

# POWER QUALITY MONITORING

### TRUSTWORTHY POWER MONITORING





#### **DRANETZ HDPQ° PLUS SERIES**



VISA PLUS • GUIDE PLUS • XPLORER PLUS • XPLORER 400 PLUS



Portable Geräte für umfangreiche Netzqualitäts-, Leistungs- und Energiemessungen im Anwendungsbereich von 1000 V CAT III, 600 V CAT IV



# **DRANETZ HDPQ® FAMILY**

### • 4 MODELS TO MEET EVERY BUDGET AND APPLICATION

DRANETZ HDPQ<sup>®</sup> PLUS SERIES PORTABLE, 7" DISPLAY



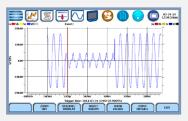
XPLORER 400 PLUS





GUIDE PLUS

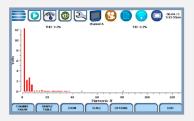
### 50 YEARS OF TRUSTWORTHY MEASUREMENT



PQ Surveys IEC 61000-4-30 Class A Ed 3



Transient Recording Peak, Waveshape Changes



Harmonics Recording IEEE 519-2014, IEC 61000-4-7

	🕲 🚬 🗾 😢 📋 😯 💷 2004.33						
	Voltage Compliance Statistics						
Power Frequency							
Supply V. Magnitude							
Flicker							
Voltage Unbalance							
Harmonic Voltage							
Interharmenic Voltage							
Mains Signaling							
	0 20 40 60 80 200 Percentage of Intervals Compliant						
Samary Freq	Fam Fam DIT						

Compliance Reporting IEEE 519-2014, EN 50160

# **APPLICATIONS** (model dependant)

- PQ Surveys
- Energy/Load Surveys & Studies
- Data Logging
- Substation Monitoring
- DER/Alternative Energy
- Capacitor Testing
- Motor Testing
- Advanced Load Distortion and Imbalance
- Fault Recording/In-Rush
- UPS, Generator Testing/Commissioning
- Transformer/Inrush Testing
- TVSS, Protection Device Testing
- Aircraft/Aviation, Naval

5



GPS

4

-DRANETZ

B

DRANETZ

### **V&ICONNECTIONS**

- 1000V CAT III (600V CAT IV)
- AC/DC Differential Voltage & Current Inputs
- DRANFLEX CT's powered by the instrument
- IEC 61000-4-30 Class A Ed. 3 Compliant



**DRANETZ HDPQ° PLUS SERIES** Portable with 7" Display + Colored Cables

### SAFE REMOTE ACCESSIBILITY VIA DRAN-VIEW® 7, APPS AND VNC

- Set it and forget it! Hands off for safety.
- Full remote access using ethernet. Wi-Fi (model dependent) and optional Bluetooth \*
- Remote control, data analysis & reporting using Dran-View<sup>®</sup> 7
- Remote control using Android and Apple VNC Apps.

\* Note: The WiFi and Bluetooth functions are not available in Europe!





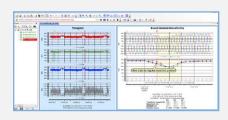
## **DRAN-VIEW 7 REMOTE CONTROL, ANALYSIS & REPORTING**

POWER QUALITY

- Windows based power quality, demand & energy analysis
- Powerful, yet easy to use
- 64 bit software for speed
- Fully compatible with the Dranetz HDPQ series and most legacy products
- Two versions are available
  - **PRO** for the everyday user (Free)
  - ENTERPRISE for the advanced user (included with Guide, Xplorer, and Xplorer 400)
- Automatic (or manual) internet updates

### **REAL TIME REMOTE CONTROL OF ALL HDPQ SERIES INSTRUMENTS**

- · Remotely control the user interface as if you were in front of the meter
- Remote real time metering
- · Remote control of all settings
- Remotely download recorded data



### **POWERFUL ANALYTICAL TOOLS**

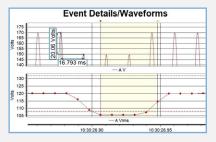
- View all recorded instrument data
- Trends, events, waveforms
- · Zooming, panning, scrolling and other tools
- Event filtering & sorting
- Rescue kit correct timestamps, scaling, connections

### REPORTING

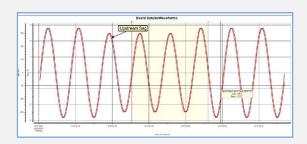
- Automatic or manual report generation
- Customizable report contents with YOUR logo
- Compliance reporting IEEE 519-2014, EN 50160 and more
- Integrated RTF editor

