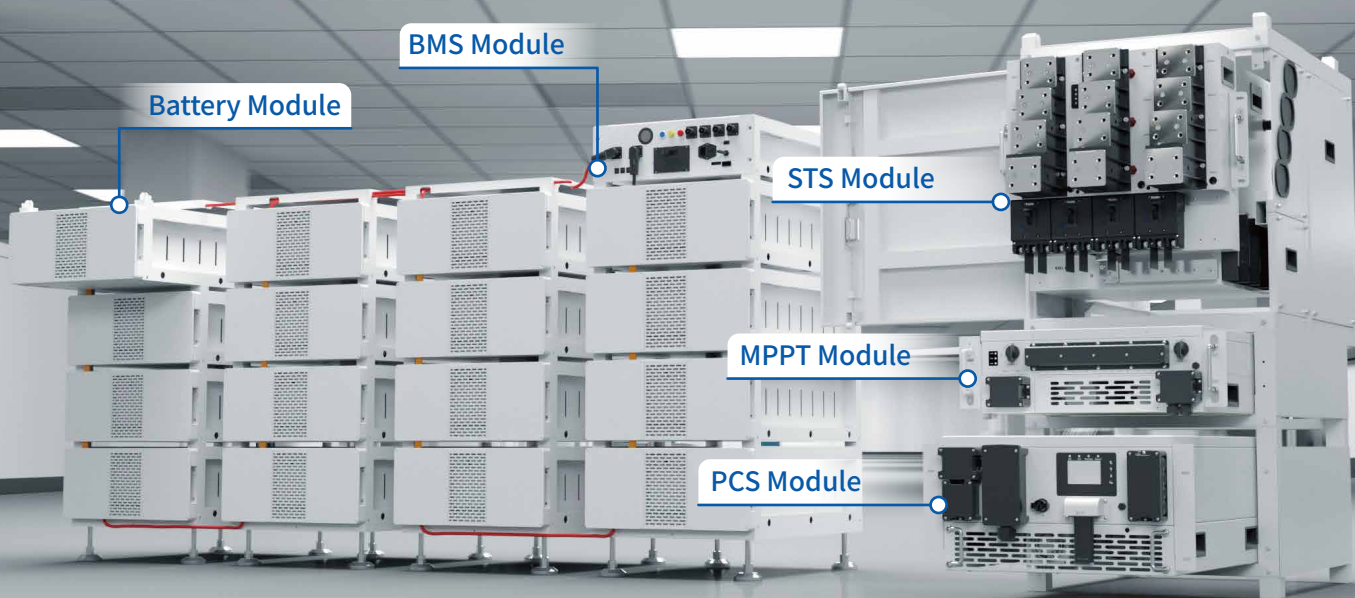


100/125kW-2.5MW C&I ESS SOLUTION

PCS with Integrated EMS, Supporting Flexible
Integration with MPPT & STS Modules



Power Continuity

- **UPS-Level Switching:**
<10 ms seamless on-grid/off-grid switching via STS.
- **Strong Overload Capability:**
Supports $2 \times$ peak power output for 12s in off-grid mode, ensuring stable operation of critical loads.



Smart Battery Management

- **Long Backup Duration:**
Supports up to 32 hours of continuous backup power.
- **Intelligent Balancing:**
Independent BMS optimizes charge/discharge distribution, extending overall battery lifespan.



Smart Energy Management

- **Integrated EMS:**
Supports zero-export, TOU optimization, peak shaving and demand management.
- **Flexible Control:**
Flexible Control: Local touchscreen control and remote monitoring via Deye Cloud.



Efficient PV Integration

- **Multi-Tracker MPPT Design:**
Each MPPT module supports up to 10 MPPT trackers, with up to 48 A per tracker.
- **High PV Capacity:**
Up to 250 kWp PV capacity per MPPT module.



