

**BACiQ-AC** Controller

**BACnet Thermostat for Package AC Units** 

- BTL-ASC certified
- BACnet MS/TP RS-485 communication
- Up to 3-fan speeds and 2 Cooling, 2 Heating stages
- BACnet supervisor scheduling
- Supports occupancy sensor, remote sensor, and extra DI
- 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

The BACiQ-AC is a BTL-ASC certified BACnet-MS/TP thermostat designed for on/off control of packaged air conditioning (AC) units.

BACiQ wall mount stats feature an integrated temperature sensor and a built in LCD screen.

The BACiQ-AC provides a Proportional + Integral (PI) algorithm for smooth, responsive control of environmental conditions. Available control sequences include

• 1 or 2 Cooling stages, 1 or 2 Heating stages, up to 3 speed

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

Device settings are preserved in the event of power loss. BACiQ-AC thermostats will by default resume in occupied mode after a power loss until a schedule is established, unoccupied mode is also supported.

The BACiQ-AC provides a Proportional + Integral (PI) algorithm for smooth, responsive control of environmental conditions.

The device supports after-hours overrides initiated from BACnet software or button push. Override duration can be changed by writing to a BACnet object or by entering Engineering mode via push buttons.

The large backlit LCD screen displays room temperature, setpoints and other status information. The display defaults to standard US units (°F) but metric units (°C) can optionally be selected.



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# **Specifications**

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

#### **BACnet Communication**

BTL certified Application Specific Controller (B-ASC) Supports B-ASC & DS-RPM-B BIBBs RS485, 2/ 3 wires connection BACnet MS/ TP open protocol at 9.6, 19.2, 38.4, 57.6, or 76.8 kbps baud N-8-1 data format (BACnet standard)

#### Display

Range: 14 °F to 140 °F / -10 to 60 °C Resolution: 0.1 °F/°C Accuracy: +/- 1.8 °F (at 77°F, output off)

#### **Overall Dimensions**

4.7" x 3.7" x 1.4" (HxWxD) 94mm x 118mm x 34mm Weight: less than 1 lbs. Color: white

# **Operating Environment**

32 °F to 122 °F (0 to 50 °C) 5%-95% RH (non-condensing)

# Set-point Range

32~122 °F (default: 50~86 °F, adjustable) 0~50 °C (default 10~30 °C, adjustable) Resolution: 0.5 °F (or 0.5 °C)

#### **Setpoint Adjust**

Push button or BACnet communication

# Relay Output for On/Off valve/actuator

2 SPDT + SPST relays for 1 or 2 stages of Cooling or Heating

#### **Relay Output for Fan Control**

Up to 3 SPST relays for 3-speed control

#### **Electrical Rating**

(2) SPDT relays: 1.2A/24Vac, inductive load(4) SPST relays: 2A/24Vac, inductive load

#### Wiring

Screw Terminals, 14-22 AWG wire (1.5 mm<sup>2</sup>)

#### Mounting

Directly on to wall, panel, or 2×4 inch junction box Metric: fits 65×65 mm junction box; hole pitch 60 mm

#### **Control Sequence**

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

#### **Remote Sensor (RS) Input Interface**

For connecting to external NTC Thermistor 3K ohm

#### **Energy Savings Input (ESI) Interface**

Optional energy conservation feature can be configured to enter Unoccupied mode if ESI is triggered by a normally open (N.O.) or normally closed (N.C.) dry contact relay

#### Extra Digital Input (DI) Interface

Optional energy conservation feature can be configured to stop cooling or heating and fan control outputs if DI is triggered by a normally open (N.O.) or normally closed (N.C.) dry contact relay

How to Order:	Part Number:
Package AC controller with integrated LCD display and temperature sensor	BACiQ-AC

