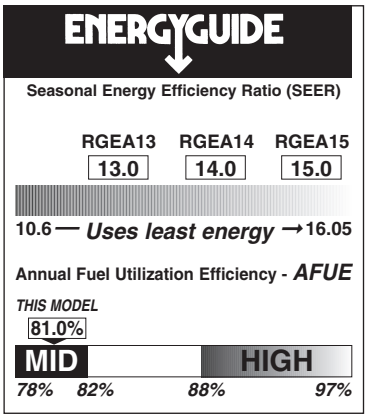
INSTALLATION INSTRUCTIONS

PACKAGE GAS ELECTRIC

FEATURING EARTH-FRIENDLY R-410A REFRIGERANT

RGEA13 (2-5 TONS) 13 SEER
RGEA14 (2-5 TONS) 14 SEER
RGEA15 (2-5 TONS) 15 SEER



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ENERGY STAR (14 SEER & ABOVE)

Accredited by the RvA

ISO 9001:2008

Certificate Number: 30164

RECOGNIZE THIS SYMBOL AS AN INDICATION OF IMPORTANT SAFETY INFORMATION!

⚠WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT, CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠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: THIS FURNACE CONTAINS FIBERGLASS INSULATION. RESPIRABLE PARTICLES OF FIBERGLASS ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXHAUST GAS FROM THIS FURNACE CONTAINS CHEMICALS, INCLUDING CARBON MONOXIDE, KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

⚠WARNING

— Do not store or use gasoline or other flammable vapors and liquids, or other combustible materials in the vicinity of this or any other appliance.

— WHAT TO DO IF YOU SMELL GAS
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- Do not return to your home until authorized by the gas supplier or fire department.

— DO NOT RELY ON SMELL ALONE TO DETECT LEAKS. DUE TO VARIOUS FACTORS, YOU MAY NOT BE ABLE TO SMELL FUEL GASES.
- U.L. recognized fuel gas and CO (carbon monoxide) detectors are recommended in all applications, and their installation should be in accordance with the manufacturer's recommendations and/or local laws, rules, regulations, or customs.

— Improper installation, adjustment, alteration, service or maintenance can cause injury, property damage or death. Refer to this manual. Installation and service must be performed by a qualified installer, service agency or the gas supplier. In the commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter for appropriate fuel.

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

92-21916-69-02
SUPERSEDES 92-21916-69-01

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I. SAFETY INFORMATION

⚠ WARNING

PROPOSITION 65: THIS FURNACE CONTAINS FIBERGLASS INSULATION. RESPIRABLE PARTICLES OF FIBERGLASS ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXHAUST GAS FROM THIS FURNACE CONTAINS CHEMICALS, INCLUDING CARBON MONOXIDE, KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

⚠ 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

UNITS ARE NOT DESIGN CERTIFIED TO BE INSTALLED INSIDE THE STRUCTURE. DOING SO CAN CAUSE INADEQUATE UNIT PERFORMANCE AS WELL AS PROPERTY DAMAGE AND CARBON MONOXIDE POISONING RESULTING IN PERSONAL INJURY OR DEATH.

⚠ WARNING

DISCONNECT ALL POWER TO UNIT BEFORE STARTING MAINTENANCE. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

⚠ WARNING

THESE UNITS ARE DESIGNED CERTIFIED FOR OUTDOOR INSTALLATION ONLY. INSTALLATION INSIDE ANY PART OF A STRUCTURE CAN RESULT IN INADEQUATE UNIT PERFORMANCE AS WELL AS PROPERTY DAMAGE. INSTALLATION INSIDE CAN ALSO CAUSE RECIRCULATION OF FLUE PRODUCTS INTO THE CONDITIONED SPACE RESULTING IN PERSONAL INJURY OR DEATH.

⚠ WARNING

THIS UNIT MUST NOT BE INSTALLED DIRECTLY ON WOOD FLOORING, CLASS A, CLASS B OR CLASS C ROOF COVERING MATERIALS, OR ANY OTHER COMBUSTIBLE STRUCTURE EXCEPT AS SPECIFIED IN FIGURE 15. FAILURE TO ADHERE TO THIS WARNING CAN CAUSE A FIRE OR EXPLOSION RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ 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, OR PROPERTY DAMAGE.

⚠ WARNING

NEVER ALLOW PRODUCTS OF COMBUSTION OR THE FLUE PRODUCTS TO ENTER THE RETURN AIR DUCTWORK, OR THE CIRCULATING AIR SUPPLY. ALL RETURN DUCTWORK MUST BE ADEQUATELY SEALED AND SECURED TO THE FURNACE WITH SHEET METAL SCREWS, AND JOINTS TAPED. ALL OTHER DUCT JOINTS MUST BE SECURED WITH APPROVED CONNECTIONS AND SEALED AIRTIGHT.

FAILURE TO PREVENT PRODUCTS OF COMBUSTION FROM BEING CIRCULATED INTO THE LIVING SPACE CAN CREATE POTENTIALLY HAZARDOUS CONDITIONS, INCLUDING CAROBON MONOXIDE POISONING THAT COULD RESULT IN PERSONAL INJURY OR DEATH.

⚠ WARNING

DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS. THE USE OF AN OPEN FLAME CAN RESULT IN FIRE, EXPLOSION, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ WARNING

THIS UNIT IS EQUIPPED AT THE FACTORY FOR USE ON NATURAL GAS ONLY. CONVERSION TO LP GAS REQUIRES A SPECIAL KIT SUPPLIED BY THE DISTRIBUTOR OR MANUFACTURER. MAILING ADDRESSES ARE LISTED ON THE FURNACE RATING PLATE, PARTS LIST AND WARRANTY. FAILURE TO USE THE PROPER CONVERSION KIT CAN CAUSE FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PERSONAL INJURY, PROPERTY DAMAGE OR DEATH.

⚠ 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.

⚠ WARNING

DO NOT ATTEMPT TO MANUALLY LIGHT THIS FURNACE WITH A MATCH OR ANY OPEN FLAME. ATTEMPTING TO DO SO CAN CAUSE AN EXPLOSION OR FIRE RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ WARNING

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

⚠ WARNING

THE SPARK IGNITOR AND IGNITION LEAD FROM THE IGNITION CONTROL ARE HIGH VOLTAGE. KEEP HANDS OR TOOLS AWAY TO PREVENT ELECTRICAL SHOCK. SHUT OFF ELECTRICAL POWER BEFORE SERVICING ANY OF THE CONTROLS. FAILURE TO ADHERE TO THIS WARNING CAN RESULT IN PERSONAL INJURY OR DEATH.

⚠ WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO SHUT OFF, SHUT OFF THE MANUAL GAS VALVE TO THE APPLIANCE BEFORE SHUTTING OFF THE ELECTRICAL SUPPLY. FAILURE TO DO SO CAN RESULT IN AN EXPLOSION OR FIRE CAUSING PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH!

⚠ WARNING

DO NOT JUMPER THIS DEVICE! DO NOT reset the overtemperature control without taking corrective action to assure that an adequate supply of combustion air is maintained under all conditions of operation. Failure to do so can result in carbon monoxide poisoning or death. Replace this control only with the identical replacement part.

⚠ WARNING

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ WARNING

HOLES IN THE EXHAUST TRANSITION OR HEAT EXCHANGER CAN CAUSE TOXIC FUMES TO ENTER THE HOME. THE EXHAUST TRANSITION OR HEAT EXCHANGER MUST BE REPLACED IF THEY HAVE HOLES OR CRACKS IN THEM. FAILURE TO DO SO CAN CAUSE CARBON MONOXIDE POISONING RESULTING IN PERSONAL NJURY OR DEATH.

⚠ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING MAINTENANCE. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

⚠ WARNING

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING THE UNIT. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.

⚠ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING TO CHANGE BLOWER SPEEDS. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

⚠ 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.

⚠ WARNING

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

EFFICIENCY TESTING NOTICE

For purposes of verifying or testing efficiency ratings, the test procedure in Title 10 Part 431 Appendix A to Subpart F (Uniform Test Method for Measuring the Energy Consumption of Small Large and Very Large Commercial Package Air Conditioning and Heating Equipment), Title 10 Part 431.76 Subpart D (Uniform Test Method for Measuring Energy Consumption of Commercial Warm Air Furnaces), and the clarifying provisions provided in the AHRI Operations Manuals for Unitary Large Equipment 340/360, 365 and Commercial Furnaces that were applicable at the date of manufacture should be used for test set up and performance.

⚠ WARNING

IMPORTANT: ALL MANUFACTURER PRODUCTS MEET CURRENT FEDERAL OSHA GUIDELINES FOR SAFETY. CALIFORNIA PROPOSITION 65 WARNINGS ARE REQUIRED FOR CERTAIN PRODUCTS, WHICH ARE NOT COVERED BY THE OSHA STANDARDS.

CALIFORNIA'S PROPOSITION 65 REQUIRES WARNINGS FOR PRODUCTS SOLD IN CALIFORNIA THAT CONTAIN, OR PRODUCE, ANY OF OVER 600 LISTED CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR BIRTH DEFECTS SUCH AS FIBERGLASS INSULATION, LEAD IN BRASS, AND COMBUSTION PRODUCTS FROM NATURAL GAS.

ALL "NEW EQUIPMENT" SHIPPED FOR SALE IN CALIFORNIA WILL HAVE LABELS STATING THAT THE PRODUCT CONTAINS AND/OR PRODUCES PROPOSITION 65 CHEMICALS. ALTHOUGH WE HAVE NOT CHANGED OUR PROCESSES, HAVING THE SAME LABEL ON ALL OUR PRODUCTS FACILITATES MANUFACTURING AND SHIPPING. WE CANNOT ALWAYS KNOW "WHEN, OR IF" PRODUCTS WILL BE SOLD IN THE CALIFORNIA MARKET.

YOU MAY RECEIVE INQUIRIES FROM CUSTOMERS ABOUT CHEMICALS FOUND IN, OR PRODUCED BY, SOME OF OUR HEATING AND AIR-CONDITIONING EQUIPMENT, OR FOUND IN NATURAL GAS USED WITH SOME OF OUR PRODUCTS. LISTED BELOW ARE THOSE CHEMICALS AND SUBSTANCES COMMONLY ASSOCIATED WITH SIMILAR EQUIPMENT IN OUR INDUSTRY AND OTHER MANUFACTURERS.

- **GLASS WOOL (FIBERGLASS) INSULATION**
- **CARBON MONOXIDE (CO)**
- **FORMALDEHYDE**
- **BENZENE**

MORE DETAILS ARE AVAILABLE AT THE WEBSITES FOR OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), AT WWW.OSHA.GOV AND THE STATE OF CALIFORNIA'S OEHHA (OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT), AT WWW.OEHHA.ORG. CONSUMER EDUCATION IS IMPORTANT SINCE THE CHEMICALS AND SUBSTANCES ON THE LIST ARE FOUND IN OUR DAILY LIVES. MOST CONSUMERS ARE AWARE THAT PRODUCTS PRESENT SAFETY AND HEALTH RISKS, WHEN IMPROPERLY USED, HANDLED AND MAINTAINED.

II. INTRODUCTION

This booklet contains the installation and operating instructions for your combination gas heating/electric cooling unit. There are some precautions that should be taken to derive maximum satisfaction from it. Improper installation can result in unsatisfactory operation or dangerous conditions.

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

III. CHECKING PRODUCT RECEIVED

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

IV. SPECIFICATIONS

A. GENERAL

The Combination Gas Heating/Electric Cooling Rooftop is available in 40, 60, 80 and 100 BTU/Hr. heating inputs and cooling capacities of 2, 2½, 3, 3½, 4 and 5 nominal tons of cooling. Units are convertible from end supply and return to bottom supply and return by relocation of supply and return air access panels. See cover installation detail.

The units are weatherized for mounting outside of the building.

⚠ WARNING

UNITS ARE NOT DESIGN CERTIFIED TO BE INSTALLED INSIDE THE STRUCTURE. DOING SO CAN CAUSE INADEQUATE UNIT PERFORMANCE AS WELL AS PROPERTY DAMAGE AND CARBON MONOXIDE POISONING RESULTING IN PERSONAL INJURY OR DEATH.

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

1. The energy consumption of the ignition system used with this unit is 9 watts.
2. The efficiency rating of this unit is a product thermal efficiency rating determined under continuous operating conditions independent of any installed system.

B. MAJOR COMPONENTS

The unit includes a hermetically-sealed refrigerating system (consisting of a compressor, condenser coil, evaporator coil with thermostatic expansion valve), a circulation air blower, a condenser fan, a heat exchanger assembly, gas burner and control assembly, combustion air motor and fan, and all necessary internal electrical wiring. The cooling system of these units is factory-evacuated, charged with R-410A refrigerant and performance tested. Refrigerant amount is indicated on rating plate.

C. R410A REFRIGERANT

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

1. Specification of R-410A:

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

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

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

2. Quick Reference Guide For R-410A

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

3. Evaporator Coil / TXV

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

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

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

Manifold Hoses:
-Service Pressure Rating of 800 PSIG

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

⚠ CAUTION

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

D. COMFORT ALERT™ SYSTEM (2-STAGE MODELS ONLY)

1. Comfort Alert™

The Comfort Alert™ diagnostics module is for troubleshooting air conditioning system failures. By monitoring and analyzing data from the compressor and the thermostat demand, the module can accurately detect the cause of electrical and system-related failures without any external sensors. A flashing LED indicator communicates the ALERT code and guides the service technician more quickly and accurately to the root cause of a problem.

POWER LED (Green): indicates voltage is present at the power connection of the module.

ALERT LED (Yellow): communicates an abnormal system condition through a unique flash code. The ALERT LED will flash a number of times consecutively, pause and then repeat the process. The number of consecutive flashes, defined as the Flash Code, correlates to a particular abnormal condition. Detailed descriptions of specific ALERT Flash Codes are shown in the Comfort Alert Diagnosis Chart in this manual.

TRIP LED (Red): indicates there is a demand signal from the thermostat but no current to the compressor is detected by the module. The TRIP LED typically indicates the compressor internal overload protector is open or may indicate missing high voltage supply power to the compressor.

When an abnormal system condition occurs, the Comfort Alert module displays the appropriate ALERT and/or TRIP LED. The yellow ALERT LED will flash a number

FIGURE 1
LED DESCRIPTION

of times consecutively, pause and then repeat the process. To identify a Flash Code number, count the number of consecutive flashes.

IMPORTANT: Every time the module powers up, the last ALERT Flash Code that occurred prior to shut down is displayed for one minute. The module will continue to display the flash code until the condition returns to normal or if 24VAC power is removed from the module.

The control box cover allows access to the Comfort Alert™ status LEDs. An abbreviated Comfort Alert™ diagnostic chart is provided on the control box cover.

2. High Pressure Control (HPC)

The high pressure control (HPC) keeps the compressor from operating in pressure ranges, which can cause damage to the compressor. This is an auto-reset control that opens near 610 PSIG and closes once the system pressure drops below 420 PSIG.

The high pressure control is wired in the 24VAC side of the control circuitry.

3. Low Pressure Control (LPC)

The low pressure control (LPC) keeps the compressor from operating in pressure ranges that can cause damage to the compressor. This is an auto-reset control that opens near 90 PSIG and closes once the system pressure rises above 135 PSIG.

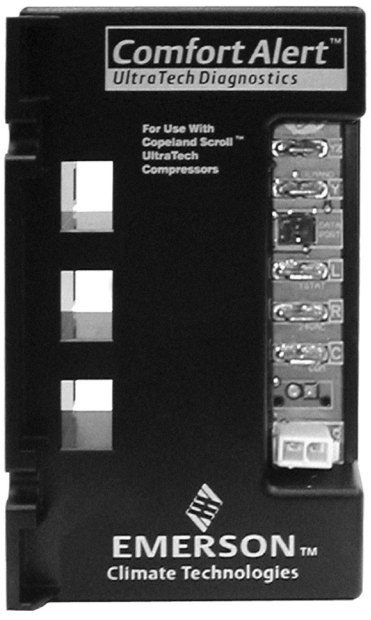
The low pressure control is wired in the common side of the control circuitry.

4. Comfort Alert With Active Protection

A two-stage cooling thermostat is required for proper unit operation.

Manufacturer recommends the use of thermostats that provide active compressor protection via the L terminal when the Comfort-Alert module on the unit is connected to the L terminal on the thermostat.

FIGURE 2



The Comfort Alert diagnostics module diagnoses system and electrical problems in the air conditioning system. Abnormal conditions are indicated by flashing ALERT codes on the yellow LED on the Comfort Alert module. The flash codes are transmitted to the thermostat when the ***L*** terminal on the Comfort Alert Module is connected to the ***L*** terminal on the thermostat. The compatible thermostat displays a CHECK SYSTEM icon that flashes at the same rate as the yellow ALERT LED on the Comfort Alert module.

NOTE: The Comfort Alert™ module does not provide safety protection! It does not disconnect power from the unit.

Comfort Alert™ Flash Codes
1 – Long Run Time
2 – System Pressure Trip
3 – Short Cycling
4 – Locked Rotor
5 – Open Circuit
6 – Open Start Circuit (Single Phase) – Missing Phase (3-Phase)
7 – Open Run Circuit (Single Phase) – Reverse Phase (3-Phase)
8 – Welded Contactor
9 – Low Voltage

See Figures 51 and 52 (Comfort Alert Diagnostic Charts) for more troubleshooting information.

Active protection occurs under the following conditions:

1) Flash Code 2 - *System Pressure Trip*
   Condition: Four consecutive compressor protector trips occur where the average run time until trip is between 1 minute and 15 minutes
   Possible causes:
   Low suction pressure
   • Low pressure switch is open
   • Low system charge
   Blocked condenser coil
   Restricted condenser air flow

   Active Thermostat Reaction:
   The thermostat will cycle the system ON for 5 minutes and OFF for five minutes to verify system fault. If this ON/OFF cycling repeats for 30 ten-minute cycles, the thermostat concludes there is a system problem and implements a hard lockout.

2) Flash Code 3 - *Short Cycling*
   Condition: A pattern of short cycling emerges where the run time for the previous four cycles is less than three minutes each.
   Possible causes:
   High head pressure
   • High pressure switch is open
   • System overcharged
   • Non-condensables in system
   Faulty thermostat
   Intermittent contactor

   Active Thermostat Reaction:
   The thermostat will cycle the system ON for 5 minutes and OFF for five minutes to verify the system fault. If this ON/OFF cycling repeats for 30 ten-minute cycles, the thermostat concludes there is a system problem and implements a hard lockout.

3) Flash Code 4 - *Locked Rotor*

Condition: The compressor internal overload trips where the average run time is less than 15 seconds.

Possible causes:

- Bad run capacitor
- Low line voltage
- Excessive liquid refrigerant in compressor
- Compressor bearings are seized
- Faulty hard start components

Active Thermostat Reaction:

The thermostat implements a hard lockout once this error is sensed.

4) Flash Code 6 - *Open Start Circuit*

Condition: Current is detected in the run circuit but not in the start circuit.

Possible causes:

- Bad run capacitor
- Open circuit in compressor start wiring or connections.
- Compressor start winding is damaged

Active thermostat reaction:

The thermostat implements a hard lockout after 3 hours.

5) Flash Code 7 - *Open Run Circuit*

Condition: Open circuit in compressor run wiring or connections. Compressor run winding is damaged.

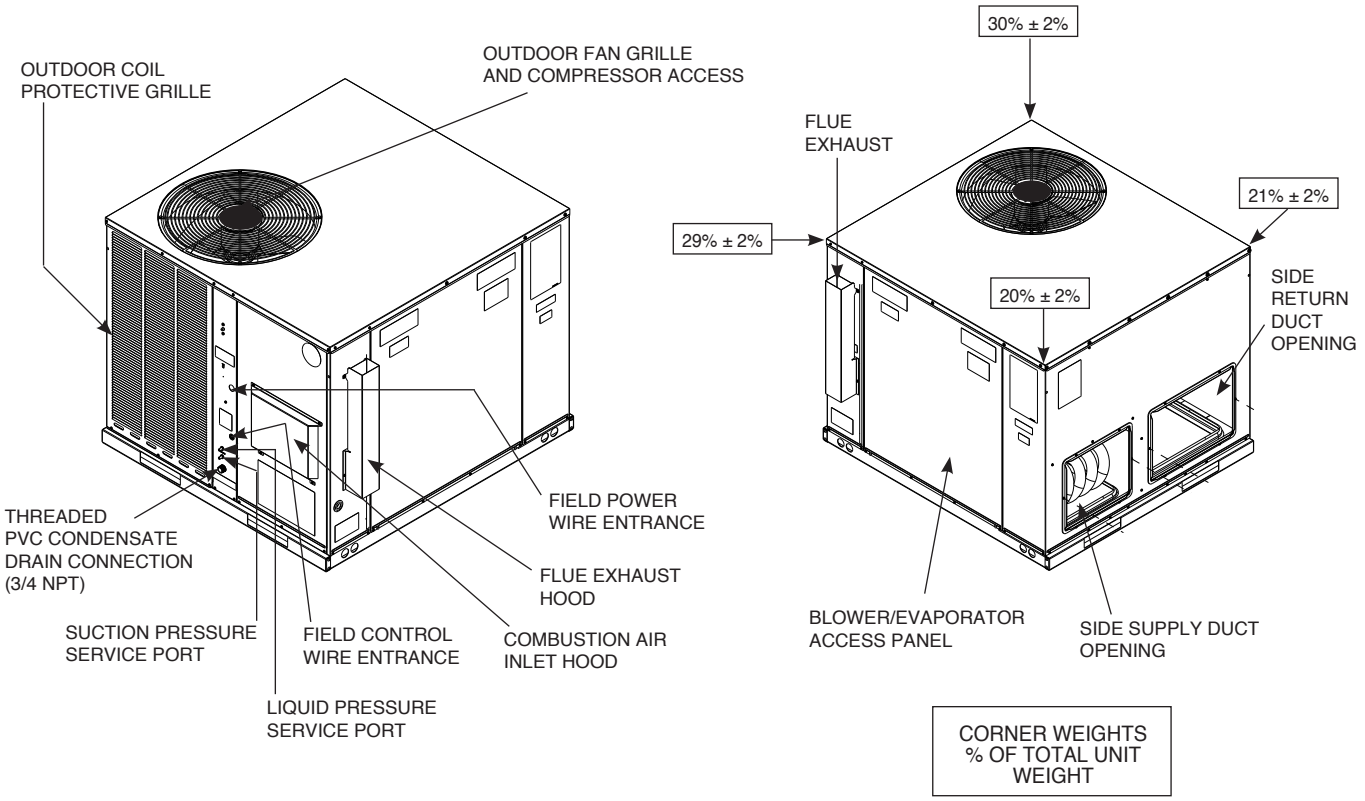
Active Thermostat Reaction:

The thermostat implements a hard lockout after 3 hours.

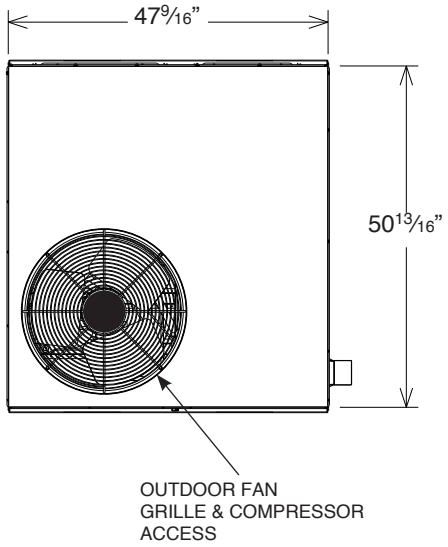
V. UNIT DIMENSIONS

FOR CLEARANCES SEE FIGURE 3.

FIGURE 3



TOP VIEW



BOTTOM VIEW

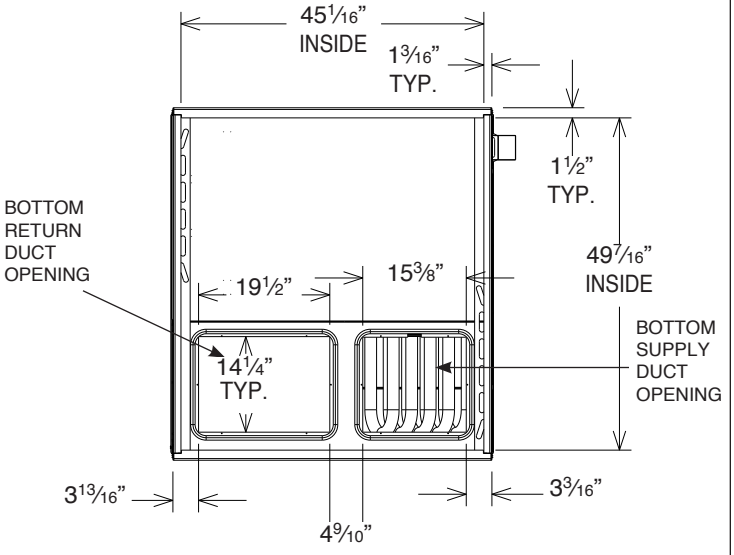
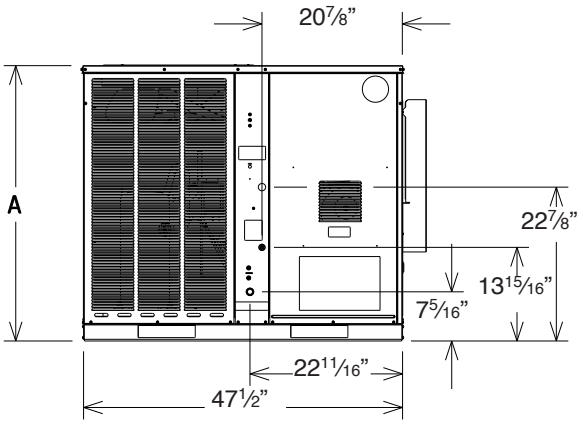
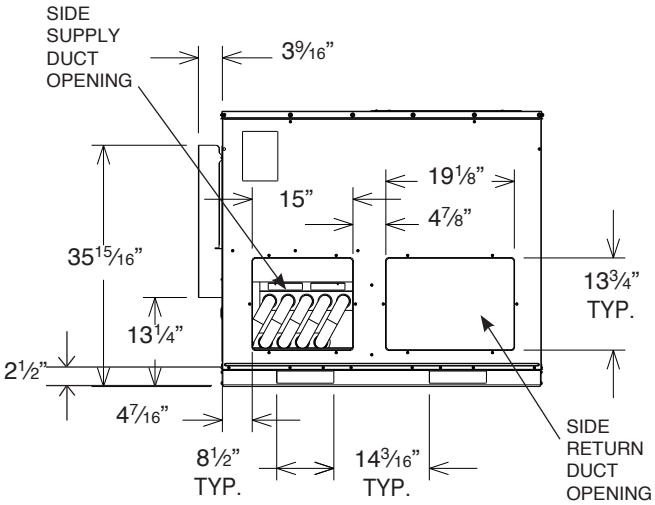


FIGURE 3 (CONTINUED)

FRONT VIEW



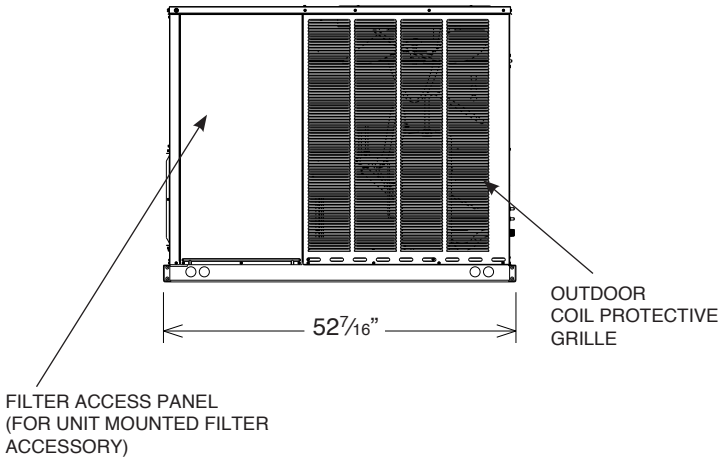
BACK VIEW



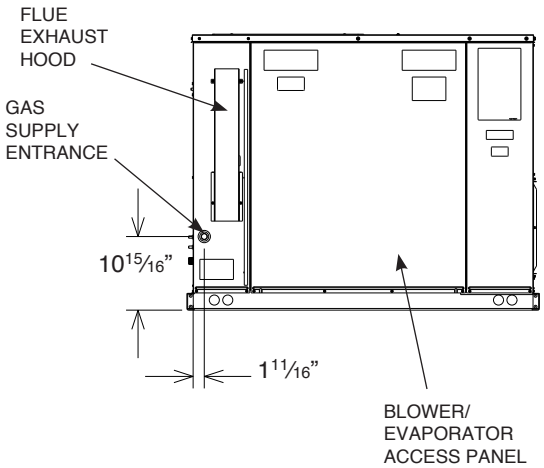
SHOWN WITH DUCT COVERS REMOVED.

MODELS RGEA13/14/15	"A" HEIGHT
024, 030, 036, 042	35 15/16"
048, 060	41

SIDE VIEW



SIDE VIEW



VI. INSTALLATION

A. GENERAL

1. PRE-INSTALLATION CHECK-POINTS — 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
   Gas supply and piping
   Air duct connections and sizing
   Drain facilities and connections
   Location for minimum noise and vibration

2. LOCATION CONSIDERATIONS (CORROSIVE ENVIRONMENT)

   The metal parts of this unit may be subject to rust or deterioration if exposed to a corrosive environment. This oxidation could shorten the equipment's useful life. Corrosive elements include, but are not limited to, salt spray, fog or mist in seacoast areas, sulphur or chlorine from lawn watering systems, and various chemical contaminants from industries such as paper mills and petroleum refineries.

   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 locate the unit on the side of the building away from the waterfront.
   3. Shielding by a fence or shrubs may give some protection.

⚠ WARNING

DISCONNECT ALL POWER TO UNIT BEFORE STARTING MAINTENANCE. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

1. Frequent washing of the cabinet, fan blade and coil with fresh water will remove most of the salt or other contaminants that build up on the unit.
2. Regular cleaning and waxing of the cabinet with a good automobile polish will provide some protection.
3. Use a good liquid cleaner 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.

B. OUTSIDE INSTALLATION

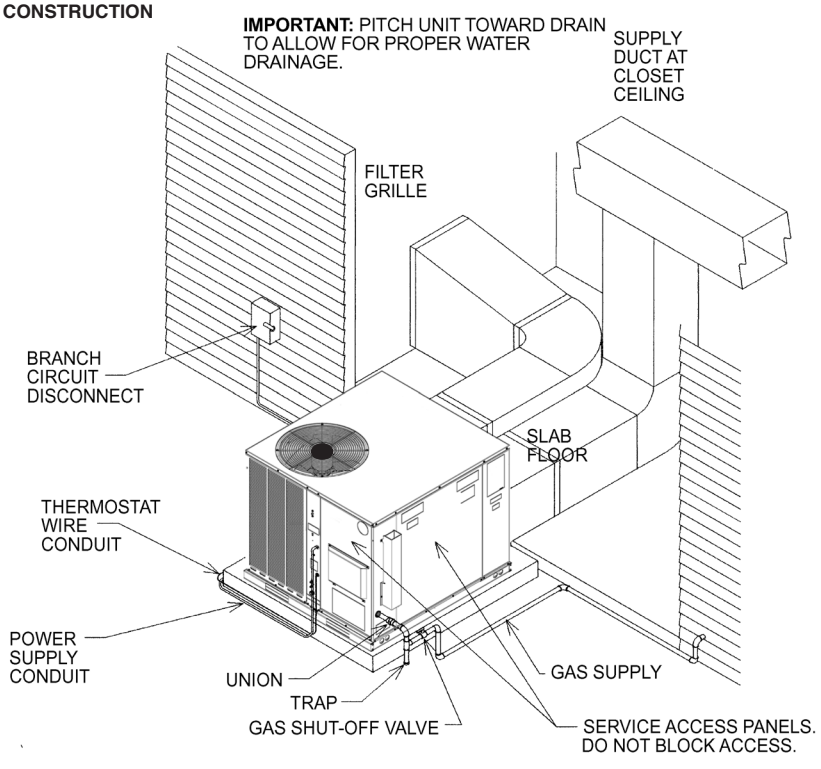
⚠ WARNING

THESE UNITS ARE DESIGNED CERTIFIED FOR OUTDOOR INSTALLATION ONLY. INSTALLATION INSIDE ANY PART OF A STRUCTURE CAN RESULT IN INADEQUATE UNIT PERFORMANCE AS WELL AS PROPERTY DAMAGE. INSTALLATION INSIDE CAN ALSO CAUSE RECIRCULATION OF FLUE PRODUCTS INTO THE CONDITIONED SPACE RESULTING IN PERSONAL INJURY OR DEATH.

(Typical outdoor slab installation is shown in Figure 4.)

1. Select a location where external water drainage cannot collect around unit.

FIGURE 4
OUTSIDE SLAB INSTALLATION. CLOSET DISTRIBUTION SYSTEM. SLAB FLOOR CONSTRUCTION



2. Provide a slab sufficiently high enough above grade to prevent surface water from entering the unit. Where snowfall is anticipated, mount the unit above the anticipated maximum snow depth for your area. Do not locate unit in an area where excessive snow drifting may block combustion air inlet.
3. Pitch the slab approximately ½" so that the unit will be pitched toward the drain. See Figure 5.
4. The location of the unit should be such as to provide proper access for inspection and servicing as shown in Figure 11.
5. Locate unit where operating sounds will not disturb owner or neighbors. The slab should be isolated from the foundation wall.
6. Locate unit so roof runoff water does not pour directly on the unit. Provide gutter or other shielding at roof level.

C. ATTACHING EXHAUST AND COMBUSTION AIR INLET HOODS

IMPORTANT: Do not operate this unit without the exhaust and combustion air inlet hood properly installed. These hoods are shipped in a carton in the return air compartment inside the unit and must be attached when the unit is installed. See Figure 6.

To attach exhaust and combustion air inlet hood:

1. Remove 3 screws securing filter access panel and remove filter access panel. For location of filter access panel, see Figure 3.
2. Remove both exhaust and combustion air inlet hoods from their carton, located inside the return air compartment.
3. Attach filter access panel.
4. Attach the combustion air inlet hood and the exhaust hood each with 4 screws as shown in Figure 6. Screws are in parts bag shipped in the burner compartment.
5. Vent the unit using the flue exhaust hood, as supplied from the factory, without alteration or addition. The only exception is with factory approved additions. Consult your local utility or other authority having jurisdiction for accepted venting techniques.

FIGURE 5
PITCHING UNIT TO INSURE PROPER CONDENSATE DRAINAGE.

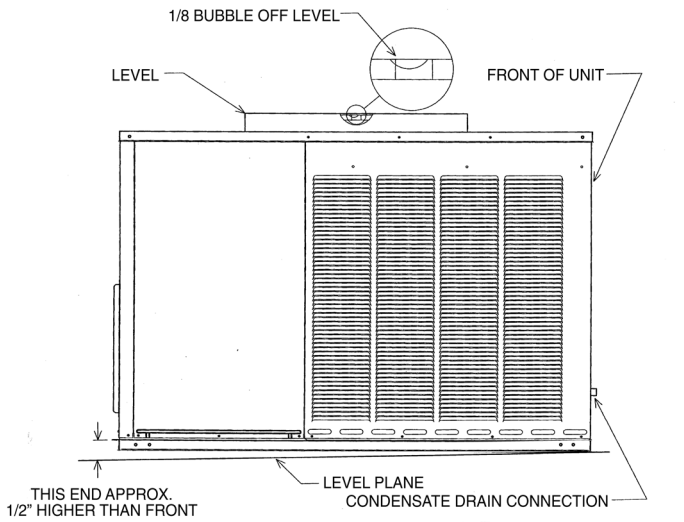
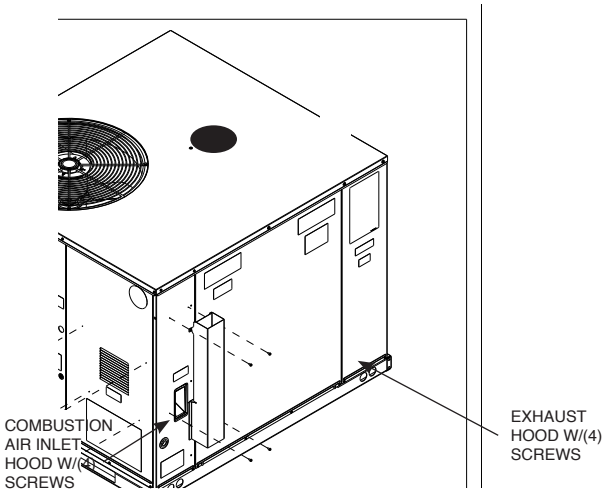


FIGURE 6
COMBUSTION AIR INLET HOOD & EXHAUST HOOD INSTALLATION



D. COVER PANEL INSTALLATION/CONVERSION PROCEDURE

1. HORIZONTAL TO DOWNFLOW
   a. Remove screws and covers from the supply and return bottom sections. NOTE: Rotate the supply cover 90° and remove.
   b. Install gasket (supplied with parts bag) around perimeter of cover on the insulated side. See Figure 8.
   c. Secure covers to the side of the unit using existing screws and those supplied in the parts bag.
2. DOWNFLOW TO HORIZONTAL
   a. Remove screws and covers from the supply and return bottom sections.
   b. Install gasket (supplied with parts bag) around perimeter of cover as illustrated in Figure 7.
   c. Install covers in the unit bottom with the insulated side up. NOTE: Supply cover must be inserted through supply opening with narrow side toward unit. Once cover is through opening, rotate 90° and slip back flange of cover under tab at the back of bottom duct opening. See Figure 10.
   d. Secure supply cover to base of unit with 2 screws, engaging prepunched holes in raised duct opening flange.
   e. Secure return covers to base of unit with screws engaging prepunched holes in raised duct opening flange.

⚠ WARNING

THIS UNIT MUST NOT BE INSTALLED DIRECTLY ON WOOD FLOORING, CLASS A, CLASS B OR CLASS C ROOF COVERING MATERIALS, OR ANY OTHER COMBUSTIBLE STRUCTURE EXCEPT AS SPECIFIED IN FIGURE 15. FAILURE TO ADHERE TO THIS WARNING CAN CAUSE A FIRE OR EXPLOSION RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

E. CLEARANCES

The following minimum clearances must be observed for proper unit performance and serviceability. See Figure 11.

1. Provide 48” minimum clearance at front of the unit. Provide 24” minimum clearance on right side of unit. If economizer is used, a 24” minimum clearance is required on left side of unit. (See Figure 11.) If no economizer is required, then a 12” clearance is required on left side of unit.

FIGURE 7
COVER GASKET DETAIL FOR UNITS SHIPPED FOR DOWNFLOW APPLICATION BEING CONVERTED TO SIDE DISCHARGE

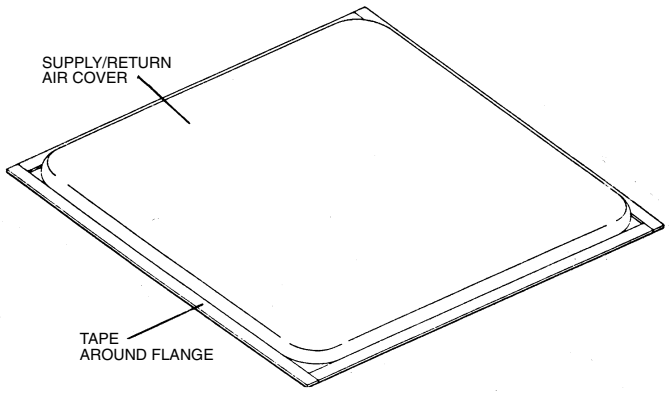


FIGURE 8
COVER GASKET DETAIL FOR UNITS SHIPPED FOR SIDE DISCHARGE APPLICATION BEING CONVERTED TO DOWNFLOW

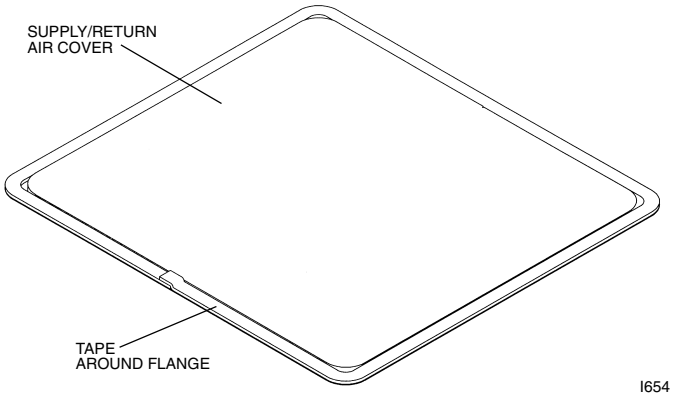


FIGURE 9
DUCT COVER INSTALLATION SIDE MOUNTING

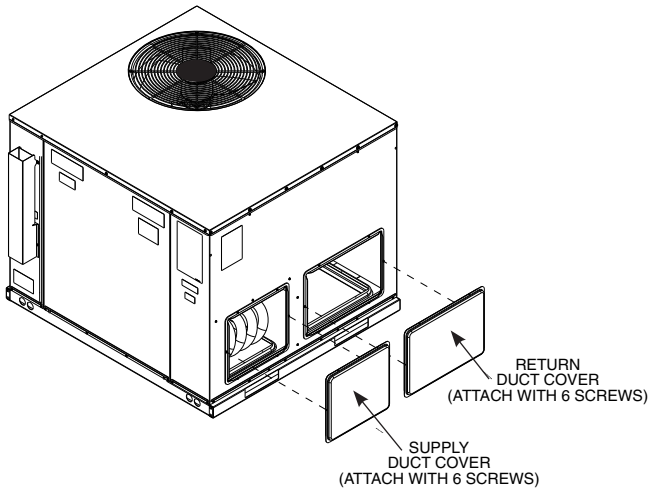


FIGURE 10
DUCT COVER INSTALLATION BASE PAN MOUNTING

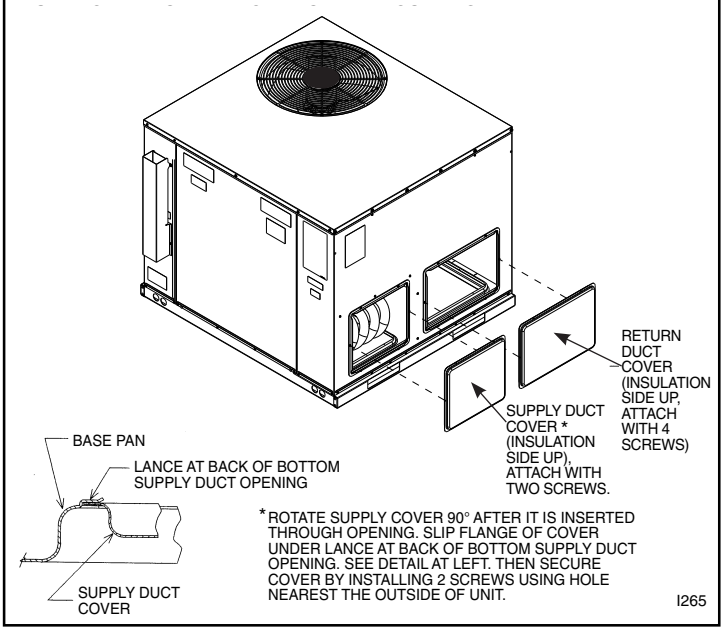
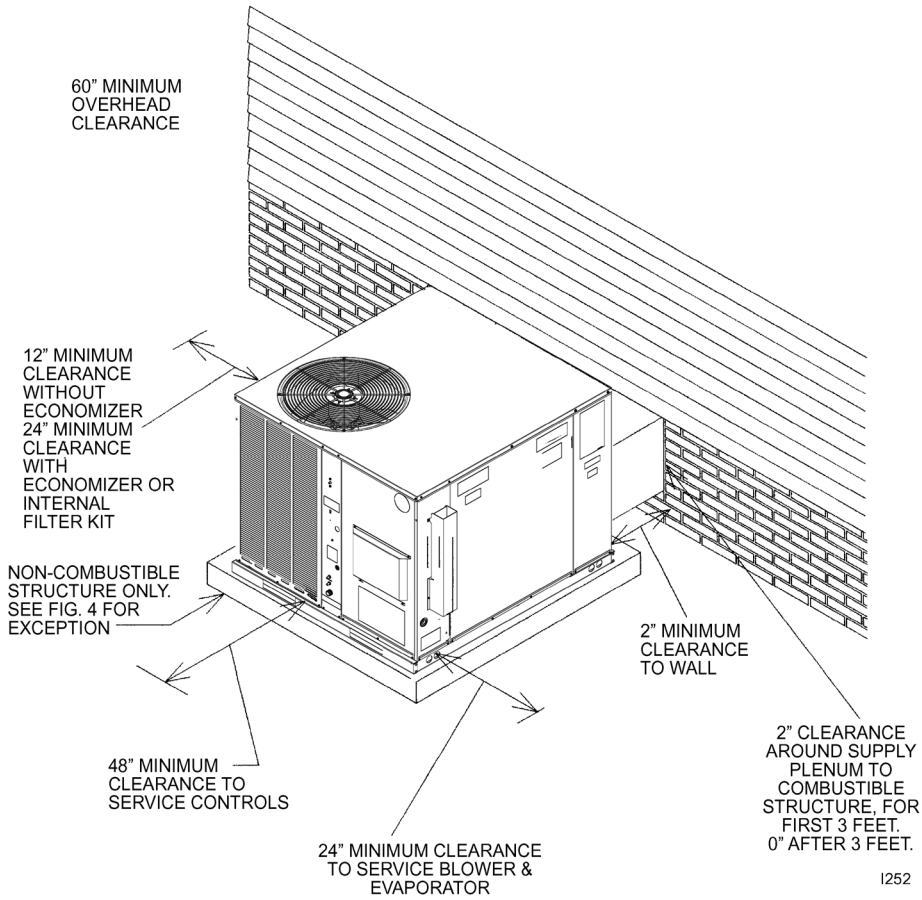


FIGURE 11
CLEARANCES



2. Provide 60" minimum clearance between top of unit and maximum 3 foot overhang.
3. Unit is design certified for 2" minimum clearance between supply duct and a combustible structure for the first 3 feet of duct. 0" clearance is allowed after 3 feet.

