

EAT•N

Powerware

CellSure™ Battery Monitoring and Fault Diagnosis



Features

- Early warning of potential failures
- Reserve Time remaining on Discharge
- Accurate battery capacity and state-of-health measurements
- Patented software algorithm
- Cost effective for network wide deployment
- Remote communications options
- Graphical data displays
- Data export capability
- Real-time monitoring and alarms
- Modular and expandable
- Easy to install and operate
- Remote Battery Testing (with PowerManagerII software)

When there's a power failure there is only one thing between your network never missing a beat and an outage – the battery. Batteries tend to be the forgotten safety net. Rarely needed, they sit quietly waiting to do their job. However, when they are called to action will they be ready?

A battery monitoring system is the best way to keep track of a battery's condition and to highlight ahead of time if any maintenance is needed. But until now the hardware requirements, and the need for regular site visits to setup and run a monitoring system, have made this an expensive option.

Now there's the CellSure battery monitoring and fault diagnosis system.

CellSure provides a method to report on batteries, showing where problems may occur and giving the most important information - reliable battery capacity measurements in real time.

Technical Specifications

Brief Technical Specifications

The real time functionality of CellSure is one of its greatest strengths. It allows network operators to see the state of the battery reserves across their whole network at a glance. As the state of the batteries is permanently monitored, they can be kept in peak condition.

CellSure is based on patented battery monitoring research. It uses modular components, is easy to install and can be retrofitted to existing battery systems. It is cost effective so that it can be deployed permanently to all sites in a network, not just the main installations. If CellSure is used in conjunction with Powerware DC power systems and PowerManagerII remote control software, then test discharges or refresher charges can be carried out without the need for a site visit.

CellSure is available for both 24V and 48V battery systems in up to four strings, with either 2V cells, 6V monoblocs or 12V monoblocs. More than four battery strings can be monitored using multiple CellSure systems.

System configurations

Nominal system voltages: 24V or 48V
Battery strings per system: 1-4 strings
Cell/monobloc voltage: 2V, 6V or 12V
Battery types: VRLA (standard) or flooded cells
(on request)

Alarms and Indicators

Controller module indicators: Status LED, 4 String Alarm LEDs
Controller module alarms: Voltage free relay contacts (Urgent and Non-urgent)

Inputs	Cell/monobloc voltage ($\pm 0.5\%$ accuracy) String current ($\pm 1\%$ accuracy) Ambient temperature ($\pm 1^\circ\text{C}$ accuracy) String temperature ($\pm 1^\circ\text{C}$ accuracy)
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Data Output	Alarm conditions: Cell/monobloc voltage low, Cell/monobloc divergence, Discharge voltage low, String temperature, String overcharge, Low capacity, Low charge. Measured values: Actual capacity, Reserve charge, Reserve time, "State of Health" Data: Weekly log: 7day x 24hour cell/monobloc data Yearly log: 365day cell/monobloc data (averaged) Last two partial discharges. Last full discharge.
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Certifications

All products comply with International Standards. Contact your local Powerware DC representative for details on the specific product versions available with these safety and EMC approvals:

North America	UL, FCC Verification
Canada	IC
Europe	CE
Australia / New Zealand	C-tick

In the interests of continual product improvement all specifications are subject to change without notice.

