

Deye Small-Scale C&I ESS Solution

Deye BOS-W



*The simple bracket contains a high-voltage box and can be stacked up to 8 layers

- ◆ **Convenient**

Quick installation standard of 19-inch embedded designed module is comfortable for installation and maintenance.

- ◆ **Safe and reliable**

Cathode material is made from LiFePO₄ with safety performance and long cycle life, The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.

- ◆ **Intelligent BMS**

It has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The system can automatically manage charge and discharge state and balance current and voltage of each cell.

- ◆ **Eco-friendly**

The whole module is non-toxic, non-polluting and environmentally friendly.

- ◆ **Flexible configuration**

Multiple battery modules can be in parallel for expanding capacity and power. Support USB upgrade, remote upgrade(Compatible with Deye inverter).

- ◆ **Wide temperature**

Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

Technical Data



Deye BOS-W

Main Parameter

Cell Chemistry	LiFePO ₄			
Module Energy (kWh)	5.12			
Module Nominal Voltage (V)	51.2			
Module Capacity (Ah)	100			
Battery Module Number	BOS-W25	BOS-W40	BOS-W60	BOS-W85
Battery Module Qty In Series (Optional)	5 (Min)	8	12	17 (Max)
System Nominal Voltage (V)	256	409.6	614.4	870.4
System Operating Voltage (V)	220~292	352~467.2	528~700.8	748~992.8
System Energy (kWh)	25.6	40.96	61.44	87.04
System Usable Energy (kWh) ¹	23.04	36.86	55.3	78.33
Rated DC Power	25.6	40.96	55.3	87.04
Charge/Discharge ² Current (A)	Recommend	50		
	Nominal	100		
	Peak Discharge (2 mins, 25°C)	125		
Working Temperature (°C)	Charge: 0~55/Discharge: -20~55			
Status Indicator	Yellow: Battery High Voltage Power On Red: Battery System Alarm			
Communication Port	CAN2.0/RS485			
Humidity	5%~85%RH			
Altitude	≤3000m			
IP Rating of Enclosure	IP20			
Dimension (W×D×H,mm)	530×602×1629		530×602×2219	1060×602×1629
Weight Approximate (kg)	290	428	622	883
Installation Location	Rack Mounting			
Storage Temperature (°C)	0~35			
Recommend Depth of Discharge	90%			
Cycle Life	25±2°C, 0.5C/0.5C, EOL70%≥6000			
Warranty ³	5 years			
Certification	UN38.3			

1. DC Usable Energy, test conditions: 90% DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

2. The current is affected by temperature and SOC.

3. The warranty is due whichever reached first of warranty period or life cycle power.

4. Made in China.



System Components

Deye BOS-W

BOS-W-PDU-2

High Voltage Battery cluster control box conforming to European or British Standards

Operating Voltage
Nominal Charge/Discharge Current
Max.Charge/Discharge Current
DC Input Rating
Operating Temperature Range
Ingress Protection
Dimension (W×D×H)
Weight Approximate

200~1000Vdc
100A
120A
12±2%V/4.15A
-20~65°C
IP20
440×570×150mm
19kg



High voltage box Standard configuration:

- ①120 ohm terminal resistance*1
- ②250mm communication cable*1
- ③140mm power cable*1
- ④2.5m power cable*1
- ⑤EPCable2.0*1
(Standard 2-meter power cable connected to the positive pole of the external PCS)
- ⑥ENCable2.0*1
(Standard 2-meter power cable connected to the negative pole of the external PCS)
- ⑦1000mm communication cable between two battery racks*2
- ⑧1000mm power cable between the two battery racks*2
- ⑨140 mm ground wire*1
- ⑩Simple mounting bracket*4 (Contains high-voltage boxes, stacked up to 8 layers)
- ⑪Network cable 2 meters*1



BOS-W-Pack5.1

5.12 kwh battery module

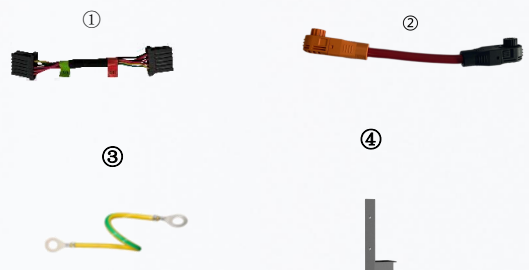
Battery Type
Nominal Voltage
Rated Capacity
Rated Energy
Nominal Charge/Discharge Current
Peak.Discharge Current
Charge Temperature
Discharge Temperature
Storage Temperature
Ingress Protection
Dimension (W×D×H)
Weight Approximate

LiFePO₄(LFP)
51.2Vdc
100Ah
5.12kWh
100A
120A
0~55°C
-20°C~55°C
0°C~35°C
IP20
440×585×133mm
46kg



Battery module Standard configuration:

- ①160mm communication cable*1
- ②200mm power cable*1
- ③140 mm ground wire*1
- ④Simple mounting bracket*4 (Contains high-voltage boxes, stacked up to 8 layers)



