

TOPBMS

TOPBMS BMS 21S-32S 250A Bluetooth RS485 Modbus/Canbus
Compatible with Lithium-ion battery and Lifepo4 Battery / lithium-
titanate Battery/Sodium-ion Battery

Please go to the website :www.topbms.cn to download bluetooth APP and rs485 software for PC

TOPBMS

www.topbms.cn

Smart BMS 21S-32S with B/T+RS485

discharge/charge 250A



Sodium battery
(3.1V)



LiFepO4 Battery
(3.2V)



(3.7V)



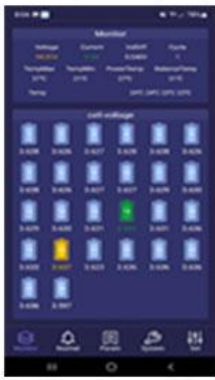
Lithium-Titanate Battery

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Smart BMS 21S-32S with B/T +RS485/CAN



Phone APP



PC Software

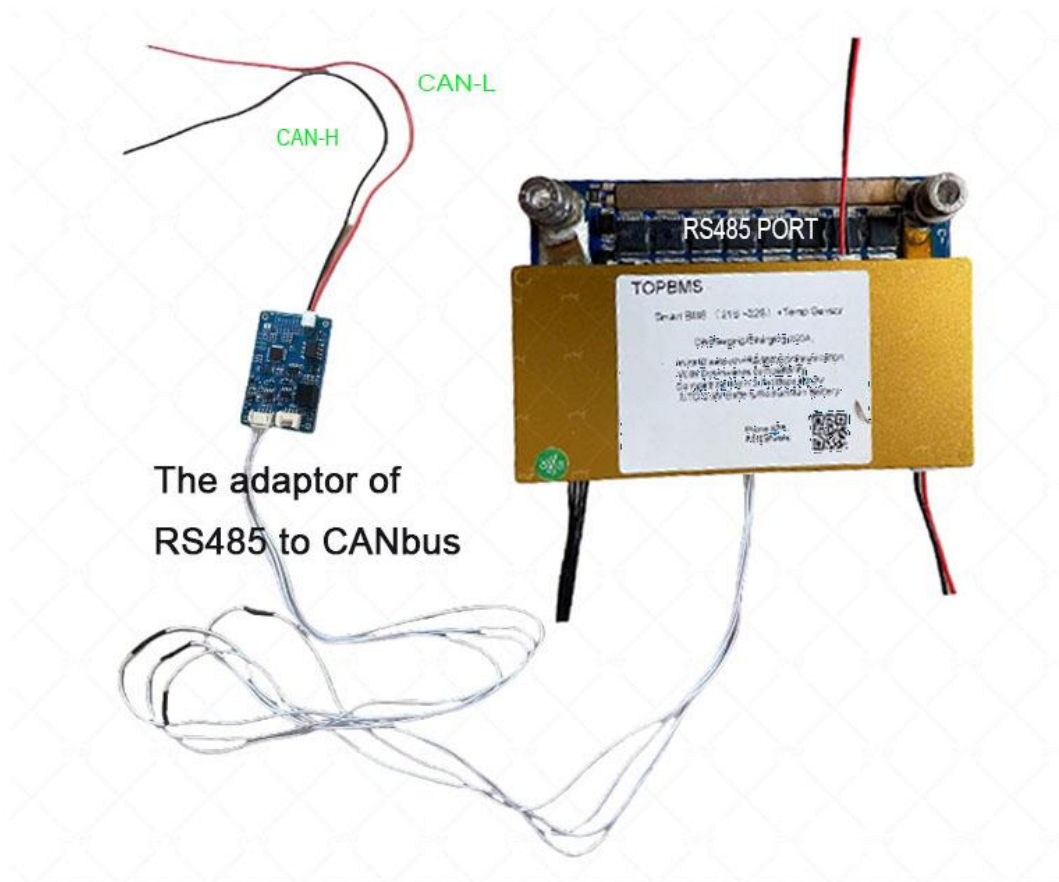
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Smart BMS 21S-32S 250A +PC software with RS485/CANbus communication



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The adaptor of RS485 to CANbus



