CATL 宁德时代

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Create the era of intelligent electrification

EnerOne+ Introduction

SC-ES OES

2023/8/25



EnerOne+

Outdoor Liquid-Cooling Battery System

Basic Parameters		
Module configuration	1P52S*8	
Cell capacity	285Ah(1P↓)	306Ah(0.5P↓)
Rated voltage	1,331.2V	
Rated energy	379.4kWh	407.3kWh
IP Level	IP66	
Product weight	~3,515kg	~3,650kg
Dimension (L*W*H)	2343.5mm(H)*1390mm(W)* 1344.1mm(D)	

| Testing and certification

IEC 62619 · UL 1973 · UL 9540A · IEC 62477-1

High level of safety

- LFP batteries with high thermal stability, module /rack level **UL9540A no fire**.
- Protection level of **IP66** to meet the requirements of outdoor applications
- Resistance up to **C5** corrosion level, with 20-year reliability
- Separate **fire suppression system** for different market.
- **Deflagration venting** and **water node** are optional. **NFPA68 compliance**.

Long service life

- Available for integration with CATL's advanced technologies (e.g. optional cell with super-long cycling up to 12,000 cycles)
- Integrated frequency conversion liquid-cooling system, with cell temperature difference limited to 3℃, and a 33% increase of life expectancy

High integration

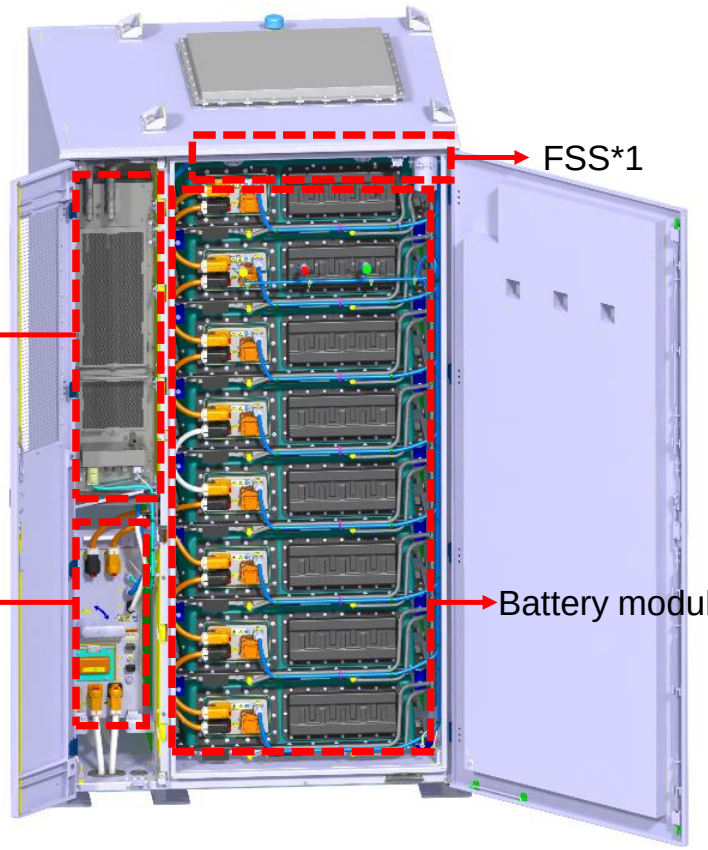
- Modular design, compatible with 600 - 1,500V system
- Separate water cooling system for worry-free cooling
- Modular design with a high energy density, saving the floor space by 50%
- Transportation after assembly, reducing on-site installation costs and commissioning time
- Alternative **foot margin** installation
- Alternative **cable outlet** position

