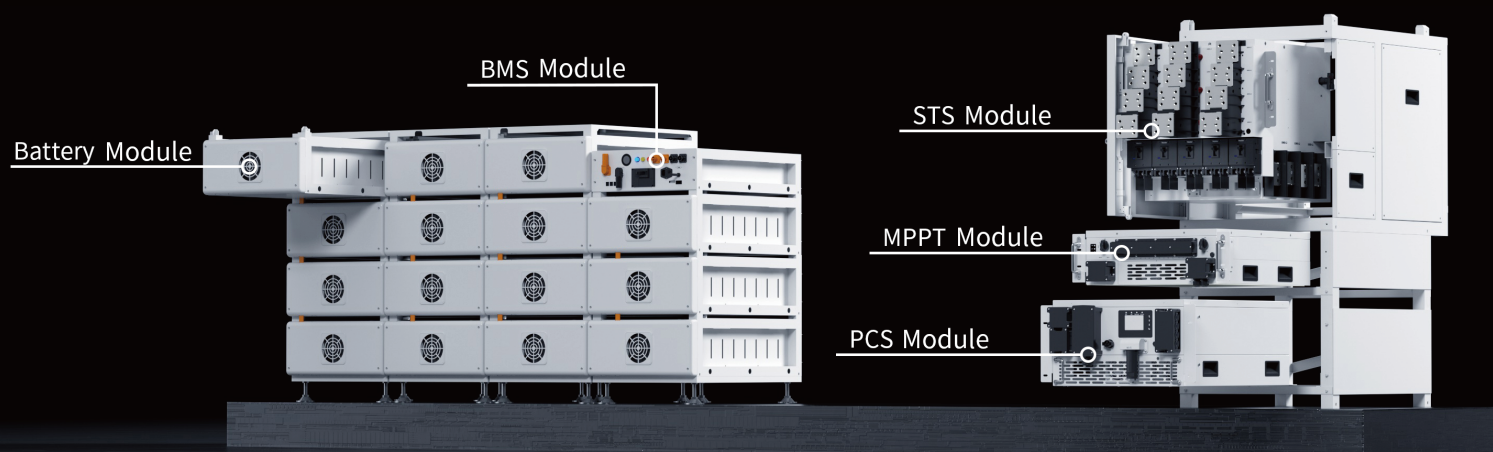


100KW-2.5MW C&I ESS SOLUTION

PCS+MPPT+STS

「BOS-B BATTERY」



Fast & Reliable Switching

- **Seamless Switching :**
STS module can switch between on-grid, off-grid, and diesel modes in <10ms.
- **Independent High-Power Paths :**
Diesel, load, and grid connections support 500kW/625kW each.



Advanced Energy Storage

- **Extended Backup :**
Up to 32 hours of backup with 16 racks per PCS.
- **Smart Balancing:**
Independent BMS ensures optimal charge distribution and extends battery life.



Intelligent Control

- **Integrated EMS :**
Supports zero-export and time-of-use charging/discharging.
- **Easy Management:**
Color touchscreen for local or remote cloud adjustments.



Efficient PV Integration

- **Wide MPPT Range :**
1000V PV system with 180-850V MPPT range.
- **High PV Input :**
Supports up to 200kW PV input with 8 MPPT channels (40A each).



Rugged & Reliable

- **IP65 Protection :**
PCS and MPPT modules feature IP65-rated protection.
- **Overload & Peak Power Support :**
PCS supports 110% overload and peak power up to 170%.
- **LFP battery:**
BOS-B's robust design enhances the system's reliability.

