

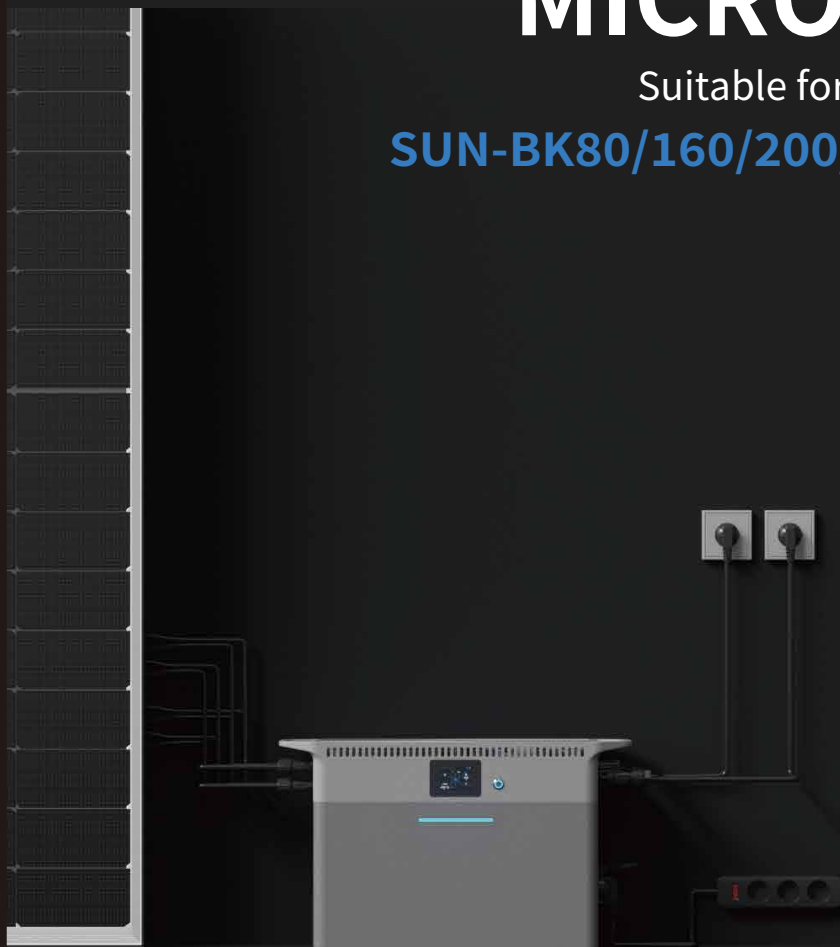


Micro Hybrid Energy Storage System

MICRO HYBRID ESS

Suitable for on-grid, off-grid, and portable use

SUN-BK80/160/200/250-2.56KWH-EU-AM4-18L



Hybrid Grid-Tied Mode
Self-consumption



Off-Grid Mode
Standalone & portable energy storage



AC-Coupled Mode
Upgrade the existing PV balcony system to ESS

96.5%

High Conversion Efficiency
DC-AC conversion efficiency of up to 96.5%

4ms

UPS-Grade Backup Power
Grid-tie and off-grid switchover time is less than 4ms

Max. 4 MPPTs

**Supports flexible connection
of multiple PV panels**



2500W Rated Power AC Charge/Discharge



Local Bluetooth Communication
Supports offline control
via the Deye Cloud APP

18A

Supports 18A high-current PV modules

IP65

IP65 Protection Rating
10-year standard warranty



Wireless Energy Management System
Smart plug, smart switch, wireless CT



Seamless Scalability
Easily expand the system with additional battery capacity



Micro Hybrid Energy Storage System



Max. 4400W PV
power input



2.56kWh
LFP Battery



Max. 2500W On-grid
& Off-grid operation



Model	SUN-BK80-2.56KWH -EU-AM4-18L	SUN-BK160-2.56KWH -EU-AM4-18L	SUN-BK200-2.56KWH -EU-AM4-18L	SUN-BK250-2.56KWH -EU-AM4-18L
Battery Input Data				
Battery Type	LiFePO ₄			
Battery Voltage Range(V)	44.8-57.6 V			
Battery Nominal Energy (Wh)	2560Wh			
Max.Charging/Discharging Current(A)	50A			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
PV String Input Data				
Max. PV access power(W)	4400W			
Max. Operating PV Input Current(A)	18+18+18+18A			
Max. Input Short-Circuit Current (A)	32+32+32+32A			
Rated PV Input voltage(V)	42.5V			
Start-up Voltage(V)	25Vdc			
MPPT voltage range(V)	20 ~ 55V			
No. of MPP Trackers/No. of Strings MPP Tracker	4/1+1+1+1			
AC Input/Output Data				
Rated AC Input/Output Active Power (W)	800W	1600W	2000W	2500W
Max. AC Input/Output Active Power (W)	880W	1760W	2200W	2750W
Max. off grid power(W)	2500W			
Rated AC Input/Output Current (A)	3.7A / 3.5A	7.3A / 7.0A	9.1A / 8.7A	11.4A / 10.9A
Max. AC Input/Output Current (A)	4A / 3.9A	8A / 7.7A	10A / 9.6A	12.5A / 12A
Peak Power (off-grid) (W)	2 times of rated power,10s			
AC Input / Output Frequency and Voltage	50Hz (45Hz ~ 55Hz) , 60Hz (55Hz ~ 65Hz) , L + N + PE , 220 / 230 Vac			
Power Factor Adjustment Range	0.8 leading-0.8lagging			
Max. Continuous AC Passthrough (grid to load)(A)	30A			
DC Injection Current	<0.5%In			
Efficiency				
Max. Efficiency	96.5%			
Euro Efficiency	96.0%			
MPPT Efficiency	>99%			
Equipment Protection				