System Scalability

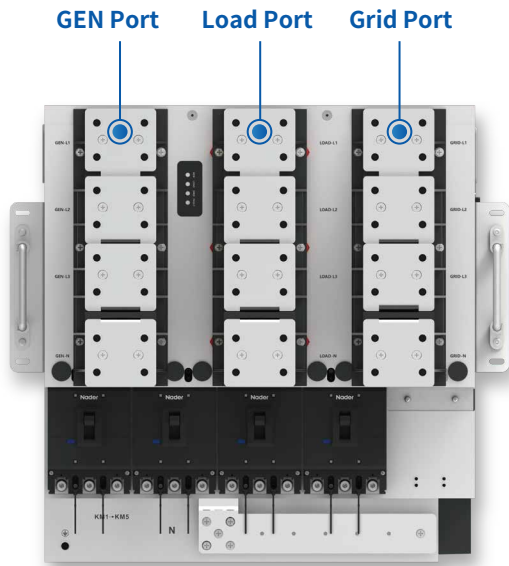
- **Flexible Expansion:**
100/125kW PCS units enable system scalability up to 2.5 MW.
- **Large Energy Storage:**
Up to 257 kWh per battery cluster, supporting up to 16 clusters per PCS.



Reliability & Protection

- **IP65 Design:**
IP65-rated PCS and MPPT modules for reliable operation in demanding environments.
- **Advanced Battery Safety:**
LiFePO₄ cells with integrated aerosol fire suppression for enhanced protection.

STS Module



- Three independent power paths (diesel / load / grid), with each path supporting 500 kW.
- <10 ms on-grid/off-grid switching^[1].
- 5 × 100 kW or 4 × 125 kW PCS units per STS module, up to 5 STS modules in parallel.



MPPT Module & PCS Module

MPPT Module^[2] (8 MPPT Trackers / 10 MPPT Trackers)

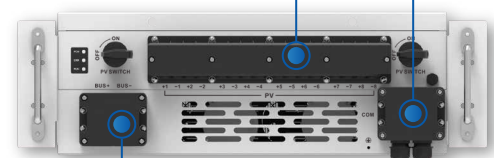
- 8 MPPT Trackers (AM8 / AM8-P): Up to 200/250 kWp PV module connection and 40/48 A per tracker.
- 10 MPPT Trackers (AM10): Up to 250 kWp PV module connection and 40 A per tracker.

PCS Module^[3] (100kW/125kW)

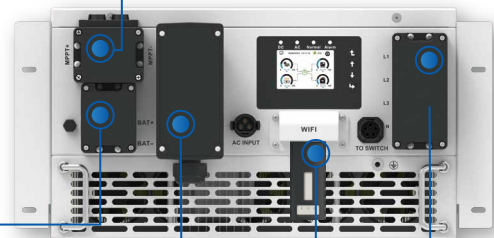
- 175A/200A charge and discharge current.
- Maximum efficiency of 98.5%.
- System rated power up to 2.5MW.
- Supports instantaneous peak power up to 200% of rated power.
- Integrates zero-export and time-of-use control functions.
- Built-in EMS for intelligent energy management and optimized system operation.

PV Input 8/10 MPPT Trackers

CAN/RS485



DC Port



Battery Port

CT/Meter/BMS/ MPPT/Parallel

Data Logger

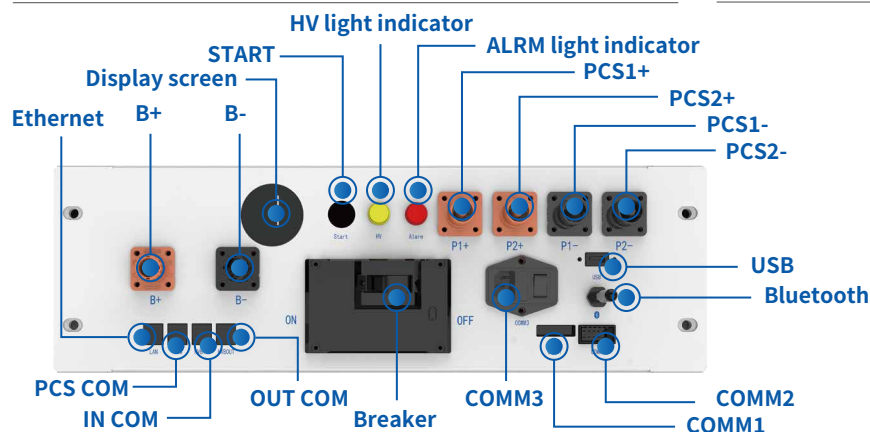
AC Output

[1]: For stable off-grid operation, the continuous off-grid load should not exceed 70% of the PCS rated power.

