



上海恩阶电子科技有限公司

Shanghai energy Electronic Technology Co., Ltd.

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Specification

Product Name	Display
Version	V1.5

Version	Date	Draft/Modify	Version Revision Instructions
V1.1	2021/06/30	Linjialei	Create a draft
V1.2	2023/03/22	Wangtao	Hardware version Updates LCD003-PCBA-14V
V1.3	2023/07/17	Zhoujun	Add CAN protocol switching function
V1.4	2023/07/24	Zhoujun	Added the ability to display the currently selected CAN protocol
V1.5	2024/10/15	Zhouningjing	Add Chinese English switching function



Content

1. Introduction	3
2. Physical Dimension	3
2.1. Dimensions	3
2.2. Reference Physical Map	3
2.3. Display Renderings	4
2.4. LCD Interface Definition	5
3. Function Description	5
3.1. Interface Introduction	5
3.2. Button Introduction	12
4. Install And Use	13

1. Introduction

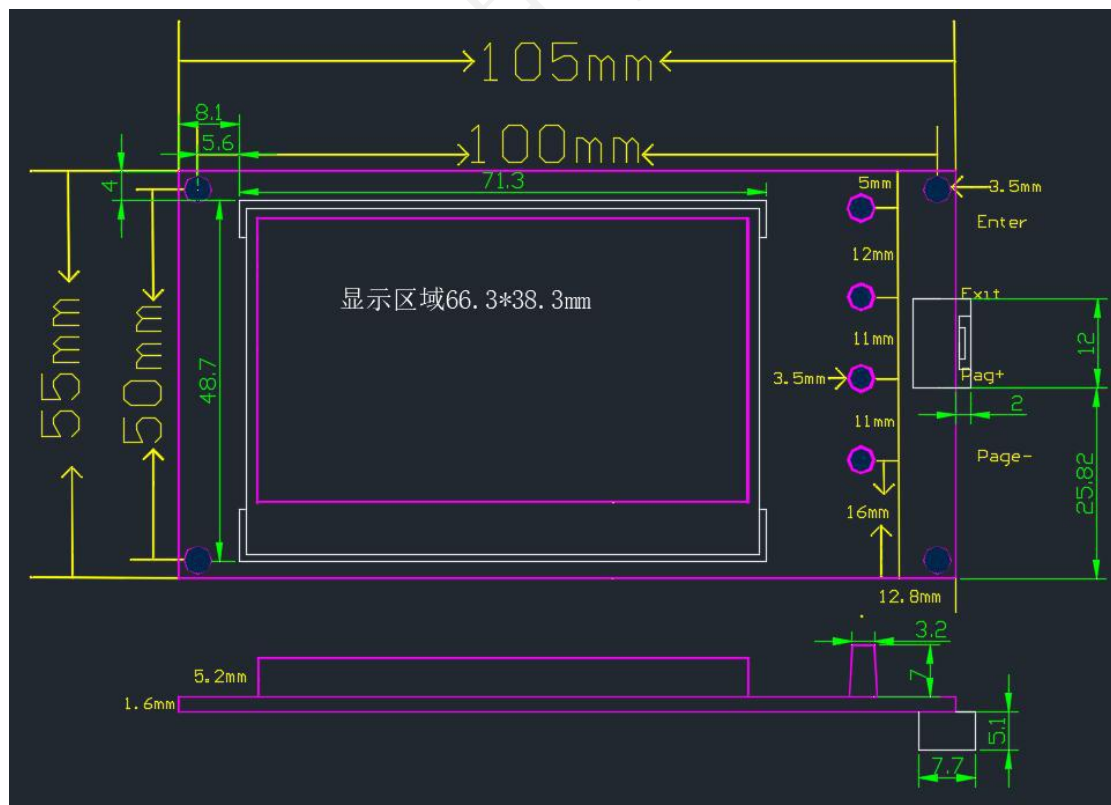
This product is the supporting equipment of the BMS series of energy storage products, which can provide intuitive battery parameter display, and has the characteristics of simple operation and friendly interface.