Product Specification

NO.	Type		Description	
1	Cell Cap		LFP-285Ah	LFP-306Ah
2	Charging/Discharging Power		1P/1P↓	0.5P/0.5P↓
3	Rated Energy		379.4kWh	407.3kWh
4	Rated Voltage		1331.2V	1331.2V
5	Rack size		2343.5mm(H)*1390mm(W)* 1344.1mm(D)	2343.5mm(H)*1390mm(W)* 1344.1mm(D)
6	Weight		≈3.515T	≈3.650T
7	Cooling method		Liquid cooling	Liquid cooling
8	Color		Gray(RAL7035)	Gray(RAL7035)
9	IP		Battery room IP56、Control box IP66、battery module IP66、Electric room IP20	Battery room IP56、Control box IP66、battery module IP66、Electric room IP20
10	Attitude		4000m	4000m
11	Fulfill standard	Cell	UN38.3, IEC 62619，UL1973, UL9540A	UN38.3, IEC 62619，UL1973, UL9540A
		Container	IEC 62619，IEC 62477，IEC 61000-6-2/4，IEC63056，IEC 62933-5-2，IEC 62281，UL 9540，NFPA855	IEC 62619，IEC 62477，IEC 61000-6-2/4，IEC63056，IEC 62933-5-2，IEC 62281，UL 9540，NFPA855

