DRANETZ

Permanent
Power Quality Product Catalog

HDPQ-DN

ES230s

ES230

RMS (1/2)

PQ3K

ESC

PQ5K

ESC

ENCORE
SERIES

S11

Table of Contents

HDPQ-DN-MVS (Screw Terminal Measurement Connectors)

HDPQ-DN-MVS Specifications

Voltage
Channels: (4) differential inputs, AC/DC
Sampling: 512 samples/cycle, 16bit A/D, synchronous sampling
Range: 1-600 Vac/Vdc
Full Scale Accuracy: 0-600V +/- 0.1% reading,<40V +/- 0.5% full scale
Frequency: 50Hz, 60Hz
Harmonics: Per IEC 61000-4-7, individual harmonics to the 127th
Input impedance: 10MΩ to ground
Screw terminals for voltage

Front view

Current
Channels: (4) differential inputs, AC/DC
Sampling 512 samples/cycle, 16 bit A/D
Range: CT dependent. 1.5Vrms FS, 5A or 1A
Accuracy: 0.1% reading. Does not include CT.
Harmonics: Per IEC 61000-4-7, individual harmonics to the 63rd
Screw terminals for current

Digital Input (optional)
Range: 0 – 200VDC
1KHz sampling, Edge or level triggered
Logic programmed by user (active high or active low)
Timed stamped to the millisecond
Screw terminals

Back view

Memory
4GB internal flash

Monitoring Compliance
IEC61000-4-30 Class A Edition 3 – Certified by an independent laboratory
IEC61000-4-7, IEC61000-4-15
EN50160, NVE, IEEE 1159, IEEE 1453, IEEE 519:2014

Communications
Standard: RJ45 TCP/IP Ethernet, USB
Optional: 3G/4G cellular
Protocols: XML, Modbus TCP, DNP3
Time synchronization: NTP, optional internal GPS or IRIG-B

Instrument Power
90 to 250V AC 50-60Hz
100 to 300V DC
15 minute internal UPS (user replaceable battery)

Environmental
Operating temperature: 0 to 55°C
Humidity: 5 to 95%, non-condensing, indoor use only

Safety and Compliance
UL, CE, ISO9001

MADE IN AMERICA

3

HDPQ-DN-MZP (Pod connections for use with Dranetz voltage and current pods)

HDPQ-DN-MZP Specifications

Voltage
Channels: (4) differential inputs, AC/DC
Sampling: 512 samples/cycle, 16bit A/D, synchronous sampling
Range: 1-600 Vac/Vdc
Full Scale Accuracy: 0-600V +/- 0.1% reading,<40V +/- 0.5% full scale
Frequency: 50Hz, 60Hz
Harmonics: Per IEC 61000-4-7, individual harmonics to the 127th
Input impedance: 10MΩ to ground
Pod connections for use with Dranetz voltage pods (sold separately)

Current
Channels: (4) differential inputs, AC/DC
Sampling 512 samples/cycle, 16 bit A/D
Range: Pod & CT dependent. 1.5Vrms FS, 5A or 1A
Accuracy: 0.1% reading. Does not include CT.
Harmonics: Per IEC 61000-4-7, individual harmonics to the 63rd
Pod connections for use with Dranetz current pods (sold separately)

Digital Input (optional)
Range: 0 – 200VDC
1KHz sampling, Edge or level triggered
Logic programmed by user (active high or active low)
Timed stamped to the millisecond
Screw terminals

Memory
4GB internal flash

Monitoring Compliance
IEC61000-4-30 Class A Edition 3 – Certified by an independent laboratory
IEC61000-4-7, IEC61000-4-15
EN50160, NVE, IEEE 1159, IEEE 1453, IEEE 519:2014

Communications
Standard: RJ45 TCP/IP Ethernet, USB
Optional: 3G/4G cellular
Protocols: XML, Modbus TCP, DNP3
Time synchronization: NTP, optional internal GPS or IRIG-B

Instrument Power
90 to 250V AC 50-60Hz
100 to 300V DC
15 minute internal UPS (user replaceable battery)

Environmental
Operating temperature: 0 to 55°C
Humidity: 5 to 95%, non-condensing, indoor use only

Safety and Compliance
UL, C€, ISO9001

Front view

Back view

MADE IN AMERICA

4

HDPQ-DN-MVB (Safety connectors for voltage, Dranetz TR connectors for Flex and clamp-on CT's)

HDPQ-DN-MVB Specifications

Voltage
Channels: (4) differential inputs, AC/DC
Sampling: 512 samples/cycle, 16bit A/D, synchronous sampling
Range: 1-600 Vac/Vdc
Full Scale Accuracy: 0-600V +/- 0.1% reading,<40V +/- 0.5% full scale
Frequency: 50Hz, 60Hz
Harmonics: Per IEC 61000-4-7, individual harmonics to the 127th
Input impedance: 10MΩ to ground
Safety connectors for voltage (Includes Voltage Cable Set)

Front view

Current
Channels: (4) differential inputs, AC/DC
Sampling 512 samples/cycle, 16 bit A/D
Range: CT dependent. 1.5Vrms FS, 5A or 1A
Accuracy: 0.1% reading. Does not include CT.
Harmonics: Per IEC 61000-4-7, individual harmonics to the 63rd
Dranetz TR connectors for Flex and clamp-on CT's (sold separately)

Digital Input (optional)
Range: 0 – 200VDC
1KHz sampling, Edge or level triggered
Logic programmed by user (active high or active low)
Timed stamped to the millisecond
Screw terminals

Back view

Memory
4GB internal flash

Monitoring Compliance
IEC61000-4-30 Class A Edition 3 – Certified by an independent laboratory
IEC61000-4-7, IEC61000-4-15
EN50160, NVE, IEEE 1159, IEEE 1453, IEEE 519:2014

Communications
Standard: RJ45 TCP/IP Ethernet, USB
Optional: 3G/4G cellular
Protocols: XML, Modbus TCP, DNP3
Time synchronization: NTP, optional internal GPS or IRIG-B

Instrument Power
90 to 250V AC 50-60Hz
100 to 300V DC
15 minute internal UPS (user replaceable battery)

Environmental
Operating temperature: 0 to 55°C
Humidity: 5 to 95%, non-condensing, indoor use only

Safety and Compliance
UL, C€, ISO9001

5

HDPQ-DN-MVSTR (Screw terminals for voltage, Dranetz TR connectors for Flex and clamp-on CT's)

HDPQ-DN-MVSTR Specifications

Voltage
Channels: (4) differential inputs, AC/DC
Sampling: 512 samples/cycle, 16bit A/D, synchronous sampling
Range: 1-600 Vac/Vdc
Full Scale Accuracy: 0-600V +/- 0.1% reading,<40V +/- 0.5% full scale
Frequency: 50Hz, 60Hz
Harmonics: Per IEC 61000-4-7, individual harmonics to the 127th
Input impedance: 10MΩ to ground
Screw terminals for voltage

Front view

Current
Channels: (4) differential inputs, AC/DC
Sampling 512 samples/cycle, 16 bit A/D
Range: CT dependent. 1.5Vrms FS, 5A or 1A
Accuracy: 0.1% reading. Does not include CT.
Harmonics: Per IEC 61000-4-7, individual harmonics to the 63rd
Dranetz TR connectors for Flex and clamp-on CT's (sold separately)

Digital Input (optional)
Range: 0 – 200VDC
1KHz sampling, Edge or level triggered
Logic programmed by user (active high or active low)
Timed stamped to the millisecond
Screw terminals

Back view

Memory
4GB internal flash

Monitoring Compliance
IEC61000-4-30 Class A Edition 3 – Certified by an independent laboratory
IEC61000-4-7, IEC61000-4-15
EN50160, NVE, IEEE 1159, IEEE 1453, IEEE 519:2014

Communications
Standard: RJ45 TCP/IP Ethernet, USB
Optional: 3G/4G cellular
Protocols: XML, Modbus TCP, DNP3
Time synchronization: NTP, optional internal GPS or IRIG-B

Instrument Power
90 to 250V AC 50-60Hz
100 to 300V DC
15 minute internal UPS (user replaceable battery)

Environmental
Operating temperature: 0 to 55°C
Humidity: 5 to 95%, non-condensing, indoor use only

