



**MULTI-POSITION, VARIABLE-SPEED,
ECM-BASED AIR HANDLER WITH
INTERNAL EEV, COMFORTBRIDGE™
AND INVERTER COMPATIBLE
2 TO 5 TONS**

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Product Features

- Electronic Expansion Valve (EEV) for cooling and heat pump applications.
- Variable-speed ECM blower motor
- Suitable for operation with inverter-driven products
- Integrated communicating ComfortBridge™ Technology
- Commissioning and diagnostics via on board Bluetooth with the CoolCloud™ phone and tablet application
- Provides constant CFM over a wide range of static pressure conditions independent of duct system
- CFM indicator
- 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
- 3 kW – 25 kW electric heater kits
- AHRI certified; ETL listed
- UL 60335 2-40 Compliant

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

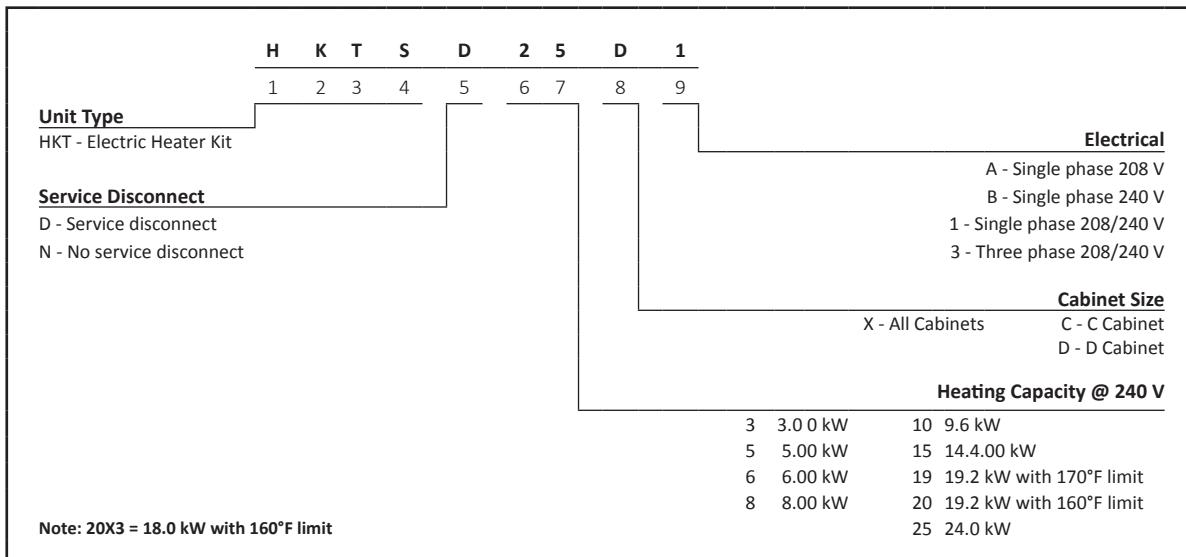
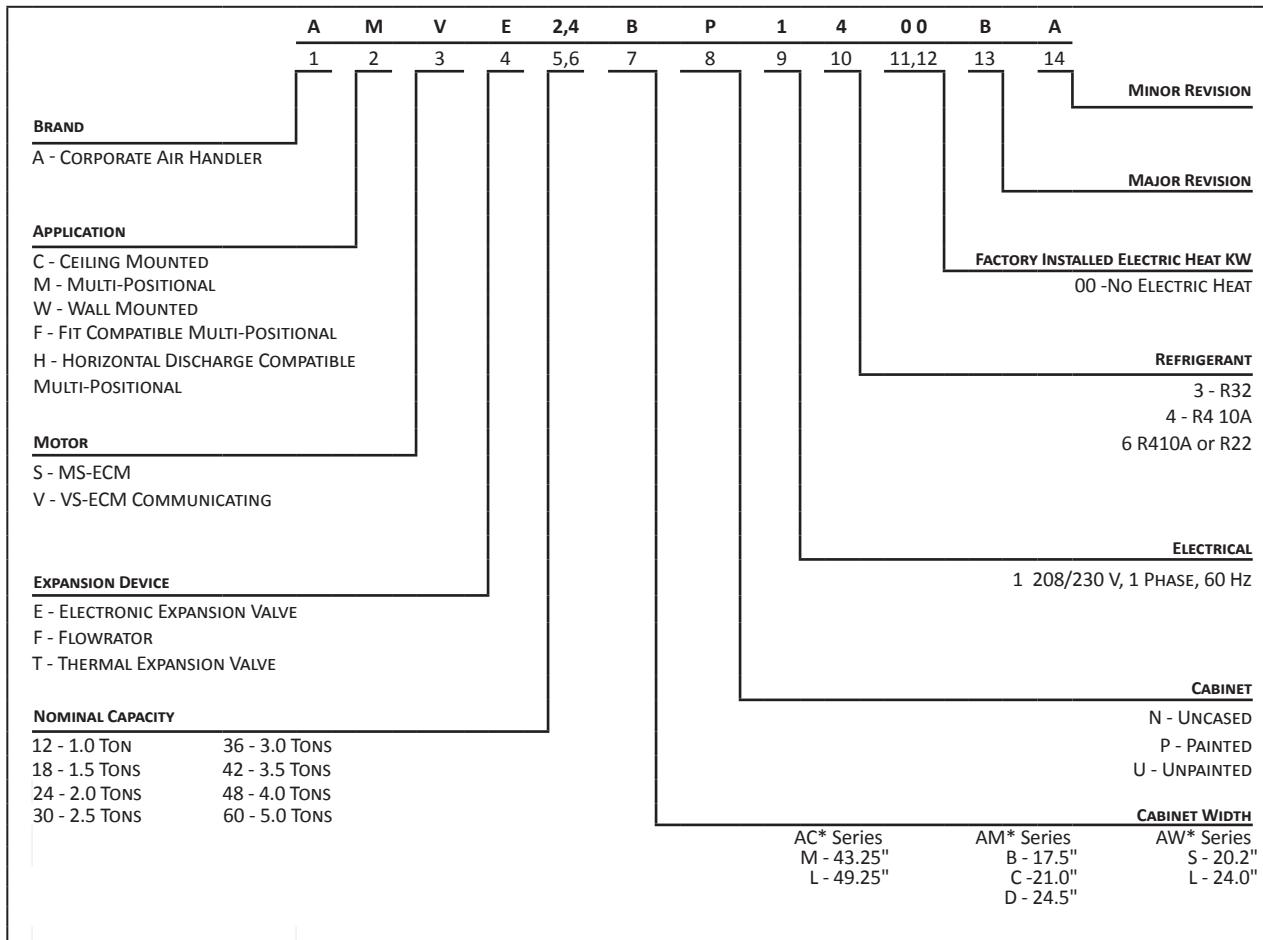


COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
ISO 9001



* Complete warranty details available from your local dealer or at www.goodmanmfg.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

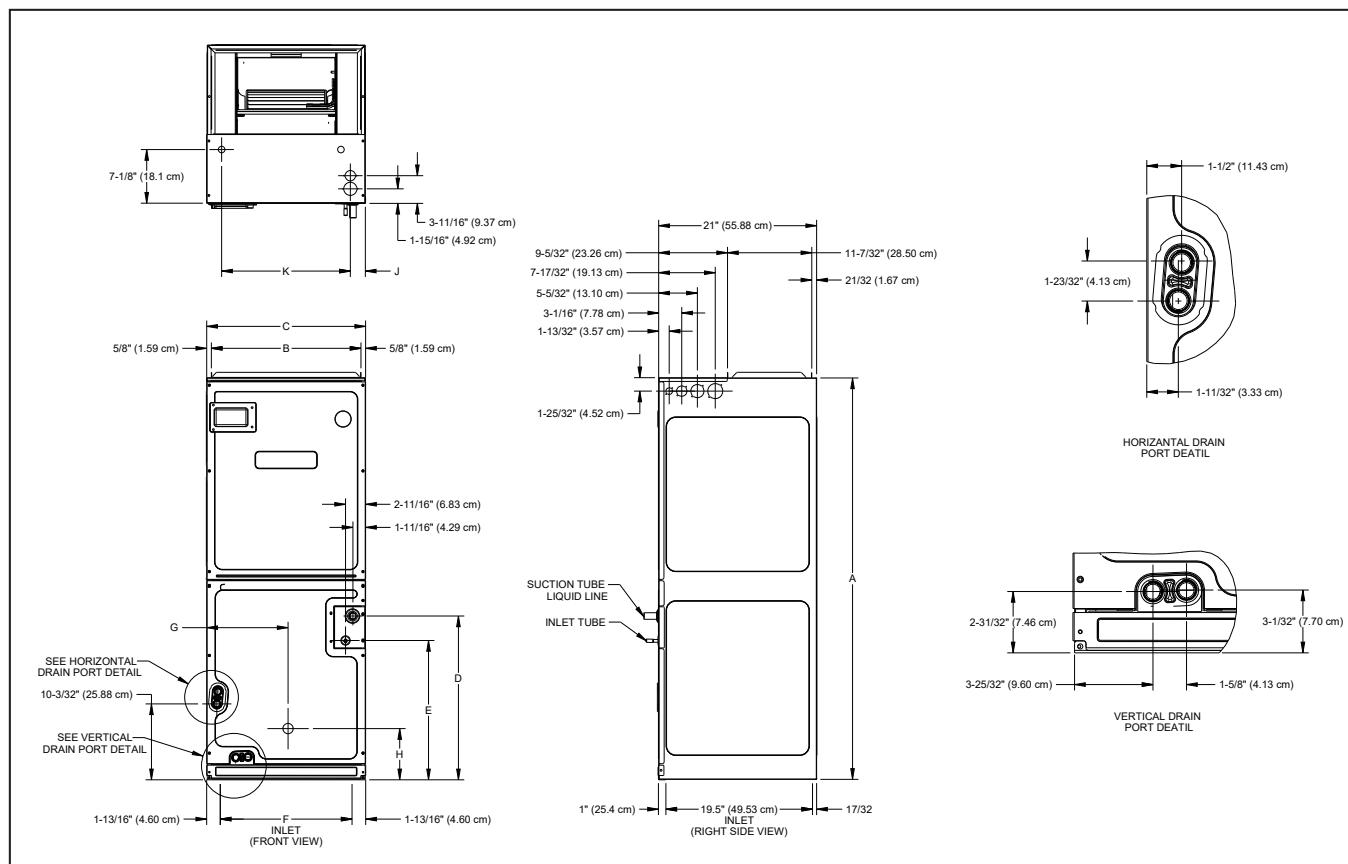


*Refer S&R Plate

| | AMVE24 BP1400 | AMVE36 CP1400 | AMVE48 DP1400 | AMVE60 DP1400 |
|--------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| NOMINAL RATINGS | | | | |
| Cooling (BTU/h) | 24,000 | 36,000 | 48,000 | 60,000 |
| CFM (High range) | 1200/600 | 1700/800 | 1800/1350 | 2000/1600 |
| BLOWER | | | | |
| Diameter | 10 ⁵ / ₈ " | 10 ⁵ / ₈ " | 11 ⁵ / ₈ " | 11 ⁵ / ₈ " |
| Width | 6" | 10 ⁵ / ₈ " | 10 ⁵ / ₈ " | 10 ⁵ / ₈ " |
| COIL CONNECTION | | | | |
| Liquid | 3/8" | 3/8" | 3/8" | 3/8" |
| Suction | 3/4" | 7/8" | 7/8" | 7/8" |
| Coil Drain Connection FPT | 3/4" | 3/4" | 3/4" | 3/4" |
| ELECTRICAL DATA | | | | |
| Voltage | 208/240 | 208/240 | 208/240 | 208/240 |
| Electric Heat Capacity (kW) | 3, 5, 6, 8, 10 | 5, 6, 8, 10, 15, 19 | 5, 6, 8, 10, 15, 20 | 5, 6, 8, 10, 15, 20, 25 |
| Min Circuit Ampacity | 4.9/4.9 | 6.5/6.5 | 8.6/8.6 | 8.6/8.6 |
| Max. Overcurrent Device (Amps) | 15/15 | 15/15 | 15/15 | 15/15 |
| Minimum VAC | 197 | 197 | 197 | 197 |
| Maximum VAC | 253 | 253 | 253 | 253 |
| BLOWER MOTOR | | | | |
| Full Load Amps (FLA) | 3.9 | 5.2 | 6.9 | 6.9 |
| Horsepower (HP) | 1/2 | 3/4 | 1 | 1 |
| SHIP WEIGHT (LBS.) | 128 | 150 | 160 | 177 |

