



Air Conditioning & Heating

# ASPT SERIES

## MULTI-POSITION, INTERNAL TXV

## MULTI-SPEED ECM BASED

## AIR HANDLER

## 1½ TO 5 TONS



### 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<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
- 3 kW – 25 kW electric heater kits
- Horizontal or vertical configuration capabilities
- Rigid SmartFrame™ cabinet
- 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
- AHRI certified; ETL listed

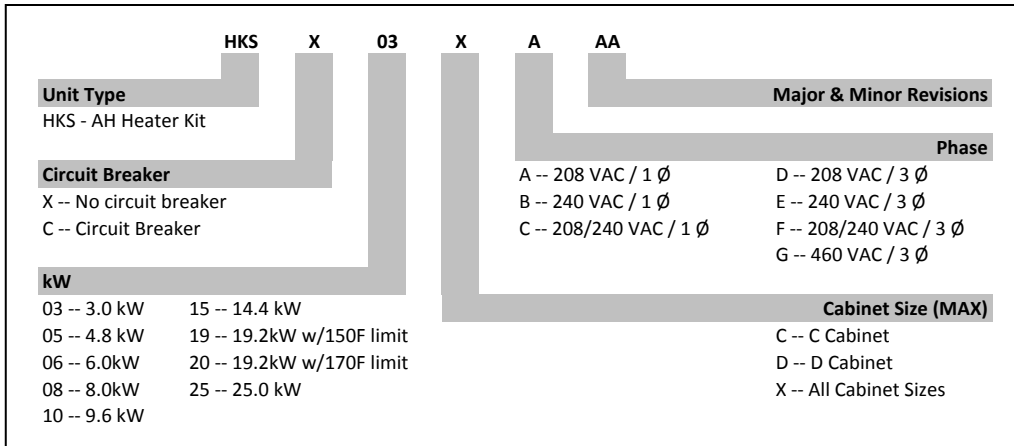
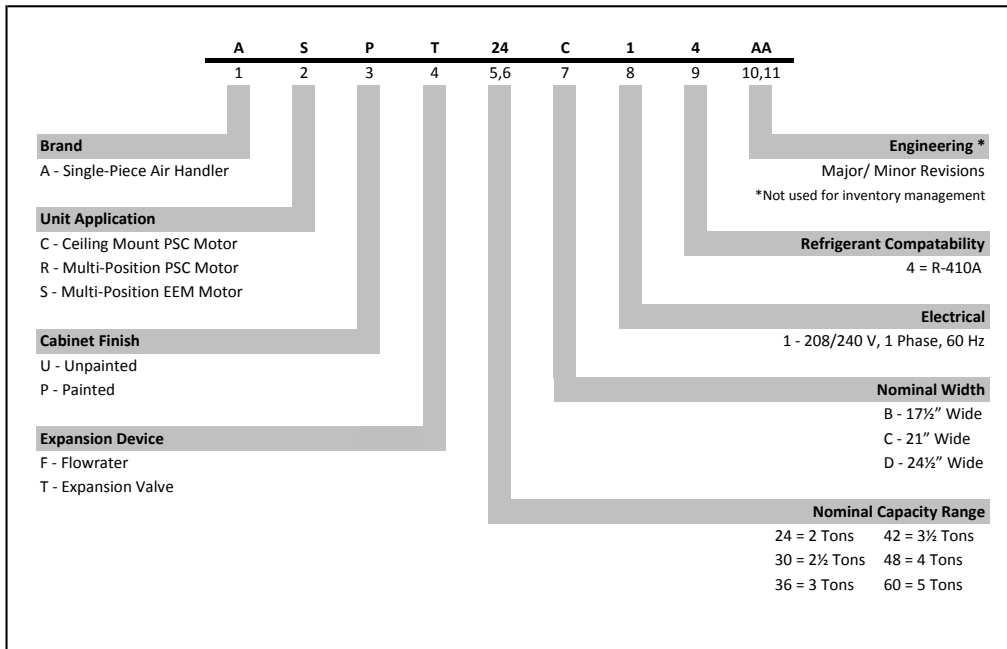
### Contents

Air Handler Nomenclature .....	2
Heater Kit Nomenclature .....	2
Product Specifications .....	3
Dimensions .....	4
Airflow Data .....	5
Heat Kit Data .....	6
Wiring Diagram .....	8
Accessories .....	11



\* 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 Quebec.

