Product Data

Split System Heat Pump
3–Phase

4TWA7036A3000A
4TWA7048A3000A
4TWA7060A3000A
4TWA7036A4000A
4TWA7048A4000A
4TWA7060A4000A

Note: “Graphics in this document are for representation only. Actual model may differ in appearance.”
# Table of Contents

Product Specifications ................................................................. 3  
Sound Power Level ................................................................. 5  
Accessory Description and Usage ..................................................... 6  
  Model Nomenclature .................................................................. 6  
SCHEMATIC ................................................................................. 7  
Outline Drawing ........................................................................... 9  
Mechanical Specification Options ..................................................... 10
## Product Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>4TWA7036A3000A</th>
<th>4TWA7048A3000A</th>
<th>4TWA7060A3000A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MIN. BRCH. CIR. AMPACITY</strong></td>
<td>15</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td><strong>BR. CIR. PROT. RTG. — MAX. (AMPS)</strong></td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td><strong>COMPRESSOR</strong></td>
<td>CLIMATUFF®- SCROLL</td>
<td>CLIMATUFF®- SCROLL</td>
<td>CLIMATUFF®- SCROLL</td>
</tr>
<tr>
<td><strong>R.L. AMPS</strong></td>
<td>11.6 — 73</td>
<td>14 — 83</td>
<td>16.2 — 110</td>
</tr>
<tr>
<td><strong>Outdoor Fan FLAMPS</strong></td>
<td>0.74</td>
<td>0.93</td>
<td>1.30</td>
</tr>
<tr>
<td><strong>Fan HP</strong></td>
<td>1/8</td>
<td>1/5</td>
<td>1/4</td>
</tr>
<tr>
<td><strong>Fan Dia (inches)</strong></td>
<td>27.6</td>
<td>27.6</td>
<td>27.6</td>
</tr>
<tr>
<td><strong>Coil</strong></td>
<td>SPINE FIN™</td>
<td>SPINE FIN™</td>
<td>SPINE FIN™</td>
</tr>
<tr>
<td><strong>Refrigerant R-410A</strong></td>
<td>10 LBS., 8 OZ</td>
<td>12 LBS., 9 OZ</td>
<td>13 LBS., 03 OZ</td>
</tr>
<tr>
<td><strong>LINE SIZE — IN. O.D. GAS</strong></td>
<td>3/4</td>
<td>7/8</td>
<td>1 1/8</td>
</tr>
<tr>
<td><strong>LINE SIZE — IN. O.D. LIQ.</strong></td>
<td>3/8</td>
<td>3/8</td>
<td>3/8</td>
</tr>
<tr>
<td><strong>Charge Spec. Subcooling</strong></td>
<td>9°F</td>
<td>8°F</td>
<td>10°F</td>
</tr>
<tr>
<td><strong>Dimensions H x W x D Crated (IN.)</strong></td>
<td>51.0 x 38.7 x 35.1</td>
<td>51.0 x 38.7 x 35.1</td>
<td>51.0 x 38.7 x 35.1</td>
</tr>
<tr>
<td><strong>Weight — Shipping (lbs.)</strong></td>
<td>307</td>
<td>329</td>
<td>330</td>
</tr>
<tr>
<td><strong>Weight — Net (lbs.)</strong></td>
<td>257</td>
<td>292</td>
<td>293</td>
</tr>
</tbody>
</table>

### Optional Accessories:
- **Anti-short Cycle Timer**
  - TAYASCT501A
  - TAYASCT501A
  - TAYASCT501A

- **Evaporator Defrost Control**
  - AY28X084
  - AY28X084
  - AY28X084

- **Rubber Isolator Kit**
  - BAYISLT101
  - BAYISLT101
  - BAYISLT101

- **Extreme Condition Mount Kit**
  - BAYECMT004
  - BAYECMT004
  - BAYECMT004

- **Crankcase Heater Kit**
  - —
  - —
  - —

- **Seacoast Kit**
  - BAYSEAC001
  - BAYSEAC001
  - BAYSEAC001

- **Low Ambient Kit**
  - BAYLOAM107
  - BAYLOAM107
  - BAYLOAM107

- **Refrigerant Lineset**
  - TAYREFLN7*
  - TAYREFLN3*
  - TAYREFLN3*

- **Sound Enclosure**
  - BAYSDEVNO04
  - BAYSDEVNO04
  - BAYSDEVNO04

- **Snow Legs — 6”**
  - BAYLEGS002
  - BAYLEGS002
  - BAYLEGS002

- **Snow Legs Extension — 4”**
  - BAYLEGS003
  - BAYLEGS003
  - BAYLEGS003

- **Service Valve Panel Cover**
  - TAYSVPLANL0044AA
  - TAYSVPLANL0044AA
  - TAYSVPLANL0044AA

