iPQMS Battery Monitoring System

**Common Applications:** Power Utilities & Distribution, UPS Systems, Telecom/Communications

**Product Description**

The **iPQMS Battery Monitoring System** is designed to measure the aging status of critical backup batteries by measuring and recording: system voltage, load current, unit voltage, internal/connection resistance, and temperature. The iPQMS is intended for use on up to 448 vented lead acid (VLA), valve regulated lead acid (VRLA), or nickel-cadmium (Ni-Cad) batteries. Installation of the iPQMS is non-intrusive and can be completed while the battery system is online.

Standard communication includes Eagle Eye’s **Centroid 2 Battery Management Software** for recording and trending measured parameters. Centroid 2 can be installed on a private network on multiple PC’s. Networked systems can utilize SMS/Email alerts during alarm conditions. Through the software, the iPQMS can utilize Modbus protocol for integration to a distributed control system (DCS) or SCADA (some limitations apply).

**Product Features**

- **24/7/365 Battery Monitoring**
- **Comprehensive Battery Management Software**
- **Installation while systems are online**
- **Meets NERC and IEEE standard recommendations for battery monitoring**
- **Patented ripple-removing algorithm to filter out noise from measurements**
- **Injects minimal current for measurement**
- **Simple to install with custom, pre-assembled installation materials**
- **Can be powered by AC or DC**

**Battery Management Software**

- Displays and records system voltage, load current, unit voltage, internal/connection resistance, temperature.
- Trending analysis of measured parameters on a string and cell/unit level with colored, easy to read graphs.
- PDF and Excel reporting
- Detailed log of alarm outbreak history
- Email and SMS alerts
- Automatically record, save, & playback discharge & recharge events.
Technical Specifications

### Measurement Range:
- **Battery Capacity**: 5 – 6,000 Ah
- **Nominal Unit Voltage**: 1.2, 2, 4, 6, 8, or 12 Volts
- **System Voltage**: 0 – 999 VDC
- **Load Current**: ±999.9 A

### Accuracy / Resolution:
- **System Voltage**: ±0.5% / 0.1 V
- **Load Current**: ±1% / 0.1 A
- **Unit Voltage**: ±0.5% / 0.01 V
- **Internal Resistance**: ±2% / 0.001 mΩ
- **Unit Temperature**: ±2% / 0.1 °

### Test Speed / Test Load:
- 4 seconds per cell / less than 2 amps AC per cell

### Measuring Interval:
- Adjustable from 10 min to 24 hours (cell/unit readings)

### Data Transfer:
- TCP/IP to proprietary software, Modbus

### Internal Storage:
- Approximately 1-month backup

### Operating Environment:
- **Temperature**: 0 – 65 °C (32 – 150 °F)
- **Relative Humidity**: Under 80%

### Power Requirements:
- **Input**: 43 – 250 VDC / 110 – 220 VAC

### Dimensions:
- MPU: 290 x 280 x 90 mm (11.4 x 11 x 3.5 in.)
- RU: 310 x 178 x 85 mm (12.2 x 5.9 x 3.3 in.)

1) Modbus available from proprietary software only. It is not available directly from the iPQMS MPU. Contact Eagle Eye for further details.

Applications
- UPS Systems
- Power Utilities and Distribution
- Financial Institutions
- Telecom/Communications
- Oil, Gas & Fuel
- Mining
- Government/Defense
- Transportation Operations
- Battery Suppliers and Manufacturers
- Medical/Biotechnology
- Generators

System Includes
- iPQMS hardware
- Centroid 2 battery management software
- All installation materials
- USB drive with software and support literature
- Print manual
- Optional: Spare parts kit

Ordering Information

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<td>1</td>
<td>iPQMS</td>
<td>Battery Monitoring Solutions: Up to 448 Cells/Units</td>
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