Midea Energy



Aqua-C3.0S 6251-1563-4h IEC Liquid-Cooled Energy Storage System

Lower Investment Cost

- Higher energy density delivers superior cost efficiency.
- Side-by-side and back-to-back design reduces the footprint.
- Integrated AC&DC delivery cuts down construction costs.

Optimal Performance

- Intelligent active balancing (optional) significantly boosts system capacity over the entire lifecycle.
- High-grade seismic and corrosion-resistant design, coupled with an advanced thermal management system, enables stable operation in extreme environments such as high/low temperature areas, sandstorm zones, salt spray regions and seismic zones.

Enhanced Safety

- Equipped with active ventilation and explosion venting system for maximum fire safety.
- Innovative liquid-electric separation design lowers the risk of short circuits.
- AI-based fault early warning system status to eliminate potential hazards proactively.

Lower O&M Cost

- Integrated string-type PCS with a one-cluster one-management mode effectively improves system availability.
- Intelligent O&M minimizes downtime and maximizes power output.

Technical Data	Aqua-C3.0S 6251-1563-4h IEC
DC-side Parameters	
Cell Type	LFP3.2 V/587 Ah
Battery Configuration	1P416S*8
Nominal Capacity	6251 kWh
Battery Voltage Range	1123.2–1497.6 V
Nominal Battery Voltage	1331.2 V
AC-side Parameters	
Nominal Power	1563 kVA
Current THD	< 3% (nominal power)
DC Component	< 0.5%
Nominal Voltage	690 V
AC Voltage Range	607–759 V
Nominal Frequency	50 Hz/60 Hz
Termination (LV)	1500A × 3 Phase
Power Factor	≥0.99 (nominal power)
Power Factor Range	- 1 to +1
System Parameters	
Auxiliary Power Supply	400 V AC, 50 Hz / 60 Hz
Operating Ambient Temperature Range	-30℃ to +50℃
Relative Humidity	≤ 100% RH (non-condensing)
Max. Operating Altitude	4000 m
Ingress Protection (IP) Rating	IP55
Temperature Control Method	Intelligent liquid cooling
Weight (approx.)	47000 kg
Corrosion-proof Grade	• C3-M • C4 (optinal) • C5 (optional)
Seismic Level	• IEEE 693 moderate design level qualification • IEEE 693 high design level qualification (optional)
Snow Load	1.44 kPa
Wind Load	57. 7 m/s
Dimensions (W × H × D)	6058 × 2896 × 2438 mm
Fire Suppression System	Fire alarm control panel, smoke and heat detectors, alarm bell, horn strobe, gas detector, ventilation system (NFPA 69 compliance), dry pipes with sprinklers, aerosol (optional), deflagration vent panel (optional)
Communication Interface	Ethernet
Standard Compliance	IEC62477-1, IEC62619, IEC61000, IEC62933, IEC63056, EN50549 G99, CEI 0-16, VDE-AR-N 4110, VDE-AR-N 4120, NTS 2.1, NTS SENP 1.1

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Midea Energy



Aqua-C3.0H-6250-3125-2h IEC Liquid-Cooled Energy Storage System

Low Costs

- High-efficiency liquid cooling system minimizes energy loss, optimizing performance.
- Innovative back-to-back and side-by-side design significantly reduces the system footprint.
- Modular design & pre-assembled modules enable rapid deployment, reducing installation time and cost.

Ultimate Safety

- Multi-level active fire detection and protection system.
- Active ventilation and explosion-proof design to control deflagration risks.
- Compliance with IEEE 693 high seismic design level qualifications.

Performance & Flexibility

- Advanced thermal management ensures consistent performance and extends battery life.
- Engineered for exceptional reliability and stable operation, ensuring consistent power delivery.
- Industry-leading round-trip efficiency, maximizing energy utilization and reducing waste.

Intelligent O&M

- Intelligent active balancing (optional) reauces energy storage station O&M costs.
- Real-time monitoring and smart fault recording enable rapid issue positioning and analysis.
- Predictive maintenance alerts minimize downtime and maximize system availability.

Type Designation	Aqua-C3.0H-6250-3125-2h IEC
DC-side Parameters	
Nominal Energy	6250 kWh
Nominal Power	3125 kW@0.5CP
Battery Voltage Range	1123.2-1497.6 V
Nominal Battery Voltage	1331 V
Cell Type	LFP 3.2V/587 Ah
Battery Configuration	8P416S
System Parameters	
Auxiliary Power supply	400 V AC, 50 / 60 Hz
SOC Calculation Accuracy	⩽ 3% (after balancing)
Operation Ambient Temperature Range	-30℃ -50℃ (55℃ optional)
Relative Humidity	<100%RH (non-condensing)
Max. Working Altitude	2000 m 4000 m (optional)
Ingress Protection (IP) Rating	IP55
Control Method	Intelligent liquid cooling
Weight	⩽ 46000 kg
Anti-corrosion Degree	C3-M (standard) C4 (optional) C5 (optional)
Seismic Level	IEEE 693 Moderate design level qualification IEEE 693 High design level qualification (optional)
Snow Load	1.44 kPa
Wind Load	57.7 m/s
Dimensions (W x D x H)	6058 mm × 2438 mm × 2896 mm
Fire Suppression System	Smoke and heat detectors, FACP, ventilation system, dry pipes with sprinklers, aerosol
Communication Interface	Ethernet (Fiber optional)
Standard Compliance	AS/NZS 3000, IEC 62933-5-2, EN 62477-1, IEC 61000, IEC 62619, IEC 63056, UN 38.3/UN 3536, CE, AS 5139, AS IEC 62477.1, UL 9540A
Transportation	Fully populated with battery packs

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