

*MULTI-POSITION, VARIABLE-SPEED,
 ECM-BASED AIR HANDLER WITH IN-
 TERNAL EEV, COMMUNICATING FOR
 S-SERIES MATCHUPS
 1½ TO 5 TONS*



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Product Features

- Electronic Expansion Valve (EEV) for cooling and heat pump applications.
- 7mm evaporator coil tube size
- Variable-speed ECM blower motor
- Compatible with Amana® brand smart thermostat
- Provides constant CFM over a wide range of static pressure conditions independent of duct system
- CFM indicator
- Thermostat provides adjustable low-CFM for efficient fan-only operation
- All-aluminum evaporator coil
- Fault recall of six most recent faults
- Improved humidity and comfort control
- AHRI certified; ETL listed
- Coil mounting track for quick repositioning
- Rigid SmartFrame™ cabinet

Cabinet Features

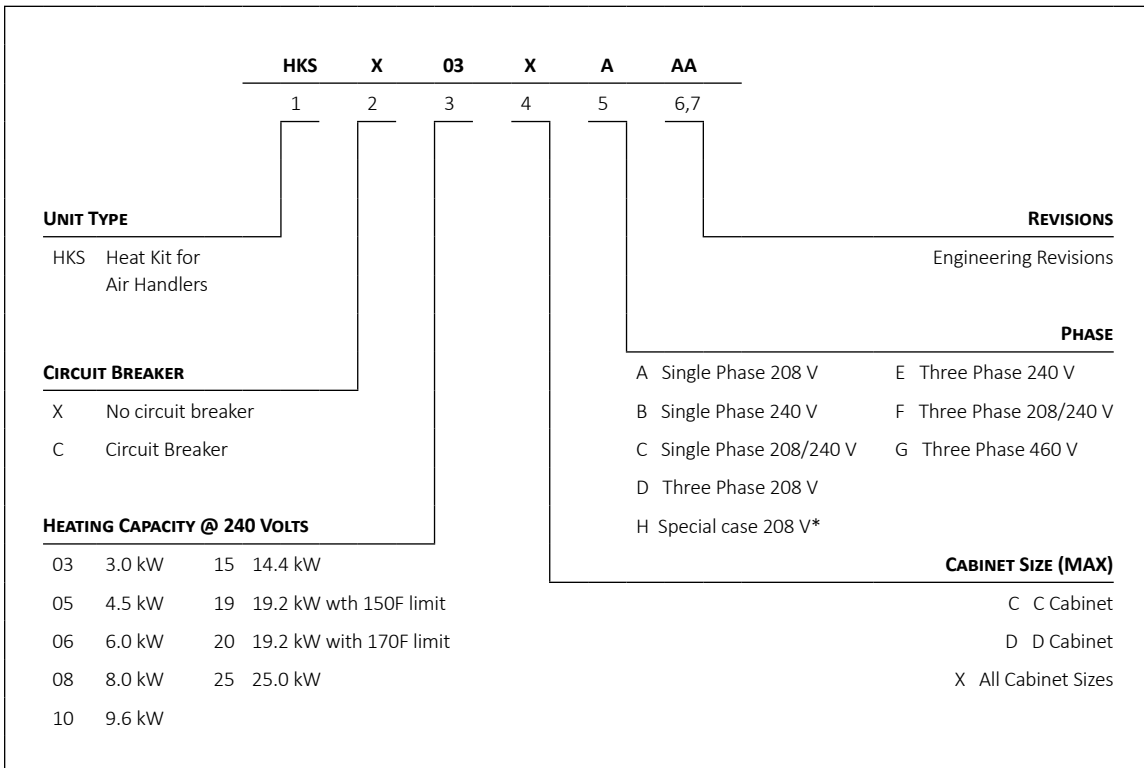
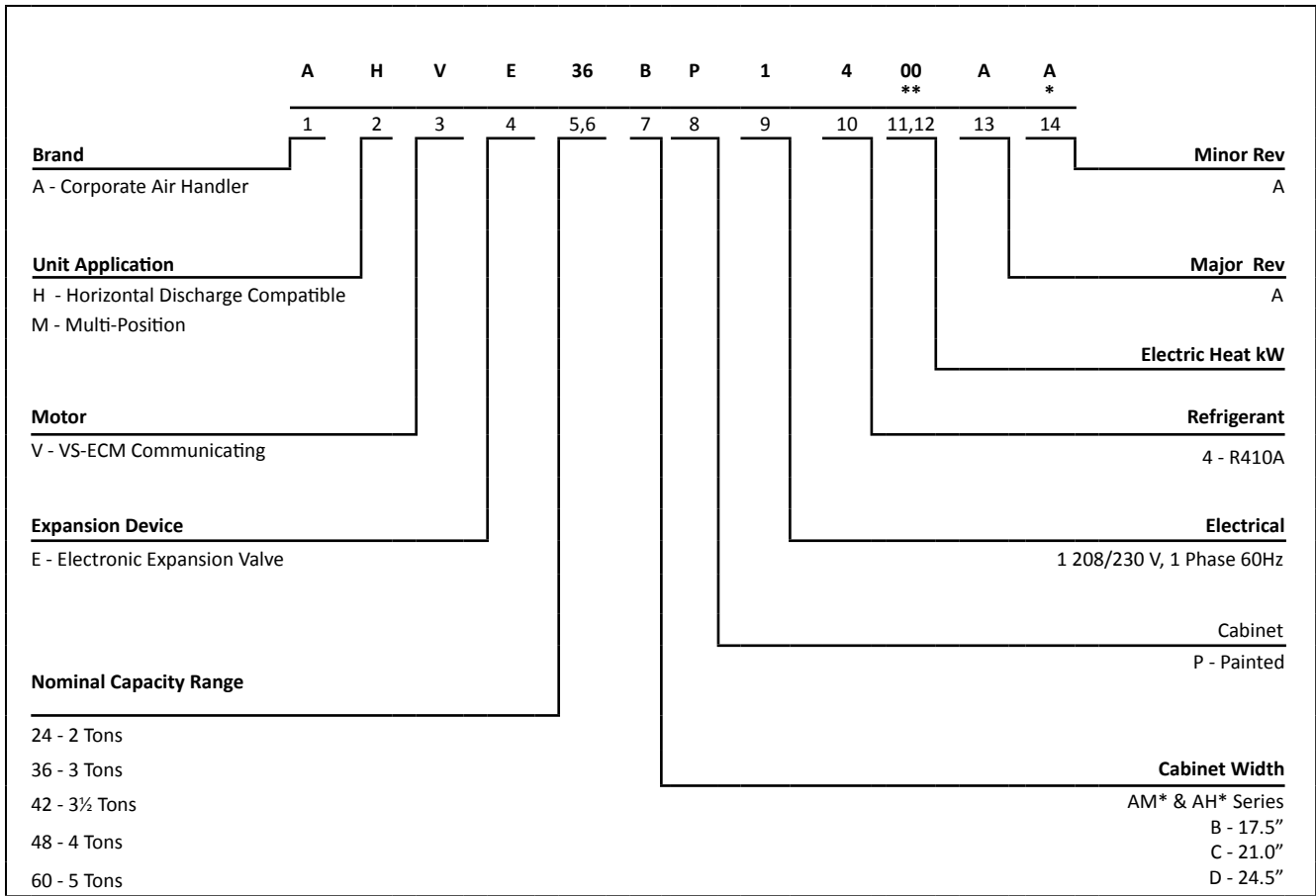
- Cabinet air leakage less than 2.0% at 1.0 inch H₂O when tested in accordance with ASHRAE standard 193
- Cabinet air leakage less than 1.4% at 0.5 inch H₂O when tested in accordance with ASHRAE standard 193
- Horizontal or vertical configuration capabilities
- 21" depth for easier attic access
- DecaBDE-free thermoplastic drain pan with secondary drain connections
- Screw-less sides and back helps to reduce condensation when installed in humid locations
- Foil-faced insulation covers the internal casing to reduce cabinet condensation
- Galvanized, leather grain-embossed finish
- Glue-less cabinet insulation retention
- Tool-less filter access



