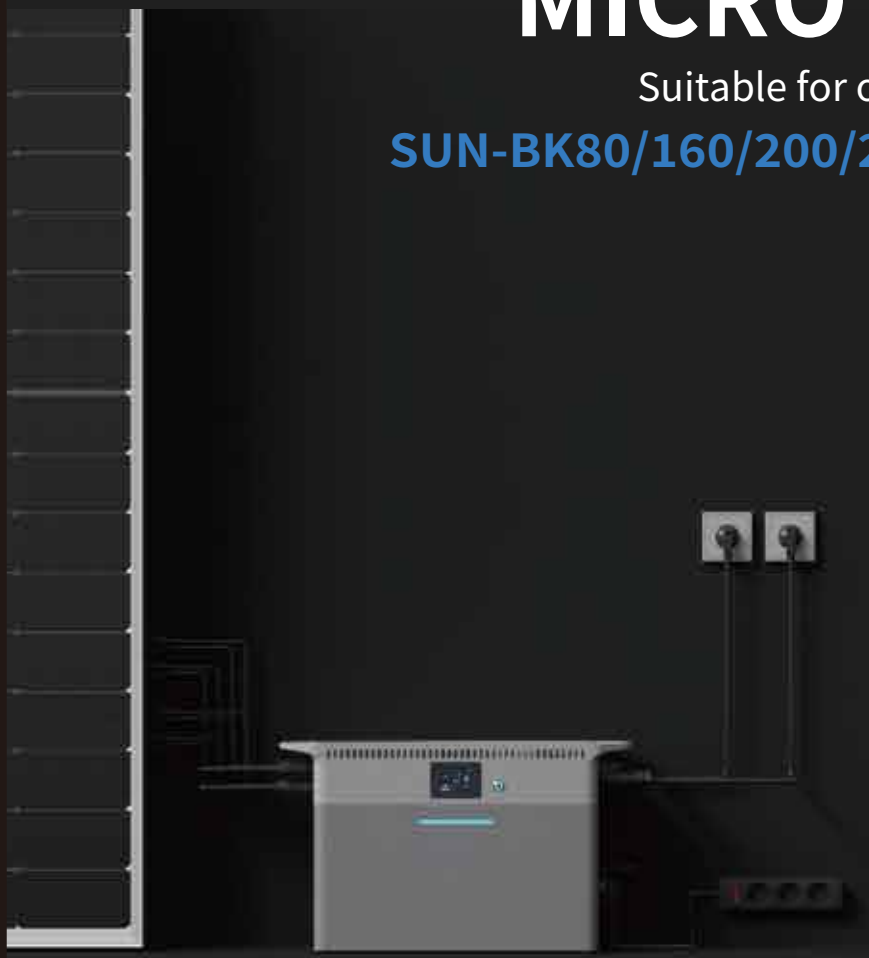
Deye

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

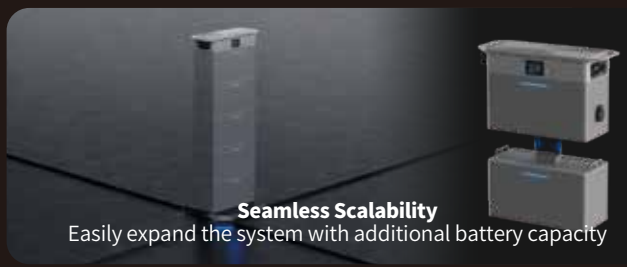
18A

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
AC Technical Specification				
Rated AC Input/Output Active Power	800W	1600W	2000W	2500W
Max. AC Input/Output Active Power	880W	1760W	2200W	2750W
Max. off grid power	2500W			
AC Input / Output Frequency and Voltage	50Hz (45Hz ~ 55Hz) , 60Hz (55Hz ~ 65Hz) , L + N + PE , 220 / 230 Vac			
Grid Type	Single phase			
Rated AC Input/Output Current	3.7A / 3.5A	7.3A / 7.0A	9.1A / 8.7A	11.4A / 10.9A
Max. AC Input/Output Current	4A / 3.9A	8A / 7.7A	10A / 9.6A	12.5A / 12A
Peak Power (off-grid)	2 time of rated power, 10s			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Max. Continuous AC Passthrough (grid to load)	30A			
DC Injection Current	<0.5%In			
PV Technical Specification				
Max. PV Access Power	4400W			
Max. Operating PV Input Current	18+18+18+18A			
Max. Input Short-Circuit Current	32+32+32+32A			
Rated PV Input Voltage	42.5V			
Start-up Voltage	25Vdc			
MPPT Voltage Range	20 ~ 55V			
No. of MPP Trackers/No. of Strings MPP Tracker	4/1+1+1+1			
Battery Technical Specification				
Battery Type	$LiFePO_4$			
Battery Voltage Range(V)	44.8-57.6			
Battery Nominal Energy	2560Wh			
Max.Charging/Discharging Current	55A			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Other Technical Specification				
Display	Colorful Touch LCD & APP & Battery LED (SOC, Alarm)			
Communication Interfaces	Wi-Fi, Bluetooth, LoRa			
Operating Temperature Range	-10°C ~ 55°C, >45°C Derating,(-20°C~55°C with heating, optional)			
Permissible Altitude	2000m			
Ingress Protection(IP) Rating	IP 65			
Dimension(W X D X H)	560 × 210 × 330mm			
Permissible Ambient Humidity	0% ~ 95% (No Condensing)			
Safety EMC / Standard	IEC 62619,UN38.3,IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1/2/3/4			
Grid Regulation	VDE 4105,IEC 61727/62116,VDE 0126,AS 4777.2,CEI 0-21,EN 50549-1,G98,C10-11,UNE 217002			
Battery Certification	UN38.3, IEC 62619			
Installation Style	Floor-Mounted,Stacked-Mounted			
Warranty	10 years			

