LIVOLTEK



BESS-125KW/261 KWH

BES-P125X261E/BES-P125X261U

The LIVOLTEK BES 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

- 3-in-1 Integrated, Factory Configured & Tested
- Only 1.35m² Footprint, Flexible Deployment & Dispatch
- Support 10 units in parallel, Scalable up to MWh

5-layer Safety Protection

- Reliable LFP Cells, High Consistency
- 7-Tier Electrical Safeguard with Cascading Isolation
- 3 Level FSS + Flammable gas emission & Explosion vents
- 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

Preliminary

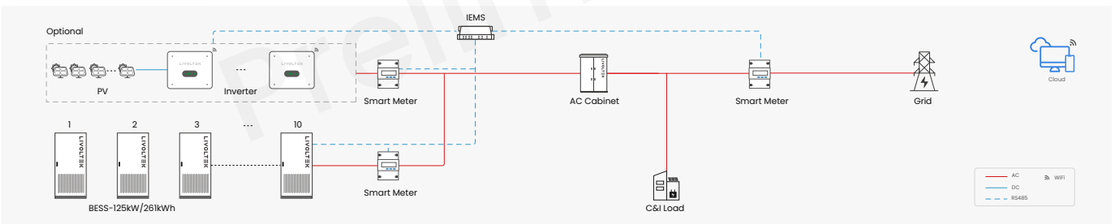
PRODUCT STRUCTURE

BES-P125X261E/U

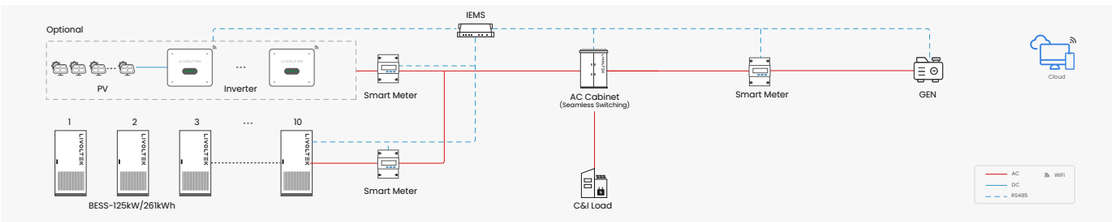


TYPICAL APPLICATION SCENARIOS

On-grid PV+ESS Solution Up to 10 units in parallel

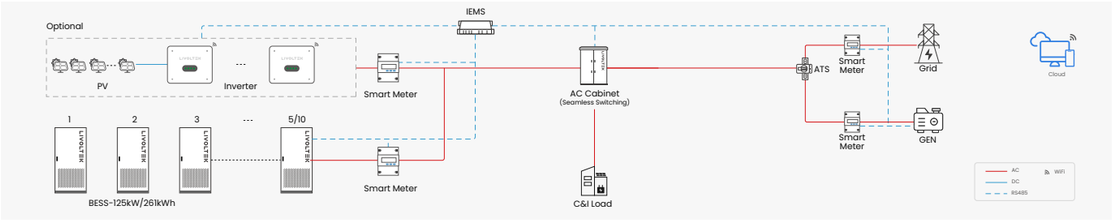


Off-grid PV+ESS Solution Up to 10 units in parallel



On/Off-grid PV+ESS Solution

- Up to 5 units in parallel (Seamless switching)
- Up to 10 units in parallel (Seamful switching)



BESS-125KW/261KWH

BESS

BES-P125X261E / BES-P125X261U

Model	BES-P125X261E	BES-P125X261U
Battery Parameters		
Nominal DC Voltage	832 V	
Battery Voltage Range	624 ~ 949V	702 ~ 949V
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	Max. DOD:100%; Recommend DOD:90%	
Operating Temperature	Charge: -20 ~ 55°C; Discharge: -20 ~ 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	88%	
Dimension (W*H*D)	1000*2195*1350m	
Weight	2450 kg	
Operation Temperature	-20 ~ 55 °C (derating at 40°C)	
Relative Humidity	5% ~ 95%	
Max. Operating Altitude	4000m (>2000m Derating)	
Cooling	Battery: Liquid Cooling; PCS: Fan Cooling	
Ingress Protection	IP55	
Anti-corrosion Level	C3/C5 optional	
Fire Protection	Aerosol、PACK-level fire protection、Water fire protection、Pressure relief	
Topology	Non-isolated	
Communication Interface	RS485 / CAN / Ethernet / 4G / WiFi	
Certificates and Approvals	IEC 61000, IEC 62619, IEC 63056, IEC 62477, IEC 62933, RoHs, UN38.3	

Preliminary

ENERGY STORAGE PCS MODULE

PCS

PCS-125KG1 / PCS-125KMG1

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)	
Ingress Protection	IP66	
Operating Altitude	4000m (>2000m Derating)	
Installation	Rack-mounted (Horizontal, Side-mounted)	
Noise	≤75 dB	
Cooling	Intelligent Air Cooling	
Dimension(W*H*D)	600*270*800 mm	
Weight	≤75 kg	
Communication	Ethernet / Modbus TCP / RS485 / CAN	

BATTERY PACK MODULE

BATTERY

BHF-B166314

Model	BHF-B166314
Cell Type	LFP
Battery Configuration	1P52S
Nominal Voltage	166.4 V
Operating Voltage Range	140.4 ~ 189.8 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	172 / 172 A
Depth of Discharge	Max. DOD:100%; Recommend DOD:90%
Cooling	Liquid Cooling
Operating Temperature	Charge: 0 ~ 60°C; Discharge: -30 ~ 60°C
Operating Humidity	5%~95%
Operating Altitude	4000m (>2000m 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

Preliminary