

*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
- UL 60335 2-40 Compliant
- Factory installed R-32 sensor designed for the lifespan of the coil
- Optimized for use with R-32 refrigerant
- Rigid SmartFrame™ cabinet

**Cabinet Features**

- Cabinet air leakage less than 2.0% at 1.0 inch H<sub>2</sub>O when tested in accordance with ASHRAE standard 193
- Cabinet air leakage less than 1.4% at 0.5 inch H<sub>2</sub>O when tested in accordance with ASHRAE standard 193
- Field Installed 3kW- 25kW electric heater kit available
- 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

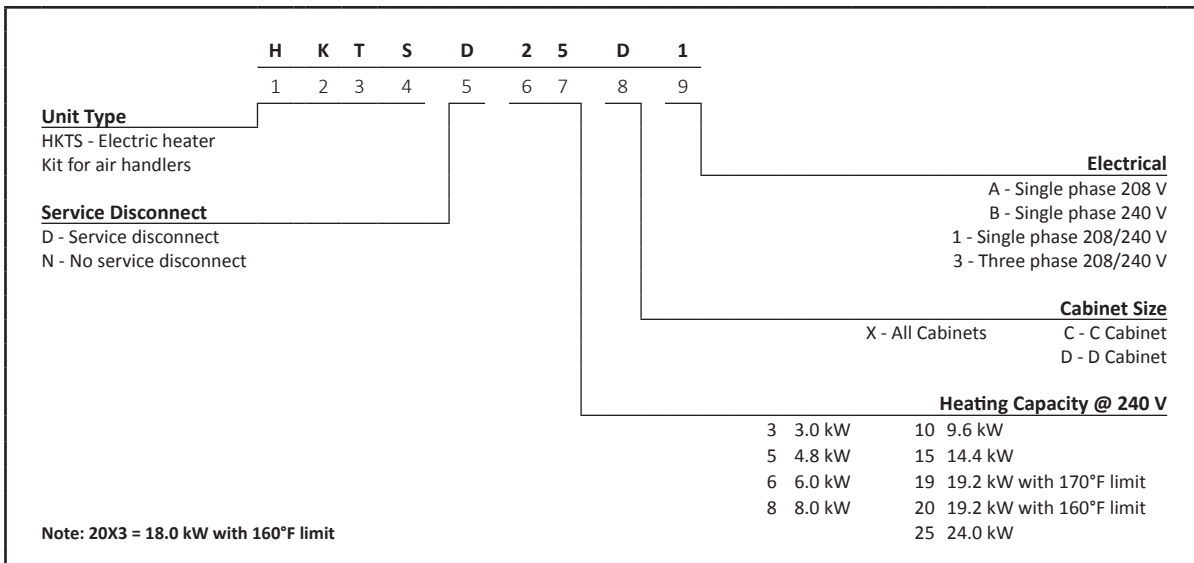
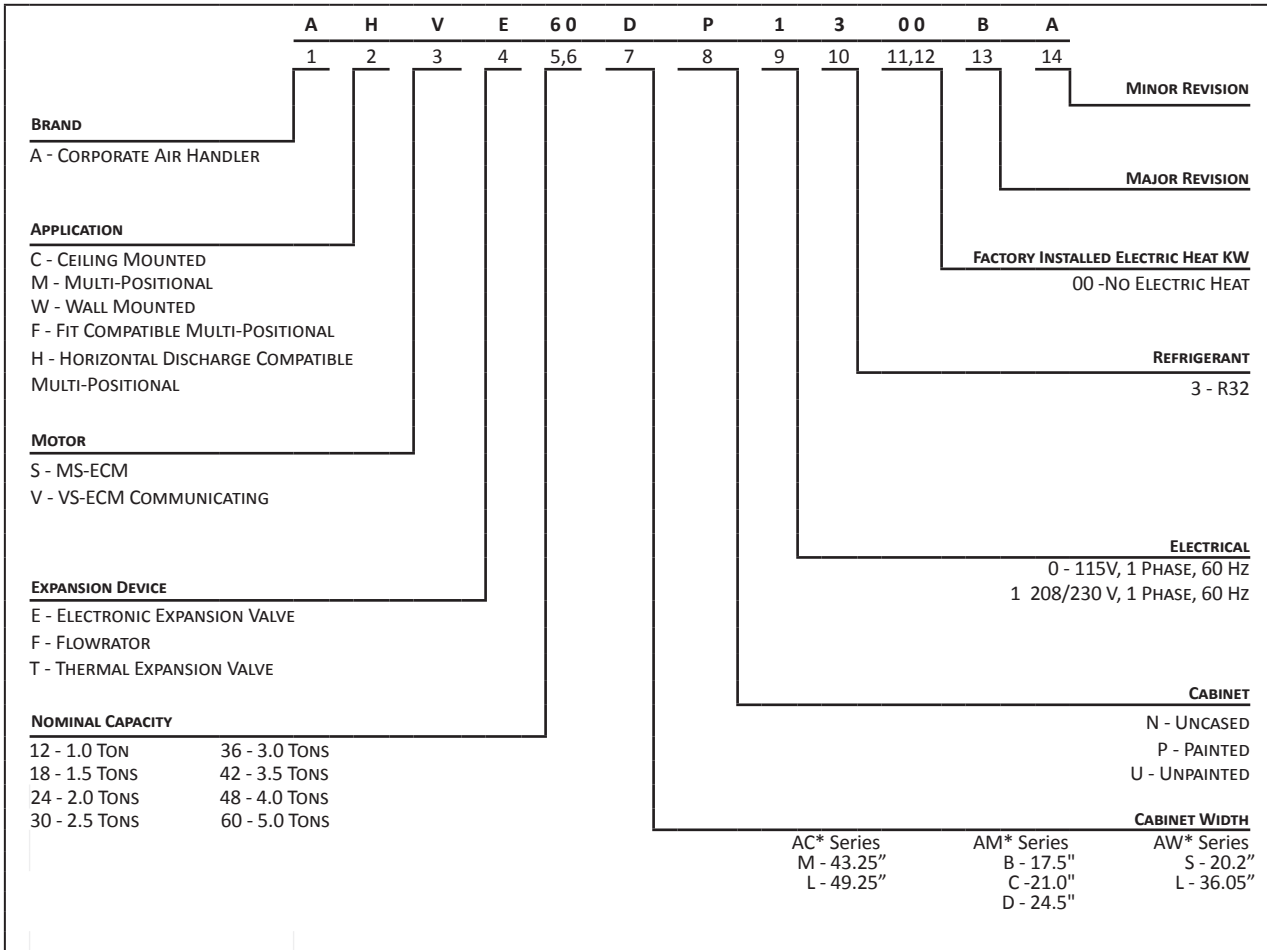


COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

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

\* Complete warranty details available from your local dealer or at [www.amana-hac.com](http://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. The duration of warranty coverage in Texas and Florida differs in some cases.

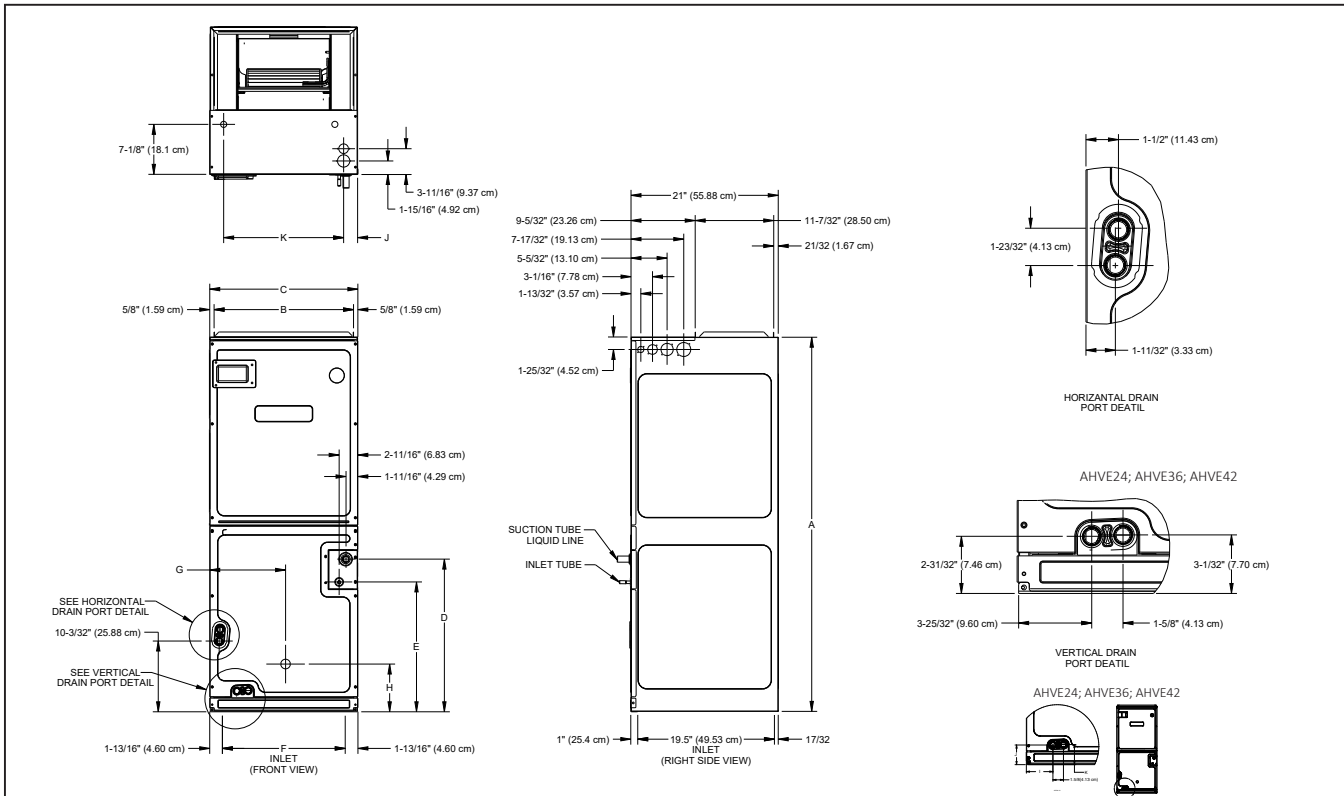
NOMENCLATURE



\*Refer S&R Plate

	AHVE24 BP1300	AHVE36 CP1300	AHVE42 CP1300	AHVE48 CP1300	AHVE48 DP1300	AHVE60 DP1300
<b>NOMINAL TONS</b>	2.0Ton	3.0Ton	3.5Ton	4.0Ton	4.0Ton	5.0Ton
Blower						
Diameter	9½"	10⅝"	10⅝"	12"	12"	12"
Width	6"	10⅝"	10⅝"	10⅝"	10⅝"	10⅝"
<b>TUBING CONNECTION</b>						
Liquid - Refrigerant	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction - Refrigerant	¾"	⅞"	⅞"	⅞"	⅞"	⅞"
Coil Drain Connection (NPT)	¾"	¾"	¾"	¾"	¾"	¾"
<b>ELECTRICAL DATA</b>						
Voltage - Phase	208/230-1	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	6.8/6.5
Max. Overcurrent Device (amps)	15/15	15/15	15/15	15/15	15/15	15/15
Minimum VAC	197	197	197	197	197	197
Maximum VAC	253	253	253	253	253	253
<b>BLOWER MOTOR</b>						
FLA	3.9	5.2	5.2	5.2	5.2	6.9
HP	½	¾	¾	¾	¾	1
<b>SHIP WEIGHT (LBS)</b>	115	140	140	148	150	167

