HLP-10 HyperLogger™ PowerPlus™ Data Logger

Features

- Energy data logging system with capability for recording standard sensor signals
- Capable of consumption vs. production profiling for accurate efficiency studies
- Reads and records over 26 energy parameters
- Logs power and other process signals: pressure, flow, temperature, etc. simultaneously
- Remote monitoring with Ethernet, cellphone, RF or phone line
- Easily programmed to record just the desired parameters
- Programmable Alarms
- Self-contained battery powered system allows for complete logging autonomy
- Made in the USA

The Authority in Unrestricted Data Logging

HLP-10 shown with 100A clamps

HyperLogger™ PowerPlus™

The HLP-10 is a self-contained portable power logging instrument and energy monitoring system. It is the ideal instrument for energy efficiency studies because it can record energy consumption and the results of that consumption for total system analysis.

The HLP-10 is designed monitor the power consumption from compressors, chillers, and any AC motors as well as the pressure, flow and temperatures resulting from the energy expended for a more complete efficiency study. Measuring and recording AC power and additional standard industrial sensors to record temperature, flow, or pressure simultaneously has never been easier. In-plant efficiencies and sizing analysis can now be more thoroughly performed by inclusion of all system components and parameters.

Consisting of an intelligent Power Sensing Harness (PSH), a HL-1 data logger with an interface module programmed to read serial data, the HLP-10 allows for easy field expansion. The Power Sensing Harness split-core transducers contain the electronics to monitor and convert the measured parameters to the serial data stream and transmit the data to the data logger via an isolated serial data link. This allows the data logging system to be safely located a distance from the PSH and it's associated high-voltage connections. The HLP-10 is capable of monitoring power from 63 unique systems simultaneously.

The HLP-10 is programmed from within the Logic Beach HyperWare software application. HyperWare is the market-proven, icon-based programming, communication, real-time trending and data analysis software used with all of Logic Beach's portable and remote site data logging and alarming systems.

Operation

The Power Sensing Harness is a self-contained system that is comprised of the current clamps, fused voltage leads and an electronics module. All the necessary circuitry is contained within these components for processing of the voltage and current signals and converting the voltage and current measurements into over 26 different electrical energy parameters. The HLP-10 is programmed from a PC running the Logic Beach HyperWare

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Operation (continued)

software. With the ease of HyperWare's icon-based drag and drop programming method, icons representing phase voltages, currents, power, etc., are easily interconnected with a mouse to build a data logging and alarming strategy. During operation, electrical data from the power module as well as other connected sensor/signal inputs (e.g. thermocouples, RTD's, thermistors, pressure, flow, 4-20mA, etc) are logged to the HyperLogger's memory for later download and analysis.

Applications

- Compressor efficiency & sizing studies
- Cogeneration performance analysis
- Chiller efficiency studies
- Time of day power usage profiling
- Power Factor correction programs
- Refrigeration efficiency evaluations
- Voltage sag/surge detection
- Transformer Efficiency/Performance Testing

Measured Power Parameters

Two versions of the PSH are available. The basic PSH offers kWH and kW and the enhanced PSH includes all the following power perameters.

kWH: Consumption
kW: Demand
kW: demand each phase*
Demand: Avg., Min., Max.
Voltage, line to line
Voltage phase to phase
Voltage: line & phase to neutral*
Power factor
Power factor each phase*
Amps: avg., current per phase
kVAR: reactive power
kva: apparent power

*Based upon derived neutral voltage

Specifications

Data Logger

Full specifications can be found on the HyperLogger System Base and Interface Module data sheet.

Power Sensing Harness

Input primary voltage: 208 to 480 VAC rms
Number of phases monitored: one or three
Frequency: 50/60 Hz
Primary current: up to 2400A continuous/phase
Internal isolation: 2000 VAC rms
Case insulation: 600 VAC rms
Temperature range: 0° – 60°C°
Humidity range: 0 – 95% non-condensing
Accuracy: 1%
Output: Isolated RS 485, 2-wire shield
Current transformers (split core): 100, 300, 400, 800, 1600, 2400 Amps

Optional Interface Modules

A variety of interface modules are available to use with the HLP-10. Up to a total of five modules may be installed and field-configured for your specific application.

HLIM-1: Analog Interface Module
Thermocouples: J,K,E,T,R,S. DCV and DCmA

HLIM-2: Digital Interface Module
Frequency Counter, Event and Counter

HLIM-4: Resistance Interface Module
RTD, Thermistors and Resistance

HLIM-5: Memory/Modem Interface
Internal socket for removable PCMCIA cards, 60,000 to 600,000 sample capacity and slot for optional internal 14.4 modem.

HLIM-7: Isolated Interface Module
Thermocouples, DCV and DCmA

HLIM-8: Eight Channel Digital Interface
Eight user-selectable channels configured as either inputs or outputs.

See detailed specifications of the HLP-10 System Base and Interface modules on the separate data sheet.

Contact Logic Beach for configuration assistance.

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