

M35 MODULAR RECTIFIER SYSTEM MONITOR

USER MANUAL



User Manual
Version V1.0
Date 2021-01-25

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1. Foreword

M35 Monitor is designed to meet the user's conventional communication power system, which is mainly applicable to the communication power system and the power supply of the communication power system. Battery inspection is achieved through the extended way, through the Modbus RS485 interface link M35 monitor. The feature of the monitor is the combination structure of integrated and extended unit, high cost performance, simple wiring and convenient installation.

2. Feature

- 2.1 Easy to use, high; performance ratio
- 2.2 With remote RS485 communication function and Modbus communication protocol, realize "four remote" function;
- 2.3 3.5-inch touch screen, realize human-machine interface visual operation, full English menu, simple and convenient operation, easy to use;
- 2.4 Alarm processing and recording function, the system fault record can be inquired through the current fault and history fault;
- 2.5 Alarm contact can be selected by switching input according to user requirements;
- 2.6 According to different requirements of the system, battery patrol can be extended through RS485 bus;
- 2.7 It can be used with communication modules of multiple manufacturers.
- 2.8 Support Hot Swap

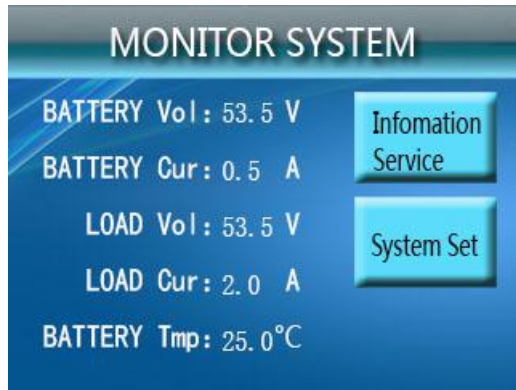
3. Function Instruction

- 3.1 Intelligent battery charging management function, quick response time, stable current limit value, prolong battery life;
- 3.2 Perfect remote communication function, through the RS485 interface to achieve "four remote" function, realize the function of no-person on duty.
- 3.3 Perfect alarm processing and recording function. When the system is abnormal, the monitor will automatically generate sound and light alarm. At the same time, the "fault alarm" will flash on the screen, and the fault output node will act. Users can query system fault record through current fault and history fault;
- 3.4 Locally (or remotely) set system operating parameters, upper and lower alarm values, manual floating charge conversion, module switch machine control
- 3.5 Measure the output voltage and current of DC bus, the output switching state, fuse state, bus insulation state and lightning protection state of each feed, and send out acousto-optic alarm in case of abnormal situation;
- 3.6 AC voltage detection, over voltage, under voltage, phase loss, power failure alarm
- 3.7 12-channel branch feeder switch state or trip alarm;
- 3.8 Extend up to 120 batteries for inspection through RS485 interface;

4. Operating Instruction

4.1 Display :

4.1.1 Home screen



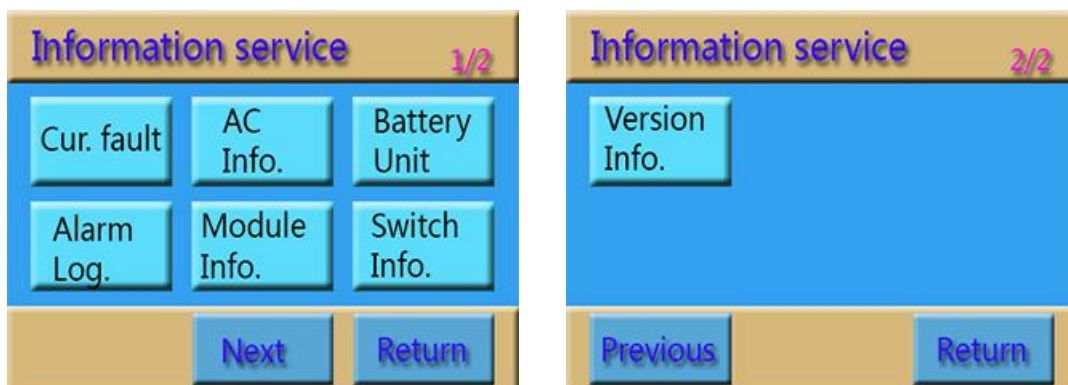
Function: Show System status, System Menu. Click the icon enter menu.

4.1.2 Help Information Menu



Function: Display the version information

4.1.3 Information Query



Function: Display Current Fault, History Fault, AC information, Alarm Log, Module Information, Switch Information,

Version Information.

