



Air Conditioning & Heating

# AMVT SERIES



## MULTI-POSITION, VARIABLE-SPEED, ECM-BASED AIR HANDLER WITH INTERNAL TXV COMFORTBRIDGE™ COMPATIBLE 1½ TO 5 TONS

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### Product Features

- Internal factory-installed thermal expansion valves for cooling and heat pump applications
- Variable-speed ECM blower motor
- Integrated communicating ComfortBridge™ Technology
- Commissioning and diagnostics via on board Bluetooth with the CoolCloud™ phone and tablet application
- Auto configuration of the airflow and tonnage in communicating mode
- Provides constant CFM over a wide range of static pressure conditions independent of duct system
- CFM indicator
- Fault recall of six most recent faults
- Provides adjustable low CFM for efficient fan-only operation
- Improved humidity and comfort control
- Built-in compatibility with multi-stage heat pump and cooling applications
- All-aluminum evaporator coil
- AHRI certified; ETL listed
- UL 60335 2-40 Compliant

- Rigid SmartFrame™ cabinet
- 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
- 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
- Field Installed 3 kW – 25 kW electric heater kits available

10  
YEAR  
PARTS  
LIMITED  
WARRANTY\*

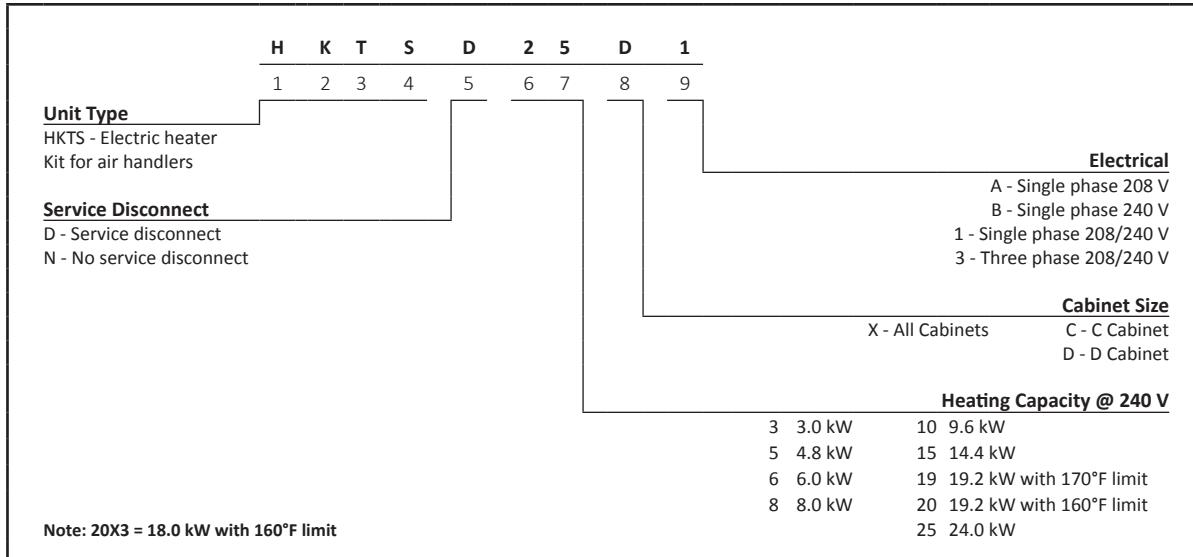
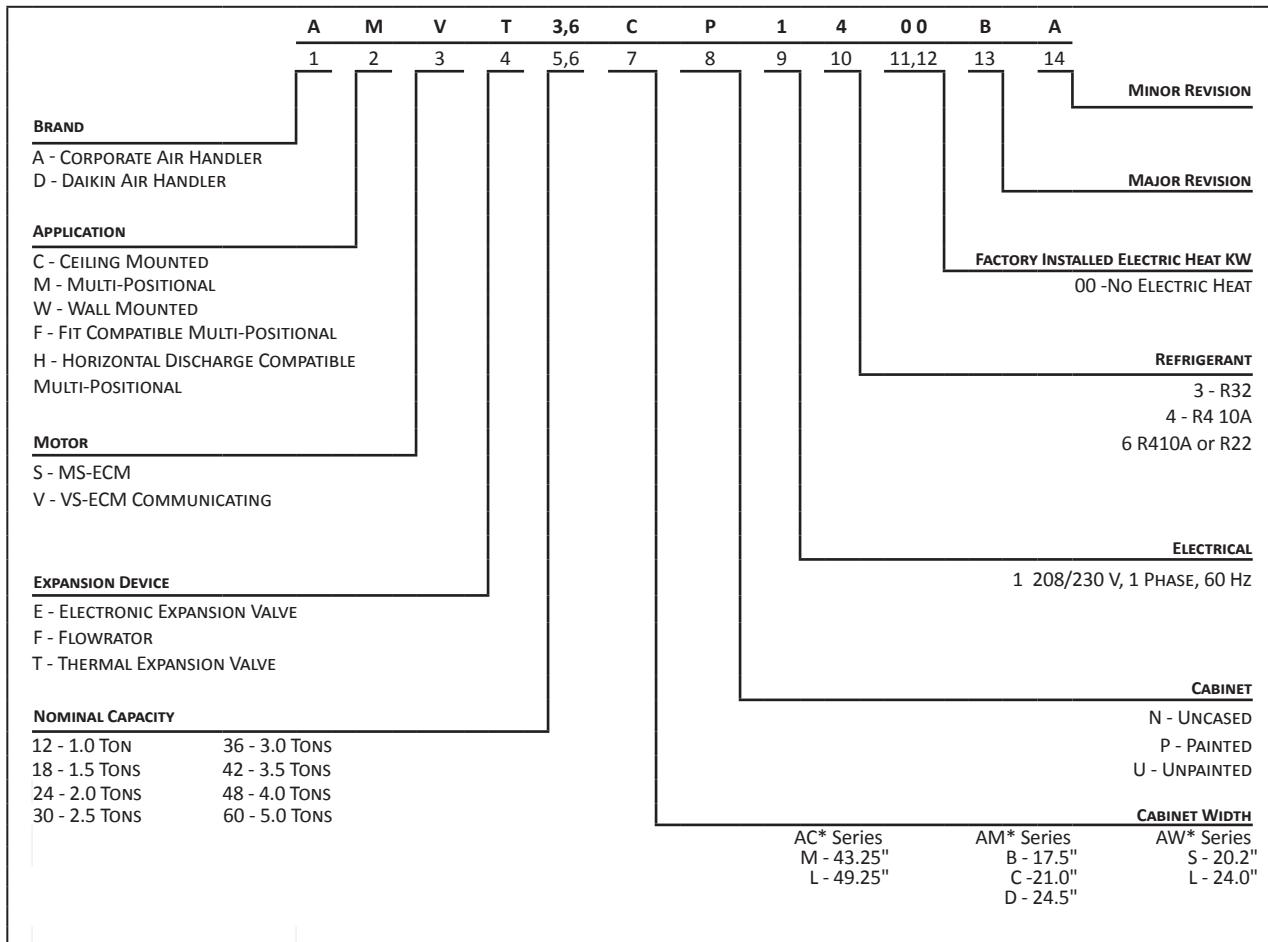


COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =  
COMPANY WITH  
ENVIRONMENTAL SYSTEM  
CERTIFIED BY DNV GL  
= ISO 14001 =



\* Complete warranty details available from your local dealer or at [www.goodmanmfg.com](http://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

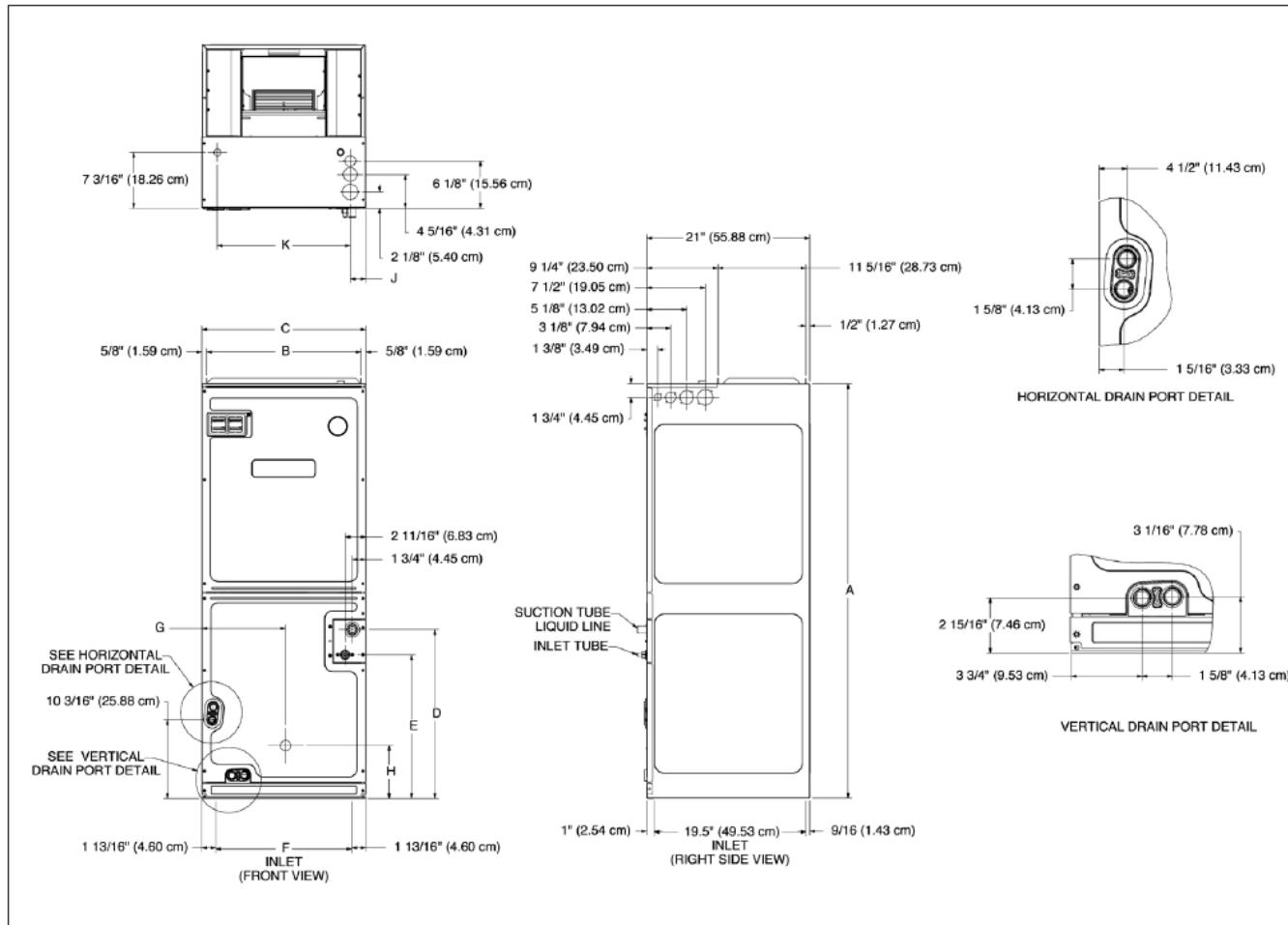


	<b>AMVT 24BP14*</b>	<b>AMVT 30BP14*</b>	<b>AMVT 36BP14*</b>	<b>AMVT 36CP14*</b>	<b>AMVT 42CP14*</b>	<b>AMVT 48CP14*</b>	<b>AMVT 48DP14*</b>	<b>AMVT 60DP14*</b>
<b>NOMINAL RATINGS</b>								
Cooling (Btu/h)	24,000	30,000	36,000	36,000	42,000	48,000	48,000	60,000
<b>BLOWER</b>								
Diameter	10"	10"	10"	10"	10"	10"	10"	11"
Width	6"	6"	6"	8"	8"	10"	10"	10"
<b>COIL CONNECTIONS</b>								
Liquid	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	3/4"	3/4"	3/4"	3/4"	3/4"	7/8"	7/8"	7/8"
Coil Drain Connect (FPT)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
<b>ELECTRICAL DATA</b>								
Voltage	208/240	208/240	208/240	208/240	208/240	208/240	208/240	208/240
Minimum Circuit Ampacity	4.9/4.9	4.9/4.9	6.5/6.5	6.5/6.5	6.5/6.5	6.5/6.5	8.6/8.6	8.6/8.6
Max. Overcurrent Device (Amps)	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15
Minimum VAC	197	197	197	197	197	197	197	197
Maximum VAC	253	253	253	253	253	253	253	253
<b>Blower Motor</b>								
Full Load Amps (FLA)	3.9	3.9	5.2	5.2	5.2	5.2	6.9	6.9
Horsepower (HP)	½	½	¾	¾	¾	¾	1	1
<b>SHIP WEIGHT (LBS.)</b>	117	134	134	158	158	158	160	172

