



## Overview

The NSA-PS12HD-C-D-N 12-channel power meter was designed to be one of the safest and most flexible power meters on the market today, since it can monitor up to 4 three phase or 12 single phase circuits from a single voltage reference. All PS12 power meters include all four Serial/Ethernet BACnet and Modbus communication protocols. Any DENT Standard and Revenue Grade mV output current transformers can be used to monitor currents from 0.25 to 4000 Amps. This reduces lead time and number of SKUs required when compared to other power meters that must be factory configured. It offers additional features such as the Tri-Color PhaseChek™ display, high voltage cover (safer installation), positive and negative Modbus Registers for bi-directional metering, ViewPoint™ HD configuration software, Revenue Grade 0.2% accuracy, NIST Calibration Certificate, displays real time information, pulse outputs and is internally fused. The ViewPoint™ HD Configuration Software will allow for easy setup or reconfiguration while sitting at your desk or in the field through the use of a single USB Port and standard USB A-B cable. All setup table information can be saved to allow for easy programming of multiple meters with similar configurations. The optional display will provide local streaming of data once installed. For more information regarding the NSA-PS12HD-C-D-N 12 and any of its accessories or to discuss your application in further detail, please contact your Carrier Sales representative.



**Applications:** Energy and Demand Metering, Data Centers, Bi-Directional Metering, Load Surveys, LEED/Green Projects, Real Time Power Monitoring in Commercial, Retail and Industrial Environments

## Part Numbers

NSA-PS12HD-C-D-N

## Specifications

<b>Service Type:</b>	Single Phase, Split Phase, Three Phase - 4 Wire (Wye), Three Phase - 3 Wire (Delta)
<b>Power:</b>	From L1 Phase to L2 Phase   90 to 600 VAC RMS CAT III 50/60 Hz, 500 mA AC maximum
<b>AC Protection:</b>	0.5A Fuse 200kA interrupt capacity
<b>Power Output:</b>	Unregulated 12 VDC Output, 200 mA, self-resetting fuse
<b>Voltage Channels:</b>	80 to 346 Volts AC Line to Neutral, 600 VAC Line to Line, Cat. III
<b>Current Channels:</b>	12 Channels, 0.525 VAC max, 333 mV CTs, 0 to 4000 Amps dependent on CTs
<b>Maximum Current Input:</b>	150% of Current transducer rating (mV CTs) to maintain accuracy   Measure up to 4000 Amps (Rocoil™ CTs)
<b>Measurement Type:</b>	True RMS using High Speed Digital Signal Processing (DSP) with continuous sampling
<b>Line Frequency:</b>	50/60 Hz
<b>Waveform Sampling:</b>	1.8 kHz
<b>Parameter Update Rate:</b>	1 second
<b>Measurements:</b>	<ul style="list-style-type: none"><li>Volts, Amps, kW, kVAR, kVA, aPF, dPF, kW Demand, kVA Demand, Import (Received) kWh, Export (Delivered)</li><li>kWh, Net kWh, Import (Received) kVAh, Export (Delivered) kVAh, Net kVAh, Import (Received) kVARh,</li><li>Export (Delivered) kVARh, Net kVARh, THD, Theta, Frequency, All parameters for each phase &amp; system total</li></ul>
<b>Accuracy:</b>	0.2% ANSI C12.20-2010 Class 0.2
<b>Resolution:</b>	Values reported in IEEE-754 single precision floating point format (32 Bit)
<b>Display:</b>	4-Line Display, Tri-Color Backlight (PhaseChek™)
<b>Pulse Outputs:</b>	Open Collector, Optically Isolated, 5mA maximum current, 40V maximum open voltage
<b>Hardware:</b>	RS-485, Ethernet and USB (For ViewPoint™ HD Configuration Only)

Specifications subject to change without notice.



<b>Supported Protocols:</b>	Modbus (Using SunSpec IEEE-754 Single Precision Floating Point Model) or BACnet
<b>Maximum Distance:</b>	1200 meters (3,937 Feet) with data range of 100K bits/second or less
<b>Supported Baud Rates:</b>	9600, 19200, 38400, 57600, 76800, 115200 Baud
<b>Data Bits   Parity   Stop Bit</b>	8   None, Even, One   2, 1
<b>Data Formats:</b>	Modbus RTU, BACnet MS/TP, Modbus TCP or BACnet IP
<b>Operating Temperature Range:</b>	-4 to 140°F (-20 to 60°C); At -20°C (-4°F) a minimum of 100 VAC is required to power the PS12HD
<b>Operating   Storage Humidity Range:</b>	5 to 95%, non-condensing
<b>Enclosure Material   Flammability Rating:</b>	ABS Plastic   UL 94V-0
<b>High Voltage Cover IP Rating:</b>	IP40
<b>Enclosure Knockouts:</b>	1" EMT Conduit Knockouts (Quantity: 6) No Drilling Required
<b>Wiring Connections</b>	De-pluggable, Screw/Push Lock Terminal Blocks (Polarity Sensitive - PhaseChek™ Indication)
<b>Wire Size:</b>	12-22 AWG (5.48 to 0.397 mm )
<b>Mounting:</b>	Panel Mount/Enclosure or PCBA Version: 0.5" (12.7 mm) Standoffs, #6 (Quantity: 4 User Supplied Screws)
<b>ViewPoint™ HD Software System:</b>	Windows® 10, Windows® 8, Windows® 7 (Included with Purchase of Meter)
<b>Security:</b>	2 Password Levels
<b>Agency Approvals:</b>	RoHS2, WEEE, ISO 9001-2008, Made in USA, BTL (BACnet) Certified <b>UL Recognized:</b> Circuit Board Only Version   UL Listed: Indoor Enclosure Version (File # E186827) CE (EN 61000-6-4: Class A)   <b>ANSI C12.20 Class 0.2:</b> NIST Traceable Calibration Certificate Included
<b>Product Weight:</b>	3.15 lbs. (1.43 kg), CTs not Included
<b>Product Dimensions (L x W x H):</b>	<b>Enclosure:</b> 9.75" (247.70 mm) x 9.87" (250.90 mm) x 3.14" (79.80 mm) <b>PCBA Version (Circuit Board Only):</b> 5.00" (127.00 mm) x 8.5" (215.90 mm) x 2.50" (63.50 mm)

## Dimensional Drawing