In order to use this product correctly, please read the user manual carefully and keep it in a safe place for future use.

Please install, use and operate according to the requirements in the user manual.

2. Physical Dimension

2.1. Dimensions



2.2. Reference Physical Map



ENTER: Confirm/Enter (long press the confirm key to switch to Chinese display)

RETURN: Quit

Page Up: Superior

Page Down: Down

2.3. Display Renderings



Press the confirm key to enter the data interface

2.4. LCD Interface Definition

Number	instructions	explanation
PIN1	GND	Anode
PIN2	GND	Anode
PIN3	RX	Data Reception
PIN4	TX	Data sending
PIN5	VCC	3.3V

3. Function Description

3.1. Interface Introduction

1) Main Page

After power-on activation, the battery management interface will be displayed, press the ENTER key to enter the main page. As shown below:



PackV: Total battery pressure

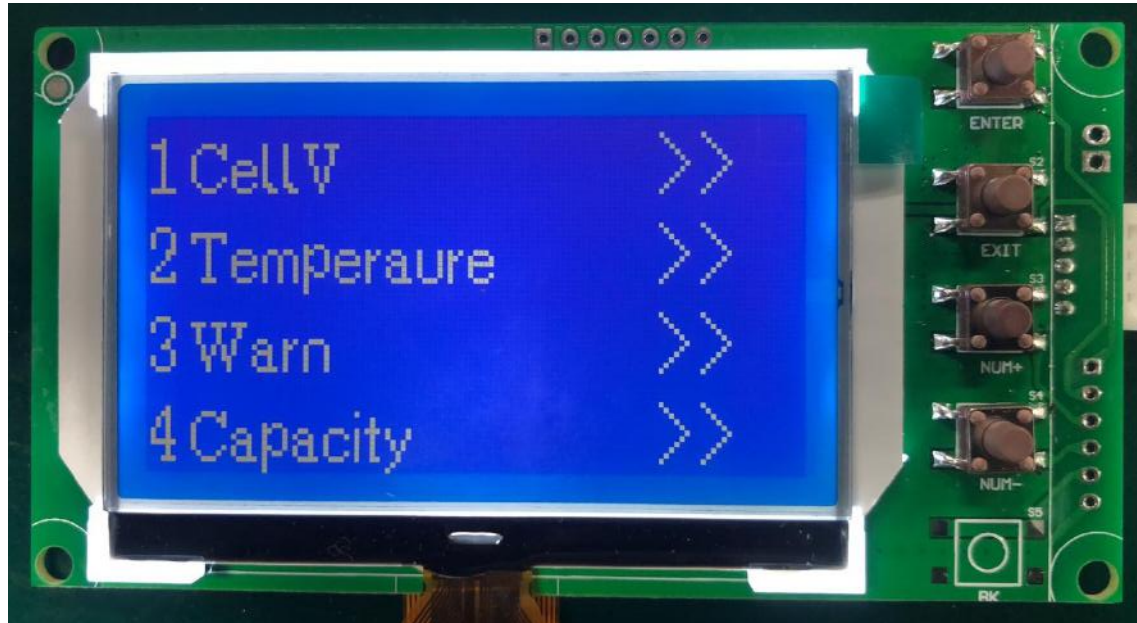
Current: Current

SOC: The remaining capacity

Warn: Alert

2) Battery Parameter Interface

Press the NUM+ key to enter the battery parameter details



CellV: Cell voltage query

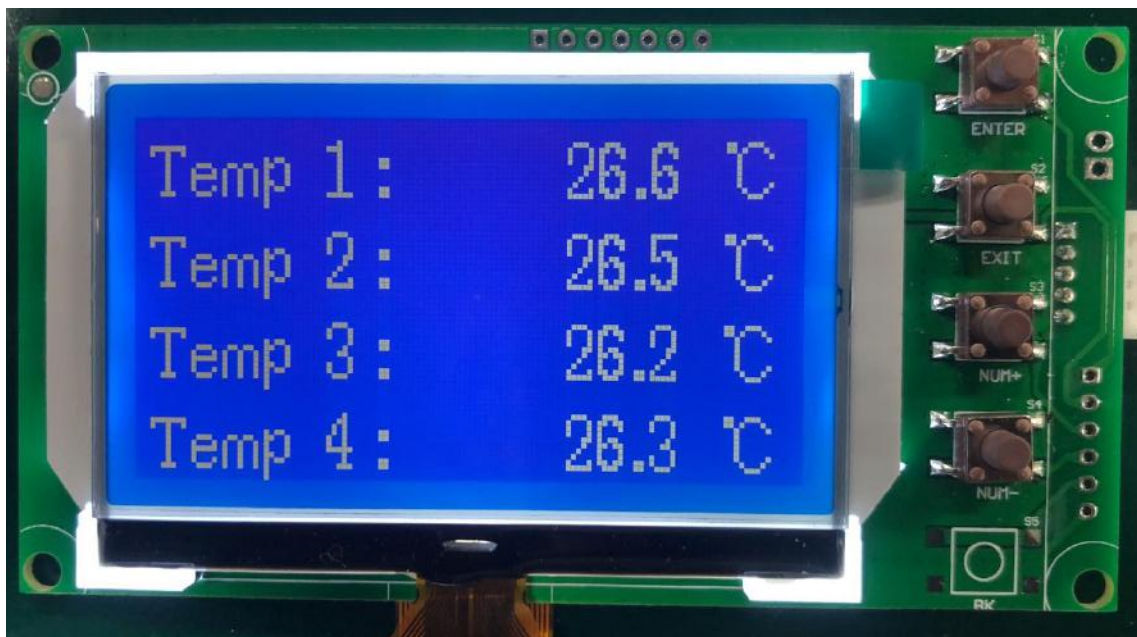
Temoeraure: Temperature query

