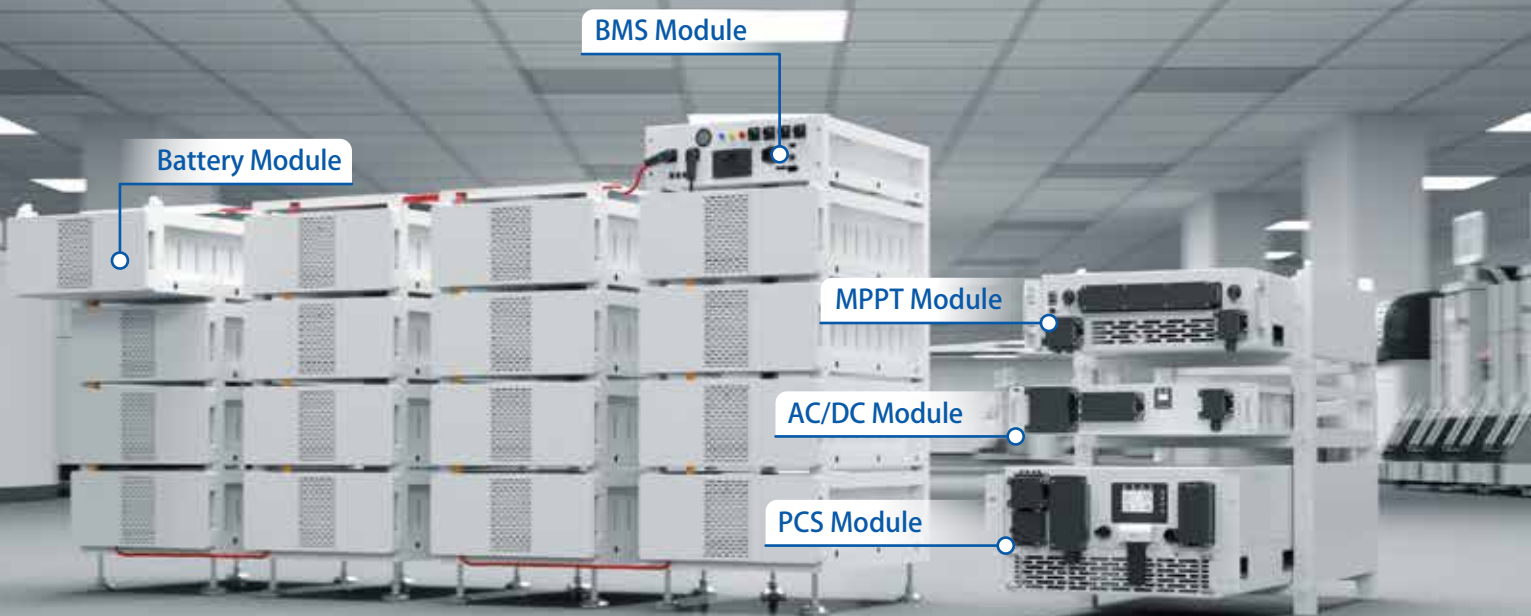


TRUE OMS SEAMLESS SWITCHING

NO INTERRUPTION | NO DISTORTION | NO SAG

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



On-line UPS Structure

- **0ms load side Disruption:** Zero transfer time between mains supply and backup power.



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:** Built-in EMS intelligently manages AC/DC & MPPT power based on load.
- **Easy Management:** Color touchscreen for local or remote cloud adjustments



Efficient PV Integration

- **Retrofits Made Easy:** Supports both DC and AC coupling, for flexible retrofits and system expansions.



Rugged & Reliable

- **IP65 Protection:** PCS and MPPT modules feature IP65-rated protection.
- **Peak Power Support:** 200% of rated power for 15s.
- **LFP battery:** BOS-B Pro's robust design enhances the system's reliability.

