SM BAT – EnergyMaster™

Monitoring

Features and Benefits
- Lower maintenance cost related to battery backup
- Higher availability thanks to automated battery backup test, detailed information and alarms from the battery backup

Description

The Supervision Module for Batteries (SM BAT) provides detailed information and alarms regarding the battery backup condition at the telecom site. Based on this information, site visits and maintenance related to the battery backup can be optimized to save both time and money, especially for sites located remotely.

The SM BAT is an easy-to-install monitoring device connected to the advanced control unit (ACU) of the DC power system, and the battery backup it supervises. It is designed for measuring cell/block voltages, battery current and battery temperature.

The information and alarms, regarding the battery backup on a specific site, can be monitored or checked by means of a simple web browser or specific management software. No additional software is needed and login to monitor the site is password protected. (Examples of alarms provided by means of the control unit of the power system is specified in the datasheet and/or manual for the specific unit.)
Technical Specifications, SM BAT

### General
- **Power Supply**: 18-60 VDC
- **Power Consumption**: 5W
- **Temperature Range**: 0°C to +60°C / 32°F to +140°F
- **EMC**: EN 300 386; class B, FCC part 15 class B
- **Safety**: IEC 60950, EN 60950, UL 60950
- **Approvals**: CE, UL and designed to meet NEBS level 3

### Mechanical Data
- **Dimensions (H × W × D)**: 150 × 300 × 43 mm / 5.9 × 11.8 × 1.7 inch
- **Standard Installation Methods**: Rack and wall mounted
- **Weight**: < 2 kg / 4.4 lbs

### Inputs/Outputs
- **External Communication**: RS232 / RS485
- **Digital Inputs**: 8 Digital Inputs
  - Alarms/Events
- **Analog Inputs**: 25 Analog Inputs
  - 0-14.5 V < 0.5% for cell/block voltages
  - 0-75 V < 0.5% for total battery voltage
  - 5 Analog Inputs
  - 0-75 V < 0.5%, 0-20mA < 0.5%, 0-100mV < 1%, 1uA/K <2% configurable
- **Digital Outputs**: 2 Relay Outputs
  - 24VDC / 250VAC, 5A

### System Layout

**ABBREVIATIONS**
- **PSTN**: Public Switched Telephone Network, an ordinary telephone line
- **IE**: Internet Explorer
- **ENEC**: EnergyMaster™ Emerson Network Energy Center, multi-platform, multi-user, distributed multi-language web environment for monitoring of Emerson Network Power DC, HPAC and UPS equipment
- **PSEM**: Power Supply and Environment Monitoring system
- **ACU**: Advanced Control Unit
- **PSU**: Power Supply Unit (AC/DC converter/rectifier)
- **SM DU**: Supervision Module for additional alarms in extension cabinets
- **SM AC**: Supervision Module for Alternating Current
- **SM BAT**: Supervision Module for Battery Backup
- **SM IO**: Supervision Module for generic monitoring

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