



R4H4

Product Specifications

EFFICIENT 14 SEER HEAT PUMP ENVIRONMENTALLY SOUND R-410A REFRIGERANT 1-1/2 THRU 5 TONS SPLIT SYSTEM 208 / 230 Volt, 1-phase, 60 Hz REFRIGERATION CIRCUIT

- Scroll compressors on all models
- Suction line accumulator factory installed
- Integrated solid state control with Time-Temperature Defrost
- High and Low pressure switches
- Copper tube / aluminum fin coil

EASY TO INSTALL AND SERVICE

- Easy Access service valves on all models
- External high and low refrigerant service ports
- Only two screws to access control panel
- Factory charged with R-410A refrigerant

BUILT TO LAST

- Painted cabinet finish over galvanized steel
- Coated inlet grille with 2" (51mm) spacing standard, alternate models available with 3/8" (10mm) grille spacing for extra protection

LIMITED WARRANTY*

- 5 year parts limited warranty (including compressor and coil)
 - With timely registration, an additional 5 year parts limited warranty (including compressor and coil)

* For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



| Model Number | Size (tons) | Nominal Btu/hr | Min. Circuit Ampacity | Max. Fuse or Breaker | Operating Dimensions length x width x height inches (mm) | Operating/Ship Weight lbs. (kg) |
|------------------------|-------------|----------------|-----------------------|----------------------|--|---------------------------------|
| R4H418AKB R4H418GKB | 1½ | 18,000 | 11.8 | 20 | 23-1/8 x 23-1/8 x 35-1/4 (587 x 587 x 895) | 136 / 166 (61 / 75) |
| R4H424AKB R4H424GKB | 2 | 24,000 | 17.7 | 25 | 25-3/4 x 25-3/4 x 35-1/4 (654 x 654 x 895) | 144 / 175 (65 / 79) |
| R4H430AKB R4H430GKB | 2½ | 30,000 | 20.8 | 30 | 31-3/16 x 31-3/16 x 31-13/16 (792 x 792 x 808) | 158 / 180 (72 / 82) |
| R4H436AKB R4H436GKB | 3 | 36,000 | 20.4 | 35 | 31-3/16 x 31-3/16 x 28-7/16 (792 x 792 x 722) | 170 / 201 (77 / 91) |
| R4H442AKB R4H442GKB | 3½ | 42,000 | 25.7 | 40 | 31-3/16 x 31-3/16 x 39-1/8 (792 x 792 x 994) | 201 / 235 (91 / 107) |
| R4H448AKB R4H448GKB | 4 | 48,000 | 28.7 | 50 | 31-3/16 x 31-3/16 x 28-7/16 (792 x 792 x 722) | 197 / 232 (89 / 105) |
| R4H460AKB R4H460GKB | 5 | 60,000 | 34.1 | 50 | 31-3/16 x 31-3/16 x 31-13/16 (889 x 889 x 808) | 212 / 248 (96 / 113) |

A = Standard Grille, 2" (51mm) spacing
G = Coil Guard Grille, 3/8" (10mm) spacing

| OUTDOOR UNIT MODEL NUMBER IDENTIFICATION GUIDE (single phase) | | | | | | | | | | | |
|--|---------------------------|----------|-------------------------|----------|-----------|----------|-----------------|----------|----------|----------|----------|
| Digit Position: | 1 | 2 | 3 | 4 | 5, 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Example Part Number: | R | 4 | H | 4 | 18 | G | K | B | 1 | 0 | 0 |
| Product Family | REFRIGERANT | | TYPE | | | | | | | | |
| 4 = R-410A | | | | | | | | | | | |
| A = Air Conditioner | | | | | | | | | | | |
| H = Heat Pump | | | | | | | | | | | |
| 4 = 14 SEER | NOMINAL EFFICIENCY | | | | | | | | | | |
| 18 = 18,000 BTUH = 1-1/2 tons | | | | | | | | | | | |
| 24 = 24,000 BTUH = 2 tons | | | | | | | | | | | |
| 30 = 30,000 BTUH = 2-1/2 tons | | | | | | | | | | | |
| 36 = 36,000 BTUH = 3 tons | | | | | | | | | | | |
| 42 = 42,000 BTUH = 3-1/2 tons | | | | | | | | | | | |
| 48 = 48,000 BTUH = 4 tons | | | | | | | | | | | |
| 60 = 60,000 BTUH = 5 tons | | | NOMINAL CAPACITY | | | | | | | | |
| A = Standard 2" (51mm) spacing | | | | | | | | | | | |
| G = Coil Guard Grille, 3/8" (10mm) spacing | | | | | | | FEATURES | | | | |
| K = 208/230-1-60 | | | | | | | VOLTAGE | | | | |
| Sales Code | | | | | | | | | | | |
| Engineering Revision | | | | | | | | | | | |
| Extra Digit | | | | | | | | | | | |
| Extra Digit | | | | | | | | | | | |

| ACCESSORIES PART NUMBER IDENTIFICATION GUIDE | | | | | | | | | |
|---|----------------------|----------|------------------|----------|--------------------|-----------|---------------------|-----------|--|
| Digit Position: | 1 | 2 | 3 | 4 | 5 | 6, 7 | 8, 9 | 10, 11 | |
| Example Part Number: | N | A | S | A | 0 | 01 | 01 | CH | |
| N = Non-Branded | BRANDING | | | | | | | | |
| A = Accessory | PRODUCT GROUP | | | | | | | | |
| S = Split System (AC & HP) | | | KIT USAGE | | | | | | |
| A = Original | | | | | | | MAJOR SERIES | | |
| B = 2nd Generation | | | | | | | | | |
| 0 = Generic or Not Applicable | | | | | | | | | |
| 2 = R-22 | | | | | | | | | |
| 4 = R-410A | | | | | REFRIGERANT | | | | |
| Product Identifier Number | | | | | | | | | |
| Package Quantity | | | | | | | | | |
| Type of Kit (Example: CH = Crankcase Heater) | | | | | | | | | |

PHYSICAL DATA

| UNIT SIZE SERIES | 18(A,G)KB | 24(A,G)KB | 30(A,G)KB | 36(A,G)KB | 42(A,G)KB | 48(A,G)KB | 60(A,G)KB |
|-----------------------------|---|-----------|-----------|-------------|-------------|-------------|-------------|
| Compressor Type | Scroll | | | | | | |
| REFRIGERANT | R-410A | | | | | | |
| Control | TXV (R-410A Hard Shutoff) | | | | | | |
| Charge lb (kg) | 5.3 (2.4) | 5.6 (2.5) | 6.4 (2.9) | 7.67 (3.48) | 8.25 (3.74) | 8.68 (3.94) | 10.6 (4.81) |
| COND FAN | Forward Swept or Propeller Type, Direct Drive | | | | | | |
| Air Discharge | Vertical | | | | | | |
| Air Qty (CFM) | 1700 | 2196 | 3365 | 1200 | 3800 | 3365 | 4050 |
| Motor HP | 1/12 | 1/10 | 1/4 | 1/5 | 1/4 | 1/4 | 1/4 |
| Motor RPM | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 800 |
| VALVE CONNECT. (In. ID) | | | | | | | |
| Vapor | 5/8 | 5/8 | 3/4 | 3/4 | 7/8 | 7/8 | 7/8 |
| Liquid | 3/8 | | | | | | |
| REFRIGERANT TUBES* (In. OD) | | | | | | | |
| Rated Vapor | 5/8 | 5/8 | 3/4 | 3/4 | 7/8 | 7/8 | 1-1/8 |
| Max Liquid Line | 3/8 | | | | | | |

*Units are rated with 25 ft (7.6 m) of lineset length. See Vapor Line Sizing and Cooling Capacity Loss table when using other sizes and lengths of lineset.

Note: See unit Installation Instruction for proper installation.

ELECTRICAL DATA

| UNIT SIZE | V/PH | OPER VOLTS* | | COMPR | | FAN | MCA | MAX FUSE** or CKT BRK AMPS |
|-----------|-----------|-------------|-----|-------|------|------|------|----------------------------|
| | | MAX | MIN | LRA | RLA | FLA | | |
| 18 | 208/230/1 | 253 | 197 | 48.0 | 9.0 | 0.50 | 11.8 | 20 |
| 24 | | | | 62.9 | 10.9 | 0.60 | 14.2 | 25 |
| 30 | | | | 72.5 | 13.5 | 1.40 | 16.9 | 30 |
| 36 | | | | 75.0 | 14.7 | 1.10 | 19.5 | 30 |
| 42 | | | | 105.1 | 18.1 | 1.40 | 24.0 | 40 |
| 48 | | | | 108.0 | 19.0 | 1.40 | 25.2 | 40 |
| 60 | | | | 144.2 | 24.4 | 1.52 | 32.0 | 50 |

* Permissible limits of the voltage range at which the unit will operate satisfactorily

† If wire is applied at ambient greater than 30°C, consult table 310-16 of the NEC (NFPA 70). The ampacity of non-metallic-sheathed cable (NM), trade name ROMEX, shall be that of 60°C conditions, per the NEC (NFPA 70) Article 336-26. If other than uncoated (no-plated), 60 or 75°C insulation, copper wire (solid wire for 10 AWG or smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (NFPA 70).

‡ Length shown is as measured 1 way along wire path between unit and service panel for voltage drop not to exceed 2%.

** Time-Delay fuse.

FLA - Full Load Amps

LRA - Locked Rotor Amps

MCA - Minimum Circuit Amps

RLA - Rated Load Amps

NOTE: Control circuit is 24-V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

Complies with 2007 requirements of ASHRAE Standards 90.1

A-WEIGHTED SOUND POWER

| UNIT SIZE | STANDARD RATING (dBA) | TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment) | | | | | | |
|-----------|-----------------------|---|-----|-----|------|------|------|------|
| | | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 18 | 69 | 45 | 48 | 56 | 62 | 55 | 53 | 47 |
| 24 | 76 | 46 | 56 | 59 | 63 | 63 | 60 | 55 |
| 30 | 77 | 52 | 62 | 67 | 68 | 65 | 62 | 55 |
| 36 | 77 | 51 | 62 | 66 | 69 | 64 | 61 | 53 |
| 42 | 76 | 49 | 61 | 63 | 65 | 62 | 60 | 52 |
| 48 | 79 | 53 | 66 | 69 | 71 | 67 | 64 | 57 |
| 60 | 73 | 50 | 63 | 62 | 63 | 60 | 58 | 52 |

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI).