System Components

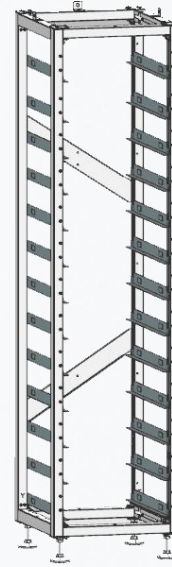
Deye BOS-W

3U-HRACK(Optional)

Standard 19inch rack, caninstall 12 pcs batteries and 1 pcs High Voltage Battery cluster control box

Dimension (W×D×H)
Weight Approximate

530×602×2219mm
51kg

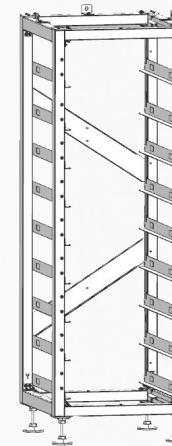


3U-LRACK(Optional)

Standard 19inch rack, caninstall 8 pcs batteries and 1 pcs High Voltage Battery cluster control box

Dimension (W×D×H)
Weight Approximate

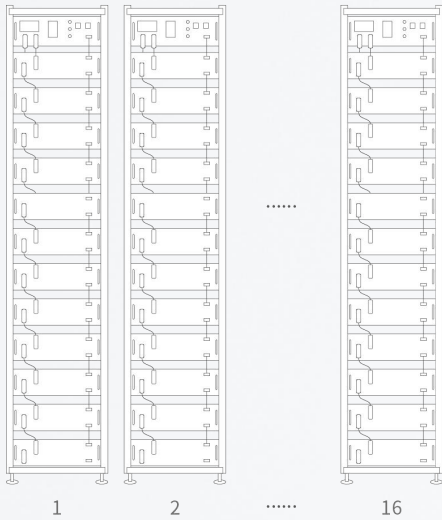
530×602×1629mm
41kg



Typical Application Scenarios

Deye BOS-W

BOS-W60

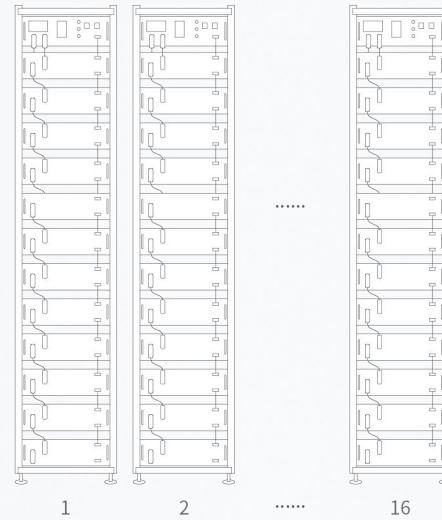


Maximum support for 16 racks of batteries in parallel

Inverter 50kW



BOS-W60



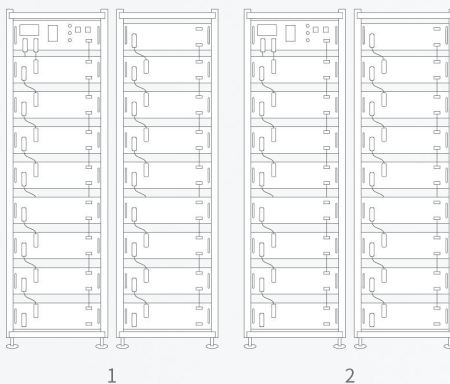
Maximum support for 10 inverters in AC parallel operation

Inverter 50kW



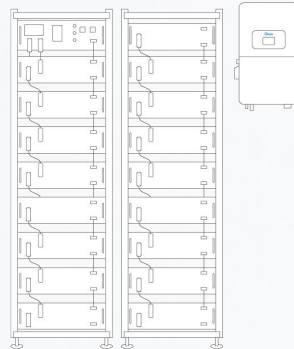
× 10

BOS-W85

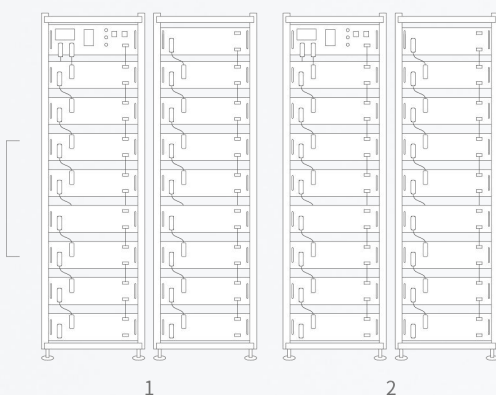


Maximum support for 16 clusters of batteries in parallel

Inverter 80kW

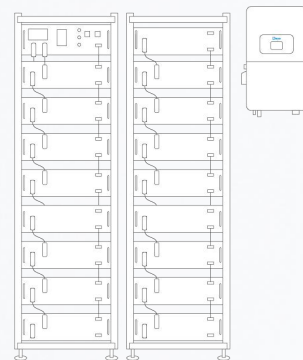


BOS-W85



Maximum support for 10 inverters in AC parallel operation

Inverter 80kW



× 10