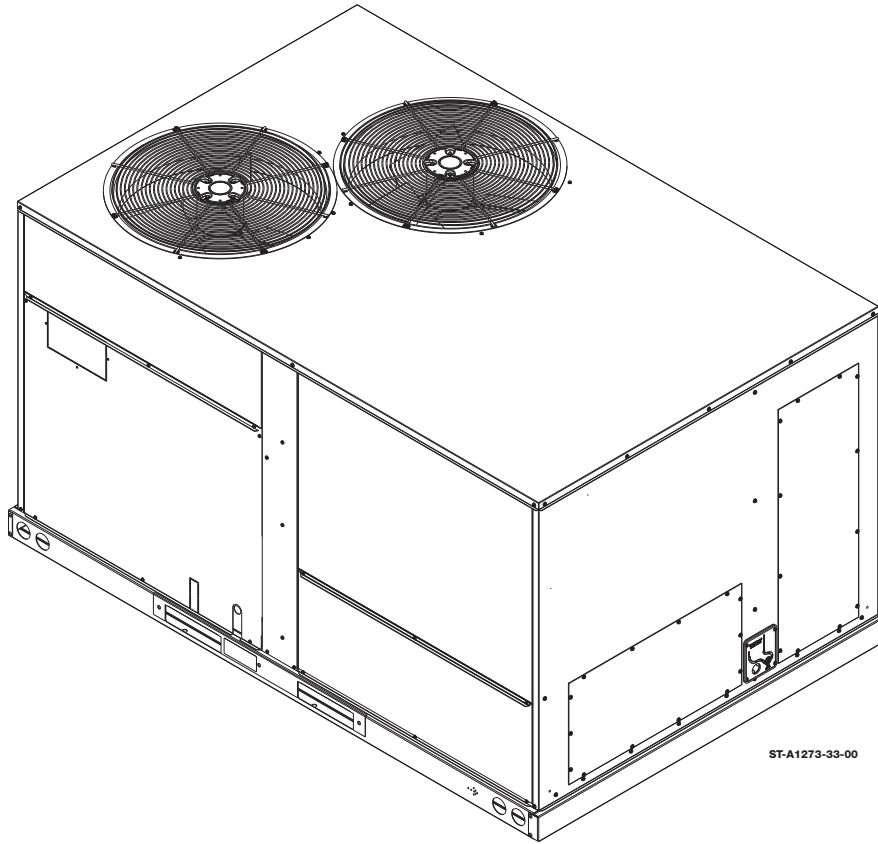


# INSTALLATION INSTRUCTIONS

PACKAGE AIR CONDITIONERS FEATURING INDUSTRY STANDARD

R410A REFRIGERANT ~~R-410A~~

RACD SERIES 7.5, 8.5, 10.0 AND 12.5 TON [26.4, 29.9, 35.2 AND 44.0 kW]  
60 HZ MODELS



Recognize this symbol as an indication of Important Safety Information!

**DO NOT DESTROY**  
**PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE**  
**FOR FUTURE REFERENCE.**



## ⚠ WARNING

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED, LICENSED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THIS UNIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



[ ] Designates Metric Conversions

92-106168-01-01

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## NOTICE

### BREAK-IN PERIOD

PRIOR TO AGENCY TESTING, RUN THE COMPRESSOR FOR 16 HOURS AT 115°F OUTDOOR AMBIENT TEMPERATURE AND 80° DRY BULB/75° WET BULB INDOOR AMBIENT TEMPERATURE.

## NOTICE

### EFFICIENCY TESTING NOTICE

FOR PURPOSES OF VERIFYING OR TESTING EFFICIENCY RATINGS, THE TEST PROCEDURE IN TITLE 10 PART 431 APPENDIX A TO SUBPART F (UNIFORM TEST METHOD FOR MEASURING THE ENERGY CONSUMPTION OF SMALL, LARGE, AND VERY LARGE COMMERCIAL PACKAGE AIR CONDITIONING AND HEATING EQUIPMENT), AND THE CLARIFYING PROVISIONS PROVIDED IN THE AHRI OPERATIONS MANUALS FOR UNITARY LARGE EQUIPMENT 340/360, 365 THAT WERE APPLICABLE AT THE DATE OF MANUFACTURE SHOULD BE USED FOR TEST SET UP AND PERFORMANCE.

# I. SAFETY INFORMATION

## WARNING

THE MANUFACTURER'S WARRANTY DOES NOT COVER ANY DAMAGE OR DEFECT TO THE AIR CONDITIONER CAUSED BY THE ATTACHMENT OR USE OF ANY COMPONENTS, ACCESSORIES OR DEVICES (OTHER THAN THOSE AUTHORIZED BY THE MANUFACTURER) INTO, ONTO OR IN CONJUNCTION WITH THE AIR CONDITIONER. YOU SHOULD BE AWARE THAT THE USE OF UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES MAY ADVERSELY AFFECT THE OPERATION OF THE AIR CONDITIONER AND MAY ALSO ENDANGER LIFE AND PROPERTY. THE MANUFACTURER DISCLAIMS ANY RESPONSIBILITY FOR SUCH LOSS OR INJURY RESULTING FROM THE USE OF SUCH UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES.

## WARNING

DISCONNECT ALL POWER TO THE UNIT BEFORE STARTING MAINTENANCE. FAILURE TO DO SO CAN RESULT IN SEVERE ELECTRICAL SHOCK OR DEATH.

## CAUTION

R-410A systems operate at higher pressures than R-22 systems. Do not use R-22 service equipment or components on R-410A equipment.

## WARNING

DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT RETURN DUCTWORK TO ANY OTHER HEAT PRODUCING DEVICE SUCH AS A FIREPLACE INSERT, STOVE, ETC. UNAUTHORIZED USE OF SUCH DEVICES MAY RESULT IN FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.

## WARNING

THE UNIT MUST BE PERMANENTLY GROUNDED. A GROUNDING LUG IS PROVIDED IN THE ELECTRIC HEAT ACCESS AREA FOR A GROUND WIRE. FAILURE TO GROUND THIS UNIT CAN RESULT IN FIRE OR ELECTRICAL SHOCK CAUSING PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.

## WARNING

ONLY ELECTRIC HEATER KITS SUPPLIED BY THIS MANUFACTURER AS DESCRIBED IN THIS PUBLICATION HAVE BEEN DESIGNED, TESTED, AND EVALUATED FOR USE WITH THIS UNIT. USE OF ANY OTHER MANUFACTURED ELECTRIC HEATERS INSTALLED WITHIN THIS UNIT MAY CAUSE HAZARDOUS CONDITIONS RESULTING IN PROPERTY DAMAGE, FIRE, BODILY INJURY OR DEATH.

## WARNING

**THE MANUFACTURER'S WARRANTY DOES NOT COVER ANY DAMAGE OR DEFECT TO THE AIR CONDITIONER CAUSED BY THE ATTACHMENT OR USE OF ANY COMPONENTS, ACCESSORIES OR DEVICES (OTHER THAN THOSE AUTHORIZED BY THE MANUFACTURER) INTO, ONTO OR IN CONJUNCTION WITH THE AIR CONDITIONER. YOU SHOULD BE AWARE THAT THE USE OF UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES MAY ADVERSELY AFFECT THE OPERATION OF THE AIR CONDITIONER AND MAY ALSO ENDANGER LIFE AND PROPERTY. THE MANUFACTURER DISCLAIMS ANY RESPONSIBILITY FOR SUCH LOSS OR INJURY RESULTING FROM THE USE OF SUCH UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES.**

## II. INTRODUCTION

This booklet contains the installation and operating instructions for your air conditioner. There are a few precautions that should be taken to derive maximum satisfaction from it. Improper installation can result in unsatisfactory operation or dangerous conditions.

Read this booklet and any instructions packaged with separate equipment required to make up the system prior to installation. Give this booklet to the owner and explain its provisions. The owner should retain this booklet for future reference.

## III. CHECKING PRODUCT RECEIVED

Upon receiving the unit, inspect it for any damage from shipment. Claims for damage, either shipping or concealed, should be filed immediately with the shipping company. Check the unit model number, heating size, electrical characteristics, and accessories to determine if they are correct.

## IV. EQUIPMENT PROTECTION FROM THE ENVIRONMENT

The metal parts of this unit may be subject to rust or deterioration in adverse environmental conditions. This oxidation could shorten the equipment's useful life. Salt spray, fog or mist in seacoast areas, sulphur or chlorine from lawn watering systems, and various chemical contaminants from industries such as paper mills and petroleum refineries are especially corrosive.

**If the unit is to be installed in an area where contaminants are likely to be a problem, special attention should be given to the equipment location and exposure.**

1. Avoid having lawn sprinkler heads spray direction on the unit cabinet.
2. In coastal areas, locate the unit on the side of the building away from the waterfront.
3. Shielding provided by a fence or shrubs may give some protection.

**Regular maintenance will reduce the buildup of contaminants and help to protect the unit's finish.**

## WARNING

**DISCONNECT ALL POWER TO THE UNIT BEFORE STARTING MAINTENANCE. FAILURE TO DO SO CAN RESULT IN SEVERE ELECTRICAL SHOCK OR DEATH.**

1. Frequent washing of the cabinet, fan blade and coil with fresh water will remove most of the salt or other contaminants that build up on the unit.
2. Regular cleaning and waxing of the cabinet with a good automobile polish will provide some protection.
3. A good liquid cleaner may be used several times a year to remove matter that will not wash off with water.

Several different types of protective coatings are offered in some areas. These coatings may provide some benefit, but the effectiveness of such coating materials cannot be verified by the equipment manufacturer.

**The best protection is frequent cleaning, maintenance and minimal exposure to contaminants.**

## V. SPECIFICATIONS

### A. GENERAL

The Packaged Air Conditioners are available without heat or with 10, 15, 20, 30, or 40 kW electric heat. Cooling capacities of 7.5, 8.5, 10 or 12.5 nominal tons of cooling are available. Units are convertible from horizontal supply and return to bottom supply and return by relocation of supply and return air access panels. See cover installation detail.

The units are weatherized for mounting outside of the building.

The information on the rating plate is in compliance with the FTC and DOE rating for single phase units. The following information is for three phase units which **are not** covered under the DOE certification program.

1. The efficiency rating of this unit is a product thermal efficiency rating determined under continuous operating conditions independent of any installed system.

## B. MAJOR COMPONENTS

The typical unit includes a hermetically-sealed refrigerating system (consisting of a compressor, condenser coil, evaporator coil with thermal expansion valve), a circulation air blower, a condenser fan, and all necessary internal electrical wiring. The cooling system of these units are factory-evacuated, charged and performance tested. Refrigerant amount and type are indicated on rating plate.

## C. R-410A REFRIGERANT

All units are factory charged with R-410A refrigerant.

1. Specification of R-410A:

**Application:** R-410A is not a drop-in replacement for R-22; equipment designs must accommodate its higher pressures. It cannot be retrofitted into R-22 units.

**Pressure:** The pressure of R-410A is approximately 60% (1.6 times) greater than R-22. Recovery and recycle equipment, pumps, hoses and the like need to have design pressure ratings appropriate for R-410A. *Manifold sets need to range up to 800 psig high-side and 250 psig low-side with a 550 psig low-side retard. Hoses need to have a service pressure rating of 800 psig. Recovery cylinders need to have a 400 psig service pressure rating. DOT 4BA400 or DOT BW400.*

**Combustibility:** At pressures above 1 atmosphere, mixture of R-410A and air can become combustible. R-410A and air should never be mixed in tanks or supply lines, or be allowed to accumulate in storage tanks. Leak checking should never be done with a mixture of R-410A and air. Leak checking can be performed safely with nitrogen or a mixture of R-410A and nitrogen.

2. Quick Reference Guide For R-410A

- R-410A refrigerant operates at approximately 60% higher pressure (1.6 times) than R-22. Ensure that servicing equipment is designed to operate with R-410A.
- R-410A refrigerant cylinders are pink.
- R-410A, as with other HFC's is only compatible with POE oils.
- Vacuum pumps will not remove moisture from POE oil.
- R-410A systems are to be charged with liquid refrigerants. Prior to March 1999, R-410A refrigerant cylinders had a dip tube. These cylinders should be kept upright for equipment charging. Post March 1999 cylinders do not have a dip tube and should be inverted to ensure liquid charging of the equipment.
- Do not install a suction line filter drier in the liquid line.
- A liquid line filter drier is standard on every unit.
- Desiccant (drying agent) must be compatible for POE oils and R-410A.

3. Evaporator Coil / Expansion Device

The expansion device is specifically designed to operate with R-410A. **DO NOT use an R-22 device. The existing evaporator must be replaced with the factory specified evaporator specifically designed for R-410A.**

4. Tools Required For Installing & Servicing R-410A Models

Manifold Sets:

- Up to 800 PSIG High side
- Up to 250 PSIG Low Side
- 550 PSIG Low Side Retard

Manifold Hoses:

- Service Pressure Rating of 800 PSIG

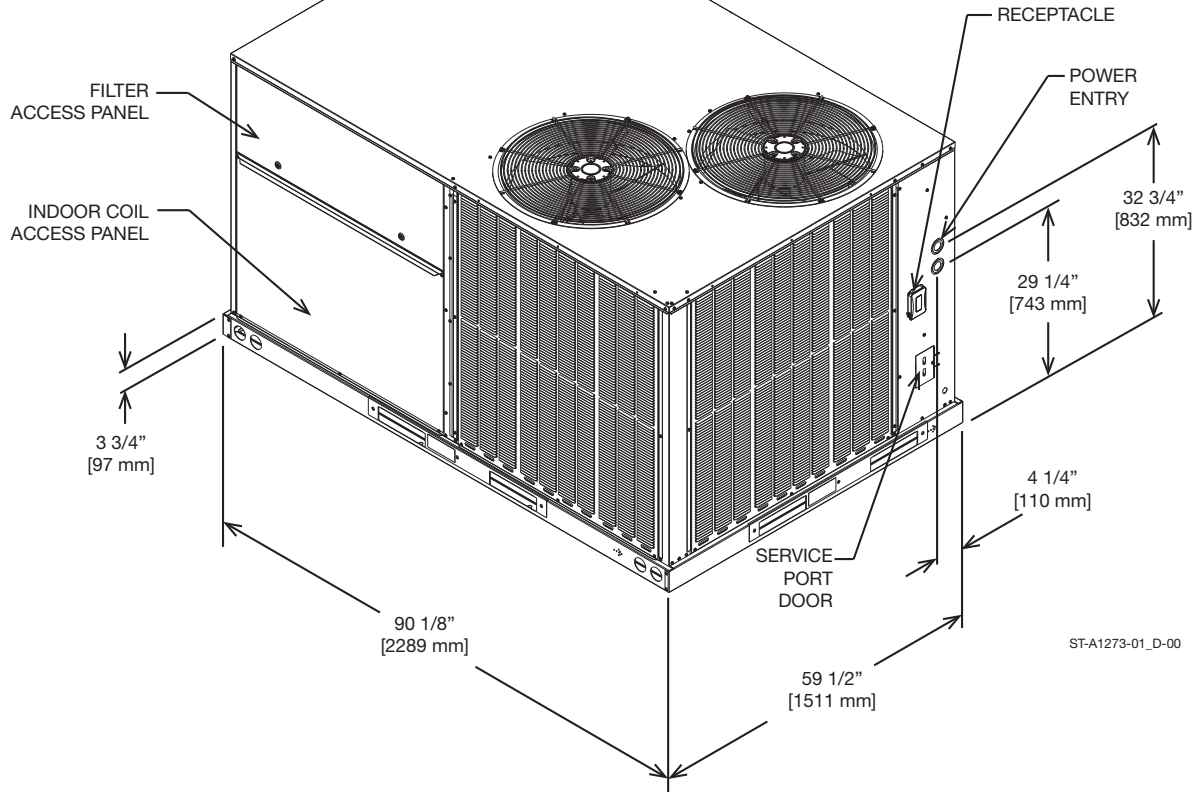
Recovery Cylinders:

- 400 PSIG Pressure Rating
- Dept. of Transportation 4BA400 or BW400

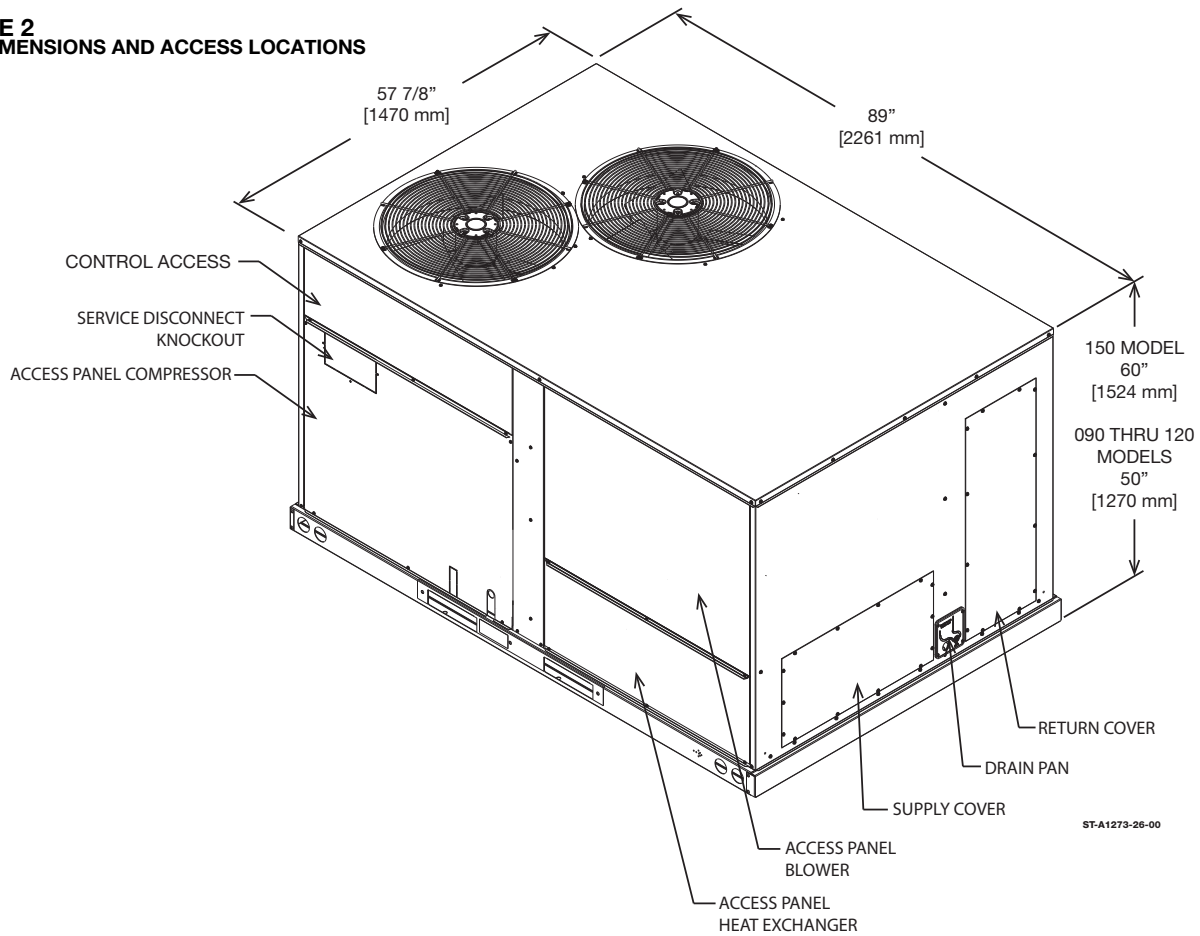
### CAUTION

R-410A systems operate at higher pressures than R-22 systems. Do not use R-22 service equipment or components on R-410A equipment.

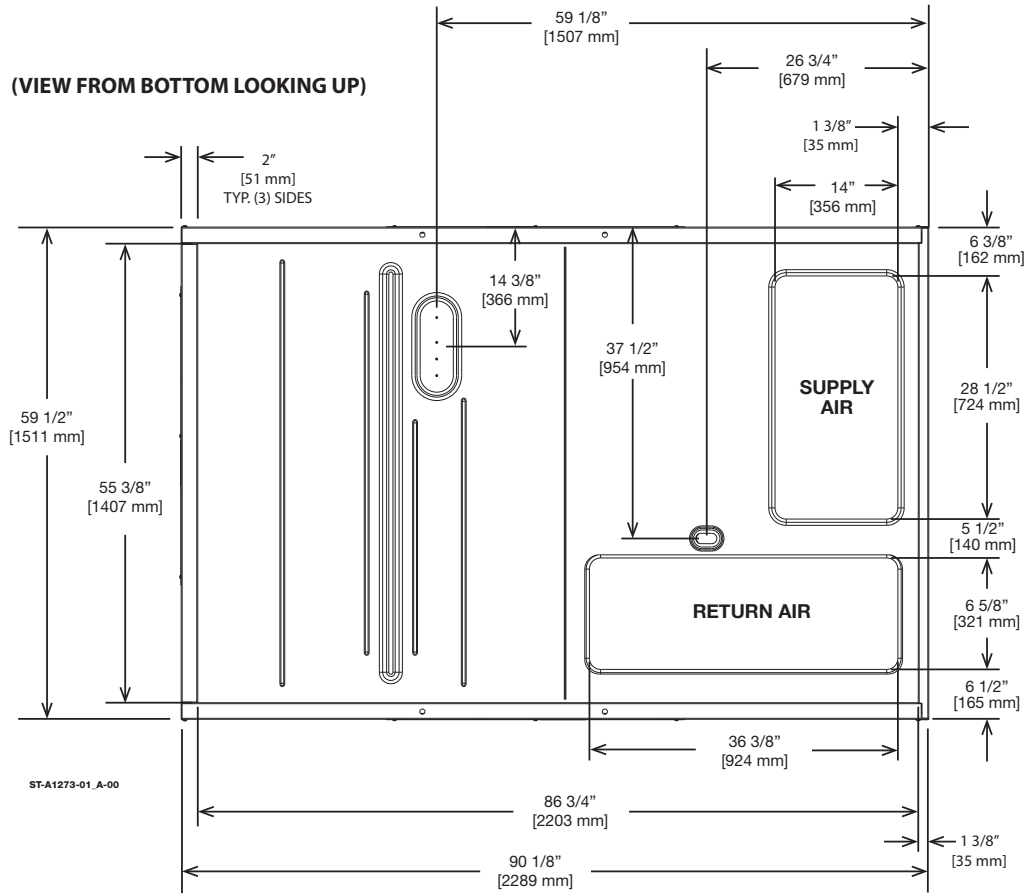
**FIGURE 1  
UNIT DIMENSIONS AND ACCESS LOCATIONS**



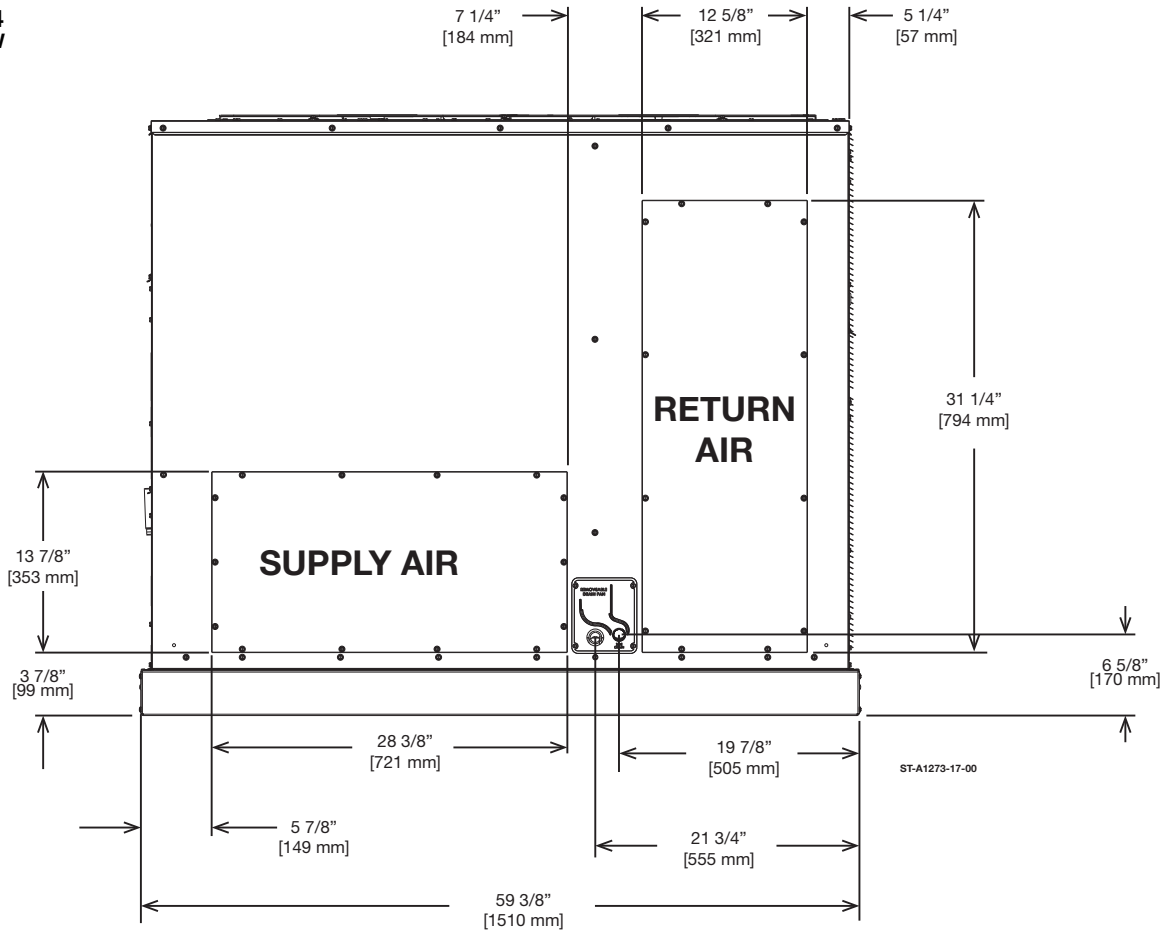
**FIGURE 2  
UNIT DIMENSIONS AND ACCESS LOCATIONS**



**FIGURE 3  
BOTTOM VIEW**



**FIGURE 4  
REAR VIEW**



# GENERAL DATA - ACDZR MODELS

## NOM. SIZES 7.5-12.5 TON [26.4 - 44.0 kW]

Model RACDZR Series	ZR090A*****A	ZR102A*****A	ZR120A*****A
	ZR series	ZR series	ZR series
<b>Cooling Performance<sup>1</sup></b>			
Gross Cooling Capacity Btu [kW]	88,000 [25.78]	99,000 [29.01]	118,000 [34.57]
EER/SEER <sup>2</sup>	11.2/NA	11.2/NA	11.2/NA
Nominal CFM/AHRI Rated CFM [L/s]	3000/3175 [1416/1498]	3400/3200 [1604/1510]	4000/3480 [1888/1642]
AHRI Net Cooling Capacity Btu [kW]	85,000 [24.9]	96,000 [28.13]	114,000 [33.4]
Net Sensible Capacity Btu [kW]	62,700 [18.37]	68,300 [20.01]	80,600 [23.62]
Net Latent Capacity Btu [kW]	22,300 [6.53]	27,700 [8.12]	33,400 [9.79]
IEER <sup>3</sup>	12.9	12.9	12.9
Net System Power kW	7.53	8.51	9.86
<b>Compressor</b>			
No./Type	1/Scroll	1/Scroll	1/Scroll
No. Stages	1	1	1
<b>Outdoor Sound Rating (dB)<sup>5</sup></b>			
	88	88	88
<b>Outdoor Coil - Fin Type</b>			
Tube Type	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.81 [20.6]	1 [25.4]
Face Area sq. ft. [sq. m]	25.4 [2.36]	25.6 [2.38]	25.6 [2.38]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil - Fin Type</b>			
Tube Type	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	11 [1.02]	10.9 [1.01]	10.9 [1.01]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
<b>Outdoor Fan - Type</b>			
Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM [L/s]	8000 [3775]	8000 [3775]	8500 [4011]
No. Motors/HP	2 at 1/5 HP	2 at 1/5 HP	2 at 1/3 HP
Motor RPM	820	820	1075
<b>Indoor Fan - Type</b>			
FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]
Drive Type	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single
No. Motors	1	1	1
Motor RPM	1725	1725	1725
Motor Frame Size	56	56	56
<b>Filter - Type</b>			
Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]
<b>Refrigerant Charge Oz. [g]</b>			
	100 [2835]	117 [3317]	136 [3856]
<b>Weights</b>			
Net Weight lbs. [kg]	736 [334]	762 [346]	791 [359]
Ship Weight lbs. [kg]	775 [352]	801 [363]	830 [376]

# GENERAL DATA - ACDZS MODELS

## NOM. SIZES 7.5-12.5 TON [26.4 - 44.0 kW]

Model RACDZS Series	ZS090A*****A	ZS102A*****A	ZS120A*****A	ZS150A*****A
	ZS series	ZS series	ZS series	ZS series
<b>Cooling Performance<sup>1</sup></b>				
Gross Cooling Capacity Btu [kW]	88,000 [25.78]	99,000 [29.01]	118,000 [34.57]	148,000 [43.36]
EER/SEER <sup>2</sup>	11.2/NA	11.2/NA	11.2/NA	11/NA
Nominal CFM/AHRI Rated CFM [L/s]	3000/3175 [1416/1498]	3400/3225 [1604/1522]	4000/3480 [1888/1642]	5000/4150 [2360/1958]
AHRI Net Cooling Capacity Btu [kW]	85,000 [24.9]	96,000 [28.13]	114,000 [33.4]	142,000 [41.61]
Net Sensible Capacity Btu [kW]	62,700 [18.37]	68,300 [20.01]	79,600 [23.32]	98,600 [28.89]
Net Latent Capacity Btu [kW]	22,300 [6.53]	27,700 [8.12]	34,400 [10.08]	43,400 [12.72]
IEER <sup>3</sup>	12.9	12.9	12.9	12.4
Net System Power kW	7.35	8.46	9.83	13.69
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	2/Tandem Scroll
No. Stages	2	2	2	2
<b>Outdoor Sound Rating (dB)<sup>5</sup></b>				
	88	88	88	88
<b>Outdoor Coil - Fin Type</b>				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.71 [18]	0.81 [20.6]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	25.4 [2.36]	25.6 [2.38]	25.6 [2.38]	31.5 [2.93]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil - Fin Type</b>				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1.26 [32]	1.26 [32]	1 [25.4]
Rows / FPI [FPcm]	11 [1.02]	10.9 [1.01]	10.9 [1.01]	13.8 [1.28]
Refrigerant Control	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	2 / 18 [7]
Drain Connection No./Size in. [mm]	TX Valves	TX Valves	TX Valves	TX Valves
	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.5 [12.7]
<b>Outdoor Fan - Type</b>				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	8000 [3775]	8000 [3775]	8500 [4011]	9000 [4247]
Motor RPM	2 at 1/5 HP	2 at 1/5 HP	2 at 1/3 HP	2 at 3/4 HP
	820	820	1075	1100
<b>Indoor Fan - Type</b>				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]
No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Motors	Single	Single	Single	Single
Motor RPM	1	1	1	1
Motor Frame Size	1725	1725	1725	1725
	56	56	56	56
<b>Filter - Type</b>				
Furnished	Disposable	Disposable	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes	Yes	Yes
	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x20x25 [51x508x635]
<b>Refrigerant Charge Oz. [g]</b>				
	100 [2835]	117 [3317]	136 [3856]	186 [5273]
<b>Weights</b>				
Net Weight lbs. [kg]	736 [334]	762 [346]	791 [359]	993 [450]
Ship Weight lbs. [kg]	775 [352]	801 [363]	830 [376]	1032 [468]

