

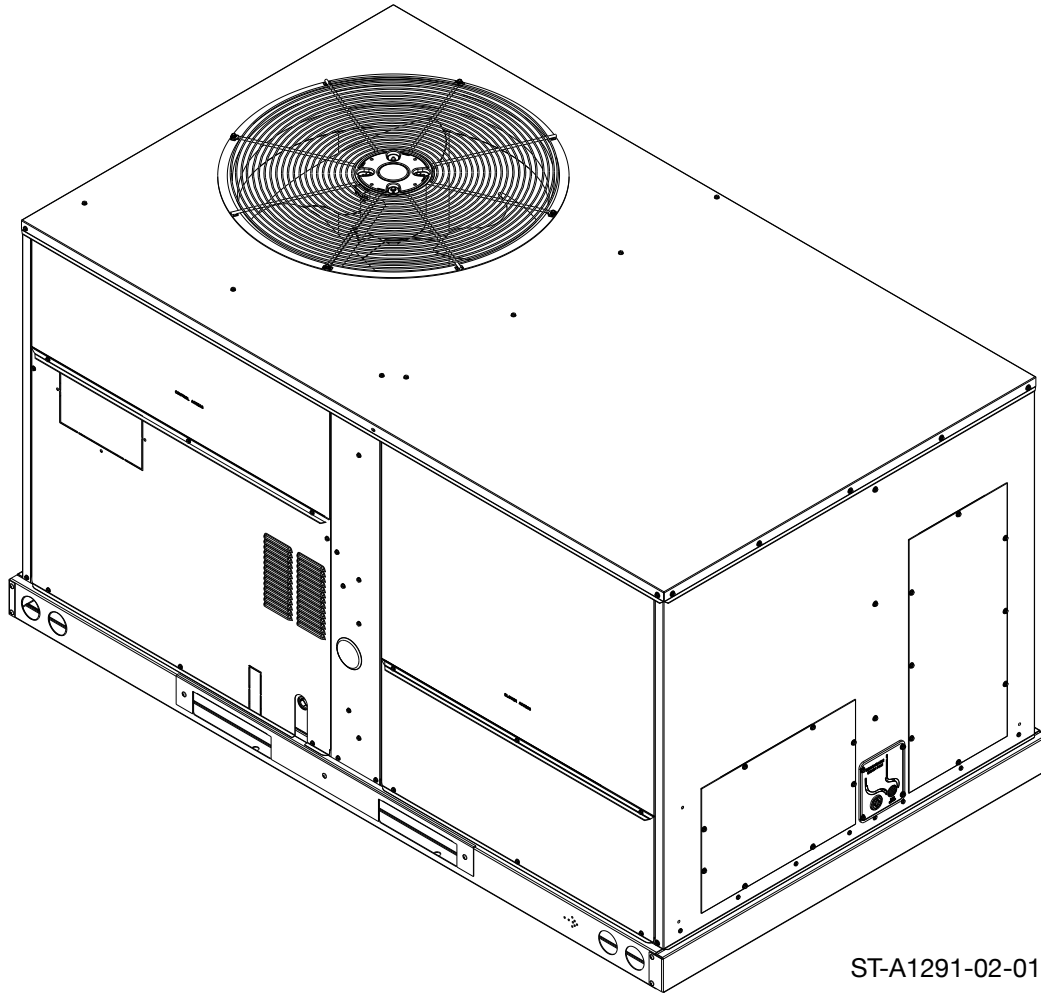
INSTALLATION INSTRUCTIONS

FOR PACKAGED AIR-CONDITIONING UNITS

(-)ACC SERIES 3.0, 4.0, 5.0 & 6.0 TON [10.6, 14.1, 17.6 & 21.1 KW]

60 HZ MODELS

WITH R-454B REFRIGERANT



ST-A1291-02-01

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DO NOT DESTROY THIS MANUAL. PLEASE READ CAREFULLY AND KEEP
IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICEMAN.



RECOGNIZE THIS SYMBOL AS AN INDICATION OF IMPORTANT SAFETY INFORMATION!

▲ WARNING

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED 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, CARBON MONOXIDE POISONING, EXPLOSION, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

▲ WARNING

PROPOSITION 65 WARNING: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

DO NOT DESTROY THIS MANUAL. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICEMAN.

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A. IMPORTANT SAFETY AND GENERAL INFORMATION

A.1. Introduction

This booklet contains the installation and operating instructions for your 3 ton, 4 ton, 5 ton, or 6 ton packaged cooling unit. There are some precautions that should be taken to ensure proper operation. 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.

The images contained within this document may not be an exact representation of every unit, accessory, installation, etc. We reserve the right to change the content of this document at any time.

⚠ 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.

A.2. Agency Performance Audit and Efficiency Testing Notice

NOTICE: BREAK-IN PERIOD

Prior to agency testing, run the compressor for 20 hours at 115°F outdoor ambient temperature and 80°F dry bulb / 75°F wet bulb indoor ambient temperature.

NOTICE: EFFICIENCY TESTING NOTICE

For the purposes of verifying or testing efficiency ratings, the test procedures in Title 10 Appendix M1 to Subpart B of 430 (Uniform Test Method for Measuring the Energy Consumption of Central Air Conditioners and Heat Pumps for 3-5 ton single-phase equipment), Title 10 Appendix F1 of subpart F to 10 CFR part 431 (for 3-5 ton three-phase equipment), Title 10 Appendix A to Subpart F of Part 431 (Uniform Test Method for the Measurement of Energy Consumption of Air-Cooled Small ($\geq 65,000$ Btu/h, 6-ton equipment) and the clarifying provisions provided in the standards listed below that were applicable at the date of manufacture should be used for test set up and performance.

SETUP:

- ASHRAE 37 - 2009 (RA 2019)

PERFORMANCE:

- ANSI/ASHRAE 90.1 - 2022
- AHRI Operations for Unitary Small AC Equipment 210/240 (2023) for 3-5T
- Standards for Unitary Large AC Equipment AHRI 340/360 (2022) for 6T

SAFETY:

- UL 60335-2-40 4th Edition

QUALITY:

- ISO 9001: 2015

A.3. Importance of a Quality Installation

Optimal system performance and longevity depend upon a quality and proper installation. Failure to properly set up and commission this unit could result in undesirable operation and subsequent faults and potential failures.

Carefully follow all guidelines listed in the manual and industry best practices. Conform to all local code requirements. Contact your local technical representative with any questions or concerns.

If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment must be on site. A dry powder CO2 fire extinguisher must be near the charging area at all times during installation, commissioning, service, and decommissioning.

A. IMPORTANT SAFETY AND GENERAL INFORMATION

A.3.1. Working Personnel Qualifications

Every installation, maintenance, service, and repair working procedure must be conducted by qualified personnel who have been trained in operating and servicing units that employ flammable refrigerants such as R-454B.

Examples of working procedures include but are not limited to:

- Breaking into the refrigeration circuit
- Opening sealed components
- Opening ventilated enclosures

This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

A.4. Importance of Air Flow and Setup

Optimal system performance is also dependent upon having the ideal airflow across the condensing and evaporating coils, and upon matching the charge weight to the manufacturer's spec for the unit. Improper or restricted air flow, and incorrect charge weight, will hinder the performance of the unit. Please refer to the manufacturer's recommended clearances for setting the unit and the included guide for setting air flow. Refer to the rating plate for the charge weight.

A.5. Checking Product and Inspection

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.

IMPORTANT: Check the unit model number, heating size, electrical characteristics, and accessories to determine if they are correct.

B. GENERAL SPECIFICATIONS

B.1. Safety Warnings

⚠️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

⚠️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.

⚠️DANGER: Risk of fire or explosion. Flammable refrigerant used. To be repaired only by trained service personnel. Do not puncture refrigerant tubing.

⚠️WARNING: Risk of fire or explosion. Dispose of properly in accordance with Federal Or Local Regulations. Flammable refrigerant used.

⚠️DANGER: Risk of fire or explosion. Flammable refrigerant used. Consult the repair manual/owner's guide before attempting to service this product. All safety precautions must be followed.

⚠️DANGER: Risk of fire or explosion due to flammable refrigerant used. Follow handling instructions carefully in compliance with National Regulations.

⚠️WARNING: Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.

⚠️WARNING: The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance, or an operating electric heater).

⚠️WARNING: Do not pierce or burn.

⚠️WARNING: Be aware that refrigerants may not contain an odor.

⚠️WARNING: If this unit is connected via an air duct system to one or more rooms with an area less than the specified minimum area, that room shall be without continuously operating flames or other potential ignition sources. See **Appendix F - A2L Refrigerant Installation Safety Data.**

⚠️WARNING: Auxiliary devices which may be a potential ignition source shall not be installed in the ductwork.

⚠️WARNING: If this unit is connected via duct to one or more rooms, only auxiliary devices approved by the manufacturer that are declared suitable with A2L refrigerants shall be installed in the connecting ductwork.

⚠️WARNING: Appliance shall be installed, operated, and stored in a room with a floor area larger than 'X'm². See **Appendix F - A2L Refrigerant Installation Safety Data.**

B. GENERAL SPECIFICATIONS

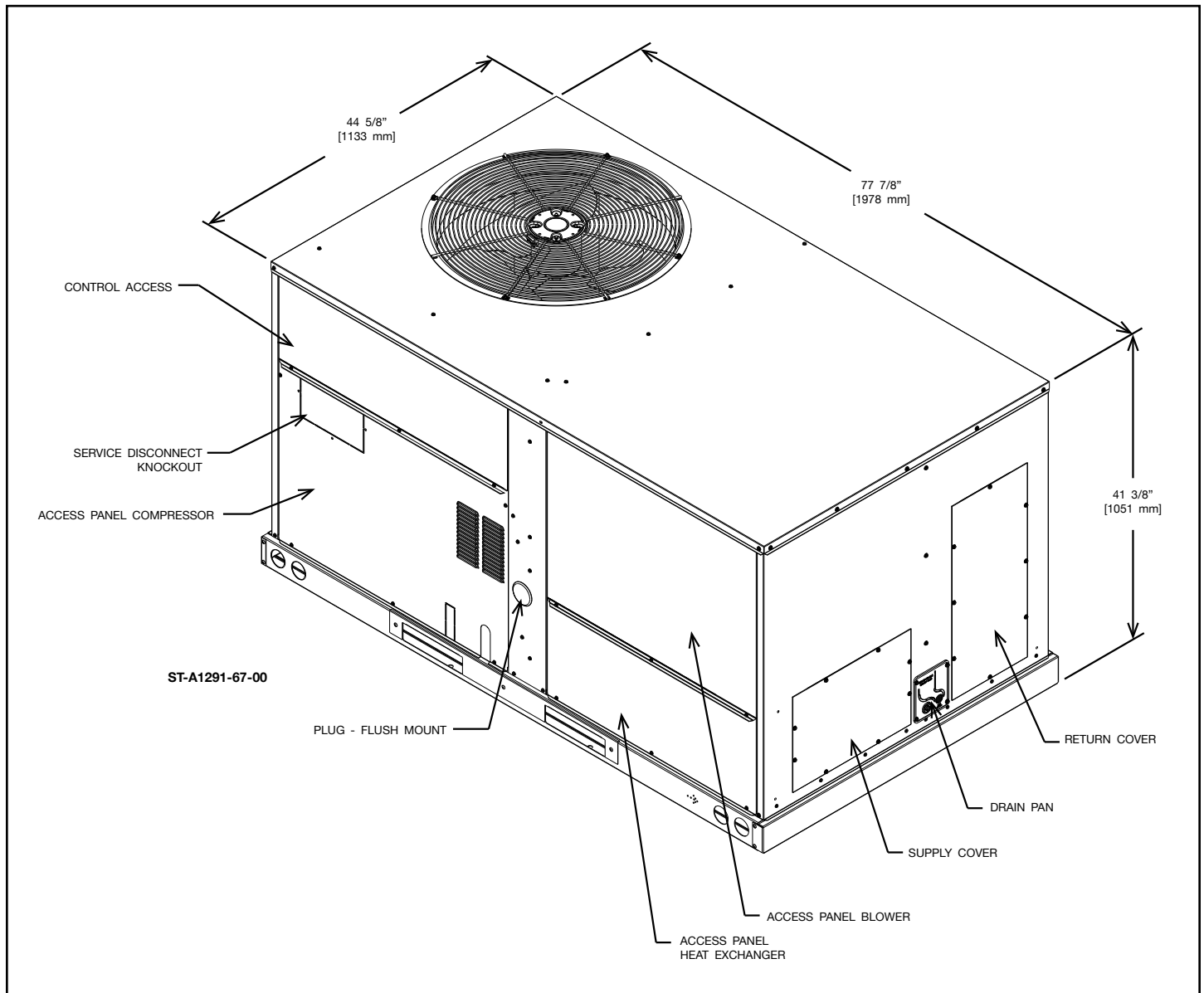
B.2. Major Components

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

B.3. Product Data Information

B.3.1. Dimensional Information

IMPORTANT: This unit must be mounted level in both directions to allow water to drain from the condenser section and condensate pan.

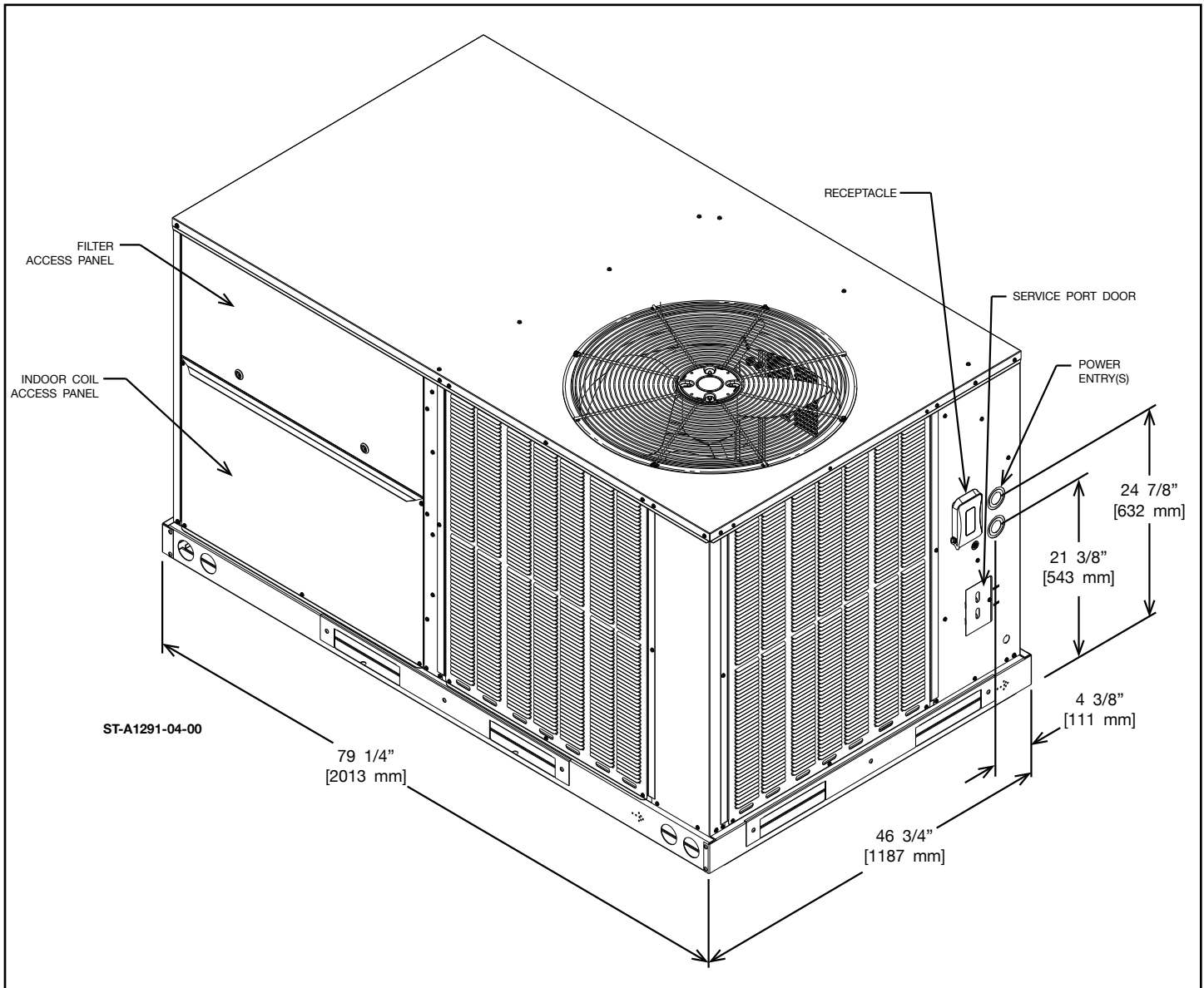


B. GENERAL SPECIFICATIONS

B.3. Product Data Information

B.3.1. Dimensional Information (Cont.)

IMPORTANT: This unit must be mounted level in both directions to allow water to drain from the condenser section and condensate pan.



B.3.2. Product Specifications

The packaged Air Conditioning rooftop unit is available with 10, 15, 20, or 24 KW electric heat input (either factory installed or field installed). Cooling capacity is 3.0, 4.0, 5.0, or 6.0 nominal tons. Units are convertible from downflow supply/return to sideflow supply/return by relocation of supply/return cover panels. See section **C.3.5. Cover Panel Installation/ Conversion Procedure** for more details.

The units are weatherized for mounting outside of the building.

⚠ WARNING: Units are not design-certified to be installed inside the structure. Doing so can cause inadequate unit performance as well as property damage.

B. GENERAL SPECIFICATIONS

B.3. Product Data Information

B.3.3. General Data

See [Appendix A](#) towards the end of this manual for General Data.

B.3.4. Electrical Data Reference

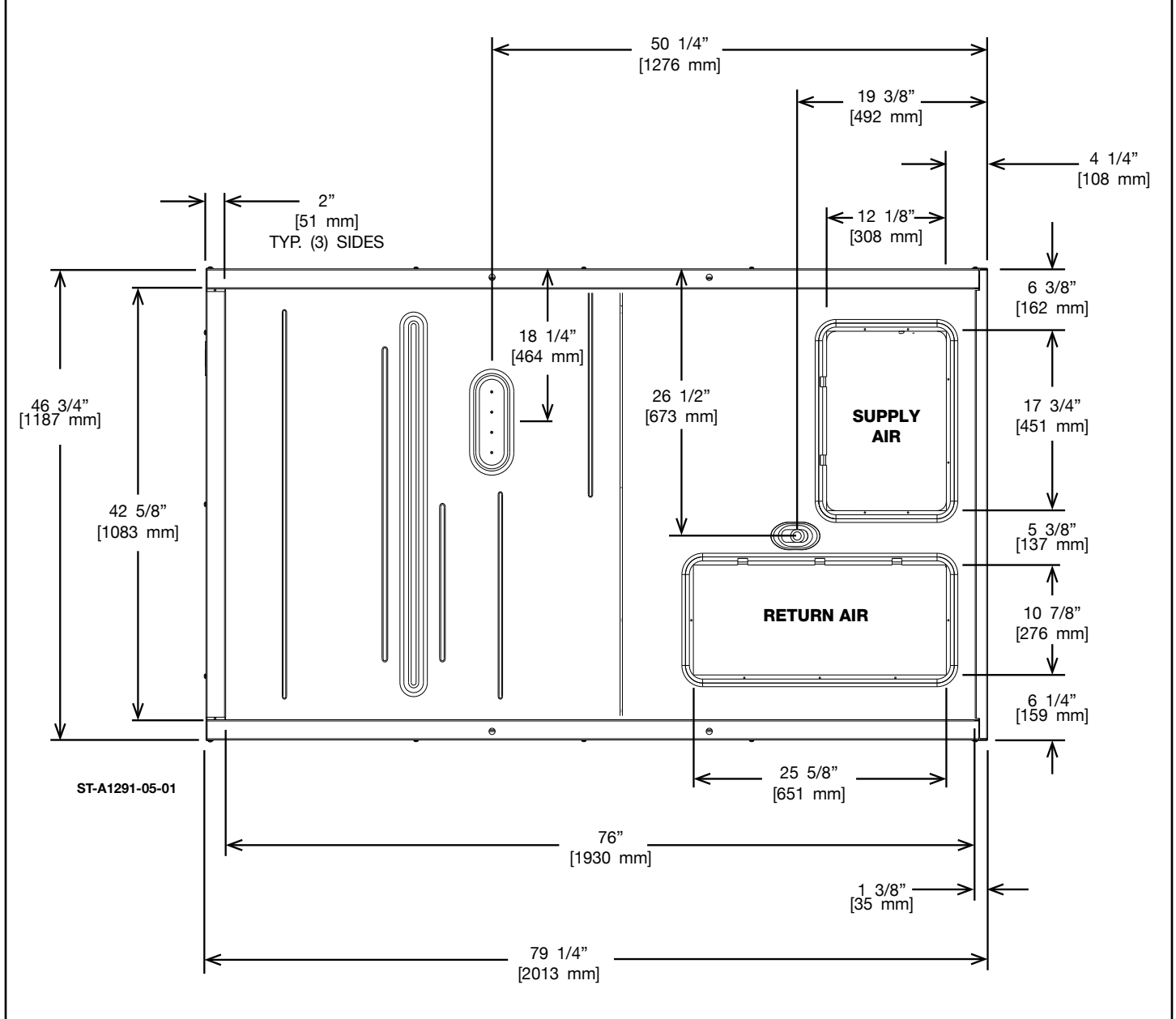
See [Appendix B](#) towards the end of this manual for Electrical Data.

B.3.5. Air Flow Performance Data

See [Appendix C](#) towards the end of this manual for Air Flow Performance Data.

B.3.6. Supply and Return Duct Dimensions

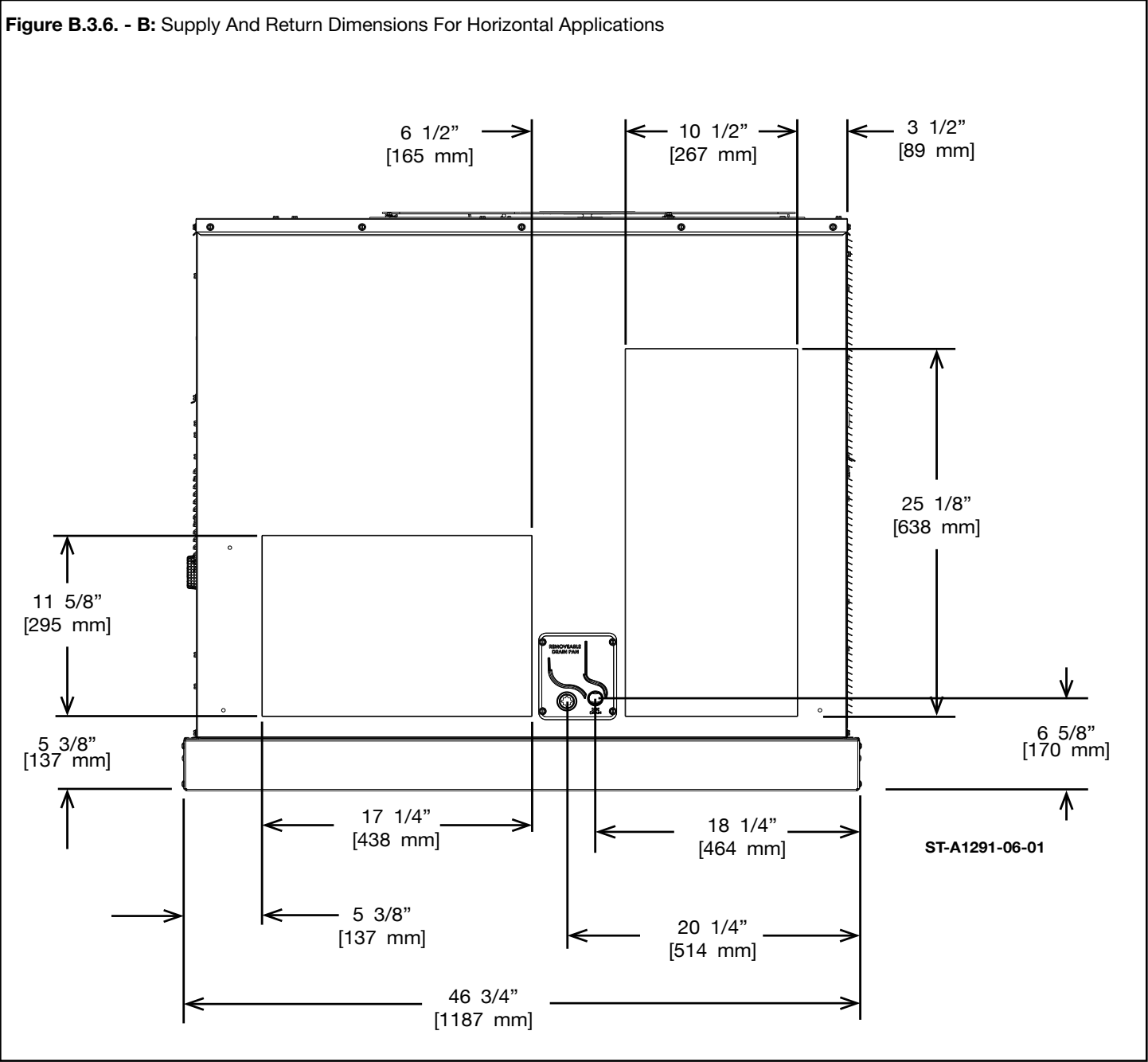
Figure B.3.6. - A: Supply And Return Dimensions For Downflow Applications (Bottom View Looking Up)



B. GENERAL SPECIFICATIONS

B.3.6. Supply and Return Duct Dimensions

Figure B.3.6. - B: Supply And Return Dimensions For Horizontal Applications



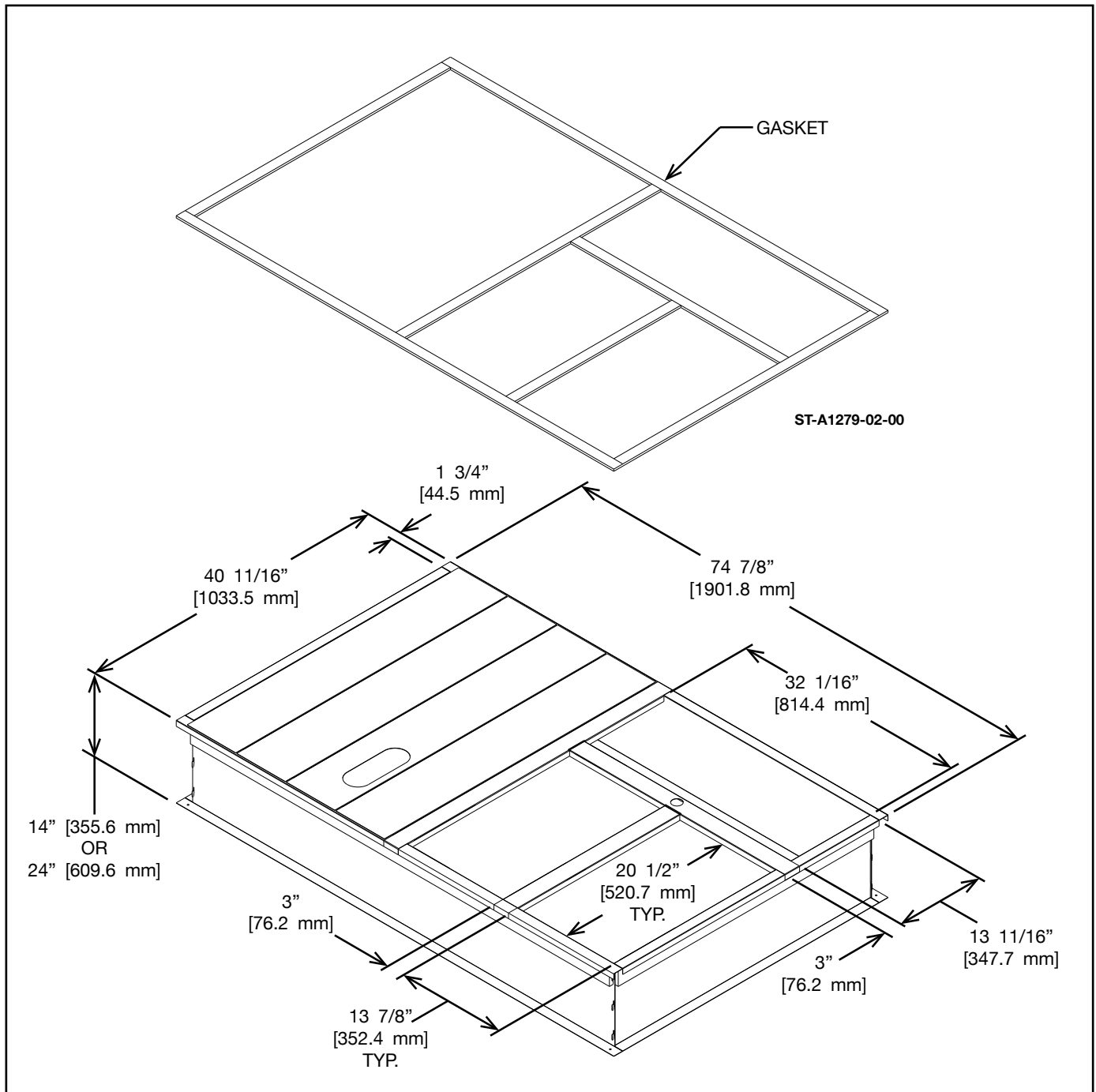
B. GENERAL SPECIFICATIONS

B.3. Product Data Information

B.3.7. Curb Dimensions

NOTE: See section **C.3.3. Rooftop Installation** for more information for installing the unit on a curb.

Figure B.3.7. – A: Roofcurb Complete Assembly



C. INSTALLATION OF THE UNIT

C.1. General

C.1.1. Installation

Install this unit in accordance with local and national standards. Any and all work must be done by authorized personnel.

C.1.2. Pre-Installation Checkpoints

Before attempting any installation, carefully consider the following points:

- Structural strength of supporting members (Rooftop Installation)
- Clearances and provision for servicing
- Power supply and wiring
- Air duct connections and sizing
- Drain facilities and connections
- Location for minimum noise and vibration

C.2. Tools and Refrigerant

A leak detection system is installed in this unit. The unit must be powered at all times except during service.

This unit is equipped with electrically powered safety measures. To be effective, the unit must be electrically powered at all times after installation, other than when servicing.

C.2.1. Tools Required for Installing and Servicing R-454B 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
- Zero-loss fittings

Recovery Cylinders:

- 400 PSIG Pressure Rating

Dept. of Transportation

- 4BA400 or BW400

C.2.2. Specifications of R-454B

All units are factory charged with R-454B Refrigerant.

Application: R-454B is not a drop-in replacement for R-410A. Equipment designs must accommodate the safety group A2L of R-454B. It cannot be retrofitted into R-410A units.

Physical Properties: R-454B has an atmospheric bubble point of 59.6°F [50.9°C] and an atmospheric dew point of -58.0°F [-50.0°C]. Its bubble point saturation pressure at 77°F [25°C] is 213 PSIG [1469 kPa] and dew point saturation pressure at 77°F [25°C] is 205 PSIG [1415 kPa].

Pressure: The pressure of R-454B is similar to that of R-410A. Recovery and recycling equipment, pumps, hoses, and the like must have design pressure ratings appropriate for R-454B. Manifold sets need to range up to 800 PSIG [5,516 kPa] high-side and 250 PSIG [1,724 kPa] low-side with a 550 PSIG [3,792 kPa] low-side retard. Hoses need to have a service pressure rating of 800 PSIG [5,516 kPa]. Recovery cylinders need to have a 400 PSIG [2,758 kPa] service pressure rating, DOT 4BA400 or DOT BW400.

Flammability: R-454B is classified as safety group A2L, where the 2L indicates flammability class.

R-454B and air should never be mixed in cylinders or supply lines or be allowed to accumulate in storage cylinders. Leak checking should never be done with a mixture of R-454B and air.

C.2.3. Quick Reference Guide for R-454B

Ensure that servicing equipment is designed to operate with R-454B.

- Refrigerant R-454B operates at pressures similar to R-410A. However, it is classified in safety group A2L. Ensure that servicing equipment is compatible with R-454B.
- Refrigerant cylinders are no longer color-coded. R-454B refrigerant cylinders are light green grey in color with a red band on the shoulder or top of the cylinder to indicate flammability.
- R-454B, as with other HFCs is only compatible with POE oils.
- Vacuum pumps will not remove moisture from POE oil.
- R-454B systems are to be charged with liquid refrigerants.
- 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-454B.

C. INSTALLATION OF THE UNIT

C.2. Tool and Refrigerant

C.2.4. Evaporator Coil/TXV

The thermostatic expansion valve (TXV) is specifically designed to operate with R-454B. If required, the existing TXV and/or evaporator coil must be replaced with the factory specified components specifically designed for R-454B.

C.2.5. Minimum Room Area

Because this unit uses R-454B refrigerant, UL requires a minimum room area for the total conditioned space (TA min.) that is supplied by this equipment.

The UL Safety Standard defines an individual room area as the room area enclosed by floors, walls, partitions, and doors of the space where the unit is installed, also as the room area into which refrigerant can leak. Each room/conditioned space will need to be considered for the total area requirements.

The minimum room area of the total conditioned space for each base model is listed in **Appendix F - A2L Refrigerant Installation Safety Data.**

C.2.6. No Ignition Sources

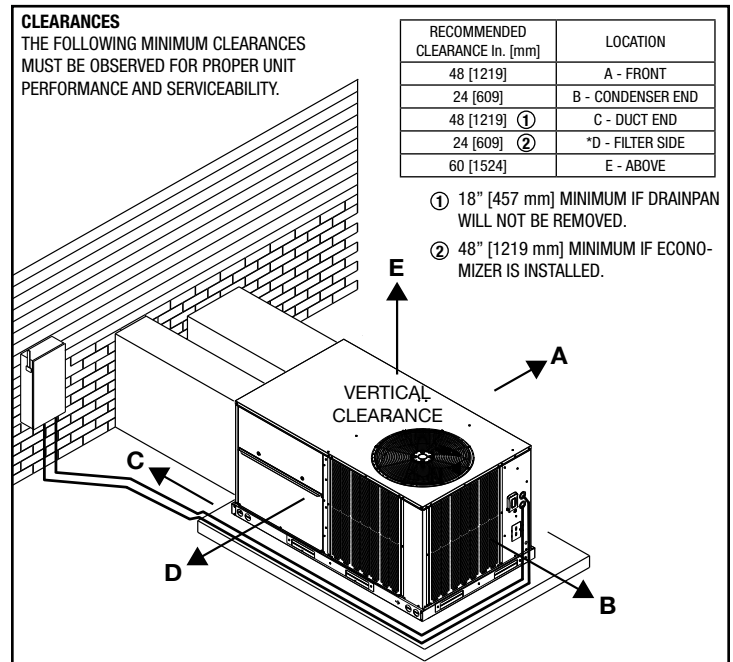
When performing work that involves exposing any pipework, no person working on or near the refrigerating system may use any ignition sources that could lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept far away from the site during installation, repair, removal, or disposal, during which refrigerant can possibly be released into the surrounding space. Before work takes place, the area around the equipment must be surveyed to ensure that there are no flammable hazards or ignition risks. Additionally, "No Smoking" signs must be displayed.

C.3. Choosing a Location

C.3.1. Unit Location: Allowable Clearances and Operational Issues

The unit location must comply with the allowable clearances listed in **Figure C.3.1. - A.** Failure to comply with the recommended clearances may result in operational issues such as decreased capacity, restricted condenser airflow, and condenser motor fatigue.

Figure C.3.1. - A: Allowable Clearances



C.3.2. Outside Installation

⚠ WARNING: These units are design-certified for outdoor installation only. Installation inside any part of a structure can result in inadequate unit performance as well as property damage.

1. Select a location where external water drainage cannot collect around unit.
2. Provide a level slab sufficiently high enough above grade to prevent surface water from entering the unit
3. Locate the unit to provide proper access for inspection and servicing as shown in **Figure C.3.1. - A.**
4. Locate unit where operating sounds will not disturb owner or neighbors.
5. 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.
6. Where snowfall is anticipated, the height of the unit above the ground level must be considered. Mount unit high enough to be above anticipated maximum area snowfall.
7. Select an area which will keep the areas of the vent, air intake, and A/C condenser fins free and clear of obstructions such as weeds, shrubs, vines, snow, etc. Inform the user accordingly.

C. INSTALLATION OF THE UNIT

C.3.3. Rooftop Installation

1. Before locating the unit on the roof, make sure that the roof structure is adequate to support the weight involved. (See Electrical & Physical Tables in this manual.) **THIS IS VERY IMPORTANT AND IS THE INSTALLER'S RESPONSIBILITY.**

2. For rigging and roofcurb details, see section **C.4.3.**

3. 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, block off supply and return air openings to prevent excessive condensation.

C.3.4. Corrosive Environments

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, sulfur 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, give special attention to the equipment location and exposure.

1. Avoid having lawn sprinkler heads spray directly on the unit cabinet.
2. In coastal areas, install the unit on the side of the building away from the waterfront.
3. In some situations, fencing or shrubs may give some protection against contaminants. Be mindful of the allowable clearances.
4. 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.
5. Regular cleaning and waxing of the cabinet with an automobile polish will provide some protection.
6. 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.

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

⚠ WARNING: Disconnect all power to unit before starting maintenance. Failure to do so can cause electrical shock resulting in personal injury or death. Regular maintenance will reduce the buildup of contaminants and help to protect the unit's finish.

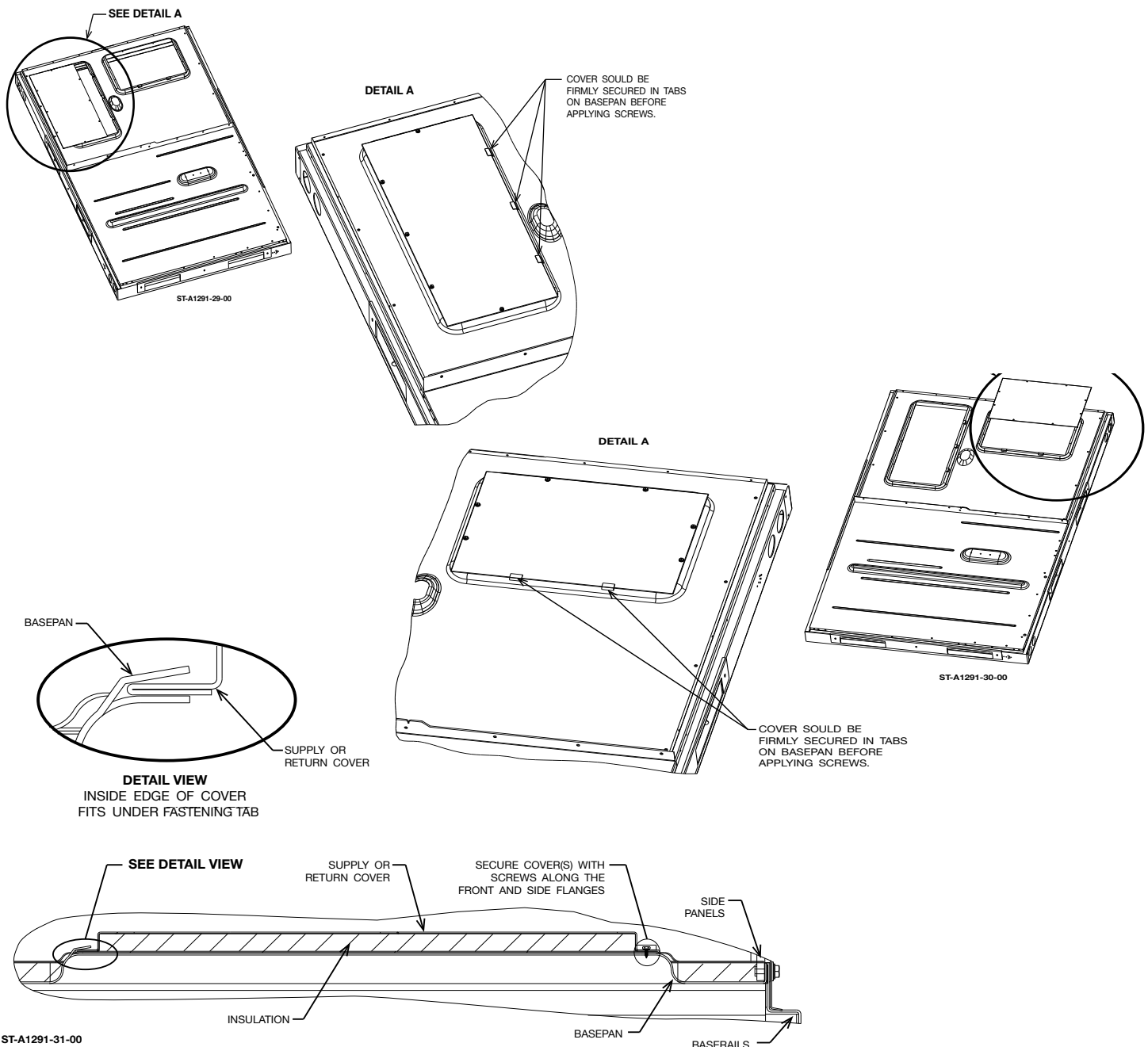
C. INSTALLATION OF THE UNIT

C.3.5. Cover Panel Installation/ Conversion Procedure

FROM DOWNFLOW TO HORIZONTAL

1. Remove the covers from the supply and return openings on the unit. **See Figure B.3.6. – B** for reference.
2. Install the covers over the supply and return openings in the basepan, painted side up, inserting the leading flange under the bracket provided. Place the back flange to top of the front bracket provided. **See Figure C.3.5. –A** for reference.
3. Secure the return and supply cover to front bracket with screws.

Figure C.3.5. – A: Downflow to Horizontal Conversion



C. INSTALLATION OF THE UNIT

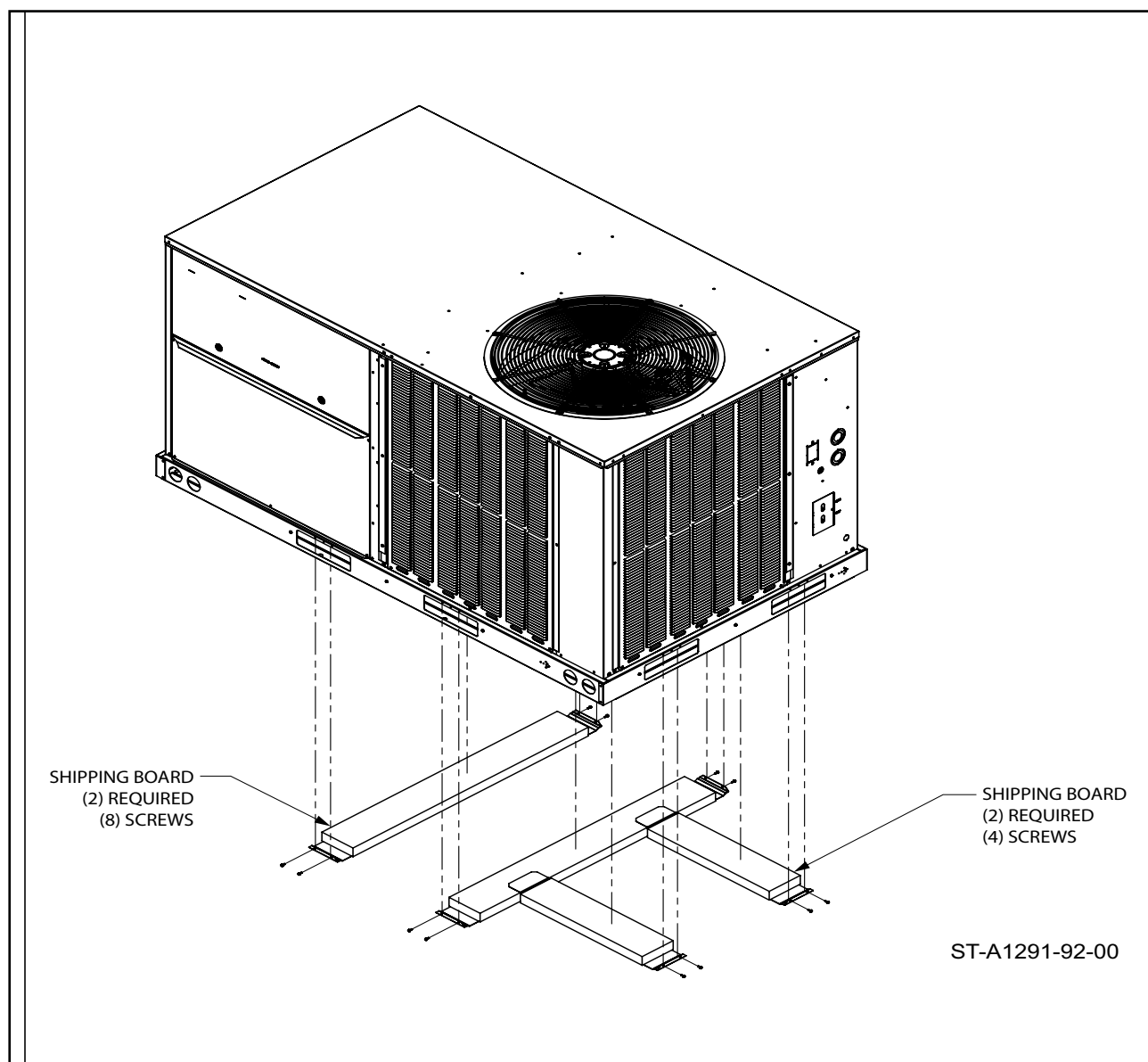
C.4. Setting the Unit

C.4.1. Removing Shipping material

There will be three types of shipping material that will need to be removed: The cardboard basepan protection underneath, the wooden skid on the top, and the condenser coil protection (on non-louver panel units).

- **Woodboard Basepan Protection** – Remove the screws that attach the metal brackets for each of the forklift fork-entry points, and remove the brackets. This will release the cardboard from underneath, and it may be removed when the unit is lifted.

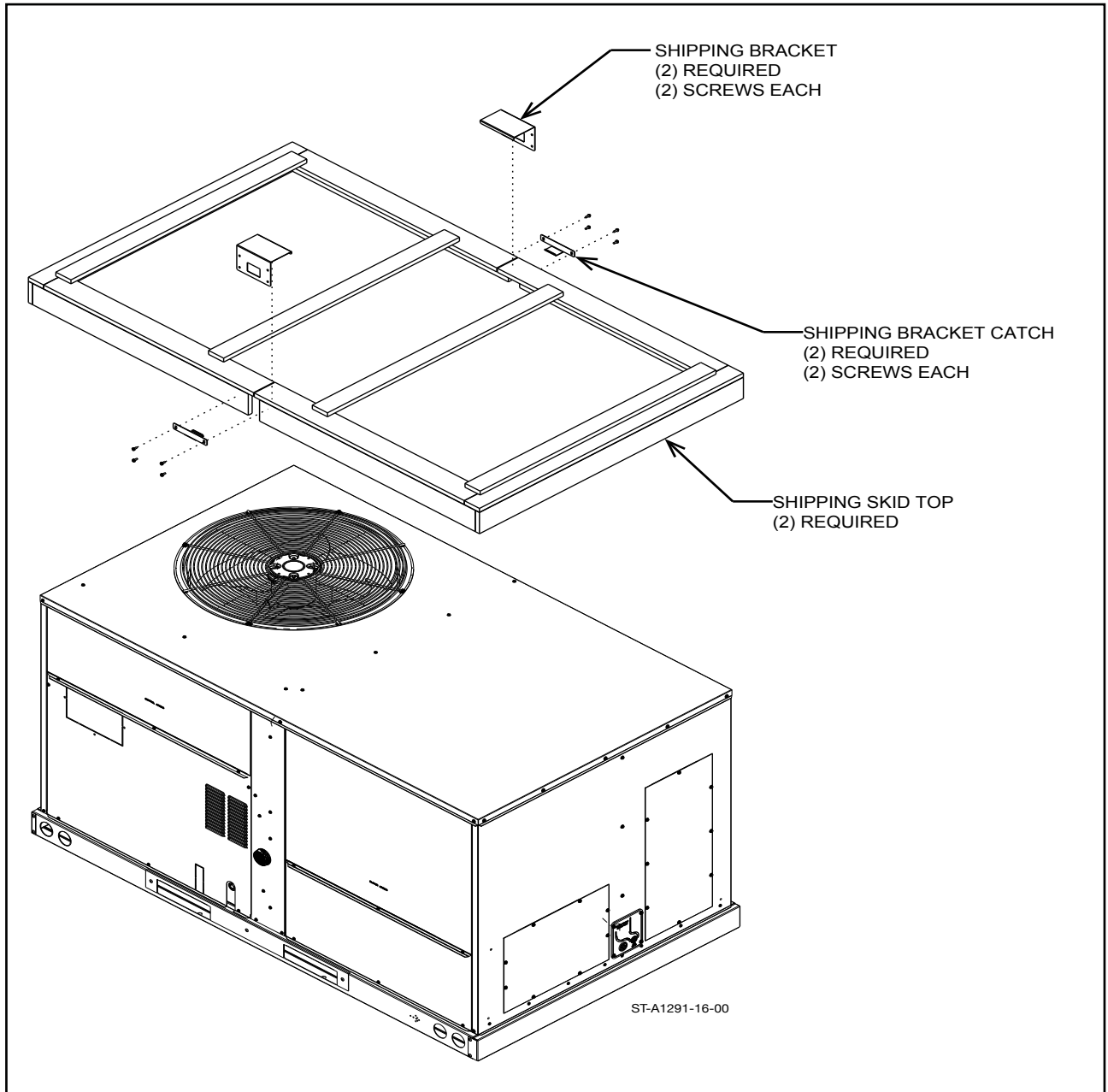
Figure C.4.1. – A: Basepan Protection Assembly



C. INSTALLATION OF THE UNIT

- **Wooden Skid** – Remove the screws from the metal brackets located in the middle along both long sides of the unit. This will detach the two sections of the wooden skid and allow them to be lifted off. If the unit is to be lifted by a crane, it is recommended to leave the top skid on until after the unit is on the roof to provide extra protection if spreader bars are not used.

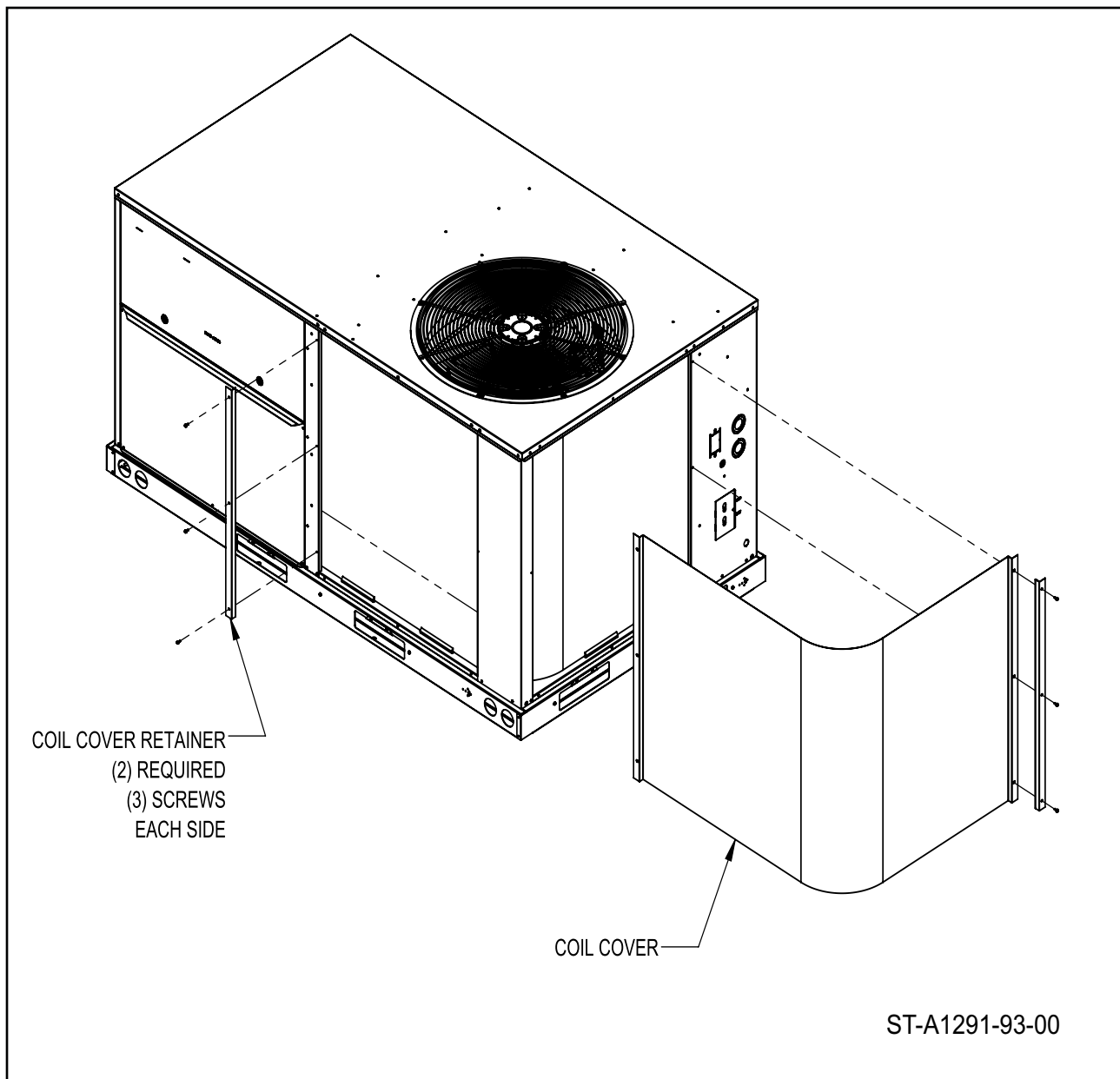
Figure C.4.1. – B: Wooden Skid Assembly



C. INSTALLATION OF THE UNIT

- **Condenser Coil Protection** – Remove the screws along the perimeter of the coil protector. This will allow the protector to be removed. If the unit has louver panels, it will not have the condenser coil protection.

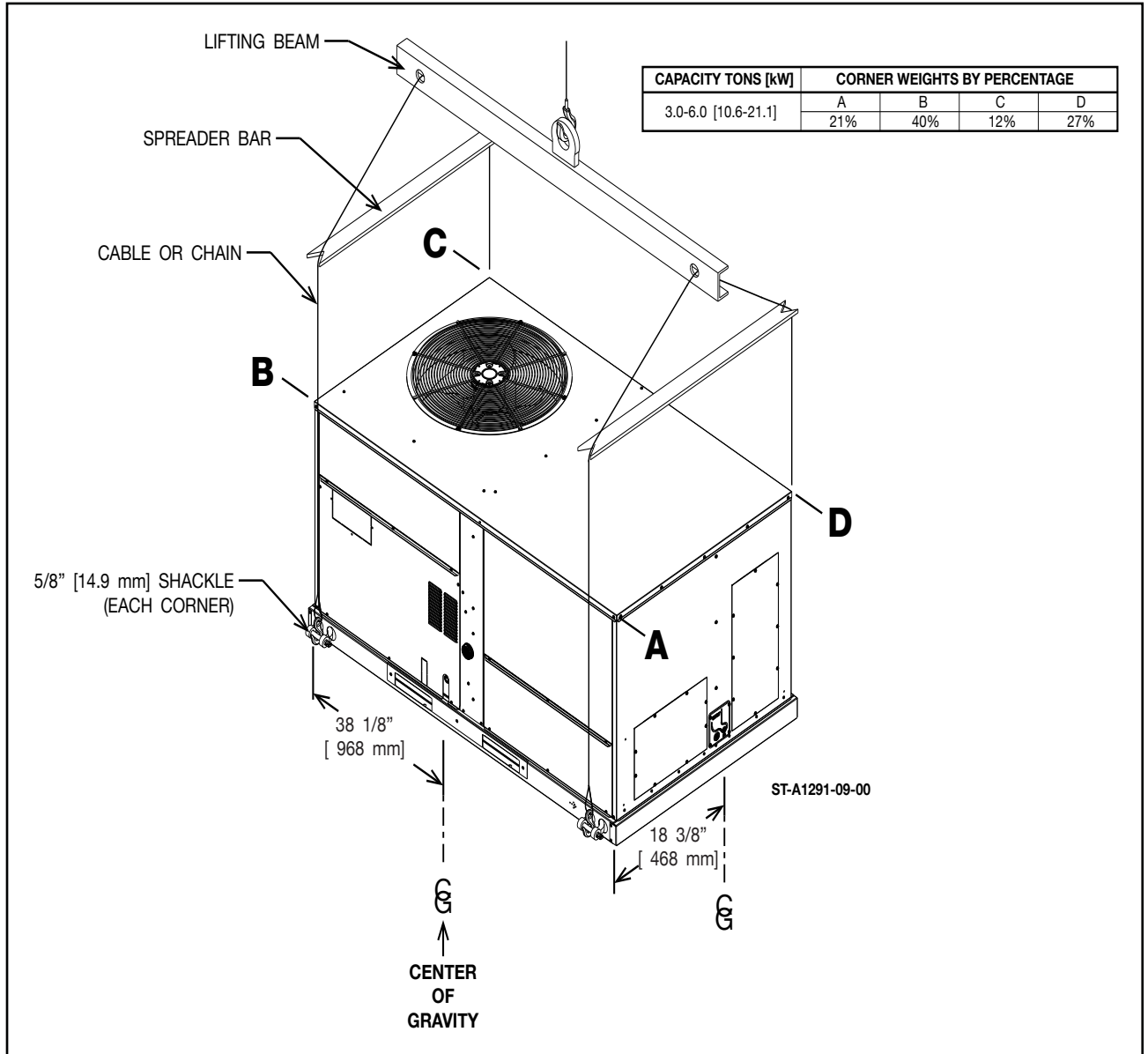
Figure C.4.1. – C: Condenser Coil Protection Assembly



C. INSTALLATION OF THE UNIT

C.4.2. Lifting the Unit

Figure C.4.2. – A : Lifting Detail



C. INSTALLATION OF THE UNIT

C.4.3. On a Roof Curb

Refer to **Figure C.3.1. - A** in section **C.3.1. Unit Location: Allowable Clearances and Operational Issues** before installing the unit on a roof curb.

Only use manufacturer-approved roofcurb products for the unit.

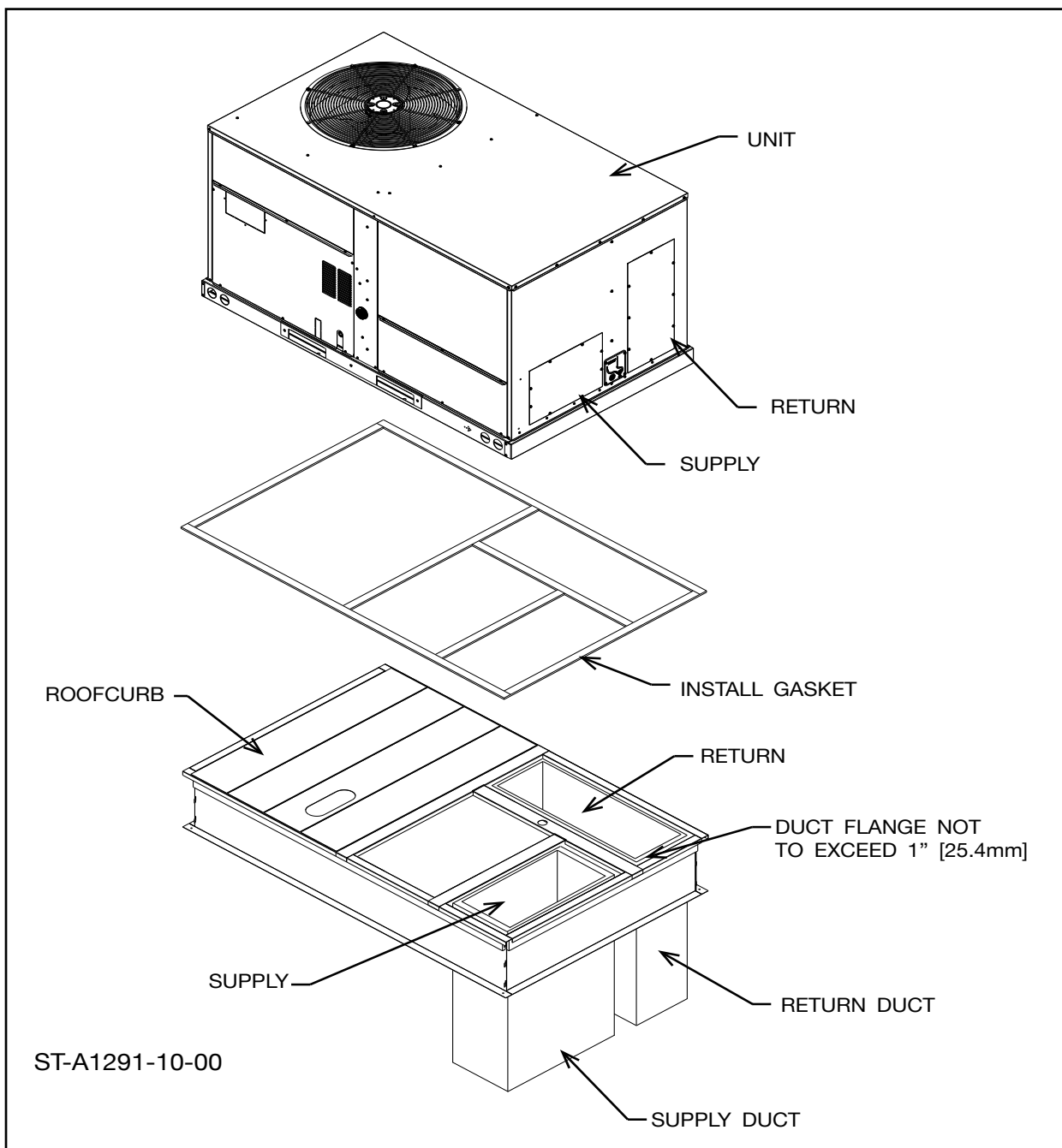
C.4.3.1. Installing the Roof Curb

Refer to the separate Installation Instructions for installing a roof curb. The accessory part numbers for the following accessories can be found in the product specification sheet:

- 14" and 21" Roofcurb
- Roofcurb Adapter

C.4.3.2. Setting the Unit

Figure C.4.3.2. - A: Setting the unit on Roofcurb Assembly



C. INSTALLATION OF THE UNIT

C.4.3.3. High Wind and Seismic Tie-Down Methods

The units must be secured in compliance with ASCE 7-10 and the latest Florida Building Code where applicable. Please refer to **Appendix J. - Unit Tie-Down Methods.**

C.4.4. On a Slab

C.4.4.1. Setting the Unit

Set the unit on a stable concrete pad with adequate clearances around the sides of the unit, and make sure the unit is level before securing.

Before setting/securing the unit, use this opportunity to convert the unit from a downflow configuration to a sideflow configuration if necessary. Refer to section **C.3.5. Cover Panel Installation/Conversion Procedure.**

C.4.4.2. High Wind and Seismic Tie-Down Methods

Slab-installed units must also be secured in compliance with ASCE 7-10 and the latest Florida Building Code. Please refer to **Appendix J. - Unit Tie-Down Methods.**

C.5. Installing Condensate Drain

IMPORTANT: Install a condensate trap to ensure proper condensate drainage. See **Figure C.5.1 - A** for reference.

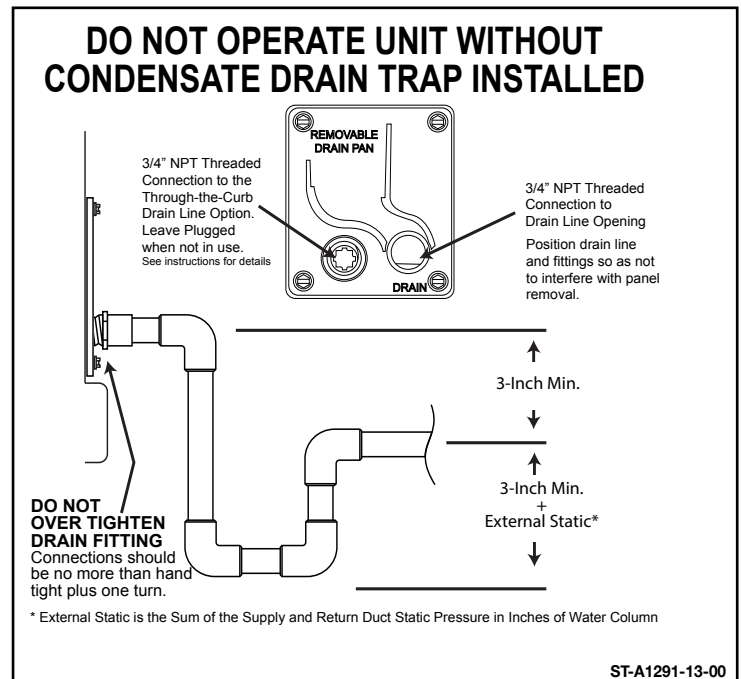
The condensate drain pan has a threaded female $\frac{3}{4}$ inch NPT (11.5 TPI) connection. Drain line must be no smaller than drain pan outlet and adequately sized to accommodate the condensate discharge from the unit. Drain line must be routed to an acceptable drain or outdoors in accordance with local codes. Consult local codes or ordinances for specific requirements of condensate drain piping and disposal.

DO NOT connect condensate drain line to a closed sewer pipe.

C.5.1. Determine Drain Trap Height Requirement

The drain line should be a minimum of 3 inches deep, plus 1 inch for every inch of external static pressure from the blower and duct system. For example, if the external duct static is 1 inch of water column, the drain trap from the bottom of the trap to the bottom of the drain outlet should be 4 inches, the drain outlet should be 3 inches below the drain connection on the condensate pan. Ensure the outlet of the trap is routed to a suitable drain location as required by local code. See **Figure C.5.1 - A** for reference.

Figure C.5.1. – A: Condensate Drain Trap



C.5.2. Keeping the Condensate Drain Pan Serviceable

To use the removable drain pan feature of this unit, some of the condensate line joints should be assembled for easy removal and cleaning. Drain line **MUST NOT** block service access panels.

