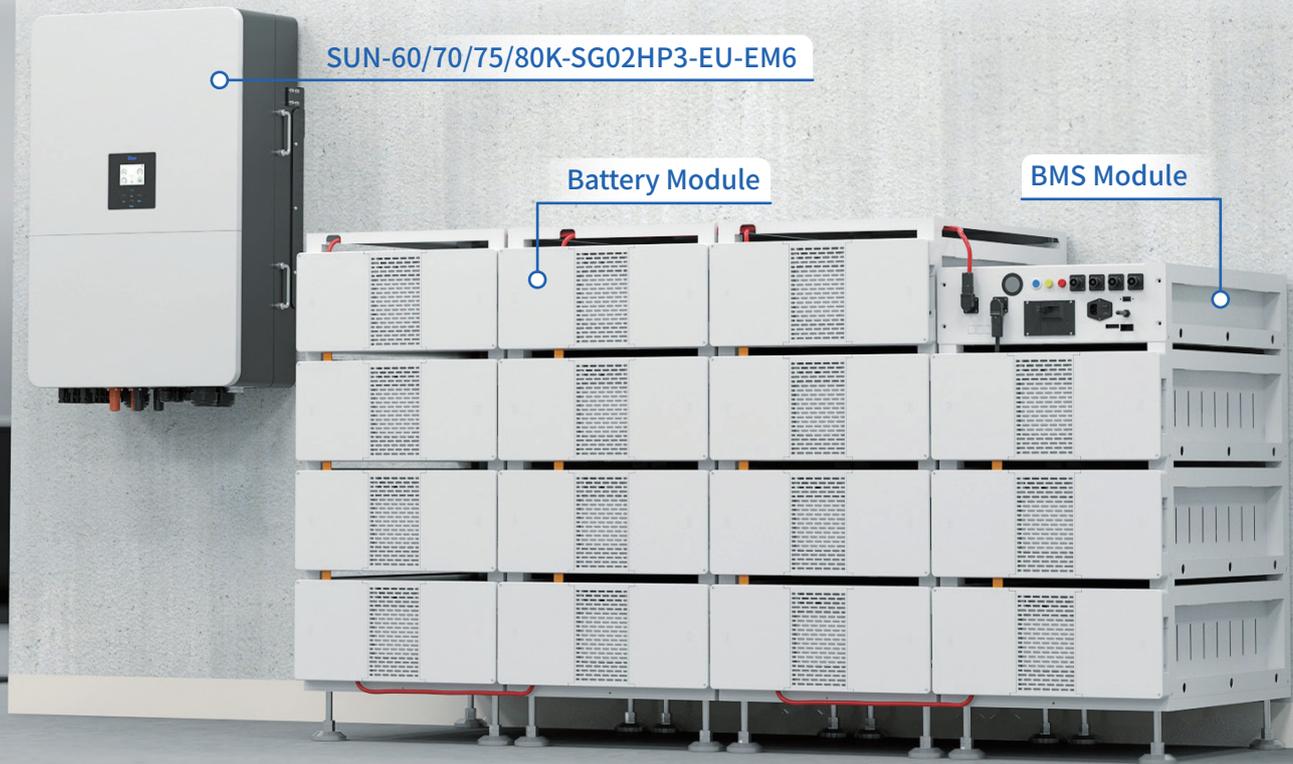


# C&I ESS SOLUTION

## BOS-B Pro-A3



SUN-(29.9-50)K-SG02HP3-EU-BM4-P / SUN-60/70/75/80K-SG02HP3-EU-EM6 / SUN-100/125K-SG02HP3-EU-GM10



### Practicality & Universal Compatibility

- 100% unbalanced output
- AC couple to retrofit existing solar system
- Dual Independent battery circuit



### Versatile & High-Performance

- TOU function, Six time periods for battery charging/discharging
- Diesel generator-ready, VSG application



### Reliability & Scalability

- Max. 10 pcs parallel for on-grid and off-grid operation
- Seamless switching between on-grid and off-grid modes in less than 10ms

## BOS-B Pro-A3



### Intelligent Control

- Peak-valley mgmt, anti-backflow
- Overload protection, load tracking, demand control, backup power, phase separation



