Franklin
Air Conditioning & Heating

AMVT Series

R-32 Multi-Position, Variable-Speed, ECM-Based Air Handler with Internal TXV ComfortBridge™ Compatible 1½ to 5 Tons

Contents

Air Handler Nomenclature 2
Heater Kit Nomenclature 2
Product Specifications 3
Dimensions 4
Airflow Data 5
Heat Kit Data 6
Wiring Diagram 8
Accessories 9

ComfortBridge™ technology

R32

Product Features

- Internal factory-installed thermal expansion valves for cooling and heat pump applications
- Variable-speed ECM blower motor
- Compatible with Goodman smart thermostat and other Goodman communicating equipment
- Auto configuration of the airflow and tonnage in communicating mode
- All-aluminum evaporator coil
- 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
- Factory installed R-32 sensor designed for the lifespan of the coil
- Optimized for the use with R-32 refrigerant
- UL 60335 2-40 Compliant
- AHRI certified; ETL listed
- Cabinet air leakage less than 2.0% at 1.0 inch H_2O when tested in accordance with ASHRAE standard 193
- Cabinet air leakage less than 1.4% at 0.5 inch H_2O when tested in accordance with ASHRAE standard 193
- 3 kW – 25 kW electric heater kits
- 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

10 YEAR PARTS LIMITED WARRANTY*

ALL ALUMINUM COIL

Intertek

AHRI CERTIFIED

QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

ENVIRONMENTAL SYSTEM CERTIFIED BY DNV GL = ISO 14001 =

* Complete warranty details available from your local dealer or at www.franklinhvacsystems.com. To receive the 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration and some of the additional requirements are not required in Florida, California, or Québec. The duration of warranty coverage in Texas and Florida differs in some cases. Other limitations and exclusions apply; refer to complete warranty details for a full list of limitations and exclusions.

A	M	V	T	3,6	C	P	1	3	0 0	B	A
1	2	3	4	5,6	7	8	9	10	11,12	13	14

BRAND
A - CORPORATE AIR HANDLER
D - DAIKIN AIR HANDLER

APPLICATION
C - CEILING MOUNTED
M - MULTI-POSITIONAL
W - WALL MOUNTED
F - FIT COMPATIBLE MULTI-POSITIONAL
H - HORIZONTAL DISCHARGE COMPATIBLE MULTI-POSITIONAL

MOTOR
S - MS-ECM
V - VS-ECM COMMUNICATING

EXPANSION DEVICE
E - ELECTRONIC EXPANSION VALVE
F - FLOWRATOR
T - THERMAL EXPANSION VALVE

NOMINAL CAPACITY

12 - 1.0 TON	36 - 3.0 TONS
18 - 1.5 TONS	42 - 3.5 TONS
24 - 2.0 TONS	48 - 4.0 TONS
30 - 2.5 TONS	60 - 5.0 TONS

CABINET WIDTH

AC* Series	AM* Series	AW* Series
M - 43.25"	B - 17.5"	S - 20.2"
L - 49.25"	C -21.0"	L - 24.0"
	D - 24.5"	

CABINET
N - UNCASED
P - PAINTED
U - UNPAINTED

ELECTRICAL
1 208/230 V, 1 PHASE, 60 HZ

REFRIGERANT
3 - R32

FACTORY INSTALLED ELECTRIC HEAT KW
00 -NO ELECTRIC HEAT

MAJOR REVISION

MINOR REVISION

H	K	T	S	D	2	5	D	1
1	2	3	4	5	6	7	8	9

Unit Type
HKTS - Electric heater Kit for air handlers

Service Disconnect
D - Service disconnect
N - No service disconnect

Electrical
A - Single phase 208 V
B - Single phase 240 V
1 - Single phase 208/240 V
3 - Three phase 208/240 V

