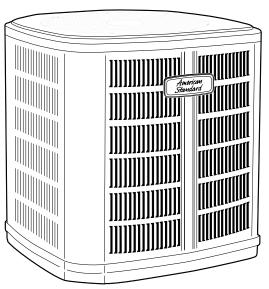


# **Product Data**

## **Split System Heat Pump**

4A6H5018H1000A 4A6H5019H1000A 4A6H5024H1000A 4A6H5030H1000A 4A6H5036H1000A 4A6H5042H1000A 4A6H5048H1000A



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





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## **Product Specifications**

Model No. (a) (b)	4A6H5018H1000A	4A6H5019H1000A	4A6H5024H1000A	4A6H5030H1000A
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	12	12	14	17
BR. CIR. PROT. RTG. — MAX. (AMPS)	20	20	25	25
COMPRESSOR	DURATION™- SCROLL	DURATION™- SCROLL	DURATION™- SCROLL	DURATION™- SCROLL
R.L. AMPS (d) — L.R. AMPS	9 — 56	9 — 56	10.9 — 62.9	12.8 — 67.8
Outdoor Fan FL AMPS	0.54	0.64	0.64	0.77
Fan HP	1/12	1/8	1/8	1/8
Fan Dia (inches)	19.1	23	23	27.5
Coil	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
Refrigerant R-410A <sup>(e)</sup>	6 LBS., 1 OZ	7 LBS., 4 OZ	7 LBS., 5 OZ	6 LBS., 13 OZ
LINE SIZE — IN. O.D. GAS (f) (g)	3/4	3/4	3/4	3/4
LINE SIZE — IN. O.D. LIQ. (h)	3/8	3/8	3/8	3/8
Charge Spec. Subcooling	10°F	8°F	8°F	8°F
Dimensions H x W X D Crated (IN.)	30.1 x 30 x 26.7	38 x 33 x 30.1	38 x 33 x 30.1	34.4 x 38.7 x 35.1
Weight — Shipping (lbs.)	161	196	208	248
Weight — Net (lbs.)	141	162	174	216
Optional Accessories:				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	NA	NA	NA	NA
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Extreme Condition Mount Kit	BAYECMT023	BAYECMT023	BAYECMT023	BAYECMT004
Start Kit	BAYKSKT263	_	_	BAYKSKT263
Crankcase Heater Kit	BAYCCHT302	BAYCCHT302	BAYCCHT302	BAYCCHT302
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM107	BAYLOAM107	BAYLOAM107	BAYLOAM107
Refrigerant Lineset (i)	TAYREFLN7*	TAYREFLN7*	TAYREFLN7*	TAYREFLN7*
Sound Enclosure	BAYSDEN003	BAYSDEN003	BAYSDEN003	BAYSDEN003
Service Valve Panel Cover	AAYSVPANL0022AA	AAYSVPANL3343AA	AAYSVPANL3343AA	AAYSVPANL0032AA

<sup>(</sup>a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.

<sup>(</sup>b) Rated in accordance with AHRI standard 270.

 $<sup>^{(</sup>c)}$  Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

<sup>(</sup>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.

<sup>(</sup>e) This value approximate. For more precise value see unit nameplate.

<sup>(</sup>f) 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).

<sup>(9)</sup> American Standard outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer's Guide for full charging instructions.

<sup>(</sup>h) This value approximate. For more precise value see unit nameplate.

<sup>(</sup>i) \* = 15, 20, 25, 30, 40 and 50 foot lineset available.



