

BUILT TO A HIGHER STANDARD[®]

American Standard[®]

HEATING & AIR CONDITIONING

Product and Submittal Data

Split System Air Conditioner

3-Phase, 208/230V

3-Phase, 460V

5A7C3036A3000A

5A7C3042A3000A

5A7C3048A3000A

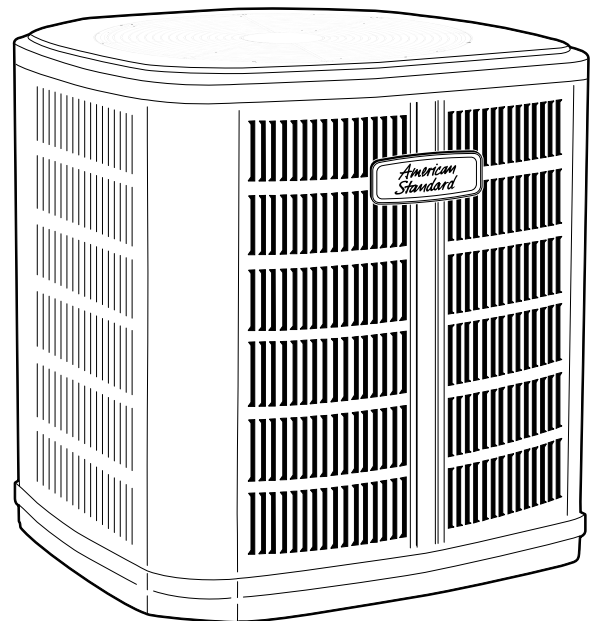
5A7C3060A3000A

5A7C3036A4000A

5A7C3042A4000A

5A7C3048A4000A

5A7C3060A4000A



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

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Data Notes

This document supersedes and includes data from the documents listed below.

Table 1. Data notes

Literature Number	Title
12-1454-1*-EN	Split System Air Conditioner 3-Phase, 208/230V 3-Phase, 460V Product Data
5A7C3036A-SUB-3*-EN	Split System Air Conditioner 208-230V Model 5A7C3036A3000A Submittal
5A7C3036A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A7C3036A4000A Submittal
5A7C3042A-SUB-3*-EN	Split System Air Conditioner 208-230V Model 5A7C3042A3000A Submittal
5A7C3042A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A7C3042A4000A Submittal
5A7C3048A-SUB-3*-EN	Split System Air Conditioner 208-230V Model 5A7C3048A3000A Submittal
5A7C3048A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A7C3048A4000A Submittal
5A7C3060A-SUB-3*-EN	Split System Air Conditionerp 208-230V Model 5A7C3060A3000A Submittal
5A7C3060A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A7C3060A4000A Submittal

