

BUILT TO A HIGHER STANDARD

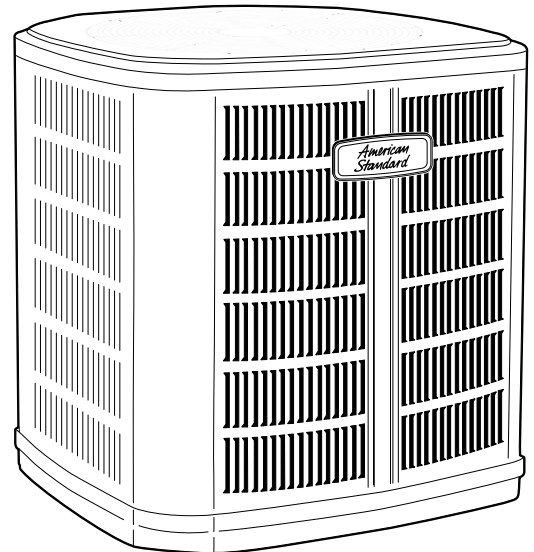
American Standard®

HEATING & AIR CONDITIONING

Product and Submittal Data

Air Conditioner

5A7A6018A1000A
5A7A6024A1000A
5A7A6030A1000A/B
5A7A6036A1000A/B
5A7A6042A1000A/B
5A7A6048A1000A/B
5A7A6060A1000A/B



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

Introduction

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Table of Contents

Product Specifications	4
Sound Power Level	8
Accessory Description and Usage	9
Model Nomenclature	10
Wiring Diagrams	11
Dimensional Data	15
Mechanical Specification Options	16

Product Specifications

Table 1. Models — 5A7A6018A1000A, 5A7A6024A1000A, 5A7A6030A1000A/B, and 5A7A6036A1000A/B

Outdoor Unit ^{(a) (b)}	5A7A6018A1000	5A7A6024A1000	5A7A6030A1000		5A7A6036A1000	
14th Digit of the Model Number	A	A	A	B	A	B
Power Conns. – V/Ph/Hz ^(c)	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 ^(d) – 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 ^(e)	No	No	No		No	
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 – 1		23 – 1	
Type Drive - No. Speeds	Direct – 1	Direct – 1	Direct – 1		Direct – 1	
CFM @ 0.0 IN. W.G. ^(f)	2992	3068	3243		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	0.77	0.77		0.77	
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.)	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) ^(g)	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 ^{(h) (i)}	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 × 30 × 33	38 × 30 × 33	42 × 30 × 33		38 × 30 × 33	
Weight						
Shipping (lb)	220	183	220		183	
Net (lb)	184	156	184		156	

Product Specifications

Table 1. Models — 5A7A6018A1000A, 5A7A6024A1000A, 5A7A6030A1000A/B, and 5A7A6036A1000A/B (continued)

Outdoor Unit ^{(a) (b)}	5A7A6018A1000	5A7A6024A1000	5A7A6030A1000	5A7A6036A1000
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	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	TAYSVPAN-L0032AA	TAYSVPAN-L0032AA	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) 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.
- (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 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).
- (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 2. Models — 5A7A6042A1000A/B, 5A7A6048A1000A/B, and 5A7A6060A1000A/B

Outdoor Unit ^{(a) (b)}	5A7A6042A1000		5A7A6048A1000		5A7A6060A1000	
14th Digit of the Model Number	A	B	A	B	A	B
Power Conns. – V/Ph/Hz ^(c)	208/230/1/60		208/230/1/60		208/230/1/60	
Min. BRCH. CIR. Ampacity	19	23	23	25	28	30
BR. CIR. PROT. RTG. – Max. (Amps)	30	40	35	45	50	
Compressor	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 ^(d) – L.R. Amps	14.7 - 109	14.7 - 109	17.3 - 126	19.6 - 118	21.8 - 143	23.4 - 134
Factory Installed						
Start Components ^(e)	No		No		No	
Insulation/Sound Blanket	No		No		No	
Compressor Heat	No		No		No	
Outdoor Fan	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. ^(f)	4841		5165		5180	

Product Specifications

Table 2. Models — 5A7A6042A1000A/B, 5A7A6048A1000A/B, and 5A7A6060A1000A/B (continued)