COMPANY WITH
 QUALITY SYSTEM
 CERTIFIED BY DNV GL
 = ISO 9001=

COMPANY WITH
 ENVIRONMENTAL SYSTEM
 CERTIFIED BY DNV GL
 = ISO 14001=

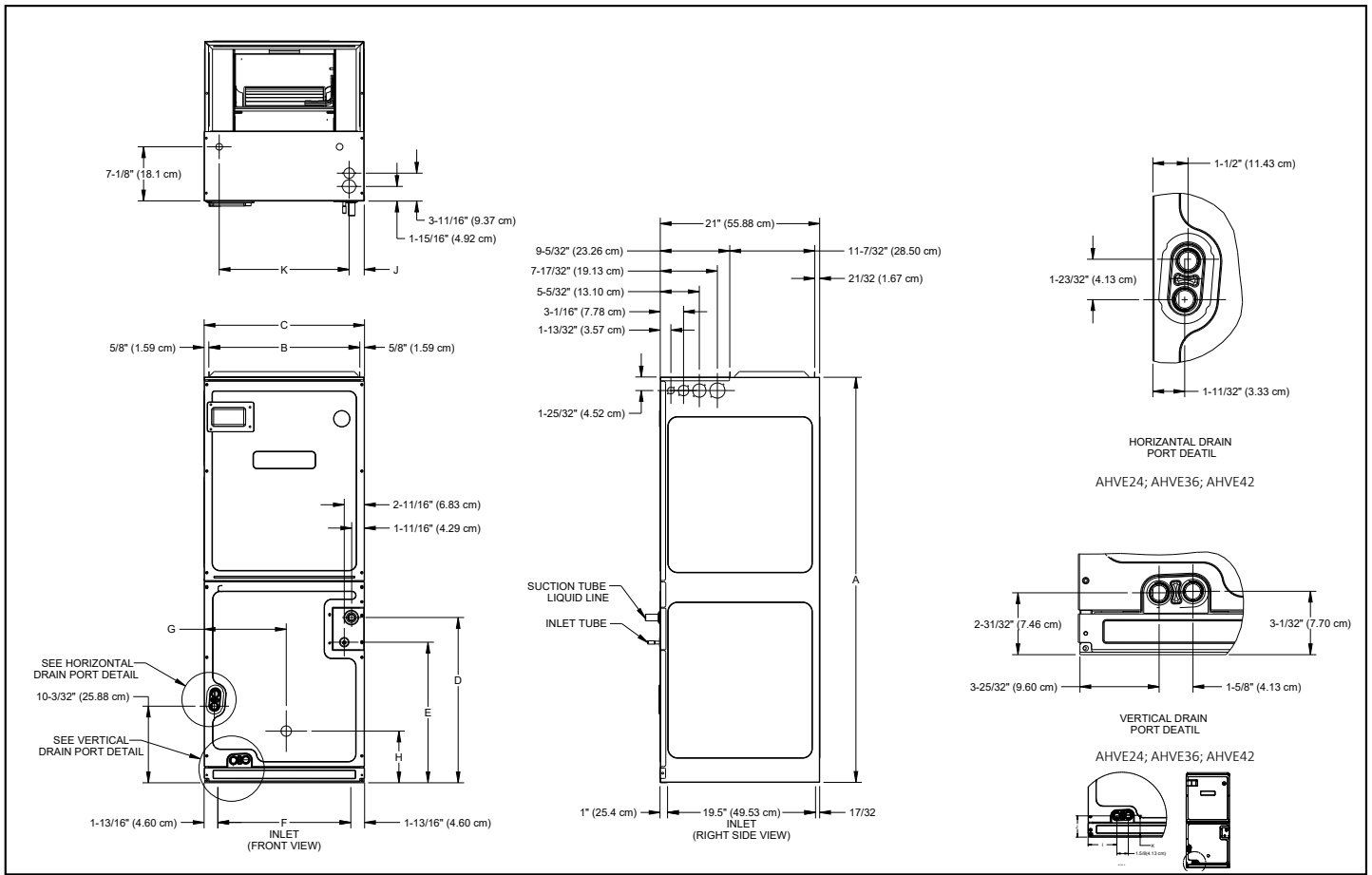
* Complete warranty details available from your local dealer or at www.amana-hac.com To receive the 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.



