



Micro Hybrid Energy Storage System

MICRO HYBRID ESS

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

SUN-BK60/80/100-2.0KWH-EU-AM2



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



Quiet Operation
Fanless design with natural cooling



1000W Rated Power AC Charge/Discharge



Local Bluetooth Communication
Supports offline control via the Deye Cloud APP

1600W

High-Power PV Input
Supports up to 2200W for PV access and allows a maximum PV power input of 1600W

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



2200W PV
MPPT Input



2kWh
LFP Battery



1000W On-grid and
Off-grid Operation



Model	SUN-BK60-2.0KWH-EU-AM2	SUN-BK80-2.0KWH-EU-AM2	SUN-BK100-2.0KWH-EU-AM2
-------	------------------------	------------------------	-------------------------

AC Input/Output Data

Rated AC Input / Output Active Power	600W	800W	1000W
Max. AC Input / Output Active Power	660W	880W	1100W
AC Input / Output Frequency and Voltage	50Hz (45Hz ~ 55Hz) , 60Hz (55Hz ~ 65Hz) , L+N+PE , 220 / 230 Vac		
Grid Type	Single phase		
Rated Grid Input / Output Current	2.8A / 2.7A	3.7A / 3.5A	4.6A / 4.4A
Max.Grid Input / Output Current	3.0A / 2.9A	4.0A / 3.9A	5.0A / 4.8A
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)	10A		
DC Injection Current	<0.5%In		

PV String Input Data

Max. PV Access Power	1320W	1760W	2200W
Max. PV Input Power	960W	1280W	1600W
Max. Operating PV Input Current	18A+18A		
Max. Input Short-Circuit Current	27A+27A		
Rated PV Input Voltage	42.5V (20V ~ 55V)		
Start-up Voltage	25Vdc		
MPPT Voltage Range	20 ~ 55V		
No. of MPP Trackers/No. of Strings MPP Tracker	2/1+1		

Battery Input Data

Battery Type	LiFePO ₄
Max.Charging/Discharging Current	25A
Battery Nominal Energy	2000Wh
Battery Voltage Range	44.8V ~ 57.6V
Charging Strategy for Li-ion Battery	Self-adaption to BMS