**DIMENSIONS**



MODEL	A	B	C	D	E	F	G	H	I	J	K
AHVE24BP1300	45	16 <sup>3</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>2</sub>	15 <sup>5</sup> / <sub>8</sub>	12	14 <sup>1</sup> / <sub>8</sub>	9	12 <sup>3</sup> / <sub>4</sub>	3 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>
AHVE36CP1300	53 <sup>7</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>8</sub>	21	21 <sup>13</sup> / <sub>16</sub>	18 <sup>5</sup> / <sub>8</sub>	17 <sup>11</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>
AHVE42CP1300	53 <sup>7</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>8</sub>	21	21 <sup>13</sup> / <sub>16</sub>	18 <sup>5</sup> / <sub>8</sub>	17 <sup>11</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>
AHVE48CP1300	58	19 <sup>13</sup> / <sub>16</sub>	21	26 <sup>3</sup> / <sub>16</sub>	22 <sup>15</sup> / <sub>16</sub>	14 <sup>10</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	2	17 <sup>1</sup> / <sub>8</sub>
AHVE48DP1300	53 <sup>7</sup> / <sub>16</sub>	23 <sup>5</sup> / <sub>16</sub>	24 <sup>1</sup> / <sub>2</sub>	21 <sup>1</sup> / <sub>2</sub>	18 <sup>5</sup> / <sub>16</sub>	21 <sup>3</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4	3	3 <sup>3</sup> / <sub>32</sub>
AHVE60DP1300	58	23 <sup>5</sup> / <sub>16</sub>	24 <sup>1</sup> / <sub>2</sub>	26 <sup>5</sup> / <sub>8</sub>	22 <sup>7</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	4	3	3 <sup>3</sup> / <sub>32</sub>

## RATED INDOOR AIRFLOW RATE [SCFM]

ID UNIT	OD UNIT	STATIC PRESSURE [wc]								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
AHVE24BP1300	AXV6SS1810A*/GXV6SS1810A* AXV6SA1810A*/GXV6SA1810A* AZV6SA1810A*/GZV6SA1810A*	610	610	610	610	610	610	610	610	610
	AXV6SS2410A*/GXV6SS2410A* AXV6SA2410A*/GXV6SA2410A* AZV6SA2410A*/GZV6SA2410A*	800	800	800	800	800	800	800	800	800
AHVE36CP1300	AXV6SS2410A*/GXV6SS2410A* AXV9SA2410A*/GXV9SA2410A* AXV6SA2410A*/GXV6SA2410A* AZV7SA2410A*/GZV7SA2410A*	800	800	800	800	800	800	800	800	800
	AXV6SS3010A*/GXV6SS3010A* AXV6SA3010A*/GXV6SA3010A* AZV6SA3010A*/GZV6SA3010A*	1010	1010	1010	1010	1010	1010	1010	1010	1010
	AXV6SS3610A*/GXV6SS3610A* AZV6SA3610A*/GZV6SA3610A*	1260	1260	1260	1260	1260	1260	1260	1260	1260
AHVE42CP1300	AXV6SS3610A*/GXV6SS3610A* AXV9SA3610A*/GXV9SA3610A* AXV6SA3610A*/GXV6SA3610A* AZV6SA3610A*/GZV6SA3610A* AZV7SA3610A*/GZV7SA3610A*	1260	1260	1260	1260	1260	1260	1260	1260	1260
	AXV6SS4210A*/GXV6SS4210A* AZV6SA4210A*/GZV6SA4210A*	1320	1320	1320	1320	1320	1320	1320	1320	1320
AHVE48CP1300	AXV9SA3610A*/GXV9SA3610A* AZV7SA3610A*/GZV7SA3610A*	1260	1260	1260	1260	1260	1260	1260	1260	1260
	AXV6SS4210A*/GXV6SS4210A* AZV6SA4210A*/GZV6SA4210A*	1320	1320	1320	1320	1320	1320	1320	1320	1320
	AXV6SS4810A*/GXV6SS4810A* AZV6SA4810A*/GZV6SA4810A*	1380	1380	1380	1380	1380	1380	1380	1380	1380
AHVE48DP1300	AXV9SA3610A*/GXV9SA3610A* AZV7SA3610A*/GZV7SA3610A*	1260	1260	1260	1260	1260	1260	1260	1260	1260
	AXV6SS4210A*/GXV6SS4210A* AZV6SA4210A*/GZV6SA4210A*	1320	1320	1320	1320	1320	1320	1320	1320	1320
	AXV6SS4810A*/GXV6SS4810A* AZV6SA4810A*/GZV6SA4810A*	1380	1380	1380	1380	1380	1380	1380	1380	1380
AHVE60DP1300	AXV9SA3610A*/GXV9SA3610A* AZV7SA3610A*/GZV7SA3610A*	1260	1260	1260	1260	1260	1260	1260	1260	1260
	AXV6SS4210A*/GXV6SS4210A* AZV6SA4210A*/GZV6SA4210A* AZV7SA4210A*/GZV7SA4210A*	1320	1320	1320	1320	1320	1320	1320	1320	1320
	AXV6SS4810A*/GXV6SS4810A* AXV9SA4810A*/GXV9SA4810A* AZV6SA4810A*/GZV6SA4810A* AZV7SA4810A*/GZV7SA4810A*	1380	1380	1380	1380	1380	1380	1380	1380	1380
	AXV6SS6010A*/GXV6SS6010A* AZV6SA6010A*/GZV6SA6010A*	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