Safety and Compliance
UL, C€, ISO9001

HDPQ-DN Mounting Options

HDPQ-DN-RMTS
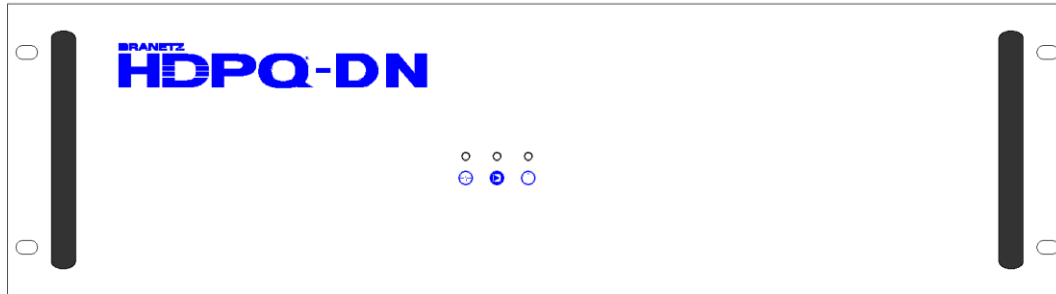
HDPQ-DN 19" Rack mount

61BRKTS

61STD Wall mounting Brackets (pair)

HDPQ-DN Enclosure Options

HDPQ-DN-QENCL (Enclosure Only)
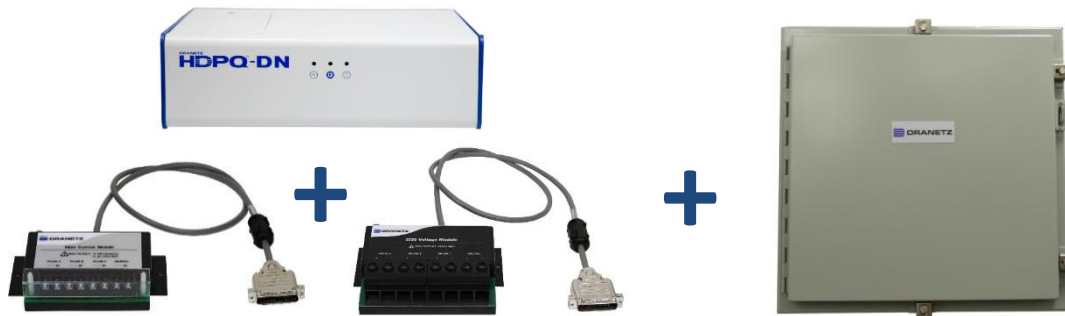
Metal weather resistant enclosure.
Fits one HDPQ-DN mainframe and up to 2 Voltage or Current Pods.
Dimensions:
20"L x 20"W x 8"D
(50.8cm x 50.8cm x 20cm)

HDPQ-DN-WENCL (Enclosure Only)

Weather resistant enclosure.
Dimensions:
16.75"L x 12"W x 8"D
(42.5cm x 30.5cm x 20cm)

AMPOLEMNT14 (Pole Mount Only)

61WENCL Pole mount kit.

HDPQ-DN Voltage Pods

5536 Voltage Pod

5539 Voltage Pod

5536VPOD

- 4 differential Inputs
- Accepts four 5 - 600 Vrms (AC/DC), 1000 Vpk
- Phase A, B, C voltage, plus neutral to ground
- Neutral to ground voltage range: 0.5 - 20 Vrms (AC/DC)
- Accuracy ±0.1% of reading ±0.05% full scale

5539VPOD

- 4 differential Inputs
- Accepts four 5 - 1000 Vrms (AC/DC), 1414 Vpk
- Phase A, B, C voltage, plus neutral to ground
- Neutral to ground voltage range: 0.5 - 20 Vrms (AC/DC)
- Accuracy ±0.1% of reading ±0.05% full scale

HDPQ-DN Current Pods

5533 Current Pod

5534 Current Pod

5533APOD

- 4 differential Inputs
- Accepts four 0.01-5 Arms, 100 Apk
- Allows pass thru wire up to #10 AWG
- The current tube diameter is 0.215" (5.461mm)
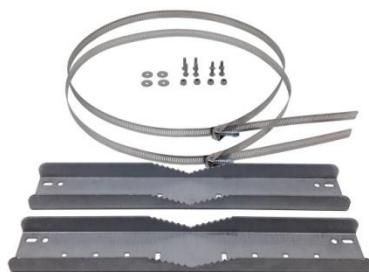- Accuracy ±0.1% of reading ±0.05% full scale
- 20X over current, High fault current application

5534APOD

- 4 differential Inputs
- Accepts four 0.01-1 Arms, 5A pk
- Allows connection up to #12 AWG wire
- Accuracy ±0.1% of reading ±0.05% full scale

5537 Current Pod

5538 Current Pod

5537APOD

- 4 differential Inputs
- Accepts four 0.01-5 Arms, 25A pk
- Allows connection up to #12 AWG wire
- Accuracy ±0.1% of reading ±0.05% full scale

5538APOD

- Same as 5537APOD with one 'TR' connector for Ch. D
- 4 differential Inputs
- Accepts four 0.01-5 Arms, 25A pk
- Allows connection up to #12 AWG wire
- Accuracy ±0.1% of reading ±0.05% full scale
- Typically for DC Current measurement on a UPS

9

HDPQ-DN Pod Accessory Cables

TRTO55

TR Type Current cable adapter for
Dranetz clamp & flex CT's

BNCTO55

Current cable adapter with BNC connector

PODEXTKIT

Voltage & Current POD Extension Cable
Requires connector kit + wire (charged per foot) 50 ft max
116836-G1   Connector kit. One per cable
901084   Wire. Enter # of feet. (50 ft max)

HDPQ-DN Communication and Time Synchronization Options

GPS Antenna Cable Assembly

61GPSANT10 - GPS antenna 10' cable, only for use on mainframes with GPS receiver.
61GPSANT25 - GPS antenna 25' cable, only for use on mainframes with GPS receiver.
61GPSANT50 - GPS antenna 50' cable, only for use on mainframes with GPS receiver.
61GPSANT100 - GPS antenna 100' cable, only for use on mainframes with GPS receiver.

10BTSTD

10 Base T standard 6' cable

10BTNUL

10 Base T Null 6' cable

HDPQ-DN-WIFI
WiFi Antenna (Optional) – Use for wireless connectivity via a factory-installed WiFi card **(Not user installable)**

HDPQ-DN GPS
GPS Port (Optional) – Input for GPS antenna for time sync via a factory-installed GPS card **(Not user installable)**

HDPQ-DN IRIG-B Option
IRIG-B Input (Optional) – Use as an external time sync signal via a factory-installed IRIG-B card **(Not user installable)**

HDPQ-DN-MDIN Digital Inputs Option
Digital Input (Optional) – Use to monitor on/off-type digital signals, such as breaker or switch position indicators via a factory-installed Digital Input card **(Not user installable)**
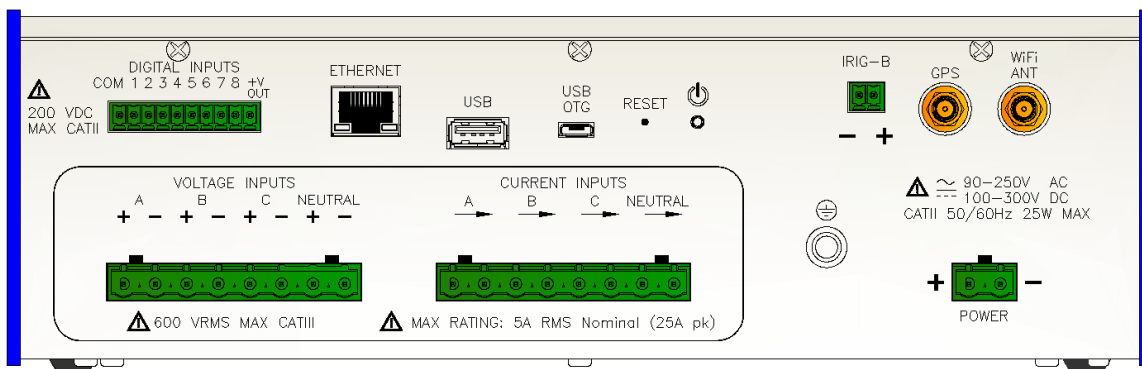
HDPQ-DN Battery and Optional Power Cords

BP-HDPQ-DN (Standard Accessory)

Battery for HDPQ-DN.

