

Master BMS Configuration Instruction

The program of the master is commonly used , and the configuration parameters of the master BMS can be modified according to the requirements of the user. The user wants to modify the parameter via the USB to RS485 module, a computer running the software for modifying configuration parameters are required.

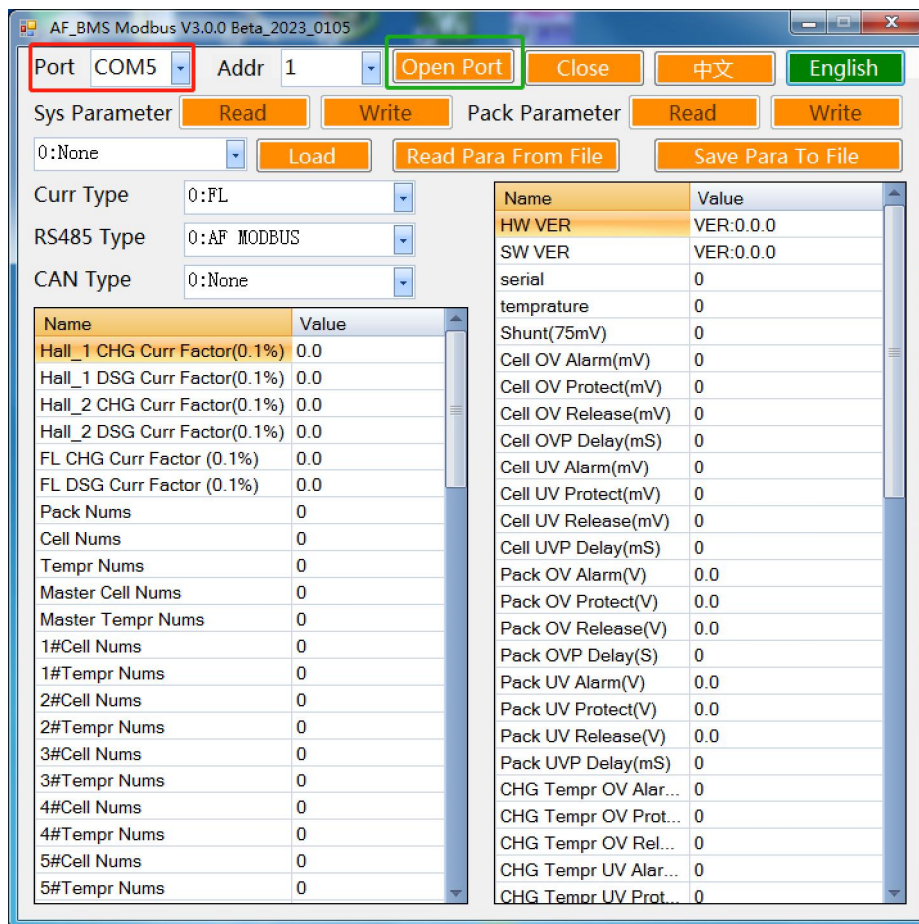
After the software is opened, the program will automatically show the serial ports of the computer.

After selecting the serial port, open the serial port. If the serial port is occupied by other software, a message is displayed indicating that the serial port is occupied.

Note: "Read" parameters before modifying them. After parameters modification, it is best to restart the software , and then read these parameters again

Check if the parameters are correct. Incorrect parameters may cause security accidents.

