

*MULTI-POSITION, MULTI-SPEED,
ECM-BASED AIR HANDLER
WITH INTERNAL TXV
1½ TO 5 TONS*



Contents

Air Handler Nomenclature..... 2
 Heater Kit Nomenclature 2
 Product Specifications..... 3
 Dimensions 4
 Airflow Data 5
 Heat Kit Data..... 7
 Wiring Diagram..... 9
 Accessories 12

Product Features

- Internal factory-installed thermal expansion valves for cooling and heat pump applications
- Direct drive, multi-speed ECM blower motor
- All-aluminum evaporator coil
- Coil mounting track for quick repositioning
- Optimized for use with R-410A refrigerant
- 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
- AHRI certified; ETL listed
- Rigid SmartFrame™ cabinet
- 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



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. 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.

												Engineering *					
												Major/Minor Revisions					
												A - Initial Release					
												B - 1st Revision					
												Electric Heat KW					
												5 = 5kw					
												8 = 8kw					
												10 = 10kw					
												Refrigerant					
												3- R32					
												4- R410A					
												6- R410A or R22					
												Electrical					
												1 208/240 V, 1 Phase, 60 Hz					
												Cabinet					
												N- Uncased					
												P- Painted					
												U- Unpainted					
												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"			
Product																	
A Corporate Air Handler																	
D Daikin Air Handler																	
Unit Application																	
C Ceiling Mount																	
M Multi-Positional																	
W Wall Mount																	
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 Range																	
12 = 1 Ton																	
18 = 1.5 Tons																	
24 = 2.0 Tons																	
30 = 2.5 Tons																	
36 = 3.0 Tons																	
42 = 3.5 Tons																	
48 = 4.0 Tons																	
60 = 5.0 Tons																	

*DENOTES AHRI WILD CARDS

							Revisions	
							Engineering Revisions	
							Phase	
							A Single Phase 208 V	
							E Three Phase 240 V	
							B Single Phase 240 V	
							F Three Phase 208/240 V	
							C Single Phase 208/240 V	
							G Three Phase 460 V	
							D Three Phase 208 V	
							H Special case 208 V *	
							Cabinet Size (MAX)	
							C C Cabinet	
							D D Cabinet	
							X All Cabinet Sizes	
Unit Type								
HKS Heat Kit for Air Handlers								
Circuit Breaker								
X No circuit breaker								
C Circuit Breaker								
Heating Capacity @ 240 Volts								
03 3.0 kW								
05 4.5 kW								
06 6.0 kW								
08 8.0 kW								
10 9.6 kW								
15 14.4 kW								
19 19.2 kW wth 150F limit								
20 19.2 kW with 170F limit								
25 25.0 kW								