# GENERAL DATA - ACDZT MODELS

## NOM. SIZES 7.5-12.5 TON [26.4 - 44.0 kW]

Model RACDZT Series	ZT090A*****A	ZT102A*****A	ZT120A*****A	ZT150A*****A
	ZT series	ZT series	ZT series	ZT series
<b>Cooling Performance<sup>1</sup></b>				
Gross Cooling Capacity Btu [kW]	88,000 [25.78]	99,000 [29.01]	118,000 [34.57]	148,000 [43.36]
EER/SEER <sup>2</sup>	11.2/NA	11.2/NA	11.2/NA	11/NA
Nominal CFM/AHRI Rated CFM [L/s]	3000/3175 [1416/1498]	3400/3225 [1604/1522]	4000/3480 [1888/1642]	5000/4150 [2360/1958]
AHRI Net Cooling Capacity Btu [kW]	85,000 [24.9]	96,000 [28.13]	114,000 [33.4]	142,000 [41.61]
Net Sensible Capacity Btu [kW]	62,700 [18.37]	68,300 [20.01]	79,600 [23.32]	98,600 [28.89]
Net Latent Capacity Btu [kW]	22,300 [6.53]	27,700 [8.12]	34,400 [10.08]	43,400 [12.72]
IEER <sup>3</sup>	14.8	14.8	14.8	14.2
Net System Power kW	7.35	8.46	10.49	13.69
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	2/Tandem Scroll
No. Stages	2	2	2	2
<b>Outdoor Sound Rating (dB)<sup>5</sup></b>				
	88	88	88	88
<b>Outdoor Coil - Fin Type</b>				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.71 [18]	0.81 [20.6]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	25.4 [2.36]	25.6 [2.38]	25.6 [2.38]	31.5 [2.93]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil - Fin Type</b>				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1.26 [32]	1.26 [32]	1 [25.4]
Rows / FPI [FPcm]	11 [1.02]	10.9 [1.01]	10.9 [1.01]	13.8 [1.28]
Refrigerant Control	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	2 / 18 [7]
Drain Connection No./Size in. [mm]	TX Valves	TX Valves	TX Valves	TX Valves
	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [12.7]
<b>Outdoor Fan - Type</b>				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	8000 [3775]	8000 [3775]	8500 [4011]	9000 [4247]
Motor RPM	2 at 1/5 HP	2 at 1/5 HP	2 at 1/3 HP	2 at 3/4 HP
	820	820	1075	1100
<b>Indoor Fan - Type</b>				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]
No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Motors	Single	Single	Single	Single
Motor RPM	1	1	1	1
Motor Frame Size	1725	1725	1725	1725
	56	56	56	56
<b>Filter - Type</b>				
Furnished	Disposable	Disposable	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes	Yes	Yes
	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x20x25 [51x508x635]
<b>Refrigerant Charge Oz. [g]</b>				
	100 [2835]	117 [3317]	136 [3856]	186 [5273]
<b>Weights</b>				
Net Weight lbs. [kg]	736 [334]	762 [346]	791 [359]	993 [450]
Ship Weight lbs. [kg]	775 [352]	801 [363]	830 [376]	1032 [468]

# ELECTRICAL DATA - ACDZR

ELECTRICAL DATA - -ACDZR SERIES					
		090ACA	090ACB 090ACC	090ADA	090ADB 090ADC
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	41	43	21	23
	Minimum Overcurrent Protection Device Size	50	50	25	30
	Maximum Overcurrent Protection Device Size	60	60	30	35
Compressor Motor	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	RPM	3450	3450	3450	3450
	HP, Compressor 1	7	7	7	7
	Amps (RLA), Comp. 1	25	25	12.8	12.8
	Amps (LRA), Comp. 1	164	164	100	100
	HP, Compressor 2				
	Amps (RLA), Comp. 2				
	Amps (LRA), Comp. 2				
Condenser Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	0.8	0.8
	Amps (LRA, each)	2.3	2.3	1.4	1.4
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	2	3	2	3
	Amps (FLA, each)	6.6	9.1	3.3	4.6
	Amps (LRA, each)	47	74.5	22.5	38.1

# ELECTRICAL DATA - ACDZR

ELECTRICAL DATA - ACDZR SERIES							
		102ACA	102ACB	102ACC	102ADA	102ADB	102ADC
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	44	46	49	22	23	24
	Minimum Overcurrent Protection Device Size	60	60	60	25	30	30
	Maximum Overcurrent Protection Device Size	70	70	70	30	35	35
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	209/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
	Amps (RLA), Comp. 1	27.6	27.6	27.6	12.8	12.8	12.8
	Amps (LRA), Comp. 1	191	191	191	100	100	100
	HP, Compressor 2						
	Amps (RLA), Comp. 2						
	Amps (LRA), Comp. 2						
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460	460
	Phase	1	1	1	1	1	1
	HP	1/5	1/5	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	1.2	0.8	0.8	0.8
	Amps (LRA, each)	2.3	2.3	2.3	1.4	1.4	1.4
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	HP	2	3	3	2	3	3
	Amps (FLA, each)	7.1	9.1	12	3.5	4.6	6
	Amps (LRA, each)	45	74.5	74.5	22.5	38.1	38.1

# ELECTRICAL DATA - ACDZR

ELECTRICAL DATA - -ACDZR SERIES							
		120ACA	120ACB	120ACC	120ADA	120ADB	120ADC
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	48	51	53	26	27	28
	Minimum Overcurrent Protection Device Size	60	60	60	30	30	35
	Maximum Overcurrent Protection Device Size	70	70	80	35	40	40
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	10	10	10	10	10	10
	Amps (RLA), Comp. 1	28.2	28.2	28.2	14.7	14.7	14.7
	Amps (LRA), Comp. 1	239	239	239	130	130	130
	HP, Compressor 2						
	Amps (RLA), Comp. 2						
	Amps (LRA), Comp. 2						
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460	460
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	2.4	1.4	1.4	1.4
	Amps (LRA, each)	4.7	4.7	4.7	2.4	2.4	2.4
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	HP	2	3	3	2	3	3
	Amps (FLA, each)	7.9	10.1	12	3.9	5	6
	Amps (LRA, each)	45	74.5	74.5	22.5	38.1	38.1

# ELECTRICAL DATA - ACDZS

ELECTRICAL DATA - ACDZS SERIES					
		090ACA 090ACF	090ACB 090ACG 090ACH 090ACC	090ADA 090ADF	090ADB 090ADC 090ADG 090ADH
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	41	44	17	19
	Minimum Overcurrent Protection Device Size	50	50	20	25
	Maximum Overcurrent Protection Device Size	60	60	25	25
Compressor Motor	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	RPM	3450	3450	3450	3450
	HP, Compressor 1	7	7	7	7
	Amps (RLA), Comp. 1	25.3	25.3	9.6	9.6
	Amps (LRA), Comp. 1	184	184	84	84
	HP, Compressor 2				
	Amps (RLA), Comp. 2				
	Amps (LRA), Comp. 2				
Condenser Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	0.8	0.8
	Amps (LRA, each)	2.3	2.3	1.4	1.4
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	2	3	2	3
	Amps (FLA, each)	6.6	9.1	3.2	9.1
	Amps (LRA, each)	22.5	74.5	22.5	38.1

# ELECTRICAL DATA - ACDZS

ELECTRICAL DATA --ACDZS SERIES								
		102ACA 102ACF	102ACB 102ACG	102ACC 102ACH	102ADA 102ADF	102ADB 102ADG	102ADC	102ADH
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	460	460
	Phase	3	3	3	3	3	3	3
	Hz	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	46	48	51	21	22	24	24
	Minimum Overcurrent Protection Device Size	60	60	60	25	25	30	30
	Maximum Overcurrent Protection Device Size	70	70	70	30	30	35	35
Compressor Motor	No.	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460	460
	Phase	3	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
	Amps (RLA), Comp. 1	28.8	28.8	28.8	12.5	12.5	12.5	12.5
	Amps (LRA), Comp. 1	191	191	191	100	100	100	100
	HP, Compressor 2							
	Amps (RLA), Comp. 2							
	Amps (LRA), Comp. 2							
Condenser Motor	No.	2	2	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460	460	460
	Phase	1	1	1	1	1	1	1
	HP	1/5	1/5	1/5	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	1.2	0.8	0.8	0.8	0.8
	Amps (LRA, each)	2.3	2.3	2.3	1.4	1.4	1.4	1.4
Evaporator Fan	No.	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460	460
	Phase	3	3	3	3	3	3	3
	HP	2	3	3	2	3	3	3
	Amps (FLA, each)	7.1	9.1	12	3.5	9.1	9.1	12
	Amps (LRA, each)	45	74.5	74.5	22.5	38.1	38.1	38.1

# ELECTRICAL DATA - ACDZS

ELECTRICAL DATA - -ACDZS SERIES							
		120ACA 120ACF	120ACB 120ACG	120ACC 120ACH	120ADA 120ADF	120ADB 120ADG	120ADC 120ADH
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	54	56	58	26	32	34
	Minimum Overcurrent Protection Device Size	70	70	70	30	40	40
	Maximum Overcurrent Protection Device Size	80	80	90	40	45	45
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	10	10	10	10	10	10
	Amps (RLA), Comp. 1	32.6	32.6	32.6	14.8	14.8	14.8
	Amps (LRA), Comp. 1	240	240	240	130	130	130
	HP, Compressor 2						
	Amps (RLA), Comp. 2						
	Amps (LRA), Comp. 2						
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460	460
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	2.4	1.4	1.4	1.4
	Amps (LRA, each)	4.7	4.7	4.7	2.4	2.4	2.4
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	HP	2	3	3	2	3	3
	Amps (FLA, each)	7.9	10.1	12	3.9	10.1	12
	Amps (LRA, each)	45	74.5	74.5	22.5	38.1	38.1

# ELECTRICAL DATA - ACDZS

ELECTRICAL DATA - ACDZS SERIES						
		150ACA	150ACB 150ACG	150ACF	150ADA 150ADF	150ADB 150ADG
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	208/230	460	460
	Phase	3	3	3	3	3
	Hz	60	60	60	60	60
	Minimum Circuit Ampacity	51	75	70	34	37
	Minimum Overcurrent Protection Device Size	60	90	80	40	40
	Maximum Overcurrent Protection Device Size	70	90	90	40	45
Compressor Motor	No.	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460
	Phase	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450
	HP, Compressor 1	6	6	6	6	6
	Amps (RLA), Comp. 1	25	25	25	12.8	12.8
	Amps (LRA), Comp. 1	164	164	164	100	100
	HP, Compressor 2	0	0	0	0	0
	Amps (RLA), Comp. 2	25	25	25	12.8	12.8
	Amps (LRA), Comp. 2	164	164	164	100	100
Condenser Motor	No.	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460
	Phase	1	1	1	1	1
	HP	3/4	3/4	3/4	3/4	3/4
	Amps (FLA, each)	4.2	4.2	4.2	2.3	2.3
	Amps (LRA, each)					
Evaporator Fan	No.	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460
	Phase	3	3	3	3	3
	HP	3	5	3	3	5
	Amps (FLA, each)	10.4	16	10.4	5.2	8
	Amps (LRA, each)	74.5	82	74.5	38.1	41

# ELECTRICAL DATA - ACDZT

ELECTRICAL DATA - ACDZT SERIES					
		090ACF	090ACG 090ACH	090ADF	090ADG 090ADH
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	41	44	21	21
	Minimum Overcurrent Protection Device Size	50	50	20	30
	Maximum Overcurrent Protection Device Size	60	60	25	30
Compressor Motor	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	RPM	3450	3450	3450	3450
	HP, Compressor 1	7	7	7	7
	Amps (RLA), Comp. 1	25.3	25.3	9.6	9.6
	Amps (LRA), Comp. 1	184	184	84	84
	HP, Compressor 2				
	Amps (RLA), Comp. 2				
	Amps (LRA), Comp. 2				
Condenser Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	0.8	0.8
	Amps (LRA, each)	2.3	2.3	1.4	1.4
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	2	3	2	3
	Amps (FLA, each)	6.6	9.1	3.2	9.1
	Amps (LRA, each)	22.5	74.5	22.5	38.1

# ELECTRICAL DATA - ACDZT

ELECTRICAL DATA - ACDZT SERIES							
		102ACF	102ACG	102ACH	102ADF	102ADG	102ADH
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	46	48	51	21	22	30
	Minimum Overcurrent Protection Device Size	60	60	60	25	30	35
	Maximum Overcurrent Protection Device Size	70	70	70	30	35	40
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
	Amps (RLA), Comp. 1	28.8	28.8	28.8	12.5	12.5	12.5
	Amps (LRA), Comp. 1	191	191	191	100	100	100
	HP, Compressor 2						
	Amps (RLA), Comp. 2						
	Amps (LRA), Comp. 2						
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460	460
	Phase	1	1	1	1	1	1
	HP	1/5	1/5	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	1.2	0.8	0.8	0.8
	Amps (LRA, each)	2.3	2.3	2.3	1.4	1.4	1.4
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	HP	2	3	3	2	3	3
	Amps (FLA, each)	7	9.1	12	3.5	9.1	12
	Amps (LRA, each)	45	74.5	74.5	22.5	38.1	38.1

# ELECTRICAL DATA - ACDZT

ELECTRICAL DATA - ACDZT SERIES							
		120ACF	120ACG	120ACH	120ADF	120ADG	120ADH
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	54	56	58	26	32	34
	Minimum Overcurrent Protection Device Size	70	70	70	30	40	40
	Maximum Overcurrent Protection Device Size	80	80	90	40	45	45
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	10	10	10	10	10	10
	Amps (RLA), Comp. 1	32.6	32.6	32.6	14.8	14.8	14.8
	Amps (LRA), Comp. 1	240	240	240	130	130	130
	HP, Compressor 2						
	Amps (RLA), Comp. 2						
	Amps (LRA), Comp. 2						
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460	460
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	2.4	1.4	1.4	1.4
	Amps (LRA, each)	4.7	4.7	4.7	2.4	2.4	2.4
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3
	HP	2	3	3	2	3	3
	Amps (FLA, each)	7.9	10.1	12	3.9	10.1	12
	Amps (LRA, each)	45	74.5	74.5	22.5	38.1	38.1

# ELECTRICAL DATA - ACDZT

ELECTRICAL DATA - -ACDZT SERIES					
		150ACF	150ACG	150ADF	150ADG
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	51	56	26	29
	Minimum Overcurrent Protection Device Size	60	70	30	35
	Maximum Overcurrent Protection Device Size	70	80	35	40
Compressor Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	RPM	3450	3450	3450	3450
	HP, Compressor 1	6	6	6	6
	Amps (RLA), Comp. 1	25	25	12.8	12.8
	Amps (LRA), Comp. 1	164	164	100	100
	HP, Compressor 2	0	0	0	0
	Amps (RLA), Comp. 2	25	25	12.8	12.8
	Amps (LRA), Comp. 2	164	164	100	100
Condenser Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	3/4	3/4	3/4	3/4
	Amps (FLA, each)	4.2	4.2	2.3	2.3
	Amps (LRA, each)				
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	3	5	3	5
	Amps (FLA, each)	10.4	16	5.2	8
	Amps (LRA, each)	74.5	82	38.1	41

# VI. INSTALLATION

## A. GENERAL

### 1. PRE-INSTALLATION CHECK-POINTS

Before attempting any installation, the following points should be carefully considered:

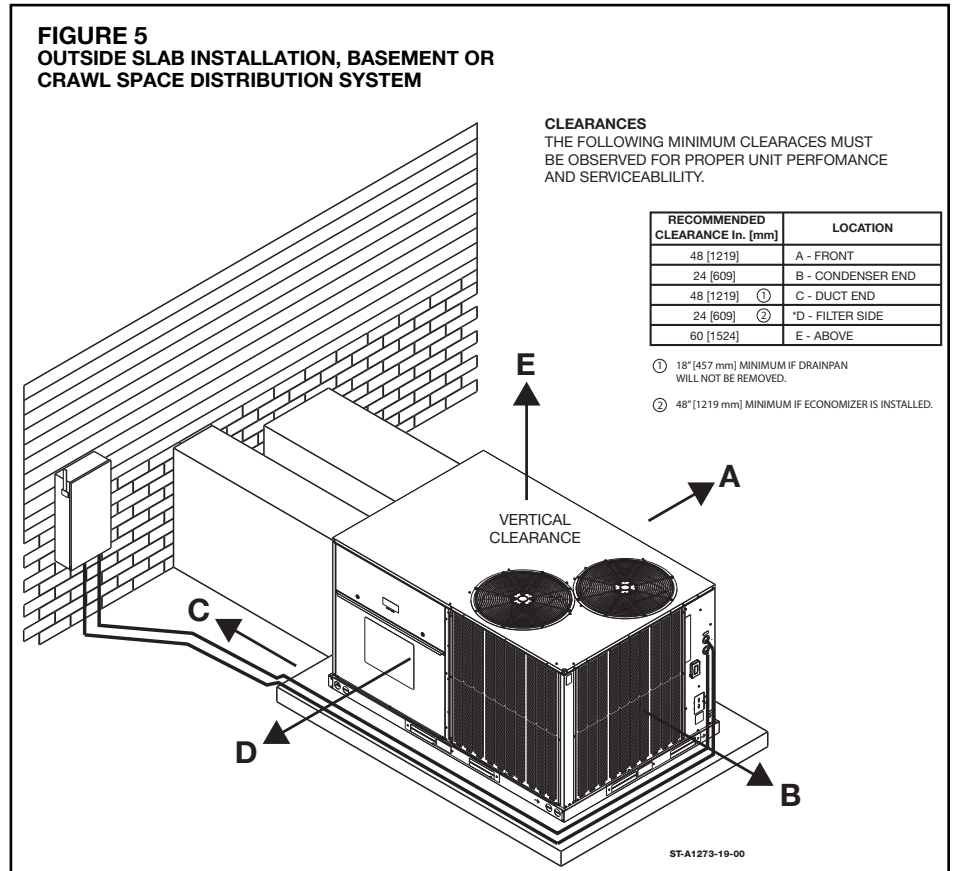
- a. Structural strength of supporting members.  
(rooftop installation)
- b. Clearances and provision for servicing.
- c. Power supply and wiring.
- d. Air duct connections.
- e. Drain facilities and connections.
- f. Location for minimum noise.

### 2. LOCATION

These units are designed for outdoor installations. They can be mounted on a slab or rooftop. They are not to be installed within any part of a structure such as an attic, crawl space, closet, or any other place where condenser air flow is restricted or other than outdoor ambient conditions prevail. Since the application of the units is of the outdoor type, it is important to consult your local code authorities at the time the first installation is made.

## B. OUTSIDE SLAB INSTALLATION (Typical outdoor slab installations are shown in Figure 5.)

1. Select a location where external water drainage cannot collect around the unit.
2. Provide a level concrete slab extending 3" [76.2 mm] beyond all four sides of the unit. The slab should be sufficient above grade to prevent ground water from entering the unit. **IMPORTANT:** To prevent transmission of noise or vibration, slab should not be connected to building structure.



- The location of the unit should be such as to provide proper access for inspection and servicing.
- Locate unit where operating sounds will not disturb owner or neighbors.
- Locate unit so roof runoff water does not pour directly on the unit. Provide gutter or other shielding at roof level. Do not locate unit in an area where excessive snow drifting may occur or accumulate.

### C. CLEARANCES

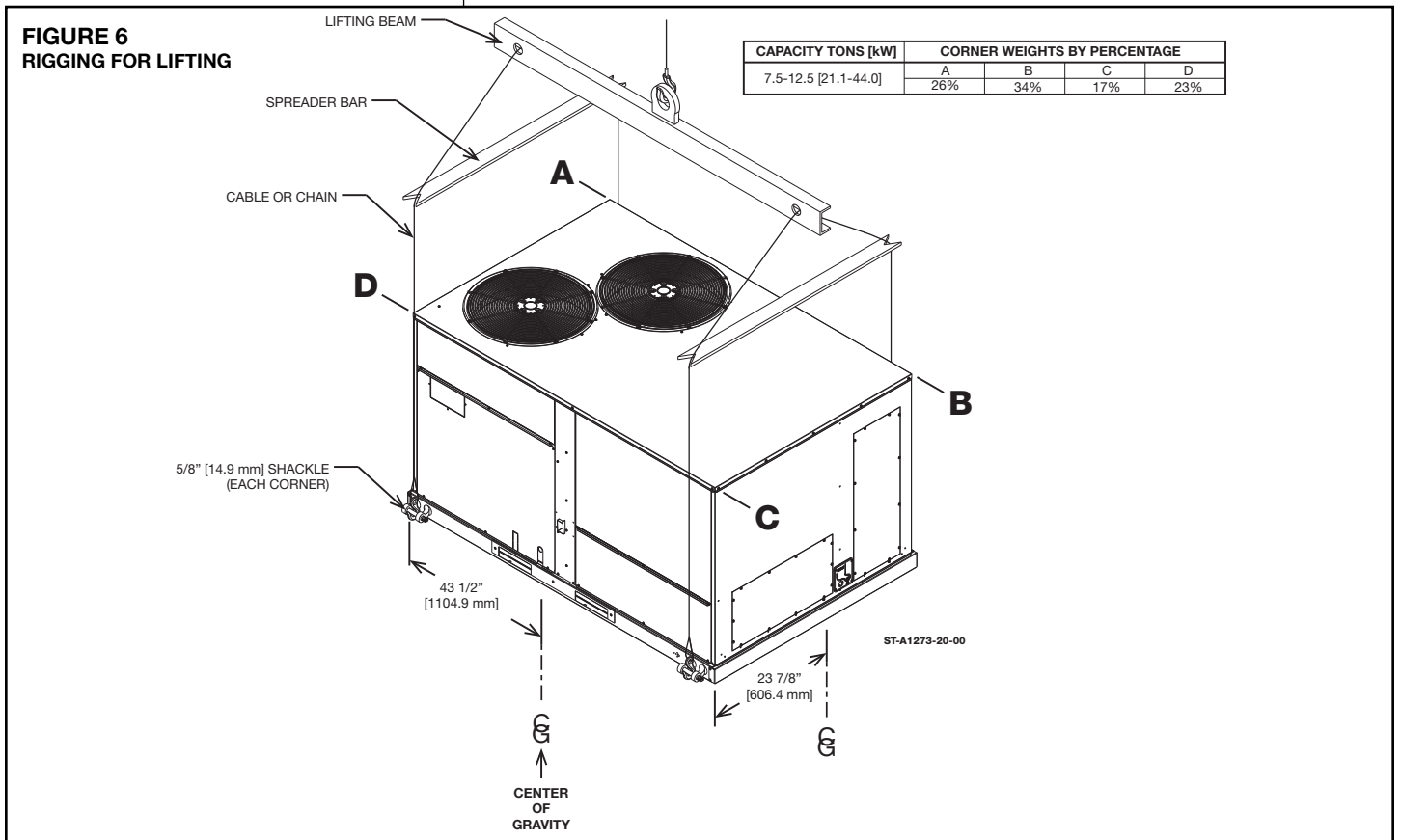
The following minimum clearances must be observed for proper unit performance and serviceability.

- Unit is design certified for application on combustible flooring with 0" [0 mm] minimum clearance.
- See Figure 5 for illustration of minimum installation-service clearances.

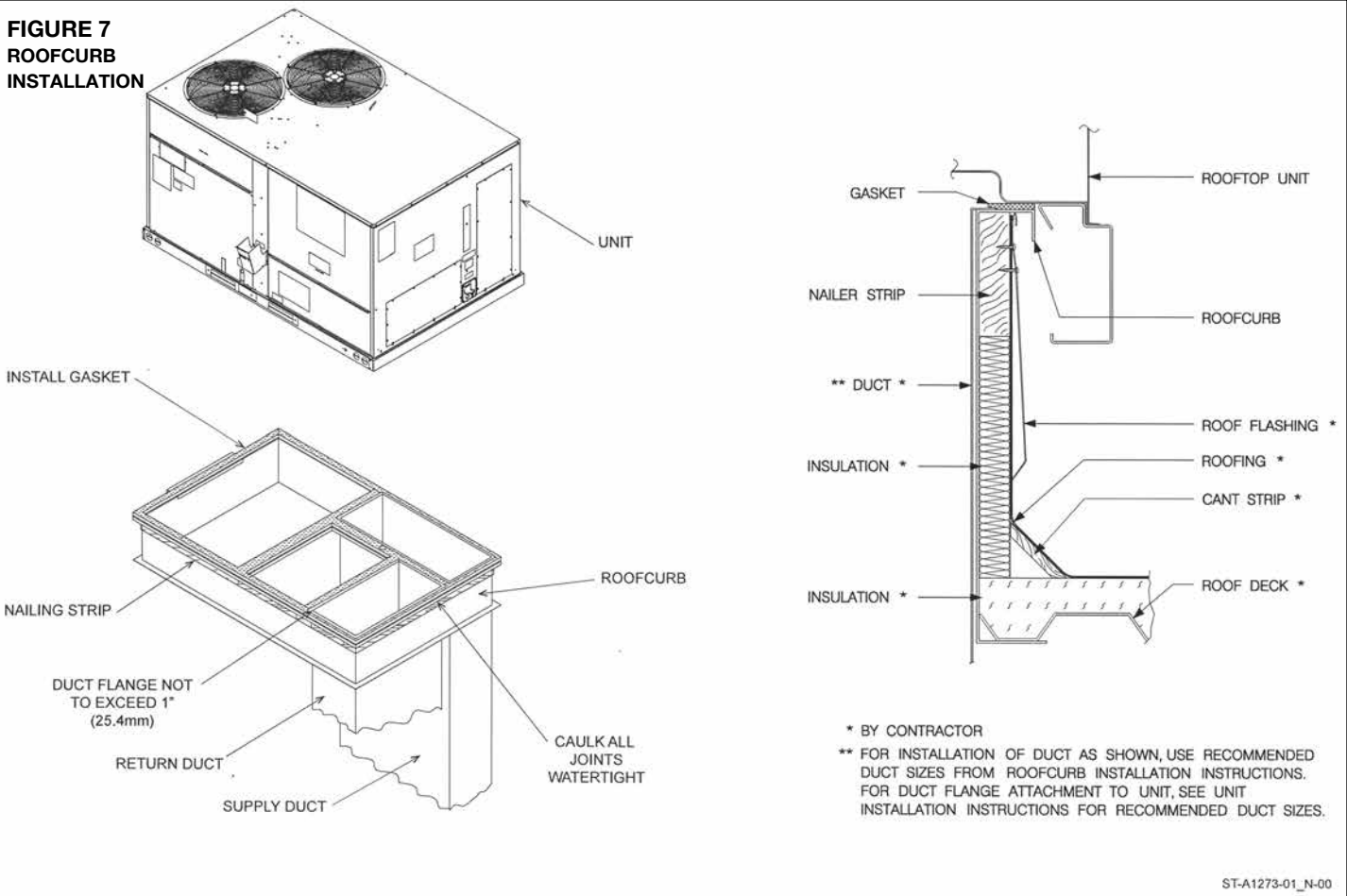
### D. ROOFTOP INSTALLATION

- Before locating the unit on the roof, make sure that the strength of the roof and beams is adequate at that point to support the weight involved. **This is very important and user's responsibility.**
- For rigging and roofcurb details, see Figures 6 and 7. Use field-furnished spreaders.
- For roofcurb assembly, see Roofcurb Installation Instructions.
- If the roofcurb is not used, provisions for disposing of condensate water runoff must be provided.
- The unit should be placed on a solid and level roofcurb or platform of adequate strength. See Figure 7.
- The location of the unit on the roof should be such as to provide proper access for inspection and servicing.

**IMPORTANT:** If unit will not be put into service immediately, cover supply and return openings to prevent excessive condensation.



**FIGURE 7  
ROOFCURB  
INSTALLATION**



## VII. DUCTWORK

Ductwork should be fabricated by the installing contractor in accordance with local codes and NFPA90A. Industry manuals may be used as a guide when sizing and designing the duct system - contact Air Conditioning Contractors of America, 1513 16th St. N.W., Washington, D.C. 20036.

### **⚠ WARNING**

**DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT RETURN DUCTWORK TO ANY OTHER HEAT PRODUCING DEVICE SUCH AS A FIREPLACE INSERT, STOVE, ETC. UNAUTHORIZED USE OF SUCH DEVICES MAY RESULT IN FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.**

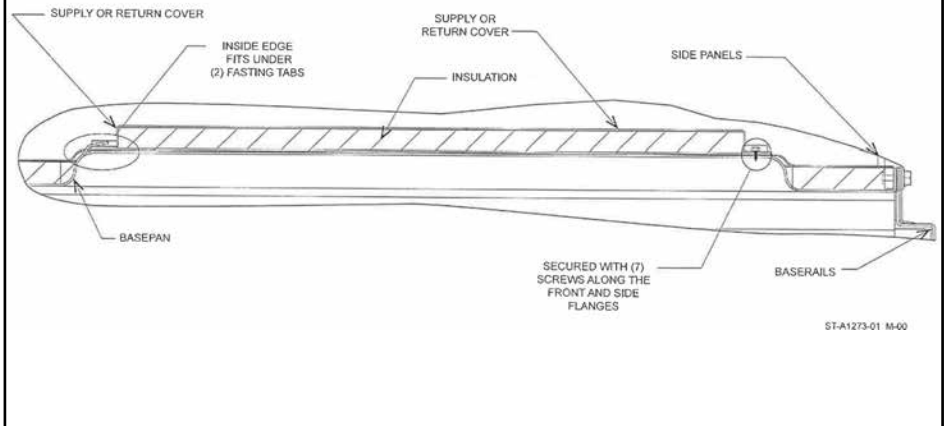
The unit should be placed as close to the space to be air conditioned as possible allowing clearance dimensions as indicated. Ducts should be run as directly as possible to supply and return outlets. Use of non-flammable waterproof flexible connectors on both supply and return connections at the unit to reduce noise transmission is recommended.

It is preferable to install the unit on the roof of the structure if the registers or diffusers are located on the wall or in the ceiling. A slab installation could be considered when the registers are low on a wall or in the floor.

On ductwork exposed to outside air conditions of temperature and humidity, use a minimum of 2" [50.8 mm] of insulation and a vapor barrier. Distribution system in attic, furred space or crawl space should be insulated with at least 2" [50.8 mm] of insulation with vapor barrier. One-half to 1" [25.4 mm] thickness of insulation is usually sufficient for ductwork inside the air conditioned space.

Balancing dampers should be provided for each branch duct in the supply system. Ductwork should be properly supported from the structure.

**FIGURE 8  
COVER GASKET DETAIL**



When installing ductwork, consider the following items:

1. Noncombustible flexible connectors should be used between ductwork and unit to reduce noise and vibration transmission into the ductwork.
2. When auxiliary heaters are installed, use noncombustible flexible connectors and clearance to combustible material of 0" [0 mm] for the first 3 feet [.91 m] of discharge duct. Clearance to unit top and side is 0" [0 mm].

## VIII. FILTERS

This unit is provided with 4 - 2" x 20" x 20" [51mm x 508 mm x 508 mm] disposable filters. When replacing filters, ensure they are inserted fully to the back to prevent bypass.

## IX. CONVERSION PROCEDURE DOWNFLOW TO HORIZONTAL

1. Remove the screws and covers from the outside of the supply and return sections.
2. Install the covers over the bottom supply and return openings, painted side up inserting the leading flange under the bracket provided. Place the back flange to the top of the front bracket provided. See Figure 8.
3. Secure the return and supply cover to the bottom openings with screws.

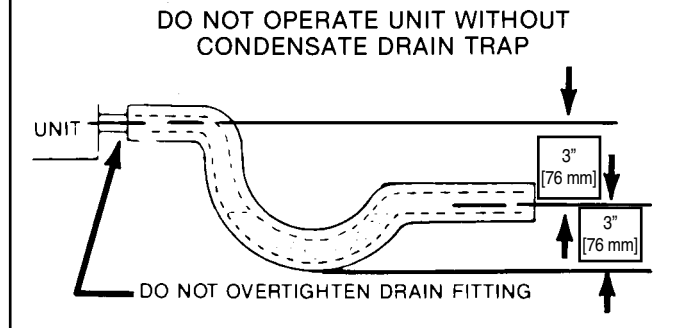
## X. CONDENSATE DRAIN

**IMPORTANT: Install a condensate trap to ensure proper condensate drainage. See Figure 9.**

The condensate drain pan has a threaded female  $\frac{3}{4}$  inch NPT female connection. Consult local codes or ordinances for specific requirements of condensate drain piping and disposal.

- To use the removable drain pan feature of this unit, some of the condensate line joints should be assembled for easy removal and cleaning.
- Use a thin layer of Teflon tape or paste on drain pan connections and install only hand tight.
- Do not over tighten drain pan connections as damage to the drain pan may occur.