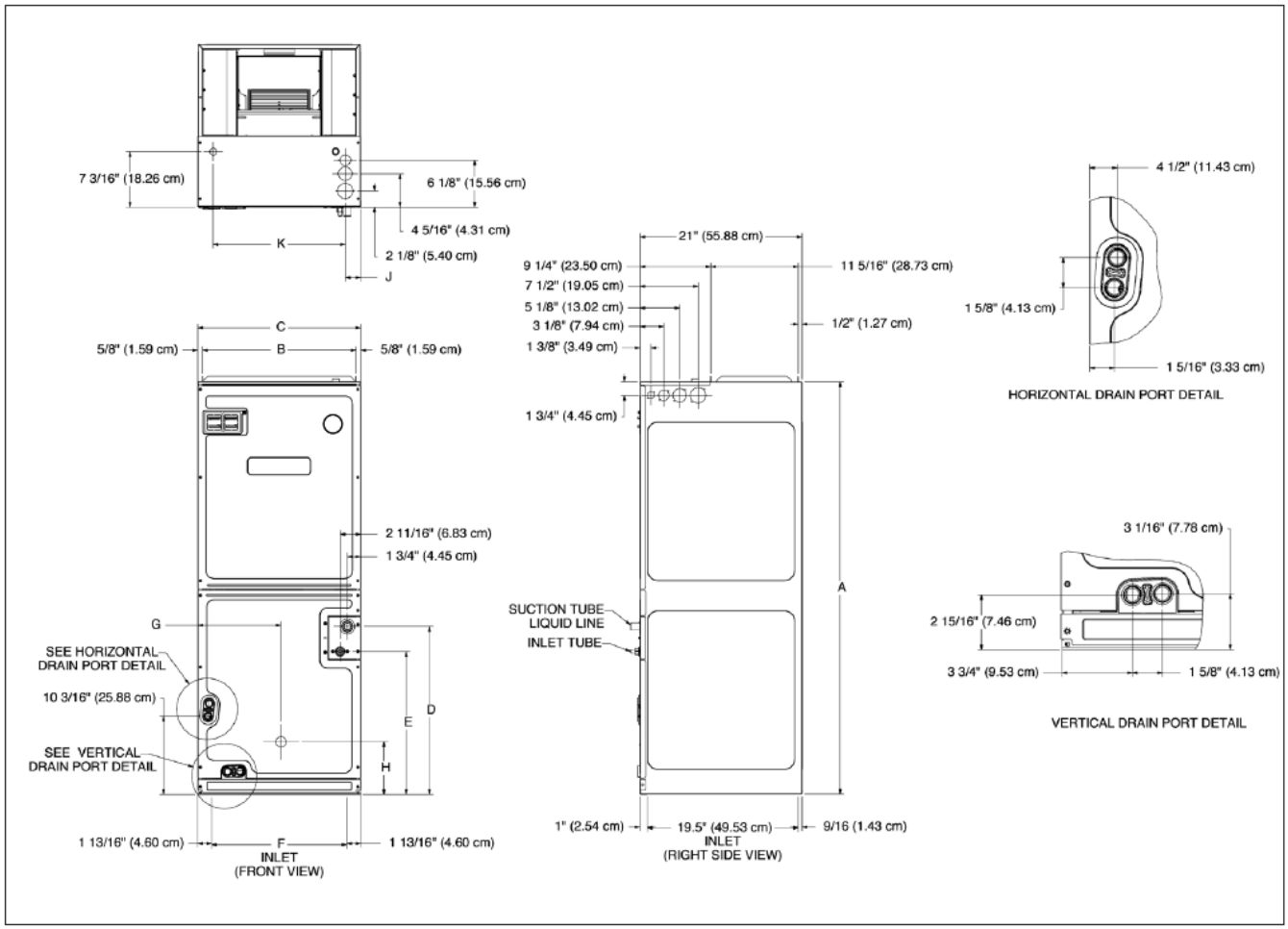
Cabinet Size
X - All Cabinets
C - C Cabinet
D - D Cabinet

Heating Capacity @ 240 V

3	3.0 kW	10	9.6 kW
5	4.8 kW	15	14.4 kW
6	6.0 kW	19	19.2 kW with 170°F limit
8	8.0 kW	20	19.2 kW with 160°F limit
		25	24.0 kW