F. 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 book for weight of unit.) **THIS IS VERY IMPORTANT AND THE INSTALLER'S RESPONSIBILITY.**
2. For rigging and roofcurb details, see Figures 16, 17, and 18.
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.*

G. DUCTWORK

The installing 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, 1513 16th St. N.W., Washington, D.C. 20036.

⚠ WARNING

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

FIGURE 12
EXCEPTION TO NON-COMBUSTIBLE FLOORING REQUIREMENT

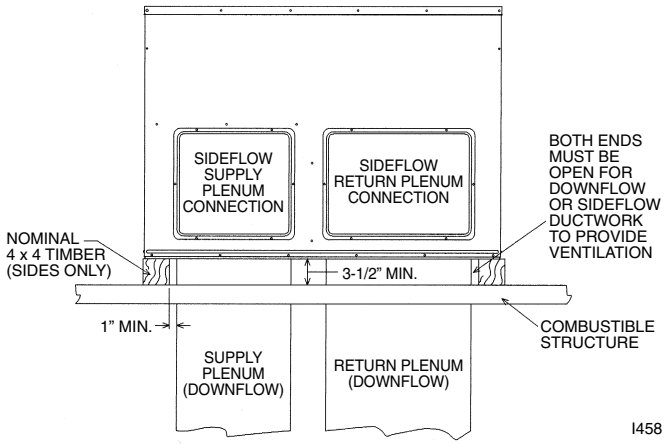


FIGURE 13
FLAT ROOFTOP INSTALLATION, ATTIC OR DROP CEILING DISTRIBUTING SYSTEM. MOUNTED ON ROOFCURB, PITCH UNIT TOWARD DRAIN.

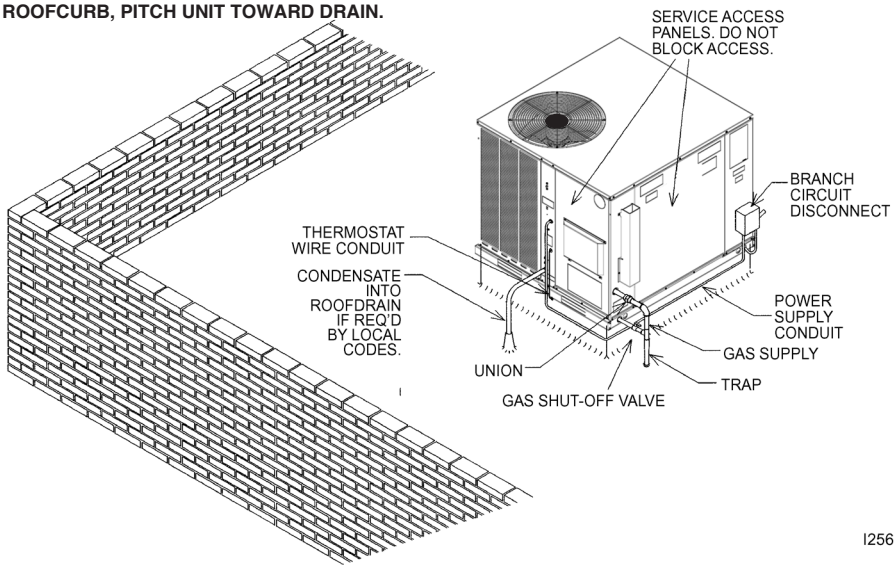


FIGURE 14
PITCHED ROOFTOP INSTALLATION, ON ANGLE-IRON STAND, SIDE FLOW DUCTWORK, ATTIC OR DROP CEILING DISTRIBUTING SYSTEM. PITCH UNIT TOWARD DRAIN.

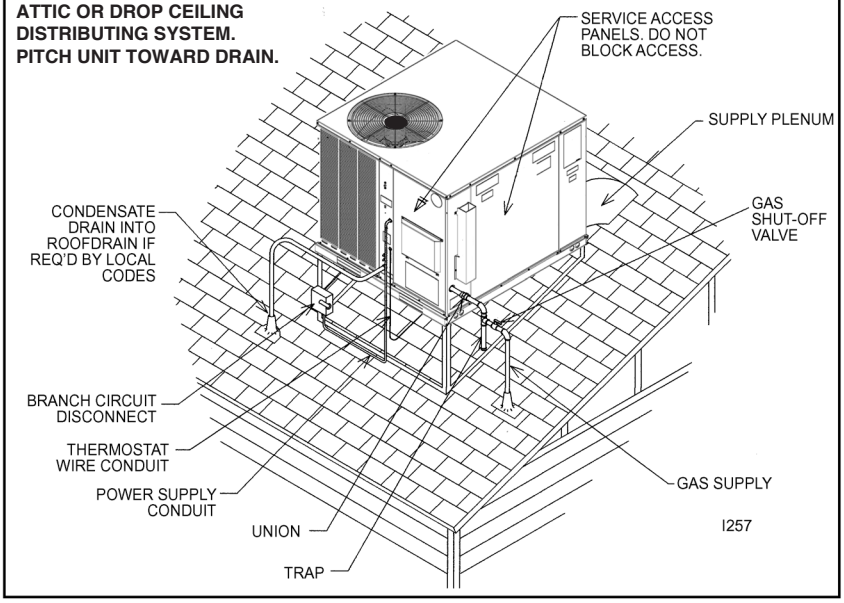
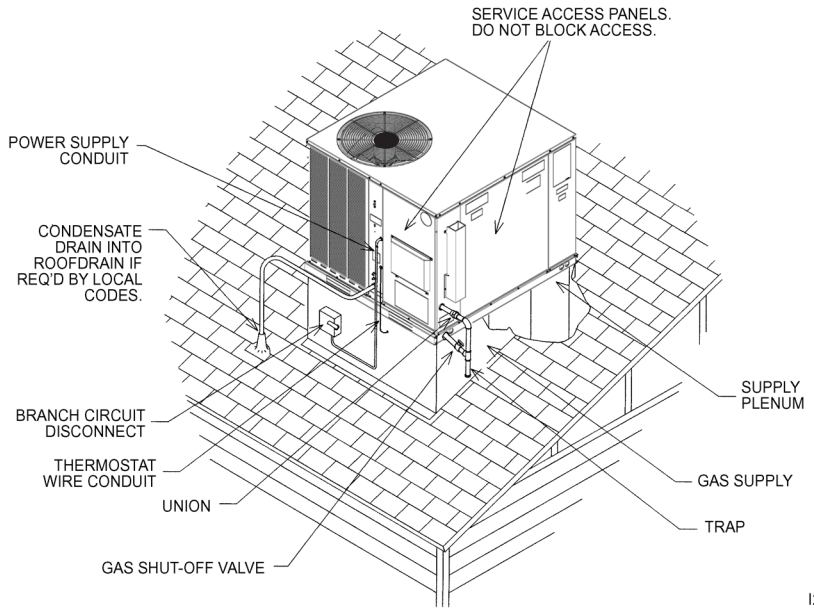


FIGURE 15
PITCHED ROOFTOP INSTALLATION, ON ROOFJACK, DOWNFLOW DUCTWORK, ATTIC OR DROP CEILING DISTRIBUTING SYSTEM. PITCH UNIT TOWARD DRAIN.



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. ½" 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/homeowner must be informed against future changes in construction which might change this to a "confined space." Also, caution the user/homeowner 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.

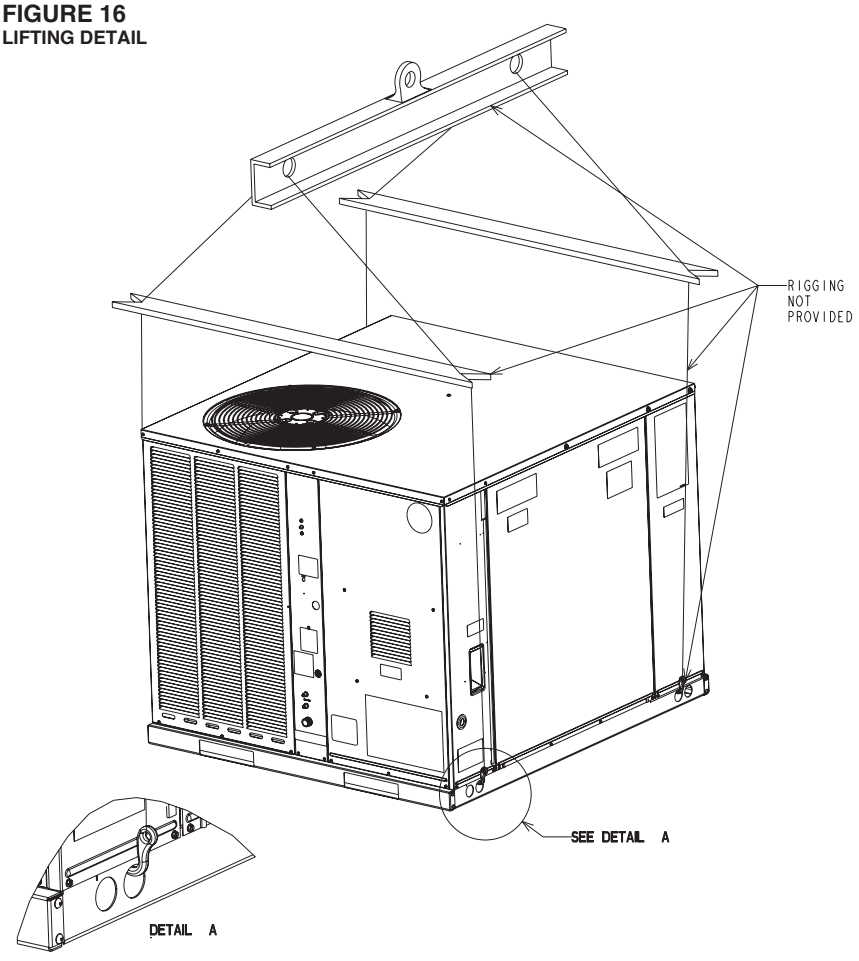
H. RETURN AIR

⚠ WARNING

NEVER ALLOW PRODUCTS OF COMBUSTION OR THE FLUE PRODUCTS TO ENTER THE RETURN AIR DUCTWORK, OR THE CIRCULATING AIR SUPPLY. ALL RETURN DUCTWORK MUST BE ADEQUATELY SEALED AND SECURED TO THE FURNACE WITH SHEET METAL SCREWS, AND JOINTS TAPED. ALL OTHER DUCT JOINTS MUST BE SECURED WITH APPROVED CONNECTIONS AND SEALED AIRTIGHT.

FAILURE TO PREVENT PRODUCTS OF COMBUSTION FROM BEING CIRCULATED INTO THE LIVING SPACE CAN CREATE POTENTIALLY HAZARDOUS CONDITIONS, INCLUDING CAROBON MONOXIDE POISONING THAT COULD RESULT IN PERSONAL INJURY OR DEATH.

FIGURE 16
LIFTING DETAIL



I. FILTERS

The installer must install field supplied filters in the return air duct. A field installed filter grille is recommended for easy and convenient access to the filters for periodic inspection and cleaning. Filters must have adequate face area for the rated air quantity of the unit. See air delivery tables for recommended filter size. A field installed internal filter kit RXRY-B01 is available.

FIGURE 17
ROOFCURB

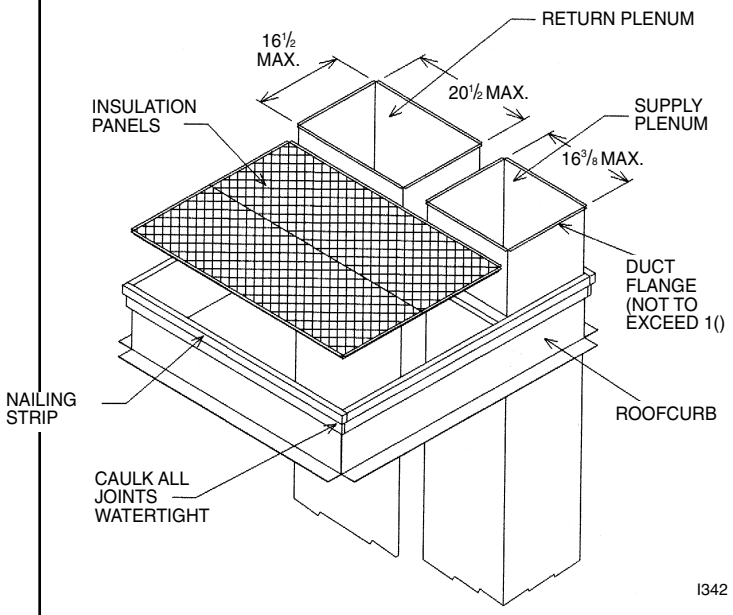
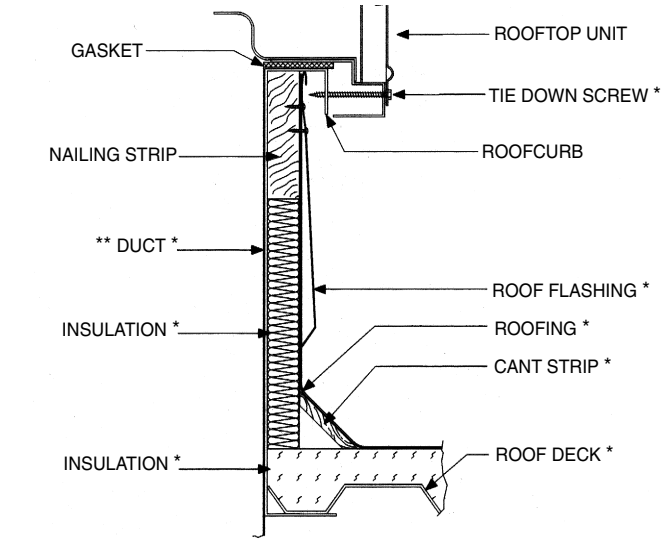


FIGURE 18
ROOFCURB



*BY CONTRACTOR
**FOR INSTALLATION OF DUCT AS SHOWN, USE RECOMMENDED DUCT SIZES FROM ROOFCURB INSTALLATION INSTRUCTIONS. FOR DUCT FLANGE ATTACHMENT TO UNIT, SEE UNIT INSTALLATION INSTRUCTIONS (FIGURE 1) FOR SIZE OF DUCT OPENINGS.

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FIGURE 19
DUCTWORK COVER INSTALLATION DETAIL

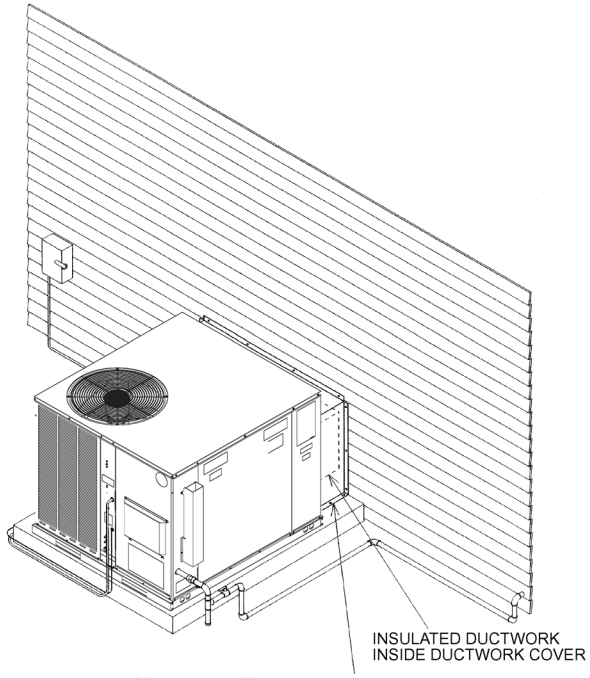
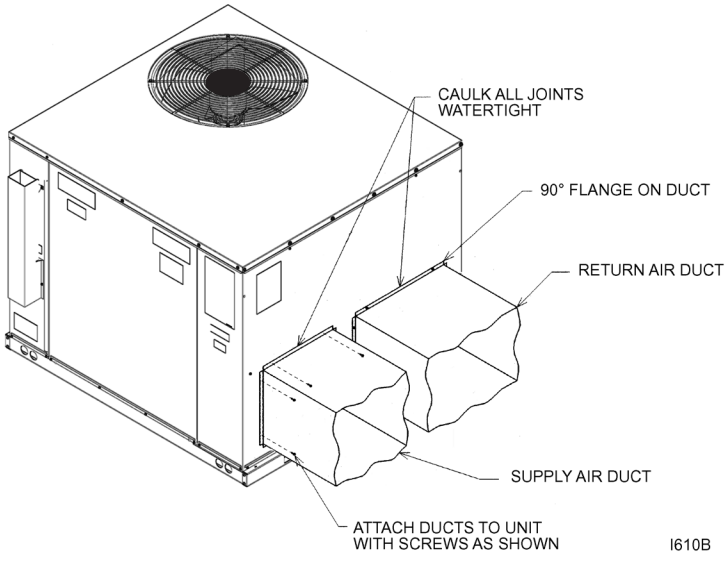


FIGURE 20
RESIDENTIAL ROOFTOP DUCTWORK INSTALLATION DETAIL.



VII. GAS SUPPLY, CONDENSATE DRAIN AND PIPING

A. GAS CONNECTION

IMPORTANT: Connect this unit only to gas supplied by a commercial utility.

1. Install gas piping in accordance with local codes and regulations of the local utility company. In the absence of local codes, the installation must conform to the specifications of the National Fuel Gas Code, ANSI Z223.1 - latest edition.

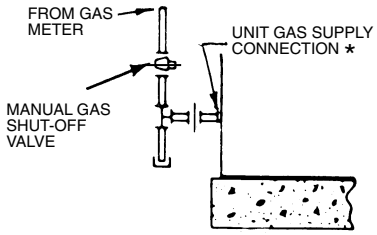
   NOTE: The use of flexible gas connectors is not permitted.

   NOTE: The Commonwealth of Massachusetts requires the gas shut-off valve to be a T-handle gas cock.
2. Connect the gas line to the gas pipe inlet opening provided into the 1/2" inlet valve. See Figure 4 for typical piping.
3. Size the gas line to the furnace adequate enough to prevent undue pressure drop and never less than 1/2".
4. Install a drip leg or sediment trap in the gas supply line as close to the unit as possible.
5. Install an outside ground joint union to connect the gas supply to the control assembly at the burner tray.
6. Gas valves have been factory installed. Install a manual gas valve where local codes specify a shut-off valve outside the unit casing. (See Figure 21.)
7. Make sure piping is tight. **A pipe compound resistant to the action of liquefied petroleum gases must be used at all threaded pipe connections.**
8. IMPORTANT: Any additions, changes or conversions required for the furnace to satisfactorily meet the application should be made by a qualified installer, service agency or the gas supplier, using factory-specified or approved parts. In the commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter for appropriate fuel.

IMPORTANT: *Disconnect the furnace and its individual shutoff valve from the gas supply piping during any pressure testing of that system at test pressures in excess of 1/2 psig or isolate the system from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of this gas supply system at pressures equal to or less than 1/2 PSIG.*

FIGURE 21
SUGGESTED GAS PIPING

ROOF OR GROUND LEVEL INSTALLATION



*Factory supplied grommet must be utilized.

TABLE 1
GAS PIPE CAPACITY TABLE (CU. FT./HR.)

Nominal Iron Pipe Size, Inches	Equivalent Length of Pipe, Feet							
	10	20	30	40	50	60	70	80
1/2	132	92	73	63	56	50	46	43
3/4	278	190	152	130	115	105	96	90
1	520	350	285	245	215	195	180	170
1 1/4	1,050	730	590	500	440	400	370	350
1 1/2	1,600	1,100	890	760	670	610	560	530

⚠ WARNING

DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS. THE USE OF AN OPEN FLAME CAN RESULT IN FIRE, EXPLOSION, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

TO CHECK FOR GAS LEAKS, USE A SOAP AND WATER SOLUTION OR OTHER APPROVED METHOD. DO NOT USE AN OPEN FLAME.

IMPORTANT: *Check the rating plate to make certain the appliance is equipped to burn the type of gas supplied. Care should be taken after installation of this equipment that the gas control valve not be subjected to high gas supply line pressure.*

In making gas connections, avoid strains as they may cause noise and damage the controls. A backup wrench is required to be used on the valve to avoid damage.

The capacities of gas pipe of different diameters and lengths in cu. ft. per hr. with pressure drop of 0.5 in. and specific gravity of 0.60 (natural gas) are shown in Table 2.

After determining the pipe length, select the pipe size which will provide the minimum cubic feet per hour required for the gas input rating of the furnace. By formula:

$$\text{Cu. Ft. Per Hr. Required} = \frac{\text{Gas Input of Furnace (BTU/HR)}}{\text{Heating Value of Gas (BTU/FT}^3\text{)}}$$

The gas input of the furnace is marked on the furnace rating plate. The heating value of the gas (BTU/FT^3) may be determined by consulting the local natural gas utility or the L.P. gas supplier.

B. LP CONVERSION SINGLE STAGE GAS HEAT

⚠ WARNING

THIS UNIT IS EQUIPPED AT THE FACTORY FOR USE ON NATURAL GAS ONLY. CONVERSION TO LP GAS REQUIRES A SPECIAL KIT SUPPLIED BY THE DISTRIBUTOR OR MANUFACTURER. MAILING ADDRESSES ARE LISTED ON THE FURNACE RATING PLATE, PARTS LIST AND WARRANTY. FAILURE TO USE THE PROPER CONVERSION KIT CAN CAUSE FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PERSONAL INJURY, PROPERTY DAMAGE OR DEATH.

Convert the valve to use liquefied petroleum (LP) gas by replacing the pressure regulator spring with the conversion kit spring. This LP kit spring allows the regulator to maintain the proper manifold pressure for LP gas. The correct burner LP orifices are included in the kit. See Figure 22.

NOTE: Order the correct LP conversion kit from the furnace manufacturer. ***See Conversion Kit Index shipped with unit for proper LP kit number. Furnace conversion to LP gas must be performed by a qualified technician.***

FIGURE 22

C. NOx MODELS

When converting units equipped with NOx inserts to LP gas, the stainless steel mesh inserts in the entrance of the tubular exchangers are not required to meet SCAQMD NOx emission levels. Carefully remove these inserts before firing this furnace on LP gas. This furnace is not designed to operate on LP gas with the NOx inserts in place.

Step by step instructions on removing the NOx inserts and retaining rod are included in the Conversion Kit Installation Instructions.

TABLE 2
LP GAS PIPE CAPACITY TABLE (CU. FT./HR.)

Maximum capacity of pipe in thousands of BTU per hour of undiluted liquefied petroleum gases (at 11 inches water column inlet pressure).
(Based on a Pressure Drop of 0.5 Inch Water Column)

Nominal Iron Pipe Size, Inches	Length of Pipe, Feet											
	10	20	30	40	50	60	70	80	90	100	125	150
1/2	275	189	152	129	114	103	96	89	83	78	69	63
3/4	567	393	315	267	237	217	196	182	173	162	146	132
1	1,071	732	590	504	448	409	378	346	322	307	275	252
1-1/4	2,205	1,496	1,212	1,039	913	834	771	724	677	630	567	511
1-1/2	3,307	2,299	1,858	1,559	1,417	1,275	1,181	1,086	1,023	976	866	787
2	6,221	4,331	3,465	2,992	2,646	2,394	2,205	2,047	1,921	1,811	1,606	1,496

Example (LP): Input BTU requirement of unit, 150,000
Equivalent length of pipe, 60 ft. = 3/4" IPS required

D. ADJUSTING OR CHECKING FURNACE INPUT

– Natural Gas Line Pressure 5" - 10.5" W.C.
– LP Gas Line Pressure 11" - 13" W.C.

– Natural Gas Manifold Pressure 3.5" W.C.
– LP Gas Manifold Pressure 10" W.C.

Supply and manifold pressure taps are located on the gas valve body 1/8" N.P.T.

Use a properly calibrated manometer gauge for accurate gas pressure readings.

Only small variations in the gas flow should be made by means of the pressure regulator adjustment. Furnaces functioning on LP gas must be set by means of the tank or branch supply regulators. The furnace manifold pressure should be set at 10" W.C. at the gas control valve.

To adjust the pressure regulator, remove the regulator cap and turn the adjustment screw clockwise to increase pressure or counterclockwise to decrease pressure. **Then replace the regulator cap securely.**

Any necessary major changes in the gas flow rate should be made by changing the size of the burner orifices. To change orifice spuds, shut off the manual main gas valve and remove the gas manifold.

For elevations up to 2,000 feet, rating plate input ratings apply. For high altitudes (elevations over 2,000 ft.), see conversion kit index 92-21519-47 for derating and orifice spud sizes.

Check of input is important to prevent over-firing of the furnace beyond its design-rated input. NEVER SET INPUT ABOVE THAT SHOWN ON THE RATING PLATE. Use the following table or formula to determine input rate.

$$\text{Cu. Ft. Per Hr. Required} = \frac{\text{Heating Value of Gas (BTU/Cu. Ft.)} \times 3600}{\text{Time in Seconds (for 1 Cu. Ft.) of Gas}}$$

TABLE 3

METER TIME IN MINUTES AND SECONDS FOR NORMAL INPUT RATING OF FURNACES EQUPPED FOR NATURAL OR LP GAS											
INPUT BTU/HR	METER SIZE CU. FT.	HEATING VALUE OF GAS BTU PER CU. FT.									
		900		1000		1040		1100		2500	
		MIN.	SEC.	MIN.	SEC.	MIN.	SEC.	MIN.	SEC.	MIN.	SEC.
40,000	ONE	1	21	1	30	1	34	1	39	3	45
	TEN	13	30	15	0	15	36	16	30	37	30
60,000	ONE	0	54	1	0	1	3	1	6	2	30
	TEN	9	0	10	0	10	24	11	0	25	0
80,000	ONE	0	41	0	45	0	47	0	50	1	53
	TEN	6	45	7	30	7	48	8	15	18	45
100,000	ONE	0	33	0	36	0	38	0	40	1	30
	TEN	5	24	6	0	6	15	6	36	15	0

Start the furnace and measure the time required to burn one cubic foot of gas. Prior to checking the furnace input, make certain that all other gas appliances are shut off, with the exception of pilot burners. Time the meter with only the furnace in operation.

IMPORTANT NOTE FOR ALTITUDES ABOVE 2,000 FEET (610 METERS): The main burner orifices in your furnace and in these kits are sized for the nameplate input and intended for installations at elevations up to 2,000 feet in the USA or Canada, or for elevations of 2,000 - 4,500 feet (610 -1,373 meters) in Canada if the unit has been derated at the factory. For elevations above 2,000 feet (610 meters) **IN THE USA ONLY** (see ANSI-Z223.1), the burner orifices must be sized to reduce the input 4% for each 1,000 feet (305 meters) above sea level.

NOTICE: DERATING OF THE HEATING INPUT FOR HIGH ALTITUDE IN THE FIELD IS UNLAWFUL IN CANADA (REFER TO CAN/CGA 2.17). UNITS INSTALLED IN ALTITUDES GREATER THAN 2,000 FEET (610 METERS) MUST BE SHIPPED FROM THE FACTORY OR FROM A FACTORY AUTHORIZED CONVERSION STATION WITH THE HEATING INPUT DERATED BY 10% SO AS TO OPERATE PROPERLY IN ALTITUDES FROM 2,000 - 4,500 FEET (610 - 1,373 METERS).

E. CONDENSATE DRAIN

The evaporator coil condensate drain ends with a threaded 3/4" nominal PVC stub. A trap is built in for proper condensate drainage and to prevent debris from being drawn into the unit. Do not connect the drain to a closed sewer line. Connection to a vented sewer line is allowed. It is recommended that a PVC cement not be used so that the drain line can be easily cleaned in the future.

IMPORTANT: DO NOT INSTALL AN EXTERNAL TRAP. DOING SO CAN CAUSE IMPROPER DRAINAGE OF THE CONDENSATE AND RESULT IN FLOODING WITHIN THE UNIT.

The unit's internal PVC drain Line Includes a 3/16" hole on top of the line near the bulkhead to relieve negative pressure and allow proper drainage in the event of a dried out trap. If condensate is running out of this hole during cooling operation, check for obstructions or double-trap in the drain line.

VIII. WIRING

A. 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 Table 4 using the circuit ampacity found on the unit rating plate. Use the smallest wire size allowable in Table 4 from the unit disconnect to unit. The disconnect must be in sight and readily accessible of the unit.

TABLE 4
BRANCH CIRCUIT COPPER WIRE SIZE (BASED ON 1% VOLTAGE DROP)*

SUPPLY WIRE LENGTH-FEET	BRANCH CIRCUIT AMPACITY								
200	6	4	4	4	3	3	2	2
150	8	6	6	4	4	4	3	3
100	10	8	8	6	6	6	4	4
50	14	12	10	10	8	8	6	6
	15	20	25	30	35	40	45	50

***Taken from National Electric Code**

NOTES:

1. Wire size based on 60°C rated wire insulation and 30°C Ambient Temp. (86°F).
2. For more than 3 conductors in a raceway or cable, see the N.E.C. for derating the ampacity of each conductor.

   When installed, the unit must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, **ANSI/ NFPA 70,** if an external electrical source is utilized.

IMPORTANT: THIS UNIT IS APPROVED FOR USE WITH COPPER CONDUCTORS <u>ONLY</u> 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 and L3 for single phase, L1, L2 and L3 for three phase.

Select the equivalent aluminum wire size from the tabulation below:

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.

TABLE 5

AWG Copper Wire Size	AWG Aluminum Wire Size	Connector Type and Size (or equivalent)	
#12	#10	T & B Wire Nut	PT2
#10	# 8	T & B Wire Nut	PT3
# 8	# 6	Sherman Split Bolt	TSP6
# 6	# 4	Sherman Split Bolt	TSP4
# 4	# 2	Sherman Split Bolt	TSP2

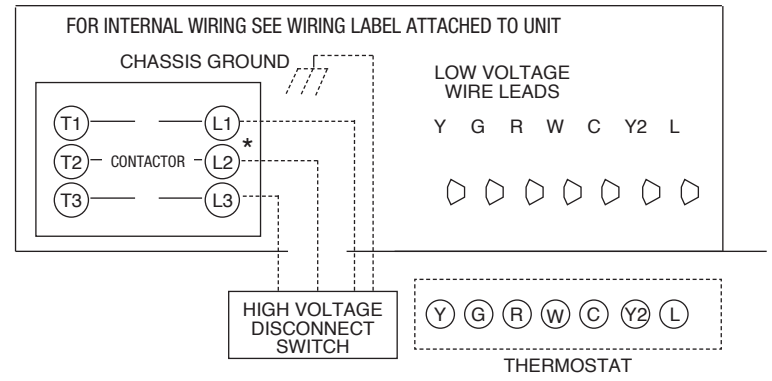
B. HOOK-UP

To wire unit, refer to the following hook-up diagram (see Figure 23).

Refer to Figure 3 for location of wiring entrances.

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.

FIGURE 23
WIRE HOOK-UP DIAGRAM



*L2 connection 3Phase only

Y - COOLING (LOW STAGE IN 2 STAGE SYSTEMS)
G - FAN ONLY
R - 24V
W - HEATING (LOW HEAT 2 STAGE GAS HEAT)
C - COMMON
Y2 - HIGH STAGE COOLING (TWO STAGE ONLY)
L - ALERT CODES (OPTIONAL WITH COMFORT ALERT AND COMPATIBLE THERMOSTAT)

C. INTERNAL WIRING

IMPORTANT: Some single phase units are equipped with a single pole contactor. Caution must be exercised when servicing as only one leg of the power supply is broken with the contactor.

A diagram of the internal wiring of this unit is located under the electrical box cover and in this manual. If any of the original wire as supplied with the appliance must be replaced, the wire gauge and insulation must be same as original wiring.

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

D. THERMOSTAT

The room thermostat must be compatible with the spark ignition control on the unit. Generally, all thermostats that are not of the "current robbing" type are compatible with the integrated furnace control. Two stage units (5 ton) require use of a thermostat capable of 2 stages of cooling. (See Section IV.) See chart below for recommendations. The low voltage wiring should be sized as shown in Table 6.

Install the room thermostat in accordance with the instruction sheet packed in the box with the thermostat. 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.

Refer to the RGEA13/14/15 Specification Sheets for a list of recommended thermostats.

TABLE 6

FIELD WIRE SIZE FOR 24 VOLT THERMOSTAT CIRCUITS							
Thermostat Load - Amps		SOLID COPPER WIRE - AWG.					
	3.0	16	14	12	10	10	10
	2.5	16	14	12	12	12	10
	2.0	18	16	14	12	12	10
		50	100	150	200	250	300
		Length of Run – Feet (1)					

(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.

IX. FURNACE SECTION CONTROLS AND IGNITION SYSTEM

A. NORMAL FURNACE OPERATING SEQUENCE (SINGLE STAGE GAS HEAT)

This unit is equipped with an integrated direct spark ignition control.

1. The thermostat calls for heat.
2. The control board will run a self check to verify that the limit control and manual reset overtemperature control are closed and that the pressure switch is open. If so, the induced draft blower (inducer) begins a prepurge cycle.
3. The air proving negative pressure switch closes.
4. **15 seconds after the pressure switch closes**, the gas valve opens and the spark is initiated for a 7 second trial for ignition.
5. Burners ignite and flame sensor proves all burners have lit.
6. The circulating air blower is energized after 20 seconds.
7. The control board enters a normal operation loop in which all safety controls are monitored continuously.
8. Thermostat is satisfied and opens.
9. The gas valve is de-energized and closes, shutting down the burner flame.
10. The control board will de-energize the inducer after a five second post purge.
11. The circulating air blower is de-energized after 180 seconds.

- The integrated control board has a three ignition system.
- After a total of three trials for ignition without sensing main burner flame, the system goes into a 100% lockout mode.
- After one hour, the ignition control repeats the prepurge and ignition cycles for 3 tries and then goes into 100% lockout mode again.
- It continues this sequence of cycles and lockout each hour until ignition is successful or power is interrupted.
- During the lockout mode, neither the spark ignition control or gas valve will be energized until the system is reset by turning the thermostat to the “OFF” position or interrupting the electrical power to the unit for 3 seconds or longer.
- The induced draft blower and main burner will shut off when the thermostat is satisfied.
- The circulating air blower will start and run on the heating speed if the thermostat fan switch is in the “ON” position.

The integrated furnace control is equipped with diagnostic LED. The LED is lit continuously when there is power to the control, with or without a call for heat. If the LED is not lit, there is either no power to the control or there is an internal component failure within the control, and the control should be replaced.

If the control detects the following failures, the LED will flash on for approximately 1/4 second, then off for 3/4 second for designated failure detections.

1 Flash: Failed to detect flame within the three tries for ignition.

2 Flash: Pressure switch or induced draft blower problem detected.

3 Flash: High limit or auxiliary limit open.

4 Flash: Flame sensed and gas valve not energized or flame sensed with no “W” signal.

5 Flash: Overtemperature switch open.

B. OPERATING INSTRUCTIONS

This appliance is equipped with a direct spark intermittent ignition device. This device lights the main burners each time the room thermostat (closes) calls for heat. See operating instructions on the back of the furnace/controls access panel.

⚠ WARNING

DO NOT ATTEMPT TO MANUALLY LIGHT THIS FURNACE WITH A MATCH OR ANY OPEN FLAME. ATTEMPTING TO DO SO CAN CAUSE AN EXPLOSION OR FIRE RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

TO START THE FURNACE

1. STOP! Read the safety information on the Operating Instructions Label located on this appliance.

⚠ WARNING

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

2. Set the thermostat to its lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do NOT try to light the burner by hand.
5. Remove control door/access panel.
6. Move switch to the “OFF” position.
7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP!
   - Do not try to light any appliance.
   - Do not touch any electric switch; do not use any phone in your building.
   - Immediately call your gas supplier from a neighbor’s phone. Follow the gas supplier’s instructions.
   - If you cannot reach your gas supplier, call the fire department.

   If you don’t smell gas, go to the next step.
8. Move the switch from “OFF” position to “ON” position.
9. Replace the control door.
10. Turn on all electric power to the appliance.
11. Set the thermostat to the desired setting.
12. If the appliance will not operate, follow the instructions below on how to shut down the furnace.

⚠ WARNING

THE SPARK IGNITOR AND IGNITION LEAD FROM THE IGNITION CONTROL ARE HIGH VOLTAGE. KEEP HANDS OR TOOLS AWAY TO PREVENT ELECTRICAL SHOCK. SHUT OFF ELECTRICAL POWER BEFORE SERVICING ANY OF THE CONTROLS. FAILURE TO ADHERE TO THIS WARNING CAN RESULT IN PERSONAL INJURY OR DEATH.

The initial start-up on a new installation may require the control system to be energized for some time until any air has bled through the system and fuel gas is available at the burners.

TO SHUT DOWN FURNACE

1. Set the thermostat to the lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove control door.
4. Move switch to the “OFF” position.
5. Replace control door.

⚠ WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO SHUT OFF, SHUT OFF THE MANUAL GAS VALVE TO THE APPLIANCE BEFORE SHUTTING OFF THE ELECTRICAL SUPPLY. FAILURE TO DO SO CAN RESULT IN AN EXPLOSION OR FIRE CAUSING PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH!

C. BURNERS

Burners for these units have been designed so that field adjustment is not required. Burners are tray-mounted and accessible for easy cleaning when required.

D. MANUAL RESET OVERTEMPERATURE CONTROL

A manual reset overtemperature control is located on the burner shield. This device senses blockage in the heat exchanger or insufficient combustion air. This shuts off the main burners if excessive temperatures occur in the burner compartment.

Operation of this control indicates an abnormal condition. Therefore, the unit should be examined by a qualified installer, service agency, or the gas supplier before being placed back into operation.

⚠ WARNING

DO NOT JUMPER THIS DEVICE! DO NOT reset the overtemperature control without taking corrective action to assure that an adequate supply of combustion air is maintained under all conditions of operation. Failure to do so can result in carbon monoxide poisoning or death. Replace this control only with the identical replacement part.

E. PRESSURE SWITCH(ES)

This furnace has pressure switches for sensing a blocked exhaust or a failed induced draft blower. They're normally open and close when the induced draft blower starts, indicating air flow through the combustion chamber.

F. LIMIT CONTROL

The supply air high temperature limit cut-off is set at the factory and cannot be adjusted. It is calibrated to prevent the air temperature leaving the furnace from exceeding the maximum outlet air temperature. **WARNING: DO NOT JUMPER THIS DEVICE! Replace this control only with the identical replacement part.**

X. SYSTEM OPERATING INFORMATION

A. ADVISE THE CUSTOMER

1. Keep the air filters clean. The heating system operates better, more efficiently and more economically.
2. Arrange the furniture and drapes so that the supply air registers and the return air grilles are unobstructed.
3. Close doors and windows. This reduces the heating load on the system.
4. Avoid excessive use of exhaust fans.
5. Do not permit the heat generated by television, lamps or radios to influence the thermostat operation.
6. Except for the mounting platform, keep all combustible articles three feet from the unit and exhaust system.
7. ***IMPORTANT:*** *Replace all blower doors and compartment cover after servicing the unit. Do not operate the unit without all panels and doors securely in place.*
8. Do not allow snow or other debris to accumulate in the vicinity of the appliance.

B. FURNACE SECTION MAINTENANCE

The unit's furnace should operate for many years without excessive scale build-up in flue passageways; however, it is recommended that a qualified installer, service agency, or the gas supplier annually inspect the flue passageways, the exhaust system and the burners for continued safe operation, paying particular attention to deterioration from corrosion or other sources.

If during inspection the flue passageways and exhaust system are determined to require cleaning, the following procedures should be followed **(by a qualified installer, service agency, or gas supplier):**

1. **Turn off the electrical power to the unit and set the thermostat to the lowest temperature.**
2. **Shut off the gas supply to the unit either at the meter or at manual valve in the supply piping.**

⚠ WARNING

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

3. Remove the furnace controls access panel and the control box cover.
4. Disconnect the gas supply piping from the gas valve.
5. Disconnect the wiring to the induced draft blower motor, gas valve, flame sensor, and flame roll-out control, and ignitor cable. **Mark all wires disconnected for proper reconnection**.
6. Remove the screws (4) connecting the burner tray to the heat exchanger mounting panel.
7. Remove the burner tray and the manifold assembly from the unit.
8. Remove the screws (4) connecting the induced draft blower to the collector box and screws (16) connecting the collector box to the heat exchanger mounting panel. Remove the induced draft blower and the collector box from the unit.
9. Remove the turbulators from inside the heat exchangers by inserting the blade of a screwdriver under the locking tabs. Pop the tabs out of the expanded grooves of the heat exchanger. Slide the turbulators out of the heat exchangers.
10. Direct a water hose into the outlet of the heat exchanger top. Flush the inside of each heat exchanger tube with water. Blow out each tube with air to remove excessive moisture.
11. Reassemble (steps 1 through 10 in reverse order). **Be careful not to strip out the screw holes used to mount the collector box and inducer blower. Replace inducer blower gasket and collector box gasket with factory replacements if damaged.**

⚠ WARNING

HOLES IN THE EXHAUST TRANSITION OR HEAT EXCHANGER CAN CAUSE TOXIC FUMES TO ENTER THE HOME. THE EXHAUST TRANSITION OR HEAT EXCHANGER MUST BE REPLACED IF THEY HAVE HOLES OR CRACKS IN THEM. FAILURE TO DO SO CAN CAUSE CARBON MONOXIDE POISONING RESULTING IN PERSONAL NJURY OR DEATH.

The manufacturer recommends that a qualified installer, service agency or the gas supplier visually inspect the burner flames for the desired flame appearance at the beginning of the heating season and approximately midway in heating season.

The manufacturer also recommends that a qualified installer, service agency or the gas supplier clean the flame sensor with steel wool at the beginning of the heating season.

⚠ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING MAINTENANCE. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

C. LUBRICATION

IMPORTANT: DO NOT attempt to lubricate the bearings on the blower motor or the induced draft blower motor. Addition of lubricants can reduce the motor life and void the warranty.

The blower motor and induced draft blower motor are prelubricated by the manufacturer and do not require further attention.

A qualified installer, service agency or the gas supplier must periodically clean the motors to prevent the possibility of overheating due to an accumulation of dust and dirt on the windings or on the motor exterior. And, as suggested elsewhere in these instructions, the air filters should be kept clean because dirty filters can restrict air flow and the motor depends upon sufficient air flowing across and through it to prevent overheating.