HDPQ-DN-PWR-US

HDPQ-DN US Power Cord. (Optional Accessory)

HDPQ-DN-PWR-EU

HDPQ-DN Euro Power Cord. (Optional Accessory)

HDPQ-DN-PWR-UK

HDPQ-DN UK Power Cord. (Optional Accessory)

HDPQ-DN-PWR-AU

HDPQ-DN AU Power Cord. (Optional Accessory)

PQ3K

The PQ3K is a cost effective monitoring solution that combines general purpose PQ detection (with waveform recording) and 4 quadrant energy monitoring in one instrument. Wide-ranging applications include utility, facility, manufacturing, petro chemical, mission critical and more. The PQ3K is housed in a 144mm x 144mm panel mounted enclosure with a high resolution, color TFT display.

The PQ3K is configured by selecting options to create a part number to order. The format is: PQ3K-1|2|3|4|5|6|7|8. Each number to the right of the '-' is an option position which is listed below. To create a PQ3K part number, you must select the option for all 8 positions. If the option is not required, select the 'without' code for that position.

Part Number	Description
PQ3K-	Base PQ3K. 144mm x 144mm panel mounted

01. Basic device	
1	Base with TFT

02. Input/frequency range	
1	4 current inputs, 42..50/60..69,5Hz

03. Power supply - Choose one	
1	110...230 V AC, 130...230 V DC
2	24...48 V DC
3	110...200 V AC, 110...200 VDC

04. Bus connection - Choose one	
1	Ethernet (Modbus/TCP protocol)
2	Ethernet (Modbus/TCP) + RS-485

05. Extension 1 - Choose one	
0	Without
1	2 relays (change-over contact)
2	2 analog outputs +/-20mA
3	4 analog outputs +/-20mA
4	4 digital inputs passive
5	4 digital inputs active
6	Fault current detection, 2 channels
7	GPS connection module
C	Temperature monitoring, 2 channels

06. Extension 2 - Choose one	
0	Without
1	2 relays (change-over contact)
2	2 analog outputs +/-20mA
3	4 analog outputs +/-20mA
4	4 digital inputs passive
5	4 digital inputs active
6	Fault current detection, 2 channels
7	GPS connection module
A	Profinet interface
B	IEC61850 interface
C	Temperature monitoring, 2 channels

07. Extension 3 - Choose one	
0	Without
1	2 relays (change-over contact)
2	2 analog outputs +/-20mA
3	4 analog outputs +/-20mA
4	4 digital inputs passive
5	4 digital inputs active
6	Fault current detection, 2 channels
8	Uninterruptible power supply
C	Temperature monitoring, 2 channels

08. Test certificate - Choose one	
0	Without
1	Test certificate in English

Accessories	
181131	GPS receiver 16x-LVS, programmed

PQ5K

The PQ5K is a cost effective monitoring solution that combines general purpose PQ detection (with waveform recording) and 4 quadrant energy monitoring in one instrument. Wide-ranging applications include utility, facility, manufacturing, petro chemical, mission critical and more. The PQ5K is housed in a DIN mounted enclosure with an option for a high resolution, color TFT display.

The PQ5K is configured by selecting options to create a part number to order. The format is: PQ5K-1|2|3|4|5|6|7|8. Each number to the right of the '-' is an option position which is listed below. To create a PQ5K part number, you must select the option for all 8 positions. If the option is not required, select the 'without' code for that position.

Part Number	Description
PQ5K-	Base PQ5K. DIN Mounted

01. Basic device - Choose one	
0	Base PQ5K without TFT display.
1	Base PQ5K with TFT display.

02. Input/frequency range	
1	4 current inputs, 42..50/60..69,5Hz

03. Power supply - Choose one	
1	Nominal voltage 100...230 V AC/DC
2	Nominal voltage 24...48 V DC

04. Bus connection - Choose one	
1	RS485 + Ethernet (Web, Modbus)

05. Uninterruptable power supply - Choose one	
0	Without
1	With uninterruptible power supply

06. Extension 1 - Choose one	
0	Without
1	2 relays (change-over contact)
2	2 analog outputs +/-20mA
3	4 analog outputs +/-20mA
4	4 digital inputs passive
5	4 digital inputs active
6	Fault current detection, 2 channels
7	GPS connection module
A	Profinet interface
B	IEC61850 interface
C	Temperature monitoring, 2 channels

07. Extension 2 - Choose one	
0	Without
1	2 relays (change-over contact)
2	2 analog outputs +/-20mA
3	4 analog outputs +/-20mA
4	4 digital inputs passive
5	4 digital inputs active
6	Fault current detection, 2 channels
8	Uninterruptible power supply
C	Temperature monitoring, 2 channels

08. Test certificate - Choose one	
0	Without
1	Test certificate in English

Accessories	
181131	GPS receiver 16x-LVS, programmed

Energy DataNodes

The Encore Series (ES210, ES220, ES230 and ES230S) 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. Combined with the Encore Series software, this enables users to monitor, record, and report on all energy management initiatives.

ES210 Energy DataNodes
Without Communications

ES2105A	EMS DataNode, 5A, 85-253Vac/DC, 96mm x 96mm. No communications.
ES2101A	EMS DataNode, 1A, 85-253Vac/DC, 96mm x 96mm. No communications.

With 10/100baseT Ethernet Communications, MODBUS TCP

ES2105AE	EMS DataNode, 5A, 85-253Vac/DC, 96mm x 96mm. Ethernet communications.
ES2101AE	EMS DataNode, 1A, 85-253Vac/DC, 96mm x 96mm. Ethernet communications.

With RS232/RS485 Serial Communications, MODBUS RTU

ES2105AS	EMS DataNode, 5A, 85-253Vac/DC, 96mm x 96mm. Serial communications.
ES2101AS	EMS DataNode, 1A, 85-253Vac/DC, 96mm x 96mm. Serial communications.

ES220 Energy DataNodes
Without Communications

ES2205A	EMS DataNode, 5A, 85-253Vac/DC, 144mm x 144mm. No communications.
ES2201A	EMS DataNode, 1A, 85-253Vac/DC, 144mm x 144mm. No communications.

With 10/100baseT Ethernet Communications, MODBUS TCP

ES2205AE	EMS DataNode, 5A, 85-253Vac/DC, 144mm x 144mm. Ethernet communications.
ES2101AE	EMS DataNode, 1A, 85-253Vac/DC, 144mm x 144mm. Ethernet communications.

With RS232/RS485 Serial Communications, MODBUS RTU

ES2205AS	EMS DataNode, 5A, 85-253Vac/DC, 144mm x 144mm. Serial communications.
ES2201AS	EMS DataNode, 1A, 85-253Vac/DC, 144mm x 144mm. Serial communications.

ES230 Energy DataNodes
Without Communications

ES2305A	EMS DataNode, harmonics, 5A, 85-253Vac/DC, 144mm x 144mm. No communications.
ES2301A	EMS DataNode, harmonics, 1A, 85-253Vac/DC, 144mm x 144mm. No communications.
ES230S5A	EMS DataNode, harmonics, 5A, 85-253Vac/DC, 96mm x 96mm. No communications.
ES230S1A	EMS DataNode, harmonics, 1A, 85-253Vac/DC, 96mm x 96mm. No communications.

With 10/100baseT Ethernet Communications, MODBUS TCP

ES2305AE	EMS DataNode, harmonics, 5A, 85-253Vac/DC, 144mm x 144mm. Ethernet communications.
ES2301AE	EMS DataNode, harmonics, 1A, 85-253Vac/DC, 144mm x 144mm. Ethernet communications.
ES230S5AE	EMS DataNode, harmonics, 5A, 85-253Vac/DC, 96mm x 96mm. Ethernet communications.
ES230S1AE	EMS DataNode, harmonics, 1A, 85-253Vac/DC, 96mm x 96mm. Ethernet communications.

With RS232/RS485 Serial Communications, MODBUS RTU

ES2305AS	EMS DataNode, harmonics, 5A, 85-253Vac/DC, 144mm x 144mm. Serial communications.
ES2301AS	EMS DataNode, harmonics, 1A, 85-253Vac/DC, 144mm x 144mm. Serial communications.
ES230S5AS	EMS DataNode, harmonics, 5A, 85-253Vac/DC, 96mm x 96mm. Serial communications.
ES230S1AS	EMS DataNode, harmonics, 1A, 85-253Vac/DC, 96mm x 96mm. Serial communications.
ES230RS232	RS232 Interface Cable

ES Series Misc. options

EMMOD201	RS232/RS485 Communications module, MODBUS RTU.
EMMOD203	Ethernet Communications module, MODBUS TCP.
ESDIN	DIN Rail Mount. **FOR ES210 & ES230s ONLY**
117872-G1	Enclosure for ES220 and ES230 (not for ES210 or ES230s)

ADAM 6000 Data Acquisition DataNode's

The Encore Series™ readily interfaces with and acquires data from the popular Advantech® ADAM-6000 series data acquisition and control modules. This added feature enables the Encore Series™ to record process control environment parameters such as temperature, pressure, rotation, torque, tension, speed, vibration, and pulse counts at approximately a one second sample rate.

