DRANETZ HDPQ®

XPLORER 400
XPLORER 400 SP

SPECIFICATIONS

MEASURED PARAMETERS

(4) Differential Voltage: 512 s/c, 64s/c @400Hz, 16 bit resolution

0-1000Vrms, AC/DC, ±0.1 % reading, <40V ±0.5%FS

IEC 61000-4-30 Class A: 60-1000Vrms, ±0.1 % of Udin, range of 10%-150% of Udin

Transients: 0-1414Vpk, ±0.2 % of Udin

Transients - High Speed: 1MHz, 10-2000 Vpk, +/- 10% of reading, +/- 0.5% FS

(4) Current (rms): 512 s/c, 16 bit resolution

Range probe dep., AC/DC, +/- 0.1% reading +/- 0.05% FS,

Transients - High Speed: 1MHz, Range probe dep., 10% of Reading, +/- 0.5%FS

Frequency:

42.5-69Hz +/- 0.01Hz, 380-420Hz +/- 0.1 Hz

CALCULATED PARAMETERS

Power/Energy - 1 Second sampling

Real Power (W) - P: meets 0.2S requirements, range probe dep.

Apparent Power (VA) - S: meets 0.2S requirements, range probe dep.

Reactive Power (var) - Q: meets 0.2S requirements, range probe dep.

Power Factor (W/VA) -"true" -1 to 0 to +1

Displacement PF -1 to 0 to +1

Demand (in W): meets 0.2S requirements, range probe dep.

Energy (in Wh): meets 0.2S requirements, range probe dep.

Distortion - 200ms, 3 sec, 10 min windows

Vthd: 0-100%, +/- 5% for V>=10% Vnom,

V Ind Harm: DC, 2-127, @50/60 Hz, 2-15 @400Hz, +/- 5% for V>=10% Vnom

Ithd: 0-100%, +/- 5% for I>=10% Inom,

I Ind Harm: DC, 2-63 @50/60 Hz, 2-15 @400 Hz, +/- 5% for I>=10% Inom

Misc.

Pst - 10 minutes: 0.2-10, +/- 0.05 @ Pst=1 (50/60 Hz only)

Plt - 2 hours: 0.2-10, +/- 0.05 @ Pst=1 (50/60 Hz only)

EASE OF USE FEATURES

Automatic Setups

Pre-programmed monitoring modes

AnswerModules®- Sag/Dip Directivity, PF Cap, Motor

Dashboards - PQ, Demand & Energy

Simultaneous PQ, Demand & Energy

Mini Report

STANDARDS COMPLIANCE

Power Quality

IEC 61000-4-30 Class A: Edition 2 (2008)

IEEE 1159: 2009

STANDARDS COMPLIANCE (continued)

Power

IEEE 1459: 2000

Harmonics

IEC 61000-4-7 Class 1: Edition 2 (2008)

IEEE 519: 2014

Voltage Flicker

IEC 61000-4-15: Edition 2 (2010)

IEEE 1453: 2011

Compliance/Testing

EN 50160: 2010

GENERAL SPECIFICATIONS

Dranetz HDPQ Xplorer 400

Size: (10"w x 8"h x 2.75"d) (25.4cm x 20.3cm x 7.00cm)

Weight: 4.2lbs, 2kg

Operating temperature: 0 to 50 deg C (32 to 122 deg F)

Storage temperature: -20 to 55 deg C (-4 to 131 deg F)

Humidity: 10-90% non condensing

2.5 hours run time on full charge, 3 hours charge time

AC Power: 90-264(max) 50/60Hz

Display: 7" WVGA color graphic, Icon based touch LCD, LED Backlit (Xplorer 400 only)

Dranetz HDPQ Xplorer 400 SP (IP65 Enclosure)

Size: (11"w x 6.5"h x 2.5"d), (27.9cm x 16.5cm x 6.4cm)

Weight: 3.2lbs, 1.45kg

Operating temperature: -10 to 50 deg C (14 to 122 deg F)

Storage temperature: -40 to 85 deg C (-40 to 185 deg F)

Humidity: 10-90% non condensing

30 minutes run time on full charge, 3 hours charge time

AC/DC Power: 90-600V Max CAT IV, 50/60Hz 30W Max

Clock accuracy and resolution

Internal: +/- 1 sec/day at 25deg C

NTP: +/-10 msec

GPS: +/-1 msec

Memory size: 4GB

Languages: English, German, Spanish, French, Italian, Swedish, Finnish, Polish, Chinese (traditional and simplified), Thai, Korean

COMMUNICATIONS

Ethernet, 802.11 b/g/n Wireless

USB On The Go (OTG)

Bluetooth via USB adapter

VNC remote control

Android® & Apple® App

XPLORER 400
XPLORER 400 SP

Dranetz HDPQ® Xplorer 400 SP
IP65 Enclosure - No Display, Phase Powered

Dranetz HDPQ® Xplorer 400
7" Color, Touch Display

Take Dranetz PQ Monitoring to the Air or Sea with 400Hz Capability!

