

Solar Battery Backup System

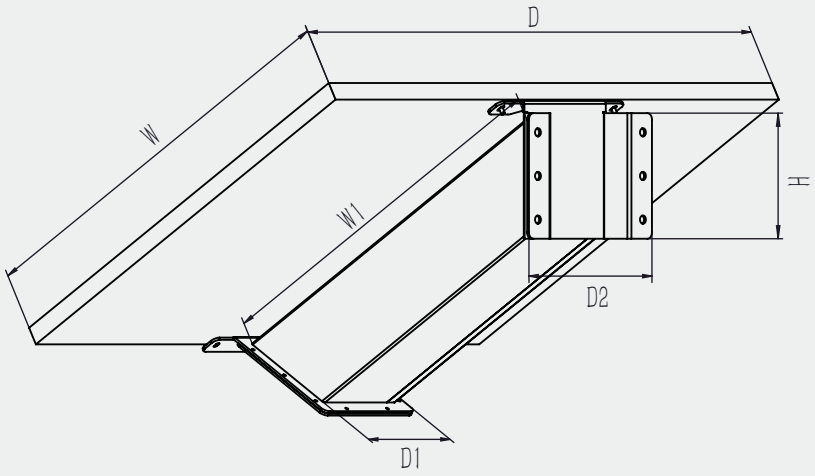
- 80W Solar panel 40Ah Battery

This product is specifically developed for small electrical devices to solve the challenges of no grid access and high wiring costs. It is a compact photovoltaic energy storage integrated power source that seamlessly integrates advanced solar technology with an efficient energy storage system. It is managed by an intelligent BMS (Battery Management System) that oversees the charging and discharging processes. The use of Lifepo4 ensures a long service life and high safety. Considering the low environmental temperatures in some regions, we have added an intelligent heating system to ensure the utilization rate of battery energy, adapting to a wide temperature range of -20°C to 65°C. The meticulously designed structure has a waterproof rating of IP66, is simple to install, and features multiple protection functions as well as automatic adjustment and recovery capabilities to fully realize unattended operation performance.

- ▶ Intelligent sleep protection
- ▶ Quick charge
- ▶ Multiple protection
- ▶ Smart BMS
- ▶ Support parallel expansion

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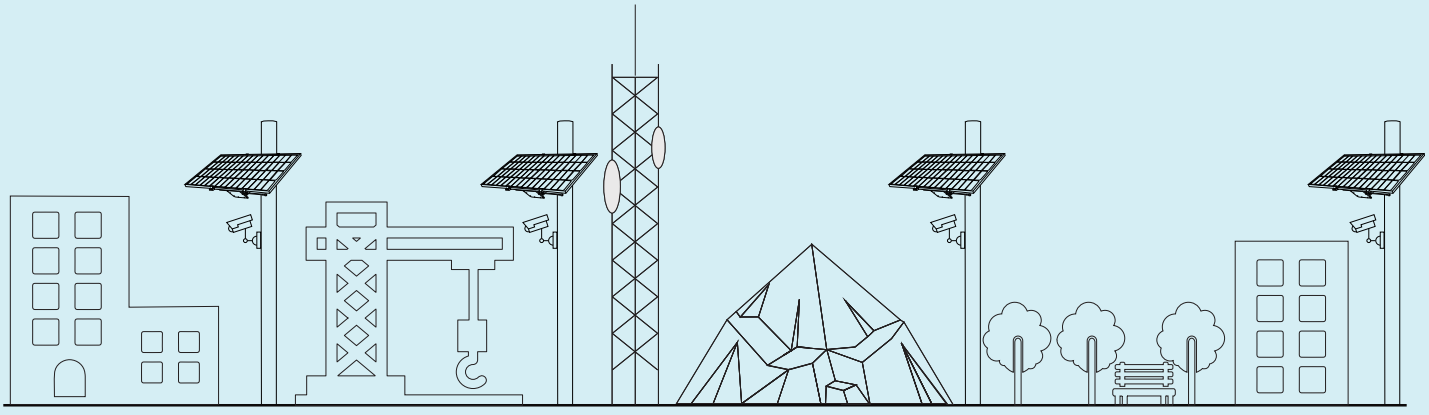
Dimensions & weight



