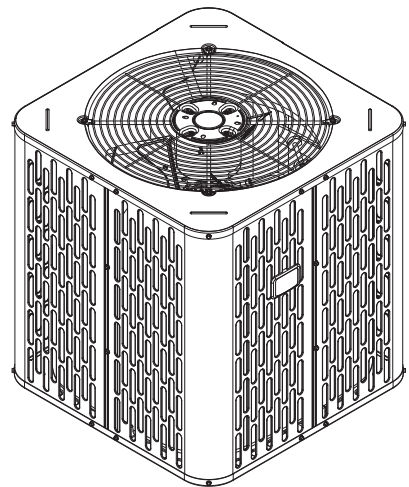


# Product and Submittal Data

## Split System Air Conditioner

A5AC5018A  
A5AC5024A  
A5AC5030A  
A5AC5036A  
A5AC5042A  
A5AC5048A  
A5AC5060A



**Note:** Graphics in this document are for representation only.  
Actual model may differ in appearance.

# Introduction

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## Revision History

- Updated models on the cover page.
- Updated Product Specification tables in the Product Specification chapter.
- Updated figures in the Wiring Diagram chapter.

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# Model Number Description

## Digit 1 — Brand

**A** = RunTru by Trane / Ameristar by American Standard  
**E** = RunTru/Ameristar  
**N** = Trane Advantage

## Digit 2 — Refrigerant Type

**4** = R-410A  
**5** = R-454B

## Digit 3, 4 — Product Family

**AC** = Air Conditioner  
**HP** = Heat Pump  
**HPL** = Side Discharge

## Digit 5 — Nominal Efficiency Rating

**3** = 13.4 SEER2  
**4** = 14.3 SEER2  
**5** = 15.2 SEER2

## Digit 6, 7, 8 — Nominal Capacity

BTU/Hour x 100

## Digit 9 — Major Development Sequence

Primary Design / Form Series  
Alphabetic Character "A" through "Z"

## Digit 10 — Electric Power Supply

**1** = 200-230V/1PH/60Hz or 208-230V/1PH/60Hz

## Digit 11, 12, 13 — Secondary Function

**000** = No Secondary Function

## Digit 14, 15 — Minor Design Sequence/Series - Design Change

Alphabetic Character "A" through "Z"

# General Data

## **AHRI standard 210/240 rating conditions:**

- Cooling: 80°F DB; air entering indoor coil: 67°F WB; air entering outdoor coil: 95°F DB
- High temperature heating: 47°F DB; air entering outdoor coil: 43°F WB; entering indoor coil: 70°F DB
- Low temperature heating: 17°F DB; air entering outdoor coil: 15°F WB; air entering indoor coil: 70°F DB
- Rated indoor airflow for heating is the same as for cooling.

## **AHRI standard 270 rating conditions:**

The noise rating numbers are determined with the unit in cooling operation. Standard Noise Rating number is at 95°F outdoor air.

