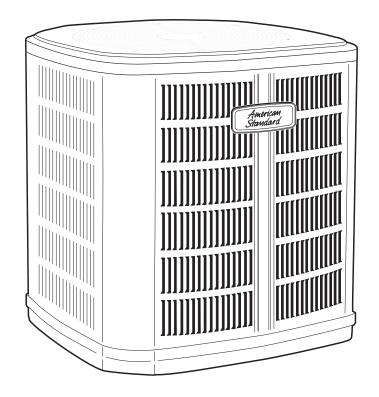


HEATING & AIR CONDITIONING

Split System Heat Pump Product Data

4A6H3018-060

 $1\frac{1}{2} - 5$ Tons



PUB. NO. 12-1248-12



Features and Benefits

- DURATION[™] compressor
- All aluminum **Spine Fin™** coil
- Easy-Sess™ cabinet, service access and refrigerant connections with full coil protection
- **DuraBase™** base, fast complete drain, weather proof
- Glossy corrosion resistant finish
- Internal compressor high/low pressure and temperature protection
- 030 ships with Start Kit
- Liquid line filter-drier
- · Polyslate gray cabinet

- Low Pressure Switch
- Demand Defrost Control
- High Pressure Switch
- R-410A refrigerant
- 100% line run test
- Low ambient cooling to 55°F as shipped
- Low ambient cooling to 30°F with EDC accessory AY28X084 and TXV
- Extended warranties available

American Standard HEATING & AIR CONDITIONING

Contents

Features and Benefits	2
General Data	4
Product Specifications	4
A-weighted Sound Power Level [dB(A)]	4
Accessory Description and Usage	5
AHRI Standard Capacity Rating Conditions	5
Model Nomenclature	6
Electrical Data	7
Dimensions	10
Mechanical Specification Options	11



General Data

Product Specifications

		oddot opooliioddiol		
Model No. 1	4A6H3018D1000A	4A6H3024D1000A	4A6H3030C1000A	4A6H3036C1000A
Electrical Data V/Ph/Hz 2	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity 12		17	15	22
Max Fuse Size (Amps)	20	25	25	35
Compressor	DURATION™-SCROLL	DURATION™-SCROLL	DURATION™	DURATION™-SCROLL
RL Amps - LR Amps	9.0 - 48.8	12.8 - 59.1	11.5 - 63.5	16.7 - 79
Outdoor Fan FL Amps	0.77	0.77	0.74	0.92
Fan HP	1/8	1/8	1/8	1/5
Fan Dia (inches)	23.0	23.0	23.0	27.5
Coil	Spine Fin™	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	5/5-LB/OZ	5/4-LB/OZ	6/05-LB/OZ	6/2-LB/OZ
Line Size - (in.) O.D. Gas ③	5/8	5/8	3/4	3/4
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8	3/8
Charge Spec. Subcooling	12°F	12°F	8°F	8°F
Dimensions H x W x D (Crated)	34 x 30.1 x 33	34 x 30.1 x 33	38 x 30.1 x 33	38.4 x 35.1 x 38.7
Weight - Shipping	185	184	221	229
Weight - Net	160	159	193	198
Start Components	NO	NO	YES	NO
Sound Enclosure	NO	NO	NO	NO
Compressor Sump Heat	NO	NO	NO	NO
Optional Accessories: ④				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X084	AY28X084	AY28X084	AY28X084
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg-Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg-4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003	BAYLEGS003
Extreme Condition Mounting Kit	BAYECMT023	BAYECMT023	BAYECMT023	BAYECMT004
Start Kit	BAYKSKT263	BAYKSKT263		BAYKSKT263
Crankcase Heater Kit	BAYCCHT302	BAYCCHT302	BAYCCHT300	BAYCCHT302
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103	BAYLOAM103
Refrigerant Lineset 5	TAYREFLN9*	TAYREFLN9*	TAYREFLN7*	TAYREFLN7*

Certified in accordance with the Air-Source Unitary Heat Pump equipment certification program which is based on AHRI Standard 210/240.
 Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.
 Standard line lengths - 60'. Standard lift - 60' Suction and Liquid line.