Note: 20X3 = 18.0 kW with 160°F limit

	AMVT 24BP1300	AMVT 30BP1300	AMVT 36BP1300	AMVT 36CP1300	AMVT 42CP1300	AMVT 48CP1300	AMVT 60DP1300
Nominal Ratings							
Cooling (Btu/h)	24,000	30,000	36,000	36,000	42,000	48,000	60,000
Blower							
Diameter	10"	10"	10"	10"	10"	10"	11"
Width	6"	6"	6"	8"	8"	10"	10"
Refrigerant Line Connection Size							
Liquid	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"
Coil Drain Connect FPT	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Electrical Data							
Voltage	208/240	208/240	208/240	208/240	208/240	208/240	208/240
Min 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
Max. Overcurrent Device (amps)	15/15	15/15	15/15	15/15	15/15	15/15	15/15
Min. / Max VAC	197 / 253	197 / 253	197 / 253	197 / 253	197 / 253	197 / 253	197 / 253
Blower Motor							
Blower Motor (FLA)	3.9	3.9	5.2	5.2	5.2	5.2	6.9
Blower Motor (HP)	1/2	1/2	3/4	3/4	3/4	3/4	1
Ship Weight (lbs)	117	134	134	158	158	158	172



MODEL	A"	B"	C"	D"	E"	F"	G"	H"	J"	K"
AMVT24BP1300	45	16 5/16	17 9/16	15¼	12	12½	9	12 9/16	2	13⅝
AMVT30BP1300	53 7/16	16 5/16	17 9/16	23 11/16	20 1/16	12½	9	12¾	2	13⅝
AMVT36BP1300	53 7/16	16 5/16	17 9/16	23 11/16	20 1/16	12½	9	12¾	2	13⅝
AMVT36CP1300	49	19 13/16	21⅛	21 12/16	17¾	16 1/16	9	12¾	2	17⅛
AMVT42CP1300	53 7/16	19 13/16	21⅛	21 12/16	18½	16 1/16	9	12¾	2	17⅛
AMVT48CP1300	58	19 13/16	21⅛	26 3/16	22 15/16	14 10/16	10 13/16	6 13/16	2	17⅛
AMVT60DP1300	58	23 1/14	24⅝	26	22¾	17 11/16	12 9/16	13 13/16	2	20⅝

Model Number	Low/ High	Outdoor Tonnage						
		1.5	2	2.5	3	3.5	4	5
AMVT24BP1300	Low	402	536	-	-	-	-	-
	High	600	800	-	-	-	-	-
AMVT30BP1300	Low	402	536	670	-	-	-	-
	High	600	800	1,000	-	-	-	-
AMVT36BP1300	Low	-	-	670	804	-	-	-
	High	-	-	1,000	1,200	-	-	-
AMVT36CP1300	Low	-	536	670	804	-	-	-
	High	-	800	1,000	1,200	-	-	-
AMVT42CP1300	Low	-	-	-	804	938	-	-
	High	-	-	-	1,200	1,400	-	-
AMVT48CP1300	Low	-	-	-	-	938	1,072	-
	High	-	-	-	-	1,400	1,600	-
AMVT60DP1300	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%.

See notes on page 7.

