

# PANORAMIC POWER WIRELESS SENSOR FAMILY



The Panoramic Power sensor series is made up of non-invasive, self-powered, miniature wireless current sensors. The sensors clamp on the electrical outgoing wire from the circuit breaker and are self-powered by the circuit's magnetic field. Hundreds of sensors can be installed in a few hours with no disturbance to daily operations. Once installed, the sensors become part of the building infrastructure, never requiring maintenance, service or battery replacement

## TECHNICAL SPECIFICATIONS

### PAN-10

Physical Dimensions:	17 x 20 x 32 mm 0.67 x 0.79 x 1.26 inch
Max Hot-wire Outer:	7 mm
Diameter (including insulation):	0.28 inch
Current Measurement Range:	0—63 A
Current Measurement Accuracy:	Typically <2% at I > 3 A
Minimum Operating Current:	0.5—1 A (typical)
AC Frequency Supported:	50 Hz (EU, JPE versions) 60 Hz (US, JPW version)
Transmission Frequency:	434 MHz (EU version) 915 MHz (US version) 923 MHz (JPE, JPW versions)
Transmission Power (ERP):	0 dBm (max—EU, US versions)

### PAN-12

Physical Dimensions:	46.2 x 22.8 x 32.6 mm 1.82 x 0.90 x 1.28 inch
Max Hot-wire Outer:	18.8 mm
Diameter (including insulation):	0.74 inch
Current Measurement Range:	0—225 A
Current Measurement Accuracy:	Typically <2% at I > 10 A
Minimum Operating Current:	0.7—1.2 A (typical)
AC Frequency Supported:	50 Hz (EU, JPE versions) 60 Hz (US, JPW version)
Transmission Frequency:	434 MHz (EU version) 915 MHz (US version) 923 MHz (JPE, JPW versions)



## KEY FEATURES

- ◆ Non-invasive — snaps and fits without disconnection
- ◆ No maintenance; self-powered
- ◆ High accuracy
- ◆ Wireless — no wiring, unlike standard CT-based monitoring systems
- ◆ Real-time current data transmitted every 10 seconds

RENTEKNIK GROUP INC.

📍 1122 INTERNATIONAL BOULEVARD, SUITE 100, BURLINGTON, ON, L7L 6Z8

☎ PHONE NUMBER: 905.634.3888 ✉ EMAIL: INFO@RENTEKNIKGROUP.COM

📞 TOLL FREE: 855.634.3888



# PANORAMIC POWER WIRELESS SENSOR FAMILY



The PAN-14 high-current sensor attaches to any size standard 0-5 A current transformer, allowing measurements at any current range or wire gauge.

## TECHNICAL SPECIFICATIONS

### PAN-14 Wireless High Current Sensor

Physical Dimensions (Without Antennas):	33.8 x 29 x 42.5 mm 1.33 x 1.14 x 1.67 inch
Current Input Range:	0—5 A (up to 10 A peak) (external current transformer)
Current Measurement Range:	Determined by external current transformer
Current Measurement Accuracy:	Typically <2% at I > 0.1 A (at input from external CT)
Minimum Operating Current:	0.03—0.05 A (at input from external CT)
AC Frequency Supported:	50 Hz (EU, JPE versions) 60 Hz (US, JPW version)
Transmission Frequency:	434 MHz (EU version) 915 MHz (US version) 923 MHz (JPE, JPW versions)
Transmission Power (ERP):	0 dBm (max) -4 dBm (max—JPE, JPW versions)
Transmission Interval:	10 seconds



## KEY FEATURES

- ◆ Connects to any standard 5 A current transformer
- ◆ No maintenance; self-powered
- ◆ High accuracy
- ◆ Wireless sensor & CT are closed around the hot wire with no additional wiring
- ◆ Real-time current data transmitted every 10 seconds

RENTEKNIK GROUP INC.

1122 INTERNATIONAL BOULEVARD, SUITE 100, BURLINGTON, ON, L7L 6Z8

PHONE NUMBER: 905.634.3888 EMAIL: INFO@RENTEKNIKGROUP.COM

TOLL FREE: 855.634.3888



# PANORAMIC POWER WIRELESS SENSOR FAMILY



The PAN-42 wireless power sensor provides high-accuracy real-time power measurements and advanced power quality measurements for main power monitoring, sub-metering and for the metering of large devices.

Designed for demanding electrical applications, supporting industry accuracy standards, PAN-42 enables the metering of power, voltage, current, power factor and power quality measurement data.

