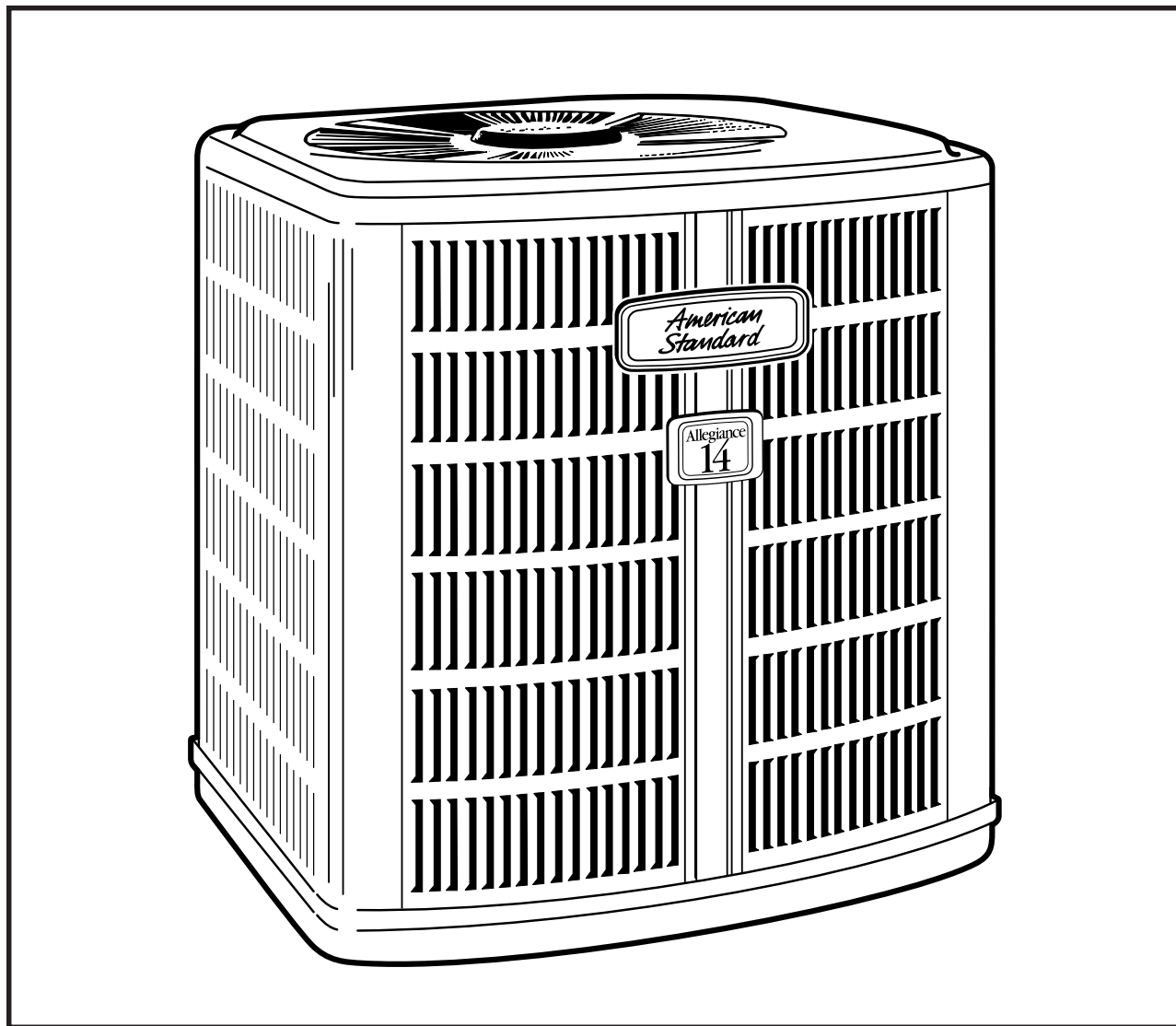


American Standard
HEATING & AIR CONDITIONING

SPLIT SYSTEM COOLING
1½ — 5 TON



ALLEGIANCE® 14
MODELS 4A7A4018-24C/30-060B

Features and Benefits

- ◆ **Duration™** compressor
- ◆ Efficiency up to 15 SEER
- ◆ Attractive warm gray cabinet with accent Grill, Badge and Grill Caps
- ◆ Corrosion resistant finish and fasteners
- ◆ **DuraBase™** base pan won't rust, drains completely
- ◆ Control and service valve cover
- ◆ Multi-use service valves
- ◆ Full coil protection with seacoast shield
- ◆ Liquid line filter-drier
- ◆ All aluminum **SpineFin™** coil
- ◆ **EasySess™** service access for installation, service and maintenance
- ◆ **Comfort "R"™** mode approved
- ◆ Low sound with advanced fan system and compressor Sound Insulator
- ◆ American Standard and Allegiance 14 badge identifier
- ◆ Factory installed start kit on 018, 024 and 060 models
- ◆ High pressure switch and internal compressor temperature/pressure protection
- ◆ Vertical air discharge
- ◆ Factory supplied charge of R-410A refrigerant
- ◆ **10 year limited warranty on compressor, coil, and 5 years on parts**
- ◆ Low ambient cooling to 55°F as shipped
- ◆ Low ambient cooling to 40°F with EDC accessory AY28X079
- ◆ Low ambient cooling to 30°F with EDC accessory AY28X079 and TXV
- ◆ **Optional extended warranties**

Contents

Manufacturing Control

American Standard's exclusive control over the design and manufacturing of all major components is unique in the industry. This approach assures us total control over both the quality and reliability of these components. It also allows us to custom match components to deliver the best in split system performance.

Designing the Details

Careful attention was given to designing the details — from control wiring to the access panels. These units feature time-saving color-coded wiring and removable panels which allow complete access to all major components and controls. All outdoor units feature external high and low pressure gauge port connections. Service valves for easy diagnosing and servicing of the unit are provided.

Standardized Cabinets

In addition all cabinets have been standardized; so when you are servicing an outdoor unit or an air handler all components are in the same location from unit to unit.

