

INSTALLATION INSTRUCTIONS

PACKAGE HEAT PUMPS FEATURING

INDUSTRY STANDARD R-410A

REFRIGERANT ~~R-410A~~

RQRM 15/16 SEER SERIES – (2 - 5 TONS)

RQPM 14 SEER SERIES – (2 - 5 TONS)

RQNM 13 SEER SERIES – (2 - 5 TONS)



RECOGNIZE THIS SYMBOL AS AN INDICATION OF IMPORTANT SAFETY INFORMATION!

▲ WARNING

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



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

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► Installation instructions are updated on a regular basis. This is done as product changes occur or if new information becomes available. In this publication, an arrow (►) denotes changes from the previous edition or additional new material.

I. SAFETY INFORMATION

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WARNING

PROPOSITION 65: THIS APPLIANCE CONTAINS FIBERGLASS INSULATION. RESPIRABLE PARTICLES OF FIBERGLASS ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

WARNING

THE MANUFACTURER'S WARRANTY DOES NOT COVER ANY DAMAGE OR DEFECT TO THE HEAT PUMP 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 HEAT PUMP. YOU SHOULD BE AWARE THAT THE USE OF UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES MAY ADVERSELY AFFECT THE OPERATION OF THE HEAT PUMP AND MAY ALSO ENDANGER LIFE AND PROPERTY. THE MANUFACTURER DISCLAIMS ANY RESPONSIBILITY FOR SUCH LOSS OR INJURY RESULTING FROM THE USE OF SUCH UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES.

WARNING

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

WARNING

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

WARNING

TURN OFF ELECTRIC POWER AT THE FUSE BOX OR SERVICE PANEL BEFORE MAKING ANY ELECTRICAL CONNECTIONS.
ALSO, THE GROUND CONNECTION MUST BE COMPLETED BEFORE MAKING LINE VOLTAGE CONNECTIONS. FAILURE TO DO SO CAN RESULT IN ELECTRICAL SHOCK, SEVERE PERSONAL INJURY OR DEATH.

WARNING

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

WARNING

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

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II. INTRODUCTION

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

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

NOTE: A load calculation must be performed to properly determine the required heating and cooling for the structure. Also, the duct must be properly designed and installed for proper airflow. Existing ductwork must be inspected for proper size and sealed system. Proper airflow is necessary for both user comfort and equipment performance.

IMPORTANT: Proper application, installation and maintenance of this equipment is a must if consumers are to receive the full benefit for which they have paid.

A. R-410A REFRIGERANT

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

1. Specification of R-410A:

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

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

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

2. Quick Reference Guide For R-410A

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

3. Evaporator Coil / 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:

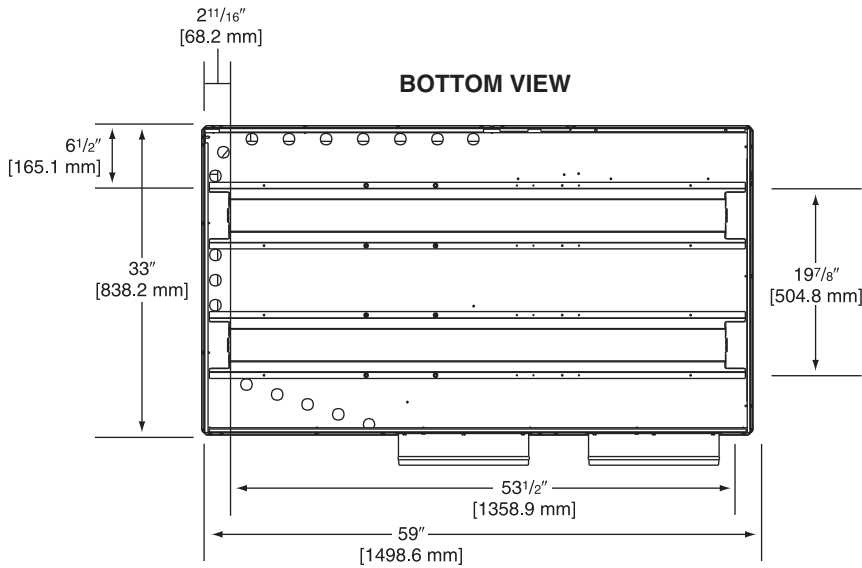
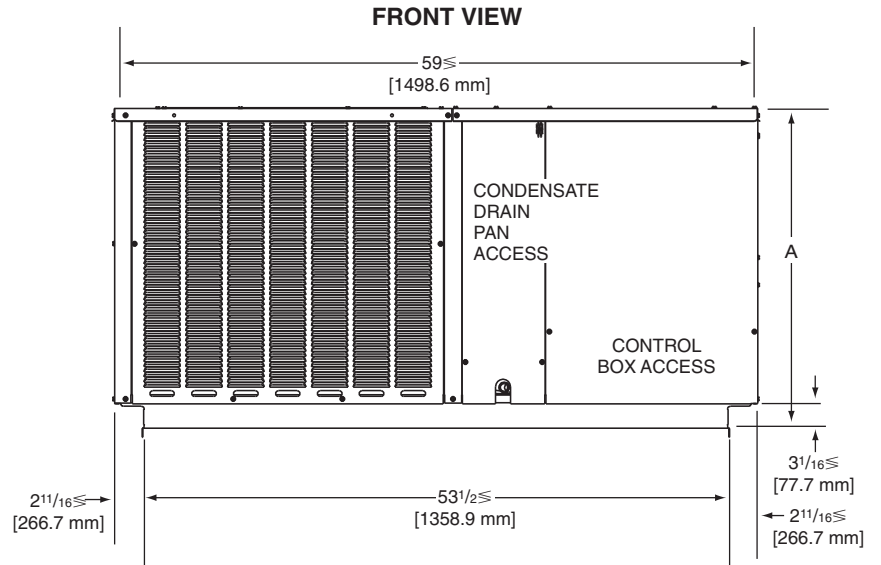
- 400 PSIG Pressure Rating
- Dept. of Transportation 4BA400 or BW400

CAUTION

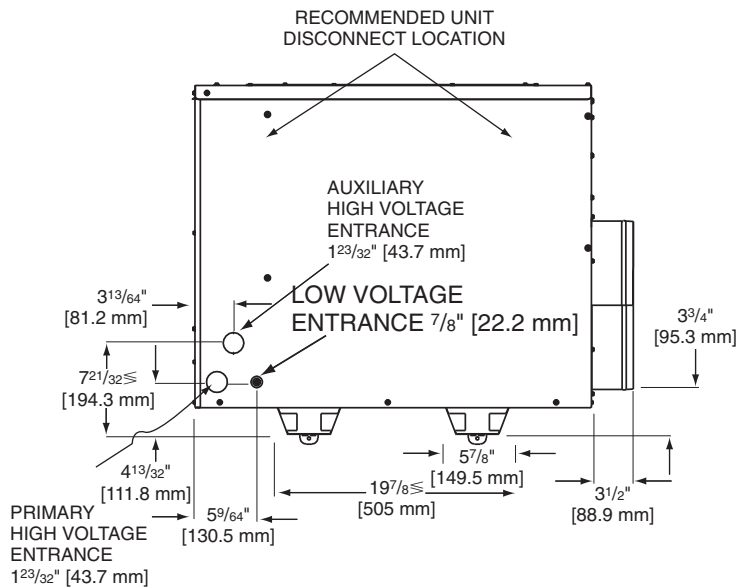
R-410A systems operate at higher pressures than R-22 systems. Do not use R-22 service equipment or components on R-410A equipment.

FIGURE 1
UNIT DIMENSIONS AND ACCESS LOCATIONS

| Model | Height "A" |
|--|------------|
| RQNM, RQPM: 024, 030 036 RQRM: 024 | 29 1/8" |
| RQNM, RQPM: 042, 048, 060 RQRM: 030, 036, 042, 048, 060 | 37 1/8" |

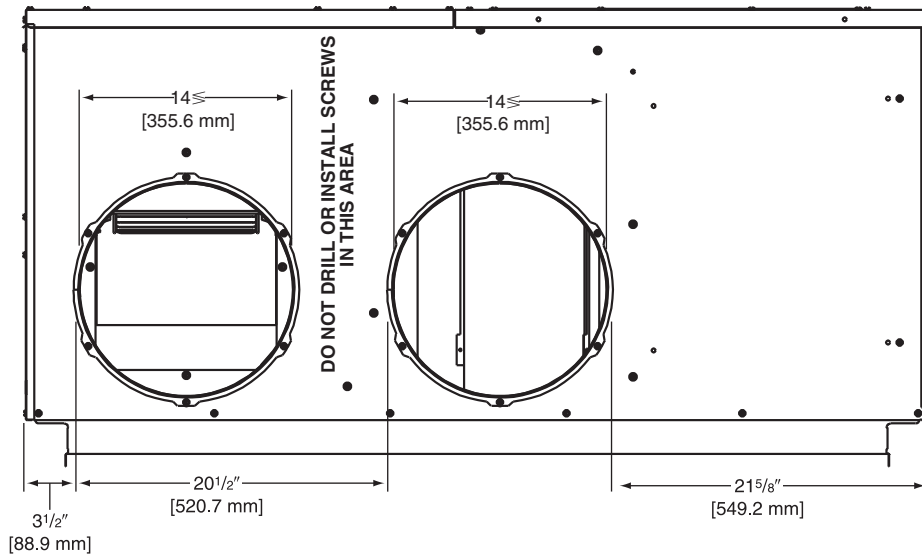


ELECTRICAL CONNECTIONS

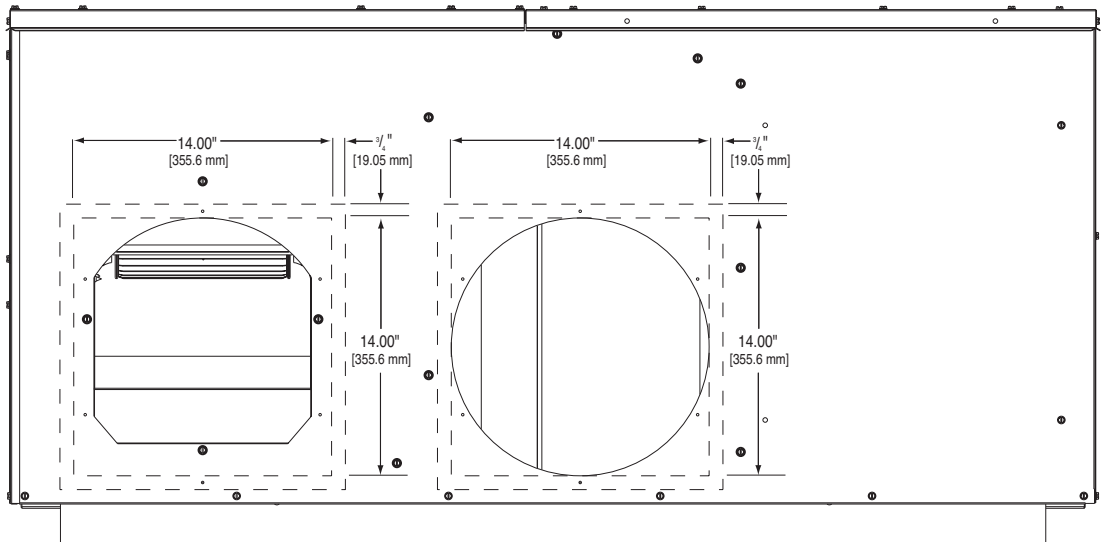


DUCT CONNECTIONS

ROUND DUCT CONNECTIONS



SQUARE DUCT CONNECTIONS



IMPORTANT: DO NOT SCREW OR DRILL OUTSIDE THE DESIGNATED AREAS.

III. CHECKING PRODUCT RECEIVED

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

IV. EQUIPMENT PROTECTION FROM THE ENVIRONMENT

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

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

1. Avoid having lawn sprinkler heads spray direction on the unit cabinet.
2. In coastal areas, locate the unit on the side of the building away from the waterfront.
3. Shielding provided by a fence or shrubs may give some protection.
4. Elevating the unit off its slab or base enough to allow air circulation will help avoid holding water against the basepan.

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

WARNING

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

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

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

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

V. SPECIFICATIONS

Suitable for use in mobile homes, manufactured housing, and conventionally constructed residential and commercial buildings where horizontally-ducted systems are preferred.

VI. INSTALLATION

A. GENERAL

1. PRE-INSTALLATION CHECK-POINTS

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

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

2. LOCATION

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

FIGURE 2

PACKAGED HEAT PUMP
OUTSIDE SLAB INSTALLATION, BASEMENT OR
CRAWL SPACE DISTRIBUTION SYSTEM

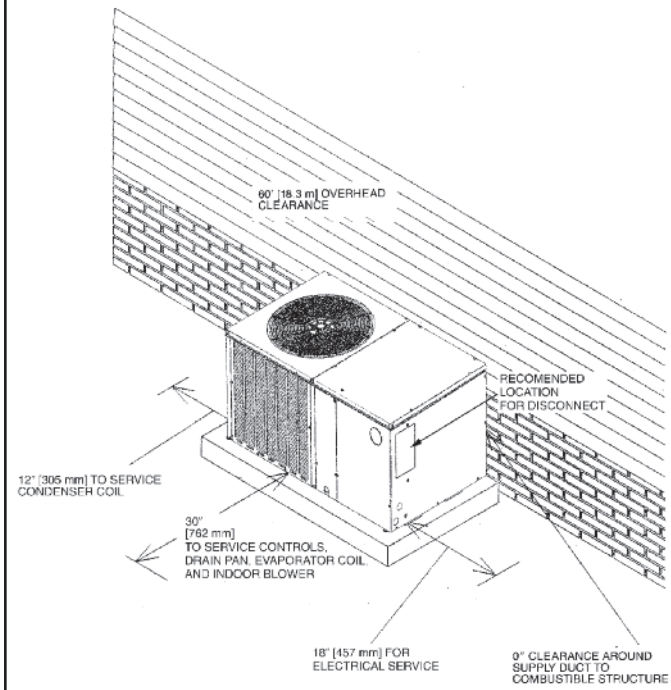
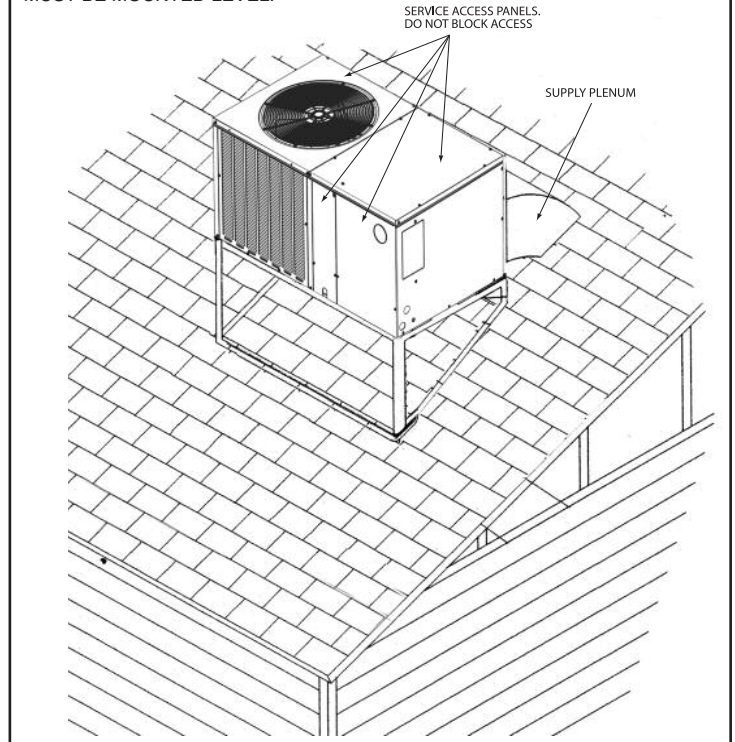


FIGURE 3

PACKAGED HEAT PUMP
PITCHED ROOFTOP INSTALLATION, ATTIC
OR DROP CEILING DISTRIBUTING SYSTEM.
MUST BE MOUNTED LEVEL.



B. OUTSIDE SLAB INSTALLATION

(Typical outdoor slab installations are shown in Figure 2.)

1. Select a location where external water drainage cannot collect around the unit.
2. Provide a level concrete slab extending 3" beyond all four sides of the unit. The slab should be sufficient above grade to prevent ground water from entering the unit.

IMPORTANT: To prevent transmission of noise or vibration, slab should not be connected to building structure.

3. The location of the unit should be such as to provide proper access for inspection and servicing.
4. Locate unit where operating sounds will not disturb owner or neighbors.
5. Locate unit so roof runoff water does not pour directly on the unit. Provide gutter or other shielding at roof level. Do not locate unit in an area where excessive snow drifting may occur or accumulate.
6. It is essential that the unit be elevated above the base pad to allow for condensate drainage and possible refreezing of condensation. Provide a base pad which is slightly pitched away from the structure. Route condensate off base pad to an area which will not become slippery and result in personal injury.

IMPORTANT: Avoid blocking openings in bottom of unit.

7. Where snowfall is anticipated, the height of the unit above the ground level must be considered. Mount unit high enough to be above average area snowfall and to allow for proper condensate drainage.

IMPORTANT: Avoid blocking openings in bottom of unit.

C. CLEARANCES

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

1. Provide 30" minimum clearance at the front and 18" on the right side of the unit for service access. Provide 12" minimum clearance on the left side of the unit for air inlet.
2. Provide 60" minimum clearance from top of unit.

3. Unit is design certified for application on combustible flooring with 0" minimum clearance.
4. See Figure 2 for illustration of minimum installation-service clearances.

D. ROOFTOP INSTALLATION

1. Before locating the unit on the roof, make sure that the strength of the roof and beams is adequate at that point to support the weight involved. (See specification sheet for weight of unit.) This is very important and user's responsibility.
2. The unit should be placed on a solid and level platform of adequate strength.

IMPORTANT: Avoid blocking openings in bottom of unit. (See Figure 3). Provision for disposal of outdoor coil defrost water runoff must be provided.

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, cover supply and return openings to prevent excessive condensation.

VII. DUCTWORK

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

WARNING

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

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

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

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

Provide balancing dampers for each branch duct in the supply system. Properly support the ductwork from the structure.

VIII. FILTERS

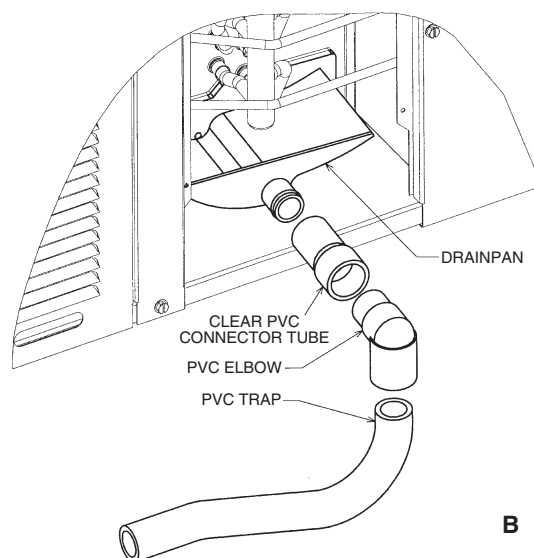
Filters are not provided with this unit. They must be supplied and installed in the return air duct by the installer. A field installed filter grille is recommended for easy and convenient access to the filters for periodic inspection and cleaning. Filters must have adequate face area for the rated air quantity of the unit. See General Database for recommended filter size.

IX. CONDENSATE DRAIN

The indoor coil condensate drain ends with a PVC stub. A trap is provided in for proper condensate drainage and to prevent debris from being drawn into the unit. Do not connect drain to closed sewer line. It is not recommended that a PVC cement or other permanent installation be used so that the drain line and/or drain pan can be easily cleaned in the future. The drain trap is located in the control box during shipping. To install, slide clear plastic tube over drain pan connection. The white PVC trap can be oriented as required by installation.

FIGURE 4
REMOVABLE CONDENSATE
DRAIN PAN AND REMOVAL
PROCEDURE

A small side panel grants access to a removable, sloped drain pan (A), which helps to ensure indoor air quality (IAQ) throughout the life of the unit. A drain trap (B) assembly is provided for convenience.



"Patent 7,430,877"

X. CONDENSATE DRAIN, OUTDOOR COIL

The outdoor coil during heating operation will sweat or run water off. The outdoor coil will also run water off during the defrost cycle. See Section V, Installation, for mounting precautions.

XI. ELECTRICAL WIRING

Field wiring must comply with the National Electrical Code* and applicable local codes.

*C.E.C. in Canada

A. POWER WIRING

1. 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 rating plate. On three phase units, phases must be balanced within 3%.
2. Install a branch circuit disconnect within sight of the unit and of adequate size to handle the starting current. (See Heater Kit Tables.)
3. For branch circuit wiring (main power supply to unit disconnect), the minimum wire size can be determined from the National Electrical Code or Canadian Electrical Code or nameplate or from Heater Kit Tables.
4. This unit supports both single and dual point electrical connection for unit and electric heat accessory.
5. Power wiring must be run in grounded rain-tight conduit.

B. POWER WIRING AND ELECTRIC HEATER KIT INSTRUCTIONS

1. Turn off power to unit.
2. Remove control box access panel.
3. Remove unit indoor section top cover.
4. Remove wire notch cover from control bulkhead and discard. Retain screw.
5. Remove heater element cover plate from blower outlet opening and discard. Retain screws.
6. Mount heater fuse block assembly in location indicated with the three included screws.
7. Route wire harness assembly through wire notch in control bulkhead and mount element assembly in blower outlet opening with screws previously retained.
8. Center wire routing plate over notch in blower bulkhead and secure with screw previously retained.
9. Route and tie wiring as shown in Figure 5. Wiring must not contact moving parts or uninsulated electrical connections.
10. Replace unit indoor top cover.
11. Connect power and control wiring as indicated below:
 - a. **Single-point wiring:** Connect high voltage field power leads to heater kit fuse block and connect included unit power pigtails from heater kit fuse block to unit

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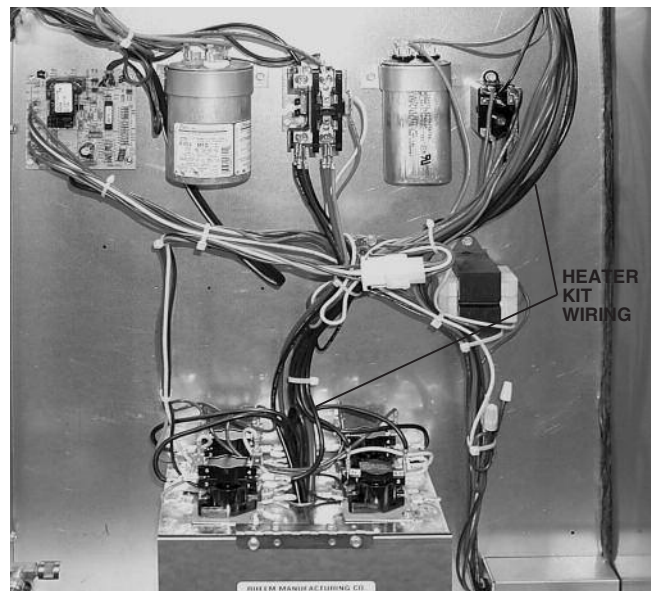
contactor L1 and L3 connections. Connect ground lead to ground lug on heater kit fuse block.

- b. **Dual-circuit wiring:** Remove unit power pigtailed from heater kit fuse block and discard. Connect one set of high voltage field power circuit leads to the heater kit fuse block and connect ground lead to ground lug on heater kit fuse block. Connect the second set of high voltage field power leads to L1 and L3 on the unit contactor. Connect ground lead to ground lug on control box bulkhead.
 - c. Connect heater kit control plug to receptacle in control box.
12. Replace control box access panel.
 13. Restore power to unit and verify proper unit and heater kit operation.

C. CONTROL WIRING (Class II)

1. Do not run low voltage wiring in conduit with power wiring.
2. Control wiring is routed through the 7/8" hole corner adjacent to the control box. See Electrical Connections, Figure 1. Use a minimum #18 AWG thermostat wire. For wire lengths exceeding 50', use #16 AWG thermostat wire. The low voltage wires are connected to the unit pigtailed which are supplied with the unit in the low voltage connection box located within the unit control box. See Figure 5.
3. It is necessary that only heat pump thermostats be used.
4. Figure 6 shows representative low voltage connection diagrams. Read your thermostat installation instructions for any special requirements for your specific thermostat.

FIGURE 5
HEATER KIT INSTALLATION



NOTE — Units installed in Canada require that an outdoor thermostat (30,000 min. cycles of endurance) be installed and be wired with C.E.C. Class I wiring.

D. INTERNAL WIRING

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

E. GROUNDING

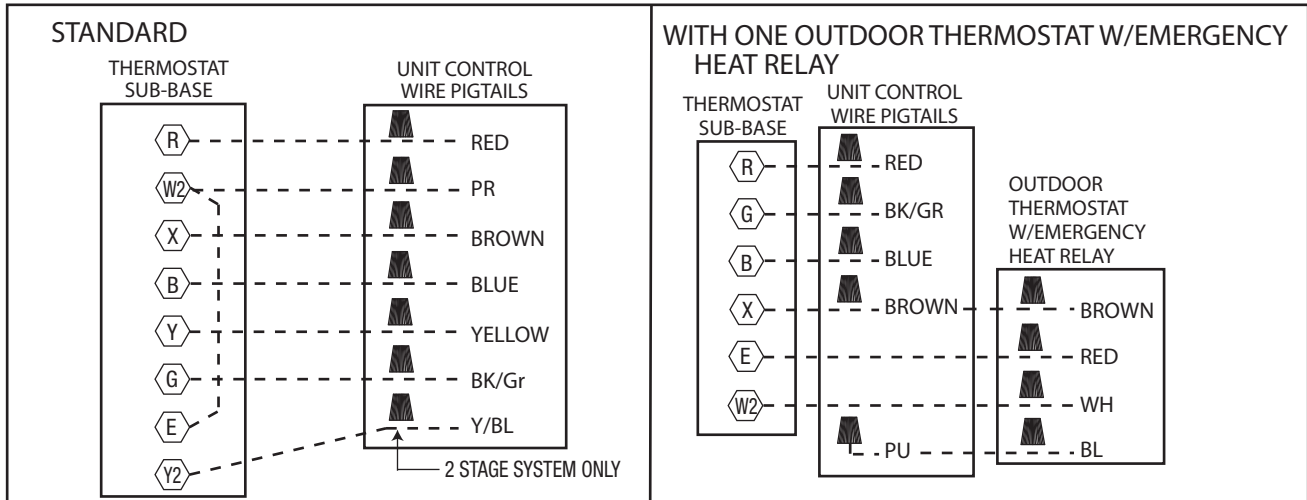
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F. THERMOSTAT

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

FIGURE 6
VOLTAGE CONNECTIONS DIAGRAM



IF EMERGENCY HEAT RELAY AND OUTDOOR THERMOSTATS ARE NOT USED, A JUMPER BETWEEN "W2" AND "E" CAN BE INSTALLED TO TRANSFER CONTROL OF HEATING TO THE FIRST STAGE WHEN THE SYSTEM SWITCH IS IN THE EMERGENCY HEAT POSITION.

XII. INDOOR AIR FLOW DATA

All 208/230 volt units are equipped with multi-speed indoor blower motors. Each unit is shipped factory wired for the proper speed at a normal external static. See Airflow Performance Table for blower performance.

XIII. PRE-START CHECK

1. Is unit properly located and level?
2. Is ductwork insulated, weatherproofed, with proper spacing to combustible materials?
3. Is air free to travel to and from outdoor coil? (See Figure 1.)
4. Is the wiring correct, tight, and according to unit wiring diagram?
5. Is unit grounded?
6. Are field supplied air filters in place and clean?
7. Do the outdoor fan and indoor blower turn freely without rubbing, and are they tight on the motor shafts?
8. Is unit elevated to allow for outdoor coil condensate drainage during heating operation and defrost?

XIV. STARTUP

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

7. Is compressor running correctly.
8. Turn thermostat system switch to "HEAT." Unit should stop. Wait 5 minutes, then raise temperature setting to above room temperature. Unit should run in heating mode and after about 30 to 50 seconds auxiliary heaters, if installed, should come on.
9. Check the refrigerant charge using the instructions located on control box cover. Replace service port caps. Service port cores are for system access only and will leak if not tightly capped.
- 10 Turn thermostat system switch to proper mode "HEAT" or "COOL" and set thermostat to proper temperature setting. Record the following after the unit has run some time.
 - A. Operating Mode _____
 - B. Discharge Pressure (High) _____ PSIG
 - C. Vapor Pressure at Compressor (Low) _____ PSIG
 - D. Vapor Line Temperature at Compressor _____ °F.
 - E. Indoor Dry Bulb _____ °F.
 - F. Indoor Wet Bulb _____ °F.
 - G. Outdoor Dry Bulb _____ °F.
 - H. Outdoor Wet Bulb _____ °F.
 - I. Voltage at Contactor _____ Volts
 - J. Current at Contactor _____ Amps
 - K. Model Number _____
 - L. Serial Number _____
 - M. Location _____
 - N. Owner _____
 - O. Date _____
11. Adjust discharge air grilles and balance system.
12. Check ducts for condensation and air leaks.
13. Check unit for tubing and sheet metal rattles.
14. Instruct the owner on operation and maintenance.
15. Leave "USE AND CARE" instructions with owner.

XV. OPERATION

Most single phase units are not equipped with start relay or start capacitor. It is important that such systems be off for a minimum of 5 minutes before restarting to allow equalization of pressures. Do not move the thermostat to cycle unit without waiting five minutes. To do so may cause the compressor to stop on an automatic open overload device or blow a fuse. Poor electrical service can cause nuisance tripping in overloads or blow fuses.

IMPORTANT: *The compressor has an internal overload protector. Under some conditions, it can take up to 2 hours for this overload to reset. Make sure overload has had time to reset before condemning the compressor.*

These units may be equipped with a time delay control (TDC1). The control allows the blower to operate for 45 to 90 seconds after the thermostat is satisfied.

XVI. AUXILIARY HEAT

The amount of auxiliary heat required depends on the heat loss of the structure to be heated and the capacity of the heat pump. It is good practice to install strip heat to maintain at least 60°F indoor temperatures in case of compressor failure. The auxiliary heat is energized by the first stage of the thermostat. The amount of electric heat that is allowed to come on, as determined by the output of the heat pump, may be controlled by an outdoor thermostat.

WARNING

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

A. CONTROL SYSTEM OPERATION

1. In the cooling mode, the thermostat will, on a call for cooling, energize the compressor contactor and the indoor blower relay. The indoor blower can be operated continuously by setting the thermostat fan switch at the "ON" position.

2. In the heating mode, the first heat stage of the thermostat will energize one or more supplementary resistance heaters. If required or considered desirable, the resistance heat may also be controlled by outdoor thermostats. In the heating mode, the thermostat will, on a call for heating, energize the indoor blower relay.

XVII. DEMAND DEFROST CONTROL AND HIGH/LOW PRESSURE CONTROLS

The demand defrost control is a printed circuit board assembly consisting of solid state control devices with electro-mechanical outputs. The demand defrost control monitors the outdoor ambient temperature, outdoor coil temperature, and the compressor run-time to determine when a defrost cycle is required.

Enhanced Feature Demand Defrost Control: Has high and low pressure control inputs with unique pressure switch logic built into the microprocessor to provide compressor and system protection without nuisance lock-outs. Cycles the compressor off for 30 seconds at the beginning and end of the defrost cycle to eliminate the increased compressor noise caused by rapidly changing system pressures when the reversing valve switches. See the end of this section for diagnostic flash codes for the two diagnostic LED's provided on the control.

