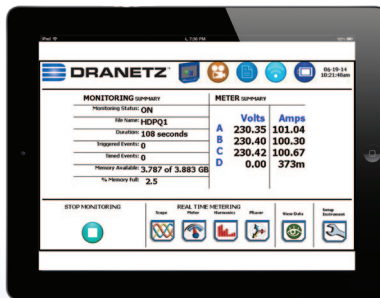
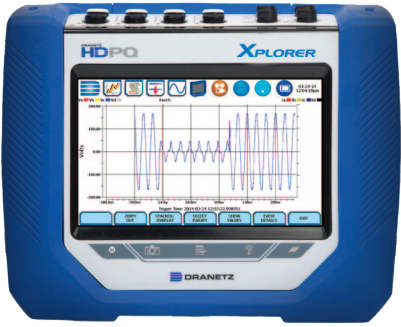




# DRANETZ™

## General Product Catalog



A  
**GOSSEN METRAWATT**  
Company



Dranetz has long been recognized as the world's number one source for power monitoring equipment and services. From versatile handheld power quality and energy monitors used for temporary applications, to permanently installed systems for continuous power quality, energy and process improvement, you can trust the experts from Dranetz. For more than 50 years we've been finding the right solutions for businesses around the world.

Power quality issues, reliability problems and energy waste, cost businesses billions of dollars each year in lost revenue, process disruptions, and other inefficiencies. Over the years, Dranetz has worked with companies, utilities, and government agencies to understand the cause of these disturbances, resolve problems, and provide proactive methods for preventing future problems. We also have a commitment to industry-wide education—sharing our knowledge through our leadership within the IEEE and other industry organizations, delivering power monitoring seminars, authoring technical articles, participating in professional conferences, and writing books such as *The Dranetz Handbook for Power Quality Analysis*.

## Benefits of Power Monitoring

### Cost reduction

Determine where energy costs can be reduced without adversely affecting your business process.

### Problem avoidance

Proactive power monitoring can increase reliability, and prevent failures from occurring by identifying problems before they result in failures and downtime.

### Knowledge

Understand your facility and its electrical system operation and interactions.

### Answers

Quickly react to problems:

- Should a failure occur, monitoring provides immediate information to reduce troubleshooting and costly downtime.
- Determine the source of a problem as soon as possible – was it the supply, the electrical system, or the equipment itself?

## Dranetz Power Quality Monitoring; Preventing Downtime and Saving You Money

- Re-schedule load sequences to reduce peak demand charges and off-peak rates.
- Reduce unessential loading thru use of adjustable speed drives, sensors, or switches.
- Determine payback on replacing equipment with more energy efficient models.
- Perform cost benefit analysis on adding capacitor banks or upgrading equipment to decrease power factor penalty.
- Determine extent of losses in transformers and other distribution equipment; minimize losses or resize equipment.
- Extend the time between regularly scheduled maintenance, and minimize unscheduled maintenance.
- Determine the feasibility of alternative energy sources.
- Identify the source of PQ related process interruptions, and minimize or make corrections with mitigation equipment.

## Enhanced Safety and Productivity through Communications, Software and Robust Design

The Dranetz HDPQ<sup>®</sup> family of power quality instruments are the most powerful and easy to use in the world. Built from the ground up, Dranetz HDPQ<sup>®</sup> employs ergonomic design, a tablet like interface, advanced communications, and a 7" WVGA screen with improved data resolution resulting in an elegant, productive, and safe user experience.

### Dranetz HDPQ<sup>®</sup> Xplorer-400



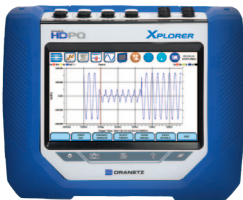
Designed for Military, Aviation, and Naval operations

Includes All Dranetz HDPQ<sup>®</sup> Xplorer Features,

**PLUS:**

- 400HZ monitoring

### Dranetz HDPQ<sup>®</sup> Xplorer



Simply the Best PQ Available; Don't Miss an Event!

