



Air Conditioning & Heating

AEPF

MULTI-POSITION, VARIABLE-SPEED AIR HANDLERS

1½ TO 5 TONS

Standard Features

- Suitable for use with R-410A and R-22 refrigerants
- Check flowrate expansion device for cooling and heat pump applications
- Variable-speed ECM blower motor
- Provides constant CFM over a wide range of static pressure conditions independent of duct system; provides low CFM for efficient fan-only operation
- Up to 14 adjustable airflow settings to optimize the system's CFM for each individual mode of operation
- Improved humidity control and comfort
- Compatible with heat pumps and variable-capacity cooling applications
- Multi-position: upflow, downflow or horizontal
- 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
- Built-in filter rack for 1" filter (filter not included)
- Low-voltage cabinet connections; control circuit 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



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* 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.



NOMENCLATURE

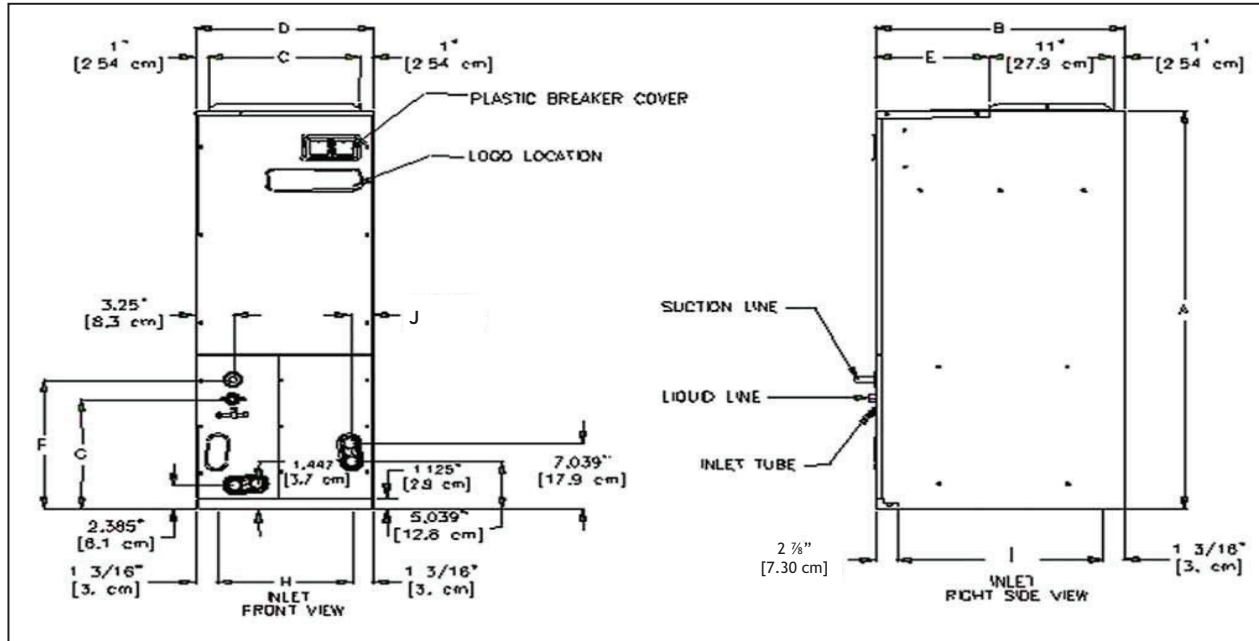
	A	E	P	F	3642	1	6	AA	
	1	2	3	4	5,6,7,8	9	10	11,12	
Brand	A Single-piece Air Handler								Engineering * Major/ Minor Revisions * Not used for inventory management
Unit Application	C Ceiling Mount PSC Motor D Downflow PSC Motor E Multi-Position Variable-Speed Motor R Multi-Position PSC Motor S Multi-Position EEM Motor W Wall Mount PSC Motor								Refrigerant Charge No Digit = R-22 only 6 = R-410A or R-22
Cabinet Finish	U Unpainted P Painted N Uncased								Electrical 1 208/240 V, 1 Phase, 60 Hz
Expansion Device	F Flowrater T Expansion Valve								Nominal Capacity Range @ 13 SEER
									Multi-Position & Downflow Applications 1729 1½ to 2½ Tons (for Export Systems) 1830 1½-3½ Tons 3642 3-3½ Tons
									Ceiling Mount & Wall Mount Applications (Nominal Cooling Capacity/ Electric Heat kW) 1805 1½ Tons Cooling/ 5 kW Electric Heat 2405 2 Tons Cooling/ 5 kW Electric Heat 3608 3 Tons Cooling/ 8 kW Electric Heat