C.5.3. Connecting the Drain Trap

- 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.
- Drain line must be routed to an acceptable drain or outdoors in accordance with local codes.
- Drain line should slope away from unit a minimum of $\frac{1}{8}$ " per foot to ensure proper drainage.

C.5.4. Connecting the Drain via the Through the Curb Option

The through the curb option is available for installations in freezing conditions or that do not want water draining on the roof. Use adapters and elbows to turn out of the drain opening on the right and into the curb drain opening on the left. Under the units connect a $\frac{3}{4}$ " male threaded fitting, use thread sealant, into the opening between the supply and return duct openings under the unit. Install a properly sized drain trap in the conditioned space of the building and route to a suitable drain location as code requires.

C. INSTALLATION OF THE UNIT

C.5.5. Freezing Condition considerations

- Drain line may need insulation or freeze protection in certain applications.
- Drain line should slope away from unit a minimum of 1/8" per foot to ensure proper drainage.

C.6. Final Installation Inspection

C.6.1. Remove Shipping Material

Before the unit is secured to the slab/roofcurb, check that all shipping material has been removed. See section **C.4.1.** for how to remove shipping material.

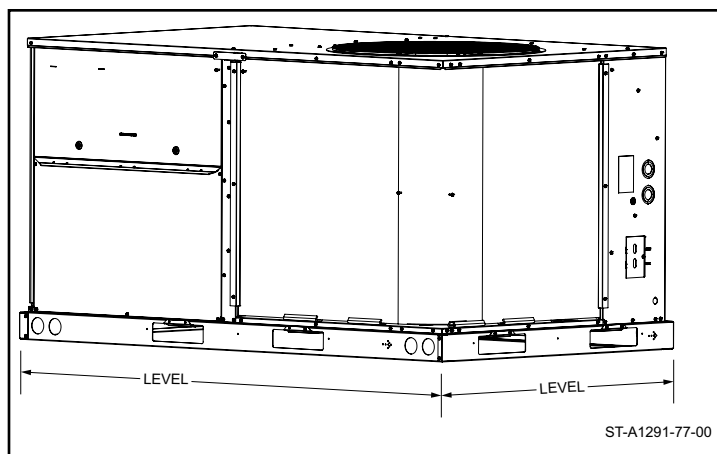
NOTE: Failure to remove the condenser coil protector on non-louver panel units will negatively impact performance and be harmful to system components. Failure to remove the shipping boards will interfere with duct installation and mounting for downflow configurations.

Open all compartments to ensure there are no tools or other misc parts remaining in the unit from setup. This is most important on the blower section to avoid damage to the blower assembly.

C.6.2. Checking Level and Slope

This unit must be mounted level in both directions to allow water to properly drain from the condenser section and condensate pan.

Figure C.6.2. – A: Level Unit



C.6.3. Condensation and Sweating

In certain regions or climates, portions of the exterior of the unit may condensate or sweat during cooling operation. This is normal and expected. See section **J.3. Checking and Adjusting Air Flow** for more information.

D. DUCT AND VENTING

D.1. Air Flow and Static Pressure

See **Appendix C** towards the end of this manual for Air Flow Performance Data. For Air Flow adjustment and set up, see section **J.3. Checking and Adjusting Air Flow.**

D.2. Duct Requirements and Best Practices

The installation contractor should fabricate ductwork in accordance with local codes.

Use industry manuals as a guide when sizing and designing the duct system.

Contact Air Conditioning Contractors of America at www.acca.org for more information.

⚠ WARNING: DO NOT, under any circumstances, connect return ductwork to any other heat producing device such as fireplace insert, stove, etc. Unauthorized use of such devices may result in fire, carbon monoxide poisoning, explosion, personal injury, property damage, or death.

⚠ WARNING: Only auxiliary devices approved by the appliance manufacturer or declared suitable with the refrigerant shall be installed in connecting ductwork.

Place the unit as close to the conditioned space as possible allowing clearances as indicated. Run ducts as directly as possible to supply and return outlets. Use of non-flammable weatherproof flexible connectors on both supply and return connections at unit to reduce noise transmission is recommended.

On ductwork exposed to outside temperature and humidity, use a minimum of 2" of insulation and a vapor barrier. Distribution system in attic, furred space or crawl space should be insulated with at least 2" of insulation. Half-inch to 1" thick insulation is usually sufficient for ductwork inside the air-conditioned space.

Provide balancing dampers for each branch duct in the supply system.

Properly support ductwork from the structure.

IMPORTANT: In the event that the return air ducts must be run through an "unconfined" space containing other fuel burning equipment, it is imperative that the user/business owner must be informed against future changes in construction which might change this to a "confined space." Also, caution the user/business owner against any future installation of additional equipment (such as power ventilators, clothes dryers, etc.), within the existing unconfined and/or confined space which might create a negative pressure within the vicinity of other solid, liquid, or gas fueled appliances.

IMPORTANT: Only auxiliary devices approved by the manufacturer or declared suitable with the refrigerant shall be installed in the connecting ductwork.

D.2.1. Supply Duct Systems

A properly designed supply duct system, meeting all local codes and best practices, must be installed to ensure proper air flow and minimize the static pressure on the blower. The following dimensions are approximations.

The supply duct opening for roof curb installations is 12 1/8" x 17 3/4", the supply duct opening for horizontal ducted installations is 11 5/8" x 17 1/4". See **Figure B.3.6. – A and – B** for reference.

Note: The installer is responsible for verifying all dimensions.

D.2.2. Return Duct Systems

A properly designed return duct system, meeting all local codes and best practices, must be installed to ensure proper air flow and minimize the static pressure on the blower. The following dimensions are approximations.

The return duct opening for roof curb installations is 25 5/8" x 10 7/8", the return duct opening for horizontal ducted installations is 25 1/8" x 10 1/2". See **Figure B.3.6. – A and – B** for reference.

Note: The installer is responsible for verifying all dimensions.

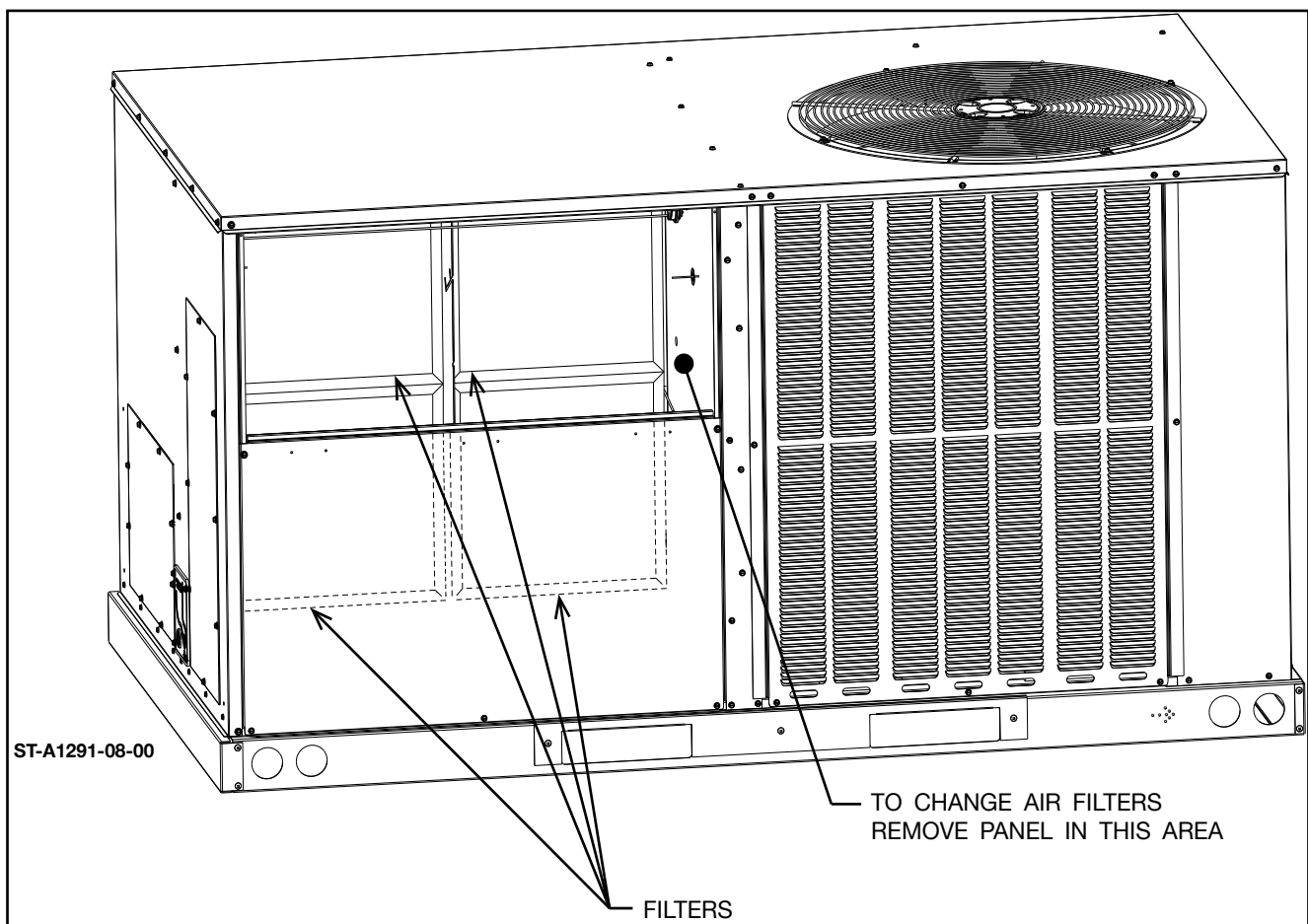
D. DUCT AND VENTING

D.2.3. Isolation for Noise Abatement

Noise from operational vibration can occur with this equipment, the use of flexible duct adapters and vibration damping curb adapters maybe required depending upon the building type and use. Consult with a local mechanical engineer on the duct and building design to determine if any noise abatement solutions need to be considered before installation.

D.3. Filters

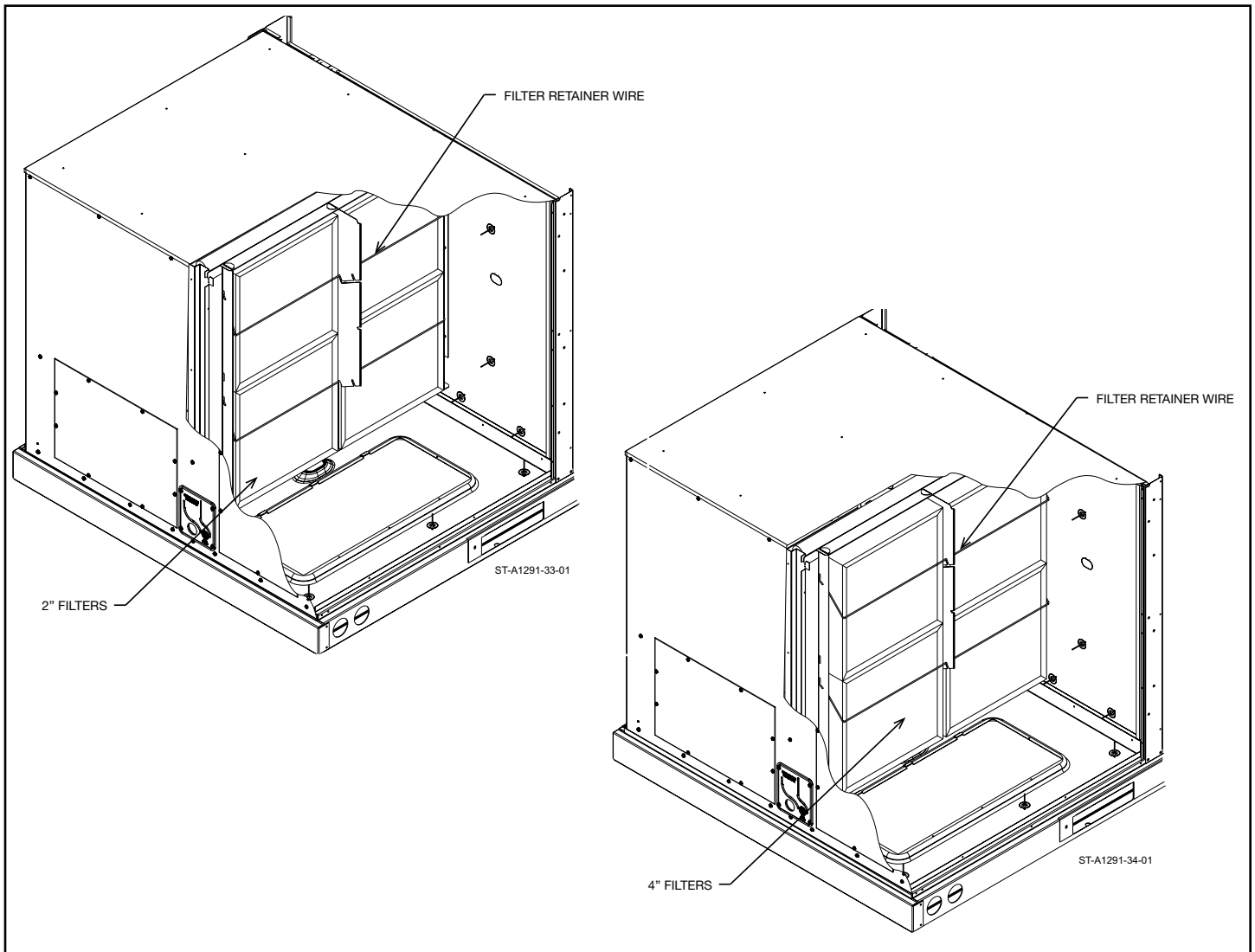
D.3.1. Installing Filters



D. DUCT AND VENTING

D.3. Filters

D.3.1. Installing Filters (Cont.)



This product will accept both 2" and 4" filters. A new unit ships with four 2" x 16" x 16" filters. For units with an economizer, only use 2" filters due to fitment clearances. To replace filters, follow these steps:

1. Remove "Filter Access" panel.
2. Pull downwards on retainer wire and rotate upwards to unlock filters.
3. Secure retainer wire in notch.
4. Remove and discard current filters.
5. Install new filters with airflow arrow pointing towards evaporator coil.
6. Rotate retainer wire downward to original position and secure in notch.
7. Install "Filter Access" panel.

D. DUCT AND VENTING

D.4. Economizers and Fresh Air Dampers

D.4.1. Economizer Information

ECONOMIZERS - Mechanical devices used to make the Heating Ventilation and Air Conditioning (HVAC) unit more efficient by regulating the return air and outside air. Economizers for this product come in several configurations.

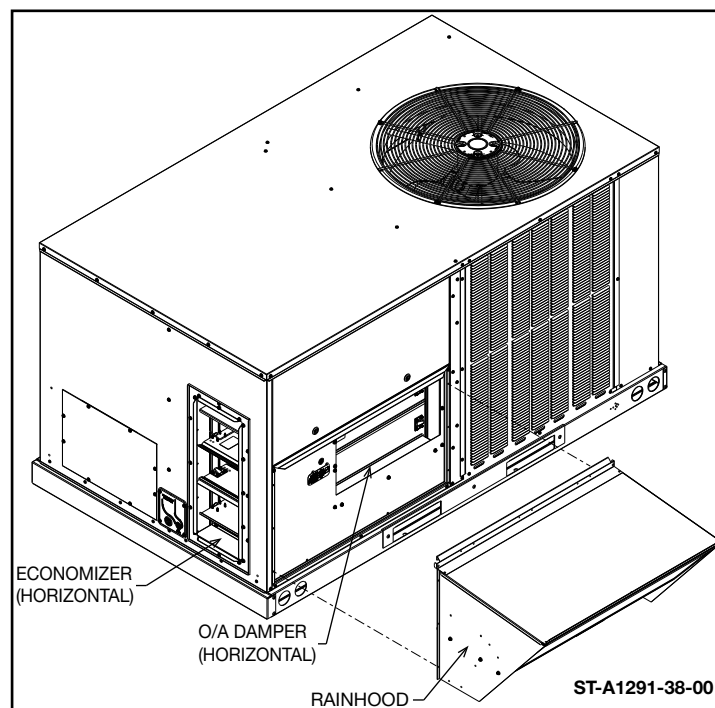
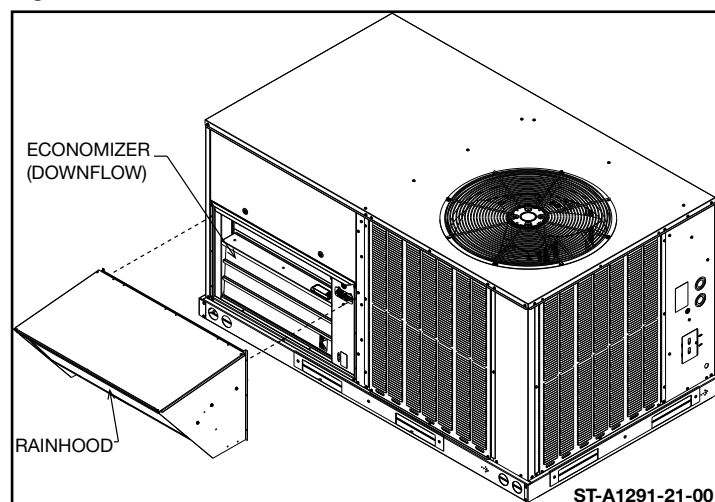
The Downflow Economizer is designed specifically for units set up in a downflow configuration. The downflow economizer fits inside the package unit and sits over the return-air opening along the bottom of the unit. All economizers are equipped with horizontal gear driven blades and a gravity relief damper (Barometric Relief).

The Horizontal Economizer is designed specifically for units set up in a horizontal flow configuration. The horizontal economizer utilizes independently actuated return-air and fresh air dampers to enable the most efficient handling of air achievable with this platform. The horizontal economizer also includes an externally mounted (to the duct work) barometric relief damper.

All units with economizers come shipped from the factory with a parts bag and a separate document for Economizer Installation & Operation instructions. Refer to that document for information on how to install the economizer, connect the controls, and adjust the airflow. Accessory economizers purchased separately will also come with the parts bag and instructional document.

For reference, the Installation Instructions for economizers may be found in the parts bag of the unit for factory installed economizers, or on the manufacturer's website for the product.

Figure D.4.1. – A: Downflow Economizer with Hood



Note: Economizer appearance may vary.

D. DUCT AND VENTING

D.4.2. Fresh Air Dampers

MANUAL DAMPER HOODS – Manual damper hoods are often installed as a low cost substitute for an economizer.

The blade inside the hood is manually set to restrict the opening by introducing Static Pressure, thereby balancing the outside air with the return air entering the RTU.

The drawback to a manual damper is that it is open 24 hours a day, 365 days a year. Therefore, it introduces outside air during occupied and unoccupied modes increasing the load on the rooftop unit.

MOTORIZED DAMPER HOODS – A motorized damper is economical, and provides more comfort than a manually adjusted hood damper.

The motorized damper is coupled to an actuator, and designed to open when the RTU fan is running, and close when the fan is off. The advantage of the motorized damper is that the outside air is no longer a factor once the RTU fan is cycled off.

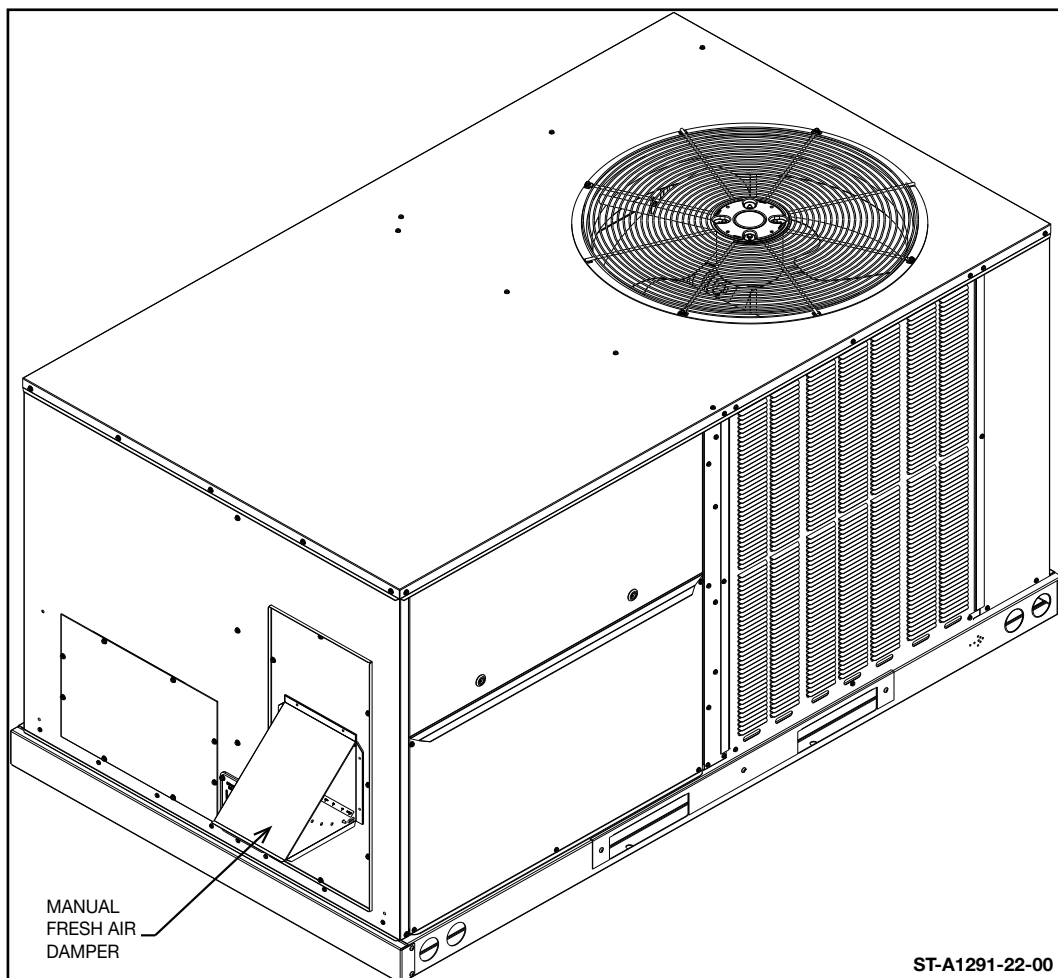
By connecting a Timer, CO2 Sensor or Smoke Detector in series between the RTU fan (“G” on the Thermostat) and actuator, the damper can be controlled during “Unoccupied” hours, or allow the damper to only introduce outside air during “On-Demand Occupancy.”

Fresh Air Dampers come shipped with a separate document for Installation & Operation instructions. Refer to that document for information on how to install and adjust the dampers.

For reference, the Installation Instructions for Fresh Air Dampers may be found in the parts bag for the factory installed dampers, or on the manufacturer’s website.

Note: Damper appearance may vary.

Figure D.4.2. – A: Fresh Air Damper



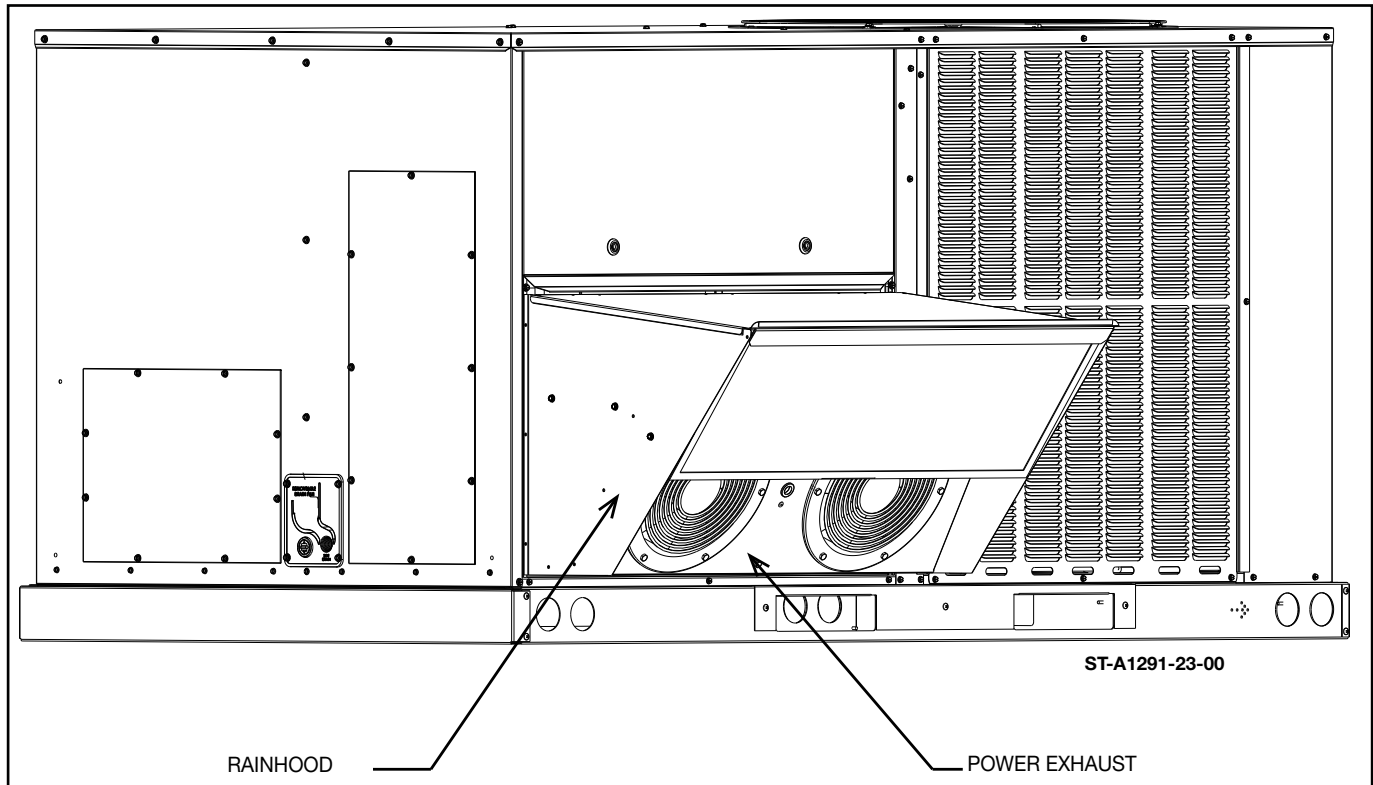
D. DUCT AND VENTING

D.4.3. Powered Exhaust

POWER EXHAUST - This field-installed accessory is a motorized fan designed to remove air from the conditioned space efficiently. While this is useful for removing a high positive pressurization, caution must be taken in the setup of the system to avoid creating a negative pressure within the conditioned space. If negative pressure occurs, leaky windows, doors, and electrical fixtures will allow the outside air to creep in causing drafts or hot spots within a room. Accessory appearance may vary.

Note: For horizontal applications the accessory is mounted in the ductwork.

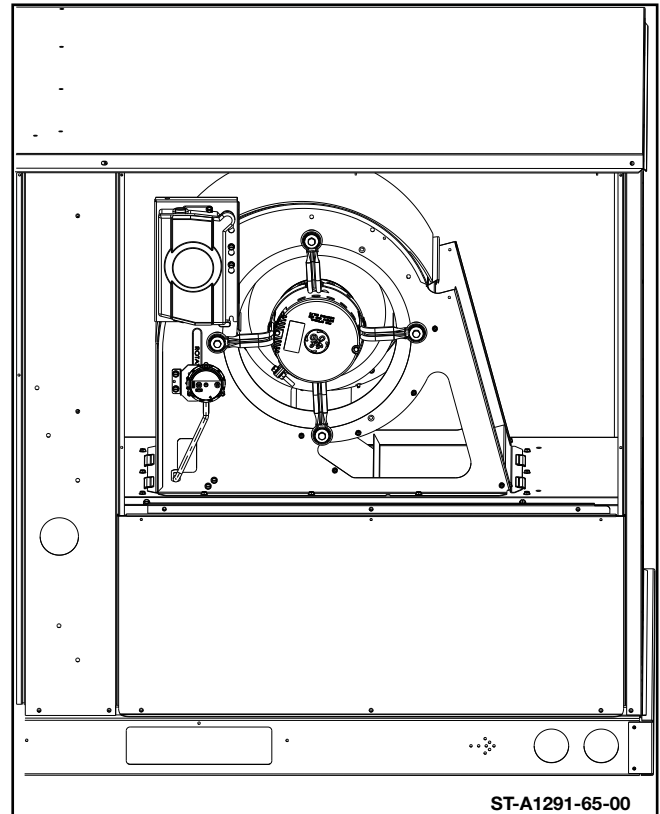
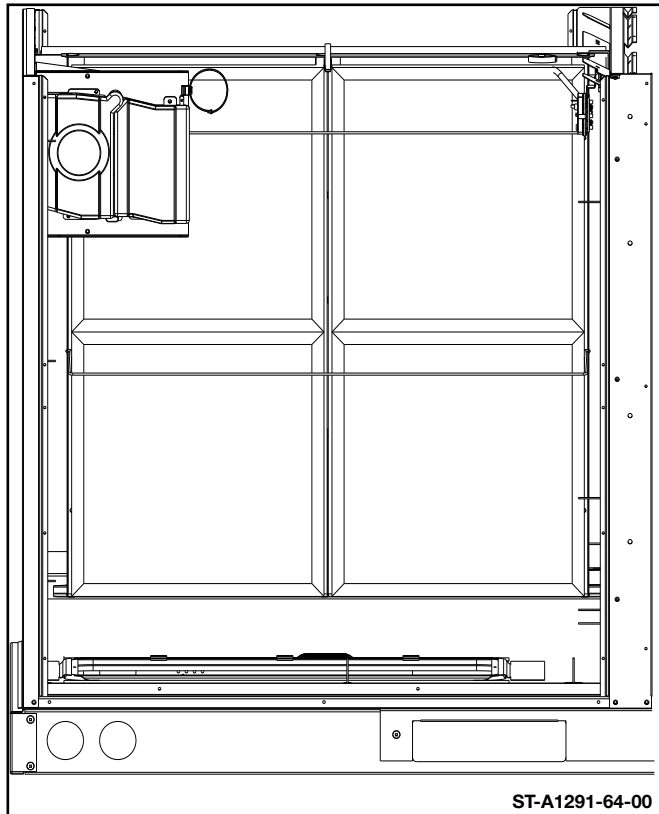
Figure D.4.3. – A: Powered Exhaust



D. DUCT AND VENTING

D.5. Smoke Detectors

Figure D.5. – A: Smoke Detector Assembly



D.5.1. Supply Duct Smoke Detectors

D.5.1.1. Field Installed – Installation, Wiring and Setup

Field install Supply and Return Duct Smoke Detectors come shipped with a separate document for Installation & Operation instructions. Refer to the separate installation instructions for installing, wiring, and setup of a supply and return smoke detector. Refer to the separate installation instructions shipped with the accessory for wiring diagrams and additional assembly instructions.

D.5.1.2. Factory Installed – Inspection and Setup

Inspect the smoke detector assembly for any damage during shipping. Use **Figure D.5. – A** for reference. Confirm that all wiring connections are still secure. Refer to the separate installation instructions shipped with the smoke detector for wiring diagrams and additional assembly instructions. These instructions may be found in the parts bag in the unit or on the manufacturer's website.

D.5.1.3. Field Installed 3rd Party Smoke Detectors or Fire Control Panels

See **Section F.2.5.2.** for the proper connection points for a remote smoke detector. **DO NOT** break 24VAC to the Thermostat: shutdown will not occur. **DO NOT** break 24VAC from the transformer: it can overload the smoke detector controls.

D.5.2. Remote Smoke Detectors Reference

Refer to **Section F.1.2. Occupancy and Remote Smoke Detector Connections** for non-DDC connections.

Refer to **Section F.2.5.2. Remote Smoke Detector/Fire Control Connection** for DDC connections.

E. ELECTRICAL

E.1. Electrical Safety Information

E.1.1. Information on Power Supply

⚠ WARNING: Turn off the main electrical power at the branch circuit disconnect closest to the unit before attempting any wiring. Failure to do so can cause electrical shock resulting in personal injury or death.

1. All wiring should be made in accordance with the **National Electrical Code**. Consult the local power company to determine the availability of sufficient power to operate the unit. Check the voltage at power supply to make sure it corresponds to the unit's RATED VOLTAGE REQUIREMENT. Install a branch circuit disconnect near the rooftop, in accordance with the N.E.C., C.E.C. or local codes.

2. It is important that proper electrical power is available at the unit. Voltage should not vary more than 10% from that stamped on the unit nameplate. On **three phase units**, phases must be balanced within 3%.

3. For branch circuit wiring (main power supply to unit disconnect), the minimum wire size for the length of run can be determined from the **N.E.C.** using the circuit ampacity found on the unit rating plate. Use the smallest wire size allowable in **Figure F. – A** from the unit disconnect to unit.

4. For through the base wiring entry reference **Figure F.3. – A: Electrical and Piping Routing**. All fittings and conduit are field supplied for this application. Reference the chart with **Figure F.3. – B: Hole Sizing for Conduit** for proper hole and conduit size.

NOTES:

1. For branch circuit wiring (main power supply to unit disconnect), the minimum wire size for the length of run can be determined from **Appendix B - Electrical Data** or the unit rating plate for circuit ampacity and the National Electrical Code to determine proper wire sizing. From the unit disconnect to unit, the smallest wire size allowable in **Figure F. – A** for the circuit ampacity may be used, as the disconnect must be in sight of the unit.

2. Wire size based on 75°C rated wire insulation for 1% voltage drop.

3. For more than 3 conductors in a raceway or cable, see the National Electrical Code (or C.E.C. in Canada) for derating the ampacity of each conductor.

IMPORTANT: This unit is approved for use with copper conductors only connected to unit contactor.

WARRANTY MAY BE JEOPARDIZED IF ALUMINUM WIRE IS CONNECTED TO UNIT CONTACTOR.

Special instructions apply for power wiring with aluminum conductors:

Warranty is void if connections are not made per instructions.

Attach a length (6" or more) of recommended size copper wire to the unit contactor terminals L1, L2 and L3 for three phase.

Refer to the National Electric Code (NEC) for sizing wire to electric heat / single point. See **Appendix E - Heater Kit Characteristics** for additional info.

Splice copper wire pigtails to aluminum wire with U.L. recognized connectors for copper-aluminum splices. Please exercise the following instructions very carefully to obtain a positive and lasting connection:

1. Strip insulation from aluminum conductor.
2. Coat the stripped end of the aluminum wire with the recommended inhibitor, and wire brush the aluminum surface through inhibitor. INHIBITORS: Brundy-Pentex "A"; Alcoa-No. 2EJC; T & B-KPOR Shield.
3. Clean and recoat aluminum conductor with inhibitor.
4. Make the splice using the above listed wire nuts or split bolt connectors.
5. Coat the entire connection with inhibitor and wrap with electrical insulating tape.

NOTE: Wiring to be done in the field between the unit and devices not attached to the unit, or between separate devices which are field installed and located, shall conform with the temperature limitation for Type T wire [63°F rise (35°C)] when installed in accordance with the manufacturer's instructions.

E. ELECTRICAL

E.1.2. 208/230 Volt Operation and Required Adjustments

E.1.2.1. Low Voltage Transformer Tap Adjustment for 208 Volt

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.

E.1.3. 460 Volt Operation

Setup for 460V units will not require any additional setup.

E.1.4. 575 Volt Operation

Setup for 575V units will not require any additional setup. There will be an additional transformer in the unit that is stored in a metal box and mounted next to the compressor. It will be pre-wired from the factory and no setup will be needed.

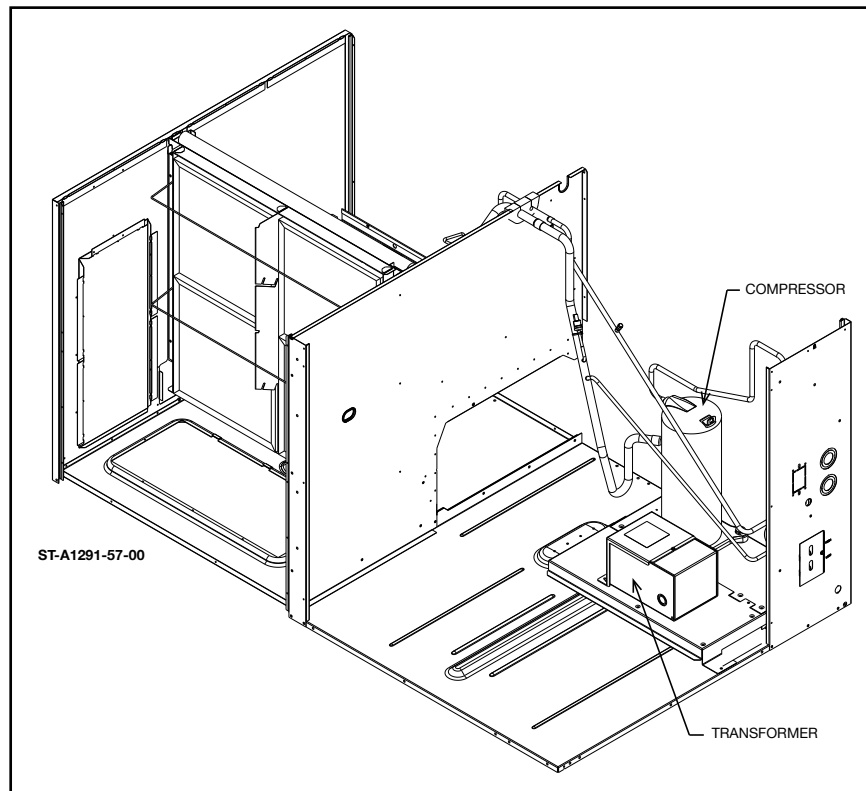
E.1.5. Potential Ignition Sources

The UL safety standard defines potential ignition sources as hot surfaces, flames, and current carrying devices which can be the source of arcing or sparking.

In case any internal electrical components need to be replaced, those replacement parts must be ordered from the unit manufacturer's website to ensure that the internal electrical components are not potential ignition sources.

Examples of internal electrical components include contactors, relays, and control boards. This is not an exhaustive list. For the safety of customers and technicians, refer to the unit manufacturer's website for proper unit component replacement.

Figure E.1.4. - A: 575 Volt Transformer Location



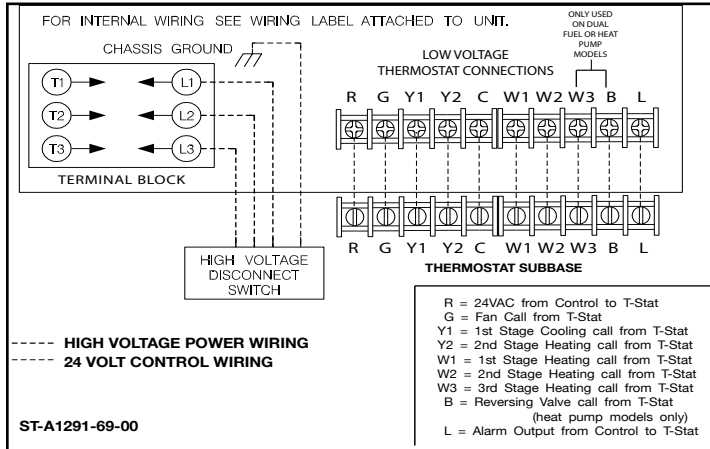
E. ELECTRICAL

E.2. Electrical Data

See **Appendix B** towards the end of this manual for Electric Data.

E.3. Electrical Connections

Figure E.3. – A: Typical Thermostat Wiring



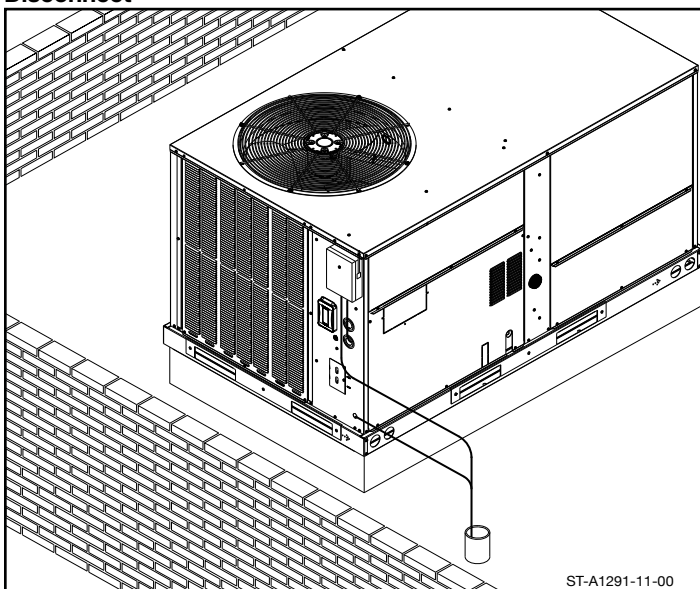
Use to **Appendix B** Electrical Data and National Electrical Code for circuit ampacity to determine proper wire sizing.

Refer to **Figure F.3. – A: Electrical and Piping Routing** for location of wiring entrances, and **Figure F.3. – B: Hole Sizing for Conduit.**

E.3.1. Field Supplied Disconnect

The field supplied service disconnect will come with a separate Installation Instruction document. Please refer to that document for additional information.

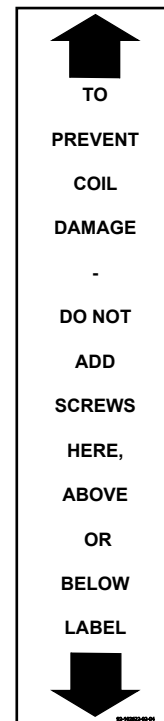
Figure E.3.1.1. – A: Standard Location for Mounting Disconnect



E.3.1.1. Mounting Disconnect on Cabinet

Attach the disconnect to the top of the left hand side of the control box, above the knockouts and refrigerant test ports. Do not use screws above or below the label specifying “TO PREVENT COIL DAMAGE – DO NOT ADD SCREWS HERE, ABOVE, OR BELOW LABEL” as hidden coil and tubing could be damaged. An example of this label is shown below.

Figure E.3.1.1. – B: Label Showing Where to NOT Use Screws



E.3.1.2. Routing Wires into Cabinet

See **Figure F.3. – A: Electrical and Piping Routing** for conduit entry points and routing locations for wiring into the control box.

See **Figure E.3. – A: Typical Thermostat Wiring** for wiring to the terminal block and thermostat in the control box.

E. ELECTRICAL

E.3.1.3. Routing Wires Through Curb (Option)

Use liquid tight connectors and tubing to connect the electrical and low voltage control cables between the base of the cabinet at the raised section (See **Figure B.3.6. - A: Supply And Return Dimensions For Downflow Applications** for location of raised section) and bottom of the control panel. Conduit and fittings must meet all applicable codes.

Use Silicon and gaskets to seal the connection at the base pan.

E.3.1.4. Connecting to Contactor Terminal Blocks

The recommended torque for securing wiring to the contactor is **40 in-lb.**

See **Figure E.3. - A: Typical Thermostat Wiring** for wiring to the contactor.

E.3.2. Factory Installed Disconnect

Refer to **Appendix H** for the unit wiring diagrams, and to **Figure F.3. - A** for locations to route wires into the cabinet or through the curb/basepan of the unit.

E.3.2.1. Routing Wires into Cabinet

Refer to section **E.3.1.1.** and/or section **F.3.** for routing wires into the cabinet with a factory installed disconnect.

E.3.2.2. Routing wires through Curb (Option)

Refer to section **E.3.1.3.** for routing wires through the curb with a factory installed disconnect.

E.3.3. Connecting the Convenience Outlet

E.3.3.1. Non-powered

The non-powered convenience outlet, if purchased as an option for the unit, will come shipped in a box within the blower compartment of the unit. It will need to be removed and installed into its proper configuration.

For connecting the non-powered convenience outlet and all other information, refer to the installation instructions for the accessory.

E.3.3.2. Powered

The powered convenience outlet, if purchased as an option for the unit, will come shipped pre-installed into the unit. No additional hook-ups will be needed, but ensure the connections remained secure from shipping before powering the unit.

For connecting the powered convenience outlet and all other information, refer to the installation instructions for the accessory.

E.3.4. Checking Phase and Motor Rotation

In applications with 3-phase power, the compressor rotation can be affected and potentially run backwards depending on the wiring phase. It is recommended to use a phase rotation meter to verify the proper wiring of the supply power. Do not rely on the rotation of the blower because models equipped with a VFD or ECM drive motor will always run in the correct rotation.

E.3.4.1. Checking Phase with VFD Drive and/or Direct Drive

On any models with an ECM Direct Drive Blower Motor or belt drive units with a Variable Frequency Drive, VFD, the motor will always rotate in the correct direction.

Correction phase must be checked by the operation of the compressor. It is recommended that a phase rotation meter be used to verify the system is connected properly to the three-phase power. This helps prevent compressor damage.

E.3.5. Grounding Requirements

Refer to local codes as required. Must be grounded to a common earth ground.

National Electric Code (NEC) / International Building Code / Canadian Electrical Code

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

The low voltage wiring should be sized as shown in **Figure F. - A: Field Wire Size for 24 VAC Thermostat Circuits.**

F. CONTROL / THERMOSTAT WIRING

F.1. Non-DDC Control Inputs

Figure F. - A

FIELD WIRE SIZE FOR 24 VOLT THERMOSTAT CIRCUITS						
THERMOSTAT LOAD - AMPS	SOLID COPPER WIRE - AWG.					
	16	14	12	10	10	10
	16	14	12	12	12	10
	16	16	14	12	12	10
THERMOSTAT LOAD - AMPS	LENGTH OD RUN - FEET (1)					
	50	100	150	200	250	300

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(1) THE TOTAL WIRE LENGTH IS THE DISTANCE FROM THE FURNACE TO THE THERMOSTAT AND BACK TO THE FURNACE.

NOTE: DO NOT USE CONTROL WIRING SMALLER THAN NO. 18 AWG.

F.1.2. Occupancy connections / Remote connections / Etc

Figure F.1.2. - A: Occupancy and Remote Connections

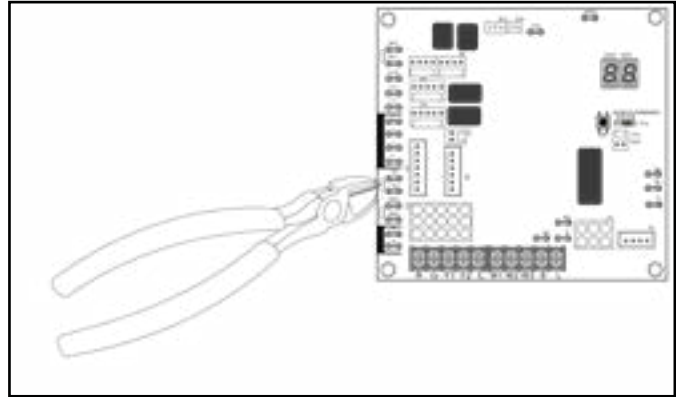


Figure F.1.2. - B: Non-DDC Board

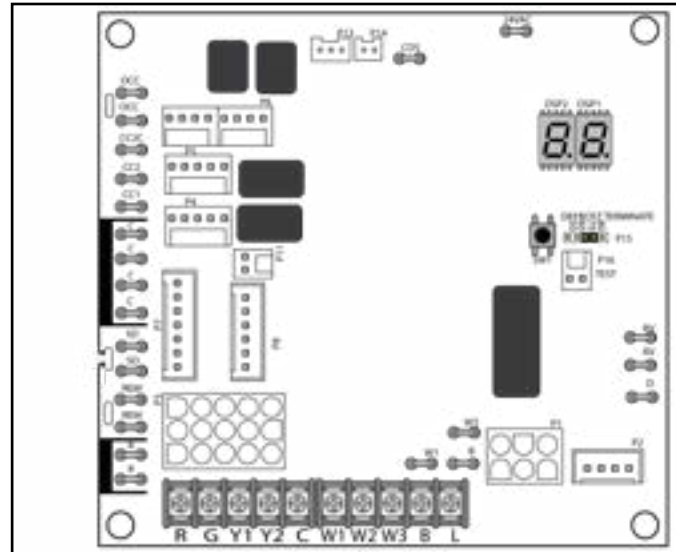
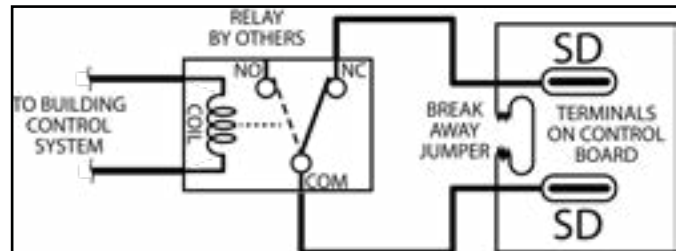


Figure F.1.2. - C: Using a Dry-Contact Relay



NOTE: This is an example of breaking the jumper for Smoke Detector connections, apply the same process for the Occupancy and/or Remote connections.

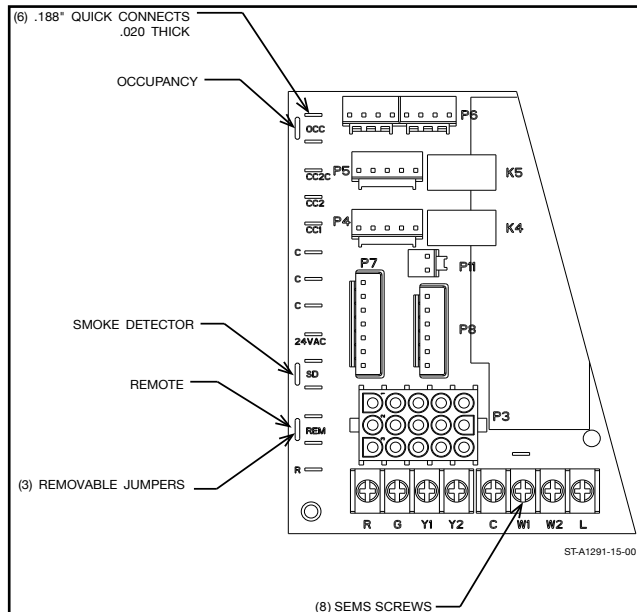
These features are only available on the Non-DDC Furnace, Heat pump, or cooling only control boards.

F.1.1. T-Stat Field Connections

Refer to **Appendix H** for the unit wiring diagrams and to **Figure E.3. - A: Typical Thermostat Wiring**.

Install the room thermostat in accordance with the instruction sheet packed in the box with the thermostat. Run the thermostat lead wires through the control entry opening (**Figure F.3. - A: Electrical and Piping Routing**) and connect to the low voltage thermostat connections (see **Appendix H** for wiring diagrams and **Section F.1.** for T-Stat field connections). Never install the thermostat on an outside wall or where it will be influenced by drafts, concealed hot or cold water pipes or ducts, lighting fixtures, radiation from fireplace, sun rays, lamps, televisions, radios or air streams from registers. Refer to instructions packed with the thermostat for "heater" selection or adjustment.

Figure F.1.1. - A: Occupancy and Remote Smoke Detector Connections



F. CONTROL / THERMOSTAT WIRING

F.1.2. Continued

OCC – Occupancy Control. This feature shuts down the dampers on the economizer or motorized damper option when outdoor/fresh air is not required for the building. Locate the terminals at the left side of the board mark “OCC”. See Figure **F.1.2. – A: Occupancy and Remote Connections** for reference.

Using cutters or a small screw driver, break the edge of the board between the terminals marked with “OCC”. Use 3/16” blade connector, and a minimum of 18AWG wire to connect to a Normally Closed Dry Contact Relay or Switch. Do not connect multiple control boards to the same dry contact relay or switch.

REM – Remote Shutdown Control. This feature allows the unit to be turned off remotely ignoring the thermostat calls for cooling or heat. Locate the terminals at the left side of the board mark “REM”. See Figure **F.1.2. – A: Occupancy and Remote Connections** for reference.

Using cutters or a small screw driver, break the edge of the board between the terminals marked with “REM”. Use 3/16” blade connector, and a minimum of 18AWG wire to connect to a Normally Closed Dry Contact Relay or Switch. Do not connect multiple control boards to the same dry contact relay or switch.

F.1.3. Connecting a Smoke Detector

F.1.3.1. Core Command Connection

SD – Remote Smoke Detection. This feature allows for the proper shutdown of the controls in the event of an emergency situation. Locate the terminals at the left side of the board mark “SD”. See Figure **F.1.2. – A: Occupancy and Remote Connections** for reference.

Using cutters or a small screw driver, break the edge of the board between the terminals marked with “SD”. Use 3/16” blade connector, and a minimum of 18AWG wire to connect to a Normally Closed Dry Contact Relay, or in common Fire Control Panels and Smoke Detectors, the Auxiliary Connections for C and NC. See the instructions for the remote devices. Do not connect multiple control boards to the same dry contact relay.

For connecting Remote Smoke Detectors or Fire Control Panels to this control DO NOT break the 24VAC to the thermostat or from the power supply transformer. Either could cause an undesirable operating condition that would not shut the unit down in the event of an emergency situation. See the instructions for the type of control board this unit is equipped with.

F.1.3.2. DDC Control Connection

In the air-filter section or on the side economizer, locate the 12-pin Molex jumper plug with the long Red, short Yellow and Orange wire loops. Cut the Red wire loop and connect these to a minimum of 18AWG wire that will be connected to a Normally Closed Dry Contact Relay, or in common Fire Control Panels and Smoke Detectors, the Auxiliary Connections for C and NC. See the instructions for the remote devices. Do not connect multiple control boards to the same dry contact relay.

F.1.4. Building Management / Control Connections Using DDC

In an application where a third party building management / controls are in use or will be incorporated, units with the integral Rooftop Unit Controller (RTU-C) are communication compatible with the system that supports the BACnet Application Specific Controller device profile, LonMark Space Comfort Controller functional profile, or LonMark Discharge Air Controller functional profile. This is accomplished with a field installed BACnet or LonMark communication module. Refer to the Clear control/DDC manual for more detail.

F. CONTROL / THERMOSTAT WIRING

F.2. DDC Control Inputs

Figure F.2.1. - A 24 VAC Thermostat Circuits

FIELD WIRE SIZE FOR 24 VOLT THERMOSTAT CIRCUITS						
THERMOSTAT LOAD - AMPS	SOLID COPPER WIRE - AWG.					
	16	14	12	10	10	10
	16	14	12	12	12	10
	16	16	14	12	12	10
	50	100	150	200	250	300
LENGTH OF RUN - FEET (1)						

ST-A1291-14-00

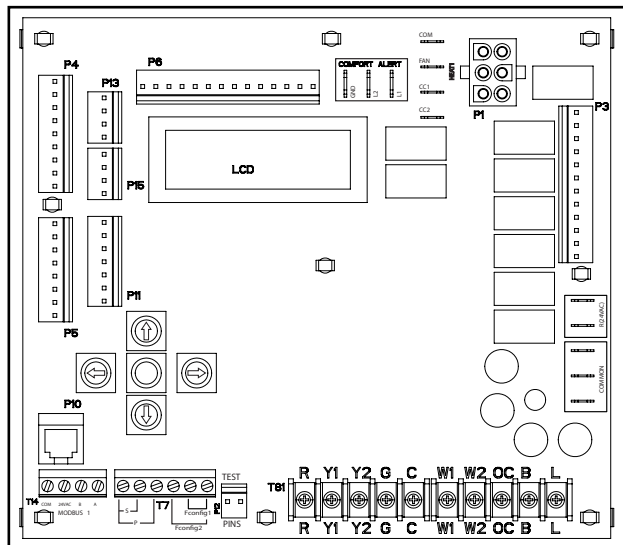
(1) THE TOTAL WIRE LENGTH IS THE DISTANCE FROM THE FURNACE TO THE THERMOSTAT AND BACK TO THE FURNACE.

NOTE: DO NOT USE CONTROL WIRING SMALLER THAN NO. 18 AWG.

F.2.1. 24VAC Thermostat Control/Operation

Install the room thermostat in accordance with the instruction sheet packed in the box with the thermostat. Run the thermostat lead wires through the control entry opening (**Figure F.3. - A: Electrical and Piping Routing**) and connect to the low voltage thermostat connections (see **Appendix H** for wiring diagrams). Never install the thermostat on an outside wall or where it will be influenced by drafts, concealed hot or cold water pipes or ducts, lighting fixtures, radiation from fireplace, sun rays, lamps, televisions, radios or air streams from registers. Refer to instructions packed with the thermostat for "heater" selection or adjustment.

Figure F.2.1. - B: Clear Control Terminal Locations



F.2.2. DDC Automated Stand-Alone Operation.

F.2.2.1. Setting the Unit Up: Mode Settings

The unit will need to be configured as follows.

1. The Mode must be set to Auto. This will allow the unit to automatically switch between heating and cooling operation based on the return air temperature or space temperature sensor, if installed (See Section **F.2.3. External Sensor Connections**).

The following Automatic Modes can be selected:

AUTO - run both heating and cooling.

Cool Only - run only cooling.

Heat Only - run only heating.

Fan Only - run only the fan with no heating or cooling.

2. To select the Mode, use the right arrow key to navigate to "MODE," press the middle button and use the up and down arrow keys to select the desired operating mode for the unit, and then press the middle button to confirm. Control by Thermostat (Ctrl by Tstat) is not an automatic operation mode.
3. Next the Occupancy Control must be set up. While in the Mode Menu, use the down arrow key to navigate to the Occupancy Menu option. Press the middle button to change the setting and use the up and down arrows to select the option required by the application. Then, press the middle button to confirm the setting.
 - If the system is going to run in stand-alone mode with no external inputs for Occupancy control (refer to section **F.2.2. DDC Automated Stand-Alone Operation**), set the occupancy to "occupied." In this setting, the system will run in a continuous occupied state and the operation of the fan will be based on the indoor fan mode. Refer to section **F.2.2.2. Indoor Fan Mode**.

F. CONTROL / THERMOSTAT WIRING

- If “unoccupied” is selected, the unit will run in a continuous state of unoccupied, and only turning on the fan when heating or cooling for the unoccupied setpoint is needed. In this mode, if a zone sensor with an override button is installed (refer to section **F.2.3.2. Zone Sensor Occupancy Override**), then the unit can be triggered to run in an occupied mode based on the tenant override timer. The zone sensor occupancy button will also trigger an occupied state for all occupancy control modes.
- If “local switch” is selected, then the unit will look for an external 24VAC input on the OC terminal of the T8 terminal strip. This 24VAC source can be from an external time clock or building occupancy controller. When 24VAC is applied to the OC terminal, the unit will enter an occupied state of operation.
- If “network” is selected, the unit will look for an occupancy command coming from a Building Management System through the Modbus interface of the control board. Optional BACnet or LonTalk translator cards will carry this function as well.

For information on setting up the system for stand-alone operation, including preparing the unit for Building Management Control, refer to section **F.2.2. DDC Automated Stand-Alone Operation** and **F.2.4. Building Management/Control Connections Using DDC**.

F.2.2.2. Indoor Fan Mode

If the unit is running in an occupied state, the system does not have to continuously run the fan. In the Mode Menu, use the down arrow to navigate to “Indoor Fan Mode.” There are two selectable options: continuous and auto-mode. Continuous will run the fan continually in the occupied mode, while auto-mode will only run the fan when there is a call for heating or cooling.

F.2.2.3. Occupancy Control External Input 24 VAC

Occupancy can be triggered externally to the unit via a 24VAC input on the OC terminal of the T8 thermostat terminal strip. To connect, run the wire from the “R” 24VAC terminal and the “OC” terminal to an occupancy controller in the building. The control needs to have a dry contact relay. When the relay is closed, 24VAC will be passed to the OC terminal and trigger the unit into an occupied operating mode. When the relay is open, the 24VAC to the OC terminal will be lost and the unit will run in an unoccupied state.

F.2.2.4. Temperature Setpoints

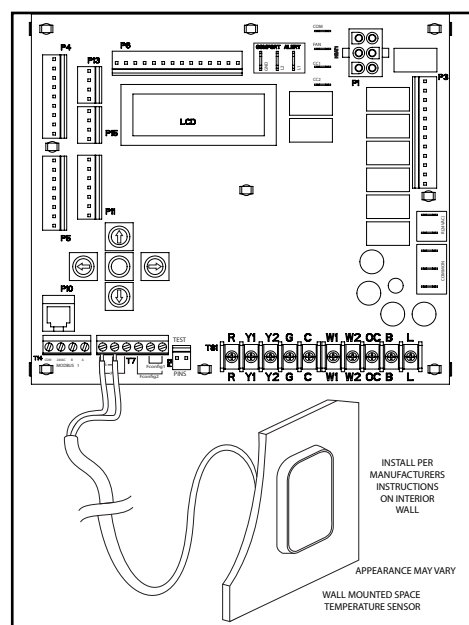
There are two temperature setpoints for occupied and unoccupied modes, heating and cooling. Using the control board's navigation buttons, proceed to the Setpoints Menu and use the down arrow key to select “occupied or unoccupied cool and heat setpoints.” Press the middle button to select the first setpoint and use the up and down arrow keys to adjust the setpoint as required for the application. Then, press the middle button to confirm the setting and advance to the second setpoint. Again, use the up and down arrow keys to adjust the setting, and press the middle button to confirm this setpoint and the settings for the occupancy mode.

There is an automatic temperature differential between heating and cooling. This is adjusted and set in the “Cool Diff” and “Heat Diff” menu items.

F.2.3. External Sensor Connections

F.2.3.1. Space Temperature Sensor

Figure F.2.3.1. - A: Space Temperature Sensor



F. CONTROL / THERMOSTAT WIRING

When using a DDC unit with Clear Control in conjunction with a Building Management System or an Automated Operational Mode, the use of a Space Temperature Sensor can greatly improve the accuracy and operation of the unit in maintaining the comfort in the space in both cooling and heating.

1. The space temperature sensor requirements is a 10k type II sensor.
2. Install the sensor on an interior wall in the space served by the packaged unit and connect the wires according to the manufacturer's instructions of the sensor type and style selected.
3. Run these wires from the sensor to the control panel of the unit.
4. After routing the sensor wires through the control panel and to the control board, strip 1/4" of insulation off the ends of the wires.
5. At the control board, locate the T7 green terminal strip. Loosen the two screw terminals marked with "S" (the two left most terminals), insert one of each of the two wires into the terminal opening on the bottom of the strip, and tighten the screw terminal. The connections are not polarity specific, either wire can be connected to either terminal, unless a setpoint adjustment option is used, and they will use a shared common, the leftmost terminal. See the sensor manufacturer's instructions for details.
6. Verify the sensor is reading properly, power up the unit, use the left arrow key to navigate to the Temperatures Menu. Use the down arrow key to go to the space temp option, it should be showing a temperature reading. Use a test instrument to verify the air temperature at the sensor is within 1 to 3 degrees of the reading on the control board. An incorrect type sensor, excessive wire length, or bad connections will cause a significant discrepancy in the readings.
7. For more accurate operation, use the Space Temp Offset menu option to adjust the sensor reading on the Clear Control by +/-3 degrees to match the reading on the test instrument.

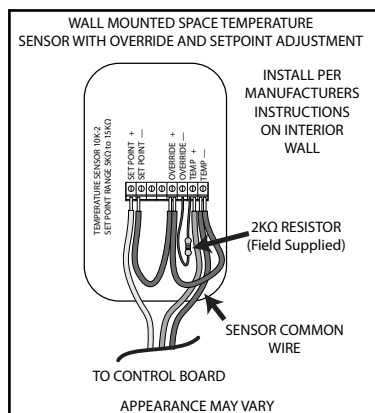
8. If the Clear Control is in the control by Thermostat Mode, the Space Temperature sensor will not be used for the operation of the unit.

F.2.3.2. Zone Sensor Occupancy Override

If the wall sensor has an override button for triggering occupancy, the override button needs to be set up as follows. The override trigger is looking for a 1.2 to 1.6 Ohm resistance across the space temperature sensor input.

1. Depending on the design of the sensor, some provide separate connections for the override output. If this is the case, use a short piece of wire to connect one side of the override output to one side of the temperature sensor output, and then use a 2k Ohm resistor (field-supplied) as the jumper from the other leg of the override output and the other temperature output wire.
2. Prerequisites: Occupancy Control must be set to Unoccupied, Network when controlled through a BMS or Local Switch and there is a 24VAC Input on the OCC terminal, such as using a time based controller. Units set to "Occupied" in the Occupancy Menu, the override button will have no effect, since the button triggers occupancy.
3. To adjust how long the override lasts, navigate to the Time Delays Menu and use the down arrow to select the Tenant Override Timer (Ten Ovr. Time), press the middle button to adjust the time between the required range of 2 to 6 hours.

Figure F.2.3.2. - A: Common Sensor Back Plane - Setpoint and 2k Override.



F. CONTROL / THERMOSTAT WIRING

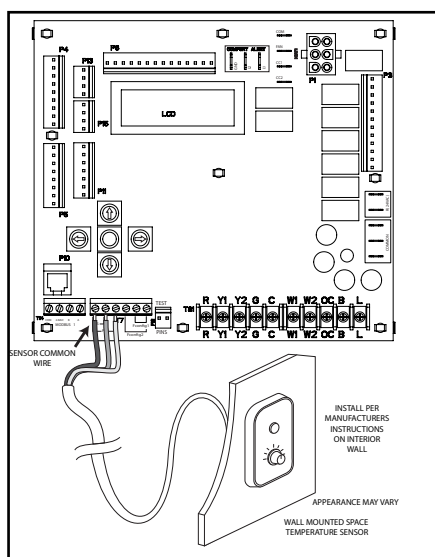
F.2.3.3. Set-Point Adjustment

In an Automatic Operation Mode or controlled by a BMS, a zone sensor with a setpoint adjustment is can be used to vary or adjust the setpoint temperature for the space that the unit is serving. This does require some specific setup to configure the operation and limitations for the adjustment range.

The zone sensor must have a setpoint adjustment range of 5k or 15k Ohms of resistance to provide the 55°F to 90°F set point adjustment range. Zone control devices with other resistance ranges are not compatible and will not function properly with the Clear Control and can cause operational errors or shutdown.

At the control board, locate the T7 green terminal strip. Loosen the two screw terminals marked with “P” (the left most and third from the left terminals), insert one of each of the two wires into the terminal opening on the bottom of the strip and tighten the screw terminal. The connections are polarity specific, and commonly connected with a temperature sensor. The setpoint adjustment and temperature sensor will use a shared common, the left most terminal. Refer to the sensor manufacturer’s instructions for details for connections at the sensor.

