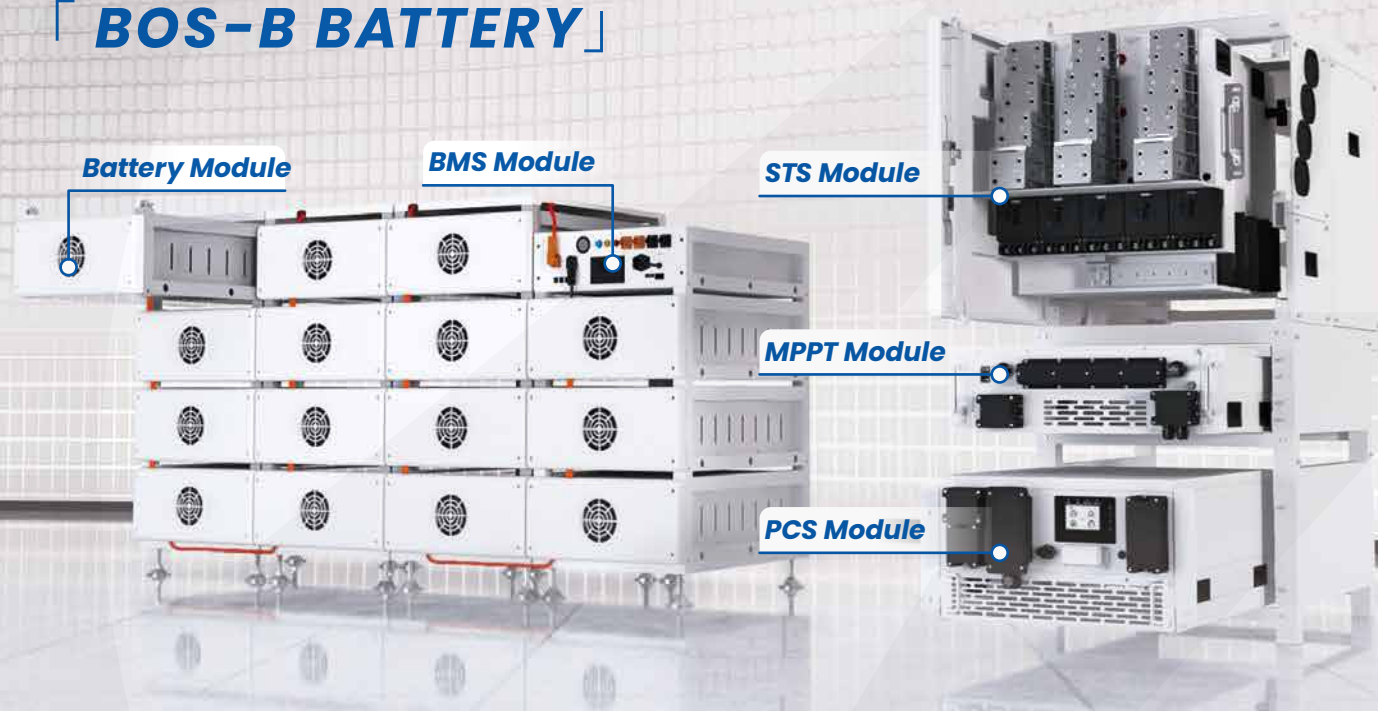


100KW-2.5MW C&I ESS SOLUTION

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 1000kW.



Advanced Energy Storage

- **Extended Backup:**
Up to 10 hours of backup with 10 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 1000V MPPT range.
- **High PV Input:**
Maximum 10kWp PV module connection with 10 MPPT channels, 10A per MPPT.



Rugged & Reliable

- **IP Protection:**
PCS and MPPT modules feature IP54-rated protection.
- **Peak Power Support:**
PCS supports and peak power up to 1000kW.
- **LFP Battery:**
BOS-B's robust design enhances the system's reliability.