[2]: AM8, AM8-P, and AM10 refer to the SUN-MPPT-L01-EU-AM8, SUN-MPPT-L01-EU-AM8-P, and SUN-MPPT-L01-EU-AM10 models, respectively.

[3]: SUN-100/125K-PCS02HP3 is compatible with AM8, AM8-P, and AM10. For optimal performance, SUN-100/125K-PCS01HP3 is recommended for use with AM8. Pairing SUN-100/125K-PCS01HP3 with AM8-P or AM10 may cause MPPT module derating.

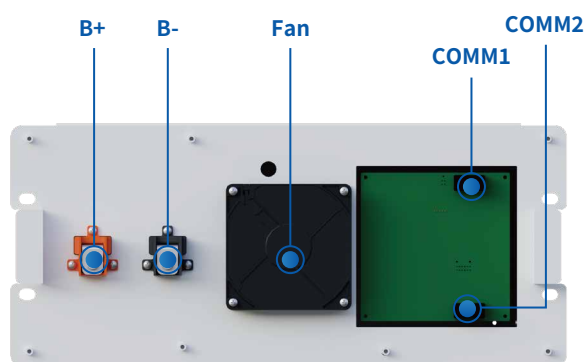
Model	BOS-B-PDU-2-A
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	180A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	526×788.6×167.2(W×D×H),32kg



- ◎ 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. RS485-Enabled.
- ◎ 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-Pack16-A3
Nominal Capacity	314Ah
Nominal Energy	16.08kWh
Nominal Voltage	51.2Vdc
Max Charge/Discharge Current	180A
Ingress Protection	IP20
Operating Temperature(Charge)	0~55°C
Operating Temperature(Discharge)	-20~55°C
Storage Temperature	0~35°C
Details	526×795.9×274.2(W×D×H),126kg



- ◎ 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

Model	BOS-B-AP-A
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This accessory package is designed for use with the 125 kW PCS and includes the following cables:

Positive Power Cable: 1AWG_1000mm*1, 1AWG_2500mm*1, 1AWG_3000mm*1

Negative Power Cable: 1AWG_240mm*1, 1AWG_3000mm*1

PE Cable: 10AWG_600mm*1

MPPT Module	SUN-MPPT-L01-EU-AM8	SUN-MPPT-L01-EU-AM8-P	SUN-MPPT-L01-EU-AM10
PV String Input Data			
Max. PV access power(kW)	200	250	250
Max. PV Input Power(kW)	160	200	200
Max. PV Input Voltage (V)	800		
Start-up Voltage (V)	200		
MPPT Voltage Range (V)	180-750		
Full Load MPPT Voltage Range (V)	450-750		
Rated PV Input Voltage (V)	600		
Max. Operating PV Input Current (A)	40+40+40+40+40+40+40+40	48+48+48+48+48+48+48+48	40+40+40+40+40+40+40+40+40+40
Max. Input Short-Circuit Current (A)	60+60+60+60+60+60+60+60	72+72+72+72+72+72+72+72	60+60+60+60+60+60+60+60+60+60
No. of MPP Trackers	8	8	10
DC Output Data			
DC Output Voltage Range(V)	630-1000	630-1000	630-1000
Max. DC Output Current(A)	200	250	250
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 Switch	YES		
Surge Protection Level	TYPE II		
General Data			
Operating Temperature Range (°C)	-40°C to 60°C		
Permissible Ambient Humidity	0-95%		
Permissible Altitude (m)	4000m		
Ingress Protection(IP) Rating	IP65		
Over Voltage Category	OVC II		
Cabinet Size[W×H×D] (mm)	543x198x700	543x198x700	543x198x720
Weight (kg)	41.75	41.75	50.6
Warranty	10 years		
Type Of Cooling	Intelligent air cooling		
Safety EMC/Standard	IEC/EN 62109-1		
Features			
DC port/AC port	OT terminal		
Display	LED		
Communication Interface	CAN/RS485		

