# Product Description

18650 smart BMS 14S 48V 150A 200A 250A Bluetooth 485 to USB device CAN NTC UART software Li-on Battery protection Board BMS

◆ Currently, all Smart BMS without the waterproof function.

◆ This link is for 14S 48V Li ion Battery. Please fill in the parameter after placing order to ensure SOC with right information.

◆ UART : It is Daly normal product. UART is Universal Asynchronous Receiver/Transmitter, It transforms the data to be transmitted between serial communication and parallel communication. As a chip to convert parallel input signals into serial output signals, UART is usually integrated into other communication interfaces.

◆ RS485: Please choose the model RS485 of Daly. RS-485 adopts balanced transmission and differential reception, so it has the ability to suppress common mode interference.

◆ Bluetooth module : if you need this function, Please choose bluetooth module, if you do not buy it, we will not send it to you.

◆ Below accessary need you to buy separately.

1.USB to UART Cable

2.USB to RS485 Cable

3. Bluetooth module

4.Power display panel (key activation)

5.BMS touch control screen 1. DL14S 48V Smart BMS 150A 200A 250A bms can be used to 14S Li ion or LiFePO4 or LTO battery pack. Customer can adjust the paramter of overcharge or overdischarge the parameter sitting & other parameter if customer need to use which type of battery for the same series battery. Attention: Customer need to identify the battery's series, then choose the same series BMS. Such as your battery is 24S, you must choose 24S BMS, can not choose 20 or other one. The number of series of BMS is fixed, not adjustable once the BMS is shipped out .

◆Control instructions: remote control device monitoring.

◆Vehicle icon: data transmission send command

◆Statistical report: Collect the data information, the customer can monitor the battery capacity & other alarm infomation.

◆Electronic fence: fence setting limit range.

◆Device information: device parameter information, etc. The information on your battery can be checked on your host computer, then you can monitor your battery status anytime. Which is easly control your device. Smart BMS make our life to become easy.

DALY BMS

# SUPERIOR BMS

Better than better

# SMART BMS

14S 150A-250A

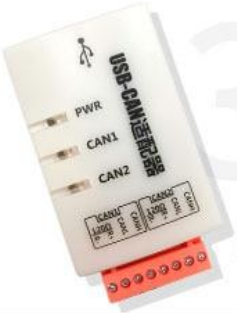
(风扇款)