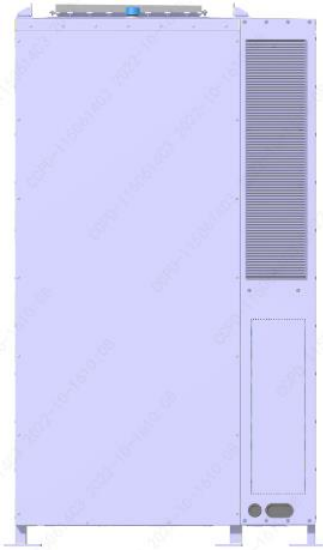


System Overview---Basic Configuration





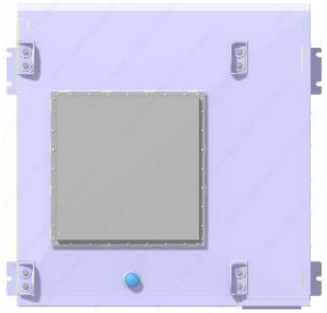
Left view



Back view

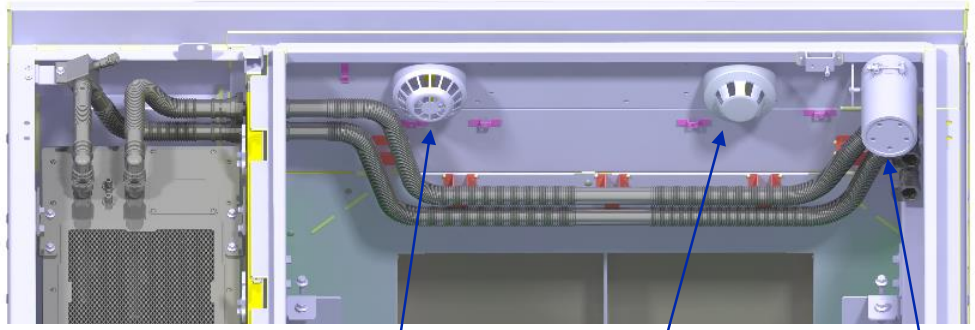


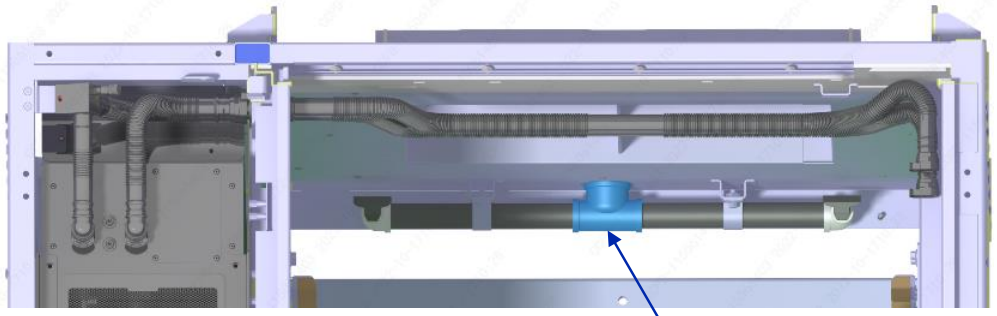
Right view



FSS design

副标题文案



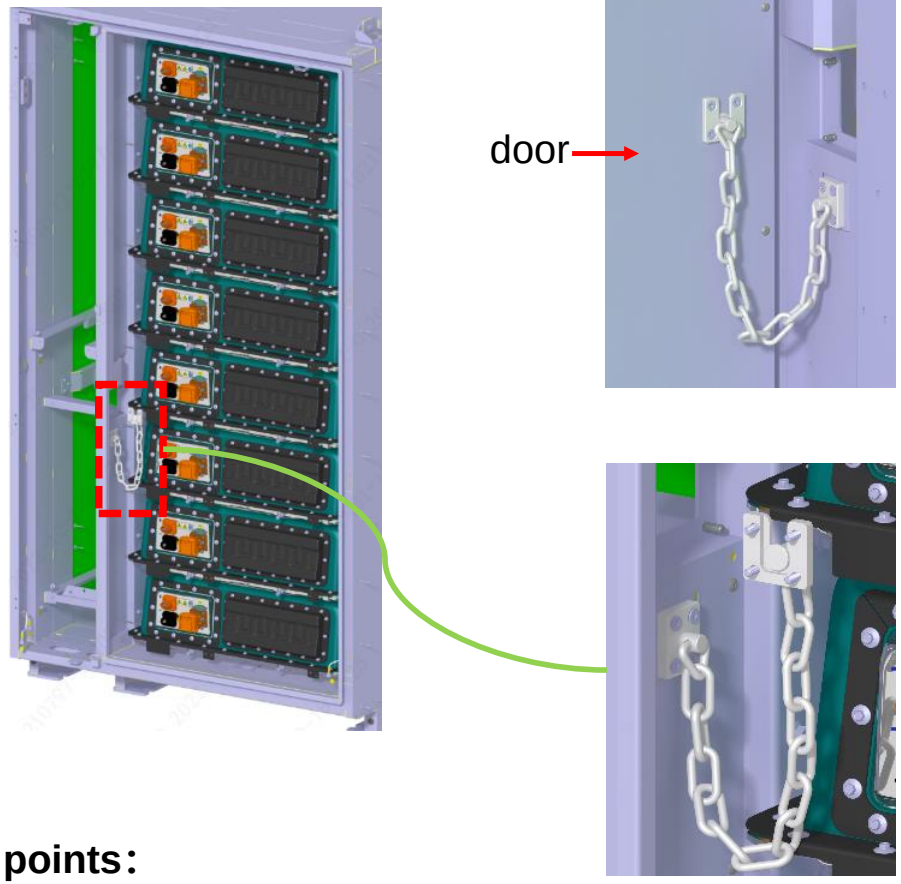


	US version	EU version	AUS version
Smoke detector	√	√	√
Gas detector	√	√	√
Aerosol	√	√	√
Water node (optional)	√	√	√

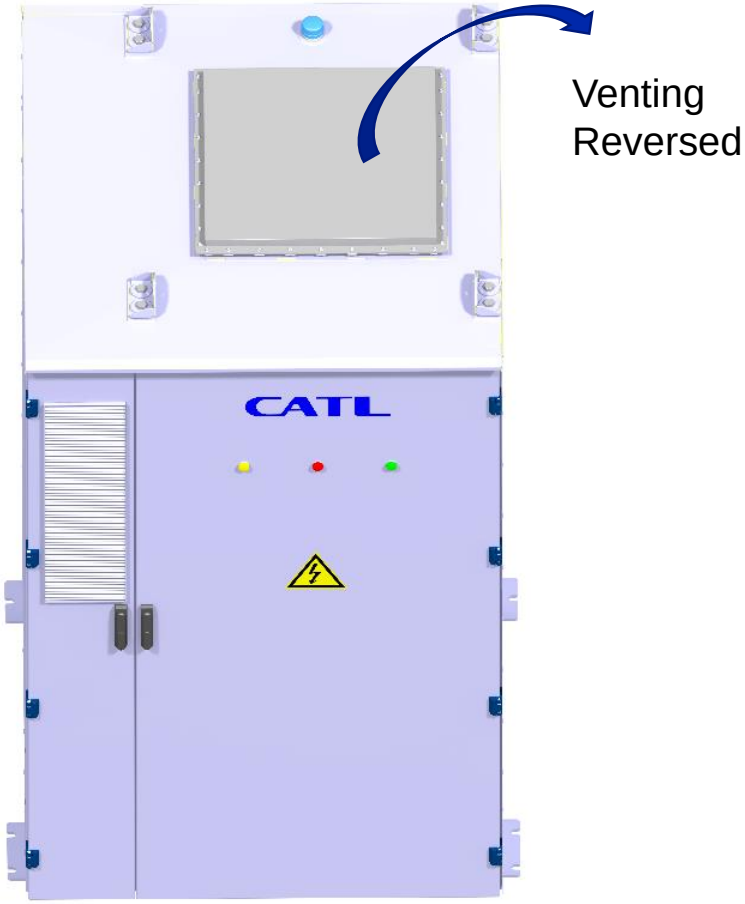
※ Water node is optional configuration, result in different quotation