# Product Specifications

**Table 1. Models — A5AC5018A, A5AC5024A, A5AC5030A, and A5AC5036A**

| Outdoor Unit <sup>(a) (b)</sup>               | A5AC5018A1000    | A5AC5024A1000        | A5AC5030A1000    |           | A5AC5036A1000        |           |
|-----------------------------------------------|------------------|----------------------|------------------|-----------|----------------------|-----------|
| 14th Digit of the Model Number                | A                | A                    | A                | B         | A                    | B         |
| Power Conns. – V/Ph/Hz <sup>(c)</sup>         | 208/230/1/60     | 208/230/1/60         | 208/230/1/60     |           | 208/230/1/60         |           |
| Min. BRCH. CIR. Ampacity                      | 9                | 14                   | 15               | 17        | 18                   |           |
| BR. CIR. PROT. RTG. – Max. (Amps)             | 20               | 20                   | 25               |           | 30                   |           |
| Compressor                                    | Scroll           | Scroll               | Scroll           |           | Scroll               |           |
| No. Used - No. Stages                         | 1 - 1            | 1 - 1                | 1 - 1            |           | 1 - 1                |           |
| Volts/Ph/Hz                                   | 208/230/1/60     | 208/230/1/60         | 208/230/1/60     |           | 208/230/1/60         |           |
| R.L. Amps <sup>(d)</sup> - L.R. Amps          | 6.9 - 45         | 10.9 - 60            | 12.5 - 67        | 12.7 - 76 | 13.5 - 75            | 13.5 - 83 |
| Factory Installed                             |                  |                      |                  |           |                      |           |
| Start Components <sup>(e)</sup>               | No               | No (Uses BAYKSKT263) | No               |           | No (Uses BAYKSKT263) |           |
| Insulation/Sound Blanket                      | No               | No                   | No               |           | No                   |           |
| Compressor Heat                               | No               | No                   | No               |           | No                   |           |
| Outdoor Fan                                   | Propeller        | Propeller            | Propeller        |           | Propeller            |           |
| Dia. (in.) - No. Used                         | 23.02 - 1        | 23 - 1               | 23.02 - 1        |           | 23 - 1               |           |
| Type Drive - No. Speeds                       | Direct - 1       | Direct - 1           | Direct - 1       |           | Direct - 1           |           |
| CFM @ 0.0 (in.) W.G. <sup>(f)</sup>           | 2992             | 3068                 | 2992             |           | 3124                 |           |
| No. Motors - hp                               | 1 - 1/8          | 1 - 1/8              | 1 - 1/8          |           | 1 - 1/8              |           |
| Motor Speed – rpm                             | 825              | 825                  | 825              |           | 825                  |           |
| Volts/Ph/Hz                                   | 208/230/1/60     | 208/230/1/60         | 208/230/1/60     |           | 208/230/1/60         |           |
| F.L. Amps                                     | 0.77             | 0.71                 | 0.77             |           | 0.77                 |           |
| Outdoor Coil - Type                           | All Aluminum     | All Aluminum         | All Aluminum     |           | All Aluminum         |           |
| Rows - F.P.I.                                 | 1 - 24           | 1 - 24               | 1 - 24           |           | 1 - 24               |           |
| Face Area (sq. ft.)                           | 21.25            | 18.75                | 21.25            |           | 18.75                |           |
| Tube Size (in.)                               | 3/8              | 3/8                  | 3/8              |           | 3/8                  |           |
| Refrigerant                                   |                  |                      |                  |           |                      |           |
| lb – R-454B (O.D. Unit) <sup>(g)</sup>        | 3 lb, 12 oz      | 3 lb, 10 oz          | 3 lb, 8 oz       |           | 3 lb, 8 oz           |           |
| Factory Supplied                              | Yes              | Yes                  | Yes              |           | Yes                  |           |
| Valve Connection Size - (in.) O.D. Gas        | 3/4              | 3/4                  | 3/4              |           | 3/4                  |           |
| Valve Connection Size - (in.) O.D. Liq.       | 5/16             | 5/16                 | 5/16             |           | 5/16                 |           |
| Line Size – (in.) O.D. Gas <sup>(h) (i)</sup> | 3/4              | 3/4                  | 3/4              |           | 3/4                  |           |
| Line Size - (in.) O.D. Liq.                   | 5/16             | 5/16                 | 5/16             |           | 5/16                 |           |
| Charging Specifications                       |                  |                      |                  |           |                      |           |
| Subcooling                                    | 10°F             | 10°F                 | 10°F             |           | 10°F                 |           |
| Dimensions                                    | H × W × D        |                      |                  |           |                      |           |
| Crated (in.)                                  | 42 × 31.1 × 31.1 | 38.3 × 31.1 × 31.1   | 42 × 31.1 × 31.1 |           | 38.3 × 31.1 × 31.1   |           |
| Weight                                        |                  |                      |                  |           |                      |           |
| Shipping (lb)                                 | 220              | 183                  | 220              |           | 183                  |           |

**Table 1. Models — A5AC5018A, A5AC5024A, A5AC5030A, and A5AC5036A (continued)**

| Outdoor Unit <sup>(a) (b)</sup>    | A5AC5018A1000 | A5AC5024A1000 | A5AC5030A1000 | A5AC5036A1000 |
|------------------------------------|---------------|---------------|---------------|---------------|
| Net (lb)                           | 184           | 161           | 184           | 161           |
| <b>Optional Accessories:</b>       |               |               |               |               |
| Rubber Isolator Kit                | BAYISLT101    | BAYISLT101    | BAYISLT101    | BAYISLT101    |
| Snow Leg — Base and Cap 4 in. High | BAYLEGS002    | BAYLEGS002    | BAYLEGS002    | BAYLEGS002    |
| Snow Leg — 4 in. Extension         | BAYLEGS003    | BAYLEGS003    | BAYLEGS003    | BAYLEGS003    |
| Extreme Condition Mounting Kit     | BAYECMT023    | BAYECMT023    | BAYECMT023    | BAYECMT023    |
| Refrigerant Lineset <sup>(i)</sup> |               |               |               |               |

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

<sup>(b)</sup> Rated in accordance with AHRI standard 270.

<sup>(c)</sup> Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.

<sup>(d)</sup> 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.