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Product Specifications

Table 2. 3-Phase, 208/230V

OUTDOOR UNIT ^(a) ^(b)	5A7C3036A3000A	5A7C3042A3000A	5A7C3048A3000A	5A7C3060A3000A
POWER CONNS. - V/PH/HZ ^(c)	208/230/3/60	208/230/3/60	208/230/3/60	208/230/3/60
MIN. BRCH. CIR. AMPACITY	16.6	15.9	16.3	21.1
BR. CIR. PROT. RTG. - MAX. (AMPS)	25	25	25	35
COMPRESSOR	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL
NO. USED - NO. STAGES	1 - 1	1 - 1	1 - 1	1 - 1
VOLTS/PH/HZ	200/230/3/60	200/230/3/60	200/230/3/60	200/230/3/60
R.L. AMPS ^(d) - L.R. AMPS	12.8 - 97.5	12.2 - 102.8	12.2 - 120.4	16.0 - 156.4
FACTORY INSTALLED				
START COMPONENTS ^(e)	NO	NO	NO	NO
INSULATION/SOUND BLANKET	NO	NO	NO	NO
COMPRESSOR HEAT	YES	YES	YES	YES
OUTDOOR FAN	PROPELLER	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.) - NO. USED	23.02 - 1	23.02 - 1	27.5 - 1	27.5 - 1
TYPE DRIVE - NO. SPEEDS	DIRECT - 1	DIRECT - 1	DIRECT - 1	DIRECT - 1
CFM @ 0.0 IN. W.G. ^(f)	2975	3314	5221	5109
NO. MOTORS - HP	1 - 1/8	1 - 1/8	1 - 1/5	1 - 1/5
MOTOR SPEED R.P.M.	850	850	850	850
VOLTS/PH/HZ	200/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
F.L. AMPS	0.64	0.64	1.05	1.05
OUTDOOR COIL - TYPE	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
ROWS - F.P.I.	1 - 24	1 - 24	1 - 24	1 - 24
FACE AREA (SQ. FT.)	16.25	21.25	24.93	24.93
TUBE SIZE (IN.)	3/8	3/8	3/8	3/8
REFRIGERANT CONTROL	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
REFRIGERANT				
LBS. - R-454B (O.D. UNIT) ^(g)	3 LBS., 01 OZ	4 LBS., 11 OZ	4 LBS., 15 OZ	5 LBS., 05 OZ
FACTORY SUPPLIED	YES	YES	YES	YES
VALVE CONNECTION SIZE - IN. O. D. GAS	3/4	7/8	7/8	7/8
VALVE CONNECTION SIZE - IN. O. D. LIQ	5/16	5/16	5/16	5/16
LINE SIZE - IN. O.D. GAS ^(h) ⁽ⁱ⁾	3/4	7/8	7/8	7/8
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 x W x D	H x W x D	H x W x D	H x W x D
CRATED (IN.)	34 x 30 x 33	42.5 x 30 x 33	42.5 x 35 x 38	42.5 x 35 x 38

Table 2. 3-Phase, 208/230V (continued)

WEIGHT				
SHIPPING (LBS.)	189	220	246	246
NET (LBS.)	161	184	211	211
OPTIONAL ACCESSORIES:				
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	BAYECMT004	BAYECMT004	BAYECMT004
SOUND ENCLOSURE	BAYSDEN003	BAYSDEN004	BAYSDEN004	BAYSDEN004
SEACOAST KIT	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
LOW AMBIENT KIT	BAYLOAM103	BAYLOAM103	BAYLOAM103	BAYLOAM103
SERVICE VALVE PANEL COVER	TAYSVPANL0032AA	TAYSVPANL0032AA	TAYSVPANL0044AA	TAYSVPANL0044AA
REFRIGERANT LINESET ⁽ⁱ⁾				

- (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 Natl. Elec. Codes. Use only 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) No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter. Optional kit shown.
- (f) Standard Air - Dry Coil - Outdoor
- (g) This value approximate. For more precise value see unit nameplate.
- (h) 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).
- (i) 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.
- (j) 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 3. 3-Phase, 460V

OUTDOOR UNIT ^{(a) (b)}	5A7C3036A4000A	5A7C3042A4000A	5A7C3048A4000A	5A7C3060A4000A
POWER CONNS. - V/PH/HZ ^(c)	460/3/60	460/3/60	460/3/60	460/3/60
MIN. BRCH. CIR. AMPACITY	6.8	7.6	8.6	10.2
BR. CIR. PROT. RTG. - MAX. (AMPS)	15	15	15	15
COMPRESSOR	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL
NO. USED - NO. STAGES	1 - 1	1 - 1	1 - 1	1 - 1
VOLTS/PH/HZ	460/3/60	460/3/60	460/3/60	460/3/60
R.L. AMPS ^(d) - L.R. AMPS	5.1 - 44.3	5.8 - 50	6.4 - 50.0	7.7 - 69.0
FACTORY INSTALLED				
START COMPONENTS ^(e)	NO	NO	NO	NO
INSULATION/SOUND BLANKET	NO	NO	NO	NO
COMPRESSOR HEAT	YES	YES	YES	YES
OUTDOOR FAN	PROPELLER	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.) - NO. USED	23.02 - 1	23.02 - 1	27.5 - 1	27.5 - 1
TYPE DRIVE - NO. SPEEDS	DIRECT - 1	DIRECT - 1	DIRECT - 1	DIRECT - 1
CFM @ 0.0 IN. W.G. ^(f)	2975	3314	5221	5109
NO. MOTORS - HP	1 - 1/8	1 - 1/8	1 - 1/5	1 - 1/5
MOTOR SPEED R.P.M.	825	825	825	825
VOLTS/PH/HZ	460/1/60	460/1/60	460/1/60	460/1/60
F.L. AMPS	0.38	0.38	0.60	0.60