SPECIFICATIONS

	AEPF 183016	AEPF 303616	AEPF 313716	AEPF 426016
NOMINAL RATINGS				
Cooling (BTU/h)	18,000-30,000	30,000-36-000	30,000-36-000	42,000-60,000
CFM (High/ Low)	1,200/ 600	1,200/ 1,000	1,200/ 1,000	2,000/ 1,200
BLOWER				
Diameter	9½"	10⅝"	10⅝"	10⅝"
Width	8"	10⅝"	10⅝"	10⅝"
Coil Drain Connection FPT	¾"	¾"	¾"	¾"
SERVICE VALVE				
Liquid	⅜"	⅜"	⅜"	⅜"
Suction	¾"	⅞"	⅞"	⅞"
ELECTRICAL DATA				
Voltage	208/240	208/240	208/240	208/240
Electric Heat Capacity (kW)	5, 8, 10	3, 5, 6, 8,10, 15	3, 5, 6, 8,10, 15	10, 15, 20, 21
Min Circuit Ampacity	2.5 / 2.5	3.1 / 3.1	3.1 / 3.1	7.8 / 7.8
Max. Overcurrent Device (amps)	15/15	15/15	15/15	15/15
Minimum VAC	197	197	197	197
Maximum VAC	253	253	253	253
BLOWER MOTOR				
FLA	2.0	2.5	2.5	6.2
HP	½	¾	¾	¾
SHIP WEIGHT (LBS)	125	176	176	195

DIMENSIONS

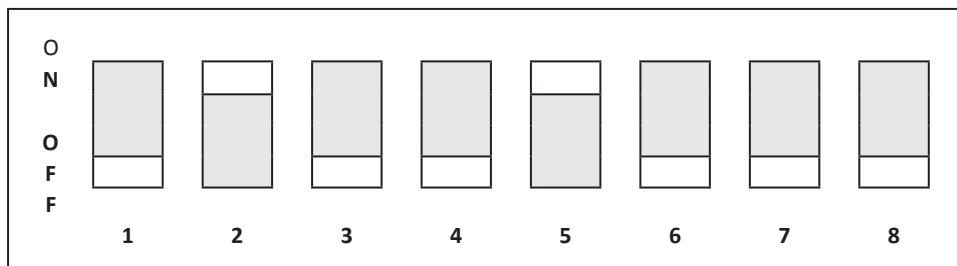


MODEL	A	B	C	D	E	F	G	H	I	J
AEPF183016	46 $\frac{3}{4}$ "	22"	17 $\frac{1}{2}$ "	19 $\frac{1}{2}$ "	10"	14 $\frac{1}{2}$ "	11 $\frac{15}{16}$ "	17 $\frac{7}{8}$ "	17 $\frac{15}{16}$ "	2"
AEPF303616	53 $\frac{3}{4}$ "	24"	20"	22"	12"	14 $\frac{1}{2}$ "	11 $\frac{15}{16}$ "	19 $\frac{9}{16}$ "	19 $\frac{15}{16}$ "	1 $\frac{13}{16}$ "
AEPF313716	53 $\frac{3}{4}$ "	24"	20"	22"	12"	14 $\frac{1}{2}$ "	11 $\frac{15}{16}$ "	19 $\frac{9}{16}$ "	19 $\frac{15}{16}$ "	1 $\frac{13}{16}$ "
AEPF426016	53 $\frac{3}{4}$ "	24"	20"	22"	12"	14 $\frac{1}{2}$ "	11 $\frac{15}{16}$ "	19 $\frac{9}{16}$ "	19 $\frac{15}{16}$ "	1 $\frac{13}{16}$ "

AEPF DIPSWITCHES

The AEPF air handler blower motor is pre-programmed for operation at four distinct airflow levels when operating in the Cooling, Heat Pump heating, Backup heating (Electric Heating), and Backup + Heat Pump heating modes. Each mode has four levels to deliver different CFM. Simply flip the dipswitch for a different CFM combination.

