

ESS-GRID Cabinet Series

Integrated Turnkey Solution



The ESS-GRID Cabinet series are outdoor battery cabinets for small&medium scale commercial and industrial energy storage, with four different capacity options based on different cell compositions, 200kWh, 215kWh, 225kWh, 241kWh, etc.



200 1928kWh



100 240kW



0.5C



716.8 - 768Vdc

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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 2 systems

125kW / 241kWh

250kW / 482kWh



Support for DC Expansion

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

2-Hour

4-Hour

6-Hour

8-Hour



Series and parallel	supported	
Rated capacity	280Ah	314Ah
Rated voltage	DC51.2V	DC51.2V
Voltage range	40V~58.4V	40V~58.4V
Rated energy	14.33kWh	16.07kWh
Max. charge current	140A	157A
Max. discharge current	140A	157A
Protection level	IP20	IP20
Discharge temp.	-20°C~55°C	-20°C~55°C
Charge temp.	0°C~45°C	0°C~45°C
Dimension	755*415*234(±5mm)	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

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

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 / 280Ah Lithium Iron Phosphate Cells

Large Capacity Design

Significant increase in energy density of battery packs

Advanced LFP Module Patent Technology

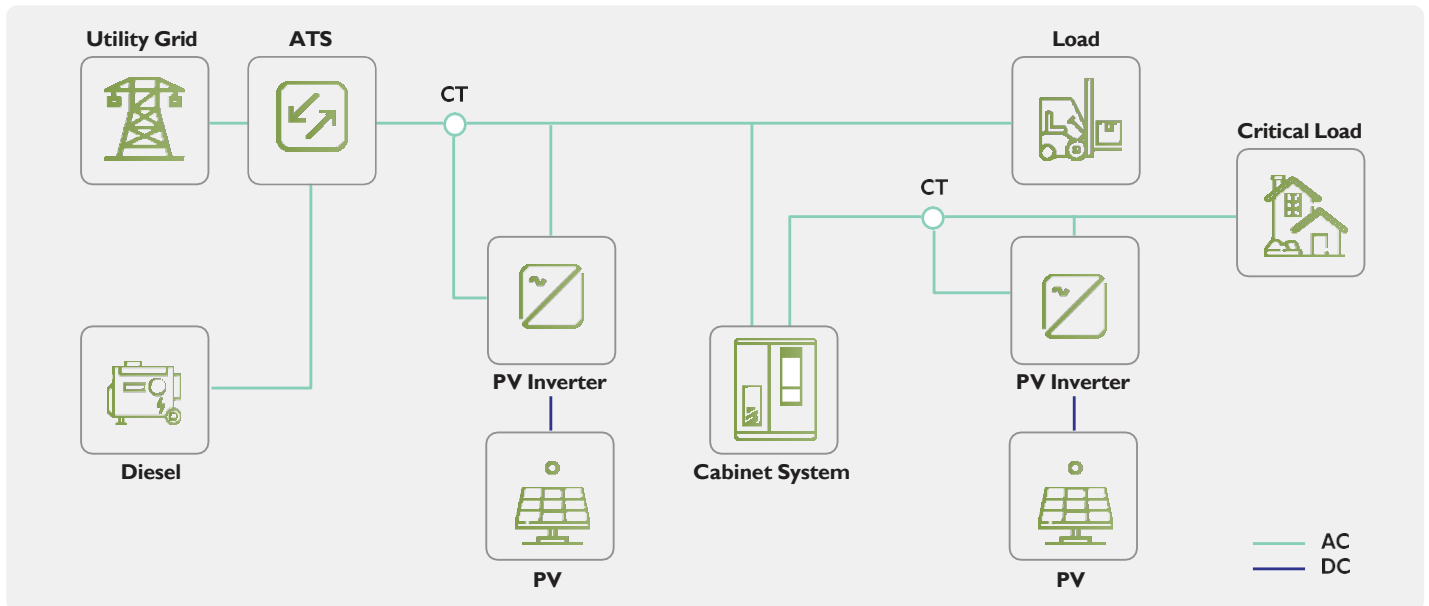
Each module adopts CCS, with a single PACK capacity of 16kWh.