<sup>(e)</sup> Use start components only when compressor is found to enter locked rotor condition and will not start or when lights dim at compressor start. "No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter. Optional kit shown.

<sup>(f)</sup> Standard Air - Dry Coil - Outdoor.

<sup>(g)</sup> This value approximate. For more precise value see unit nameplate.

<sup>(h)</sup> 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 Manual for Small Split Cooling and Heat Pump Systems Application Guide* (SS-APG006\*-EN) for long line sets or specialty applications (xx denotes latest revision).

<sup>(i)</sup> The outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit, ten (10) feet of tested connecting line, and the smallest rated indoor evaporative coil match. Always verify proper system charge via subcooling (TXV/EEV) or superheat (fixed orifice) per the unit nameplate.

<sup>(j)</sup> 25, 30, 35 and 50 foot linesets available. For a complete listing of lineset options available from equipment or supply stores, refer to the Trane Residential and Light Commercial Product Handbook.

**Table 2. Models — A5AC5042A, A5AC5048A, and A5AC5060A**

| Outdoor Unit <sup>(a) (b)</sup>       | A5AC5042A1000 |             | A5AC5048A1000        |            |           | A5AC5060A1000        |            |
|---------------------------------------|---------------|-------------|----------------------|------------|-----------|----------------------|------------|
| 14th Digit of the Model Number        | A             | B           | A                    | B          | C         | A                    | B          |
| Power Conns. — V/Ph/Hz <sup>(c)</sup> | 208/230/1/60  |             | 208/230/1/60         |            |           | 208/230/1/60         |            |
| Min. BRCH. CIR. Ampacity              | 21            | 23          | 23                   | 25         | 24        | 28                   | 30         |
| BR. CIR. PROT. RTG. — Max. (Amps)     | 30            | 40          | 35                   | 45         | 40        | 50                   |            |
| <b>Compressor</b>                     | Scroll        |             | Scroll               |            |           | Scroll               |            |
| No. Used - No. Stages                 | 1 - 1         |             | 1 - 1                |            |           | 1 - 1                |            |
| Volts/Ph/Hz                           | 208/230/1/60  |             | 208/230/1/60         |            |           | 208/230/1/60         |            |
| R.L. Amps <sup>(d)</sup> - L.R. Amps  | 14.7 - 109    | 17.9 - 95.9 | 17.3 - 126           | 19.6 - 118 | 18.1 - 95 | 21.8 - 143           | 23.4 - 134 |
| Factory Installed                     |               |             |                      |            |           |                      |            |
| Start Components <sup>(e)</sup>       | No            |             | No (Uses BAYKSKT263) |            |           | No (Uses BAYKSKT263) |            |
| Insulation/Sound Blanket              | No            |             | No                   |            |           | No                   |            |
| Compressor Heat                       | No            |             | No                   |            |           | No                   |            |
| <b>Outdoor Fan</b>                    | Propeller     |             | Propeller            |            |           | Propeller            |            |
| Dia. (in.) - No. Used                 | 27.5 - 1      |             | 27.5 - 1             |            |           | 27.5 - 1             |            |
| Type Drive - No. Speeds               | Direct - 1    |             | Direct - 1           |            |           | Direct - 1           |            |
| CFM @ 0.0 (in.) W.G. <sup>(f)</sup>   | 4841          |             | 5165                 |            |           | 5255                 |            |
| No. Motors - hp                       | 1 - 1/5       |             | 1 - 1/5              |            |           | 1 - 1/5              |            |
| Motor Speed — rpm                     | 850           |             | 850                  |            |           | 850                  |            |
| Volts/Ph/Hz                           | 208/230/1/60  |             | 208/230/1/60         |            |           | 208/230/1/60         |            |
| F.L. Amps                             | 1.05          |             | 1.05                 |            |           | 0.93                 |            |
| <b>Outdoor Coil - Type</b>            | All Aluminum  |             | All Aluminum         |            |           | All Aluminum         |            |

