Heating & Air Conditioning
Amana®
LASTS AND LASTS AND LASTS.®

AVPTC

Multi-Position, Variable-Speed Air Handler

1½ to 5 Tons

ComfortNet™ CONTROL SYSTEM

Standard Features

- Compatible with the ComfortNet™ Communicating System family of products
- 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 low CFM for efficient fan-only operation
- In non-communicating mode, up to 12 field-selectable air-flow settings can be adjusted to optimize the system's CFM for each individual mode of operation
- Auto configuration of the airflow and tonnage in communicating mode
- CFM indicator
- Maximum four low-voltage wires required for operation in communicating mode
- Improved humidity control and comfort
- Compatible with heat pumps and variable-capacity cooling applications
- Built-in coil has horizontal, vertical, and downflow drain pans with secondary drain connections
- Complies with the Factory-sealed Air Handling Credit with or without field-installed filter kits as listed in the 2001 Florida Building Code, Chapter 13, Section 610.2.A.2.1
- AHRI Certified; ETL Listed

Cabinet Features

- Fully insulated, painted steel cabinet with attractive Architectural Gray finish
- Compact, versatile upflow, downflow, or horizontal multi-position installations
- Built-in filter rack for 1" filter (filter not included)
- Low-voltage cabinet connections; control circuit is arranged to permit staging
- Power supply on top; low-voltage entry on top or side
- Factory-sealed to achieve 2% or less leakage rate with or without field-installed filter kits at 1.0" water gauge external duct static pressure

10 YEAR PARTS LIMITED WARRANTY* R-410A REFRIGERANT

* 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

A	V	P	T	C	3642	1	4	AA
1	2	3	4	5	6,7,8,9	10	11	12,13

Brand
- A Single-piece Air Handler

Unit Application
- C Ceiling Mount PSC Motor
- D Downflow PSC Motor
- E Multi-Position Variable-Speed Motor
- R Multi-Position PSC Motor
- S Multi-Position EEM Motor
- V Multi-Position Variable-Speed Motor
- W Wall Mount PSC Motor

Cabinet Finish
- U Unpainted
- P Painted
- N Uncased

Expansion Device
- F Flowrater
- T Expansion Valve

Communications
- C ComfortNet™ Compatible

Nominal Capacity Range @ 13 SEER

Multi-Position & Downflow Applications
- 1830 1½-2½ Tons
- 3137 2-3 Tons
- 4260 3-5 Tons