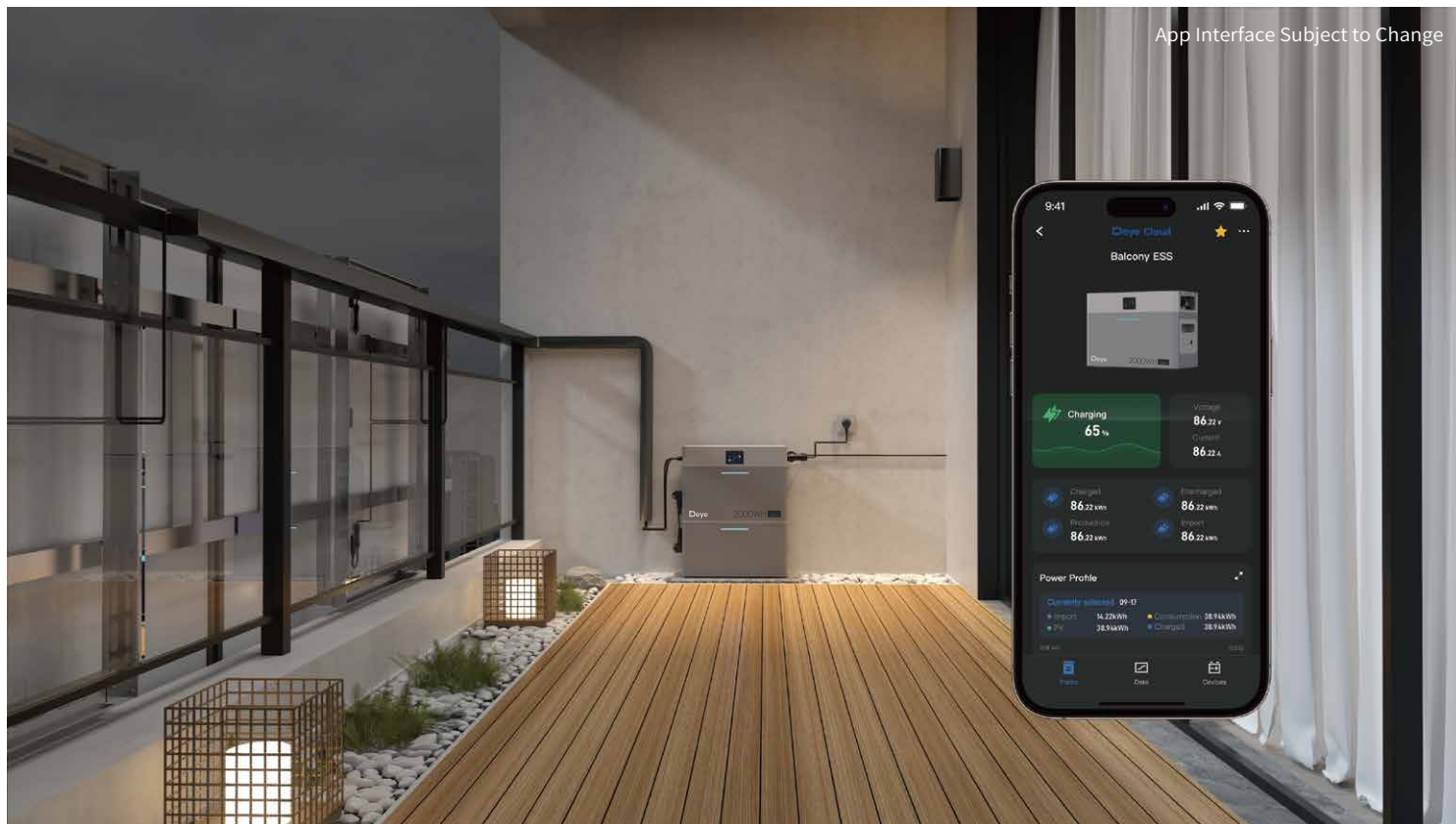
General Data

Communication Interfaces	Wi-Fi, Bluetooth
Dimension (W × D × H)	450 × 210 × 321mm
Weight Approximate	26kg
Operating Temperature Range	-10°C ~ 50°C
Permissible Altitude	2000m
Permissible Ambient Humidity	15%~85%(No Condensing)
Safety EMC / Standard	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, G99, C10-11, UNE 217002, NBR 16149/NBR 16150
Battery Certification	UN38.3, IEC 62619
Installation Style	Floor-Mounted
Warranty	10 years



Model	AE-F2.0
Battery Technical Specification	
Battery Chemistry	LiFePO ₄
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2000Wh
Max. Charging / Discharging Current	40A
Battery Operating Voltage	44.8V ~ 57.6V
Battery Cycle Life	≥6000 (@25°C±2°C, 0.5C / 0.5C, 70%EOL)
Parallel Capability	5 pcs*
Other Technical Specification	
Display	LED (SOC, Alarm)
Communication Interfaces	CAN2.0, LoRa
Dimension (W × D × H)	450 × 210 × 244mm
Weight Approximate (kg)	20
Operating Temperature Range	-10°C ~ 50°C
Max. Operating Altitude	2000m
Relative Humidity	0% ~ 95% (No Condensing)
Certification	UN38.3, IEC 62619, CE
Installation Style	Floor-Mounted
Warranty	10 years

*Maximum 5 Pieces AE-F2.0 Packs in Parallel, Up to 10kWh.



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 :

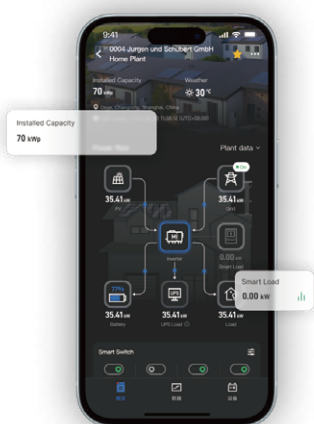


Camping Power Solution
Empower Your Outdoor Adventure

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.