SETTING THE MOTOR



AEPF DIPSWITCHES (CONT.)

DIPSWITCH NUMBER	FUNCTION	INSTRUCTIONS
1	Electric Heat Mode	Select the taps allowed in the tables (Dipswitch 1/2/ 7/8) below.
2	Electric Heat Mode	
3	N/A	
4	Thermostat Mode	ON = The system operates with single-stage units using a single-stage cooling or heat pump thermostat. (factory default) OFF = The system operates with two-stage units with either a conventional two-stage cooling/heat pump thermostat or with an encoded two-stage thermostat for cooling operation. The encoded thermostats can be used with two-stage condensing units in retrofit applications where there aren't enough existing wires available for connections to the indoor thermostat and outdoor units.
5	Cooling/Heat Pump Mode	Find the airflow for your application in the tables (Dipswitch 5/6/ 7/8) below. Set up the motor based on the outdoor unit capacity tons.
6	Cooling/Heat Pump Mode	
7	Trim CFM Adjust Mode	
8	Trim CFM Adjust Mode	Increase or decrease your selected airflow to fit your requirement. ON-OFF = Increases selected Cool/Heat Pump airflow by 10%. OFF-ON = Decreases selected Cool/Heat Pump airflow by 15%. Note: Other settings have no effect on the set airflow.

Dipswitch 1/2/ 7/8

AEPF1830

HEATING ELEMENT (kW)	SWITCH POSITION				EMERGENCY BACKUP	HP w/ BACKUP
	1	2	7	8		
Up to 10	Off	Off	Off	Off	1,100	1,210
Up to 10	On	Off	Off	Off	890	935
5	Off	On	Off	Off	700	770

Dipswitch 5/6/ 7/8

AEPF1830

OUTDOOR UNIT (TONS)	SWITCH POSITION				INDOOR CFM	
	5	6	7	8	COOL	HP
2.5	Off	Off	Off	Off	1,100	1,100
2	On	Off	Off	Off	800	800
1.5	Off	On	Off	Off	600	600

AEPF3036/4260

HEATING ELEMENT (kW)	SWITCH POSITION				EMERGENCY BACKUP	HP w/ BACKUP
	1	2	7	8		
Up to 20	Off	Off	Off	Off	2,050	2,150
Up to 20	On	Off	Off	Off	1,750	1,835
Up to 15	Off	On	Off	Off	1,600	1,680
Up to 10	On	On	Off	Off	1,200	1,260
Up to 10	On	On	Off	On	1,020	1,070

AEPF3036/4260

OUTDOOR UNIT (TONS)	SWITCH POSITION				INDOOR CFM	
	5	6	7	8	COOL	HP
5	Off	Off	Off	Off	1,800	1,800
4	On	Off	Off	Off	1,580	1,580
3.5	Off	On	Off	Off	1,480	1,480
3	On	On	Off	Off	1,200	1,200
2.5	On	On	Off	On	1,020	1,020

AEPF3137

HEATING ELEMENT (kW)	SWITCH POSITION				EMERGENCY BACKUP	HP w/ BACKUP
	1	2	7	8		
Up to 15	Off	On	Off	Off	1,600	1,680
Up to 10	On	On	Off	Off	1,200	1,260
Up to 10	On	On	Off	On	1,020	1,070

AEPF3137

OUTDOOR UNIT (TONS)	SWITCH POSITION				INDOOR CFM	
	5	6	7	8	COOL	HP
3.5	Off	On	Off	Off	1,480	1,480
3	On	On	Off	Off	1,200	1,200
2.5	On	On	Off	On	1,020	1,020

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

HEAT KIT MATCH-UPS

HEAT KIT SELECTION

MODELS	AEPF 183016A*	AEPF 183016B*	AEPF 303616A*	AEPF 303616B*	AEPF 313716*	AEPF 426016A*	AEPF 426016B*
HKR-03*		X		X	X		X
HKR-05*/-05C*	X	X		X	X		X
HKR-06*		X		X	X		X
HKR-08*/-08C*	X	X	X	X	X		X
HKR-10*/-10C*	X ¹	X ¹	X	X	X	X	X
HKR-15C*			X ¹	X ¹	X ¹	X	X
HKR-20C*						X ²	X ²
HKR-21C*						X ²	X ²