Product Specifications

Table 3. 3-Phase, 460V (continued)

OUTDOOR COIL - TYPE	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
ROWS - F.P.I.	1 - 24	1 - 24	1 - 24	1 - 24
FACE AREA (SQ. FT.)	16.25	21.25	24.93	24.93
TUBE SIZE (IN.)	3/8	3/8	3/8	3/8
REFRIGERANT CONTROL	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
REFRIGERANT				
LBS. - R-454B (O.D. UNIT) ^(g)	3 LBS., 01 OZ	4 LBS., 11 OZ	4 LBS., 15 OZ	5 LBS., 5 OZ
FACTORY SUPPLIED	YES	YES	YES	YES
VALVE CONNECTION SIZE - IN. O. D. GAS	3/4	7/8	7/8	7/8
VALVE CONNECTION SIZE - IN. O. D. LIQ	5/16	5/16	5/16	5/16
LINE SIZE - IN. O.D. GAS ^{(h) (i)}	3/4	7/8	7/8	7/8
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 x W x D	H x W x D	H x W x D	H x W x D
CRATED (IN.)	34 x 30 x 33	42.5 x 30 x 33	42.5 x 35 x 38	42.5 x 35 x 38
WEIGHT				
SHIPPING (LBS.)	189	220	246	246
NET (LBS.)	161	184	211	211
OPTIONAL ACCESSORIES:				
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	BAYECMT004	BAYECMT004	BAYECMT004
SOUND ENCLOSURE	BAYSDEN003	BAYSDEN004	BAYSDEN004	BAYSDEN004
SEACOAST KIT	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
LOW AMBIENT KIT	BAYLOAM103	BAYLOAM103	BAYLOAM103	BAYLOAM103
SERVICE VALVE PANEL COVER	TAYSVPANL0032AA	TAYSVPANL0032AA	TAYSVPANL0044AA	TAYSVPANL0044AA
REFRIGERANT LINESET ^(j)				

(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 Natl. Elec. Codes. Use only 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) No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter. Optional kit shown.

(f) Standard Air - Dry Coil - Outdoor

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

(h) 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).

(i) 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.

(j) 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 4. Sound power level

Sound Power Level									
MODEL	A-Weighted Sound Power Level [dB(A)]	Full Octave Sound Power(dB)							
		63 Hz*	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
5A7C3036A	73	79	69	67	70	70	64	59	53
5A7C3042A	71	81	72	69	69	66	60	57	54
5A7C3048A	71	81	72	69	69	66	60	57	54
5A7C3060A	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.

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.

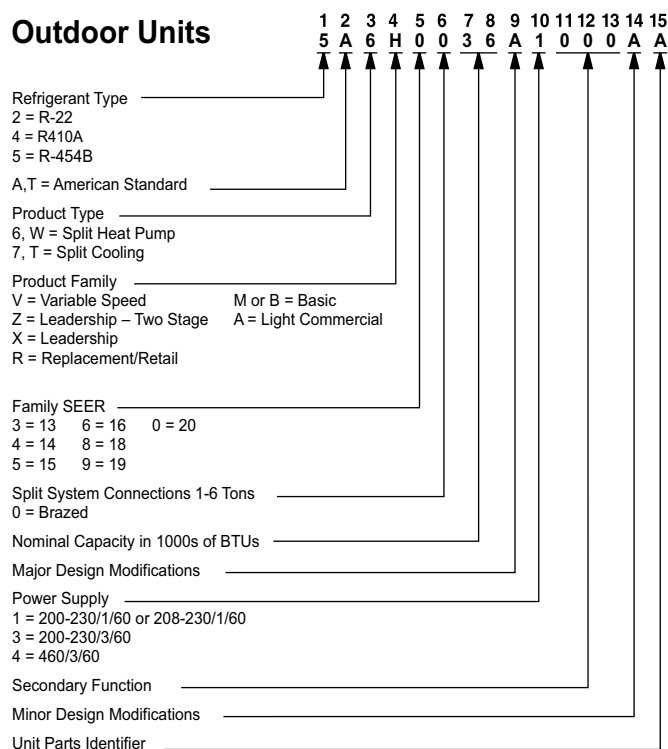
AHRI Standard Capacity Rating Conditions

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 outdoor coil.
4. Rated indoor airflow for heating is the same as for cooling.