STS Module		SUN-ST5500L
Grid/PCS Side Data		
Rated AC Input/Output Active Power (kW)		500
Rated AC Input/Output Current (A)		758/725
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)		758/725
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)		758/725
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		<10ms
Operating Temperature Range (°C)		-25°C to 60°C
Permissible Ambient Humidity		0-95%
Permissible Altitude (m)		4000m
Ingress Protection(IP) Rating		IP20
Over Voltage category		OVC III
Warranty		10 years
Cabinet Size[W×H×D] (mm)		543x575x671
Weight (kg)		108
Type Of Cooling		Natural Cooling
Safety EMC/Standard		IEC/EN 61439-1/-2
Features		
DC port/AC port		OT terminal
Communication Interface		CAN/RS485

PCS Model	SUN-100K-PCS01HP3	SUN-125K-PCS01HP3	SUN-100K-PCS02HP3	SUN-125K-PCS02HP3
Battery Data				
Battery Type	Lithium-ion			
Battery Voltage Range (V)	630-1000			
Max. Charging Current (A)	175	200	175	200
Max. Discharging Current (A)	175	200	175	200
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	1			
DC Input Data				
DC Input Voltage Range(V)	630-1000		630-1000	
Max. DC Input Current(A)	200		250	
AC Input/Output Data				
Rated AC Input/Output Active Power (kW)	100	125	100	125
Max. AC Input/Output Apparent Power (kVA)	110	125	110	125
Rated AC Input/Output Current (A)	151.6/145	189.4/181.2	151.6/145	189.4/181.2
Max. AC Input/Output Current (A)	166.7/159.5	189.4/181.2	166.7/159.5	189.4/181.2
Rated Input/Output Voltage/Range(V)	220/380, 230/400V 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%			
Equipment Protection				
Integrated	AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, Anti-islanding Protection, Insulation Impedance Detection, Residual Current Detection			
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)	-40°C-60°C, >45°C Derating			
Permissible Ambient Humidity	0-95%			
Permissible Altitude	4000m			
Noise	<75dB			
Ingress Protection(IP) Rating	IP65 (PCS Module)			
Cabinet Size[W×H×D] (mm)	543x310x775 (Excluding connectors and brackets)			
Weight (kg)	81.86			
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, UNE217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105			
Safety/EMC Standard	IEC/EN 62477-1			