For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-0⁺ ([†]denotes latest revision)

For accessory description and usage, see page 5.
 * = 15, 20, 25, 30, 40 and 50 foot lineset available.

Model	A-Weighted Sound Power			Full Octave Sound Power [dB]							
	Level [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
4A6H3018D	71	76	69	66	69	67	61	53	49		
4A6H3024D	71	76	69	66	69	67	61	53	49		
4A6H3030C	76	80	72	61	64	70	70	61	56		
4A6H3036C	72	84	75	70	72	67	62	57	50		
4A6H3042B	75	83	74	68	71	68	63	59	55		
4A6H3048B	75	83	72	67	70	69	65	59	56		
4A6H3060B	75	78	71	68	69	68	66	63	62		

Sound Power Level

Note: Rated in accordance with AHRI Standard 270-2008

American Standard & AIR CONDITIONING

General Data

Product Specifications

Model No. ①	4A6H3042B1000C	4A6H3048B1000C	4A6H3060B1000C
Electrical Data V/Ph/Hz 2	208/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity	26	28	34
Max Fuse Size (Amps)	45	50	60
Compressor	DURATION™ - SCROLL	DURATION™ - SCROLL	DURATION™ - SCROLL
RL Amps - LR Amps	19.9 - 109	21.8 - 117	26.3 - 134
Outdoor Fan FL Amps	0.97	1.01	0.94
Fan HP	1/5	1/5	1/5
Fan Dia (inches)	27.6	27.5	27.5
Coil	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	7/07-LB/OZ	8/09-LB/OZ	8/14-LB/OZ
Line Size - (in.) O.D. Gas ③	3/4	7/8	7/8
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8
Charge Spec. Subcooling	8°F	8°F	8°F
Dimensions H x W x D (Crated)	38.4 x 35.1 x 38.7	42.4 x 35.1 x 38.7	46.4 x 35.1 x 38.7
Weight - Shipping	253	269	284
Weight - Net	219	234	248
Start Components	NO	NO	NO
Sound Enclosure	NO	NO	NO
Compressor Sump Heat	NO	NO	NO
Optional Accessories: ④			
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X084	AY28X084	AY28X084
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg-Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg-4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003
Extreme Condition Mounting Kit	BAYECMT004	BAYECMT004	BAYECMT004
Start Kit	BAYKSKT263	BAYKSKT263	
Crankcase Heater Kit	BAYCCHT301	BAYCCHT301	BAYCCHT301
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103
Refrigerant Lineset 5	TAYREFLN7*	TAYREFLN3*	TAYREFLN3*

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.

Evaporator 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 -

(A) Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.

- (B) High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- (C) Low Temperature Heating 17°F DB, 15°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- (D) 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 operation.) Standard Noise Rating number is at 95°F outdoor air.







