

# FDES1.0 Energy Storage System



## 1 Modular Stackable Design

Expandable for increasing energy capacity, ideal for varying household or commercial needs.

## 2 Flexible Energy Storage

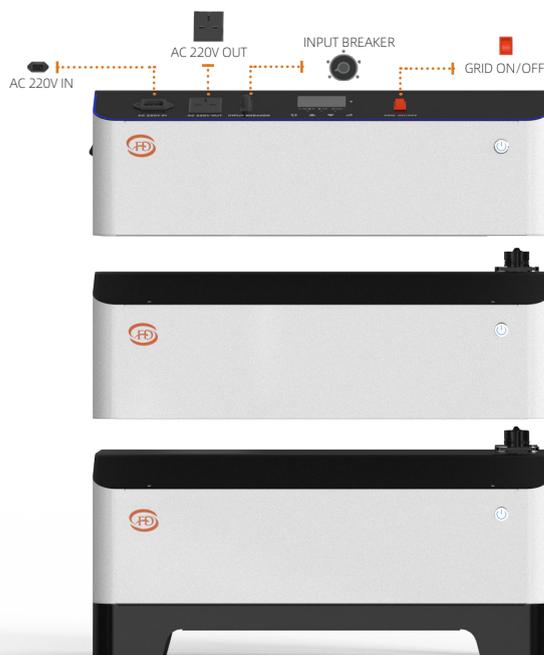
The smart design of FDES 1.0 allows you to store solar or grid energy when needed and to send extra energy back to the grid when it is not in use.

## 3 Weather-Resistant

IP65-rated for protection against dust and water, suitable for various environmental conditions.

## 4 High Safety Standards

Long life cycle of 6000 cycles and superior safety with lithium iron phosphate (LiFePO<sub>4</sub>) batteries.



## 5 Smart Battery Heating Module

Ensures stable performance in extreme temperatures (-15°C to 55°C)



The FDES1.0 is a high-performance, plug-and-play energy storage solution designed for residential and small commercial photovoltaic (PV) systems. Equipped with intelligent energy management features and robust protection, it enhances the efficiency of solar power systems by storing excess energy for later use.



### Home Solar Systems

Ideal for balcony PV systems, providing energy storage and self-sufficiency in limited spaces.



### Emergency Backup

Provides reliable backup power during grid failures, keeping essential devices powered.



### Small Commercial Use

Offers a compact, scalable storage solution for small businesses or off-grid applications.

# Technical Specifications

Parameter	Value	Parameter	Value
Maximum System Capacity (Wh)	100AH 25.6V	Battery Type	Lithium Iron Phosphate (LiFePO4)
Maximum Input Power (W)	2000 W	AC Output Voltage (V)	220 - 240 V
Input Current Max (A)	15 A	Rated Output Frequency (Hz)	50/60 Hz
PV Input Voltage (V)	40 - 500 V	AC Output Power (W)	2000 W
Output Power (W)	2000W	Output Ports	AC (220V) x 1
Output Voltage Range (V)	20 - 50 V	Life Cycle	6000 Cycles (≥80% Remaining Capacity)
Protection Level	IP65	Operating Temperature (°C)	-15°C to 55°C (with Smart Battery Heating module)
Size (L x W x H, mm,each)	566*260*182.5 mm	Weight	25kg (Per Layer, 1<N≤5)
Noise Level	≤25 dB (Suitable for in/outdoor use without disturbing the living or working environment)		

## Energy Storage Solution



FDES1.0 can work seamlessly with photovoltaic panels and microinverters together to optimize energy usage. It is designed to store excess energy generated by solar panels during the day and discharge it when sunlight is insufficient or during power outages.



### Space-Efficient

Compact design makes it an ideal solution for environments with limited space, such as balconies and small homes.



### Energy Autonomy

Enhances energy self-sufficiency by maximizing solar energy storage and reducing grid dependency.



### Reliable and Durable

The long life cycle and high safety features ensure a reliable and sustainable energy storage solution.



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