Figure F.2.3.3. - A: Space Temperature with Setpoint



Once the sensor is connected and installed, power up the unit. The following menu items need to be setup and adjusted according to the requirements for the application.

Prerequisites, the unit must be set up in Automatic Mode or configured to operate with a Building Management System. The setpoint adjustment will not function if the unit is set to “Control by Thermostat.”

1. Power on the unit and proceed to the Setpoints Menu. Use the down arrow key to navigate to the Setpoint Adjust Enable (Stpnt Adj Enable) menu item, press the middle button, and use the up or down arrow key to select “Enable,” press the middle button again to confirm.
2. At the remote sensor, adjust the setting to the middle position and notate the temperature value. Commonly, it is 76°F, but this reading may vary by manufacturer. See their instructions on determining the middle temperature value.
3. At the Clear Control, navigate to the Setpoint Adjust menu item, press the middle button, and use the up and down arrows to select the temperature that the remote sensor is set to. Then, press the middle button to confirm the setting. This set is important to ensure that adjustment and control setpoint temperature align, especially with remote sensors that have a display or marked temperature value.
4. Navigate to the Set Cool Limit menu item. This setting allows the installer to limit the lowest cooling setpoint allowed. Press the middle button and use the up and down arrows to adjust as required by the application, press the middle button to confirm the setting. The range is 55°F to 89°F.
5. Navigate to the Set Heat Limit menu item, this setting allows the installer to limit the highest heating setpoint allowed. Press the middle button and use the up and down arrows to adjust as required by the application. Then, press the middle button to confirm the setting. The range is 56°F to 90°F.

F. CONTROL / THERMOSTAT WIRING

F.2.3.4. Humidity Sensor

Field Configurable Input #2 can be used to connect an indoor relative humidity sensor that has a 0-10 VDC output for a 0-100% indoor relative humidity input. Models with the Reheat option require this indoor relative humidity sensor to determine humidity control demand. Because this is a “powered” sensor, an additional wire to the 24VAC power supply from the unit is required. The “R” thermostat input can be used for this purpose. The indoor relative humidity sensor can be used along with thermostat control or a zone sensor in combination with a building management system (BAS) that will be controlled from a central location. Some models of the Indoor Relative Humidity Sensor also have a space temperature sensor included eliminating the need for a separate zone sensor.

F.2.4. Building Management/ Control Connections Using DDC

In an application where a third party building management/controls are in use or will be incorporated, units with the integral Rooftop Unit Controller (RTU-C) are communication compatible with the system that supports the BACnet Application Specific Controller device profile, LonMark Space Comfort Controller functional profile, or LonMark Discharge Air Controller functional profile. This is accomplished with a field installed BACnet or LonMark communication module. Refer to the Clear Control/DDC manual for more detail.

F.2.5. Smoke Detection Shutdown

The DDC system is designed with an option to trigger and shutdown the unit during a Smoke Fault Condition, as triggered by a factory smoke detector. See the following two sections for more information.

The operation of the smoke fault system can be changed dependent on what is required by the application. Navigate to the Economizer Menu and use the down arrow key to select the Smoke Detection option. The passcode, 5555, is required. Enter the password, press the middle button, use the up arrow key to set the first digit to 5, then press the middle button to confirm and move to the next character. Repeat until all 4 characters are entered. If successful, “Access Granted” will display. Then press the down arrow key to select Smoke Options. These options will change the operation as follows:

Shutdown - Stops all operations and turns off the indoor fan.

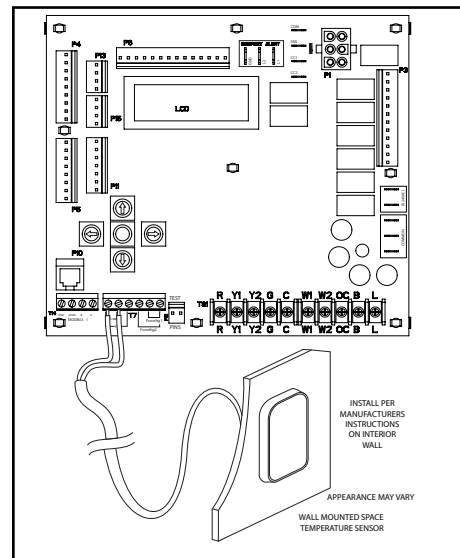
Pressurize - Ramps the VFD to full speed, opens the economizer up 100%, stops all heating and cooling functions.

Purge - Ramps the VFD to full speed, opens the economizer up 100%, turns on the power exhaust, stops all heating and cooling functions.

Purge with Heat - Ramps the VFD to full speed, opens the economizer up 100%, turns the heating system on full capacity.

Exhaust - Stops all operations, cooling, heating, and indoor fan, opens the economizer up 100% and turns on the power exhaust system.

Figure F.2.3.5. - A: Remote Duct Sensor



F. CONTROL / THERMOSTAT WIRING

F.2.5.1. Factory Smoke Detector Kit

If a field or factory installed smoke detector kit is used, the kit contains a wiring harness that connects to the 12-Molex plug in the economizer section in place of the 3-wire jumper plug. Retain the jumper plug for future service or maintenance. Use a zip tie to secure the jumper plug to the main wiring harness. Remote fire control panels or other options for the smoke detector will connect directly to the smoke detector controls. Refer to the instructions with those accessories for more information.

F.2.5.2. Remote Smoke Detector/Fire Control Connection

In the air-filter section or on the side economizer, locate the 12-pin Molex jumper plug with the long Red, short Yellow and Orange wire loops; see **Figure F.2.5.2. - B** for reference. Cut the Red wire loop and connect these to a minimum of 18AWG wire that will be connected to a Normally Closed Dry Contact Relay, or in common Fire Control Panels and Smoke Detectors, the Auxiliary Connections for C and NC. See the instructions for the remote devices. Do not connect multiple control boards to the same dry contact relay.

Figure F.2.5.2. – A: Wiring Harness Location in Air-Filter Section

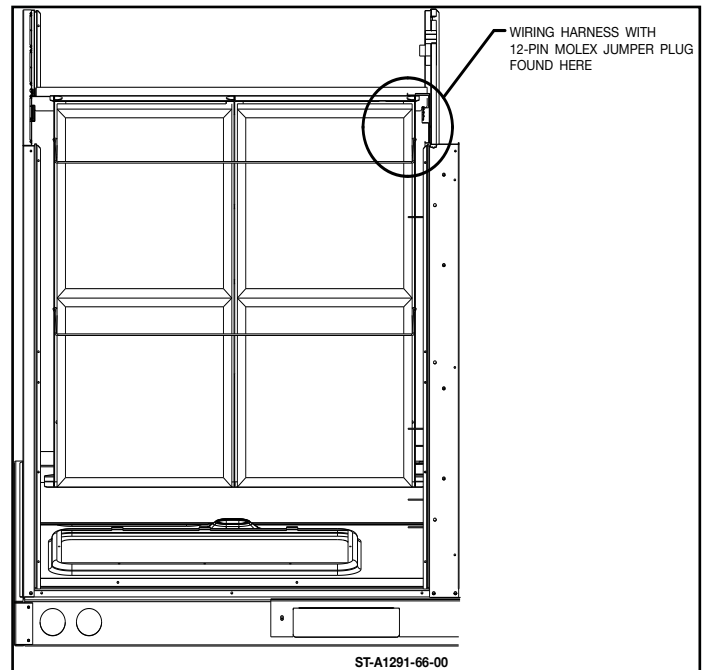
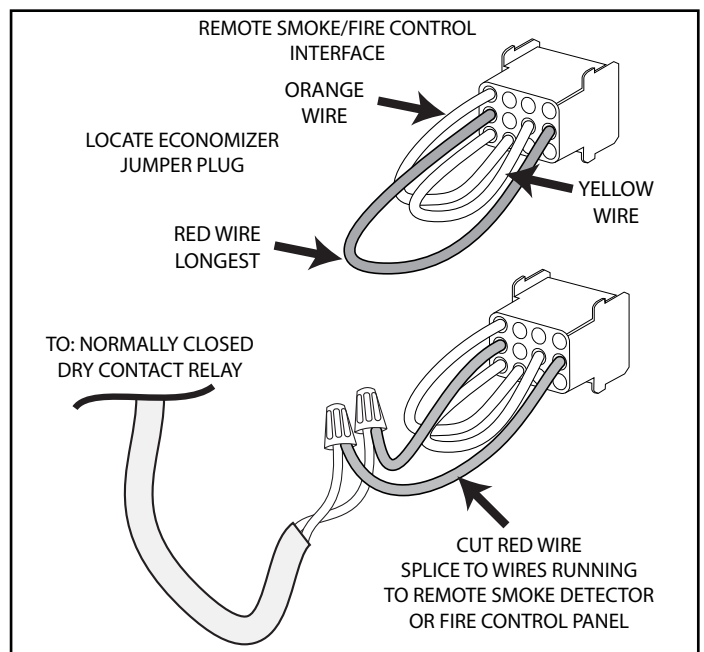


Figure F.2.5.2. – B: Smoke Detector Connection (DDC)



F. CONTROL / THERMOSTAT WIRING

F.3. Routing Control wiring

Figure F.3. – A: Electrical and Piping Routing

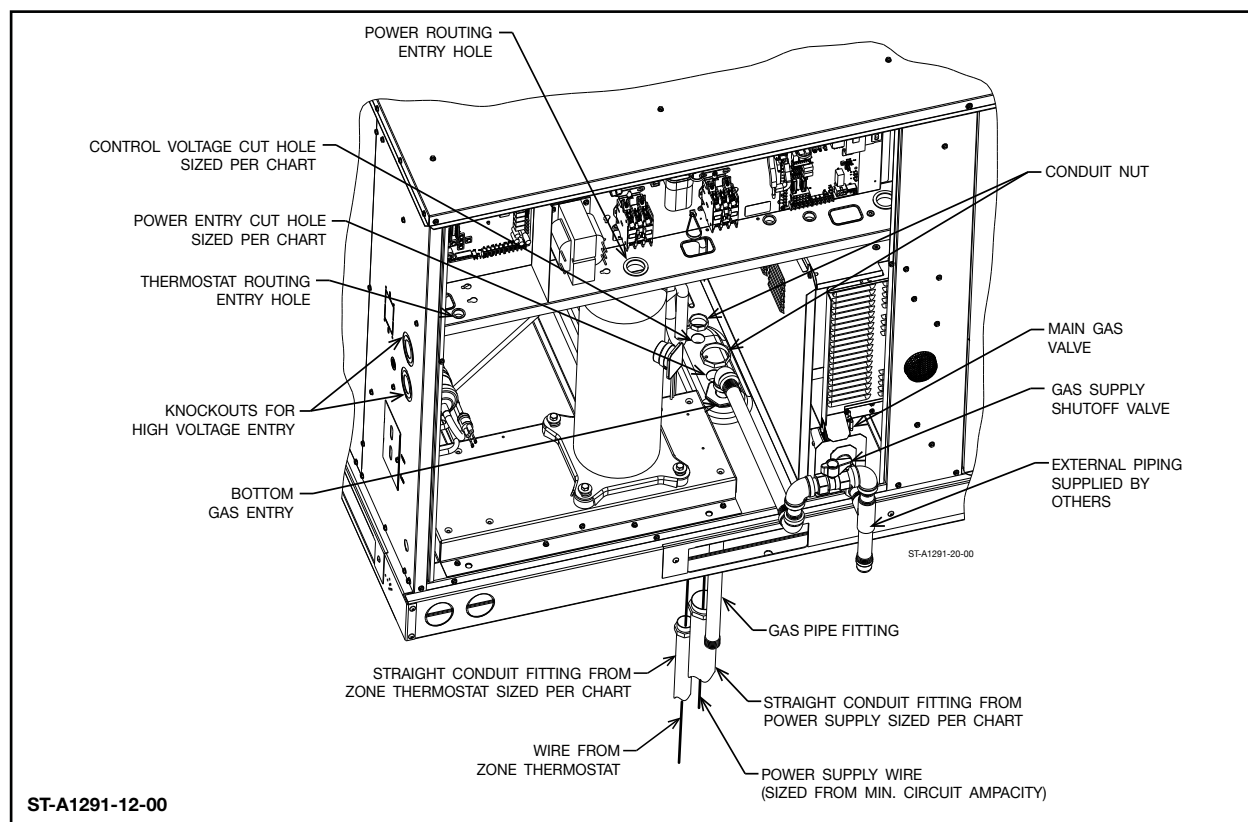


Figure F.3. – B: Hole Sizing for Conduit

	WIRE SIZE, AWG											
	14	12	10	8	6	4	3	2	1	0	00	000
CONDUIT SIZE	1/2"	1/2"	1/2"	3/4"	1"	1"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	2"	2"
HOLE SIZE	7/8"	7/8"	7/8"	1-31/32"	1-23/64"	1-23/64"	1-23/32"	1-23/32"	1-31/32"	1-31/32"	2-15/32"	2-15/32"

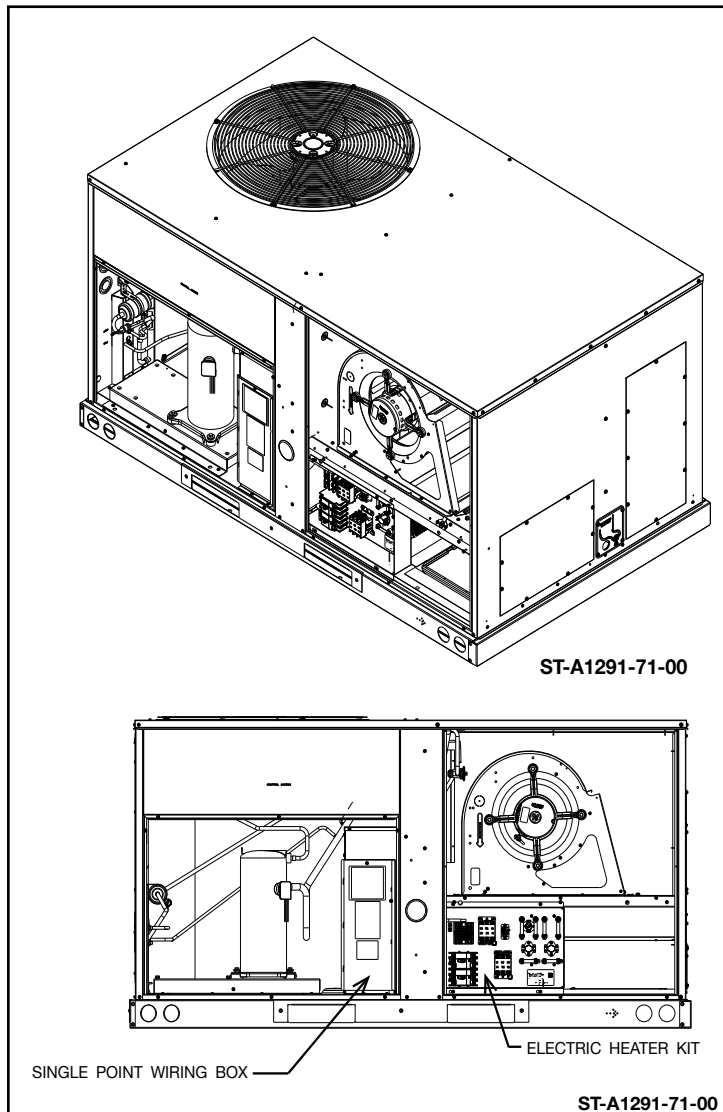
NOTES: 1. DETERMINE REQUIRED WIRE SIZE FROM MINIMUM CIRCUIT AMPACITY SHOWN IN INSTALLATION & OPERATING INSTRUCTION.
 2. BOTTOM POWER ENTRY WILL NOT ACCOMMODATE WIRE LARGER THAN #2 AWG (SHADED AREA).

F.4. Measuring Control Voltage Loads

Use a voltmeter to measure the low voltage and low voltage amp draws during operation. Accessories, such as remote smoke detectors and excessive wire length, can increase the amp draw on the low voltage wiring. Verify that the total amp draw on the 24VAC side is less than 0.3A in full operation.

H. ELECTRIC HEAT

Figure H. - A: Electric Heat with Single Point Wiring



H.1. Factory Installed Electric Heat

Units shipped with factory installed electric heat will come with a separate document (included in the parts bag) with details regarding the electric heater kits. Refer to this document for diagrams and additional info. Refer to **Appendix E** for heater kit characteristics such as Minimum Circuit Ampacity and Max Fuse sizes.

H.2. Field Installed Electric Heat

Electric heater kits will be shipped with their own installation document in the box. Use the instructions supplied with the kit for best practice. Install all electric heat kits in accordance with the National Electric Code. Refer to **Appendix E** for manufacturer-approved heater kit characteristics such as Minimum Circuit Ampacity and Max Fuse sizes.

J. STARTUP AND OPERATION

J.1. Final Inspection

J.1.1. Check for Refrigerant Leaks

Before beginning any work on the system or conducting any hot work, ensure that the area is in the open or that it is adequately ventilated. Ventilation must continue while the unit is being worked on. Ventilation is required to safely disperse any released refrigerant into the atmosphere.

Inspect the unit for any damage to the coils and tubing that could cause a leak.

Under no circumstances shall potential sources of ignition be used to search for or detect refrigerant leaks. A halide torch or any other detector using a naked flame must not be used.

Electronic leak detectors may be used to detect refrigerant leaks, but the sensitivity may not be accurate and may need recalibration to accurately detect R-454B. Before use, ensure that the detector is not a potential ignition source and is suitable for R-454B.

Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and must be calibrated to R-454B.

Leak detection fluids are also suitable but do not use detergents containing chlorine. Examples of leak detection fluids are the bubble method and fluorescent method agents.

If a leak is suspected, all naked flames must be extinguished.

If a refrigerant leak is found that requires brazing, all of the refrigerants must be removed from the system.

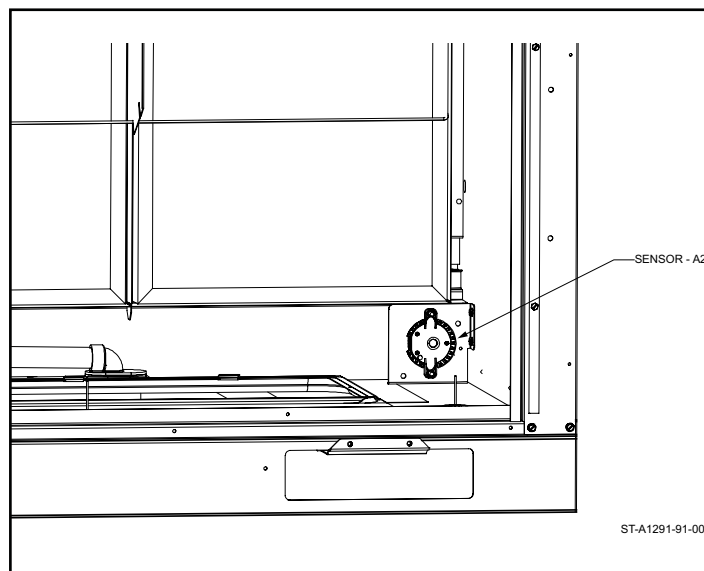
J.1.1.1. Refrigerant Leak Detection System

The refrigerant leak detection system will continuously monitor the air for a refrigerant leak. If the leak detection system detects a leak, the system will begin mitigation procedures: the blower will turn on and the compressors will shut down. Note: Gas or electric heat functions may continue during mitigation.

At the end of 15 years or if the refrigerant leak detection system becomes inoperable, the leak detection system must be replaced with components specified by the unit's manufacturer. Refer to the manufacturer's website for replacement components. Refer to the alarm code diagnostics section for refrigerant leak detection system error codes.

Figure J.1.1.1. - A: Leak Detection System Location shows the location of the sensor on the bracket in the filter compartment. Please note that the sensor is mounted on the backside of the bracket, facing the filters.

Figure J.1.1.1. - A: A2L Sensor Location



Please note that the sensor is mounted on the backside of the bracket, facing the filters.

J.1.1.2. Operation When a Leak is Detected

When the unit receives a signal from the A2L refrigerant detection system (RDS), circulation airflow is activated, and the control board will display an error (for DDC units) or a fault code (for Non-DDC units). The following mitigation actions will also be activated:

1. Energize the indoor blower of the appliance to deliver indoor airflow at or above the minimum airflow. See **Appendix F – A2L Refrigerant Installation Safety Data**.
 - a. The fans will be energized following the input signal to turn on the fan(s).
2. The system de-energizes compressor operation.
3. Activate additional mechanical ventilation, if applicable.

The above-mentioned actions will continue for at least 5 minutes after the leak detection system begins mitigation. If the leak is no longer detected, the leak detection system will reset. If the leak is still present, mitigation actions will continue for another 5 minutes. This cycle will repeat until no leak is detected.

For DCC units, user-selectable Fan Off Delay will remain in effect after the A2L RDS triggers the mitigation procedure.

J. STARTUP AND OPERATION

J.1.1.3. Removal and Evacuation of Refrigerant

The refrigerant charge must be recovered into R-454B recovery cylinders. The unit system must be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants, such as R-454B, again. DO NOT USE compressed air or oxygen for purging R-454B refrigerant systems.

Refrigerant purging is achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to the atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final oxygen-free nitrogen charge is used, the system shall be vented down to the atmospheric pressure to enable work to take place.

The outlet for the vacuum pump must not be close to any potential ignition sources.

Ventilation is required during removal and evacuation.

When breaking into the refrigeration circuit for any reason, this procedure must be followed:

1. Ensure there is no power to the unit.
2. With an accurate scale, ½ oz., set the refrigerant recovery cylinder in the upright position.
3. Connect the recovery cylinder to the unit using the service valves.
4. Evacuate refrigerant from the unit until the vacuum pump reads a minimum of 500 microns.
5. Purge the refrigeration circuit with inert gas until there is no refrigerant within the system.
6. Evacuate the circuit again.
7. Once all inert gas is removed, pull a vacuum on the unit to check for any leaks in the system.
8. If leaks are present, spray a soapy substance over the refrigeration circuit. Bubbles will help locate the leak.
 - a. Patch the leak and pull a vacuum again.
 - b. If leaks are still detected, repeat steps seven and eight.
9. If no leaks are present, charge the system as directed in the next section.
10. Remove the vacuum pump from suction, discharge, and liquid shut-off.

J.1.2. Check Level of Unit

Refer to **Section C.6.2.** for setting/checking the level of the unit.

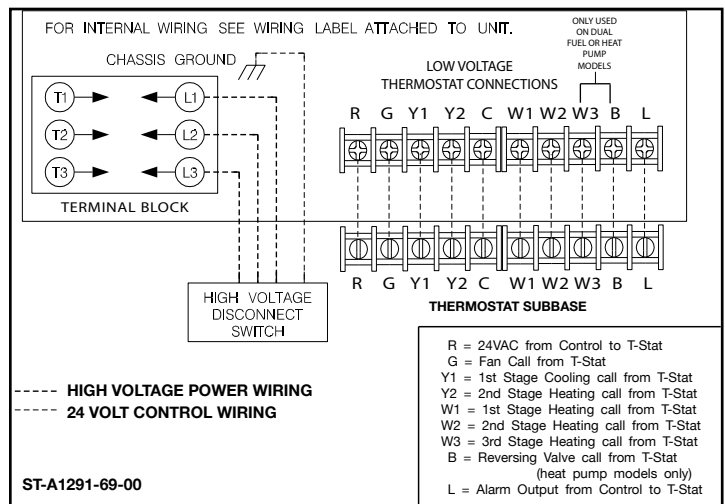
J.1.3. Check Electrical Connections For Proper Torque

Use an Inch Pound rated torque wrench to ensure proper torque. DO NOT CONFUSE THIS WITH A FOOT POUND RATED WRENCH, damage will occur.

Recommended torques for securing wiring:

- To the contactor: 40 in-lb.
- From the T-stat to the control board: 8.0 in-lb.

Figure J.1.3. – A: Where to Wire for Thermostat



J.1.4. Check Control Cables For Proper Connection

Verify all cables are seated and connected in the unit as some might come loose during shipping and transport.

J.1.5. Check Filter Installation

Verify that filters are seated and oriented correctly in the unit as some might come displaced during shipping and transport. Refer to **Section D.3.** for more information on filters and filter installation.

J.1.6. Check Condensate Drain installation

Verify the Condensate Drain Trap is a minimum of 3 inches deep, plus the Blower Fan Static Pressure. Verify the Outlet of the drain trap is a minimum of 3 inches below the outlet of the drain pan. Ensure the outlet of the trap is routed to a suitable drain location as required by local code. Refer to **Section C.5** and **Figure C.5.1 – A** for more information.

J.1.7. Check Blower Compartment for Accessories

Open all compartments to ensure there are no tools or other miscellaneous parts remaining in the unit from setup. This is most important in the blower section to avoid damage to the blower assembly.

J. STARTUP AND OPERATION

J.1.8. Check Wiring

After completing refrigerant removal, evacuation, and charging, check that the internal and field wiring will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges, or any other adverse environmental effects, taking into account the effects of aging or continual vibration from sources such as compressors or fans.

J.2. Turning on Power for the First time

J.2.1. Checking for Proper 3-Phase Voltage

Verify that proper power has been supplied to the unit. This is critical for correct operation of the compressor.

J.2.2. Check For Proper Phase

In applications with 3-phase power, the compressor rotation can be affected and potentially run backwards depending on the phase wiring. It is recommended to use a phase rotation meter to verify the proper wiring of the supply power. Do not rely on the rotation of the blower because models equipped with a VFD or ECM drive motor will always run in the correct direction.

J.2.2.1. Standard Blower Rotation

As a reminder, all units with an ECM-drive blower motor will have the correct rotation even if the phase to the unit is wired incorrectly. See **Section E.3.4. Checking Phase and Motor Rotation** for more information.

J.2.3. Checking Low (Control) Voltage

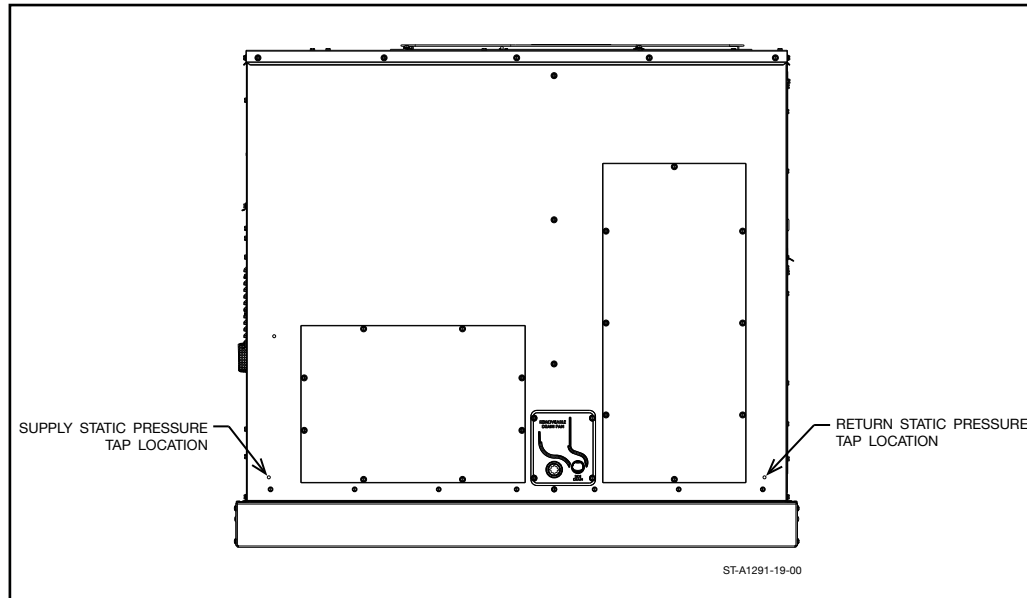
Use a voltmeter to measure the low voltage and low voltage amp draws during operation. Accessories, such as remote smoke detectors and excessive wire length, can increase the amp draw on the low voltage wiring. Verify that the total amp draw on the 24 VAC side is less than 0.3A in full operation. Refer to **Figure F. – A** for proper low voltage wire lengths.

J. STARTUP AND OPERATION

J.3. Checking and Adjusting Air Flow

For Economizer and Diffuser Pressure Drop Data, please refer to the end of **Appendix C. - Airflow Performance Data**. For the minimum rated airflow for this unit's base models, see **Appendix F. - A2L Refrigerant Installation Safety Data**.

Figure J.3. – A: Static Pressure and Air Temp Measurement Location



J.3.1. Static Pressures and Measurements

- To measure the static pressure of the system, locate the static pressure testing dimples near the supply/return duct openings, and drill a hole to the size necessary for the test probe. The location of these dimples is shown in **Figure J.3. - A**.
- NOTE: After taking airflow measurements, seal these openings per best practice to prevent airflow leakage and water entry into the unit.
- NOTE: Drilling test tap locations in other panels or doors could put the test probe in a turbulent zone, providing false readings.

J.3.1.1. Using Tools

Use a manometer to measure the static pressure of the blower. Insert the meter probe into the tap location. Make sure any economizer or outside air dampers are closed and run the fan at the maximum, full speed setting. Record the reading for the return air and supply air separately.

J.3.2. Air Flow Measurements and Adjustments

- Measure the supply/return static to get the unit static pressure by drilling out the dimple locations shown in **Figure J.3. - A**.
- Take the measured static pressure and match to the static listed on the airflow table to find your CFM.

Use the charts and guide provided in the Installation and Operation instructions provided with the unit to calculate the airflow, against the measured static pressures and number of turns on the adjustable blower sheave. Verify the measured air flow against the charts.

- For non-DDC units, the unit ships standard with the orange wire (wire 607) with a quick-connect towards the control board-end of the harness. If more airflow is needed, unplug the orange wire and reattach to the T-connection on the yellow wire (yellow 608).

J.3.2.1. 3 to 5 ton Models - High or Low Static Drive

This adjustment only affects the fan speed during cooling operation and does not change the airflow for fan only or heating.

For non-DDC units, the unit ships standard with the orange wire (wire 607) with a quick-connect toward the control board-end of the harness.

If more airflow is needed, unplug the orange wire, and reattach it to the T-connection on the yellow wire (wire 608). Refer to **Figure J.3.2. - A**.

For DDC units, the unit ships with the orange wire for the indoor fan connected to the CC2 terminal on the board.

If more airflow is needed, remove the wire from CC2 and connect it to the CC1 terminal. Reconnect the yellow CC1 wire to the piggyback connection of the orange wire now on CC1. Refer to **Figure J.3.2. - B**.

J. STARTUP AND OPERATION

Figure J.3.2. – A: How to Increase Airflow for All Single-Stage Units

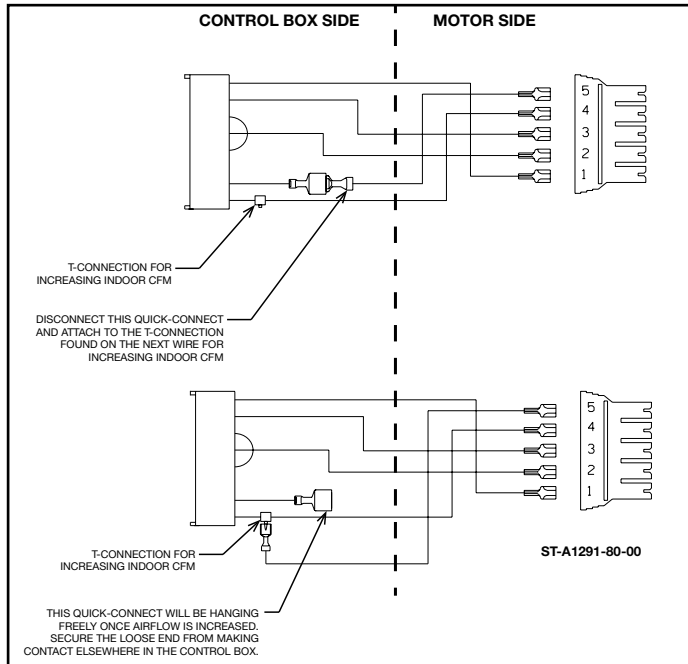
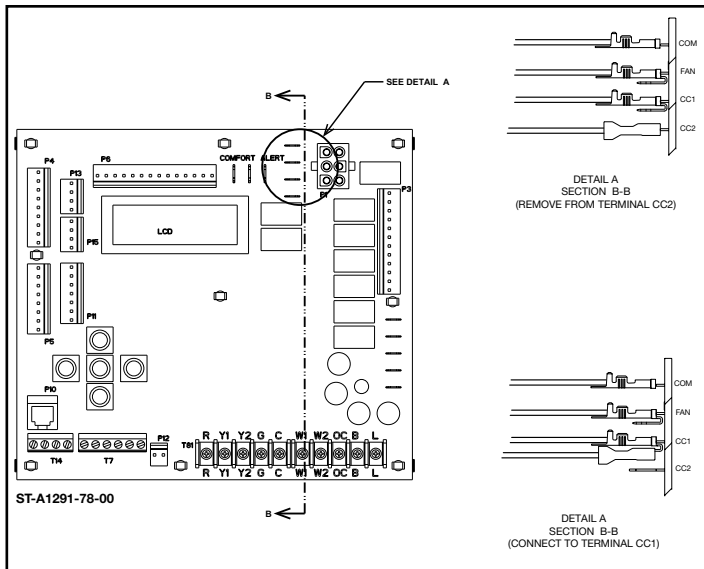


Figure J.3.2. – B: How to Increase Airflow for 3 to 5 ton DDC Units



J.3.2.2. 6 ton Models - High or Low Static Drive

This adjustment only affects the fan speed during second stage cooling operation, and does not change the airflow for fan only, any heating stage, or the first stage cooling call.

For non-DDC units, the unit ships standard with the purple wire with a quick-connect toward the control board-end of the harness, disconnected.

If more airflow is needed, attach the purple wire to the T-connection on the orange wire (wire 607). Refer to **Figure J.3.2.-C.**

For DDC units, the unit ships standard with the purple wire with a quick connect toward the control board-end of the harness, disconnected.

If more airflow is needed, connect the purple wire to the piggyback connection of the orange wire on CC2. Refer to **Figure J.3.2.-D.**

Figure J.3.2. – C: How to Increase Airflow for All Two-Stage Units

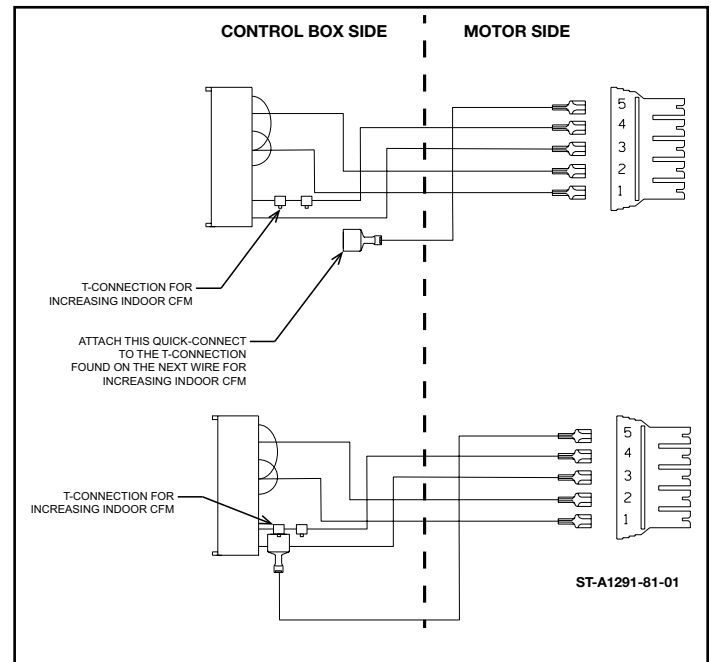
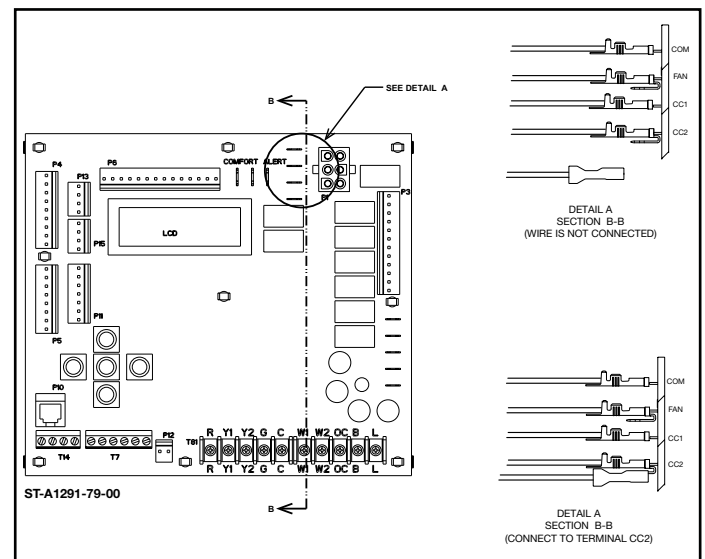


Figure J.3.2. – D: How to Increase Airflow for 6 ton DDC Units



J. STARTUP AND OPERATION

J.3.2.3. Adjusting Fresh Air Flow with Economizer

See section **J.3. Checking and Adjusting Air Flow** for measuring airflow, and refer to the I&O included with the Economizers for more information on adjusting airflow.

J.3.2.4. Adjusting Fresh Air Flow with Damper

All dampers are field install accessories. See the above sections for measuring airflow, and refer to the I&O included with the fresh air dampers for more information on adjusting airflow. Refer to local building codes for any fresh air requirements.

These accessory I&Os can also be found on the manufacturer's website.

J.4. Checking Cooling Operation

Note: In this section, first and second stage cooling applies ONLY to the two stage (YB072 and all YC) units. For all other units, only first stage cooling applies.

COOLING SEQUENCE OF OPERATION

A. Call for first-stage cooling

1. The zone thermostat contacts close, and a call for first-stage cooling is initiated.
2. Inputs 'Y1' and 'G' to the control are energized.
3. The control senses input to 'Y1' and 'G'. After a 1 second delay, the control energizes both the indoor blower and first-stage compressor.
4. The control enters the normal operating loop where all inputs are continuously checked.
5. Zone thermostat is satisfied.
6. The blower will continue to run for a preset period of time after the zone thermostat is satisfied.
7. The control goes into standby mode displaying "O".

B. Call for second-stage cooling. After first-stage cooling established; starting from A4.

1. If a call for second-stage cooling is initiated after a call for first-stage cooling is established, the control energizes 'Y2' and energizes the second-stage compressor.
2. Then the control enters the normal operating loop where all inputs are continuously checked.

C. Second-stage satisfied and first-stage still called for; starting from B2.

1. 'Y2' is de-energized and the second-stage compressor is de-energized.

D. First stage and second stage called simultaneously.

1. The zone thermostat contacts close, and a call for first and second stage cooling is initiated.
2. Inputs 'Y1', 'Y2' and 'G' to the control are energized.
3. The control senses 'Y1', 'Y2' and 'G'. After a 1 second delay, the control energizes the indoor blower, and the first and second compressor stages.

E. First stage and second stage removed simultaneously.

1. Upon a loss of 'Y1' and 'Y2', the compressor is de-energized. The control de-energizes the indoor blower relay, and cuts off the blower after an indoor blower delay.
2. The control goes into standby mode displaying "O".

CONTINUOUS FAN MODE

A 'G' input only indicates a zone thermostat call for continuous indoor blower operation.

TIME DELAY BYPASS for non-DDC units

The Time Delay Bypass resets the ICC (Integrated Compressor Control) from any lockout mode or bypasses the compressor anti-short cycle delay timer. To bypass the time delay, press the SW1 button with an insulated probe for 1 second and then release.

FAULT RECALL OPERATION for non-DDC units

To enter FAULT RECALL mode, press the SW1 button with an insulated probe for 2 seconds and release. Upon entering and exiting the FAULT RECALL mode, the top bottom segments of the 7-segment display will be activated. The ICC will automatically scroll through the stored faults on the 7-segment display. Each fault is displayed one time with the top segment of the 7-segment display activated between faults. Each fault is displayed with the most recent fault displayed first. An "O" will be displayed when no faults are stored. The ICC will automatically exit the FAULT RECALL mode after displaying stored faults.

An example of one LPC fault and one HPC fault scrolled on the display is shown as: "21"23"

CLEAR FAULT HISTORY for non-DDC units

To clear FAULT HISTORY, press the SW1 button with an insulated probe for 5 seconds and release. The top and bottom segments of the 7-segment display will be activated and flash to indicate the history has been cleared.

TEST MODE for DDC Units

For units with DDC, there is a "Run Test" mode that will aid in diagnostics during installation. Please refer to the CLEAR CONTROL MANUAL for more information.

J. STARTUP AND OPERATION

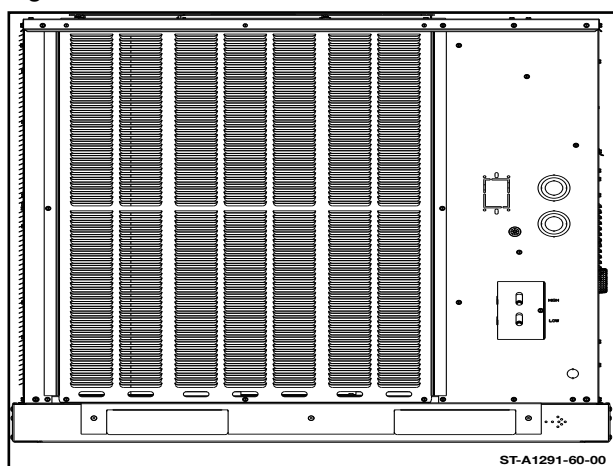
J.4.1. Checking Refrigerant Pressures

This unitary packaged system comes fully charged and tested with R-454B refrigerant from the factory. Adjustment of the refrigerant charge is not required. If the unit is suspected of not having the proper refrigerant charge, any adjustment must not exceed 2% of the total refrigerant weight listed on the rating plate of the unit and should not supersede correctly weighed-in refrigerant.

Note: Factory charge chart and/or design target subcooling are for gross charge verification.

See section **C.2.1. Tools Required for Installing and Servicing R-454B Models.**

Figure J.4.1. -A: Service Port Location



J.4.1.1. Refrigerant Pressure Charts

See **Appendix G** towards the end of this manual for Refrigerant Pressure Charts.

J.4.2. Checking Sub Cooling for Adjusting Charge Weight

When breaking into the refrigeration circuit for any reason the procedure included in section **J.1.1.3. Removal and Evacuation of Refrigerant** must be followed.

Prior to recharging the system, complete a leak check and purge the system with inert gas as detailed in **J.1.1.3. Removal and Evacuation of Refrigerant.**

See **Appendix G** towards the end of this manual for Refrigerant Charging Charts.

Charge verification instructions:

1. Allow the unit to operate for 15 minutes before checking or adjusting the charge.
2. Ensure that the contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
3. Ensure that the unit is properly grounded.

4. Return air temperature must be within comfort conditions (72°F - 82°F).

5. Remove caps from the high-side and low-side pressure service fittings.

6. Cylinders shall be kept in an upright position for the entirety of the testing and charging procedure.

7. Record the following measurements:

- a. High-side pressure at the service fitting
- b. Liquid line temperature

8. Using R-454B refrigerant saturation T-P tables, find the corresponding refrigerant saturation temperature relative to the measured high-side pressure.

9. To determine subcooling, subtract the liquid line temperature measured in Step 7 from the saturation temperature found in Step 8.

10. Compare the subcooling result from Step 9 to the subcooling table located on the unit or in the I&O manual.

11. If the subcooling value from Step 9 is more than 1°F above the value listed in the subcooling table, remove charge to match the value listed in the table, $\pm 0.5^\circ\text{F}$.

- a. Take extreme care not to overfill the system.

12. If the subcooling value from Step 9 is more than 1°F below the value listed in the subcooling table, add charge to match the value listed in the table, $\pm 0.5^\circ\text{F}$.

- a. Take extreme care not to overfill the system.

J.4.2.1. Measuring Air Temperature and Liquid Line Temperature

Measuring air temperature:

1. Insert a thermometer in the supply air duct as close to the unit as possible.
2. Insert a thermometer in the return air duct as close to the filters as possible.
3. If preferred, use the locations shown in **Figure J.4.2.1. - A: Line Temperature Measurement Location** instead of the supply/return ductwork.

J. STARTUP AND OPERATION

4. Operate the unit for a minimum of 15 minutes in cooling mode.

5. When the thermometer in the supply air duct stops changing (approximately five minutes), subtract the return air temperature from the supply air temperature. This is the cooling mode temperature difference.

If the measured temperature difference is not reducing, or if the return air is not reaching the thermostat set point, the air flow is too low. Airflow must be increased by either removing the restrictions in the duct system, or by changing the air flow. See **Section J.3.2. Air Flow Measurements and Adjustments** for changing air flow.

IMPORTANT: Some high-efficiency filters have a greater than normal resistance to airflow. This can negatively affect airflow. **BE SURE TO CHECK THE AIRFLOW** if using any filter other than the factory-provided filter.

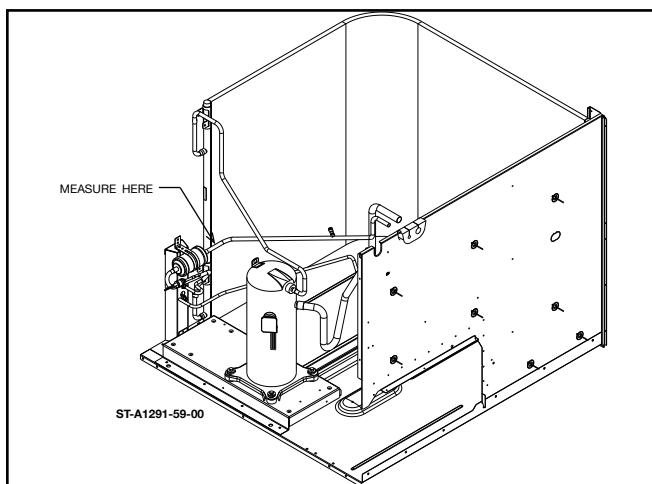
Measuring line temperature:

1. Attach a thermometer or thermocouple to the liquid refrigerant line right after the filter-dryer. See **Figure J.4.2.1. - A: Line Temperature Measurement Location**.

2. Operate the unit for a minimum of 15 minutes in cooling mode.

3. When the measurement of the temperature stops changing (approximately five minutes), record the temperature.

Figure J.4.2.1. - A: Line Temperature Measurement Location



J.4.3. Measuring Compressor Electrical Loads

See **Appendix B** towards the end of this manual for Compressor Electrical Data.

J.5. Checking Electric Heat Operation

Electric heater kits will have their own separate instructional document. For factory installed heater kits the document will be found in the parts bag, and for field installed heater kits the document will be found in the box. Refer to these documents for any information regarding checking heat operation.

J.6. Safety Checks

At all times the manufacturer's maintenance and service guidelines must be followed. If in doubt, contact the manufacturer's technical support for assistance.

Before leaving the installation site the following safety checks must be completed:

- Ensure all electrical components in this system are approved by the manufacturer.
- Confirm the actual refrigerant charge complies with the minimum room size requirements outlined in Appendix F. A2L Refrigerant Installation Safety Data
- Ensure that the ventilation machinery and outlets are operating correctly and are not obstructed.
- If an indirect refrigerant circuit is being used, the secondary circuit must be checked for the presence of refrigerant.
- Ensure that all the equipment labels and markings are visible and legible. Markings, labels, and signs that are illegible must be corrected.
- Confirm that any refrigerating pipe or components are installed in a position where they are unlikely to be exposed to corrosion, unless the refrigerant-containing components are constructed of corrosion-resistant materials or are protected from corrosion.

K. TEST AND BALANCE

K.1. Air Flow Charts and Information

See **Appendix C** towards the end of this manual for Air Flow Performance Data.

K.2. Air Flow Adjustments

K.2.1. Blower Speed for 3-5 Ton Units

See **Section J.3.2. Air Flow Measurements and Adjustments** on how to increase the blower speed and increase airflow for the 3-5T units.

K.2.2. Blower Motor Controller for 5 Ton High Static 460V and all 6 Ton Units.

See **Section J.3.2. Air Flow Measurements and Adjustments** on how to increase the blower speed and increase airflow on the 5 Ton High Static 460V and 6 Ton units that use a Blower Motor Controller.

K.3. Economizer Adjustments

An economizer is designed to provide fresh air into the building and offer the potential for “Free” cooling when the outdoor temperature and humidity conditions are favorable to help save energy in the overall operation of the unit.

Having a properly operating economizer is important. See the instructions provided with the Economizer for the proper setup and operation of the system. Some models will feature a self-contained control module for programming and setup, others may use the control board, such as the Clear Control™ DDC, for managing the operation of the economizer.

Do not bypass the economizer or “fix” the dampers blades in an open position when the unit is off, this will cause the potential for undesired operations and conditions in the space.

M.1. Dehumidification System Information

With the factory installed dehumidification option, in addition to a thermostat or space temperature sensor that is normally present, an indoor relative humidity sensor is installed in the occupied space and connected to the Rooftop Unit Controller (RTU-C) which then controls the capacity of the cooling coil to remove moisture from the supply air and maintain space relative humidity below an adjustable limit visible on the RTU-C display.

The default value is the ASHRAE recommended limit of 60% RH. With this option, a refrigerant reheat coil is installed downstream from the evaporator coil. When the space humidity is too high and reheat is energized, this coil uses some of the heat that is normally rejected to the outside by the condenser coil to instead reheat the cold air from the evaporator coil just enough to avoid overcooling the space. Providing "neutral air" to the occupied space.

On a two-stage system, it is possible for both a thermostat and humidistat to register readings above set point. Under this condition, the system runs in the high stage dehumidification cycle, and the motor operates on high speed. This provides dry conditioned air.

Because the demand for dehumidification can be different from the cooling demand, the unit will first satisfy the demand for cooling and then if the space humidity is still too high, dehumidification mode is energized. When in dehumidification mode, the supply air leaving the unit will be near the entering air temperature, but at a much lower humidity. The unit will exit the dehumidification mode when the humidity set point is satisfied; or if the load is increased, it will return to normal cooling mode.

Reheat is not available during the gas-heating mode.

Figure M.1. - A

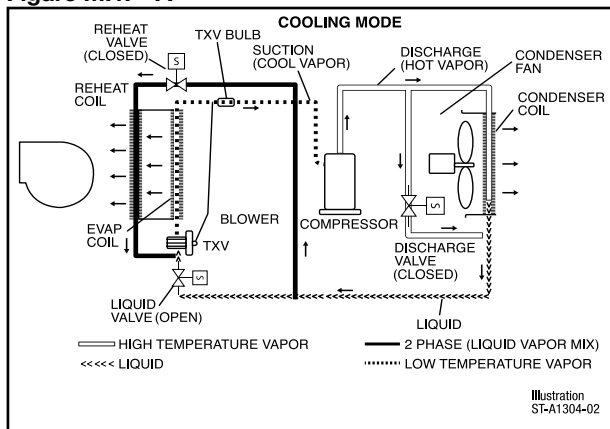


Figure M.1. - A shows the refrigerant path during the normal cooling mode. The liquid refrigerant leaves the TXV with the sudden pressure drop causing the liquid to expand to a vapor and absorbing the heat from the supply air going through the evaporator coil. The refrigerant vapor then travels to the compressor where it is elevated to a higher pressure and temperature.

The superheated refrigerant vapor next carries the heat to the outside coil where the heat is then rejected and the refrigerant condenses into a subcooled liquid where the process repeats itself.

Figure M.1. - B

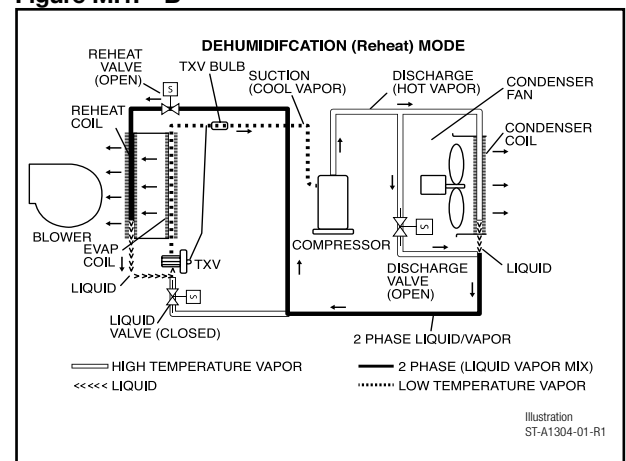


Figure M.1. - B shows the refrigerant path during the reheat mode. When the reheat cycle is energized by the RTU-C, the reheat solenoid valve, upstream of the reheat coil opens. The liquid solenoid valve ahead of the TXV, closes. The discharge solenoid valve, in the compressor discharge line, opens. The liquid refrigerant leaves the TXV with the sudden pressure drop causing the liquid to expand to a vapor and absorbing the heat from the supply air going through the evaporator coil. The refrigerant vapor then travels to the compressor where it is elevated to a higher pressure and temperature. The refrigerant next carries the heat to a parallel path between the outside condenser coil and a bypass circuit. Some of the heat is rejected outdoors.

The ratio of heat rejected outdoors versus indoors is controlled by an outdoor fan motor controller (OFMC) that monitors the two phase temperature and varies the fan speed. This 2-phase refrigerant vapor is then sent to the reheat coil. As the refrigerant travels through the reheat coil it condenses into a subcooled liquid where the process repeats itself.

M. REHEAT

M.2. Heat Sensor Installation

The Humidity control unit requires the use of a zone mounted humidity sensor. The sensor should be located in the conditioned space, approximately 5ft from the floor, on an interior wall. Take care to locate it away from direct sunlight and away from air flow from vents or drafts from doors. The humidity sensors output is a 0-10VDC signal and will be connected to the DDC Control.

The package unit has a ZNS-5 sensor installed to measure the humidity. As an additional option, it includes a space temp. sensor meets the requirement and includes an optional space temperature sensor. The control wiring should be a minimum of 18AWG Solid Copper wire with 5 Conductors and is connected from the DDC Control to the sensor as follows:

RED = R to V+ (+24 VAC)

GREEN = Field Config 1 & 2 (Right most terminal) to GROUND

BLUE = Field Config 2 (3rd terminal from right) to VOut

WHITE = S & P (Left most terminal) to Temp -

YELLOW = S (2nd terminal from left) to Temp+

See the installation instructions for additional details.

RED = R to V+ (+24 VAC)

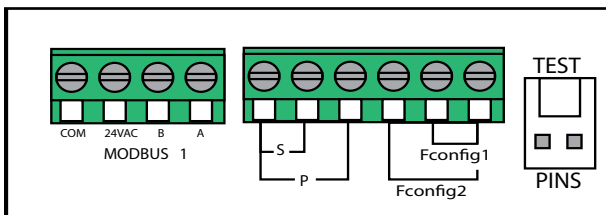
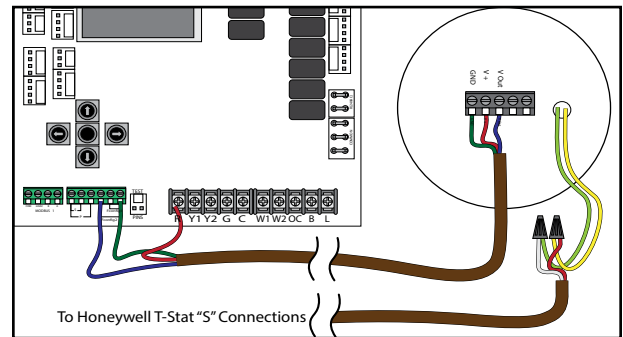
GREEN = Field Config 1 & 2 (Right most terminal) to GROUND

BLUE = Field Config 2 (3rd terminal from right) to VOut

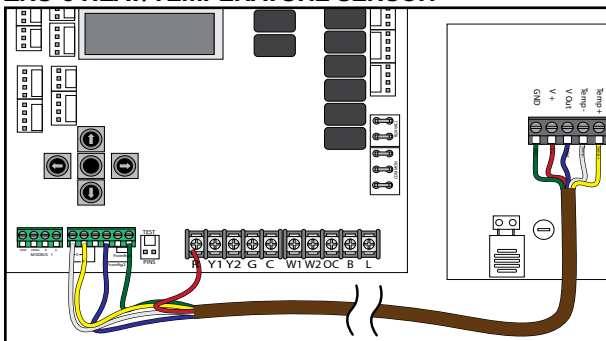
Other = Honeywell S- Terminal to Yellow Wire

Other = Honeywell S+ Terminal to Green Wire

See the installation instructions for additional details.



ZNS-5 HEAT/TEMPERATURE SENSOR



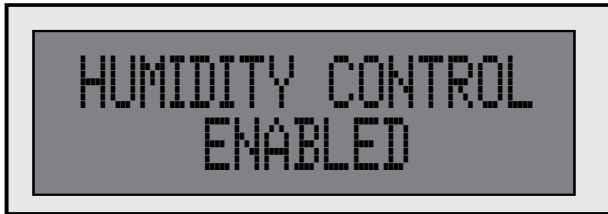
HONEYWELL DUCT MOUNTED HEAT SENSOR

These optional wires the same except the temperature sensor connects directly to a Honeywell Thermostat.

M. REHEAT

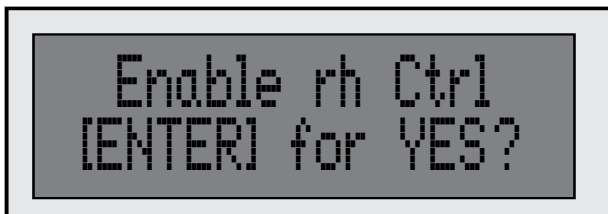
M.3. Humidity Control Settings and Configuration

The Clear Control is designed to operate in conjunction with the zone sensor. These are the steps to verify the zone sensor and adjust the humidity set-point and operating modes. The system can be programmed to a humidity level as low as 35%, and can be set to run dehumidification as part of the cooling cycle or as a stand alone system regardless of the cooling or fan call status from the thermostat, recommended.

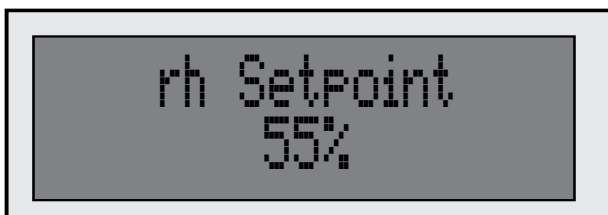


NOTICE: The system will not operate the humidity control when the outdoor ambient temperature is below 60°F, this is because the humidity control uses hot refrigerant bypassed from the outdoor coil,. When the ambient temperature is too low, insufficient heat will be retained in the refrigerant to properly operate the Reheat system for proper dehumidification. The Reheat system in this packaged unit is not designed for industrial or process applications, it is intended for human comfort zones.

Navigate through the Clear Control menu to "Humidity Control" it should say Enabled. If it says "Disabled" press the Enter button twice to Enable rh Control.



Next set the desired Relative Humidity Set-point. This set-point will be where the control will run the associated dehumidification cycles to bring the humidity in the zone down to this percentage.

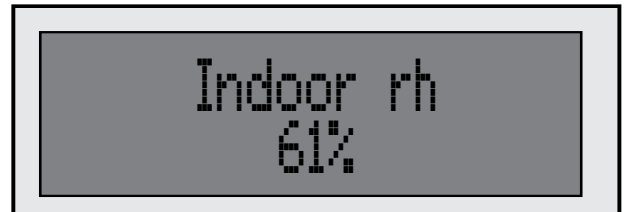


Now set the Reheat Mode, there are three functions to choose from, Reheat in Occupied, will only run dehumidification when there is a Fan or Cooling Call. Reheat in Unoccupied, will on run dehumidification when there is no fan or cooling call; Reheat ALL, (recommended) will run reheat based on the humidity reading regardless of the thermostat operation.



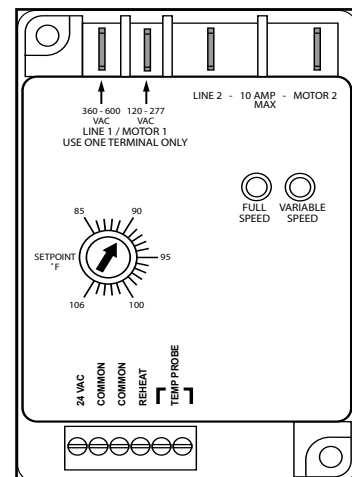
Checking the Humidity Sensor reading, Navigate to Humidity Control then down to Indoor rh, this will display the reading from the humidity zone sensor. If this shows "4%" then it means that the zone sensor is not connected properly or malfunctioning.

Verify a 0-10VDC signal across the Field Cnfg 2 terminals on the control board. 10VDC = 100%, 5VDC = 50%.



The humidity control system is also equipped with an Outdoor Fan Motor Controller, OFMC, this controller changes the speed of the outdoor fans to allow for more or less heat in the bypassed refrigerant used to operate the reheat system. Adjustments to the OFMC are not needed unless undesirable operation occurs.

Consult the Installation Instructions provided with the system for details on the OFMC operation and adjustments.



N. DIAGNOSTICS

N.1. Diagnostics Chart

N.1.1. Cooling Diagnostics 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	- Power off or loose electrical connection - Thermostat out of calibration-set too high - Failed contactor - Blown fuses - Transformer defective - High pressure control open (if provided) - Interconnecting low voltage wiring damaged	- Check for correct voltage at compressor contactor in control box - Reset - Check for 24 volts at contactor coil - replace if contacts are open - Replace fuses - Check wiring-replace transformer - Reset-also see high head pressure remedy-The high pressure control opens at 450 PSIG - Replace thermostat wiring
Condenser fan runs, compressor doesn't	- Loose connection - Compressor stuck, grounded or open motor winding open internal overload. - Low voltage condition - Low voltage condition	- Check for correct voltage at compressor - check & tighten all connections - 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. - Add start kit components
Insufficient cooling	- Improperly sized unit - Improper airflow - Incorrect refrigerant charge - Air, non-condensibles or moisture in system - Incorrect voltage	- Recalculate load - Check - should be approximately 400 CFM per ton. - Charge per procedure attached to unit service panel. - Recover refrigerant, evacuate & recharge, add filter drier - At compressor terminals, voltage must be within 10% of rating plate volts when unit is operating.
Compressor short cycles	- Incorrect voltage - Defective overload protector - Refrigerant undercharge	- At compressor terminals, voltage must be $\pm 10\%$ of nameplate marking when unit is operating. - Replace - check for correct voltage - Add refrigerant
Registers sweat	Low evaporator airflow	Increase speed of blower or reduce restriction - replace air filter
High head-low vapor pressures	- Restriction in liquid line, expansion device or filter drier - Flow check piston size too small - Incorrect capillary tubes - TXV does not open	- Remove or replace defective component - Change to correct size piston - Change coil assembly - Replace TXV
High head-high or normal vapor pressure - Cooling mode	- Dirty condenser coil - Refrigerant overcharge - Condenser fan not running - Air or non-condensibles in system	- Clean coil - Correct system charge - Repair or replace - Recover refrigerant, evacuate & recharge
Low head-high vapor pressures	- Defective Compressor valves - Incorrect capillary tubes	- Replace compressor - Replace coil assembly
Low vapor - cool compressor - iced evaporator coil	- Low evaporator airflow - Operating below 65°F outdoors - Moisture in system	- Increase speed of blower or reduce restriction - replace air filter - Add Low Ambient Kit - Recover refrigerant - evacuate & recharge - add filter drier
High vapor pressure	- Excessive load - Defective compressor	- Recheck load calculation - Replace
Fluctuating head & vapor pressures	- TXV hunting - Air or non-condensibles in system	- Check TXV bulb clamp - check air distribution on coil - replace TXV - Recover refrigerant, evacuate & recharge
Gurgle or pulsing noise at expansion device or liquid line	Air or non-condensibles in system	Recover refrigerant, evacuate & recharge

N.2. Alarm Codes – Full List

Alarm Codes		
CODE	Description	FAULT LEVEL
0	STAND BY	None
c	COMPRESSOR ON - Low (Flashing if in time delay)	None
C	COMPRESSOR ON - High (Flashing if in time delay)	None
E	Economizer Cooling - No Compressor	None
F	CONTINUOUS FAN	None
h	GAS HEAT ON - LOW-FIRE	None
H	GAS HEAT ON - HIGH-FIRE	None
4	Comfort Alert Code 4 for Compressor Circuit 1	Shutdown
5	Comfort Alert Code 5 for Compressor Circuit 1	Shutdown
6	Comfort Alert Code 6 for Compressor Circuit 1	Shutdown
7	Comfort Alert Code 7 for Compressor Circuit 1	Shutdown
8	Comfort Alert Code 8 for Compressor Circuit 1	Shutdown
9	Comfort Alert Code 9 for Compressor Circuit 1	Shutdown
11	FAILED IGNITION	Problem
12	LO FLAME SENSE	Warning
13	FLAME LOST	Problem
14	UNEXPECTED FLAME	Shutdown
15	HIGH-FIRE GAS VALVE IMPROPER VOLTAGE	Problem
20	REFRIGERANT LOW PRESSURE SWITCH OPEN - CIRCUIT 1	Problem
21	REFRIGERANT LOW PRESSURE SWITCH OPEN - CIRCUIT 2	Problem
22	MAIN LIMIT OPEN	Problem
29	REFRIGERANT HIGH PRESSURE SWITCH OPEN - CIRCUIT 1	Problem
30	REFRIGERANT HIGH PRESSURE SWITCH OPEN - CIRCUIT 2	Problem
33	MRLC (Rollout Limit) OPEN	Problem
34	Comfort Alert Code 4 for Compressor Circuit 2	Shutdown
35	Comfort Alert Code 5 for Compressor Circuit 2	Shutdown
36	Comfort Alert Code 6 for Compressor Circuit 2	Shutdown
37	Comfort Alert Code 7 for Compressor Circuit 2	Shutdown
38	Comfort Alert Code 8 for Compressor Circuit 2	Shutdown
39	Comfort Alert Code 9 for Compressor Circuit 2	Shutdown
40	Refrigerant Leak Detection System	Shutdown
42	Invalid Thermostat Selection	Warning
44	LOW-FIRE NEGATIVE PRESSURE CONTROL CLOSED	Problem
46	LOW-FIRE NEGATIVE PRESSURE CONTROL OPEN	Problem
49	FREEZE SWITCH OPEN - CIRCUIT 1	Problem
50	FREEZE SWITCH OPEN - CIRCUIT 2	Problem
55	2nd stage COMBUSTION PRESSURE SWITCH CLOSED	Problem
57	HIGH-FIRE NEGATIVE PRESSURE CONTROL CLOSED	Problem
59	Condensate Drain Plugged	Shutdown
61	HIGH-FIRE NEGATIVE PRESSURE CONTROL OPEN	Problem, Shutdown
83	Condenser Coil Temp Sensor Fail-OAT	Problem
84	Outdoor Air Temperature Sensor Fail-OAT	Problem
88	Emergency Stop Fault	Shutdown
93	CONTROL Fault	Shutdown
97	Smoke Detection	Shutdown

N. DIAGNOSTICS

N.2.1. Cooling Alarm Codes and Diagnostics

All Core Command come standard with a 7-segment diagnostic display. During standby mode with no fault codes present, the display will read "0" (zero). During normal thermostat heating, cooling or continuous fan operation, a letter will be displayed to describe the mode of operation as follows:

C = Cooling

F = Continuous Fan Operation

When the control senses a fault present, it will display a code to help in diagnoses. A list of normal operating codes and potential fault codes follows:

Alarm Codes - Cooling Only		
CODE	DESCRIPTION	FAULT LEVEL
0	Standby	None
c	Compressor On – Low (Flashing If In Time Delay)	None
C	Compressor On – High (Flashing If In Time Delay)	None
E	Economizer Cooling – No Compressor	None
F	Continuous Fan	None
4	Comfort Alert Code 4 For Compressor Circuit 1	Shutdown
5	Comfort Alert Code 5 For Compressor Circuit 1	Shutdown
6	Comfort Alert Code 6 For Compressor Circuit 1	Shutdown
7	Comfort Alert Code 7 For Compressor Circuit 1	Shutdown
8	Comfort Alert Code 8 For Compressor Circuit 1	Shutdown
9	Comfort Alert Code 9 For Compressor Circuit 1	Shutdown
20	Refrigerant Low Pressure Switch Open – Circuit 1	Problem
29	Refrigerant High Pressure Switch Open – Circuit 1	Problem
49	Freeze Switch Open – Circuit 1	Problem
59	Condensate Drain Plugged	Shutdown
83	Condenser Coil Temp Sensor Fail-Oct	Problem
84	Outdoor Air Temperature Sensor Fail-Oat	Problem
88	Emergency Stop Fault	Shutdown
93	Control Fault	Shutdown
97	Smoke Detection	Shutdown

The method for displaying a two-digit fault is to display the first digit for one second immediately followed by the second digit – which is also displayed for a duration of one second. A ½ second pause is then displayed. Cycle repeats

until the fault is cleared. Each fault is flashed (displayed) a minimum of two times even if the fault condition has cleared before the fault can be displayed twice.

