

BACiQ-HP-W Features

- Wi-Fi BACnet IP open protocol communication
- IEEE 802.11 b/g
- Web Server based Configuration to configure Wi-Fi parameters
- 2 Compressors, 3 Fan Speeds, Reversing Valve, Aux Heat
- Supports all common reversing valve configurations
- BACnet supervisor scheduling
- 1 extra analog and 2 extra digital inputs
- Proportional+Integral (PI) algorithm for smooth control
- Adjustable UNOCC setpoints
- °F or °C display
- Min/Max set-point, adjustable
- After-Hours mode, button push or BACnet initiation
- Non-volatile memory (EEPROM) retains user settings during power loss
- Each button and Energy Saving lockable
- BTL-ASC certified

The BACiQ-HP is a BTL-ASC listed BACnet-MS/TP thermostat designed for control of Heat Pump (HP) units with On/Off control of air conditioning.

BACiQ wall mount stats feature an integrated temperature sensor and built in LCD screen to display room temperature, setpoints and other status information. Display defaults to standard US units (°F) but metric units (°C) can optionally be selected.

Built-in sequences automatically control a reversing valve and up to 2 compressors with up to 3 fan speeds. The Proportional + Integral (PI) algorithm ensures smooth and consistent environmental conditioning.

BACiQ-HP wall mount stats can be configured in BACnet software by writing to BACnet object instances or at the device by pushing buttons.

Device configuration is preserved in the event of power loss. By default the controller resumes in occupied mode at power-up until a schedule is established, unoccupied mode is also supported.

The device supports after-hours overrides initiated from BACnet software or by push button directly on the unit.

Default after-hours override duration of 30 minutes can be changed by writing to a BACnet object or by button push in engineering mode.



Wireless BACnet Thermostat for Heat Pumps
Supply Voltage:

24Vac (+/-10%), 50/60 Hz

Power Consumption: 5 VA

Wi-Fi BACnet IP Communications:

Wi-Fi (2.4GHz, IEEE802.11b/g),
WPA2-PSK(AES) secure Wi-Fi authentication,
Configuration Web Server to configure Wi-Fi
module via smart phone, pad, and notebook.
Support DHCP and IPv4
Associate Wi-Fi Access Point (AP) automatically
BACnet IP server open protocol

Display Range:

-30 to 100.0 °C (-22.0 to 212.0 °F) with suitable
sensor

Display Temperature Unit and Resolution:

0.1 °C/°F

Indication Accuracy :

+/-1.0 °C (0.9 °F) at 25 °C and output off

Set-point Range:

0~50 °C / 32~122 °F (default: 10~30 °C /50~86 °F,
adjustable), 0.5 °C/°F per setting step

Setpoint Adjust:

By up and down arrows buttons or communication

Relay Output for On/Off valve/actuator Control:

1 SPST or SPDT relay for 2-pipe cooling/heating
control
2 SPST or 1SPDT with 1 SPST relays for 4-pipe
cooling/heating control

Relay Output for Fan Control:

Up to 3 SPST relays for 1- or 3-Fan speed control

Relay Output for Interlock Control:

1 SPST relay for Interlock control

Electrical Rating:

SPDT relay -- 1.2A/ 250Vac, inductive load
SPST relay -- 2A/ 250Vac, inductive load

Remote Sensor (RS) Input Interface:

For connecting to external NTC Thermistor 3K ohm

Energy Savings Input (ESI) Interface:

For saving energy by entering into unoccupied mode when ESI is
triggered by Normally open (N.O.) or normally close (N.C.) dry
contact

Extra Digital Input (DI) Interface:

For saving energy by stop cooling/heating and Fan control outputs
when DI is triggered by Normally open (N.O.) or normally close
(N.C.) dry contact

Control Performance:

Proportional plus integral (PI) applied to differential on/off control

Countdown timer Function (optional):

1~24 hours settable countdown timer to turn off control outputs
when enable

Sleep mode Function (optional):

For raising 2 °C set-point temperature automatically in 2 hours (0.5
°C per 30 minutes) if enable this mode.

Operating Environment:

0 ~ 50°C, 5 ~ 95% RH (non-condensing)

Wiring:

Up to 15 or 18 Screw-in terminals, each terminal capable of
accepting 14 to 22 AWG wires or 1.5 mm² wires

Dimensions:

94×118×34 mm (W × H × D)

Mounting:

Mounts directly onto wall, panel, standard 65×65 mm junction box
(hole pitch 60 mm) or standard 2×4 inch vertical junction box (hole
pitch 83.5 mm)

How to Order:	Order Number
BACiQ-HP (wireless model)	BACiQ-HP-W