

Air Conditioning & Heating



PRODUCT SPECIFICATIONS

AEPF/AEPT Series

Multi-Position, Variable-Speed Air Handlers

 $1\frac{1}{2}$ to 5 Ton



The Goodman® 2006 AEPF Revision A model Multi-Position, Variable-Speed Air Handler is suitable for use with refrigerants R-410A and R-22. Revision B models are suitable for R-22 while AEPT models are R-22 only. The Air Handlers' blower design includes a variable-speed DC motor to help eliminate the cold blast of air upon heating start-up.

Standard Features

- Check flowrater expansion device for cooling and heat pump applications (AEPF)
- Check expansion valve for cooling and heat pump applications (AEPT)
- 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 field-selectable airflow settings can be adjusted to optimize the system's CFM for each individual mode of operation
- Improved humidity control and comfort
- Compatible with heat pumps and variablecapacity cooling applications
- Multi-position—upflow, downflow or horizontal installations
- Built-in coil has horizontal, vertical, and downflow drain pans with secondary drain connections
- · ARI Certified
- ETL Certified

Cabinet Features

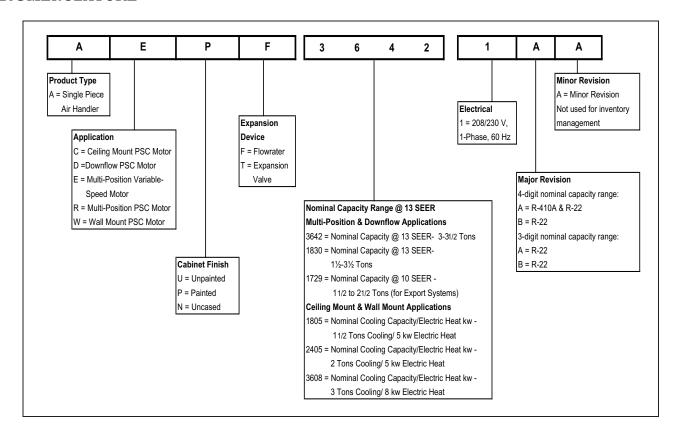
- Fully painted cabinet with attractive Architectural Gray finish
- Built-in filter rack for 1" filter (filter not included)
- Low-voltage cabinet connections; control circuit is arranged to permit staging
- Power supply on top; low-voltage entry on top or side
- Factory-sealed to achieve 2% or less leakage rate at 1.0" water gauge external duct static pressure

Accessories

- 3 kW to 21 kW electric heat kits available as field-installed options
- Permanent washable plastic air filters
- Coil Insulation Kits for downflow applications
- Horizontal drain pan insulation kits



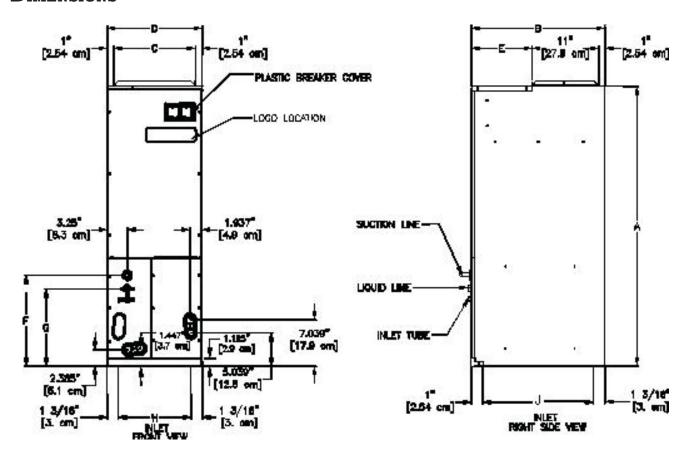
Nomenclature



SPECIFICATIONS

| | AEDE4020 | A EDE2020 | AEDE4000 | A EDT020 | A EDTO2C | A EDTOCO |
|--------------------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|
| | AEPF1830- 1AA | AEPF3036- 1AA | AEPF4260- 1AA | AEPT030- 00C-1A | AEPT036- 00C-1A | AEPT060- 00C-1A |
| Specifications | | | | | | |
| Blower | | | | | | |
| Diameter | 9½" | 10⁵⁄₃" | 105/8" | 9½" | 105∕8" | 105⁄8" |
| Width | 8" | 10%" | 105/8" | 8" | 105⁄8" | 10⁵⁄8" |
| Coil Drain Connection FPT | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/," |
| Service Valve | | | | | | |
| Liquid | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Suction | 3/4" | 7/8" | 7/8" | 3/4" | 7/8" | 7/8" |
| Electrical Data | | | | | | |
| Voltage | 208/240 | 208/240 | 208/240 | 208/240 | 208/240 | 208/240 |
| Electric Heat Capacity (kW) | 5, 8, 10 | 8, 10, 15 | 10, 15, 20, 21 | 5, 8, 10 | 8, 10, 15 | 10, 15, 20, 21 |
| Min Circuit Ampacity | 2.5 | 3.1 | 7.8 | 2.5/2.5 | 3.1/3.1 | 7.8/7.8 |
| Max. Overcurrent Device (amps) | 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 | 2.0 | 2.5 | 6.2 | 2 | 2.5 | 6.2 |
| HP | 1/2 | 3/4 | 3/4 | 1/2 | 3/4 | 3/4 |
| Ship Weight (lbs) | 147 | 176 | 195 | 147 | 176 | 195 |