Normal Operation Mode:

0	Displayed anytime there is no fault present and no thermostat call present
c	COMPRESSOR ON - Low (Flashing if in time delay)
C	COMPRESSOR ON - High (Flashing if in time delay)
E	When the system uses Economizer Cooling with No Compressor
F	Displayed anytime thermostat calls for continuous fan

N. DIAGNOSTICS

Fault Codes with Descriptions and Solutions:

Alarm Codes - Cooling Only		
CODE	DESCRIPTION	FAULT LEVEL
0	STANDBY	None
c	COMPRESSOR ON – Low (Flashing if in time delay)	None
C	COMPRESSOR ON – High (Flashing if in time delay)	None
E	Economizer Cooling – No Compressor	None
F	CONTINUOUS FAN	None
4	Comfort Alert Code 4 for Compressor Circuit 1	Shutdown
	ALARM Designation: Locked Rotor Circuit 1	
	DESCRIPTION:	
	1. Circuit 1 shutdown and retry after Anti-Short Cycle Delay (ASCD) Maximum is 3 attempts.	
	SOLUTION/STATUS/Possible - Troubleshooting Information	
	1. Low line voltage	
	2. Excessive Refrigerant in compressor	
	3. Seized bearings in compressor	
5	Comfort Alert Code 5 for Compressor Circuit 1	Shutdown
	ALARM Designation: Open Circuit 1	
	DESCRIPTION:	
	1. Circuit 1 shutdown and retry after ASCD.	
	Note: This alarm is sent by the Comfort Alert Module only after the fault has been sensed for a minimum of 4 hours.	
	SOLUTION/STATUS/Possible - Troubleshooting Information	
	1. Condensing unit power disconnect is open	
	2. Compressor circuit breaker or fuses are open	
6	Comfort Alert Code 6 for Compressor Circuit 1	Shutdown
	ALARM Designation: Missing Phase Circuit 1	
	DESCRIPTION:	
	1. Circuit 1 shutdown	
	SOLUTION/STATUS/Possible - Troubleshooting Information	
	1. Compressor fuse is open on one phase	
	2. Broken wire or connector on one phase	
	3. Compressor motor winding is damaged	
	4. Utility supply has dropped one phase	

N. DIAGNOSTICS

Fault Codes with Descriptions and Solutions:

Alarm Codes - Cooling Only		
CODE	DESCRIPTION	FAULT LEVEL
7	Comfort Alert Code 7 for Compressor Circuit 1	Shutdown
	ALARM Designation: Reverse Phase Circuit 1	
	DESCRIPTION:	
	1. Run outdoor and indoor fans continuously for circuit 1 and change mode of operation to Unoccupied Auto. This procedure prevents the Space Temperature from reaching extreme values.	
	SOLUTION/STATUS/Possible - Troubleshooting Information	
	1. Compressor running backward due to supply phase reversal	
8	Comfort Alert Code 8 for Compressor Circuit 1	Shutdown
	ALARM Designation: Welded Contactor Circuit 1	
	DESCRIPTION:	
	1. Circuit 1 shutdown	
	SOLUTION/STATUS/Possible - Troubleshooting Information	
	1. Compressor contactor has failed closed	
	2. Thermostat demand signal not connected to module	
9	Comfort Alert Code 9 for Compressor Circuit 1	Shutdown
	ALARM Designation: Low Voltage Circuit 1	
	DESCRIPTION:	
	1. Circuit 1 Shutdown and wait for voltage to return to operational levels.	
	SOLUTION/STATUS/Possible - Troubleshooting Information	
	1. Control circuit transformer is overloaded	
	2. Low line voltage to compressor	
20	DESCRIPTION: REFRIGERANT LOW PRESSURE SWITCH OPEN – CIRCUIT 1	Problem
	CAUSE:	
	1. Low evaporator airflow	
	2. Refrigerant undercharge	
	3. Restriction in liquid line, expansion device or filter drier	
	4. Operating below 65°F outdoors	
	5. Moisture in system	
	SOLUTION: The solution will depend on the cause.	
	1. Increase speed of blower or reduce restriction - replace air filter	
	2. Check for leaks - add refrigerant	
	3. Remove or replace defective component	
	4. Add Low Ambient Kit	
	5. Recover refrigerant - evacuate & recharge - add or replace filter drier	

N. DIAGNOSTICS

Fault Codes with Descriptions and Solutions:

Alarm Codes - Cooling Only		
CODE	DESCRIPTION	FAULT LEVEL
29	DESCRIPTION: REFRIGERANT HIGH PRESSURE SWITCH OPEN – CIRCUIT 1	Problem
	CAUSE:	
	1. Restriction in liquid line, expansion device or filter drier	
	2. Refrigerant overcharge	
	3. Condenser fan not running	
	4. Air or non-condensibles in system	
	SOLUTION: The solution will depend on the cause.	
	1. Recover refrigerant - evacuate & recharge remove or replace defective component	
	2. Remove refrigerant	
	3. Check voltage, Run Capacitor & Outdoor Motor Repair or replace	
	4. Recover refrigerant, evacuate & recharge	
40	REFRIGERANT LEAK DETECTION SYSTEM	Shutdown
	DESCRIPTION:	
	1. The refrigerant leak detection system detects an event and mitigation procedure occurs.	
	2. The mitigation procedure is triggered when no event occurs.	
	SOLUTION: The solution will depend on the cause.	
	1. Check for refrigerant leaks	
49	FREEZE SWITCH OPEN – CIRCUIT 1	Problem
	DESCRIPTION:	
	1. Occurs when sensors are either open or shorted.	
	SOLUTION: The solution will depend on the cause.	
	1. Replace the sensor	
	2. Check sensor is installed correctly on control	
59	Condensate Drain Plugged	Shutdown
	DESCRIPTION:	
	1. Condensate line is blocked water inside of unit	
	SOLUTION: The solution will depend on the cause.	
	1. Remove blockage	
	2. Remove condensate pan and clean	

N. DIAGNOSTICS

Fault Codes with Descriptions and Solutions:

Alarm Codes - Cooling Only		
CODE	DESCRIPTION	FAULT LEVEL
83	Condenser Coil Temp Sensor Fail-OCT	Problem
	DESCRIPTION:	
	1. No defrost operation, but unit continues to operate in either heating or cooling.	
	SOLUTION: The solution will depend on the cause.	
	1. Extreme temperatures	
	2. Replace the sensor	
84	Outdoor Air Temperature Sensor Fail-OAT	Problem
	DESCRIPTION:	
	1. No defrost operation, but unit continues to operate in either heating or cooling.	
	2. The heat source continues to be heat pump, independently of the outdoor air temperature	
	SOLUTION: The solution will depend on the cause.	
	1. Extreme temperatures	
88	Emergency Stop Fault	Shutdown
	DESCRIPTION:	
	1. Complete shutdown	
	SOLUTION: The solution will depend on the cause.	
	1. Cannot be cleared by the 'Clear All Alarms" command. Must be cleared by changing the Emergency Stop Fault network value.	
93	CONTROL Fault	Shutdown
	DESCRIPTION:	
	1. Internal Control fault.	
	SOLUTION: The solution will depend on the cause.	
	1. Replace Control	
91	Smoke Detection	Shutdown
	DESCRIPTION:	
	1. RTU-C reads the smoke detection input as open -- complete shutdown.	
	SOLUTION: The solution will depend on the cause.	
	1. If not due to a fire, Replace the sensor, Check sensor is installed correctly on control	
	2. Check Smoke Detection Circuit, if no Smoke Detector is installed, ensure Economizer Smoke Bypass plug is installed	

N. DIAGNOSTICS

N.2.2. Non-applicable Fault Codes

The controls used in this product are common with a few other product families. Because of this, there are several fault codes that are programmed into the controls but DO NOT APPLY to this product. If one of these fault codes appear, clear the fault and continue

diagnostics. If the code persists, power down the unit and reapply power before continuing diagnostics.

These non-applicable fault codes are listed below:

Alarm Codes - NON-APPLICABLE FAULT CODES		
CODE	Description	FAULT LEVEL
h	GAS HEAT ON - LOW-FIRE	None
H	GAS HEAT ON -HIGH-FIRE	None
11	FAILED IGNITION	Problem
12	LO FLAME SENSE	Warning
13	FLAME LOST	Problem
14	UNEXPECTED FLAME	Shutdown
15	HIGH-FIRE GAS VALVE IMPROPER VOLTAGE	Problem
21	REFRIGERANT LOW PRESSURE SWITCH OPEN - CIRCUIT 2	Problem
22	MAIN LIMIT OPEN	Problem
30	REFRIGERANT HIGH PRESSURE SWITCH OPEN - CIRCUIT 2	Problem
33	MRLC (Rollout Limit) OPEN	Problem
34	Comfort Alert Code 4 for Compressor Circuit 2	Shutdown
35	Comfort Alert Code 5 for Compressor Circuit 2	Shutdown
36	Comfort Alert Code 6 for Compressor Circuit 2	Shutdown
37	Comfort Alert Code 7 for Compressor Circuit 2	Shutdown
38	Comfort Alert Code 8 for Compressor Circuit 2	Shutdown
39	Comfort Alert Code 9 for Compressor Circuit 2	Shutdown
42	Invalid Thermostat Selection	Warning
44	LOW-FIRE NEGATIVE PRESSURE CONTROL CLOSED	Problem
46	LOW-FIRE NEGATIVE PRESSURE CONTROL OPEN	Problem
50	FREEZE SWITCH OPEN - CIRCUIT 2	Problem
55	2nd stage COMBUSTION PRESSURE SWITCH CLOSED	Problem
57	HIGH-FIRE NEGATIVE PRESSURE CONTROL CLOSED	Problem
61	HIGH-FIRE NEGATIVE PRESSURE CONTROL OPEN	Problem, Shutdown

N.3. Common Mistakes

These are a list of common mistakes made during installation.

- Drain pan Connections, drain trap connected to the wrong outlet side, not connected at all, or insufficient trap depth.
- Connecting a W2 call only to try and get full heat all the time. Connect both W1 and W2 together if the job requirement or thermostat is setup for single stage heating.

- Connecting a Y2 call only to try and get full cooling all the time, Connect both Y1 and Y2 together if the job requirement or thermostat is setup for single stage cooling.
- Economizer connections, not installing the 3-wire jumper plug into the economizer wiring harness. If a factory option smoke detector is not used, this will cause a Smoke Detection Fault.

P. APPENDICES

Appendix A – General Product Data

GENERAL DATA -

Model (-)ACCYB Series	036ACT 036ADT 036AJT	036ACU	036ADU	036AYT	036AYU
Cooling Performance^A					
Gross Cooling Capacity Btu/h [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER2/SEER2 ^B	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1200/1175 [566/555]	1200/1175 [566/555]	1200/1175 [566/555]	1200/1175 [566/555]	1200/1175 [566/555]
AHRI Net Cooling Capacity Btu/h [kW]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]
Net Sensible Capacity Btu/h [kW]	25,600 [7.5]	25,600 [7.5]	25,600 [7.5]	25,600 [7.5]	25,600 [7.5]
Net Latent Capacity Btu/h [kW]	8,600 [2.52]	8,600 [2.52]	8,600 [2.52]	8,600 [2.52]	8,600 [2.52]
Net System Power kW	2.7	2.7	2.7	2.7	2.7
Compressor					
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)^C					
	78	78	78	78	78
Outdoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Rows / FPI [FPcm]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	7.48 [0.69]	7.48 [0.69]	7.48 [0.69]	7.48 [0.69]	7.48 [0.69]
Refrigerant Control	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [50.80]	1 / 20 [50.80]
Drain Connection No./Size in. [mm]	TX Valves	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 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type					
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	4250 [2006]	4250 [2006]	4250 [2006]	4250 [2006]	4250 [2006]
Motor RPM	1 at 1/5	1 at 1/5	1 at 1/5	1 at 1/5	1 at 1/5
	850	850	850	850	850
Indoor Fan - Type					
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
No. Speeds	Direct	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1	1
Motor RPM	3/4	1 1/2	1	3/4	1 1/2
Motor Frame Size	1050	1050	1050	1050	1050
	48	48	48	48	48
Filter - Type					
Furnished	Disposable	Disposable	Disposable	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes	Yes	Yes	Yes
	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]					
	72 [2041]	72 [2041]	72 [2041]	72 [2041]	72 [2041]
Weights					
Net Weight lbs. [kg]	521 [236]	527 [239]	527 [239]	571 [259]	577 [262]
Ship Weight lbs. [kg]	559 [254]	565 [256]	565 [256]	609 [276]	615 [279]

Note: Please look at the rating plates pasted on the side of the unit to understand the model number and the compressor code of your unit.

Appendix A – General Product Data

GENERAL DATA -

Model (-)ACCYB Series	048ACT 048ADT 048AJT	048ACU	048ADU	048AYT	048AYU
Cooling Performance^A					
Gross Cooling Capacity Btu/h [kW]	48,000 [14.07]	48,000 [14.07]	48,000 [14.07]	48,000 [14.07]	48,000 [14.07]
EER2/SEER2 ^B	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1600/1570 [755/741]	1600/1570 [755/741]	1600/1570 [755/741]	1600/1570 [755/741]	1600/1570 [755/741]
AHRI Net Cooling Capacity Btu/h [kW]	45,500 [13.33]	45,500 [13.33]	45,500 [13.33]	45,500 [13.33]	45,500 [13.33]
Net Sensible Capacity Btu/h [kW]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]
Net Latent Capacity Btu/h [kW]	11,300 [3.31]	11,300 [3.31]	11,300 [3.31]	11,300 [3.31]	11,300 [3.31]
Net System Power kW	3.8	3.8	3.8	3.8	3.8
Compressor					
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)^C					
	85.3	85.3	85.3	85.3	85.3
Outdoor Coil - Fin Type					
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type					
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	8.41 [0.78]	8.41 [0.78]	8.41 [0.78]	8.41 [0.78]	8.41 [0.78]
Rows / FPI [FPcm]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [50.80]
Refrigerant Control	TX Valves	TX Valves	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]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type					
Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	1075	1075	1075	1075	1075
Indoor Fan - Type					
FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1	1
Motor HP	3/4	1 1/2	1	3/4	1 1/2
Motor RPM	1050	1050	1050	1050	1050
Motor Frame Size	48	48	48	48	48
Filter - Type					
Disposable	Disposable	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]					
	67 [1899]	67 [1899]			
Weights			67 [1899]	67 [1899]	67 [1899]
Net Weight lbs. [kg]	548 [249]	554 [251]			
Ship Weight lbs. [kg]	586 [266]	592 [269]	554 [251]	598 [271]	604 [274]
			592 [269]	636 [288]	642 [291]

Note: Please look at the rating plates pasted on the side of the unit to understand the model number and the compressor code of your unit.

P. APPENDICES

Appendix A – General Product Data

GENERAL DATA -

Model (-)ACCYB Series	060ACT 060ADT 060AJT	060ACU	060ADU	060AYT	060AYU
Cooling Performance^A					
Gross Cooling Capacity Btu/h [kW]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]
EER2/SEER2 ^B	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	2000/1825 [944/861]	2000/1825 [944/861]	2000/1825 [944/861]	2000/1825 [944/861]	2000/1825 [944/861]
AHRI Net Cooling Capacity Btu/h [kW]	57,000 [16.71]	57,000 [16.71]	57,000 [16.71]	57,000 [16.71]	57,000 [16.71]
Net Sensible Capacity Btu/h [kW]	43,000 [12.6]	43,000 [12.6]	43,000 [12.6]	43,000 [12.6]	43,000 [12.6]
Net Latent Capacity Btu/h [kW]	14,000 [4.1]	14,000 [4.1]	14,000 [4.1]	14,000 [4.1]	14,000 [4.1]
Net System Power kW	5.0	5.0	5.0	5.0	5.0
Compressor					
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)^C					
	86	86	86	86	86
Outdoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.63 [16]	0.63 [16]	0.63 [16]	0.63 [16]	0.63 [16]
Rows / FPI [FPcm]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.66 [1.55]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Rows / FPI [FPcm]	8.41 [0.78]	8.41 [0.78]	8.41 [0.78]	8.41 [0.78]	7.47 [0.69]
Refrigerant Control	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [8]
Drain Connection No./Size in. [mm]	TX Valves	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 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type					
Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 1/2	1 at 1/2	1 at 1/2	1 at 1/2	1 at 1/2 HP
Motor RPM	1075	1075	1075	1075	1075
Indoor Fan - Type					
FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1	1
Motor HP	1	1 1/2	1 1/5	1	1 1/2
Motor RPM	1050	1050	1050	1050	1050
Motor Frame Size	48	48	48	48	48
Filter - Type					
Disposable	Disposable	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]					
	80 [2268]	80 [2268]	80 [2268]	80 [2268]	80 [2268]
Weights					
Net Weight lbs. [kg]	551 [250]	557 [253]	557 [253]	601 [273]	607 [275]
Ship Weight lbs. [kg]	589 [267]	595 [270]	595 [270]	639 [290]	645 [293]

Note: Please look at the rating plates pasted on the side of the unit to understand the model number and the compressor code of your unit.

Appendix A – General Product Data

GENERAL DATA -

Model (-)ACCYB Series	072ACT 072ADT	072AGU 072ADU	072ADU	072AYT	072AYU
Cooling Performance^A					
Gross Cooling Capacity Btu/h [kW]	72000 [21.1]	72000 [21.1]	72000 [21.1]	72000 [21.1]	72000 [21.1]
EER/IEER ^B	11.2/14.8	11.2/14.8	11.2/14.8	11.2/14.8	11.2/14.8
Nominal CFM/AHRI Rated CFM [L/s]	2400/2400 [1133/1133]	2400/2400 [1133/1133]	2400/2400 [1133/1133]	2400/2400 [1133/1133]	2400/2400 [1133/1133]
AHRI Net Cooling Capacity Btu/h [kW]	68500 [20.08]	68500 [20.08]	68500 [20.08]	68500 [20.08]	68500 [20.08]
Net Sensible Capacity Btu/h [kW]	51500 [15.09]	51500 [15.09]	51500 [15.09]	51500 [15.09]	51500 [15.09]
Net Latent Capacity Btu/h [kW]	17000 [4.98]	17000 [4.98]	17000 [4.98]	17000 [4.98]	17000 [4.98]
Net System Power kW	6.2	6.2	6.2	6.2	6.2
Compressor					
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)^C	85	85	85	85	85
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]	16.46 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	8.41 [0.78]	8.41 [0.78]	8.41 [0.78]	8.41 [0.78]	7.47 [0.69]
Rows / FPI [FPcm]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [50.80]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	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]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 3/4	1 at 3/4	1 at 3/4	1 at 3/4	1 at 3/4
Motor RPM	1100	1100	1100	1100	1100
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1	1
Motor HP	1 1/5	1 1/5	1 1/5	1 1/5	1 1/5
Motor RPM	1300	1300	1300	1300	1300
Motor Frame Size	48	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	85 [2410]	85 [2410]	85 [2410]	85 [2410]	85 [2410]
Weights					
Net Weight lbs. [kg]	557 [253]	557 [253]	557 [253]	607 [275]	607 [275]
Ship Weight lbs. [kg]	595 [270]	595 [270]	595 [270]	645 [293]	645 [293]

Note: Please look at the rating plates pasted on the side of the unit to understand the model number and the compressor code of your unit.

P. APPENDICES

Appendix A – General Product Data

GENERAL DATA -

Model (-)ACCYC Series	036AJT	036ACT	036ACU	036ADT	036ADU
Cooling Performance^A					
Gross Cooling Capacity Btu/h [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER2/SEER2 ^B	12/16.2	12/16.2	12/16.2	12/16.2	12/16.2
Nominal CFM/AHRI Rated CFM [L/s]	1,200/1,055 [566/498]	1,200/1,055 [566/498]	1,200/1,055 [566/498]	1,200/1,055 [566/498]	1,200/1,055 [566/498]
AHRI Net Cooling Capacity Btu/h [kW]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]
Net Sensible Capacity Btu/h [kW]	25,600 [7.5]	25,600 [7.5]	25,600 [7.5]	25,600 [7.5]	25,600 [7.5]
Net Latent Capacity Btu/h [kW]	8,600 [2.52]	8,600 [2.52]	8,600 [2.52]	8,600 [2.52]	8,600 [2.52]
Net System Power kW	3.23	3.23	3.23	3.23	3.23
Compressor					
No./Stage/Type	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll
Outdoor Sound Rating (dB)^C					
	79	79	79	79	79
Outdoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Rows / FPI [FPcm]	16.72 [1.55]	16.72 [1.55]	16.72 [1.55]	16.72 [1.55]	16.72 [1.55]
	1/23 [9]	1/23 [9]	1/23 [9]	1/23 [9]	1/23 [9]
Indoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	7.49 [0.69]	7.49 [0.69]	7.49 [0.69]	7.49 [0.69]	7.49 [0.69]
Refrigerant Control	1/20 [8]	1/20 [8]	1/20 [8]	1/20 [8]	1/20 [8]
Drain Connection No./Size in. [mm]	TX Valves	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 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type					
Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/2	Direct/2	Direct/2	Direct/2	Direct/2
CFM [L/s]	4,850 [2,289]	4,850 [2,289]	4,850 [2,289]	4,850 [2,289]	4,850 [2,289]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	800/440	800/440	800/440	800/440	800/440
Indoor Fan - Type					
FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]
Drive Type	Direct	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1	1
Motor HP	3/4	3/4	1.5	3/4	1
Motor RPM	1050	1050	1400	1050	1050
Motor Frame Size	48	48	48	48	48
Filter - Type					
Disposable	Disposable	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]					
	66 [1871.1]	66 [1871.1]	66 [1871.1]	66 [1871.1]	66 [1871.1]
Weights					
Net Weight lbs. [kg]	561.1 [254.5]	560.1 [254.1]	560.1 [254.1]	558.7 [253.4]	558.7 [253.4]
Ship Weight lbs. [kg]	599.1 [271.7]	598.1 [271.3]	598.1 [271.3]	596.7 [270.7]	596.7 [270.7]

Note: Please look at the rating plates pasted on the side of the unit to understand the model number and the compressor code of your unit.

Appendix A – General Product Data

GENERAL DATA -

Model (-)ACCYC Series	048AJT	048ACT	048ACU	048ADT	048ADU
Cooling Performance^A					
Gross Cooling Capacity Btu/h [kW]	48,000 [14.07]	48,000 [14.07]	48,000 [14.07]	48,000 [14.07]	48,000 [14.07]
EER2/SEER2 ^B	12/16.2	12/16.2	12/16.2	12/16.2	12/16.2
Nominal CFM/AHRI Rated CFM [L/s]	1,600/1,460 [755/689]	1,600/1,460 [755/689]	1,600/1,460 [755/689]	1,600/1,460 [755/689]	1,600/1,460 [755/689]
AHRI Net Cooling Capacity Btu/h [kW]	45,500 [13.34]	45,500 [13.34]	45,500 [13.34]	45,500 [13.34]	45,500 [13.34]
Net Sensible Capacity Btu/h [kW]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]
Net Latent Capacity Btu/h [kW]	11,300 [3.31]	11,300 [3.31]	11,300 [3.31]	11,300 [3.31]	11,300 [3.31]
Net System Power kW	4.29	4.29	4.29	4.29	4.29
Compressor					
No./Stage/Type	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll
Outdoor Sound Rating (dB)^C					
	83	83	83	83	83
Outdoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Rows / FPI [FPcm]	16.72 [1.55]	16.72 [1.55]	16.72 [1.55]	16.72 [1.55]	16.72 [1.55]
	1/23 [9]	1/23 [9]	1/23 [9]	1/23 [9]	1/23 [9]
Indoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Rows / FPI [FPcm]	7.49 [0.69]	7.49 [0.69]	7.49 [0.69]	7.49 [0.69]	7.49 [0.69]
Refrigerant Control	1/20 [8]	1/20 [8]	1/20 [8]	1/20 [8]	1/20 [8]
Drain Connection No./Size in. [mm]	TX Valves	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 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type					
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
CFM [L/s]	Direct/2	Direct/2	Direct/2	Direct/2	Direct/2
No. Motors/HP	5,900 [2,784]	5,900 [2,784]	5,900 [2,784]	5,900 [2,784]	5,900 [2,784]
Motor RPM	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
	900/800	900/800	900/800	900/800	900/800
Indoor Fan - Type					
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]
No. Speeds	Direct	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1	1
Motor RPM	3/4	3/4	1.5	3/4	1
Motor Frame Size	1050	1050	1400	1050	1050
	48	48	48	48	48
Filter - Type					
Furnished	Disposable	Disposable	Disposable	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes	Yes	Yes	Yes
	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]					
	75 [2126.2]	75 [2126.2]	75 [2126.2]	75 [2126.2]	75 [2126.2]
Weights					
Net Weight lbs. [kg]	581.3 [263.7]	581.3 [263.7]	581.3 [263.7]	578.17 [262.3]	578.17 [262.3]
Ship Weight lbs. [kg]	619.3 [280.9]	619.3 [280.9]	619.3 [280.9]	616.17 [279.5]	616.17 [279.5]

Note: Please look at the rating plates pasted on the side of the unit to understand the model number and the compressor code of your unit.

P. APPENDICES

Appendix A – General Product Data

GENERAL DATA -

Model (-)ACCYC Series	060AJT	060ACT	060ACU	060ADT	060ADU
Cooling Performance^A					
Gross Cooling Capacity Btu/h [kW]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]
EER2/SEER2 ^B	12/16.2	12/16.2	12/16.2	12/16.2	12/16.2
Nominal CFM/AHRI Rated CFM [L/s]	2,000/1,840 [944/868]	2,000/1,840 [944/868]	2,000/1,840 [944/868]	2,000/1,840 [944/868]	2,000/1,840 [944/868]
AHRI Net Cooling Capacity Btu/h [kW]	57,000 [16.71]	57,000 [16.71]	57,000 [16.71]	57,000 [16.71]	57,000 [16.71]
Net Sensible Capacity Btu/h [kW]	43,000 [12.6]	43,000 [12.6]	43,000 [12.6]	43,000 [12.6]	43,000 [12.6]
Net Latent Capacity Btu/h [kW]	14,000 [4.1]	14,000 [4.1]	14,000 [4.1]	14,000 [4.1]	14,000 [4.1]
Net System Power kW	5.38	5.38	5.38	5.38	5.38
Compressor					
No./Stage/Type	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll
Outdoor Sound Rating (dB)^C					
	86	86	86	86	86
Outdoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Rows / FPI [FPcm]	16.66 [1.55]	16.66 [1.55]	16.66 [1.55]	16.66 [1.55]	16.66 [1.55]
	1/23 [9]	1/23 [9]	1/23 [9]	1/23 [9]	1/23 [9]
Indoor Coil - Fin Type					
Tube Type	Louvered	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Rows / FPI [FPcm]	7.47 [0.69]	7.47 [0.69]	7.47 [0.69]	7.47 [0.69]	7.47 [0.69]
Refrigerant Control	1/20 [8]	1/20 [8]	1/20 [8]	1/20 [8]	1/20 [8]
Drain Connection No./Size in. [mm]	TX Valves	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 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type					
Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/2	Direct/2	Direct/2	Direct/2	Direct/2
CFM [L/s]	5,900 [2,784]	5,900 [2,784]	5,900 [2,784]	5,900 [2,784]	5,900 [2,784]
No. Motors/HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	900/800	900/800	900/800	900/800	900/800
Indoor Fan - Type					
FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]	1/5.6 [142.2]
Drive Type	Direct	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1	1
Motor HP	1	1	1.5	1	1.2
Motor RPM	1050	1050	1400	1050	1300
Motor Frame Size	48	48	48	48	48
Filter - Type					
Disposable	Disposable	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]	(4) 2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]					
	81 [2296.3]	81 [2296.3]	81 [2296.3]	81 [2296.3]	81 [2296.3]
Weights					
Net Weight lbs. [kg]	583.8 [264.8]	583.8 [264.8]	583.8 [264.8]	583.8 [264.8]	583.8 [264.8]
Ship Weight lbs. [kg]	621.8 [282.1]	621.8 [282.1]	621.8 [282.1]	621.8 [282.1]	621.8 [282.1]

Note: Please look at the rating plates pasted on the side of the unit to understand the model number and the compressor code of your unit.

Appendix A – General Product Data (Cont.)

A. Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to • 20% of nominal CFM. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 (3-5T) and AHRI Standard 360 (6T).

B. EER2, EER, and/or SEER2 are rated at AHRI conditions and in accordance with DOE test procedures.

Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.

C. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

Unit Size - Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)							
		63	125	250	500	1000	2000	4000	8000
(-)ACCYB036	78.0	48.7	58.1	63.9	67.0	67.8	64.7	60.6	54.7
(-)ACCYB048	85.3	58.2	64.7	75.1	74.7	75.5	72.3	67.8	61.0
(-)ACCYB060	86.0	58.2	62.5	76.7	75.0	75.2	77.0	69.0	60.0
(-)ACCYB072	85.0	54.9	67.3	69.4	73.8	73.4	71.2	69.6	65.3

Unit Size - Series	Standard Rating (dBA)	Frequency (Hz)						
		100	250	500	1000	2000	4000	8000
(-)ACCYC036	79.0	52	65	69	70	66	62	56
(-)ACCYC048	83.0	65	69	73	73	70	66	59
(-)ACCYC060	86.0	62	74	76	76	72	68	61

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Appendix B – Electrical Data for YB 3 Ton

See Appendix E for Electrical Data and Fuse Sizing specific to the Manufacturer's approved Electric Heater Kits.

ELECTRICAL DATA WITHOUT POWERED EXHAUST - (-)ACCYB SERIES								
		036ACT07 036ACT10	036ACU07 036ACU10	036ADT07 036ADT10	036ADU07 036ADU10	036AJT07 036AJT10	036AYT07 036AYT10	036AYU07 036AYU10
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	187-253	518-633	518-633
	Volts	208/230	208/230	460	460	208/230	575	575
	Phase	3	3	3	3	1	3	3
	Hz	60	60	60	60	60	60	60
	Minimum Circuit Ampacity without Powered Exhaust	24	29	10	11	25	9	11
	Minimum Circuit Ampacity with Powered Exhaust	27	32	12	13	28	10	12
	Minimum Overcurrent Protection Device Size without Powered Exhaust	30	35	15	15	30	15	15
	Minimum Overcurrent Protection Device Size with Powered Exhaust	30	40	15	15	35	15	15
	Maximum Overcurrent Protection Device Size without Powered Exhaust	35	40	15	15	35	15	15
	Maximum Overcurrent Protection Device Size with Powered Exhaust	35	40	15	15	40	15	15
Compressor Motor	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	575	575
	Phase	3	3	3	3	1	3	3
	Amps (RLA), Comp. 1	12.8	12.8	5.1	5.1	13.5	4.5	4.5
	Amps (LRA), Comp. 1	97.5	97.5	44.3	44.3	82.5	27.1	27.1
Condenser Motor	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	575	575
	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	1	0.8	0.8	1	0.55	0.55
	Amps (LRA, each)	2.3	2.3	1.4	1.4	2.3	1.1	1.1
Evaporator Fan	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	208-230	208-230
	Phase	1	1	1	1	1	1	1
	HP	3/4	1 1/2	3/4	1	3/4	3/4	1 1/2
	Amps (FLA, each)	6	11.5	2.7	3.5	6	2.4	4.6
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix B – Electrical Data for YB 4 Ton

See Appendix E for Electrical Data and Fuse Sizing specific to the Manufacturer's approved Electric Heater Kits.

ELECTRICAL DATA WITHOUT POWERED EXHAUST - (-)ACCYB SERIES								
		048ACT07 048ACT12	048ACU07 048ACU12	048ADT07 048ADT12	048ADU07 048ADU12	048AJT07 048AJT12	048AYT07 048AYT12	048AYU07 048AYU12
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	187-253	518-633	518-633
	Volts	208/230	208/230	460	460	208/230	575	575
	Phase	3	3	3	3	1	3	3
	Hz	60	60	60	60	60	60	60
	Minimum Circuit Ampacity without Powered Exhaust	24	30	13	13	30	10	12
	Minimum Circuit Ampacity with Powered Exhaust	27	33	15	16	34	11	14
	Minimum Overcurrent Protection Device Size without Powered Exhaust	30	35	15	15	35	15	15
	Minimum Overcurrent Protection Device Size with Powered Exhaust	30	40	20	20	40	15	15
	Maximum Overcurrent Protection Device Size without Powered Exhaust	35	40	15	15	45	15	15
	Maximum Overcurrent Protection Device Size with Powered Exhaust	35	40	20	20	50	15	15
Compressor Motor	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	575	575
	Phase	3	3	3	3	1	3	3
	Amps (RLA), Comp. 1	12.2	12.2	6.4	6.4	17.3	5.1	5.1
	Amps (LRA), Comp. 1	120.4	120.4	48.5	48.5	126	41	41
Condenser Motor	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	575	575
	Phase	1	1	1	1	1	1	1
	HP	1/2	1/2	1/2	1/2	1/2	1/2	1/2
	Amps (FLA, each)	2.3	2.3	1.5	1.5	2.3	1	1
	Amps (LRA, each)	5.1	5.1	3.1	3.1	5.1	2.2	2.2
Evaporator Fan	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	208-230	208-230
	Phase	1	1	1	1	1	1	1
	HP	3/4	1 1/2	3/4	1	3/4	3/4	1 1/2
	Amps (FLA, each)	6	11.5	2.7	3.5	6	2.4	4.6
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Appendix B – Electrical Data for YB 5 Ton

See Appendix E for Electrical Data and Fuse Sizing specific to the Manufacturer's approved Electric Heater Kits.

ELECTRICAL DATA WITHOUT POWERED EXHAUST - (-)ACCYB SERIES								
		060ACT07 060ACT12	060ACU07 060ACU12	060ADT07 060ADT12	060ADU07 060ADU12	060AJT07 060AJT12	060AYT07 060AYT12	060AYU07 060AYU12
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	187-253	518-633	518-633
	Volts	208/230	208/230	460	460	208/230	575	575
	Phase	3	3	3	3	1	3	3
	Hz	60	60	60	60	60	60	60
	Minimum Circuit Ampacity without Powered Exhaust	30	34	15	15	38	13	14
	Minimum Circuit Ampacity with Powered Exhaust	33	37	17	17	41	14	15
	Minimum Overcurrent Protection Device Size without Powered Exhaust	35	40	20	20	45	15	20
	Minimum Overcurrent Protection Device Size with Powered Exhaust	40	45	20	20	50	15	20
	Maximum Overcurrent Protection Device Size without Powered Exhaust	45	45	20	20	50	15	20
	Maximum Overcurrent Protection Device Size with Powered Exhaust	45	50	20	20	60	15	20
Compressor Motor	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	575	575
	Phase	3	3	3	3	1	3	3
	Amps (RLA), Comp. 1	16	16	7.7	7.7	21.8	6.4	6.4
	Amps (LRA), Comp. 1	156.4	156.4	58.1	58.1	143	47.8	47.8
Condenser Motor	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	575	575
	Phase	1	1	1	1	1	1	1
	HP	1/2	1/2	1/2	1/2	1/2	1/2	1/2
	Amps (FLA, each)	2.3	2.3	1.5	1.5	2.3	1	1
	Amps (LRA, each)	5.1	5.1	3.1	3.1	5.1	2.2	2.2
Evaporator Fan	No.	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	208-230	208-230
	Phase	1	1	1	1	1	1	1
	HP	1	1 1/2	1	1 1/5	1	1	1 1/2
	Amps (FLA, each)	7.6	11.5	3.5	3.7	7.6	3.04	4.6
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Appendix B – Electrical Data for YB 6 Ton

See Appendix E for Electrical Data and Fuse Sizing specific to the Manufacturer's approved Electric Heater Kits.

ELECTRICAL DATA WITHOUT POWERED EXHAUST - (-)ACCYB SERIES											
		072ACT07 072ACT12	072ACU07 072ACU12	072ADT07 072ADT12	072ADU07 072ADU12	072AYT07 072AYT12	072AYU07 072AYU12	WITH HUMIDIDRY			
								072ACT07 072ACT12	072ACU07 072ACU12	072ADT07 072ADT12	072ADU07 072ADU12
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-633	518-633	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460	575	575	208/230	208/230	460	460
	Phase	3	3	3	3	3	3	3	3	3	3
	Hz	60	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity without Powered Exhaust	38	38	18	18	13	13	39	39	18	18
	Minimum Circuit Ampacity with Powered Exhaust	41	41	20	20	14	14	42	42	20	20
	Minimum Overcurrent Protection Device Size without Powered Exhaust	45	45	20	20	15	15	45	45	20	20
	Minimum Overcurrent Protection Device Size with Powered Exhaust	50	50	25	25	20	20	50	50	25	25
	Maximum Overcurrent Protection Device Size without Powered Exhaust	50	50	25	25	15	15	50	50	25	25
	Maximum Overcurrent Protection Device Size with Powered Exhaust	60	60	25	25	20	20	60	60	25	25
Compressor Motor	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	575	575	208-230	208-230	460	460
	Phase	3	3	3	3	3	3	3	3	3	3
	Amps (RLA), Comp. 1	19.2	19.2	9.1	9.1	6.2	6.2	19.2	19.2	9.1	9.1
	Amps (LRA), Comp. 1	162	162	70.8	70.8	58.2	58.2	162	162	70.8	70.8
Condenser Motor	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	575	575	208-230	208-230	460	460
	Phase	1	1	1	1	1	1	1	1	1	1
	HP	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
	Amps (FLA, each)	4.2	4.2	2.3	2.3	1.2	1.2	5.3	5.3	2.3	2.3
	Amps (LRA, each)	10.1	10.1	4.9	4.9	3.4	3.4	N/A	N/A	N/A	N/A
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208-230	208-230	460	460	208-230	208-230	208-230	208-230	460	460
	Phase	1	1	1	1	1	1	1	1	1	1
	HP	1 1/5	1 1/5	1 1/5	1 1/5	1 1/5	1 1/5	1 1/5	1 1/5	1 1/5	1 1/5
	Amps (FLA, each)	9.6	9.6	3.7	3.7	3.8	3.8	9.6	9.6	3.7	3.7
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Appendix B – Electrical Data for YC 3 Ton

See Appendix E for Electrical Data and Fuse Sizing specific to the Manufacturer's approved Electric Heater Kits.

ELECTRICAL DATA - (-)ACCYC SERIES						
		036AJT	036ACT	036ACU	036ADT	036ADU
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	1	3	3	3	3
	Hz	60	60	60	60	60
	Minimum Circuit Ampacity without Power Exhaust	28/28	22/22	28/28	11	12
	Minimum Circuit Ampacity with Power Exhaust	31/31	25/25	31/31	13	14
	Minimum Overcurrent Protection Device Size without Power Exhaust	35/35	25/25	35/35	15	15
	Minimum Overcurrent Protection Device Size with Power Exhaust	35/35	30/30	35/35	15	15
	Maximum Overcurrent Protection Device Size without Power Exhaust	40/40	30/30	35/35	15	15
	Maximum Overcurrent Protection Device Size with Power Exhaust	45/45	30/30	40/40	15	15
Compressor Motor	No.	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460
	Phase	1	3	3	3	3
	Amps (RLA), Comp. 1	14.6	9.9	9.9	4.8	4.8
	Amps (LRA), Comp. 1	90.0	82.0	82.0	44.3	44.3
Condenser Motor	No.	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460
	Phase	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	3.5	3.5	3.5	1.6	1.6
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A
Evaporator Fan	No.	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460
	Phase	1	1	1	1	1
	HP	3/4	3/4	1.5	3/4	1
	Amps (FLA, each)	6	6	11.5	2.7	3.5
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A

Appendix B – Electrical Data for YC 4 Ton

See Appendix E for Electrical Data and Fuse Sizing specific to the Manufacturer's approved Electric Heater Kits.

ELECTRICAL DATA - (-)ACCYC SERIES											
		048AJT	048ACT	048ACU	048ADT	048ADU	WITH HUMIDIDRY				
							048AJT	048ACT	048ACU	048ADT	048ADU
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	187-253	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	3	3	3	3	1	3	3	3	3
	Hz	60	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity without Power Exhaust	35/35	27/27	32/32	14	15	35/35	27/27	32/32	14	15
	Minimum Circuit Ampacity with Power Exhaust	38/38	30/30	35/35	16	17	38/38	30/30	35/35	16	17
	Minimum Overcurrent Protection Device Size without Power Exhaust	40/40	30/30	35/35	20	20	40/40	30/30	35/35	20	20
	Minimum Overcurrent Protection Device Size with Power Exhaust	45/45	35/35	40/40	20	20	45/45	35/35	40/40	20	20
	Maximum Overcurrent Protec-tion Device Size without Power Exhaust	50/50	35/35	40/40	20	20	50/50	35/35	40/40	20	20
	Maximum Overcurrent Protec-tion Device Size with Power Exhaust	50/50	40/40	45/45	20	20	50/50	40/40	45/45	20	20
Compressor Motor	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	3	3	3	3	1	3	3	3	3
	Amps (RLA), Comp. 1	18.3	11.9	11.9	6.8	6.8	18.3	11.9	11.9	6.8	6.8
	Amps (LRA), Comp. 1	138	112	112	61.8	61.8	138	112	112	61.8	61.8
Condenser Motor	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	1	1	1	1	1	1	1	1	1
	HP	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
	Amps (FLA, each)	5.3	5.3	5.3	2.3	2.3	5.3	5.3	5.3	2.3	2.3
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	1	1	1	1	1	1	1	1	1
	HP	3/4	3/4	1.5	3/4	1	3/4	3/4	1.5	3/4	1
	Amps (FLA, each)	6	6	11.5	2.7	3.5	6	6	11.5	2.7	3.5
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Appendix B – Electrical Data for YC 5 Ton

See Appendix E for Electrical Data and Fuse Sizing specific to the Manufacturer's approved Electric Heater Kits.

ELECTRICAL DATA - (-)ACCYC SERIES											
		060AJT	060ACT	060ACU	060ADT	060ADU	WITH HUMIDIDRY				
							060AJT	060ACT	060ACU	060ADT	060ADU
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	187-253	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	3	3	3	3	1	3	3	3	3
	Hz	60	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity without Power Exhaust	41/41	31/31	35/35	14	14	41/41	31/31	35/35	14	14
	Minimum Circuit Ampacity with Power Exhaust	44/44	34/34	38/38	16	16	44/44	34/34	38/38	16	16
	Minimum Overcurrent Protection Device Size without Power Exhaust	50/50	35/35	40/40	20	20	50/50	35/35	40/40	20	20
	Minimum Overcurrent Protection Device Size with Power Exhaust	50/50	40/40	45/45	20	20	50/50	40/40	45/45	20	20
	Maximum Overcurrent Protection Device Size without Power Exhaust	60/60	40/40	45/45	20	20	60/60	40/40	45/45	20	20
	Maximum Overcurrent Protection Device Size with Power Exhaust	60/60	45/45	50/50	20	20	60/60	45/45	50/50	20	20
Compressor Motor	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	3	3	3	3	1	3	3	3	3
	Amps (RLA), Comp. 1	22.3	14	14	6.3	6.3	22.3	14	14	6.3	6.3
	Amps (LRA), Comp. 1	149	150	150	58	58	149	150	150	58	58
Condenser Motor	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	1	1	1	1	1	1	1	1	1
	HP	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
	Amps (FLA, each)	5.3	5.3	5.3	2.3	2.3	5.3	5.3	5.3	2.3	2.3
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	208/230	208/230	208/230	460	460
	Phase	1	1	1	1	1	1	1	1	1	1
	HP	1	1	1.5	1	1.2	1	1	1.5	1	1.2
	Amps (FLA, each)	7.6	7.6	11.5	3.5	3.7	7.6	7.6	11.5	3.5	3.7
	Amps (LRA, each)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix C – Air Flow Performance Data

3-6T - Low Static - Sideflow (208-230V, 575V)												
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]							
					0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]
(-)JCCYB036 (3T)	1050/1350	3/4 HP [559]	Fan - Tap 1	CFM	1187	981	780	686	562	485	399	321
				WATTS	149	126	111	117	123	128	133	137
		3/4 HP [559]	Tap 2	CFM	1392	1321	1252	1181	1113	1041	974	906
				WATTS	222	233	243	254	264	274	283	292
		3/4 HP [559]	Tap 3	CFM	1589	1521	1458	1396	1338	1279	1219	1159
				WATTS	311	324	336	348	358	370	382	393
		3/4 HP [559]	Cooling - Tap 4 *	CFM	1504	1435	1370	1304	1239	1176	1108	1047
				WATTS	269	281	293	302	314	326	335	344
		3/4 HP [559]	High Speed - Tap 5	CFM	1707	1642	1586	1528	1472	1418	1357	1307
				WATTS	378	392	404	417	430	443	456	467
(-)JCCYB048 (4T)	1400/1800	3/4 HP [559]	Fan - Tap 1	CFM	1209	995	773	685	544	450	379	314
				WATTS	157	133	108	115	123	129	134	140
		3/4 HP [559]	Tap 2	CFM	1488	1417	1351	1280	1217	1164	1105	1043
				WATTS	261	274	284	295	306	317	326	336
		3/4 HP [559]	Tap 3	CFM	1777	1715	1660	1605	1544	1487	1434	1382
				WATTS	410	423	435	448	460	472	483	496
		3/4 HP [559]	Cooling - Tap 4 *	CFM	1826	1773	1717	1662	1607	1547	1497	1447
				WATTS	441	455	469	482	491	507	518	529
		3/4 HP [559]	High Speed - Tap 5	CFM	1942	1886	1838	1774	1722	1670	1618	1575
				WATTS	524	540	552	568	578	592	606	619
(-)JCCYB060 (5T)	1750/2250	1 HP [745]	Fan - Tap 1	CFM	1247	1055	973	890	817	733	620	552
				WATTS	158	137	145	151	160	168	172	180
		1 HP [745]	Tap 2	CFM	1538	1481	1416	1353	1293	1238	1181	1120
				WATTS	272	280	292	303	312	322	333	347
		1 HP [745]	Tap 3	CFM	1822	1772	1714	1662	1614	1557	1501	1452
				WATTS	425	437	452	464	477	490	501	514
		1 HP [745]	Cooling - Tap 4 *	CFM	2124	2068	2025	1970	1922	1877	1840	1794
				WATTS	644	661	673	687	705	719	734	750
		1 HP [745]	High Speed - Tap 5	CFM	2236	2179	2142	2093	2049	1997	1953	1896
				WATTS	759	777	789	808	823	844	854	881
(-)JCCYB072 (6T)	2100/2700	1.2 HP [895]	Fan/Low Heat - Tap 1	CFM	1384	1319	1249	1188	1127	1066	1006	947
				WATTS	192	204	215	225	240	245	255	265
		1.2 HP [895]	High Heat - Tap 2	CFM	1874	1833	1778	1730	1680	1630	1584	1539
				WATTS	421	435	450	466	480	495	510	525
		1.2 HP [895]	Low Cool - Tap 3	CFM	1546	1488	1427	1372	1316	1261	1203	1149
				WATTS	258	270	282	298	310	318	330	338
		1.2 HP [895]	High Cool - Tap 4	CFM	2435	2402	2376	2328	2287	2256	2220	2197
				WATTS	986	1010	1030	1058	1091	1125	1144	1166
		1.2 HP [895]	High Speed - Tap 5	CFM	2515	2476	2436	2415	2383	2339	2282	2221
				WATTS	1070	1103	1139	1163	1187	1215	1219	1221

NOTES:

* Tap 4 - Factory Cooling Tap
Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.
Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.
FEER testing - 3 ton model, 100K heating input, use Tap 3 as Q max
[] Designates Metric Conventions

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Appendix C – Air Flow Performance Data (Cont.)

3-6T - Low Static - Sidelow (460V)													
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]								
					0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	
(-)ACCYB036 (3T)	1050/1350	3/4 HP [559]	Fan - Tap 1	CFM	957	867	777	686	562	477	388	313	
				WATTS	94	102	110	117	125	130	135	140	
		3/4 HP [559]	Tap 2	CFM	1172	1095	1019	942	865	789	696	621	
				WATTS	145	155	164	174	182	190	199	206	
		3/4 HP [559]	Tap 3	CFM	1585	1523	1463	1404	1343	1287	1230	1174	
				WATTS	303	315	327	339	353	365	378	389	
		1400/1800	3/4 HP [559]	Cooling - Tap 4	CFM	1477	1409	1344	1279	1211	1158	1095	1039
				WATTS	252	264	275	287	298	310	322	331	
	3/4 HP [559]		High Speed - Tap 5	CFM	1672	1614	1556	1501	1444	1385	1337	1286	
				WATTS	351	364	376	389	403	417	429	441	
(-)ACCYB048 (4T)	1750/2250	3/4 HP [559]	Fan - Tap 1	CFM	952	858	765	664	540	418	333	296	
				WATTS	93	101	109	116	122	127	134	138	
		3/4 HP [559]	Tap 2	CFM	1269	1194	1118	1050	976	900	815	735	
				WATTS	173	184	195	204	214	224	232	240	
		3/4 HP [559]	Tap 3	CFM	1717	1660	1598	1538	1480	1424	1370	1314	
				WATTS	360	377	390	402	416	430	443	456	
		2100/2700	3/4 HP [559]	Cooling - Tap 4 *	CFM	1817	1753	1698	1639	1584	1531	1474	1427
				WATTS	410	426	439	454	469	484	498	512	
	3/4 HP [559]		High Speed - Tap 5	CFM	2043	1987	1943	1896	1844	1787	1735	1684	
				WATTS	561	580	597	613	630	647	662	676	
(-)ACCYB060 (5T)	1750/2250	1 HP [745]	Fan - Tap 1	CFM	1107	1017	936	865	793	711	592	527	
				WATTS	126	135	143	151	158	166	174	181	
		1 HP [745]	Tap 2	CFM	1238	1165	1097	1018	949	886	818	739	
				WATTS	166	175	184	193	201	210	219	228	
		1 HP [745]	Tap 3	CFM	1833	1789	1737	1670	1615	1563	1505	1462	
				WATTS	431	444	458	472	485	498	510	522	
		2100/2700	1 HP [745]	Cooling - Tap 4 *	CFM	2088	2049	2001	1937	1881	1841	1795	1745
				WATTS	618	632	646	662	679	692	707	721	
	1 HP [745]		High Speed - Tap 5	CFM	2192	2151	2106	2056	2005	1961	1923	1874	
				WATTS	720	737	752	767	784	801	815	830	
(-)ACCYB072 (6T)	2100/2700	1.2 HP [895]	Fan/Low Heat - Tap 1	CFM	1384	1319	1249	1188	1127	1066	1006	947	
				WATTS	192	204	215	225	240	245	255	265	
		1.2 HP [895]	High Heat - Tap 2	CFM	1863	1821	1765	1717	1650	1617	1571	1526	
				WATTS	413	428	442	459	474	488	503	518	
		1.2 HP [895]	Low Cool - Tap 3	CFM	1546	1488	1427	1372	1316	1261	1203	1149	
				WATTS	258	270	282	298	310	318	330	338	
		2100/2700	1.2 HP [895]	High Cool - Tap 4	CFM	2395	2349	2295	2250	2199	2151	2108	2054
				WATTS	928	943	961	976	987	1001	1016	1032	
	1.2 HP [895]		High Speed - Tap 5	CFM	2441	2398	2367	2320	2276	2218	2170	2118	
				WATTS	989	1008	1035	1046	1055	1075	1089	1094	

NOTES:

* Tap 4 - Factory Cooling Tap
Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.
Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.

Appendix C – Air Flow Performance Data (Cont.)

3-6T - High Static - Sideflow (208-230V, 575V)												
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]							
					0.8 [.2]	0.9 [.22]	1 [.25]	1.1 [.27]	1.2 [.3]	1.3 [.32]	1.4 [.35]	1.5 [.37]
(-)JACCYB036 (3T)	1050/1350	1.5 HP [1119]	Fan - Tap 1	CFM WATTS	814 271	742 279	673 286	599 293	536 301	465 308	413 315	359 321
		1.5 HP [1119]	Tap 2	CFM WATTS	1302 462	1245 475	1193 486	1138 497	1080 509	1018 520	963 532	906 539
		1.5 HP [1119]	Tap 3	CFM WATTS	1503 579	1452 595	1407 605	1355 617	1303 628	1252 640	1204 652	1147 664
		1.5 HP [1119]	Cooling - Tap 4 *	CFM WATTS	981 324	913 335	846 344	783 352	723 361	653 369	595 377	542 384
		1.5 HP [1119]	High Speed - Tap 5	CFM WATTS	1282 451	1226 465	1173 476	1116 486	1058 498	993 509	939 520	884 528
		1.5 HP [1119]	Fan - Tap 1	CFM WATTS	1270 446	1216 459	1160 468	1110 480	1054 488	988 506	921 517	872 526
		1.5 HP [1119]	Tap 2	CFM WATTS	1576 620	1526 637	1478 653	1432 664	1384 677	1342 689	1291 702	1245 714
		1.5 HP [1119]	Tap 3	CFM WATTS	1643 667	1587 682	1543 698	1499 711	1451 725	1409 735	1362 749	1313 762
		1.5 HP [1119]	Cooling - Tap 4 *	CFM WATTS	1380 505	1330 517	1283 528	1233 541	1180 551	1126 565	1071 579	1012 595
		1.5 HP [1119]	High Speed - Tap 5	CFM WATTS	1698 708	1637 715	1588 730	1547 745	1501 760	1457 771	1409 786	1365 797
(-)JACCYB060 (5T)	1750/2250	1.5 HP [1119]	Fan - Tap 1	CFM WATTS	1402 515	1360 530	1313 542	1261 555	1205 568	1153 579	1098 591	1037 605
		1.5 HP [1119]	Tap 2	CFM WATTS	1402 515	1360 530	1313 542	1261 555	1205 568	1153 579	1098 591	1037 605
		1.5 HP [1119]	Tap 3	CFM WATTS	1745 749	1694 765	1659 780	1617 795	1581 810	1539 826	1493 839	1443 852
		1.5 HP [1119]	Cooling - Tap 4 *	CFM WATTS	1656 686	1616 700	1578 714	1538 728	1493 742	1448 758	1394 773	1347 785
		1.5 HP [1119]	High Speed - Tap 5	CFM WATTS	1902 878	1856 896	1815 911	1781 923	1737 943	1702 956	1662 973	1618 989
		1.2 HP [895]	Fan/Low Heat - Tap 1	CFM WATTS	1237 364	1182 373	1137 386	1076 396	996 405	961 409	906 421	853 431
		1.2 HP [895]	High Heat - Tap 2	CFM WATTS	2043 834	2004 850	1953 861	1917 876	1879 891	1828 906	1783 925	1750 938
		1.2 HP [895]	Low Cool - Tap 3	CFM WATTS	1149 338	1082 345	1030 357	969 365	891 374	837 383	781 393	728 403
		1.2 HP [895]	High Cool - Tap 4	CFM WATTS	2197 1166	2155 1190	2081 1198	2034 1203	1995 1203	1940 1203	1881 1200	1791 1160
		1.2 HP [895]	High Speed - Tap 5	CFM WATTS	2221 1221	2169 1226	2115 1227	2061 1227	1997 1223	1937 1225	1873 1208	1788 1160
(-)JACCYB072 (6T)	2100/2700	1.5 HP [1119]	Fan - Tap 1	CFM WATTS	1402 515	1360 530	1313 542	1261 555	1205 568	1153 579	1098 591	1037 605
		1.5 HP [1119]	Tap 2	CFM WATTS	1402 515	1360 530	1313 542	1261 555	1205 568	1153 579	1098 591	1037 605
		1.5 HP [1119]	Tap 3	CFM WATTS	1745 749	1694 765	1659 780	1617 795	1581 810	1539 826	1493 839	1443 852
		1.5 HP [1119]	Cooling - Tap 4 *	CFM WATTS	1656 686	1616 700	1578 714	1538 728	1493 742	1448 758	1394 773	1347 785
		1.5 HP [1119]	High Speed - Tap 5	CFM WATTS	1902 878	1856 896	1815 911	1781 923	1737 943	1702 956	1662 973	1618 989
		1.2 HP [895]	Fan/Low Heat - Tap 1	CFM WATTS	1237 364	1182 373	1137 386	1076 396	996 405	961 409	906 421	853 431
		1.2 HP [895]	High Heat - Tap 2	CFM WATTS	2043 834	2004 850	1953 861	1917 876	1879 891	1828 906	1783 925	1750 938
		1.2 HP [895]	Low Cool - Tap 3	CFM WATTS	1149 338	1082 345	1030 357	969 365	891 374	837 383	781 393	728 403
		1.2 HP [895]	High Cool - Tap 4	CFM WATTS	2197 1166	2155 1190	2081 1198	2034 1203	1995 1203	1940 1203	1881 1200	1791 1160
		1.2 HP [895]	High Speed - Tap 5	CFM WATTS	2221 1221	2169 1226	2115 1227	2061 1227	1997 1223	1937 1225	1873 1208	1788 1160

NOTES:

- * Tap 4 - Factory Cooling Tap
- Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.
- Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.
- FER testing - 3 ton model, 100K heating input, use Tap 3 as Q max

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Appendix C – Air Flow Performance Data (Cont.)

3-6T - High Static - Sideflow (460V)														
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]									
					0.8 [.2]	0.9 [.22]	1 [.25]	1.1 [.27]	1.2 [.3]	1.3 [.32]	1.4 [.35]	1.5 [.37]		
(-)ACCYB036 (3T)	1050/1350	1 HP [745]	Fan - Tap 1	CFM	692	610	522	466	408	354	297	242		
				WATTS	218	224	231	236	243	248	252	258		
		1 HP [745]	Tap 2	CFM	692	610	522	466	408	354	297	242		
				WATTS	218	224	231	236	243	248	252	258		
		1 HP [745]	Tap 3	CFM	1465	1421	1372	1320	1272	1226	1176	1122		
				WATTS	535	547	559	571	583	593	603	615		
		1 HP [745]	Cooling - Tap 4 *	CFM	1034	975	902	837	766	707	650	599		
				WATTS	323	332	342	350	360	367	374	382		
		1 HP [745]	High Speed - Tap 5	CFM	1345	1292	1239	1184	1135	1082	1016	947		
				WATTS	460	472	483	493	503	513	525	537		
(-)ACCYB048 (4T)	1400/1800	1 HP [745]	Fan - Tap 1	CFM	871	794	722	654	580	526	466	413		
				WATTS	267	275	283	290	297	303	310	315		
		1 HP [745]	Tap 2	CFM	1344	1292	1239	1192	1138	1084	1007	953		
				WATTS	458	470	481	490	500	510	525	534		
		1 HP [745]	Tap 3	CFM	1496	1446	1398	1354	1304	1257	1210	1161		
				WATTS	551	565	578	589	600	611	622	634		
		1 HP [745]	Cooling - Tap 4 *	CFM	1423	1376	1328	1277	1227	1184	1139	1067		
				WATTS	509	521	533	544	555	565	576	589		
		1 HP [745]	High Speed - Tap 5	CFM	1589	1545	1497	1463	1413	1367	1317	1275		
				WATTS	618	633	647	660	672	683	695	705		
(-)ACCYB060 (5T)	1750/2250	1.2 HP [895]	Fan - Tap 1	CFM	1091	1034	983	924	865	790	724	666		
				WATTS	343	353	359	371	380	387	396	404		
		1.2 HP [895]	Tap 2	CFM	1091	1034	983	924	865	790	724	666		
				WATTS	343	353	359	371	380	387	396	404		
		1.2 HP [895]	Tap 3	CFM	1841	1794	1748	1703	1657	1615	1578	1538		
				WATTS	794	809	826	836	847	859	870	878		
		1.2 HP [895]	Cooling - Tap 4 *	CFM	1762	1714	1669	1624	1580	1538	1496	1459		
				WATTS	736	749	763	774	786	797	807	816		
		1.2 HP [895]	High Speed - Tap 5	CFM	2046	2004	1970	1921	1880	1835	1801	1753		
				WATTS	980	997	1003	1025	1045	1059	1072	1090		
(-)ACCYB072 (6T)	2100/2700	1.2 HP [895]	Fan/Low Heat - Tap 1	CFM	1237	1182	1137	1076	996	961	906	853		
				WATTS	364	373	386	396	405	409	421	431		
		1.2 HP [895]	High Heat - Tap 2	CFM	2043	2004	1953	1917	1879	1828	1783	1750		
				WATTS	834	850	861	876	891	906	925	938		
		1.2 HP [895]	Low Cool - Tap 3	CFM	1149	1082	1030	969	891	837	781	728		
				WATTS	338	345	357	365	374	383	393	403		
		1.2 HP [895]	High Cool - Tap 4	CFM	2054	2002	1952	1901	1852	1817	1778	1734		
				WATTS	1032	1045	1061	1081	1097	1110	1128	1134		
		1.2 HP [895]	High Speed - Tap 5	CFM	2118	2068	2010	1965	1924	1884	1829	1790		
				WATTS	1094	1110	1131	1151	1166	1189	1181	1189		

NOTES:

* Tap 4 - Factory Cooling Tap
Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.
Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.

Appendix C – Air Flow Performance Data (Cont.)

3-5T - Low Static - Sideflow (208-230V, 575V)												
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]							
					0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]
(-)JCCYC036 (3T)	1050/1350	3/4 HP [559]	Fan - Tap 1	CFM	1419	1348	1278	1213	1146	1085	1012	946
				WATTS	203	214	224	234	244	255	264	273
		3/4 HP [559]	Tap 2	CFM	1615	1558	1503	1439	1380	1320	1268	1208
				WATTS	288	299	311	322	333	345	358	370
		3/4 HP [559]	Tap 3	CFM	951	861	762	675	552	479	407	344
				WATTS	85	93	100	107	114	120	126	131
(-)JCCYC048 (4T)	1400/1800	3/4 HP [559]	Cooling - Tap 4 *	CFM	1393	1323	1256	1184	1122	1054	978	907
				WATTS	195	205	216	226	236	245	254	263
		3/4 HP [559]	High Speed - Tap 5	CFM	1745	1686	1632	1578	1525	1463	1404	1357
				WATTS	345	358	370	382	393	408	422	433
		3/4 HP [559]	Fan - Tap 1	CFM	1498	1437	1372	1318	1259	1205	1148	1091
				WATTS	260	272	284	294	306	317	326	337
(-)JCCYC060 (5T)	1750/2250	3/4 HP [559]	Tap 2	CFM	1796	1738	1684	1628	1573	1523	1466	1418
				WATTS	408	422	436	449	462	474	488	499
		3/4 HP [559]	Tap 3	CFM	1087	873	799	709	598	519	445	372
				WATTS	118	103	109	117	122	130	134	140
		3/4 HP [559]	Cooling - Tap 4 *	CFM	1734	1675	1624	1574	1515	1465	1412	1359
				WATTS	376	390	402	415	428	441	451	461
(-)JCCYC060 (5T)	1750/2250	3/4 HP [559]	High Speed - Tap 5	CFM	1952	1892	1850	1793	1754	1698	1651	1601
				WATTS	516	533	546	561	573	589	605	620
		1 HP [745]	Fan - Tap 1	CFM	1525	1458	1406	1345	1287	1233	1172	1117
				WATTS	280	295	307	320	332	343	354	368
		1 HP [745]	Tap 2	CFM	1804	1758	1704	1650	1597	1545	1494	1449
				WATTS	441	453	467	482	497	512	524	541
(-)JCCYC060 (5T)	1750/2250	1 HP [745]	Tap 3	CFM	1342	1279	1213	1149	1083	1016	953	893
				WATTS	207	218	229	238	248	259	269	277
		1 HP [745]	Cooling - Tap 4 *	CFM	2087	2037	1989	1945	1907	1868	1833	1792
				WATTS	655	670	687	702	718	737	762	783
		1 HP [745]	High Speed - Tap 5	CFM	2183	2138	2093	2051	2009	1967	1928	1889
				WATTS	755	770	791	805	824	842	858	877

NOTES:

- * Tap 4 - Factory Cooling Tap
- Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.
- Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.
- FER testing - 3 ton model, 100K heating input, use Tap 3 as Q max

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Appendix C – Air Flow Performance Data (Cont.)

