

# 13-POINT FULLY PROGRAMMABLE HVAC CONTROLLER

## OVERVIEW

The HVAC building automation controls market requires a DDC controller that provides scalable, consolidated control with mid-range capability in a fully programmable, feature-rich LonMark® certified or Niagara<sup>AX</sup>® device.

Efficient Building Automation Corporation's Circon™ **UHC-320** controller unites a variety of configurable control blocks combined with the power of the Circon BASIC programming language to provide exceptional application flexibility. The UHC-320 is all you need in a 13-point DDC controller.

## APPLICATIONS

The UHC-320 can be used to implement tailored control applications for unique or custom HVAC mechanical designs. The UHC-320's 6 universal inputs, 7 universal outputs, and control blocks are easily configured using Windows®-based software. Flexible alarm, trend, schedule and PID control blocks can be used to quickly create effective control and monitoring solutions.

Along with the configurable control blocks and the input/output points, EBAC's powerful Circon BASIC programming language can be used to implement more complicated control sequences. Circon BASIC is flexible and powerful, allowing the user to create tailored control sequences for packaged units such as fan coil units, air handlers, rooftop units with economizer, and terminal units such as heat pumps and unit ventilators or any custom HVAC mechanical design.

EBAC's no-cost Windows-based configuration software for the UHC-320 and the Circon BASIC Compiler are fully compatible with Echelon Corporation's LNS® and Tridium® Inc.'s Niagara<sup>AX</sup> platforms.

## ORDERING INFORMATION

Part number: 10-0376



## FEATURES

- LonMark Certified, with easy-to-use LNS plug-ins for seamless integration into interoperable LonWorks® networks
- Fast and easy-to-use Tridium Niagara<sup>AX</sup> wizards for seamless integration into interoperable Niagara networks
- Fully programmable with flexible and easy-to-use Circon BASIC programming language
- 6 universal inputs configurable for voltage, current, resistance and dry contacts
- 7 universal outputs configurable for voltage, current and digital
- Onboard real-time clock allows for time-based events, data logging and network master operation
- All memory is protected with a lithium battery
- Quick network access through an audio jack
- Adaptable for standalone applications or as part of a networked operation



## SPECIFICATIONS

### I/O CAPABILITY

6 Universal Inputs: 10 kΩ thermistor, 1 kΩ RTD, 4-20 mA current, 0-10 VDC, digital (dry contact)  
 7 Universal Outputs: 4-20 mA current, 0-10 VDC, digital. Maximum drive of 100 mA per output.

### COMMUNICATIONS

Transceiver: Echelon Free Topology Transceiver (FTT-10A @ 78 kbps)  
 Wire Type: AWG22 to AWG16 stranded (use twisted pair wiring and copper conductors for network)  
 Neuron®: 3150, 10 MHz

### POWER SUPPLY

Controller: 1.6 A, 24 VAC, 50-60 Hz, or 24 VDC  
 Fuse: 2.5 A slow-blow (Bussman GMD-2.5A, Littlefuse 23902.5A)  
 Power Fail Protection: Lithium battery retains data in RAM and clock

### MECHANICAL

Operating Temperature: 32°F to 122°F (0°C to 50°C)  
 Relative Humidity: 5% to 95% RH (non-condensing)  
 Weight: 1 lb. 1 oz. (485 grams)  
 Enclosure Dimensions: 1.9" x 5" x 9" (48mm x 127mm x 229mm)  
 Enclosure Material: PVC, inflammability class V0 (UL94)  
 Wire Type: AWG22 to AWG16 stranded; use copper conductors only  
 Mounting: DIN rail

### AGENCY LISTINGS AND REGULATORY COMPLIANCE

Class II device (when powered by a class II supply)  
 CSA 22.2 #205-M1983, #950-M89  
 UL916 certification for Energy Management Equipment  
 Part 15, Part J, Class A of the FCC Rule for Radio Frequency Devices  
 EMC Directive 89/336/EEC  
 LonMark 3.3 Certified



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