Wireless Branch Circuit Monitoring

PACKETPOWER

A simple retrofit solution

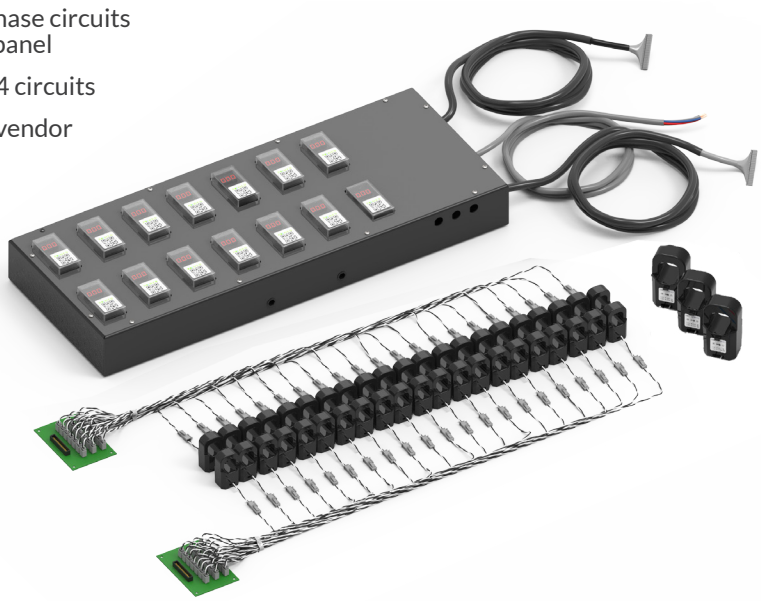
Packet Power offers the ideal solution for adding monitoring to your existing panelboards. Monitors work with any equipment and installation is easy. Based on Packet Power's proven wireless technology, the system can be installed without running data communications wiring and flexible current sensor harnesses make installation within the panel easy.

Easily add monitoring to panelboards

- Prevent unplanned outages
- Balance loads more effectively
- Manage current and future facility capacity
- Allocate energy costs at the circuit or panel level

Wireless Branch Circuit Monitoring Kit

- Monitors any combination of single- , 2- and 3-phase circuits up to a maximum of 42 single-phase circuits per panel
- Dual panel capability enables monitoring up to 84 circuits
- Installs on PDUs, RPPs or panelboards from any vendor
- Measures V, A, VA, W, Wh, PF and Hz
- Enables continuous energy monitoring to determine PUE
- Local LED displays Amps on branch circuits and V, A and W on main input circuit
- Split and solid core CTs available
- Split core CTs install without having to disconnect critical power systems
- Flexible current sensor harnesses install in minutes
- No data wiring to panels
- Send data via SNMP or Modbus or access with EMX Energy Portal



Why Packet Power

Installs easily

- Split core CTs install without having to disconnect critical systems
- No data wiring to panels needed
- Flexible current sensor harnesses
- Simple configuration utility

Open

- Compatible with any existing hardware
- Send data to any DCIM or BMS using SNMP or Modbus TCP/IP

Cost effective

- Lower installation costs
- Fully self-optimizing wireless network lowers ongoing support costs