DEFROST INITIATION

A defrost will be initiated when the three conditions below are satisfied:

- 1) The outdoor coil temperature is below 35°F.
- 2) The compressor has operated for at least 34 minutes with the outdoor coil temperature below 35°F.
- 3) The measured difference between the ambient temperature and the outdoor coil temperature is greater than the calculated delta T.

Additionally, a defrost will be initiated if six hours of accumulated compressor run-time has elapsed without a defrost with the outdoor coil temperature below 35°F.

DEFROST TERMINATION

Once a defrost is initiated, the defrost will continue until fourteen minutes has elapsed or the coil temperature has reached the terminate temperature. The terminate temperature is factory set at 70°F, although the temperature can be changed to 50°F, 60°F, 70°F or 80°F by relocating a jumper on the board.

TEMPERATURE SENSORS

The coil sensor is clipped to the outdoor coil. The air sensor is located in the outdoor coil compartment.

If the ambient sensor fails the defrost control will initiate a defrost every 34 minutes with the coil temperature below 35°F.

If the coil sensor fails the defrost control will not initiate a defrost.

TEST MODE

The test mode is initiated by shorting the TEST pins. In this mode of operation, the enable temperature is ignored and all timers are sped up by a factor of 240. To initiate a manual defrost, short the TEST pins. Remove the short when the system switches to defrost mode. The defrost will terminate on time (14 minutes) or when the termination temperature has been achieved. Short TEST pins again to terminate the defrost immediately.

TROUBLE SHOOTING DEMAND DEFROST

Set the indoor thermostat select switch to heat and initiate a call for heat.

Jumper the "test pins" to put the unit into defrost. If the unit goes into defrost and comes back out of defrost, the indication is that the control is working properly.

If the unit did not go into defrost using the test pins, check to ensure that 24V is being supplied to the control board. If 24V is present then replace the control.

HIGH/LOW PRESSURE CONTROL MONITORING - ENHANCED DEFROST CONTROL

Status of high and low pressure controls is monitored by the enhanced feature demand defrost control and the following actions are taken.

High Pressure Control – Provides active protection in both cooling and heating modes at all outdoor ambient temperatures. The high pressure control is an automatic reset type and opens at approximately 610 psig and closes at approximately 420 psig. The compressor and fan motor will stop when the high pressure control opens and will start again if the high side pressure drops to approximately 420 psig when the automatic reset high pressure control resets. If the high pressure control opens 3 times within a particular call for heating or cooling operation, the defrost control will lock out compressor and outdoor fan operation.

Low Pressure Control – Provides active protection in both heating and cooling modes at all outdoor ambient temperatures. The low pressure control is an automatic reset type and opens at approximately 15 psig and closes at approximately 40 psig. Operation is slightly different between cooling and heating modes.

Cooling Mode: The compressor and fan motor will stop when the low pressure control opens and will start again when the low side pressure rises to approximately 40 psig when the low pressure control automatically resets. If the low pressure switch opens 3 times within a particular call for cooling operation, the defrost control will lock out compressor and outdoor fan operation.

Heating Mode: The compressor and fan motor will stop when the low pressure control opens and will start again when the low side pressure rises to approximately 40 psig when the low pressure control automatically resets. If the low pressure switch trips 3 times within 120 minutes of operation during a particular call for heating operation, the defrost control will lock out compressor and outdoor fan operation. If the lock-out due to low pressure occurs at an outdoor ambient temperature below 5°F, the defrost control will automatically exit the lock-out mode when the outdoor ambient temperature rises to 5°F. This feature is necessary since the low pressure control could possibly have opened due to the outdoor ambient being very low rather than an actual system fault.

Exiting Lock-Out Mode: To exit the lock-out mode, remove 24 volts to the defrost control by removing power to indoor air-handler/furnace or by shorting the two defrost control test pins together.

ENHANCED FEATURE DEFROST CONTROL DIAGNOSTIC CODES

| LED 1 | LED 2 | Control Board Status |
|--------------------|-------|--|
| OFF | OFF | No Power |
| ON | ON | Coil Sensor Failure |
| OFF | ON | Ambient Sensor Failure |
| FLASH | FLASH | Normal |
| OFF | FLASH | Low Pressure Lockout (short test pins to reset) |
| FLASH | OFF | High Pressure Lockout (short test pins to reset) |
| ON | FLASH | Low Pressure Control Open |
| FLASH | ON | High Pressure Control Open |
| Alternate Flashing | | 5 Minute Time Delay |

XVIII. GENERAL DATA - RQRM

NOMINAL SIZES 2.5-4 TONS [8.7-13.6 kW]

| Model RQRM- Series | A024JK | A030JK | A036JK | A042JK |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Cooling Performance¹ | | | | Continued -> |
| Gross Cooling Capacity Btu [kW] | 24,400 [7.15] | 29,600 [8.67] | 35,000 [10.25] | 43,000 [12.6] |
| EER, SEER ² | 13/16 | 13/16 | 13/16 | 13/16 |
| Nominal CFM/AHRI Rated CFM [L/s] | 800/900 [378/425] | 1000/1000 [472/472] | 1200/1200 [566/566] | 1400/1425 [661/672] |
| AHRI Net Cooling Capacity Btu [kW] | 24,000 [7.03] | 29,200 [8.56] | 34,400 [10.08] | 42,000 [12.31] |
| Net Sensible Capacity Btu [kW] | 20,000 [5.86] | 23,050 [6.75] | 27,000 [7.91] | 32,200 [9.43] |
| Net Latent Capacity Btu [kW] | 4,000 [1.17] | 6,150 [1.8] | 7,400 [2.17] | 9,800 [2.87] |
| Net System Power kW | 1.85 | 2.13 | 2.58 | 3.14 |
| Heating Performance [Heat Pumps] | | | | |
| High Temp. Btuh [kW] Rating | 23,800 [6.97] | 28,800 [8.44] | 33,200 [9.73] | 39,500 [11.57] |
| System Power KW / COP | 1.79/3.9 | 2.11/4 | 2.63/3.7 | 2.89/4 |
| Low Temp. Btuh [kW] Rating | 11,700 [3.43] | 16,000 [4.69] | 18,600 [5.45] | 22,400 [6.56] |
| System Power KW / COP | 1.65/2.08 | 1.95/2.4 | 2.37/2.3 | 2.75/2.4 |
| HSPF (Btu/Watts-hr) | 8 | 8 | 8 | 8.5 |
| Compressor | | | | |
| No./Type | 1/Scroll | 1/Scroll | 1/Scroll | 1/Scroll |
| Outdoor Sound Rating (dB)⁵ | 76 | 76 | 76 | 78 |
| Outdoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] OD | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 12.12 [1.13] | 16.54 [1.54] | 16.54 [1.54] | 16.54 [1.54] |
| Rows / FPI [FPcm] | 2 / 18 [7] | 2 / 18 [7] | 2 / 18 [7] | 2 / 18 [7] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Indoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 4.33 [0.4] | 5.78 [0.54] | 5.78 [0.54] | 5.78 [0.54] |
| Rows / FPI [FPcm] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] | 4 / 13 [5] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Drain Connection No./Size in. [mm] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | Propeller | Propeller | Propeller | Propeller |
| No. Used/Diameter in. [mm] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| CFM [L/s] | 3200 [1510] | 3200 [1510] | 3200 [1510] | 4200 [1982] |
| 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 | 825 | 825 | 825 | 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] | 1/11x9 [279x229] |
| Drive Type/No. Speeds | Direct/2 | Direct/2 | Direct/2 | Direct/2 |
| No. Motors | 1 | 1 | 1 | 1 |
| Motor HP | 1/2 | 1/2 | 1/2 | 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)1x20x16 [25x508x406] | (1)1x20x20 [25x508x508] | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] |
| Refrigerant Charge Oz. [g] | 176 [4990] | 203 [5755] | 194 [5500] | 206 [5840] |
| Weights | | | | |
| Net Weight lbs. [kg] | 385 [175] | 429 [195] | 429 [195] | 479 [217] |
| Ship Weight lbs. [kg] | 409 [186] | 455 [206] | 455 [206] | 505 [229] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQRM

NOMINAL SIZES 2.5-4 TONS [8.7-13.6 kW]

| Model RQRM- Series | A048JK |
|--|-------------------------|
| Cooling Performance¹ | |
| Gross Cooling Capacity Btu [kW] | 46,500 [13.62] |
| EER, SEER ² | 13/16 |
| Nominal CFM/AHRI Rated CFM [L/s] | 1600/1525 [755/720] |
| AHRI Net Cooling Capacity Btu [kW] | 45,500 [13.33] |
| Net Sensible Capacity Btu [kW] | 34,700 [10.17] |
| Net Latent Capacity Btu [kW] | 10,800 [3.16] |
| Net System Power kW | 3.45 |
| Heating Performance [Heat Pumps] | |
| High Temp. Btuh [kW] Rating | 43,500 [12.75] |
| System Power KW / COP | 3.19/4 |
| Low Temp. Btuh [kW] Rating | 23,800 [6.97] |
| System Power KW / COP | 2.79/2.5 |
| HSPF (Btu/Watts-hr) | 8.5 |
| Compressor | |
| No./Type | 1/Scroll1/Scroll |
| Outdoor Sound Rating (dB)⁵ | |
| | 78 |
| Outdoor Coil - Fin Type | |
| Tube Type | Louvered |
| Tube Size in. [mm] OD | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 16.54 [1.54] |
| Refrigerant Control | 2 / 18 [7] |
| | TX Valves |
| Indoor Coil - Fin Type | |
| Tube Type | Louvered |
| Tube Size in. [mm] | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 5.78 [0.54] |
| Refrigerant Control | 4 / 13 [5] |
| Drain Connection No./Size in. [mm] | TX Valves |
| | 1/1 [25.4] |
| Outdoor Fan - Type | |
| No. Used/Diameter in. [mm] | Propeller |
| Drive Type/No. Speeds | 1/24 [609.6] |
| CFM [L/s] | Direct/1 |
| No. Motors/HP | 4200 [1982] |
| Motor RPM | 1 at 1/3 HP |
| | 1075 |
| Indoor Fan - Type | |
| No. Used/Diameter in. [mm] | FC Centrifugal |
| Drive Type/No. Speeds | 1/11x9 [279x229] |
| No. Motors | Direct/2 |
| Motor HP | 1 |
| Motor RPM | 3/4 |
| Motor Frame Size | 1050 |
| | 48 |
| Filter - Type | |
| Furnished | Field Supplied |
| (NO.) Size Recommended in. [mm x mm x mm] | No |
| | (1)1x24x24 [25x610x610] |
| Refrigerant Charge Oz. [g] | |
| | 216 [6124] |
| Weights | |
| Net Weight lbs. [kg] | 481 [218] |
| Ship Weight lbs. [kg] | 507 [230] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQRM

NOMINAL SIZES 2.5-4 TONS [8.7-13.6 kW]

| Model RQRM- Series | A060JK |
|--|---------------------------------|
| Cooling Performance¹ | |
| Gross Cooling Capacity (2nd Stage) Btu [kW] | 57,500 [16.85] |
| SEER ² | 15 |
| EER (1st stage / 2nd stage) | 12.6/12.0 |
| AHRI Rated CFM (1st / 2nd stage) [L/s] | 1400 [660] / 1700 [802] |
| AHRI Net Cooling Capacity (1st / 2nd stage) Btu [kW] | 40,900 [11.98] / 56,000 [16.41] |
| Net Sensible Capacity (1st / 2nd stage) Btu [kW] | 32,850 [9.62] / 41,450 [12.14] |
| Net Latent Capacity (1st / 2nd stage) Btu [kW] | 8,050 [2.35] / 14,550 [4.26] |
| Net System Power (1st / 2nd stage) kW | 3.24 / 4.63 |
| Heating Performance [Heat Pumps] | |
| High Temp. (1st / 2nd stage) Btuh [kW] Rating | 38,000 [11.13] / 54,800 [16.06] |
| System Power (1st stage / 2nd stage) COP | 3.68/3.82 |
| System Power (1st stage / 2nd stage) KW | 3.04/4.2 |
| Low Temp. (1st stage / 2nd stage) Btuh [kW] Rating | 20,800 [6.09] / 31,600 [9.26] |
| System Power (1st stage / 2nd stage) COP | 2.15/2.54 |
| System Power (1st stage / 2nd stage) KW | 2.86/3.65 |
| HSPF (Btu/Watts-hr) | 8.5 |
| Compressor | |
| No./Type | 1/Scroll |
| Outdoor Sound Rating (dB)⁵ | |
| 78 | |
| Outdoor Coil - Fin Type | |
| Tube Type | Louvered |
| Tube Size in. [mm] OD | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 16.54 [1.54] |
| Refrigerant Control | 2 / 18 [7] |
| Indoor Coil - Fin Type | |
| Tube Type | Louvered |
| Tube Size in. [mm] | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 5.78 [0.54] |
| Refrigerant Control | 4 / 13 [5] |
| Drain Connection No./Size in. [mm] | TX Valves |
| Outdoor Fan - Type | |
| No. Used/Diameter in. [mm] | Propeller |
| Drive Type/No. Speeds | 1/24 [609.6] |
| CFM [L/s] | Direct/1 |
| No. Motors/HP | 4200 [1982] |
| Motor RPM | 1 at 1/3 HP |
| Indoor Fan - Type | |
| No. Used/Diameter in. [mm] | 1075 |
| Drive Type/No. Speeds | FC Centrifugal |
| No. Motors | 1/11x9 [279x229] |
| Motor HP | Direct/2 |
| Motor RPM | 1 |
| Motor Frame Size | 1 |
| Filter - Type | |
| Furnished | 1050 |
| (NO.) Size Recommended in. [mm x mm x mm] | 48 |
| Refrigerant Charge Oz. [g] | |
| 202 [5727] | |
| Weights | |
| Net Weight lbs. [kg] | 482 [219] |
| Ship Weight lbs. [kg] | 508 [230] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQPM

NOMINAL SIZES 2-5 TONS [7-17.6 kW]

| Model RQPM- Series | A024JK | A030JK | A036CK | A036JK |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Cooling Performance¹ | | | | Continued -> |
| Gross Cooling Capacity Btu [kW] | 24,000 [7.03] | 29,400 [8.61] | 36,000 [10.55] | 36,000 [10.55] |
| EER, SEER ² | 12/14 | 12.05/14 | 11.6/14 | 11.6/14 |
| Nominal CFM/AHRI Rated CFM [L/s] | 800/800 [378/378] | 1000/1000 [472/472] | 1200/1200 [566/566] | 1200/1200 [566/566] |
| AHRI Net Cooling Capacity Btu [kW] | 23,600 [6.91] | 29,000 [8.5] | 35,400 [10.37] | 35,400 [10.37] |
| Net Sensible Capacity Btu [kW] | 18,400 [5.39] | 23,000 [6.74] | 27,600 [8.09] | 27,600 [8.09] |
| Net Latent Capacity Btu [kW] | 5,200 [1.52] | 6,000 [1.76] | 7,800 [2.29] | 7,800 [2.29] |
| Net System Power kW | 2 | 2.41 | 3.05 | 3.05 |
| Heating Performance [Heat Pumps] | | | | |
| High Temp. Btuh [kW] Rating | 23,200 [6.8] | 28,000 [8.2] | 34,200 [10.02] | 34,200 [10.02] |
| System Power KW / COP | 1.93/3.5 | 2.27/3.62 | 2.78/3.6 | 2.78/3.6 |
| Low Temp. Btuh [kW] Rating | 13,200 [3.87] | 15,200 [4.45] | 19,000 [5.57] | 19,000 [5.57] |
| System Power KW / COP | 1.71/2.26 | 2.01/2.22 | 2.48/2.24 | 2.48/2.24 |
| HSPF (Btu/Watts-hr) | 8 | 8 | 8 | 8 |
| Compressor | | | | |
| No./Type | 1/Copeland Scroll | 1/Copeland Scroll | 1/Copeland Scroll | 1/Copeland Scroll |
| Outdoor Sound Rating (dB)⁵ | 76 | 76 | 76 | 76 |
| Outdoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] OD | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 10.44 [0.97] | 12.65 [1.18] | 12.65 [1.18] | 12.65 [1.18] |
| 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 |
| Indoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 4.33 [0.4] | 4.33 [0.4] | 4.33 [0.4] | 4.33 [0.4] |
| Rows / FPI [FPcm] | 2 / 15 [6] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Drain Connection No./Size in. [mm] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | Propeller | Propeller | Propeller | Propeller |
| No. Used/Diameter in. [mm] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| CFM [L/s] | 3200 [1510] | 3200 [1510] | 3200 [1510] | 3200 [1510] |
| 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 | 825 | 825 | 825 | 825 |
| 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/No. Speeds | Direct/2 | Direct/2 | Direct/2 | Direct/2 |
| 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)1x20x16 [25x508x406] | (1)1x20x20 [25x508x508] | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] |
| Refrigerant Charge Oz. [g] | 90 [2552] | 93 [2637] | 93 [2637] | 93 [2637] |
| Weights | | | | |
| Net Weight lbs. [kg] | 308 [140] | 331 [150] | 356 [161] | 356 [161] |
| Ship Weight lbs. [kg] | 332 [151] | 355 [161] | 380 [172] | 380 [172] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQPM

NOMINAL SIZES 2-5 TONS [7-17.6 kW]

| Model RQPM- Series | A037CK | A037JK | A042CK | A042JK |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Cooling Performance¹ | | | | Continued -> |
| Gross Cooling Capacity Btu [kW] | 36,000 [10.55] | 36,000 [10.55] | 44,000 [12.89] | 44,000 [12.89] |
| EER, SEER ² | 12/14 | 12/14 | 11.85/14 | 11.85/14 |
| Nominal CFM/AHRI Rated CFM [L/s] | 1200/1200 [566/566] | 1200/1200 [566/566] | 1400/1450 [661/684] | 1400/1450 [661/684] |
| AHRI Net Cooling Capacity Btu [kW] | 35,400 [10.37] | 35,400 [10.37] | 43,000 [12.6] | 43,000 [12.6] |
| Net Sensible Capacity Btu [kW] | 27,600 [8.09] | 27,600 [8.09] | 31,800 [9.32] | 31,800 [9.32] |
| Net Latent Capacity Btu [kW] | 7,800 [2.29] | 7,800 [2.29] | 11,200 [3.28] | 11,200 [3.28] |
| Net System Power kW | 3.05 | 3.05 | 3.63 | 3.63 |
| Heating Performance [Heat Pumps] | | | | |
| High Temp. Btuh [kW] Rating | 34,200 [10.02] | 34,200 [10.02] | 38,500 [11.28] | 38,500 [11.28] |
| System Power KW / COP | 2.78/3.6 | 2.78/3.6 | 3.31/3.4 | 3.31/3.4 |
| Low Temp. Btuh [kW] Rating | 19,000 [5.57] | 19,000 [5.57] | 21,800 [6.39] | 21,800 [6.39] |
| System Power KW / COP | 2.48/2.24 | 2.48/2.24 | 3/2.06 | 3/2.06 |
| HSPF (Btu/Watts-hr) | 8 | 8 | 8 | 8 |
| Compressor | | | | |
| No./Type | 1/Scroll | 1/Scroll | 1/Copeland Scroll | 1/Copeland Scroll |
| Outdoor Sound Rating (dB)⁵ | 76 | 76 | 78 | 78 |
| Outdoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] OD | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 12.65 [1.18] | 12.65 [1.18] | 16.54 [1.54] | 16.54 [1.54] |
| Rows / FPI [FPcm] | 1 / 20 [8] | 1 / 20 [8] | 1 / 22 [9] | 1 / 22 [9] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Indoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 4.33 [0.4] | 4.33 [0.4] | 5.78 [0.54] | 5.78 [0.54] |
| Rows / FPI [FPcm] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Drain Connection No./Size in. [mm] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | Propeller | Propeller | Propeller | Propeller |
| No. Used/Diameter in. [mm] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| CFM [L/s] | 3200 [1510] | 3200 [1510] | 4200 [1982] | 4200 [1982] |
| 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 | 850 | 850 | 1075 | 1075 |
| Indoor Fan - Type | FC Centrifugal | FC Centrifugal | FC Centrifugal | FC Centrifugal |
| No. Used/Diameter in. [mm] | 1/10x9 [254x229] | 1/10x9 [254x229] | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] |
| Drive Type/No. Speeds | Direct/2 | Direct/2 | Direct/2 | Direct/2 |
| 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] | 93 [2637] | 93 [2637] | 128 [3629] | 128 [3629] |
| Weights | | | | |
| Net Weight lbs. [kg] | 356 [161] | 356 [161] | 408 [185] | 408 [185] |
| Ship Weight lbs. [kg] | 380 [172] | 380 [172] | 434 [197] | 434 [197] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQPM

NOMINAL SIZES 2-5 TONS [7-17.6 kW]

| Model RQPM- Series | A043CK | A043JK | A048CK | A048JK |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Cooling Performance¹ | | | | Continued -> |
| Gross Cooling Capacity Btu [kW] | 43,500 [12.75] | 43,500 [12.75] | 49,000 [14.36] | 49,000 [14.36] |
| EER, SEER ² | 12/14 | 12/14 | 11.8/14 | 11.8/14 |
| Nominal CFM/AHRI Rated CFM [L/s] | 1400/1425 [661/672] | 1400/1425 [661/672] | 1600/1550 [755/731] | 1600/1550 [755/731] |
| AHRI Net Cooling Capacity Btu [kW] | 42,500 [12.45] | 42,500 [12.45] | 48,000 [14.06] | 48,000 [14.06] |
| Net Sensible Capacity Btu [kW] | 32,500 [9.52] | 32,500 [9.52] | 36,800 [10.78] | 36,800 [10.78] |
| Net Latent Capacity Btu [kW] | 10,000 [2.93] | 10,000 [2.93] | 11,200 [3.28] | 11,200 [3.28] |
| Net System Power kW | 3.44 | 3.44 | 4 | 4 |
| Heating Performance [Heat Pumps] | | | | |
| High Temp. Btuh [kW] Rating | 40,000 [11.72] | 40,000 [11.72] | 42,000 [12.31] | 42,000 [12.31] |
| System Power KW / COP | 3.32/3.5 | 3.32/3.5 | 3.59/3.66 | 3.59/3.66 |
| Low Temp. Btuh [kW] Rating | 22,000 [6.45] | 22,000 [6.45] | 25,400 [7.44] | 25,400 [7.44] |
| System Power KW / COP | 3/2.14 | 3/2.14 | 3.22/2.3 | 3.22/2.3 |
| HSPF (Btu/Watts-hr) | 8 | 8 | 8 | 8 |
| Compressor | | | | |
| No./Type | 1/Scroll | 1/Scroll | 1/Scroll | 1/Scroll |
| Outdoor Sound Rating (dB)⁵ | | | | |
| | 78 | 78 | 78 | 78 |
| Outdoor Coil - Fin Type | | | | |
| Tube Type | Louvered | Louvered | Louvered | Louvered |
| Tube Size in. [mm] OD | Rifled | Rifled | Rifled | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 13.45 [1.25] | 13.45 [1.25] | 16.54 [1.54] | 16.54 [1.54] |
| Refrigerant Control | 2 / 18 [7] | 2 / 18 [7] | 1 / 22 [9] | 1 / 22 [9] |
| | TX Valves | TX Valves | TX Valves | TX Valves |
| Indoor Coil - Fin Type | | | | |
| Tube Type | Louvered | Louvered | Louvered | Louvered |
| Tube Size in. [mm] | Rifled | Rifled | Rifled | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 5.78 [0.54] | 5.78 [0.54] | 5.78 [0.54] | 5.78 [0.54] |
| Refrigerant Control | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] |
| Drain Connection No./Size in. [mm] | TX Valves | TX Valves | TX Valves | TX Valves |
| | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | | | | |
| No. Used/Diameter in. [mm] | Propeller | Propeller | Propeller | Propeller |
| Drive Type/No. Speeds | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] |
| CFM [L/s] | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| No. Motors/HP | 4200 [1982] | 4200 [1982] | 4200 [1982] | 4200 [1982] |
| Motor RPM | 1 at 1/3 HP | 1 at 1/3 HP | 1 at 1/3 HP | 1 at 1/3 HP |
| | 1075 | 1075 | 1075 | 1075 |
| Indoor Fan - Type | | | | |
| No. Used/Diameter in. [mm] | FC Centrifugal | FC Centrifugal | FC Centrifugal | FC Centrifugal |
| Drive Type/No. Speeds | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] |
| No. Motors | Direct/2 | Direct/2 | Direct/2 | Direct/2 |
| Motor HP | 1 | 1 | 1 | 1 |
| Motor RPM | 3/4 | 3/4 | 3/4 | 3/4 |
| Motor Frame Size | 1050 | 1050 | 1050 | 1050 |
| | 48 | 48 | 48 | 48 |
| Filter - Type | | | | |
| Furnished | Field Supplied | Field Supplied | Field Supplied | Field Supplied |
| (NO.) Size Recommended in. [mm x mm x mm] | No | No | No | No |
| | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] |
| Refrigerant Charge Oz. [g] | | | | |
| | 161 [4564] | 161 [4564] | 120 [3402] | 120 [3402] |
| Weights | | | | |
| Net Weight lbs. [kg] | 408 [185] | 408 [185] | 429 [195] | 429 [195] |
| Ship Weight lbs. [kg] | 434 [197] | 434 [197] | 455 [206] | 455 [206] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQPM

NOMINAL SIZES 2-5 TONS [7-17.6 kW]

| Model RQPM- Series | A049CK | A049JK | A060CK | A060JK |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Cooling Performance¹ | | | | |
| Gross Cooling Capacity Btu [kW] | 49,000 [14.36] | 49,000 [14.36] | 61,000 [17.87] | 61,000 [17.87] |
| EER, SEER ² | 12/14 | 12/14 | 12.0/14 | 12.0/14 |
| Nominal CFM/AHRI Rated CFM [L/s] | 1600/1550 [755/731] | 1600/1550 [755/731] | 2000/1900 [944/897] | 2000/1900 [944/897] |
| AHRI Net Cooling Capacity Btu [kW] | 48,000 [14.06] | 48,000 [14.06] | 59,500 [17.43] | 59,500 [17.43] |
| Net Sensible Capacity Btu [kW] | 36,800 [10.78] | 36,800 [10.78] | 45,300 [13.27] | 45,300 [13.27] |
| Net Latent Capacity Btu [kW] | 11,200 [3.28] | 11,200 [3.28] | 14,200 [4.16] | 14,200 [4.16] |
| Net System Power kW | 4 | 4 | 4.96 | 4.96 |
| Heating Performance [Heat Pumps] | | | | |
| High Temp. Btuh [kW] Rating | 42,000 [12.31] | 42,000 [12.31] | 59,500 [17.43] | 59,500 [17.43] |
| System Power KW / COP | 3.59/3.66 | 3.59/3.66 | 4.74/3.72 | 4.74/3.72 |
| Low Temp. Btuh [kW] Rating | 25,400 [7.44] | 25,400 [7.44] | 36,600 [10.72] | 36,600 [10.72] |
| System Power KW / COP | 3.22/2.3 | 3.22/2.3 | 4.26/2.54 | 4.26/2.54 |
| HSPF (Btu/Watts-hr) | 8 | 8 | 8 | 8 |
| Compressor | | | | |
| No./Type | 1/Scroll | 1/Scroll | 1/Scroll | 1/Scroll |
| Outdoor Sound Rating (dB)⁵ | | | | |
| | 78 | 78 | 78 | 78 |
| Outdoor Coil - Fin Type | | | | |
| Tube Type | Louvered | Louvered | Louvered | Louvered |
| Tube Size in. [mm] OD | Rifled | Rifled | Rifled | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 16.54 [1.54] | 16.54 [1.54] | 16.54 [1.54] | 16.54 [1.54] |
| Refrigerant Control | 1 / 22 [9] | 1 / 22 [9] | 2 / 18 [7] | 2 / 18 [7] |
| | TX Valves | TX Valves | TX Valves | TX Valves |
| Indoor Coil - Fin Type | | | | |
| Tube Type | Louvered | Louvered | Louvered | Louvered |
| Tube Size in. [mm] | Rifled | Rifled | Rifled | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 5.78 [0.54] | 5.78 [0.54] | 5.78 [0.54] | 5.78 [0.54] |
| Refrigerant Control | 3 / 13 [5] | 3 / 13 [5] | 4 / 13 [5] | 4 / 13 [5] |
| | TX Valves | TX Valves | TX Valves | TX Valves |
| Drain Connection No./Size in. [mm] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | | | | |
| No. Used/Diameter in. [mm] | Propeller | Propeller | Propeller | Propeller |
| Drive Type/No. Speeds | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] |
| CFM [L/s] | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| No. Motors/HP | 4200 [1982] | 4200 [1982] | 4000 [1888] | 4000 [1888] |
| Motor RPM | 1 at 1/3 HP | 1 at 1/3 HP | 1 at 1/3 HP | 1 at 1/3 HP |
| | 908 | 908 | 1075 | 1075 |
| Indoor Fan - Type | | | | |
| No. Used/Diameter in. [mm] | FC Centrifugal | FC Centrifugal | FC Centrifugal | FC Centrifugal |
| Drive Type/No. Speeds | 1/11x9 [279x229] | 1/11x9 [279x229] | 1/11x9 [279x229] | 1/11x9 [279x229] |
| No. Motors | Direct/2 | Direct/2 | Direct/2 | Direct/2 |
| Motor HP | 1 | 1 | 1 | 1 |
| Motor RPM | 3/4 | 3/4 | 1 | 1 |
| Motor Frame Size | 1050 | 1050 | 1050 | 1050 |
| | 48 | 48 | 48 | 48 |
| Filter - Type | | | | |
| Furnished | Field Supplied | Field Supplied | Field Supplied | Field Supplied |
| (NO.) Size Recommended in. [mm x mm x mm] | No | No | No | No |
| | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] |
| Refrigerant Charge Oz. [g] | | | | |
| | 120 [3402] | 120 [3402] | 193 [5472] | 193 [5472] |
| Weights | | | | |
| Net Weight lbs. [kg] | 429 [195] | 429 [195] | 481 [218] | 481 [218] |
| Ship Weight lbs. [kg] | 455 [206] | 455 [206] | 507 [230] | 507 [230] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQNM

