Split System
Heat Pump
Product Data

Three Phase

4TWA3030A3000C  4TWA3042B4000A
4TWA3030A4000C  4TWA3048A3000C
4TWA3036A3000C  4TWA3048A4000C
4TWA3036A4000C  4TWA3060B3000A
4TWA3042B3000A  4TWA3060B4000A

2½ – 5 Tons
Features and Benefits

- 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 and temperature protection
- Liquid line filter-drier
- Polyslate gray cabinet with anthracite gray badge and cap
- Low pressure switch
- High pressure switch
- Compressor Sump Heat
- Demand Defrost Control with Diagnostics
- R-410A refrigerant
- S.E.E.T. design testing
- 100% line run test
- Low ambient cooling to 55°F as shipped
- Low ambient cooling to 30°F with EDC accessory AY28X084
- Low ambient cooling to 0°F with BAY-LOAM103
- Extended warranties available
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### General Data

**Product Specifications**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>4TWA3030A3000C</th>
<th>4TWA3030A4000C</th>
<th>4TWA3036A3000C</th>
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<td>RECIP</td>
<td>SCROLL</td>
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<td>Spine Fin™</td>
<td>Spine Fin™</td>
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**Optional Accessories:**

- **Anti-short Cycle Timer**: TAYASC501A
- **Evaporator Defrost Control**: AY28X084
- **Rubber Isolator Kit**: BAYISL101
- **Snow Leg - Base & Cap 4° High**: BAYLEG002
- **Snow Leg - 4° Extension**: BAYLEG003
- **Indoor Fan Delay Kit**: BAY24X045
- **Sound Enclosure**: BAYSDEN001
- **Extreme Condition Mounting Kit**: BAYECMT023
- **Seacoast Kit**: BAYSEAC001
- **Low Ambient Kit**: BAYLOAM103
- **Refrigerant Linetset**: TAYREFLN2* TAYREFLN2* TAYREFLN7* TAYREFLN7*

---

**A-weighted Sound Power Level [dB(A)]**

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*Certified in accordance with the Air-Source Unitary Heat Pump equipment certification program which is based on ARI Standard 210/240.

*Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

*Standard line lengths - 60'. Standard lift - 60' Suction and Liquid line.

†Denotes latest revision.

*For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-0*. (†Denotes latest revision)

*For accessory description and usage, see page 5.

* = 15, 20, 25, 30, 40 and 50 foot lineset available.

Note: Tested in accordance with ARI Standard 270.95. (Not listed with ARI)
## Product Specifications

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<td>1/5</td>
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<td>R-410A</td>
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<td>7/8</td>
<td>7/8</td>
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<td>Charge Spec. Subcooling</td>
<td>8°C</td>
<td>8°C</td>
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<td>10°C</td>
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<td>Start Components</td>
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<tr>
<td>Sound Enclosure</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
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<tr>
<td>Compressor Sump Heat</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

### Optional Accessories:

- **Anti-Short Cycle Timer** — Solid state timing device that prevents compressor recycling until five (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** — Five (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.

### ARI Standard Capacity Rating Conditions

**ARI STANDARD 210/240 RATING CONDITIONS** —

- **Cooling 80°F DB, 67°F WB air entering indoor coil,**
  - 95°F DB air entering outdoor coil.

- **High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil,**
  - 70°F DB air entering indoor coil.

- **Low Temperature Heating 17°F DB, 15°F WB air entering outdoor coil,**
  - 70°F DB air entering indoor coil.

(D) Rated indoor airflow for heating is the same as for cooling.

**ARI 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.
# General Data

## Product Specifications

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<th>Model No. ①</th>
<th>4TWA3060B3000A</th>
<th>4TWA3060B4000A</th>
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<td>Min Cir Ampacity</td>
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<td>Max Fuse Size (Amps)</td>
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<td>Compressor</td>
<td>SCROLL</td>
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<tr>
<td>RL Amps - LR Amps</td>
<td>15.6 - 110</td>
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<tr>
<td>Outdoor Fan FL Amps</td>
<td>0.86</td>
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<td>Fan HP</td>
<td>1/5</td>
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<td>Fan Dia (inches)</td>
<td>27.6</td>
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<td>Coil</td>
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<td>Spine Fin™</td>
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<tr>
<td>Compressor Sump Heat</td>
<td>YES</td>
<td>YES</td>
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### Optional Accessories: ②

