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BMS-icom Battery Monitoring System

Model # BMS-icom



BMS-icom MPU

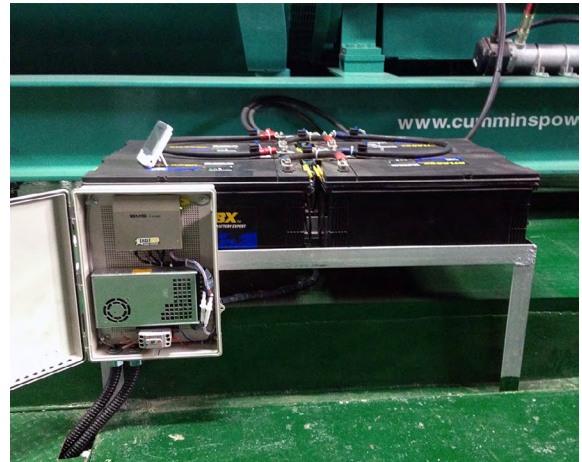
Product Description

The BMS-icom Battery Monitoring System is designed to measure the aging status of up to (4) 12V jars by measuring and recording: string voltage and current, as well as jar/cell voltage, internal resistance, connection resistance and temperature. The BMS-icom is the most accurate, user-friendly and economic solution for monitoring 48VDC systems using (4) 12V batteries.

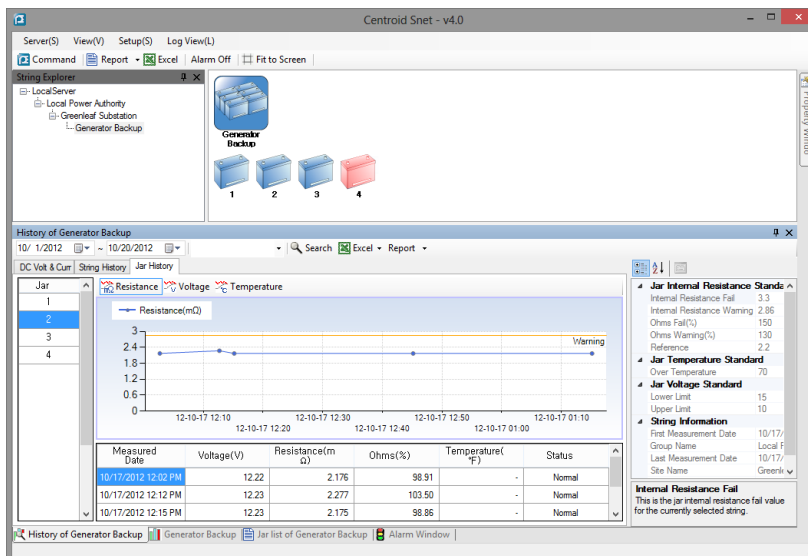
Reduce maintenance costs, improve up-time and manage your battery assets effectively by using the BMS-icom battery monitoring solution for your 48V system. Real-time battery monitoring also reduces maintenance and replacement costs by maximizing your battery life.

BMS-icom Features

- 24/7/365 Battery Monitoring
- Installation and maintenance can be done while battery systems are online
- Meets IEEE and NERC standard recommendations for battery monitoring
- Utilizes a patented ripple-removing algorithm for the most precise and repeatable measurements in any environment
- Injects <2A current on the battery system
- Simple to install with custom, pre-assembled installation materials
- Designed for 48V systems (12V cells)
- Alerts in realtime during outbreak



BMS-icom Installation



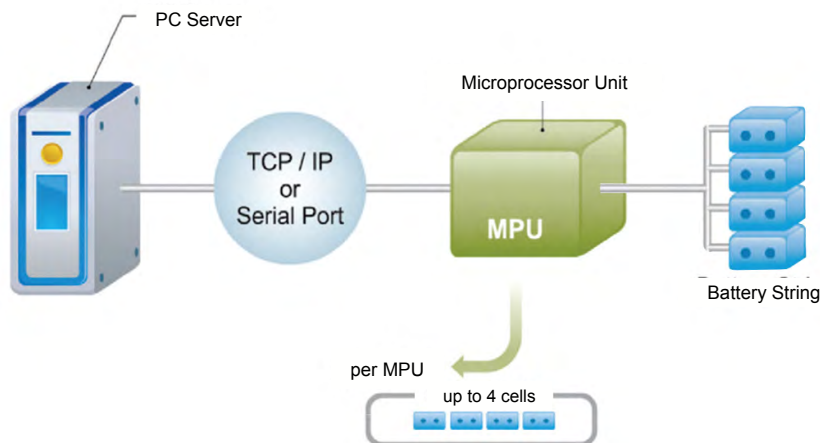
Management Software:

- Trending of cell voltage, temperature, & ohmic resistance
- Report generation
- Able to send commands to BMS-icom to adjust alarm settings and control measurement mode
- Displays system voltage, system DC current, & temperature in real time
- Displays voltage, resistance & temperature per cell
- Email & SMS alerts during alarm outbreak
- Automatically records discharge & recharge events

System Composition:

Components of BMS-icom system between the server and battery system.

- Server and MPU communicate via TCP/IP
- BMS-icom MPU connects up to (4) cells
- Connection fasted to inter-cell-connection (cable or bus-bar)
- MPU gathers battery data through voltage & current sensing cables connected between each cell
- System current measured via current clamp



BMS-icom System Composition

Technical Specifications	
Battery Types:	VLA, VRLA, NiCad, & Others
Measurement Range:	Battery Capacity: 5 – 6,000 Ah Jar/Cell Voltage: 12 VDC DC Voltage/Current: ~ 999.9 VDC/~999.9 A
Accuracy:	DC Voltage / Current: $\pm 0.5\%$ / $\pm 1\%$ Temperature: $\pm 2\%$ Internal Resistance: $\pm 2\%$ Cell Voltage: $\pm 1\%$
Resolution:	AC Voltage / Current: 0.1 V / 0.1 A DC Voltage / Current: 0.1 V / 0.1 A Cell Voltage: 10 mV Internal Resistance: 0.001 Ω Temperature: 0.5 $^{\circ}\text{C}$
Test Speed / Test Load:	3 - 4 seconds per cell / Less than 2 A per cell
Measuring Interval:	Adjustable from 5 min to 24 hours (voltage & resistance)
Data Transfer:	TCP/IP, RS-232 to USB, SMS
Operating Environment:	Temperature: 0 - 65 $^{\circ}\text{C}$ (32 - 150 $^{\circ}\text{F}$) Relative Humidity: Under 80%
Power Requirements:	38 – 58 VDC (from connected batteries)
Dimensions:	140 x 121 x 44.5 mm (5.5 x 4.75 x 1.75 in)

Common Applications:

- Generator backup
- Telecom/Communications
- Power Utilities and Distribution
- CATV Broadcasting

System Includes:

- BMS-icom MPU Body
- Clamps: O-Type for cable connection or C-Type for bus-bar connection
- Sensing cable (current line)
- Signal cable (voltage line)
- Temperature cable
- Total voltage current cable
- LAN cable (if necessary)
- Control power cable
- Centroid Battery Management Software

Ordering Information

No.	Model #	Description
1	BMS-icom	Battery Monitoring Solutions: Up to 4 (12V) Jars/Cells