# CHOOSE WHATEVER YOU WANT

## PC connection tool


USB-UART


USB-RS485




USB-CAN

## Connection tool


Bluetooth module

Power display board


BMS touch control screen

## GPS

cube GPS

handle GPS

200A-250A ▼

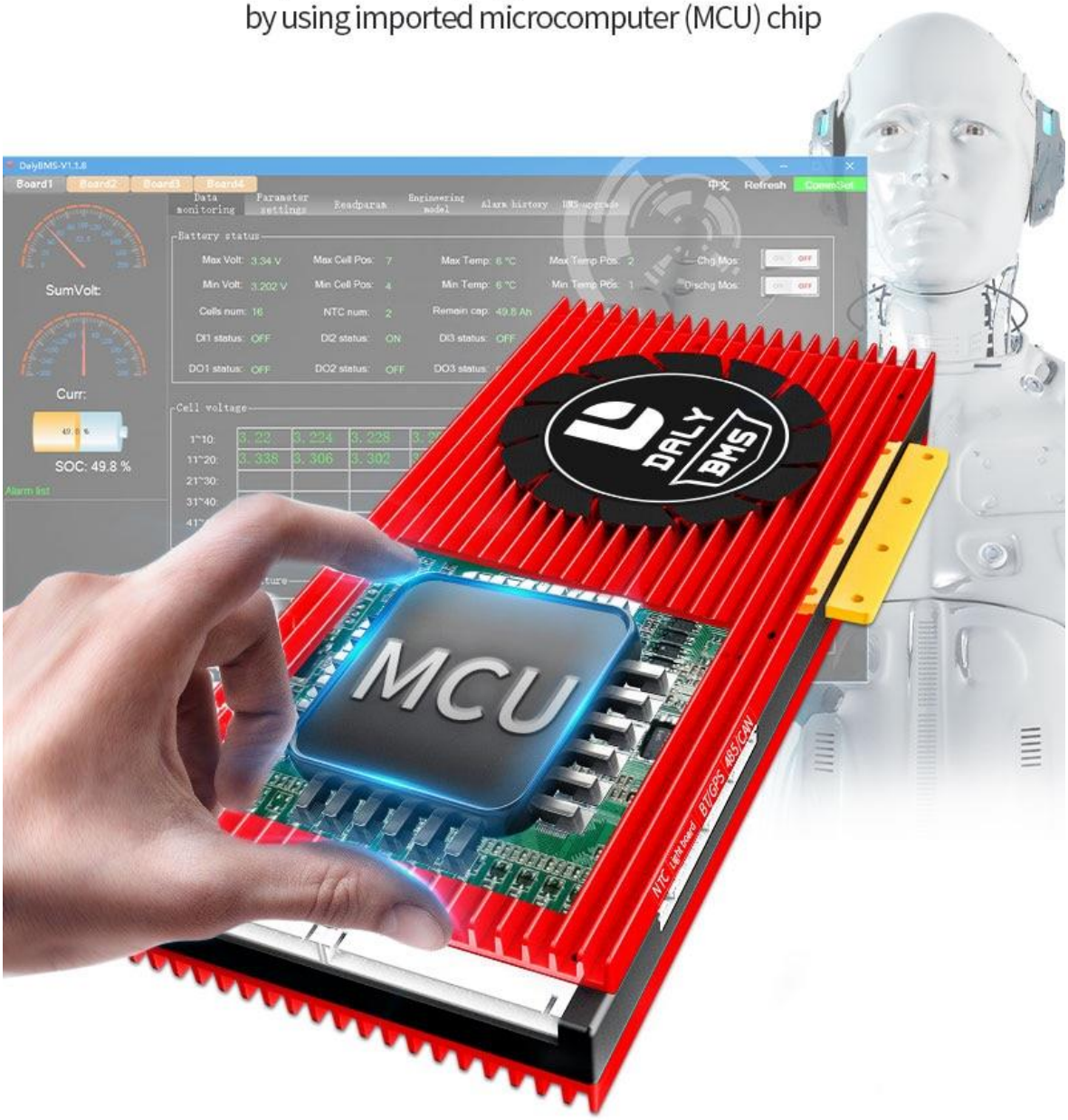
# PRODUCT PARAMETER

## (Li-ion 13S 150A-250A)

| | Description | Specification (Li-on-14S) | | | | | | | | | Unite | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 80A | 100 | 120A | 150A | 200A | 250A | 300A | 400A | 500A | | |
| Discharge | Continue discharge current | 80A | 100A | 120A | 150A | 200A | 250A | 300A | 400A | 500A | A | |
| | Sparkle current | 250±50 | 300±50 | 400±100 | 500±100 | 600±100 | 600±100 | 1000±200 | 1200±200 | 1500±200 | A | |
| Inner Resistance | Main Circuit Conduct Inner resistance | ≤20 | ≤20 | ≤20 | ≤20 | ≤20 | ≤20 | ≤20 | ≤20 | ≤20 | mΩ | |
| Charge | Charge voltage | 58.8 | | | | | | | | | V | |
| | Charge current | 40 | 50 | 60 | 75 | 100 | 125 | 150 | 200 | 225 | A | |
| Over charge protection | Over charge detect voltage | 4.25±0.05 | | | | | | | | | V | Customizable |
| | over charge protection delay | 1 | | | | | | | | | S | Customizable |
| | over charge release voltage | 4.15±0.05 | | | | | | | | | V | Customizable |
| Balance | Balance detect Voltage | 3.8 | | | | | | | | | V | |
| | Balance release voltage | 3.8 | | | | | | | | | V | |
| | Balance current | 30±5 | | | | | | | | | mA | |
| Over discharge protection | Over discharge detect voltage | 2.7±0.1 | | | | | | | | | V | Customizable |
| | Over discharge detect delay | 1 | | | | | | | | | S | Customizable |
| | Over discharge release voltage | 2.8±0.1 | | | | | | | | | V | Customizable |
| Over current protection | Over current detect voltage | 1 | | | | | | | | | MS | Customizable |
| | Over current detect delay | Off load | | | | | | | | | | |
| Short Circuit protection | Short Circuit protection condition | Short circuit of external load | | | | | | | | | | |
| | Short circuit detect delay | 320 | | | | | | | | | uS | |
| | Short circuit protection release condition | Off load | | | | | | | | | | |
| Temp Protect | Temp Protect | Charge: -40~65 Discharge: -40~70 | | | | | | | | | ℃ | Customizable |
| Self Consumption | Working current | 10 | | | | | | | | | mA | |
| | Sleeping current(when in discharge) | 600 | | | | | | | | | uA | |
| Working Temp | Temp range | -20~70 | | | | | | | | | ℃ | |
| Storage Temp | Temp range | -40~80 | | | | | | | | | ℃ | |

