

W A T T I U S

True off-the-shelf Battery Management System



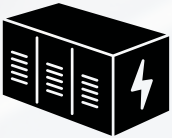
Config with wBMS-Toolkit
Without custom development



Stock availability
No MOQ



Applications:



BESS



Construction
& Heavy-duty



Industrial &
AGV



Marine



High-
performance



Functional Safety & Compliance

- Certified **SIL2** (IEC62061) & **Performance Level D** (ISO13849-1).
- Direct compliance with **IEC62619**.
- Without custom engineering or NRC.
- Prepared for **EU Battery Passport** (2023/1542).
- Prepared for **Cyber Resilience Act** (2024/2847).



True off-the-shelf

- **Most flexible BMS** platform in the market.
- Fully configurable through **wBMS-Toolkit**, available **free-of-charge**.
- **Without custom development**. Same HW and FW for all customers.
- Completely **agnostic** from cell chemistry, SOA, architecture or application.



Connectivity

- **CAN bus** with native support for **UDS** & **J1939**.
- **Ethernet** with **Modbus TCP** & **MQTT**.
- **Remote** monitoring, diagnostics & firmware update.
- User management & access control through **Wattius Cloud** service.

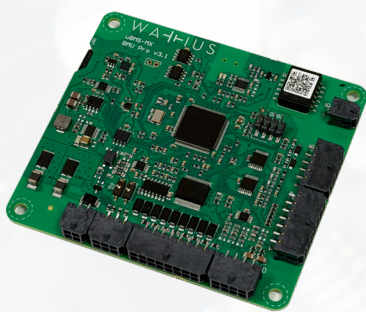


Flexible Architecture

- Distributed systems **up to 1.500V**.
- **Reinforced isolation** (IEC60664).
- Compatible with **multiple series & parallel** architectures without additional device.
- **CMU** options with **12, 16** and **18-cell**.
- **Customisation** of CMUs (e.g. FFC connectors).

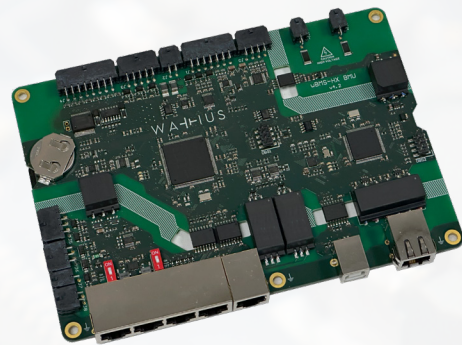
wBMS™ – Battery Monitoring Unit (BMU)

- Up to **48x CMUs per BMU** in series and parallel. Each BMU handles multiple strings in parallel.
- Additionally, up to **16x Battery Packs (BMU) in parallel**. Automatic, dynamic and safe connection / disconnection of BMUs, without additional devices.
- **2x CAN bus** with direct support for **UDS & J1939**.
- Compatible with multiple options for **current, high-voltage** and **isolation** measurement.
- High precision **SoC, SoH** and **SoP**, all fully **configurable** through wBMS-Toolkit.
- Monitoring, configuration & analysis with free **wBMS-Toolkit** PC software.



wBMS™ – MX BMU Pro

- **Compact** high-performance BMU option.
- 10 outputs & 8 inputs, all configurable.
- Compatible with all CMU models.

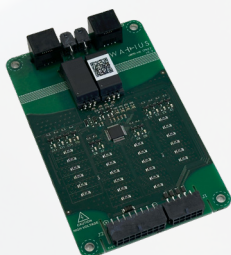


wBMS™ – HX BMU

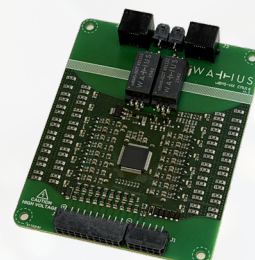
- Reinforced isolation (IEC60664) up to **1.500V**.
- **Ethernet** with Modbus TCP & MQTT.
- Additional isolated input & output.

wBMS™ – Cell Monitoring Unit (CMU)

- **Cell voltage and temperature** monitoring. ~500 mA passive autonomous **balancing**.
- Options of **12, 16 and 18-cell**. Configurable number of channels, from 5 cells.
- Reinforced isolation (IEC60664) up to **1.500V**.



