High Safety

High Efficiency

High Energy Density

CONTAINER ENERGY STORAGE SYSTEM

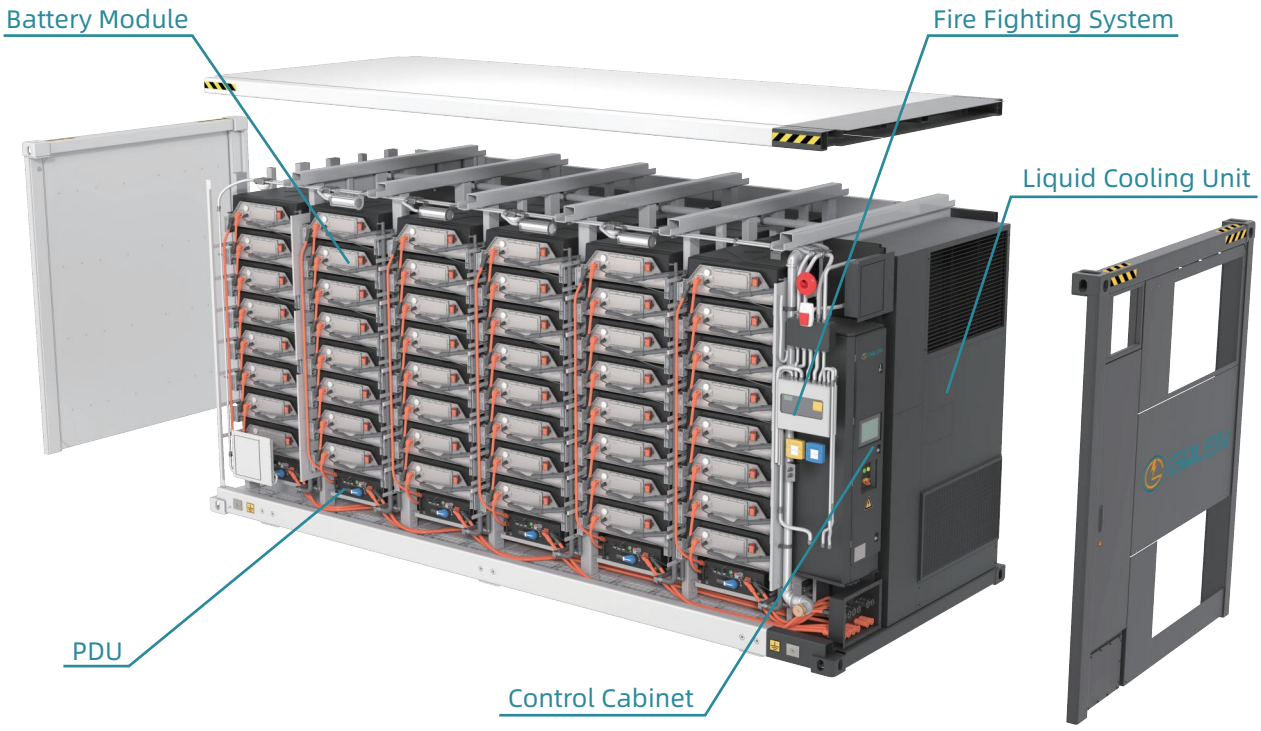
LBS series

Product Introduction

The structural design of Golen Power LBS series products is more compact and flexible.
The product is green and environmentally friendly, low noise, zero pollution, zero emission, enable customers with peak shaving and valley filling, frequency regulation, and reduce dependence on the power grid, improve the quality of power supply, and ensure the operation of emergency loads under power failure.

BESS Features

- Adopting industry-leading LFP energy storage special battery cell, long cycle life, higher energy density, up to 5.015MWh per 20-foot container.
- Intelligent liquid-cooled temperature control system, the temperature difference between cells in each pack <2.5℃, battery life and system discharge are improved simultaneously.
- Multi-level active fire protection system, high safety & high reliability.
- Modular design, convenient installation and maintenance.
- Expansion Supported, satisfy different applications.



MV Power Station Features

- High integration, compact footprint, easy to transport and install, reducing on-site construction costs.
- Supports PQ, VF, SVG, and VSG modes, with high/low voltage ride-through capability.
- 1500V system, wide DC voltage range.
- Unique multi-branch DC input design avoids direct parallel connection of battery clusters, effectively mitigating circulating currents.
- Integrated inverter and booster design, highly compact for better space utilization and easier deployment. Modular architecture allows flexible power configuration.