D. COOLING SECTION MAINTENANCE

⚠ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING MAINTENANCE. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

It is recommended that at the beginning of each cooling season a qualified installer or service agency inspect and clean the cooling section of this unit. The following areas should be addressed: evaporator coil, condenser coil, condenser fan motor and venturi area.

To inspect the evaporator coil:

⚠ WARNING

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING THE UNIT. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.

1. Remove the filter access panel and the blower/evaporator coil access panel.
2. Unplug the wires from the circulating air blower and the limit control. Remove the two screws and slide the blower out of the unit sideways.
3. Shine a flashlight on the evaporator coil (both sides) and inspect for accumulation of lint, insulation, etc.
4. If coil requires cleaning, follow the steps shown below.

Cleaning Evaporator Coil

1. Remove screws from condenser fan grille assembly and lay grille over on the unit top panel.
2. Remove the controls access panel and the control box cover.
3. Disconnect the outdoor fan motor wiring from the compressor contactor and capacitor. Remove the strain relief in the bulkhead and pull the fan motor wires through. Set grille assembly to the side.
4. Remove the screws that secure the unit top to the unit. Remove the top and set the unit top to the side.
5. The coil should be cleaned when it is dry. If the coil is coated with dirt or lint, vacuum it with a soft brush attachment. Be careful not to bend the coil fins.
6. If the coil is coated with oil or grease, clean it with water or Ph neutral cleaner solution. Rinse the coil thoroughly with water. **IMPORTANT: Do not** use excessive water pressure. Excessive water pressure can bend the fins and tubing of the coil and lead to inadequate unit performance. Be careful not to splash water excessively into unit.
7. Go to next section for cleaning the condenser coil.

Cleaning Condenser Coil, Drain Pan, Condensate Drain, Condenser Fan, Circulation Air Blower and Venturi

1. Remove the screws from the condenser coil protective grille and remove the grille from the unit. Ensure the filter access panel is still removed to access all of the screws securing the grille.
2. The coil should be cleaned when it is dry. If the coil is coated with dirt or lint, vacuum it with a soft brush attachment. Be careful not to bend the coil fins.
3. If the coil is coated with oil or grease, clean it with water or Ph neutral cleaner solution. Rinse the coil thoroughly with water. **IMPORTANT: Do not** use excessive water pressure. Excessive water pressure can bend the fins and tubing of the coil and lead to inadequate unit performance. Be careful not to splash water excessively into unit.
4. Inspect the drain pan and condensate drain at the same time the condenser coil is checked. Clean the drain pan by flushing with water and removing any matters of obstructions which may be present.
5. Flush the drain tube with water. If the drain tube is blocked, it can usually be cleared wth high pressure water.
6. Inspect the circulating air blower wheel and motor for accumulation of lint, dirt or other obstruction and clean if necessary. Inspect the blower motor mounts and the blower housing for loose mounts or other damage. Repair or replace if necessary.

Re-assembly

1. Place the condenser coil protective grille back on unit and replace all screws.
2. Place top panel back on unit and replace all screws.

3. Set condenser fan grille assembly on top of the unit with the fan on top and the motor wires on the venturi side. Run the fan motor wires through the bulkhead and pull wires through the hole on the bottom of the control box on the left side and into the control box. Reconnect fan motor wires per the wiring diagram attached to the back of the control box cover.
4. Replace wire strain relief in bulkhead after the slack is pulled out of the wires on the fan side. This will assure wires will not be damaged by the fan during unit operation.
5. Turn the condenser fan grille assembly over and into the recess in the unit top. Secure the grille to the unit with the four screws removed earlier.
6. Replace the circulating air blower, making sure that all wires are properly reconnected per the unit wiring diagram.
7. Replace the filter and blower/evaporator coil access panels.
8. Replace the control box cover and controls access panel.
9. Restore electrical power to the unit and check for proper operation, especially the condenser fan motor.

E. REPLACEMENT PARTS

Contact your local distributor for a complete parts list.

F. CHARGING

Refer to the appropriate charge chart included in this manual.

⚠ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING TO CHANGE BLOWER SPEEDS. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

G. BLOWER MOTOR SPEED ADJUSTMENTS

Note: These instructions to be used in conjunction with airflow data tables.

After determining necessary CFM and speed tap, follow the steps below to change speeds.

Units with PSC Blower Motors:

1. Remove the furnace/control access panel.
2. Remove the control box cover. See Figure 24 for location of the furnace control board.
3. Reference Figure 25 for the proper location of the wires on the speed tap block and on the furnace control board to obtain the speed tap you have chosen.

   Note: 460V units have dedicated heating and cooling speeds and should not be adjusted.
4. After adjusting the wires accordingly, attach the control box cover, furnace control access panel and the blower access panel to the unit.

Units with X-13 Motors

1. Remove blower access panel.
2. Locate wire terminals on the motor. Numbered terminals are 24V blower taps (See airflow tables for corresponding speed). The C terminal is 24V common. L, N, and G terminals are high voltage and must remain unchanged.
3. Cooling speeds can be adjusted as noted in Figure 25 by moving appropriate wire between taps at the blower (Do not connect wires to unspecified speed taps).

   Note: Heat speed is dedicated and should not be changed. The first stage cooling speed on 5-ton models is dedicated and should not be changed.
4. Replace blower access panel.

FIGURE 24
INTEGRATED FURNACE CONTROL BOARD

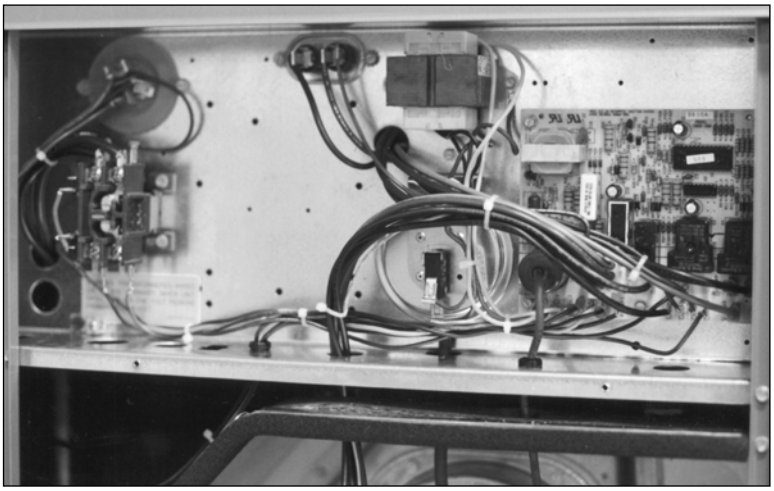
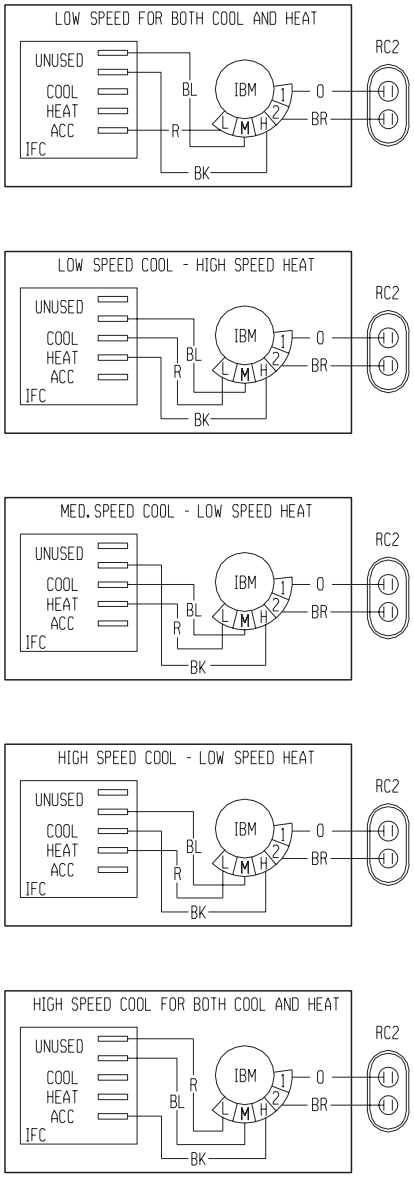


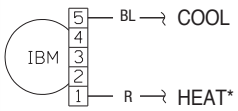
FIGURE 25

208/230 Volt PSC Motor



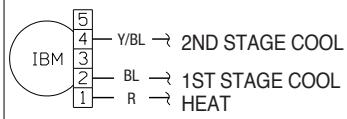
208/230 Volt Constant Torque Motor

2, 2.5, 3, 3.5, 4, 5 TON
SINGLE STAGE MODELS



COOLING SPEED MAY BE ADJUSTED TO LOW COOL BY MOVING BLUE WIRE TO TAP 4.
*HEAT SPEED CAN BE TAP 1, 2 OR 3, IS DEDICATED AND SHOULD NOT BE ADJUSTED.

5 TON 2-STAGE MODELS



SECOND STAGE COOLING SPEED MAY BE ADJUSTED TO LOW COOL BY MOVING YELLOW WITH BLUE STRIPE WIRE TO TAP 3. FIRST STAGE COOLING SPEED IS DEDICATED AND SHOULD NOT BE ADJUSTED. HEAT SPEED IS DEDICATED AND SHOULD NOT BE ADJUSTED.

NOTE: 460 Volt motors have dedicated speeds and are not adjustable. See airflow tables and wiring diagrams for more information. Some units do not have a medium speed.

FIGURE 26
FACTORY SET BLOWER SPEEDS

RGEA13/14		Blower Speed		RGEA15		Blower Speed	
Cool Tons	**Heat Input**	**Cool**	**Heat**	**Cool Tons**	**Heat Input**	**Cool**	**Heat**
2	40K	High	High	2	60K	Tap 5	Tap 2
	60K		High		80K		Tap 3
2.5	60K	Low	Low	2.5	60K	Tap 5	Tap 2
	80K		High		80K		Tap 3
3	60K	High	Low	3	60K	Tap 5	Tap 1
	80K		High		80K		Tap 2
	100K		High		100K		Tap 3
3.5	80K	Tap 5	Tap 2	3.5	80K	Tap 5	Tap 2
	100K		Tap 3		100K		Tap 3
4	80K	Tap 5	Tap 2	4	80K	Tap 5	Tap 2
	100K		Tap 3		100K		Tap 3
5	100K	Tap 5	Tap 1	5	100K	1st Stage Tap 2	Tap 1
						2nd Stage Tap 5	

NOTE: See blower tables for speed options.

XI. UNITS WITH ECM BLOWER MOTORS (RGEA15???AJV MODELS ONLY)

The ECM (Brushless permanent magnet) motor used on the blower in this product is programmed to operate over a wide range of external static pressures (0.0" - 1.0" W.C.) with essentially constant air flow (CFM). Motor efficiency on ECM type motors is higher than that of P.S.C. type motors normally used on this type product. See air flow performance data tables.

The ECM motor is programmed to provide a "soft" start and stop. On a call for heat or cool, the motor will gradually ramp up to the field selected CFM speed. This eliminates the sudden rush of air and noise normally associated with a P.S.C. type motor. Once the thermostat and blower delay are satisfied, the motor will gradually ramp down as well.

IMPORTANT: Units equipped with ECM motors cannot be used in by-pass zoning applications.

IMPORTANT: The A.C. power plug to the blower motor has locking tabs. It has been shown that by applying excessive force to the A.C. cable half of the connector it is possible to force the connector in backwards. It will not seat and "click" properly but will make connection. If A.C. power is applied with the connector reversed the motor will be immediately destroyed. Do not force power plug into motor connector backwards.

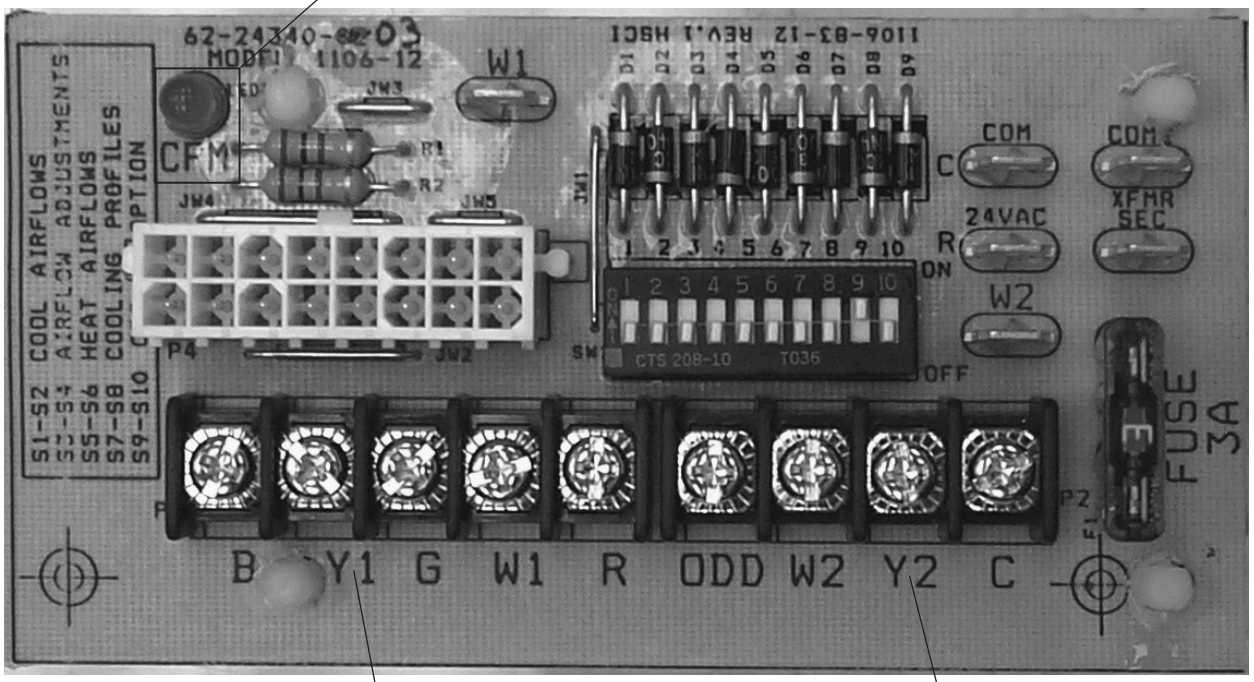
NOTE: Because of the harmonic content of the A.C. Line current to the ECM motor a conventional ammeter will not read correct motor amps. Only a true RMS meter will give accurate AMP readings.

IMPORTANT: The flexibility of ECM motors and the fact that this flexibility is contained in programmed memory, not hardware, emphasizes the need for exact motor numbers for replacement motors. Because they all look the same, ECM MOTORS FROM DIFFERENT PRODUCTS OR DIFFERENT MODELS OF THE SAME PRODUCT MUST NOT BE INTERCHANGED.

IMPORTANT: If an ECM motor is replaced, it is important that the motor be mounted as the original, as far into the blower wheel as practical for proper motor cooling.

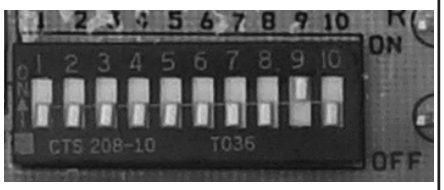
IMPORTANT: The ECM motor is controlled directly from the room thermostat (in all modes except heating). In cooling, the motor is controlled from the thermostat "Y" terminal. When the "Y" or "R" thermostat circuit is opened a 30 second delay will occur before the blower motor will cycle. In the heating mode the furnace control board controls the ECM through the blower relay. When the "W" thermostat circuits are opened, a 90 second delay will occur before the blower will cycle off. When the "G" to "R" thermostat circuit is opened for low speed blower, there is no "off" delay. All thermostat sub-base combinations as recommended and provided through the Parts Department have been tested and are compatible with the ECM motor used in this equipment. Some thermostats may not be compatible with the ECM motor provided in this unit. With thermostat in off state, the voltage on control lines "G", "Y", or W with respect to 24 vac common should be less than 3.5 VAC. If the measured voltage is too high, thermostat is incompatible with the ECM motor and will cause the motor to run when it should be off.

FIGURE 27
ECM INTERFACE BOARD



(THIS BOARD IS LOCATED IN THE BLOWER SECTION)

FIGURE 28
ECM MOTOR SETTINGS



(This board is located in the blower section)

A. ECM MOTOR INTERFACE CONTROL AND SETTINGS (RGEA15???AJV UNITS ONLY)

The RGEA15???AJV series units use ECM blower motors to deliver a constant level of airflow over a wide range of external static pressures (up to 1.0" W.C.). The interface board provides the required communications between the thermostat/IFC and the ECM blower motor. The interface board features:

- An automotive-style ATC blade fuse for transformer protection (3 amp).
- An on-board LED to indicate blower CFM.
- Inputs for two-stages of cooling: Y1 (first stage) and Y2 (second stage)
- Four (4) cooling delay profiles

The DIP switches on the interface board are used to define the operation of the ECM motor (see Table 7).

TABLE 7
SWITCH FUNCTIONS

Switch	Function
1 & 2	Not Used
3 & 4	Cooling Airflow Adjustment
5 & 6	Heating Airflow Settings
7 & 8	Cooling Delay Profiles
9 & 10	On-Demand Dehumidification

Refer to Figure 24 for switch identification and factory default settings.

IMPORTANT: Disconnect power to unit when changing DIP switch positions. Even if blower is not operating, the motor will not recognize changes in DIP switch positions until unit power is removed and then restored.

B. TRANSFORMER PROTECTION

The ECM interface board is equipped with an automotive-style 3 amp ATC blade fuse for transformer protection. (See Figure 27.) If a short circuit occurs on the secondary side of the transformer, the fuse will open.

C. USING THE ON-BOARD LED TO DETERMINE BLOWER CFM

The ECM interface board LED, which is located in the blower section (see Figure 27), indicates blower output by flashing one (1) second for every 100 CFM of airflow. The LED will pause 1/10 second between each flash. After the blower CFM has been displayed, the LED will illuminate dimly for 10 seconds before repeating the sequence. (See Table 8.)

NOTE: If airflow is not a multiple of 100 CFM, the last LED flash is a fraction of a second of 100 CFM.

TABLE 8
LED FLASH CODES

Interface board DIP switch settiings	LED Output
1200 CFM	• Flashes 12 times • Illuminate dimly 10 seconds, repeat sequence
600 CFM	• Flashes 6 times • Illuminate dimly 10 seconds, repeat sequence
950 CFM	• Flashes 9 times, flash once for 1/2 second • Illuminate dimly 10 seconds, repeat sequence

D. UNIT OPERATION WITH TWO-STAGE COOLING

Two stage units provide distinct airflows for two-stage cooling. (See Figure 27.) Unit operation is defined as:

• **Y1** – First Stage Cooling
• **Y2** – Second Stage Cooling

A 24VAC signal provides input for the cooling stages.

NOTE: A 24VAC input to the Y2 terminal overrides the input to the Y1 terminal. (Both must be energized to enable 2nd stage cooling.)

TABLE 9
TWO-STAGE OPERATION

Y1 INPUT	Y2 INPUT	COOLING OPERATION
NONE	NONE	OFF
24 VAC	NONE	1ST STAGE
24 VAC	24 VAC	2ND STAGE
NONE	24 VAC	OFF

E. COOLING AIRFLOW ADJUSTMENTS

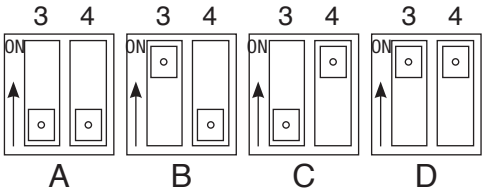
Cooling airflow may be adjusted +10% or –10% from nominal airflow using switches 3 & 4.

Refer to Figure 30 for switch positions to achieve the desired adjustments in airflow.

NOTE: Continuous fan speed is NOT affected by switches 3 & 4.

IMPORTANT: The use of On Demand Dehumidification overrides the cooling airflow adjustments when high humidity is detected by a dehumidifying thermostat or humidistat when connected to the ODD terminal as shown in Figure 27. Refer to the Cooling Mode Dehumidification section for more information.

FIGURE 29
COOLING AIRFLOW ADJUSTMENTS



SELECTION	SWITCH 3 POSITION	SWITCH 4 POSITION	COOLING AIRFLOW ADJUSTMENT
A	OFF	OFF	NONE
B	ON	OFF	10%
C	OFF	ON	-10%
D	ON	ON	NONE

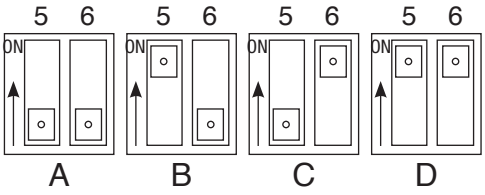
F. HEATING AIRFLOW ADJUSTMENTS

Heating airflow may be adjusted +10% or –10% from nominal airflow using switches 5 & 6.

Refer to Figure 30 for switch positions to achieve the desired adjustments in airflow.

NOTE: Continuous fan speed is NOT affected by switches 5 & 6.

FIGURE 30
HEATING AIRFLOW ADJUSTMENTS



SELECTION	SWITCH 5 POSITION	SWITCH 6 POSITION	HEATING AIRFLOW ADJUSTMENT
A	OFF	OFF	NONE
B	ON	OFF	10%
C	OFF	ON	-10%
D	ON	ON	NONE

G. COOLING DELAY PROFILES

The unit is shipped with a default ON/OFF delay profile for maximum efficiency. This default may be overridden to maximize comfort by using one of the alternate profiles. ON delay profiles are shown in Figure 31.

OFF delay profiles are shown in Figure 32.

IMPORTANT: Blower ON delay profiles are not used in heating mode.

FIGURE 31
COOLING "ON" DELAY PROFILES

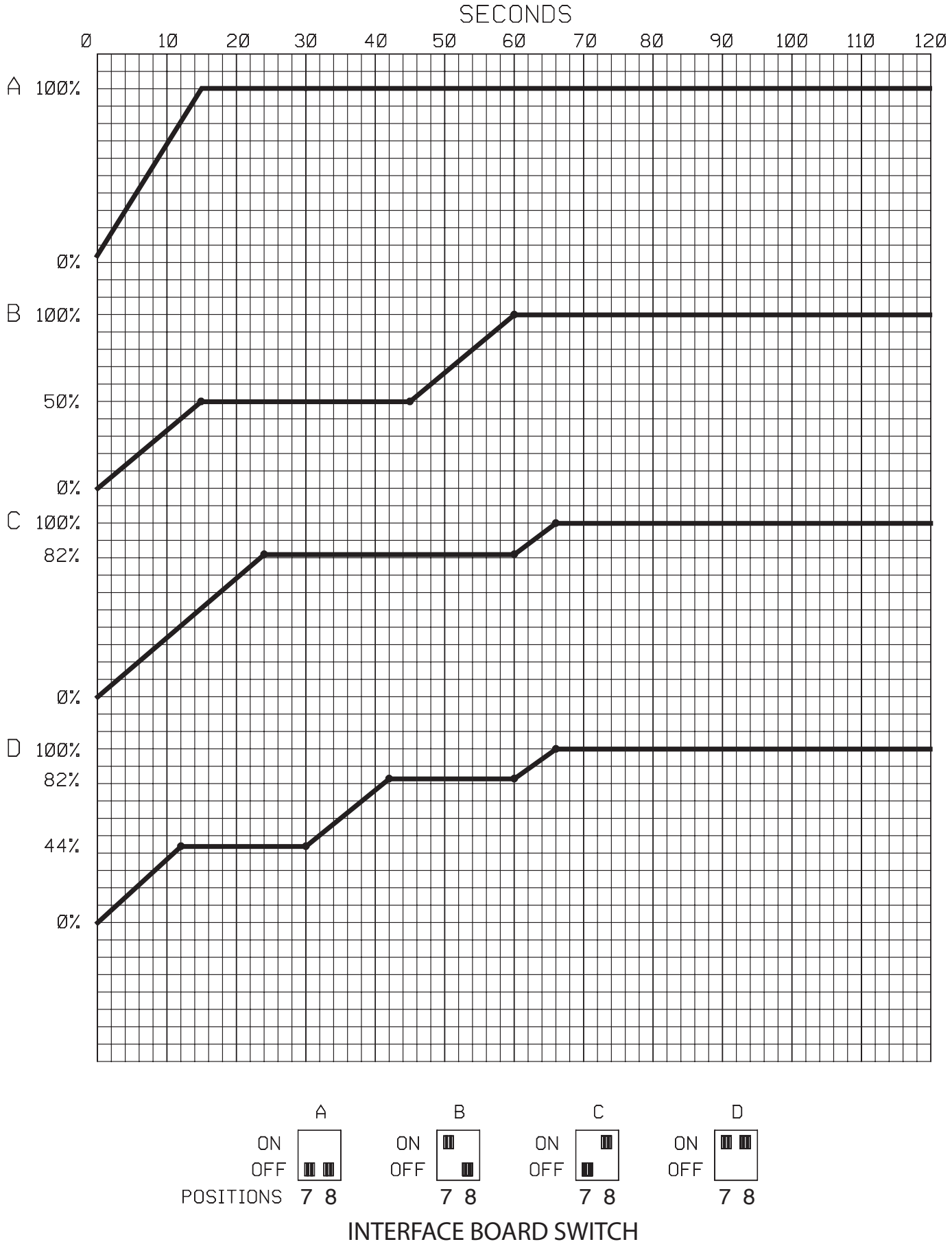
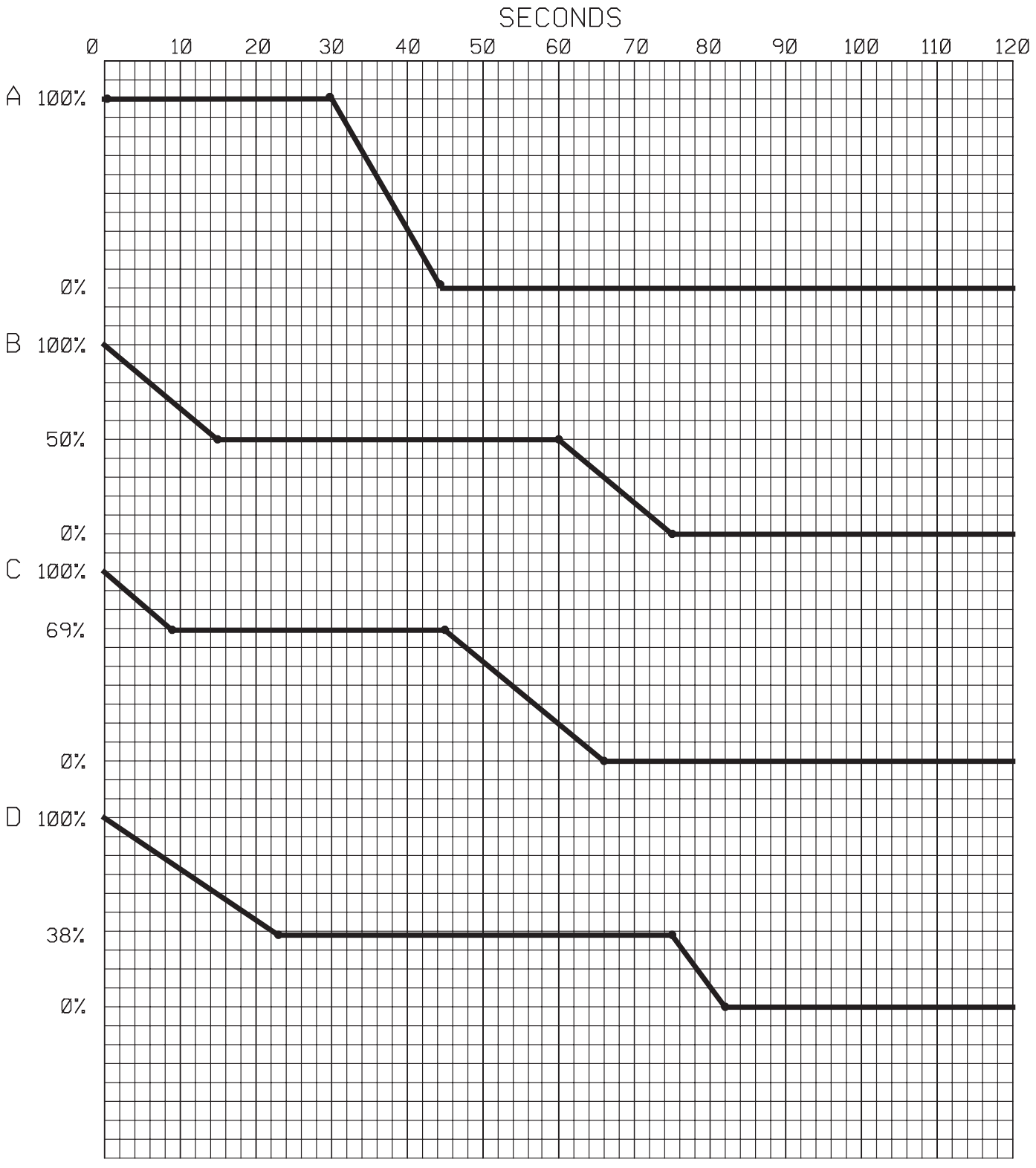
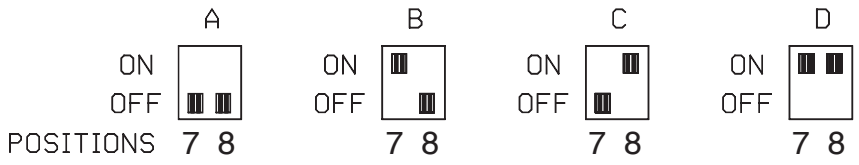


FIGURE 32
BLOWER "OFF" DELAY PROFILES





INTERFACE BOARD SWITCH

XII. GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA13 Series	024AJD041AA	024AJD061AA	030AJD061AA	030AJD081AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	24,800 [7.27]	24,800 [7.27]	30,200 [8.85]	30,200 [8.85]
EER/SEER[2]	11.4/13.5	11.4/13.5	12/13.5	12/13.5
Nominal CFM/AHRI Rated CFM [L/s]	800/900 [378/425]	800/900 [378/425]	1000/1000 [472/472]	1000/1000 [472/472]
AHRI Net Cooling Capacity Btu [kW]	24,000 [7.03]	24,000 [7.03]	29,000 [8.5]	29,000 [8.5]
Net Sensible Capacity Btu [kW]	18,400 [5.39]	18,400 [5.39]	21,300 [6.24]	21,300 [6.24]
Net Latent Capacity Btu [kW]	5,600 [1.64]	5,600 [1.64]	7,700 [2.26]	7,700 [2.26]
Net System Power kW	2.1	2.1	2.37	2.37
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	40,000 [11.72]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]
Heating Output Btu [kW]	32,000 [9.38]	48,000 [14.06]	48,000 [14.06]	65,000 [19.04]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	2	2	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	7.1 [0.66]	7.1 [0.66]	9.9 [0.92]	9.9 [0.92]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 23 [9]	1 / 23 [9]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/9x7 [229x178]	1/9x7 [229x178]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/4	1/4	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	42.7 [1211]	42.7 [1211]	46.8 [1327]	46.8 [1327]
Weights				
Net Weight lbs. [kg]	398 [181]	403 [183]	403 [183]	408 [185]
Ship Weight lbs. [kg]	408 [185]	413 [187]	413 [187]	418 [190]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA13 Series	036ACD061AA	036ACD081AA	036ACD101AA	036ADD061AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]
EER/SEER[2]	11.6/13.5	11.6/13.5	11.6/13.5	11.6/13.5
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Sensible Capacity Btu [kW]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]
Net Latent Capacity Btu [kW]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]
Net System Power kW	2.93	2.93	2.93	2.93
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	60,000 [17.58]	80,000 [23.44]	100,000 [29.3]	60,000 [17.58]
Heating Output Btu [kW]	48,000 [14.06]	65,000 [19.04]	81,000 [23.73]	48,000 [14.06]
Temperature Rise Range ºF [ºC]	30-60 [16.7-33.3]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	30-60 [16.7-33.3]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[3]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	411 [186]	416 [189]	421 [191]	411 [186]
Ship Weight lbs. [kg]	421 [191]	426 [193]	431 [196]	421 [191]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA13 Series	036ADD081AA	036ADD101AA	036AJD061AA	036AJD081AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]
EER/SEER[2]	11.6/13.5	11.6/13.5	11.6/13.5	11.6/13.5
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Sensible Capacity Btu [kW]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]
Net Latent Capacity Btu [kW]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]
Net System Power kW	2.93	2.93	2.93	2.93
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	60,000 [17.58]	80,000 [23.44]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	48,000 [14.06]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	30-60 [16.7-33.3]	30-60 [16.7-33.3]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	416 [189]	421 [191]	411 [186]	416 [189]
Ship Weight lbs. [kg]	426 [193]	431 [196]	421 [191]	426 [193]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA13 Series	036AJD101AA	042ACT081AA	042ACT101AA	042AJT081AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	35,400 [10.37]	41,000 [12.01]	41,000 [12.01]	41,000 [12.01]
EER/SEER[2]	11.6/13.5	12/13.5	12/13.5	12/13.5
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1400/1300 [661/613]	1400/1300 [661/613]	1400/1300 [661/613]
AHRI Net Cooling Capacity Btu [kW]	34,000 [9.96]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]
Net Sensible Capacity Btu [kW]	24,200 [7.09]	29,000 [8.5]	29,000 [8.5]	29,000 [8.5]
Net Latent Capacity Btu [kW]	9,800 [2.87]	11,000 [3.22]	11,000 [3.22]	11,000 [3.22]
Net System Power kW	2.93	3.27	3.27	3.27
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	100,000 [29.3]	80,000 [23.44]	100,000 [29.3]	80,000 [23.44]
Heating Output Btu [kW]	81,000 [23.73]	65,000 [19.04]	81,000 [23.73]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	45-75 [25-41.7]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	14.1 [1.31]	14.1 [1.31]	14.1 [1.31]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	3500 [1652]	3500 [1652]	3500 [1652]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	3/4	3/4	3/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	53.6 [1520]	53.6 [1520]	53.6 [1520]
Weights				
Net Weight lbs. [kg]	421 [191]	441 [200]	446 [202]	441 [200]
Ship Weight lbs. [kg]	431 [196]	451 [205]	456 [207]	451 [205]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA13 Series	042AJT101AA	048ACT081AA	048ACT101AA	048ADT101AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	41,000 [12.01]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]
EER/SEER[2]	12/13.5	11.5/13.5	11.5/13.5	11.5/13.5
Nominal CFM/AHRI Rated CFM [L/s]	1400/1300 [661/613]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]
AHRI Net Cooling Capacity Btu [kW]	40,000 [11.72]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	29,000 [8.5]	32,500 [9.52]	32,500 [9.52]	32,500 [9.52]
Net Latent Capacity Btu [kW]	11,000 [3.22]	13,500 [3.96]	13,500 [3.96]	13,500 [3.96]
Net System Power kW	3.27	4	4	4
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	100,000 [29.3]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	78	78	78
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	14.1 [1.31]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3500 [1652]	3300 [1557]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	53.6 [1520]	69.3 [1965]	69.3 [1965]	69.3 [1965]
Weights				
Net Weight lbs. [kg]	446 [202]	477 [216]	482 [219]	482 [219]
Ship Weight lbs. [kg]	456 [207]	487 [221]	492 [223]	492 [223]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA13 Series	048AJT081AA	048AJT101AA	060ACT101AA	060ADT101AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	47,500 [13.92]	47,500 [13.92]	60,000 [17.58]	60,000 [17.58]
EER/SEER[2]	11.5/13.5	11.5/13.5	11/13	11/13
Nominal CFM/AHRI Rated CFM [L/s]	1600/1550 [755/731]	1600/1550 [755/731]	2000/1850 [944/873]	2000/1850 [944/873]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	57,500 [16.85]	57,500 [16.85]
Net Sensible Capacity Btu [kW]	32,500 [9.52]	32,500 [9.52]	40,300 [11.81]	40,300 [11.81]
Net Latent Capacity Btu [kW]	13,500 [3.96]	13,500 [3.96]	17,200 [5.04]	17,200 [5.04]
Net System Power kW	4	4	5.17	5.17
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	5	5
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[3]	78	78	79	79
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	4.1 [0.38]	4.1 [0.38]	4 [0.37]	4 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3300 [1557]	3400 [1604]	3400 [1604]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	1	1
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x30 [25x610x762]	(1)1x24x30 [25x610x762]
Refrigerant Charge Oz. [g]	69.3 [1965]	69.3 [1965]	66.1 [1874]	66.1 [1874]
Weights				
Net Weight lbs. [kg]	477 [216]	482 [219]	512 [232]	512 [232]
Ship Weight lbs. [kg]	487 [221]	492 [223]	522 [237]	522 [237]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA13 Series	060AJT101AA
Cooling Performance[1]	
Gross Cooling Capacity Btu [kW]	60,000 [17.58]
EER/SEER[2]	11/13
Nominal CFM/AHRI Rated CFM [L/s]	2000/1850 [944/873]
AHRI Net Cooling Capacity Btu [kW]	57,500 [16.85]
Net Sensible Capacity Btu [kW]	40,300 [11.81]
Net Latent Capacity Btu [kW]	17,200 [5.04]
Net System Power kW	5.17
Heating Performance (Gas)[4]	
Heating Input Btu [kW]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]
AFUE %	81
Steady State Efficiency (%)	82
No. Burners	5
No. Stages	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]
Compressor	
No./Type	1/Scroll
Outdoor Sound Rating (dB)[5]	79
Outdoor Coil - Fin Type	Louvered
Tube Type	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]
Face Area sq. ft. [sq. m]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered
Tube Type	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]
Face Area sq. ft. [sq. m]	4 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]
Refrigerant Control	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1
CFM [L/s]	3400 [1604]
No. Motors/HP	1 at 1/3 HP
Motor RPM	1075
Indoor Fan - Type	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]
Drive Type	Direct
No. Speeds	Multiple
No. Motors	1
Motor HP	1
Motor RPM	1075
Motor Frame Size	48
Filter - Type	Field Supplied
Furnished	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x30 [25x610x762]
Refrigerant Charge Oz. [g]	66.1 [1874]
Weights	
Net Weight lbs. [kg]	512 [232]
Ship Weight lbs. [kg]	522 [237]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	024AJD041AA	024AJD04XAA	024AJD061AA	024AJD06XAA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	24,800 [7.27]	24,800 [7.27]	24,800 [7.27]	24,800 [7.27]
EER/SEER[2]	11.6/14	11.6/14	11.6/14	11.6/14
Nominal CFM/AHRI Rated CFM [L/s]	800/900 [378/425]	800/900 [378/425]	800/900 [378/425]	800/900 [378/425]
AHRI Net Cooling Capacity Btu [kW]	24,000 [7.03]	24,000 [7.03]	24,000 [7.03]	24,000 [7.03]
Net Sensible Capacity Btu [kW]	18,000 [5.27]	18,000 [5.27]	18,000 [5.27]	18,000 [5.27]
Net Latent Capacity Btu [kW]	6,000 [1.76]	6,000 [1.76]	6,000 [1.76]	6,000 [1.76]
Net System Power kW	2.07	2.07	2.07	2.07
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	40,000 [11.72]	40,000 [11.72]	60,000 [17.58]	60,000 [17.58]
Heating Output Btu [kW]	32,000 [9.38]	32,000 [9.38]	48,000 [14.06]	48,000 [14.06]
Temperature Rise Range ºF [ºC]	25-55 [13.9-30.6]	25-55 [13.9-30.6]	40-70 [22.2-38.9]	40-70 [22.2-38.9]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	2	2	2	2
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	7.1 [0.66]	7.1 [0.66]	7.1 [0.66]	7.1 [0.66]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/9x7 [229x178]	1/9x7 [229x178]	1/9x7 [229x178]	1/9x7 [229x178]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/4	1/4	1/4	1/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]
Refrigerant Charge Oz. [g]	42.7 [1211]	42.7 [1211]	42.7 [1211]	42.7 [1211]
Weights				
Net Weight lbs. [kg]	398 [181]	398 [181]	403 [183]	403 [183]
Ship Weight lbs. [kg]	408 [185]	408 [185]	413 [187]	413 [187]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	030AJD061AA	030AJD06XAA	030AJD081AA	030AJD08XAA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	29,600 [8.67]	29,600 [8.67]	29,600 [8.67]	29,600 [8.67]
EER/SEER[2]	12/14	12/14	12/14	12/14
Nominal CFM/AHRI Rated CFM [L/s]	1000/1000 [472/472]	1000/1000 [472/472]	1000/1000 [472/472]	1000/1000 [472/472]
AHRI Net Cooling Capacity Btu [kW]	28,400 [8.32]	28,400 [8.32]	28,400 [8.32]	28,400 [8.32]
Net Sensible Capacity Btu [kW]	21,200 [6.21]	21,200 [6.21]	21,200 [6.21]	21,200 [6.21]
Net Latent Capacity Btu [kW]	7,200 [2.11]	7,200 [2.11]	7,200 [2.11]	7,200 [2.11]
Net System Power kW	2.37	2.37	2.37	2.37
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	48,000 [14.06]	48,000 [14.06]	65,000 [19.04]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.9 [0.92]	9.9 [0.92]	9.9 [0.92]	9.9 [0.92]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	46.8 [1327]	46.8 [1327]	46.8 [1327]	46.8 [1327]
Weights				
Net Weight lbs. [kg]	403 [183]	403 [183]	408 [185]	408 [185]
Ship Weight lbs. [kg]	413 [187]	413 [187]	418 [190]	418 [190]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	036ACD061AA	036ACD081AA	036ACD101AA	036ADD061AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]
EER/SEER[2]	11.8/14	11.8/14	11.8/14	11.8/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Sensible Capacity Btu [kW]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]
Net Latent Capacity Btu [kW]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]
Net System Power kW	2.89	2.89	2.89	2.89
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	60,000 [17.58]	80,000 [23.44]	100,000 [29.3]	60,000 [17.58]
Heating Output Btu [kW]	48,000 [14.06]	65,000 [19.04]	81,000 [23.73]	48,000 [14.06]
Temperature Rise Range °F [°C]	30-60 [16.7-33.3]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	30-60 [16.7-33.3]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	411 [186]	416 [189]	421 [191]	411 [186]
Ship Weight lbs. [kg]	421 [191]	426 [193]	431 [196]	421 [191]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	036ADD081AA	036ADD101AA	036AJD061AA	036AJD06XAA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]
EER/SEER[2]	11.8/14	11.8/14	11.8/14	11.8/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Sensible Capacity Btu [kW]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]
Net Latent Capacity Btu [kW]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]
Net System Power kW	2.89	2.89	2.89	2.89
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	60,000 [17.58]	60,000 [17.58]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	48,000 [14.06]	48,000 [14.06]
Temperature Rise Range ºF [ºC]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	30-60 [16.7-33.3]	30-60 [16.7-33.3]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	416 [189]	421 [191]	411 [186]	411 [186]
Ship Weight lbs. [kg]	426 [193]	431 [196]	421 [191]	421 [191]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	036AJD081AA	036AJD08XAA	036AJD101AA	036AJD10XAA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]	35,400 [10.37]
EER/SEER[2]	11.8/14	11.8/14	11.8/14	11.8/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Sensible Capacity Btu [kW]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]	24,200 [7.09]
Net Latent Capacity Btu [kW]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]	9,800 [2.87]
Net System Power kW	2.89	2.89	2.89	2.89
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	65,000 [19.04]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	30-60 [16.7-33.3]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	40-70 [22.2-38.9]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[3]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	416 [189]	416 [189]	421 [191]	421 [191]
Ship Weight lbs. [kg]	426 [193]	426 [193]	431 [196]	431 [196]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	042ACT081AA	042ACT101AA	042AJT081AA	042AJT08XAA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	41,000 [12.01]	41,000 [12.01]	41,000 [12.01]	41,000 [12.01]
EER/SEER[2]	12/14	12/14	12/14	12/14
Nominal CFM/AHRI Rated CFM [L/s]	1400/1300 [661/613]	1400/1300 [661/613]	1400/1300 [661/613]	1400/1300 [661/613]
AHRI Net Cooling Capacity Btu [kW]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]
Net Sensible Capacity Btu [kW]	29,000 [8.5]	29,000 [8.5]	29,000 [8.5]	29,000 [8.5]
Net Latent Capacity Btu [kW]	11,000 [3.22]	11,000 [3.22]	11,000 [3.22]	11,000 [3.22]
Net System Power kW	3.27	3.27	3.27	3.27
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	65,000 [19.04]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	45-75 [25-41.7]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	14.1 [1.31]	14.1 [1.31]	14.1 [1.31]	14.1 [1.31]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3500 [1652]	3500 [1652]	3500 [1652]	3500 [1652]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	53.6 [1520]	53.6 [1520]	53.6 [1520]	53.6 [1520]
Weights				
Net Weight lbs. [kg]	441 [200]	446 [202]	441 [200]	441 [200]
Ship Weight lbs. [kg]	451 [205]	456 [207]	451 [205]	451 [205]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	042AJT101AA	042AJT10XAA	048ACT081AA	048ACT101AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	41,000 [12.01]	41,000 [12.01]	47,500 [13.92]	47,500 [13.92]
EER/SEER[2]	12/14	12/14	11.7/14	11.7/14
Nominal CFM/AHRI Rated CFM [L/s]	1400/1300 [661/613]	1400/1300 [661/613]	1600/1550 [755/731]	1600/1550 [755/731]
AHRI Net Cooling Capacity Btu [kW]	40,000 [11.72]	40,000 [11.72]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	29,000 [8.5]	29,000 [8.5]	32,500 [9.52]	32,500 [9.52]
Net Latent Capacity Btu [kW]	11,000 [3.22]	11,000 [3.22]	13,500 [3.96]	13,500 [3.96]
Net System Power kW	3.27	3.27	3.89	3.89
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	100,000 [29.3]	100,000 [29.3]	80,000 [23.44]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	81,000 [23.73]	65,000 [19.04]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]	45-75 [25-41.7]	35-65 [19.4-36.1]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	78	78
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	14.1 [1.31]	14.1 [1.31]	16.3 [1.51]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	4.1 [0.38]	4.1 [0.38]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3500 [1652]	3500 [1652]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	53.6 [1520]	53.6 [1520]	69.3 [1965]	69.3 [1965]
Weights				
Net Weight lbs. [kg]	446 [202]	446 [202]	477 [216]	482 [219]
Ship Weight lbs. [kg]	456 [207]	456 [207]	487 [221]	492 [223]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	048ADT101AA	048AJT081AA	048AJT08XAA	048AJT101AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]
EER/SEER[2]	11.7/14	11.7/14	11.7/14	11.7/14
Nominal CFM/AHRI Rated CFM [L/s]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	32,500 [9.52]	32,500 [9.52]	32,500 [9.52]	32,500 [9.52]
Net Latent Capacity Btu [kW]	13,500 [3.96]	13,500 [3.96]	13,500 [3.96]	13,500 [3.96]
Net System Power kW	3.89	3.89	3.89	3.89
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	100,000 [29.3]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	65,000 [19.04]	65,000 [19.04]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	78	78	78	78
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3300 [1557]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	69.3 [1965]	69.3 [1965]	69.3 [1965]	69.3 [1965]
Weights				
Net Weight lbs. [kg]	482 [219]	477 [216]	477 [216]	482 [219]
Ship Weight lbs. [kg]	492 [223]	487 [221]	487 [221]	492 [223]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	048AJT10XAA	060ACT101AA	060ADT101AA	060AJT101AA
Cooling Performance[1]				
Gross Cooling Capacity Btu [kW]	47,500 [13.92]	59,000 [17.29]	59,000 [17.29]	59,000 [17.29]
EER/SEER[2]	11.7/14	11.6/14	11.6/14	11.6/14
Nominal CFM/AHRI Rated CFM [L/s]	1600/1550 [755/731]	2000/1700 [944/802]	2000/1700 [944/802]	2000/1700 [944/802]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	57,000 [16.7]	57,000 [16.7]	57,000 [16.7]
Net Sensible Capacity Btu [kW]	32,500 [9.52]	39,500 [11.57]	39,500 [11.57]	39,500 [11.57]
Net Latent Capacity Btu [kW]	13,500 [3.96]	17,500 [5.13]	17,500 [5.13]	17,500 [5.13]
Net System Power kW	3.89	4.94	4.94	4.94
Heating Performance (Gas)[4]				
Heating Input Btu [kW]	100,000 [29.3]	100,000 [29.3]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	81,000 [23.73]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]	45-75 [25-41.7]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	5	5	5
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	78	79	79	79
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	16.3 [1.51]	15.3 [1.42]	15.3 [1.42]	15.3 [1.42]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	4.1 [0.38]	4 [0.37]	4 [0.37]	4 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3400 [1604]	3400 [1604]	3400 [1604]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	1	1	1
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x30 [25x610x762]	(1)1x24x30 [25x610x762]	(1)1x24x30 [25x610x762]
Refrigerant Charge Oz. [g]	69.3 [1965]	83.1 [2356]	83.1 [2356]	83.1 [2356]
Weights				
Net Weight lbs. [kg]	482 [219]	512 [232]	512 [232]	512 [232]
Ship Weight lbs. [kg]	492 [223]	522 [237]	522 [237]	522 [237]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA14 Series	060AJT10XAA
Cooling Performance[1]	
Gross Cooling Capacity Btu [kW]	59,000 [17.29]
EER/SEER[2]	11.6/14
Nominal CFM/AHRI Rated CFM [L/s]	2000/1700 [944/802]
AHRI Net Cooling Capacity Btu [kW]	57,000 [16.7]
Net Sensible Capacity Btu [kW]	39,500 [11.57]
Net Latent Capacity Btu [kW]	17,500 [5.13]
Net System Power kW	4.94
Heating Performance (Gas)[4]	
Heating Input Btu [kW]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]
AFUE %	81
Steady State Efficiency (%)	82
No. Burners	5
No. Stages	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]
Compressor	
No./Type	1/Scroll
Outdoor Sound Rating (dB)[5]	79
Outdoor Coil - Fin Type	Louvered
Tube Type	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]
Face Area sq. ft. [sq. m]	15.3 [1.42]
Rows / FPI [FPcm]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered
Tube Type	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]
Face Area sq. ft. [sq. m]	4 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]
Refrigerant Control	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1
CFM [L/s]	3400 [1604]
No. Motors/HP	1 at 1/3 HP
Motor RPM	1075
Indoor Fan - Type	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]
Drive Type	Direct
No. Speeds	Multiple
No. Motors	1
Motor HP	1
Motor RPM	1075
Motor Frame Size	48
Filter - Type	Field Supplied
Furnished	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x30 [25x610x762]
Refrigerant Charge Oz. [g]	83.1 [2356]
Weights	
Net Weight lbs. [kg]	

