



PRELIMINARY

## Endeavor™ Line *Choice*® Series iC Heat Pumps



### WP14AZ

Cooling Efficiencies up to: 14.3 SEER2/10.4 EER2

Heating Efficiencies up to: 7.6 HSPF2

Nominal Sizes: 1½ to 5 Ton [5.28 to 17.6 kW]

Cooling Capacities: 17.1 to 55.5 kBTU [5.0 to 16.3 kW]



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## Features and Benefits

- **Fully Louvered Steel Cabinet:** Features durable construction to add protection from yard hazards, weather corrosion
- **Two-Stage Scroll Compressor<sup>1</sup>:** Features two speeds (high and low) of cooling and heating, providing more precise temperature control, lower humidity and greater efficiency when compared to single stage compressors
- **Inverted Reversing Valve:** Allows for faster heat transfer with gravity assist shifting and reduced joint stress for increased reliability
- **Easily Accessible Control Box:** Ease of installation and serviceability

<sup>1</sup>Does not apply to the 1.5 ton 1-stage model

# Heat Pumps

| <u>W</u>        | <u>P</u>         | <u>14</u>       | <u>A</u>        | <u>Z</u>    | <u>18</u>   | <u>A</u>       | <u>J</u>         | <u>1</u>                        | <u>N</u>              |
|-----------------|------------------|-----------------|-----------------|-------------|---|----------------|------------------|---------------------------------|-----------------------|
| Brand           | Product Category | SEER2           | Region          | Refrigerant | Capacity  | Major Series   | Voltage          | Type                            | Controls              |
| W - Ruud Choice | P - Heat Pump    | 14 - 14.3 SEER2 | A - All Regions | Z - R-410A  | 18 - 18,000 [5.28 kW]<br>24 - 24,000 [7.03 kW]<br>30 - 30,000 [8.79 kW]<br>36 - 36,000 [10.55 kW]<br>42 - 42,000 [12.31 kW]<br>48 - 48,000 [14.07 kW]<br>60 - 60,000 [17.58 kW] | A - 1st Design | J - 208/230/1/60 | 1 - Single-Stage<br>2 - 2-Stage | N - Non-Communicating |

[ ] Designates Metric Conversions

| AVAILABLE MODELS |
|------------------|
| WP14AZ18AJ1N     |
| WP14AZ18AJ2N     |
| WP14AZ24AJ2N     |
| WP14AZ30AJ2N     |
| WP14AZ36AJ2N     |
| WP14AZ42AJ2N     |
| WP14AZ48AJ2N     |
| WP14AZ60AJ2N     |

| STANDARD EQUIPMENT                  |
|-------------------------------------|
| R-410A Refrigerant                  |
| Scroll Compressor                   |
| Field Installed Filter Drier        |
| Front Seating Service Valves        |
| Internal Pressure Relief Valve      |
| Internal Thermal Overload           |
| Long Line capability                |
| Low Ambient capability with Kit     |
| 3-4-5 Expanded Valve Space          |
| Composite Basepan                   |
| 2 Screw Control Box Access          |
| 15" Access to Internal Components   |
| Quick release louver panel design   |
| No fasteners to remove along bottom |
| Optimized Venturi Airflow           |
| Single row condenser coil           |
| Powder coated paint                 |
| Rust resistant screws               |
| QR code                             |
| External gauge ports                |
| Service trays                       |

