



**EV Power Australia Pty Ltd**

## **LiFePO4 ANALOG CELL BALANCING MODULE**

### **Version 2.0**

EV power cell balancing modules combine simplicity and reliability to maintain Lithium LFP (LiFePO4) cell balance and protection.

LiFePO4 cells are not self balancing and in normal use a battery will become unbalanced over a period of time. These cell balancers are designed to connect directly on top of prismatic LFP cells of 3.2V nominal and 20-100Ah capacity. They also can operate as standalone cell balancers on larger cells if fly leads are attached. These modules are designed specifically for GBS 20Ah-100Ah battery packs and will bolt directly on. For other cell formats

A cell module regulates the cell to which it is attached when the voltage reaches 3.6V. This is done by shunt regulation up to 400mA. It allows unbalanced cells in a battery to even out during charging when a suitable charger is used. The cell balancers are designed for LiFePO4 cells and can be used for 12 or 24V batteries if low voltage battery protection is incorporated, or in combination with another cell monitoring system.

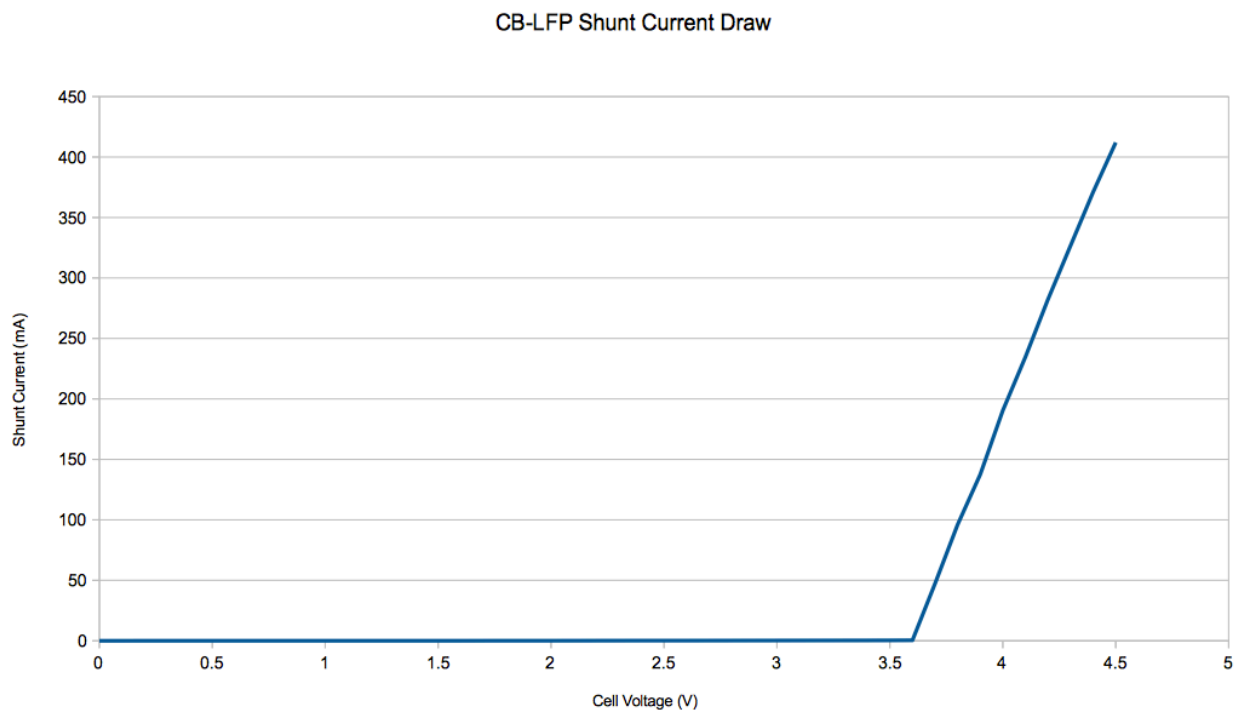
A red LED will become visible when the cell voltage exceed 3.75V. This indicates that shunt bypassing is happening.

In normal operation the cell balancers require the cell voltage to be less than 4.2V. An internal fuse (500mA) protects against over-current so care should be taken during installation not to over-volt the modules or shunt balancing will be lost.

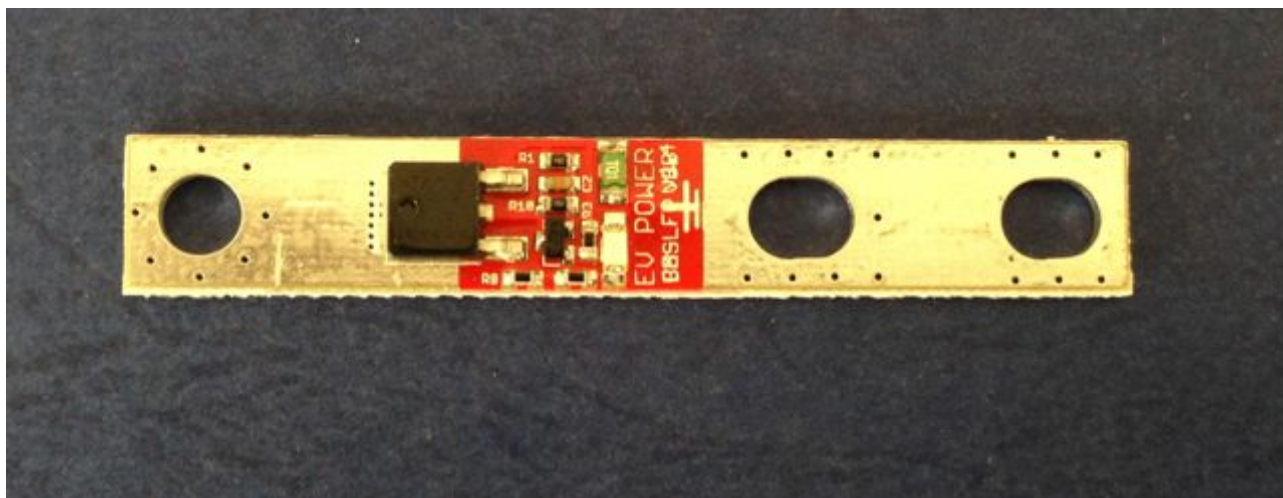
### ***V2.0 Cell Balancer Specifications***

|                                  |   |
|----------------------------------|---|
| Nominal Cell Voltage:            | 3.2-3.4V  |
| Bypass Voltage:                  | 3.50V +/- 0.02V (Bypass shunt will switch on)           |
| Max. Bypass Current:             | 400mA @ 4.5V  |
| Weight:                          | 3g  |
| Power Consumption:               | < 300uA @ 3.3V  |
| LED Indicators:                  | Red (ON=Bypass active > 3.75V)                          |
| Safe operation Limits:           | 0V < OK < 4.0V  |
| Current Loop Relay:              | N/A   |
| Max Signal current:              | N/A   |
| Max height above terminal bolts: | zero  |
| Environmental:                   | Varnish encapsulated against dust and moisture ingress. |

Standard sizes for GBS 20Ah -100Ah cells.



For more information on your specific requirement please contact EV Power Australia.  
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NOTE: The module can be easily cut to fit 20Ah cells by using metal cutting shears.