UL Listed

American Standard meets or exceeds all nationally recognized agency safety and design standards. Each condensing unit is UL designed, approved, and labeled in accordance to UL Standards, 1995, including approval for use in Canada. Each unit is rated in accordance with ARI Standard 210/240 and 270.

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Product Specifications 4

A-weighted Sound 4

Power Level [dB(A)] 4

Accessory Description and Usage 5

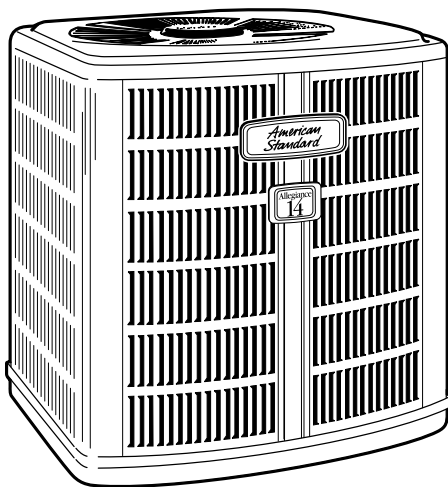
ARI Standard Capacity Rating Conditions 5

Model Nomenclature 6

Typical Wiring 7

Dimensional Data 10

Mechanical Specifications 11



**DATA SUBJECT
TO CHANGE
WITHOUT NOTICE**

PRODUCT DATA

American Standard Heating & Air Conditioning, Tyler, TX 75711-9010

General Data

Product Specifications

Model No. ①	4A7A4018C1	4A7A4024C1	4A7A4030B1	4A7A4036B1
Electrical Data V/Ph/Hz ②	200/230/1/60	200/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity	9	12	20	21
Max Fuse Size (Amps)	15	20	30	35
Compressor	DURATION™	DURATION™	DURATION™ - SCROLL	DURATION™ - SCROLL
RL Amps - LR Amps	6.4 - 38.6	8.8 - 57.8	14.7 - 73	15.4 - 83
Outdoor Fan FL Amps	0.7	0.7	1.40	1.40
Fan HP	1/8	1/8	1/6	1/6
Fan Dia (inches)	23.0	23.0	23	23
Coil	Spine Fin™	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	5/04-LB/OZ	5/10-LB/OZ	4/15-LB/OZ	5/11-LB/OZ
Line Size - (in.) O.D. Gas ③	1/2	5/8	3/4	3/4
Line Size - (in.) O.D. Liquid ③	1/4	5/16	5/16	3/8
Dimensions H x W x D (Crated)	38 x 30.1 x 33	38 x 30.1 x 33	38 x 30.1 x 33	42 x 30.1 x 33
Weight - Shipping	216	217	220	232
Weight - Net	188	190	193	204
Start Components	YES	YES	NO	NO
Sound Enclosure	YES	YES	YES	YES
Compressor Sump Heat	NO	NO	NO	NO
Optional Accessories: ④				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control A/C	AY28X079	AY28X079	AY28X079	AY28X079
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Crank Case Heater Scroll	BAYCCHT300	BAYCCHT300	BAYCCHT301	BAYCCHT301
Hard Start Kit Scroll			BAYKSKT260	BAYKSKT260
Extreme Condition Mounting Kit	BAYECMT023	BAYECMT023	BAYECMT023	BAYECMT023
Refrigerant Lineset ⑤	TAYREFLN5*	TAYREFLN6*	TAYREFLN2*	TAYREFLN7*

① Certified in accordance with the Unitary Air-Conditioner equipment certification program which is based on ARI Standard 210/240.