NOMENCLATURE



HEATING kW CORRECTION FACTOR

<b>SUPPLY VOLTAGE</b>	240	230	220	210	208
<b>CORRECTION FACTOR</b>	1.00	0.92	0.84	0.77	0.75

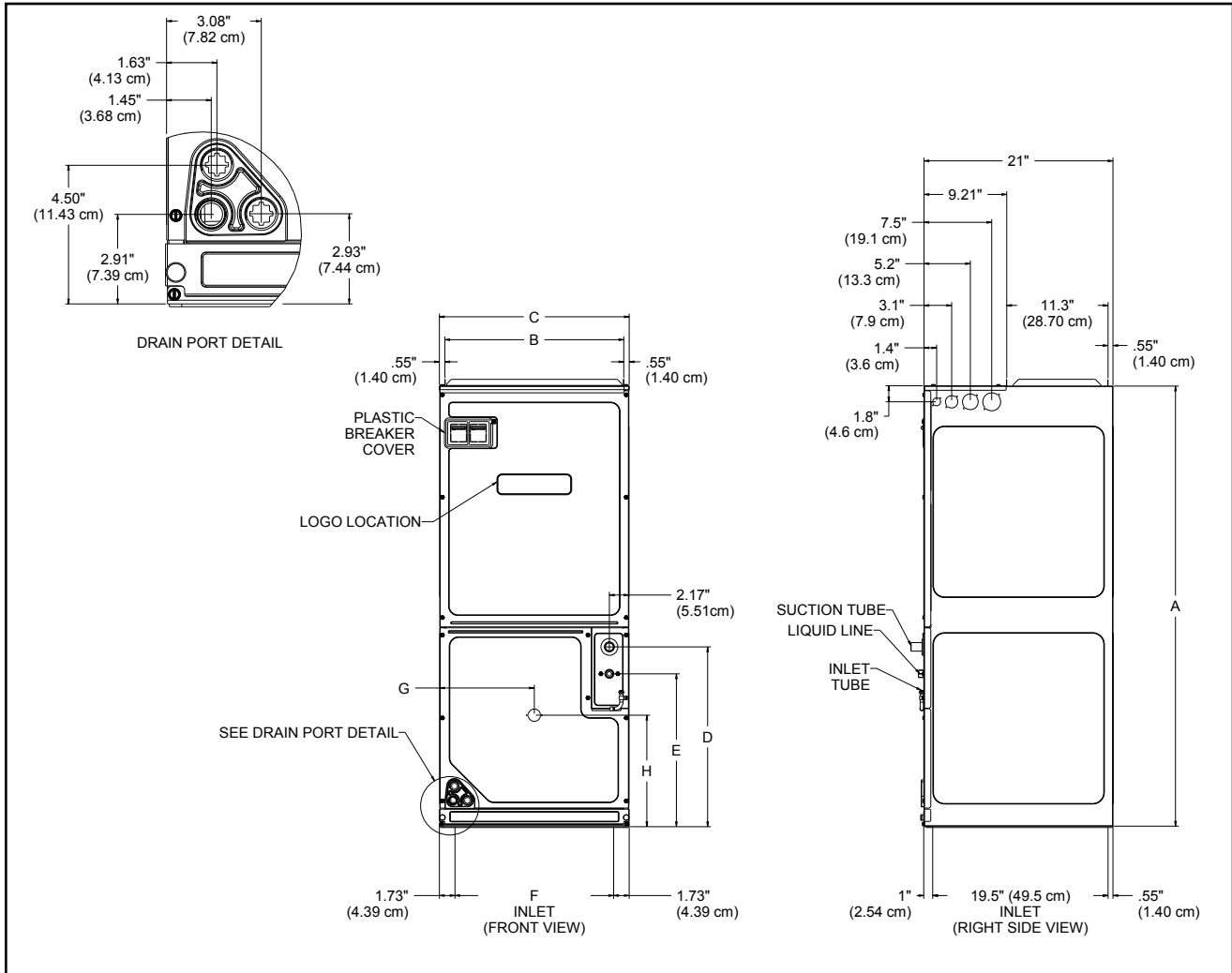
Multiply the 240-volt heating capacity by correction factors.

