Heating & Air Conditioning
Amana®

AVPTC

Multi-Position, Variable-Speed Air Handler

1½ to 5 Tons

SMART FRAME™

Standard Features

- Compatible with the ComfortNet™ Communicating System family of products
- Maximum four low-voltage wires required for operation in communicating mode
- Auto configuration of the airflow and tonnage in communicating mode
- In non-communicating mode, up to 12 field-selectable airflow settings can be adjusted to optimize the system's CFM for each individual mode of operation
- R-410A refrigerant-compatible
- Factory-installed thermal expansion valves for cooling and heat pump applications
- Variable-speed ECM blower motor
- All-aluminum evaporator coil
- Provides constant CFM over a wide range of static pressure conditions independent of duct system
- Provides adjustable low CFM for efficient fan-only operation
- CFM indicator with front-panel sight glass
- Improved humidity control and comfort
- Compatible with variable-capacity heat pumps and cooling applications
- Built-in coil has horizontal, vertical, and downflow drain pans with secondary drain connections
- AHRI Certified; ETL Listed

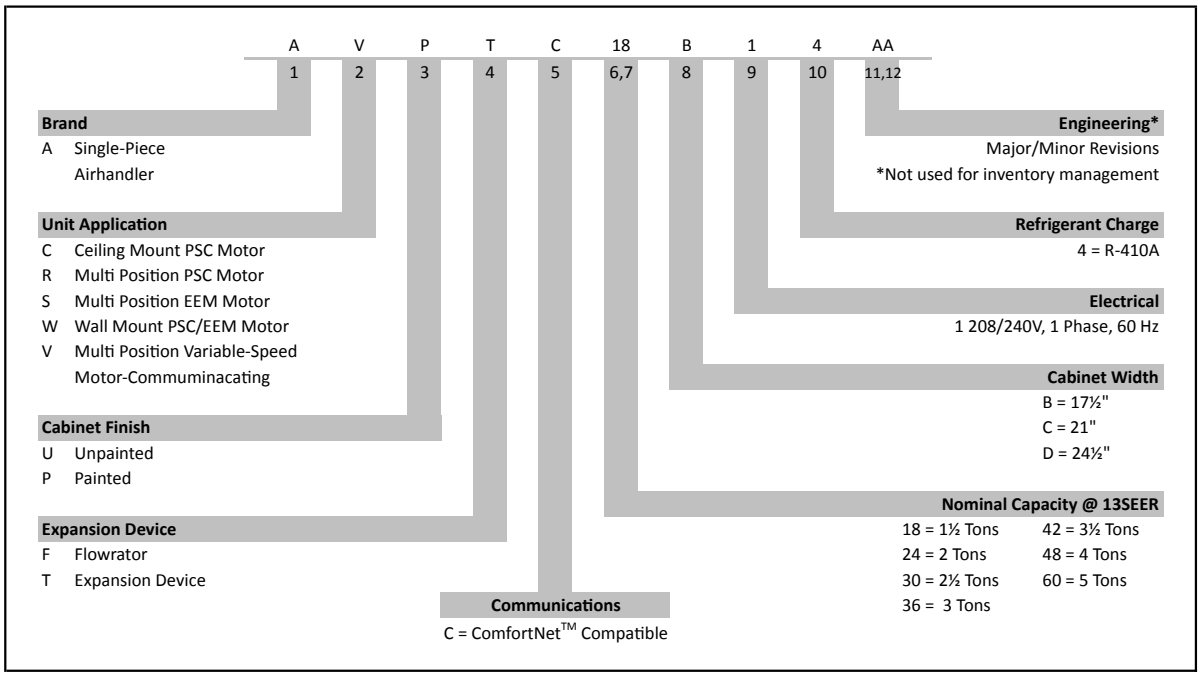
Cabinet Features

- New rigid SmartFrame™ cabinet
- 21" depth for easy attic access
- Galvanized, leather grain-embossed finish
- Foil-faced insulation covers the entire blower case to reduce operating sound and cabinet condensation
- Glue-less cabinet insulation retention
- Screw-less sides & back prevents condensation
- Multi-position capability: upflow, downflow, horizontal or vertical
- Coil-mounting track for quick repositioning
- Tool-less filter access (washable filters available)
- Easily convertible 4-way design
- Multiple electrical knockouts

10 YEAR PARTS LIMITED WARRANTY* | R-410A REFRIGERANT | ComfortNet CONTROL SYSTEM | ETL | AHRI CERTIFIED

* 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.