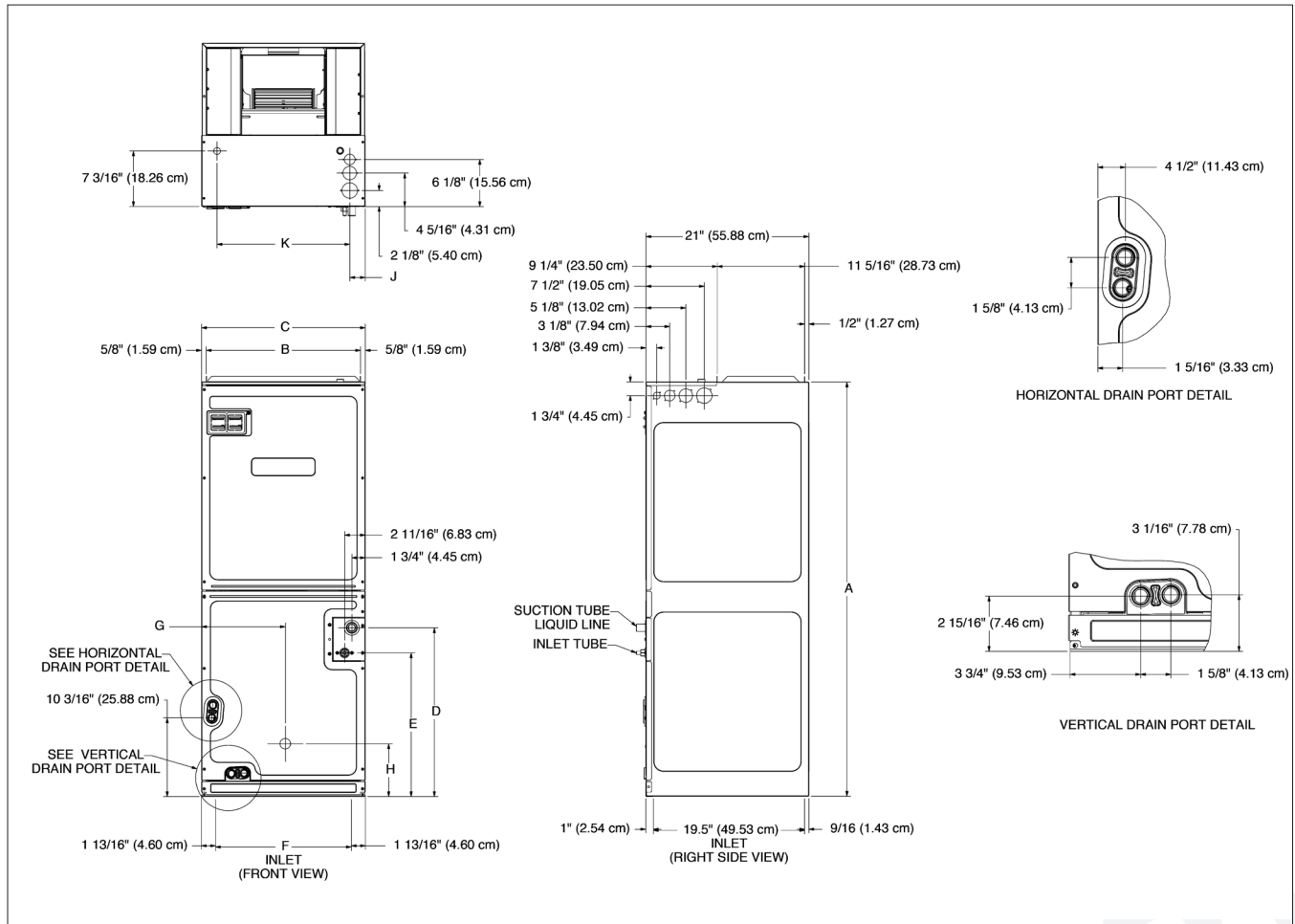
	AMST 24BU14*	AMST 30BU14*	AMST 36BU14*	AMST 36CU14*	AMST 42CU14*	AMST 48CU14*	AMST 48DU14*	AMST 60DU14*
NOMINAL RATINGS								
Cooling (Btu/h)	24,000	36,000	36,000	36,000	42,000	48,000	48,000	60,000
BLOWER								
Diameter	10"	10"	10"	10"	10"	10"	10"	11"
Width	6"	6"	6"	8"	8"	10"	10"	10"
COIL CONNECTIONS								
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"
ELECTRICAL DATA								
Voltage	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230
Minimum Circuit Ampacity	5.8/5.8	5.6/5.6	5.6/5.6	7.1/7.1	5.9/5.9	7.1/7.1	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
Blower Motor								
Full Load Amps (FLA)	4.6	4.5	4.5	5.7	4.7	6.9	6.9	6.9
Horsepower (HP)	¾	¾	¾	¾	¾	¾	¾	¾
SHIP WEIGHT (LBS.)	112	129	129	153	153	153	155	167