**SPECIFICATIONS**

	ASPT 24B14*	ASPT 30C14*	ASPT 36C14*	ASPT 42C14*	ASPT 42D14*	ASPT 48C14*	ASPT 48D14*	ASPT 60D14*
<b>NOMINAL RATINGS</b>								
Cooling (Btu/h)	24,000	30,000	36,000	42,000	42,000	48,000	48,000	60,000
Airflow Rate CFM *								
<b>BLOWER</b>								
Diameter	9½"	10⅝"	10⅝"	10⅝"	10⅝"	10⅝"	10⅝"	11⅛"
Width	6"	8"	8"	10⅝"	10⅝"	10⅝"	10⅝"	10⅝"
<b>COIL CONNECTIONS</b>								
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	¾"	⅞"	⅞"	⅞"	⅞"	⅞"	⅞"	⅞"
Coil Drain Connect (FPT)	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
<b>ELECTRICAL DATA</b>								
Voltage	208 / 230	208 / 230	208 / 230	208 / 230	208 / 230	208 / 230	208 / 230	208 / 230
Minimum Circuit Ampacity	3 / 3	4 / 4	4 / 4	4 / 4	6 / 6	7 / 7	8 / 8	8 / 8
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)	2.18	3.15	3.15	3.15	4.84	5.4	6.65	6.65
Horsepower (HP)	¾	¾	¾	¾	¾	¾	1	1
<b>SHIP WEIGHT (LBS.)</b>								
	100	118	118	125	167	125	167	167

**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"
ASPT24B14*	45	16%	17½	18	15	14¼	8%	12
ASPT30C14*	49	20	21	20	17	17¾	10%	12½
ASPT36C14*	49	20	21	20	17	17¾	10%	12½
ASPT42C14	49	20	21	20	17	17¾	10%	12½
ASPT42D14*	58	23%	24¼	28%	25%	21¼	12%	12½
ASPT48C14	49	20	21	20	17	17¾	10%	12½
ASPT48D14*	58	23%	24¼	28%	25%	21¼	12%	12½
ASPT60D14*	58	23%	24¼	28%	25%	21¼	12%	12½

**AIRFLOW DATA**

MODEL	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	1.0
ASPT24B14	1	570	540	520	480	450	415	370	305	270	240
	2	650	605	600	570	530	500	460	425	380	330
	3	740	690	660	650	615	570	525	480	440	405
	4	855	810	775	755	750	720	690	650	620	575
	5	1,050	1,005	975	940	910	900	885	880	845	820
ASPT30C14	1	610	580	540	445	390	330	285	240	205	160
	2	705	670	625	570	545	465	425	385	325	270
	3	785	740	720	660	640	580	515	475	440	370
	4	880	845	810	805	740	700	660	595	550	515
	5	1,450	1,440	1,400	1,380	1,350	1,330	1,295	1,275	1,245	1,205
ASPT36C14	1	960	905	890	810	760	720	665	620	550	485
	2	1,060	1,010	995	920	875	835	790	745	690	615
	3	1,150	1,100	1,090	1,025	990	945	905	860	810	750
	4	1,250	1,220	1,205	1,145	1,110	1,070	1,035	990	940	885
	5	1,470	1,440	1,425	1,405	1,375	1,260	1,315	1,280	1,245	1,205
ASPT42C14	1	950	925	865	815	730	675	660	600	545	---
	2	1,075	1,025	980	930	875	785	730	690	650	---
	3	1,160	1,115	1,070	1,025	975	905	815	770	715	---
	4	1,275	1,235	1,190	1,145	1,100	1,040	975	875	835	---
	5	1,600	1,560	1,520	1,480	1,430	1,390	1,345	1,290	1,245	---
ASPT42D14	1	1,230	1,180	1,110	1,060	1,000	945	885	810	745	685
	2	1,365	1,310	1,250	1,190	1,140	1,090	1,030	980	920	855
	3	1,460	1,410	1,355	1,305	1,255	1,210	1,155	1,115	1,060	1,010
	4	1,545	1,490	1,440	1,375	1,330	1,295	1,245	1,200	1,150	1,100
	5	1,865	1,825	1,780	1,745	1,695	1,645	1,610	1,570	1,520	1,475
ASPT48C14	1	1,365	1,305	1,275	1,225	1,175	1,110	1,070	1,020	995	---
	2	1,490	1,455	1,405	1,360	1,305	1,255	1,205	1,160	1,115	---
	3	1,580	1,540	1,500	1,455	1,400	1,350	1,300	1,260	1,210	---
	4	1,670	1,635	1,585	1,545	1,495	1,445	1,395	1,365	1,315	---
	5	1,750	1,715	1,680	1,645	1,590	1,530	1,495	1,460	1,410	---
ASPT48D14	1	1,485	1,425	1,400	1,325	1,270	1,220	1,165	1,115	1,080	1,005
	2	1,560	1,510	1,490	1,425	1,385	1,335	1,295	1,250	1,205	1,155
	3	1,675	1,625	1,600	1,530	1,485	1,435	1,390	1,345	1,295	1,245
	4	1,820	1,770	1,745	1,685	1,640	1,595	1,555	1,510	1,470	1,420
	5	2,225	2,180	2,160	2,085	2,060	2,010	1,970	1,930	1,895	1,850
ASPT60D14	1	1,485	1,425	1,400	1,325	1,270	1,220	1,165	1,115	1,080	1,005
	2	1,675	1,625	1,600	1,530	1,485	1,435	1,390	1,345	1,295	1,245
	3	1,820	1,770	1,745	1,685	1,640	1,595	1,555	1,510	1,470	1,420
	4	2,060	2,010	1,995	1,925	1,880	1,845	1,800	1,760	1,720	1,680
	5	2,225	2,180	2,160	2,085	2,060	2,010	1,970	1,930	1,895	1,850

