

ESS-GRID Cabinet Series

Integrated Turnkey C&I ESS Solution



The ESS-GRID Cabinet series is an outdoor battery cabinet for small-scale commercial and industrial energy storage, with four different capacity options based on different cell compositions: 177 kWh, 193 kWh, 209kWh, 225kWh, 241kWh, etc. They can be widely used in farms, animal husbandry, hotels, schools, warehouses, communities and solar parks.



Maximum capacity
up to 1.9 MWh



Maximum power
up to 500 kW



Continuous discharge
rate of 0.5 C



PCS output voltage
400 V / 230 V



Power Your Business, Sustainably and Reliably

Maximize Efficiency, Minimize Downtime with BSLBATT Outdoor Energy Solutions



Highly Integrated

The system is fully productized, integrating LFP ESS batteries, PCS, EMS, FSS, TCS, IMS, BMS.



Long Service Life

Comprised of Tier one A+ LFP Cell with over 6000 cycles and a service life of over 10 years.



Plug and Play

Integration of all energy storage system components, the output of which can be directly connected to the utility and photovoltaic systems. Multiple cabinets can be connected in parallel to realize the expansion of the energy storage system.



3D Visualization Technology

The display is able to present the instant status of each module in a stereoscopic three-dimensional way, providing an intuitive and interactive monitoring experience.



Versatile Features

Optional PV charging module, off-grid switching module, inverter, STS and other accessories are available for microgrid and other application scenarios.



Intelligent Management

The local control screen enables diverse functions, including system operation monitoring, energy management strategy formulation, remote device upgrades, and more.