Model Nomenclature

Outdoor Units $\begin{array}{c} 4 \stackrel{A}{\rightarrow} \stackrel{6}{\rightarrow} \stackrel{H}{\rightarrow} \stackrel{3}{\rightarrow} \stackrel{0}{\rightarrow} \stackrel{3}{\rightarrow} \stackrel{6}{\rightarrow} \stackrel{1}{\rightarrow} \stackrel{1}{\rightarrow} \stackrel{0}{\rightarrow} \stackrel{0}{\rightarrow} \stackrel{0}{\rightarrow} \stackrel{A}{\rightarrow} \stackrel{A}{\rightarrow}$
Refrigerant Type 4 = R-410A
AMERICAN STANDARD
Product Type
Product Family
Family SEER 0 = 10 3 = 13 6 = 16 1 = 14 4 = 14 8 = 18 2 = 12 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
Gas Furnaces 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 A U D 1 B 0 8 0 A 9 H 3 1 A A A A A A A A A A A A A A A A A A A
Furnace Configuration AU = Upflow/Horizontal AD = Downflow/Horizontal
Type
Number of Heating Stages 1 = Single Stage 2 = Two Stage 3 = Three Stage M = Modulating
Cabinet Width
Heating Input in 1000's (BTUH)
Major Design Change
Voltage 9 = 115 Volts / 60 Hertz / Natural Gas A = 115 Volts / 50 Hertz / Natural Gas C = 115 Volts / Natural Gas with Communicating System Control F = 115 Volts / Natural Gas with Integrated Electronic Filter D = 115 Volts / Natural Gas with Communicating System Control and Integrated Electronic Filter
Air Capacity for Cooling Standard PSC Variable Speed High Efficiency 24 = 2 Tons V3 = 3 Tons H3 = 3 Tons 36 = 3 Tons V4 = 4 Tons H4 = 4 Tons 42 = 3.5 Tons V5 = 5 Tons H5 = 5 Tons 45 = 4 Tons 48 = 4 Tons 48 = 4 Tons 48 = 4 Tons 60 = 5 Tons 72 = 6 Tons
Draft Inducer Speeds
Minor Design Change
Service Digit - Not Orderable

Air Handler	$\begin{array}{c}1 & 2 & 3 & 4\\ \underline{G} & \underline{A} & \underline{M} & \underline{2}\\ \hline \mathbf{A} & \mathbf{A} & \mathbf{A} & \mathbf{A}\end{array}$	$ \begin{array}{c} 5 & 6 \\ \underline{A} & 0 \\ \hline{A} & \underline{A} \end{array} $	$\begin{array}{c}7 & 8 & 9\\ \underline{A} & \underline{3} & 6\\ \hline \end{array}$	10 11 12 S 3 1	13 14 1 <u>S A</u>
Brand A,T = Better G = Good					
Product Type A = Air Handler					
Convertability M= Multi-poise 4-way F = Upflow Front Return, 3-way T = 3-way					
Product Tier 2 = Good, Entry Level Feature S 4 = Better, Retail Replacement N 5 = Better, Entry Level High Effy, 7 = Best, Retail Replacement Hi Variable-Speed 8 = Best, Retail Ultimate High Eff Variable-Speed	lid Effy. , Multi-Speed gh Effy.,				
Major Design Change					
No Descriptor 0 = Air Handler / Coil					
Size (Footprint) A = 17.5 x 21.5 B = 21.0 x 21.5 C = 23.5 x 21.5					
Cooling Size: Air Handler or C 0-9 = AH Coil - 1000 BTU's (18,	oil	18 60)			
Airflow Type & Capability S = Low Effy PSC, 1-5 - nom. To M = Mid Effy Multi-Speed, 1-5 - r H = High Effy Multi-Speed, 1-5 - V = High Effy Variable, 1-5 - nom Power Supply	nom. Tonnage (ctm/ton)			
1 = 208-230/1/60					
System Control Type S = Standard - 24 VAC C = CLII 13.8 VDC					
Minor Design Change					
Unit Parts Identifier					
Heat Pump/ Cooling Coils Refrigerant Type	$\begin{array}{c} 1 & 2 & 3 & 4 \\ 4 & T & X & C \\ \hline \bullet & \bullet & \bullet \\ \end{array}$			10 11 12 C <u>3 H</u>	
4 = R-410A Series T = Premium (Heat Pump or Convert	ble Coil)				
C = Standard (Cooling Only) Coil Design X = Direct Expansion Evaporator	Coil				
Coil Feature C = Cased A Coil A = Uncased A Coil F = Cased Horizontal Flat Coil					
Coil Width (Cased/Uncased) — A = 14.5" /13.3" B = 17.5" / 16.3" C = 21.0" / 19.8" D = 24.5" / 23.3" H = 10.5"					
Refrigerant Line Coupling 0 = Brazed					

