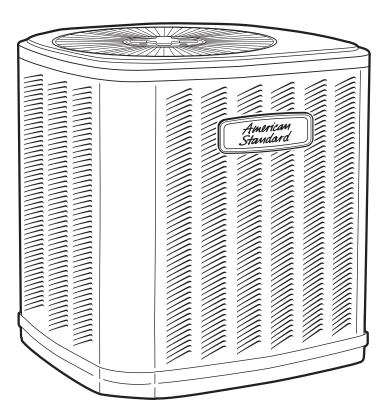


Split System Heat Pump Product Data

American Standard® 13

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





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
- 018-036 ship with Start Kit
- Liquid line filter-drier
- · Polyslate gray cabinet

- Low Pressure Switch (042, 048, 060)
- · 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



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Product Specifications	4
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AHRI Standard Capacity Rating Conditions	5
Model Nomenclature	6
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12-1246-09



General Data

Product Specifications

Model No. ①	4A6B3018B1	4A6B3024B1	4A6B3030B1	4A6B3036B1						
Electrical Data V/Ph/Hz ②	208/230/1/60	208/230/1/60	200/230/1/60	208/230/1/60						
Min Cir Ampacity	9	12	15	18						
Max Fuse Size (Amps)	15	20	25	30						
Compressor	DURATION™	DURATION™	DURATION™	DURATION™						
RL Amps - LR Amps	6.4 - 38.6	8.8 - 58	11.3 - 68.2	13.2 - 63						
Outdoor Fan FL Amps	0.7	0.74	0.74	1.0						
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	5/9-LB/OZ	5/6-LB/OZ	6/05-LB/OZ	7/6-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	8°	8°	8°	8°						
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	201	204	221	261						
Weight - Net	173	176	193	227						
Start Components	YES	YES	YES	YES						
Sound Enclosure	NO	YES	NO	YES						
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										
Crankcase Heater Kit	BAYCCHT300	BAYCCHT300	BAYCCHT300	BAYCCHT300						
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001						
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103	BAYLOAM103						
Refrigerant Lineset 5	TAYREFLN9*	TAYREFLN9*	TAYREFLN7*	TAYREFLN7*						

① 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.

A-weighted Sound Powe A-weighted Sound Power Level [dB(A)]

	SOUND POWER	A-WEIGHTED FULL OCTAVE SOUND POWER LEVEL dB - [dB(A)]							
MODEL	LEVEL [dB(A)]	63	125	250	500	1000	2000	4000	8000
4A6B3018B1	79	47.3	60.7	65.8	71.2	72.8	72.1	62.2	52.8
4A6B3024B1	79	45.3	58.8	70.5	70.5	75.4	75.3	66.8	61.3
4A6B3030B1	79	46.6	58.2	65.9	69.2	73.5	73.1	62.3	56.5
4A6B3036B1	79	46.4	59.6	67.4	74.8	73.8	68.9	61.2	53.4
4A6B3042B1	79	47.6	58.3	67.3	74.9	74.9	70.4	62.3	53.0
4A6B3048B1	78	47.0	56.5	66.7	73.0	72.8	69.3	62.0	51.4
4A6B3060B1	78	45.3	55.1	66.6	73.0	73.5	69.7	63.1	53.9

Note: Rated in accordance with AHRI Standard 270-2008

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General Data

Product Specifications

Model No. ①	4A6B3042B1	4A6B3048B1	4A6B3060B1	
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	.97	1.01	.94	
Fan HP	1/5	1/5	1/5	
Fan Dia (inches)	27.5	27.5	27.86	
Coil	Spine Fin™	Spine Fin™	Spine Fin™	
Refrigerant R-410A	7/07-LB/OZ	8/9-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°	8°	8°	
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	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.