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	024AJT061AA	024AJT06XAA	024AJT081AA	024AJT08XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	24,600 [7.21]	24,600 [7.21]	24,600 [7.21]	24,600 [7.21]
EER/SEER [2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	800/900 [378/425]	800/900 [378/425]	800/900 [378/425]	800/900 [378/425]
AHRI Net Cooling Capacity Btu [kW]	24,000 [7.03]	24,000 [7.03]	24,000 [7.03]	24,000 [7.03]
Net Sensible Capacity Btu [kW]	18,100 [5.3]	18,100 [5.3]	18,100 [5.3]	18,100 [5.3]
Net Latent Capacity Btu [kW]	5,900 [1.73]	5,900 [1.73]	5,900 [1.73]	5,900 [1.73]
Net System Power kW	2.03	2.03	2.03	2.03
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	48,000 [14.06]	48,000 [14.06]	65,000 [19.04]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	2	2	2	2
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [3]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	7.1 [0.66]	7.1 [0.66]	7.1 [0.66]	7.1 [0.66]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/3	1/3	1/3	1/3
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]
Refrigerant Charge Oz. [g]	42.6 [1208]	42.6 [1208]	42.6 [1208]	42.6 [1208]
Weights				
Net Weight lbs. [kg]	403 [183]	403 [183]	408 [185]	408 [185]
Ship Weight lbs. [kg]	413 [187]	413 [187]	418 [190]	418 [190]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	024AJV061AA	024AJV06XAA	024AJV081AA	024AJV08XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	24,600 [7.21]	24,600 [7.21]	24,600 [7.21]	24,600 [7.21]
EER/SEER[2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	800/900 [378/425]	800/900 [378/425]	800/900 [378/425]	800/900 [378/425]
AHRI Net Cooling Capacity Btu [kW]	24,000 [7.03]	24,000 [7.03]	24,000 [7.03]	24,000 [7.03]
Net Sensible Capacity Btu [kW]	18,100 [5.3]	18,100 [5.3]	18,100 [5.3]	18,100 [5.3]
Net Latent Capacity Btu [kW]	5,900 [1.73]	5,900 [1.73]	5,900 [1.73]	5,900 [1.73]
Net System Power kW	2.03	2.03	2.03	2.03
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	48,000 [14.06]	48,000 [14.06]	65,000 [19.04]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	2	2	2	2
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	7.1 [0.66]	7.1 [0.66]	7.1 [0.66]	7.1 [0.66]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]	(1)1x20x20 [25x508x508]
Refrigerant Charge Oz. [g]	42.6 [1208]	42.6 [1208]	42.6 [1208]	42.6 [1208]
Weights				
Net Weight lbs. [kg]	403 [183]	403 [183]	408 [185]	408 [185]
Ship Weight lbs. [kg]	413 [187]	413 [187]	418 [190]	418 [190]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	030AJT061AA	030AJT06XAA	030AJT081AA	030AJT08XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	29,600 [8.67]	29,600 [8.67]	29,600 [8.67]	29,600 [8.67]
EER/SEER [2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1000/975 [472/460]	1000/975 [472/460]	1000/975 [472/460]	1000/975 [472/460]
AHRI Net Cooling Capacity Btu [kW]	29,000 [8.5]	29,000 [8.5]	29,000 [8.5]	29,000 [8.5]
Net Sensible Capacity Btu [kW]	21,500 [6.3]	21,500 [6.3]	21,500 [6.3]	21,500 [6.3]
Net Latent Capacity Btu [kW]	7,500 [2.2]	7,500 [2.2]	7,500 [2.2]	7,500 [2.2]
Net System Power kW	2.21	2.21	2.21	2.21
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	48,000 [14.06]	48,000 [14.06]	65,000 [19.04]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [3]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.9 [0.92]	9.9 [0.92]	9.9 [0.92]	9.9 [0.92]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	46.8 [1327]	46.8 [1327]	46.8 [1327]	46.8 [1327]
Weights				
Net Weight lbs. [kg]	403 [183]	403 [183]	408 [185]	408 [185]
Ship Weight lbs. [kg]	413 [187]	413 [187]	418 [190]	418 [190]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	030AJV061AA	030AJV06XAA	030AJV081AA	030AJV08XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	29,600 [8.67]	29,600 [8.67]	29,600 [8.67]	29,600 [8.67]
EER/SEER[2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1000/975 [472/460]	1000/975 [472/460]	1000/975 [472/460]	1000/975 [472/460]
AHRI Net Cooling Capacity Btu [kW]	29,000 [8.5]	29,000 [8.5]	29,000 [8.5]	29,000 [8.5]
Net Sensible Capacity Btu [kW]	21,500 [6.3]	21,500 [6.3]	21,500 [6.3]	21,500 [6.3]
Net Latent Capacity Btu [kW]	7,500 [2.2]	7,500 [2.2]	7,500 [2.2]	7,500 [2.2]
Net System Power kW	2.21	2.21	2.21	2.21
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	48,000 [14.06]	48,000 [14.06]	65,000 [19.04]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.9 [0.92]	9.9 [0.92]	9.9 [0.92]	9.9 [0.92]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	46.8 [1327]	46.8 [1327]	46.8 [1327]	46.8 [1327]
Weights				
Net Weight lbs. [kg]	403 [183]	403 [183]	408 [185]	408 [185]
Ship Weight lbs. [kg]	413 [187]	413 [187]	418 [190]	418 [190]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	036ACT061AA	036ACT081AA	036ACT101AA	036ADT061AA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER/SEER [2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]
Net Sensible Capacity Btu [kW]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]
Net Latent Capacity Btu [kW]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]
Net System Power kW	2.77	2.77	2.77	2.77
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	60,000 [17.58]	80,000 [23.44]	100,000 [29.3]	60,000 [17.58]
Heating Output Btu [kW]	48,000 [14.06]	65,000 [19.04]	81,000 [23.73]	48,000 [14.06]
Temperature Rise Range ºF [ºC]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	45-75 [25-41.7]	40-70 [22.2-38.9]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [3]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	411 [186]	416 [189]	421 [191]	411 [186]
Ship Weight lbs. [kg]	421 [191]	426 [193]	431 [196]	421 [191]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	036ADT081AA	036ADT101AA	036AJT061AA	036AJT06XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER/SEER[2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]
Net Sensible Capacity Btu [kW]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]
Net Latent Capacity Btu [kW]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]
Net System Power kW	2.77	2.77	2.77	2.77
Heating Performance (Gas) [3]				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	60,000 [17.58]	60,000 [17.58]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	48,000 [14.06]	48,000 [14.06]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	45-75 [25-41.7]	40-70 [22.2-38.9]	40-70 [22.2-38.9]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	416 [189]	421 [191]	411 [186]	411 [186]
Ship Weight lbs. [kg]	426 [193]	431 [196]	421 [191]	421 [191]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	036AJT081AA	036AJT08XAA	036AJT101AA	036AJT10XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER/SEER [2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]
Net Sensible Capacity Btu [kW]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]
Net Latent Capacity Btu [kW]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]
Net System Power kW	2.77	2.77	2.77	2.77
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	65,000 [19.04]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [3]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	416 [189]	416 [189]	421 [191]	421 [191]
Ship Weight lbs. [kg]	426 [193]	426 [193]	431 [196]	431 [196]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	036AJV061AA	036AJV06XAA	036AJV081AA	036AJV08XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER/SEER[2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]	1200/1200 [566/566]
AHRI Net Cooling Capacity Btu [kW]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]	35,000 [10.25]
Net Sensible Capacity Btu [kW]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]	25,400 [7.44]
Net Latent Capacity Btu [kW]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]	9,600 [2.81]
Net System Power kW	2.77	2.77	2.77	2.77
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	48,000 [14.06]	48,000 [14.06]	65,000 [19.04]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	3	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]	9.8 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	2700 [1274]	2700 [1274]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	3/4	3/4
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	52.7 [1494]	52.7 [1494]
Weights				
Net Weight lbs. [kg]	411 [186]	411 [186]	416 [189]	416 [189]
Ship Weight lbs. [kg]	421 [191]	421 [191]	426 [193]	426 [193]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	036AJV101AA	036AJV10XAA	042ACT081AA	042ACT101AA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	36,000 [10.55]	36,000 [10.55]	41,000 [12.01]	41,000 [12.01]
EER/SEER [2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1200/1200 [566/566]	1200/1200 [566/566]	1400/1300 [661/613]	1400/1300 [661/613]
AHRI Net Cooling Capacity Btu [kW]	35,000 [10.25]	35,000 [10.25]	40,000 [11.72]	40,000 [11.72]
Net Sensible Capacity Btu [kW]	25,400 [7.44]	25,400 [7.44]	28,600 [8.38]	28,600 [8.38]
Net Latent Capacity Btu [kW]	9,600 [2.81]	9,600 [2.81]	11,400 [3.34]	11,400 [3.34]
Net System Power kW	2.77	2.77	3.28	3.28
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	100,000 [29.3]	100,000 [29.3]	80,000 [23.44]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	81,000 [23.73]	65,000 [19.04]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]	45-75 [25-41.7]	35-65 [19.4-36.1]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	3	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [3]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	9.8 [0.91]	9.8 [0.91]	14.1 [1.31]	14.1 [1.31]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2700 [1274]	2700 [1274]	3500 [1652]	3500 [1652]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1050	1050	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	52.7 [1494]	52.7 [1494]	61.3 [1738]	61.3 [1738]
Weights				
Net Weight lbs. [kg]	421 [191]	421 [191]	445 [202]	450 [204]
Ship Weight lbs. [kg]	431 [196]	431 [196]	455 [206]	460 [209]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	042AJT081AA	042AJT08XAA	042AJT101AA	042AJT10XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	41,000 [12.01]	41,000 [12.01]	41,000 [12.01]	41,000 [12.01]
EER/SEER[2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1400/1300 [661/613]	1400/1300 [661/613]	1400/1300 [661/613]	1400/1300 [661/613]
AHRI Net Cooling Capacity Btu [kW]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]
Net Sensible Capacity Btu [kW]	28,600 [8.38]	28,600 [8.38]	28,600 [8.38]	28,600 [8.38]
Net Latent Capacity Btu [kW]	11,400 [3.34]	11,400 [3.34]	11,400 [3.34]	11,400 [3.34]
Net System Power kW	3.28	3.28	3.28	3.28
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	65,000 [19.04]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	14.1 [1.31]	14.1 [1.31]	14.1 [1.31]	14.1 [1.31]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3500 [1652]	3500 [1652]	3500 [1652]	3500 [1652]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	61.3 [1738]	61.3 [1738]	61.3 [1738]	61.3 [1738]
Weights				
Net Weight lbs. [kg]	445 [202]	445 [202]	450 [204]	450 [204]
Ship Weight lbs. [kg]	455 [206]	455 [206]	460 [209]	460 [209]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	042AJV081AA	042AJV08XAA	042AJV101AA	042AJV10XAA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	41,000 [12.01]	41,000 [12.01]	41,000 [12.01]	41,000 [12.01]
EER/SEER[2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1400/1300 [661/613]	1400/1300 [661/613]	1400/1300 [661/613]	1400/1300 [661/613]
AHRI Net Cooling Capacity Btu [kW]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]
Net Sensible Capacity Btu [kW]	28,600 [8.38]	28,600 [8.38]	28,600 [8.38]	28,600 [8.38]
Net Latent Capacity Btu [kW]	11,400 [3.34]	11,400 [3.34]	11,400 [3.34]	11,400 [3.34]
Net System Power kW	3.28	3.28	3.28	3.28
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	65,000 [19.04]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	14.1 [1.31]	14.1 [1.31]	14.1 [1.31]	14.1 [1.31]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]	3.6 [0.33]
Rows / FPI [FPcm]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]	1 / 17 [7]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3500 [1652]	3500 [1652]	3500 [1652]	3500 [1652]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	61.3 [1738]	61.3 [1738]	61.3 [1738]	61.3 [1738]
Weights				
Net Weight lbs. [kg]	445 [202]	445 [202]	450 [204]	450 [204]
Ship Weight lbs. [kg]	455 [206]	455 [206]	460 [209]	460 [209]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	048ACT081AA	048ACT101AA	048ADT101AA	048AJT081AA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]
EER/SEER [2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	33,000 [9.67]	33,000 [9.67]	33,000 [9.67]	33,000 [9.67]
Net Latent Capacity Btu [kW]	13,000 [3.81]	13,000 [3.81]	13,000 [3.81]	13,000 [3.81]
Net System Power kW	3.66	3.66	3.66	3.66
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]	80,000 [23.44]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [5]	78	78	78	78
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.7 [17.8]	0.7 [17.8]
Face Area sq. ft. [sq. m]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3300 [1557]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	3/4
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	85.3 [2418]	85.3 [2418]	85.3 [2418]	85.3 [2418]
Weights				
Net Weight lbs. [kg]	492 [223]	497 [225]	497 [225]	492 [223]
Ship Weight lbs. [kg]	502 [228]	507 [230]	507 [230]	502 [228]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	048AJT08XAA	048AJT101AA	048AJT10XAA	048AJV081AA
Cooling Performance [1]				
Gross Cooling Capacity Btu [kW]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]
EER/SEER[2]	12/15	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	33,000 [9.67]	33,000 [9.67]	33,000 [9.67]	33,000 [9.67]
Net Latent Capacity Btu [kW]	13,000 [3.81]	13,000 [3.81]	13,000 [3.81]	13,000 [3.81]
Net System Power kW	3.66	3.66	3.66	3.66
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]	80,000 [23.44]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]	65,000 [19.04]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]	35-65 [19.4-36.1]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	4	4	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[3]	78	78	78	78
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.7 [17.8]	0.7 [17.8]	0.7 [17.8]	0.7 [17.8]
Face Area sq. ft. [sq. m]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3300 [1557]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	1
Motor RPM	1075	1075	1075	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	85.3 [2418]	85.3 [2418]	85.3 [2418]	85.3 [2418]
Weights				
Net Weight lbs. [kg]	492 [223]	497 [225]	497 [225]	492 [223]
Ship Weight lbs. [kg]	502 [228]	507 [230]	507 [230]	502 [228]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	048AJV08XAA	048AJV101AA	048AJV10XAA
Cooling Performance [1]			
Gross Cooling Capacity Btu [kW]	47,500 [13.92]	47,500 [13.92]	47,500 [13.92]
EER/SEER[2]	12/15	12/15	12/15
Nominal CFM/AHRI Rated CFM [L/s]	1600/1550 [755/731]	1600/1550 [755/731]	1600/1550 [755/731]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	33,000 [9.67]	33,000 [9.67]	33,000 [9.67]
Net Latent Capacity Btu [kW]	13,000 [3.81]	13,000 [3.81]	13,000 [3.81]
Net System Power kW	3.66	3.66	3.66
Heating Performance (Gas) [3]			
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	35-65 [19.4-36.1]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81
Steady State Efficiency (%)	82	82	82
No. Burners	4	4	4
No. Stages	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor			
No./Type	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	78	78	78
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.7 [17.8]	0.7 [17.8]	0.7 [17.8]
Face Area sq. ft. [sq. m]	16.3 [1.51]	16.3 [1.51]	16.3 [1.51]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	4.1 [0.38]	4.1 [0.38]	4.1 [0.38]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple
No. Motors	1	1	1
Motor HP	1	1	1
Motor RPM	1050	1050	1050
Motor Frame Size	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	85.3 [2418]	85.3 [2418]	85.3 [2418]
Weights			
Net Weight lbs. [kg]	492 [223]	497 [225]	497 [225]
Ship Weight lbs. [kg]	502 [228]	507 [230]	507 [230]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	060ACT101AA	060ADT101AA	060AJT101AA	060AJT10XAA
Cooling Performance [1]				
Gross Cooling Capacity (2nd Stage) Btu [kW]	59,500 [17.43]	59,500 [17.43]	59,500 [17.43]	59,500 [17.43]
SEER[2]	15	15	15	15
EER (1st stage / 2nd stage)	20/11	20/11	20/11	20/11
AHRI Rated CFM (1st / 2nd stage) [L/s]	1250/1850 [590/873]	1250/1850 [590/873]	1250/1850 [590/873]	1250/1850 [590/873]
AHRI Net Cooling Capacity (1st / 2nd stage) Btu [kW]	49,500/57,000 [14.5/16.7]	49,500/57,000 [14.5/16.7]	49,500/57,000 [14.5/16.7]	49,500/57,000 [14.5/16.7]
Net Sensible Capacity (1st / 2nd stage) Btu [kW]	33,800/40,700 [9.9/11.92]	33,800/40,700 [9.9/11.92]	33,800/40,700 [9.9/11.92]	33,800/40,700 [9.9/11.92]
Net Latent Capacity (1st / 2nd stage) Btu [kW]	15,700/16,300 [4.6/4.78]	15,700/16,300 [4.6/4.78]	15,700/16,300 [4.6/4.78]	15,700/16,300 [4.6/4.78]
Net System Power (1st / 2nd stage) kW	2.14/5.02	2.14/5.02	2.14/5.02	2.14/5.02
Heating Performance (Gas) [4]				
Heating Input Btu [kW]	100,000 [29.3]	100,000 [29.3]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	81,000 [23.73]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]	45-75 [25-41.7]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	5	5	5	5
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) [5]	78	78	78	78
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	15.3 [1.42]	15.3 [1.42]	15.3 [1.42]	15.3 [1.42]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	4 [0.37]	4 [0.37]	4 [0.37]	4 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	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]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3300 [1557]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1	1	1	1
Motor RPM	1075	1075	1075	1075
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x30 [25x610x762]	(1)1x24x30 [25x610x762]	(1)1x24x30 [25x610x762]	(1)1x24x30 [25x610x762]
Refrigerant Charge Oz. [g]	89.6 [2540]	89.6 [2540]	89.6 [2540]	89.6 [2540]
Weights				
Net Weight lbs. [kg]	515 [234]	515 [234]	515 [234]	515 [234]
Ship Weight lbs. [kg]	525 [238]	525 [238]	525 [238]	525 [238]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEA- MODELS
NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEA15 Series	060AJV101AA	060AJV10XAA
Cooling Performance [1]		
Gross Cooling Capacity (2nd Stage) Btu [kW]	59,500 [17.43]	59,500 [17.43]
SEER[2]	15	15
EER (1st stage / 2nd stage)	20/11	20/11
AHRI Rated CFM (1st / 2nd stage) [L/s]	1250/1850 [590/873]	1250/1850 [590/873]
AHRI Net Cooling Capacity (1st / 2nd stage) Btu [kW]	49,500/57,000 [14.5/16.7]	49,500/57,000 [14.5/16.7]
Net Sensible Capacity (1st / 2nd stage) Btu [kW]	33,800/40,700 [9.9/11.92]	33,800/40,700 [9.9/11.92]
Net Latent Capacity (1st / 2nd stage) Btu [kW]	15,700/16,300 [4.6/4.78]	15,700/16,300 [4.6/4.78]
Net System Power (1st / 2nd stage) kW	2.14/5.02	2.14/5.02
Heating Performance (Gas) [4]		
Heating Input Btu [kW]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	81,000 [23.73]
Temperature Rise Range ºF [ºC]	45-75 [25-41.7]	45-75 [25-41.7]
AFUE %	81	81
Steady State Efficiency (%)	82	82
No. Burners	5	5
No. Stages	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]
Compressor		
No./Type	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[5]	78	78
Outdoor Coil - Fin Type	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	15.3 [1.42]	15.3 [1.42]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	4 [0.37]	4 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1
CFM [L/s]	3300 [1557]	3300 [1557]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct
No. Speeds	Multiple	Multiple
No. Motors	1	1
Motor HP	1	1
Motor RPM	1050	1050
Motor Frame Size	48	48
Filter - Type	Field Supplied	Field Supplied
Furnished	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x30 [25x610x762]	(1)1x24x30 [25x610x762]
Refrigerant Charge Oz. [g]	89.6 [2540]	89.6 [2540]
Weights		
Net Weight lbs. [kg]	515 [234]	515 [234]
Ship Weight lbs. [kg]	525 [238]	525 [238]

NOTES:

1. 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. ARI 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 ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
4. ARUE is rated in accordance with DOE test procedures.
5. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

XIII. MISCELLANEOUS

ELECTRICAL DATA - RGEA13 SERIES										
		024AJD***AA	030AJD***AA	036ACD***AA	036ADD***AA	036AJD***AA	042ACT***AA	042AJT***AA	048ACT***AA	048ADT***AA
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	187-253	187-253	187-253	187-253	187-253
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	3	3	1	3	1	3	3
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	17	20	16	9	22	24	30	25	12
	Minimum Overcurrent Protection Device Size	20	20	20	15	25	25	30	25	35
	Maximum Overcurrent Protection Device Size	25	30	20	15	35	35	45	35	15
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	3	3	1	3	1	3	3
	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	2 1/6	2 2/3	3 1/3	3 1/3	3 1/3	3 1/2	3 1/2	4	4
	Amps (RLA), Comp. 1	11.2	12.8	9	5.6	14.1	13.2	17.9	13.1	6.1
	Amps (LRA), Comp. 1	60.8	64	71	38	77	88	112	83.1	41
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	1.5	1.5	1.5	0.8	1.5	1.5	1.5	2	1
	Amps (LRA, each)	3	3	3	1.6	3	3	3	3.9	2.2
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/4	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4
	Amps (FLA, each)	1.3	2.4	2.5	1.2	2.5	6	6	6	3.2
	Amps (LRA, each)	2.3	5.1	4.6	2.4	4.6				

ELECTRICAL DATA - RGEA13 SERIES										
		048AJT***AA	060ACT***AA	060ADT***AA	060AJT***AA					
Unit Information	Unit Operating Voltage Range	187-253	197-253	414-506	197-253					
	Volts	208/230	208/230	460	208/230					
	Phase	1	3	3	1					
	Hz	60	60	60	60					
	Minimum Circuit Ampacity	33	32	16	41					
	Minimum Overcurrent Protection Device Size	35	35	20	45					
	Maximum Overcurrent Protection Device Size	50	45	20	60					
Compressor Motor	No.	1	1	1	1					
	Volts	208/230	208/230	460	208/230					
	Phase	1	3	3	1					
	RPM	3450	3500	3500	3500					
	HP, Compressor 1	4	5	5	5					
	Amps (RLA), Comp. 1	19.9	17.8	8.6	24.4					
	Amps (LRA), Comp. 1	109	110	52	144.2					
Condenser Motor	No.	1	1	1	1					
	Volts	208/230	208/230	460	208/230					
	Phase	1	1	1	1					
	HP	1/3	1/3	1/3	1/3					
	Amps (FLA, each)	2	2	1	2					
	Amps (LRA, each)	3.9	3.9	2.2	3.9					
Evaporator Fan	No.	1	1	1	1					
	Volts	208/230	208/230	460/460	208/230					
	Phase	1	1	1	1					
	HP	3/4	1	1	1					
	Amps (FLA, each)	6	7.6	4	7.6					
	Amps (LRA, each)									

ELECTRICAL DATA - RGEA14 SERIES										
		024AJD***AA	030AJD***AA	036ACD***AA	036ADD***AA	036AJD***AA	042ACT***AA	042AJT***AA	048ACT***AA	048ADT***AA
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	187-253	187-253	187-253	187-253	187-253
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	3	3	1	3	1	3	3
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	17	20	16	9	22	24	30	25	12
	Minimum Overcurrent Protection Device Size	20	20	20	15	25	25	30	25	35
	Maximum Overcurrent Protection Device Size	25	30	20	15	35	35	45	35	15
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	3	3	1	3	1	3	3
	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	2 1/6	2 2/3	3 1/3	3 1/3	3 1/3	3 1/2	3 1/2	4	4
	Amps (RLA), Comp. 1	11.2	12.8	9	5.6	14.1	13.2	17.9	13.1	6.1
	Amps (LRA), Comp. 1	60.8	64	71	38	77	88	112	83.1	41
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	1.5	1.5	1.5	0.8	1.5	1.5	1.5	2	1
	Amps (LRA, each)	3	3	3	1.6	3	3	3	3.9	2.2
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	208/230	208/230	208/230	208/230	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/4	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4
	Amps (FLA, each)	1.3	2.4	2.5	1.2	2.5	6	6	6	3.2
	Amps (LRA, each)	2.3	5.1	4.6	2.4	4.6				

ELECTRICAL DATA - RGEA14 SERIES										
		048AJT***AA	060ACT***AA	060ADT***AA	060AJT***AA					
Unit Information	Unit Operating Voltage Range	187-253	197-253	414-506	197-253					
	Volts	208/230	208/230	460	208/230					
	Phase	1	3	3	1					
	Hz	60	60	60	60					
	Minimum Circuit Ampacity	33	32	16	41					
	Minimum Overcurrent Protection Device Size	35	35	20	45					
	Maximum Overcurrent Protection Device Size	50	45	20	60					
Compressor Motor	No.	1	1	1	1					
	Volts	208/230	208/230	460	208/230					
	Phase	1	3	3	1					
	RPM	3450	3500	3500	3500					
	HP, Compressor 1	4	5	5	5					
	Amps (RLA), Comp. 1	19.9	17.8	8.6	24.4					
	Amps (LRA), Comp. 1	109	110	52	144.2					
Condenser Motor	No.	1	1	1	1					
	Volts	208/230	208/230	460	208/230					
	Phase	1	1	1	1					
	HP	1/3	1/3	1/3	1/3					
	Amps (FLA, each)	2	2	1	2					
	Amps (LRA, each)	3.9	3.9	2.2	3.9					
Evaporator Fan	No.	1	1	1	1					
	Volts	208/230	208/230	460/460	208/230					
	Phase	1	1	1	1					
	HP	3/4	1	1	1					
	Amps (FLA, each)	6	7.6	4	7.6					
	Amps (LRA, each)									

ELECTRICAL DATA - RGEA15 SERIES										
		024AJT***AA	024AJV***AA	030AJT***AA	030AJV***AA	036ACT***AA	036ADT***AA	036AJT***AA	036AJV060AA	036AJV080AA
										036AJV100AA
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	187-253	187-253	414-506	187-253	187-253	187-253
	Volts	208/230	208/230	208/230	208/230	208/230	460	208/230	208/230	208/230
	Phase	1	1	1	1	3	3	1	1	1
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	19	19	21	21	17	10	24	23	24
	Minimum Overcurrent Protection Device Size	20	25	25	25	20	15	25	30	30
	Maximum Overcurrent Protection Device Size	25	30	30	30	25	15	35	35	35
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	460	208/230	208/230	208/230
	Phase	1	1	1	1	3	3	1	1	1
	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	2 1/6	2 1/6	2 2/3	2 2/3	3 1/3	3 1/3	3 1/3	3 1/3	3 1/3
	Amps (RLA), Comp. 1	11.2	11.2	12.8	12.8	9	5.6	14.1	14.1	14.1
	Amps (LRA), Comp. 1	60.8	60.8	64	64	71	38	77	77	77
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
	Amps (LRA), Comp. 2									
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	460	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	1.5	1.5	1.5	1.5	1.5	0.8	1.5	1.5	1.5
	Amps (LRA, each)	3	3	3	3	3	1.6	3	3	3
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	460/460	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
	Amps (FLA, each)	2.8	3.5	2.8	3.5	4.1	2.1	4.1	3.5	4.0
	Amps (LRA, each)									

ELECTRICAL DATA - RGEA15 SERIES										
		042ACT***AA	042AJT***AA	042AJV***AA	048ACT***AA	048ADT***AA	048AJT***AA	048AJV***AA	060ACT***AA	060ADT***AA
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	187-253	414-506	187-253	187-253	197-253	414-506
	Volts	208/230	208/230	208/230	208/230	460	208/230	208/230	208/230	460
	Phase	3	1	1	3	3	1	1	3	3
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	24	30	28	25	12	33	34	30	15
	Minimum Overcurrent Protection Device Size	25	30	35	25	35	35	40	50	20
	Maximum Overcurrent Protection Device Size	35	45	45	35	15	50	50	45	20
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	460	208/230	208/230	208/230	460
	Phase	3	1	1	3	1	1	1	3	3
	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	3 1/2	3 1/2	3 1/2	4	4	4	4	5	5
	Amps (RLA), Comp. 1	13.2	17.9	17.9	13.1	6.1	19.9	19.9	16.2	7.6
	Amps (LRA), Comp. 1	88	112	112	83.1	43	109	109	110	52
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
	Amps (LRA), Comp. 2									
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	460	208/230	208/230	208/230	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	1.5	1.5	1.5	2	1	2	2	2	1
	Amps (LRA, each)	3	3	3	3.9	3.9	3.9	3.9	3.9	2.2
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	460	208/230	208/230	208/230	460/460
	Phase	1	1	1	1	1	1	1	1	1
	HP	3/4	3/4	3/4	3/4	3/4	3/4	1	1	1
	Amps (FLA, each)	6	6	4	6	3.2	6	6.8	7.6	4
	Amps (LRA, each)									

ELECTRICAL DATA - RGEA15 SERIES										
		060AJT***AA	060AJV***AA							
Unit Information	Unit Operating Voltage Range	197-253	197-253							
	Volts	208/230	208/230							
	Phase	1	1							
	Hz	60	60							
	Minimum Circuit Ampacity	46	45							
	Minimum Overcurrent Protection Device Size	50	60							
	Maximum Overcurrent Protection Device Size	70	70							
Compressor Motor	No.	1	1							
	Volts	208/230	208/230							
	Phase	1	1							
	RPM	3450	3450							
	HP, Compressor 1	5	5							
	Amps (RLA), Comp. 1	28.8	28.8							
	Amps (LRA), Comp. 1	152.9	152.9							
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
	Amps (LRA), Comp. 2									
Condenser Motor	No.	1	1							
	Volts	208/230	208/230							
	Phase	1	1							
	HP	1/3	1/3							
	Amps (FLA, each)	2	2							
	Amps (LRA, each)	3.9	3.9							
Evaporator Fan	No.	1	1							
	Volts	208/230	208/230							
	Phase	1	1							
	HP	1	1							
	Amps (FLA, each)	7.6	6.8							
	Amps (LRA, each)									

Indoor Airflow Performance RGEA13/14 - 230 Volts

Nominal Cooling Capacity Tons [kW]	Motor Speed from Factory		Heating Input BTU/HR [kW]	Manufacturer Recommended Cooling Airflow (Min/Max)	Blower Size/ Motor HP [W] & # of Speeds	Motor Speed / Tap		External Static Pressure - Inches W.C. [kPa] (Side Discharge-Dry Coil)									
	Cool	Heat						0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.25]
2.0 [7.03]	High	High	40,000 [11.72]	700 CFM / 950 CFM	9x7 Blower 1/4 HP [186] 2 Speed (PSC Motor)	Low	CFM	822 [388]	789 [372]	750 [354]	696 [328]	624 [294]	496 [234]	402 [190]			
							RPM	917	954	994	1031	1051	1075	1105			
							Watts	226	216	203	188	175	150	136			
		High	60,000 [17.58]			High	CFM	992 [468]	928 [438]	873 [412]	810 [382]	741 [350]	659 [311]	490 [231]			
							RPM	1055	1068	1080	1096	1106	1119	1136			
							Watts	271	256	245	227	214	199	175			
2.5 [8.79]	Low	Low	60,000 [17.58]	850 CFM / 1150 CFM	10x9 Blower 1/2 HP [372] 3 Speed (PSC Motor)	Low	CFM	1093 [516]	1062 [501]	1001 [472]	930 [439]	815 [385]	728 [344]	663 [313]	571 [269]		
							RPM	900	935	969	999	1030	1053	1064	1082		
							Watts	375	358	335	313	283	264	249	229		
						Med	CFM	1239 [585]	1184 [559]	1114 [526]	1043 [492]	959 [453]	827 [390]	744 [351]	657 [310]		
							RPM	961	983	1006	1030	1052	1074	1084	1097		
							Watts	429	409	384	360	334	303	287	266		
		High	80,000 [23.45]			High	CFM	1362 [643]	1292 [610]	1213 [572]	1133 [535]	1027 [485]	872 [412]	800 [378]	700 [330]		
							RPM	1049	1061	1073	1085	1097	1109	1116	1124		
							Watts	500	472	454	427	405	371	360	339		
3.0 [10.55]	High	Low	60,000 [17.58]	1000 CFM / 1400 CFM	12x9T Blower 1/2 HP [372] 2 Speed (PSC Motor)	Low	CFM	1310 [618]	1246 [588]	1186 [560]	1128 [532]	1038 [490]	955 [451]	847 [400]	738 [348]		
							RPM	834	867	895	918	949	971	989	1019		
							Watts	460	447	435	424	407	396	380	362		
		High	80,000 [23.45] 100,000 [29.31]			High	CFM	1644 [776]	1568 [740]	1488 [702]	1421 [671]	1330 [628]	1248 [589]	1133 [535]	1003 [473]		
							RPM	981	996	1009	1421	1330	1248	1058	1072		
							Watts	664	641	620	1421	1330	1248	545	526		
3.5 [12.31]	Tap 5			1200 CFM / 1600 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1336 [631]	1312 [619]	1295 [611]	1241 [586]	1200 [566]	1161 [548]	1119 [528]	1072 [506]		
							RPM	827	856	874	913	949	983	1013	1048		
							Watts	298	308	313	325	341	352	361	374		
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1336 [631]	1312 [619]	1295 [611]	1241 [586]	1200 [566]	1161 [548]	1119 [528]	1072 [506]		
							RPM	827	856	874	913	949	983	1013	1048		
							Watts	298	308	313	325	341	352	361	374		
		Tap3	100,000 [29.31]			Tap 3 100K	CFM	1453 [686]	1424 [672]	1395 [658]	1347 [636]	1321 [623]	1279 [604]	1250 [590]	1214 [573]		
							RPM	836	867	904	942	953	992	1019	1048		
							Watts	334	349	364	377	380	394	409	418		
						Tap 4 Low Static Cool	CFM	1336 [631]	1312 [619]	1295 [611]	1241 [586]	1200 [566]	1161 [548]	1119 [528]	1072 [506]		
							RPM	827	856	874	913	949	983	1013	1048		
							Watts	298	308	313	325	341	352	361	374		
						Tap 5 High Static Cool	CFM	1591 [751]	1563 [738]	1558 [735]	1519 [717]	1490 [703]	1458 [688]	1410 [665]	1363 [643]		
							RPM	949	981	999	1027	1051	1086	1109	1129		
							Watts	476	490	501	515	527	542	546	543		
4.0 [14.07]	Tap 5			1350 CFM / 1850 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1368 [646]	1331 [628]	1299 [613]	1259 [594]	1221 [576]	1169 [552]	1137 [537]	1079 [509]	997 [471]	920 [434]
							RPM	749	782	813	849	877	911	946	979	1030	1061
							Watts	250	264	275	286	295	308	321	327	346	356
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1368 [646]	1331 [628]	1299 [613]	1259 [594]	1221 [576]	1169 [552]	1137 [537]	1079 [509]	997 [471]	920 [434]
							RPM	749	782	813	849	877	911	946	979	1030	1061
							Watts	250	264	275	286	295	308	321	327	346	356
		Tap 3	100,000 [29.31]			Tap 3 100K	CFM	1447 [683]	1405 [663]	1372 [648]	1342 [633]	1307 [617]	1237 [584]	1222 [577]	1186 [560]	1121 [529]	1035 [488]
							RPM	783	809	845	872	905	938	959	998	1038	1082
							Watts	291	298	315	326	337	349	355	369	383	401
						Tap 4 Low Static Cool	CFM	1657 [782]	1628 [768]	1588 [749]	1559 [736]	1519 [717]	1496 [706]	1454 [686]	1426 [673]	1394 [658]	1342 [633]
							RPM	872	897	926	953	977	1005	1031	1065	1080	1113
							Watts	417	429	444	457	462	478	488	505	509	524
						Tap 5 High Static Cool	CFM	1970 [930]	1945 [918]	1920 [906]	1884 [889]	1843 [870]	1778 [839]	1704 [804]	1642 [775]	1547 [730]	1451 [685]
							RPM	1011	1038	1048	1073	1092	1104	1119	1123	1132	1145
							Watts	696	710	731	728	727	712	693	666	627	602
5.0 [17.59]	Tap 5	Tap 1	100,000 [29.31]	1600 CFM / 2100 CFM	12x9R Blower 1 HP [746] 5 Speed (Constant Torque)	Tap 1 100K Heat	CFM	1433 [676]	1407 [664]	1354 [639]	1329 [627]	1270 [599]	1235 [583]	1195 [564]	1137 [537]	1083 [511]	1030 [486]
							RPM	821	843	868	888	929	944	975	1004	1040	1065
							Watts	319	331	342	346	365	368	381	391	406	412
						Tap 2 Unused	CFM	1233 [582]	1158 [547]	1136 [536]	1090 [514]	1039 [490]	969 [457]	902 [426]	847 [400]	791 [373]	752 [355]
							RPM	734	774	793	822	860	892	934	957	983	1011
							Watts	223	231	238	248	259	269	288	284	295	306
						Tap 3 Low Cool	CFM	1768 [834]	1730 [816]	1693 [799]	1626 [767]	1599 [755]	1558 [735]	1522 [718]	1503 [709]	1444 [681]	1399 [660]
							RPM	938	959	983	1011	1025	1052	1089	1090	1117	1134
							Watts	520	533	541	560	563	578	599	599	605	615
						Tap 4 Med Cool	CFM	1926 [909]	1890 [892]	1864 [880]	1822 [860]	1794 [847]	1758 [830]	1710 [807]	1670 [788]	1579 [745]	1493 [705]
							RPM	999	1014	1040	1061	1079	1096	1119	1128	1138	1144
							Watts	654	660	674	688	699	708	714	705	683	661
						Tap 5 High Cool	CFM	2096 [989]	2057 [971]	2003 [945]	1951 [921]	1890 [892]	1819 [858]	1756 [829]	1686 [796]	1610 [760]	1498 [707]
							RPM	1069	1092	1106	1116	1121	1129	1138	1140	1148	1154
							Watts	829	846	840	822	807	782	768	730	708	679

Note: (1) Set 3-1/2 through 5 ton Cool to Tap 4 for AHRI rated performance. (2) Set 3 Ton Cool to Low for AHRI rated performance.

