1	30	27	136
											28.9	25.0	43.6	45	40	136
											40.4	35.0	58.0	60	53	136
											46.2	40.0	65.3	70	60	136
	575-3-60	518	633	5.6	37	2	0.8	—	Low	2.0	—	—	16.2	20	17	89
											13.9	15.0	19.9	20	18	89
											23.1	25.0	31.4	35	29	89
											32.3	35.0	42.9	45	39	89
											37.0	40.0	48.8	50	45	89
									High	2.8	—	—	17.0	20	18	100
											13.9	15.0	20.9	25	19	100
											23.1	25.0	32.4	35	30	100
											32.3	35.0	43.9	45	40	100
											37.0	40.0	49.8	50	46	100
								3.0	Low	2.0	—	—	19.2	20	20	93
											13.9	15.0	23.6	25	22	93
											23.1	25.0	35.1	40	32	93
											32.3	35.0	46.6	50	43	93
											37.0	40.0	52.5	60	48	93
									High	2.8	—	—	20.0	20	21	104
											13.9	15.0	24.6	25	23	104
											23.1	25.0	36.1	40	33	104
											32.3	35.0	47.6	50	44	104
											37.0	40.0	53.5	60	49	104

* See Legend on next page.

Table 2 — Electrical Data — Units Without Optional Powered Convenience Outlet (cont)

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
12	208/230-3-60	187	253	17.6	123	2	1.9	—	Low	7.5	—	—	50.9/ 50.9	60/ 60	53/ 53	310/310
											20.0/ 23.1	7.5/10.0	50.9/ 50.9	60/ 60	53/ 53	310/310
											30.0/ 34.6	11.3/15.0	50.9/ 52.6	60/ 60	53/ 53	310/310
											50.0/ 57.7	18.8/25.0	71.9/ 81.5	80/ 90	66/ 75	310/310
											70.0/ 80.8	26.3/35.0	96.9/110.4	100/125	89/102	310/310
											80.0/ 92.4	30.0/40.0	109.4/124.9	110/125	101/115	310/310
											100.1/115.5	37.6/50.0	134.5/124.9	150/150	124/141	310/310
									High	10.2	—	—	53.6/ 53.6	60/ 60	57/ 57	327/327
											20.0/ 23.1	7.5/10.0	53.6/ 53.6	60/ 60	57/ 57	327/327
											30.0/ 34.6	11.3/15.0	53.6/ 56.0	60/ 60	57/ 57	327/327
											50.0/ 57.7	18.8/25.0	75.3/ 84.9	80/ 90	69/ 78	327/327
											70.0/ 80.8	26.3/35.0	100.3/113.8	110/125	92/105	327/327
											80.0/ 92.4	30.0/40.0	112.8/128.3	125/150	104/118	327/327
											100.1/115.5	37.6/50.0	137.9/128.3	150/150	127/145	327/327
								3.0	Low	7.5	—	—	53.9/ 53.9	60/ 60	57/ 57	314/314
											20.0/ 23.1	7.5/10.0	53.9/ 53.9	60/ 60	57/ 57	314/314
											30.0/ 34.6	11.3/15.0	53.9/ 56.4	60/ 60	57/ 57	314/314
											50.0/ 57.7	18.8/25.0	75.6/ 85.3	80/ 90	70/ 78	314/314
											70.0/ 80.8	26.3/35.0	100.6/114.1	110/125	93/105	314/314
											80.0/ 92.4	30.0/40.0	113.1/128.6	125/150	104/118	314/314
											100.1/115.5	37.6/50.0	138.3/128.6	150/150	127/145	314/314
									High	10.2	—	—	56.6/ 56.6	60/ 60	60/ 60	331/331
											20.0/ 23.1	7.5/10.0	56.6/ 56.6	60/ 60	60/ 60	331/331
											30.0/ 34.6	11.3/15.0	56.6/ 59.8	60/ 60	60/ 60	331/331
											50.0/ 57.7	18.8/25.0	79.0/ 88.6	80/ 90	73/ 82	331/331
											70.0/ 80.8	26.3/35.0	104.0/117.5	110/125	96/108	331/331
											80.0/ 92.4	30.0/40.0	116.5/132.0	125/150	107/121	331/331
											100.1/115.5	37.6/50.0	141.6/132.0	150/150	130/148	331/331
	460-3-60	414	506	7.7	50	2	1.0	—	Low	3.4	—	—	22.7	25	24	132
											11.5	10.0	22.7	25	24	132
											17.3	15.0	25.9	30	24	132
											28.9	25.0	40.4	45	37	132
											40.4	35.0	54.8	60	50	132
											46.2	40.0	62.0	70	57	132
											57.7	50.0	62.0	70	70	132
									High	4.8	—	—	24.1	25	26	141
											11.5	10.0	24.1	25	26	141
											17.3	15.0	27.6	30	26	141
											28.9	25.0	42.1	45	39	141
											40.4	35.0	56.5	60	52	141
											46.2	40.0	63.8	70	59	141
											57.7	50.0	63.7	70	72	141
								1.2	Low	3.4	—	—	23.9	25	25	135
											11.5	10.0	23.9	25	25	135
											17.3	15.0	27.4	30	25	135
											28.9	25.0	41.9	45	39	135
											40.4	35.0	56.3	60	52	135
											46.2	40.0	63.5	70	58	135
											57.7	50.0	63.5	70	72	135
									High	4.8	—	—	25.3	30	27	144
											11.5	10.0	25.3	30	27	144
											17.3	15.0	29.1	30	27	144
											28.9	25.0	43.6	45	40	144
											40.4	35.0	58.0	60	53	144
											46.2	40.0	65.3	70	60	144
											57.7	50.0	65.2	70	73	144
	575-3-60	518	633	6.1	40	2	0.8	—	Low	2.8	—	—	18.1	20	19	106
											13.9	15.0	20.9	25	19	106
											23.1	25.0	32.4	35	30	106
											32.3	35.0	43.9	45	40	106
											37.0	40.0	49.8	50	46	106
											46.2	50.0	49.7	60	56	106
									High		—	—	18.1	20	19	106
											13.9	15.0	20.9	25	19	106
											23.1	25.0	32.4	35	30	106
											32.3	35.0	43.9	45	40	106
											37.0	40.0	49.8	50	46	106
											46.2	50.0	49.7	60	56	106