### **Product Specifications**

Model No. (a) (b)	4A6H5036H1000A	4A6H5042H1000A	4A6H5048H1000A	4A6H5060H1000A
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	18	22	24	32
BR. CIR. PROT. RTG. — MAX. (AMPS)	30	35	40	50
COMPRESSOR	DURATION™- SCROLL	DURATION™- SCROLL	DURATION™- SCROLL	DURATION™- SCROLI
R.L. AMPS (d) — L.R. AMPS	14.1 — 72.2	16.7—109	18.5— 124	23.7 — 152.5
Outdoor Fan FL AMPS	0.64	0.93	0.93	2.80
Fan HP	1/8	1/5	1/5	1/3
Fan Dia (inches)	27.5	26.6		27.6
Coil	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
Refrigerant R-410A <sup>(e)</sup>	8 LBS., 14 OZ	10 LBS., 5 OZ	10 LBS., 9 OZ	10 LBS., 9 OZ
LINE SIZE — IN. O.D. GAS (f) (g)	7/8	7/8	7/8	1-1/8
LINE SIZE — IN. O.D. LIQ. (h)	3/8	3/8	3/8	3/8
Charge Spec. Subcooling	10°F	8°F	8°F	8°F
Dimensions H x W X D Crated (IN.)	42 x 38.7 x 35.1	51 x 35.1 x 38.7	51 x 35.1 x 38.7	51 x 38.7 x 35.1
Weight — Shipping (lbs.)	246	277	300	328
Weight — Net (lbs.)	199	227	250	278
Optional Accessories:				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	NA	NA	NA	NA
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Extreme Condition Mount Kit	BAYECMT004	BAYECMT004	BAYECMT004	BAYECMT004
Start Kit	BAYKSKT263	BAYKSKT263	BAYKSKT263	BAYKSKT263
Crankcase Heater Kit	BAYCCHT302	BAYCCHT302	BAYCCHT302	BAYCCHT301
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM107	BAYLOAM107	BAYLOAM107	BAYLOAM103
Refrigerant Lineset (i)	TAYREFLN7*	TAYREFLN7*	TAYREFLN7*	TAYREFLN3*
Sound Enclosure	BAYSDEN003	BAYSDEN003	BAYSDEN003	BAYSDEN003
Service Valve Panel Cover	TAYSVPANL0044AA	TAYSVPANL0044AA	TAYSVPANL0044AA	TAYSVPANL0046AA

<sup>(</sup>a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.

<sup>(</sup>b) Rated in accordance with AHRI standard 270.

<sup>(</sup>c) Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

<sup>(</sup>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.

 $<sup>\</sup>ensuremath{^{(e)}}$  This value approximate. For more precise value see unit nameplate.

<sup>(</sup>f) 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).

<sup>(9)</sup> American Standard outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer's Guide for full charging instructions.

<sup>(</sup>h) This value approximate. For more precise value see unit nameplate.

<sup>(</sup>i) \* = 15, 20, 25, 30, 40 and 50 foot lineset available.

### **Sound Power Level**

#### **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
4A6H5018H1	73	72	66	64	66	71	64	56	47
4A6H5019H1	74	72	69	63	70	70	67	56	49
4A6H5024H1	71	77	72	68	68	69	60	53	47
4A6H5030H1	72	77	72	69	68	65	60	57	52
4A6H5036H1	70	75	69	68	68	66	62	57	51
4A6H5042H1	72	77	75	72	70	67	62	59	52
4A6H5048H1	72	77	75	72	70	67	62	59	52
4A6H5060H1	72	77	75	72	70	67	62	59	52

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.

**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.

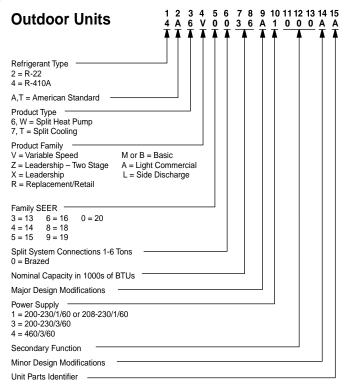
### **AHRI Standard Capacity Rating Conditions**

AHRI Standard 210/240 Rating Conditions

- 1. Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
- 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 determiend with the unit in cooling operations.) Standard Noise Rating number is at 95°F outdoor air.