\*Airflow rate @ .3 static

**Note:** Assumes dry coil; SCFM correction for wet coil = 4% (208V / 240V)

## DIMENSIONS



MODEL	A"	B"	C"	D"	E"	F"	G"	H"	J"	K"
AMVT24BP14*	45	16 <sup>5</sup> / <sub>16</sub>	17 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	12	12 <sup>1</sup> / <sub>2</sub>	9	12 <sup>9</sup> / <sub>16</sub>	2	13 <sup>5</sup> / <sub>8</sub>
AMVT30BP14*	53 <sup>7</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>16</sub>	17 <sup>9</sup> / <sub>16</sub>	23 <sup>11</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	9	12 <sup>3</sup> / <sub>4</sub>	2	13 <sup>5</sup> / <sub>8</sub>
AMVT36BP14*	53 <sup>7</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>16</sub>	17 <sup>9</sup> / <sub>16</sub>	23 <sup>11</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	9	12 <sup>3</sup> / <sub>4</sub>	2	13 <sup>5</sup> / <sub>8</sub>
AMVT36CP14*	49	19 <sup>13</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>8</sub>	21 <sup>12</sup> / <sub>16</sub>	17 <sup>3</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>16</sub>	9	12 <sup>3</sup> / <sub>4</sub>	2	17 <sup>1</sup> / <sub>8</sub>
AMVT42CP14*	53 <sup>7</sup> / <sub>16</sub>	19 <sup>13</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>8</sub>	21 <sup>12</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>16</sub>	9	12 <sup>3</sup> / <sub>4</sub>	2	17 <sup>1</sup> / <sub>8</sub>
AMVT48CP14*	58	19 <sup>13</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>8</sub>	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>	2	17 <sup>1</sup> / <sub>8</sub>
AMVT48DP14*	53 <sup>7</sup> / <sub>16</sub>	23 <sup>1</sup> / <sub>14</sub>	24 <sup>5</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>4</sub>	17 <sup>11</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>16</sub>	2	20 <sup>5</sup> / <sub>8</sub>
AMVT60DP14*	58	23 <sup>1</sup> / <sub>14</sub>	24 <sup>5</sup> / <sub>8</sub>	26	22 3/4	17 <sup>11</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>	13 <sup>13</sup> / <sub>16</sub>	2	20 <sup>5</sup> / <sub>8</sub>

MODEL NUMBER	Low/HIGH	OUTDOOR TONNAGE						
		1.5	2	2.5	3	3.5	4	5
<b>AMVT24BP1400</b>	Low	402	536	-	-	-	-	-
	High	600	800	-	-	-	-	-
<b>AMVT30BP1400</b>	Low	402	536	670	-	-	-	-
	High	600	800	1,000	-	-	-	-
<b>AMVT36BP1400</b>	Low	-	-	670	804	-	-	-
	High	-	-	1,000	1,200	-	-	-
<b>AMVT36CP1400</b>	Low	-	536	670	804	-	-	-
	High	-	800	1,000	1,200	-	-	-
<b>AMVT42CP1400</b>	Low	-	-	-	804	938	-	-
	High	-	-	-	1,200	1,400	-	-
<b>AMVT48CP1400</b>	Low	-	-	-	-	938	1,072	-
	High	-	-	-	-	1,400	1,600	-
<b>AMVT48DP1400</b>	Low	-	-	-	-	-	1,072	-
	High	-	-	-	-	-	1,600	-
<b>AMVT60DP1400</b>	Low	-	-	-	-	-	1,072	1,340
	High	-	-	-	-	-	1,600	2,000

**NOTES**

1. Airflow data indicated is at 230V without air filter in place.
2. The chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on rating plate.
3. Use the CFM adjustment factors of 0.98 for horizontal left and 0.96 for horizontal right & downflow orientations
4. When applying a humidistat (normally closed), refer to the installation and operating instructions. The humidistat can adjust the cooling airflow to 85%.

Horizontal Left Factor	0.98
Horizontal Right Factor	0.95
Downflow Factor	0.96

See notes on page 7.

