

# PWM Solar charge controller

## LS-E series



LS-E economic solar controller is new member of LandStar family and ideal for small solar system especially home system. It has the beautiful appearance, and simple operation. And the industrial grade design ensures its reliability.



### Model overview:

- LS0512E 5A,12V
- LS1012E 10A,12V
- LS1024E 10A,12/24V
- LS2024E 20A,12/24V

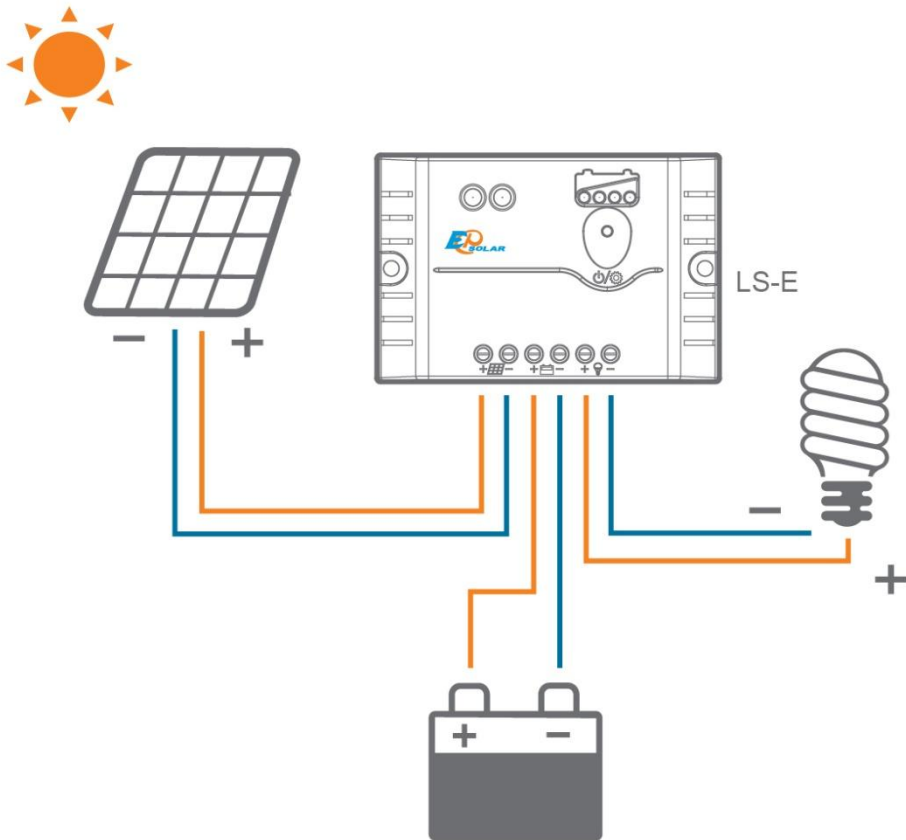


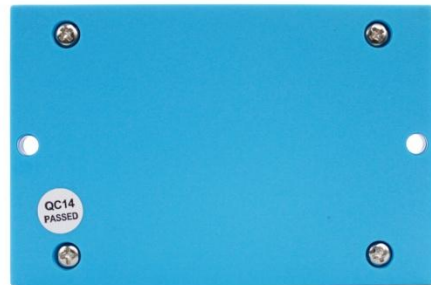
### Features:

- ◆ High efficient Series PWM charging, increase battery lifetime and improve solar system performance
- ◆ Use MOSFET as electronic switch, without any mechanical switch
- ◆ Intuitive LED indicators showing battery voltage status
- ◆ Gel, Sealed, and Flooded battery type optional
- ◆ Manual control the output of the load
- ◆ Temperature compensation, correct charging and discharging parameters automatically
- ◆ Humanized Key, more comfortable and convenient
- ◆ Industrial grade design

### Electronic protections:

- ◆ Load overload protection
- ◆ Load short circuit protection
- ◆ Battery over discharge protection
- ◆ Battery reverse polarity protection





## Technical specifications :

Model	LS0512E	LS1012E	LS1024E	LS2024E
Nominal system voltage	12VDC		12/24VDC	
Rated battery current	5A	10A	10A	20A
Max. battery voltage	16V		32V	
Max. PV open circuit voltage	30V		50V	
Equalize charging voltage	Gel: ----, Sealed: 14.6V, Flooded: 14.8V			
Boost charging voltage	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V			
Float charging voltage	Gel / Sealed / Flooded:13.8V			
Low voltage reconnect voltage	Gel / Sealed / Flooded:12.6V			
Low voltage disconnect voltage	Gel / Sealed / Flooded:11.1V			
Charge circuit voltage drop	≤0.26V			
Discharge circuit voltage drop	≤0.15V			
Self-consumption	≤6mA			
Temp. compensation	-5mV/°C/2V (ref)			
Overall dimension(mm)	92.8x65x20.2	101.2x67x21.8	101.2x67x21.8	128x85.6x34.8
Mounting dimension	84.4mm	92.7mm	92.7mm	118mm
Mounting hole size	Φ4.5	Φ4.5	Φ4.5	Φ4.5
Terminal	2.5mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>
Weight	74g	82.5g	82g	151.6g
Working temperature	-35°C ~ +55°C			
Storage temperature	-35°C ~ +80°C			
Humidity	≤95% N.C.			
Enclosure	IP30			



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