

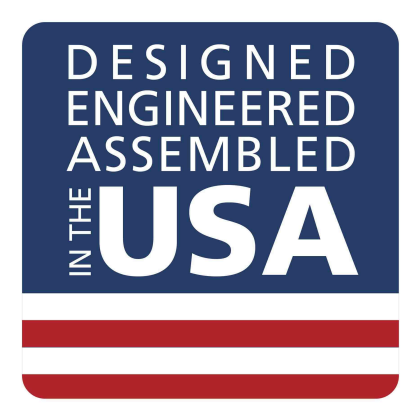
# NextWave Nexus DATASHEET



## Data Acquisition Solution

NextWave Energy Monitoring offers a comprehensive renewable energy performance monitoring and data acquisition platform, designed by power quality engineers to provide solar asset owners and managers with critical energy data and system analytics. Our turnkey Data Acquisition System (DAS) is built to meet your needs with cutting-edge manufacturing at our ISO-9001 certified California facility. We prioritize quality hardware, exceptional customer support, and in-field network engineering from our US-based teams, ensuring smooth system energization and hassle-free DAS retrofits.

## Community Solar DAS Solution: HARDWARE SPECIFICATIONS



<b>ASSEMBLY</b>	<b>Weight</b>	160 lb.   72.6 kg
	<b>Operating Temperature</b>	-40°F to 122°F / -40°C to 50°C
	<b>Line Input Voltage Range</b>	100 – 250 VAC
	<b>Frequency</b>	50Hz / 60Hz
	<b>Standards / Compliance</b>	UL Listed 508A Type 4, RoHS Compliant, cUL Listed per CSA C22.2 No. 94.1, 94.2, 14 / IEC 62208 / ISO9001 (2008)
<b>ENCLOSURE</b>	<b>Enclosure Dimensions</b>	30" x 30" x 12"    760mm x 760mm x 300mm
	<b>Enclosure Rating</b>	NEMA 4
	<b>Weight</b>	92.6 lb.   42 kg
	<b>Base Material</b>	Carbon Steel
	<b>Standards / Compliance</b>	UL/cUL Type 1, 3R, 12, 4 (4X stainless steel), UL 508A, CSA-C22.2 No. 14, "Industrial Control Equipment."
<b>DATALOGGER</b>	<b>Interval Recording</b>	1 to 60 minutes, user selectable (default 15 minutes)
	<b>Processor / OS / Memory</b>	i.MX 6UltraLite / Linux 4.x / x512 MB RAM
	<b>Storage</b>	4GB NOR Flash
	<b>Devices Supported</b>	Up to 64 connected Modbus RTU enabled devices
	<b>Primary Protocols</b>	Modbus/RTU, Modbus/TCP, TCP/IP, PPP, HTTP/HTML, FTP, NTP, XML, SNMP-Trap
	<b>Serial Ports</b>	2 x RS-485 Modbus, supports 32 external devices per port
	<b>LAN</b>	2 x RJ45 10/100 Ethernet, full half duplex, auto polarity
	<b>Security / Compliance</b>	SSL & TLS / FCC CFR 47 Part 15, Class A, EN 6100, EN 61326, CE, UL61010 Recognized
<b>REVENUE GRADE ENERGY METER</b>	<b>Modbus/RTU Output</b>	RS-485 2-wire, 9600 to 230400 baud
	<b>BACnet MS/TP Output</b>	RS-485 2-wire, 9600 to 115200 baud
	<b>Relay</b>	2x Solid-State Relay Outputs (100mA @ 50V max), User Programmable for alarm, status or pulse output
	<b>Accuracy</b>	0.2% Max
	<b>Standards / Compliance</b>	ANSI C12.20 Class 0.2 Accuracy Certified / FCC Part 15 Class B, UL Listed #E250395
<b>CELLULAR MODEM</b>	<b>WAN Interface</b>	1 x Embedded LTE Modem with Redundant SIM Slot
	<b>LAN Interface</b>	2 x 10/100/1000 M Ethernet Port
	<b>Router Throughput</b>	300 Mbps
	<b>Load Balancing</b>	Intelligent Failover, Session Persistence, Per-Service Load Distribution, Multiple Algorithms
	<b>Networking</b>	NAT and IP Forwarding, Static Routes, Port Forwarding, UPnP, NAT-PMP
	<b>Security</b>	128-bit WEP, WPA, & WPA2, Stateful Firewall, DoS Prevention, Web Blocking
	<b>Standards / Compliance</b>	FCC, CE, IC, RoHS, E-Mark, EN 61373, EN50155, EN61000
<b>FIBER/ ETHERNET SWITCH</b>	<b>Transfer Rate</b>	14,880pps for Ethernet Port   148,800pps for Fast Ethernet Port   1,488,000pps for Gigabit Ethernet Port
	<b>Ethernet Port</b>	8 * 10/100Tx RJ45 ports, auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
	<b>Gigabit Combo Port (Copper/SFP)</b>	2 * 10/100/1000Tx RJ45 Ports & 2 * 100/1000 SFP Slot
	<b>Processing Type</b>	Store and Forward
	<b>Standards / Compliance</b>	IEEE 802.3 10Tx Ethernet, 802.3u 100Tx Fast Ethernet, 802.3ab 1000Tx Gigabit Ethernet, 802.3z Gigabit Fiber