# “SMALL CHIP MAKES A BIG DIFFERENCE”

Independent R&D program are more controllable
by using imported microcomputer (MCU) chip



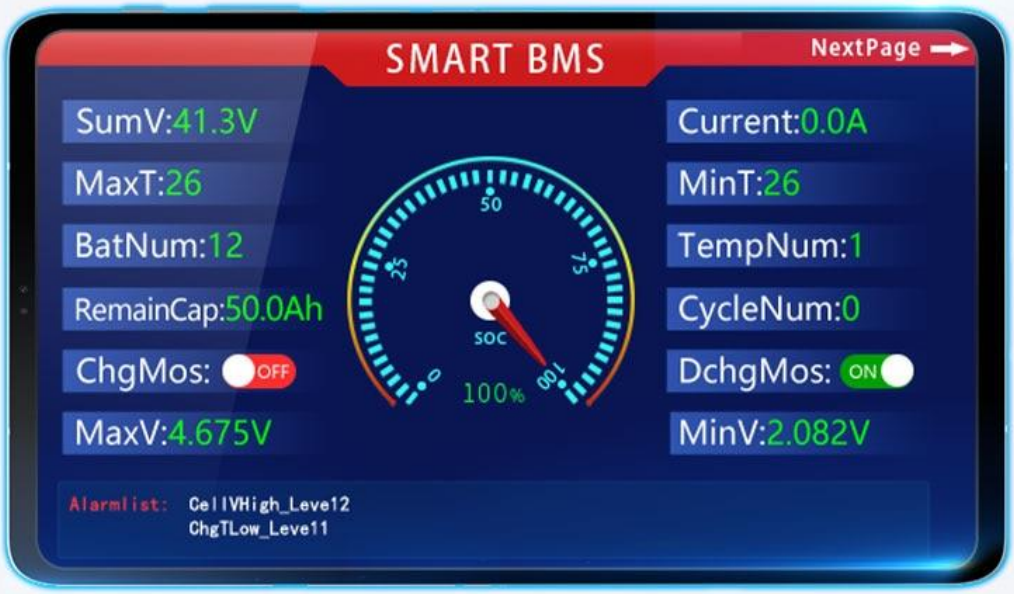
# FULL INTELLIGENT FUNCTION

CAN
485
UART
GPS
BLUETOOTH
NTC TEMPERATURE CONTRO
BATTERY BOARD
KEY SWITCH
SOFT SWITCH
EXTENDED DO/I


01：NTC　02：Power board　03：BT/GPS　04：RS485

# INTELLIGENT CONTROL ACCURATE DATA

Monitor the battery status in real time base by checking the battery capacity and observing the voltage of each string in real time