MADE IN USA

POWER QUALITY ANALYZER

Applications — 50Hz, 60Hz & 400Hz Capabilities!

The Dranetz HDPQ Xplorer 400 family takes PQ, Demand and Energy monitoring to new heights by adding 400Hz monitoring capabilities to the already powerful Dranetz HDPQ Xplorer. Applications, such as aviation, naval, military and others require 400Hz capabilities that are not available in most PQ and Energy analyzers that can only measure 50/60Hz. The Dranetz HDPQ Xplorer 400 is also an all-purpose tool that can be used for any traditional 50/60Hz application. In addition to the 400Hz applications, the Dranetz HDPQ Xplorer 400 is perfect for applications such as PQ surveys, voltage and current transient studies, fault recording, inrush, motor testing, harmonic analysis, advanced distortion analysis, demand/energy/load studies, and much more.

The HDPQ Xplorer 400 and Xplorer 400 SP offer the exact same measurement features, but in different enclosures that can meet the needs of a wide variety of applications and work environments. The HDPQ Xplorer 400 is a portable instrument with a built in 7", Tablet like LCD display. The same local user interface is also available remotely on a PC, Tablet or Smartphone by using the built in Ethernet or Wi-Fi communications and Dran-View 7, or a free VNC remote control App. The HDPQ Xplorer 400 SP offers the same measurement capabilities and communications, but is housed in an IP65 enclosure without an LCD display and can be powered from the circuit being measured. The IP65 enclosure of the HDPQ Visa SP greatly expands the applications into outdoor and harsh environments, along with those where an LCD display is undesirable.

Advanced PQ & Energy Capabilities

Dranetz products have a long-standing tradition of having state of the art PQ monitoring capabilities, and the HDPQ Xplorer 400 family is no exception. HDPQ Xplorer 400 meets and exceeds current versions of the most stringent industry monitoring standards, including:

Power Quality - *IEC 61000-4-30 Class A, IEEE 1159*
Harmonics - *IEC 61000-4-7, IEEE 519*
Voltage Flicker - *IEC 61000-4-15, IEEE 1453 – Including Pinst*
Advanced Energy – *IEEE 1459*

Capture High Speed Transients!

HDPQ Xplorer 400 goes well beyond PQ standards by including transient capture capabilities for both voltage and current, such as: high speed transients to 1 microsecond, peak sample transients, and advanced waveshape change transients that can identify changes from cycle to cycle.

AnswerModules® – Smart & Good Looking!

Only available from Dranetz, AnswerModules are algorithms that automatically identify power quality problems and their source. These diagnostic and reporting tools are based on our decades of analytical experience, benchmarking and troubleshooting work. The HDPQ Xplorer 400 has three built-in AnswerModules:

Sag/Dip Directivity: *Automatically identifies the source of a Sag/Dip as being upstream or downstream from the monitoring source.*

Capacitor Switching: *Automatically identifies transients as being Power Factor correction transients.*

Motor Analysis: *Enables the PQ parameters that are important to motor surveys, and provides a custom dashboard for results.*

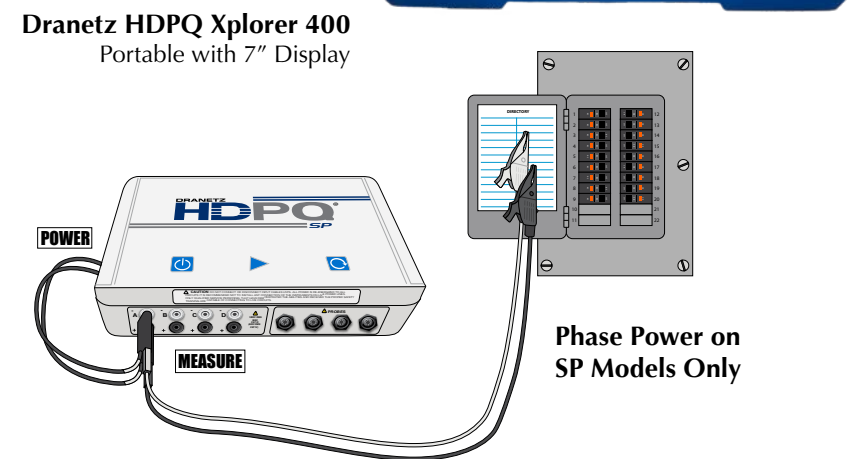---

Take Dranetz PQ Monitoring to the Air or Sea!