---

(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.
(b) Rated in accordance with AHRI standard 270.
(c) Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.
(d) This value shown for compressor RLA on the unit nameplate and on this specification sheet is used to compute minimum branch circuit ampacity and max. fuse size. The value shown is the branch circuit selection current.
(e) This value approximate. For more precise value see unit nameplate.
(f) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the refrigerant piping software pub # 32-3312-xx or refrigerant piping application guide SS-APG006-xx for long line sets or specialty applications (xx denotes latest revision).
(g) Trane outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer’s Guide for full charging instructions.
(h) This value approximate. For more precise value see unit nameplate.
(i) AY28X*** Evaporator Defrost Control not required when indoor unit has EEV.
(j) * = 15, 20, 25, 30, 40 and 50 foot lineset available.
## Product Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>4TWA7036A4000A</th>
<th>4TWA7048A4000A</th>
<th>4TWA7060A4000A</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER CONNS. — V/PH/HZ (c)</td>
<td>460/3/60</td>
<td>460/3/60</td>
<td>460/3/60</td>
</tr>
<tr>
<td>MIN. BRCH. CIR. AMPACITY</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>BR. CIR. PROT. RTG. — MAX. (AMPS)</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>COMPressor</td>
<td>CLIMATUFF®- SCROLL</td>
<td>CLIMATUFF®- SCROLL</td>
<td>CLIMATUFF®- SCROLL</td>
</tr>
<tr>
<td>R.L. AMPS (d) — L.R. AMPS</td>
<td>5.7–38</td>
<td>6.4–41</td>
<td>7.6–52</td>
</tr>
<tr>
<td>Outdoor Fan FL AMPS</td>
<td>0.4</td>
<td>0.6</td>
<td>0.72</td>
</tr>
<tr>
<td>Fan HP</td>
<td>1/8</td>
<td>1/5</td>
<td>1/4</td>
</tr>
<tr>
<td>Fan Dia (inches)</td>
<td>27.6</td>
<td>27.6</td>
<td>27.6</td>
</tr>
<tr>
<td>Coil</td>
<td>SPINE FIN™</td>
<td>SPINE FIN™</td>
<td>SPINE FIN™</td>
</tr>
<tr>
<td>Refrigerant R-410A(4)</td>
<td>10 LBS., 8 OZ</td>
<td>12 LBS., 09 OZ</td>
<td>13 LBS., 03 OZ</td>
</tr>
<tr>
<td>LINE SIZE — IN. O.D. GAS (f)</td>
<td>3/4</td>
<td>7/8</td>
<td>1 1/8</td>
</tr>
<tr>
<td>LINE SIZE — IN. O.D. LIQ. (h)</td>
<td>3/8</td>
<td>3/8</td>
<td>3/8</td>
</tr>
<tr>
<td>Charge Spec. Subcooling</td>
<td>9°F</td>
<td>8°F</td>
<td>10°F</td>
</tr>
<tr>
<td>Dimensions H x W x D Crated (IN.)</td>
<td>51.0 x 38.7 x 35.1</td>
<td>51.0 x 38.7 x 35.1</td>
<td>51.0 x 38.7 x 35.1</td>
</tr>
<tr>
<td>Weight — Shipping (lbs.)</td>
<td>307</td>
<td>323</td>
<td>326</td>
</tr>
<tr>
<td>Weight — Net (lbs.)</td>
<td>257</td>
<td>286</td>
<td>289</td>
</tr>
</tbody>
</table>