## Product Specifications

**Table 2. Models — A5AC5042A, A5AC5048A, and A5AC5060A (continued)**

| Outdoor Unit <sup>(a)</sup> <sup>(b)</sup>               | A5AC5042A1000    | A5AC5048A1000    | A5AC5060A1000    |
|----------------------------------------------------------|------------------|------------------|------------------|
| Rows - F.P.I.                                            | 1 - 24           | 1 - 24           | 1 - 24           |
| Face Area (sq. ft.)                                      | 24.93            | 30.80            | 30.80            |
| Tube Size (in.)                                          | 3/8              | 3/8              | 3/8              |
| <b>Refrigerant</b>                                       |                  |                  |                  |
| lb — R-454B (O.D. Unit) <sup>(g)</sup>                   | 5 lb, 1 oz       | 6 lb, 10 oz      | 5 lb, 15 oz      |
| Factory Supplied                                         | Yes              | Yes              | Yes              |
| Valve Connection Size - (in.) O.D. Gas                   | 7/8              | 7/8              | 7/8              |
| Valve Connection Size - (in.) O.D. Liq.                  | 5/16             | 5/16             | 5/16             |
| Line Size — (in.) O.D. Gas <sup>(h)</sup> <sup>(i)</sup> | 7/8              | 7/8              | 1-1/8            |
| Line Size - (in.) O.D. Liq.                              | 5/16             | 5/16             | 5/16             |
| <b>Charging Specifications</b>                           |                  |                  |                  |
| Subcooling                                               | 10°F             | 10°F             | 10°F             |
| <b>Dimensions</b>                                        |                  |                  |                  |
|                                                          | H × W × D        |                  |                  |
| Crated (in.)                                             | 42 × 35.6 × 35.6 | 50 × 35.6 × 35.6 | 50 × 35.6 × 35.6 |
| <b>Weight</b>                                            |                  |                  |                  |
| Shipping (lb)                                            | 246              | 307              | 302              |
| Net (lb)                                                 | 212              | 257              | 252              |
| <b>Optional Accessories:</b>                             |                  |                  |                  |
| Rubber Isolator Kit                                      | BAYISLT101       | BAYISLT101       | BAYISLT101       |
| Snow Leg — Base and Cap 4 in. High                       | BAYLEGS002       | BAYLEGS002       | BAYLEGS002       |
| Snow Leg — 4 in. Extension                               | BAYLEGS003       | BAYLEGS003       | BAYLEGS003       |
| Extreme Condition Mounting Kit                           | BAYECMT023       | BAYECMT023       | BAYECMT023       |
| <b>Refrigerant Lineset <sup>(j)</sup></b>                |                  |                  |                  |

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

<sup>(b)</sup> Rated in accordance with AHRI standard 270.

<sup>(c)</sup> Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.

<sup>(d)</sup> 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.

<sup>(e)</sup> Use start components only when compressor is found to enter locked rotor condition and will not start or when lights dim at compressor start." No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter. Optional kit shown.

<sup>(f)</sup> Standard Air - Dry Coil - Outdoor.

<sup>(g)</sup> This value approximate. For more precise value see unit nameplate.

<sup>(h)</sup> 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 Manual for Small Split Cooling and Heat Pump Systems Application Guide* (SS-APG006\*-EN) for long line sets or specialty applications (xx denotes latest revision).

<sup>(i)</sup> The outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit, ten (10) feet of tested connecting line, and the smallest rated indoor evaporative coil match. Always verify proper system charge via subcooling (TXV/EEV) or superheat (fixed orifice) per the unit nameplate.

<sup>(j)</sup> 25, 30, 35 and 50 foot linesets available. For a complete listing of lineset options available from equipment or supply stores, refer to the Trane Residential and Light Commercial Product Handbook.

# Sound Power Level

**Table 3. Models — A5AC5018A, A5AC5024A, A5AC5030A, A5AC5036A, A5AC5042A, A5AC5048A, and A5AC5060A**

| Model     | A-Weighted Sound Power Level [dB (A)] | Full Octave Sound Power(dB) |        |        |        |         |         |         |         |
|-----------|---------------------------------------|-----------------------------|--------|--------|--------|---------|---------|---------|---------|
|           |                                       | 63 Hz <sup>(a)</sup>        | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| A5AC5018A | 73                                    | 79                          | 69     | 67     | 70     | 70      | 64      | 59      | 53      |
| A5AC5024A | 71                                    | 78                          | 72     | 69     | 68     | 66      | 61      | 58      | 53      |
| A5AC5030A | 73                                    | 79                          | 69     | 67     | 70     | 70      | 64      | 59      | 53      |
| A5AC5036A | 71                                    | 78                          | 72     | 69     | 68     | 66      | 61      | 58      | 53      |
| A5AC5042A | 71                                    | 78                          | 72     | 69     | 68     | 66      | 61      | 58      | 53      |
| A5AC5048A | 71                                    | 81                          | 75     | 71     | 70     | 68      | 63      | 58      | 53      |
| A5AC5060A | 71                                    | 81                          | 75     | 71     | 70     | 68      | 63      | 58      | 53      |