NOMINAL SIZES 2-5 TONS [7-17.6 kW]

| Model RQNM- Series | A024JK | A030JK | A036CK | A036JK |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Cooling Performance¹ | | | | Continued -> |
| Gross Cooling Capacity Btu [kW] | 24,600 [7.21] | 29,800 [8.73] | 36,600 [10.72] | 36,600 [10.72] |
| EER, SEER ² | 11/13 | 11.15/13 | 11/13 | 11/13 |
| Nominal CFM/AHRI Rated CFM [L/s] | 800/800 [378/378] | 1000/1000 [472/472] | 1200/1200 [566/566] | 1200/1200 [566/566] |
| AHRI Net Cooling Capacity Btu [kW] | 23,600 [6.91] | 28,800 [8.44] | 35,200 [10.31] | 35,200 [10.31] |
| Net Sensible Capacity Btu [kW] | 18,200 [5.33] | 22,400 [6.56] | 27,000 [7.91] | 27,000 [7.91] |
| Net Latent Capacity Btu [kW] | 5,400 [1.58] | 6,400 [1.88] | 8,200 [2.4] | 8,200 [2.4] |
| Net System Power kW | 2.14 | 2.58 | 3.2 | 3.2 |
| Heating Performance [Heat Pumps] | | | | |
| High Temp. Btuh [kW] Rating | 23,400 [6.86] | 28,800 [8.44] | 35,000 [10.26] | 35,000 [10.26] |
| System Power KW / COP | 2.07/3.34 | 2.45/3.44 | 2.95/3.48 | 2.95/3.48 |
| Low Temp. Btuh [kW] Rating | 13,800 [4.04] | 16,200 [4.75] | 19,200 [5.63] | 19,200 [5.63] |
| System Power KW / COP | 1.9/2.12 | 2.22/2.14 | 2.65/2.1 | 2.65/2.1 |
| HSPF (Btu/Watts-hr) | 7.7 | 7.7 | 7.7 | 7.7 |
| Compressor | | | | |
| No./Type | 1/Copeland Scroll | 1/Copeland Scroll | 1/Copeland Scroll | 1/Copeland Scroll |
| Outdoor Sound Rating (dB)⁵ | 76 | 76 | 76 | 76 |
| Outdoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] OD | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 10.44 [0.97] | 12.65 [1.18] | 12.65 [1.18] | 12.65 [1.18] |
| 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 |
| Indoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 4.33 [0.4] | 4.33 [0.4] | 4.33 [0.4] | 4.33 [0.4] |
| Rows / FPI [FPcm] | 2 / 15 [5] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Drain Connection No./Size in. [mm] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | Propeller | Propeller | Propeller | Propeller |
| No. Used/Diameter in. [mm] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| CFM [L/s] | 3200 [1510] | 3200 [1510] | 3200 [1510] | 3200 [1510] |
| 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 | 825 | 825 | 825 | 825 |
| Indoor Fan - Type | FC Centrifugal | FC Centrifugal | FC Centrifugal | FC Centrifugal |
| No. Used/Diameter in. [mm] | 1/10x9 [254x228.6] | 1/10x9 [254x228.6] | 1/10x9 [254x228.6] | 1/10x9 [254x228.6] |
| Drive Type/No. Speeds | Direct/2 | Direct/2 | Direct/2 | Direct/2 |
| No. Motors | 1 | 1 | 1 | 1 |
| Motor HP | 1/4 | 1/3 | 1/2 | 1/2 |
| Motor RPM | 1033 | 1080 | 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)1x20x16 [25x508x406] | (1)1x20x20 [25x508x508] | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] |
| Refrigerant Charge Oz. [g] | 90 [2552] | 93 [2637] | 93 [2637] | 93 [2637] |
| Weights | | | | |
| Net Weight lbs. [kg] | 308 [140] | 331 [150] | 356 [161] | 356 [161] |
| Ship Weight lbs. [kg] | 332 [151] | 355 [161] | 380 [172] | 380 [172] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQNM

NOMINAL SIZES 2-5 TONS [7-17.6 kW]

| Model RQNM- Series | A042CK | A042JK | A048CK | A048JK |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Cooling Performance¹ | | | | Continued -> |
| Gross Cooling Capacity Btu [kW] | 43,500 [12.75] | 43,500 [12.75] | 49,500 [14.5] | 49,500 [14.5] |
| EER, SEER ² | 11/13 | 11/13 | 11/13 | 11/13 |
| Nominal CFM/AHRI Rated CFM [L/s] | 1400/1450 [661/685] | 1400/1450 [661/685] | 1600/1550 [755/731] | 1600/1550 [755/731] |
| AHRI Net Cooling Capacity Btu [kW] | 42,000 [12.31] | 42,000 [12.31] | 47,500 [13.92] | 47,500 [13.92] |
| Net Sensible Capacity Btu [kW] | 30,000 [8.79] | 30,000 [8.79] | 35,900 [10.52] | 35,900 [10.52] |
| Net Latent Capacity Btu [kW] | 12,000 [3.52] | 12,000 [3.52] | 11,600 [3.4] | 11,600 [3.4] |
| Net System Power kW | 3.82 | 3.82 | 4.32 | 4.32 |
| Heating Performance [Heat Pumps] | | | | |
| High Temp. Btuh [kW] Rating | 39,500 [11.57] | 39,500 [11.57] | 43,000 [12.6] | 43,000 [12.6] |
| System Power KW / COP | 3.56/3.24 | 3.56/3.24 | 3.92/3.44 | 3.92/3.44 |
| Low Temp. Btuh [kW] Rating | 22,800 [6.68] | 22,800 [6.68] | 25,600 [7.5] | 25,600 [7.5] |
| System Power KW / COP | 3.25/2.06 | 3.25/2.06 | 3.56/2.14 | 3.56/2.14 |
| HSPF (Btu/Watts-hr) | 7.7 | 7.7 | 7.7 | 7.7 |
| Compressor | | | | |
| No./Type | 1/Copeland Scroll | 1/Copeland Scroll | 1/Copeland Scroll | 1/Copeland Scroll |
| Outdoor Sound Rating (dB)⁵ | 78 | 78 | 78 | 78 |
| Outdoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] OD | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 16.54 [1.54] | 16.54 [1.54] | 16.54 [1.54] | 16.54 [1.54] |
| Rows / FPI [FPcm] | 1 / 22 [9] | 1 / 22 [9] | 1 / 22 [9] | 1 / 22 [9] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Indoor Coil - Fin Type | Louvered | Louvered | Louvered | Louvered |
| Tube Type | Rifled | Rifled | Rifled | Rifled |
| Tube Size in. [mm] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] | 0.375 [9.5] |
| Face Area sq. ft. [sq. m] | 5.78 [0.54] | 5.78 [0.54] | 5.78 [0.54] | 5.78 [0.54] |
| Rows / FPI [FPcm] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] | 3 / 13 [5] |
| Refrigerant Control | TX Valves | TX Valves | TX Valves | TX Valves |
| Drain Connection No./Size in. [mm] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | Propeller | Propeller | Propeller | Propeller |
| No. Used/Diameter in. [mm] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] | 1/24 [609.6] |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| CFM [L/s] | 4200 [1682] | 4200 [1682] | 4200 [1682] | 4200 [1682] |
| 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] | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] |
| Drive Type/No. Speeds | Direct/2 | Direct/2 | Direct/2 | Direct/2 |
| No. Motors | 1 | 1 | 1 | 1 |
| Motor HP | 1/2 | 1/2 | 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] | 128 [3629] | 128 [3629] | 120 [3402] | 120 [3402] |
| Weights | | | | |
| Net Weight lbs. [kg] | 408 [185] | 408 [185] | 429 [195] | 492 [195] |
| Ship Weight lbs. [kg] | 434 [197] | 434 [197] | 455 [206] | 455 [206] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

GENERAL DATA - RQNM

NOMINAL SIZES 2-5 TONS [7-17.6 kW]

| Model RQNM- Series | A060CK | A060JK |
|--|-------------------------|-------------------------|
| Cooling Performance¹ | | |
| Gross Cooling Capacity Btu [kW] | 62,000 [18.17] | 62,000 [18.17] |
| EER, SEER ² | 11/13 | 11/13 |
| Nominal CFM/AHRI Rated CFM [L/s] | 2000/1900 [944/897] | 2000/1900 [944/897] |
| AHRI Net Cooling Capacity Btu [kW] | 59,000 [17.29] | 59,000 [17.29] |
| Net Sensible Capacity Btu [kW] | 44,500 [13.04] | 44,500 [13.04] |
| Net Latent Capacity Btu [kW] | 14,500 [4.25] | 14,500 [4.25] |
| Net System Power kW | 5.36 | 5.36 |
| Heating Performance [Heat Pumps] | | |
| High Temp. Btuh [kW] Rating | 61,000 [17.87] | 61,000 [17.87] |
| System Power KW / COP | 5.15/3.52 | 5.15/3.52 |
| Low Temp. Btuh [kW] Rating | 34,400 [10.08] | 34,400 [10.08] |
| System Power KW / COP | 4.64/2.18 | 4.64/2.18 |
| HSPF (Btu/Watts-hr) | 7.7 | 7.7 |
| Compressor | | |
| No./Type | 1/Copeland Scroll | 1/Copeland Scroll |
| Outdoor Sound Rating (dB)⁵ | | |
| | 78 | 78 |
| Outdoor Coil - Fin Type | | |
| Tube Type | Louvered | Louvered |
| Tube Size in. [mm] OD | Rifled | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 16.54 [1.54] | 16.54 [1.54] |
| Refrigerant Control | 2 / 18 [7] | 2 / 18 [7] |
| | TX Valves | TX Valves |
| Indoor Coil - Fin Type | | |
| Tube Type | Louvered | Louvered |
| Tube Size in. [mm] | Rifled | Rifled |
| Face Area sq. ft. [sq. m] | 0.375 [9.5] | 0.375 [9.5] |
| Rows / FPI [FPcm] | 5.78 [0.54] | 5.78 [0.54] |
| Refrigerant Control | 4 / 13 [5] | 4 / 13 [5] |
| Drain Connection No./Size in. [mm] | TX Valves | TX Valves |
| | 1/1 [25.4] | 1/1 [25.4] |
| Outdoor Fan - Type | | |
| No. Used/Diameter in. [mm] | Propeller | Propeller |
| Drive Type/No. Speeds | 1/24 [609.6] | 1/24 [609.6] |
| CFM [L/s] | Direct/1 | Direct/1 |
| No. Motors/HP | 4000 [1888] | 4000 [1888] |
| Motor RPM | 1 at 1/3 HP | 1 at 1/3 HP |
| | 1075 | 1075 |
| Indoor Fan - Type | | |
| No. Used/Diameter in. [mm] | FC Centrifugal | FC Centrifugal |
| Drive Type/No. Speeds | 1/11x9 [279.4x228.6] | 1/11x9 [279.4x228.6] |
| No. Motors | Direct/2 | Direct/2 |
| Motor HP | 1 | 1 |
| Motor RPM | 3/4 | 3/4 |
| Motor Frame Size | 1075 | 1075 |
| | 48 | 48 |
| Filter - Type | | |
| Furnished | Field Supplied | Field Supplied |
| (NO.) Size Recommended in. [mm x mm x mm] | No | No |
| | (1)1x24x24 [25x610x610] | (1)1x24x24 [25x610x610] |
| Refrigerant Charge Oz. [g] | | |
| | 193 [5472] | 193 [5472] |
| Weights | | |
| Net Weight lbs. [kg] | 481 [218] | 481 [218] |
| Ship Weight lbs. [kg] | 507 [230] | 507 [230] |

NOTES:

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation in CFM range shown in airflow tables. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance is rated at 47° F ambient, 70° F entering dry bulb for High Temp rating and 17° F ambient, 70° F entering dry bulb for Low Temp rating. Performance ratings do include the effect of fan motor heat.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

XIX. MISCELLANEOUS

ELECTRICAL AND PHYSICAL DATA

| ELECTRICAL DATA – RQRM- SERIES | | | | | | | |
|--------------------------------|--|-----------|-----------|-----------|-----------|-----------|-------------|
| | | A024JK | A030JK | A036JK | A042JK | A048JK | A060JK |
| Unit Information | Unit Operating Voltage Range | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 197-253 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Minimum Circuit Ampacity | 23/23 | 22/22 | 24/24 | 31/31 | 33/33 | 46/46 |
| | Minimum Overcurrent Protection Device Size | 30/30 | 25/25 | 30/30 | 35/35 | 40/40 | 60/60 |
| | Maximum Overcurrent Protection Device Size | 35/35 | 30/30 | 35/35 | 45/45 | 50/50 | 60/60 |
| Compressor Motor | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 1 | 1 | 1 | 1 |
| | RPM | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 |
| | HP | 2 | 2 1/2 | 3 | 3 1/2 | 4 | 5 |
| | Amps (RLA), Comp. 1 | 13.5/13.5 | 12.8/12.8 | 14.1/14.1 | 17.9/17.9 | 19.9/19.9 | 28.8/28.8 |
| | Amps (LRA), Comp. 1 | 58.3/58.3 | 64/64 | 77/77 | 112/112 | 109/109 | 152.9/152.9 |
| Condenser Motor | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 1 | 1 | 1 | 1 |
| | HP | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 |
| | Amps (FLA, each) | 1.5/1.5 | 1.5/1.5 | 15.5/15.5 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 |
| | Amps (LRA, each) | 3/3 | 3/3 | 3/3 | 4/4 | 4/4 | 4/4 |
| Evaporator Fan | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 1 | 1 | 1 | 1 |
| | HP | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 | 1 |
| | Amps (FLA, each) | 4.1/4.1 | 4.1/4.1 | 4.1/4.1 | 6/6 | 6/6 | 7.6/7.6 |
| | Amps (LRA, each) | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 |

ELECTRICAL DATA – RQPM- SERIES

| | | A024JK | A030JK | A036CK | A036JK | A037CK | A037JK | A042CK | A042JK | A043CK | A043JK | A048CK | A048JK | A049CK | A049JK | A060CK | A060JK |
|------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Information | Unit Operating Voltage Range | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Minimum Circuit Ampacity | 23/23 | 21/21 | 19/19 | 27/27 | 19/19 | 27/27 | 26/26 | 36/36 | 25/25 | 31/31 | 26/26 | 36/36 | 26/26 | 36/36 | 32/32 | 43/43 |
| | Minimum Overcurrent Protection Device Size | 30/30 | 30/30 | 25/25 | 35/35 | 25/25 | 35/35 | 30/30 | 45/45 | 25/25 | 35/35 | 30/30 | 45/45 | 30/30 | 45/45 | 40/40 | 50/50 |
| | Maximum Overcurrent Protection Device Size | 35/35 | 35/35 | 25/25 | 40/40 | 25/25 | 40/40 | 35/35 | 50/50 | 35/35 | 45/45 | 35/35 | 50/50 | 35/35 | 50/50 | 45/45 | 60/60 |
| Compressor Motor | No. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 |
| | RPM | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 |
| | HP | 2 | 2.5 | 3 | 3 | 3 | 3 | 3 1/2 | 3.5 | 3 1/2 | 3 1/2 | 4 | 4 | 4 | 4 | 4.5 | 4.5 |
| | Amps (RLA), Comp. 1 | 13.5/13.5 | 14.1/14.1 | 10.4/10.4 | 16.7/16.7 | 10.4/10.4 | 16.7/16.7 | 14.1/14.1 | 21.8/21.8 | 13.5/13.5 | 17.9/17.9 | 13.7/13.7 | 21.8/21.8 | 13.7/13.7 | 21.8/21.8 | 17.9/17.9 | 26.4/26.4 |
| | Amps (LRA), Comp. 1 | 58.3/58.3 | 73/73 | 88/88 | 79/79 | 88/88 | 79/79 | 95/95 | 112/112 | 88/88 | 112/112 | 110/110 | 117/117 | 110/110 | 117/117 | 120/120 | 150/150 |
| Condenser Motor | No. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | 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 | 1.5/1.5 | 1.5/1.5 | 1.5/1.5 | 1.5/1.5 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 | 1.9/1.9 |
| | Amps (LRA, each) | 3/3 | 3/3 | 3/3 | 3/3 | 3/3 | 3/3 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 |
| Evaporator Fan | No. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | HP | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 1 | 1 |
| | Amps (FLA, each) | 4.1/4.1 | 4.1/4.1 | 4.1/4.1 | 4.1/4.1 | 4.1/4.1 | 4.1/4.1 | 6/6 | 6/6 | 6/6 | 6/6 | 6/6 | 6/6 | 6/6 | 6/6 | 7.6/7.6 | 7.6/7.6 |
| | Amps (LRA, each) | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 |

ELECTRICAL AND PHYSICAL DATA

| ELECTRICAL DATA - RQNM SERIES | | | | | | | | | | | |
|-------------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | -A024JK | -A030JK | -A036CK | -A036JK | -A042CK | -A042JK | -A048CK | -A048JK | -A060CK | -A060JK |
| Unit Information | Unit Operating Voltage Range | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 | 187-253 |
| | Minimum Circuit Ampacity | 20/20 | 21/21 | 17/17 | 25/25 | 23/23 | 33/33 | 23/23 | 33/33 | 31/31 | 41/41 |
| | Minimum Overcurrent Protection Device Size | 25/25 | 25/25 | 20/20 | 30/30 | 30/30 | 40/40 | 30/30 | 40/40 | 35/35 | 50/50 |
| | Maximum Overcurrent Protection Device Size | 30/30 | 35/35 | 25/25 | 40/40 | 35/35 | 50/50 | 35/35 | 50/50 | 45/45 | 60/60 |
| Compressor Motor | No. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 |
| | HP | 2 | 2.5 | 3 | 3 | 3.5 | 3.5 | 4 | 4 | 4.5 | 4.5 |
| | RPM | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 |
| | Amps (RLA) | 13.5/13.5 | 14.1/14.1 | 10.4/10.4 | 16.7/16.7 | 14.1/14.1 | 21.8/21.8 | 13.7/13.7 | 21.8/21.8 | 17.9/17.9 | 26.4/26.4 |
| | Amps (LRA) | 58.3/58.3 | 73/73 | 88/88 | 79/79 | 95/95 | 112/112 | 83.1/83.1 | 117/117 | 120/120 | 150/150 |
| Condenser Motor | No. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 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 | 1/3 |
| | Amps (FLA) | 1.5 | 1.5 | 1.5 | 1.5 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| | Amps (LRA) | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| Evaporator Fan | No. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Volts | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 | 208/230 |
| | Phase | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | HP | 1/4 | 1/3 | 1/2 | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 | 3/4 | 3/4 |
| | Amps (FLA) | 1.5 | 1.7 | 2.5 | 2.5 | 2.7 | 2.7 | 3.2 | 3.2 | 5.8 | 5.8 |
| | Amps (LRA) | 2.6 | 2.6 | 5 | 5 | 4.6 | 4.6 | 4.4 | 4.4 | 11.3 | 11.3 |

INDOOR AIRFLOW PERFORMANCE FOR 2 THRU 5 TON PACKAGE HEAT PUMPS – 208/230V RQRM SERIES

| Model | Motor Speed from Factory | Recommended Airflow Range | | Voltage | Motor Speed (Tap Setting) | External Static Pressure – Inches W.C. [kPa] | | | | | | | | | | | | |
|------------|--------------------------|---------------------------|-------|---------|---------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-------|-----|
| | | Min | Max | | | 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] | | | |
| RQRM-A024J | 2 | 700 | 900 | 208 | Low Speed (Tap 2) | CFM | 1,070 | 960 | 860 | 760 | 680 | 610 | 550 | — | — | — | — | |
| | | | | | | L/s | 505 | 453 | 406 | 359 | 321 | 288 | 260 | — | — | — | | |
| | | | | | | Watts | 106 | 105 | 105 | 108 | 112 | 118 | 127 | — | — | — | | |
| | | | | | High Speed (Tap 1) | CFM | 1,210 | 1,160 | 1,110 | 1,050 | 1,000 | 940 | 880 | 830 | 770 | 700 | 700 | 330 |
| | | | | | | L/s | 571 | 548 | 524 | 496 | 472 | 444 | 415 | 392 | 363 | 330 | 330 | |
| | | | | | | Watts | 134 | 144 | 154 | 164 | 174 | 185 | 196 | 206 | 217 | 228 | 228 | |
| | 230 | Low Speed (Tap 2) | CFM | 1,000 | 960 | 860 | 770 | 690 | 620 | 570 | — | — | — | — | | | | |
| | | | L/s | 510 | 453 | 406 | 363 | 326 | 293 | 269 | — | — | — | | | | | |
| | | | Watts | 110 | 108 | 108 | 110 | 114 | 120 | 129 | — | — | — | | | | | |
| | | High Speed (Tap 1) | CFM | 1,210 | 1,160 | 1,120 | 1,060 | 1,010 | 960 | 910 | 850 | 790 | 730 | 730 | 345 | | | |
| | | | L/s | 571 | 548 | 529 | 500 | 477 | 453 | 430 | 401 | 373 | 345 | 345 | | | | |
| | | | Watts | 134 | 146 | 158 | 169 | 181 | 193 | 204 | 216 | 227 | 238 | 238 | | | | |
| RQRM-A030J | 2 | 875 | 1125 | 208 | Low Speed (Tap 2) | CFM | 1,260 | 1,020 | 820 | 660 | 530 | — | — | — | — | — | | |
| | | | | | | L/s | 595 | 481 | 387 | 312 | 250 | — | — | — | — | | | |
| | | | | | | Watts | 161 | 125 | 101 | 91 | 93 | — | — | — | — | | | |
| | | | | | High Speed (Tap 1) | CFM | 1,430 | 1,340 | 1,260 | 1,180 | 1,110 | 1,040 | 980 | 920 | 870 | 820 | 820 | 387 |
| | | | | | | L/s | 675 | 632 | 595 | 557 | 524 | 491 | 463 | 434 | 411 | 387 | 387 | |
| | | | | | | Watts | 208 | 208 | 210 | 214 | 221 | 229 | 239 | 251 | 264 | 281 | 281 | |
| | 230 | Low Speed (Tap 2) | CFM | 1,150 | 980 | 830 | 690 | 570 | — | — | — | — | — | — | | | | |
| | | | L/s | 543 | 463 | 392 | 326 | 269 | — | — | — | — | — | | | | | |
| | | | Watts | 161 | 125 | 101 | 91 | 93 | — | — | — | — | | | | | | |
| | | High Speed (Tap 1) | CFM | 1,420 | 1,340 | 1,260 | 1,190 | 1,120 | 1,060 | 1,000 | 940 | 890 | 840 | 840 | 396 | | | |
| | | | L/s | 670 | 632 | 595 | 562 | 529 | 500 | 472 | 444 | 420 | 396 | 396 | | | | |
| | | | Watts | 209 | 210 | 212 | 217 | 224 | 233 | 245 | 259 | 275 | 294 | 294 | | | | |
| RQRM-A036J | 2 | 1050 | 1350 | 208 | Low Speed (Tap 2) | CFM | 1,360 | 1,240 | 1,120 | 1,020 | 930 | 840 | 770 | 720 | — | — | | |
| | | | | | | L/s | 642 | 585 | 529 | 481 | 439 | 396 | 363 | 340 | — | — | | |
| | | | | | | Watts | 158 | 147 | 140 | 136 | 137 | 141 | 150 | 163 | — | — | | |
| | | | | | High Speed (Tap 1) | CFM | 1,510 | 1,440 | 1,380 | 1,320 | 1,270 | 1,220 | 1,170 | 1,120 | 1,080 | 1,050 | 1,050 | 496 |
| | | | | | | L/s | 713 | 680 | 651 | 623 | 599 | 576 | 552 | 529 | 510 | 496 | 496 | |
| | | | | | | Watts | 222 | 226 | 231 | 239 | 247 | 258 | 270 | 284 | 299 | 316 | 316 | |
| | 230 | Low Speed (Tap 2) | CFM | 1,360 | 1,240 | 1,130 | 1,030 | 940 | 860 | 790 | 730 | — | — | — | | | | |
| | | | L/s | 642 | 585 | 533 | 486 | 444 | 406 | 373 | 345 | — | — | | | | | |
| | | | Watts | 158 | 147 | 140 | 136 | 137 | 141 | 150 | 163 | — | — | | | | | |
| | | High Speed (Tap 1) | CFM | 1,510 | 1,450 | 1,390 | 1,330 | 1,280 | 1,240 | 1,190 | 1,150 | 1,110 | 1,080 | 1,080 | 510 | | | |
| | | | L/s | 713 | 684 | 656 | 628 | 604 | 585 | 562 | 543 | 524 | 510 | 510 | | | | |
| | | | Watts | 210 | 221 | 232 | 244 | 256 | 269 | 282 | 295 | 309 | 323 | 323 | | | | |
| RQRM-A042J | 2 | 1225 | 1575 | 208 | Low Speed (Tap 2) | CFM | 1,440 | 1,390 | 1,330 | 1,260 | 1,230 | 1,190 | 1,140 | 1,100 | 1,060 | 1,020 | | |
| | | | | | | L/s | 680 | 656 | 628 | 604 | 581 | 562 | 538 | 519 | 500 | 481 | | |
| | | | | | | Watts | 209 | 224 | 239 | 253 | 267 | 280 | 293 | 306 | 319 | 332 | | |
| | | | | | High Speed (Tap 1) | CFM | 1,640 | 1,600 | 1,550 | 1,510 | 1,470 | 1,420 | 1,380 | 1,340 | 1,300 | 1,250 | 1,250 | 590 |
| | | | | | | L/s | 774 | 755 | 732 | 713 | 694 | 670 | 651 | 632 | 614 | 590 | 590 | |
| | | | | | | Watts | 286 | 307 | 327 | 346 | 365 | 382 | 399 | 415 | 430 | 444 | 444 | |
| | 230 | Low Speed (Tap 2) | CFM | 1,440 | 1,390 | 1,340 | 1,280 | 1,240 | 1,190 | 1,140 | 1,100 | 1,060 | 1,020 | 1,020 | 481 | | | |
| | | | L/s | 680 | 656 | 632 | 604 | 585 | 562 | 538 | 519 | 500 | 481 | 481 | | | | |
| | | | Watts | 215 | 229 | 243 | 257 | 272 | 286 | 301 | 315 | 330 | 345 | 345 | | | | |
| | | High Speed (Tap 1) | CFM | 1,640 | 1,600 | 1,560 | 1,520 | 1,480 | 1,430 | 1,390 | 1,350 | 1,310 | 1,260 | 1,260 | 595 | | | |
| | | | L/s | 774 | 755 | 736 | 717 | 699 | 675 | 656 | 637 | 618 | 595 | 595 | | | | |
| | | | Watts | 295 | 312 | 329 | 347 | 366 | 384 | 404 | 423 | 443 | 463 | 463 | | | | |

INDOOR AIRFLOW PERFORMANCE FOR 2 THRU 5 TON PACKAGE HEAT PUMPS – 208/230V RQRM SERIES

| Model | Motor Speed from Factory | Recommended Airflow Range | | Voltage | Motor Speed (Tap Setting) | External Static Pressure – Inches W.C. [kPa] | | | | | | | | | | |
|------------------------------|------------------------------|------------------------------|-------|---------|-----------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| | | Min | Max | | | 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] | |
| RQRM-A04BJ | 2 | 1400 | 1800 | 208 | Low Speed (Tap 2) | CFM | 1600 | 1550 | 1510 | 1460 | 1420 | 1380 | 1340 | 1300 | 1260 | 1230 |
| | | | | | | L/s | 755 | 732 | 713 | 689 | 670 | 651 | 632 | 614 | 595 | 581 |
| | | | | | | Watts | 226 | 241 | 257 | 273 | 289 | 305 | 321 | 338 | 355 | 372 |
| | | | | | High Speed (Tap 1) | CFM | 1840 | 1810 | 1770 | 1740 | 1700 | 1660 | 1620 | 1570 | 1530 | 1480 |
| | | | | | | L/s | 868 | 854 | 835 | 821 | 802 | 784 | 765 | 741 | 722 | 699 |
| | | | | | | Watts | 348 | 365 | 382 | 400 | 419 | 439 | 460 | 481 | 504 | 527 |
| | 230 | Low Speed (Tap 2) | CFM | 1600 | 1550 | 1510 | 1470 | 1430 | 1390 | 1350 | 1310 | 1270 | 1240 | | | |
| | | | L/s | 755 | 732 | 713 | 694 | 675 | 656 | 637 | 618 | 599 | 585 | | | |
| | | | Watts | 226 | 241 | 257 | 273 | 289 | 305 | 321 | 338 | 355 | 372 | | | |
| | | High Speed (Tap 1) | CFM | 1840 | 1810 | 1780 | 1740 | 1710 | 1670 | 1630 | 1590 | 1550 | 1510 | | | |
| | | | L/s | 868 | 854 | 840 | 821 | 807 | 788 | 769 | 750 | 732 | 713 | | | |
| | | | Watts | 361 | 377 | 393 | 411 | 430 | 451 | 472 | 495 | 519 | 545 | | | |
| RQRM-A060J | 1 | 1225 | 1575 | 208 | 1st Stage Low Speed (Tap 1) | CFM | 1430 | 1370 | 1310 | 1260 | 1200 | 1150 | 1100 | 1060 | 1020 | 980 |
| | | | | | | L/s | 675 | 647 | 618 | 595 | 566 | 543 | 519 | 500 | 481 | 463 |
| | | | | | | Watts | 200 | 213 | 225 | 238 | 251 | 263 | 276 | 289 | 302 | 315 |
| | | | | | 1st Stage Low Speed (Tap 2) | CFM | 1560 | 1510 | 1470 | 1420 | 1380 | 1340 | 1290 | 1250 | 1210 | 1170 |
| | | | | | | L/s | 736 | 713 | 694 | 670 | 651 | 632 | 609 | 590 | 571 | 552 |
| | | | | | | Watts | 253 | 269 | 284 | 300 | 315 | 330 | 345 | 359 | 374 | 388 |
| | 2nd Stage Low Speed (Tap 3) | CFM | 1710 | 1670 | 1620 | 1580 | 1530 | 1490 | 1450 | 1400 | 1360 | 1320 | | | | |
| | | L/s | 807 | 788 | 765 | 746 | 722 | 703 | 684 | 661 | 642 | 623 | | | | |
| | | Watts | 322 | 338 | 354 | 370 | 386 | 403 | 419 | 436 | 453 | 470 | | | | |
| | 3 | 2nd Stage Med. Speed (Tap 4) | CFM | 1900 | 1870 | 1830 | 1790 | 1750 | 1710 | 1679 | 1620 | 1580 | 1530 | | | |
| | | | L/s | 897 | 883 | 864 | 845 | 826 | 807 | 788 | 765 | 746 | 722 | | | |
| | | | Watts | 446 | 461 | 477 | 492 | 509 | 525 | 543 | 560 | 578 | 597 | | | |
| 2nd Stage High Speed (Tap 5) | | CFM | 2100 | 2060 | 2030 | 1990 | 1950 | 1910 | 1870 | 1840 | 1800 | 1760 | | | | |
| | | L/s | 991 | 972 | 958 | 939 | 920 | 902 | 883 | 868 | 850 | 831 | | | | |
| | | Watts | 594 | 610 | 626 | 643 | 659 | 676 | 692 | 709 | 725 | 742 | | | | |
| 1 | 1st Stage Low Speed (Tap 1) | CFM | 1430 | 1370 | 1310 | 1260 | 1200 | 1160 | 1110 | 1060 | 1020 | 990 | | | | |
| | | L/s | 675 | 647 | 618 | 595 | 566 | 548 | 524 | 500 | 481 | 467 | | | | |
| | | Watts | 207 | 219 | 231 | 243 | 255 | 268 | 280 | 293 | 305 | 318 | | | | |
| | 1st Stage Low Speed (Tap 2) | CFM | 1560 | 1520 | 1470 | 1430 | 1380 | 1340 | 1300 | 1260 | 2220 | 1180 | | | | |
| | | L/s | 736 | 717 | 694 | 675 | 651 | 632 | 614 | 595 | 576 | 557 | | | | |
| | | Watts | 255 | 272 | 288 | 305 | 320 | 335 | 349 | 363 | 377 | 390 | | | | |
| 2nd Stage Low Speed (Tap 3) | CFM | 1720 | 1670 | 1630 | 1590 | 1550 | 1500 | 1460 | 1420 | 1380 | 1340 | | | | | |
| | L/s | 812 | 788 | 769 | 750 | 732 | 708 | 689 | 670 | 651 | 632 | | | | | |
| | Watts | 328 | 342 | 357 | 373 | 389 | 406 | 424 | 442 | 461 | 480 | | | | | |
| 3 | 2nd Stage Med. Speed (Tap 4) | CFM | 1910 | 1870 | 1840 | 1800 | 1760 | 1720 | 1680 | 1640 | 1590 | 1550 | | | | |
| | | L/s | 902 | 883 | 868 | 850 | 831 | 812 | 793 | 774 | 750 | 732 | | | | |
| | | Watts | 452 | 468 | 484 | 501 | 518 | 535 | 553 | 572 | 590 | 610 | | | | |
| | 2nd Stage High Speed (Tap 5) | CFM | 2120 | 2080 | 2050 | 2010 | 1980 | 1940 | 1900 | 1860 | 1820 | 1780 | | | | |
| | | L/s | 1,001 | 982 | 968 | 949 | 935 | 916 | 897 | 878 | 859 | 840 | | | | |
| | | Watts | 599 | 618 | 636 | 655 | 674 | 692 | 711 | 730 | 748 | 767 | | | | |

