

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

5A7C4036A3000A

5A7C4042A3000A

5A7C4048A3000A

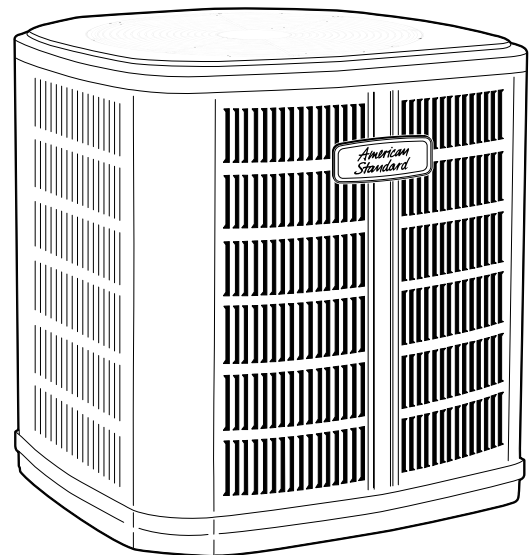
5A7C4060A3000A

5A7C4036A4000A

5A7C4042A4000A

5A7C4048A4000A

5A7C4060A4000A



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
12-1455-1*-EN	Split System Air Conditioner 3-Phase, 208/230V 3-Phase, 460V Product Data
5A7C4036A-SUB-3*-EN	Split System Air Conditioner 208-230V Model 5A7C4036A3000A Submittal
5A7C4036A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A74036A4000A Submittal
5A7C4042A-SUB-3*-EN	Split System Air Conditioner 208-230V Model 5A7C4042A3000A Submittal
5A7C4042A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A7C4042A4000A Submittal
5A7C4048A-SUB-3*-EN	Split System Air Conditioner 208-230V Model 5A7C4048A3000A Submittal
5A7C4048A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A7C4048A4000A Submittal
5A7C4060A-SUB-3*-EN	Split System Air Conditionerp 208-230V Model 5A7C4060A3000A Submittal
5A7C4060A-SUB-4*-EN	Split System Air Conditioner 460V Model 5A7C4060A4000A Submittal

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Product Specifications

Table 2. 3-Phase, 208/230V

OUTDOOR UNIT ^{(a) (b)}	5A7C4036A3000A	5A7C4042A3000A	5A7C4048A3000A	5A7C4060A3000A
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	16.3	16.2	20.9
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 - 1	27.5 - 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)	3124	4841	5165	5255
NO. MOTORS - HP	1 - 1/8	1 - 1/5	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	1.05	0.93	0.93
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.)	18.75	24.93	30.8	30.8
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., 8 OZ	5 LBS., 1 OZ	6 LBS., 10 OZ	5 LBS., 15 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)}	7/8	7/8	7/8	1-1/8
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.)	38 x 30 x 33	42.5 x 35 x 38	50.5 x 35 x 38	50.5 x 35 x 38
WEIGHT				
SHIPPING (LBS.)	183	246	307	302
NET (LBS.)	156	212	257	252
OPTIONAL ACCESSORIES:				
ANTI-SHORT CYCLE TIMER	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
EVAPORATOR DEFROST CONTROL	AY28X079	AY28X079	AY28X079	AY28X079

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

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	TAYSVPANL0044AA	TAYSVPANL0046AA	TAYSVPANL0046AA	TAYSVPANL0046AA
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.

Table 3. 3-Phase, 460V

OUTDOOR UNIT ^{(a) (b)}	5A7C4036A4000A	5A7C4042A4000A	5A7C4048A4000A	5A7C4060A4000A
POWER CONNS. - V/PH/HZ ^(c)	460/3/60	460/3/60	460/3/60	460/3/60
MIN. BRCH. CIR. AMPACITY	6.8	7.9	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 - 1	27.5 - 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)	3124	4841	5165	5255
NO. MOTORS - HP	1 - 1/8	1 - 1/5	1 - 1/5	1 - 1/5
MOTOR SPEED R.P.M.	850	825	825	825
VOLTS/PH/HZ	460/1/60	460/1/60	460/1/60	460/1/60
F.L. AMPS	0.38	0.60	0.60	0.60
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.)	18.75	24.93	30.8	30.8
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., 8 OZ	5 LBS., 1 OZ	6 LBS., 10 OZ	5 LBS., 15 OZ