| <b>General Data</b>                                  |                    |             |          |          |          |          |          |          |
|--|--------------------|-------------|----------|----------|----------|----------|----------|----------|
| MODEL NO.  | WP14AZ18**1        | WP14AZ18**2 | WP14AZ24 | WP14AZ30 | WP14AZ36 | WP14AZ42 | WP14AZ48 | WP14AZ60 |
| <b>Nominal Tonnage</b>                               | 1.5                | 1.5         | 2.0      | 2.5      | 3.0      | 3.5      | 4.0      | 5.0      |
| <b>Valve Connections</b>                             |                    |             |          |          |          |          |          |          |
| Liquid Line O.D. – in.                               | 3/8                | 3/8         | 3/8      | 3/8      | 3/8      | 3/8      | 3/8      | 3/8      |
| Suction Line O.D. – in.                              | 3/4                | 3/4         | 3/4      | 3/4      | 3/4      | 7/8      | 7/8      | 7/8      |
| <b>Refrigerant (R410A) furnished oz.<sup>1</sup></b> | 84                 | 88          | 88       | 108      | 118      | 148      | 148      | 247      |
| <b>Compressor Type</b>                               | Scroll             |             |          |          |          |          |          |          |
| <b>Outdoor Coil</b>                                  |                    |             |          |          |          |          |          |          |
| Net face area – Outer Coil                           | 10.9               | 10.9        | 10.9     | 14.4     | 19.5     | 19.5     | 19.5     | 28.4     |
| Net face area – Inner Coil                           |                    |             |          |          |          |          |          |          |
| Tube diameter – in.                                  | 0.276              | 0.276       | 0.276    | 0.276    | 0.276    | 0.276    | 0.276    | 0.375    |
| Number of rows                                       | 1                  | 1           | 1        | 1        | 1        | 1        | 1        | 1        |
| Fins per inch  | 22                 | 22          | 22       | 22       | 22       | 22       | 24       | 20       |
| <b>Outdoor Fan</b>                                   |                    |             |          |          |          |          |          |          |
| Diameter – in.                                       | 20                 | 20          | 20       | 24       | 24       | 24       | 24       | 26       |
| Number of blades                                     | 3                  | 3           | 3        | 3        | 3        | 3        | 3        | 3        |
| Motor hp   | 1/7                | 1/7         | 1/6      | 1/5      | 1/5      | 1/5      | 1/5      | 1/5      |
| CFM  | 2401               | 2401        | 2620     | 3391     | 4077     | 4077     | 4096     | 4686     |
| RPM  | 1075               | 1075        | 1075     | 850      | 850      | 850      | 850      | 850      |
| watts  | 146                | 141         | 145      | 175      | 234      | 222      | 236      | 239      |
| <b>Shipping weight – lbs.</b>                        | <b>COMING SOON</b> |             |          |          |          |          |          |          |
| <b>Operating weight – lbs.</b>                       |                    |             |          |          |          |          |          |          |

| <b>Electrical Data</b>                                   |              |              |              |              |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Line Voltage Data (Volts-Phase-Hz)                       | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 |
| <b>Maximum overcurrent protection (amps)<sup>2</sup></b> | 20           | 15           | 20           | 25           | 25           | 35           | 35           | 40           |
| <b>Minimum circuit ampacity<sup>3</sup></b>              | 11           | 11           | 15           | 18           | 21           | 26           | 29           | 31           |
| <b>Compressor</b>  |              |              |              |              |              |              |              |              |
| Rated load amps  | 10           | 8            | 11           | 13           | 15           | 20           | 22           | 24           |
| Locked rotor amps  | 46           | 56           | 66           | 71           | 78           | 151          | 0            | 118          |
| <b>Condenser Fan Motor</b>                               |              |              |              |              |              |              |              |              |
| Full load amps   | 0.75         | 0.75         | 0.75         | 1.0          | 1.0          | 1.0          | 1.0          | 1.0          |
| Locked rotor amps  | 1.4          | 1.4          | 1.5          | 2.6          | 2.56         | 2.56         | 2.56         | 2.6          |

<sup>1</sup>Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the installation instructions for information about set length and additional refrigerant charge required.

<sup>2</sup>HACR type circuit breaker or fuse.

<sup>3</sup>Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

## Accessories

| MODEL NO.  | WP14AZ18**1      | WP14AZ18**2      | WP14AZ24         | WP14AZ30         | WP14AZ36         | WP14AZ42         | WP14AZ48         | WP14AZ60         |                |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------|
| Compressor crankcase heater*                       | 44-17402-44      | 44-17402-44      | 44-17402-44      | 44-17402-44      | 44-17402-44      | 44-17402-45      | 44-17402-45      | Factory Standard |                |
| Low ambient control                                | RXAD-A08         | RXAD-A08         | RXAD-A08         | RXAD-A08         | RXAD-A08         | RXAD-A08         | RXAD-A08         | RXAD-A08         |                |
| Compressor sound cover                             | 68-23427-26      | 68-23427-26      | 68-23427-26      | 68-23427-26      | 68-23427-26      | 68-23427-25      | 68-23427-25      | 68-23427-25      |                |
| Compressor hard start kit                          | SK-A1            | SK-A1            | SK-A1            | SK-A1            | SK-A1            | SK-A1            | SK-A1            | SK-A1            |                |
| Low pressure control                               | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard |                |
| High pressure control                              | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard | Factory Standard |                |
| Liquid Line Solenoid<br>(24 VAC, 50/60 Hz)         | Solenoid Valve   | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD3T3TVLC     | 200RD3T3TVLC   |
|  | Solenoid Coil    | 61-AMG24V        | 61-AMG24V        | 61-AMG24V        | 61-AMG24V        | 61-AMG24V        | 61-AMG24V        | 61-AMG24V        | 61-AMG24V      |
| Liquid Line Solenoid<br>(120/240 VAC,<br>50/60 Hz) | Solenoid Valve   | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD2T3TVLC     | 200RD3T3TVLC     | 200RD3T3TVLC   |
|  | Solenoid Coil    | 61-AMG120/240V   | 61-AMG120/240V   | 61-AMG120/240V   | 61-AMG120/240V   | 61-AMG120/240V   | 61-AMG120/240V   | 61-AMG120/240V   | 61-AMG120/240V |
| Classic Top Cap w/Label                            | 91-101123-21     | 91-101123-21     | 91-101123-21     | 91-101123-21     | 91-101123-21     | 91-101123-21     | 91-101123-21     | 91-101123-21     |                |

\*Bi-flow kits are required when installing a liquid line solenoid on a heat pump.