② Calculated in accordance with N.E.C. Use only HACR circuit breakers or fuses.

③ Standard line lengths - 60'. Standard lift - 60' Suction and Liquid line.

For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-01. (*denotes latest revision)

④ For accessory description and usage, see page 5.

⑤ * = 15, 20, 25, 30, 40 and 50 foot lineset available.

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

MODEL	SOUND POWER LEVEL [dB(A)]	A-WEIGHTED FULL OCTAVE SOUND POWER LEVEL dB - [dB(A)]							
		63	125	250	500	1000	2000	4000	8000
4A7A4018C1	76	47.5	60.4	63.0	70.3	69.8	69.3	59.3	50.9
4A7A4024C1	76	47.2	61.1	64.8	70.6	70.7	68.4	57.9	50.6
4A7A4030B1	71	49.4	57.0	59.6	66.1	64.1	61.3	55.8	48.8
4A7A4036B1	71	49.4	57.0	59.6	66.1	64.1	61.3	55.8	48.8
4A7A4042B1	74	49.1	57.6	64.6	68.0	69.5	62.9	59.0	51.2
4A7A4048B1	74	52.7	54.6	60.6	71.6	68.8	61.8	59.0	50.4
4A7A4060B1	74	49.1	57.6	64.6	68.0	69.5	62.9	59.0	51.2

Note: Tested in accordance with ARI Standard 270.95. (Not listed with ARI)

General Data

Product Specifications

Model No. ①	4A7A4042B1	4A7A4048B1	4A7A4060B1
Electrical Data V/PH/Hz ②	208/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity	25	27	39
Max Fuse Size (Amps)	40	45	60
Compressor	DURATION™ - SCROLL	DURATION™ - SCROLL	DURATION™ - SCROLL
RL Amps - LR Amps	19.2 - 104	20.5 - 109	30.1 - 158
Outdoor Fan FL Amps	1.30	1.30	1.30
HP	1/6	1/6	1/6
Dia (inches)	27.6	27.6	27.6
Coil	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-22	6/07-LB/OZ	7/15-LB/OZ	8/04-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
Dimensions H x W x D (crated)	42.4 x 35.1 x 38.7	46.4 x 35.1 x 38.7	46.4 x 35.1 x 38.7
Weight - Shipping	264	276	326
Weight - Net	229	240	290
Start Components	NO	NO	YES
Sound Enclosure	YES	YES	YES
Compressor Sump Heat	NO	NO	NO
Optional Accessories: ④			
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control A/C	AY28X079	AY28X079	AY28X079
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101
Crank Case Heater	BAYCCHT301	BAYCCHT301	BAYCCHT301
Hard Start Kit Scroll	BAYKSKT260	BAYKSKT260	
Extreme Condition Mounting Kit	BAYECMT004	BAYECMT004	BAYECMT004
Refrigerant Lineset ⑤	TAYREFLN7*	TAYREFLN3*	TAYREFLN3*

Accessory Description and Usage

Anti-Short Cycle Timer — Solid state timing device that prevents compressor recycling until 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 — 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.

ARI Standard Capacity Rating Conditions

ARI 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.

ARI 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.



PRODUCT DATA

American Standard Heating & Air Conditioning, Tyler, TX 75711-9010

Model Nomenclature

Outdoor Units

Refrigerant Type

2 = R-22
4 = R-410A

AMERICAN STANDARD

Product Type

6 = Split Heat Pump
7 = Split Cooling

Product Family

A = Allegiance
H = Heritage
B = Basic
C = Light Commercial

Family SEER

0 = 10 3 = 13 6 = 16
1 = 11 4 = 14 8 = 18
2 = 12 5 = 15 9 = 19

Split System Connections 1-6 Tons

0 = Braze

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

4 A 7 A 4 0 3 6 B 1 0 0 0 A A

Gas Furnaces

Furnace Configuration

TU = Upflow/Horizontal
TD = Downflow/Horizontal

Type

C = Condensing
D = Induced Draft
E = Electronic Ignition
X = Direct Vent Condensing
Y = Direct Vent Condensing Variable Speed

