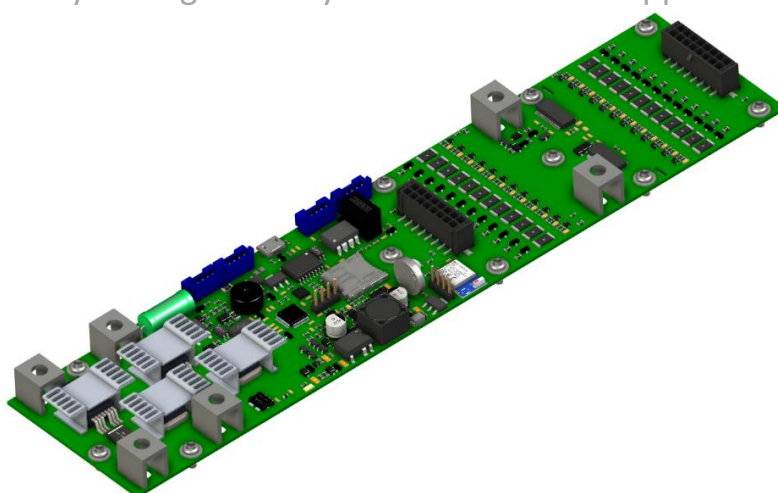


# LVBMSv2.0

Low-voltage battery management system for industrial applications



## Product information:

LV BMS is a low-voltage battery management system. It cooperates with lithium-ion batteries of every kind, even ones with stack voltage up to 120V and capacity to 2000 Ah. Based on measured parameters LV BMS calculates state of charge (SOC) and state of health (SOH) of the battery. The device is able to safely control opening and closing of transistor switches, which enables non-hazardous battery charging and discharging. In addition while charging process our product is responsible for balancing voltages of individual cells.

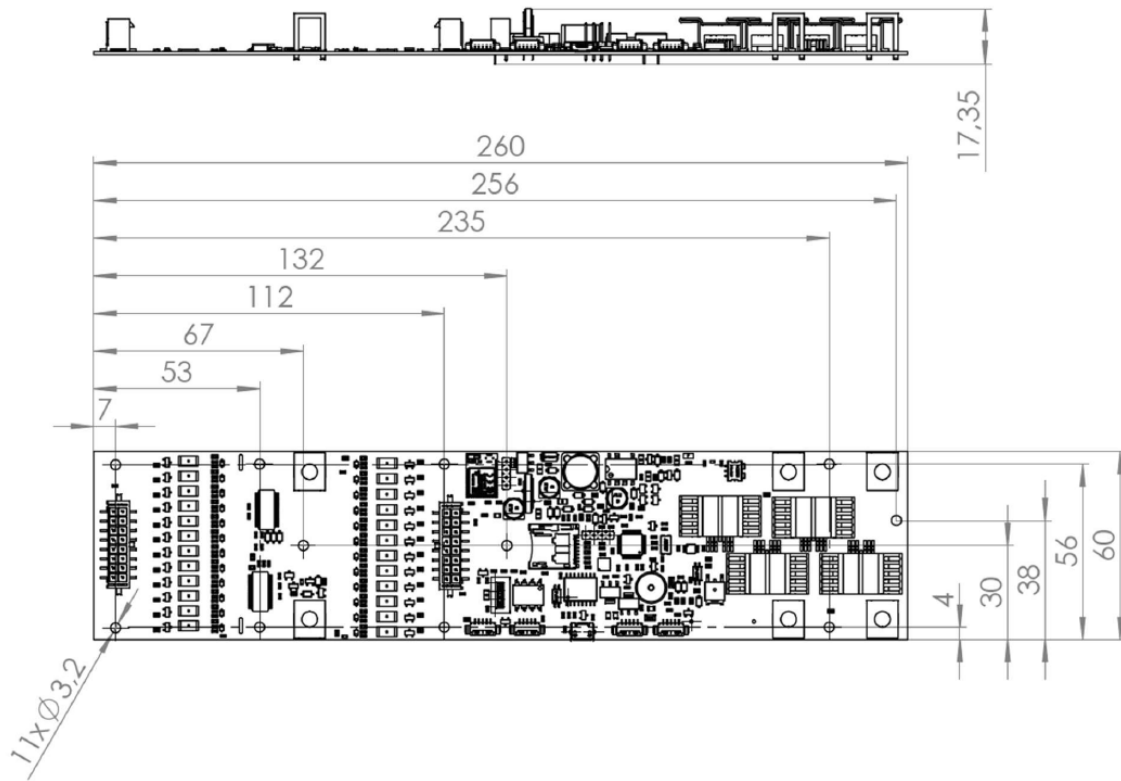
## Functionality:

- For every kind of lithium-ion cell
- Standby mode
- Voltage measurement sampling frequency 10Hz
- Bluetooth and CAN connection
- 2 GPIO inputs
- Mobile app for remote battery parameters monitoring

## Technical specification:

Parameter	Description	Value
Battery voltage	Operating battery voltage range	8 – 120 V
Cells voltage measurement	Cells voltage measurement range	0 – 5 V
	Cells voltage measurement accuracy	< ± 1,5 mV
Current measurement	Type of sensor	Hall Sensor
	Measurement accuracy	0 – 140 A
	Current measurement accuracy	± 1A
Temperature measurement	Type of temperature sensor	NTC, 100 kΩ, β = 3900
	Measurement range	-40 ~ +85°C
	Temperature measurement accuracy	± 1 °C
Battery capacity	Maximum capacity of the battery	Max. 2000 Ah
Cell capacity	Maximum capacity of one cell	Max. 2000 Ah
Number of cell	Maximum number of cells connected in series	4 – 24
Discharge current	Maximum continuous current – without the radiator	30 A
	Maximum temporary current – without the radiator	80 A (10 s)
	Maximum continuous current – with the radiator	60 A
	Maximum temporary current – with the radiator	140 A (10 s)

Charging current	Maximum continuous current – without the radiator	30 A
	Maximum temporary current – without the radiator	80 A (10 s)
	Maximum continuous current – with the radiator	60 A
	Maximum temporary current – with the radiator	140 A (10 s)
	Balancing current at 4.2V cell voltage	200 mA
	Current consumption at 60V battery voltage	118 $\mu$ A
GPIO	Number of GPIO inputs	2
	Maximum GPIO input current	100 mA
	Maximum GPIO input voltage	5 V
	Controllable contractor with voltage of 120V	n/a
Dimensions	BMS board with the radiator	288 mm x 96 mm x 22 mm
	BMS board dimensions without the radiator	260 mm x 60 mm x 17 mm
CAN	ID	Standard/ Extended
	Speed	125/ 250/ 500/ 1000 kbit/s



\* the manufacturer reserves the right to make changes to the parameters and appearance of the product.