HFP100/HFP200

High Flow Vacuum Pump

HFP100/HFP200 High Flow Vacuum Pump

The HFP series High Flow Vacuum Pump provides a continuous vacuum through the OSC Structured Cable communications backbone, and is provided with a bracket assembly, backup redundancy, and status notifications. The pump connects to the Sensor Suite (SST), which sequences air samples from the Air Data Routers (ADRs). Multiple areas can be monitored from the ADRs, and the routers can be networked as part of a larger distributed system.

Features

Oilless operation/Permanently lubricated bearings

Long-life operation

Balanced for smooth, low vibration operation

N+1 Redundancy and other failsafe measures

Includes

- Bracket assembly for easy installation.
- Backup pump and pump control module redundancy and fault signaling features.
- 100" of 1/2" OD - 3/8" ID black polyethylene flame retardant tubing. Meets UL94V2 and UL1820.
- Quick connect tubing fittings for easy installation.
- Check-valve assembly to support the backup pump configuration.
- Muffler assembly.
- Vibration arresting rubber feet.
- Electrical cord and plug.

Options

- 115 Vac/220 Vac options.
- Twin cylinder rocking piston pump versions for international voltage.

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Ordering Guide

HFP X-BA2-PCM2

Base Number

Series Number

Domestic

105 Single 115 Vac, 60 Hz single cylinder rocking piston pump

106 Dual 115 Vac, 60 Hz single cylinder rocking piston pumps

International

205 Single 220 Vac, 50/60 Hz twin cylinder rocking piston pump

206 Dual 220 Vac, 50/60 Hz twin cylinder rocking piston pumps

Pump Bracket

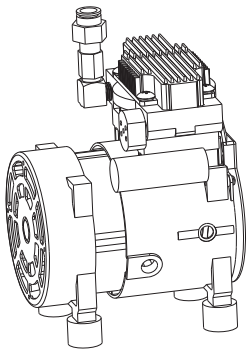
BA2 Includes a bracket assembly to mount the pump, outlets appropriate for the specified pump voltage, and a pump interconnection kit.

Pump Control Module

PCM2 **For all applications:** Includes pump control module for single and backup pump configurations and fault signaling features.

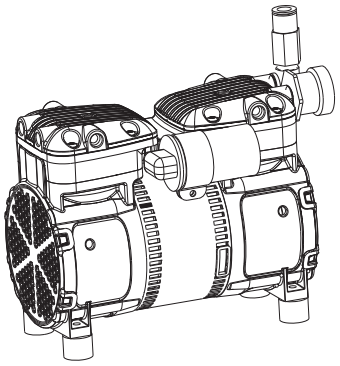
HFP105/HFP106

- Single cylinder rocking piston pump for standard domestic applications



HFP205/HFP206

- Twin cylinder rocking piston pump for international applications



Pump Specifications

Model Number	Voltage-Frequency	HP	Watts	VA	Net Wt. Per Pump	Operating Environment
HFP105/106	115 Vac, 60 Hz	.25	190	360	18.5 lbs (8.4 kg)	41°–104°F (5°–40°C)
HFP205/206	220 Vac, 50/60 Hz	.50	370	615	23.5 lbs (10.6 kg)	41°–104°F (5°–40°C)