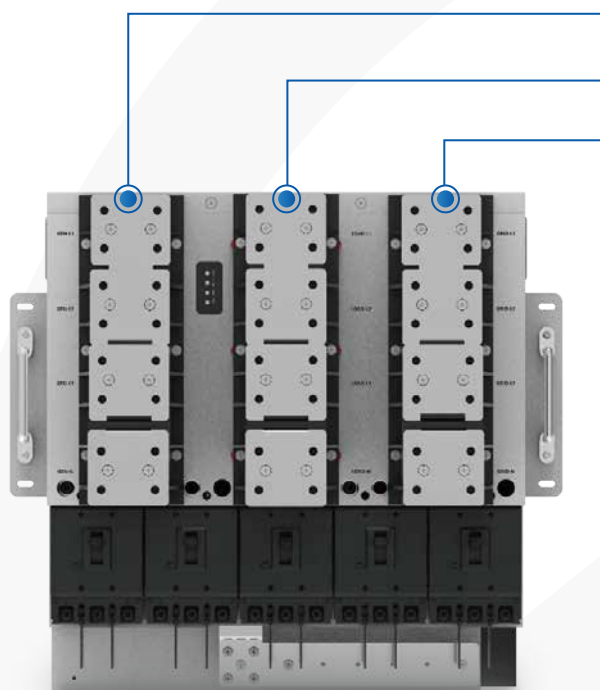
High Performance & Scalability

- **Powerful Capacity:**
PCS offers 100kW/100kW, expandable up to 2.5MW.
- **Large Energy Storage:**
BOS-B battery delivers 10kWh per cluster, supporting up to 10 racks per PCS.
- **High Efficiency:**
PCS reaches 98% efficiency, MPPT exceeds 99%.



STS Module

Smoothly switch between on-grid, off-grid, and diesel generator modes with a switching time of less than 30 ms. Each diesel, load, and grid connection is independent, with each path supporting 500kW. One STS module can connect to five 100kW PCS modules or four 125kW PCS modules.



GEN Port

Load Port

Grid Port

STS Module (500kW)

- ◎ Switching capacity of **500 kW**.
- ◎ Enables smooth switching between on-grid, off-grid, and diesel generator modes.
- ◎ Switching time of less than **30ms**.



PCS Connection Point

STS AC Parallel Port

MPPT Module & PCS Module

MPPT Module (MPP Trackers)

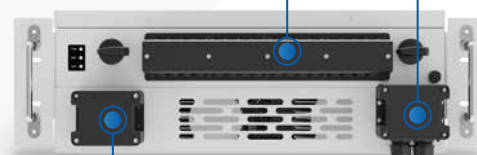
- ◎ Maximum 200kWp PV module connection with MPPT channels, **40A** per MPPT.

PCS Module (100kW/125kW)

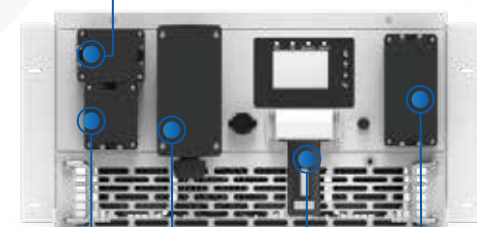
- ◎ **175A/220A** charge and discharge current.
- ◎ Maximum efficiency of **98.5%**.
- ◎ System rated power up to **2.5MW**.
- ◎ Supports instantaneous peak power up to 170% of rated power.
- ◎ Integrates zero-export and time-of-use control functions.
- ◎ Eliminating the need for additional EMS.