ADAM-6000 Modules

ADAM-6015   7 Channel RTD (temperature) input Module

The ADAM-6015 7-channel RTD input module accepts a wide range of RTD sensor types, including Pt100, Pt1000, Ni50, Ni508, and Balco 500 series. Multi input ranges are allowed in one module, creating a cost-effective solution. Most important of all, the ADAM-6015 supports open wiring diagnostic function which warns operators when the sensor wire has been broken. It specifically aims at building and factory temperature monitoring applications.

ADAM-6017   8 Channel Analog Input Module

The ADAM-6017 is designed with 8 analog inputs and 2 digital outputs to satisfy all plant needs. Each analog channel is allowed to configure an individual range for variety of applications. (±150 mV ±500 mV ±1 V ±5 V ±10 V, 0~150mV, 0~500 mV, 0~1V, 0~5V, 0~10V). Sampling rate of 10 or 100 sample/second.

ADAM-6018   8-ch Isolated Thermocouple Input Modbus TCP Module with 8-ch DO

The ADAM-6018 8-channel thermocouple input module is the most prevailing temperature sensor in today's industrial automation market. In addition to 8 T/C input channels, the ADAM-6018 is also equipped with 8 digital output channels such as auxiliary alarm outputs or pure outputs. Last but not least, the ADAM-6018 comes with an external DIN-rail terminal board for wiring between the ADAM-6018 module and the field sensor. This special wiring mechanism greatly enhances the accuracy and reliability for thermocouple measurement in environmental and facility monitoring applications.

ADAM-6022   Ethernet-based Dual-loop PID Controller

The ADAM-6022 is an Ethernet-enabled dual-loop PID controller for general purposed PID control applications. A user-friendly utility software is included for users to set PID parameters (Pv, Mv, & Sv). Through the integrated web page, users can monitor and change the control set point through the Internet via web browser. The ADAM-6022 also supports MODBUS/TCP protocol. HMI software can easily access this module to monitor the I/O data and change the control parameters.

* Requires the purchase of the optional SW MODBUS Answer Module for use with ESS.

61STD-PQ
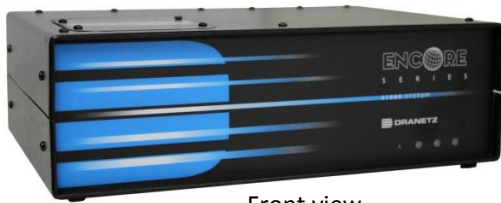
Front view

Back view

61STD-PQ DataNode® Specifications

Voltage
Channels: (4) differential inputs, AC/DC
Sampling: 512 samples/cycle, 16bit A/D, synchronous sampling
Range: 1-600 Vrms, +/- 1000VPK, Frequency: 16/20Hz, 50Hz, 60Hz
Full Scale Accuracy: 0-600V 0.1% reading +/- 0.05% full scale, 7KHz bandwidth for low/medium
Input impedance: 10MΩ to ground
Screw terminals 61MVS

Current
Channels: (4) differential inputs, AC/DC
Sampling 512 samples/cycle, 16 bit A/D.
Range: Full scale current = 1.5Vrms, crest factor of 3
Accuracy: 0.1% reading +/- 0.05% full scale, 3KHz bandwidth for low/ medium freq. transients. Does not include CT.
Screw terminals 61MAS5

Memory
1GB internal flash

Monitoring Compliance
IEC61000-4-30:2008 Class A, IEC61000-4-7, IEC61000-4-15
EN50160, NVE, IEEE1159, IEEE1453, IEEE519, IEEE1459

Communications
Standard: RJ45 TCP/IP Ethernet, RS232/RS485
Protocols: XML, Modbus TCP/RTU, HTTP, (IEC 61850 optional)
Time synchronization: NTP, optional GPS

Instrument Power
Standard: 90 to 264VAC 47-63Hz
15 minute internal UPS (specified with display & 4 modules)
Battery is replaceable in the field
Din Rail power supply (61DINPWR12VDC) optional

Environmental
Operating temperature: -10 to 60°C
Humidity: 10 to 95%, non-condensing, indoor use only

Safety and Compliance
ISO9001, CE, cULus LISTED

Power Supply Options Please choose ONE
_____ **61PSAC-US** 100-250VAC Power supply, US AC Power Cord   _____ **61PSAC-EURO** 100-250VAC Power supply, EURO AC Power Cord
_____ **61PSAC-UK** 100-250VAC Power supply, UK AC Power Cord   _____ **61PSAC-AUST** 100-250VAC Power supply, AUST AC Power Cord
_____ **61DINPWR12VDC** 85-264VAC or 90-375VDC input Din Rail power supply, 12 VDC output (see page 23)

MADE IN AMERICA

61SG-PQ

Front view

Back view

61SG-PQ DataNode® Specifications

Voltage
Channels: (4) differential inputs, AC/DC
Sampling: 512 samples/cycle, 16bit A/D, synchronous sampling
Range: 1-600 Vrms, +/- 1000VPK, Frequency: 16/20Hz, 50Hz, 60Hz
Full Scale Accuracy: 0-600V 0.1% reading +/- 0.05% full scale, 7KHz bandwidth for low/medium
Input impedance: 10MΩ to ground
Screw terminals 61MVS

Current
Channels: (4) differential inputs, AC/DC
Sampling 512 samples/cycle, 16 bit A/D.
Range: Full scale current = 1.5Vrms, crest factor of 3
Accuracy: 0.1% reading +/- 0.05% full scale, 3KHz bandwidth for low/ medium freq. transients. Does not include CT.
Screw terminals 61MAS5

Memory
1GB internal flash

Monitoring Compliance
IEC61000-4-30:2008 Class A, IEC61000-4-7, IEC61000-4-15
EN50160, NVE, IEEE1159, IEEE1453, IEEE519, IEEE1459

Communications
Standard: RJ45 TCP/IP Ethernet, RS232/RS485
Protocols: XML, Modbus TCP/RTU, HTTP, (IEC 61850 optional)
Time synchronization: NTP, optional GPS

Instrument Power
Standard: 90 to 250VAC 50/60Hz, 105 to 125VDC
Screw terminals
15 minute internal UPS (specified with display & 4 modules)
Battery is replaceable in the field

Environmental
Operating temperature: -10 to 60°C
Humidity: 10 to 95%, non-condensing, indoor use only

Safety and Compliance
ISO9001, CE, cULus LISTED

MADE IN AMERICA

18

DRANETZ™
THE STANDARD FOR ENERGY & POWER MEASUREMENT

61SGD-PQ

Front view

Back view

61SG-PQ DataNode® Specifications

Voltage
Channels: (4) differential inputs, AC/DC
Sampling: 512 samples/cycle, 16bit A/D, synchronous sampling
Range: 1-600 Vrms, +/- 1000VPK, Frequency: 16/20Hz, 50Hz, 60Hz
Full Scale Accuracy: 0-600V 0.1% reading +/- 0.05% full scale, 7KHz bandwidth for low/medium
Input impedance: 10MΩ to ground
Screw terminals 61MVS

Current
Channels: (4) differential inputs, AC/DC
Sampling 512 samples/cycle, 16 bit A/D.
Range: Full scale current = 1.5Vrms, crest factor of 3
Accuracy: 0.1% reading +/- 0.05% full scale, 3KHz bandwidth for low/ medium freq. transients. Does not include CT.
Screw terminals 61MAS5

Memory
1GB internal flash

Monitoring Compliance
IEC61000-4-30:2008 Class A, IEC61000-4-7, IEC61000-4-15
EN50160, NVE, IEEE1159, IEEE1453, IEEE519, IEEE1459

Communications
Standard: RJ45 TCP/IP Ethernet, RS232/RS485
Protocols: XML, Modbus TCP/RTU, HTTP, (IEC 61850 optional)
Time synchronization: NTP, optional GPS

Instrument Power
Standard: 90 to 250VAC 50/60Hz, 105 to 125VDC
Screw terminals
15 minute internal UPS (specified with display & 4 modules)
Battery is replaceable in the field

Environmental
Operating temperature: -10 to 60˚C
Humidity: 10 to 95%, non-condensing, indoor use only

Safety and Compliance
ISO9001, CE, cULus LISTED

MADE IN AMERICA

19

Build your Own Instrument

① 61000 Mainframe Options – Choose you Mainframe type.