Product Specifications

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

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⁾	7/8	7/8	7/8	1-1/8
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.)	38 x 30 x 33	42.5 x 35 x 38	50.5 x 35 x 38	50.5 x 35 x 38
WEIGHT				
SHIPPING (LBS.)	183	246	307	246
NET (LBS.)	156	212	257	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	TAYSVPANL0044AA	TAYSVPANL0046AA	TAYSVPANL0046AA	TAYSVPANL0046AA
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

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
5A7C4036A	73	79	69	67	70	70	64	59	53
5A7C4042A	74	72	72	71	69	70	62	57	52
5A7C4048A	71	81	75	71	70	68	63	58	53
5A7C4060A	72	81	75	71	70	68	63	58	53

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.

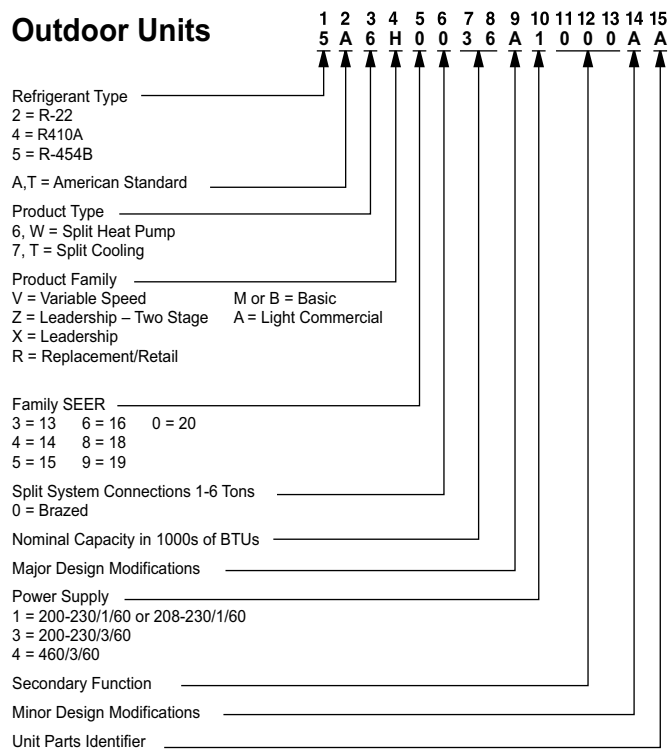
AHRI Standard Capacity Rating Conditions

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.