PV Input
MPPT

CAN/RS



DC Port



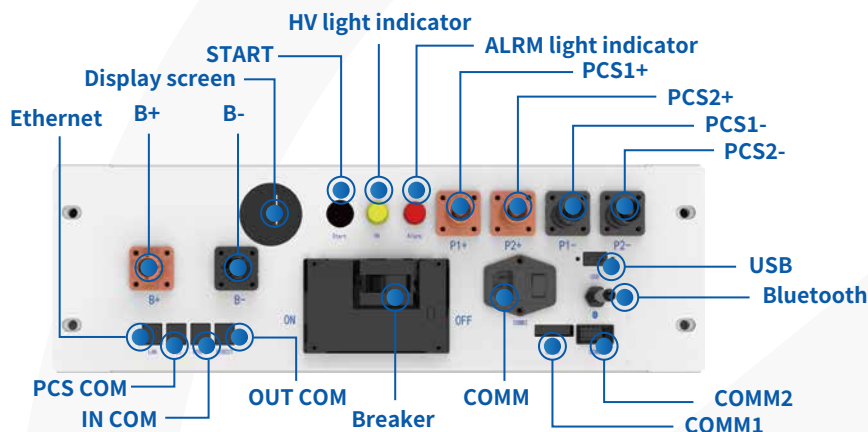
Battery Port

CT/Meter/BMS/
MPPT/Parallel

Data Logger

AC Output

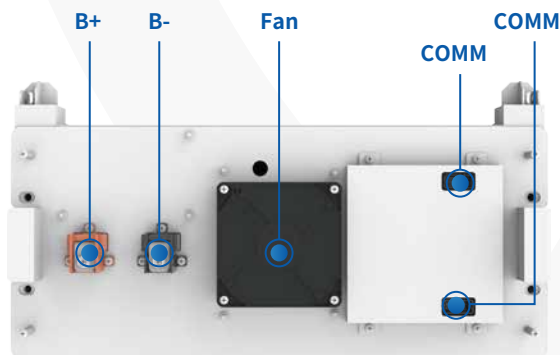
Model	BOS-B-PDU-2
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	168A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	795.9x526x274.2(W*H*D),123kg



- ◎ 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.

- ◎ COMM :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)
- ◎ 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	788.6x526x167(W*H*D),32kg



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

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%

Equipment Protection

DC input reverse protection	YES
DC ARC protection	Optional
Anti-PID(Potential Induced Degradation)	Optional
DC Input Switch	YES
Surge Protection Level	TYPE II

General Data

Ingress Protection(IP) Rating	IP65
Over Voltage Category	OVC II
Cabinet Size[W×H×D] (mm)	543x198x700
Weight (kg)	41.75
Type Of Cooling	Intelligent air cooling
Safety EMC/Standard	IEC/EN 62109-1

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

General Data

Off grid switching time	<30ms
Ingress Protection(IP) Rating	IP20
Over Voltage category	OVC III