*Airflow rate @.3 static

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

PRELIMINARY
SPEC SHEETS SUBJECT TO CHANGE

DIMENSIONS



MODEL	A"	B"	C"	D"	E"	F"	G"	H"	J"	K"
AMST24BU*	45	16 5/16	17 9/16	15 1/4	12	12 1/2	9	12 9/16	2	13 5/8
AMST30BU*	53 7/16	16 5/16	17 9/16	23 11/16	20 1/16	12 1/2	9	12 3/4	2	13 5/8
AMST36BU*	53 7/16	16 5/16	17 9/16	23 11/16	20 1/16	12 1/2	9	12 3/4	2	13 5/8
AMST36CU*	49	19 13/16	21 1/8	21 12/16	17 3/4	16 1/16	9	12 3/4	2	17 1/8
AMST42CU*	53 7/16	19 13/16	21 1/8	21 12/16	18 1/2	16 1/16	9	12 3/4	2	17 1/8
AMST48CU*	58	19 13/16	21 1/8	26 3/16	22 15/16	14 10/16	10 13/16	6 13/16	2	17 1/8
AMST48DU*	53 7/16	23 1/14	24 5/8	21 1/16	18 1/4	17 11/16	12 9/16	6 15/16	2	20 5/8
AMST06DU*	58	23 1/14	24 5/8	26	22 3/4	17 11/16	12 9/16	13 3/16	2	20 5/8

MODEL NUMBER	SPEED TAP	STATIC PRESSURE (IN W.C)								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
AMST 24BU1400AA	T1	720	690	625	605	525	505	385	370	265
	T2	850	825	770	750	675	665	590	575	470
	T3	900	875	830	815	750	740	670	655	550
	T4	1,030	1,005	960	950	900	890	825	820	760
	T5	825	800	745	730	660	645	560	550	460
	T6	935	910	865	850	790	780	715	705	620
	T7	1,100	1,080	1,035	1,020	970	960	902	900	840
	T8	1,045	1,025	985	970	920	910	820	845	785
	T9	1,215	1,195	1,155	1,145	1,105	1,095	1,045	1,040	980
AMST 30BU1400AA	T1	750	725	670	655	585	570	465	455	360
	T2	920	895	845	830	780	770	710	700	615
	T3	985	960	915	900	850	840	785	775	710
	T4	1,185	1,165	1,125	1,115	1,070	1,060	1,015	1,010	960
	T5	1,070	1,050	1,005	995	945	935	890	885	830
	T6	620	585	515	458	375	310	260	245	145
	T7	840	815	760	745	685	670	590	580	480
	T8	855	830	780	765	705	695	625	615	515
	T9	995	970	925	910	860	850	800	790	730
AMST 36BU1400AA	T1	750	725	670	655	585	570	465	455	360
	T2	920	895	845	830	780	770	710	700	615
	T3	985	960	915	900	850	840	785	775	710
	T4	1,185	1,165	1,125	1,115	1,070	1,060	1,015	1,010	960
	T5	1,070	1,050	1,005	995	945	935	890	885	830
	T6	620	585	515	485	375	310	260	245	145
	T7	840	815	760	745	685	670	590	580	480
	T8	855	830	780	765	705	695	625	615	515
	T9	995	970	925	910	860	850	800	790	730
AMST 36CU1400AA	T1	1,120	1,085	1,020	1,000	910	890	770	760	680
	T2	1,285	1,255	1,190	1,170	1,100	1,085	990	980	885
	T3	1,430	1,400	1,345	1,330	1,260	1,250	1,175	1,165	1,065
	T4	1,735	1,410	1,660	1,645	1,580	1,570	1,510	1,500	1,440
	T5	1,830	1,805	1,755	1,740	1,685	1,675	1,605	1,595	1,525
	T6	1,165	1,130	1,055	1,035	960	940	825	815	715
	T7	1,450	1,425	1,370	1,355	1,285	1,275	1,200	1,190	1,095
	T8	1,070	1,035	960	935	830	810	700	690	610
	T9	1,560	1,530	1,470	1,455	1,390	1,380	1,310	1,300	1,235
AMST 42CU1400AA	T1	1,165	1,140	1,085	1,065	990	975	895	880	765
	T2	1,210	1,185	1,130	1,110	1,040	1,025	950	935	830
	T3	1,2515	1,190	1,135	1,120	1,055	1,040	960	945	835
	T4	1,495	1,470	1,425	1,415	1,365	1,355	1,305	1,295	1,220
	T5	1,435	1,410	1,360	1,345	1,295	1,285	1,220	1,210	1,140
	T6	1,410	1,385	1,335	1,325	1,280	1,270	1,195	1,185	1,115
	T7	1,440	1,415	1,362	1,355	1,305	1,295	1,235	1,225	1,155
	T8	1,230	1,205	1,150	1,135	1,070	1,060	990	975	850
	T9	1,495	1,470	1,425	1,415	1,365	1,355	1,305	1,295	1,220

