Split System
Heat Pump
Product Data

XR14  4TWR4

1 1/2 - 5 Tons

PUB. NO. 22-1765-10
Features and Benefits

• Efficiency up to 14.5 SEER and 8.5 HSPF
• All aluminum SPINE FIN™ coil
• WEATHERGUARD™ fasteners
• QUICK-SESS™ cabinet, service access and refrigerant connections with full coil protection
• DURATUFF™ base, fast complete drain, weatherproof
• COMFORT-R™ mode approved
• Glossy corrosion resistant finish
• Internal compressor high/low pressure & temperature protection
• 018, 030 ship with start kit
• Compressor Sump Heat (060)
• Liquid line filter/drier

• Tarpaulin gray cabinet with anthracite gray badge
• High pressure switch
• Demand Defrost with Diagnostics
• R-410A refrigerant
• S.E.E.T. design testing
• 100% line run test
• Low ambient cooling to 20°F with AY28X084
• Low ambient cooling to 55°F as shipped

• Extended warranties available
### Model Nomenclature

#### Outdoor Units

**Refrigerant Type**
- 2 = R-22
- 4 = R-410A

**TRANE**

**Product Type**
- W = Split Heat Pump
  - T = Split Cooling

**Product Family**
- Z = Leadership - Two Stage
  - X = Leadership
  - R = Replacement/Retail
  - B = Basic
  - A = Light Commercial

**Family SEER**
- 0 = 16
- 1 = 14
- 3 = 12
- 6 = 10

**Split System Connections**
- 1-Ton: 16
- 2-Ton: 14
- 3-Ton: 12
- 4-Ton: 10

**Nominal Capacity in 1000s of BTUs**
- 080 = 80,000 BTUH

**Major Design Modifications**
- Power Supply
  - 1 = 208-230/1/60 or 208-230/1/60
  - 3 = 208-230/3/60
  - 4 = 460/3/60

**Secondary Function**

**Minor Design Modifications**

**Unit Parts Identifier**

#### Gas Furnaces

**Furnace Configuration**
- TU = Upflow/Horizontal
- TD = Downflow/Horizontal

**Type**
- E = 80% Induced Draft Standard
- D = 80% Induced Draft Premium
- C = 90% Condensing Standard
- X = 90% Condensing Premium
- H = 95% Condensing Premium

**Number of Heating Stages**
- 1 = Single Stage
- 2 = Two Stage
- M = Modulating

**Cabinet Width**
- A = 14.5” Cabinet Width
- B = 17.5” Cabinet Width
- C = 21.0” Cabinet Width
- D = 24.5” Cabinet Width

**Heating Input in 1000's (BTUH)**
- 080 = 80,000 BTUH

**Major Design Change**

**Voltage**
- 9 = 115 Volts / 60 Hertz / Natural Gas
- 115 Volts / 60 Hertz / Natural Gas
- C = 115 Volts / Natural Gas with Communicating System Control
- D = 115 Volts / Natural Gas with Integrated Electronic Filter
- E = 115 Volts / Natural Gas with Communicating System Control and Integrated Electronic Filter

**Air Capacity for Cooling**
- Standard PSC Variable Speed High Efficiency
- 24 = 2 Tons
- 36 = 3 Tons
- 48 = 4 Tons
- 60 = 5 Tons

**Draft Inducer Speeds**
- 1 = Single Speed
- 2 = Two Speed
- V = Variable Speed

**Minor Design Change**

#### Air Handler

**Brand**
- T = Better
- G = Good

**Product Type**
- A = Air Handler

**Convertible**
- M = Multi-position 4-way
- F = Upflow Front Return, 3-way
- T = 3-way

**Product Tier**
- 2 = Good, Entry Level Feature Set
- 4 = Better, Retail Replacement Mid Effy.
- 5 = Better, Entry Level High Effy., Multi-Speed
- 7 = Best, Retail Replacement High Effy., Variable-Speed

**No Description**
- 0 = Air Handler / Coil

**Size (Footprint)**
- A = 17.5 x 21.5
- B = 21.0 x 21.5
- C = 23.5 x 21.5

**Cooling Size: Air Handler or Coil**
- 0-9 = AH Coil - 1000 BTU’s (18, 24, 30, 36, 42, 48, 60)

**Airflow Type & Capability**
- S = Low Effy PSC, 1-5 - nom. Tonnage (cfm/ton)
- M = Mid Effy Multi-Speed, 1-5 - nom. Tonnage (cfm/ton)
- H = High Effy Multi-Speed, 1-5 - nom. Tonnage (cfm/ton)
- V = High Effy Variable, 1-5 - nom. Tonnage (cfm/ton)