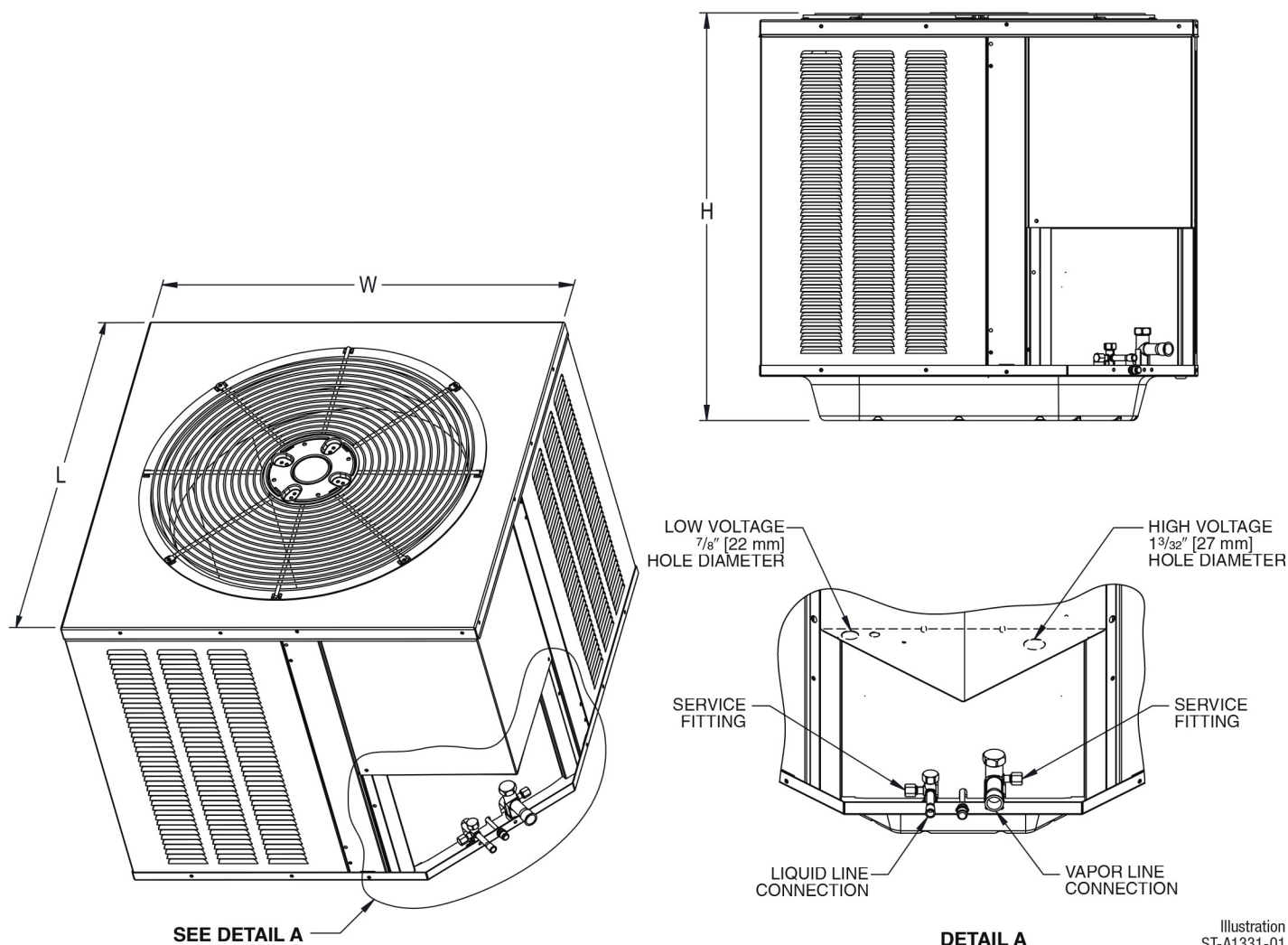
## Weighted Sound Power Level (dBA)

