To Order Call Toll Free:
1-877-805-3377

WBMS Wireless Battery Monitoring System

Product Description

The **WBMS** wireless battery monitoring system is a complete solution for monitoring critical parameters of battery systems in real time. Parameters monitored include string voltage, string current, ambient temperature, cell/unit voltage, impedance, and temperature. The WBMS is compatible with VLA, VRLA, and Li-Ion battery types.

The system is designed as a modular solution, allowing multiple (up to 16) battery strings to be monitored by a single Control Unit (CU). Installation is fast and easy. The WBMS utilizes PLC (Power Line Carrier) communication between components which utilizes the battery connections for data transfer, eliminating excessive wiring. Also, the system can be installed while the battery is online by using connectors which clamp on to the cable or bus bar, eliminating the need to disconnect battery hardare.

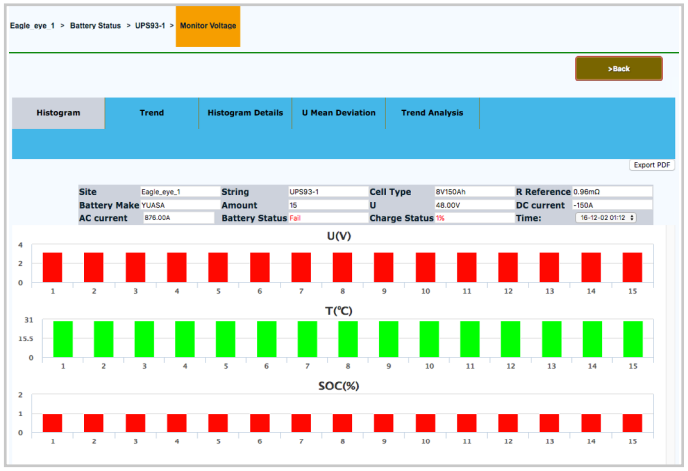
Included with every WBMS is access to web-based battery management software which allows remote monitoring of the battery system, either from mobile app or web browser. Information can be communicated via either cellular (GSRP) or local Wi-Fi connection. Alternatively Modbus protocol can be used for third party integration to existing software.

Product Advantages

- 24/7/365 battery monitoring
- A single system can monitor multiple strings
- PLC (Power Line Communication) between hardware allows very simple and fast installation
- Customized solutions to meet a wide variety of different applications
- Communicate cellular (GPRS) or local Wi-Fi
- Cloud based software allows data management from smart phone, tablet, or web browser
- Provided accurate prediction of battery capacity (SOH)

String Control Module (CU)

Cell Monitoring Terminal (MT)



Web-Based Data Management Software

Battery Management Software

- Displays and records string voltage, string current, cell/unit voltage, impedance, and temperature for all battery systems
- Calculates capacitance and battery state of health
- Viewable from any web-browser or available on mobile app
- Generate PDF reports
- Timely SMS warnings in the event of alarm condition

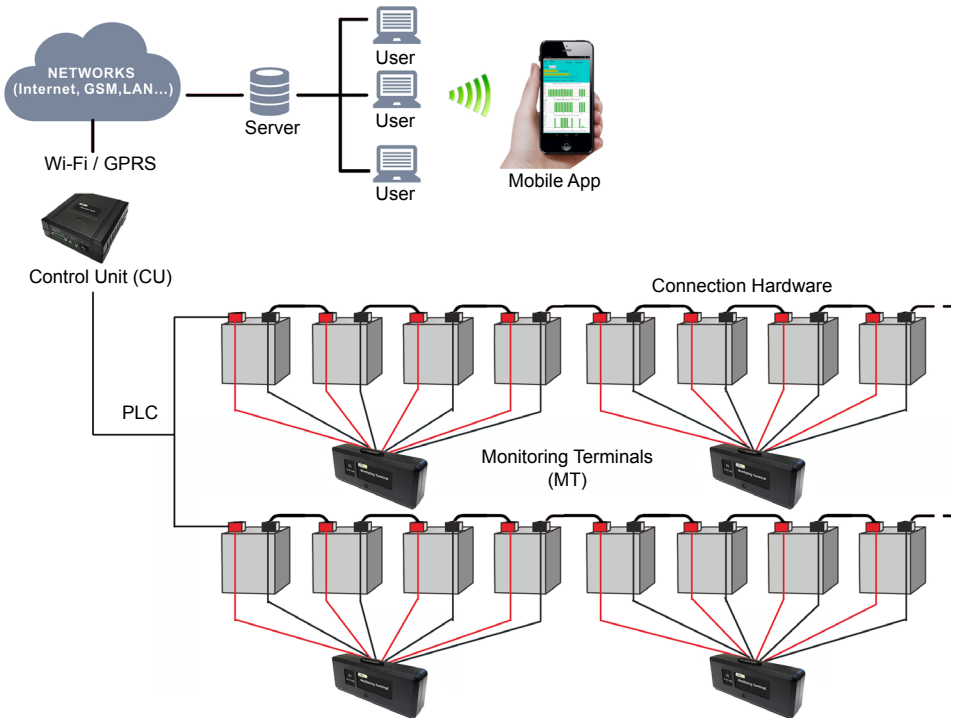
WBMS System Configuration

Control Unit (CU)
Measures string voltage and current. Built in GRPS or Wi-Fi for communication to server. Controls MT for cell data collection.

Monitoring Terminal (MT)
Test battery voltage, internal resistance, capacitance, & temperature. MTs communicate via PLC (power line carrier).

Current Clamp (CT)
Customized DC current clamp w/cable for measuring battery string discharge and charge current. Powered by the CU.

Connection Hardware
The wires from the MT can connect to each battery via either ring terminal or clamp. The clamp attaches to the cable or bus bar, eliminating the need to disconnect battery hardware.



Technical Specifications	
Measurement Range	System Voltage: 24, 48, 120, 240, 380, or 480 VDC Load Current: ±1,000 A Cell/Unit Voltage: 1.2, 2, 4, 6, 8, or 12 VDC Cell/Unit Impedance: 0 – 10 Ohms Temperature: 0 – 100°C (32 – 212°F)
Accuracy	System Voltage: ±0.5% Load Current: ±1% Unit Voltage: ±0.5% Impedance: ±2% Unit Temperature: ±0.5ºC
Impedance Test Load	1 amp AC current per cell
Data Transfer	GRPS, Wi-Fi
External Protocols	Modbus, SNMP
Operating Environment	Temperature: 0 – 50°C (32 – 122°F) Relative Humidity: Under 90%
Power Requirements	Monitoring Terminal (MT): 7 – 60 VDC (from battery) Control Unit (CU): 24 – 160V, 140 – 1000V
Current Consumption	Monitoring Terminal (MT): 0.5W / 10mA Control Unit (CU): 4W / ~33mA

System Includes
- Control Unit (CU)
- Monitoring Terminal (MT)
- CT for current measurement
- Antenna for cellular communication
- Wiring and hardware connections (ring terminal or clamp)
- USB with support literature

Clamp Connector for Cable or Bus Bar Connection

Ordering Information

No.	Model #	Description
1	WBMS	Wireless Battery Monitoring System 24 – 480V System, 1.2, 2, 4, 6, 8, 12V Cell/Unit