

SIRIUS 24V48AH BATTERY POWER SUPPLY USER MANUAL

MODEL :SIRIUS
PRODUCT ID :SR24V48AHNC
PRODUCT NAME :BATTERY POWER SUPPLY 24V

VERSION 1.1

1. Introduction

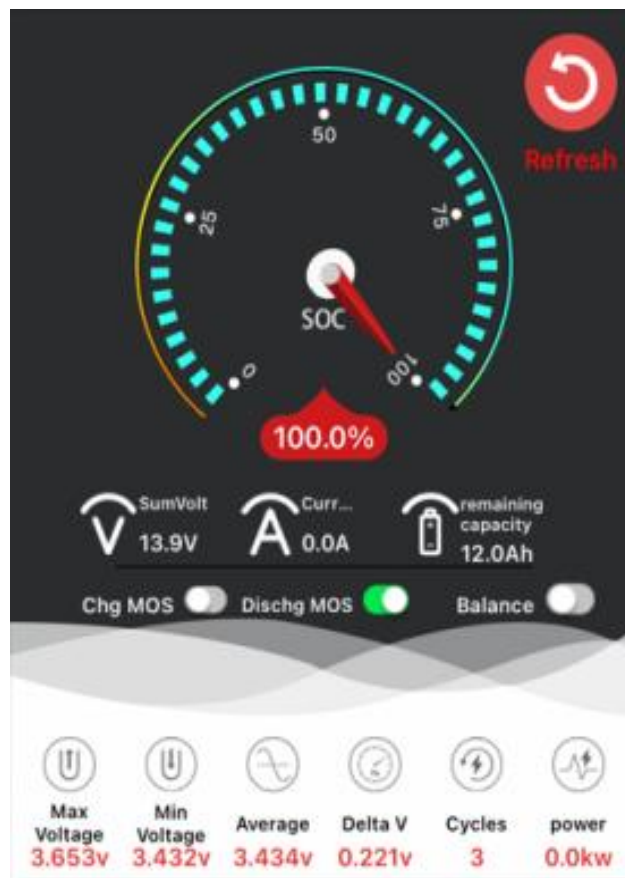
1. Specifically designed to operate effectively even in temperatures below 10°C.
2. Offers a variety of communication options including WiFi, CANBUS, Bluetooth, and RS485 for both wired and wireless connections, enabling a wide range of applications.
3. Power supply status can be monitored through a mobile app or a computer.
4. Provides four DC output voltages: 24V, 12V, 5V, and 3.3V, expanding its application potential.
5. Features separate outputs: 24V/24A, 12V/24A, 5V/10A, and 3.3V/10A, with a combined maximum total DC output power of 900W.
6. Displays voltage and battery level for easy monitoring of battery status.
7. Offers up to 8 hours of operation at a 6A output current, which is twice the capacity of a lead-acid battery, while being half the weight.
8. Can last up to 10 years with proper usage.
9. With a height of less than 3U, the design is suitable for industrial control cabinets.