## TECHNICAL SPECIFICATIONS

### PAN-42 Wireless Power Sensor

**Description:**

**4-wire Wye, 3-wire Delta, single-phase 3-wire, single phase 2-wire, or dual phase 3-wire**

- ◆ Voltage: [120/208 V], [240/416 V], or [227/480 V]
- ◆ Frequency: 48—62 Hz
- ◆ Current input range: 0—5 A (up to 10 A peak)
- ◆ Current measurement range: determined by external CT

**Minimum measurable power: 0.025 W at device inputs (per phase)**

**Output:**

- ◆ Active Energy (kWh) - accumulated, per phase
- ◆ True RMS Voltage & Current—per phase
- ◆ Active & Reactive Power—per phase
- ◆ Power Factor—per phase
- ◆ Line Frequency

**Accuracy (for Voltage, Current and Active Energy):**

According to ANSI C12.1 (Class 1)\*

**Transmission Frequency:**

434 MHz (EU version) 915 MHz (US version)

**Transmission Power (ERP):**

0 dBm (max)

**Transmission Interval:**

10 seconds

**Flammability Rating of External Enclosure:**UL94 V-0

**Operating Temperature:**

0—50°C / 32 —122°F

**Storage Temperature:**

-20—65°C / -4—149°F



PAN 42

## KEY FEATURES

- ◆ Single, dual or 3-phase metering
- ◆ Accurate measurement of active and reactive power
- ◆ Real-time monitoring of current, voltage, power and power quality
- ◆ Integrated within the Panoramic Power cloud-based energy management platform
- ◆ Fast and easy installation

RENTEKNIK GROUP INC.

1122 INTERNATIONAL BOULEVARD, SUITE 100, BURLINGTON, ON, L7L 6Z8

PHONE NUMBER: 905.634.3888 EMAIL: INFO@RENTEKNIKGROUP.COM

TOLL FREE: 855.634.3888

# PANORAMIC POWER BRIDGE



Panoramic Power’s enterprise energy management solutions monitor an organization’s energy consumption at the circuit level. The solution detects energy usage via wireless, self-powered sensors that are easily attached to the circuits. The sensors transmit data through the bridge, and the energy information is delivered every 10 seconds to PowerRadar™, the solution's cloud-based analytics platform.

Two bridge variants are available: **Gen4** (PAN-2-H-3G-US/EU V4, PAN-2-H-JP V4) and **LTE Bridge** (PAN-2-H-3G-US V4+ (LTE))

## TECHNICAL SPECIFICATIONS

### BRIDGE

Physical Dimensions (Without Antennas): 111 x 87 x 35 mm/ 4.4 x 3.4 x 1.4 inch

Weight (With Antennas): 150 gr/0.33 lb

Power Adapter (Included): Input: 100—240 VAC 50 - 60 Hz,  
Output: 5 VDC

Power Consumption: 5 W max

Sensor Receiver Frequency: 915 MHz (US version)/ 434 MHz (EU Version)/  
923 MHz (JP Version)

Sensor Reception Sensitivity: 105 dBm

Wi-Fi Protocol: 802.11 b/g/n

Wi-Fi Security Protocol: WEP64, WEP128, WPA, WPA2, WPA2-Enterprise

Compression: Sensor messages are collected and sent once every 10 seconds to reduce bandwidth

Authentication: CHAP protocol used by the server to verify connected bridge’s identity

Modbus Interface: RS485 Modbus port\*

\* RS485 Modbus port can be customized to communicate data from external devices. Customizations will require further requirements gathering by our services group

\*\* Cellular module is not available for Japan



## KEY FEATURES

- ◆ Plug-and-play installation
- ◆ Flexible mounting options
- ◆ Wi-Fi/Ethernet connectivity
- ◆ Cellular (LTE) connectivity \*\*
- ◆ LAN/Wi-Fi connectivity
- ◆ LAN/Wi-Fi/Cellular connectivity
- ◆ Store capability in case of network loss
- ◆ Field-upgradable firmware
- ◆ Initial configuration using built-in web interface

RENTEKNIK GROUP INC.

1122 INTERNATIONAL BOULEVARD, SUITE 100, BURLINGTON, ON, L7L 6Z8

PHONE NUMBER: 905.634.3888 EMAIL: INFO@RENTEKNIKGROUP.COM

TOLL FREE: 855.634.3888