A-WEIGHTED SOUND POWER WITH SOUND HOOD

| UNIT SIZE | STANDARD RATING | TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment) | | | | | | |
|-----------|-----------------|---|-----|-----|------|------|------|------|
| | | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 18 | 68 | 47 | 48 | 56 | 61 | 55 | 52 | 46 |
| 24 | 74 | 47 | 57 | 59 | 62 | 61 | 58 | 51 |
| 30 | 77 | 52 | 62 | 67 | 67 | 65 | 62 | 54 |
| 36 | 76 | 52 | 62 | 66 | 67 | 64 | 60 | 52 |
| 42 | 74 | 50 | 61 | 63 | 64 | 61 | 58 | 49 |
| 48 | 79 | 54 | 66 | 69 | 70 | 67 | 64 | 56 |
| 60 | 73 | 51 | 64 | 62 | 63 | 59 | 56 | 49 |

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI).

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

| UNIT SIZE-SERIES | REQUIRED SUBCOOLING °F (°C) |
|------------------|-----------------------------|
| 18 | 11 (6.1) |
| 24 | 11 (6.1) |
| 30 | 10 (5.6) |
| 36 | 10 (5.6) |
| 42 | 10 (5.6) |
| 48 | 14 (7.7) |
| 60 | 15 (8.3) |

HP ONLY REPLACEMENT WITH PISTON INDOORS

When the R4H4 is used as a replacement component in a system with a piston fan coil, use the indoor piston size specified below:

| UNIT SIZE | PISTON SIZE | | |
|-----------|-------------|-------|-----------|
| | FEM4P | FMA4 | FM(C,U)4P |
| 18 | 0.052 | 0.050 | 0.050 |
| 24 | 0.057 | 0.057 | 0.056 |
| 30 | 0.067 | 0.070 | 0.067 |
| 36 | 0.070 | 0.072 | 0.069 |
| 42 | 0.078 | | |
| 48 | 0.084 | | |
| 60 | | | |

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for HP systems with R-410A refrigerant:

Vapor Line Sizing and Cooling Capacity Losses – R-410A Refrigerant 1- Stage Heat Pump Applications

| Unit Nominal Size (Btuh) | Acceptable Vapor Line Diameters (In. OD) | Cooling Capacity Loss (%) Total Equivalent Line Length (ft) | | | | | | | | | | | |
|--------------------------|--|---|-----------|-----------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| | | Standard Application | | | Long Line Application Requires Accessories | | | | | | | | |
| | | 25 (7.62) | 50 (15.2) | 80 (24.4) | 80+ (24.4+) | 100 (30.48) | 125 (38.10) | 150 (45.72) | 175 (53.34) | 200 (60.96) | 225 (68.58) | 250 (76.20) | |
| 18000 1-Stage HP | 1/2 | 1 | 2 | 3 | 3 | 4 | 6 | 7 | 8 | 9 | 10 | 12 | |
| | 5/8 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | |
| 24000 1-Stage HP | 5/8 | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 5 | 6 | |
| | 3/4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | |
| 30000 1-Stage HP | 5/8 | 1 | 2 | 3 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| | 3/4 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | |
| | 7/8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 36000 1-Stage HP | 5/8 | 1 | 2 | 4 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | 13 | |
| | 3/4 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | |
| | 7/8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | |
| 42000 1-Stage HP | 3/4 | 0 | 1 | 2 | 2 | 2 | 3 | 4 | 4 | 5 | 6 | 6 | |
| | 7/8 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | |
| 48000 1-Stage HP | 3/4 | 0 | 1 | 2 | 2 | 3 | 4 | 5 | 5 | 6 | 7 | 8 | |
| | 7/8 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | |
| 60000 1-Stage R-410A HP | 3/4 | 1 | 2 | 4 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | 12 | |
| | 7/8 | 0 | 1 | 2 | 2 | 2 | 3 | 4 | 4 | 5 | 5 | 6 | |
| | 1 1/8 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |

Standard Length = 80 ft. (24.4 m) or less total equivalent length

Applications in this area are long line. Accessories are required as shown recommended on Long Line Application Guidelines

Applications in this area may have height restrictions that limit allowable total equivalent length, when outdoor unit is below indoor unit See Long Line Application Guidelines

REFRIGERANT PIPING LENGTH LIMITATIONS

Maximum Line Lengths:

The maximum allowable total equivalent length for heat pumps varies depending on the vertical separation. See the tables below for allowable lengths depending on whether the outdoor unit is on the same level, above or below the outdoor unit.

Maximum Line Lengths for Heat Pump Applications

| | MAXIMUM ACTUAL LENGTH ft (m) | MAXIMUM EQUIVALENT LENGTH† ft (m) | MAXIMUM VERTICAL SEPARATION ft (m) |
|--------------------------------|---|-----------------------------------|------------------------------------|
| Units on equal level | 200 (61) | 250 (76.2) | N/A |
| Outdoor unit ABOVE indoor unit | 200 (61) | 250 (76.2) | 200 (61) |
| Outdoor unit BELOW indoor unit | See Table 'Maximum Total Equivalent Length: Outdoor Unit BELOW Indoor Unit' | | |

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

Maximum Total Equivalent Length† – Outdoor Unit BELOW Indoor Unit

| Size | Liquid Line Diameter w/ TXV | HP with R-410A Refrigerant – Maximum Total Equivalent Length† Vertical Separation ft (m) Outdoor unit BELOW indoor unit; | | | | | | |
|----------------------------|-----------------------------|---|----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | 0–20 (0 – 6.1) | 21–30 (6.4 – 9.1) | 31–40 (9.4 – 12.2) | 41–50 (12.5 – 15.2) | 51–60 (15.5 – 18.3) | 61–70 (18.6 – 21.3) | 71–80 (21.6 – 24.4) |
| 18000 HP with R-410A | 3/8 | 250* | 250* | 250* | 250* | 250* | 250* | 250* |
| 24000 HP with R-410A | 3/8 | 250* | 250* | 250* | 250* | 250* | 250* | 250* |
| 30000 HP with R-410A | 3/8 | 250* | 250* | 250* | 250* | 250* | 250* | 250* |
| 36000 HP with R-410A | 3/8 | 250* | 250* | 250* | 250* | 250* | 250* | 250* |
| 42000 HP with R-410A | 3/8 | 250* | 250* | 250* | 250* | 250* | 250* | 150 |
| 48000 HP with R-410A | 3/8 | 250* | 250* | 250* | 250* | 230 | 160 | -- |
| 60000 HP with R-410A | 3/8 | 250* | 225* | 190 | 150 | 110 | -- | -- |

* Maximum actual length not to exceed 200 ft (61 m)

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

-- = outside acceptable range

LONG LINE APPLICATIONS

An application is considered Long Line when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Heat Pump systems, the chart below shows when an application is considered Long Line. Beyond these lengths, long line accessories are required:

HP WITH R-410A REFRIGERANT LONG LINE DESCRIPTION ft (m)
Beyond these lengths, long line accessories are required

| Liquid Line Size | Units On Same Level | Outdoor Below Indoor | Outdoor Above Indoor |
|------------------|---------------------|--------------------------------------|----------------------|
| 3/8 | 80 (24.4) | 20 (6.1) vertical or 80 (24.4) total | 80 (24.4) |

Note: See Long Line Guideline for details

| Model Number | Indoor Coil Model Number | Cooling Capacity | EER | SEER | High Temp | | HSPF | Low Temp | |
|--------------|--------------------------|------------------|------|------|------------|-------|------|------------|-------|
| | | | | | E Capacity | E COP | | H Capacity | H COP |
| R4H418‡KB | FEM4X18**BL | 17,800 | 11.7 | 14 | 17,600 | 3.72 | 8.2 | 10,400 | 2.40 |
| R4H424‡KB | FEM4X24**CL | 22,200 | 11.5 | 14 | 22,200 | 3.84 | 8.2 | 13,200 | 2.54 |
| R4H430‡KB | FEM4X30**BL | 28,600 | 11.7 | 14 | 28,600 | 3.62 | 8.2 | 17,100 | 2.44 |
| R4H436‡KB | FEM4X36**BL | 33,000 | 11.7 | 14 | 33,800 | 3.62 | 8.2 | 21,000 | 2.40 |
| R4H442‡KB | FEM4X42**CL | 40,000 | 11.5 | 14 | 41,000 | 3.62 | 8.2 | 25,200 | 2.50 |
| R4H448‡KB | FEM4X48**BL | 46,000 | 11.7 | 14 | 45,500 | 3.64 | 8.2 | 27,800 | 2.56 |
| R4H460‡KB | FXM4X60**AL | 57,000 | 11.7 | 14 | 54,500 | 3.70 | 8.2 | 33,000 | 2.56 |

‡ A = Standard Grille, G = Coil Guard Grille

* AHRI = Air Conditioning, Heating & Refrigeration Institute

* Ratings are net values reflecting the effects of circulating fan heat. Supplemental electric heat is not included. Ratings are based on:

Cooling Standard: 80°F (27°C) db 67°F (19°C) wb indoor entering air temperature and 95°F (35°C) db air entering outdoor unit.

High-Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 47°F (8°C) db 43°F (6°C) wb air entering outdoor unit.

Low-Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 17°F (-8°C) db 15°F (-9°C) wb air entering outdoor unit.

COP — Coefficient of Performance

EER — Energy Efficiency Ratio

HSPF — Heating Seasonal Performance Factor

SEER — Seasonal Energy Efficiency Ratio

TESTED AHRI COMBINATION RATINGS*

NOTE: Ratings contained in this document are subject to change at any time.