**NOTES**

- The chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on rating plate.
- Use the CFM adjustment factors of .98 for horizontal left, .95 for horizontal right & .96 for downflow orientations.
- Assumes dry coil with filter in place.
- All models are shipped from the factory with the speed tap set on T4.

**HEAT KIT DATA**

MODEL	CIRCUIT 1			CIRCUIT 2			SINGLE-POINT KIT	
	AMPS	MCA <sup>1</sup>	MOP <sup>2</sup>	AMPS	MCA <sup>1</sup>	MOP <sup>2</sup>	MCA <sup>1</sup>	MOP <sup>2</sup>
<b>ASPT24B14AC</b>	0 / 0	3/3	15 / 15	---	---	---	---	---
HKS*03XC*	10.8 / 12.5	17 / 19	20 / 20	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	25 / 28	25 / 30	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	30 / 34	35 / 35	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	39 / 45	40 / 45	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	46 / 53	50 / 60	---	---	---	--	--
HKSC15*##	34.7 / 40.0	46 / 53	50 / 60	17.3 / 20	22 / 25	25 / 25	68 / 78	70 / 80
<b>ASPT30C14AB</b>	0 / 0	3.9 / 3.9	15 / 15	---	---	---	--	--
HKS*03XC*	10.8 / 12.5	17 / 20	20 / 20	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	26 / 29	30 / 30	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	31 / 35	35 / 40	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	40 / 46	40 / 50	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	47 / 54	50 / 60	---	---	---	--	--
HKSC15*##	34.7 / 40.0	47 / 54	50 / 60	17.3 / 20	22 / 25	25 / 25	69 / 79	70 / 80
<b>ASPT36C14AC</b>	0 / 0	4/4	15 / 15	---	---	---	--	--
HKS*03XC*	10.8 / 12.5	17 / 20	20 / 20	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	26 / 29	30 / 30	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	31 / 35	40 / 40	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	40 / 46	40 / 50	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	47 / 54	50 / 60	---	---	---	--	--
HKSX15XF*	0/0	4/4	15/15	30/34.6	38/43	40/45	--	--
HKSX20XF*	0/0	4/4	15/15	38/43	47/54	50/60	--	--
HKSC15*##	34.7 / 40.0	47 / 54	50 / 60	17.3 / 20	22 / 25	25 / 25	69 / 79	70 / 80
HKSC19*##	34.7 / 40.0	47 / 54	50 / 60	34.7 / 40	43 / 50	45 / 50	91 / 104	100 / 110
HKSC15XF*	0/0	4/4	15/15	30/34.6	38/43	40/45	--	--
HKSC20XF*	0/0	4/4	15/15	38/43	47/54	50/60	--	--
<b>ASPT42C14A</b>	0 / 0	4/4	15 / 15	---	---	---	--	--
HKS*03XC*	10.8 / 12.5	17 / 20	20 / 20	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	26 / 29	30 / 30	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	31 / 35	35 / 40	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	40 / 46	40 / 50	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	47 / 54	50 / 60	---	---	---	--	--
HKSX15XF*	0/0	4/4	15/15	30/34.6	38/43	40/45	--	--
HKSX20XF*	0/0	4/4	15/15	38/43	47/54	50/60	--	--
HKSC15*##	34.7 / 40.0	47 / 54	50 / 60	17.3 / 20	22 / 25	25 / 25	69 / 79	70 / 80
HKSC19*##	34.3 / 40.0	47 / 54	50 / 60	34.7 / 40	43 / 50	45 / 50	91 / 104	100 / 110
HKSC15XF*	0/0	4/4	15/15	30 / 34.6	38 / 43	40 / 45	--	--
HKSC20XF*	0/0	4/4	15/15	38 / 43	47 / 54	50 / 60	--	--
<b>ASPT48C14AD</b>	0 / 0	7 / 7	15 / 15	---	---	---	--	--
HKS*03XC*	10.8 / 12.5	20 / 22	25 / 25	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	28 / 32	30 / 35	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	34 / 38	35 / 40	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	43 / 48	45 / 50	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	50 / 57	60 / 60	---	---	---	--	--
HKSX15XF*	0/0	8/8	15/15	30/34.6	38/44	40/45	--	--
HKSX20XF*	0/0	8/8	15/15	38/43	47/54	50/60	--	--
HKSC15*##	34.7 / 40.0	50 / 57	60 / 60	17.3 / 20	22 / 25	25 / 25	72 / 82	80 / 90
HKSC19*##	34.3 / 40.0	50 / 57	60 / 60	34.7 / 40	43 / 50	45 / 50	93 / 107	100 / 110
HKSC15XF*	0/0	4 / 4	15 / 15	30 / 34.6	38 / 43	40 / 45	--	--
HKSC20XF*	0/0	4 / 4	15 / 15	37 / 43	47 / 54	50 / 60	--	--