* Revision level that may or may not be designated

C Circuit breaker option

¹ This heater kit can only be used for '1000 CFM or higher' applications

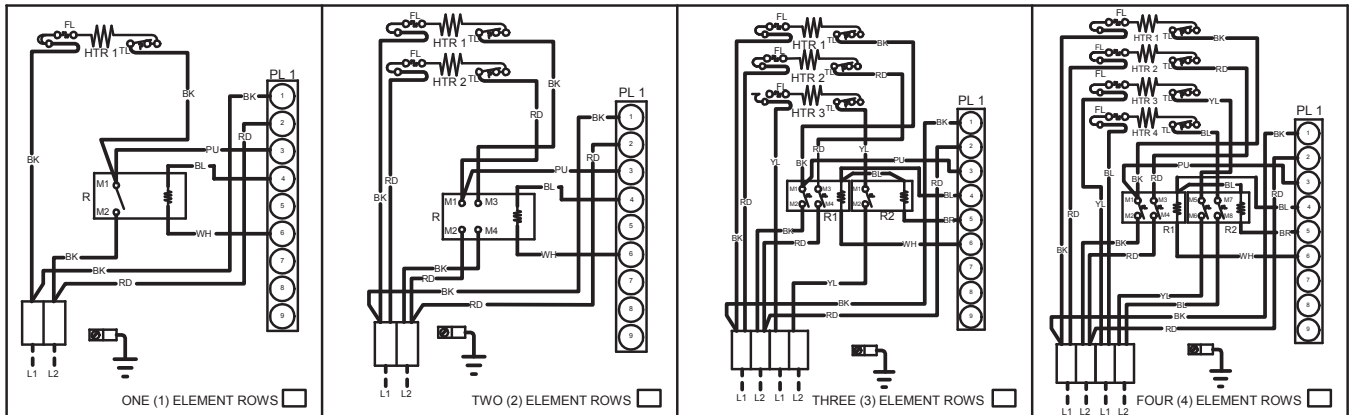
² This heater kit can only be used for '1200 CFM or higher' applications

SINGLE POINT KIT **

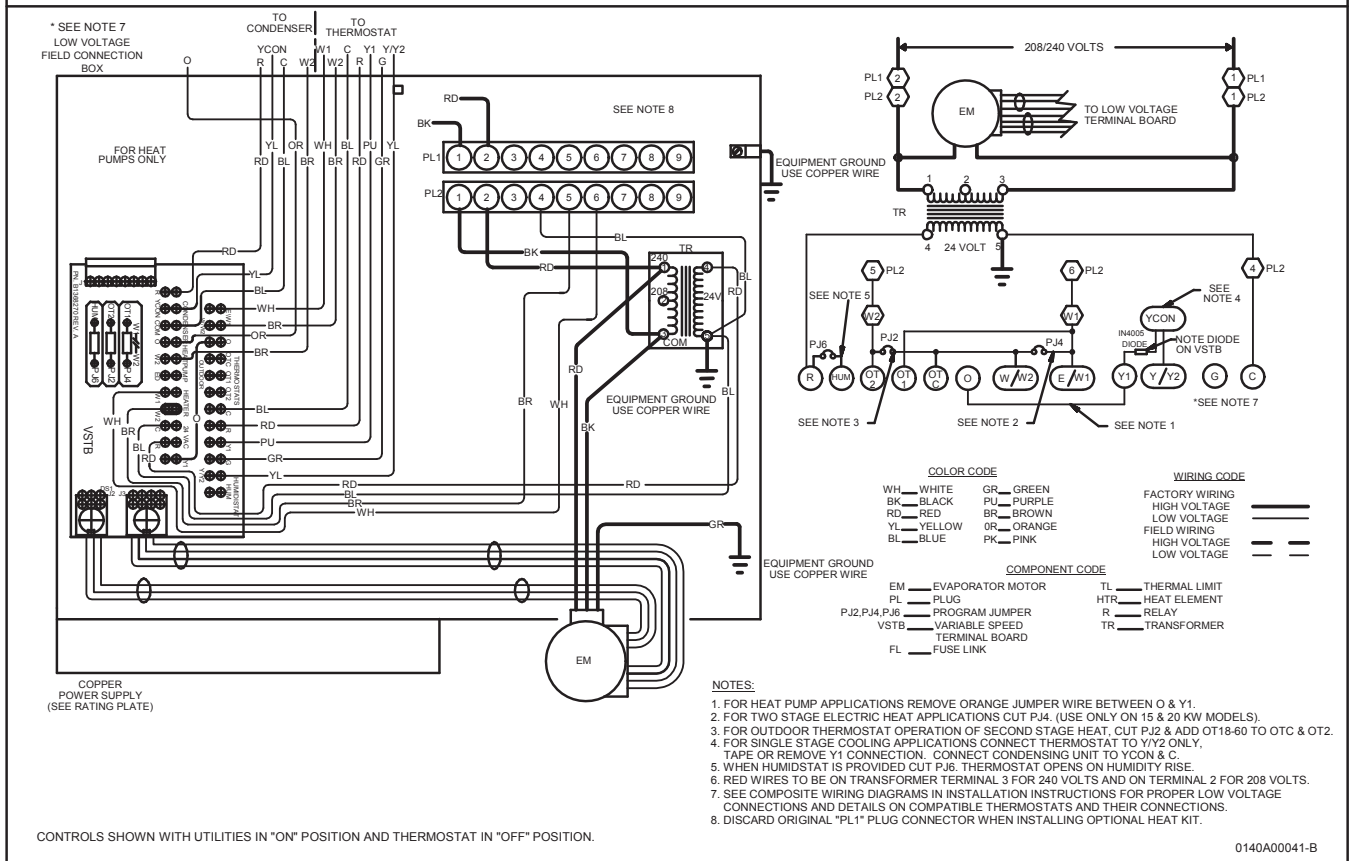
MODEL	HKR-15C	HKR-20C	HKR-21C
SPW-01	X	X	X

