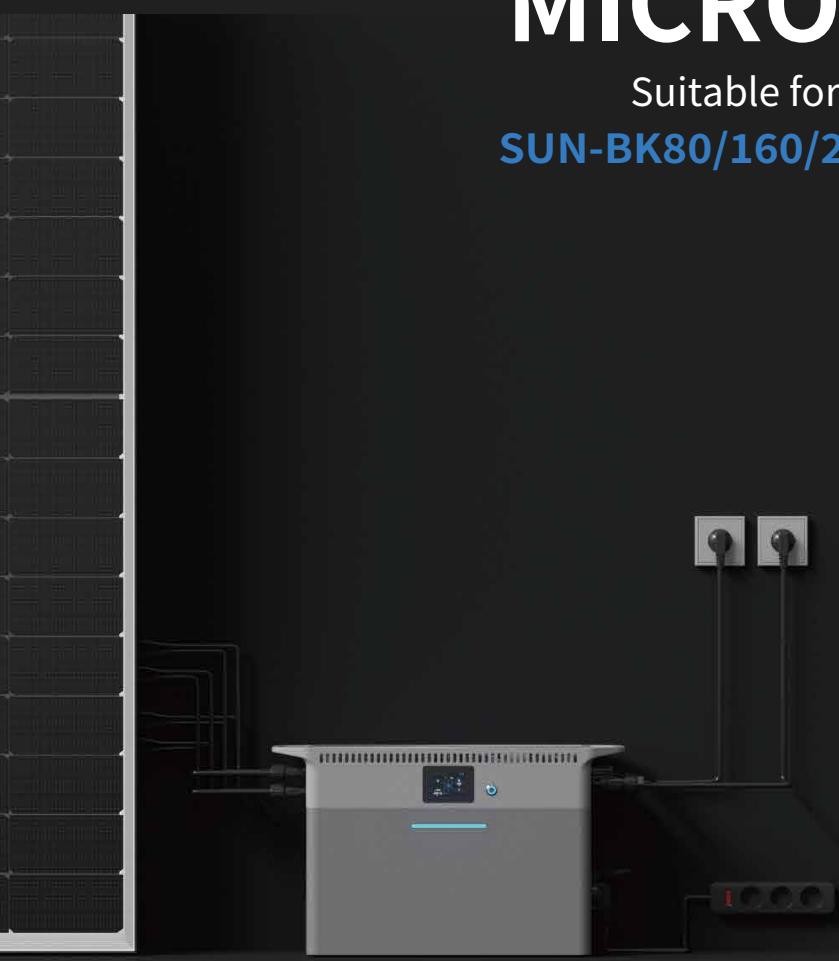


Micro Hybrid Energy Storage System MICRO HYBRID ESS

Suitable for on-grid, off-grid, and portable use
SUN-BK80/160/200/250-2.56KWH-EU-AM4-32L



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

99%+

Compatible with **99%+** of PV modules

Max. PV access power 5760W

IP65

IP65 Protection Rating
10-year standard warranty

Deye
Wireless Energy Management System

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. 5760W PV
power input



2.56kWh
LFP Battery



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



Model	SUN-BK80-2.56KWH -EU-AM4-32L	SUN-BK160-2.56KWH -EU-AM4-32L	SUN-BK200-2.56KWH -EU-AM4-32L	SUN-BK250-2.56KWH -EU-AM4-32L			
Battery Technical Specification							
Battery Type			LiFePO ₄				
Battery Voltage Range(V)			44.8-57.6				
Battery Nominal Energy			2560Wh				
Max.Charging/Discharging Current			50A				
Charging Strategy for Li-ion Battery			Self-adaption to BMS				
PV Technical Specification							
Max. PV Access Power			5760W				
Max. Operating PV Input Current			32+32+32+32A				
Max. Input Short-Circuit Current			48+48+48+48A				
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				
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	880W		2500W				
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				
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 to 0.8 lagging				
Max. Continuous AC Passthrough (grid to load)			30A				
DC Injection Current			<0.5%In				
Efficiency							
Max. Efficiency			96.5%				
Euro Efficiency			96%				
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)					
Other Technical Specification							
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)					
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						



Battery Modules



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.

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