Heating & Air Conditioning
Amana®

AVPTC

Multi-Position, Variable-Speed, ECM-Based Air Handler with Internal TXV ComfortBridge™ Compatible 2 to 5 Tons

Contents

ALL ALUMINUM COIL

ComfortBridge™ technology

CoolCloud™

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
- Rigid SmartFrame™ cabinet
- 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
- 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*

AHRI CERTIFIED www.ahridirectory.org

C ETL US LISTED Intertek

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.amana-hac.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.

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A	V	P	T	C	25	B	1	4	BA
1	2	3	4	5	6,7	8	9	10	11,12

BRAND

A Single-Piece Air Handler

UNIT APPLICATION

R Multi Position PSC Motor

S Multi Position EEM Motor

V Multi Position Variable-Speed Motor- Communicating

CABINET FINISH

U Unpainted

P Painted

EXPANSION DEVICE

F Flowrater

T Expansion Device

V Inverter Tuned Expansion Valve

COMMUNICATIONS

C = ComfortBridge™ Compatible

NOMINAL CAPACITY @ 13 SEER

25 = 2 Tons	35 = 3 Tons	49 = 4 Tons
29 = 2½ Tons	37 = 2½- 3½ Tons	59 = 4-5 Tons
31 = 2½ Tons	39 = 3 Tons	61 = 5 Tons
33 = 2 Tons		

CABINET WIDTH

B = 17½"

C = 21"

D = 24½"

ELECTRICAL

1 208/230V, 1 Phase, 60 Hz

REFRIGERANT CHARGE

4 = R-410A

ENGINEERING*

Major/Minor Revisions

(*Not used for inventory management)

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	15	14.4 kW
05	4.5 kW	19	19.2 kW wth 150F limit
06	6.0 kW	20	19.2 kW with 170F limit
08	8.0 kW	25	25.0 kW
10	9.6 kW		

