Wireless HV DC Power Monitors

PACKETPOWER

The industry's first wireless 380V DC monitor

Easily monitor 200 to 380V DC circuits from 35 to 3,000 Amps. Measure Volts, Amps, Watts and Watt hours at ±1.0% accuracy utilizing a wireless monitoring system designed specifically for data centers and certified worldwide. All monitors share a compact format and must be mounted within an enclosure using DIN rail, cable tie or adhesive mounts.

Benefits

Installs easily
- Small size
- No networking wires

Secure
- Unique purpose-built protocol can only be used for monitoring
- Full separation of wireless monitoring and wired data networks

Wireless that works
- Robust mesh network design
- Proven in data centers worldwide

Costs less
- Fully self-configuring and self-optimizing system lowers ongoing support costs
- One voltage sensor can support all circuits that share a voltage source

Scalable
- Automatically adapts when units are added or removed
- Grows easily from 10's to 1,000's of monitors

Open
- Access data using SNMP or Modbus
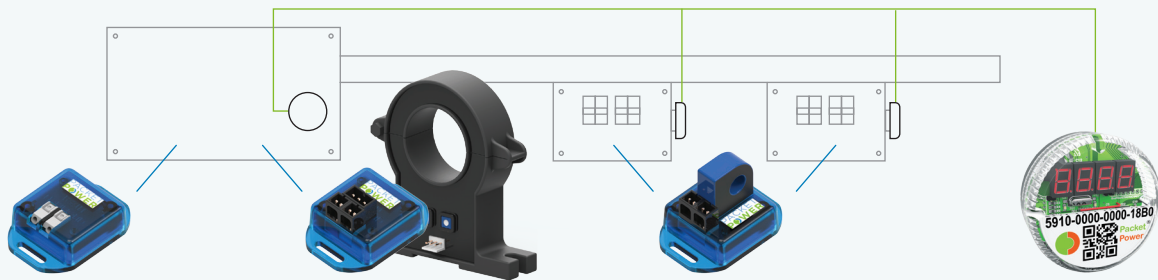- Compatible with any hardware

Wireless Monitoring System

Voltage Monitor

Provides voltage data for all units utilizing a shared voltage source.

Current Monitor: External CT

35 to 3,000 Amp sensors. Split or solid core CTs.

Current Monitor: Integrated CT

35 or 65 Amp sensors.

Display Module

LED display. Installs in a standard 1" NPT knockout.

Technical Specifications

Measurement

Wireless voltage sensor	Single 100-380V DC circuit
Wireless current monitor	Integrated 35 or 65A CT or external 35-3,000A CT (solid or split core)
Measurements per circuit	Voltage, Current, Watts, Watt Hours
Accuracy	± 1.0% accuracy (CT dependent)
Temperature	Internal temperature ± 2°C

Communications

Operating frequency	860 to 930MHz and 2.4 GHz; frequencies specific to region
Wireless network protocol	Frequency hopping self-configuring load-balancing mesh
Data output (Gateway)	SNMP and Modbus TCP/IP protocols with one IP address needed per Gateway. EMX cloud or local energy management system available
Firmware updates	Wireless
Typical transmission range	10 to 30 meters indoors between any two devices in mesh network
Antenna	Fully enclosed, fixed configuration
Monitoring unit to gateway ratio	Up to 150 monitoring units per gateway with unlimited gateways per site
Multi-site support	Yes
Encryption	128-bit encryption
System status	Local LED display for measurement readings

Environmental & Mechanical

Operating temperature	0° to +70°C (+32° to +158°F)
Operating humidity	10% to 90% non-condensing
Display module dimension	Display bezel: 2.0" diameter x 0.75" height Stem: 1.25" diameter x 0.5" height
Wireless current and voltage sensors	Base: 52mm x 35mm; Height: 22mm (external CT), 33mm (integrated CT)
Ethernet Gateway	65mm x 65mm x 20mm
Input voltage range (voltage sensors)	100-380 V DC nominal
Input voltage range (other components)	5 V DC nominal

Packet Power Wireless Mesh

The most proven wireless monitoring system for data centers worldwide

Packet Power's self-configuring mesh network makes installation simple. Adding new monitors and gateways is easy as the system automatically configures and manages itself. Because the system determines the optimal path for every transmission, performance stays consistent even as the network grows.

The unique wireless monitoring protocol is different than WiFi or ZigBee and was purpose-built for data centers. Using 900MHz and 2.4GHz frequencies, it is certified for use worldwide. The resulting mesh network is more resilient and secure than other systems.

- Monitoring nodes
- Primary radio path
- Alternate path
- Wired connection

Packet Power monitoring

Ethernet Gateway

SNMP Modbus

DCIM/BMS application