4.1.4 Current Fault List: When system in abnormal condition, check the Current Fault List, there will display fault time, fault name, can turn the page up and down query, press the back key can return the information query page.



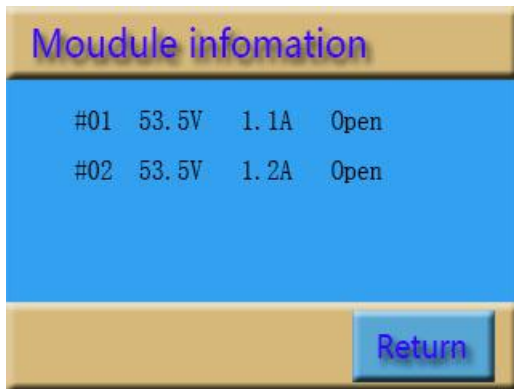
4.1.5 History fault list: can record up to 1000 history fault, can turn up and down the page query. Record the occurrence time and elimination time of each fault. If you need to clear the historical fault, you need to clear it through the "Clear Historical Fault" button in the system Settings menu.



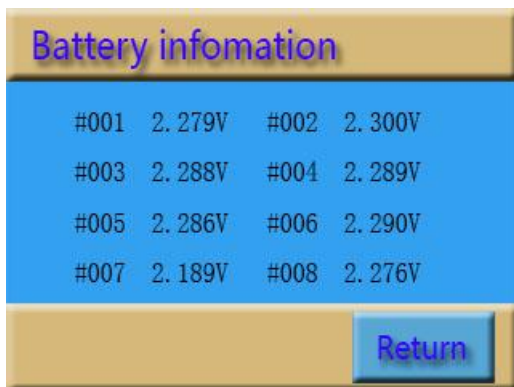
4.1.6 AC information: Display the phase voltage of AC voltage



4.1.7 Module information: display module voltage and current data as well as module switching status. When module communication failure occurs, the voltage and current data will be displayed to zero.



4.1.8 Battery Information: Up to 24 battery voltage query, page up and down query



4.1.9 Switch information: including AC switch, DC switch state query, when the system setting is set to allow alarm, alarm will be issued in the switch.



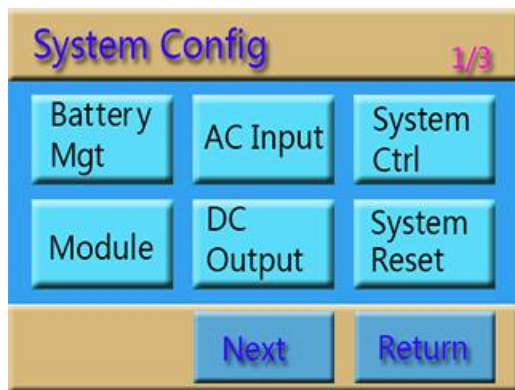
4.2 System Setting

4.2.1 Permission authentication: System setting setting need to verify setting permissions



Initial Password: 666666

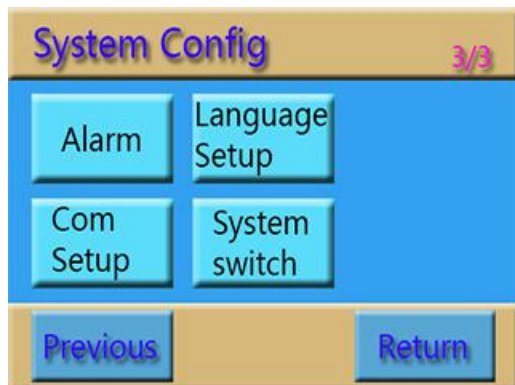
4.2.2 System configuration



System Settings Menu Page 1 Functions: battery charging parameter management, AC over-voltage and under-voltage setting, system control, charging module type setting, DC parameter setting, and system restart

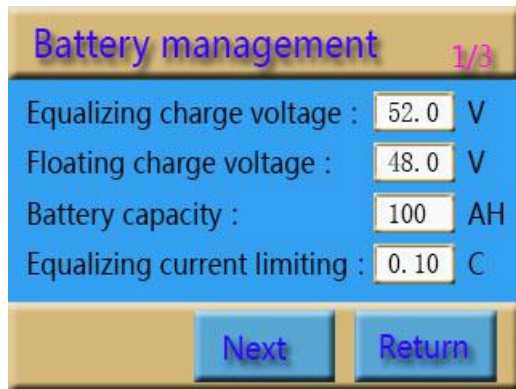


System Settings Menu Page 2 Functions: switch input alarm type setting, monitoring setting password modification, single battery parameter setting, output node type setting, time setting, and clearing historical faults

