

Industrial and Commercial Liquid-Cooled PV-Storage All-in-One Cabinet System

Model No. : 522-250-2H



Product Advantages

Liquid-Cooled Energy Storage System | All-in-One Turnkey Solution



Cost Efficiency

Integrated system design with pre-installation & pre-commissioning, minimizing on-site commissioning workload. Intelligent cloud-based optimization algorithms maximize dispatch revenue and shorten ROI payback period.

Pre-commissioned

Cloud AI

Fast ROI



Ultimate Safety

Multi-level fuse protection achieves millisecond-level fault interruption. Multi-modal fire suppression coupling design builds a full-stack chain: Detection-Extinguishing-Pressure Relief-Smoke Exhaust. Link-level safety simulation covers seismic, arc flash & short-circuit protection.

ms Tripping

Full-Stack Fire

Seismic Safe



Ultimate Performance

Dual-circuit staggered-flow cooling with ultra-low flow main channel design and high/low temperature zoning. Intelligent BMS management extends system lifespan by 2 years and boosts cell lifetime discharge capacity by 10%.

Dual-Circuit Cooling

+2Y Lifespan

+10% Capacity



Intelligent O&M

Modular design intelligently adapts to site conditions, enabling plug-and-play deployment in complex scenarios. Enhanced LC full-domain sensing with integrated BMS/EMS platform delivers real-time energy efficiency closed-loop.

Plug & Play

BMS+EMS

RealTime Closed-Loop

Commercial & Industrial

Energy Storage Products — Specification Sheet

| Product Model | Aqua-E-522-250-2h | Aqua-E-522-125-4h |
|-----------------------------|---|---|
| DC Side Parameters | | |
| System Rated Capacity | 522 kWh | 522 kWh |
| Rated Power | 250 kW | 125 kW |
| Battery Voltage Range | 689 ~ 949 Vdc | 689 ~ 949 Vdc |
| Cell Type | LFP 3.2V / 314Ah | LFP 3.2V / 314Ah |
| System Configuration | 1P26S x 2 | 1P26S x 2 |
| AC Side Parameters | | |
| Rated Power | 250 kW | 125 kW |
| Current THD | < 3% | < 3% |
| AC Voltage Harmonic | < 3% | < 3% |
| DC Component | < 0.5% | < 0.5% |
| Rated Voltage | 400 Vac | 400 Vac |
| AC Voltage Range | 340 ~ 460 Vac | 340 ~ 460 Vac |
| Frequency Range | 50 ± 5 Hz | 50 ± 5 Hz |
| System Parameters | | |
| Operating Temperature | -30 ~ 50°C (Derating above 45°C) | -30 ~ 50°C (Derating above 45°C) |
| Operating Relative Humidity | 5% ~ 95% RH, No Condensation | 5% ~ 95% RH, No Condensation |
| Operating Altitude | ≤ 2000 m | ≤ 2000 m |
| Protection Rating | IP55 | IP55 |
| System Efficiency | ≥ 87% @ 0.5P | ≥ 87% @ 0.5P |
| Auxiliary Power Supply | Self-Powered | Self-Powered |
| Temperature Control | Battery: Intelligent Liquid Cooling Equipment: Forced Air Cooling | Battery: Intelligent Liquid Cooling Equipment: Air Cooling |
| Cycle Life | ≥ 7000 Cycles | ≥ 5000 Cycles @ 25°C, 0.25P, 80% SOH |
| System Weight | 4800 ± 50 kg | 4800 ± 50 kg |
| Corrosion Protection | C4 | C4 |
| System Dimensions (WxDxH) | 1912 × 1300 × 2340 mm | 1912 × 1300 × 2340 mm |
| Fire Protection | Composite Detectors + Cabinet/PACK-Level FK-5-1-12 + Mechanical Ventilation + Audible/Visual Alarm | Composite Detectors + Cabinet/PACK-Level FK-5-1-12 + Mechanical Ventilation + Audible/Visual Alarm |
| Communication Interface | Ethernet / CAN / RS485 / 4G (Optional) | Ethernet / CAN / RS485 / 4G (Optional) |
| Certifications | GB/T 36276, GB/T 34131, GB/T 34120, GB/T 34133 | GB/T 36276, GB/T 34131, GB/T 34120, GB/T 34133 |