Support for AC Expansion

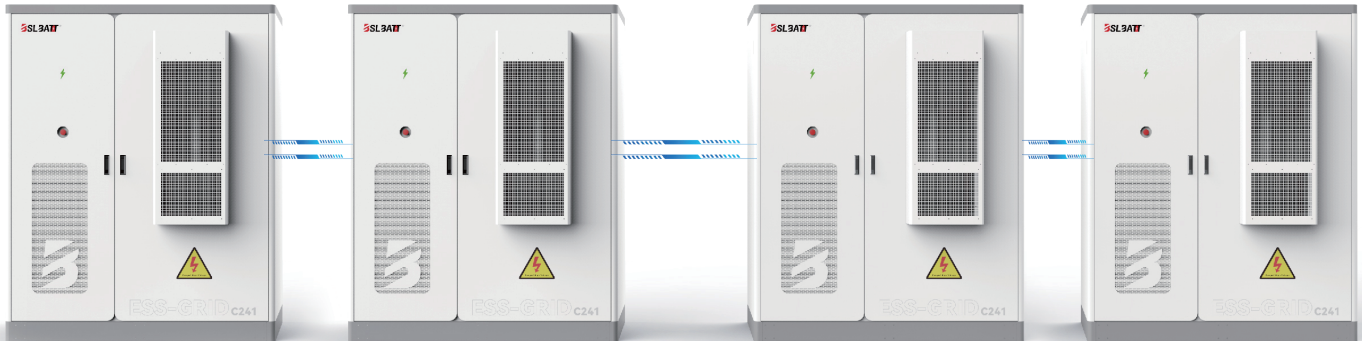
Parallel connection of up to 4 systems

125kW / 241kWh

250kW / 482kWh

375kW / 723kWh

500kW / 964kWh



Support for DC Expansion

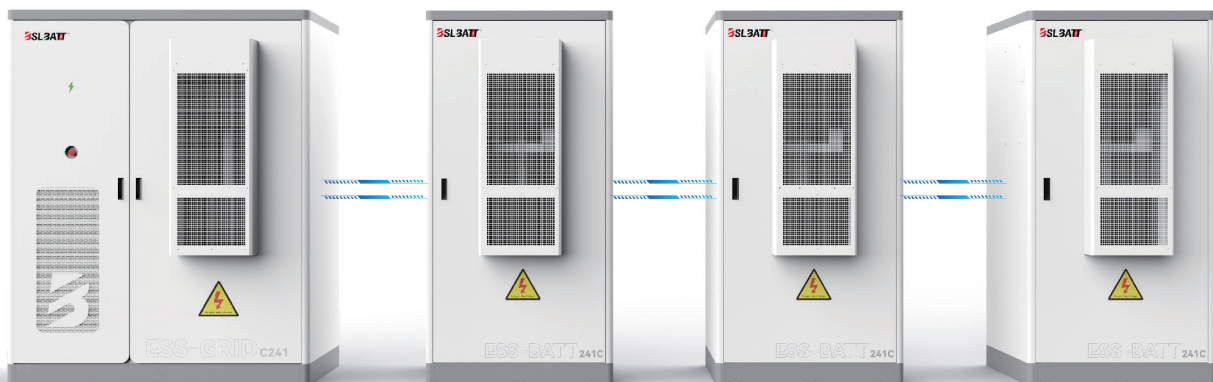
Parallel for 4-, 6- and 8-hour backups

2-Hour

4-Hour

6-Hour

8-Hour



► Battery Pack

Series and parallel	16S1P
Rated capacity	314Ah
Rated voltage	DC51.2V
Voltage range	40V~58.4V
Rated energy	16.07kWh
Max. charge current	157A
Max. discharge current	157A
Protection level	IP20
Discharge temp.	-20°C~55°C
Charge temp.	0°C~45°C
Dimension	755*415*234(±5mm)



► High Voltage Box

Model	1500-250
Allowable voltage	0-1500V
Allowable current	0-250A
DC supply voltage	24V
Ambient temperature	-25°C~60°C
Battery type	Lithium iron phosphate/lead acid
Protection class	IP20
Protection level	I
Relative humidity	0-95% (non-condensing)
Altitude	2000m (reduced over 2000m)
BMS communication	CAN
EMS communication	Ethernet/485
Master-Slave communication	Daisy Chain
Dimension (W*D*H)	750*470*227.5mm
Weight	24.9kg



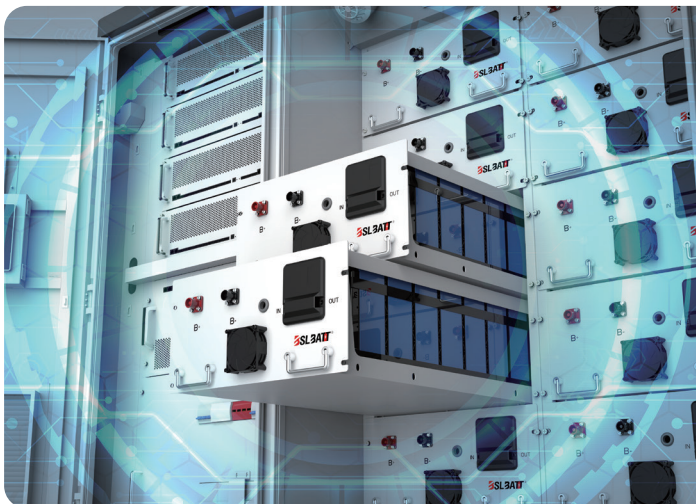
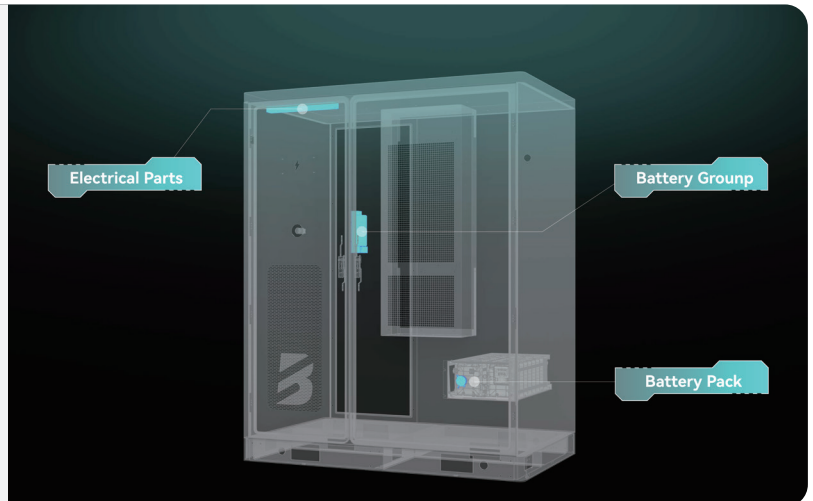