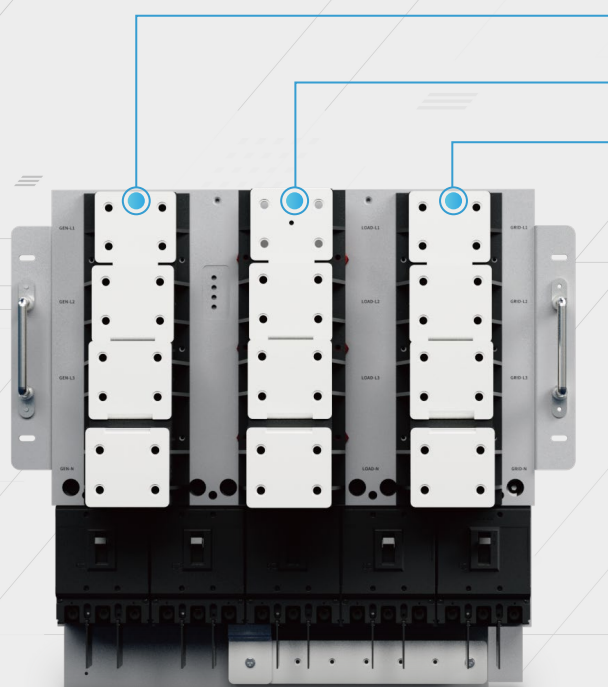


High Performance & Scalability

- **Powerful Capacity :**
PCS offers 100kW/125kW, expandable up to 2MW/2.5MW with 20 units in parallel.
- **Large Energy Storage:**
BOS-B battery delivers 215kWh per cluster, supporting up to 16 packs per PCS.
- **High Efficiency :**
PCS reaches 98.5% efficiency, MPPT exceeds 99%.

STS Module

Smoothly switch between on-grid, off-grid, and diesel generator modes with a switching time of less than 10ms. Each diesel, load, and grid connection is independent, with each path supporting 500kW. Only one STS is needed for five 100kW PCS units.



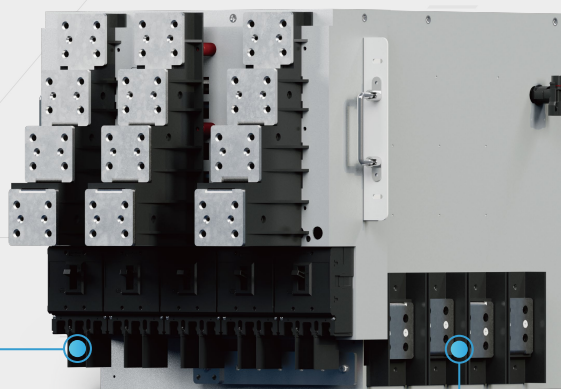
GEN Port

Load Port

Grid Port

500/650kW STS Module

- ◎ Switching capacity of **500/650kW**.
- ◎ One STS can be paired with **five** PCS units.
- ◎ Enables smooth switching between on-grid, off-grid, and diesel generator modes.
- ◎ Switching time of less than **10ms**.



PCS Connection Point

STS AC Parallel Port

MPPT Module & PCS Module

MPPT Module

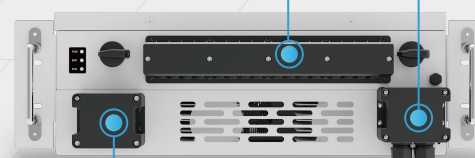
- ◎ Max. PV input of **200kW**.
- ◎ Supports **20A** high-current modules.

100kW/125kW PCS Module

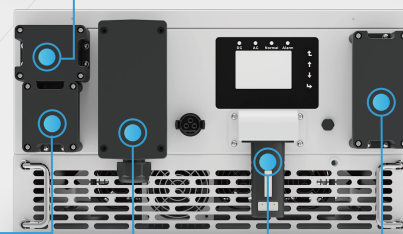
- ◎ Max. charge and discharge current **220A**.
- ◎ Max. efficiency of **98.5%**.
- ◎ Supports up to **20** units in parallel.
- ◎ System rated power up to **2.5MW**.
- ◎ Eliminating the need for additional EMS.
- ◎ Integrates zero-export and time-of-use control functions.
- ◎ Supports instantaneous peak power up to **170%** of rated power.

