

Wireless Smart Power Cables are the easiest way to add metering to any device that has a plug.

## Ideal for:

- Easily turning basic cabinet PDUs into smart PDUs
- Monitoring non-power strip devices such as SANs, mainframes and switches
- Avoiding the need to run data communication wiring to cabinets
- Metering virtually any plug-level load

## Smart Power Cables

*Power cables with embedded wireless power monitors*



Model	S	R
Type	Single-phase	Single- and Three-phase
Voltage	100 - 240	100 - 480
Amperage	10 - 32	16 - 100

- Accurately measure V, A, W, Wh, VA, Hz and PF on single- and three-phase circuits
- Compatible with IEC, NEMA, regional and specialized connectors
- Standard and custom cable lengths available
- Work with hardware from any vendor
- View data instantly using EMX Energy Portal or access data using standard SNMP or Modbus protocols
- Plug-and-play installation; no network cable drops or electricians required

# Why Smart Power Cables



## Plug-and-play installation

- Install in minutes
- No network cable drops
- No electricians



## Cost less

- No costly IT resources needed for installation or ongoing support
- Fully self-configuring



## Wireless that works

- Proven reliability with tens of thousands of units installed worldwide
- Use unique wireless protocol (not WiFi or ZigBee)



## Secure

- Wireless protocol purpose-built for monitoring only
- Full separation of wireless monitoring and wired data networks



## Open

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



## Scalable

- Automatically adapt when units are added or removed
- Grow easily from 10's to 1,000's of units

# Highly Cost Effective

*Adding a Smart Power Cable to your PDU often costs far less than a metered PDU and delivers the functionality of a full featured power monitoring system.*

Metered PDUs



Smart Power Cables



No cost if upgrading a basic PDU

## 30% savings Year 1

- No network cable drops and configuration
- Simple and quicker installation

Metered PDUs



Smart Power Cables



Total System Costs \*

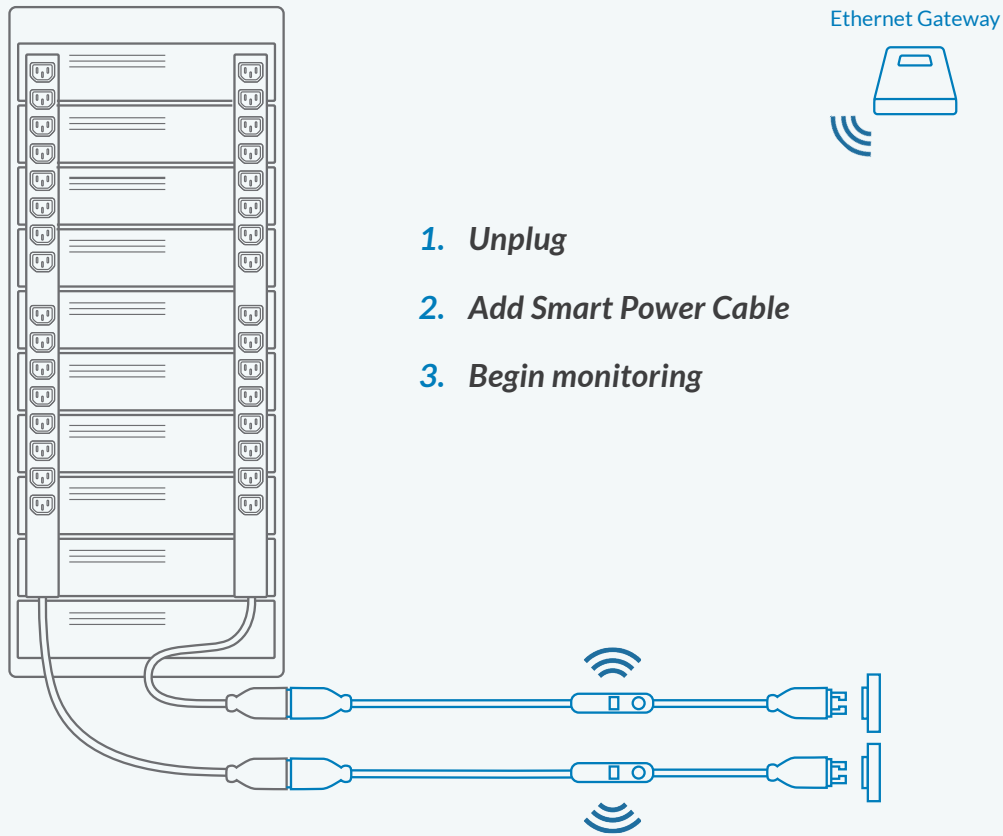
- Support staff
- Hosting (servers, etc)
- Maintenance
- Licensing
- Network cabling
- Inline meters
- Power strip

