

Solar home energy system

Basic specifications:

	Standard kit	Expansion
PV	500W	750W
Storage	1.5 kWh	3.00 kWh
Input (AC)	AC 160V~275V 45-65Hz	
Output (AC)	500W/1000W AC pure sine wave 160-240V	
Output (DC)	12V; 5V USB	
Dimensions	Solar box: 710mm / 330mm /453mm PV: 1640mm / 992mm / 35mm each	
Weight	Solar Energy Box: 22kg Expansion Solarbox: 16kg PV: 18.0kg each	
Kit contents	Solar Energy Box 2 x PV panels MC4 PV cables 4 x LED lights and 10m cables AC input cable	Solar Box Expansion Solarbox 3 x PV panels MC4 PV cables 4 x LED lights and 10m cables AC input cable

Detailed specifications:

Photovoltaic panels

- Model: 250Wp Polycrystalline
- High efficiency multicrystalline silicon solar cells
- Dimensions (L / W / H): 1640mm / 992mm / 35mm
- Weight: 18.5kg
- Qualifications and certifications: IEC 61215, IEC 61730, MCS, CE, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, PV Cycle, SA 8000
- Number of panels included in Off-grid Solar System standard kit: 1
- Number of panels included in Off-grid Solar System expansion kit: 2

Battery

- Lithium Iron Phosphate (LiFePO₄)
- Nominal voltage: 12.8V
- Nominal capacity: 120Ah
- Expected cycle life: 2000 cycles
- Impedance (max. at 1000Hz): ≤70mΩ
- Qualifications and certifications: CE, FCC, RoHS, and ISO9001
- Number of battery packs included in Off-grid Solar System standard kit: 1
- Number of battery packs included in Off-grid Solar System expansion kit: 2

Inverter

- SPWM technology, pure sine wave output
- Electronic protections: output short circuit, input over voltage protection, overload protection, input low voltage, overheating, inverter abnormal protection
- 100-240VAC 50/60Hz output, depending on user needs

Controller

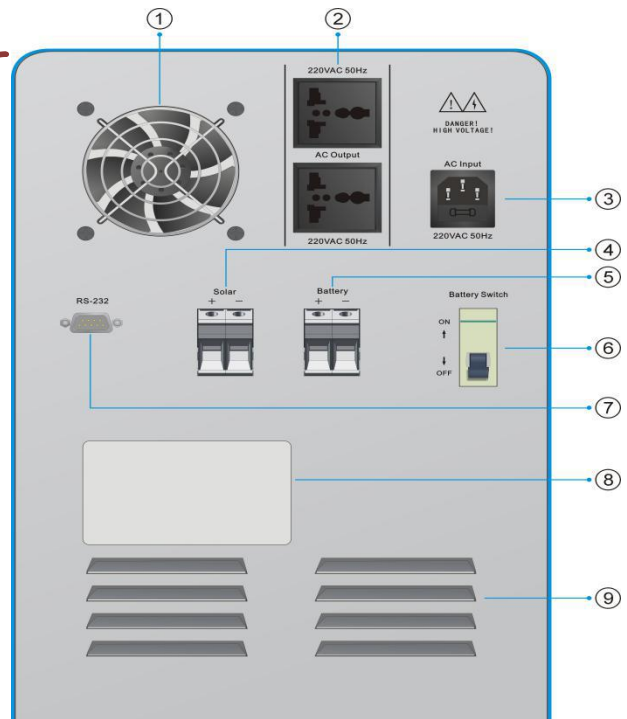
- Maximum Power Point Tracking (MPPT)
- Peak conversion efficiency up to 98%
- High tracking efficiency up to 99%
- Electronic protections: PV short circuit, PV current limiting, battery overcharge, battery reverse polarity, load short circuit, PV overvoltage alarm, PV reverse polarity, battery over discharge, load overload, overheating
- Number included in Off-grid Solar System (standard or expanded): 1

Sockets, enclosure and cables

- Off-grid Solar System enclosure: Metal
- MC4 PV cables, Y splitters
- LED lights:3W/ 6W DC (AC available upon request)
- Sockets:

Backboard diagram introduction:

- ①--Fan:
- ②--AC Output (Max. 10A)
- ③--AC Input:
- ④--Solar:Solar module input terminals
- ⑤--Battery:External battery input terminals(selectable)
- ⑥--Battery Switch:built-in battery switch
- ⑦--RS232 communication port
- ⑧--Model stickers
- ⑨--Heat dissipation window



Front panel introduction

- ⑩-- Inverter LCD display / operation interface
- ⑪-- Solar: Solar input state indicator
- ⑫-- Battery: Battery mode indicator
- ⑬-- DC Output: :5VDC-USB、12VDC output indicator
- ⑭-- 5VDC-USB、12VDCoutput ON/OFF switch
- ⑮--12VDC Output: 12VDCoutput terminal
- ⑯--5VDC Output: 5VDC-USB output terminal