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

Revisions

Engineering Revisions

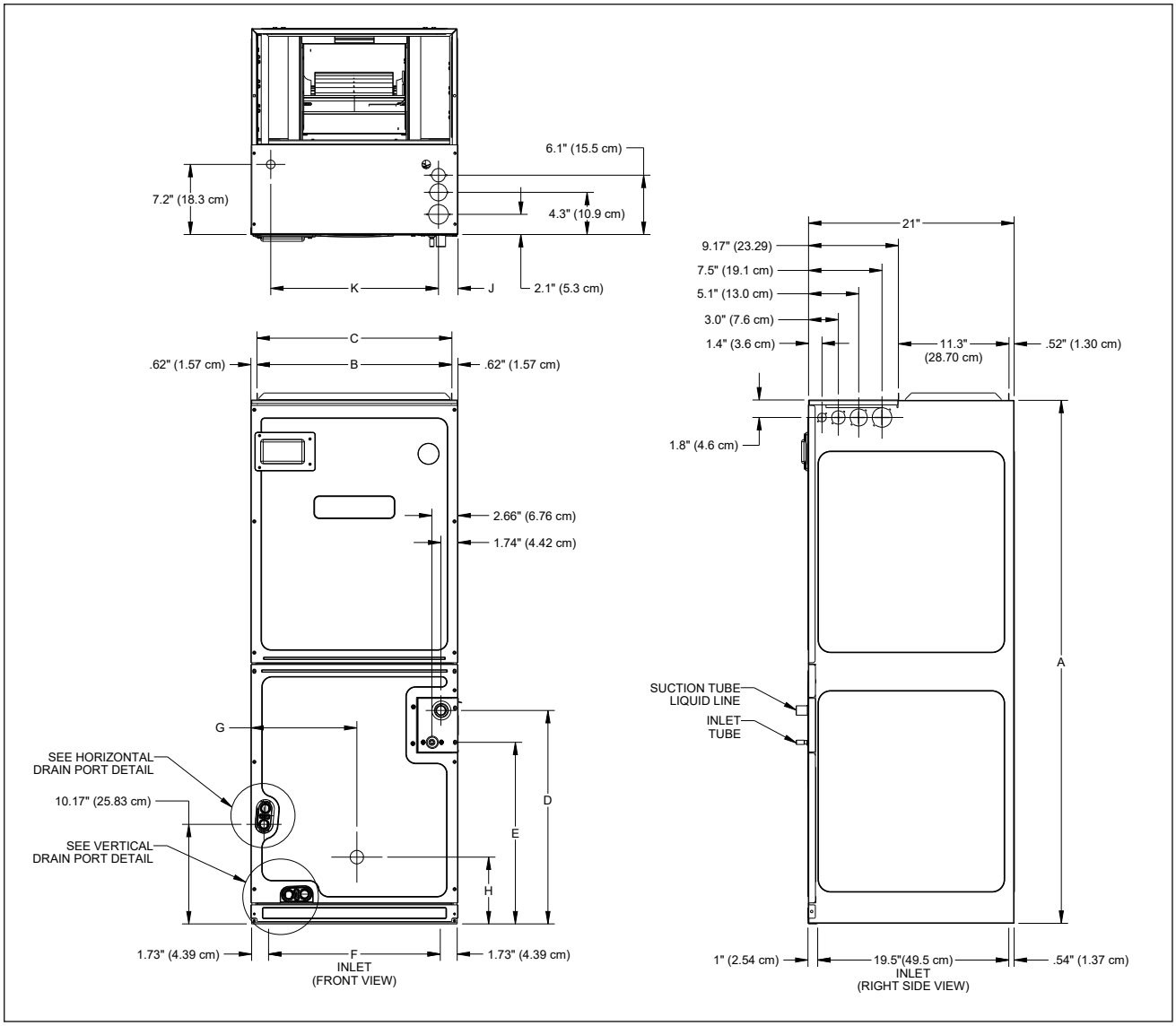
*Refer S&R Plate

	AVPTC 25B14B*	AVPTC 29B14B*	AVPTC 31C14B*	AVPTC 33C14B*	AVPTC 35B14B*	AVPTC 37B14B*	AVPTC 37C14B*	AVPTC 37D14B*
NOMINAL RATINGS								
Cooling (BTU/h)	24,000	30,000	30,000	24,000	28,000	36,000	36,000	36,000
CFM (High range)	1085/650	1085/610	1315/870	1090/685	1020/685	1085/610	1315/870	1375/865
BLOWER								
Diameter	9½"	9½"	10⅝"	10⅝"	9½"	9½"	10⅝"	10⅝"
Width	6"	6"	8"	8"	6"	6"	8"	10⅝"
Coil Drain Connection FPT	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
SERVICE VALVE								
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	¾"	⅞"	⅞"	⅞"	¾"	⅞"	⅞"	⅞"
ELECTRICAL DATA								
Voltage	208/240	208/240	208/240	208/240	208/240	208/240	208/240	208/240
Min Circuit Ampacity	4.9/4.9	6.5/6.5	6.5/6.5	4.9/4.9	4.9/4.9	6.5/6.5	6.5/6.5	6.5/6.5
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								
FLA	3.9	5.2	5.2	3.9	3.9	5.2	5.2	5.2
HP	½	¾	¾	½	½	¾	¾	¾
SHIP WEIGHT (LBS)	116	129	144	118	116	129	144	155

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

	AVPTC 39C14B*	AVPTC 49C14B*	AVPTC 49D14B*	AVPTC 59C14B*	AVPTC 59D14B*	AVPTC 61D14B*
NOMINAL RATINGS						
Cooling (BTU/h)	36,000	48,000	42,000	48,000	48,000	60,000
CFM (High range)	1315/965	1420/1040	1530/1195	1595/875	1990/1445	2025/1630
BLOWER						
Diameter	10⅝"	10⅝"	10⅝"	10⅝"	11 15/16"	11 15/16"
Width	8"	8"	10⅝"	8"	10⅝"	10⅝"
Coil Drain Connection FPT	¾"	¾"	¾"	¾"	¾"	¾"
SERVICE VALVE						
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	⅞"	⅞"	⅞"	⅞"	⅞"	⅞"
ELECTRICAL DATA						
Voltage	208/240	208/240	208/240	208/240	208/240	208/240
Min Circuit Ampacity	6.5/6.5	6.5/6.5	6.5/6.5	8.6/8.6	8.6/8.6	8.6/8.6
Max. Overcurrent Device (amps)	15/15	15/15	15/15	15/15	15/15	15/15
Minimum VAC	197	197	197	197	197	197
Maximum VAC	253	253	253	253	253	253
BLOWER MOTOR						
FLA	5.2	5.2	5.2	6.9	6.9	6.9
HP	¾	¾	¾	1	1	1
SHIP WEIGHT (LBS)	118	125	167	144	155	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



