

ENERGY CUBE

50kW-100kWh

HIGH PERFORMANCE
COMMERCIAL & INDUSTRIAL ESS

- PV/DG Application
- Intelligent Energy Control
- 98.8% Max. Efficiency
- IP54 Protection Degree



Integrated design

Adaptation for Multi-Scenario Deployment

Energy Cube 50kW-100kWh C&i ESS integrates photovoltaic inverters and a 100 kWh energy storage system. It includes battery cells, Battery Management System (BMS), photovoltaic inverters, fire protection system, distribution system, thermal management system, and energy management system. This achieves an integrated "PV+Energy Storage" solution. The cabinet system adopts a modular design, allowing flexible configurations for photovoltaic, batteries, and loads, meeting various user-side applications.



High Integration

The equipment is highly integrated, with a compact product size, occupying only 1.2 square meters per cabinet



Reliable Performance

Low Loss Series Connection on the DC Side
Dynamic Temperature Regulation
Enhanced ESS Cycling Efficiency



Security and stability

Utilizing Top-Tier Battery Cell Suppliers
Battery Safety Warnings and Fault Switching
Automatic Fire System Response



Multi-Unit Parallel Expansion

Flexible Scalability, On-Demand Configuration
Supports Multiple Units
Parallel Cooperative Control



PV/DG Application

Directly connecting photovoltaic modules or diesel generators to establish an independent power grid.



APP Intelligent Control

Enhance energy efficiency by controlling the operational status and strategies of the devices through a mobile app.



Application Scenario

Savings on Electricity Costs through Peak-Off-Peak Price Differentials

During periods of low electricity prices, use the grid to charge the devices. During periods of high electricity prices, discharge the batteries to power the load.

Used as a Backup Power Source during Power Outages

It can serve as a backup power source during power outages, providing power to critical facilities to ensure uninterrupted business operations.

Providing Power Compensation

Providing Power Compensation Function to Ensure Stable Power Supply for Businesses and Ensure Safe Equipment Operation.

PV and Energy Storage Integration Building an Independent Grid

Storing excess electricity generated by the photovoltaic system using the Energy Cube and converting it for later use.

Commercial Office



Factory



PV Charging station



Zero Carbon Park



Energy Storage System Operation Mode



22:00-8:00

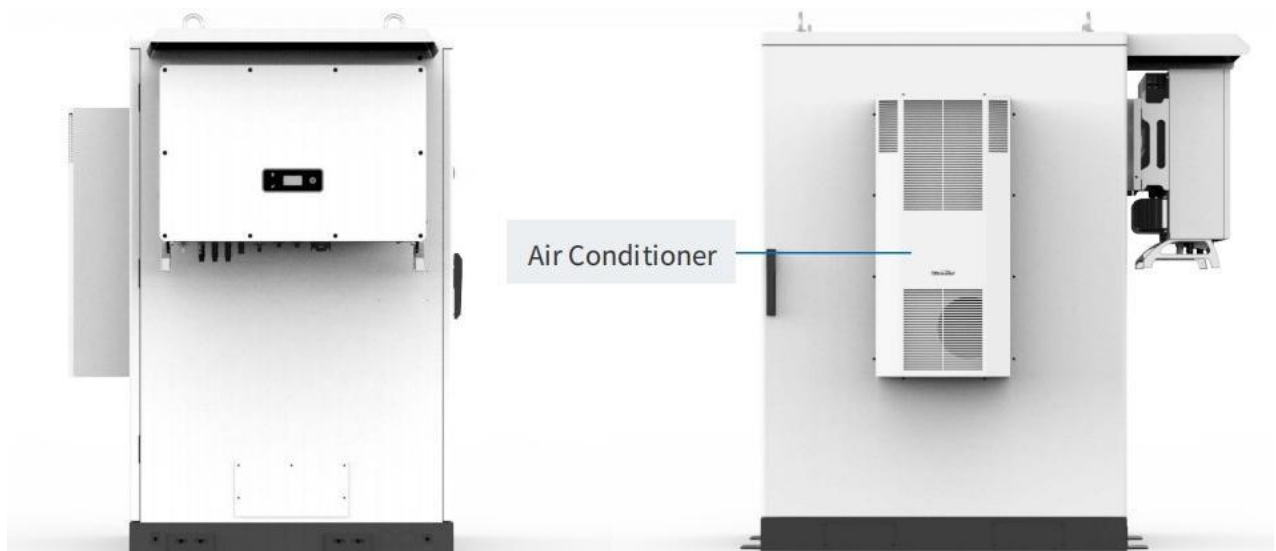
Charging during off-peak electricity price periods

8:00-11:00 14:00-17:00

Discharging during peak electricity price periods

During device charging, the system automatically monitors the current electrical load and PV generation under the transformer, and adjusts the charging power of the system based on real-time load conditions. This control ensures that the total power consumption remains below the transformer capacity, preventing Overload

Product Exterior



Product Parameter

DC Parameter				
Battery Type		LFP	Operating Voltage Range	280V ~ 408.8V
Combination Mode		1P112S	Charge/Discharge Current	100A/100A
Rated Capacity		280Ah	Cooling Mode	Air Cooling
Rated Energy		100kWh	Cycle Number	6000
Rated Voltage		358.4V	Fire Protection System	Aerosol Extinguishing
Rated Power		50kW	Detector Type	Temperature / Smoke Sensor / Water Leak
PV Parameter				
Maximum Input Power			75kW	
Maximum Dc Input Voltage			1000V	
Mppt Operating Voltage Range	200-850V			
Maximum Input Current			30A×4	
Rated Output Power	50kW			
Maximum Conversion Efficiency			98.8%	
Ac Parameter				
Rated Output Power			50kW	
Rated Voltage			3L/N/PE; 220/380V;230/400V;240/415V	
Grid Frequency			50/60Hz	
Maximum Output Current			83A	
Power Factor			0.8 Lead... 0.8 lag	
System Parameter				
Operating Environment			-20℃~50℃ (Power derating 45℃+)	
Size (W*D*Hmm)			1130*1000*1600	
Weight			About 1.4t	
Class Of Protection			IP54	
Allowable Relative Humidity			0-95%	
Allowable Altitude			≤2000m (Power derating 2000m +)	
Certification Standard			IEC62619、EN62477-1、IEC 63056	