Rectronic Technologies

▶ Indoor/outdoor power supply

- ◆ Flexible and scalable to satisfy your present and future needs
- ◆ Smart battery management gives long battery life-span
- ◆ Automatic battery test including advanced scheduled test / constant test / fast test
- ◆ Lower operating cost due to energy saving standby function for rectifier
- ◆ Powerful hybrid power management function
- ◆ Log record and statistic with advanced algorithm
- ◆ Minimized installation time as a result of easily configurable file upload/download

▶ Product description

SM16A is the new generation DC power controller module developed by RECTRONIC. The Controller module adopts ARM 32-bit Cortex-M4 CPU as primary controller, and RTOS as system platform. SM16A offers many features and functions, and a more robust, user-friendly, and easy-to-use interface.

▶ Applications

Indoor/outdoor power supply

In addition to controlling of rectifier modules, AC/DC distribution, SM16A manages battery charge, discharge, test, maximizes battery capacity and lifespan. With improved memory, SM16A can store mass alarm/event and data logs for system performance analysis and fault diagnose.
DI/DO connectors and RS485/Ethernet ports provide flexible extension function and parameters setting, software and logs downloading/uploading, remote monitor system accessing.

▶ KEY FUNCTIONS

● Measurement

- ◆ Analog value measurement
- ◆ Digital value measurement

● Communication

- ◆ The Controller can communicate with the host computer in 2 modes: RS485 and Ethernet (WEB and SNMP). It can communicate with   rectifier and solar modules in CAN bus mode.
- ◆ 2 southbound RS485 for battery BMS or extension function boards.
- ◆ For remote and local monitor system via WEB browser, controlling, parameters upload/download, data load.
- ◆ SNMP protocol supports GET, SET and TRAP on Ethernet.

● DI/DO

- ◆ 8+1 user digital input interfaces freely configurable
- ◆ 8 groups of dry contact outputs freely configurable

● SCREEN and LEDS

- ◆ 128*32 LCD screen display running information and local setting interface
- ◆ Green/Yellow/Red LEDS indicate running status for local instant diagnose.

● Alarm history, event history store

- ◆ 1000 alarms history and 1000 events history store, FIFO for system analysis.

● Data log store(advanced version)

- ◆ 2000 data logs including bus voltage, load current, battery current and temperature with time tag.

● **REMOTE METERING**

◆ 6 ways AC volts
◆ 11 ways DC volts
◆ 4 ways Load currents
◆ 2 ways Battery currents
◆ 3 ways Battery temperature
◆ 1 ways Ambient temperature
◆ Rectifier modules voltage/current
◆ Solar modules voltage/current

● **REMOTE CONTROL**

◆ Equalizing and floating charge of battery
◆ Voltage regulating of rectifier or solar modules
◆ Current limiting of rectifier or solar modules
◆ On/Off control of rectifier or solar modules
◆ 4 ways Load disconnect
◆ 1 way Battery disconnect

● **BATTERY MANAGEMENT**

◆ Boost Charge
◆ Temperature Compensation
◆ Battery Test
◆ Low Voltage Disconnection
◆ High Temperature Disconnection
◆ Battery Capacity Prediction

● **ENERGY SAVING MODE**

◆ High/standard efficiency rectifiers mixture management
◆ Rectifiers running cyclic
◆ Rectifiers running dormancy

● **ALARMS/EVENTS**

◆ SPD alarm
◆ Configurable digital input alarm
◆ Load fuse alarm
◆ Battery fuse alarm
◆ Manual mode alarm
◆ Battery discharge
◆ Current imbalance
◆ Battery test fail

◆ Load disconnect
◆ Battery disconnect
◆ AC power failure
◆ Rectifier communication fail
◆ Rectifier AC input failure
◆ Rectifier fault
◆ Rectifier fan fault
◆ Rectifier protect

◆ Rectifier on/off status
◆ Solar communication fail
◆ Solar fault
◆ Solar fan fault
◆ Solar protect
◆ Solar on/off status
◆ AC over voltage and under voltage
◆ DC over voltage and under voltage

◆ Battery charge over-current
◆ Battery temperature alarm
◆ Ambient temperature alarm
◆ Battery imbalance
◆ System energy-saving mode
◆ Energy-saving fault

Site Monitoring Solution