Compartmentalized Design

The BSLBATT Battery Cabinet utilizes a design that separates the battery pack from the electrical unit, increasing the safety of the cabinet for energy storage batteries.

3 Level Fire Safety System

BSLBATT C&I ESS Battery has the world's leading battery management technology, including dual integration of active and passive fire protection, and the product setup has PACK level fire protection, group level fire protection, and dual-compartment level fire protection.



314Ah Lithium Iron Phosphate Cells

• Large Capacity Design

Significant increase in energy density of battery packs

• Advanced LFP Module Patent Technology

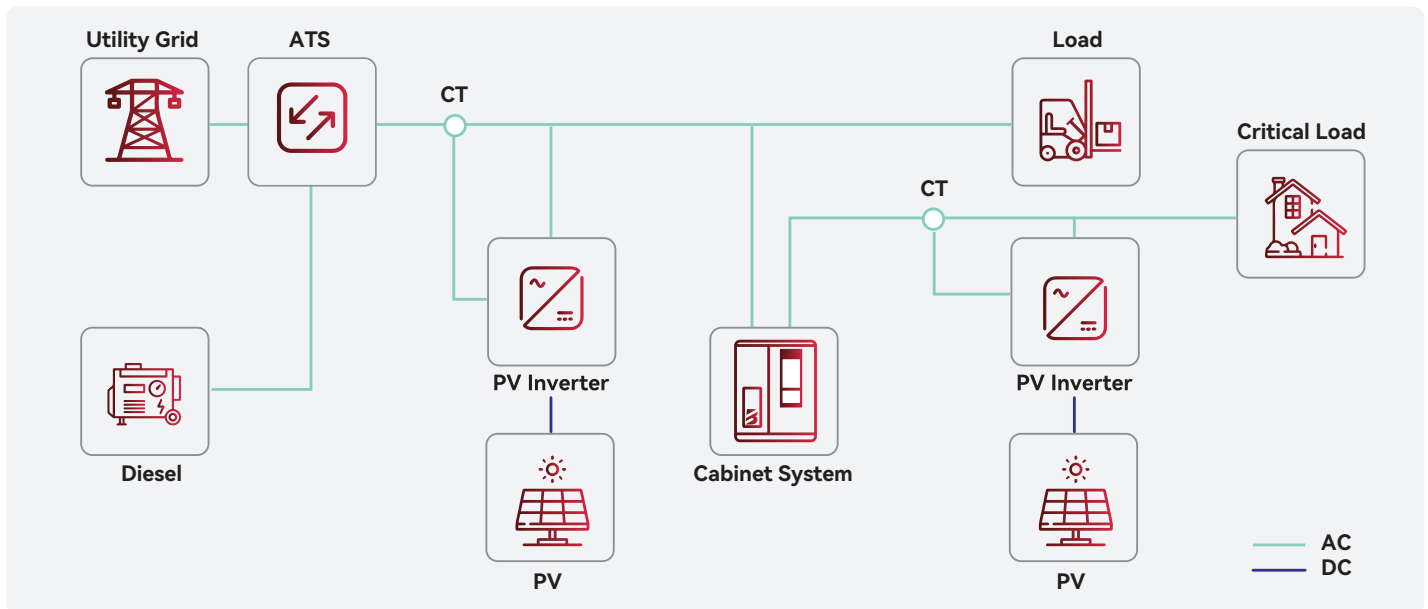
Each module adopts CCS, with a single PACK capacity of 16kWh.