Down Discharge Pressure Drop (Add to External Static Pressure)							
CFM [L/s]	800 [378]	1000 [472]	1200 [566]	1400 [661]	1600 [755]	1800 [849]	2000 [944]
Pressure Drop - Inches W.C. [kPa]	.02 [.005]	.05 [.012]	.07 [.017]	.1 [.025]	.12 [.030]	.15 [.037]	.17 [.042]

Indoor Airflow Performance RGEA13/14 - 208 Volts

Nominal Cooling Capacity Tons [kW]	Motor Speed from Factory		Heating Input BTU/HR [kW]	Manufacturer Recommended Cooling Airflow (Min/Max)	Blower Size/ Motor HP [W] & # of Speeds	Motor Speed / Tap		External Static Pressure - Inches W.C. [kPa] (Side Discharge-Dry Coil)									
	Cool	Heat						0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.25]
2.0 [7.03]	High	High	40,000 [11.72]	700 CFM / 950 CFM	9x7 Blower 1/4 HP [186] 2 Speed (PSC Motor)	Low	CFM	706 [333]	685 [323]	661 [312]	614 [290]	523 [247]	437 [206]	334 [158]			
							RPM	844	886	943	989	1036	1067	1095			
							Watts	202	193	182	169	151	135	120			
		High	60,000 [17.58]			High	CFM	925 [437]	874 [412]	813 [384]	763 [360]	681 [321]	534 [252]	441 [208]			
							RPM	1004	1027	1058	1070	1091	1116	1128			
							Watts	253	238	220	210	192	167	155			
2.5 [8.79]	Low	Low	60,000 [17.58]	850 CFM / 1150 CFM	10x9 Blower 1/2 HP [372] 3 Speed (PSC Motor)	Low	CFM	967 [456]	947 [447]	892 [421]	813 [384]	740 [349]	681 [321]	613 [289]	504 [238]		
							RPM	819	876	916	966	995	1018	1040	1066		
							Watts	339	322	302	279	261	246	230	205		
						Med	CFM	1119 [528]	1081 [510]	1029 [486]	968 [457]	851 [402]	774 [365]	699 [330]	613 [289]		
							RPM	891	930	965	995	1026	1047	1059	1078		
							Watts	391	375	354	330	297	278	263	241		
		High	80,000 [23.45]			High	CFM	1311 [619]	1249 [589]	1168 [551]	1089 [514]	985 [465]	861 [406]	779 [368]	699 [330]		
							RPM	1010	1031	1046	1066	1080	1095	1106	1113		
							Watts	458	437	409	387	360	332	314	300		
3.0 [10.55]	High	Low	60,000 [17.58]	1000 CFM / 1400 CFM	12x9T Blower 1/2 HP [372] 2 Speed (PSC Motor)	Low	CFM	1163 [549]	1115 [526]	1075 [507]	1012 [478]	926 [437]	841 [397]	753 [355]	647 [305]		
							RPM	771	804	844	870	910	932	968	992		
							Watts	392	387	380	367	356	345	330	316		
		High	80,000 [23.45] 100,000 [29.31]			High	CFM	1543 [728]	1484 [700]	1422 [671]	1345 [635]	1251 [590]	1177 [555]	1071 [505]	939 [443]		
							RPM	939	957	975	1345	1251	1177	1037	1051		
							Watts	586	572	555	1345	1251	1177	481	459		
3.5 [12.31]	Tap 5			1200 CFM / 1600 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1346 [635]	1304 [615]	1264 [597]	1232 [581]	1185 [559]	1139 [538]	1092 [515]	1048 [495]		
							RPM	819	850	883	906	944	972	1014	1047		
							Watts	291	302	310	319	333	338	353	362		
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1346 [635]	1304 [615]	1264 [597]	1232 [581]	1185 [559]	1139 [538]	1092 [515]	1048 [495]		
							RPM	819	850	883	906	944	972	1014	1047		
							Watts	291	302	310	319	333	338	353	362		
		Tap3	100,000 [29.31]			Tap 3 100K	CFM	1411 [666]	1375 [649]	1343 [634]	1315 [621]	1269 [599]	1242 [586]	1203 [568]	1133 [535]		
							RPM	862	886	915	951	975	1011	1025	1074		
							Watts	340	345	356	371	380	393	397	413		
						Tap 4 Low Static Cool	CFM	1346 [635]	1304 [615]	1264 [597]	1232 [581]	1185 [559]	1139 [538]	1092 [515]	1048 [495]		
							RPM	819	850	883	906	944	972	1014	1047		
							Watts	291	302	310	319	333	338	353	362		
						Tap 5 High Static Cool	CFM	1596 [753]	1547 [730]	1520 [717]	1499 [707]	1471 [694]	1421 [671]	1383 [653]	1332 [629]		
							RPM	940	973	988	1020	1038	1068	1102	1122		
							Watts	461	475	484	497	503	516	527	531		
4.0 [14.07]	Tap 5			1350 CFM / 1850 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1367 [645]	1327 [626]	1299 [613]	1248 [589]	1203 [568]	1162 [548]	1127 [532]	1064 [502]	965 [455]	902 [426]
							RPM	744	778	813	843	873	910	938	985	1030	1058
							Watts	247	260	271	277	289	301	311	323	340	347
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1367 [645]	1327 [626]	1299 [613]	1248 [589]	1203 [568]	1162 [548]	1127 [532]	1064 [502]	965 [455]	902 [426]
							RPM	744	778	813	843	873	910	938	985	1030	1058
							Watts	247	260	271	277	289	301	311	323	340	347
		Tap 3	100,000 [29.31]			Tap 3 100K	CFM	1452 [685]	1402 [662]	1367 [645]	1327 [626]	1283 [606]	1247 [589]	1205 [569]	1183 [558]	1103 [521]	1007 [475]
							RPM	778	808	839	870	895	930	962	993	1035	1078
							Watts	287	295	306	320	324	337	349	360	374	388
						Tap 4 Low Static Cool	CFM	1652 [780]	1621 [765]	1583 [747]	1539 [726]	1512 [714]	1478 [698]	1422 [671]	1408 [665]	1354 [639]	1332 [629]
							RPM	870	895	919	949	969	1000	1032	1049	1071	1107
							Watts	408	423	433	445	455	464	477	483	496	507
						Tap 5 High Static Cool	CFM	1993 [941]	1941 [916]	1890 [892]	1874 [884]	1822 [860]	1755 [828]	1698 [801]	1627 [768]	1552 [732]	1442 [681]
							RPM	988	1021	1035	1064	1087	1103	1113	1121	1131	1142
							Watts	666	681	687	701	706	693	677	654	632	592
5.0 [17.59]	Tap 5	Tap 1	100,000 [29.31]	1600 CFM / 2100 CFM	12x9R Blower 1 HP [746] 5 Speed (Constant Torque)	Tap 1 100K Heat	CFM	1442 [681]	1409 [665]	1344 [634]	1341 [633]	1291 [609]	1227 [579]	1199 [566]	1136 [536]	1065 [503]	1006 [475]
							RPM	823	843	872	883	916	944	968	997	1035	1059
							Watts	318	330	337	341	354	364	373	381	396	404
						Tap 2 Unused	CFM	1235 [583]	1184 [559]	1106 [522]	1078 [509]	1021 [482]	957 [452]	897 [423]	843 [398]	791 [373]	742 [350]
							RPM	733	765	811	828	866	895	929	954	977	1005
							Watts	218	227	242	245	258	266	276	285	287	300
						Tap 3 Low Cool	CFM	1738 [820]	1680 [793]	1663 [785]	1626 [767]	1603 [757]	1554 [733]	1503 [709]	1445 [682]	1432 [676]	1386 [654]
							RPM	933	969	979	1001	1021	1045	1066	1100	1104	1125
							Watts	505	526	529	541	545	562	567	585	586	593
						Tap 4 Med Cool	CFM	1884 [889]	1882 [888]	1841 [869]	1801 [850]	1760 [831]	1680 [793]	1651 [779]	1584 [748]	1508 [712]	1428 [674]
							RPM	999	1014	1048	1064	1072	1105	1121	1131	1142	1147
							Watts	636	646	661	672	675	688	686	678	662	635
						Tap 5 High Cool	CFM	2081 [982]	1969 [929]	2001 [944]	1960 [925]	1896 [895]	1818 [858]	1764 [833]	1664 [785]	1593 [752]	1499 [707]
							RPM	1050	1102	1095	1104	1115	1126	1130	1140	1143	1147
							Watts	790	815	819	813	793	772	749	725	699	663

Note: (1) Set 3-1/2 through 5 ton Cool to Tap 4 for AHRI rated performance. (2) Set 3 Ton Cool to Low for AHRI rated performance.

Down Discharge Pressure Drop (Add to External Static Pressure)							
CFM [L/s]	800 [378]	1000 [472]	1200 [566]	1400 [661]	1600 [755]	1800 [849]	2000 [944]
Pressure Drop - Inches W.C. [kPa]	.02 [.005]	.05 [.012]	.07 [.017]	.1 [.025]	.12 [.030]	.15 [.037]	.17 [.042]

Indoor Airflow Performance RGEA15 - 208/230 Volts

Nominal Cooling Capacity Tons [kW]	Motor Speed from Factory		Heating Input BTU/HR [kW]	Manufacturer Recommended Cooling Airflow (Min/Max)	Blower Size/ Motor HP [W] & # of Speeds	Motor Speed / Tap		External Static Pressure - Inches W.C. [kPa] (Side Discharge-Dry Coil)								
	Cool	Heat						0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.25]
2.0 [7.03]	Tap 5			700 CFM / 950 CFM	10X9 Blower 1/3 HP [249] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	805 [380]	749 [353]	702 [331]	634 [299]	580 [274]	542 [256]	480 [227]	438 [207]		
							RPM	674	721	783	832	886	916	962	1004		
							Watts	97	104	113	117	126	128	131	142		
		Tap 2	60,000 [17.58]			Tap 2 60K	CFM	917 [433]	865 [408]	826 [390]	771 [364]	730 [345]	677 [320]	628 [296]	596 [281]		
							RPM	772	810	860	905	945	985	1013	1052		
							Watts	142	149	159	164	175	177	180	189		
		Tap3	80,000 [23.45]			Tap 3 80K	CFM	1196 [564]	1154 [545]	1111 [524]	1078 [509]	1039 [490]	967 [456]	876 [413]	791 [373]		
							RPM	927	970	1009	1041	1079	1107	1124	1134		
							Watts	288	300	309	314	324	318	300	276		
						Tap 4 Low Static Cool	CFM	931 [439]	880 [415]	854 [403]	795 [375]	743 [351]	694 [328]	655 [309]	608 [287]		
							RPM	789	1425	874	921	965	1002	1041	1070		
							Watts	155	159	170	176	185	188	196	200		
						Tap 5 High Static Cool	CFM	1005 [474]	956 [451]	916 [432]	878 [414]	808 [381]	778 [367]	734 [346]	698 [329]		
							RPM	822	872	907	954	998	1036	1070	1103		
							Watts	178	192	198	208	212	224	224	234		
2.5 [8.79]	Tap 5			850 CFM / 1150 CFM	10X9 Blower 1/3 HP [249] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	917 [433]	865 [408]	826 [390]	771 [364]	730 [345]	677 [320]	628 [296]	596 [281]		
							RPM	772	810	860	905	945	985	1013	1052		
							Watts	142	149	159	164	175	177	180	189		
		Tap 2	60,000 [17.58]			Tap 2 60K	CFM	917 [433]	865 [408]	826 [390]	771 [364]	730 [345]	677 [320]	628 [296]	596 [281]		
							RPM	772	810	860	905	945	985	1013	1052		
							Watts	142	149	159	164	175	177	180	189		
		Tap3	80,000 [23.45]			Tap 3 80K	CFM	1227 [579]	1180 [557]	1160 [547]	1123 [530]	1090 [514]	1054 [497]	1008 [476]	882 [416]		
							RPM	930	976	1006	1029	1065	1089	1124	1154		
							Watts	264	276	288	291	300	305	311	292		
						Tap 4 Low Static Cool	CFM	1013 [478]	980 [463]	939 [443]	893 [421]	864 [408]	792 [374]	752 [355]	687 [324]		
							RPM	820	854	901	934	976	1022	1064	1097		
							Watts	171	177	187	190	202	207	217	222		
						Tap 5 High Static Cool	CFM	1227 [579]	1180 [557]	1160 [547]	1123 [530]	1090 [514]	1054 [497]	1008 [476]	882 [416]		
							RPM	930	976	1006	1029	1065	1089	1124	1154		
							Watts	264	276	288	291	300	305	311	292		
3.0 [10.55]	Tap 5			1000 CFM / 1400 CFM	12x9T Blower 1/2 HP [372] 5 Speed (Constant Torque)	Tap 1 60K	CFM	907 [428]	850 [401]	801 [378]	723 [341]	648 [306]	576 [272]	520 [245]	432 [204]		
							RPM	632	690	730	778	829	856	894	922		
							Watts	120	130	142	145	159	161	169	173		
		Tap 1	60,000 [17.58]			Tap 2 80K	CFM	1362 [643]	1322 [624]	1281 [605]	1247 [589]	1213 [572]	1158 [547]	1097 [518]	1058 [499]	996 [470]	856 [404]
							RPM	833	866	895	926	962	999	1034	1062	1098	1128
							Watts	320	332	336	346	362	374	380	386	403	385
		Tap 2	80,000 [23.45]			Tap 3 100K	CFM	1434 [677]	1419 [670]	1387 [655]	1340 [632]	1310 [618]	1258 [594]	1198 [565]	1160 [547]	1085 [512]	930 [439]
							RPM	866	882	920	944	981	1008	1051	1078	1106	1131
							Watts	372	377	390	399	413	421	426	443	445	412
		Tap3	100,000 [29.31]			Tap 4 Low Static Cool	CFM	1169 [552]	1115 [526]	1086 [513]	1047 [494]	983 [464]	931 [439]	855 [404]	784 [370]		
							RPM	749	803	819	856	901	938	985	1029		
							Watts	217	231	233	246	259	266	277	289		
						Tap 5 High Static Cool	CFM	1434 [677]	1419 [670]	1387 [655]	1340 [632]	1310 [618]	1258 [594]	1198 [565]	1160 [547]	1085 [512]	930 [439]
							RPM	866	882	920	944	981	1008	1051	1078	1106	1131
							Watts	372	377	390	399	413	421	426	443	445	412

Notes: (1) Set 2 through 4 ton Cool to Tap 4 for AHRI rated performance. (2) Set 5 ton 2nd Stage Cool to Tap 4 for AHRI rated performance.

Down Discharge Pressure Drop (Add to External Static Pressure)							
CFM [L/s]	800 [378]	1000 [472]	1200 [566]	1400 [661]	1600 [755]	1800 [849]	2000 [944]
Pressure Drop - Inches W.C. [kPa]	.02 [.005]	.05 [.012]	.07 [.017]	.1 [.025]	.12 [.030]	.15 [.037]	.17 [.042]

Indoor Airflow Performance RGEA15 - 208/230 Volts

Nominal Cooling Capacity Tons [kW]	Motor Speed from Factory		Heating Input BTU/HR [kW]	Manufacturer Recommended Cooling Airflow (Min/Max)	Blower Size/ Motor HP [W] & # of Speeds	Motor Speed / Tap		External Static Pressure - Inches W.C. [kPa] (Side Discharge-Dry Coil)									
	Cool	Heat						0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.25]
3.5 [12.31]	Tap 5			1200 CFM / 1600 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1336 [631]	1312 [619]	1295 [611]	1241 [586]	1200 [566]	1161 [548]	1119 [528]	1072 [506]	1001 [472]	939 [443]
							RPM	827	856	874	913	949	983	1013	1048	1092	1127
							Watts	298	308	313	325	341	352	361	374	387	402
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1336 [631]	1312 [619]	1295 [611]	1241 [586]	1200 [566]	1161 [548]	1119 [528]	1072 [506]	1001 [472]	939 [443]
							RPM	827	856	874	913	949	983	1013	1048	1092	1127
							Watts	298	308	313	325	341	352	361	374	387	402
		Tap3	100,000 [29.31]			Tap 3 100K	CFM	1453 [686]	1424 [672]	1395 [658]	1347 [636]	1321 [623]	1279 [604]	1250 [590]	1214 [573]	1157 [546]	1119 [528]
							RPM	836	867	904	942	953	992	1019	1048	1091	1114
							Watts	334	349	364	377	380	394	409	418	433	442
						Tap 4 Low Static Cool	CFM	1336 [631]	1312 [619]	1295 [611]	1241 [586]	1200 [566]	1161 [548]	1119 [528]	1072 [506]	1001 [472]	939 [443]
							RPM	827	856	874	913	949	983	1013	1048	1092	1127
							Watts	298	308	313	325	341	352	361	374	387	402
						Tap 5 High Static Cool	CFM	1591 [751]	1563 [738]	1558 [735]	1519 [717]	1490 [703]	1458 [688]	1410 [665]	1363 [643]	1277 [603]	1122 [530]
							RPM	949	981	999	1027	1051	1086	1109	1129	1140	1158
							Watts	476	490	501	515	527	542	546	543	522	478
4.0 [14.07]	Tap 5			1350 CFM / 1850 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1340 [632]	1305 [616]	1263 [596]	1227 [579]	1186 [560]	1162 [548]	1104 [521]	1020 [481]	960 [453]	897 [423]
							RPM	776	796	831	869	898	925	966	1011	1044	1076
							Watts	261	268	279	291	303	310	323	339	351	361
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1340 [632]	1305 [616]	1263 [596]	1227 [579]	1186 [560]	1162 [548]	1104 [521]	1020 [481]	960 [453]	897 [423]
							RPM	776	796	831	869	898	925	966	1011	1044	1076
							Watts	261	268	279	291	303	310	323	339	351	361
		Tap 3	100,000 [29.31]			Tap 3 100K	CFM	1467 [692]	1448 [683]	1404 [663]	1373 [648]	1339 [632]	1306 [616]	1250 [590]	1210 [571]	1164 [549]	1087 [513]
							RPM	826	855	884	910	939	969	1003	1030	1067	1108
							Watts	328	344	348	363	379	387	398	408	418	434
						Tap 4 Low Static Cool	CFM	1634 [771]	1595 [753]	1547 [730]	1530 [722]	1487 [702]	1462 [690]	1438 [679]	1378 [650]	1352 [638]	1298 [613]
							RPM	894	923	950	981	1000	1030	1051	1079	1106	1126
							Watts	432	446	451	468	479	490	508	510	520	520
						Tap 5 High Static Cool	CFM	1941 [916]	1915 [904]	1878 [886]	1814 [856]	1773 [837]	1709 [807]	1655 [781]	1570 [741]	1488 [702]	1374 [648]
							RPM	1028	1047	1068	1091	1104	1113	1124	1136	1142	1147
							Watts	708	725	729	727	717	696	673	647	618	571
5.0 [17.59]	1st Stage Tap 2	Tap 1	100,000 [29.31]	1600 CFM / 2100 CFM	12x9R Blower 1 HP [746] 5 Speed (Constant Torque)	Tap 1 100K Heat	CFM	1433 [676]	1407 [664]	1354 [639]	1329 [627]	1270 [599]	1235 [583]	1195 [564]	1137 [537]	1083 [511]	1030 [486]
							RPM	821	843	868	888	929	944	975	1004	1040	1065
							Watts	319	331	342	346	365	368	381	391	406	412
						Tap 2 1st Stage Cool	CFM	1233 [582]	1158 [547]	1136 [536]	1090 [514]	1039 [490]	969 [457]	902 [426]	847 [400]	791 [373]	752 [355]
							RPM	734	774	793	822	860	892	934	957	983	1011
							Watts	223	231	238	248	259	269	288	284	295	306
						Tap 3 Unused	CFM	1768 [834]	1730 [816]	1693 [799]	1626 [767]	1599 [755]	1558 [735]	1522 [718]	1503 [709]	1444 [681]	1399 [660]
							RPM	938	959	983	1011	1025	1052	1089	1090	1117	1134
							Watts	520	533	541	560	563	578	599	599	605	615
	2nd Stage Tap 5					Tap 4 2nd stage Low Static Cool	CFM	1926 [909]	1890 [892]	1864 [880]	1822 [860]	1794 [847]	1758 [830]	1710 [807]	1670 [788]	1579 [745]	1493 [705]
							RPM	999	1014	1040	1061	1079	1096	1119	1128	1138	1144
							Watts	654	660	674	688	699	708	714	705	683	661
						Tap 5 2nd Stage High Static Cool	CFM	2096 [989]	2057 [971]	2003 [945]	1951 [921]	1890 [892]	1819 [858]	1756 [829]	1686 [796]	1610 [760]	1498 [707]
							RPM	1069	1092	1106	1116	1121	1129	1138	1140	1148	1154
							Watts	829	846	840	822	807	782	768	730	708	679

Notes: (1) Set 2 through 4 ton Cool to Tap 4 for AHRI rated performance. (2) Set 5 ton 2nd Stage Cool to Tap 4 for AHRI rated performance.

Down Discharge Pressure Drop (Add to External Static Pressure)							
CFM [L/s]	800 [378]	1000 [472]	1200 [566]	1400 [661]	1600 [755]	1800 [849]	2000 [944]
Pressure Drop - Inches W.C. [kPa]	.02 [.005]	.05 [.012]	.07 [.017]	.1 [.025]	.12 [.030]	.15 [.037]	.17 [.042]

Indoor Airflow Performance RGEA13/14 - 460 Volts

Nominal Cooling Capacity Tons [kW]	Motor Speed from Factory		Heating Input BTU/HR [kW]	Manufacturer Recommended Cooling Airflow (Min/Max)	Blower Size/ Motor HP [W] & # of Speeds	Motor Speed / Tap		External Static Pressure - Inches W.C. [kPa] (Side Discharge-Dry Coil)									
	Cool	Heat						0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.25]
3.0 [10.55]	High	Low	60,000 [17.58]	1000 CFM / 1400 CFM	12x9T Blower 1/2 HP [372] 2 Speed (PSC Motor)	Low	CFM	1358 [641]	1322 [624]	1266 [597]	1209 [571]	1120 [529]	1063 [502]	970 [458]	861 [406]	828 [391]	757 [357]
							RPM	823	849	-	901	932	953	979	999	1029	1055
							Watts	505	491	481	464	447	439	422	404	393	378
		High	80,000 [23.45] 100,000 [29.31]			High	CFM	1652 [780]	1596 [753]	1540 [727]	1481 [699]	1402 [662]	1320 [623]	1212 [572]	1132 [534]	1079 [509]	1004 [474]
							RPM	951	965	977	992	1007	1019	1036	1050	1063	1077
							Watts	670	658	642	625	600	580	561	539	523	504
3.5 [12.31]	Tap 5			1200 CFM / 1600 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1362 [643]	1327 [626]	1294 [611]	1267 [598]	1207 [570]	1151 [543]	1131 [534]	1085 [512]	1022 [482]	956 [451]
							RPM	794	833	872	897	948	976	1005	1038	1078	1112
							Watts	287	295	317	317	331	361	361	365	370	399
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1362 [643]	1327 [626]	1294 [611]	1267 [598]	1207 [570]	1151 [543]	1131 [534]	1085 [512]	1022 [482]	956 [451]
							RPM	794	833	872	897	948	976	1005	1038	1078	1112
							Watts	287	295	317	317	331	361	361	365	370	399
		Tap3	100,000 [29.31]			Tap 3 100K	CFM	1435 [677]	1405 [663]	1378 [650]	1349 [637]	1309 [618]	1266 [597]	1233 [582]	1193 [563]	1134 [535]	1066 [503]
							RPM	844	867	892	927	961	991	1022	1052	1101	1130
							Watts	337	340	358	368	390	389	409	411	438	446
						Tap 4 Low Static Cool	CFM	1362 [643]	1327 [626]	1294 [611]	1267 [598]	1207 [570]	1151 [543]	1131 [534]	1085 [512]	1022 [482]	956 [451]
							RPM	794	833	872	897	948	976	1005	1038	1078	1112
							Watts	287	295	317	317	331	351	361	365	370	399
						Tap 5 High Static Cool	CFM	1643 [775]	1609 [759]	1580 [746]	1560 [736]	1511 [713]	1494 [705]	1443 [681]	1404 [663]	1335 [630]	1244 [587]
							RPM	927	954	986	1001	1035	1052	1083	1111	1122	1133
							Watts	461	475	490	506	518	528	535	548	530	502
4.0 [14.07]	Tap 5			1350 CFM / 1850 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1340 [632]	1305 [616]	1263 [596]	1227 [579]	1186 [560]	1162 [548]	1104 [521]	1020 [481]	960 [453]	897 [423]
							RPM	776	796	831	869	898	925	966	1011	1044	1076
							Watts	261	268	279	291	303	310	323	339	351	361
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1340 [632]	1305 [616]	1263 [596]	1227 [579]	1186 [560]	1162 [548]	1104 [521]	1020 [481]	960 [453]	897 [423]
							RPM	776	796	831	869	898	925	966	1011	1044	1076
							Watts	261	268	279	291	303	310	323	339	351	361
		Tap 3	100,000 [29.31]			Tap 3 100K	CFM	1467 [692]	1448 [683]	1404 [663]	1373 [648]	1339 [632]	1306 [616]	1250 [590]	1210 [571]	1164 [549]	1087 [513]
							RPM	826	855	884	910	939	969	1003	1030	1067	1108
							Watts	328	344	348	363	379	387	398	408	418	434
						Tap 4 Low Static Cool	CFM	1634 [771]	1595 [753]	1547 [730]	1530 [722]	1487 [702]	1462 [690]	1438 [679]	1378 [650]	1352 [638]	1298 [613]
							RPM	894	923	950	981	1000	1030	1051	1079	1106	1126
							Watts	432	446	451	468	479	490	508	510	520	520
						Tap 5 High Static Cool	CFM	1941 [916]	1915 [904]	1878 [886]	1814 [856]	1773 [837]	1709 [807]	1655 [781]	1570 [741]	1488 [702]	1374 [648]
							RPM	1028	1047	1068	1091	1104	1113	1124	1136	1142	1147
							Watts	708	725	729	727	717	696	673	647	618	571
5.0 [17.59]	Tap 5	Tap 1	100,000 [29.31]	1600 CFM / 2100 CFM	12x9R Blower 1 HP [746] 5 Speed (Constant Torque)	Tap 1 100K Heat	CFM	1484 [700]	1440 [680]	1405 [663]	1360 [642]	1319 [622]	1280 [604]	1238 [584]	1186 [560]	1128 [532]	1047 [494]
							RPM	812	841	863	889	918	938	965	994	1026	1066
							Watts	330	338	355	354	379	381	395	408	423	419
						Tap 2 Unused	CFM	1289 [608]	1239 [585]	1189 [561]	1140 [538]	1101 [520]	1052 [496]	969 [457]	918 [433]	860 [406]	812 [383]
							RPM	726	755	786	815	846	876	912	935	964	986
							Watts	233	248	249	259	275	292	309	308	321	330
						Tap 3 Low Cool	CFM	1787 [843]	1746 [824]	1705 [805]	1680 [793]	1621 [765]	1607 [758]	1564 [738]	1530 [722]	1505 [710]	1424 [672]
							RPM	950	970	1000	1012	1042	1055	1079	1108	1113	1130
							Watts	525	538	545	579	571	596	615	610	631	626
						Tap 4 Med Cool	CFM	1954 [922]	1927 [909]	1889 [892]	1843 [870]	1808 [853]	1738 [820]	1671 [789]	1620 [765]	1543 [728]	1433 [676]
							RPM	1030	1042	1061	1082	1100	1121	1130	1133	1138	1146
							Watts	664	673	683	696	704	700	697	684	667	635
						Tap 5 High Cool	CFM	2095 [989]	2045 [965]	1983 [936]	1905 [899]	1840 [868]	1792 [846]	1712 [808]	1641 [774]	1558 [735]	1397 [659]
							RPM	1103	1114	1114	1123	1125	1130	1139	1140	1144	1148
							Watts	829	841	832	803	785	770	749	710	685	633

Note: (1) Set 3-1/2 through 5 ton Cool to Tap 4 for AHRI rated performance. (2) Set 3 Ton Cool to Low for AHRI rated performance.

Down Discharge Pressure Drop (Add to External Static Pressure)							
CFM [L/s]	800 [378]	1000 [472]	1200 [566]	1400 [661]	1600 [755]	1800 [849]	2000 [944]
Pressure Drop - Inches W.C. [kPa]	.02 [.005]	.05 [.012]	.07 [.017]	.1 [.025]	.12 [.030]	.15 [.037]	.17 [.042]

Indoor Airflow Performance RGEA15 - 460 Volts

Nominal Cooling Capacity Tons [kW]	Motor Speed from Factory		Heating Input BTU/HR [kW]	Manufacturer Recommended Cooling Airflow (Min/Max)	Blower Size/ Motor HP [W] & # of Speeds	Motor Speed / Tap		External Static Pressure - Inches W.C. [kPa] (Side Discharge-Dry Coil)									
	Cool	Heat						0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.25]
3.0 [10.55]	Tap 5	Tap 1	60,000 [17.58]	1000 CFM / 1400 CFM	12x9T Blower 1/2 HP [372] 5 Speed (Constant Torque)	Tap 1 60K	CFM	912 [430]	871 [411]	808 [381]	734 [346]	655 [309]	571 [269]	520 [245]	447 [211]		
							RPM	634	664	722	769	811	850	881	906		
							Watts	111	116	131	137	149	151	162	165		
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1362 [643]	1327 [626]	1294 [611]	1267 [598]	1207 [570]	1151 [543]	1131 [534]	1085 [512]	1022 [482]	956 [451]
							RPM	794	833	872	897	948	976	1005	1038	1078	1112
							Watts	287	295	317	317	331	351	361	365	370	399
		Tap3	100,000 [29.31]			Tap 3 100K	CFM	1435 [677]	1405 [663]	1378 [650]	1349 [637]	1309 [618]	1266 [597]	1233 [582]	1193 [563]	1134 [535]	1066 [503]
							RPM	844	867	892	927	961	991	1022	1052	1101	1130
							Watts	337	340	358	368	390	389	409	411	438	446
						Tap 4 Low Static Cool	CFM	1163 [549]	1144 [540]	1086 [513]	1073 [506]	987 [466]	927 [437]	870 [411]	819 [387]		
							RPM	749	761	810	836	887	920	964	1005		
							Watts	202	205	217	230	248	248	266	271		
						Tap 5 High Static Cool	CFM	1435 [677]	1405 [663]	1378 [650]	1349 [637]	1309 [618]	1266 [597]	1233 [582]	1193 [563]	1134 [535]	1066 [503]
							RPM	844	867	892	927	961	991	1022	1052	1101	1130
							Watts	337	340	358	368	390	389	409	411	438	446
3.5 [12.31]	Tap 5			1200 CFM / 1600 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1362 [643]	1327 [626]	1294 [611]	1267 [598]	1207 [570]	1151 [543]	1131 [534]	1085 [512]	1022 [482]	956 [451]
							RPM	794	833	872	897	948	976	1005	1038	1078	1112
							Watts	287	295	317	317	331	351	361	365	370	399
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1362 [643]	1327 [626]	1294 [611]	1267 [598]	1207 [570]	1151 [543]	1131 [534]	1085 [512]	1022 [482]	956 [451]
							RPM	794	833	872	897	948	976	1005	1038	1078	1112
							Watts	287	295	317	317	331	351	361	365	370	399
		Tap3	100,000 [29.31]			Tap 3 100K	CFM	1435 [677]	1405 [663]	1378 [650]	1349 [637]	1309 [618]	1266 [597]	1233 [582]	1193 [563]	1134 [535]	1066 [503]
							RPM	844	867	892	927	961	991	1022	1052	1101	1130
							Watts	337	340	358	368	390	389	409	411	438	446
						Tap 4 Low Static Cool	CFM	1362 [643]	1327 [626]	1294 [611]	1267 [598]	1207 [570]	1151 [543]	1131 [534]	1085 [512]	1022 [482]	956 [451]
							RPM	794	833	872	897	948	976	1005	1038	1078	1112
							Watts	287	295	317	317	331	351	361	365	370	399
						Tap 5 High Static Cool	CFM	1643 [775]	1609 [759]	1580 [746]	1560 [736]	1511 [713]	1494 [705]	1443 [681]	1404 [663]	1335 [630]	1244 [587]
							RPM	927	954	986	1001	1035	1052	1083	1111	1122	1133
							Watts	461	475	490	506	518	528	535	548	530	502
4.0 [14.07]	Tap 5			1350 CFM / 1850 CFM	12x9T Blower 3/4 HP [559] 5 Speed (Constant Torque)	Tap 1 Unused	CFM	1340 [632]	1305 [616]	1263 [596]	1227 [579]	1186 [560]	1162 [548]	1104 [521]	1020 [481]	960 [453]	897 [423]
							RPM	776	796	831	869	898	925	966	1011	1044	1076
							Watts	261	268	279	291	303	310	323	339	351	361
		Tap 2	80,000 [23.45]			Tap 2 80K	CFM	1340 [632]	1305 [616]	1263 [596]	1227 [579]	1186 [560]	1162 [548]	1104 [521]	1020 [481]	960 [453]	897 [423]
							RPM	776	796	831	869	898	925	966	1011	1044	1076
							Watts	261	268	279	291	303	310	323	339	351	361
		Tap 3	100,000 [29.31]			Tap 3 100K	CFM	1467 [692]	1448 [683]	1404 [663]	1373 [648]	1339 [632]	1306 [616]	1250 [590]	1210 [571]	1164 [549]	1087 [513]
							RPM	826	855	884	910	939	969	1003	1030	1067	1108
							Watts	328	344	348	363	379	387	398	408	418	434
						Tap 4 Low Static Cool	CFM	1634 [771]	1595 [753]	1547 [730]	1530 [722]	1487 [702]	1462 [690]	1438 [679]	1378 [650]	1352 [638]	1298 [613]
							RPM	894	923	950	981	1000	1030	1051	1079	1106	1126
							Watts	432	446	451	468	479	490	508	510	520	520
						Tap 5 High Static Cool	CFM	1941 [916]	1915 [904]	1878 [886]	1814 [856]	1773 [837]	1709 [807]	1655 [781]	1570 [741]	1488 [702]	1374 [648]
							RPM	1028	1047	1068	1091	1104	1113	1124	1136	1142	1147
							Watts	708	725	729	727	717	696	673	647	618	571
5.0 [17.59]	1st Stage Tap 2	Tap 1	100,000 [29.31]	1600 CFM / 2100 CFM	12x9R Blower 1 HP [746] 5 Speed (Constant Torque)	Tap 1 100K Heat	CFM	1484 [700]	1440 [680]	1405 [663]	1360 [642]	1319 [622]	1280 [604]	1238 [584]	1186 [560]	1128 [532]	1047 [494]
							RPM	812	841	863	889	918	938	965	994	1026	1066
							Watts	330	338	355	354	379	381	395	408	423	419
						Tap 2 1st Stage Cool	CFM	1289 [608]	1239 [585]	1189 [561]	1140 [538]	1101 [520]	1052 [496]	969 [457]	918 [433]	860 [406]	812 [383]
							RPM	726	755	786	815	846	876	912	935	964	986
							Watts	233	248	249	259	275	292	309	308	321	330
						Tap 3 Unused	CFM	1787 [843]	1746 [824]	1705 [805]	1680 [793]	1621 [765]	1607 [758]	1564 [738]	1530 [722]	1505 [710]	1424 [672]
							RPM	950	970	1000	1012	1042	1055	1079	1108	1113	1130
							Watts	525	538	545	579	571	596	615	610	631	626
	2nd Stage Tap 5					Tap 4 2nd stage Low Static Cool	CFM	1954 [922]	1927 [909]	1889 [892]	1843 [870]	1808 [853]	1738 [820]	1671 [789]	1620 [765]	1543 [728]	1433 [676]
							RPM	1030	1042	1061	1082	1100	1121	1130	1133	1138	1146
							Watts	664	673	683	696	704	700	697	684	667	635
						Tap 5 2nd Stage High Static Cool	CFM	2095 [989]	2045 [965]	1983 [936]	1905 [899]	1840 [868]	1792 [846]	1712 [808]	1641 [774]	1558 [735]	1397 [659]
							RPM	1103	1114	1114	1123	1125	1130	1139	1140	1144	1148
							Watts	829	841	832	803	785	770	749	710	685	633

Notes: (1) Set 2 through 4 ton Cool to Tap 4 for AHRI rated performance. (2) Set 5 ton 2nd Stage Cool to Tap 4 for AHRI rated performance.

Down Discharge Pressure Drop (Add to External Static Pressure)							
CFM [L/s]	800 [378]	1000 [472]	1200 [566]	1400 [661]	1600 [755]	1800 [849]	2000 [944]
Pressure Drop - Inches W.C. [kPa]	.02 [.005]	.05 [.012]	.07 [.017]	.1 [.025]	.12 [.030]	.15 [.037]	.17 [.042]

INDOOR AIRFLOW PERFORMANCE - 208 & 230 VOLTS

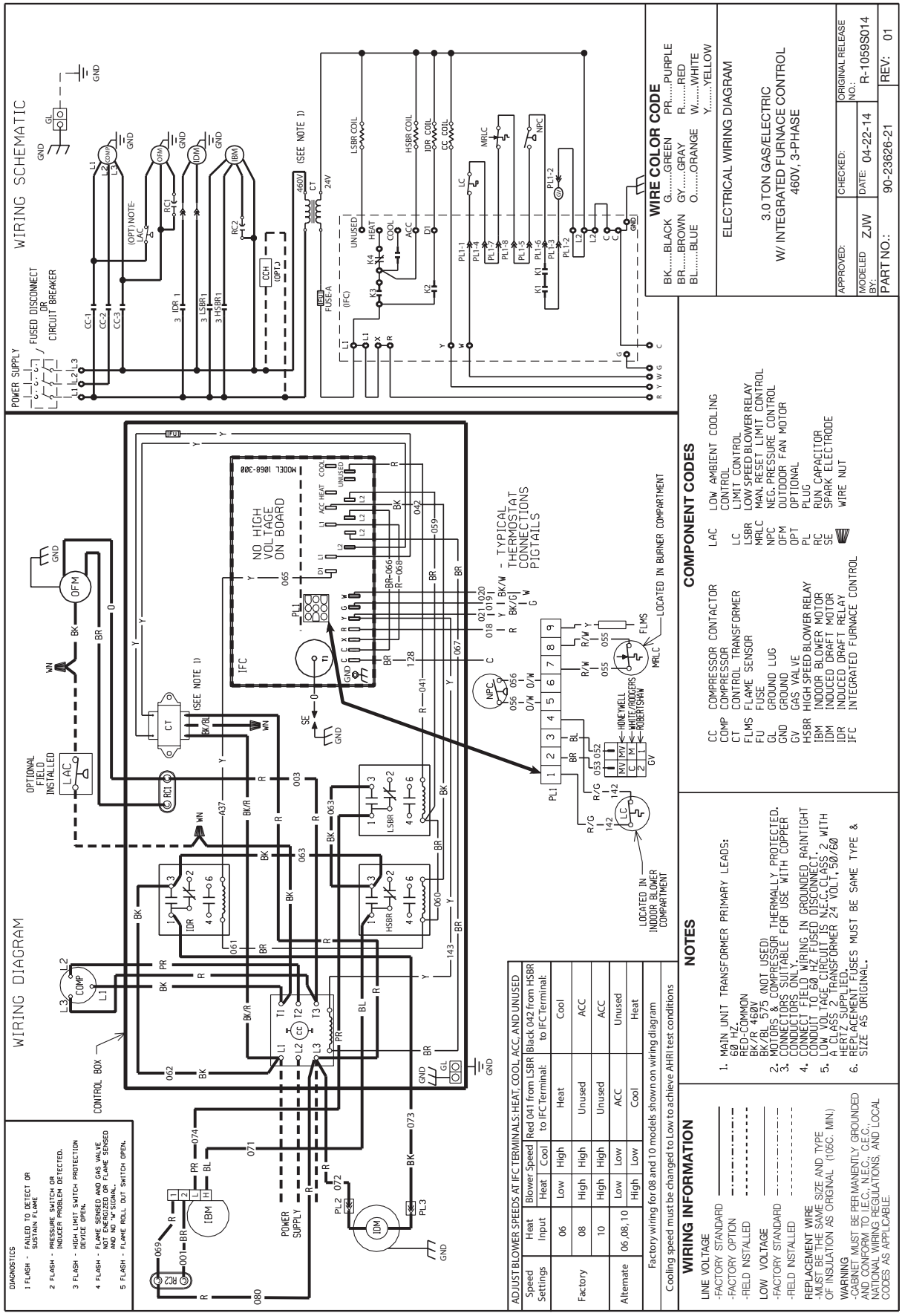
Nominal Cooling Capacity Tons [kW]	Blower Size/ Motor HP [W] & Motor Type	Nominal Heating Capacity Btu/hr [kW]	Motor Speed		External Static Pressure - Inches W.C. [kPa] (Side Discharge - Dry Coil)									
					0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.25]
2.0 [7.03]	10 x 9 Blower 1/2 HP [372 W] ECM	60,000 [17.58]	Heat	CFM [l/s]	766 [362]	773 [365]	771 [364]	770 [363]	768 [362]	757 [357]	751 [354]	742 [350]	726 [343]	715 [337]
				RPM	649	746	829	897	946	1000	1046	1088	1133	1170
				Watts	83	107	130	152	169	188	206	222	240	255
			Cool	CFM [l/s]	891 [421]	902 [426]	910 [429]	906 [428]	912 [430]	906 [428]	903 [426]	891 [421]	876 [413]	868 [410]
				RPM	747	831	895	957	1017	1068	1111	1151	1186	1223
				Watts	123	152	176	200	225	247	268	288	302	321
	10 x 9 Blower 1/2 HP [372 W] ECM	80,000 [23.44]	Heat	CFM [l/s]	1189 [561]	1198 [565]	1203 [568]	1210 [571]	1212 [572]	1208 [570]	1193 [563]	1194 [564]	1146 [541]	1072 [506]
				RPM	894	964	1008	1084	1142	1187	1234	1285	1301	1310
				Watts	236	273	299	344	378	411	441	477	475	446
			Cool	CFM [l/s]	891 [421]	902 [426]	910 [429]	906 [428]	912 [430]	906 [428]	903 [426]	891 [421]	876 [413]	868 [410]
				RPM	747	831	895	957	1017	1068	1111	1151	1186	1223
				Watts	123	152	176	200	225	247	268	288	302	321
2.5 [8.79]	10 x 9 Blower 1/2 HP [372 W] ECM	60,000 [17.58]	Heat	CFM [l/s]	766 [362]	773 [365]	771 [364]	770 [363]	768 [362]	757 [357]	751 [354]	742 [350]	726 [343]	715 [337]
				RPM	649	746	829	897	946	1000	1046	1088	1133	1170
				Watts	83	107	130	152	169	188	206	222	240	255
			Cool	CFM [l/s]	959 [453]	973 [459]	978 [462]	981 [463]	985 [465]	974 [460]	966 [456]	962 [454]	952 [449]	949 [448]
				RPM	772	855	922	990	1052	1100	1142	1184	1219	1256
				Watts	141	172	200	231	259	282	304	326	343	363
	10 x 9 Blower 1/2 HP [372 W] ECM	80,000 [23.44]	Heat	CFM [l/s]	1189 [561]	1198 [565]	1203 [568]	1210 [571]	1212 [572]	1208 [570]	1193 [563]	1194 [564]	1146 [541]	1072 [506]
				RPM	894	964	1008	1084	1142	1187	1234	1285	1301	1310
				Watts	236	273	299	344	378	411	441	477	475	446
			Cool	CFM [l/s]	959 [453]	973 [459]	978 [462]	981 [463]	985 [465]	974 [460]	966 [456]	962 [454]	952 [449]	949 [448]
				RPM	772	855	922	990	1052	1100	1142	1184	1219	1256
				Watts	141	172	200	231	259	282	304	326	343	363
3.0 [10.55]	10 x 9 Blower 1/2 HP [372 W] ECM	60,000 [17.58]	Heat	CFM [l/s]	766 [362]	773 [365]	771 [364]	770 [363]	768 [362]	757 [357]	751 [354]	742 [350]	726 [343]	715 [337]
				RPM	649	746	829	897	946	1000	1046	1088	1133	1170
				Watts	83	107	130	152	169	188	206	222	240	255
			Cool	CFM [l/s]	1189 [561]	1199 [566]	1204 [568]	1206 [569]	1210 [571]	1202 [567]	1209 [571]	1165 [550]	1125 [531]	1061 [501]
				RPM	908	964	1024	1094	1144	1195	1234	1269	1290	1307
				Watts	247	278	311	354	385	421	448	457	454	446
	10 x 9 Blower 3/4 HP [559 W] ECM	80,000 [23.44] & 100,000 [29.3]	Heat	CFM [l/s]	1186 [560]	1191 [562]	1191 [562]	1199 [566]	1192 [563]	1182 [558]	1171 [553]	1156 [546]	1123 [530]	1045 [493]
				RPM	904	974	1023	1077	1129	1174	1216	1263	1288	1292
				Watts	235	271	296	326	354	379	400	430	425	413
			Cool	CFM [l/s]	1194 [564]	1200 [566]	1200 [566]	1208 [570]	1200 [566]	1190 [562]	1179 [556]	1165 [550]	1128 [532]	1045 [493]
				RPM	910	981	1027	1083	1134	1179	1219	1267	1291	1294
				Watts	239	276	300	332	359	384	405	435	428	414
3.5 [12.31]	10 x 9 Blower 3/4 HP [559 W] ECM	80,000 [23.44] & 100,000 [29.3]	Heat	CFM [l/s]	1186 [560]	1191 [562]	1191 [562]	1199 [566]	1192 [563]	1182 [558]	1171 [553]	1156 [546]	1123 [530]	1045 [493]
				RPM	904	974	1023	1077	1129	1174	1216	1263	1288	1292
				Watts	235	271	296	326	354	379	400	430	425	413
			Cool	CFM [l/s]	1296 [612]	1294 [611]	1299 [613]	1299 [613]	1294 [611]	1288 [608]	1275 [602]	1226 [579]	1141 [538]	1050 [496]
				RPM	969	1035	1078	1133	1173	1220	1259	1295	1302	1301
				Watts	292	330	357	390	411	444	467	481	449	423
4.0 [14.07]	12 x 9 Blower 1 HP [746 W] ECM	80,000 [23.44] & 100,000 [29.3]	Heat	CFM [l/s]	1206 [569]	1215 [573]	1219 [575]	1216 [574]	1218 [575]	1220 [576]	1216 [574]	1215 [573]	1205 [569]	1195 [564]
				RPM	730	796	837	885	926	962	999	1038	1075	1112
				Watts	199	238	261	292	317	342	368	397	427	457
			Cool	CFM [l/s]	1535 [724]	1545 [729]	1551 [732]	1554 [733]	1553 [733]	1553 [733]	1551 [732]	1548 [731]	1543 [728]	1532 [723]
				RPM	873	923	967	1005	1052	1096	1124	1149	1180	1200
				Watts	371	416	456	490	537	578	607	634	666	687
5.0 [17.59]	12 x 9 Blower 1 HP [746 W] ECM	100,000 [29.3]	Heat	CFM [l/s]	1206 [569]	1215 [573]	1219 [575]	1216 [574]	1218 [575]	1220 [576]	1216 [574]	1215 [573]	1205 [569]	1195 [564]
				RPM	730	796	837	885	926	962	999	1038	1075	1112
				Watts	199	238	261	292	317	342	368	397	427	457
			1st Stage Cool	CFM [l/s]	1248 [589]	1256 [593]	1262 [596]	1261 [595]	1262 [596]	1264 [597]	1261 [595]	1261 [595]	1253 [591]	1243 [587]
				RPM	749	808	853	903	942	979	1014	1051	1086	1121
				Watts	218	254	281	315	341	369	394	422	452	481
			2nd Stage Cool	CFM [l/s]	1837 [867]	1850 [873]	1850 [873]	1853 [875]	1854 [875]	1847 [872]	1834 [866]	1834 [866]	1824 [861]	1818 [858]
				RPM	997	1053	1094	1128	1164	1202	1225	1256	1283	1305
				Watts	604	670	719	762	810	860	872	889	927	956