MODELS	CIRCUIT 1 (208V/240V)			CIRCUIT 2 (208V/240V)			SINGLE-POINT KIT (208V/240V)	
	HEATER AMPS	MCA <sup>1</sup>	MOP <sup>2</sup>	HEATER AMPS	MCA <sup>1</sup>	MOP <sup>2</sup>	MCA <sup>1</sup>	MOP <sup>2</sup>
<b>AHVE24BP1300AA</b>	0.0/0.0	4.9/4.9	15/15	---	---	---	---	---
HKTSN03X1	10.8/12.5	18.4/20.5	20/25	---	---	---	---	---
HKTS*05X1	17.3/20.0	26.5/29.9	30/30	---	---	---	---	---
HKTSN06X1	21.7/25	32/36.1	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	41/46.5	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	48.5/54.9	50/60	---	---	---	---	---
<b>AHVE36CP1300AA</b>	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	28.1/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.1	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.9/56.5	50/60	---	---	---	---	---
HKTS*15X3 ^	0/0	6.5/6.5	15/15	30.0/34.6	37.5/43.3	40/45	---	---
HKTS*15X3/B	34.7/40	49.9/56.5	50/60	17.3/20.0	21.6/25.0	25/25	71.5/81.5	80/90
HKTS*19CA/B	34.7/40	49.9/56.5	50/60	34.7/40.0	43.4/50.0	45/50	93.2/106	100/110
<b>AHVE42CP1300AA</b>	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	28.1/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.1	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.9/56.5	50/60	---	---	---	---	---
HKTS*15X3 ^	0/0	6.5/6.5	15/15	30/34.6	37.5/43.3	40/45	---	---
HKTS*15X3/B	34.7/40	49.9/56.5	50/60	17.3/20	21.6/25.0	25/25	71.5/81.5	80/90
HKTS*19CA/B	34.7/40	49.9/56.5	50/60	34.7/40	43.4/50.0	45/50	93.2/106	100/110
<b>AHVE48CP1300AA</b>	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	28.1/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.1	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.9/56.5	50/60	---	---	---	---	---
HKTS*15X3 ^	0/0	6.5/6.5	15/15	30/34.6	37.5/43.3	40/45	---	---
HKTS*15X3/B	34.7/40	49.9/56.5	50/60	17.3/20	21.6/25.0	25/25	71.5/81.5	80/90
HKTS*20X3 ^	0/0	6.5/6.5	15/15	37.5/43.3	46.9/54.1	50/60	---	---
HKTS*20DA/B	34.7/40	49.9/56.5	50/60	34.7/40	43.4/50.0	45/50	93.2/106	100/110
<b>AHVE48DP1300AA</b>	0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	28.1/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.1	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.9/56.5	50/60	---	---	---	---	---
HKTS*15X3 ^	0/0	6.5/6.5	15/15	30/34.6	37.5/43.3	40/45	---	---
HKTS*15X3/B	34.7/40	49.9/56.5	50/60	17.3/20	21.6/25	25/25	71.5/81.5	80/90
HKTS*20X3 ^	0/0	6.5/6.5	15/15	37.5/43.3	46.9/54.1	50/60	---	---
HKTS*20DA/B	34.7/40	49.9/56.5	50/60	34.7/40	43.4/50.0	45/50	93.2/106	100/110
<b>AHVE60DP1300AA</b>	0.0/0.0	8.6/8.6	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	30.2/33.6	35/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	35.8/39.9	40/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	44.8/50.2	45/60	---	---	---	---	---
HKTS*10X1	34.7/40.0	52.0/58.6	60/60	---	---	---	---	---
HKTS*15X3/B	34.7/40	52.0/58.6	60/60	17.3/20	21.6/25	25/25	73.6/83.6	80/90
HKTS*20DA/B	34.7/40	52.0/58.6	60/60	34.7/40	43.3/50	45/50	95.3/109	100/110
HKTS*25DA/B	34.7/40	52.0/58.6	60/60	52.0/60.0	65./75	70/80	117/134	125/150
HKTS*25D1	34.7/40	52.0/58.6	60/60	52.0/60.0	65/75	70/80	117/134	125/150