# HEAT KIT DATA (CONT.)

MODEL	CIRCUIT 1			CIRCUIT 2			SINGLE-POINT KIT	
	AMPS	MCA <sup>1</sup>	MOP <sup>2</sup>	AMPS	MCA <sup>1</sup>	MOP <sup>2</sup>	MCA <sup>1</sup>	MOP <sup>2</sup>
<b>ASPT42D14AC</b>	0 / 0	6/6	15 / 15	---	---	---	--	--
HKS*03XC*	10.8 / 12.5	20 / 22	20 / 25	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	28 / 31	30 / 35	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	33 / 37	35 / 40	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	42 / 48	45 / 50	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	49 / 56	50 / 60	---	---	---	--	--
HKSX15XF*	0/0	6/6	15/15	30/34.6	38/43	40/45	--	--
HKSX20XF*	0/0	6/6	15/15	38/43	47/54	50/60	--	--
HKSC15*##	34.7 / 40.0	49 / 56	50 / 60	17.3 / 20	22 / 25	25 / 25	71 / 81	80 / 90
HKSC20*##	34.3 / 39.6	49 / 56	50 / 60	34.7 / 40	43 / 50	45 / 50	93 / 106	100 / 110
HKSC15XF*	0/0	6/6	15/15	30 / 34.6	38 / 43	40 / 45	--	--
HKSC20XF*	0/0	6/6	15/15	38 / 43	47 / 54	50 / 60	--	--
<b>ASPT48D14AD</b>	0 / 0	8/8	15 / 15	---	---	---	--	--
HKS*03XC*	10.8 / 12.5	22 / 24	25 / 25	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	30 / 33	30 / 35	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	35.4 / 40	40 / 40	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	44 / 50	45 / 50	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	52 / 58	60 / 60	---	---	---	--	--
HKSX15XF*	0/0	8/8	15/15	30/34.6	38/43	40/45	--	--
HKSX20XF*	0/0	8/8	15/15	38/43	47/54	50/60	--	--
HKSC15*##	34.7 / 40.0	52 / 58	60 / 60	17.3 / 20	22 / 25	25 / 25	73 / 83	80 / 90
HKSC20*##	34.3 / 39.6	52 / 58	60 / 60	34.7 / 40	43 / 50	45 / 50	95 / 108	100 / 110
HKSC15XF*	0/0	8/8	15/15	30/34.6	38/43	40/45	--	--
HKSC20XF*	0/0	8/8	15/15	38/43	47/54	50/60	--	--
HKSC25*##	52 / 60	73 / 83	80 / 90	34.7 / 40	43 / 50	45 / 50	117 / 133	125 / 150
<b>ASPT60D14AC</b>	0 / 0	8.3 / 8.3	15 / 15	---	---	---	--	--
HKS*03XC*	10.8 / 12.5	22 / 24	25 / 25	---	---	---	--	--
HKS*05XC*	17.3 / 20.0	30 / 33	30 / 35	---	---	---	--	--
HKS*06XC*	21.7 / 25.0	35.4 / 40	40 / 40	---	---	---	--	--
HKS*08XC*	28.9 / 33.3	44 / 50	45 / 50	---	---	---	--	--
HKS*10XC*	34.7 / 40.0	52 / 58	60 / 60	---	---	---	--	--
HKSX15XF*	0/0	8.3 / 8.3	15/15	30/34.6	38/43	40/45	--	--
HKSX20XF*	0/0	8.3 / 8.3	15/15	38/43	47/54	50/60	--	--
HKSC15*##	34.7 / 40.0	52 / 58	60 / 60	17.3 / 20	22 / 25	25 / 25	73 / 83	80 / 90
HKSC20*##	34.3 / 39.6	52 / 58	60 / 60	34.7 / 40	43 / 50	45 / 50	95 / 108	100 / 110
HKSC15XF*	0/0	8.3 / 8.3	15/15	30/34.6	38/43	40/45	--	--
HKSC20XF*	0/0	8.3 / 8.3	15/15	38/43	47/54	50/60	--	--
HKSC25*##	52 / 60	73 / 83	80 / 90	34.7 / 40	43 / 50	45 / 50	117 / 133	125 / 150