3-5T - Low Static - Sideflow (460V)												
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]							
					0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]
(-)JCCYC036 (3T)	1050/1350	3/4 HP [559]	Fan - Tap 1	CFM	1390	1321	1254	1190	1128	1067	994	923
				WATTS	198	208	219	229	239	250	260	270
		3/4 HP [559]	Tap 2	CFM	1601	1543	1479	1420	1358	1298	1244	1182
				WATTS	279	290	302	313	325	338	349	362
		3/4 HP [559]	Tap 3	CFM	943	854	753	658	543	471	395	324
				WATTS	82	90	97	104	110	117	122	128
(-)JCCYC048 (4T)	1400/1800	3/4 HP [559]	Cooling - Tap 4 *	CFM	1374	1311	1238	1172	1106	1035	960	892
				WATTS	189	199	209	219	229	240	250	258
		3/4 HP [559]	High Speed - Tap 5	CFM	1720	1661	1604	1545	1492	1444	1384	1336
				WATTS	334	347	360	372	383	397	411	424
		3/4 HP [559]	Fan - Tap 1	CFM	1494	1422	1364	1309	1246	1191	1132	1078
				WATTS	250	261	273	285	297	308	319	329
(-)JCCYC060 (5T)	1750/2250	3/4 HP [559]	Tap 2	CFM	1742	1687	1632	1584	1530	1482	1420	1370
				WATTS	375	388	400	412	427	438	452	466
		3/4 HP [559]	Tap 3	CFM	958	871	785	703	583	509	440	370
				WATTS	91	99	106	113	120	126	132	137
		3/4 HP [559]	Cooling - Tap 4 *	CFM	1720	1664	1609	1560	1511	1463	1404	1351
				WATTS	363	375	388	400	414	425	440	454
(-)JCCYC060 (5T)	1750/2250	3/4 HP [559]	High Speed - Tap 5	CFM	1931	1877	1831	1777	1728	1681	1638	1596
				WATTS	497	511	525	539	554	567	581	596
		1 HP [745]	Fan - Tap 1	CFM	1244	1168	1096	1031	963	905	841	761
				WATTS	172	182	192	202	211	219	226	234
		1 HP [745]	Tap 2	CFM	1824	1775	1722	1666	1607	1561	1513	1468
				WATTS	448	463	475	490	503	516	531	547
(-)JCCYC060 (5T)	1750/2250	1 HP [745]	Tap 3	CFM	1315	1249	1182	1114	1047	994	928	862
				WATTS	199	208	219	229	238	246	255	263
		1 HP [745]	Cooling - Tap 4 *	CFM	2083	2033	1991	1951	1914	1873	1834	1795
				WATTS	663	681	694	713	731	749	767	788
		1 HP [745]	High Speed - Tap 5	CFM	2198	2162	2120	2077	2033	1984	1950	1896
				WATTS	774	792	807	822	838	856	876	896

NOTES:

* Tap 4 - Factory Cooling Tap
Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.
Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.

Appendix C – Air Flow Performance Data (Cont.)

3-5T - High Static - Sideflow (208-230V, 575V)													
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]								
					0.8 [.2]	0.9 [.22]	1 [.25]	1.1 [.27]	1.2 [.3]	1.3 [.32]	1.4 [.35]	1.5 [.37]	
(-)JCCYC036 (3T)	1050/1350	1.5 HP [1119]	Fan - Tap 1	CFM	1387	1330	1274	1220	1165	1101	1054	999	
				WATTS	444	456	467	478	490	502	512	522	
		1.5 HP [1119]	Tap 2	CFM	1600	1549	1505	1462	1408	1360	1304	1250	
				WATTS	561	576	589	602	615	627	640	652	
		1.5 HP [1119]	Tap 3	CFM	317	203	145	-	-	-	-	-	
				WATTS	123	128	128	-	-	-	-	-	
		1.5 HP [1119]	Cooling - Tap 4 *	CFM	884	809	733	679	628	571	534	479	
				WATTS	255	261	269	276	284	291	299	304	
(-)JCCYC048 (4T)	1400/1800	1.5 HP [1119]	High Speed - Tap 5	CFM	1375	1317	1260	1207	1147	1097	1037	978	
				WATTS	439	450	462	473	484	493	504	514	
		1.5 HP [1119]	Fan - Tap 1	CFM	1675	1631	1579	1539	1490	1451	1418	1378	
				WATTS	639	652	668	682	694	711	726	743	
		1.5 HP [1119]	Tap 2	CFM	1738	1691	1639	1597	1553	1505	1467	1429	
				WATTS	681	694	712	727	739	752	767	777	
		1.5 HP [1119]	Tap 3	CFM	381	328	254	166	-	-	-	-	
				WATTS	135	140	146	148	-	-	-	-	
(-)JCCYC060 (5T)	1750/2250	1.5 HP [1119]	Cooling - Tap 4 *	CFM	1349	1297	1244	1191	1140	1078	1036	985	
				WATTS	444	457	468	479	489	498	508	519	
		1.5 HP [1119]	High Speed - Tap 5	CFM	1792	1754	1704	1662	1616	1571	1538	1503	
				WATTS	725	739	756	772	785	801	816	831	
		1.5 HP [1119]	Fan - Tap 1	CFM	1489	1442	1399	1353	1313	1270	1224	1135	
				WATTS	550	563	575	586	595	609	620	607	
		1.5 HP [1119]	Tap 2	CFM	1856	1812	1767	1725	1679	1639	1600	1558	
				WATTS	810	823	843	857	870	886	903	920	
(-)JCCYC060 (5T)	1750/2250	1.5 HP [1119]	Tap 3	CFM	896	829	752	692	632	580	527	473	
				WATTS	265	272	281	286	293	298	306	303	
		1.5 HP [1119]	Cooling - Tap 4 *	CFM	1761	1715	1671	1629	1586	1533	1493	1450	
				WATTS	736	752	767	781	793	809	813	827	
		1.5 HP [1119]	High Speed - Tap 5	CFM	1996	1965	1916	1873	1852	1809	1773	1740	
				WATTS	957	968	985	1009	1015	1037	1060	1081	

NOTES:

- * Tap 4 - Factory Cooling Tap
- Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.
- Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.
- FER testing - 3 ton model, 100K heating input, use Tap 3 as Q max

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Appendix C – Air Flow Performance Data (Cont.)

3-5T - High Static - Sideflow (460V)													
Unit Model (Tonnage)	Manufacturer Recommended Airflow Range (Min/Max) CFM	Motor HP [W]	Motor Speed	CFM/WATTS	External Static Pressure - Inches W.C. [kPa]								
					0.8 [.2]	0.9 [.22]	1 [.25]	1.1 [.27]	1.2 [.3]	1.3 [.32]	1.4 [.35]	1.5 [.37]	
(-)ACCYC036 (3T)	1050/1350	1 HP [745]	Fan - Tap 1	CFM	692	628	557	485	427	369	275	229	
				WATTS	212	219	224	230	240	245	252	255	
		1 HP [745]	Tap 2	CFM	1471	1415	1368	1321	1272	1218	1162	1118	
				WATTS	508	524	536	546	560	570	582	593	
		1 HP [745]	Tap 3	CFM	280	183	83	-	-	-	-	-	
				WATTS	127	131	135	-	-	-	-	-	
		1 HP [745]	Cooling - Tap 4 *	CFM	843	757	700	663	566	514	466	404	
				WATTS	253	261	268	275	278	284	299	304	
(-)ACCYC048 (4T)	1400/1800	1 HP [745]	High Speed - Tap 5	CFM	1351	1293	1236	1180	1124	1059	1010	944	
				WATTS	441	454	463	476	487	498	507	516	
		1 HP [745]	Fan - Tap 1	CFM	1327	1274	1224	1172	1121	1055	1000	952	
				WATTS	450	460	470	480	491	503	514	521	
		1 HP [745]	Tap 2	CFM	1508	1463	1418	1374	1329	1275	1230	1161	
				WATTS	555	570	581	593	605	618	629	634	
		1 HP [745]	Tap 3	CFM	343	289	204	-	-	-	-	-	
				WATTS	4	139	143	-	-	-	-	-	
(-)ACCYC060 (5T)	1750/2250	1 HP [745]	Cooling - Tap 4 *	CFM	1326	1272	1222	1164	1118	1057	998	949	
				WATTS	443	455	467	477	488	499	510	520	
		1 HP [745]	High Speed - Tap 5	CFM	1628	1577	1522	1490	1448	1409	1362	1172	
				WATTS	627	642	656	668	682	694	704	611	
		1.2 HP [895]	Fan - Tap 1	CFM	1145	1087	1031	948	895	832	786	731	
				WATTS	357	367	374	387	397	404	410	420	
		1.2 HP [895]	Tap 2	CFM	1898	1858	1822	1779	1739	1696	1652	1613	
				WATTS	829	840	850	864	890	897	911	920	
(-)ACCYC060 (5T)	1750/2250	1.2 HP [895]	Tap 3	CFM	877	791	715	653	578	516	464	413	
				WATTS	257	269	276	282	288	294	301	307	
		1.2 HP [895]	Cooling - Tap 4 *	CFM	1840	1791	1745	1697	1662	1617	1574	1529	
				WATTS	761	784	790	804	815	823	841	855	
		1.2 HP [895]	High Speed - Tap 5	CFM	2120	2069	2031	1988	1949	1912	1873	1828	
				WATTS	1019	1045	1060	1074	1090	1100	1118	1125	

NOTES:

* Tap 4 - Factory Cooling Tap

Pressure drops across the 3-5T CFM range (1050 - 2250): Wet coil: ~0.09 Inches W.C.

Downflow: ~0.1 Inches W.C. Reheat coil: ~0.09 Inches W.C.

Appendix C – Air Flow Performance Data (Cont.)

FLUSH MOUNT CONCENTRIC DIFFUSER PERFORMANCE INFORMATION								
Diffuser Model Number For Rheem	CFM	Minimum Throw (feet)	Maximum Throw (feet)	Static Pressure Drop (Diffuser)	Static Pressure Drop (Adapter)	Sound (in Db)	Diffuser Face Return Area (sq. ft.)	Diffuser Face Supply Area (sq. ft.)
					CN-1805-142			
RXRN-AEF1800	1000	9	12	0.14	0.057	20	2.1	3.37
	1200	12	16	0.2	0.08	25	2.1	3.37
	1400	15	20	0.26	0.105	30	2.1	3.37
	1600	17	23	0.33	0.134	30	2.1	3.37
	1800	20	26	0.41	0.17	35	2.1	3.37
	2000	22	29	0.5	0.21	40	2.1	3.37
	2400	25	32	0.68	0.29	45	2.1	3.37

DROP CONCENTRIC DIFFUSER PERFORMANCE INFORMATION								
Diffuser Model Number For Rheem	CFM	Minimum Throw (feet)	Maximum Throw (feet)	Static Pressure Drop (Diffuser)	Static Pressure Drop (Adapter)	Sound (in Db)	Diffuser Face Return Area (sq. ft.)	Diffuser Face Supply Area (sq. ft.)
					CN-1805-142			
RXRN-AED1800	1000	9	23	0.07	0.057	12	4.06	2.82
	1200	10	24	0.11	0.08	15	4.06	2.82
	1400	12	26	0.15	0.105	19	4.06	2.82
	1600	13	28	0.19	0.134	21	4.06	2.82
	1800	15	30	0.24	0.17	26	4.06	2.82
	2000	17	32	0.3	0.21	30	4.06	2.82
	2400	19	34	0.43	0.29	32	4.06	2.82

FLUSH MOUNT CONCENTRIC DIFFUSER PERFORMANCE INFORMATION								
Diffuser Model Number For Rheem	CFM	Minimum Throw (feet)	Maximum Throw (feet)	Static Pressure Drop (Diffuser)	Static Pressure Drop (Adapter)	Sound (in Db)	Diffuser Face Return Area (sq. ft.)	Diffuser Face Supply Area (sq. ft.)
					CN-1805-141			
RXRX-AEF2000	2600	17	24	0.49	0.21	30	3.48	3.76
	2800	18	28	0.55	0.24	35	3.48	3.76
	3000	20	30	0.62	0.27	35	3.48	3.76
	3200	22	33	0.69	0.31	40	3.48	3.76
	3400	23	37	0.77	0.34	40	3.48	3.76

DROP CONCENTRIC DIFFUSER PERFORMANCE INFORMATION								
Diffuser Model Number For Rheem	CFM	Minimum Throw (feet)	Maximum Throw (feet)	Static Pressure Drop (Diffuser)	Static Pressure Drop (Adapter)	Sound (in Db)	Diffuser Face Return Area (sq. ft.)	Diffuser Face Supply Area (sq. ft.)
					CN-1805-141			
RXRX-AED2000	2600	22	39	0.34	0.21	32	5.69	3.1
	2800	23	40	0.39	0.24	38	5.69	3.1
	3000	25	42	0.45	0.27	40	5.69	3.1
	3200	26	43	0.53	0.31	41	5.69	3.1
	3400	27	45	0.61	0.34	42	5.69	3.1

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Appendix C – Air Flow Performance Data (Cont.)

Airflow (cfm)	Downflow dP (inH2O)	Horizontal dP (inH2O)
1050	0.06	0.01
1150	0.07	0.01
1250	0.09	0.01
1350	0.10	0.01
1450	0.12	0.01
1550	0.13	0.02
1650	0.15	0.02
1750	0.17	0.02
1850	0.19	0.02
1950	0.21	0.02
2050	0.23	0.03
2150	0.26	0.03
2250	0.28	0.03
2350	0.31	0.04

Appendix D – Cooling Data for YB 3 Ton

COOLING PERFORMANCE DATA - (+)ACCYB036											
Entering Indoor Air @ 80°F [26.7°C] dbE											
w/E		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]	DR	1325 [625]	1175 [555]	950 [448]	1325 [625]	1175 [555]	950 [448]	1325 [625]	1175 [555]	950 [448]	
		.05	.09	.12	.05	.09	.12	.05	.09	.12	
75°F [23.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	44.3 [13] 26.7 [6] 2.2	43.3 [12.7] 24.6 [7.2] 2.2	41.8 [12.3] 22.4 [6.6] 2.2	41.5 [12.2] 29.6 [8.7] 2.3	40.5 [11.9] 27.9 [8.2] 2.2	39.1 [11.5] 25.4 [7.4] 2.2	39.1 [11.5] 33.7 [9.9] 2.2	38.2 [11.2] 31.8 [9.3] 2.2	36.9 [10.8] 28.9 [8.5] 2.2	
80°F [26.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	43 [12.6] 25.5 [7.5] 2.4	42 [12.3] 24 [7] 2.3	40.6 [11.9] 21.9 [6.4] 2.3	40.2 [11.8] 29 [8.5] 2.4	39.3 [11.5] 27.4 [8] 2.4	37.9 [11.1] 24.9 [7.3] 2.3	37.8 [11.1] 33.1 [9.7] 2.4	37 [10.8] 31.3 [9.2] 2.3	35.7 [10.5] 28.5 [8.4] 2.3	
85°F [29.4°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	41.7 [12.2] 24.8 [7.3] 2.5	40.7 [11.9] 23.4 [6.9] 2.5	39.3 [11.5] 21.3 [6.2] 2.4	38.8 [11.4] 28.4 [8.3] 2.5	37.9 [11.1] 26.8 [7.9] 2.5	36.6 [10.7] 24.4 [7.2] 2.4	36.5 [10.7] 32.5 [9.5] 2.5	35.7 [10.5] 30.6 [9] 2.5	34.4 [10.1] 27.9 [8.2] 2.4	
90°F [32.2°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	40.2 [11.8] 24.1 [7.1] 2.6	39.3 [11.5] 22.7 [6.7] 2.6	38 [11.1] 20.7 [6.1] 2.5	37.4 [11] 27.7 [8.1] 2.6	36.5 [10.7] 26.1 [7.6] 2.6	35.3 [10.3] 23.8 [7] 2.6	35 [10.3] 31.7 [9.3] 2.6	34.3 [10.1] 30 [8.8] 2.6	33.1 [9.7] 27.3 [8] 2.6	
95°F [35.0°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	38.7 [11.3] 23.3 [6.8] 2.7	37.9 [11.1] 22 [6.4] 2.7	36.5 [10.7] 20 [5.9] 2.7	35.9 [10.5] 26.9 [7.9] 2.8	35.1 [10.3] 25.3 [7.4] 2.7	33.8 [9.9] 23.1 [6.8] 2.7	33.5 [9.8] 31 [9.1] 2.8	32.8 [9.6] 29.2 [8.6] 2.7	31.6 [9.3] 26.6 [7.8] 2.7	
100°F [37.8°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	37.2 [10.9] 22.4 [6.6] 2.9	36.3 [10.6] 21.2 [6.2] 2.8	35 [10.3] 19.3 [5.7] 2.8	34.3 [10.1] 26 [7.6] 2.9	33.5 [9.8] 24.5 [7.2] 2.9	32.4 [9.5] 22.3 [6.5] 2.8	32 [9.4] 30.1 [8.8] 2.9	31.2 [9.1] 28.4 [8.3] 2.9	30.2 [8.9] 25.9 [7.6] 2.8	
105°F [40.6°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	35.5 [10.4] 21.5 [6.3] 3	34.7 [10.2] 20.3 [5.9] 3	33.5 [9.8] 18.5 [5.4] 2.9	32.7 [9.6] 25 [7.3] 3	31.9 [9.3] 23.6 [6.9] 3	30.8 [9] 21.5 [6.3] 2.9	30.3 [8.9] 29.1 [8.5] 3	29.6 [8.7] 27.5 [8.1] 3	28.6 [8.4] 25 [7.3] 2.9	
110°F [43.3°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	33.8 [9.9] 20.5 [6] 3.1	33 [9.7] 19.3 [5.7] 3.1	31.9 [9.3] 17.6 [5.2] 3.1	30.9 [9.1] 24 [7] 3.2	30.2 [8.9] 22.7 [6.7] 3.1	29.2 [8.6] 20.6 [6] 3.1	28.6 [8.4] 28.1 [8.2] 3.2	27.9 [8.2] 26.5 [7.8] 3.1	27 [7.9] 24.2 [7.1] 3.1	
115°F [46.1°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	32 [9.4] 19.4 [5.7] 3.3	31.3 [9.2] 18.3 [5.4] 3.2	30.2 [8.9] 16.6 [4.9] 3.2	29.1 [8.5] 22.9 [6.7] 3.3	28.5 [8.4] 21.6 [6.3] 3.3	27.5 [8.1] 19.7 [5.8] 3.2	26.8 [7.9] 26.8 [7.9] 3.3	26.2 [7.7] 25.5 [7.5] 3.2	25.3 [7.4] 23.2 [6.8] 3.2	
120°F [48.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	30.1 [8.8] 18.2 [5.3] 3.4	29.4 [8.6] 17.2 [5] 3.4	28.4 [8.3] 15.6 [4.6] 3.3	27.3 [8] 21.7 [6.4] 3.4	26.7 [7.8] 20.5 [6] 3.4	25.7 [7.5] 18.7 [5.5] 3.3	24.9 [7.3] 24.9 [7.3] 3.4	24.4 [7.2] 24.4 [7.2] 3.4	23.5 [6.9] 22.2 [6.5] 3.3	
125°F [51.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	28.2 [8.3] 16.9 [5] 3.5	27.5 [8.1] 16 [4.7] 3.5	26.6 [7.8] 14.6 [4.3] 3.4	25.3 [7.4] 20.5 [6] 3.6	24.8 [7.3] 19.3 [5.7] 3.57	23.9 [7] 17.6 [5.2] 3.5	23 [6.7] 23 [6.7] 3.5	22.5 [6.6] 22.5 [6.6] 3.5	21.7 [6.4] 21.1 [6.2] 3.4	

Outdoor Dry Bulb Temperature

DR —Depression ratio Total —Total capacity x 1000 BTUH NOTES:
dbE —Entering air dry bulb Sens —Sensible capacity x 1000 BTUH When the entering air dry bulb is other than 80°F [27°C], adjust the sensible
w/E—Entering air wet bulb Power—KW input capacity from the table by adding [1.10 x CFM x (1 – DR) x (dbE – 80)].

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Appendix D – Cooling Data for YB 4 Ton

COOLING PERFORMANCE DATA - (-) JACCYB048												
Entering Indoor Air @ 80°F [26.7°C] dbE												
wBE	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			DR		
	CFM [L/s]	1775 [838]	1575 [743]	1275 [602]	1775 [838]	1575 [743]	1275 [602]	1775 [838]	1575 [743]		1275 [602]	1275 [602]
75°F [23.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	57.1 [16.7] 33.2 [9.7] 3.4	55.9 [16.4] 31.4 [9.2] 3.4	53.9 [15.8] 28.6 [8.4] 3.3	54.2 [15.9] 38.6 [11.3] 3.4	53 [15.5] 36.5 [10.7] 3.4	51.2 [15] 33.2 [9.7] 3.3	51.4 [15.1] 44 [12.9] 3.4	50.2 [14.7] 41.5 [12.2] 3.3		48.5 [14.2] 37.8 [11.1] 3.3	48.5 [14.2] 37.8 [11.1] 3.3
80°F [26.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	55.7 [16.3] 32.4 [9.5] 3.5	54.4 [15.9] 30.6 [9] 3.5	52.5 [15.4] 27.9 [8.2] 3.4	52.8 [15.5] 37.8 [11.1] 3.6	51.6 [15.1] 35.7 [10.5] 3.5	49.9 [14.6] 32.5 [9.5] 3.5	50 [14.7] 43.2 [12.7] 3.5	48.9 [14.3] 40.7 [11.9] 3.5		47.2 [13.8] 37.1 [10.9] 3.4	47.2 [13.8] 37.1 [10.9] 3.4
85°F [29.4°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	54.3 [15.9] 31.6 [9.3] 3.7	53.1 [15.6] 29.8 [8.7] 3.6	51.2 [15] 27.2 [8] 3.6	51.4 [15.1] 36.9 [10.8] 3.7	50.3 [14.7] 34.9 [10.2] 3.7	48.5 [14.2] 31.8 [9.3] 3.6	48.6 [14.2] 42.3 [12.4] 3.7	47.5 [13.9] 40 [11.7] 3.6		45.8 [13.4] 36.4 [10.7] 3.6	45.8 [13.4] 36.4 [10.7] 3.6
90°F [32.2°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	52.9 [15.5] 30.7 [9] 3.8	51.7 [15.2] 29 [8.5] 3.8	49.9 [14.6] 26.4 [7.7] 3.7	50 [14.7] 36.1 [10.6] 3.8	48.9 [14.3] 34.1 [10] 3.8	47.2 [13.8] 31.1 [9.1] 3.7	47.2 [13.8] 41.5 [12.2] 3.8	46.1 [13.5] 39.2 [11.5] 3.7		44.5 [13] 35.7 [10.5] 3.7	44.5 [13] 35.7 [10.5] 3.7
95°F [35.0°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	51.5 [15.1] 29.9 [8.8] 3.9	50.3 [14.7] 28.2 [8.3] 3.9	48.6 [14.2] 25.7 [7.5] 3.8	48.6 [14.2] 35.3 [10.3] 4	47.5 [13.9] 33.3 [9.8] 3.9	45.9 [13.5] 30.3 [8.9] 3.9	45.8 [13.4] 40.7 [11.9] 3.9	44.8 [13.1] 38.4 [11.3] 3.9		43.2 [12.7] 35 [10.3] 3.8	43.2 [12.7] 35 [10.3] 3.8
100°F [37.8°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	50.1 [14.7] 29.1 [8.5] 4.1	49 [14.4] 27.4 [8] 4	47.3 [13.9] 25 [7.3] 4	47.2 [13.8] 34.5 [10.1] 4.1	46.2 [13.5] 32.5 [9.5] 4.1	44.6 [13.1] 29.6 [8.7] 4	44.4 [13] 39.8 [11.7] 4.1	43.4 [12.7] 37.6 [11] 4		41.9 [12.3] 34.3 [10.1] 4	41.9 [12.3] 34.3 [10.1] 4
105°F [40.6°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	48.7 [14.3] 28.2 [8.3] 4.2	47.6 [14] 26.7 [7.8] 4.2	45.9 [13.5] 24.3 [7.1] 4.1	45.8 [13.4] 33.6 [9.8] 4.2	44.8 [13.1] 31.7 [9.3] 4.2	43.3 [12.7] 28.9 [8.5] 4.1	43 [12.6] 39 [11.4] 4.2	42 [12.3] 36.8 [10.8] 4.2		40.6 [11.9] 33.5 [9.8] 4.1	40.6 [11.9] 33.5 [9.8] 4.1
110°F [43.3°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	47.3 [13.9] 27.4 [8] 4.4	46.2 [13.5] 25.9 [7.6] 4.3	44.6 [13.1] 23.6 [6.9] 4.2	44.4 [13] 32.8 [9.6] 4.4	43.4 [12.7] 31 [9.1] 4.3	41.9 [12.3] 28.2 [8.3] 4.3	41.6 [12.2] 38.2 [11.2] 4.3	40.6 [11.9] 36 [10.6] 4.3		39.2 [11.5] 32.8 [9.6] 4.2	39.2 [11.5] 32.8 [9.6] 4.2
115°F [46.1°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	45.9 [13.5] 26.6 [7.8] 4.5	44.9 [13.2] 25.1 [7.4] 4.4	43.3 [12.7] 22.9 [6.7] 4.4	43 [12.6] 32 [9.4] 4.5	42.1 [12.3] 30.2 [8.9] 4.5	40.6 [11.9] 27.5 [8.1] 4.4	40.2 [11.8] 37.3 [10.9] 4.5	39.3 [11.5] 35.2 [10.3] 4.4		37.9 [11.1] 32.1 [9.4] 4.4	37.9 [11.1] 32.1 [9.4] 4.4
120°F [48.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	44.5 [13] 25.7 [7.5] 4.6	43.5 [12.7] 24.3 [7.1] 4.6	42 [12.3] 22.1 [6.5] 4.5	41.6 [12.2] 31.1 [9.1] 4.7	40.7 [11.9] 29.4 [8.6] 4.6	39.3 [11.5] 26.8 [7.9] 4.5	38.8 [11.4] 36.5 [10.7] 4.6	37.9 [11.1] 34.5 [10.1] 4.6		36.6 [10.7] 31.4 [9.2] 4.5	36.6 [10.7] 31.4 [9.2] 4.5
125°F [51.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	43.1 [12.6] 24.9 [7.3] 4.8	42.1 [12.3] 23.5 [6.9] 4.7	40.7 [11.9] 21.4 [6.3] 4.6	40.2 [11.8] 30.3 [8.9] 4.8	39.3 [11.5] 28.6 [8.4] 4.7	38 [11.1] 26.1 [7.6] 4.7	37.4 [11] 35.7 [10.5] 4.8	36.5 [10.7] 33.7 [9.9] 4.7		35.3 [10.3] 30.7 [9] 4.6	35.3 [10.3] 30.7 [9] 4.6

Outdoor Dry Bulb Temperature

DR — Depression ratio Total — Total capacity x 1000 BTUH NOTES:
 dbE — Entering air dry bulb Sens — Sensible capacity x 1000 BTUH When the entering air dry bulb is other than 80°F [27°C], adjust the sensible
 wBE — Entering air wet bulb Power — KW input capacity from the table by adding [1.10 x CFM x (1 — DR) x (dbE — 80)].

Appendix D – Cooling Data for YB 5 Ton

COOLING PERFORMANCE DATA - (-) JACCYB060												
Entering Indoor Air @ 80°F [26.7°C] dbE												
wBE	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			63°F [17.2°C]		
	CFM [L/s]	DR	2200 [1038]	1825 [861]	1600 [755]	1220 [562]	1000 [454]	800 [363]	600 [272]	400 [181]	200 [91]	100 [46]
75°F [23.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		72.1 [21.1] 43.2 [12.7] 4.2	69.5 [20.4] 39.4 [11.5] 4.1	67.9 [19.9] 37.2 [10.9] 4.1	68.4 [20] 48.5 [14.2] 4.2	66 [19.3] 44.2 [13] 4.2	64.5 [18.9] 41.7 [12.2] 4.1	62.6 [18.3] 49.2 [14.4] 4.1	61.1 [17.9] 46.3 [13.6] 4.1	59.6 [17.5] 45.6 [13.4] 4.3	57.9 [17] 44.8 [13.1] 4.6
80°F [26.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		70.4 [20.6] 42.4 [12.4] 4.4	67.9 [19.9] 38.7 [11.3] 4.4	66.4 [19.5] 36.5 [10.7] 4.3	66.8 [19.6] 47.7 [14] 4.5	64.4 [18.9] 43.3 [12.7] 4.4	62.9 [18.4] 41 [12] 4.4	60.9 [17.8] 48.4 [14.2] 4.4	59.6 [17.5] 45.6 [13.4] 4.3	57.9 [17] 44.8 [13.1] 4.6	56 [16.4] 43.9 [12.9] 4.8
85°F [29.4°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		66.6 [20.1] 41.5 [12.2] 4.7	66.1 [19.4] 37.9 [11.1] 4.6	64.7 [19] 35.7 [10.5] 4.6	64.9 [19] 46.7 [13.7] 4.7	62.5 [18.3] 42.7 [12.5] 4.6	61.2 [17.9] 40.2 [11.8] 4.6	59.2 [17.4] 47.6 [14] 4.6	57.9 [17] 44.8 [13.1] 4.6	56 [16.4] 43.9 [12.9] 4.8	54.1 [15.9] 42.8 [12.5] 5
90°F [32.2°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		66.7 [19.5] 40.4 [11.8] 4.9	64.3 [18.8] 36.9 [10.8] 4.8	62.8 [18.4] 34.7 [10.2] 4.8	63 [18.5] 45.6 [13.4] 5	60.7 [17.8] 41.7 [12.2] 4.9	59.4 [17.4] 39.3 [11.5] 4.8	57.3 [16.8] 46.6 [13.7] 4.8	56 [16.4] 43.9 [12.9] 4.8	54.1 [15.9] 42.8 [12.5] 5	52 [15.2] 41.6 [12.2] 5.2
95°F [35.0°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		64.6 [18.9] 39.2 [11.5] 5.2	62.2 [18.2] 35.7 [10.5] 5.1	60.8 [17.8] 33.7 [9.9] 5	60.9 [17.8] 44.4 [13] 5.2	58.7 [17.2] 40.5 [11.9] 5.1	57.4 [16.8] 38.2 [11.2] 5	55.3 [16.2] 45.4 [13.3] 5.1	54.1 [15.9] 42.8 [12.5] 5	52 [15.2] 41.6 [12.2] 5.2	50.9 [14.9] 42.8 [12.5] 5.5
100°F [37.8°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		62.3 [18.3] 37.8 [11.1] 5.4	60.1 [17.6] 34.5 [10.1] 5.3	58.7 [17.2] 32.5 [9.5] 5.2	58.7 [17.2] 43 [12.6] 5.4	56.6 [16.6] 39.3 [11.5] 5.3	55.3 [16.2] 37 [10.8] 5.3	53.1 [15.6] 44.2 [13] 5.3	52 [15.2] 41.6 [12.2] 5.2	50.9 [14.9] 42.8 [12.5] 5.5	49.7 [14.6] 40.3 [11.8] 5.5
105°F [40.6°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		60 [17.6] 36.2 [10.6] 5.6	57.8 [16.9] 33.1 [9.7] 5.5	56.5 [16.6] 31.2 [9.1] 5.5	56.3 [16.5] 41.5 [12.2] 5.7	54.3 [15.9] 37.9 [11.1] 5.6	53.1 [15.6] 35.7 [10.5] 5.5	50.9 [14.9] 42.8 [12.5] 5.5	49.7 [14.6] 40.3 [11.8] 5.5	48.4 [14.2] 39.3 [11.5] 4.9	47.4 [13.9] 38.9 [12.9] 5.7
110°F [43.3°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		57.5 [16.9] 34.6 [10.1] 5.9	55.4 [16.2] 31.5 [9.2] 5.8	54.2 [15.9] 29.7 [8.7] 5.7	53.8 [15.8] 39.8 [11.7] 5.9	51.9 [15.2] 36.3 [10.6] 5.8	50.7 [14.9] 34.2 [10] 5.7	48.4 [14.2] 41.2 [12.1] 5.8	47.4 [13.9] 38.9 [12.9] 5.7	46.3 [14.2] 37.3 [10.9] 5.9	45.9 [13.5] 37.3 [10.9] 5.9
115°F [46.1°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		54.8 [16.1] 32.7 [9.6] 6.1	52.8 [15.5] 29.9 [8.8] 6	51.7 [15.2] 28.2 [8.3] 5.9	51.2 [15] 38 [11.1] 6.1	49.3 [14.4] 34.7 [10.2] 6	48.2 [14.1] 32.7 [9.6] 6	45.9 [13.5] 39.6 [11.6] 6	44.9 [13.2] 37.3 [10.9] 5.9	43.2 [12.7] 35.6 [10.4] 6.2	42.2 [12.4] 35.8 [10.5] 6.4
120°F [48.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		52 [15.2] 30.8 [9] 6.3	50.2 [14.7] 28.1 [8.2] 6.2	49 [14.4] 26.5 [7.8] 6.2	48.4 [14.2] 36 [10.6] 6.4	46.6 [13.7] 32.9 [9.6] 6.3	45.6 [13.4] 31 [9.1] 6.2	43.2 [12.7] 37.8 [11.1] 6.2	42.2 [12.4] 35.6 [10.4] 6.2	40.4 [11.8] 35.8 [10.5] 6.5	39.5 [11.6] 33.8 [9.9] 6.4
125°F [51.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power		49.1 [14.4] 28.6 [8.4] 6.6	47.3 [13.9] 26.1 [7.6] 6.5	46.3 [13.6] 24.6 [7.2] 6.4	45.4 [13.3] 33.9 [9.9] 6.6	43.8 [12.8] 30.9 [9.1] 6.5	42.8 [12.5] 29.2 [8.6] 6.4	41.9 [12.3] 39.3 [11.5] 6.6	40.4 [11.8] 35.8 [10.5] 6.5	39.5 [11.6] 33.8 [9.9] 6.4	38.9 [12.9] 33.8 [9.9] 6.4

Outdoor Dry Bulb Temperature

DR —Depression ratio Total —Total capacity x 1000 BTUH NOTES:
dbE —Entering air dry bulb Sens —Sensible capacity x 1000 BTUH When the entering air dry bulb is other than 80°F [27°C], adjust the sensible
wBE—Entering air wet bulb Power—KW input capacity from the table by adding [1.10 x CFM x (1 – DR) x (dbE – 80)].

P. APPENDICES

Appendix D – Cooling Data for YB 6 Ton

COOLING PERFORMANCE DATA - (-JACCYB072)										
Entering Indoor Air @ 80°F [26.7°C] dbE										
wB/E	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
	CFM [L/s]	2525 [1192]	2400 [1133]	1825 [861]	2525 [1192]	2400 [1133]	1825 [861]	2525 [1192]	2400 [1133]	1825 [861]
DR		.05	.09	.12	.05	.09	.12	.05	.09	.12
75°F [23.9°C]	Total KBtu/h [kW]	79.7 [23.4]	78.9 [23.1]	75.5 [22.1]	73.8 [21.6]	73.1 [21.4]	70 [20.5]	68 [19.9]	67.4 [19.8]	64.4 [18.9]
	Sens KBtu/h [kW] Power	44.6 [13.1] 4.8	43.5 [12.7] 4.8	38.6 [11.3] 4.7	49.7 [14.6] 4.7	48.5 [14.2] 4.7	43.1 [12.6] 4.6	54.9 [16.1] 4.9	53.6 [15.7] 4.8	47.6 [14] 4.7
80°F [26.7°C]	Total KBtu/h [kW]	78.2 [22.9]	77.4 [22.7]	74.1 [21.7]	72.3 [21.2]	71.6 [21]	68.5 [20.1]	66.5 [19.5]	65.9 [19.3]	63 [18.5]
	Sens KBtu/h [kW] Power	44.4 [13] 5.2	43.4 [12.7] 5.1	38.5 [11.3] 5	49.6 [14.5] 5.1	48.4 [14.2] 5	43 [12.6] 4.9	54.7 [16] 5.2	53.4 [15.7] 5.2	47.5 [13.9] 5.1
85°F [29.4°C]	Total KBtu/h [kW]	76.6 [22.5]	75.9 [22.2]	72.6 [21.3]	70.8 [20.8]	70.1 [20.5]	67.1 [19.7]	65 [19.1]	64.4 [18.9]	61.6 [18.1]
	Sens KBtu/h [kW] Power	44.2 [13] 5.5	43.2 [12.7] 5.5	38.4 [11.3] 5.4	49.4 [14.5] 5.4	48.3 [14.2] 5.4	42.9 [12.6] 5.2	54.6 [16] 5.5	53.3 [15.6] 5.5	47.4 [13.9] 5.4
90°F [32.2°C]	Total KBtu/h [kW]	75.1 [22]	74.4 [21.8]	71.2 [20.9]	69.3 [20.3]	68.6 [20.1]	65.7 [19.3]	63.5 [18.6]	62.9 [18.4]	60.1 [17.6]
	Sens KBtu/h [kW] Power	44.2 [13] 5.8	43.1 [12.6] 5.8	38.3 [11.2] 5.7	49.3 [14.4] 5.7	48.1 [14.1] 5.7	42.8 [12.5] 5.6	54.5 [16] 5.8	53.2 [15.6] 5.8	47.2 [13.8] 5.7
95°F [35.0°C]	Total KBtu/h [kW]	73.6 [21.6]	72.9 [21.4]	69.8 [20.5]	67.8 [19.9]	67.1 [19.7]	64.2 [18.8]	61.9 [18.1]	61.4 [18]	58.7 [17.2]
	Sens KBtu/h [kW] Power	44 [12.9] 6.1	43 [12.6] 6.1	38.2 [11.2] 6	49.2 [14.4] 6	48 [14.1] 6	42.6 [12.5] 5.9	54.3 [15.9] 6.2	53 [15.5] 6.1	47.1 [13.8] 6
100°F [37.8°C]	Total KBtu/h [kW]	72.1 [21.1]	71.4 [20.9]	68.3 [20]	66.3 [19.4]	65.6 [19.2]	62.8 [18.4]	60.4 [17.7]	59.9 [17.6]	57.3 [16.8]
	Sens KBtu/h [kW] Power	43.9 [12.9] 6.5	42.8 [12.5] 6.4	38 [11.1] 6.3	49 [14.4] 6.4	47.9 [14] 6.3	42.5 [12.5] 6.2	54.2 [15.9] 6.5	52.9 [15.5] 6.4	47 [13.8] 6.3
105°F [40.6°C]	Total KBtu/h [kW]	70.6 [20.7]	69.9 [20.5]	66.9 [19.6]	64.8 [19]	64.1 [18.8]	61.4 [18]	58.9 [17.3]	58.4 [17.1]	55.8 [16.4]
	Sens KBtu/h [kW] Power	43.7 [12.8] 6.8	42.7 [12.5] 6.7	37.9 [11.1] 6.6	48.9 [14.3] 6.7	47.7 [14] 6.6	42.4 [12.4] 6.5	54 [15.8] 6.8	52.8 [15.5] 6.8	46.9 [13.7] 6.6
110°F [43.3°C]	Total KBtu/h [kW]	69.1 [20.3]	68.4 [20]	65.4 [19.2]	63.2 [18.5]	62.6 [18.3]	59.9 [17.6]	57.4 [16.8]	56.9 [16.7]	54.4 [15.9]
	Sens KBtu/h [kW] Power	43.6 [12.8] 7.1	42.6 [12.5] 7.1	37.8 [11.1] 6.9	48.7 [14.3] 7	47.6 [14] 7	42.3 [12.4] 6.8	53.9 [15.8] 7.1	52.6 [15.4] 7.1	46.7 [13.7] 6.9
115°F [46.1°C]	Total KBtu/h [kW]	67.6 [19.8]	66.9 [19.6]	64 [18.8]	61.7 [18.1]	61.1 [17.9]	58.5 [17.1]	55.9 [16.4]	55.4 [16.2]	53 [15.5]
	Sens KBtu/h [kW] Power	43.4 [12.7] 7.4	42.4 [12.4] 7.4	37.7 [11] 7.2	48.6 [14.2] 7.3	47.5 [13.9] 7.3	42.1 [12.3] 7.1	53.8 [15.8] 7.4	52.5 [15.4] 7.4	46.6 [13.7] 7.2
120°F [48.9°C]	Total KBtu/h [kW]	66 [19.3]	65.4 [19.2]	62.6 [18.3]	60.2 [17.6]	59.6 [17.5]	57 [16.7]	54.4 [15.9]	53.9 [15.8]	51.5 [15.1]
	Sens KBtu/h [kW] Power	43.3 [12.7] 7.7	42.3 [12.4] 7.7	37.6 [11] 7.5	48.5 [14.2] 7.6	47.3 [13.9] 7.6	42 [12.3] 7.4	53.6 [15.7] 7.8	52.4 [15.4] 7.7	46.5 [13.6] 7.6
125°F [51.7°C]	Total KBtu/h [kW]	64.5 [18.9]	63.9 [18.7]	61.1 [17.9]	58.7 [17.2]	58.1 [17]	55.6 [16.3]	52.9 [15.5]	52.4 [15.4]	50.1 [14.7]
	Sens KBtu/h [kW] Power	43.2 [12.7] 8.1	42.1 [12.3] 8	37.4 [11] 7.9	48.3 [14.2] 8	47.2 [13.8] 7.9	41.9 [12.3] 7.8	52.9 [15.5] 8.1	52.2 [15.3] 8	46.4 [13.6] 7.9

Outdoor Dry Bulb Temperature

DR —Depression ratio Total —Total capacity x 1000 BTUH NOTES:
dbE —Entering air dry bulb Sens —Sensible capacity x 1000 BTUH When the entering air dry bulb is other than 80°F [27°C], adjust the sensible
wbE—Entering air wet bulb Power—KW input capacity from the table by adding [1.10 x CFM x (1 – DR) x (dbE – 80)].

Appendix D – Cooling Data for YC 3 Ton

COOLING PERFORMANCE DATA - (+)ACCY/C036										
Entering Indoor Air @ 80°F [26.7°C] dbE										
wB/E	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
	CFM [L/s]	1425 [496]	1100 [519]	1425 [673]	1050 [496]	1100 [519]	1425 [673]	1050 [496]	1100 [519]	1100 [519]
DR		.05	.12	.05	.09	.12	.05	.09	.12	.12
75°F [23.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	46.7 [13.7] 43.8 [12.8] 24.1 [7.1]	44.2 [13] 24.6 [7.2] 2.3	43.6 [12.8] 32.1 [9.4] 2.3	41 [12] 27.5 [8.1] 2.3	41.3 [12.1] 28.1 [8.2] 2.3	40.4 [11.8] 35.9 [10.5] 2.3	37.9 [11.1] 30.8 [9] 2.2	38.3 [11.2] 31.5 [9.2] 2.2	
80°F [26.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	46.1 [13.5] 28 [8.2] 2.5	43.7 [12.8] 24.6 [7.2] 2.4	43.1 [12.6] 32 [9.4] 2.5	40.5 [11.9] 27.4 [8] 2.4	40.8 [12] 28.1 [8.2] 2.4	39.9 [11.7] 35.8 [10.5] 2.4	37.4 [11] 30.7 [9] 2.3	37.8 [11.1] 31.4 [9.2] 2.3	
85°F [29.4°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	45.4 [13.3] 27.7 [8.1] 2.6	43 [12.6] 24.3 [7.1] 2.5	42.4 [12.4] 31.7 [9.3] 2.6	39.8 [11.7] 27.2 [8] 2.5	40.1 [11.8] 27.8 [8.1] 2.5	39.1 [11.5] 35.5 [10.4] 2.5	36.8 [10.8] 30.4 [8.9] 2.5	37.1 [10.9] 31.1 [9.1] 2.5	
90°F [32.2°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	44.5 [13] 27.2 [8] 2.7	42.1 [12.3] 23.9 [7] 2.7	41.4 [12.1] 31.2 [9.1] 2.7	38.9 [11.4] 26.8 [7.9] 2.7	39.2 [11.5] 27.4 [8] 2.7	38.2 [11.2] 35 [10.3] 2.7	35.9 [10.5] 30 [8.8] 2.6	36.2 [10.6] 30.7 [9] 2.6	
95°F [35.0°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	43.4 [12.7] 26.5 [7.8] 2.9	40.7 [11.9] 22.7 [6.7] 2.8	40.3 [11.8] 30.5 [8.9] 2.9	37.9 [11.1] 26.1 [7.6] 2.8	38.2 [11.2] 26.7 [7.8] 2.8	37.1 [10.9] 34.3 [10.1] 2.8	34.8 [10.2] 29.4 [8.6] 2.7	35.1 [10.3] 30.1 [8.8] 2.7	
100°F [37.8°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	42.1 [12.3] 25.6 [7.5] 3	39.8 [11.7] 22.4 [6.6] 2.9	39 [11.4] 29.6 [8.7] 3	36.8 [10.7] 25.3 [7.4] 2.9	36.9 [10.8] 25.9 [7.6] 2.9	35.8 [10.5] 33.4 [9.8] 2.9	33.6 [9.8] 28.6 [8.4] 2.9	33.9 [9.9] 29.2 [8.6] 2.9	
105°F [40.6°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	40.5 [11.9] 24.5 [7.2] 3.1	38.4 [11.3] 21.4 [6.3] 3.1	37.5 [11] 28.4 [8.3] 3.1	35.2 [10.3] 24.4 [7.2] 3	35.5 [10.4] 24.9 [7.3] 3.1	34.3 [10.1] 32.2 [9.4] 3.1	32.2 [9.4] 27.6 [8.1] 3	32.5 [9.5] 28.2 [8.3] 3	
110°F [43.3°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	38.9 [11.4] 23.1 [6.8] 3.3	36.8 [10.8] 20.2 [5.9] 3.2	35.8 [10.5] 27.1 [7.9] 3.3	33.6 [9.8] 23.2 [6.8] 3.2	33.9 [9.9] 23.7 [6.9] 3.2	32.6 [9.6] 30.9 [9.1] 3.2	30.6 [9] 26.5 [7.8] 3.1	30.9 [9.1] 27.1 [7.9] 3.1	
115°F [46.1°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	37 [10.8] 21.5 [6.3] 3.4	35 [10.3] 18.9 [5.5] 3.3	33.9 [9.9] 25.5 [7.5] 3.4	31.9 [9.3] 21.9 [6.4] 3.3	32.1 [9.4] 22.4 [6.6] 3.3	30.7 [9] 29.3 [8.6] 3.3	28.8 [8.4] 25.1 [7.4] 3.2	29.1 [8.5] 25.7 [7.5] 3.3	
120°F [48.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	34.9 [10.2] 19.8 [5.8] 3.5	32.8 [9.6] 17 [5] 3.4	31.8 [9.3] 23.8 [7] 3.5	29.9 [8.8] 20.4 [6] 3.4	30.2 [8.9] 20.8 [6.1] 3.4	28.6 [8.4] 27.6 [8.1] 3.5	26.9 [7.9] 23.6 [6.9] 3.4	27.1 [7.9] 24.2 [7.1] 3.4	
125°F [51.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	32.9 [9.6] 17.8 [5.2] 3.7	30.9 [9.1] 15.6 [4.6] 3.6	29.6 [8.7] 21.8 [6.4] 3.7	27.8 [8.1] 18.7 [5.5] 3.6	28 [8.2] 19.1 [5.6] 3.6	26.4 [7.7] 25.6 [7.5] 3.6	24.7 [7.2] 21.9 [6.4] 3.5	25 [7.3] 22.4 [6.6] 3.5	

Outdoor Dry Bulb Temperature °F [°C]

DR — Depression ratio Total — Total capacity x 1000 BTUH NOTES:
dbE — Entering air dry bulb Sens — Sensible capacity x 1000 BTUH When the entering air dry bulb is other than 80°F [27°C], adjust the sensible
wB/E — Entering air wet bulb Power — KW input capacity from the table by adding [1.10 x CFM x (1 – DR) x (dbE – 80)].

P. APPENDICES

Appendix D – Cooling Data for YC 4 Ton

COOLING PERFORMANCE DATA – (+)ACCYCO48												
Entering Indoor Air @ 80°F [26.7°C] dbE												
wB/E	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			63°F [17.2°C]		
	1875 [885]	1450 [684]	1450 [684]	1875 [885]	1450 [684]	1450 [684]	1875 [885]	1450 [684]	1450 [684]	1875 [885]	1450 [684]	1450 [684]
CFM [L/s]	.05	.09	.12	.05	.09	.12	.05	.09	.12	.05	.09	.12
DR												
75°F [23.9°C]	Total KBtu/h [kW]	63.3 [18.6]	60.1 [17.6]	58.9 [17.3]	56 [16.4]	56 [16.4]	58.9 [17.3]	56 [16.4]	56 [16.4]	55.3 [16.2]	52.5 [15.4]	52.5 [15.4]
	Sens KBtu/h [kW]	36.8 [10.8]	32.4 [9.5]	42.7 [12.5]	37.5 [11]	37.5 [11]	42.7 [12.5]	37.5 [11]	37.5 [11]	49.4 [14.5]	43.5 [12.7]	43.5 [12.7]
	Power	3.2	3.1	3.2	3.1	3.1	3.2	3.1	3.1	3.2	3.1	3.1
80°F [26.7°C]	Total KBtu/h [kW]	61.8 [18.1]	58.6 [17.2]	57.4 [16.8]	54.5 [16]	54.5 [16]	57.4 [16.8]	54.5 [16]	54.5 [16]	53.8 [15.8]	51.1 [15]	51.1 [15]
	Sens KBtu/h [kW]	35.9 [10.5]	31.6 [9.3]	41.8 [12.3]	36.8 [10.8]	36.8 [10.8]	41.8 [12.3]	36.8 [10.8]	36.8 [10.8]	48.5 [14.2]	42.7 [12.5]	42.7 [12.5]
	Power	3.4	3.3	3.4	3.3	3.3	3.4	3.3	3.3	3.3	3.2	3.2
85°F [29.4°C]	Total KBtu/h [kW]	60.2 [17.6]	57.2 [16.8]	57.2 [16.8]	53 [15.5]	53 [15.5]	55.8 [16.4]	53 [15.5]	53 [15.5]	52.2 [15.3]	49.6 [14.5]	49.6 [14.5]
	Sens KBtu/h [kW]	35 [10.3]	30.8 [9]	30.8 [9]	36 [10.6]	36 [10.6]	40.9 [12]	36 [10.6]	36 [10.6]	47.7 [14]	41.9 [12.3]	41.9 [12.3]
	Power	3.5	3.5	3.5	3.4	3.4	3.5	3.4	3.4	3.5	3.4	3.4
90°F [32.2°C]	Total KBtu/h [kW]	58.6 [17.2]	55.7 [16.3]	55.7 [16.3]	51.5 [15.1]	51.5 [15.1]	54.2 [15.9]	51.5 [15.1]	51.5 [15.1]	50.6 [14.8]	48.1 [14.1]	48.1 [14.1]
	Sens KBtu/h [kW]	34.1 [10]	30 [8.8]	30 [8.8]	35.2 [10.3]	35.2 [10.3]	40 [11.7]	35.2 [10.3]	35.2 [10.3]	46.8 [13.7]	41.1 [12]	41.1 [12]
	Power	3.7	3.6	3.6	3.6	3.6	3.7	3.6	3.6	3.7	3.6	3.6
95°F [35.0°C]	Total KBtu/h [kW]	57 [16.7]	54.1 [15.9]	54.1 [15.9]	50 [14.7]	50 [14.7]	52.6 [15.4]	50 [14.7]	50 [14.7]	49 [14.4]	46.5 [13.6]	46.5 [13.6]
	Sens KBtu/h [kW]	33.2 [9.7]	29.2 [8.6]	29.2 [8.6]	34.4 [10.1]	34.4 [10.1]	39.1 [11.5]	34.4 [10.1]	34.4 [10.1]	45.8 [13.4]	40.3 [11.8]	40.3 [11.8]
	Power	3.9	3.8	3.8	3.8	3.8	3.9	3.8	3.8	3.9	3.8	3.8
100°F [37.8°C]	Total KBtu/h [kW]	55.4 [16.2]	52.6 [15.4]	52.6 [15.4]	48.4 [14.2]	48.4 [14.2]	51 [14.9]	48.4 [14.2]	48.4 [14.2]	47.4 [13.9]	45 [13.2]	45 [13.2]
	Sens KBtu/h [kW]	32.3 [9.5]	28.4 [8.3]	28.4 [8.3]	33.6 [9.8]	33.6 [9.8]	38.2 [11.2]	33.6 [9.8]	33.6 [9.8]	44.9 [13.2]	39.5 [11.6]	39.5 [11.6]
	Power	4.1	4	4	4	4	4.1	4	4	4.1	4	4
105°F [40.6°C]	Total KBtu/h [kW]	53.8 [15.8]	51 [14.9]	51 [14.9]	46.9 [13.7]	46.9 [13.7]	49.4 [14.5]	46.9 [13.7]	46.9 [13.7]	45.8 [13.4]	43.4 [12.7]	43.4 [12.7]
	Sens KBtu/h [kW]	31.3 [9.2]	27.5 [8.1]	27.5 [8.1]	32.7 [9.6]	32.7 [9.6]	37.2 [10.9]	32.7 [9.6]	32.7 [9.6]	43.9 [12.9]	38.7 [11.3]	38.7 [11.3]
	Power	4.4	4.2	4.2	4.2	4.2	4.3	4.2	4.2	4.3	4.2	4.2
110°F [43.3°C]	Total KBtu/h [kW]	52.1 [15.3]	49.5 [14.5]	49.5 [14.5]	45.3 [13.3]	45.3 [13.3]	47.7 [14]	45.3 [13.3]	45.3 [13.3]	44.1 [12.9]	41.9 [12.3]	41.9 [12.3]
	Sens KBtu/h [kW]	30.3 [8.9]	26.7 [7.8]	26.7 [7.8]	31.9 [9.3]	31.9 [9.3]	36.2 [10.6]	31.9 [9.3]	31.9 [9.3]	43 [12.6]	37.8 [11.1]	37.8 [11.1]
	Power	4.6	4.5	4.5	4.4	4.4	4.6	4.4	4.4	4.5	4.4	4.4
115°F [46.1°C]	Total KBtu/h [kW]	50.4 [14.8]	47.9 [14]	47.9 [14]	43.7 [12.8]	43.7 [12.8]	46 [13.5]	43.7 [12.8]	43.7 [12.8]	42.4 [12.4]	40.3 [11.8]	40.3 [11.8]
	Sens KBtu/h [kW]	29.2 [8.6]	25.8 [7.6]	25.8 [7.6]	31 [9.1]	31 [9.1]	35.2 [10.3]	31 [9.1]	31 [9.1]	42 [12.3]	36.9 [10.8]	36.9 [10.8]
	Power	4.8	4.7	4.7	4.7	4.7	4.8	4.7	4.7	4.8	4.7	4.7
120°F [48.9°C]	Total KBtu/h [kW]	48.7 [14.3]	46.3 [13.6]	46.3 [13.6]	42.1 [12.3]	42.1 [12.3]	44.3 [13]	42.1 [12.3]	42.1 [12.3]	40.7 [11.9]	38.7 [11.3]	38.7 [11.3]
	Sens KBtu/h [kW]	28.3 [8.3]	24.9 [7.3]	24.9 [7.3]	30.1 [8.8]	30.1 [8.8]	34.2 [10]	30.1 [8.8]	30.1 [8.8]	40.7 [11.9]	36 [10.6]	36 [10.6]
	Power	5.1	5	5	4.9	4.9	5.1	4.9	4.9	5.1	4.9	4.9
125°F [51.7°C]	Total KBtu/h [kW]	47 [13.8]	44.7 [13.1]	44.7 [13.1]	40.5 [11.9]	40.5 [11.9]	42.6 [12.5]	40.5 [11.9]	40.5 [11.9]	39 [11.4]	37.1 [10.9]	37.1 [10.9]
	Sens KBtu/h [kW]	27.3 [8]	24 [7]	24 [7]	29.2 [8.6]	29.2 [8.6]	33.2 [9.7]	29.2 [8.6]	29.2 [8.6]	39 [11.4]	35.1 [10.3]	35.1 [10.3]
	Power	5.4	5.2	5.2	5.2	5.2	5.4	5.2	5.2	5.3	5.2	5.2

Outdoor Dry Bulb Temperature °F [°C]

DR —Depression ratio Total —Total capacity x 1000 BTUH NOTES:
dbE —Entering air dry bulb Sens —Sensible capacity x 1000 BTUH When the entering air dry bulb is other than 80°F [27°C], adjust the sensible
wbE—Entering air wet bulb Power—KW input capacity from the table by adding [1.10 x CFM x (1 – DR) x (dbE – 80)].

Appendix D – Cooling Data for YC 5 Ton

COOLING PERFORMANCE DATA - (+)ACCYCO60												
Entering Indoor Air @ 80°F [26.7°C] dbE												
wB/E	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			DR		
	CFM [L/s]	Total KBtu/h [kW]	Sens KBtu/h [kW]	Power	CFM [L/s]	Total KBtu/h [kW]	Sens KBtu/h [kW]	Power	CFM [L/s]	Total KBtu/h [kW]	Sens KBtu/h [kW]	Power
75°F [23.9°C]												
		76.1 [22.3]	43.5 [12.7]	4.2		68.8 [20.2]	50 [14.7]	4.2		63.7 [18.7]	56.3 [16.5]	4.2
		73.4 [21.5]	39.8 [11.7]	4.2		72.5 [21.2]	38.5 [11.3]	4.1		65.5 [19.2]	51.5 [15.1]	4.1
		71.7 [21]	38.9 [11.4]	4.4		70.9 [20.8]	37.7 [11.1]	4.3		63.9 [18.7]	50.6 [14.8]	4.3
80°F [26.7°C]												
		74.4 [21.8]	42.6 [12.5]	4.4		67 [19.6]	49.1 [14.4]	4.4		62 [18.2]	55.4 [16.2]	4.4
		71.7 [21]	38.9 [11.4]	4.4		65.2 [19.1]	48.2 [14.1]	4.7		60.1 [17.6]	54.5 [16]	4.6
		70.2 [20.5]	38.1 [11.2]	4.6		63.3 [18.6]	47.2 [13.8]	4.9		58.3 [17.1]	53.5 [15.7]	4.8
85°F [29.4°C]												
		72.6 [21.3]	41.7 [12.2]	4.7		66.3 [19.6]	50.1 [14.4]	4.8		61.1 [17.9]	56.2 [16.5]	4.7
		70.2 [20.5]	38.1 [11.2]	4.6		64.4 [18.9]	48.2 [14.1]	4.8		59.2 [17.4]	54.3 [15.9]	5.1
		68.7 [20.1]	36.2 [10.6]	5		62.4 [18.3]	46.2 [13.5]	5.1		57.3 [16.8]	52.4 [15.4]	5.3
90°F [32.2°C]												
		70.7 [20.7]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		68.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.3 [16.5]	4.8
		66.7 [20.1]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1
95°F [35.0°C]												
		68.7 [20.1]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		66.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.2 [16.5]	4.7
		64.7 [19]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1
100°F [37.8°C]												
		68.7 [20.1]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		66.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.2 [16.5]	4.7
		64.7 [19]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1
105°F [40.6°C]												
		68.7 [20.1]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		66.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.2 [16.5]	4.7
		64.7 [19]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1
110°F [43.3°C]												
		68.7 [20.1]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		66.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.2 [16.5]	4.7
		64.7 [19]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1
115°F [46.1°C]												
		68.7 [20.1]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		66.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.2 [16.5]	4.7
		64.7 [19]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1
120°F [48.9°C]												
		68.7 [20.1]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		66.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.2 [16.5]	4.7
		64.7 [19]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1
125°F [51.7°C]												
		68.7 [20.1]	40.7 [11.9]	4.9		67.3 [19.7]	51.4 [14.8]	4.9		63.9 [18.7]	58.3 [17.1]	4.8
		66.7 [20.1]	39.6 [11.6]	5.1		65.5 [19.2]	49.1 [14.4]	5.1		62.1 [18.2]	56.2 [16.5]	4.7
		64.7 [19]	37.4 [11.1]	5.5		63.6 [18.6]	47.2 [13.8]	5.3		60.3 [17.7]	54.3 [15.9]	5.1

Outdoor Dry Bulb Temperature °F [°C]

DR —Depression ratio Total —Total capacity x 1000 BTUH NOTES:
 dbE —Entering air dry bulb Sens —Sensible capacity x 1000 BTUH When the entering air dry bulb is other than 80°F [27°C], adjust the sensible
 wB/E—Entering air wet bulb Power—KW input capacity from the table by adding [1.10 x CFM x (1 – DR) x (dbE – 80)].