Nominal Capacity in 1000's (BTUH) – Major Design Change –

Refrigerant Control 3 = TXV - Non-Bleed

Minor Design Change _____ Service Digit - Not Orderable

Coil Circuitry— H = Heat Pump C = Cooling

C = Standard S = Hi Efficiency (derived from 10 SEER products)

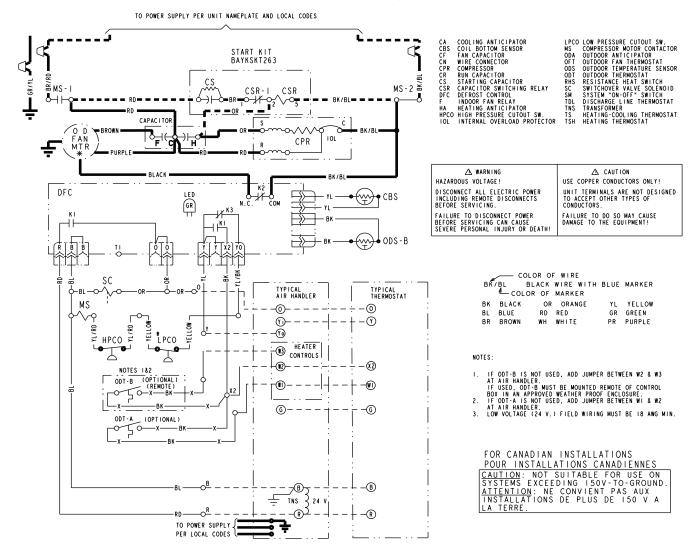
Airflow Configuration A = Upflow Only U = Upflow / Downflow H = Horizontal Only C = Convertible - Upflow, Downflow, Left or Right Airflow

12-1248-12

American Standard ALR CONDITION

SCHEMATIC DIAGRAMS

4A6H3018D, 024D, 036C



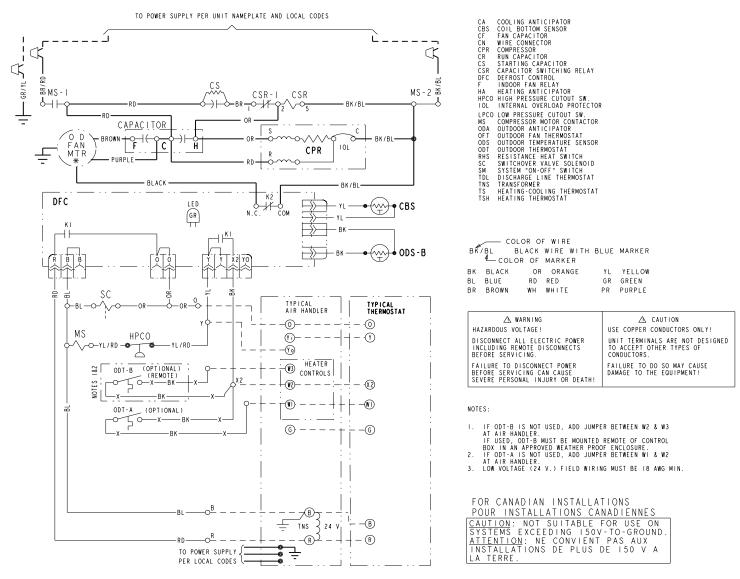
PRINTED FROM D157740P03



SCHEMATIC DIAGRAMS

(SEE LEGEND)