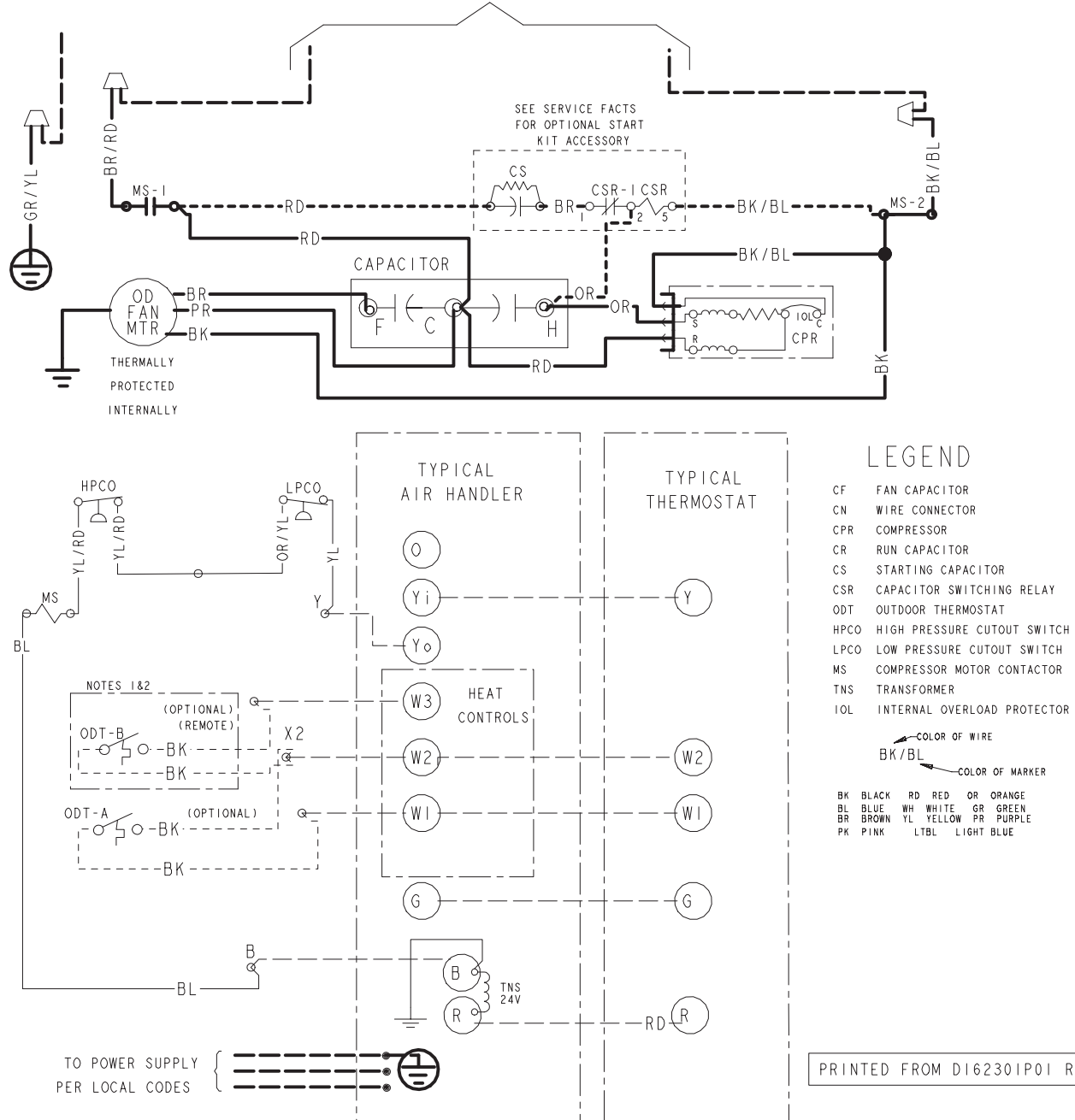
**Note:** Rated in accordance with AHRI Standard 270–2008.

<sup>(a)</sup> For reference only.