Higher Energy Efficiency

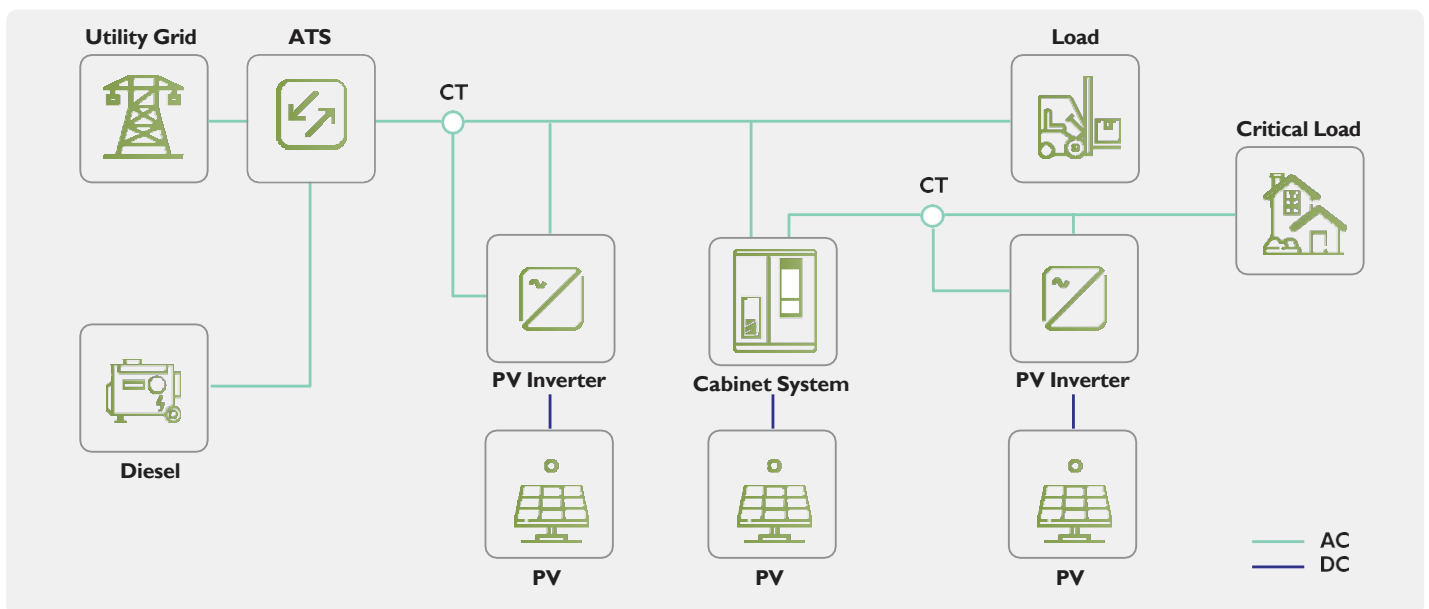
Guaranteed energy efficiency/cycle with high energy density design, >95% @0.5P/0.5P

Model	200kW	215kW	225kW	240kW
System Parameter	100kW/200kWh	100kW/215kWh	125kW/225kWh	125kW/241kWh
Cooling Method	Air-cooled			
Battery Parameters				
Rated Battery Capacity	200.7kWh	215kWh	225kWh	241kWh
Rated System Voltage	716.8V	768V	716.8V	768V
Battery Type	Lithium Iron Phosphate Battery (LFP)			
Cell Capacity	280Ah	280Ah	314Ah	314Ah
Max. Charge/Discharge Current	140A	140A	157A	157A
Battery Series-parallel Connection Method	1P*16S*14S	1P*16S*15S	1P*16S*14S	1P*16S*15S
Charge temp./Discharge temp.	0~55℃ / -20~55℃			
PV Parameters				
Max. PV Input Voltage	1000V			
Max. PV Power	100kW		125kW	
MPPT Quantity	3			
MPPT Voltage Range	250-620V			
MPPT Full Load Open Circuit Voltage Range (Recommended)*	345V-580V	345V-620V	360V-580V	360V-620V
AC Parameters				
Rated AC Power	100kW		125kW	
Nominal AC Current Rating	144A		181A	
Max. AC Current Rating	159A		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	625~950V (3P3W) / 670~950V (3P4W)			
Rated Frequency	50Hz/60Hz(±5Hz)			
Total Current Harmonic Distortion (THD)	<3% (Rated Power)			
Power Factor Adjustable Range	1 Ahead ~ +1 Behind			
General Parameters				
Protection Level	IP55			
Fire Protection System	Aerosols / Perfluorohexanone / Heptafluoropropane			
Isolation Method	Non-isolated (Optional Transformer)			
Operating Temperature	-25℃~60℃ (>45℃ derating)			
Altitude	3000m(>3000m Derating)			
Communication Interface	RS485 / CAN2.0 / Ethernet / Dry contact			
Dimension (L*W*H)	1850*1430*2300mm			
Weight (With Batteries Approx.)	3150kg ±3%	3250kg ±3%	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			

