



EV POWER LFP BATTERY BALANCING SYSTEM DATASHEET

The cell modules are designed to bolt on top of Thunder Sky LFP series cells or similar. They can act as standalone cell balancers or be daisy chained together using a one wire interface which is NC when all the cells are within safe operating voltage limits and open circuit otherwise. This can be used to control chargers and loads or to interface with an EV Power master unit.

A cell module shunt regulates the cell to which it is attached when the voltage reaches 3.65V. This allows unbalanced cells to even out during charging.

For temperature protection PTC thermistors can be placed in the signal line and placed against selected cells. This will additionally open the signal circuit in over temperature conditions.

Three modes of operation:

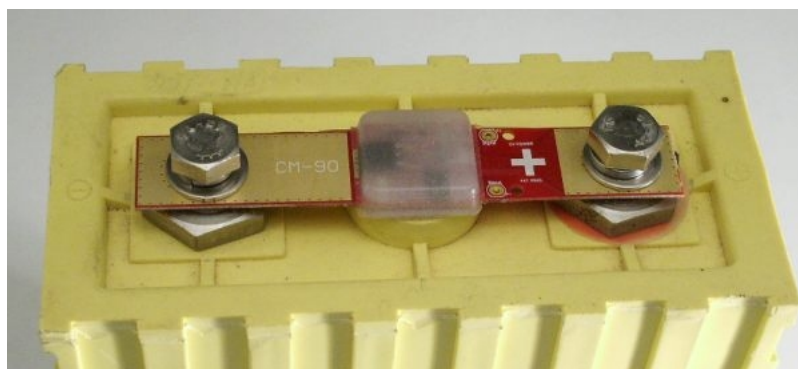
1) Standalone – cell balancers will shunt charge current at 3.65V. Green LED is normally ON if cell is OK. Red LED operates when module is shunting charge current.

2) Daisychained – cell modules are daisychained together via a one wire interface. Operation is similar to standalone mode with the addition that the two signal ends are normally closed circuit if all cells are in the range 2.5 – 4.1V. Open circuit otherwise.

3) Master Control Unit – Various microcontroller based master units are in development to control charging and discharging devices based on daisychained signal outputs.

The system is designed to be failsafe. In order to operate the cell modules require a cell voltage within the recommended limits. An internal fuse protects against overvoltage and cell module failure.

V6 Cell Module Specifications



Nominal Cell Voltage: 3.2V
Bypass Voltage: 3.65V (Bypass shunt will switch on)
Max. Bypass Current: 600mA
Weight: 15-20g
Power Consumption: ~3mA @ 3.2V

LED Indicators: Green (ON=OK), Red (ON=Bypass active)
Safety Limits: $2.5V < OK < 4.1V$
Relay Output: NC when cell voltage is OK. Open circuit with error condition.
Max Signal current: 100mA (non-polarized)
Max height above terminal bolts: 2mm
Epoxy encapsulated against dust and moisture ingress.
Standard sizes available for TS LFP40/60AHA, LFP90AHA, LFP160AHA

For more information on your specific requirement please contact EV Power Australia Pty Ltd.
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TS90 BATTERY MANAGEMENT SYSTEM CONNECTIONS