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGE HEAT PUMPS – 230V RQPM SERIES

| Nominal Cooling Capacity Tons | Motor Speed From Factory | Manufacturer Recommended Air-Flow Range (Min / Max) CFM | Blower Size/ Motor HP # of Speeds | Motor Speed | CFM Air Delivery/RPM/Watts-230 Volts | | | | | | | | | | |
|-------------------------------|--------------------------|---|--|-----------------|--------------------------------------|------|------|------|------|------|------|------|------|------|------|
| | | | | | External Static Pressure-Inches W.C. | | | | | | | | | | |
| | | | | | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 | 0.70 | 0.80 | 0.90 | 1.00 | |
| 2.0 | Low (Tap 2) | 700 / 900 | 10x9 1/4 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 939 | 877 | 816 | 754 | 693 | 631 | 570 | 508 | 447 | |
| | | | | | RPM | 585 | 601 | 655 | 744 | 809 | 860 | 915 | 1001 | 1043 | |
| | | | | | Watts | 131 | 116 | 97 | 110 | 121 | 126 | 136 | 149 | 152 | |
| | High (Tap 1) | 700 / 900 | 10x9 1/4 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1240 | 1184 | 1127 | 1071 | 1014 | 958 | 901 | 845 | 788 | 732 |
| | | | | | RPM | 607 | 634 | 698 | 761 | 815 | 880 | 946 | 989 | 1038 | 1091 |
| | | | | | Watts | 161 | 145 | 159 | 173 | 182 | 196 | 210 | 220 | 231 | 237 |
| 2.5 | Low (Tap 2) | 875 / 1125 | 10x9 1/3 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1169 | 1109 | 1049 | 988 | 928 | 868 | 807 | 747 | 687 | 626 |
| | | | | | RPM | 603 | 619 | 693 | 756 | 809 | 893 | 942 | 989 | 1034 | 1076 |
| | | | | | Watts | 144 | 130 | 138 | 151 | 159 | 174 | 185 | 195 | 199 | 209 |
| | High (Tap 1) | 875 / 1125 | 10x9 1/3 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1365 | 1316 | 1266 | 1217 | 1168 | 1119 | 1069 | 1020 | 971 | 922 |
| | | | | | RPM | 631 | 677 | 732 | 784 | 843 | 894 | 942 | 1035 | 1077 | 1118 |
| | | | | | Watts | 177 | 190 | 204 | 218 | 234 | 247 | 256 | 279 | 289 | 294 |
| 3.0 | Low (Tap 2) | 1050 / 1350 | 10x9 1/2 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1328 | 1280 | 1231 | 1183 | 1135 | 1086 | 1038 | 990 | 941 | 893 |
| | | | | | RPM | 648 | 697 | 752 | 807 | 857 | 903 | 989 | 1036 | 1077 | 1114 |
| | | | | | Watts | 178 | 191 | 206 | 220 | 233 | 246 | 265 | 277 | 286 | 291 |
| | High (Tap 1) | 1050 / 1350 | 10x9 1/2 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1510 | 1464 | 1418 | 1373 | 1327 | 1281 | 1235 | 1190 | 1144 | 1098 |
| | | | | | RPM | 707 | 743 | 792 | 841 | 890 | 942 | 1031 | 1077 | 1114 | 1151 |
| | | | | | Watts | 248 | 261 | 277 | 292 | 307 | 322 | 334 | 348 | 366 | 358 |
| 3.5 | Low (Tap 2) | 1225 / 1575 | 11x9 1/2 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1542 | 1490 | 1438 | 1386 | 1335 | 1283 | 1231 | 1180 | 1128 | 1076 |
| | | | | | RPM | 598 | 617 | 662 | 714 | 758 | 800 | 849 | 876 | 913 | 951 |
| | | | | | Watts | 244 | 231 | 237 | 254 | 270 | 285 | 304 | 313 | 326 | 340 |
| | High (Tap 1) | 1225 / 1575 | 11x9 1/2 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1740 | 1695 | 1649 | 1604 | 1558 | 1513 | 1467 | 1422 | 1376 | 1331 |
| | | | | | RPM | 632 | 665 | 709 | 749 | 797 | 833 | 879 | 917 | 951 | 981 |
| | | | | | Watts | 295 | 311 | 331 | 350 | 371 | 386 | 409 | 426 | 440 | 454 |
| 4.0 | Low (Tap 2) | 1400 / 1800 | 11x9 3/4 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1701 | 1655 | 1609 | 1563 | 1517 | 1471 | 1425 | 1379 | 1333 | 1287 |
| | | | | | RPM | 624 | 648 | 696 | 743 | 787 | 826 | 863 | 895 | 934 | 970 |
| | | | | | Watts | 280 | 287 | 309 | 328 | 347 | 363 | 380 | 392 | 410 | 426 |
| | High (Tap 1) | 1400 / 1800 | 11x9 3/4 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1921 | 1878 | 1835 | 1792 | 1749 | 1706 | 1663 | 1620 | 1577 | 1534 |
| | | | | | RPM | 678 | 706 | 738 | 776 | 816 | 865 | 899 | 932 | 967 | 994 |
| | | | | | Watts | 385 | 400 | 416 | 439 | 458 | 484 | 501 | 517 | 537 | 550 |
| 5.0 | Low (Tap 2) | 1750 / 2250 | 11x9 3/4 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1986 | 1945 | 1905 | 1864 | 1823 | 1782 | 1741 | 1700 | 1659 | 1618 |
| | | | | | RPM | 731 | 759 | 792 | 832 | 871 | 909 | 943 | 979 | 1014 | 1055 |
| | | | | | Watts | 446 | 458 | 477 | 499 | 521 | 543 | 562 | 582 | 600 | 621 |
| | High (Tap 1) | 1750 / 2250 | 11x9 3/4 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 2229 | 2190 | 2152 | 2114 | 2075 | 2037 | 1999 | 1960 | 1922 | 1884 |
| | | | | | RPM | 795 | 824 | 851 | 882 | 919 | 952 | 983 | 1013 | 1045 | 1077 |
| | | | | | Watts | 619 | 638 | 658 | 680 | 703 | 724 | 745 | 764 | 784 | 804 |

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGE HEAT PUMPS – 208V RQPM SERIES

| Nominal Cooling Capacity Tons | Motor Speed From Factory | Manufacturer Recommended Flow Range (Min / Max) CFM | Blower Size/ Motor HP # of Speeds | Motor Speed | CFM Air Delivery/RPM/Watts-208 Volts | | | | | | | | | | | | |
|-------------------------------|--------------------------|---|--|-----------------|--------------------------------------|------|------|------|------|------|------|------|------|------|------|--|--|
| | | | | | External Static Pressure-Inches W.C. | | | | | | | | | | | | |
| | | | | | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 | 0.70 | 0.80 | 0.90 | 1.00 | | | |
| 2.0 | Low (Tap 2) | 700 / 900 | 10x9 1/4 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 959 | 892 | 825 | 758 | 691 | 624 | 557 | 491 | | | | |
| | | | | RPM | 582 | 606 | 655 | 723 | 808 | 851 | 906 | 996 | | | | | |
| | | | | Watts | 132 | 110 | 96 | 106 | 119 | 123 | 132 | 144 | | | | | |
| 2.5 | Low (Tap 2) | 875 / 1125 | 10x9 1/3 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1229 | 1170 | 1112 | 1054 | 996 | 938 | 879 | 821 | 763 | 705 | | |
| | | | | RPM | 607 | 634 | 698 | 761 | 815 | 880 | 946 | 989 | 1038 | 1091 | | | |
| | | | | Watts | 161 | 145 | 159 | 173 | 182 | 196 | 210 | 220 | 231 | 237 | | | |
| 2.5 | Low (Tap 2) | 875 / 1125 | 10x9 1/3 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1162 | 1099 | 1035 | 972 | 908 | 844 | 781 | 717 | 654 | 590 | | |
| | | | | RPM | 603 | 626 | 690 | 752 | 815 | 906 | 941 | 984 | 1027 | 1096 | | | |
| | | | | Watts | 143 | 124 | 136 | 148 | 157 | 175 | 180 | 188 | 192 | 202 | | | |
| 2.5 | Low (Tap 2) | 875 / 1125 | 10x9 1/3 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1306 | 1253 | 1200 | 1147 | 1095 | 1042 | 989 | 937 | 884 | 831 | | |
| | | | | RPM | 632 | 679 | 733 | 787 | 841 | 883 | 941 | 1035 | 1067 | 1099 | | | |
| | | | | Watts | 174 | 187 | 201 | 215 | 227 | 235 | 248 | 266 | 273 | 277 | | | |
| 3.0 | Low (Tap 2) | 1050 / 1350 | 10x9 1/2 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1328 | 1276 | 1223 | 1171 | 1118 | 1066 | 1013 | 961 | | | | |
| | | | | RPM | 642 | 693 | 747 | 803 | 852 | 903 | 988 | 1031 | | | | | |
| | | | | Watts | 173 | 187 | 200 | 214 | 226 | 238 | 254 | 263 | | | | | |
| 3.0 | Low (Tap 2) | 1050 / 1350 | 10x9 1/2 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1508 | 1459 | 1409 | 1359 | 1310 | 1260 | 1210 | 1160 | 1111 | 1061 | | |
| | | | | RPM | 698 | 738 | 789 | 839 | 888 | 933 | 983 | 1035 | 1103 | 1137 | | | |
| | | | | Watts | 243 | 255 | 271 | 285 | 299 | 310 | 322 | 332 | 343 | 343 | | | |
| 3.5 | Low (Tap 2) | 1225 / 1575 | 11x9 1/2 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1531 | 1477 | 1423 | 1370 | 1316 | 1262 | 1208 | 1154 | 1101 | 1047 | | |
| | | | | RPM | 602 | 619 | 668 | 715 | 757 | 801 | 844 | 878 | 918 | 954 | | | |
| | | | | Watts | 238 | 227 | 236 | 251 | 266 | 281 | 296 | 307 | 320 | 333 | | | |
| 3.5 | Low (Tap 2) | 1225 / 1575 | 11x9 1/2 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1724 | 1678 | 1632 | 1586 | 1540 | 1495 | 1449 | 1403 | 1357 | 1311 | | |
| | | | | RPM | 639 | 671 | 715 | 759 | 794 | 834 | 875 | 911 | 948 | 977 | | | |
| | | | | Watts | 295 | 309 | 330 | 348 | 363 | 380 | 397 | 414 | 429 | 440 | | | |
| 4.0 | Low (Tap 2) | 1400 / 1800 | 11x9 3/4 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1708 | 1658 | 1609 | 1559 | 1510 | 1460 | 1410 | 1361 | 1311 | 1262 | | |
| | | | | RPM | 619 | 651 | 686 | 741 | 783 | 822 | 859 | 894 | 937 | 971 | | | |
| | | | | Watts | 280 | 284 | 298 | 323 | 339 | 355 | 370 | 385 | 402 | 415 | | | |
| 4.0 | Low (Tap 2) | 1400 / 1800 | 11x9 3/4 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 1917 | 1872 | 1827 | 1782 | 1736 | 1691 | 1646 | 1601 | 1556 | 1510 | | |
| | | | | RPM | 673 | 702 | 736 | 769 | 818 | 860 | 898 | 928 | 960 | 989 | | | |
| | | | | Watts | 377 | 392 | 409 | 426 | 451 | 473 | 490 | 504 | 518 | 531 | | | |
| 5.0 | Low (Tap 2) | 1750 / 2250 | 11x9 3/4 2 Speed (X-13 Motor) | Low (Tap 2) | CFM | 1954 | 1914 | 1874 | 1833 | 1793 | 1753 | 1713 | 1673 | 1632 | 1592 | | |
| | | | | RPM | 719 | 747 | 779 | 818 | 857 | 894 | 928 | 963 | 998 | 1038 | | | |
| | | | | Watts | 439 | 451 | 469 | 491 | 512 | 534 | 553 | 573 | 590 | 611 | | | |
| 5.0 | Low (Tap 2) | 1750 / 2250 | 11x9 3/4 2 Speed (X-13 Motor) | High (Tap 1) | CFM | 2173 | 2136 | 2098 | 2061 | 2024 | 1986 | 1949 | 1911 | 1874 | 1837 | | |
| | | | | RPM | 775 | 803 | 830 | 860 | 896 | 928 | 959 | 988 | 1019 | 1050 | | | |
| | | | | Watts | 604 | 622 | 642 | 663 | 686 | 706 | 727 | 745 | 765 | 784 | | | |

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGE HEAT PUMPS – 230V RQNM SERIES

| Nominal Cooling Capacity Tons | Motor Speed From Factory | Manufacturer Recommended Air-Flow Range (Min / Max) CFM | Blower Size/ Motor HP # of Speeds | Motor Speed | CFM Air Delivery/RPM/Watts-230 Volts | | | | | | | | | | |
|-------------------------------|--------------------------|---|---------------------------------------|-------------|--------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| | | | | | External Static Pressure-Inches W.C. | | | | | | | | | | |
| | | | | | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 | 0.70 | 0.80 | 0.90 | 1.00 | |
| 2.0 | Low | 700 / 900 | 10x9 1/4 2 Speed (PSC Motor) | Low | CFM | 827 | 811 | 782 | 740 | 684 | 614 | 531 | 435 | | |
| | | | | | RPM | 450 | 533 | 626 | 742 | 799 | 894 | 932 | 985 | | |
| | | | | | Watts | 278 | 273 | 269 | 254 | 244 | 227 | 216 | 198 | | |
| 2.5 | Low | 875 / 1125 | 10x9 1/3 2 Speed (PSC Motor) | Low | CFM | 1230 | 1223 | 1216 | 1211 | 1187 | 1125 | 1020 | 874 | 696 | 504 |
| | | | | | RPM | 575 | 643 | 703 | 767 | 819 | 877 | 976 | 1001 | 1072 | 1092 |
| | | | | | Watts | 479 | 468 | 455 | 448 | 431 | 416 | 357 | 341 | 279 | 259 |
| 2.5 | Low | 875 / 1125 | 10x9 1/3 2 Speed (PSC Motor) | Low | CFM | 1032 | 1030 | 1014 | 979 | 923 | 843 | 735 | 596 | 423 | |
| | | | | | RPM | 533 | 570 | 659 | 746 | 795 | 863 | 934 | 1019 | 1050 | |
| | | | | | Watts | 336 | 331 | 326 | 314 | 303 | 280 | 271 | 227 | 210 | |
| 2.5 | Low | 875 / 1125 | 10x9 1/3 2 Speed (PSC Motor) | High | CFM | 1312 | 1301 | 1292 | 1276 | 1246 | 1196 | 1117 | 1003 | 845 | |
| | | | | | RPM | 592 | 646 | 712 | 768 | 824 | 883 | 933 | 1012 | 1035 | |
| | | | | | Watts | 482 | 473 | 466 | 454 | 433 | 421 | 401 | 349 | 329 | |
| 3.0 | Low | 1050 / 1350 | 10x9 1/2 2 Speed (PSC Motor) | Low | CFM | 1261 | 1253 | 1225 | 1177 | 1110 | 1023 | 915 | 788 | 641 | |
| | | | | | RPM | 648 | 705 | 754 | 802 | 854 | 896 | 985 | 1008 | 1041 | |
| | | | | | Watts | 398 | 395 | 387 | 391 | 370 | 361 | 323 | 310 | 300 | |
| 3.0 | Low | 1050 / 1350 | 10x9 1/2 2 Speed (PSC Motor) | High | CFM | 2068 | 2008 | 1957 | 1905 | 1841 | 1753 | 1629 | 1458 | 1228 | 929 |
| | | | | | RPM | 850 | 883 | 917 | 946 | 972 | 999 | 1028 | 1049 | 1091 | 1108 |
| | | | | | Watts | 826 | 806 | 784 | 762 | 734 | 702 | 658 | 626 | 546 | 512 |
| 3.5 | Low | 1225 / 1575 | 11x9 1/2 2 Speed (PSC Motor) | Low | CFM | 1431 | 1394 | 1348 | 1302 | 1258 | 1208 | 1140 | 1030 | 849 | 557 |
| | | | | | RPM | 540 | 579 | 633 | 686 | 724 | 776 | 831 | 868 | 1035 | 1076 |
| | | | | | Watts | 482 | 479 | 477 | 470 | 459 | 453 | 437 | 423 | 335 | 292 |
| 3.5 | Low | 1225 / 1575 | 11x9 1/2 2 Speed (PSC Motor) | High | CFM | 1960 | 1936 | 1903 | 1859 | 1806 | 1742 | 1669 | 1585 | 1491 | 1387 |
| | | | | | RPM | 703 | 727 | 750 | 780 | 809 | 846 | 877 | 910 | 940 | 975 |
| | | | | | Watts | 783 | 782 | 776 | 759 | 750 | 729 | 712 | 686 | 656 | 625 |
| 4.0 | Low | 1400 / 1800 | 11x9 3/4 2 Speed (PSC Motor) | Low | CFM | 1674 | 1638 | 1595 | 1547 | 1492 | 1432 | 1365 | 1293 | 1214 | 1129.1 |
| | | | | | RPM | 576 | 618 | 668 | 708 | 753 | 789 | 832 | 874 | 915 | 954 |
| | | | | | Watts | 575 | 563 | 556 | 549 | 544 | 532 | 522 | 503 | 483 | 465 |
| 4.0 | Low | 1400 / 1800 | 11x9 3/4 2 Speed (PSC Motor) | High | CFM | 1996 | 1976 | 1947 | 1909 | 1863 | 1808 | 1744 | 1671 | 1590 | 1500 |
| | | | | | RPM | 680 | 722 | 752 | 781 | 807 | 833 | 867 | 912 | 936 | 973 |
| | | | | | Watts | 799 | 787 | 784 | 760 | 753 | 749 | 730 | 699 | 693 | 652 |
| 5.0 | Low | 1750 / 2250 | 11x9 3/4 2 Speed (PSC Motor) | Low | CFM | 2044 | 2017 | 1983 | 1941 | 1892 | 1836 | 1773 | 1702 | 1623 | 1537 |
| | | | | | RPM | 689 | 723 | 756 | 798 | 822 | 855 | 889 | 924 | 951 | 988 |
| | | | | | Watts | 886 | 870 | 865 | 849 | 831 | 817 | 799 | 782 | 755 | 726 |
| 5.0 | Low | 1750 / 2250 | 11x9 3/4 2 Speed (PSC Motor) | High | CFM | 2693 | 2654 | 2606 | 2549 | 2483 | 2408 | 2323 | 2230 | 2127 | 2015 |
| | | | | | RPM | 876 | 897 | 915 | 938 | 956 | 975 | 996 | 1009 | 1025 | 1044 |
| | | | | | Watts | 1438 | 1427 | 1399 | 1368 | 1340 | 1312 | 1274 | 1228 | 1192 | 1146 |

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGE HEAT PUMPS – 208V RQNM SERIES

| Nominal Cooling Capacity Tons | Motor Speed From Factory | Manufacturer Recommended Air-Flow Range (Min / Max) CFM | Blower Size/ Motor HP # of Speeds | Motor Speed | CFM Air Delivery/RPM/Watts-208 Volts External Static Pressure-Inches W.C. | | | | | | | | | | | | | | | |
|-------------------------------|--------------------------|---|---------------------------------------|-------------|---|------|-------|------|------|-------|------|------|--------|--------|-----|-------|--|--|--|--|
| | | | | | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 | 0.70 | 0.80 | 0.90 | 1.00 | | | | | | |
| | | | | | CFM | RPM | Watts | CFM | RPM | Watts | CFM | RPM | Watts | CFM | RPM | Watts | | | | |
| 2.0 | Low | 700 / 900 | 10x9 1/4 2 Speed (PSC Motor) | Low | 723 | 692 | 654 | 609 | 556 | 496 | 428 | | | | | | | | | |
| | | | | | 443 | 528 | 651 | 710 | 819 | 863 | 914 | | | | | | | | | |
| | | | | | 230 | 222 | 219 | 214 | 202 | 196 | 184 | | | | | | | | | |
| 2.5 | Low | 875 / 1125 | 10x9 1/3 2 Speed (PSC Motor) | Low | 1062 | 1062 | 1058 | 1043 | 1013 | 962 | 884 | 774 | 627 | 437 | | | | | | |
| | | | | | 528 | 618 | 674 | 735 | 812 | 895 | 936 | 985 | 1055 | 1080 | | | | | | |
| | | | | | 396 | 393 | 384 | 376 | 361 | 335 | 318 | 297 | 244 | 223 | | | | | | |
| 2.5 | Low | 875 / 1125 | 10x9 1/3 2 Speed (PSC Motor) | High | 923 | 904 | 874 | 832 | 774 | 698 | 602 | 483 | | | | | | | | |
| | | | | | 498 | 543 | 648 | 728 | 806 | 853 | 947 | 989 | | | | | | | | |
| | | | | | 280 | 278 | 268 | 259 | 252 | 243 | 219 | 201 | | | | | | | | |
| 3.0 | Low | 1050 / 1350 | 10x9 1/2 2 Speed (PSC Motor) | High | 1164 | 1154 | 1143 | 1124 | 1090 | 1034 | 948 | 826 | 660 | 445 | | | | | | |
| | | | | | 526 | 596 | 670 | 744 | 803 | 864 | 945 | 971 | 1051 | 1078 | | | | | | |
| | | | | | 401 | 398 | 388 | 379 | 371 | 350 | 322 | 310 | 259 | 235 | | | | | | |
| 3.0 | Low | 1050 / 1350 | 10x9 1/2 2 Speed (PSC Motor) | Low | 1145 | 1142 | 1118 | 1073 | 1006 | 918 | | | | | | | | | | |
| | | | | | 556 | 645 | 703 | 769 | 828 | 909 | | | | | | | | | | |
| | | | | | 346 | 340 | 335 | 326 | 321 | 298 | | | | | | | | | | |
| 3.5 | Low | 1225 / 1575 | 11x9 1/2 2 Speed (PSC Motor) | High | 1884 | 1850 | 1815 | 1772 | 1712 | 1630 | 1516 | 1363 | 1164 | 910 | | | | | | |
| | | | | | 791 | 834 | 871 | 912 | 946 | 975 | 1004 | 1032 | 1083 | 1097 | | | | | | |
| | | | | | 704 | 694 | 675 | 655 | 638 | 606 | 581 | 548 | 464 | 440 | | | | | | |
| 3.5 | Low | 1225 / 1575 | 11x9 1/2 2 Speed (PSC Motor) | Low | 1279 | 1237 | 1196 | 1151 | 1098 | 1032 | 950 | 846 | 717.13 | 557.65 | | | | | | |
| | | | | | 490 | 539 | 598 | 653 | 709 | 772 | 811 | 887 | 928 | 978 | | | | | | |
| | | | | | 401 | 400 | 393 | 391 | 381 | 373 | 364 | 343 | 329 | 305 | | | | | | |
| 4.0 | Low | 1400 / 1800 | 11x9 3/4 2 Speed (PSC Motor) | High | 1751 | 1729 | 1698 | 1658 | 1608 | 1549 | 1481 | 1404 | 1317 | 1221 | | | | | | |
| | | | | | 640 | 668 | 706 | 734 | 781 | 813 | 851 | 888 | 937 | 968 | | | | | | |
| | | | | | 660 | 658 | 651 | 644 | 628 | 617 | 603 | 581 | 557 | 524 | | | | | | |
| 4.0 | Low | 1400 / 1800 | 11x9 3/4 2 Speed (PSC Motor) | Low | 1400 | 1393 | 1373 | 1337 | 1288 | 1225 | 1147 | 1055 | 949 | 828.48 | | | | | | |
| | | | | | 536 | 578 | 623 | 677 | 718 | 782 | 830 | 863 | 902 | 976 | | | | | | |
| | | | | | 471 | 466 | 458 | 455 | 453 | 442 | 429 | 420 | 403 | 374 | | | | | | |
| 5.0 | Low | 1750 / 2250 | 11x9 3/4 2 Speed (PSC Motor) | High | 1786 | 1764 | 1734 | 1695 | 1649 | 1595 | 1532 | 1462 | 1384 | 1297 | | | | | | |
| | | | | | 618 | 643 | 684 | 726 | 757 | 805 | 841 | 883 | 924 | 955 | | | | | | |
| | | | | | 665 | 660 | 651 | 646 | 638 | 626 | 612 | 596 | 573 | 555 | | | | | | |
| 5.0 | Low | 1750 / 2250 | 11x9 3/4 2 Speed (PSC Motor) | Low | 1848 | 1821 | 1785 | 1742 | 1690 | 1630 | 1562 | 1486 | 1402 | 1309 | | | | | | |
| | | | | | 660 | 685 | 722 | 755 | 795 | 836 | 867 | 904 | 940 | 975 | | | | | | |
| | | | | | 731 | 725 | 720 | 707 | 698 | 680 | 665 | 651 | 623 | 596 | | | | | | |
| 5.0 | Low | 1750 / 2250 | 11x9 3/4 2 Speed (PSC Motor) | High | 2444 | 2420 | 2384 | 2337 | 2278 | 2208 | 2127 | 2034 | 1930 | 1814 | | | | | | |
| | | | | | 829 | 838 | 863 | 885 | 914 | 936 | 958 | 983 | 1003 | 1029 | | | | | | |
| | | | | | 1225 | 1218 | 1197 | 1191 | 1160 | 1135 | 1105 | 1068 | 1035 | 980 | | | | | | |

ELECTRIC HEATER KIT - 1 PHASE RQRM

| 208-240 VOLT, SINGLE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION | | | | | | | | | | | | | | |
|--|----------------------------|-----------------------|-----------------------------|----------------------------|-------------------------|-----------------------------------|---|---|-----------------------------|-------------------------|--|---|---|--|
| Single Power Supply For Both Unit And Heater Kit | | | | | | | | | | | | | | |
| RHEM Model Number | Heater Kit | | | | | Heat Pump | | | | | Separate Power Supply For Both Unit And Heater Kit | | | |
| | RXQJ-Heater Kit Nominal kW | No. of Sequence Steps | Rated Heater kW @ 208-240 V | Heater KBTU/Hr @ 208/240 V | Heater Amp. @ 208/240 V | Unit Min. Ckt Ampacity @ 208-240V | Over Current Protective Device Size Min/Max @ 208 V | Over Current Protective Device Size Min/Max @ 240 V | Min. Ckt. Ampacity 208/240V | Max. Fuse Size 208/240V | Min. Ckt. Ampacity 208/240V | Over Current Protective Device Size Min/Max @ 208 V | Over Current Protective Device Size Min/Max @ 240 V | |
| RQRM-A024JK | No Heat | — | — | — | — | 23/23 | 30/35 | 30/35 | — | — | 23/23 | 30/35 | 30/35 | |
| | C05J | 1 | 3.6/4.8 | 12.28/16.38 | 17.3/20 | 45/48 | 45/50 | 45/50 | 22/25 | 25/25 | — | — | — | |
| | C07J | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 56/61 | 60/70 | 60/70 | 33/38 | 35/40 | — | — | — | |
| | C10J | 1 | 7.2/9.6 | 24.56/32.75 | 34.7/40 | 67/73 | 70/80 | 70/80 | 44/50 | 45/50 | — | — | — | |
| | C15J | 2 | 10.8/14.4 | 36.84/49.13 | 52/60 | 88/98 | 90/100 | 90/100 | 65/75 | 70/80 | — | — | — | |
| RQRM-A030JK | No Heat | — | — | — | — | 22/22 | 25/30 | 25/30 | — | — | 22/22 | 25/30 | 25/30 | |
| | C05J | 1 | 3.6/4.8 | 12.28/16.38 | 17.3/20 | 44/47 | 45/50 | 45/50 | 22/25 | 25/25 | — | — | — | |
| | C07J | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 55/60 | 60/60 | 70/70 | 33/38 | 35/40 | — | — | — | |
| | C10J | 1 | 7.2/9.6 | 24.56/32.75 | 34.7/40 | 66/72 | 70/70 | 80/80 | 44/50 | 45/50 | — | — | — | |
| | C15J | 2 | 10.8/14.4 | 36.84/49.13 | 52/60 | 87/97 | 90/90 | 100/100 | 65/75 | 70/80 | — | — | — | |
| RQRM-A036JK | No Heat | — | — | — | — | 24/24 | 30/35 | 30/35 | — | — | 24/24 | 30/35 | 30/35 | |
| | C05J | 1 | 3.6/4.8 | 12.28/16.38 | 17.3/20 | 46/49 | 50/50 | 50/50 | 22/25 | 25/25 | — | — | — | |
| | C07J | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 57/62 | 60/60 | 70/70 | 33/38 | 35/40 | — | — | — | |
| | C10J | 1 | 7.2/9.6 | 24.56/32.75 | 34.7/40 | 68/74 | 70/70 | 80/80 | 44/50 | 45/50 | — | — | — | |
| | C15J | 2 | 10.8/14.4 | 36.84/49.13 | 52/60 | 89/99 | 90/90 | 100/100 | 65/75 | 70/80 | — | — | — | |
| RQRM-A042JK | No Heat | — | — | — | — | 31/31 | 35/45 | 35/45 | — | — | 31/31 | 35/45 | 35/45 | |
| | C05J | 1 | 3.6/4.8 | 12.28/16.38 | 17.3/20 | 53/56 | 60/60 | 60/60 | 22/25 | 25/25 | — | — | — | |
| | C07J | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 64/69 | 70/70 | 70/70 | 33/38 | 35/40 | — | — | — | |
| | C10J | 1 | 7.2/9.6 | 24.56/32.75 | 34.7/40 | 75/81 | 80/90 | 80/90 | 44/50 | 45/50 | — | — | — | |
| | C15J | 2 | 10.8/14.4 | 36.84/49.13 | 52/60 | 96/106 | 100/110 | 100/110 | 65/75 | 70/80 | — | — | — | |
| RQRM-A048JK | No Heat | — | — | — | — | 118/131 | 125/150 | 125/150 | 87/100 | 90/100 | — | — | — | |
| | C05J | 1 | 3.6/4.8 | 12.28/16.38 | 17.3/20 | 33/33 | 40/50 | 40/50 | — | — | 33/33 | 40/50 | 40/50 | |
| | C07J | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 55/58 | 60/60 | 60/60 | 22/25 | 25/25 | — | — | — | |
| | C10J | 1 | 7.2/9.6 | 24.56/32.75 | 34.7/40 | 66/71 | 70/70 | 80/80 | 33/38 | 35/40 | — | — | — | |
| | C15J | 2 | 10.8/14.4 | 36.84/49.13 | 52/60 | 98/108 | 100/100 | 110/110 | 65/75 | 70/80 | — | — | — | |
| RQRM-A060JK | No Heat | — | — | — | — | 120/133 | 125/125 | 125/150 | 87/100 | 90/100 | — | — | — | |
| | C05J | 1 | 3.6/4.8 | 12.28/16.38 | 17.3/20 | 46/46 | 60/60 | 60/60 | — | — | 46/46 | 60/60 | 60/60 | |
| | C07J | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 68/71 | 90/90 | 90/90 | 22/25 | 25/25 | — | — | — | |
| | C10J | 1 | 7.2/9.6 | 24.56/32.75 | 34.7/40 | 79/84 | 100/100 | 100/100 | 33/38 | 35/40 | — | — | — | |
| | C15J | 2 | 10.8/14.4 | 36.84/49.13 | 52/60 | 90/96 | 100/110 | 100/110 | 44/50 | 45/50 | — | — | — | |
| RQRM-A060JK | C15J | 2 | 10.8/14.4 | 36.84/49.13 | 52/60 | 111/121 | 125/125 | 125/125 | 65/75 | 70/80 | — | — | — | |
| | C20J | 2 | 14.4/19.2 | 49.13/65.5 | 69.3/80 | 133/146 | 150/150 | 150/150 | 87/100 | 90/100 | — | — | — | |