Heating Input MBTUH

080 = 80,000 BTUH

Major Design Change

C = Single Stage R = Two Stage
All other = Standard System

Power Supply and Fuel

115 Volt Natural Gas

Airflow Capacity for Cooling

Example: 36 = 3 Tons
400 CFM/Ton
400 x 3 Tons = 1200 CFM
V3 = 1 1/2 – 3 Tons, Variable Speed Motor (ICM)
V4 = 2 – 4 Tons, Variable Speed Motor (ICM)
V5 = 3 – 5 Tons, Variable Speed Motor (ICM)

Minor Design Change

Service Digit – Not Orderable

T U Y 0 8 0 R 9 V 3 W 0

Air Handlers – Residential

Refrigerant Type

4 = R-410A
2 = R-22

Application

TE = Fully Convertible
TG = Semi Convertible
TF = Front Return
TV = Vertical

Product Family

E = Leadership – Variable Speed
P = Leadership
C = Replacement/Retail
B = Basic

Flow Control

3 = Nonbleed TXV
4 = FCCV*

Feature Identifier

0 = Standard Unit
F = Air-Tite™

Nominal Capacity in 000s of BTUs

Major Design Modifications

Power Supply

1 = Single Phase

Electrical Connection

0 = Pig Tails
B = Circuit Breaker
D = Pull Disconnect

Future Option – Factory Installed Heater Nominal KW Value

Minor Design Modifications

Unit Parts Identifier

4 T E E 3 F 3 6 A 1 0 0 0 A A

Furnace Coils

Refrigerant Type

T = R-22
R = R-410A
C = Cooling only

Furnace Coils

XA = Uncased "A" Coil Upflow/Downflow
XC = Cased Coil Upflow/Downflow/Horizontal
XH = Cased Horizontal Only
CB = Cased/Brazed Upflow – Cooling Only
UB = Uncased/Brazed Upflow – Cooling Only

Coupling

0 = Braze

Nominal Capacity

Nominal Capacity in 000s of BTUs

Product Family

C = Universal
S = High Efficiency – Nonbleed TXV
E = High Efficiency – Bleed TXV
A = Upflow Only
D = Reverse Airflow

Refrigerant Control

2 = Cap Tube
3 = Nonbleed TXV
4 = **Accutron™** Flow Control/Check Valve (FCCV)
5 = Bleed TXV

HP = Heat Pump

00 = Cooling only (7 1/2 to 10 ton)

Minor Design Change

Service Digit – Not Orderable

T X C 0 2 4 C 4 H P C 0

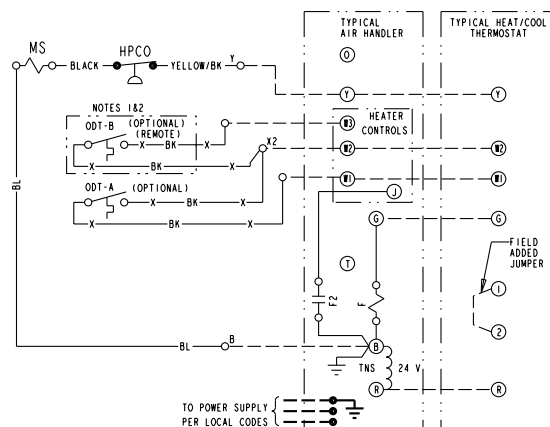
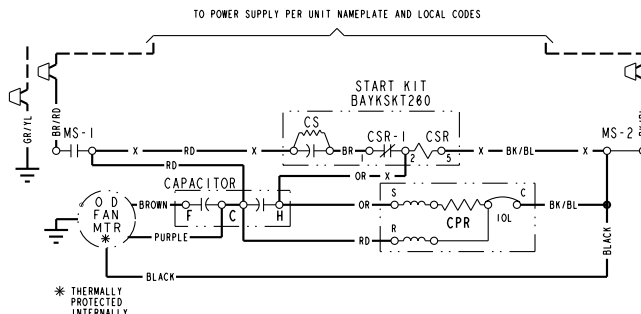
NOTE: There will be a phase-in of new model numbers for new air handlers over next 2 years.