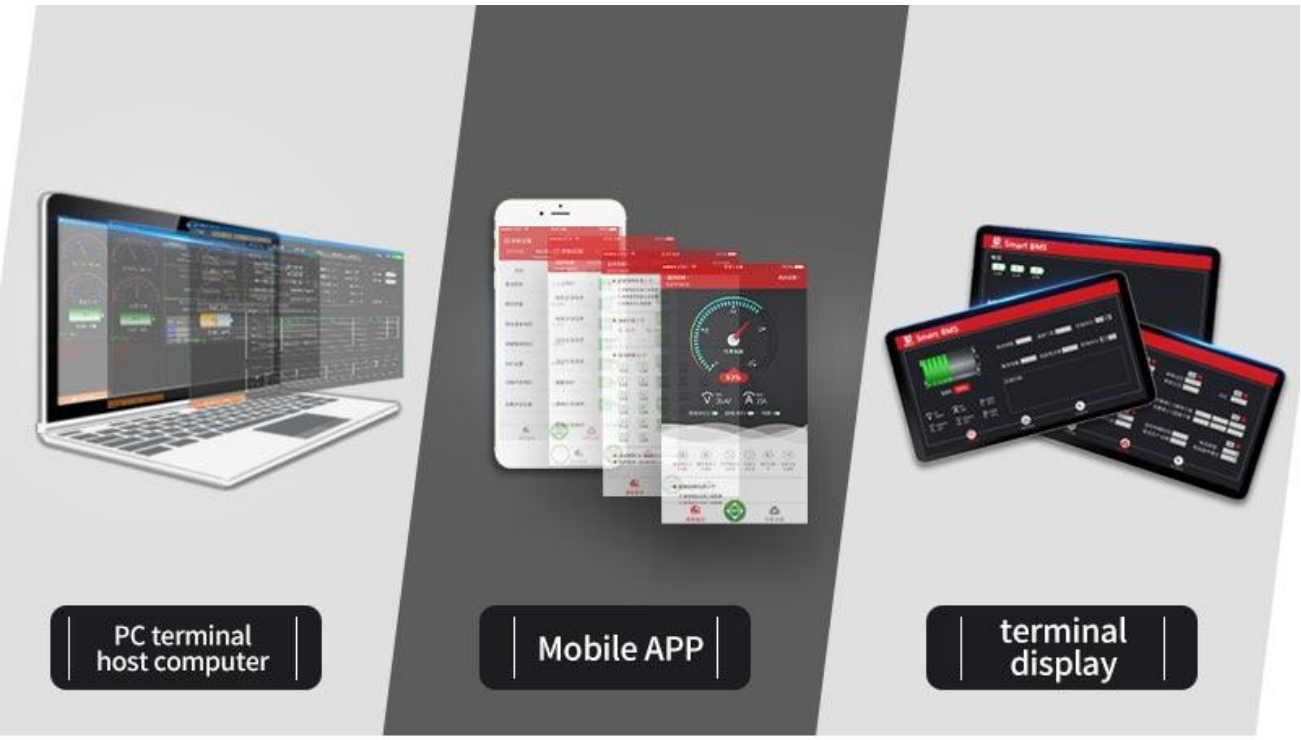




# REAL-TIME POSITIONING
# REMOTE POWER OFF
# REMOTE SOFTWARE UPGRADE

# SMART AND POWERFUL BMS

Three serial communication synchronous transmission


# MULTI-SCREEN DISPLAY
# SWITCH PER YOUR PREFERENCE




# BATTERY STATUS REAL-TIME DEMOSTRATE


Bluetooth connection >
DL-40D63C322349
50
25
75
SOC
0
100
100%
sum volt
50.3V
current
0.0A
Chg MOS
Dischg MOS
Balance
CYCLE-INDEX
SOC
TEMPER-ATURE
CURRENT
VOLTAGE
ABNOR-MAL LIST
Maximum volt
Minimum volt
Average volt
Diff Volt
Cycles
Power KW
3.901
3.842
3.869
0.059
0
0.000
Fault alarm 1
SOC high level 2
BMS
Status Display
Parameter Settings

