

Description

The C1000 HP heat pump controller is designed to control a variety of heatpump units and systems. The on-board microcontroller offers precise digital control to maximize performance. The available control sequences are fully configurable, either locally or remotely, using free software. The C1000 HP uses PI (Proportional-Integral) control loops to optimize heatpump management and offers a variety of functions such as economizer, preheating, emergency auxiliary heating and more. The C1000 HP also acts as a Master controller when connected to a ProLon network.



Features

- Works in Air-To-Air mode or Water-To-Air mode (configurable)
- Remote monitoring and configuration with FREE ProLon Focus software
- Stand-alone or networked (up to 127 nodes)
- Proportional-Integral (PI) control loops maximize performance
- 4 digital outputs and 1 analog output equipped with resettable fuses
- Built-in protection sequences with configurable temperature limits and minimum delays
- Control up to 2 compressor stages with up to 2 auxiliary heating stage
- Configurable unoccupied mode sequences
- FlexiZone system facilitates multiple zone management by evaluating the average weighted demand of the zones using customized groups

Technical Specifications

Supply: 24 VAC $\pm 10\%$, 50/60 Hz, Class 2

Consumption: 2 VA (typ), 32 VA (max)

Inputs: 4 configurable inputs with selectable functions (outside temp / return temp / supply temp / water intake temp / night setback/ proof of fan / alarm)

Digital Outputs: 4 triac outputs, 10-30 VAC source, 300 mA max (resettable fuse)

Analog Output: 1 output 0-10 VDC / 2-10 VDC / 0-5 VDC, 40 mA max (resettable fuse)

Indication lights (LED): State of each output / Communication / Power / State of microprocessor

Microprocessor: PIC18F6722, 8 bits, 40 MHz, 128KB FLASH memory

Communication: Modbus RTU (RS485) or BACnet MS/TP (RS485) up to 127 nodes

Baud Rates: 9600, 19200, 38400, 57600, 76800, 115200

Wiring: Removable screw-type terminal blocks (max 16 AWG) and RJ45 modular jacks

Dimensions: 157 mm x 133 mm (6.2" x 5.2")

Environment: 0-50 °C (32-122 °F) Non-Condensing