Regulatory Compliance

c UL us LISTED CE

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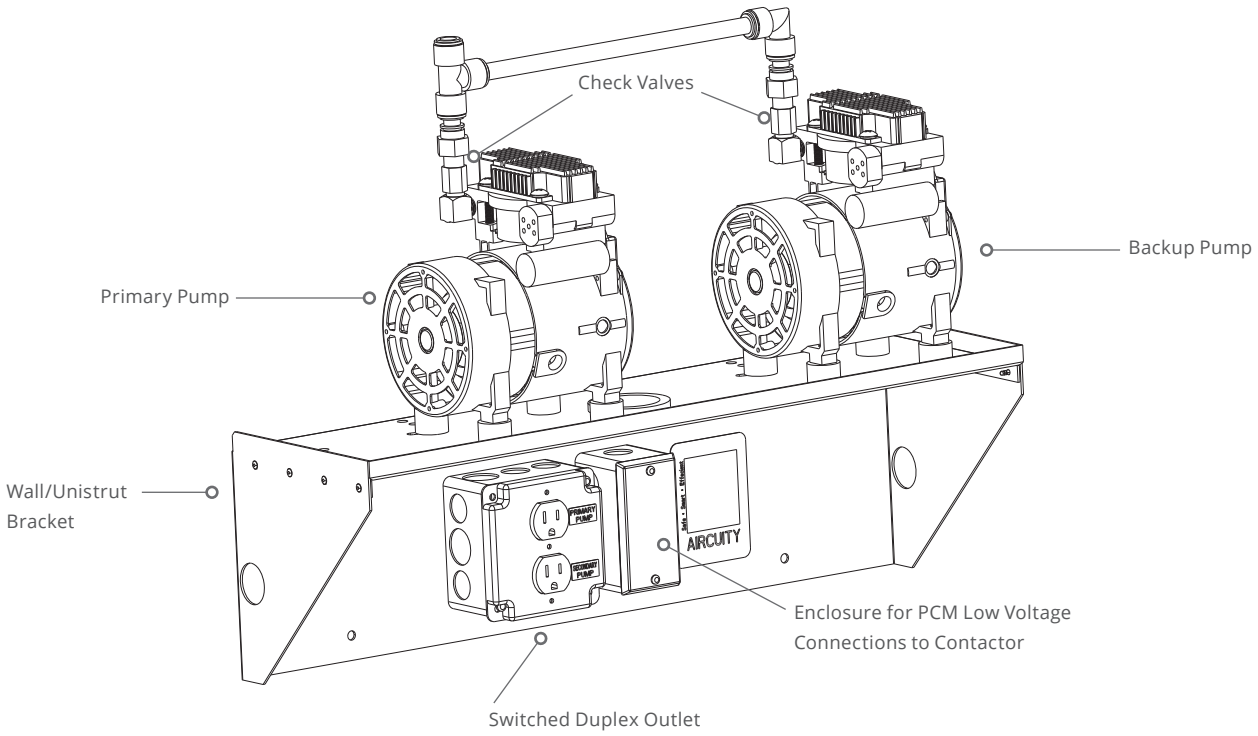
Pump Bracket (BA2)

The Pump Bracket provides a stable platform to mount both a primary and backup pump. The “BA2” includes a factory mounted outlet and contactor assembly designed to operate with a Pump Control Module (PCM), to enable backup pump operation when a sustained loss of vacuum is detected. In its deenergized state, the contactor applies field wired line voltage (115 Vac or 220 Vac), based on the specified pump voltage to one side (the top) of the duplex outlet to power the primary pump. When a loss of vacuum is detected by the PCM, it will energize the contactor via Class 2 – low voltage power which, in turn disconnects line voltage from the primary pump and applies it to the backup pump, plugged into the bottom side of the duplex outlet. This is a latched state that must be manually reset via the PCM reset function, or by cycling power.

Pump Bracket Specifications

Size	Weight	Mounting	Contactor Energizing Power
24.15"W x 7.5"H x 7.25"D 61.34 W x 19.05 H x 18.42 D cm	approx. 12 lbs (5.4 kg)	Wall mounted & Unistrut®	4 VA, approx.

HPF106-BA2-PCM2 - PCM board not shown



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Pump Control Module (PCM2)

The Pump Control Module (PCM) continuously monitors vacuum levels provided by the pump assembly via a sensor element. It is powered off of the SST and provides signaling to the SST to signify normal operation, a loss of vacuum (below a factory set threshold), or the condition in which the backup pump has been activated. When a loss of vacuum has been detected for a sustained duration of about 1 minute the PCM latches 24 Vac to remotely energize the contactor in the pump bracket assembly (BA2) in order to enable the backup pump. To return operation to the primary pump, the PCM must be reset via its push-button reset function, or by cycling power. The Aircuity system in turn has the ability to communicate this condition to the monitoring team in order to prompt a call for service.