| UNIT SIZE -<br>VOLTAGE, SERIES | STANDARD<br>RATING (DBA) | TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment) |      |      |      |      |      |      |
|--------------------------------|--------------------------|--|------|------|------|------|------|------|
|                                |                          | 125  | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| WP14AZ18A                      | 73                       | 39.8   | 55   | 62.1 | 67.0 | 60.0 | 57.4 | 51.2 |
| WP14AZ24A                      | 73                       | 40.4   | 55.4 | 62.5 | 65.9 | 58.7 | 56.4 | 48.9 |
| WP14AZ30A                      | 72                       | 48.9   | 55.3 | 63.6 | 61.0 | 59.1 | 56.5 | 48.7 |
| WP14AZ36A                      | 72                       | 50.1   | 55.8 | 64.4 | 61.5 | 58.7 | 55.1 | 50.9 |
| WP14AZ42A                      | 72                       | 48.6   | 56.2 | 63.1 | 61.7 | 60.0 | 56   | 50.0 |
| WP14AZ48A                      | 74                       | 49.3   | 56   | 64.5 | 64.5 | 60.1 | 54.9 | 47.7 |
| WP14AZ60A                      | 74                       | 43.9   | 55.2 | 63.4 | 65.8 | 61.7 | 57.9 | 52.9 |

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

## Unit Dimensions

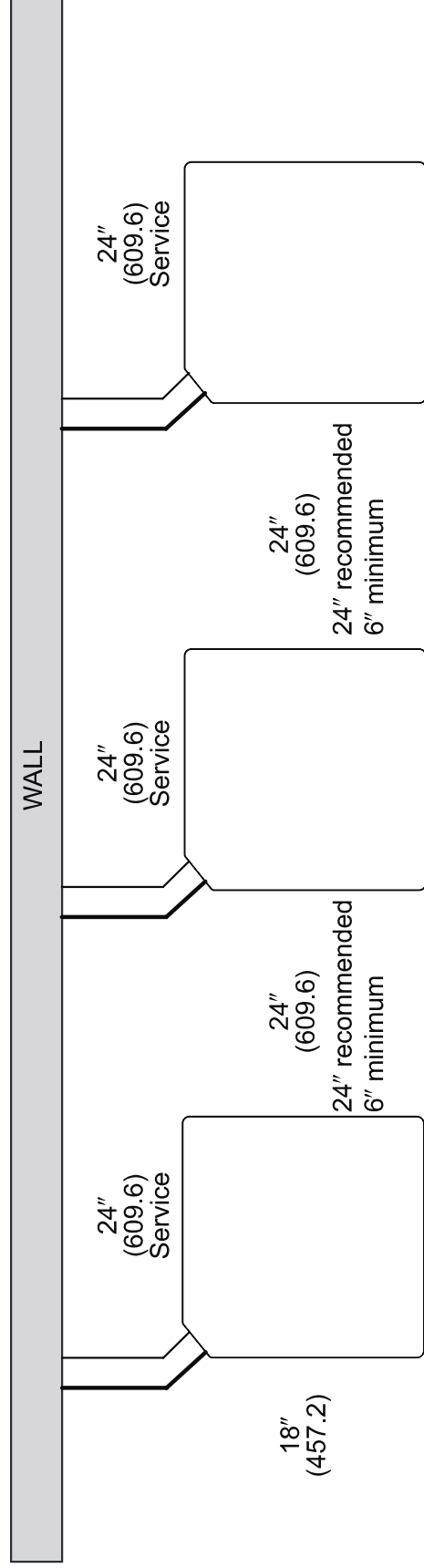
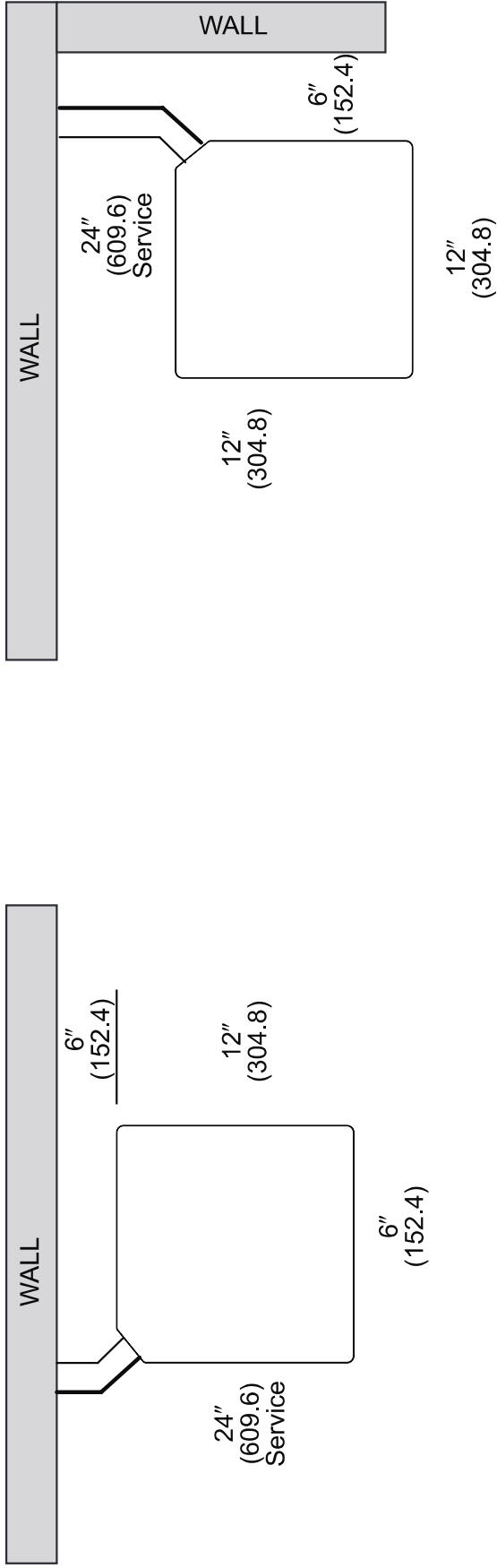
| MODEL NO.   | OPERATING  |      |            |     |           |     | SHIPPING   |      |            |     |           |     |
|-------------|------------|------|------------|-----|-----------|-----|------------|------|------------|-----|-----------|-----|
|             | H (Height) |      | L (Length) |     | W (Width) |     | H (Height) |      | L (Length) |     | W (Width) |     |
|             | INCHES     | mm   | INCHES     | mm  | INCHES    | mm  | INCHES     | mm   | INCHES     | mm  | INCHES    | mm  |
| WP14AZ18**1 | 25.17      | 639  | 29.543     | 750 | 29.543    | 750 | 27.0625    | 687  | 32.625     | 829 | 32.625    | 829 |
| WP14AZ18**2 | 25.17      | 639  | 29.543     | 750 | 29.543    | 750 | 27.0625    | 687  | 32.625     | 829 | 32.625    | 829 |
| WP14AZ24    | 25.17      | 639  | 29.543     | 750 | 29.543    | 750 | 27.0625    | 687  | 32.625     | 829 | 32.625    | 829 |
| WP14AZ30    | 27.17      | 690  | 33.655     | 855 | 33.655    | 855 | 29.0625    | 738  | 36.625     | 930 | 36.625    | 930 |
| WP14AZ36    | 35.17      | 893  | 33.655     | 855 | 33.655    | 855 | 37.0625    | 941  | 36.625     | 930 | 36.625    | 930 |
| WP14AZ42    | 35.17      | 893  | 33.655     | 855 | 33.655    | 855 | 37.0625    | 941  | 36.625     | 930 | 36.625    | 930 |
| WP14AZ48    | 35.17      | 893  | 33.655     | 855 | 33.655    | 855 | 37.0625    | 941  | 36.625     | 930 | 36.625    | 930 |
| WP14AZ60    | 45.17      | 1147 | 35.543     | 903 | 35.543    | 903 | 47.0625    | 1195 | 38.625     | 981 | 38.625    | 981 |