### 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



### Scalable

- Support up to 16 units in parallel, maximum 2.2MW/3.8MWh



### Safer

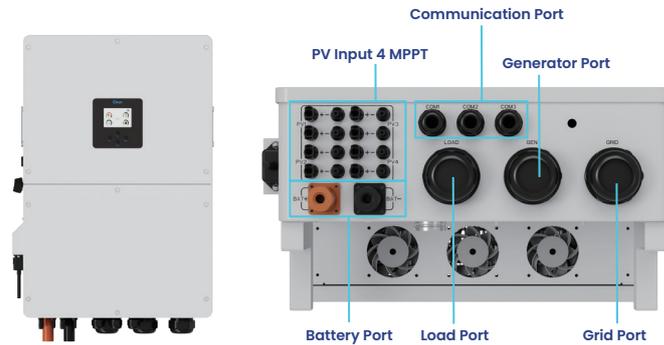
- LFP batteries
- Support aerosol fire extinguishing



### Eco-friendly

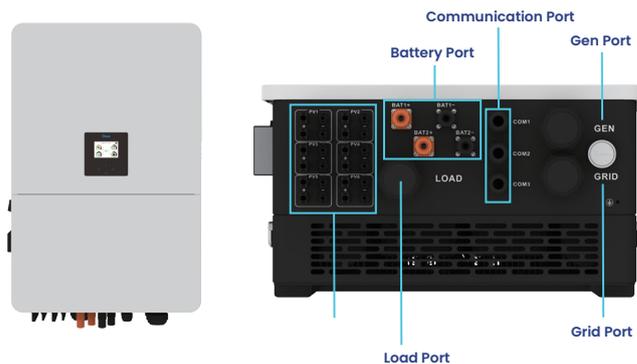
- The whole module is non-toxic, non-polluting and environmentally friendly

**SUN-(29.9-50)K-SG02HP3-EU-BM4-P**



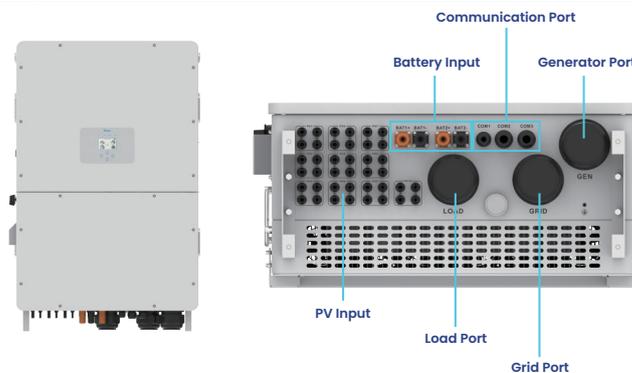
- ⊙ Battery Port: Dual independent battery circuit port, supporting multiple brand battery connection and battery voltage range 160-800V.
- ⊙ Communication Port: Serve as communicate with battery and data exchange between inverter and extra devices.
- ⊙ Load Port: Offer AC power to connected loads.
- ⊙ Grid Port: Connect to utility grid, for bidirectional power transfer: importing from and exporting to the grid.
- ⊙ Generator Port: Connect to diesel generator for backup power supply during outages, also can connect with existing solar inverter for AC Coupling.
- ⊙ PV Input: Connect to PV panels with 4 MPPTs.