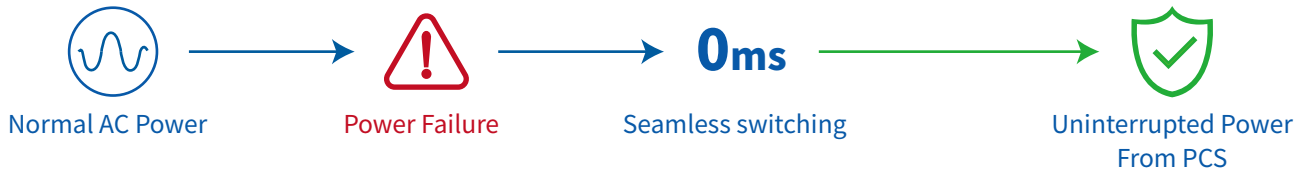


High Performance & Scalability

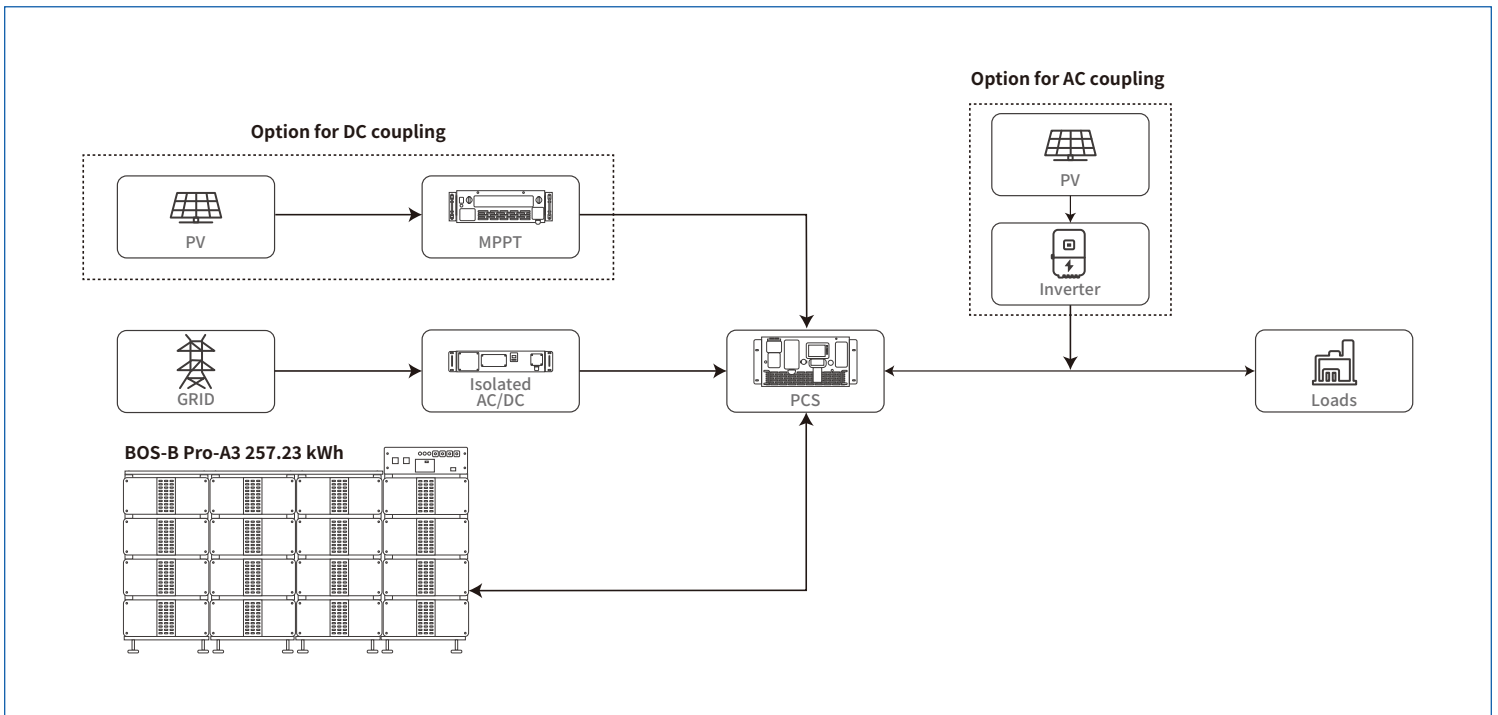
- **Powerful Capacity:** PCS offers 100kW/125kW, expandable up to 2.5MW.
- **Large Energy Storage:** BOS-B Pro battery supports 257 kWh per cluster, supporting up to 16 packs per PCS.
- **High Efficiency:** PCS reaches 98.5% efficiency, MPPT exceeds 99%.



TRUE 0ms SEAMLESS SWITCHING, PROTECTING EVERY CRITICAL LOAD



System Architecture



Application Scenarios



Telecom

Keep communication networks online and stable.



Data Center

Ensure continuous operation of critical IT systems.



Medical Equipment

Provide reliable power for life-supporting systems.



