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

iPQMS Battery Monitoring System

Model # IPQMS

Main Processing Unit (MPU)

Product Description

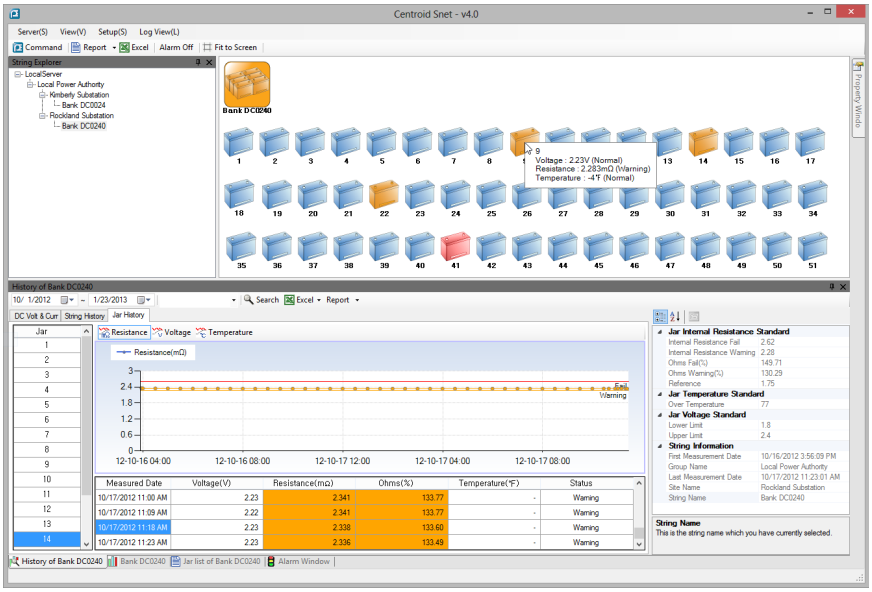
The **iPQMS Battery Monitoring System** is designed to measure the aging status of up to 448 jars (or 448 cells) by measuring and recording: string voltage, DC current, jar/cell voltage, internal resistance (I.R.), connection resistance, and temperature. The iPQMS is designed for use on vented lead acid, valve regulated lead acid, and nickel-cadmium battery systems.

The included **Centroid Snet Battery Management Software** records measured data for comprehensive trending analysis, ensuring backup power systems are optimally maintained. The iPQMS system measures up to 448 jars (or 448 cells) through clamps connected directly to the battery connections. The iPQMS can be used on a private network via TCP/IP or locally with direct RS-232 connection. Networked systems can utilize SMS/Email alerts during alarm outbreak. Modbus protocol can be utilized for third-party software integration.

Product Advantages

- 24/7/365 Battery Monitoring
- Comprehensive Battery Management Software
- Installation while systems are online
- Meets IEEE and NERC standard recommendations for battery monitoring
- Patented ripple-removing algorithm
- Injects minimal current for measurement
- Simple to install with custom, pre-assembled installation materials
- Alarms alert in real-time during outbreak
- Can be powered by AC or DC

iPQMS Installation on 125VDC Battery System



Centroid Snet Battery Management Software

Battery Management Software

- Displays and records string voltage, string DC current, cell voltage, cell I.R., & cell temperature for all battery systems
- Trending analysis of measured parameters on a string or jar/cell level
- Report generation & ability to export measured data to Excel
- Send commands to iPQMS systems
- Detailed log of alarm outbreaks with Email/SMS alerts
- Automatically record, save, & playback discharge & recharge events

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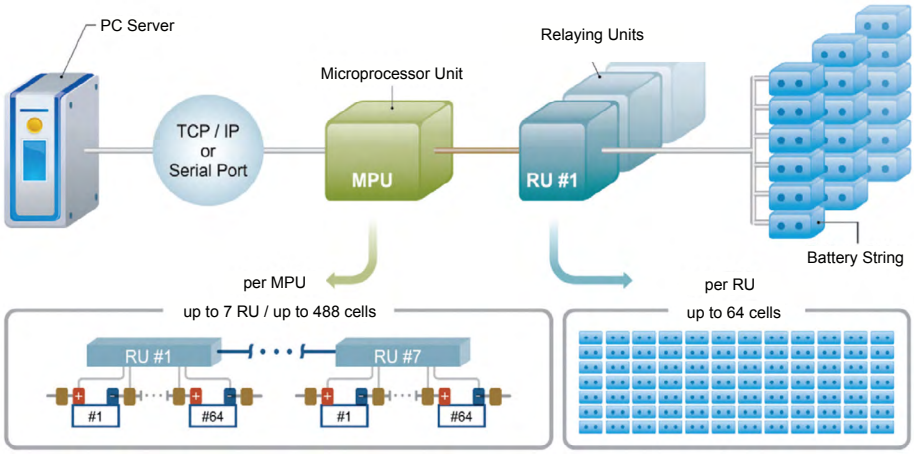
System Composition

Components of iPQMS system between the server and battery system.

- Server and MPU communicate via TCP/IP
- iPQMS connects up to (448) cells via (7) Relaying Units (RU)
- (1) RU connects up to (64) cells
- RU's gather battery data through voltage & current sensing cables attached to battery inter-cell connections



iPQMS System Composition

Technical Specifications	
Measurement Range:	Battery Capacity: 5 – 6,000 Ah Jar/Cell Voltage: 1 – 16 VDC AC Voltage/ Current: 0 – 600 VAC / 999.9 A DC Voltage/Current: ~ 999.9 VDC / ~999.9 A
Accuracy:	DC Voltage / Current: ±0.5% / ±1% Temperature: ±2% Internal Resistance: ±2% Cell Voltage: ±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 °C (0.5 °F)
Test Speed / Test Load:	3 – 4 seconds per cell at less than 2 A per cell
Measuring Interval:	Adjustable from 5 min to 24 hours (voltage & I.R.)
Data Transfer:	TCP/IP via Ethernet, RS-232, Modbus
Display:	Backlit LCD
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 Consumption: 15 W
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)

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

- Centroid Snet Battery Management Software
- iPQMS MPU with mounting kit
- Relaying Unit(s)
- O-Clamps for inter-cell cable connections
- C-Clamps for inter-cell busbar connections
- Cabling for string voltage measurement
- Cabling for cell voltage, cell I.R. and temp. measurement
- CT clamp for DC current measurement
- Power cabling
- **Optional:** Spare parts kit

Ordering Information

No.	Model #	Description
1	IPQMS	Battery Monitoring Solutions: Up to 448 Jars/Cells