### **DRAN-VIEW® 7 ENTERPRISE ALSO INCLUDES**

- Snapshot/Bookmark tool
- Drag & drop charts customizable appearance
- · Insert pictures & photos into charts
- · Annotations add comments to points in charts
- · Multisite capabilities overlay data from different sites
- · Math tool create formulas for custom parameters
- · Harmonic generation tool compute harmonics from any recorded waveforms







5

# DRANETZ HDPQ FAMILY MODEL SELECTOR

	Visa Plus	<b>Guide Plus</b>	Xplorer Plus	Xplorer 400
Plus				
ENCLOSURE				
Portable with 7" Touch Screen	0	0	0	0
POWER SUPPLY				
AC Mains Power - 90-264, 50/60Hz	O	0	0	0
MEASUREMENTS & MONITORING				
Power Quality - Sag, Swell, Interruption	0	0	0	0
IEC61000-4-30 Class A Ed. 3 Compliant	0	0	0	0
W, VA, VAR, PF, Demand Energy	0	0	0	0
Peak & Waveshape Transient Capture	0	0	0	0
Harmonics - IEC61000-4-7, IEEE519-2014	0	0	0	0
Flicker - IEC61000-4-15, IEEE1453	0	0	0	0
Pre/Fault/Post Cycles	100	10,000	10,000	10,000
Pre-Programmed Monitoring Modes	7	9	9	9
AnswerModules - Motor Health, Sag, PF Cap		0	0	О
High Speed Transient Capture			0	0
400 HZ Measurements				0
COMMUNICATIONS Ethernet	0	0	0	0
Wi-Fi *		0	0	0
USB	0	0	0	0
Dran-View 7 Full Remote Control & Data Downloading	0	0	0	0
Apple & Android VNC Apps - Full Remote Control	0	0	0	0
GPS Time Synch (optional)	O	0	0	0
APPLICATIONS				
PQ Surveys	0	0	0	0
Energy/Load Surveys & Studies	0	0	0	0
Data Logging	0	0	0	0
Substation Monitoring	0	0	0	0
DER/Alternative Energy	Ο	0	0	0
Capacitor Testing	Ο	0	0	0
Motor Testing		0	0	0
Advanced Load Distortion and Imbalance		0	0	0
Fault Recording / In-Rush		О	0	0
UPS, Generator Testing/Commissioning		0	0	0
Transformer/Inrush testing		0	0	0
TVSS, Protection Device Testing			0	0
Aircraft/Aviation, Naval				0

\* Note: The WiFi and Bluetooth functions are not available in Europe!

# **TECHNICAL DATA**

#### MEASURED PARAMETERS

(4) Differential Voltage: 512 s/c, 16 bit resolution
0-1000Vrms, AC/DC, ±0.1 % reading, <40V ±0.5%FS</li>
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: 0-1414Vpk, ±0.2 % of Udin
Transients - High Speed: 1MHz (Xplorer/400), 10-2000 Vpk, +/- 10% of reading, +/- 0.5% FS
(4) Current: 512 s/c, 16 bit resolution
Paperage probe don AC/DC, ±/, 0.10/ reading, ±/, 0.05% FS

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

16-25Hz, 42.5-69Hz, +/- 0.01Hz

#### 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, +/- 5% for V>=10% Vnom Ithd: 0-100%, +/- 5% for I>=10% Inom, I Ind Harm: DC, 2-63, +/- 5% for I>=10% Inom

#### MISC.

Pst - 10 minutes: 0.2-10, +/- 0.05 @ Pst=1 Plt - 2 hours: 0.2-10, +/- 0.05 @ Pst=1

#### EASE OF USE FEATURES

Automatic Setups Pre-programmed monitoring modes Dashboards - PQ, Demand & Energy Simultaneous PQ, Demand & Energy Monitoring Mini Report

#### STANDARDS COMPLIANCE

#### **POWER QUALITY**

IEC 61000-4-30 Class A Edition 3 Compliant IEEE 1159: 2009 **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 PLUS SERIES

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 Run time on full charge: 3 hrs Visa/Guide, 2.5 hrs Xplorer/400, 3 hours charge time AC Power: 90-264(max) 50/60Hz Display: 7" WVGA color graphic, Icon based touch LCD, LED Backlit 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 Wi-Fi (not available in Visa Plus) \* USB Bluetooth via USB adapter (optional) \* VNC remote control Android® & Apple® VNC App

\* Note: The WiFi and Bluetooth functions are not available in Europe!

### **COMMON ACCESSORIES**





CLAMP CT'S



ENCLOSURES







MAGNETIC MOUNT

BOOKS

All trademarks, registered trademarks, logos, product names, and company names are the property of their respective owners.





Camille Bauer Metrawatt AG Aargauerstrasse 7 = 5610 Wohlen = Switzerland TEL +41 56 618 21 11

www.camillebauer.com = sales@camillebauer.com