<b>POWER SUPPLY</b>	<b>Dimensions</b>	2" x 5.1" x 4.9"   50mm x 130mm x 125mm
	<b>Weight</b>	2lb.   0.9 kg
	<b>AC Input Voltage Range</b>	100 VAC ... 240 VAC
	<b>Input Frequency Range</b>	50Hz ... 60Hz
	<b>DC Output Voltage   Current</b>	24 VDC   10A
	<b>Standards / Compliance</b>	UL Listed UL 508, UL/cUL 60950-1
<b>UPS</b>	<b>Dimensions</b>	1.4" x 5.1" x 4.9"   35mm x 130mm x 125mm
	<b>Input Voltage   Voltage Range</b>	24 VDC   18VDC ... 30 VDC
	<b>Output Voltage Range</b>	18 VDC   30 VDC
	<b>Interface Designation   # of Interfaces</b>	Ethernet/IP™   2
	<b>Supported Protocols</b>	Ethernet/IP™ (Explicit Messaging, Implicit Messaging), BootP, DHCP, DLR
	<b>Connection Method</b>	RJ45 socket
<b>Standards / Compliance</b>	EN 61000-6-1/2/3/4, EN 60950-1, EN 50121-4, UL Listed UL 508, UL/C-UL Recognized UL 60950-1	
<b>UPS BATTERY PACK</b>	<b>Dimensions</b>	7.8" x 6.5" x 6.7"   197mm x 165mm x 171mm
	<b>Weight</b>	31.53 lb.   14.30 kg
	<b>Nominal Voltage</b>	12 V
	<b>Nominal Capacity</b>	40Ah @ 20 hour rate F.V. (1.75V/cell)
	<b>Max. Discharge Current</b>	≤ 8m Ω (Fully Charged)
	<b>Max. Charge Current</b>	12 A
<b>RS485 SURGE PROTECTION DEVICE</b>	<b>Dimensions</b>	0.7" x 3.5" x 2.7"   18mm x 90mm x 68mm
	<b>Max. Load Current</b>	300 mA
	<b>Impulse Current</b>	5 kA
	<b>Nominal Discharge Current</b>	5 kA
	<b>Volts   Wires</b>	24 V   4W + SHIELD + GROUND
	<b>Standards / Compliance</b>	UL 497B, QVGQ, File Number E194939, IEC 61643-11, NOM-003-SCFI-2014, NOM-001-SCFI-1993
<b>ETHERNET SURGE PROTECTION DEVICE</b>	<b>Dimensions</b>	1.3" x 2.2" x 2.2"   34mm x 55mm x 55mm
	<b>Impulse Current</b>	500 A
	<b>Nominal DC Line Voltage</b>	5 VDC
	<b>Max. DC Line Voltage</b>	8 VDC
	<b>Wires   Protection Level</b>	8W + SHIELD + GROUND
	<b>Line Current Max</b>	1 A
<b>6A CIRCUIT BREAKER 13A CIRCUIT BREAKER</b>	<b>Dimensions</b>	4.4" x 2.7" x 0.7"   111mm x 69mm x 17.5mm
	<b>Poles</b>	1P
	<b>6A / 13A Rated Current I<sub>n</sub></b>	6 A   13 A
	<b>Rated Frequency f</b>	50 / 60 Hz, DC (0 Hz)
	<b>Rated Insulation Voltage U<sub>i</sub></b>	250 VAC (phase to ground), 440 VAC (phase to phase)
	<b>Standards / Compliance</b>	UL 489, CSA 22.2 No. 5, IEC/EN 60947-2
<b>5A FUSE</b>	<b>Dimensions</b>	0.21" x 0.79" x 0.21"   5.2mm x 20.0mm x 5.2mm
	<b>Voltage Rating AC</b>	250 VAC
	<b>Current Rating</b>	5 A
	<b>Interrupt Rating</b>	50 A at 250 VAC
	<b>Standards / Compliance</b>	cURus, CSA, CCC, BSI, VDE, SEMKO, IMQ
	<b>DC POE INJECTOR</b>	<b>Dimensions</b>
<b>Power Input</b>		24 / 48 VDC
<b>Power Consumption</b>		33.36 W @ 24 VDC
<b>Connector</b>		10/100/1000 BaseT(X) x 2 (Data IN x 1, PoE OUT x 1)
<b>Standards / Compliance</b>		UL-508, IEEE 802.3 10BaseT, 802.3u 100BaseT, 802.3ab 1000BaseT(X), 802.3af/at Power over Ethernet
<b>TRANSCEIVER (LC CONNECTOR)</b>		<b>Dimensions</b>
	<b>Interface</b>	LC (Single-Mode)
	<b>Sensitivity</b>	-32 dBm
	<b>Distance</b>	20 KM
	<b>LD Type &amp; Wavelength</b>	1310 nm FP
	<b>Data Rate</b>	155 Mbps, NRZ
<b>Standards / Compliance</b>	MSA / SFP, IEEE 802.3u 100Base-FX, FDDI PMD Standard, ATM Standard	
<b>FIBER PATCH PANEL</b>	<b>Dimensions</b>	6.5" x 6.0" x 1.5"   165.1mm x 152.4mm x 38.1mm
	<b>Product / Mounting Type</b>	Wall-Mountable   Wall-Mountable Hardware
	<b>Housing Type</b>	SPH
	<b># of Panels per Housing</b>	1
	<b>Panel or Module Type</b>	CCH
	<b>Standards / Compliance</b>	RoHS 2011/65/EU
<b>CLOSET CONNECTOR HOUSING PANEL</b>	<b>Dimensions</b>	6.1" x 1.4" x 1.4"   155.4mm x 34.8mm x 36.1mm
	<b>Fiber Category</b>	Single-mode (OS2)
	<b>Fiber Count</b>	12
	<b># of Adapters per Panel</b>	6
	<b>Housing Type</b>	Panels and Modules
	<b>Adapter Type</b>	LC Duplex
<b>Standards / Compliance</b>	RoHS 2011/65/EU	