





## Integrated Outdoor Battery Energy Storage Cabinet

### Design Highlights



1. All-in-One and highly integrated
2. Modular cabinet for flexible configuration  
Max up to 60 Nos in Parallel
3. Support DC coupling with solar
4. Separate Air-Duct design Pack  
double bolt insulating installation
5. Max 1C charge and discharge
6. Plug & Play for ready to use



Key Parameters	Capacity: 38.4kWh~76.8kWh		
		Capacity: 38.4kWh~76.8kWh Rated Power: 30kW, 60kW Grid Voltage: AC400V 50Hz Size: 1350mm*1050mm*2100mm	Capacity: 71kWh ~ 107kWh Rated Power: 30kW, 50kW Grid Voltage: AC400V 50Hz Size: 1233mm*1304mm*2093mm
 <b>High Reliability</b> 4 Layers Safety Design More reliable.	 <b>Multi Energy Accessing</b> Solar, diesel generator, wind turbine, etc.	 <b>High efficient</b> Response time<200ms.	 <b>Easy &amp; quick O&amp;M</b> Modularized design Intelligent remote monitoring

### Multi-Function

**BESS** is a compact Plug-and-play batter energy storage system ,easily to be transported,installed and maintained.It is an All-in-One system integrated with battery modules,intelligent Power Conversion System(PCS) , Battery Management System(BMS),automatic fire control system ,temperature control system(TCS) , Intelligent Monitoring System(IMS) and photovoltaic controller(MPPT).

The cabinet features EV grade LiFePo4 batteries known for their exceptional performance,easily adaptable to various power sources for peak-load shifting, emergency backup, cost savings through Time-of-Use tariffs, and seamless integration with renewable energy sources.It is the preferred choice for commercial districts, shopping malls, communities and charging stations.

**BESS** adopts a revolutionar four-layers safety design, capable of AC or DC coupling with photovoltaic systems.Multiple battery cabinets can be connected in parallel to each other to provide a large-scale energy storage solution.The front-end of the system can be connected to solar system,and the back-end of the system can be connected to DC charging piles and forming an integrated solar +storage + charging project.



#### Factory/ Office / Park/Community

Arbitraging from the TOU tariff, peak- load shifting, electricity cost saving



#### EV Charging Station

Solar+storage+charging station to improve the solar utilization



#### Microgrid

Multi-energy integration with solar, diesel generator, wind turbine, etc.