Warn: Alarm query

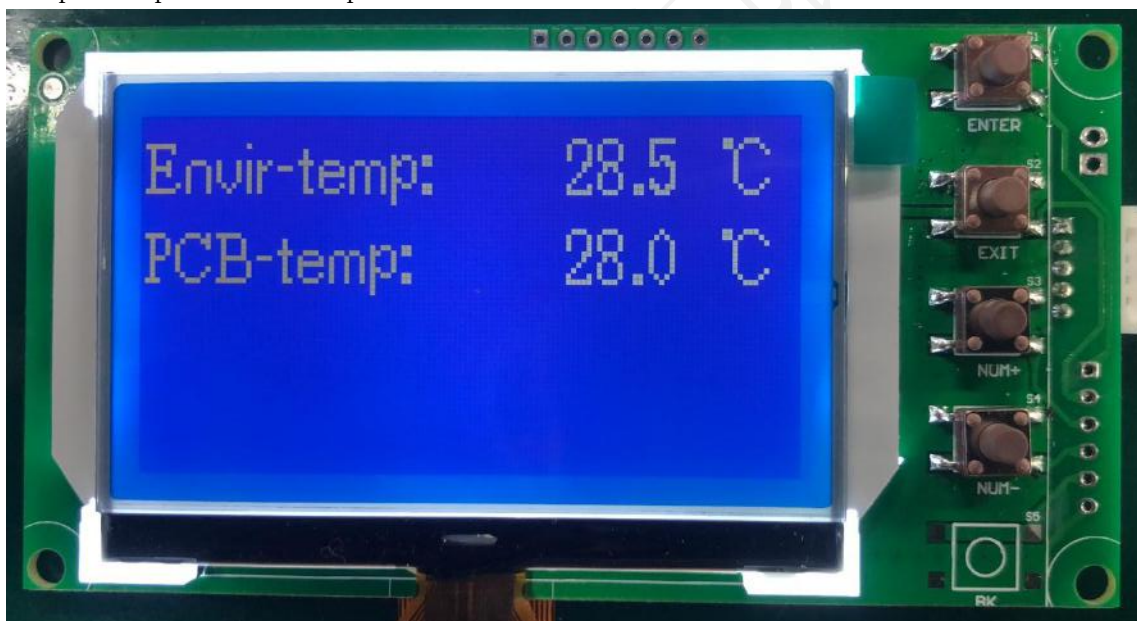
Capacity: Capacity query



CellV01-CellV16: Cell voltage value



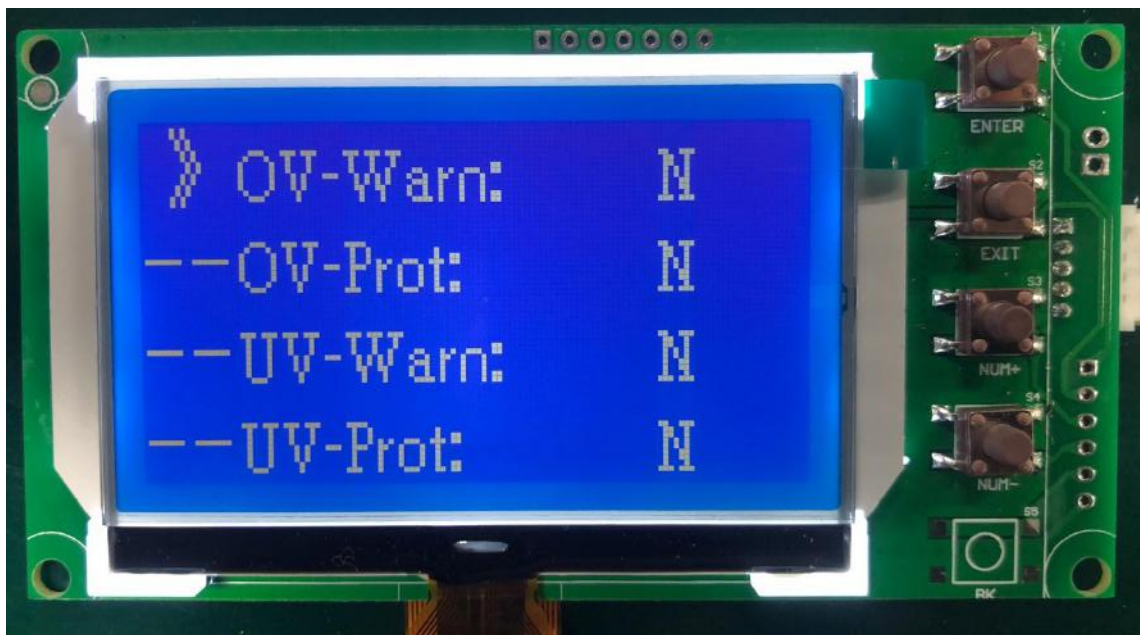
Temp1-Temp4: Cell temperature value



Envir-temp: Ambient temperature

PCB-temp: Power temperature

3) Status Alarm

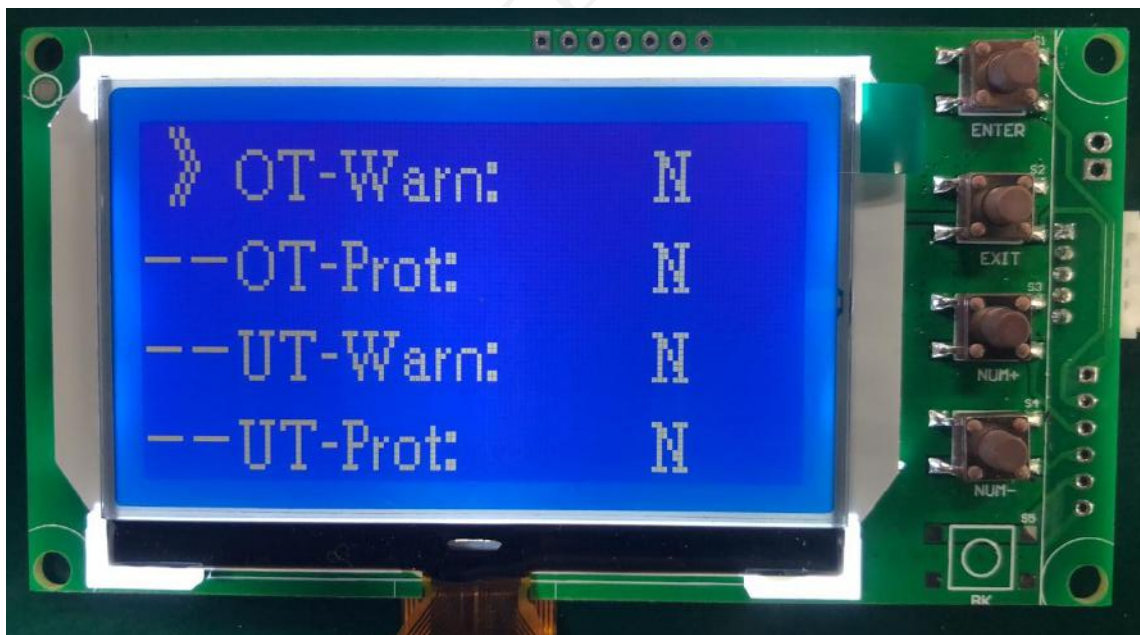


OV-Warn: High voltage warning

OV-Prot: Overvoltage protection

UV-Warn: Low-voltage warning

UV-Prot: Undervoltage protection

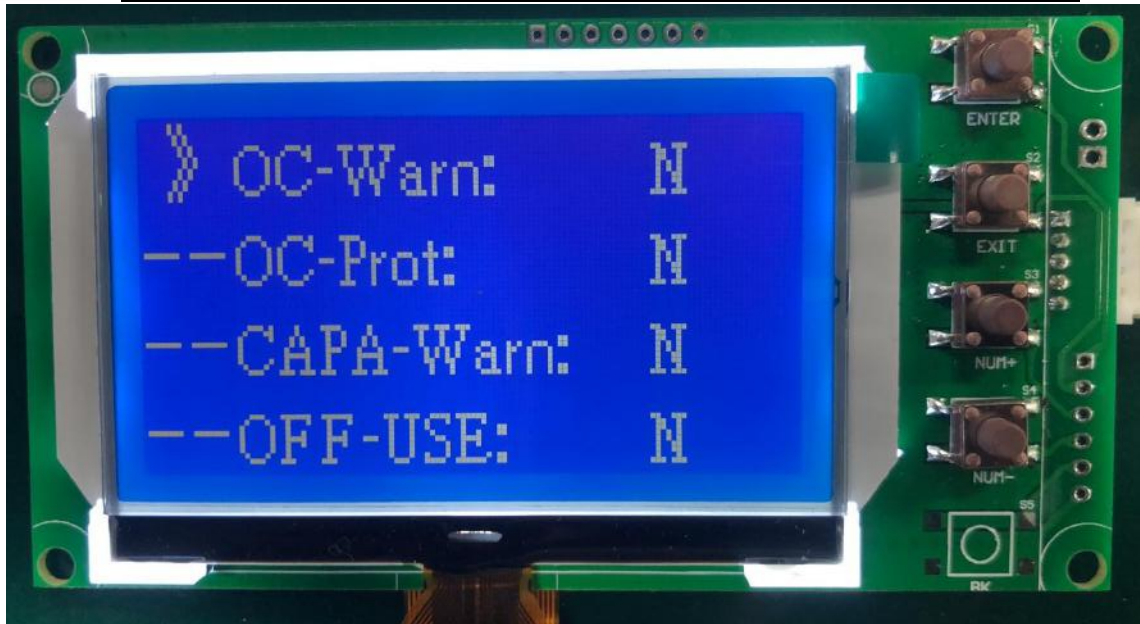


OT-Warn: High temperature warning

OT-Prot: Over temperature protection

UT-Warn: Low temperature warning

UT-Prot: Under-temperature protection



OC-Warn: Overcurrent warning

OC-Prot: Overcurrent protection

CAPA-Warn: Remaining capacity alarm

OFF-USE: Failure warning



SCP: Short circuit protection



FCC: Battery capacity

Rm: The remaining capacity

Cycle Time: Cycles

CAN: CAN protocol

4) CAN Protocol Switching

On the main page, press the NUM- key to enter the protocol switching interface, select the corresponding protocol, press and hold the ENTER key for 3 seconds, and then switch to SUCCESS. The switching is complete.