### Optional Accessories:

- **Anti-short Cycle Timer**: TAYASCT501A, TAYASCT501A, TAYASCT501A
- **Evaporator Defrost Control**: AY28X084(1) AY28X084(1) AY28X084(1)
- **Rubber Isolator Kit**: BAYISLT101 BAYISLT101 BAYISLT101
- **Extreme Condition Mount Kit**: BAYECMT004 BAYECMT004 BAYECMT004
- **Crankcase Heater Kit**: — — —
- **Seacoast Kit**: BAYSEAC001 BAYSEAC001 BAYSEAC001
- **Low Ambient Kit**: BAYLOAM107 BAYLOAM107 BAYLOAM107
- **Refrigerant Lineset (l)**: TAYREFLN7* TAYREFLN3* TAYREFLN3*
- **Sound Enclosure**: BAYSSEN004 BAYSSEN004 BAYSSEN004
- **Snow Legs — 6”**: BAYLEG5002 BAYLEG5002 BAYLEG5002
- **Snow Legs Extension — 4”**: BAYLEG5003 BAYLEG5003 BAYLEG5003
- **Service Valve Panel Cover**: TAYSVPLAN0044AA TAYSVPLAN0044AA TAYSVPLAN0044AA

(1) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.

(2) Rated in accordance with AHRI standard 270.

(3) Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

(4) This value shown for compressor RLA on the unit nameplate and on this specification sheet is used to compute minimum branch circuit ampacity and max. fuse size. The value shown is the branch circuit selection current.

(5) This value approximate. For more precise value see unit nameplate.

(6) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the refrigerant piping software pub # 32-3312-xx or refrigerant piping application guide SS-APG006-xx for long line sets or specialty applications (xx denotes latest revision).

(7) Trane outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer’s Guide for full charging instructions.

(8) This value approximate. For more precise value see unit nameplate.

(9) AY28X*** Evaporator Defrost Control not required when indoor unit has EEV.

(10) * = 15, 20, 25, 30, 40 and 50 foot lineset available.
## Sound Power Level

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A-Weighted Sound Power Level [dB(A)]</th>
<th>Full Octave Sound Power(dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>63 Hz</td>
<td>125 Hz</td>
</tr>
<tr>
<td>4TWA7036A</td>
<td>72</td>
<td>74</td>
</tr>
<tr>
<td>4TWA7048A</td>
<td>73</td>
<td>85</td>
</tr>
<tr>
<td>4TWA7060A</td>
<td>74</td>
<td>75</td>
</tr>
</tbody>
</table>
Accessory Description and Usage

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.

Evaporation 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.

AHRI Standard Capacity Rating Conditions

AHRI Standard 210/240 Rating Conditions
1. Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
2. High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
3. Low Temperature Heating 17°F DB air entering indoor coil.
4. Rated indoor airflow for heating is the same as for cooling.

AHRI Standard 270 Rating Conditions — (Noise rating numbers are determined with the unit in cooling operations.) Standard Noise Rating number is at 95°F outdoor air.

Model Nomenclature
**Outline Drawing**

Diagram showing a cross-section of an HVAC unit with various dimensions and components labeled.

<table>
<thead>
<tr>
<th>Model</th>
<th>Base</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
</table>
Mechanical Specification Options

General
The Outdoor Units are 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, galvanized steel and painted with a weather-resistant powder paint finish on all louvered panels and the fan top panel. The corner panels are prepainted. All panels are subjected to our 1,000 hour salt spray test. The base is made of a CMBP-G30 weatherproof material to resist corrosion.

Refrigerant Controls
Refrigeration system controls include condenser fan, compressor contactor and high pressure switch. High and low pressure controls are inherent to the compressor. A factory supplied liquid line drier is standard. Some models may require field installation.

Compressor
The compressor features internal over temperature, 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 system has a cooling capacity to 55°F. The addition of an evaporator defrost control permits operation to 40°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

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

Evaporator Defrost Control — See Low Ambient Cooling.
Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a global business committed to a world of sustainable progress and enduring results. For more information, visit www.ingersollrand.com.

Ingersoll Rand has a policy of continuous product and product data improvements and reserves the right to change design and specifications without notice.

The AHRI Certified mark indicates Ingersoll Rand participation in the AHRI Certification program. For verification of individual certified products, go to www.ahridirectory.org.

©2016 Ingersoll Rand  All rights reserved
22-1925-1B-EN    19 Aug 2016
Supersedes 22-1925-1A-EN (May 2016)