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

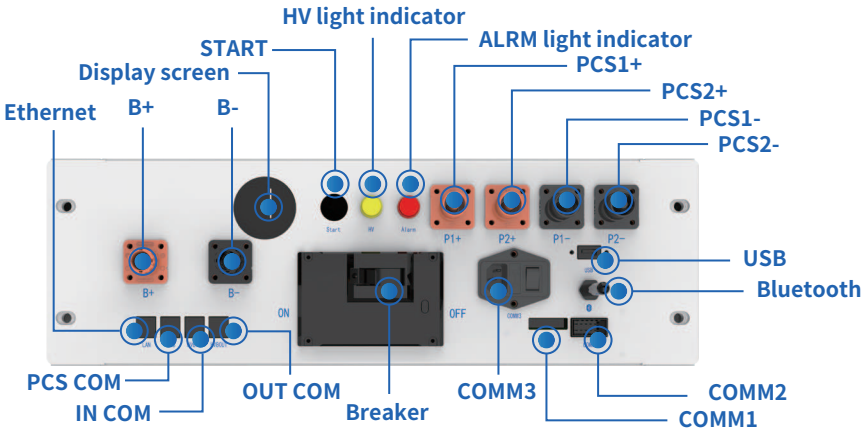
- 5U Standard Chassis
- User Interface & Bluetooth App
- USB & Cloud Upgrades
- TCP Protocol for EMS
- Fault Signal Input Support

Safer

- LFP batteries
- Support aerosol fire extinguishing

Battery Pack Accessories

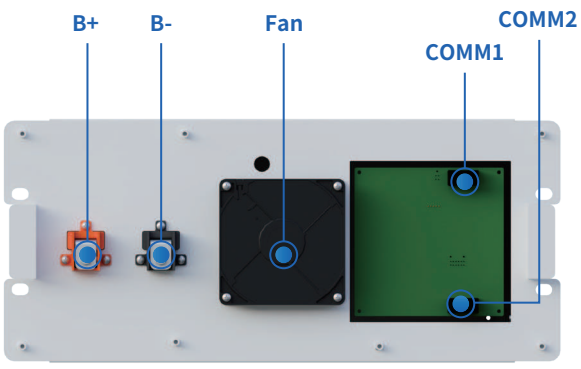
Model	BOS-B-PDU-2-A
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	180A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	788.6×526×167.2(W×H×D),32kg



◎ 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×H×D),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

C&I ESS Solution



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 ⩽800V;15 units (on/off-grid) for MPPT Open-Circuit Voltage ⩽ 750V 14 units (on-grid) for MPPT Open-Circuit Voltage ⩽ 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											