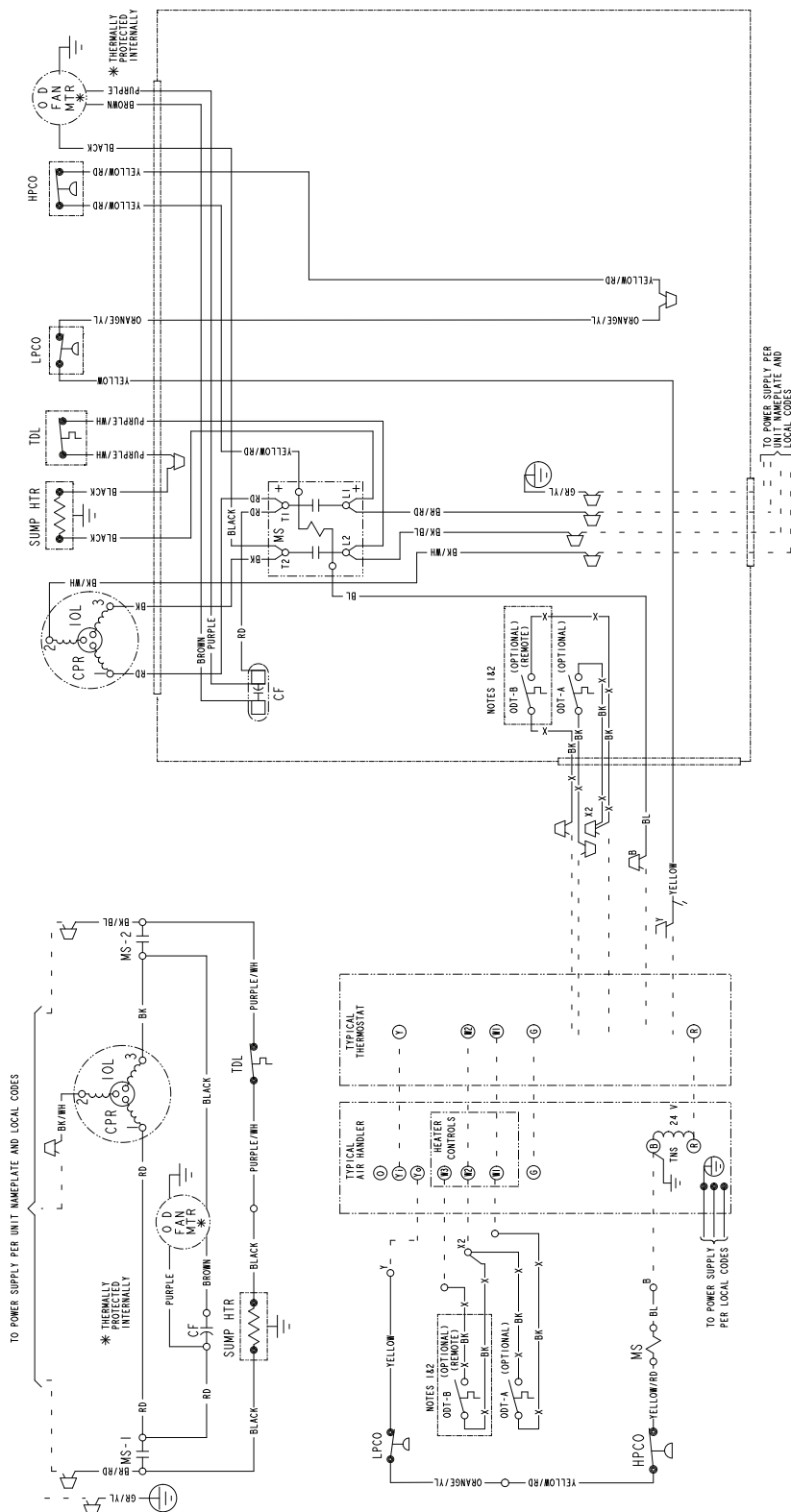
AHRI Standard 270 Rating Conditions — (Noise rating numbers are determined with the unit in cooling operations.) Standard Noise Rating number is at 95°F outdoor air.