TOTAL VOLTAGE

CURRENT

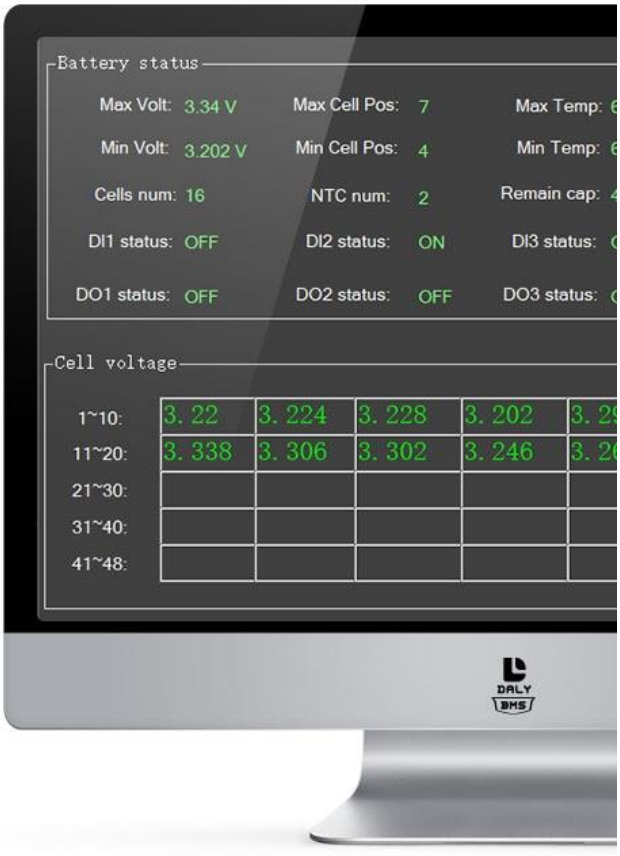
SOC

. . .


BATTERY STATUS

MONOMER VOLTAGE

. . .



TOTAL VOLTAGE

CURRENT

SOC

. . .


BATTERY STATUS

MONOMER VOLTAGE

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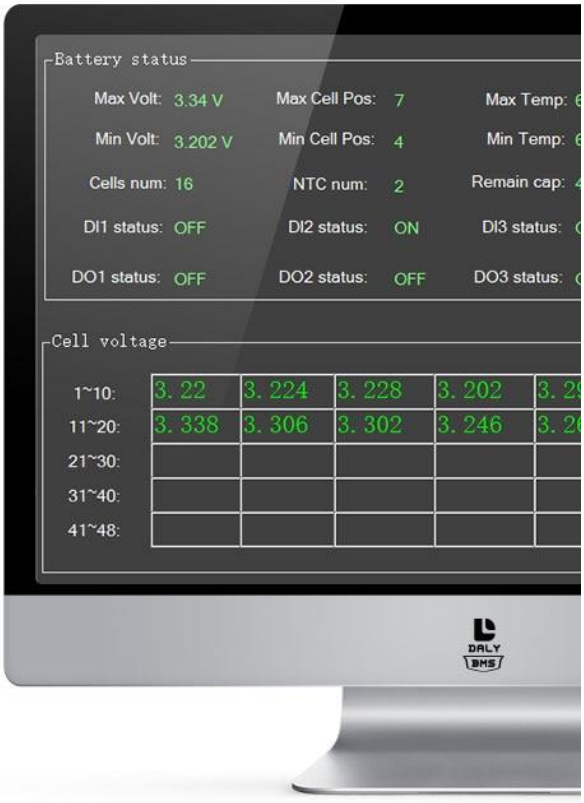
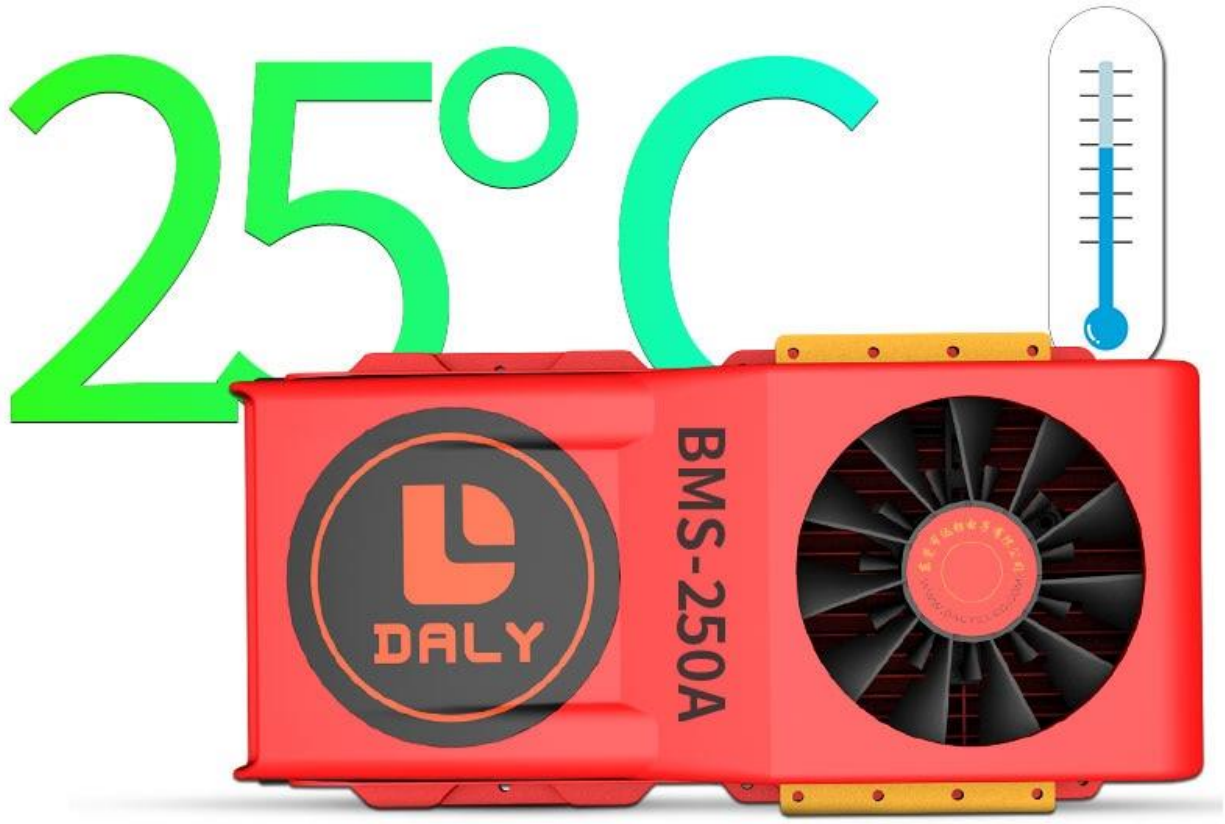