[ ] Designates Metric Conversions

Illustration  
ST-A1331-01  
Rev. 10-20-2022

# CLEARANCES



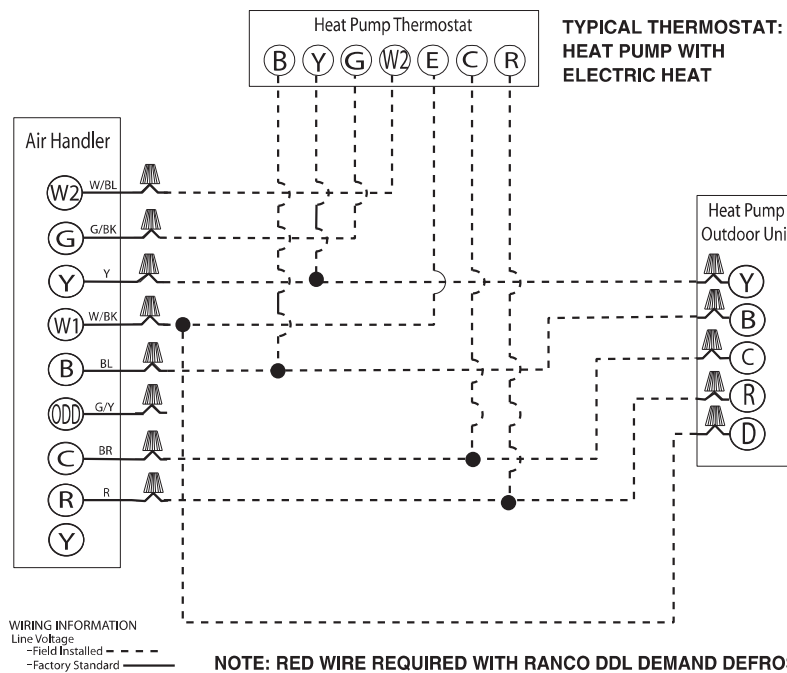
**NOTE: NUMBERS IN ( ) = mm**

**IMPORTANT:** When installing multiple units in an alcove, roof well or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.



