



## I-Grid connects you to your power quality

The I-Grid is a unique web-based power quality and reliability monitoring system. Comprised of a global network of power quality monitors, the I-Grid provides you with advanced notification, reporting and analysis from anywhere in the world – on any computer with an Internet connection.

## I-Sense makes it possible

The I-Sense hardware powers the I-Grid. Each I-Sense monitor records and automatically uploads power quality data to the I-Grid. Data from each of your I-Sense monitors is collected, analyzed and made available to you in one centralized location:

[www.igrid.com](http://www.igrid.com)

## WHY I-GRID?

I-Grid can offer many unique features due to its innovative Internet-based architecture, providing you with a powerful, flexible and easy to use view of your power quality data.

FEATURE	BENEFIT
No Software to Install	Everything you need, from advanced reporting to account management, is available through the familiar web browser you're already using.
Platform Independence	You can use I-Grid from Windows, Mac, Linux - or even your smartphone - without worrying about software compatibility.
Centralized Configuration	Your I-Sense monitors and data are all managed in a centralized location, allowing for simple configuration and administration of a large and distributed deployment from anywhere in the world.
Immediate Notification	The I-Grid notifies you within seconds of a power quality event at your location. Notifications can be customized for a variety of devices, from rich-text email including waveform and RMS charts to single-line mobile SMS messages.
Event Correlation	Because your I-Sense is connected to the I-Grid network, we can correlate events at your location with events recorded nearby - while maintaining data privacy. You will be notified if a recent power quality event was grid-level or isolated.
Flexible Search	Your entire power quality history is always accessible online - from anywhere in the world - with flexible event searching and filtering across multiple monitors and groups.
Data Security	We manage your data for you, and keep your data safe on our secure servers.
Data Storage	Other monitors are limited by on-board storage; the I-Sense monitor uses the Internet and I-Grid to provide you with virtually unlimited storage capacity for your power quality events.
Data Export	Individual events or groups of events can be exported from the I-Grid for offline viewing or for integration with another application.
PQView Integration	The I-Grid connects with your PQView installation, allowing seamless viewing of your I-Grid data from within the PQView application.
Customizable Grouping	I-Sense monitors can be grouped any way you want, providing you with control over how you visualize your power quality data.
Data Sharing	You can easily share your data with those you trust; they will always see the most recent data.

# TECHNICAL SPECIFICATIONS

## ELECTRICAL

Nominal Voltage	100V-480V, user-selectable
Frequency	45-65Hz, auto-sensing
Measurement inputs	1 to 3 channels (V3 models) Dual 1 to 3 channels – simultaneous input/output capture (V6 models)
Sample rate	5760 samples/second
RMS voltage measurement accuracy	True RMS; $\pm 0.2\%$ typical, $\pm 2\%$ maximum of full-scale
Time synchronization	Real-time clock synchronized to UTC (NIST standard) daily via I-Grid and SNTP $\pm 0.1$ seconds, typical
Event trigger	Voltage deviation of $\frac{1}{2}$ -cycle RMS voltage $\leq 87\%$ or $\geq 115\%$ of set nominal Adaptive waveform deviation detection of transient events
Event detail	8 cycles waveform data (-1 to +3 cycles at event start and -3 to +1 cycles at event end) Continuous RMS voltage trend, up to 2 minutes
Data storage	Local non-volatile storage cache for > 300 events, cleared after automatic upload to I-Grid Virtually unlimited permanent event storage in I-Grid database
Periodic RMS data logging	Minimum, maximum and average RMS voltage recorded for each 10-minute period Minimum and maximum are the lowest and highest sliding $\frac{1}{2}$ -cycle RMS in the period
Power supply and battery backup	Line-powered from channel 1 (L1-L2 or L1-N), < 25VA load Optional 9VDC external power supply (for configuration only) Rechargeable batteries enable measurement & communication during outages for up to 2 minutes

## COMMUNICATION

I-Grid communication	Over the Internet via HTTP protocol (standard port 80); outgoing connection only
Ethernet	IEEE 802.3 10Base-T (10Mb/s), 8P8C (RJ45) modular connector
Modem	PSTN (analog telephone), RJ11 modular connector Global phone systems supported
Indicators	Red and green front-panel LEDs
I-Sense Management Console	On-board web server for configuration and status, password protected

## MECHANICAL

Enclosure	NEMA 1 (IP20): Indoor use only. Only non-conducting pollution (pollution degree II) Dimensions: 11/4”H x 9.7”W x 3.0”D / 291mm H x 247mm W x 75mm D
Weight	8.5 lb / 3.6 kg
Agency Approvals	cTUVus, CE, RoHS

*specifications are typical and are subject to change without notice*