Industrial Automation

Guarantee production continuity and improve efficiency.



Rail Transit

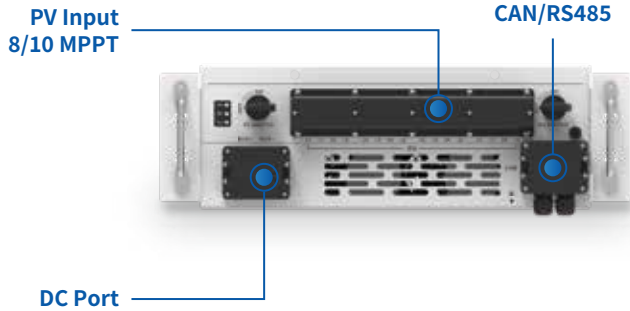
Ensure safe operation of signaling and control systems.



Financial Institutions

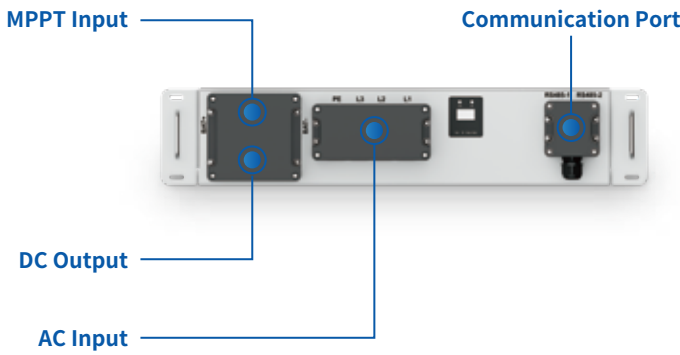
Protect core business systems 7×24 uninterrupted.

MPPT Module & AC/DC Module



MPPT Module (8 MPP Trackers / 10 MPP Trackers)

- ◎ Maximum 200/250kWp PV module connection with 8/10 MPPT channels, **40A** per MPPT.



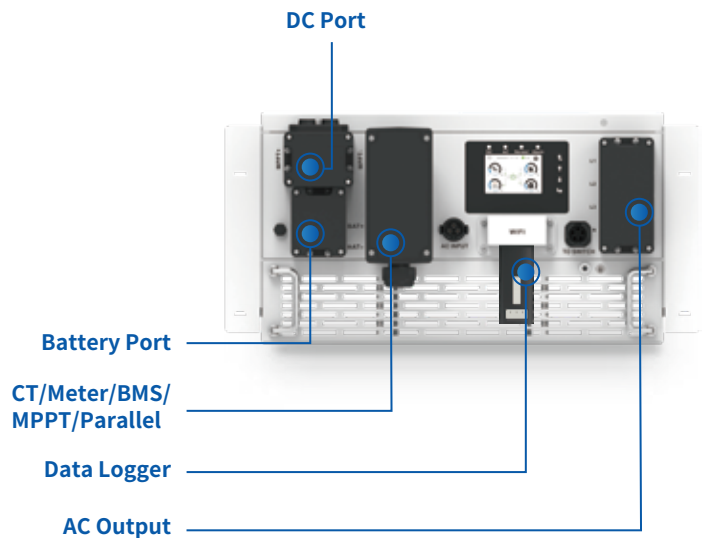
AC/DC Module (80kW)

- ◎ Wide Constant Power Voltage Range **300Vdc – 1000Vdc** constant power output.
- ◎ Wide Input Voltage Range **260Vac – 530Vac**, adaptable to various power grids.
- ◎ Ultra-High Efficiency with All-SiC Design Peak efficiency **>97%**, average efficiency **>96%**.
- ◎ Intelligent Air Duct Detection Full-coverage temperature sensing points along the entire air duct to monitor airflow condition.