NFPA 68: Deflagration Venting

Option 1



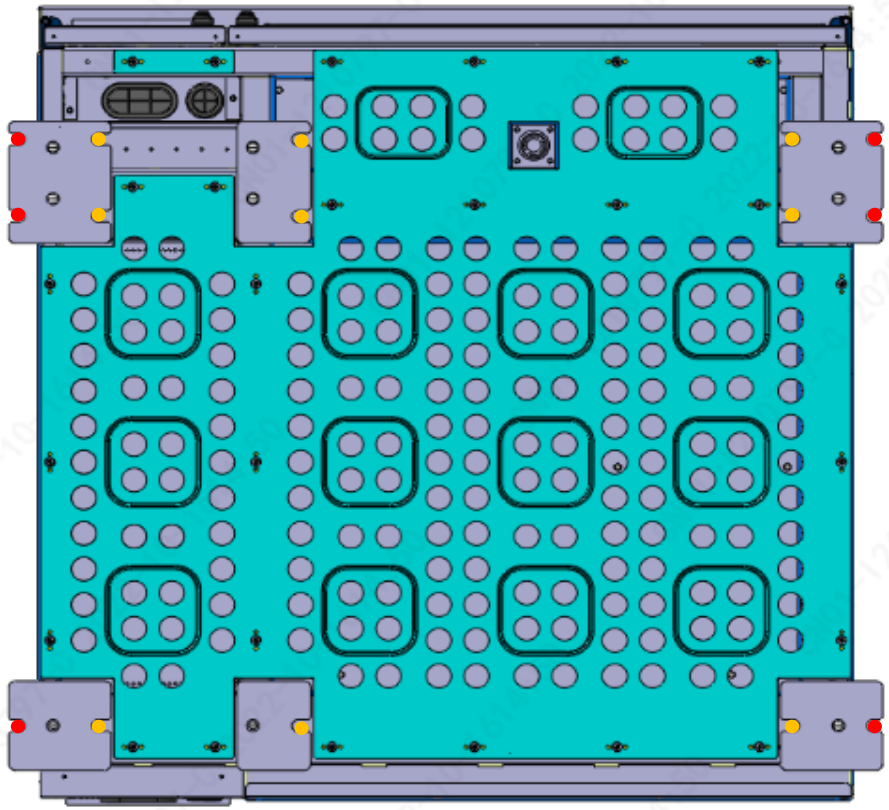
Option 2



Key points:

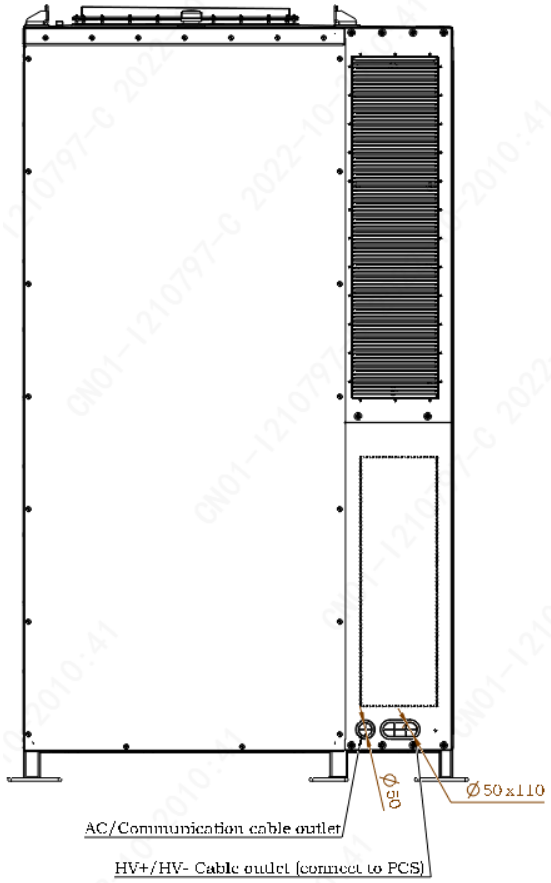
1. Pressure released by 1) door or 2) deflagration venting.
2. Deflagration venting is NFPA68 compliance. Heat flux towards sky without impact other equipment and human beings.
3. Deflagration venting is optional configuration, result in different quotation.

