

Technical specification

Power Active Balancing Board

4-17 Cells LiFePO4 (1A)



Product description

GWL/M-CBM4S-17S is the battery pack active balancer just balances your batteries, shovels energy from a cell with higher voltage to one with lower voltage. This balancer is determined for LiFePO4 and Li-ion battery pack. Minimum balanced are 4 and maximum 16 cells.

BMS can reduce the number of strings, it can be compatible with other batteries, with a minimum of 4S, support extended series and improve parallel efficiency. It is applicable for batteries: 3.7V LiFePO4 battery pack and 3.2V lithium battery pack.

Features

1. Balanced type: transformer active energy transfer
2. Balance efficiency: 96%
3. Balance current: 10000mA
4. Balance differential pressure: < 10 mV
5. Trigger condition: adjacent differential pressure > 0.05 V
6. Balance cut-off: adjacent differential pressure < 0.03 V
7. Low voltage protection: < 3 V
8. Balance logic: the whole group of the battery cells is balanced synchronously. After the battery is balanced, it will automatically sleep for one hour, and then re detect the voltage difference to start the next balance.
9. Balance period: full voltage period (including charging, discharging and idle).
10. Sleep power consumption: 800µa (micro amper) palow power consumption, the battery can be idle for a long time.
11. Balance current reference:
The maximum equalizing current of 0.1 V voltage per difference is 1.2 A.
The balance current of each string of batteries is not fixed, but changes with the change of differential pressure.
12. It can be used to repair model toy batteries and can also be used in parallel with BMS long-term fixed battery pack. Because the chip setting logic is that the greater the voltage difference is, the greater the balance current is, and the long-term fixation will not cause damage to the battery.

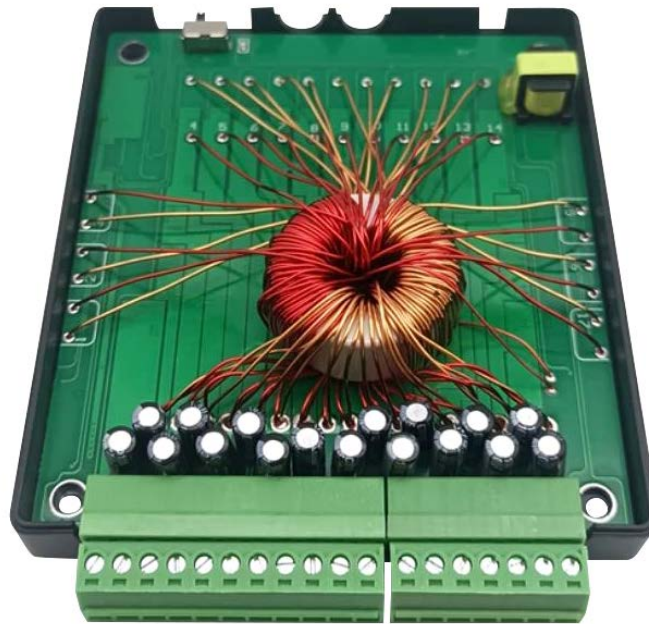




Tips:

1. This model cannot remove the connector to balance other batteries. For example, after balancing a battery pack, remove it for another battery pack. If you do that it will definitely damage the balancer, it must be fixed with the battery pack together.
2. If you want to use this balancer for solar energy storage batteries, its balance current may not be large. Since the solar energy storage battery is always charging and discharging, the battery voltage difference is small, and the current obtained is also small. If the capacity is the same, and the greater the voltage difference is, the greater is the current.
3. The pressure difference of the newly established battery pack will not be very large, but the capacity must be consistent. If the battery voltage difference is 0.2V-0.3V, it is a very large voltage difference value. There may be a voltage difference of 0.5V at the end of full charge and discharge, and the balance current will also be the largest at this time. But the pressure difference value will not last for a long time.
4. About 10A balance current: When the voltage difference exceeds 0.8V, it will reach 10A balance current but it does not mean that each string of batteries could reach a current of 10A. Normally, a 4A balance current is the safest. Allowing the balance current to be 10A for a long time, it will damage the balancer. Do not create a difference of more than 0.7V and do not keep it for 10 minutes or longer, it will damage the balancer.
5. First use:
 - 1) Please connect each balance cable carefully, the wrong wiring will damage the balancer.
 - 2) Do not disassemble often the connector port. Frequent plugging and unplugging of the connector may cause poor contact and affect the balance current.
 - 3) It must be installed with the battery and fixed.
 - 4) The green connector must be pulled out before wiring.
 - 5) The connector can be plugged in after the balance cable connection is completed, and the charging is started for the first use to enhance the balance effect.Before welding the battery, we need to remove the terminal, connect the* battery, and then insert it. The order is left to right.

*** If the order is reversed, it will burn down immediately**



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