

METROVA AC Series

Outdoor Air-Cooled BESS 180kWh–241kWh

Product Description

The Metrova AC Series is a modular DC-side energy storage solution designed for outdoor industrial and commercial applications. The system integrates battery energy storage units, BMS, temperature control, fire protection, and communication interfaces within a compact cabinet structure.

It is designed for connection with external PCS and EMS systems and can be used in photovoltaic energy storage, microgrids, peak shaving, valley filling, frequency regulation, and emergency backup power applications. The cabinet offers efficient heat dissipation, outdoor protection, and flexible deployment for scalable DC energy storage systems.



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.

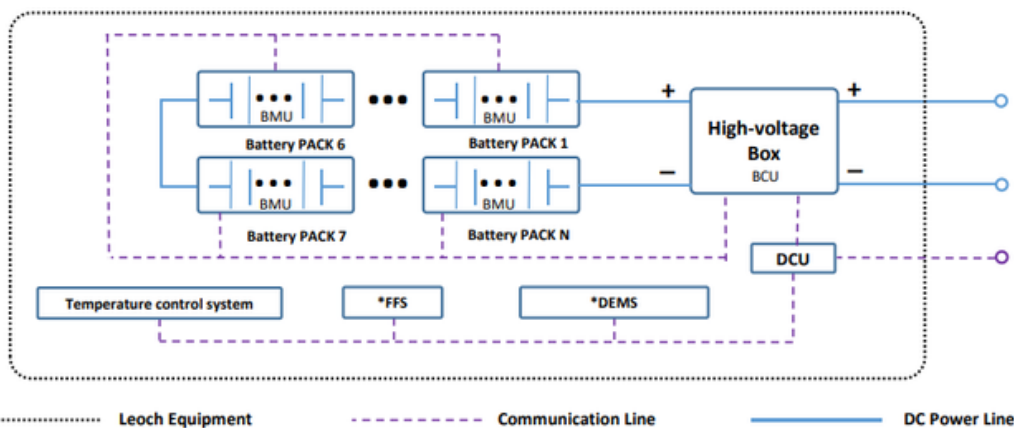


Easy Configuration

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

Additional Key Features

- Efficient air-cooled thermal management system
- Multiple safety protections including unit-level temperature detection, aerosol fire extinguishing, explosion-proof pressure relief, and water fire fighting
- Modular design with flexible configuration and multi-cabinet parallel expansion
- Supports connection with hybrid inverters and PCS systems
- RS485 and Ethernet communication interfaces



*DEMS: Dynamic Environment Monitoring System; *FFS: Fire Fighting System



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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	METROVA AC 180	METROVA AC 200	METROVA AC 221	METROVA AC 241
Cell Type	LFP 3.2V / 314Ah			
Battery PACK Type	1P20S			
Cluster Configuration	1P180S	1P200S	1P220S	1P240S
Nominal Energy	180kWh	200kWh	221kWh	241kWh
Nominal Battery Voltage	576V	640V	704V	768V
Battery Voltage Range	504V–648V	560V–720V	616V–792V	672V–864V
Charge and Discharge Rate	0.5C	0.5C	0.5C	0.5C
Maximum Operating Current	157A			
Dimensions (W×D×H)	1170×1456×2100mm	1170×1456×2100mm	1170×1456×2100mm	1170×1456×2100mm
Weight	Approx. 1625kg	Approx. 1750kg	Approx. 1875kg	Approx. 2000kg
IP Level	IP55			
Cooling Method	Air conditioner			
Fire Fighting System	Cabinet-level aerosol fire extinguishing + explosion-proof pressure relief + water fire fighting			
Corrosion Protection	C3			
Relative Humidity	0–95%, no condensation			
Operating Temperature	–20°C to +50°C			
Altitude	< 2000m			
Communication Interface	RS485, Ethernet			
Communication Protocol	Modbus RTU, Modbus TCP/IP			

**Specifications are subject to change without prior notice*