# Wiring Diagrams

**Figure 1. Models – 018, 024, 030, and 036**

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES

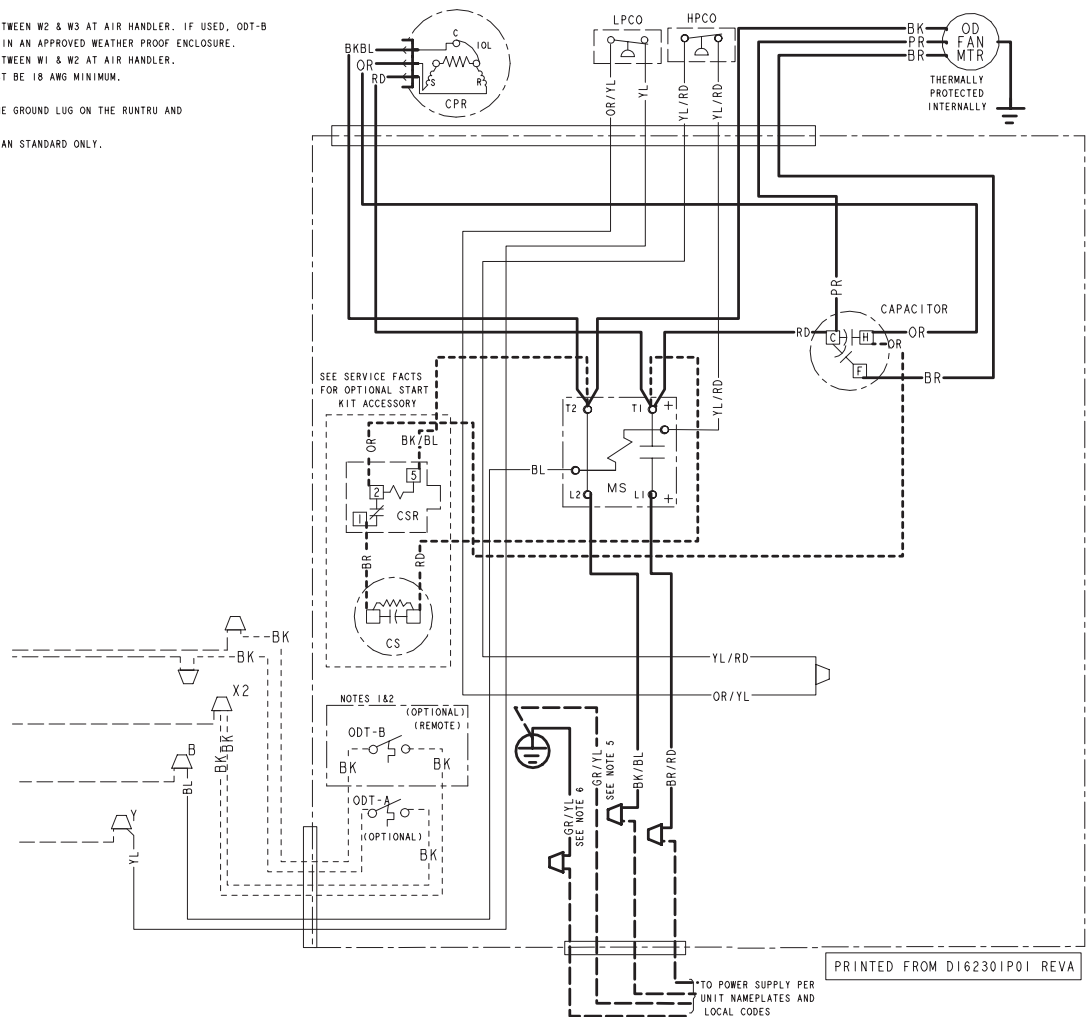
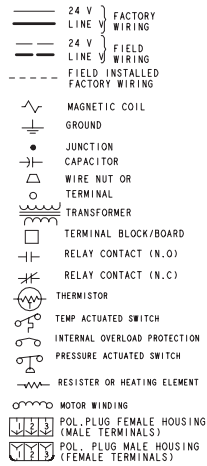


**Figure 2. Models – 018, 024, 030, and 036**

**NOTES:**

1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER. IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
3. LOW VOLTAGE (24 V) FIELD WIRING MUST BE 18 AWG MINIMUM.
4. USE COPPER CONDUCTORS ONLY!
5. FIELD GROUND MUST BE ATTACHED TO THE GROUND LUG ON THE RUNTRU AND AMERISTAR UNITS.
6. GROUND CONNECTION FOR TRANE / AMERICAN STANDARD ONLY.

