



Installation Instructions

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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.

⚠ WARNING

Before performing service or maintenance operations on unit, turn off main power switch to unit. Electrical shock could cause personal injury.

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.

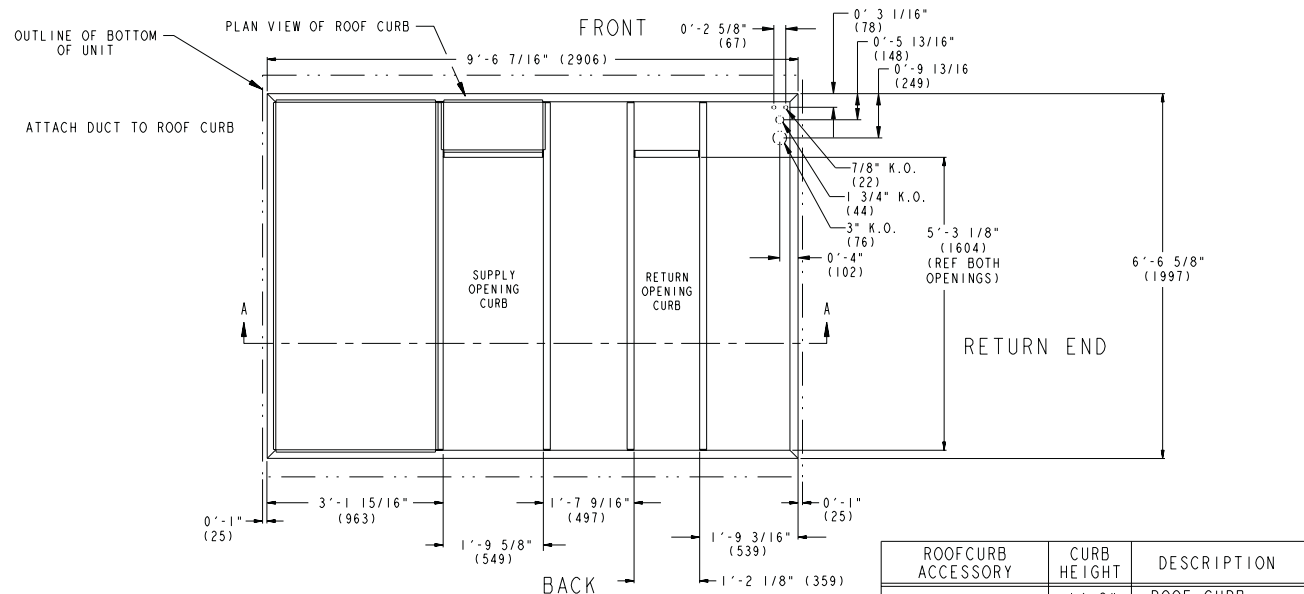
INSTALLATION

Step 1 — Provide Unit Support

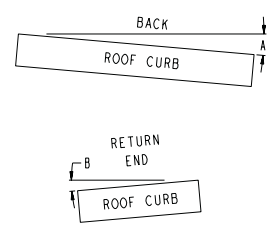
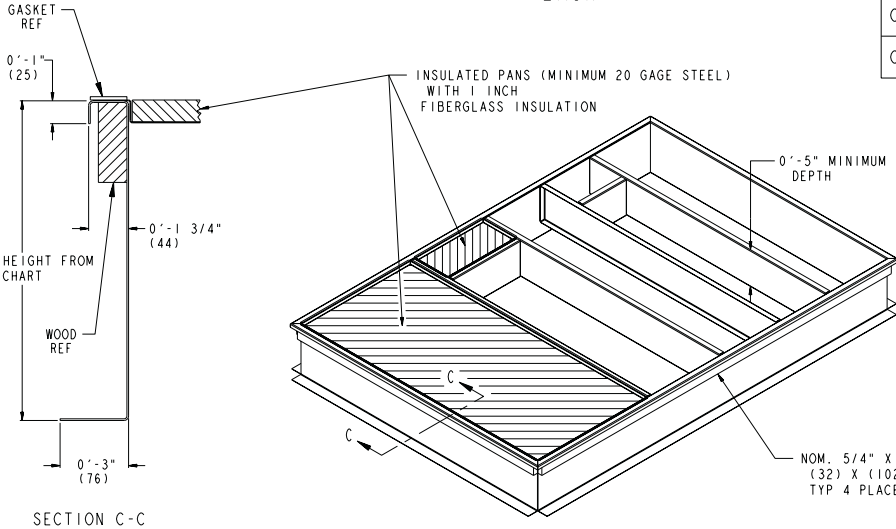
ROOF CURB — Assemble or install accessory roof curb in accordance with instructions shipped with this accessory. See Fig. 1. Install insulation, cant strips, roofing, and counter flashing as shown. Ductwork can be installed to roof curb before unit is set in place. Curb must be level. This is necessary to permit unit drain to function properly. Unit leveling tolerance is $\pm 1/16$ 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.

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.

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.

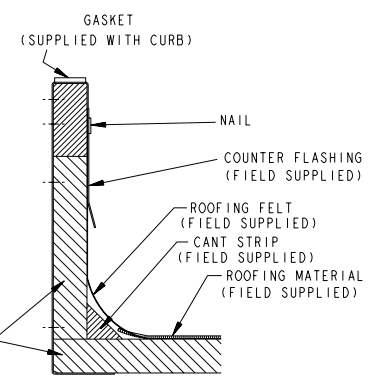
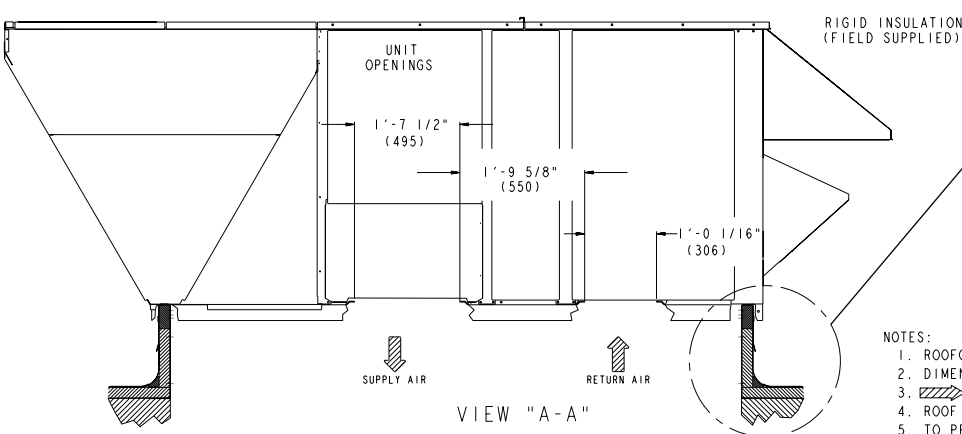


ROOFCURB ACCESSORY	CURB HEIGHT	DESCRIPTION
CRRFCURB018B00	1'-2" [356]	ROOF CURB 14" HIGH
CRRFCURB019B00	2'-0" [610]	ROOF CURB 24" HIGH



MAX CURB LEVELING TOLERANCES:

UNIT	A		B	
	DEG.	IN.	DEG.	IN.
ALL	.28	.57	.28	.42



- NOTES:
1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
 2. DIMENSIONS IN () ARE IN MILLIMETERS.
 3. DIRECTION OF AIRFLOW.
 4. ROOF CURB: 16 GA. (VA03-56) STEEL.
 5. TO PREVENT THE HAZARD OF STAGNANT WATER BUILD-UP IN THE UNIT DO NOT EXCEED CURB LEVELING TOLERANCES.
 6. CLEARANCE BETWEEN UNIT BASE RAIL AND CURB FLANGE IS 1/4-IN. (6 MM) ON EACH SIDE.

Fig. 1 — Roof Curb Details

Step 2 — Remove Shipping Rails — Remove shipping rails prior to lowering unit onto roof curb. See Fig. 2. The rails are attached to the unit at both the return end and condenser end. Remove the screws from both ends of each rail. Be careful not to drop the rails onto any surface that could be damaged. Discard the rails. It is important to replace the screws into the unit to avoid any air or water leakage.

⚠ CAUTION

Do not allow the shipping rail to drop on the roof surface. Damage to the roof surface may result.

Step 3 — Rig and Place Unit — Inspect unit for transportation damage. See Table 1 for physical data. File any claim with transportation agency.

⚠ CAUTION

All panels must be in place when rigging. Unit is not designed for handling by fork truck. Damage to unit can result.

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

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

POSITIONING — Maintain clearance, per Fig. 4, around and above unit to provide minimum distance from combustible materials, proper airflow, and service access.

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

Although unit is weatherproof, guard against water from higher level runoff and overhangs.

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

INSTALLATION ONTO CURB — The 50HG units are designed to fit on either the accessory full perimeter curb or onto existing 48/50TJ,HJ or 48/50DP,DR curbs. In either case, correct placement of the unit onto the curb is critical to operating performance. To aid in correct positioning, $3/8$ -in. diameter locating holes have been added to the unit base rails. When placing the unit, these holes should line up with the roof curb edge as shown in Fig. 5 and 6, to assure proper duct opening alignment. Select the alignment holes suited for the curb being used. For installation on the HJ/TJ/DP/DR curb use the alignment holes located approximately 20 in. from the end of the base rail on the return end of the unit. For placement on the HG curb, use the alignment holes located approximately 2-in. from the end of the base rail on the return end of the unit. See labels on the side of the unit for more details.

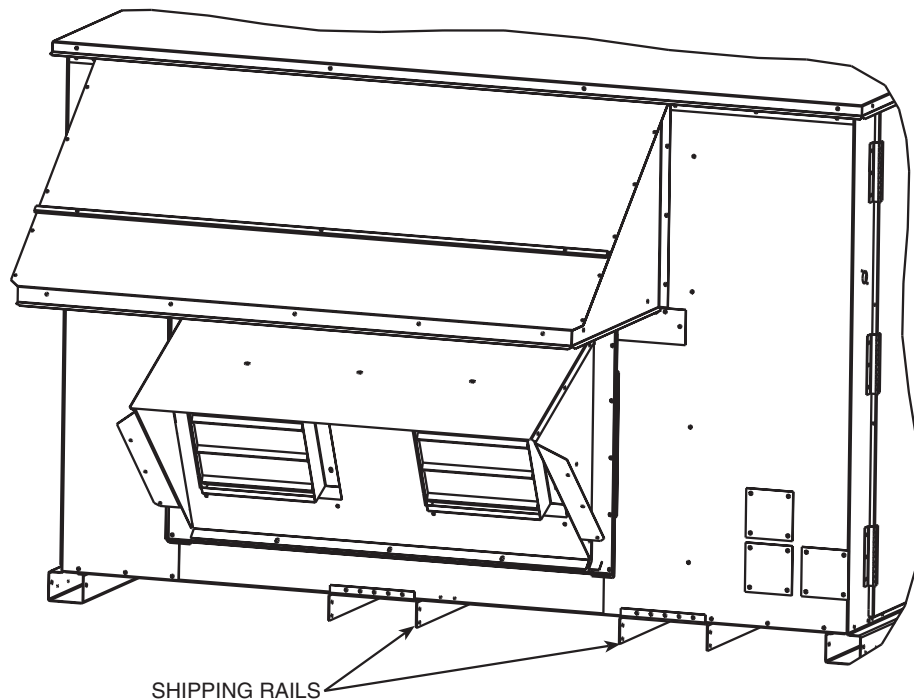


Fig. 2 — Shipping Rail Removal

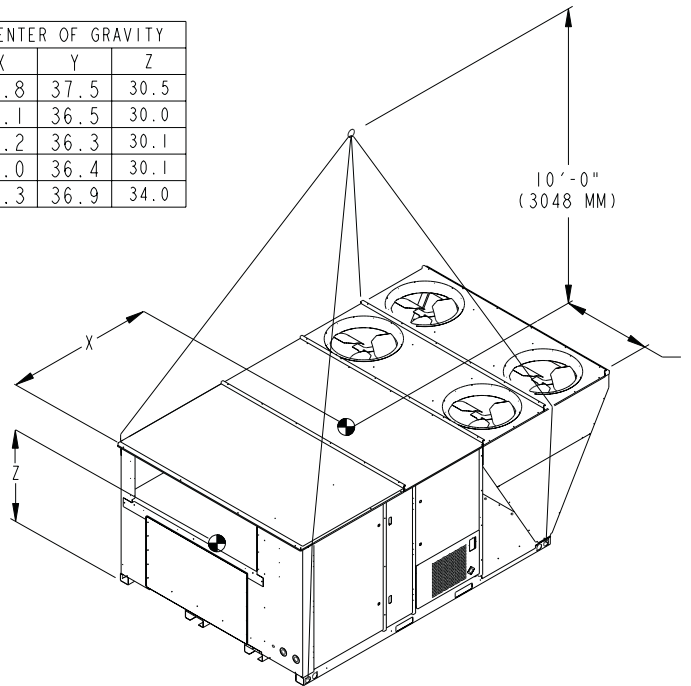


CAUTION - NOTICE TO RIGGERS:

ALL PANELS MUST BE IN PLACE WHEN RIGGING.

