

C&I ESS SOLUTION

BOS-B Pro-A3



Intelligent Control

- Peak-valley mgmt, anti-backflow,
- overload protection
- Load tracking, demand control, backup power, phase separation



Scalable

- Support up to 16 units in parallel, maximum 2.3MW/4.1MWh



Multi-Fusion

- Integrated EMS, PCS, and BMS
- Support expansion of MPPT module
- Support off-grid backup



Reliable

- Operating temp : -20°C to 55°C
- Operate up to 3000m altitude
- 1.1x overload capacity
- Balancing solutions extend battery life
- Triple auxiliary power design for stable supply



Easy Maintenance

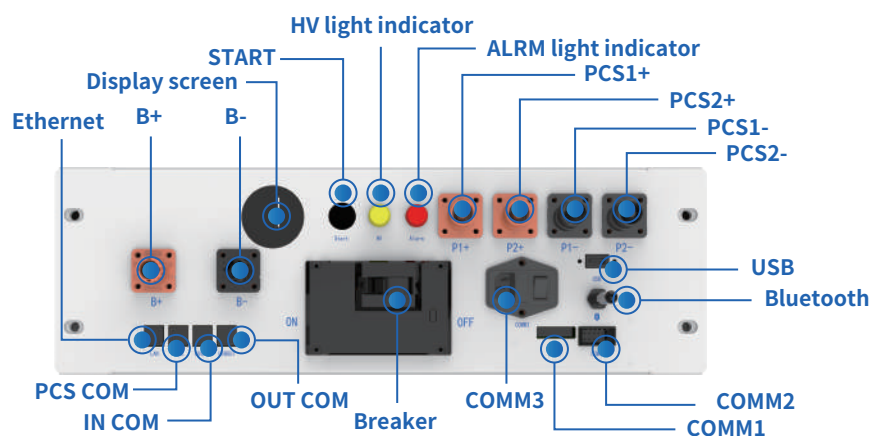
- 5U Standard Chassis
- User Interface & Bluetooth App
- USB & Cloud Upgrades
- TCP Protocol for EMS
- Fault Signal Input Support



Safer

- LFP batteries
- Support aerosol fire extinguishing

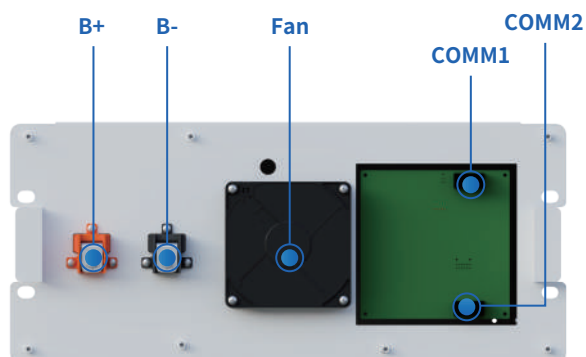
Model	BOS-B-PDU-2-A
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	180A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	788.6×526×167.2(W×D×H),32kg



- ◎ 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 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 or Hybrid Inverter	14-15 units for PCS on-grid applications, 15 units for PCS off-grid applications, 5-15 units for hybrid inverter systems
	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 $\leq 700V$