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Appendix D – Reheat Data for YB 3 Ton

GROSS SYSTEMS PERFORMANCE DATA (HIGH REHEAT MODE) - (-)ACCYB036											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			1350 [637]	1168 [551]	1050 [496]	1350 [637]	1168 [551]	1050 [496]	1350 [637]	1168 [551]	1050 [496]
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	18.7 [5.5] 2.8 [0.8] 2	18.1 [5.3] 2.6 [0.8] 2	17.8 [5.2] 2.5 [0.7] 2	18.4 [5.4] 4.7 [1.4] 2	17.9 [5.3] 4.4 [1.3] 2	17.6 [5.2] 4.2 [1.2] 2	17.3 [5.1] 5.9 [1.7] 2.1	16.8 [4.9] 5.5 [1.6] 2	16.5 [4.8] 5.3 [1.5] 2
	70°F [21.1°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	16.9 [5] 1.8 [0.5] 2.1	16.5 [4.8] 1.7 [0.5] 2	16.2 [4.7] 1.6 [0.5] 2	16.7 [4.9] 3.7 [1.1] 2.1	16.3 [4.8] 3.5 [1] 2	16 [4.7] 3.3 [1] 2	15.6 [4.6] 4.9 [1.4] 2.1	15.2 [4.4] 4.6 [1.3] 2.1	14.9 [4.4] 4.4 [1.3] 2
	80°F [26.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	15 [4.4] 0.4 [0.1] 2.2	14.6 [4.3] 0.4 [0.1] 2.1	14.3 [4.2] 0.4 [0.1] 2.1	14.8 [4.3] 2.4 [0.7] 2.2	14.4 [4.2] 2.2 [0.7] 2.1	14.1 [4.1] 2.1 [0.6] 2.1	13.7 [4] 3.6 [1.1] 2.2	13.3 [3.9] 3.3 [1] 2.2	13 [3.8] 3.2 [0.9] 2.1
	90°F [32.2°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	12.8 [3.8] -1.2 [-0.4] 2.3	12.5 [3.7] -1.2 [-0.3] 2.3	12.3 [3.6] -1.1 [-0.3] 2.3	12.6 [3.7] 0.7 [0.2] 2.3	12.3 [3.6] 0.7 [0.2] 2.3	12 [3.5] 0.6 [0.2] 2.3	11.5 [3.4] 1.9 [0.6] 2.3	11.2 [3.3] 1.8 [0.5] 2.3	11 [3.2] 1.7 [0.5] 2.3
	100°F [37.8°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	10.4 [3.1] -3.2 [-0.9] 2.5	10.1 [3] -3 [-0.9] 2.5	10 [2.9] -2.9 [-0.8] 2.5	10.2 [3] -1.3 [-0.4] 2.5	9.9 [2.9] -1.2 [-0.4] 2.5	9.8 [2.9] -1.1 [-0.3] 2.5	9.1 [2.7] -0.1 [0] 2.5	8.8 [2.6] -0.1 [0] 2.5	8.7 [2.5] -0.1 [0] 2.5
	110°F [43.3°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	7.8 [2.3] -5.6 [-1.6] 2.8	7.6 [2.2] -5.2 [-1.5] 2.7	7.4 [2.2] -5 [-1.5] 2.7	7.6 [2.2] -3.6 [-1.1] 2.8	7.4 [2.2] -3.4 [-1] 2.7	7.2 [2.1] -3.2 [-0.9] 2.7	6.5 [1.9] -2.4 [-0.7] 2.8	6.3 [1.8] -2.3 [-0.7] 2.8	6.2 [1.8] -2.1 [-0.6] 2.7
	120°F [48.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	4.9 [1.4] -8.2 [-2.4] 3.1	4.8 [1.4] -7.7 [-2.3] 3.1	4.7 [1.4] -7.3 [-2.1] 3	4.7 [1.4] -6.3 [-1.8] 3.1	4.6 [1.3] -5.9 [-1.7] 3	4.5 [1.3] -5.6 [-1.6] 3	3.6 [1.1] -5.1 [-1.5] 3.1	3.5 [1] -4.7 [-1.4] 3.1	3.4 [1] -4.5 [-1.3] 3

Appendix D – Reheat Data for YB 4 Ton

GROSS SYSTEMS PERFORMANCE DATA (HIGH REHEAT MODE) - (-)ACCYB048											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]			
CFM [L/s]		1800 [850]	1519 [717]	1400 [661]	1800 [850]	1519 [717]	1400 [661]	1800 [850]	1519 [717]	1400 [661]	
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	25.5 [7.5] 2.6 [0.8] 2.5	24.7 [7.2] 2.4 [0.7] 2.4	24.3 [7.1] 2.3 [0.7] 2.4	24.3 [7.1] 5.2 [1.5] 2.5	23.5 [6.9] 4.8 [1.4] 2.5	23.2 [6.8] 4.6 [1.4] 2.5	22.6 [6.6] 6.7 [2] 2.4	21.8 [6.4] 6.1 [1.8] 2.4	21.5 [6.3] 5.9 [1.7] 2.4
	70°F [21.1°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	24.1 [7.1] 1.9 [0.6] 2.6	23.3 [6.8] 1.8 [0.5] 2.5	23 [6.7] 1.7 [0.5] 2.5	22.9 [6.7] 4.5 [1.3] 2.7	22.2 [6.5] 4.2 [1.2] 2.6	21.8 [6.4] 4 [1.2] 2.6	21.2 [6.2] 6 [1.8] 2.6	20.5 [6] 5.5 [1.6] 2.5	20.2 [5.9] 5.3 [1.6] 2.5
	80°F [26.7°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	22.1 [6.5] 0.4 [0.1] 2.8	21.4 [6.3] 0.4 [0.1] 2.7	21.1 [6.2] 0.4 [0.1] 2.7	20.9 [6.1] 3 [0.9] 2.8	20.2 [5.9] 2.8 [0.8] 2.8	20 [5.8] 2.7 [0.8] 2.8	19.2 [5.6] 4.5 [1.3] 2.7	18.6 [5.4] 4.1 [1.2] 2.7	18.3 [5.4] 4 [1.2] 2.7
	90°F [32.2°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	19.5 [5.7] -1.9 [-0.5] 3	18.9 [5.5] -1.7 [-0.5] 2.9	18.6 [5.5] -1.7 [-0.5] 2.9	18.3 [5.4] 0.7 [0.2] 3	17.7 [5.2] 0.7 [0.2] 3	17.5 [5.1] 0.6 [0.2] 3	16.6 [4.9] 2.2 [0.6] 3	16.1 [4.7] 2 [0.6] 2.9	15.8 [4.6] 1.9 [0.6] 2.9
	100°F [37.8°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	16.4 [4.8] -5 [-1.5] 3.3	15.8 [4.6] -4.6 [-1.4] 3.2	15.6 [4.6] -4.4 [-1.3] 3.2	15.2 [4.4] -2.4 [-0.7] 3.3	14.7 [4.3] -2.2 [-0.7] 3.3	14.5 [4.2] -2.1 [-0.6] 3.3	13.4 [3.9] -0.9 [-0.3] 3.2	13 [3.8] -0.9 [-0.3] 3.2	12.8 [3.8] -0.8 [-0.2] 3.2
	110°F [43.3°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	12.6 [3.7] -9 [-2.6] 3.6	12.2 [3.6] -8.3 [-2.4] 3.6	12 [3.5] -8 [-2.3] 3.5	11.4 [3.3] -6.4 [-1.9] 3.7	11 [3.2] -5.9 [-1.7] 3.6	10.9 [3.2] -5.6 [-1.7] 3.6	9.7 [2.8] -4.9 [-1.4] 3.6	9.4 [2.7] -4.5 [-1.3] 3.5	9.2 [2.7] -4.3 [-1.3] 3.5
	120°F [48.9°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	8.2 [2.4] -13.7 [-4] 4	8 [2.3] -12.7 [-3.7] 4	7.9 [2.3] -12.2 [-3.6] 3.9	7.1 [2.1] -11.1 [-3.3] 4.1	6.8 [2] -10.3 [-3] 4	6.7 [2] -9.9 [-2.9] 4	5.3 [1.6] -9.7 [-2.8] 4	5.2 [1.5] -8.9 [-2.6] 3.9	5.1 [1.5] -8.6 [-2.5] 3.9

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Appendix D – Reheat Data for YB 5 Ton

GROSS SYSTEMS PERFORMANCE DATA (HIGH REHEAT MODE) - (-)ACCYB060										
Entering Indoor Air @ 75°F [23.9°C] dbE 1										
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]		2250 [1062]	1825 [861]	1750 [826]	2250 [1062]	1825 [861]	1750 [826]	2250 [1062]	1825 [861]	1750 [826]
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	29.1 [8.5] 1.9 [0.5] 3.5	27.9 [8.2] 1.7 [0.5] 3.5	27.7 [8.1] 1.7 [0.5] 3.5	28.5 [8.3] 5.1 [1.5] 3.5	27.3 [8] 4.6 [1.3] 3.5	27.1 [7.9] 4.5 [1.3] 3.4	26.6 [7.8] 7.9 [2.3] 3.5	25.5 [7.5] 7.1 [2.1] 3.5
	70°F [21.1°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	27.5 [8] 0.6 [0.2] 3.6	26.3 [7.7] 0.6 [0.2] 3.6	26.2 [7.7] 0.6 [0.2] 3.6	26.8 [7.9] 3.8 [1.1] 3.6	25.7 [7.5] 3.4 [1] 3.6	25.5 [7.5] 3.4 [1] 3.5	24.9 [7.3] 6.7 [2] 3.6	23.9 [7] 6 [1.8] 3.6
	80°F [26.7°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	25.2 [7.4] -1.2 [-0.4] 3.8	24.2 [7.1] -1.1 [-0.3] 3.8	24 [7] -1.1 [-0.3] 3.7	24.5 [7.2] 2 [0.6] 3.8	23.5 [6.9] 1.8 [0.5] 3.7	23.4 [6.8] 1.8 [0.5] 3.7	22.6 [6.6] 4.8 [1.4] 3.8	21.7 [6.4] 4.4 [1.3] 3.8
	90°F [32.2°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	22.3 [6.5] -3.6 [-1.1] 4.1	21.4 [6.3] -3.3 [-1] 4	21.2 [6.2] -3.2 [-0.9] 4	21.6 [6.3] -0.4 [-0.1] 4.1	20.8 [6.1] -0.4 [-0.1] 4	20.6 [6] -0.4 [-0.1] 4	19.7 [5.8] 2.4 [0.7] 4.1	18.9 [5.5] 2.2 [0.6] 4
	100°F [37.8°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	18.7 [5.5] -6.7 [-1.9] 4.5	18 [5.3] -6 [-1.8] 4.4	17.8 [5.2] -5.9 [-1.7] 4.4	18.1 [5.3] -3.5 [-1] 4.5	17.4 [5.1] -3.1 [-0.9] 4.4	17.2 [5.1] -3.1 [-0.9] 4.4	16.2 [4.7] -0.6 [-0.2] 4.5	15.5 [4.6] -0.6 [-0.2] 4.4
	110°F [43.3°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	14.6 [4.3] -10.3 [-3] 5	14 [4.1] -9.3 [-2.7] 4.9	13.9 [4.1] -9.1 [-2.7] 4.9	13.9 [4.1] -7.1 [-2.1] 5	13.4 [3.9] -6.4 [-1.9] 4.9	13.3 [3.9] -6.2 [-1.8] 4.8	12 [3.5] -4.2 [-1.2] 5	11.6 [3.4] -3.8 [-1.1] 4.9
	120°F [48.9°C]	Total KBtu/h [kW] Sens KBtu/h [kW] Power	9.8 [2.9] -14.5 [-4.2] 5.6	9.4 [2.8] -13 [-3.8] 5.4	9.3 [2.7] -12.8 [-3.7] 5.4	9.2 [2.7] -11.3 [-3.3] 5.5	8.8 [2.6] -10.2 [-3] 5.4	8.7 [2.6] -10 [-2.9] 5.4	7.3 [2.1] -8.4 [-2.5] 5.5	7 [2] -7.6 [-2.2] 5.4

Appendix D – Reheat Data for YB 6 Ton

GROSS SYSTEMS PERFORMANCE DATA (LOW REHEAT MODE) - (-)ACCYB072											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]			
CFM [L/s]		1710 [807]	1523 [719]	1330 [628]	1710 [807]	1523 [719]	1330 [628]	1710 [807]	1523 [719]	1330 [628]	
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	35.8 [10.5] 12.8 [3.7] 2.3	35 [10.3] 12.1 [3.5] 2.2	34.2 [10] 11.4 [3.3] 2.2	32.5 [9.5] 12.6 [3.7] 2.3	31.8 [9.3] 12 [3.5] 2.3	31 [9.1] 11.3 [3.3] 2.3	31.4 [9.2] 16.2 [4.8] 2.2	30.7 [9] 15.3 [4.5] 2.2	30 [8.8] 14.4 [4.2] 2.2
	70°F [21.1°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	34.3 [10.1] 11.5 [3.4] 2.4	33.6 [9.8] 10.8 [3.2] 2.4	32.8 [9.6] 10.2 [3] 2.4	31 [9.1] 11.3 [3.3] 2.5	30.3 [8.9] 10.7 [3.1] 2.4	29.6 [8.7] 10.1 [3] 2.4	30 [8.8] 14.9 [4.4] 2.4	29.3 [8.6] 14.1 [4.1] 2.3	28.6 [8.4] 13.3 [3.9] 2.3
	80°F [26.7°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	32.6 [9.6] 10 [2.9] 2.6	31.9 [9.4] 9.4 [2.8] 2.6	31.2 [9.1] 8.9 [2.6] 2.5	29.4 [8.6] 9.8 [2.9] 2.6	28.7 [8.4] 9.3 [2.7] 2.6	28.1 [8.2] 8.8 [2.6] 2.6	28.3 [8.3] 13.4 [3.9] 2.5	27.7 [8.1] 12.7 [3.7] 2.5	27 [7.9] 11.9 [3.5] 2.5
	90°F [32.2°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	30.8 [9] 8.3 [2.4] 2.8	30.1 [8.8] 7.9 [2.3] 2.8	29.4 [8.6] 7.4 [2.2] 2.7	27.5 [8.1] 8.2 [2.4] 2.8	26.9 [7.9] 7.7 [2.3] 2.8	26.3 [7.7] 7.3 [2.1] 2.8	26.4 [7.7] 11.8 [3.4] 2.7	25.8 [7.6] 11.1 [3.3] 2.7	25.2 [7.4] 10.5 [3.1] 2.7
	100°F [37.8°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	28.7 [8.4] 6.5 [1.9] 3	28.1 [8.2] 6.1 [1.8] 2.9	27.4 [8] 5.8 [1.7] 2.9	25.4 [7.4] 6.4 [1.9] 3	24.8 [7.3] 6 [1.8] 3	24.3 [7.1] 5.7 [1.7] 2.9	24.3 [7.1] 10 [2.9] 2.9	23.8 [7] 9.4 [2.8] 2.9	23.3 [6.8] 8.9 [2.6] 2.9
	110°F [43.3°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	26.4 [7.7] 4.5 [1.3] 3.2	25.8 [7.6] 4.3 [1.3] 3.1	25.2 [7.4] 4 [1.2] 3.1	23.1 [6.8] 4.4 [1.3] 3.2	22.6 [6.6] 4.2 [1.2] 3.2	22.1 [6.5] 3.9 [1.1] 3.1	22 [6.5] 8 [2.3] 3.1	21.6 [6.3] 7.5 [2.2] 3.1	21.1 [6.2] 7.1 [2.1] 3.1
	120°F [48.9°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	23.9 [7] 2.4 [0.7] 3.4	23.4 [6.9] 2.2 [0.7] 3.3	22.8 [6.7] 2.1 [0.6] 3.3	20.6 [6] 2.2 [0.7] 3.4	20.2 [5.9] 2.1 [0.6] 3.4	19.7 [5.8] 2 [0.6] 3.3	19.6 [5.7] 5.8 [1.7] 3.3	19.1 [5.6] 5.5 [1.6] 3.3	18.7 [5.5] 5.2 [1.5] 3.3

GROSS SYSTEMS PERFORMANCE DATA (HIGH REHEAT MODE) - (-)ACCYB072											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]			
CFM [L/s]		2700 [1274]	2404 [1135]	2100 [991]	2700 [1274]	2404 [1135]	2100 [991]	2700 [1274]	2404 [1135]	2100 [991]	
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	44.6 [13.1] 13.3 [3.9] 3.8	43.6 [12.8] 12.6 [3.7] 3.7	42.6 [12.5] 11.8 [3.5] 3.7	43 [12.6] 15.5 [4.5] 3.7	42.1 [12.3] 14.7 [4.3] 3.7	41.1 [12.1] 13.8 [4] 3.6	39.3 [11.5] 20.2 [5.9] 3.7	38.4 [11.3] 19.1 [5.6] 3.6	37.5 [11] 18 [5.3] 3.6
	70°F [21.1°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	42.4 [12.4] 11.3 [3.3] 3.9	41.5 [12.2] 10.7 [3.1] 3.9	40.6 [11.9] 10.1 [3] 3.8	40.9 [12] 13.6 [4] 3.9	40 [11.7] 12.8 [3.8] 3.8	39.1 [11.5] 12.1 [3.5] 3.8	37.1 [10.9] 18.3 [5.4] 3.8	36.3 [10.6] 17.3 [5.1] 3.8	35.5 [10.4] 16.3 [4.8] 3.7
	80°F [26.7°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	38.9 [11.4] 8.2 [2.4] 4.2	38.1 [11.2] 7.8 [2.3] 4.1	37.2 [10.9] 7.3 [2.1] 4.1	37.4 [11] 10.4 [3.1] 4.1	36.6 [10.7] 9.9 [2.9] 4.1	35.7 [10.5] 9.3 [2.7] 4.1	33.6 [9.9] 15.1 [4.4] 4.1	32.9 [9.6] 14.3 [4.2] 4	32.1 [9.4] 13.5 [4] 4
	90°F [32.2°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	34.1 [10] 3.9 [1.1] 4.5	33.3 [9.8] 3.7 [1.1] 4.5	32.6 [9.5] 3.5 [1] 4.4	32.5 [9.5] 6.1 [1.8] 4.5	31.8 [9.3] 5.8 [1.7] 4.5	31.1 [9.1] 5.5 [1.6] 4.4	28.8 [8.4] 10.8 [3.2] 4.4	28.1 [8.2] 10.2 [3] 4.4	27.5 [8.1] 9.6 [2.8] 4.4
	100°F [37.8°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	27.8 [8.2] -1.6 [-0.5] 5	27.2 [8] -1.5 [-0.4] 4.9	26.6 [7.8] -1.4 [-0.4] 4.9	26.3 [7.7] 0.6 [0.2] 5	25.7 [7.5] 0.6 [0.2] 4.9	25.1 [7.4] 0.6 [0.2] 4.9	22.5 [6.6] 5.3 [1.6] 4.9	22 [6.5] 5 [1.5] 4.9	21.5 [6.3] 4.7 [1.4] 4.8
	110°F [43.3°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	20.2 [5.9] -8.3 [-2.4] 5.6	19.8 [5.8] -7.8 [-2.3] 5.5	19.3 [5.7] -7.4 [-2.2] 5.4	18.7 [5.5] -6.1 [-1.8] 5.5	18.3 [5.4] -5.7 [-1.7] 5.5	17.9 [5.2] -5.4 [-1.6] 5.4	14.9 [4.4] -1.4 [-0.4] 5.5	14.6 [4.3] -1.3 [-0.4] 5.4	14.2 [4.2] -1.2 [-0.4] 5.3
	120°F [48.9°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	11.2 [3.3] -16.2 [-4.7] 6.2	11 [3.2] -15.3 [-4.5] 6.1	10.7 [3.1] -14.4 [-4.2] 6.1	9.7 [2.8] -14 [-4.1] 6.2	9.5 [2.8] -13.2 [-3.9] 6.1	9.3 [2.7] -12.4 [-3.6] 6	5.9 [1.7] -9.3 [-2.7] 6.1	5.8 [1.7] -8.8 [-2.6] 6	5.7 [1.7] -8.2 [-2.4] 6

P. APPENDICES

Appendix D – Reheat Data for YC 3 Ton

GROSS SYSTEMS PERFORMANCE DATA (LOW REHEAT MODE) - (-)ACCYC036 REHEAT											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]			
CFM [L/s]		900 [425]	760 [359]	705 [333]	900 [425]	760 [359]	705 [333]	900 [425]	760 [359]	705 [333]	
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	12.8 [3.7] 3.1 [0.9] 1.1	12.4 [3.6] 2.9 [0.8] 1.1	12.2 [3.6] 2.8 [0.8] 1.1	13.4 [3.9] 5 [1.5] 1.3	12.9 [3.8] 4.6 [1.3] 1.3	12.8 [3.7] 4.4 [1.3] 1.3	13.3 [3.9] 6.8 [2] 1.3	12.8 [3.8] 6.3 [1.8] 1.3	12.7 [3.7] 6 [1.8] 1.3
	65°F [18.3°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	12.2 [3.6] 2.4 [0.7] 1.2	11.8 [3.5] 2.2 [0.6] 1.2	11.7 [3.4] 2.1 [0.6] 1.2	12.8 [3.8] 4.2 [1.2] 1.4	12.4 [3.6] 3.9 [1.1] 1.4	12.2 [3.6] 3.8 [1.1] 1.4	12.7 [3.7] 6.1 [1.8] 1.4	12.3 [3.6] 5.6 [1.6] 1.4	12.1 [3.6] 5.4 [1.6] 1.4
	70°F [21.1°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	11.6 [3.4] 1.6 [0.5] 1.3	11.2 [3.3] 1.5 [0.4] 1.3	11.1 [3.2] 1.4 [0.4] 1.3	12.2 [3.6] 3.5 [1] 1.5	11.8 [3.5] 3.2 [0.9] 1.5	11.7 [3.4] 3.1 [0.9] 1.5	12.1 [3.5] 5.3 [1.6] 1.5	11.7 [3.4] 4.9 [1.4] 1.5	11.5 [3.4] 4.7 [1.4] 1.5
	75°F [23.9°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	10.9 [3.2] 0.8 [0.2] 1.4	10.5 [3.1] 0.7 [0.2] 1.4	10.4 [3] 0.7 [0.2] 1.4	11.5 [3.4] 2.7 [0.8] 1.6	11.1 [3.3] 2.5 [0.7] 1.6	11 [3.2] 2.4 [0.7] 1.6	11.4 [3.3] 4.5 [1.3] 1.6	11 [3.2] 4.1 [1.2] 1.6	10.9 [3.2] 4 [1.2] 1.6
	80°F [26.7°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	10.1 [3] -0.1 [0] 1.5	9.8 [2.9] -0.1 [0] 1.5	9.7 [2.8] -0.1 [0] 1.5	10.7 [3.1] 1.8 [0.5] 1.7	10.4 [3] 1.7 [0.5] 1.7	10.2 [3] 1.6 [0.5] 1.7	10.6 [3.1] 3.6 [1.1] 1.7	10.3 [3] 3.3 [1] 1.7	10.1 [3] 3.2 [0.9] 1.7
	85°F [29.4°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	9.3 [2.7] -1 [-0.3] 1.6	9 [2.6] -0.9 [-0.3] 1.6	8.9 [2.6] -0.9 [-0.3] 1.6	9.9 [2.9] 0.9 [0.3] 1.8	9.6 [2.8] 0.8 [0.2] 1.8	9.4 [2.8] 0.8 [0.2] 1.8	9.8 [2.9] 2.7 [0.8] 1.8	9.4 [2.8] 2.5 [0.7] 1.8	9.3 [2.7] 2.4 [0.7] 1.8
	90°F [32.2°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	8.3 [2.4] -1.9 [-0.6] 1.7	8.1 [2.4] -1.8 [-0.5] 1.7	8 [2.3] -1.7 [-0.5] 1.7	8.9 [2.6] 0 [0] 1.9	8.7 [2.5] 0 [0] 1.9	8.5 [2.5] 0 [0] 1.9	8.8 [2.6] 1.8 [0.5] 1.9	8.5 [2.5] 1.6 [0.5] 1.9	8.4 [2.5] 1.6 [0.5] 1.9

GROSS SYSTEMS PERFORMANCE DATA (HIGH REHEAT MODE) - (-)ACCYC036 REHEAT											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]			
CFM [L/s]		1350 [637]	1055 [498]	1050 [496]	1350 [637]	1055 [498]	1050 [496]	1350 [637]	1055 [498]	1050 [496]	
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	16.3 [4.8] 0.2 [0] 2.1	15.6 [4.6] 0.1 [0] 2	15.5 [4.6] 0.1 [0] 2	16.1 [4.7] 1.8 [0.5] 2.2	15.3 [4.5] 1.6 [0.5] 2.1	15.3 [4.5] 1.6 [0.5] 2.1	14.8 [4.3] 3.2 [0.9] 2.1	14.1 [4.1] 2.8 [0.8] 2	14.1 [4.1] 2.8 [0.8] 2
	70°F [21.1°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	15.6 [4.6] -0.5 [-0.1] 2.2	14.9 [4.4] -0.4 [-0.1] 2.1	14.9 [4.4] -0.4 [-0.1] 2.1	15.4 [4.5] 1.1 [0.3] 2.3	14.6 [4.3] 1 [0.3] 2.2	14.6 [4.3] 1 [0.3] 2.2	14.1 [4.1] 2.5 [0.7] 2.2	13.4 [3.9] 2.2 [0.7] 2.1	13.4 [3.9] 2.2 [0.7] 2.1
	80°F [26.7°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	14.6 [4.3] -1.5 [-0.4] 2.3	13.8 [4.1] -1.4 [-0.4] 2.3	13.8 [4.1] -1.4 [-0.4] 2.3	14.3 [4.2] 0.1 [0] 2.4	13.6 [4] 0.1 [0] 2.4	13.6 [4] 0.1 [0] 2.4	13 [3.8] 1.5 [0.4] 2.3	12.4 [3.6] 1.3 [0.4] 2.3	12.4 [3.6] 1.3 [0.4] 2.3
	90°F [32.2°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	13.1 [3.8] -2.9 [-0.9] 2.5	12.5 [3.7] -2.6 [-0.8] 2.4	12.4 [3.6] -2.6 [-0.8] 2.4	12.8 [3.8] -1.3 [-0.4] 2.6	12.2 [3.6] -1.1 [-0.3] 2.5	12.2 [3.6] -1.1 [-0.3] 2.5	11.6 [3.4] 0.1 [0] 2.5	11 [3.2] 0.1 [0] 2.4	11 [3.2] 0.1 [0] 2.4
	100°F [37.8°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	11.3 [3.3] -4.7 [-1.4] 2.7	10.7 [3.1] -4.1 [-1.2] 2.6	10.7 [3.1] -4.1 [-1.2] 2.6	11 [3.2] -3 [-0.9] 2.8	10.5 [3.1] -2.7 [-0.8] 2.7	10.4 [3.1] -2.7 [-0.8] 2.7	9.7 [2.8] -1.6 [-0.5] 2.7	9.3 [2.7] -1.4 [-0.4] 2.6	9.2 [2.7] -1.4 [-0.4] 2.6
	110°F [43.3°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	9.1 [2.7] -6.8 [-2] 2.9	8.6 [2.5] -6 [-1.8] 2.8	8.6 [2.5] -6 [-1.8] 2.8	8.8 [2.6] -5.1 [-1.5] 3	8.4 [2.5] -4.5 [-1.3] 2.9	8.4 [2.4] -4.5 [-1.3] 2.9	7.5 [2.2] -3.8 [-1.1] 2.9	7.2 [2.1] -3.3 [-1] 2.8	7.2 [2.1] -3.3 [-1] 2.8
	120°F [48.9°C]	Total KBTu/h [kW] Sens KBTu/h [kW] Power	6.5 [1.9] -9.3 [-2.7] 3.1	6.2 [1.8] -8.2 [-2.4] 3.1	6.2 [1.8] -8.2 [-2.4] 3.1	6.2 [1.8] -7.6 [-2.2] 3.2	5.9 [1.7] -6.7 [-2] 3.1	5.9 [1.7] -6.7 [-2] 3.1	4.9 [1.4] -6.2 [-1.8] 3.1	4.7 [1.4] -5.5 [-1.6] 3	4.7 [1.4] -5.5 [-1.6] 3

Appendix D – Reheat Data for YC 4 Ton

GROSS SYSTEMS PERFORMANCE DATA (LOW REHEAT MODE) - (-)ACCYC048 REHEAT											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			1200 [566]	875 [413]	940 [444]	1200 [566]	875 [413]	940 [444]	1200 [566]	875 [413]	940 [444]
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBtu/h [kW]	15 [4.4]	14.1 [4.1]	14.2 [4.2]	13.1 [3.8]	12.2 [3.6]	12.4 [3.6]	14.5 [4.3]	13.6 [4]	13.8 [4]
		Sens KBtu/h [kW]	0.3 [0.1]	0.3 [0.1]	0.3 [0.1]	0.4 [0.1]	0.4 [0.1]	0.4 [0.1]	4 [1.2]	3.4 [1]	3.6 [1]
	Power	2.4	2.3	2.3	2.4	2.3	2.4	2.1	2	2	
	65°F [18.3°C]	Total KBtu/h [kW]	16.1 [4.7]	15.1 [4.4]	15.3 [4.5]	14.1 [4.1]	13.2 [3.9]	13.4 [3.9]	15.6 [4.6]	14.6 [4.3]	14.8 [4.3]
		Sens KBtu/h [kW]	1.5 [0.4]	1.3 [0.4]	1.3 [0.4]	1.6 [0.5]	1.3 [0.4]	1.4 [0.4]	5.2 [1.5]	4.4 [1.3]	4.5 [1.3]
	Power	2.2	2.1	2.1	2.2	2.2	2.2	1.9	1.8	1.8	
	70°F [21.1°C]	Total KBtu/h [kW]	16.8 [4.9]	15.7 [4.6]	15.9 [4.7]	14.8 [4.3]	13.9 [4.1]	14.1 [4.1]	16.3 [4.8]	15.3 [4.5]	15.5 [4.5]
		Sens KBtu/h [kW]	2.2 [0.6]	1.9 [0.6]	2 [0.6]	2.3 [0.7]	2 [0.6]	2 [0.6]	5.9 [1.7]	5 [1.5]	5.2 [1.5]
Power	2.1	2	2	2.1	2.1	2.1	2.1	1.8	1.7	1.7	
75°F [23.9°C]	Total KBtu/h [kW]	17.1 [5]	16 [4.7]	16.2 [4.8]	15.1 [4.4]	14.2 [4.2]	14.4 [4.2]	16.6 [4.9]	15.6 [4.6]	15.8 [4.6]	
	Sens KBtu/h [kW]	2.6 [0.8]	2.2 [0.6]	2.3 [0.7]	2.7 [0.8]	2.3 [0.7]	2.4 [0.7]	6.3 [1.8]	5.3 [1.6]	5.5 [1.6]	
Power	2	1.9	1.9	2	2	2	2	1.7	1.6	1.7	
80°F [26.7°C]	Total KBtu/h [kW]	17 [5]	16 [4.7]	16.2 [4.7]	15.1 [4.4]	14.1 [4.1]	14.3 [4.2]	16.6 [4.9]	15.5 [4.6]	15.7 [4.6]	
	Sens KBtu/h [kW]	2.6 [0.8]	2.2 [0.6]	2.3 [0.7]	2.7 [0.8]	2.3 [0.7]	2.3 [0.7]	6.2 [1.8]	5.3 [1.6]	5.5 [1.6]	
Power	2	1.9	1.9	2	2	2	2	1.7	1.6	1.6	
85°F [29.4°C]	Total KBtu/h [kW]	16.6 [4.9]	15.6 [4.6]	15.8 [4.6]	14.7 [4.3]	13.7 [4]	13.9 [4.1]	16.1 [4.7]	15.1 [4.4]	15.3 [4.5]	
	Sens KBtu/h [kW]	2.2 [0.6]	1.8 [0.5]	1.9 [0.6]	2.3 [0.7]	1.9 [0.6]	2 [0.6]	5.8 [1.7]	5 [1.5]	5.2 [1.5]	
Power	2	1.9	1.9	2	2	2	2	1.7	1.6	1.7	
90°F [32.2°C]	Total KBtu/h [kW]	15.8 [4.6]	14.8 [4.3]	15 [4.4]	13.8 [4.1]	13 [3.8]	13.1 [3.8]	15.3 [4.5]	14.4 [4.2]	14.6 [4.3]	
	Sens KBtu/h [kW]	1.4 [0.4]	1.2 [0.3]	1.2 [0.4]	1.5 [0.4]	1.3 [0.4]	1.3 [0.4]	5.1 [1.5]	4.3 [1.3]	4.5 [1.3]	
Power	2.1	2	2	2.1	2.1	2.1	2.1	1.8	1.7	1.7	

GROSS SYSTEMS PERFORMANCE DATA (LOW REHEAT MODE) - (-)ACCYC048 REHEAT											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			1800 [850]	1460 [689]	1400 [661]	1800 [850]	1460 [689]	1400 [661]	1800 [850]	1460 [689]	1400 [661]
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBTu/h [kW]	25.4 [7.4]	24.3 [7.1]	24.1 [7.1]	24.6 [7.2]	23.6 [6.9]	23.4 [6.9]	21.6 [6.3]	20.7 [6.1]	20.5 [6]
		Sens KBTu/h [kW]	6.8 [2]	6.1 [1.8]	6 [1.8]	7.1 [2.1]	6.4 [1.9]	6.3 [1.9]	4.6 [1.4]	4.2 [1.2]	4.1 [1.2]
	Power	2.5	2.5	2.5	2.4	2.4	2.4	2.2	2.2	2.2	
	65°F [18.3°C]	Total KBTu/h [kW]	23.5 [6.9]	22.5 [6.6]	22.4 [6.6]	22.7 [6.7]	21.8 [6.4]	21.6 [6.3]	19.7 [5.8]	18.9 [5.5]	18.7 [5.5]
		Sens KBTu/h [kW]	5.4 [1.6]	4.9 [1.4]	4.8 [1.4]	5.7 [1.7]	5.2 [1.5]	5.1 [1.5]	3.2 [1]	2.9 [0.9]	2.9 [0.8]
	Power	2.7	2.6	2.6	2.6	2.6	2.5	2.4	2.4	2.4	
	70°F [21.1°C]	Total KBTu/h [kW]	21.4 [6.3]	20.5 [6]	20.4 [6]	20.6 [6.1]	19.8 [5.8]	19.7 [5.8]	17.6 [5.2]	16.9 [4.9]	16.8 [4.9]
Sens KBTu/h [kW]		3.7 [1.1]	3.4 [1]	3.3 [1]	4.1 [1.2]	3.7 [1.1]	3.6 [1.1]	1.6 [0.5]	1.4 [0.4]	1.4 [0.4]	
Power	2.9	2.9	2.9	2.9	2.8	2.8	2.7	2.6	2.6		
75°F [23.9°C]	Total KBTu/h [kW]	19.1 [5.6]	18.3 [5.4]	18.2 [5.3]	18.4 [5.4]	17.6 [5.2]	17.5 [5.1]	15.3 [4.5]	14.7 [4.3]	14.6 [4.3]	
	Sens KBTu/h [kW]	1.8 [0.5]	1.6 [0.5]	1.6 [0.5]	2.1 [0.6]	1.9 [0.6]	1.9 [0.5]	-0.4 [-0.1]	-0.4 [-0.1]	-0.3 [-0.1]	
Power	3.3	3.2	3.2	3.2	3.1	3.1	3	2.9	2.9		
80°F [26.7°C]	Total KBTu/h [kW]	16.6 [4.9]	16 [4.7]	15.8 [4.6]	15.9 [4.7]	15.2 [4.5]	15.1 [4.4]	12.8 [3.8]	12.3 [3.6]	12.2 [3.6]	
	Sens KBTu/h [kW]	-0.5 [-0.1]	-0.4 [-0.1]	-0.4 [-0.1]	-0.1 [0]	-0.1 [0]	-0.1 [0]	-2.6 [-0.8]	-2.4 [-0.7]	-2.3 [-0.7]	
Power	3.7	3.6	3.6	3.6	3.5	3.5	3.4	3.3	3.3		
85°F [29.4°C]	Total KBTu/h [kW]	14 [4.1]	13.4 [3.9]	13.3 [3.9]	13.2 [3.9]	12.7 [3.7]	12.6 [3.7]	10.2 [3]	9.7 [2.9]	9.7 [2.8]	
	Sens KBTu/h [kW]	-3 [-0.9]	-2.7 [-0.8]	-2.7 [-0.8]	-2.7 [-0.8]	-2.4 [-0.7]	-2.3 [-0.7]	-5.2 [-1.5]	-4.7 [-1.4]	-4.6 [-1.3]	
Power	4.2	4.1	4.1	4.1	4	4	3.9	3.8	3.8		
90°F [32.2°C]	Total KBTu/h [kW]	11.1 [3.2]	10.6 [3.1]	10.6 [3.1]	10.3 [3]	9.9 [2.9]	9.8 [2.9]	7.3 [2.1]	7 [2]	6.9 [2]	
	Sens KBTu/h [kW]	-5.8 [-1.7]	-5.2 [-1.5]	-5.1 [-1.5]	-5.5 [-1.6]	-4.9 [-1.4]	-4.8 [-1.4]	-8 [-2.3]	-7.2 [-2.1]	-7 [-2.1]	
Power	4.7	4.7	4.6	4.7	4.6	4.5	4.5	4.4	4.4		

P. APPENDICES

Appendix D – Reheat Data for YC 5 Ton

GROSS SYSTEMS PERFORMANCE DATA (LOW REHEAT MODE) - (-)ACCYC060											
Entering Indoor Air @ 75°F [23.9°C] dB E 1											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			1500 [708]	1215 [573]	1175 [555]	1500 [708]	1215 [573]	1175 [555]	1500 [708]	1215 [573]	1175 [555]
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBTu/h [kW]	26.3 [7.7]	25.3 [7.4]	25.1 [7.4]	24.8 [7.3]	23.8 [7]	23.7 [6.9]	24 [7]	23.1 [6.8]	22.9 [6.7]
		Sens KBTu/h [kW]	7.2 [2.1]	6.5 [1.9]	6.4 [1.9]	8.1 [2.4]	7.3 [2.1]	7.2 [2.1]	10 [2.9]	9 [2.6]	8.9 [2.6]
	Power	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.3	2.3
	65°F [18.3°C]	Total KBTu/h [kW]	25.7 [7.5]	24.7 [7.2]	24.5 [7.2]	24.2 [7.1]	23.2 [6.8]	23.1 [6.8]	23.4 [6.9]	22.5 [6.6]	22.3 [6.5]
		Sens KBTu/h [kW]	6.8 [2]	6.1 [1.8]	6 [1.8]	7.7 [2.3]	7 [2]	6.9 [2]	9.6 [2.8]	8.7 [2.5]	8.5 [2.5]
	Power	2	1.9	1.9	2	2	2	2.4	2.4	2.3	
	70°F [21.1°C]	Total KBTu/h [kW]	25 [7.3]	24 [7]	23.8 [7]	23.5 [6.9]	22.5 [6.6]	22.4 [6.6]	22.7 [6.6]	21.8 [6.4]	21.6 [6.3]
		Sens KBTu/h [kW]	6.3 [1.9]	5.7 [1.7]	5.6 [1.6]	7.2 [2.1]	6.5 [1.9]	6.4 [1.9]	9.1 [2.7]	8.2 [2.4]	8.1 [2.4]
Power	2	2	2	2.1	2	2	2	2.5	2.4	2.4	
75°F [23.9°C]	Total KBTu/h [kW]	24.1 [7.1]	23.1 [6.8]	23 [6.7]	22.6 [6.6]	21.6 [6.3]	21.5 [6.3]	21.8 [6.4]	20.9 [6.1]	20.8 [6.1]	
	Sens KBTu/h [kW]	5.7 [1.7]	5.1 [1.5]	5 [1.5]	6.6 [1.9]	6 [1.7]	5.9 [1.7]	8.5 [2.5]	7.7 [2.2]	7.5 [2.2]	
Power	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.6	2.5	2.5	
80°F [26.7°C]	Total KBTu/h [kW]	23.1 [6.8]	22.1 [6.5]	22 [6.4]	21.5 [6.3]	20.6 [6]	20.5 [6]	20.7 [6.1]	19.9 [5.8]	19.8 [5.8]	
	Sens KBTu/h [kW]	4.9 [1.4]	4.4 [1.3]	4.4 [1.3]	5.8 [1.7]	5.3 [1.5]	5.2 [1.5]	7.7 [2.3]	7 [2]	6.9 [2]	
Power	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.7	2.6	2.6	
85°F [29.4°C]	Total KBTu/h [kW]	21.9 [6.4]	21 [6.1]	20.8 [6.1]	20.3 [6]	19.5 [5.7]	19.4 [5.7]	19.6 [5.7]	18.8 [5.5]	18.6 [5.5]	
	Sens KBTu/h [kW]	4 [1.2]	3.6 [1.1]	3.6 [1]	5 [1.5]	4.5 [1.3]	4.4 [1.3]	6.8 [2]	6.2 [1.8]	6.1 [1.8]	
Power	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.8	2.8	2.8	
90°F [32.2°C]	Total KBTu/h [kW]	20.5 [6]	19.7 [5.8]	19.6 [5.7]	19 [5.6]	18.2 [5.3]	18.1 [5.3]	18.2 [5.3]	17.5 [5.1]	17.4 [5.1]	
	Sens KBTu/h [kW]	3 [0.9]	2.7 [0.8]	2.7 [0.8]	3.9 [1.2]	3.5 [1]	3.5 [1]	5.8 [1.7]	5.2 [1.5]	5.2 [1.5]	
Power	2.5	2.5	2.5	2.6	2.5	2.5	2.5	3	2.9	2.9	

GROSS SYSTEMS PERFORMANCE DATA (HIGH REHEAT MODE) - (-)ACCYC60											
Entering Indoor Air @ 75°F [23.9°C] dbE 1											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			2250 [1062]	1840 [868]	1750 [826]	2250 [1062]	1840 [868]	1750 [826]	2250 [1062]	1840 [868]	1750 [826]
Outdoor Dry Bulb Temperature	60°F [15.6°C]	Total KBtu/h [kW]	37.3 [10.9]	35.8 [10.5]	35.5 [10.4]	35.2 [10.3]	33.9 [9.9]	33.6 [9.8]	34.4 [10.1]	33 [9.7]	32.7 [9.6]
		Sens KBtu/h [kW] Power	20.1 [5.9] 3.2	18.2 [5.3] 3.1	17.8 [5.2] 3.1	18.6 [5.5] 3	16.9 [4.9] 3	16.5 [4.8] 3	20.6 [6] 3.1	18.6 [5.5] 3.1	18.2 [5.3] 3.1
	70°F [21.1°C]	Total KBtu/h [kW]	35.3 [10.3]	33.9 [9.9]	33.6 [9.9]	33.3 [9.8]	32 [9.4]	31.7 [9.3]	32.4 [9.5]	31.2 [9.1]	30.9 [9.1]
		Sens KBtu/h [kW] Power	18.2 [5.3] 3.3	16.5 [4.8] 3.2	16.1 [4.7] 3.2	16.7 [4.9] 3.2	15.1 [4.4] 3.1	14.8 [4.3] 3.1	18.7 [5.5] 3.3	16.9 [5] 3.2	16.5 [4.8] 3.2
	80°F [26.7°C]	Total KBtu/h [kW]	32.8 [9.6]	31.5 [9.2]	31.3 [9.2]	30.8 [9]	29.6 [8.7]	29.3 [8.6]	29.9 [8.8]	28.8 [8.4]	28.5 [8.4]
		Sens KBtu/h [kW] Power	15.7 [4.6] 3.6	14.2 [4.2] 3.5	13.9 [4.1] 3.5	14.2 [4.2] 3.5	12.9 [3.8] 3.4	12.6 [3.7] 3.4	16.2 [4.7] 3.6	14.6 [4.3] 3.5	14.3 [4.2] 3.5
	90°F [32.2°C]	Total KBtu/h [kW]	29.7 [8.7]	28.6 [8.4]	28.3 [8.3]	27.7 [8.1]	26.6 [7.8]	26.4 [7.7]	26.9 [7.9]	25.8 [7.6]	25.6 [7.5]
Sens KBtu/h [kW] Power		12.6 [3.7] 3.9	11.4 [3.3] 3.9	11.1 [3.3] 3.8	11.1 [3.3] 3.8	10.1 [3] 3.7	9.8 [2.9] 3.7	13.1 [3.8] 3.9	11.8 [3.5] 3.8	11.6 [3.4] 3.8	
100°F [37.8°C]	Total KBtu/h [kW]	26.1 [7.7]	25.1 [7.4]	24.9 [7.3]	24.1 [7.1]	23.1 [6.8]	22.9 [6.7]	23.2 [6.8]	22.3 [6.5]	22.1 [6.5]	
	Sens KBtu/h [kW] Power	8.9 [2.6] 4.4	8.1 [2.4] 4.3	7.9 [2.3] 4.3	7.4 [2.2] 4.3	6.7 [2] 4.2	6.6 [1.9] 4.2	9.4 [2.7] 4.4	8.5 [2.5] 4.3	8.3 [2.4] 4.3	
110°F [43.3°C]	Total KBtu/h [kW]	21.9 [6.4]	21.1 [6.2]	20.9 [6.1]	19.9 [5.8]	19.1 [5.6]	18.9 [5.5]	19 [5.6]	18.3 [5.4]	18.1 [5.3]	
	Sens KBtu/h [kW] Power	4.6 [1.4] 4.9	4.2 [1.2] 4.8	4.1 [1.2] 4.8	3.2 [0.9] 4.8	2.9 [0.8] 4.7	2.8 [0.8] 4.7	5.1 [1.5] 4.9	4.6 [1.4] 4.8	4.5 [1.3] 4.8	
120°F [48.9°C]	Total KBtu/h [kW]	17.2 [5]	16.5 [4.8]	16.3 [4.8]	15.1 [4.4]	14.5 [4.3]	14.4 [4.2]	14.3 [4.2]	13.7 [4]	13.6 [4]	
	Sens KBtu/h [kW] Power	-0.3 [-0.1] 5.6	-0.2 [-0.1] 5.5	-0.2 [-0.1] 5.4	-1.7 [-0.5] 5.5	-1.6 [-0.5] 5.4	-1.5 [-0.4] 5.3	0.2 [0.1] 5.6	0.2 [0.1] 5.4	0.2 [0.1] 5.4	

Appendix E – Heater Kit Characteristics for YB

208/230V, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KIT CHARACTERISTICS AND APPLICATION														
Single Power Supply for Both Unit and Heater Kit					Separate Power Supply for Both Unit and Heater Kit									
UNIT MODEL NUMBER (-)ACCVB	Heater Kit			Air Conditioner					Heater Kit			Air Conditioner		
	MODEL NO. RXLJ-	Rated Heater KW @ 208/230	FLA	UNIT MIN. CKT. AMPACITY	UNIT MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	MAX FUSE OR CKT. BKR. SIZE	MAX FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	HEATER KIT MIN. CKT. AMPACITY	HEATER KIT MAX FUSE OR CKT. BKR. SIZE	AIR COND. MIN. CKT. AMPACITY	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	AIR COND. MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST
036AJT HEATER KW	NONE	-/-	-/-	25/25	28/28	35/35	40/40	-	-	25/25	28/28	25/25	35/35	40/40
	DC10JT	7.5/10	36.2/41.7	53/60	57/64	60/60	60/70	46/53	50/60	25/25	28/28	25/25	35/35	40/40
	DC15JT	11.3/15	54.3/62.7	76/86	80/90	80/90	80/90	68/79	70/80	25/25	28/28	25/25	35/35	40/40
048AJT HEATER KW	NONE	-/-	-/-	30/30	34/34	45/45	50/50	-	-	30/30	34/34	30/30	45/45	50/50
	DC10JT	7.5/10	36.2/41.7	53/60	57/64	60/60	60/70	46/53	50/60	30/30	34/34	30/30	45/45	50/50
	DC15JT	11.3/15	54.3/62.7	76/86	80/90	80/90	80/90	68/79	70/80	30/30	34/34	30/30	45/45	50/50
060AJT HEATER KW	NONE	-/-	-/-	38/38	41/41	50/50	60/60	-	-	38/38	41/41	38/38	50/50	60/60
	DC10JT	7.5/10	36.2/41.7	55/62	59/66	60/70	60/70	46/53	50/60	38/38	41/41	38/38	50/50	60/60
	DC15JT	11.3/15	54.3/62.7	78/88	82/92	80/90	90/100	68/79	70/80	38/38	41/41	38/38	50/50	60/60
	DC20JT	15/20	72.2/83.3	100/114	104/118	100/125	110/125	91/105	100/110	38/38	41/41	38/38	50/50	60/60

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Appendix E – Heater Kit Characteristics for YB

208/230V, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KIT CHARACTERISTICS AND APPLICATION													
Separate Power Supply for Both Unit and Heater Kit													
UNIT MODEL NUMBER (-)ACCYB	Heater Kit				Air Conditioner				Heater Kit				
	MODEL NO. RXJ-	Rated Heater KW @ 208/230	FLA	UNIT MIN. CKT. AMPACITY	UNIT MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	MAX FUSE OR CKT. BKR. SIZE	MAX FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	HEATER KIT MIN. CKT. AMPACITY	HEATER KIT MAX FUSE OR CKT. BKR. SIZE	AIR COND. MIN. CKT. AMPACITY	AIR COND. MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST
036ACT HEATER KW	NONE	-/-	-/-	24/24	27/27	35/35	35/35	-	-	24/24	27/27	35/35	35/35
	DC10CP	7.5/10	20.9/24.1	34/38	38/42	35/40	35/40	27/31	30/35	24/24	27/27	35/35	35/35
	DC15CP	11.3/15	31.4/36.2	47/53	51/57	50/60	60/60	40/46	40/50	24/24	27/27	35/35	35/35
	DC20CP	15/20	41.7/48.1	60/68	64/72	60/70	70/80	53/61	60/70	24/24	27/27	35/35	35/35
036ACU HEATER KW	NONE	-/-	-/-	29/29	32/32	40/40	40/40	-	-	29/29	32/32	40/40	40/40
	DC10CP	7.5/10	20.9/24.1	41/45	45/49	45/45	45/50	27/31	30/35	29/29	32/32	40/40	40/40
	DC15CP	11.3/15	31.4/36.2	54/60	58/64	60/60	60/70	40/46	40/50	29/29	32/32	40/40	40/40
	DC20CP	15/20	41.7/48.1	67/75	71/79	70/80	80/80	53/61	60/70	29/29	32/32	40/40	40/40
048ACT HEATER KW	NONE	-/-	-/-	24/24	27/27	35/35	35/35	-	-	24/24	27/27	35/35	35/35
	DC10CP	7.5/10	20.9/24.1	34/38	38/42	35/40	40/45	27/31	30/35	24/24	27/27	35/35	35/35
	DC15CP	11.3/15	31.4/36.2	47/53	51/57	50/60	60/60	40/46	40/50	24/24	27/27	35/35	35/35
	DC20CP	15/20	41.7/48.1	60/68	64/72	60/70	70/80	53/61	60/70	24/24	27/27	35/35	35/35
048ACU HEATER KW	NONE	-/-	-/-	30/30	33/33	40/40	40/40	-	-	30/30	33/33	40/40	40/40
	DC10CP	7.5/10	20.9/24.1	41/45	45/49	45/45	45/50	27/31	30/35	30/30	33/33	40/40	40/40
	DC15CP	11.3/15	31.4/36.2	54/60	58/64	60/60	60/70	40/46	40/50	30/30	33/33	40/40	40/40
	DC20CP	15/20	41.7/48.1	67/75	71/79	70/80	80/80	53/61	60/70	30/30	33/33	40/40	40/40
060ACT HEATER KW	NONE	-/-	-/-	30/30	33/33	45/45	45/45	-	-	30/30	33/33	45/45	45/45
	DC10CP	7.5/10	20.9/24.1	36/40	40/44	45/45	45/45	27/31	30/35	30/30	33/33	45/45	45/45
	DC15CP	11.3/15	31.4/36.2	49/55	53/59	50/60	60/60	40/46	40/50	30/30	33/33	45/45	45/45
	DC20CP	15/20	41.7/48.1	62/70	66/74	70/70	70/80	53/61	60/70	30/30	33/33	45/45	45/45
060ACU HEATER KW	NONE	-/-	-/-	34/34	37/37	45/45	50/50	-	-	34/34	37/37	45/45	50/50
	DC10CP	7.5/10	20.9/24.1	41/45	45/49	45/45	50/50	27/31	30/35	34/34	37/37	45/45	50/50
	DC15CP	11.3/15	31.4/36.2	54/60	58/64	60/60	60/70	40/46	40/50	34/34	37/37	45/45	50/50
	DC20CP	15/20	41.7/48.1	67/75	71/79	70/80	80/80	53/61	60/70	34/34	37/37	45/45	50/50
072ACT HEATER KW	NONE	-/-	-/-	38/38	41/41	50/60	60/60	-	-	39/39	42/42	50/50	60/60
	DC15CP	11.3/15.0	31.4/36.2	52/58	56/62	60/80	60/70	40/46	40/50	39/39	42/42	50/50	60/60
	DC20CP	15.0/20.0	41.7/48.1	65/73	68/76	70/80	70/80	53/61	60/70	39/39	42/42	50/50	60/60
	DC24CP	18.0/24.0	50.0/57.7	75/85	79/88	80/90	80/90	63/73	70/80	39/39	42/42	50/50	60/60
072ACU HEATER KW	NONE	-/-	-/-	38/38	41/41	50/60	60/60	-	-	39/39	42/42	50/50	60/60
	DC15CP	11.3/15.0	31.4/36.2	52/58	56/62	60/80	60/70	40/46	40/50	39/39	42/42	50/50	60/60
	DC20CP	15.0/20.0	41.7/48.1	65/73	68/76	70/80	70/80	53/61	60/70	39/39	42/42	50/50	60/60
	DC24CP	18.0/24.0	50.0/57.7	75/85	79/88	80/90	80/90	63/73	70/80	39/39	42/42	50/50	60/60

Appendix E – Heater Kit Characteristics for YB

460V, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KIT CHARACTERISTICS AND APPLICATION													
Single Power Supply for Both Unit and Heater Kit							Separate Power Supply for Both Unit and Heater Kit						
UNIT MODEL NUMBER (-)ACCYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	MODEL NO. RXJL-	Rated Heater KW @ 460	FLA	UNIT MIN. CKT. AMPACITY	UNIT MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	MAX FUSE OR CKT. BKR. SIZE	MAX FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	HEATER KIT MIN. CKT. AMPACITY	HEATER KIT MAX FUSE OR CKT. BKR. SIZE	AIR COND. MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	
036ADT HEATER KW	NONE	-/-	-/-	10	12	15	15	-	-	10	15	15	
	DC10DNV	10.0	12.0	19	21	20	25	15	15	10	15	15	
	DC15DNV	15.0	18.1	26	29	30	30	23	25	10	15	15	
036ADU HEATER KW	NONE	-/-	-/-	11	13	15	15	-	-	11	15	15	
	DC10DNV	10.0	12.0	20	22	20	25	15	15	11	15	15	
	DC15DNV	15.0	18.1	27	30	30	30	23	25	11	15	15	
048ADT HEATER KW	NONE	-/-	-/-	13	15	15	20	-	-	13	15	15	
	DC10DNV	10.0	12.0	19	21	20	25	15	15	13	15	15	
	DC15DNV	15.0	18.1	26	29	30	30	23	25	13	15	15	
048ADU HEATER KW	NONE	-/-	-/-	13	16	15	20	-	-	13	15	15	
	DC10DNV	10.0	12.0	20	22	20	25	15	15	13	15	15	
	DC15DNV	15.0	18.1	27	30	30	30	23	25	13	15	15	
060ADT HEATER KW	NONE	-/-	-/-	15	17	20	20	-	-	15	15	15	
	DC10DNV	10.0	12.0	20	22	20	25	15	15	15	15	15	
	DC15DNV	15.0	18.1	27	30	30	30	23	25	15	15	15	
060ADU HEATER KW	NONE	-/-	-/-	15	17	20	20	-	-	15	15	15	
	DC10DNV	10.0	12.0	20	22	20	25	15	15	15	15	15	
	DC15DNV	15.0	18.1	27	30	30	30	23	25	15	15	15	
072ADT HEATER KW	NONE	-/-	-/-	18	20	25	25	-	-	18	25	25	
	DC15DNV	15.0	18.1	28	30	30	30	23	25	18	25	25	
	DC20DNV	20.0	24.1	35	38	35	40	31	35	18	25	25	
072ADU HEATER KW	NONE	-/-	-/-	18	20	25	25	-	-	18	25	25	
	DC15DNV	15.0	18.1	28	30	30	30	23	25	18	25	25	
	DC20DNV	20.0	24.1	35	38	35	40	31	35	18	25	25	

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Appendix E – Heater Kit Characteristics for YB

575V, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KIT CHARACTERISTICS AND APPLICATION														
Single Power Supply for Both Unit and Heater Kit					Separate Power Supply for Both Unit and Heater Kit									
UNIT MODEL NUMBER (-)ACCYB	Heater Kit			Air Conditioner					Heater Kit		Air Conditioner			
	MODEL NO. RXJJ-	Rated Heater KW @ 575	FLA	UNIT MIN. CKT. AMPACITY	UNIT MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	MAX FUSE OR CKT. BKR. SIZE	MAX FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	HEATER KIT MIN. CKT. AMPACITY	HEATER KIT MAX FUSE OR CKT. BKR. SIZE	AIR COND. MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST		
036AYT HEATER KW	NONE	-	-	9	10	15	15	-	-	9	10	15		
	DC10Y	10.0	9.6	15	17	15	20	12	15	9	10	15		
	DC15Y	15.0	14.5	22	23	25	25	19	20	9	10	15		
	DC20Y	20.0	19.3	28	29	30	30	25	25	9	10	15		
036AYU HEATER KW	NONE	-	-	11	12	15	15	-	-	11	12	15		
	DC10Y	10.0	9.6	18	20	20	20	12	15	11	12	15		
	DC15Y	15.0	14.5	24	26	25	30	19	20	11	12	15		
	DC20Y	20.0	19.3	30	32	30	35	25	25	11	12	15		
048AYT HEATER KW	NONE	-	-	10	11	15	15	-	-	10	11	15		
	DC10Y	10.0	9.6	15	17	15	20	12	15	10	11	15		
	DC15Y	15.0	14.5	22	23	25	25	19	20	10	11	15		
	DC20Y	20.0	19.3	28	29	30	30	25	25	10	11	15		
048AYU HEATER KW	NONE	-	-	12	14	15	15	-	-	12	14	15		
	DC10Y	10.0	9.6	18	20	20	20	12	15	12	14	15		
	DC15Y	15.0	14.5	24	26	25	30	19	20	12	14	15		
	DC20Y	20.0	19.3	30	32	30	35	25	25	12	14	15		
060AYT HEATER KW	NONE	-	-	13	14	15	15	-	-	13	14	15		
	DC10Y	10.0	9.6	16	18	20	20	12	15	13	14	15		
	DC15Y	15.0	14.5	22	24	25	25	19	20	13	14	15		
	DC20Y	20.0	19.3	28	30	30	30	25	25	13	14	15		
060AYU HEATER KW	NONE	-	-	14	15	20	20	-	-	14	15	20		
	DC10Y	10.0	9.6	18	20	20	20	12	15	14	15	20		
	DC15Y	15.0	14.5	24	26	25	30	19	20	14	15	20		
	DC20Y	20.0	19.3	30	32	30	35	25	25	14	15	20		
072AYT HEATER KW	NONE	-	-	13	14	15	20	-	-	13	14	15		
	DC15Y	15.0	14.5	23	25	25	25	19	20	13	14	15		
	DC20Y	20.0	19.3	29	31	30	35	25	25	13	14	15		
	DC24Y	24.0	23.1	34	35	35	35	29	30	13	14	15		
072AYU HEATER KW	NONE	-	-	13	14	15	20	-	-	13	14	15		
	DC15Y	15.0	14.5	23	25	25	25	19	20	13	14	15		
	DC20Y	20.0	19.3	29	31	30	30	25	25	13	14	15		
	DC24Y	24.0	23.1	34	35	35	35	29	30	13	14	15		

Appendix E – Heater Kit Characteristics for YC

208/230V, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KIT CHARACTERISTICS AND APPLICATION													
Single Power Supply for Both Unit and Heater Kit							Separate Power Supply for Both Unit and Heater Kit						
UNIT MODEL NUMBER (-)ACCYC	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	MODEL NO. RXJJ-	Rated Heater KW @ 208/230	HEATER KIT FLA	UNIT MIN. CKT. AMPACITY	UNIT MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	MAX FUSE OR CKT. BKR. SIZE	MAX FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	HEATER KIT MIN. CKT. AMPACITY	HEATER KIT MAX FUSE OR CKT. BKR. SIZE	AIR COND. MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	
036AJT HEATER KW	NONE *	-/-	-/-	28/28	31/31	40/40	45/45	-	-	28/28	31/31	40/40	
	DC10JT	7.5/10	36.2/41.7	53/60	57/64	60/60	60/70	46/53	50/60	28/28	31/31	40/40	
	DC15JT	11.3/15.0	54.3/62.7	76/86	80/90	80/90	80/90	68/79	70/80	28/28	31/31	40/40	
	DC20JT	15.0/20.0	72.2/83.3	98/112	102/116	100/125	110/125	91/105	100/110	28/28	31/31	40/40	
048AJT HEATER KW	NONE *	-/-	-/-	35/35	38/38	50/50	50/50	-	-	35/35	38/38	50/50	
	DC10JT	7.5/10	36.2/41.7	53/60	57/64	60/60	60/70	46/53	50/60	35/35	38/38	50/50	
	DC15JT	11.3/15.0	54.3/62.7	76/86	80/90	80/90	80/90	68/79	70/80	35/35	38/38	50/50	
	DC20JT	15.0/20.0	72.2/83.3	98/112	102/116	100/125	110/125	91/105	100/110	35/35	38/38	50/50	
060AJT HEATER KW	NONE *	-/-	-/-	41/41	44/44	60/60	60/60	-	-	41/41	44/44	60/60	
	DC10JT	7.5/10	36.2/41.7	55/62	59/66	60/70	60/70	46/53	50/60	41/41	44/44	60/60	
	DC15JT	11.3/15.0	54.3/62.7	78/88	82/92	80/90	90/100	68/79	70/80	41/41	44/44	60/60	
	DC20JT	15.0/20.0	72.2/83.3	100/114	104/118	100/125	110/125	91/105	100/110	41/41	44/44	60/60	

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Appendix E – Heater Kit Characteristics for YC

208/230V, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KIT CHARACTERISTICS AND APPLICATION													
Single Power Supply for Both Unit and Heater Kit							Separate Power Supply for Both Unit and Heater Kit						
UNIT MODEL NUMBER (-)ACCVC	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	MODEL NO. RXJL-	Rated Heater KW @ 208/230	HEATER KIT FLA	UNIT MIN. CKT. AMPACITY	UNIT MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	MAX FUSE OR CKT. BKR. SIZE	MAX FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	HEATER KIT MIN. CKT. AMPACITY	HEATER KIT MAX FUSE OR CKT. BKR. SIZE	AIR COND. MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	
036ACT HEATER KW	NONE *	-/-	-/-	22/22	25/25	30/30	30/30	-	-	22/22	30/30	30/30	
	DC10CP	7.5/10.0	20.9/24.1	34/38	38/42	40/45	40/45	27/31	30/35	22/22	30/30	30/30	
	DC15CP	11.3/15.0	31.4/36.2	47/53	51/57	50/60	60/70	40/46	40/50	22/22	30/30	30/30	
DC20CP	15.0/20.0	41.7/48.1	60/68	64/72	60/70	70/80	70/80	53/61	60/70	22/22	30/30	30/30	
036ACU HEATER KW	NONE *	-/-	-/-	28/28	31/31	35/35	40/40	-	-	28/28	35/35	40/40	
	DC10CP	7.5/10.0	20.9/24.1	41/45	45/49	45/50	45/50	27/31	30/35	28/28	35/35	40/40	
	DC15CP	11.3/15.0	31.4/36.2	54/60	58/64	60/60	60/70	40/46	40/50	28/28	35/35	40/40	
DC20CP	15.0/20.0	41.7/48.1	67/75	71/79	70/80	80/80	80/80	53/61	60/70	28/28	35/35	40/40	
048ACT HEATER KW	NONE *	-/-	-/-	27/27	30/30	35/35	40/40	-	-	27/27	30/30	40/40	
	DC10CP	7.5/10.0	20.9/24.1	34/38	38/42	35/40	40/45	27/31	30/35	27/27	35/35	40/40	
	DC15CP	11.3/15.0	31.4/36.2	47/53	51/57	50/60	60/60	40/46	40/50	27/27	35/35	40/40	
DC20CP	15.0/20.0	41.7/48.1	60/68	64/72	60/70	70/80	70/80	53/61	60/70	27/27	35/35	40/40	
048ACU HEATER KW	NONE *	-/-	-/-	32/32	35/35	40/40	45/45	-	-	32/32	40/40	45/45	
	DC10CP	7.5/10.0	20.9/24.1	41/45	45/49	45/45	45/50	27/31	30/35	32/32	40/40	45/45	
	DC15CP	11.3/15.0	31.4/36.2	54/60	58/64	60/60	60/70	40/46	40/50	32/32	40/40	45/45	
DC20CP	15.0/20.0	41.7/48.1	67/75	71/79	70/80	80/80	80/80	53/61	60/70	32/32	40/40	45/45	
060ACT HEATER KW	NONE *	-/-	-/-	31/31	34/34	40/40	45/45	-	-	31/31	40/40	45/45	
	DC10CP	7.5/10.0	20.9/24.1	36/40	40/44	40/40	45/45	27/31	30/35	31/31	40/40	45/45	
	DC15CP	11.3/15.0	31.4/36.2	49/55	53/59	50/60	60/60	40/46	40/50	31/31	40/40	45/45	
DC20CP	15.0/20.0	41.7/48.1	62/70	66/74	70/70	70/80	70/80	53/61	60/70	31/31	40/40	45/45	
060ACU HEATER KW	NONE *	-/-	-/-	35/35	38/38	45/45	50/50	-	-	35/35	45/45	50/50	
	DC10CP	7.5/10.0	20.9/24.1	41/45	45/49	45/45	50/50	27/31	30/35	35/35	45/45	50/50	
	DC15CP	11.3/15.0	31.4/36.2	54/60	58/64	60/60	60/70	40/46	40/50	35/35	45/45	50/50	
DC20CP	15.0/20.0	41.7/48.1	67/75	71/79	70/80	80/80	80/80	53/61	60/70	35/35	45/45	50/50	

Appendix E – Heater Kit Characteristics for YC

460V, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KIT CHARACTERISTICS AND APPLICATION													
Single Power Supply for Both Unit and Heater Kit							Separate Power Supply for Both Unit and Heater Kit						
UNIT MODEL NUMBER (-)ACCVC	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	MODEL NO. RXLJ-	Rated Heater KW @ 460	HEATER KIT FLA	UNIT MIN. CKT. AMPACITY	UNIT MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	MAX FUSE OR CKT. BKR. SIZE	MAX FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	HEATER KIT MIN. CKT. AMPACITY	HEATER KIT MAX FUSE OR CKT. BKR. SIZE	AIR COND. MIN. CKT. AMPACITY WITH OPTIONAL POWERED EXHAUST	AIR COND. MAX. FUSE OR CKT. BKR. SIZE	AIR COND. MAX. FUSE OR CKT. BKR. SIZE WITH OPTIONAL POWERED EXHAUST	
036ADT HEATER KW	NONE *	-	-	11	13	15	15	-	-	11	13	15	15
	DC10DNV	10.0	12.0	19	21	20	25	15	15	11	13	15	15
	DC15DNV	15.0	18.1	26	29	30	30	23	25	11	13	15	15
036ADU HEATER KW	NONE *	-	-	12	14	15	15	-	-	12	14	15	15
	DC10DNV	10.0	12.0	20	22	20	25	15	15	12	14	15	15
	DC15DNV	15.0	18.1	27	30	30	30	23	25	12	14	15	15
048ADT HEATER KW	NONE *	-	-	14	16	20	20	-	-	14	16	20	20
	DC10DNV	10.0	12.0	19	21	20	25	15	15	14	16	20	20
	DC15DNV	15.0	18.1	26	29	30	30	23	25	14	16	20	20
048ADU HEATER KW	NONE *	-	-	15	17	20	20	-	-	15	17	20	20
	DC10DNV	10.0	12.0	20	22	20	25	15	15	15	17	20	20
	DC15DNV	15.0	18.1	27	30	30	30	23	25	15	17	20	20
060ADT HEATER KW	NONE *	-	-	14	16	20	20	-	-	14	16	15	20
	DC10DNV	10.0	12.0	20	22	20	25	15	15	14	16	15	20
	DC15DNV	15.0	18.1	27	30	30	30	23	25	14	16	15	20
060ADU HEATER KW	NONE *	-	-	14	16	20	20	-	-	14	16	20	20
	DC10DNV	10.0	12.0	20	23	20	25	15	15	14	16	20	20
	DC15DNV	15.0	18.1	28	30	30	30	23	25	14	16	20	20
060ADU HEATER KW	NONE *	-	-	14	16	20	20	-	-	14	16	20	20
	DC10DNV	10.0	12.0	20	23	20	25	15	15	14	16	20	20
	DC15DNV	15.0	18.1	28	30	30	30	23	25	14	16	20	20