PV Input
8 MPPT

CAN/RS485



DC Port



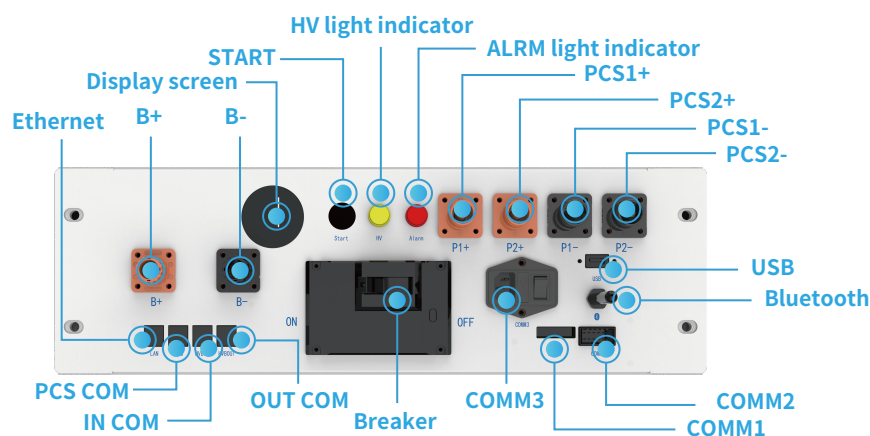
Battery Port

CT/Meter/BMS/
MPPT/Parallel

Data Logger

AC Output

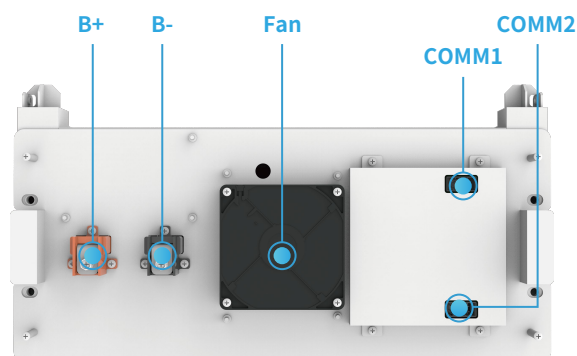
Model	BOS-B-PDU-2
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	168A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	795.9×526×274.2(W×H×D),123kg



- ◎ Ethernet: Features not yet developed.
- ◎ PCS COM: PCS COM battery communication terminal: used to output battery information to the inverter.
- ◎ IN COM: Connection position with previous BOS-B-PDU-2 communication OUT COM.
- ◎ OUT COM: Connection position with next BOS-B-PDU-2 communication IN COM.
- ◎ Breaker: It is used to manually control the connection between the battery rack and external devices.

- ◎ COMM3: The product must be connected to the auxiliary power input AC200~240V-3A-50~60Hz when used.
- ◎ COMM1: Emergency power-off triggered the interface.
- ◎ COMM2: Communicative connection with the first battery module; and providing 12VDC power for the first battery module.
- ◎ Bluetooth: The mobile APP connects to the data acquisition rod of the energy storage system.
- ◎ B+: Battery common positive connection position (orange).
- ◎ B-: Battery common negative connection position (black).
- Display screen: Display SOC and fault codes.
- START: A start switch of 12VDC power inside the high-voltage control box.
- ◎ HV light indicator: High-voltage hazard indicator (yellow).
- ALRM light indicator: Battery system fault alarm indicator (red)Y.
- ◎ PCS1+: First PCS positive connection position (orange).
- ◎ PCS2+: Second PCS positive terminal connection position (orange).
- ◎ PCS1-: First PCS negative connection position (black).
- ◎ PCS2-: Second PCS negative connection position (black).
- ◎ USB: BMS upgrade port and storage expansion port.