**SUN-60/70/75/80K-SG02HP3-EU-EM6**



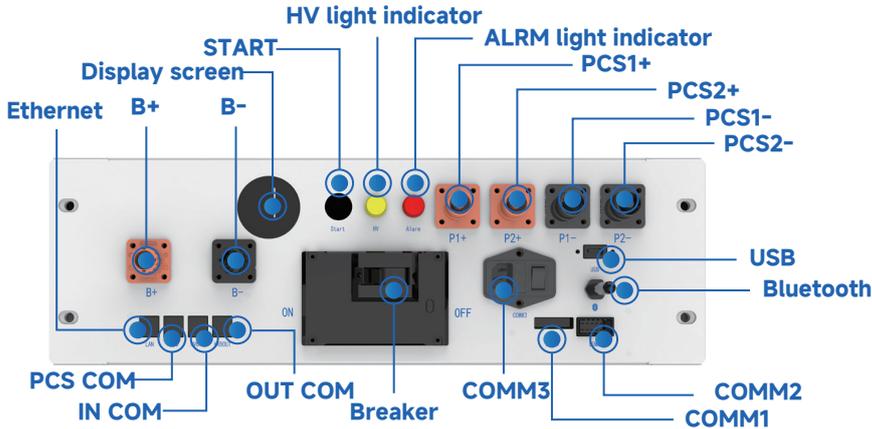
- ⊙ Battery Port: Dual independent battery circuit port, supporting multiple brand battery connection and battery voltage range 160-1000V.
- ⊙ Communication Port: Serve as communicate with battery and data exchange between inverter and extra devices.
- ⊙ Load Port: Offer AC power to connected loads.
- ⊙ Grid Port: Connect to utility grid, for bidirectional power transfer: importing from and exporting to the grid.
- ⊙ Generator Port: Connect to diesel generator for backup power supply during outages, also can connect with existing solar inverter for AC Coupling.
- ⊙ PV Input: Connect to PV panels with 6 MPPTs.

**SUN-100/125K-SG02HP3-EU-GM10**



- ⊙ Battery Port: Dual independent battery circuit port, supporting multiple brand battery connection and battery voltage range 160-1000V.
- ⊙ Communication Port: Serve as communicate with battery and data exchange between inverter and extra devices.
- ⊙ Load Port: Offer AC power to connected loads.
- ⊙ Grid Port: Connect to utility grid, for bidirectional power transfer: importing from and exporting to the grid.
- ⊙ Generator Port: Connect to diesel generator for backup power supply during outages, also can connect with existing solar inverter for AC Coupling.
- ⊙ PV Input: Connect to PV panels with 10 MPPTs.

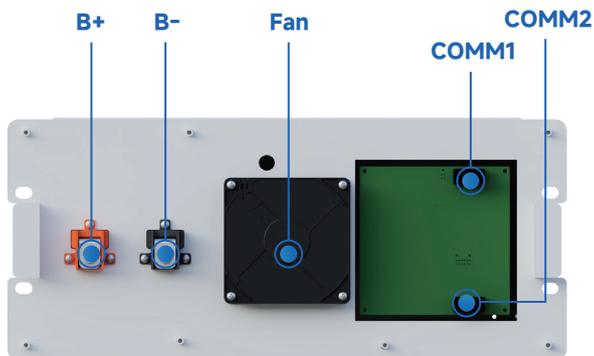
Model	BOS-B-PDU-2-A
Operating Voltage	200~1000Vdc
Nominal Charge/Discharge Current	180A
Operating Temperature	-20~60°C
Ingress Protection	IP20
AC Input Rating	220±10%VAC/2A
Details	788.6×526×167.2(W×D×H),32kg



- ◎ 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.

- ◎ 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.

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-B
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This Accessories Package is designed for use with the 80kW Hybrid Inverter, and primarily includes the following cables:

Positive Power Cable: 3AWG\_3000mm\*2, 1AWG\_2500mm\*1, 1AWG\_1000mm\*1

Negative Power Cable: 3AWG\_3000mm\*2, 1AWG\_240mm\*1

PE Cable: 10AWG\_600mm\*1

Model	SUN-29.9K-SG02HP3 -EU-BM3-P	SUN-30K-SG02HP3 -EU-BM3-P	SUN-35K-SG02HP3 -EU-BM3-P	SUN-40K-SG02HP3 -EU-BM4-P	SUN-50K-SG02HP3 -EU-BM4-P
<b>Battery Input Data</b>					
Battery Type	Lithium-ion				
Battery Voltage Range (V)	160-800				
Max. Charging Current (A)	160				
Max. Discharging Current (A)	160				
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
<b>PV String Input Data</b>					
Max. PV Access Power (W)	59800	60000	70000	80000	100000
Max. PV Input Power (W)	47840	48000	56000	64000	80000
Max. PV Input Voltage (V)	1000				
Start-up Voltage (V)	180				
MPPT Voltage Range (V)	150-850				
Rated PV Input Voltage (V)	600				
Max. Operating PV Input Current (A)	36+36+36			36+36+36+36	
Max. Input Short-Circuit Current (A)	55+55+55			55+55+55+55	
No. of MPP Trackers/ No. of Strings MPP Tracker	3/2+2+2			4/2+2+2+2	
<b>AC Input/Output Data</b>					
Rated AC Input/Output Active Power (W)	29900	30000	35000	40000	50000
Max. AC Input/Output Apparent Power (VA)	29900	33000	38500	44000	55000
Rated AC Input/Output Current (A)	45.4/43.4	45.5/43.5	53.1/50.8	60.7/58	75.8/72.5
Max. AC Input/Output Current (A)	45.4/43.4	50/47.9	58.4/55.8	66.7/63.8	83.4/79.8
Max. Continuous AC Passthrough (grid to load) (A)	200				
Peak Power (off-grid) (W)	1.5 times of rated power, 10s				
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65				
Grid Connection Form	3L+N+PE				
Total Current Harmonic Distortion THDi	<3% (of nominal power)				
DC Injection Current	<0.5% In				
<b>Efficiency</b>					
Max. Efficiency	97.60%				
Euro Efficiency	97.0%				
MPPT Efficiency	>99%				
<b>Equipment Protection</b>					
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
<b>Interface</b>					
LCD/LED Display	LCD				
Communication Interface	WIFI/RS485/CAN				
Monitor Mode	GPRS/WIFI/Bluetooth/4G				
<b>General Data</b>					
Operating Temperature Range(°C)	-40 to +60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	3000m				
Noise (dB)	≤65				
Ingress Protection (IP) Rating	IP65				
Inverter Topology	Non-Isolated				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet Size (WxHxD mm)	528×793×278(Excluding Connectors and Brackets)				
Weight (kg)	65				
Type of Cooling	Intelligent Air Cooling				
Warranty	Standard 5 years, extended warranty				
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	SUN-60K-SG02HP3 -EU-EM6	SUN-70K-SG02HP3 -EU-EM6	SUN-75K-SG02HP3 -EU-EM6	SUN-80K-SG02HP3 -EU-EM6
<b>Battery Input Data</b>				
Battery Type	Lithium-ion			
Battery Voltage Range (V)	160-1000			
Max. Charging Current (A)	80+80			
Max. Discharging Current (A)	80+80			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	2			
<b>PV String Input Data</b>				
Max. PV Access Power (W)	120000	140000	150000	160000
Max. PV Input Power (W)	96000	112000	120000	128000
Max. PV Input Voltage (V)	1000			
Start-up Voltage (V)	180			
MPPT Voltage Range (V)	150-850			
Rated PV Input Voltage (V)	650			
Max. Operating PV Input Current (A)	36+36+36+36+36+36			
Max. Input Short-Circuit Current (A)	54+54+54+54+54+54			
No. of MPP Trackers/ No. of Strings MPP Tracker	6/2+2+2+2+2			
<b>AC Input/Output Data</b>				
Rated AC Input/Output Active Power (W)	60000	70000	75000	80000
Max. AC Input/Output Apparent Power(VA)	66000	77000	82500	88000
Rated AC Input/Output Current (A)	91/87	106.1/101.5	113.7/108.7	121.3/116
Max. AC Input/Output Current (A)	100/95.7	116.7/111.6	125/119.6	133.4/127.6
Max. Continuous AC Passthrough (grid to load) (A)	200			
Peak Power (off-grid) (W)	1.5 times of rated power, 10s			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un			
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55,60/55-65			
Grid Connection Form	3L+N+PE			
Total Current Harmonic Distortion THDi	<3% (of nominal power)			
DC Injection Current	<0.5% In			
<b>Efficiency</b>				
Max. Efficiency	98.70%			
Euro Efficiency	98.10%			
MPPT Efficiency	>99%			
<b>Equipment Protection</b>				
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection			
Surge Protection Level	TYPE II(DC), TYPE II(AC)			
<b>Interface</b>				
Communication Interface	RS485/RS232/CAN			
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)			
<b>General Data</b>				
Operating Temperature Range(°C)	-40 to +60°C, >45°C Derating			
Permissible Ambient Humidity	0-100%			
Permissible Altitude	3000m			
Noise (dB)	≤65			
Ingress Protection (IP) Rating	IP65			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC III(AC)			
Cabinet Size (WxHxD mm)	606×927×314 (Excluding Connectors and Brackets)			
Weight (kg)	105			
Type of Cooling	Smart cooling			
Warranty	Standard 5 years, extended warranty			
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	SUN-100K-SG02HP3-EU-GM10	SUN-125K-SG02HP3-EU-GM10
<b>Battery Input Data</b>		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	160-1000	
Max. Charging Current (A)	100+100	
Max. Discharging Current (A)	100+100	
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	2	
<b>PV String Input Data</b>		
Max. PV Access Power (W)	200000	250000
Max. PV Input Power (W)	160000	200000
Max. PV Input Voltage (V)	1000	
Start-up Voltage (V)	180	
MPPT Voltage Range (V)	150-850	
Rated PV Input Voltage (V)	600	
Max. Operating PV Input Current (A)	42+42+42+42+42+42+42+42+42+42	
Max. Input Short-Circuit Current (A)	63+63+63+63+63+63+63+63+63+63	
No. of MPP Trackers/ No. of Strings MPP Tracker	10/2+2+2+2+2+2+2+2+2+2	
<b>AC Input/Output Data</b>		
Rated AC Input/Output Active Power (W)	100000	125000
Max. AC Input/Output Apparent Power (VA)	110000	135000
Rated AC Input/Output Current (A)	151.6/145.0	189.4/181.2
Max. AC Input/Output Current (A)	166.7/159.5	204.6/195.7
Max. Continuous AC Passthrough (grid to load)(A)	250	
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V	
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65	
Grid Connection Form	3L+N+PE	
Total Current Harmonic Distortion THDi	<3% (of nominal power)	
DC Injection Current	<0.5% In	
<b>Efficiency</b>		
Max. Efficiency	98.7%	
Euro Efficiency	98.10%	
MPPT Efficiency	>99%	
<b>Equipment Protection</b>		
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection	
Surge Protection Level	TYPE II(DC), TYPE II(AC)	
<b>Interface</b>		
LCD/LED Display	LCD+LED	
Communication Interface	RS485,RS232,CAN	
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)	
<b>General Data</b>		
Operating Temperature Range (°C)	-40 to +60, >45 Derating	
Permissible Ambient Humidity	0-100%	
Permissible Altitude	3000m	
Noise (dB)	≤ 65	
Ingress Protection(IP) Rating	IP 65	
Inverter Topology	Non-Isolated	
Over Voltage Category	OVC II(DC), OVC III(AC)	
Cabinet Size (WxHxD mm)	734×1091×344 (Excluding Connectors and Brackets)	
Weight (kg)	161.7	
Type of Cooling	Smart 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	