*Shipped with R-22 FCCV

Typical Wiring

(SEE LEGEND)

4A7A4030,036 & 042B



NOTES:

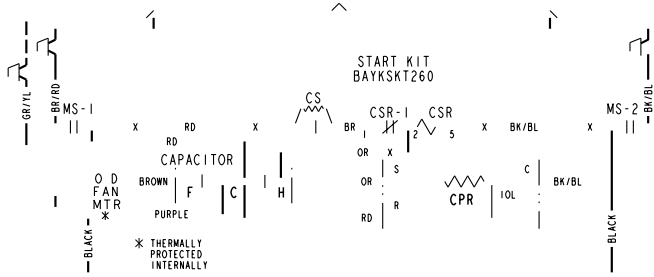
1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER.
IF USED, ODT-B MUST BE MOUNTED REMOTE CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

<p>⚠ WARNING</p> <p>HAZARDOUS VOLTAGE!</p> <p>DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.</p> <p>FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!</p>	<p>⚠ CAUTION</p> <p>USE COPPER CONDUCTORS ONLY!</p> <p>UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.</p> <p>FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!</p>
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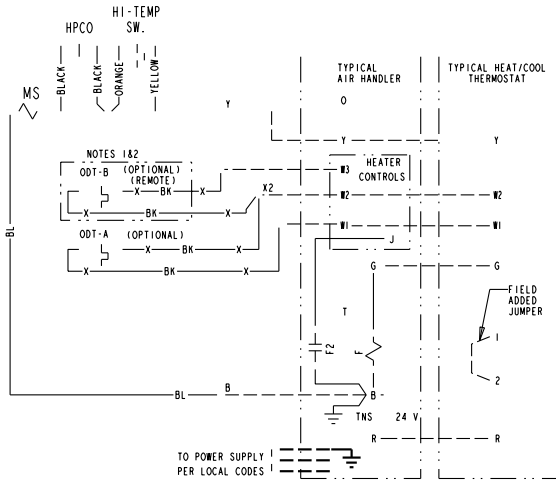
FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON
SYSTEMS EXCEEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX
INSTALLATIONS DE PLUS DE 150 V A
LA TERRE

4A7A4048B

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES



4A7A4060C
























Typical Wiring

SCHEMATIC DIAGRAMS

LEGEND

COLOR OF WIRE					
BK/BL	BLACK WIRE WITH BLUE MARKER				
COLOR OF MARKER					
BK	BLACK	OR	ORANGE	YL	YELLOW
BL	BLUE	RD	RED	GR	GREEN
BR	BROWN	WH	WHITE	PR	PURPLE