Outdoor Unit ^(a) ^(b)	5A7A6042A1000	5A7A6048A1000	5A7A6060A1000
No. Motors - HP	1 – 1/5	1 – 1/5	1 – 1/3
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	0.93	2.8
Outdoor Coil - Type	Spine Fin™	Spine Fin™	Spine Fin™
Rows - F.P.I.	1 – 24	1 – 24	1 – 24
Face Area (Sq. Ft.)	24.93	30.8	30.8
Tube Size (In.)	3/8	3/8	3/8
Refrigerant			
lb – R-454B (O.D. Unit) ^(g)	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 ^(h) ⁽ⁱ⁾	7/8	7/8	1-1/8
Line Size - (in.) O.D. Liq.	5/16	5/16	5/16
Charging Specifications			
Subcooling	10°F	10°F	10°F
Dimensions			
	H × W × D		
Crated (in.)	42.5 × 35 × 38	50.5 × 35 × 38	50.5 × 35 × 38
Weight			
Shipping (lb)	246	307	302
Net (lb)	212	257	252
Optional Accessories:			
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	—
Service Valve Panel Cover	TAYSVPANL0044AA	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) 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.

^(f) Standard Air – Dry Coil – Outdoor.

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

Table 2. Models — 5A7A6042A1000A/B, 5A7A6048A1000A/B, and 5A7A6060A1000A/B (continued)

- ^(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 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).
- ⁽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 3. Sound power level

Model	A-Weighted Sound Power Level [dB (A)]	Full Octave Sound Power(dB)							
		63 Hz ^(a)	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
5A7A6018A	73	79	69	67	70	70	64	59	53
5A7A6024A	71	78	72	69	68	66	61	58	53
5A7A6030A	73	79	69	67	70	70	64	59	53
5A7A6036A	71	78	72	69	68	66	61	58	53
5A7A6042A	71	78	72	69	68	66	61	58	53
5A7A6048A	71	81	75	71	70	68	63	58	53
5A7A6060A	71	81	75	71	70	68	63	58	53

Note: Rated in accordance with AHRI Standard 270 -2008.

^(a) * 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 start-up. 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

Outdoor Units

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 5 A 7 A 6 0 3 6 A 1 0 0 0 A A

Refrigerant Type _____

- 2 = R-22
- 4 = R-410A
- 5 = R-454B

A, T = American Standard _____

Product Type _____

- W = Split Heat Pump
- T = Split Cooling

Product Family _____

- V = Variable Speed M or B = Basic
- Z = Leadership – Two Stage A = Light Commercial
- X = Leadership
- R = Replacement/Retail L = Side Discharge

