

THREE PHASE CABLE



SINGLE PHASE CABLE



GATEWAY MODULE

## THE SMART WAY TO MONITOR POWER

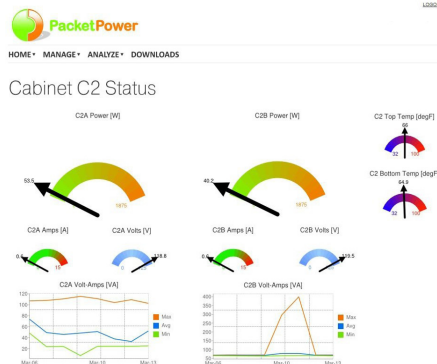
*Packet Power Smart Power Cables provide an easy wireless system to gather power and energy consumption data from any cabled device.*

Smart Power Cables feature the same power monitoring components found in many smart meters packaged in a unique power cord format. Self powered by the line voltage, the cables wirelessly transmit detailed power information and self configure with other nearby Smart Power Cables to form a wireless network. Add or remove a smart power cable, and the network automatically adapts. Information is centrally routed to a Gateway module providing the information in an open protocol for use in most third party applications or Packet Power's EMX cloud portal monitoring system. This makes it possible to quickly deploy an advanced power monitoring infrastructure with minimal disruption and limited need for IT resources and expertise.

## KEY FEATURES

- Precisely measures power and temperature on just a few or thousands of cables
- Captures detailed, time-stamped data on amps, volts, watts, watt-hours, VAR, power factor and frequency
- Incorporates advanced network security features throughout the system
- Maintains key data during power and communications disruptions
- Fail-safe design will not disrupt the flow of power
- Packet Power applications provides flexible, web-based reporting and alerts
- Interfaces to other monitoring applications via SNMP or Modbus TCP/IP
- High power systems (up to 2000 A) with split core CTs available
- Certified for use in North America, the European Union and many other countries world wide

The EMX Portal offers easy access to energy analysis, real-time data and historical reports ; user defined alerts via email or SMS and detailed, easily customized reports



## SUMMARY

- ▶ Simple "plug and play" installation
- ▶ Models range from 10 amp to 63 amp capacity (panel-based monitoring available up to 2,000 amps).
- ▶ Ideal for rack PDUs, high capacity IT devices (SANs and switches), underfloor cables and busway tap-off boxes and all critical loads.
- ▶ Scalable from a few devices to thousands just by adding Gateways
- ▶ Local display (R series)
- ▶ Cables form a self-configuring wireless mesh network for ultra reliable communication
- ▶ Each gateway needs only one IP address to connect hundreds of cables to your network
- ▶ Proven integration with third party monitoring systems using SNMP or ModbusTCP/IP protocols (vendor neutral)
- ▶ Available plug and play web or local monitoring; capture and analyze power usage data, full alerting capability, real-time data, logging and trending and more.
- ▶ Full line of environmental monitors utilizes the same wireless network to track temperature, humidity and pressure
- ▶ Global certifications
- ▶ Proven on over 30,000 installations

**COMMUNICATIONS**

Operating frequency	From 860, 930MHz and 2.4 GHz. Specific frequency used varies by region.
Wireless protocol	Proprietary frequency hopping, self-configuring, load-balancing mesh network
Wired network protocol	TCP/IP (one IP address needed per Gateway), support for Modbus TCP/IP and SNMP protocols
Firmware updates	Wireless
Typical transmission range	10 to 50 meters indoors from any one device to any other
Antenna	Fully enclosed, fixed configuration
Cable to Gateway ratio	Up to 300 cables per gateway (unlimited Gateways per system)
Multi-site support	Yes
Encryption	Optional 128-bit

**ENVIRONMENTAL**

Operating temperature	-7° to +45°C (+20° to +113°F)
Operating humidity	5% to 95% non-condensing
Water and dust resistance	Indoor applications
Maximum operating altitude	2,000 meters (6,561 feet)
Power usage	Smart power cable: 0.6W Ethernet Gateway: 0.7W

**OUTPUTS**

LED status indicators	Red / Orange Power / Status (Red/Orange); Communication (Green)
Local display	3 Digit LED (cycles Amps, Volts, Watts by phase) <sup>1</sup>
Monitored points	Voltage (V), Current (A), Power (W), Energy (Wh), Apparent Power (VA), Power Factor (PF), Frequency (Hz), all measurements +/- 1%, Temperature (+/-2°C)

**SIZE AND WEIGHT**

S Models under 16A	150 cm (60 in), 0.45kg (1 lbs)
S Models 16A and above	120 cm (48 in), 0.75 – 1.0kg (1.5 to 2 lbs)
R Models	Approx 120 cm (48 in), 1.5 to 3 kg (3.5 to 7 lbs)
P Models	Varies – see product manual

**CERTIFICATIONS (ELECTRICAL SAFETY AND RADIO EMISSIONS)**

UL / ANSI 61010-1, CAN/CSA-C22.2 No. 61010-1, FCC Class B, CE (IEC/EN 61010-1:2001, ETSI EN 300 220-2, ETSI EN 301 489-3, IEC/EN 61326-1), ICASA, and certain country-specific requirements in Australia/New Zealand and the UAE.

**MODELS**

Model	Voltage (V)	Amperage (A)	Type
S and R	120, 208-240, 120 / 208, 240 / 415,	10, 15, 16, 20, 30, 32 16, 20, 30, 32, 50, 63, 100	Single phase Three-phase L-L and L-N
Wireless PDU	120, 208, 120 / 208	20,30, 60	Single phase Three-phase L-L and L-N

**CONNECTOR TYPES**

Model	NEMA	IEC	Other*
S (all single phase)	5-15 / L5-15 5-20 / L5-20 L5-30 6-15 / L6-15 6-20 / L6-20/L6-30	60320 C13 / C14 60320 C19 / C20 60309 2P+E 6h	Schuko CEE7-7, AS/NZA 3112 2000, BS 1363A (UK), BS 546A (India, S Africa), Whip, others on request
R – single phase		60309 2P+E 6h	CS6361/6360, CS8264/8265 360_6W, 3720/3913, 3750/3933, 3720U-1/ 3913U-1, 3720U-2/3913U-2, 9_23U2, 9_23U0, 9_33U0, 9_53U2, 9_63U2
R – 3-phase Wye	L21-20 L21-30	60309 3P+N+E 6h	516_6W, 532_6W, 530_6W, 560_6W, 563_6W
R – 3-phase Delta	L15-20 L15-30		420_9W, 430_9W, 460_9W, 9_54U2, IBM D/3760, 3934, CS8365/8364, 7428, and others on request

\* All cables are also available in a whip format (with no connectors). A “\_” in a cable name indicates a placeholder for a P or C (e.g. 360\_6W represents both 360P6W and 360C6W). Custom cables available. <sup>1</sup> Local LED numeric display on “P” and “R” versions.



**For More Information:**  
(866) 787-3271  
Sales@PTSdcs.com

Packet Power, 2716 Summer St. NE, Minneapolis, MN, 55413 USA  
Tel: 877-560-8770 - Fax: 866-324-2511  
www.packetpower.com