### **Model Nomenclature**





## **Schematic Diagrams**

[PZ] T LEGEND ACR A/C RECTIFIER

CSS COIL BOTTOM SERSOR

CF FAM CAPACITOR

IN HIRE COMMETCOR

CPA COMPRESSOR

CF RUIL CAPACITOR

CS STARTING CAPACITOR

CS CAPACITOR SWITCHING RELAY

BICC LICENSEL CAPACITOR

CS CAPACITOR SWITCHING RELAY

BICC LICENSEL CAPACITOR

CS CAPACITOR

LICENSEL CAPACITOR

LICENSEL CAPACITOR

MICHORY CAPACITOR

COMPRESSOR MOTOR CONTACTOR

OUT DOOR ARTICIPATOR

OUT DOOR THE THANDOUT CAPACITOR

CS SWITCH DOWN PLANT SOLE COLD TO

IN SITTEM COMPT CAPACITOR

THAND STANDARD CAPACITOR

THAND STANDARD CAPACITOR

THANDARD CAPACITOR CAPACITOR

THANDARD CAPACITOR CAPACITOR

THANDARD CAPACITOR CAPACITOR

THANDARD CAPACITOR

TH 24 V FACTORY WIRING 24 V ) FIELD LINE V WIRING FIELD INSTALLED FACTORY WIRING MAGNETIC COIL GROUND JUNCTION CAPACITOR WIRE NUT OR TERMINAL JUNCTION
CAPACITOR
WIRE NUT OR
TERMINAL
TRANSFORMER FUSE C) HI OR TERMINAL BLOCK/BOARD RELAY CONTACT (N.O) RELAY CONTACT (N.C) ₩ THERMISTOR o5° TEMP ACTUATED SWITCH INTERNAL OVERLOAD PROTECTION LZQ PRESSURE ACTUATED SWITCH SEE SERVICE FACTS FOR OPTIONAL START KIT ACCESSORY RED OR ORANGE WHITE GR GREEN YELLOW PR PURPLE \_\_\_\_ RESISTER OR HEATING ELEMENT K3 OTTO MOTOR WINDING POL.PLUG FEMALE HOUSING  $\triangle$ POL. PLUG MALE HOUSING (FEMALE TERMINALS) DFC BOARD NOTES: CSR I. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. 2. POWER WIRING AND GROUNDING OF EQUIPMENT NUST COMPLY WITH  $\oplus$ 3. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR. GR 4. ODT-B MUST BE SET LOWER THAN ODT-A CS đ. Q. ODT-B (NOTE-4&5) BK 0 2 0BK-A WARNING ODT-A OPTIONAL HAZARDOUS VOLTAGE! LBK FOBK DISCONNECT ALL ELECTRICAL POWER
INCLUDING REMOTE DISCONNECTS
BEFORE SERVICING.
Failure to disconnect power
before servicing can cause severe
personal injury or death. <del>'</del> **∆**CAUTION USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED
TO ACCEPT OTHER TYPES OF CONDUCTORS. B C BL Failure to do so may cause damage to the equipment. FOR CANADIAN INSTALLATIONS SE SE Υ<u>Ι</u>Δ <sub>Υ</sub>ι. POUR INSTALLATIONS CANADIENNES CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND ATTENTION:NE CONVIENT PAS AUX TO POWER SUPPLY PER UNIT NAMEPLATES AND LOCAL CODES PRINTED FROM DI59478P01 REVA INSTALLATIONS DE PLUS DE 150 V A LA TERRE 

