BSLBATT®
Best Solution Lithium Battery

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 - 544 kWh

Support 5~14 packs

0.5 C

288 V ~ 806.4 V

inquiry@bsl-battery.com

Model	HV PACK 5	HV PACK 6	HV PACK 7	HV PACK 8	HV PACK 9
Battery Module	57.6V 135Ah 7.776kWh				
Rated Voltage(V)	288.0	345.6	403.2	460.8	518.4
Rated Capacity(Ah)	135	135	135	135	135
Cell Model(LFP-3.2V)(Ah)	135	135	135	135	135
System Configuration	90S1P	108S1P	126S1P	144S1P	162S1P
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
Nominal Energy(kWh)	38.88	46.66	54.43	62.21	69.98
Charge cut-off Voltage(V)	319.5	383.4	447.3	511.2	575.1
Discharge Cut-off Voltage(V)	256.5	307.8	359.1	410.4	461.7
Recommended Current(A)	68	68	68	68	68
Maximum Charging Current(A)	120	120	120	120	120
Maximum Discharging Current(A)	120	120	120	120	120
Dimension(L*W*H)(±5MM)	590*713*1118	590*713*1268	590*713*1418	590*713*1568	590*713*1718
Host Software Protocol	CAN BUS (Baud rate @250Kb/s)				
Operation Temperature Range	Charge: 0~55℃				
	Disharge: -20~55℃				
Storage Temperature	-10~40℃				
Cycle Life(25℃)	6000 cycles @80% DOD				
Protection Level	IP20				
Storage Humidity	10%RH ~90%RH				
Internal Impedance	≤1Ω				
Warranty	10 years				
Transportation	UN38.3				
Battery Life	≥15 years				
Weight(±3%)	Base: 18kg | Single Pack: 68kg | High voltage Box: 20kg				

Model	HV PACK 10	HV PACK 11	HV PACK 12	HV PACK 13	HV PACK 14
Battery Module	57.6V 135Ah 7.776kWh				
Rated Voltage(V)	576.0	633.6	691.2	746.8	806.4
Rated Capacity(Ah)	135	135	135	135	135
Cell Model(LFP-3.2V)(Ah)	135	135	135	135	135
System Configuration	180S1P	198S1P	216S1P	234S1P	252S1P
Battery Single Box Number	10 pack+ 1 control box	11 pack+ 1 control box	12 pack+ 1 control box	13 pack+ 1 control box	14 pack+ 1 control box
Nominal Energy(kWh)	77.76	85.5	93.3	101.08	108.86
Charge cut-off Voltage(V)	639.0	702.9	766.8	830.7	887.5
Discharge Cut-off Voltage(V)	513.0	564.3	615.6	666.9	712.5
Recommended Current(A)	68	68	68	68	68
Maximum Charging Current(A)	120	120	120	120	120
Maximum Discharging Current(A)	120	120	120	120	120
Dimension(L*W*H)(±5MM)	590*713*1868	590*713*2018	590*713*2168	1180*713*1268	1180*713*1418
Host Software Protocol	CAN BUS (Baud rate @250Kb/s)				
Operation Temperature Range	Charge: 0~55℃				
	Disharge: -20~55℃				
Storage Temperature	-10~40℃				
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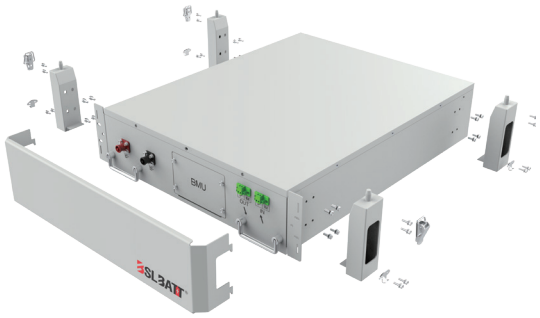
Feel Free To Expand As Needed.

Simple, flexible, cost-saving battery rack.



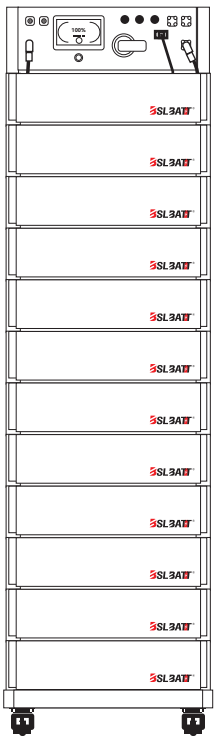
Connection way -1

Capacity
38.88kWh - 93.3kWh

7.8 kWh
For each battery module

Voltage
256.5V - 766.8V

Max. 12
Batteries in a group



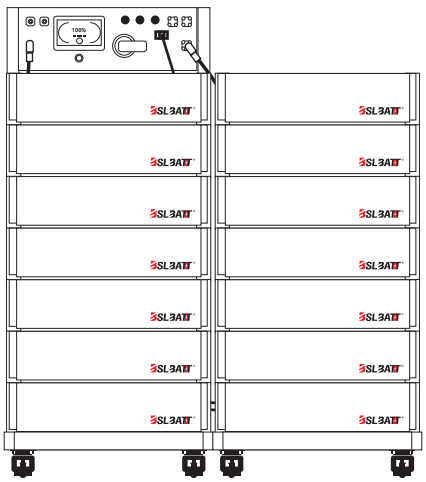
Connection way -2

Capacity
38.88kWh -108.86kWh

7.8 kWh
For each battery module

Voltage
256.5V - 887.5V

Max. 14
Batteries in a group



COMPATIBLE INVERTERS

ATESS · Deye · HYPONTECH · MEGAREVO · SAJ · GOODWE · Sol-Ark · solis inverters · SOLINTEG · Solplanet · SUN SYNK · FOX ESS