For AHRI ratings certificates, please refer to the AHRI directory. www.ahridirectory.org

Additional ratings and system combinations can be accessed via the Maratherm database:


<http://www.icpeqp.com/AHRIratings/ratings.aspx?Brand=Maratherm>

Or scan this QR code:

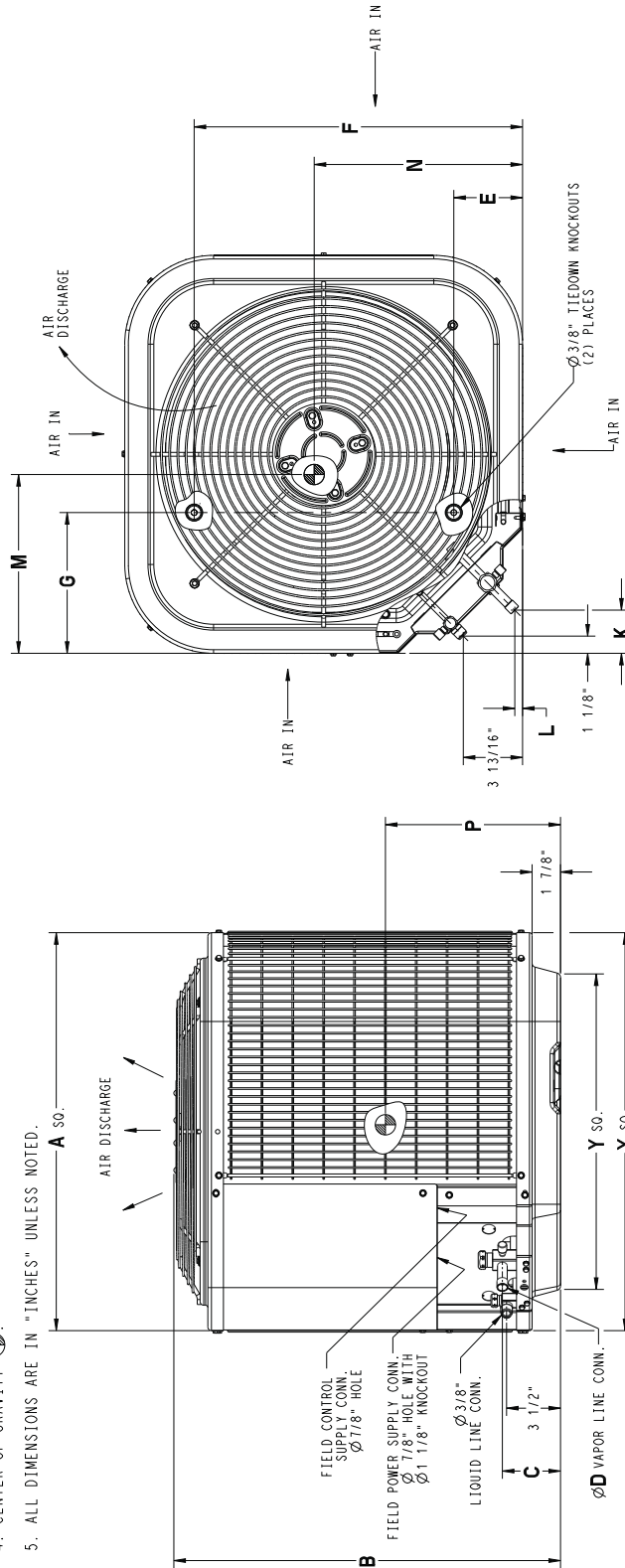


6 DIMENSIONS – ENGLISH

NOTES:

1. ALLOW 30" CLEARANCE TO SERVICE SIDE OF UNIT, 48" ABOVE UNIT, 6" ON ONE SIDE, 12" ON REMAINING SIDE, AND 24" BETWEEN UNITS FOR PROPER AIRFLOW.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 55°F, MAX. 125°F.
3. SERIES DESIGNATION IS THE 10TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY 
5. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.

| UNIT SIZE | X" MIN GROUND MOUNTING PAD APPLICATION DIMENSIONS | Y" MIN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS |
|----------------|---|---|
| 18 | 23 1/8" | 17 3/4" |
| 24 | 25 3/4" | 20 7/16" |
| 30,36,42,48,60 | 31 3/16" | 23" |
| | 35" | 26 3/4" |




| UNIT | SERIES | ELECTRICAL CHARACTERISTICS | A | B | C | D | E | F | G | K | L | M | N | P | OPERATING WEIGHT(lbs) | SHIPPING WEIGHT(lbs) | SHIPPING DIMENSIONS (L x W x H) |
|------|--------|----------------------------|----------|-----------|--------|------|---------|-----------|----------|----------|------|---------|---------|---------|-----------------------|----------------------|---------------------------------|
| 18 | 1 | X 0 0 0 | 23 1/8" | 35 3/4" | 3 3/4" | 5/8" | 4 7/16" | 18 1/16" | 7 13/16" | 2 13/16" | 1/2" | 11" | 15 3/4" | 12" | 136 | 166 | 25 1/4" X 25 1/4" X 40" |
| 24 | 1 | X 0 0 0 | 25 3/4" | 35 3/4" | 3 3/4" | 5/8" | 4 7/16" | 21 1/4" | 9 1/8" | 2 13/16" | 1/2" | 12" | 13 1/4" | 13 1/2" | 144 | 175 | 27 7/8" X 27 7/8" X 40" |
| 30 | 1 | X 0 0 0 | 31 3/16" | 31 13/16" | 3 3/4" | 3/4" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 15" | 11" | 16" | 158 | 180 | 33 3/8" X 33 3/8" X 36 5/8" |
| 36 | 1 | X 0 0 0 | 31 3/16" | 28 7/16" | 3 3/4" | 3/4" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 15 3/4" | 14" | 10 3/4" | 170 | 201 | 33 3/8" X 33 3/8" X 33 1/4" |
| 42 | 1 | X 0 0 0 | 31 3/16" | 39 1/8" | 3 7/8" | 7/8" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 15 1/2" | 13 1/2" | 14" | 201 | 235 | 33 3/8" X 33 3/8" X 43 1/2" |
| 48 | 1 | X 0 0 0 | 31 3/16" | 28 7/16" | 3 7/8" | 7/8" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 16 1/2" | 11 1/2" | 15" | 197 | 232 | 33 3/8" X 33 3/8" X 33 1/4" |
| 60 | 1 | X 0 0 0 | 31 3/16" | 31 13/16" | 3 7/8" | 7/8" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 14 3/4" | 15 3/4" | 16 1/4" | 212 | 248 | 33 3/8" X 33 3/8" X 36 5/8" |

X = YES
O = NO

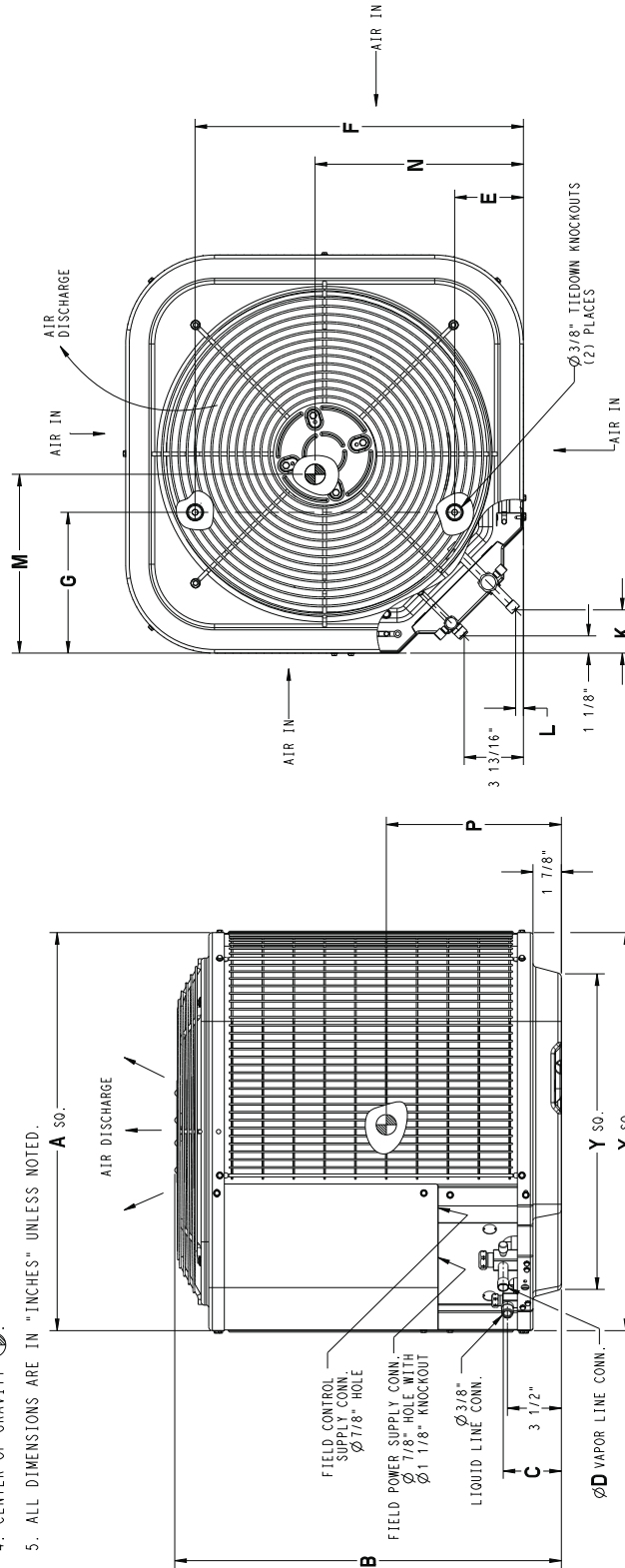
| | | | |
|-------------|---------|--------------|----------|
| 208-230-160 | 230-160 | 208/230-3-60 | 460-3-60 |
|-------------|---------|--------------|----------|

DIMENSIONS – SI

NOTES:

1. ALLOW 30" CLEARANCE TO SERVICE SIDE OF UNIT, 48" ABOVE UNIT, 6" ON ONE SIDE, 12" ON REMAINING SIDE, AND 24" BETWEEN UNITS FOR PROPER AIRFLOW.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 55°F, MAX. 125°F.
3. SERIES DESIGNATION IS THE 10TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY 
5. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.