**FIGURE 9  
CONDENSATE DRAIN**



- Drain line **MUST NOT** block service access panels.
- Drain line must be no smaller than drain pan outlet and adequately sized to accommodate the condensate discharge from the unit.
- Drain line should slope away from unit a minimum of 1/8" per foot to ensure proper drainage.
- Drain line must be routed to an acceptable drain or outdoors in accordance with local codes.
- Do not connect condensate drain line to a closed sewer pipe.
- Drain line may need insulation or freeze protection in certain applications.

## **XI. ELECTRICAL WIRING**

Field wiring must comply with the National Electrical Code (CEC in Canada) and local ordinances that may apply.

### **A. POWER WIRING**

1. This unit incorporates dual point electrical connections for the unit and electric heat accessory. A single point wiring accessory kit is available for field installation.
2. It is important that proper electrical power is available to the unit. Voltage should not vary more than 10% from the values marked on the unit rating plate. Phase voltages must be balanced within 3%.
3. Install a branch circuit disconnect within sight of the unit. See Figure 15. Use the unit rating plate or RACD Electrical Data to determine the required size.
4. The branch circuit wire must be sized in accordance with the National Electrical Code (C.E.C. in Canada) and local ordinances that may apply using the minimum circuit ampacity found on the unit rating plate.
5. Field-installed power wiring must be run through grounded rain-tight conduit attached to the unit power entry panel and connected as follows:

# **RXJJ-DD-series Heater Kit Installation Instructions**

**IMPORTANT:** To ensure proper installation and operation, please read all instructions prior to assembly, installation, operation, maintenance, or repair of this product. After unpacking the heater kit, inspect all parts for damage prior to installation and start up.

## **INTRODUCTION**

The information contained in these instructions has been prepared to assist in the proper installation and operation of the auxiliary electric heaters. Improper installation can result in unsatisfactory operation or dangerous conditions not covered by the unit warranty and may invalidate the Underwriters Laboratories listing.

## **CHECKING PRODUCT RECEIVED**

Upon receiving the heater and any related accessories, inspect all items for shipping damage. Claims for damage should be filed immediately with the shipping company,

Check heater kit and accessory model numbers to determine that they are the correct series for the unit and are of the desired kW size and voltage.

## **APPLICATION**

These auxiliary electric resistance heater kits are designed for installation in the discharge air compartment of the indoor blower. Improper usage can cause results which may be dangerous. Do not use heater kits other than those referenced on the unit rating plate and unit Installation Instructions.

## **OPERATION**

The heater elements are energized through controllers operated by the 24V thermostat circuit in conjunction with the unit integrated electric furnace control board (IFC).

## **TOOLS NEEDED**

The following tools can be helpful in installing the heater kits:

- Slotted screwdrivers and 5/16" nut driver.
- Some kits may require the use of Allen wrenches.
- Needle-nose pliers, large slip-joint pliers.
- Wire cutters and strippers

## **INDOOR BLOWER SPEED**

Refer to the indoor blower airflow tables in the unit installations instructions to set the proper blower speed for your airflow CFM and external static pressure requirements.

**WARNING! DISCONNECT ALL POWER BEFORE BEGINNING HEATER KIT INSTALLATION. FAILURE TO DO SO CAN RESULT IN SEVERE ELECTRICAL SHOCK OR DEATH.**

## **ELECTRICAL WIRING**

Field wiring must comply with applicable National, State, and Local electrical codes and ordinances.

## **POWER WIRING**

If the unit has been in operation without an electric heater kit installed, it may be necessary to change the field installed power wiring. The added current of the electric heater kit may require larger gauge wiring than that required for the unit alone. Refer to the unit rating plate or installation instructions for the required supply circuit ampacity and overcurrent protection.

It is important that adequate electrical power is available to the unit and heater kit. Voltage should not vary more than 10% from that marked on the unit rating plate. Phase voltages must be balanced within 3%.

A properly size disconnect switch or switches shall be located within sight of the unit or as required by applicable National and Local codes.

Power wiring and ground conductor must be routed in rain-tight conduit

Refer to the unit installation instructions, the illustrations in these instructions, and the unit wiring diagram for power entry, connection, and component locations.

## **HEATER KIT INSTALLATION**

### **Dual Circuit Power Supply Wiring** - (separate heater kit and unit power wiring)

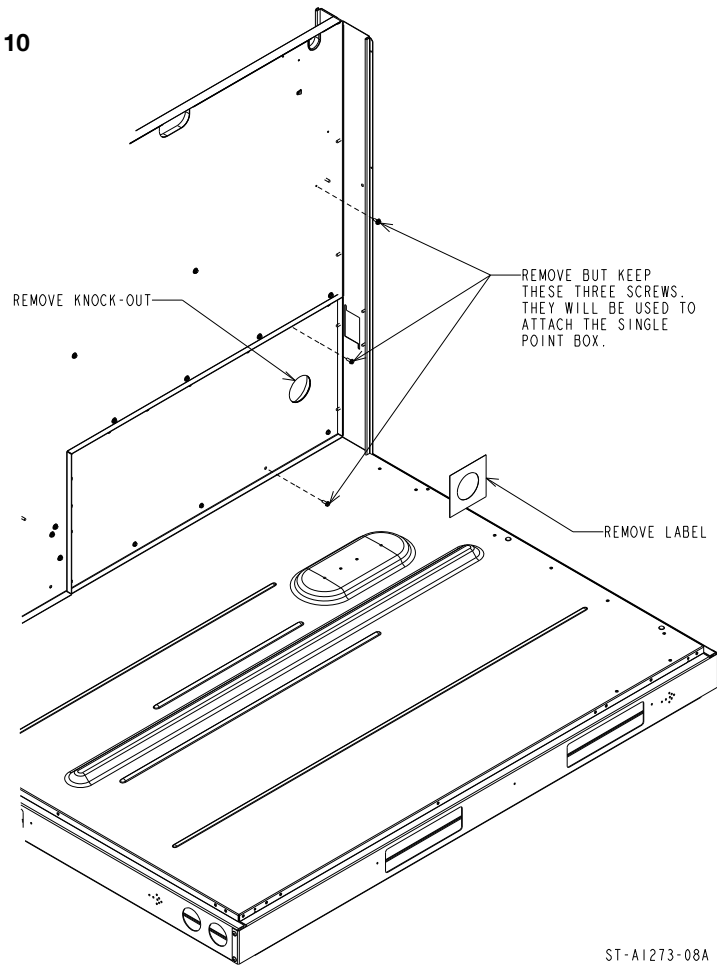
1. Remove package unit blower and heater compartment access panel.
2. Remove unit control box and compressor access panels.
3. Install heater kit in opening under blower deck and secure with the four provided screws (**figure 14**).
4. Route heater power supply wiring from code-compliant disconnect, circuit breaker, or fuse box in rain tight conduit through lower knockout in unit corner post to knockout in outdoor section bulkhead. Label on bulkhead shows knockout location (**figure 10**).
5. Connect heater kit field power wiring to terminal block on heater kit.
6. Connect heater kit grounding conductor to ground lug on heater kit.
7. Connect heater kit control plug to receptacle in heater kit area.
8. Route unit power supply wiring from code-compliant disconnect, circuit breaker, or fuse box in rain tight conduit through upper knockout in unit corner post to opening in bottom of control box below unit contactor.
9. Connect unit field power supply wiring to unit contactor.
10. Connect unit grounding conductor to ground lug in unit control box.
11. Reinstall all access panel.
12. Verify proper unit operation.

**Single-Point Unit Wiring** - (unit and heater kit power supplied from a single circuit) requires optional **RXJX**-series single-point connection box kit.

Single-Point Kit - Description	Model Application
RXJX-AB03 - 60A, 250V (short cabinet)	ACD 090/102/120; HPD090/102 - C & P Voltages
RXJX-AB04, - 60A, 250V (tall cabinet)	ACD 150; HPD120 – C & P Voltages
RXJX-AC03 - 60A, 600V, (short cabinet)	ACD 090/102/120; HPD090/102 – D, N, & V Voltages
RXJX-AC04 - 60A, 600V (tall cabinet)	ACD 150; HPD120 – D, N, & V Voltages

1. Verify that you have the correct RXJX kit. Refer to above table.
2. Remove package unit blower and heater kit access panels.
3. Remove package unit control box and compressor access panels.
4. Install heater kit in opening under blower deck and secure to blower deck flange and unit base rail with the four screws provided (**figure 14**).
5. Install RXJX single-point connection box as described below.
  - a. Remove and retain three screws in bulkhead (**figure 10**).
  - b. Remove knockout from bulkhead blockoff (**figure 10**, label indicates location).
  - c. Remove left side top and bottom panels from single-point box to allow access to bulkhead securement screws (**figure 11**).
  - d. Position single-point box directly against blower bulkhead. Note that the flange on the bulkhead blockoff slides through the slot in the right side of the box (**figure 11**).
  - e. Secure box to bulkhead with the three screws removed in step “5a” above.
  - f. Secure box to unit base pan with two additional screws included with kit (**figure 11**).
  - g. Remove concentric knock-out from left side bottom panel as required
  - h. Reinstall left side top and bottom panels (**figures 12 & 13**).
  - i. Install snap bushing through hole in single-point box and blower bulkhead (**figure 14**).
6. Route power supply wiring from code-compliant disconnect, circuit breaker, or fuse box in rain tight conduit through lower knockout in unit corner post to knockout in side of single-point connection box.
7. Connect power wiring to terminal block in single-point box.
8. Connect grounding conductor to ground lug in single-point box.
9. Connect unit power leads from fuse block to L1, L2, L3 on unit contactor in unit control box.
10. Connect heater kit wiring leads from terminal block in single-point kit through bulkhead opening to terminal block on heater kit.
11. Connect heater kit control plug to receptacle in heater kit area.
12. Reinstall all access panels.
13. Verify proper unit operation.

**FIGURE 10**



**FIGURE 11**

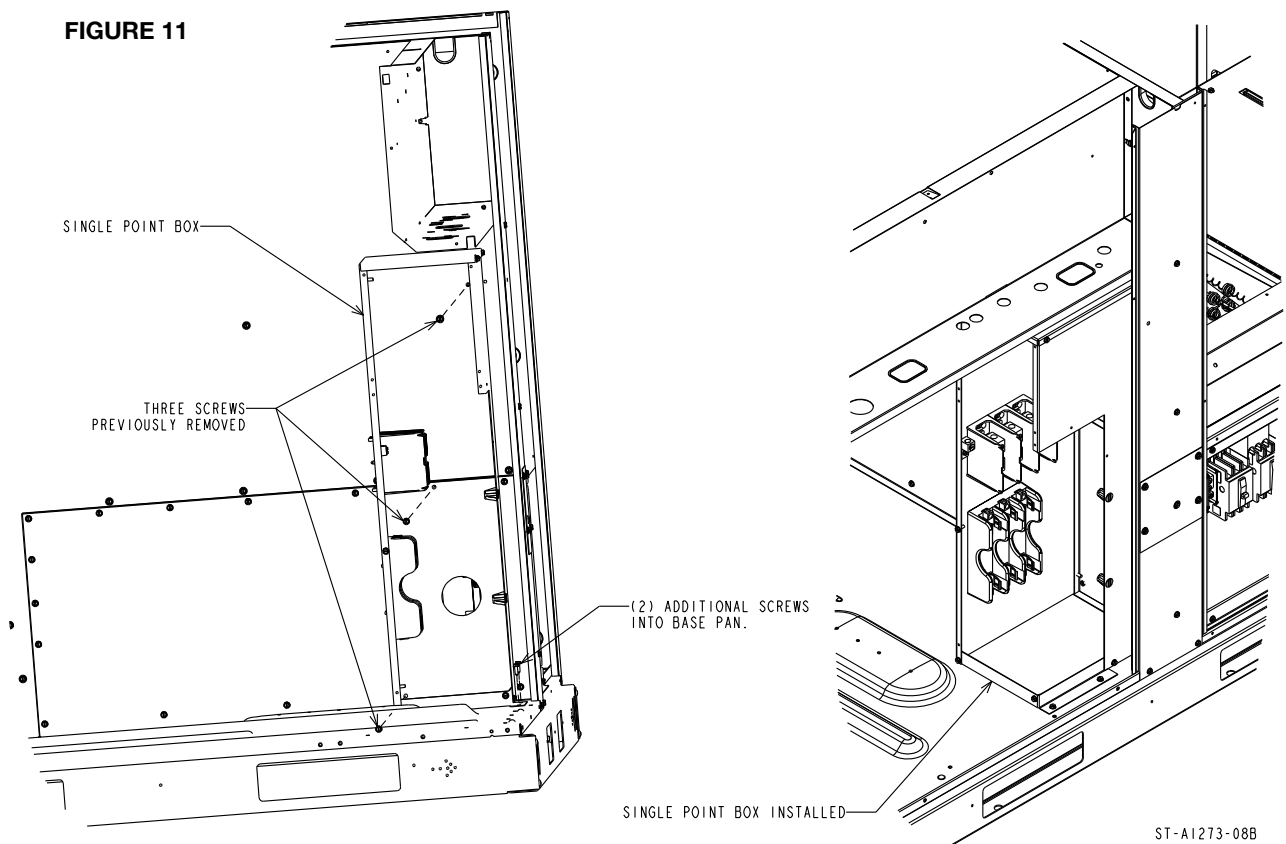


FIGURE 12

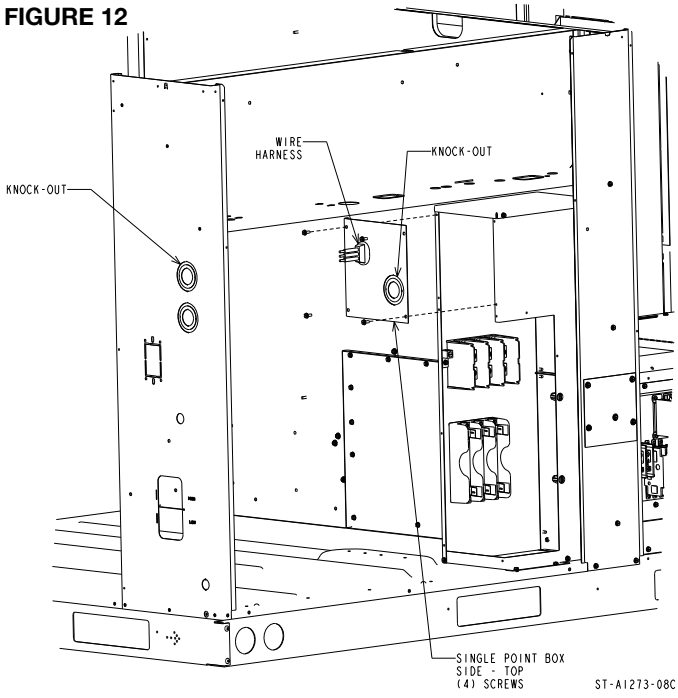


FIGURE 13

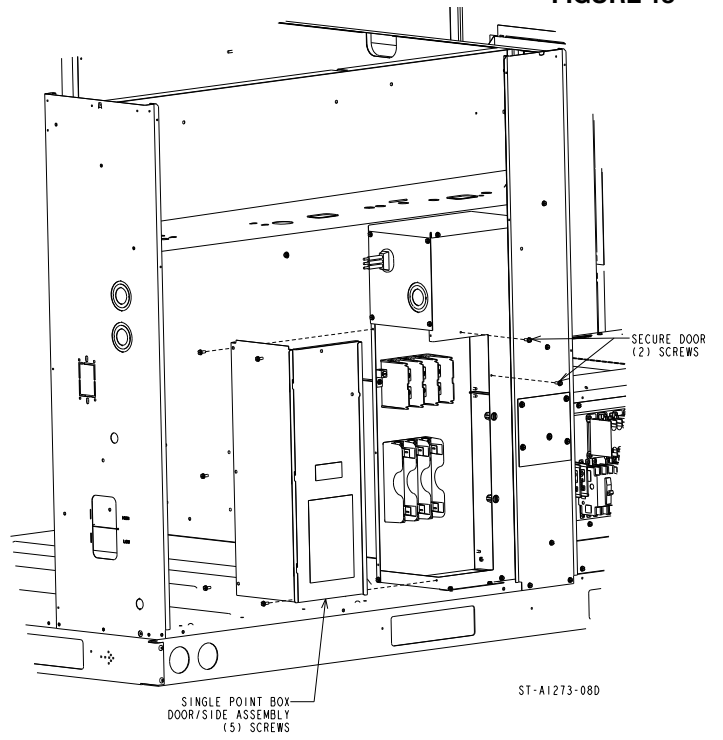
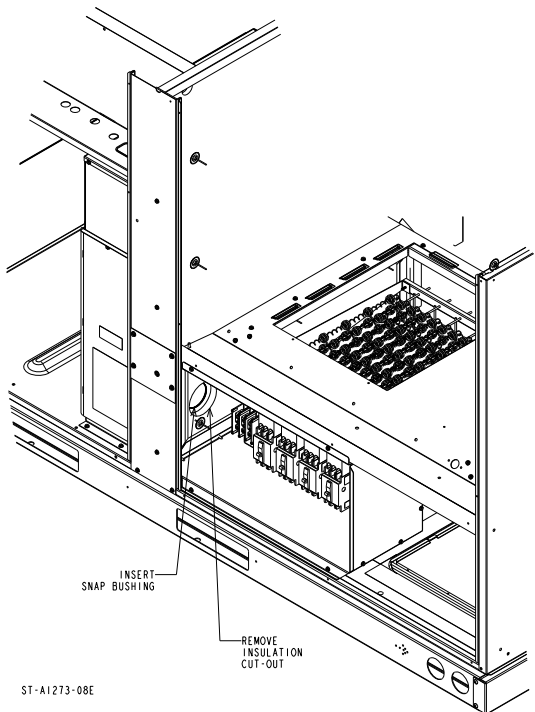
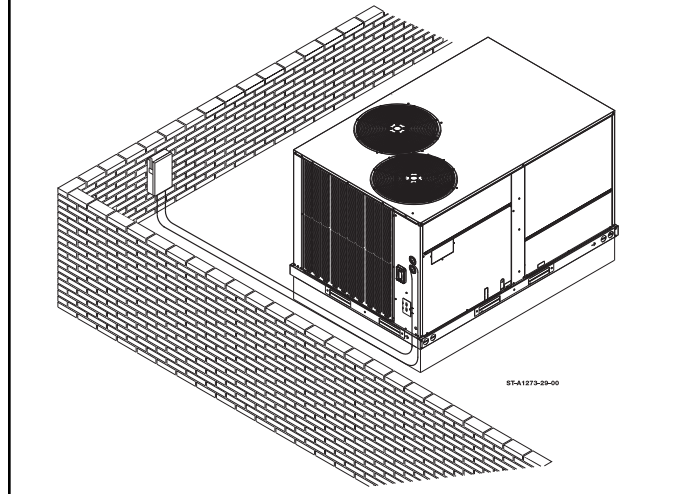


FIGURE 14



**FIGURE 15  
BRANCH CIRCUIT DISCONNECT LOCATION**



### **B. CONTROL WIRING (Class II)**

1. Low voltage wiring should not be run in conduit with power wiring.
2. Control wiring is routed through the 7/8" [22 mm] hole in the unit side panel. Use a minimum #18 AWG thermostat wire. For wire lengths exceeding 50' [15.24 m] use #16 AWG thermostat wire. Connect the control wiring to the low voltage terminal block located on the unit integrated control. Route wires under the control voltage shield. See Figure 13.
3. It is necessary that only approved thermostats be used. Please contact your distributor for part number information. See thermostat specification catalog for recommended thermostat.
4. Figure 16 shows representative low voltage connection diagrams. Read your thermostat installation instructions for any special requirements for your specific thermostat.

### **C. INTERNAL WIRING**

1. A diagram of the internal wiring of this unit is located on the inside of the control access panel and in this manual. If any of the original wiring must be replaced, the wire gauge and insulation must be the same as original wiring.

Transformer is factory-wired for 230 volts on 208/230 volt models and must be changed for 208-volt applications. See unit wiring diagram for 208-volt wiring.

### **D. GROUNDING**

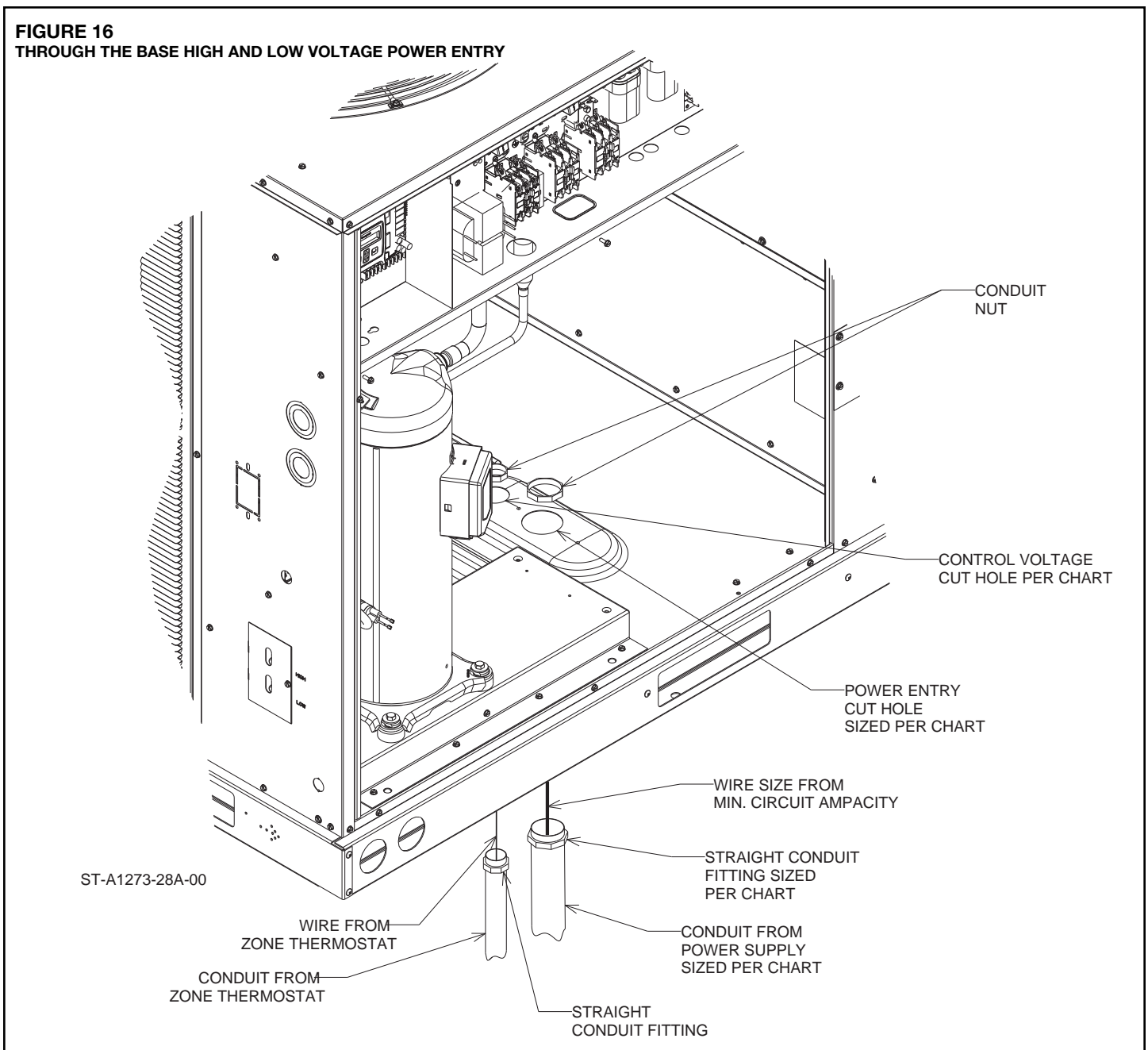
#### **⚠ WARNING**

**THE UNIT MUST BE PERMANENTLY GROUNDED. A GROUNDING LUG IS PROVIDED IN THE ELECTRIC HEAT ACCESS AREA FOR A GROUND WIRE. FAILURE TO GROUND THIS UNIT CAN RESULT IN FIRE OR ELECTRICAL SHOCK CAUSING PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.**

### **E. THERMOSTAT**

The thermostat should be mounted on an inside wall about five feet above the floor in a location where it will not be affected by unconditioned air, sun, or drafts from open doors or other sources. READ installation instructions in air conditioner thermostat package CAREFULLY because each has some different wiring requirements.

**FIGURE 16**  
**THROUGH THE BASE HIGH AND LOW VOLTAGE POWER ENTRY**



## XII. INDOOR AIR FLOW DATA

Belt-drive blower models have motor sheaves set for proper CFM at a typical external static. See pages 36 - 43 for blower performance.

## XIII. CRANKCASE HEAT (OPTIONAL)

Crankcase heat is not required on other models, but may be desirable under certain conditions.

## XIV. PRE-START CHECK

1. Is unit properly located and slightly slanted toward indoor condensate drain?
2. Is ductwork insulated, weatherproofed, with proper spacing to combustible materials?
3. Is air free to travel to and from outdoor coil? (See Figure 3.)
4. Is the wiring correct, tight, and according to unit wiring diagram?
5. Is unit grounded?

6. Are field supplied air filters in place and clean?
7. Do the outdoor fan and indoor blower turn freely without rubbing, and are they tight on the motor shafts?

## XV. STARTUP

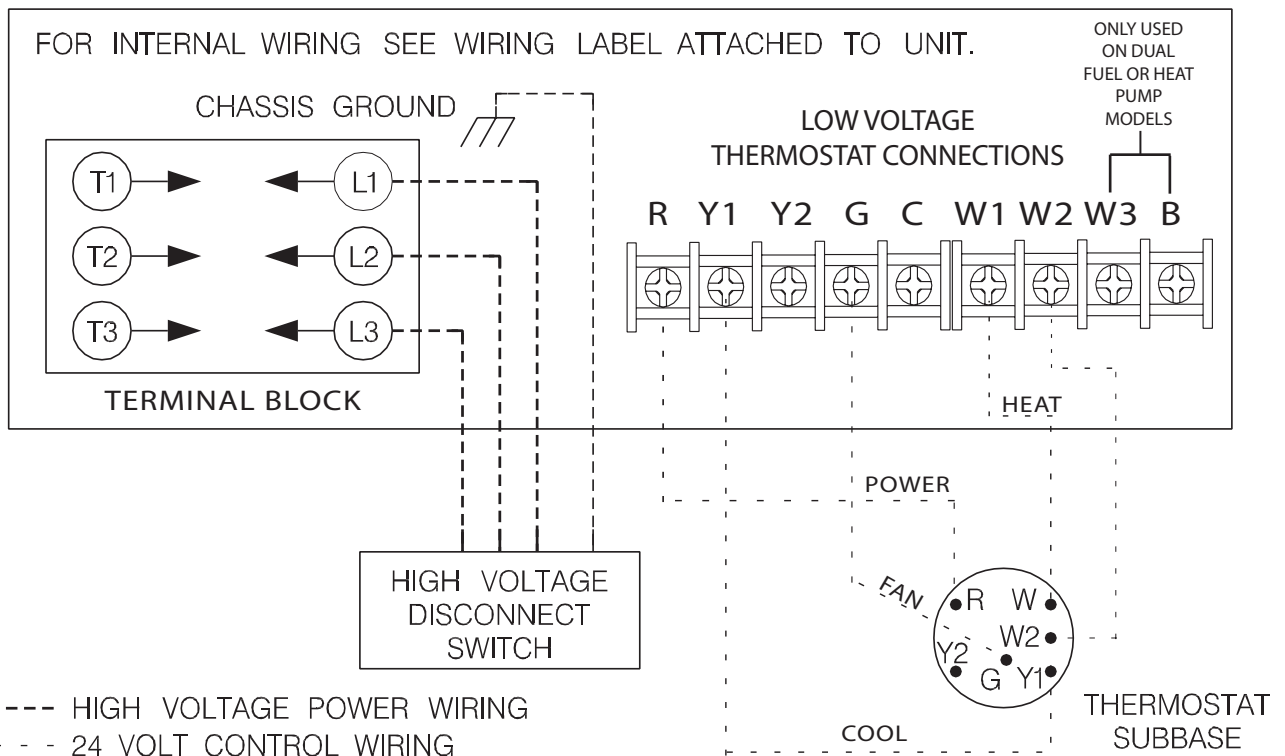
1. Turn thermostat to "OFF," turn "on" power supply at disconnect switch.
2. Turn temperature setting as high as it will go.
3. Turn fan switch to "ON."
4. Indoor blower should run. Be sure it is running in the right direction.
5. Turn fan switch to "AUTO." Turn system switch to "COOL" and turn temperature setting below room temperature. Unit should run in cooling mode.
6. Is outdoor fan operating correctly in the right direction?
7. Is compressor running correctly.

Record the following after the unit has run some time.

- A. Operating Mode \_\_\_\_\_
- B. Discharge Pressures (High) \_\_\_\_\_ PSIG [kPa]
- C. Vapor Pressure at Compressors (Low) \_\_\_\_\_ PSIG [kPa]
- D. Vapor Line Temperature at Compressors \_\_\_\_\_ °F [C°].
- E. Indoor Dry Bulb \_\_\_\_\_ °F [C°].
- F. Indoor Wet Bulb \_\_\_\_\_ °F [C°].
- G. Outdoor Dry Bulb \_\_\_\_\_ °F [C°].
- H. Outdoor Wet Bulb \_\_\_\_\_ °F [C°].
- I. Voltage at Contactor \_\_\_\_\_ Volts
- J. Current at Contactors \_\_\_\_\_ Amps
- K. Model Number \_\_\_\_\_
- L. Serial Number \_\_\_\_\_
- M. Location \_\_\_\_\_
- N. Owner \_\_\_\_\_
- O. Date \_\_\_\_\_

8. Turn thermostat system switch to "HEAT." Unit compressors should stop. Raise temperature setting to above room temperature. Unit should run in heating mode and auxiliary heaters, if installed, should come on.
9. Check the refrigerant charge using the instructions located on unit charging chart. Replace service port caps. Service port cores are for system access only and will leak if not tightly capped.

**FIGURE 17**  
**THERMOSTAT CONNECTIONS DIAGRAM**



ST-A1125-12-00

10. Adjust discharge air grilles and balance system.
  11. Check ducts for condensation and air leaks.
  12. Check unit for tubing and sheet metal rattles.
  13. Instruct the owner on operation and maintenance.
  14. Leave "INSTALLATION" and "USE AND CARE" instructions with owner.
- 

## **XVI. OPERATION**

### **COOLING MODE**

With thermostat in the cool mode, fan auto and the room temperature higher than the thermostat setting:

- A. Indoor blower contactor is energized through thermostat contact (G).
- B. Compressor contactor is energized through thermostat contacts (Y1) and safety controls.
- C. Economizer enthalpy control (if installed) controls operation of first-stage cooling and positions fresh air damper to maintain mixed air temperature. Compressor operates as required by second stage of thermostats (Y2).
- D. The system will continue in cooling operation as long as all safety controls are closed, until the thermostat is satisfied.

### **HEATING MODE**

With the thermostat in heat mode, fan on auto, and the room temperature lower than the thermostat setting, the Indoor blower contactor is energized through thermostat contact (G).

### **WARNING**

**ONLY ELECTRIC HEATER KITS SUPPLIED BY THIS MANUFACTURER AS DESCRIBED IN THIS PUBLICATION HAVE BEEN DESIGNED, TESTED, AND EVALUATED FOR USE WITH THIS UNIT. USE OF ANY OTHER MANUFACTURED ELECTRIC HEATERS INSTALLED WITHIN THIS UNIT MAY CAUSE HAZARDOUS CONDITIONS RESULTING IN PROPERTY DAMAGE, FIRE, BODILY INJURY OR DEATH.**

In the heating mode, the thermostat will energize one or more supplementary heaters.

---

## **XVII. MISCELLANEOUS**

### **REPLACEMENT PARTS**

Contact your local distributor for a complete parts list.