Figure 1. 018, 019, 030, 036, 042 & 048 Models



### **Schematic Diagrams**

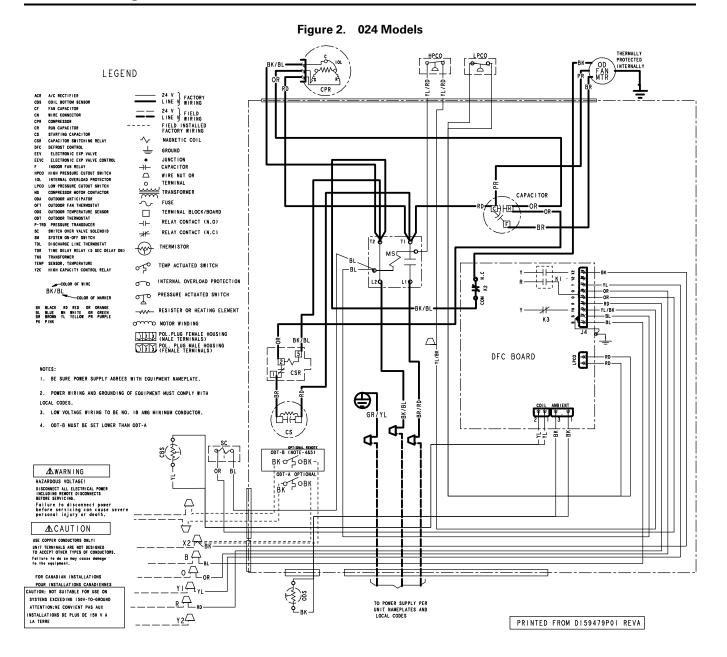


Figure 3. 060 Models #E0 LPCO\_ VARIABLE SPEED OD FAN MOTOR LEGEND 6vm/9 ACR A/C RECIFIER
COSS COIL BOTTOM SENSOR
CF FAM CAPACITOR
CW WIRE COMMETCER
CPR COMPETSOR
CPR COMPETSOR
CS STATING CAPACITOR
CS TARTING CAPACITOR
COMPETSOR
COMPETSOR 24 V LINE V FACTORY WIRING 24 V LINE V FIELD WIRING FIELD INSTALLED FACTORY WIRING MAGNETIC COIL ㅗ GROUND JUNCTION CAPACITOR WIRE NUT OR
TERMINAL
TRANSFORMER
FUSE WIRE NUT OR TERMINAL CR т н н э 🕽 TERMINAL BLOCK/BOARD RELAY CONTACT (N.O) RELAY CONTACT (N.C) **₩** THERMISTOR MS 050 TEMP ACTUATED SWITCH INTERNAL OVERLOAD PROTECTION PRESSURE ACTUATED SWITCH To BK BLACK RD RED OR ORANGE BL BLUE WH WHITE GR GREEN BR BROWN YL YELLOW PR PURPLE PK PINK SEE SERVICE FACTS FOR OPTIONAL START KIT ACCESSORY \_\_\_\_\_ RESISTER OR HEATING ELEMENT OMOTOR WINDING К3 POL.PLUG FEMALE HOUSING BK/BL BK/B  $\triangle$ POL. PLUG MALE HOUSING (FEMALE TERMINALS) DFC BOARD I. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. 2. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES. 3. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR. 4. ODT-B MUST BE SET LOWER THAN ODT-A CS đ 4 BK-0 20BK-1 ODT-A OPTIONAL **∆**WARNING BK 50BK HAZARDOUS VOLTAGE! MAZARDOUS VOLIAGE!

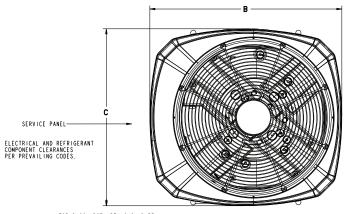
DISCONMECT ALL ELECTRICAL POWER
INCLUDING REMOTE DISCONMECTS

BEFORE SERVICING.

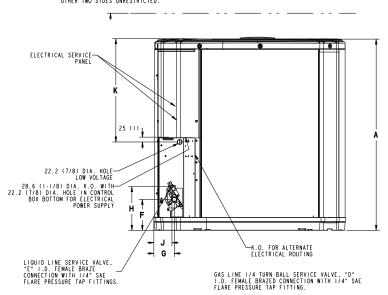
Failure to disconnect power
before servicing can cause severe
personal injury or death.  $\forall$ ALCAUTION. X2 ===== UNE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED
TO ACCEPT OTHER TYPES OF CONDUCTORS.
Failure to do so may cause damage
to the equipment. oΑ São BK. FOR CANADIAN INSTALLATIONS YLA YL POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON RA RD TO POWER SUPPLY PER UNIT NAMEPLATES AND LOCAL CODES SYSTEMS EXCEEDING 150V-TO-GROUND
ATTENTION: NE CONVIENT PAS AUX
INSTALLATIONS DE PLUS DE 150 V A
LA TERRE \_Y <u>2</u> PRINTED FROM DI58596P01



# **Outline Drawing**



TOP DISCHARGE AREA SHOULD BE
UNRESTRICTED FOR AT LEAST 1524 (5 FET)
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 MEMBEREY ON TWO SIDES.
OTHER TWO SIDES UNRESTRICTED.



Model	Base	Α	В	С	D	Е	F	G	Н	J	K
4A6H5018H	2	730 (28-3/4)	724 28-1/2)	651 (25-5/8)	3/4	3/8	127 (5)	57 (2-1/4)	194 (7-5/8)	38 (1-1/2)	457 (18)
4A6H5019H	3	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	3/8	127 (5)	76 (3)	197 (7-3/4)	60 (2-3/8)	508 (20)
4A6H5024H	3	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	3/8	127 (5)	76 (3)	197 (7-3/4)	60 (2-3/8)	508 (20)
4A6H5030H	4	741 (29-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	143 (5-5/8)	83 (3-1/4)	206 (8-1/8)	70 (2-3/4)	508 (20)
4A6H5036H	4	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	143 (5-5/8)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A6H5042H	4	1147 (45-1/8)	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)	813 (32)
4A6H5048H	4	1147 (45-1/8)	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)	813 (32)
4A6H5060H	4	1147 (45-1/8)	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)	813 (32)



## **Mechanical Specification Options**

#### General

The Outdoor Units are 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 is certified to UL 1995. 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 aluminum plate fin, copper tube outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected with a corrosion resistant mesh coil guard.

### 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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