



Datasheet

Standalone Heatpump Controller (PL-C1000-HPS)

Description

The C1000 HPS 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 HPS 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.

Features

- Designed for unitary systems using a single space temperature sensor
- 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 or 2 stage auxiliary heating stages
- Configurable unoccupied mode sequences

Technical Specifications

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

Power: 2 VA (consumption), 32 VA (input)

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

Casing: Molded ABS, UL94-HB

Communication: Modbus RTU (RS485) up to 127 nodes

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

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

Dimensions: 6.5" x 5.3" (165 mm x 135 mm)

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

Certification: RoHS, FCC part 15: 2012 class B