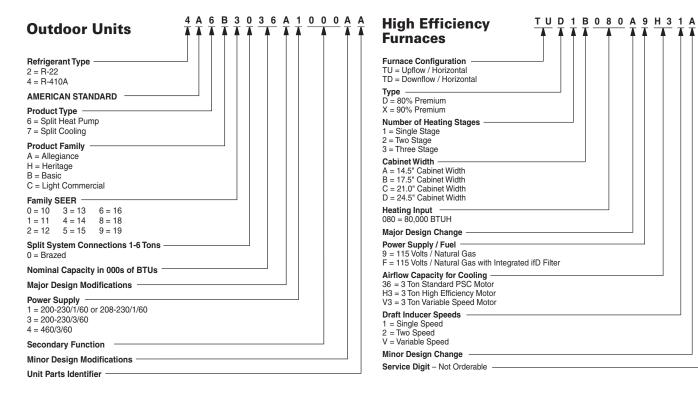


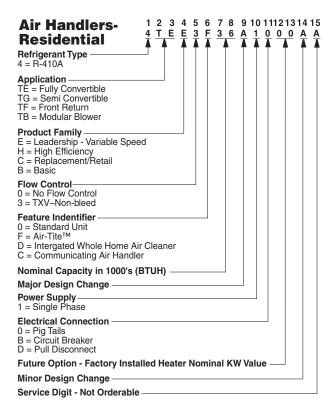


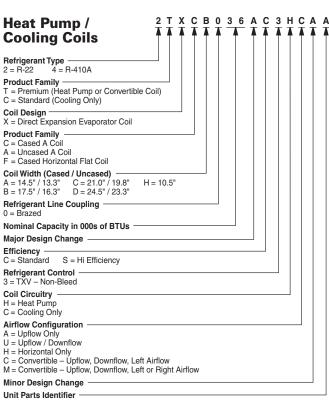


Model Nomenclature

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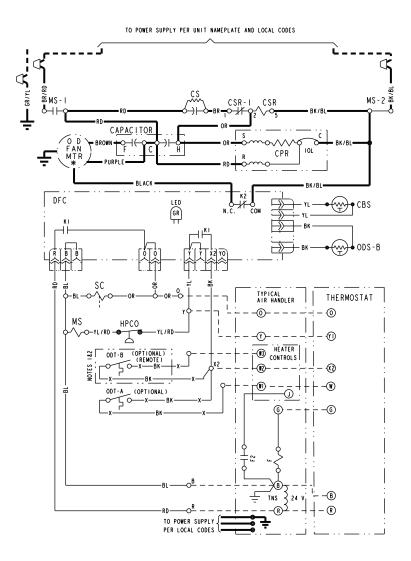


Electrical Data

SCHEMATIC DIAGRAMS

(SEE LEGEND)

4A6B3018-036



LPCO LOW PRESSURE CUTOUT SW.
MS COMPRESSOR MOTOR CONTACTOR
ODA OUTDOOR ANTICIPATION
ODS OUTDOOR FAN THERMOSTAT
ODS OUTDOOR FEMPERATURE SENSOR
ODT OUTDOOR TEMPERATURE SENSOR
ODT OUTDOOR THERMOSTAT
RHS RESISTANCE HEAT SWITCH
SC SWITCHOVER VALVE SOLENOID
SM SYSTEM 'ON-OFF' SWITCH
TINS TRANSFORMER
THE STEMPERATURE SHEAT OF SWITCH
THE STEMPERATURE SHEAT ON THE SWITCH SW CA COOLING ANTICIPATOR
CBS COIL BOTTOM SENSOR
CF FAN CAPACITOR
CN WIRE CONNECTOR
CR RUN CAPACITOR
CR RUN CAPACITOR
CR STARTING CAPACITOR
CS STARTING CAPAC

∧ WARNING HAZARDOUS VOLTAGE!

DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!

∧ CAUTION USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.

FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!

