

DC SOLAR HOME SYSTEM MPPT

LCD 12V-120W



FEATURES

- **Unattended:** PV auto-start and auto-charging, no need of manual operation
- **High efficient MPPT:** Multiple Power Point Tracker (MPPT) enable the output power of solar panel array to be at maximum state, improving the energy conversion 20% ~ 30%
- **High reliability:** Adopt advanced microprocessor to achieve "MPPT + SOC" dual intelligent optimized charging control to ensure the product to be stable and reliable
- **Intelligent charging management:** Adopt charging mode combined constant current and constant voltage to ensure effective battery charging and battery life
- **Battery protections:** Automatically test the battery running condition. The system will automatically shut down in the event of overdischarge to avoid consuming the battery energy
- **High efficiency:** Adopt low power consumption MOSFET and PWM soft switch and synchronous rectifier technology, effectively improving the system operating efficiency
- **Intelligent:** Auto-start by illumination recognition (optional) – the system can configure auto start the load in the event of insufficient sunshine, such as fog, rain, night etc.
- **Protections:** Overcharge / overdischarge, short circuit, overload, reverse connection, TVS lightning protection etc.
- **Strong adaptability (optional):** Charging voltage is settable to adapt to lithium battery and lead-acid battery
- Built-in GSM module, used for remote monitoring and remote control (optional)
- Built-in 12 V 55 Ah gel battery, meeting daily use requirements in various places
- Standard configuration with six 12 V 3 A DC outputs, two 5 V 2 A DC outputs, easy and quick in use

APPLICATIONS

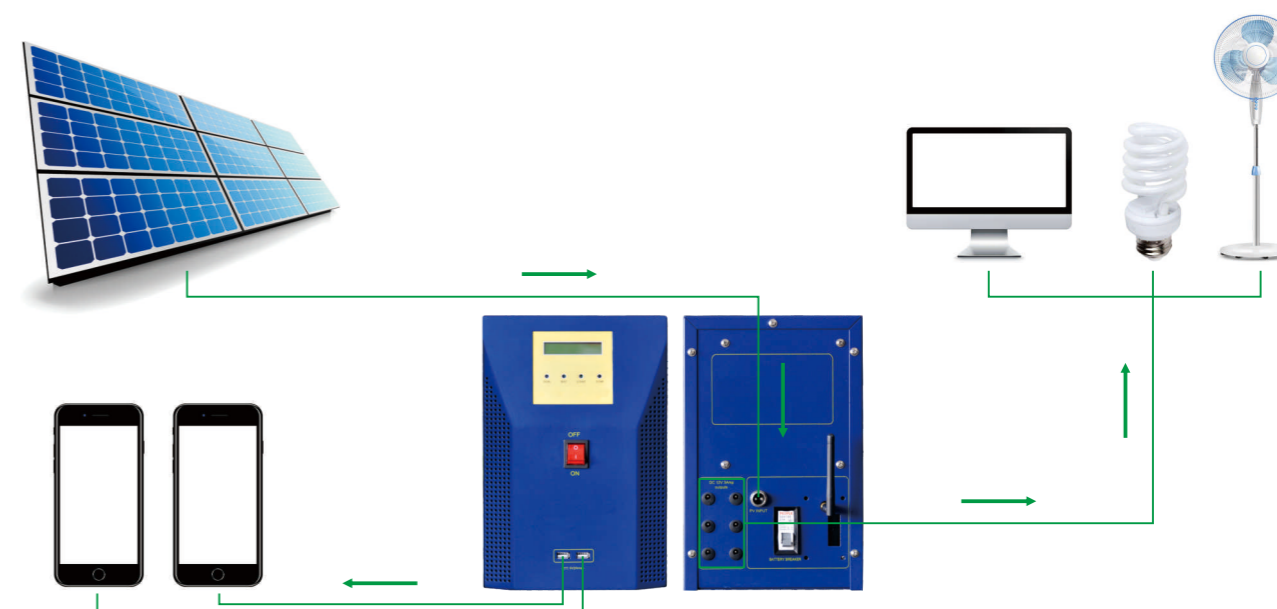
Solar home system, Public security monitoring system, DC signal light power supply system, Small and medium-sized telecommunication station, Small PV power station and solar DC power supply system.

REAL PANEL

1. LCD / LED display
2. Load switch
3. 5 V 2 A Outputs
4. GSM antenna
5. PV input
6. 6 × 12 V 3 A Outputs
7. Battery breaker



DC Solar Home System (MPPT)



SPECIFICATIONS

MODEL	DCSHS-12120
Display	LCD + LED
Rated voltage	12 V
Outputs	6 × 12 V 3 A; 2 × 5 V 2 A
Max. charging current	10
Max. load current	10
Max. PV power	12 V – 150 W
Battery capacity (Gel lead-acid)	55 Ah (standard) / 33 Ah (optional)
Max. efficiency	≥ 98%
Max. PV input voltage	30 V
Optimum operating voltage of PV (Vmp)	15 ~ 22 V
Equalizing charge voltage	12 V: 14.6 V ± 1%
Floating charge voltage	12 V: 14.4 V ± 1%
Overcharge protections	12 V: 14.7 V ± 1%
Charging fold-back voltage	12 V: 13.2 V ± 1%
Undervoltage alarm	12 V: 11.2 V ± 1%
Overdischarge protections	12 V: 10.8 V ± 0.3 V
Overdischarge restoring start voltage	12 V: 13.2 V ± 0.3 V
Overload / short circuit protections	110% for 255 s; 125% for 60 s; 150% for 10 s / Auto shutdown if short circuit
PV reverse polarity protection	Available
Communications (optional)	RS232 / dry contacts
Operating temperature	-20 °C ~ +45 °C
Storage temperature	-25 °C ~ +85 °C
Max. altitude	1000 m at rated power (derating 1% for each additional 100 m); Max. 4000 m
Relative humidity	0 ~ 95% (non-condensing)
Storage humidity	≤ 85%
Installation	Vertical wall mounting
Dimensions (W × D × H) (mm)	440 × 220 × 400
Packaged dimensions (W × D × H) (mm)	532 × 318 × 440
Net weight (kg)	23 (with GSM)
Gross weight (kg)	25

● All specifications subject to change without notice.