Battery SOC meter

Model: PZEM-023

A. Function

Measure battery SOC and display with LCD.

B. Display

Ⅰ.Display interface

Color LCD: Five cell battery symbol + voltage + percentage combination display

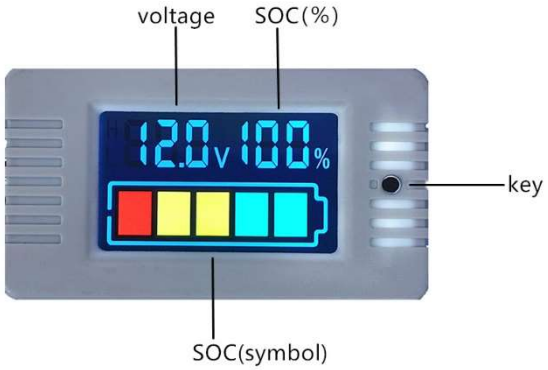

Figure 1 Display diagram

Ⅱ. Display description

1.Voltage

Battery test range

①Direct Power supply

Measurement range: DC8-100V

②Individual power supply

Individual power supply range: DC5-12V

Measurement range: DC0-100V

③Display format

＜10V display format such as:9.99V

＜100V display format such as:99.9V

100V display format such as:100V

④Accuracy:±1%

2.Percentage

①Range：0%～100%

②Display format

＜10% display format such as:9%

＜100% display format such as:99%

100% display format such as:100%

3.Battery symbol

①Graphical

Five cell symbol, each representing 20%

②Display format

SOC ＞90% display full cells

80%＜SOC ≤90% the first cell is flicker

SOC≤80% display four cells

60%＜SOC≤70% the second cell is flicker

And so on……

C. Other Function

1.Backlight control

Short press the key to turn on or off the backlight.

2.Set full/cut off voltage

Before use it, please set the full and cut off voltage depend on the battery specification, the default specification

is single 18650 battery (full voltage 4.2V, cut off voltage 2.75V)

Step1: Long press the key(2 seconds)to enter the full voltage setting interface, display such as: H 4.20V, then release the key

Step2: The digit circularly flickers (automatically move without key operation for 2 seconds), in order: high digit → middle digit → low digit → decimal point, short press to set the value and decimal point

Step3: After setting, long press the key (2 seconds) to enter the cut off voltage setting interface, display such as: L 2.75v, then release the key, and the setting method same as above

Step4: After setting, long press the key (2 seconds) to save and exit; if there is any problem with the setting data, (e.g. cut-off voltage > full voltage), it cannot exit. After display "Err", it will return to the full voltage setting interface and prompts the user to modify the full/cut-off voltage

3.Calibration

All products have been calibrated before leaving the factory. If you think there is deviation, you can calibrate by yourself. The methods are as follows:

Step 1: Long press the key when the meter is powered off

Step 2: Input the standard DC 20V voltage at the battery test terminal (Note: it is not the power terminal, otherwise, the meter will be damaged)

Step 3: The LCD displays CAL → PASS and returns to the normal display interface that means the calibration is successful, then release the key

D. Wiring diagram

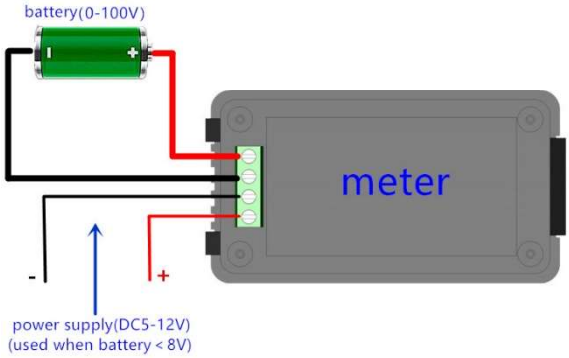

Figure 2 wiring diagram

E. Dimension diagram (mm)

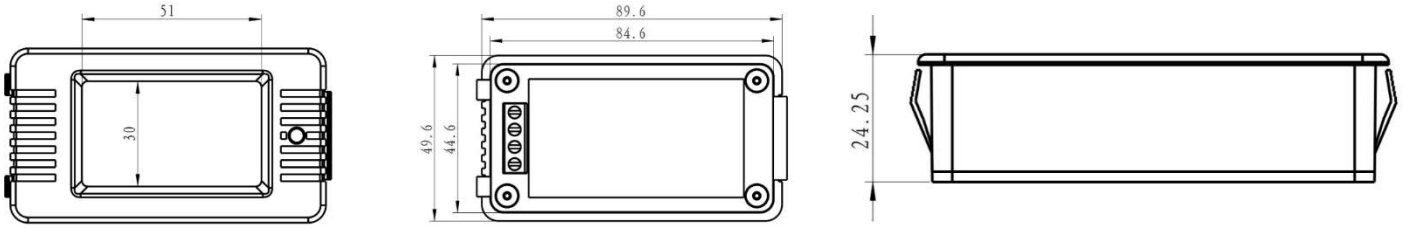

Figure 3 Frame size

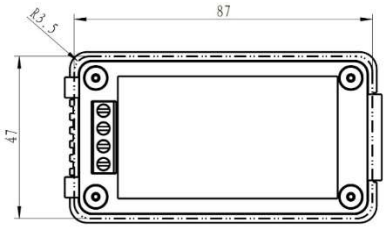

Figure 4 Hole size

F. Attention

1. This product is suitable for indoor, not outdoor.
2. This product is suitable for DC, not AC.
3. The Power supply and battery voltage not exceed the range.
4. Make sure the wiring is correct.