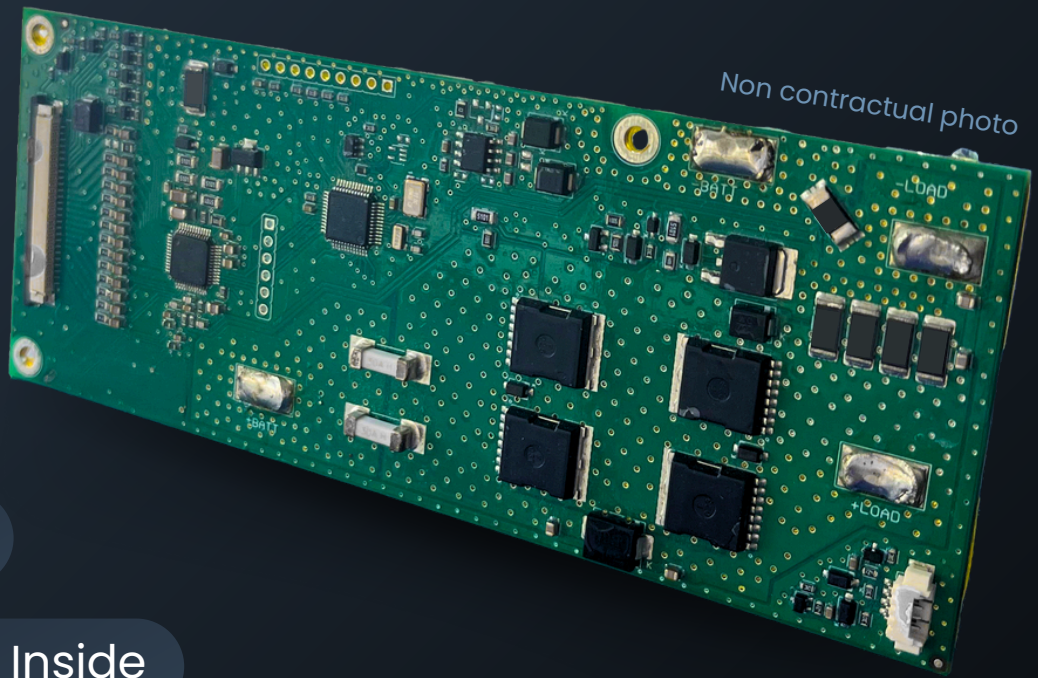


3-16S OPTIMA BMS PowerSafe



40A

CAN BUS

Powerbox Inside

➤ eMobility

➤ Energy storage



Cells management

- Management from 3 to 16 lithium cells in series*, compatible with all cell technologies (NMC, LiFe, LiPo...), (16S possible with rerouting).
- Management of 2 NTC temperature sensors
- Measurements accuracy:
 - Cell voltages: ± 5 mV
 - Temperatures: $\pm 1^\circ\text{C}$

* Factory setting

Protections

- Overcurrent software protection
 - several configurable levels in charge and discharge
- Overdischarge, overcharge, overtemperature protection
- Short circuit hardware protection (electronic fuse) :
 - Above 120 A for more than 150 μs

Balancing

- Passive balancing with 50 mA of bypass current

Power Box

- Integrated power box with MOSFET technology :
 - 30 A continuous current in discharge
 - 40 A maximum peak current (20 sec) in discharge
 - 30 A continuous current in charge
- Bidirectional current measurement
- Charge and discharge management
- Precharge circuit included on the BMS

Smart functions

- SOC and SOH calculation
- Possibility to connect 5 external LEDs to have a visual HMI
- Wake up using a switch
- Automatic BMS wake up on detection of the charger connection
- External communication via CAN bus 2.0B
- Auto diagnostic of the BMS
- Black box integrated with defaults history storage and life counters
- Optional hot swap paralleling technology (extra adaptation)

Power supply/consumption

- Supply of the BMS directly on the battery pack
- Very low consumption in deep sleep mode: $< 50 \mu\text{A}$

Mechanical format

- 150 mm x 60 mm x 10 mm