

# PWM Solar charge controller

## NEW LandStar series



New LandStar series is Epsolar's new generation programmable solar charge controller. All the models adopt aluminum heat sink which enables the reliability in high temperature environments. RS-485 connects to a remote meter or PC for real-time monitoring, custom setting and control etc.



### Application:

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

### Model overview:

LS1024B

LS2024B

LS3024B

10A,20A,30A

12/24V

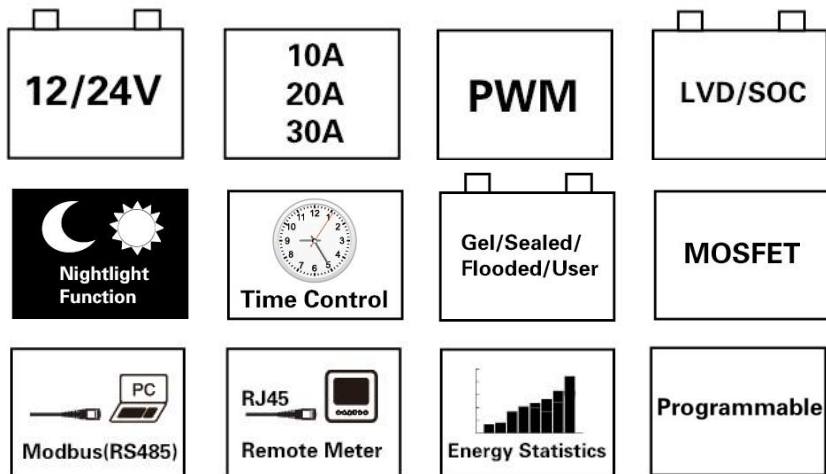


## Features:

- ◆ Three system voltage configuration : 12V, 24V or 12V/24V auto work
- ◆ High efficiency PWM charging with temperature compensation
- ◆ 3 LEDs shows PV charging, battery and load status
- ◆ External temperature sensor interface
- ◆ RS-485 bus communication
- ◆ Open standard Modbus communication protocol
- ◆ Software update function

## More powerful function via MT50 or PC

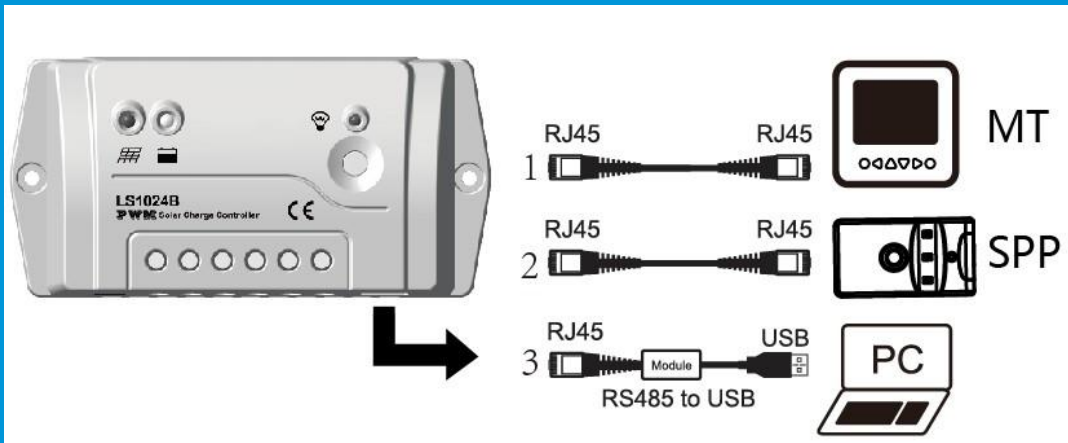
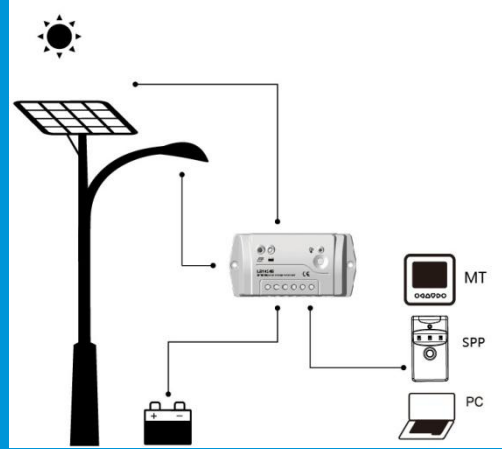
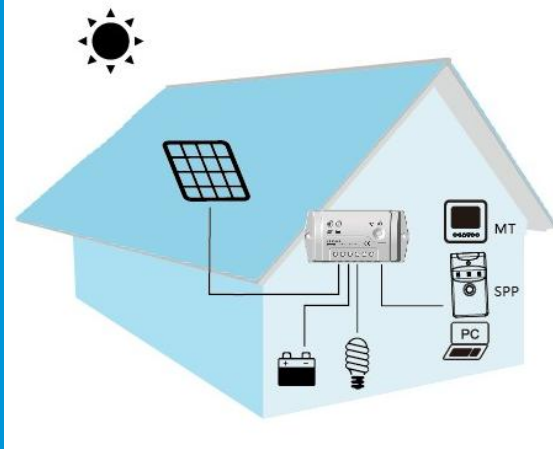
- ◆ Diversified load control modes : Manual, Light ON/OFF, Light ON+ Timer, Time Control
- ◆ Battery type option: Gel, sealed, flooded and USER
- ◆ Real-time monitor
- ◆ Programmable parameters
- ◆ LVD or SOC load disconnect function
- ◆ Energy statistics function



