# Supervisory Module (SM3X)

## Smart Power Management

The SM3X range of microcontroller supervisory modules provide the control and monitoring functions for the Enatel RM Series rectifiers, CM Series DC/DC converters and IM Series inverters.

The SM3X monitors all power system conditions including DC voltage, rectifier current, battery current, battery temperature and distribution failure. Visual notifications of alarm conditions are given by LEDs and a 4 line x 16 character alpha numeric LCD, with remote notification being enabled by relay contacts or TCP/IP (using SNMP). It has a built-in web-based configurator allowing setup of system parameters using a web browser.

The SM3X range utilizes a USB communications port which allows for local monitoring of system operations as well as easy downloading of configuration files for multiple site installations.

## KEY FEATURES

- Serial control for up to 168 rectifiers or converters, plus peripheral devices
- Periodic and event logging of up to 16,384 records each
- Multiple language options
- Temperature compensation
- Battery current limiting
- Multiple LVD Control
- Fast charge control and timer
- Web-based configuration
- TCP/IP interface and SNMP for remote monitoring
- USB port for local connection
- Multiple digital and analogue I/O expansion option
- Battery mid-point monitoring

# Specifications

| DC INPUT | SM33/SM34 | SM35/SM36 |
|---|---|---|
| Rated Voltage: | 80–160V DC | 16–75V DC |
| Input Current: | <50mA maximum | <150mA maximum |

| MONITORING AND CONTROL | | |
|---|---|---|
| Display: | | Multi-lingual alpha-numeric backlit display |
| Communications Serial:<br>TCP/IP:<br>Modbus: | | 1x USB port on front panel for local PC interface<br>Ethernet interface for communication using SNMP protocol v1/v2c/v3 and internal web based configurator<br>Supported via TCP/IP |
| LED Indicators Green:<br>Yellow:<br>Red: | | Power on/monitor OK<br>Non-urgent alarm<br>Urgent alarm |
| Audible: | | 90dBA buzzer mappable to user-defined conditions |
| Controls: | | 3x push buttons for parameter-setting or viewing on front panel |
| Signal Inputs: | Serial bus for rectifier control and interface to peripheral modules, 3x digital inputs, 2x temperature sensors (one fitted by default) | Serial bus for rectifier control and interface to peripheral modules, 6x digital inputs, 2x temperature sensors (one fitted by default) |
| Alarms: | 3x alarm relays, two of which can be mapped for customized alarm settings | 6x alarm relays, five of which can be mapped for customized alarm settings |
| Alarm Contacts: | | 0.3A 100V volts free changeover contacts |
| Logging Capacity: | | Periodic log, 16,384 records (dependent on number of parameters logged)<br>Event log, 16,384 records (dependent on number of parameters logged) |
| Connections: | | Relay outputs, mini combicon to accept 1.5mm² wire<br>USB port, USB mini B |

| ENVIRONMENTAL REQUIREMENTS | |
|---|---|
| Ambient Temperature: | -20ºC to +70ºC (maximum output power is derated above 55ºC) |

| MECHANICAL | | COMPLIANCES | |
|---|---|---|---|
| Dimensions (W, H, D): | 111.5mm, 44.0mm (1U), 282.0mm | Safety: | EN60950 |
| Weight: | 1.50kg | Other: | CE & RoHS compliant |

| PART NUMBERS: | |
|---|---|
| SM33: | Standard monitor featuring full temperature compensation, automated and manual battery testing/equalization |
| SM34: | Enhanced monitor featuring full temperature compensation, automated and manual battery testing/equalization with TCP/IP |
| SM35: | Standard monitor featuring full temperature compensation, automated and manual battery testing/equalization |
| SM36: | Enhanced monitor featuring full temperature compensation, automated and manual battery testing/equalization with TCP/IP |

CE   RoHS   Contact Enatel for datasheets and characterization details. Due to product development, specifications are subject to change without prior notice. Pictures may be representative: actual products may differ.