## Control Wiring

**FIGURE 4**  
**CONTROL WIRING FOR AIR HANDLER**



**TYPICAL THERMOSTAT:  
 HEAT PUMP WITH  
 ELECTRIC HEAT**

**NOTES:**

1. Jumper "E" to "W2" to transfer control of supplemental heat to 1st stage when the emergency heat switch is on.
2. This wire turns on heat for defrost, omit for most economical operation.
3. Wire with colored tracing stripe.

## Application Guidelines

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operation air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Use only copper wire for electric connections at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
6. Do not apply capillary tube indoor coils to these units.
7. Factory-supplied filter drier must be installed.

## Refrigerant Line Size Information

| 14.3 SEER2 HEAT PUMPS |                       |                   |   |           |           |           |           |           |           |
|-----------------------|-----------------------|-------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|
| UNIT SIZE             | MAX. LIQUID LINE SIZE | SUCTION LINE SIZE | EQUIVALENT LENGTH (FEET)                        |           |           |           |           |           |           |
|                       |                       |                   | <15   | 16-25     | 26-50     | 51-80     | 81-100    | 101-125   | 126-150   |
|                       |                       |                   | MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER |           |           |           |           |           |           |
| 1.5 Ton Single-Stage  | 1/4"                  | 5/8"              | 15 / 1.00                                       | 25 / 1.00 | 50 / 0.99 | 60 / 0.97 | 45 / 0.96 | 10 / 0.95 | N/A       |
|                       | 5/16"                 | 5/8"              | 15 / 1.00                                       | 25 / 1.00 | 50 / 0.99 | 75 / 0.97 | 90 / 0.96 | 45 / 0.95 | N/A       |
|                       | 3/8"                  | 5/8"              | 15 / 1.00                                       | 25 / 1.00 | 50 / 0.99 | 75 / 0.97 | 95 / 0.96 | 80 / 0.95 | N/A       |
| 1.5 Ton Two-Stage     | 1/4"                  | 1/2"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | N/A       | N/A       |
|                       | 5/16"                 | 1/2"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | N/A       | N/A       |
|                       | 3/8"                  | 1/2"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | N/A       | N/A       |
|                       | 1/4"                  | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 |
|                       | 5/16"                 | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 |
|                       | 3/8"                  | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 |
| 2 Ton Two-Stage       | 1/4"                  | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.99 | 31 / 0.97 | 3 / 0.97  | N/A       | N/A       |
|                       | 5/16"                 | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.99 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 |
|                       | 3/8"                  | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.99 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 |
| 2.5 Ton Two-Stage     | 1/4"                  | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 46 / 0.95 | 50 / 0.94 | N/A       |
|                       | 5/16"                 | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 | N/A       |
|                       | 3/8"                  | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 | N/A       |
|                       | 1/4"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.96 | 50 / 0.95 |
|                       | 5/16"                 | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.96 | 50 / 0.95 |
|                       | 3/8"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.96 | 50 / 0.95 |
| 3 Ton Two-Stage       | 5/16"                 | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                       | 3/8"                  | 5/8"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                       | 5/16"                 | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
|                       | 3/8"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
|                       | 1/2"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
| 3.5 Ton Two-Stage     | 3/8"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.96 |
|                       | 1/2"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.96 |
|                       | 3/8"                  | 7/8"              | 15 / 1.00                                       | 25 / 0.99 | 15 / 1.00 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 |
|                       | 1/2"                  | 7/8"              | 15 / 1.00                                       | 25 / 0.99 | 15 / 1.00 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 |
| 4 Ton Two-Stage       | 3/8"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.95 | 50 / 0.94 | 50 / 0.93 |
|                       | 1/2"                  | 3/4"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.95 | 50 / 0.94 | 50 / 0.93 |
|                       | 3/8"                  | 7/8"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 1.00 | 50 / 0.97 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 |
|                       | 1/2"                  | 7/8"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 1.00 | 50 / 0.97 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 |
| 5 Ton Two-Stage       | 3/8"                  | 3/4"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                       | 1/2"                  | 3/4"              | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                       | 3/8"                  | 7/8"              | 15 / 1.00                                       | 25 / 0.99 | 40 / 0.99 | 15 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
|                       | 1/2"                  | 7/8"              | 15 / 1.00                                       | 25 / 0.99 | 50 / 1.00 | 50 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |

**NOTES:**

- 1) Do not exceed 200 ft linear line length.
- 2) \*Do not exceed 100 ft vertical separation if outdoor unit is above indoor unit.
- 3) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 4) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 5) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