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Touchable Display

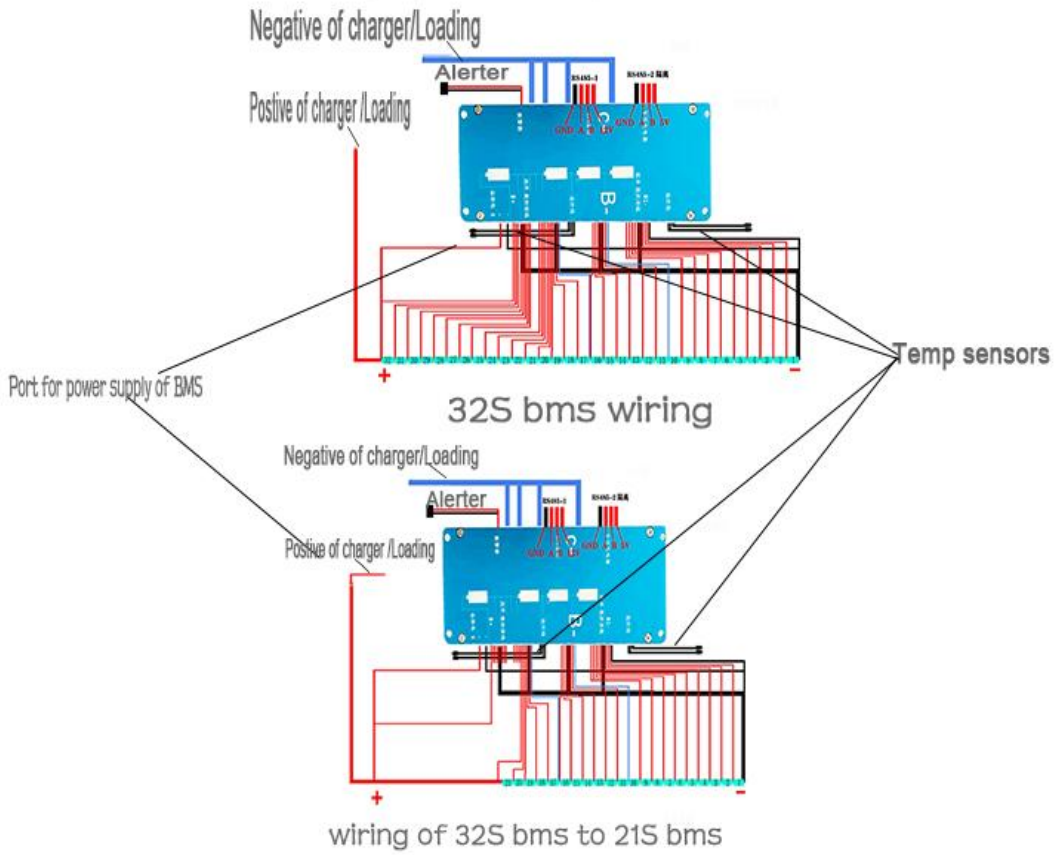


四 Parameters Sheet

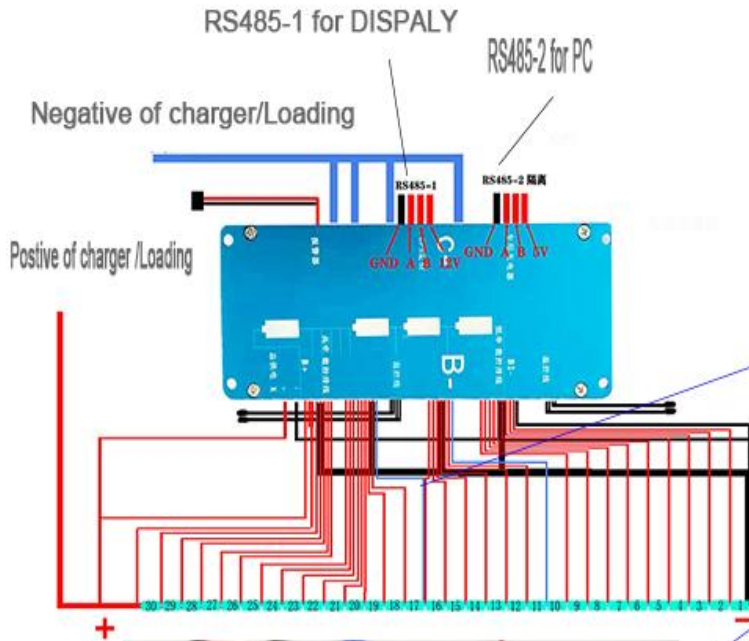
TOPBMS 3S-32S BMS 250A						
L*W*H 165*65*35mm						
功能	项目	功能	Voltage			Comment
			Batteries Type	Li-ion (3.7V)	LiFePo4 (3.2V)	
Over Voltage Protection	Level 1 Charging Protection	1500mV-4500mV	4200mV	3650mV	2800mV	Level 1 protection Voltage
	Level 2 Charging Protection	2950mV-4800mV	4300mV	3750mV	2950mV	Level 2 Protection voltage shall be set larger than Level 1 protection Voltage
	Over-charging Protection Delay Time	4S-10S				
	Over-charging Protection Recovery Voltage		4100mV	3550mV	2700mV	充电恢复设置电压必须小于充电保护电压 Over-charging Protection recovery Voltage shall be set smaller than Level 1 protection Voltage
Under Voltage Protection	Level 1 Discharging Protection	1500mV-4500mV	2750mV	2500mV	1800mV	
	Level 2 Discharging Protection		2500mV	2250mV	1600mV	Level 2 discharging protection shall be set smaller Level 1
	Over-discharging Protection Delay Time	4S-10S				
	Over-discharging Protection Recovery Voltage		3100mV	2900mV	2200mV	Over-discharging Protection Recovery Voltage shall be set larger than Level 1 Discharging Protection Voltage
High Temperature Protection	Power Module of BMS			90℃		
	Balancing Module of BMS			70℃		
				65℃		
High Temperature Protection Recovery	Power Module of BMS			85℃		
