

# Solar charge controller(Waterproof)

## LandStar series



New LandStar series is Epsolar's new generation programmable solar charge controller. Fully encapsulated PCB, IP67 design, aluminum case ensures the controller can work in extremely terrible, and increase system operation, reliability and efficiency.

It can be connected to remote meter ,PC for real-time monitoring, custom setting and control etc. or supper parameter programmer for quick setting of the parameters.



### Application:

- ◆ Solar home system
- ◆ Solar lighting system
- ◆ Solar road signals
- ◆ Solar surveillane
- ◆ Solar RVs and boats
- ◆ Small solar power station

### Model overview:



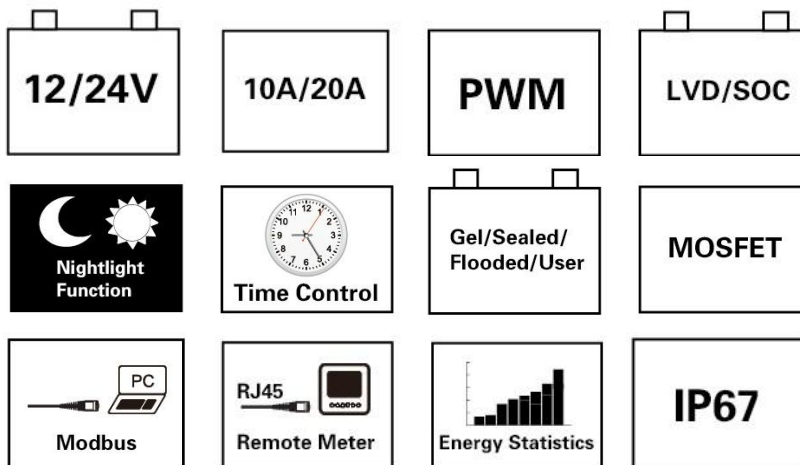
- ★ LS1024BP 10A 12/24V auto
- ★ LS2024BP 20A 12/24V auto

## Features:

- ◆ 12V/24V automatic identify or user-defined working voltage.
- ◆ High efficient Series PWM charging, increase the battery lifetime and improve the solar system performance.
- ◆ Use MOSFET as electronic switch, without any mechanical switch.
- ◆ Multiple load control modes, increase the flexibility of the load output
- ◆ Gel, Sealed, Flooded and user-defined battery type option.
- ◆ New SOC method of calculating accurately displays the available battery capacity.
- ◆ LandStar BP has no keys , The control function and the switch condition of the load can be modified by communication connection.
- ◆ Use of standard Modbus communication protocol for TTL-232 bus connections, communication protocol compatibility much better
- ◆ Support firmware upgrade
- ◆ Fully encapsulated PCB, IP67 protection
- ◆ Aluminum housing

## More powerful function via MT50 or PC

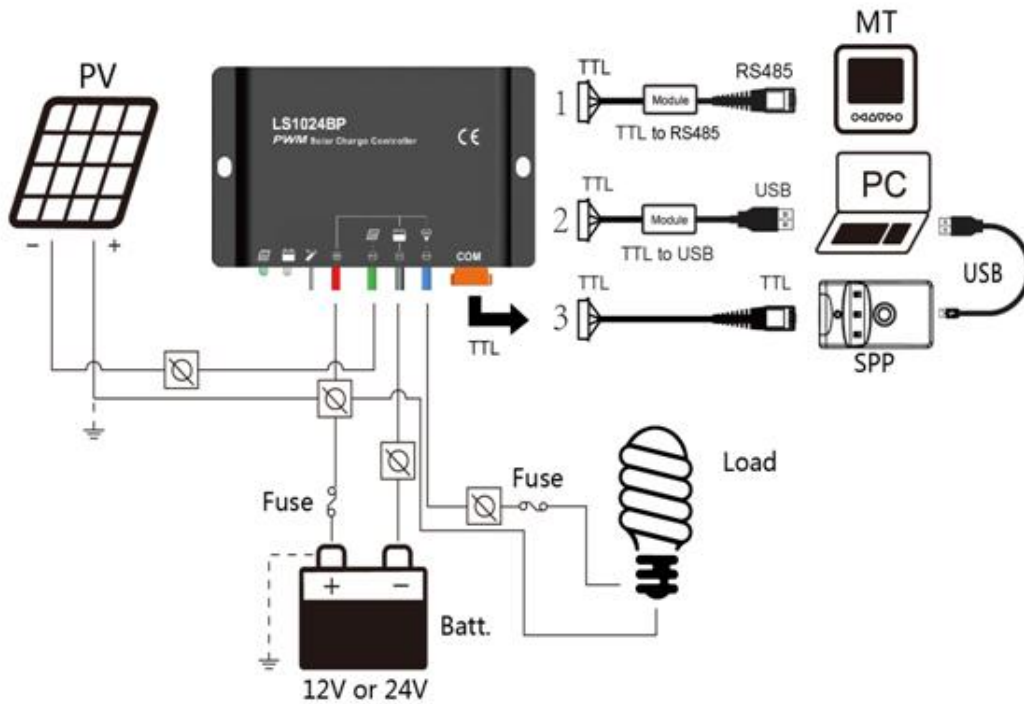
- ◆ Diversified load control modes : manual, light ON/OFF, Light ON+ Timer, Time Control
- ◆ Battery type selection: Gel, sealed, flooded and USER type
- ◆ Real-time monitor & set parameters
- ◆ LVD or SOC load disconnect function
- ◆ Energy statistics function





