

# Alice Series

## Integrated Energy Storage System

### SPECIFICATION



## 1.1. Model Description

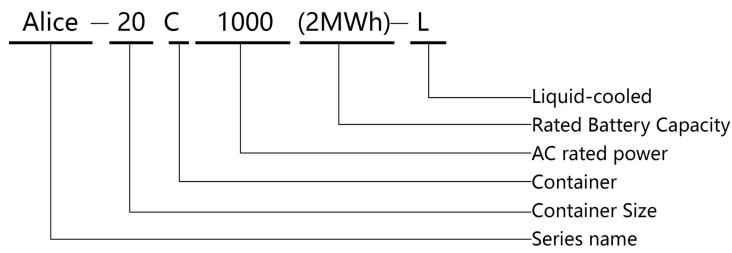


Figure 1-1 Model Identification

## 1.2. Product Features

The system integrates energy storage converter, storage battery, isolation transformer, cooling, fire protection, power distribution, dynamic loop monitoring and energy management, friendly grid adaptability, accepting grid scheduling, active and reactive power compensation, supporting peak shaving and valley filling, demand-side response, and assisting in new energy grid-connected applications, etc. The IP54 protection level adapts to the harsh outdoor environment, which is perfectly suited to the needs of industrial and commercial energy storage.

In common application scenarios, the operation strategies of energy storage systems are as follows:

### **Peak shaving and valley filling:**

During off-peak hours of time-of-use electricity pricing: The energy storage unit automatically charges and goes into standby mode after being fully charged. During peak hours of time-of-use electricity pricing: The energy storage unit automatically discharges, realizing arbitrage based on the price difference between peak and off-peak hours, thereby enhancing the economic benefits.