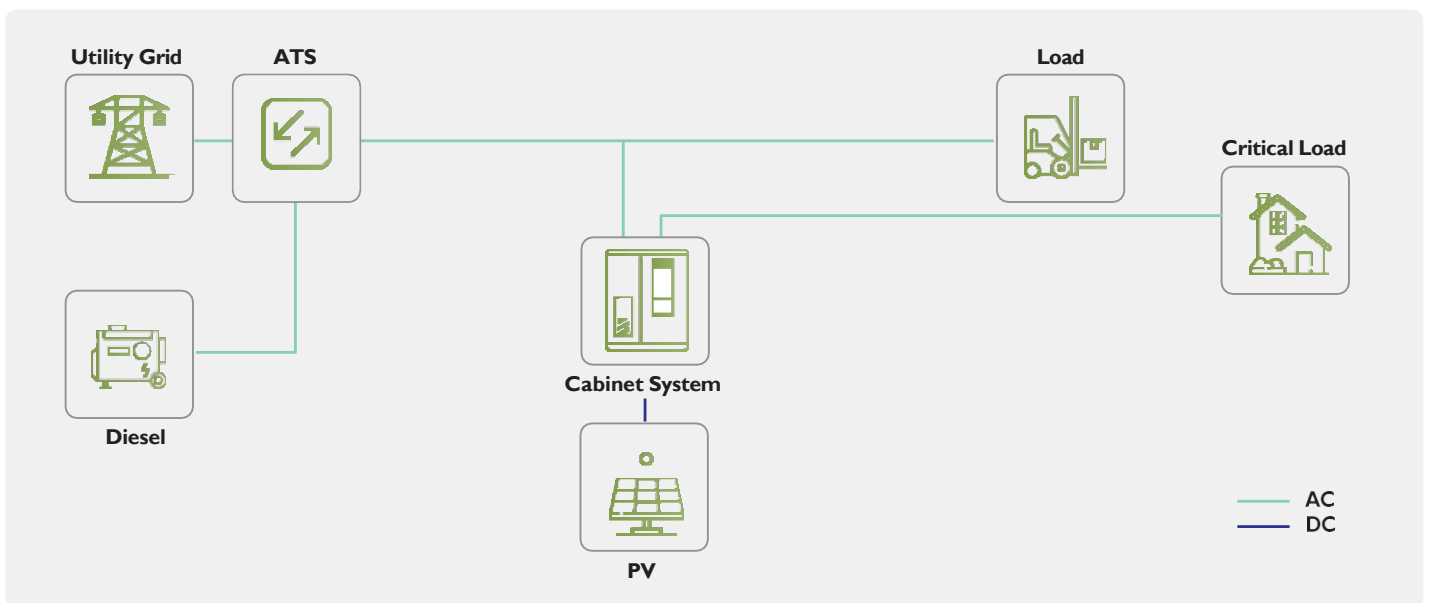
AC Coupling Topology Diagram



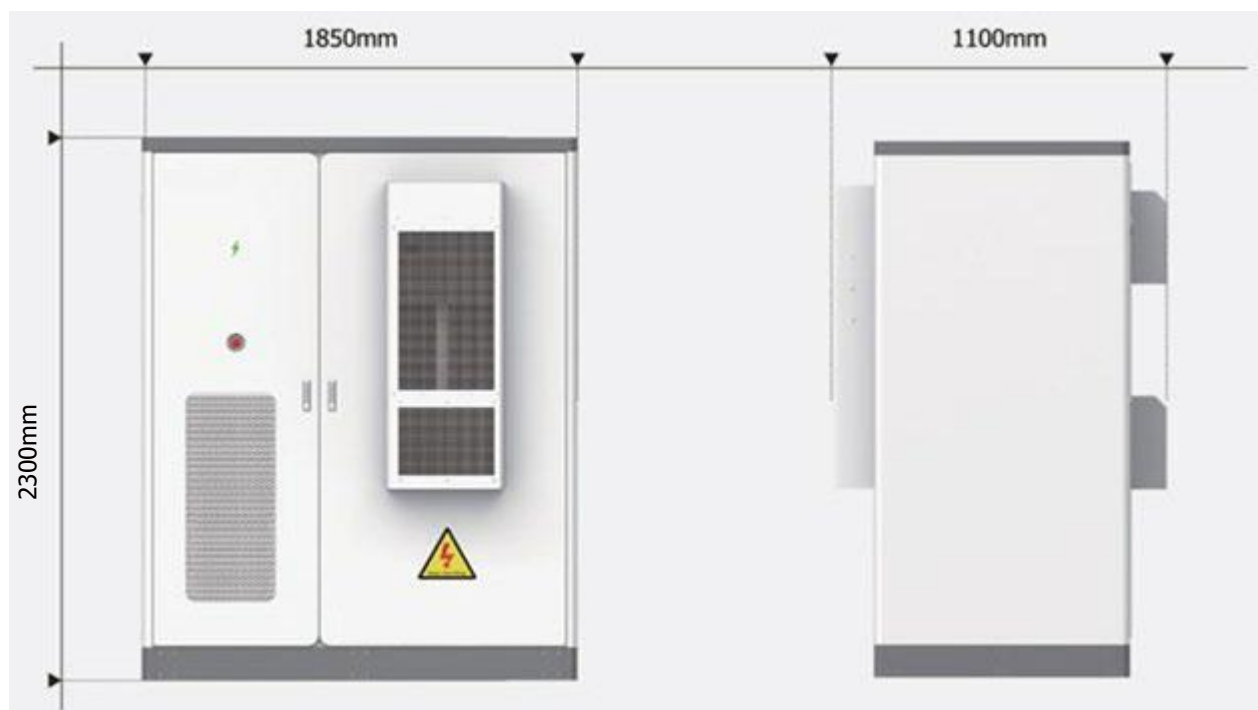
AC-DC Coupling Topology Diagram



DC Coupling Topology Diagram