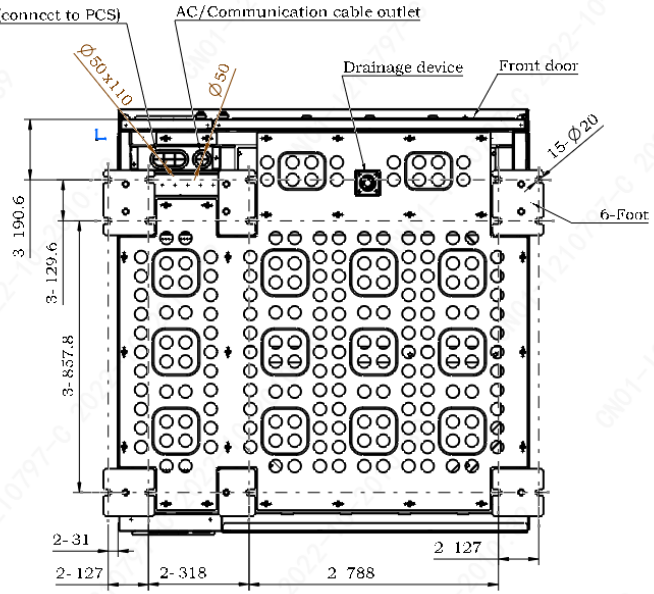
Foot Margin and Installation

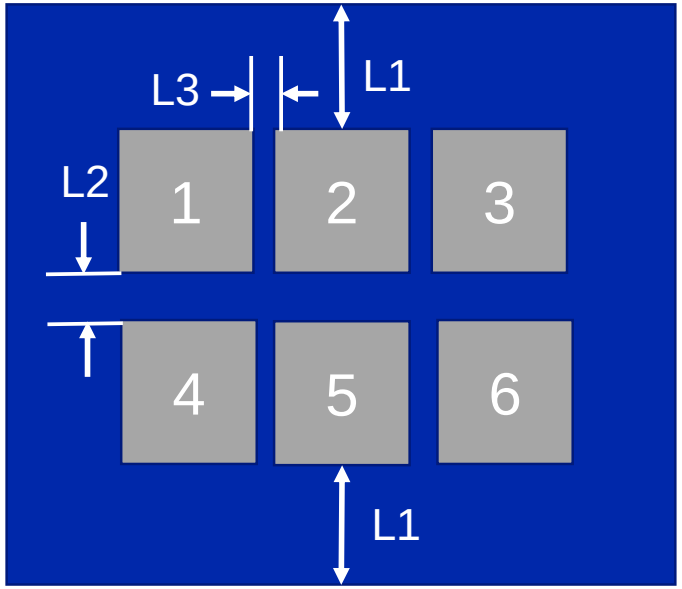


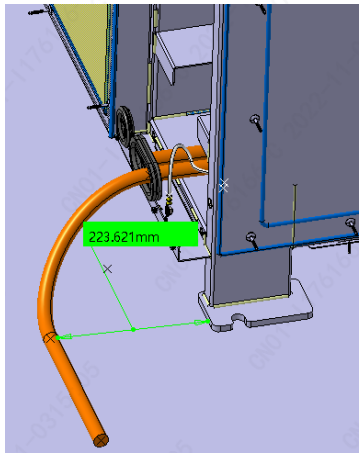
- Foot install on the Side, side by side distance ≥ 150mm (reserve operation space)
- Foot install on the Bottom, side by side distance ≥ 100mm

Layout and Clearance









Clearance:

- L1 Face to face/face to wall： 3m
- L2 Back to back/back to wall：
- The cable outlet is at the bottom of electrical room：
  1P 0.5m 0.5P 0.1m
- The cable outlet is at the bottom of electrical room：
  1P 0.5m 0.5P 0.3m (consider the cable space).
- L3 Side by side/ side by wall：
- Foot margin install on the bottom: 0.1m
- Foot margin install on the side: 0.15m

CATL

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