LEGEND

FLA – Full Load Amps
HACR – Heating, Air Conditioning and Refrigeration
IFM – Indoor (Evaporator) Fan Motor
LRA – Locked Rotor Amps
MCA – Minimum Circuit Amps
MOCP – Maximum Overcurrent Protection
NEC – National Electrical Code
OFM – Outdoor (Condenser) Fan Motor
RLA – Rated Load Amps

*Heater capacity (kW) is based on heater voltage of 208v, 240v, 480v, or 600v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

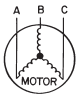
† Fuse or HACR circuit breaker.

NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.
2. **Unbalanced 3-Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 230–3–60



AB = 224 v
BC = 231 v
AC = 226 v

$$\text{Average Voltage} = \frac{224 + 231 + 226}{3} = \frac{681}{3} = 227$$

Determine maximum deviation from average voltage.
(AB) 227 – 224 = 3 v
(BC) 231 – 227 = 4 v
(AC) 227 – 226 = 1 v
Maximum deviation is 4 v.
Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227} = 1.76\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

3. Single point kits CRSINGLE028A00 and CRSINGLE031A00 are not required if field–supplied pressure connectors are used. Factory–installed heaters contain terminal blocks when combined MOCP is greater than 60 amps.

Table 2 — Electrical Data — Units Without Optional Powered Convenience Outlet (cont)

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
12 (cont)	575-3-60	518	633	6.1	40	2	0.8	3.0	Low	2.8	—	—	21.1	25	23	110
											13.9	15.0	24.6	25	23	110
											23.1	25.0	36.1	40	33	110
											32.3	35.0	47.6	50	44	110
											37.0	40.0	53.5	60	49	110
											46.2	50.0	53.5	60	60	110
									High		—	—	21.1	25	23	110
											13.9	15.0	24.6	25	23	110
											23.1	25.0	36.1	40	33	110
											32.3	35.0	47.6	50	44	110
											37.0	40.0	53.5	60	49	110
											46.2	50.0	53.5	60	60	110
14	208/230-3-60	187	253	22.4	149	2	1.9	—	Low	10.2	—	—	64.4/ 64.4	70/ 70	68/ 68	379/379
											20.0/ 23.1	7.5/10.0	64.4/ 64.4	70/ 70	68/ 68	379/379
											30.0/ 34.6	11.3/15.0	64.4/ 64.4	70/ 70	68/ 68	379/379
											50.0/ 57.7	18.8/25.0	75.3/ 84.9	80/ 90	69/ 78	379/379
											70.0/ 80.8	26.3/35.0	100.3/113.8	110/125	92/105	379/379
											100.1/115.5	37.6/50.0	137.9/128.3	150/150	127/145	379/379
											120.1/138.6	45.1/60.0	162.9/151.4	175/175	150/171	379/379
									High	15.0	—	—	69.2/ 69.2	70/ 70	73/ 73	388/388
											20.0/ 23.1	7.5/10.0	69.2/ 69.2	70/ 70	73/ 73	388/388
											30.0/ 34.6	11.3/15.0	69.2/ 69.2	70/ 70	73/ 73	388/388
											50.0/ 57.7	18.8/25.0	81.3/ 90.9	90/100	75/ 84	388/388
											70.0/ 80.8	26.3/35.0	106.3/119.8	110/125	98/110	388/388
											100.1/115.5	37.6/50.0	143.9/134.3	150/150	132/150	388/388
											120.1/138.6	45.1/60.0	168.9/157.4	175/175	155/177	388/388
								3.0	Low	10.2	—	—	67.4/ 67.4	70/ 70	71/ 71	383/383
											20.0/ 23.1	7.5/10.0	67.4/ 67.4	70/ 70	71/ 71	383/383
											30.0/ 34.6	11.3/15.0	67.4/ 67.4	70/ 70	71/ 71	383/383
											50.0/ 57.7	18.8/25.0	79.0/ 88.6	80/ 90	73/ 82	383/383
											70.0/ 80.8	26.3/35.0	104.0/117.5	110/125	96/108	383/383
											100.1/115.5	37.6/50.0	141.6/132.0	150/150	130/148	383/383
											120.1/138.6	45.1/60.0	166.6/155.1	175/175	153/175	383/383
									High	15.0	—	—	72.2/ 72.2	80/ 80	77/ 77	392/392
											20.0/ 23.1	7.5/10.0	72.2/ 72.2	80/ 80	77/ 77	392/392
											30.0/ 34.6	11.3/15.0	72.2/ 72.2	80/ 80	77/ 77	392/392
											50.0/ 57.7	18.8/25.0	85.0/ 94.6	90/100	78/ 87	392/392
											70.0/ 80.8	26.3/35.0	110.0/123.5	125/125	101/114	392/392
											100.1/115.5	37.6/50.0	147.6/138.0	150/150	136/154	392/392
											120.1/138.6	45.1/60.0	172.6/161.1	175/175	159/180	392/392
	460-3-60	414	506	10.6	75	2	1.0	—	Low	4.8	—	—	30.7	35	32	191
											11.5	10.0	30.7	35	32	191
											17.3	15.0	30.7	35	32	191
											28.9	25.0	42.1	45	39	191
											40.4	35.0	56.5	60	52	191
											57.7	50.0	63.7	70	72	191
											69.3	60.0	75.3	80	85	191
									High	7.4	—	—	33.3	35	35	195
											11.5	10.0	33.3	35	35	195
											17.3	15.0	33.3	35	35	195
											28.9	25.0	45.4	50	42	195
											40.4	35.0	59.8	60	55	195
											57.7	50.0	67.0	70	75	195
											69.3	60.0	78.6	90	88	195
								1.2	Low	4.8	—	—	31.9	35	34	194
											11.5	10.0	31.9	35	34	194
											17.3	15.0	31.9	35	34	194
											28.9	25.0	43.6	45	40	194
											40.4	35.0	58.0	60	53	194
											57.7	50.0	65.2	70	73	194
											69.3	60.0	76.8	80	87	194
									High	7.4	—	—	34.5	35	37	198
											11.5	10.0	34.5	35	37	198
											17.3	15.0	34.5	35	37	198
											28.9	25.0	46.9	50	43	198
											40.4	35.0	61.3	70	56	198
											57.7	50.0	68.5	80	76	198
											69.3	60.0	80.1	90	90	198
	575-3-60	518	633	7.7	54	2	0.8	—	Low	2.8	—	—	21.7	25	23	134
											13.9	15.0	21.7	25	23	134
											23.1	25.0	32.4	35	30	134
											32.3	35.0	43.9	45	40	134
											37.0	40.0	49.8	50	46	134
											46.2	50.0	49.7	60	56	134
											55.4	60.0	58.9	60	67	134
									High	5.6	—	—	24.5	25	26	148
											13.9	15.0	24.5	25	26	148
											23.1	25.0	35.9	40	33	148
											32.3	35.0	47.4	50	44	148
											37.0	40.0	53.3	60	49	148
											46.2	50.0	53.2	60	60	148
											55.4	60.0	62.4	70	70	148
								3.0	Low	2.8	—	—	24.7	25	26	138
											13.9	15.0	24.7	25	26	138
											23.1	25.0	36.1	40	33	138
											32.3	35.0	47.6	50	44	138
											37.0	40.0	53.5	60	49	138
											46.2	50.0	53.5	60	60	138
											55.4	60.0	62.7	70	70	138
									High	5.6	—	—	27.5	30	29	152
											13.9	15.0	28.1	30	29	152
											23.1	25.0	39.6	40	36	152
											32.3	35.0	51.1	60	47	152
											37.0	40.0	57.0	60	52	152
											46.2	50.0	57.0	60	63	152
											55.4	60.0	66.2	70	74	152