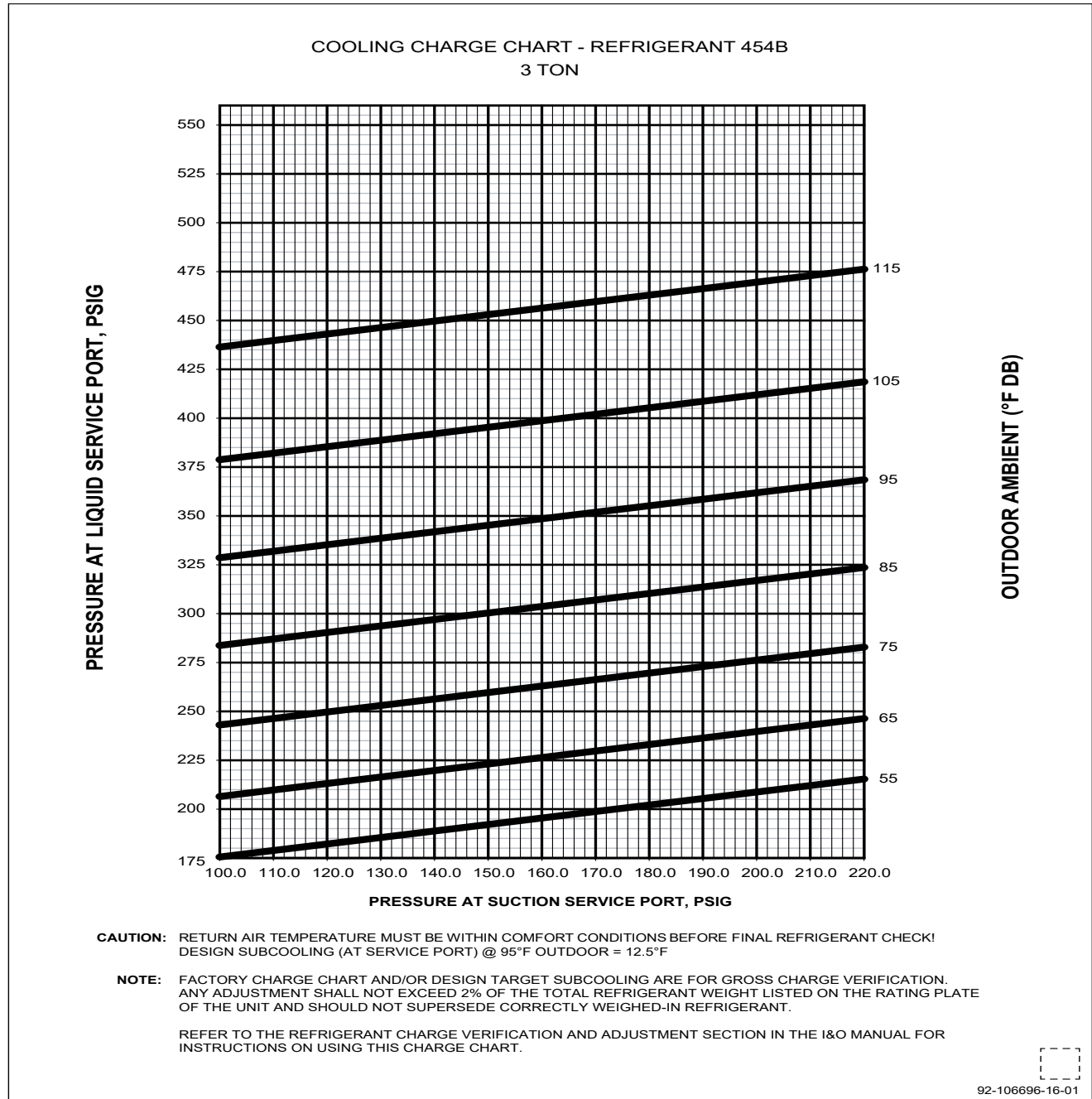
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Appendix F — A2L Refrigerant Installation Safety Data

Model		(-)ACCYB036	(-)ACCYB048	(-)ACCYB060	(-)ACCYB072	(-)ACCYB036 w/ HumidiDry	(-)ACCYB048 w/ HumidiDry	(-)ACCYB060 w/ HumidiDry	(-)ACCYB072 w/ HumidiDry
Refrigerant Charge Weight (oz)		1	3	5	7	101	110	105	123
Minimum Circulation Airflow, Qmin (cfm)		239	223	266	283	336	366	349	409
Altitude above Sea Level (ft)	Altitude Adjustment Factor	Minimum total space area, TAmin (sq-ft)							
0	1.000	133	123	147	157	186	203	194	227
1000	1.025	136	127	151	161	191	208	198	232
2000	1.051	139	130	155	165	196	213	203	238
3000	1.078	143	133	159	169	201	219	209	244
4000	1.107	147	137	163	173	206	224	214	251
5000	1.138	151	141	168	178	212	231	220	258
6000	1.170	155	144	173	183	218	237	226	265
6500	1.187	158	147	175	186	221	241	230	269

Model		(-)ACCYC036	(-)ACCYC048	(-)ACCYC060	(-)ACCYC036 w/ HumidiDry	(-)ACCYC048 w/ HumidiDry	(-)ACCYC060 w/ HumidiDry
Refrigerant Charge Weight (oz)		66	75	81	106	116	121
Minimum Circulation Airflow, Qmin (cfm)		220	249	269	353	386	402
Altitude above Sea Level (ft)	Altitude Adjustment Factor	Minimum total space area, TAmin (sq-ft)					
0	1.000	122	138	149	195	214	223
1000	1.025	125	142	153	200	219	229
2000	1.051	128	145	157	205	225	234
3000	1.078	131	149	161	211	230	240
4000	1.107	135	153	165	216	237	247
5000	1.138	138	157	170	222	243	254
6000	1.170	142	162	175	229	250	261
6500	1.187	144	164	177	232	254	265

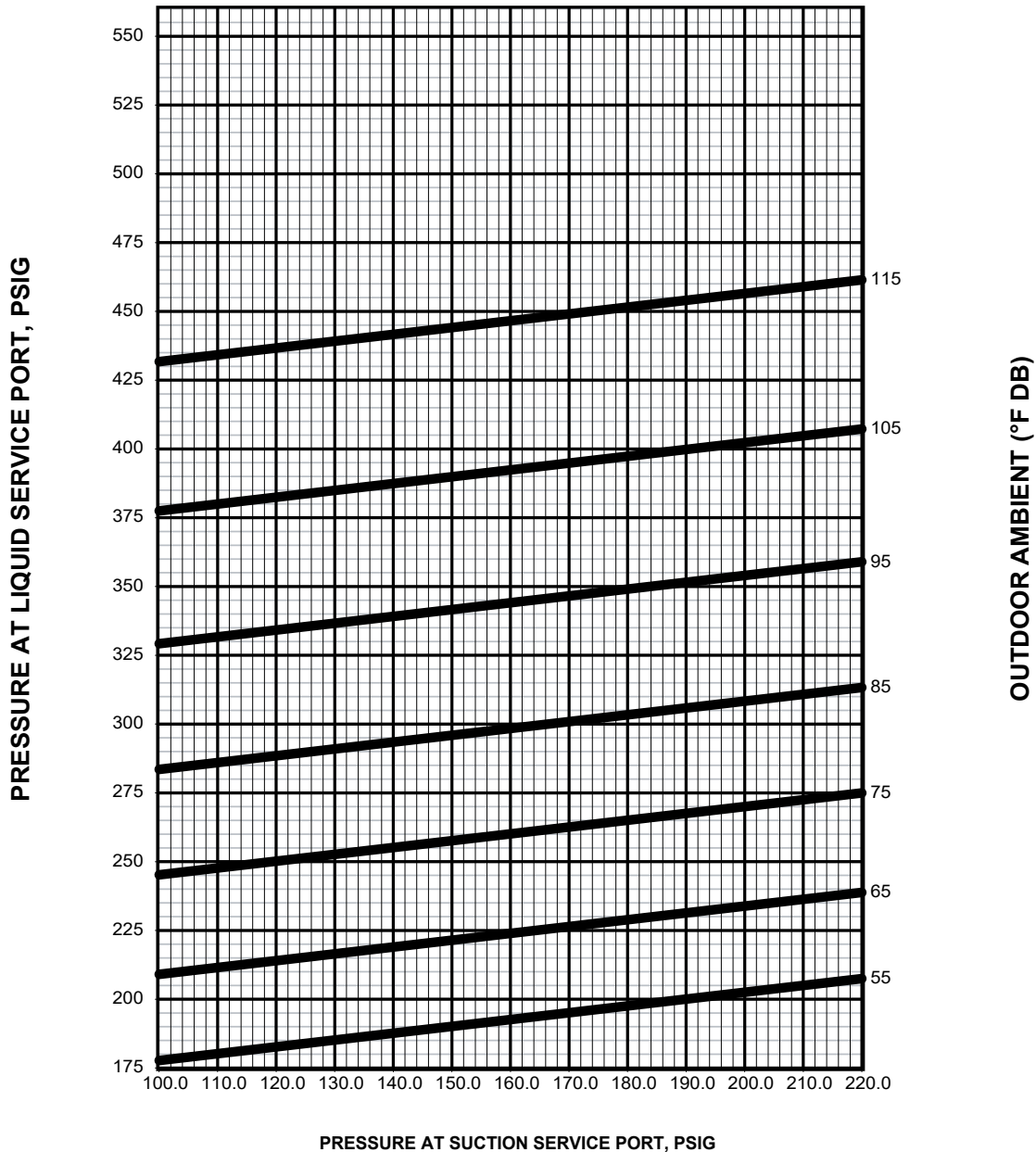
Appendix G – Refrigerant Charging Charts for YB Models Standard Option



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Appendix G – Refrigerant Charging Charts for YB Models Reheat Option

COOLING CHARGE CHART - REFRIGERANT 454B
3 TON



CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!
DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 12.3°F

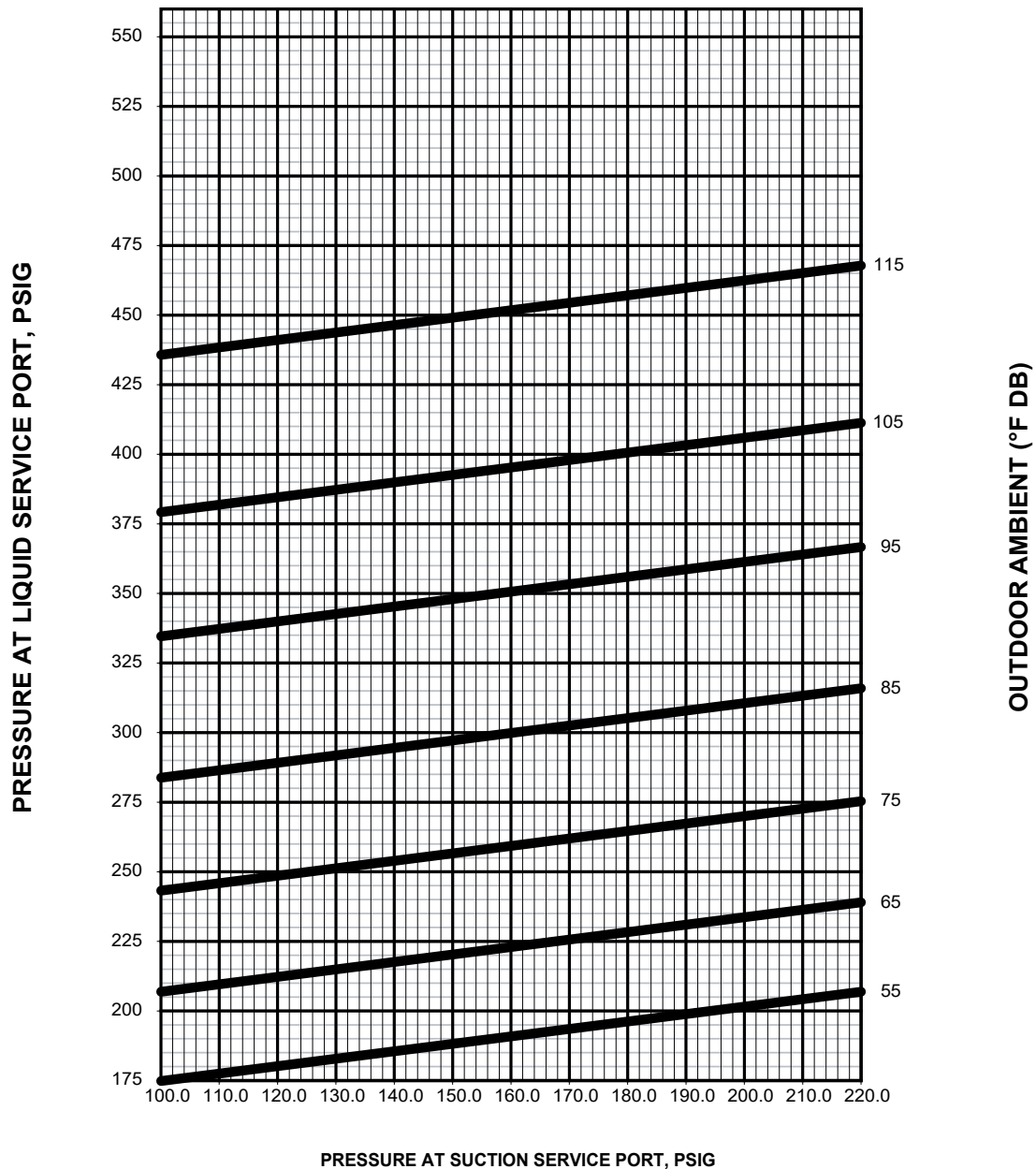
NOTE: FACTORY CHARGE CHART AND/OR DESIGN TARGET SUBCOOLING ARE FOR GROSS CHARGE VERIFICATION.
ANY ADJUSTMENT SHALL NOT EXCEED 2% OF THE TOTAL REFRIGERANT WEIGHT LISTED ON THE RATING PLATE
OF THE UNIT AND SHOULD NOT SUPERSEDE CORRECTLY WEIGHED-IN REFRIGERANT.

REFER TO THE REFRIGERANT CHARGE VERIFICATION AND ADJUSTMENT SECTION IN THE I&O MANUAL FOR
INSTRUCTIONS ON USING THIS CHARGE CHART.

92-106696-18-01

Appendix G – Refrigerant Charging Charts for YB Models Standard Option

COOLING CHARGE CHART - REFRIGERANT 454B
4 TON



CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!
DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 9.5°F

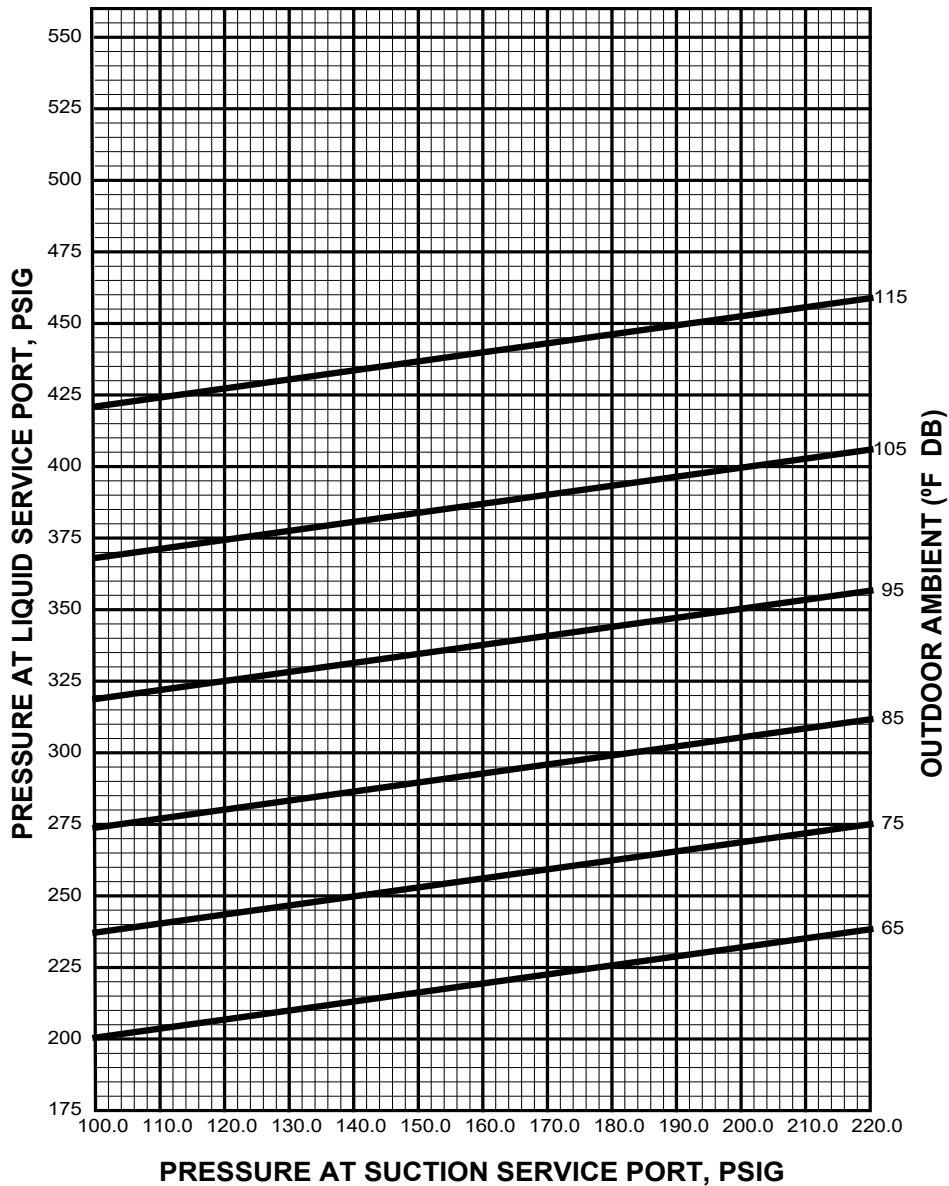
NOTE: FACTORY CHARGE CHART AND/OR DESIGN TARGET SUBCOOLING ARE FOR GROSS CHARGE VERIFICATION.
ANY ADJUSTMENT SHALL NOT EXCEED 2% OF THE TOTAL REFRIGERANT WEIGHT LISTED ON THE RATING PLATE
OF THE UNIT AND SHOULD NOT SUPERSEDE CORRECTLY WEIGHED-IN REFRIGERANT.

REFER TO THE REFRIGERANT CHARGE VERIFICATION AND ADJUSTMENT SECTION IN THE I&O MANUAL FOR
INSTRUCTIONS ON USING THIS CHARGE CHART.

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Appendix G – Refrigerant Charging Charts for YB Models Reheat Option

COOLING CHARGE CHART - REFRIGERANT 454B
4 TON



CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!
DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 8°F.

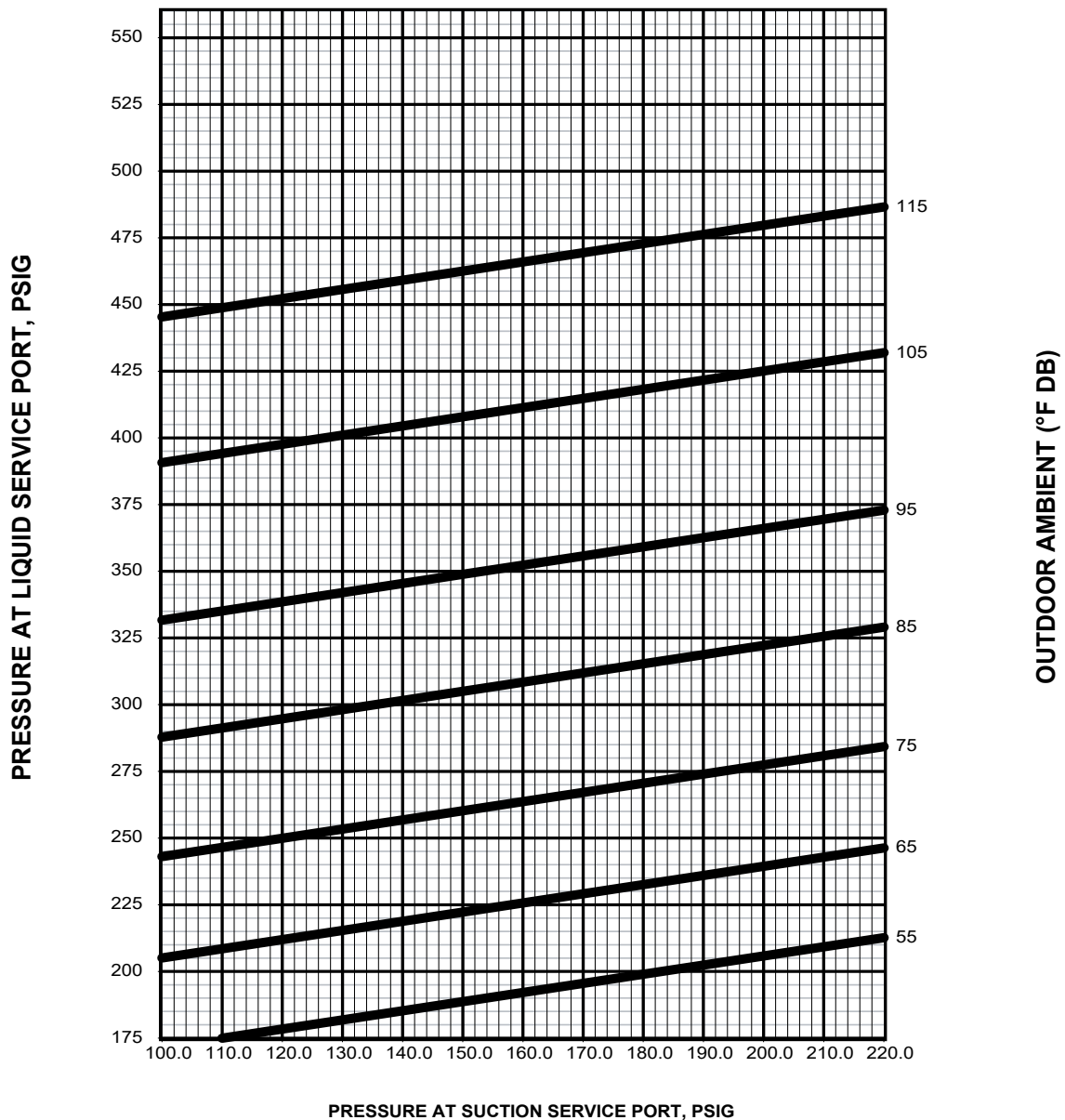
NOTE: FACTORY CHARGE CHART AND/OR DESIGN TARGET SUBCOOLING ARE FOR GROSS CHARGE VERIFICATION.
ANY ADJUSTMENT SHALL NOT EXCEED 2% OF THE TOTAL REFRIGERANT WEIGHT LISTED ON THE RATING PLATE
OF THE UNIT AND SHOULD NOT SUPERSEDE CORRECTLY WEIGHED-IN REFRIGERANT.

REFER TO THE REFRIGERANT CHARGE VERIFICATION AND ADJUSTMENT SECTION IN THE I&O MANUAL FOR
INSTRUCTIONS ON USING THIS CHARGE CHART.

92-106696-19-01

Appendix G – Refrigerant Charging Charts for YB Models Standard Option

COOLING CHARGE CHART - REFRIGERANT 454B
5 TON



CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!
DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 10.2°F

NOTE: FACTORY CHARGE CHART AND/OR DESIGN TARGET SUBCOOLING ARE FOR GROSS CHARGE VERIFICATION.
ANY ADJUSTMENT SHALL NOT EXCEED 2% OF THE TOTAL REFRIGERANT WEIGHT LISTED ON THE RATING PLATE
OF THE UNIT AND SHOULD NOT SUPERSEDE CORRECTLY WEIGHED-IN REFRIGERANT.

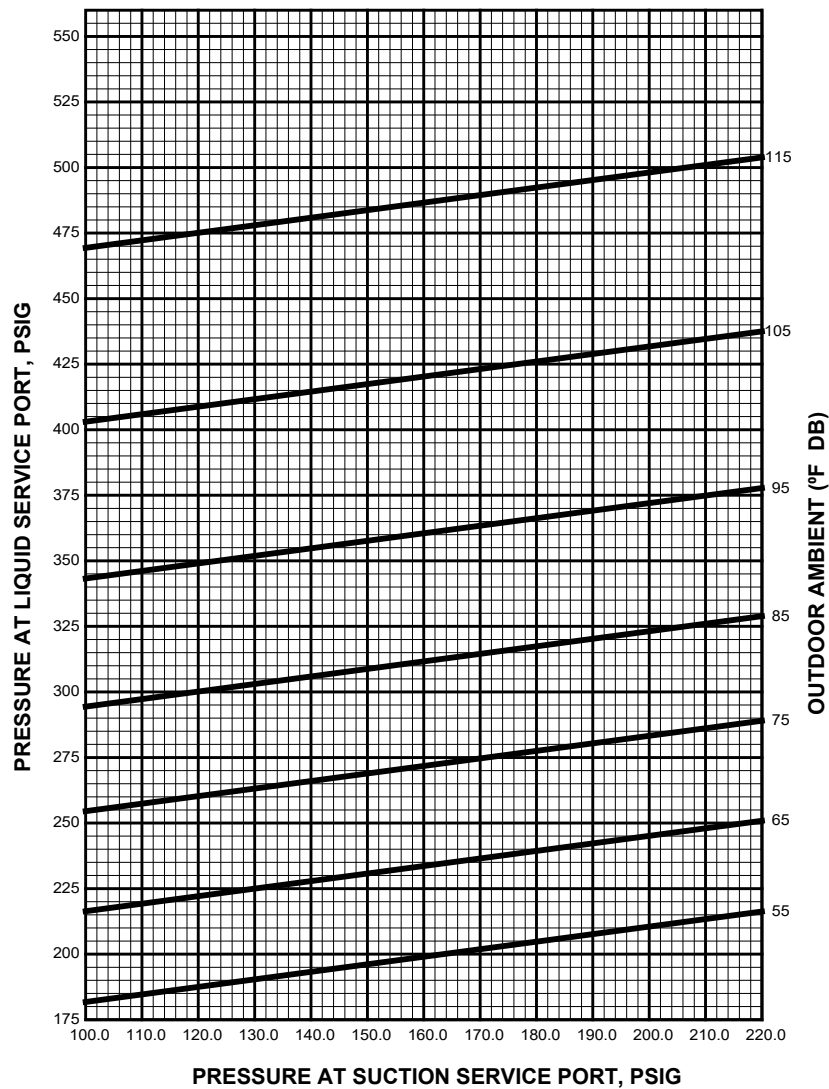
REFER TO THE REFRIGERANT CHARGE VERIFICATION AND ADJUSTMENT SECTION IN THE I&O MANUAL FOR
INSTRUCTIONS ON USING THIS CHARGE CHART.

92-106696-20-01

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Appendix G – Refrigerant Charging Charts for YB Models Reheat Option

COOLING CHARGE CHART - REFRIGERANT 454B
5 TON



CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!
DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 11.7°F.

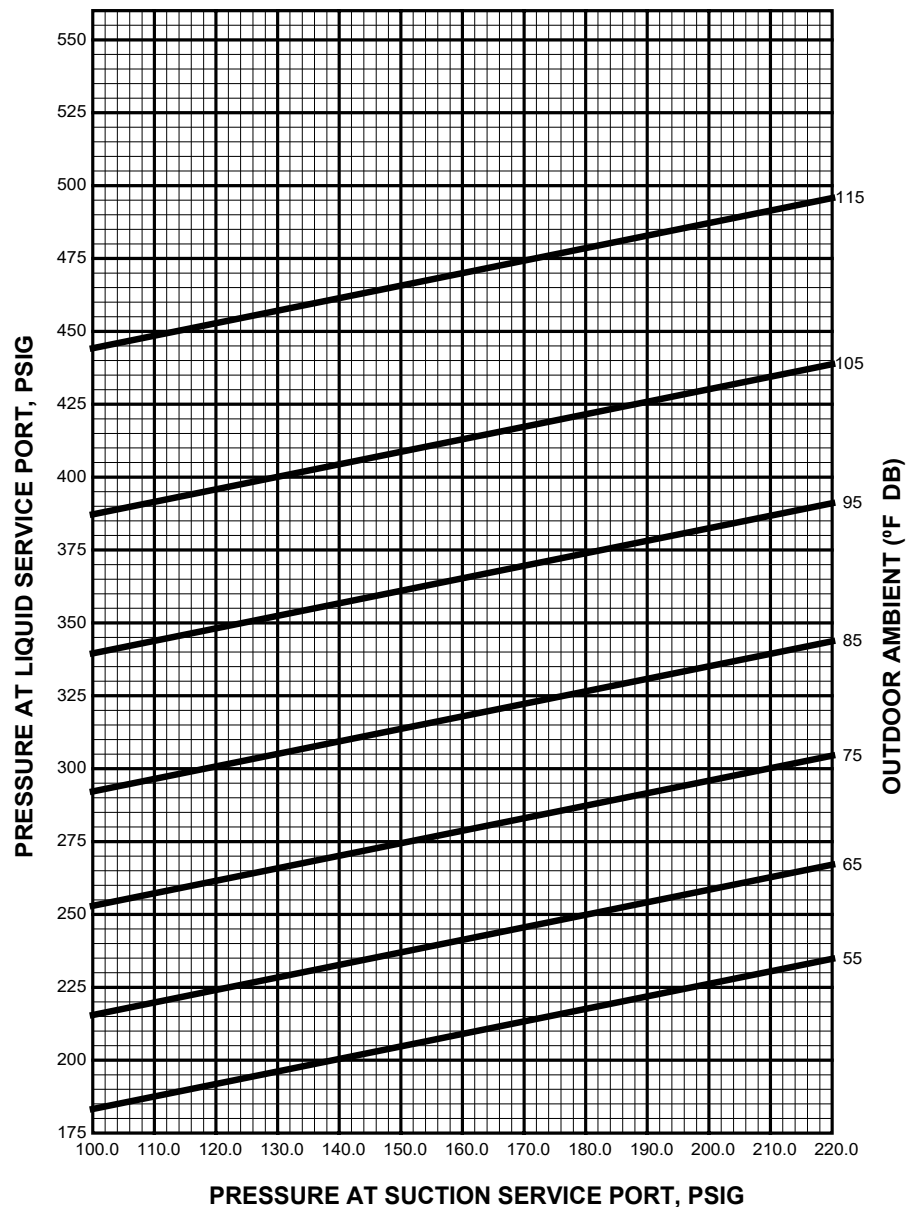
NOTE: FACTORY CHARGE CHART AND/OR DESIGN TARGET SUBCOOLING ARE FOR GROSS CHARGE VERIFICATION.
ANY ADJUSTMENT SHALL NOT EXCEED 2% OF THE TOTAL REFRIGERANT WEIGHT LISTED ON THE RATING PLATE
OF THE UNIT AND SHOULD NOT SUPERSEDE CORRECTLY WEIGHED-IN REFRIGERANT.

REFER TO THE REFRIGERANT CHARGE VERIFICATION AND ADJUSTMENT SECTION IN THE I&O MANUAL FOR
INSTRUCTIONS ON USING THIS CHARGE CHART.

92-106696-21-01

Appendix G – Refrigerant Charging Charts for YB Models Standard Option

COOLING CHARGE CHART - REFRIGERANT 454B
6 TON



CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!
DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 11 °F.

NOTE: FACTORY CHARGE CHART AND/OR DESIGN TARGET SUBCOOLING ARE FOR GROSS CHARGE VERIFICATION.
ANY ADJUSTMENT SHALL NOT EXCEED 2% OF THE TOTAL REFRIGERANT WEIGHT LISTED ON THE RATING PLATE
OF THE UNIT AND SHOULD NOT SUPERSEDE CORRECTLY WEIGHED-IN REFRIGERANT.

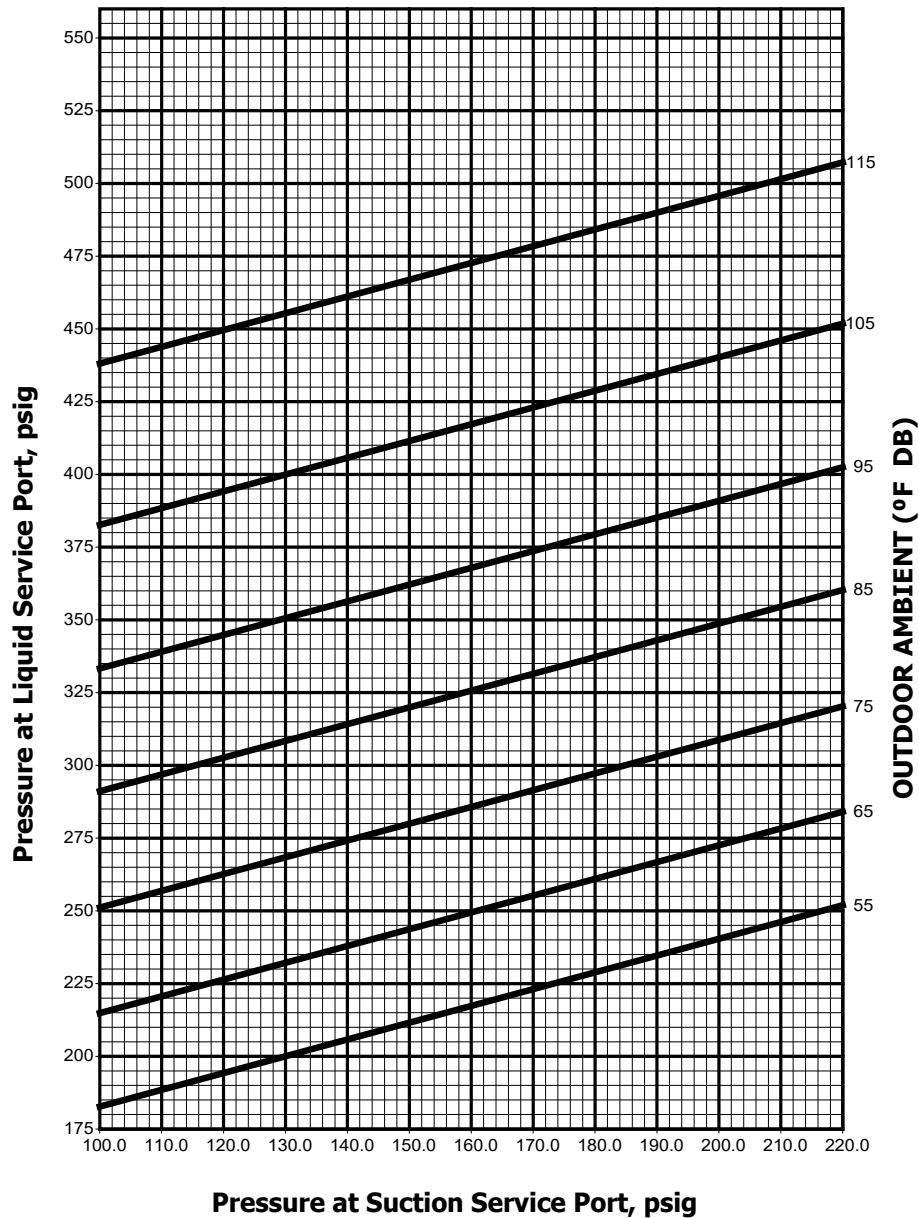
REFER TO THE REFRIGERANT CHARGE VERIFICATION AND ADJUSTMENT SECTION IN THE I&O MANUAL FOR
INSTRUCTIONS ON USING THIS CHARGE CHART.

92-106696-24-01

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Appendix G – Refrigerant Charging Charts for YB Models Reheat Option

COOLING CHARGE CHART - REFRIGERANT 454B
6 TON

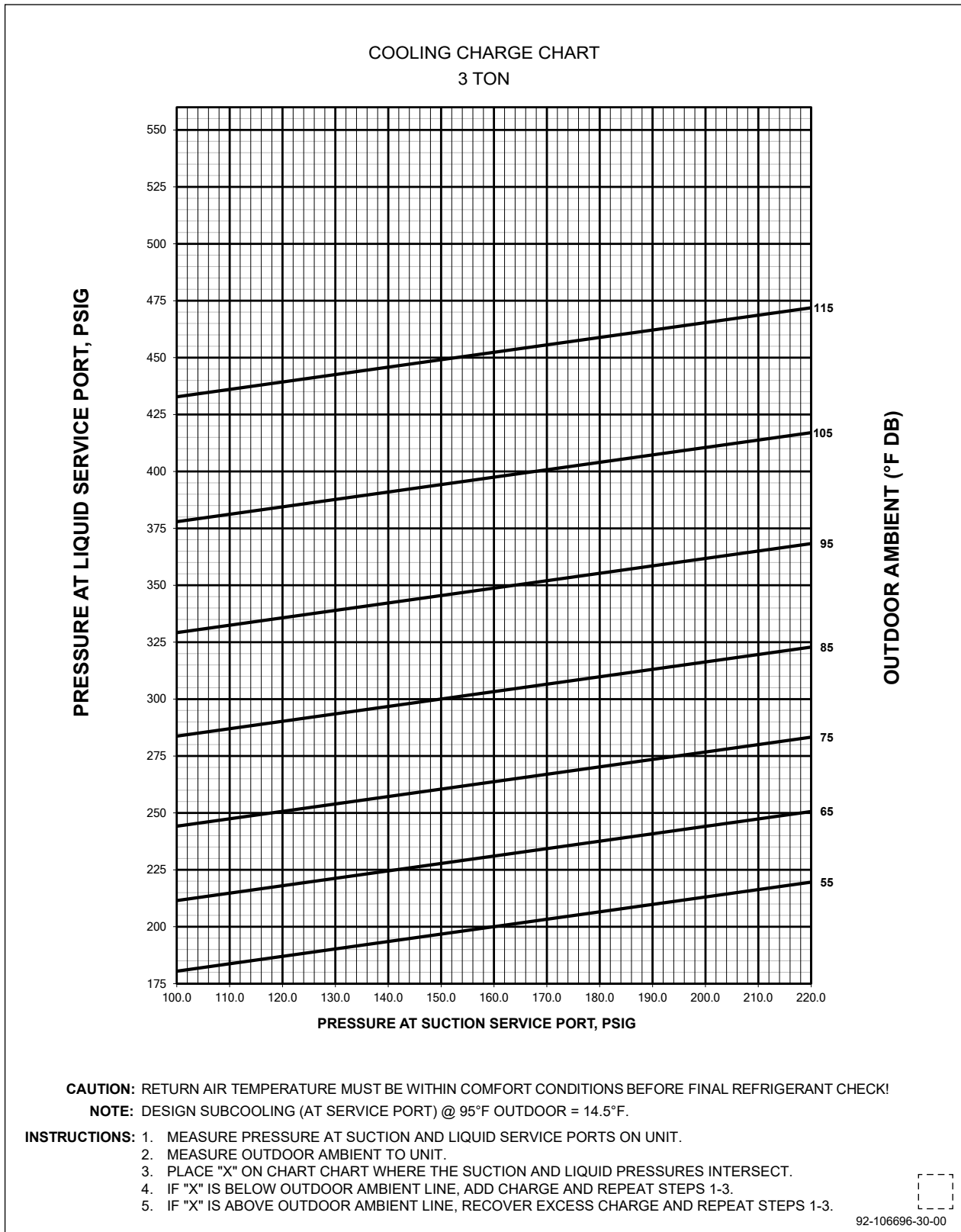


CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!
DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 15.8°F

NOTE: FACTORY CHARGE CHART AND/OR DESIGN TARGET SUBCOOLING ARE FOR GROSS CHARGE VERIFICATION.
ANY ADJUSTMENT SHALL NOT EXCEED 2% OF THE TOTAL REFRIGERANT WEIGHT LISTED ON THE RATING PLATE
OF THE UNIT AND SHOULD NOT SUPERSEDE CORRECTLY WEIGHED-IN REFRIGERANT.

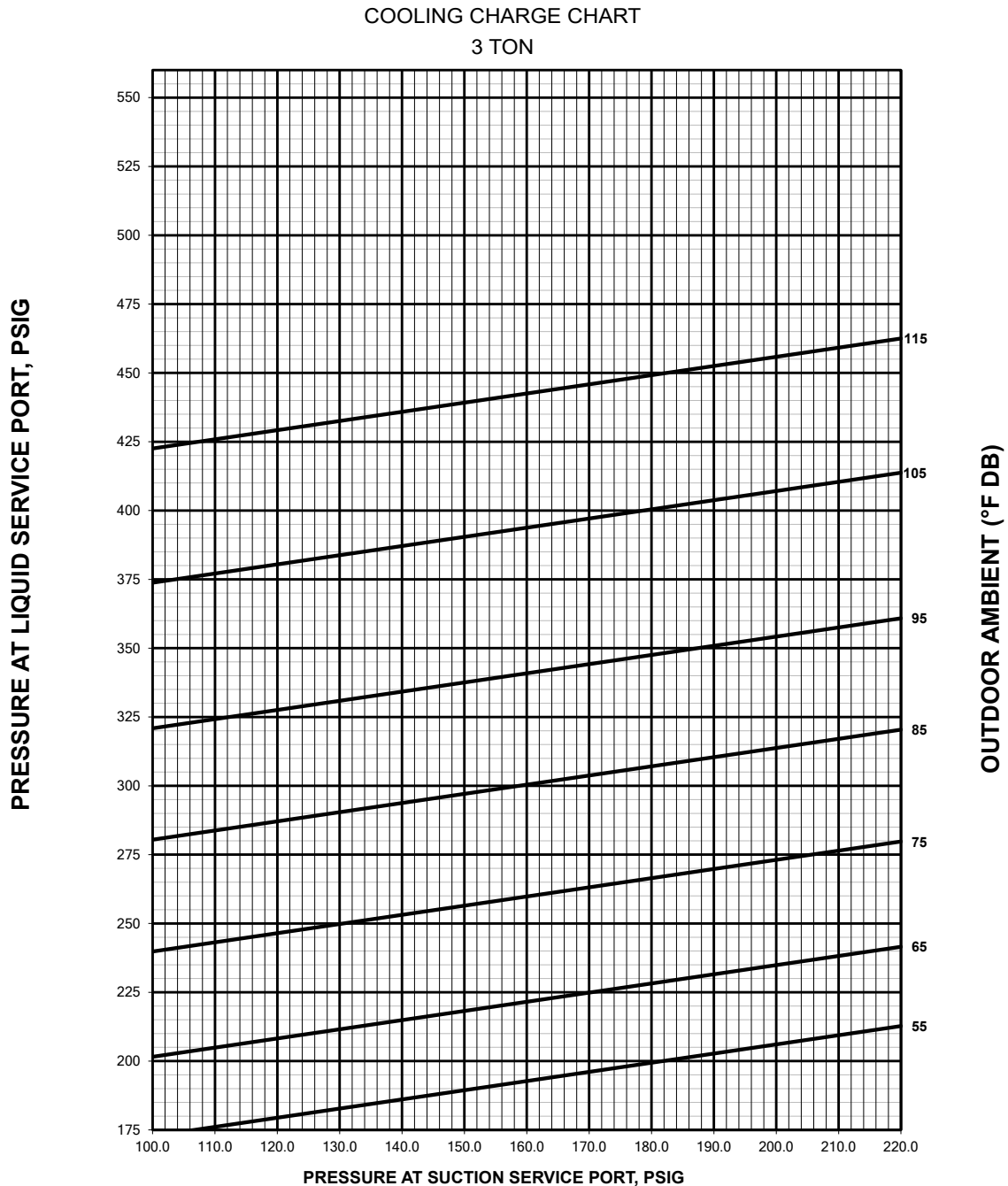
REFER TO THE REFRIGERANT CHARGE VERIFICATION AND ADJUSTMENT SECTION IN THE I&O MANUAL FOR
INSTRUCTIONS ON USING THIS CHARGE CHART.

Appendix G – Refrigerant Charging Charts for YC Models Standard Option



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Appendix G – Refrigerant Charging Charts for YC Models Reheat Option



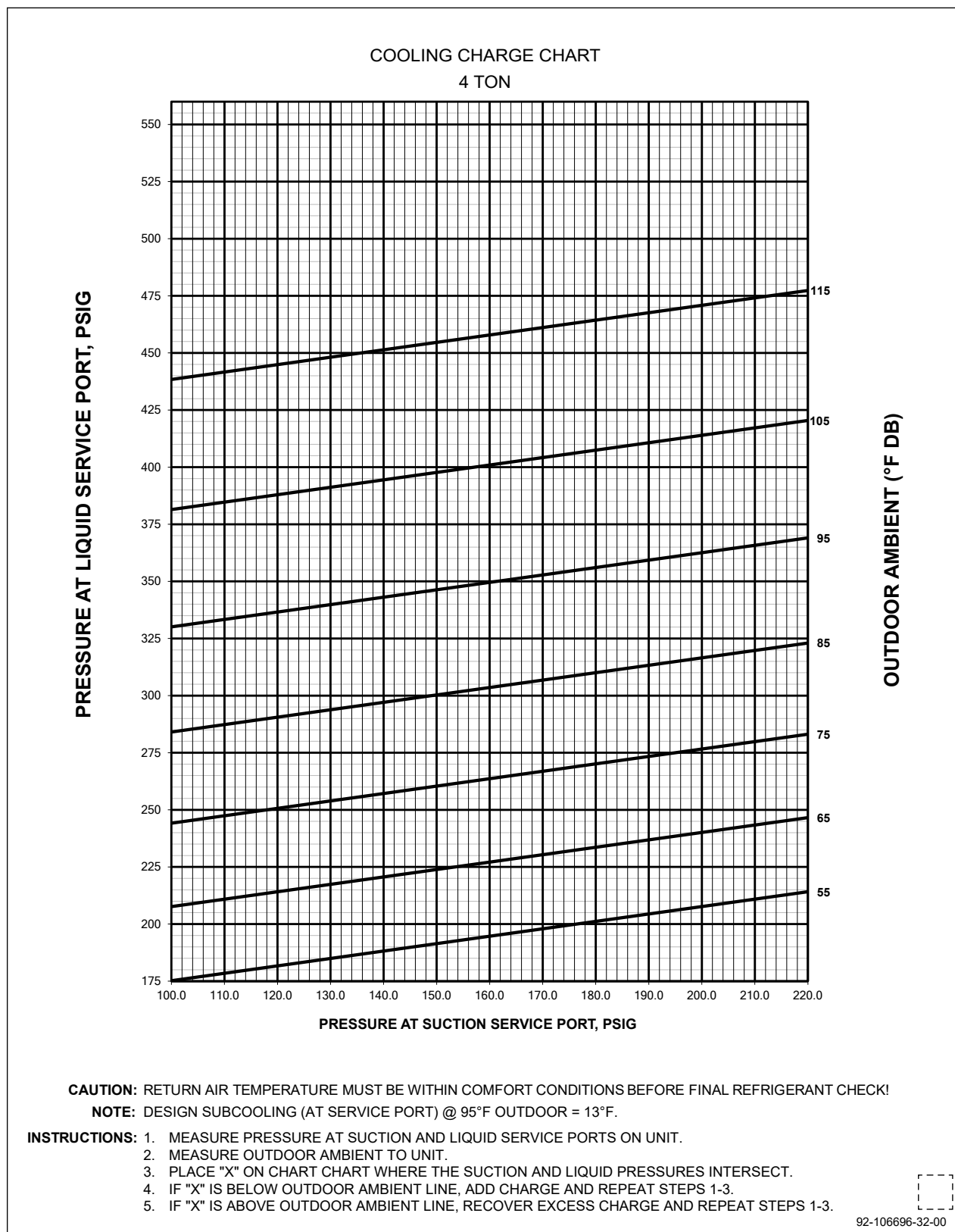
CAUTION: RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK!

NOTE: DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 12.1°F.

- INSTRUCTIONS:**
1. MEASURE PRESSURE AT SUCTION AND LIQUID SERVICE PORTS ON UNIT.
 2. MEASURE OUTDOOR AMBIENT TO UNIT.
 3. PLACE "X" ON CHART WHERE THE SUCTION AND LIQUID PRESSURES 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.

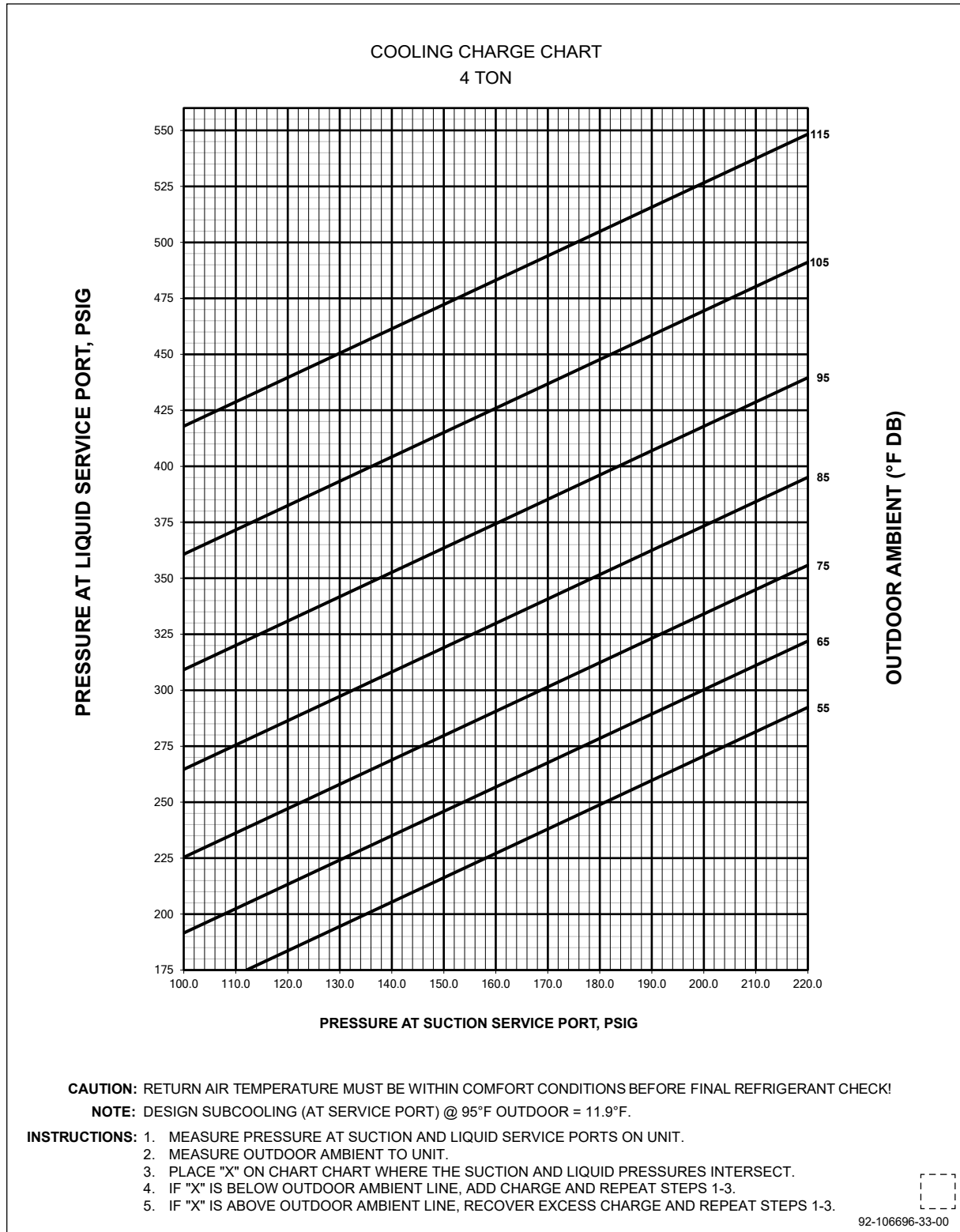
92-106696-31-00

Appendix G – Refrigerant Charging Charts for YC Models Standard Option

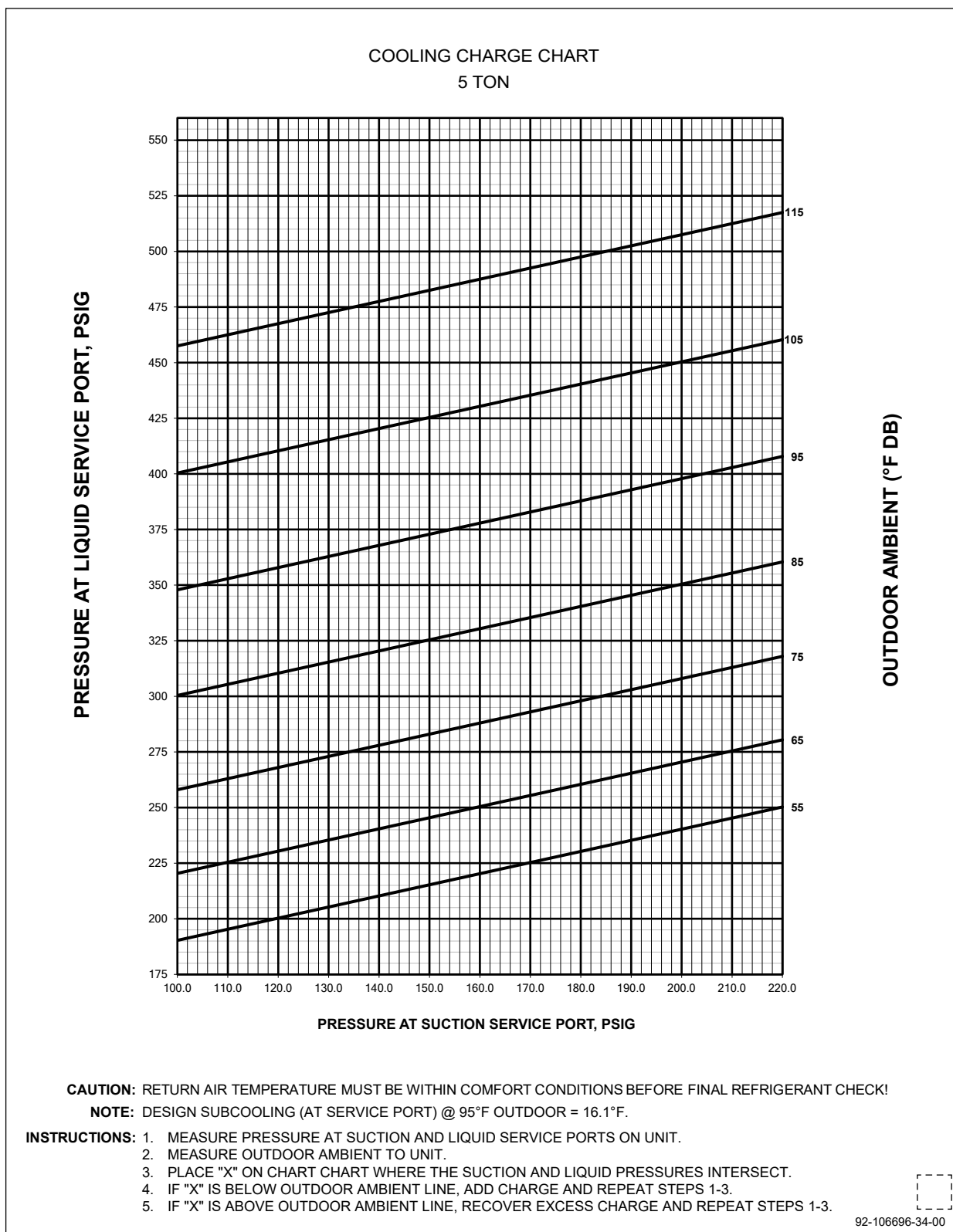


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Appendix G – Refrigerant Charging Charts for YC Models Reheat Option

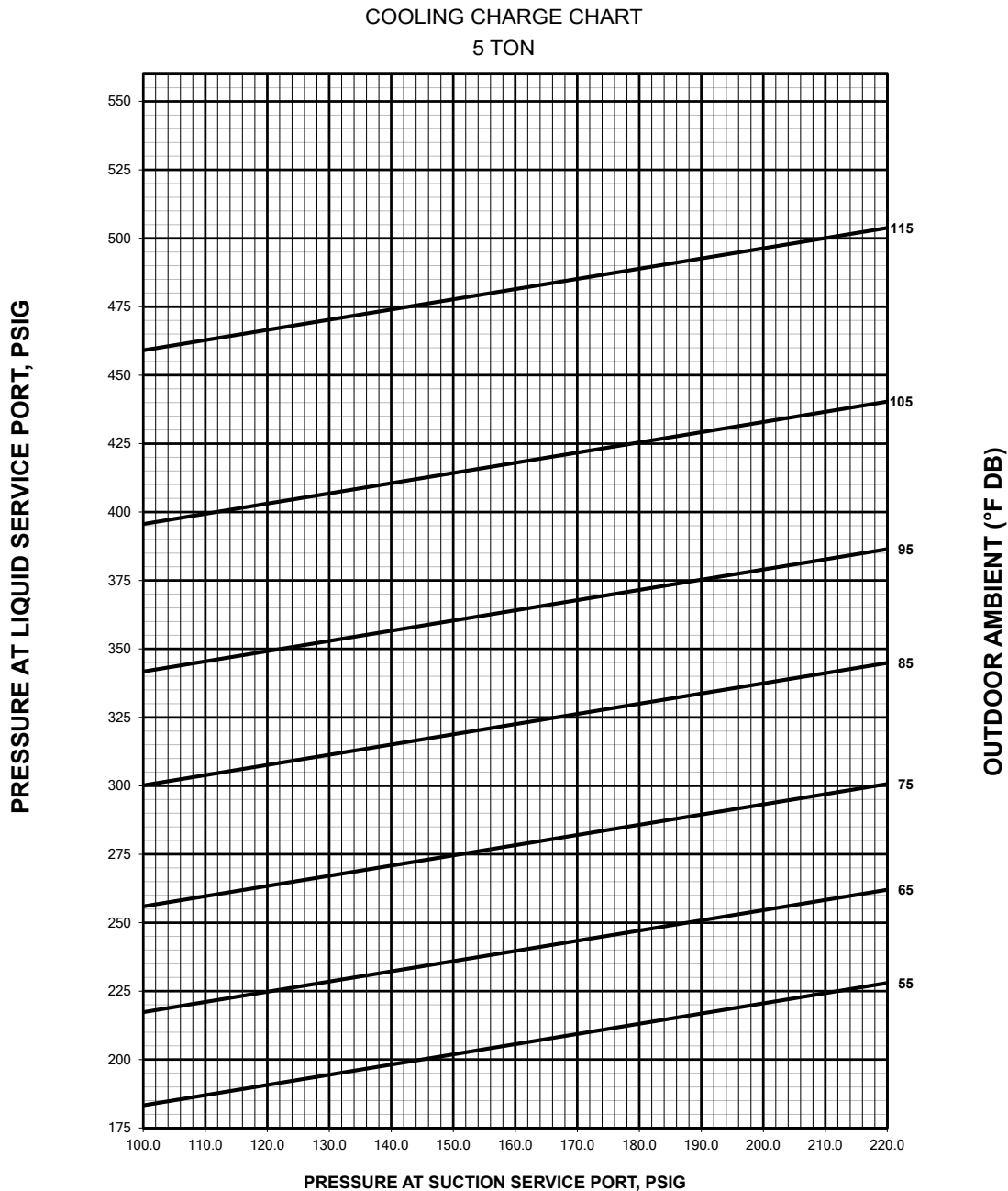


Appendix G – Refrigerant Charging Charts for YC Models Standard Option



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Appendix G – Refrigerant Charging Charts for YC Models Reheat Option



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

NOTE: DESIGN SUBCOOLING (AT SERVICE PORT) @ 95°F OUTDOOR = 15.8°F.

- INSTRUCTIONS:**
1. MEASURE PRESSURE AT SUCTION AND LIQUID SERVICE PORTS ON UNIT.
 2. MEASURE OUTDOOR AMBIENT TO UNIT.
 3. PLACE "X" ON CHART WHERE THE SUCTION AND LIQUID PRESSURES 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.

92-106696-35-00

Appendix G – Refrigerant Charging Charts (Cont.)

SYSTEM CHARGE CHART – REFRIGERANT R-454B

(-)ACCYB

SUB COOLING REQUIREMENTS – FINAL CHARGE VERIFICATION

OUTDOOR DRY BULB (°F)	3 -TON	4 -TON	5 -TON	6 -TON
	SUBCOOLING (°F)			
115	13	13	14	15
105	13	12	12	12
95	12	9	9	11
85	12	7	9	7
75	12	5	6	5
65	12	5	3	3
55	12	4	2	3

(-)ACCYB WITH REHEAT

SUB COOLING REQUIREMENTS – FINAL CHARGE VERIFICATION

OUTDOOR DRY BULB (°F)	3 -TON	4 -TON	5 -TON	6 -TON
	SUBCOOLING (°F)			
115	14	13	18	20
105	13	10	15	18
95	13	8	12	16
85	12	5	10	15
75	11	4	9	14
65	10	3	8	12
55	9	3	5	10

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Appendix G – Refrigerant Charging Charts (Cont.)

SYSTEM CHARGE CHART – REFRIGERANT R-454B

(-)ACCYC

SUB COOLING REQUIREMENTS – FINAL CHARGE VERIFICATION

OUTDOOR DRY BULB (°F)	3 -TON	4 -TON	5 -TON
	SUBCOOLING (°F)		
115	15.5	16.5	16.6
105	15.0	15.2	16.0
95	14.5	13.0	16.1
85	13.6	11.0	14.9
75	13.2	10.2	13.9
65	13.6	9.0	13.2
55	13.3	8.9	15.1

(-)ACCYC WITH HUMIDIDRY

SUB COOLING REQUIREMENTS – FINAL CHARGE VERIFICATION

OUTDOOR DRY BULB (°F)	3 -TON	4 -TON	5 -TON
	SUBCOOLING (°F)		
115	13.1	16.0	19.2
105	13.7	14.2	17.3
95	12.1	11.9	15.8
85	12.3	9.7	16.4
75	11.2	8.4	14.6
65	9.7	7.7	14.1
55	10.9	9.0	12.5

Appendix G – Refrigerant Charging Charts (Cont.)

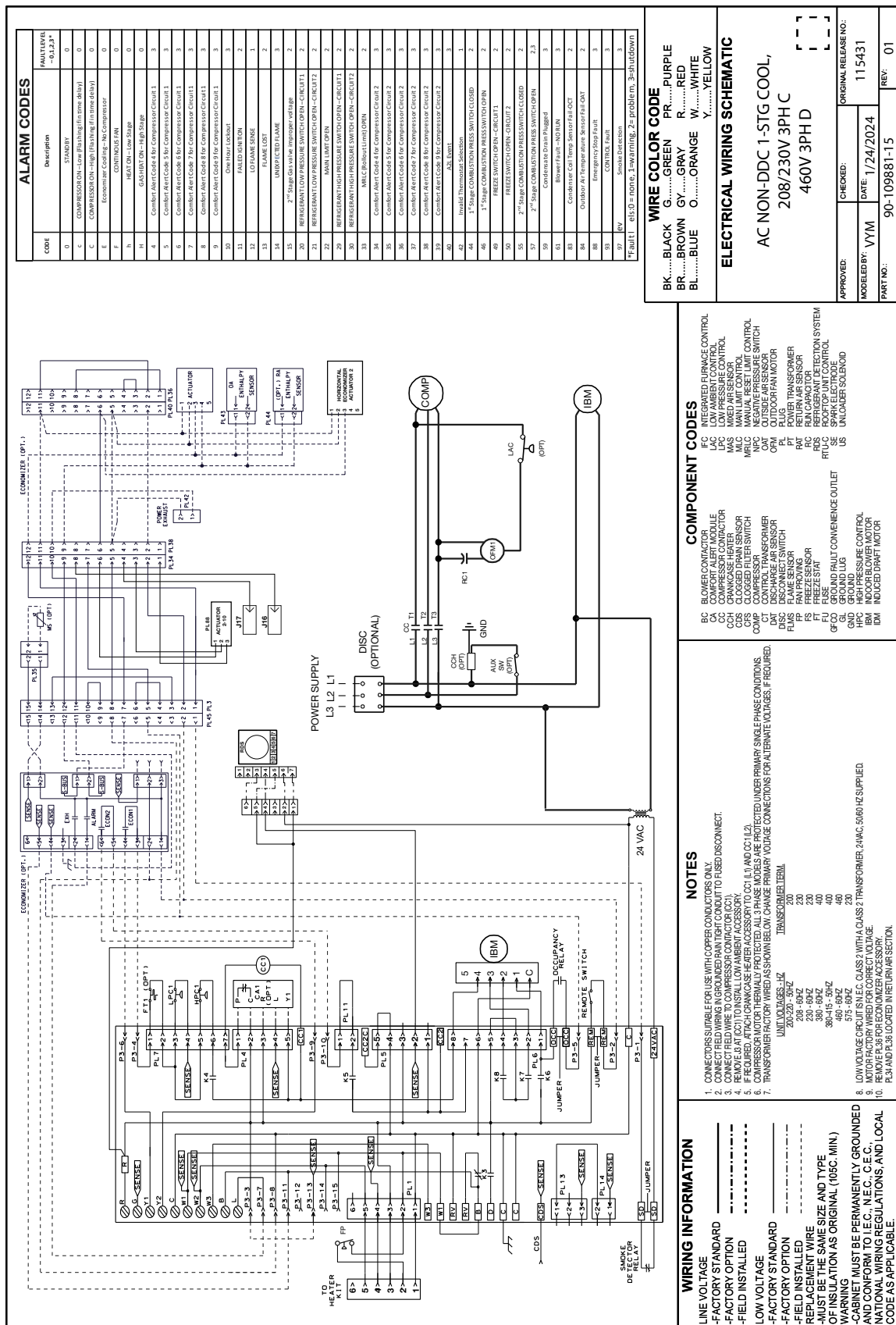
Charge verification instructions:

1. Allow the unit to operate for 15 minutes before checking or adjusting the charge.
2. Ensure that the contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
3. Ensure that the unit is properly grounded.
4. Return air temperature must be within comfort conditions (72°F - 82°F).
5. Remove caps from the high-side and low-side pressure service fittings.
6. Cylinders shall be kept in an upright position for the entirety of the testing and charging procedure.
7. Record the following measurements:
 - a. High-side pressure at service fitting
 - b. Liquid line temperature
8. Using R-454B refrigerant saturation T-P tables, find the corresponding refrigerant saturation temperature relative to the measured high-side pressure.
9. To determine subcooling, subtract the liquid line temperature measured in Step 7 from the saturation temperature found in Step 8.
10. Compare the subcooling result from Step 9 to the subcooling table located on the unit or in the I&O manual.
11. If the subcooling value from Step 9 is more than 1°F above the value listed in the subcooling table, remove charge to match the value listed in the table, $\pm 0.5^\circ\text{F}$.
 - a. Take extreme care not to overfill the refrigerating system.
2. If the subcooling value from Step 9 is more than 1°F below the value listed in the subcooling table, add charge to match the value listed in the table, $\pm 0.5^\circ\text{F}$.
 - a. Take extreme care not to overfill the refrigerating system.