# AIRFLOW PERFORMANCE — RACDZ\*090\*

## AIRFLOW PERFORMANCE — 7.5 TON [26.4kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]		External Static Pressure — Inches of Water [kPa]																																											
		0.1 [0.2]	0.2 [0.5]	0.3 [0.7]	0.4 [1.0]	0.5 [1.2]	0.6 [1.5]	0.7 [1.7]	0.8 [2.0]	0.9 [2.2]	1.0 [2.5]	1.1 [2.7]	1.2 [3.0]	1.3 [3.2]	1.4 [3.5]	1.5 [3.7]	1.6 [4.0]	1.7 [4.2]	1.8 [4.5]	1.9 [4.7]	2.0 [5.0]																								
2400 [1133]	—	—	—	558 [822]	594 [853]	629 [887]	663 [925]	697 [965]	730 [1009]	763 [1056]	794 [1106]	826 [1159]	856 [1216]	886 [1275]	915 [1338]	943 [1404]	971 [1474]	998 [1546]	1025 [1622]	1051 [1700]	1076 [1782]	2500 [1180]	—	—	—	568 [848]	604 [861]	638 [917]	672 [936]	705 [988]	738 [1044]	769 [1082]	801 [1144]	831 [1199]	861 [1258]	890 [1319]	919 [1384]	947 [1452]	974 [1523]	1001 [1597]	1027 [1674]	1052 [1755]	1077 [1838]		
2600 [1227]	—	—	—	543 [846]	579 [877]	613 [912]	647 [950]	681 [991]	713 [1035]	745 [1082]	777 [1132]	807 [1186]	837 [1243]	867 [1303]	895 [1366]	923 [1433]	951 [1502]	978 [1575]	1004 [1651]	1029 [1730]	1054 [1812]	1078 [1898]	2700 [1274]	—	—	—	554 [877]	589 [910]	623 [946]	657 [986]	689 [1029]	722 [1074]	753 [1124]	784 [1176]	814 [1231]	844 [1290]	872 [1352]	901 [1417]	928 [1485]	955 [1556]	981 [1631]	1007 [1708]	1032 [1789]	1056 [1873]	1079 [1961]
2800 [1321]	—	—	—	566 [911]	600 [946]	634 [984]	666 [1026]	699 [1070]	730 [1118]	761 [1169]	792 [1223]	821 [1280]	850 [1340]	878 [1404]	906 [1470]	933 [1540]	959 [1613]	985 [1690]	1010 [1769]	1034 [1852]	1058 [1938]	1081 [2027]	2900 [1368]	543 [916]	577 [949]	611 [986]	644 [1026]	676 [1069]	708 [1115]	739 [1164]	770 [1217]	799 [1273]	828 [1332]	857 [1394]	885 [1459]	912 [1528]	938 [1599]	964 [1674]	989 [1752]	1014 [1833]	1037 [1918]	1061 [2005]	1083 [2096]		
3000 [1416]	555 [985]	589 [990]	622 [1029]	655 [1070]	687 [1115]	718 [1163]	748 [1214]	778 [1269]	807 [1326]	836 [1387]	864 [1445]	891 [1518]	918 [1598]	944 [1682]	969 [1768]	994 [1858]	1018 [1951]	1041 [2046]	1063 [2144]	1087 [2244]	1109 [2346]	1131 [2451]	3100 [1463]	568 [998]	601 [1035]	634 [1075]	666 [1118]	697 [1165]	728 [1215]	758 [1268]	787 [1324]	816 [1383]	844 [1445]	871 [1511]	898 [1580]	924 [1652]	949 [1727]	974 [1806]	998 [1887]	1022 [1972]	1044 [2060]	1066 [2151]	1088 [2245]		
3200 [1510]	581 [1044]	614 [1083]	646 [1125]	677 [1170]	708 [1218]	738 [1270]	768 [1324]	796 [1382]	824 [1443]	852 [1507]	879 [1575]	905 [1646]	931 [1719]	955 [1796]	980 [1876]	1003 [1960]	1026 [2046]	1048 [2136]	1070 [2229]	1091 [2325]	1111 [2424]	1131 [2524]	3300 [1557]	594 [1063]	626 [1104]	658 [1146]	689 [1198]	720 [1250]	749 [1308]	778 [1368]	806 [1434]	833 [1507]	860 [1573]	887 [1642]	912 [1714]	937 [1790]	962 [1869]	985 [1951]	1008 [2036]	1031 [2124]	1052 [2216]	1073 [2310]	1094 [2408]		
3400 [1604]	607 [1146]	639 [1189]	670 [1234]	701 [1283]	730 [1335]	759 [1390]	788 [1448]	815 [1509]	843 [1574]	869 [1642]	895 [1713]	920 [1787]	944 [1864]	968 [1945]	991 [2028]	1014 [2115]	1036 [2205]	1057 [2298]	1077 [2395]	1097 [2494]	1116 [2594]	1135 [2694]	3500 [1652]	621 [1203]	652 [1247]	683 [1294]	713 [1344]	742 [1398]	770 [1455]	798 [1515]	825 [1578]	852 [1644]	878 [1714]	903 [1788]	928 [1862]	952 [1941]	975 [2024]	997 [2109]	1019 [2198]	1041 [2290]	1061 [2385]	1081 [2483]	1101 [2584]		
3600 [1699]	635 [1282]	666 [1308]	696 [1357]	725 [1409]	754 [1465]	782 [1523]	809 [1585]	836 [1650]	862 [1718]	887 [1789]	912 [1864]	936 [1941]	959 [2022]	982 [2106]	1004 [2194]	1025 [2284]	1046 [2378]	1066 [2474]	1086 [2574]	1104 [2677]	1122 [2784]	1140 [2894]																							

NOTE: A/F=Drive left of bold line, B/G=Drive right of bold line, C/H=Drive right of double line.

Drive Package	A/F	B/G	C/H
Motor H.P. [W]	2 [1491.4]	3 [2237.1]	3 [2237.1]
Blower/Sheave	AK84H	AK84H	AK84H
Motor Sheave	1VL40*7/8	1VP50*7/8	1VP56*7/8
Belt	A49	A50	A51
Turns Open	0	0	0
RPM	765	720	676
		633	589
		544	544
		989	949
		908	865
		823	823
		780	780
		1108	1067
		1029	987
		946	946
		905	905

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHR minimum External Static Pressure
4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *		Wet Coil		Horizontal Economizer RA Damper Open		Concentric Diffuser RXRN-EGD2000 & Concentric Adapter RXMC-DD01 (Drop)	
	Total MBH	Sensible MBH	Power kW	Resistance — Inches of Water [kPa]		Resistance — Inches of Water [kPa]		Resistance — Inches of Water [kPa]
2400 [1133]	0.96	0.89	0.98	0.04 [0.1]	0.01 [0.0]	0.66 [1.6]	0.53 [1.3]	0.53 [1.3]
2500 [1180]	0.96	0.90	0.99	0.05 [0.1]	0.02 [0.0]	0.71 [1.8]	0.57 [1.4]	0.57 [1.4]
2600 [1227]	0.97	0.92	0.99	0.05 [0.1]	0.03 [0.0]	0.75 [1.9]	0.60 [1.5]	0.60 [1.5]
2700 [1274]	0.97	0.93	0.99	0.05 [0.1]	0.03 [0.1]	0.80 [2.0]	0.65 [1.6]	0.65 [1.6]
2800 [1321]	0.98	0.95	0.99	0.06 [0.1]	0.04 [0.1]	0.85 [2.1]	0.69 [1.7]	0.69 [1.7]
2900 [1368]	0.98	0.96	1.00	0.06 [0.2]	0.04 [0.1]	0.91 [2.3]	0.74 [1.8]	0.74 [1.8]
3000 [1416]	0.99	0.97	1.00	0.07 [0.2]	0.05 [0.1]	0.96 [2.4]	0.79 [2.0]	0.79 [2.0]
3100 [1463]	1.00	0.99	1.00	0.07 [0.2]	0.06 [0.1]	1.02 [2.5]	0.86 [2.1]	0.86 [2.1]
3200 [1510]	1.00	1.00	1.01	0.07 [0.2]	0.07 [0.2]	1.08 [2.7]	0.92 [2.3]	0.92 [2.3]
3300 [1557]	1.01	1.02	1.01	0.08 [0.2]	0.08 [0.2]	1.15 [2.9]	0.99 [2.5]	0.99 [2.5]
3400 [1604]	1.01	1.03	1.01	0.08 [0.2]	0.09 [0.2]	1.21 [3.0]	1.05 [2.6]	1.05 [2.6]
3500 [1652]	1.02	1.05	1.02	0.09 [0.2]	0.10 [0.2]	1.29 [3.2]	1.09 [2.7]	1.09 [2.7]
3600 [1699]	1.02	1.06	1.02	0.09 [0.2]	0.11 [0.3]	1.36 [3.4]	1.13 [2.8]	1.13 [2.8]

\* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity. [ ] Designates Metric Conversions



# AIRFLOW PERFORMANCE — RACDZ\*102\*

## AIRFLOW PERFORMANCE — 8.5 TON [29.9kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]		External Static Pressure — Inches of Water [kPa]																																				
		0.1 [0.2]	0.2 [0.5]	0.3 [0.7]	0.4 [1.0]	0.5 [1.2]	0.6 [1.5]	0.7 [1.7]	0.8 [2.0]	0.9 [2.2]	1.0 [2.5]	1.1 [2.7]	1.2 [3.0]	1.3 [3.2]	1.4 [3.5]	1.5 [3.7]	1.6 [4.0]	1.7 [4.2]	1.8 [4.5]	1.9 [4.7]	2.0 [5.0]																	
2700 [1324]	—	—	577	589	611	644	1009	677	1062	710	1098	742	1147	774	1199	806	1254	837	1312	868	1373	898	1437	929	1505	959	1575	988	1648	1017	1725	1046	1804	1074	1886	1102	1972	
2800 [1368]	—	556	926	962	1000	1042	1089	1134	1185	1239	1299	1364	1434	1508	1586	1668	1754	1844	1938	2036	2138	2244	2354	2468	2586	2708	2834	2964	3100	3240	3384	3534	3688	3848	4014	4186	4364	4548
2900 [1416]	—	568	958	1001	1045	1093	1144	1199	1259	1324	1394	1468	1546	1628	1714	1804	1898	1996	2098	2204	2314	2428	2546	2668	2794	2924	3058	3196	3338	3484	3634	3788	3946	4108	4274	4444	4618	4796
3000 [1463]	561	996	1033	1073	1117	1165	1217	1274	1336	1402	1472	1546	1624	1706	1792	1882	1976	2074	2176	2282	2392	2506	2624	2746	2872	3002	3136	3274	3416	3562	3712	3866	4024	4186	4352	4522	4696	4874
3100 [1510]	574	1037	1076	1118	1165	1217	1274	1336	1402	1472	1546	1624	1706	1792	1882	1976	2074	2176	2282	2392	2506	2624	2746	2872	3002	3136	3274	3416	3562	3712	3866	4024	4186	4352	4522	4696	4874	5056
3200 [1557]	587	1082	1122	1166	1217	1274	1336	1402	1472	1546	1624	1706	1792	1882	1976	2074	2176	2282	2392	2506	2624	2746	2872	3002	3136	3274	3416	3562	3712	3866	4024	4186	4352	4522	4696	4874	5056	5244
3300 [1604]	600	1130	1172	1220	1274	1336	1402	1472	1546	1624	1706	1792	1882	1976	2074	2176	2282	2392	2506	2624	2746	2872	3002	3136	3274	3416	3562	3712	3866	4024	4186	4352	4522	4696	4874	5056	5244	5436
3400 [1652]	626	1238	1283	1336	1394	1458	1528	1604	1684	1768	1856	1948	2044	2144	2248	2356	2468	2584	2704	2828	2956	3088	3224	3364	3508	3656	3808	3964	4124	4288	4456	4628	4804	4984	5168	5356	5548	5744
3500 [1700]	640	1297	1344	1402	1466	1536	1612	1692	1776	1864	1956	2052	2152	2256	2364	2476	2592	2712	2836	2964	3096	3232	3372	3516	3664	3816	3972	4132	4296	4464	4636	4812	4992	5176	5364	5556	5752	5952
3600 [1746]	653	1360	1410	1472	1540	1616	1700	1788	1880	1976	2076	2180	2288	2396	2508	2624	2744	2868	2996	3128	3264	3404	3548	3696	3848	3996	4152	4304	4464	4628	4796	4968	5144	5324	5508	5696	5888	6084
3700 [1793]	667	1426	1478	1542	1616	1696	1784	1876	1968	2064	2164	2268	2376	2484	2596	2712	2832	2956	3084	3216	3352	3492	3636	3784	3936	4088	4244	4404	4568	4736	4908	5084	5264	5448	5636	5828	6024	6224
3800 [1840]	680	1486	1540	1608	1684	1768	1856	1948	2044	2144	2248	2356	2468	2584	2704	2828	2956	3088	3224	3364	3508	3656	3808	3964	4124	4288	4456	4628	4804	4984	5168	5356	5548	5744	5944	6148	6356	6568
4000 [1888]	694	1570	1624	1696	1776	1864	1956	2052	2152	2256	2364	2476	2592	2712	2836	2964	3096	3232	3372	3516	3664	3816	3972	4132	4296	4464	4636	4812	4992	5176	5364	5556	5752	5952	6156	6364	6576	6792
4100 [1935]	694	1570	1624	1696	1776	1864	1956	2052	2152	2256	2364	2476	2592	2712	2836	2964	3096	3232	3372	3516	3664	3816	3972	4132	4296	4464	4636	4812	4992	5176	5364	5556	5752	5952	6156	6364	6576	6792

NOTE: A/F-Drive left of bold line, B/G-Drive right of bold line, C/H-Drive right of double line.

Drive Package	A/F		B/G		C/H	
Motor H.P. [W]	2 [1491.4]		3 [2237.1]		3 [2237.1]	
Blower/Sheave	AK79H		AK79H		AK79H	
Motor Sheave	1VL40*7/8		1VP50*7/8		1VP50*7/8	
Belt	A49		A50		A51	
Turns Open	0	1	2	3	4	5
RPM	802	754	707	662	616	555
					1048	1005
					960	916
					870	827
					1170	1126
					1085	1044
					4	3
					1000	956

- NOTES: 1. Factory sheave settings are shown in bold type.  
 2. Do not set motor sheave below minimum or maximum turns open shown.  
 3. Re-adjustment of sheave required to achieve rated airflow at AHRl minimum External Static Pressure  
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow CFM [L/s]		AIRFLOW CORRECTION FACTORS *		COMPONENT AIRFLOW RESISTANCE			
		Total MBH	Sensible MBH	Wet Coil	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-EGF-2000 & Concentric Adapter RXMC-DD01 (Flush)	Concentric Diffuser RXRN-EGD2000 & Concentric Adapter RXMC-DD01 (Drop)
2700 [1324]	0.97	0.93	0.07 [0.2]	0.03 [0.1]	0.80 [2.0]	0.65 [1.6]	0.65 [1.6]
2800 [1368]	0.98	0.94	0.07 [0.2]	0.03 [0.1]	0.85 [2.1]	0.69 [1.7]	0.69 [1.7]
2900 [1416]	0.98	0.96	0.08 [0.2]	0.04 [0.1]	0.91 [2.3]	0.74 [1.8]	0.74 [1.8]
3000 [1463]	0.99	0.97	0.08 [0.2]	0.05 [0.1]	0.96 [2.4]	0.79 [2.0]	0.79 [2.0]
3100 [1510]	0.99	0.99	0.09 [0.2]	0.06 [0.1]	1.02 [2.5]	0.86 [2.1]	0.86 [2.1]
3200 [1557]	1.00	1.00	0.10 [0.2]	0.07 [0.2]	1.08 [2.7]	0.92 [2.3]	0.92 [2.3]
3300 [1604]	1.01	1.01	0.10 [0.2]	0.08 [0.2]	1.15 [2.9]	0.99 [2.5]	0.99 [2.5]
3400 [1652]	1.01	1.03	0.11 [0.3]	0.09 [0.2]	1.21 [3.0]	1.05 [2.6]	1.05 [2.6]
3500 [1699]	1.02	1.04	0.11 [0.3]	0.10 [0.2]	1.29 [3.2]	1.09 [2.7]	1.09 [2.7]
3600 [1746]	1.03	1.06	0.12 [0.3]	0.11 [0.3]	1.36 [3.4]	1.13 [2.8]	1.13 [2.8]
3700 [1793]	1.03	1.07	0.13 [0.3]	0.12 [0.3]	1.43 [3.6]	1.18 [2.9]	1.18 [2.9]
3800 [1840]	1.04	1.09	0.13 [0.3]	0.13 [0.3]	1.50 [3.7]	1.23 [3.1]	1.23 [3.1]
4000 [1888]	1.05	1.12	0.15 [0.4]	0.15 [0.4]	1.59 [4.0]	1.31 [3.3]	1.31 [3.3]
4100 [1935]	1.05	1.13	0.15 [0.4]	0.17 [0.4]	1.68 [4.2]	1.38 [3.4]	1.38 [3.4]
					1.74 [4.3]	1.44 [3.6]	1.44 [3.6]

\* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity. [ ] Designates Metric Conversions

# AIRFLOW PERFORMANCE — RACDZ\*120\*

## AIRFLOW PERFORMANCE — 10 TON [35.1kW] — 60 Hz — DOWNFLOW

Model RACDZ\*120\* Voltage 208/230, 460, 575 — 3 phase 60 Hz

Air Flow CFM [L/s]	External Static Pressure — Inches of Water [kPa]																																							
	0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]																				
3200 [1510]	597	1046	823	1082	661	1144	692	1191	723	1242	753	1296	782	1351	811	1403	839	1468	867	1528	893	1581	920	1655	945	1722	970	1790	994	1839	1018	1881	1041	2004	1064	2080	1085	2157	1107	2238
3300 [1557]	610	1092	842	1141	674	1192	705	1244	735	1289	764	1335	793	1413	822	1473	849	1535	876	1599	903	1664	928	1731	954	1800	978	1871	1002	1943	1025	2018	1048	2094	1070	2172	1091	2251	1112	2333
3400 [1604]	624	1142	865	1247	717	1303	747	1360	776	1419	804	1480	832	1542	859	1607	886	1673	912	1741	937	1811	962	1883	986	1956	1010	2031	1032	2108	1055	2187	1076	2268	1097	2350	1117	2435		
3500 [1652]	638	1196	889	1307	739	1365	769	1425	797	1487	815	1550	843	1616	870	1683	896	1752	921	1823	946	1895	971	1969	994	2046	1017	2124	1040	2203	1061	2285	1083	2368	1103	2454	1123	2541		
3600 [1699]	651	1255	912	1371	762	1432	791	1494	819	1559	827	1625	854	1693	880	1763	906	1835	931	1908	955	1984	979	2061	1003	2140	1025	2220	1047	2303	1068	2387	1089	2473	1109	2561	1129	2651		
3700 [1746]	665	1317	937	1439	785	1503	813	1568	841	1633	838	1704	865	1775	891	1848	914	1922	941	1998	966	2076	988	2156	1011	2238	1033	2321	1055	2406	1075	2493	1096	2582	1115	2673	1134	2765		
3800 [1793]	679	1385	959	1507	808	1570	836	1636	864	1701	858	1770	885	1841	911	1907	926	2014	950	2083	974	2173	997	2256	1019	2340	1041	2426	1062	2514	1083	2604	1102	2696	1122	2789	1140	2884		
3900 [1840]	693	1456	982	1576	831	1641	859	1706	887	1772	881	1841	908	1907	934	1976	952	2064	986	2141	960	2191	983	2275	1006	2360	1028	2447	1049	2536	1070	2627	1090	2719	1109	2813	1128	2909	1146	3007
4000 [1888]	708	1532	1011	1651	854	1720	882	1784	909	1849	894	1918	924	1983	949	2057	974	2129	999	2204	974	2284	998	2360	1015	2448	1036	2528	1057	2610	1077	2743	1087	2838	1116	2935	1134	3034	1152	3135
4100 [1935]	722	1612	1035	1720	878	1790	906	1850	933	1906	918	1976	944	2044	969	2114	980	2204	1002	2490	1024	2581	1045	2673	1065	2768	1085	2864	1104	2962	1123	3061	1141	3163	1158	3266				
4200 [1982]	736	1696	1059	1801	901	1871	929	1922	955	2006	944	2076	970	2149	994	2229	957	2314	980	2401	1002	2490	1024	2581	1045	2673	1065	2768	1085	2864	1104	2962	1123	3061	1141	3163	1158	3266		
4300 [2029]	751	1784	1086	1886	924	1956	952	2019	980	2082	968	2154	994	2249	1018	2333	955	2445	968	2536	990	2629	1022	2723	1043	2819	1063	2917	1082	3017	1101	3118	1119	3222	1137	3327	1154	3434		
4400 [2076]	765	1877	1117	1976	947	2049	974	2122	1000	2182	988	2258	1014	2349	1038	2436	989	2550	989	2653	1010	2749	1032	2846	1052	2945	1072	3045	1091	3148	1109	3252	1127	3358	1144	3466	1161	3576		
4500 [2123]	780	1974	1149	2076	970	2149	1004	2226	1032	2304	1016	2374	1041	2467	1061	2564	1078	2679	1080	2775	1091	2873	1041	2973	1061	3074	1081	3178	1099	3283	1117	3390	1135	3499	1152	3609	1168	3722		
4600 [2171]	795	2076	1211	2181	1000	2254	1024	2306	1052	2378	1036	2448	1061	2544	1078	2645	1091	2756	1099	2862	1091	3002	1051	3104	1071	3208	1090	3314	1108	3422	1126	3532	1143	3644	1159	3757				
4700 [2218]	810	2181	1266	2299	1024	2349	1048	2401	1076	2454	1052	2526	1080	2602	1091	2712	1103	2823	1100	2929	1021	3031	1042	3134	1062	3240	1081	3347	1099	3455	1117	3566	1134	3679	1151	3793	1167	3909		
4800 [2265]	825	2291	1321	2424	1048	2444	1072	2526	1099	2579	1066	2648	1094	2730	1103	2841	1112	2952	1112	3061	1033	3165	1052	3272	1072	3380	1090	3489	1108	3601	1126	3714	1143	3829	1159	3946				

NOTE: A/F-Drive left of bold line, B/G-Drive right of bold line, C/H-Drive right of double line.

Drive Package	B/G										C/H																															
Motor H.P. [W]	2 [1491.4]										3 [2237.1]																															
Blower Sheave	AK79H										AK79H																															
Motor Sheave	1VL40*7/8										1VP56*7/8																															
Belt	A49										A51																															
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5						
RPM	802	758	710	661	616	559	1040	999	955	911	868	824	824	1155	1120	1080	1039	996	953	915	875	835	795	755	715	675	635	595	555	515	475	435	395	355	315	275	235	195	155	115	75	35

- NOTES: 1. Factory sheave settings are shown in bold type.  
 2. Do not set motor sheave below minimum or maximum turns open shown.  
 3. Re-adjustment of sheave required to achieve rated airflow at AHR1 minimum External Static Pressure  
 4. Drive data shown is for vertical airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *			Wet Coil			Vertical Economizer RA Damper Open			Concentric Diffuser RXRN-EGE2415 & Diffuser RXMC-DD02 (Flush)			Concentric Diffuser RXRN-EGD3415 & Diffuser RXMC-DD02 (Drop)		
	Total MBH	Sensible MBH	Power kW	Total MBH	Sensible MBH	Power kW	Total MBH	Sensible MBH	Power kW	Total MBH	Sensible MBH	Power kW	Total MBH	Sensible MBH	Power kW
3200 [1510]	0.97	0.93	0.99	0.09 [0.02]	0.07 [0.02]	0.74 [1.8]	0.07 [0.02]	0.07 [0.02]	0.74 [1.8]	0.07 [0.02]	0.07 [0.02]	0.74 [1.8]	0.07 [0.02]	0.07 [0.02]	0.74 [1.8]
3300 [1557]	0.98	0.94	0.99	0.10 [0.03]	0.08 [0.02]	0.79 [2.0]	0.08 [0.02]	0.09 [0.02]	0.79 [2.0]	0.08 [0.02]	0.09 [0.02]	0.79 [2.0]	0.08 [0.02]	0.09 [0.02]	0.79 [2.0]
3400 [1604]	0.98	0.96	0.99	0.11 [0.03]	0.09 [0.02]	0.84 [2.1]	0.09 [0.02]	0.10 [0.02]	0.84 [2.1]	0.09 [0.02]	0.10 [0.02]	0.84 [2.1]	0.09 [0.02]	0.10 [0.02]	0.84 [2.1]
3500 [1652]	0.99	0.97	1.00	0.11 [0.03]	0.10 [0.02]	0.90 [2.2]	0.10 [0.02]	0.11 [0.03]	0.90 [2.2]	0.10 [0.02]	0.11 [0.03]	0.90 [2.2]	0.10 [0.02]	0.11 [0.03]	0.90 [2.2]
3600 [1699]	0.99	0.98	1.00	0.12 [0.03]	0.11 [0.03]	0.95 [2.4]	0.11 [0.03]	0.12 [0.03]	0.95 [2.4]	0.11 [0.03]	0.12 [0.03]	0.95 [2.4]	0.11 [0.03]	0.12 [0.03]	0.95 [2.4]
3700 [1746]	1.00	0.99	1.00	0.13 [0.03]	0.12 [0.03]	1.00 [2.5]	0.12 [0.03]	0.13 [0.03]	1.00 [2.5]	0.12 [0.03]	0.13 [0.03]	1.00 [2.5]	0.12 [0.03]	0.13 [0.03]	1.00 [2.5]
3800 [1793]	1.00	1.01	1.00	0.13 [0.03]	0.13 [0.03]	1.04 [2.6]	0.13 [0.03]	0.14 [0.04]	1.04 [2.6]	0.13 [0.03]	0.14 [0.04]	1.04 [2.6]	0.13 [0.03]	0.14 [0.04]	1.04 [2.6]
3900 [1840]	1.01	1.02	1.00	0.14 [0.04]	0.13 [0.03]	1.09 [2.7]	0.14 [0.04]	0.15 [0.04]	1.09 [2.7]	0.14 [0.04]	0.15 [0.04]	1.09 [2.7]	0.14 [0.04]	0.15 [0.04]	1.09 [2.7]
4000 [1888]	1.01	1.03	1.01	0.15 [0.04]	0.14 [0.04]	1.13 [2.8]	0.15 [0.04]	0.16 [0.04]	1.13 [2.8]	0.15 [0.04]	0.16 [0.04]	1.13 [2.8]	0.15 [0.04]	0.16 [0.04]	1.13 [2.8]
4100 [1935]	1.02	1.04	1.01	0.15 [0.04]	0.15 [0.04]	1.17 [3.0]	0.16 [0.04]	0.17 [0.04]	1.17 [3.0]	0.16 [0.04]	0.17 [0.04]	1.17 [3.0]	0.16 [0.04]	0.17 [0.04]	1.17 [3.0]
4200 [1982]	1.02	1.06	1.01	0.16 [0.04]	0.16 [0.04]	1.24 [3.1]	0.17 [0.04]	0.18 [0.04]	1.24 [3.1]	0.17 [0.04]	0.18 [0.04]	1.24 [3.1]	0.17 [0.04]	0.18 [0.04]	1.24 [3.1]
4300 [2029]	1.03	1.07	1.01	0.17 [0.04]	0.17 [0.04]	1.31 [3.3]	0.18 [0.04]	0.19 [0.05]	1.31 [3.3]	0.18 [0.04]	0.19 [0.05]	1.31 [3.3]	0.18 [0.04]	0.19 [0.05]	1.31 [3.3]
4400 [2076]	1.03	1.08	1.01	0.18 [0.04]	0.18 [0.04]	1.37 [3.4]	0.19 [0.05]	0.21 [0.05]	1.37 [3.4]	0.19 [0.05]	0.21 [0.05]	1.37 [3.4]	0.19 [0.05]	0.21 [0.05]	1.37 [3.4]
4500 [2123]	1.04	1.09	1.02	0.19 [0.05]	0.19 [0.05]	1.43 [3.5]	0.20 [0.05]	0.23 [0.06]	1.43 [3.5]	0.20 [0.05]	0.23 [0.06]	1.43 [3.5]	0.20 [0.05]	0.23 [0.06]	1.43 [3.5]
4600 [2171]	1.04	1.11	1.02	0.19 [0.05]	0.20 [0.05]	1.48 [3.7]	0.21 [0.05]	0.24 [0.06]	1.48 [3.7]	0.21 [0.05]	0.24 [0.06]	1.48 [3.7]	0.21 [0.05]	0.24 [0.06]	1.48 [3.7]
4700 [2218]	1.05	1.12	1.02	0.20 [0.05]	0.20 [0.05]	1.54 [3.8]	0.22 [0.05]	0.26 [0.06]	1.54 [3.8]	0.22 [0.05]	0.26 [0.06]	1.54 [3.8]	0.22 [0.05]	0.26 [0.06]	1.54 [3.8]
4800 [2265]	1.05	1.13	1.02	0.21 [0.05]	0.21 [0.05]										

# AIRFLOW PERFORMANCE — RACDZ\*120\*

## AIRFLOW PERFORMANCE — 10 TON [35.1kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]		External Static Pressure — Inches of Water [kPa]																					
		0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]		
3200 [1510]	575	1018	607	1057	637	1089	667	1143	697	1191	727	766	806	846	886	926	966	1006	1046	1086	1126	1166	1206
3300 [1557]	588	1060	618	1101	649	1146	679	1192	708	1242	737	776	816	856	896	936	976	1016	1056	1096	1136	1176	1216
3400 [1604]	600	1106	630	1150	660	1196	719	1237	748	1285	776	815	854	893	932	971	1010	1049	1088	1127	1166	1205	1244
3500 [1652]	613	1156	643	1202	672	1251	701	1302	730	1357	758	796	834	872	910	948	986	1024	1062	1100	1138	1176	1214
3600 [1699]	626	1210	655	1258	684	1310	713	1364	741	1420	769	806	843	880	917	954	991	1028	1065	1102	1139	1176	1213
3700 [1746]	639	1268	668	1319	696	1373	724	1429	752	1488	779	816	853	890	927	964	1001	1038	1075	1112	1149	1186	1223
3800 [1793]	652	1330	680	1384	708	1440	736	1498	763	1560	790	827	864	901	938	975	1012	1049	1086	1123	1160	1197	1234
3900 [1840]	665	1397	693	1452	721	1511	748	1572	775	1636	801	838	875	912	949	986	1023	1060	1097	1134	1171	1208	1245
4000 [1888]	678	1467	706	1525	733	1586	760	1650	787	1716	813	850	887	924	961	998	1035	1072	1109	1146	1183	1220	1257
4100 [1935]	692	1542	719	1602	746	1666	772	1731	798	1800	824	861	898	935	972	1009	1046	1083	1120	1157	1194	1231	1268
4200 [1982]	706	1621	732	1684	759	1749	785	1817	810	1888	836	873	910	947	984	1021	1058	1095	1132	1169	1206	1243	1280
4300 [2029]	720	1704	746	1769	772	1837	797	1907	823	1981	847	884	921	958	995	1032	1069	1106	1143	1180	1217	1254	1291
4400 [2076]	734	1791	760	1858	785	1928	810	2001	835	2077	859	896	933	970	1007	1044	1081	1118	1155	1192	1229	1266	1303
4500 [2123]	748	1882	773	1952	798	2024	823	2100	847	2178	871	2259	895	932	969	1006	1043	1080	1117	1154	1191	1228	1265
4600 [2171]	762	1977	787	2049	812	2124	836	2202	860	2283	884	2366	907	944	981	1018	1055	1092	1129	1166	1203	1240	1277
4700 [2218]	777	2076	801	2151	826	2228	849	2309	873	2391	896	2477	919	2565	941	2656	963	2750	985	2846	1006	2945	3046
4800 [2265]	792	2180	816	2257	840	2337	863	2419	886	2504	909	2592	931	2683	953	2776	996	2871	1017	3072	1037	3176	3283

NOTE: A/F-Drive left of bold line, B/G-Drive right of bold line, C/H-Drive right of double line.