61STD Mainframe

61STD
Standard instrument: 4" x 11" x 8"   (10.2cm x 28cm x 20.3cm)
Communications
Standard:
Ethernet, RS232/RS485, (MODBUS TCP, RTU), HTTP
Optional:
GPRS, GSM, Modem
3G/4G wireless
IEC61850 optional
Memory:
1GB internal Flash memory (Not removable)
Display:
¼ VGA touch display (optional)
Power Supply
On/Off Switch
Standard enclosure, 12VDC input
External AC adapter
61DINPWR12VDC Din Rail power supply (optional)(see page 23)
Built in UPS with user accessible battery
Internal GPS receiver (optional), rear panel connector
Time synchronization via NTP or optional internal GPS

Power Supply Options Please choose **ONE**

____ **61PSAC-US** 100-250VAC Power supply, US AC Power Cord
____ **61PSAC-EURO** 100-250VAC Power supply, EURO AC Power Cord
____ **61PSAC-UK** 100-250VAC Power supply, UK AC Power Cord
____ **61PSAC-AUST** 100-250VAC Power supply, AUST AC Power Cord

61SG Mainframe

61SG
Switchgear mount without display: 6.5" x 7" x 8" (16.5cm x 17cm x 20.3 cm)
Communications
Standard:
Ethernet, RS232/RS485, (MODBUS TCP, RTU), HTTP
Optional:
GPRS, GSM, Modem
3G/4G wireless
IEC61850 optional
Memory:
1GB internal Flash memory (Not removable**)**
Power Supply
On/Off Switch
Switchgear mount
Standard: 90 to 250VAC 50/60Hz, 105 to 125VDC, Optional: 90 to 250V AC/DC, 50/60Hz
Built in UPS with user accessible battery
Internal GPS receiver (optional), rear panel connector
Time synchronization via NTP or optional internal GPS

61SGD Mainframe

61SGD
Switchgear mount with display: 6.5" x 7" x 8" (16.5cm x 17cm x 20.3 cm)
Communications
Standard:
Ethernet, RS232/RS485, (MODBUS TCP, RTU), HTTP
Optional:
GPRS, GSM, Modem
3G/4G wireless
IEC61850 optional
Memory:
1GB internal Flash memory (Not removable)
Display:
¼ VGA touch display
Power Supply
On/Off Switch
Switchgear mount
Standard: 90 to 250VAC 50/60Hz, 105 to 125VDC, Optional: 90 to 250V AC/DC, 50/60Hz
Built in UPS with user accessible battery
Internal GPS receiver (optional), rear panel connector
Time synchronization via NTP or optional internal GPS

20

Build your Own Instrument

② 61000 Host Comm. Module Options – Choose one Host Comm. Module.

61HC Host Module*

61HC Host Communication Module
-RS232 / RS485 port
-RJ45 TCP/IP Ethernet

*One required per mainframe

61HCG Host Module*

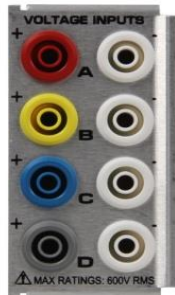**61HCG Host Communication Module with GPS time Synchronization**
-RS232 / RS485 port
-RJ45 TCP/IP Ethernet
-GPS Antenna input

*One required per mainframe

③ 61000 Voltage Input Modules – Choose up to 4 Modules, one Voltage Module is required.

61MVB Voltage Input Module*

Voltage Module - Safety Connectors
- 4 differential inputs
- Accepts four 5-600 Vrms (AC or DC), ±1000 Vpk
- Channels A, B, C voltage, plus neutral to ground
- Neutral to ground voltage range: 0.5 - 20 Vrms (AC or DC)
- Accuracy ±0.1% of reading ±0.05% full scale

61MVS Voltage Input Module*

Voltage Module - Terminal Block
- 4 differential inputs
- Accepts four 5-600 Vrms (AC or DC), ±1000 Vpk
- Channels A, B, C voltage, plus neutral to ground
- Neutral to ground voltage range: 0.5 - 20 Vrms (AC or DC)
- Accuracy ±0.1% of reading ±0.05% full scale

*Note: Anti Aliasing filters are available at an additional charge. Contact factory for details.   At least 1 Voltage module must be chosen.

61000 Voltage Input Modules

61MVLS Low Voltage Input Module*

Voltage Module - Terminal Block
- 4 differential inputs
- Accepts four 0-150 Vrms (AC or DC)
- Channels A, B, C voltage, plus neutral to ground
- Neutral to ground voltage range: 0.5 - 20 Vrms (AC or DC)
- Accuracy ±0.1% of reading ±0.05% full scale

*Note: Anti Aliasing filters are available at an additional charge. Contact factory for details.   At least 1 Voltage module must be chosen.

④ 61000 Current Input Modules – Choose your Current Module.

61MAC Current Input Module*

Current Probe Module - TR Series Probes
- 4 differential inputs
- Allows connection of TR Series and Flex probes
- Hypertronics connector inputs, same as used in PX5 portable family
- 1.5 VRMS Full Scale Input (AC or DC)
- Accuracy ±0.1% of reading ±0.05% full scale + CTs

61MAS1 Current Input Module*
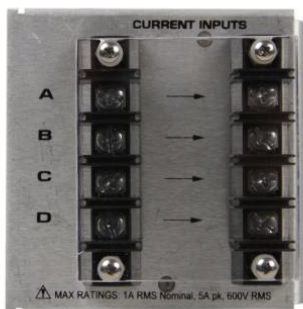
Current Module - Internal CT's
- 4 differential inputs
- Accepts four 0.01-1 Arms, 5 Apk
- Allows connection to #12 AWG wires
- Accuracy ±0.1% of reading ±0.05% full scale

*Note: Anti Aliasing filters are available at an additional charge. Contact factory for details.

22

61000 Current Input Modules
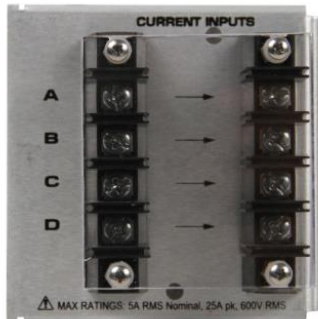
61MAS5 Current Input Module*

Current Module - Internal CT's
- 4 differential inputs
- Accepts four 0.01-5 Arms, 25 Apk
- Allows connection to #12 AWG wires
- Accuracy ±0.1% of reading ±0.05% full scale

*Note: Anti Aliasing filters are available at an additional charge. Contact factory for details.

⑤ 61000 Input Module Options – Choose other optional Modules, Only 4 in total per Unit.

61MZP Voltage / Current Input Module

Voltage / Current Module
-Allows connection of Voltage / Current pods (pg. 26)
-Allows connection of TR Probes with TRTO55 adapter cable (pg. 27)
-Allows connection of Flex Probes with BNC connectors with BNCTO55 adapter cable (pg.27)

61MDIN Digital Input Module
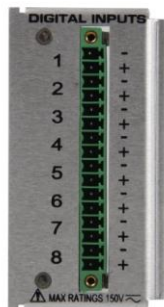
Digital Input Module
- 8 channels differential inputs
- Rating: 150V AC or DC
- Change of state logic level detection from "high to low" or "low to high"

⑥ 61000 Mounting Options – Choose your mounting option.

61RMTS
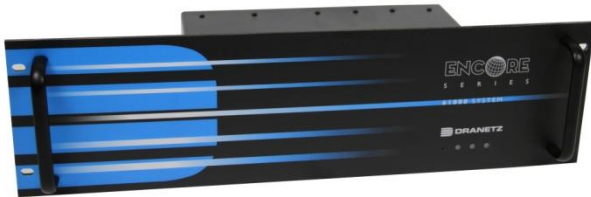
61STD 19" Rack mount without display

61RMTD

61STD 19" Rack mount with ¼ VGA touch display

61SGRMT

Front view

Back view

61SG/61SGD 19" Rack mount

61BRKTS

61STD Wall mounting Brackets (pair)

24

⑦ 61000 Enclosures Options – Choose your Enclosure option.

61QENCL (Enclosure Only)

Metal weather resistant enclosure.
Fits one 61STD mainframe and up to 4 Voltage or Current Pods.
Dimensions:
20"L x 20"W x 8"D
(50.8cm x 50.8cm x 20cm)
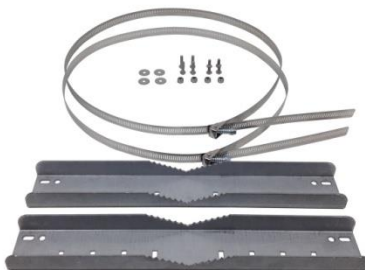
61WENCL (Enclosure Only)

Weather resistant enclosure.
Dimensions:
16.75"L x 12"W x 8"D
(42.5cm x 30.5cm x 20cm)

AMPOLEMNT14 (Pole Mount Only)

61WENCL Pole mount kit.