* See Legend on next page.

Table 3 – Electrical Data — Units With Optional Powered Convenience Outlet

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
08	208/230-3-60	187	253	13.5	88	2	1.5	—	Low	5.2	—	—	43.4/ 43.4	45/ 45	46/46	217/217
											20.0/23.1	7.5/10.0	43.4/ 43.4	45/ 45	46/46	217/217
											30.0/34.6	11.3/15.0	50.0/ 55.8	60/ 60	46/51	217/217
											50.0/57.7	18.8/25.0	75.0/ 84.6	80/ 90	69/78	217/217
											70.0/80.8	26.3/35.0	100.0/113.5	110/125	92/104	217/217
											80.0/92.4	30.0/40.0	112.5/128.0	125/150	104/118	217/217
									High	7.5	—	—	45.7/ 45.7	50/ 50	49/49	243/243
											20.0/23.1	7.5/10.0	45.7/ 45.7	50/ 50	49/49	243/243
											30.0/34.6	11.3/15.0	52.9/ 58.6	60/ 60	49/ 54	243/243
											50.0/57.7	18.8/25.0	77.9/ 87.5	80/ 90	72/ 81	243/243
											70.0/80.8	26.3/35.0	102.9/116.4	110/125	95/107	243/243
											80.0/92.4	30.0/40.0	115.4/130.9	125/150	106/120	243/243
								3.0	Low	5.2	—	—	46.4/ 46.4	50/ 50	49/49	221/221
											20.0/23.1	7.5/10.0	46.4/ 46.4	50/ 50	49/49	221/221
											30.0/34.6	11.3/15.0	53.8/ 59.5	60/ 60	49/55	221/221
											50.0/57.7	18.8/25.0	78.8/ 88.4	80/ 90	72/81	221/221
											70.0/80.8	26.3/35.0	103.8/117.3	110/125	95/108	221/221
											80.0/92.4	30.0/40.0	116.3/131.8	125/150	107/121	221/221
									High	7.5	—	—	48.7/ 48.7	50/ 50	52/52	247/247
											20.0/23.1	7.5/10.0	48.7/ 48.7	50/ 50	52/52	247/247
											30.0/34.6	11.3/15.0	56.6/ 62.4	60/ 70	52/57	247/247
											50.0/57.7	18.8/25.0	81.6/ 91.3	90/100	75/84	247/247
											70.0/80.8	26.3/35.0	106.6/120.1	110/125	98/111	247/247
											80.0/92.4	30.0/40.0	119.1/134.6	125/150	110/124	247/247
	460-3-60	414	506	6.4	39	2	0.8	—	Low	2.6	—	—	20.8	25	22	99
											11.5	10.0	20.8	25	22	99
											17.3	15.0	27.6	30	25	99
											28.9	25.0	42.1	45	39	99
											40.4	35.0	56.5	60	52	99
											46.2	40.0	63.8	70	59	99
									High	3.4	—	—	21.6	25	23	112
											11.5	10.0	21.6	25	23	112
											17.3	15.0	28.6	30	26	112
											28.9	25.0	43.1	45	40	112
											40.4	35.0	57.5	60	53	112
											46.2	40.0	64.8	70	60	112
								1.2	Low	2.6	—	—	22.0	25	23	102
											11.5	10.0	22.0	25	23	102
											17.3	15.0	29.1	30	27	102
											28.9	25.0	43.6	45	40	102
											40.4	35.0	58.0	60	53	102
											46.2	40.0	65.3	70	60	102
									High	3.4	—	—	22.8	25	24	115
											11.5	10.0	22.9	25	24	115
											17.3	15.0	30.1	35	28	115
											28.9	25.0	44.6	45	41	115
											40.4	35.0	59.0	60	54	115
											46.2	40.0	66.3	70	61	115