Model Nomenclature



Wiring Diagram

Figure 1. 036A3 – 060A3 models



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Wiring Diagram

Figure 2. 036A4 – 060A4 models

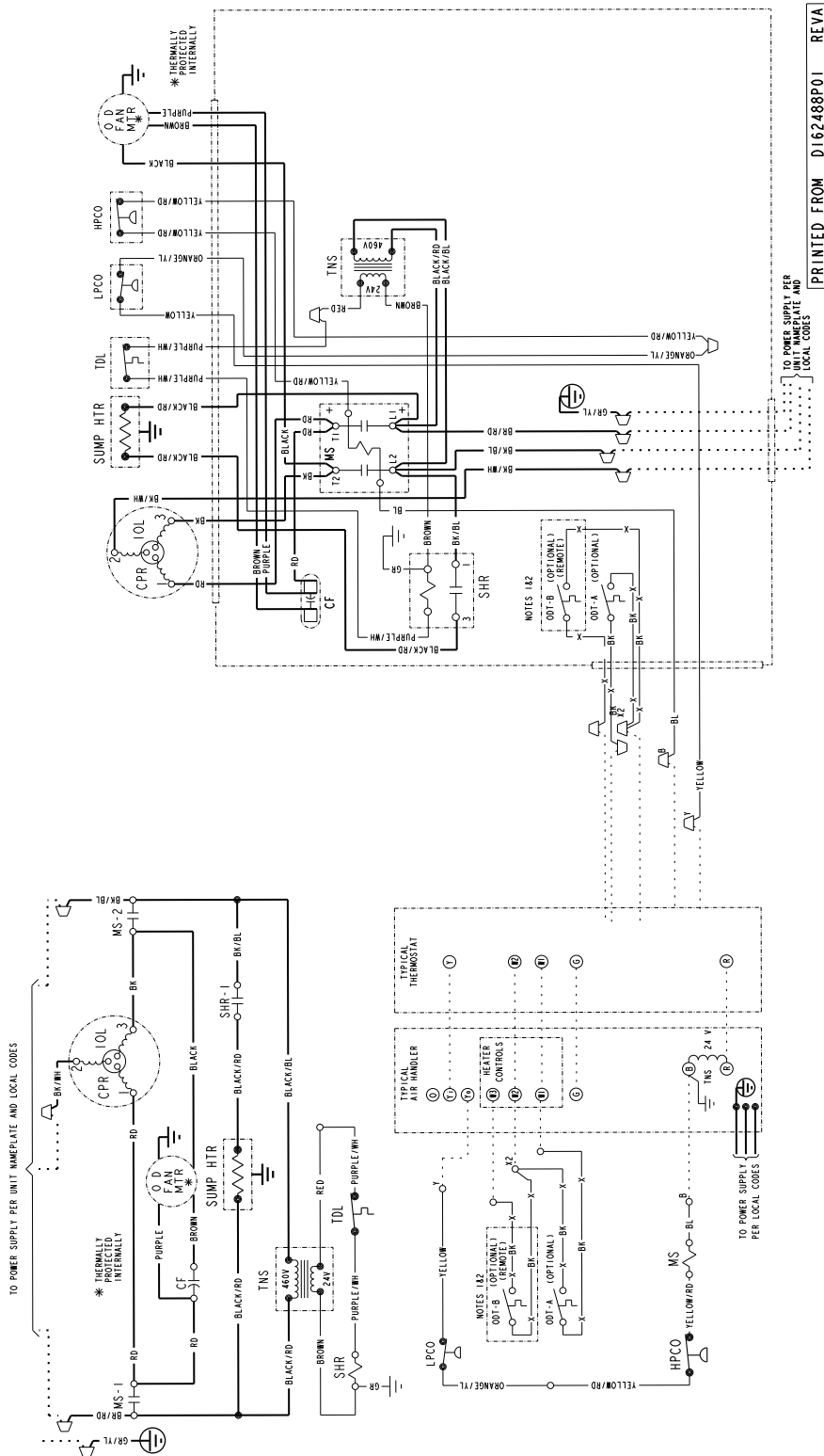
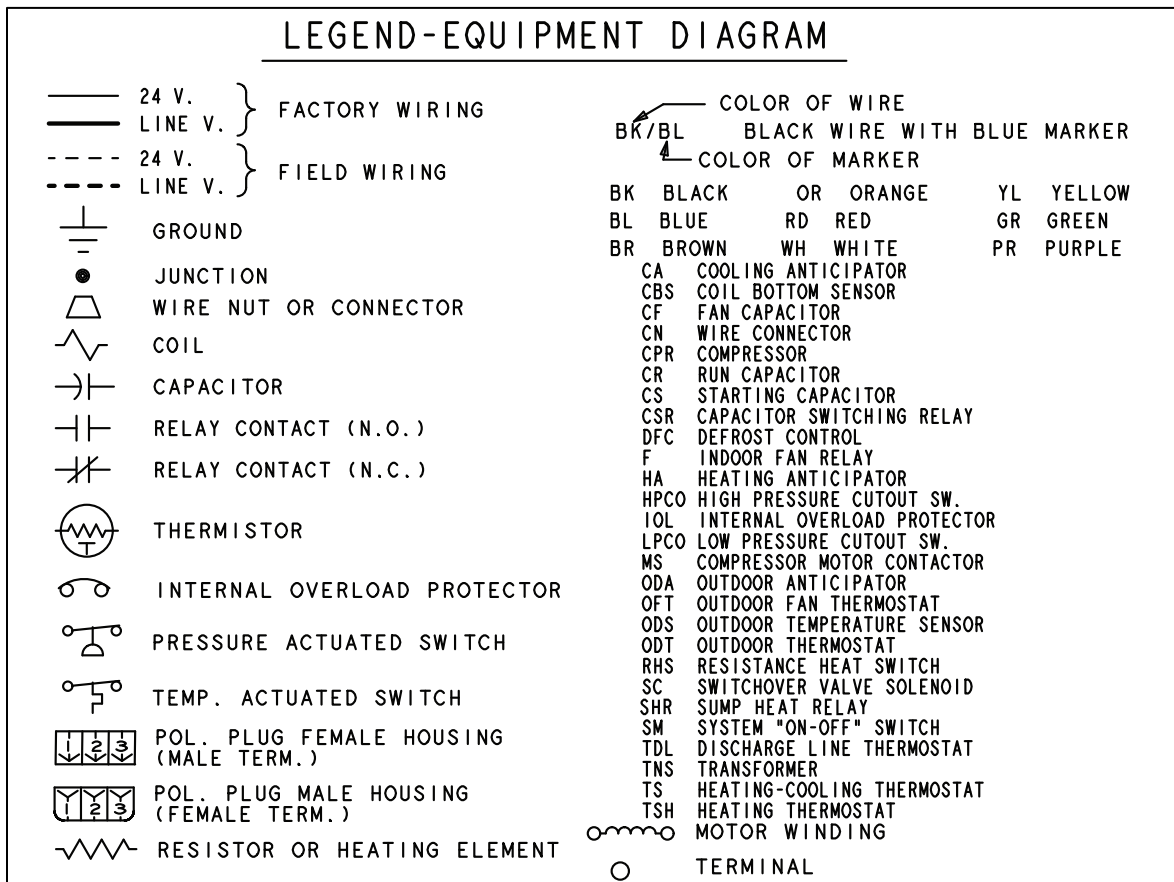