Electrical
- 1 208/240 V, 1 Phase, 60 Hz

Refrigerant Compatability
- 4 = R-410A

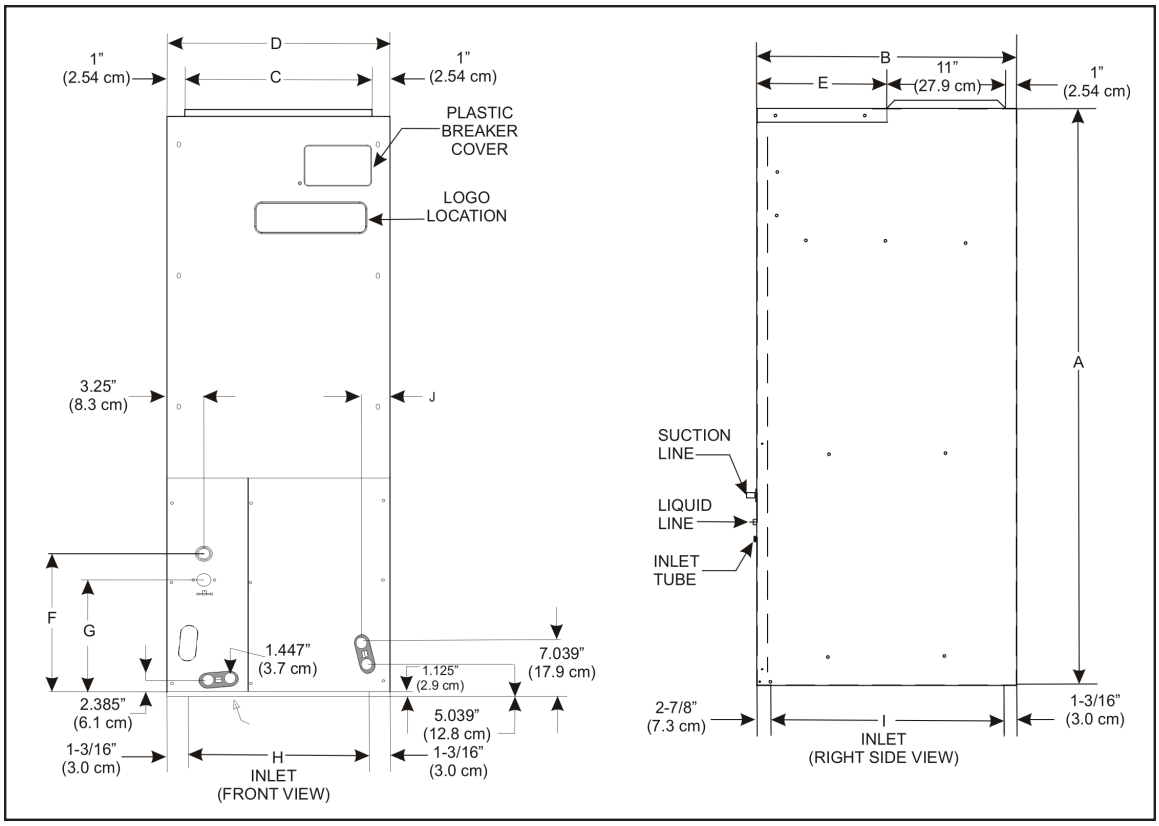
Engineering *
- Major/ Minor Revisions

* Not used for inventory management

Specifications

	AVPTC 183014	AVPTC 313714	AVPTC 426014
Nominal Ratings			
Cooling (BTU/h)	18,000-30,000	30,000-36-000	42,000-60,000
CFM (High/ Low)	1,200/ 600	1,200/ 600	1,800/ 1,200
Blower			
Diameter	9½"	10⅝"	10⅝"
Width	8"	10⅝"	10⅝"
Coil Drain Connection FPT	¾"	¾"	¾"
Service Valve			
Liquid	⅜"	⅜"	⅜"
Suction	¾"	⅞"	⅞"
Electrical Data			
Voltage	208/240	208/240	208/240
Electric Heat Capacity (kW)	3, 5, 8, 10	3, 5, 6, 8,10, 15	3,5,6,8,10,15,20,21
Min Circuit Ampacity	4.9/4.9	6.5/6.5	8.6/8.6
Max. Overcurrent Device (amps)	15/15	15/15	15/15
Minimum VAC	197	197	197
Maximum VAC	253	253	253
Blower Motor			
FLA	3.9	5.2	6.9
HP	½	¾	1
Ship Weight (lbs)	127	178	197

DIMENSIONS



MODEL	A	B	C	D	E	F	G	H	I	J
AVPTC183014	46¾"	22"	17½"	19½"	10"	14½"	11 15/16"	17⅛"	17 15/16"	2"
AVPTC313714	53¼"	24"	20"	22"	12"	14½"	11 15/16"	19⅝"	19 15/16"	1 13/16"
AVPTC426014	53¼"	24"	20"	22"	12"	14½"	11 15/16"	19⅝"	19 15/16"	1 13/16"

Airflow Data

Electric Heat Airflow

Htr kW	9	10	11	AVPTC 183014*	AVPTC 313714*	AVPTC 426014*
3	ON	ON	ON	630	610	600
5	ON	ON	OFF	730	710	680
6	ON	OFF	ON	840	840	790
8	ON	OFF	OFF	1080	1060	990
10	OFF	ON	ON	1270	1260	1190
15	OFF	ON	OFF	NR	1470	1390
20	OFF	OFF	ON	NR	NR	1580
21	OFF	OFF	OFF	NR	NR	1580

Note: Airflow data shown applies to the emergency heat mode (electric heat only) in either legacy mode operation or fully communicating mode operation.

