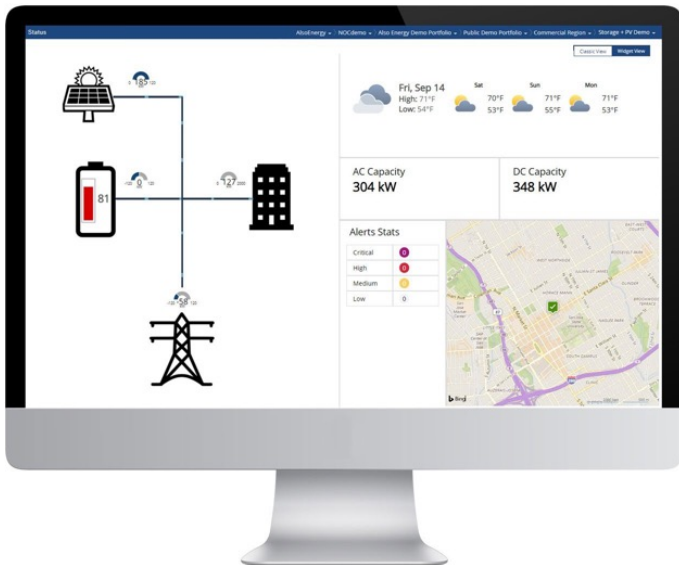


Complete Monitoring Solutions for PV + Storage

AlsoEnergy offers a vertically-integrated, edge to cloud platform for clean energy assets. In the cloud, PowerTrack, our application for portfolio optimization, provides a joint solar + storage monitoring solution.



- Cost-effective monitoring solution for distributed clean energy resources on one application
- Energy flow visibility in a simple easy to read format
- Standard and customized reports
- Battery system alerts and alarms for O&M and asset management
- SGIP and agency reporting
- Availability and system performance comparison
- Comparison against user-defined baseline values
- Visibility of energy storage system interaction with other energy resources

Typical DAS Hardware includes:

- PowerManager 2000
- Revenue grade PV meter
- Revenue grade demand meter
- Revenue grade battery meter
- Weather station
- Cell modem
- Battery management controller

Battery Storage Dashboards Metrics:

- Battery state of charge
- Available stored energy kWh
- Self-consumption
- Battery system status
- Charge and discharge
- Battery charging by renewables

AlsoEnergy's vertically-integrated platform ensures one-point of accountability from edge-to-cloud and throughout the asset lifetime. At the cloud level, PowerTrack, AlsoEnergy's flagship application for portfolio optimization, features advanced performance analytics and diagnostics, integrated CMMS job ticketing, and reporting, KPI, and aggregation tools for asset managers.

Technical Data

POWERMANAGER	
Devices supported	Up to 200 devices
Logging interval	Configurable down to 1 second
Offline storage	More than 4 months offline storage with 200 field devices logging at 1 minute intervals
Configuration	Remote automated configuration; local network setup
Software management	Remote software update capability
Tools support	Ability to use third-party, Windows-based tools through secure remote desktop connection
Local display	Supports local HMI and remote desktop access
Native control capabilities	External command input (Modbus or DNP3) for real-time or scheduled set points; zero net export restriction; maximum export limit; closed loop reactive power control; closed loop ramp rate control; closed loop grid voltage control
Telemetry	Customizable DNP3 or Modbus TCP upstream interface

INTERFACES	
Ethernet	4 x 10/100/1000 ports
Primary protocols	Modbus TCP, Modbus RTU, DNP3, HTTP, HTTPS, Telnet, FTP, SNTP, SNMP, inverter protocols, RDP, VPN
Discrete I/O	4DI, 4DO
Display	1x VGA
Peripheral support	USB ports for keyboard and mouse

MECHANICAL	
Mounting configuration	Panel or DIN mount
Dimensions	132 H x 122 W x 87 D mm (5.2 x 4.81 x 3.43 in)

ENVIRONMENTAL RATING	
Operating temperature	-40 to 70°C (-40 to 158°F)
Storage temperature	-45 to 75°C (-49 to 167°F)

ELECTRICAL	
Input voltage	11.4 to 36 VDC
Power consumption	30W maximum, 10W typical
Surge protection	Designed with protection against transients and ESD for use in harsh environments

REGULATORY	
Warranty	Standard 5-year warranty

COMPONENTS (CHOOSE UP TO ONE OPTION IN EACH CATEGORY)			
EMC	EN 55032/24		
EMI	CISPR 32, FCC Part 15B Class A		
	IEC 61000-4-8 PFMF		
EMS	IEC 61000-4-6 CS: 10 V		
	IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV		
	IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV		
	IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m		
	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV		
Power supply	Power supply 85 to 264 V AC / 44 to 66 Hz mains		
	Power supply 85 to 264 V AC / 44 to 66 Hz mains & UPS with 2 batteries (17 Ah AGM integrated)		
	Power supply 85 to 264 V AC / 44 to 66 Hz mains & UPS with 2 batteries (40 Ah AGM external enclosure)		
Hazardous locations	ATEX Zone 2	Class I Division 2	IECEx Zone 2
Maritime	DNV-GL	IEC 60945	
Radio frequency	FCC		
Safety	UL 60950-1		

Technical data for PowerManager 2200; specifications may vary with device models

