

# PWM Solar charge controller with USB output

## LS-EU series



LS-EU 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.

Based on the LS-E series, LS-EU series add a +5V/1.2A USB terminal output which can charge mobile phone, fans and other electronic device.



### Model overview:

LS0512EU	5A,12V
LS1012EU	10A,12V
LS1024EU	10A,12/24V
LS2024EU	20A,12/24V

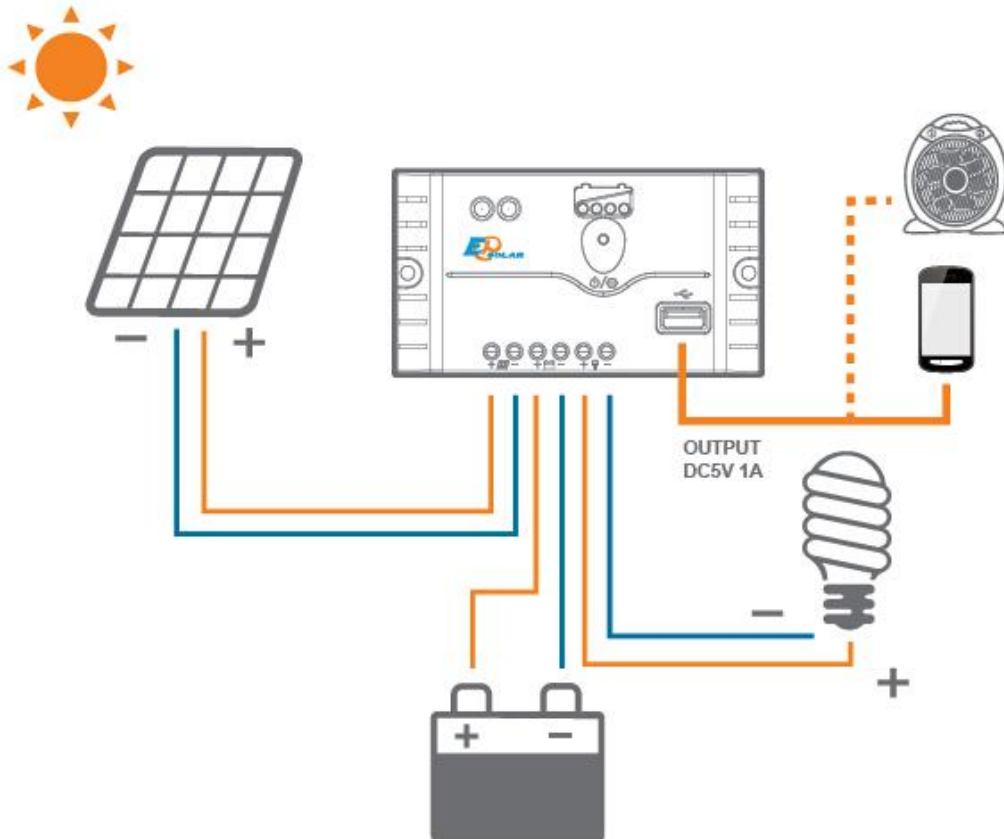


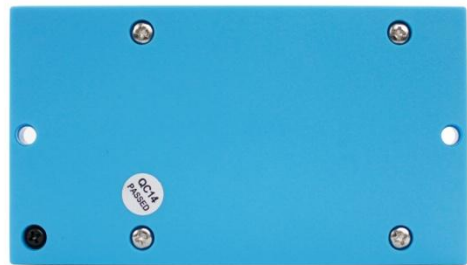
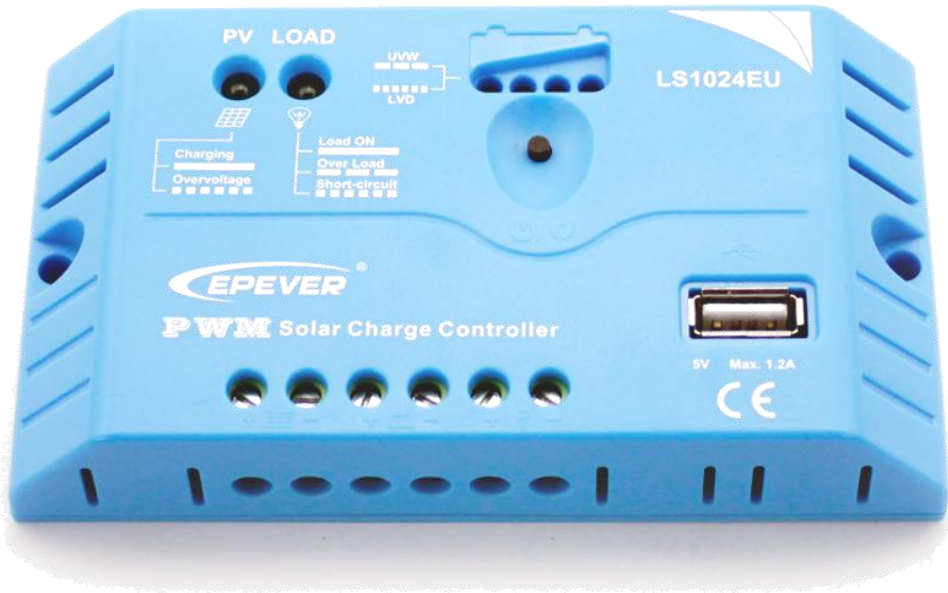
### Features:

- ◆ 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	LS0512EU	LS1012EU	LS1024EU	LS2024EU
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			
USB output	5VDC/1.2A			
Charge circuit voltage drop	≤0.26V			
Discharge circuit voltage drop	≤0.15V			
Self-consumption	≤6mA			
Temp. compensation	-5mV/°C/2V (ref)			
Overall dimension(mm)	109.7x65.5x20.8	120.3x67x21.8	120.3x67x21.8	148x85.6x34.8
Mounting dimension	100.9mm	111.5mm	111.5mm	138mm
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	95g	103g	102g	179.6g
Working temperature	-35°C ~ +55°C			
Storage temperature	-35°C ~ +80°C			
Humidity	≤95% N.C.			
Enclosure	IP20			



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