• Higher Energy Efficiency

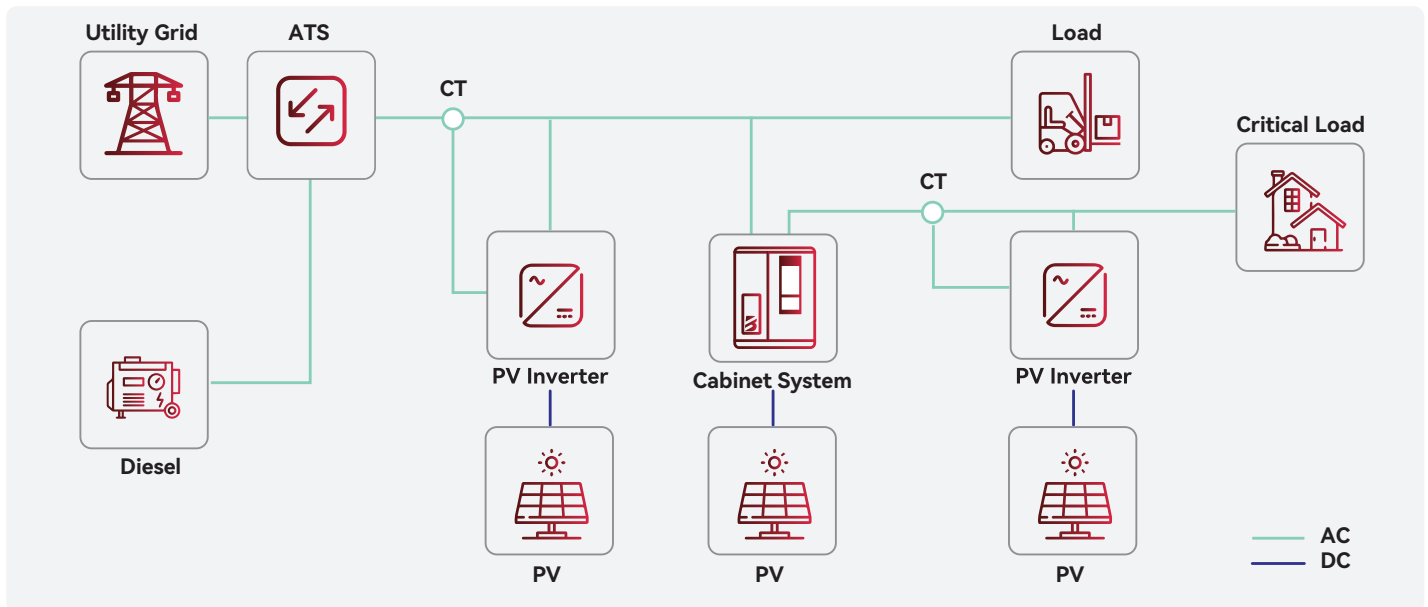
Guaranteed energy efficiency/cycle with high energy density design, >95% @0.5P/0.5P