| UNIT SIZE | "X" MIN GROUND MOUNTING PAD APPLICATION DIMENSIONS | "Y" MIN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS |
|--------------------|--|--|
| 18 | 23 1/8" | 17 3/4" |
| 24 | 25 3/4" | 20 7/16" |
| 30, 36, 42, 48, 60 | 31 3/16" | 23" |
| | 35" | 26 3/4" |



| UNIT | SERIES | ELECTRICAL CHARACTERISTICS | A | B | C | D | E | F | G | H | I | J | K | L | M | N | P | OPERATING WEIGHT (lbs) | SHIPPING WEIGHT (lbs) | SHIPPING DIMENSIONS (L x W x H) |
|------|--------|----------------------------|----------|-----------|--------|------|---------|-----------|----------|----------|------|---------|---------|---------|-----|-----|-----------------------------|------------------------|-----------------------|---------------------------------|
| 18 | 1 | X 0 0 | 23 1/8" | 35 3/4" | 3 3/4" | 5/8" | 4 7/16" | 18 1/16" | 7 13/16" | 2 13/16" | 1/2" | 11" | 15 3/4" | 12" | 136 | 166 | 25 1/4" X 25 1/4" X 40" | | | |
| 24 | 1 | X 0 0 | 25 3/4" | 35 3/4" | 3 3/4" | 5/8" | 4 7/16" | 21 1/4" | 9 1/8" | 2 13/16" | 1/2" | 12" | 13 1/4" | 13 1/2" | 144 | 175 | 27 7/8" X 27 7/8" X 40" | | | |
| 30 | 1 | X 0 0 | 31 3/16" | 31 13/16" | 3 3/4" | 3/4" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 15" | 11" | 16" | 158 | 180 | 33 3/8" X 33 3/8" X 36 5/8" | | | |
| 36 | 1 | X 0 0 | 31 3/16" | 28 7/16" | 3 3/4" | 3/4" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 15 3/4" | 14" | 10 3/4" | 170 | 201 | 33 3/8" X 33 3/8" X 33 1/4" | | | |
| 42 | 1 | X 0 0 | 31 3/16" | 39 1/8" | 3 7/8" | 7/8" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 15 1/2" | 13 1/2" | 14" | 201 | 235 | 33 3/8" X 33 3/8" X 43 1/2" | | | |
| 48 | 1 | X 0 0 | 31 3/16" | 28 7/16" | 3 7/8" | 7/8" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 16 1/2" | 11 1/2" | 15" | 197 | 232 | 33 3/8" X 33 3/8" X 33 1/4" | | | |
| 60 | 1 | X 0 0 | 31 3/16" | 31 13/16" | 3 7/8" | 7/8" | 6 9/16" | 24 11/16" | 9 1/8" | 2 15/16" | 5/8" | 14 3/4" | 15 3/4" | 16 1/4" | 212 | 248 | 33 3/8" X 33 3/8" X 36 5/8" | | | |

X = YES
O = NO

DETAILED COOLING CAPACITIES#

| EVAPORATOR AIR | | 75 (23.9) | | 85 (29.4) | | 95 (35) | | 105 (40.6) | | 115 (46.1) | | 125 (51.7) | |
|--|-------------|----------------|--------|-------------------|--------|----------------|--------|-------------------|--------|----------------|--------|-------------------|--------|
| CFM | EWB °F (°C) | Capacity MBtuh | | Total System KW** | | Capacity MBtuh | | Total System KW** | | Capacity MBtuh | | Total System KW** | |
| | | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit |
| CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | |
| R4H418 Outdoor Section With FEM4X18**BL Indoor Section | | | | | | | | | | | | | |
| | 72 (22.2) | 21.43 | 10.44 | 20.38 | 10.06 | 19.27 | 9.66 | 18.10 | 9.26 | 16.86 | 8.83 | 15.56 | 8.39 |
| | 67 (19.4) | 19.44 | 12.77 | 18.48 | 12.39 | 17.47 | 11.99 | 16.40 | 11.58 | 15.26 | 11.15 | 14.06 | 10.69 |
| 925 | 63 (17.2)H | 17.99 | 12.27 | 17.10 | 11.90 | 16.16 | 11.50 | 15.16 | 11.08 | 14.10 | 10.65 | 12.98 | 10.19 |
| | 62 (16.7) | 17.64 | 15.03 | 16.78 | 14.84 | 15.88 | 14.22 | 14.93 | 13.76 | 13.10 | 12.00 | 13.10 | 12.20 |
| | 57 (13.9) | 16.97 | 16.97 | 16.30 | 16.30 | 15.58 | 15.58 | 14.81 | 14.81 | 13.98 | 13.98 | 13.08 | 13.08 |
| | 72 (22.2) | 21.88 | 10.96 | 20.77 | 10.58 | 19.62 | 10.18 | 18.40 | 9.76 | 17.12 | 9.33 | 15.77 | 8.88 |
| | 67 (19.4) | 19.86 | 13.61 | 18.86 | 13.22 | 17.80 | 12.82 | 16.69 | 12.39 | 15.51 | 11.95 | 14.27 | 11.48 |
| | 63 (17.2)H | 18.40 | 13.06 | 17.47 | 12.87 | 16.49 | 14.34 | 15.44 | 11.84 | 14.34 | 11.39 | 13.19 | 10.92 |
| 600 | 62 (16.7) | 18.08 | 16.13 | 17.20 | 15.71 | 16.27 | 15.43 | 15.43 | 15.43 | 14.54 | 14.54 | 13.59 | 13.59 |
| | 57 (13.9) | 17.73 | 17.73 | 17.01 | 17.01 | 16.24 | 16.24 | 15.41 | 15.41 | 14.52 | 14.52 | 13.57 | 13.57 |
| | 72 (22.2) | 22.22 | 11.46 | 21.08 | 11.07 | 19.88 | 10.66 | 18.63 | 10.24 | 17.31 | 9.80 | 2.00 | 15.92 |
| | 67 (19.4) | 20.19 | 14.41 | 19.15 | 14.01 | 18.06 | 13.60 | 16.91 | 13.16 | 15.70 | 12.71 | 14.44 | 12.22 |
| 675 | 63 (17.2)H | 18.71 | 13.81 | 17.75 | 13.41 | 16.74 | 12.99 | 15.66 | 12.55 | 14.53 | 12.09 | 13.35 | 11.59 |
| | 62 (16.7) | 18.48 | 17.11 | 17.63 | 17.63 | 16.80 | 16.80 | 15.93 | 15.93 | 14.99 | 14.99 | 13.99 | 13.99 |
| | 57 (13.9) | 18.36 | 18.36 | 17.60 | 17.60 | 16.78 | 16.78 | 15.91 | 15.91 | 14.97 | 14.97 | 13.97 | 13.97 |

| EVAPORATOR AIR | | 75 (23.9) | | 85 (29.4) | | 95 (35) | | 105 (40.6) | | 115 (46.1) | | 125 (51.7) | |
|--|-------------|----------------|--------|-------------------|--------|----------------|--------|-------------------|--------|----------------|--------|-------------------|--------|
| CFM | EWB °F (°C) | Capacity MBtuh | | Total System KW** | | Capacity MBtuh | | Total System KW** | | Capacity MBtuh | | Total System KW** | |
| | | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit |
| CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | |
| R4H424 Outdoor Section With FEM4X24**CL Indoor Section | | | | | | | | | | | | | |
| | 72 (22.2) | 24.77 | 13.05 | 23.65 | 12.62 | 22.49 | 12.19 | 21.26 | 11.73 | 19.93 | 11.25 | 18.50 | 10.73 |
| | 67 (19.4) | 22.51 | 16.11 | 21.49 | 15.68 | 20.42 | 15.24 | 19.29 | 14.78 | 18.08 | 14.29 | 16.78 | 13.76 |
| 700 | 63 (17.2)H | 20.88 | 15.49 | 19.93 | 15.06 | 18.93 | 14.61 | 17.88 | 14.15 | 16.76 | 13.66 | 15.55 | 13.13 |
| | 62 (16.7) | 19.94 | 19.94 | 19.20 | 19.20 | 18.43 | 18.43 | 17.60 | 17.60 | 16.71 | 16.71 | 15.73 | 15.73 |
| | 72 (22.2) | 25.23 | 13.71 | 24.08 | 13.28 | 22.87 | 12.84 | 21.59 | 12.38 | 20.21 | 11.88 | 18.72 | 11.36 |
| | 67 (19.4) | 22.95 | 17.18 | 21.88 | 16.74 | 20.77 | 16.29 | 19.60 | 15.82 | 18.35 | 15.31 | 17.01 | 14.77 |
| | 63 (17.2)H | 21.30 | 16.48 | 20.31 | 16.04 | 19.27 | 15.59 | 18.18 | 15.11 | 17.02 | 14.61 | 15.78 | 14.06 |
| | 57 (13.9) | 20.77 | 20.77 | 19.98 | 19.98 | 19.15 | 19.15 | 18.27 | 18.27 | 17.32 | 17.32 | 16.27 | 16.27 |
| 800 | 72 (22.2) | 25.59 | 14.34 | 24.40 | 13.91 | 23.14 | 13.46 | 21.83 | 12.99 | 20.42 | 12.49 | 18.89 | 11.96 |
| | 67 (19.4) | 23.28 | 18.20 | 22.18 | 17.75 | 21.04 | 17.29 | 19.84 | 16.80 | 18.56 | 16.28 | 17.19 | 15.70 |
| | 63 (17.2)H | 21.63 | 17.43 | 20.60 | 16.98 | 19.53 | 16.51 | 18.42 | 16.02 | 17.23 | 15.49 | 15.96 | 14.92 |
| | 57 (13.9) | 21.46 | 21.46 | 20.63 | 20.63 | 19.76 | 19.76 | 18.82 | 18.82 | 17.82 | 17.82 | 16.71 | 16.71 |