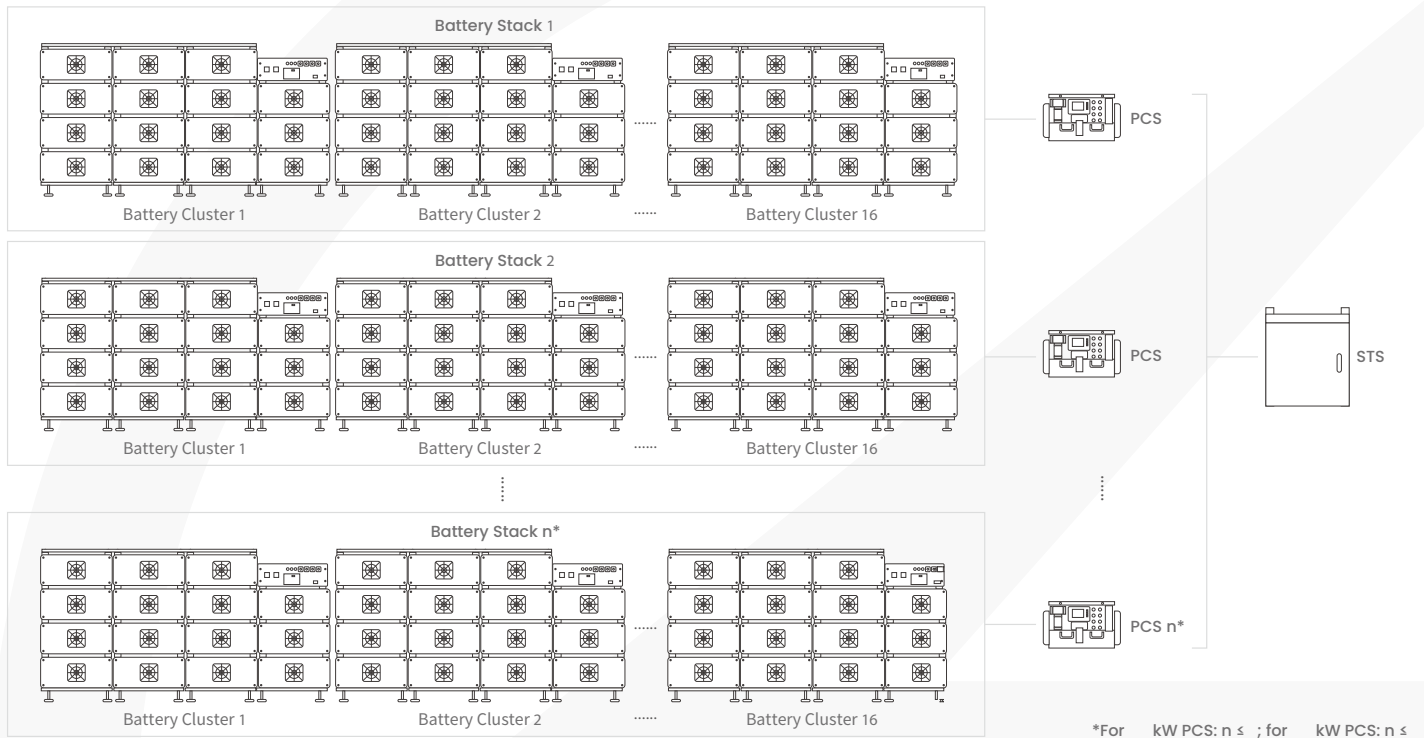
Cabinet Size[W×H×D] (mm)	543x575x671	
Weight (kg)	108	
Type Of Cooling	Natural Cooling	
Safety EMC/Standard	IEC/EN 61439-1/-2	
PCS Model	SUN-100K-PCSL01HP3	SUN-125K-PCSL01HP3
Battery Data		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	630-1000	
Max. Charging Current (A)	175	220
Max. Discharging 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%	
Equipment Protection		
Integrated	AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, Ground Fault Current Monitoring Power Network Monitoring Island Protection Monitoring Earth Fault Detection, Overvoltage Load Drop Protection	
Surge Protection Level	TYPE II(DC), TYPE II(AC)	
Interface		
LCD/LED display	LCD	
Communication Interface	WIFI, RS485, CAN, Meter	
General Data		
Operating Temperature Range(°C)	-25°C to +60°C, >45°C Derating	
Permissible Ambient Humidity	0-95%	
Permissible Altitude	4000m	
Noise	<75dB	
Ingress Protection(IP) Rating	IP 65(PCS Module)	
Cabinet Size[W×H×D] (mm)	543x310x775	
Weight (kg)	70.35	
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	



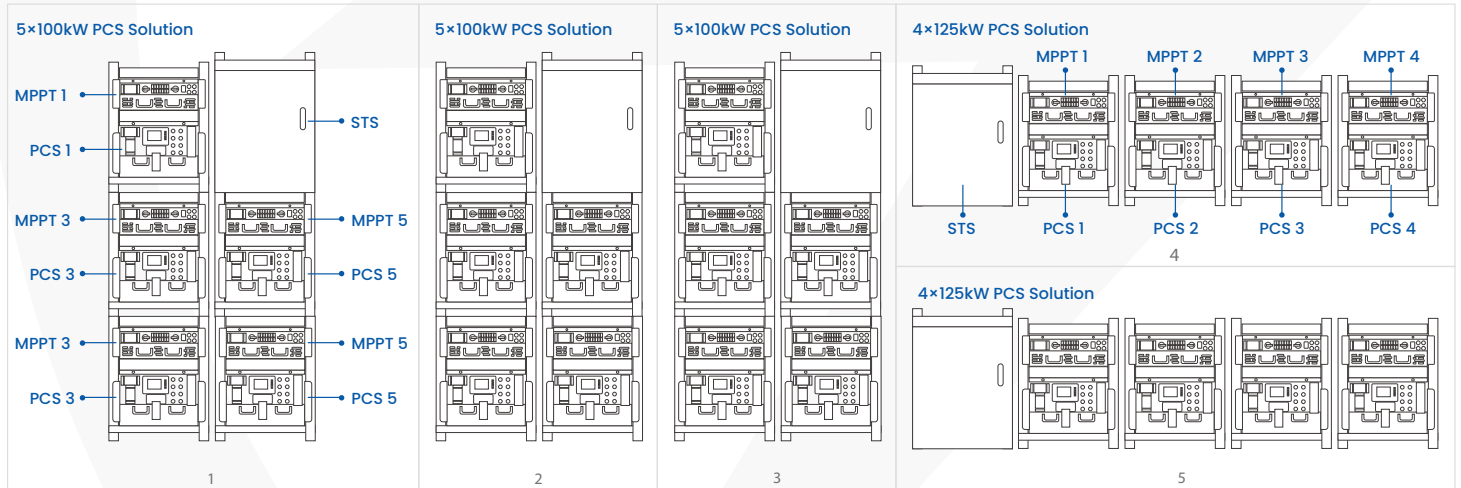
Model		BOS-B
Main Parameter		
Battery Module Energy (kWh)		14.3
Battery Module Nominal Voltage (V)		51.2
Battery Module Capacity (Ah)		280
Module Weight Approximate (kg)		122
Battery Module Qty In Series (Optional)		15
Scalability		5 ~ 15
System Nominal Voltage (V)		768
System Energy (kWh)		214.5
System 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	IP	
Noise (dB)	TBD	
System Dimension (W × H × D, mm)	2150 x 1136 x 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

