

BUILT TO A HIGHER STANDARD<sup>®</sup>

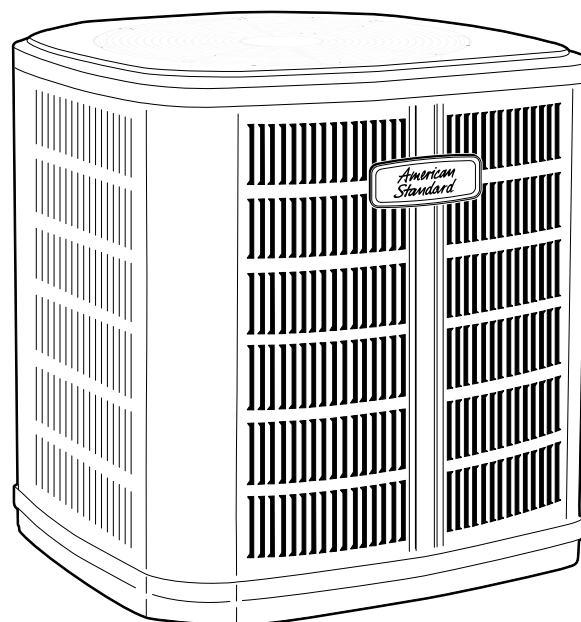
*American Standard*<sup>®</sup>

HEATING & AIR CONDITIONING

# Product Data

## Split System Cooling

5A7A3018A1000A  
5A7A3024A1000A  
5A7A3030A1000A  
5A7A3036A1000A/B  
5A7A3042A1000A/B  
5A7A3048A1000A/B  
5A7A3060A1000A/B



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

## Product Specifications

| Model No. <sup>(a)</sup>                 | 5A7A3018A1000A    | 5A7A3024A1000A    | 5A7A3030A1000A    | 5A7A3036A1000A/B          |
|------------------------------------------|-------------------|-------------------|-------------------|---------------------------|
| POWER CONNS. - V/PH/HZ <sup>(b)</sup>    | 208/230/1/60      | 208/230/1/60      | 208/230/1/60      | 208/230/1/60              |
| MIN. BRCH. CIR. AMPACITY                 | 9                 | 14                | 16                | 18                        |
| BR. CIR. PROT. RTG. - MAX. (AMPS)        | 20                | 20                | 25                | 30                        |
| COMPRESSOR                               | DURATION®- SCROLL | DURATION®- SCROLL | DURATION®- SCROLL | DURATION®- SCROLL         |
| RL AMPS - LR AMPS                        | 8.33 - 44.7       | 8.9 - 61          | 10.3 - 67.8       | 13.5 - 75.0 / 13.5 - 82.8 |
| Outdoor Fan FL AMPS                      | 0.77              | 0.77              | 0.77              | 0.77                      |
| Fan HP                                   | 1/8               | 1/8               | 1/8               | 1/8                       |
| Fan Dia (inches)                         | 18.9              | 19                | 23                | 23                        |
| Coil                                     | SPINE FIN™        | SPINE FIN™        | SPINE FIN™        | SPINE FIN™                |
| Refrigerant R-454B                       | 2 LBS., 15 OZ     | 2 LBS., 12 OZ     | 3 LBS., 2 OZ      | 2 LBS., 15 OZ             |
| 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>(c)</sup>  | 3/4               | 3/4               | 3/4               | 3/4                       |
| LINE SIZE - IN. O.D. LIQ. <sup>(c)</sup> | 5/16              | 5/16              | 5/16              | 5/16                      |
| Charge Spec. Subcooling                  | 10°F              | 10°F              | 10°F              | 10°F                      |
| Dimensions H x W x D Crated (IN.)        | 33.4 x 26.7 x 30  | 33.4 x 26.7 x 30  | 34 x 30 x 33      | 34 x 30 x 33              |
| Weight - Shipping (lbs.)                 | 153               | 153               | 189               | 189                       |
| Weight - Net (lbs.)                      | 133               | 133               | 161               | 161                       |
| <b>Optional Accessories:</b>             |                   |                   |                   |                           |
| Anti-short Cycle Timer                   | TAYASCT501A       | TAYASCT501A       | TAYASCT501A       | TAYASCT501A               |
| Evaporator Defrost Control               | AY28X079          | AY28X079          | AY28X079          | AY28X079                  |
| Rubber Isolator Kit                      | BAYISLT101        | BAYISLT101        | BAYISLT101        | BAYISLT101                |
| Extreme Condition Mount Kit              | BAYECMT023        | BAYECMT023        | BAYECMT023        | BAYECMT023                |
| Start Kit                                | BAYKSKT263        | BAYKSKT263        | BAYKSKT263        | BAYKSKT263                |
| Crankcase Heater Kit                     | BAYCCHT302        | BAYCCHT302        | BAYCCHT302        | BAYCCHT302                |
| Seacoast Kit                             | BAYSEAC001        | BAYSEAC001        | BAYSEAC001        | BAYSEAC001                |
| Low Ambient Kit                          | BAYLOAM103        | BAYLOAM103        | BAYLOAM103        | BAYLOAM103                |
| Service Valve Panel Cover                | -                 | -                 | -                 | TAYSVPANL0032AA           |
| Refrigerant Lineset <sup>(d)</sup>       |                   |                   |                   |                           |

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

<sup>(b)</sup> Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

<sup>(c)</sup> Standard line lengths - 150', Standard lift - 50' Suction and liquid line. For greater lengths and lifts refer to refrigerant piping software Pub#32-3312-0\* (\* denotes latest revision).