Fire Suppression System (FSS)

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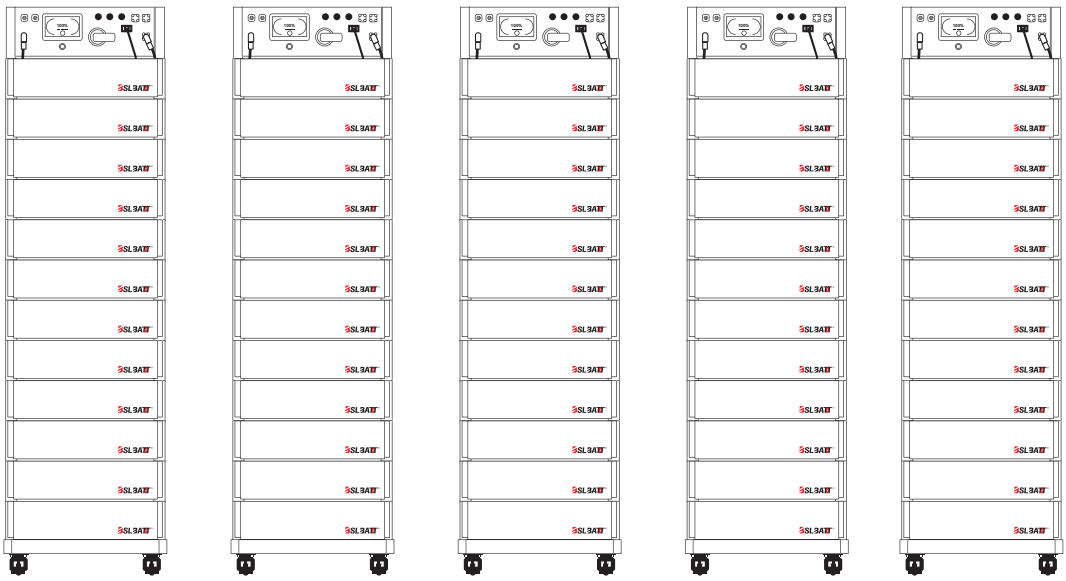
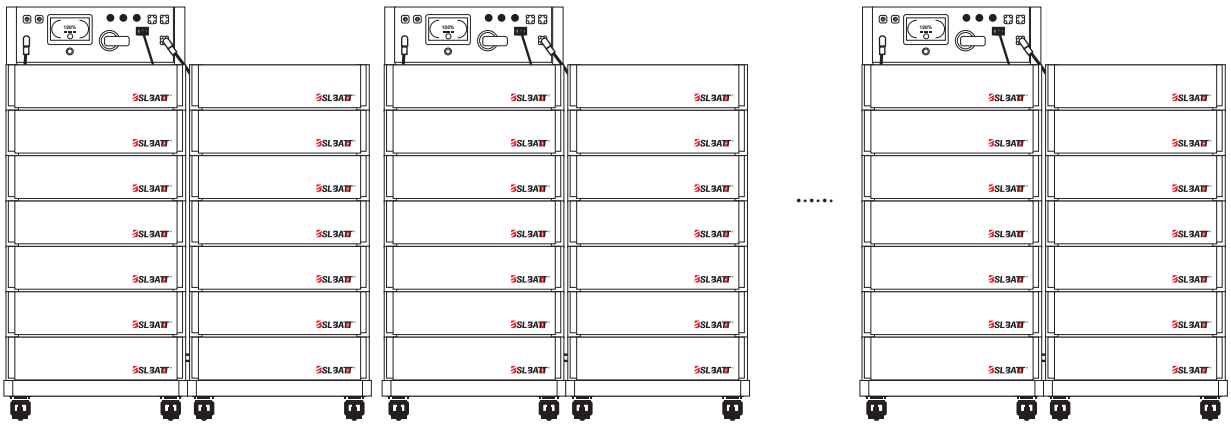


1 2 3 4 5

Max 5 Groups in One Cluster



1 2 5

Max 5 Groups in One Cluster

BSLBATT HV PACK

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

❶ Control box connect B+ to battery pack B+ using cable 35m².

❷ Control box BCOM connects to the BCOM IN battery pack using a 0.5m² 180mm communication cable.

❸ 2*25m² connectors for the P+ and P- of the control box.

❹ B+ and B- are connected between battery packs using cable 35m².

❺ The BCOM IN and BCOM OUT connections between battery packs use the 0.5m² 180mm communication cable.

Easy Snap Design

Integrated WIFI/Bluetooth

High Voltage BCU	
Controller Working Voltage	DC 24V
System Operation Voltage	DC 200V-1000V
Max. Continuous Charge Current	120A
Max. Continuous Discharge Current	120A
Self-consumption	<18W
Dimension (W*D*H, MM)	590*645*180
Weight	20kg
Communication Protocol	CAN BUS (Baud rate @500Kb/s or @250Kb/s) /Modbus RTU(@9600b/s)
Operation Temperature(℃)	-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 desianed 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 LiFePO4 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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