AIRFLOW DATA (CONT.)

MODEL NUMBER	SPEED TAP	STATIC PRESSURE (IN W.C)								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
AMST 48CU1400AA	T1	1,165	1,390	1,330	1,310	1,235	1,220	1,135	1,125	1,050
	T2	1,210	1,550	1,490	1,470	1,400	1,390	1,315	1,305	1,230
	T3	1,215	1,610	1,560	1,545	1,480	1,470	1,400	1,390	1,315
	T4	1,495	1,710	1,660	1,640	1,560	1,550	1,485	1,475	1,410
	T5	1,435	1,795	1,750	1,735	1,680	1,670	1,605	1,595	1,525
	T6	1,410	1,435	1,375	1,355	1,280	1,265	1,165	1,155	1,065
	T7	1,440	1,700	1,650	1,635	1,570	1,560	1,495	1,485	1,420
	T8	1,230	1,730	1,680	1,665	1,595	1,585	1,515	1,505	1,425
	T9	1,495	1,295	1,230	1,210	1,130	1,115	1,025	1,015	930
AMST 48DU1400AA	T1	1,425	1,395	1,335	1,320	1,250	1,240	1,165	1,155	1,070
	T2	1,510	1,480	1,425	1,410	1,345	1,335	1,270	1,260	1,185
	T3	1,605	1,580	1,525	1,510	1,450	1,440	1,375	1,365	1,300
	T4	1,875	1,855	1,810	1,795	1,735	1,725	1,670	1,665	1,605
	T5	1,755	1,730	1,680	1,665	1,605	1,595	1,535	1,525	1,465
	T6	1,350	1,320	1,260	1,245	1,175	1,160	1,085	1,075	980
	T7	1,140	1,105	1,040	1,020	935	915	805	790	685
	T8	1,605	1,580	1,525	1,510	1,450	1,440	1,375	1,365	1,300
	T9	1,605	1,580	1,525	1,510	1,450	1,440	1,375	1,365	1,300
AMST 60DU1400AA	T1	1,215	1,175	1,095	1,070	975	950	790	780	700
	T6	1,815	1,785	1,725	1,710	1,650	1,640	1,570	1,560	1,490
	T7	1,360	1,325	1,250	1,230	1,145	1,125	1,010	990	850
	T8	2,070	2,045	1,995	1,980	1,930	1,920	1,855	1,845	1,785
	T9	1,970	1,945	1,895	1,880	1,815	1,805	1,740	1,730	1,600

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. The shaded area indicates ranges in excess of maximum design external static pressure.
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.