All ampacities noted above include air handler motor amps  
 Circuit 1: Single-phase for Air Handlers / Circuit 2: Three-phase for HKR3 Heater Kits

<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

\* Revision level that may or may not be designated

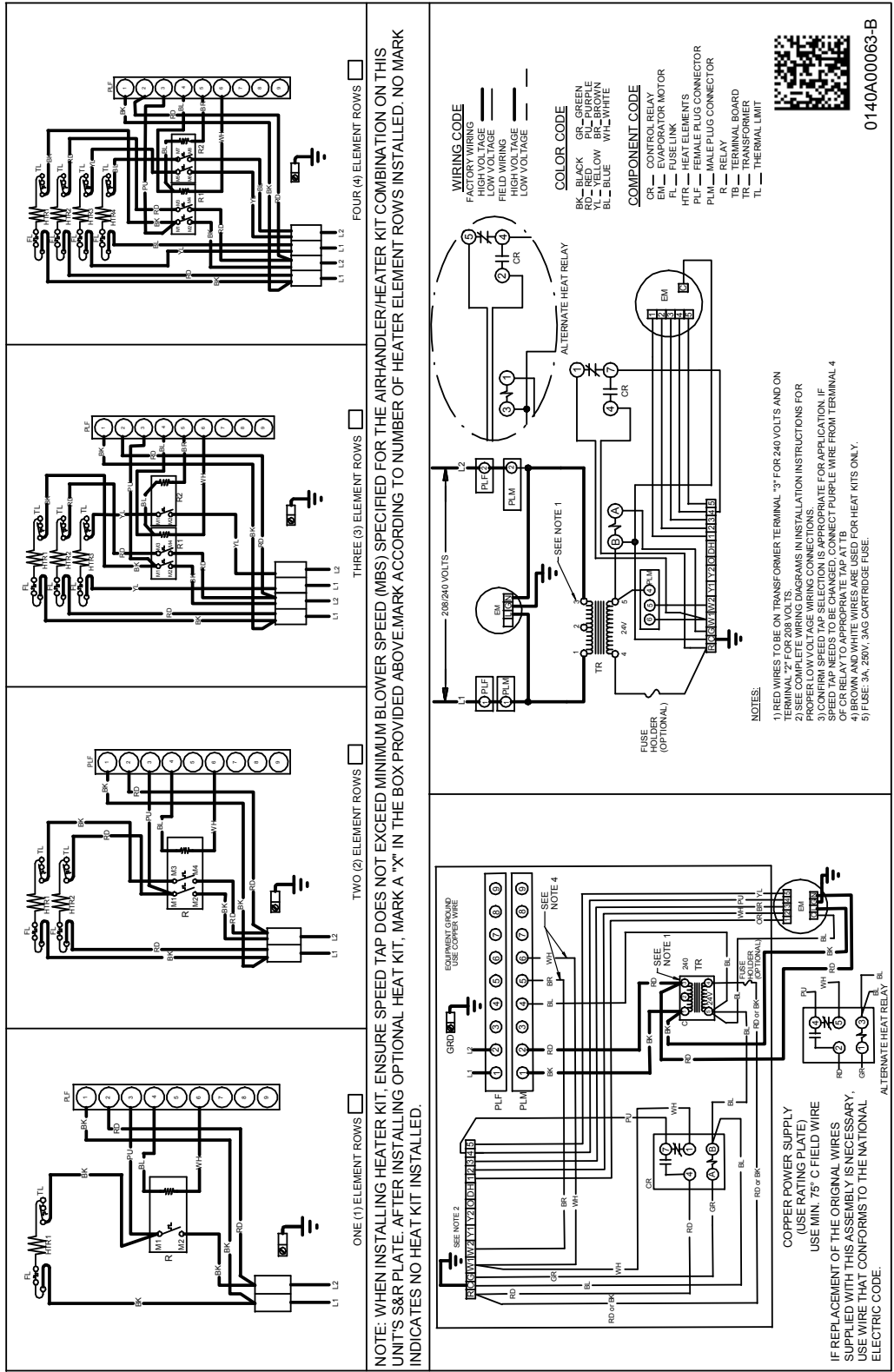
C = Circuit Breaker Option

--- indicates Not Required