Note: Minimum Circuit Ampacity (MCA) and Maximum Overcurrent Protection (MOP) for blower without supplemental heat installed. Refer to unit nameplate and/or Heat Kit Data for specification with approved accessory heaters installed.

DIMENSIONS



| MODEL | A | B | C | D | E | F | G | H |
|--------------|-------------------|-------------------|------------------|--------------------|-------------------|--------------------|--------------------|-------------------|
| AMVE24BP1400 | 53 $\frac{7}{16}$ | 16 $\frac{3}{8}$ | 17 $\frac{1}{2}$ | 20 | 21 $\frac{1}{2}$ | 14 $\frac{1}{8}$ | 9 $\frac{1}{8}$ | 7 $\frac{5}{8}$ |
| AMVE36CP1400 | 53 $\frac{7}{16}$ | 19 $\frac{7}{8}$ | 21 | 21 $\frac{13}{16}$ | 18 $\frac{5}{8}$ | 17 $\frac{11}{16}$ | 10 $\frac{13}{16}$ | 6 $\frac{13}{16}$ |
| AMVE48DP1400 | 53 $\frac{7}{16}$ | 23 $\frac{5}{16}$ | 24 $\frac{1}{2}$ | 21 $\frac{1}{2}$ | 18 $\frac{5}{16}$ | 21 $\frac{3}{16}$ | 12 $\frac{5}{8}$ | 6 $\frac{7}{8}$ |
| AMVE60DP1400 | 58 | 23 $\frac{5}{16}$ | 24 $\frac{1}{2}$ | 26 $\frac{1}{8}$ | 22 $\frac{7}{8}$ | 21 $\frac{3}{16}$ | 12 $\frac{5}{16}$ | 25 $\frac{1}{8}$ |

| MODEL | STAGE | AIRFLOW CFM | | | | | | | | |
|-----------------|-------|-------------|------|------|------|------|------|------|------|------|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 |
| AMVE24BP1400-B* | High | 700 | 690 | 690 | 685 | 680 | 670 | 665 | 660 | 655 |
| | Low | 520 | 505 | 495 | 490 | 470 | 455 | 445 | 435 | 425 |
| AMVE36CP1400-B* | High | 1190 | 1170 | 1165 | 1160 | 1145 | 1130 | 1120 | 1105 | 1100 |
| | Low | 820 | 810 | 795 | 785 | 765 | 740 | 730 | 720 | 710 |
| AMVE48DP1400-B* | High | 1445 | 1440 | 1430 | 1415 | 1405 | 1390 | 1380 | 1375 | 1370 |
| | Low | 880 | 875 | 870 | 870 | 860 | 845 | 840 | 835 | 830 |
| AMVE60DP1400-B* | High | 1645 | 1640 | 1640 | 1635 | 1630 | 1625 | 1620 | 1620 | 1615 |
| | Low | 1080 | 1075 | 1070 | 1070 | 1060 | 1055 | 1050 | 1050 | 1045 |