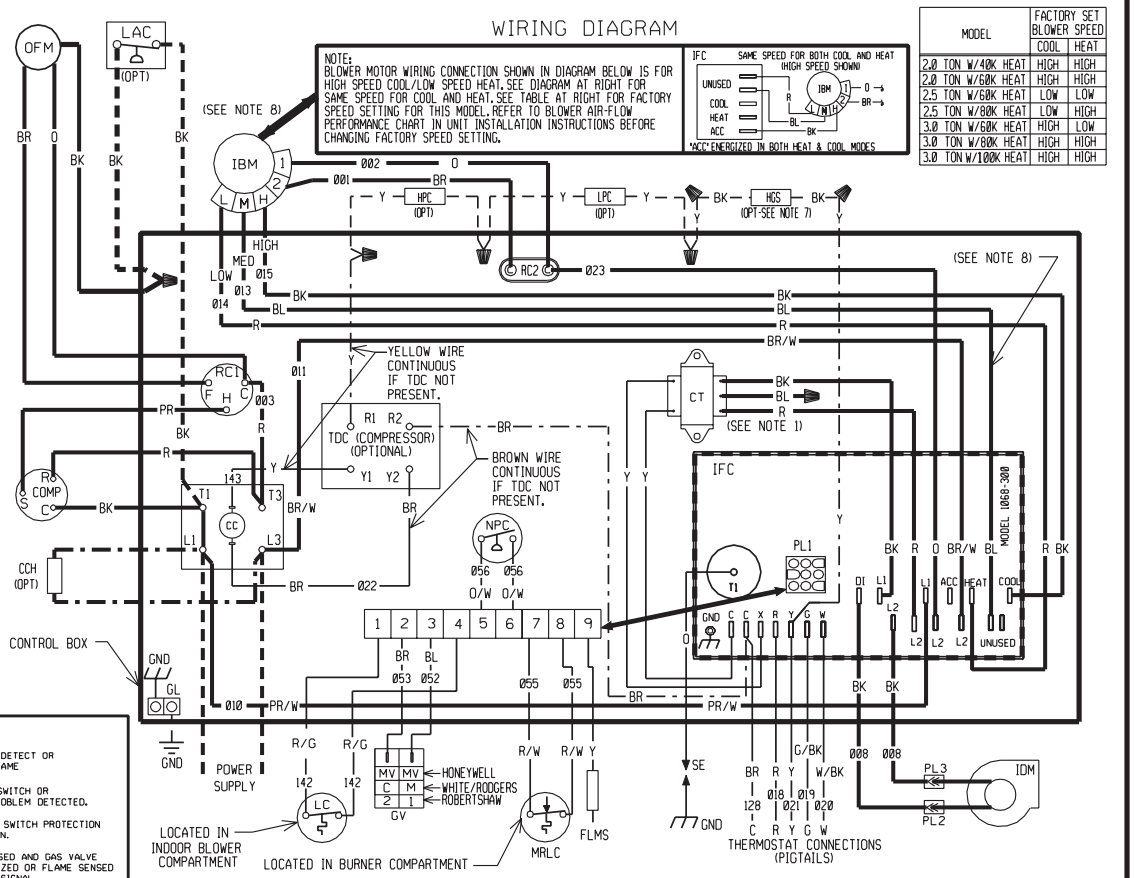
Notes: All airflows listed (except the 5 ton high cool) can be adjusted by +/-10% using the dip switches on the ECM interface board located in the blower section. See ECM Motor Interface Control and Settings Section of the I&O before making adjustments. The +10% setting of the 5 ton high cool is not available to prevent water blow-off.

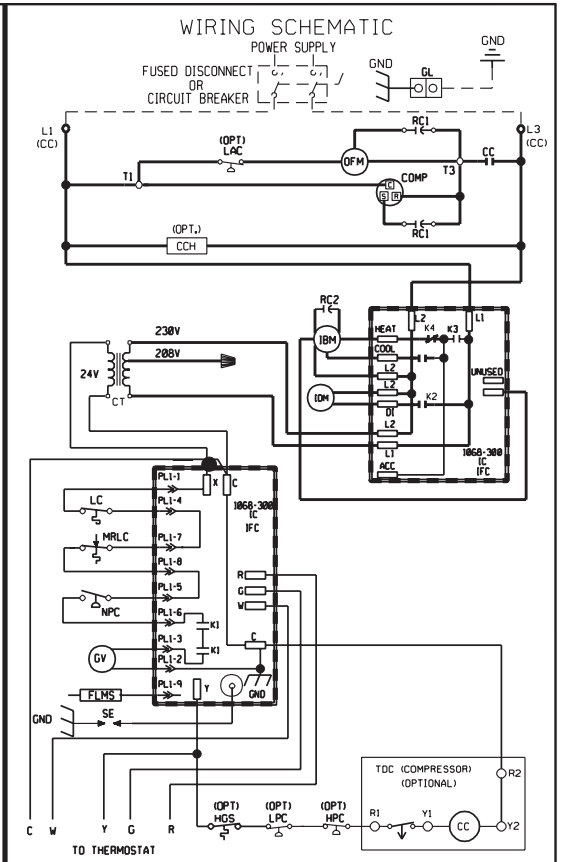
[ ] Designates Metric Conversions

XV. WIRING DIAGRAMS

FIGURE 33
WIRING DIAGRAM







WIRE COLOR CODE

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

ELECTRICAL WIRING DIAGRAM

2.0 - 3.0 TON GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/PSC BLOWER MOTOR
208/230V, 1-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.: R-1059S015
MODELED BY: ZJW	DATE: 04-29-14	
PART NO.: 90-23626-22		REV: 00

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD ——————
-FACTORY OPTION —·—·—·—·—·—
-FIELD INSTALLED - - - - - - - -

LOW VOLTAGE
-FACTORY STANDARD ——————
-FIELD INSTALLED - - - - - - - -

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

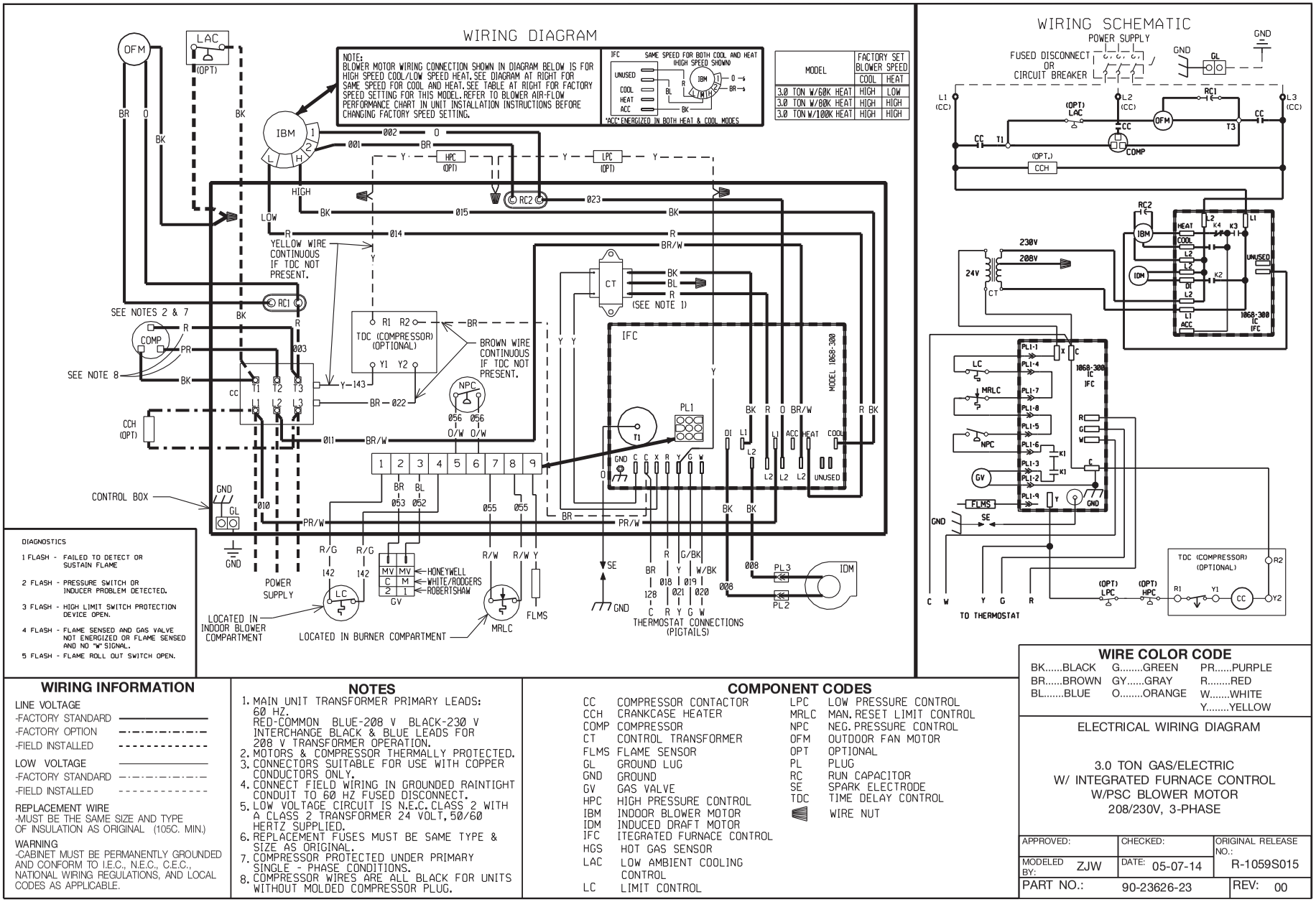
NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. HGS LOCATED IN TOP OF COPELAND ZR**K1 COMPRESSORS ONLY.
8. MED. BLOWER SPEED AND BLUE MOTOR LEAD ON 2.5 - 4.0 TON MODELS ONLY.

COMPONENT CODES

CC	COMPRESSOR CONTACTOR	LPC	LOW PRESSURE CONTROL
CCH	CRANKCASE HEATER	MRLC	MAN. RESET LIMIT CONTROL
COMP	COMPRESSOR	NPC	NEG. PRESSURE CONTROL
CT	CONTROL TRANSFORMER	OFM	OUTDOOR FAN MOTOR
FLMS	FLAME SENSOR	OPT	OPTIONAL
GL	GROUND LUG	PL	PLUG
GND	GROUND	RC	RUN CAPACITOR
GV	GAS VALVE	SE	SPARK ELECTRODE
HPC	HIGH PRESSURE CONTROL	TDC	TIME DELAY CONTROL
IBM	INDOOR BLOWER MOTOR		WIRE NUT
IDM	INDUCED DRAFT MOTOR		
IFC	ITEGRATED FURNACE CONTROL		
HGS	HOT GAS SENSOR		
LAC	LOW AMBIENT COOLING CONTROL		
LC	LIMIT CONTROL		

FIGURE 35
WIRING DIAGRAM



WIRE COLOR CODE

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

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD
-FACTORY OPTION
-FIELD INSTALLED

LOW VOLTAGE
-FACTORY STANDARD
-FIELD INSTALLED

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. COMPRESSOR PROTECTED UNDER PRIMARY SINGLE - PHASE CONDITIONS.
8. COMPRESSOR WIRES ARE ALL BLACK FOR UNITS WITHOUT MOLDED COMPRESSOR PLUG.

COMPONENT CODES

CC	COMPRESSOR CONTACTOR	LPC	LOW PRESSURE CONTROL
CCH	CRANKCASE HEATER	MRLC	MAN. RESET LIMIT CONTROL
COMP	COMPRESSOR	NPC	NEG. PRESSURE CONTROL
CT	CONTROL TRANSFORMER	OFM	OUTDOOR FAN MOTOR
FLMS	FLAME SENSOR	OPT	OPTIONAL
GL	GROUND LUG	PL	PLUG
GND	GROUND	RC	RUN CAPACITOR
GV	GAS VALVE	SE	SPARK ELECTRODE
HPC	HIGH PRESSURE CONTROL	TDC	TIME DELAY CONTROL
IBM	INDOOR BLOWER MOTOR		WIRE NUT
IDM	INDUCED DRAFT MOTOR		
IFC	ITEGRATED FURNACE CONTROL		
HGS	HOT GAS SENSOR		
LAC	LOW AMBIENT COOLING CONTROL		
LC	LIMIT CONTROL		

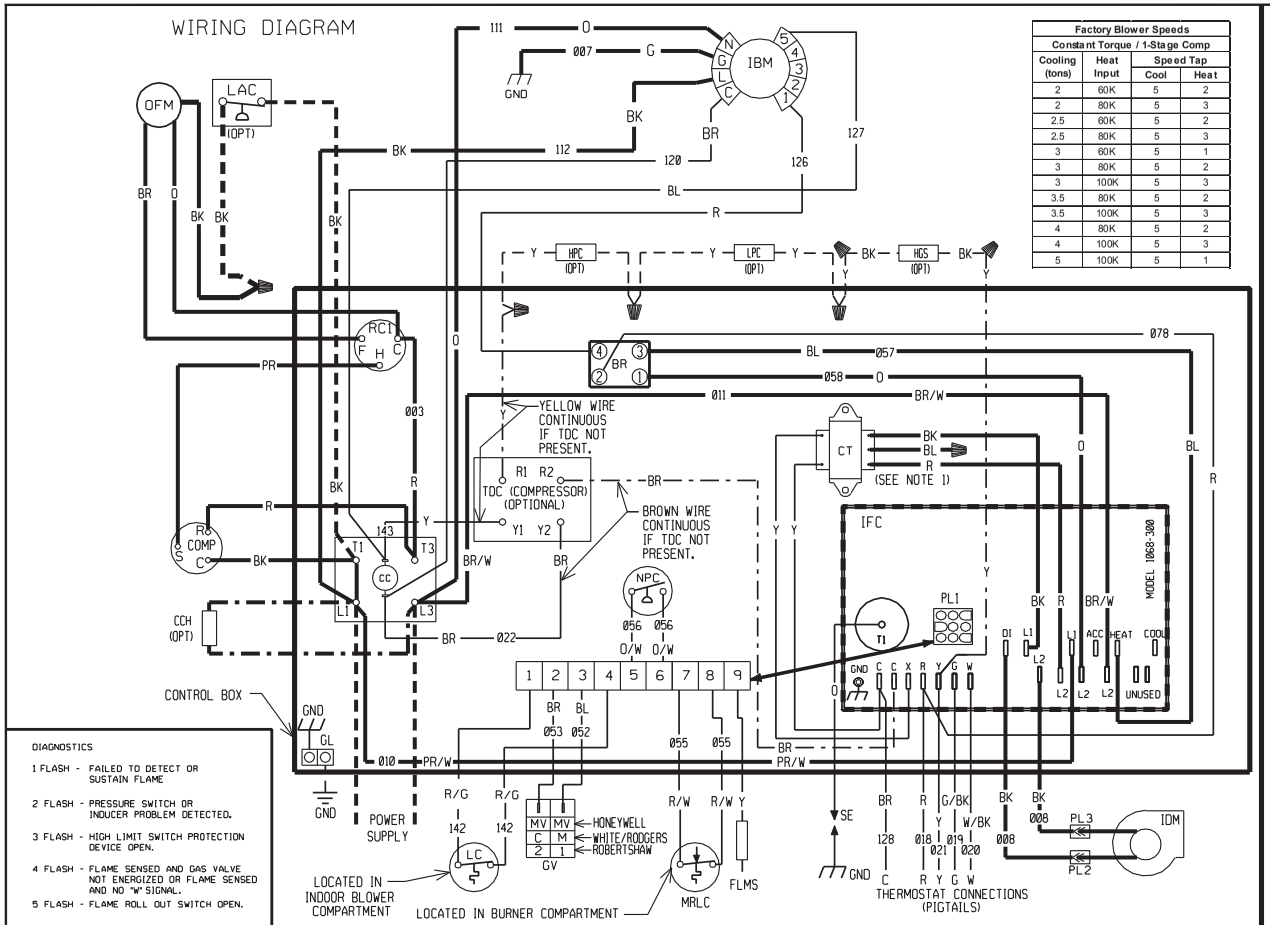
ELECTRICAL WIRING DIAGRAM

3.0 TON GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/PSC BLOWER MOTOR
208/230V, 3-PHASE

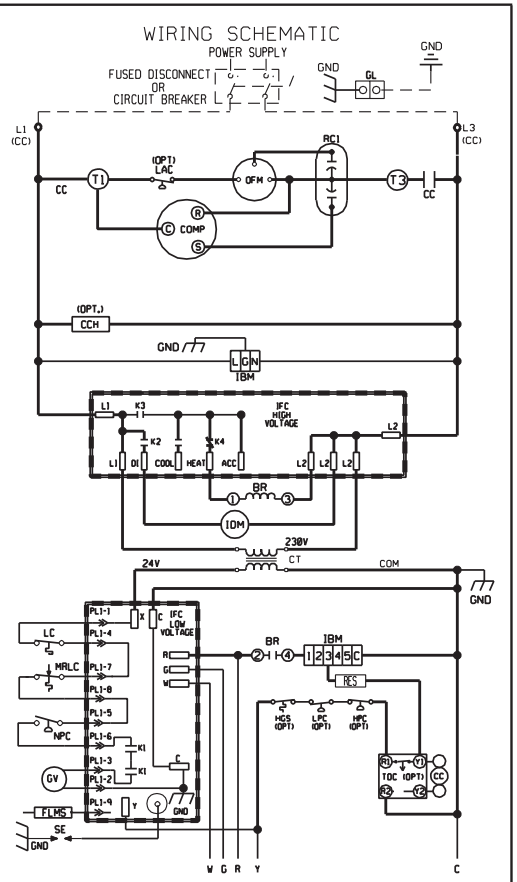
APPROVED:		CHECKED:	ORIGINAL RELEASE NO.: R-1059S015
MODELED BY: ZJW		DATE: 05-07-14	
PART NO.:	90-23626-23		REV: 00

WIRING DIAGRAM

FIGURE 36
WIRING DIAGRAM



Factory Blower Speeds			
Constant Torque / 1-Stage Comp			
Cooling (tons)	Heat Input	Speed Tap	
		Cool	Heat
2	60K	5	2
2	80K	5	3
2.5	60K	5	2
2.5	80K	5	3
3	60K	5	1
3	80K	5	2
3	100K	5	3
3.5	80K	5	2
3.5	100K	5	3
4	80K	5	2
4	100K	5	3
5	100K	5	1



WIRE COLOR CODE

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

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD ——————
-FACTORY OPTION —·—·—·—·—·—
-FIELD INSTALLED - - - - - - - -

LOW VOLTAGE
-FACTORY STANDARD —·—·—·—·—·—
-FIELD INSTALLED - - - - - - - -

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.

COMPONENT CODES

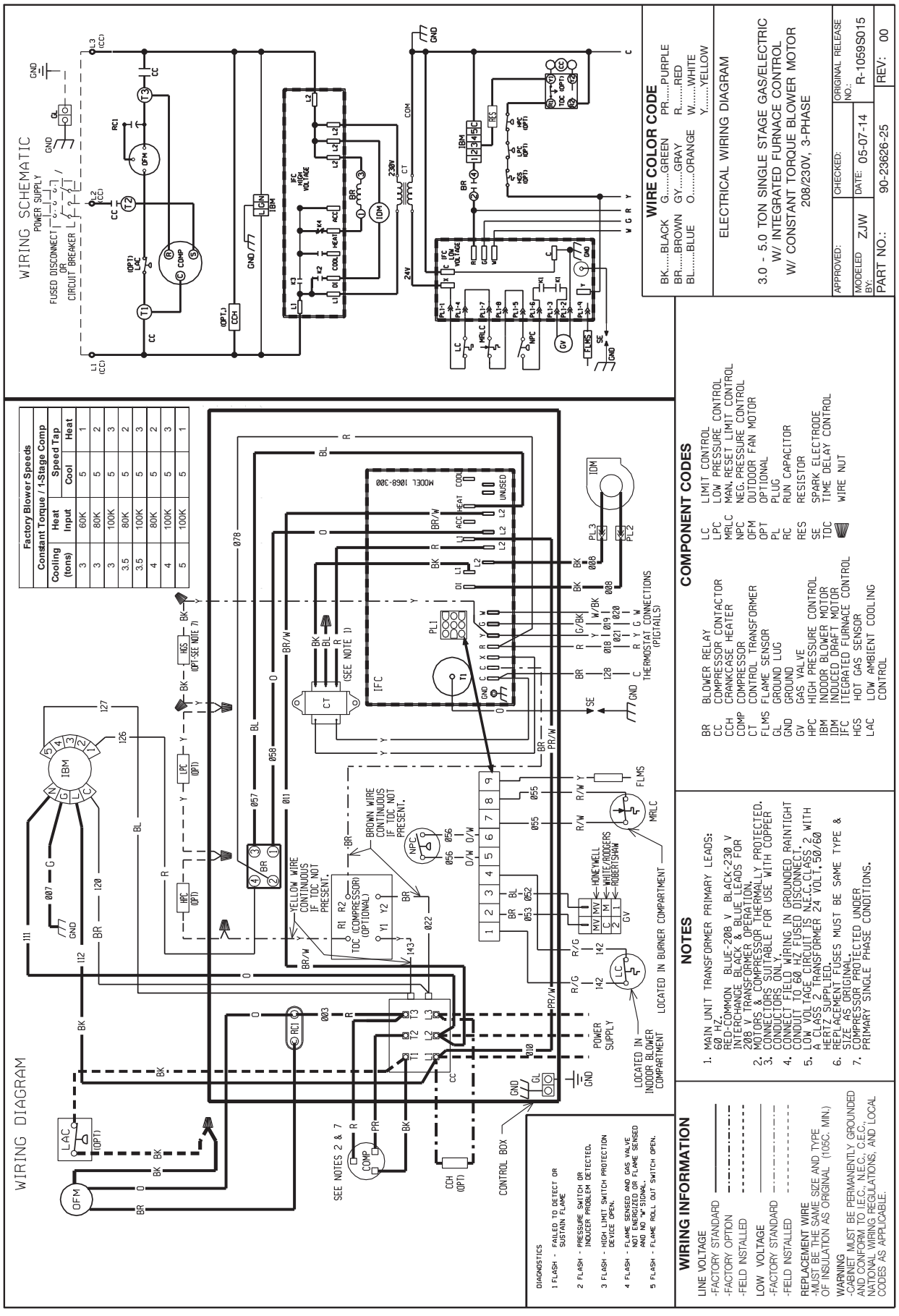
BR	BLOWER RELAY	LC	LIMIT CONTROL
CC	COMPRESSOR CONTACTOR	LPC	LOW PRESSURE CONTROL
CCH	CRANKCASE HEATER	MRLC	MAN. RESET LIMIT CONTROL
COMP	COMPRESSOR	NPC	NEG. PRESSURE CONTROL
CT	CONTROL TRANSFORMER	OFM	OUTDOOR FAN MOTOR
FLMS	FLAME SENSOR	OPT	OPTIONAL
GL	GROUND LUG	PL	PLUG
GND	GROUND	RC	RUN CAPACITOR
GV	GAS VALVE		
HPC	HIGH PRESSURE CONTROL	SE	SPARK ELECTRODE
IBM	INDOOR BLOWER MOTOR	TDC	TIME DELAY CONTROL
IDM	INDUCED DRAFT MOTOR		WIRE NUT
IFC	ITEGRATED FURNACE CONTROL		
HGS	HOT GAS SENSOR		
LAC	LOW AMBIENT COOLING CONTROL		

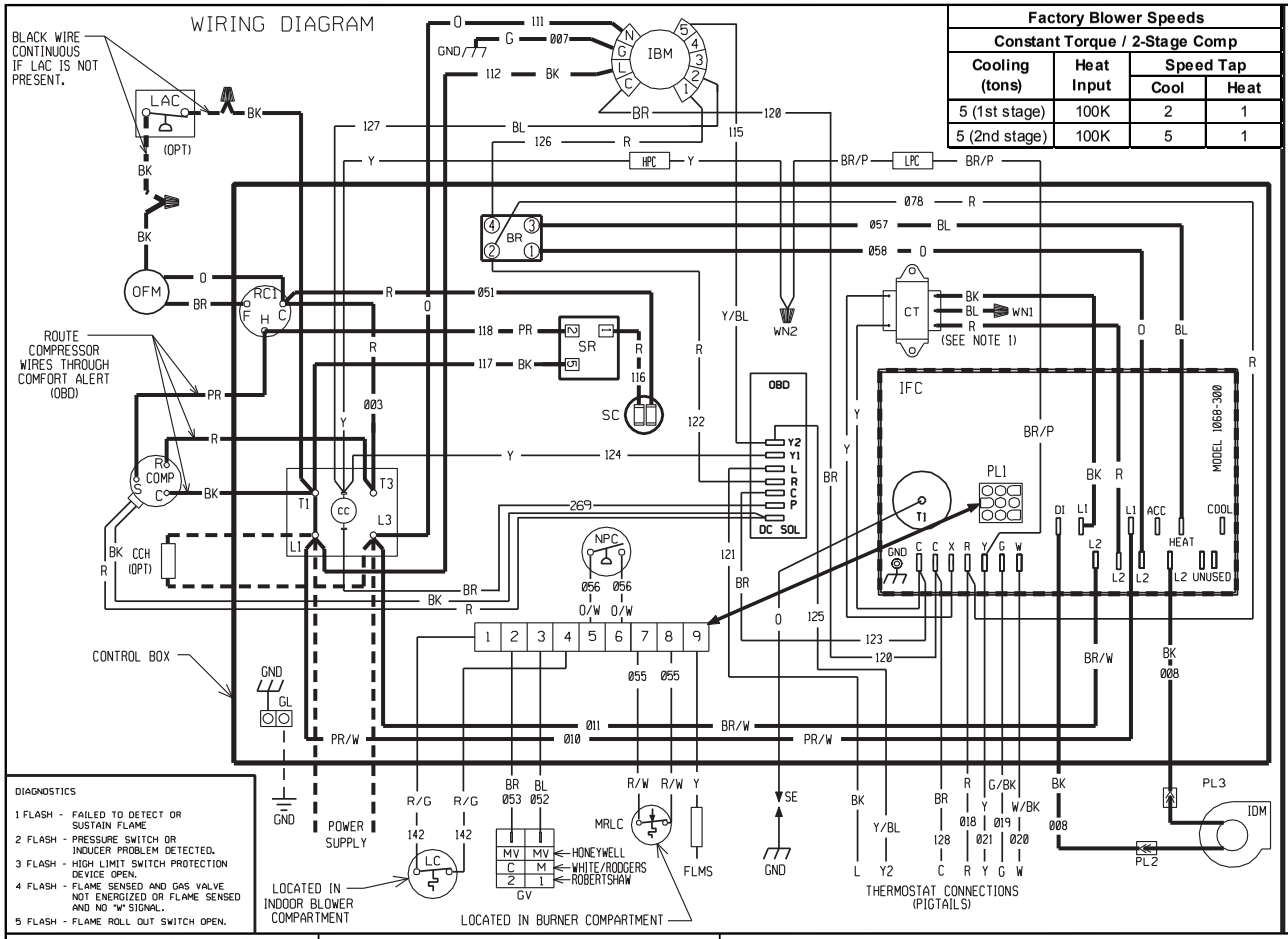
ELECTRICAL WIRING DIAGRAM

2.0 - 5.0 TON SINGLE STAGE GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
208/230V, 1-PHASE

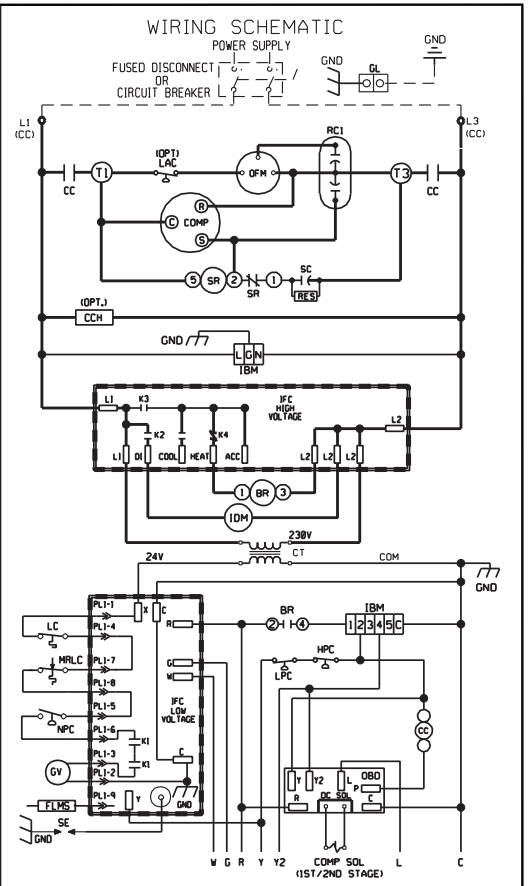
APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED BY: ZJW	DATE: 05-07-14	R-1059S015
PART NO.: 90-23626-24		REV: 00

FIGURE 37
WIRING DIAGRAM





Factory Blower Speeds			
Constant Torque / 2-Stage Comp			
Cooling (tons)	Heat Input	Speed Tap	
		Cool	Heat
5 (1st stage)	100K	2	1
5 (2nd stage)	100K	5	1



WIRE COLOR CODE

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

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD ——————
-FACTORY OPTION -·-·-·-·-·-·-
-FIELD INSTALLED - - - - - - - -

LOW VOLTAGE
-FACTORY STANDARD ——————
-FIELD INSTALLED - - - - - - - -

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.

COMPONENT CODES

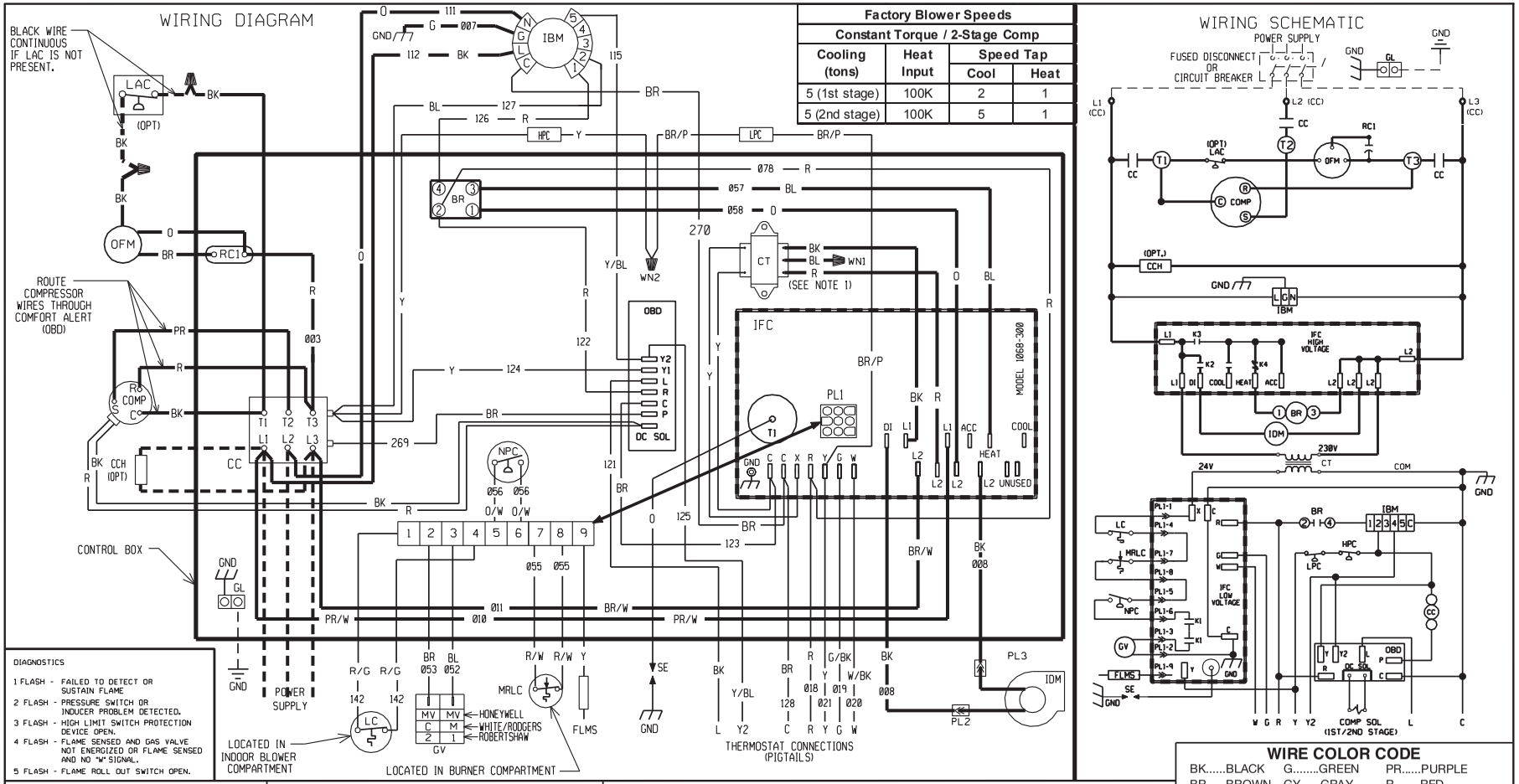
BR	BLOWER RELAY	LC	LIMIT CONTROL
CC	COMPRESSOR CONTACTOR	LPC	LOW PRESSURE CONTROL
CCH	CRANKCASE HEATER	MRLC	MAN. RESET LIMIT CONTROL
COMP	COMPRESSOR	NPC	NEG. PRESSURE CONTROL
CT	CONTROL TRANSFORMER	OBD	ON BOARD DIAGNOSTICS
FLMS	FLAME SENSOR	OFM	OUTDOOR FAN MOTOR
GL	GROUND LUG	OPT	OPTIONAL
GND	GROUND	PL	PLUG
GV	GAS VALVE	RC	RUN CAPACITOR
HPC	HIGH PRESSURE CONTROL		
IBM	INDOOR BLOWER MOTOR	SC	START CAPACITOR
IDM	INDUCED DRAFT MOTOR	SE	SPARK ELECTRODE
IFC	ITEGRATED FURNACE CONTROL	SR	START RELAY
LAC	LOW AMBIENT COOLING CONTROL		WIRE NUT

ELECTRICAL WIRING DIAGRAM

5.0 TON GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
W/ 2-STAGE COMPRESSOR
208/230V, 1-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED BY: ZJW	DATE: 05-07-14	R-1062S001
PART NO.: 90-23626-26		REV: 00

FIGURE 39
WIRING DIAGRAM



Factory Blower Speeds			
Constant Torque / 2-Stage Comp			
Cooling (tons)	Heat Input	Speed Tap	
		Cool	Heat
5 (1st stage)	100K	2	1
5 (2nd stage)	100K	5	1

WIRE COLOR CODE

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

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD ——————
-FACTORY OPTION —·—·—·—·—
-FIELD INSTALLED - - - - - - -

LOW VOLTAGE
-FACTORY STANDARD —·—·—·—·—
-FIELD INSTALLED - - - - - - -

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.

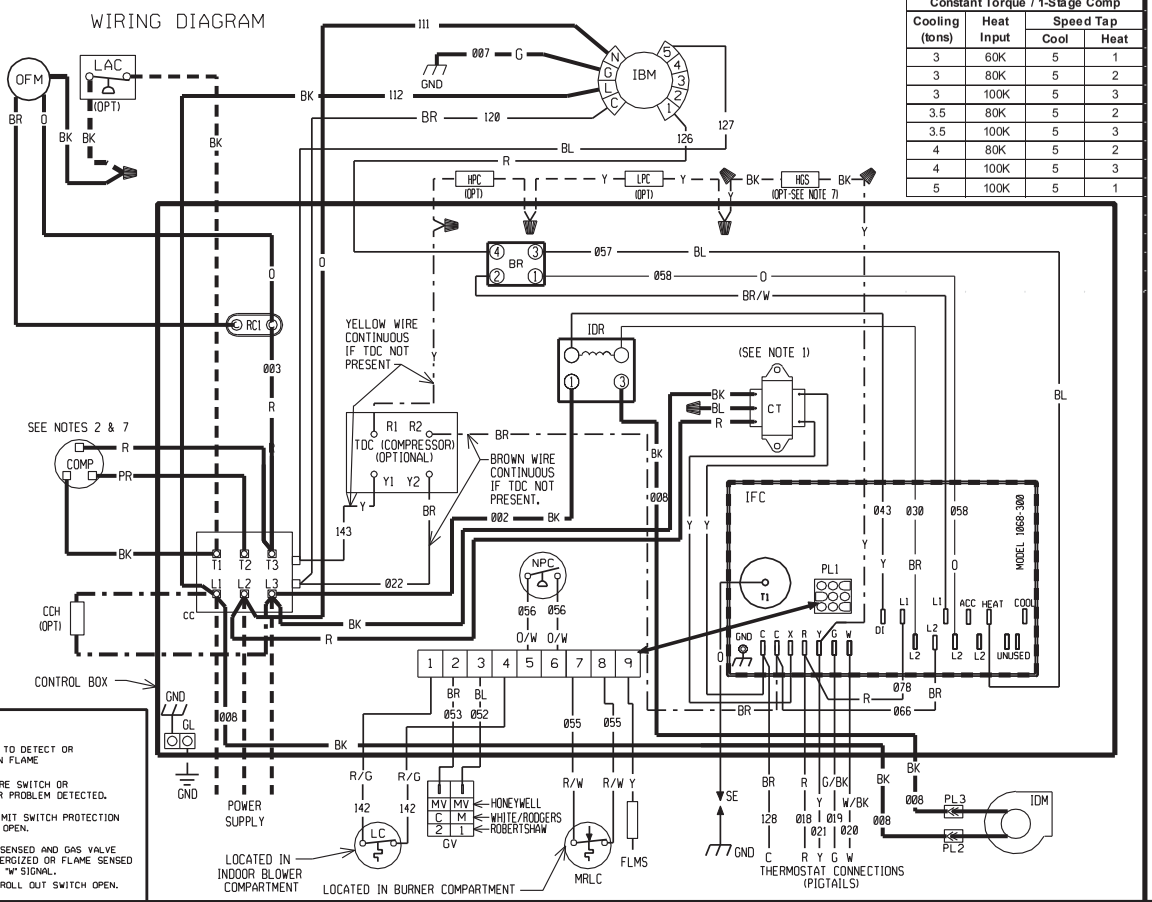
COMPONENT CODES

BR	BLOWER RELAY	LC	LIMIT CONTROL
CC	COMPRESSOR CONTACTOR	LPC	LOW PRESSURE CONTROL
CCH	CRANKCASE HEATER	MRLC	MAN. RESET LIMIT CONTROL
COMP	COMPRESSOR	NPC	NEG. PRESSURE CONTROL
CT	CONTROL TRANSFORMER	OBD	ON BOARD DIAGNOSTICS
FLMS	FLAME SENSOR	OFM	OUTDOOR FAN MOTOR
GL	GROUND LUG	OPT	OPTIONAL
GND	GROUND	PL	PLUG
GV	GAS VALVE	RC	RUN CAPACITOR
HPC	HIGH PRESSURE CONTROL		
IBM	INDOOR BLOWER MOTOR	SC	START CAPACITOR
IDM	INDUCED DRAFT MOTOR	SE	SPARK ELECTRODE
IFC	ITEGRATED FURNACE CONTROL	SR	START RELAY
LAC	LOW AMBIENT COOLING CONTROL		WIRE NUT

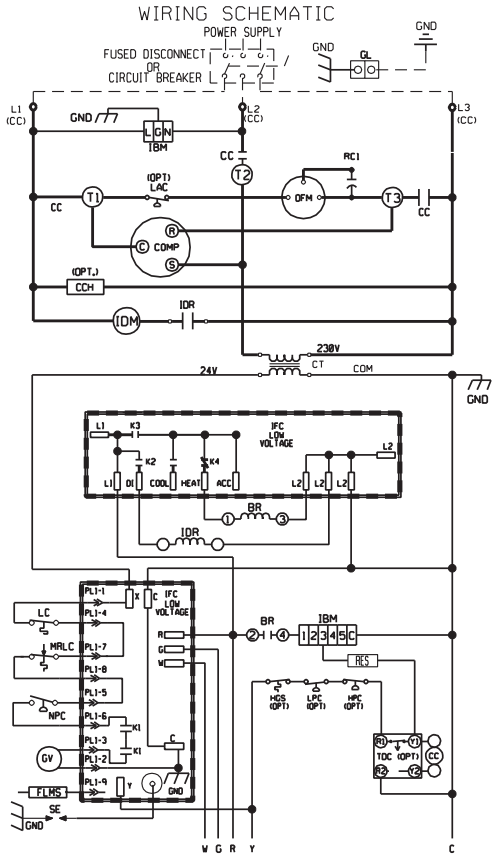
ELECTRICAL WIRING DIAGRAM

5.0 TON GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
W/ 2-STAGE COMPRESSOR
208/230V, 3-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:	
MODELED BY: ZJW	DATE: 05-07-14	R-1062S001	
PART NO.: 90-23626-27		REV: 00	



Factory Blower Speeds			
Constant Torque / 1-Stage Comp			
Cooling (tons)	Heat Input	Speed Tap	
		Cool	Heat
3	60K	5	1
3	80K	5	2
3	100K	5	3
3.5	80K	5	2
3.5	100K	5	3
4	80K	5	2
4	100K	5	3
5	100K	5	1



WIRE COLOR CODE

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

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD
-FACTORY OPTION
-FIELD INSTALLED

LOW VOLTAGE
-FACTORY STANDARD
-FIELD INSTALLED

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. CONTROL TRANSFORMER PRIMARY LEADS: BLUE - COMMON BK/RD - 460V 60 HZ. / 380V 50 H., RED - 575V, 60 HZ. / 415V 50 HZ.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. COMPRESSOR PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.