#### Distribution Network Operator (DNO)

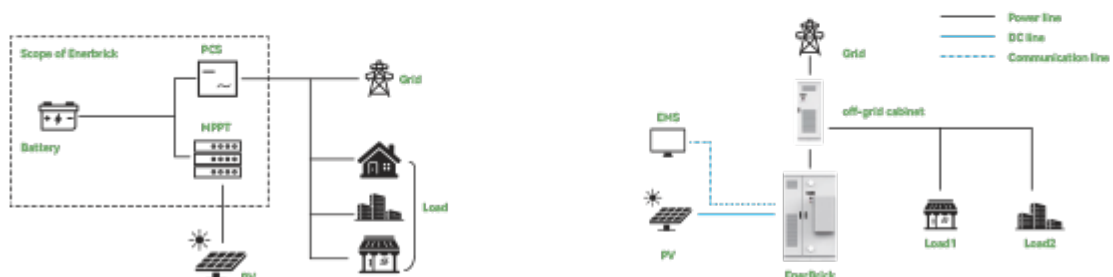
Grid ancillary service, VPP



#### Plaza/Hospital/Hotel

Peak-Shaving,Backup Power, Demand Side Response, Time-Of-use Tariff Arbitrage

### TOPOLOGY MAP



## PRODUCT PARAMETERS

Model							
	30P	60P	30P	50P	30P	50P	100P
<b>Battery Parameters</b>							
Battery cell type & capacity	LiFePO4 - 100Ah		LiFePO4 - 280Ah		LiFePO4 - 280Ah		
Module model	1P24S		IP20S		IP20S		
Battery storage capacity range	38.4kWh~76.8kWh (extendable 230kwh)		71.6kWh ~ 107.52kWh		125kWh~215kWh	125kWh~215kWh	215kWh
<b>AC On-Grid Side Parameters</b>							
Grid connection type	3P4W+PE		3P4W+PE		3P4W+PE		
Rated power	30kVA	60kVA	30kW	50kW	30kW	50kW	100kW
Maximum apparent power	33kVA	66kVA	33kVA	60kVA	33kW	60kW	110kW
Rated grid voltage	AC 400V						
Grid voltage range	±15%		±15%		±15%		
Frequency range	50/60(±2.5)Hz						
Rated AC output current	43A	43A	43A	72A	43A	72A	144A
Power factor	0.8 (Leading) ~ 0.8 (Lagging)						
Harmonics	≤3% (at rated power)						
<b>AC off-grid Side Parameters</b>							
Grid connection type	3P4W+PE		3P4W+PE		3P4W+PE		
Rated output power	30kW	60kW	30kW	50kW	30kW	50kW	100kW
Overload capacity	110%-120%,10mins;120%-150%,200ms		110% 10mins;120% 1min		110% 10mins;120% 1min		
Maximum Nos. of parallel	6	3	6		6	6	3
<b>General Parameters</b>							
Dimensions (W*H*D)	1350*2100* 1050mm		1233mm*2093mm*1304mm		1686mm*2093mm*1354mm		
Maximum weight	1600kg		1660kg		2500kg		
Degree of protection	IP55 (Battery Room) IP54 (Electrical Room)						
Cooling method type	Battery Cabinet (air conditioner) Electrical Cabinet (forced air cooling)						
Firefighting system	detectors+ Novec1230		detectors+ Novec1230 +water spraying		detectors+Novec1230 +water spraying		
Anti-corrosion grade	C3						
Relative humidity	0-95%(non-condensing)						
Altitude**	<2000m						
Operating temperature*	-20°C ~ 50°C						
Noise level	≤75dB						
Communication interface	RS485, Ethernet						
Communication protocol	Modbus RTU, Modbus TCP/ IP						
Product standard warranty	5years,3500cycles (1C,90%DOD,EOL:70%)		5years,6000cycles (0.5C,90%DOD,EOL:70%)		5years,6000cycles (0.5C,90%DOD,EOL:70%)		
<b>PV Side Parameters (Optional)</b>							
Maximum PV input power	30kW/60kW	30kW/60kW /90kW/120kW	30kW/60kW	30kW/60kW/100kW	30kW/60kW	30kW/60kW/90kW/120kW	
MPPT voltage range	200V~850V		200V~850V		200V~850V		
Number of MPPTs			1/1	1/1/2	1/1	1/1/2	
Number of PV inputs	1/ 1	1/ 1/2	1/1	1/1/2	1/1	1/1/2	
Maximum input current	100A/200A	100A/200A/400A	100A/200A	100A/200A/300A/400A	100A/200A	100A/200A/300A/400A	
<b>Certifications</b>							
Enerbrick System	CE(IEC61000,IEC62477), IEC62109,IEC62619,CEI021, CEI016, VDE2510, UKCA, UN3480, MSDS						
Battery Cell	IEC 62619, UL1973, UL1642, UL9540A;		IEC 62619, UL1973, UL1642, UL9540A;				
Battery Pack	IEC 62619 UN38.3		IEC 62619, UN38.3;				
PCS	G99,EN50549,AS4777.2,VDE4105		G99, VDE4105, EN50549, AS/NZS 4777, CE(IEC61000, IEC62477) ,				

Note: Product specifications are subject to change without any prior notice as per regular modifications made by company.

\* The system will be derated when the ambient temperature exceeds 45°C .

\*\* The system will be derated when the altitude is between 2000 and 3000m