*Refer S&R Plate

	AHVE24BP1400	AHVE36CP1400	AHVE42CP1400	AHVE48DP1400	AHVE60DP1400
NOMINAL TONS	2.0Ton	3.0Ton	3.5Ton	4.0Ton	5.0Ton
Blower					
Diameter	9½"	10⅝"	10⅝"	12"	12"
Width	6"	10⅝"	10⅝"	10⅝"	10⅝"
TUBING CONNECTION					
Liquid - Refrigerant	⅜"	⅜"	⅜"	⅜"	⅜"
Suction - Refrigerant	¾"	⅞"	⅞"	⅞"	⅞"
Coil Drain Connection (NPT)	¾"	¾"	¾"	¾"	¾"
ELECTRICAL DATA					
Voltage - Phase	208/230-1	208/230-1	208/230-1	208/230-1	208/230-1
Min Circuit Ampacity	4.9/4.9	6.5/6.5	6.5/6.5	6.5/6.5	6.5/6.5
Max. Overcurrent Device (amps)	15/15	15/15	15/15	15/15	15/15
Minimum VAC	197	197	197	197	197
Maximum VAC	253	253	253	253	253
BLOWER MOTOR					
FLA	3.9	5.2	5.2	5.2	5.2
HP	½	¾	¾	¾	¾
SHIP WEIGHT (LBS)	115	140	140	150	167

DIMENSIONS



MODEL	A	B	C	D	E	F	G	H	I	J	K
AHVE24BP1400	45	16 ³ / ₈	17 ¹ / ₂	15 ⁵ / ₈	12	14 ⁵ / ₈	9	12 ³ / ₄	3 ¹³ / ₁₆	2 ⁷ / ₈	2 15/16
AHVE36CP1400	53 ⁷ / ₁₆	19 ⁵ / ₈	21	21 ¹³ / ₁₆	18 ⁵ / ₈	17 ¹¹ / ₁₆	10 ¹³ / ₁₆	6 ¹³ / ₁₆	3 ¹³ / ₁₆	2 ⁷ / ₈	2 15/16
AHVE42CP1400	53 ⁷ / ₁₆	19 ⁵ / ₈	21	21 ¹³ / ₁₆	18 ⁵ / ₈	17 ¹¹ / ₁₆	10 ¹³ / ₁₆	6 ¹³ / ₁₆	3 ¹³ / ₁₆	2 ⁷ / ₈	2 15/16
AHVE48DP1400	53 ⁷ / ₁₆	23 ⁵ / ₁₆	24 ¹ / ₂	21 ¹ / ₂	18 ⁵ / ₁₆	21 ³ / ₁₆	12 ⁵ / ₈	6 ⁷ / ₈	4	3	3 3/32
AHVE60DP1400	58	23 ⁵ / ₁₆	24 ¹ / ₂	26 ⁵ / ₈	22 ⁷ / ₈	21 ³ / ₁₆	12 ⁵ / ₁₆	13 ³ / ₄	4	3	3 3/32

RATED INDOOR AIRFLOW RATE [SCFM]

		STATIC PRESSURE [wc]									
ID unit	OD unit	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
AHVE24BP1400	ASZS601810*/ ASXS6*1810*	610	610	610	610	610	610	610	610	610	
	ASZS602410*/ ASXS6*2410*	800	800	800	800	800	800	800	800	800	
AHVE36CP1400	ASZS603010*/ ASXS6*3010*	1010	1010	1010	1010	1010	1010	1010	1010	1010	
	ASZS603610*/ ASXS6S3610*	1260	1260	1260	1260	1260	1260	1260	1260	1260	
AHVE42CP1400	ASZS603610*/ ASXS6*3610*	1260	1260	1260	1260	1260	1260	1260	1260	1260	
	ASZS604210*/ ASXS6S4210*	1320	1320	1320	1320	1320	1320	1320	1320	1320	
AHVE48DP1400	ASZS604210*/ ASXS6S4210*	1320	1320	1320	1320	1320	1320	1320	1320	1320	
	ASZS604810*/ ASXS6S4810*	1380	1380	1380	1380	1380	1380	1380	1380	1380	
AHVE60DP1400	ASZS604210*/ ASXS6S4210*	1320	1320	1320	1320	1320	1320	1320	1320	1320	
	ASZS604810*/ ASXS6S4810*	1380	1380	1380	1380	1380	1380	1380	1380	1380	
	ASZS606010*/ ASXS6S6010*	1640	1640	1640	1640	1640	1640	1640	1640	1640	

*The chart is for information only. For satisfactory operation, external static pressure must not exceed 0.5 wc.
 *Unit may provide different SCFM during electrical heater operation. See IO manual for the airflow rate.