Model

BOS-B Pro-A3

Main Parameter

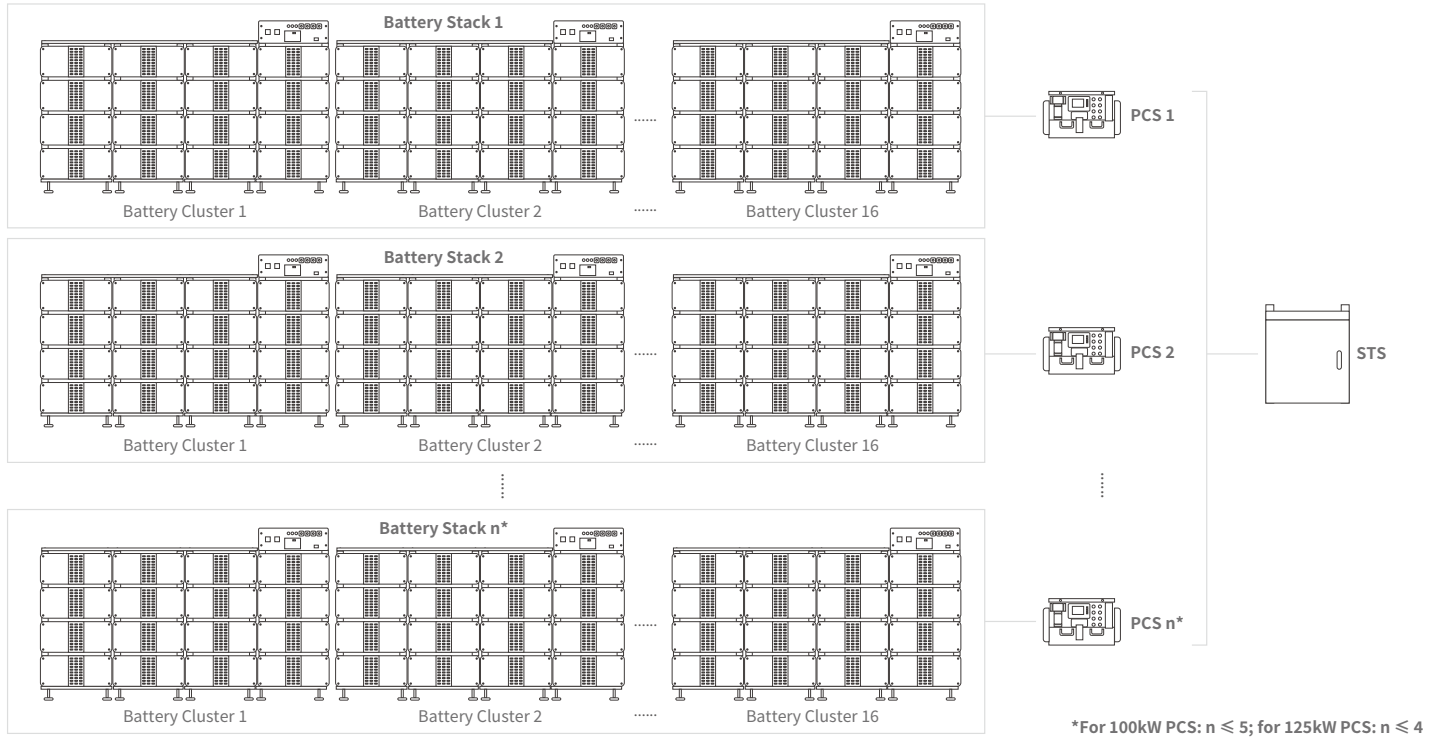
Battery Module Energy (kWh)	16.08
Battery Module Nominal Voltage (V)	51.2
Battery Module Capacity (Ah)	314
Module Weight Approximate (kg)	126
Battery Module Qty In Series (Optional)	5~16
Matching Mode	PCS
	PCS + MPPT
	14-16 units for PCS on-grid applications, 15~16 units for PCS off-grid applications
	16 units (on/off-grid) for MPPT Open-Circuit Voltage $\leq 800V$; 15 units (on/off-grid) for MPPT Open-Circuit Voltage $\leq 750V$ 14 units (on-grid) for MPPT Open-Circuit Voltage $\leq 700V$
Max.System Nominal Voltage (V)	819.2
Max.System Energy (kWh)	257.23
Max.System Usable Energy (kWh)	231.51
Max.Charge/Discharge Current (A)	180

Other Parameter

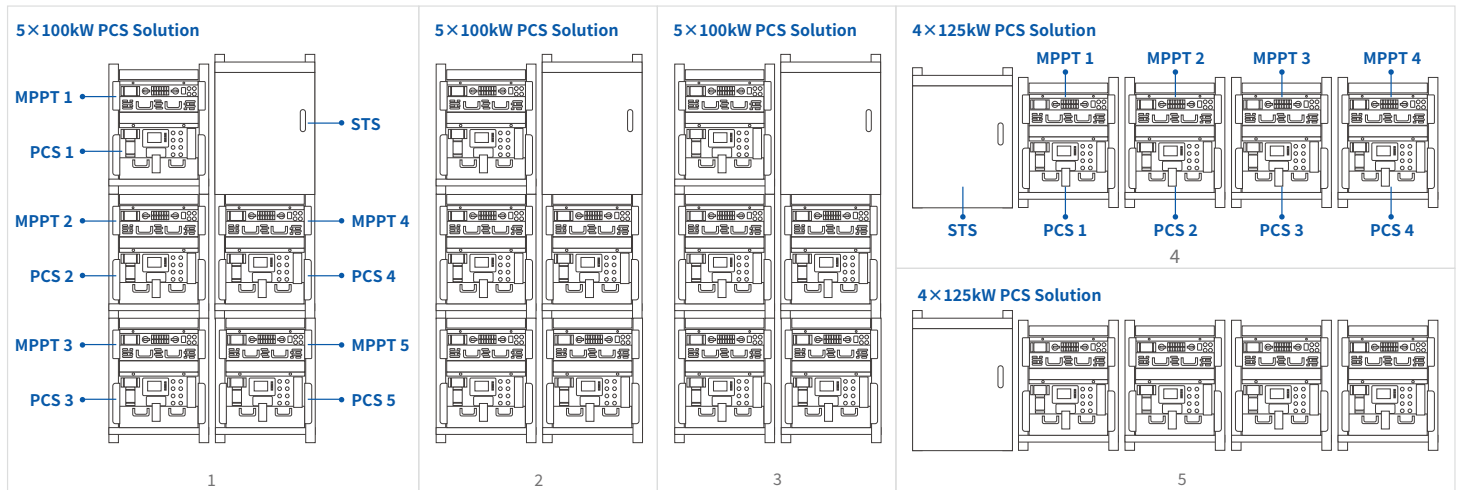
Operating Temperature (°C)	Charge : 0 ~ 55 Discharge : -20 ~ 55
Storage Temperature (°C)	0 ~ 35
Thermal Management	Smart fan cooling
LCD Display	SOC / Fault Code
Status Indicator	Yellow : Battery High Voltage Power On Red : Battery System Alarm
Communication Port	TCP / RS485 / CAN
Communication With BMS	CAN
Humidity	5% ~ 85%
Altitude	$\leq 3000m$
IP Rating of Enclosure	IP20
Noise (dB)	TBD
System Dimension (W × H × D, mm)	2150 × 1305 × 800
System Weight Approximate (kg)	2240
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

