



## 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

- Support 10 units in parallel, Scalable up to MWh
- 1.35m<sup>2</sup> 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

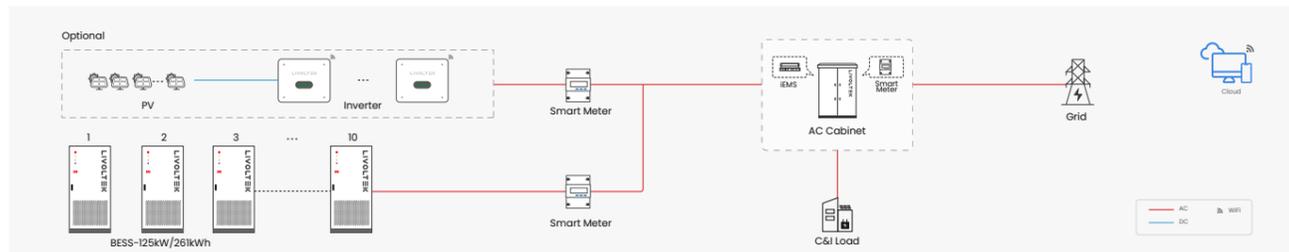
BES-P125X261E/U



## TYPICAL APPLICATION SCENARIOS

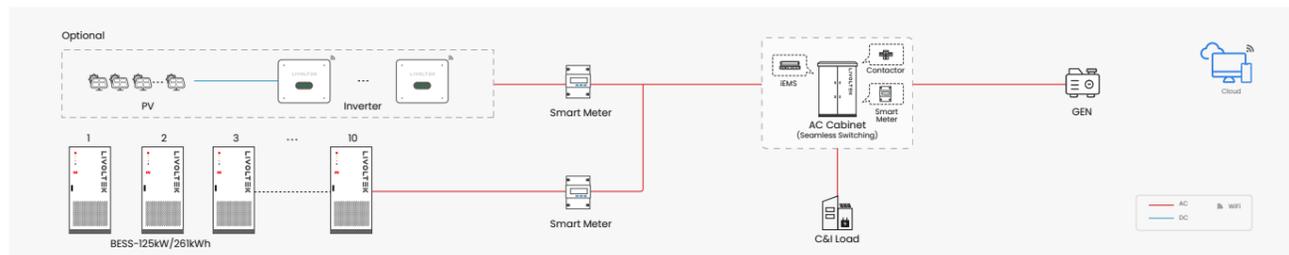
### On-grid PV+ESS Solution

Up to 10 units in parallel



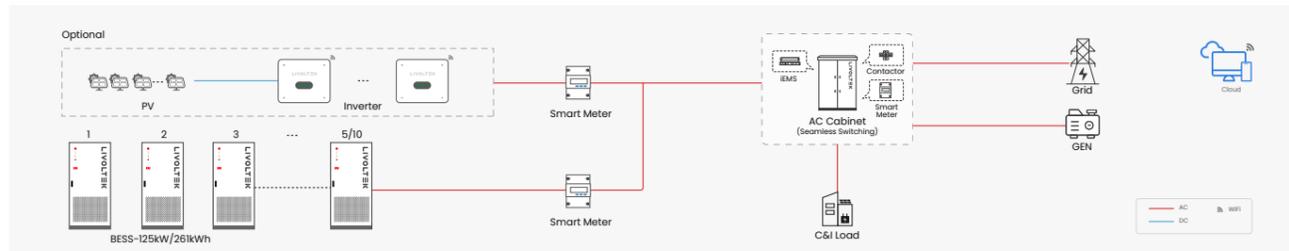
### Off-grid PV+ESS Solution

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

BES-P125X261E / BES-P125X261U

BESS

Model	BES-P125X261E	BES-P125X261U
<b>Battery Parameters</b>		
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	Max. DOD: 100%; Recommend DOD: 90%	
Operating Temperature	Charge: -20 ~ 55°C; Discharge: -20 ~ 55°C	
<b>AC Parameters @On-grid</b>		
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%	
<b>AC Parameters @Off-grid</b>		
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%	
<b>General</b>		
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 (>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	UN38.3, IEC62619, IEC63056, IEC60730, IEC62933	

# ENERGY STORAGE PCS MODULE

PCS-125KG1 / PCS-125KMG1

PCS

Model	PCS-125KG1	PCS-125KMG1
<b>DC Input</b>		
Max. DC Voltage	1000 V	
Battery Voltage Range	580 ~ 950 V	700 ~ 950 V
Max. Current	211.5 A	188.9 A
<b>AC Output [On-grid]</b>		
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%	
<b>AC Output [Off-grid]</b>		
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%	
<b>Efficiency</b>		
Max. Efficiency	99.00%	99.00%
Euro. Efficiency	98.50%	98.50%
<b>Protection</b>		
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	
<b>General Data</b>		
Operating Temperature	-30~ +60°C (>45°C Derating)	
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	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	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°C ±2°C 0.5C / 0.5C, 70%EOL)
Communication	CAN 2.0
Ingress Protection	IP67
Dimension	790*248.5*1130 mm
Weight	330 ±10 kg