4A6H3030C1



PRINTED FROM D157099P01

American Standard COND

SCHEMATIC DIAGRAMS

4A6H3042B

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES ($\langle \rangle$ · ا ├── ۵۳ / ۲۱ ک START KIT BAYKSKT263 ₩S-I MS - 2 M CSR-I CSR ρĤ BK/BL $\sqrt{-5}$ S. S S O D FAN $-\infty$ BK/BI ΛD CAPACITOR I OL CPR Ē MTR ROWN 누구---(- $\sim 0^{-1}$ RD URPLE BLACK BK/B +к2 N.C. СОМ DFC LED GR \Rightarrow (чу**) Р** СВЅ ΚI \square +ODS-B Ś Bł Ġ YL/BK SC ž TYPICAL AIR HANDLER THERMOSTAT MS -0 --vγ -0 (1)----(1) HPCO 1 OR / YL YL/RD -10 CONTROLS HEATER 0-0 Ь (II)-- (12) NOTES 182 ODT-B (OPTIONAL) (REMOTE) -000 -BL Χ2 ō μ BK 6 6 ODT-A (OPTIONAL) -7®--B ______ TNS } 24 V -(R) -(R) TO POWER SUPPLY 1 PER LOCAL CODES] ø

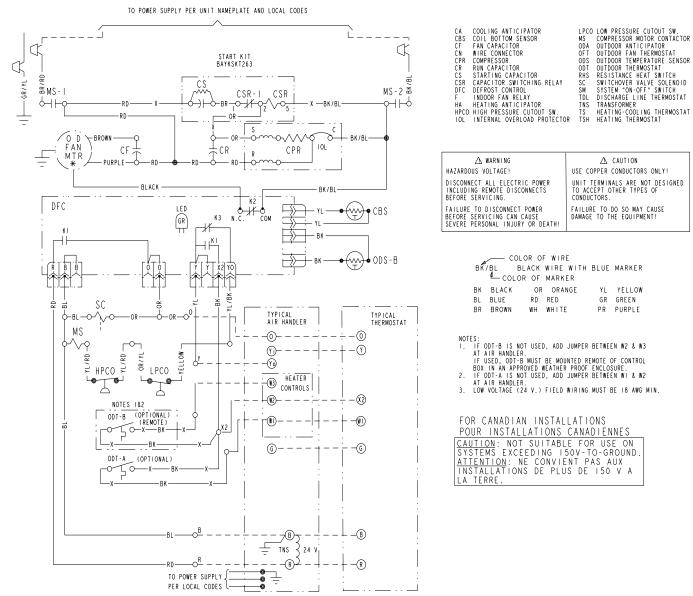
CA COOLING ANTICIPATOR CBS COIL BOTTOM SENSOR CF FAN CAPACITOR CPR CONVECTOR CPR CONVECTOR CR RUN CAPACITOR CS STARTING CAPACITOR CSS CAPACITOR SWITCHING RELAY DFC DEFROST CONTROL F INDOOR FAN RELAY HA HEATING ANTICIPATOR HPCO HIGH PRESSURE CUTOUT SW. IOL INTERNAL OVERLOAD PROTECTOR	LPCO LOW PRESSURE CUTOUT SW. MS COMPRESSOR MOTOR CONTACTOR ODA OUTDOOR FAN THERMOSTAT ODS OUTDOOR FAN THERMOSTAT ODS OUTDOOR TEMPERATURE SENSOR ODT OUTDOOR THERMOSTAT RHS RESISTANCE HEAT SWITCH SC SWITCHOVEN VALVE SOLENOID SM SYSTEM "ON-OFF" SWITCH TOL DISCHARGE LINE THERMOSTAT TNS TRANSFORMER TS HEATING-COOLING THERMOSTAT TSH HEATING THERMOSTAT
∆ WARNING HAZARDOUS VOLTAGE!	△ CAUTION USE COPPER CONDUCTORS ONLY!
HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.	UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!	FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!
COLOR OF MAR BK BLACK OR OF BL BLUE RD RED BR BROWN WH WHI NOTES: I. IF ODT-B IS NOT USED, ADD AT AIR HANDLER. IF USED, ODT-B MUST BE MOL BOX IN AN APPROVED WEATHER 2. IF ODT-A IS NOT USED, ADD AT AIR HANDLER. 3. LOW VOLTAGE (24 V.) FIELD FOR CANADIAN INSTAL POUR INSTALLATIONS CAUTION: NOT SUITABL	E WITH BLUE MARKER RANGE YL YELLOW G GR GREEN TE PR PURPLE JUMPER BETWEEN W2 & W3 JINTED REMOTE OF CONTROL R PROOF ENCLOSURE. JUMPER BETWEEN WI & W2 WIRING MUST BE I8 AWG MIN. LLATIONS CANADIENNES LE FOR USE ON 50V - TO - GROUND. ENT PAS AUX

