

Battery monitoring system

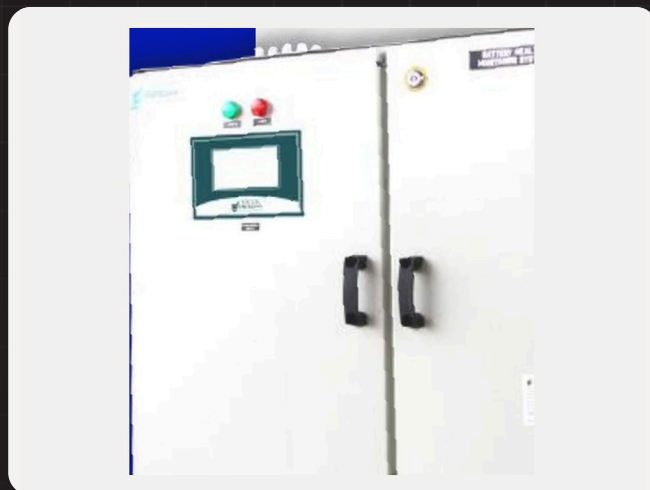
Energenie battery monitoring system

We care for your power plant. Monitor every cell of your battery bank, 24x7.

48 / 110 / 220 V DC

Lead-acid and Ni-Cd

RS-485, RS-232 or TCP/IP



99.5 %

cell voltage measurement
accuracy

24x7

automatic real-time
monitoring

2-60 °C

battery room temperature
display

5 + 2 + 1

digital in, analog in, digital out

Overview

Know the health of every cell

Energenie, Statcon Energiaa's battery monitoring system (BMS), is built on the latest microcontroller boards with a built-in computer that monitors the health of the battery bank. It watches for low, high and unbalanced voltages and provides potential-free contacts for remote monitoring and control.

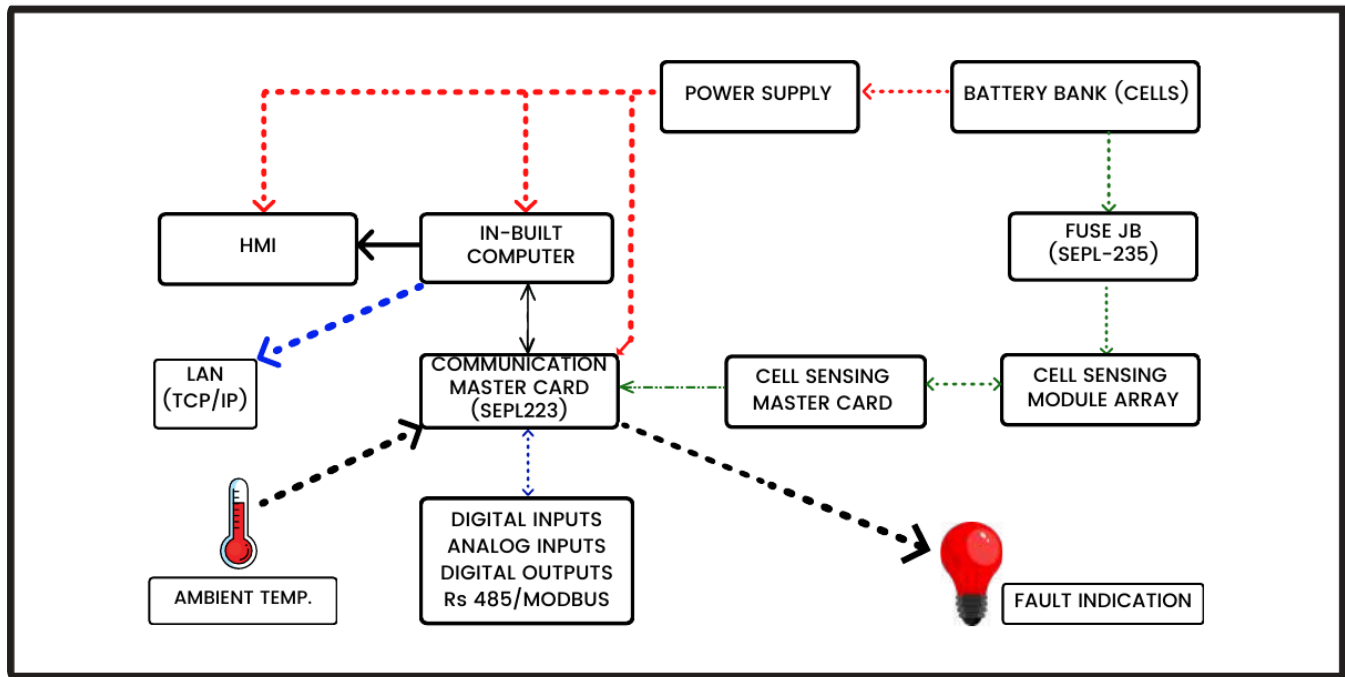
It continually monitors each cell and its wired connection to analyse cell voltage and temperature. If a cell meets the weak-cell criterion, it is identified and a visual warning is raised for action. A similar warning is issued if the bank is under or over voltage, and the list of active faults shows on the graphical LCD.

What makes Energenie special

- ✓ Measures individual cell voltage with 99.5% accuracy
- ✓ Built-in system computer, which also stores data locally
- ✓ No GUI software to install: view live and historical data online
- ✓ LCD touchscreen shows cell voltage, temperature, total bank voltage, charge and discharge current, and fault alarms
- ✓ 5 digital inputs, 2 analog inputs and 1 digital output for indications
- ✓ Shows battery room ambient temperature (2-60 °C)
- ✓ Five general-purpose digital inputs for non-battery alarms such as door open, exhaust fan or air conditioning failure

At a glance

- ✓ For all types of lead-acid and Ni-Cd batteries: 48, 110 and 220 V DC
- ✓ Automatic real-time monitoring of all cells
- ✓ Smooth touchscreen HMI
- ✓ RS-485 / RS-232 or TCP/IP protocol
- ✓ Wall-mountable
- ✓ Detects under-or over-voltage of the bank or of any cell
- ✓ Easy servicing and predictive maintenance of cells
- ✓ No additional AC power input: the small power it needs comes from the battery bank
- ✓ Fault and alarm escalation levels, so action matches the severity
- ✓ Shows charging and discharging status and average cell voltage
- ✓ Optional Modbus output for remote communication with a PC over RS-485



Energenie system architecture: battery bank, fuse junction box, cell sensing modules, communication master card, built-in computer, HMI and LAN.

Remote monitoring

Monitor from anywhere

No extra wiring is needed for remote monitoring. Energenie links to PCs and laptops over your existing LAN and can be monitored through the cloud from anywhere.

Cell and battery voltage, current and temperature, and alarm conditions, are logged with a date and time stamp on a remote PC and can be exported to Excel. Password-protected login keeps access to authorised staff. A faulty module is simply swapped for a spare, lowering service costs.

Temperature and trends

Spot a weak cell early

By default the system monitors cell temperature (one pilot cell) at two locations. To monitor more locations, connect an external temperature probe.

Bar and line charts compare each cell's voltage with the average cell voltage, and its temperature with the ambient temperature, so the trend of a particular cell and any abnormality stand out.

Dashboard