# INTELLIGENT AND UNINTERRUPTED INTERACTION

# LOWER TEMPERATURE RISE OF BMS




*The measured data are affected by external factors and will be subjected to actual data

# DALY BMS WIRE DIAGRAM

You will know more with picture

# DALY BMS WIRE DIAGRAM FOR COMMON PORT


★ I 、Pls do not insert balance wires into BMS before connecting batteries, must make sure connecting with batteries correct.

★ II 、The order of connecting wires for BMS

**Notes：Pls ensure to use balancing wires from Daly!**

1、From thin black balance wire to start, the 2nd wire(thin red wire) connect with the 1st battery's positive pole. Then connect each cell's positive pole in order until the last one B+;

2、Do not insert the connector directly after the wires were connected. Measure the voltage between two adjacent metal terminals on the back of the connector. If it is Li-ion battery, the voltage should be between 3.0 ~ 4.2V, Lifepo4 battery should be between 2.0 ~ 3.6V, and LTO battery should be between 1.5 ~ 2.75V;

**3、After the wiring sequence and voltage are confirmed to be correct, then insert into BMS;**

**4、Adjust the multimeter to the buzzer position and measure the internal resistance between B - and P - when the internal resistance is 0, there will be a beep, which means that the BMS is good. Otherwise, do not weld the bms with battery. Pls contact with our customer severice for support.**

5、The last step to connect B-(thick blue wire) with battery pack's total negative pole.

★III、After wire connection:

Measure whether the B + and B-voltage and B + and P-voltage of the battery are equal, If yes, it means the BMS works normally and can be used. If not, please recheck according to the above wiring sequence.

★IV、If you have any other questions, pls contact our customers severice for us support.