Heater Kit Model	Circuit 1 (208V/240V)			Circuit 2 (208V/240V)			Single-Point Kit (208V/240V)	
	Heater Amps	MCA[1]	MOP[2]	Heater Amps	MCA[1]	MOP[2]	MCA[1]	MOP[2]
AMVT24BP1300AA	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	---	---	---	---	---
HKTSD15XA/B	34.7/40.0	48.2/54.9	50/60	17.3/20.0	21.7/25.0	25/25	69.9/79.9	70/80
AMVT30BP1300AA	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	---	---	---	---	---
HKTSD15XA/B	34.7/40.0	48.2/54.9	50/60	17.3/20.0	21.7/25.0	25/25	69.9/79.9	70/80
AMVT36BP1300AA	0/0	6.5/6.5	15/15	---	---	---	---	---
HKTSN03X1	10.8/12.5	20.0/22.1	25/25	---	---	---	---	---
HKTS*05X1	17.3/20.0	28.2/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.2	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.8/56.5	50/60	---	---	---	---	---
HKTSD15XA/B	34.7/40.0	49.9/56.5	50/60	17.3/20.0	21.7/25.0	25/25	71.5/81.5	80/90
AMVT36CP1300AA	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	28.2/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.2	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.8/56.5	50/60	---	---	---	---	---
HKTS*15X3 ^	0/0	6.5/6.5	15/15	30.0/34.6	37.5/43.3	40/45	---	---
HKTSD15XA/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
HKTSD19CA/B	34.7/40.0	49.8/56.5	50/60	34.7/40.0	43.3/50.0	45/50	93.2/107	100/110
AMVT42CP1300AA	0/0	6.5/6.5	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	28.2/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.2	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.8/56.5	50/60	---	---	---	---	---
HKTS*15X3 ^	0/0	6.5/6.5	15/15	30.0/34.6	37.5/43.3	40/45	---	---
HKTSD15XA/B	34.7/40.0	49.9/56.5	50/60	17.3/20.0	21.7/25.0	25/25	71.5/81.5	80/90
HKTSD19CA/B	34.7/40.0	49.9/56.5	50/60	34.7/40.0	43.3/50.0	45/50	93.2/107	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[1]	MOP[2]	Heater Amps	MCA[1]	MOP[2]	MCA[1]	MOP[2]
AMVT48CP1300AA	0/0	6.5/6.5	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	28.2/31.5	30/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	33.6/37.8	35/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	42.6/48.2	45/50	---	---	---	---	---
HKTS*10X1	34.7/40.0	49.8/56.5	50/60	---	---	---	---	---
HKTS*15X3 ^	0/0	6.5/6.5	15/15	30.0/34.6	37.5/43.3	40/45	---	---
HKTSD15XA/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
HKTSD19CA/B	34.7/40.0	49.8/56.5	50/60	34.7/40.0	43.3/50.0	45/50	93.2/107	100/110
AMVT60DP1300AA	0/0	8.6/8.6	15/15	---	---	---	---	---
HKTS*05X1	17.3/20.0	30.3/33.6	35/35	---	---	---	---	---
HKTSN06X1	21.7/25.0	35.7/39.9	40/40	---	---	---	---	---
HKTS*08X1	28.9/33.3	44.7/50.3	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	---	---
HKTSD15XA/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	34.7/40.0	52.0/58.6	80/90	34.7/40.0	43.4/50.0	45/50	117/134	125/150

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

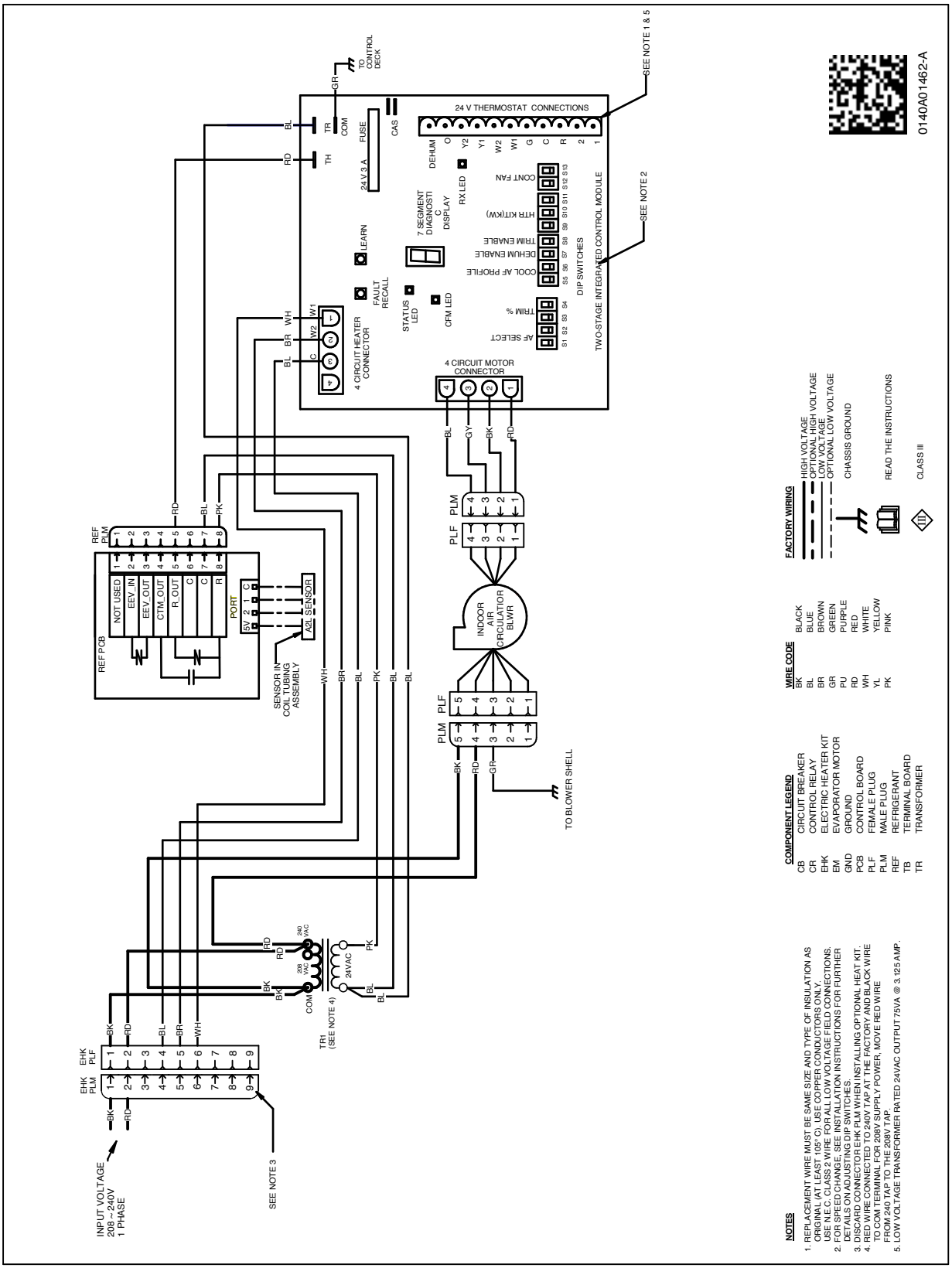
[2] Maximum Overcurrent Protection = 2.25 X Motor Amps + Heater Amps

