Goodman
Air Conditioning & Heating

AMST Series

Multi-Position, Multi-Speed, ECM-Based Air Handler with Internal TXV 1½ to 5 Tons

Contents

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 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
- 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

10 YEAR PARTS LIMITED WARRANTY*

ALL ALUMINUM COIL

AHRI CERTIFIED www.ahridirectory.org

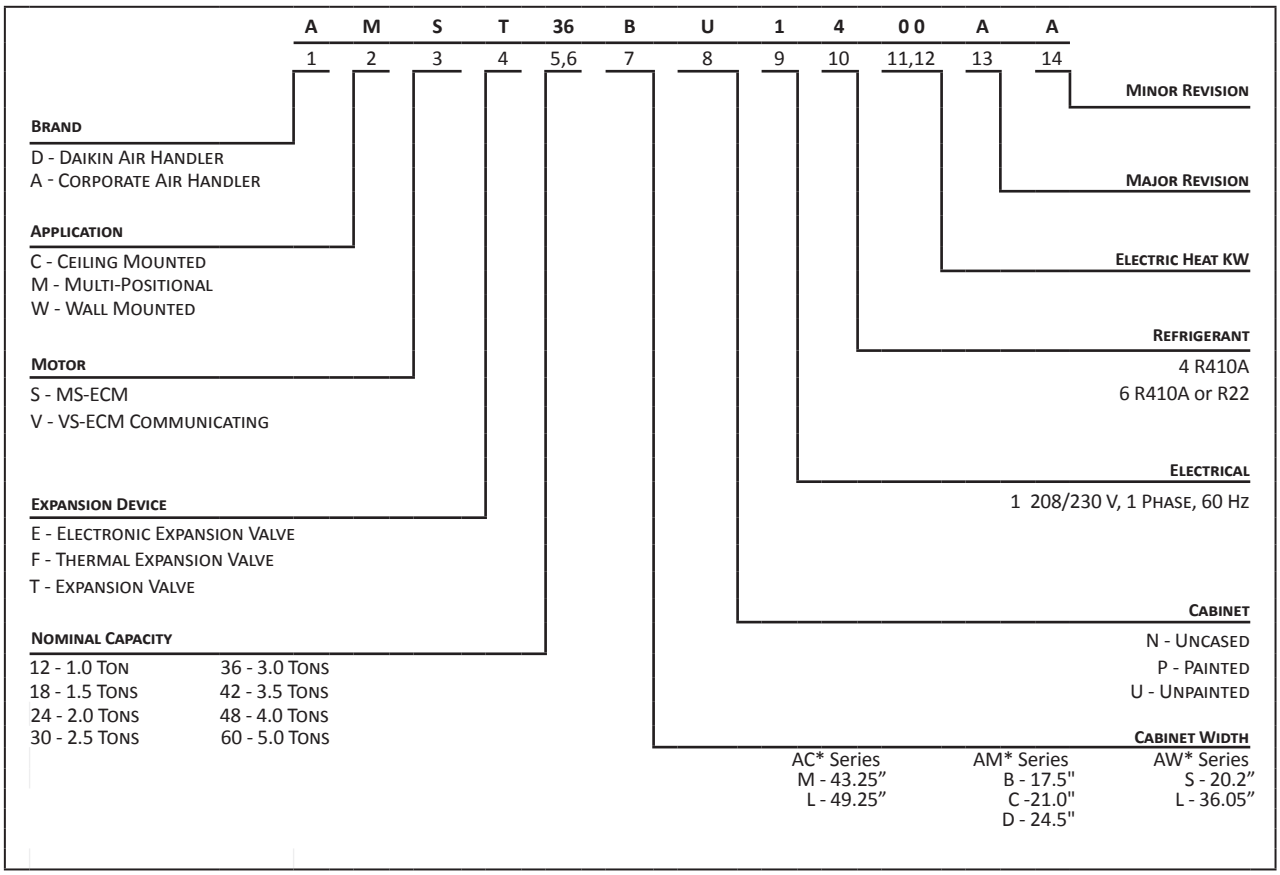
ETL LISTED c US Intertek

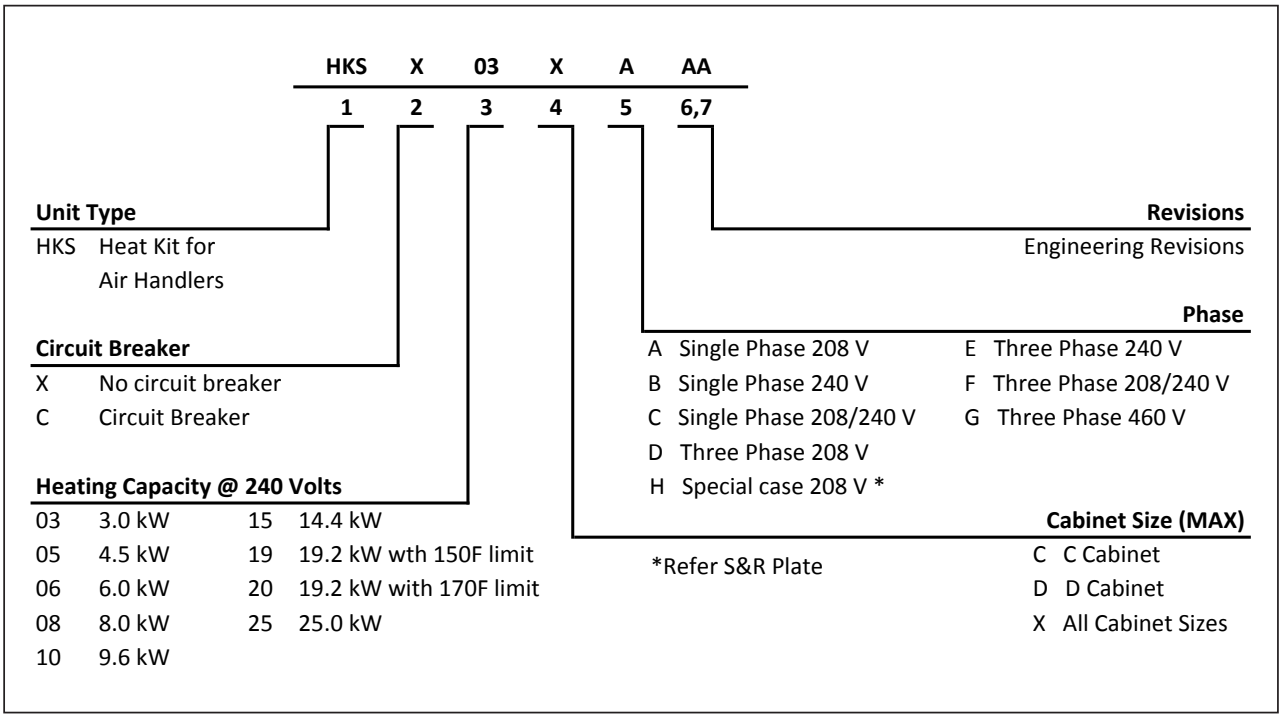
COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

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

BBB ACCREDITED BUSINESS

* 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.