CAN PAGE 1

CAN PAGE 2

485 PAGE 1

485 PAGE 2



-->CAN PAGE 1

PN GDLT: Pylon Potocol

GRWT: Growatt Potocol

VCTR: Victron Potocol

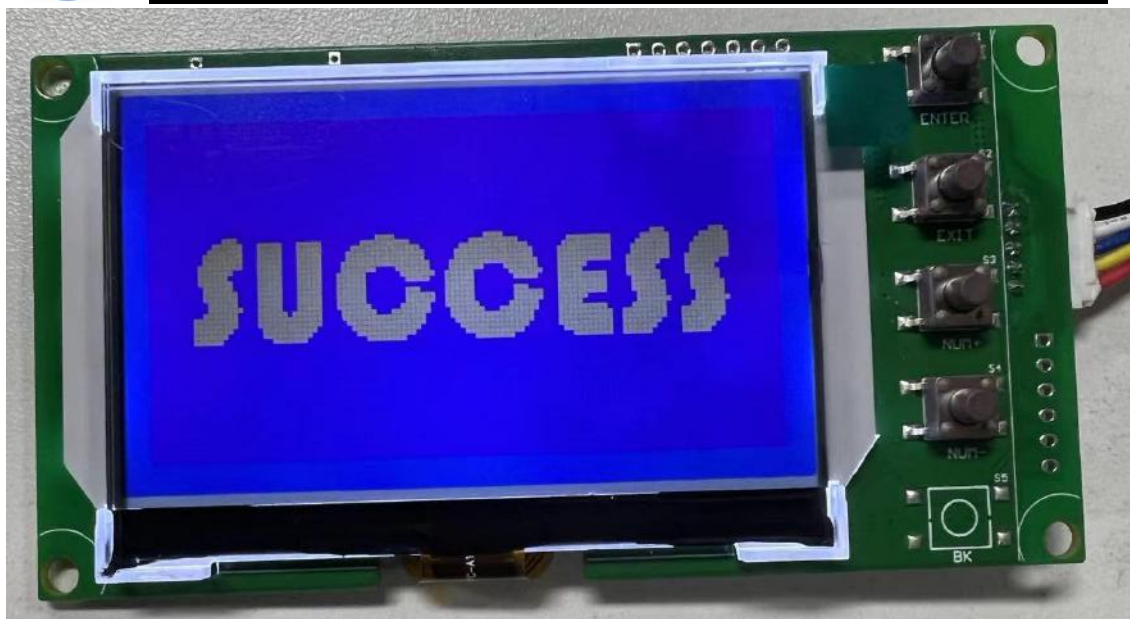
SMA SF: SMA Potocol



-->CAN PAGE 2

GINL: Solis Potocol

STUD: Studer Potocol



SUCCESS: Protocol switching successful

5) Chinese English Switching Function

Except for the protocol switching interface, long press the ENTER key for 3 seconds on any other interface to switch between Chinese and English, as shown in the following figure after switching to Chinese:



Press the ENTER key to enter the data interface

3.2. Button Introduction

1) ENTER——Enter\Confirm, RETURN——Quit, Page Up——Up key, Page Down——Down button.

2) Each item starts with a number, among which "number flashing" indicates the current cursor position. Press the Page Up or Page Down key to move the cursor position up and down; press the ENTER key to enter the

corresponding page.

- 3) Press the RETURN key to return to the previous directory.
- 4) The backlight of the display screen is off in the sleep state, press any button to light up the backlight of the display screen.

4. Install And Use

Please connect the display to the BMS through a dedicated cable!
The 5pin socket in the display corresponds to the BMS board