## Refrigerant Line Size Information (Con't.)

| 14.3 SEER2 HEAT PUMPS               |                                |                            |   |           |           |           |           |           |           |
|-------------------------------------|--------------------------------|----------------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|
| UNIT SIZE                           | MAX. LIQUID LINE SIZE mm [in.] | SUCTION LINE SIZE mm [in.] | EQUIVALENT LENGTH (METERS)                      |           |           |           |           |           |           |
|                                     |                                |                            | 0-4.5   | 5-7.5     | 8-15      | 15.5-23   | 23.5-30   | 30.5-38   | 38.5-46   |
|                                     |                                |                            | MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER |           |           |           |           |           |           |
| 5.3 KW<br>[1.5 Ton]<br>Single-Stage | 6.35 [1/4]                     | 15.88 [5/8]                | 15 / 1.00                                       | 25 / 1.00 | 50 / 0.99 | 60 / 0.97 | 45 / 0.96 | 10 / 0.95 | N/A       |
|                                     | 7.94 [5/16]                    | 15.88 [5/8]                | 15 / 1.00                                       | 25 / 1.00 | 50 / 0.99 | 75 / 0.97 | 90 / 0.96 | 45 / 0.95 | N/A       |
|                                     | 9.53 [3/8]                     | 15.88 [5/8]                | 15 / 1.00                                       | 25 / 1.00 | 50 / 0.99 | 75 / 0.97 | 95 / 0.96 | 80 / 0.95 | N/A       |
| 5.3 KW<br>[1.5 Ton]<br>Two-Stage    | 6.35 [1/4]                     | 12.70 [1/2]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | N/A       | N/A       |
|                                     | 7.94 [5/16]                    | 12.70 [1/2]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | N/A       | N/A       |
|                                     | 9.53 [3/8]                     | 12.70 [1/2]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | N/A       | N/A       |
|                                     | 6.35 [1/4]                     | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 |
|                                     | 7.94 [5/16]                    | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 |
|                                     | 9.53 [3/8]                     | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 |
| 7.0 KW<br>[2 Ton]<br>Two-Stage      | 6.35 [1/4]                     | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.99 | 31 / 0.97 | 3 / 0.97  | N/A       | N/A       |
|                                     | 7.94 [5/16]                    | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.99 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 |
|                                     | 9.53 [3/8]                     | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.99 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 |
| 8.8 KW<br>[2.5 Ton]<br>Two-Stage    | 6.35 [1/4]                     | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 46 / 0.95 | 50 / 0.94 | N/A       |
|                                     | 7.94 [5/16]                    | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 | N/A       |
|                                     | 9.53 [3/8]                     | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.96 | 50 / 0.95 | 50 / 0.94 | N/A       |
|                                     | 6.35 [1/4]                     | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.96 | 50 / 0.95 |
|                                     | 7.94 [5/16]                    | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.96 | 50 / 0.95 |
|                                     | 9.53 [3/8]                     | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.96 | 50 / 0.95 |
| 10.6 KW<br>[3 Ton]<br>Two-Stage     | 7.94 [5/16]                    | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                                     | 9.53 [3/8]                     | 15.88 [5/8]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                                     | 7.94 [5/16]                    | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
|                                     | 9.53 [3/8]                     | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
|                                     | 12.70 [1/2]                    | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
| 12.3 KW<br>[3.5 Ton]<br>Two-Stage   | 9.53 [3/8]                     | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.96 |
|                                     | 12.70 [1/2]                    | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 | 50 / 0.96 | 50 / 0.96 |
|                                     | 9.53 [3/8]                     | 22.23 [7/8]                | 15 / 1.00                                       | 25 / 0.99 | 15 / 1.00 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 |
|                                     | 12.70 [1/2]                    | 22.23 [7/8]                | 15 / 1.00                                       | 25 / 0.99 | 15 / 1.00 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 | 50 / 0.97 |
| 14.1 KW<br>[4 Ton]<br>Two-Stage     | 9.53 [3/8]                     | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.95 | 50 / 0.94 | 50 / 0.93 |
|                                     | 12.70 [1/2]                    | 19.05 [3/4]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.95 | 50 / 0.94 | 50 / 0.93 |
|                                     | 9.53 [3/8]                     | 22.23 [7/8]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 1.00 | 50 / 0.97 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 |
|                                     | 12.70 [1/2]                    | 22.23 [7/8]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 1.00 | 50 / 0.97 | 50 / 0.98 | 50 / 0.98 | 50 / 0.97 |
| 17.6 KW<br>[5 Ton]<br>Two-Stage     | 9.53 [3/8]                     | 19.05 [3/4]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                                     | 12.70 [1/2]                    | 19.05 [3/4]                | 15 / 0.99                                       | 25 / 0.99 | 50 / 0.97 | 50 / 0.95 | 50 / 0.93 | 50 / 0.91 | N/A       |
|                                     | 9.53 [3/8]                     | 22.23 [7/8]                | 15 / 1.00                                       | 25 / 0.99 | 40 / 0.99 | 15 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |
|                                     | 12.70 [1/2]                    | 22.23 [7/8]                | 15 / 1.00                                       | 25 / 0.99 | 50 / 1.00 | 50 / 0.99 | 50 / 0.98 | 50 / 0.97 | 50 / 0.96 |