Note: During cooling operation outdoor will determine the indoor airflow

COOLING/HEAT PUMP AIRFLOW TABLE

| MODEL | AIRFLOW LEVEL | CFM |
|-----------------|---------------|------|
| AMVE24BP1400-B* | High | 690 |
| | Low | 495 |
| AMVE36CP1400-B* | High | 1165 |
| | Low | 795 |
| AMVE48DP1400-B* | High | 1430 |
| | Low | 870 |
| AMVE60DP1400-A* | High | 1640 |
| | Low | 1070 |

HEAT KIT DATA

| MODELS | SERVICE DISCONNECT | CIRCUIT 1 (208V/240V) | | | CIRCUIT 2 (208V/240V) | | | SINGLE-POINT KIT (208V/240V) | |
|-----------------------|-----------------------|-----------------------|------------------|------------------|-----------------------|------------------|------------------|------------------------------|------------------|
| | | AMPS | MCA ¹ | MOP ² | AMPS | MCA ¹ | MOP ² | MCA ¹ | MOP ² |
| AMVE24BP1400BA | No Breaker | 0.0/0.0 | 4.9/4.9 | 15/15 | --- | --- | --- | --- | --- |
| HKTSN03X1 | | 10.8/12.5 | 18.4/20.5 | 20/25 | --- | --- | --- | --- | --- |
| HKTSN05X1 | | 17.3/20.0 | 26.5/29.9 | 30/30 | --- | --- | --- | --- | --- |
| HKTSN06X1 | | 21.7/25.0 | 32.0/36.1 | 35/40 | --- | --- | --- | --- | --- |
| HKTSN08X1 | | 28.9/33.3 | 41.0/46.5 | 45/50 | --- | --- | --- | --- | --- |
| HKTSN10X1 | | 34.7/40.0 | 48.2/54.9 | 50/60 | --- | --- | --- | --- | --- |
| HKTSD05X1 | | 17.3/20.0 | 26.5/29.9 | 30/30 | --- | --- | --- | --- | --- |
| HKTSD08X1 | | 28.9/33.3 | 41.0/46.5 | 45/50 | --- | --- | --- | --- | --- |
| HKTSD10X1 | | 34.7/40.0 | 48.2/54.9 | 50/60 | --- | --- | --- | --- | --- |
| AMVE36CP1400BA | | 0.0/0.0 | 6.5/6.5 | 15/15 | --- | --- | --- | --- | --- |
| HKTSN05X1 | No Breaker | 17.3/20.0 | 28.0/31.5 | 30/35 | --- | --- | --- | --- | --- |
| HKTSN06X1 | | 21.7/25.0 | 34.0/37.8 | 35/40 | --- | --- | --- | --- | --- |
| HKTSN08X1 | | 28.9/33.3 | 42.6/48.2 | 45/50 | --- | --- | --- | --- | --- |
| HKTSN10X1 | | 34.7/40.0 | 49.8/56.5 | 50/60 | --- | --- | --- | --- | --- |
| HKTSN15X3^ | | 0.0/0.0 | 6.5/6.5 | 15/15 | 30/34.6 | 37.5/43 | 40/45 | --- | --- |