	Balancing Module of BMS			65℃		
	Batteries			60℃		
Low Temperature Protection		-30degree Max				MANUAL SET
Low Temperature Protection Recovery		-10degree Max				MANUAL SET
Current	Charging Current	250A				For example : If you order 40A , you can set the max value of charging current to 40A
	Continuous discharging current	250A				For example : If you order 40A , you can set the max value of discharging current to 40A
	Peak discharging current	750A				For example : If you order 40A , you can set the max value of peak current to 120A
Balancing	Balancing start Volt	1000mV-4300mV	4100mV	3400mV	2600mV	
	Voltage Diff	1-30mV	20mV	20mV	20mV	
	Balancing Current	2-40mA	40mA	40mA	40mA	
Voltage acquisition resolution		5mv				
Temp Acquisition Tolerance		1-5%				
SOC Acquisition Tolerance		1-10%				
BMS Communication	Bluetooth					
	485-1					The port for charger with RS485
	485-2					The port for PC
	CAN					Not Applicable
Consumption	BMS +Bluetooth	2.5mA				
	BMS+CAN	7.5mA				
	Sleep Mode	50uA				
供电		20V-150V				电池组供电

BMS 21S–32S Diagram

The BMS has downward compatibility ;
Please connect the extra balancing wires
to the positive of entire batteries pack
if you use BMS 32S to be BMS 31S ,BMS 30S , BMS 25S.....;
Attention. Starting with black wire,the last wire of the 2nd plug and
the first wire of 3rd plug combines together

