

Product Sheet



8-16S BMS PowerSafe

750A

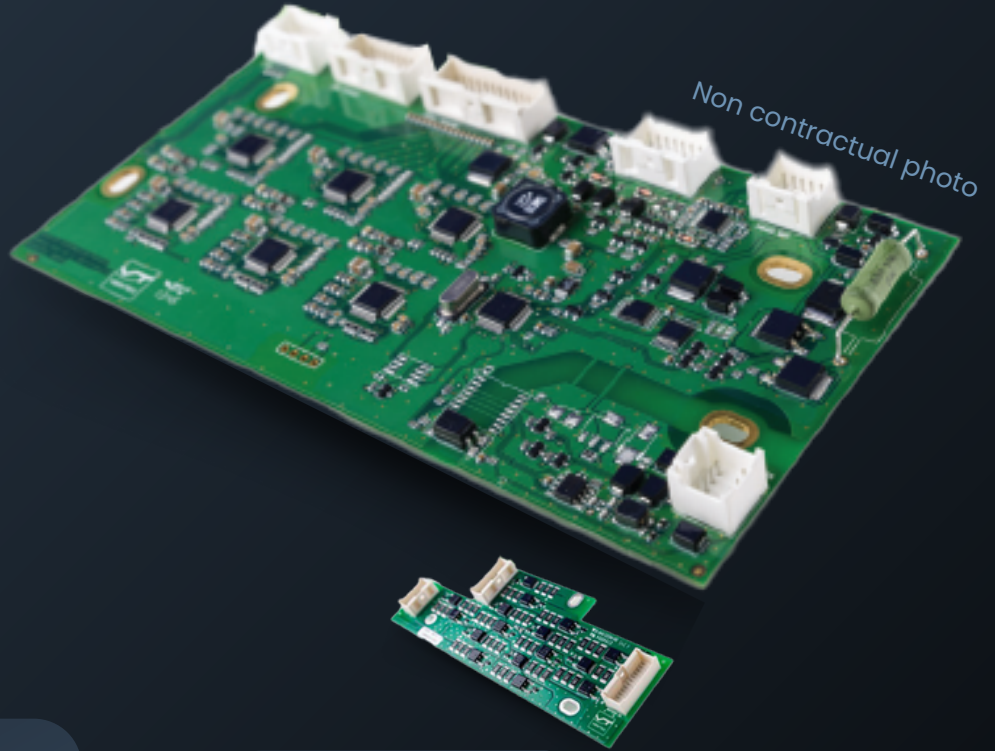
CAN BUS

EN61508

Parallelizable

SIL2 compliant

External Powerbox



500mA external bypass

➤ eMobility

➤ Energy storage



Cells management

- Management of 8 to 16 lithium cells in series*, compatible with all cell technologies (NMC, LiFe, LiPo...)
- Management of 4 NTC temperature sensors :
 - Cell voltages: ± 5 mV
 - Temperatures: $\pm 1^\circ\text{C}$
- Management of 6 NTC temperature sensors :
 - 3 digital measurements used by the software
 - 3 analog measurements used by the hardware redundancy

* Factory setting

Protections

- Hardware redundancy for voltage and temperature measurements in order to reach a high level of safety (SIL2 of EN61508 standard)
- Overcharge and undercharge, tunable by software
- Overtemperature and undertemperature, tunable by software
- Overcurrent : 2 levels in discharge, 1 level in discharge tunable by software
- Short circuit hardware protection (resettable electronic fuse)

Balancing

- Passive balancing with a 500 mA bypass current per cell (with an external bypass board)

Power Box

- Requires an external power box (contactors, hall effect current sensor)
- Bidirectional measurement of the battery current by an external hall effect sensor
- Charge and discharge management
- External power box management up to 750 A :
 - Management of an external electromechanical contactor
 - Precharge circuit (included on the board)

Smart functions

- SOC and SOH calculation
- Advanced self-diagnostic of the board
- Communication by CAN bus 2.0B (can be opto-isolated)
- Possibility to manage the motor controller and the charger
- Black box integrated with defaults history storage and life counters
- Possibility to connect up to 10 packs in parallel
- Hot swap capability
- Possibility to reprogram the firmware of the BMS by CAN Bus

Power supply/consumption

- Supply of the BMS directly on the battery pack
- Low consumption in sleep mode: $< 500 \mu\text{A}$

Mechanical format

- 90mm x 172mm x 12mm (BMS) 65mm x 170mm x 12mm (500mA Bypass)
- Can be potted to be used in harsh environment