<b>Model</b>	<b>BOS-B Pro-A3</b>
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<b>Main Parameter</b>	
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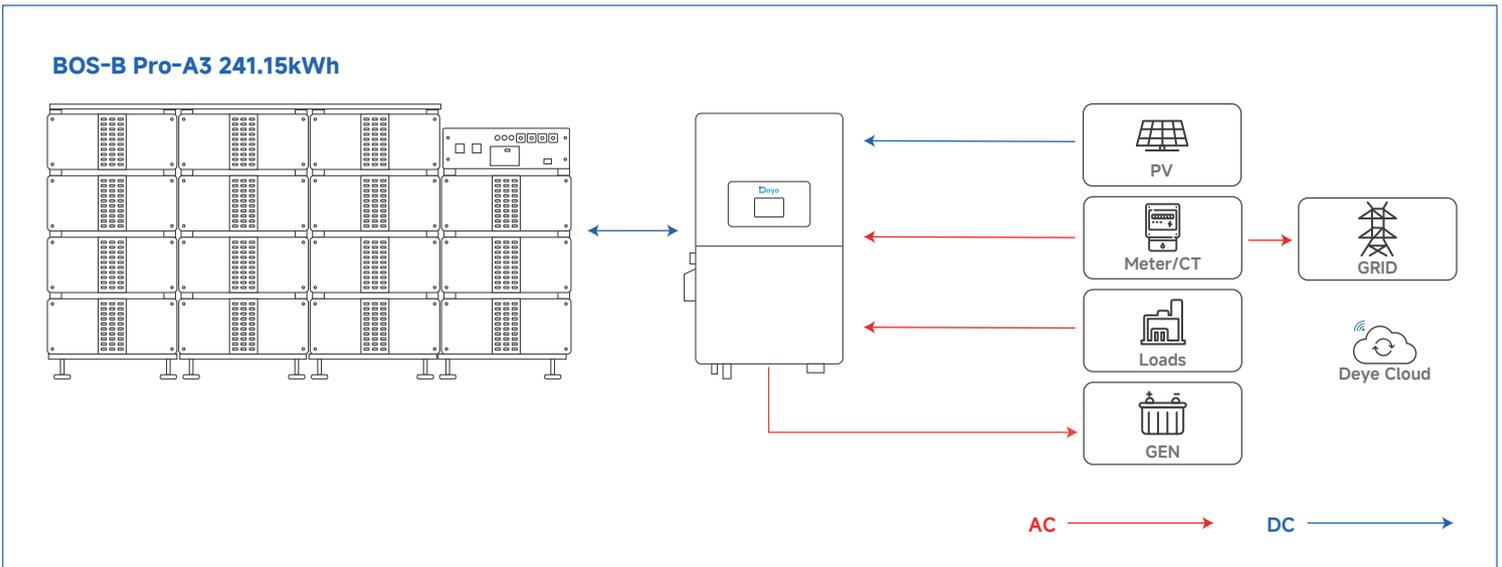
Battery Module Energy ( kWh )	16.08
Battery Module Nominal Voltage ( V )	51.2
Battery Module Capacity ( Ah )	314
Module Weight Approximate ( kg )	126
Battery Module Qty In Series ( Optional )	5~15
Max.System Nominal Voltage ( V )	768
Max.System Energy ( kWh )	241.5
Max.System Usable Energy ( kWh )	217.04
Max.Charge/Discharge Current ( A )	180

