



Midea Energy



Aqua-C3.0S 5154-1288-4h IEC (Aqua-C3.0S Ultra) Liquid-Cooled Energy Storage System

Optimal Costs

- Back-to-back and side-by-side layout design, reducing footprint
- Integrated AC/DC bi-directional inverter, reducing commissioning time

Capacity Enhancement

- Modular design reduces failure impacts and improves system uptime.
- Intelligent active balancing technology (optional) and bio-inspired solutions enhance battery lifespan and system discharge capacity.

Ultimate Security

- Multi-level electrical protection, fire protection, arc flash analysis, and collaborative protection
- Intelligent management of battery health for early warning of faulty batteries
- Compliant with IEEE 693 moderate seismic level (standard) or high seismic level (optional)

Convenient O&M

- Intelligent active balancing technology (optional) reduces energy storage station O&M costs.
- Rapid state detection and fault recording achieve rapid positioning and analysis of system faults.

Model Number	Aqua-C3.0S 5154-1288-4h IEC
DC-side Parameters	
Cell type	LFP 3.2 V/587 Ah
Battery configuration	392S7P
Nominal energy	5154.3 kWh
Battery voltage range	1060-1411.2 V
Nominal battery voltage	1254.4 V
AC-side Parameters	
Nominal power	1288 kVA
Maximum THD of current	< 3% (at nominal power)
DC component	< 0.5%
Nominal voltage	690 V
AC voltage range	607–759 V
Nominal frequency	50 Hz/60 Hz
Termination (LV)	1080 A × 3 phase
Power factor	≥ 0.99 (at 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°C to +50°C (> 45°C derating)
Relative humidity	≤ 100% RH (non-condensing)
Maximum operating altitude	2000 m 4000 m (optional)
Ingress protection (IP) rating	IP55
Cooling method	Intelligent liquid cooling
Noise	≤ 75 dB (A) ≤ 65dB (A) (optional)
Weight	38700 kg
Anti-corrosion degree	C3-M C4 (optional) C5 (optional)
Seismic level	IEEE 693 moderate seismic level qualification IEEE 693 high seismic level qualification (optional)
Snow load resistance	1.44 kPa
Wind load resistance	57.7 m/s
Dimension (W × D × H)	4400 × 2438 × 3050 mm
Fire suppression system	Fire alarm control panel, smoke and heat detectors, alarm sounder, horn strobe, gas detector, ventilation system (compliant with NFPA 69), standard fire hose connection, aerosol
Communication	Ethernet
Standard compliance	IEC 61000, IEC 62619, IEC 62933, IEC 63056, IEC 62477-1, EN 50549, G99, CEI 0-16, VDE-AR-N 4110, VDE-AR-N 4120, NTS 2.1, NTS SENP 1.1, UL 9540A, UL 9540



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Aqua-C3.0H 5154-1288-4h IEC (Aqua-C3.0H Ultra) Liquid-Cooled Energy Storage System

Optimal Costs

- Back-to-back and side-by-side layout design, reducing footprint.
- All pre-assembled, no battery module handling on site.

Effective and Flexible

- Modular design reduces failure impacts and less than 38 tons, offering better transport adaptability.
- Intelligent active balancing technology (optional) and bio-inspired solutions enhance battery lifespan and system discharge capacity.

Ultimate Security

- Intelligent management of battery health, early warning of faulty batteries.
- Active ventilation and explosion venting design to control deflagration risks.
- Compliant with IEEE 693 moderate seismic level (standard) or high seismic level (optional).

Convenient O&M

- Intelligent active balancing technology (optional) reduces energy storage station O&M costs.
- Rapid state detection and fault recording achieve rapid positioning and analysis of system faults.

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System Parameters	
Auxiliary power supply	400 V AC, 50 Hz/60 Hz
Operating ambient temperature range	-30°C to +50°C
Relative humidity	≤ 100% RH (non-condensing)
Maximum operating altitude	2000 m 4000 m
Ingress Protection (IP) Rating	IP55
Cooling Method	Intelligent liquid cooling
Noise	≤ 75 dB (A) ≤ 65 dB (A) (optional)
Weight	38000 kg
Anti-corrosion Degree	C3-M C4 (optional) C5 (optional)
Seismic Level	IEEE 693 moderate seismic level qualification IEEE 693 high seismic level qualification (optional)
Snow load resistance	1.44 kPa
Wind load resistance	57.7 m/s
Dimension (W × D × H)	3950 x 2438 x 3100 mm
Fire suppression system	Fire alarm control panel, smoke and heat detectors, alarm sounder, horn strobe, gas detector, ventilation system (compliant with NFPA 69), standard fire hose connection, aerosol
Communication	Ethernet
Standard compliance	IEC 61000, IEC 62619, IEC 62933, IEC 63056, IEC 62477-1, UN38.3/UN3536, UL 9540A, UL 9540