

Overview

The IR Sensor Solar Charge controller & LED Driver combines the solar charge controller and LED constant current driver into one unit which is ideal for solar LED Lighting, especially for the application for LED lamp which requires dimmer function. The advanced pulse width modulation charging methods enables the system charging and discharging management to obtain the most radical optimization. In addition, the external infrared induction module, with the aid of pyroelectric infrared induction, can output different power in man-available/man-unavailable state, provide humanized street lamp control, and reduce the energy consumption of battery in man-unavailable state.

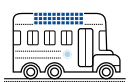


Features

- Apply to lead-acid battery and lithium battery
- Lithium battery self-activating function
- Lithium battery low temperature protection function
- Pyroelectric infrared induction function
- Load power limitation function
- Maximum output efficiency of 96%
- Digital precision constant current control and the control accuracy are less than $\pm 2\%$
- Discharging power calculation and real-time energy statistics recording function
- Multiple load control modes
- The induction rated current percentage and induction time in load-6 period can be set
- Load test function for detecting the system
- Extensive electronic protections
- Without any button, parameter setting via RC-10 and FC-01 with IR function

Electronic protections

- PV Reverse Polarity
- Battery Reverse Polarity
- Battery Over Voltage
- Battery Over Discharge
- Battery Overheating
- Lithium battery
- Low Temperature
- Load Short Circuit
- Load Open Circuit
- Load over voltage



Solar Car



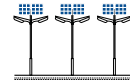
Solar Home



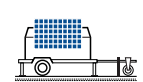
Solar Backpack



Solar Boat



Solar Street Light



Solar Power Generator

Technical Specifications

Model		LS101240LPLIR	LS102460LPLIR
Nominal system voltage		12VDC	12/24VDC ◆
Rated charge current		10A	10A
Max. PV open circuit voltage		30V	50V
Battery input voltage range		9V ~ 16V	9V ~ 32V
Max. output power		40W	30W/12V; 60W/24V
Max. output Current		2.6A	2.0A
Output voltage range		(Max. Battery Voltage +2V) ~ 60V	
Load open circuit voltage		60V	
Maximum output efficiency		96%	
Output current control accuracy		≤2%	
Battery Type ★		Lead-acid battery: Sealed(default)/Gel/Flooded/User Lithium battery:LiFePO4/Li-NiCoMn/User	
Lead-acid battery	Equalization Voltage▼	Sealed:14.6V; Flooded:14.8V; User:9-17V	
	Boost Voltage▼	Sealed:14.4V; Gel:14.2V; Flooded:14.6V; User:9-17V	
	Float Voltage▼	Sealed/Gel/Flooded: 13.8V; User: 9-17V	
	Low Voltage Reconnect Voltage▼	Sealed/Gel/Flooded: 12.6V; User: 9-17V	
	Low Voltage Disconnect Voltage▼	Sealed/Gel/Flooded: 11.1V; User: 9-17V	
Lithium battery	Boost Voltage▼	LiFePO4(4s):14.4V/Li-NiCoMn(3s):12.4V/User:9-17V	
	Float Voltage▼	LiFePO4(4s):13.6V/Li-NiCoMn(3s):11.8V/User:9-17V	
	Low Voltage Reconnect Voltage▼	LiFePO4(4s):12.4V/Li-NiCoMn(3s):10.4V/User:9-17V	
	Low Voltage Disconnect Voltage▼	LiFePO4(4s):11.0V/Li-NiCoMn(3s):9.2V/User:9-17V	

Self-consumption	≤19mA(12V); ≤21mA(24V)	
Charge Circuit Voltage Drop	≤0.17V	
Com. way	IR	
Working environment temperature	-40°C ~ +55°C	
Enclosure	IP68(1.5m,72h)	
Overall dimension	87x58x22.8mm	87x63x24.8mm
Mounting dimension	80mm	
Mounting hole size	Φ4mm	
Power cable	PV/BAT:14AWG/2.5mm ² ; LOAD: 18AWG/1.0mm ²	
Net weight	0.20kg	0.22kg

- ◆ The controller is not recognize system voltage and no temperature compensation when the battery connect the lithium battery
- ★ DO NOT connect the PV array when change the lithium battery type via the phone APP or PC software
- ▼ The parameters are 12V system at 25 °C, please double the values in 24V system