Includes All Dranetz HDPQ<sup>®</sup> Guide Features,

**PLUS:**

- Capture of High Speed Transients

### Dranetz HDPQ<sup>®</sup> Guide



The Best Combination of Value and Technology

Includes All Dranetz HDPQ<sup>®</sup> Visa Features,

**PLUS:**

- AnswerModules
- 10,000 cycle storage

### Dranetz HDPQ<sup>®</sup> Visa



The Best Value in PQ & Energy Monitoring

- IEC 61000-4-30 Class A, IEEE 1159, IEEE 519
- Sag/Dip, Swell Transient
- Harmonics

## Dranetz HDPQ Features

### Safety

- Arc Flash Safety
- 1KV CAT III
- UL Listed and CE approved
- Non-conductive boot

### Communications

- Ethernet
- Wi-Fi (not available on the Dranetz HDPQ<sup>®</sup> Visa)
- Bluetooth (optional on the Dranetz HDPQ<sup>®</sup> Visa)
- Virtual Network Control (VNC)
- Apple and Android Apps

### User Interface

- 7" WVGA screen
- Tablet-like interface
- Improved display resolution

### Productivity

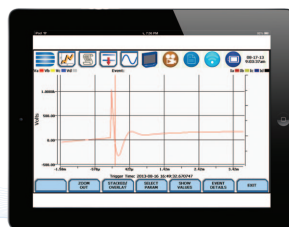
- Measure PQ and D&E simultaneously
- Advanced transient capture
- Advanced harmonic capabilities
- Mini report & screen snapshots
- Dran-View<sup>®</sup> 7 Software

### Precision

- IEEE 61000-4-30 Class A / IEEE 1159
- Improved data resolution
- Higher sampling rate
- Intelligence Features - AnswerModules<sup>®</sup>



Safe Wire Management



Safely monitor from your smart phone or tablet

MONITORING SUMMARY		METER SUMMARY	
Monitoring Station:	ON	Volts	Amps
File Name:	HDPQ1	A	230.35 101.04
Duration:	108 seconds	B	230.40 100.30
Triggered Events:	0	C	230.42 100.67
Unlaid Events:	0	D	0.00 373m
Memory Available:	3,787 of 3,883 GB		
%Memory Full:	2.5		

Tablet-like Interface

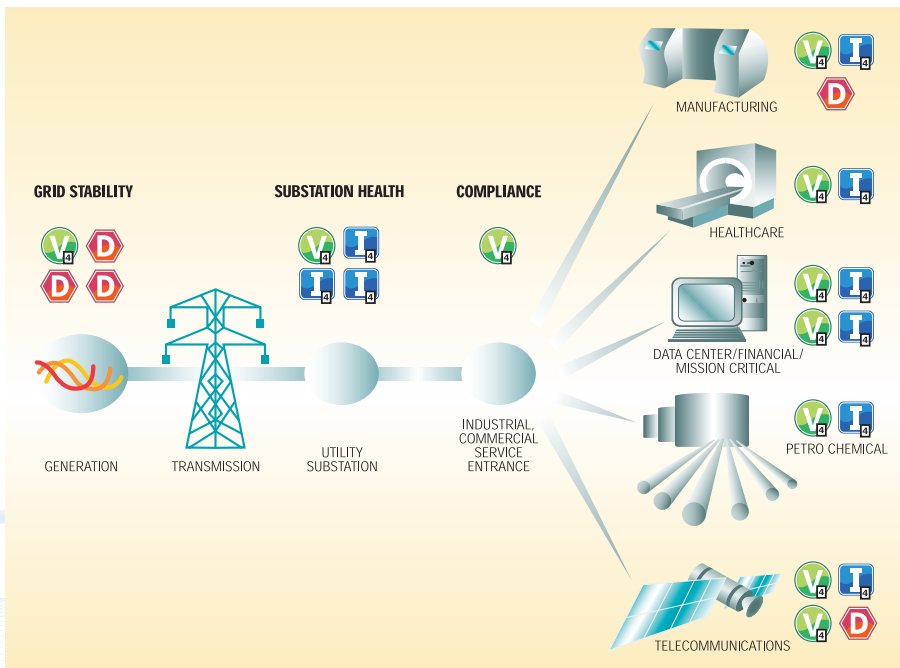
# Encore: Our Family of Permanent Power Quality and Energy Management Products



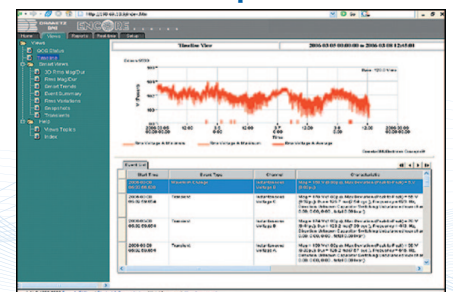
Dranetz's Encore Series is a permanent and proactive monitoring system for power quality, energy & demand, and process monitoring. The 61000 "build your own system" allows you to set up your monitoring system to match your specific needs, whether it is 4 channel voltage, 4 channel current or 8 channel digital input, or a combination of those in the 4 input module slots. You can choose from our standard, switchgear mount, or rack mount with or without the color touch LCD (61STD, 61SGD, 61SG, 61RMTD, and 61RMTS, respectively).

