

HVBMSv3.1

High-voltage battery management system



BMS Płytki Master



BMS Obudowa



BMS Płytki Slave

Product information:

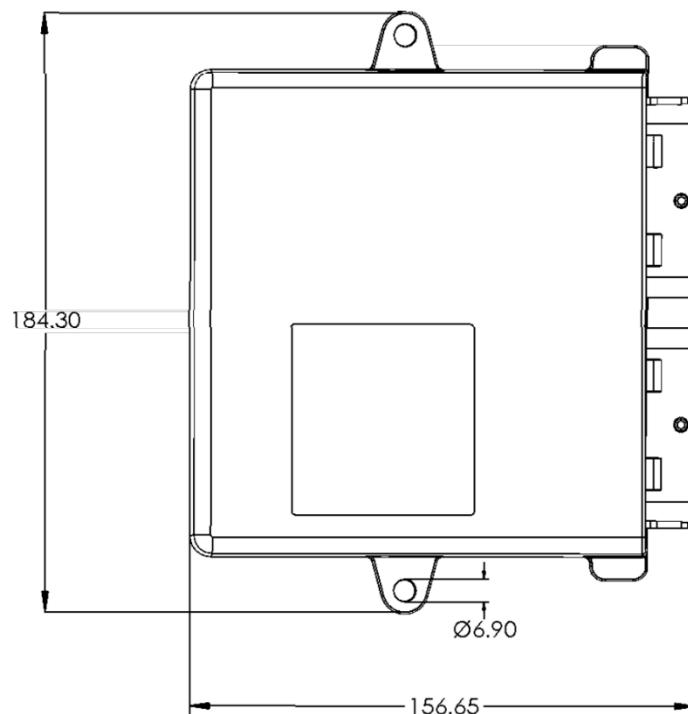
The high-voltage Battery Management System (BMS) is designed to control the operation of high-voltage batteries (up to 1500 V) used in electric vehicles or stationary energy storage systems. A key feature of this device is its scalability—32 measurement boards, each monitoring and balancing 12 cells with 5 temperature inputs. The BMS can manage up to 9 contactors with feedback or 19 contactors without feedback. The system also includes an application that enables full device configuration. It can be operated via multiple interfaces (CAN, USB). Its versatility allows it to support all popular lithium-ion battery types, such as NMC, LFP, LTO, and sodium-ion.

Features:

- Galvanic isolation
- Integration with any battery
- Fully configurable via PC application
- Modular Master-Slave Daisy Chain topology
- Supports voltages up to 1500 V
- Connects up to 32 slave boards, each managing up to 12 cells—total system supports up to 384 series-connected cells
- Multi-point battery temperature measurement
- Cell-level state of charge balancing
- Precharge function
- Safety Interlock Loop
- Compact dimensions
- Wide input voltage range
- Supports 2 CAN bus channels
- Multiple inputs and outputs
- Proprietary PC application
- Current measurement using LEM sensors
- Wide operating temperature range: -20°C to +70°C

Technical specification::

Parameter		Value
Input voltage range	VDC	9-32
Number of CAN buses	-	1x non-isolated (wake-up via CAN frame, configurable) 1x galvanically isolated
Number of USB buses	-	1x galvanically isolated (communication with the application)
Bluetooth	-	Communication with the mobile application (BT 4.2)
Number of PWM LS OUT outputs	-	3x (100-1000-10000Hz)
Number GPIO LS	-	15x (1.5A each)
Number GPIO HS	-	4x (1.5A each)
Number of analog inputs	-	3x (0-32V)
Number of 5V power outputs	-	1x (LEM sensor)
Number of LEM-type sensor measurement channels	-	2x (0-5V)
isoSPI bus	-	1x izolowana galwanicznie
Number of wake-up inputs	-	1x (KL15)
Interlock loop control	-	1 x HVIL (By forcing current)
Memory card support	-	MicroSD, do 32GB FAT32
Temperature sensor support	-	4x (NTC 10k)
Protection rating	-	IP67
Ambient temperature	°C	-20 ~ +70
Humidity	%	≤95, RH, Without condensation
Cooling	-	Pasive
Dimensions (without protective housing)	mm	151x143x25
Weight (without protective housing)	g	131
Dimensions (with protective housing)	mm	184x156x37
Weight (with protective housing)	g	648



*The manufacturer reserves the right to change the appearance and specifications of the product.

