



**OptiNet®**  
Optimizing Ventilation Performance



#### FEATURES

- Oilless operation
- Permanently lubricated bearings
- Long-life diaphragm
- Balanced for smooth, low vibration operation
- Redundancy and other failsafe options

## HFP100/HFP200 High Flow Vacuum Pump

The HFP100/HFP200 High Flow Vacuum Pump provides a continuous vacuum through the OptiNet communications backbone, and is offered with a bracket assembly, backup redundancy, and status notification options. The pump connects to the SST (Sensor Suite), which sequences air samples from the Air Data Routers (ADRs). Multiple areas can be monitored from the Air Data Routers, and the routers can be networked as part of a larger distributed system.

#### INCLUDES

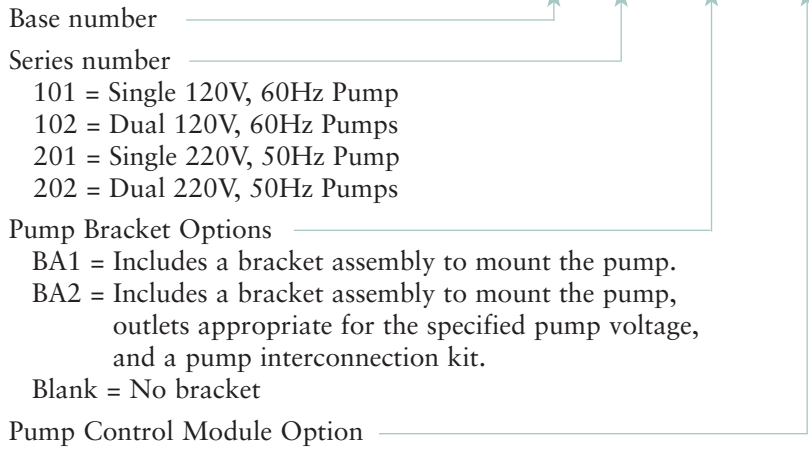
- Factory set pressure relief valve.
- 100' of 1/2" OD - 3/8" ID black polyethylene flame retardant tubing. Meets UL94V2 and UL1820.
- Quick connect tubing fittings for easy installation.
- Check-valve assembly to support the backup pump configuration necessary for the OptiNet Assurance Plus and OptiNet Assurance Premium proactive service packages.
- Muffler assembly.
- Vibration arresting rubber feet.
- Electrical cord and plug.

#### OPTIONS

- 110V/220V options.
- Bracket assembly for easy installation.
- Backup pump and pump control module redundancy option and fault signaling features necessary to support OptiNet Assurance Plus and OptiNet Assurance Premium proactive service packages.

## Ordering Guide

HFP 102 - BA2 - PCM



## Service Package Compatibility Matrix

Model Number	Basic Assurance	Assurance Plus	Assurance Premium
HFP101	√		
HFP201	√		
HFP101-BA1	√		
HFP201-BA1	√		
HFP101-BA2-PCM	√	√	
HFP201-BA2-PCM	√	√	
HFP102-BA2-PCM	√	√	√
HFP202-BA2-PCM	√	√	√

## Pump Specifications

Model Number	Voltage-Frequency	Motor Type	HP	KW	Net Wt. (lbs) per pump
HFP101/102	115V-60Hz	Shaded Pole	.125	.09	14.5
HFP201/202	220V-50Hz	Shaded Pole	.227	.17	14.5

\* Specifications are subject to change without notice.

## Pump Bracket Option (BA1 & BA2)

### SPECIFICATIONS

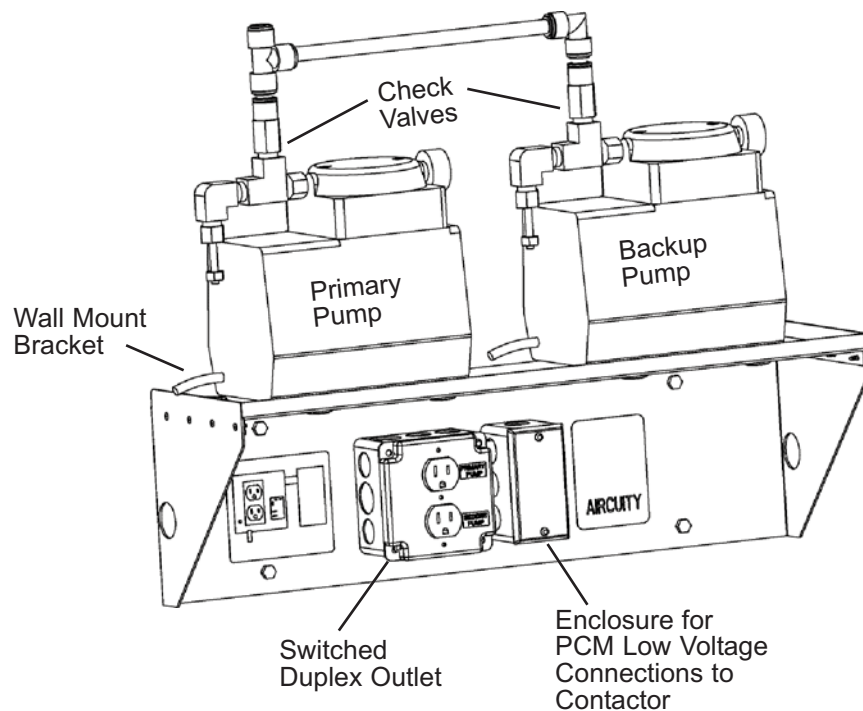
**Size:** 24.187"W x 7.5"H x 7.25"D

**Weight:** approx. 12 lbs.

**Mounting:** Wall Mounted

**Contactor Energizing Power:** 4VA, approx.

The Pump Bracket option provides a stable platform to mount both a primary and optional backup pump. When it is ordered with the “BA2” option, it additionally includes a factory mounted outlet and contactor assembly designed to operate with a Pump Control Module (PCM) in order to enable backup pump operation when a sustained loss of vacuum is detected. In its deenergized state, the contactor applies field wired line voltage (115Vac or 220Vac), 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 Control Module Option (PCM)

### SPECIFICATIONS

**Size:** 4.25"W x 4.00"H

**Mounting:** Mounts inside the SST enclosure via a card-guide bracket included with the option.

**Power:** 24Vac,  $\pm 15\%$  60Hz

**Power Consumption:** 2.4VA, approx.

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

### FEATURES

- Provides latching control to enable backup pump.
- Continuously monitors vacuum levels at SST.
- Provides local 0-10V 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 (30VA max).

The Pump Control Module PCB 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 24Vac to remotely energize the contactor in the pump bracket assembly (BA2 option) 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. OptiNet in turn has the ability to communicate this condition to the Knowledge Center in order to prompt a call for service.