<sup>(d)</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.

## Product Specifications

| Model No. <sup>(a)</sup>                 | 5A7A3042A1000A/B        | 5A7A3048A1000A/B        | 5A7A3060A1000A/B        |
|------------------------------------------|-------------------------|-------------------------|-------------------------|
| POWER CONNS. - V/PH/HZ <sup>(b)</sup>    | 208/230/1/60            | 208/230/1/60            | 208/230/1/60            |
| MIN. BRCH. CIR. AMPACITY                 | 20 / 22                 | 23 / 26                 | 30                      |
| BR. CIR. PROT. RTG. - MAX. (AMPS)        | 35                      | 35 / 40                 | 50                      |
| COMPRESSOR                               | DURATION®- SCROLL       | DURATION®- SCROLL       | DURATION®- SCROLL       |
| RL AMPS - LR AMPS                        | 14.7 - 109 / 17.0 - 109 | 17.3 - 126 / 19.6 - 118 | 23.3 - 125 / 23.4 - 134 |
| Outdoor Fan FL AMPS                      | 0.77                    | 1.05                    | 1.05                    |
| Fan HP                                   | 1/8                     | 1/5                     | 1/5                     |
| Fan Dia (inches)                         | 23                      | 27.5                    | 27.5                    |
| Coil                                     | SPINE FIN™              | SPINE FIN™              | SPINE FIN™              |
| Refrigerant R-454B                       | 4 LBS., 11 OZ           | 4 LBS., 15 OZ           | 5 LBS., 5 OZ            |
| 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>(c)</sup>  | 7/8                     | 7/8                     | 7/8                     |
| LINE SIZE - IN. O.D. LIQ. <sup>(c)</sup> | 5/16                    | 5/16                    | 5/16                    |
| Charge Spec. Subcooling                  | 10°F                    | 10°F                    | 10°F                    |
| Dimensions H x W X D Crated (IN.)        | 42.5 x 30 x 33          | 42.5 x 35 x 38          | 42.5 x 35 x 38          |
| Weight - Shipping (lbs.)                 | 220                     | 246                     | 246                     |
| Weight - Net (lbs.)                      | 184                     | 211                     | 211                     |
| <b>Optional Accessories:</b>             |                         |                         |                         |
| Anti-short Cycle Timer                   | TAYASCT501A             | TAYASCT501A             | TAYASCT501A             |
| Evaporator Defrost Control               | AY28X079                | AY28X079                | AY28X079                |
| Rubber Isolator Kit                      | BAYISLT101              | BAYISLT101              | BAYISLT101              |
| Extreme Condition Mount Kit              | BAYECMT004              | BAYECMT004              | BAYECMT004              |
| Start Kit                                | BAYKSKT263              | BAYKSKT263              | BAYKSKT263              |
| Crankcase Heater Kit                     | BAYCCHT301              | BAYCCHT301              | BAYCCHT301              |
| Seacoast Kit                             | BAYSEAC001              | BAYSEAC001              | BAYSEAC001              |
| Low Ambient Kit                          | BAYLOAM103              | BAYLOAM103              | BAYLOAM103              |
| Service Valve Panel Cover                | TAYSVPANL0032AA         | TAYSVPANL0044AA         | TAYSVPANL0044AA         |
| Refrigerant Lineset <sup>(d)</sup>       |                         |                         |                         |

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

<sup>(b)</sup> Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

<sup>(c)</sup> Standard line lengths - 150', Standard lift - 50' Suction and liquid line. For greater lengths and lifts refer to refrigerant piping software Pub#32-3312-0\* (\* denotes latest revision).

<sup>(d)</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.

## Product Specifications

### Sound Power Level

| Sound Power Level |                                            |                             |        |        |        |         |         |         |         |
|-------------------|--------------------------------------------|-----------------------------|--------|--------|--------|---------|---------|---------|---------|
| MODEL             | A-Weighted<br>Sound Power<br>Level [dB(A)] | Full Octave Sound Power(dB) |        |        |        |         |         |         |         |
|                   |                                            | 63 Hz*                      | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 5A7A3018A         | 71                                         | 74                          | 71     | 65     | 68     | 67      | 63      | 56      | 50      |
| 5A7A3024A         | 71                                         | 74                          | 71     | 65     | 68     | 67      | 63      | 56      | 50      |
| 5A7A3030A         | 73                                         | 79                          | 69     | 67     | 70     | 70      | 64      | 59      | 53      |
| 5A7A3036A         | 73                                         | 79                          | 69     | 67     | 70     | 70      | 64      | 59      | 53      |
| 5A7A3042A         | 73                                         | 79                          | 69     | 67     | 70     | 70      | 64      | 59      | 53      |
| 5A7A3048A         | 71                                         | 81                          | 72     | 69     | 69     | 66      | 60      | 57      | 54      |
| 5A7A3060A         | 71                                         | 81                          | 72     | 69     | 69     | 66      | 60      | 57      | 54      |

