

LuminBlock

Energy Storage System

BES-P125X261E/BES-P125X261U

LuminBlock Series is a versatile solution applicable to charging stations, factories, industrial parks, and commercial buildings. Designed for power storage, models BES-P125X261 enable emergency power during outages, peak-load shifting, surplus energy trading, and virtual capacity enhancements. Boasting a high-density, modular design, this energy storage system minimize spatial needs, enhance transportability, and simplify installation and maintenance, ensuring top efficiency from deployment through operation.

High Performance

- All-in-one Design, Space Saving
- A+ Level LFP Battery, High Energy Density
- Cluster-level Battery Management, Improve Energy Utilization
- Smart Temperature Control, 8000+ Long Cycles

Save Cost, Scale Flexibly

- Support 10 units in parallel, Scalable up to MWh
- 1.35m² Footprint, Flexible Deployment & Dispatch
- 3-in-1 Integrated, Factory Configured & Tested
- Global Fast Delivery, On-Site Rapid Response

5-layer Safety Protection

- Five-layer Electrical Safety Protection, Rapid Isolation
- Three-level FSS, Thermal Runaway Prevention
- IP55-C5 for Cabinet, All-Weather Performance
- End-to-End Financial Grade Data Protection

Intelligent Management and Application

- "3S" Full-stack Self-developed, Effortless Alignment
- Supporting Grid-connected and Off-grid
- AI Self-Diagnosis and Remote OTA