Model	BOS-B-Pack14.3
Nominal Capacity	280Ah
Nominal Energy	14.3kWh
Nominal Voltage	51.2Vdc
Nominal Charge/Discharge Current	168A
Ingress Protection	IP20
Operating Temperature(Charge)	0~55°C
Operating Temperature(Discharge)	-20~55°C
Storage Temperature	0~35°C
Details	788.6×526×167.2(W×H×D),32kg



- ◎ B+: Battery module positive pole (orange)
- ◎ B-: Battery module negative pole (black)
- ◎ Fan: Ventilation and heat dissipation.
- ◎ COMM1: Connection position of battery module communication and power supply input
- ◎ COMM2: Connection position of battery module communication and power supply output

PCS Model	SUN-100K-PCSL01HP3	SUN-125K-PCSL01HP3
Battery Data		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	630-1000	
Max. Charging Current (A)	175	220
Max. Discharging Current (A)	175	220
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	1	
AC Input/Output Data		
Rated AC Input/Output Active Power (kW)	100	125
Max. AC Input/Output Apparent Power (kVA)	110	125
Rated AC Input/Output Current (A)	151.6/145	189.4/181.2
Max. AC Input/Output Current (A)	166.7/159.5	189.4/181.2
Rated Input/Output Voltage/Range(V)	220/380, 230/400 0.85Un-1.1Un	
Grid Connection Form	3L+N+PE	
Rated Input/Output Grid Frequency/Range	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz	
Power Factor Adjustment Range	-1~1	
Total Current Harmonic Distortion THDi	<3% (of nominal power)	
DC Injection Current	<0.5% In	
Efficiency		
Max. Efficiency	98.5%	
Euro Efficiency	97.8%	
MPPT Efficiency	>99%	
MPPT Module		
SUN-MPPT-L01-EU-AM8		
PV String Input Data		
Max. PV Input Power (kW)	200	
Max. PV Input Voltage (V)	1000	
Start-up Voltage (V)	200	
MPPT Voltage Range (V)	180-850	
Full Load MPPT Voltage Range (V)	450-850	
Rated PV Input Voltage (V)	600	
Max. Operating PV Input Current (A)	40+40+40+40+40+40+40+40	
Max. Input Short-Circuit Current (A)	60+60+60+60+60+60+60+60	
No. of MPP Trackers	8	
Efficiency		
Max. Efficiency	>99%	
MPPT Efficiency	>99.9%	

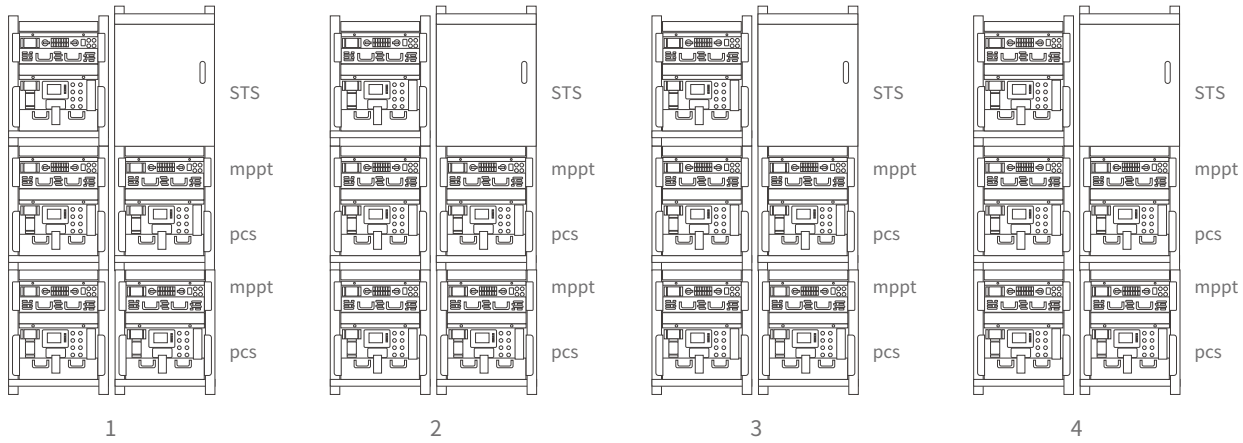
STS Module		SUN-ST500L	
Grid Side Data			
Rated AC Input/Output Active Power （kW）	500		
Rated AC Input/Output Current （A）	725		
Rated Input/Output Voltage(V)	220/380, 230/400 (three phase)		
Grid Connection Form	3L/N/PE		
Rated Input/Output Grid Frequency	50Hz/60Hz		
Load Side Data			
Rated Output Active Power （kW）	500		
Rated Output Current （A）	725		
Rated Output Voltage(V)	220/380, 230/400 (three phase)		
Grid Connection Form	3L/N/PE		
Rated Output Grid Frequency	50Hz/60Hz		
GEN Side Data			
Rated AC Input Active Power （kW）	500		
Rated AC Input Current （A）	725		
Rated Input Voltage(V)	220/380, 230/400 (three phase)		
Grid Connection Form	3L/N/PE		
Rated Input Grid Frequency	50Hz/60Hz		
Equipment Protection			
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level		
Surge Protection Level	TYPE II(DC), TYPE II(AC)		
Interface			
LCD/LED display	LCD		
Communication Interface	WIFI, RS485, CAN, Meter		
General Data			
Off grid switching time	<10ms		
Operating Temperature Range(°C)	-25°Cto +60°C,>45°C Derating		
Permissible Ambient Humidity	0-95%		
Permissible Altitude	4000m		
Ingress Protection(IP) Rating	IP 65(MPPT Module)	IP 65(PCS Module)	IP 20(STS Module)
Cabinet Size(W×H×D)[mm]	543×197.8×700(MPPT Module)	543×310×775(PCS Module)	543×575×866(STS Module)
Inverter Topology	Non-Isolated		
Over Voltage Category	OVC II(DC), OVC III(AC)		
Type of Cooling	Intelligent Air Cooling		
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy		
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105		
Safety/EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		