1 Appearance



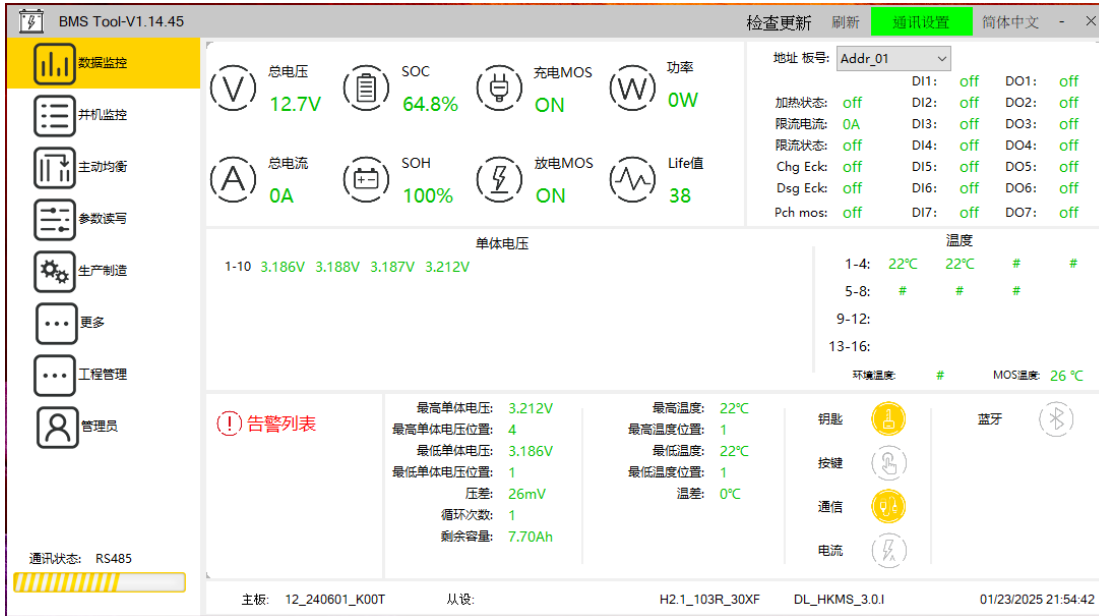


2 Cell Phone App

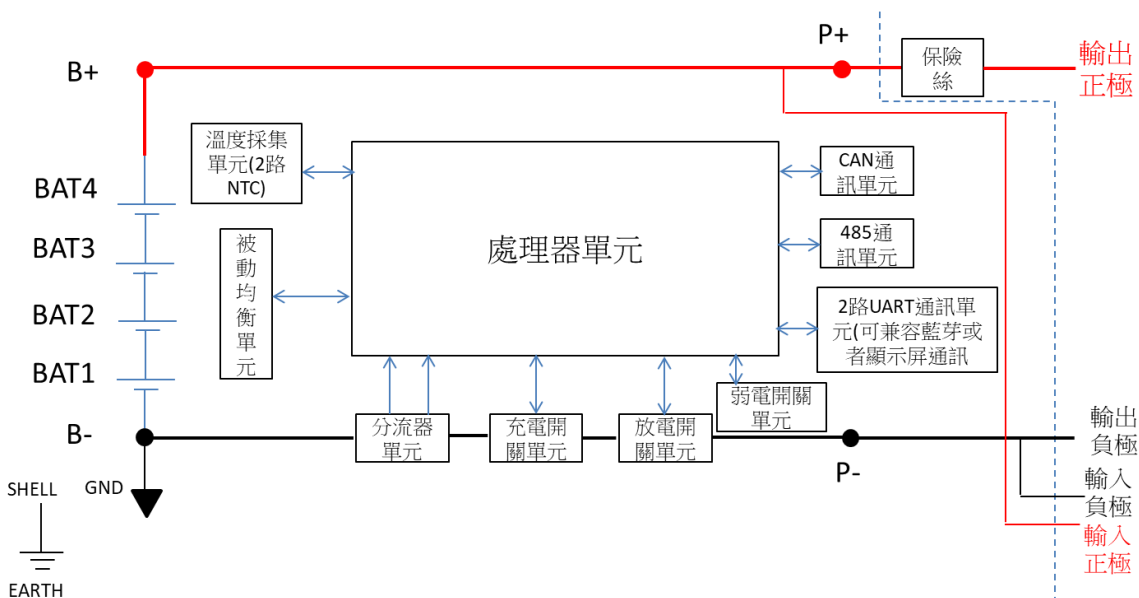


3 Voltage Capacity Display

4 Upper Computer(Notebook or PC)



5 Functional Schematic Block Diagram



6 Main Specification

No	Item 項目	Specifications 性能	Remark 備註
1	Type of material 電芯種類	Li-Ion (NCM) 鋰三元電芯	

2	Rated Capacity 容量	48.0Ah	
3	Rated Voltage 電壓	25.6V	
4	Rated Power Capacity 標稱功率容量(Wh)*I	1228.8Wh	
5	Volt Range 工作電壓範圍(最低、正常、最高)	Min 23.2V; Normal 25.6V; Max 29.6V	
6	Maximum Charge Voltage 最高充電電壓	29.6V	
7	Standard Charge Current 標準充電電流	12A	0.25C ₅ A
8	Discharge Ending Voltage 放電截止電壓	23.2 V	
9	Standard Discharge Current 標準放電電流	12A	0.25C ₅ A
10	Continuous Output Current 最大持續放電電流	50 A	1.0C ₅ A
11	Maximum output current 最大瞬間放電電流 (1 sec)	72A	Protected by BMS 保護板放電過電流 保護
12	Dimension (mm)L*W*H 外觀尺寸	344(D)*483(W)*124(H) mm	
13	Weight 重量(Kg)	13.2Kg	
14	Operating temperature 工作溫度	0°C ~ 50°C	
15	Storage temperature 儲存溫度	-10°C ~40°C	
16	Meet RoHs ?合乎 RoHs 規格?	yes	
17	Outside Case Material	Steel 鐵質	

7 Detailed Specification

No	Item 項目	Specifications 性能	Remark 備註
1	Cell Combination 電芯組成	7 series 1 parallel 4 串 3 並	
2	Cell Appearance 電芯外型	27-148-101, Cuboid type 長方型	
3	Cell Capacity 電芯容量	50Ah	
4	Charge Mode 充電模式	CC → CV 定電流轉定電壓	
5	B. M. S	YES	
6	Self-discharge rate	3 ~ 5% (per month)	
7	Connector 介面	Connector to Charger:X60 Connector to Load: X60 24V*1, 12V*1, 5V*1, 3.3V*1, USB 2.0*2 CANBUS: blue connector	

		RS485:DB-9 對充電器連接頭種類:X60 接頭 對放電設備連接頭種類: X60 24V*1, 12V*1, 5V*1, 3.3V*1, USB 2.0*2 CANBUS: 綠色端子 RS485:DB-9	
8	Same Same connector of Charge and Discharge? 充放電端是否同端	No	

