

# SM SERIES SUPERVISORY MODULES



The SM36 microcontroller based supervisory module provides the control and monitoring functions for the Enatel RM series rectifiers, CM series DC/DC converters and IM series inverters.

The SM36 monitors all power system conditions including DC voltage, rectifier current, battery current, battery temperature, and distribution failure. Visual notification of alarm conditions are given by LED's and a 4 line x 16 character alpha numeric display mounted on the front of the SM32, with remote notification being enabled by relay contacts, RS232 or TCP/IP (using SNMP). It has a built in web based configurator allowing setup of system parameters using a web browser.

The SM36 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.

- **Serial control for up to 126 rectifiers/converters, plus peripheral devices.**
- **Periodic and event logging of up to 16384 records each. (Dependant on number of parameters logged.)**
- **Multiple language options.**
- **Temperature compensation.**
- **Battery current limiting.**
- **Dual LVD Control.**
- **Setup from front panel or PC.**
- **Fast charge control and timer.**
- **LCD display of parameters.**
- **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

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## DC INPUT

Rated Voltage:	16-75V DC
Input Current:	<150mA maximum

## MONITORING & CONTROL

Display:	Multi-lingual alpha numeric backlit display
Communications:	Serial: 1x USB port on front panel for local PC interface TCP/IP: Ethernet interface for communication using SNMP protocol and internal web based configurator* Modbus: Supported via TCP/IP*
LED Indicators:	Green: Power on/monitor OK Yellow: Non urgent alarm Red: 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 6x digital inputs, 2x temperature sensors (one fitted by default)
Alarms:	6x alarm relays, 5x of which can be mapped for customised alarm settings
Alarm Contacts:	0.3A 100V volts free changeover contacts
Logging Capacity:	Periodic log, 16,384 records (dependant on number of parameters logged) Event log, 16,384 records (dependant on number of parameters logged)
Connections:	Relay outputs, mini combicon to accept 1.5mm <sup>2</sup> wire USB port, USB mini B

\*TCP/IP and modbus options only available with SM36 supervisory module.

## ENVIRONMENTAL REQUIREMENTS

Ambient Temperature:	-20°C to +70°C (maximum output power is derated above +50°C)
Storage Temperature:	-30°C to +85°C
Humidity:	5-95% RH (non-condensing)
Altitude:	<2,500m at full power

## COMPLIANCES

Safety:	EN60950
Electrostatic Discharge:	CISPR24
Radiated Radio Frequency:	CISPR22
AC Harmonics:	EN61000-3-2
AC Flicker and Fluctuation:	EN61000-3-3
Other:	CE & RoHS compliant

## MECHANICAL

Dimensions W, H, D:	111.5mm, 44.0mm (1U), 282.0mm overall
Weight:	1.5kg



## PART NUMBERS

SM35:	Standard monitor featuring full temperature compensation, automated and manual battery testing/equalisation
SM36:	Enhanced monitor featuring full temperature compensation, automated and manual battery testing/equalisation with TCP/IP