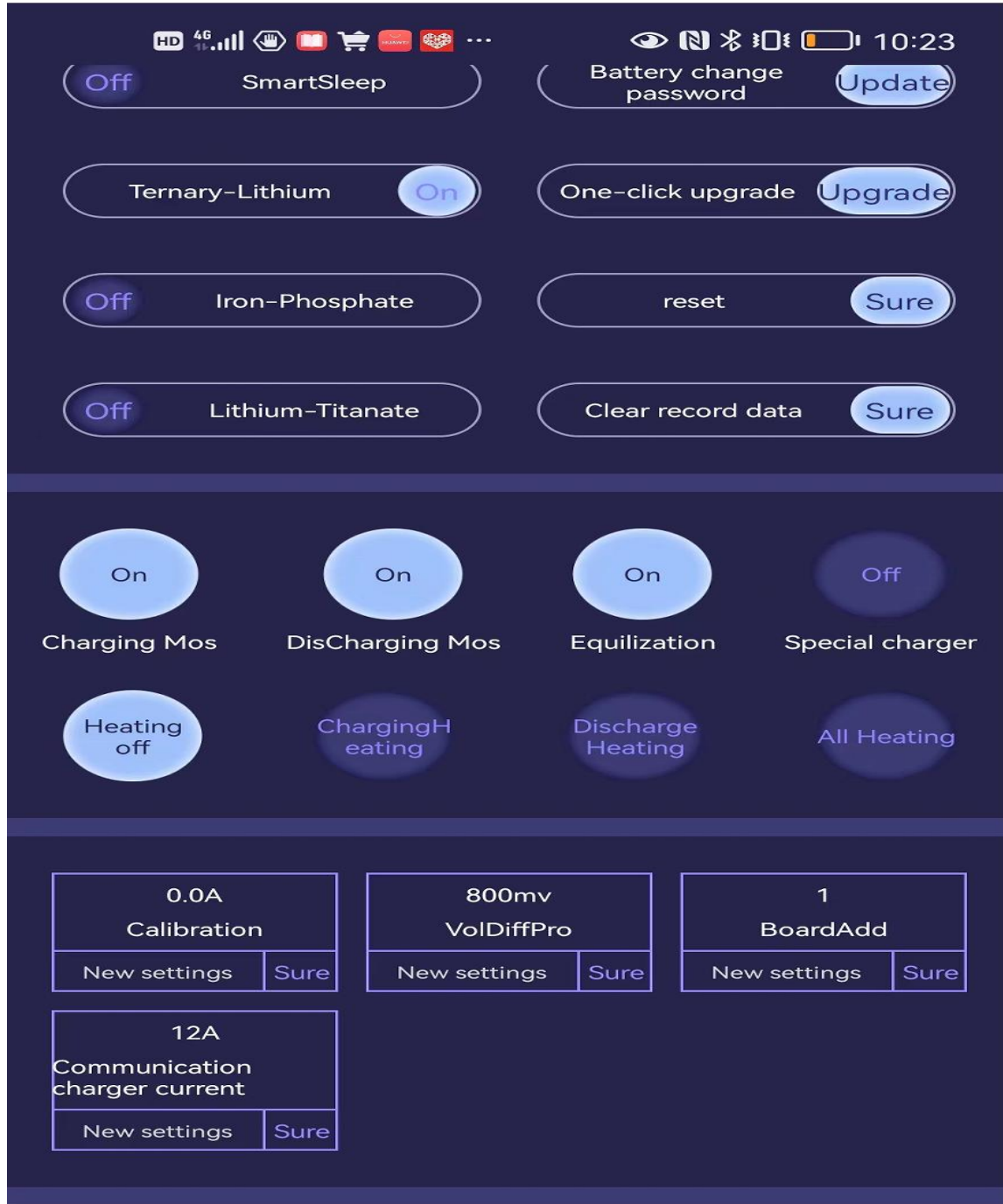


Wiring Diagram of BMS 21S~32S



- Step1. First of all, B- wire goes to the negative of batteries pack
- Step2. C- wire goes to the negative of charger/loading
- Step3. Starting with black wire, the last wire of the 2nd plug and the first wire of 3rd plug combines together
- Step4. please connect all extra wires to the positive of entire batteries when you want BMS 32S to be used as BMS 31S, BMS 30S, BMS 21S