NOTICE TO RIGGERS: Rig by inserting hooks into unit base rails as shown. Maintain a distance of 120 inches (3048 MM) from top of unit to eyehook. Leave coil cover attached to unit while rigging to protect coil of unit from damage.

48/50 UNIT SIZE	MAX WEIGHT	CENTER OF GRAVITY		
		X	Y	Z
HG014	2792	61.8	37.5	30.5
HG016	2915	61.1	36.5	30.0
HG020	2943	61.2	36.3	30.1
HG024	2991	61.0	36.4	30.1
HG028	3211	65.3	36.9	34.0

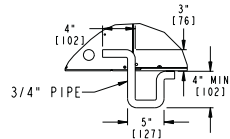
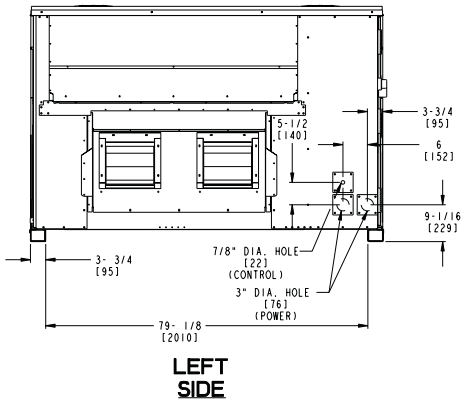


NOTE:
Add 150lb (68kg) for domestic crating.

NOTE:
SEE LABEL FOR UNIT
LOCATION ON ROOF CURB

50TG500606

Fig. 3 — Rigging Details



UNIT SIZE	OPERATING WT. WITHOUT HEAT (50HG) LB [KG]	UNIT HEIGHT W IN [MM]	CENTER OF GRAVITY LOCATION			CORNER WEIGHT LB [KG]			
			X IN [MM]	Y IN [MM]	Z IN [MM]	A	B	C	D
HG028	2446 [1109]	1781 [1781]	1272 [1272]	889 [889]	889 [889]	634 [288]	823 [374]	430 [195]	559 [254]

UNIT SIZE	OPERATING WT. WITHOUT HEAT (50HG) LB [KG]	UNIT HEIGHT W IN [MM]	CENTER OF GRAVITY LOCATION			CORNER WEIGHT LB [KG]			
			X IN [MM]	Y IN [MM]	Z IN [MM]	A	B	C	D
HG014	2017 [917]	58-1/8 [1476]	65 [1651]	35-1/2 [902]	31 [787]	523 [237]	668 [302]	364 [165]	464 [210]
HG016	2111 [960]	58-1/8 [1476]	64 [1626]	34-1/2 [876]	30 [762]	573 [260]	700 [318]	377 [171]	461 [209]
HG020	2139 [972]	58-1/8 [1476]	64 [1626]	34 [864]	30-1/2 [775]	583 [264]	714 [324]	378 [171]	464 [210]
HG024	2187 [994]	58-1/8 [1476]	64 [1626]	34-1/2 [876]	30-1/2 [775]	598 [271]	723 [328]	392 [178]	474 [215]

NOTES:

- WEIGHTS SHOWN ARE FOR 50HG COOLING ONLY UNIT WITH MANUAL 25% OUTDOOR AIR OPTION, ALUMINUM COILS, AND STANDARD DRIVE. FOR WEIGHTS OF OPTIONAL EQUIPMENT CONSULT PRODUCT DATA BOOK.
- DO NOT LOCATE ADJACENT UNITS WITH FLUE DISCHARGE FACING ECONOMIZER INLET. MIN. CLEARANCES TO BE: ADJACENT UNITS: 15'-0" (4572) RIGHT SIDE: 6'-0" (1829) FOR PROPER CONDENSER AIR FLOW, 4'-0" (1219) TO COMBUSTIBLE SURFACES. ALL FOUR SIDES (INCLUDES BETWEEN UNITS) LEFT SIDE: 10'-0" (3048) FOR PROPER ECONOMIZER AIR FLOW. FRONT SIDE: 8'-0" (2438) FOR SERVICE ACCESS AND COIL REMOVAL. REAR SIDE: 6'-6" (1981) FOR ECONOMIZER REMOVAL AND PROPER CONDENSER AIR FLOW. TOP: 6'-0" (1829) TO ASSURE PROPER CONDENSER FAN OPERATION. BOTTOM: 14" (356) TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB).

- FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES, CONTACT CARRIER APPLICATION ENGINEERING DEPARTMENT.
- DOWN SHOT DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THE DUCTS MUST BE SUPPORTED BY CROSS BRACES AS DONE ON ACCESSORY ROOF CURB.
- DIMENSIONS IN () ARE IN MILLIMETERS OR KILOGRAMS.
- WITH THE EXCEPTION OF CLEARANCE FOR THE CONDENSER COIL AND THE DAMPER/POWER EXHAUST AS STATED IN NOTE #2, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
- DIMENSIONS ARE FROM OUTSIDE OF BASE RAIL. ALLOW 0-5/16 (8) ON EACH SIDE FOR TOP COVER DRIP EDGE.
- A FIELD SUPPLIED 90° ELBOW DUCT MUST BE INSTALLED IN THE SUPPLY DUCTWORK BELOW THE UNIT DISCHARGE CONNECTION.

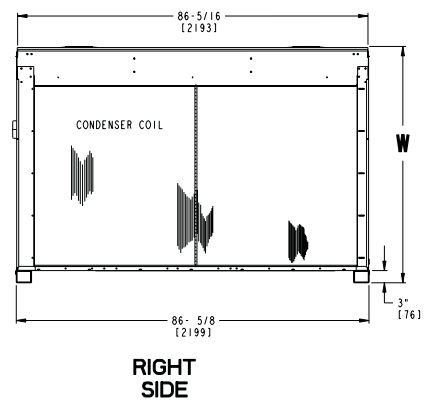
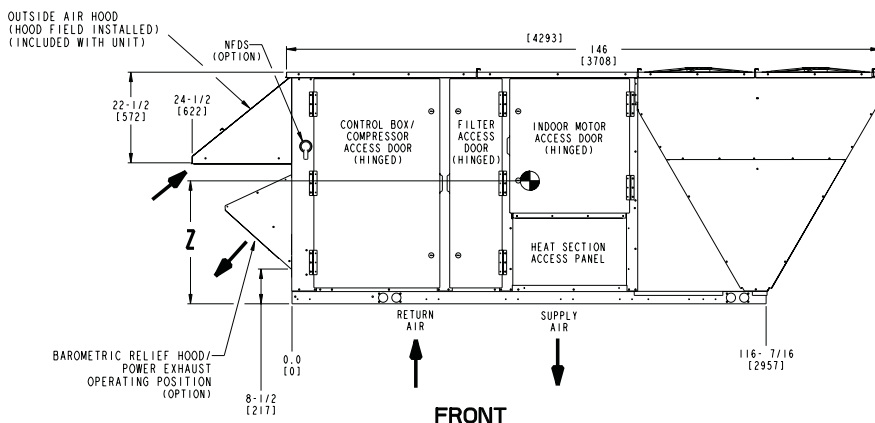
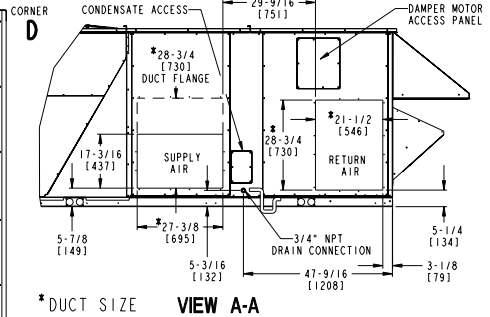
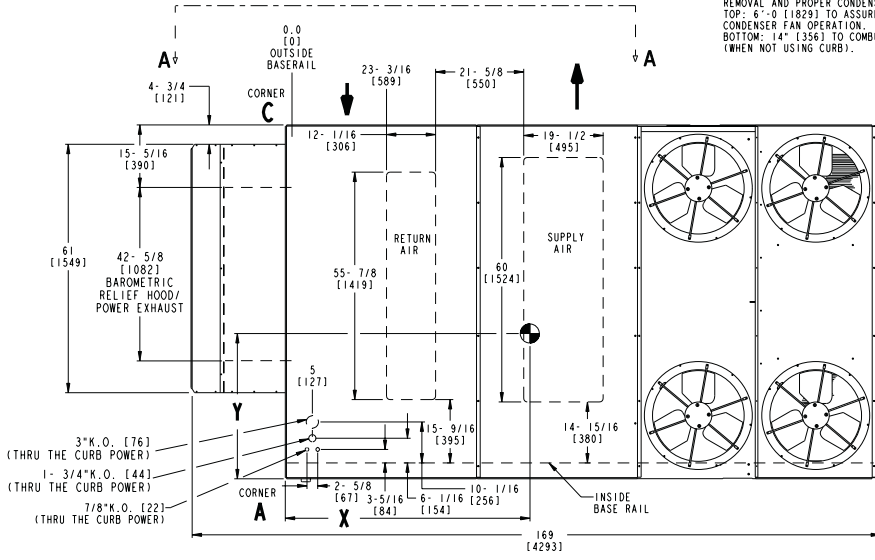
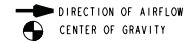