COLOR OF WIRE

BK/BL BLACK WIRE WITH BLUE MARKER

COLOR OF MARKER

BK BLACK OR ORANGE RD RED WH WHITE YL YELLOW BL BLUE BR BROWN GREEN PR PURPLE

NOTES:

1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3
AT AIR MANDLER.
IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL
BOX IN AM APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2
AT AIR MANDLER.
3. LOW YOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

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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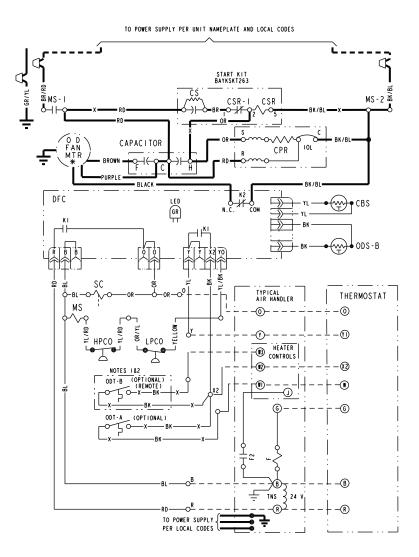
Electrical Data

SCHEMATIC DIAGRAMS

(SEE LEGEND)

4A6B3042

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CA COOLING ANTICIPATOR
CBS COIL BOTTOM SENSOR
CF FAN CAPACITOR
CW WIRE COMNECTOR
CPR COMPRESSOR
CR RUN CAPACITOR
CS STARTING CAPACITOR
CS CAPACITOR SWITCHING RELAY
DFC DEFROST CONTROL
F INDOOR FAN RELAY
HA HEATING ANTICIPATOR
HEATING ANTICIPATOR
HOPCO HIGH PRESSURE CUTOUT SW.
IOL INTERNAL OVERLOAD PROTECTOR LPCO LOW PRESSURE CUTOUT SW.
MS COMPRESSOR MOTOR CONTACTOR
ODA OUTDOOR ANTICIPATOR
OFT OUTDOOR FAN THERMOSTAT
ODS OUTDOOR THERMOSTAT
ODS OUTDOOR THERMOSTAT
RHS RESISTANCE HEAT SWITCH
SC SWITCHOVER VALVE SOLEMOID
SM SYSTEM "ON-OFF" SWITCH
TIDL DISCRAMGE LINE THERMOSTAT
TNS TRANSFORMER
THEATING TO-COOLING THERMOSTAT
ISH HEATING TOERMOSTAT

△ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.

FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!

△ CAUTION
USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.

FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!

- COLOR OF WIRE BK/BL BLACK WIRE WITH BLUE MARKER
COLOR OF MARKER BK BLACK OR ORANGE

RD RED BL BLUE GR GREEN BROWN WH WHITE PR PURPLE

NOTES:

I. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3
AT AIR HANDLER.
IT 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 WI & W2
AT AIR HANDLER.
3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

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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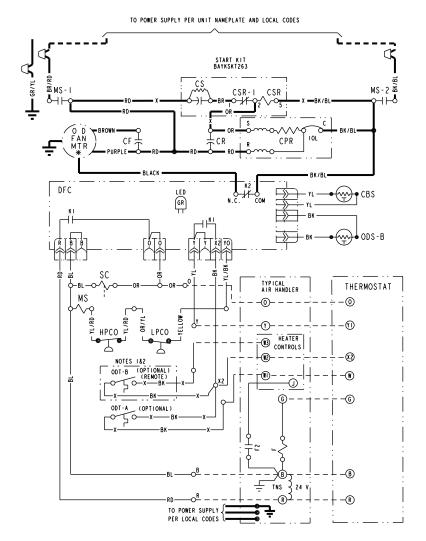


Electrical Data

SCHEMATIC DIAGRAMS

(SEE LEGEND)