**Note:** Rated in accordance with AHRI Standard 270-2008 \*For reference only.

## 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.

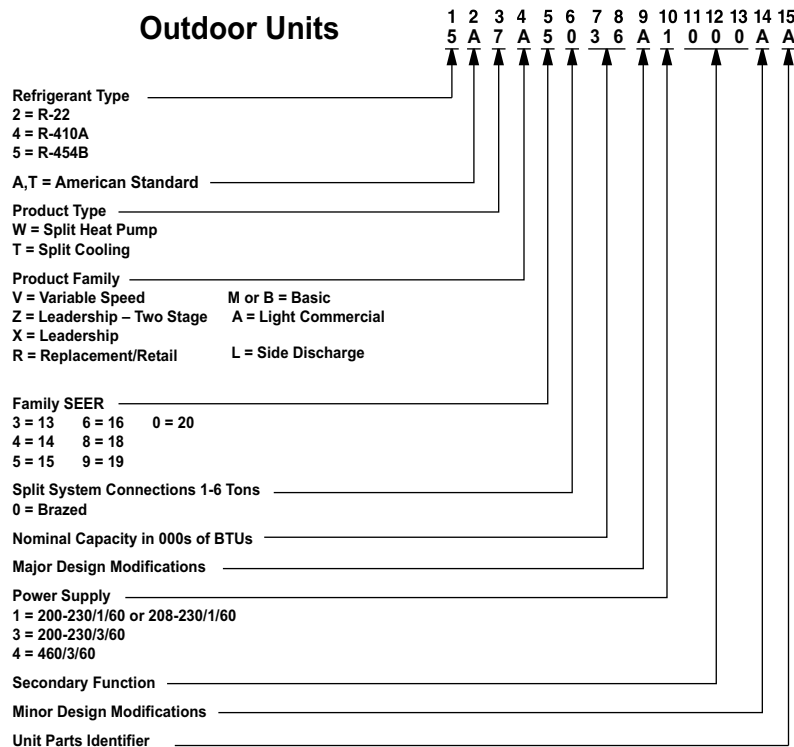
### AHRI Standard Capacity Rating Conditions

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.