Family SEER _____

- 3 = 13 6 = 16 0 = 20
- 4 = 14 8 = 18
- 5 = 15 9 = 19

Split System Connections 1-6 Tons _____

- 0 = Brazed

Nominal Capacity in 000s of BTUs _____

Major Design Modifications _____

Power Supply _____

- 1 = 200-230/1/60 or 208-230/1/60
- 3 = 200-230/3/60
- 4 = 460/3/60

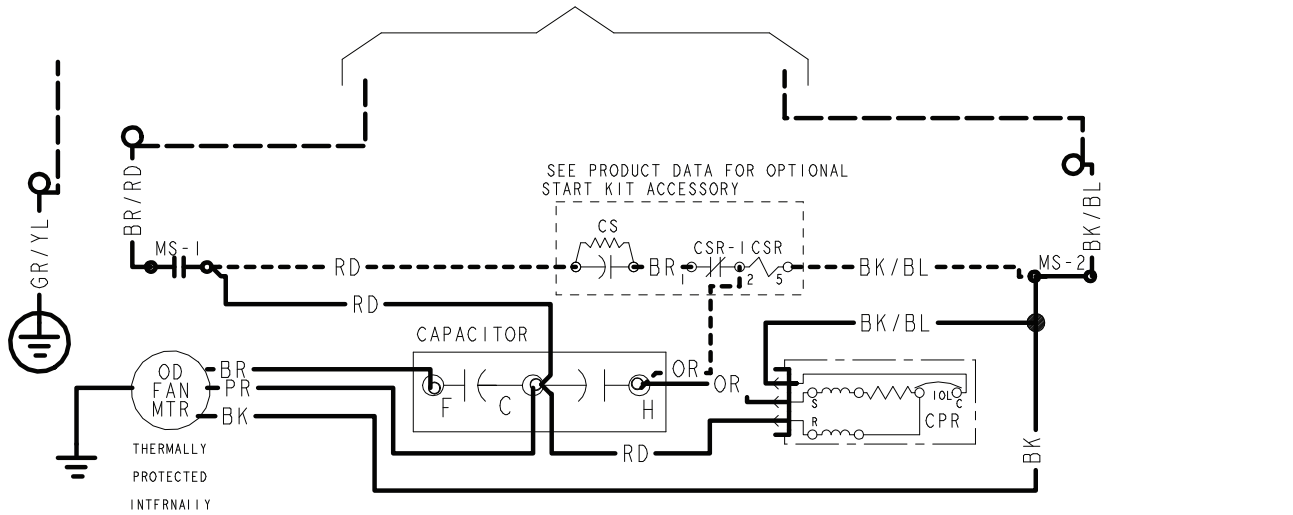
Secondary Function _____

Minor Design Modifications _____

Unit Parts Identifier _____

Wiring Diagrams

Figure 1. Models 5A7A6018A, 024A, 030A, 036A, 042A, and 048A
TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES



LEGEND

- CF FAN CAPACITOR
- CN WIRECONNECTOR
- CPR COMPRESSOR
- CR RUN CAPACITOR
- CS STARTING CAPACITOR
- CSR CAPACITOR SWITCHING RELAY
- F INDOOR FAN RELAY
- HPCO HIGH PRESSURE CUTOFF SWITCH
- LPCO LOW PRESSURE CUTOFF SWITCH
- IOL INTERNAL OVERLOAD PROTECTOR
- SM SYSTEM ON-OFF SWITCH
- MS COMPRESSOR MOTOR CONTACTOR
- ODA OUTDOOR ANTICIPATOR
- OFT OUTDOOR FAN THERMOSTAT
- ODS OUTDOOR TEMPERATURE SENSOR
- ODT OUTDOOR THERMOSTAT
- SC SWITCH OVER VALVE SOLENOID
- TDL DISCHARGE LINE THERMOSTAT
- TNS TRANSFORMER

