

# 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



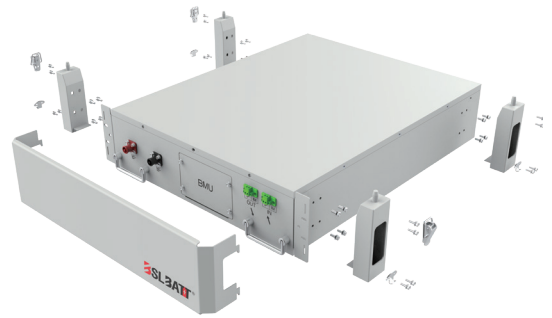
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Model	HV PACK 5	HV PACK 6	HV PACK 7	HV PACK 8	HV PACK 9	HV PACK 10
Battery Module	57.6V 135Ah 7.776kWh					
Rated Voltage(V)	288.0	345.6	403.2	460.8	518.4	576.0
Rated Capacity(Ah)	135	135	135	135	135	135
Cell Model(LFP-3.2V)(Ah)	135	135	135	135	135	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
Nominal Battery Capacity	38.88kWh	46.66kWh	54.43kWh	62.21kWh	69.98kWh	77.76kWh
Usable Battery Capacity	34.99kWh	41.99kWh	48.99kWh	55.99kWh	62.98kWh	69.98kWh
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
Rated DC Power(kW)	19.58	23.50	27.41	31.33	35.25	39.16
Maximum Charging Current(A)	120	120	120	120	120	120
Maximum Discharging Current(A)	120	120	120	120	120	120
Dimension(L*W*H)(MM)	568*713*1071	568*713*1226	568*713*1381	568*713*1536	568*713*1691	568*713*1846
Host Software Protocol	CAN BUS (Baud rate @250Kb/s)					
Operation Temperature Range	Charge: 0~55°C					
	Discharge: -20~55°C					
Storage Temperature	-10~40°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
Nominal Battery Capacity	85.5kWh	93.3kWh	101.08kWh	108.86kWh	116.64kWh
Usable Battery Capacity	76.95kWh	83.97kWh	90.97kWh	97.97kWh	104.97kWh
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
Rated DC Power(kW)	43.08	47.00	50.78	54.83	58.75
Maximum Charging Current(A)	120	120	120	120	120
Maximum Discharging Current(A)	120	120	120	120	120
Dimension(L*W*H)(MM)	568*713*2018	568*713*2168	1136*713*1226	1136*713*1381	1136*713*1536
Host Software Protocol	CAN BUS (Baud rate @250Kb/s)				
Operation Temperature Range	Charge: 0~55°C				
	Discharge: -20~55°C				
Storage Temperature	-10~40°C				
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# Feel Free To Expand As Needed.

Simple, flexible, cost-saving battery rack.