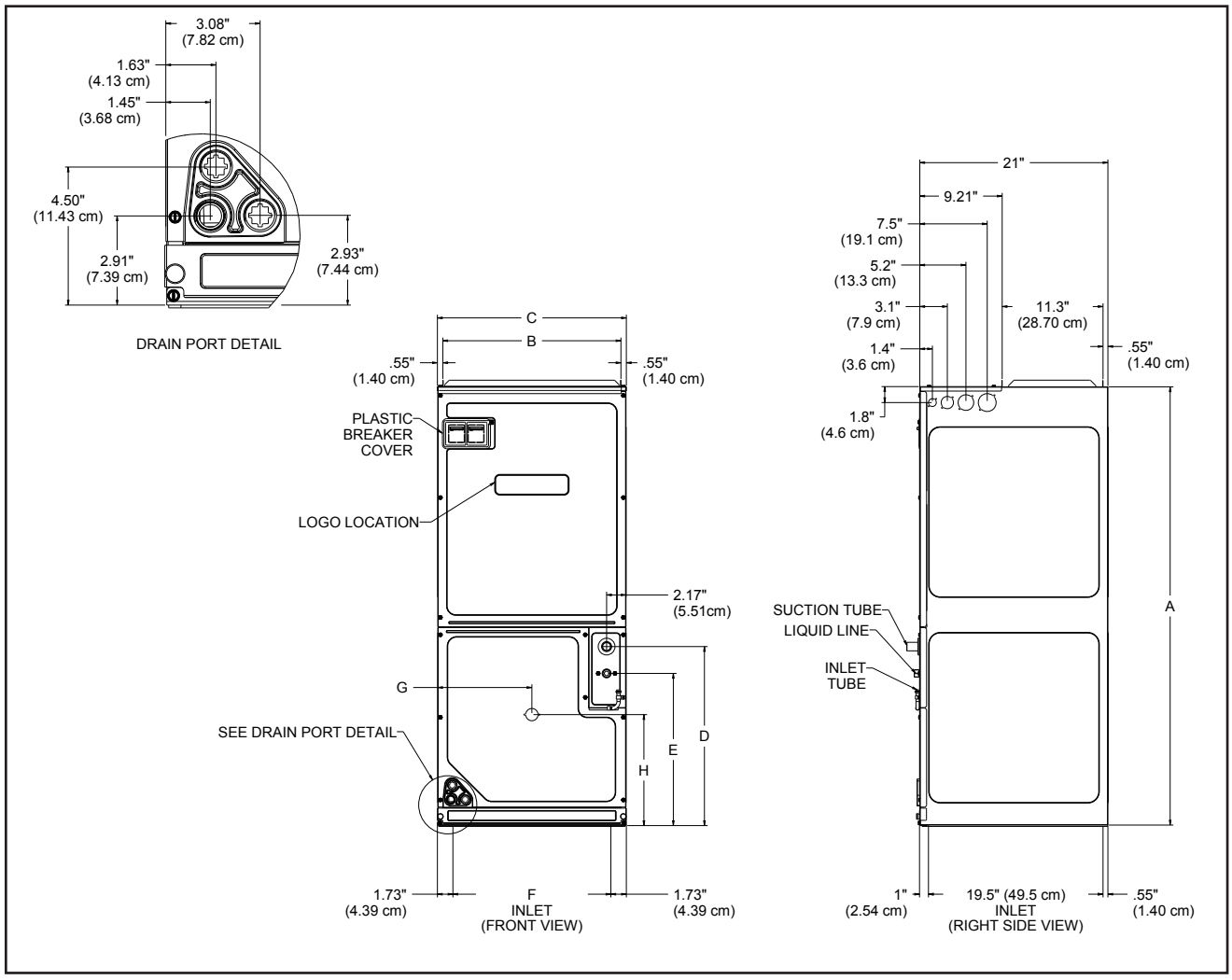
NOMENCLATURE



Specifications

	AVPTC 24B14A*	AVPTC 30C14A*	AVPTC 36C14A*	AVPTC 42D14A*	AVPTC 48D14A*	AVPTC 60D14A*
Nominal Ratings						
Cooling (BTU/h)	24,000	30,000	36,000	42,000	48,000	60,000
CFM (High)	1100/600	1200/600	1600/800	1700/800	1800/1350	2000/1600
Blower						
Diameter	10⅝"	10⅝"	10⅝"	10⅝"	10⅝"	11⅝"
Width	6"	8"	10⅝"	10⅝"	10⅝"	10⅝"
Coil Drain Connection FPT	¾"	¾"	¾"	¾"	¾"	¾"
Service Valve						
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	¾"	⅞"	⅞"	⅞"	⅞"	⅞"
Electrical Data						
Voltage	208/240	208/240	208/240	208/240	208/240	208/240
Electric Heat Capacity (kW)	3, 5, 6, 8, 10, 15	3, 5, 6, 8, 10, 15	3, 5, 6, 8, 10, 15, 19	5, 6, 8, 10, 15, 20	5, 6, 8, 10, 15, 20	5, 6, 8, 10, 15, 20, 25
Min Circuit Ampacity	4.9/4.9	4.9/4.9	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
Minimum VAC	197	197	197	197	197	197
Maximum VAC	253	253	253	253	253	253
Blower Motor						
FLA	3.9	3.9	5.2	5.2	5.2	6.9
HP	½	½	¾	¾	¾	1
Ship Weight (lbs)	100	118	118	167	167	167

DIMENSIONS



MODEL	A	B	C	D	E	F	G	H
AVPTC24B14	45	16⅜	17½	18	15	14³⁄₁₆	8¹³⁄₁₆	11¹⁵⁄₁₆
AVPTC30C14	49	19¹⁵⁄₁₆	21	20	17	17¹¹⁄₁₆	10½	12⅜
AVPTC36C14	49	19¹⁵⁄₁₆	21	20	17	17¹¹⁄₁₆	10½	12⅜
AVPTC42D14	58	23⁵⁄₁₆	24½	28³⁄₁₆	25³⁄₁₆	21³⁄₁₆	12⁵⁄₁₆	12⅜
AVPTC48D14	58	23⁵⁄₁₆	24½	28³⁄₁₆	25³⁄₁₆	21³⁄₁₆	12⁵⁄₁₆	12⅜
AVPTC60D14	58	23⁵⁄₁₆	24½	28³⁄₁₆	25³⁄₁₆	21³⁄₁₆	12⁵⁄₁₆	12⅜

Airflow Data

Cooling / Heat Pump Airflow

AVPTC24B

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
A	Low	435	430	430	430	425	420	420	415	415
B	Low	580	575	575	570	565	560	555	555	550
C	Low	710	705	695	690	675	655	650	640	635
D	Low	815	805	795	785	765	745	735	725	710