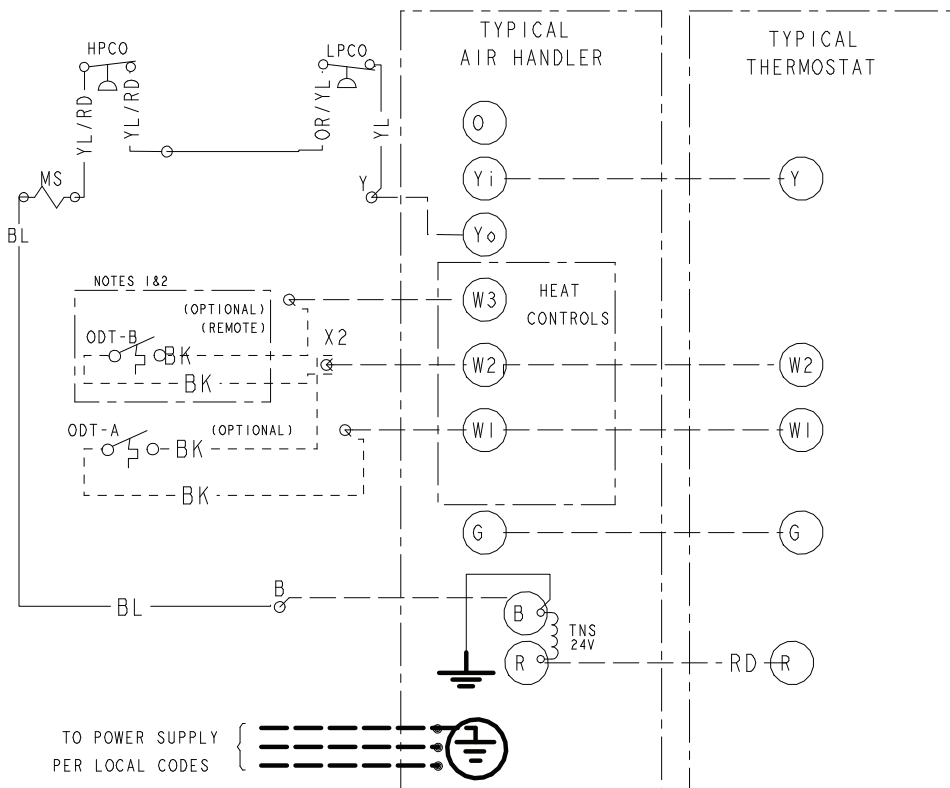
← COLOR OF WIRE
BK/BL ← COLOR OF MARKER

BK BLACK RD RED OR ORANGE
BL BLUE WH WHITE GR GREEN
BR BROWN YL YELLOW PR PURPLE
PK PINK LTBL LIGHT BLUE

FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES

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

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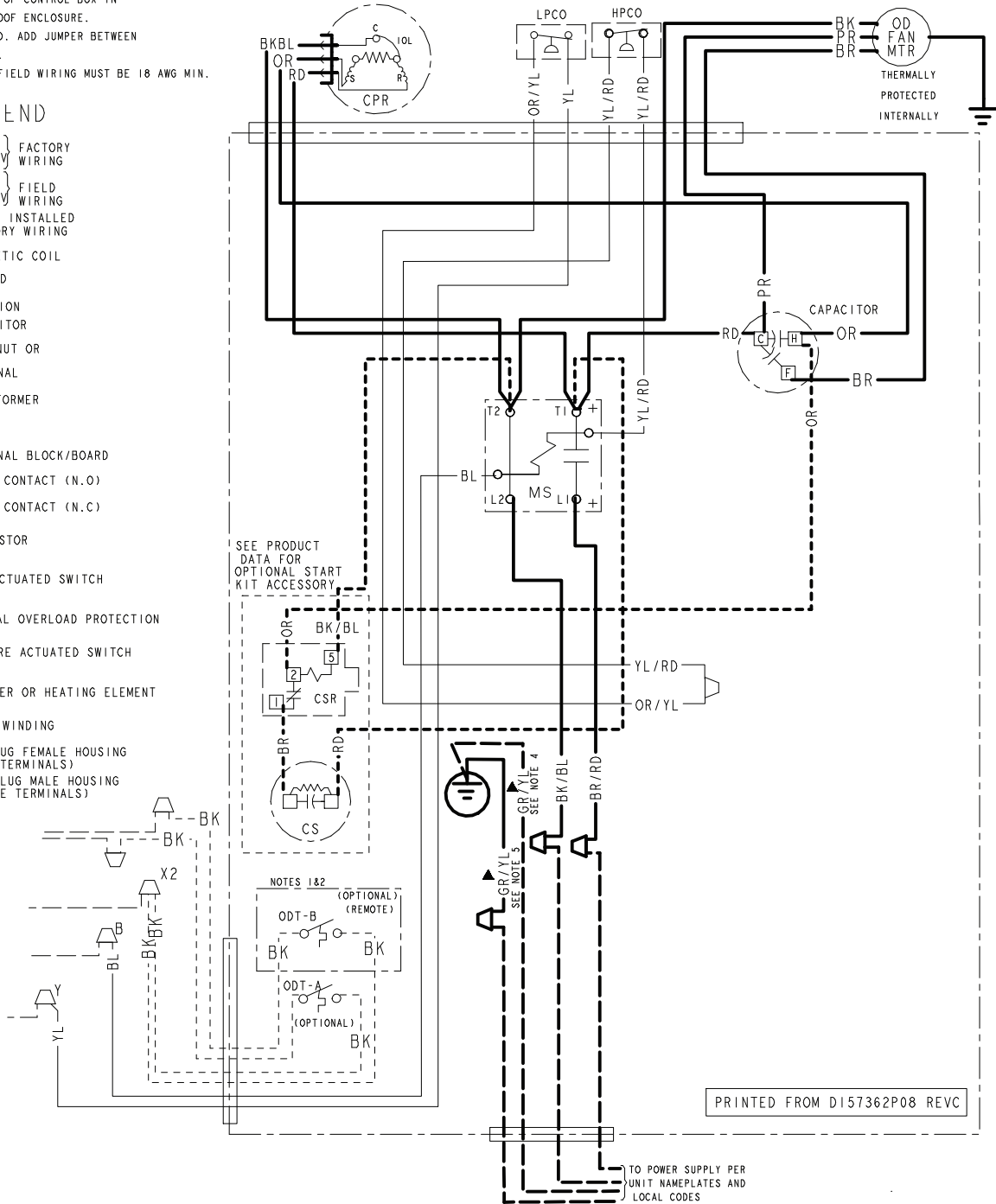
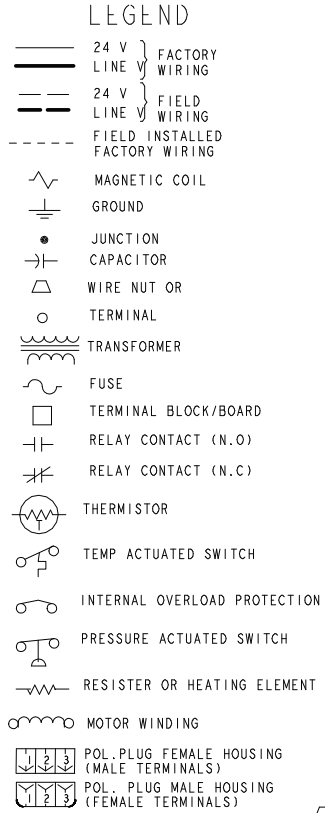