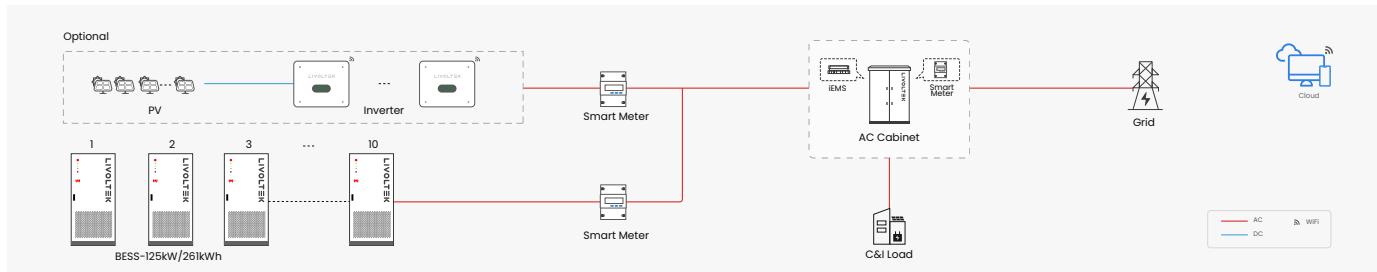
PRODUCT STRUCTURE

BES-P125X261E/U

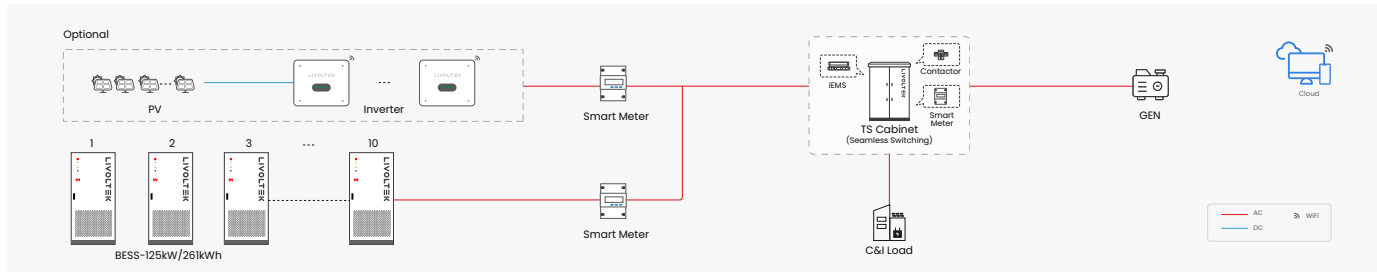


TYPICAL APPLICATION SCENARIOS

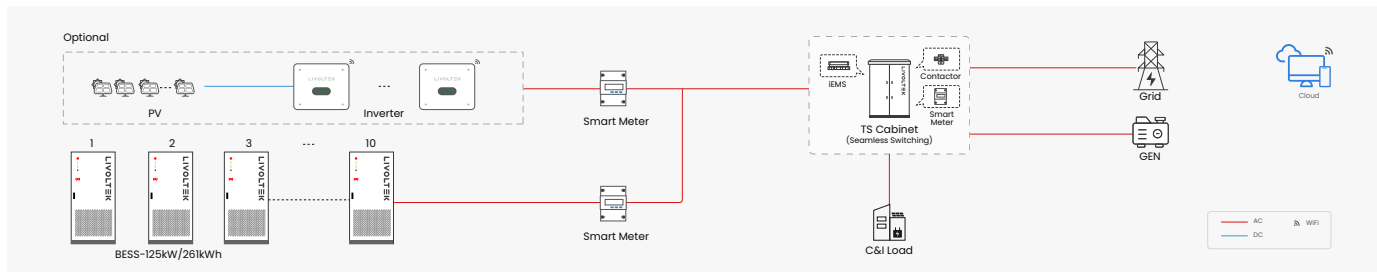
On-grid PV+ESS Solution



Off-grid PV+ESS Solution



On/Off-grid PV+ESS Solution



BESS-125KW/261KWH

BES-P125X261E / BES-P125X261U

BESS

Model	BES-P125X261E		BES-P125X261U
Battery Parameters			
Nominal DC Voltage	832 V		
Battery Voltage Range	702 ~ 936 V		
Battery Type	LFP 314 Ah		
Battery Module Specification	1P52S 166.4V 314Ah 52.2kWh		
Number of Packs	5		
Total Energy	261.2 kWh		
Nominal Power	125kW		
Max. Power	137.5kW		
Rated Charge/Discharge Current	157 / 157 A		
Depth of Discharge	90%		
Operating Temperature	-30 ~ 55°C		
AC Parameters @On-grid			
Rated AC Power	125 kW		
Max. AC Output Apparent Power	137.5 kVA		
Rated Output Voltage	3L/N/PE, 3L/PE, 220/380V, 230/400V	3L/N/PE, 3L/PE, 277/480V	
Voltage Range	340 ~ 460 V	408 ~ 528 V	
Rated AC Frequency	50±5 / 60±5 Hz		
Adjustable Power Factor Range	-1 (Leading)~ 1 (Lagging)		
Rated AC Current	180.4 A	150.4 A	
Max. AC Current	198.5 A	165.4 A	
THDi(Rated power)	<3%		
AC Parameters @Off-grid			
Rated AC Power	125 kW		
Max. Output Power	137.5 kW		
Rated Output Voltage	3L/N/PE, 3L/PE, 220/380V, 230/400V	3L/N/PE, 3L/PE, 277/480V	
THDv (linear load)	±2%		
General			
System Efficiency	90%		
Dimension (W*H*D)	1000*2195*1350mm		
Weight	2350 kg		
Operation Temperature	-30 ~ 55 °C (derating at 40°C)		
Relative Humidity	5% ~ 95%		
Max. Operating Altitude	4000m (>3000m Derating)		
Cooling	Battery: Liquid Cooling; PCS: Fan Cooling		
Ingress Protection	IP55 (PACK IP67, PCS IP66)		
Anti-corrosion Level	C3/C5 (optional)		
Fire Protection	Aerosol, ACK-level fire protection, Water fire protection, Pressure relief		
Topology	Non-isolated		
Communication Interface	RS485 / CAN / Ethernet / 4G / WiFi		
Certificates and Approvals	UN38.3, IEC62619, IEC63056, IEC60730, IEC62933		

ENERGY STORAGE PCS MODULE

PCS-125KG1 / PCS-125KMG1

PCS

Model	PCS-125KG1	PCS-125KMG1
DC Input		
Max. DC Voltage	1000 V	
Battery Voltage Range	580 ~ 950 V	700 ~ 950 V
Max. Current	211.5 A	188.9 A
AC Output [On-grid]		
Rated AC Output Power	125 kW	125 kW
Max. AC Output Apparent Power	137.5 kVA	137.5 kVA
Rated Output Current	180.4 A	150.4 A
Max. Output Current	198.5 A	165.4 A
Rated AC Voltage	3L/N/PE, 3L/PE, 220/380V, 230/400V	3L/N/PE,3L/PE, 277/480 V
AC Frequency Range	50±5 / 60±5 Hz	
Power Factor	-1 ~ 1	
THDi (Rated Power)	<3%	
AC Output [Off-grid]		
Rated AC Power	125 kW	125 kW
Max. Output Power	137.5 kW	137.5 kW
Unbalanced Load Capacity	100%	100%
Rated AC Voltage	3L/N/PE,230/400 V	3L/N/PE, 277/480 V
THDv (linear load)	±2%	
Efficiency		
Max. Efficiency	99.00%	99.00%
Euro. Efficiency	98.50%	98.50%
Protection		
Anti-islanding Protection	Integrated	
DC Short Circuit/Over Current Protection	Integrated	
AC Short Circuit/Over Current Protection	Integrated	
Residual Current Detection	Integrated	
Over/Under Frequency Protection	Integrated	
Over/Under Voltage Protection	Integrated	
Insulation Resistance Monitoring	Integrated	
Over Temperature Protection	Integrated	
DC Reverse-polarity Protection	Integrated	
General Data		
Operating Temperature	-30~ +60℃ (>45℃ Derating)	
Operating Altitude	4000m (>3000m Derating)	
Installation	Rack-mounted (Horizontal, Side-mounted)	
Noise	≤ 75 dB	
Cooling	Intelligent Air Cooling	
Dimension(W*H*D)	600*270*800 mm	
Weight	89 kg	
Communication	Ethernet / Modbus TCP / RS485 / CAN	

BATTERY PACK MODULE

BHF-B166314

BATTERY

Model	BHF-B166314
Cell Type	LFP
Battery Configuration	1P52S
Nominal Voltage	166.4 V
Operating Voltage Range	130 ~ 187.2 V
Rate Capacity	314 Ah
Cell Specification	3.2V 314Ah 1004.8Wh
Number of Cells	52
Total Energy	52.2 kWh
Usable Energy	47.0 kWh
Nominal Power	26.1 kW
Max Power	28.7 kW
Rate Charge/Discharge Current	157 / 157 A
Max. Charge/Discharge Current	200.9 / 200.9 A
Depth of Discharge	90%
Cooling	Liquid Cooling
Operating Temperature	-30 ~ 60℃
Operating Humidity	5 ~ 95%
Operating Altitude	4000m (>3000m Derating)
Cycle life	8000 (25℃ ±2℃ 0.5C /0.5C, 70%EOL)
Communication	CAN 2.0
Ingress Protection	IP67
Dimension	790*248.5*1130 mm
Weight	330 ±10 kg