HDPQ-DN and 61000 Voltage Pods – For use with 61MZP Modules.

5536 Voltage Pod

5539 Voltage Pod

5536VPOD
- 4 differential Inputs
- Accepts four 5 - 600 Vrms (AC/DC), 1000 Vpk
- Phase A, B, C voltage, plus neutral to ground
- Neutral to ground voltage range: 0.5 - 20 Vrms (AC/DC)
- Accuracy ±0.1% of reading ±0.05% full scale

5539VPOD
- 4 differential Inputs
- Accepts four 5 - 1000 Vrms (AC/DC), 1414 Vpk
- Phase A, B, C voltage, plus neutral to ground
- Neutral to ground voltage range: 0.5 - 20 Vrms (AC/DC)
- Accuracy ±0.1% of reading ±0.05% full scale

HDPQ-DN and 61000 Current Pods

5533 Current Pod

5534 Current Pod

5533APOD
- 4 differential Inputs
- Accepts four 0.01-5 Arms, 100 Apk
- Allows pass thru wire up to #10 AWG
- The current tube diameter is 0.215" (5.461mm)
- Accuracy ±0.1% of reading ±0.05% full scale
- 20X over current, High fault current application

5534APOD
- 4 differential Inputs
- Accepts four 0.01-1 Arms, 5A pk
- Allows connection up to #12 AWG wire
- Accuracy ±0.1% of reading ±0.05% full scale

5537 Current Pod

5538 Current Pod

5537APOD
- 4 differential Inputs
- Accepts four 0.01-5 Arms, 25A pk
- Allows connection up to #12 AWG wire
- Accuracy ±0.1% of reading ±0.05% full scale

5538APOD
- Same as 5537APOD with one 'TR' connector for Ch. D
- 4 differential Inputs
- Accepts four 0.01-5 Arms, 25A pk
- Allows connection up to #12 AWG wire
- Accuracy ±0.1% of reading ±0.05% full scale
- Typically for DC Current measurement on a UPS

MADE IN AMERICA

26

61000 Accessories

61STD mainframe shown using a DC3VFLEX cable to power 4 flex CT's

61SG or 61SGD mainframe shown using a DC3VFLEX cable to power 4 flex CT's

DC3VFLEX

Power supply cable to power up to 4 flex CT's from the 61000

FLEXPWRHUB

Hub to allow the 61000 to power up to 12 flex CT's. Must use with DC3VFLEX (117067-G1) cable

TRTO55

TR Type Current cable adapter for Dranetz clamp & flex CT's

BNCTO55

Current cable adapter with BNC connector

PODEXTKIT

Voltage & Current POD Extension Cable
Requires connector kit + wire (charged per foot) 50 ft max
116836-G1   Connector kit. One per cable
901084   Wire. Enter # of feet. (50 ft max)

116439-G1

Cable to use 8010 Current Modules with Encore Series

![Dranetz - THE STANDARD FOR ENERGY & POWER MEASUREMENT]

61000 Communication and Time Synchronization Options

GPS Antenna Cable Assembly

61GPSANT10 - GPS antenna 10' cable, only for use on mainframes with GPS receiver.
61GPSANT25 - GPS antenna 25' cable, only for use on mainframes with GPS receiver.
61GPSANT50 - GPS antenna 50' cable, only for use on mainframes with GPS receiver.
61GPSANT100 - GPS antenna 100' cable, only for use on mainframes with GPS receiver.

10BTSTD

10 Base T standard 6' cable

10BTNUL

10 Base T Null 6' cable

61MDM

External 56K modem

MADE IN AMERICA

DRANETZ™
THE STANDARD FOR ENERGY & POWER MEASUREMENT

61000 Measurement Accessories

Single Phase Measurement Cables

114015-G1
US

114015-G2
EURO

114015-G3
UK

114015-G4
AUSTRALIA

Voltage cable with 4mm connectors to measure one Single phase circuit.
Compatible with portable and permanent systems with 4mm Voltage connectors.

Cable Pouch
116042-G1

Voltage cable set with 4mm connectors. *Compatible with portable and permanent systems with 4mm voltage connectors.*
*FOR USE WITH 61MVB
Includes:
• 8 - Six ft. (183cm) measurement cables:
1 Red, 1 Yellow, 1 Blue, 1 Gray, 4 White
• 4 - Red alligator clips
• 4 - Black alligator clips

114013-G1

• *1 - Black 25 cm stackable jumpers*

Red Alligator Clip
900371
600V CATIII

Black Alligator Clip
900372
600V CATIII

FVA-1K1 Single Fuse Voltage Adapter

Inline fuse adapter for one voltage channel, 4mm connector, 1000V MAX.
Compatible with portable and permanent systems with 4mm voltage connectors.

FVA-1K4

Set of 4 Inline fuse adapters, 4mm connector, 1000V MAX.
Compatible with portable and permanent systems with 4mm voltage connectors.

MADE IN AMERICA

61000 Batteries & Power Adapters

BP-61000

Battery for Encore 61000 Encore products.

61PSDC-SB

Encore 61STD Mainframe Power supply for substations.
120-300 VDC Max, 60W.

61000 AC Adapter 117029-G3

Instrument Power Supply for Encore 61STD and 61STD-PQ.

Power Supply Options for 61STD only

61PSAC-US 100-250VAC Power supply, US AC Power Cord
61PSAC-EURO 100-250VAC Power supply, EURO AC Power Cord
61PSAC-UK 100-250VAC Power supply, UK AC Power Cord
61PSAC-AUST 100-250VAC Power supply, AUST AC Power Cord

61DINPWR12VDC Din Rail power supply

This power supply is supplied with a low voltage cable that plugs into the back of the 61STD instrument. This power supply provides a 12 VDC output that powers the instrument and is capable of being secured to a DIN rail TS35/7.5 or TS35/15.
85-264VAC or 90-375VDC input, 12 VDC output

PPA-PP1R/115 Phase Power Adapter
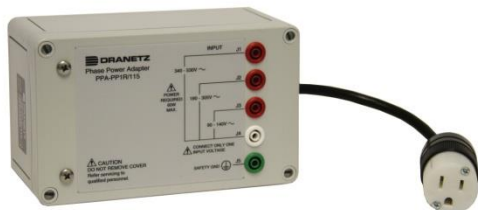
Power the instrument from the phase being measured. For circuits from 90V to 500Vrms.
Dimensions:
4.3"L x 7.1"W x 3.6"D
(10.9cm x 18cm x 9.1cm)
Compatible with portable and permanent systems.

PPA-PP1R/230 Phase Power Adapter

Power the instrument from the phase being measured. For circuits from 90V to 500Vrms.
Dimensions:
4.3"L x 7.1"W x 3.6"D
(10.9cm x 18cm x 9.1cm)
Compatible with portable and permanent systems.

Current Probes

Clamp-on - AC only

TR-2500B 10A-500ARMS CT

TR-2501B 100 mA to 1.2ARMS-CT

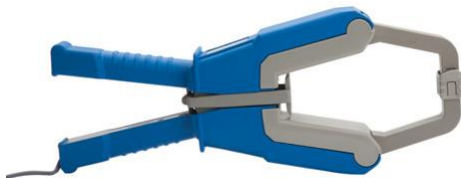**TR-2530B 20A-300ARMS CT**

TR-2510B 1A-10ARMS CT

TR-2520B 100A-3000ARMS CT

TR-2550B 1A-100ARMS CT

TR-2540B 10A-1000ARMS CT

Model	Range		Amplitude Accuracy ±	Phase Accuracy ±	Frequency Range	Maximum Conductor Size	Rated Voltage	Connector/ Output
Clamp CT's								
TR-2500B	10A to 500Arms	100A to 500A	1%	1.5°	40Hz to 5KHz	50mm dia.	600V Max.	Dranetz 1.5V
		10A to 100A	2%	3°				
TR-2501B	100mA to 1.2Arms	1.2A	1.5%	2°	40Hz to 5KHz	15mm dia.	600V Max.	Dranetz 1.5V
		100mA	2%	3°				
TR-2510B	1A to 10Arms	5A to 10A	1.2%	1.5°	40Hz to 5KHz	15mm dia.	600V Max.	Dranetz 1.5V
		1A to 5A	1.2%	1°				
TR-2520B	100A to 3000Arms	1000A to 3000A	0.5%	0.5°	40Hz to 5KHz	72mm dia.*	600V Max.	Dranetz 1.5V
		300A to 1000A	0.75%	0.75°				
		100A to 300A	1.5%	1.5°				
TR-2530B	20A to 300Arms	50A to 300A	1%	0.5°	30Hz to 5KHz	54mm dia.	600V Max.	Dranetz 1.5V
		20A to 50A	1.5%	0.6°				
TR-2540B	10A to 1000A	100A to 1000A	1%	0.4°	30Hz to 5KHz	54mm dia.	600V Max.	Dranetz 1.5V
		10A to 100A	1.5%	0.5°				
TR-2550B	1A to 100Arms	10A to 100A	1%	2.5°	40Hz to 10KHz	15mm dia.	600V Max.	Dranetz 1.5V
		1A to 10A	2%	5°				

Note: These are guidelines only. Many other factors will influence the stated accuracy, including but not limited to, temperature, humidity, frequency, and conductor position. Model numbers and specifications subject to change without notice.
TR probes with an "A" suffix have the same specifications as above.