| EVAPORATOR AIR | | 75 (23.9) | | 85 (29.4) | | 95 (35) | | 105 (40.6) | | 115 (46.1) | | 125 (51.7) | |
|--|-------------|----------------|--------|-------------------|--------|----------------|--------|-------------------|--------|----------------|--------|-------------------|--------|
| CFM | EWB °F (°C) | Capacity MBtuh | | Total System KW** | | Capacity MBtuh | | Total System KW** | | Capacity MBtuh | | Total System KW** | |
| | | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit | Total | Sensit |
| CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | |
| R4H430 Outdoor Section With FEM4X30**BL Indoor Section | | | | | | | | | | | | | |
| | 72 (22.2) | 33.97 | 17.32 | 32.47 | 16.75 | 30.87 | 16.16 | 29.15 | 15.54 | 27.30 | 14.87 | 25.29 | 14.15 |
| | 67 (19.4) | 30.80 | 21.30 | 29.42 | 20.72 | 27.96 | 20.13 | 26.39 | 19.50 | 24.69 | 18.82 | 22.86 | 18.10 |
| 875 | 63 (17.2)H | 28.51 | 20.46 | 27.22 | 19.89 | 25.86 | 19.29 | 24.39 | 18.66 | 22.82 | 17.98 | 21.32 | 17.25 |
| | 62 (16.7) | 27.99 | 25.15 | 26.74 | 24.55 | 25.44 | 23.90 | 24.17 | 22.67 | 22.67 | 22.67 | 21.30 | 21.30 |
| | 57 (13.9) | 27.05 | 27.05 | 26.06 | 26.06 | 25.01 | 25.01 | 23.88 | 23.88 | 22.64 | 22.64 | 21.27 | 21.27 |
| | 72 (22.2) | 34.85 | 18.48 | 33.25 | 17.90 | 31.57 | 17.30 | 29.76 | 16.66 | 27.81 | 15.97 | 25.71 | 15.24 |
| | 67 (19.4) | 31.61 | 23.17 | 30.15 | 22.59 | 28.60 | 21.97 | 26.95 | 21.32 | 25.18 | 20.61 | 23.27 | 19.84 |
| 1050 | 63 (17.2)H | 29.28 | 22.21 | 27.91 | 21.62 | 26.47 | 21.00 | 24.94 | 20.34 | 23.29 | 19.63 | 21.52 | 18.86 |
| | 62 (16.7) | 28.88 | 27.53 | 27.62 | 27.37 | 26.36 | 26.36 | 25.12 | 25.12 | 23.77 | 23.77 | 22.28 | 22.28 |
| | 57 (13.9) | 28.55 | 28.55 | 27.48 | 27.48 | 26.33 | 26.33 | 25.09 | 25.09 | 23.74 | 23.74 | 22.26 | 22.26 |
| | 72 (22.2) | 35.15 | 17.97 | 33.53 | 18.39 | 31.81 | 17.78 | 29.96 | 17.13 | 27.99 | 16.44 | 25.85 | 15.70 |
| | 67 (19.4) | 31.89 | 23.96 | 30.39 | 23.37 | 28.82 | 22.74 | 27.14 | 22.07 | 25.34 | 21.35 | 23.41 | 20.56 |
| 1125 | 63 (17.2)H | 29.55 | 22.94 | 28.15 | 22.34 | 26.69 | 21.71 | 25.12 | 21.03 | 23.45 | 20.30 | 21.66 | 19.51 |
| | 62 (16.7) | 29.18 | 29.18 | 28.02 | 28.02 | 26.83 | 26.83 | 25.55 | 25.55 | 24.15 | 24.15 | 22.63 | 22.63 |
| | 57 (13.9) | 29.10 | 29.10 | 27.98 | 27.98 | 26.80 | 26.80 | 25.52 | 25.52 | 24.13 | 24.13 | 22.60 | 22.60 |

See notes on page 5

DETAILED COOLING CAPACITIES# CONTINUED

Table with columns for evaporator air (CFM, EWB °F), condenser entering air temperatures (°F, °C), and capacity metrics (Total Capacity MBtu/h, Total System KW, Capacity MBtu/h, Sens, Total System KW) for models 1050, 1200, and 1350.

Table with columns for evaporator air (CFM, EWB °F), condenser entering air temperatures (°F, °C), and capacity metrics (Total Capacity MBtu/h, Total System KW, Capacity MBtu/h, Sens, Total System KW) for models 1225, 1400, and 1575.

Table with columns for evaporator air (CFM, EWB °F), condenser entering air temperatures (°F, °C), and capacity metrics (Total Capacity MBtu/h, Total System KW, Capacity MBtu/h, Sens, Total System KW) for models 1400, 1600, and 1800.

See notes on page 5

DETAILED COOLING CAPACITIES# CONTINUED

| EVAPORATOR AIR | | CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | |
|---|-------------|---|-------------|----------------|-----------|-------------------|----------------|---------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|------|
| | | 75 (23.9) | | | 85 (29.4) | | | 95 (35) | | | 105 (40.6) | | | 115 (46.1) | | | 125 (51.7) | | |
| | | CFM | EWB °F (°C) | Capacity MBtuh | | Total System KW** | Capacity MBtuh | | Total System KW** | Capacity MBtuh | | Total System KW** | Capacity MBtuh | | Total System KW** | Capacity MBtuh | | Total System KW** | |
| Total | Sens† | | | Total | Sens† | | Total | Sens† | | Total | Sens† | | Total | Sens† | | | | | |
| R4H460 Outdoor Section With FXM4X60**AL Indoor Section | | | | | | | | | | | | | | | | | | | |
| 1750 | 72 (22.2) | 64.47 | 36.36 | 3.53 | 61.69 | 35.21 | 3.88 | 58.75 | 34.01 | 4.30 | 55.61 | 32.74 | 4.78 | 52.18 | 31.36 | 5.34 | 48.43 | 29.90 | 5.99 |
| | 67 (19.4) | 58.76 | 44.97 | 3.50 | 56.25 | 43.82 | 3.86 | 53.58 | 42.62 | 4.27 | 50.71 | 41.34 | 4.76 | 47.58 | 39.96 | 5.32 | 44.10 | 38.44 | 5.96 |
| | 63 (17.2)†† | 54.60 | 43.31 | 3.48 | 52.27 | 42.16 | 3.84 | 49.79 | 40.96 | 4.25 | 47.13 | 39.68 | 4.74 | 44.21 | 38.28 | 5.29 | 40.98 | 36.76 | 5.94 |
| | 62 (16.7) | 53.59 | 53.34 | 3.48 | 51.34 | 52.14 | 3.84 | 48.98 | 50.87 | 4.25 | 46.43 | 49.42 | 4.73 | 43.81 | 43.81 | 5.29 | 41.19 | 41.19 | 5.94 |
| | 57 (13.9) | 51.87 | 51.87 | 3.47 | 50.08 | 50.08 | 3.83 | 48.17 | 48.17 | 4.25 | 46.08 | 46.08 | 4.73 | 43.74 | 43.74 | 5.29 | 41.14 | 41.14 | 5.94 |
| 2000 | 72 (22.2) | 65.61 | 38.13 | 3.59 | 62.71 | 36.95 | 3.95 | 59.66 | 35.74 | 4.37 | 56.39 | 34.44 | 4.85 | 52.83 | 33.04 | 5.41 | 48.97 | 31.55 | 6.06 |
| | 67 (19.4) | 59.86 | 47.88 | 3.57 | 57.21 | 46.69 | 3.92 | 54.43 | 45.47 | 4.34 | 51.45 | 44.16 | 4.82 | 48.19 | 42.72 | 5.38 | 44.64 | 41.17 | 6.03 |
| | 63 (17.2)†† | 55.66 | 46.01 | 3.55 | 53.22 | 44.83 | 3.91 | 50.84 | 43.61 | 4.32 | 47.87 | 42.29 | 4.80 | 44.85 | 40.86 | 5.36 | 41.52 | 39.29 | 6.01 |
| | 62 (16.7) | 54.79 | 57.14 | 3.55 | 52.47 | 55.78 | 3.90 | 50.08 | 50.08 | 4.32 | 47.80 | 47.80 | 4.80 | 45.32 | 45.32 | 5.36 | 42.54 | 42.54 | 6.02 |
| | 57 (13.9) | 53.97 | 53.97 | 3.54 | 52.05 | 52.05 | 3.90 | 49.99 | 49.99 | 4.32 | 47.74 | 47.74 | 4.80 | 45.26 | 45.26 | 5.36 | 42.49 | 42.49 | 6.02 |
| 2250 | 72 (22.2) | 66.47 | 39.80 | 3.66 | 63.48 | 38.61 | 4.02 | 60.32 | 37.37 | 4.43 | 56.96 | 36.06 | 4.91 | 53.30 | 34.64 | 5.47 | 49.33 | 33.13 | 6.12 |
| | 67 (19.4) | 60.67 | 50.65 | 3.63 | 57.94 | 49.44 | 3.99 | 55.07 | 48.18 | 4.40 | 51.99 | 46.83 | 4.89 | 48.67 | 45.37 | 5.45 | 45.03 | 43.74 | 6.09 |
| | 63 (17.2)†† | 56.46 | 48.58 | 3.61 | 53.93 | 47.38 | 3.97 | 51.26 | 46.11 | 4.38 | 48.41 | 44.76 | 4.87 | 45.32 | 43.28 | 5.43 | 41.91 | 41.63 | 6.07 |
| | 62 (16.7) | 55.83 | 55.83 | 3.61 | 53.75 | 53.75 | 3.97 | 51.56 | 51.56 | 4.39 | 48.17 | 48.17 | 4.87 | 46.57 | 46.57 | 5.44 | 43.63 | 43.63 | 6.09 |
| | 57 (13.9) | 55.71 | 55.71 | 3.61 | 53.68 | 53.68 | 3.97 | 51.49 | 51.49 | 4.39 | 49.12 | 49.12 | 4.87 | 46.49 | 46.49 | 5.43 | 43.58 | 43.58 | 6.09 |

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80° F (27° C) entering air at the indoor coil. For sensible capacities at other than 80° F (27° C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80° F (27° C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80° F (27° C).

Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

** Sys. kw is total of indoor and outdoor unit kilowatts.

†† At TVA rating indoor condition (75° F edb/63° F ewb). All other indoor air temperatures are at 80° F edb.