Phone APP



Capacity/Number

3AH Capacity	
New settings	Sure

3S CellSet	
New settings	Sure

Charging Settings

4200mv ChargeProVol	
New settings	Sure

4300mv ChargeProVol	
New settings	Sure

2700mv ChargeRecVol	
New settings	Sure

60A CharProCur	
New settings	Sure

5S ChargeOverDelay	
New settings	Sure

DisCharging Settings

1800mv DisChargeProVol	
New settings	Sure

1550mv DisChargeFailVol	
New settings	Sure

2200mv DisChargeRecVol	
New settings	Sure

500A DisCharCur	
New settings	Sure

5S DisCharOverDelay	
New settings	Sure

500A DisCharOver	
New settings	Sure

-73 | ID:86:88:35:40:00:04
MAC:86:88:35:40:00:04

Shigeto

Quit

Monitor

Normal

Param

System

Set

Balance Settings

4100mv Balanced Voltage
New settings Sure

50% CurrentPercent
New settings Sure

20mv BalAccuracy
New settings Sure

Temperature setting

90°C PowerProTemp
New settings Sure

85°C PowerRecTemp
New settings Sure

70°C BalTempPro
New settings Sure

65°C BalTempRec
New settings Sure

65°C BatteryTempPro
New settings Sure

60°C BatteryTempRec
New settings Sure

-30°C LowTempPro
New settings Sure

-25°C LowTempRec
New settings Sure

0°C Heating start temp
New settings Sure

10°C Heating stop temp
New settings Sure

-73 | ID:86:88:35:40:00:04
MAC:86:88:35:40:00:04

Shigeto

Quit

Monitor

Normal

Param

System

Set

PC Software

BMS Lithium Battery Management System

Monitor Alarm Param Normal DLoad Graph Update LeaseSet

PortNo: COM3
DevNo: 1
Connect
English

Remain: 0 %
Voltage: 0 V
Current: 7 A

MacCode: 342589975
BlueTooth: 26541C98068E
Factory: 2012年12月31日

LeaseParam

Mode: Normal Lease

Old Key: *****

New Keys: Modify

Set Rental Days: LeaseSet

Remain: 3000 Clear

LeaseStatus: LeaseOK

Cells Setting

BMS talk to PC via rs485

BMS Lithium Battery Management System

PortNo: COM4
DevNo: 1

Connect

English

Remain: 0 %

Voltage: 0 V

Current: 7 A

MacCode: 342589975
BlueTooth: 26541C98068E
Factory: 2012年12月31日

Monitor Alarm Param Normal DLoad Graph Update LeaseSet

Battery Info

CapacitySet: 20 ah CellSet: 14 C
CurrentPercent: 50 % LowCapacity: 0 %
BalAccuracy: 20 mv DisCharCapacity: 0 ah
BalanceVol: 3800 mv CalibrationCapacity: 0 ah

Battery Operation

Ternary-Lithium
 Iron-Phosphate
 Lithium-Titanate

Charge MOS: Discharge MOS: Equalization: Special Charger:
 HeaterClose: ChargeHeater: DisChargeHeater: AllHeater:




cell string

Voltage Protection Setting

BMS Lithium Battery Management System

Monitor Alarm Param Normal DLoad Graph Update LeaseSet

PortNo: COM4
 DevNo: 1
 Connect
 English


 Remain: 0 %

 Voltage: 0 V

 Current: 7 A

MacCode: 342589975
 BlueTooth: 26541C98068E
 Factory: 2012年12月31日

Voltage Protection

CharProVol: <input type="text" value="4200"/> mv	DisChaVol: <input type="text" value="2750"/> mv
CharFailVol: <input type="text" value="4350"/> mv	DisCharFail: <input type="text" value="2550"/> mv
CharRecVol: <input type="text" value="4150"/> mv	DisCharRec: <input type="text" value="2900"/> mv

Temp&Current Settings

CharProCur: <input type="text" value="40"/> A	DisCharCur: <input type="text" value="80"/> A
CharOverDelay: <input type="text" value="5"/> S	DisCharOverDelay: <input type="text" value="5"/> S
DisCharOverDelay: <input type="text" value="90"/> °C	DisChaOver: <input type="text" value="200"/> A
PowerRecTemp: <input type="text" value="85"/> °C	BatteryTempPro: <input type="text" value="65"/> °C
BalTempPro: <input type="text" value="70"/> °C	BatteryTempRec: <input type="text" value="60"/> °C
BalTempRec: <input type="text" value="65"/> °C	LowTempPro: <input type="text" value="-30"/> °C
LowTempRec: <input type="text" value="-25"/> °C	ChargerSet: <input type="text" value="12"/> A
HeaterTempMin: <input type="text" value="0"/> °C	HeaterTempMax: <input type="text" value="10"/> °C

Tips: Double-Click To Modify