PACKET POWER

Easily monitor high value circuits

Packet Power has revolutionized circuit monitoring by adding instant wireless connectivity to compact easy to install power monitors.

kW, kVA, kwh V, A, Hz, °C

EASY INSTALLATION

A compact form factor that installs using a single conduit punch hole and requires no communication wiring.

RETROFIT OR NEW BUILD

Split core current transformers avoid disruption of circuits

SCALABLE

Network automatically adapts to a few or few hundred devices with new monitors automatically joining the network

INSTANT INFORMATION

View your energy use online instantly on the EMX Energy portal or export to any BMS or DCIM.

SELF CONFIGURING WIRELESS NETWORK

New monitors automatically join the wireless network. No IT expertise or resources are required.

ECONOMICAL

Less installation time, less IT resources and affordable ready to use monitoring add up to lower total cost.

FEATURES

▶ Accurate real time power measurements of any three phase or single phase circuits

▶ Monitor circuits from 10 to 3000A with split core or solid core CTs

▶ Self-configuring and self-optimizing wireless network simplifies connectivity

▶ The small size and lack of data networking wires makes installation easy and provides flexibility to monitor anywhere

▶ Purpose built wireless technology proven to work in data centers and critical facilities around the world

▶ Access monitoring data instantly using Packet Power EMX Energy Portal

▶ Easily pass data to BMS and DCIM systems that support SNMP or Modbus protocols

▶ Works with a full line of power and environmental monitors

From installation to monitoring in minutes

1 Install power monitor on any circuit in minutes

**2** Monitors automatically join the wireless network

3 Access energy data instantly without programming

A Smarter Network Specifically for Power Monitoring

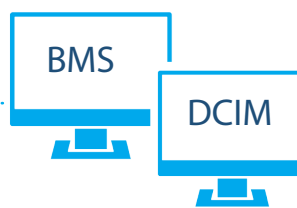### SELF CONFIGURING MESH NETWORK AUTOMATES INSTALLATION

The Gateway automatically detects and configures new monitoring devices, seamlessly adding them to the network. The monitors communicate via a mesh network allowing the signal to be find the optimal path to the Gateway through any nearby monitors. This robust and resilient technology results in a wireless network that is as reliable as a wired network. Add Gateways to expand capacity or provide redundancy.
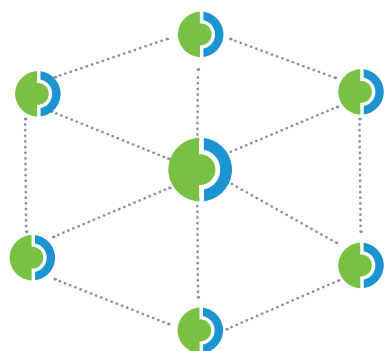
USE YOUR MONITORING SYSTEM OR OURS

Data can be can be viewed using the EMX portal, or sent via SNMP or Modbus TCP/IP to most Building Management Systems or DCIMs. The network is also compatible with any wireless monitoring device from the Packet Power monitoring family.

BMS

DCIM

C9EE-0200-1964-0057

3 IP:192

THIRD PARTY INTERFACES

GATEWAY

POWER MONITORS

ENERGY USAGE BY DEVICE
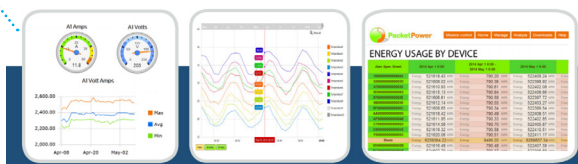
EMX MONITORING PORTAL

Instant Data - No Programming

All the benefits of power monitoring without the cost and complexity.

Once your monitor automatically connects to the network, you can view your energy data using the Packet Power's EMX Energy Portal. Unlike legacy monitoring systems, no programming or configuration is needed. Information automatically appears in an easy to use intuitive format.

PacketPower   Mission control Home Manage Analyze Download

POWER USE BY CIRCUIT

Monitoring node	[A] % max. by phase	[A] by phase	[W] % max. by phase	[W] by phase	[W] total all phases	[V] by phase	Power Factor by phase	[°C]
5D00-0000-0000-0062	45%	13.37	40%	1449.5	1449.5	108.4	1.00	22.9
7C00-0000-0000-0058	45%	13.37	40%	1443.2	1443.2	108	1.00	23.0
C900-0000-0000-004B	43%	12.99	40%	1439	1439.0	110.8	1.00	25.7
9300-0000-0000-001D	44%	13.16	40%	1436.5	1436.5	109.2	1.00	24.3
								22.9
								24.8
								23.3
								21.7

PacketPower   Mission control Home Manage Analyze Downloads Help

Node #7C00-0000-0000-0058

Power A   VA A   Current A   Voltage A   Frequency   Temperature

Power

EMX FEATURES

▶ *Data is instantly available without programming*
▶ *Easy access to real-time and historical energy information*
▶ *Highly flexible reporting*
▶ *Easily define and manage real-time alerts even in the largest facilities*

▶ *Supports multiple facilities*
▶ *Safely and selectively share usage information with other interested parties*
▶ *Fraction of the cost of traditional systems without compromising features*