LEGEND

FLA – Full Load Amps
HACR – Heating, Air Conditioning and Refrigeration
IFM – Indoor (Evaporator) Fan Motor
LRA – Locked Rotor Amps
MCA – Minimum Circuit Amps
MOCP – Maximum Overcurrent Protection
NEC – National Electrical Code
OFM – Outdoor (Condenser) Fan Motor
RLA – Rated Load Amps

*Heater capacity (kW) is based on heater voltage of 208v, 240v, 480v, or 600v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

† Fuse or HACR circuit breaker.

NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.
2. **Unbalanced 3-Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 230 – 3 – 60

AB = 224 v
BC = 231 v
AC = 226 v

$$\text{Average Voltage} = \frac{224 + 231 + 226}{3} = \frac{681}{3} = 227$$

Determine maximum deviation from average voltage.
(AB) 227 – 224 = 3 v
(BC) 231 – 227 = 4 v
(AC) 227 – 226 = 1 v
Maximum deviation is 4 v.
Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227} = 1.76\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

3. Single point kits CRSINGLE028A00 and CRSINGLE031A00 are not required if field – supplied pressure connectors are used. Factory – installed heaters contain terminal blocks when combined MOCP is greater than 60 amps.

Table 3 — Electrical Data — Units With Optional Powered Convenience Outlet (cont)