8. Protection

No	Item 項目	Setting Value 設定值	Remark 備註
1	Battery Over Volt Protection 最高充電電壓 *2	29.6V	Charging and discharging will be stopped, but no need to unlock 會停止充放電；但無需解鎖
2	Cell Over Volt Protection 過充保護電壓	3.75±0.05Vfor each cell	Charging and discharging will be stopped, but no need to unlock 會停止充放電；但無需解鎖
3	Cell Over Volt Protection Delay Time 過充保護延遲時間	1.5 Sec	
4	Battery Under Voltage Protection 放電截止電壓	23.20 V	Charging and discharging will be stopped, but no need to unlock 會停止充放電；但無需解鎖
5	Cell Under Voltage Protection 過放保護電壓	2.90±0.05Vfor each cell	Charging and discharging will be stopped, but no need to unlock 會停止充放電；但無需解鎖
6	Under Voltage Protection Delay Time 過放保護延遲時間	4 Sec	

*1 Under condition of 0.2C discharging current and 25°C

*2 Charger' s volt should not higher than this value.

9 explanation of communication

There are two method of wire communication, RS485 and CANBUS. Wireless method are WiFi 及 Blue Tooth. User can use these to communicate with device via Notebook or PC.

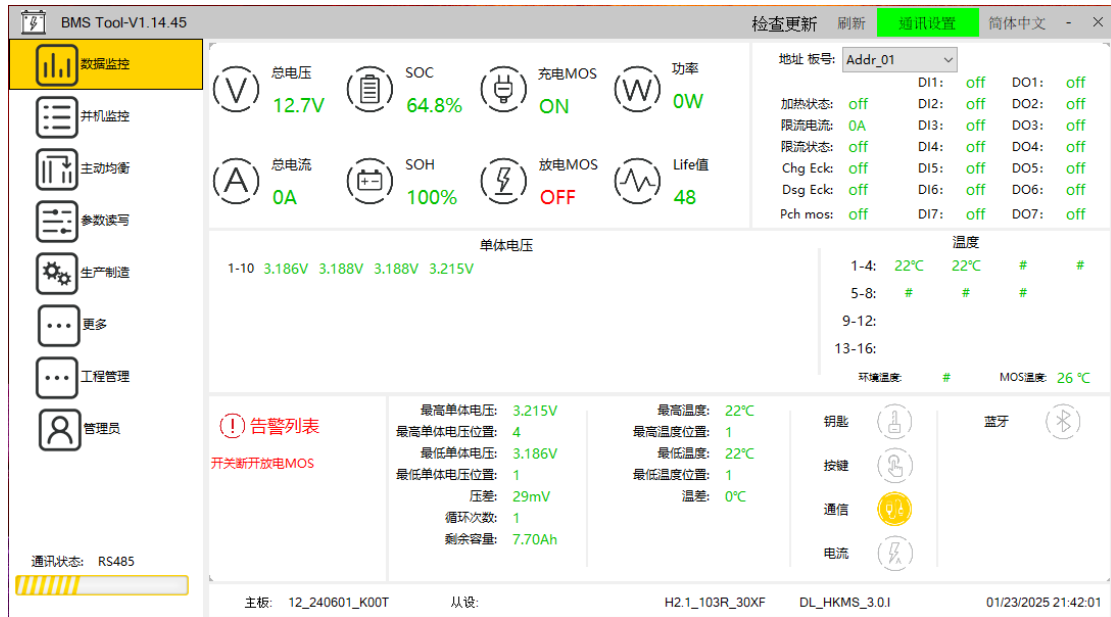
The operation of upper computer(Notebook or PC)

About RS485:

The pin definition of DB-9, plug of RS485 is as below. Pin-1 is B, pin-5 is GND and pin-6 is A. Baud rate is 9600bps. The examination code is NONE. For other setting, the serial port could be COM3 or COM5, depend on individual computer. When the device is connected, the address board number is Addr_01.

The device is communicated with upper computer via specific information transfer device. Please download special driving program for upper computer, install it and run it. The upper computer then show the first monitor page. User has to key in password. After that, upper computer will link with device successfully. User can monitor information of battery, include battery voltage, current, temperature and SOC through these pages.





About CANBUS:

The pins of CANBUS plus are GND、CAN_L and CAN_H. Communication rate is 250Kb/s. CAN equipment is USBCAN-I, Baud rate is 500.

關於 CANBUS:





10 Attention Do not disassemble product or change part. Do not drop product or collide with others.

1. Capacity of battery will gradually reduce in daily base. User should check capacity and voltage regularly. Use charger to charge battery if voltage is too low. Always keep capacity at 80 percent or more to ensure the lifetime of battery.
2. Keep battery in dry condition. The temperature of storage environment should not higher than 40°C, humidity should lower than 80%.
3. When capacity is lower than 10%, battery should be charged immediately. When voltage is higher than 14.8V, please stop charging immediately and unplug the charger for ensuring the lifetime of battery.
4. If battery will be transported for long distance, please keep the capacity between

60% and 70% for ensuring the lifetime of battery.

11 explanation

This product has passed outgoing quality check and testing. Please avoid the extremely environment either in storage or operation for normal lifetime of battery.

contact of service

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website QR code