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

WIRING DIAGRAM



AFTER INSTALLING OPTIONAL HEAT KIT, MARK A "X" IN THE PROVIDED ABOVE.
 MARK ACCORDING TO NUMBER OF HEATER ELEMENT ROWS INSTALLED
 NO MARK INDICATES NO HEAT KIT INSTALLED



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

DRAIN PAN INSULATION KITS

DOWNFLOW APPLICATIONS

CHASSIS SIZE	INSULATION KIT
Small (15½")	DPI18-30/20
Medium (19½")	DPI36-42/20
Large (22")	DPI48-60/20

Note: Each kit contains enough material to modify 20 coils

HORIZONTAL APPLICATIONS

CHASSIS SIZE	INSULATION KIT
Small (15½")	DPIH18-32
Medium (19½")	DPIH36-42
Large (22")	DPIH48-61

Note: Each kit contains enough material to modify 20 coils

EXPANSION VALVE KITS FOR AIR CONDITIONING AND HEAT PUMP APPLICATIONS

FOR R-22 SYSTEMS

VALVE	DESCRIPTION	USED WITH OUTDOOR UNITS BELOW
TX2N2	Non-bleed valve	1½ Ton > Air Conditioner & Heat Pump
TX3N2	Non-bleed valve	3 Ton > Air Conditioner & Heat Pump
TX5N2	Non-bleed valve	3½ Ton < Air Conditioner & Heat Pump

FOR R-410A SYSTEMS

VALVE	DESCRIPTION	USED WITH OUTDOOR UNITS BELOW
TX2N4	Non-bleed valve	1½ Ton > Air Conditioner & Heat Pump
TX3N4	Non-bleed valve	3 Ton > Air Conditioner & Heat Pump
TX5N4	Non-bleed valve	3½ Ton < Air Conditioner & Heat Pump

EXPANSION VALVE KITS FOR AIR CONDITIONING-ONLY APPLICATIONS

KIT NUMBER	USED WITH	DESCRIPTION
XVB18-36C	AEPF 18 to 36	20% bleed valve
XVB42-60C	AEPF 42 to 60	20% bleed valve
XV18-36C	AEPF 18 to 36	Non-bleed valve
XV42-60C	AEPF 42 to 60	Non-bleed valve

FILTERS

AEPF	FILTER #	QTY REQUIRED
N/A	FIL 18-32	1
1830	FIL-36-42	1
3036	FIL 48-61	1
4260	FIL 48-61	1