^ 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.



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.

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

DOWNFLOW KITS

DFKE-02	DFKE-03
DMVT24BP1300**	DMVT48CP1300**
DMVT30BP1300**	DMVT60DP1300**
DMVT36BP1300**	
DMVT36CP1300**	
DMVT42CP1300**	

HIGH HUMIDITY KIT

HHK0004	HHK0005	HHK0007
DMVT24BP1300**	DMVT36CP1300**	DMVT60DP1300**
DMVT30BP1300**	DMVT42CP1300**	
DMVT36BP1300**	DMVT48CP1300**	

CONDENSATE MANAGEMENT KIT

CMK0018	CMK0019	CMK0020
DMVT24BP1300**	DMVT30BP1300**	DMVT48CP1300**
DMVT36CP1300**	DMVT36BP1300**	DMVT60DP1300**
	DMVT42CP1300**	

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 KIT (SPW-01)

HEATER KIT MODEL	SPWK-B	SPWK-C	SPWK-D
HKTSD15XA	DMVT24BP1300** DMVT30BP1300** DMVT36BU1300**	DMVT36CU1300** DMVT42CU1300** DMVT48CU1300**	DMVT60DU1300**
HKTSD15XB			
HKTSD19CA			
HKTSD19CB			
HKTSD20DA			DMVT60DU1300**
HKTSD20DB			
HKTSD25DA			DMVT60DU1300**
HKTSD25DB			

ULTRAVIOLET DRAIN PAN KIT

MODEL SIZE	KIT #	PARTS				
DMVT24B	UVPK01	DRAIN PAN MAIN	DRAIN PAN SIDE	NA	CONDENSATE COLLECTOR, BACK	CONDENSATE COLLECTOR, BACK
DMVT30B DMVT36B	UVPK02			CONDENSATE COLLECTOR, BACK		
DMVT36C	UVPK03					
DMVT42C	UVPK04					
DMVT48C	UVPK05					
DMVT60D	UVPK07					

R32 ZONING ACCESSORY KIT

KIT NUMBER	MODELS
0230K00007	All AMST Models

Notes

The manufacturing entity reserves the right to discontinue or change the specifications or design at any time without notice and without incurring any obligations.