Designed for Quick Installation
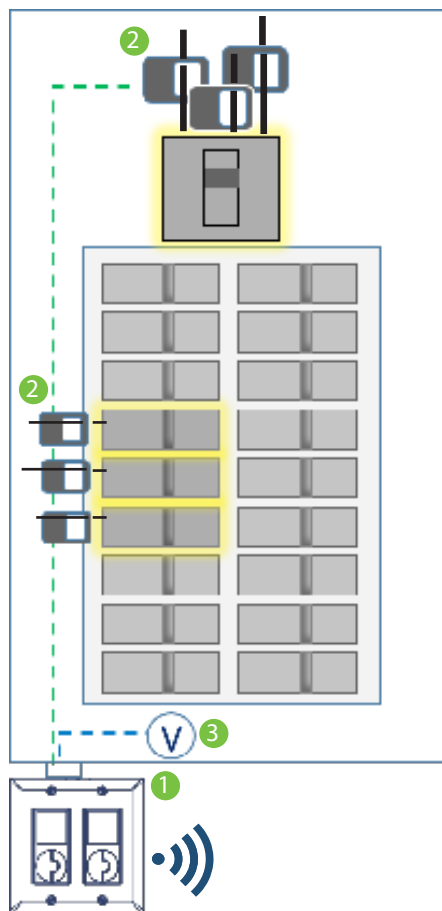
Installs in Minutes: The Packet Power wireless power monitor is designed for quick and easy installation. Systems are available for single circuits all the way up to 14 three phase or 42 single phase circuits.

⚒ INSTALLATION STEPS

1. Install the meter module using a single standard knock-out
2. Place the CTs on the relevant circuits
3. Connect the voltage source
4. Data transmission begins

Wireless Smart Power Monitor

Single module power monitor kit with split core current transducers

Circuit Monitor Models

One to four monitor systems

Monitors are housed in standard gang boxes allowing installation using standard 3/4" threaded conduit holes (metric conversions available). One , two, three and four monitor configurations are available. that can monitor one to 12 circuits.

Six to 14 monitor systems

Larger installations can use the six, nine or 14 monitor slim line enclosures and can monitor from six to 42 circuits.

COMMUNICATIONS

Operating frequency	860 to 930MHz and 2.4 GHz (frequencies vary by region)
Wireless protocol	Frequency hopping self-configuring load-balancing mesh
Wired network protocol	SNMP and Modbus TCP/IP protocols
Firmware updates	Wireless
Typical transmission range	10 to 30 meters indoors between any two devices in mesh network
Antenna	Fully enclosed, fixed configuration
Cable to Gateway ratio	Up to 200 cables per gateway with unlimited Gateways per system
Multi-site support	Yes
Encryption	128-bit

ENVIRONMENTAL

Operating temperature	-7° to 75°C (20° to 167°F)
Operating humidity	5% to 95% non-condensing
Water and dust resistance	Indoor applications
Maximum operating altitude	2,000 meters (6,600 feet)
Power usage	Smart power cable: 0.6W Ethernet Gateway: 0.7W

SMART POWER MONITOR

Circuits Monitored	1 x 3 phase circuit or 3 x single phase circuits (L-L / L-N) per monitor, 1-9 monitors per enclosure
LED status indicators	Red / Orange Power / Status (Red/Orange); Communication (Green)
Local display	3 Digit LED (cycles Amps, Volts, Watts by phase) [1]
Monitored Points	Voltage (V), Current (A), Power (W), Energy (Wh), Apparent Power (VA), Power Factor (PF), Frequency (Hz), all measurements +/- 1%, Temperature (+/-2°C)
Monitored Voltage / Input Voltage	120, 208, 220, 240 , 380-415V (50/60 Hz)
Accuracy	±1.0% (0.5% available)
Current Transducers	30-2000 A; solid core and split core versions
Certifications	UL, CE, FCC and others

SMART POWER MONITOR MODELS

Model	1 Module	2 Module	3 Module	4 Module	6 Module	9 Module	14 Module
3 Phase Circuits Monitored (max.)	1	2	3	4	6	9	14
Single Phase Circuits Monitored (max.)	3	6	9	12	18	27	42
Size (L" x W" x H")	4.5 x 2.8 x 2.7	4.5 x 4.5 x 2.7	6.4 x 4.5 x 2.7	7.2 x 4.5 x 2.7	11.0 x 10.0 x 2.0	11.0 x 14.0 x 2.0	23.0 x 9.0 x 3.0
Form Factor	Gang Box	Gang Box	Gang Box	Gang Box	Slim Line Enclosure		

Note: Each module can monitor a single three phase circuit or three single phase L-L or L-N circuits.

CURRENT TRANSDUCER MODELS

Solid Core (Amps Max)	30, 75, 100, 200, 400
Split Core (Amps Max)	30, 75, 100, 200, 400, 600, 800, 1200, 1500, 2000, 2500, 3000

Consult factory for current transducer specifications.

Circuit Monitoring Applications

HVAC — MULTI-TENANT — BRANCH CIRCUITS — SWITCHGEAR

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