HEATER KIT MODEL	CIRCUIT 1			CIRCUIT 2			SINGLE-POINT KIT	
	HEATER AMPS	MCA ¹	MOP ²	HEATER AMPS	MCA ¹	MOP ²	MCA ¹	MOP ²
AMST24BU1400AA	0/0	5.8/5.8	15/15					
HKS*03XC*	10.8/12.5	19/21.4	20/25					
HKS*05XC*	17.3/20	27/30.8	30/35					
HKS*06XC*	21.7/25	32.8/37	35/40					
HKS*08XC*	28.9/33.3	41.9/47	45/50					
HKS*10XC*	34.7/40	49.1/56	50/60					
HKSC15XA 208	34.7	49.1	50	17.3	21.7	25	70.8	80
HKSC15XB 240	40	55.8	60	20	25	25	80.8	90
AMST30BU1400AA	0/0	5.6/5.6	15/15					
HKS*03XC*	10.8/12.5	19/21.3	20/25					
HKS*05XC*	17.3/20	27/30.6	30/35					
HKS*06XC*	21.7/25	32.7/37	35/40					
HKS*08XC*	28.9/33.3	42/47.3	45/50					
HKS*10XC*	34.7/40	49/55.6	50/60					
HKSC15XA 208	34.7	49	50	17.3	21.7	25	70.8	80
HKSC15XB 240	40	55.6	60	20	25	25	80.8	90
AMST36BU1400AA	0/0	5.6/5.6	15/15					
HKS*03XC*	10.8/12.5	19/21.3	20/25					
HKS*05XC*	17.3/20	27/30.6	30/35					
HKS*06XC*	21.7/25	32.7/37	35/40					
HKS*08XC*	28.9/33.3	42/47.3	45/50					
HKS*10XC*	34.7/40	49/55.6	50/60					
HKSC15XA 208	34.7	49	50	17.3	21.7	25	70.8	80
HKSC15XB 240	40	55.6	60	20	25	25	80.8	90
AMST36CU1400AA	0/0	7.1/7.1	15/15					
HKS*03XC*	10.8/12.5	20.7/23	25/25					
HKS*05XC*	17.3/20	29/32.1	30/35					
HKS*06XC*	21.7/25	34/38.4	35/40					
HKS*08XC*	28.9/33.3	43/48.8	45/50					
HKS*10XC*	34.7/40	50.5/57	60/60					
HKS*15XF*	0/0	7.1/7.1	15/15	30/34.6	30/34.6	40/45		
HKSC15XA 208	34.7	50.5	60	17.3	17.3	25	72.1	80
HKSC15XB 240	40	57.1	60	20	20	25	82.1	90
HKSC19CH 208	34.7	50.5	60	34.7	34.7	45	93.9	100
HKSC19CB 240	40	57.1	60	40	40	50	107	110
AMST42CU1400AA	0/0	5.9/5.9	15/15					
HKS*03XC*	10.8/12.5	19/21.5	20/25					
HKS*05XC*	17.3/20	28/30.9	30/35					
HKS*06XC*	21.7/25	33/37.1	35/40					
HKS*08XC*	28.9/33.3	42/47.5	45/50					
HKS*10XC*	34.7/40	49/55.9	50/60					
HKS*15XF*	0/0	5.9/5.9	15/15	30/34.6	38/43	40/45		
HKSC15XA 208	34.7	49.2	50	17.3	21.7	25	70.9	80
HKSC15XB 240	40	55.9	60	20	25	25	80.9	90
HKSC19CA 208	34.7	49.2	50	34.7	43.3	45	92.5	100
HKSC19CB 240	40	55.9	60	40	50	50	106	110

See notes on page 8.

HEAT KIT DATA (CONT.)