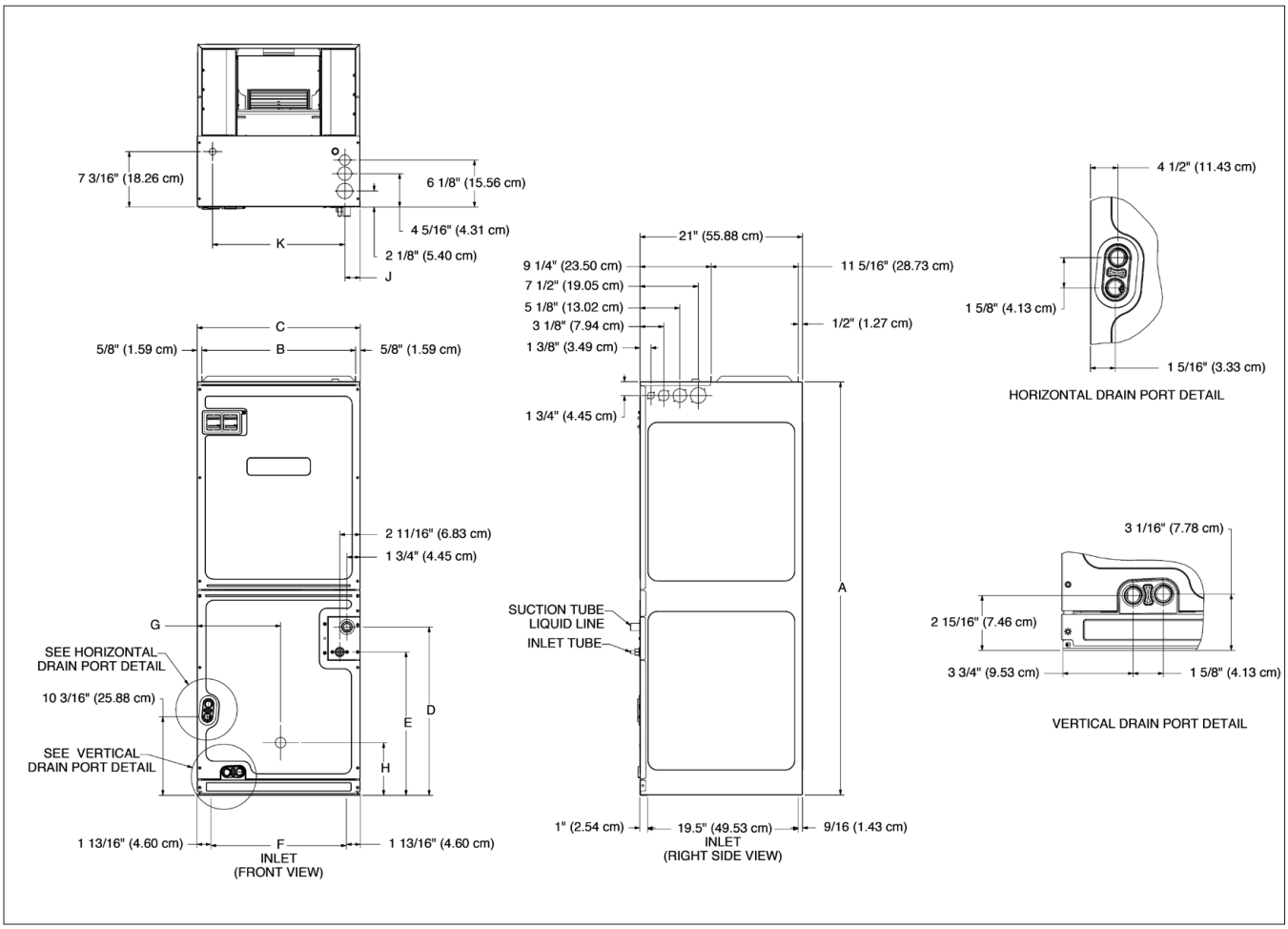

A M S T 36 B U 1 4 00 A A
1 2 3 4 5,6 7 8 9 10 11,12 13 14
Minor Revision
Major Revision
Electric Heat KW
Refrigerant
4 R410A
6 R410A or R22
Electrical
1 208/230 V, 1 Phase, 60 Hz
Cabinet
N - Uncased
P - Painted
U - Unpainted
Cabinet Width
AC* Series
M - 43.25”
L - 49.25”
AM* Series
B - 17.5"
C -21.0"
D - 24.5"
AW* Series
S - 20.2”
L - 36.05”
Brand
D - Daikin Air Handler
A - Corporate Air Handler
Application
C - Ceiling Mounted
M - Multi-Positional
W - Wall Mounted
Motor
S - MS-ECM
V - VS-ECM Communicating
Expansion Device
E - Electronic Expansion Valve
F - Thermal Expansion Valve
T - Expansion Valve
Nominal Capacity
12 - 1.0 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


HKS X 03 X A AA
1 2 3 4 5 6,7
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
Phase
A Single Phase 208 V
B Single Phase 240 V
C Single Phase 208/240 V
D Three Phase 208 V
H Special case 208 V *
E Three Phase 240 V
F Three Phase 208/240 V
G Three Phase 460 V
*Refer S&R Plate
Cabinet Size (MAX)
C C Cabinet
D D Cabinet
X All Cabinet Sizes
Revisions
Engineering Revisions

	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	5.7	5.7	6.9	6.9
Horsepower (HP)	¾	¾	¾	¾	¾	¾	1	1
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)



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	40	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	T 1	1,120	1,085	1,020	1,000	910	890	770	760	680
	T 2	1,285	1,255	1,190	1,170	1,100	1,085	990	980	885
	T 3	1,430	1,400	1,345	1,330	1,260	1,250	1,175	1,165	1,065
	T 4	1,735	1,410	1,660	1,645	1,580	1,570	1,510	1,500	1,440
	T 5	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	1,215	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

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.