## Encore Features & Benefits

- Access data and setups via your web-browser communicating to Encore Series Software (ESS) running on a PC, laptop, or server.
- Meets and exceeds IEEE and IEC Power Quality monitoring standards: IEC 61000-4-30:2008 Class A, IEEE 519, 1159, 1453 and others.
- Encore Series Software works with Windows 8/7/XP/Vista providing a web browser based user interface supporting up to 100 plus instruments.
- Additional analysis and visualization using PQView enterprise software or Dran-View software for management of large systems.
- AnswerModules® interpret data, identifying sag directivity, PF correction capacitor detection/directivity, energy usage analysis/reporting, UPS performance, reliability benchmarking and more.
- 61000 instrument database has 1G flash circular memory, and communicates to ESS via 10/100M LAN or land/GSM/GPRS modem. 3G/4G is also available.



## ESS With Enterprise Software



## Time Line with Event List

## Reducing Energy Costs & Energy Management

When and where electricity is consumed is invaluable information to have when developing energy reduction strategies, which can include lighting upgrades, HVAC replacement, installation of high efficiency motors and/or adjustable speed drives and other cost saving measures. The data provided by Dranetz instruments arms the user with the information necessary to understand your facility, its loads and energy usage profile. This information, combined with your local utility's rate structure enables you to intelligently target areas of your facility in order to provide the best return on your energy reduction efforts. Not only can you reduce your overall energy usage, but utility charges such as power factor penalties and time of use demand penalties can be targeted for reduction by mitigating such problems or shifting loads to less expensive times of the day.



**Energy Platform EP1** from Dranetz is an innovative and essential tool for any electrical energy monitoring application. Whether you want to understand your utility costs, improve efficiency, install energy savings devices, explore alternative energy solutions or determine your carbon footprint, the EP-1 provides the essential monitoring tools to meet your energy monitoring needs. Simple to use, yet powerful enough for any application, the EP1 is feature rich with a ¼ VGA color touch display, AC and DC capabilities, automatic setups, easy to read reports and EPRW report writer software.

- Advanced Demand, Energy, Harmonics and Power Measurement.
- Analysis - Perfect for energy reduction/savings and alternative energy applications.
- High accuracy & High resolution – 0.1% V&I, 256 samples/cycles - continuous monitoring.
- Easy to use - Automatic setup, intuitive color touch screen.
- Easy to read colorful Demand & Energy reports.
- Carbon Footprint Calculator – Evaluate environmental impact.
- AC and DC monitoring applications.
- Triggered event detection on all parameters Sag/Swell RMS detection, +/- 10% of nominal.
- Eight Channels, 4 voltage & 4 current. Channel D Differential.
- Automatic Energy Audit reporting software - EPRW software included.
- Dran-View 7 software compatible - includes an Energy Audit report.
- Dashboard provides real-time statistics of the monitoring process.
- Harmonic analysis complies with IEC 61000-4-7.

Utilizing the **Encore Series Energy DataNode's** along with the Encore Series Software, a facility can easily view their instantaneous and historic demand/energy (as well as many other parameters), and associated costs at each point, whenever needed.

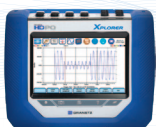
Additionally, Dranetz's Encore Series Software has built-in reporting and analysis to know at any time where, when and how much energy is used. The available Energy Usage Answer Module provides reporting based upon your utility's cost structure, giving you the power to know where to apply energy reduction initiatives and track ROI/savings over time to continually manage energy usage. This system pro actively and continually monitors, and when the programmed thresholds (limits) are exceeded, can send out alarm notifications to as many individuals as needed. These notifications can be in the form of email, pager, or the increasingly popular text message to a cell phone.



HDPQ Visa



HDPQ Guide



HDPQ Xplorer



HDPQ Xplorer-400

**Dranetz Power Quality Product Family** (Dranetz HDPQ Visa, Dranetz HDPQ Guide, Dranetz HDPQ Xplorer, and the Dranetz HDPQ Xplorer-400) also monitor demand and energy, adding an energy monitoring benefit to our industry leading power quality monitoring tools. Both PQ and energy monitoring are important to many users, whether such surveys are conducted separately or at the same time. Why buy two products when one Dranetz can meet all of your power monitoring needs? All of our three phase PQ instruments also record, trigger and trend W, VA, VAR, demand, energy and other important parameters needed for a complete energy survey. Our powerful, yet easy to use Dran-View software, not only provides advanced PQ analysis and reporting, but also includes our new energy report writer that provides advanced energy reporting, including time of use, peak demand, carbon footprint calculations and other important features.

