



Smart sleep



Smart BMS



Easy to install



Compact size



Multiple protection



Heating function



Adjustable angle

ZM-HS-S

Solar Battery Backup System



PRODUCT INTRODUCTION

This product is a professional integrated solar power supply system, which consists of three parts: solar panels, lithium battery packs and mounting brackets. It has the product characteristics of two easy and two high (easy to install, easy to use, long life, and high reliability). Without access to the mains, it can provide stable and reliable power output for the equipment, and is widely used in urban construction, road monitoring, new rural reconstruction, environmental governance, water source protection, forest fire prevention and other scenarios.

- This product comes with a mounting bracket, is compact, easy to install, requires few connections, and has stable power supply;
- This product uses high-density 18650 batteries and new nano-functional conductive materials, with excellent electrical and thermal properties, fast charging efficiency, and excellent temperature characteristics;
- This product complies with the safety requirements of lithium-ion batteries and battery packs for portable electronic products in GB31241;
- This product has a lithium battery over-temperature protection function. If the external battery temperature exceeds the set value, the charging will be shut down to avoid damaging the internal system;
- This product has multiple protection mechanisms. The BMS has overcharge protection, over-discharge protection, equalization protection, anti-reverse connection, charging trickle protection, undervoltage protection, overvoltage protection, short circuit protection, waterproof protection, etc. A dual protection system is used to ensure the safety of lithium batteries;
- This product uses ternary lithium batteries, and the remaining capacity after 800 cycles is greater than 90% (DOD100%).

INDEPENDENTLY DEVELOPED BMS

Photovoltaic charging + BMS integration: SOC calibration is accurate during operation

Intelligent BMS: System parameters can be adjusted through RS485

Heating function: Can work normally under low temperature climate conditions

Intelligent sleep function: Ensure safety and energy saving during storage and transportation

High and low temperature charging and discharging protection: Can work normally under harsh outdoor conditions



Solar Battery Backup System

Parameter	ZM-H10S40-S	ZM-H20S40-S	ZM-H20S60-S	ZM-H20S80-S
Charge				
PV power	40W	40W	60W	80W
PV input voltage	18V	18V	18V	18V
Material	Monocrystalline silicon			
Energy storage				
Battery Type	NCM			
Battery Capacity	10AH	20AH	20AH	20AH
Total Energy	111Wh	222Wh	222Wh	222Wh
Available Capacity	100Wh	200Wh	200Wh	200Wh
Discharge Depth	90%DOD			
Cycles	>800deep loops			
Nominal Voltage	11.1V			
Working Voltage Range	9~12.6Vd.c			
Discharge				
Output Voltage	9~12.6Vd.c (can be customized)			
Maximum Output Current	2A			
Efficiency	>95%			
Function				
Communication	RS485			
Battery Heating	Charging current > 2A and lower than -5℃ turns on			
Protection Type	Overcurrent/overvoltage/short circuit/undervoltage/temperature			
Operating Temperature Range	'-20℃~65℃			
Status Indicator	LED（charging status, battery status, output status）			
General Parameters				
Output Method	Standard DC plug 5521 (can be customized)			
Output Line Length	1.5m (can be customized)			
Protection Level	IP65			
Humidity Range	4-100%(No condensation)			
Cooling Method	Natural heat dissipation			
Hazardous Material Classification	9			
Shell Material	Metal			
Mounting Method	Hanging rod/wall mountingSupported pole diameter70mm-150mm			
Packing size	640*125*465mm	640*125*465mm	860*125*465mm	865*125*525mm