A	High	630	625	625	620	610	605	600	595	590
B	High	895	885	875	865	845	825	815	800	790
C	High	1030	1020	1005	995	970	945	935	920	910
D	High	1185	1175	1160	1145	1120	1090	1080	1065	1050

AVPTC30C

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
A	Low	515	505	495	490	470	455	445	435	425
B	Low	675	670	665	660	655	645	640	640	635
C	Low	780	775	770	765	755	745	740	735	730
D	Low	915	910	905	900	895	885	880	875	870
A	High	680	675	675	670	665	660	660	655	655
B	High	870	865	860	855	845	835	830	825	820
C	High	1040	1040	1035	1030	1020	1015	1010	1005	1000
D	High	1255	1245	1240	1235	1220	1210	1200	1195	1190

AVPTC36C

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
A	Low	565	555	545	530	510	485	475	465	455
B	Low	720	710	700	690	675	655	645	640	630
C	Low	945	935	920	910	885	860	850	840	825
D	Low	1120	1110	1100	1090	1070	1050	1040	1030	1020
A	High	735	725	715	705	685	665	655	645	635
B	High	1020	1005	995	985	960	940	930	915	905
C	High	1325	1315	1305	1300	1280	1260	1250	1240	1230
D	High	1590	1580	1570	1560	1540	1520	1510	1500	1490

AVPTC42D

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
A	Low	675	660	645	635	605	580	565	550	540
B	Low	820	810	795	785	765	740	730	720	710
C	Low	1045	1035	1025	1015	990	970	955	945	935
D	Low	1275	1265	1260	1250	1235	1220	1210	1200	1195
A	High	845	835	825	815	790	770	760	750	735
B	High	1135	1130	1120	1110	1090	1075	1065	1055	1045
C	High	1475	1470	1460	1450	1435	1420	1415	1405	1395
D	High	1835	1825	1820	1810	1795	1780	1770	1765	1755

Note: When applying a humidistat (normally closed), refer to the installation and operating instructions. The humidistat can adjust the cooling airflow to 85%.

