**SPECIFICATIONS**

**MEASURED PARAMETERS**

4 Differential Voltage: 512 s/c, 64 s/c @400Hz, 16 bit resolution
- 100-1000Vrms AC/DC, ±0.1 % reading, ±40V ±0.5% FS
- IEC 61000-4-10 Class A: 60-1000Vmax ±0.1 % of Ulin, range of 10% - 105% of Ulin
  - Transients: 0-154Vpk, ±2 % of Ulin
  - Transients - High Speed: 1MHz, 10-200Vpk, ±10 % of reading, ±0.5% FS
- Res: 0.01, 64 s/c, 15 bit resolution
  - Range probe dep., AC/DC, ±0.5 % reading
  - Transients - High Speed: 1MHz, Range probe dep., 10 % of Reading, ±0.5% FS

**Frequency**

42.5-69kHz ±0.01Hz, 380-420kHz ±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: 0-300%, ± 5% for V=10% Vnom.
- Ithd: 0-300%, ± 5% for I=10% Inom.
- Mics:
  - Pst: 10 minutes - 0.2-10, ± 0.05 μA - Pst=1 (50/60 Hz only)
  - Plt: 2 hours - 0.2-10, ± 0.05 μA - Pst=1 (50/60 Hz only)

**EASE OF USE FEATURES**

- Automatic Setups
- AnswerModules® - Sag/Dip Directivity, PF Cap, Motor
- Dashboards - PQ, Demand & Energy
- Mini Report

**STANDARDS COMPLIANCE**

**Power Quality**

IEEE 1159: 2009

**Harmonics**

IEEE 519: 2014

**Voltage Flicker**

IEEE 1453: 2011

**Compliance/Testing**

EN 50160: 2010

**POWER QUALITY ANALYZER**

**Dranetz HDPQ Xplorer 400 SP**

**IP65 Enclosure - No Display, Phase Powered**

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

**Dranel HDPQ® Xplorer 400 SP**

7" Color, Touch Display

**STANDARDS COMPLIANCE (continued)**

**Power Quality**

IEEE 1159: 2009

**Harmonics**

IEEE 519: 2014

**Voltage Flicker**

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, 1.9kg
- 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: 90-264VAC/50/60Hz

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
- 10 minute run time on full charge, 3 hours charge time
- AC/DC Power: 90-600V AC / 500 DC Max CAT IV, 50/60Hz 30W Max

**Clock accuracy and resolution**

- Internal: ±1 sec/day at 25deg C
- NTP: ±5 sec
- GPS: ±1 sec
- Memory size: 4GB

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

**COMMUNICATIONS**

- Ethernet: 10/100 b/g/n Wired/Wireless
- USB On The Go (OTG)
- Bluetooth via USB adapter
- VNC remote control
- Android® & Apple® App

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

**Dranetz HDPQ® Xplorer 400 SP**

**7" Color, Touch Display**
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!

### 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 applications. 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, interval, motor testing, harmonic analysis, advanced distortion analysis, demand/energy/load studies, and much more.

The Dranetz 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 with an LCD display and can be powered from the circuit being measured. The IP65 enclosure of the HDPQ Xplorer 400 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 563
- **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 waveform 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:

- **See Big Directionally**: Automatically identifies the source of a Sag/Rem or having upstream or downstream from the monitoring source.
- **Capacitor Switching**: Automatically identifies transients as having Power Factor correction transients.
- **Meter Analysis**: Enables the PQ parameters that are important to water surveys, and provides a custom dashboard for results.

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

Dranetz HDPQ Live software runs on 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 upload data to our Dranetz HDPQ App for Apple and Android devices. For remote access, see 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. 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.

### 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 Wireless-based software program that enables professional 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** 7 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 images, 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 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.

### 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.

### Capacitor Switching:

Capacitor Switching identifies transients as having Power Factor correction transients.

### Meter Analysis:

Meter Analysis enables the PQ parameters that are important to water surveys, and provides a custom dashboard for results.

### AnswerModules®

AnswerModules algorithms identify power quality problems and their source.

### Power Quality

IEC 61000-4-30 Class A, IEEE 1159

### Harmonics

IEC 61000-4-7, IEEE 519

### Voltage Flicker

IEC 61000-4-15, IEEE 563

### Advanced Energy

IEEE 1459