4A6B3048-060



CA	COOLING ANTICIPATOR	LPCO	LOW PRESSURE CUTOUT SW.
CBS	COIL BOTTOM SENSOR	MS	COMPRESSOR MOTOR CONTACTOR
CF	FAN CAPACITOR	ODA	OUTDOOR ANTICIPATOR
CN	WIRE CONNECTOR	OF T	OUTDOOR FAN THERMOSTAT
CPR	COMPRESSOR	ODS	OUTDOOR TEMPERATURE SENSOR
ĊR	RUN CAPACITOR	ODT	OUTDOOR THERMOSTAT
	STARTING CAPACITOR	RHS	RESISTANCE HEAT SWITCH
CSR	CAPACITOR SWITCHING RELAY	SC	SWITCHOVER VALVE SOLENOID
DFC	DEFROST CONTROL	SM	SYSTEM "ON-OFF" SWITCH
F	INDOOR FAN RELAY	TDL	DISCHARGE LINE THERMOSTAT
HA	HEATING ANTICIPATOR	TNS	TRANSFORMER
HPCO	HIGH PRESSURE CUTOUT SW.	TS	HEATING-COOLING THERMOSTAT
IOL	INTERNAL OVERLOAD PROTECTOR	TSH	HEATING THERMOSTAT

△ WARNING HAZARDOUS VOLTAGE! HAZARDUS VOLTAGE:
DISCONNECT ALL ELECTRIC POWER
INCLUDING REMOTE DISCONNECTS
BEFORE SERVICING.
FAILURE TO DISCONNECT POWER
BEFORE SERVICING CAN CAUSE
SEVERE PERSONAL INJURY OR DEATH!

△ CAUTION
USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!

COLOR OF WIRE

BK/BL BLACK WIRE WITH BLUE MARKER

COLOR OF MARKER

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

NOTES:

- IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3
 AT AIR HANDLER.
 IF JUSED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL
 BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
 IF ODT-A IS NOT USED, ADD JUMPER BETWEEN WI & W2
 AT AIR HANDLER.
 LOW VOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

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.

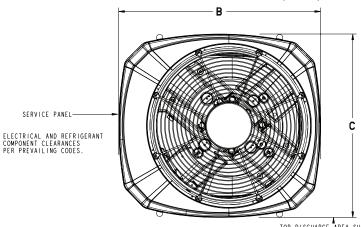
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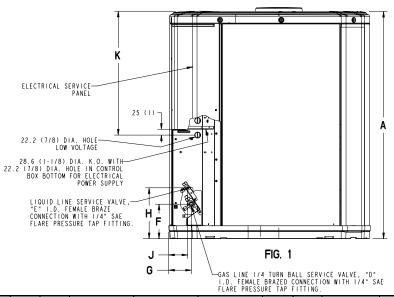
Dimensions

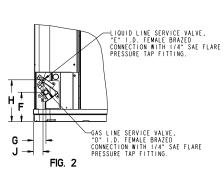
4A6B3 OUTLINE DRAWING

NOTE: ALL DIMENSIONS ARE IN MM (INCHES)



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.





MODELS	BASE	FIG.	Α	В	С	D	Е	F	G	Н	J	K
4A6B3018B	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)
4A6B3024B	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)
4A6B3030B	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)
4A6B3036B	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)
4A6B3042B	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)
4A6B3048B	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)
4A6B3060B	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)

From Dwg. D153074

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Mechanical Specification Options

General

The 4A6B3 is fully charged from the factory for up to 15 feet of piping. 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 certified to UL 1995. Exterior is designed for outdoor application.

Casing

Unit casing is constructed of heavy gauge, G90 galvanized steel and painted with a weather-resistant powder paint on all louvers, panels, prepaint on all other panels. Corrosion and weatherproof CMBP-G30 DuraBase[™] base.

Refrigerant Controls

Refrigeration system controls include condenser fan, compressor contactor and high pressure switch. High and low pressure controls are inherent to the compressor. A factory installed liquid line drier is standard.

Compressor

The Duration™ compressor features internal over temperature and pressure protection and total dipped hermetic motor. 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 unit has a cooling capability 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.

Accessories

Thermostats — Cooling only and heat/cooling (manual and automatic change-over). Sub-base to match thermostat and locking thermostat cover.

Evaporator Defrost Control — See Low Ambient Cooling.