## Appliance Testers



SecuTest SIII+



SecuTest SIII+



SecuLife ST



SecuLife ST HV

## Medical Electrical Device Testers

## Earth Testers



Geohm C

## Low Ohm Testers



MetraOhm 413

## Insulation Testers



Metriso 1000A



Metriso 5000A



Metriso 5000D



Metriso 5024

## Light Measuring



MavoLux 5032



MavoMax 60



MavoMonitor



MavoSpot

  
**GOSSEN METRAWATT**  
**USA**

Products For Safety Testing &amp; Measurement

**Machinery Testers**

MetraMachine



Profitest 204

**Installation Testers**

Profitest Master MXTRA

**Multimeters/Special Function Testers**

MetraCal MC



MetraHit 271



MetraHit 27AS



MetraHit 27M



MetraHit Energy



MetraHit ISO



MetraPort 40S

For more detailed information, please visit [www.gossenmetrawattusa.com](http://www.gossenmetrawattusa.com)

Gossen Metrawatt, is the parent company of Dranetz, and is a world leader in Test and Measurement who designs and manufactures high quality products in Germany.

Dranetz is a world leader in providing intelligent monitoring solutions for electrical demand, energy, and power quality, and our products are made in the USA.

Dranetz is an Authorized Distributor for Gossen Metrawatt products.

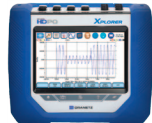
Gossen Metrawatt USA is a subsidiary of Dranetz, and is the master distributor of Gossen Metrawatt products, serving North, Central, and South America.



HDPQ Visa



HDPQ Guide



HDPQ Xplorer



HDPQ Xplorer-400

## Power Quality

Power quality problems cost businesses billions of dollars each year in lost revenue, process inefficiencies, and other inefficiencies. For more than 50 years, Dranetz has worked with companies, utilities, and government agencies to understand the cause of these disturbances, resolve problems, and provide proactive methods for preventing future problems. Dranetz Power Quality analyzers (Dranetz HDPQ Visa, Dranetz HDPQ Guide, Dranetz HDPQ Xplorer, Dranetz HDPQ Xplorer-400) are designed to monitor, record, analyze, and report on all power parameters and anomalies. Our units are available in a range of capabilities and options to fit any budget. All of the Dranetz portable power quality instruments are equipped with 8 fully differential channels designed to measure both AC and DC voltages, current, power, and many other characteristics of electricity.

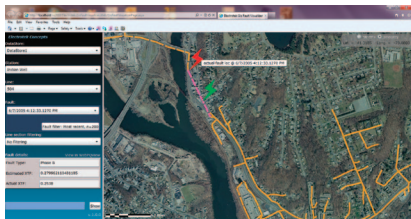


Energy Platform EP1

## Energy Management

The EnergyPlatform EP1 is the most comprehensive, easy to use portable energy analyzer in the world. The Dranetz EP1 builds upon all of the other Dranetz energy monitoring platforms, and combines them into one state-of-the-art 21st century monitor. The EP1 is ideal for measuring energy efficiency, GREEN energy initiatives, energy allocation monitoring, and basic power measurements.

**Encore Series 61000** is the first truly modular and configurable instrument to shatter the traditional 8-channel (4 voltage/4 current) instrument format. Now you can have your choice of voltage, current and data acquisition modules to build from one to four instruments in a single compact, cost-effective format. Uniquely designed with a modular chassis platform, these instruments can be completely customized to meet each specific monitoring application.



## PQView

PQView® is a multi-component software system developed by Electrotek Concepts® and EPRI®. This industry leading software is used for building and analyzing databases of power, power quality, and energy measurements, and is available for use with Dranetz Encore instrument configurations. PQView also integrates data from microprocessor relays, digital fault recorders, power quality monitors, smart meters, and SCADA historians into an open relational database.



ES230S/ES230

The Encore Series (ES210, ES220, and ES230) family of energy monitors are compact, cost effective and easy to use. They record all of the parameters to fit any electrical energy application, and have several options for communications including Ethernet and Serial interface. Combined with the Encore Series software, this enables users to monitor, record, and report on all energy management initiatives.

## Multi-function Meters

The Gossen Metrawatt Line of multi-function meters, or digital data loggers are the premier line in the industry. Combining all of the requirements that users have wanted for many years, these instruments have been designed to meet nearly all application requirements. Meeting all of the international standards for safety, the GMC line also sets the standard for operator protection with its patented Automatic Blocking Mechanism. These instruments are ideal for rugged field use, as well as for highly accurate laboratory requirements.



SecuLife ST HV



SecuTest SIII+

## Safety Testers

The Gossen Metrawatt line of Electrical Safety Testers sets the standard for all other instruments in the world. These instruments test all aspects of electrical safety for manufacturers, healthcare facilities, and service organizations against the world's toughest standards.