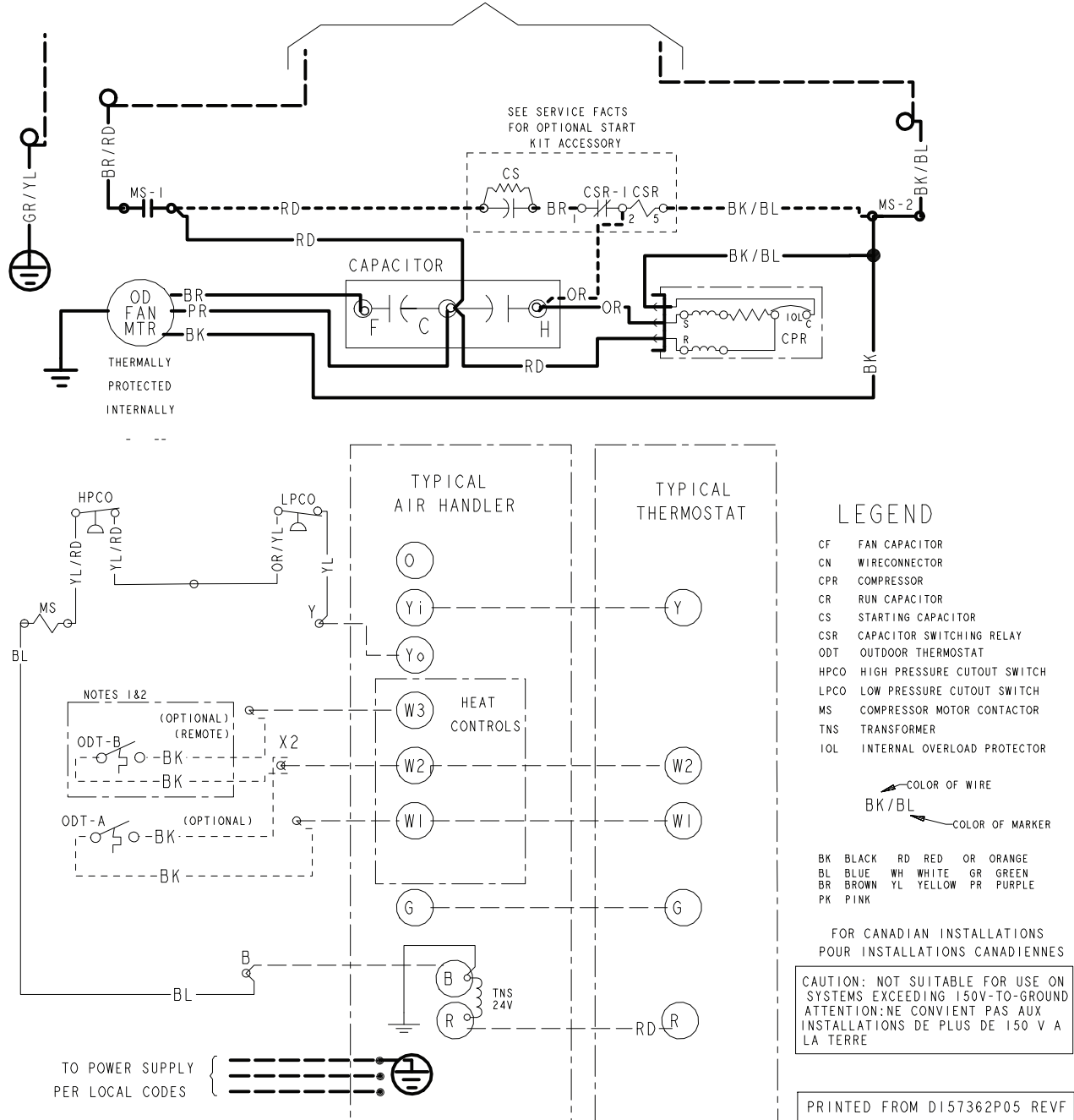
## Model Nomenclature



# Schematic Diagrams

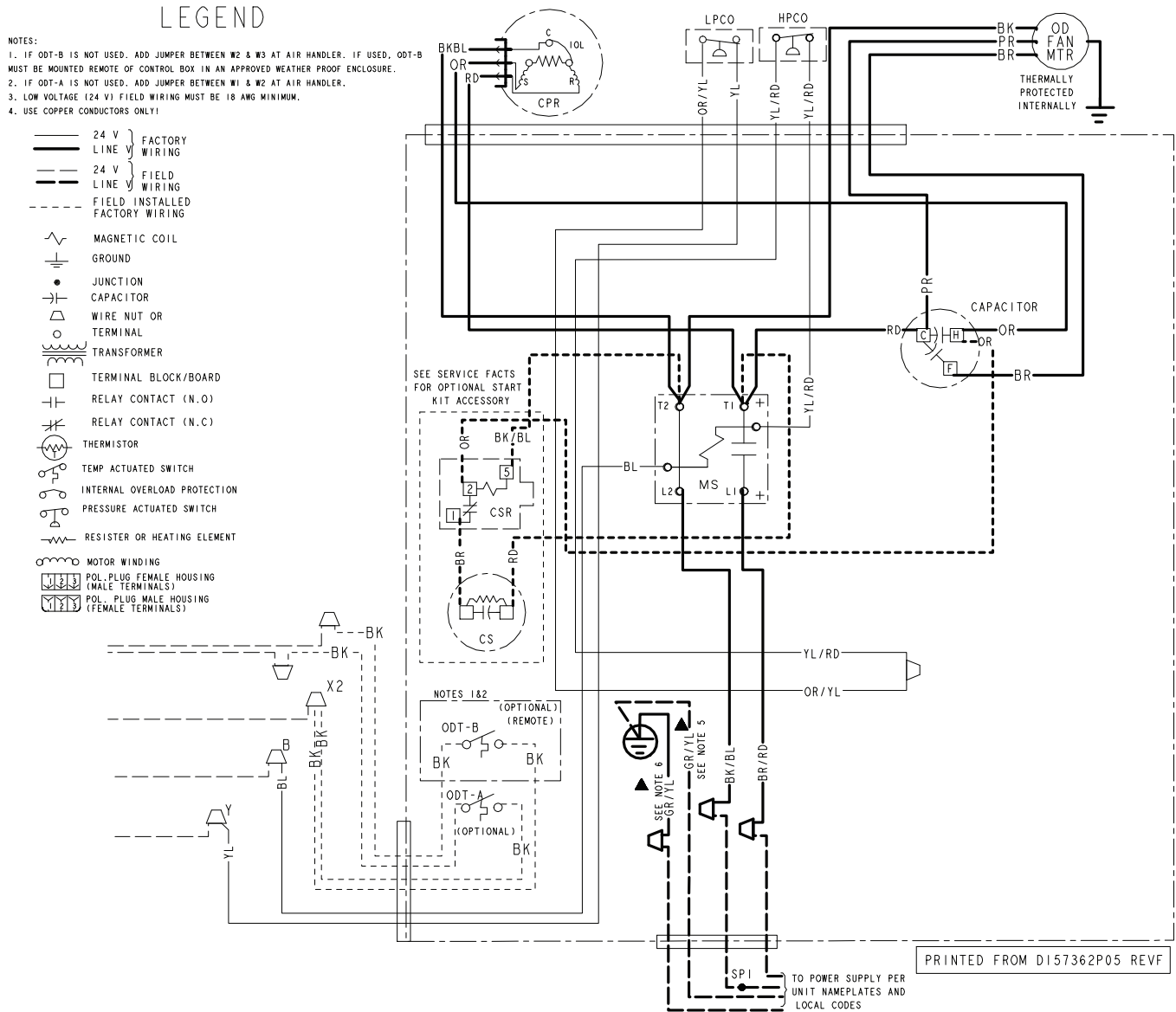
**Figure 1. 018A, 030A, 036A, 042A & 048A Models**