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

EWB — Entering Wet Bulb

HEAT PUMP HEATING PERFORMANCE

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|---|------|--|------------------|-------|----------------|------------------|-------|----------------|------------------|-------|----------------|------------------|-------|----------------|------------------|-------|----------------|------------------|-------|----------------|------------------|-------|----------------|------------------|-------|
| EDB °F (°C) | CFM | -3 (19.4) | | | 7 (-13.9) | | | 17 (-8.3) | | | 27 (-2.8) | | | 37 (2.8) | | | 47 (8.3) | | | 57 (13.9) | | | 67 (19.4) | | |
| | | Capacity MBtuh | Total Sys-tem kW | Integ | Capacity MBtuh | Total Sys-tem kW | Integ | Capacity MBtuh | Total Sys-tem kW | Integ | Capacity MBtuh | Total Sys-tem kW | Integ | Capacity MBtuh | Total Sys-tem kW | Integ | Capacity MBtuh | Total Sys-tem kW | Integ | Capacity MBtuh | Total Sys-tem kW | Integ | Capacity MBtuh | Total Sys-tem kW | Integ |
| R4H418 Outdoor Section With FEM4X18**BL Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 525 | 5.26 | 4.84 | 1.03 | 7.45 | 6.84 | 1.09 | 9.80 | 8.94 | 1.14 | 12.54 | 11.14 | 1.21 | 15.07 | 13.71 | 1.27 | 17.87 | 17.87 | 1.35 | 21.00 | 21.00 | 1.40 | 24.19 | 24.19 | 1.53 |
| | 600 | 5.36 | 4.93 | 1.04 | 7.57 | 6.95 | 1.09 | 9.96 | 9.08 | 1.13 | 12.70 | 11.28 | 1.19 | 15.26 | 13.89 | 1.24 | 18.13 | 18.13 | 1.31 | 21.35 | 21.35 | 1.40 | 24.32 | 24.32 | 1.47 |
| | 675 | 5.44 | 5.01 | 1.04 | 7.66 | 7.04 | 1.09 | 10.09 | 9.20 | 1.13 | 12.83 | 11.40 | 1.18 | 15.43 | 14.04 | 1.23 | 18.33 | 18.33 | 1.29 | 21.54 | 21.54 | 1.37 | 24.32 | 24.32 | 1.43 |
| 70 | 525 | 4.98 | 4.58 | 1.08 | 7.15 | 6.57 | 1.14 | 9.49 | 8.65 | 1.20 | 12.28 | 10.90 | 1.27 | 14.78 | 13.45 | 1.33 | 17.54 | 17.54 | 1.41 | 20.61 | 20.61 | 1.51 | 23.84 | 23.84 | 1.61 |
| | 600 | 5.08 | 4.67 | 1.08 | 7.27 | 6.68 | 1.14 | 9.64 | 8.79 | 1.19 | 12.45 | 11.05 | 1.25 | 14.98 | 13.63 | 1.31 | 17.80 | 17.80 | 1.38 | 20.95 | 20.95 | 1.47 | 24.01 | 24.01 | 1.55 |
| | 675 | 5.16 | 4.75 | 1.09 | 7.38 | 6.78 | 1.14 | 9.77 | 8.91 | 1.18 | 12.58 | 11.17 | 1.24 | 15.14 | 13.78 | 1.29 | 18.01 | 18.01 | 1.36 | 21.21 | 21.21 | 1.44 | 24.05 | 24.05 | 1.50 |
| 75 | 525 | 4.65 | 4.28 | 1.13 | 6.83 | 6.27 | 1.19 | 9.15 | 8.35 | 1.25 | 11.98 | 10.64 | 1.33 | 14.49 | 13.19 | 1.40 | 17.21 | 17.21 | 1.48 | 20.22 | 20.22 | 1.58 | 23.47 | 23.47 | 1.69 |
| | 600 | 4.74 | 4.36 | 1.13 | 6.95 | 6.39 | 1.19 | 9.31 | 8.49 | 1.24 | 12.16 | 10.80 | 1.31 | 14.69 | 13.37 | 1.37 | 17.46 | 17.46 | 1.45 | 20.55 | 20.55 | 1.54 | 23.68 | 23.68 | 1.62 |
| | 675 | 4.84 | 4.45 | 1.14 | 7.05 | 6.48 | 1.19 | 9.44 | 8.61 | 1.24 | 12.30 | 10.93 | 1.30 | 14.86 | 13.52 | 1.36 | 17.67 | 17.67 | 1.42 | 20.82 | 20.82 | 1.51 | 23.75 | 23.75 | 1.58 |
| R4H424 Outdoor Section With FEM4X24**CL Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 700 | 8.09 | 7.45 | 1.53 | 10.51 | 9.65 | 1.59 | 13.25 | 12.08 | 1.65 | 16.10 | 14.30 | 1.71 | 18.99 | 17.28 | 1.79 | 22.27 | 22.27 | 1.88 | 26.02 | 26.02 | 1.98 | 29.55 | 29.55 | 2.06 |
| | 800 | 8.23 | 7.57 | 1.54 | 10.66 | 9.80 | 1.58 | 13.63 | 12.43 | 1.64 | 16.28 | 14.46 | 1.70 | 19.22 | 17.49 | 1.76 | 22.55 | 22.55 | 1.84 | 26.19 | 26.19 | 1.92 | 29.49 | 29.49 | 2.00 |
| | 900 | 8.35 | 7.69 | 1.54 | 10.81 | 9.93 | 1.59 | 13.78 | 12.56 | 1.64 | 16.44 | 14.60 | 1.69 | 19.41 | 17.67 | 1.74 | 22.78 | 22.78 | 1.82 | 26.20 | 26.20 | 1.89 | 29.26 | 29.26 | 1.95 |
| 70 | 700 | 7.69 | 7.08 | 1.60 | 10.12 | 9.30 | 1.66 | 12.77 | 11.64 | 1.72 | 15.81 | 14.04 | 1.80 | 18.67 | 16.99 | 1.87 | 21.95 | 21.95 | 1.96 | 25.62 | 25.62 | 2.08 | 29.23 | 29.23 | 2.16 |
| | 800 | 7.84 | 7.21 | 1.60 | 10.29 | 9.45 | 1.65 | 12.99 | 11.84 | 1.71 | 15.99 | 14.20 | 1.78 | 18.89 | 17.19 | 1.84 | 22.20 | 22.20 | 1.93 | 25.88 | 25.88 | 2.02 | 29.23 | 29.23 | 2.10 |
| | 900 | 7.96 | 7.32 | 1.61 | 10.43 | 9.59 | 1.66 | 13.21 | 12.05 | 1.71 | 16.16 | 14.35 | 1.77 | 19.08 | 17.37 | 1.83 | 22.42 | 22.42 | 1.91 | 25.96 | 25.96 | 1.98 | 29.10 | 29.10 | 2.05 |
| 75 | 700 | 7.30 | 6.71 | 1.67 | 9.74 | 8.95 | 1.73 | 12.37 | 11.28 | 1.80 | 15.54 | 13.80 | 1.88 | 18.37 | 16.72 | 1.96 | 21.60 | 21.60 | 2.06 | 25.21 | 25.21 | 2.18 | 28.90 | 28.90 | 2.26 |
| | 800 | 7.44 | 6.84 | 1.67 | 9.90 | 9.10 | 1.73 | 12.57 | 11.46 | 1.79 | 15.73 | 13.97 | 1.86 | 18.58 | 16.91 | 1.93 | 21.86 | 21.86 | 2.02 | 25.53 | 25.53 | 2.12 | 28.93 | 28.93 | 2.20 |
| | 900 | 7.55 | 6.95 | 1.68 | 10.03 | 9.22 | 1.73 | 12.73 | 11.61 | 1.79 | 15.88 | 14.10 | 1.85 | 18.76 | 17.07 | 1.92 | 22.08 | 22.08 | 2.00 | 25.68 | 25.68 | 2.08 | 28.88 | 28.88 | 2.15 |
| R4H430 Outdoor Section With FEM4X30**BL Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 875 | 10.54 | 9.70 | 1.80 | 13.55 | 12.45 | 1.87 | 17.16 | 15.64 | 1.95 | 20.49 | 18.19 | 2.04 | 24.30 | 22.12 | 2.14 | 28.57 | 28.57 | 2.26 | 33.42 | 33.42 | 2.40 | 37.91 | 37.91 | 2.51 |
| | 1050 | 10.81 | 9.95 | 1.81 | 13.87 | 12.75 | 1.88 | 17.44 | 15.90 | 1.95 | 20.83 | 18.50 | 2.02 | 24.73 | 22.50 | 2.11 | 29.10 | 29.10 | 2.22 | 33.84 | 33.84 | 2.34 | 37.90 | 37.90 | 2.43 |
| | 1125 | 10.91 | 10.04 | 1.82 | 13.99 | 12.85 | 1.88 | 17.54 | 15.99 | 1.95 | 20.96 | 18.61 | 2.02 | 24.88 | 22.64 | 2.11 | 29.28 | 29.28 | 2.22 | 33.88 | 33.88 | 2.32 | 37.80 | 37.80 | 2.41 |
| 70 | 875 | 10.08 | 9.27 | 1.87 | 13.10 | 12.04 | 1.95 | 16.82 | 15.34 | 2.04 | 20.13 | 17.88 | 2.13 | 23.89 | 21.74 | 2.23 | 28.09 | 28.09 | 2.35 | 32.88 | 32.88 | 2.50 | 37.48 | 37.48 | 2.62 |
| | 1050 | 10.34 | 9.51 | 1.89 | 13.40 | 12.31 | 1.95 | 17.12 | 15.61 | 2.03 | 20.47 | 18.18 | 2.11 | 24.31 | 22.12 | 2.20 | 28.60 | 28.60 | 2.31 | 33.42 | 33.42 | 2.44 | 37.51 | 37.51 | 2.53 |
| | 1125 | 10.44 | 9.60 | 1.90 | 13.51 | 12.42 | 1.96 | 17.23 | 15.71 | 2.04 | 20.59 | 18.29 | 2.11 | 24.46 | 22.26 | 2.20 | 28.79 | 28.79 | 2.31 | 33.53 | 33.53 | 2.42 | 37.51 | 37.51 | 2.53 |
| 75 | 875 | 9.61 | 8.84 | 1.95 | 12.64 | 11.62 | 2.02 | 16.08 | 14.66 | 2.11 | 19.78 | 17.57 | 2.22 | 23.48 | 21.37 | 2.32 | 27.62 | 27.62 | 2.45 | 32.34 | 32.34 | 2.60 | 37.01 | 37.01 | 2.73 |
| | 1050 | 9.86 | 9.07 | 1.96 | 12.94 | 11.89 | 2.03 | 16.76 | 15.28 | 2.12 | 20.11 | 17.86 | 2.20 | 23.89 | 21.74 | 2.30 | 28.11 | 28.11 | 2.41 | 32.93 | 32.93 | 2.54 | 37.11 | 37.11 | 2.64 |
| | 1125 | 9.95 | 9.16 | 1.97 | 13.05 | 11.99 | 2.04 | 16.87 | 15.39 | 2.12 | 20.23 | 17.97 | 2.20 | 24.04 | 21.88 | 2.29 | 28.30 | 28.30 | 2.40 | 33.08 | 33.08 | 2.52 | 37.07 | 37.07 | 2.62 |
| R4H436 Outdoor Section With FEM4X36**BL Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 1050 | 12.92 | 11.89 | 2.18 | 16.50 | 15.16 | 2.26 | 20.40 | 18.60 | 2.34 | 24.90 | 22.12 | 2.45 | 29.12 | 26.50 | 2.55 | 33.86 | 33.86 | 2.66 | 39.25 | 39.25 | 2.81 | 45.49 | 45.49 | 3.02 |
| | 1200 | 13.19 | 12.13 | 2.20 | 16.81 | 15.44 | 2.27 | 20.77 | 18.94 | 2.35 | 25.23 | 22.40 | 2.44 | 29.49 | 26.84 | 2.53 | 34.32 | 34.32 | 2.63 | 39.87 | 39.87 | 2.76 | 46.23 | 46.23 | 2.94 |
| | 1350 | 13.43 | 12.35 | 2.23 | 17.08 | 15.69 | 2.29 | 21.13 | 19.27 | 2.36 | 25.51 | 22.66 | 2.44 | 29.82 | 27.14 | 2.52 | 34.70 | 34.70 | 2.61 | 40.38 | 40.38 | 2.74 | 46.70 | 46.70 | 2.88 |
| 70 | 1050 | 12.30 | 11.32 | 2.26 | 15.91 | 14.62 | 2.34 | 19.81 | 18.06 | 2.43 | 24.51 | 21.77 | 2.55 | 28.67 | 26.09 | 2.65 | 33.35 | 33.35 | 2.77 | 38.60 | 38.60 | 2.93 | 44.71 | 44.71 | 3.15 |
| | 1200 | 12.56 | 11.56 | 2.28 | 16.22 | 14.90 | 2.36 | 20.15 | 18.38 | 2.44 | 24.82 | 22.05 | 2.54 | 29.04 | 26.43 | 2.63 | 33.80 | 33.80 | 2.74 | 39.20 | 39.20 | 2.88 | 45.47 | 45.47 | 3.07 |
| | 1350 | 12.80 | 11.77 | 2.31 | 16.48 | 15.15 | 2.38 | 20.47 | 18.66 | 2.45 | 25.10 | 22.29 | 2.53 | 29.36 | 26.72 | 2.63 | 34.19 | 34.19 | 2.72 | 39.70 | 39.70 | 2.85 | 46.01 | 46.01 | 3.02 |
| 75 | 1050 | 11.66 | 10.73 | 2.35 | 15.30 | 14.06 | 2.43 | 19.20 | 17.50 | 2.53 | 24.07 | 21.37 | 2.66 | 28.23 | 25.69 | 2.77 | 32.83 | 32.83 | 2.89 | 37.95 | 37.95 | 3.06 | 43.92 | 43.92 | 3.29 |
| | 1200 | 11.92 | 10.97 | 2.37 | 15.60 | 14.34 | 2.45 | 19.54 | 17.82 | 2.53 | 24.41 | 21.68 | 2.65 | 28.60 | 26.02 | 2.75 | 33.28 | 33.28 | 2.85 | 38.54 | 38.54 | 3.00 | 44.68 | 44.68 | 3.22 |
| | 1350 | 12.15 | 11.18 | 2.40 | 15.87 | 14.58 | 2.47 | 19.85 | 18.10 | 2.55 | 24.69 | 21.93 | 2.65 | 28.91 | 26.31 | 2.74 | 33.66 | 33.66 | 2.84 | 39.03 | 39.03 | 2.98 | 45.28 | 45.28 | 3.16 |