ELECTRIC HEATER KIT - 1 PHASE RQNM

| 208-240 VOLT, SINGLE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION | | | | | | | | | | | | | | |
|--|--|-----------------|-----------------------|-----------------------------|----------------------------|---------------------|------------------------------------|--|-----------------|-------------------------------|---------------------------|----------------------------------|---|-----------------|
| Model No. RQNM- | Single Power Supply For Both Unit And Heater Kit | | | | | | | Separate Power Supply For Both Unit And Heater Kit | | | | | | |
| | RXQJ-Heater Kit Nominal kW | No. of Elements | No. of Sequence Steps | Rated Heater kW @ 208-240 V | Heater KBTU/Hr @ 208-240 V | Heater Amp. @ 208 V | Unit Min. Ckt Ampacity @ 208-240 V | Over Current Protective Device Size | | Heater Kit Min. Ckt. Ampacity | Heater Kit Max. Fuse Size | Heat Pump Min. Ckt. Ampacity 208 | Heat Pump Over Current Protective Device Size | |
| | | | | | | | | Min/Max @ 208 V | Min/Max @ 240 V | | | | Min/Max @ 208 V | Min/Max @ 240 V |
| A024J | No Heat | - | - | - | - | - | 20/20 | 25/30 | 25/30 | - | - | 20/20 | 25/30 | 25/30 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 42/45 | 45/50 | 22/25 | 25/25 | - | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 53/58 | 60/60 | 33/38 | 35/40 | - | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 64/70 | 70/70 | 44/50 | 45/50 | - | - | - | - |
| A030J | No Heat | - | - | - | - | - | 21/21 | 25/35 | 25/35 | - | - | 21/21 | 25/35 | 25/35 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 43/46 | 45/50 | 22/25 | 25/25 | - | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 54/59 | 60/60 | 33/38 | 35/40 | - | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 65/71 | 70/70 | 44/50 | 45/50 | - | - | - | - |
| A036J | No Heat | - | - | - | - | - | 86/96 | 90/90 | 65/75 | 70/80 | - | - | - | - |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 25/25 | 30/40 | 22/25 | 25/25 | 25/25 | 30/40 | 30/40 | |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 58/63 | 60/60 | 33/38 | 35/40 | - | - | - | |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 69/75 | 70/70 | 44/50 | 45/50 | - | - | - | |
| A042J | No Heat | - | - | - | - | - | 90/100 | 90/90 | 65/75 | 70/80 | - | - | - | - |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 47/50 | 50/50 | 22/25 | 25/25 | 33/33 | 40/50 | 40/50 | |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 58/63 | 60/60 | 33/38 | 35/40 | - | - | - | |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 69/75 | 70/70 | 44/50 | 45/50 | - | - | - | |
| A048J | No Heat | - | - | - | - | - | 112/125 | 125/125 | 87/100 | 90/100 | - | - | - | - |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 33/33 | 40/50 | 22/25 | 25/25 | 33/33 | 40/50 | 40/50 | |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 54/58 | 60/70 | 33/38 | 35/40 | - | - | - | |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 76/83 | 80/80 | 44/50 | 45/50 | - | - | - | |
| A060J | No Heat | - | - | - | - | - | 120/133 | 125/125 | 87/100 | 90/100 | - | - | - | - |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 33/33 | 40/50 | 22/25 | 25/25 | 33/33 | 40/50 | 40/50 | |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 55/58 | 60/70 | 33/38 | 35/40 | - | - | - | |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 76/83 | 80/80 | 44/50 | 45/50 | - | - | - | |
| A060J | No Heat | - | - | - | - | - | 120/133 | 125/125 | 87/100 | 90/100 | - | - | - | - |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 41/41 | 50/60 | 22/25 | 25/25 | 41/41 | 50/60 | 50/60 | |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 63/66 | 80/80 | 33/38 | 35/40 | - | - | - | |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 85/91 | 90/100 | 44/50 | 45/50 | - | - | - | |

ELECTRIC HEATER KIT - 3 PHASE RQNM

| 208-240 VOLT, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION | | | | | | | | | | | | |
|---|----------------------------|-----------------|-----------------------|-----------------------------|----------------------------|---|------------------------------------|---|-------------------------------|---------------------------|--------------------------------------|---|
| Single Power Supply For Both Unit And Heater Kit | | | | | | Separate Power Supply For Both Unit And Heater Kit | | | | | | |
| Model No. RQNM- | RXQJ-Heater Kit Nominal KW | No. of Elements | No. of Sequence Steps | Rated Heater kW @ 208-240 V | Heater KBTU/Hr @ 208-240 V | Heater Amp. @ 208 V | Unit Min. Ckt Ampacity @ 208-240 V | Over Current Protective Device Size @ 208 V | Heater Kit Min. Ckt. Ampacity | Heater Kit Max. Fuse Size | Heat Pump Min. Ckt. Ampacity 208/240 | Heat Pump Over Current Protective Device Size @ 208 V / Min/Max @ 240 V |
| A036C | No Heat | - | - | - | - | - | 17/17 | 20/25 | - | - | 17/17 | 20/25 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 42/46 | 45/45 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 55/61 | 60/60 | 38/44 | 40/45 | - | - |
| A042C | No Heat | - | - | - | - | - | 23/23 | 30/35 | - | - | 23/23 | 30/35 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 48/52 | 50/50 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 61/66 | 70/70 | 38/44 | 40/45 | - | - |
| | C20C | 4 | 2 | 14.4/19.2 | 49.12/65.52 | 40/46.3 | 73/81 | 80/80 | 50/58 | 50/60 | - | - |
| A048C | No Heat | - | - | - | - | - | 23/23 | 30/35 | - | - | 23/23 | 30/35 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 48/52 | 50/50 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 60/66 | 60/60 | 38/44 | 40/45 | - | - |
| | C20C | 4 | 2 | 14.4/19.2 | 49.12/65.52 | 40/46.3 | 73/81 | 80/80 | 50/58 | 50/60 | - | - |
| A060C | No Heat | - | - | - | - | - | 31/31 | 35/45 | - | - | 31/31 | 35/45 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 56/59 | 60/60 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 69/74 | 70/70 | 38/44 | 40/45 | - | - |
| | C20C | 4 | 2 | 14.4/19.2 | 49.12/65.52 | 40/46.3 | 81/88 | 90/90 | 50/58 | 50/60 | - | - |

ELECTRIC HEATER KIT - 1 PHASE RQPM

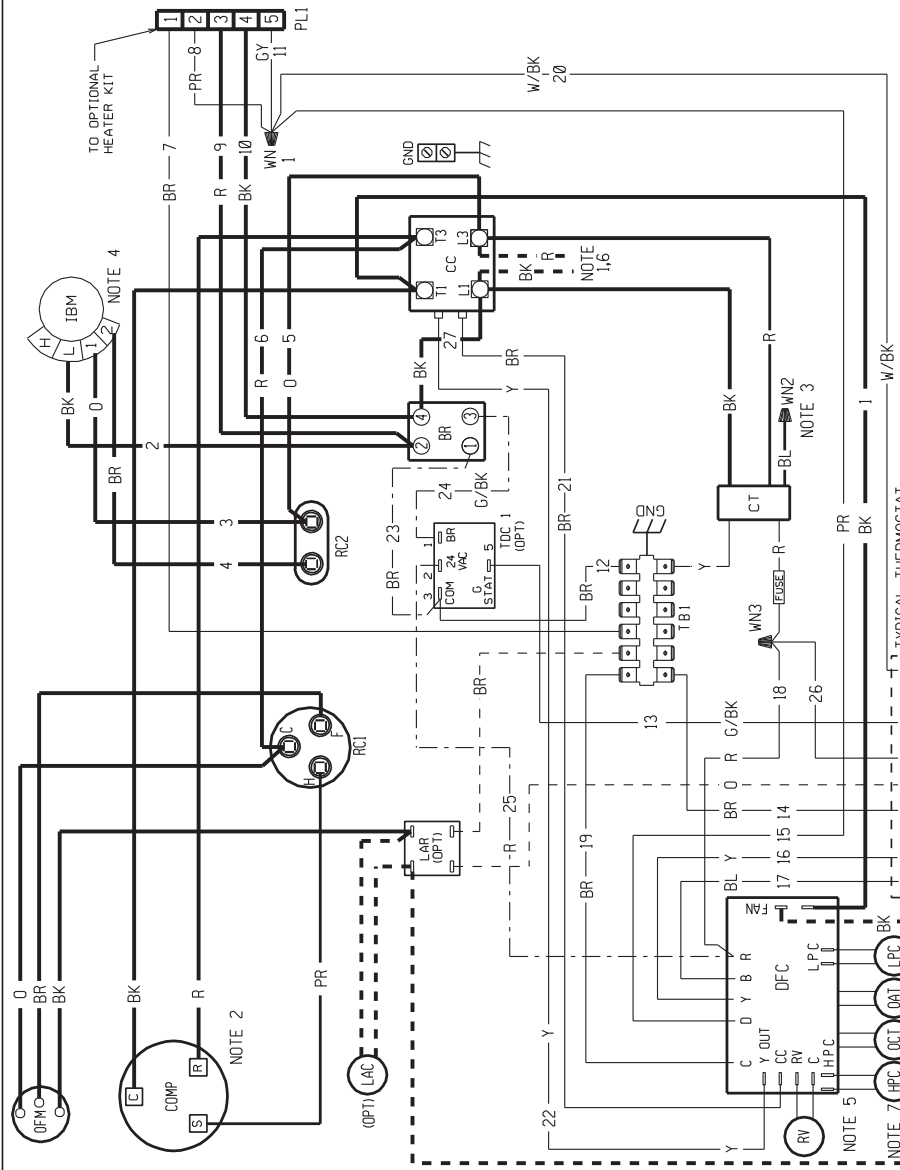
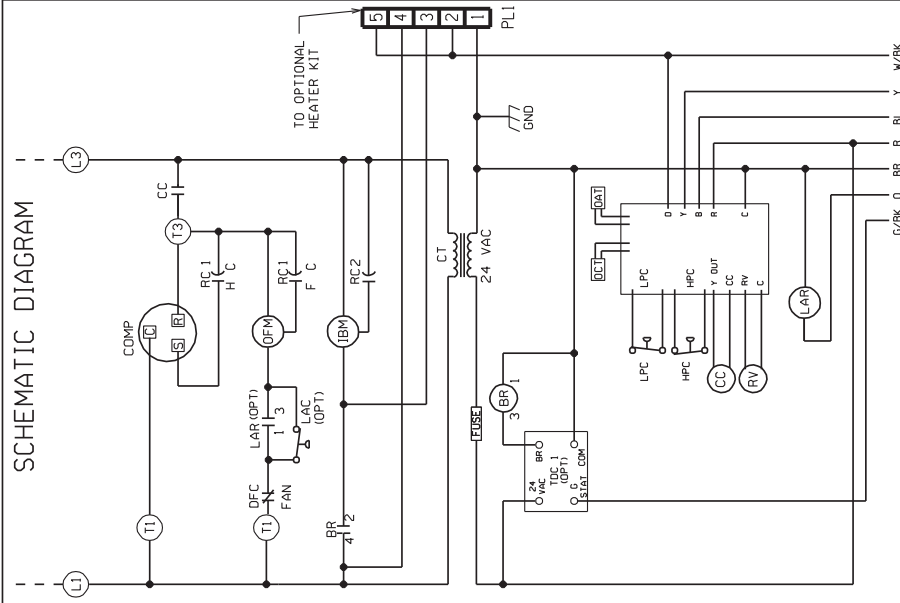
| 208-240 VOLT, SINGLE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION | | | | | | | | | | | | | | |
|---|--|-----------------|-----------------------|-----------------------------|----------------------------|---------------------|-----------------------------------|--|-----------------|-------------------------------|---------------------------|----------------------------------|---|-----------------|
| Model No. RQPM- | Single Power Supply For Both Unit And Heater Kit | | | | | | | Separate Power Supply For Both Unit And Heater Kit | | | | | | |
| | RXQJ- Heater Kit Nominal kW | No. of Elements | No. of Sequence Steps | Rated Heater kW @ 208-240 V | Heater KBTU/Hr @ 208-240 V | Heater Amp. @ 208 V | Unit Min. Ckt Ampacity @ 208-240V | Over Current Protective Device Size | | Heater Kit Min. Ckt. Ampacity | Heater Kit Max. Fuse Size | Heat Pump Min. Ckt. Ampacity 208 | Heat Pump Over Current Protective Device Size | |
| | | | | | | | | Min/Max @ 208 V | Min/Max @ 240 V | | | 240 | Min/Max @ 208 V | Min/Max @ 240 V |
| A024J | No Heat | - | - | - | - | - | 23/23 | 30/35 | 30/35 | - | - | 23/23 | 30/35 | 30/35 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 45/48 | 45/50 | 50/50 | 22/25 | 25/25 | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 55/60 | 60/60 | 60/60 | 33/38 | 35/40 | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 66/73 | 70/70 | 80/80 | 44/50 | 45/50 | - | - | - |
| A030J | No Heat | - | - | - | - | - | 24/24 | 30/35 | 30/35 | - | - | 24/24 | 30/35 | 30/35 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 45/49 | 45/50 | 50/50 | 22/25 | 25/25 | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 56/61 | 60/60 | 70/70 | 33/38 | 35/40 | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 67/74 | 70/70 | 80/80 | 44/50 | 45/50 | - | - | - |
| | C15J | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 52/60 | 89/99 | 90/90 | 100/100 | 65/75 | 70/80 | - | - | - |
| A036J A037J | No Heat | - | - | - | - | - | 27/27 | 35/40 | 35/40 | - | - | 27/27 | 35/40 | 35/40 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 49/52 | 50/60 | 60/60 | 22/25 | 25/25 | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 59/64 | 60/60 | 70/70 | 33/38 | 35/40 | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 70/77 | 70/70 | 80/80 | 44/50 | 45/50 | - | - | - |
| | C15J | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 52/60 | 92/102 | 100/100 | 110/110 | 65/75 | 70/80 | - | - | - |
| | C20J | 4 | 2 | 14.4/19.2 | 49.12/65.52 | 69.33/80 | 114/127 | 125/125 | 150/150 | 87/100 | 90/100 | - | - | - |
| A042J | No Heat | - | - | - | - | - | 36/36 | 45/50 | 45/50 | - | - | 36/36 | 45/50 | 45/50 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 47/61 | 60/70 | 70/70 | 22/25 | 25/25 | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 68/73 | 70/80 | 80/80 | 33/38 | 35/40 | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 79/86 | 80/90 | 90/90 | 44/50 | 45/50 | - | - | - |
| | C15J | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 52/60 | 101/111 | 110/110 | 125/125 | 65/75 | 70/80 | - | - | - |
| | C20J | 4 | 2 | 14.4/19.2 | 49.12/65.52 | 69.33/80 | 112/136 | 125/125 | 150/150 | 87/100 | 90/100 | - | - | - |
| A043J | No Heat | - | - | - | - | - | 31/31 | 45/45 | 45/45 | - | - | 31/31 | 35/45 | 35/45 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 53/56 | 60/60 | 60/60 | 22/25 | 25/25 | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 65/69 | 70/70 | 70/70 | 33/38 | 35/40 | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 75/81 | 80/80 | 90/90 | 44/50 | 45/50 | - | - | - |
| | C15J | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 52/60 | 96/106 | 100/100 | 110/110 | 65/75 | 70/80 | - | - | - |
| | C20J | 4 | 2 | 14.4/19.2 | 49.12/65.52 | 69.33/80 | 118/131 | 125/125 | 150/150 | 87/100 | 90/100 | - | - | - |
| A048J A049J | No Heat | - | - | - | - | - | 36/36 | 45/50 | 45/50 | - | - | 36/36 | 45/50 | 45/50 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 57/61 | 60/70 | 70/70 | 22/25 | 25/25 | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 68/73 | 70/80 | 80/80 | 33/38 | 35/40 | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 79/86 | 80/90 | 90/90 | 44/50 | 45/50 | - | - | - |
| | C15J | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 52/60 | 101/111 | 110/110 | 125/125 | 65/75 | 70/80 | - | - | - |
| A060J | No Heat | - | - | - | - | - | 43/43 | 50/60 | 50/60 | - | - | 43/43 | 50/60 | 50/60 |
| | C05J | 1 | 1 | 3.6/4.8 | 12.28/16.38 | 17.33/20 | 65/68 | 80/80 | 80/80 | 22/25 | 25/25 | - | - | - |
| | C07J | 1 | 1 | 5.4/7.2 | 18.42/24.56 | 26/30 | 75/80 | 90/90 | 90/90 | 33/38 | 35/40 | - | - | - |
| | C10J | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 34.7/40 | 86/93 | 90/100 | 100/100 | 44/50 | 45/50 | - | - | - |
| | C15J | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 52/60 | 108/118 | 110/110 | 125/125 | 65/75 | 70/80 | - | - | - |
| C20J | 4 | 2 | 14.4/19.2 | 49.12/65.52 | 69.33/80 | 130/143 | 150/150 | 150/150 | 87/100 | 90/100 | - | - | - | |

ELECTRIC HEATER KIT - 3 PHASE RQPM

| 208-240 VOLT, SINGLE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION | | | | | | | | | | | | |
|--|--|-----------------|-----------------------|-----------------------------|----------------------------|---------------------|--|-------------------------------------|-------------------------------|---------------------------|----------------------------------|---|
| Model No. RQPM- | Single Power Supply For Both Unit And Heater Kit | | | | | | Separate Power Supply For Both Unit And Heater Kit | | | | | |
| | RXQJ- Heater Kit Nominal kW | No. of Elements | No. of Sequence Steps | Rated Heater kW @ 208-240 V | Heater KBTU/Hr @ 208-240 V | Heater Amp. @ 208 V | Unit Min. Ckt Ampacity @ 208-240V | Over Current Protective Device Size | Heater Kit Min. Ckt. Ampacity | Heater Kit Max. Fuse Size | Heat Pump Min. Ckt. Ampacity 208 | Heat Pump Over Current Protective Device Size |
| | | | | | | | | Min/Max @ 208 V | | | | Min/Max @ 208 V |
| A036C A037C | No Heat | - | - | - | - | - | 19/19 | 25/25 | - | - | 19/19 | 25/25 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 44/48 | 45/45 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 57/61 | 60/60 | 38/44 | 40/45 | - | - |
| A042C | No Heat | - | - | - | - | - | 26/26 | 30/35 | - | - | 26/26 | 30/35 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 51/55 | 60/60 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 64/69 | 70/70 | 38/44 | 40/45 | - | - |
| | C20C | 4 | 2 | 14.4/19.2 | 49.1/65.52 | 40/46.3 | 76/84 | 80/80 | 50/58 | 50/60 | - | - |
| A043C | No Heat | - | - | - | - | - | 25/25 | 35/35 | - | - | 25/25 | 30/35 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20.0/23.1 | 50/54 | 50/50 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 63/69 | 70/70 | 38/44 | 40/45 | - | - |
| | C20C | 4 | 2 | 14.4/19.2 | 49.1/65.52 | 40/46.3 | 75/83 | 80/80 | 50/58 | 50/60 | - | - |
| A048C A049C | No Heat | - | - | - | - | - | 26/26 | 30/35 | - | - | 26/26 | 30/35 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 51/54 | 60/60 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 63/69 | 70/70 | 38/44 | 40/45 | - | - |
| | C20C | 4 | 2 | 14.4/19.2 | 49.1/65.52 | 40/46.3 | 76/83 | 80/80 | 50/58 | 50/60 | - | - |
| A060C | No Heat | - | - | - | - | - | 32/32 | 40/45 | - | - | 32/32 | 40/45 |
| | C10C | 2 | 1 | 7.2/9.6 | 24.57/32.76 | 20/23.1 | 57/61 | 60/60 | 25/29 | 25/30 | - | - |
| | C15C | 3 | 2 | 10.8/14.4 | 36.85/49.13 | 30.1/34.7 | 69/76 | 70/70 | 38/44 | 40/45 | - | - |
| | C20C | 4 | 2 | 14.4/19.2 | 49.1/65.52 | 40/46.3 | 82/90 | 90/90 | 50/58 | 50/60 | - | - |

FIGURE 7
WIRING DIAGRAM

SCHEMATIC DIAGRAM



WIRE COLOR CODE

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

WIRING INFORMATION

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

NOTES:

1. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
2. COMPRESSOR MOTOR THERMALLY PROTECTED.
3. TRANSFORMER FACTORY WIRED FOR 230 VOLTS. USE RED AND BLUE LEADS FOR 208 VOLTS.
4. MOTOR FACTORY WIRED FOR LOW SPEED. SEE AIRFLOW CORRECT SPEED FOR UNIT APPLICATION.
5. THIS COMPONENT ENERGIZED IN HEATING.
6. FIELD WIRING OR CONNECTION FROM HEATER KIT FUSE BLOCK.
7. HPC TERMINALS ON DFC ARE JUMPED IF HPC IS NOT PRESENT.

COMPONENT CODE

| | | | |
|-----|-----------------------|----------|------------------------------|
| ALC | AUX. LIMIT CONTROL | LAC | LOW AMBIENT COOLING CONTROL |
| BR | BLOWER RELAY | LAR | LOW AMBIENT RELAY |
| CC | COMPRESSOR CONTACTOR | LPC | LOW PRESSURE CONTROL |
| CH | CRANKCASE HEATER | OAT | OUTDOOR AMBIENT TEMP CONTROL |
| CT | CONTROL TRANSFORMER | OCT | OUTDOOR COIL TEMP CONTROL |
| DFC | DEFROST CONTROL | OPM | OPTIONAL FAN MOTOR |
| DR | DEFROST RELAY | PI | PLUG |
| GND | GROUND | PLU | PLUG |
| HGS | HOT GAS SENSOR | RC | RUN CAPACITOR |
| HPC | HIGH PRESSURE CONTROL | RV | REVERSING VALVE |
| IBM | INDOOR BLOWER MOTOR | TB | TERMINAL BLOCK |
| | | TDC | TIME DELAY CONTROL |
| | | WIRE NUT | |

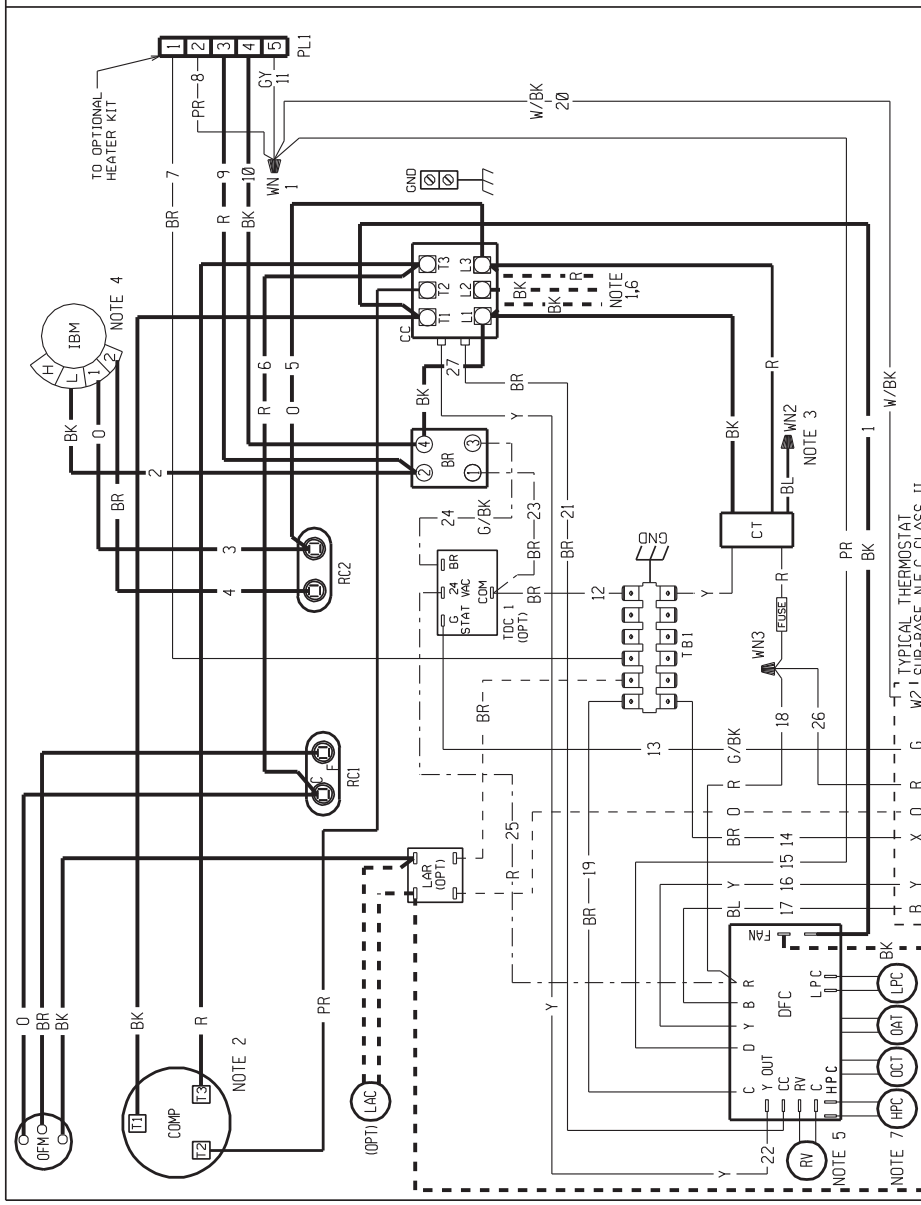
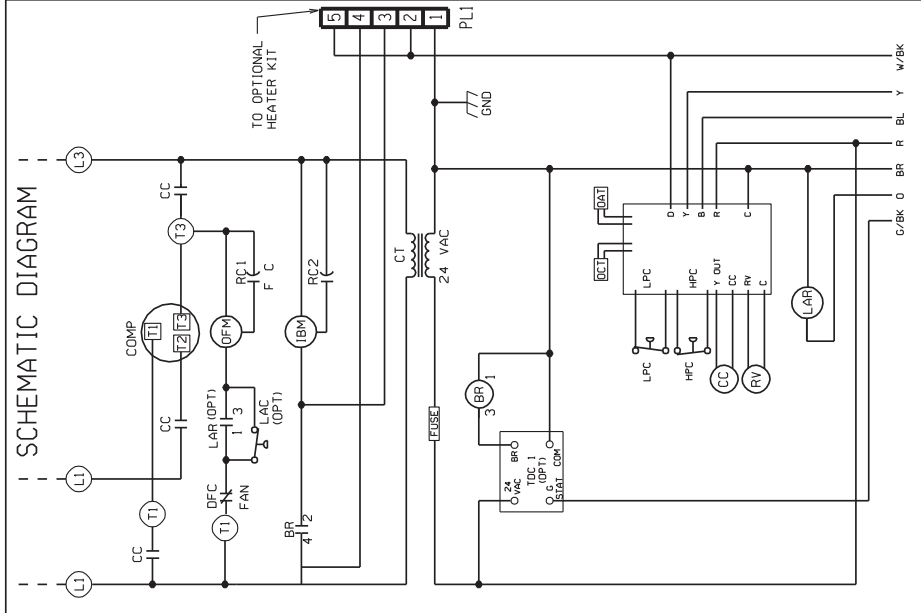
ELECTRICAL WIRING DIAGRAM

PACKAGE HEAT PUMP

1 PH, 208/230 VOLT - 60 HZ

| | |
|---------|-------------|
| REV | DWG. NO. |
| 00 | 90-23621-25 |
| DR. BY | DATE |
| MCB | 01-15-10 |
| APP. BY | |

FIGURE 8
WIRING DIAGRAM



WIRE COLOR CODE

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

ELECTRICAL WIRING DIAGRAM

PACKAGE HEAT PUMP

3 PH, 208/230 VOLT - 60 HZ

DR. BY: MCB
APP. BY: DATE: 01-15-10
DWG. NO.: 90-23621-26
REV: 00

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

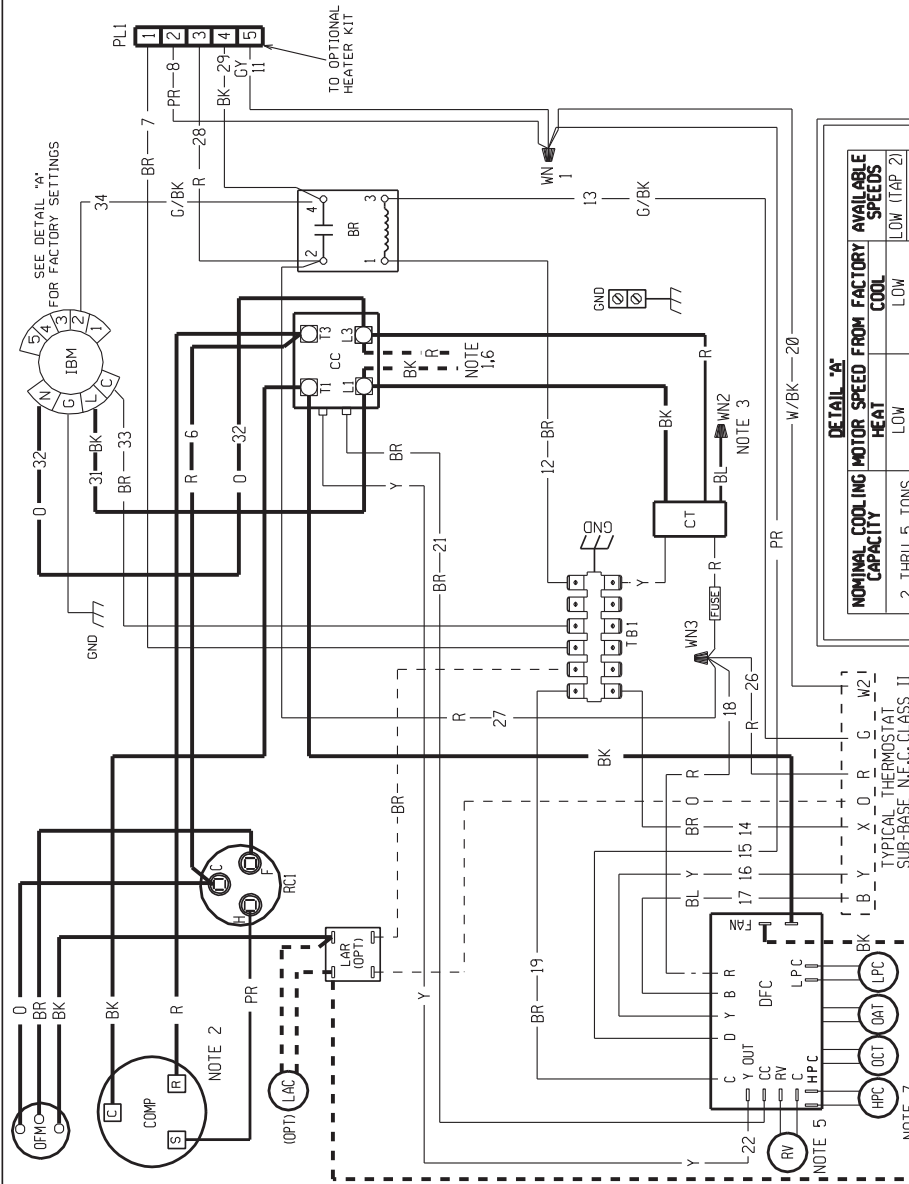
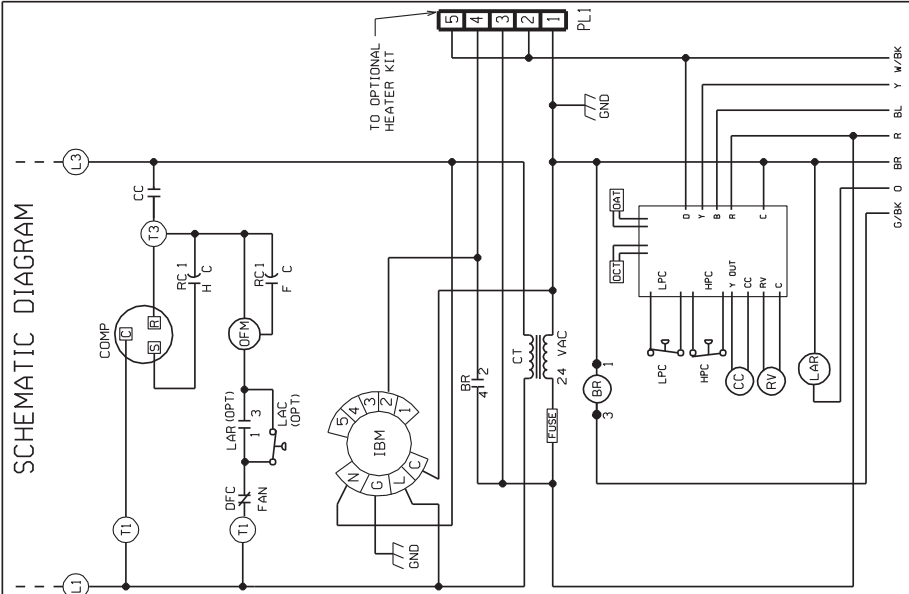
- NOTES:**
- CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
 - COMPRESSOR MOTOR THERMALLY PROTECTED.
 - TRANSFORMER FACTORY WIRED FOR 230 VOLTS. USE RED AND BLUE LEADS FOR 208 VOLTS.
 - MOTOR FACTORY WIRED FOR LOW SPEED. SEE AIRFLOW TABLES IN INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED FOR UNIT APPLICATION.
 - THIS COMPONENT ENERGIZED IN HEATING.
 - FIELD WIRING OR CONNECTION FROM HEATER KIT FUSE BLOCK.
 - HFC TERMINALS ON DFC ARE JUMPED IF HFC IS NOT PRESENT.