Model	A	B	C	D	E	F	G	H
AVPTC25B14*	45	16⅜	17½	15¼	12	14⅛	9⅛	12⅝
AVPTC29B14*	53 7/16	16⅜	17½	23 11/16	20½	14⅛	9⅛	7⅝
AVPTC31C14*	53 7/16	19⅞	21	21 13/16	18⅝	17 11/16	10 13/16	6 13/16
AVPTC33C14*	49	19⅞	21	17 9/16	14⅜	17 11/16	10 9/16	12½
AVPTC35B14*	45	16⅜	17½	15¼	12	14⅛	9⅛	12⅝
AVPTC37B14*	53 7/16	16⅜	17½	23 11/16	20½	14⅛	9⅛	7⅝
AVPTC37C14*	53 7/16	19⅞	21	21 13/16	18⅝	17 11/16	10 13/16	6 13/16
AVPTC37D14*	53 7/16	23 5/16	24½	21½	18 5/16	21 3/16	12⅝	6⅞
AVPTC39C14*	49	19⅞	21	17 9/16	14⅜	17 11/16	10 9/16	12½
AVPTC49C14*	49	19⅞	21	17 9/16	14⅜	17 11/16	10 9/16	12½
AVPTC49D14*	58	23 5/16	24½	26⅛	22⅞	21 3/16	12⅝	25⅛
AVPTC59C14*	53 7/16	19⅞	21	21 13/16	18⅝	17 11/16	10 13/16	6 13/16
AVPTC59D14*	53 7/16	23 5/16	24½	21½	18 5/16	21 3/16	12⅝	6⅞
AVPTC61D14*	58	23 5/16	24½	26⅛	22⅞	21 3/16	12⅝	25⅛

AVPTC25B14B*, AVPTC33C14B*		
Tons	High Stage CFM	Default Low Stage CFM
1.5	600	402
2	800	536

AVPTC39C14B*		
Tons	High Stage CFM	Default Low Stage CFM
2.5	1,000	670
3	1,200	804

AVPTC29B14B*		
Tons	High Stage CFM	Default Low Stage CFM
1.5	600	402
2	800	536
2.5	1,000	670

AVPTC49C14B*, AVPTC49D14B*, AVPTC59C14B*		
Tons	High Stage CFM	Default Low Stage CFM
3	1200	804
3.5	1,400	938
4	1,600	1,072

AVPTC31C14B*, AVPTC35B14B* AVPTC37B14B*, AVPTC37C14B*		
Tons	High Stage CFM	Default Low Stage CFM
2	800	536
2.5	1,000	670
3	1,200	804

AVPTC59D14B*		
Tons	High Stage CFM	Default Low Stage CFM
3.5	1,400	938
4	1,600	1,072
4.5	1,800	1,206
5	2,000	1,340

AVPTC37D14B*		
Tons	High Stage CFM	Default Low Stage CFM
3	1,200	804

AVPTC61D14B*		
Tons	High Stage CFM	Default Low Stage CFM
4	1,600	1,072
4.5	1,800	1,206
5	2,000	1,340

Notes:
1. For installations with a communicating outdoor unit, airflow is set automatically by the condenser or heat pump. No indoor airflow setting is needed for the install.
2. For installations with a non-communicating outdoor unit, target airflows are listed in the tables above.
3. Recommended external static pressures are 0.1- 0.5 in. wc (0.6 in. wc and above not recommended).
4. Listed airflow values are targets only. Actual airflow may deviate from targets due to variations in individual installations and may be adjusted using trim values in the CoolCloud app or onboard push button menus
5. For most installations, 400 SCFM per ton is desirable.

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]
AVPTC25B14B*		0/0	4.9/4.9	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	10.8	18.4	20	---	---	---	---	---
HKSX05XC- 208 V		17.3	27	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	32	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	41	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	48	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	27	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	41	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	48	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	48	50	17.3	21.7	25	69.9	70
HKSX03XC- 240 V	No Breaker	12.5	21	25	---	---	---	---	---
HKSX05XC- 240 V		20	29.9	30	---	---	---	---	---
HKSX06XC- 240 V		25	36.1	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	46.5	50	---	---	---	---	---
HKSX10XC- 240 V		40	54.9	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	29.9	30	---	---	---	---	---
HKSC08XC- 240 V		33.3	46.5	50	---	---	---	---	---
HKSC10XC- 240 V		40	54.9	60	---	---	---	---	---
HKSC15XB- 240 V		40	54.9	60	20	25	25	79.9	80
AVPTC29B14B*		0/0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	10.8	20	20	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSX03XC- 240 V	No Breaker	12.5	22.1	25	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	57	60	20	25	25	81.5	90
AVPTC31C14B*		0/0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	10.8	20	20	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---

See notes on page 13.