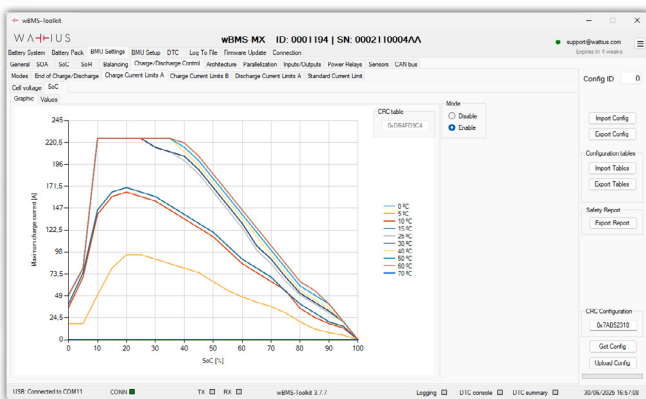
wBMS™ – HX CMU12



wBMS™ – HX CMU16

wBMS™ - Toolkit

Free-of-charge PC software for full BMS monitoring, configuration and diagnostics



The screenshot displays the diagnostics interface, showing a log of events and errors. The log includes columns for ID, Timestamp, Type, Source, Description, Status, and Device ID. Key entries include:

- Event: New configuration uploaded.
- Event: Battery Pack has reached to End Of Life. SoH is 100%.
- Event: Configuration error recovered.
- Event: Configuration changed. BMU reset required.
- Event: BMU power supply reset.
- Event: Parallelization warning: one or more Battery Packs reporting Battery System error.
- Event: Parallelization warning: one or more BMU reporting error.
- Event: Mode 1 is active.
- Event: CAN bus activation request.
- Event: CAN bus activation request failed.
- Event: CAN bus charger feed communication lost.
- Event: Stop charge flag is active (Charging not allowed).
- Event: Battery System stop (charge flag is active (Charging not allowed)).
- Event: Battery System stop (charge flag is active (Charging not allowed)).
- Event: Battery Pack has reached to End Of Life. SoH is 1%.
- Event: Configuration error reported tables.
- Event: BMU power supply reset.
- Event: Parallelization warning: one or more Battery Packs reporting Battery System error.
- Event: Parallelization warning: one or more BMU reporting error.
- Event: Mode 1 is active.

- **Real-time** monitoring of all BMS data.
- Compatible with **all Wattius wBMS™** products.
- Connectivity via USB, CAN, Ethernet, Bluetooth, and MQTT.
- Advanced configuration with thousands of **customizable parameters**.
- Supports **custom I/O functions**, balancing strategies, and operation modes.
- **Advanced SoC & SoP** configuration based on voltage, temperature, and current limits.
- Extended **diagnostics** access.
- **Import/export** support for configurations and Excel files.
- Multiple **user access** levels and API integration for customer tools.
- **Data logging**.

Wattius Cloud Services

The screenshot shows the Wattius Cloud Services interface, displaying a list of devices. The table includes columns for Device ID, Social Number, Model, and Organizations. The devices listed are:

- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX BMU Pro (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX BMU Pro (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX BMU Pro (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX BMU Pro (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX CMU2 V2.38 (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX CMU2 V2.38 (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX CMU2 V2.38 (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX CMU2 V2.38 (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX CMU2 V2.38 (2.3), Organizations: [redacted]
- Device ID: [redacted], Social Number: [redacted], Model: wBMS-MX CMU2 V2.38 (2.3), Organizations: [redacted]

- Traceability and access tool for customers.
- Define users with **wBMS-Toolkit access levels**.
- Assign **access to Devices** to specific users.
- Submit quality or support **tickets**.
- Available optionally: Remote logging database for wBMS-HX BMU.

About Wattius

Founded in 2018 in Barcelona, Wattius develops and supplies state-of-the-art Battery Management System products to all kinds of battery manufacturers to maximise performance, safety and lifetime of battery systems in the most diverse and demanding applications.



Developed in Barcelona
Manufactured in Europe



> 1 GWh monitored with
Wattius BMS



> 100.000 BMS units
supplied to customers

Contact us and we'll support you on your battery projects:

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