

# 24S Intelligent Automatic Equalizer

# **Instruction Manual**

## 1A-7A

## **Heltec Energy**



### 1. Introduction

- Supports 2-24 series of lithium batteries (ternary lithium, lithium iron phosphate, lithium cobalt titanium, batteries with voltages between 2V and 4.5V);
- Automatically identify the balanced voltage as the lowest voltage string;
- Automatically identify the number of battery strings;
- There are reverse connection, overvoltage (4.5V), and low-voltage (2V) alarms;
- After balancing is completed, it will automatically stop and sound an alarm;
- The equalizer belongs to PWM pulse discharge mode, with adjustable maximum current of 1A~7A and adjustable step size of 1A;
- Display content (balanced current, voltage per string, total voltage, average voltage, highest voltage, lowest voltage, maximum voltage difference, balanced voltage, number of battery strings, temperature);
- Foolish operation, simple and easy to use;
- Single string input interface withstand voltage (-100V~+100V); External power supply 12V5A.

### 2. Using Steps:

- Power on the device and turn it on;
- Connect the battery pack according to the markings on the balancer or wiring board;
- Check if the voltage and string count displayed on the screen are normal, and if they are not, check the wiring or battery;
- Set the balanced current parameters;
- Start balancing, check if the balancing voltage is normal, and automatically stop after balancing is completed.



### 3. Battery Maintenance Procedure:

#### • There is bad cell:

replace the cell — fully charged — balance — fully charged — complete the maintenance of the battery.

#### • There is no bad cell:

fully charged — balance — fully charged — complete the maintenance of the battery. If the effect can not be achieved, it can be repeated many times.

### 4. Attention:

(1) Because the equalization current is large, the equalization line must be thick enough.

Otherwise, the line will be broken or other problems will occur.

(2) B is the negative electrode of the battery pack. B1 is the first string from the negative electrode. When the battery is being equalized, it is forbidden to reconnect the battery when the battery is being equalized. Do not touch the battery if the idle cable is not used.

Otherwise, the machine will be damaged. Make sure that the cable is connected to the equalizer again.

### 5. Warranty Statement:

**One-year warranty with lifetime repairs.** For manual damage or unauthorized dismantling, will not provide warranty and return for replacementService, do not enjoy one-year warranty service. For more details, please contact customer service, our company reserves the right to final interpretation.