**HEAT KIT DATA**

HEATER KIT MODEL	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>AMVT24BU1400BA</b>	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	21.7/25.0	32.0/36.1	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	41.0/46.5	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	48.2/54.9	50/60	---	---	---	---	---
HKTS15XA/B	34.7/40.0	48.2/54.9	50/60	17.3/20.0	21.6/25.0	25/25	69.9/79.9	70/80
<b>AMVT30BU1400BA</b>	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	21.7/25.0	32.0/36.1	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	41.0/46.5	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	48.2/54.9	50/60	---	---	---	---	---
HKTS15XA/B	34.7/40.0	48.2/54.9	50/60	17.3/20.0	21.6/25.0	25/25	69.9/79.9	70/80
<b>AMVT36BU1400BA</b>	0/0	6.5/6.5	15/15	---	---	---	---	---
HKTSN03X1	10.8/12.5	20.0/22.1	20/25	---	---	---	---	---
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	---	---
HKTS15XA/B	34.7/40.0	49.9/56.5	50/60	17.3/20.0	21.6/25.0	25/25	71.5/81.5	80/90
HKTS19CA/B	34.7/40.0	49.9/56.5	50/60	34.7/40.0	43.4/50.0	45/50	93.2/106	100/110
<b>AMVT42CU1400BA</b>	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	---	---
HKTS15XA/B	34.7/40.0	49.9/56.5	50/60	17.3/20.0	21.6/25.0	25/25	71.5/81.5	80/90
HKTS19CA/B	34.7/40.0	49.9/56.5	50/60	34.7/40.0	43.4/50.0	45/50	93.2/106	100/110
<b>AMVT48CU1400BA</b>	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	---	---
HKTS15XA/B	34.7/40.0	49.9/56.5	50/60	17.3/20.0	21.6/25.0	25/25	71.5/81.5	80/90
HKTS19CA/B	34.7/40.0	49.9/56.5	50/60	34.7/40.0	43.4/50.0	45/50	93.2/106	100/110
<b>AMVT48DU1400BA</b>	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 ^	0/0	8.6/8.6	15/15	30.0/34.6	37.5/43.3	40/45	---	---
HKTS15XA/B	34.7/40.0	52.0/58.6	60/60	17.3/20.0	21.6/25.0	25/25	73.6/83.6	80/90
HKTS*20X3 ^	0/0	8.6/8.6	15/15	37.5/43.3	46.9/54.1	50/60	---	---
HKTS20DA/B	34.7/40.0	52.0/58.6	60/60	34.7/40.0	43.4/50.0	45/50	95.3/109	100/110

See Notes on Page 7.

HEATER KIT MODEL	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>AMVT60DU1400BA</b>	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 ^	0/0	8.6/8.6	15/15	30.0/34.6	37.5/43.3	40/45	---	---
HKTS15XA/B	34.7/40.0	52.0/58.6	60/60	17.3/20.0	21.6/25.0	25/25	73.6/83.6	80/90
HKTS*20X3 ^	0/0	8.6/8.6	15/15	37.5/43.3	46.9/54.1	50/60	---	---
HKTSD20DA/B	34.7/40.0	52.0/58.6	60/60	34.7/40.0	43.4/50.0	45/50	95.3/109	100/110
HKTSD25DA/B	52.0/60.0	73.6/83.6	80/90	34.7/40.0	43.4/50.0	45/50	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