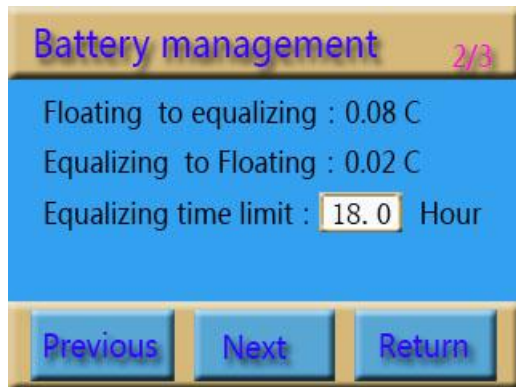


System Setting Meun Page 3 Function: Alarm threshold setting, language selection setting, upper computer communication parameters setting, system voltage switching

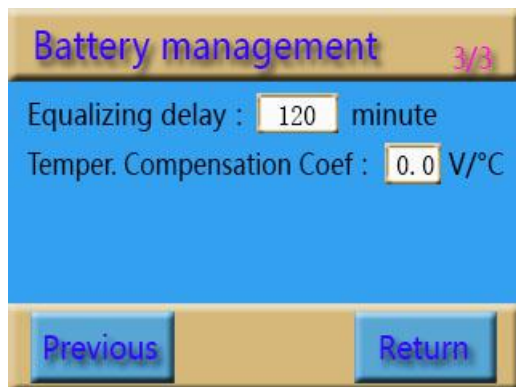
4.2.3 Battery management: Battery Charging Management Parameter Setting (See Note for Terms)



Function: battery floating charging voltage setting, battery capacity setting, equalizing current limit point setting

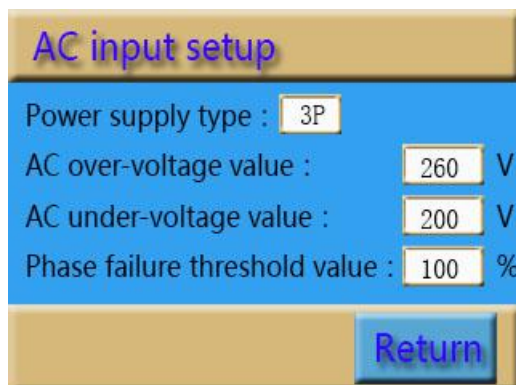


Function: floating to equalizing changing setting, equalizing time limit setting.



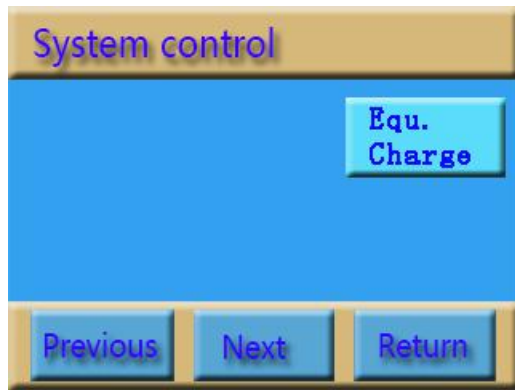
Function: equalizing delay setting, battery temperature compensation setting

4.2.4AC input setup: Power supply type setting, AC over-voltage value setting, AC under-voltage value setting, phase failure threshold value setting.



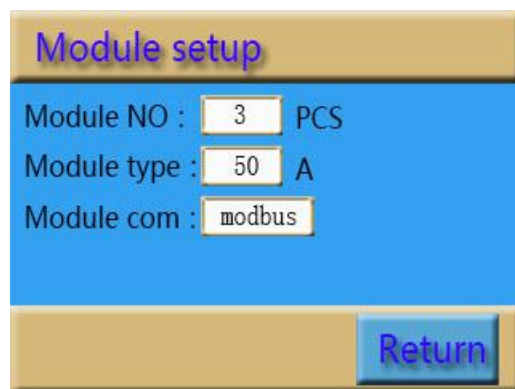
Power suppl: three phase, single phase AC over voltage limit : 80V~300V adjustable AC under voltage limit: 80V~300V adjustable

4.2.5 System control



Function: Control the switch of charging module and battery floating charge/charging switch

