

Specification of balancer

Product name: Balance module for 4S lithium battery

Product model: GNEBBM-4S

product photo



Introduction:

Battery Balancer module is a mutual way energy transfer system with the working method of high-frequency pulse. It is widely used for lithium-ion batteries, lead acid batteries, NiMH batteries and Super capacitors. The main function is to balance the voltage of the batteries.

Through this way, it maintains the batteries in the long term running so that the lifespan of the battery pack is prolonged. The balancer module prevents the lead acid batteries from vulcanization and also has capability to repair vulcanization.

The balance solution of the balancer module:

Every balancer is connected to each battery in parallel and distributed, realizing long term online dynamic balancing. Via switch power technology, transfer the power of higher voltage batteries to the lower voltage batteries in the way of energy transfer. the transfer of electricity power is a mutual way, that is to say any cell with higher voltage will transfer to any cell with lower voltage at the same time. thus the voltage of the batteries get balanced.

Different ways of balance:

- 1) distributed and centralized type, centralized type wiring is complex, distributed type wiring is simple.
- 2) parallel and serial type, parallel type has no voltage drop, doesn't affect normal use of the battery pack.
- 3) dynamic type and static type, dynamic type balance the batteries voltage all the time within the range of battery working voltage.
- 4) two-way type and One-way type, two-way type use two-way converter, two-way adjust charging and discharging of single cell
- 5) parallel type and progressive type, parallel type balanced, fast, efficient;
- 6) energy transfer type and energy consumption type, Energy transfer Type is to transfer energy to achieve the result of balancing single cells. little loss, less heat.

LGBBM equalizer module adopts distributed ,parallel,two-way,energy transferring type which is the ideal balance solution. Using the latest circuit technology and devices, such as synchronous rectification, soft switches, etc., to achieve high efficiency and high product reliability.

Functions and features:

- 1) unlimited expansion: no limitation for the number and way of connection of the batteries;
- 2) Simple coordination: coordination group is simple: to allow different models of battery voltage directly with the same group, allows group of cells with some differences in performance;
- 3) dynamic equilibrium: either charge or discharge or static set, balance the batteries automatically.
- 4) parallel balanced: all high-voltage batteries will transfer to all low-voltage batteries;
- 5) no pressure drop in series: the balanced modules are connected in parallel on the battery, battery charge and discharge does not affect the work;
- 6) Power sharing: all single battery charge sharing, maximize the use of battery power the whole group;
- 7) high balance current : the peak current up to 10A, to allow continuous current 6A;

- 8) balanced with high precision: after balancing, the voltage difference of each cell is less than 10mV;
- 9) low loss of energy: when the balance of current is 1A,the efficiency is as high as 94% ;
- 10) wide application :applied for all types and sizes of lithium batteries and lead acid batteries.

Technical Parameters

- 1)way of work:connect to power battery pack for long term usage
- 2)work environment:indoor and outdoor
- 3)balance current:peak current reaches 10A,long term continuous current 6A
- 4)Balance accuracy:0.5%,voltage difference of each single cell after balance<10mV
energy transfer and dynamic way of balance
- 5)work efficiency>94% when the balance current is 1A
- 6)applied for 50~1000ah lithium batteries of all types
- 7)working temperature:-10~+50℃
- 8)storage temperature:-40~+70℃
- 9)Relative humidity:45%~90%
- 10)Dimension:150(L)*70(W)*20(H)mm

Wiring