<b>Other Parameter</b>	
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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	≤3000m
IP Rating of Enclosure	IP20
Noise ( dB )	TBD
System Dimension ( W × H × D, mm )	2150 × 1305 × 800
System Weight Approximate ( kg )	2114
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**

Solution	Inverter model	Batteries Configuration
2h	SUN-100K-SG02HP3-EU-GM10	11units (BOS-B176 Pro-A3)
	SUN-125K-SG02HP3-EU-GM10	14units (BOS-B224 Pro-A3)
	SUN-50K-SG02HP3-EU-BM4-P	7 units (BOS-B112 Pro-A3)
	SUN-60K-SG02HP3-EU/AU-EM6	8 units (BOS-B128 Pro-A3)
	SUN-80K-SG02HP3-EU/AU-EM6	10 units (BOS-B160 Pro-A3)
3h	SUN-30K-SG02HP3-EU-BM3-P	5 units (BOS-B96 Pro-A3)
	SUN-50K-SG02HP3-EU-BM4-P	10 units (BOS-B160 Pro-A3)
	SUN-60K-SG02HP3-EU/AU-EM6	11 units (BOS-B176 Pro-A3)
	SUN-80K-SG02HP3-EU/AU-EM6	15 units (BOS-B240 Pro-A3)
4h	SUN-30K-SG02HP3-EU-BM3	8 units (BOS-B128 Pro-A3)
	SUN-50K-SG02HP3-EU-BM4	13 units (BOS-B208 Pro-A3)
	SUN-60K-SG02HP3-EU/AU-EM6	15 units (BOS-B240 Pro-A3)

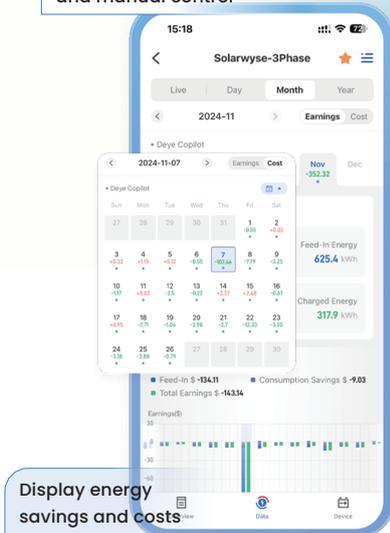


# Deye Cloud

## 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