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]
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC19CA- 208 V		34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC15XF- 208 V ^		0	6.5	15	30	37.5	40	---	---
HKSX03XC- 240 V	No Breaker	12.5	22.1	25	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	56.5	60	20	25	25	81.5	90
HKSC19CB- 240 V		40	56.5	60	40	50	50	107	110
HKSC15XF- 240 V ^		0	6.5	15	34.6	43	45	---	---
AVPTC33C14B*		0.0/0.0	4.9/4.9	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	10.8	18.4	20	---	---	---	---	---
HKSX05XC- 208 V		17.3	27	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	32	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	41	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	48	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	27	30	---	---	---	---	---
HKSC08XC- 208 V		21.7	32	35	---	---	---	---	---
HKSC10XC- 208 V		28.9	41	45	---	---	---	---	---
HKSC15XA- 208 V		34.7	48	50	17.3	21.7	25	69.9	70
HKSX03XC- 240 V	No Breaker	12.5	21	25	---	---	---	---	---
HKSX05XC- 240 V		20	29.9	30	---	---	---	---	---
HKSX06XC- 240 V		25	36.1	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	46.5	50	---	---	---	---	---
HKSX10XC- 240 V		40	54.9	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	29.9	30	---	---	---	---	---
HKSC08XC- 240 V		33.3	46.5	50	---	---	---	---	---
HKSC10XC- 240 V		40	54.9	60	---	---	---	---	---
HKSC15XB- 240 V		40	54.9	60	20	25	25	79.9	80
AVPTC35C14B*		0/0	4.9/4.9	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	10.8	18.4	20	---	---	---	---	---
HKSX05XC- 208 V		17.3	27	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	32	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	41	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	48	50	---	---	---	---	---

See notes on page 13.

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]
HKSC05XC- 208 V	Breaker	17.3	27	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	41	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	48	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	48	50	17.3	21.7	25	69.9	70
HKSX03XC- 240 V	No Breaker	12.5	21	25	---	---	---	---	---
HKSX05XC- 240 V		20	29.9	30	---	---	---	---	---
HKSX06XC- 240 V		25	36.1	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	46.5	50	---	---	---	---	---
HKSX10XC- 240 V		40	54.9	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	29.9	30	---	---	---	---	---
HKSC08XC- 240 V		33.3	46.5	50	---	---	---	---	---
HKSC10XC- 240 V		40	54.9	60	---	---	---	---	---
HKSC15XB- 240 V		40	54.9	60	20	25	25	79.9	80
AVPTC37B14B*		0/0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	10.8	20	20	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSX03XC- 240 V	No Breaker	12.5	22.1	25	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	57	60	20	25	25	81.5	90
AVPTC37C14B*		0/0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC19CA- 208 V		34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC15XF- 208 V ^		0	6.5	15	30	37.5	40	---	---

See notes on page 13.

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]
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	57	60	20	25	25	81.5	90
HKSC19CB- 240 V		40	57	60	40	50	50	106.5	110
HKSC15XF- 240 V ^		0	6.5	15	34.6	43	45	---	---
AVPTC37D14B*		0/0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC20DA- 208 V		34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC15XF- 208 V ^		0	6.5	15	30	37.5	40	---	---
HKSC20XF- 208 V ^		0	6.5	15	37.5	47	50	---	---
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	57	60	20	25	25	81.5	90
HKSC20DB- 240 V		40	57	60	40	50	50	106.5	110
HKSC15XF- 240 V ^		0	6.5	15	34.6	43	45	---	---
HKSC20XF- 240 V ^		0	6.5	15	43	54	60	---	---
AVPTC39C14B*		0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---

See notes on page 13.

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]
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC19CA- 208 V		34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC15XF- 208 V ^		0	6.5	15	30	37.5	40	---	---
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	57	60	20	25	25	81.5	90
HKSC19CB- 240 V		40	57	60	40	50	50	106.5	110
HKSC15XF- 240 V ^		0	6.5	15	34.6	43	45	---	---
AVPTC49C14B*		0.0/0.0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC19CA- 208 V		34.7	49.8	50	34.7	43.3	45	93.2	100
HKSC15XF- 208 V ^		0	6.5	15	30	37.5	40	---	---
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	57	60	20	25	25	81.5	90
HKSC19CB- 240 V		40	57	60	40	50	50	106.5	110
HKSC15XF- 240 V ^		0	6.5	15	34.6	43	45	---	---

See notes on page 13.