Wiring Diagrams

Figure 2. Models — 5A7A6018A, 024A, 030A, 036A, 042A, and 048A

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.



Wiring Diagrams

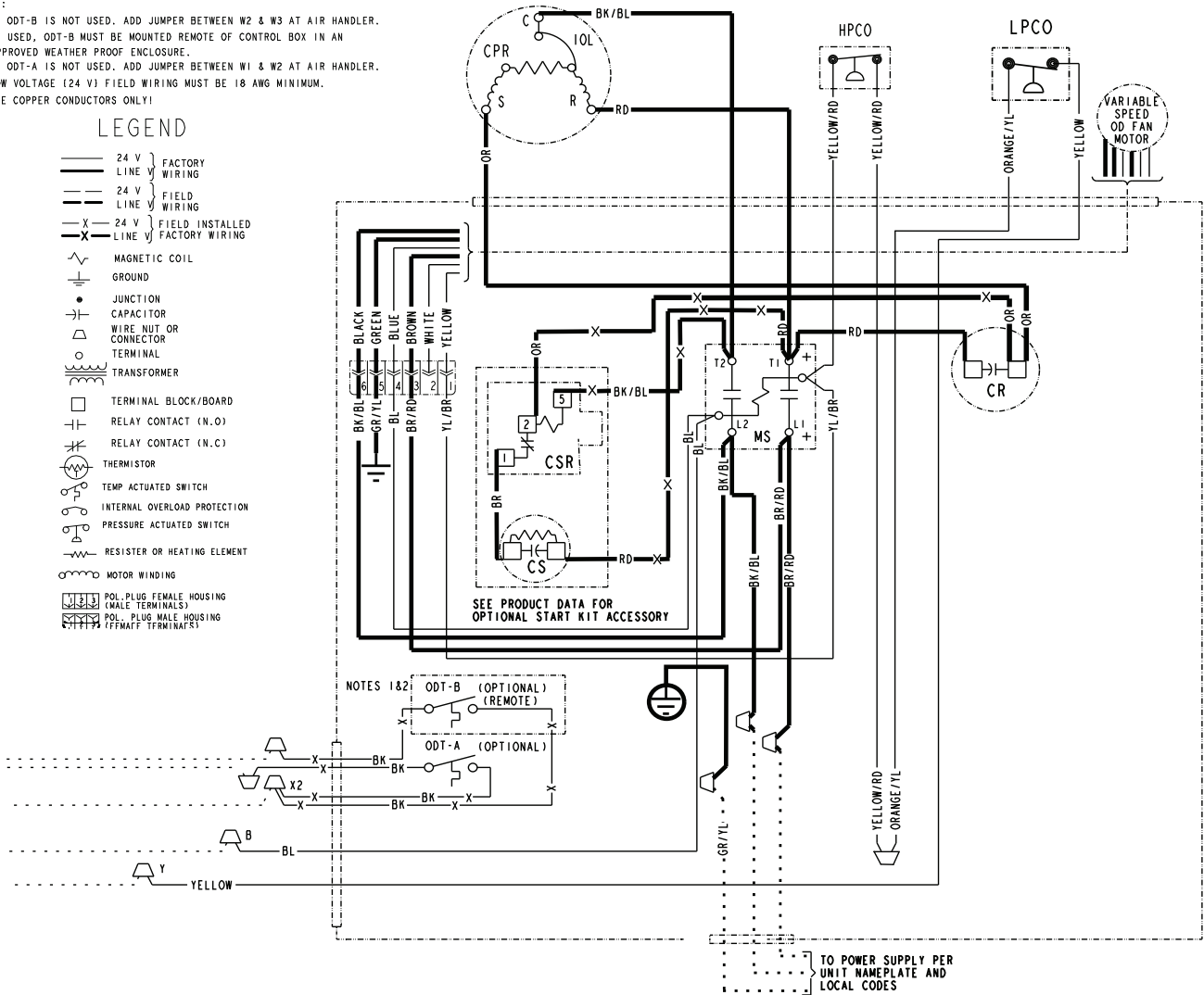
Figure 4. Model — 5A7A6060A

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!

LEGEND

- 24 V } FACTORY LINE WIRING
- 24 V } FIELD LINE WIRING
- X- 24 V } FIELD INSTALLED LINE WIRING
- ~ MAGNETIC COIL
- ⊕ GROUND
- JUNCTION
- ⊕ CAPACITOR
- ⊕ WIRE NUT OR CONNECTOR
- ⊕ 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)



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Dimensional Data

Figure 5. Dimensional drawing

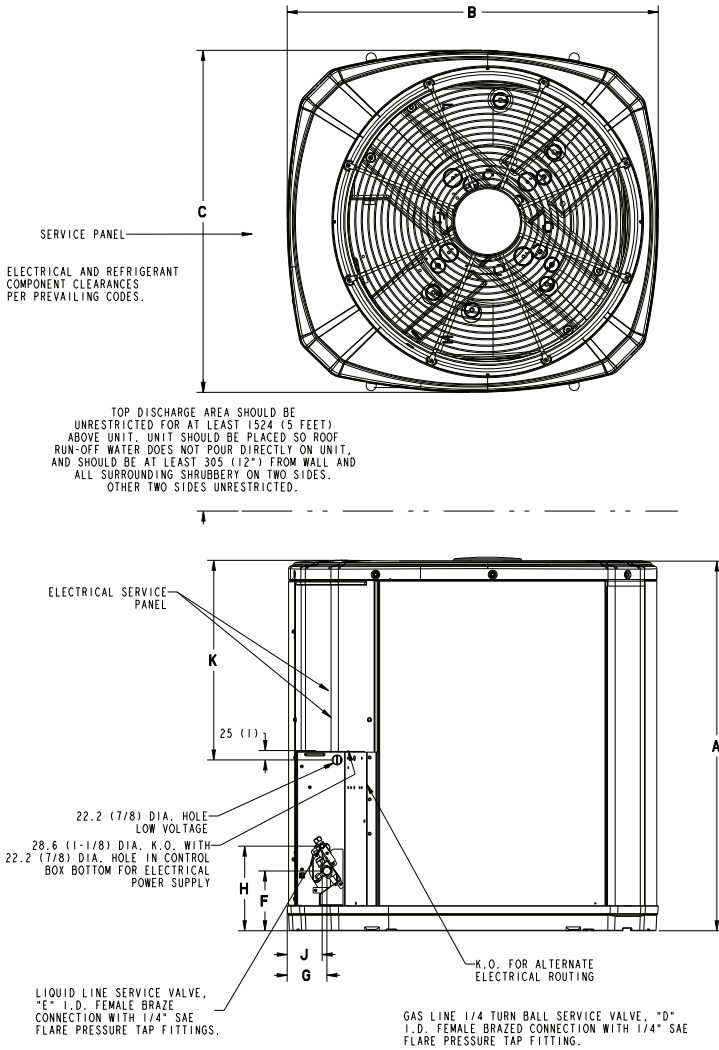


Table 4. Unit dimensions – mm/inches

Model	Base	A	B	C	D	E	F	G	H	J	K
5A7A6018A	3	933 (36-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
5A7A6024A	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)
5A7A6030A	3	933 (36-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
5A7A6036A	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)
5A7A6042A	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)
5A7A6048A	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)
5A7A6060A	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.

BUILT TO A HIGHER STANDARD[®]

American Standard[®]

HEATING & AIR CONDITIONING

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