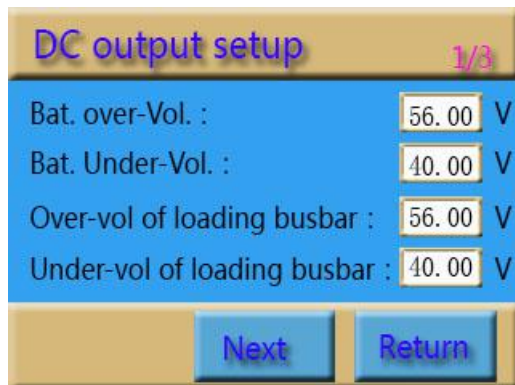
4.2.6 Module Setup



Module No.: (1~16 pcs) , Module type: 5~100A

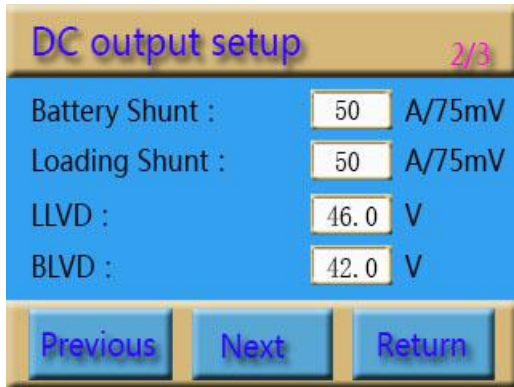
Module Communication Protocol: Em-can、In/can 、JWY、JHW、MR-48、STK

4.2.7 DC Setting: Setting DC warning value

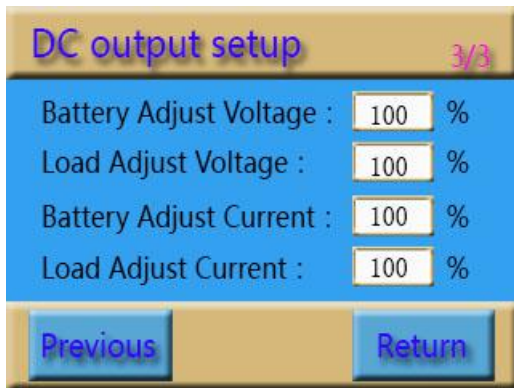


Battery over voltage value: 20V~300V adjustable 、 Battery under voltage value: 20V~300V adjustable

Busbar over voltage value: 20~300V adjustable Busbar under voltage value: 20V~300V adjustable



Battery shunt: 0A~999.9A adjustable, load shunt: 0A~999.9A adjustable
 LLVD: 5V~60V adjustable BLVD: 5V~60V adjustable



Function: Measurement display value correction

4.2.8 switch setting: Set the definition of output node and input definition of switch quantity

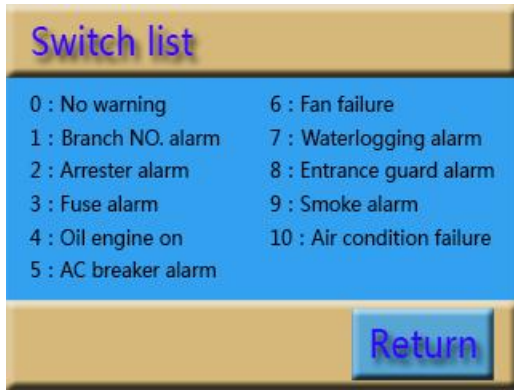


Function: 1~4 switch input alarm choice, slip detection function on and off selection



Function: 5~12 switch input alarm type selection

The branch input alarm description



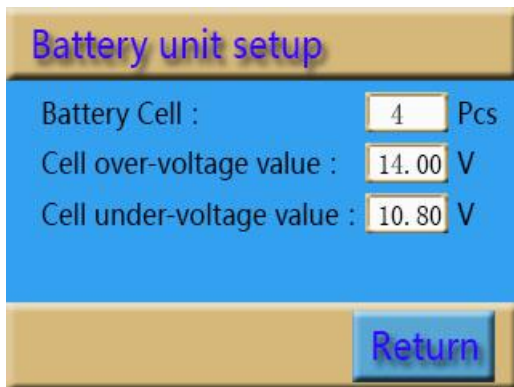
0: invalid, no warning;1: branch No. alarm;2: Arrester alarm;3: fuse alarm;4: oil engine on;5: AC breaker alarm;6: fan failure;7: waterlogging alarm;8: entrance guard alarm;9: smoke alarm;10: air condition alarm;

4.2.9 Change Password



Function: Enter the old 6 digit password, set a new 6 digit password

4.2.10 Single battery setting



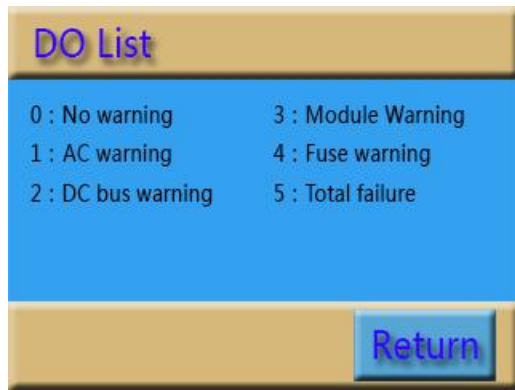
Battery cell: 0~120 pcs cell over-voltage value: 0~16V cell under-voltage value: 0~16V