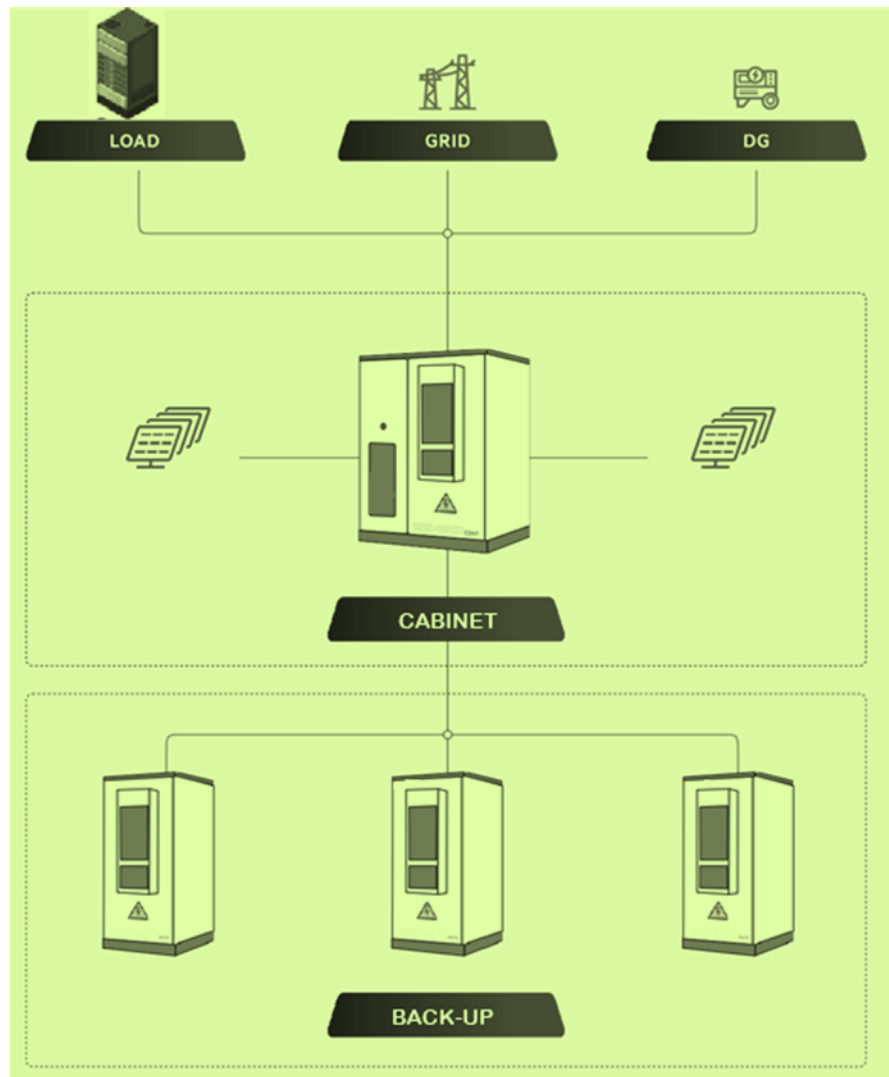
Dimension (L*W*H)



System Productization



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



Energy Storage System Schematic Diagram