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES



## Schematic Diagrams

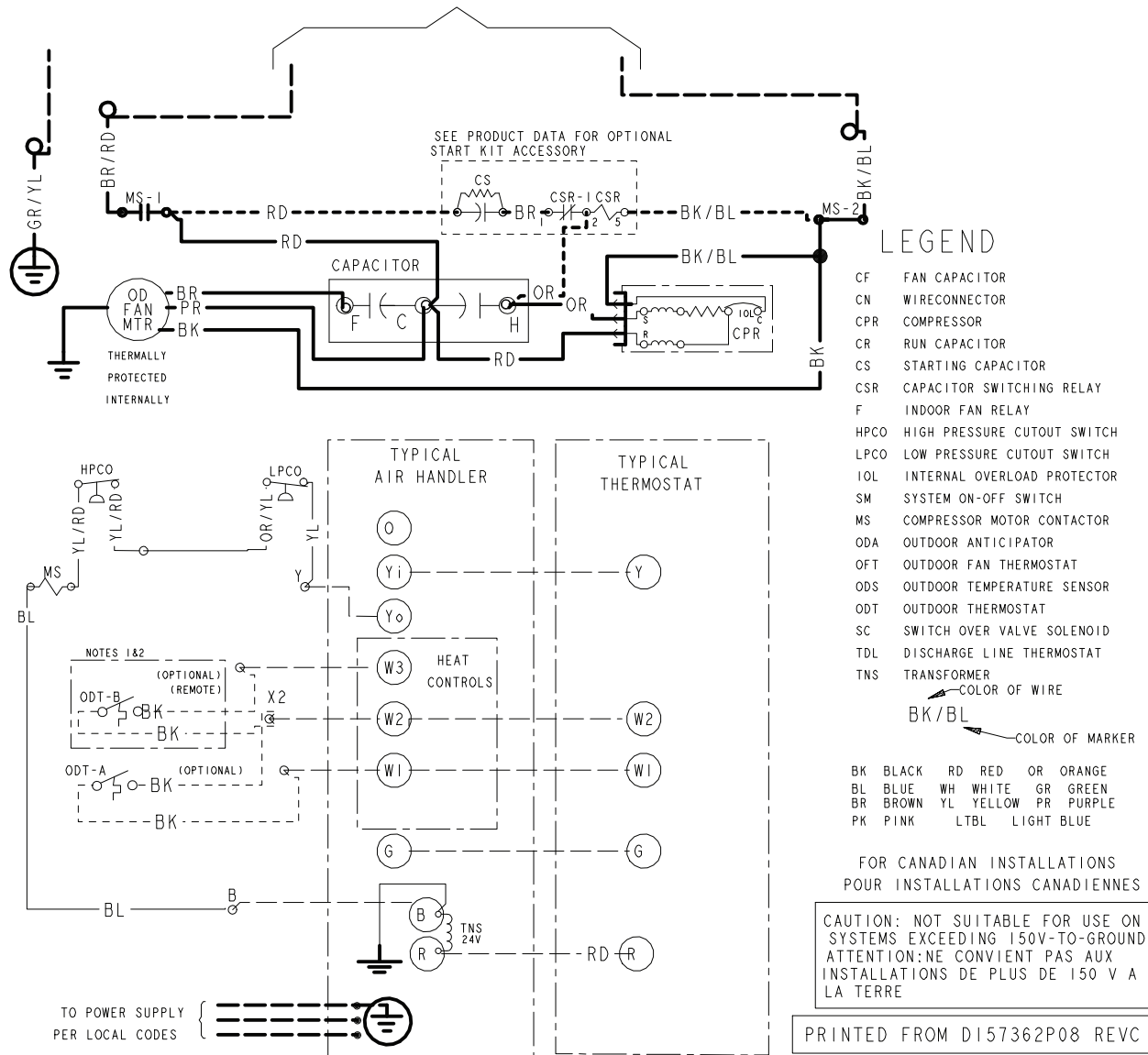
**Figure 2. 018A, 030A, 036A, 042A & 048A Models**