	SF-SOLARKIT-DC-512WH-12V-CLOUD
W	495mm
D	765mm
W1	475mm
D1	80mm
D2	149mm
H	147mm
Weight	12.5kg

Product Highlights

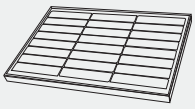
- MPPT Maximum Power Point Tracking mode of power generation.
- Standard MODBUS protocol, supports 485 communication & Bluetooth signal transmission.
- Static current 60mA, intelligent sleep and wake-up functions, ultra-low power consumption for extended standby
- Smart temperature control, the heating system is powered by photovoltaic, but heating in low-temperature environments does not consume battery energy.
- Integrated design, adjustable installation direction.



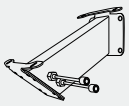
Solar Battery Backup System

Parameter	SF-SOLARKIT-DC-512WH-12V-CLOUD
Charge	
PV power	80W
PV input voltage	18V
Material	Monocrystalline silicon
Energy storage	
Battery Type	Lifepo4
Battery Capacity	40AH
Total Energy	512Wh
Available Capacity	461Wh
Discharge Depth	90%DOD
Cycles	⩾3000 deep loops
Nominal Voltage	12.8V
Working Voltage Range	11.2~14.6Vd.c
Discharge	
Output Voltage	11.2~14.6Vd.c（can be customized）
Maximum Output Current	10A
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 mounting
Warranty	2 years
Certificate	UN38.3/MSDS

Solar Battery Backup System



Solar Panel x 1



Battery x 1



U type hoop x 2



DC Cable x 1



Hex Wrench x 1



M6 Screws×4



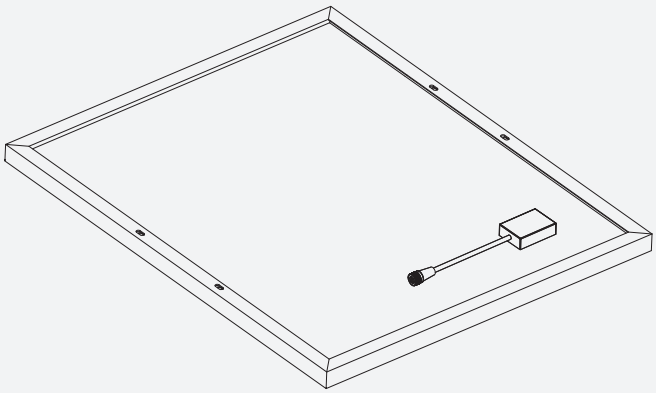
Nuts x 4
Washers x 4
Spring Washers x 4



Installation Guidebook x 1

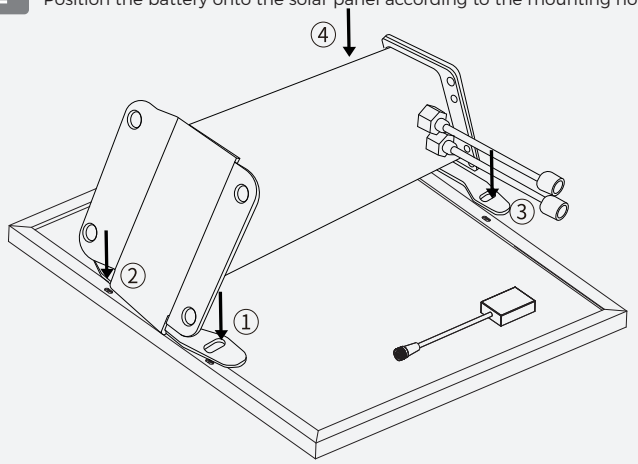
1

Place the solar panel kit horizontally.