Integrated	DC reverse polarity protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, Insulation Impedance detection, Anti-islanding protection			
Surge Protection Level	TYPE II(DC),TYPE II(AC)			
General Data				
Communication Interface	Wi-Fi, Bluetooth, LoRa			
Operating Temperature Range (°C)	-10°C ~ 55°C, >45°C Derating, (-20°C~55°C with heating, optional)			
Permissible Altitude (m)	2000m			
Ingress Protection(IP) Rating	IP 65			
Cabinet Size (W*H*D)	560 × 210 × 330mm			
Weight (kg)	30kg			
Permissible Ambient Humidity	0% ~ 95% (No Condensing)			
Warranty	10 years			
Grid Regulation	VDE 4105,IEC 61727/62116,VDE 0126,AS 4777.2,CEI 0-21,EN 50549-1,G98,C10-11,UNE 217002			
Safety EMC/Standard	IEC 62619,UN38.3,IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1/2/3/4			



Model	AE-F2.56
Battery Technical Specification	
Battery Chemistry	LiFePO ₄
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2560Wh
Max. Charging / Discharging Current	50A
Battery Operating Voltage	44.8V ~ 57.6V
Battery Cycle Life	≥6,000 (@25°C±2°C, 70%EOL)
Max. Stack NO.	5 pcs (up to 12.8kWh)
Parallel Capability	40 pcs*
Other Technical Specification	
Display	LED (SOC, Alarm)
Communication Interfaces	LoRa
Dimension (W × D × H) (mm)	450 × 210 × 244 (without terminal)
Ingress Protection(IP) Rating	IP 65
Weight Approximate	24kg
Operating Temperature Range	-10°C~55°C (-20°C~55°C with heating, optional)
Max. Operating Altitude	3000m
Relative Humidity	0% ~ 95% (No Condensing)
Certification	UN38.3, IEC 62619, CE
Installation Style	Floor-Mounted,Stacked-Mounted
Warranty	10 years

*Maximum 40 Pieces AE-F2.56 Packs in Parallel, Up to 102.4kWh.



App Interface Subject to Change

SCENARIO-BASED ENERGY MANAGEMENT SOLUTIONS

Utilize energy in every outdoor adventure or household needs. Embrace effortless energy experience that's both eco-friendly and budget-friendly with our intelligent assistant.

Scenario 1 :



Compact Balcony Solar Plant
Automated Energy-Saving Strategies

Scenario 2 :

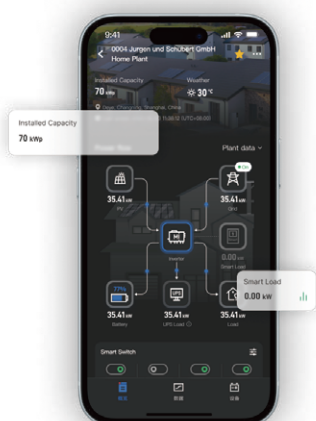


Camping Power Solution
Empower Your Outdoor Adventure

Scenario 3 :



Reliable Home Emergency Power Source
Ensure You Stay Powered Up When You Need It Most



SMARTEN-UP YOUR HOME ENERGY

Real-time monitoring, with data information at a glance.
Create scenario-based tasks that adapt to your daily routines.
A smarter way to manage your electricity bills.

CONNECT, MONITOR, CONTROL

Seamlessly integrated with Deye devices for a smarter, more efficient energy experience.

User-friendly interface demystifies complex settings.
Clear menu hierarchy, key information at your finger tips.