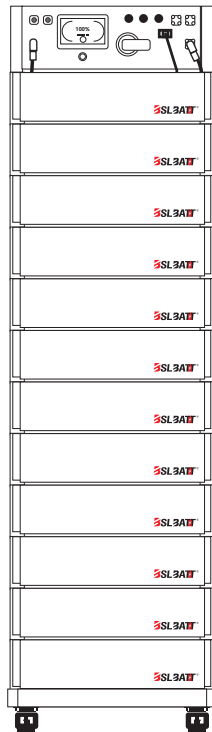
## Connection way -1

 **Capacity**  
38.88kWh - 93.3kWh

 **7.8 kWh**  
For each battery module


 **Voltage**  
256.5V - 766.8V

 **Max. 12**  
Batteries in a group



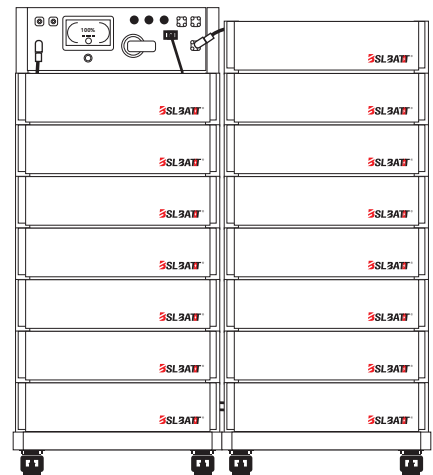
## Connection way -2

 **Capacity**  
38.88kWh - 116.64kWh

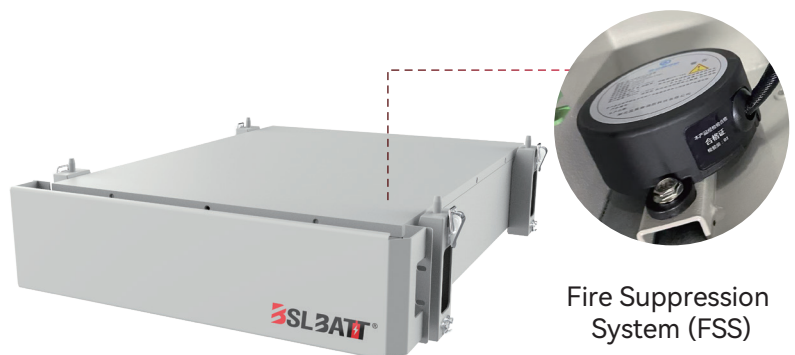
 **7.8 kWh**  
For each battery module

 **Voltage**  
256.5V - 944.3V

 **Max. 15**  
Batteries in a group



## COMPATIBLE INVERTERS



Fire Suppression System (FSS)

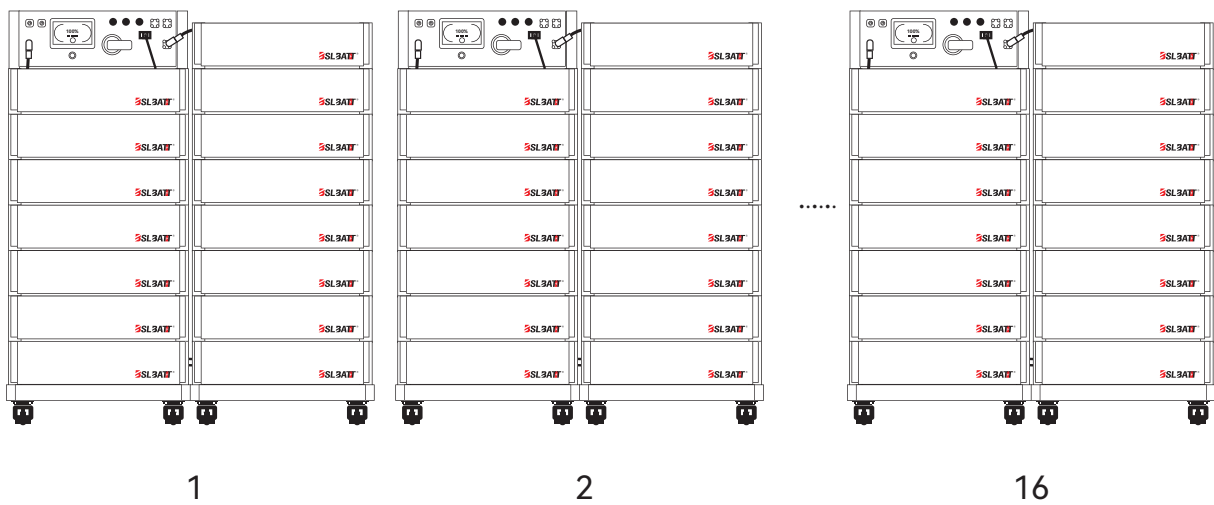


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Max 16 Groups in One Cluster



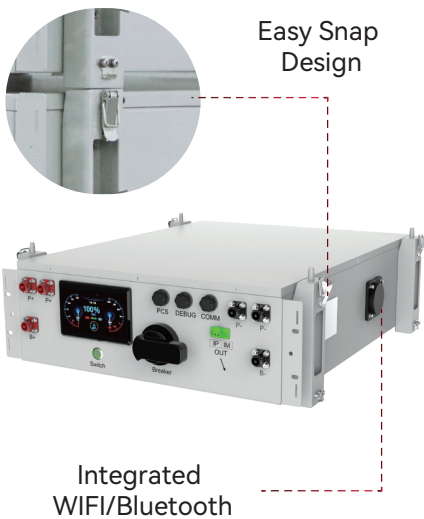
Max 16 Groups in One Cluster

# BSLBATT HV PACK

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



- 1 Control box connect B+ to battery pack B+ using cable 35m<sup>2</sup>.
- 2 Control box BCOM connects to the BCOM IN battery pack using a 0.5m<sup>2</sup> 180mm communication cable.
- 3 2\*25m<sup>2</sup> connectors for the P+ and P- of the control box.
- 4 B+ and B- are connected between battery packs using cable 35m<sup>2</sup>.
- 5 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



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### 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.

### Compact Size Design

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

### Higher Conversion Efficiency

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

### 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.

### High Security

- Using LiFePO<sub>4</sub> as the storage core and multi-level control for expansion ensures the safety of each battery function.



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**“Harnessing Energy, Elevating Lives.”**

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