**Power Supply**
- 1 = 208-230/1/60

**System Control Type**
- S = Standard - 24 VAC
- C = CLDI 13.8 VDC

**Size (Footprint)**
- A = 17.5 x 21.5
- B = 21.0 x 21.5
- C = 23.5 x 21.5

**Cooling Size: Air Handler or Coil**
- 0-9 = AH Coil - 1000 BTU’s (18, 24, 30, 36, 42, 48, 60)

**Minor Design Change**

**Unit Parts Identifier**

#### Heat Pump/ Cooling Coils

**Refrigerant Type**
- 2 = R-22
- 4 = R-410A

**Series**
- T = Premium (Heat Pump or Convertible Coil)
- C = Standard (Cooling Only)

**Coil Design**
- X = Direct Expansion Evaporator Coil
- C = Cased A Coil
- A = Uncased A Coil
- F = Cased Horizontal Flat Coil

**Coil Width (Cased/Uncased)**
- A = 14.5” / 13.3”
- B = 17.5” / 16.3”
- C = 21.0” / 19.8”
- D = 24.5” / 23.3”
- H = 10.5”

**Refrigerant Line Coupling**
- 0 = Brazed

**Nominal Capacity in 1000's (BTUH)**

**Major Design Change**

**Efficiency**
- C = Standard
- S = Hi Efficiency (derived from 10 SEER products)

**Refrigerant Control**
- 3 = TXV - Non-Bleed

**Coil Circuitry**
- H = Heat Pump
- C = Cooling

**Airflow Configuration**
- A = Upflow Only
- U = Upflow / Downflow
- H = Horizontal Only
- C = Convertible - Upflow, Downflow, Left or Right Airflow

**Minor Design Change**

**Service Digit - Not Orderable**
## General Data

### Product Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>4TWR4018D1000A</th>
<th>4TWR4024E1000B</th>
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<td>14</td>
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<td>Max Fuse Size (Amps)</td>
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<td>Sound Enclosure</td>
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<td>Compressor Sump Heat</td>
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<td>NO</td>
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</table>

### Optional Accessories:

- **Anti-short Cycle Timer**: TAYASCT501A
- **Evaporator Defrost Control A/C**: AY28X084
- **Rubber Isolator Kit**: BAYISL101
- **Crankcase Heater**: BAYCCHT300A
- **Hard Start Kit Scroll**: BAYSKST263
- **Extreme Condition Mounting Kit**: BAYECMT023
- **Snow Leg - Base & Cap 4" Extension**: BAYLEG002
- **Sound Enclosure**: BAYDENS001
- **Seacoast Kit**: BAYSEAC001
- **Refrigerant Linetset**: TAYREFLN950
- **Service Valve Cover**: TAYSVPLANL3343A

### Sound Power Level

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<th>Model</th>
<th>A-Weighted Sound Power Level [dB(A)]</th>
<th>Full Octave Sound Power [dB]</th>
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<td>4TWR4060E</td>
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**Note**: Rated in accordance with AHRI Standard 270-2008
General Data

Product Specifications

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<th>4TWR4042D1000A</th>
<th>4TWR4048D1000A</th>
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<td>Max Fuse Size (Amps)</td>
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<tr>
<td>Compressors</td>
<td>CLIMATUFF® - SCROLL</td>
<td>CLIMATUFF® - SCROLL</td>
<td>CLIMATUFF® - SCROLL</td>
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<td>RL AMPS - LR AMPS</td>
<td>19.9 - 109</td>
<td>21.8 - 117</td>
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<td>Outdoor Fan FL Amps</td>
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<td>Fan HP</td>
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<tr>
<td>Coil</td>
<td>Spine Fin™</td>
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<tr>
<td>Sound Enclosure</td>
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<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Compressor Sump Heat</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
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Optional Accessories:

- Anti-short Cycle Timer TAYASCT501A TAYASCT501A TAYASCT501A
- Evaporator Defrost Control A/C AY28XB084 AY28XB084 AY28XB084
- Rubber Isolator Kit BAYISLT101 BAYISLT101 BAYISLT101
- Crankcase Heater BAYCCHT301A BAYCCHT301A —
- Hard Start Kit Scroll BAYKSKT263 BAYKSKT263 BAYKSKT263
- Extreme Condition Mounting Kit BAYECMT004 BAYECMT004 BAYECMT004
- Snow Leg - Base & Cap 4" High BAYLEGS002 BAYLEGS002 BAYLEGS002
- Snow Leg - 4" Extension BAYLEGS003 BAYLEGS003 BAYLEGS003
- Sound Enclosure BAYSDENO04 BAYSDENO04 BAYSDENO04
- Seacoast Kit BAYSEAC001 BAYSEAC001 BAYSEAC001
- Refrigerant Lineset TAYREFLN7* TAYREFLN7* TAYREFLN7*
- Service Valve Cover TAYSVPANL3343A TAYSVPANL0044A TAYSVPANL0046A

Accessory Description and Usage

- **Anti-Short Cycle Timer** — Solid state timing device that prevents compressor recycling until 5 minutes have elapsed after satisfying call or power interruptions. Use in area with questionable power delivery, commercial applications, long lineset, etc.
- **Evaporator Defrost Control** — SPST Temperature actuated switch that cycles the condenser off as indoor coil reaches freeze-up conditions. Used for low ambient cooling to 30°F with TXV.
- **Rubber Isolators** — 5 large rubber donuts to isolate condensing unit from transmitting energy into mounting frame or pad. Use on any application where sound transmission needs to be minimized.
- **Hard Start kit** — Start capacitor and relay to assist compressor motor startup. Use in areas with marginal power supply, on long linesets, low ambient conditions, etc.
- **Extreme Condition Mount Kit** — Bracket kits to securely mount condensing unit to a frame or pad without removing any panels. Use in areas with high winds, or on commercial roof tops, etc.