COMPONENT CODE

| | |
|----------|------------------------------|
| ALC | AUX LIMIT CONTROL |
| BR | BLOWER RELAY |
| CC | COMPRESSOR CONTACTOR |
| CCH | CRANKCASE HEATER |
| COMP | COMPRESSOR |
| CT | CONTROL TRANSFORMER |
| DFC | DEFROST CONTROL |
| DR | DEFROST RELAY |
| GND | GROUND |
| HGS | HIGH GAS SENSOR |
| HPC | HIGH PRESSURE CONTROL |
| IBM | INDOOR BLOWER MOTOR |
| LAC | LOW AMBIENT COOLING CONTROL |
| LAR | LOW AMBIENT RELAY |
| LPC | LOW PRESSURE CONTROL |
| DAT | OUTDOOR AMBIENT TEMP CONTROL |
| OC | OUTDOOR COIL TEMP CONTROL |
| OPT | OPTIONAL |
| PL | PUMP CAPACITOR |
| RV | REVERSING VALVE |
| TC | TERMINAL BLOCK |
| TBC | TIME DELAY CONTROL |
| WIRE NUT | WIRE NUT |

FIGURE 9
WIRING DIAGRAM

SCHEMATIC DIAGRAM



WIRE COLOR CODE

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

ELECTRICAL WIRING DIAGRAM

PACKAGE HEAT PUMP

1 PH, 208/230 VOLT - 60 HZ

DR. BY DATE DWG. NO. REV
MCB 01-15-10 90-23621-27 00

WIRING INFORMATION

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

NOTES:

- CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
- COMPRESSOR MOTOR THERMALLY PROTECTED.
- TRANSFORMER FACTORY WIRED FOR 230 VOLTS. USE RED AND BLUE LEADS FOR 208 VOLTS.
- MOTOR FACTORY WIRED FOR LOW SPEED. SEE AIRFLOW CORRECT SPEED FOR UNIT APPLICATION.
- THIS COMPONENT ENERGIZED IN HEATING.
- FIELD WIRING OR CONNECTION FROM HEATER KIT FUSE BLOCK.
- HFC TERMINALS ON DFC ARE JUMPERED IF HFC IS NOT PRESENT.

COMPONENT CODE

| | | | |
|------|-----------------------|-----|------------------------------|
| ALC | AUX. LIMIT CONTROL | LAC | LOW AMBIENT COOLING CONTROL |
| BR | BLOWER RELAY | LAR | LOW AMBIENT RELAY |
| CC | COMPRESSOR CONTACTOR | LPC | LOW PRESSURE CONTROL |
| COMP | COMPRESSOR HEATER | OAT | OUTDOOR AMBIENT TEMP CONTROL |
| CT | CONTROL TRANSFORMER | OFM | OUTDOOR FAN MOTOR |
| DFC | DEFROST CONTROL | OPT | OPTIONAL |
| DIS | DEFROST SENSOR | PL | PLUG |
| GND | GROUND | RC | RUN CAPACITOR |
| HGS | HOT GAS SENSOR | RV | REVERSING VALVE |
| HPC | HIGH PRESSURE CONTROL | TB | TERMINAL BLOCK |
| IBM | INDOOR BLOWER MOTOR | TDC | TIME DELAY CONTROL |

DETAIL 'A'

| NOMINAL COOLING CAPACITY | MOTOR SPEED | HEAT | COOL | AVAILABLE SPEEDS |
|--------------------------|-------------|------|------|------------------|
| 2 THRU 5 TONS | (TAP 2) | LOW | LOW | LOW (TAP 2) |
| | (TAP 2) | LOW | LOW | HIGH (TAP 1) |

DETAIL 'A'

SEE DETAIL 'A' FOR FACTORY SETTINGS

NOTE 1: 6

NOTE 2

NOTE 3

NOTE 5

NOTE 7

NOTE 16

TYPICAL THERMOSTAT SUB-BASE N.E.C. CLASS II

FIGURE 10
WIRING DIAGRAM

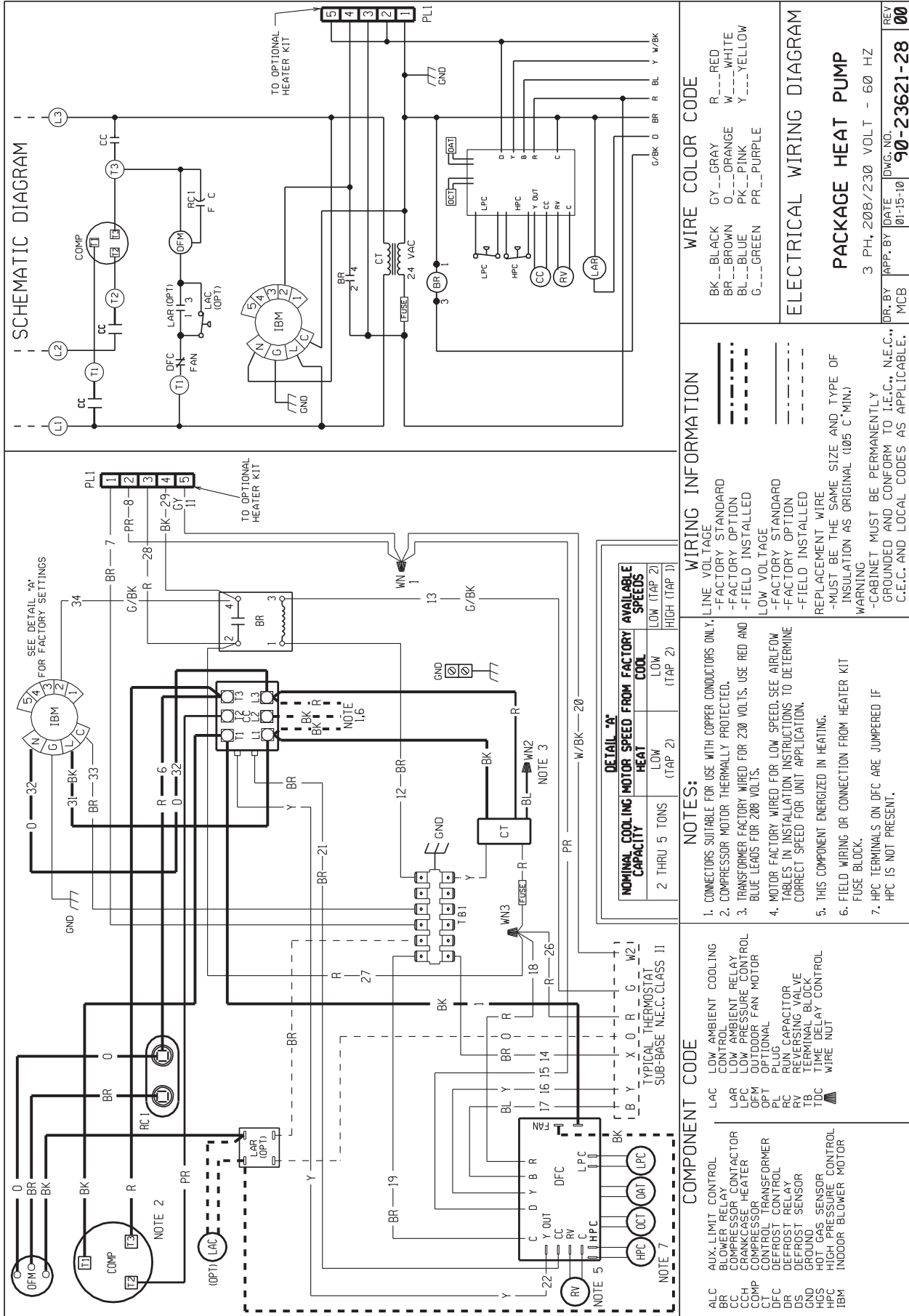


FIGURE 11
WIRING DIAGRAM

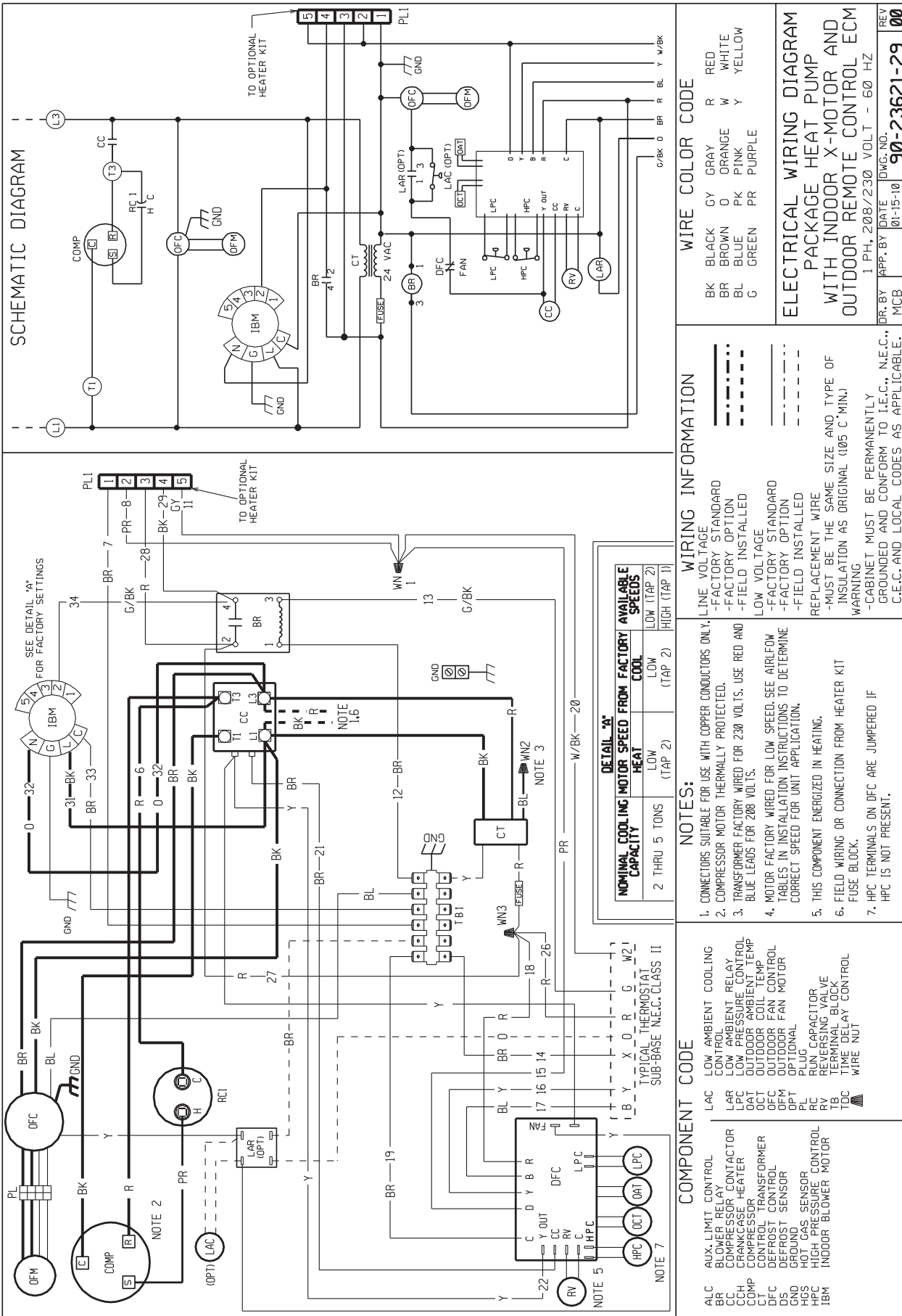
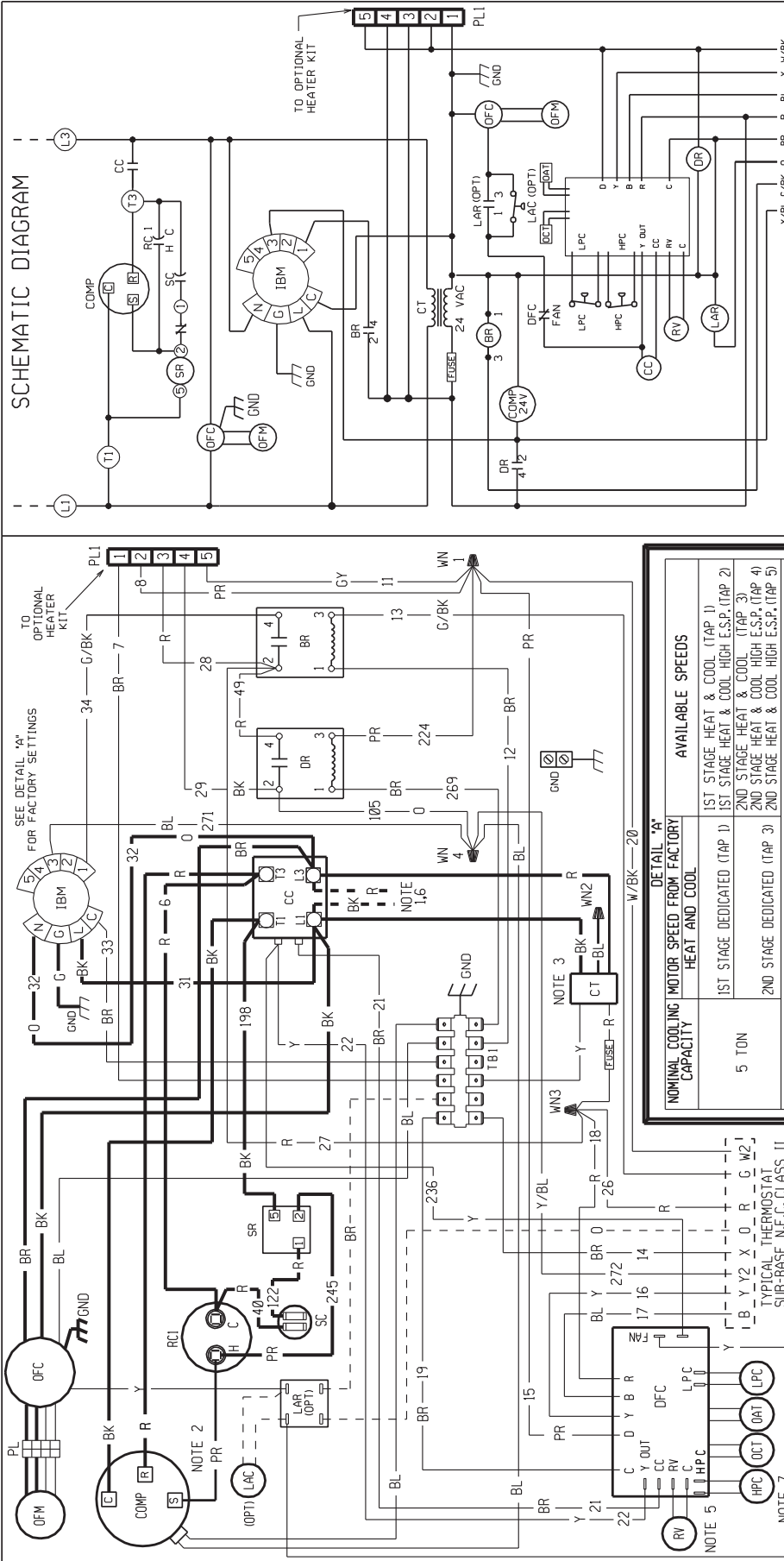


FIGURE 13
WIRING DIAGRAM

SCHEMATIC DIAGRAM



WIRE COLOR CODE

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

ELECTRICAL WIRING DIAGRAM
2-STG PACKAGE HEAT PUMP
WITH INDOOR X-MOTOR AND
OUTDOOR REMOTE CONTROL ECM
1 PH, 208/230 VOLT - 60 HZ

DR. BY: MGR
APP. BY: DATE: 9-10-10
DWG. NO.: **90-23621-40**
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 (105 C MIN.)
- CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C. AND LOCAL CODES AS APPLICABLE.

NOTES:

- CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
- COMPRESSOR MOTOR THERMALLY PROTECTED.
- TRANSFORMER FACTORY WIRED FOR 230 VOLTS. USE RED AND BLUE LEADS FOR 208 VOLTS.
- MOTOR FACTORY WIRED FOR LOW SPEED. SEE AIRFLOW CORRECT SPEED FOR UNIT APPLICATION.
- THIS COMPONENT ENERGIZED IN HEATING.
- FIELD WIRING OR CONNECTION FROM HEATER KIT FUSE BLOCK.
- HFC TERMINALS ON DFC ARE JUMPED IF HFC IS NOT PRESENT.

COMPONENT CODE

| | |
|------|-----------------------------|
| ALC | AUX. LIMIT CONTROL |
| BR | BLOWER RELAY |
| CC | COMPRESSOR CONTACTOR |
| CCH | CRANKCASE HEATER |
| COMP | COMPRESSOR |
| DFC | DEFROST CONTROL |
| DR | DEFROST RELAY |
| DS | DEFROST SENSOR |
| GND | GROUND |
| HGS | HOT GAS SENSOR |
| HPC | HIGH PRESSURE CONTROL |
| IBM | INDOOR BLOWER MOTOR |
| LAC | LOW AMBIENT COOLING CONTROL |
| LAR | LOW AMBIENT RELAY |
| LPC | LOW PRESSURE CONTROL |
| OAT | OUTDOOR AMBIENT TEMP |
| OCT | OUTDOOR COIL TEMP |
| OCF | OUTDOOR FAN CONTROL |
| OFM | OUTDOOR FAN MOTOR |
| OPT | OPTIONAL |
| PL | PLUG |
| RC | RUN CAPACITOR |
| RV | REVERSING VALVE |
| SC | START CAPACITOR |
| SR | START RELAY |
| TBC | TERMINAL BLOCK |
| TDC | TIME DELAY CONTROL |
| W | WIRE NUT |

DETAIL 'A'

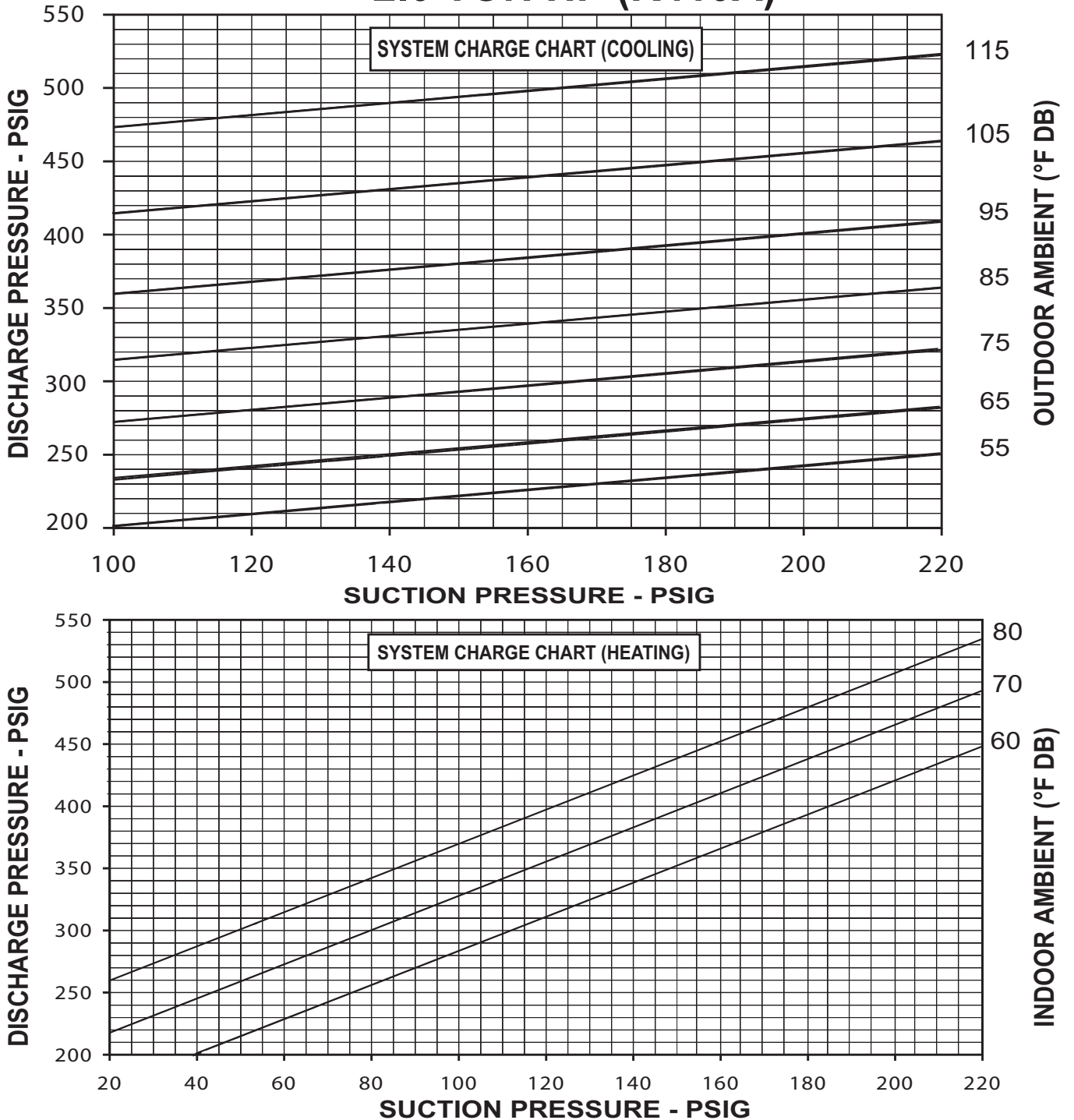
| NOMINAL COOLING MOTOR SPEED FROM FACTORY CAPACITY | AVAILABLE SPEEDS |
|---|---|
| 5 TON | 1ST STAGE HEAT & COOL (TAP 1) |
| | 1ST STAGE HEAT & COOL-HIGH E.S.P. (TAP 2) |
| | 2ND STAGE HEAT & COOL (TAP 3) |
| | 2ND STAGE HEAT & COOL-HIGH E.S.P. (TAP 4) |
| | 2ND STAGE HEAT & COOL-HIGH E.S.P. (TAP 5) |

NOTE: AUXILIARY ELECTRIC HEAT SPEED IS THE SAME AS 2ND STAGE HEAT AND COOL.

FIGURE 14
CHARGING CHART

13/14 SEER

2.0 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

INSTRUCTIONS:

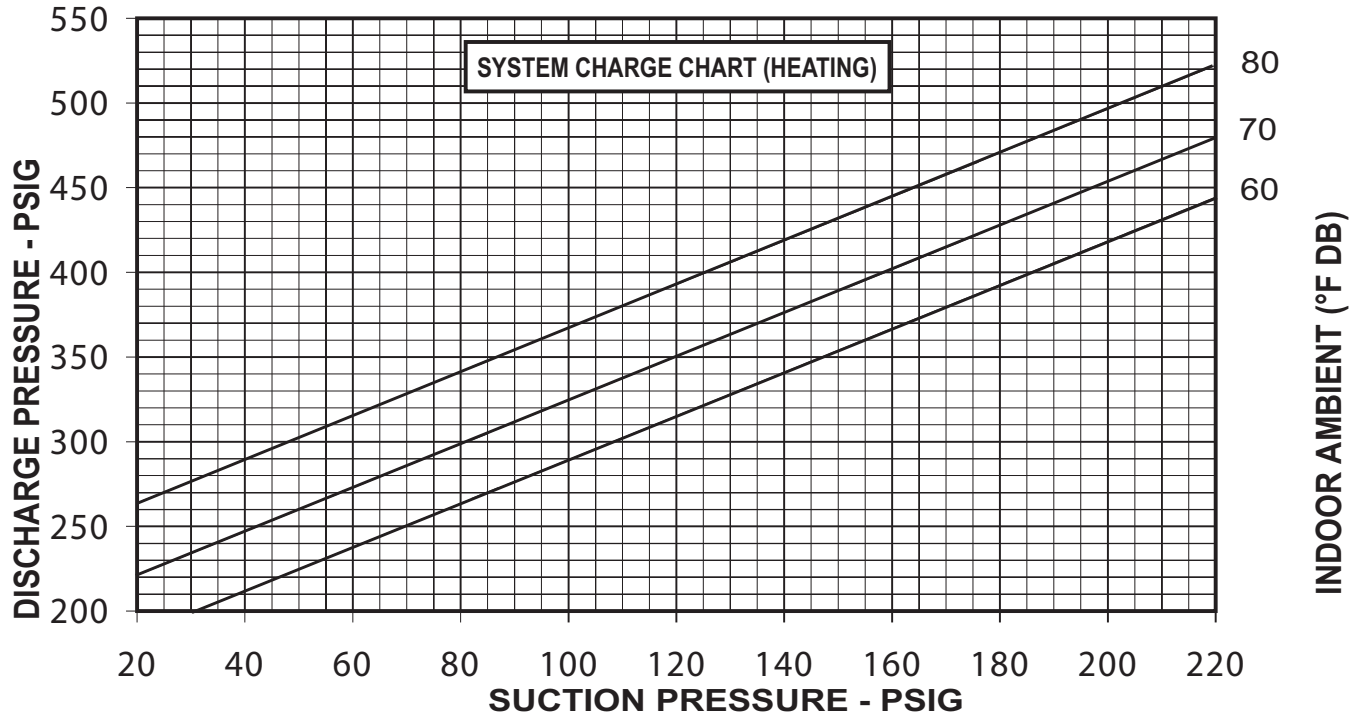
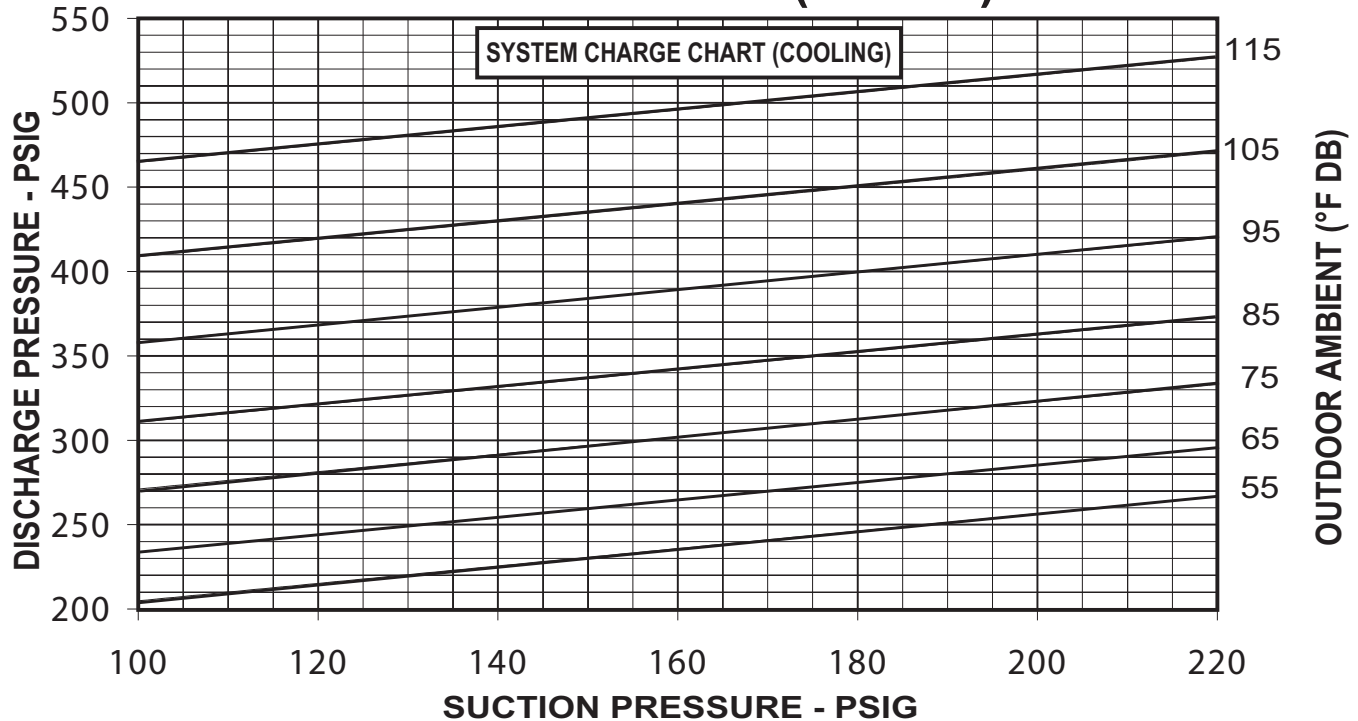
1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE PRESSURES CROSS.
4. IF "X" IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF "X" IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