Fig. 4 — Base Unit Dimensions

Table 1 — Physical Data

UNIT 50HG	014		016		020	
VOLTAGE	208/230 and 460	575	208/230 and 460	575	208/230 and 460	575
NOMINAL CAPACITY (Tons)	12.5	12.5	15	15	17.5	17.5
OPERATING WEIGHT (lb) 50 SERIES (Cooling Only)	2017	2017	2111	2111	2139	2139
COMPRESSOR						
Quantity	2	2	3	3	3	3
Number of Refrigerant Circuits	2	2	3	3	3	3
Oil (ounces) Ckt A...Ckt B...Ckt C	72...72...NA	72...72...NA	68...68...68	68...68...68	68...68...72	68...68...72
REFRIGERANT TYPE			R-22			
Expansion Device	TXV	TXV	TXV	TXV	TXV	TXV
Operating Charge (lb)						
Circuit A	19.6	19.6	13.2	13.2	13.1	13.1
Circuit B	18.3	18.3	12.2	12.2	12.7	12.7
Circuit C	NA	NA	15.4	15.4	15.2	15.2
CONDENSER COIL						
Rows...Fins/inch	2...17	2...17	2...17	2...17	2...17	2...17
Total Face area (sq. ft)	57.78	57.78	57.78	57.78	57.78	57.78
CONDENSER FAN						
Nominal Cfm (Total, all fans)	14,000	14,000	14,000	14,000	14,000	14,000
Quantity...Diameter (in.)	4...22	4...22	4...22	4...22	4...22	4...22
Motor Hp...Rpm	1/4...1100	1/4...1100	1/4...1100	1/4...1100	1/4...1100	1/4...1100
Watts input (Total)	1400	1400	1400	1400	1400	1400
EVAPORATOR COIL			Face Split			
Rows...Fins/inch	3...15	3...15	3...15	3...15	3...15	3...15
Total Face area (sq. ft)	23.33	23.33	23.33	23.33	23.33	23.33
EVAPORATOR FAN						
Quantity...Size	2...15x11	2...15x11	2...15x11	2...15x11	2...15x11	2...15x11
Type Drive	Belt	Belt	Belt	Belt	Belt	Belt
Nominal Cfm	5000	5000	6000	6000	7000	7000
Std Motor Hp	3.7	3	3.7	3	5	5
Alt Motor Hp	5	5	5	5	7 1/2	7 1/2
Motor Nominal Rpm	1725	1725	1725	1725	1725	1725
Std Maximum Continuous Bhp	4.25	3.45	4.25	3.45	5.75	5.75
Std Maximum Continuous Watts	3171	2574	3171	2574	4290	4290
Alt Maximum Continuous Bhp	5.75	5.75	5.75	5.75	8.63	8.63
Alt Maximum Continuous Watts	4290	4290	4290	4290	6438	6438
Motor Frame Size	Standard S184T	56H 184T	56HZ S184T	56H 184T	S184T S213T	184T S213T
Motor Frame Size	485-613	472-619	618-789	609-778	658-808	658-808
Fan Drive Rpm Range	Std motor/Std drive 618-789	Std motor/Std drive 609-778	Std motor/Std drive 485-613	Std motor/Std drive 472-619	Std motor/Std drive 794-974	Std motor/Std drive 794-974
	Alt motor/Std drive 778-1021	Alt motor/Std drive 778-1021	Alt motor/Std drive 778-1021	Alt motor/Std drive 778-1021	Alt motor/Std drive 949-1145	Alt motor/Std drive 949-1145
	Alt motor/Alt drive 1000-1227	Alt motor/Alt drive 1000-1227	Alt motor/Alt drive 1000-1227	Alt motor/Alt drive 1000-1227	Alt motor/Alt drive 1126-1328	Alt motor/Alt drive 1126-1328
Motor Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	1400	1400	1400	1400	1400	1400
Motor Pulley Pitch Diameter	Std motor/Std drive 3.7-4.7	Std motor/Std drive 3.1-4.1	Std motor/Std drive 3.4-4.4	Std motor/Std drive 3.4-4.4	Std motor/Std drive 4.3-5.3	Std motor/Std drive 4.3-5.3
	Std motor/Alt drive 3.4-4.4	Std motor/Alt drive 3.4-4.4	Std motor/Alt drive 3.7-4.7	Std motor/Alt drive 3.1-4.1	Std motor/Alt drive 4.3-5.3	Std motor/Alt drive 4.3-5.3
	Alt motor/Std drive 3.1-4.1	Alt motor/Std drive 3.1-4.1	Alt motor/Std drive 3.1-4.1	Alt motor/Std drive 3.1-4.1	Alt motor/Std drive 5.4-6.6	Alt motor/Std drive 5.4-6.6
	Alt motor/Alt drive 4.3-5.3	Alt motor/Alt drive 4.3-5.3	Alt motor/Alt drive 4.3-5.3	Alt motor/Alt drive 4.3-5.3	Alt motor/Alt drive 5.5-6.5	Alt motor/Alt drive 5.5-6.5
Motor Shaft Diameter (in.)	Standard 7/8	Standard 7/8	Standard 7/8	Standard 7/8	Standard 1 1/8	Standard 1 1/8
Motor Shaft Diameter (in.)	Alternate 1 1/8	Alternate 1 1/8	Alternate 1 1/8	Alternate 1 1/8	Alternate 1 3/8	Alternate 1 3/8
Belt, Quantity...Type...Length (in.)	Std motor/Std drive 1...BX...51	Std motor/Std drive 1...BX...48	Std motor/Std drive 1...A...45	Std motor/Std drive 1...A...45	Std motor/Std drive 1...BX...46	Std motor/Std drive 1...BX...46
	Std motor/Alt drive 1...A...45	Std motor/Alt drive 1...A...45	Std motor/Alt drive 1...BX...51	Std motor/Alt drive 1...BX...48	Std motor/Alt drive 1...BX...42	Std motor/Alt drive 1...BX...42
	Alt motor/Std drive 1...BX...38	Alt motor/Std drive 1...BX...38	Alt motor/Std drive 1...BX...38	Alt motor/Std drive 1...BX...38	Alt motor/Std drive 1...BX...46	Alt motor/Std drive 1...BX...46
	Alt motor/Alt drive 1...B...38	Alt motor/Alt drive 1...B...38	Alt motor/Alt drive 1...B...38	Alt motor/Alt drive 1...B...38	Alt motor/Alt drive 1...BX...42	Alt motor/Alt drive 1...BX...42
Pulley center line distance (in.)	11.3-12.3	11.3-12.3	11.3-12.3	11.3-12.3	10.0-12.2	10.0-12.2
Speed change per full turn of moveable pulley flange (rpm)	Std motor/Std drive 21	Std motor/Std drive 25	Std motor/Std drive 29	Std motor/Std drive 28	Std motor/Std drive 25	Std motor/Std drive 25
	Std motor/Alt drive 29	Std motor/Alt drive 28	Std motor/Alt drive 21	Std motor/Alt drive 25	Std motor/Alt drive 30	Std motor/Alt drive 30
	Alt motor/Std drive 41	Alt motor/Std drive 41	Alt motor/Std drive 41	Alt motor/Std drive 41	Alt motor/Std drive 33	Alt motor/Std drive 33
	Alt motor/Alt drive 38	Alt motor/Alt drive 38	Alt motor/Alt drive 38	Alt motor/Alt drive 38	Alt motor/Alt drive 34	Alt motor/Alt drive 34
Moveable pulley maximum (full turns from closed position)	6	6	6	6	6	6
Factory Pulley Setting (turns from closed position)	3	3	3	3	3	3
Fan Shaft Diameter (in.)	1 3/16	1 3/16	1 3/16	1 3/16	1 3/16	1 3/16
Factory Speed Setting (rpm)	549	546	704	694	733	733
HIGH PRESSURE SWITCHES (psig)						
Cutout	426	426	426	426	426	426
Reset (Auto)	320	320	320	320	320	320
OUTDOOR AIR INLET SCREENS						
Quantity...Size (in.)	3...20x25	3...20x25	3...20x25	3...20x25	3...20x25	3...20x25
RETURN AIR FILTERS						
Quantity...Size (in.)	9...16x25	9...16x25	9...16x25	9...16x25	9...16x25	9...16x25

LEGEND

Bhp — Brake Horsepower
TXV — Thermostatic Expansion Valve

Table 1 — Physical Data (cont)

UNIT 50HG	024		028
VOLTAGE	208/230 and 460	575	ALL
NOMINAL CAPACITY (Tons)	20	20	25
OPERATING WEIGHT (lb) 50 SERIES (Cooling Only)	2187	2187	2446
COMPRESSOR			
Quantity	3	3	2
Number of Refrigerant Circuits	3	3	2
Oil (ounces) Ckt A...Ckt B...Ckt C	72...72...72	72...72...72	110...110...NA
REFRIGERANT TYPE		R-22	
Expansion Device	TXV	TXV	TXV
Operating Charge (lb)			
Circuit A	13.8	13.8	23.9
Circuit B	13.9	13.9	21.5
Circuit C	15.5	15.5	NA
CONDENSER COIL			
Rows...Fins/inch	2...17	2...17	2...17
Total Face Area (sq. ft)	57.78	57.78	66.67
CONDENSER FAN			
Nominal Cfm (Total, all fans)	14,000	14,000	21,000
Quantity...Diameter (in.)	4...22	4...22	6...22
Motor Hp...Rpm	1/4...1100	1/4...1100	1/4...1100
Watts input (Total)	1400	1400	2100
EVAPORATOR COIL		Face Split	
Rows...Fins/inch	4...15	4...15	4...15
Total Face Area (sq. ft)	23.33	23.33	27.22
EVAPORATOR FAN			
Quantity...Size	2...15x11	2...15x11	2...15x11
Type Drive	Belt	Belt	Belt
Nominal Cfm	8000	8000	10,000
Std Motor Hp	5	5	7 1/2
Alt Motor Hp	7 1/2	7 1/2	10
Motor Nominal Rpm	1725	1725	1725
Std Maximum Continuous Bhp	5.75	5.75	8.63
Std Maximum Continuous Watts	4290	4290	6438
Alt Maximum Continuous Bhp	8.63	8.63	11.50
Alt Maximum Continuous Watts	6438	6438	8579
Motor Frame Size	S184T	184T	S213T
Motor Frame Size	S213T	S213T	S215T
Fan Drive Rpm Range	Std motor/Std drive 658-808	658-808	799-965
	Std motor/Alt drive 794-974	794-974	939-1152
	Alt motor/Std drive 949-1145	949-1145	945-1187
	Alt motor/Alt drive 1126-1328	1126-1328	1152-1366
Motor Bearing Type	Ball	Ball	Ball
Maximum Allowable Rpm	1400	1400	1400
Motor Pulley Pitch Diameter	Std motor/Std drive 4.3-5.3	4.3-5.3	5.4-6.6
	Std motor/Alt drive 4.3-5.3	4.3-5.3	4.2-5.2
	Alt motor/Std drive 5.4-6.6	5.4-6.6	4.2-5.2
	Alt motor/Alt drive 5.5-6.5	5.5-6.5	5.2-6.2
Motor Shaft Diameter (in.)	Standard 1 1/8	1 1/8	1 3/8
Motor Shaft Diameter (in.)	Alternate 1 3/8	1 3/8	1 3/8
Belt, Quantity...Type...Length (in.)	Std motor/Std drive 1...BX...46	1...BX...46	1...BX...50
	Std motor/Alt drive 1...BX...42	1...BX...42	2...AX...38
	Alt motor/Std drive 1...BX...46	1...BX...46	2...BX...38
	Alt motor/Alt drive 1...BX...42	1...BX...42	2...BX...38
Pulley center line distance (in.)	10.0-12.2	10.0-12.2	9.6-12.0
Speed change per full turn of moveable pulley flange (rpm)	Std motor/Std drive 25	25	28
	Std motor/Alt drive 30	30	36
	Alt motor/Std drive 33	33	40
	Alt motor/Alt drive 34	34	36
Moveable pulley maximum (full turns from closed position)	6	6	6
Factory Pulley Setting (turns from closed position)	3	3	3
Fan Shaft Diameter (in.)	1 3/16	1 3/16	1 3/16
Factory Speed Setting (rpm)	733	733	882
HIGH PRESSURE SWITCHES (psig)			
Cutout	426	426	426
Reset (Auto)	320	320	320
OUTDOOR AIR INLET SCREENS			
Quantity...Size (in.)	3...20x25	3...20x25	3...20x25
RETURN AIR FILTERS			
Quantity...Size (in.)	9...16x25	9...16x25	9...20x25

LEGEND

Bhp — Brake Horsepower
TXV — Thermostatic Expansion Valve

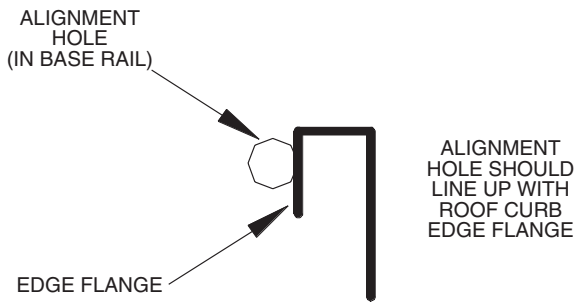


Fig. 5 — Alignment Hole Details

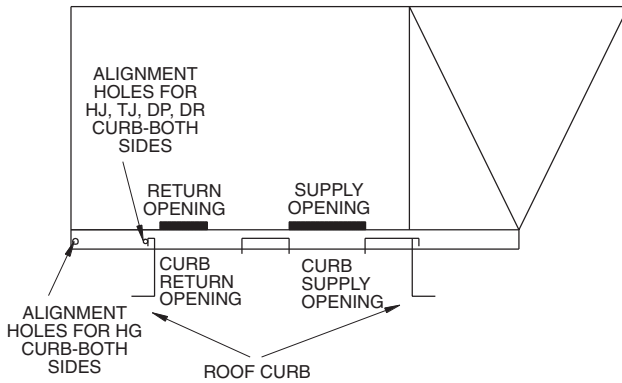


Fig. 6 — Alignment Hole Location

Step 4 — Field Fabricate Ductwork — Secure all ducts to building structure. Use flexible duct connectors between unit and ducts as required. 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.

Step 5 — Make Unit Duct Connections

VERTICAL CONFIGURATION — Unit is shipped for thru-the-bottom duct connections. Ductwork openings are shown in Fig. 1 and 4. Duct connections for vertical supply and return configuration are shown in Fig. 7. Field fabricated concentric ductwork may be connected as shown in Fig. 8 and 9. The unit is designed to attach the ductwork to the roof curb. Do not attach duct directly to the unit basepans.

Unit basepans must be supported under the unit and around duct openings in order to prevent air leakage.

⚠ WARNING

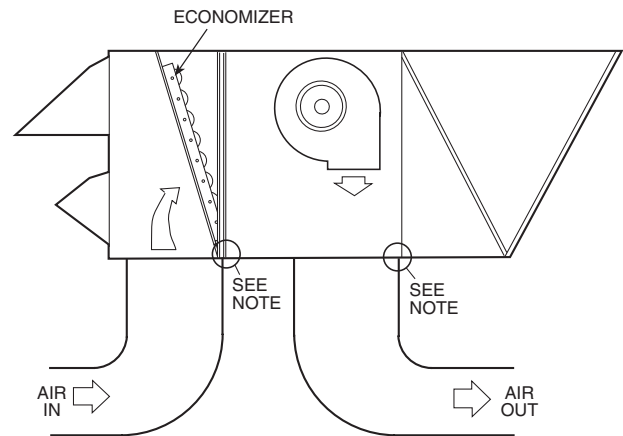
For vertical supply and return units, tools or parts could drop into ductwork and cause an injury. Install a 90-degree turn in the return ductwork between the unit and the conditioned space. If a 90-degree elbow cannot be installed, then a grille of sufficient strength and density should be installed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

Units with electric heat require a 1-in. clearance for the first 24 in. of ductwork. Outlet grilles must not lie directly below unit discharge.