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
08 (cont)	575-3-60	518	633	5.1	34	2	0.8	—	Low	2.0	—	—	16.8	20	18	85
											13.9	15.0	22.0	25	20	85
											23.1	25.0	33.5	35	31	85
											32.3	35.0	45.0	50	41	85
											37.0	40.0	50.9	60	47	85
									High	2.8	—	—	17.6	20	19	96
											13.9	15.0	23.0	25	21	96
											23.1	25.0	34.5	35	32	96
											32.3	35.0	46.0	50	42	96
											37.0	40.0	51.9	60	48	96
								3.0	Low	2.0	—	—	19.8	20	21	89
											13.9	15.0	25.8	30	24	89
											23.1	25.0	37.3	40	34	89
											32.3	35.0	48.8	50	45	89
											37.0	40.0	54.6	60	50	89
									High	2.8	—	—	20.6	25	22	100
											13.9	15.0	26.8	30	25	100
											23.1	25.0	38.3	40	35	100
											32.3	35.0	49.8	50	46	100
											37.0	40.0	55.6	60	51	100
09	208/230-3-60	187	253	16.0	91	2	1.5	—	Low	5.2	—	—	49.0/ 49.0	50/ 50	52/ 52	223/223
											20.0/23.1	7.5/10.0	49.0/ 49.0	50/ 50	52/ 52	223/223
											30.0/34.6	11.3/15.0	50.0/ 55.8	60/ 60	52/ 52	223/223
											50.0/57.7	18.8/25.0	75.0/ 84.6	80/ 90	69/ 78	223/223
											70.0/80.8	26.3/35.0	100.0/113.5	110/125	92/104	223/223
											80.0/92.4	30.0/40.0	112.5/128.0	125/150	104/118	223/223
									High	10.2	—	—	54.0/ 54.0	60/ 60	58/ 58	266/266
											20.0/23.1	7.5/10.0	54.0/ 54.0	60/ 60	58/ 58	266/266
											30.0/34.6	11.3/15.0	56.3/ 62.0	60/ 70	58/ 58	266/266
											50.0/57.7	18.8/25.0	81.3/ 90.9	90/100	75/ 84	266/266
											70.0/80.8	26.3/35.0	106.3/119.8	110/125	98/110	266/266
											80.0/92.4	30.0/40.0	118.8/134.3	125/150	109/124	266/266
								3.0	Low	5.2	—	—	52.0/ 52.0	60/ 60	55/ 55	227/227
											20.0/23.1	7.5/10.0	52.0/ 52.0	60/ 60	55/ 55	227/227
											30.0/34.6	11.3/15.0	53.8/ 59.5	60/ 60	55/ 55	227/227
											50.0/57.7	18.8/25.0	78.8/ 88.4	80/ 90	72/ 81	227/227
											70.0/80.8	26.3/35.0	103.8/117.3	110/125	95/108	227/227
											80.0/92.4	30.0/40.0	116.3/131.8	125/150	107/121	227/227
									High	10.2	—	—	57.0/ 57.0	60/ 60	61/ 61	270/270
											20.0/23.1	7.5/10.0	57.0/ 57.0	60/ 60	61/ 61	270/270
											30.0/34.6	11.3/15.0	60.0/ 65.8	70/ 70	61/ 61	270/270
											50.0/57.7	18.8/25.0	85.0/ 94.6	90/100	78/ 87	270/270
											70.0/80.8	26.3/35.0	110.0/123.5	125/125	101/114	270/270
											80.0/92.4	30.0/40.0	122.5/138.0	125/150	113/127	270/270
	460-3-60	414	506	7.1	46	2	0.8	—	Low	2.6	—	—	22.4	25	24	113
											11.5	10.0	22.4	25	24	113
											17.3	15.0	27.6	30	25	113
											28.9	25.0	42.1	45	39	113
											40.4	35.0	56.5	60	52	113
											46.2	40.0	63.8	70	59	113
									High	4.8	—	—	24.6	25	26	135
											11.5	10.0	24.6	25	26	135
											17.3	15.0	30.4	35	28	135
											28.9	25.0	44.9	45	41	135
											40.4	35.0	59.3	60	55	135
											46.2	40.0	66.5	70	61	135
								1.2	Low	2.6	—	—	23.6	25	25	116
											11.5	10.0	23.6	25	25	116
											17.3	15.0	29.1	30	27	116
											28.9	25.0	43.6	45	40	116
											40.4	35.0	58.0	60	53	116
											46.2	40.0	65.3	70	60	116
									High	4.8	—	—	25.8	30	28	138
											11.5	10.0	25.8	30	28	138
											17.3	15.0	31.9	35	29	138
											28.9	25.0	46.4	50	43	138
											40.4	35.0	60.8	70	56	138
											46.2	40.0	68.0	70	63	138
	575-3-60	518	633	5.6	37	2	0.8	—	Low	2.0	—	—	17.9	20	19	91
											13.9	15.0	22.0	25	20	91
											23.1	25.0	33.5	35	31	91
											32.3	35.0	45.0	50	41	91
											37.0	40.0	50.9	60	47	91
									High	2.8	—	—	18.7	20	20	102
											13.9	15.0	23.0	25	21	102
											23.1	25.0	34.5	35	32	102
											32.3	35.0	46.0	50	42	102
											37.0	40.0	51.9	60	48	102
								3.0	Low	2.0	—	—	20.9	25	22	95
											13.9	15.0	25.8	30	24	95
											23.1	25.0	37.3	40	34	95
											32.3	35.0	48.8	50	45	95
											37.0	40.0	54.6	60	50	95
									High	2.8	—	—	21.7	25	23	106
											13.9	15.0	26.8	30	25	106
											23.1	25.0	38.3	40	35	106
											32.3	35.0	49.8	50	46	106
											37.0	40.0	55.6	60	51	106

* See Legend on next page.

Table 3 — Electrical Data — Units With Optional Powered Convenience Outlet (cont)