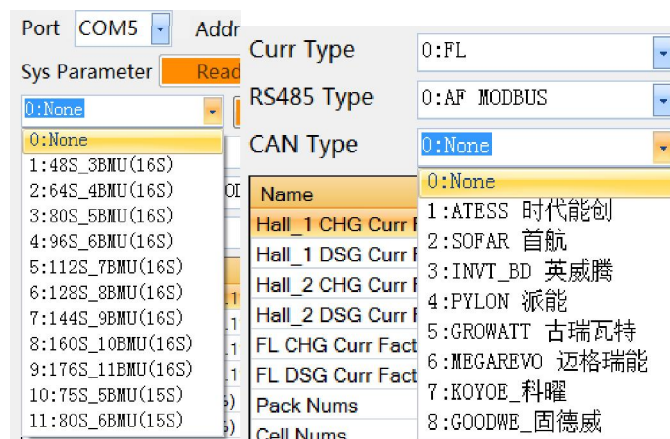
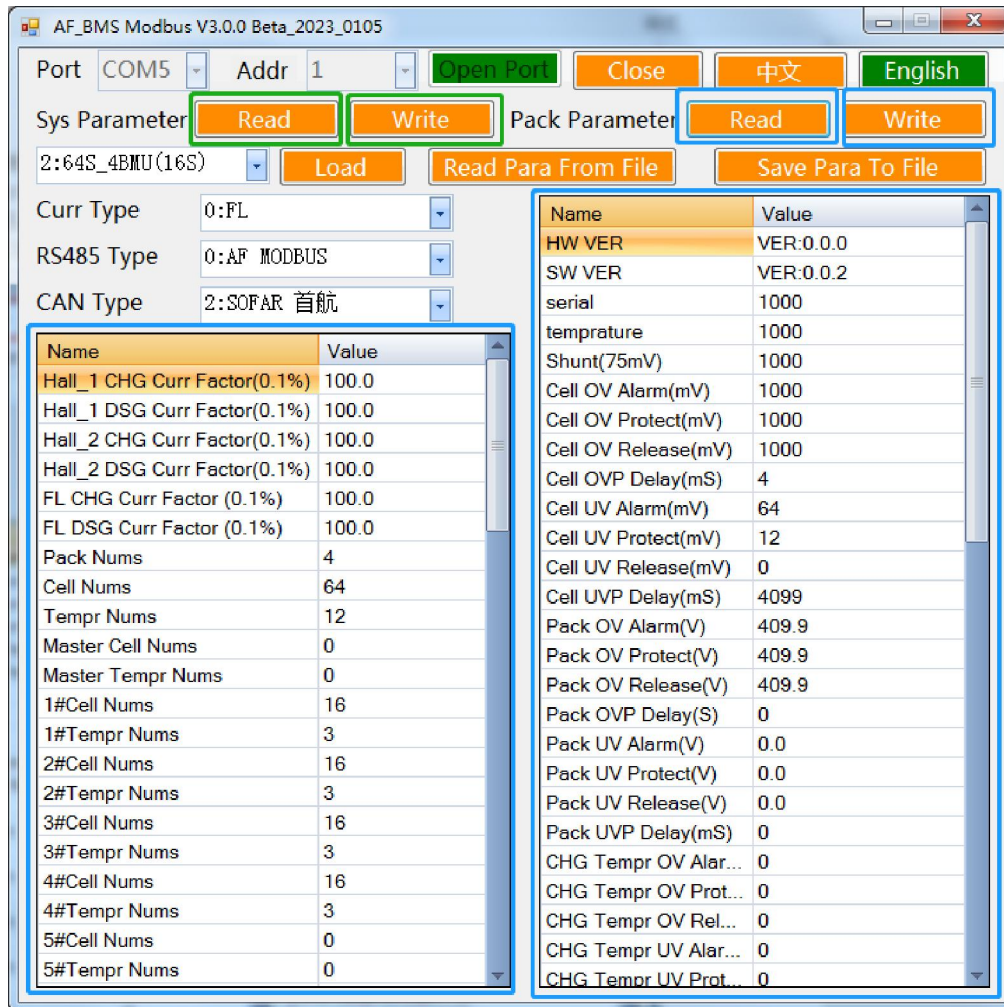
Therefore, precautions should be taken.



1>. The software interface is divided into left and right .

On the left there is window of batteries system parameter settings and on the right there is window of BMS parameter settings

After clicking the "Read" button on the left, the system parameters in the BMS system will be displayed. The first item is the current detection type: Shunt and Hall sensors. The second item is the RS485 port. This port can be used to communicate with PC or connect display. The third item is the inverter selection. In program 8 inverter protocols are flashed



2>. Modify the configuration parameters based on customer requirements

For example, the project requires 8 slave BMS, each slave BMS control 12 cells in series, a total of 96 cells in series and each slave control has temperature sensors.