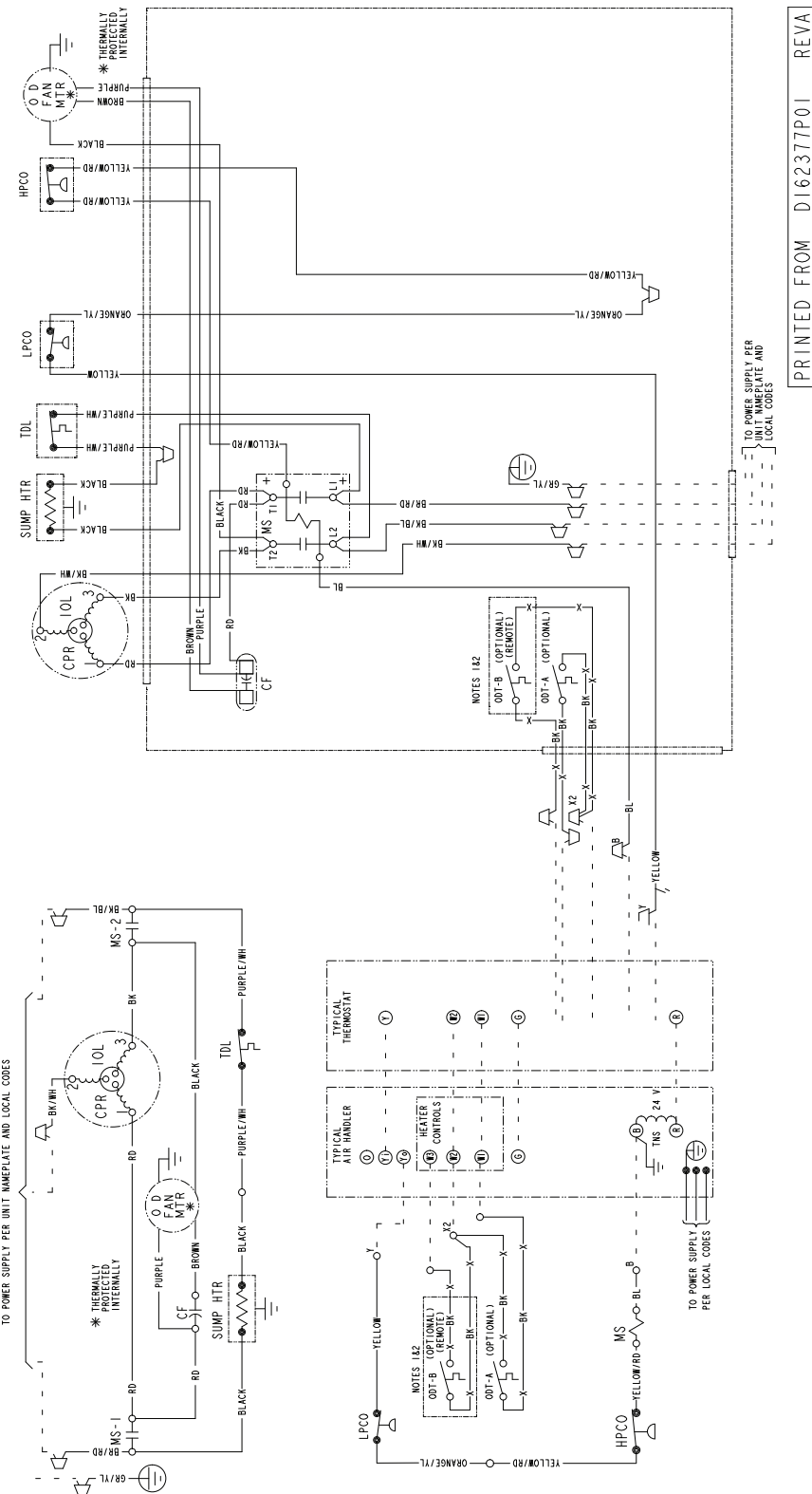
AHRI Standard 270 Rating Conditions — (Noise rating numbers are determined with the unit in cooling operations.) Standard Noise Rating number is at 95°F outdoor air.