Appendix H – Wiring Diagrams & Schematics



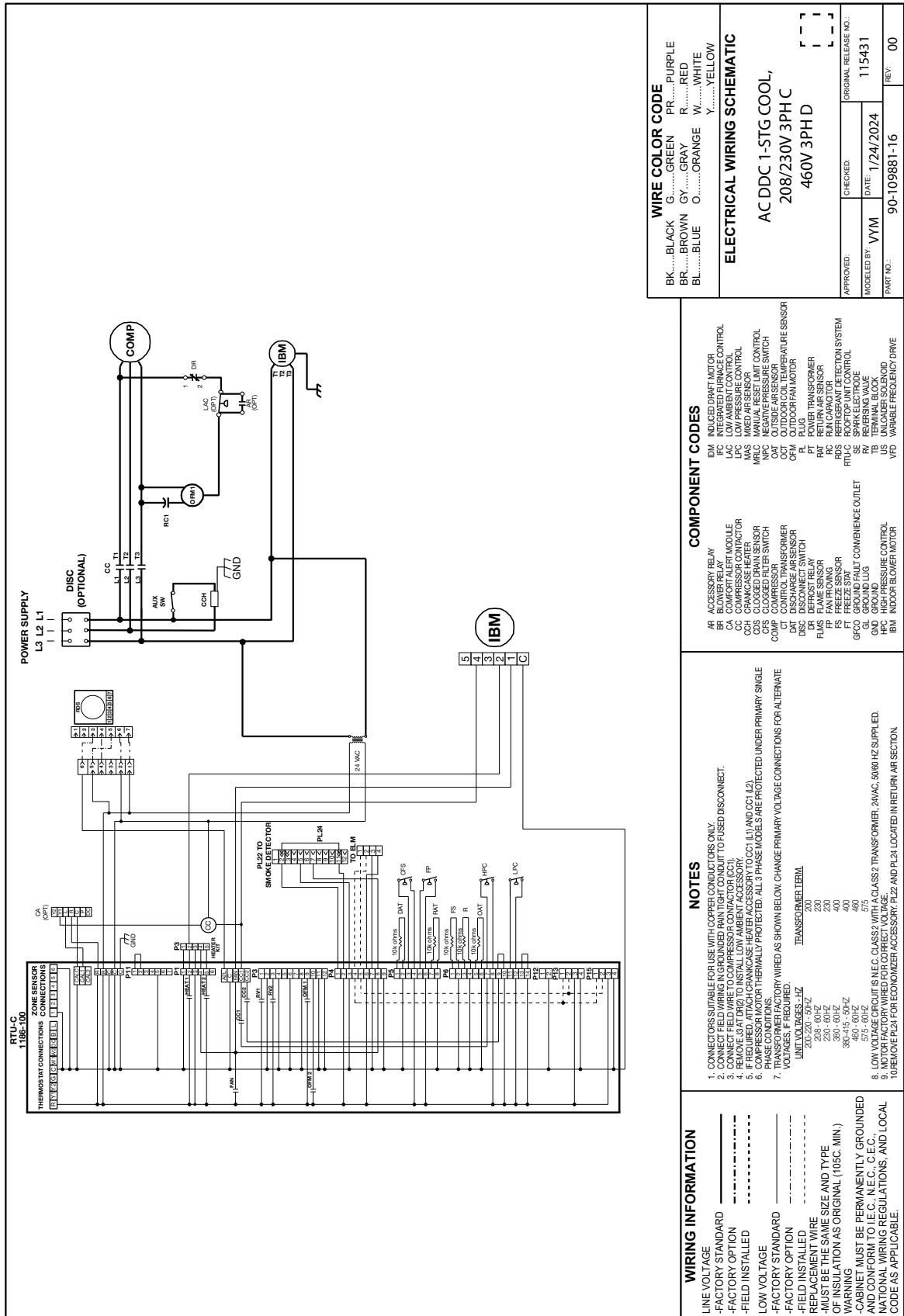
Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



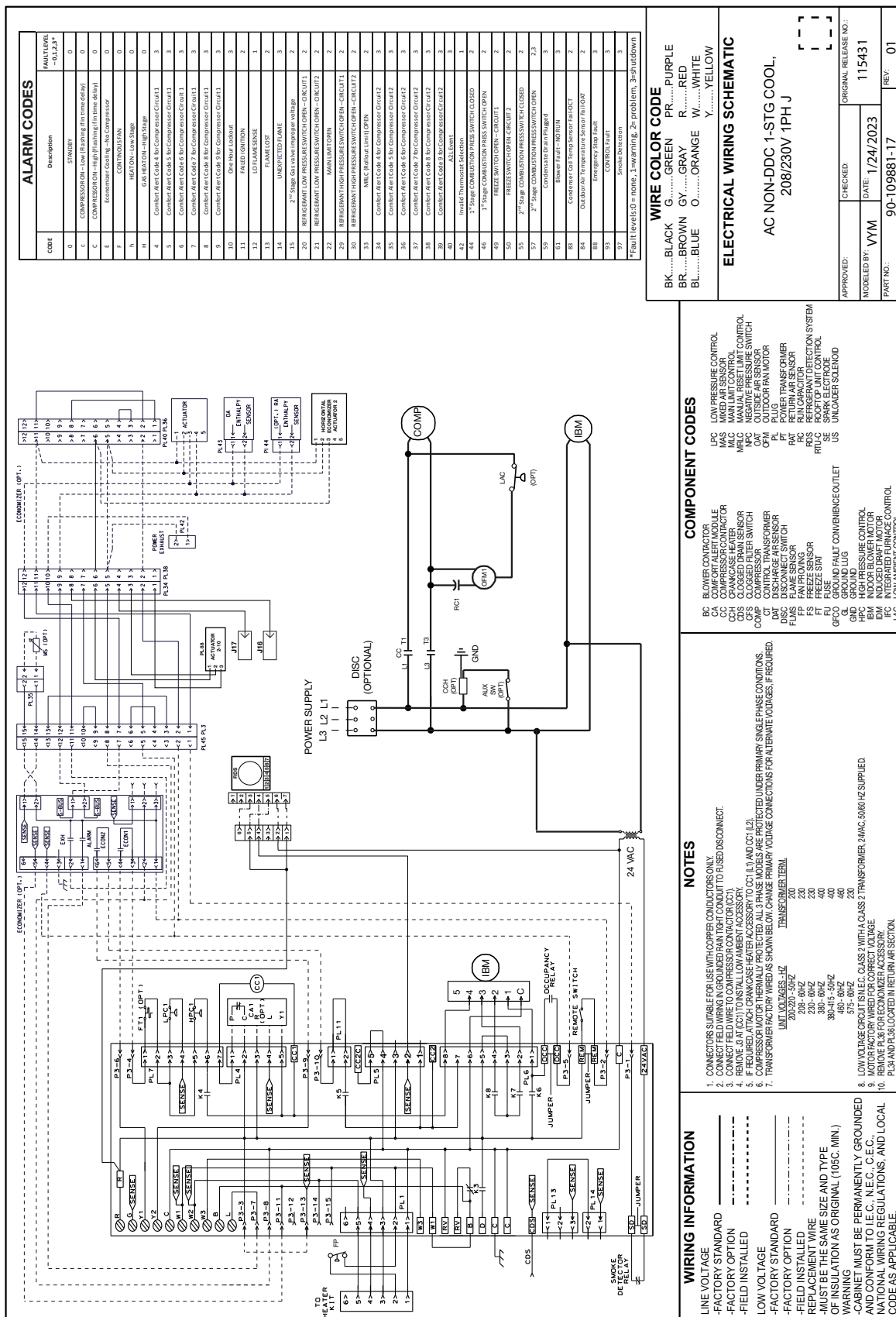
Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)

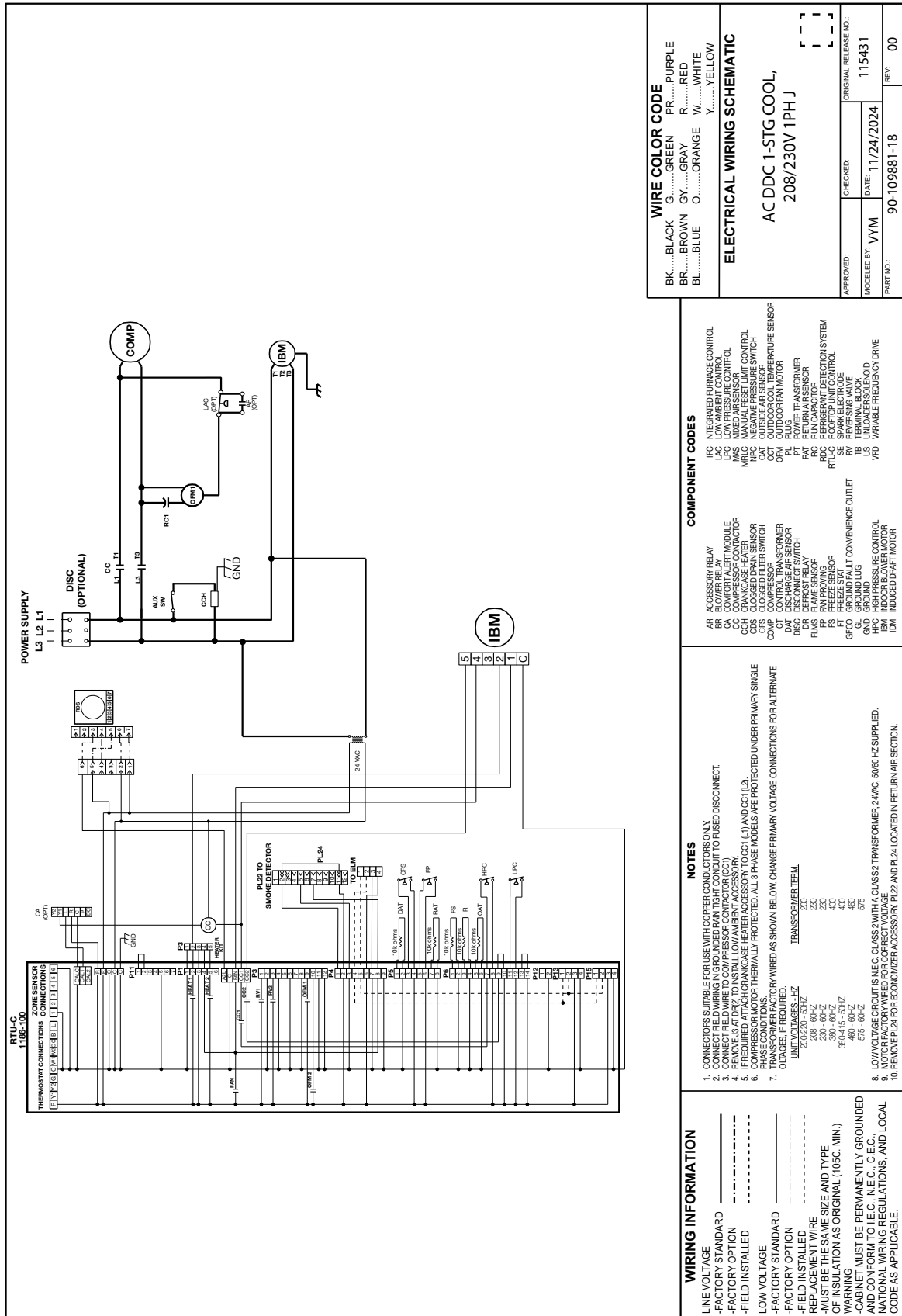


Appendix H – Wiring Diagrams & Schematics (Cont.)



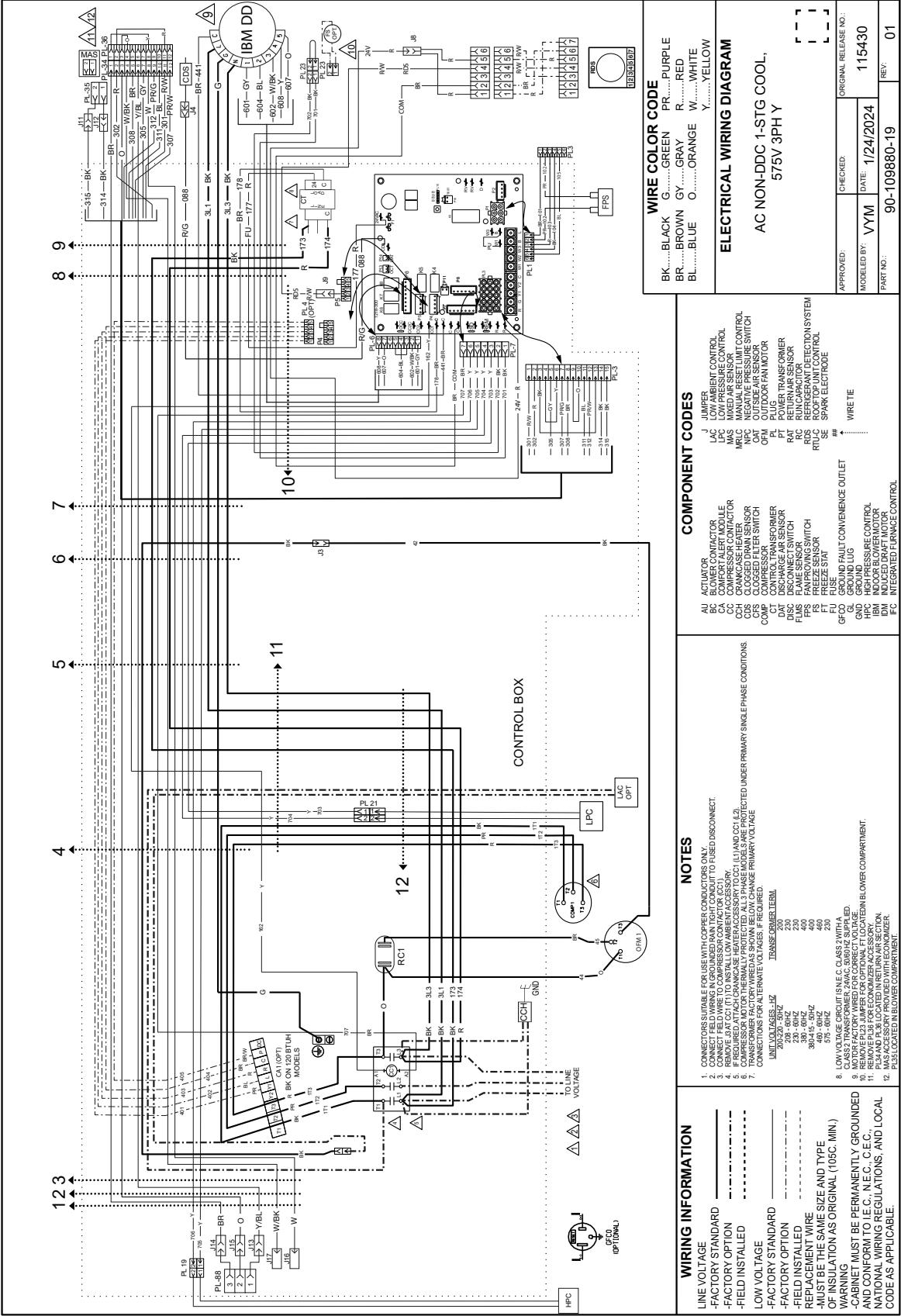
Appendix H – Wiring Diagrams & Schematics (Cont.)

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Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



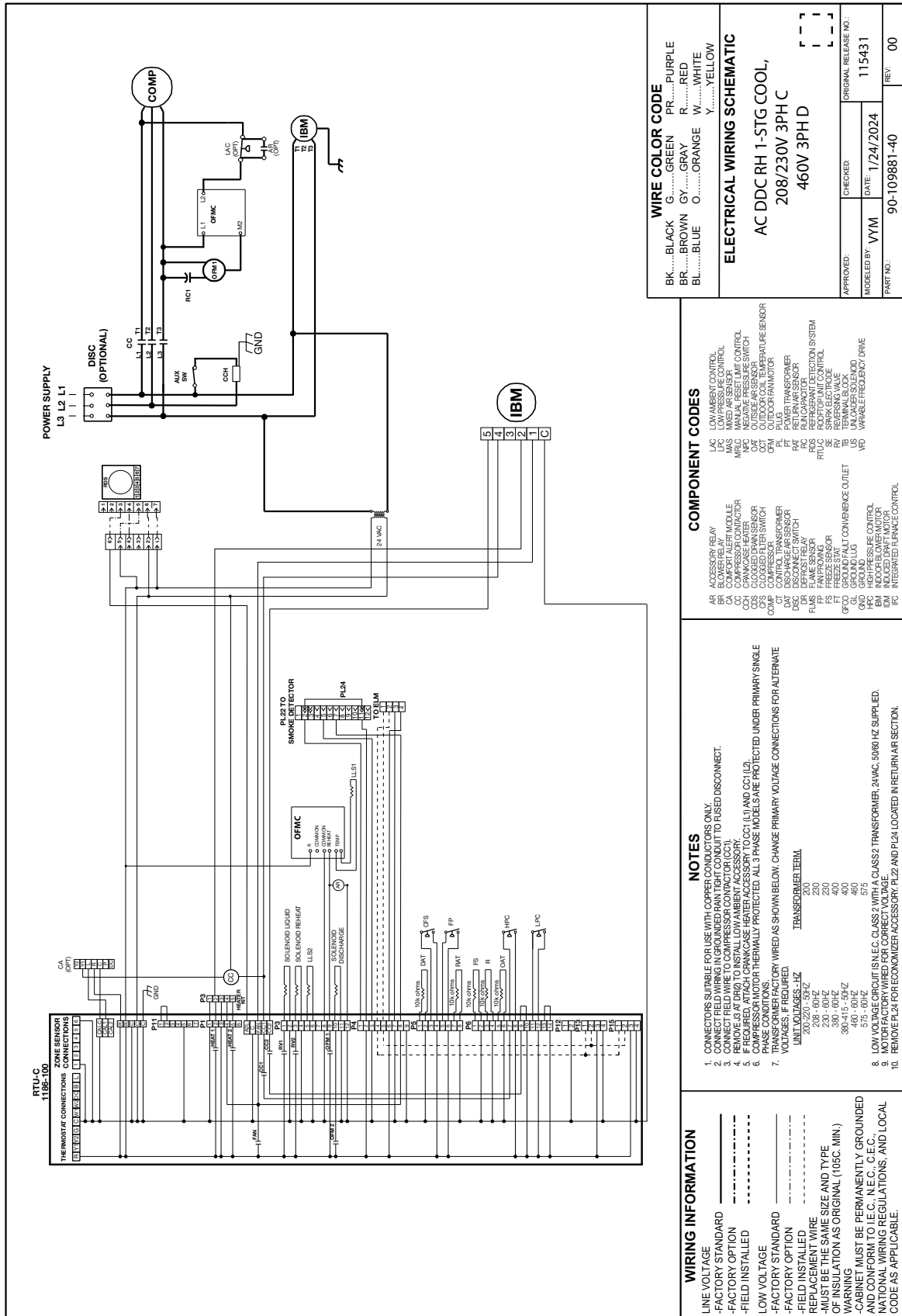
Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



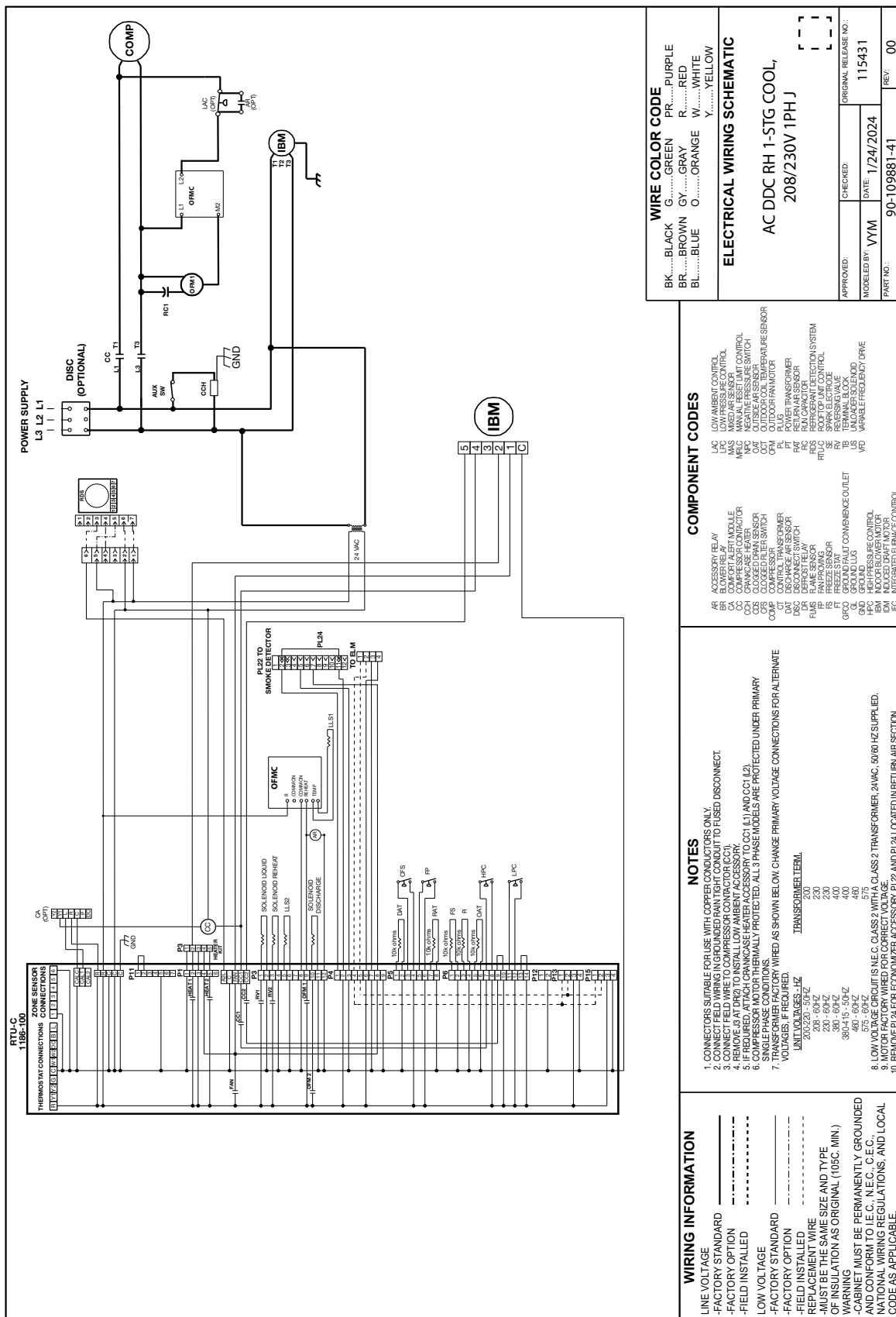
Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)





Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



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Appendix H – Wiring Diagrams & Schematics (Cont.)

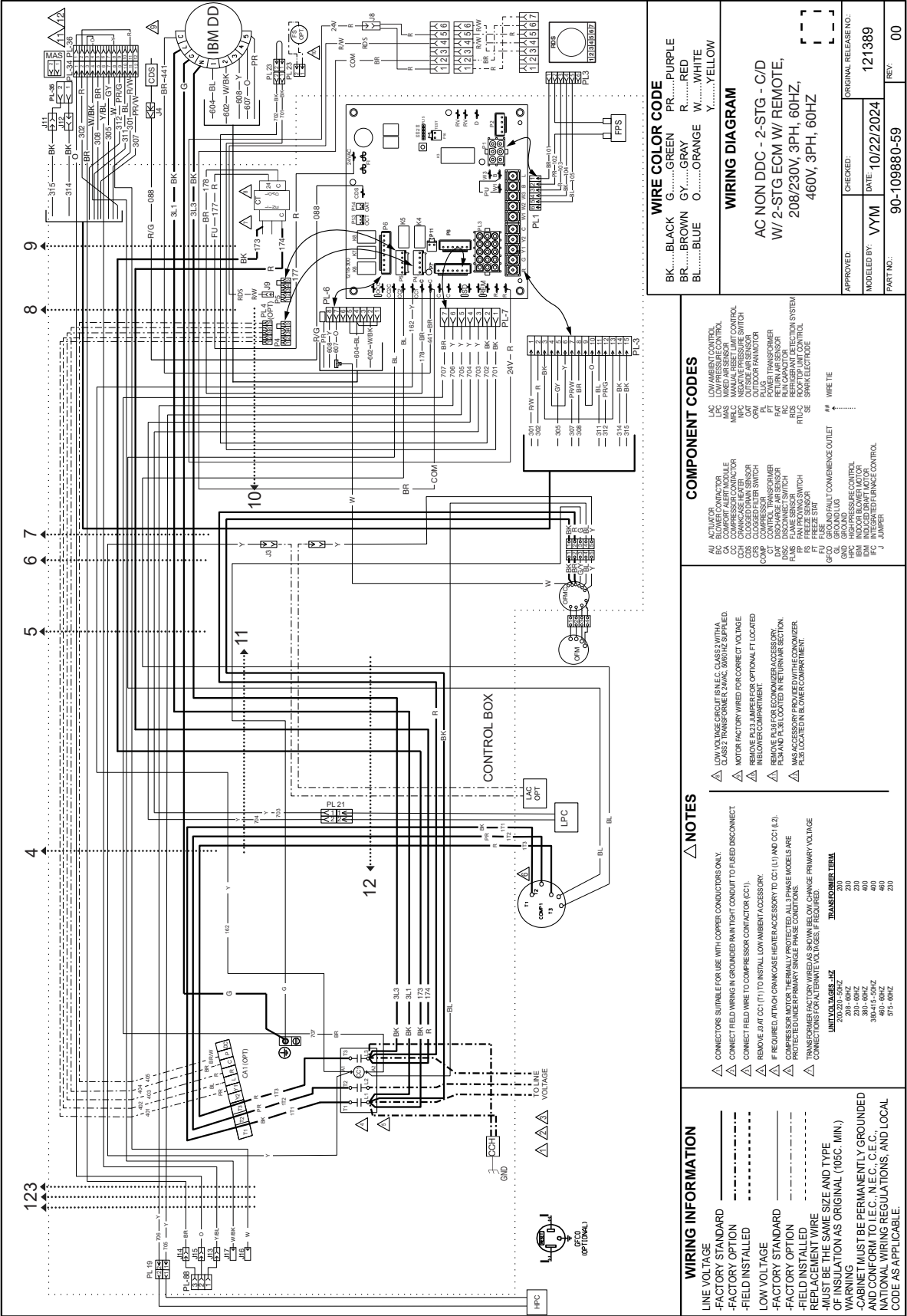


Appendix H – Wiring Diagrams & Schematics (Cont.)



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Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



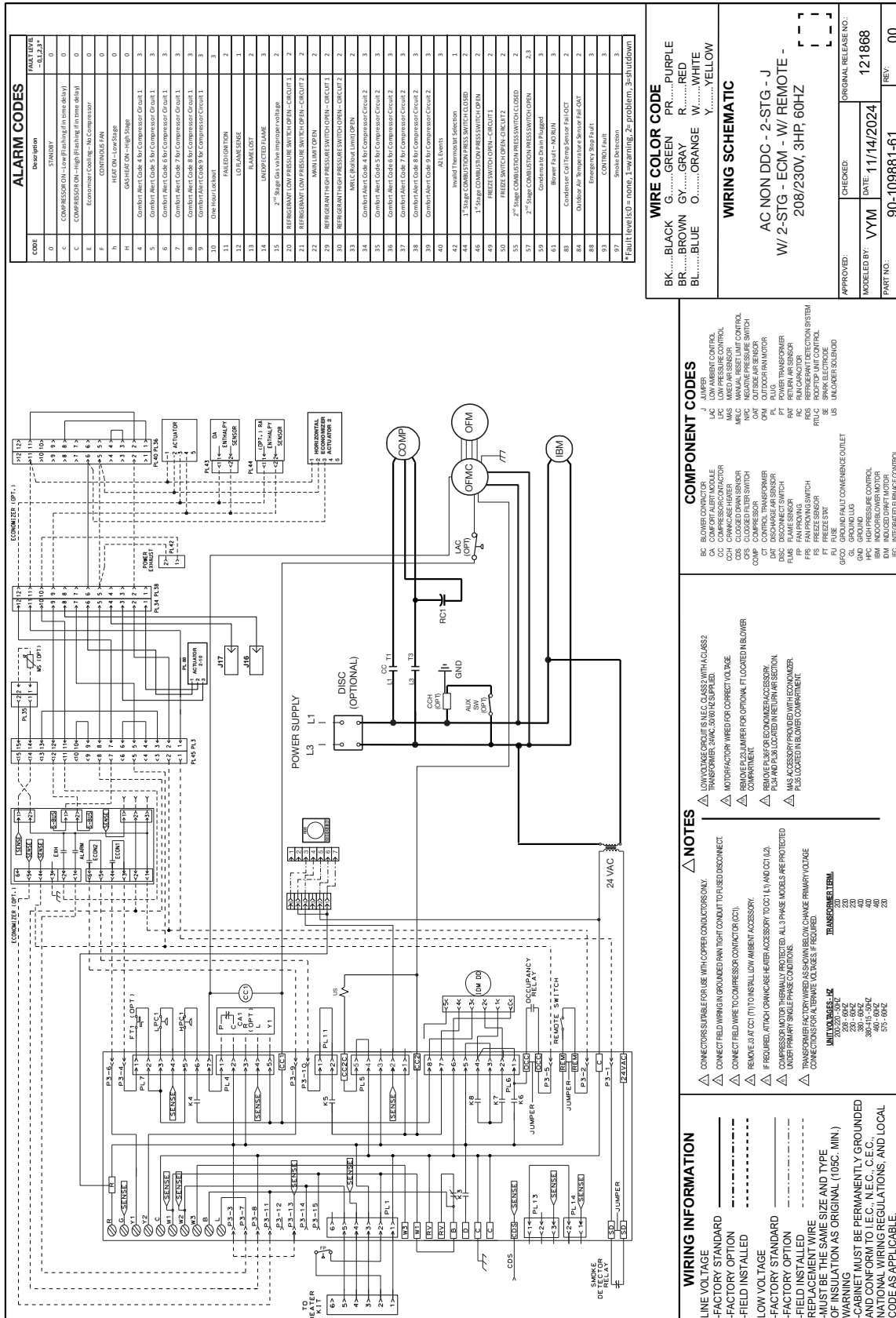
Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)

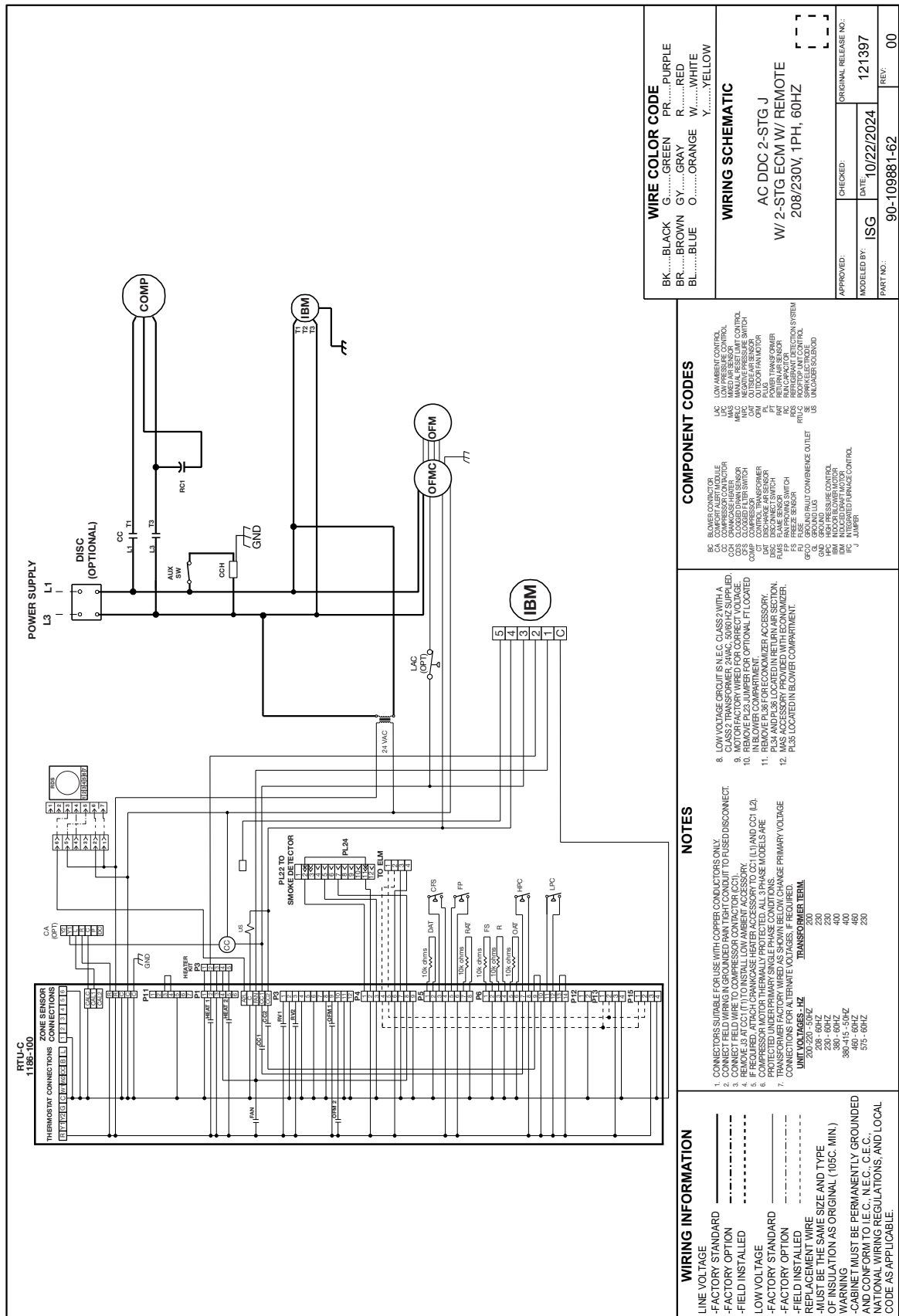


Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)

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Appendix H – Wiring Diagrams & Schematics (Cont.)



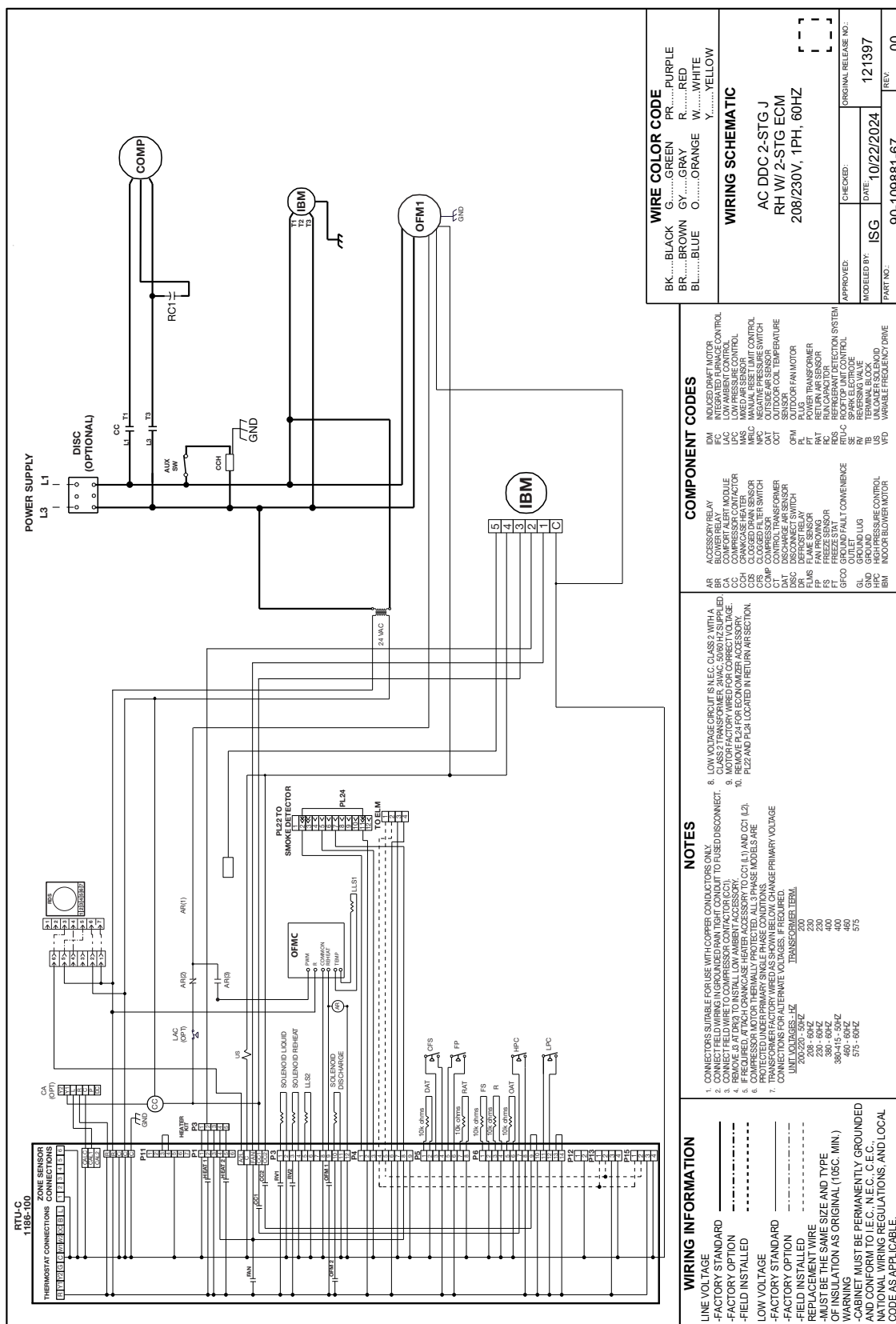
Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



Appendix H – Wiring Diagrams & Schematics (Cont.)



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J. Unit Tie-Down



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Technical Evaluation Report

DIVISION: 23 08 00—COMMISSIONING OF HVAC

FL 26981.1
THIS DOCUMENT CONTAINS (5) PAGES

EVALUATION SUBJECT: RHEEM PACKAGED UNITS

17-4893

REPORT HOLDER:

RHEEM MANUFACTURING COMPANY, INC.
1100 ABERNATHY ROAD SUITE 1400
ATLANTA, GA, USA
770-351-3000 | RHEEM.COM



SCOPE OF EVALUATION (compliance with the following codes):

THIS IS A STRUCTURAL (WIND) PERFORMANCE EVALUATION ONLY. NO ELECTRICAL OR TEMPERATURE PERFORMANCE RATINGS OR CERTIFICATIONS ARE OFFERED OR IMPLIED HEREIN.

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Building Code Sixth Edition (2017) per FBC Section 104.11, FMC 301.15, FBC Building Ch. 16, ASCE-7-10, FBC Existing Building sections 707.1, 707.2, FBC Building 1522.2, FBC Residential M1202.1, M1301.1, & FS 471.025. The product noted on this report has been tested and evaluated as summarized herein.

SUBSTANTIATING DATA:

• Product Evaluation Documents Test Reports

Substantiating documentation has been submitted to provide this TER and is summarized in the sections below.

Test Report: 0320.01-18 (American Test Lab of South FL)

• Structural Engineering Calculations

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

- Maximum allowable uplift, sliding, & overturning moment for ground and roof applications
- Maximum unit anchorage to steel curb

NOTE: No 33% increase in allowable stress has been used in the design of this product.

INSTALLATION:

The product(s) listed above shall be installed in strict compliance with this product evaluation & manufacturer-provided model specifications.

The product components shall be of the material specified in the manufacturer-provided product specifications. All screws must be installed in accordance with the applicable provisions & anchor manufacturer's published installation instructions.

LIMITATIONS & CONDITIONS OF USE:

Use of this product shall be in strict accordance with this product evaluation as noted herein. The supporting host structure shall be designed to resist all superimposed loads as determined by others on a site-specific basis as may be required by the Authority Having Jurisdiction. Host structure conditions which are not accounted for in this product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer. No evaluation is offered for the host supporting structure by use of this document. Adjustment factors noted herein and the applicable codes must be considered, where applicable.

All supporting components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times.

OPTIONS:

This evaluation is valid for models shown in the last page

FINISH:

Baked Enamel



NOTE: GRAPHICAL DEPICTIONS IN THIS REPORT ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER IN APPEARANCE UNIT CASING MATERIAL:

20ga galv. sheet steel ASTM A653 Type B.

Removable Top & side covers secured with #10 Sheet metal Hex Head Screws

Knockouts provided for utility & control connections.

INSTALLATION:

Shall follow manufacturer specifications as well as information provided herein

STRUCTURAL PERFORMANCE:

Models referenced herein are subject to the following design limitations: ASCE-710 Exposure Categories C & D (HVHZ)

Maximum Mean Roof Height (MRH) = 400ft

Up to and including 175mph (Vult) for the following Design Pressures:

Maximum Rated Wind Pressure:

200psf Lateral 133psf Uplift (ASD)

Site specific wind analysis may produce alternate limitations provided maximum rated wind pressure is not exceeded.

For more information and deviations to this evaluation visit ecalc.io/197799 or scan the QR code



ECALC.IO/197799



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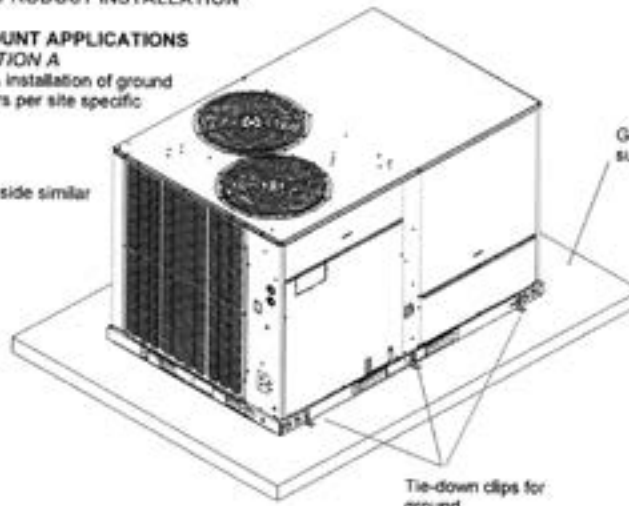
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SECTION 2 PRODUCT INSTALLATION

GROUND MOUNT APPLICATIONS CONFIGURATION A

Note: Design & installation of ground host is by others per site specific conditions

Opposite side similar



Ground structure /
substrate (concrete)

Tie-down clips for
ground



TIE-DOWN CLIP (GROUND APPLICATION)

Miami Tech CUTD 1" wide ASTM A653 galvanized steel 0.07" thick of varying length (FL19731.2) or equivalent for all cabinets tied down to a ground structure; fasten clip to structure using anchor from Anchor Schedule A to Host Structure Table and (3) #12 SAE Gr 2 self-drilling screw to fasten clip to unit base rail. Install in unit with quantities shown ((3) per side). Locate clips at 8.5" min away from the appropriate corner using three clips per side and three clips opposite side in the same configuration.

ANCHOR SCHEDULE TO HOST STRUCTURE

Pressure Lateral (Uplift) (psf)	Concrete	Steel Curb With Clip	Steel Curb Screw
Ground	A	-	-
Up to 81 (64)	-	-	C
Up to 200 (133)	-	B	-

A. - 5/16" ELCO ULTRACON Anchor embedded 2" in 3,515 psi concrete. 3 1/8" from edge minimum & 5" spacing minimum. NOA No. 17-1227.22

B. - #12 TEK Screws, (14) screws per clip, (5) top front side, (4) top back side and (5) bottom front side.

C. - 3/8" SAE Grade 5 Self-Drilling Screw at 6" O.C., (15) per long side and (10) per short side.

STEEL CURB (ROOF APPLICATION)

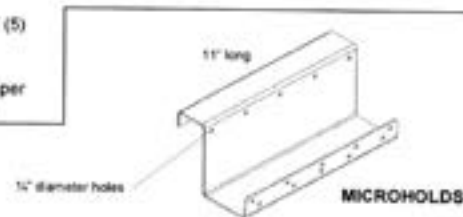
Steel curb to be a minimum of 16ga ASTM A653 steel
Curb Clip to be 14ga ASTM A653 steel min (Microhold)

CURB MOUNT APPLICATIONS CONFIGURATION B

Note: Design & installation of curb to host by others per site specific conditions



MICROHOLDS



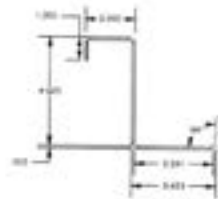
11" long

1/2" diameter holes

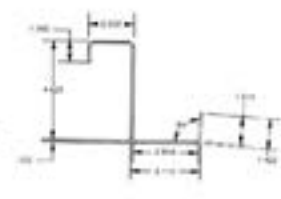
MICROHOLDS



Curb Clip A



Curb Clip C



Curb Clip B

IN ALL CONDITIONS IT IS THE RESPONSIBILITY OF THE PERMIT HOLDER TO ENSURE THE HOST STRUCTURE IS CAPABLE OF WITHSTANDING FORCES BY SITE-SPECIFIC DESIGN. NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS OFFERED BY RHEEM MANUFACTURING COMPANY, OR ENGINEERING EXPRESS AS TO THE INTEGRITY OF THE HOST STRUCTURE TO CARRY LOADS INCURRED BY THIS UNIT.

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CURB CLIP LOCATION

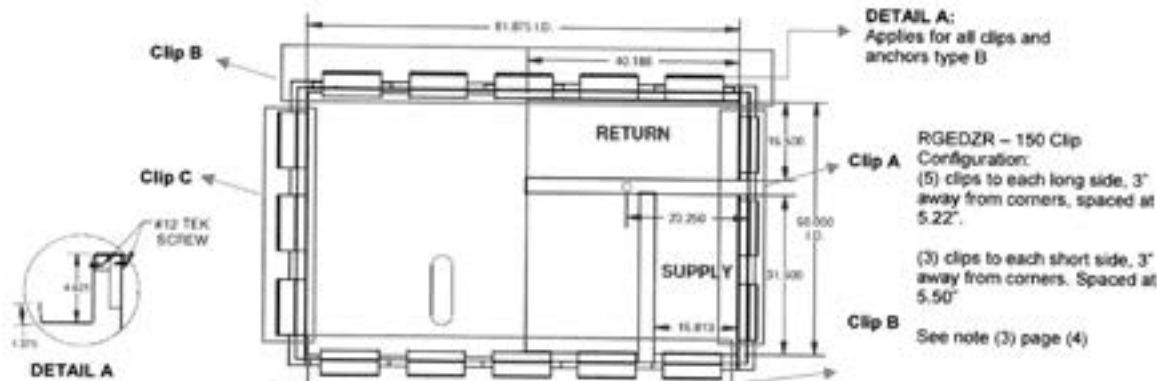


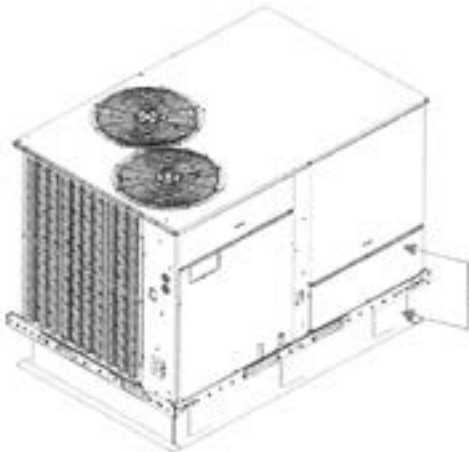
Table 1: Clip Curb Schedule				
Unit Model			Number of Clips (Pcs)	
(-)GEC - 036	(-)ACC - 036	(-)HPC - 036	4 LS - 2 SS	
(-)GEC - 048	(-)ACC - 048	(-)HPC - 048	4 LS - 2 SS	
(-)GEC - 060	(-)ACC - 060	(-)HPC - 060	4 LS - 2 SS	
(-)GEC - 072	(-)ACC - 072	(-)HPC - 072	4 LS - 2 SS	
(-)GED - 090	(-)ACD - 090	(-)HPD - 090	5 LS - 3 SS	
(-)GED - 102	(-)ACD - 102	(-)HPD - 102	5 LS - 3 SS	
(-)GED - 120	(-)ACD - 120	(-)HPD - 120	5 LS - 3 SS	
(-)GED - 150	(-)ACD - 150		5 LS - 3 SS	

#Clip Designation (5 LS= 5 clips each Long Side, 3 SS= 3 clips each Short Side) equally spaced

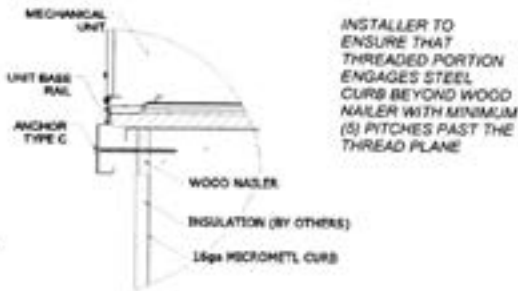
Unit Model Note: '-' designates equivalent trade brands with similar cabinetry and may vary depending on brand

See pressures on page (2) for alternative anchor limitations

ALTERNATIVE ANCHORAGE TO CURB STEEL CURB WITH SCREW CONFIGURATION C



Mechanical Unit Curb Mounted



DETAIL B

J. Unit Tie-Down

SECTION 3 MODELS SUMMARY, DIMENSION & NOTES

TABLE 2: Qualified Tested Unit Construction Metal Cabinetry				
Unit Model	Operating Dimensions w/ screw heads			Operating Weight (lbs)
	Width (in)	Length (in)	Height (in)	
RGEDZR - 150	59 1/2	90 1/10	59 7/10	1070

TESTED UNIT LIMITATIONS

1. The unit model listed above was tested and designed as worst-case configurations of model units listed in Evaluation Model Series Matrix, remaining unit models are certified by this approval as long as they have identical construction as those listed above and are of equal or lesser dimensions (length, width, height).
2. Dimensions shown are measured from outermost points of unit, including screw heads.
3. Curb clips shall be as close as possible from the shown locations; installers shall verify any interference between clip attachment and internal components of the unit and move clip within the tolerance allowed.

REQUIRED WIND PRESSURES

Design pressures calculated for use with these units shall be determined by others on a job-specific basis in accordance with the governing code. Site specific load requirements for wind load shall be determined in accordance with ASCE 7 and the codes referenced herein by separate engineering certification and shall be less or equal to design pressures capacity values listed herein for any assembly as shown.

TEST REPORTS UTILIZED

Design and certification of the unit cabinetry is approved through American Test Lab of South Florida Report #: 0320.01-18
Tested according ASTM E330-05 and TAS 202-94.

TABLE 3: Evaluation Model Series Matrix (Unit Construction Metal Cabinetry)				
Unit Model	Operating Dimensions w/ screw heads			Operating Weight (lbs)
	Width (in)	Length (in)	Height (in)	
(-)JACC - 036	46 3/4	78 3/8	41 3/8	453
(-)JACC - 048	46 3/4	78 3/8	41 3/8	477
(-)JACC - 060	46 3/4	78 3/8	41 3/8	482
(-)JACC - 072	46 3/4	78 3/8	41 3/8	689
(-)JACD - 090	59 15/32	89 5/16	49 1/4	722
(-)JACD - 102	59 15/32	89 5/16	49 1/4	748
(-)JACD - 120	59 15/32	89 5/16	49 1/4	777
(-)JACD - 150	59 1/2	90 1/10	59 7/10	946

TABLE 3.1: Evaluation Model Series Matrix (Unit Construction Metal Cabinetry)				
Unit Model	Operating Dimensions w/ screw heads			Operating Weight (lbs)
	Width (in)	Length (in)	Height (in)	
(-)JGEC - 036	46 3/4	78 3/8	41 3/8	453
(-)JGEC - 048	46 3/4	78 3/8	41 3/8	477
(-)JGEC - 060	46 3/4	78 3/8	41 3/8	482
(-)JGEC - 072	46 3/4	78 3/8	41 3/8	689
(-)JGED - 090	59 15/32	89 5/16	49 1/4	846
(-)JGED - 102	59 15/32	89 5/16	49 1/4	872
(-)JGED - 120	59 15/32	89 5/16	49 1/4	901

TABLE 3.2: Evaluation Model Series Matrix (Unit Construction Metal Cabinetry)				
Unit Model	Operating Dimensions w/ screw heads			Operating Weight (lbs)
	Width (in)	Length (in)	Height (in)	
(-)JHPC - 036	78 3/8	46 3/4	41 3/8	528
(-)JHPC - 048	78 3/8	46 3/4	41 3/8	551
(-)JHPC - 060	78 3/8	46 3/4	41 3/8	553
(-)JHPC - 072	78 3/8	46 3/4	41 3/8	553
(-)JHPD - 090	89 5/16	59 1/2	49 1/4	786
(-)JHPD - 102	89 5/16	59 1/2	49 1/4	822
(-)JHPD - 120	89 5/16	59 1/2	59 7/10	874

Unit Model Note: '(-)' designates equivalent trade brands with similar cabinetry and may vary depending on brand

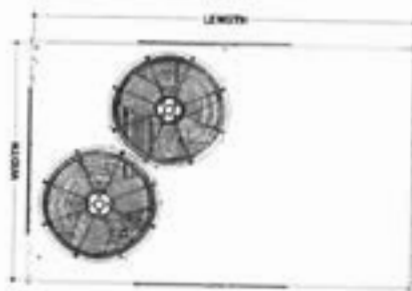
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J. Unit Tie-Down

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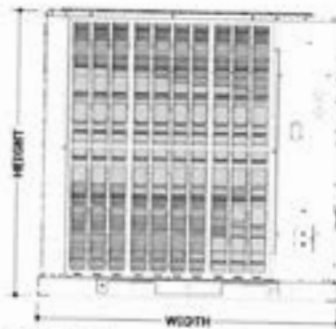
UNIT VIEWS & ELEVATIONS



TOP VIEW



ELEVATION VIEW



SIDE VIEW

Note: RGEDZR-150 illustration selected for dimensional purposes

Q. DECOMMISSIONING

Q.1. Before Beginning Decommissioning

Before carrying out decommissioning, the technician performing decommissioning must be familiar with the equipment and its safety procedures, and ensure electrical power is available to the unit. See **Section A.3.1. Working Personnel Qualifications** for more information.

Before recovering the refrigerant, an oil and refrigerant sample must be taken if the technician intends to reuse the recovered refrigerant to have a record.

Before beginning any work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. See **C.2.6. No Ignition Sources**.

Before beginning any work on the system or conducting any hot work, ensure that the area is in the open or that it is adequately ventilated. Ventilation must continue while the unit is being worked on. Ventilation is required to safely disperse any released refrigerant into the atmosphere.

Work shall be undertaken under a controlled procedure so as to minimize the risk of flammable gas or vapor being present while work is being performed. See **A.3. Importance of a Quality Installation**.

All maintenance staff and others working in the local area shall be instructed on the nature of the work being performed. Work in confined spaces shall be avoided.

The area shall be checked with an appropriate refrigerant detector before and during work to ensure the technician is aware of potentially toxic or flammable atmospheres.

Q.2. Decommissioning Procedure

Follow the decommissioning procedure outlined below:

READ ALL STEPS BEFORE BEGINNING.

1. Become familiar with the equipment, its operation, and its safety procedures.
2. Isolate the system electrically.
3. Ensure that mechanical handling equipment for the refrigerant cylinders is at hand, if required.
4. Ensure personal, protective equipment is being used correctly.
5. A competent supervisor must be present during the refrigerant recovery process. Ensure such a person is available on site.

6. Confirm that the recovery equipment and cylinders are correct for the equipment and its refrigerant.
7. Follow the steps outlines in **Section J.1.1. Check for Refrigerant Leaks** and **Section J.1.1.3. Removal and Evacuation of Refrigerant**.
8. If possible, pump down the refrigerant system.
9. If a vacuum is not possible, make a manifold so that the refrigerant can be removed from various parts of the system.
10. Make sure that the recovery cylinder is situated on the scale before recovery begins.
11. Start the recovery machine and operate it in accordance with its instructions.
12. Do not overflow the cylinders. No more than 80% volume liquid charge is allowed.
13. Do not exceed the maximum working pressure of the cylinder, even temporarily.
14. When the cylinders have been filled correctly and the process is complete, make sure that the cylinders and the recovery equipment are removed from the site promptly.
15. Verify all isolation valves on the unit are closed (off).
16. Recovered refrigerant shall not be charged into another unit unless a sample was taken prior to recovering the refrigerant and its been cleaned and checked.

Q.3. Labeling

When performing any maintenance or troubleshooting on the refrigerating equipment or associated parts, a dry powder or CO2 fire extinguisher shall be nearby for emergency use.

Equipment must be labeled stating that it has been decommissioned and emptied of refrigerant. The label must be dated and signed. Ensure that there are label(s) on the unit stating that this equipment contains **flammable refrigerant**.

R. INFORMATION FOR THE OWNER

R.1. Product Model and Serial Number

The product model and serial number are both located on the rating plate found on the supply/return panel of the unit.

R.2. Information for the Owner: Maintenance and Service

For routine maintenance, general diagnostics for cooling and heating, and other generalized information regarding filter changing, cleaning the condensate pan, cleaning the coils, and general inspections, refer to the User's Information Manual which can be found on the manufacturer's website.

At least once a year, scheduled service checks must be made to verify the safety systems in this unit are working as intended.

R.2.1. Filter Changing

WARNING: DISCONNECT THE MAIN POWER TO THE OUTDOOR UNIT BEFORE ATTEMPTING ANY MAINTENANCE OPERATION. FAILURE TO DO SO CAN RESULT IN SEVERE ELECTRICAL SHOCK OR DEATH.

1. Keep air filters clean. There are several types of material used in air filters and there are many possible locations for air filters. Consult with your contractor as to the locations of the filters and type of material in use.

2. How To Clean:

Glass Fiber (Throwaway) — This is a disposable type of filter. Inspect monthly and replace when necessary. A new building will normally require more frequent attention to the filters.

Aluminum Mesh — Wash with detergent and water. Air dry thoroughly and renew the coating in compliance with the manufacturer's instructions.

Pleated or MERV Filters (Throwaway)

— There are various types and levels of filtration available. These may require more frequent inspection or replacement. Consult with the filter manufacturer.

IMPORTANT: Do not operate your system for extended periods without filters, as the dust contained in the air may pack into the fin area of the evaporator coil creating a condition which could require extensive repairs.

WARNING: A PORTION OF THE DUST CONTAINED IN THE AIR MAY TEMPORARILY LODGE IN THE AIR DUCT RUNS AND AT THE SUPPLY REGISTERS. ANY RECIRCULATED DUST PARTICLES WILL BE HEATED AND CHARRED BY CONTACT WITH THE ELECTRIC HEATING ELEMENTS. THIS RESIDUE WILL SOIL CEILINGS, WALLS, FLOORING, AND OTHER BUILDING ARTICLES.

R.2.2. Cleaning Condensate Pan

Check annually and, if necessary, clean drain pan and drain line. In winter, keep drain and trap dry or protect against freezeup. If this unit is installed with proper clearances, then the drain pan on most units is removable (check unit Specification Sheet to determine whether or not your unit is equipped with a slide-out drain pan). Refer to the unit Installation and Operation Manual for specific instruction on clearances and how to clean the drain pan.

R.2.3. Cleaning Coils

NOTE: Clean the Microchannel using only water. Due to the aluminum construction, do not use cleaners or detergents because they may cause corrosion to the Microchannel, leading to refrigerant leaks.

Directions to clean the Microchannel coils are as follows:

1. Disconnect power to the unit.
2. Wear proper personal protection equipment such as a face shield, gloves, and waterproof clothing.
3. Remove panels from the unit to gain safe access to the microchannel coils.

NOTE: Clean the coil from the inside out, in the opposite direction of normal airflow, allowing the debris to be pushed out rather than further in.

4. Use a soft brush or vacuum to remove base debris or surface-loaded fibers from both sides of the coil.

R. INFORMATION FOR THE OWNER

R.2.3. Cleaning Coils (Cont.)

5. Using a sprayer and water ONLY, clean the coil following the guidelines below:
 - a. Use a 90° sprayer nozzle attachment to aid in cleaning the closely spaced coils. Sprayer nozzle pressure should not exceed 600 psi. Use a flat fan spray nozzle with an angle of at least 15 degrees.
 - b. Spray perpendicular to the face of the coil. The maximum source angle should not exceed 25 degrees to the face of the coil.
 - c. Spray approximately 1"-3" from the coil surface.
6. Do not allow the sprayer to come in contact with the tube and fin as it may damage the coil.

R.2.4. Checking Electrical Components

Repair and maintenance of electrical components must include safety checks and component inspections.

If a fault exists that could compromise safety, then no electrical supply can be connected to the unit until the error causing the fault is repaired. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution must be used. The temporary solution must be communicated to the owner.

Initial safety checks include:

- Confirming that the capacitors are discharged. This must be done safely to avoid the possibility of sparking.
- Ensure that no live electrical components or wiring are exposed while charging, recovering, or purging the system.
- Confirm that the unit grounding is constant and secure.

R.3. Refrigerant Recovery

When removing refrigerant from a unit, either for service or decommissioning, the following practices are required to safely remove the refrigerant.

When transferring the refrigerant into cylinders, ensure that only the appropriate recovery cylinders are employed.

- Ensure that the correct number of recovery cylinders are available to hold the total system charge.
- All cylinders used must be designed for recovering R-454B refrigerant.
- Cylinders shall be complete with a pressure-relief valve and shut-off valves, all in working order.

- Empty recovery cylinders must be evacuated and cooled before refrigerant recovery occurs.

The following equipment is required to be on site and in good working condition prior to and during refrigerant recovery:

- The technician's recovery equipment
- The recovery equipment's instructions that details the proper recovery of flammable refrigerant.
- A set of calibrated weighing scales
- Hoses, which must be complete with leak-free disconnect couplings.

If in doubt, contact the manufacturer about recovering flammable refrigerant.

The recovered refrigerant must be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. **DO NOT MIX REFRIGERANTS IN RECOVERY UNITS OR RECOVERY CYLINDERS.**

If compressors or compressor oils are to be removed, ensure that they have been evacuated to make certain that the flammable refrigerant, R-454B, does not remain within the lubricant. The compressor body must not be heated by an open flame or other ignition sourced to accelerate this process. When oil is drained from a system, it shall be carried out safely.

R.4. Warranty Information

For more information on this unit's factory warranty, see the warranty card shipped with the unit. The warranty card is also provided on the manufacturer's website.

S. INSTALLATION CHECKLIST AND JOB SITE SHEET

Commercial Job Site Information

Site Information and Application Details:

Business Name :	Model Number :
Address :	(Please include all letters and digits of the model number)
City : State : Zip :	Serial Number :
Site Contact :	(Please include all letters and digits of the serial number)
Phone : Mobile :	Date of Install :
Email :	(When was the unit installed, month, day, and year)

Dealer/Contractor Information:

Business Name :	Technician Name :
Address :	Visit Date:
City : State : Zip :	Technician Name :
Site Contact :	Visit Date:
Phone : Mobile :	Technician Name :
Email :	Visit Date:

Distributor and Support Details:

Distributor Name :	Rep Name :
City : State :	Visit Date:

Unit Setup and Operational Information

Voltage and Amperage Information :

Line Voltage Measurements :

Base Voltage : 208 240 460 (Circle one)	Phase : 1 3 (Circle one)
Measured Line Voltage :	
Phase A to B : _____	Phase A to Ground : _____
Phase B to C : _____	Phase B to Ground : _____
Phase C to A : _____	Phase C to Ground : _____
Breaker Size : _____	Conductor Size: _____

24VAC Low Voltage Measurements :

Transformer Tap : 208 240 460 (Circle one)
24VAC Measured Voltage : R to C : _____
24VAC Measured Amp Load : _____
Transformer Load: _____
T-stat Load: _____

Amperage and Power Measurements :

Full Running Load	Blower	Compressor 1	Compressor 2	Outdoor Fans
Phase A : _____	_____	_____	_____	_____
Phase B : _____	_____	_____	_____	_____
Phase C : _____	_____	_____	_____	_____

Refrigerant Circuit Information :

Circuit 1 :

Suction Line	Liquid Line
Pressure (PSI) : _____	Pressure (PSI) : _____
Temperature (°F) : _____	Temperature (°F) : _____
Superheat (°F) : _____	Sub-cooling (°F) : _____
Outdoor Air Temperature (°F) : _____	Return Air Temperature (°F) : _____
Outdoor Air Wet Bulb (°F) : _____	Return Air Wet Bulb (°F) : _____

Circuit 2 :

Suction Line	Liquid Line
Pressure (PSI) : _____	Pressure (PSI) : _____
Temperature (°F) : _____	Temperature (°F) : _____
Sub-cooling (°F) : _____	Sub-cooling (°F) : _____
Supply Air Temperature (°F) : _____	
Supply Air Wet Bulb (°F) : _____	

S. INSTALLATION CHECKLIST AND JOB SITE SHEET

Commercial Job Site Information

Site Information and Application Details:

Business Name :	_____	Model Number :	_____
Address :	_____	(Please include all letters and digits of the model number)	
City :	_____	State :	_____
Zip :	_____	Serial Number :	_____
Site Contact :	_____	(Please include all letters and digits of the serial number)	
Phone :	_____	Mobile :	_____
Email :	_____	Date of Install :	_____
		(When was the unit installed, month, day, and year)	

Dealer/Contractor Information:

Business Name :	_____	Technician Name :	_____
Address :	_____	Visit Date:	_____
City :	_____	State :	_____
Zip :	_____	Technician Name :	_____
Site Contact :	_____	Visit Date:	_____
Phone :	_____	Mobile :	_____
Email :	_____	Technician Name :	_____
		Visit Date:	_____

Distributor and Support Details:

Distributor Name :	_____	Rep Name :	_____
City :	_____	State :	_____
		Visit Date:	_____

Unit Setup and Operational Information

Voltage and Amperage Information :

Line Voltage Measurements :

Base Voltage :	208	240	460	Phase :	1	3
	(Circle one)				(Circle one)	
Measured Line Voltage :						
Phase A to B :	_____	Phase A to Ground :	_____			
Phase B to C :	_____	Phase B to Ground :	_____			
Phase C to A :	_____	Phase C to Ground :	_____			
Breaker Size :	_____	Conductor Size:	_____			

24VAC Low Voltage Measurements :

Transformer Tap :	208	240	460
	(Circle one)		
24VAC Measured Voltage :	R to C :	_____	
24VAC Measured Amp Load :	_____		
Transformer Load:	_____		
T-stat Load:	_____		

Amperage and Power Measurements :

Full Running Load	Blower	Compressor 1	Compressor 2	Outdoor Fans
Phase A :	_____	_____	_____	_____
Phase B :	_____	_____	_____	_____
Phase C :	_____	_____	_____	_____

Refrigerant Circuit Information :

Circuit 1 :

Suction Line	Liquid Line
Pressure (PSI) :	Pressure (PSI) :
Temperature (°F) :	Temperature (°F) :
Superheat (°F) :	Sub-cooling (°F) :

Circuit 2 :

Suction Line	Liquid Line
Pressure (PSI) :	Pressure (PSI) :
Temperature (°F) :	Temperature (°F) :
Sub-cooling (°F) :	Sub-cooling (°F) :

Outdoor Air Temperature (°F) :	Return Air Temperature (°F) :	Supply Air Temperature (°F) :
Outdoor Air Wet Bulb (°F) :	Return Air Wet Bulb (°F) :	Supply Air Wet Bulb (°F) :