**NOTES:**

- 1) Do not exceed 61m linear line length.
- 2) \*Do not exceed 30m vertical separation if outdoor unit is above indoor unit.
- 3) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 4) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 5) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

## Performance Data @ AHRI Standard Conditions – Cooling

| DESIGNATED TESTED COMBINATION (DTC) |                |                              |                            |                          |       |      |                     |  |                     |  |                     |                       |  |
|-------------------------------------|----------------|------------------------------|----------------------------|--------------------------|-------|------|---------------------|--|---------------------|--|---------------------|-----------------------|--|
| OUTDOOR UNIT                        | AIR HANDLER    | TOTAL CAPACITY<br>BTU/H [kW] | NET SENSIBLE<br>BTU/H [kW] | NET LATENT<br>BTU/H [kW] | SEER2 | EER2 | INDOOR<br>CFM [L/S] | 47 DEGREE<br>HEATING<br>CAPACITY<br>BTU/H [KW] | 47<br>DEGREE<br>COP | 17 DEGREE<br>HEATING<br>CAPACITY<br>BTU/H [KW] | 17<br>DEGREE<br>COP | REGION<br>IV<br>HSPF2 |  |
| WP14AZ18AJ1                         | RH2TZ2417STANN | 17,100 [5.0]                 | 13,100 [3.8]               | 4,000 [1.2]              | 14.3  | 9.0  | 575 [271.4]         | 17,100 [5.0]                                   | 3.78                | 11,100 [3.3]                                   | 2.56                | 7.5                   |  |
| WP14AZ18AJ2                         | RH2TZ2417STANN | 17,100 [5.0]                 | 13,100 [3.8]               | 4,000 [1.2]              | 14.3  | 9.0  | 550 [259.6]         | 17,100 [5.0]                                   | 3.58                | 11,000 [3.2]                                   | 2.52                | 7.5                   |  |
| WP14AZ24AJ2                         | RH2TZ2417STANN | 22,800 [6.7]                 | 17,500 [5.1]               | 5,300 [1.6]              | 14.3  | 9.0  | 775 [365.8]         | 22,800 [6.7]                                   | 3.51                | 14,600 [4.3]                                   | 2.55                | 7.5                   |  |
| WP14AZ30AJ2                         | RH2TZ3617STANN | 28,600 [8.4]                 | 21,900 [6.4]               | 6,700 [2.0]              | 14.3  | 9.0  | 950 [448.4]         | 28,600 [8.4]                                   | 3.56                | 18,200 [5.3]                                   | 2.57                | 7.5                   |  |
| WP14AZ36AJ2                         | RH2TZ3617STANN | 34,200 [10.0]                | 26,200 [7.7]               | 8,000 [2.3]              | 14.3  | 9.0  | 1,050 [495.5]       | 34,200 [10.0]                                  | 3.27                | 23,600 [6.9]                                   | 2.49                | 7.5                   |  |
| WP14AZ42AJ2                         | RH2TZ4821STANN | 39,500 [11.6]                | 30,300 [8.9]               | 9,200 [2.7]              | 14.3  | 9.0  | 1,275 [601.7]       | 39,500 [11.6]                                  | 3.69                | 25,500 [7.5]                                   | 2.67                | 7.5                   |  |
| WP14AZ48AJ2                         | RH2TZ4821STANN | 45,500 [13.3]                | 34,900 [10.2]              | 10,600 [3.1]             | 14.3  | 9.0  | 1,450 [684.3]       | 45,500 [13.0]                                  | 3.65                | 27,500 [8.1]                                   | 2.54                | 7.5                   |  |
| WP14AZ60AJ2                         | RH2TZ6024STANN | 55,500 [16.3]                | 42,600 [12.5]              | 12,900 [3.8]             | 14.3  | 9.0  | 1,800 [849.5]       | 55,500 [16.3]                                  | 2.66                | 34,000 [10.0]                                  | 2.56                | 7.5                   |  |

**NOTE:** This data includes DTC (Designated Test Combination) ratings and is for reference purposes only. A full listing of official ratings and system match-ups, along with downloadable certificates, can be accessed from the AHRI website: [www.ahridirectory.org](http://www.ahridirectory.org).

[ ] Designates Metric Conversions









**GENERAL TERMS OF LIMITED WARRANTY\***

Ruud will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

Parts ..... Five (5) Years

**\*For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.**

**Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.**

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

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