Model Nomenclature



Wiring Diagram

Figure 1. 036A3 – 060A3 models



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Wiring Diagram

Figure 2. 036A4 – 060A4 models

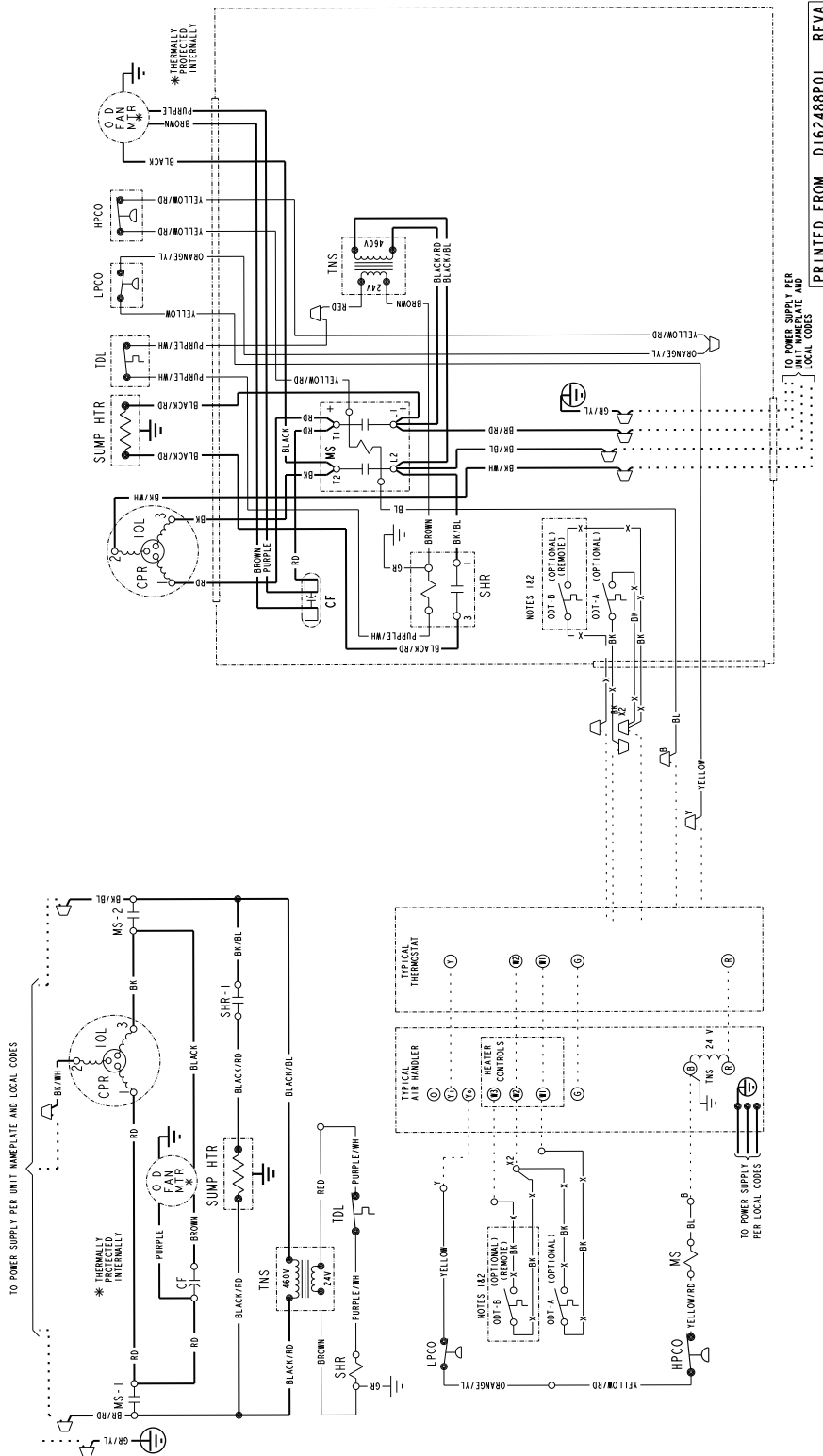


Figure 3. Legend and warning

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"

LEGEND-EQUIPMENT DIAGRAM

	24 V.	} FACTORY WIRING
	LINE V.	
	24 V.	} FIELD WIRING
	LINE V.	
	GROUND	
	JUNCTION	
	WIRE NUT OR CONNECTOR	
	COIL	
	CAPACITOR	
	RELAY CONTACT (N.O.)	
	RELAY CONTACT (N.C.)	
	THERMISTOR	
	INTERNAL OVERLOAD PROTECTOR	
	PRESSURE ACTUATED SWITCH	
	TEMP. ACTUATED SWITCH	
	POL. PLUG FEMALE HOUSING (MALE TERM.)	
	POL. PLUG MALE HOUSING (FEMALE TERM.)	
	RESISTOR OR HEATING ELEMENT	