Finally, the configuration of the whole project: 8 slave bms, total number of batteries strings $8 \times 12 = 96$, Temp Sensors : $8 \times 3 = 24$. Master BMS does not have acquisition wires/balancing wires
1~8 Slave BMS: String number: 12S, temperature Sensor : 3. Then write the configuration parameters in the master bms . After configuration parameters are written
The software will automatically re-read the parameters to see if there is any problem.

Name	Value
Pack Nums	8
Cell Nums	96
Tempr Nums	24
Master Cell Nums	0
Master Tempr Nums	0
1#Cell Nums	12
1#Tempr Nums	3
2#Cell Nums	12
2#Tempr Nums	3
3#Cell Nums	12
3#Tempr Nums	3
4#Cell Nums	12
4#Tempr Nums	3
5#Cell Nums	12
5#Tempr Nums	3
6#Cell Nums	12
6#Tempr Nums	3
7#Cell Nums	12
7#Tempr Nums	3
8#Cell Nums	12
8#Tempr Nums	3

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Port COM5 Addr 1 Open Port

Sys Parameter Read Write

4:96S_6BMU(16S) Load Read Parameter

Curr Type 0:FL

RS485 Type 1:DWIN TFT

CAN Type 4:PYLON 派能

Name	Value
Hall_1 CHG Curr Factor(0.1%)	100.0
Hall_1 DSG Curr Factor(0.1%)	100.0
Hall_2 CHG Curr Factor(0.1%)	100.0
Hall_2 DSG Curr Factor(0.1%)	100.0
FL CHG Curr Factor (0.1%)	100.0
FL DSG Curr Factor (0.1%)	100.0
Pack Nums	8
Cell Nums	96
Tempr Nums	24
Master Cell Nums	0
Master Tempr Nums	0
1#Cell Nums	12
1#Tempr Nums	3
2#Cell Nums	12
2#Tempr Nums	3
3#Cell Nums	12
3#Tempr Nums	3
4#Cell Nums	12
4#Tempr Nums	3
5#Cell Nums	12
5#Tempr Nums	3

3>.Modify inverter protocol in the program of AF_BMS MODBUS according to project requirements.
In CAN Type, select the inverter protocol in the drop-down list , and then write it the in the programm

Port COM5 Addr 1 Open Port

Sys Parameter Read Write

4:96S_6BMU(16S) Load Read Parameter

Curr Type 0:FL

RS485 Type 1:DWIN TFT

CAN Type 4:PYLON 派能

Name	Value
Hall_1 CHG Curr F	
Hall_1 DSG Curr F	
Hall_2 CHG Curr F	
Hall_2 DSG Curr F	
FL CHG Curr Fact	
FL DSG Curr Fact	
Pack Nums	
Cell Nums	

0:None
1:ATESS 时代能创
2:SOFAR 首航
3:INVT_BD 英威腾
4:PYLON 派能
5:GROWATT 古瑞瓦特
6:MEGAREVO 迈格瑞能
7:KOYOE_科曜
8:GOODWE_固德威

4>.Configuration Parameters :

If the configuration parameters written into the software are changed, the master BMS will adjust the corresponding protection parameters according to the configuration parameters

If the configuration does not meet the project requirements, the client needs to modify the parameters as required. After the modification, please write the protection parameter in the software again

Note: The configuration must be modified under the guidance of battery experts. Incorrect configuration parameters may cause safety accidents, need to pay attention to the characteristics.

Pack Parameter Read Write

Para From File Save Para To File

Name	Value
HW VER	VER:1.0.0
SW VER	VER:2.0.0
serial	96
temprature	18
Shunt(75mV)	100
Cell OV Alarm(mV)	3550
Cell OV Protect(mV)	3650
Cell OV Release(mV)	3550
Cell OVP Delay(mS)	3000
Cell UV Alarm(mV)	2800
Cell UV Protect(mV)	2550
Cell UV Release(mV)	2800
Cell UVP Delay(mS)	3000
Pack OV Alarm(V)	340.8
Pack OV Protect(V)	350.4
Pack OV Release(V)	340.8
Pack OVP Delay(S)	3000
Pack UV Alarm(V)	268.8
Pack UV Protect(V)	244.8
Pack UV Release(V)	268.8
Pack UVP Delay(mS)	3000
CHG Tempr OV Alar...	50
CHG Tempr OV Prot...	55
CHG Tempr OV Rel...	50
CHG Tempr UV Alar...	0
CHG Tempr UV Prot...	-10

5>. In the debugging phase, if the displayed current is very different from the actual measured current, you can modify the parameter to calibrate.