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
12	208/230-3-60	187	253	17.6	123	2	1.9	—	Low	7.5	—	—	55.7/ 55.7	60/ 60	59/ 59	315/315
											20.0/ 23.1	7.5/10.0	55.7/ 55.7	60/ 60	59/ 59	315/315
											30.0/ 34.6	11.3/15.0	55.7/ 58.6	60/ 60	59/ 59	315/315
											50.0/ 57.7	18.8/25.0	77.9/ 87.5	80/ 90	72/ 81	315/315
											70.0/ 80.8	26.3/35.0	102.9/116.4	110/125	95/107	315/315
											80.0/ 92.4	30.0/40.0	115.4/130.9	125/150	106/120	315/315
											100.1/115.5	37.6/50.0	140.5/130.9	150/150	129/147	315/315
									High	10.2	—	—	58.4/ 58.4	60/ 60	62/ 62	332/332
											20.0/ 23.1	7.5/10.0	58.4/ 58.4	60/ 60	62/ 62	332/332
											30.0/ 34.6	11.3/15.0	58.4/ 62.0	60/ 70	62/ 62	332/332
											50.0/ 57.7	18.8/25.0	81.3/ 90.9	90/100	75/ 84	332/332
											70.0/ 80.8	26.3/35.0	106.3/119.8	110/125	98/110	332/332
											80.0/ 92.4	30.0/40.0	118.8/134.3	125/150	109/124	332/332
											100.1/115.5	37.6/50.0	143.9/134.3	150/150	132/150	332/332
								3.0	Low	7.5	—	—	58.7/ 58.7	60/ 60	62/ 62	319/319
											20.0/ 23.1	7.5/10.0	58.7/ 58.7	60/ 60	62/ 62	319/319
											30.0/ 34.6	11.3/15.0	58.7/ 62.4	60/ 70	62/ 62	319/319
											50.0/ 57.7	18.8/25.0	81.6/ 91.3	90/100	75/ 84	319/319
											70.0/ 80.8	26.3/35.0	106.6/120.1	110/125	98/111	319/319
											80.0/ 92.4	30.0/40.0	119.1/134.6	125/150	110/124	319/319
											100.1/115.5	37.6/50.0	144.3/134.6	150/150	133/150	319/319
									High	10.2	—	—	61.4/ 61.4	70/ 70	66/ 66	336/336
											20.0/ 23.1	7.5/10.0	61.4/ 61.4	70/ 70	66/ 66	336/336
											30.0/ 34.6	11.3/15.0	61.4/ 65.8	70/ 70	66/ 66	336/336
											50.0/ 57.7	18.8/25.0	85.0/ 94.6	90/100	78/ 87	336/336
											70.0/ 80.8	26.3/35.0	110.0/123.5	125/125	101/114	336/336
											80.0/ 92.4	30.0/40.0	122.5/138.0	125/150	113/127	336/336
											100.1/115.5	37.6/50.0	147.6/138.0	150/150	136/154	336/336
	460-3-60	414	506	7.7	50	2	1.0	—	Low	3.4	—	—	24.9	25	26	134
											11.5	10.0	24.9	25	26	134
											17.3	15.0	28.6	30	26	134
											28.9	25.0	43.1	45	40	134
											40.4	35.0	57.5	60	53	134
											46.2	40.0	64.8	70	60	134
											57.7	50.0	64.7	70	73	134
									High	4.8	—	—	26.3	30	28	143
											11.5	10.0	26.3	30	28	143
											17.3	15.0	30.4	35	28	143
											28.9	25.0	44.9	45	41	143
											40.4	35.0	59.3	60	55	143
											46.2	40.0	66.5	70	61	143
											57.7	50.0	66.5	70	74	143
								1.2	Low	3.4	—	—	26.1	30	28	137
											11.5	10.0	26.1	30	28	137
											17.3	15.0	30.1	35	28	137
											28.9	25.0	44.6	45	41	137
											40.4	35.0	59.0	60	54	137
											46.2	40.0	66.3	70	61	137
											57.7	50.0	66.2	70	74	137
									High	4.8	—	—	27.5	30	29	146
											11.5	10.0	27.5	30	29	146
											17.3	15.0	31.9	35	29	146
											28.9	25.0	46.4	50	43	146
											40.4	35.0	60.8	70	56	146
											46.2	40.0	68.0	70	63	146
											57.7	50.0	68.0	70	76	146
	575-3-60	518	633	6.1	40	2	0.8	—	Low	2.8	—	—	19.8	20	21	108
											13.9	15.0	23.0	25	21	108
											23.1	25.0	34.5	35	32	108
											32.3	35.0	46.0	50	42	108
											37.0	40.0	51.9	60	48	108
											46.2	50.0	51.8	60	58	108
									High		—	—	19.8	20	21	108
											13.9	15.0	23.0	25	21	108
											23.1	25.0	34.5	35	32	108
											32.3	35.0	46.0	50	42	108
											37.0	40.0	51.9	60	48	108
											46.2	50.0	51.8	60	58	108

LEGEND

FLA – Full Load Amps
HACR – Heating, Air Conditioning and Refrigeration
IFM – Indoor (Evaporator) Fan Motor
LRA – Locked Rotor Amps
MCA – Minimum Circuit Amps
MOCP – Maximum Overcurrent Protection
NEC – National Electrical Code
OFM – Outdoor (Condenser) Fan Motor
RLA – Rated Load Amps

*Heater capacity (kW) is based on heater voltage of 208v, 240v, 480v, or 600v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

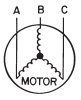
† Fuse or HACR circuit breaker.

NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.
2. **Unbalanced 3-Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 230–3–60



AB = 224 v
BC = 231 v
AC = 226 v

$$\text{Average Voltage} = \frac{224 + 231 + 226}{3} = \frac{681}{3} = 227$$

Determine maximum deviation from average voltage.
(AB) 227 – 224 = 3 v
(BC) 231 – 227 = 4 v
(AC) 227 – 226 = 1 v
Maximum deviation is 4 v.
Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227} = 1.76\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

3. Single point kits CRSINGLE028A00 and CRSINGLE031A00 are not required if field–supplied pressure connectors are used. Factory–installed heaters contain terminal blocks when combined MOCP is greater than 60 amps.

Table 3 — Electrical Data — Units With Optional Powered Convenience Outlet (cont)