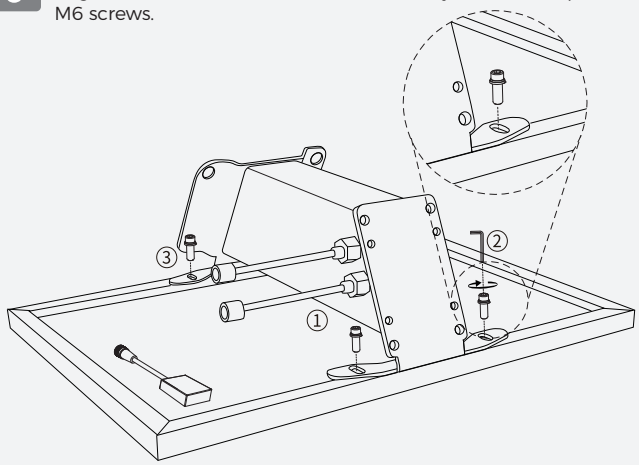
2

Position the battery onto the solar panel according to the mounting holes.



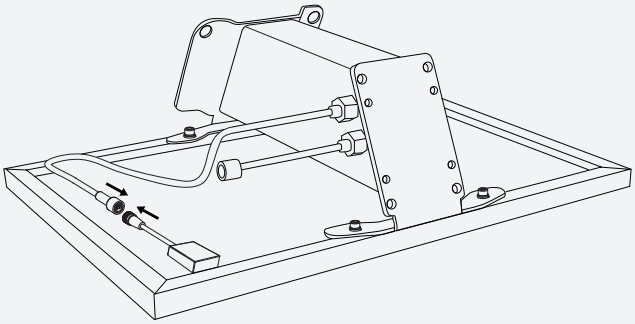
3

Align the four holes and secure the battery to the solar panel using M6 screws.



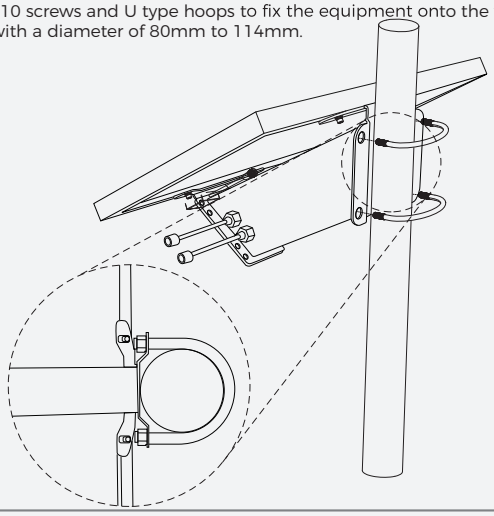
4

Connect the solar panel to the battery (the connectors are designed to be foolproof, match them accordingly).



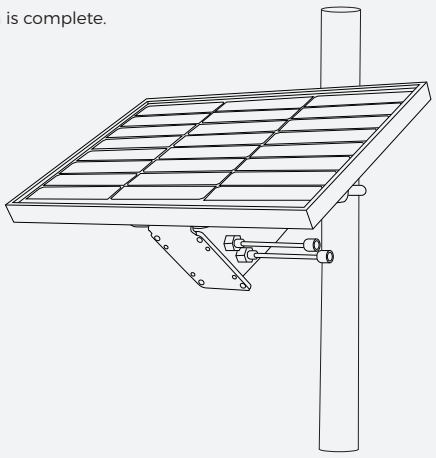
5

Use M10 screws and U type hoops to fix the equipment onto the vertical pole with a diameter of 80mm to 114mm.



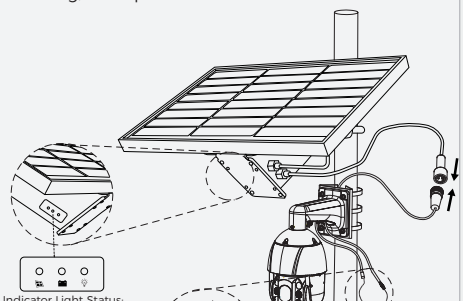
6

Installation is complete.



7

After securely fixing the camera, connect the corresponding DC power cable. If the cable is too long, use zip ties to secure it.



Indicator Light Status:

Indicator Light	Colour	Status
Solar panel indicator light	green	On - the solar panel is charging Off - the solar panel is not charging
Battery indicator light	green	On - the battery status is normal Flashing slowly- battery power is low Flashing quickly- battery power is exhausted
Load indicator light	Red	On - can output properly (not means outputting) Off - cannot output