Datasheet

Chiller Controller (PL-C1000-CHL)

Description

The C1000 CHL Chiller controller is designed to control a variety of different chiller units and systems, and can be used for both air cooled chillers and water cooled chillers. 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 CHL offers a variety of functions such as outdoor reset for the chilled water supply temperature, lead-lag sequences for pumps and chiller stages, safety limits and more.

Features

- Pump activity based on outside temperature or schedule (or both)
- Configurable pump exercise sequence for extended periods of inactivity
- Supply water setpoint reset based on outside temperature, return temperature or demand
- Control up to 3 chiller stages (multiple chillers or a single multistage chiller)
- Various lead-lag sequences for the pumps and chillers
- Chiller lockout based on entering condenser water temperature limit
- Remote monitoring and configuration with FREE Prolon Focus software
- Standalone or networked (up to 127 nodes)
- 4 digital outputs and 1 analog output equipped with resettable fuses
- Built-in protection sequences with configurable temperature limits and minimum delays

Technical Specifications

- **Supply**: 24 VAC ±10%, 50/60 Hz, Class 2
- **Power**: 2 VA (consumption), 32 VA (input)
- **Inputs**: Entering water temperature / Outside air temperature – thermistor 10K
  Return Water – 10 K thermistor
  Supply Water – 10 K thermistor
  Proof of pump – dry contact
- **Digital outputs**: 4 triac outputs, 10-30 VAC source or sink, 300 mA max (resettable fuse)
- **Analog output**: 1 output 0-10 VDC / 2-10 VDC / 0-5 VDC, 40 mA max (resettable fuse) for the valve
- **Indication lights (LED)**: State of each output / Communication / Supply / State of microprocessor
- **Microprocessor**: PIC18F6722, 8 bits, 40 MHz, 128KB FLASH memory
- **Casing**: Molded ABS, UL94-HB
- **Communication**: Modbus RTU (RS485), up to 127 nodes
- **Baud rate**: 9600, 19200, 38400, 57600, 76800, 115200
- **Connection**: Removable screw-type terminal blocks (16 AWG max) and RJ45 modular jack
- **Dimensions**: 6.2" x 5.2" x 2.5" (157 mm x 132 mm x 64 mm)
- **Weight**: 0.85 lbs (0.39 kg)
- **Environment**: 32-122 ºF (0-50 ºC) Non-Condensing
- **Certification**: RoHS, FCC part 15: 2012 class B

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