- Anti-short Cycle Timer: TAYASCT501A
- Evaporator Defrost Control: AY28X084
- Rubber Isolator Kit: BAYISLT101
- Snow Leg - Base & Cap 4" High: BAYLEGS002
- Snow Leg - 4" Extension: BAYLEGS003
- Indoor Fan Delay Kit: BAY24X045
- Sound Enclosure: BAYSEN004
- Extreme Condition Mounting Kit: BAYECMT004
- Seacoast Kit: BAYSEAC001
- Low Ambient Kit: BAYLOAM103
- Refrigerant Lineset ③: TAYREFLN3* ⑤

① Certified in accordance with the Air-Source Unitary Heat Pump equipment certification program which is based on ARI Standard 210/240.
② Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.
③ Standard line lengths - 60'. Standard lift - 60' Suction and Liquid line.
For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-0*. *(denotes latest revision)
④ For accessory description and usage, see page 5.
⑤ * = 15, 20, 25, 30, 40 and 50 foot lineset available.
## Model Nomenclature

### Outdoor Units

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

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

**Product Family**
- 2 = Leadership
- X = Premium
- R = Replacement/Retail
- M or B = Basic
- A = Light Commercial

**Family SEER**
- 0 = 0
- 20 = 20
- 3 = 3
- 6 = 6
- 11 = 11
- 14 = 14
- 15 = 15
- 19 = 19

**Split System Connections 1-6 Tons**
- 0 = Brazed

**Nominal Capacity in 000s of BTUs**

**Major 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
- X = 90% Condensing Standard
- H = 90% 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
- A = 115 Volts / 50 Hertz / Natural Gas
- C = 115 Volts / Natural Gas with Communicating System Control
- F = 115 Volts / Natural Gas with Integrated Electronic Filter
- D = 115 Volts / Natural Gas with Communicating System Control and Integrated Electronic Filter

**Air Capacity for Heating**
- Standard PSC
  - Variable Speed
  - High Efficiency

- 24 = 2 Tons
- 36 = 3 Tons
- 48 = 4 Tons
- 54 = 5 Tons
- 60 = 6 Tons
- 72 = 6 Tons

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

### Heat Pump/ Cooling Coils

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

**Series**
- 1 = Premium (Heat Pump or Convertible Coil)
- S = Standard

**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 = 24.9” / 23.3”
- H = 10.5”

**Refrigerant Line Coupling**
- 0 = Brazed

**Nominal Capacity in 1000’s (BTUH)**

**Major Design Change**

**Efficiency**
- C = Standard
- G = 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

### Air Handler

**Brand**
- 1 = Better
- G = Good

**Product Type**
- A = Air Handler

**Convertibility**
- M = Multi-speed 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
- 8 = Best, Retail Ultimate High Effy., Variable-Speed

**Major Design Change**

**No Descriptor**
- 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)

**Nominal Capacity in 1000's of BTUH**

**Power Supply**
- 1 = 208-230/1/60
- 3 = 200-230/60

**Service Digit - Not Orderable**
Electrical Data

Schematic Diagrams

(SEE LEGEND)

4TWA3030A3000C

NOTES:
1. IF DOT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AS AIR HANDLER.
   IF USED, DOT-B MUST BE MOUNTED REMOTE OF CONTROL.
2. IF DOT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AS AIR HANDLER.
3. LOW VOLTAGE 24 V AC FIELD WIRING MUST BE 18 AWG MIN.

NOTE
THREE PHASE MOTOR (S) FACTORY SUPPLIED IN THIS EQUIPMENT PROTECTED UNDER PRIMARY SINGLE-PHASE CONDITIONS.

From Dwg. D157076P01
Electrical Data

Schematic Diagrams

(SEE LEGEND)

4TWA3036A3000C, 4TWA3048A3000C

From Dwg. D157063P02
Electrical Data

Schematic Diagrams
(SEE LEGEND)

4TWA3042B3000A, 4TWA3060B3000A

From Dwg. D157392P01
Electrical Data

Schematic Diagrams
(SEE LEGEND)

4TWA3042B4000A 4TWA3060B4000A

From Dwg. D157393P01
Dimensions

4TWA3 Outline Drawing

NOTE: ALL DIMENSIONS ARE IN MM (INCHES)

From Dwg. D153074

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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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Mechanical
Specification Options

General
The 4TWA3 shall be fully charged from the factory for matched indoor section and up to 15 feet of piping. This unit must be designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities shall be matched with a wide selection of air handlers and furnace coils that are ARI certified. The unit is certified to UL 1995. Exterior must be designed for outdoor application.

Casing
Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint. 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. Another standard feature is the liquid line dryer.

Compressor
The compressor features internal over temperature and pressure protector 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 permits operation to 30°F. The addition of a low ambient kit permits low ambient cooling to 0°F.

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

Evaporator Defrost Control — See Low Ambient Cooling.