Cooling / Heat Pump Airflow

Model	Tap	Low-Stage Cool	High-Stage Cool
AVPTC183014*	A	420	630
	B	560	840
	C	700	1040
AVPTC313714*	A	410	610
	B	560	830
	C	700	1040
	D	830	1240
AVPTC426014*	A	810	1210
	B	940	1410
	C	1050	1560
	D	1210	1800

Notes

- Airflow data shown applies to legacy mode operation only. For a fully communicating system, see the outdoor unit's installation instructions for cooling and heat pump airflow data. See *ComfortNet™ System — Airflow Consideration* section for details.
- Airflow blink codes are approximations a=of actual airflow.

Dipswitch Settings

Speed Selection Dipswitches

	Cool Switches		Adjust Switches		Profile Switches	
Tap	1	2	3	4	5	6
A	Off	Off	Off	Off	Off	Off
B	On	Off	On	Off	On	Off
C	Off	On	Off	On	Off	On
D	On	On	On	On	On	On

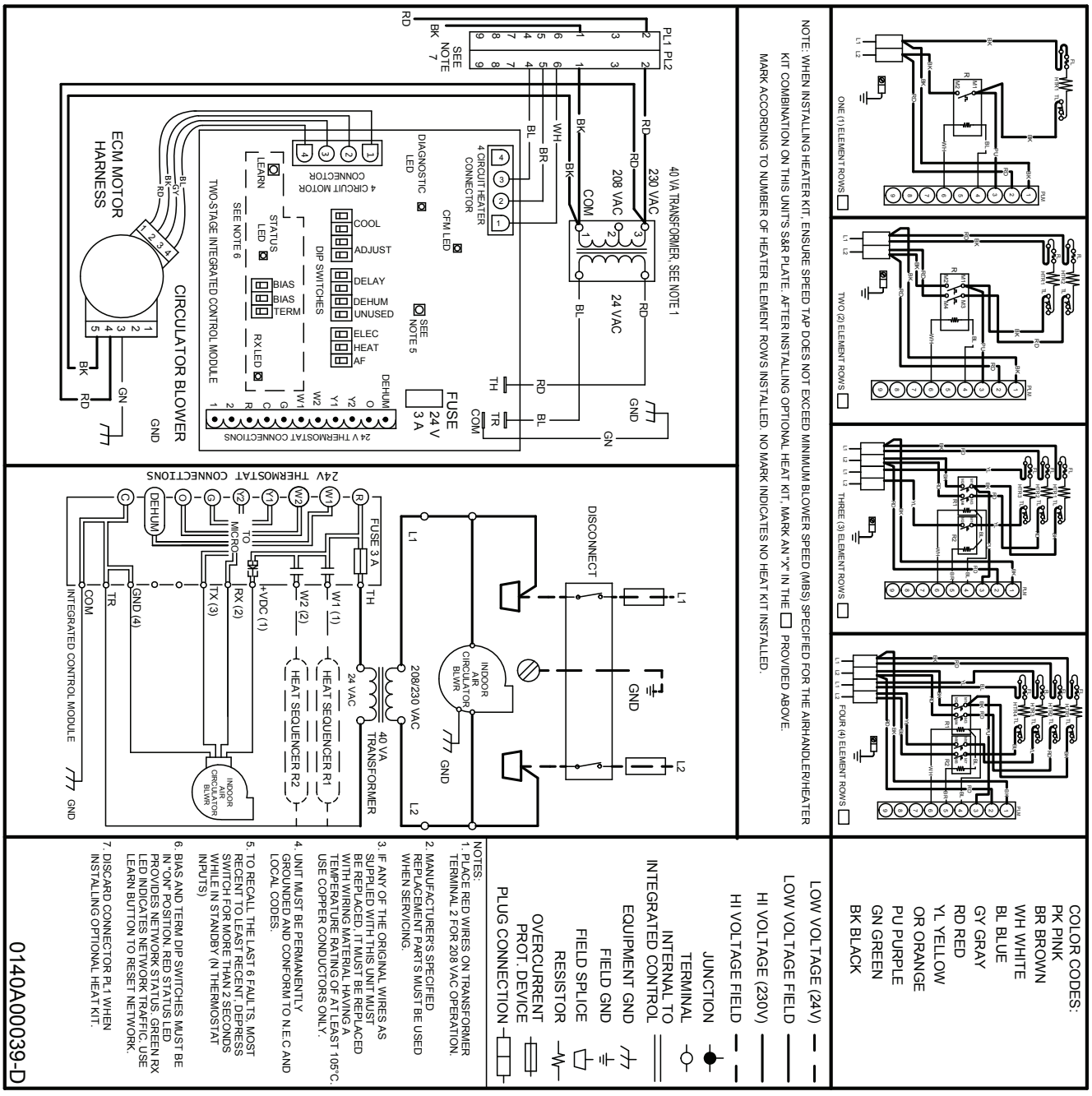
Profiles	Pre-Run	Short-Run	OFF Delay
A	-----	-----	60 sec / 100%
B	-----	30 sec / 50%	60 sec / 100%
C	-----	7.5 min / 82%	60 sec / 100%
D	30 sec / 50%	7.5 min / 82%	30 sec / 50%