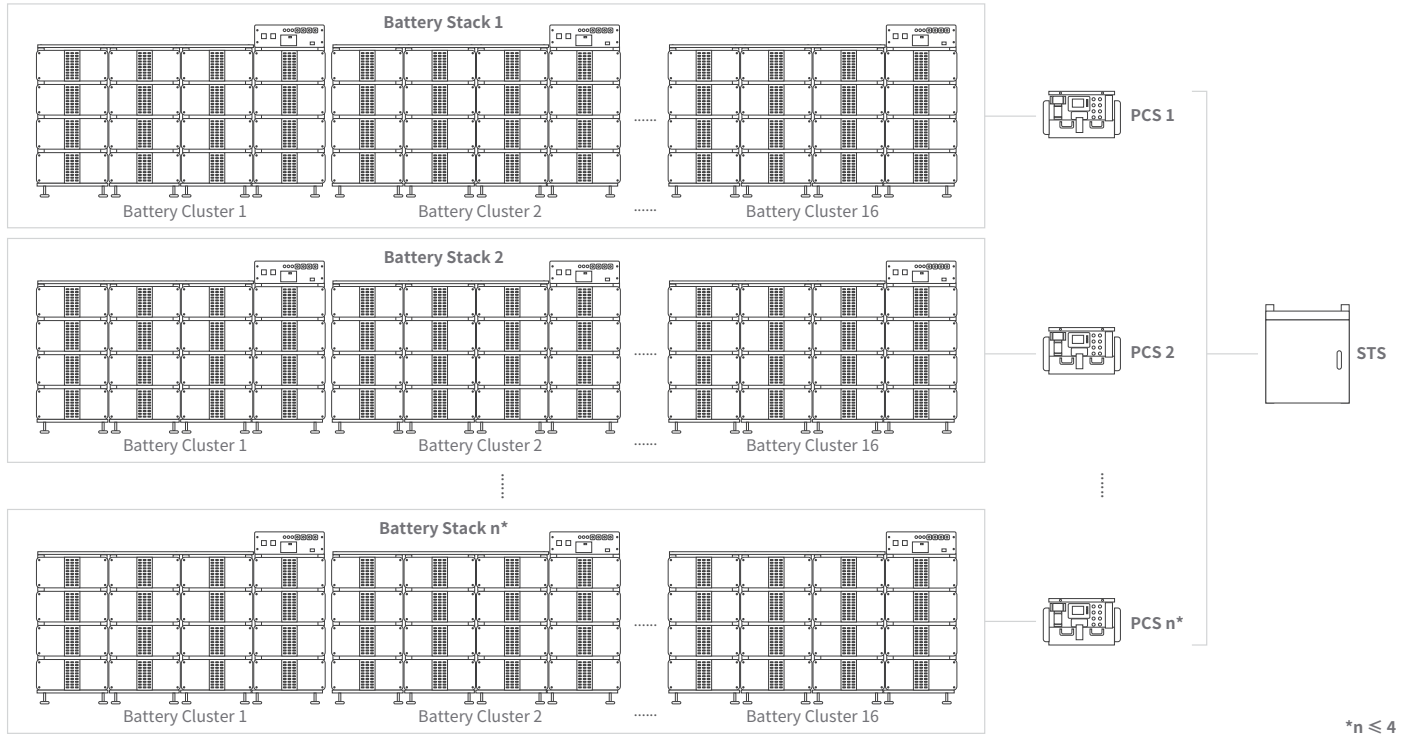
Battery Model Number	BOS-B80 Pro-A3	BOS-B96 Pro-A3	BOS-B112 Pro-A3	BOS-B128 Pro-A3	BOS-B144 Pro-A3	BOS-B160 Pro-A3	BOS-B176 Pro-A3	BOS-B192 Pro-A3	BOS-B208 Pro-A3	BOS-B224 Pro-A3	BOS-B240 Pro-A3	BOS-B256 Pro-A3
Battery Module Qty In Series (Optional)	5	6	7	8	9	10	11	12	13	14	15	16
System Nominal Voltage (V)	256	307.2	358.4	409.6	460.8	512	563.2	614.4	665.6	716.8	768	819.2
System Operating Voltage (V)	208~292	249.6~350.4	291.2~408.8	332.8~467.2	374.4~525.6	416~584	457.6~642.4	499.2~700.8	540.8~759.2	582.4~817.6	624~876	665.6~934.4
System Energy (kWh)	80.3	96.4	112.5	128.6	144.6	160.7	176.8	192.9	208.9	225	241.1	257.2
System Usable Energy (kWh)	72.27	86.76	101.25	115.74	130.14	144.63	159.12	173.61	188.01	202.5	216.99	231.48
Max DC Power(kW)	46.08	55.296	64.512	73.728	82.944	92.16	101.376	110.592	119.808	129.024	138.24	147.456
Max.Charge/Discharge Current (A)	180											