AHRI Standard Capacity Rating Conditions

**AHRI STANDARD 210/240 RATING CONDITIONS**

(A) Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.

**AHRI STANDARD 270 RATING CONDITIONS** — (Noise rating numbers are determined with the unit in cooling operation.) Standard Noise Rating number is at 95°F outdoor air.
Electrical Data

Schematic Diagrams

4TWR4024E

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**Legend**

- 24 V FACTORY LINE 9-W-2S
- 24 V FIELD INSTALLED IN FACTORY 9-W-2S
- MAGNETIC COIL
- JUNCTION CAPACITOR
- WAVE MOUNT TERMINAL CONTACT (K-21)
- TERMINAL CONTACT (K-20)
- TERMINAL BLOCK BOARD RELAY CONTACT (K-21)
- RELAY CONTACT (K-20)
- INTERNAL OVERLOAD PROTECTION
- PRESSURE ACTUATED SWITCH
- REGISTOR OR HEATING ELEMENT
- MOTOR WIRING
- CALL TIMES TO TERMINAL BOARD
- TERMINAL BOARD TERMINAL
- TO POWER SUPPLY FOR UNIT NAMEPLATE AND LOCAL CODES

**Notes:**

1. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE.
2. WIRES WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
3. LOW VOLTAGE WIRING TO BE NO. 16 AND ALUMINUM CONDUCTOR.
4. GFI-6 MUST BE SET LOWER THAN DUTY.

---

**Warning**

- HAZARDOUS VOLTAGE: TO AVOID ELECTRICAL HARM, INCLUDE IN HOUSE ELETRICAL SYSTEMS.

**Caution**

- USE COPPER CONNECTORS ONLY.
- USE CORRECT SIZE CONNECTORS TO AVOID DAMAGE TO CONNECTORS.
- FOR CABINET INSTALLATIONS, USE SINGLE-RATED CONNECTORS.

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22-1765-10
Electrical Data

Schematic Diagrams

(SEE LEGEND)

4TWR4042D

Printed from D157061P02
Electrical Data

Schematic Diagrams
(SEE LEGEND)

4TWR4060E

WARNING
Hazardous Voltage!
Disconnect all electric power
excluding remote disconnects
before servicing.
Failure to disconnect power
before servicing can cause
severe personal injury or death!

CAUTION
Use Copper Conductors Only!
Unit terminals are not designed
to accept other types of
conductors.
Failure to do so may cause
damage to the equipment.

COLOR OF WIRE

- BLACK WIRE WITH BLUE MARKER
- BLACK OR ORANGE TYELLOW
- BLUE, RED OR GREEN
- BROWN OR WHITE OR PURPLE

NOTES:
1. If D1 or D2 is not used, add jumper between W2 & M2
   at air handler.
2. If D1 is used, D2 must be mounted remote of control;
   box in an approved weather proof enclosure.
3. Low voltage 120 V, 1 field wiring must be 18 AWG, MIN.

FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON
SYSTEMS EXCEEDING 150V TO GROUND.
ATTENTION: NE CONVIENT PAS AUX
INSTALLATIONS DE PLUS DE 150 V A
LA TERRE
4TWR4 Outline Drawing
Note: All dimensions are in MM (Inches).

MODELS | BASE | A   | B       | C       | D   | E   | F   | D   | H   | J   | K   |
<table>
<thead>
<tr>
<th></th>
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Mechanical Specification Options

General
The 4TWR4 is fully charged from the factory for up to 15 feet of piping. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit is certified to UL 1995. Exterior is designed for outdoor application.

Casing
Unit casing is constructed of heavy gauge, G90 galvanized steel and painted with a weather-resistant powder paint on fan top cover and louvered panels, prepaint on all other panels. Corrosion and weatherproof CMBP-G30 base.

Refrigerant Controls
Refrigeration system controls include condenser fan and compressor contactor. High and low pressure controls are inherent to the compressor. A factory installed liquid line drier is standard.

Compressor
The compressor features internal over temperature and pressure protection and total dipped hermetic motor. Other features include: centrifugal oil pump and low vibration and noise.

Condenser Coil
The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

Low Ambient Cooling
As manufactured, this unit has a cooling capability to 55°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 20°F.

Accessories
Thermostats — Cooling only and heat/cooling (manual and automatic changeover). Sub-base to match thermostat and locking thermostat cover.