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
HKTSD25DA 208	52	73.6	80	35	43.3	45	117	125
HKTSD25DB 240	60	83.6	90	40	50	50	134	150

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

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

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

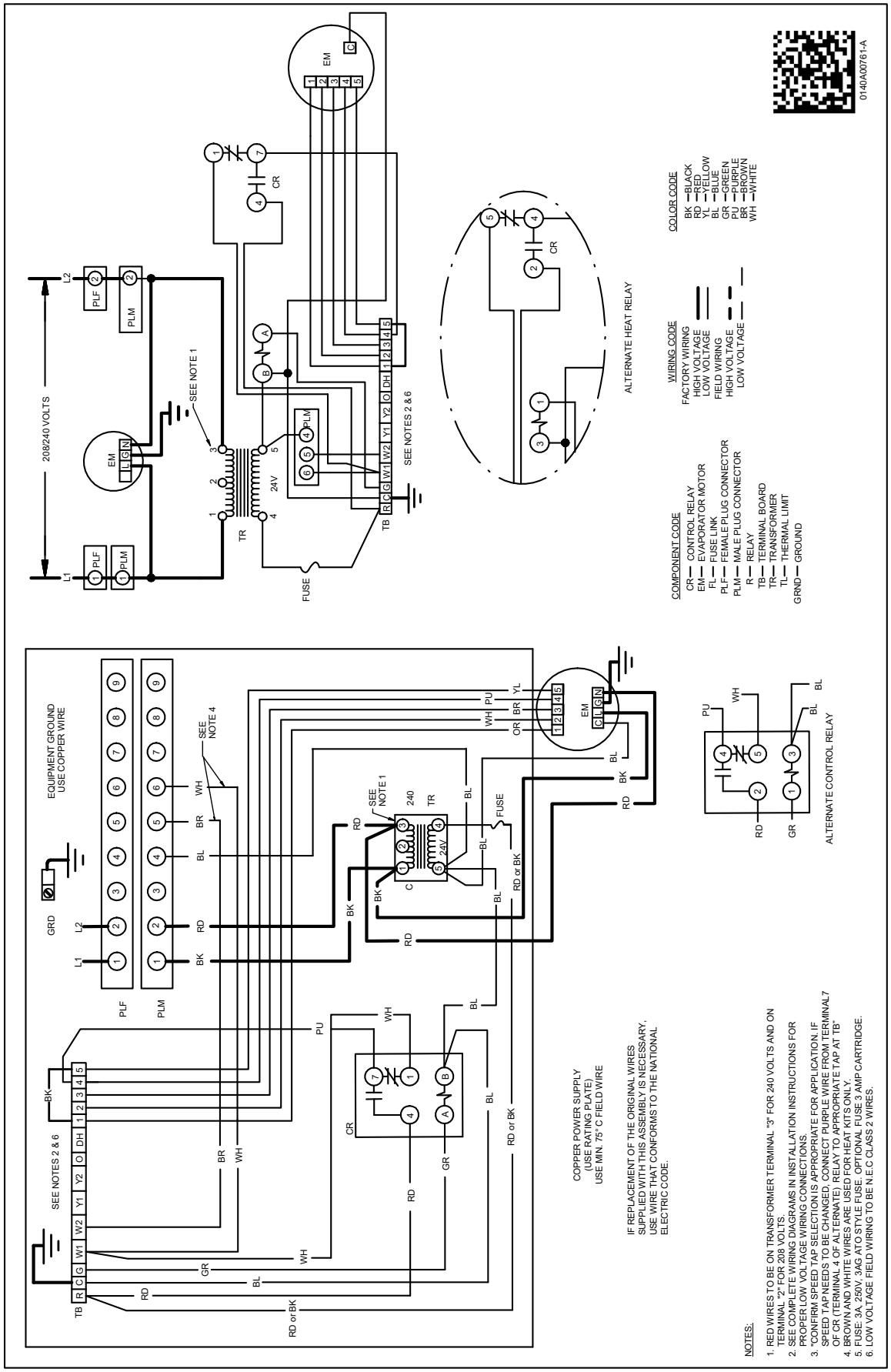
---indicates Not Required

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

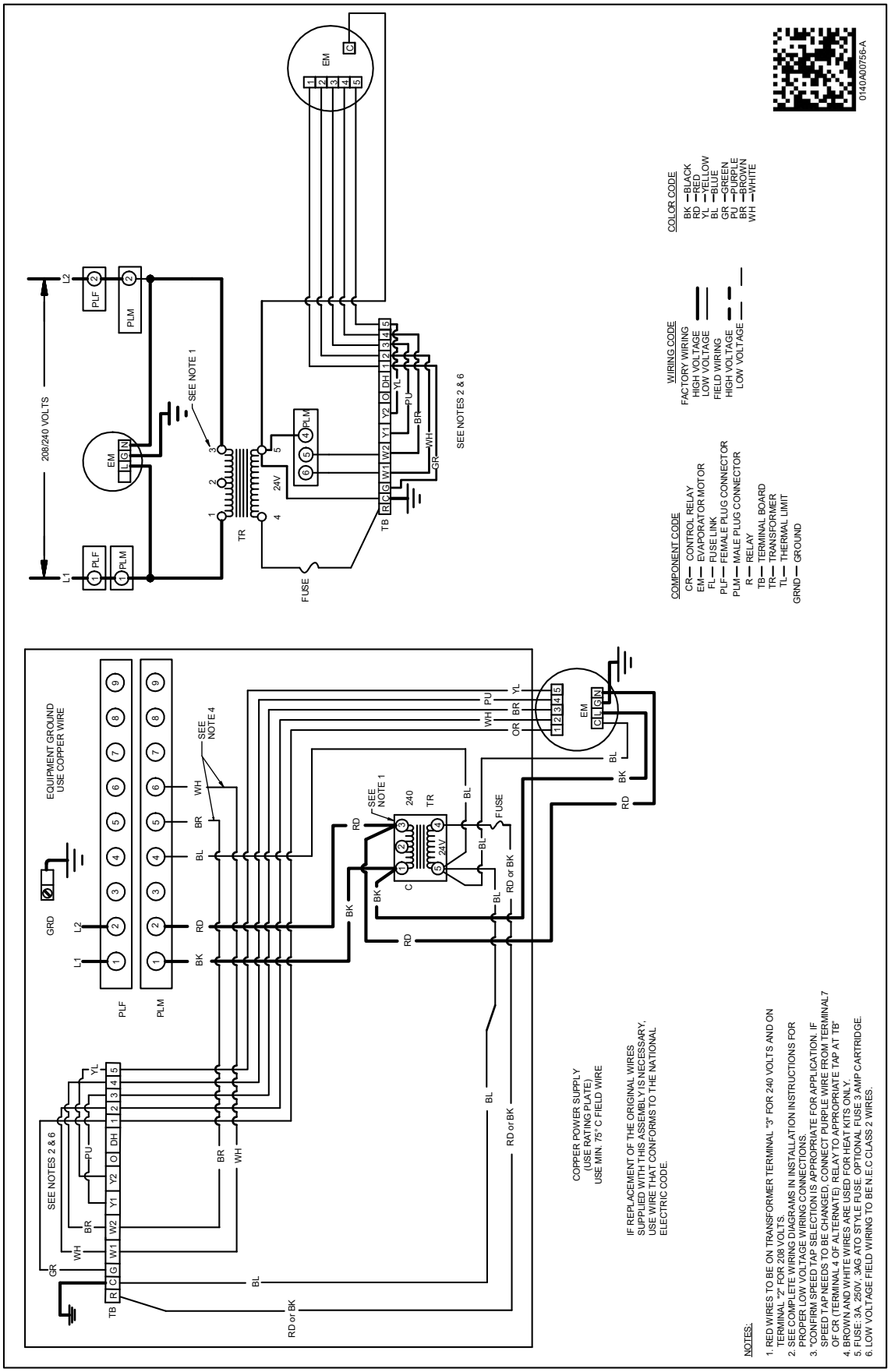
SUPPLY VOLTAGE	240	230	220	210	208
CORRECTION FACTOR	1.00	0.92	0.84	0.77	0.75

Multiply the 240-volt heating capacity by correction factors.



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.



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
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**	AMST48DU1400** AMST60DU1400**
HKSC15XA-208V	AMST36BU1400**	AMST48CU1400**	
HKSC19CA-208V			
HKSC19CB-240V			
HKSC20DA-208V			AMST48DU1400** AMST60DU1400**
HKSC20DB-240V			
HKSC25DA-240V			AMST60DU1400**
HKSC25DA-208V			
HKSC25DA			