NOTE: A 90-degree elbow must be provided in the supply ductwork to comply with UL (Underwriters' Laboratories) codes for use with electric heat.

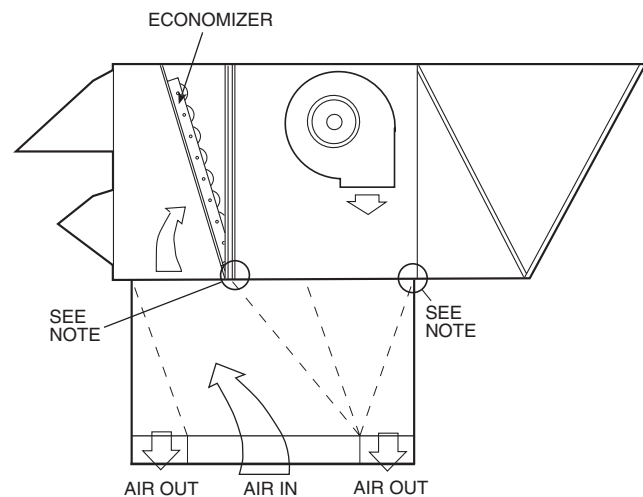
HORIZONTAL APPLICATIONS — Horizontal units are shipped with outer panels that allow for side by side horizontal duct connections. If specified during ordering, the unit will be shipped with the vertical duct openings blocked off from the factory, ready for side supply installation. If the horizontal option was not specified at time of ordering the unit, a field-installed accessory kit is required to convert the vertical unit into a horizontal supply configuration.

Installation of the duct block-off covers should be completed prior to placing the unit unless sufficient side clearance is available. A minimum of 66-in. is required between the unit and any obstruction to install the duct block-off covers. Side supply duct dimensions and locations are shown on Fig. 4. Connect ductwork to horizontal duct flange connections on side of unit.



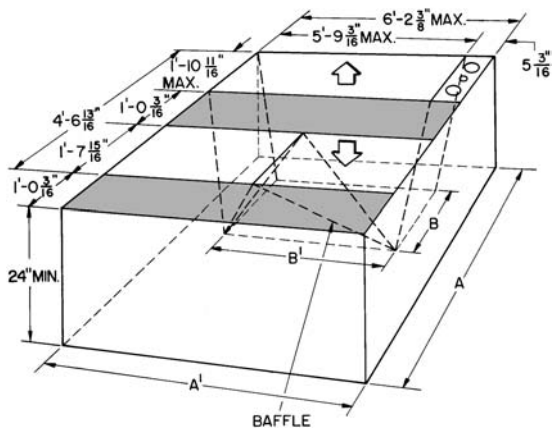
NOTE: Do not drill in this area; damage to basepan may result in water leak.

Fig. 7 — Air Distribution — Vertical Supply and Return



NOTE: Do not drill in this area; damage to basepan may result in water leak.

Fig. 8 — Air Distribution — Concentric Duct



NOTE: Dimensions A, A', B, and B' are obtained from field-supplied ceiling diffuser.

Shaded areas indicate block-off pans.

Fig. 9 — Concentric Duct Details

Step 6 — Trap Condensate Drain — See Fig. 10 for drain location. One 3/4-in. half coupling is provided outside unit evaporator section for condensate drain connection. A trap at least 4-in. deep must be used. See Fig. 11.

Step 7 — Make Electrical Connections

FIELD POWER SUPPLY — Unit is factory wired for voltage shown on unit nameplate.

When installing units, provide disconnect per NEC (National Electrical Code) of adequate size (MOCP [Maximum Overcurrent protection] of unit is on the informative plate). See Tables 2A and 2B. 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. 12 for power wiring connections to the unit power terminal block and equipment grounds.

Route power and ground lines through control box end panel or unit basepan (see Fig. 4) to connections as shown on unit wiring diagram and Fig. 12.

CAUTION

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.

WARNING

The unit must be electrically grounded in accordance with local codes and NEC ANSI/NFPA 70 (American National Standards Institute/National Fire Protection Association).

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. On 3-phase units, 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 — 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. 13 or 14.

NOTE: For wire runs up to 50 ft, use no. 18 AWG (American Wire Gage) 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.

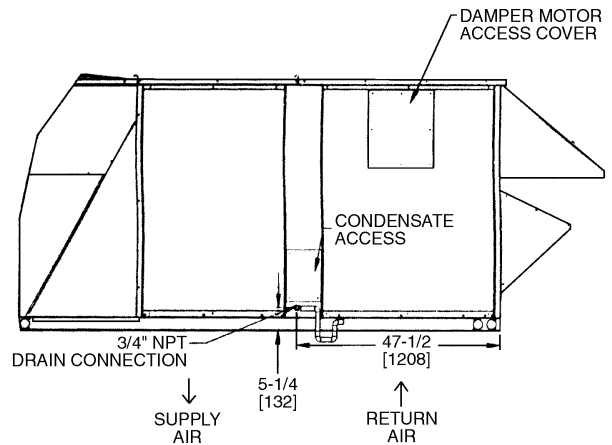
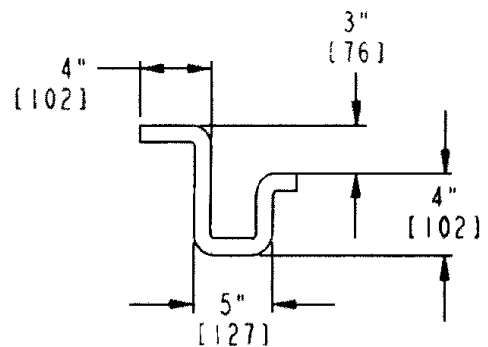


Fig. 10 — Condensate Drain Details



NOTE: Dimensions in [] are in millimeters.

Fig. 11 — Condensate Drain Piping Details

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

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE							
				No. 1		No. 2		No. 3																					
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA							
016	208/230	187	253	16.7	130.0	16.7	130.0	16.7	130.0	4.0	1/4	1.5	—	—	3.7	10.6/ 9.6	—	—	71/ 70	80/ 80	80/ 80								
																	2	1.0	5.9	83/ 82	90/ 90	100/ 90							
																	—	—	—	77/ 75	90/ 90	90/ 90							
																	2	1.0	5.9	89/ 87	100/100	100/100							
																	—	—	—	78/ 87	80/ 90	80/ 90							
																	2	1.0	5.9	93/102	100/110	100/100							
		19/25	52/ 60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
																								2	1.0	5.9	86/ 94	90/100	90/ 90
																								—	—	—	86/ 94	90/100	90/ 90
																								2	1.0	5.9	101/109	110/110	100/110
																								—	—	—	143/132	150/150	150/150
																								2	1.0	5.9	158/147	175/150	150/175
	38/50	104/120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
																							2	1.0	5.9	151/139	175/150	150/175	
																							—	—	—	166/154	175/175	175/175	
																							2	1.0	5.9	166/154	175/175	175/175	
																							—	—	—	71/ 70†	80/ 80†	80/ 80†	
																							2	1.0	5.9	83/ 82†	90/ 90†	100/ 90†	
	56/75†	156/180	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
																							2	1.0	5.9	77/ 75†	90/ 90†	90/ 90†	
																							—	—	—	77/ 75†	90/ 90†	90/ 90†	
																							2	1.0	5.9	89/ 87†	100/100†	100/100†	
																							—	—	—	37	45	40	
																							2	1.0	3.1	43	50	50	
460	414	506	9.0	70.0	9.0	70.0	9.0	70.0	9.0	70.0	4.0	1/4	0.7	—	—	3.7	4.8	—	—	37	45	40							
																		2	1.0	3.1	43	50	50						
																		—	—	—	40	45	45						
																		2	1.0	3.1	46	50	60						
																		—	—	—	44	45	45						
																		2	1.0	3.1	51	60	50						
	25	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
																							2	1.0	3.1	47	50	45	
																							—	—	—	44	45	45	
																							2	1.0	3.1	55	60	60	
																							—	—	—	66	80	80	
																							2	1.0	3.1	74	80	90	
50	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—								
																						2	1.0	3.1	70	80	80		
																						—	—	—	77	80	90		
																						2	1.0	3.1	77	80	90		
																						—	—	—	96	110	110		
																						2	1.0	3.1	104	110	125		
75	90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—								
																						2	1.0	3.1	100	110	125		
																						—	—	—	100	110	125		
																						2	1.0	3.1	107	125	125		
																						—	—	—	29	35	35		
																						2	1.0	3.1	36	40	40		
575	518	633	7.0	55.0	7.0	55.0	7.0	55.0	7.0	55.0	4.0	1/4	0.7	—	—	3.0	3.9	—	—	29	35	35							
																		2	1.0	3.1	36	40	40						
																		—	—	—	32	35	35						
																		2	1.0	3.1	38	40	45						
																		—	—	—	35	35	35						
																		2	1.0	3.1	43	45	40						
	25	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
																							2	1.0	3.1	38	40	35	
																							—	—	—	45	50	45	
																							2	1.0	3.1	45	50	45	
																							—	—	—	62	70	60	
																							2	1.0	3.1	70	80	70	
48	46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—								
																						2	1.0	3.1	65	70	60		
																						—	—	—	65	70	60		
																						2	1.0	3.1	73	80	70		
																						—	—	—	80	90	100		
																						2	1.0	3.1	88	100	100		
78	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—								
																						2	1.0	3.1	83	90	100		
																						—	—	—	83	90	100		
																						2	1.0	3.1	90	100	110		
																						—	—	—	88	100	100		
																						2	1.0	3.1	90	100	110		

ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
016	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
016	208/230	187	253	16.7	130.0	16.7	130.0	16.7	130.0	4.0	1/4	1.5	56/75	156/180	3.7	10.6/ 9.6	—	—	—	169/192	200/225	200/225
																	2	1.0	5.9	184/207	200/225	225/250
																	—	—	—	177/199	200/225	200/225
																	2	1.0	5.9	192/214	200/225	225/250

See Legend and Notes on page 10.

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

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
020	208/230	187	253	16.7	130.0	16.7	130.0	22.4	184.0	4.0	1/4	1.5	—	—	5.0	16.7/15.2	—	—	—	84/ 83	100/100	100/ 90
															2	1.0	5.9	96/ 94	110/110	110/110		
															—	—	—	92/ 89	110/110	100/100		
															7.5	24.2/22.0	2	1.0	5.9	104/101	125/110	125/110
															—	—	—	86/ 94	100/100	100/ 90		
															2	1.0	5.9	101/109	110/110	110/110		
		19/25	52/ 60	16.7/15.2	130.0	16.7	130.0	22.4	184.0	4.0	1/4	1.5	—	—	5.0	16.7/15.2	—	—	—	86/ 94	100/100	100/ 90
															2	1.0	5.9	101/109	110/110	110/110		
															—	—	—	95/103	110/110	100/100		
															7.5	24.2/22.0	2	1.0	5.9	110/117	125/125	125/110
															—	—	—	151/139	175/150	150/175		
															2	1.0	5.9	166/154	175/175	175/175		
	38/50	104/120	16.7/15.2	130.0	16.7	130.0	22.4	184.0	4.0	1/4	1.5	—	—	5.0	16.7/15.2	—	—	—	160/148	175/150	150/175	
														2	1.0	5.9	175/162	200/175	175/200			
														—	—	—	84/ 83†	100/100†	100/ 90†			
														7.5	24.2/22.0	2	1.0	5.9	110/117	125/125	125/110	
														—	—	—	96/ 94†	110/110†	110/110†			
														2	1.0	5.9	92/ 89†	110/110†	100/100†			
	56/75†	156/180	16.7/15.2	130.0	16.7	130.0	22.4	184.0	4.0	1/4	1.5	—	—	5.0	16.7/15.2	—	—	—	104/101†	125/110†	125/110†	
														2	1.0	5.9	104/101†	125/110†	125/110†			
														—	—	—	84/ 83†	100/100†	100/ 90†			
														7.5	24.2/22.0	2	1.0	5.9	104/101†	125/110†	125/110†	
														—	—	—	96/ 94†	110/110†	110/110†			
														2	1.0	5.9	92/ 89†	110/110†	100/100†			
460	414	506	9.0	70.0	9.0	70.0	10.7	90.0	4.0	1/4	0.7	—	—	5.0	7.6	—	—	—	42	50	45	
														2	1.0	3.1	48	50	60			
														—	—	—	45	50	50			
														7.5	11.0	2	1.0	3.1	51	60	60	
														—	—	—	47	50	45			
														2	1.0	3.1	55	60	60			
	25	30	7.6	70.0	9.0	70.0	10.7	90.0	4.0	1/4	0.7	—	—	5.0	7.6	—	—	—	51	60	50	
														2	1.0	3.1	59	60	60			
														—	—	—	70	80	80			
														7.5	11.0	2	1.0	3.1	77	80	90	
														—	—	—	74	80	90			
														2	1.0	3.1	82	90	90			
50	60	7.6	70.0	9.0	70.0	10.7	90.0	4.0	1/4	0.7	—	—	5.0	7.6	—	—	—	100	110	125		
													2	1.0	3.1	107	125	125				
													—	—	—	104	125	125				
													7.5	11.0	2	1.0	3.1	112	125	125		
													—	—	—	35	40	40				
													2	1.0	3.1	41	50	45				
75	90	7.6	70.0	9.0	70.0	10.7	90.0	4.0	1/4	0.7	—	—	5.0	7.6	—	—	—	37	45	45		
													2	1.0	3.1	44	50	50				
													—	—	—	38	40	40				
													7.5	11.0	2	1.0	3.1	45	50	45		
													—	—	—	41	45	45				
													2	1.0	3.1	49	50	50				
575	518	633	7.0	55.0	7.0	55.0	9.3	73.0	4.0	1/4	0.7	—	—	5.0	6.1	—	—	—	65	70	60	
														2	1.0	3.1	73	80	70			
														—	—	—	69	70	70			
														7.5	9.0	2	1.0	3.1	77	80	80	
														—	—	—	83	90	100			
														2	1.0	3.1	90	100	110			
48	46	6.1	55.0	7.0	55.0	9.3	73.0	4.0	1/4	0.7	—	—	5.0	6.1	—	—	—	86	100	100		
													2	1.0	3.1	86	100	100				
													—	—	—	86	100	100				
													7.5	9.0	2	1.0	3.1	94	100	110		
													—	—	—	83	90	100				
													2	1.0	3.1	90	100	110				
78	75	6.1	55.0	7.0	55.0	9.3	73.0	4.0	1/4	0.7	—	—	5.0	6.1	—	—	—	86	100	100		
													2	1.0	3.1	86	100	100				
													—	—	—	86	100	100				
													7.5	9.0	2	1.0	3.1	94	100	110		
													—	—	—	86	100	100				
													2	1.0	3.1	94	100	110				

ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
020	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
020	208/230	187	253	16.7	130.0	16.7	130.0	22.4	184.0	4.0	1/4	1.5	56/75	156/180	5.0	16.7/15.2	—	—	—	177/199	200/225	200/225
															2	1.0	5.9	192/214	200/225	225/250		
															—	—	—	186/208	200/225	225/250		
															7.5	24.2/22.0	2	1.0	5.9	201/222	225/225	225/250

See Legend and Notes on page 10.

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

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE																				
				No. 1		No. 2		No. 3																																		
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA																				
024	208/230	187	253	22.4	184.0	22.4	184.0	22.4	184.0	4.0	1/4	1.5	—	—	5.0	16.7/15.2	—	—	96/ 94	110/110	110/110																					
																	2	1.0	5.9	107/106	125/125	125/125																				
																	—	—	—	104/101	125/110	125/110																				
																	7.5	24.2/22.0	2	1.0	5.9	115/113	125/125	150/125																		
																	—	—	—	96/ 94	110/110	110/110																				
																	2	1.0	5.9	107/109	125/125	125/125																				
		19/25	52/ 60	5.0	16.7/15.2	24.2/22.0	2	1.0	5.9	115/117	125/125	150/125	—	—	5.0	16.7/15.2	2	1.0	5.9	151/139	175/150	150/175																				
																							2	1.0	5.9	166/154	175/175	175/175														
																							—	—	—	160/148	175/150	150/175														
																							7.5	24.2/22.0	2	1.0	5.9	175/162	200/175	175/200												
																							—	—	—	96/ 94†	110/110†	110/110†														
																							2	1.0	5.9	107/106†	125/125†	125/125†														
	38/50	104/120	5.0	16.7/15.2	24.2/22.0	2	1.0	5.9	175/162	200/175	175/200	—	—	5.0	16.7/15.2	2	1.0	5.9	104/101†	125/110†	125/110†																					
																						—	—	—	115/113†	125/125†	150/125†															
																						7.5	24.2/22.0	2	1.0	5.9	115/113†	125/125†	150/125†													
																						—	—	—	45	50	50															
																						2	1.0	3.1	51	60	60															
																						—	—	—	49	50	60															
	25	30	5.0	7.6	11.0	2	1.0	3.1	55	60	60	—	—	5.0	7.6	2	1.0	3.1	51	60	60																					
																						—	—	—	47	50	50															
																						7.5	11.0	2	1.0	3.1	59	60	60													
																						—	—	—	51	60	60															
																						50	60	5.0	7.6	11.0	2	1.0	3.1	70	80	80	—	—	5.0	7.6	2	1.0	3.1	77	80	90
																						7.5																				
75	90	5.0	7.6	11.0	2	1.0	3.1	100	110	125	—	—	5.0	7.6	2	1.0	3.1	107	125	125																						
																					—	—	—	104	125	125																
																					7.5	11.0	2	1.0	3.1	112	125	125														
																					—	—	—	39	45	45																
																					2	1.0	3.1	45	50	50																
																					—	—	—	42	50	50																
25	24	5.0	6.1	9.0	2	1.0	3.1	39	45	45	—	—	5.0	6.1	2	1.0	3.1	45	50	50																						
																					—	—	—	42	50	50																
																					7.5	9.0	2	1.0	3.1	49	50	60														
																					—	—	—	49	50	60																
																					48	46	5.0	6.1	9.0	2	1.0	3.1	65	70	60	—	—	5.0	6.1	2	1.0	3.1	73	80	70	
																					7.5																					9.0
78	75	5.0	6.1	9.0	2	1.0	3.1	77	80	80	—	—	5.0	6.1	2	1.0	3.1	83	90	100																						
																					—	—	—	86	100	100																
																					7.5	9.0	2	1.0	3.1	90	100	110														
																					—	—	—	86	100	100																
																					2	1.0	3.1	94	100	110																
																					—	—	—	94	100	110																

ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
024	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
024	208/230	187	253	22.4	184.0	22.4	184.0	22.4	184.0	4.0	1/4	1.5	56/75	156/180	5.0	16.7/15.2	—	—	—	177/199	200/225	200/225
																	2	1.0	5.9	192/214	200/225	225/250
																	—	—	—	186/208	200/225	225/250
																	7.5	24.2/22	2	1.0	5.9	201/222

See Legend and Notes on page 10.

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

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE														
				No. 1		No. 2		No. 3																												
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA														
028	208/230	187	253	47.1	245.0	47.1	245.0	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	139/137	175/175	150/150														
																	2	1.0	5.9	151/149	175/175	175/175														
																	—	—	—	146/143	175/175	175/175														
																	10.0	30.8/28.0	2	1.0	5.9	158/155	200/200	175/175												
																	—	—	—	139/137	175/175	150/150														
																	2	1.0	5.9	151/149	175/175	175/175														
		19/25	52/ 60	—	—	—	—	—	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	139/137	175/175	150/150													
																		2	1.0	5.9	151/149	175/175	175/175													
																		—	—	—	146/143	175/175	175/175													
																		10.0	30.8/28.0	2	1.0	5.9	158/155	200/200	175/175											
																		—	—	—	160/148	175/175	150/175													
																		2	1.0	5.9	175/162	200/175	175/200													
	38/50	104/120	—	—	—	—	—	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	169/155	175/175	175/175														
																	2	1.0	5.9	183/170	200/200	175/200														
																	—	—	—	139/137†	175/175†	150/150†														
																	10.0	30.8/28.0	2	1.0	5.9	158/155	200/200	175/175												
																	—	—	—	151/149†	175/175†	175/175†														
																	2	1.0	5.9	146/143†	175/175†	175/175†														
	56/75†	156/180	—	—	—	—	—	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	158/155†	200/200†	175/175†														
																	2	1.0	5.9	158/155†	200/200†	175/175†														
																	—	—	—	158/155†	200/200†	175/175†														
																	10.0	30.8/28.0	2	1.0	5.9	158/155†	200/200†	175/175†												
																	—	—	—	158/155†	200/200†	175/175†														
																	2	1.0	5.9	158/155†	200/200†	175/175†														
460	414	506	19.6	125.0	19.6	125.0	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	59	70	70															
																2	1.0	3.1	66	80	70															
																—	—	—	62	80	70															
																10.0	14.0	2	1.0	3.1	69	80	80													
																—	—	—	59	70	70															
																2	1.0	3.1	66	80	70															
														25	30	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	62	80	70		
																													2	1.0	3.1	69	80	80		
																													—	—	—	74	80	90		
																													10.0	14.0	2	1.0	3.1	69	80	80
																													—	—	—	62	80	70		
																													2	1.0	3.1	69	80	80		
50	60	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	82	90	90																
															2	1.0	3.1	82	90	90																
															—	—	—	78	90	90																
															10.0	14.0	2	1.0	3.1	85	90	100														
															—	—	—	104	125	125																
															2	1.0	3.1	112	125	125																
75	90	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	108	125	125																
															2	1.0	3.1	112	125	125																
															—	—	—	108	125	125																
															10.0	14.0	2	1.0	3.1	115	125	150														
															—	—	—	104	125	125																
															2	1.0	3.1	112	125	125																
575	518	633	15.8	100.0	15.8	100.0	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	49	60	60															
																2	1.0	3.1	55	70	60															
																—	—	—	51	60	60															
																10.0	11.0	2	1.0	3.1	57	70	70													
																—	—	—	49	60	60															
																2	1.0	3.1	55	70	60															
														25	24	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	51	60	60		
																													2	1.0	3.1	55	70	60		
																													—	—	—	51	60	60		
																													10.0	11.0	2	1.0	3.1	57	70	70
																													—	—	—	69	70	70		
																													2	1.0	3.1	77	80	80		
48	46	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	71	80	70																
															2	1.0	3.1	77	80	80																
															—	—	—	71	80	70																
															10.0	11.0	2	1.0	3.1	79	80	80														
															—	—	—	86	100	100																
															2	1.0	3.1	94	100	110																
78	75	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	89	100	100																
															2	1.0	3.1	89	100	100																
															—	—	—	89	100	100																
															10.0	11.0	2	1.0	3.1	97	100	110														
															—	—	—	89	100	100																
															2	1.0	3.1	97	100	110																

ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
028	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
028	208/230	187	253	47.1	245.0	47.1	245.0	—	—	6.0	1/4	1.5	56/75	156/180	7.5	24.2/22.0	—	—	—	186/208	200/225	225/250
																	2	1.0	5.9	201/222	225/225	225/250
															10.0	30.8/28.0	—	—	—	195/215	225/225	225/250
																	2	1.0	5.9	209/230	225/250	250/300

See Legend and Notes on page 10.

Table 2B — Electrical Data (Units With Optional Convenience Outlet)

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM		ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE			
				No. 1		No. 2		No. 3								Qty	Hp	FLA (ea)	kWh	FLA		Qty	Hp	FLA (ea)
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA															
014	208/230	187	253	19.2	146.0	19.2	146.0	—	—	4.0	1/4	1.5	—	—	3.7	10.6/ 9.6	—	—	—	65/ 64	80/ 80	70/ 70		
																	2	1.0	5.9	77/ 76	90/ 90	80/ 80		
																	—	—	—	71/ 69	90/ 80	80/ 70		
																	5.0	16.7/15.2	2	1.0	5.9	83/ 81	100/100	90/ 90
																	—	—	—	65/ 66	80/ 80	70/ 70		
																	2	1.0	5.9	77/ 81	90/ 90	80/ 80		
		12/16	33/ 38	3.7	10.6/ 9.6	—	—	—	65/ 66	80/ 80	70/ 70													
						2	1.0	5.9	77/ 81	90/ 90	80/ 80													
						—	—	—	71/ 73	90/ 80	80/ 70													
						5.0	16.7/15.2	2	1.0	5.9	83/ 88	100/100	90/ 90											
						—	—	—	85/ 93	90/100	80/ 90													
						2	1.0	5.9	99/108	100/110	90/100													
	19/25	52/ 60	3.7	10.6/ 9.6	—	—	—	92/100	100/110	80/ 90														
					2	1.0	5.9	107/115	110/125	100/110														
					—	—	—	150/138	150/150	150/150														
					5.0	16.7/15.2	2	1.0	5.9	164/153	175/175	150/175												
					—	—	—	157/145	175/150	150/175														
					2	1.0	5.9	172/160	175/175	175/175														
	38/50	104/120	3.7	10.6/ 9.6	—	—	—	32	40	35														
					2	1.0	3.1	38	45	40														
					—	—	—	35	40	35														
					5.0	7.6	2	1.0	3.1	41	50	45												
					—	—	—	32	40	35														
					2	1.0	3.1	40	45	40														
15	18	3.7	4.8	—	—	—	36	40	35															
				2	1.0	3.1	44	50	45															
				—	—	—	47	50	45															
				5.0	7.6	2	1.0	3.1	55	60	50													
				—	—	—	51	60	45															
				2	1.0	3.1	59	60	60															
25	30	3.7	4.8	—	—	—	70	80	80															
				2	1.0	3.1	78	80	90															
				—	—	—	73	80	80															
				5.0	7.6	2	1.0	3.1	81	90	90													
				—	—	—	27	30	30															
				2	1.0	3.1	33	40	35															
50	60	3.0	3.9	—	—	—	29	35	30															
				2	1.0	3.1	36	40	35															
				—	—	—	27	30	30															
				5.0	6.1	2	1.0	3.1	35	40	35													
				—	—	—	30	35	30															
				2	1.0	3.1	38	40	35															
16	15	3.0	3.9	—	—	—	39	40	35															
				2	1.0	3.1	46	50	40															
				—	—	—	41	45	35															
				5.0	6.1	2	1.0	3.1	49	50	45													
				—	—	—	66	70	60															
				2	1.0	3.1	74	80	70															
25	24	3.0	3.9	—	—	—	69	70	60															
				2	1.0	3.1	77	80	70															
				—	—	—	66	70	60															
				5.0	6.1	2	1.0	3.1	77	80	70													
				—	—	—	69	70	60															
				2	1.0	3.1	77	80	70															
48	46	3.0	3.9	—	—	—	66	70	60															
				2	1.0	3.1	74	80	70															
				—	—	—	69	70	60															
				5.0	6.1	2	1.0	3.1	77	80	70													
				—	—	—	66	70	60															
				2	1.0	3.1	74	80	70															

See Legend and Notes on page 10.