COMPONENT CODES

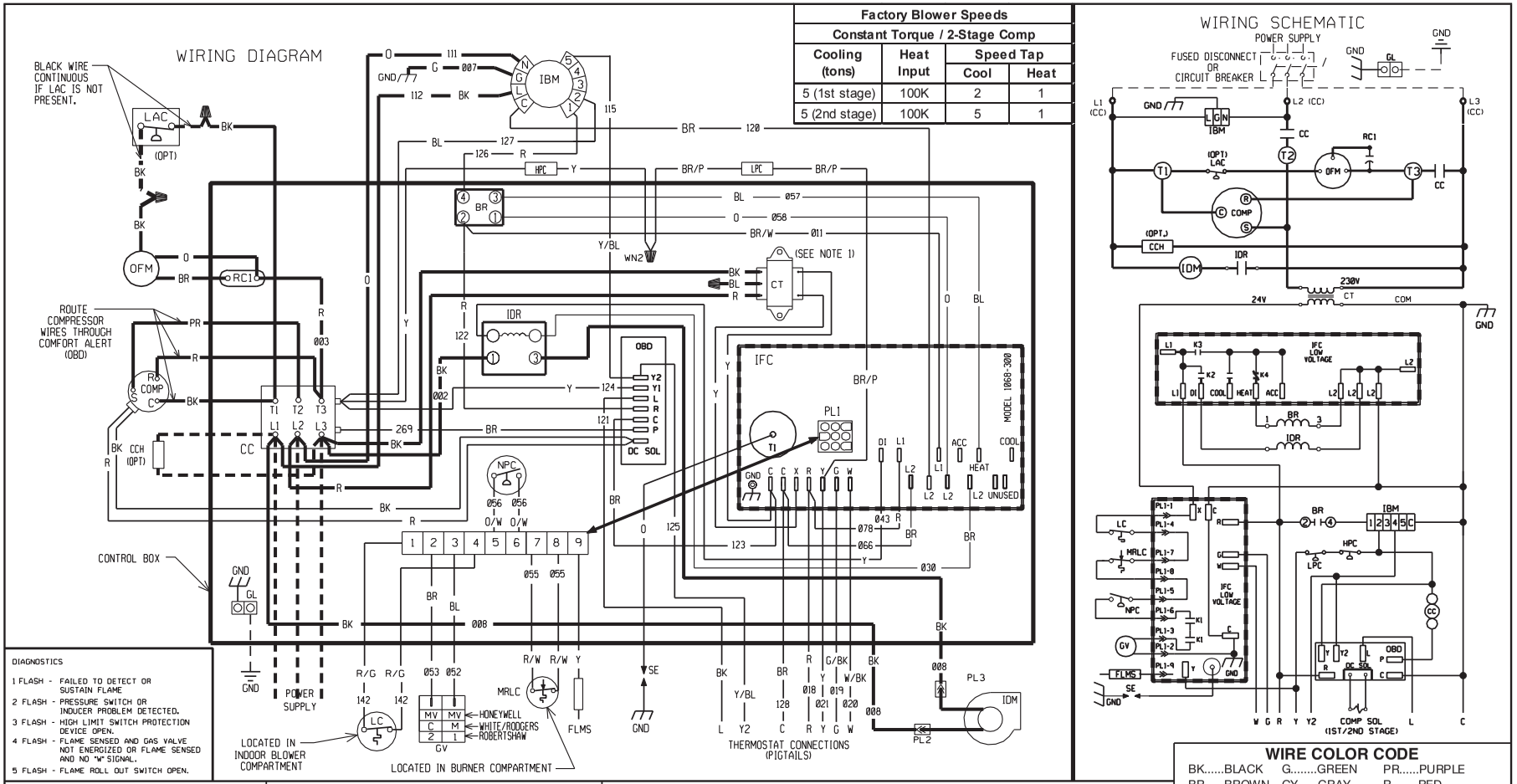
BR	BLOWER RELAY	LAC	LOW AMBIENT COOLING CONTROL
CC	COMPRESSOR CONTACTOR	LC	LIMIT CONTROL
CCH	CRANKCASE HEATER	LPC	LOW PRESSURE CONTROL
COMP	COMPRESSOR	MRLC	MAN. RESET LIMIT CONTROL
CT	CONTROL TRANSFORMER	NPC	NEG. PRESSURE CONTROL
FLMS	FLAME SENSOR	OFM	OUTDOOR FAN MOTOR
GL	GROUND LUG	OPT	OPTIONAL
GND	GROUND	PL	PLUG
GV	GAS VALVE	RC	RUN CAPACITOR
HPC	HIGH PRESSURE CONTROL	RES	RESISTOR
IBM	INDOOR BLOWER MOTOR	SE	SPARK ELECTRODE
IDR	INDUCED DRAFT RELAY	TDC	TIME DELAY CONTROL
IDM	INDUCED DRAFT MOTOR		WIRE NUT
IFC	ITEGRATED FURNACE CONTROL		
HGS	HOT GAS SENSOR		

ELECTRICAL WIRING DIAGRAM

3.0 - 5.0 TON SINGLE STAGE GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
460V, 3-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED BY: ZJW	DATE: 05-08-14	R-1059S015
PART NO.: 90-23626-28		REV: 00

FIGURE 41
WIRING DIAGRAM



Factory Blower Speeds			
Constant Torque / 2-Stage Comp			
Cooling (tons)	Heat Input	Speed Tap	
		Cool	Heat
5 (1st stage)	100K	2	1
5 (2nd stage)	100K	5	1

DIAGNOSTICS

1 FLASH - FAILED TO DETECT OR SUSTAIN FLAME
2 FLASH - PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
3 FLASH - HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
4 FLASH - FLAME SENSED AND GAS VALVE NOT ENERGIZED OR FLAME SENSED AND NO "W" SIGNAL.
5 FLASH - FLAME ROLL OUT SWITCH OPEN.

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD
-FACTORY OPTION
-FIELD INSTALLED

LOW VOLTAGE
-FACTORY STANDARD
-FIELD INSTALLED

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. CONTROL TRANSFORMER PRIMARY LEADS: BLUE - COMMON BK/RD - 460V 60 HZ. / 380V 50 H., RED - 575V, 60 HZ. / 415V 50 HZ.
2. COMPRESSOR MOTOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.

COMPONENT CODES

BR	BLOWER RELAY
CC	COMPRESSOR CONTACTOR
CCH	CRANKCASE HEATER
COMP	COMPRESSOR
CT	CONTROL TRANSFORMER
FLMS	FLAME SENSOR
GL	GROUND LUG
GND	GROUND
GV	GAS VALVE
HPC	HIGH PRESSURE CONTROL
IBM	INDOOR BLOWER MOTOR
IDM	INDUCED DRAFT MOTOR
IDR	INDUCED DRAFT RELAY
IFC	ITEGRATED FURNACE CONTROL
LAC	LOW AMBIENT COOLING CONTROL
LC	LIMIT CONTROL
LPC	LOW PRESSURE CONTROL
MRLC	MAN. RESET LIMIT CONTROL
NPC	NEG. PRESSURE CONTROL
OBD	ON BOARD DIAGNOSTICS
OFM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
RC	RUN CAPACITOR
SC	START CAPACITOR
SE	SPARK ELECTRODE
SR	START RELAY
	WIRE NUT

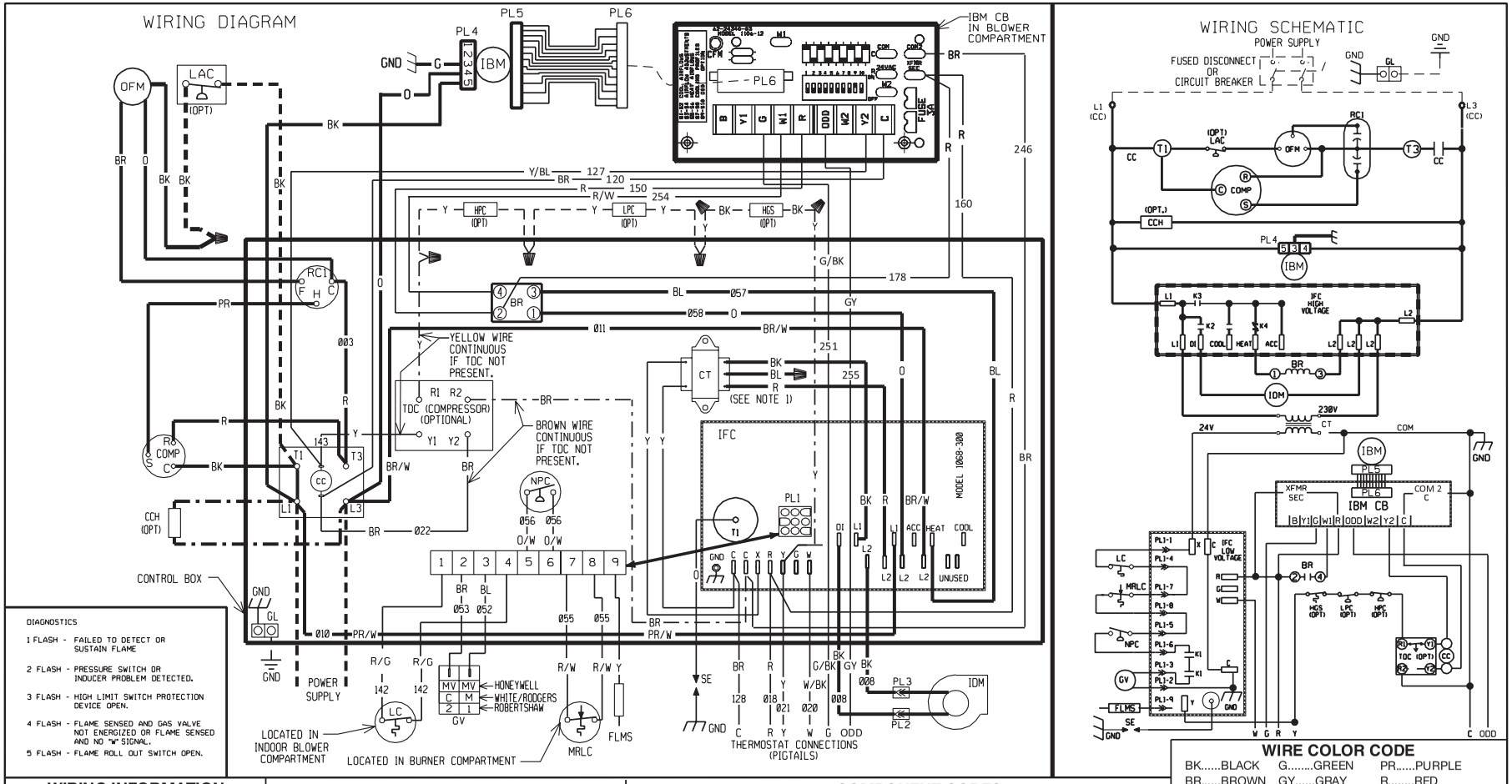
WIRE COLOR CODE

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

ELECTRICAL WIRING DIAGRAM

5.0 TON GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
W/ 2-STAGE COMPRESSOR
460V, 3-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED BY: ZJW	DATE: 05-08-14	R-1062S001
PART NO.: 90-23626-29		REV: 00



WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD
-FACTORY OPTION
-FIELD INSTALLED

LOW VOLTAGE
-FACTORY STANDARD
-FIELD INSTALLED

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESS R THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. HPC IS STANDARD ON UNITS WITH MICRO CHANNEL COILS AND REPLACES WIRE 143.
8. THE DOTTED BOX NEAR THE DRAWING NUMBER REPRESENTS A .25X.25 DATA MATRIX. SEE ADS-104669-01 FOR SPECS.

COMPONENT CODES

BR	BLOWER RELAY
CC	COMPRESSOR CONTACTOR
CCH	CRANKCASE HEATER
COMP	COMPRESSOR
CT	CONTROL TRANSFORMER
FLMS	FLAME SENSOR
GL	GROUND LUG
GND	GROUND
GV	GAS VALVE
HPC	HIGH PRESSURE CONTROL
IBM	INDOOR BLOWER MOTOR
IDM	INDUCED DRAFT MOTOR
IFC	ITEGRATED FURNACE CONTROL
HGS	HOT GAS SENSOR
IBM CB	INDOOR BLOWER MOTOR CONTROL BOARD
LAC	LOW AMBIENT COOLING CONTROL
LC	LIMIT CONTROL
LPC	LOW PRESSURE CONTROL
MRLC	MAN. RESET LIMIT CONTROL
NPC	NEG. PRESSURE CONTROL
OFM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
RC	RUN CAPACITOR
SE	SPARK ELECTRODE
TDC	TIME DELAY CONTROL
	WIRE NUT

WIRE COLOR CODE

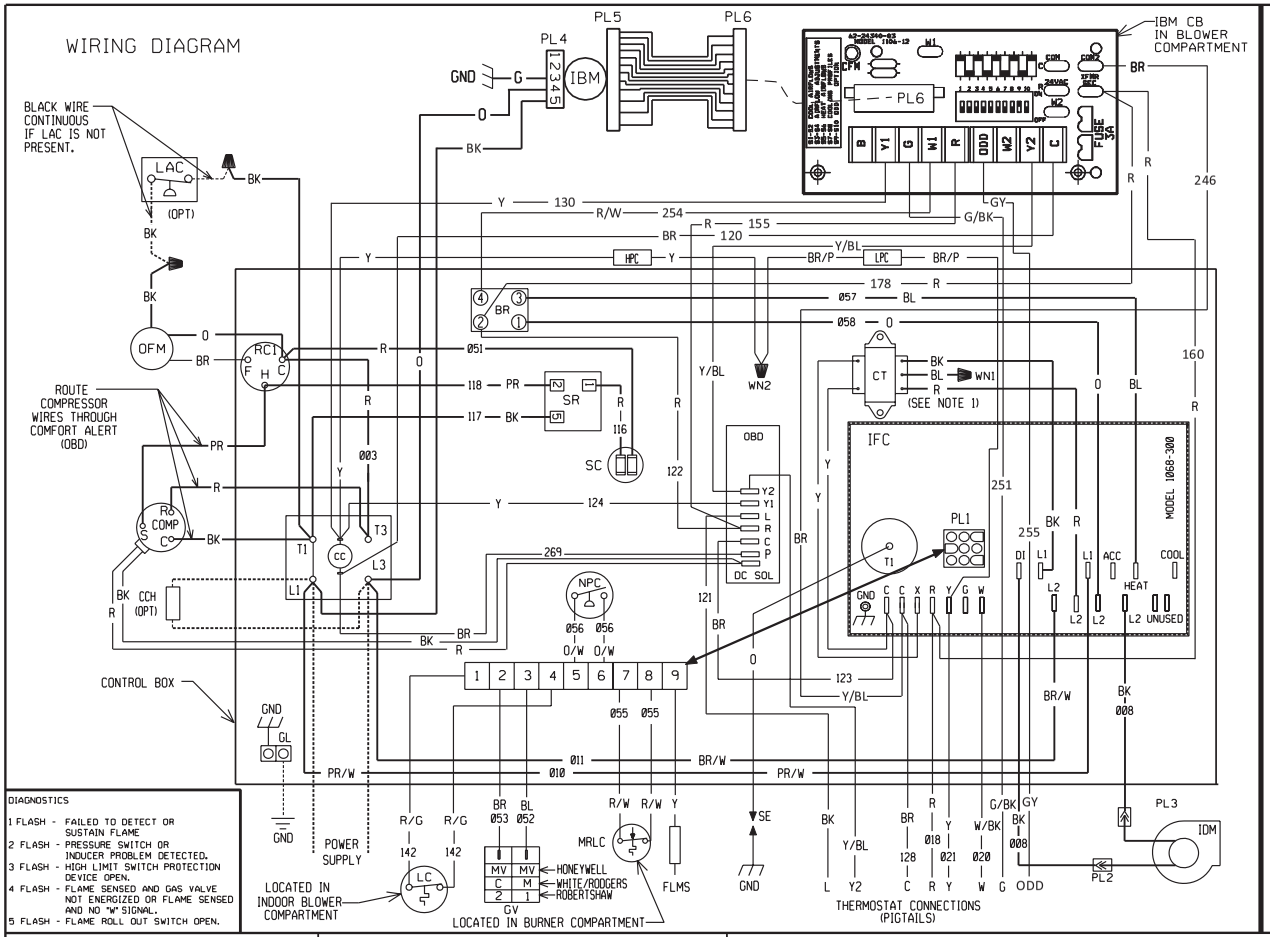
BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
		Y.....YELLOW

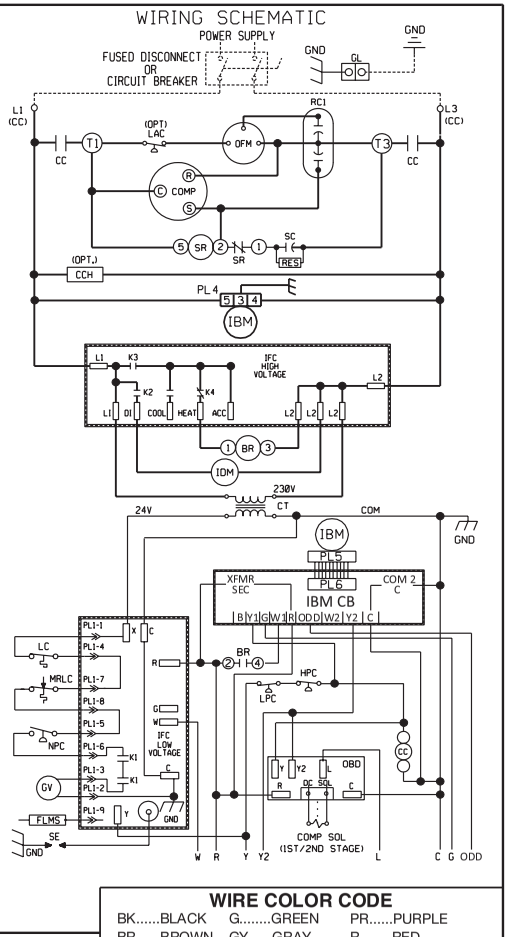
ELECTRICAL WIRING DIAGRAM

2.0 - 5.0 TON SINGLE STAGE GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/ VARIABLE SPEED BLOWER MOTOR
208/230V, 1-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED BY: ZJW	DATE: 06-10-16	R-1070S001
PART NO.: 90-23626-30		REV: 01

FIGURE 43
WIRING DIAGRAM





WIRE COLOR CODE

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

WIRING INFORMATION

LINE VOLTAGE
-FACTORY STANDARD
-FACTORY OPTION
-FIELD INSTALLED

LOW VOLTAGE
-FACTORY STANDARD
-FIELD INSTALLED

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

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. THE DOTTED BOX NEAR THE DRAWING NUMBER REPRESENTS A .25X.25 DATA MATRIX. SEE ADS-104669-01 FOR SPECS.

COMPONENT CODES

BR	BLOWER RELAY
CC	COMPRESSOR CONTACTOR
CCH	CRANKCASE HEATER
COMP	COMPRESSOR
CT	CONTROL TRANSFORMER
FLMS	FLAME SENSOR
GL	GROUND LUG
GND	GROUND
GV	GAS VALVE
HPC	HIGH PRESSURE CONTROL
IBM	INDOOR BLOWER MOTOR
IDM	INDUCED DRAFT MOTOR
IFC	ITEGRATED FURNACE CONTROL
IBM CB	INDOOR BLOWER MOTOR CONTROL BOARD
LAC	LOW AMBIENT COOLING CONTROL
LC	LIMIT CONTROL
LPC	LOW PRESSURE CONTROL
MRLC	MAN. RESET LIMIT CONTROL
NPC	NEG. PRESSURE CONTROL
OBD	ON BOARD DIAGNOSTICS
OFM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
RC	RUN CAPACITOR
SC	START CAPACITOR
SE	SPARK ELECTRODE
SR	START RELAY
	WIRE NUT

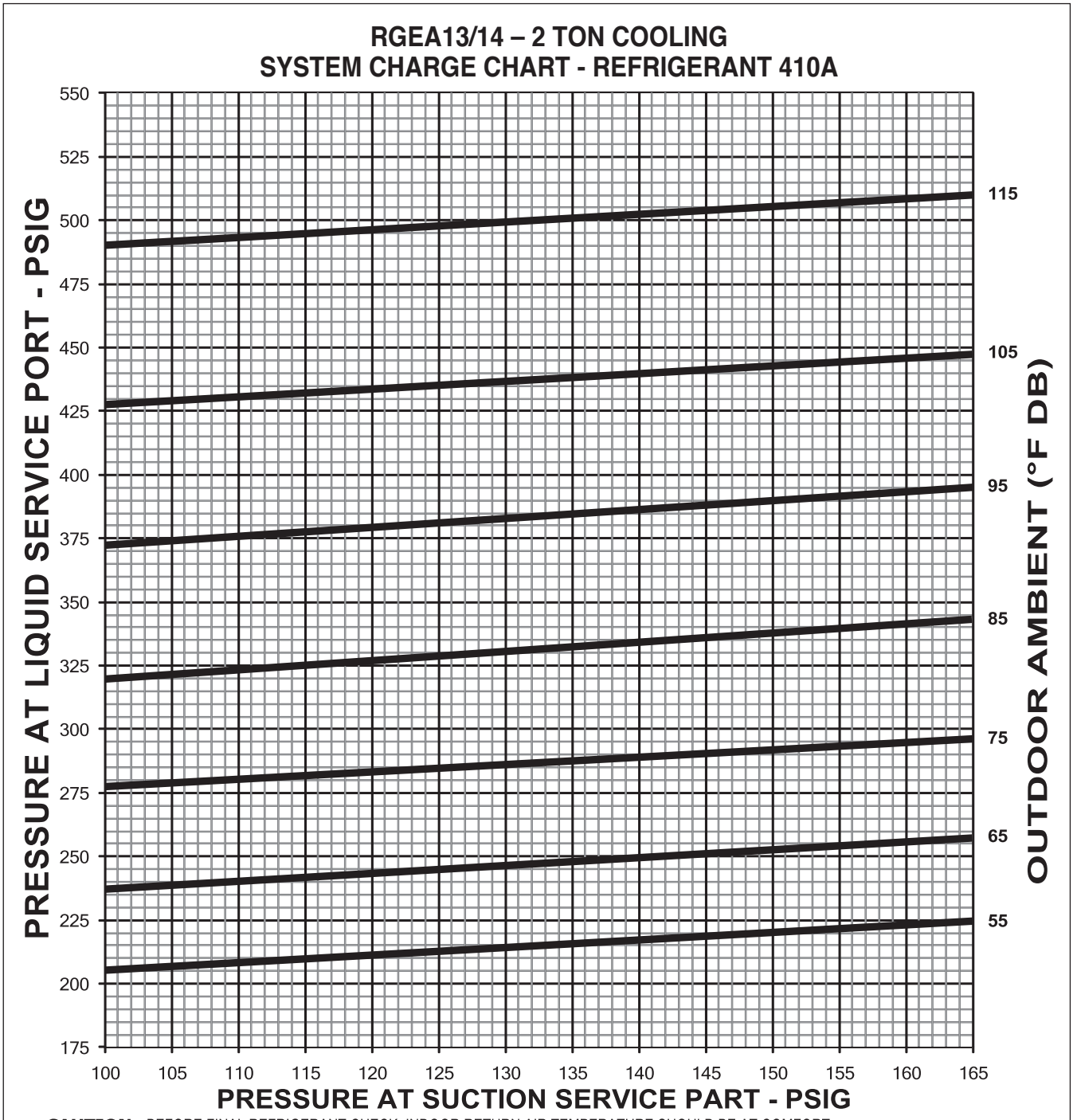
ELECTRICAL WIRING DIAGRAM

5.0 TON GAS/ELECTRIC
W/ INTEGRATED FURNACE CONTROL
W/ VARIABLE SPEED BLOWER MOTOR
W/ 2-STAGE COMPRESSOR
208/230V, 1-PHASE

APPROVED:		CHECKED:	ORIGINAL RELEASE NO.: R-1070S001
MODELED BY: ZJW		DATE: 06-10-16	
PART NO.: 90-23626-31			REV: 02

XVI. CHARGE CHARTS

FIGURE 44
SYSTEM CHARGE CHARTS



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

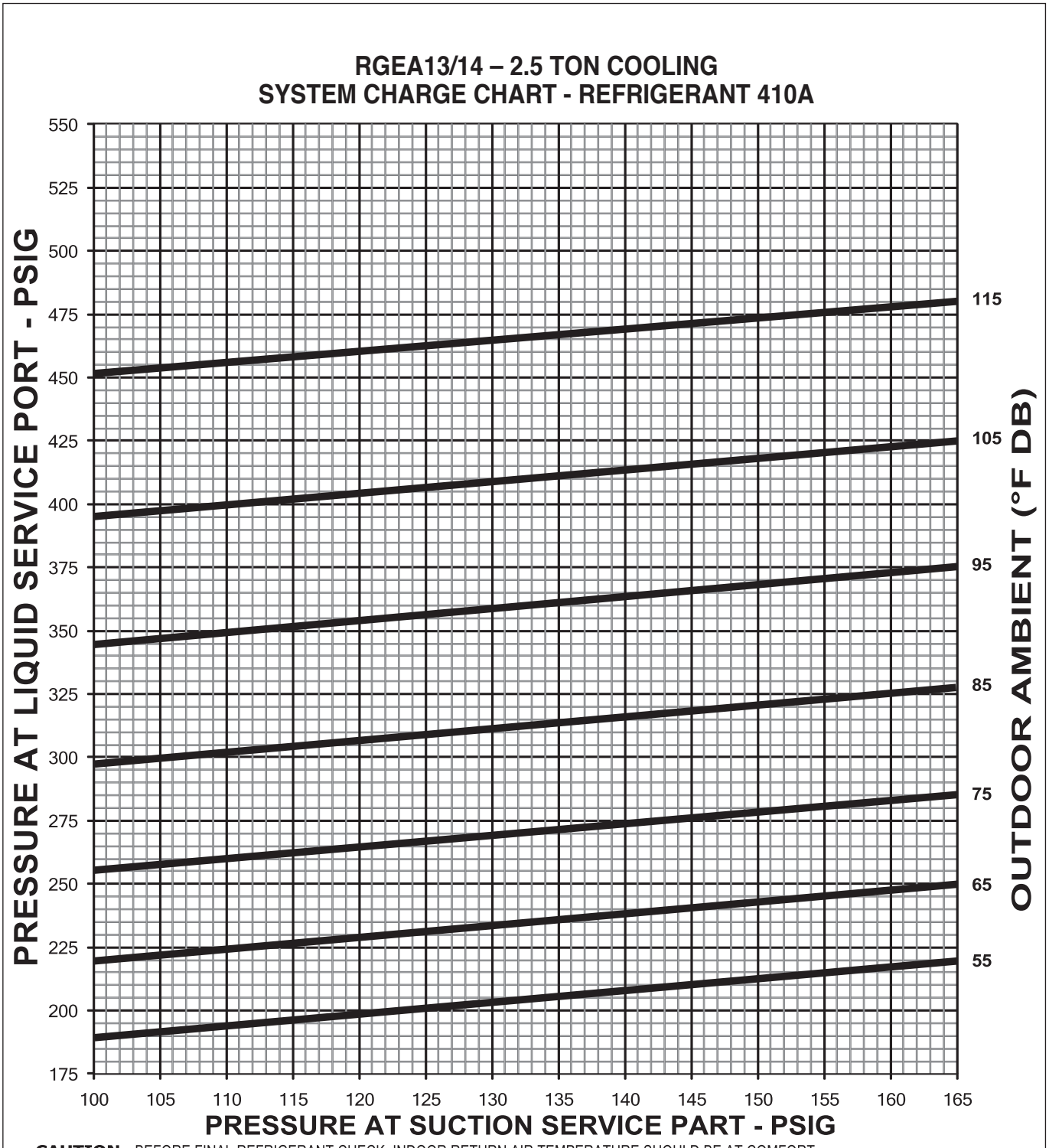
NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-02-00

FIGURE 45
SYSTEM CHARGE CHARTS



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

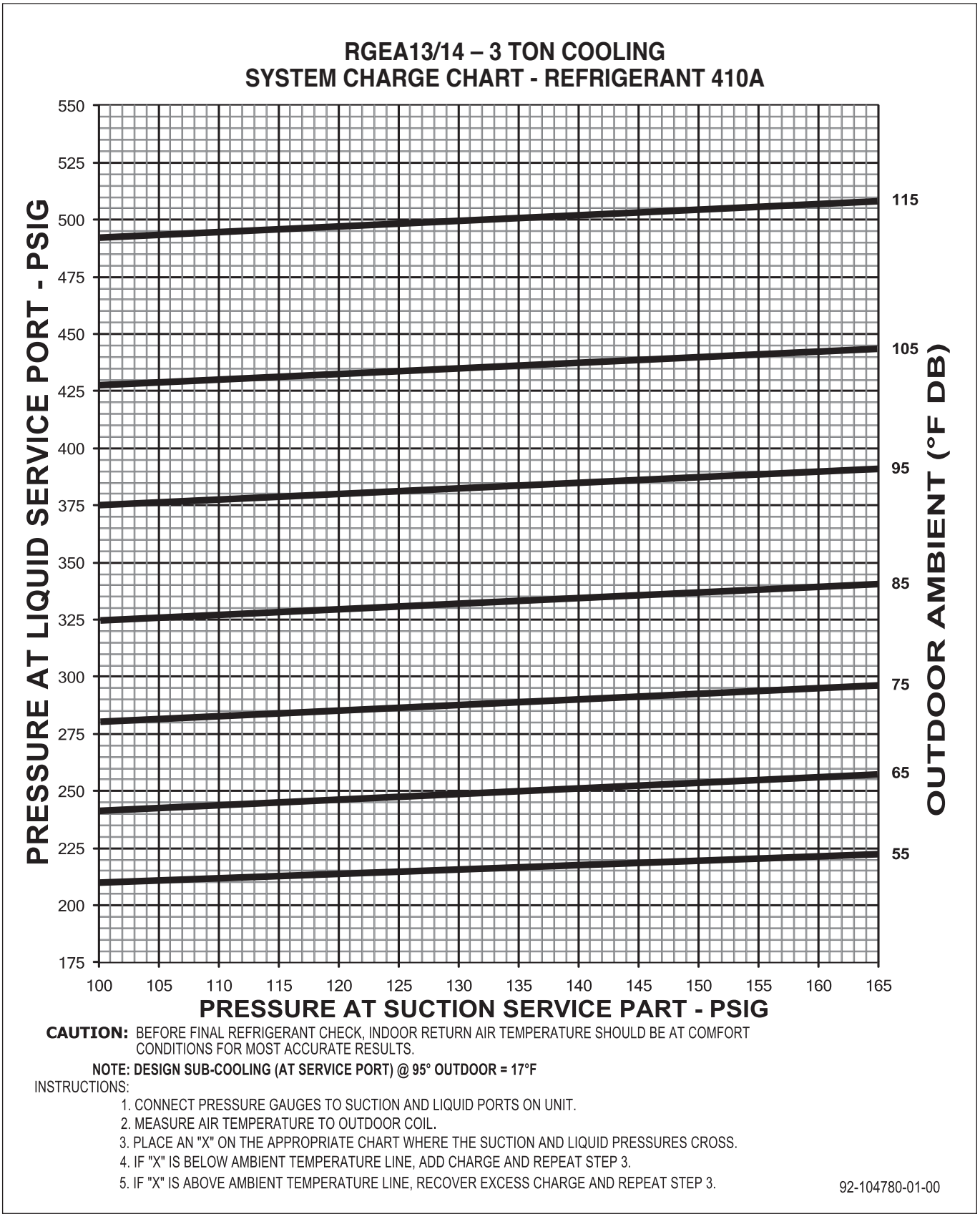
NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-03-00

FIGURE 46
SYSTEM CHARGE CHARTS



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

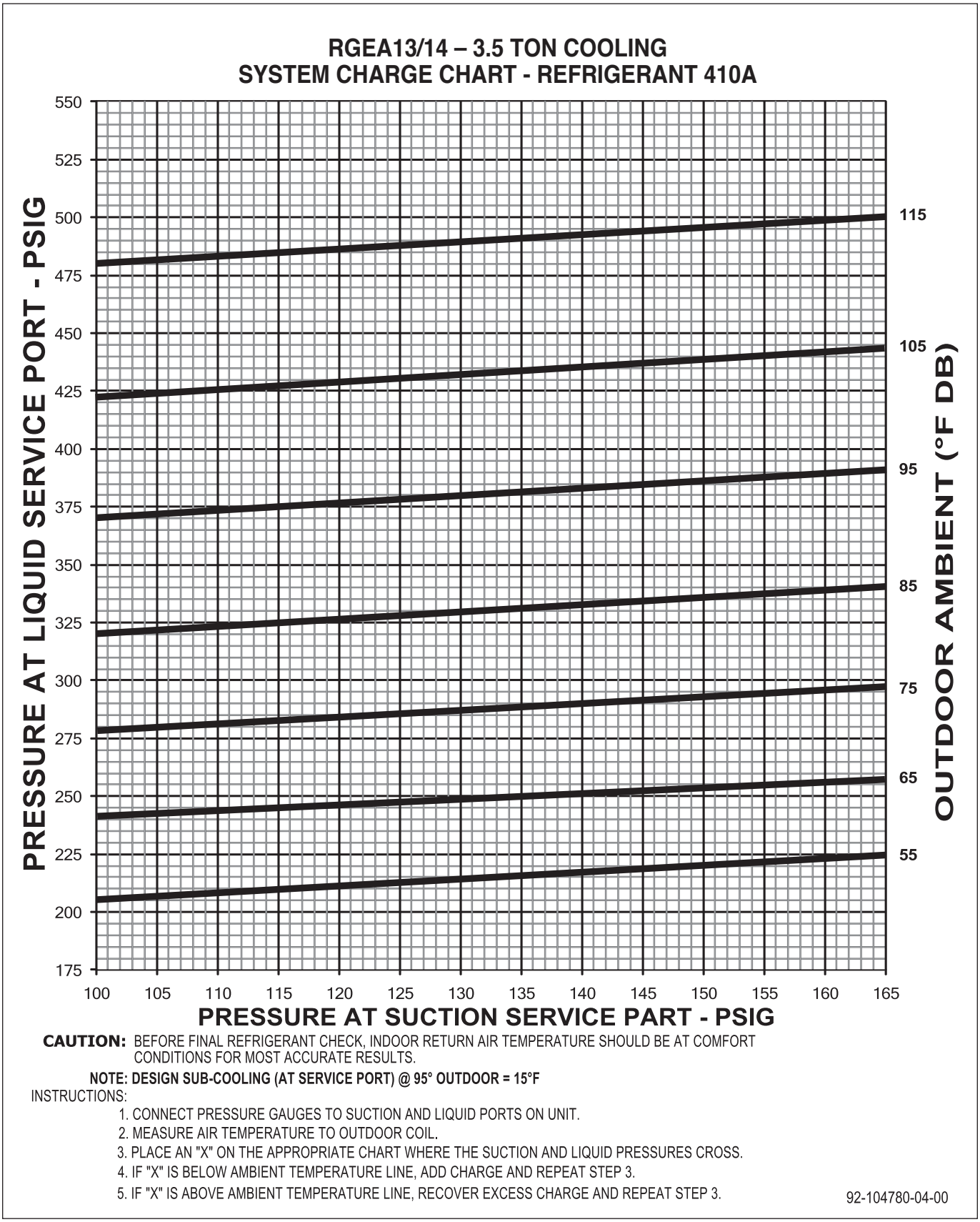
NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 17°F

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-01-00

FIGURE 47
SYSTEM CHARGE CHARTS



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

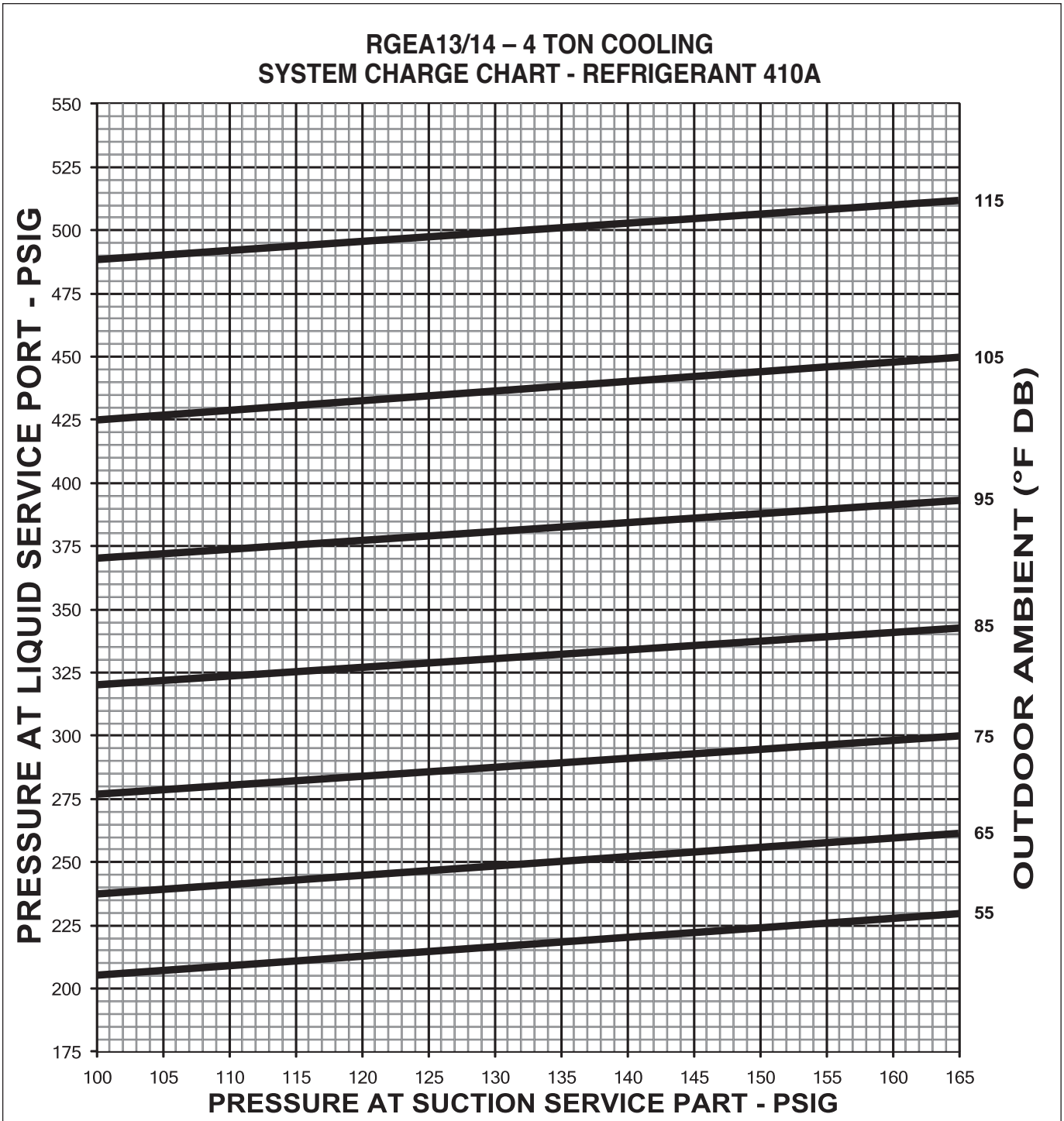
NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 15°F

