



All-in-One BESS

# Container 5.0M

A large-scale, containerized BESS solution designed for utility and industrial projects requiring high energy capacity, system reliability, and efficient integration into modern power infrastructure

Powered by Siemens industrial control technology

Integrated PLC, EMS, and SCADA on a single platform

Cybersecurity designed in accordance with IEC 62443

Fully compliant with European grid requirements



High ROI

Grid-ready

Scalable architecture

Fast deployment

**Industrial-grade reliability for utility-scale and critical infrastructure applications**

Ensuring stable operation and predictable lifecycle performance, enabled by:

- extended battery lifetime
- advanced cell-level monitoring (SOC/SOH)
- liquid cooling system (battery and PCS)
- robust enclosure protection IP54 (PACK IP67, PCS IP66)

**High energy efficiency**

An optimized system architecture designed to minimize losses across the entire power conversion chain.

- Up to 93% system efficiency
- Up to 98.5% PCS efficiency

Ensuring maximum energy utilization and improved project economics (LCOS)

**Advanced integration into modern power systems**

Industrial communication interfaces (RS-485, Ethernet, CAN, PROFINET) and a Siemens-compatible control architecture ensure:

- seamless integration with existing grid infrastructure
- advanced energy management capabilities
- support for grid services and energy market participation

**Multi-layer safety architecture**

Designed to ensure safe operation in all conditions, including:

- three-level fire suppression system
- fire suppression based on Siemens Cerberus PRO
- integrated temperature, smoke, and gas detection

## DC Data

|                                    |                       |
|------------------------------------|-----------------------|
| Cell Specification                 | LFP                   |
| Cell Capacity                      | 314Ah                 |
| Battery Configuration              | 1P104S × 48           |
| Rated Capacity @ BOL               | 5 016 kWh @ 25°C 0.5P |
| DC Voltage Range                   | 1123.2 - 1497.6 V     |
| Charge/Discharge Ratio             | ≤ 0.5P                |
| Cooling/Heating Method (Pack, PCS) | Liquid Cooling        |
| Cycle Life                         | 8000 Cycles           |

## AC Data

|                           |        |
|---------------------------|--------|
| Rated AC Power            | 2.5 MW |
| AC Connection             | 3P3W   |
| AC Voltage (PCS)          | 690 V  |
| AC Frequency              | 50 Hz  |
| Maximum Efficiency System | 93%    |

## System Data

|                          |                                 |
|--------------------------|---------------------------------|
| Dimensions (W×D×H)       | 6058 × 2438 × 2896 mm           |
| Weight Approx.           | 44.5 t                          |
| Maximum Working Altitude | 2000 m                          |
| Operating Temperature    | -25°C ~50°C                     |
| Humidity                 | 0–95% (non-condensing)          |
| IP Rating                | IP54 (Pack IP67, PCS IP66)      |
| Corrosion Resistance     | C4                              |
| Fire Safety (Pack)       | Aerosol                         |
| Communication Interface  | RS-485, Ethernet, CAN, PROFINET |