| HKTSN15XA/B | | 34.7/40.0 | 49.8/56.5 | 50/60 | 17.3/20.0 | 21.7/25.0 | 25/25 | 71.5/81.5 | 80/90 |
| HKTSD05X1 | | 17.3/20.0 | 28.0/31.5 | 30/35 | --- | --- | --- | --- | --- |
| HKTSD08X1 | | 28.9/33.3 | 42.6/48.2 | 45/50 | --- | --- | --- | --- | --- |
| HKTSD10X1 | | 34.7/40.0 | 49.8/56.5 | 50/60 | --- | --- | --- | --- | --- |
| HKTSD19CA/B | | 34.7/40.0 | 49.8/56.5 | 50/60 | 34.7/40 | 43.4/50.0 | 45/50 | 93.2/106.5 | 100/110 |
| AMVE48DP1400BA | No Breaker | 0.0/0.0 | 8.6/8.6 | 15/15 | --- | --- | --- | --- | --- |
| HKTSN05X1 | | 17.3 | 30.3 | 35 | --- | --- | --- | --- | --- |
| HKTSN06X1 | | 21.7 | 36 | 40 | --- | --- | --- | --- | --- |
| HKTSN08X1 | | 28.9 | 45 | 45 | --- | --- | --- | --- | --- |
| HKTSN10X1 | | 34.7 | 52 | 60 | --- | --- | --- | --- | --- |
| HKTSD05X1 | | 17.3 | 30.3 | 35 | --- | --- | --- | --- | --- |
| HKTSD08X1 | | 28.9 | 45 | 45 | --- | --- | --- | --- | --- |
| HKTSD10X1 | | 34.7 | 52 | 60 | --- | --- | --- | --- | --- |
| HKTSD15X3^ | | 34.7 | 52 | 60 | 17.3 | 21.7 | 25 | 73.6 | 80 |
| HKTSD15XA/B | | 34.7 | 52 | 60 | 34.7 | 43.3 | 45 | 95.3 | 100 |
| HKTSD20DA/B | | 0.0 | 8.6 | 15 | 30 | 38 | 40 | --- | --- |
| AMVE60DP1400BA | No Breaker | 0.0/0.0 | 8.6/8.6 | 15/15 | --- | --- | --- | --- | --- |
| HKTSN05X1 | | 17.3 | 30.3 | 35 | --- | --- | --- | --- | --- |
| HKTSN06X1 | | 21.7 | 36 | 40 | --- | --- | --- | --- | --- |
| HKTSN08X1 | | 28.9 | 45 | 45 | --- | --- | --- | --- | --- |
| HKTSN10X1 | | 34.7 | 52 | 60 | --- | --- | --- | --- | --- |
| HKTSD05X1 | | 17.3 | 30.3 | 35 | --- | --- | --- | --- | --- |
| HKTSD08X1 | | 28.9 | 45 | 45 | --- | --- | --- | --- | --- |
| HKTSD10X1 | | 34.7 | 52 | 60 | --- | --- | --- | --- | --- |
| HKTSN15X3^ | | 34.7 | 52 | 60 | 17.3 | 21.7 | 25 | 73.6 | 80 |
| HKTSN20X3^ | | 34.7 | 52 | 60 | 34.7 | 43.3 | 45 | 95.3 | 100 |
| HKTSN15XA/B | | 52 | 73.6 | 80 | 35 | 43.3 | 45 | 117 | 125 |
| HKTSD20DA/B | | 0.0 | 8.6 | 15 | 30 | 38 | 40 | --- | --- |
| HKTSD25DA/B | | 0.0 | 8.6 | 15 | 38 | 47 | 50 | --- | --- |

