#NSA-PS48HD-C-D-N – 11/14/2019

Overview

The NSA-PS48HD-C-D-N 48 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 16 three phase or 48 single phase circuits from a single voltage reference or two voltage references simultaneously. All four Modbus and BACnet Serial/Ethernet communication protocols are included in a single meter reducing the number of SKUs required. Unlike other power meters, the NSA-PS48HD-C-D-N can be easily paired with any DENT Standard or Revenue Grade CTs with an mV output to monitor operating currents from 0.25 to 4000 Amps. This reduces lead times since the NSA-PS48HD-C-D-N doesn't need to be configured at the factory and allows for easy setup or reconfiguration of the meter in the field. All CTs are sold separately, as shown on the Standard and Revenue Grade CTs product data sheets. Each meter also includes 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, two pulse outputs and is internally fused. The ViewPoint™ HD Configuration Software allows for easy configuration of the NSA-PS48HD-C-D-N while sitting at your desk using 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.

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-PS48HD-C-D-N

Specifications

Service Type:	Single Phase, Split Phase, Three Phase - 4 Wire (Wye) | Three Phase - 3 Wire (Delta)
Power:	From L1 Phase to L2 Phase. 90 to 600 VAC RMS CAT III 50/60 Hz, 500 mA AC max
AC Protection:	0.5A Fuse 200kA interrupt capacity
Power Output:	Unregulated 12 VDC Output, 200 mA, self-resetting fuse
Voltage Channels:	Two Voltage Reference Inputs, 80 to 346 Volts AC Line to Neutral, 600 VAC Line to Line, Cat. III
Current Channels:	48 Channels, 0.525 VAC max, 333 mV CTs, 0 to 4000 Amps with Rocoil™ CTs
Maximum Current Input:	150% of Current transducer rating (mV CTs) to maintain accuracy | Measure up to 4000 Amps (Rocoil™ CTs)
Measurement Type:	True RMS using High Speed Digital Signal Processing (DSP) with continuous sampling
Line Frequency:	50/60 Hz
Waveform Sampling:	1.8 kHz
Parameter Update Rate:	1 second
Measurements:	• Volts, Amps, kW, kVAR, kVA, aPF, dPF, kW Demand, kVA Demand, Import (Received) kWh, Export (Delivered) • kWh, Net kWh, Import (Received) kVAh, Export (Delivered) kVAh, Net kVAh, Import (Received) kVARh, • Export (Delivered) kVARh, Net kVARh, THD, Theta, Frequency, All parameters for each phase and system total
Accuracy:	0.2% ANSI C12.20-2010 Class 0.2
Resolution:	Values reported in IEEE-754 single precision floating point format (32 Bit)
Display:	4-Line Display, Tri-Color Backlight (PhaseChek™)
Alarms:	Voltage Phase Loss Alarm (SPDT Relay – 30 VDC)
Pulse Outputs:	Open Collector, Optically Isolated, 5mA maximum current, 40V maximum open voltage (Quantity: 2)
Hardware:	RS-485, Ethernet and USB (For Configuration Only)

Specifications subject to change without notice.

Supported Protocols:	Modbus (Using SunSpec IEEE-754 Single Precision Floating Point Model) or BACnet
Maximum Distance:	1200 meters (3,937 Feet) with data range of 100K bits/second or less
Supported Baud Rates:	9600, 19200, 38400, 57600, 76800, 115200 Baud
**Data Bits	Parity	Stop Bit**	8	None, Even, One	2, 1
Data Formats:	Modbus, BACnet MS/TP, Modbus TCP or BACnet IP
Operating Temperature Range:	-4 to 140ºF (-20 to 60ºC), At -20ºC (-4ºF) a minimum of 100 VAC is required to power the Meter
**Operating	Storage Humidity Range:**	5 to 95%, non-condensing
**Enclosure Material	Flammability Rating:**	ABS Plastic	UL 94V-0
High Voltage Cover IP Rating:	IP40
Enclosure Knockouts:	1" EMT Conduit Knockouts (Quantity: 6)	No Drilling Required
Wiring Connections	De-pluggable, Screw/Push Lock Terminal Blocks (Polarity Sensitive - PhaseChek™ Indication)
Wire Size:	12-22 AWG (5.48 to 0.397 mm_)
Mounting:	Panel Mount/Enclosure or PCBA Version: 0.5" Standoffs, #6 (Quantity: 6) (User Supplied Screws)
ViewPoint™ HD Software System:	Windows® 10, Windows® 8, Windows® 7 (Included with Purchase of Meter)
Security:	2 Password Levels
Agency Approvals:	RoHS2, WEEE, ISO 9001-2008, Made in USA, BTL (BACnet) Certified **UL Recognized**: Circuit Board Only Version	**UL Listed**: Indoor Enclosure Version (File # E186827)	**CE** (EN 61000-6-4: Class A)	**ANSI C12.20 Class 0.2**: NIST Traceable Calibration Certificate Included
Product Weight:	4.85 lbs. (2.20 kg), *CTs not Included*
Product Dimensions (L x W x H):	**Enclosure**: 13.25" (336.55 mm) x 9.75" (247.65 mm) x 3.12" (79.24 mm) **PCBA Version (Circuit Board Only)**: 8.50" (215.90 mm) x 8.50" (215.90 mm) x 2.50" (63.50 mm)

Dimensional Drawing

Front & Back View	Right View	Top View