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-04-00

FIGURE 48
SYSTEM CHARGE CHARTS



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-05-00

FIGURE 49
SYSTEM CHARGE CHARTS

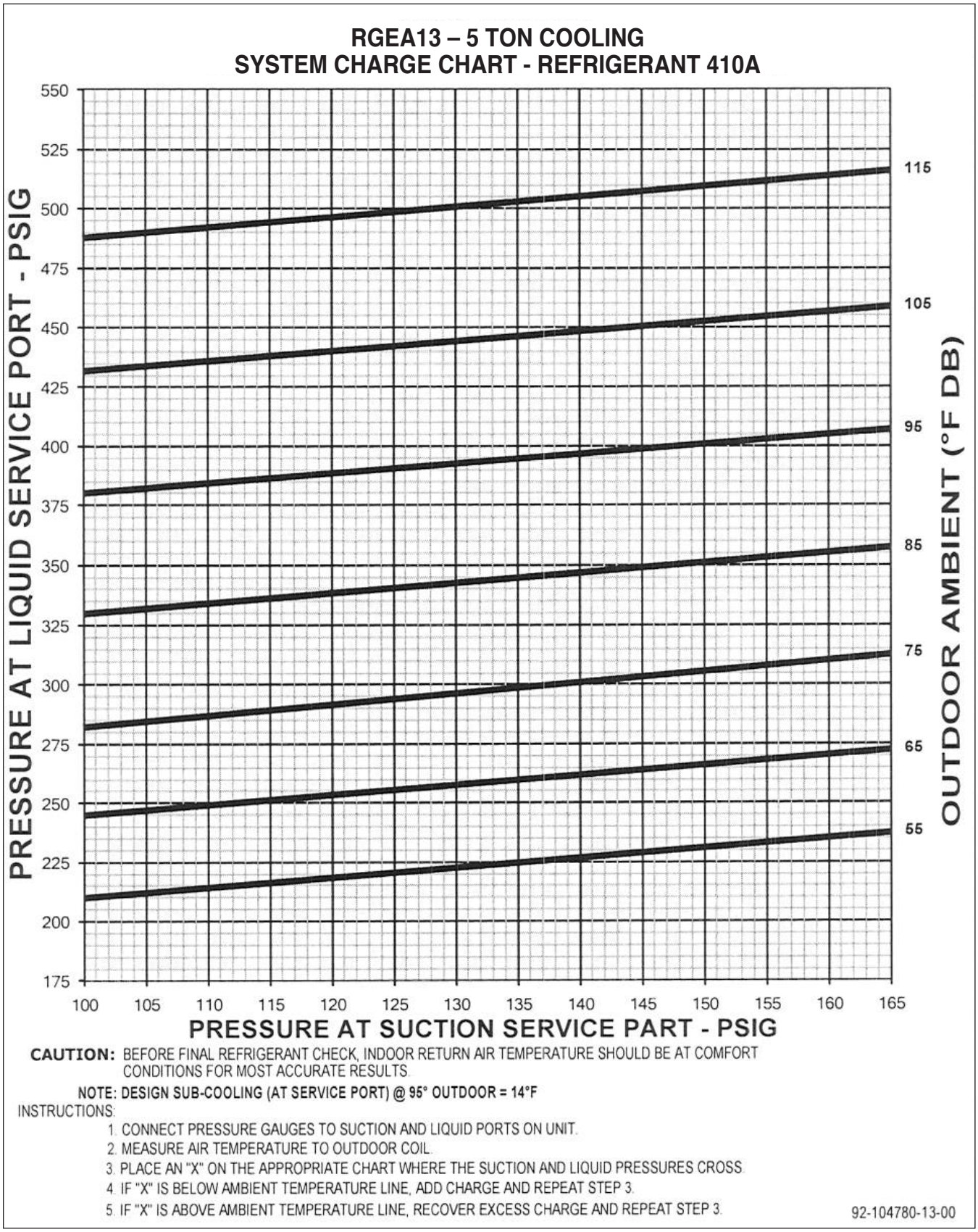
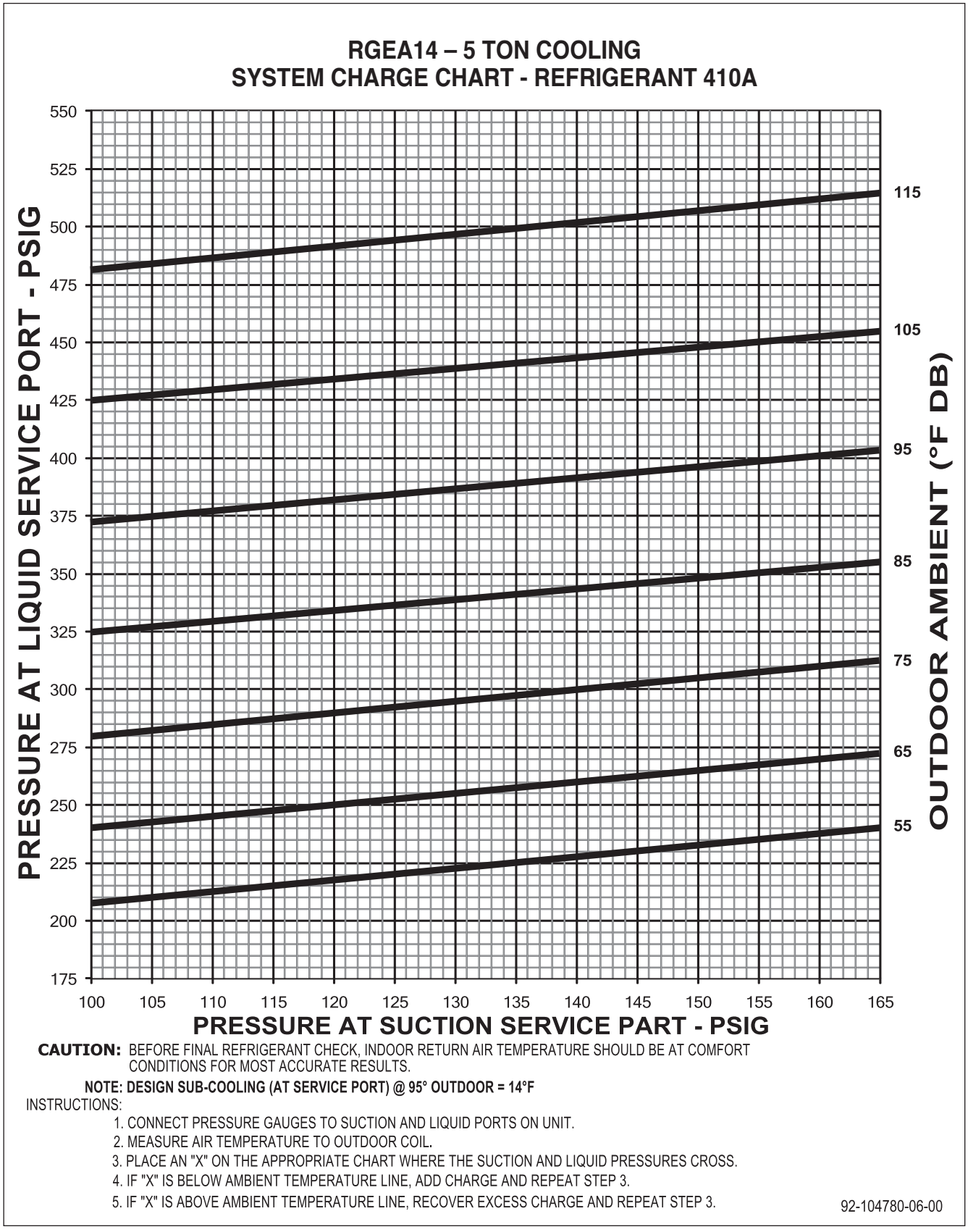


FIGURE 50
SYSTEM CHARGE CHARTS



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 14°F

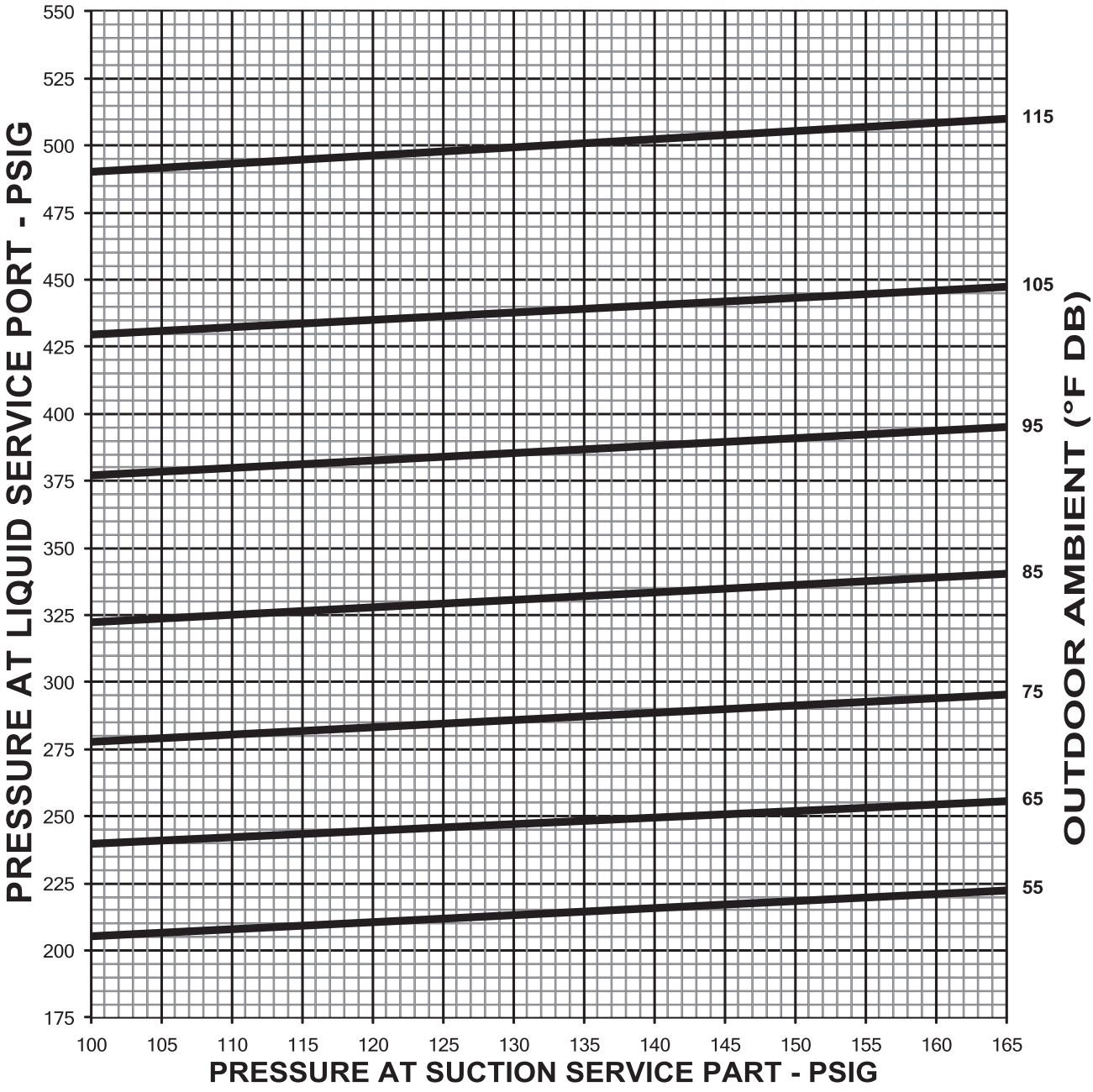
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-06-00

FIGURE 51
SYSTEM CHARGE CHARTS

RGEA15 – 2 TON COOLING
SYSTEM CHARGE CHART - REFRIGERANT 410A



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

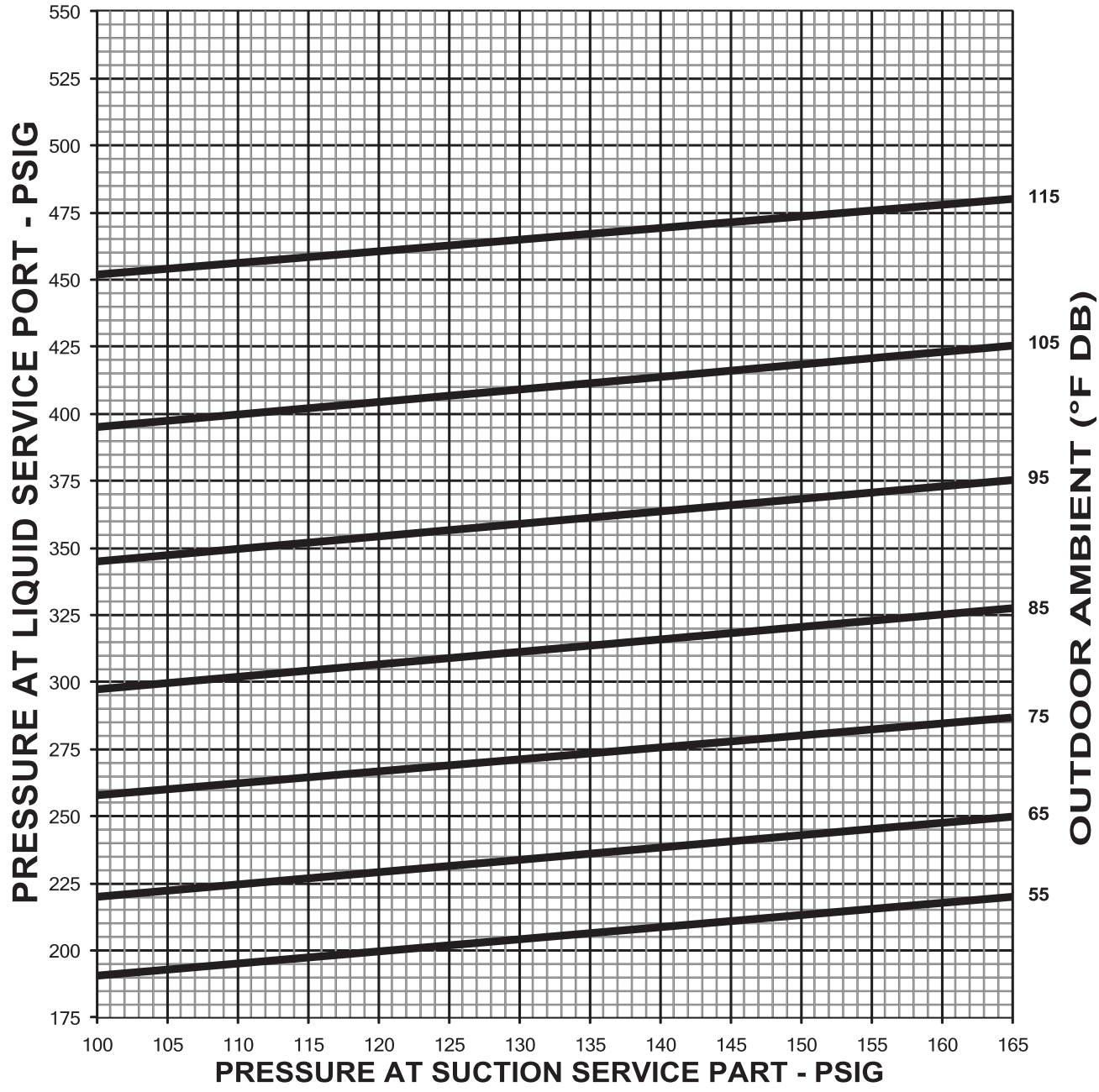
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-08-00

FIGURE 52
SYSTEM CHARGE CHARTS

RGEA15 – 2.5 TON COOLING
SYSTEM CHARGE CHART - REFRIGERANT 410A



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

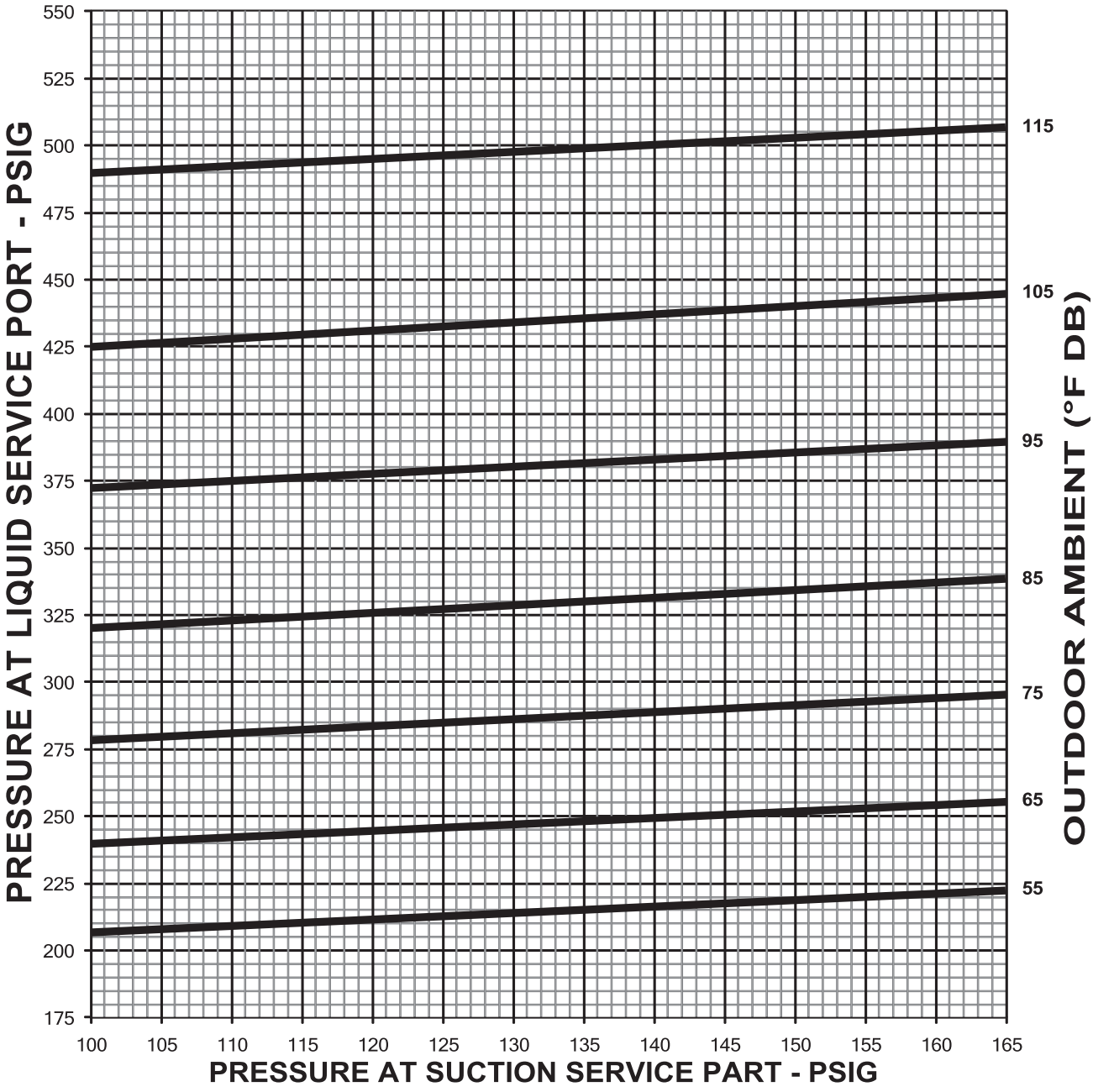
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-09-00

FIGURE 53
SYSTEM CHARGE CHARTS

RGEA15 – 3 TON COOLING
SYSTEM CHARGE CHART - REFRIGERANT 410A



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

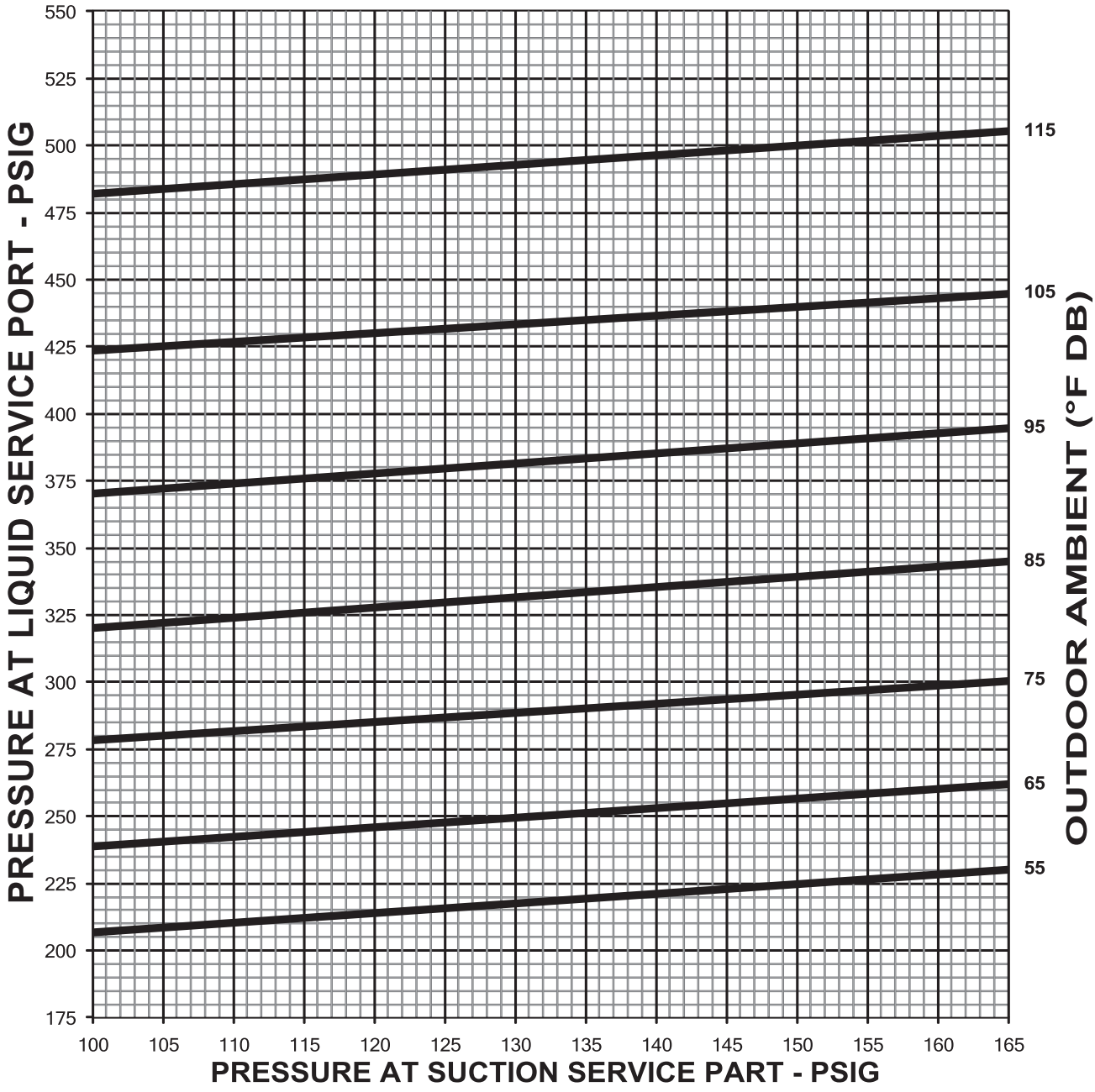
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-10-00

FIGURE 54
SYSTEM CHARGE CHARTS

RGEA15 – 3.5 TON COOLING
SYSTEM CHARGE CHART - REFRIGERANT 410A



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

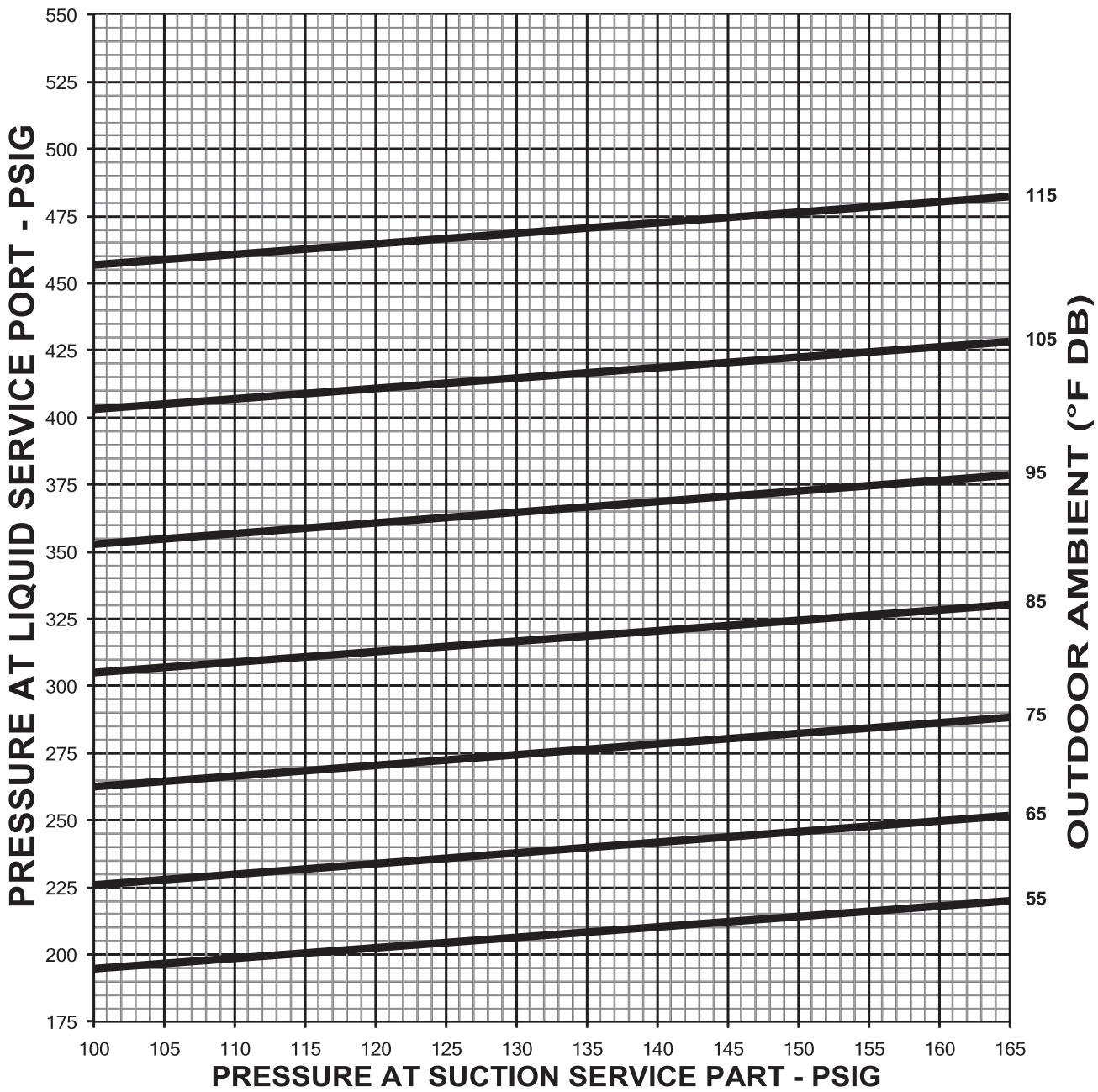
NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-11-00

FIGURE 55
SYSTEM CHARGE CHARTS



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

NOTE: DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

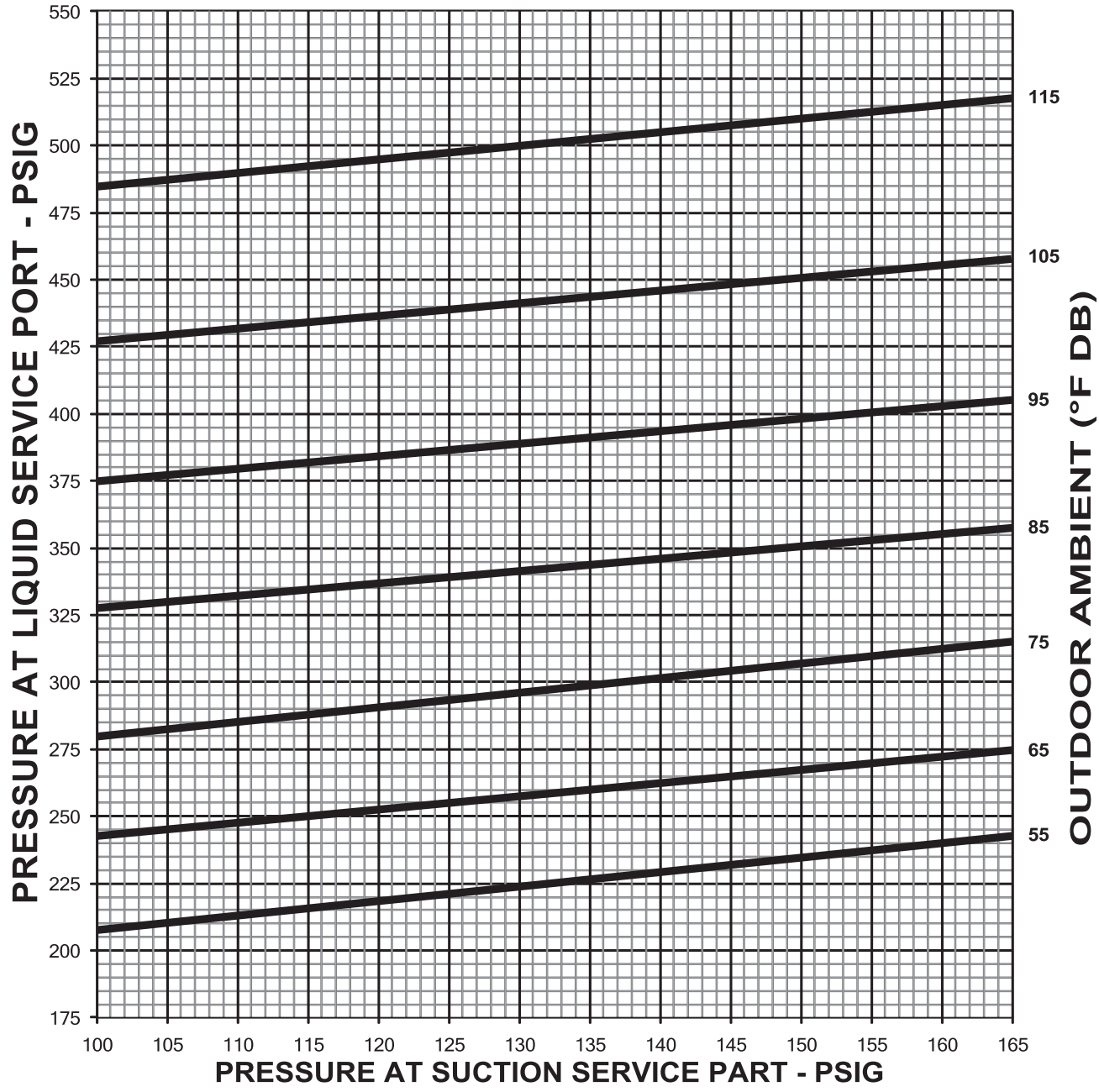
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-12-00

FIGURE 56
SYSTEM CHARGE CHARTS

RGEA15 – 5 TON COOLING – 2nd (HIGH) STAGE
SYSTEM CHARGE CHART - REFRIGERANT 410A



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE SHOULD BE AT COMFORT CONDITIONS FOR MOST ACCURATE RESULTS.

NOTE: UNIT MUST BE IN HIGH STAGE TO DETERMINE CHARGE LEVEL. DESIGN SUB-COOLING (AT SERVICE PORT) @ 95° OUTDOOR = 16°F

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND LIQUID PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO OUTDOOR COIL.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND LIQUID PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

92-104780-07-00

XVII. TROUBLESHOOTING

FIGURE 57

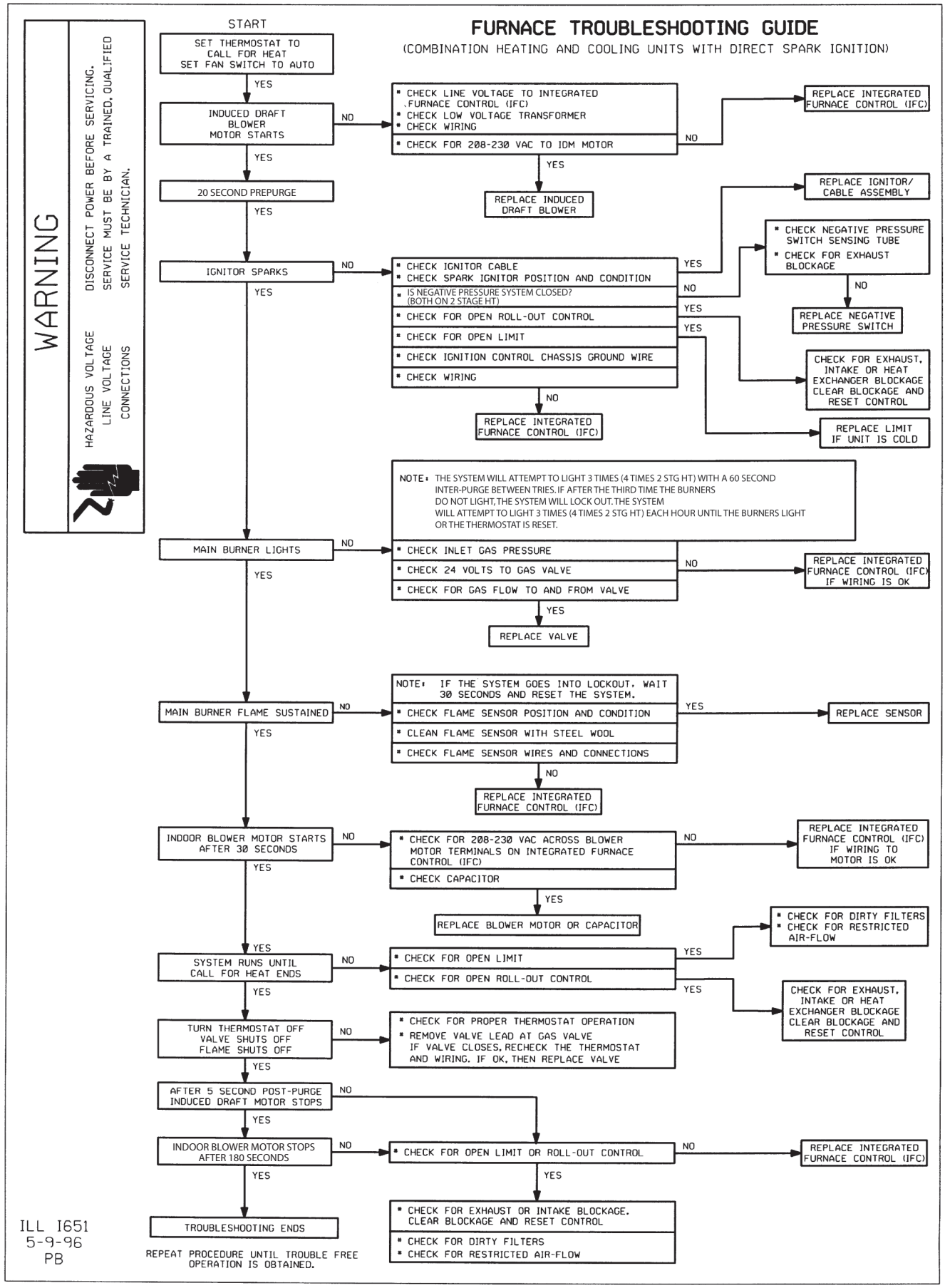
COOLING TROUBLESHOOTING CHART

⚠ WARNING

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

SYMPTOM	POSSIBLE CAUSE	REMEDY
Unit will not run	• 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 610 PSIG • Replace thermostat wiring
Condenser fan runs, compressor doesn't	• Run or start capacitor failed (single phase only) • Start relay defective 9single phase only) • Loose connection • Compressor stuck, grounded or open motor winding open internal overload. • Low voltage condition • Low voltage condition	• Replace • Replace • 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 ± 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
Circulating air blower & inducer run continuously, compressor will not start	• Manual reset overtemperature control • tripped • Wire loose in limit circuit	• Reset or replace • Check wiring

FIGURE 58


WARNING
HAZARDOUS VOLTAGE
LINE VOLTAGE
CONNECTIONS
DISCONNECT POWER BEFORE SERVICING.
SERVICE MUST BE BY A TRAINED, QUALIFIED
SERVICE TECHNICIAN.
START
SET THERMOSTAT TO CALL FOR HEAT SET FAN SWITCH TO AUTO
INDUCED DRAFT BLOWER MOTOR STARTS
20 SECOND PREPURGE
IGNITOR SPARKS
MAIN BURNER LIGHTS
MAIN BURNER FLAME SUSTAINED
INDOOR BLOWER MOTOR STARTS AFTER 30 SECONDS
SYSTEM RUNS UNTIL CALL FOR HEAT ENDS
TURN THERMOSTAT OFF VALVE SHUTS OFF FLAME SHUTS OFF
AFTER 5 SECOND POST-PURGE INDUCED DRAFT MOTOR STOPS
INDOOR BLOWER MOTOR STOPS AFTER 180 SECONDS
TROUBLESHOOTING ENDS
REPEAT PROCEDURE UNTIL TROUBLE FREE OPERATION IS OBTAINED.
FURNACE TROUBLESHOOTING GUIDE
(COMBINATION HEATING AND COOLING UNITS WITH DIRECT SPARK IGNITION)
* CHECK LINE VOLTAGE TO INTEGRATED FURNACE CONTROL (IFC)
* CHECK LOW VOLTAGE TRANSFORMER
* CHECK WIRING
* CHECK FOR 208-230 VAC TO IDM MOTOR
REPLACE INTEGRATED FURNACE CONTROL (IFC)
REPLACE INDUCED DRAFT BLOWER
REPLACE IGNITOR/ CABLE ASSEMBLY
* CHECK NEGATIVE PRESSURE SWITCH SENSING TUBE
* CHECK FOR EXHAUST BLOCKAGE
REPLACE NEGATIVE PRESSURE SWITCH
* CHECK IGNITOR CABLE
* CHECK SPARK IGNITOR POSITION AND CONDITION
* IS NEGATIVE PRESSURE SYSTEM CLOSED? (BOTH ON 2 STAGE HT)
* CHECK FOR OPEN ROLL-OUT CONTROL
* CHECK FOR OPEN LIMIT
* CHECK IGNITION CONTROL CHASSIS GROUND WIRE
* CHECK WIRING
CHECK FOR EXHAUST, INTAKE OR HEAT EXCHANGER BLOCKAGE CLEAR BLOCKAGE AND RESET CONTROL
REPLACE INTEGRATED FURNACE CONTROL (IFC)
REPLACE LIMIT IF UNIT IS COLD
NOTE: THE SYSTEM WILL ATTEMPT TO LIGHT 3 TIMES (4 TIMES 2 STG HT) WITH A 60 SECOND INTER-PURGE BETWEEN TRIES. IF AFTER THE THIRD TIME THE BURNERS DO NOT LIGHT, THE SYSTEM WILL LOCK OUT. THE SYSTEM WILL ATTEMPT TO LIGHT 3 TIMES (4 TIMES 2 STG HT) EACH HOUR UNTIL THE BURNERS LIGHT OR THE THERMOSTAT IS RESET.
* CHECK INLET GAS PRESSURE
* CHECK 24 VOLTS TO GAS VALVE
* CHECK FOR GAS FLOW TO AND FROM VALVE
REPLACE INTEGRATED FURNACE CONTROL (IFC) IF WIRING IS OK
REPLACE VALVE
NOTE: IF THE SYSTEM GOES INTO LOCKOUT, WAIT 30 SECONDS AND RESET THE SYSTEM.
* CHECK FLAME SENSOR POSITION AND CONDITION
* CLEAN FLAME SENSOR WITH STEEL WOOL
* CHECK FLAME SENSOR WIRES AND CONNECTIONS
REPLACE SENSOR
REPLACE INTEGRATED FURNACE CONTROL (IFC)
* CHECK FOR 208-230 VAC ACROSS BLOWER MOTOR TERMINALS ON INTEGRATED FURNACE CONTROL (IFC)
* CHECK CAPACITOR
REPLACE INTEGRATED FURNACE CONTROL (IFC) IF WIRING TO MOTOR IS OK
REPLACE BLOWER MOTOR OR CAPACITOR
* CHECK FOR OPEN LIMIT
* CHECK FOR OPEN ROLL-OUT CONTROL
* CHECK FOR DIRTY FILTERS
* CHECK FOR RESTRICTED AIR-FLOW
CHECK FOR EXHAUST, INTAKE OR HEAT EXCHANGER BLOCKAGE CLEAR BLOCKAGE AND RESET CONTROL
* CHECK FOR PROPER THERMOSTAT OPERATION
* REMOVE VALVE LEAD AT GAS VALVE IF VALVE CLOSES, RECHECK THE THERMOSTAT AND WIRING. IF OK, THEN REPLACE VALVE
* CHECK FOR OPEN LIMIT OR ROLL-OUT CONTROL
REPLACE INTEGRATED FURNACE CONTROL (IFC)
* CHECK FOR EXHAUST OR INTAKE BLOCKAGE. CLEAR BLOCKAGE AND RESET CONTROL
* CHECK FOR DIRTY FILTERS
* CHECK FOR RESTRICTED AIR-FLOW
YES
NO
ILL I651
5-9-96
PB

XVIII. COMFORT ALERT DIAGNOSTIC CHART

FIGURE 59

SINGLE PHASE UNIT

Status LED	Status LED Description	Status LED Troubleshooting Information
Green "POWER"	Module has power	Supply voltage is present at module terminals
Red "TRIP"	Thermostat demand signal Y1 is present, but the compressor is not running	1. Compressor internal overload is open 2. Broken wire or connector is not making contact 3. Low pressure switch open, if present 4. Compressor contactor has failed open
Yellow "ALERT" Flash Code 1	**Long Run Time** Compressor is running extremely long run cycles	1. Low refrigerant charge 2. Evaporator blower is not running 3. Evaporator coil is frozen 4. Faulty TXV 5. Condenser coil is dirty 6. Liquid line restriction (filter drier blocked if present in system) 7. Thermostat is malfunctioning
Yellow "ALERT" Flash Code 2	**System Pressure Trip** Discharge or suction pressure out of limits or compressor overloaded	1. Condenser coil poor air circulation (dirty, blocked, damaged) 2. Condenser fan is not running 3. Return air duct has substantial leakage 4. If low pressure switch is present, check flash code (1) information
Yellow "ALERT" Flash Code 3	**Short Cycling** Compressor is running only briefly	1. High head pressure 2. Thermostat demand signal is intermittent 3. Time delay relay defective, if present 4. Hot gas sensor defective, if present
Yellow "ALERT" Flash Code 4	**Locked Rotor**	1. Run capacitor has failed 2. Low line voltage (contact utility if voltage at disconnect is low) 3. Excessive liquid refrigerant in compressor 4. Compressor bearings are seized
Yellow "ALERT" Flash Code 5	**Open Circuit**	1. Compressor contactor has failed open 2. High pressure switch is open, If present 3. Open circuit in compressor supply wiring or connections 4. Unusually long compressor protector reset time due to extreme ambient temperature 5. Compressor windings are damaged
Yellow "ALERT" Flash Code 6	**Open Start Circuit** Current only in run circuit	1. Run capacitor has failed 2. Open circuit in compressor start wiring or connections 3. Compressor start winding is damaged
Yellow "ALERT" Flash Code 7	**Open Run Circuit** Current only in start circuit	1. Open circuit in compressor run wiring or connections 2. Compressor run winding is damaged
Yellow "ALERT" Flash Code 8	**Welded Contactor** Compressor always runs	1. Compressor contactor has failed closed 2. Thermostat demand signal not connected to module
Yellow "ALERT" Flash Code 9	**Low Voltage** Control circuit < 17VAC	1. Control circuit transformer is overloaded 2. Low line voltage (contact utility if voltage at disconnect is low)

- *Flash Code number corresponds to a number of LED flashes, followed by a pause and then repeated.*
- *TRIP and ALERT LEDs flashing at same time means control circuit voltage is too low for operation.*
- *Reset ALERT Flash code by removing 24VAC power from module.*
- *Last ALERT Flash code is displayed for 1 minute after module is powered on.*

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FIGURE 60

3 PHASE UNIT

Status LED	Status LED Description	Status LED Troubleshooting Information
Green "POWER"	Module has power	Supply voltage is present at module terminals
Red "TRIP"	Thermostat demand signal Y1 is present, but the compressor is not running	1. Compressor internal overload is open 2. Broken wire or connector is not making contact 3. Low pressure switch open, if present 4. Compressor contactor has failed
Yellow "ALERT" LED on Solid	A short circuit or over-current condition exists on "P" terminal	A. Low refrigerant charge B. Evaportaor blower is not running C. Evaporator coil is frozen D. Faulty TXV E. Condenser coil is dirty F. Liquid line restriction (filter drier blocked, if present in system) G. Thermostat is malfunctioning
Yellow "ALERT" Flash Code 2	**System Pressure Trip** Discharge or suction pressure out of limits or compressor overloaded **"Lockout"**	1. Condenser coil poor air circulation (dirty, blocked, damaged) 2. Condenser fan is not running 3. Return air duct has substantial leakage 4. If low pressure switch is present: A. Low refrigerant charge B. Evaportaor blower is not running C. Evaporator coil is frozen D. Faulty TXV E. Condenser coil is dirty F. Liquid line restriction (filter drier blocked, if present in system) G. Thermostat is malfunctioning
Yellow "ALERT" Flash Code 3	**Short Cycling** Compressor is running only briefly **"Lockout"**	1. High head pressure 2. Thermostat demand signal is intermittent 3. Time delay relay defective, if present 4. Hot gas sensor defective, if present
Yellow "ALERT" Flash Code 4	**Locked Rotor** **"Lockout"**	1. Low line voltage (contact utility if voltage at disconnect is low) 2. Excessive liquid refrigerant in compressor 3. Compressor bearings are seized
Yellow "ALERT" Flash Code 5	**Open Circuit**	1. Compressor contactor has failed open 2. High pressure switch is open, if present 3. Open circuit in compressor supply wiring or connections 4. Unusually long compressor protector reset time due to extreme ambient temperature 5. Compressor windings are damaged
Yellow "ALERT" Flash Code 6	**Missing Phase** **"Lockout"**	1. Broken wire or connector on one phase 2. Compressor motor winding is damaged 3. Utility supply has dropped one phase
Yellow "ALERT" Flash Code 7	**Reverse Phase** **"Lockout"**	1. Compressor running backwards due to supply phase reversal
Yellow "ALERT" Flash Code 8	**Welded Contactor** Compressor always runs	1. Compressor contactor has failed closed 2. Thermostat demand signal not connected to module
Yellow "ALERT" Flash Code 9	**Low Voltage** Control circuit < 18VAC	1. Control circuit transformer is overloaded 2. Low line voltage (contact utility if voltage at disconnect is low)

- *Flash Code number corresponds to a number of LED flashes, followed by a pause and then repeated.*
- *TRIP and ALERT LEDs flashing at same time means control circuit voltage is too low for operation.*
- *Reset ALERT Flash code by removing 24VAC power from module.*
- *Last ALERT Flash code is displayed for 1 minute after module is powered on.*

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