372KWh

Outdoor Liquid Cooling Cabinet

Based on intelligent liquid cooling technology, RITAR Outdoor Liquid Cooling Cabinet is a compact energy storage system with modular fully integrated. It is esigned for easy deployment and configuration to meet various application requirements, including flexible peak shaving, renewable energy integration,frequency/voltage regulation, arbitrage, T&D enhancement, micro-grid function, backup power, etc. To ensure the system run safely, the system adopts LFP (lithium iron phosphate) battery with 4 to 8 battery packs, liquid cooling system, fire suppression system, monitoring system and auxiliary system to provide flexible usage in 500~1500V DC voltage connection. Both IEC and UL standards are applicable to this system. The all-in-one designed outdoor cabinet could be applied in commercial, industrial, and utility scale projects, including centralized or distributed power plants, industrial and commercial parks, intelligent buildings, communities, PV & storage & charging stations, and other scenarios.

HIGH SAFETY

- High safety LFP battery is selected with UL9540A test.
- Fire detection and pack level fire suppression system with combustible gas linkage ventilation and explosion panel design on the roof.
- Multiple electrical protection and highly strengthstructure design to meet seismic, wind and other load requirement with high protection level and anti-corrosion level.

LONG LIFE

- Innovation individual rack based liquid cooling technology with cell temperature difference controlled within 3 ℃ and prolonged life cycle above 20% with minimum service interventions during the life span.
- Less LCOS within life span: Smart battery management system enhancing the cell consistency, supporting deployment and augmentation in batches. LCOS decreased up to 20% for the entire life.

HIGH INTEGRATION

- All-in-one design with liquid cooled battery rack pre-installed and a plug and play interface for auxiliary power supply, communication, and DC connection, which can be installed as a single system or as a system of multiple paralleled cabinets.
- Supports remote and local monitoring and O&M
- Fully tested before delivery, easy to transport and less on-site installation.

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372KWh Outdoor Liquid Cooling Cabinet

SPECIFICATION

Model		EnerCube-372KWh	
Item	Cell	Cell Pack	Cell Cluster
Rated Voltage (V)	3.2	166.4	1331.2
Rated Capacity (Ah)	280	280	280
Rated Energy (KWh)	0.896	36.592	372.726
Charge Cut-off Voltage (V)	3.65	187.2	1497.6
Discharge Cut-off Voltage (V)	2.5	145.6	1164.8
Max. Charge current (C)	1	0.5	0.5
Max. Discharge current (C)	1	0.5	0.5
DC Protection	Breaker + Fuse		
Battery Pack Protection Level	IP67		
Operating Temperature(℃)	Charge: 0~45; Discharge: -20~60		
Dimensions(W*D*H) (mm)	71*174*204	810*1130*232	925*1180*2200
Weight (kg)	5.34±0.15	330±5	2800

System parameters	
Rated Energy	372.7kWh
No. of Modules	8 pcs
DC Round Trip Efficiency (0.5CP)	>93%
Rated Voltage	1331.2V
Operating Voltage	1165~1498V
Rated C-rate	0.5CP
Max. C-rate	1CP(≤1min)
Operating Temperature	-30°C～60°C
Working Relative Humidity	0～100%
Altitude	Maximum 3000m (derating above 3000m)
Cooling Method	Liquid cooling (water and glycol mix)
Fire Suppression	Water FSS/Aerosol（Optional）
Auxiliary Power Input	220VAC/50Hz ;110VAC/60Hz（ Optional）
Communication Interface	CAN/RS485/Ethernet
Communication Protocol	Modbus/IEC 61850
Standards & Compliance	NFPA68/69, NFPA855, GB36276, IEC62619, IEC62933, UN38.3, UN3536, UL1973, UL9540A
IP Rating	IP55
Dimensions (W*D*H)	1300*1300*2316mm
Weight	3, 500kg