HEATER KIT MODEL	CIRCUIT 1			CIRCUIT 2			SINGLE-POINT KIT	
	HEATER AMPS	MCA ¹	MOP ²	HEATER AMPS	MCA ¹	MOP ²	MCA ¹	MOP ²
AMST48CU1400AA	0/0	7.1/7.1	15/15					
HKS*03XC*	10.8/12.5	20.7/23	25/25					
HKS*05XC*	17.3/20	29/32.1	30/35					
HKS*06XC*	21.7/25	34/38.4	35/40					
HKS*08XC*	28.9/33.3	43/48.8	45/50					
HKS*10XC*	34.7/40	50.5/57	60/60					
HKS*15XF*	0/0	7.1/7.1	15/15	30/34.6	38/43	40/45		
HKSC15XA 208	34.7	50.5	60	17.3	21.7	25	72.1	80
HKSC15XB 240	40	57.1	60	20	25	25	82.1	90
HKSC19CH 208	34.7	50.5	60	34.7	43.3	45	93.9	100
HKSC19CB 240	40	57.1	60	40	50	50	107	110
AMST48DU1400	0/0	8.6/8.6	15/15					
HKS*03XC*	10.8/12.5	22/24.3	25/25					
HKS*05XC*	17.3/20	30.3/34	35/35					
HKS*06XC*	21.7/25	36/39.9	40/40					
HKS*08XC*	28.9/33.3	45/50.3	45/60					
HKS*10XC*	34.7/40	52/58.6	60/60					
HKS*15XF*	0/0	8.6/8.6	15/15	30/34.6	38/43	40/45		
HKSC15XA 208	34.7	52	60	17.3	21.7	25	73.6	80
HKSC15XB 240	40	58.6	60	20	25	25	83.6	90
HKS*20XF*	0/0	8.6/8.6	15/15	37.5/43.3	47/54	50/60		
HKSC20DA 208	34.7	52	60	34.7	43.3	45	95.3	100
HKSC20DB 240	40	58.6	60	40	50	50	109	110
AMST60DU1400	0/0	8.6/8.6	15/15					
HKS*03XC*	10.8/12.5	22/24.3	25/25					
HKS*05XC*	17.3/20	30.3/34	35/35					
HKS*06XC*	21.7/25	36/39.9	40/40					
HKS*08XC*	28.9/33.3	45/50.3	45/60					
HKS*10XC*	34.7/40	52/58.6	60/60					
HKS*15XF*	0/0	8.6/8.6	15/15	30/34.6	38/43	40/45		
HKSC15XA 208	34.7	52	60	17.3	21.7	25	73.6	80
HKSC15XB 240	40	58.6	60	20	25	25	83.6	90
HKS*20XF*	0/0	8.6/8.6	15/15	37.5/43.3	47/54	50/60		
HKSC20DH 208	34.7	52	60	34.7	43.3	45	95.3	100
HKSC20DB 240	40	58.6	60	40	50	50	109	110

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

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

^Circuit 1: Single-phase for Air Handlers Circuit 2: Three-phase for HKR3 Heater Kits

