

SM12 Supervisory Module



WEB

Web Based Configuration

USB

USB Port for Local PC Interface

The SM12 is a system monitor designed for integration into telecommunications DC power systems using Rectronic RM's range of rectifiers and IM range of DC/AC inverters or CM range of DC/DC converters. It displays system parameters and controls the system float voltage as temperature varies to ensure the batteries are kept at optimum charge. It also collects alarms from system components, displays alarm status and provides a relay interface for each alarm to allow for remote monitoring of alarms.

The SM12 also incorporates the following features:

- 1.77 inch TFT colour display
- Hot swappable
- System voltage metering
- Load, rectifier and battery current metering
- Battery and room temperature metering and alarms (when optional temperature sensors are fitted)
- Temperature compensation of float voltage (when optional temperature sensors are fitted)
- Central system voltage adjustment and control
- Automatic voltage control
- Periodic equalise charging
- Manual equalise charging
- Battery current limit
- Battery testing facility
- Battery capacity remaining
- Active rectifier current share
- Individual rectifier current indication
- Dual low voltage disconnect (standard or magnetically-latched contactors, expandable to four)
- AC supply metering and alarms
- Multi language support
- Support Modbus and SNMP protocol
- I/O extension board
- Up to six user defined digital inputs
- Optional battery monitoring board

Specifications

Input:	
Voltage Range:	24-110V DC
Maximum Input Current:	<350mA
Interface:	
Display:	8 line x 20 character multi-lingual alpha numeric display
Communications:	Serial: 1x USB port(mini USB) on front panel for local PC interface 2x RS485 port, rear mounted for remote serial 1x RS232 port for communication with GSM modem
	Relay: 16x alarm and control relays, 4 of which have been occupied internally 12 of which can be mapped for customized alarm settings(with one extra I/O expansion board)
	TCP/IP: EthE.net interface for communication using SNMP protocol and internal web based configuration
Indicators:	3x LED's: 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:	10x alarm and control signal inputs. (programmable. extra 8 inputs available with expansion board) 5x current shunt inputs. (reserved for internal system connection) 1x DC voltage inputs. (reserved for internal system connection) 6x temperature sensor inputs. (adjustable temp coefficient)
Alarms:	16x alarm relays.(with extra I/O expansion board)
Alarm contacts:	0.3A 100V volts free changeover contacts
Default alarm map:	Relay 1: LVD 1 (non programmable) Relay 2: LVD 2 (non programmable) Relay 3: Non-urgent. (programmable) Relay 4: Urgent. (programmable) Relay 5 - 16: Unassigned
Logging capacity:	History Log: Typically 1600 records. (expandable to 10000 records, optional) Event Log: Typically 1600 records. (expandable to 10000 records, optional)
Connections:	Relay outputs, mini connector to accept 1.5mm csa wire Serial communications to rectifier shelf & peripheral devices - mini connector USB port - USB mini B
Limit charge current:	Adjustable from 1% - 30% capacity of battery
Boost charge:	Automatic and manual Adjustable current of cycle use
Operating temperature:	-15 to +65°C
Storage temperature:	-45 to +70°C
Dimensions W, H, D:	105mm , 40mm (1U), 220mm
Weight:	800g

The screenshot displays the SM12 Web Configuration Console interface. The top navigation bar includes the Rectronic Technologies logo, the title 'SM12 Web Configuration Console', and user information 'admin | Logout'. Below the navigation bar, there are tabs for 'AC', 'DC', 'Battery', 'Rectifier', 'Temp', 'Sys Config', and 'Alarm Set'. The 'AC' tab is selected, showing a table of 'AC Alarms' with columns for Signal, Value, Set Value, and Set. The table lists various alarm setpoints such as High Voltage Alarm Setpoint (V), Low Voltage Alarm Setpoint (V), Phase Lost Alarm Setpoint (V), High Current Alarm Setpoint (A), High Frequency Alarm Setpoint (Hz), and Low Frequency Alarm Setpoint (Hz). The 'AC Input Phase Number' is set to 'Single Phase' with a dropdown menu showing 'Three Phases'. On the left side, there is a sidebar with navigation options: Home, Settings, Advanced Settings, History Log, System Status (Output Voltage: 120.2V, Load Current: 0.0A, Battery Current: 0.0A, Rectifiers: 2, Battery Status: Float Charge, Alarm Status), and Controller Specifications (Product Model: SM12, IP Address: 192.168.1.105, Hardware Version: 1.1, Software Version: V4.24). The footer of the console shows the copyright notice '©2019 Rectronic All right reserved'.