HEAT KIT DATA

MODEL	CIRCUIT 1			CIRCUIT 2			SINGLE-POINT KIT	
	AMPS	MCA ¹	MOP ²	AMPS	MCA ¹	MOP ²	MCA ¹	MOP ²
AHVE24BP1400	0.0/0.0	4.9/4.9	15/15	---	---	---	---	---
HKS*03XC** (208V/240V)	10.8/12.5	18/21	20/25	---	---	---	---	---
HKS*05XC** (208V/240V)	17.3/20	27/29.9	30/30	---	---	---	---	---
HKS*06XC** (208V/240V)	21.7/25	32/36	35/40	---	---	---	---	---
HKS*08XC** (208V/240V)	28.9/33.3	41/47	45/50	---	---	---	---	---
HKS*10XC** (208V/240V)	34.7/40	48/55	50/60	---	---	---	---	---
AHVE36CP1400	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKS*05XC** (208V/240V)	17.3/20	28/32	30/35	---	---	---	---	---
HKS*06XC** (208V/240V)	21.7/25	34/38	35/40	---	---	---	---	---
HKS*08XC** (208V/240V)	28.9/33.3	43/48	45/50	---	---	---	---	---
HKS*10XC** (208V/240V)	34.7/40	50/57	50/60	---	---	---	---	---
HKS*15XF** (208V/240V)^	0.0/0.0	6.5/6.5	15/15	30/34.6	38/43	40/45	---	---
HKSC15XA** (208V)	34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC15XB** (240V)	40	56.5	60	20	25	25	81.5	90
HKSC19CA** (208V)	34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC19CB** (240V)	40	56.5	60	40	50	50	107	110
AHVE42CP1400	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKS*05XC** (208V/240V)	17.3/20	28/32	30/35	---	---	---	---	---
HKS*06XC** (208V/240V)	21.7/25	34/38	35/40	---	---	---	---	---
HKS*08XC** (208V/240V)	28.9/33.3	43/48	45/50	---	---	---	---	---
HKS*10XC** (208V/240V)	34.7/40	50/57	50/60	---	---	---	---	---
HKS*15XF** (208V/240V)^	0.0/0.0	6.5/6.5	15/15	30/34.6	38/43	40/45	---	---
HKSC15XA** (208V)	34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC15XB** (240V)	40	56.5	60	20	25	25	81.5	90
HKSC19CA** (208V)	34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC19CB** (240V)	40	56.5	60	40	50	50	107	110
AHVE48DP1400	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKS*05XC** (208V/240V)	17.3/20	28/32	30/35	---	---	---	---	---
HKS*06XC** (208V/240V)	21.7/25	34/38	35/40	---	---	---	---	---
HKS*08XC** (208V/240V)	28.9/33.3	43/48	45/50	---	---	---	---	---
HKS*10XC** (208V/240V)	34.7/40	50/57	50/60	---	---	---	---	---
HKS*15XF** (208V/240V)^	0.0/0.0	6.5/6.5	15/15	30/34.6	38/43	40/45	---	---
HKSC15XB** (208V3/240V)	34.7/40	49.8/56.5	50/60	17.3/20	21.7/25	25/25	71.5/81.5	80/90
HKSC20DH** (208V)	34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC20DB** (240V)	40	56.5	60	40	50	50	107	110
HKS*20XF** (208V/240V)^	0.0/0.0	6.5/6.5	15/15	37.5/43.3	47/54	50/60	---	---

See notes on page 6.