### 1.3. Layout Diagram

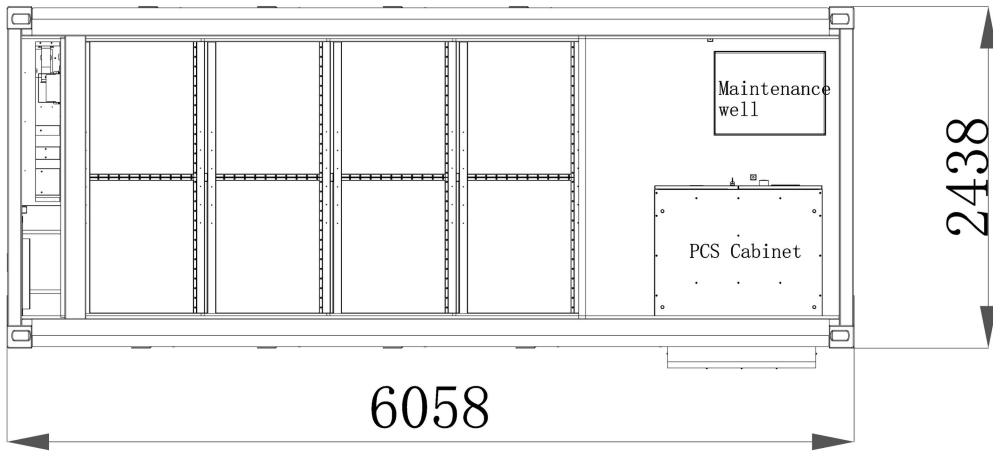


Figure 1-2 Layout diagram

### 1.4. Electrical Wiring Diagram

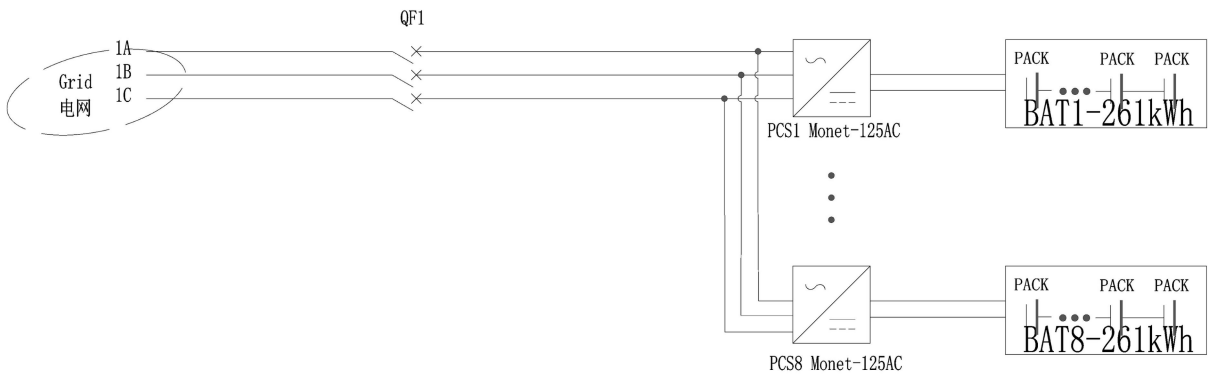


Figure 1-3 Electrical primary diagram

### 1.5. Product Function

- Diverse Functions: It supports peak shaving and valley filling, demand-side response, backup power supply, and other major functions; it enables remote updates of operational strategies and firmware upgrades, resulting in lower operation and maintenance costs;
- High Integration: The system is productized, integrating energy storage batteries, PCS (Power Conversion System), power distribution, temperature control, fire protection, water immersion door sensors, and monitoring communication, providing comprehensive control over the system's operational status and risks; one-stop delivery shortens the on-site installation and commissioning period of the project;

- Intelligent clustering: Multi-branch clustering management, higher battery utilization, and resolution of battery parallel loop current issues.
- Flexible and Convenient: Modular PCS allows for linear expansion of battery units and bidirectional energy storage inverter units; it possesses independent charging and discharging control capabilities for multiple battery packs, enhancing battery utilization and safety;
- Safe and Intelligent: A fault escalation handling mechanism responds to preset fault scenarios; customized BMS (Battery Management System) provides comprehensive measurement and protection functions; it supports cloud-based dispatching and operational report analysis.

### **1.6. Product Parameters**

The following are typical configuration parameters for containerized energy storage systems, the actual supply is subject to the technical agreement.

Table 1-1 Parameters Table

<b>Model</b>	<b>Alice-20C-1000(2MWh)-L</b>
<b>DC Side Parameters</b>	
Operating Voltage Range	580~1000V
Maximum DC Current	200A*8
Compatible Batteries	Lithium-ion/Lead-acid/Photovoltaic modules
Charging Method	Follows BMS commands/Three-stage/MPPT
Operating Mode	Constant current, constant power, MPPT, AC voltage source, DC voltage source
<b>AC Side Parameters (Grid-Connected)</b>	
Rated/Maximum AC Power	1000/1100 kW
Rated AC Current	180 A * 8
Rated AC Voltage	400 V, 3W + PE
Rated AC Frequency	50/60 Hz ± 5 Hz
Total Harmonic Distortion (THDi)	<3% (rated power)
Power Factor	-1 leading to +1 lagging
<b>Battery Side Parameters</b>	
Battery Rated Capacity	261kWh*8
Battery Rated Voltage	832V
Battery Voltage Range	728~936V
Number of Battery String Groups	8P*52S*5S
Compatible Batteries	LFP
Cell Capacity	314 Ah
<b>General Parameters</b>	
Protection Rating	IP54
Operating Temperature	-25°C~60°C (derating above 45°C)
Relative Humidity	0~95% (No condensation)
Fire Suppression System	Perfluorohexane/Heptafluoropropane pipe-type fire suppression system
Battery Compartment Cooling Method	Liquid cooling
Electrical Compartment Cooling Method	Intelligent air cooling
Altitude	3000m (Derating above 2000m)
Communication Interface	RS485 / CAN
Dimensions (W×D×H) mm	6058*2438*2896mm
Weight (approx.)	25.5t

1.7. Appearance Diagram

