

METROVA 5M LC

Containerised Liquid-Cooled Energy Storage System 5015kWh

Product Description

METROVA 5M LC is a high-capacity liquid-cooled battery energy storage solution designed for utility-scale, industrial, and commercial applications. The system integrates battery racks, battery packs, high-voltage boxes, intelligent liquid cooling, automatic fire protection, dehumidification, video monitoring, convergence control cabinet, and battery management system within a compact containerised structure.

Designed for high efficiency charging and discharging performance, the system features advanced thermal management, multiple safety protections, modular architecture, and easy maintenance access.



High Energy Efficiency

Single cluster DC charge/discharge energy efficiency above 95% with optimised energy conversion performance.



Long Life Design

Intelligent thermal management and advanced battery management system designed to extend battery lifecycle performance.



Safe and Reliable

Integrated fire protection, gas detection, and IP55 protection for reliable and secure operation.

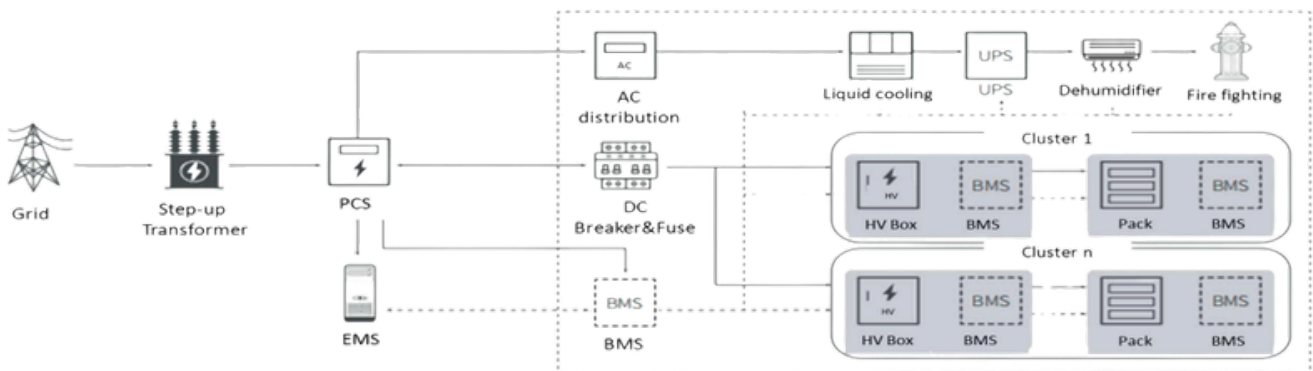


Easy Configuration

Modular containerised design for simplified installation, maintenance, and scalable deployment.

Additional Key Features

- Intelligent liquid cooling system for efficient thermal management
- Supports utility-scale and industrial energy storage applications
- RS485, CAN, and LAN communication interfaces
- Compact high-capacity design with integrated monitoring systems



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Applications

- Utility-scale energy storage
- Renewable energy integration
- Industrial and commercial energy storage
- Grid support applications
- Data centres
- Green transportation infrastructure
- Peak shaving and load shifting
- Emergency backup power
- Microgrid applications

Technical Specifications

Item	Specification
Cell Type	LFP314
Battery Module Configuration	1P52S
Cluster Configuration	1P416S / 8 modules
Grouped Configurations	12 × 1P416S
Nominal Battery Capacity	3768Ah / 1331.2V
Rated Voltage	1331.2V
Battery Voltage Range	1164.8V–1476.8Vdc
Nominal Energy	5015kWh
Rated Power	0.5P
Charge/Discharge Ratio	0.5C
Single Cell Voltage	3.2V
Battery Module Voltage	166.4V
Standard Charge/Discharge Power	0.5P
Balancing Mode	Passive Balancing
Operating Temperature Range	-20°C to +50°C
Storage Temperature Range	-20°C to +55°C
Operating Humidity	0%–95%
Cooling Method	Intelligent Liquid Cooling
Fire Protection System	Aerosol Fire Fighting + Natural Gas Detection + Sprinkler Fire Fighting + Ventilation and Explosion Relief System
Communication Interface	RS485, CAN, LAN
Ingress Protection	IP55
Anti-Corrosion Grade	C3–C5
Altitude	2000m, derating above 2000m
Dimensions (W×D×H)	6058 × 2438 × 2896mm
Weight	Approx. 43t
Certifications	UL1973, UL9540A, FCC, IEC62619, IEC62477-1, CE-EMC, IEC63056, IEC62933-5-2, UN3536, IP55, IP67

**Specifications are subject to change without prior notice*