To set airflow:

1. Select appropriate model from Cooling/Heat Pump Airflow Table. Based on desired Airflow for your application select corresponding tap (A,B,C or D). Set dip switches 1 & 2 to the appropriate ON/OFF positions.
2. Select appropriate Airflow adjustment factor for application (0%. +10%, -10%). Set dip switches 3 & 4 to the appropriate ON/OFF positions.
3. If installed with Heater Kit: Using Electric Heat Airflow Table, set dip switches 9, 10 and 11 to the appropriate ON/OFF positions based on Heater kit installed. If installed without Heater Kit: Ensure dip switches 9, 10 and 11 are set to a valid heater kit selection. Example: The only valid heater kits for AVPTC183014* applications are 3, 5, 6, 8 and 10 kW. Failure to do so will result in a Heater Kit error code.

To set Comfort mode: Select desired Comfort Mode profile (see profiles above). Set switches 5 and 6 to the appropriate ON/OFF positions.

AVPTC 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

Models	AVPTC 183014A*	AVPTC 313714*	AVPTC 426014A*
HKR-03*	X	X	X
HKR-05*/-05C*	X	X	X
HKR-06*	X	X	X
HKR-08*/-08C*	X	X	X
HKR-10*/-10C*	X[1]	X	X
HKR-15C*		X[2]	X
HKR-20C*			X[3]
HKR-21C*			X[3]

* Revision level that may or may not be designated
C Circuit breaker option

Notes:
When 8kW and 10kW heat kits are used with an AVPTC1830 and AVPTC3137, matched with 2- ton outdoor unit, see Note 1 below.

[1] Set Heater Kit dip switches 9, 10 and 11 to 6kW setting (9-ON, 10-OFF,11-ON) to obtain 840 CFM.
[2] This heater kit can only be used for '1000 CFM or higher' applications.
[3] This heater kit can only be used for '1200 CFM or higher' applications.

Drain Pan Insulation Kits

Downflow Applications

Model	Insulation Kit
1830	DPI36-42/20
3137-4260	DPI48-61/20

Note: Each kit contains enough material to modify 20 coils

Horizontal Applications

Model	Insulation Kit
1830	DPIH36-42
3137-4260	DPIH48-61

Note: Each kit contains enough material to modify 20 coils

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.

Filters

Model	Filter #	Qty Required
N/A	FIL 18-32	1
1830	FIL-36-42	1
3137	FIL 48-61	1
4260	FIL 48-61	1

Notes