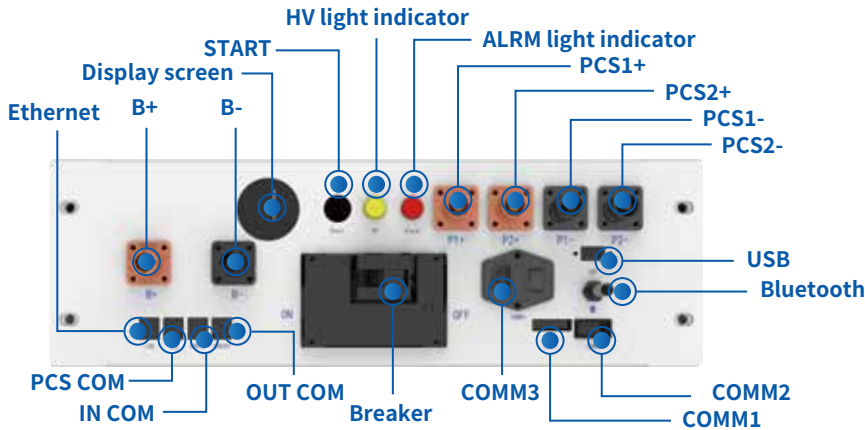
PCS Module

PCS Module (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.
- ◎ Eliminating the need for additional EMS.



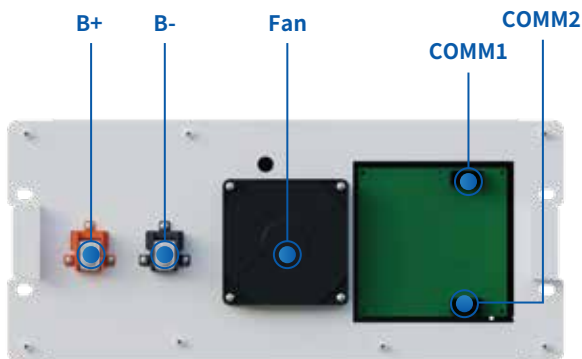
Model	BOS-B-PDU-2-A
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	180A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	788.6×526×167.2(W×D×H),32kg



- ◎ 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	795.9×526×274.2(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 Accessories Package is designed for use with the 125kW PCS, and primarily includes the following cables:

Positive PowerCable: 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-AM10
PV String Input Data		
Max. PV access power(kW)	200	250
Max. PV Input Power(kW)	160	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	40+40+40+40+40+40+40+40+40+40
Max. Input Short-Circuit Current (A)	60+60+60+60+60+60+60+60	60+60+60+60+60+60+60+60+60+60
No. of MPP Trackers	8	10
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		
Ingress Protection(IP) Rating	IP65	
Over Voltage Category	OVC II	
Cabinet Size[W×H×D] (mm)	543x198x700	543x198x720
Weight (kg)	41.75	50.6
Type Of Cooling	Intelligent air cooling	
Safety EMC/Standard	IEC/EN 62109-1	
DC Output Data		
DC Output Voltage Range(V)	630-1000	
Max. DC Output Current(A)	200	250
AC/DC Module		
SUN-80K-CG01-C		
AC Input		
Input Voltage Range	260Vac ~ 530Vac, 3L+PE	
Max Input Current(A)	160	
Frequency Range	45Hz ~ 65Hz	
Power Factor	≥0.99	
Efficiency	Full load > 96%, peak > 97%	
THD	<5%	
DC Output		
Output Power(kW)	80	
Voltage Range	50Vdc ~ 1000Vdc	
Constant Power Output Voltage Range	300Vdc ~ 1000Vdc	
Output Current(A)	0 ~ 266	
Output Current Limiting	0.3 ~ 266A continuously adjustable	
Current Sharing	Imbalance < ±5%	
Voltage Regulation Accuracy	< ±0.5%	
Current Regulation Accuracy	≤ ±1% (within 20%~100% rated output load)	
Operating Environment Conditions		
Operating Temperature	-40°C ~ +75°C, derating required above +55°C	
Relative Humidity	≤95% RH, non-condensing	
Cooling Method	Forced air cooling	
Grid Connection Form	3L	
Altitude	≤2000m, derating required above 2000m	

Dimensions and Weight

Dimensions[W×H×D] (mm)	543×127×740 (excluding handles and terminal protrusions)	
Weight (kg)	42.2	

Others

Battery Type	RS485	
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PCS Model	SUN-100K-PCS01HP3	SUN-125K-PCS01HP3
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Battery Data

Battery Type	Lithium-ion	
Battery Voltage Range (V)	630-1000	
Max. Charging Current (A)	175	200
Max. Discharging Current (A)	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	200

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%	

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	IP 65(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, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105	
Safety/EMC Standard	IEC/EN 62477-1	



