

RelyEZ GridUltra Centralized Liquid-Cooled Energy Storage Solution

GridUltra 6251

■ SYSTEM COMPONENTS

GridUltra 6251 Liquid-Cooled Energy Storage System features a 20-foot container as the standard carrier, integrating 8 battery clusters, control units, a liquid cooling system, a fire protection system and a BMS system.



High Efficiency

GridUltra represents the most advanced design implemented by RelyEZ to date, built on experience gained from over a hundred projects and multiple R&D iterations. The non-walk-in container features a modular design that facilitates fast project delivery while also reducing installation and maintenance costs.

High Safety

Liquid-cooled modules with IP67 protection level, intelligent fire protection system design, multi-point monitoring and warning. Temperature difference of the cell is less than 3°C, excellent temperature homogeneity.

High Life Cycle

Liquid-cooled batteries with a cycle life of over 8000 cycles, high efficiency and a design life of up to 15 years.

Core Advantage

Standardized 3.125MW/6.25MWh capacity designed for 0.5C energy storage scenarios. Dual-stack independent architecture supports single-stack maintenance and scheduling without affecting the operation of the other stack. A 100MWh grid-scale energy storage power station can be fully configured with 16 GridUltra 6251 units.

Battery Module

A single module is configured with 104 pieces of 587Ah LFP cells in a 1P104S arrangement.

Battery Rack

Each cluster is composed of 4 liquid-cooled battery modules, with 2 clusters in a single row connected to 2 high-voltage control boxes

■ PRODUCT SPECIFICATIONS

Item	GridUltra 6251
Industry Certification	
Battery Cell	IEC62619, UL1973, UL9540A
Battery Pack	IEC60730-1, UN38.3, UL1973, UL9540A, UL 60730-1
Battery Rack	IEC62619, IEC 60730-1, IEC 63056, IEC62477-1, UL1973, UL 9540A, UL 60730-1
System	IEC 62477-1, IEC 60730-1, EN IEC 61000-6-2/4, UN38.3, UN3536, UL9540, UL 60730-1
Battery Parameter	
Configuration	2*4P416S
Nominal Energy	6251kWh-0.5P, 100% DOD
Nominal Voltage	DC 1331.2 V
Voltage Range	DC 1164.8 to 1497.6 V
DC System Parameters	
Rated Charging Current	2*1174 A
Maximum Charging Current	2*1504 A
Rated Charging Power	2*1725 kW
Rated Discharge Current	2*1174 A
Maximum Discharge Current	2*1504 A
Rated Discharge Power	2*1725 kW
Auxiliary Power Supply Voltage	AC400V, TN-C
Operation Ambient Temperature	-30°C to 50°C (-22°F to 122°F)
Storage Temperature	-20°C to 35°C (-4°F to 95°F)
Application Altitude	≤3000 m (≤9,843 ft) Available, Derate
Humidity	0 to 95% (Non-Condensing)
Estimated Fault Current	2×76 kA
Number of DC Output Branches	2 Outputs
Communication Method Between BMS and PCS	Support CAN/Modbus 485/TCP Communication Methods; CAN Communication Is Recommended.
Basic Parameters	
Dimensions (L x W x H)	6058 x 2438 x 2896 mm (238.50 x 95.98 x 113.98 in)
Weight	Approximately 47 t (103,617 lb)
Container IP Rating	IP55
Module IP Rating	IP67
Cooling Method	Liquid-Cooling
Noise at 1m	≤85 dB
Warranty	
Standard	5 years (Included)
Extended Warranty	15 years-covered by Munich Re

This document is regularly updated for accuracy and improvement. Please verify you are using the latest version. Illustrations are for reference only.



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