## Electronic protections:

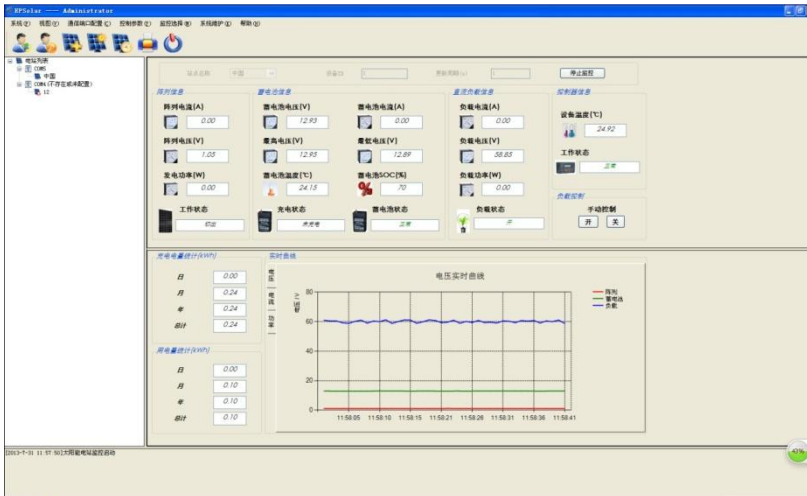
- ◆ PV array short circuit
- ◆ Overcharge
- ◆ Load short circuit
- ◆ PV reverse polarity
- ◆ Over discharge
- ◆ Load overload
- ◆ High voltage transients
- ◆ Battery reverse polarity
- ◆ Overheating



## Optional accessories :

<p>Remote meter MT50</p>	<p>Super parameter programmer SPP-01</p>	<p>Communication cable CC-USB-TTL-150U</p>

## PC monitoring software:



## Technical specifications:

Model	LS1024BP	LS2024BP
Nominal system voltage	12 / 24V auto work	
Rated battery current	10A	20A
Maximum battery voltage	34V	
Self-consumption	8.4mA(12V), 7.8mA(24V)	
Temp. compensation	-3mV/°C/2V (25°C ref)	
Equalize charging voltage	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V	
Boost charging voltage	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User-defined: 9~17V	
Float charging voltage	Gel /Sealed /Flooded: 13.8V, User-defined: 9~17V	
Low voltage reconnect voltage	Gel /Sealed /Flooded: 12.6V, User-defined: 9~17V	
Low voltage disconnect voltage	Gel /Sealed /Flooded: 11.1V, User-defined: 9~17V	

\* Technical data for 12V system at 25°C

Model	LS1024BP	LS2024BP
Dimension	108.5x64.5x25.6mm	139x76.5x28mm
Mounting holes	100.5mm	131mm
Terminal	4mm <sup>2</sup>	6mm <sup>2</sup>
Net weight	0.4kg	0.6kg

Environmental specification	
Working temp.	-35°C~+55°C
Storage temp.	-35°C~+80°C
Humidity	≤95% (NC)
Enclosure	IP67



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