Table 2B — Electrical Data (Units With Optional Convenience Outlet) (cont)

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE	
				No. 1		No. 2		No. 3															
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA	
016	208/230	187	253	16.7	130.0	16.7	130.0	16.7	130.0	4.0	1/4	1.5	—	—	3.7	10.6/ 9.6	—	—	—	76/ 75	90/ 90	80/ 80	
															2	1.0	5.9	88/ 87	100/100	100/ 90			
															—	—	—	—	—	82/ 80	90/ 90	90/ 90	90/ 90
															5.0	16.7/15.2	2	1.0	5.9	94/ 92	110/100	100/100	
															—	—	—	—	—	85/ 93	90/100	80/ 90	
															2	1.0	5.9	99/108	100/110	100/100			
		19/25	52/ 60	3.7	10.6/ 9.6	—	—	—	85/ 93	90/100	100/100												
		2		1.0	5.9	99/108	100/110	100/100															
		—		—	—	—	—	92/100	100/110	90/ 90													
		5.0		16.7/15.2	2	1.0	5.9	107/115	110/125	100/110													
		—		—	—	—	—	150/138	150/150	150/150													
		2		1.0	5.9	164/153	175/175	150/175															
	38/50	104/120	3.7	10.6/ 9.6	—	—	—	157/145	175/150	150/175													
	2		1.0	5.9	172/160	175/175	175/175																
	—		—	—	—	—	76/ 75†	90/ 90†	80/ 80†														
	5.0		16.7/15.2	2	1.0	5.9	88/ 87†	100/100†	100/ 90†														
	—		—	—	—	—	82/ 80†	90/ 90†	90/ 90†														
	2		1.0	5.9	94/ 92†	110/100†	100/100†																
	460	414	506	9.0	70.0	9.0	70.0	9.0	70.0	4.0	1/4	0.7	—	—	3.7	4.8	—	—	—	40	45	40	
															2	1.0	3.1	46	50	50			
															—	—	—	—	—	43	50	45	
															5.0	7.6	2	1.0	3.1	49	50	60	
															—	—	—	—	—	47	50	45	
															2	1.0	3.1	55	60	50			
25		30	3.7	4.8	—	—	—	51	60	45													
2			1.0	3.1	59	60	60																
—			—	—	—	—	70	80	80														
5.0			7.6	2	1.0	3.1	78	80	90														
—			—	—	—	—	73	80	80														
2			1.0	3.1	81	90	90																
50	60	3.7	4.8	—	—	—	100	110	110														
2		1.0	3.1	108	125	125																	
—		—	—	—	—	103	125	125															
5.0		7.6	2	1.0	3.1	111	125	125															
—		—	—	—	—	32	35	35															
2		1.0	3.1	39	45	40																	
25	24	3.0	3.9	—	—	—	39	40	35														
2		1.0	3.1	41	50	45																	
—		—	—	—	—	39	40	35															
5.0		6.1	2	1.0	3.1	46	50	40															
—		—	—	—	—	41	45	35															
2		1.0	3.1	49	50	45																	
48	46	3.0	3.9	—	—	—	66	70	60														
2		1.0	3.1	74	80	70																	
—		—	—	—	—	69	70	60															
5.0		6.1	2	1.0	3.1	77	80	70															
—		—	—	—	—	84	90	100															
2		1.0	3.1	91	100	100																	
78	75	3.0	3.9	—	—	—	86	100	100														
2		1.0	3.1	91	100	100																	
—		—	—	—	—	86	100	100															
5.0		6.1	2	1.0	3.1	94	100	110															
—		—	—	—	—	—	—	—															
2		1.0	3.1	94	100	110																	

ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
016	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
016	208/230	187	253	16.7	130.0	16.7	130.0	16.7	130.0	4.0	1/4	1.5	56/75	156/180	3.7	10.6/ 9.6	—	—	—	176/198	200/225	200/225
															2	1.0	5.9	190/213	200/225	225/250		
															—	—	—	—	—	183/205	200/225	200/225
															5.0	16.7/15.2	2	1.0	5.9	198/220	200/225	225/250

See Legend and Notes on page 10.

Table 2B — Electrical Data (Units With Optional Convenience Outlet) (cont)

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE									
				No. 1		No. 2		No. 3																							
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA									
020	208/230	187	253	16.7	130.0	16.7	130.0	22.4	184.0	4.0	1/4	1.5	—	—	5.0	16.7/15.2	—	—	—	89/ 88	110/110	100/ 90									
																	2	1.0	5.9	101/ 99	110/110	110/110									
																	—	—	—	97/ 94	110/110	100/100									
																	7.5	24.2/22.0	2	1.0	5.9	109/106	125/125	125/110							
																	—	—	—	92/100	110/110	100/ 90									
																	2	1.0	5.9	107/115	110/125	110/110									
		19/25	52/ 60	5.0	16.7/15.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	157/145	175/150	150/175								
																								2	1.0	5.9	172/160	175/175	175/175		
																								—	—	—	167/154	175/175	150/175		
																								7.5	24.2/22.0	2	1.0	5.9	116/124	125/125	125/110
																								—	—	—	89/ 88†	110/110†	100/ 90†		
																								2	1.0	5.9	101/ 99†	110/110†	110/110†		
	38/50	104/120	5.0	16.7/15.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	181/169	200/175	175/200									
																							2	1.0	5.9	172/160	175/175	175/175			
																							—	—	—	167/154	175/175	150/175			
																							7.5	24.2/22.0	2	1.0	5.9	116/124	125/125	125/110	
																							—	—	—	89/ 88†	110/110†	100/ 90†			
																							2	1.0	5.9	101/ 99†	110/110†	110/110†			
	56/75†	156/180	5.0	16.7/15.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	109/106†	125/125†	125/110†									
																							2	1.0	5.9	172/160	175/175	175/175			
																							—	—	—	167/154	175/175	150/175			
																							7.5	24.2/22.0	2	1.0	5.9	116/124	125/125	125/110	
																							—	—	—	89/ 88†	110/110†	100/ 90†			
																							2	1.0	5.9	101/ 99†	110/110†	110/110†			
460	414	506	9.0	70.0	9.0	70.0	10.7	90.0	4.0	1/4	0.7	—	—	5.0	7.6	—	—	—	45	50	45										
																2	1.0	3.1	51	60	60										
																—	—	—	48	50	50										
																7.5	11.0	2	1.0	3.1	54	60	60								
																—	—	—	51	60	45										
																2	1.0	3.1	59	60	60										
	25	30	5.0	7.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	60	50									
																							2	1.0	3.1	63	70	60			
																							—	—	—	73	80	80			
																							7.5	11.0	2	1.0	3.1	63	70	60	
																							—	—	—	73	80	80			
																							2	1.0	3.1	81	90	90			
50	60	5.0	7.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78	80	90										
																						2	1.0	3.1	81	90	90				
																						—	—	—	78	80	90				
																						7.5	11.0	2	1.0	3.1	85	90	90		
																						—	—	—	103	125	125				
																						2	1.0	3.1	111	125	125				
75	90	5.0	7.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	108	125	125										
																						2	1.0	3.1	111	125	125				
																						—	—	—	108	125	125				
																						7.5	11.0	2	1.0	3.1	115	125	125		
																						—	—	—	38	45	40				
																						2	1.0	3.1	44	50	45				
575	518	633	7.0	55.0	7.0	55.0	9.3	73.0	4.0	1/4	0.7	—	—	5.0	6.1	—	—	—	38	45	40										
																2	1.0	3.1	44	50	45										
																—	—	—	40	45	45										
																7.5	9.0	2	1.0	3.1	47	50	50								
																—	—	—	41	45	40										
																2	1.0	3.1	49	50	45										
	25	24	5.0	6.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45	45	45									
																							2	1.0	3.1	45	45	45			
																							—	—	—	45	45	45			
																							7.5	9.0	2	1.0	3.1	53	60	50	
																							—	—	—	69	70	60			
																							2	1.0	3.1	77	80	70			
48	46	5.0	6.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	73	80	70										
																						2	1.0	3.1	73	80	70				
																						—	—	—	73	80	70				
																						7.5	9.0	2	1.0	3.1	80	90	80		
																						—	—	—	86	100	100				
																						2	1.0	3.1	94	100	110				
78	75	5.0	6.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	90	100	100										
																						2	1.0	3.1	90	100	100				
																						—	—	—	90	100	100				
																						7.5	9.0	2	1.0	3.1	98	100	110		
																						—	—	—	90	100	100				
																						2	1.0	3.1	98	100	110				

ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
020	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
020	208/230	187	253	16.7	130.0	16.7	130.0	22.4	184.0	4.0	1/4	1.5	56/75	156/180	5.0	16.7/15.2	—	—	—	183/205	200/225	200/225
															2	1.0	5.9	198/220	200/225	225/250		
															—	—	—	193/214	200/225	225/250		
															7.5	24.2/22.0	2	1.0	5.9	207/229	225/250	225/250

See Legend and Notes on page 10.

Table 2B — Electrical Data (Units With Optional Convenience Outlet) (cont)