Model	BOS-B Pro-A3
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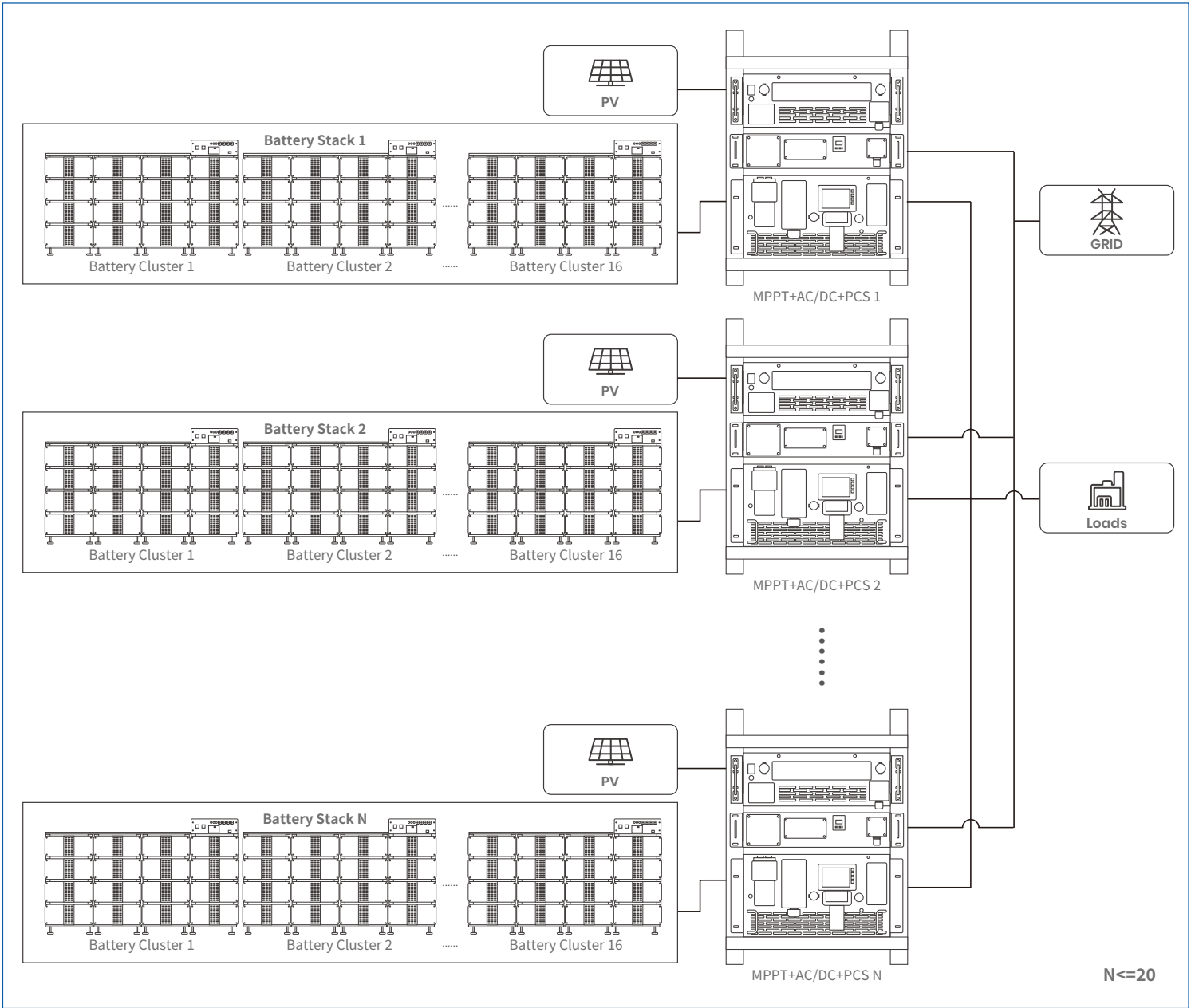
Main Parameter	
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Battery Module Energy (kWh)	16.08
Battery Module Nominal Voltage (V)	51.2
Battery Module Capacity (Ah)	314
Module Weight Approximate (kg)	126
Battery Module Qty In Series (Optional)	5~16
Matching Mode	14-16 units for PCS on-grid applications, 15~16 units for PCS off-grid applications
PCS	
PCS + MPPT	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	
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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	$25 \pm 2^{\circ}C, 0.5C / 0.5C, EOL70\% \geq 6000$
Warranty Period	10 years
Certification	CE / IEC62619 / IEC62040 / UN38.3

Typical Application Scenarios



$N \leq 20$

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

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

Display energy savings and costs

Deye Copilot

ToU

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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