See notes on page 7

HEAT PUMP HEATING PERFORMANCE CONTINUED

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|---|------|--|------------------|-------------|----------------|------------------|-------------|----------------|------------------|-------------|----------------|------------------|-------------|----------------|------------------|-------------|----------------|------------------|-------------|----------------|------------------|-------------|----------------|------------------|-------------|
| EDB °F (°C) | CFM | -3 (19.4) | | | 7 (-13.9) | | | 17 (-8.3) | | | 27 (-2.8) | | | 37 (2.8) | | | 47 (8.3) | | | 57 (13.9) | | | 67 (19.4) | | |
| | | Capacity MBtuh | Total Sys-tem kW | Total Integ | Capacity MBtuh | Total Sys-tem kW | Total Integ | Capacity MBtuh | Total Sys-tem kW | Total Integ | Capacity MBtuh | Total Sys-tem kW | Total Integ | Capacity MBtuh | Total Sys-tem kW | Total Integ | Capacity MBtuh | Total Sys-tem kW | Total Integ | Capacity MBtuh | Total Sys-tem kW | Total Integ | Capacity MBtuh | Total Sys-tem kW | Total Integ |
| R4H442 Outdoor Section With FEM4X42**BL Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 1225 | 15.59 | 14.35 | 2.48 | 19.93 | 18.31 | 22.84 | 2.71 | 30.26 | 26.88 | 2.87 | 35.66 | 32.45 | 3.01 | 41.58 | 41.58 | 3.18 | 48.02 | 48.02 | 3.34 | 53.69 | 53.69 | 3.47 | 59.69 | 59.69 |
| | 1400 | 15.91 | 14.64 | 2.50 | 20.28 | 18.64 | 23.48 | 2.72 | 30.80 | 27.17 | 2.84 | 36.05 | 32.81 | 2.98 | 42.10 | 42.10 | 3.14 | 48.21 | 48.21 | 3.26 | 53.51 | 53.51 | 3.37 | 59.51 | 59.51 |
| | 1575 | 16.19 | 14.89 | 2.51 | 20.58 | 18.91 | 23.75 | 2.72 | 30.91 | 27.46 | 2.84 | 36.39 | 33.12 | 2.96 | 42.45 | 42.45 | 3.10 | 48.18 | 48.18 | 3.20 | 53.24 | 53.24 | 3.31 | 59.24 | 59.24 |
| 70 | 1225 | 14.78 | 13.60 | 2.58 | 19.20 | 17.64 | 22.06 | 2.82 | 29.80 | 26.47 | 2.98 | 35.19 | 32.35 | 3.10 | 41.00 | 41.00 | 3.32 | 47.42 | 47.42 | 3.48 | 52.99 | 53.09 | 3.62 | 58.99 | 59.09 |
| | 1400 | 15.07 | 13.87 | 2.59 | 19.52 | 17.94 | 22.28 | 2.81 | 30.13 | 26.76 | 2.96 | 35.55 | 32.35 | 3.14 | 41.49 | 41.49 | 3.27 | 47.70 | 47.70 | 3.40 | 52.99 | 52.99 | 3.52 | 58.99 | 59.09 |
| | 1575 | 15.33 | 14.10 | 2.61 | 19.82 | 18.21 | 22.79 | 2.82 | 30.42 | 27.02 | 2.95 | 35.89 | 32.66 | 3.09 | 41.91 | 41.91 | 3.24 | 47.75 | 47.75 | 3.35 | 52.74 | 52.74 | 3.45 | 58.74 | 58.74 |
| 75 | 1225 | 14.00 | 12.88 | 2.68 | 18.50 | 17.00 | 21.32 | 2.93 | 29.35 | 26.07 | 3.11 | 34.70 | 31.57 | 3.28 | 40.41 | 40.41 | 3.47 | 46.83 | 46.83 | 3.64 | 52.47 | 52.47 | 3.79 | 58.47 | 58.47 |
| | 1400 | 14.27 | 13.13 | 2.69 | 18.80 | 17.28 | 21.65 | 2.92 | 29.68 | 26.36 | 3.07 | 35.07 | 31.92 | 3.24 | 40.89 | 40.89 | 3.41 | 47.13 | 47.13 | 3.55 | 52.43 | 52.43 | 3.68 | 58.43 | 58.43 |
| | 1575 | 14.51 | 13.34 | 2.71 | 19.07 | 17.53 | 21.93 | 2.93 | 29.95 | 26.60 | 3.07 | 35.39 | 32.20 | 3.21 | 41.30 | 41.30 | 3.38 | 47.26 | 47.26 | 3.50 | 52.43 | 52.43 | 3.60 | 58.43 | 58.43 |
| R4H448 Outdoor Section With FEM4X48**BL Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 1400 | 16.35 | 15.04 | 2.75 | 21.40 | 19.66 | 24.46 | 3.00 | 33.50 | 29.76 | 3.17 | 39.20 | 35.67 | 3.31 | 45.68 | 45.68 | 3.48 | 53.36 | 53.36 | 3.61 | 61.87 | 61.87 | 3.84 | 68.87 | 68.87 |
| | 1600 | 16.69 | 15.36 | 2.78 | 21.78 | 20.01 | 24.85 | 3.00 | 33.88 | 30.09 | 3.16 | 39.67 | 36.10 | 3.29 | 46.26 | 46.26 | 3.44 | 54.19 | 54.19 | 3.61 | 62.42 | 62.42 | 3.76 | 69.42 | 69.42 |
| | 1800 | 17.00 | 15.64 | 2.81 | 22.12 | 20.33 | 25.20 | 3.02 | 34.22 | 30.40 | 3.17 | 40.06 | 36.45 | 3.28 | 46.75 | 46.75 | 3.42 | 54.77 | 54.77 | 3.57 | 62.78 | 62.78 | 3.72 | 69.78 | 69.78 |
| 70 | 1400 | 15.48 | 14.25 | 2.85 | 20.60 | 18.93 | 23.75 | 3.11 | 32.86 | 29.19 | 3.29 | 38.68 | 35.20 | 3.45 | 45.00 | 45.00 | 3.62 | 52.51 | 52.51 | 3.82 | 61.02 | 61.02 | 4.00 | 68.02 | 68.02 |
| | 1600 | 15.80 | 14.54 | 2.87 | 20.97 | 19.27 | 24.14 | 3.12 | 33.35 | 29.62 | 3.28 | 39.10 | 35.58 | 3.42 | 45.56 | 45.56 | 3.58 | 53.28 | 53.28 | 3.75 | 61.59 | 61.59 | 3.92 | 68.59 | 68.59 |
| | 1800 | 16.05 | 14.76 | 2.91 | 21.28 | 19.55 | 24.47 | 3.13 | 33.71 | 29.94 | 3.29 | 39.47 | 35.92 | 3.42 | 46.04 | 46.04 | 3.56 | 53.98 | 53.98 | 3.72 | 61.98 | 61.98 | 3.87 | 68.98 | 68.98 |
| 85 | 1400 | 13.11 | 12.07 | 3.19 | 18.31 | 16.83 | 21.72 | 3.50 | 29.75 | 26.42 | 3.67 | 37.16 | 33.82 | 3.93 | 43.00 | 43.00 | 4.12 | 49.89 | 49.89 | 4.32 | 58.18 | 58.18 | 4.52 | 65.18 | 65.18 |
| | 1600 | 13.37 | 12.30 | 3.22 | 18.63 | 17.12 | 22.07 | 3.50 | 30.22 | 26.84 | 3.66 | 37.55 | 34.17 | 3.89 | 43.52 | 43.52 | 4.07 | 50.66 | 50.66 | 4.25 | 58.86 | 58.86 | 4.43 | 64.86 | 64.86 |
| | 1800 | 13.58 | 12.49 | 3.25 | 18.88 | 17.35 | 22.34 | 3.51 | 30.57 | 27.15 | 3.66 | 37.88 | 34.48 | 3.87 | 43.96 | 43.96 | 4.04 | 51.35 | 51.35 | 4.20 | 59.33 | 59.33 | 4.37 | 65.33 | 65.33 |
| R4H460 Outdoor Section With FXM4X60**AL Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 1750 | 21.14 | 19.45 | 3.33 | 26.85 | 24.67 | 30.23 | 3.60 | 40.66 | 36.11 | 3.79 | 47.51 | 43.23 | 3.95 | 55.22 | 55.22 | 4.13 | 64.29 | 64.29 | 4.32 | 73.31 | 73.31 | 4.50 | 80.31 | 80.31 |
| | 2000 | 21.51 | 19.79 | 3.36 | 27.26 | 25.05 | 30.68 | 3.61 | 41.05 | 36.45 | 3.77 | 48.03 | 43.70 | 3.92 | 55.88 | 55.88 | 4.08 | 64.95 | 64.95 | 4.23 | 73.54 | 73.54 | 4.40 | 80.54 | 80.54 |
| | 2250 | 21.84 | 20.10 | 3.40 | 27.62 | 25.39 | 31.07 | 3.63 | 41.40 | 36.77 | 3.78 | 48.48 | 44.12 | 3.91 | 56.46 | 56.46 | 4.07 | 65.31 | 65.31 | 4.19 | 73.59 | 73.59 | 4.34 | 80.59 | 80.59 |
| 70 | 1750 | 20.38 | 18.75 | 3.48 | 26.13 | 24.01 | 29.54 | 3.76 | 40.19 | 35.69 | 3.97 | 46.94 | 42.71 | 4.14 | 54.50 | 54.50 | 4.32 | 63.44 | 63.44 | 4.51 | 72.41 | 72.41 | 4.70 | 79.41 | 79.41 |
| | 2000 | 20.74 | 19.08 | 3.51 | 26.54 | 24.39 | 29.97 | 3.77 | 40.59 | 36.05 | 3.96 | 47.44 | 43.17 | 4.11 | 55.15 | 55.15 | 4.27 | 64.14 | 64.14 | 4.42 | 72.69 | 72.69 | 4.60 | 79.69 | 79.69 |
| | 2250 | 21.08 | 19.40 | 3.55 | 26.91 | 24.73 | 30.36 | 3.79 | 40.95 | 36.37 | 3.96 | 47.88 | 43.57 | 4.09 | 55.71 | 55.71 | 4.25 | 64.55 | 64.55 | 4.38 | 72.63 | 72.63 | 4.53 | 79.63 | 79.63 |
| 75 | 1750 | 19.58 | 18.01 | 3.63 | 25.36 | 23.30 | 28.83 | 3.94 | 39.67 | 35.23 | 4.16 | 46.37 | 42.20 | 4.33 | 53.80 | 53.80 | 4.52 | 62.59 | 62.59 | 4.72 | 71.50 | 71.50 | 4.92 | 78.50 | 78.50 |
| | 2000 | 19.94 | 18.35 | 3.67 | 25.78 | 23.69 | 29.27 | 3.94 | 40.12 | 35.64 | 4.14 | 46.85 | 42.63 | 4.29 | 54.42 | 54.42 | 4.46 | 63.33 | 63.33 | 4.63 | 71.81 | 71.81 | 4.80 | 78.81 | 78.81 |
| | 2250 | 20.28 | 18.65 | 3.71 | 26.15 | 24.03 | 29.65 | 3.96 | 40.49 | 35.96 | 4.14 | 47.28 | 43.02 | 4.28 | 54.97 | 54.97 | 4.43 | 63.78 | 63.78 | 4.57 | 71.82 | 71.82 | 4.73 | 78.82 | 78.82 |