## Schematic Diagrams

**Figure 3. 024A Models**

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES



## Schematic Diagrams

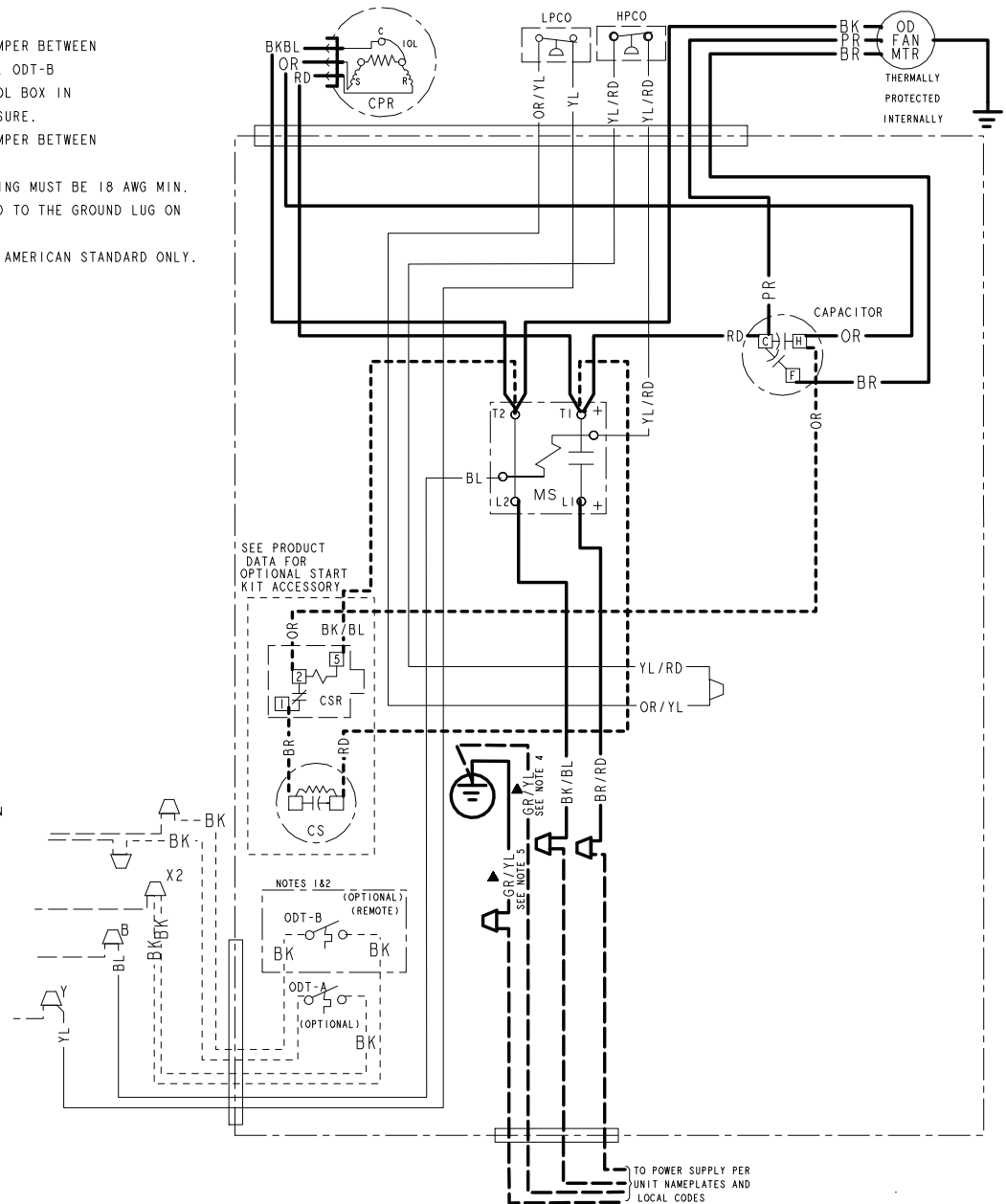
**Figure 4. 024A Models**

**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 MIN.
- ▲ 4. FIELD GROUND MUST BE ATTACHED TO THE GROUND LUG ON THE RUNTRU AND AMERISTAR UNITS.
- ▲ 5. GROUND CONNECTION FOR TRANE/ AMERICAN STANDARD ONLY.

### LEGEND

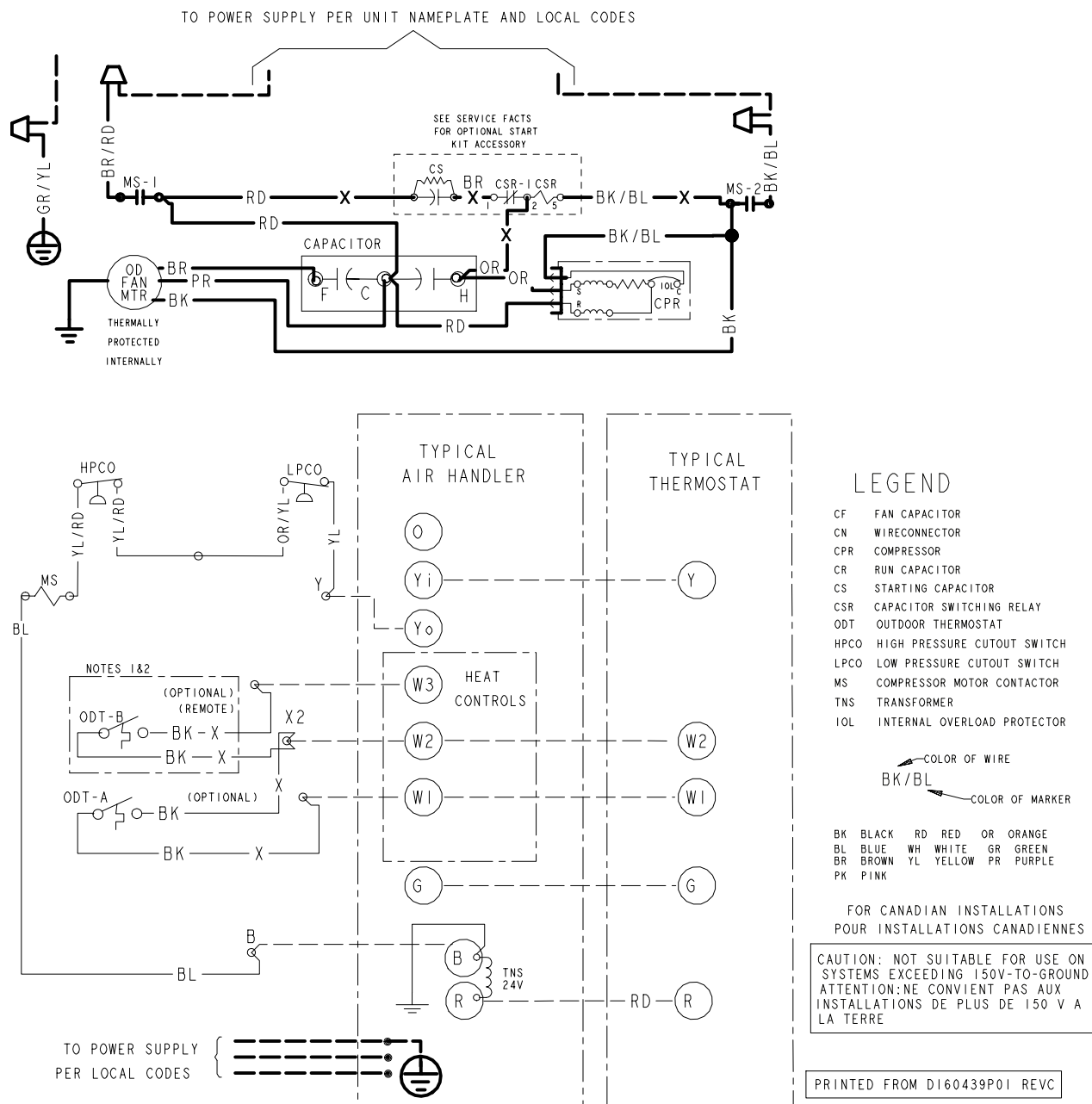
|  |                                              |                          |
|--|----------------------------------------------|--------------------------|
|  | 24 V                                         | } FACTORY<br>LINE WIRING |
|  | 24 V                                         |                          |
|  | 24 V                                         | } FIELD<br>LINE WIRING   |
|  | 24 V                                         |                          |
|  | FIELD INSTALLED                              | FACTORY WIRING           |
|  | MAGNETIC COIL                                |                          |
|  | GROUND                                       |                          |
|  | JUNCTION                                     |                          |
|  | CAPACITOR                                    |                          |
|  | WIRE NUT OR                                  |                          |
|  | TERMINAL                                     |                          |
|  | TRANSFORMER                                  |                          |
|  | FUSE                                         |                          |
|  | TERMINAL BLOCK/BOARD                         |                          |
|  | RELAY CONTACT (N.O.)                         |                          |
|  | RELAY CONTACT (N.C.)                         |                          |
|  | THERMISTOR                                   |                          |
|  | TEMP ACTUATED SWITCH                         |                          |
|  | INTERNAL OVERLOAD PROTECTION                 |                          |
|  | PRESSURE ACTUATED SWITCH                     |                          |
|  | RESISTOR OR HEATING ELEMENT                  |                          |
|  | MOTOR WINDING                                |                          |
|  | POL. PLUG FEMALE HOUSING<br>(MALE TERMINALS) |                          |
|  | POL. PLUG MALE HOUSING<br>(FEMALE TERMINALS) |                          |