Battery Modules

Model	AE-F2.6
Battery Technical Specification	
Battery Chemistry	$LiFePO_4$
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2560Wh
Max. Charging / Discharging Current	55A
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

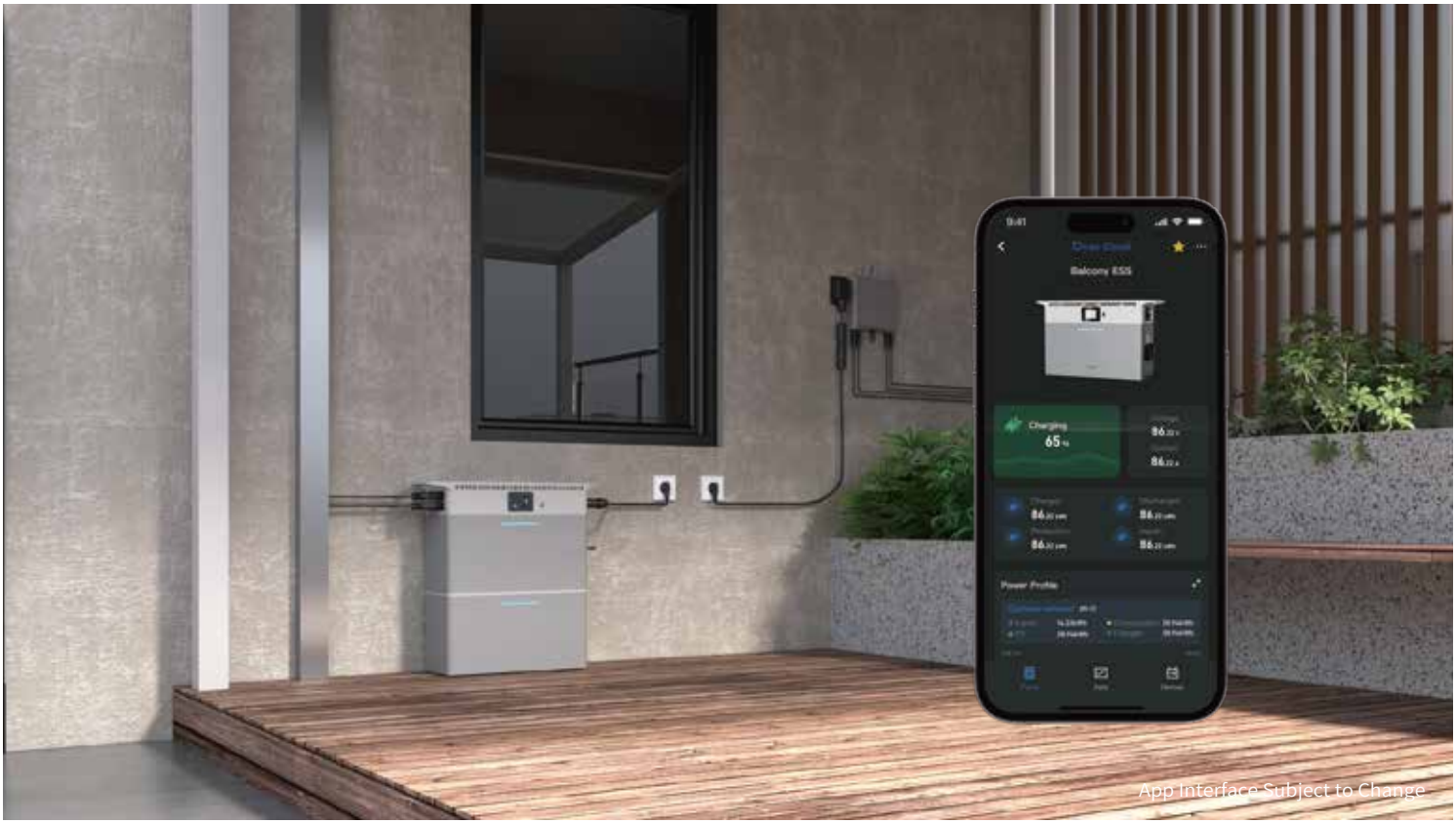
*Maximum 40 Pieces AE-F2.6 Packs in Parallel, Up to 102.4kWh.

Deye Cloud
Intelligent Energy Management

Efficiency Optimization

Real-Time Monitoring

User-Friendly



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 :

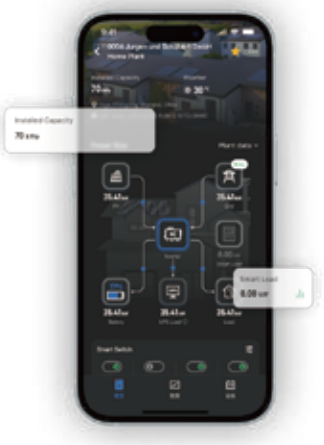
Compact Balcony Solar Plant
Automated Energy-Saving Strategies

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.

Download on the App Store

GET IT ON Google Play

Join Deye's Intelligent Energy Revolution and Start Saving Today!

Deye