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FIGURE 15
CHARGING CHART

13/14 SEER

2.5 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

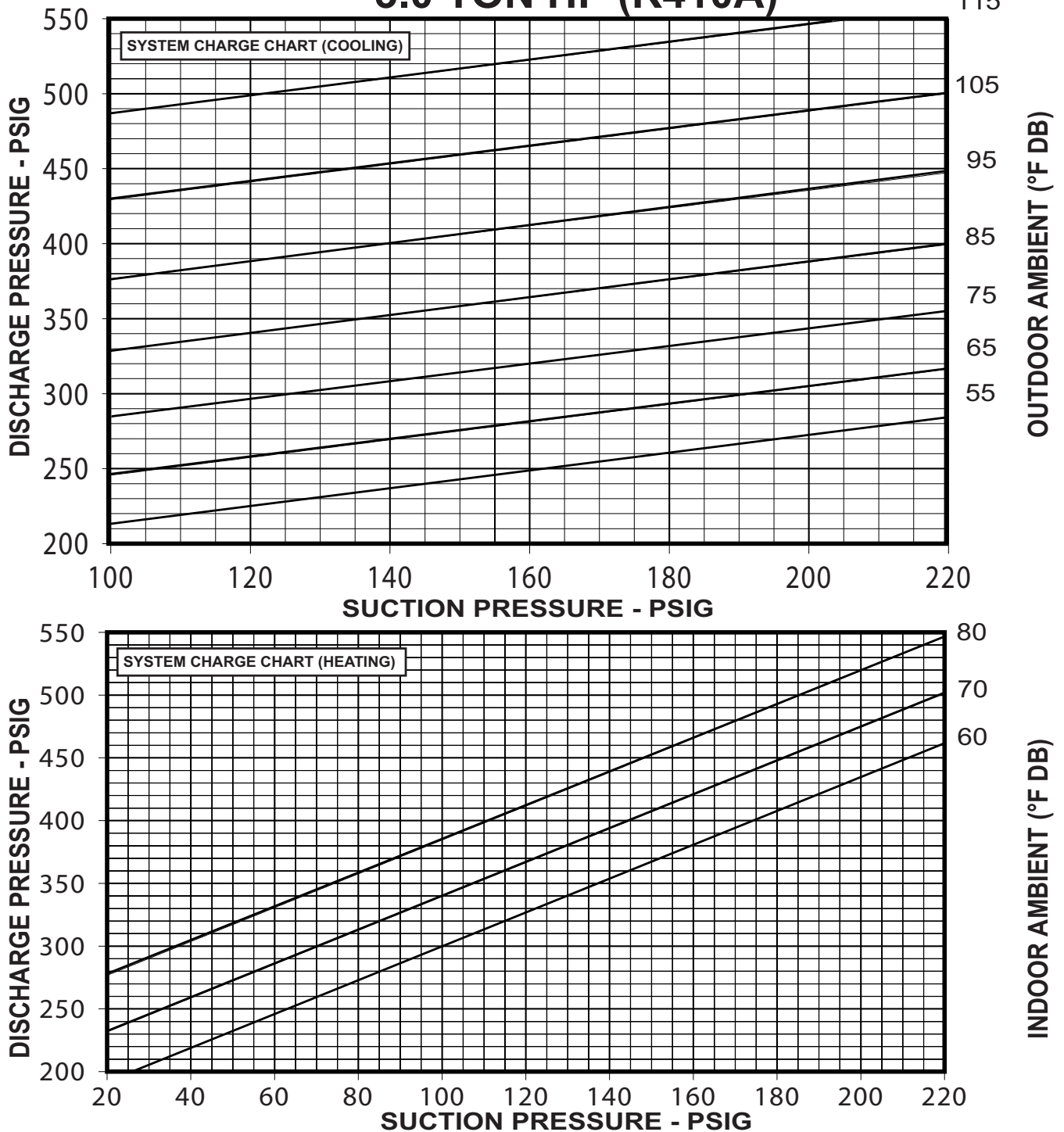
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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. 92-102273-02-01

FIGURE 16
CHARGING CHART

13/14 SEER

3.0 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

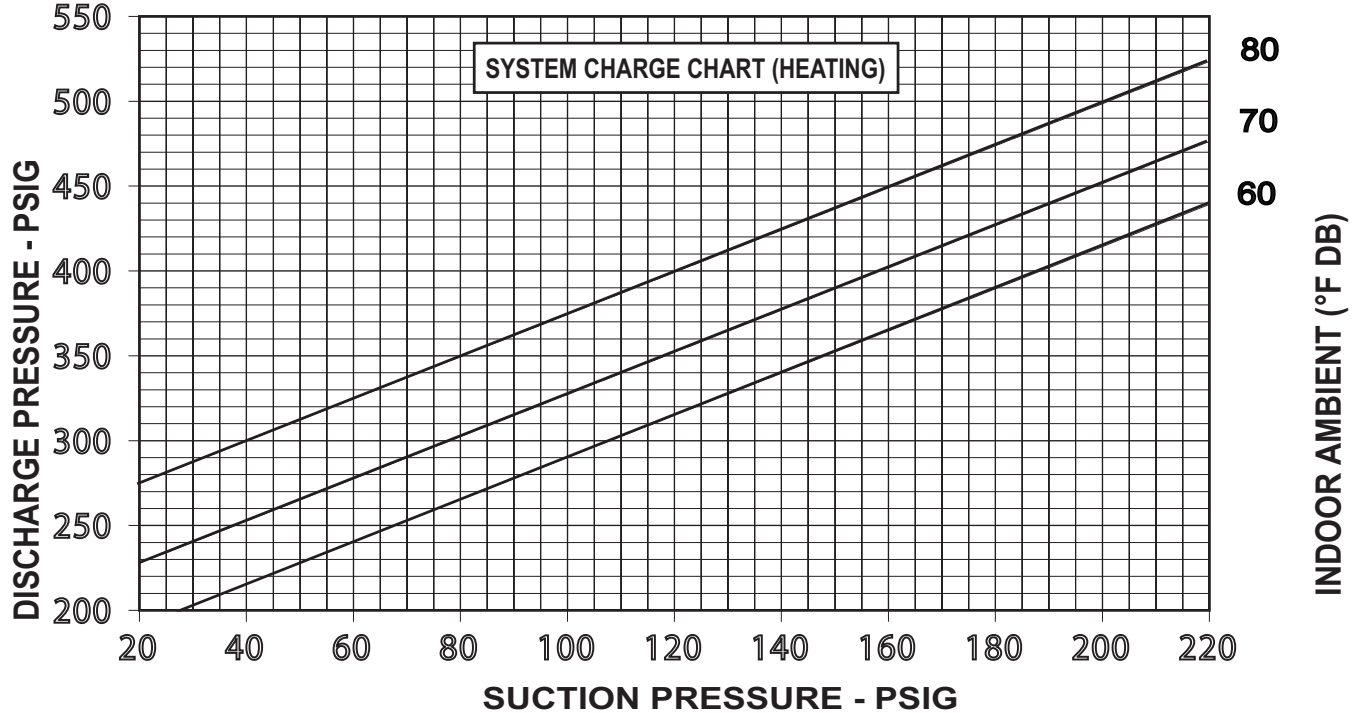
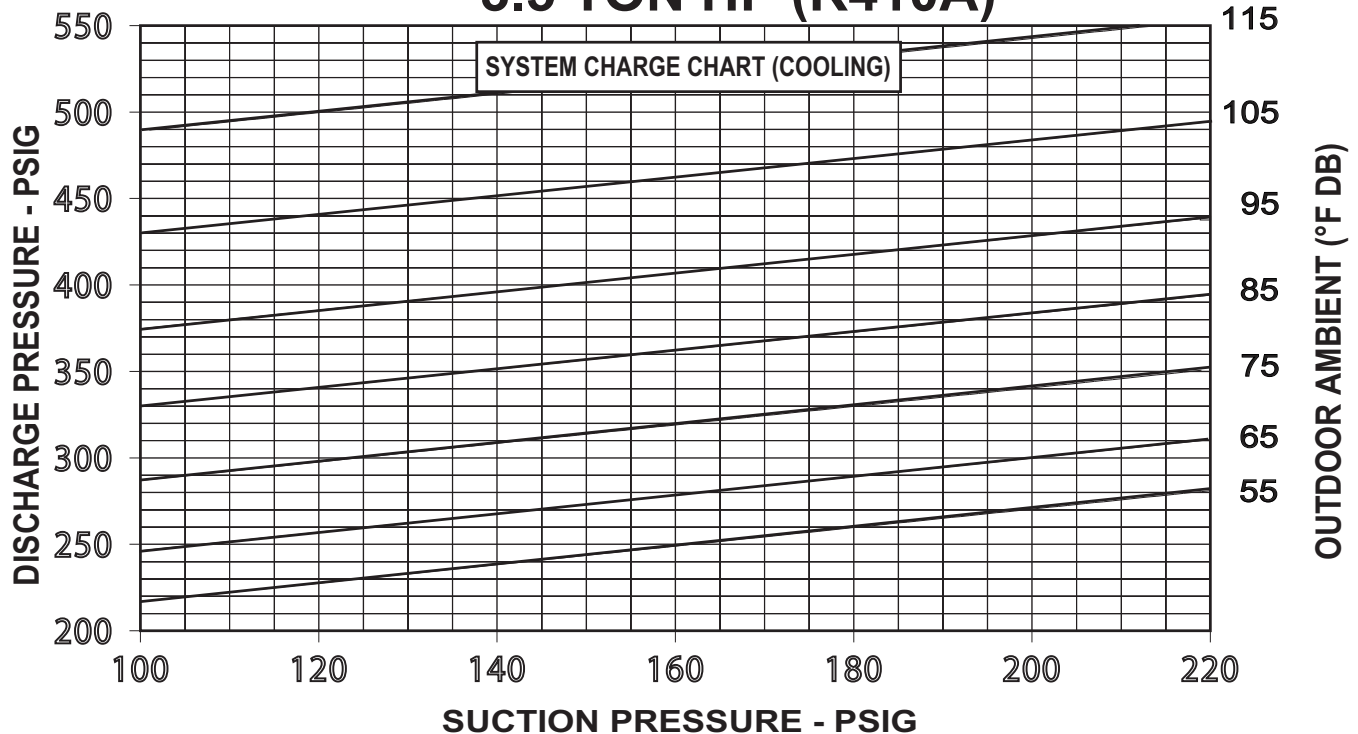
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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. 92-102273-03-01

FIGURE 17
CHARGING CHART - MODEL -042 ONLY

13/14 SEER

3.5 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

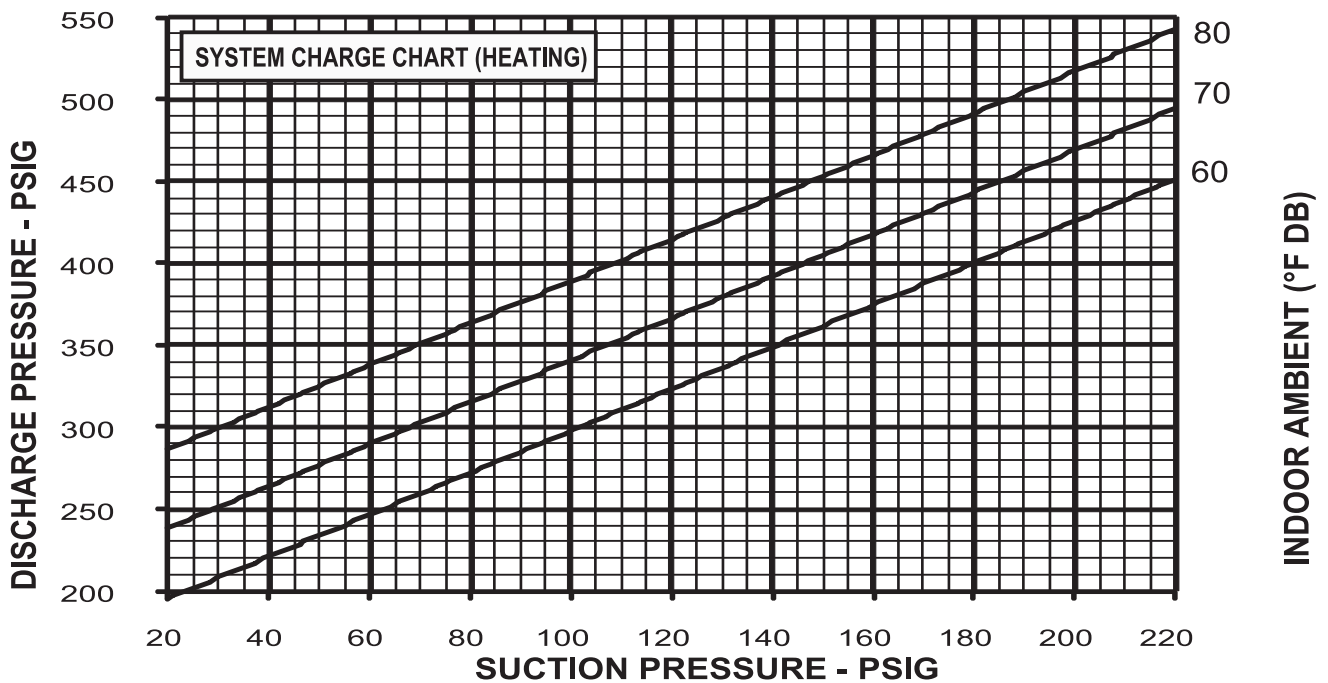
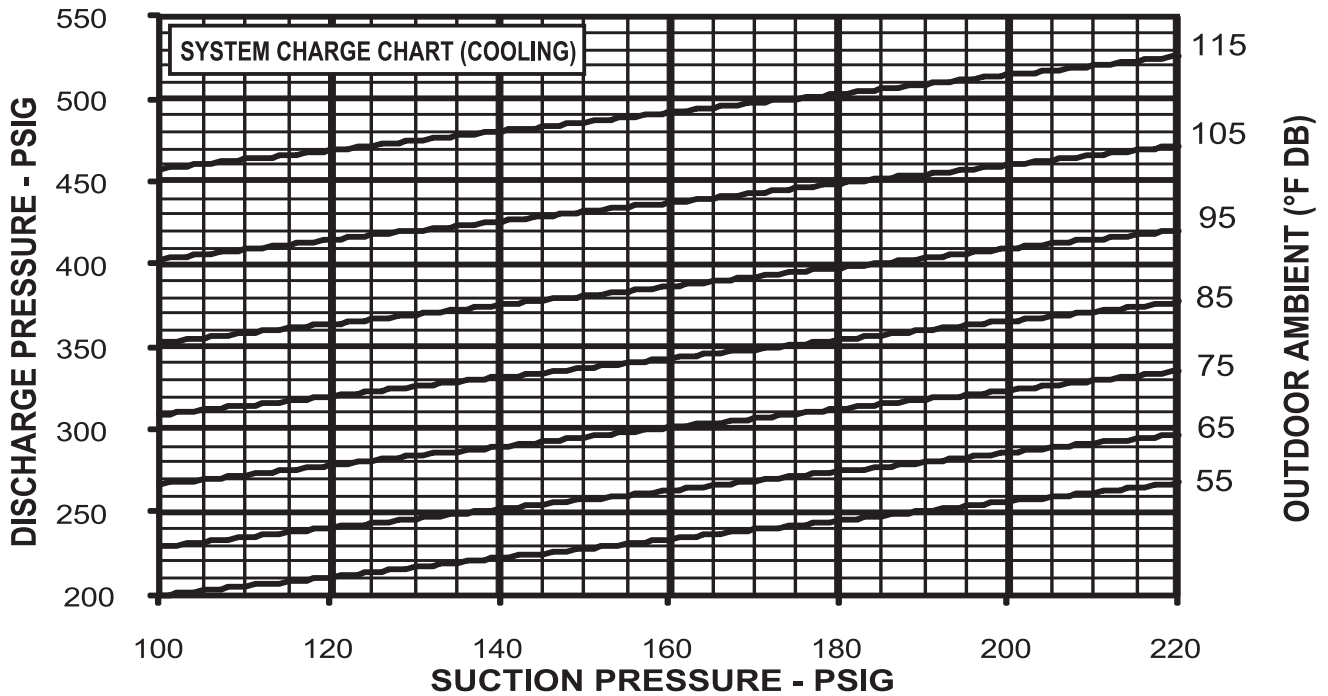
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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. 92-102273-04-01

FIGURE 18
CHARGING CHART – MODEL -043 ONLY

13/14 SEER

3.5 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

INSTRUCTIONS:

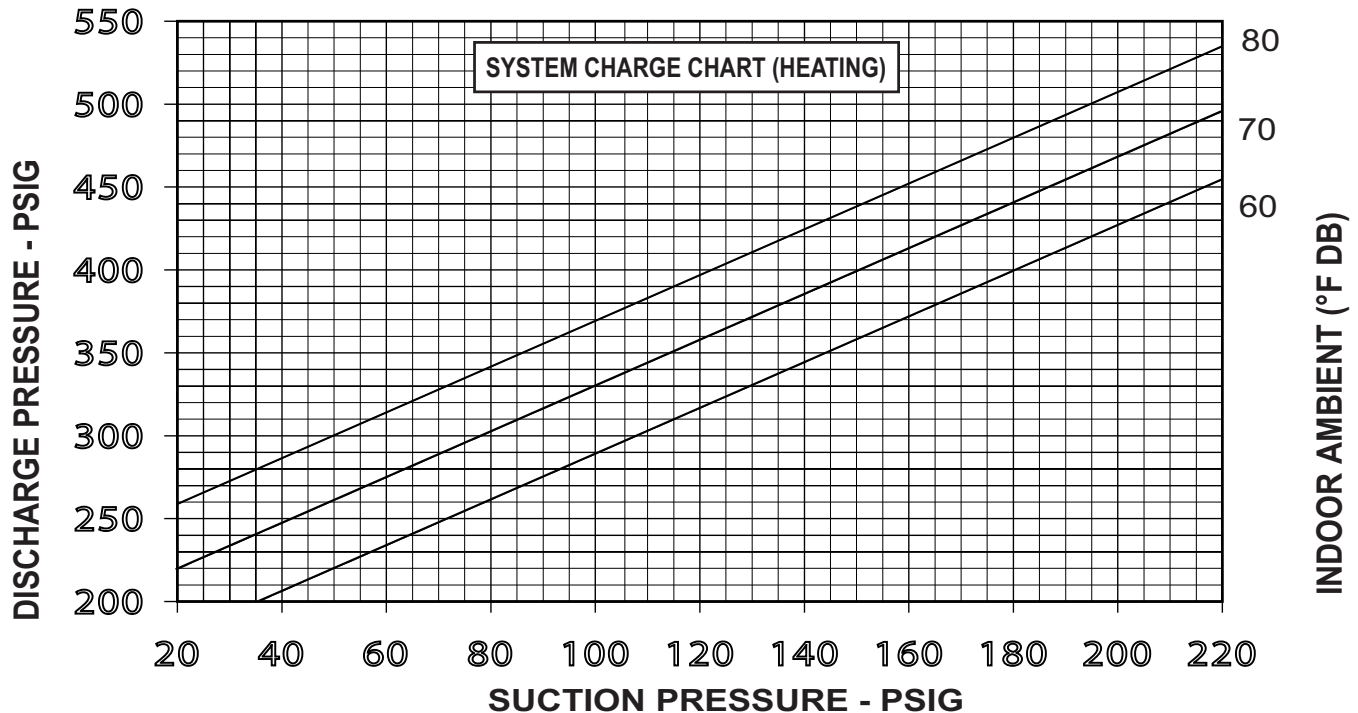
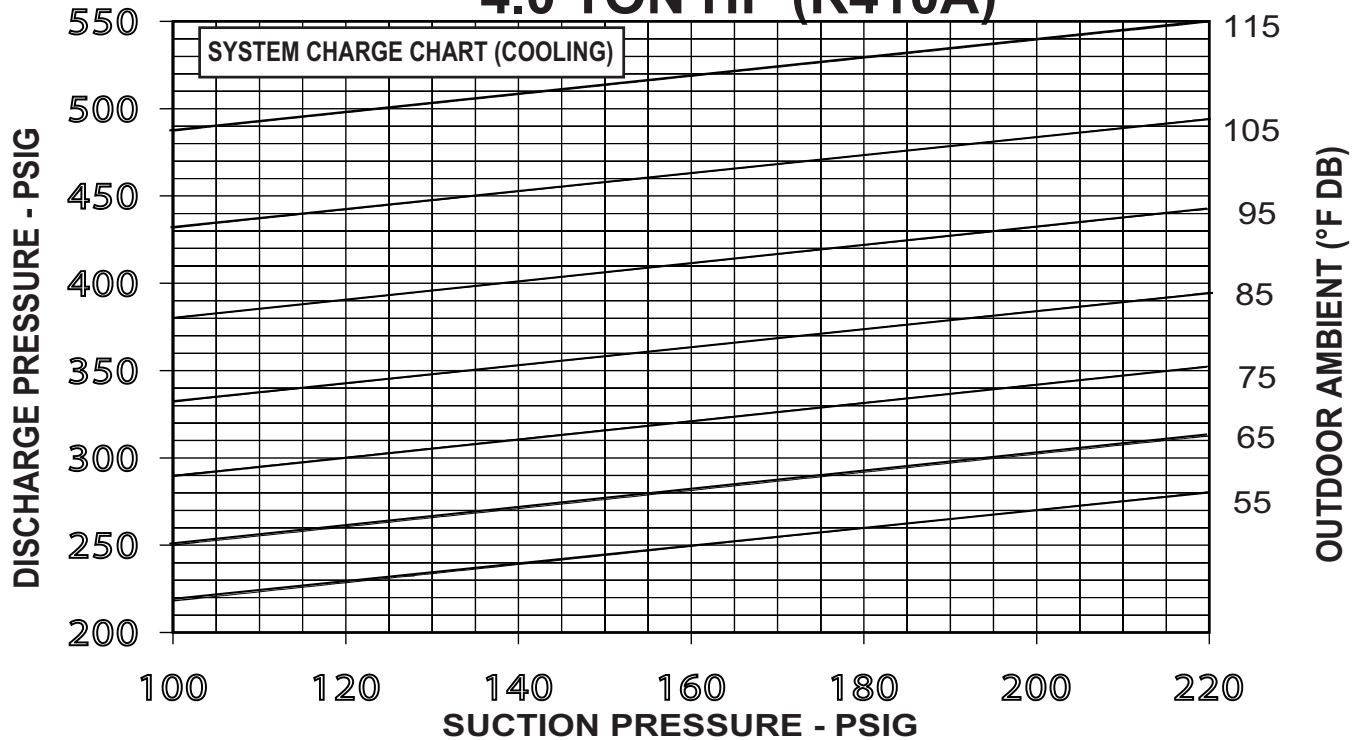
1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN 'X' ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE PRESSURES CROSS.
4. IF 'X' IS BELOW AMBIENT TEMPERATURE LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF 'X' IS ABOVE AMBIENT TEMPERATURE LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 3.

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FIGURE 19
CHARGING CHART

13/14 SEER

4.0 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

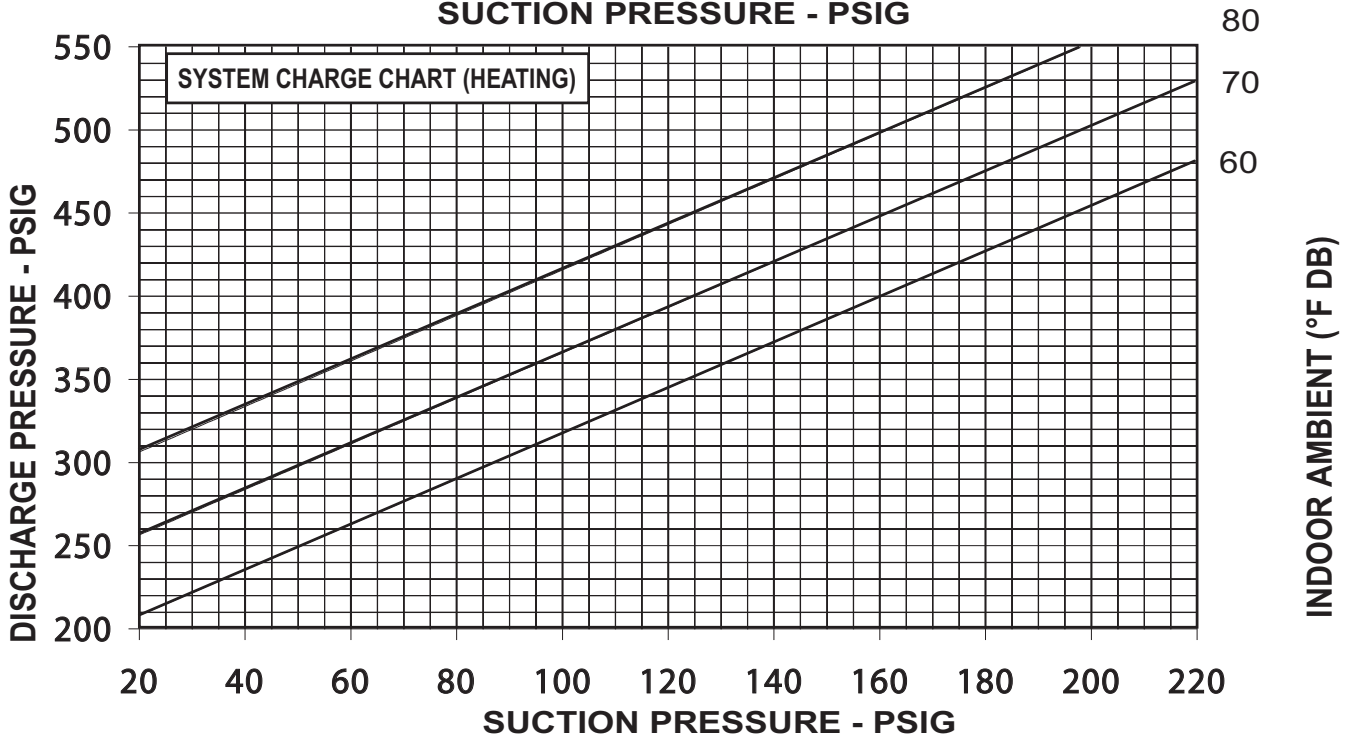
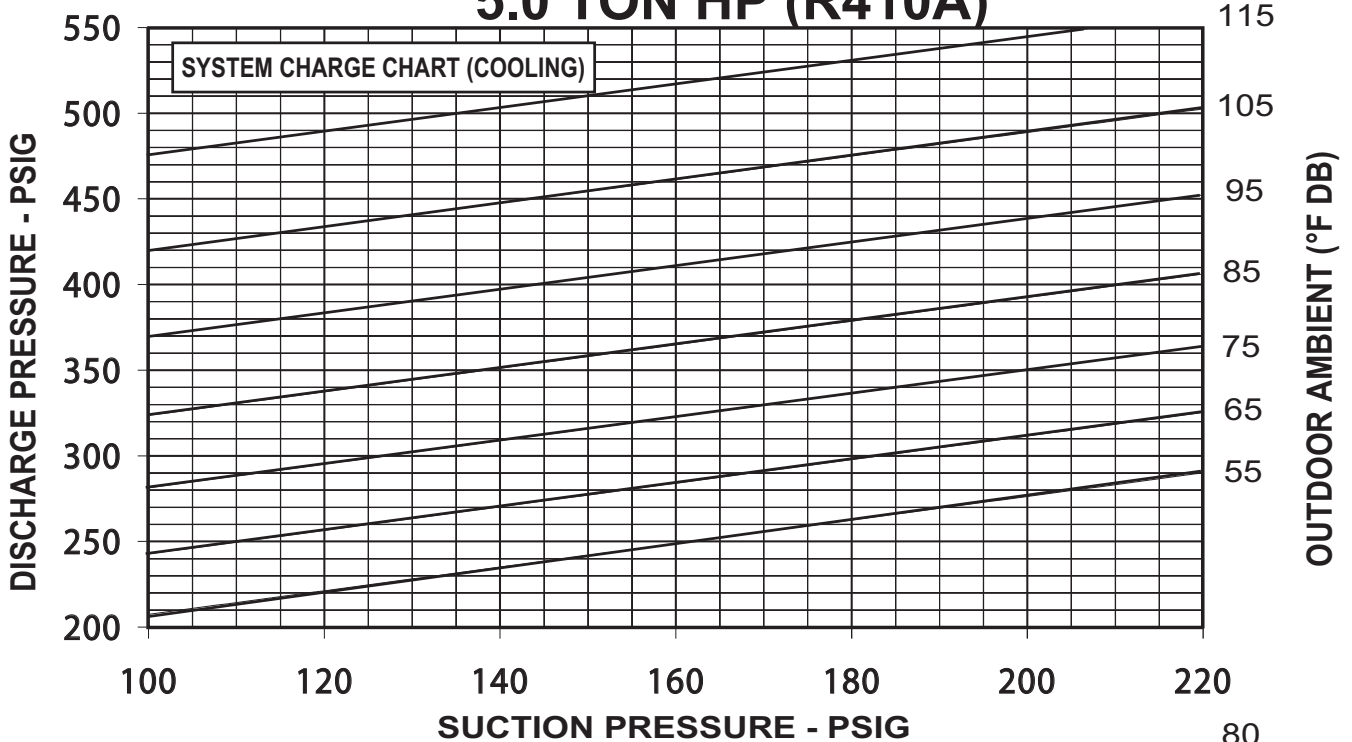
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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. 92-102273-05-01

FIGURE 20
CHARGING CHART

13/14 SEER

5.0 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

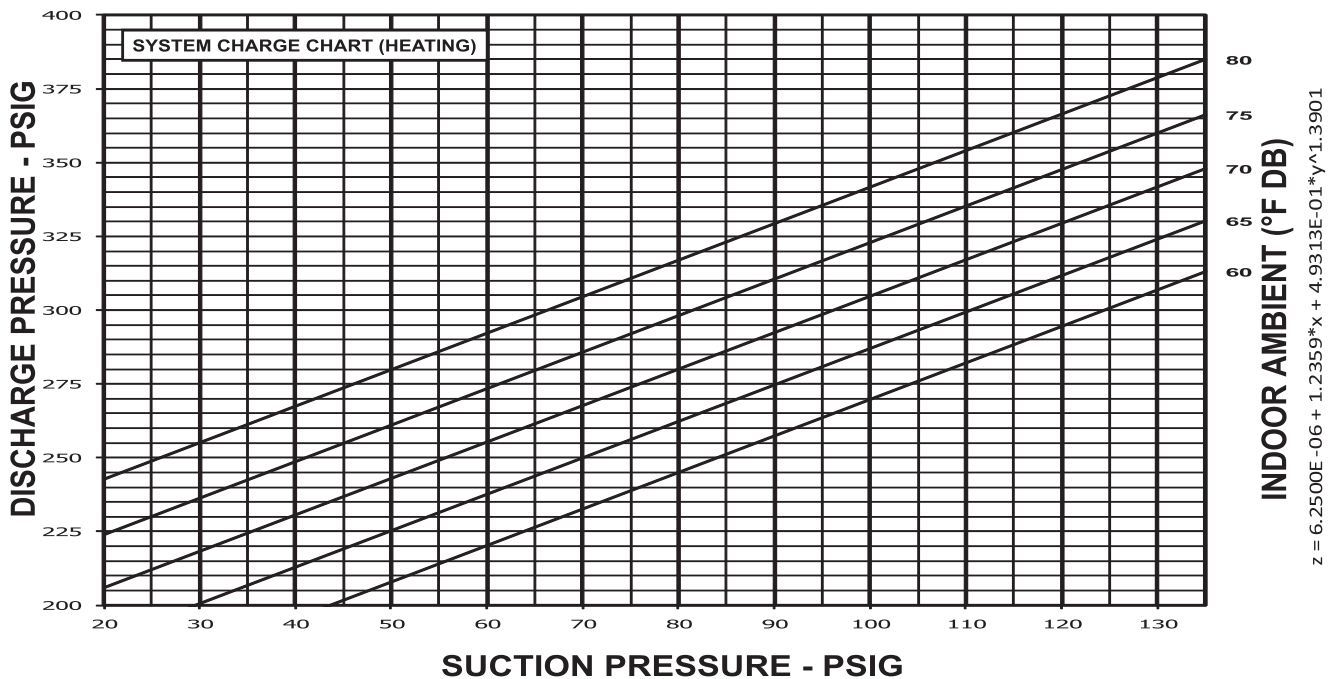
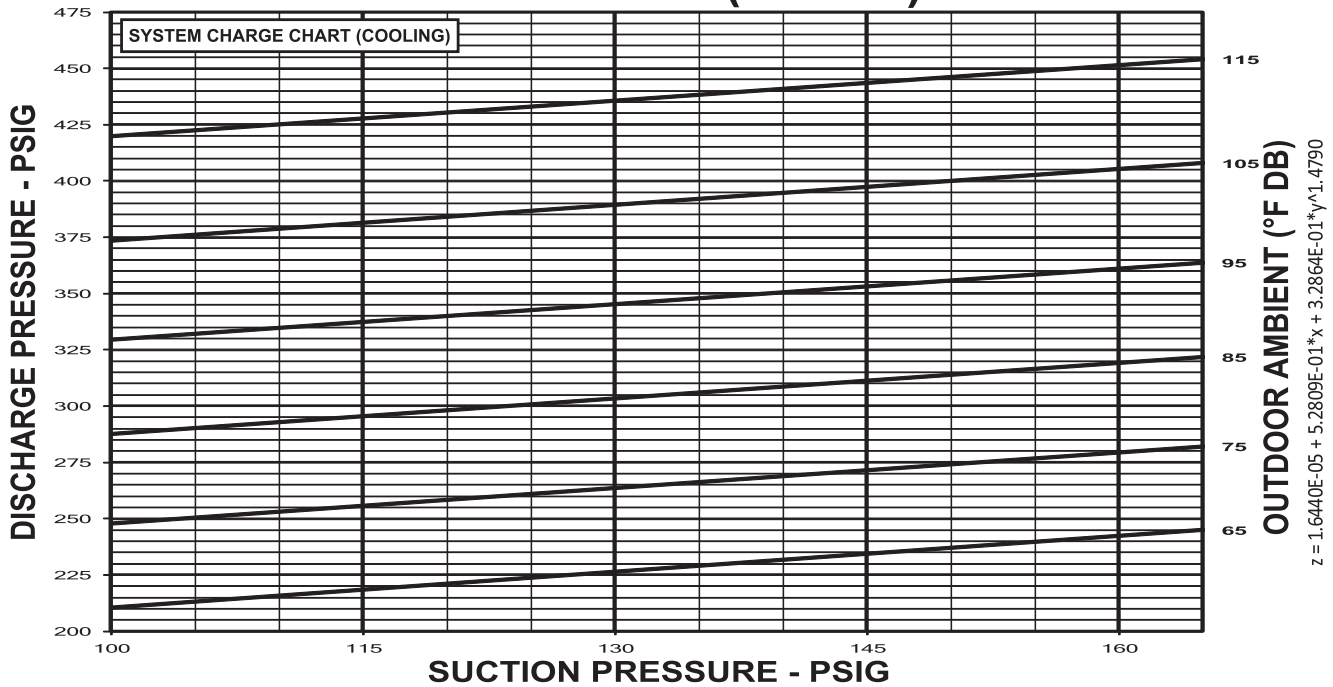
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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. 92-102273-06-01