UNIT 50PG	NOMINAL POWER SUPPLY	VOLTAGE RANGE		COMPRESSOR (Each)		OFM		POWER EXHAUST FLA	IFM TYPE	IFM FLA	ELECTRIC HEAT		POWER SUPPLY		DISCONNECT SIZE	
	Volts-Ph-Hz	Min	Max	RLA	LRA	Qty	FLA				FLA	Nominal kW*	MCA	MOCP†	FLA	LRA
12 (cont)	575	518	633	6.1	40	2	0.8	3.0	Low	2.8	—	—	22.8	25	24	112
											13.9	15.0	26.8	30	25	112
											23.1	25.0	38.3	40	35	112
											32.3	35.0	49.8	50	46	112
											37.0	40.0	55.6	60	51	112
											46.2	50.0	55.6	60	62	112
									High		—	—	22.8	25	24	112
											13.9	15.0	26.8	30	25	112
											23.1	25.0	38.3	40	35	112
											32.3	35.0	49.8	50	46	112
											37.0	40.0	55.6	60	51	112
											46.2	50.0	55.6	60	62	112
14	208/230-3-60	187	253	22.4	149	2	1.9	—	Low	10.2	—	—	69.2/ 69.2	70/ 70	73/ 73	384/384
											20.0/ 23.1	7.5/10.0	69.2/ 69.2	70/ 70	73/ 73	384/384
											30.0/ 34.6	11.3/15.0	69.2/ 69.2	70/ 70	73/ 73	384/384
											50.0/ 57.7	18.8/25.0	81.3/ 90.9	90/100	75/ 84	384/384
											70.0/ 80.8	26.3/35.0	106.3/119.8	110/125	98/110	384/384
											100.1/115.5	37.6/50.0	143.9/134.3	150/150	132/150	384/384
											120.1/138.6	45.1/60.0	168.9/157.4	175/175	155/177	384/384
									High	15.0	—	—	74.0/ 74.0	80/ 80	79/ 79	393/393
											20.0/ 23.1	7.5/10.0	74.0/ 74.0	80/ 80	79/ 79	393/393
											30.0/ 34.6	11.3/15.0	74.0/ 74.0	80/ 80	79/ 79	393/393
											50.0/ 57.7	18.8/25.0	87.3/ 96.9	90/100	80/ 89	393/393
											70.0/ 80.8	26.3/35.0	112.3/125.8	125/150	103/116	393/393
											100.1/115.5	37.6/50.0	149.9/140.3	150/150	138/156	393/393
											120.1/138.6	45.1/60.0	174.9/163.4	175/175	161/182	393/393
								3.0	Low	10.2	—	—	72.2/ 72.2	80/ 80	77/ 77	388/388
											20.0/ 23.1	7.5/10.0	72.2/ 72.2	80/ 80	77/ 77	388/388
											30.0/ 34.6	11.3/15.0	72.2/ 72.2	80/ 80	77/ 77	388/388
											50.0/ 57.7	18.8/25.0	85.0/ 94.6	90/100	78/ 87	388/388
											70.0/ 80.8	26.3/35.0	110.0/123.5	125/125	101/114	388/388
											100.1/115.5	37.6/50.0	147.6/138.0	150/150	136/154	388/388
											120.1/138.6	45.1/60.0	172.6/161.1	175/175	159/180	388/388
									High	15.0	—	—	77.0/ 77.0	80/ 80	82/ 82	397/397
											20.0/ 23.1	7.5/10.0	77.0/ 77.0	80/ 80	82/ 82	397/397
											30.0/ 34.6	11.3/15.0	77.0/ 77.0	80/ 80	82/ 82	397/397
											50.0/ 57.7	18.8/25.0	91.0/100.6	100/110	84/ 93	397/397
											70.0/ 80.8	26.3/35.0	116.0/129.5	125/150	107/119	397/397
											100.1/115.5	37.6/50.0	153.6/144.0	175/150	141/159	397/397
											120.1/138.6	45.1/60.0	178.6/167.1	200/175	164/186	397/397
	460-3-60	414	506	10.6	75	2	1.0	—	Low	4.8	—	—	32.9	35	35	193
											11.5	10.0	32.9	35	35	193
											17.3	15.0	32.9	35	35	193
											28.9	25.0	44.9	45	41	193
											40.4	35.0	59.3	60	55	193
											57.7	50.0	66.5	70	74	193
											69.3	60.0	78.1	80	88	193
									High	7.4	—	—	35.5	40	38	197
											11.5	10.0	35.5	40	38	197
											17.3	15.0	35.5	40	38	197
											28.9	25.0	48.1	50	44	197
											40.4	35.0	62.5	70	58	197
											57.7	50.0	69.7	80	77	197
											69.3	60.0	81.3	90	91	197
								1.2	Low	4.8	—	—	34.1	35	36	196
											11.5	10.0	34.1	35	36	196
											17.3	15.0	34.1	35	36	196
											28.9	25.0	46.4	50	43	196
											40.4	35.0	60.8	70	56	196
											57.7	50.0	68.0	70	76	196
											69.3	60.0	79.6	80	89	196
									High	7.4	—	—	36.7	40	39	200
											11.5	10.0	36.7	40	39	200
											17.3	15.0	36.7	40	39	200
											28.9	25.0	49.6	50	46	200
											40.4	35.0	64.0	70	59	200
											57.7	50.0	71.2	80	79	200
											69.3	60.0	82.8	90	92	200
	575-3-60	518	633	7.7	54	2	0.8	—	Low	2.8	—	—	23.4	25	25	136
											13.9	15.0	23.4	25	25	136
											23.1	25.0	34.5	35	32	136
											32.3	35.0	46.0	50	42	136
											37.0	40.0	51.9	60	48	136
											46.2	50.0	51.8	60	58	136
											55.4	60.0	61.0	70	69	136
									High	5.6	—	—	26.2	30	28	150
											13.9	15.0	26.5	30	28	150
											23.1	25.0	38.0	40	35	150
											32.3	35.0	49.5	50	46	150
											37.0	40.0	55.4	60	51	150
											46.2	50.0	55.3	60	62	150
											55.4	60.0	64.5	70	72	150
								3.0	Low	2.8	—	—	26.4	30	28	140
											13.9	15.0	26.8	30	28	140
											23.1	25.0	38.3	40	35	140
											32.3	35.0	49.8	50	46	140
											37.0	40.0	55.6	60	51	140
											46.2	50.0	55.6	60	62	140
											55.4	60.0	64.8	70	72	140
									High	5.6	—	—	29.2	30	31	154
											13.9	15.0	30.3	35	31	154
											23.1	25.0	41.8	45	38	154
											32.3	35.0	53.3	60	49	154
											37.0	40.0	59.1	60	54	154
											46.2	50.0	59.1	60	65	154
											55.4	60.0	68.3	70	76	154

Step 7 — Install Outdoor Air Hoods (Units With Economizer)

Perform the following procedure to install the outdoor-air hoods:

1. Economizer and barometric relief/power exhaust hoods are located in the condenser section under the slanted coil for shipping. (See Fig. 14.) Barometric relief/power exhaust hood is shipped inside of economizer hood. Remove screws that secure the wooden rails of the hood assemblies to the unit. Save screws. Slide complete assembly from condenser section.
2. Remove the screws that secure the economizer and barometric relief/power exhaust hoods to the wooden railing. Discard or recycle wooden rails. Save screws.
3. The barometric relief damper is factory-mounted to the economizer panel for shipping. Remove the screw holding the barometric relief damper to the economizer panel. Damper should be free to swing open during operation. (See Fig. 15.)

