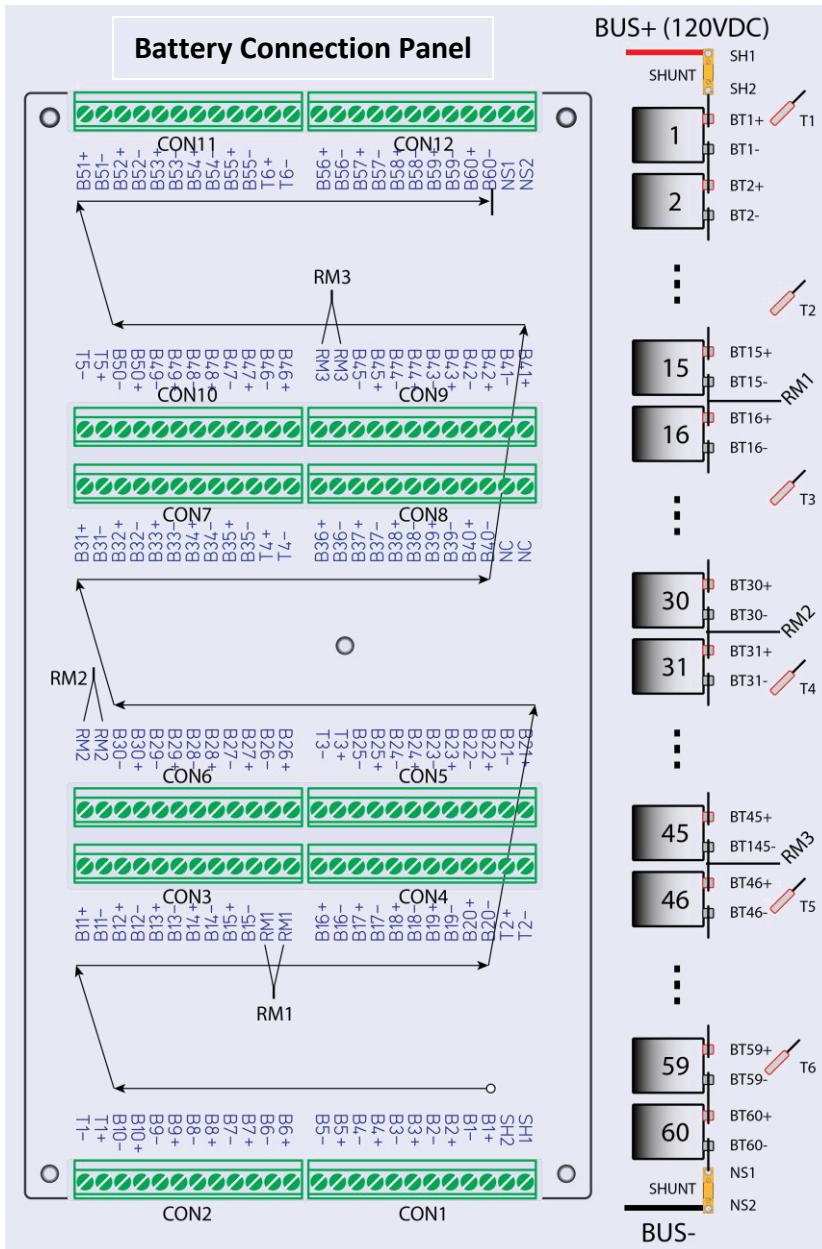


**Sentry-6002NEMA** is a powerful battery monitoring system for substations with vented (flooded) or valve regulated lead acid batteries. It has been re-designed based upon our field proven BM6500 (1996) and BM6800 (2007) models to provide effective remote battery management according to the IEEE updated standards:

**IEEE Std. 1188 - 2005: Recommended Practice for Maintenance, Testing, and Replacement of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications** ([IEEE Link](#))

**IEEE Std. 450 - 2010: Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications** ([IEEE Link](#))



**Main Features**

- Ultra precise IR (Internal Resistance) measurement for each cell detects dry-out and deterioration/capacity loss long before a problem occurs.
- Discriminate inter-cell and battery to bus connection resistance to identify connection problem without a discharge.
- Ambient and multi-point pilot battery temperature monitoring.
- IP65 (NEMA4) grade protection allows unit(s) to be installed inside the battery room. Compact design allows for easy installation on a rack or wall.
- Automatic discharge capture to database to record planned load test and unplanned power outage.
- No mechanical scanning relays, resulting high reliability.
- Plug & play HMI (optional) allows field service without a computer.
- Industry standard Modbus-RTU and Modbus-TCP communication.
- Full support to SNMP networking battery management system
- Compatible with Battery Analyzer software and MyBattery Platform™ for cloud based remote monitoring.