Secure

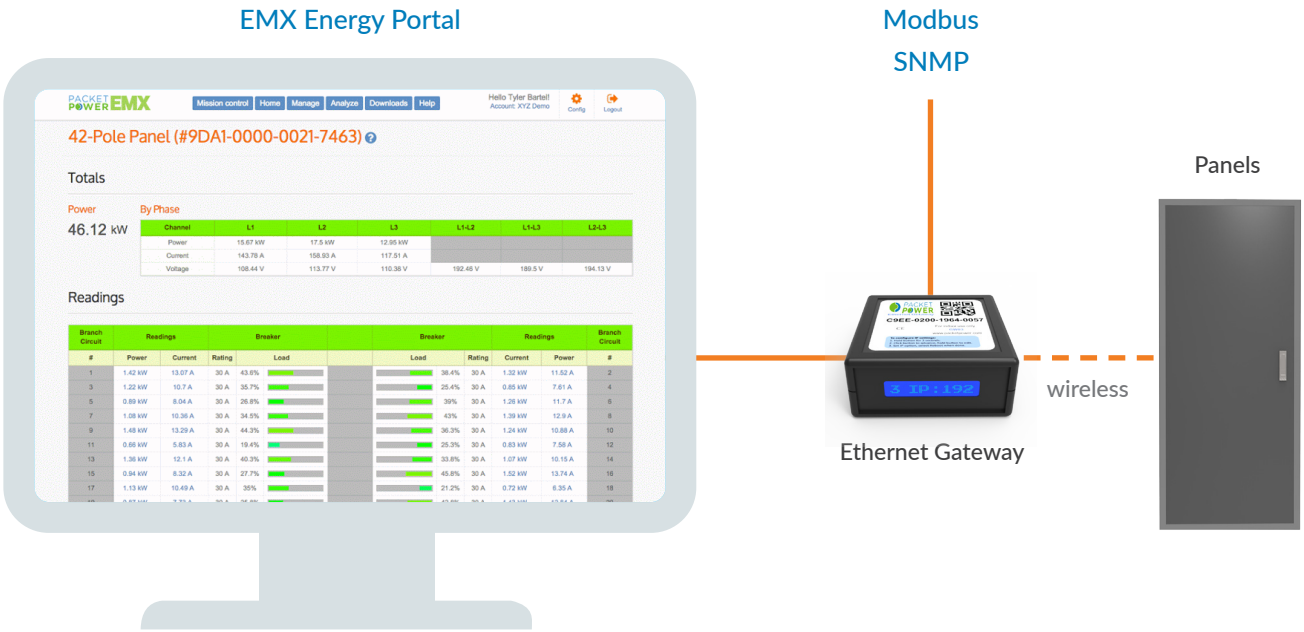
- Unique purpose-built wireless protocol can only be used for monitoring
- Full separation of wireless monitoring and wired data network
- Proven in data centers worldwide

Instant access to data

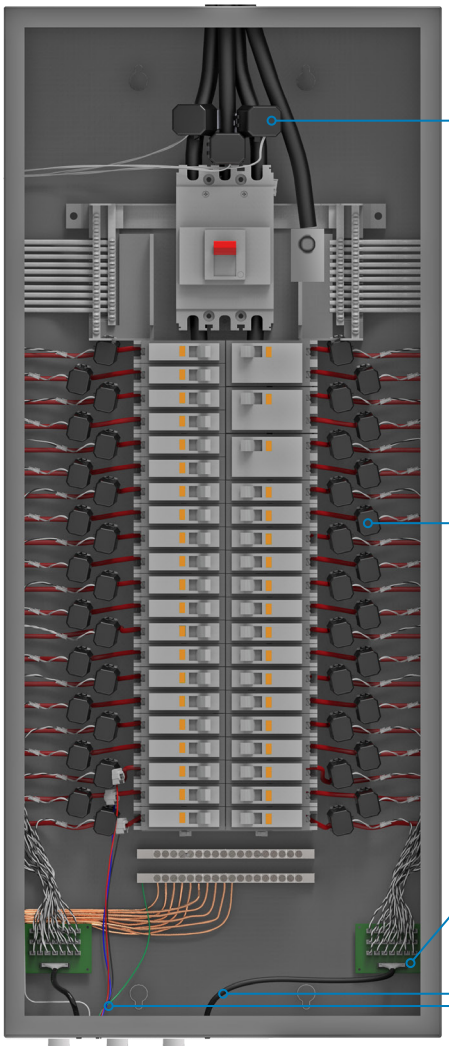
Access information instantly using EMX or export using SNMP or Modbus

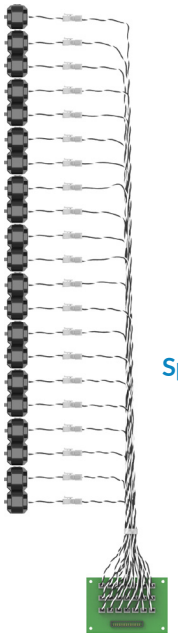
EMX Energy Portal is an intuitive energy monitoring software that offers all the features of competing solutions at a fraction of the cost and without the programming complexity.

