

## **ESS-GRID HV PACK**

High Voltage ESS Solutions From kWH To MWh



## More Flexible HV battery Solutions for C&I ESS

Enhance your energy storage efficiency with the flexible, expandable ESS-GRID HV PACK. This rack-mounted battery system is purpose-built for high-voltage applications, including three-phase residential systems, commercial and industrial storage, microgrids, and UPS. Each battery module operates at 57.6V 135Ah, with scalable capacity through series and parallel configurations to meet your project's energy needs.



38 kWh - 1,866 kWh



Support 5~15 packs



0.5 C



288 V - 864 V







Model	HV PACK 5	HV PACK 6	HV PACK 7	HV PACK 8	HV PACK 9	HV PACK 10		
Battery Module	57.6V 135Ah 7.776kWh							
Rated Voltage(V)	288.0	345.6	403.2	460.8	518.4	576.0		
Rated Capacity(Ah)	135	135	135	135	135	135		
Cell Model(LFP-3.2V)(Ah)	135	135	135	135	135	135		
System Configuration	90S1P	108S1P	126S1P	144S1P	162S1P	180S1P		
Battery Single Box Number	5 pack+ 1 control box	6 pack+ 1 control box	7 pack+ 1 control box	8 pack+ 1 control box	9 pack+ 1 control box	10 pack+ 1 control box		
Rate Power(kWh)	38.88	46.66	54.43	62.21	69.98	77.76		
Charge cut-off Voltage(V)	319.5	383.4	447.3	511.2	575.1	639.0		
Discharge Cut-off Voltage(V)	256.5	307.8	359.1	410.4	461.7	513.0		
Recommended Current(A)	68	68	68	68	68	68		
Maximum Charging Current(A)	80	80	80	80	80	80		
Maximum Discharging Current(A)	80	80	80	80	80	80		
Dimension(L*W*H)(MM)	590*713*1118	590*713*1268	590*713*1418	590*713*1568	590*713*1718	590*713*1868		
Host Software Protocol	CAN BUS (Baud rate @250Kb/s)							
Operation Temperature Range	Charge: 0~55°C							
	Disharge: -20~55°C							
Storage Temperature	0~35°C							
Cycle Life(25°C)	6000 cycles @90% DOD							
Protection Level	IP20							
Storage Humidity	10%RH ~90%RH							
Internal Impedance	≤1Ω							
Warranty	10 years							
Transportation	UN38.3							
Battery Life	≥15 years							
Weight	Base: 18kg   Single Pack: 68kg   High voltage Box: 20kg							

Model	HV PACK 11	HV PACK 12	HV PACK 13	HV PACK 14	HV PACK 15		
Battery Module	57.6V 135Ah 7.776kWh						
Rated Voltage(V)	633.6	691.2	746.8	806.4	864		
Rated Capacity(Ah)	135	135	135	135	135		
Cell Model(LFP-3.2V)(Ah)	135	135	135	135	135		
System Configuration	198S1P	216S1P	234S1P	252S1P	270S1P		
Battery Single Box Number	11 pack+ 1 control box	12 pack+ 1 control box	13 pack+ 1 control box	14 pack+ 1 control box	15 pack+ 1 control box		
Rate Power(kWh)	85.5	93.3	101.08	108.86	116.64		
Charge cut-off Voltage(V)	702.9	766.8	830.7	887.5	944.3		
Discharge Cut-off Voltage(V)	564.3	615.6	666.9	712.5	758.1		
Recommended Current(A)	68	68	68	68	68		
Maximum Charging Current(A)	80	80	80	80	80		
Maximum Discharging Current(A)	80	80	80	80	80		
Dimension(L*W*H)(MM)	590*713*2018	590*713*2168	1180*713*1268	1180*713*1418	1180*713*1568		
Host Software Protocol	CAN BUS (Baud rate @250Kb/s)						
Operation Temperature Range	Charge: 0~55°C						
	Disharge: -20~55°C						
Storage Temperature	0~35°C						
Cycle Life(25°C)	6000 cycles @90% DOD						
Protection Level	IP20						
Storage Humidity	10%RH ~90%RH						
Internal Impedance	≤1Ω						
Warranty	10 years						
Transportation	UN38.3						
Battery Life	≥15 years						
Weight	Base: 18kg   Single Pack: 68kg   High voltage Box: 20kg						

# Feel Free To Expand As Needed.

Simple, flexible, cost-saving battery rack.



### Connection way -1

(S) Capacity 38.88kWh - 93.3kWh

7.8 kWh

For each battery module

( Voltage

256.5V - 766.8V

( Max. 12

Batteries in a group



### Connection way -2

Capacity

38.88kWh - 116.64kWh

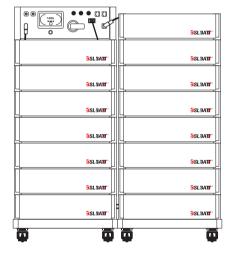
For each battery module

**Voltage** 

Max. 15

256.5V - 944.3V

Batteries in a group





















## **BSLBATT HV PACK**

Can be expanded according to your needs. And the simple, flexible combination saves you installation costs.





- Control box connect B+ to battery pack B+ using cable 35m².
- Control box BCOM connects to the BCOM IN battery pack using a 0.5m<sup>2</sup> 180mm communication cable.
- 2\*25m² connectors for the P+ and P- of the control box.

- ⊕ B+ and B- are connected between battery packs using cable 35m².
- The BCOM IN and BCOM OUT connections between battery packs use the 0.5m<sup>2</sup> 180mm communication cable.



High Voltage BMU				
Controller Working Voltage	80-1000 VDC			
System Operation Voltage	102.6-639.0 VDC			
Max. Continuous Charge Current	135A			
Max. Continuous Discharge Current	135A			
Self-consumption	<18W			
Dimension (W*D*H, MM)	580*713*170			
Weight	20kg			
Communication Protocol	CAN BUS (Baud rate @500Kb/s or @250Kb/s) /Modbus RTU(@9600b/s)			
Operation Life (Year)	15+			
Operation Temperature(°C)	-20~55			
Ingress Protection	IP20			









#### Commercial & Industrial (C&I)

- ✓ Agribusiness/Farming
- ✓ Oil & Gas
- ✓ Emergency Services
- ✓ Government Projects
- ✓ Local/Rural Businesses
- ✓ Manufacturing Plants
- ✓ Telecom/Data
- ✓ Infrastructure
- School Power Backup
- ✓ Rail/Transport



### **Applications**

- ✓ Peak Shaving
- ✓ Power Back-up
- ✓ Demand Response
- ✓ Expanded PV self-consumption
- ✓ Off-grid/On-grid systems

#### **Higher Energy Density**

 Each module utilizes a capacity of 7.7kWh, which is a higher energy density than a 5kWh battery of the same size.

#### **Higher Conversion Efficiency**

 Compared to LV systems, HV systems can reduce energy loss by lowering the current value with less energy loss.

#### **High Security**

 Using LiFePO4 as the storage core and multi-level control for expansion ensures the safety of each battery function.

#### **Compact Size Design**

 Each module is designed with a 3U rack battery to meet demanding space requirements.

#### **Fast Charging And Discharging**

 The HV Pack is capable of charging and discharging up to 0.5c, making it ideal for commercial and industrial loads.













## "Harnessing Energy, Elevating Lives."

## **BSL NEW ENERGY TECHNOLOGY CO., LTD**

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