Airflow Data (cont.)

Cooling / Heat Pump Airflow (cont.)

AVPTC48D

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
A	Low	935	930	925	920	905	890	885	880	875
B	Low	1075	1065	1060	1055	1040	1030	1020	1015	1010
C	Low	1175	1170	1160	1155	1140	1125	1120	1115	1105
D	Low	1235	1225	1220	1215	1200	1190	1185	1175	1170
A	High	1370	1365	1360	1350	1340	1325	1315	1310	1305
B	High	1565	1560	1560	1555	1545	1535	1530	1530	1525
C	High	1720	1715	1710	1705	1690	1680	1675	1670	1665
D	High	1815	1810	1805	1800	1785	1775	1770	1760	1755

AVPTC60D

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
A	Low	1200	1195	1190	1190	1180	1175	1170	1170	1165
B	Low	1365	1365	1360	1360	1350	1345	1345	1340	1335
C	Low	1425	1420	1420	1415	1410	1405	1405	1400	1395
D	Low	1515	1515	1510	1505	1500	1495	1490	1485	1485
A	High	1600	1595	1595	1590	1585	1580	1580	1580	1575
B	High	1825	1820	1820	1815	1810	1805	1800	1800	1795
C	High	1915	1910	1910	1905	1900	1890	1885	1885	1880
D	High	2035	2030	2025	2020	2010	2000	1995	1990	1985

Note: When applying a humidistat (normally closed), refer to the installation and operating instructions. The humidistat can adjust the cooling airflow to 85%.