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE																					
				No. 1		No. 2		No. 3																																			
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA																					
024	208/230	187	253	22.4	184.0	22.4	184.0	22.4	184.0	4.0	1/4	1.5	—	—	5.0	16.7/15.2	—	—	—	101/ 99	110/110	110/110																					
															2	1.0	5.9	112/111	125/125	125/125																							
															—	—	—	109/106	125/125	125/110																							
															7.5	24.2/22.0	2	1.0	5.9	120/118	125/125	150/125																					
															—	—	—	101/100	110/110	110/110																							
															2	1.0	5.9	112/115	125/125	125/125																							
		19/25	52/ 60	—	—	—	—	—	—	—	—	—	—	—	—	—	5.0	16.7/15.2	2	1.0	5.9	112/115	125/125	125/125																			
																									7.5	24.2/22.0	2	1.0	5.9	120/124	125/125	150/125											
																									—	—	—	157/145	175/150	150/175													
																									2	1.0	5.9	172/160	175/175	175/175													
																									—	—	—	167/154	175/175	150/175													
																									2	1.0	5.9	181/169	200/175	175/200													
	38/50	104/120	—	—	—	—	—	—	—	—	—	—	—	—	—	5.0	16.7/15.2	2	1.0	5.9	172/160	175/175	175/175																				
																								7.5	24.2/22.0	2	1.0	5.9	167/154	175/175	150/175												
																								—	—	—	181/169	200/175	175/200														
																								—	—	—	101/ 99†	110/110†	110/110†														
																								2	1.0	5.9	112/111†	125/125†	125/125†														
																								7.5	24.2/22.0	2	1.0	5.9	109/106†	125/125†	125/110†												
	460	414	506	10.7	90.0	10.7	90.0	10.7	90.0	4.0	1/4	0.7	—	—	5.0	7.6	—	—	—	48	50	50																					
															2	1.0	3.1	54	60	60																							
															—	—	—	52	60	60																							
															7.5	11.0	2	1.0	3.1	58	60	60																					
															—	—	—	51	60	50																							
															2	1.0	3.1	59	60	60																							
25															30	—	—	—	—	—	—	—	—	—	—	—	—	5.0	7.6	2	1.0	3.1	55	60	60								
																																				7.5	11.0	2	1.0	3.1	63	70	60
																																				—	—	—	73	80	80		
																																				—	—	—	81	90	90		
																																				—	—	—	78	80	90		
																																				2	1.0	3.1	85	90	90		
50	60	—	—	—	—	—	—	—	—	—	—	—	—	5.0	7.6	2	1.0	3.1	103	125	125																						
																						7.5	11.0	2	1.0	3.1	111	125	125														
																						—	—	—	108	125	125																
																						—	—	—	103	125	125																
																						—	—	—	111	125	125																
																						2	1.0	3.1	115	125	125																
75	90	—	—	—	—	—	—	—	—	—	—	—	—	5.0	7.6	2	1.0	3.1	108	125	125																						
																						7.5	11.0	2	1.0	3.1	115	125	125														
																						—	—	—	42	50	45																
																						—	—	—	48	50	50																
																						—	—	—	45	50	50																
																						2	1.0	3.1	51	60	60																
575	518	633	9.3	73.0	9.3	73.0	9.3	73.0	4.0	1/4	0.7	—	—	5.0	6.1	—	—	—	42	50	45																						
														2	1.0	3.1	48	50	50																								
														—	—	—	45	50	50																								
														7.5	9.0	2	1.0	3.1	51	60	60																						
														—	—	—	42	50	45																								
														—	—	—	49	50	50																								
														25	24	—	—	—	—	—	—	—	—	—	—	—	—	5.0	6.1	2	1.0	3.1	49	50	50								
																																				7.5	9.0	2	1.0	3.1	45	50	50
																																				—	—	—	53	60	60		
																																				—	—	—	69	70	60		
																																				—	—	—	77	80	70		
																																				2	1.0	3.1	80	90	80		
48	46	—	—	—	—	—	—	—	—	—	—	—	—	5.0	6.1	2	1.0	3.1	73	80	70																						
																						7.5	9.0	2	1.0	3.1	80	90	80														
																						—	—	—	86	100	100																
																						—	—	—	94	100	110																
																						—	—	—	90	100	100																
																						2	1.0	3.1	98	100	110																
78	75	—	—	—	—	—	—	—	—	—	—	—	—	5.0	6.1	2	1.0	3.1	94	100	110																						
																						7.5	9.0	2	1.0	3.1	90	100	100														
																						—	—	—	90	100	100																
																						—	—	—	90	100	100																
																						—	—	—	90	100	100																
																						2	1.0	3.1	98	100	110																

ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
024	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
024	208/230	187	253	22.4	184.0	22.4	184.0	22.4	184.0	4.0	1/4	1.5	56/75	156/180	5.0	16.7/15.2	—	—	—	183/205	200/225	200/225
															2	1.0	5.9	198/220	200/225	225/250		
															—	—	—	193/214	200/225	225/250		
															7.5	24.2/22.0	2	1.0	5.9	207/229	225/250	225/250

See Legend and Notes on page 10.

Table 2B — Electrical Data (Units With Optional Convenience Outlet) (cont)

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE									
				No. 1		No. 2		No. 3																							
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA									
028	208/230	187	253	47.1	245.0	47.1	245.0	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	144/142	175/175	150/150									
																							2	1.0	5.9	156/154	200/200	175/175			
																							—	—	—	151/148	175/175	175/175			
																							10.0	30.8/28.0	2	1.0	5.9	163/160	200/200	175/175	
																							—	—	—	144/142	175/175	150/150			
																							—	—	—	151/148	175/175	175/175			
		19/25	52/ 60	—	—	—	—	—	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	144/142	175/175	150/150								
																								2	1.0	5.9	156/154	200/200	175/175		
																								—	—	—	151/148	175/175	175/175		
																								10.0	30.8/28.0	2	1.0	5.9	163/160	200/200	175/175
																								—	—	—	144/142	175/175	150/150		
																								—	—	—	151/148	175/175	175/175		
	38/50	104/120	—	—	—	—	—	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	144/142	175/175	150/175									
																							2	1.0	5.9	181/169	200/200	175/200			
																							—	—	—	175/161	175/175	175/175			
																							10.0	30.8/28.0	2	1.0	5.9	190/176	200/200	175/200	
																							—	—	—	144/142†	175/175†	150/150†			
																							—	—	—	151/148†	175/175†	175/175†			
	56/75†	156/180	—	—	—	—	—	—	—	6.0	1/4	1.5	—	—	7.5	24.2/22.0	—	—	—	144/142†	175/175†	150/150†									
																							2	1.0	5.9	156/154†	200/200†	175/175†			
																							—	—	—	151/148†	175/175†	175/175†			
																							10.0	30.8/28.0	2	1.0	5.9	163/160†	200/200†	175/175†	
																							—	—	—	144/142†	175/175†	150/150†			
																							—	—	—	151/148†	175/175†	175/175†			
460	414	506	19.6	125.0	19.6	125.0	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	62	80	70										
																						2	1.0	3.1	69	80	70				
																						—	—	—	65	80	70				
																						10.0	14.0	2	1.0	3.1	72	90	80		
																						—	—	—	62	80	70				
																						—	—	—	69	80	70				
	25	30	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	62	80	70										
																						2	1.0	3.1	69	80	70				
																						—	—	—	65	80	70				
																						10.0	14.0	2	1.0	3.1	72	90	80		
																						—	—	—	62	80	70				
																						—	—	—	69	80	70				
50	60	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	78	80	90											
																					2	1.0	3.1	85	90	90					
																					—	—	—	81	90	90					
																					10.0	14.0	2	1.0	3.1	89	100	100			
																					—	—	—	108	125	125					
																					—	—	—	115	125	125					
75	90	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	11.0	—	—	—	108	125	125											
																					2	1.0	3.1	115	125	125					
																					—	—	—	111	125	125					
																					10.0	14.0	2	1.0	3.1	119	125	150			
																					—	—	—	52	60	60					
																					—	—	—	58	70	60					
575	518	633	15.8	100.0	15.8	100.0	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	52	60	60										
																						2	1.0	3.1	58	70	60				
																						—	—	—	54	60	60				
																						10.0	11.0	2	1.0	3.1	60	70	70		
																						—	—	—	52	60	60				
																						—	—	—	58	70	60				
	25	24	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	52	60	60										
																						2	1.0	3.1	58	70	60				
																						—	—	—	54	60	60				
																						10.0	11.0	2	1.0	3.1	60	70	70		
																						—	—	—	52	60	60				
																						—	—	—	58	70	60				
48	46	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	73	80	70											
																					2	1.0	3.1	80	90	80					
																					—	—	—	75	80	70					
																					10.0	11.0	2	1.0	3.1	83	90	80			
																					—	—	—	90	100	100					
																					—	—	—	98	100	110					
78	75	—	—	—	—	—	—	6.0	1/4	0.7	—	—	7.5	9.0	—	—	—	90	100	100											
																					2	1.0	3.1	98	100	110					
																					—	—	—	93	100	100					
																					10.0	11.0	2	1.0	3.1	100	110	110			
																					—	—	—	90	100	100					
																					—	—	—	98	100	110					

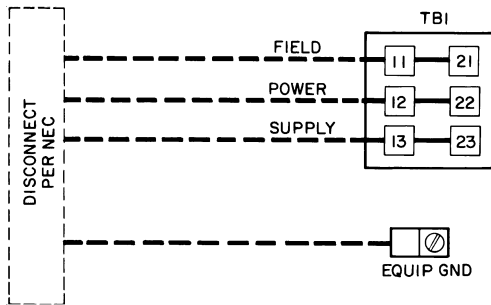
ELECTRIC HEAT BRANCH CIRCUIT FOR 208/240-V 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE
				No. 1		No. 2		No. 3														
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA
028	208/240	187	253	NA	NA	NA	NA	NA	NA	NA	NA	56/75	156/180	NA	NA	NA	NA	NA	156/180	175/200	200/225	

FEEDER CIRCUIT FOR 208/230-V UNIT WITH 75-kW ELECTRIC HEAT

UNIT SIZE 50HG	NOMINAL VOLTAGE (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			ELECTRIC HEAT		IFM		POWER EXHAUST			POWER SUPPLY		DISCONNECT SIZE						
				No. 1		No. 2		No. 3																				
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	kW	FLA	Hp	FLA	Qty	Hp	FLA (ea)	MCA	MOCP*	FLA						
028	208/230	187	253	47.1	245.0	47.1	245.0	—	—	6.0	1/4	1.5	56/75	156/180	7.5	24.2/22.0	—	—	—	193/214	200/225	225/250						
																							2	1.0	5.9	207/229	225/250	225/250
																							—	—	—	201/221	225/225	225/250
																							10.0	30.8/28.0	2	1.0	5.9	216/236

See Legend and Notes on page 10.



LEGEND

- EQUIP** — Equipment
- GND** — Ground
- NEC** — National Electrical Code
- TB** — Terminal Board

NOTE: The maximum wire size for TB1 is 2/0.

Fig. 12 — Field Power Wiring Connections

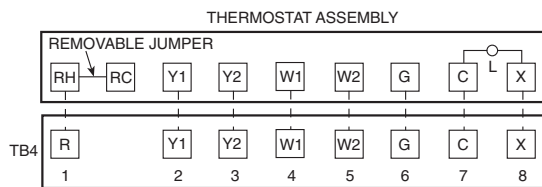
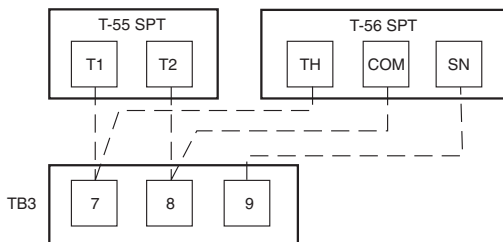


Fig. 13 — Field Control Thermostat Wiring



SPT — Space Temperature Sensor

Fig. 14 — Field Control Space Temperature Sensor Wiring

Set heat anticipator settings as shown in Table 3.

Table 3 — Heat Anticipator Settings

UNIT SIZE 50HG	ELECTRIC HEAT (kW)	STAGE 1 (W1) ON			STAGES 1 AND 2 (W1 and W2) ON		
		Voltage			Voltage		
		208/240	480	600	208/240	480	600
014	15	0.2	0.2	0.2	0.2	0.2	0.2
	25	0.2	0.2	0.2	0.4	0.4	0.4
	50	0.4	0.2	0.2	0.8	0.4	0.4
016-028	25	0.2	0.2	0.2	0.4	0.4	0.4
	50	0.4	0.2	0.2	0.8	0.4	0.4
	75	0.4	0.2	0.2	0.8	0.4	0.4

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

Step 8 — Install Outdoor Air Hood — Perform the following procedure to install the outdoor-air hood:

1. Remove blank panel from return end of unit (hood section). Save the screws. See Fig. 15 for shipping location of components.
2. Hood sides are fastened to sides of outdoor air opening. Remove the hood sides and save the screws (3 each side).

3. Remove the bracket holding the bottom half of the hood in the shipping position. Remove the hood bottom half and filters (or manual dampers on units so equipped) from outdoor section.

NOTE: On units without economizers, the components are attached to the unit basepan. To access the components, remove the panel below the outdoor air intake section.

4. Remove inner filter track from shipping position in outdoor section. Position inner filter track so the track is facing outward from the unit. Install the filter track with 4 screws provided.
5. Apply seal strip (provided) to back flange of both hood sides where hood side connects to the unit back panel. See Fig. 16.
6. Apply seal strip (provided) to top flange of both hood sides where hood sides connect to the hood top panels. See Fig. 16.
7. Install hood sides to the back panels using the screws from Step 2. The sloped flanges point outward. The drip edges of the side panels should face outward as well. The filter guides should face inward to hold the filters in place. See Fig. 16.
8. Apply seal strip along the entire length of the bottom flange of the hood top. See Fig. 16.
9. Install the bottom part of the hood top using 4 screws provided. See Fig. 16.
10. Remove the packaging from filters (3) and install into the filter tracks. Slide the filters to the sides then place the last filter into the center of the filter track.

NOTE: For units with manual dampers, replace the end filters with the manual dampers. Install the filter in the center between the manual dampers.

11. Install the filter retainer track along the bottom edge of the outdoor air hood using 4 screws provided. See Fig. 16.
12. Install top section of the outdoor air hood using 9 screws provided. See Fig. 16. See Fig. 17 for a picture of the assembled outdoor air hood.

NOTE: For filter removal, remove the four screws holding the filter retainer. The filters can then be removed, cleaned, or replaced. Install the filters by reversing the procedure.