Other Parameter

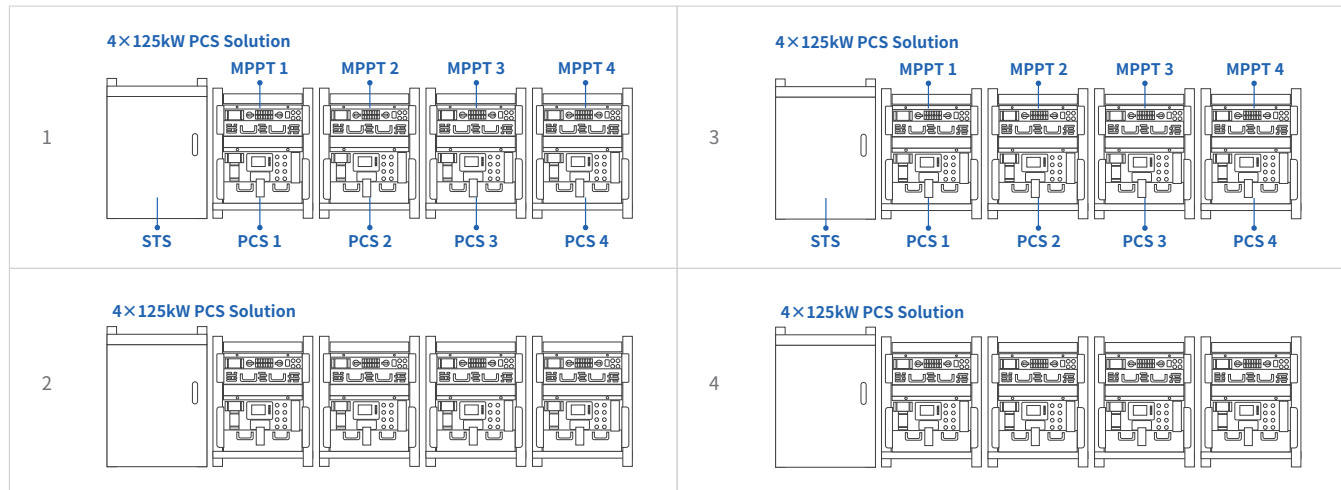
Operating Temperature (°C)	Charge : 0 ~ 55 Discharge : -20 ~ 55	
Storage Temperature (°C)	0 ~ 35	
Thermal Management	Smart fan cooling	
LCD Display	SOC / Fault Code	
Status Indicator	Yellow : Battery High Voltage Power On Red : Battery System Alarm	
Communication Port	TCP / RS485 / CAN	
Communication With BMS	CAN	
Humidity	5% ~ 85%	
Altitude	$\leq 3000m$	
IP Rating of Enclosure	IP20	
Noise (dB)	TBD	
System Dimension (W × H × D, mm)	1067 × 1305 × 800	1608 × 1305 × 800 2150 × 1305 × 800
System Weight Approximate (kg)	758 884 1010	1136 1310 1436 1562 1688 1862 1988 2114 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

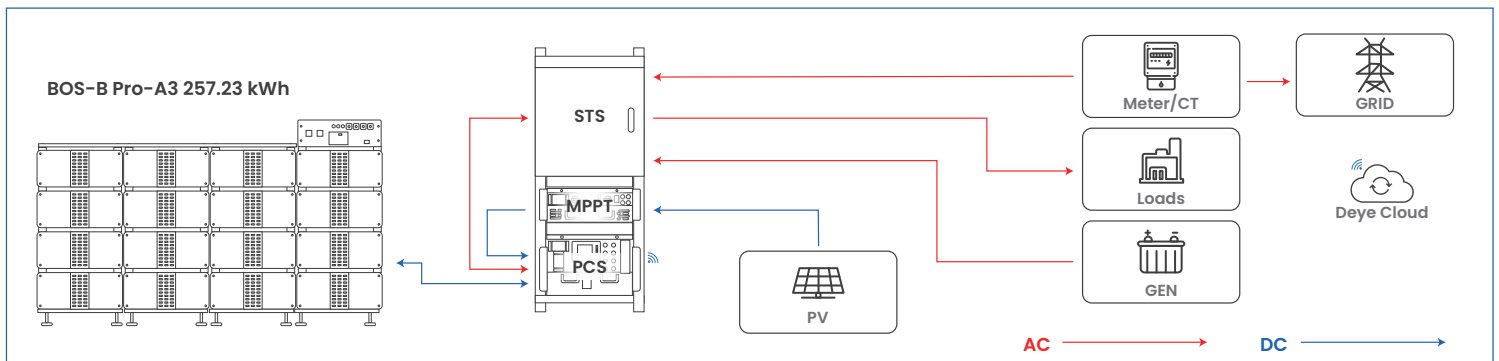
One PCS can support up to 16 racks of batteries in parallel