HKA meets the new UL1995 requirements for 15 and 20KW heaters

- Only applicable when HKA kits are included in table
- MBVC and MBR models

# WIRING DIAGRAM – AIR HANDLER



0140A00063-B

**NOTE:** The five element, 25 kW heater kit is not shown above.

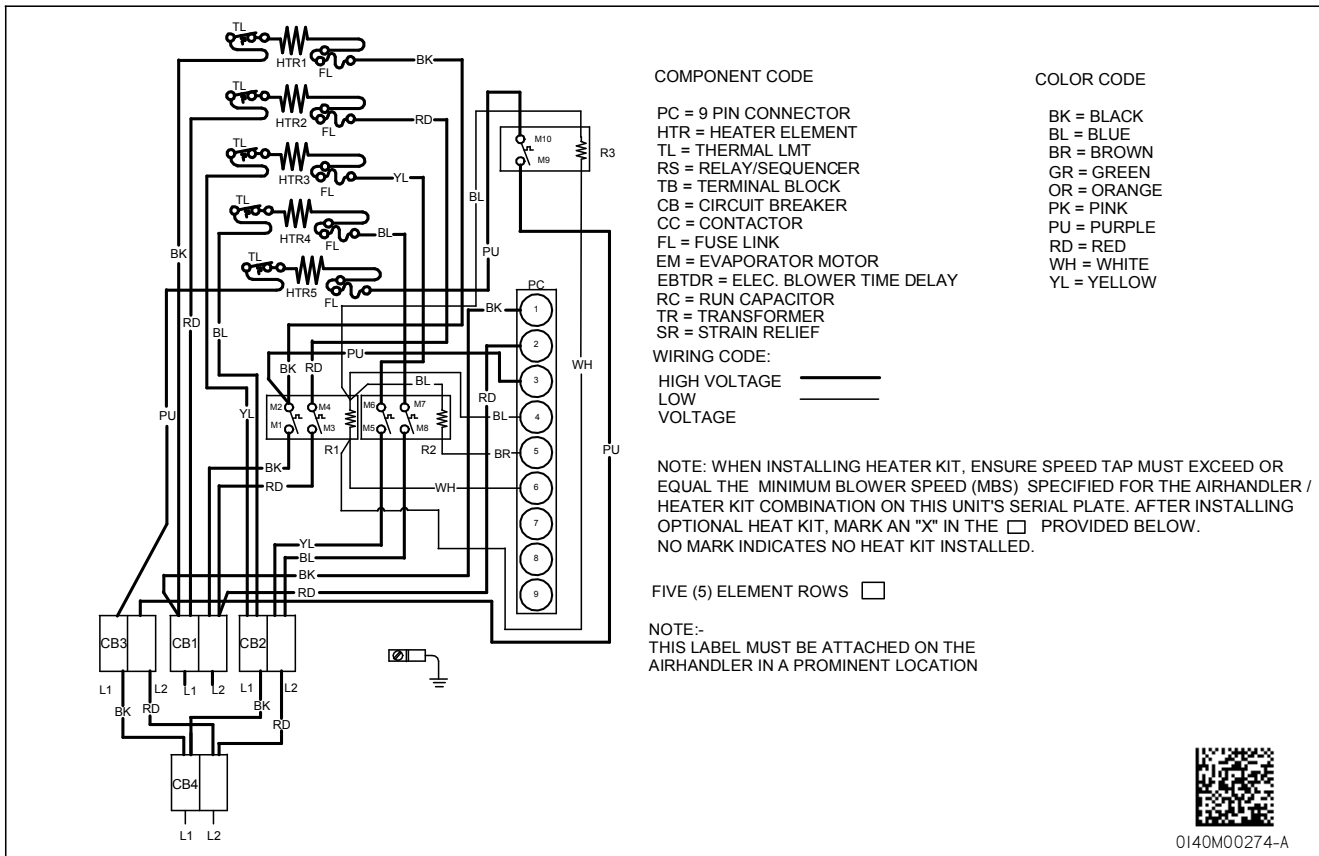
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