**LEGEND**

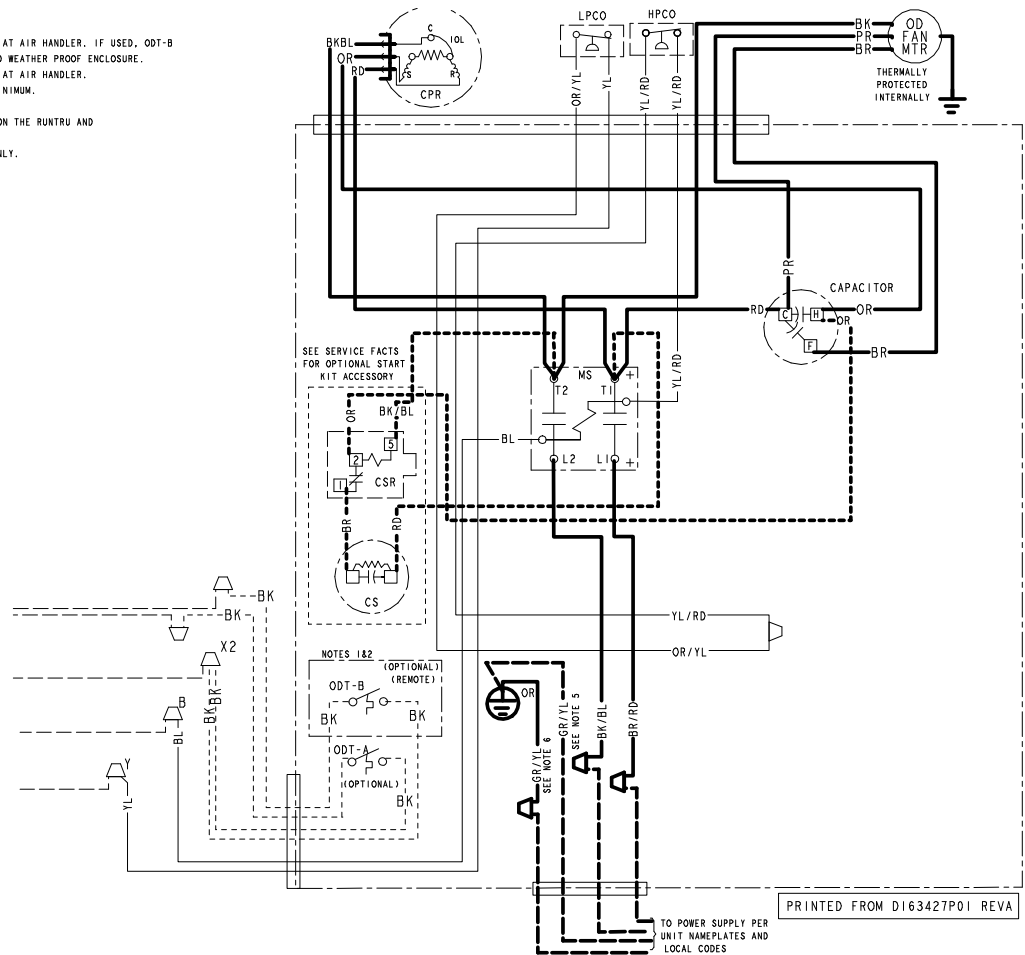
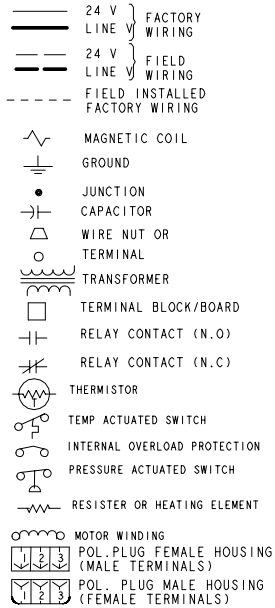




**Figure 4. Models – 042, 048, and 060**

- NOTES:
1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER. IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
  2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
  3. LOW VOLTAGE (24 V) FIELD WIRING MUST BE 18 AWG MINIMUM.
  4. USE COPPER CONDUCTORS ONLY!
  5. FIELD GROUND MUST BE ATTACHED TO THE GROUND LUG ON THE RUNTRU AND AMERISTAR UNITS.
  6. GROUND CONNECTION FOR TRANE / AMERICAN STANDARD ONLY.