Drive Package	A/F	B/G	C/H
Motor H.P. [W]	2 [1491.4]	3 [2237.1]	3 [2237.1]
Blower Sheave	AK79H	AK79H	AK79H
Motor Sheave	1V140*7/8	1VP56*7/8	1VP56*7/8
Belt	A49	A50	A51
Turns Open	0	1	2
RPM	798	753	707
		663	616
		556	512
		498	452
		398	352
		298	252
		198	152
		98	52

- NOTES: 1. Factory sheave settings are shown in bold type.  
 2. Do not set motor sheave below minimum or maximum turns open shown.  
 3. Re-adjustment of sheave required to achieve rated airflow at AHR minimum External Static Pressure  
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow	AIRFLOW CORRECTION FACTORS *		Wet Coil		Horizontal Economizer RA Damper Open		Concentric Diffuser RXRN-EGD3415 & Diffuser RXMC-DD02 (Flush)		Concentric Diffuser RXRN-EGD3415 & Diffuser RXMC-DD02 (Drop)	
	Total MBH	Sensible MBH	Power kW	Resistance — Inches of Water [kPa]	Resistance — Inches of Water [kPa]	Resistance — Inches of Water [kPa]	Resistance — Inches of Water [kPa]	Resistance — Inches of Water [kPa]	Resistance — Inches of Water [kPa]	
3200 [1510]	0.97	0.93	0.99	0.10 [0.02]	0.07 [0.02]	0.74 [0.18]	0.56 [0.14]	0.74 [0.18]	0.56 [0.14]	
3300 [1557]	0.98	0.94	0.99	0.10 [0.03]	0.08 [0.02]	0.79 [0.20]	0.59 [0.15]	0.79 [0.20]	0.59 [0.15]	
3400 [1604]	0.98	0.96	0.99	0.11 [0.03]	0.09 [0.02]	0.84 [0.21]	0.62 [0.15]	0.84 [0.21]	0.62 [0.15]	
3500 [1652]	0.99	0.97	1.00	0.11 [0.03]	0.10 [0.02]	0.90 [0.22]	0.66 [0.16]	0.90 [0.22]	0.66 [0.16]	
3600 [1699]	0.99	0.98	1.00	0.12 [0.03]	0.11 [0.03]	0.95 [0.24]	0.69 [0.17]	0.95 [0.24]	0.69 [0.17]	
3700 [1746]	1.00	0.99	1.00	0.13 [0.03]	0.12 [0.03]	1.00 [0.25]	0.73 [0.18]	1.00 [0.25]	0.73 [0.18]	
3800 [1793]	1.00	1.01	1.00	0.13 [0.03]	0.13 [0.03]	1.04 [0.26]	0.76 [0.19]	1.04 [0.26]	0.76 [0.19]	
3900 [1840]	1.01	1.02	1.00	0.14 [0.04]	0.15 [0.04]	1.09 [0.27]	0.80 [0.20]	1.09 [0.27]	0.80 [0.20]	
4000 [1888]	1.01	1.03	1.01	0.15 [0.04]	0.16 [0.04]	1.13 [0.28]	0.84 [0.21]	1.13 [0.28]	0.84 [0.21]	
4100 [1935]	1.02	1.04	1.01	0.15 [0.04]	0.17 [0.04]	1.19 [0.30]	0.88 [0.22]	1.19 [0.30]	0.88 [0.22]	
4200 [1982]	1.02	1.06	1.01	0.16 [0.04]	0.19 [0.05]	1.24 [0.31]	0.92 [0.23]	1.24 [0.31]	0.92 [0.23]	
4300 [2029]	1.03	1.07	1.01	0.17 [0.04]	0.20 [0.05]	1.31 [0.33]	0.97 [0.24]	1.31 [0.33]	0.97 [0.24]	
4400 [2076]	1.03	1.08	1.01	0.18 [0.04]	0.21 [0.05]	1.37 [0.34]	1.02 [0.25]	1.37 [0.34]	1.02 [0.25]	
4500 [2123]	1.04	1.09	1.02	0.19 [0.05]	0.23 [0.06]	1.43 [0.35]	1.07 [0.27]	1.43 [0.35]	1.07 [0.27]	
4600 [2171]	1.04	1.11	1.02	0.19 [0.05]	0.24 [0.06]	1.48 [0.37]	1.11 [0.28]	1.48 [0.37]	1.11 [0.28]	
4700 [2218]	1.05	1.12	1.02	0.20 [0.05]	0.26 [0.06]	1.54 [0.38]	1.15 [0.29]	1.54 [0.38]	1.15 [0.29]	
4800 [2265]	1.05	1.13	1.02	0.21 [0.05]	0.28 [0.07]	1.59 [0.40]	1.19 [0.30]	1.59 [0.40]	1.19 [0.30]	

\* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity. [ ] Designates Metric Conversions



# AIRFLOW PERFORMANCE — RACDZ\*150\*

## AIRFLOW PERFORMANCE — 12.5 TON [43.9kW] — 60 Hz — SIDEFLOW

Model RACDZ\*150\* Voltage 208/230, 460, 575 — 3 phase 60 Hz

Air Flow CFM [L/s]	External Static Pressure — Inches of Water [kPa]																							
	0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]				
4000 [1888]	—	793 [1757]	819 [1824]	846 [1892]	872 [1961]	897 [2031]	922 [2101]	946 [2173]	970 [2245]	993 [2318]	1015 [2392]	1036 [2467]	1057 [2542]	1077 [2619]	1096 [2696]	1113 [2774]	1133 [2853]	1150 [2933]	1167 [3014]	1183 [3095]	—			
4100 [1935]	—	809 [1841]	836 [1911]	863 [1982]	888 [2053]	913 [2125]	937 [2198]	961 [2272]	984 [2346]	1006 [2422]	1027 [2498]	1048 [2576]	1068 [2654]	1088 [2733]	1106 [2812]	1124 [2893]	1142 [2975]	1158 [3057]	1174 [3140]	1188 [3224]	—			
4200 [1992]	—	828 [1932]	854 [2004]	880 [2077]	905 [2150]	929 [2225]	952 [2300]	975 [2377]	997 [2454]	1019 [2532]	1040 [2611]	1060 [2691]	1079 [2771]	1098 [2853]	1116 [2935]	1133 [3018]	1150 [3102]	1166 [3187]	1181 [3272]	1196 [3359]	—			
4300 [2050]	—	848 [2028]	874 [2102]	898 [2177]	922 [2254]	944 [2332]	967 [2410]	989 [2488]	1011 [2567]	1032 [2648]	1052 [2729]	1071 [2811]	1090 [2894]	1108 [2978]	1125 [3063]	1142 [3149]	1158 [3235]	1174 [3323]	1188 [3411]	1202 [3500]	—			
4400 [2076]	—	863 [2129]	888 [2207]	912 [2284]	936 [2363]	959 [2443]	981 [2524]	1003 [2605]	1024 [2687]	1044 [2771]	1064 [2854]	1083 [2938]	1101 [3024]	1118 [3111]	1135 [3197]	1151 [3286]	1166 [3375]	1181 [3464]	1195 [3555]	1208 [3646]	—			
4500 [2123]	—	880 [2237]	905 [2317]	929 [2397]	952 [2479]	974 [2561]	996 [2644]	1019 [2728]	1041 [2812]	1062 [2898]	1082 [2984]	1101 [3071]	1119 [3159]	1137 [3248]	1154 [3338]	1170 [3428]	1184 [3520]	1198 [3612]	1201 [3705]	1214 [3769]	—			
4600 [2171]	—	898 [2351]	921 [2433]	944 [2516]	967 [2600]	988 [2684]	1009 [2770]	1030 [2856]	1049 [2943]	1068 [3031]	1086 [3120]	1104 [3210]	1121 [3300]	1137 [3392]	1152 [3484]	1167 [3577]	1181 [3671]	1195 [3766]	1207 [3861]	1219 [3958]	—			
4700 [2218]	—	914 [2471]	938 [2556]	960 [2641]	982 [2727]	1003 [2814]	1023 [2902]	1043 [2991]	1062 [3080]	1080 [3171]	1097 [3262]	1114 [3354]	1130 [3447]	1146 [3541]	1161 [3636]	1175 [3732]	1188 [3828]	1201 [3925]	1213 [4023]	—	—			
4800 [2265]	—	928 [2594]	954 [2684]	975 [2772]	996 [2860]	1017 [2950]	1036 [3041]	1055 [3132]	1074 [3224]	1091 [3317]	1108 [3410]	1124 [3505]	1140 [3601]	1155 [3697]	1169 [3794]	1182 [3892]	1195 [3991]	1207 [4091]	1219 [4191]	—	—			
4900 [2312]	—	947 [2729]	969 [2818]	990 [2908]	1011 [3000]	1031 [3092]	1050 [3185]	1069 [3278]	1086 [3373]	1102 [3468]	1119 [3565]	1134 [3662]	1149 [3760]	1163 [3859]	1177 [3958]	1190 [4059]	1202 [4160]	1213 [4262]	—	—	—			
5000 [2359]	—	964 [2876]	985 [2966]	1005 [3057]	1025 [3148]	1044 [3239]	1062 [3331]	1080 [3424]	1097 [3517]	1113 [3612]	1129 [3708]	1145 [3805]	1161 [3902]	1176 [3999]	1190 [4097]	1203 [4195]	1215 [4294]	1226 [4394]	—	—	—			
5100 [2407]	—	983 [3016]	1003 [3107]	1022 [3198]	1041 [3290]	1059 [3382]	1077 [3475]	1094 [3568]	1111 [3661]	1128 [3755]	1144 [3850]	1160 [3945]	1176 [4040]	1191 [4136]	1205 [4232]	1218 [4329]	1230 [4426]	1241 [4524]	—	—	—			
5200 [2454]	—	1002 [3166]	1021 [3257]	1040 [3348]	1059 [3439]	1077 [3530]	1095 [3621]	1113 [3712]	1130 [3803]	1147 [3894]	1164 [3985]	1180 [4076]	1197 [4167]	1213 [4258]	1228 [4349]	1242 [4440]	1255 [4531]	—	—	—	—			
5300 [2501]	—	1022 [3316]	1041 [3407]	1060 [3498]	1079 [3589]	1097 [3680]	1115 [3771]	1133 [3862]	1150 [3953]	1168 [4044]	1185 [4135]	1202 [4226]	1219 [4317]	1235 [4408]	1251 [4499]	1266 [4589]	1280 [4679]	1293 [4769]	—	—	—			
5400 [2548]	—	1042 [3466]	1061 [3557]	1080 [3648]	1099 [3739]	1117 [3830]	1135 [3921]	1153 [4012]	1171 [4103]	1189 [4194]	1206 [4285]	1224 [4376]	1241 [4467]	1258 [4558]	1274 [4648]	1289 [4738]	1303 [4828]	1316 [4918]	—	—	—			
5500 [2595]	—	1062 [3616]	1081 [3707]	1100 [3798]	1119 [3889]	1137 [3980]	1155 [4071]	1173 [4162]	1191 [4253]	1209 [4344]	1226 [4435]	1244 [4526]	1261 [4617]	1278 [4708]	1294 [4798]	1309 [4888]	1323 [4978]	—	—	—	—			
5600 [2643]	—	1082 [3766]	1101 [3857]	1120 [3948]	1139 [4039]	1157 [4130]	1175 [4221]	1193 [4312]	1211 [4403]	1229 [4494]	1246 [4585]	1264 [4676]	1281 [4767]	1298 [4858]	1314 [4948]	1329 [5038]	—	—	—	—	—			
5700 [2690]	—	1102 [3916]	1121 [4007]	1140 [4098]	1159 [4189]	1177 [4280]	1195 [4371]	1213 [4462]	1231 [4553]	1249 [4644]	1266 [4735]	1284 [4826]	1301 [4917]	1318 [5008]	1334 [5098]	—	—	—	—	—	—			
5800 [2737]	—	1122 [4066]	1141 [4157]	1160 [4248]	1179 [4339]	1197 [4430]	1215 [4521]	1233 [4612]	1251 [4703]	1269 [4794]	1286 [4885]	1304 [4976]	1321 [5067]	1338 [5158]	1354 [5248]	—	—	—	—	—	—			
5900 [2784]	—	1142 [4216]	1161 [4307]	1180 [4398]	1199 [4489]	1217 [4580]	1235 [4671]	1253 [4762]	1271 [4853]	1289 [4944]	1306 [5035]	1324 [5126]	1341 [5217]	1358 [5308]	1374 [5398]	—	—	—	—	—	—			
6000 [2831]	—	1162 [4366]	1181 [4457]	1200 [4548]	1219 [4639]	1237 [4730]	1255 [4821]	1273 [4912]	1291 [5003]	1309 [5094]	1326 [5185]	1344 [5276]	1361 [5367]	1378 [5458]	1394 [5548]	—	—	—	—	—	—			

NOTE: AF=Drive left of bold line, B/G=Drive right of bold line.

Drive Package	A/F	B/G
Motor H.P. [W]	3 [2237.1]	5 [3728.5]
Blower Sheave	AK77H	AK79H
Motor Sheave	1VL44*7/8	1VP60*1X1/2
Belt	A48	A52
Turns Open	0 1 2 3	1 2 3
RPM	1002 955 909 862	813 765 717 668
		1171 1127 1084 1038
		995

- NOTES: 1. Factory sheave settings are shown in bold type.  
 2. Do not set motor settings below minimum or maximum turns open shown.  
 3. Re-adjustment of sheave required to achieve rated airflow at AHR minimum External Static Pressure  
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *			Wet Coil		Horizontal Economizer RA Damper Open		Concentric Diffuser RXRN-EGF3618 & Concentric Adapter RXMC-DD03 (Flush)		Concentric Diffuser RXRN-EGD3618 & Concentric Adapter RXMC-DD03 (Drop)	
	Total MBH	Sensible MBH	Power kW	Resistance — Inches of Water [kPa]		Resistance — Inches of Water [kPa]		Resistance — Inches of Water [kPa]		Resistance — Inches of Water [kPa]	
4000 [1888]	1.01	1.03	1.01	0.15 [0.04]	0.16 [0.04]	0.15 [0.04]	0.16 [0.04]	0.15 [0.04]	0.16 [0.04]	0.15 [0.04]	0.16 [0.04]
4100 [1935]	1.02	1.04	1.01	0.16 [0.04]	0.17 [0.04]	0.16 [0.04]	0.17 [0.04]	0.16 [0.04]	0.17 [0.04]	0.16 [0.04]	0.17 [0.04]
4200 [1982]	1.02	1.06	1.01	0.17 [0.04]	0.18 [0.05]	0.17 [0.04]	0.18 [0.05]	0.17 [0.04]	0.18 [0.05]	0.17 [0.04]	0.18 [0.05]
4300 [2029]	1.03	1.07	1.01	0.17 [0.04]	0.19 [0.05]	0.18 [0.05]	0.19 [0.05]	0.18 [0.05]	0.19 [0.05]	0.18 [0.05]	0.19 [0.05]
4400 [2076]	1.03	1.08	1.01	0.18 [0.05]	0.20 [0.05]	0.19 [0.05]	0.20 [0.05]	0.19 [0.05]	0.20 [0.05]	0.19 [0.05]	0.20 [0.05]
4500 [2123]	1.04	1.09	1.02	0.19 [0.05]	0.21 [0.06]	0.20 [0.05]	0.21 [0.06]	0.20 [0.05]	0.21 [0.06]	0.20 [0.05]	0.21 [0.06]
4600 [2171]	1.04	1.11	1.02	0.20 [0.05]	0.22 [0.06]	0.21 [0.05]	0.22 [0.06]	0.21 [0.05]	0.22 [0.06]	0.21 [0.05]	0.22 [0.06]
4700 [2218]	1.05	1.12	1.02	0.21 [0.05]	0.23 [0.06]	0.22 [0.06]	0.23 [0.06]	0.22 [0.06]	0.23 [0.06]	0.22 [0.06]	0.23 [0.06]
4800 [2265]	1.05	1.13	1.02	0.22 [0.06]	0.24 [0.06]	0.23 [0.06]	0.24 [0.06]	0.23 [0.06]	0.24 [0.06]	0.23 [0.06]	0.24 [0.06]
4900 [2312]	1.06	1.14	1.02	0.23 [0.06]	0.25 [0.06]	0.24 [0.06]	0.25 [0.06]	0.24 [0.06]	0.25 [0.06]	0.24 [0.06]	0.25 [0.06]
5000 [2359]	1.06	1.16	1.03	0.24 [0.06]	0.26 [0.06]	0.25 [0.06]	0.26 [0.06]	0.25 [0.06]	0.26 [0.06]	0.25 [0.06]	0.26 [0.06]
5100 [2407]	1.07	1.17	1.03	0.25 [0.06]	0.27 [0.06]	0.26 [0.06]	0.27 [0.06]	0.26 [0.06]	0.27 [0.06]	0.26 [0.06]	0.27 [0.06]
5200 [2454]	1.07	1.18	1.03	0.26 [0.06]	0.28 [0.06]	0.27 [0.06]	0.28 [0.06]	0.27 [0.06]	0.28 [0.06]	0.27 [0.06]	0.28 [0.06]
5300 [2501]	1.08	1.19	1.03	0.27 [0.06]	0.29 [0.06]	0.28 [0.06]	0.29 [0.06]	0.28 [0.06]	0.29 [0.06]	0.28 [0.06]	0.29 [0.06]
5400 [2548]	1.08	1.21	1.03	0.27 [0.07]	0.30 [0.06]	0.29 [0.06]	0.30 [0.06]	0.29 [0.06]	0.30 [0.06]	0.29 [0.06]	0.30 [0.06]
5500 [2595]	1.09	1.22	1.04	0.28 [0.07]	0.31 [0.08]	0.30 [0.06]	0.31 [0.08]	0.30 [0.06]	0.31 [0.08]	0.30 [0.06]	0.31 [0.08]
5600 [2643]	1.09	1.23	1.04	0.29 [0.07]	0.32 [0.08]	0.31 [0.08]	0.32 [0.08]	0.31 [0.08]	0.32 [0.08]	0.31 [0.08]	0.32 [0.08]
5700 [2690]	1.10	1.24	1.04	0.30 [0.07]	0.33 [0.08]	0.32 [0.08]	0.33 [0.08]	0.32 [0.08]	0.33 [0.08]	0.32 [0.08]	0.33 [0.08]
5800 [2737]	1.10	1.26	1.04	0.31 [0.08]	0.34 [0.08]	0.33 [0.08]	0.34 [0.08]	0.33 [0.08]	0.34 [0.08]	0.33 [0.08]	0.34 [0.08]
5900 [2784]	1.10	1.27	1.05	0.32 [0.08]	0.35 [0.08]	0.34 [0.08]	0.35 [0.08]	0.34 [0.08]	0.35 [0.08]	0.34 [0.08]	0.35 [0.08]
6000 [2831]	1.11	1.28	1.05	0.33 [0.08]	0.36 [0.08]	0.35 [0.08]	0.36 [0.08]	0.35 [0.08]	0.36 [0.08]	0.35 [0.08]	0.36 [0.08]

\* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity. [ ] Designates Metric Conversions

**XVIII. HEATER KIT CHARACTERISTICS**  
**TABLE A: AUXILIARY HEATER KITS CHARACTERISTICS AND APPLICATION**

208/240 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION																
		Single Power Supply for Both Unit and Heater Kit						Separate Power Supply for Both Unit and Heater Kit								
RHEEM Model Number	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 208/240 V	Heater KBTU/Hr @ 208/240 V	Heater Amp. @ 208/240 V	Air Conditioner		Heater Kit		Air Conditioner		Heater Kit		Air Conditioner		
						Unit Min. Ckt. Ampacity @ 208/240 V	Over Current Protective Device Size	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Ckt. Ampacity 208/240V	Over Current Protective Device Size	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Over Current Protective Device Size		
															Min./Max. @ 208 V	Min./Max. @ 240 V
RACDZR090ACA	No Heat	-----	-----	-----	-----	-----	41/41	50/60	-----	-----	41/41	50/60	-----	-----	41/41	50/60
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	41/41	50/50	26/30	30/30	41/41	50/60	30/30	41/41	50/60	41/41	50/60
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	46/52	50/50	38/44	40/45	41/41	60/60	40/45	41/41	50/60	41/41	50/60
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	60/68	60/60	52/60	60/60	41/41	70/70	60/60	41/41	50/60	41/41	50/60
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	84/95	90/90	100/100	80/90	75/87	100/100	80/90	75/87	100/100	50/60	50/60
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	112/128	125/125	150/150	110/119	104/119	150/150	110/125	104/119	110/125	50/60	50/60
RACDZR090ACB RACDZR090ACC	No Heat	-----	-----	-----	-----	-----	43/43	50/60	-----	-----	43/43	50/60	-----	-----	43/43	50/60
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	43/43	50/50	26/30	30/30	43/43	50/50	30/30	43/43	50/60	43/43	50/60
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	49/55	50/50	38/44	40/45	43/43	60/60	40/45	43/43	50/60	43/43	50/60
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	63/71	70/70	80/80	60/60	43/43	80/80	60/60	43/43	50/60	43/43	50/60
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	87/98	90/90	100/100	80/90	75/87	100/100	80/90	75/87	100/100	50/60	50/60
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	115/131	125/125	150/150	104/119	110/125	150/150	110/125	104/119	110/125	50/60	50/60
RACDZR102ACA	No Heat	-----	-----	-----	-----	-----	44/44	60/70	-----	-----	44/44	60/70	-----	-----	44/44	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	44/44	60/60	26/30	30/30	44/44	60/60	30/30	44/44	60/70	44/44	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	47/53	60/60	38/44	40/45	44/44	60/60	40/45	44/44	60/70	44/44	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	61/69	70/70	70/70	60/60	44/44	70/70	60/60	44/44	60/70	44/44	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	84/96	90/90	100/100	80/90	75/87	100/100	80/90	75/87	100/100	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	112/128	125/125	150/150	110/119	110/125	150/150	110/125	104/119	110/125	60/70	60/70
RACDZR102ACB	No Heat	-----	-----	-----	-----	-----	46/46	60/70	-----	-----	46/46	60/70	-----	-----	46/46	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	46/46	60/60	26/30	30/30	46/46	60/60	30/30	46/46	60/70	46/46	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	49/55	60/60	38/44	40/45	46/46	60/60	40/45	46/46	60/70	46/46	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	63/71	70/70	80/80	60/60	46/46	70/70	60/60	46/46	60/70	46/46	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	87/98	90/90	100/100	80/90	75/87	100/100	80/90	75/87	100/100	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	115/131	125/125	150/150	104/119	110/125	150/150	110/125	104/119	110/125	60/70	60/70
RACDZR102ACC	No Heat	-----	-----	-----	-----	-----	49/49	60/70	-----	-----	49/49	60/70	-----	-----	49/49	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	49/49	60/60	26/30	30/30	49/49	60/60	30/30	49/49	60/70	49/49	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	53/59	60/60	38/44	40/45	49/49	60/60	40/45	49/49	60/70	49/49	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	67/75	70/70	80/80	60/60	49/49	70/70	60/60	49/49	60/70	49/49	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	90/102	90/90	110/110	80/90	75/87	110/110	80/90	75/87	110/110	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	119/134	125/125	150/150	104/119	110/125	150/150	110/125	104/119	110/125	60/70	60/70

208/240 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION

RHEEM Model Number	Single Power Supply for Both Unit and Heater Kit						Separate Power Supply for Both Unit and Heater Kit					
	Heater Kit			Air Conditioner			Heater Kit			Air Conditioner		
	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 208/240 V	Heater KBTU/Hr @ 208/240 V	Heater Amp. @ 208/240 V	Unit Min. Ckt. Ampacity @ 208/240 V	Over Current Protective Device Size Min./Max. @ 208 V	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Circuit Ampacity 208/240V	Over Current Protective Device Size Min./Max. @ 208 V	Min./Max. @ 240 V
RACDZR120ACA	No Heat	----	----	----	----	48/48	60/70	----	----	48/48	60/70	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	48/48	60/60	26/30	30/30	48/48	60/70	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	48/54	60/60	38/44	40/45	48/48	60/70	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	62/70	70/70	52/60	60/60	48/48	60/70	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	85/97	90/90	100/100	80/90	48/48	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	113/129	125/125	150/150	110/125	48/48	60/70	60/70
RACDZR120ACB	No Heat	----	----	----	----	51/51	60/70	----	----	51/51	60/70	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	51/51	60/60	26/30	30/30	51/51	60/70	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	51/56	60/60	38/44	40/45	51/51	60/70	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	65/73	70/70	80/80	60/60	51/51	60/70	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	88/100	90/90	100/100	80/90	51/51	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	116/132	125/125	150/150	110/125	51/51	60/70	60/70
RACDZR120ACC	No Heat	----	----	----	----	53/53	60/80	----	----	53/53	60/80	60/80
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	53/53	60/60	26/30	30/30	53/53	60/80	60/80
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	53/59	60/60	38/44	40/45	53/53	60/80	60/80
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	67/75	70/70	80/80	60/60	53/53	60/80	60/80
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	90/102	90/90	110/110	80/90	53/53	60/80	60/80
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	119/134	125/125	150/150	110/125	53/53	60/80	60/80
RACDZS090ACA RACDZS090ACF	No Heat	----	----	----	----	41/41	50/60	----	----	41/41	50/60	50/60
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	41/41	50/50	26/30	30/30	41/41	50/60	50/60
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	46/52	50/50	38/44	40/45	41/41	50/60	50/60
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	60/68	60/60	70/70	60/60	41/41	50/60	50/60
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	84/95	90/90	100/100	80/90	41/41	50/60	50/60
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	112/128	125/125	150/150	110/125	41/41	50/60	50/60
RACDZS090ACB RACDZS090ACF RACDZS090ACG RACDZS090ACH	No Heat	----	----	----	----	44/44	50/60	----	----	44/44	50/60	50/60
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	44/44	50/50	26/30	30/30	44/44	50/60	50/60
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	49/55	50/50	38/44	40/45	44/44	50/60	50/60
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	63/71	70/70	80/80	60/60	44/44	50/60	50/60
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	87/98	90/90	100/100	80/90	44/44	50/60	50/60
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	115/131	125/125	150/150	110/125	44/44	50/60	50/60

**208/240 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION**

		Single Power Supply for Both Unit and Heater Kit						Separate Power Supply for Both Unit and Heater Kit						
RHEEM Model Number	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Heater Kit			Heater Amp. @ 208/240 V	Unit Min. Ckt. Ampacity @ 208/240 V	Air Conditioner		Heater Kit			Air Conditioner	
			Rated Heater kW @ 208/240 V	Heater KBTU/Hr @ 208/240 V	Heater Amp. @ 208/240 V			Over Current Protective Device Size	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Circuit Ampacity 208/240V	Over Current Protective Device Size	Min./Max. @ 208 V	Min./Max. @ 240 V
	No Heat	----	----	----	----	----	46/46	60/70	60/70	60/70	----	46/46	60/70	60/70
RACDZS102ACA	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	46/46	60/60	60/60	26/30	30/30	46/46	60/70	60/70	
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	47/52	60/60	60/60	38/44	40/45	46/46	60/70	60/70	
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	61/69	70/70	70/70	52/60	60/60	46/46	60/70	60/70	
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	84/96	90/90	100/100	75/87	80/90	46/46	60/70	60/70	
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	112/128	125/125	150/150	104/119	110/125	46/46	60/70	60/70	
	No Heat	----	----	----	----	48/48	60/70	60/70	----	----	48/48	60/70	60/70	
RACDZS102ACB RACDZS102ACG	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	48/48	60/60	60/60	26/30	30/30	48/48	60/70	60/70	
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	49/55	60/60	60/60	38/44	40/45	48/48	60/70	60/70	
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	63/71	70/70	80/80	52/60	60/60	48/48	60/70	60/70	
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	87/98	90/90	100/100	75/87	80/90	48/48	60/70	60/70	
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	115/131	125/125	150/150	104/119	110/125	48/48	60/70	60/70	
	No Heat	----	----	----	----	51/51	60/70	60/70	----	----	51/51	60/70	60/70	
RACDZS102ACC RACDZS102ACH	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	51/51	60/60	60/60	26/30	30/30	51/51	60/70	60/70	
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	53/59	60/60	60/60	38/44	40/45	51/51	60/70	60/70	
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	67/75	70/70	80/80	52/60	60/60	51/51	60/70	60/70	
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	90/102	90/90	110/110	75/87	80/90	51/51	60/70	60/70	
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	119/134	125/125	150/150	104/119	110/125	51/51	60/70	60/70	
	No Heat	----	----	----	----	46/46	60/70	60/70	----	----	46/46	60/70	60/70	
RACDZS102ACF	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	46/46	60/60	60/60	26/30	30/30	46/46	60/70	60/70	
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	47/53	60/60	60/60	38/44	40/45	46/46	60/70	60/70	
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	61/69	70/70	70/70	52/60	60/60	46/46	60/70	60/70	
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	84/96	90/90	100/100	75/87	80/90	46/46	60/70	60/70	
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	112/128	125/125	150/150	104/119	110/125	46/46	60/70	60/70	
	No Heat	----	----	----	----	54/54	70/80	70/80	----	----	54/54	70/80	70/80	
RACDZS120ACA RACDZS120ACF	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	54/54	70/70	70/70	26/30	30/30	54/54	70/80	70/80	
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	54/54	70/70	70/70	38/44	40/45	54/54	70/80	70/80	
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	62/70	70/70	70/70	52/60	60/60	54/54	70/80	70/80	
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	85/97	90/90	100/100	75/87	80/90	54/54	70/80	70/80	
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	113/129	125/125	150/150	104/119	110/125	54/54	70/80	70/80	

**208/240 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION**

RHEEM Model Number	Single Power Supply for Both Unit and Heater Kit						Separate Power Supply for Both Unit and Heater Kit					
	Heater Kit			Air Conditioner			Heater Kit			Air Conditioner		
	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 208/240 V	Heater KBTU/Hr @ 208/240 V	Heater Amp. @ 208/240 V	Unit Min. Ckt. Ampacity @ 208/240 V	Over Current Protective Device Size Min./Max. @ 208 V	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Circuit Ampacity 208/240V	Over Current Protective Device Size Min./Max. @ 208 V	Min./Max. @ 240 V
RACDZS120ACB RACDZS120ACG	No Heat	-----	-----	-----	-----	56/56	70/80	-----	-----	56/56	70/80	70/80
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	56/56	70/70	26/30	30/30	56/56	70/80	70/80
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	56/56	70/70	38/44	40/45	56/56	70/80	70/80
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	65/73	70/70	52/60	60/60	56/56	70/80	70/80
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	88/100	90/90	100/100	80/90	56/56	70/80	70/80
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	116/132	125/125	150/150	110/125	56/56	70/80	70/80
RACDZS120ACC RACDZS120ACH	No Heat	-----	-----	-----	-----	58/58	70/90	-----	-----	58/58	70/90	70/90
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	58/58	70/70	26/30	30/30	58/58	70/90	70/90
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	58/59	70/70	38/44	40/45	58/58	70/90	70/90
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	67/75	70/70	52/60	60/60	58/58	70/90	70/90
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	90/102	90/90	110/110	80/90	58/58	70/90	70/90
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	119/134	125/125	150/150	110/125	58/58	70/90	70/90
RACDZS150ACA RACDZS150ACF	No Heat	-----	-----	-----	-----	70/70	80/90	-----	-----	70/70	80/90	80/90
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	70/70	80/90	26/30	30/30	70/70	80/90	80/90
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	70/70	80/90	38/44	40/45	70/70	80/90	80/90
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	70/73	80/90	52/60	60/60	70/70	80/90	80/90
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	88/100	90/90	100/100	80/90	70/70	80/90	80/90
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	117/132	125/125	150/150	110/125	70/70	80/90	80/90
RACDZS150ACB RACDZS150ACG	No Heat	-----	-----	-----	-----	75/75	90/90	-----	-----	75/75	90/90	90/90
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	75/75	90/90	26/30	30/30	75/75	90/90	90/90
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	75/75	90/90	38/44	40/45	75/75	90/90	90/90
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	75/80	90/90	52/60	60/60	75/75	90/90	90/90
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	95/107	100/100	75/87	80/90	75/75	90/90	90/90
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	124/139	125/125	104/119	110/125	75/75	90/90	90/90
RACDZT090ACF	No Heat	-----	-----	-----	-----	41/41	50/60	-----	-----	41/41	50/60	50/60
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	41/41	50/50	26/30	30/30	41/41	50/60	50/60
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	46/52	50/50	38/44	40/45	41/41	50/60	50/60
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	60/68	60/60	52/60	60/60	41/41	50/60	50/60
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	84/95	90/90	75/87	80/90	41/41	50/60	50/60
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	112/128	125/125	104/119	110/125	41/41	50/60	50/60