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



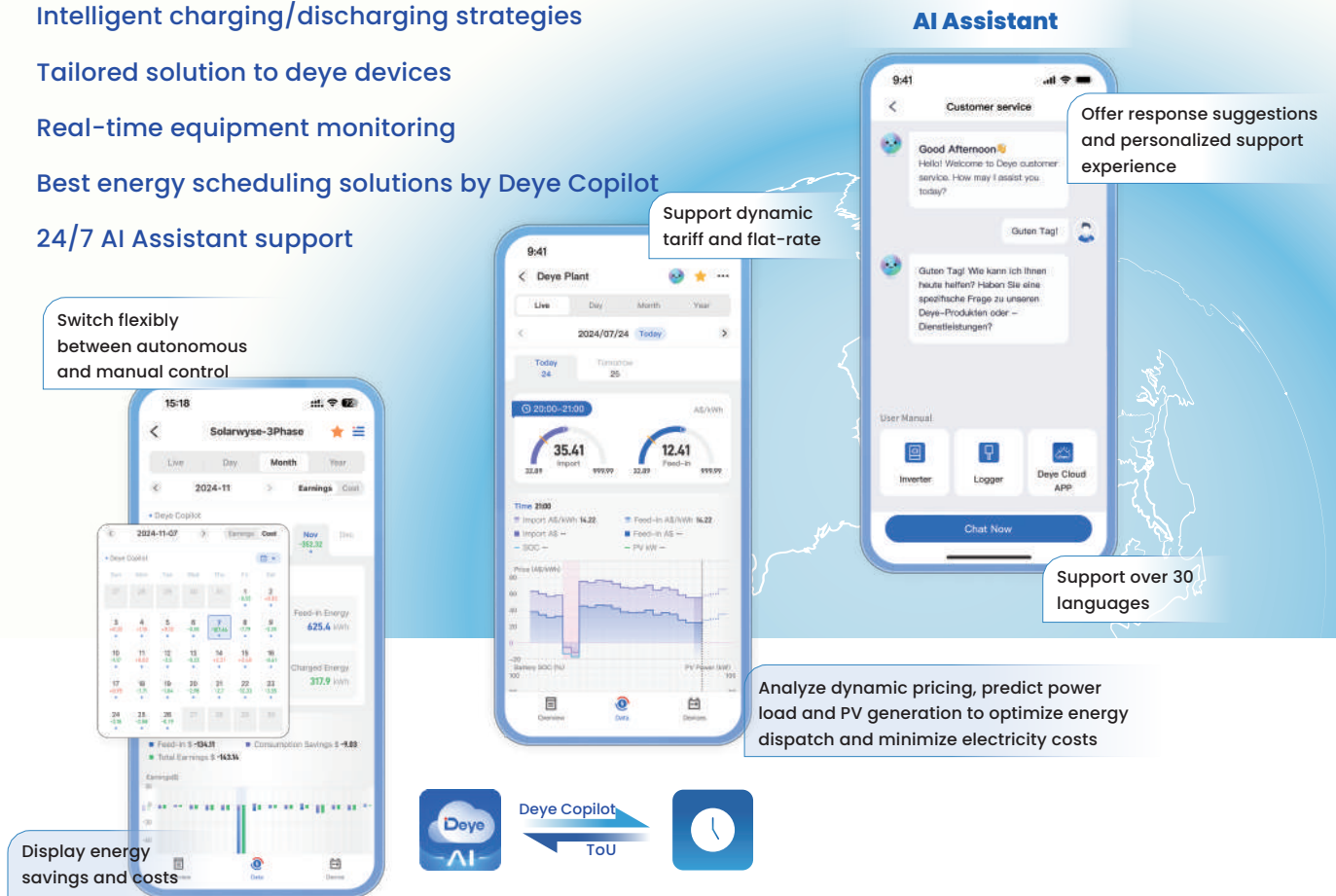
Five STS modules can provide parallel support for twenty 125kW PCS modules, forming a 2.5MW system.



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