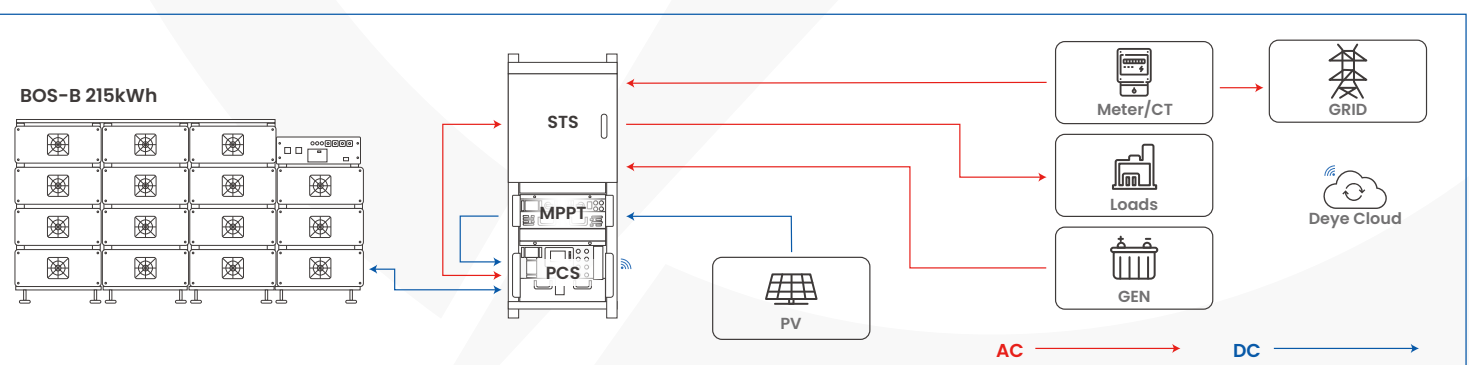
One PCS can support up to 16 racks of batteries in parallel



One STS module can connect to five 100kW PCS modules or four 125kW PCS modules for parallel operation



Up to five STS modules can be paralleled to form a 2.5MW system



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
- Best energy scheduling solutions by Deye Copilot
- 24/7 AI Assistant support

Switch flexibly
between autonomous
and manual control



Display energy
savings and costs



Support dynamic
tariff and flat-rate

AI Assistant



Offer response suggestions
and personalized support
experience

Support over 30
languages

Analyze dynamic pricing, predict power
load and PV generation to optimize energy
dispatch and minimize electricity costs



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



APP & Web

Manage your
energy effortlessly



Cloud-edge Collaboration

Faster and more
efficient



Accelerated Connection

Optimized for speed
and
performance



Localized Data Centers

Ensure data
sovereignty and
compliance in EU & US



Deye Copilot

AI-powered energy
analysis and control



AI Assistant

24/7 support, fast,
efficient, in your
language