COLOR OF WIRE					
BK/BL	BLACK WIRE WITH BLUE MARKER				
4	COLOR OF MARKER				
BK	BLACK	OR	ORANGE	YL	YELLOW
BL	BLUE	RD	RED	GR	GREEN
BR	BROWN	WH	WHITE	PR	PURPLE
CA	COOLING ANTICIPATOR				
CBS	COIL BOTTOM SENSOR				
CF	FAN CAPACITOR				
CN	WIRE CONNECTOR				
CPR	COMPRESSOR				
CR	RUN CAPACITOR				
CS	STARTING CAPACITOR				
CSR	CAPACITOR SWITCHING RELAY				
DFC	DEFROST CONTROL				
F	INDOOR FAN RELAY				
HA	HEATING ANTICIPATOR				
HPCO	HIGH PRESSURE CUTOFF SW.				
IOL	INTERNAL OVERLOAD PROTECTOR				
LPCO	LOW PRESSURE CUTOFF SW.				
MS	COMPRESSOR MOTOR CONTACTOR				
ODA	OUTDOOR ANTICIPATOR				
OFT	OUTDOOR FAN THERMOSTAT				
ODS	OUTDOOR TEMPERATURE SENSOR				
ODT	OUTDOOR THERMOSTAT				
RHS	RESISTANCE HEAT SWITCH				
SC	SWITCHOVER VALVE SOLENOID				
SHR	SUMP HEAT RELAY				
SM	SYSTEM "ON-OFF" SWITCH				
TDL	DISCHARGE LINE THERMOSTAT				
TNS	TRANSFORMER				
TS	HEATING-COOLING THERMOSTAT				
TSH	HEATING THERMOSTAT				
	MOTOR WINDING				
	TERMINAL				

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

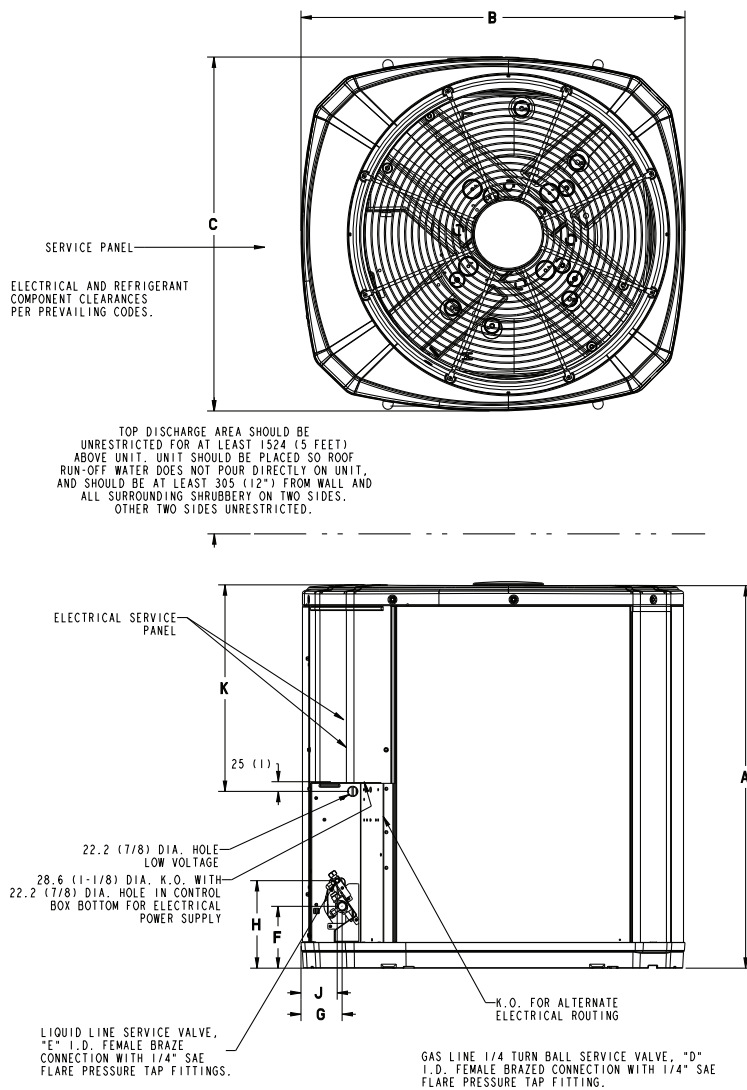


Table 5. Unit dimensions

Model	Base	A	B	C	D	E	F	G	H	J	K
5A7C4036A	3	832 (32-3/4)	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)
5A7C4042A	4	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	143 (5-5/8)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
5A7C4048A	4	1147 (45-1/8)	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)	813 (32)
5A7C4060A	4	1147 (45-1/8)	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)	813 (32)

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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