Goodman®

Air Conditioning & Heating

AEPF

Air Handlers

Product Specifications

1½ to 5 Ton

Multi-Position, Variable-Speed

The Goodman® AEPF Multi-Position, Variable-Speed Air Handler is suitable for use with refrigerants R-410A and R-22. This unit's blower motor allows for a soft start and stop for quieter, more efficient operation and eliminates the cold blast of air upon heating start-up. Using an ECM™ motor, this air handler is ideal for new or retrofit applications.

Standard Features

- Suitable for use with R-410A and R-22 refrigerants
- Check flowrater expansion device for cooling and heat pump applications
- Variable-speed 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
- ARI 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

10 YEAR PARTS LIMITED WARRANTY | GoodCare EXTENDED SERVICE PLAN | ETL LISTED | ARI PERFORMANCE CERTIFIED | ISO 9001

Guaranteed Quality ★★★★ Dare to Compare Goodman Exceptional Value

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

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

Cabinet Finish
- U Unpainted
- P Painted
- N Uncased

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

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

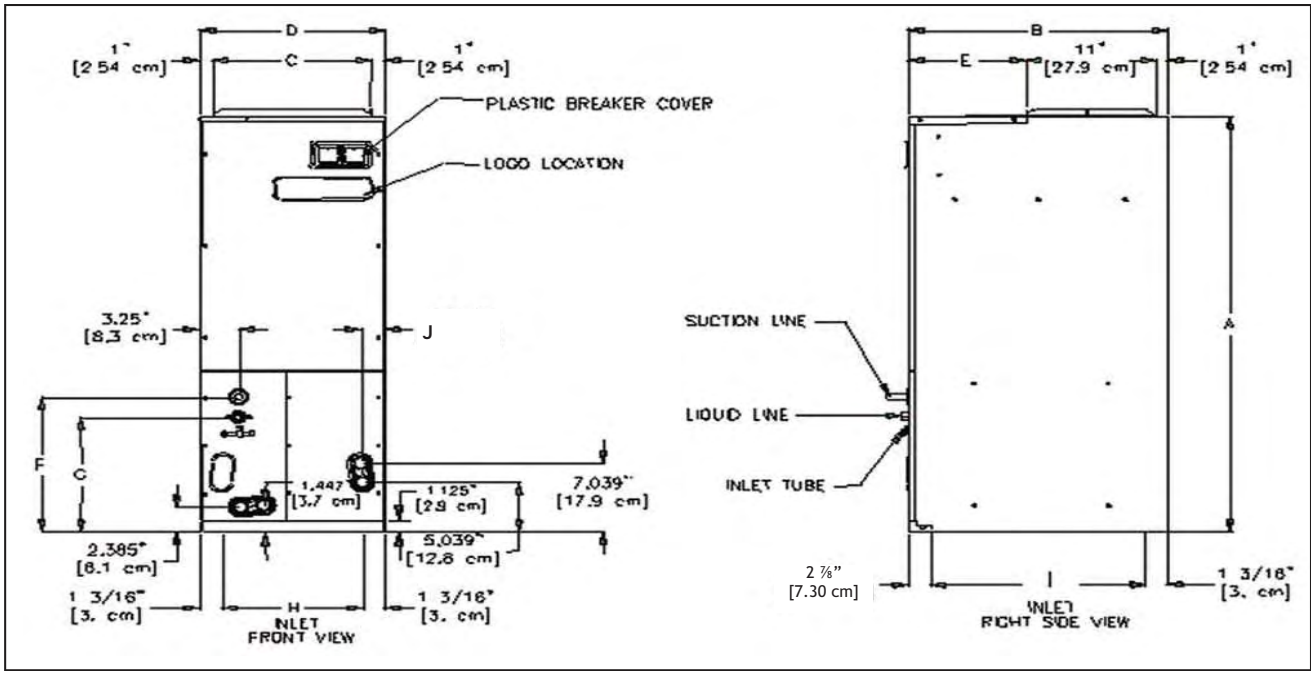
Refrigerant Charge
No Digit = R-22 only
6 = R-410A or R-22

Engineering *
Major/ Minor Revisions
* Not used for inventory management

Specifications

	AEPF183016	AEPF303616	AEPF426016
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
Min Circuit Ampacity	2.5/2.5	3.1/3.1	7.8/7.8
Max. Overcurrent Device (amps)	15/15	15/15	15/15
Minimum VAC	197	197	197
Maximum VAC	253	253	253
Blower Motor			
FLA	2.0	2.5	6.2
HP	½	¾	¾
Ship Weight (lbs)	125	176	195

DIMENSIONS

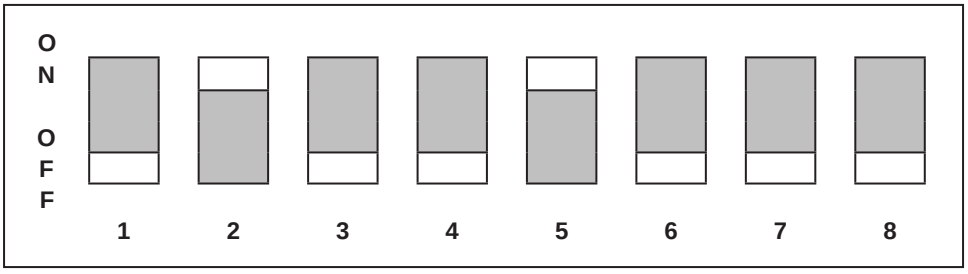


Model	A	B	C	D	E	F	G	H	I	J
AEPF183016	46¾"	22"	17½"	19½"	10"	14½"	11 15/16"	17⅛"	17 15/16"	2"
AEPF303616	53¼"	24"	20"	22"	12"	19⅝"	11 15/16"	19⅝"	19 15/16"	1 13/16"
AEPF426016	53¼"	24"	20"	22"	12"	19⅝"	11 15/16"	19⅝"	19 15/16"	1 13/16"

