



**Next Wave Core**

**Data Acquisition Solution**

Next Wave Energy Monitoring ("NWEM") is a renewable energy performance monitoring & data acquisition platform designed by power quality engineers to deliver substantial energy vitals and system analytics to solar asset owners/managers. NWEM's turnkey Data Acquisition System ("DAS") extends a customer-first expectation focused on state-of-the-art manufacturing at our California-based

ISO-9001 facility, quality workmanship & hardware, and market-leading customer support and In-field Network Engineering from our US - Based teams to streamline system energization and DAS retrofit needs.



**Turnkey Solution**

**Hardware**

- ✓ Compliant with IRA Domestic Content Requirements
- ✓ Next Wave Industrial Datalogger
- ✓ Modbus Communication via RS-485 or TCP
- ✓ 24V Power Supply + Ethernet / RS-485 SPDs
- ✓ Metal NEMA4 Weatherproof Enclosure
- ✓ Optional components: 4G Cell Modem (requires a cellular plan), Energy Meter, Weather Station.
- ✓ 5-year Material Warranty Included
- ✓ Optional Support from Preferred O&M Provider

**Software**

- ✓ Data granularity with ranges including 1 min/ 5 min/ 15 min/ 1hr/ 1 day/ 1 week/ 1 month/ 1 year/ Lifetime
- ✓ Cellular or Ethernet connectivity
- ✓ Full Support + Integration with NWEM **PVPulse™**
- ✓ VPN Access / Port Forwarding capabilities for secured remote access
- ✓ Automated Report Generation & Distribution
- ✓ Diagnostics-Level Charting and Metrics
- ✓ Integrated, Real-Time Portfolio Status Map

**Next Wave PVPulse™ Performance Monitoring**

Next Wave Energy Monitoring's **PVPulse™** is a renewable energy performance monitoring and data analytics platform with a mission

to simplify the high volume of data and focus on meaningful analytics which will lead to root-cause and will reduce the Mean Time to Repair (MTTR). **PVPulse™** intuitive DAS platform is geared towards commercial & industrial, enterprise/portfolio, and utility-scale applications, offering anomaly detection, performance trending, plant or fleet-level interface/data, and troubleshooting capabilities while aggregating data from all interactive equipment and translating it into meaningful power and energy vitals for both highly technical and non-technical end-users. Next Wave Energy Monitoring is certified & compliant with requirements of ISO/IEC 27001:2022 Information Security Management Systems.





<b>Assembly</b>	Operating Humidity	10% to 90% non-condensing
	Operating Temperature	-40°F to 122°F / -40°C to 50°C
	Operating Altitude	Maximum 1000m or 3280ft above sea level
	Weight	18lbs / 8.16kg
	Line Input Voltage Range	200 – 500 VAC ± 10%
	Frequency	50Hz – 60Hz ± 1%
	Rated Insulation V(AC/DC)	1000VAC / 1500VDC
	Overvoltage Category	III
	Standards / Compliance	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>	Enclosure Dimensions	12" x 12" x 8" / 30.5cm x 30.5cm x 20.3cm
	Enclosure Inner Depth	8" / 20.3cm
	Enclosure Rating	Metal NEMA4
	Base Material	Metal
	Standards / Compliance	EN 62208.UL 508A / E189312
	Degrees of Protection	IP66/IP67
<b>Datalogger</b>	Flammability Rating	UL 746C 5 inch flame test
	Interval Recording	1 to 60 minutes, user selectable (default 15 minutes)
	Processor / OS / Memory	i.MX 6UltraLite / Linux 4.x / x512 MB RAM
	Storage	4GB NOR Flash
	Devices Supported	Up to 64 connected Modbus RTU enabled devices
	Primary Protocols	Modbus/RTU, Modbus/TCP, TCP/IP, PPP, HTTP/HTML, FTP, NTP, XML, SNMP-Trap
	Serial Ports	2 x RS-485 Modbus, supports 32 external devices per port
	LAN	2 x RJ45 10/100 Ethernet, full half duplex, auto polarity
	Security / Compliance	SSL & TLS / FCC CFR 47 Part 15, Class A, EN 6100, EN 61326, CE, UL61010 Recognized
<b>Power Supply</b>	AC Input Voltage Range	200 – 500 VAC ± 10%
	Input Frequency	47Hz – 63Hz
	Inrush Current (115/230VAC)	25 / 50A
	Power Factor	Meets EN6100-3-2, EN61000-3-3
	Line & Load Regulation	1%
	Standards / Compliance	UL508, UL1310 Class 2, IEC/UL/CSA/EN62368-1, EN60950-1, CE Mark
<b>Surge Protection Device (SPD)</b>	Weight	25.86 g
	Dimensions (W x H x D)	6.2 x 92 x 69.5 mm
	Nominal Voltage U <sub>N</sub>	24 VDC
	Material	PBT
	Max. Continuous Voltage U <sub>C</sub>	30 VDC   21 VAC
	Rated Current	10 A (60°C)

