

SPECIFICATIONS AND PERFORMANCE



COOLING ONLY/HEAT PUMP

Nominal Capacities: 9000, 12000, 15000, 18000, 24000, 30000, 36000, 42000, and 48000 Btuh

PRODUCT DESCRIPTION

The FHP 09-30 and 36-48 is available in two cabinet sizes with nine capacities in cooling only or heat pump (depending on condenser match).

FHP units are equipped with a universal control that allows the unit to operate in either straight cool or heat pump mode. The unit is configured by changing dip switch settings prior to installation.

FHP units are shipped from the factory set in cooling only mode and will need to be reset for heat pump applications.

The FHP operates with very low sound levels and is available with several options. It is compatible with any EMI outdoor unit.

A unit mounted, electronic, digital control is standard and an optional infrared handheld remote control is available. Fresh air knockouts and anti-short cycle protection are standard features on all FHP units and additional options include supplemental electric or hydronic heat.

NOTE: Hydronic heat is available only in non-heat pump applications.

AIR HANDLER STANDARD FEATURES

▲ **Capacities/Efficiencies** - The FHP is a 10+ SEER air handler when paired with an EMI outdoor unit. Consult the factory for more information.

▲ **Materials Of Construction:**

- 94 HB polystyrene top (in designer white)
- Fabricated of 20 gauge galvaneal steel with powder Coat textured finish (in designer white)

- Anodized satin-finish aluminum Intake Grill with radius ends
- Aluminum discharge grill with structural supports
- Pitched galvanized steel condensate removal and drain pan with anticorrosion coating

▲ **Air Systems:**

- Dynamically balanced, motor shaft driven centrifugal fans
- Permanent split capacitor (PSC) type motor with overload protection
- Galvaneal steel airstream surfaces with ¼" fiberglass insulation
- Permanent electrostatic air filter is washable and user accessible

▲ **Coil:**

- Staggered seamless copper tubing with enhanced aluminum fins
- Tested to 400 psig
- Cabinet knockouts for fresh air capability

▲ **Refrigeration Circuit** - The FHP is equipped with a Flo-Rater/piston expansion device. This allows the unit to operate in either cooling and heat pump modes. Refrigeration connections are male flare.

▲ **Factory Installed Controls And Components:**

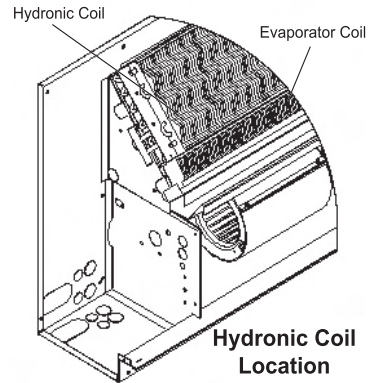
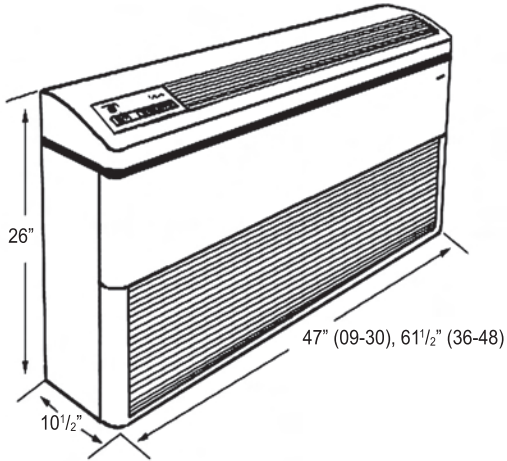
- Relays and connections for condensing unit and power supply
- ¾" LCD display screen
- Automatic/manual fan control
- Indoor coil freeze protection
- Anti-short cycle compressor protection
- Fan purge (fan remains on for 60 seconds after heat/cool signal is dropped for maximum efficiency)
- Low Volt transformer

SYSTEM OPTIONS

- ETL approved 3-7kw electric heat with safety controls
- Condensate pump
- Motorized fresh air damper (field installed, straight-cool only)
- Power-induced fresh air (field installed, straight-cool only)
- Infrared hand held remote control
- Single-stage hydronic heat with sweat connections (not available in heat pump applications; must be factory installed)

FHP Dimensions and Specifications

NOTE: Due to EMI's ongoing development programs, design and specifications may change without notice.



FHP POWER ASSISTED OUTSIDE AIR		
Model#	Total CFM	Outside Air CFM
9/12, 15	440	180
18/24, 30	725	200
36/42, 48	1200	400

FHP DISCHARGE AIR SPEED AND THROW				
Model#	CFM Low/High	Coil	FPM	Throw/ft.
9/12, 15	350/375	dry	800	12.4
18/24, 30	480/700	dry	1500	18.6
36/42, 48	1000/1200	dry	1500	19.0

FHP ELECTRICAL SPECIFICATIONS				
Model #	Voltage/Hz/Ph	Fan FLA	Min. Ampacity*	Max. Fuse*
9/12A	115/60/1	1.5	1.9	15
9/12, 15	208-230/60/1	0.6	0.8	15
18/24	208-230/60/1	0.8	1.0	15
30	208-230/60/1	1.1	1.4	15
**36/42, 48	208-230/60/1	1.1/1.1	2.5	15

* If electric heat is installed, use data from FHP Electric Heat Specifications table.
** 36 requires piston kit #550-121 (see pg 5)

FHP FRESH AIR SPECIFICATIONS*		
Model #	Total CFM	Outside Air CFM
9/12, 15	440	50
18/24, 30	725	75
36/42, 48	1200	160

* Open or Motorized Damper

FHP ELECTRICAL HEAT SPECIFICATIONS						
Model#	Voltage	KW	Heater Amps	Total Amps	Min. Circuit Amps	Max. Fuse Amps
9/12, 15	230	3	13.1	13.7	17.1	20
18/24	230	5	21.7	22.7	28.2	30
30	230	5	21.7	22.8	28.6	30
36/42, 48	230	7	30.4	32.6	40.6	45

FHP HYDRONIC HEAT SPECIFICATIONS (Single-stage Heating only)				
Model#	EWT °F	Btuh	GPM	PD Ft. H ₂ O
9/12, 15	180	24,300	2.0	3.4
	140	18,400	2.0	3.4
18/24, 30	180	41,500	3.5	5.6
	140	26,200	3.5	5.6
36/42, 48	180	62,400	6.0	8.8
	140	39,500	6.0	8.8

NOTE: Not available with Heat Pump applications.

FHP SOUND LEVELS	
Model#	DbA
9/12	48.6
15	56.0
18	57.2
24, 30	60.6
36/ 42, 48	63.2

FHP SHIPPING WT.	
Model#	LBS.
9/12, 15	110
18/24, 30	120
36/42, 48	165

FHP PIPING SPECIFICATIONS			
Model#	Refrigerant Line Size		Drain Hose
	Liquid	Suction	
	Flare*	Flare*	
9/12	1/4"	1/2"	1/2" I.D.
15	1/4"	5/8"	1/2" I.D.
18	3/8"	5/8"	5/8" I.D.
24	3/8"	3/4"	5/8" I.D.
30	3/8"	3/4"	5/8" I.D.
36/42, 48	3/8"	3/4"	5/8" I.D.

* Flare fittings NOTE: Flare nuts not included.