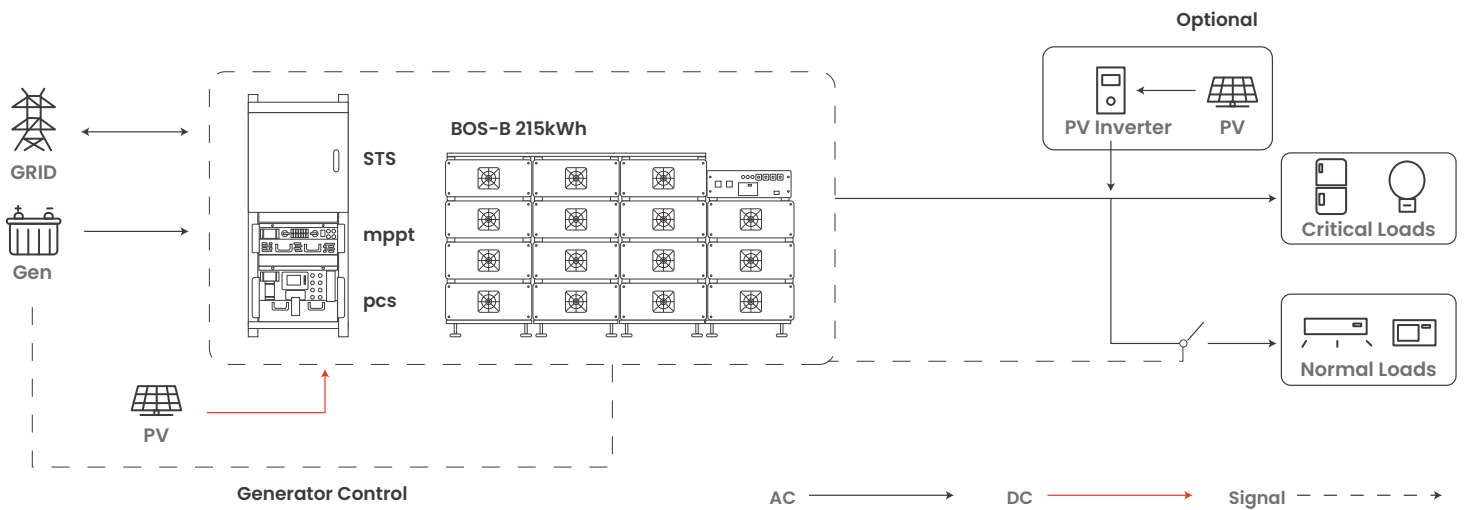
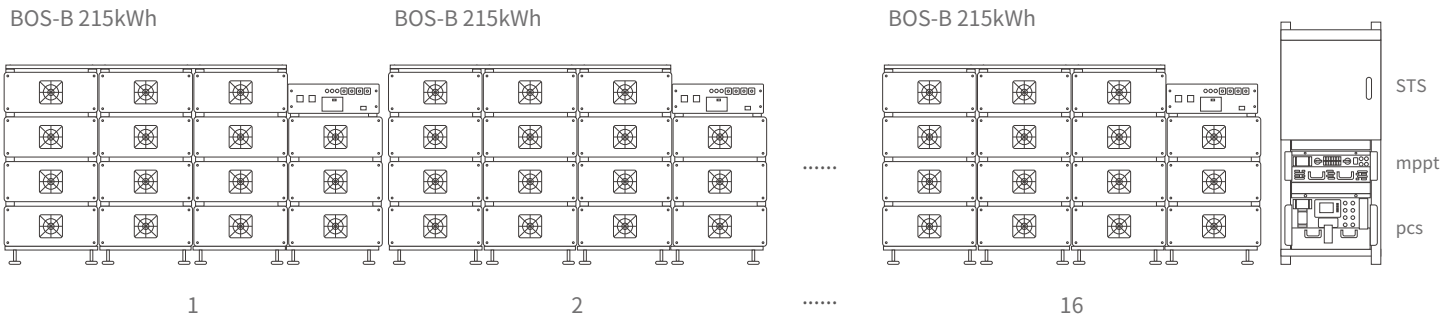
Model		BOS-B
Main Parameter		
Battery Module Energy (kWh)		14.3
Battery Module Nominal Voltage (V)		51.2
Battery Module Capacity (Ah)		280
Module Weight Approximate (kg)		122
Battery Module Qty In Series (Optional)		15
Scalability		5 ~ 15
System Nominal Voltage (V)		768
System Energy (kWh)		214.5
System Usable Energy (kWh)		193.05
Charge/Discharge Current (A)	Recommend	140
	Max	168
Other Parameter		
Operating Temperature (°C)		discharge : -20 ~ 55 charge : 0 ~ 55
Storage Temperature (°C)		0 ~ 35
Thermal Management		Smart fan cooling
LCD Display		SOC / Fault Code
Status Indicator		Yellow : Battery High Voltage Power On Red : Battery System Alarm
Communication Port		TCP / RS485 / CAN
Communication With BMS		CAN
Humidity		5% ~ 85%
Altitude		≤3000m
IP Rating of Enclosure		IP20
Noise (dB)		TBD
System Dimension (W × H × D, mm)		2150 × 1136 × 800
System Weight Approximate (kg)		1850
Installation Location		Rack Mounted
Recommend Depth of Discharge		90%
Cycle Life		25±2°C, 0.5C / 0.5C, EOL70%≥6000
Warranty Period		10 years
Certification		CE / IEC62619 / IEC62040 / UN38.3

Typical Application Scenarios

One STS module can be paired with five PCS module.



Maximum support for 16 racks of batteries in parallel



Deye Cloud

All-in-one Energy & Device Management Platform



Unlock Significant Savings



Individual Add-On for Dynamic Tariff



Intelligent Charging/Discharging Strategies



Tailored Solution to Deye Devices



Real-time Equipment Monitoring



Smarten Up Your Home Energy



Download Deye Cloud APP to join us!

Embrace a seamless, effortless energy experience that's both eco-friendly and budget-friendly with our intelligent assistant



All in One

Smarter home energy and device management



Cloud-edge Collaboration

Faster and more efficient data processing



Accelerated Connectivity

Optimized for speed and performance



Advanced Smart Energy

A smarter way to manage your electricity bills