Item	General Parameter	
Model	ESS-GRID C225	ESS-GRID C241
System Parameter	125kW/225kWh	125kW/241kWh
Cooling Method	Air-cooled	
Battery Parameters		
Rated Battery Capacity	225kWh	241kWh
Rated System Voltage	716.8V	768.0V
Opearting Voltage Range	627.2V~795.2V	627.0V~852.0V
Cell Capacity	314Ah	
Max. Charge/Discharge Current	157A	
Battery Series-parallel Connection Method	1P*16S*14S	1P*16S*15S
Charge temp./Discharge temp.Method	0~55℃ / -20~55℃	
PV Parameters (Optional; none /50kW/150kW)		
Starting Voltage	200V	
Max. PV Power	150kW	150kW
MPPT Quantity	3	
MPPT Voltage Range	250-620V	
MPPT Full Load Open Circuit Voltage Range (Recommended)*	360V-580V	360V-620V
AC Parameters		
Rated AC Power	125kW	
Nominal AC Current Rating	181A	
Max. AC Current Rating	199A	
Rated AC Voltage	400Vac/230Vac ,3W+N+PE /3W+PE	
DC Side Voltage Range	580~1000V (3P3W) / 670~1000V (3P4W)	
DC Side Full Load Voltage Range	625~927V (3P3W) / 680~927V (3P4W)	
Rated Frequency	50Hz/60Hz(±5Hz)	
Total Current Harmonic Distortion(THDI)	<3% (Rated Power)	
Power Factor Adjustable Range	1 Ahead ~ +1 Behind	
General Parameters		
Protection Level	IP55	
Fire Protection System	Hot-air aerosol	
Isolation Method	Non-isolated (Optional Transformer)	
System Operating Temperature	-25℃~55℃ (>45℃ derating)	
Altitude	3000m	
Communication Interface	RS485 / CAN2.0 / Ethernet	
Dimension (L*W*H,mm)	1850*1430*2300(±5)	
Weight (With Batteries Approx.)	3197kg ±3%	3310kg ±3%
Certification		
Electric Safety	IEC62619/IEC62477/EN62477	
EMC (Electromagnetic Compatibility)	IEC61000/EN61000/CE	
Grid-connected And Islanded	IEC62116	
Energy Efficiency And The Environment	IEC61683/IEC60068	