FIGURE 21
CHARGING CHART

16 SEER

2 TON HP (R410A)



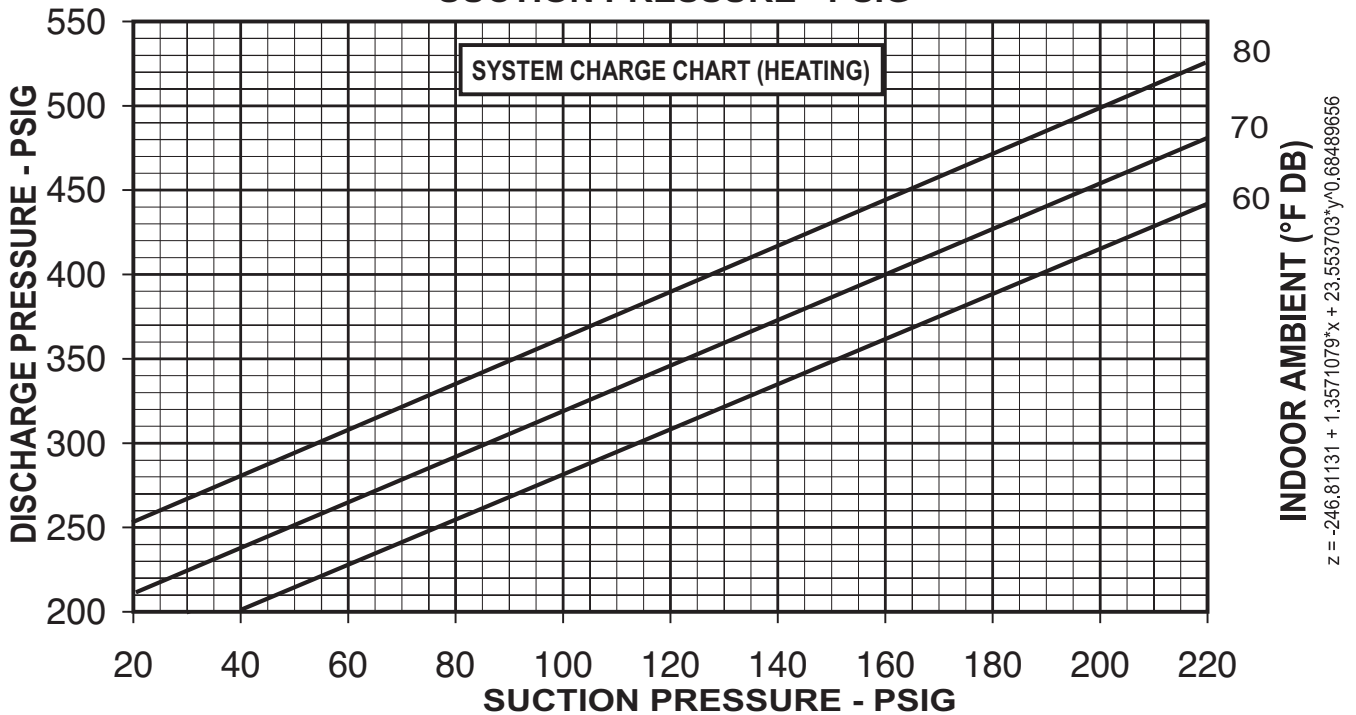
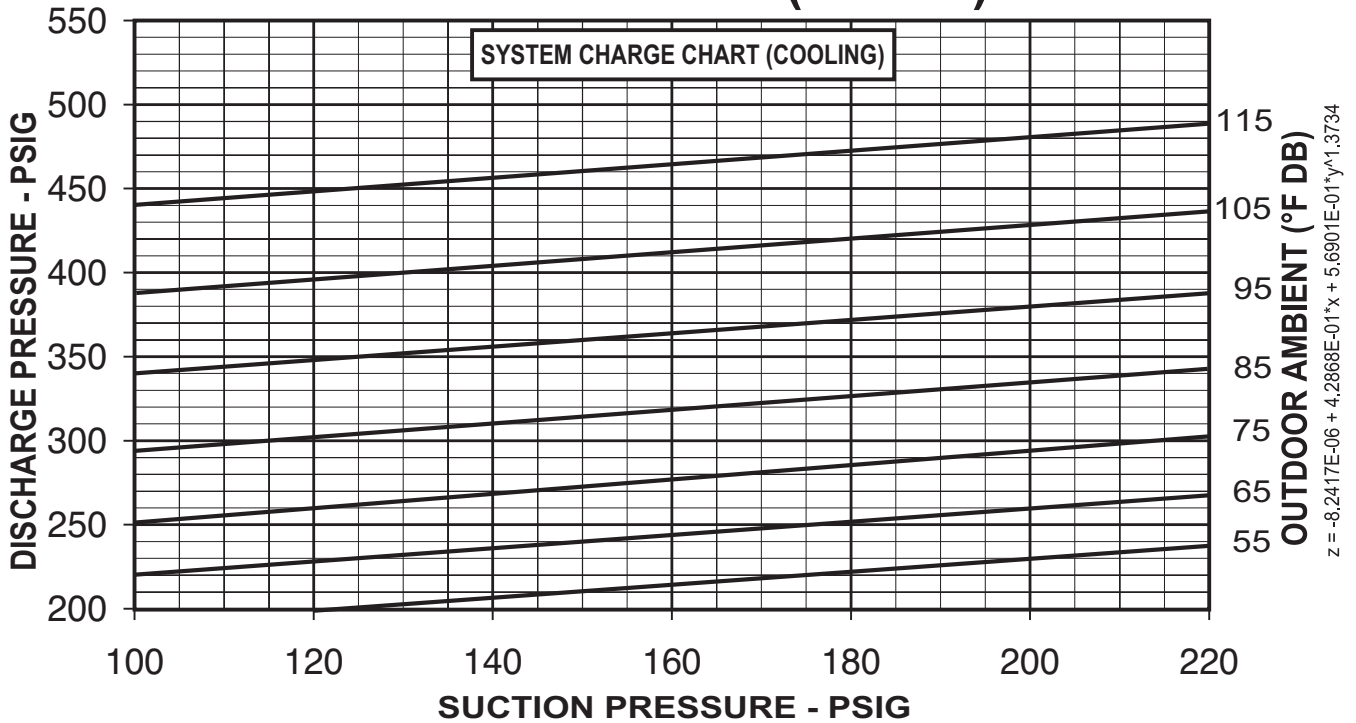
CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

- INSTRUCTIONS:**
1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
 2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
 3. PLACE AN 'X' ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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.

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FIGURE 22
CHARGING CHART

16 SEER 2.5 TON HP (R410A)



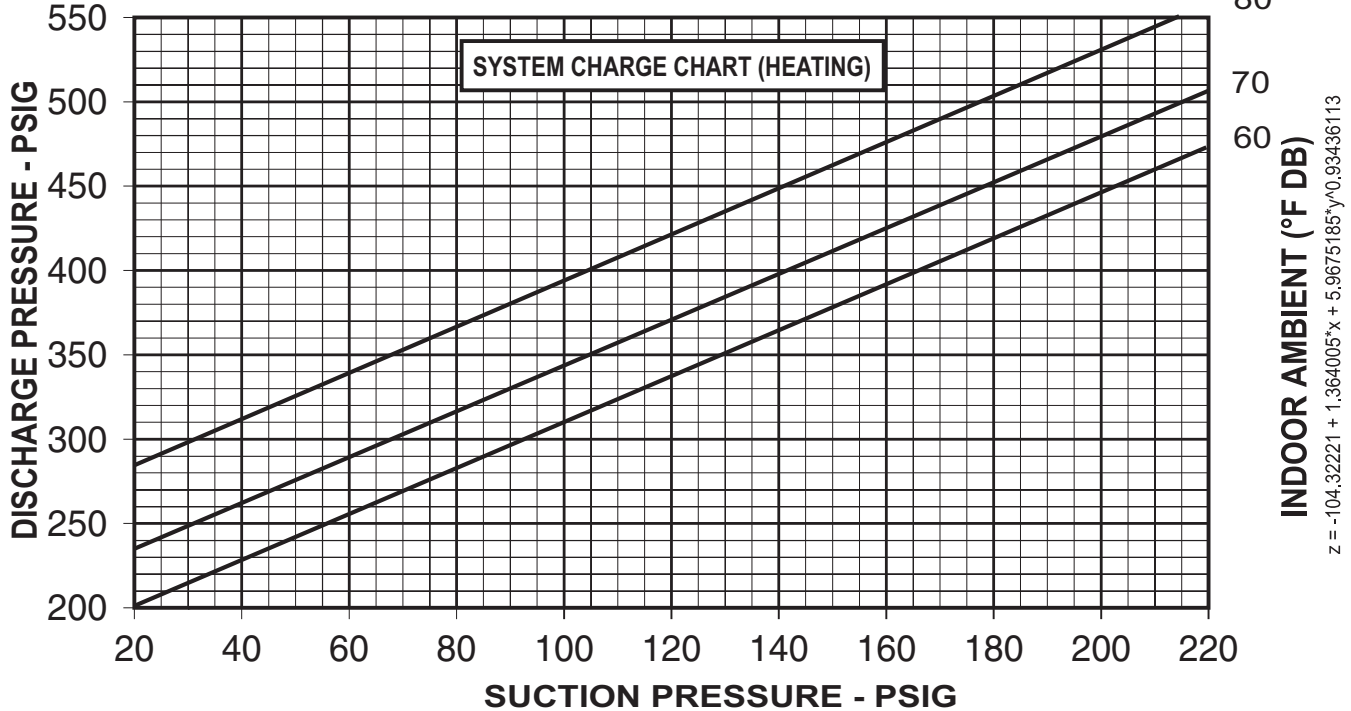
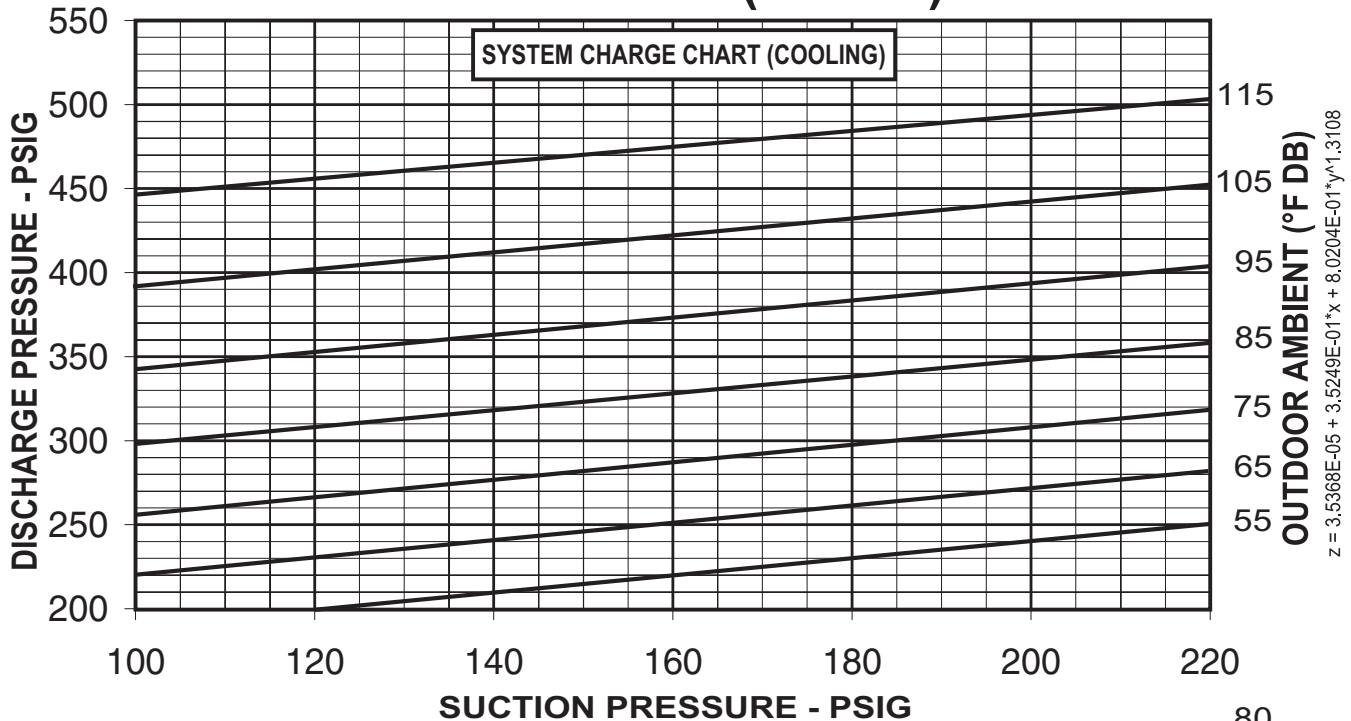
CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN 'X' ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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. 92-103651-02-00

FIGURE 23
CHARGING CHART

16 SEER 3 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

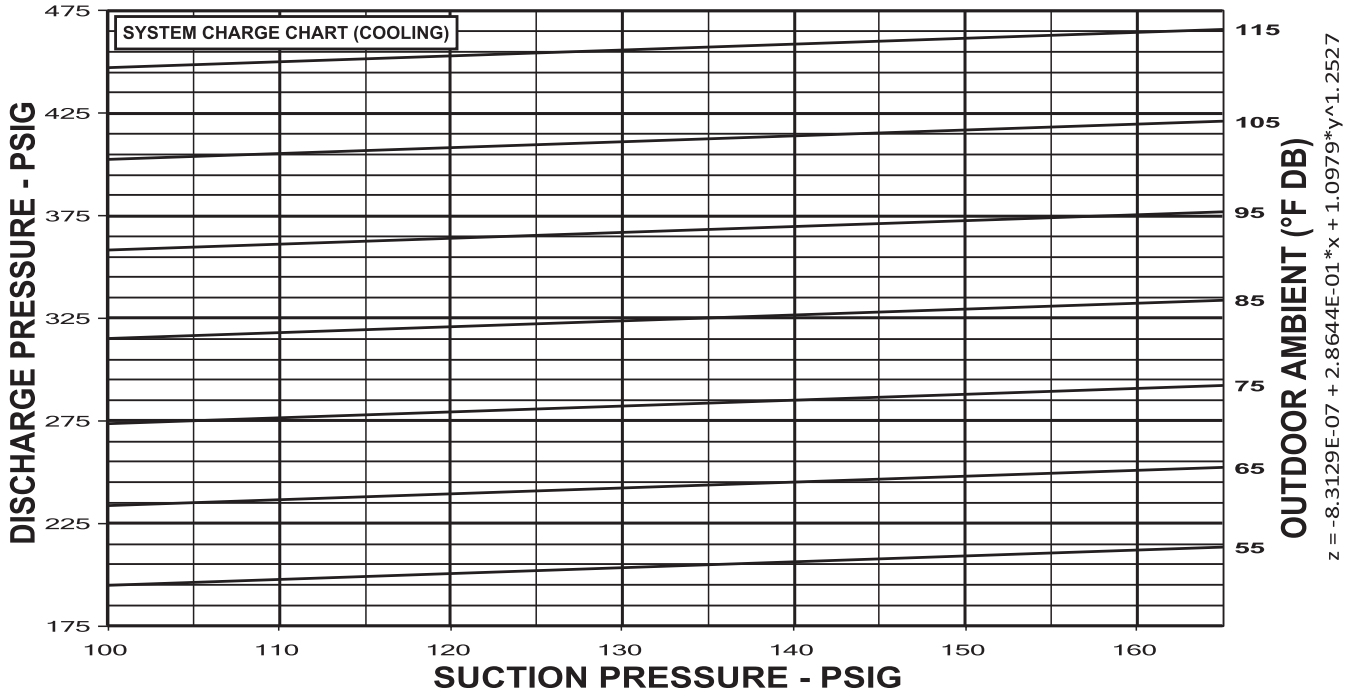
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN 'X' ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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.

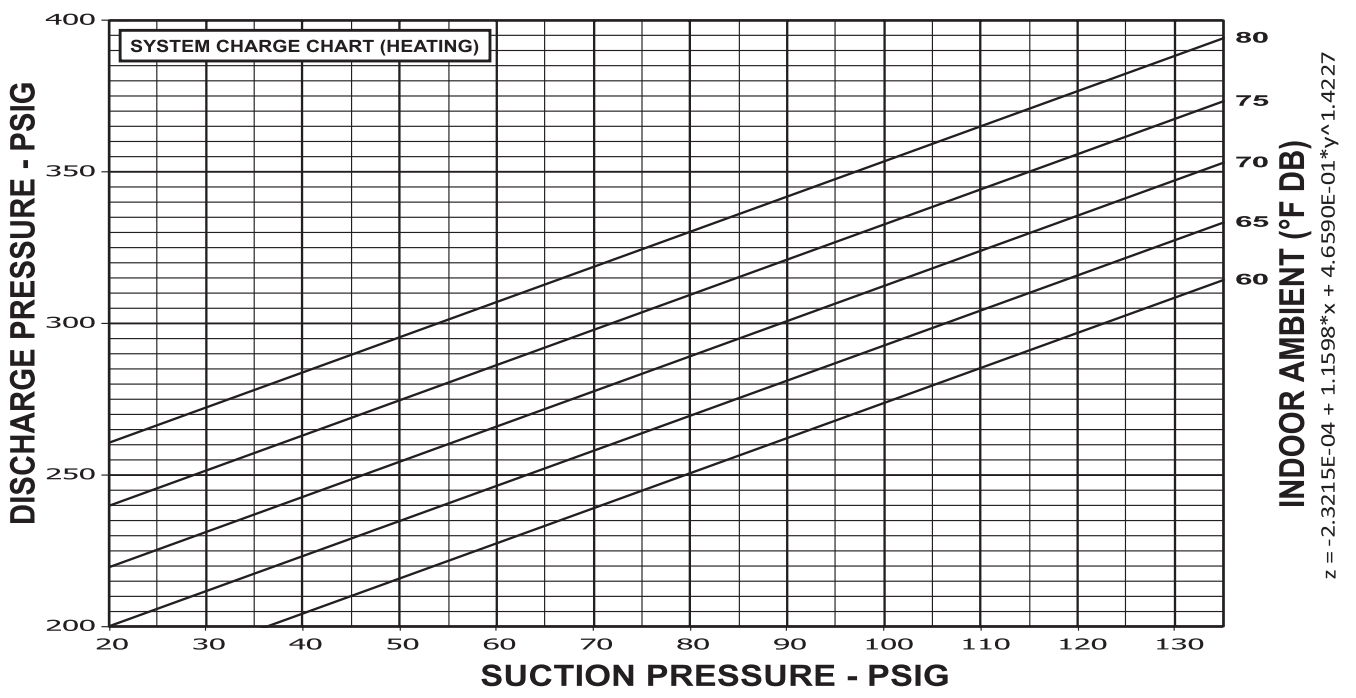
FIGURE 24
CHARGING CHART

16 SEER

3-1/2 TON HP (R410-a)



$$z = -8.3129E-07 + 2.8644E-01 * x + 1.0979 * y^{1.2527}$$



$$z = -2.3215E-04 + 1.1598 * x + 4.6590E-01 * y^{1.4227}$$

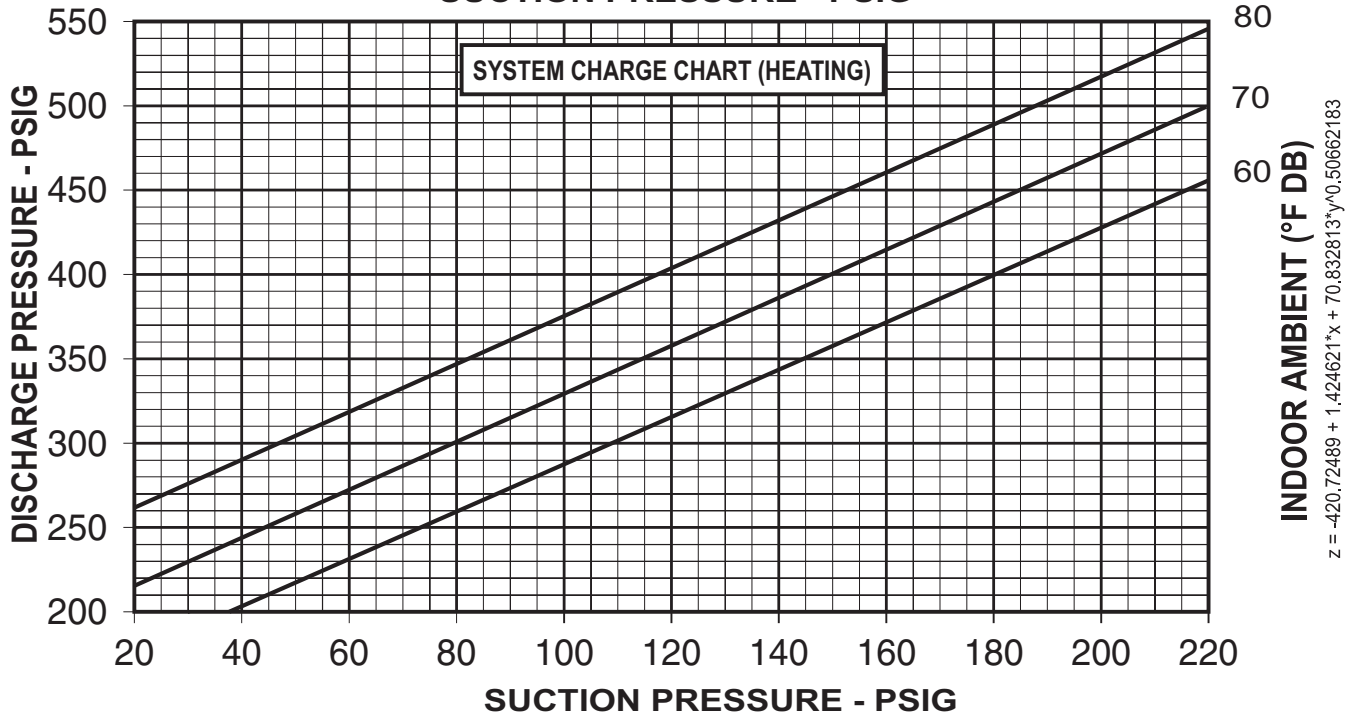
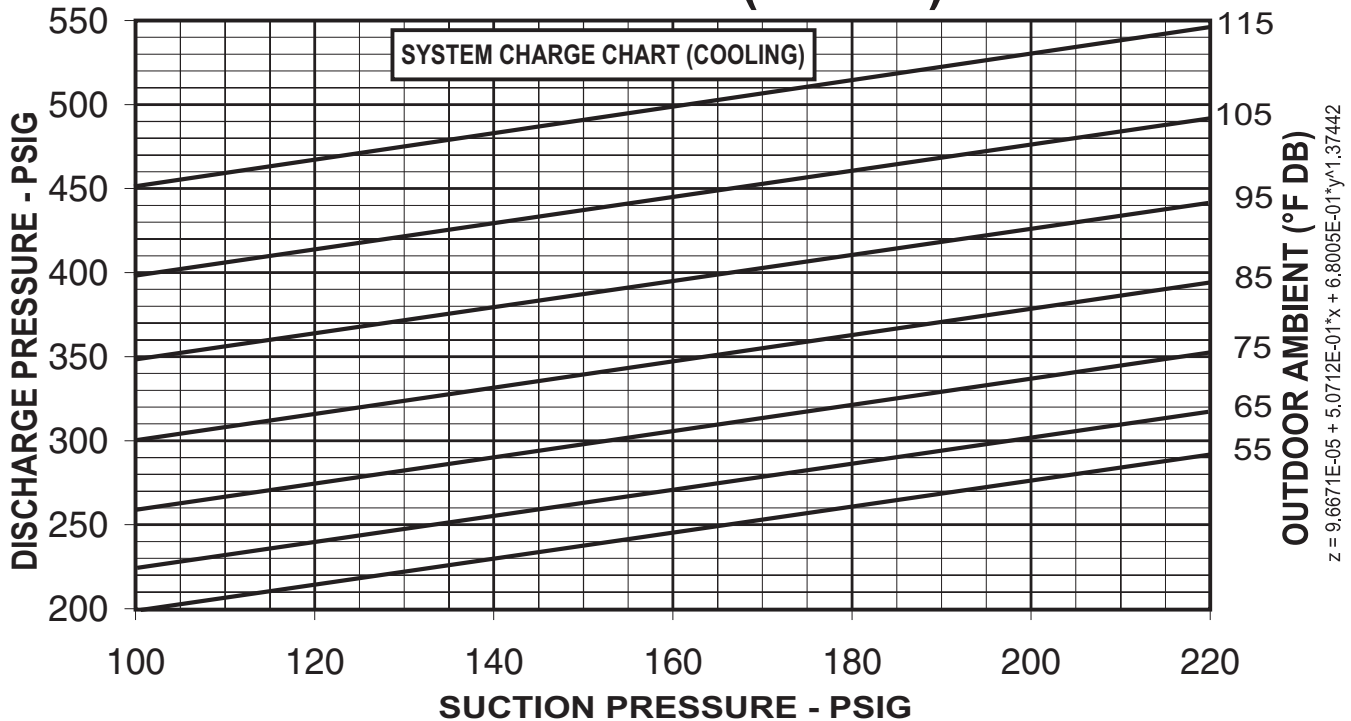
CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

- INSTRUCTIONS:
1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
 2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
 3. PLACE AN "X" ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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.

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FIGURE 25
CHARGING CHART

16 SEER 4 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

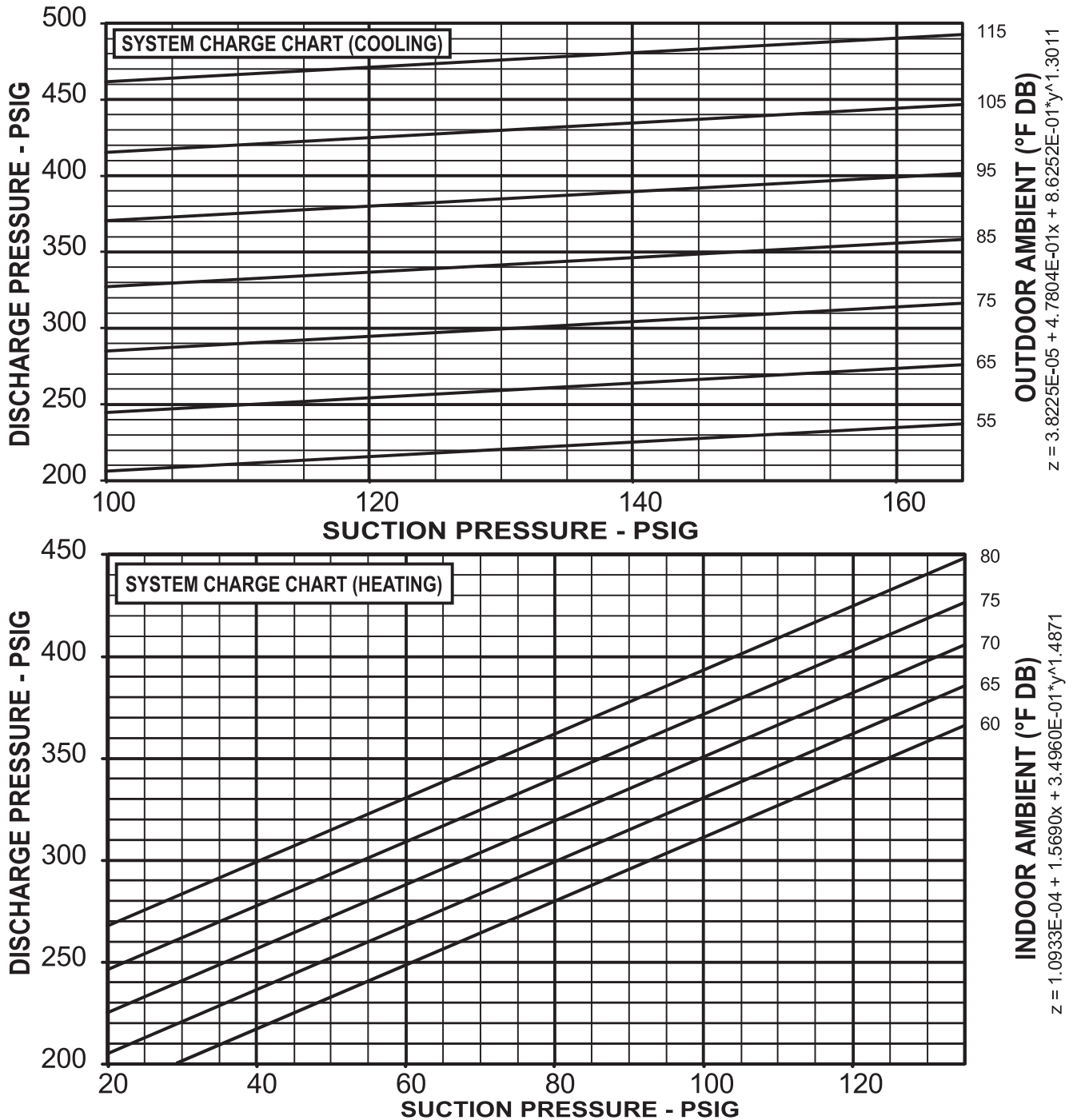
INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN 'X' ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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.

FIGURE 26
CHARGING CHART

16 SEER

5 TON HP (R410A)



CAUTION: BEFORE FINAL REFRIGERANT CHECK, INDOOR RETURN AIR TEMPERATURE MUST BE BETWEEN 72°F & 76°F DB AT 50% R.H. (HEATING AND COOLING), AND NO ICE ON OUTDOOR COILS (HEATING).

INSTRUCTIONS:

1. CONNECT PRESSURE GAUGES TO SUCTION AND DISCHARGE PORTS ON UNIT.
2. MEASURE AIR TEMPERATURE TO: (a) OUTDOOR COIL FOR COOLING, (b) INDOOR COIL FOR HEATING.
3. PLACE AN 'X' ON THE APPROPRIATE CHART WHERE THE SUCTION AND DISCHARGE 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.

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