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

* The Btuh heating capacity values shown are net integrated values from which the defrost effect has been subtracted. The Btuh heating from supplement heaters should be added to those values to obtain total Sys. capacity.

† The kW values include the compressor, outdoor fan motor, and indoor blower motor. The kW from supplement heaters should be added to these values to obtain total Sys. kilowatts.

EDB — Entering Dry Bulb

Accessory Description and Usage (Listed Alphabetically)

1. Ball-Bearing Fan Motor

A fan motor with ball bearings which permits speed reduction while maintaining bearing lubrication.

2. Compressor Start Assist – Capacitor and Relay

Start capacitor and relay gives a hard boost to compressor motor at each start up.

Usage Guideline:

Required for reciprocating compressors in the following applications:

- Long line
- Low ambient cooling
- Hard shut off expansion valve on indoor coil
- Liquid line solenoid on indoor coil

Required for single-phase scroll compressors in the following applications:

- Long line
- Low ambient cooling

Suggested for all compressors in areas with a history of low voltage problems.

3. Compressor Start Assist — PTC Type

Solid state electrical device which gives a soft boost to the compressor at each start-up.

Usage Guideline:

Suggested in installations with marginal power supply.

4. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

Usage Guideline:

- Required in low ambient cooling applications.
- Required in long line applications.
- Suggested in all commercial applications.

5. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low ambient kit has been added.

6. Isolation Relay

An SPDT relay which switches the low-ambient controller out of the outdoor fan motor circuit when the heat pump switches to heating mode.

Usage Guideline:

Required in all heat pumps where low ambient kit has been added.

7. Liquid-Line Solenoid Valve (LLS)

An electrically operated shutoff valve which stops and starts refrigerant liquid flow in response to compressor operation. It is to be installed at the outdoor unit to control refrigerant off cycle migration in the heating mode.

Usage Guideline:

An LLS is required in all long line heat pump applications to control refrigerant off cycle migration in the heating mode. See Long Line Guideline.

8. Low-Ambient Pressure Switch Kit

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits. The control will maintain working head pressure at low-ambient temperatures down to 0°F (-17.8°C) when properly installed.

Usage Guideline:

A Low-Ambient Pressure Switch Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

9. Sound Jacket

Wraparound sound reducing cover for the compressor. Reduces the sound level by about 2 dBA.

Usage Guideline:

Suggested when unit is installed closer than 15 ft. (4.577 m) to quiet areas, bedrooms, etc.

Suggested when unit is installed between two houses less than 10 ft. (3.05 m) apart.

10. Thermostatic Expansion Valve (TXV) Bi-Flow

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

Usage Guideline:

Accessory required to meet AHRI rating and system reliability, where indoor not equipped. Required in all heat pump applications designed with R-410A refrigerant.

11. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

Note: Most indoor unit controls include this feature. For those that do not, use the guideline below.

Usage Guideline:

Accessory required to meet AHRI rating, where indoor not equipped.

ACCESSORY USAGE GUIDELINE

| Accessory | REQUIRED FOR LOW-AMBIENT COOLING APPLICATIONS (Below 55°F / 12.8°C) | REQUIRED FOR LONG LINE APPLICATIONS* | REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles/3.22 km) |
|---|---|--------------------------------------|--|
| Accumulator | Standard | Standard | Standard |
| Compressor Start Assist Capacitor and Relay | Yes | Yes | No |
| Crankcase Heater | Yes | Yes | No |
| Evaporator Freeze Thermostat | Yes | No | No |
| Hard Shutoff TXV | Yes | Yes | No |
| Isolation Relay | Yes | No | No |
| Liquid Line Solenoid Valve | No | See Long-Line Application Guideline | No |
| Low Ambient Switch | Yes | No | No |
| Support Feet | Recommended | No | Recommended |

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 20 ft. (6.09 m) vertical differential, refer to Residential Split-System Longline Application Guideline.

ACCESSORIES

| Part Number | Description | Used On Model Size |
|-------------|--|--------------------|
| NASA001SC | Start Component – PTC Device | ALL |
| NASA00201FS | Evaporator Freeze Thermostat | ALL |
| NASA001LS | Liquid Line Solenoid Valve | ALL |
| NASA001TD | Time Delay Relay, Indoor Blower | ALL |
| NASA001AC | Anti-Cycle Timer (5 minute delay) | ALL |
| NASA401LA | Low Ambient Kit (Pressure Switch) | ALL |
| NASA00101IK | Low Ambient Isolation Relay Kit | ALL |
| NASA001SF | Support Feet, 4" (102mm) tall | ALL |
| NASA003SC | Hard Start Kit (Capacitor & Relay) | ALL |
| NASA003CH | Crankcase Heater for Compressor | 18, 24, 30, 36 |
| NASA001CH | Crankcase Heater for Compressor | 42, 48, 60 |
| NASA002SJ | Sound Jacket, Compressor | 18, 24, 30 |
| NASA001SJ | Sound Jacket, Compressor | 36, 42, 48 |
| NASA003SJ | Sound Jacket, Compressor | 60 |
| EBAC05TXVX | TXV Kit, R-410A – 2005-2009 R-22 TXV Fancoils (air handlers) | 18, 24, 30 |
| EBAC06TXVX | TXV Kit, R-410A – 2005-2009 R-22 TXV Fancoils (air handlers) | 36, 42 |
| EBAC07TXVX | TXV Kit, R-410A – 2005-2009 R-22 TXV Fancoils (air handlers) | 48, 60 |