\* Analysis by a multinational co-location provider

## Over 70% savings Years 2+

- Significantly lower support staff requirements
- Minimal ongoing maintenance requirement
- Note the license costs reflect an optional hosted DCIM subscription

# True Plug-and-Play Installation

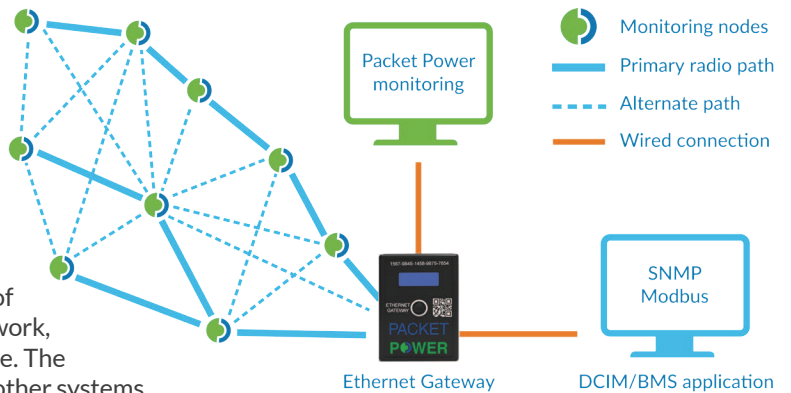


# Packet Power Wireless Mesh

*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. It uses 900 MHz and 2.4 GHz frequencies that can only be used for monitoring. It allows for a complete separation of the wireless monitoring network from the wired data network, supports full encryption and is certified for use worldwide. The resulting mesh network is more resilient and secure than other systems.



# Technical Specifications

## Measurement

Measurements	V, A, W, Wh, VA, Hz, PF
Accuracy	± 1.0%
Input voltage	100 - 480V AC
Current range	Up to 100A
Circuit types	Single- and three-phase

## 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
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	Over 100 cables per gateway with unlimited gateways per site
Multi-site support	Yes
Encryption	Optional
Local display	Volts, Amps and Watts

## Environmental & Mechanical

Operating environment	7° to 75°C (20° to 167°F); 5% to 95% non-condensing
Water and dust resistance	Not rated
Size and weight (for standard cable length)	
S models under 16A	150 cm (60 in); 0.45kg (1 lb)
S models 16A and above	120 cm (48 in); 0.75 - 1.0 kg (1.5 to 2 lbs)
R models	120 cm (48 in); 1.5 - 3.0 kg (3.5 to 7 lbs)
Power usage	0.6W
Certifications	UL/ANSI 61010-1; CAN/CSA-C22.2 No. 61010-1 (ETL); FCC Class B; CE (IEC/EN 61010-1:2001, ETSI EN 300 220-2, ETSI EN 301 489-3, IEC/EN 61326-1); ICASA; AS/NZA 4268:2008

## Connector Types

Model	NEMA	IEC	Other
S (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, South Africa)
R (single-phase)		60309 2P+E 6h, 360_6W	CS8264/8265, 3720/3913, 3750/3933, 3720U-1/3913U-1, 3720U-2/3913U-2, 9_23U2, 9_23U0, 9_33U0, 9_53U2, 9_63U2
R (split-phase)	L14-20, L14-30, L14-50		
R (3-phase Wye)	L21-20, L21-30, L22-22, L22-30	60309 3P+N+E 6h, 60309 3P+N+E 9h, 60390 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, 420_7W, 430_7W, 460_7W	CS8365/8364, Russell Stoll, IBM D/3760, 3934, 7428, 9_54U2, 9_64U2

NOTES: Custom connectors available  
 All cables also available in a whip format (no connectors)  
 “\_” in a connector indicates available as P, C or R; for example 360\_6W is available with 360P6W, 360C6W or 360R6W