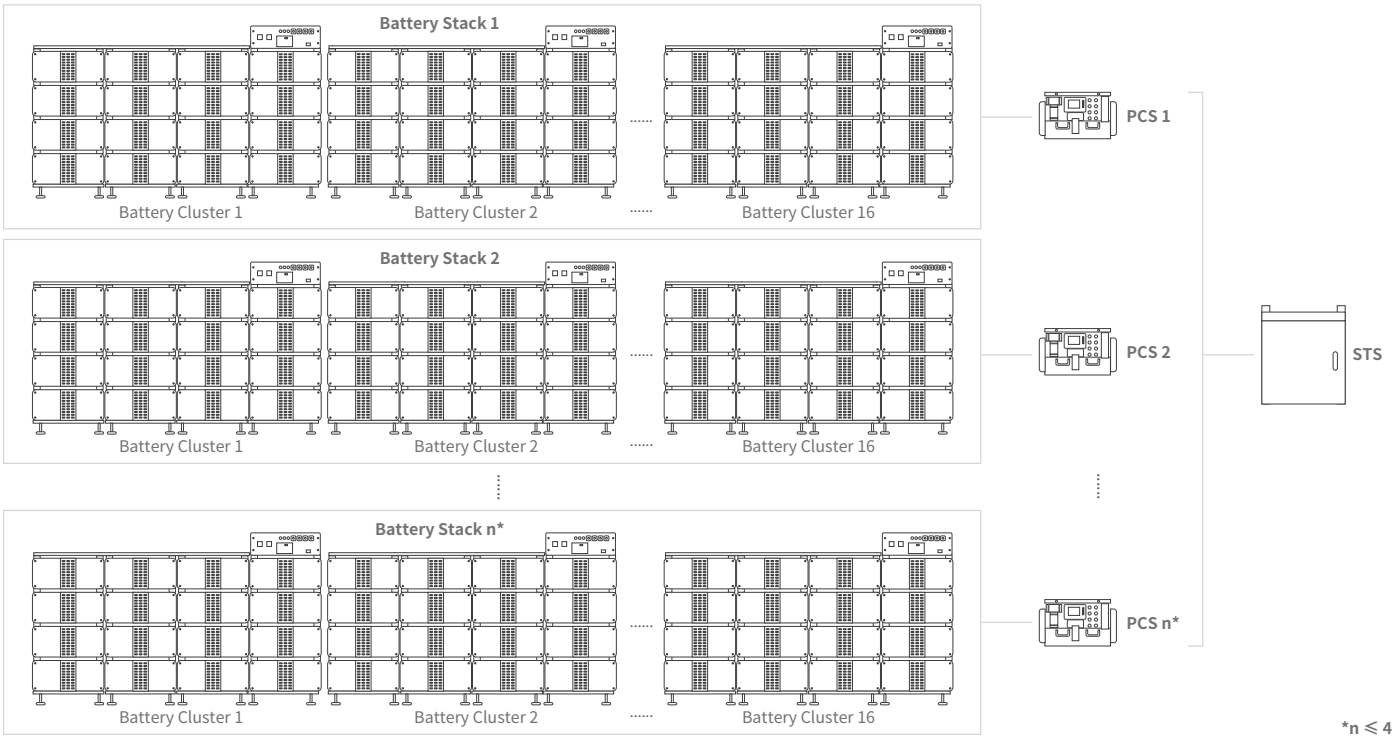
Other Parameter

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	⩽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											

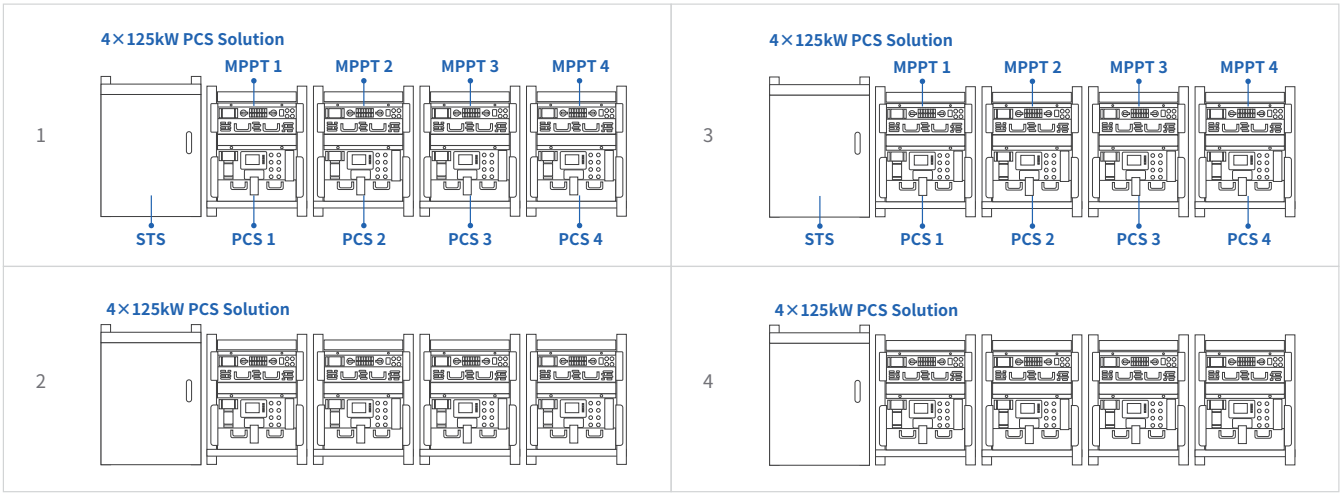
Typical Application Scenarios

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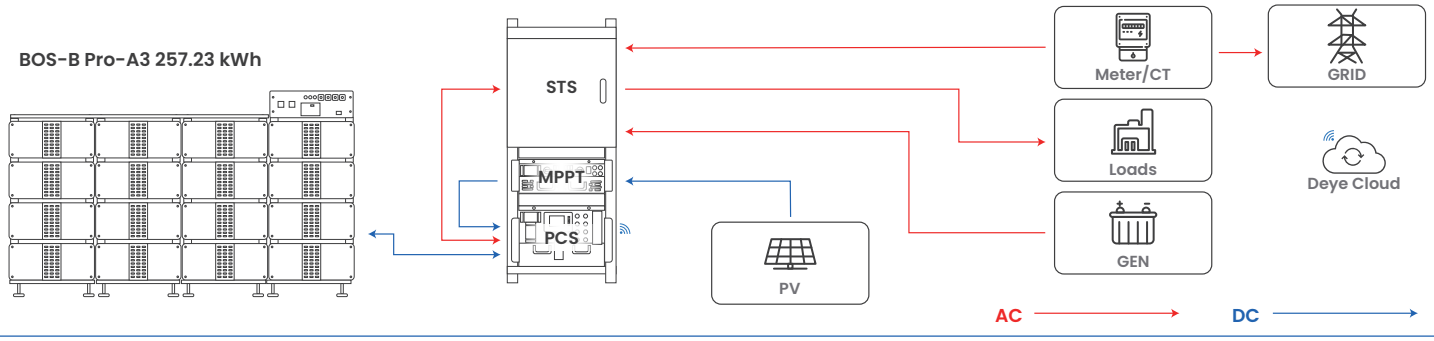
One PCS can support up to 16 racks of batteries in parallel