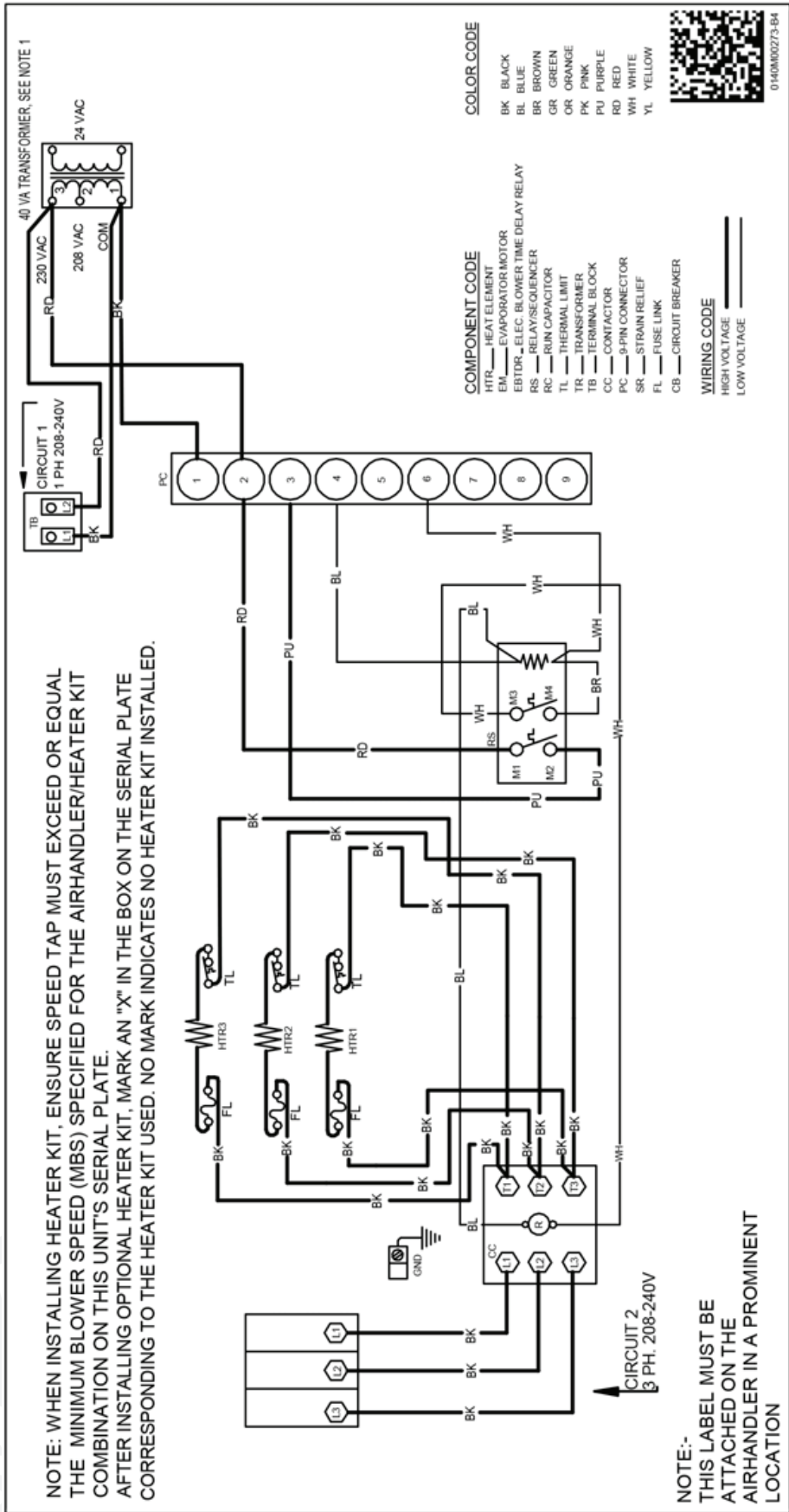
---indicates Not Required

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.



DOWNFLOW KITS

DFKE-02	DFKE-03
AMST24BU1400**	AMST48CU1400**
AMST30BU1400**	AMST48DU1400**
AMST36BU1400**	AMST60DU1400**
AMST36CU1400**	
AMST42CU1400**	

HIGH HUMIDITY KIT

HHK0004	HHK0005	HHK0006	HHK0007
AMST24BU1400**	AMST36CU1400**	AMST48DU1400**	AMST60DU1400**
AMST30BU1400**	AMST42CU1400**		
AMST36BU1400**	AMST48CU1400**		

CONDENSATE MANAGEMENT KIT

CMK0018	CMK0019	CMK0020
AMST24BU1400**	AMST30BU1400**	AMST48CU1400**
AMST36CU1400**	AMST36BU1400**	AMST48DU1400**
	AMST42CU1400**	AMST60DU1400**

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
HKSC15XB-240V	AMST24BU1400** AMST30BU1400**	AMST36CU1400** AMST42CU1400** AMST48CU1400**	AMST48DU1400** AMST60DU1400**
HKSC15XA-208V	AMST36BU1400**		
HKSC19CA-208V			
HKSC19CB-240V			
HKSC20DA-208V			AMST48DU1400** AMST60DU1400**
HKSC20DB-240V			
HKSC25DA-240V			AMST60DU1400**
HKSC25DA-208V			
HKSC25DA			