Electric Heat Airflow

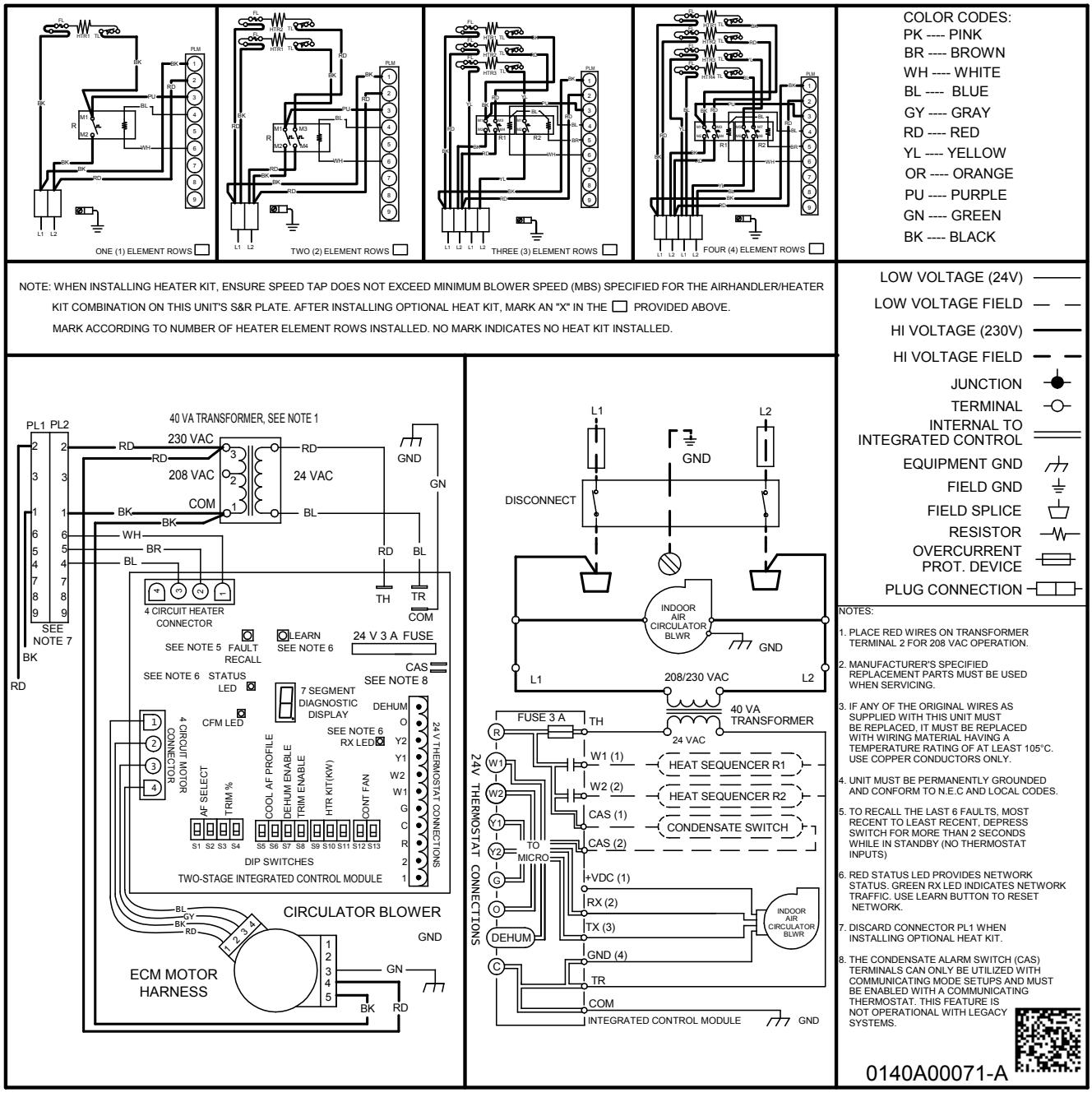
HTR kW	9	10	11	AVPTC 24B14A*	AVPTC 30C14A*	AVPTC 36C14A*	AVPTC 42D14A*	AVPTC 48D14A*	AVPTC 60D14A*
3	ON	ON	ON	730	730	NR	NR	NR	NR
5	ON	ON	OFF	780	780	1200	1600	1600	1620
6	ON	OFF	ON	850	850	1260	1630	1630	1670
8	ON	OFF	OFF	950	950	1320	1630	1630	1720
10	OFF	ON	ON	1025	1025	1380	1670	1670	1750
15	OFF	ON	OFF	NR	NR	1440	1720	1720	1780
19*	OFF	OFF	ON	NR	NR	1500	1800	NR	NR
20				NR	NR	NR	NR	1815	1850
21 or 25*	OFF	OFF	OFF	NR	NR	NR	NR	1850	1850

Note: Airflow data shown applies to the electric heat only in either legacy mode or communicating mode operation

* Within thermostat user menu, CTK0* communicating thermostat will display 20kW for OFF-OFF- ON dipswitch selection, 21kW for OFF-OFF-OFF dipswitch selection.

NR - Not Rated

WIRING DIAGRAM



Wiring is subject to change. Always refer to the wiring diagram or 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.

Accessories

Heat Kit Selection

Model	HKSX 03XC	HKSX 05XC	HKSX 06XC	HKSX 08XC	HKSX 10XC	HKSC 05XC	HKSC 08XC	HKSC 10XC	HKSC 15XA
AVPTC24B14	X	X	X	X	X	X	X	X	
AVPTC30C14	X	X	X	X	X	X	X	X	
AVPTC36C14		X	X	X	X	X	X	X	X
AVPTC42D14		X	X	X	X	X	X	X	X
AVPTC48D14		X	X	X	X	X	X	X	X
AVPTC60D14		X	X	X	X	X	X	X	X

Model	HKSC 15XB	HKSC 15XF	HKSC 19CA	HKSC 19CB	HKSC 20DA	HKSC 20DB	HKSC 20XF	HKSC 25DC
AVPTC24B14								
AVPTC30C14								
AVPTC36C14	X	X	X	X			X	
AVPTC42D14	X	X			X	X	X	
AVPTC48D14	X	X			X	X	X	
AVPTC60D14	X	X			X	X	X	X

C Circuit breaker option

Downflow Kits

DFK-B	DFK-C	DFK-D
AVPTC24B14**	AVPTC30C14**	AVPTC42D14**
	AVPTC36C14**	AVPTC48D14**
		AVPTC60D14**

Single Point Kit **

Model	HKR-15C	HKR-20C	HKR-21C
SPW-01	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.