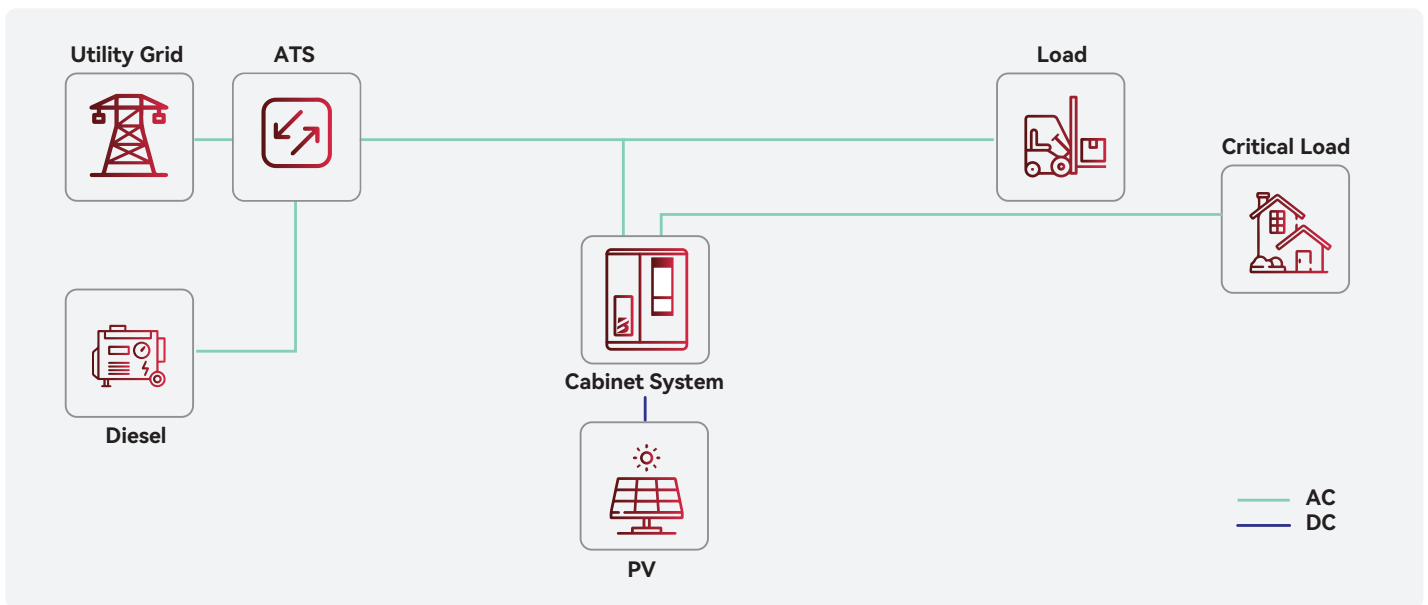
AC Coupling Topology Diagram



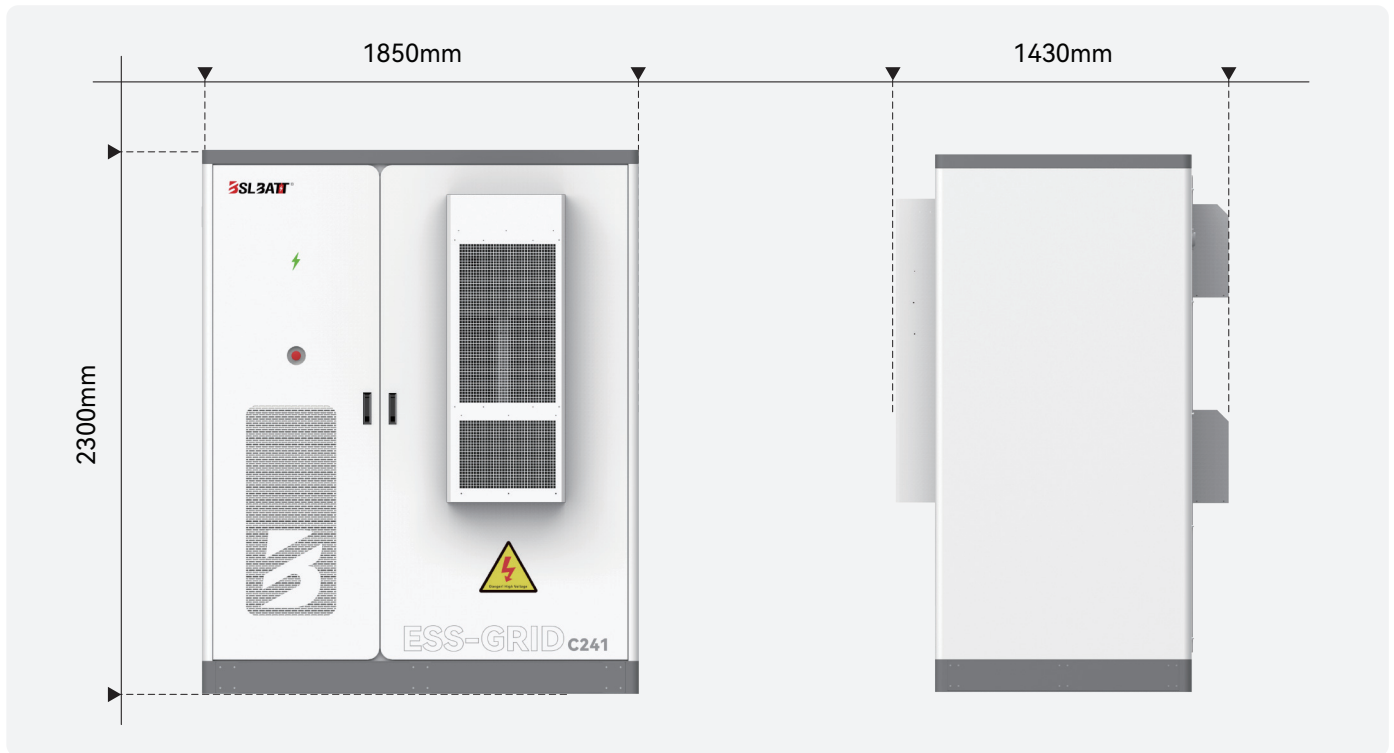
AC-DC Coupling Topology Diagram