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



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	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 retro t applications where not enough existing wires are available for connections to the indoor thermostat and outdoor units.
5	Cooling/Heat Pump Mode	Find the air ow 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	Increase or decrease your selected air ow to t your requirement. ON-OFF = Increases selected Cool/Heat Pump air ow by 10%. OFF-ON = Decreases selected Cool/Heat Pump air ow by 15% NOTE: Other settings have no effect on the set air ow.
8	Trim CFM Adjust Mode	

Dipswitch 1/2/7/8

AEPF1830

Heating Element (kW)	Switch Position				Emergency Backup	Heat Pump with 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

AEPF3036/4260

Heating Element (kW)	Switch Position				Emergency Backup	Heat Pump with 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	1,020

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

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

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

Accessories

Heat Kit Selection

Models	AEPF 183016A*	AEPF 183016B*	AEPF 303616A*	AEPF 303616B*	AEPF 426016A*	AEPF 426016B*
HKR-03*		X		X		X
HKR-05*/-05C*	X	X		X		X
HKR-06*		X		X		X
HKR-08*/-08C*	X	X	X	X		X
HKR-10*/-10C*	X[1]	X[1]	X	X	X	X
HKR-15C*			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

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

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

Accessories (cont.)

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

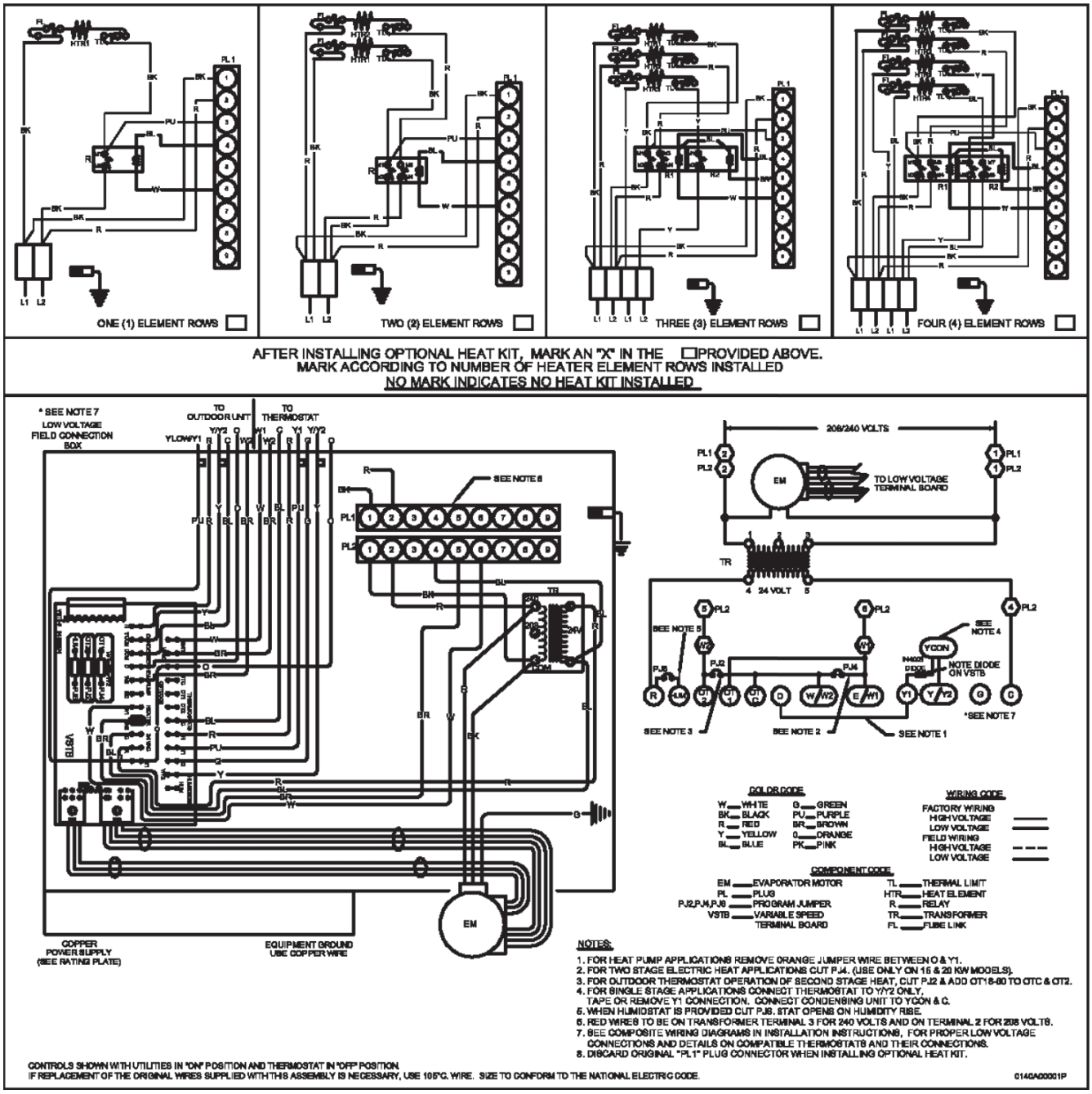
Chassis Size	Insulation Kit
Small (15½")	DPIH18-32
Medium (19½")	DPIH36-42
Large (22")	DPIH48-61

Note: Each kit contains enough material to modify 20 coils

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

AEPF WIRING DIAGRAM



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.**