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



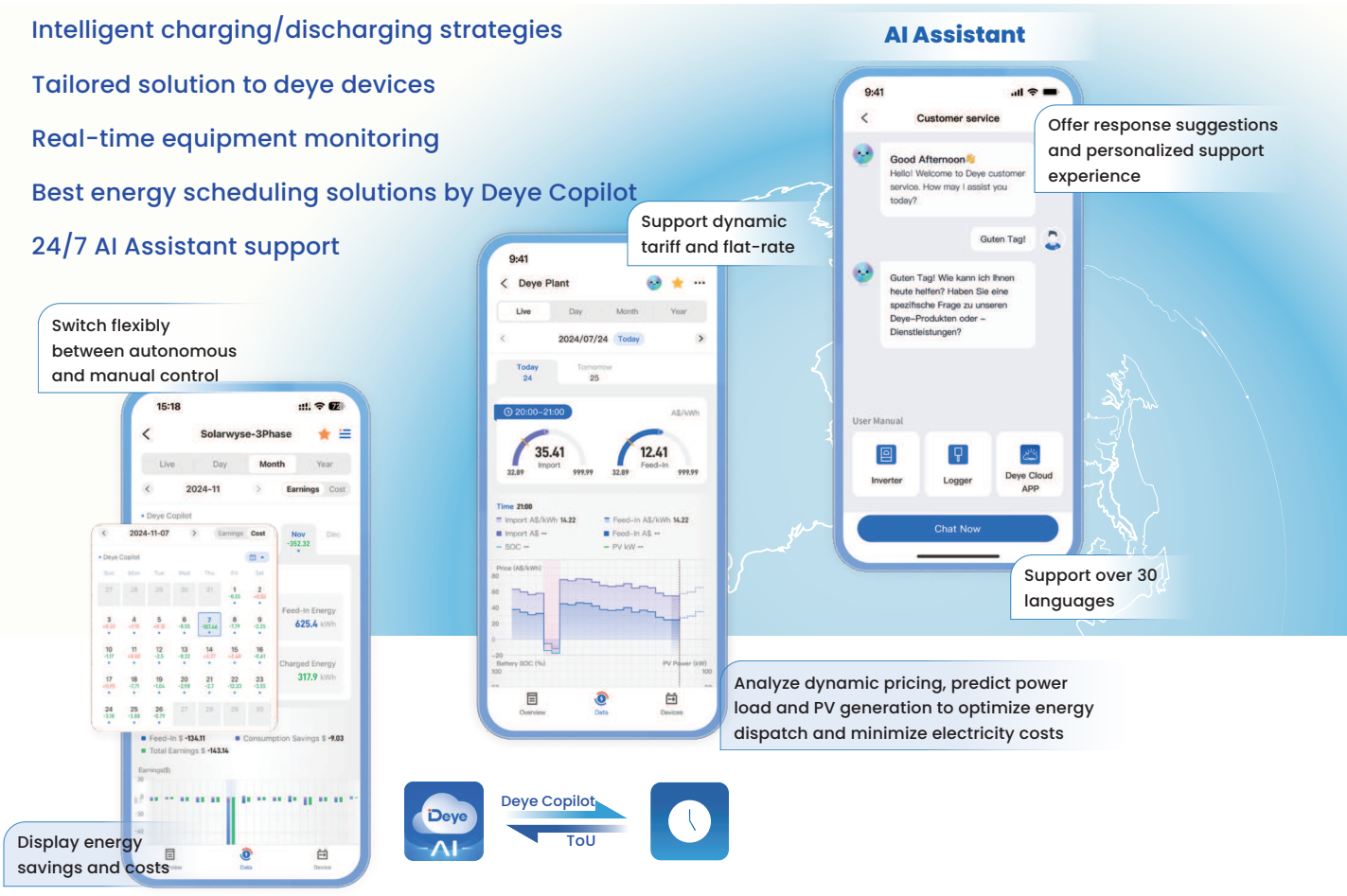
Five STS modules can provide parallel support for twenty 125kW PCS modules, forming a 2.5MW system.



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