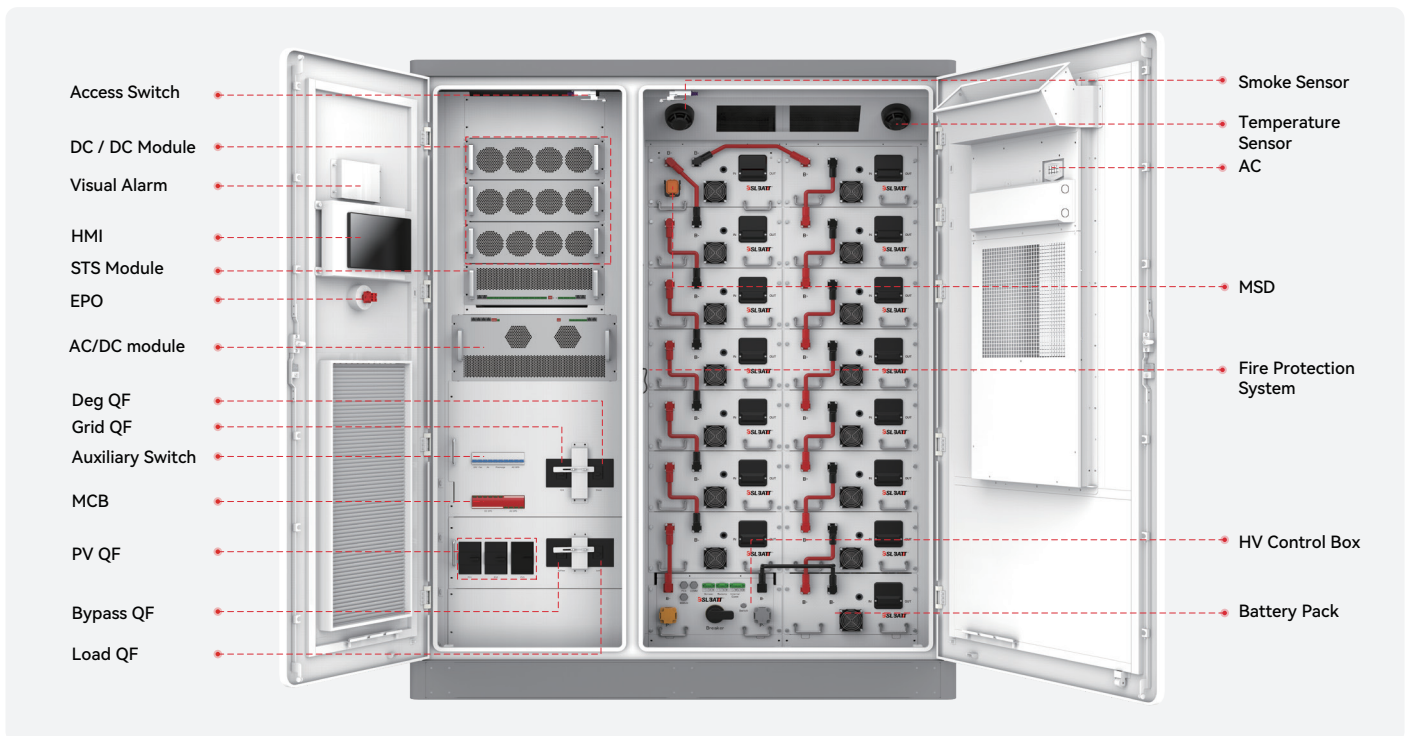
DC Coupling Topology Diagram



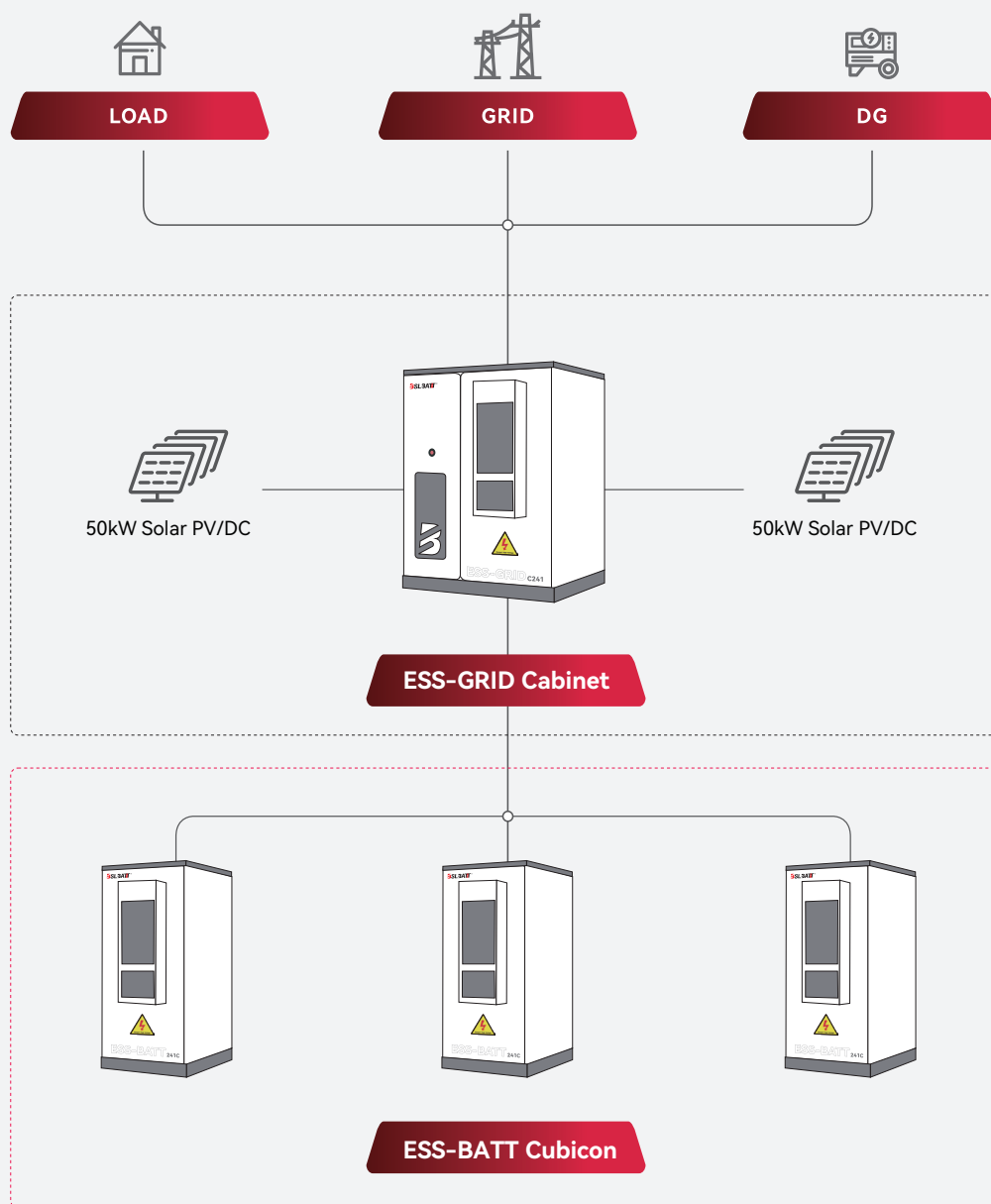
Dimension (L*W*H)



System Productization



Note: Different projects are configured with different battery PACK quantities and specifications, with slightly different structures.



ESS-GRID Cabinet Energy Storage System Schematic Diagram