The current probes shown above have a 1.5V output, Dranetz Hypertronics connector, 3 meter cable and are directly compatible with the following Dranetz products:
Portable instruments
Dranetz HDPQ family, PowerXplorer, PowerGuide, PowerVisa, PowerGuia, Energy Platform, PP4300, 658 with CA4300 adapter.
Permanent instruments
61000 with 61MAC module, Signature System 55XX. Adapters are available for use with other instrument configurations;
Please contact Customer Service for details.

THE STANDARD FOR ENERGY & POWER MEASUREMENT

AC/DC Current Probes

PR150-SP1B 150A CT
PR1500-SP7B 1500A CT
(Requires one PR9VUS AC adapter for each probe. UK, Euro plugs available.)

PR150-SP2B 150A CT
PR1500-SP8B 1500A CT
(9v battery powered only)

Model	Range		Amplitude Accuracy ±	Phase Accuracy +/-	Frequency Range	Maximum Conductor Size	Rated Voltage	Connector/ Output
PR150B	15A to 150A	15A to 150A	1%	3°	DC to 5KHz	52mm dia.	600V Max.	Dranetz 1.5V
PR1500B	150 to 1500A	150A to 1500A	1%	1°	DC to 5KHz	52mm dia.	600V Max.	Dranetz 1.5V

Note: These are guidelines only. Many other factors will influence the stated accuracy, including but not limited to, temperature, humidity, frequency, and conductor position. Model numbers and specifications subject to change without notice.

The current probes shown above have a 1.5V output, Dranetz Hypertronics connector, 2 meter cable and are directly compatible with the following Dranetz products:

Portable instruments
Dranetz HDPQ family, PowerXplorer, PowerGuide, PowerVisa, PowerGuia, Energy Platform, PP4300, 658 with CA4300 adapter.

Permanent instruments
61000 with 61MAC module, Signature System 55XX. Adapters are available for use with other instrument configurations; Please contact Customer Service for details.

PR9VUA AC Adapter (for PR Probes Only)

AC power adapter for the PR150 and PR1500 AC/DC probes

Current Probe Accessories

TR PROBE EXTENSION CABLE

TREXT5B	5' Long	**TREXT20B**	20' Long
TREXT10B	10' Long	**TREXT25B**	25' Long
TREXT15B	15' Long	**TREXT30B**	30' Long

ISO-65X-5

0-5A ISO CT Term Box (needs CA4300)

CA4300BNCB

TRTOREDEL

CA4300

MADE IN AMERICA

32

191 Talmadge Road, Edison, New Jersey 08817   www.Dranetz.com   +1-732-287-3680   Sales@Dranetz.com

Flexible Probes

AC only

Single Phase

DRANFLEX3000XLB 30A/300A/3000A Probe
DRANFLEX6000XLB 60A/600A/6000A Probe
Available in 24", 36" and 48"

Three Phase

DRANFLEX3003XLB   30A/300A/3000A Probe
DRANFLEX6003XLB   60A/600A/6000A Probe
Available in 24", 36" and 48"

Model	Range		Amplitude Accuracy ±	Phase Accuracy +/-	Frequency Range	Maximum Conductor Size	Rated Voltage	Connector/ Output
DRANFLEX3000XLB DRANFLEX3003XLB 24/36/48	3A to 3000A (3 Ranges)	3A to 30A	1%rdg, ±0.1A	1°	10Hz to 10KHz	8/11/17in dia.	1000V Max	Dranetz 1.5V
		30A to 300A	1%rdg, ±0.1A	1°				
		300A to 3000A	1%rdg, ±1A	1°				
DRANFLEX 6000XLB DRANFLEX 6003XLB 24/36/48	6A to 6000A 3 ranges	6A to 60 A	1%rdg, ±0.1A	1°	10Hz to 10KHz	8/11/17in dia.	1000V Max	Dranetz 1.5V
		60A to 600A	1%rdg, ±0.1A	1°				
		600A to 6000A	1%rdg, ±1A	1°				

NOTE: These are guidelines only. Many other factors will influence the stated accuracy, including but not limited to; temperature, humidity, frequency, and conductor position. Model numbers and specifications subject to change without notice.

MicroFlex Probes

AC only-Single phase

DRANFLEX300MHB 3A/30A/300A Probe
Available in 6", 8" and 12"

Model	Range		Amplitude Accuracy ±	Phase Accuracy +/-	Frequency Range	Maximum Conductor Size	Rated Voltage	Connector/ Output
DRANFLEX300MHB6 DRANFLEX300MHB8 DRANFLEX300MHB12 6/8/12	0.3A to 300A 3 ranges	0.3A to 3A	1%rdg, ± 0.1A	1º	25Hz to 70kHz	2/2.75/4in dia.	1000V MAX	Dranetz 1.5V
		3A to 30A	1%rdg, ± 0.1A	1º				
		30A to 300A	1%rdg, ± 0.5A	1º				

Note: These are guidelines only. Many other factors will influence the stated accuracy, including but not limited to; temperature, humidity, frequency, and conductor position. Model numbers and specifications subject to change without notice.

The current probes shown above have a 1.5V output, Dranetz Hypertronics connector, 3 meter cable (2 meters from probe head to Integrator box, 1 meter to instrument) and are directly compatible with the following Dranetz products:

Portable instruments

Dranetz HDPQ family, PowerXplorer, PowerGuide, PowerVisa, PowerGuia, Energy Platform, PP4300, 658 with CA4300 adapter.

Permanent instruments

61000 with 61MAC module, Signature System 55XX. Adapters are available for use with other instrument configurations; Please contact Customer Service for details.

DranFlex Power Supplies

(Not required for use with the Dranetz HDPQ family, when Dranflex XLB (blue) probes are used.)

ISOFLEX-MHXL*

Isolated 3 volt power adapter for use with an Instrument's power supply. Does **NOT include the RR/PS/4A cable for up to 4 probes.**

ISOFLEX-MHXL4P*

Isolated 3 volt power adapter for use with an Instrument's power supply. Powers up to four probes

RR/PS/4A

Flex power cable for up to 4 probes.

ISOFLEX-MHXLU

Isolated 3 volt probe power supply. Does **NOT include the RR/PS/4A cable for up to 4 probes.**

ISOFLEX-MHXLU-US - **ISOFLEX-MHXLU** with a US 125V cord
ISOFLEX-MHXLU-EU - **ISOFLEX-MHXLU** with an European 250V cord
ISOFLEX-MHXLU-UK - **ISOFLEX-MHXLU** with a UK 250V cord
ISOFLEX-MHXLU-AU - **ISOFLEX-MHXLU** with an Australian 250V cord

ISOFLEX-MHXLU4P

Isolated 3 volt power supply with a RR/PS/4A cable for up to four probes.
Not suitable for use with LPC-4300.

ISOFLEX-MHXLU4P-US - ISOFLEX-MHXLU with a US 125V cord
ISOFLEX-MHXLU4P-EU - ISOFLEX-MHXLU with an European 250V cord
ISOFLEX-MHXLU4P-UK - ISOFLEX-MHXLU with a UK 250V cord
ISOFLEX-MHXLU4P-AU - ISOFLEX-MHXLU with an Australian 250V cord

*ISOFLEX-MHXL and ISOFLEX-MHXL4P Isolated power adapters are intended for use with an instruments power supply. Compatible with PX5, PX5-400, PowerGuide, PowerVisa, Energy Platform EP1, and 61STD instruments.