MODEL	CIRCUIT 1			CIRCUIT 2			SINGLE-POINT KIT	
	AMPS	MCA ¹	MOP ²	AMPS	MCA ¹	MOP ²	MCA ¹	MOP ²
AHVE60DP1400	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKS*05XC** (208V/240V)	17.3/20	28/31.5	30/35	---	---	---	---	---
HKS*06XC** (208V/240V)	21.7/25	34/37.8	35/40	---	---	---	---	---
HKS*08XC** (208V/240V)	28.9/33.3	43/48.2	45/50	---	---	---	---	---
HKS*10XC** (208V/240V)	34.7/40	49.8/57	50/60	---	---	---	---	---
HKSC15XB** (208V3/240V)	34.7/40	49.8/56.5	50/60	17.3/20	21.7/25	25/25	71.5/81.5	80/90
HKSC20DH** (208V)	34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC20DB** (240V)	40	56.5	60	40	50	50	107	110
HKSC25DA** (208V)	52	71.5	80	35	43.3	45	115	125
HKSC25DB** (240V)	60	81.5	90	40	50	50	132	150

¹ Minimum Circuit Ampacity (Heater Amps + Motor Amps) X 1.25

² Maximum Overcurrent Protection = 2.25 X Motor Amps + Heater Amps

³ Notation is correct as XB because technically the 240V heater kit application can be used here without any issues.

[^] Three-phase Heater Kits (Circuit 1: Single-phase for Air Handlers Circuit 2: Three-phase for Heater Kits)

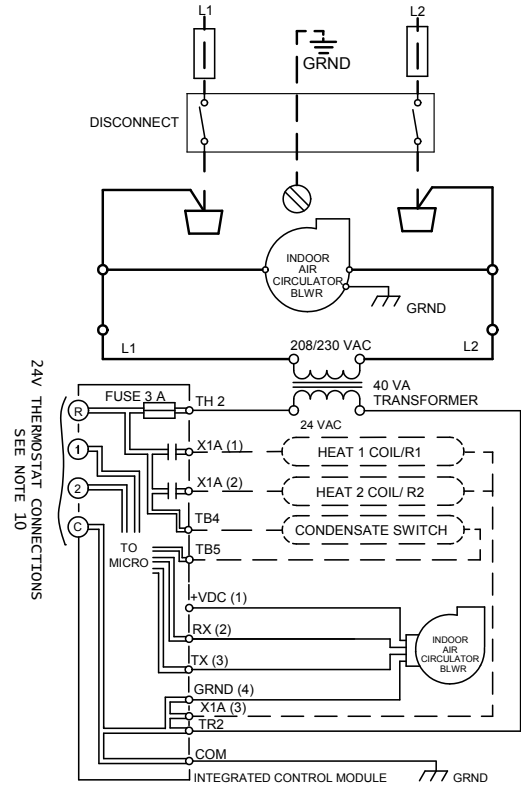
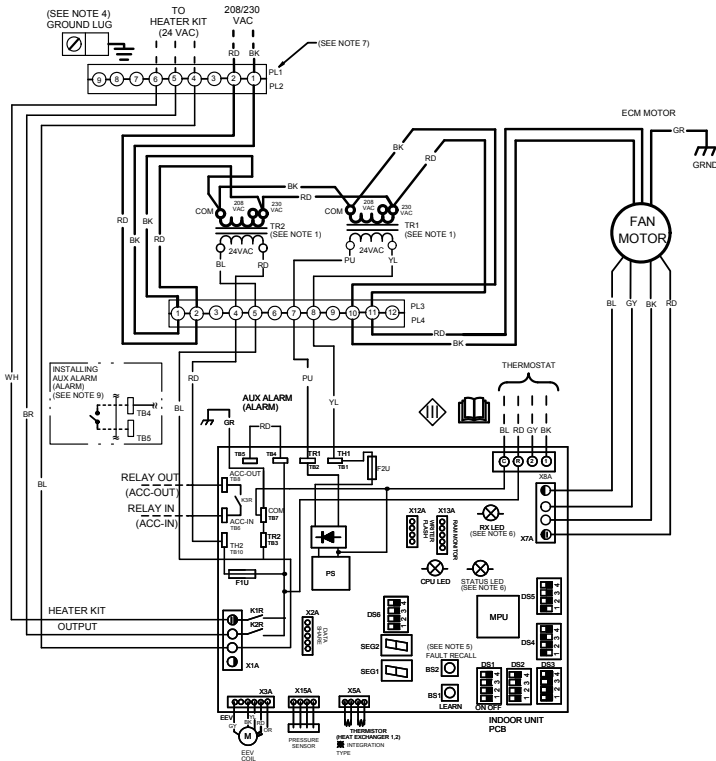
--- indicates Not Required

Note: The 208 or 240 in the heat kit part number field is for clarification of the nominal voltage for this model.