4.2.11 Dry contact configuration



Function: Set the type of output node

Node description:



0: No warning 1: AC warning 2: DC bus warning 3: Module warning 4: Fuse warning 5: Total failure

4.2.12 Time setup



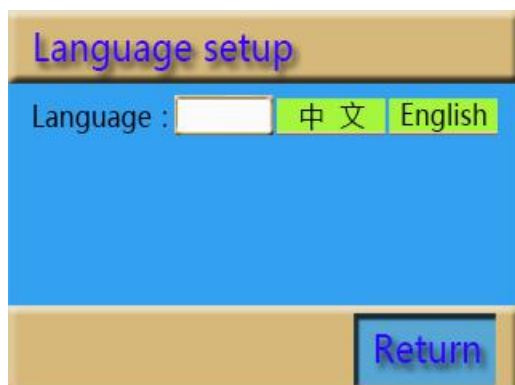
Function: Set the system time of year, month, day, hour, minute, second

4.2.13 Alarm threshold setup



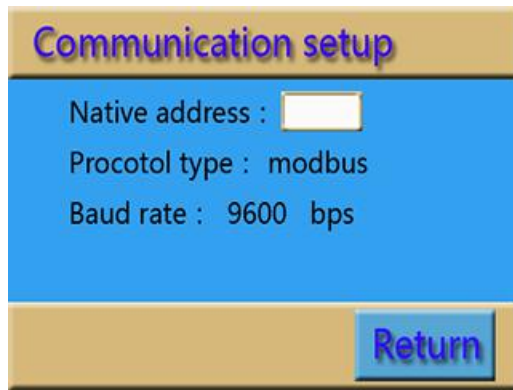
Function: Set the fault alarm sensitivity of AC over-voltage and DC over-voltage and under-voltage

4.2.14 Language setup



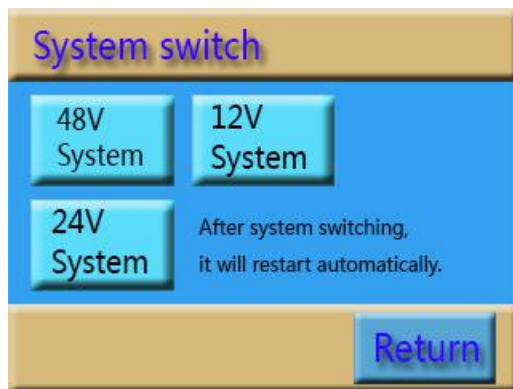
Function: System language option(Chinese/English)

4.2.15 Communication setup



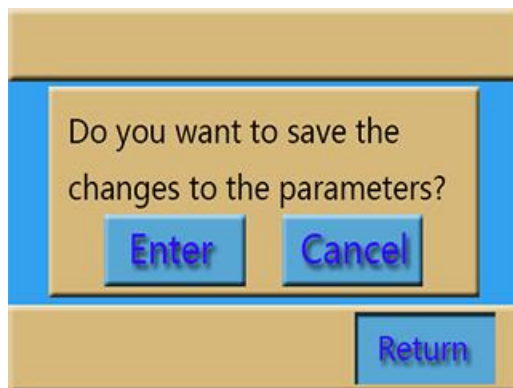
Function: set the communication address

4.2.16 System switch



Function: 12V、24V、48V switch

4.2.17 Parameter setting save



Function: Select whether to save the currently set parameters

5. Remark:

E-qu charging voltage: Output voltage of the charging module when the battery is Equalized charging

Floating charging voltage: The output voltage of the charging module when the battery is floating charging

Battery capacity: The nominal battery capacity of the system

Equalized current limit point: In the equalize charging state, the maximum charging current is limited within this value range

Floating charge to uniform charge: in the floating charge state, the battery current reaches this value, then the battery will be

transferred to uniform charge mode

Equalized charging to floating charging: in the equalized charging state, the battery current is less than this value, then the battery will be transferred to the floating charging mode

Equalized charging time limit: After switching to equalized charging state, the maximum time of equalized charging state is limited within this value range.

Charging delay: In charging mode, if the charging current is less than the floating charging current within the charging limit time, it shall continue to maintain the charging state according to the set time.

Temperature compensation: the reference point of temperature compensation. The offset is compared with the actual temperature, and the temperature compensation is carried out according to the offset