<sup>1</sup> Minimum Circuit Ampacity (Heater Amps + Motor Amps) X 1.25

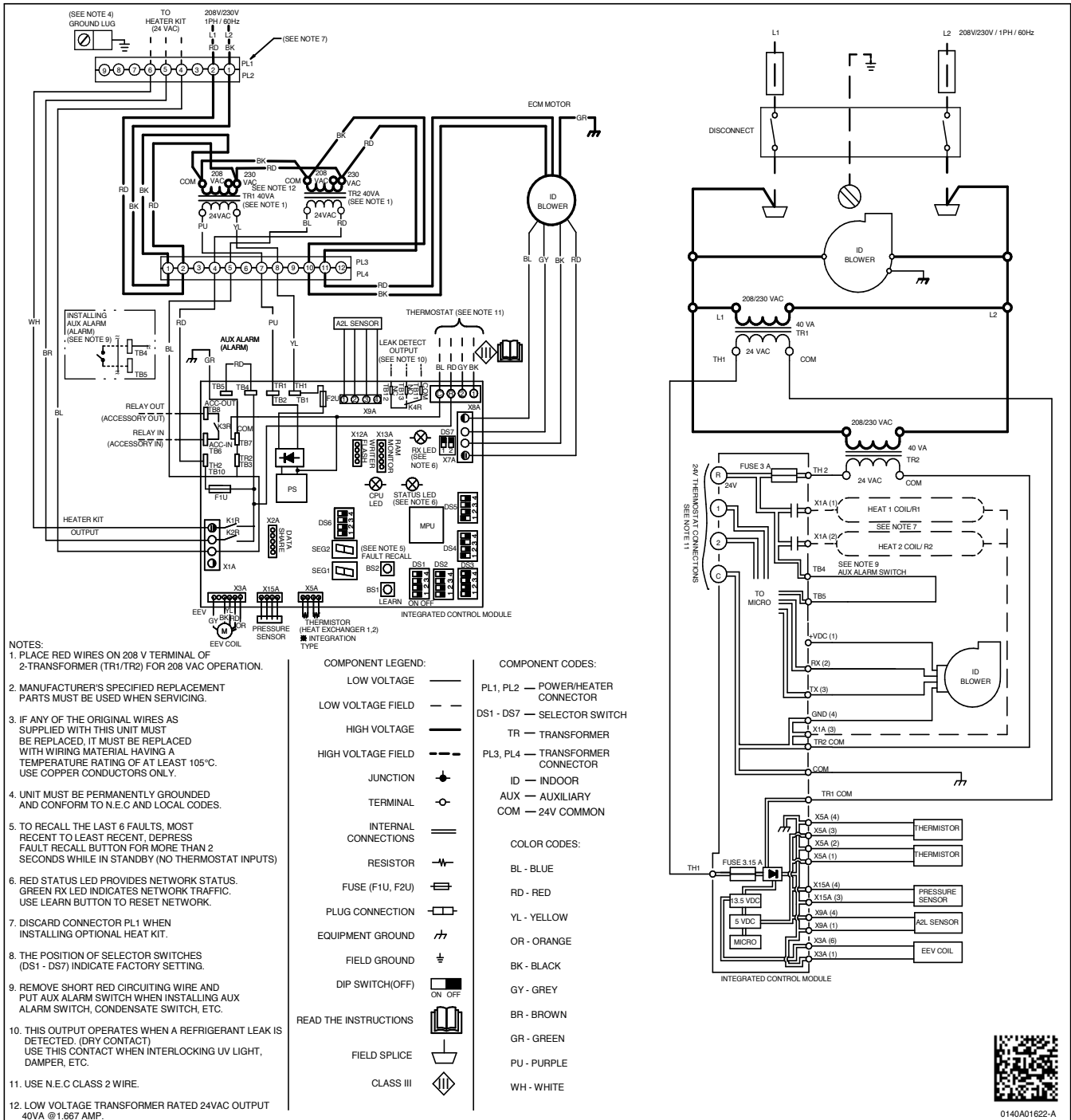
<sup>2</sup> Maximum Overcurrent Protection = 2.25 X Motor Amps + Heater Amps

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

\* D - Service disconnect, N - No service disconnect

--- indicates Not Required

# WIRING DIAGRAM



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

**WARNING**

**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.

**DOWNFLOW KITS**

DFKE-02
AHVE24BP1300
AHVE36CP1300
AHVE42CP1300
AHVE48CP1300
AHVE48DP1300
AHVE60DP1300

**CONDENSATE MANAGEMENT KITS\***

CMK0015	CMK0016	CMK0017
AHVE24BP1300	AHVE36CP1300	AHVE48DP1300
	AHVE42CP1300	AHVE60DP1300
	AHVE48CP1300	

\*For Horizontal application only.

**HIGH HUMIDITY KITS**

HHK0001	HHK0002	HHK0003	HHK0011
AHVE24BP1300	AHVE36CP1300	AHVE48DP1300	AHVE48CP1300
	AHVE42CP1300	AHVE60DP1300	

**MERV 15 AIR CLEANERS**

CHASSIS	DAIKIN PREMIUM AIR CLEANER	FILTER SIZE	REPLACEMENT FILTER PART #
B	DV15-2117-AB	21"x17"	0160M00013
C	DV15-2121-AC	21"x21"	0160M00014
D	DV15-2124-AD	21"x24"	0160M00015

**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 WIRING KITS (SPW-01)**

HEATER KIT MODEL	SPWK-B	SPWK-C	SPWK-D
HKTSD15XA		AHVE36CP1300** AHVE42CP1300** AHVE48CP1300**	AHVE48DP1300** AHVE60DP1300**
HKTSD15XB			
HKTSD19CA		AHVE36CP1300** AHVE42CP1300**	
HKTSD19CB			
HKTSD20DA			AHVE48DP1300** AHVE60DP1300**
HKTSD20DB			
HKTSD25DA			AHVE60DP1300**
HKTSD25DB			

**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

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