**208/240 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION**

RHEEM Model Number	Single Power Supply for Both Unit and Heater Kit							Separate Power Supply for Both Unit and Heater Kit							
	Heater Kit				Air Conditioner			Heater Kit				Air Conditioner			
	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 208/240 V	Heater KBTU/Hr @ 208/240 V	Heater Amp. @ 208/240 V	Unit Min. Ckt. Ampacity @ 208/240 V	Over Current Protective Device Size Min./Max. @ 208 V	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Circuit Ampacity 208/240V	Over Current Protective Device Size Min./Max. @ 208 V	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Circuit Ampacity 208/240V	Over Current Protective Device Size Min./Max. @ 208 V
RACDZT090ACG RACDZT090ACH	No Heat	-----	-----	-----	-----	44/44	50/60	-----	-----	44/44	50/60	-----	-----	44/44	50/60
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	44/44	50/50	26/30	30/30	44/44	50/60	30/30	44/44	50/60	50/60
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	49/55	50/50	60/60	38/44	40/45	50/60	60/60	44/44	50/60	50/60
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	63/71	70/70	80/80	52/60	60/60	50/60	60/60	44/44	50/60	50/60
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	87/98	90/90	100/100	75/87	80/90	50/60	100/100	44/44	50/60	50/60
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	115/131	125/125	150/150	104/119	110/125	50/60	150/150	44/44	50/60	50/60
RACDZT102ACF	No Heat	-----	-----	-----	-----	46/46	60/70	-----	-----	46/46	60/70	-----	-----	46/46	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	46/46	60/60	60/60	26/30	30/30	60/70	30/30	46/46	60/70	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	47/52	60/60	60/60	38/44	40/45	60/70	40/45	46/46	60/70	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	61/69	70/70	70/70	52/60	60/60	60/70	60/60	46/46	60/70	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	84/96	90/90	100/100	75/87	80/90	60/70	100/100	46/46	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	112/128	125/125	150/150	104/119	110/125	60/70	150/150	46/46	60/70	60/70
RACDZT102ACG	No Heat	-----	-----	-----	-----	48/48	60/70	-----	-----	48/48	60/70	-----	-----	48/48	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	48/48	60/60	60/60	26/30	30/30	60/70	30/30	48/48	60/70	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	49/55	60/60	60/60	38/44	40/45	60/70	40/45	48/48	60/70	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	63/71	70/70	80/80	52/60	60/60	60/70	60/60	48/48	60/70	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	87/98	90/90	100/100	75/87	80/90	60/70	100/100	48/48	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	115/131	125/125	150/150	104/119	110/125	60/70	150/150	48/48	60/70	60/70
RACDZT102ACH	No Heat	-----	-----	-----	-----	51/51	60/70	-----	-----	51/51	60/70	-----	-----	51/51	60/70
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	51/51	60/60	60/60	26/30	30/30	60/70	30/30	51/51	60/70	60/70
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	53/59	60/60	60/60	38/44	40/45	60/70	40/45	51/51	60/70	60/70
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	67/75	70/70	80/80	52/60	60/60	60/70	60/60	51/51	60/70	60/70
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	90/102	90/90	110/110	75/87	80/90	60/70	110/110	51/51	60/70	60/70
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	119/134	125/125	150/150	104/119	110/125	60/70	150/150	48/48	60/70	60/70
RACDZT120ACF	No Heat	-----	-----	-----	-----	54/54	70/80	-----	-----	54/54	70/80	-----	-----	54/54	70/80
	DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	54/54	70/70	70/70	26/30	30/30	70/80	30/30	54/54	70/80	70/80
	DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	54/54	70/70	70/70	38/44	40/45	70/80	40/45	54/54	70/80	70/80
	DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	62/70	70/70	70/70	52/60	60/60	70/80	60/60	54/54	70/80	70/80
	DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	85/97	90/90	100/100	75/87	80/90	70/80	100/100	54/54	70/80	70/80
	DD40CP	1	29.7/39.6	101.34/135.12	82.5/95.2	115/129	125/125	150/150	104/119	110/125	70/80	150/150	54/54	70/80	70/80

**208/240 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION**

RHEEM Model Number		Single Power Supply for Both Unit and Heater Kit										Separate Power Supply for Both Unit and Heater Kit					
		Heater Kit					Air Conditioner					Heater Kit			Air Conditioner		
		RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 208/240 V	Heater KBTU/Hr @ 208/240 V	Heater Amp. @ 208/240 V	Unit Min. Ckt. Ampacity @ 208/240 V	Over Current Protective Device Size Min./Max. @ 208 V	Over Current Protective Device Size Min./Max. @ 240 V	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Circuit Ampacity 208/240V	Over Current Protective Device Size Min./Max. @ 208 V	Over Current Protective Device Size Min./Max. @ 240 V			
RACDZT120ACG		No Heat	----	----	----	----	56/56	70/80	70/80	56/56	70/80	70/80	70/80				
		DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	56/56	70/70	70/70	26/30	30/30	56/56	70/80	70/80			
		DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	56/56	70/70	70/70	38/44	40/45	56/56	70/80	70/80			
		DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	65/73	70/70	80/80	52/60	60/60	56/56	70/80	70/80			
		DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	88/100	90/90	100/100	75/87	80/90	56/56	70/80	70/80			
RACDZT120ACH		No Heat	----	----	----	----	58/58	70/90	70/90	58/58	70/90	70/90	70/90				
		DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	58/58	70/70	70/70	26/30	30/30	58/58	70/90	70/90			
		DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	58/59	70/70	70/70	38/44	40/45	58/58	70/90	70/90			
		DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	67/75	70/70	80/80	52/60	60/60	58/58	70/90	70/90			
		DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	90/102	90/90	110/110	75/87	80/90	58/58	70/90	70/90			
RACDZT150ACF		No Heat	----	----	----	----	119/134	125/125	150/150	104/119	110/125	58/58	70/90	70/90			
		DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	51/51	60/70	60/70	26/30	30/30	51/51	60/70	60/70			
		DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	51/57	60/70	60/70	38/44	40/45	51/51	60/70	60/70			
		DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	65/73	70/70	80/80	52/60	60/60	51/51	60/70	60/70			
		DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	88/100	90/90	100/100	75/87	80/90	51/51	60/70	60/70			
RACDZT150ACG		No Heat	----	----	----	----	117/132	125/125	150/150	104/119	110/125	51/51	60/70	60/70			
		DD10CP	1	7.4/9.9	25.25/33.78	20.6/23.8	56/56	70/80	70/80	26/30	30/30	56/56	70/80	70/80			
		DD15CP	1	10.8/14.4	36.85/49.13	30.0/34.6	58/64	70/80	70/80	38/44	40/45	56/56	70/80	70/80			
		DD20CP	1	14.9/19.8	50.84/67.56	41.3/47.6	72/80	80/80	80/80	52/60	60/60	56/56	70/80	70/80			
		DD30CP	1	21.6/28.8	73.70/98.27	60.0/69.3	95/107	100/100	110/110	75/87	80/90	56/56	70/80	70/80			
DD40CP		1	29.7/39.6	101.34/135.12	82.5/95.2	124/139	125/125	150/150	104/119	110/125	56/56	70/80	70/80				

480 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION															
Single Power Supply for Both Unit and Heater Kit				Heater Kit				Air Conditioner				Separate Power Supply for Both Unit and Heater Kit			
RHEEM Model Number	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480 V	Heater KBTU/Hr @ 480 V	Heater Amp. @ 480 V	Unit Min. Ckt. Ampacity @ 480 V	Over Current Protective Device Size		Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size			
							Min./Max. @ 480 V					Min./Max. @ 480 V			
RACDZR090ADA	No Heat	-----	-----	-----	-----	21	25/30	-----	-----	21	-----	25/30	-----		
	DD10DNV	1	9.9	33.78	11.9	21	25/25	-----	15	15	21	25/30	-----		
	DD15DNV	1	14.4	49.13	17.3	26	30/30	-----	22	25	21	25/30	-----		
	DD20DNV	1	19.8	67.56	23.8	34	35/35	-----	30	30	21	25/30	-----		
	DD30DNV	1	28.8	98.27	34.6	48	50/50	-----	44	45	21	25/30	-----		
RACDZR090ADB	DD40DNV	1	39.6	135.12	47.6	64	70/70	-----	60	60	21	25/30	-----		
	No Heat	-----	-----	-----	-----	23	30/35	-----	-----	23	-----	30/35	-----		
	DD10DNV	1	9.9	33.78	11.9	23	30/30	-----	15	15	23	30/35	-----		
	DD15DNV	1	14.4	49.13	17.3	28	30/30	-----	22	25	23	30/35	-----		
	DD20DNV	1	19.8	67.56	23.8	36	40/40	-----	30	30	23	30/35	-----		
RACDZR102ADA	DD30DNV	1	28.8	98.27	34.6	49	50/50	-----	44	45	23	30/35	-----		
	DD40DNV	1	39.6	135.12	47.6	66	70/70	-----	60	60	23	30/35	-----		
	No Heat	-----	-----	-----	-----	22	25/30	-----	-----	-----	22	25/30	-----		
	DD10CP	1	36.2	123.52	45.6	62	70/70	-----	57	60	22	25/30	-----		
	DD15CP	1	52.8	180.16	66.3	88	90/90	-----	83	90	22	25/30	-----		
RACDZR102ADB	DD20CP	1	72.9	248.75	91.3	119	125/125	-----	115	125	22	25/30	-----		
	DD30CP	1	105.6	360.32	132.7	171	175/175	-----	166	175	22	25/30	-----		
	DD40CP	1	145.3	495.78	182.5	233	250/250	-----	229	250	22	25/30	-----		
	No Heat	-----	-----	-----	-----	23	30/35	-----	-----	-----	23	30/35	-----		
	DD10CP	1	36.2	123.52	45.6	63	70/70	-----	57	60	23	30/35	-----		
RACDZR102ADC	DD15CP	1	52.8	180.16	66.3	89	90/90	-----	83	90	23	30/35	-----		
	DD20CP	1	72.9	248.75	91.3	120	125/125	-----	115	125	23	30/35	-----		
	DD30CP	1	105.6	360.32	132.7	172	175/175	-----	166	175	23	30/35	-----		
	DD40CP	1	145.3	495.78	182.5	234	250/250	-----	229	250	23	30/35	-----		
	No Heat	-----	-----	-----	-----	24	30/35	-----	-----	-----	24	30/35	-----		

**480 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION**

RHEEM Model Number		Single Power Supply for Both Unit and Heater Kit										Separate Power Supply for Both Unit and Heater Kit														
		Heater Kit					Air Conditioner					Heater Kit					Air Conditioner									
		RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480 V	Heater KBTU/Hr @ 480 V	Heater Amp. @ 480 V	Unit Min. Ckt. Ampacity @ 480 V	Over Current Protective Device Size Min./Max. @ 480 V	Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size Min./Max. @ 480 V	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480 V	Heater KBTU/Hr @ 480 V	Heater Amp. @ 480 V	Unit Min. Ckt. Ampacity @ 480 V	Over Current Protective Device Size Min./Max. @ 480 V	Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size Min./Max. @ 480 V			
RACDZR120ADA		No Heat	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
		DD10DNV	1	9.9	33.78	11.9	26	30/35	15	15	26	30/35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD15DNV	1	14.4	49.13	17.3	27	30/30	22	25	26	30/35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		DD20DNV	1	19.8	67.56	23.8	35	35/35	30	30	26	30/35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RACDZR120ADB		DD30DNV	1	28.8	98.27	34.6	49	50/50	44	45	30/35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD40DNV	1	39.6	135.12	47.6	65	70/70	60	60	30/35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		No Heat	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		DD10DNV	1	9.9	33.78	11.9	27	30/30	15	15	27	30/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RACDZR120ADC		DD15DNV	1	14.4	49.13	17.3	28	30/30	22	25	30/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD20DNV	1	19.8	67.56	23.8	36	40/40	30	30	30/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD30DNV	1	28.8	98.27	34.6	50	50/50	44	45	27	30/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD40DNV	1	39.6	135.12	47.6	66	70/70	60	60	27	30/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RACDZS090ADA		No Heat	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD10DNV	1	9.9	33.78	11.9	28	35/35	15	15	28	35/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD15DNV	1	14.4	49.13	17.3	30	35/35	22	25	28	35/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD20DNV	1	19.8	67.56	23.8	38	40/40	30	30	28	35/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RACDZS090ADF		DD30DNV	1	28.8	98.27	34.6	51	60/60	44	45	30/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD40DNV	1	39.6	135.12	47.6	67	70/70	60	60	28	35/40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		No Heat	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		DD10DNV	1	9.9	33.78	11.9	19	20/20	15	15	17	20/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RACDZS090ADB		DD15DNV	1	14.4	49.13	17.3	26	30/30	22	25	20/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD20DNV	1	19.8	67.56	23.8	34	35/35	30	30	20/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD30DNV	1	28.8	98.27	34.6	48	50/50	44	45	17	20/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD40DNV	1	39.6	135.12	47.6	64	70/70	60	60	17	20/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RACDZS090ADG		No Heat	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD10DNV	1	9.9	33.78	11.9	27	30/30	15	15	19	25/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD15DNV	1	14.4	49.13	17.3	33	35/35	22	25	19	25/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD20DNV	1	19.8	67.56	23.8	42	45/45	30	30	19	25/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RACDZS090ADH		DD30DNV	1	28.8	98.27	34.6	55	60/60	44	45	25/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
		DD40DNV	1	39.6	135.12	47.6	71	80/80	60	60	19	25/25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	

480 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION															
Single Power Supply for Both Unit and Heater Kit				Heater Kit				Air Conditioner				Separate Power Supply for Both Unit and Heater Kit			
RHEEM Model Number	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480 V	Heater KBTU/Hr @ 480 V	Heater Amp. @ 480 V	Unit Min. Ckt. Ampacity @ 480 V	Over Current Protective Device Size		Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size			
							Min./Max. @ 480 V					Min./Max. @ 480 V			
RACDZS102ADA RACDZS102ADF	No Heat	-----	-----	-----	-----	21	25/30	-----	-----	21	-----	25/30	-----		
	DD10DNV	1	9.9	33.78	11.9	21	25/25	-----	15	15	21	25/30	-----		
	DD15DNV	1	14.4	49.13	17.3	26	30/30	-----	22	25	21	25/30	-----		
	DD20DNV	1	19.8	67.56	23.8	35	35/35	-----	30	30	21	25/30	-----		
	DD30DNV	1	28.8	98.27	34.6	48	50/50	-----	44	45	21	25/30	-----		
	DD40DNV	1	39.6	135.12	47.6	64	70/70	-----	60	60	21	25/30	-----		
RACDZS102ADB RACDZS102ADG	No Heat	-----	-----	-----	-----	22	25/30	-----	-----	22	-----	25/30	-----		
	DD10DNV	1	9.9	33.78	11.9	27	30/30	-----	15	15	22	25/30	-----		
	DD15DNV	1	14.4	49.13	17.3	33	35/35	-----	22	25	22	25/30	-----		
	DD20DNV	1	19.8	67.56	23.8	42	45/45	-----	30	30	22	25/30	-----		
	DD30DNV	1	28.8	98.27	34.6	55	60/60	-----	44	45	22	25/30	-----		
	DD40DNV	1	39.6	135.12	47.6	71	80/80	-----	60	60	22	25/30	-----		
RACDZS102ADC	No Heat	-----	-----	-----	-----	24	30/35	-----	-----	24	-----	30/35	-----		
	DD10DNV	1	9.9	33.78	11.9	27	30/30	-----	15	15	24	30/35	-----		
	DD15DNV	1	14.4	49.13	17.3	33	35/35	-----	22	25	24	30/35	-----		
	DD20DNV	1	19.8	67.56	23.8	42	45/45	-----	30	30	24	30/35	-----		
	DD30DNV	1	28.8	98.27	34.6	55	60/60	-----	44	45	24	30/35	-----		
	DD40DNV	1	39.6	135.12	47.6	71	80/80	-----	60	60	24	30/35	-----		
RACDZS102ADH	No Heat	-----	-----	-----	-----	24	30/35	-----	-----	24	-----	30/35	-----		
	DD10DNV	1	9.9	33.78	11.9	30	30/35	-----	15	15	24	30/35	-----		
	DD15DNV	1	14.4	49.13	17.3	37	40/40	-----	22	25	24	30/35	-----		
	DD20DNV	1	19.8	67.56	23.8	45	45/50	-----	30	30	24	30/35	-----		
	DD30DNV	1	28.8	98.27	34.6	59	60/60	-----	44	45	24	30/35	-----		
	DD40DNV	1	39.6	135.12	47.6	75	80/80	-----	60	60	24	30/35	-----		
RACDZS120ADA RACDZS120ADF	No Heat	-----	-----	-----	-----	26	30/40	-----	-----	26	-----	30/40	-----		
	DD10DNV	1	9.9	33.78	11.9	26	30/30	-----	15	15	26	30/40	-----		
	DD15DNV	1	14.4	49.13	17.3	27	30/30	-----	22	25	26	30/40	-----		
	DD20DNV	1	19.8	67.56	23.8	35	35/35	-----	30	30	26	30/40	-----		
	DD30DNV	1	28.8	98.27	34.6	49	50/50	-----	44	45	26	30/40	-----		
	DD40DNV	1	39.6	135.12	47.6	65	70/70	-----	60	60	26	30/40	-----		

**480 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION**

RHEEM Model Number		Single Power Supply for Both Unit and Heater Kit						Separate Power Supply for Both Unit and Heater Kit					
		Heater Kit			Air Conditioner			Heater Kit			Air Conditioner		
		RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480 V	Heater KBTU/Hr @ 480 V	Heater Amp. @ 480 V	Unit Min. Ckt. Ampacity @ 480 V	Over Current Protective Device Size Min./Max. @ 480 V	Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size Min./Max. @ 480 V	
RACDZS120ADB RACDZS120ADG	No Heat	----	----	----	----	----	32	40/45	----	----	32	40/45	
	DD10DNV	1	9.9	33.78	11.9	32	40/40	15	15	32	40/45		
	DD15DNV	1	14.4	49.13	17.3	35	40/40	22	25	32	40/45		
	DD20DNV	1	19.8	67.56	23.8	43	45/45	30	30	32	40/45		
	DD30DNV	1	28.8	98.27	34.6	56	60/60	44	45	32	40/45		
	DD40DNV	1	39.6	135.12	47.6	73	80/80	60	60	32	40/45		
	No Heat	----	----	----	----	34	40/45	----	----	34	40/45		
RACDZS120ADC RACDZS120ADH	DD10DNV	1	9.9	33.78	11.9	34	40/40	15	15	34	40/45		
	DD15DNV	1	14.4	49.13	17.3	37	40/40	22	25	34	40/45		
	DD20DNV	1	19.8	67.56	23.8	45	45/50	30	30	34	40/45		
	DD30DNV	1	28.8	98.27	34.6	59	60/60	44	45	34	40/45		
	DD40DNV	1	39.6	135.12	47.6	75	80/80	60	60	34	40/45		
	No Heat	----	----	----	----	34	40/40	----	----	34	40/40		
	DD10DNV	1	9.9	33.78	11.9	34	40/40	15	15	34	40/40		
RACDZS150ADA RACDZS150ADF	DD15DNV	1	14.4	49.13	17.3	34	40/40	22	25	34	40/40		
	DD20DNV	1	19.8	67.56	23.8	37	40/40	30	30	34	40/40		
	DD30DNV	1	28.8	98.27	34.6	50	50/50	44	45	34	40/40		
	DD40DNV	1	39.6	135.12	47.6	66	70/70	60	60	34	40/40		
	No Heat	----	----	----	----	37	40/45	----	----	37	40/45		
	DD10DNV	1	9.9	33.78	11.9	37	40/45	15	15	37	40/45		
	DD15DNV	1	14.4	49.13	17.3	37	40/45	22	25	37	40/45		
RACDZS150ADB RACDZS150ADG	DD20DNV	1	19.8	67.56	23.8	40	40/45	30	30	37	40/45		
	DD30DNV	1	28.8	98.27	34.6	54	60/60	44	45	37	40/45		
	DD40DNV	1	39.6	135.12	47.6	70	70/70	60	60	37	40/45		
	No Heat	----	----	----	----	21	20/25	----	----	21	20/25		
	DD10DNV	1	9.9	33.78	11.9	21	20/25	15	15	21	20/25		
	DD15DNV	1	14.4	49.13	17.3	26	30/30	22	25	21	20/25		
	DD20DNV	1	19.8	67.56	23.8	34	35/35	30	30	21	20/25		
RACDZT090ADF	DD30DNV	1	28.8	98.27	34.6	48	50/50	44	45	21	20/25		
	DD40DNV	1	39.6	135.12	47.6	64	70/70	60	60	21	20/25		

480 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION															
Single Power Supply for Both Unit and Heater Kit				Heater Kit				Air Conditioner				Separate Power Supply for Both Unit and Heater Kit			
RHEEM Model Number	RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480 V	Heater KBTU/Hr @ 480 V	Heater Amp. @ 480 V	Unit Min. Ckt. Ampacity @ 480 V	Over Current Protective Device Size		Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size			
							Min./Max. @ 480 V					Min./Max. @ 480 V			
RACDZT090ADG RACDZT090ADH	No Heat	-----	-----	-----	-----	21	30/30	-----	-----	21	-----	30/30	-----		
	DD10DNV	1	9.9	33.78	11.9	27	30/30	-----	15	15	21	30/30	-----		
	DD15DNV	1	14.4	49.13	17.3	33	35/35	-----	22	25	21	30/30	-----		
	DD20DNV	1	19.8	67.56	23.8	42	45/45	-----	30	30	21	30/30	-----		
	DD30DNV	1	28.8	98.27	34.6	55	60/60	-----	44	45	21	30/30	-----		
	DD40DNV	1	39.6	135.12	47.6	71	80/80	-----	60	60	21	30/30	-----		
RACDZT102ADF	No Heat	-----	-----	-----	-----	21	25/30	-----	-----	21	-----	25/30	-----		
	DD10DNV	1	9.9	33.78	11.9	21	25/25	-----	15	15	21	25/30	-----		
	DD15DNV	1	14.4	49.13	17.3	26	30/30	-----	22	25	21	25/30	-----		
	DD20DNV	1	19.8	67.56	23.8	35	35/35	-----	30	30	21	25/30	-----		
	DD30DNV	1	28.8	98.27	34.6	48	50/50	-----	44	45	21	25/30	-----		
	DD40DNV	1	39.6	135.12	47.6	64	70/70	-----	60	60	21	25/30	-----		
RACDZT102ADG	No Heat	-----	-----	-----	-----	22	30/35	-----	-----	22	-----	30/35	-----		
	DD10DNV	1	9.9	33.78	11.9	27	30/30	-----	15	15	22	30/35	-----		
	DD15DNV	1	14.4	49.13	17.3	33	35/35	-----	22	25	22	30/35	-----		
	DD20DNV	1	19.8	67.56	23.8	42	45/45	-----	30	30	22	30/35	-----		
	DD30DNV	1	28.8	98.27	34.6	55	60/60	-----	44	45	22	30/35	-----		
	DD40DNV	1	39.6	135.12	47.6	71	80/80	-----	60	60	22	30/35	-----		
RACDZT102ADH	No Heat	-----	-----	-----	-----	30	35/40	-----	-----	30	-----	35/40	-----		
	DD10DNV	1	9.9	33.78	11.9	30	35/35	-----	15	15	30	35/40	-----		
	DD15DNV	1	14.4	49.13	17.3	37	40/40	-----	22	25	30	35/40	-----		
	DD20DNV	1	19.8	67.56	23.8	45	45/50	-----	30	30	30	35/40	-----		
	DD30DNV	1	28.8	98.27	34.6	59	60/60	-----	44	45	30	35/40	-----		
	DD40DNV	1	39.6	135.12	47.6	75	80/80	-----	60	60	30	35/40	-----		
RACDZT120ADF	No Heat	-----	-----	-----	-----	26	30/40	-----	-----	26	-----	30/40	-----		
	DD10DNV	1	9.9	33.78	11.9	26	30/30	-----	15	15	26	30/40	-----		
	DD15DNV	1	14.4	49.13	17.3	27	30/30	-----	22	25	26	30/40	-----		
	DD20DNV	1	19.8	67.56	23.8	35	35/35	-----	30	30	26	30/40	-----		
	DD30DNV	1	28.8	98.27	34.6	49	50/50	-----	44	45	26	30/40	-----		
	DD40DNV	1	39.6	135.12	47.6	65	70/70	-----	60	60	26	30/40	-----		

**480 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION**

RHEEM Model Number		Single Power Supply for Both Unit and Heater Kit						Separate Power Supply for Both Unit and Heater Kit					
		Heater Kit			Air Conditioner			Heater Kit			Air Conditioner		
		RXJ- Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480 V	Heater KBTU/Hr @ 480 V	Heater Amp. @ 480 V	Unit Min. Ckt. Ampacity @ 480 V	Over Current Protective Device Size Min./Max. @ 480 V	Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size Min./Max. @ 480 V	
RACDZT120ADG	No Heat	-----	-----	-----	-----	32	40/45	-----	-----	32	40/45		
	DD10DNV	1	9.9	33.78	11.9	32	40/40	15	15	32	40/45		
	DD15DNV	1	14.4	49.13	17.3	35	40/40	22	25	32	40/45		
	DD20DNV	1	19.8	67.56	23.8	43	45/45	30	30	32	40/45		
	DD30DNV	1	28.8	98.27	34.6	56	60/60	44	45	32	40/45		
	DD40DNV	1	39.6	135.12	47.6	73	80/80	60	60	32	40/45		
RACDZT120ADH	No Heat	-----	-----	-----	-----	34	40/45	-----	-----	34	40/45		
	DD10DNV	1	9.9	33.78	11.9	34	40/40	15	15	34	40/45		
	DD15DNV	1	14.4	49.13	17.3	37	40/40	22	25	34	40/45		
	DD20DNV	1	19.8	67.56	23.8	45	45/50	30	30	34	40/45		
	DD30DNV	1	28.8	98.27	34.6	59	60/60	44	45	34	40/45		
	DD40DNV	1	39.6	135.12	47.6	75	80/80	60	60	34	40/45		
RACDZT150ADF	No Heat	-----	-----	-----	-----	26	30/35	-----	-----	26	30/35		
	DD10DNV	1	9.9	33.78	11.9	26	30/35	15	15	26	30/35		
	DD15DNV	1	14.4	49.13	17.3	29	30/35	22	25	26	30/35		
	DD20DNV	1	19.8	67.56	23.8	37	40/40	30	30	26	30/35		
	DD30DNV	1	28.8	98.27	34.6	50	50/50	44	45	26	30/35		
	DD40DNV	1	39.6	135.12	47.6	66	70/70	60	60	26	30/35		
RACDZT150ADG	No Heat	-----	-----	-----	-----	29	35/40	-----	-----	29	35/40		
	DD10DNV	1	9.9	33.78	11.9	29	35/40	15	15	29	35/40		
	DD15DNV	1	14.4	49.13	17.3	32	35/40	22	25	29	35/40		
	DD20DNV	1	19.8	67.56	23.8	40	40/40	30	30	29	35/40		
	DD30DNV	1	28.8	98.27	34.6	54	60/60	44	45	29	35/40		
	DD40DNV	1	39.6	135.12	47.6	70	70/70	60	60	29	35/40		

## Alarm Codes for 47-102884-02

CODE	Description	Display Priority (lower number = higher priority)	FAULT LEVEL – 0,1,2,3*
0	STANDBY	41	0
C	COMPRESSOR ON – High (Flashing if in time delay)	35	0
c	COMPRESSOR ON – Low (Flashing if in time delay)	36	0
H	HEAT ON – High Stage	37	0
h	HEAT ON – Low Stage	38	0
E	Economizer Cooling – No Compressor	39	0
F	CONTINUOUS FAN	40	0
4	Comfort Alert Code 4 for Compressor Circuit 1	20	3
5	Comfort Alert Code 5 for Compressor Circuit 1	21	3
6	Comfort Alert Code 6 for Compressor Circuit 1	22	3
7	Comfort Alert Code 7 for Compressor Circuit 1	23	3
8	Comfort Alert Code 8 for Compressor Circuit 1	24	3
9	Comfort Alert Code 9 for Compressor Circuit 1	25	3
20	REFRIGERANT LOW PRESSURE SWITCH OPEN – CIRCUIT 1	11	2
21	REFRIGERANT LOW PRESSURE SWITCH OPEN – CIRCUIT 2	12	2
29	REFRIGERANT HIGH PRESSURE SWITCH OPEN – CIRCUIT 1	9	2
30	REFRIGERANT HIGH PRESSURE SWITCH OPEN – CIRCUIT 2	10	2
34	Comfort Alert Code 4 for Compressor Circuit 2	26	3
35	Comfort Alert Code 5 for Compressor Circuit 2	27	3
36	Comfort Alert Code 6 for Compressor Circuit 2	28	3
37	Comfort Alert Code 7 for Compressor Circuit 2	29	3
38	Comfort Alert Code 8 for Compressor Circuit 2	30	3
39	Comfort Alert Code 9 for Compressor Circuit 2	31	3
49	FREEZE SWITCH OPEN – CIRCUIT 1	32	2*
50	FREEZE SWITCH OPEN -CIRCUIT 2	33	2*
59	Water Sensed	6	3
88	Emergency Stop Fault	3	3
93	CONTROL FLT	1	3
97	Smoke Detection	2	3

\*Fault levels:0 = none, 1=warning, 2= problem, 3=shutdown

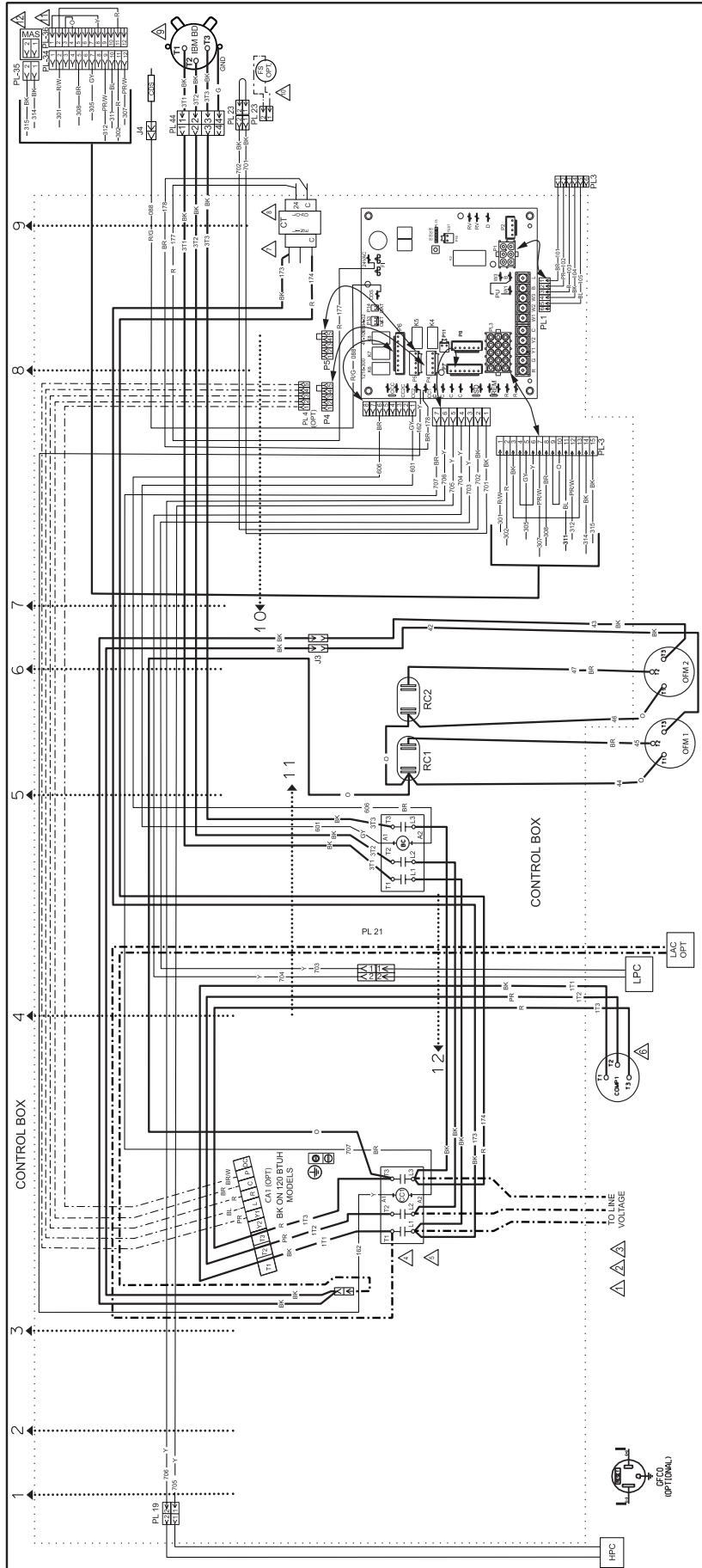
# XIX. TROUBLESHOOTING CHART

**▲ WARNING**

**DISCONNECT ALL POWER TO UNIT BEFORE SERVICING. CONTACTOR MAY BREAK ONLY ONE SIDE. FAILURE TO SHUT OFF POWER CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.**