HEATING KW CORRECTION FACTOR

SUPPLY VOLTAGE	240	230	220	210	208
CORRECTION FACTOR	1.00	0.92	0.84	0.77	0.75

Multiply the 240-volt heating capacity by correction factors.



- NOTES:
1. PLACE RED WIRES ON 208 V TERMINAL OF TRANSFORMER (TR1/TR2) FOR 208 VAC OPERATION.
 2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
 3. IF ANY OF THE ORIGINAL WIRES AS SUPPLIED WITH THIS UNIT MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C. USE COPPER CONDUCTORS ONLY.
 4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C AND LOCAL CODES.
 5. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS FAULT RECALL BUTTON FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUTS)
 6. RED STATUS LED PROVIDES NETWORK STATUS. GREEN RX LED INDICATES NETWORK TRAFFIC. USE LEARN BUTTON TO RESET NETWORK.
 7. DISCARD CONNECTOR PL1 WHEN INSTALLING OPTIONAL HEAT KIT.
 8. THE POSITION OF SELECTOR SWITCHES (DS1 - DS6) INDICATE FACTORY SETTING.
 9. REMOVE SHORT RED CIRCUITING WIRE AND PUT AUX ALARM SWITCH WHEN INSTALLING AUX ALARM SWITCH.
 10. USE N.E.C CLASS 2 WIRE

INTEGRATED CONTROL:

LOW VOLTAGE	—
LOW VOLTAGE FIELD	— —
HIGH VOLTAGE	— — —
HIGH VOLTAGE FIELD	— — — —
JUNCTION	⬤
TERMINAL	○
INTERNAL TO	≡
RESISTOR	⊎
OVERCURRENT PROT. DEVICE	⊎
PLUG CONNECTION	⊎
EQUIPMENT GND	⏏
FIELD GROUND	⏏
DIP SWITCH(OFF)	⏏
ON	⏏
OFF	⏏
READ THE INSTRUCTIONS	⏏
FIELD SPLICE	⏏

COLOR CODES:

BL - BLUE
RD - RED
YL - YELLOW
OR - ORANGE
BK - BLACK
GY - GREY
BR - BROWN
GR - GREEN
PU - PURPLE
WH - WHITE

COMPONENT CODES:

PL1, PL2	—	POWER/HEATER CONNECTOR
DS1 - DS6	—	SELECTOR SWITCH
TL	—	THERMAL LIMIT
TR	—	TRANSFORMER
F1U, F2U	—	FUSE LINK
PL3, PL4	—	TRANSFORMER CONNECTOR



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

	WARNING	<p>High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.</p>	
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DOWNFLOW KITS

DFKE-02
AHVE24BP1400
AHVE36CP1400
AHVE42CP1400
AHVE48DP1400
AHVE60DP1400

PERMANENT 1" FILTERS

CHASSIS	PART#	SIZE
B	ALFH16201E	16.0" x 20.0"
C	ALFH1912201E	19.5" x 20.0"
D	ALFH20231E	23.0" x 20.0"

SINGLE POINT KIT **

MODEL	HKR-15C	HKR-20C	HKR-21C
SPW-01			

** Must be installed along with any of the above compatible heat kits. This kit will fit any AHVE air handler as long as a compatible heat kit is installed in the unit.

15" SINGLE LAMP UV COIL PURIFIER

MODEL	LAMP	POWER MOD	REM CORD
UC18S15-24	UCP-16013	UCP-16015	UCP-16016
UC18S15-24B	UCP-16012	UCP-16014	UCP-16016

** Must be installed along with any of the above compatible heat kits. This kit will fit any AVPEC air handler as long as a compatible heat kit is installed in the unit.

CONDENSATE MANAGEMENT KITS*

CMK0015	CMK0016	CMK0017
AHVE24BP1400	AHVE36CP1400	AHVE60DP1400
	AHVE42CP1400	
	AHVE48DP1400	

*For Horizontal application only.

HIGH HUMIDITY KITS

HHK0001	HHK0002	HHK0003
AHVE24BP1400	AHVE36CP1400	AHVE60DP1400
	AHVE42CP1400	AHVE48DP1400

DRAIN PORT PLUG

KIT NUMBER	DESCRIPTION	APPLICATION
DPK1	Side Drain Port Plug	All Models

