The Supervision Module for AC (SM AC) provides detailed information and alarms regarding the condition and status of the telecom site's AC supply and backup generator. Based on this information, site visits and maintenance related to the AC and standby generator can be optimized to save both time and money, especially for sites located remotely.

The SM AC is an easy-to-install monitoring device connected to the advanced control unit (ACU) of the DC power system, and the AC units it supervises. It is designed for measuring AC voltages and currents, and providing calculations of powers and total harmonic distortions. SM AC is also designed for remotely testing start-functions of standby generator.

The information and alarms, regarding the AC units 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 are specified in the datasheet and/or manual for the specific unit.)
### Technical Specifications, SM AC

#### General
- **Power Supply**: 18-60 VDC
- **Power Consumption**: 6W
- **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 × 400 × 43 mm / 5.9 × 15.7 × 1.7 inch
- **Standard Installation Methods**: Rack and wall mounted
- **Weight**: < 2.7 kg / 5.95 lbs

#### Inputs/Outputs
- **External Communication**: RS232 / RS485
- **Digital Inputs**: 12 Digital Inputs
- **Alarms/Events**: 12 Digital Inputs
- **Analog Inputs**:
  - 3 Mains/Phase Voltage: 0-600 VAC, 0-346 VAC
  - 3 Phase Current: 0-5 A external current transformer
  - 1 Battery Voltage: 0-36 V DC
  - 1 Temperature: -25°C to +80°C / -13°F to +176°F
  - 1 Network Frequency: 45-65 Hz
  - 3 Apparent Powers: kVA calculated in software
  - 3 Active Powers: kW calculated in software
  - 3 Reactive Powers: kVAR calculated in software
  - 3 Current Distortions: 0-100% calculated in software, THD (Total Harmonic Distortion)
- **Energy**: kWh calculated in software
- **Digital Outputs**: 4 Relay Outputs
- **24VDC / 250VAC, 5A**

#### System Layout

![System Layout Diagram]

### 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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