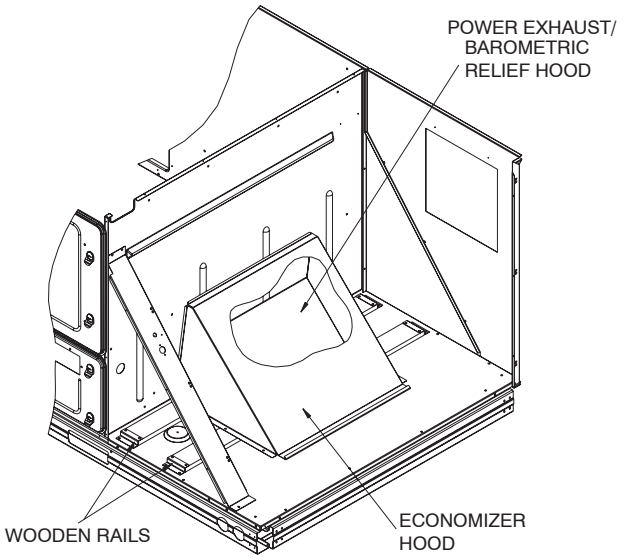


Fig. 14 - Economizer and Baromatric Relief/Power Exhaust Hoods Shipping Positions

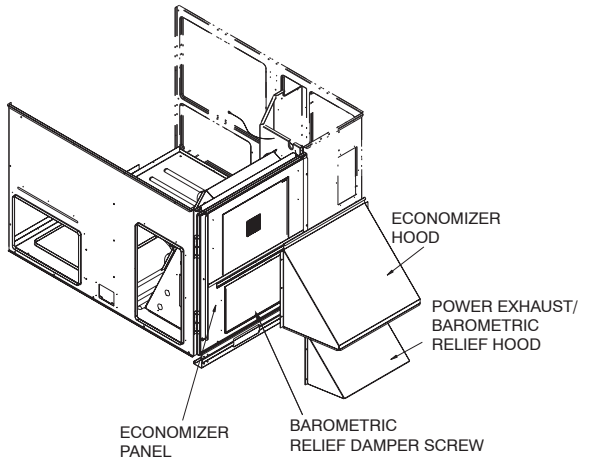


Fig. 15 - Hood Installation

4. Hang the barometric relief/power exhaust hood on the mounting flange on the economizer panel. Secure hood to panel with screws saved from Step 2. (See Fig. 15 and 16.)
5. Align hole in flange of economizer panel with left edge of hood. Hang economizer hood on the top flange of the economizer panel by rotating hood until top flange of the economizer hood engages the bent flange on the economizer panel. Rotate hood until hood is flush with the economizer panel. Hood will support itself from flange. Align holes in hood with holes in panel and secure hood to panel with screws saved from Step 2. (See Fig. 15 and 17.)

Step 8 — Install All Accessories

After all of the factory-installed options have been adjusted, install all field-installed accessories. Refer to the accessory installation instructions included with each accessory. Consult the Carrier Price Pages for accessory package numbers for particular applications.

Step 9 — Configure Controls

Refer to unit controls and Troubleshooting book for information on configuring controls.

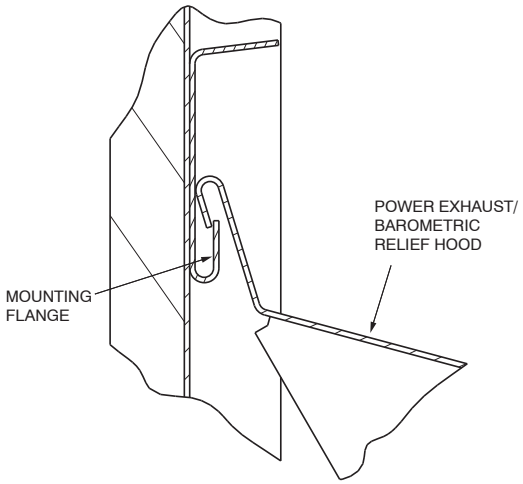


Fig. 16 - Barometric Relief/Power Exhaust Hood Flange

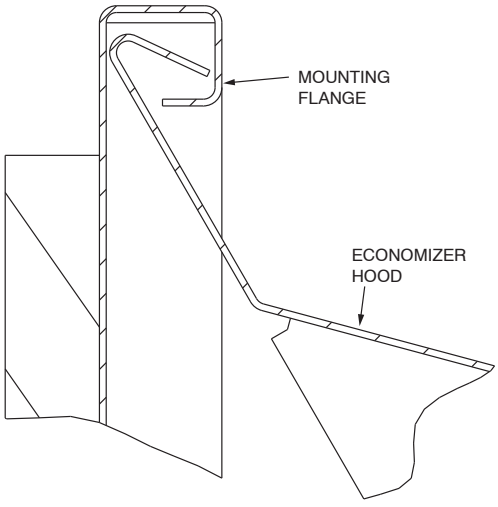


Fig. 17 - Economizer Flange

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