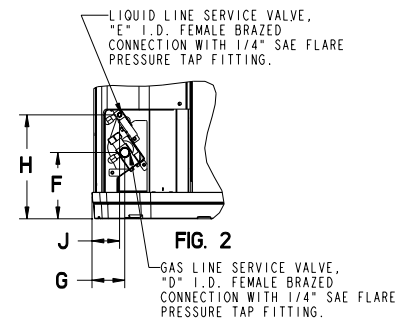
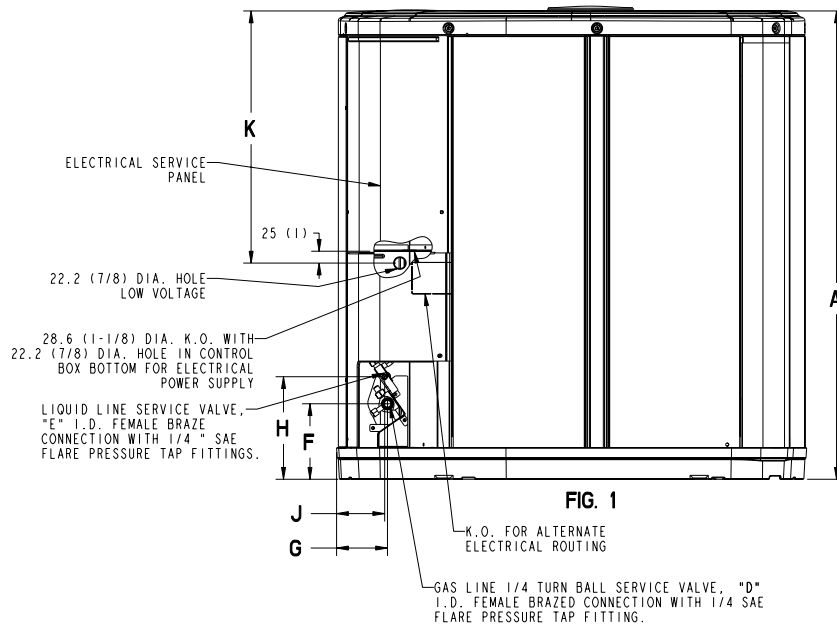
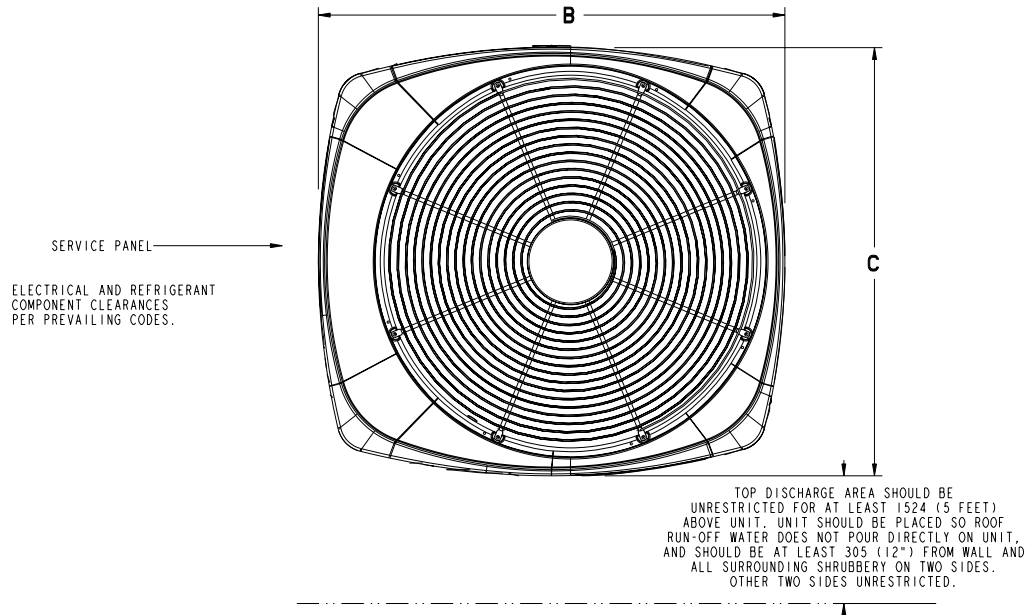
SYMBOLS

	24 V.	}	FACTORY WIRING
	LINE V.		
	24 V.	}	FIELD WIRING
	LINE V.		
	FIELD INSTALLED FACTORY WIRING		
	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		
	MOTOR WINDING		
	TERMINAL		

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	OFT	OUTDOOR FAN THERMOSTAT
CPR	COMPRESSOR	ODS	OUTDOOR TEMPERATURE SENSOR
CR	RUN CAPACITOR	ODT	OUTDOOR THERMOSTAT
CS	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

Dimensional Data

4A7A4 OUTLINE DRAWING NOTE: ALL DIMENSIONS ARE IN MM (INCHES).



MODELS	BASE	FIG.	A	B	C	D	E	F	G	H	J	K
4A7A4018C	3	1	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	1/2	1/4	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4A7A4024C	3	1	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	5/8	5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4A7A4030B	3	1	832 (32-3/4)	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)
4A7A4036B	3	1	933 (36-3/4)	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)
4A7A4042B	4	1	943 (37-1/8)	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)
4A7A4048B 4A7A4060C	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. 21D152862 Rev. 21

Mechanical Specifications

General

These 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 ARI certified. The unit shall be UL listed. 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 finish on all louvered panels. Corrosion and weatherproof CMBP-G30 DuraBase™ base.

Refrigerant Controls

Refrigeration system controls include condenser fan and compressor contactor. High and low pressure controls are inherent to the compressor. Unit also has high pressure switch. Another standard feature is the liquid line drier.

Compressor

The Duration™ compressor features internal over temperature and pressure protector, dipped hermetic motor and sump heater. Other features include: rotor lock suction and discharge refrigerant connections, centrifugal oil pump, and low vibration and noise. The Duration™ compressor features a 10-year limited warranty.

Condenser Coil

The Spine Fin™ coil shall be continuously wrapped, corrosion resistant all aluminum with minimum brazed joints. This coil is seamless aluminum glued to a continuous aluminum fin. Coils are lab tested to withstand 2,000 pounds of pressure per square inch.

Low Ambient Cooling

As shipped, 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 — Heat/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 to -10°F.

Since the manufacturer has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without notice.

Technical Literature - Printed in U.S.A.

American Standard Heating & Air Conditioning
Troup Highway
Tyler, TX 75711-9010