**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.

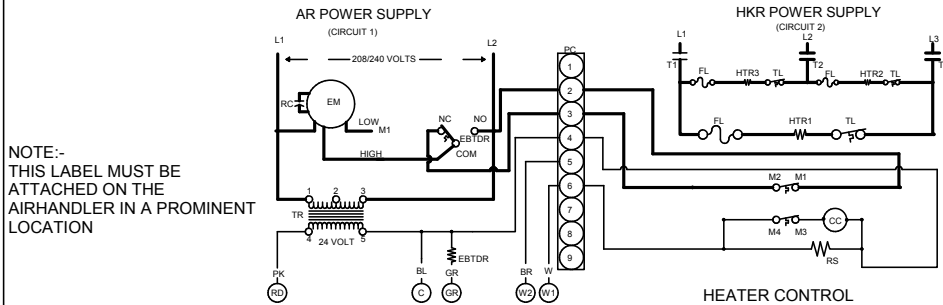
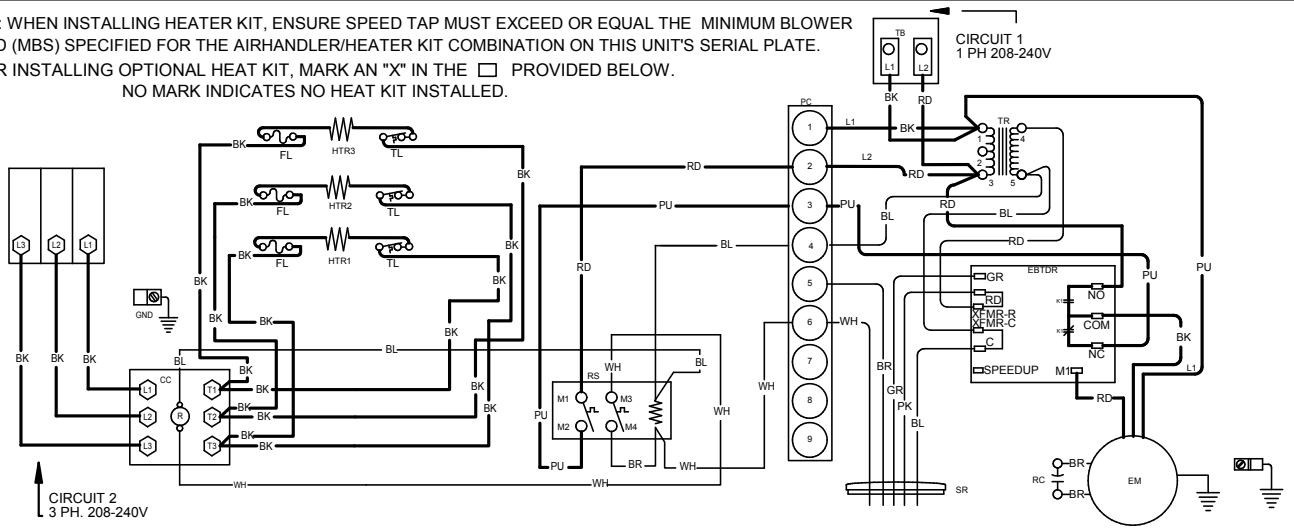


# WIRING DIAGRAM – 5 ELEMENT HEATER KIT



# WIRING DIAGRAM – 3 PHASE HEATER KIT

NOTE: WHEN INSTALLING HEATER KIT, ENSURE SPEED TAP MUST EXCEED OR EQUAL THE MINIMUM BLOWER SPEED (MBS) SPECIFIED FOR THE AIRHANDLER/HEATER KIT COMBINATION ON THIS UNIT'S SERIAL PLATE. AFTER INSTALLING OPTIONAL HEAT KIT, MARK AN "X" IN THE  PROVIDED BELOW. NO MARK INDICATES NO HEAT KIT INSTALLED.



NOTE:- THIS LABEL MUST BE ATTACHED ON THE AIRHANDLER IN A PROMINENT LOCATION

COMPONENT CODE		COLOR CODE	
HTR	HEAT ELEMENT	BK	BLACK
EM	EVAPORATOR MOTOR	BL	BLUE
EBTDR	ELEC. BLOWER TIME DELAY RELAY	BR	BROWN
RS	RELAY/SEQUENCER	GR	GREEN
RC	RUN CAPACITOR	OR	ORANGE
TL	THERMAL LIMIT	PK	PINK
TR	TRANSFORMER	PU	PURPLE
TB	TERMINAL BLOCK	RD	RED
CC	CONTACTOR	WH	WHITE
PC	9-PIN CONNECTOR	YL	YELLOW
FL	FUSE LINK		
CB	CIRCUIT BREAKER		

WIRING CODE	
—	HIGH VOLTAGE
—	LOW VOLTAGE



## ACCESSORIES

### DOWNFLOW INSULATION KIT

DFK-B	DFK-C	DFK-D
ASPT24B14**	ASPT30C14**	ASPT42D14**
	ASPT36C14**	ASPT48D14**
	ASPT42C14**	ASPT60D14**
	ASPT48C14**	

### 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"

**NOTES**