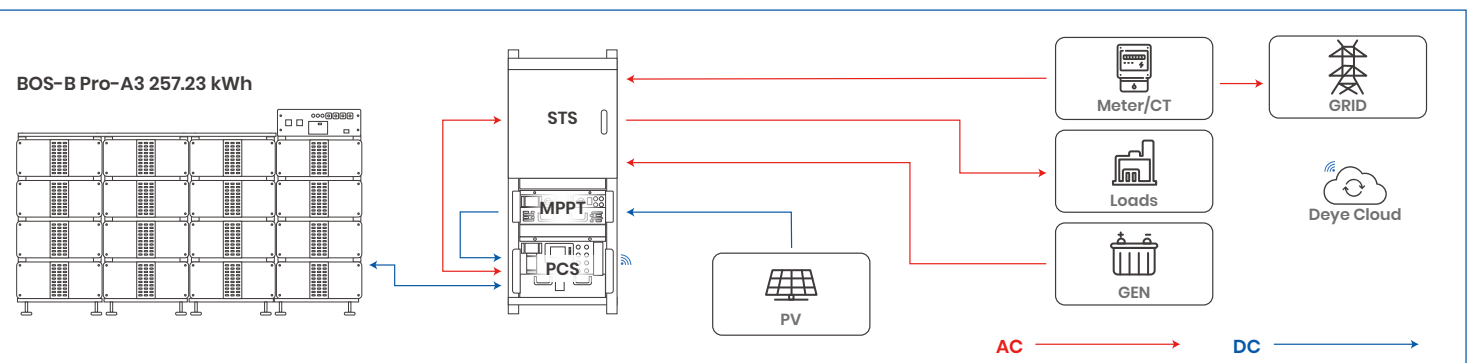
One PCS can support up to 16 racks of batteries in parallel



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



Five STS modules can provide parallel support for twenty-five 100kW PCS modules or twenty 125kW PCS modules, forming a 2.5MW system.

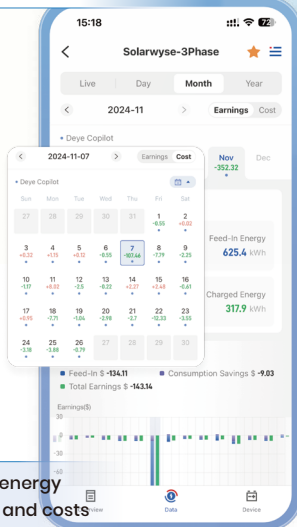


Deye Cloud

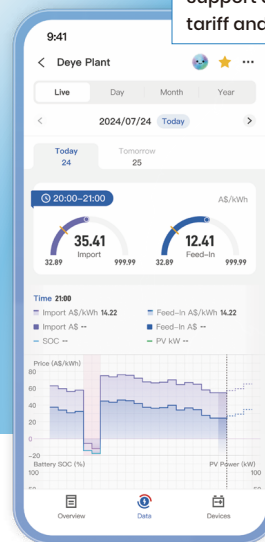
All-in-one Energy & Device Management Platform