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## Schematic Diagrams

**Figure 5. 060A Models**



## Schematic Diagrams

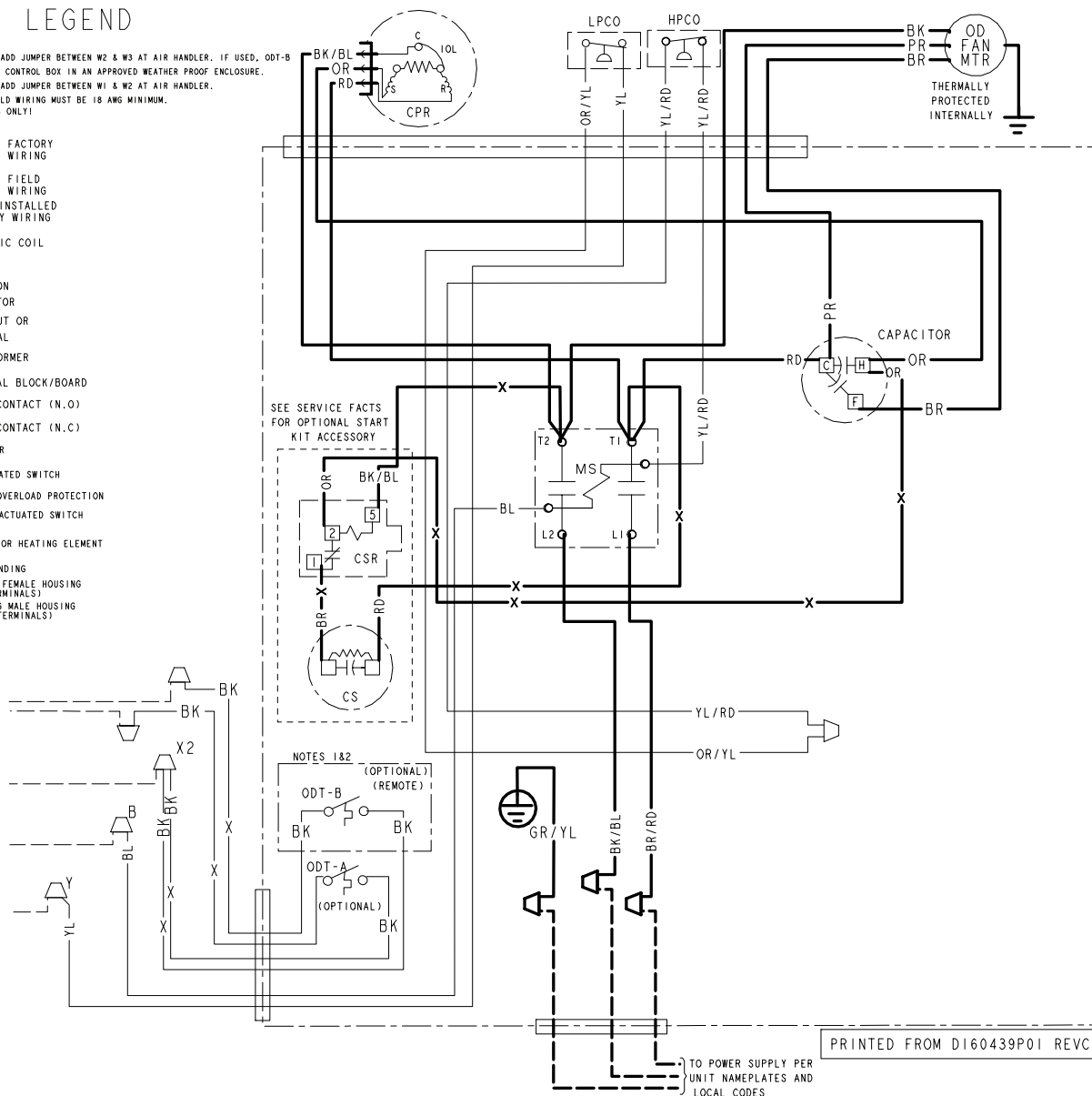
**Figure 6. 060A Models**

### LEGEND

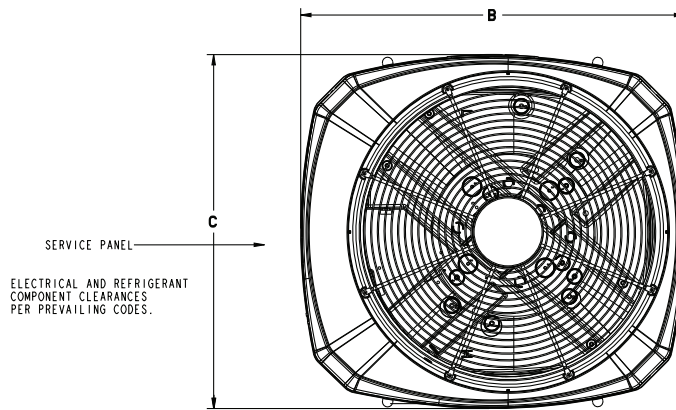
**NOTES:**

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!