Miscellaneous Accessories

Portable Station

Portable computer for Encore Series Software InfoNode. Contact Factory for more information.

Master Station

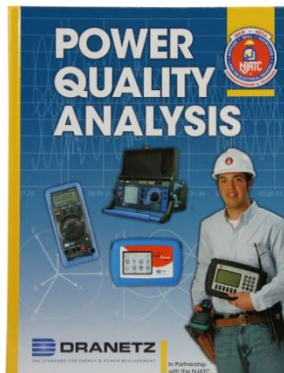Computer for Encore Series Software InfoNode. Contact Factory for more information.
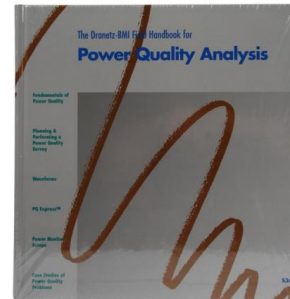

GS108-400NAS
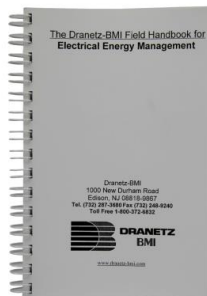
8 Port Hub

Dranetz Library

Power Quality Analysis

HB114416 Written in partnership with the NJATC, 228 pages.

The Dranetz Field Handbook
for Power Quality Analysis

HB114414-S Learn the methodology for a successful power survey and how to establish and maintain a power quality program, 283 pages.

The Dranetz BMI Field Handbook
for Electrical Energy Management

HB114415 This handbook explores proven energy management techniques useful in a variety of applications, 248 pages.

Handbook of Power Signatures
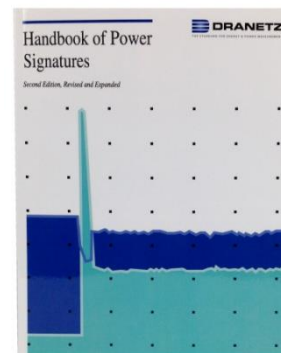
A-010S Learn to interpret and solve AC power problems, 290 pages.
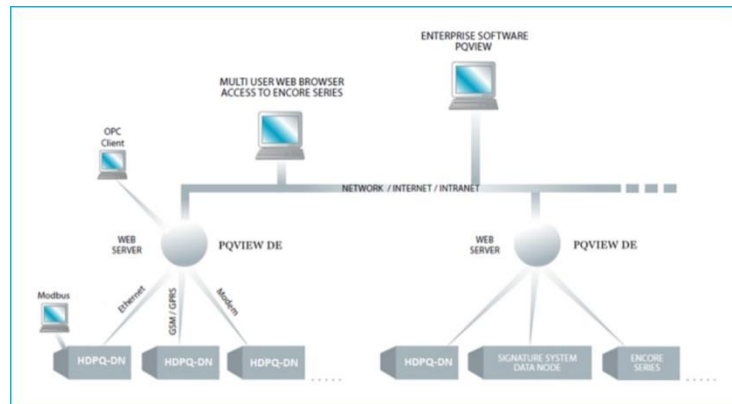
Handbook Set

All 4 of the above handbooks.

MADE IN AMERICA

36

Permanent Equipment Software

PQView DE ® Software

PQView DE ®

PQView DE ® is a web-based, advanced, intelligent software that is both a system controller and a user interface for your entire monitoring system. PQView DE ® can be used in any application, from small systems with a few instruments to very large multi-point, facility-wide or utility monitoring. PQView DE ® automatically communicates with each instrument in your system via all supported communications methods to download and store data. PQView DE ® is also a password-protected web server that acts as the gateway to your Dranetz monitoring system. All user interactions with the system such as trending, reports, real-time and setups are done using a web browser with connectivity to the system. PQView DE ® has a modern responsive web interface which is fully compatible with most computers, laptops, tablets and smartphones. The multi-user interface allows co-workers, engineers or consultants simultaneous access to analyze and share data and reports within a familiar web environment.

Web Enabled Interface

PQView DE ® has an easy to use, password-protected web browser interface. *All interactions with the system can be completed using any web browser, such as Microsoft Edge or Mozilla Firefox.* Not only is it easy to use, the web browser environment allows for multi-user access to your monitoring system from any computing device for any authorized user with access to the communications network. Trends, data lists, real-time views and reports are just a few mouse clicks away. Information can be easily shared and exported to Word, Excel, PQView and other software packages.

Performance Evaluations

By combining multiple modules or instruments, Dranetz intelligently monitors and evaluates diverse equipment and power system performance parameters to evaluate the performance and health of your power system for applications such as:
UPS — Encore monitors both input and output to continually evaluate the health of a UPS to ensure it operates correctly and to manufacturer specifications.
System Reliability — Gain a clear indication of power system reliability by simultaneously evaluating power quality of multiple circuits on an ongoing basis.
Predictive Maintenance — Continuous, proactive monitoring allows for benchmarking, which provides a statistical evaluation, enabling you to reduce operating and maintenance costs, including determining when maintenance is really needed, rather than just on a routine schedule basis.

Intelligence

The combined knowledge of Dranetz and its sister company, Electrotek Concepts, gives our monitoring systems the intelligence to perform advanced characterization of events. You receive a clear and simple explanation of an event with in-depth analysis. Unique AnswerModules® perform advanced analysis and provide answers to more difficult power quality events through an intuitive user interface. Answer Modules interpret data, making every user an expert. Answer Modules are available for every industry and include: Sag Directivity, PF Correction Capacitor detection/directivity.

PQView® Software
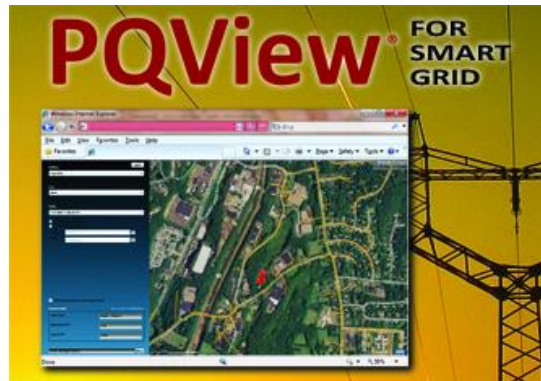
PQView®

PQView® is enterprise software available to expand the analytical capabilities of Dranetz Encore Series and/or manage multiple monitoring systems. Developed by Electrotek Concepts and EPRI®, PQView is a database software application designed to store and analyze large quantities of power quality-related disturbance and steady-state measurement data from hundreds of monitoring points. Featuring data management tools that can quickly characterize this data, PQView includes statistical analysis and plotting tools that can provide single- or multiple-site analysis for power systems. Encore Series, Signature System, PQNode family, Dranetz portable instruments, IEEE PQDIF, IEEE COMTRADE and many non Dranetz meters are PQView compatible.
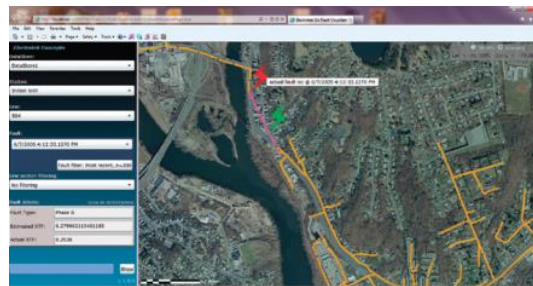
PQView® is a multi-component software system developed by Electrotek Concepts® and EPRI®. This industry leading software is used for building and analyzing databases of power, power quality, and energy measurements, and is available for use with Dranetz Encore instrument configurations. PQView also integrates data from microprocessor relays, digital fault recorders, power quality monitors, smart meters, and SCADA historians into an open relational database.
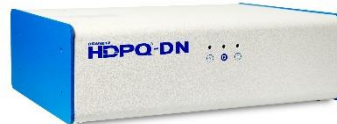

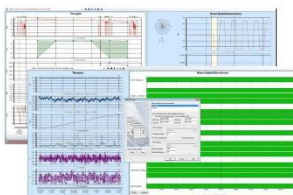38

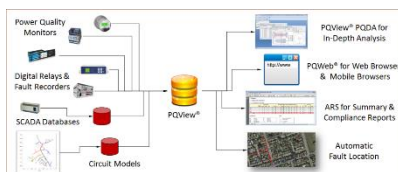# The Standard for Energy & Power Management

HDPQ-SP

HDPQ Plus

Fixed Systems

Dranetz Measurement Accessories

DRAN-VIEW 7 ®

PQView ®

PQView DE ®

S11