- 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



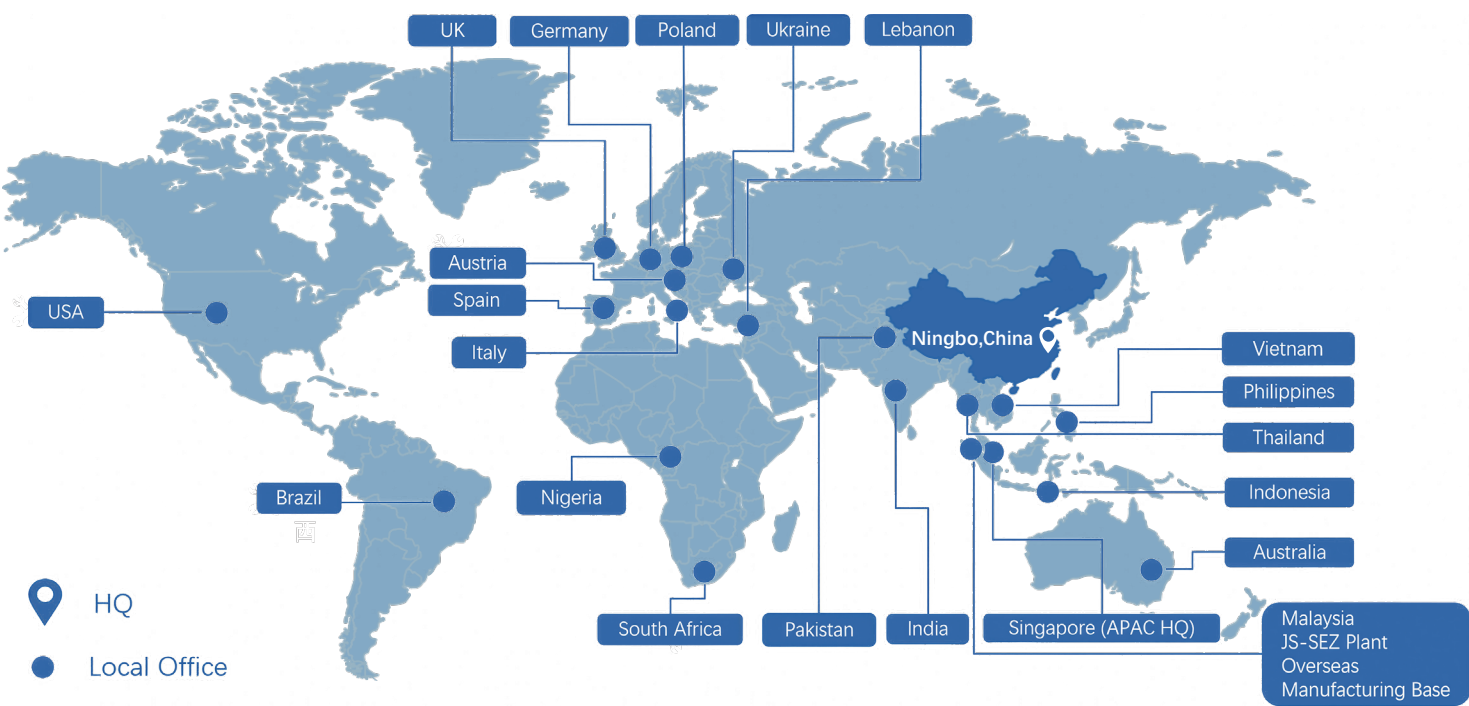
AI Assistant

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

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Founded in 2000 (Stock Code: 605117.SH), Deye is a globally leading provider of photovoltaic (PV) inverter and energy storage system solutions. Deye has built an integrated value chain spanning R&D, design, production, sales and service, supported by modern intelligent manufacturing bases in Ningbo, Jiaxing and Johor, Malaysia, equipped with comprehensive production and testing facilities.

Through years of dedicated innovation, Deye has developed industry-leading R&D capabilities and scale advantages, delivering integrated solar PV and energy storage solutions for residential, commercial, industrial and utility-scale applications. Recognized for outstanding performance and reliability, Deye has established a global sales network covering over 160 countries and regions.



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