Technical Parameters

Model	LBS-G20-HV	
Battery		
Battery Type	LiFePO4	
Rated Charge/Discharge Performance	≤0.5C	
Nominal Voltage [V]	1331.2	
Operating Voltage Range [V]	1164.8~1497.6V	
Cell Rated Capacity [Ah]	314	
Rated Capacity [kWh]	4179.97	5015.96
Composition	(1P416S)*10P	(1P416S)*12P
General Data		
Ingress Protection	IP55	
Cooling Method	Liquid cooling	
Fire Fighting System	Aerosols, water fire protection system	
Relative Humidity	0~95%，Non-condensing	
Temp. Range [℃]	-20~+50	
Altitude [m]	5000 (> 2000 Derating)	
Communication	CAN、RS485	
Communication Protocol	Modbus、IEC104	
Weight [T]	< 37	< 42
Dimension (W*D*H) [mm]	6058*2438*2896	
Delivery Method	Integral transportation	
Product Certifications		
Certificates	IEC 62619, IEC 62477, IEC 63056, IEC 61000, UL 1973, UL 9540A, NFPA 855	
Safe Transportation	UN3536、UN38.3	

Model	LES-1250-UD-35	LES-2500-UD-35	LES-5000-UD-35
Technical Specifications			
Rated Output Power [kW]	1250	2500	5000
Rated AC Voltage [kV]	35		
Rated Grid Frequency [Hz]	50/60		
THD (Rated Power)	< 3%		
Adjustable Power Factor Range	-1~+1		
Transformer Parameters			
Rated Power [kVA]	1250	2500	5000
Voltage Ratio [kV/kV]	0.69/6~35		
Vector Group	DY11		
Transformer Type	Dry type transformer/Oil type transformer		
Basic Parameters			
Protection Class	IP54		
Relative Humidity Range	0-100%Without condensation		
Maximum Operating Altitude [m]	5000		
Communication Interface	RS485,Etherne,CAN		
Communication Protocol	Modbus TCP,IEC104,IEC61850		
Weight [t]	14	16	< 22.5
Dimensions (W*D*H) [mm]	6058*2438*2896	6058*2438*2896	12192*2438*2896

* Grid side voltage 6-35kV optional.The size and parameters of customized models are subject to change, and the latest information of our company shall prevail without further notice.

Application Scenarios

Power Generation

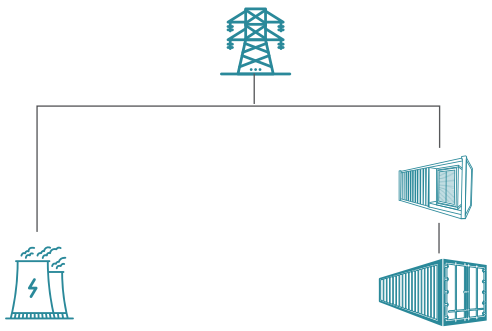
Thermal Power and Energy Storage Joint Frequency Regulation;

Primary frequency regulation for renewable energy power plants;

Secondary frequency regulation;

Inertia response;

Output smoothing;

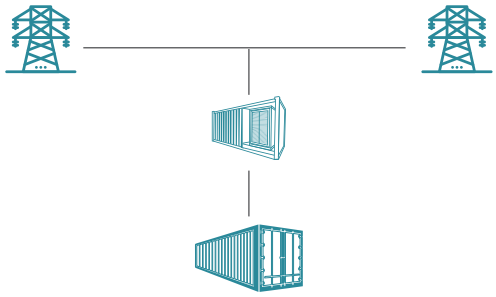


Power Grid

Load leveling;

Peak shaving;

Ancillary frequency regulation.



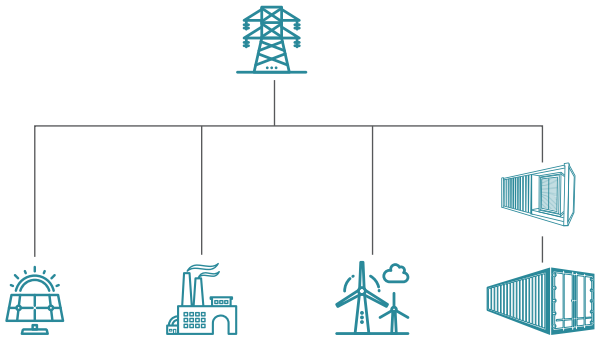
PV-Storage Microgrid

Power quality optimization;

Stability enhancement;

Peak shaving & frequency regulation;

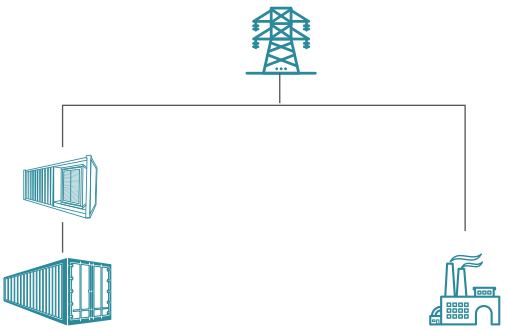
Microgrid support.



Demand Side

Peak-valley arbitrage;

Demand-side response.



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