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]
AVPTC49D14B*		0/0	6.5/6.5	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 208 V		17.3	28.2	30	---	---	---	---	---
HKSX06XC- 208 V		21.7	33.6	35	---	---	---	---	---
HKSX08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	28.2	30	---	---	---	---	---
HKSC08XC- 208 V		28.9	42.6	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	49.8	50	---	---	---	---	---
HKSC15XA- 208 V		34.7	49.8	50	17.3	21.7	25	71.5	80
HKSC20DA- 208 V		---	---	---	---	---	---	---	---
HKSC15XF- 208 V ^		---	---	---	---	---	---	---	---
HKSC20XF- 208 V ^		---	---	---	---	---	---	---	---
HKSC25DA- 208 V		---	---	---	---	---	---	---	---
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	32	35	---	---	---	---	---
HKSX06XC- 240 V		25	38	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSX10XC- 240 V		40	57	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	32	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	48	50	---	---	---	---	---
HKSC10XC- 240 V		40	57	60	---	---	---	---	---
HKSC15XB- 240 V		40	57	60	20	25	25	81.5	90
HKSC20DB- 240 V		---	---	---	---	---	---	---	---
HKSC15XF- 240 V ^		---	---	---	---	---	---	---	---
HKSC20XF- 240 V ^		---	---	---	---	---	---	---	---
HKSC25DB- 240 V		---	---	---	---	---	---	---	---
AVPTC59C14B*		0/0	8.6/8.6	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 208 V		17.3	30.3	35	---	---	---	---	---
HKSX06XC- 208 V		21.7	36	40	---	---	---	---	---
HKSX08XC- 208 V		28.9	45	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	52	60	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	30.3	35	---	---	---	---	---
HKSC08XC- 208 V		28.9	45	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	52	60	---	---	---	---	---
HKSC15XB[3]- 208 V		34.7	52	60	17.3	21.7	25	73.6	80
HKSC19CH- 208 V		34.7	52	60	34.7	43.3	45	95.3	100
HKSC15XF- 208 V ^		0	8.6	15	30	37.5	40	---	---
HKSC20XF- 208 V ^		---	---	---	---	---	---	---	---

See notes on page 13.

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]
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	34	35	---	---	---	---	---
HKSX06XC- 240 V		25	39.9	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	50.3	60	---	---	---	---	---
HKSX10XC- 240 V		40	58.6	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	34	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	50.3	60	---	---	---	---	---
HKSC10XC- 240 V		40	58.6	60	---	---	---	---	---
HKSC15XB- 240 V		40	58.6	60	20	25	25	83.6	90
HKSC19CB- 240 V		40	58.6	60	40	50	50	108.6	110
HKSC15XF- 240 V ^		0	8.6	15	34.6	43	45	---	---
HKSC20XF- 240 V ^		---	---	---	---	---	---	---	---
AVPTC59D14B*		0/0	8.6/8.6	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX06XC- 208 V		21.7	36	40	---	---	---	---	---
HKSX08XC- 208 V		28.9	45	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	52	60	---	---	---	---	---
HKSC05XC- 208 V	Breaker	17.3	30.3	35	---	---	---	---	---
HKSC08XC- 208 V		28.9	45	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	52	60	---	---	---	---	---
HKSC15XB[3]- 208 V		34.7	52	60	17.3	21.7	25	73.6	80
HKSC20DH- 208 V		34.7	52	60	34.7	43.3	45	95.3	100
HKSC15XF- 208 V ^		0	8.6	15	30	37.5	40	---	---
HKSC20XF- 208 V ^		0	8.6	15	37.5	47	50	---	---
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	34	35	---	---	---	---	---
HKSX06XC- 240 V		25	39.9	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	50.3	60	---	---	---	---	---
HKSX10XC- 240 V		40	58.6	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	34	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	50.3	60	---	---	---	---	---
HKSC10XC- 240 V		40	58.6	60	---	---	---	---	---
HKSC15XB- 240 V		40	58.6	60	20	25	25	83.6	90
HKSC20DB- 240 V		40	58.6	60	40	50	50	108.6	110
HKSC15XF- 240 V ^		0	8.6	15	34.6	43	45	---	---
HKSC20XF- 240 V ^		0	8.6	15	43	54	60	---	---
AVPTC61D14B*		0/0	8.6/8.6	15/15	---	---	---	---	---
HKSX03XC- 208 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 208 V		17.3	30.3	35	---	---	---	---	---
HKSX06XC- 208 V		21.7	36	40	---	---	---	---	---
HKSX08XC- 208 V		28.9	45	45	---	---	---	---	---
HKSX10XC- 208 V		34.7	52	60	---	---	---	---	---

See notes on page 13.