## Electronic protections:

- ◆ PV short circuit
- ◆ PV reverse polarity
- ◆ Battery overcharge
- ◆ Battery Over discharge
- ◆ Battery reverse polarity
- ◆ Load short circuit
- ◆ Load overload
- ◆ Overheating

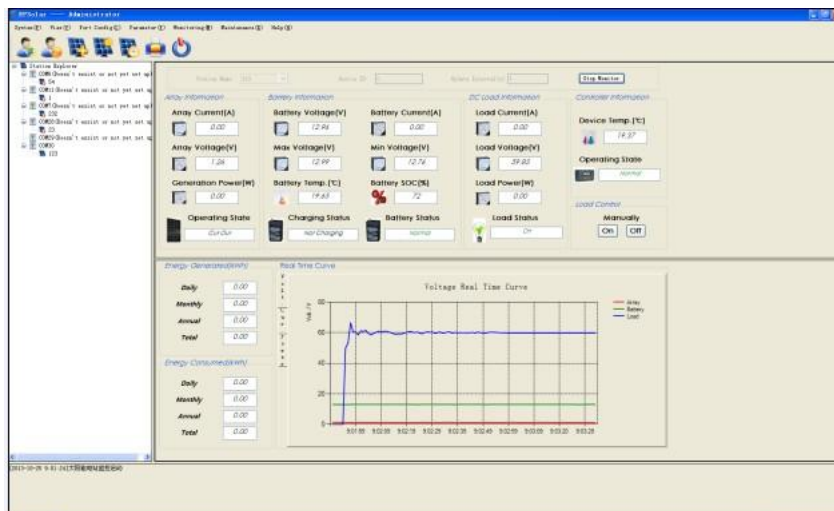




**Optional accessories :**

|                              |  |  |  |
|------------------------------|--|--|--|
|                              |  |  |  |
| <p>Remote meter<br/>MT50</p> | <p>Remote temperature<br/>sensor<br/>RTS300R47K3.81A</p> | <p>Communication cable<br/>CC-USB-RS485-150U</p> | <p>Super parameter<br/>programmer SPP-01</p> |

## PC software:



## Technical specifications :

| Model                          | LS1024B  | LS2024B | LS3024B |
|--------------------------------|--|---------|---------|
| Nominal system voltage         | 12 / 24V auto work   |         |         |
| Rated battery current          | 10A  | 20A     | 30A     |
| Rated load current             | 10A  | 20A     | 30A     |
| Maximum battery voltage        | 50V  |         |         |
| Grounding                      | Common positive  |         |         |
| 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          | LS1024B          | LS2024B           | LS3024B           |
|----------------|------------------|-------------------|-------------------|
| Dimension      | 138.6x69.3x37mm  | 159.6x81.4x47.8mm | 200.6x101.3x57mm  |
| Mounting holes | 126mm            | 147x50mm          | 190x70mm          |
| Terminal       | 4mm <sup>2</sup> | 10mm <sup>2</sup> | 10mm <sup>2</sup> |
| Net weight     | 0.13kg           | 0.3kg             | 0.5kg             |

| Environmental Specification |             |
|-----------------------------|-------------|
| Working temp.               | -35°C~+55°C |
| Storage temp.               | -35°C~+80°C |
| Humidity                    | ≤95% (NC)   |
| Enclosure                   | IP30        |

