

PWM Solar Charge Controller

New L-SUN Series

L-SUN series solar controller is designed for off-grid solar system, such as street light, solar home system or small power station etc. It has LCD display, reliable battery charging , full electronic protection, and programmable parameters.



Models:

- L-SUN1024/ L-SUN2024/ L-SUN3024 / L-SUN4524/ L-SUN6024
10A,20A,30A,45A,60A
12/24V auto work
- L-SUN2048/ L-SUN3048/ L-SUN4548/ L-SUN6048
20A,30A,45A,60A
12/24/36/48V auto work

Features:

- Excellent EMC design
- High efficient Series PWM charging
- 32 bit MCU with high speed
- 12 bit A/D high-precision sampling to ensure accuracy
- Use MOSFET as electronic switch
- Four battery type options: Sealed, Gel, Flooded, and USER
- Intelligent lighting and timer control for solar lighting system
- Full control parameters setting and modification, diversified load control mode
- Adopt graphics dot-matrix LCD screen and HMI (human-machine interface) with 4 buttons, integrated menu display
- Humanized design of browser interface, undertake every operating conveniently
- Optional PC monitoring software and remote meter for real-time monitoring and battery management parameter setting
- RS485 ports with MODBUS communication protocol
- Temperature compensation
- Energy statistics function
- Field upgradable firmware



Electronic protections:

- PV short circuit protection
- PV reverse polarity protection
- Load short circuit protection
- Load overload protection
- Battery over discharge protection
- Battery overcharge protection
- Overheating protection
- Battery reverse polarity protection

Technical specifications:

MODEL	L-SUN1024	L-SUN2024	L-SUN3024	L-SUN4524	L-SUN6024
		L-SUN2048	L-SUN3048	L-SUN4548	L-SUN6048
Nominal system voltage	12/24V auto work	L-SUN**24: 12/24V auto work			
		L-SUN**48: 12/24/36/48V auto work			
Battery input voltage range	L-SUN**24SN 9 ~ 32V / L-SUN**48SN 9V ~ 64V				
Rated battery current	10A	20A	30A	45A	60A
Rated load current	10A	20A	30A	45A	60A
Max.battery voltage	L-SUN**24: 32V / L-SUN**48: 64V				
Equalize charging voltage	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V				
Boost charging voltage	Gel: 14.2V, Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V				
Float charging voltage	Sealed / Gel / Flooded: 13.8V, User-defined: 9~17V				
Low voltage reconnect voltage	Sealed / Gel / Flooded: 12.6V, User-defined: 9~17V				
Low voltage disconnect voltage	Sealed / Gel / Flooded: 11.1V, User-defined: 9~17V				
Self-consumption	≤15mA(12V); ≤10mA(24V); ≤9mA(36V); ≤8mA(48V)				
Grounding	Common positive				
Temp. compensation	-3mV / °C / 2V				
Communication	RS485 / RJ45 interface				

MODEL	L-SUN1024	L-SUN2024	L-SUN3024	L-SUN4524	L-SUN6024
Terminals	4mm ²	10mm ²	16mm ²	35mm ²	35mm ²
Enclosure	IP30				

MODEL		L-SUN2048	L-SUN3048	L-SUN4548	L-SUN6048
Terminals		16mm ²	35mm ²	35mm ²	35mm ²
Enclosure	IP30				

Environmental					
LCD temperature	-20°C ~+70°C				
Working temperature	-25°C ~+55°C				
Humidity	≤95% N.C.				

- Technical data for 12V system at 25°C, twice in 24V system rate, triple in 36V system rate and quadruple in 48V system rate.