MANUAL DAMPER ASSEMBLY — For units equipped with manual dampers, the assembly process is similar to the outdoor air hood for units with economizers. There are two slide dampers shipped with the unit to allow for manual setting of the outside air volume. When assembling the hood, place one of the manual slide dampers in each of the end positions and the remaining filter in the center position. The manual dampers can then be moved to the appropriate position and then locked into place using the screws mounted in the adjustment slots. See Fig. 18.

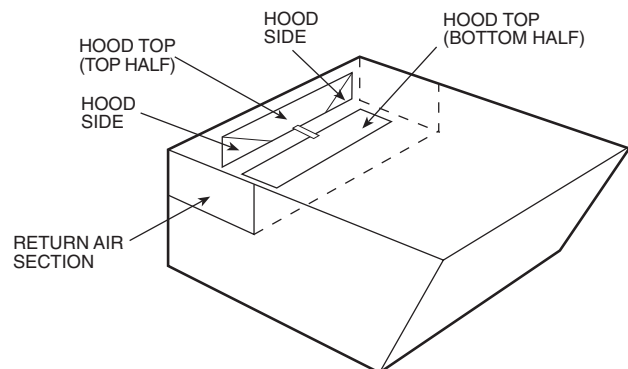
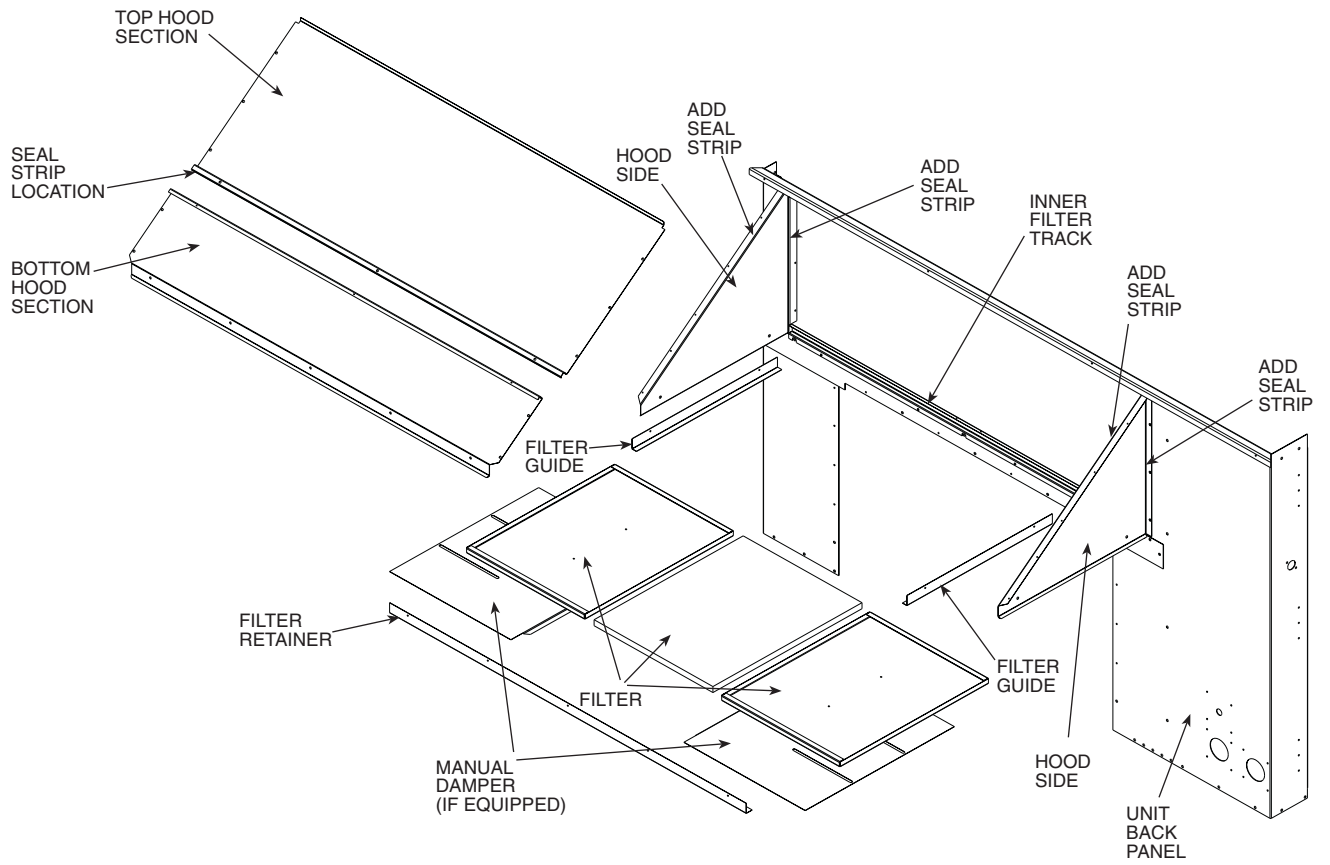


Fig. 15 — Outdoor-Air Hood Compartment Shipping Location



NOTE: Units with manual damper only use one filter.

Fig. 16 — Outdoor Air Hood Details

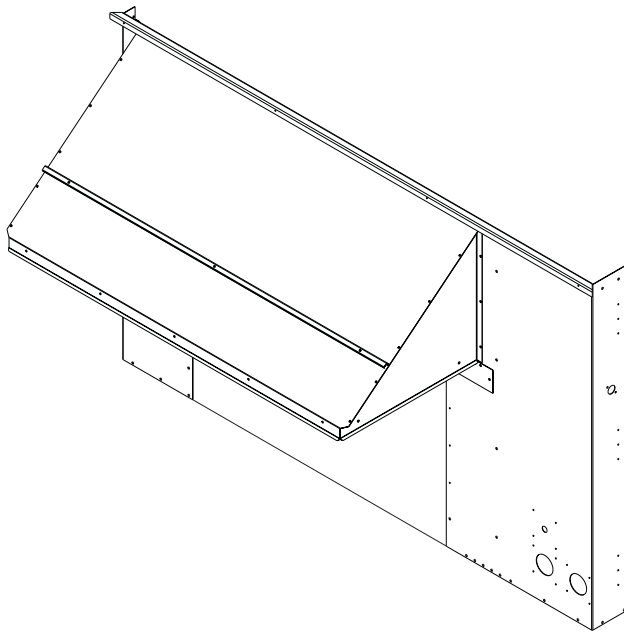


Fig. 17 — Outdoor Air Hood Assembled

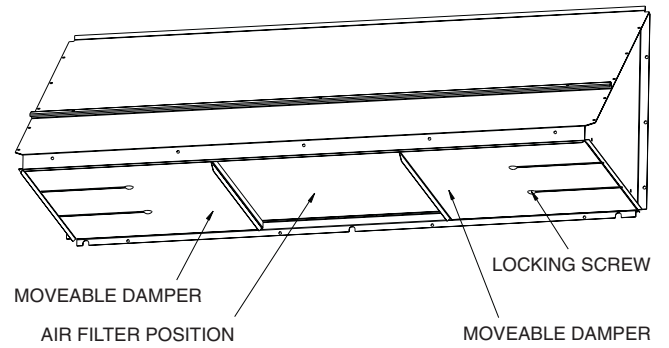


Fig. 18 — Manual Damper Details

Step 9 — Position Optional Power Exhaust or Barometric Relief Damper Hood

— The optional power exhaust or barometric relief dampers are shipped assembled and tilted back into the unit for shipping. Brackets and extra screws are shipped in shrink wrap around the dampers.

1. Remove 9 screws holding each damper assembly in place. See Fig. 19. Each damper assembly is secured with 3 screws on each side and 3 screws along the bottom. Save screws.

⚠ CAUTION

Be careful when tilting blower assembly. Hoods and blowers are heavy and can cause injury if dropped.

2. Pivot the damper assembly outward until top edge of damper assembly rests against inside wall of unit.
3. Secure each damper assembly to unit with 6 screws across top (3 screws provided) and bottom (3 screws from Step 1) of damper.
4. With screws saved from Step 1, install brackets on each side of damper assembly. See Fig. 20.
5. Remove tape from damper blades.

Step 10 — Non-Fused Disconnect — The handle for the factory-installed non-fused disconnect is shipped inside the unit to prevent the handle from damage during shipping. Follow these steps to complete installation of the handle.

⚠ WARNING

BE SURE POWER IS SHUT OFF TO THE UNIT FROM THE BUILDING POWER SUPPLY.

1. Open the control box access door.
2. Remove the small cover plate located on the unit corner post near the control section.
3. Remove the inner control box cover. The handle and shaft are located in a plastic bag at the bottom of the control box.
4. Insert the square shaft into the disconnect with the pins vertical. On the 100 amp disconnect the shaft is keyed into the disconnect and can only be installed one way with the pins vertical.
5. Insert the handle through the corner post and onto the shaft with the handle positioned so that “OFF” is on top.
6. Rotate the handle to the “ON” position to lock the pins into the handle.
7. From the inside of the corner post, attach the handle mounting screws to the handle. Slide the shaft fully into the handle and tighten the set screws(s) on the disconnect to lock the shaft. Tighten the screws that attach the handle to the corner post.
8. Rotate the handle back to the “OFF” position.
9. Replace all panels and doors.
10. Restore power to unit.

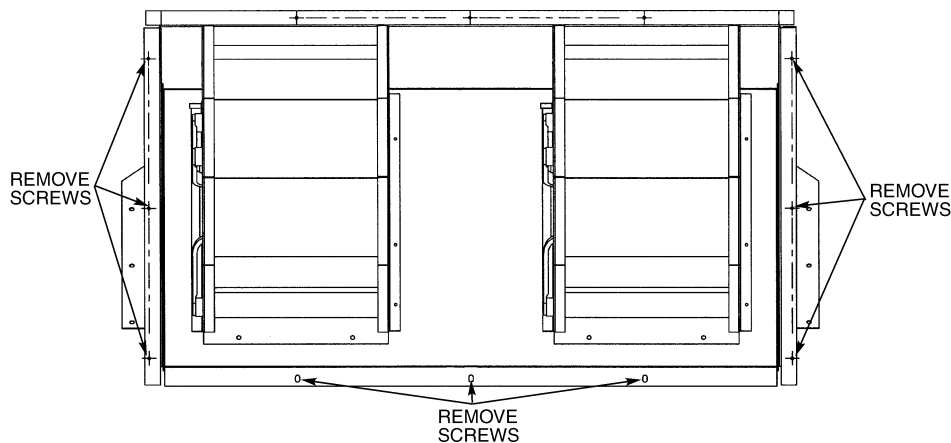


Fig. 19 — Power Exhaust or Barometric Relief Damper Mounting Details

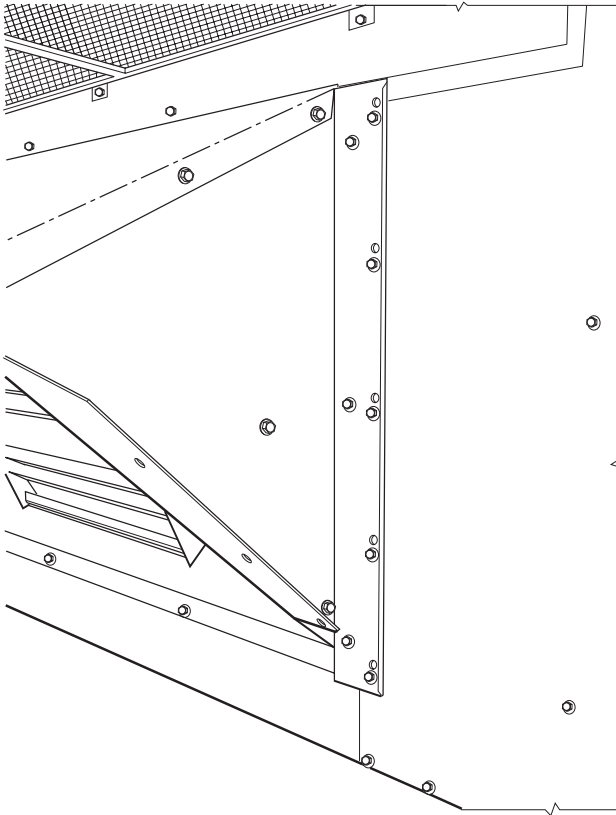


Fig. 20 — Bracket and Hood Positioning

Step 11 — 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. The available field-installed accessories for the Centurion units are:

- economizer
- power exhaust
- barometric relief damper
- 14-in. roof curb
- 24-in. roof curb
- electric heaters
- enthalpy control
- differential enthalpy control
- plugged filter indicator
- carbon dioxide detector
- smoke detector
- filter status switch
- fan status switch
- condenser hail guard
- horizontal duct accessory
- thermostats
- two-position damper