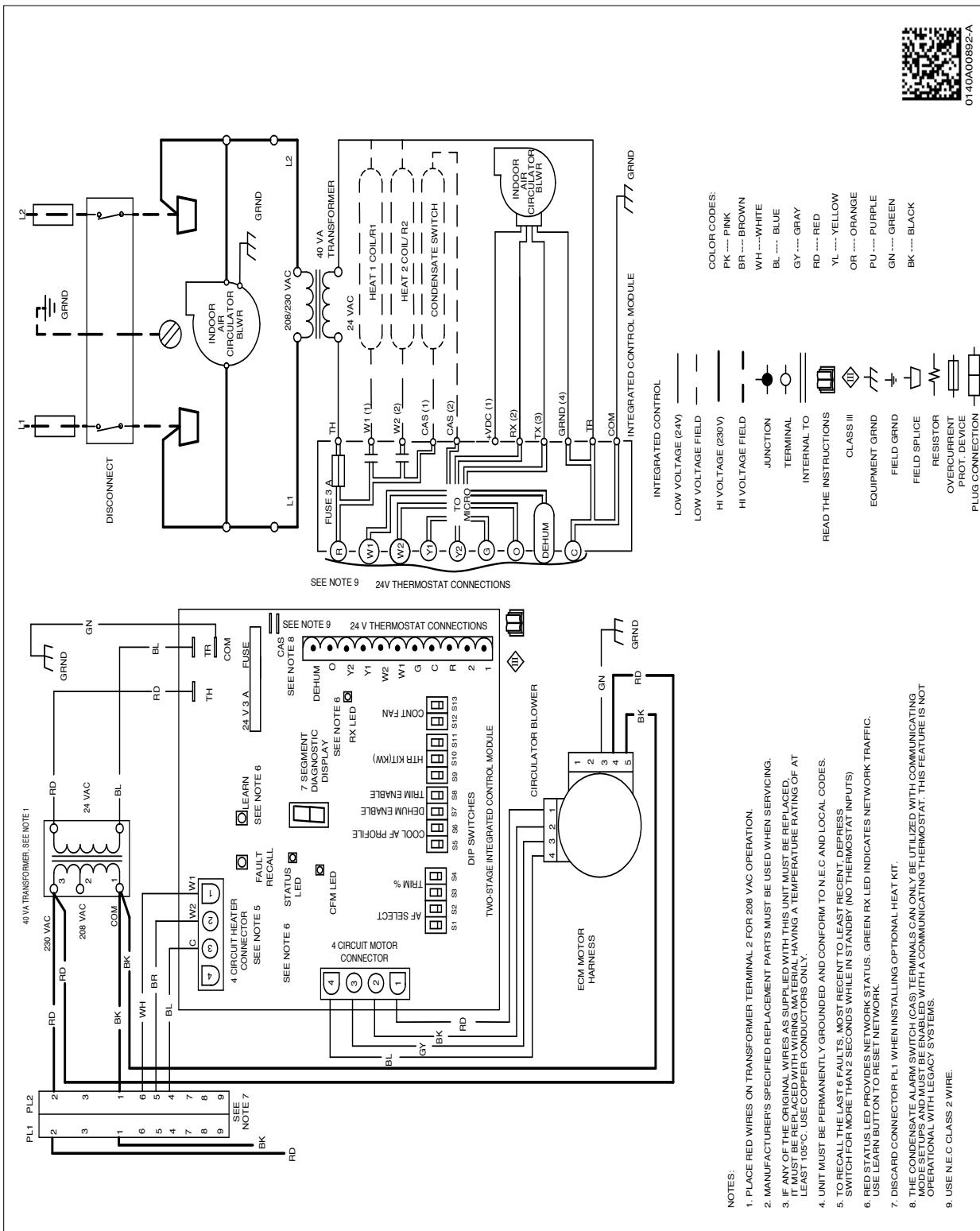
Note: The 208 or 240 in the heat kit part number field is for clarification of the nominal voltage for this model.

### 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.

AIR HANDLER WIRING DIAGRAM AMVT\*\*P1400\*\* (1.5T-5T)



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

**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***

<b>DFKE-02</b>	<b>DFKE-03</b>
AMVT24BP1400**	AMVT48CP1400**
AMVT30BP1400**	AMVT48DP1400**
AMVT36BP1400**	AMVT60DP1400**
AMVT36CP1400**	
AMVT42CP1400**	

***HIGH HUMIDITY KIT***

<b>HHK0004</b>	<b>HHK0005</b>	<b>HHK0006</b>	<b>HHK0007</b>
AMVT24BP1400**	AMVT36CP1400**		
AMVT30BP1400**	AMVT42CP1400**	AMVT48DP1400**	AMVT60DP1400**
AMVT36BP1400**	AMVT48CP1400**		

***CONDENSATE MANAGEMENT KIT***

<b>CMK0018</b>	<b>CMK0019</b>	<b>CMK0020</b>
AMVT24BP1400**	AMVT30BP1400**	AMVT48CP1400**
AMVT36CP1400**	AMVT36BP1400**	AMVT48DP1400**
	AMVT42CP1400**	AMVT60DP1400**

***FILTERS***

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

***SINGLE POINT WIRING KIT (SPW-01)***

<b>HEATER KIT MODEL</b>	<b>SPWK-B</b>	<b>SPWK-C</b>	<b>SPWK-D</b>
HKTSD15XA	AMVT24BP1400**		AMVT48DP1400**
HKTSD15XB	AMVT30BP1400**	AMVT36CP1400**	AMVT60DP1400**
HKTSD19CA		AMVT42CP1400**	
HKTSD19CB		AMVT48CP1400**	
HKTSD20DA			AMVT48DP1400**
HKTSD20DB			AMVT60DP1400**
HKTSD25DA			
HKTSD25DB			AMVT60DP1400**
HKSC25DA			

## *NOTES*



## *NOTES*

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