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]
HKSC05XC- 208 V	Breaker	17.3	30.3	35	---	---	---	---	---
HKSC08XC- 208 V		28.9	45	45	---	---	---	---	---
HKSC10XC- 208 V		34.7	52	60	---	---	---	---	---
HKSC15XB[3]- 208 V		34.7	52	60	17.3	21.7	25	73.6	80
HKSC20DH- 208 V		34.7	52	60	34.7	43.3	45	95.3	100
HKSC15XF- 208 V ^		0	8.6	15	30	37.5	40	---	---
HKSC20XF- 208 V ^		0	8.6	15	37.5	47	50	---	---
HKSC25DA- 208 V		52	73.6	80	34.7	43.3	45	117	125
HKSX03XC- 240 V	No Breaker	---	---	---	---	---	---	---	---
HKSX05XC- 240 V		20	34	35	---	---	---	---	---
HKSX06XC- 240 V		25	39.9	40	---	---	---	---	---
HKSX08XC- 240 V		33.3	50.3	60	---	---	---	---	---
HKSX10XC- 240 V		40	58.6	60	---	---	---	---	---
HKSC05XC- 240 V	Breaker	20	34	35	---	---	---	---	---
HKSC08XC- 240 V		33.3	50.3	60	---	---	---	---	---
HKSC10XC- 240 V		40	58.6	60	---	---	---	---	---
HKSC15XB- 240 V		40	58.6	60	20	25	25	83.6	90
HKSC20DB- 240 V		40	58.6	60	40	50	50	108.6	110
HKSC15XF- 240 V ^		0	8.6	15	34.6	43	45	---	---
HKSC20XF- 240 V ^		0	8.6	15	43	54	60	---	---
HKSC25DB- 240 V		60	84	90	40	50	50	133.6	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

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

[3]Notation is correct as XB because technically the 240V heater kit application can be used here without any issues.

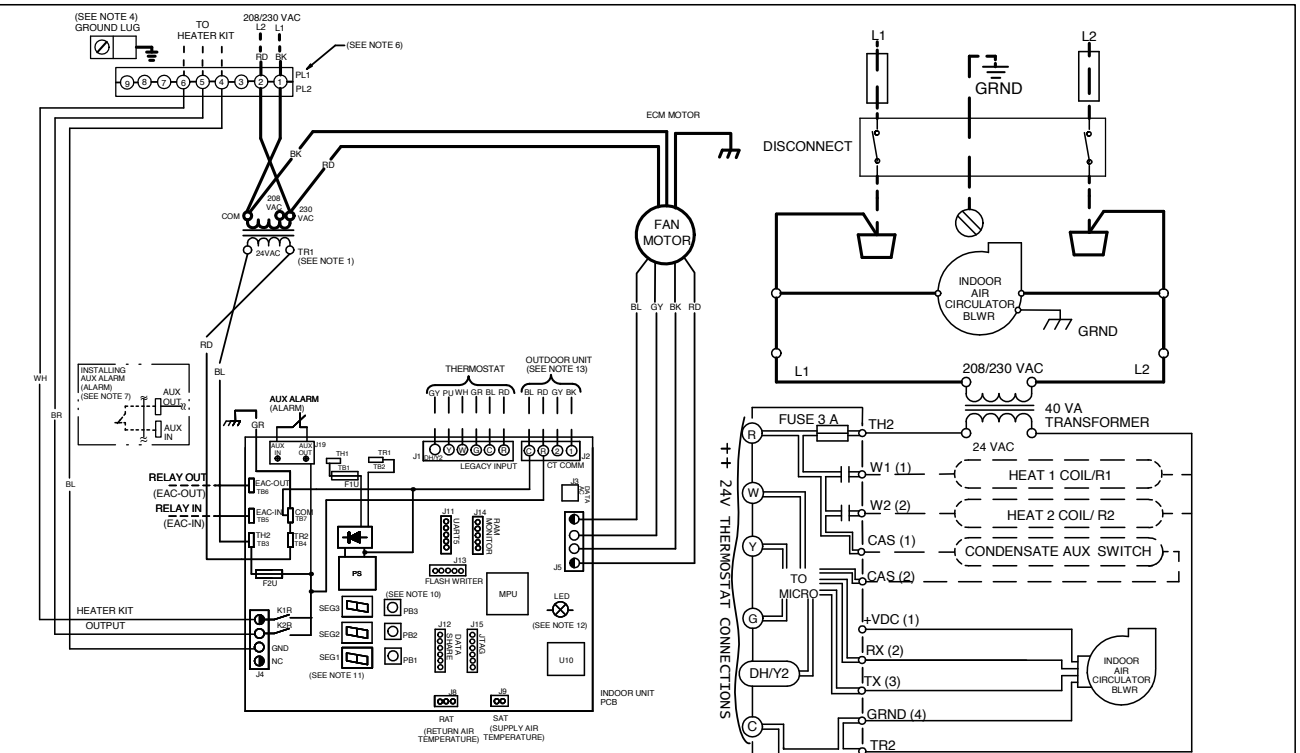
Electric Heat Airflow Table											
Htr Kw	AVPTC25B14	AVPTC29B14	AVPTC29B14 AVPTC29B14	AVPTC31C14	AVPTC31C14	AVPTC37C14 AVPTC39C14	AVPTC49C14 AVPTC59C14	AVPTC37D14	AVPTC49D14 ++	AVPTC59D14	AVPTC61D14 ++
3	550	550	550	600	600	NR	NR	NR	NR	NR	NR
5	650	650	650	700	700	700	800	870	950	990	1030
6	700	700	700	770	750	770	800	970	1060	1110	1150
8	800	800	800	880	850	880	950	1060	1150	1200	1250
10	850	850	850	970	920	970	1090	1120	1220	1240	1320
15	875	875	875	1090	950	1090	1290	1220	1520	1520	1650
19	NR	NR	1050	1280	NR	1280	1345	NR	NR	NR	NR
20	NR	NR	NR	NR	NR	NR	NR	1250	NR	1520	1690
21	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
25	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	1750