Figure 3. Legend and warning

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.

▲ NOTE:
MATERIAL: WHITE POLYPROPYLENE SUITABLE FOR USE IN OUTDOOR ENVIRONMENT.
ADHESIVE: PRESSURE SENSITIVE ADHESIVE WITH RELEASE PAPER SUITABLE FOR
OUTDOOR APPLICATION ON PAINTED OR GALVANIZED SHEET METAL SURFACES.
SIZE : 8 1/2" X 11"



COOLING PERFORMANCE CAN BE CHECKED WHEN THE OUTDOOR TEMP IS ABOVE 65 DEG F.

1. TO CHECK COOLING PERFORMANCE, SELECT AND VERIFY THE PROPER INDOOR CFM.
2. ALLOW SYSTEM TO RUN UNTIL PRESSURES ARE STABILIZED.
3. MEASURE INDOOR WET BULB TEMPERATURE, OUTDOOR TEMPERATURE, SUCTION AND LIQUID PRESSURES.
4. ON THE TABLE, LOCATE OUTDOOR TEMPERATURE AND INDOOR WET BULB TEMPERATURE.
5. FIND THE INTERSECTION WITH THE COLUMN THAT CONTAINS THE OUTDOOR SIZE.
6. TARGET PRESSURES ARE LOCATED AT THE INTERSECTION BETWEEN OUTDOOR SIZE AND OPERATING TEMPERATURES.

ACTUAL:
LIQUID PRESSURE SHOULD BE +/-10 PSI OF TABLE
SUCTION PRESSURE SHOULD BE +/-3 PSI OF TABLE

FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V - TO - GROUND
ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLLS DE 150 V A LA TERRE

NOTE

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

Dimensional Data

Figure 4. Dimensional data

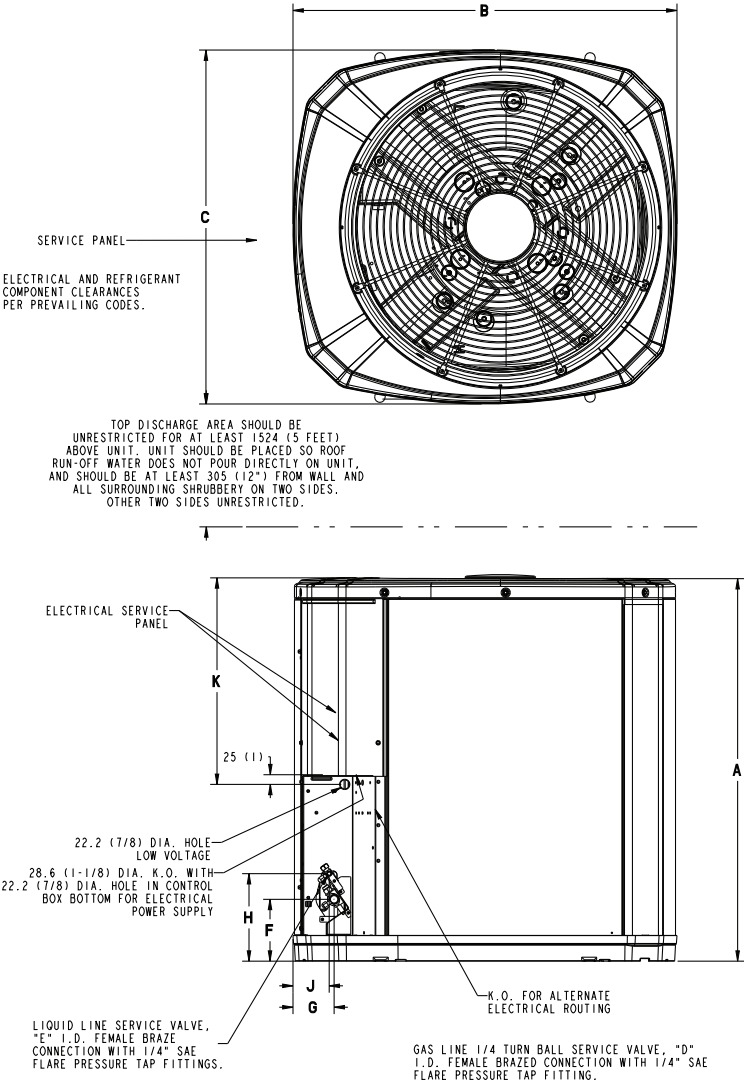


Table 5. Unit dimensions

Model	Base	A	B	C	D	E	F	G	H	J	K
5A7C3036A	3	730 (28-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	5/16	127 (5)	76 (3)	197 (7-3/4)	60 (2-3/8)	508 (20)
5A7C3042A	3	943 (37-1/8)	829 (32-5/8)	756 (29-3/4)	7/8	5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
5A7C3048A	4	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
5A7C3060A	4	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (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 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. 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.

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HEATING & AIR CONDITIONING

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