The **Dranetz HDPQ® Xplorer 400** *takes PQ, demand and energy monitoring to new heights by adding 400Hz monitoring capabilities to the already powerful Dranetz HDPQ Xplorer.*

The **Dranetz HDPQ® Xplorer 400 SP** *offers the same value, but in a hardened IP65 enclosure is powered from the phase!*
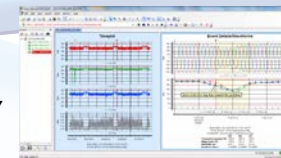
V & I Connections
- 1000V CAT III (600V CAT IV)
- AC/DC Differential Voltage & Current Inputs
- DRANFLEX CT's powered by the instrument

Dranetz HDPQ Xplorer 400 SP
IP65 Enclosure - No Display, Phase Powered

Dranetz HDPQ Xplorer 400
Portable with 7" Display

POWER

MEASURE

Phase Power on SP Models Only

Dran-View® 7

Dranetz HDPQ Live VNC & Download

Dashboard Display
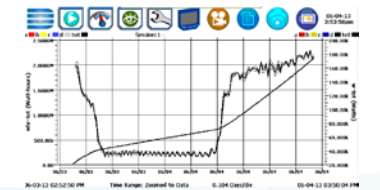
Demand & Energy Trend
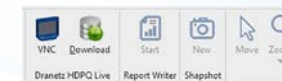
Easy to Use Intuitive User Interface

With our innovative packaging and 7" wide screen color touch display, the Dranetz HDPQ family of instruments are the most powerful and easy to use power monitoring instruments available. Like your tablet computer, simply use your finger or stylus to easily navigate the intuitive, icon-based user interface. Setting up the HDPQ Xplorer 400 is made easy with automatic setups that detect the circuit type, voltage, etc., and configure the instrument in seconds with typical industry settings. For customized setups, use the manual Wizard mode that guides you step-by-step through each setup. During monitoring, real time measurements can be viewed in many ways, including a color-coded reporting Dashboard, and meter/scope/phasor/harmonics displays. Recorded data can be viewed over time by using the timeline and event list displays, and also by using compliance reports, such as EN 50160.

Reporting & Analysis

The **Dranetz HDPQ Dashboard** takes the guess work out of knowing what the instrument has recorded. The Dashboard is a color coded alarm panel with boxes that represent different event types (Sags, Swells, Transients, THD, etc.). Each box shows the real time metered values for the event type, and is color coded to indicate if events of that type have been recorded.

Dran-View® 7 is our industry leading Windows-based software program that enables power professionals to simply and quickly visualize and analyze power monitoring data. Dran-View enhances the Dranetz HDPQ Xplorer 400 instruments with its VNC remote control, downloading, and advanced analytical capabilities. It is successfully used by thousands of customers around the world, and has become the industry leading power management software tool. Dran-View is easy to use, yet adds tremendous value and power to our Dranetz HDPQ family of instruments. Of course Dran-View can trend and list data recorded by the instrument, but it also includes a built in report writer, allows you to embed pictures, provides mathematical analysis tools, and even includes a rescue kit to help correct connection mistakes.

Demand and Energy Surveys

Managing energy and reducing related expenses is always of paramount importance, and in many cases is a corporate mandate. In addition to industry best power quality monitoring capabilities, all of the Dranetz HDPQ family of products also have extensive demand and energy monitoring capabilities for both long and short duration surveys. Unlike other lesser capable instruments, there's more than enough horsepower to perform complete PQ and energy surveys simultaneously – it's your choice to survey for PQ, Energy, or both. Seeing results is easy when using the energy and demand Dashboard reports that display real time and accumulated readings in a color-coded reporting format. There's also a billing report that includes your energy rates, including time of use. You can also upload your data to our Dran-View 7 software for viewing, reporting, and printing via PC.

Safe Remote Accessibility via Dran-View® 7, Apps and VNC

DON'T RISK YOUR SAFETY! The Dranetz HDPQ Xplorer 400 comes with a standard Ethernet port, built-in Wireless, and USB Bluetooth communications that allow you to easily comply with today's arc flash and other safety standards. Simply install your HDPQ Xplorer 400, close the cabinet door, and use your Tablet, Smartphone, PC, or MAC computer to remotely control monitoring and review data. **Fully control your instrument remotely,** and see exactly what's on the local 7" (Xplorer 400 only) display by using Dran-View 7 or a free VNC program or App for PC, MAC, Apple, and Android devices. Or you can also use the **Dranetz HDPQ App** for Apple and Android devices to remotely view a real time Dashboard, scope mode, or remotely configure the instrument using automatic setups. For local access, there's also a built-in USB port to copy data to a USB drive or directly to your computer using a Plug-N-Play connection.

GPS