DIMENSIONS

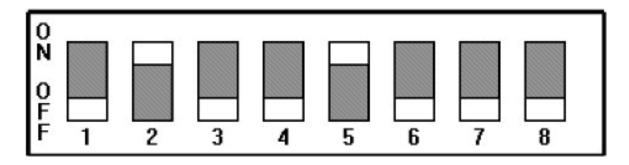


| Model | Α | В | С | D | E | F | G | Н | _ | J |
|---------------|--------|-----|------|------|-----|------|---------|--------|---------|--------|
| AEPF18301*A | 46¾" | 22" | 17½" | 19½" | 10" | 14½" | 11.935" | 171⁄8" | 17.938" | 2.024" |
| AEPF30361*A | 531/4" | 24" | 20" | 22" | 12" | 14½" | 11.935" | 195⁄8" | 17.938" | 1.837" |
| AEPF42601*A | 531/4" | 24" | 20" | 22" | 12" | 14½" | 11.935" | 195⁄8" | 17.938" | 1.837" |
| AEPT03000C-1A | 46¾" | 22" | 17½" | 19½" | 10" | 14½" | 11.935" | 171⁄8" | 17.938" | 2.024" |
| AEPT03600C-1A | 53¼" | 24" | 20" | 22" | 12" | 14½" | 11.935" | 195⁄8" | 17.938" | 1.837" |
| AEPT06000C-1A | 53¼" | 24" | 20" | 22" | 12" | 14½" | 11.935" | 195⁄8" | 17.938" | 1.837" |

AEPF/AEPT DIPSWITCHES

The AEPF/AEPT air handler blower motors have been 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. Each mode has four levels to deliver different CFM. Simply flip the dipswitch and you can get a different CFM combination.

Setting Up Your Motor



| Dipswitch Number | Function | Instructions | |
|---------------------|------------------------|---|--|
| 1 | Electric Heat Mode | Select the taps allowed in the tables (Dipswitch 1/2) below. | |
| 2 | Electric Heat Mode | Select the taps allowed in the tables (Dipswitch 172) below. | |
| 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 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) below. Set up the motor | |
| 6 | Cooling/Heat Pump Mode | based on the outdoor unit capacity tons. | |
| 7 | Trim CFM Adjust Mode | Increase or decrease your selected airflow to fit your requirement. | |
| 8 | Trim CFM Adjust Mode | 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

AEPF1830 & AEPT30

| Heating Element (kW) | Switch Position | Emergency Backup | Heat Pump with Backup |
|----------------------|--------------------|---------------------|--------------------------|
| Up to 10 | On-On ¹ | 1,020 | 1,070 |
| Up to 10 | On-Off | 850 | 935 |
| 5 | Off-On | 700 | 770 |

AEPF3036/4260 & AEPT36/60

| Heating Element (kW) | Switch Position | Emergency Backup | Heat Pump with Backup |
|----------------------|--------------------|---------------------|--------------------------|
| Up to 20 | Off-Off | 2,050 | 2,150 |
| Up to 20 | On-Off | 1,750 | 1,835 |
| Up to 15 | Off-On | 1,600 | 1,680 |
| Up to 10 | On-On | 1,200 | 1,260 |

Dipswitch 5/6

AEPF1830 & AEPT30

| Heating Element (kW) | Switch Position | Emergency Backup | Heat Pump with Backup |
|----------------------|--------------------|---------------------|--------------------------|
| 2.5 | On-On ¹ | 1,020 | 1,020 |
| 2 | On-Off | 800 | 800 |
| 1.5 | Off-On | 600 | 600 |

AEPF3036/4260 & AEPT36/60

| Heating Element (kW) | Switch Position | Emergency Backup | Heat Pump with Backup |
|----------------------|--------------------|---------------------|--------------------------|
| 5 | Off-Off | 1,800 | 1,800 |
| 4 | On-Off | 1,580 | 1,580 |
| 3.5 | Off-On | 1,480 | 1,480 |
| 3 | On-On | 1,200 | 1,200 |

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

^{1 7-8} shall be OFF-ON for 2.5-ton applications

Accessories

Heat Kit Selection

| Model | AEPF18301*A | AEPF30361*A | AEPF42601*A | AEPT03000C- 1A | AEPT03600C- 1A | AEPT06000C- 1A |
|---------|-------------|-------------|-------------|-------------------|-------------------|-------------------|
| HKR-05C | Х | | | X | | |
| HKR-08C | Х | Х | | Х | Х | |
| HKR-10C | Х | Х | Х | Х | Х | Х |
| HKR-15C | | Х | Х | | Х | Х |
| HKR-20C | | | Х | | | Х |
| HKR-21C | | | Х | | | Х |

NOTE: The C indicates circuit breakers are optional

Expansion Valve Kits for Air Conditioning-only Applications

| Kit Number | Used with | Description |
|------------|--------------------|-----------------|
| XVB18-36C | AEPF/AEPT 18 to 36 | 20% bleed valve |
| XVB42-60C | AEPFAEPT 42 to 60 | 20% bleed valve |
| XV18-36C | AEPF/AEPT 18 to 36 | Non-bleed valve |
| XV42-60C | AEPFAEPT 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 |
|-------|--------------------|--------------------------------------|
| 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 | Cap Used with Outdoor Units below |
|-------|--------------------|--------------------------------------|
| TX3N4 | Non-bleed valve | 3 Ton > Air Conditioner & Heat Pump |
| TX5N4 | Non-bleed valve | 3½ Ton < Air Conditioner & Heat Pump |

Drain Pan Insulation Kit for 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 Drain Pan Insulation Kits

| 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

^{*} Heat Kit requires three-phase power supply

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