PRINTED FROM D157061P01



SCHEMATIC DIAGRAMS

4A6H3048-060B



PRINTED FROM D157059P01

American Standard & AIR CONDITIONING

Dimensions

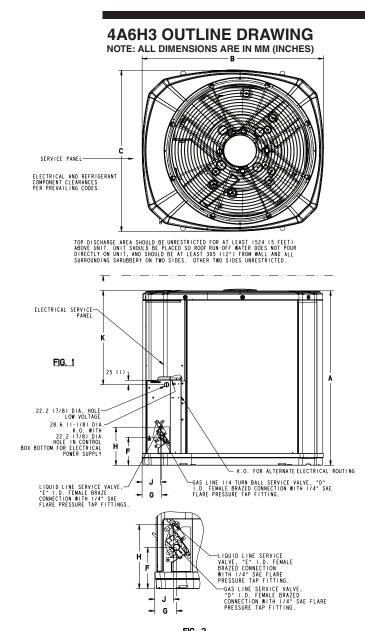


FIG. 2												
MODELS	BASE	FIG.	A	В	с	D	E	F	G	Н	J	К
4A6H3018D	3	1	730 (28-3/4)	829 (32-5/8)	756 (29-3/4)	5/8	3/8	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4A6H3024D	3	1	730 (28-3/4)	829 (32-5/8)	756 (29-3/4)	5/8	3/8	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4A6H3030C	3	1	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	3/8	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4A6H3036C	4	1	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A6H3042B	4	1	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A6H3048B	4	1	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A6H3060B	4	1	1045 (41-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)

American Standard

Mechanical Specification Options

General

The 4A6H3 models shall be fully charged from the factory for matched indoor section and up to 15 feet of piping. This unit must be designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities shall be matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit is certified to UL 1995. Exterior must be designed for outdoor application.

Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint. Corrosion and weatherproof CMBP-G30 base.

Refrigerant Controls

Refrigeration system controls include condenser fan and compressor contactor. High and low pressure controls are inherent to the compressor. Another standard feature is the liquid line dryer.

Compressor

The compressor features internal over temperature and pressure protector, total dipped hermetic motor and thermostatically controlled sump heater. Other features include: Centrifugal oil pump, and low vibration and noise.

Condenser Coil

The Spine Fin[™] coil shall be continuously wrapped, corrosion resistant all aluminum with minimum brazed joints. This coil is 3/8 inch O.D. seamless aluminum glued to a continuous aluminum fin. Coils are lab tested to withstand 2,000 pounds of pressure per square inch. 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 unit has a cooling capability to 55° F. The addition of an evaporator defrost control permits operation to 30° F. The addition of a low ambient kit with TXV permits low ambient cooling to 0° F.

Accessories

Thermostats — Heating/Cooling (manual and automatic changeover). Sub-base to match thermostat and locking thermostat cover.

Evaporator Defrost Control — See Low Ambient Cooling.

Outdoor Thermostat — Supplemental heat outdoor ambient lockout from $46 \text{ to } -10^{\circ}\text{F}$.





American Standard Heating & Air Conditioning www.americanstandardair.com

American Standard Heating & Air Conditioning has a policy of continuous product and product data improvement and it reserves the right to change design and specifications without notice.

05/13