Selecting Heater Kit: Use the Electric Heating Wattage Menu (EHt) to select heater kit size. See "Menu Navigation and Selection Instructions" in Installation Manual. Default selection is 0 (No Heat Kit). Select installed heater kit for heater kit operation.

NR- Not Rated

++ For match up with a 3 ton outdoor unit: Airflow for 5kW up to 15kW heater kits shall be set to 1220 CFM by selecting 10 in the Electric Heating Wattage (EHt) menu.

+++ For match up with a 3.5 ton outdoor unit: Heater kit application shall not exceed 20 kW. Airflow for 5kW up to 20kW heater kits shall be set to 1320 CFM by selecting 10 in the Electric Heating Wattage (EHt) menu.



NOTES:

1. PLACE RED WIRE ON 208 V TERMINAL OF TRANSFORMER (TR1) FOR 208 VAC OPERATION.
2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
3. IF ANY OF THE ORIGINAL WIRES AS SUPPLIED WITH THIS UNIT MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C. USE COPPER CONDUCTORS ONLY.
4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C AND LOCAL CODES.
6. DISCARD CONNECTOR PL1 WHEN INSTALLING OPTIONAL HEAT KIT.
7. REMOVE JUMPER TAB AND PUT AUX ALARM SWITCH WHEN INSTALLING AUX ALARM SWITCH.
9. USE N.E.C CLASS 2 WIRE.
10. SEE MANUAL FOR PUSH BUTTON OPERATION.
11. SEE MANUAL FOR 7-SEGMENT DISPLAY DIAGNOSTIC CODES AND MENU CODES
12. SEE MANUAL FOR LED FUNCTIONALITY.
13. R AND C TERMINALS (USED FOR 24VAC OUTDOOR CONTROL VOLTAGE) ARE OPTIONAL FOR 2 STAGE COMMUNICATING AIR CONDITIONERS. R AND C TERMINALS ARE NOT TO BE USED FOR 2 STAGE COMMUNICATING HEAT PUMP APPLICATIONS.

    FOR COMMUNICATING HEAT PUMPS OR IF ONLY TWO THERMOSTAT WIRES ARE AVAILABLE, A SEPARATE TRANSFORMER MUST BE INSTALLED IN THE OUTDOOR UNIT FOR CONTROL BOARD POWER.

    1 AND 2 WIRES ARE REQUIRED FOR ALL APPLICATIONS. SEE INSTALLATION MANUAL FOR FULL SYSTEM WIRING EXAMPLES.

INTEGRATED CONTROL:

- LOW VOLTAGE
- LOW VOLTAGE FIELD
- HIGH VOLTAGE
- HIGH VOLTAGE FIELD
- JUNCTION
- TERMINAL
- INTERNAL TO
- RESISTOR
- OVERCURRENT PROT. DEVICE
- PLUG CONNECTION
- EQUIPMENT GND
- FIELD GROUND

COLOR CODES:

- BL - BLUE
- RD - RED
- YL - YELLOW
- OR - ORANGE
- BK - BLACK
- GY - GREY
- BR - BROWN
- GR - GREEN
- PU - PURPLE
- WH - WHITE

COMPONENT CODES:

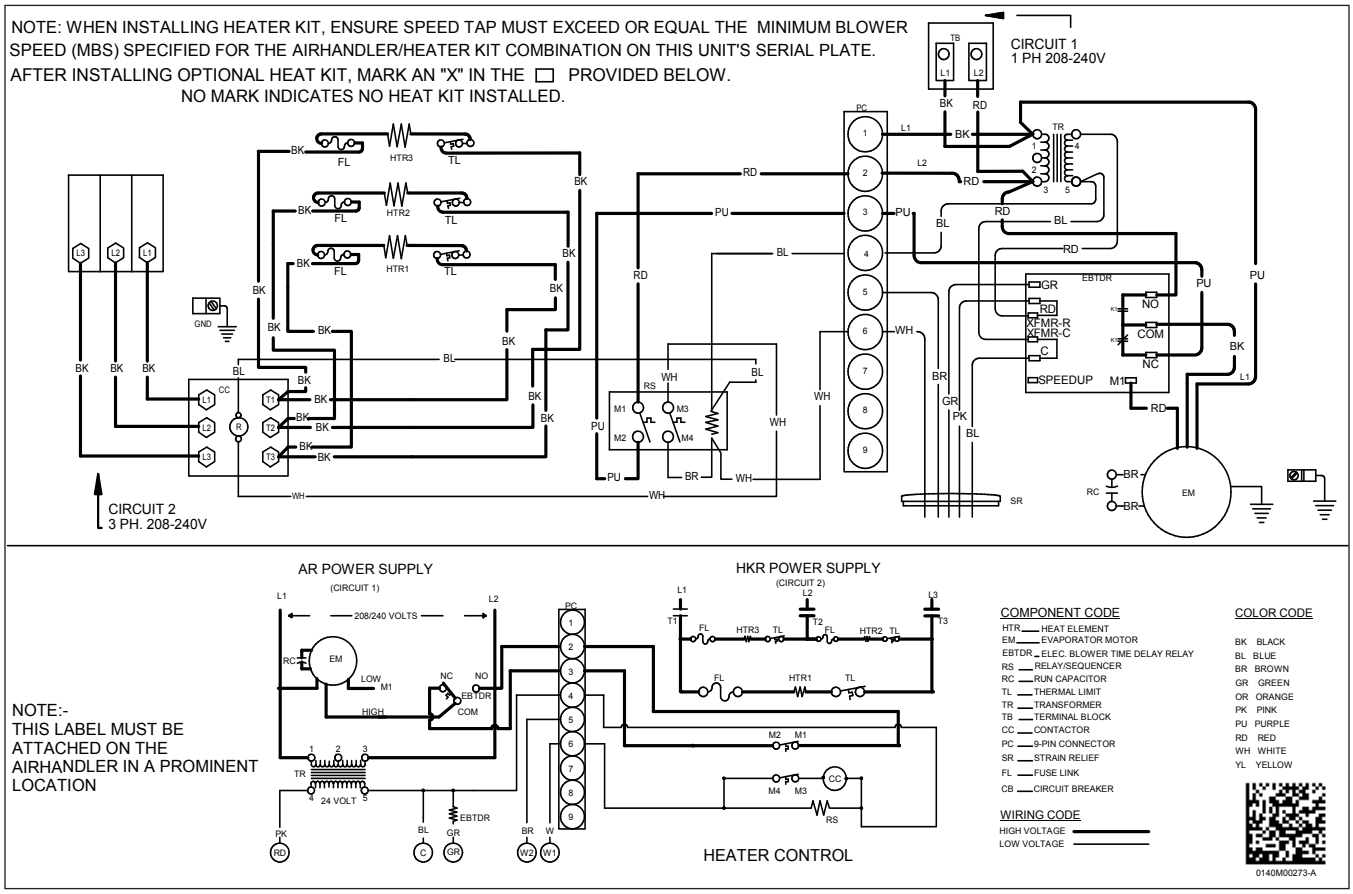
- PL1, PL2 — POWER/HEATER CONNECTOR
- TL — THERMAL LIMIT
- TR — TRANSFORMER
- F1U, F2U — FUSE LINK
- PL3, PL4 — TRANSFORMER CONNECTOR

0140A00725-A

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.

⚠ **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. ⚡

DOWNFLOW KITS

DFK-B	DFK-C	DFK-D
AVPTC25B14**	AVPTC31C14**	AVPTC37D14**
AVPTC29B14**	AVPTC33C14**	AVPTC59D14**
AVPTC35B14**	AVPTC37C14**	AVPTC49D14**
AVPTC37B14**	AVPTC39C14**	AVPTC61D14**
	AVPTC49C14**	
	AVPTC59C14**	

DRAIN PORT PLUG

KIT NUMBER	DESCRIPTION	APPLICATION
DPK1	Side Drain Port Plug	All Models

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 KIT **

MODEL	HKS*15	HKS*19	HKS*20	HKS*25
SPW-01	X	X	X	X

** Must be installed along with any of the above compatible heat kits. This kit will fit any AVPTC air handler as long as a compatible heat kit is installed in the unit.

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