R175-0010 Rack PDU Sensor for Chatsworth Products eConnect® PDU

RFCODE
CHATSWORTH PRODUCTS

Designed for integration with Chatsworth Products (CPI) eConnect intelligent PDUs, R175 sensor enables "wire-free" power monitoring over the RF Code radio frequency infrastructure.

Features & Benefits

◆ PDU information is obtainable via RF Code wireless infrastructure at 433 MHz

◆ Real-time monitoring for PDU power metrics, alerts, alarms and warnings

◆ Per branch status & metrics, including:

   ◆ Branch voltage
   ◆ Branch amperage
   ◆ Branch power
   ◆ Branch energy use

◆ Plug and play into Ethernet port of networked PDUs for "wire-free" power monitoring

◆ Compatible with CPI eConnect intelligent PDUs

◆ Autoconfiguration up to 3 Link PDUs Daisy Chained through a Master PDU

◆ Integrates with RF Code's CenterScape Platform

◆ AC-powered via DC adapter with battery back-up

RF Code's R175 power sensor offers wireless communication for use in data centers, equipment room racks and cabinets that provides continuous, automated monitoring of each rack PDU.

Power metrics and PDU information are transmitted utilizing RF Code's "wire-free" radio frequency infrastructure via the RPDU sensor. This results in a comprehensive power monitoring solution made available in RF Code's CenterScape platform.

The R175 RPDU sensor plugs into the Ethernet port of the PDU and identifies the CPI, model and capabilities then relays that information to CenterScape. The R175 RPDU sensor can monitor individual PDUs or up to four linked PDUs. This solution enables customers to monitor power metrics from each PDU at a dramatically reduced cost of ownership by reducing wires/cables, IP address allocation and network administration.

Designed for use with rack-mounted PDUs, the R175 RPDU sensor features a simple plug-and-play 433 MHz RF transmitter for quick and easy installation. Simply plug the sensor's locking RJ45 connector into the Ethernet port on the PDU and attach the sensor to the top of the rack (this ensures clear signal transmission in metal-dense data center environments).

Each sensor broadcasts its unique ID and a portion of the PDU data every 10

CPI eConnect PDUs

seconds using RF Code's patented communication protocol. The power metrics are transmitted to the RF Code readers which includes PDU product information, phase and power usage information such as amperage, voltage and apparent power. All power data collected from the PDU flows via the RF Code readers to the RF Code CenterScape platform as well as, other third-party applications for power monitoring and display. The software presents all of the collected power parameters and computes additional attributes from this data to provide a complete picture of power utilization, power efficiency and power status. Power attributes can be utilized by existing CenterScape features such as:

• Live table and map views
• Interactive graphing
• Scheduled reports and graphs
• Alarms, Alerts and thresholds

The R175 is DC powered via an AC/DC adapter or USB power from the PDU. An internal battery supports alerts if DC power is lost, and beacons periodically to maintain connectivity with CenterScape. The R175 will continue to beacon for over 4 years using battery backup. A low-battery alert is provided to indicate when the battery needs to be replaced.

In operational mode the R175 RPDU sensors only receive information from the PDUs, hence no outlet control or other actions are possible through the sensor. This means the RF Code wireless solution does not compromise power security.

R175 RPDU sensor

Ordering Information

AVAILABLE PDU INFORMATION AND POWER METRICS	
GENERAL INFORMATION	PDU model number
	PDU serial number
	PDU manufacturing date
	PDU firmware revision
	PDU Secure Array® IP consolidation configuration
	PDU message loss
POWER INFORMATION	Per branch voltage (V)
	Per branch current flow (A)
	Per branch energy (kVA-Hours) - ±1% metering accuracy
	Per line current flow (A)
	Per outlet average Root Mean Square (RMS) current (A)
	Per outlet energy (VA-Hours) - ±1% metering accuracy
ALARM INFORMATION	Unit disconnect status
	Unit communication status
	Branch voltage and current alarms
	High in-feed load (80% or more of capacity) alarm
	Outlet current alarms
	Sensor low-battery notification
COMPUTED ATTRIBUTES IN RF CODE CENTERSCAPE	Over current protection device – breaker-tripped alarm
	Phase power in watts
	Phase power in Volt-Amps (V-A)
	Phase power in watt-hours
	Phase power in V-A-Hours
	Phase load balance
	Rack power redundancy
COMPLIANCE	FCC Title 47 CFR Part 15; FCC ID: P6FX
	RED 2014/53/EU Article 3.1(a): Health and Safety
	RED 2014/53/EU Article 3.1(b): Electromagnetic Compatibility
	RED 2014/53/EU Article 3.2: Radio Spectrum
	RoHS Compliant
SOFTWARE	Requires CenterScape revision 1.4 and above
	Requires eConnect firmware revision 4.4.253 and above

Ordering Information

Part Number	Description
Power Solution Software	
CSTP	CenterScape Software License, order one (1) per Rack PDU sensor
Power Solution Hardware	
M250-0001	Active Reader with US power cord, to create wire-free monitoring network
R175-0010-000	Rack PDU wireless power sensor, connects eConnect® PDU to wire-free network, monitors ups to 4 PDUs connected by Secure Array
Accessories (Optional)	
R175-UCBL60	USB Power Cable to power Rack PDU Power Sensor from eConnect PDU or other USB port
R175-ECBL60	Cat5e black Ethernet patch cable to connect from network port of eConnect PDU to the Rack PDU sensor
A210	AC/DC power supply adapter for R175 power sensor

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