SYMPTOM	POSSIBLE CAUSE	REMEDY
Unit will not run	<ul style="list-style-type: none"> <li>• Power off or loose electrical connection</li> <li>• Thermostat out of calibration-set too high</li> <li>• Defective contactor</li> <li>• Blown fuses</li> <li>• Transformer defective</li> <li>• High pressure control open (if provided)</li> <li>• Interconnecting low voltage wiring damaged</li> </ul>	<ul style="list-style-type: none"> <li>• Check for correct voltage at compressor contactor in control box</li> <li>• Reset</li> <li>• Check for 24 volts at contactor coil - replace if contacts are open</li> <li>• Replace fuses</li> <li>• Check wiring-replace transformer</li> <li>• Reset-also see high head pressure remedy-</li> <li>• Replace thermostat wiring</li> </ul>
Condenser fan runs, compressor doesn't	<ul style="list-style-type: none"> <li>• Run capacitor defective (single phase only)</li> <li>• Loose connection</li> <li>• Compressor stuck, grounded or open motor winding open internal overload.</li> <li>• Low voltage condition</li> </ul>	<ul style="list-style-type: none"> <li>• Replace</li> <li>• Check for correct voltage at compressor - check &amp; tighten all connections</li> <li>• Wait at least 2 hours for overload to reset. If still open, replace the compressor. At compressor terminals, voltage must be within 10% of rating plate volts when unit is operating.</li> </ul>
Insufficient cooling	<ul style="list-style-type: none"> <li>• Improperly sized unit</li> <li>• Improper airflow</li> <li>• Incorrect refrigerant charge</li> <li>• Air, non-condensibles or moisture in system</li> <li>• Incorrect voltage</li> </ul>	<ul style="list-style-type: none"> <li>• Recalculate load</li> <li>• Check - should be approximately 400 CFM [188.78 L/s] per ton.</li> <li>• Charge per procedure attached to unit service panel.</li> <li>• Recover refrigerant, evacuate &amp; recharge, add filter drier</li> <li>• At compressor terminals, voltage must be within 10% of rating plate volts when unit is operating.</li> </ul>
Compressor short cycles	<ul style="list-style-type: none"> <li>• Incorrect voltage</li> <li>• Defective overload protector</li> <li>• Refrigerant undercharge</li> </ul>	<ul style="list-style-type: none"> <li>• At compressor terminals, voltage must be <math>\pm</math> 10% of nameplate marking when unit is operating.</li> <li>• Replace - check for correct voltage</li> <li>• Add refrigerant</li> </ul>
Registers sweat	<ul style="list-style-type: none"> <li>• Low evaporator airflow</li> <li>• Room thermostat set too low</li> </ul>	<ul style="list-style-type: none"> <li>• Increase speed of blower or reduce restriction - replace air filter</li> <li>• Raise thermostat set point</li> </ul>
High head-low vapor pressures	<ul style="list-style-type: none"> <li>• Restriction in liquid line, expansion device or filter drier</li> <li>• Flow check piston size too small</li> <li>• Incorrect capillary tubes</li> </ul>	<ul style="list-style-type: none"> <li>• Remove or replace defective component</li> <li>• Change to correct size piston</li> <li>• Change coil assembly</li> </ul>
High head-high or normal vapor pressure - Cooling mode	<ul style="list-style-type: none"> <li>• Dirty condenser coil</li> <li>• Refrigerant overcharge</li> <li>• Condenser fan not running</li> <li>• Air or non-condensibles in system</li> </ul>	<ul style="list-style-type: none"> <li>• Clean coil</li> <li>• Correct system charge</li> <li>• Repair or replace</li> <li>• Recover refrigerant, evacuate &amp; recharge</li> </ul>
High head-high or normal vapor pressure - Heating mode	<ul style="list-style-type: none"> <li>• Low air flow - condenser coil</li> <li>• Refrigerant overcharge</li> <li>• Air or non-condensibles in system</li> <li>• Dirty condenser coil</li> </ul>	<ul style="list-style-type: none"> <li>• Check filters - correct to speed</li> <li>• Correct system charge</li> <li>• Recover refrigerant, evacuate &amp; recharge</li> <li>• Check filter - clean coil</li> </ul>
Low head-high vapor pressures	<ul style="list-style-type: none"> <li>• Defective Compressor valves</li> </ul>	<ul style="list-style-type: none"> <li>• Replace compressor</li> </ul>
Low vapor - cool compressor - iced evaporator coil	<ul style="list-style-type: none"> <li>• Low evaporator airflow</li> <li>• Operating below 65°F outdoors</li> <li>• Moisture in system</li> <li>• Liquid line limiting refrigerant flow</li> </ul>	<ul style="list-style-type: none"> <li>• Increase speed of blower or reduce restriction - replace air filter</li> <li>• Add Low Ambient Kit</li> <li>• Recover refrigerant - evacuate &amp; recharge - add filter drier</li> <li>• Replace drier</li> </ul>
High vapor pressure	<ul style="list-style-type: none"> <li>• Excessive load</li> <li>• Defective compressor</li> </ul>	<ul style="list-style-type: none"> <li>• Recheck load calculation</li> <li>• Replace</li> </ul>
Fluctuating head & vapor pressures	<ul style="list-style-type: none"> <li>• Severe overcharge</li> <li>• Air or non-condensibles in system</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust refrigerant charge</li> <li>• Recover refrigerant, evacuate &amp; recharge</li> </ul>
Gurgle or pulsing noise at expansion device or liquid line	<ul style="list-style-type: none"> <li>• Air or non-condensibles in system</li> </ul>	<ul style="list-style-type: none"> <li>• Recover refrigerant, evacuate &amp; recharge</li> </ul>

# XX. WIRING DIAGRAMS



**WIRING INFORMATION**

LINE VOLTAGE  
 -FACTORY STANDARD  
 -FIELD INSTALLED  
 LOW VOLTAGE  
 -FACTORY STANDARD  
 -FIELD INSTALLED  
 REPLACEMENT WIRE  
 -JUST BE THE SAME SIZE AND TYPE  
 -WIRING SHOULD BE PERMANENTLY IDENTIFIED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS AND LOCAL CODES WHERE APPLICABLE

**WIRE COLOR CODE**  
 BK.....BLACK  
 BR.....BROWN  
 BL.....BLUE  
 GR.....GREEN  
 OR.....ORANGE  
 WH.....WHITE  
 YL.....YELLOW

**ELECTRICAL WIRING DIAGRAM**  
 AC NON DDC 1-STG. 090, 102 & 120  
 200/230/280/460/575V. 3PH 60 HZ.  
 AC NON DDC 1-STG 072/090/102  
 380/415V 3PH 50HZ.

**COMPONENT CODES**

BC	BLOWER CONTACTOR
CA	COMPACT ALERT MODULE
CC	COMPRESSOR CONTACTOR
CCS	CLOSED CURTAIN SENSOR
CDS	CLOSED DRAIN SENSOR
COMP	COMPRESSOR
CR	COMBUSTION RATE SENSOR
DAT	DISCHARGE AIR SENSOR
DISC	DISCONNECT SWITCH
FLS	FLAME SENSOR
FLS	FLAME SENSOR
FS	FREEZE SENSOR
GF	GROUND FAULT CONVENIENCE OUTLET
GL	GROUND LUG
GR	GRASS GRABBER
HPC	HIGH PRESSURE CONTROL
IMD	INDOOR BLOWER MOTOR BELT DRIVE
IND	INDUCED DRAFT MOTOR
PC	PARAMETER IDENTIFICATION CONTROL JUMPER

**WIRE TESTS**

#	WIRE TEST
1	WIRE TEST

**NOTES**

- CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
- CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
- CONNECT FIELD WIRE TO COMPRESSOR CONTACTOR (CCT).
- REMOVE J3 AT CCT TO INSTALL LOW AMBIENT ACCESSORY.
- IF REQUIRED, ATTACH CRANKCASE HEATER ACCESSORY TO CCT (L1) AND CCT (L2).
- COMPRESSOR MOTOR TERMINALS MUST BE PROTECTED. ALL SPINSE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
- TRANSFORMER FACTORY WIRE AS SHOWN BELOW CHANGE PRIMARY VOLTAGE CONNECTION FOR ALTERNATE VOLTAGES, IF REQUIRED.

UNIT VOLTAGES-HZ	TRANSFORMER TERM.
200-230-50/60HZ	200
230-460/50	230
230-460/60	230
380-415/50	400
380-415/60	400
460-575/60	460
575-690/60	460

**NOTES**

- CONVOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 240VAC 50/60 HZ SUPPLY.
- MOTOR FACTORY WIRE FOR CORRECT VOLTAGE.
- REMOVE J3 JUMPER FOR OPTIONAL FT LOCATED IN BLOWER COMPARTMENT.
- REMOVE JUMPER FOR ECONOMIZER ACCESSORY. A3/A4 AND PL6 LOCATED IN RETURN AIR COMPARTMENT.
- AS ACCESSORY PROVIDED WITH ECONOMIZER, PL6 IS LOCATED IN BLOWER COMPARTMENT.

**WIRE COLOR CODE**

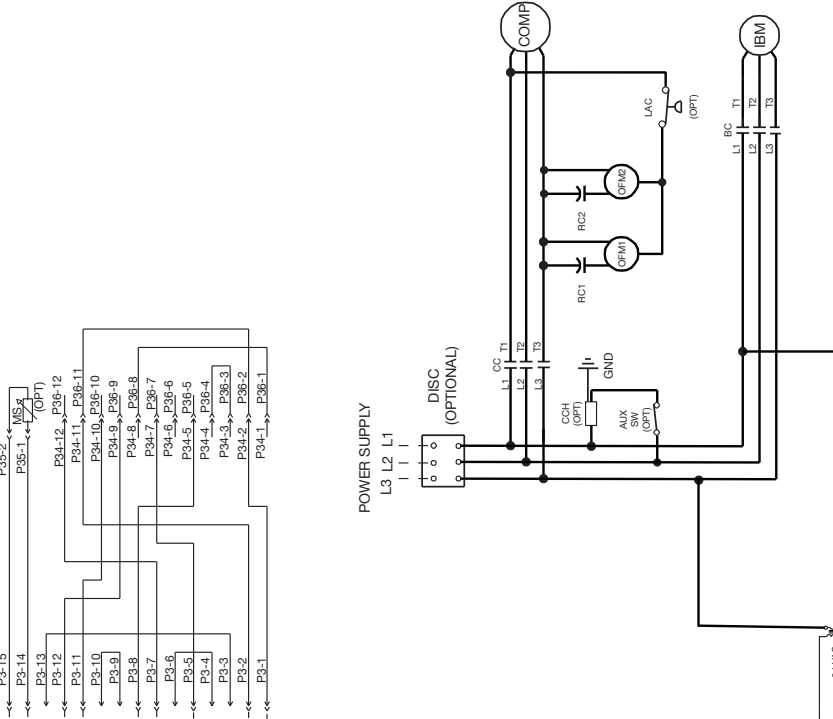
BK.....BLACK  
 BR.....BROWN  
 BL.....BLUE  
 GR.....GREEN  
 OR.....ORANGE  
 WH.....WHITE  
 YL.....YELLOW

**ELECTRICAL WIRING DIAGRAM**

AC NON DDC 1-STG. 090, 102 & 120  
 200/230/280/460/575V. 3PH 60 HZ.  
 AC NON DDC 1-STG 072/090/102  
 380/415V 3PH 50HZ.

**APPROVED:** \_\_\_\_\_  
**MODELED BY:** JHB  
**DATE:** 8/21/17  
**SIGNAL RELEASE NO.:** R-10715089  
**PART NO.:** 90-106177-21  
**REV.:** 00

CODE	Description	FAULT LEVEL -0,1,2,3
0	STANDBY	0
C	COMPRESSOR ON - Low (Flashing) (In time delay)	0
C	COMPRESSOR ON - High (Flashing) (In time delay)	0
E	Economizer Cooling - No Compressor	0
F	CONTINUOUS FAN	0
b	HEAT ON - Low Stage	0
b	GAS HEAT ON - High Stage	0
4	Comfort Alert Code 4 for Compressor for Circuit 1	3
5	Comfort Alert Code 5 for Compressor for Circuit 1	3
6	Comfort Alert Code 6 for Compressor for Circuit 1	3
7	Comfort Alert Code 7 for Compressor for Circuit 1	3
8	Comfort Alert Code 8 for Compressor for Circuit 1	3
9	Comfort Alert Code 9 for Compressor for Circuit 1	3
11	FAULT IGNITION	2
12	LO FLAME SENSE	1
13	FLAME LOST	2
14	UNEXPECTED FLAME	3
15	2 <sup>nd</sup> Stage Gas Valve Temperature Switch	2
20	REFRIGERANT LOW PRESSURE SWITCH OPEN - CIRCUIT 1	2
21	REFRIGERANT LOW PRESSURE SWITCH OPEN - CIRCUIT 2	2
22	MANUAL OPEN	2
29	REFRIGERANT HIGH PRESSURE SWITCH OPEN - CIRCUIT 1	2
30	REFRIGERANT HIGH PRESSURE SWITCH OPEN - CIRCUIT 2	2
33	MILC (Refract Limit) OPEN	2
34	Comfort Alert Code 4 for Compressor for Circuit 2	3
35	Comfort Alert Code 5 for Compressor for Circuit 2	3
36	Comfort Alert Code 6 for Compressor for Circuit 2	3
37	Comfort Alert Code 7 for Compressor for Circuit 2	3
38	Comfort Alert Code 8 for Compressor for Circuit 2	3
39	Comfort Alert Code 9 for Compressor for Circuit 2	3
44	1 <sup>st</sup> Stage Combustion Press Switch Closed	2
46	1 <sup>st</sup> Stage Combustion Press Switch Open	2
49	FREEZE SWITCH OPEN - CIRCUIT 1	2
50	FREEZE SWITCH OPEN - CIRCUIT 2	2
55	2 <sup>nd</sup> Stage Combustion Press Switch Closed	2
57	2 <sup>nd</sup> Stage Combustion Press Switch Open	2,3
59	Compressor Drain Plugged	3
61	Refract Fault - NO RUN	3
83	Condenser Coil Temp Sensor Fault	2
84	Outdoor Air Temperature Sensor Fault	2
86	Emergency Stop Fault	3
93	CONTROL Fault	3
97	Smoke Detection	3



### ALARM CODES

FAULT LEVEL -0,1,2,3

DESCRIPTION

STANDBY

COMPRESSOR ON - Low (Flashing) (In time delay)

COMPRESSOR ON - High (Flashing) (In time delay)

Economizer Cooling - No Compressor

CONTINUOUS FAN

HEAT ON - Low Stage

GAS HEAT ON - High Stage

Comfort Alert Code 4 for Compressor for Circuit 1

Comfort Alert Code 5 for Compressor for Circuit 1

Comfort Alert Code 6 for Compressor for Circuit 1

Comfort Alert Code 7 for Compressor for Circuit 1

Comfort Alert Code 8 for Compressor for Circuit 1

Comfort Alert Code 9 for Compressor for Circuit 1

FAULT IGNITION

LO FLAME SENSE

FLAME LOST

UNEXPECTED FLAME

2<sup>nd</sup> Stage Gas Valve Temperature Switch

REFRIGERANT LOW PRESSURE SWITCH OPEN - CIRCUIT 1

REFRIGERANT LOW PRESSURE SWITCH OPEN - CIRCUIT 2

MANUAL OPEN

REFRIGERANT HIGH PRESSURE SWITCH OPEN - CIRCUIT 1

REFRIGERANT HIGH PRESSURE SWITCH OPEN - CIRCUIT 2

MILC (Refract Limit) OPEN

Comfort Alert Code 4 for Compressor for Circuit 2

Comfort Alert Code 5 for Compressor for Circuit 2

Comfort Alert Code 6 for Compressor for Circuit 2

Comfort Alert Code 7 for Compressor for Circuit 2

Comfort Alert Code 8 for Compressor for Circuit 2

Comfort Alert Code 9 for Compressor for Circuit 2

1<sup>st</sup> Stage Combustion Press Switch Closed

1<sup>st</sup> Stage Combustion Press Switch Open

FREEZE SWITCH OPEN - CIRCUIT 1

FREEZE SWITCH OPEN - CIRCUIT 2

2<sup>nd</sup> Stage Combustion Press Switch Closed

2<sup>nd</sup> Stage Combustion Press Switch Open

Compressor Drain Plugged

Refract Fault - NO RUN

Condenser Coil Temp Sensor Fault

Outdoor Air Temperature Sensor Fault

Emergency Stop Fault

CONTROL Fault

Smoke Detection

Fault level: 0 = none, 1 = warning, 2 = problem, 3 = shutdown

### WIRE COLOR CODE

BK.....BLACK G.....GREEN PR.....PURPLE  
 BR.....BROWN GR.....GRAY R.....RED  
 BL.....BLUE O.....ORANGE W.....WHITE  
 Y.....YELLOW

### ELECTRICAL WIRING SCHEMATIC

AC NON DDC 1-STG, 090/102/120  
 208/230/380/460/575V, 3PH 60 Hz  
 AC NON DDC 1-STG 072/090/102  
 380-415V 3PH 50HZ.

APPROVED: \_\_\_\_\_ CHECKED: \_\_\_\_\_ ORIGINAL RELEASE NO.: \_\_\_\_\_  
 MODELLED TCJWJ DATE: 10-18-17 R-1071S089  
 BY: \_\_\_\_\_  
 PART NO.: 90-106178-21 REV: 00

### COMPONENT CODES

LOW AMBIENT CONTROL  
 LAC  
 LOW PRESSURE CONTROL  
 LPC  
 MANUAL RESET LIMIT CONTROL  
 MRLC  
 OUTSIDE AIR SENSOR  
 OAS  
 OUTSIDE AIR SWITCH  
 OASW  
 OUTDOOR FAN MOTOR  
 OFM  
 PLUG  
 RETURN AIR SENSOR  
 RAT  
 RETURN AIR SWITCH  
 RASW  
 RUN CAPACITOR  
 RUC  
 ROOFTOP UNIT CONTROL  
 RTUC  
 TERMINAL BLOCK  
 TB

BLOWER CONTACTOR  
 BC  
 COMFORT ALERT MODULE  
 CAM  
 COMPRESSOR CONTACTOR  
 CC  
 CLOG DRAIN SENSOR  
 CDS  
 CLOG FILTER SWITCH  
 CFS  
 COIL  
 COIL  
 DISCHARGE AIR SENSOR  
 DAS  
 DISCONNECT SWITCH  
 DISC  
 ECONOMIZER LOGIC MODULE  
 ELM  
 FAN PROTECTIVE RELAY  
 FPR  
 FAN PROTECTIVE RELAY  
 FPR  
 FREEZE STAT  
 FS  
 FREEZE SENSOR  
 FSS  
 GROUND LUG  
 GL  
 GROUND LUG  
 GL  
 HIGH PRESSURE CONTROL  
 HPC  
 HIGH PRESSURE CONTROL  
 HPC  
 INDICATOR MOTOR  
 IM  
 INDICATOR MOTOR  
 IM  
 INTEGRATED FURNACE CONTROL  
 IFC

### NOTES

1. CONNECTORS SUITABLE FOR USE WITH 24VAC COILS. CONNECTORS ONLY.  
 2. CONNECT FIELD WIRING IN GROUNDING FROM TEST CONDUIT TO FUSED DISCONNECT.  
 3. CONNECT FIELD WIRE TO COMPRESSOR CONTACTOR (CC).  
 4. REMOVE AS AT COIL TO INSTALL LOW AMBIENT ACCESSORY (LAC).  
 5. COMPRESSOR MOTOR TERMINALS ARE PROTECTED BY 3-Phase ModelB Wire.  
 6. PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.  
 7. TRANSFORMER FACTORY WIRED AS SHOWN BELOW. CHANGE PRIMARY VOLTAGE CONNECTIONS FOR ALTERNATE VOLTAGES, IF REQUIRED.

UNIT VOLTAGES - HZ TRANSFORMER TERM.  
 208/230/240/252  
 230/240/252  
 330/345/360  
 380/415/440  
 460/500/525

8. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24VAC 50/60 HZ. SUITABLE FOR FIELD WIRING.  
 9. MOTOR FACTORY WIRED FOR CORRECT VOLTAGE.  
 10. REMOVE PL36 FOR ECONOMIZER ACCESSORY. PL34 AND PL36 LOCATED IN

### WIRING INFORMATION

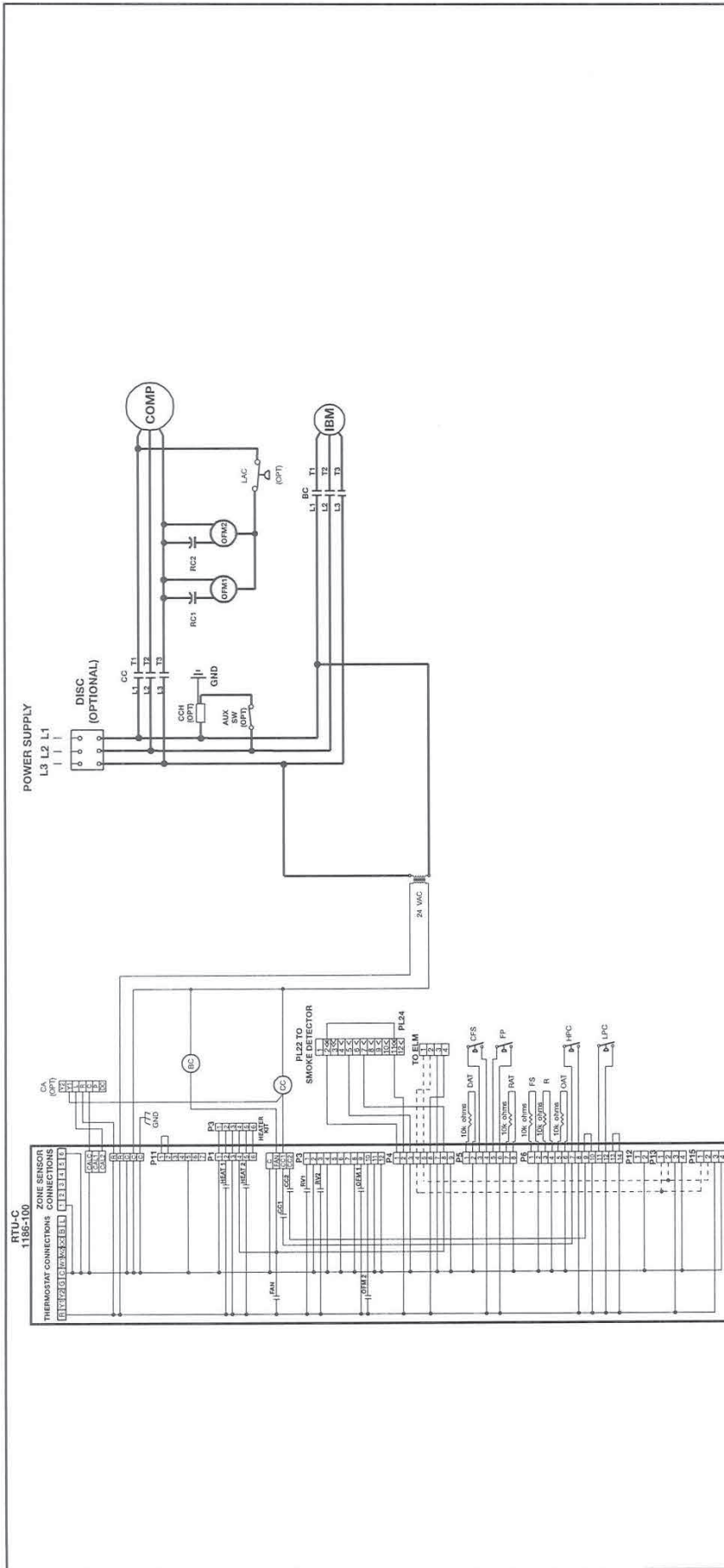
LINE VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

LOW VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

REPLACEMENT WIRE  
 -MUST BE THE SAME SIZE AND TYPE  
 -INSULATION AS ORIGINAL (105°C MIN)

WARNING  
 -CABINET MUST BE PERMANENTLY GROUNDING  
 AND CONFORM TO E.C., N.E.C., O.E.C., O.C.C.  
 OF INSULATION AS ORIGINALS, AND LOCAL  
 CODES AS APPLICABLE.





### WIRING INFORMATION

LINE VOLTAGE \_\_\_\_\_  
 -FACTORY STANDARD \_\_\_\_\_  
 -FACTORY OPTION - - - - -  
 -FIELD INSTALLED - - - - -  
 LOW VOLTAGE \_\_\_\_\_  
 -FACTORY STANDARD \_\_\_\_\_  
 -FACTORY OPTION - - - - -  
 -FIELD INSTALLED - - - - -  
 REPLACEMENT WIRE \_\_\_\_\_  
 \*MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL. (105°C MIN)  
 \*WIRE MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

### NOTES

- CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
- CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FIELD DISCONNECT.
- REMOVE J3 AT CC1 TO INSTALL LOW AMBIENT ACCESSORY.
- REMOVE J3 AT CC1 TO INSTALL LOW AMBIENT ACCESSORY.
- IF REQUIRED, ATTACH CRANKCASE HEATER ACCESSORY TO CC1 (L1) AND CC1 (L2).
- PROTECTED INSER PRIMARY SINGLE PHASE CONNECTIONS.
- TRANSFORMER FACTORY WIRED AS SHOWN BELOW. CHANGE PRIMARY VOLTAGE UNIT VOLTAGES. -HZ TRANSFORMER TERM.

200-220	50-HZ
230	60-HZ
230	60-HZ
380	60-HZ
380-415	50-HZ
400	50-HZ
480	60-HZ
575	60-HZ

### COMPONENT CODES

BC	BLOWER CONDUCTOR
CA	COMFORT ALERT MODULE
CC	CRANKCASE HEATER
CC1	CLOSED DRAIN SENSOR
CC2	COMPRESSOR SWITCH
CC3	CRANKCASE HEATER
CC4	CRANKCASE HEATER
CC5	CRANKCASE HEATER
CC6	CRANKCASE HEATER
CC7	CRANKCASE HEATER
CC8	CRANKCASE HEATER
CC9	CRANKCASE HEATER
CC10	CRANKCASE HEATER
CC11	CRANKCASE HEATER
CC12	CRANKCASE HEATER
CC13	CRANKCASE HEATER
CC14	CRANKCASE HEATER
CC15	CRANKCASE HEATER
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CC91	CRANKCASE HEATER
CC92	CRANKCASE HEATER
CC93	CRANKCASE HEATER
CC94	CRANKCASE HEATER
CC95	CRANKCASE HEATER
CC96	CRANKCASE HEATER
CC97	CRANKCASE HEATER
CC98	CRANKCASE HEATER
CC99	CRANKCASE HEATER
CC100	CRANKCASE HEATER

### WIRE COLOR CODE

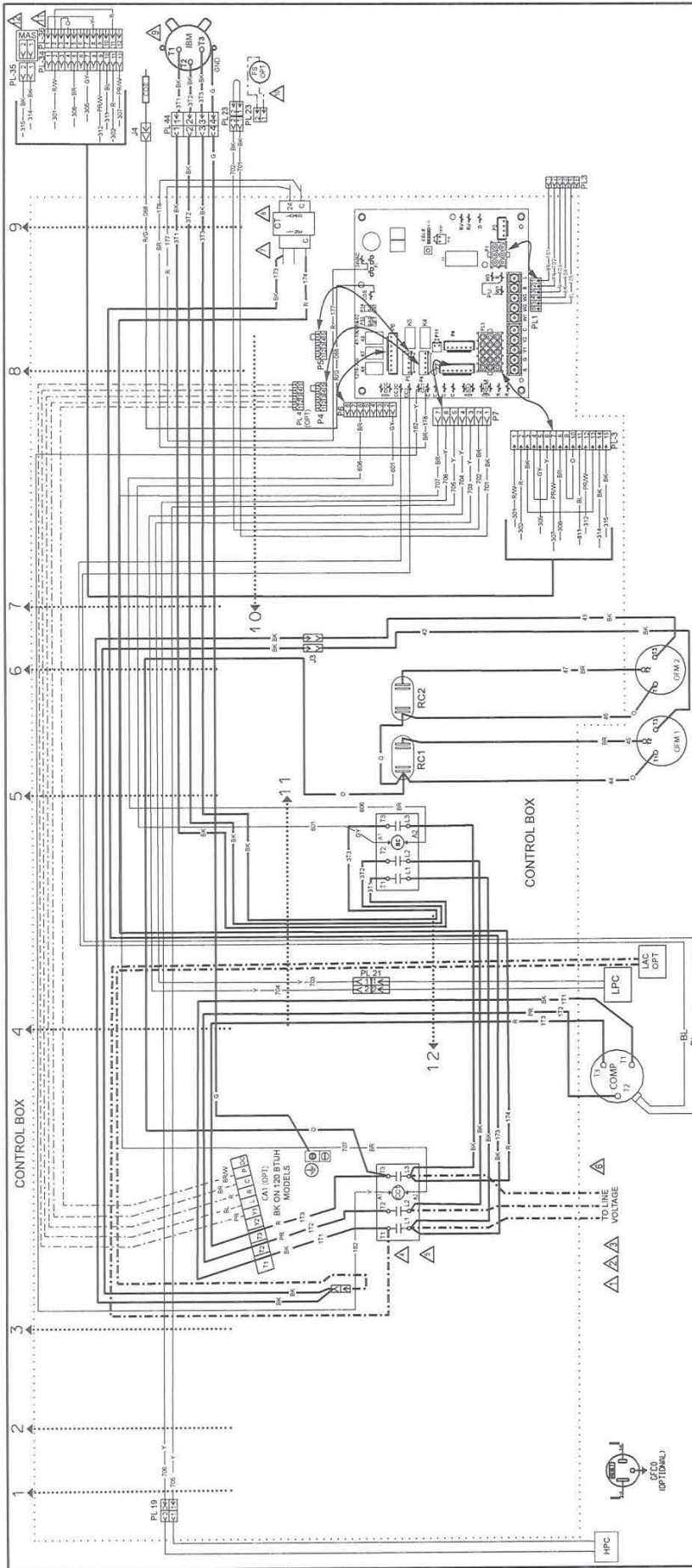
BK	BLACK
BR	BROWN
BL	BLUE
GR	GREEN
GY	GRAY
OR	ORANGE
PR	PURPLE
RD	RED
WH	WHITE
YL	YELLOW

### ELECTRICAL WIRING SCHEMATIC

DATE: 20/2308/80 (REV. 8/81, 6/82)  
 AC DDC 1 STG. 072099/102  
 380-415V, 3PH, 50HZ

APPROVED: [Signature]  
 MODELLED: [Signature]  
 DATE: 10-24-17  
 PART NO.: 90-106178-22  
 REV: 00

ORIGINAL RELEASE NO. R-1071S108



### WIRING INFORMATION

- LINE VOLTAGE
- FACTORY STANDARD
- FACTORY OPTION
- FIELD INSTALLED
- LOW VOLTAGE
- FACTORY STANDARD
- FACTORY OPTION
- FIELD INSTALLED
- REPLACEMENT WIRE SIZE AND TYPE
- OF INSULATION AS ORIGINAL (100C, MIN.)