Operation Principle :

For hall sensor

The current collected by the sensor is multiplied by 100.0% coefficient to obtain the current of the system. Sensor current *100.0%= Display current.

If the current is not correct, the actual charging current is 9.5A, and the charging current shown by the computer software is 10A, and the coefficient is 100.0%. (When the calibration coefficient is 100.0%, the current of the sensor is 10A.) Adjust the calibration coefficient to 95.0%

Current calibration. (Current of sensor 10A*95.0%= display current 9.5A)

For Shunt, we do same things

Sys Parameter Read Write Pa

4:96S_6BMU(16S) Load Read Pa

Curr Type 0:FL

RS485 Type 1:DWIN TFT

CAN Type 4:PYLON 派能

Name	Value
Hall_1 CHG Curr Factor(0.1%)	100.0
Hall_1 DSG Curr Factor(0.1%)	100.0
Hall_2 CHG Curr Factor(0.1%)	100.0
Hall_2 DSG Curr Factor(0.1%)	100.0
FL CHG Curr Factor (0.1%)	100.0
FL DSG Curr Factor (0.1%)	100.0

6>. Some configuration parameters are configured in the upper computer software by default. Customers can select according to their needs and click Load.

The configuration parameters and protection parameters on the software interface will be updated to the contents in the file. You need to write the configuration parameters first , and then write the protection parameter in the software

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Port COM5 Addr 1 Open Port Close 中文 English

Sys Parameter Read Write Pack Parameter Read Write

4:96S_6BMU(16S) Load Read Para From File Save Para To File

Curr Type 0:FL

RS485 Type 0:AF MODBUS

CAN Type 2:SOFAR 首航

Name	Value
Hall_1 CHG Curr Factor(0.1%)	100.0
Hall_1 DSG Curr Factor(0.1%)	100.0
Hall_2 CHG Curr Factor(0.1%)	100.0
Hall_2 DSG Curr Factor(0.1%)	100.0
FL CHG Curr Factor (0.1%)	100.0
FL DSG Curr Factor (0.1%)	100.0
Pack Nums	6
Cell Nums	96
Tempr Nums	18
Master Cell Nums	0
Master Tempr Nums	0
1#Cell Nums	16
1#Tempr Nums	3
2#Cell Nums	16
2#Tempr Nums	3
3#Cell Nums	16
3#Tempr Nums	3
4#Cell Nums	16
4#Tempr Nums	3
5#Cell Nums	16
5#Tempr Nums	3

Name	Value
HW VER	VER:1.0.0
SW VER	VER:2.0.0
serial	96
temprature	18
Shunt(75mV)	100
Cell OV Alarm(mV)	3550
Cell OV Protect(mV)	3650
Cell OV Release(mV)	3550
Cell OVP Delay(ms)	3000
Cell UV Alarm(mV)	2800
Cell UV Protect(mV)	2550
Cell UV Release(mV)	2800
Cell UVP Delay(ms)	3000
Pack OV Alarm(V)	340.8
Pack OV Protect(V)	350.4
Pack OV Release(V)	340.8
Pack OVP Delay(S)	3000
Pack UV Alarm(V)	268.8
Pack UV Protect(V)	244.8
Pack UV Release(V)	268.8
Pack UVP Delay(mS)	3000
CHG Tempr OV Alar...	50
CHG Tempr OV Prot...	55
CHG Tempr OV Rel...	50
CHG Tempr UV Alar...	0
CHG Tempr UV Prot...	-10

7>.If the customer does not understand how to set configuration and protection parameters, or The configuration parameters in the software cannot meet the requirements Client can contact our company's technical personnel, our company's technical personnel can send a reference parameter file,