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)

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

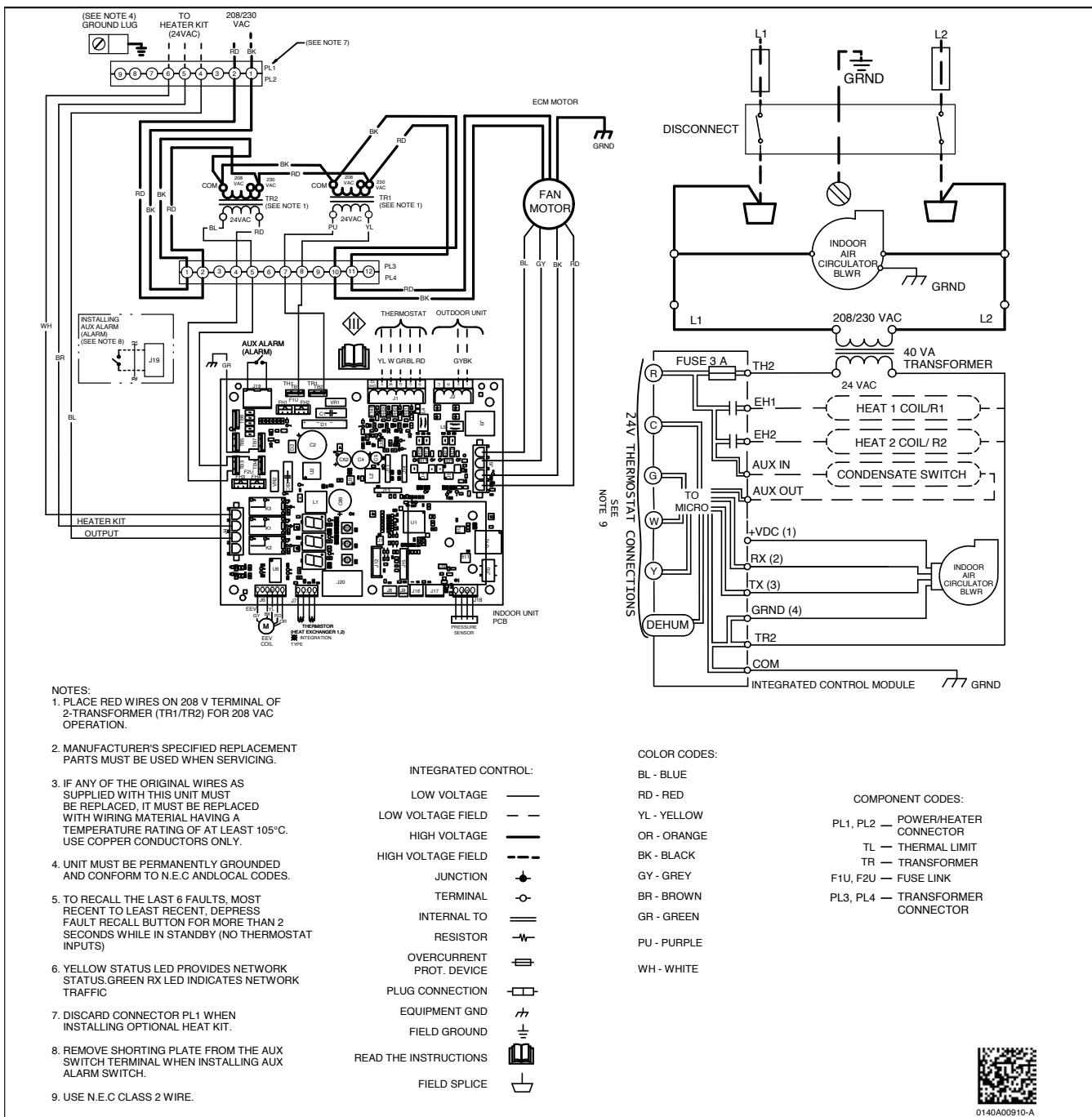
--- indicates Not Required

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.

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.



ACCESSORIES

DOWNFLOW KITS

| DFK-B | DFK-C | DFK-D |
|--------------|--------------|--------------|
| AMVE24BP1400 | AMVE36CP1400 | AMVE48DP1400 |
| | | AMVE60DP1400 |

DRAIN PORT PLUG

| Kit Number | Description | Application |
|------------|----------------------|-------------|
| DPK1 | Side Drain Port Plug | All Models |

CONDENSATE MANAGEMENT KITS*

| CMK0008 | CMK0009 | CMK0010 | CMK0011 |
|--------------|--------------|--------------|--------------|
| AMVE24BP1400 | AMVE36CP1400 | AMVE48DP1400 | AMVE60DP1400 |

*For Horizontal application only.

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)

| MODEL | SPWK-B | SPWK-C | SPWK-D |
|-----------|----------------|----------------|----------------------------------|
| HKTSD15XA | AMVE24BP1400B* | AMVE36CP1400B* | AMVE48DP1400B* AMVE60DP1400B* |
| HKTSD15XB | | | |
| HKTSD19CA | | AMVE36CP1400B* | |
| HKTSD19CB | | | |
| HKTSD20DA | | | AMVE48DP1400B* AMVE60DP1400B* |
| HKTSD20DB | | | |
| HKTSD25DA | | | AMVE60DP1400B* |
| HKTSD25DB | | | |

Our continuing commitment to quality products may mean a change in specifications without notice.

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