**WARNING**  
CABINET MUST BE PERMANENTLY GROUNDED  
NATIONAL WIRING REGULATIONS AND LOCAL CODES AS APPLICABLE

### NOTES

1. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY
2. CONNECT FELD WIRING AS SHOWN IN RATED RIGHT CONDUIT TO FUSED DISCONNECT
3. CONNECT FELD WIRE TO COMPRESSOR CONTACTOR (CC)
4. REMOVE BA1 (CC) TO INSTALL LOW AMBIENT ACCESSORY
5. IF REQUIRED, ATTACH CRANKCASE HEATER ACCESSORY TO CCT (L1) AND CCT (L2)
6. COMPRESSOR MOTOR THERMALLY PROTECTED ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS
7. TRANSFORMER FACTORY WIRING AS SHOWN BELOW. CHANGE PRIMARY VOLTAGE CONNECTIONS FOR ALTERNATE VOLTAGES IF REQUIRED

UNIT VOLTAGES -4Z	TRANSFORMER TERM
230	230
208-240/12	208
330-480/2	400
380-480/2	400
380-480/2	400
575-480/2	575

### COMPONENT CODES

BC	SLOWER CONTACTOR	BC	LOW VOLTAGE CIRCUIT IS I.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24VAC 50/60 HZ SUPPLIED
CC	COMPRESSOR CONTACTOR	CC	MOTOR FACTORY WIRING FOR CORRECT VOLTAGE
CDH	CRANKCASE HEATER	10	REMOVE PL33 JUMPER FOR OPTIONAL FT LOCATED IN LOWER COMPARTMENT
CD	CLOSED DRAIN SENSOR	11	REMOVE PL33 FOR ECONOMIZER ACCESSORY. PL33 AND PL36 LOCATED IN RETURN AIR SECTION
CCP	COMPRESSOR	12	WAS ACCESSORY PROVIDED WITH ECONOMIZER. PL36 LOCATED IN BLOWER COMPARTMENT
CT	CONTROL TRANSFORMER		
DAT	DISCHARGE AIR SENSOR		
FL	FAN PROOFING		
FP	FAN PROOFING		
FS	FREZE SENSOR		
GC	GROUND		
GR	GROUND		
HPC	HIGH PRESSURE CONTROL		
IM	INDUCED DRAFT MOTOR		
IO	INDUCED DRAFT MOTOR		
FC	INTEGRATED FLAME CONTROL		
J	JUMPER		

### WIRE TIES

WIRE TIES

### WIRE COLOR CODE

BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
	Y.....YELLOW	

### ELECTRICAL WIRING DIAGRAM

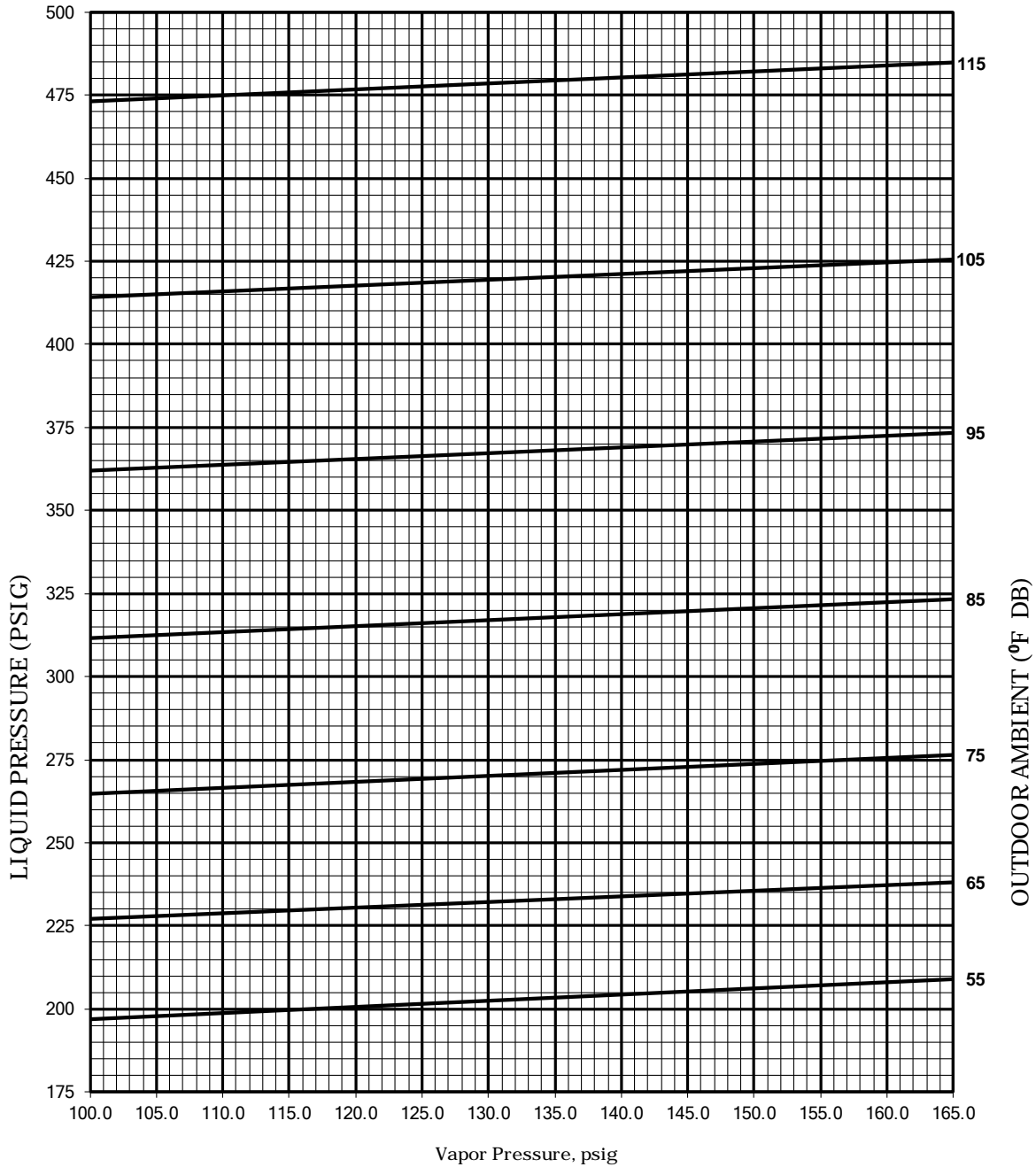
AC NON DDC 2-STG, 090, 102 & 120  
208/230/380/480/575V, 3PH 60 HZ  
AC NON DDC 2-STG 072/090/102  
380-415V 3PH 50HZ.

APPROVED: <i>[Signature]</i>	CHECKED: <i>[Signature]</i>	ORIGINAL RELEASE NO.:
BY: TCJAV	DATE: 10/26/17	R-1071S108
PART NO.:	90-106177-23	REV: 00



# XXI. CHARGING CHARTS

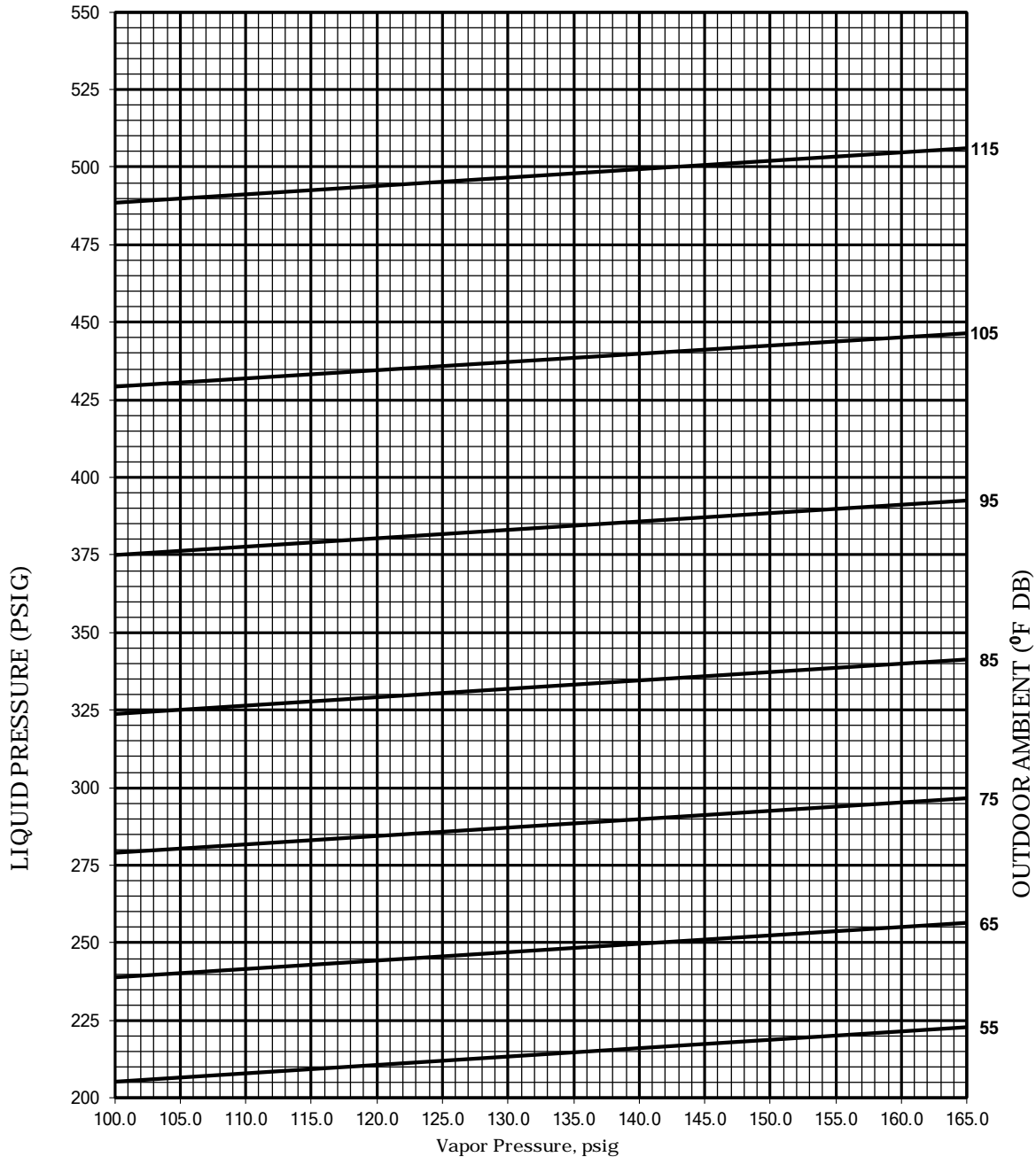
**FIGURE 18**  
 SYSTEM CHARGE CHART - REFRIGERANT 410A  
 7.5 TON



**CAUTION:** 1. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!

- INSTRUCTIONS:**
1. MEASURE PRESSURE AT COMPRESSOR SUCTION AND LIQUID.
  2. MEASURE OUTDOOR AMBIENT TO UNIT.
  3. PLACE X ON CHART WHERE SUCTION AND LIQUID INTERSECT.
  4. IF X IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEPS 1-3.
  5. IF X IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEPS 1-3.

**FIGURE 19**  
**SYSTEM CHARGE CHART - REFRIGERANT 410A**  
**8.5 TON**



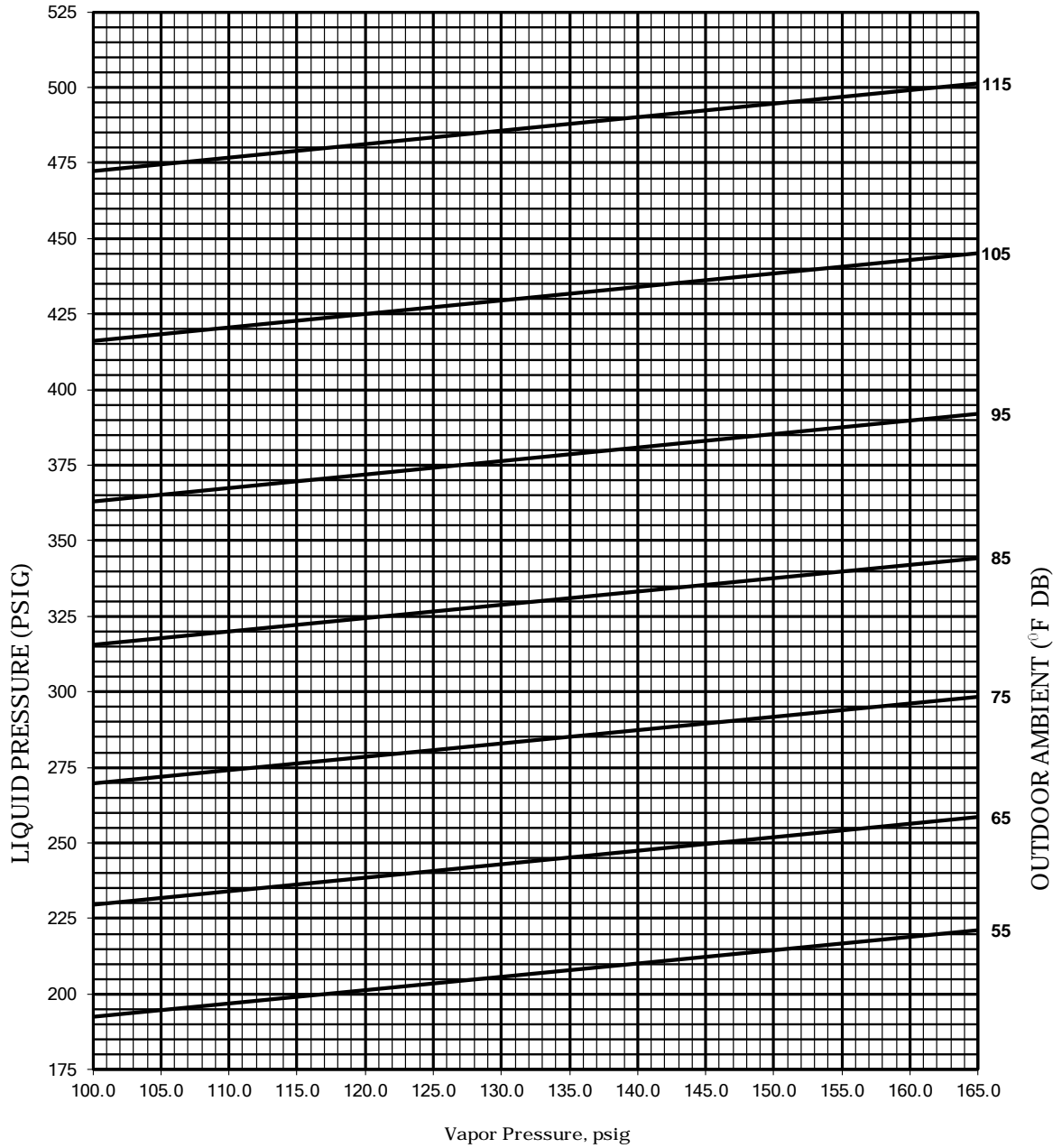
**CAUTION:** 1. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!

- INSTRUCTIONS:**
1. MEASURE PRESSURE AT COMPRESSOR SUCTION AND LIQUID.
  2. MEASURE OUTDOOR AMBIENT TO UNIT.
  3. PLACE X ON CHART WHERE SUCTION AND LIQUID INTERSECT.
  4. IF X IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEPS 1-3.
  5. IF X IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEPS 1-3.

## FIGURE 20

### SYSTEM CHARGE CHART - REFRIGERANT 410A

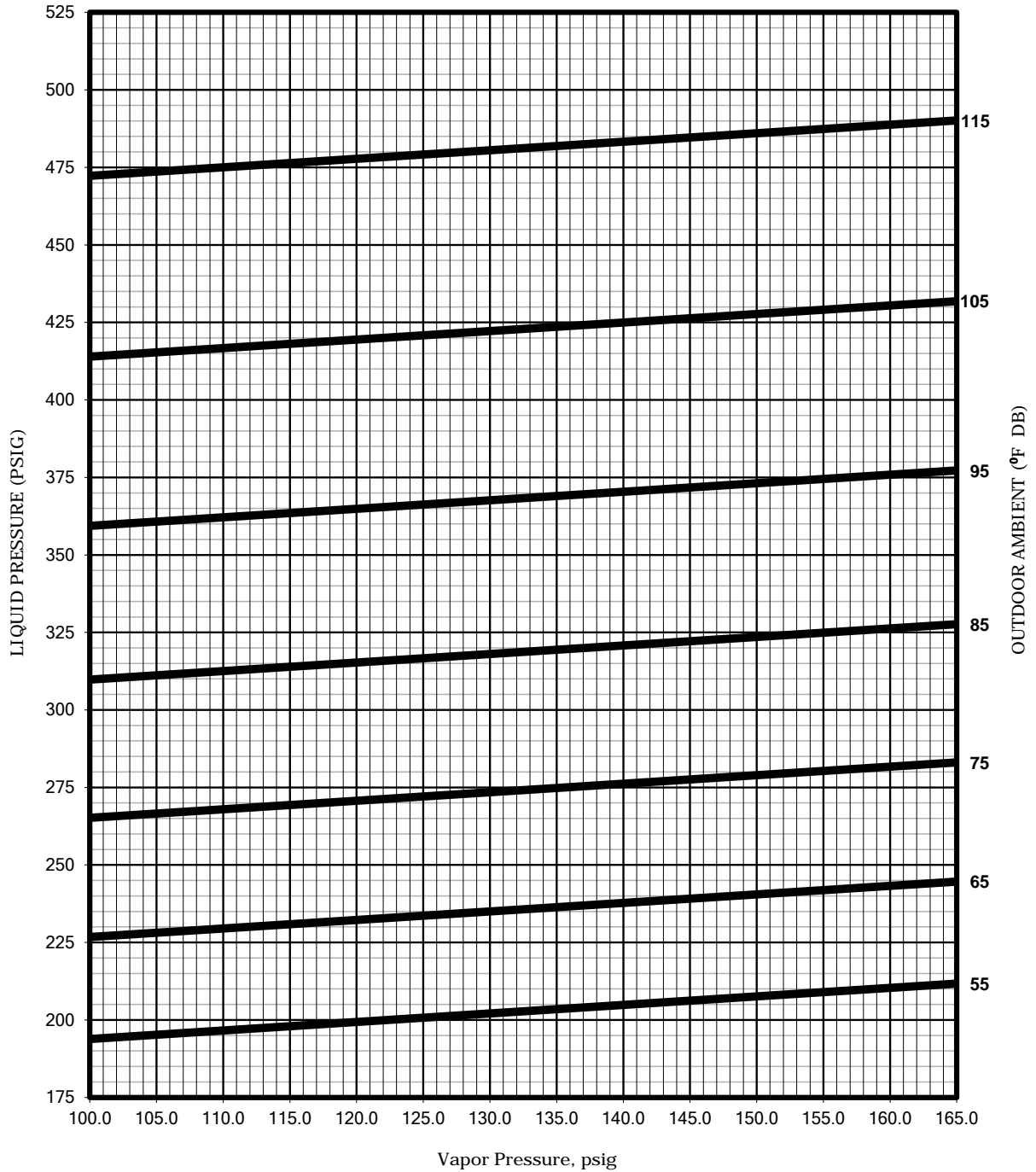
10 TON



**CAUTION:** 1. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!

- INSTRUCTIONS:**
1. MEASURE PRESSURE AT COMPRESSOR SUCTION AND LIQUID.
  2. MEASURE OUTDOOR AMBIENT TO UNIT.
  3. PLACE X ON CHART WHERE SUCTION AND LIQUID INTERSECT.
  4. IF X IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEPS 1-3.
  5. IF X IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEPS 1-3.

**FIGURE 21**  
12.5-Ton AC Charging Chart



**CAUTION:** 1. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!

**INSTRUCTIONS:** 1. MEASURE PRESSURE AT COMPRESSOR SUCTION AND LIQUID.

2. MEASURE OUTDOOR AMBIENT TO UNIT.

3. PLACE X ON CHART WHERE SUCTION AND LIQUID INTERSECT.

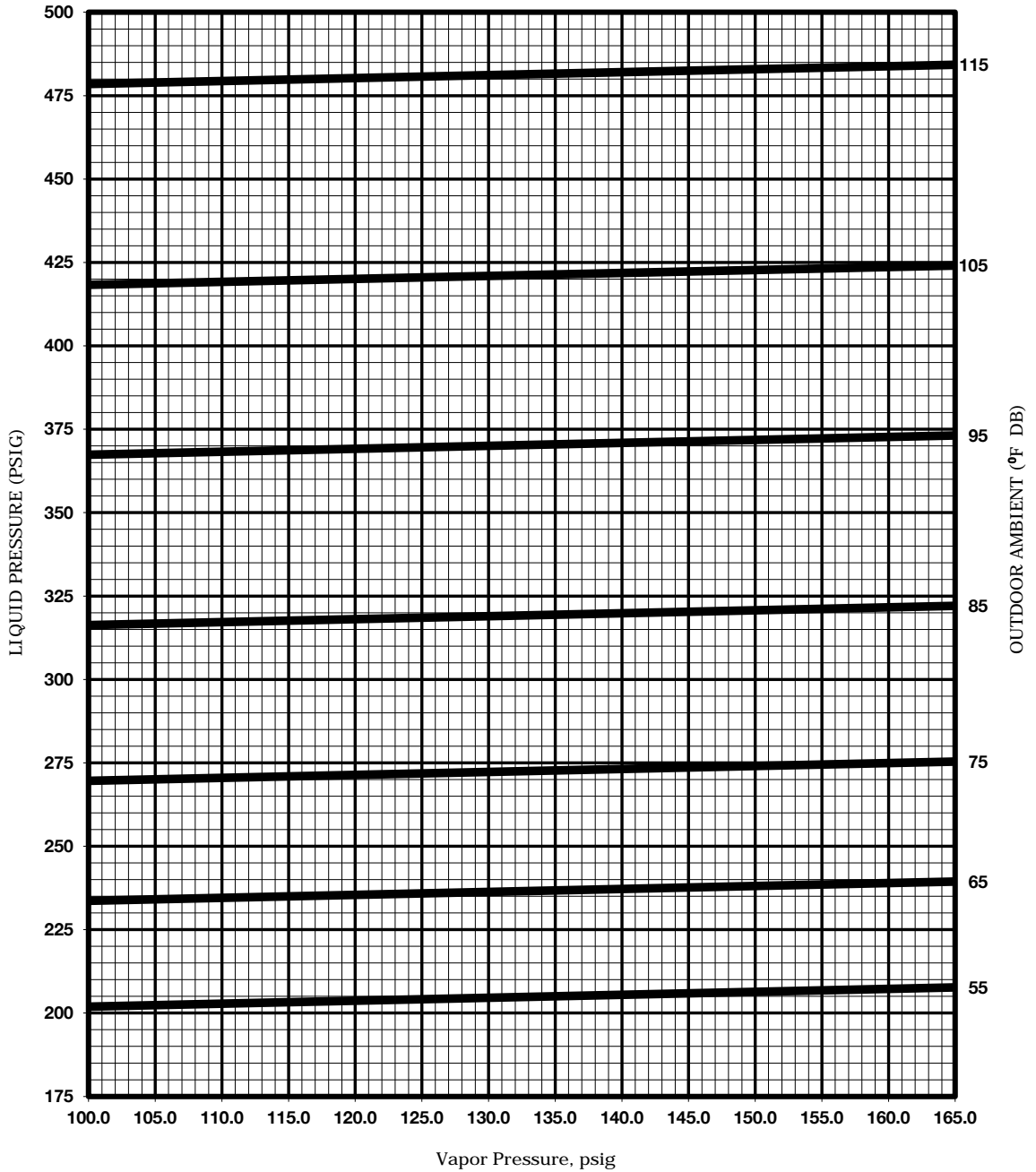
4. IF X IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEPS 1-3.

5. IF X IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEPS 1-3.

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**FIGURE 22**

**7.5 Ton 2 - Stage AC Charging Chart**

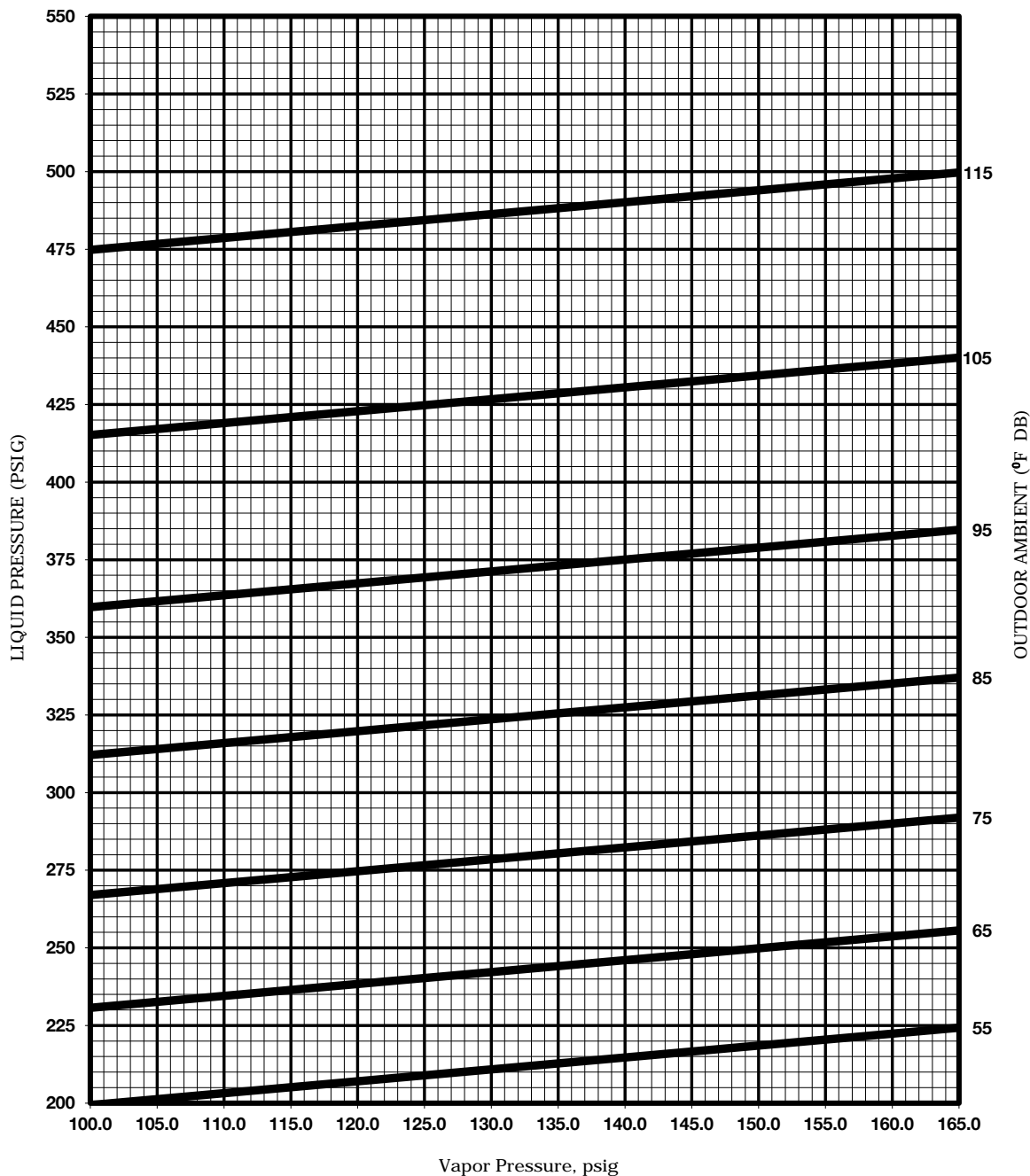


- CAUTION: 1. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!**
- INSTRUCTIONS:**
1. MEASURE PRESSURE AT COMPRESSOR SUCTION AND LIQUID.
  2. MEASURE OUTDOOR AMBIENT TO UNIT.
  3. PLACE X ON CHART WHERE SUCTION AND LIQUID INTERSECT.
  4. IF X IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEPS 1-3.
  5. IF X IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEPS 1-3.

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**FIGURE 23**

8.5 Ton 2 - Stage AC Charging Chart

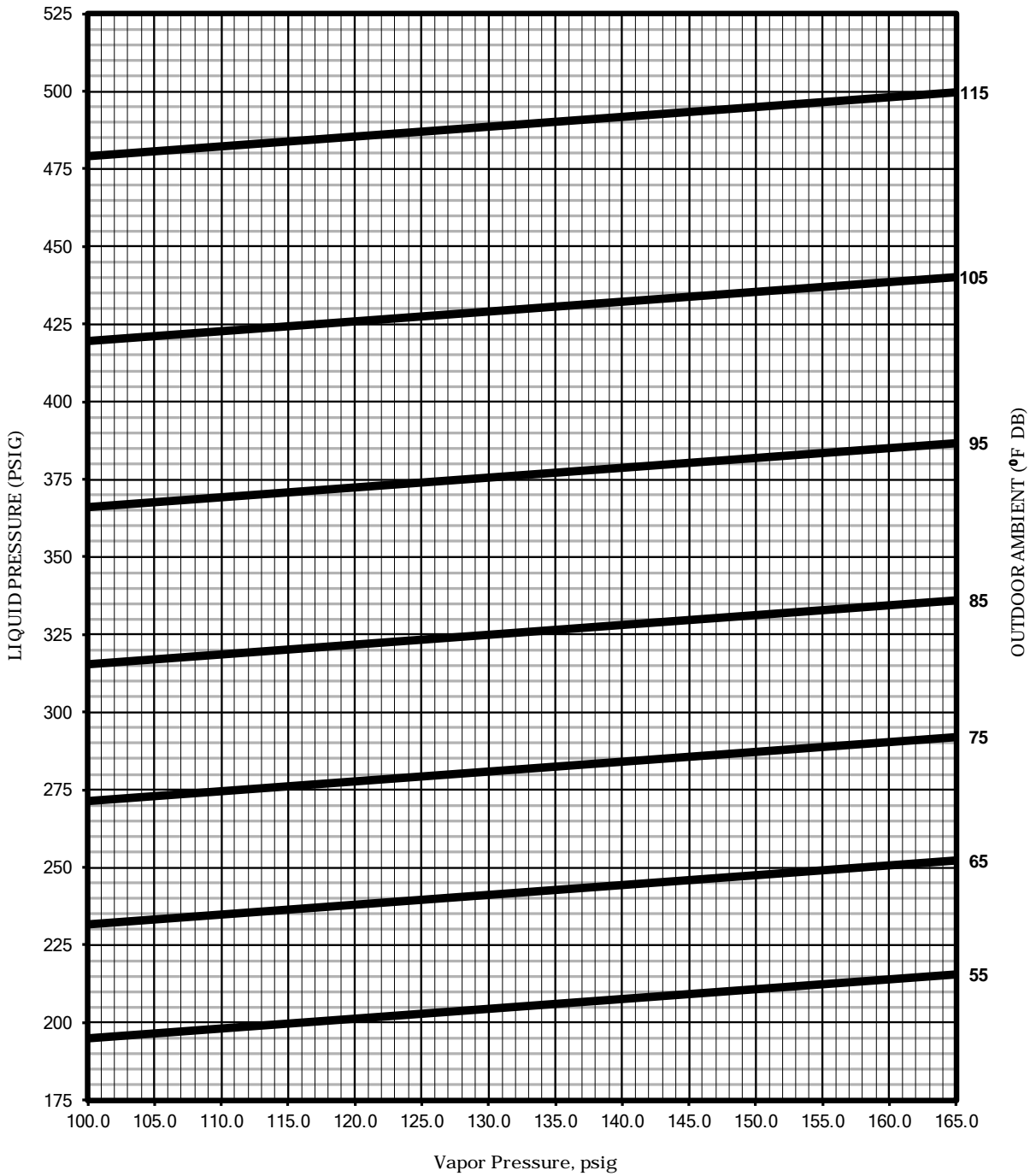


- CAUTION: 1. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!**
- INSTRUCTIONS:**
1. MEASURE PRESSURE AT COMPRESSOR SUCTION AND LIQUID.
  2. MEASURE OUTDOOR AMBIENT TO UNIT.
  3. PLACE X ON CHART WHERE SUCTION AND LIQUID INTERSECT.
  4. IF X IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEPS 1-3.
  5. IF X IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEPS 1-3.

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**FIGURE 24**

**10-Ton 2 Stage AC Charging Chart**



**CAUTION:** 1. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!

**INSTRUCTIONS:** 1. MEASURE PRESSURE AT COMPRESSOR SUCTION AND LIQUID.

2. MEASURE OUTDOOR AMBIENT TO UNIT.

3. PLACE X ON CHART WHERE SUCTION AND LIQUID INTERSECT.

4. IF X IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEPS 1-3.

5. IF X IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEPS 1-3.

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*In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice.*

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