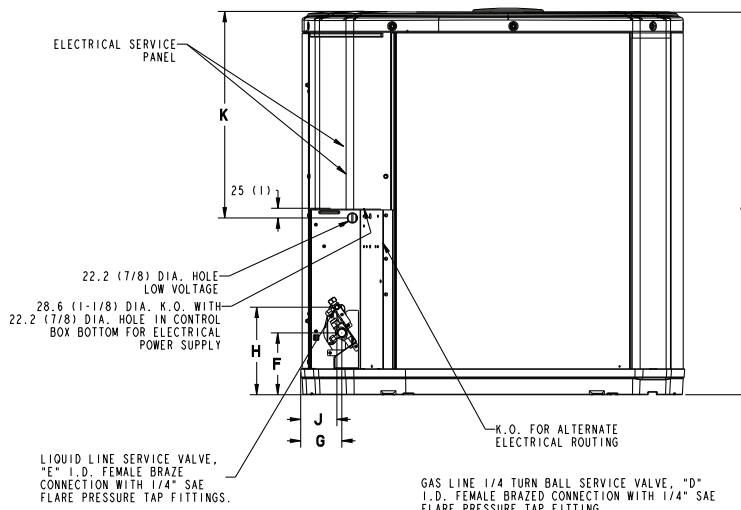
- 24 V FACTORY WIRING
- 24 V FIELD WIRING
- - - FIELD INSTALLED FACTORY WIRING
- ⌋ MAGNETIC COIL
- ⏏ GROUND
- JUNCTION
- ⌋ CAPACITOR
- ⌋ WIRE NUT OR TERMINAL
- ⌋ TRANSFORMER
- ⌋ TERMINAL BLOCK/BOARD
- ⌋ RELAY CONTACT (N.O.)
- ⌋ RELAY CONTACT (N.C.)
- ⌋ THERMISTOR
- ⌋ TEMP ACTUATED SWITCH
- ⌋ INTERNAL OVERLOAD PROTECTION
- ⌋ PRESSURE ACTUATED SWITCH
- ⌋ RESISTOR OR HEATING ELEMENT
- ⌋ MOTOR WINDING
- ⌋ POL-PLUG FEMALE HOUSING (MALE TERMINALS)
- ⌋ POL-PLUG MALE HOUSING (FEMALE TERMINALS)



# Outline Drawing



TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR AT LEAST 1524 (5 FEET) ABOVE UNIT. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT, AND SHOULD BE AT LEAST 305 (12") FROM WALL AND ALL SURROUNDING SHRUBBERY ON TWO SIDES. OTHER TWO SIDES UNRESTRICTED.



| Model     | Base | A               | B               | C               | D   | E    | F              | G             | H              | J             | K           |
|-----------|------|-----------------|-----------------|-----------------|-----|------|----------------|---------------|----------------|---------------|-------------|
| 5A7A3018A | 2    | 730<br>(28-3/4) | 724<br>(28-1/2) | 651<br>(25-5/8) | 3/4 | 5/16 | 127<br>(5)     | 57<br>(2-1/4) | 194<br>(7-5/8) | 38<br>(1-1/2) | 457<br>(18) |
| 5A7A3024A | 2    | 730<br>(28-3/4) | 724<br>(28-1/2) | 651<br>(25-5/8) | 3/4 | 5/16 | 127<br>(5)     | 57<br>(2-1/4) | 194<br>(7-5/8) | 38<br>(1-1/2) | 457<br>(18) |
| 5A7A3030A | 3    | 730<br>(28-3/4) | 829<br>(32-5/8) | 756<br>(29-3/4) | 3/4 | 5/16 | 127<br>(5)     | 76<br>(3)     | 197<br>(7-3/4) | 60<br>(2-3/8) | 508<br>(20) |
| 5A7A3036A | 3    | 730<br>(28-3/4) | 829<br>(32-5/8) | 756<br>(29-3/4) | 3/4 | 5/16 | 127<br>(5)     | 76<br>(3)     | 197<br>(7-3/4) | 60<br>(2-3/8) | 508<br>(20) |
| 5A7A3042A | 3    | 943<br>(37-1/8) | 829<br>(32-5/8) | 756<br>(29-3/4) | 7/8 | 5/16 | 143<br>(5-5/8) | 92<br>(3-5/8) | 210<br>(8-1/4) | 79<br>(3-1/8) | 508<br>(20) |
| 5A7A3048A | 4    | 943<br>(37-1/8) | 946<br>(37-1/4) | 870<br>(34-1/4) | 7/8 | 5/16 | 152<br>(6)     | 98<br>(3-7/8) | 219<br>(8-5/8) | 86<br>(3-3/8) | 508<br>(20) |
| 5A7A3060A | 4    | 943<br>(37-1/8) | 946<br>(37-1/4) | 870<br>(34-1/4) | 7/8 | 5/16 | 152<br>(6)     | 98<br>(3-7/8) | 219<br>(8-5/8) | 86<br>(3-3/8) | 508<br>(20) |

## Mechanical Specification Options

### General

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. 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. 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. A factory supplied, field installed liquid line drier is standard.

### 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 BAYLOAM107A 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 American Standard Heating and Air Conditioning

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