Pump Control Module Specifications

Mechanical

Operating Environment:
40°–120°F (4.4°–49°C)
0–90% RH (non-condensing)

Size: 4.25"W x 4.0"D (10.80 W x 10.16 D cm)

Mounting: Mounts inside the SST enclosure via a card-guide bracket included with the PCM

Electrical

Power: 24 Vac, ±15% 50/60 Hz
Power Consumption: 2.4 VA, approx.

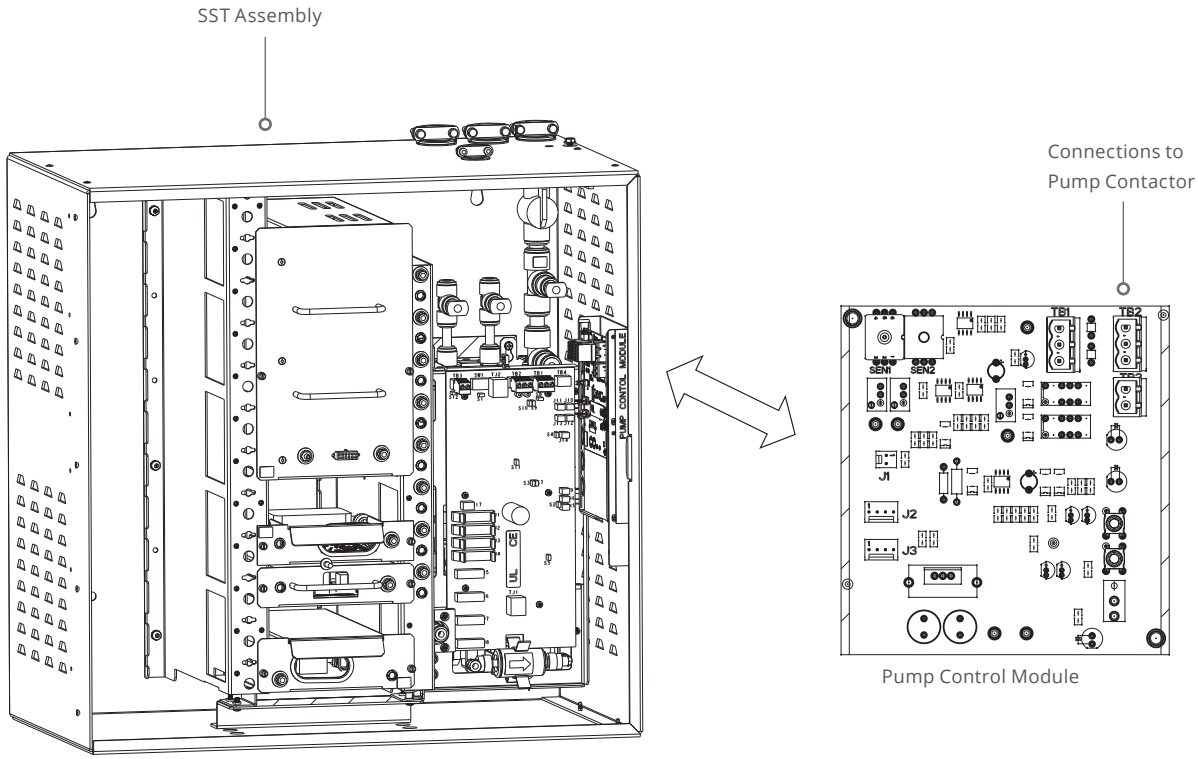
Regulatory Compliance

UL916 Energy Management Equipment

Part 15 Class A

Features

- Provides latching control to enable backup pump
- Continuously monitors vacuum levels at SST
- Provides local 0–10 V scaled gauge pressure output to aid field diagnostics
- LED indicators clearly signify pump and vacuum status
- Automatic/Fixed Modes
- Test/Reset Functionality
- Isolated Form-C contacts to signify loss of vacuum to other systems. Rated for Class 2 power (30 VA max)



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