## LEGEND



# Dimensional Data

Figure 5. Dimensional drawing

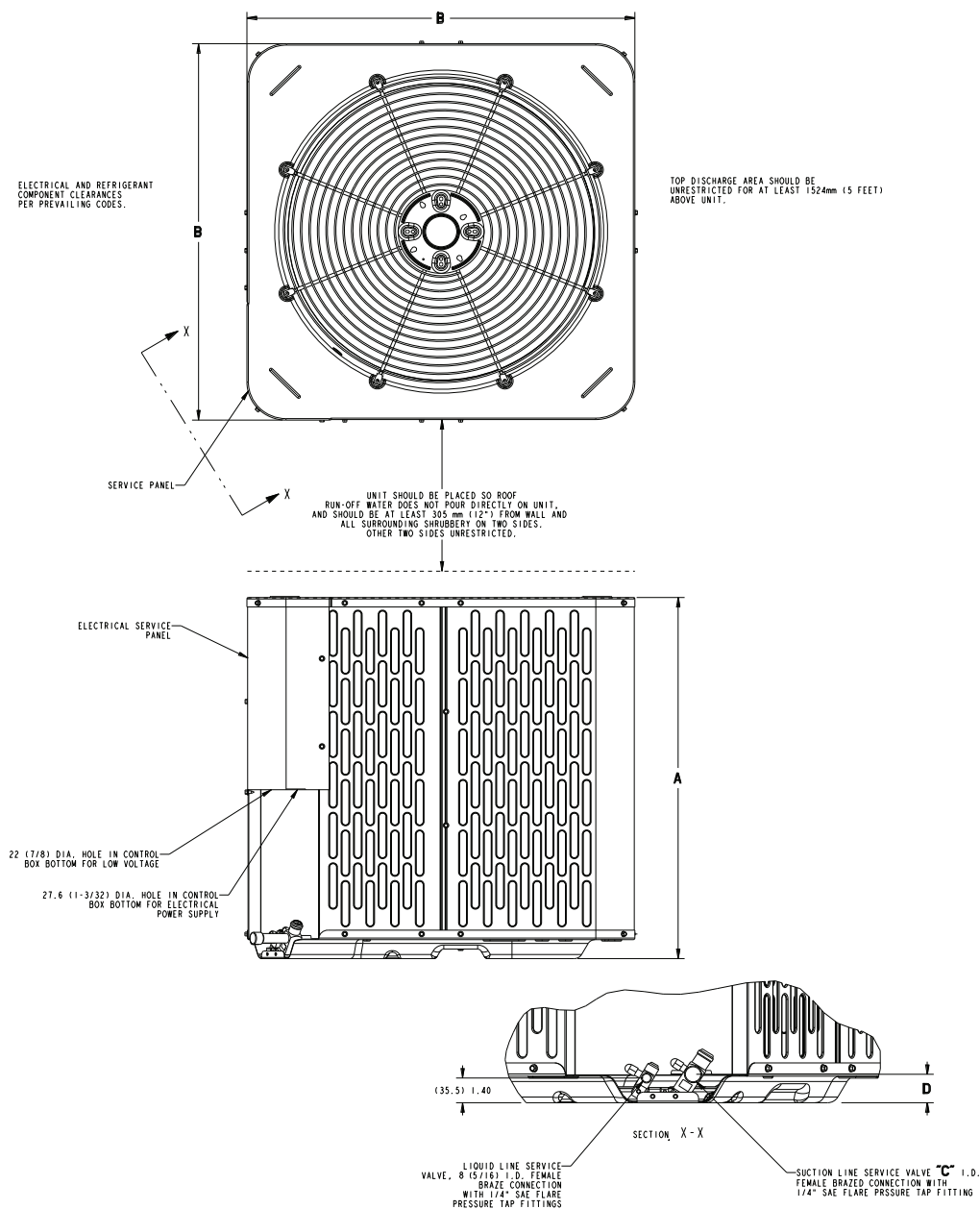


Table 4. Unit dimensions (mm (inch))

| Model     | Base | A             | B            | C        | D          |
|-----------|------|---------------|--------------|----------|------------|
| A5AC5018A | 3.4  | 930 (36-5/8)  | 756 (29-3/4) | 19 (3/4) | 41 (1-5/8) |
| A5AC5024A | 3.3  | 828 (32-5/8)  | 756 (29-3/4) | 19 (3/4) | 41 (1-5/8) |
| A5AC5030A | 3.4  | 930 (36-5/8)  | 756 (29-3/4) | 19 (3/4) | 41 (1-5/8) |
| A5AC5036A | 3.3  | 828 (32-5/8)  | 756 (29-3/4) | 19 (3/4) | 41 (1-5/8) |
| A5AC5042A | 4.4  | 930 (36-5/8)  | 870 (34-1/4) | 19 (3/4) | 41 (1-5/8) |
| A5AC5048A | 4.6  | 1133 (44-5/8) | 870 (34-1/4) | 22 (7/8) | 43 (1-3/4) |
| A5AC5060A | 4.6  | 1133 (44-5/8) | 870 (34-1/4) | 22 (7/8) | 43 (1-3/4) |

# Mechanical Specification Options

## **General**

The outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit, 10 ft. of tested connecting line, and the nominal rated indoor evaporative coil match. 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 60335-2-40. 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. The corner panels are prepainted. All panels are subjected to our 1,000 hour salt spray test.

## **Refrigerant Controls**

Refrigeration system controls include condenser fan, compressor contactor, and low and high pressure switches.

## **Compressor**

The compressor features internal over temperature and pressure protection. 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.

The addition of the BAYLOAM108 low ambient kit permits ambient cooling to 20°F.

## **Thermostats**

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

#### About Trane and American Standard Heating and Air Conditioning

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