- Automated reports including energy by user, circuit and group
- Set alerts to spot anomalies before they become problems
- Offered as cloud or local installation



Installation to online in minutes





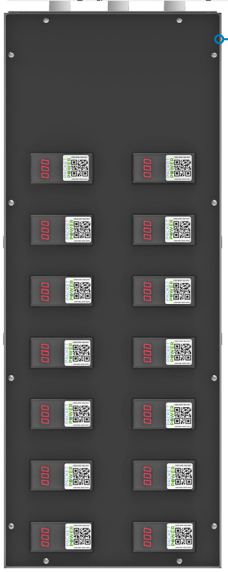
Main input CTs

Split core CTs with quick connector

CT harness interface board

Interface cable
Extends up to 15 feet for remote placement of the monitoring unit

Insulation displacement connector
Allows voltage connection without disrupting wiring



Monitoring unit
Can be located up to 15 feet (5 meters) from the panelboard

1. Mount the monitoring unit; can be wall-mounted, attached to the RPP or PDU, or installed under the floor
2. Place the pre-wired CT harness assembly next to the panels and snap the current transducers over the existing conductors; the harnesses connect to the monitoring unit using the two interface cables
3. Connect the voltage sensing leads to existing conductors using the insulation displacement connectors
4. Once powered, the monitoring unit automatically connects to the Gateway and data will be available

Technical Specifications

Measurement

Circuits monitored	Up to 42 circuits (can be any combination of L-N, L-L or 3-phase) plus main input circuit
Measurements per circuit	Current (A), voltage (V), Volt Amps (VA), power (Watts), power factor, energy (Watt hours), THDI, THDV, frequency (Hz)
Accuracy	+/-1.0% (CT dependent); +/-0.5% available
Input voltage	120/208V, 220/380V, 230/400V, 240/415V
Input voltage configuration	3 wire + N + Ground
Frequency	50/60 Hz
Configurable parameters	Breaker number, breaker rating, circuit type, circuit name, circuit capacity, panelboard name

Communications

Operating frequency	860 to 930 MHz and 2.4 GHz (frequencies vary by 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; also visible through EMX cloud or local energy management system
Firmware updates	Wireless
Typical transmission range	10 to 30 meters indoors between any two devices in mesh network
Antenna	Full 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
Local display	LED displays Amps on branch circuits and Volts, Amps and Watts on input circuit

Environmental & Mechanical

Operating temperature	-7° to 75°C (20° to 167°F)
Operating humidity	5% to 95% non-condensing
Water and dust resistance	NEMA 1/IP20 (indoor use)
Altitude	2,000 meters
Enclosure dimensions (42 circuit)	23” x 11.5” x 2.5” (584mm x 292mm x 64mm)
CT harness configuration	21 CTs at 0.75” c-c, 1.0” c-c, or 18mm c-c; alternate configurations available
Input power	15W max; 120 to 415V AC
Certifications	UL 61010-1, CSA C22.2 No. 61010-1, FCC.CE

Current Transducers

Solid core	60A (13mm dia), 200A (24mm or 36mm dia)
Split core	50A (10mm dia), 100A (16mm dia), 200A (24mm or 36mm dia), 400A (36mm or 51mm dia)
	Other CT ratings and configurations available upon request

2716 Summer St. NE
Minneapolis, MN 55413
USA

PACKETPOWER

Ph +1 (877) 560-8770
Fax +1 (866) 324-2511
www.packetpower.com