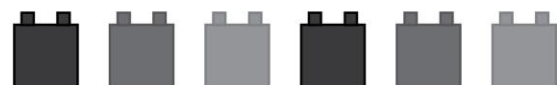
**Specifications**

<b>Power Supply</b>	
Power Input	Internal DC/DC converter, 90 - 160V input; Maximum Consumption: 10W 250VDC version available
<b>Current/Temperature Measurement</b>	
Current Transducer (CT)	Support LEM current transducer with internal +/-12V power supply Default CT: HTA 300-S, measurement range +/- 450A, window size D-32mm. Accuracy: 0.1% + sensor accuracy
Direct Current Measurement	Optional, 0.1A resolution (Shunt is required)
Temperature Sensors	1 ambient temperature sensor, 1 pilot temperature sensor Measurement range: -20°C to 60°C, operating range: 5°C to 40°C (41°F to 104°F) Accuracy: 1 °C
<b>Voltage Measurement</b>	
Battery	60 x 2V cell per unit, up to 3,000Ah For 120 x 2V application, 2 units are required for each string. For large UPS 240 x 2V application, 4 units are required for each string.
Bus Voltage	Range: 90 – 160V per unit; Accuracy: 0.1%
Input Range to Each Channel	+/- 3V for 2V batteries
Accuracy	0.1%
Input Wiring	2-wire sampling for each battery, UL 300V 12-conductor 20AWG cable recommended
<b>Internal Resistance and Connection Resistance</b>	
Range and Resolution	0 to 3mΩ, 0.005 mΩ resolution
2-wire mode	Internal Resistance and discriminate Connection Resistance.
<b>Communication</b>	
Serial Port	Isolated RS-232C and RS-485 interface MODBUS RTU, 9600-8-1-None Modbus address 1 to 28, configurable with HMI
Ethernet	Onboard DTU to MyBattery Platform™ or Battery Analyzer software Modbus-TCP for integration
<b>Indication and Alarm</b>	
LED indication	<ul style="list-style-type: none"> <li>▪ Dual-color LEDs for status</li> <li>▪ Orange LED for service alarm</li> <li>▪ Red LED for urgent alarm</li> </ul>
Alarm Outputs	Service Alarm (Normal Close, 0.1A capacity) Urgent Alarm (Normal Close, 0.1A capacity)
Unit Dimensions	13.50" (H) x 11.27" (W) x 7.18" (D) 343mm (H) x 286mm (W) x 182mm (D)
Weight	10 lbs per unit (about 4.5kg)

**\*Specifications subject to change without notice**

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## Product Photos

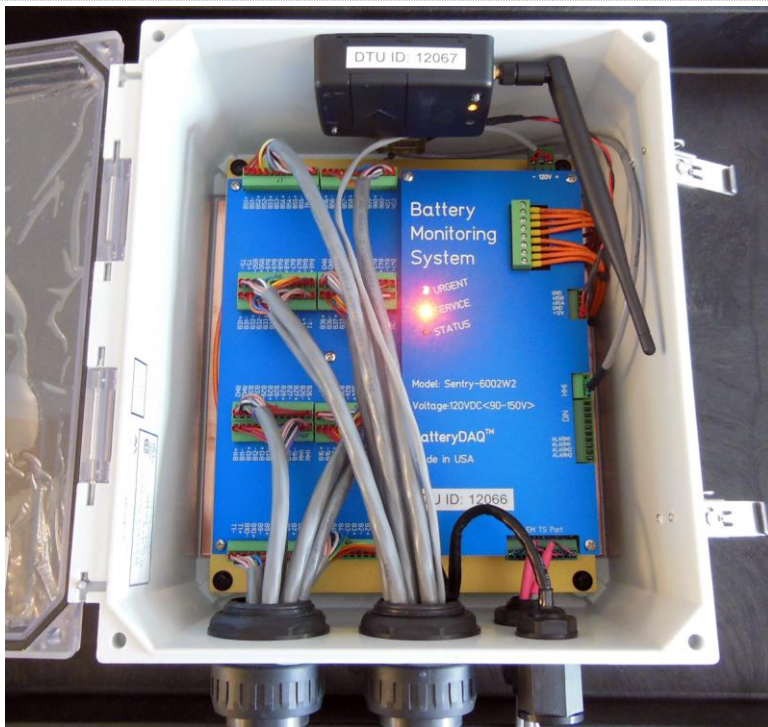


### IP65/NEMA 4 Protection Grade

#### Ordering information

- 1) Sentry-6002NEMA, one unit for every 60 cells (Ethernet port included)
- 2) GSM Wireless option, SIM card not included
- 3) Current Sensor (Specify window size and range. Default D-32mm, 450A)
- 4) O-ring fused sampling leads, 2 for each cell (120)
- 5) Optional HMI touch panel tool
- 6) Battery Analyzer software

Sentry-6002NEMA unit also includes O-ring fused IR leads (5), ambient and pilot temperature sensors, and connection plugs.



### Easy Installation/Wiring

#### Installation information

**Installation materials are not included in regular order.**

- 12-conductor (20AWG 300V) cable
- Flexible tubing 1-1/2" for sampling cables
- Flexible tubing 3/4" for sensor cable
- Cable duct
- Shunt if preferred for current measurement
- Ethernet cable and onsite RJ45 port
- SIM card with data plan if utilizing wireless (not included. Customer purchases from local telecom carrier.)

