

Overview

The LandStar LPLI series controller 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. Make the system cost reduce, and increase the system flexibility.

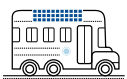


Features

- Apply to lead-acid battery and lithium battery
- Lithium battery self-activating function
- Lithium battery low temperature protection function
- Intelligent power mode with 365-day lighting control technology
- Load reduce power automatically
- 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, LED rated current and current percentage 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
- Fully encapsulated PCB, IP68 protection
- Aluminum housing for better cooling

Electronic protections

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



Solar Car



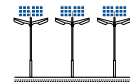
Solar Home



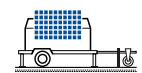
Solar Backpack



Solar Boat



Solar Street Light



Solar Power Generator

Technical Specifications

Model		LS101240LPLI	LS101260LPLI	LS102460LPLI	LS2024120LPLI
Nominal system voltage		12VDC		12/24VDC①	
Rated charge current		10A			20A
Max. PV open circuit voltage		30V		50V	
Battery input voltage range		9V ~ 16V		9V ~ 32V	
Max. output power		40W	60W	30W/12V 60W/24V	60W/12V 120W/24V
Max. output Current		2.6A	4.0A	2.0A	4.0A
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 Voltage②	Sealed:14.6V; Flooded:14.8V;User:9-17V			
	Boost Voltage②	Sealed:14.4V;Gel:14.2V;Flooded:14.6V;User:9-17V			
	Float Voltage②	Sealed/Gel/Flooded: 13.8V;User: 9-17V			
	Low Voltage Reconnect Voltage②	Sealed/Gel/Flooded: 12.6V;User: 9-17V			
	Under Voltage Warning Recover Voltage②	Sealed/Gel/Flooded: 12.2V;User: 9-17V			
	Under Voltage Warning Voltage②	Sealed/Gel/Flooded: 12.0V;User: 9-17V			
	Low Voltage Disconnect Voltage②	Sealed/Gel/Flooded: 11.1V;User: 9-17V			
Lithium battery	Boost Voltage②	LiFePO4(4s):14.5V/Li-NiCoMn(3s):12.5V/User:9-17V			
	Low Voltage Reconnect Voltage②	LiFePO4(4s):12.8V/Li-NiCoMn(3s):10.5V/User:9-17V			
	Under Voltage Warning Recover Voltage②	LiFePO4(4s):12.8V/Li-NiCoMn(3s):12.2V/User:9-17V			
	Under Voltage Warning Voltage②	LiFePO4(4s):12.0V/Li-NiCoMn(3s):10.5V/User:9-17V			
	Low Voltage Disconnect Voltage②	LiFePO4(4s):11.1V/Li-NiCoMn(3s):9.3V/User:9-17V			

Self-consumption	≤18mA(12V); ≤23mA(24V)		
Charge Circuit Voltage Drop	≤0.14V		
Com. way	IR		
Com. distance of IR	≤6m		
Working environment temperature	-40℃ ~ +55℃		
Enclosure	IP68(1.5m,72h)		
Overall dimension	87x58x22.8mm	87x63x24.8mm	108.5x118x25.6mm
Mounting dimension	80mm	80mm	100.5x76mm
Mounting hole size	Φ4mm		Φ5mm
Power cable	PV/BAT: 14AWG/ (2.5mm ²) LOAD: 18AWG/ (1mm ²)		PV/BAT:12AWG/ (4mm ²) LOAD:18AWG/ (1mm ²)
Net weight	0.18kg	0.21kg	0.40kg

①The controller is not recognize system voltage and no temperature compensation when the battery connect the lithium battery.

②The parameters are 12V system at 25 °C, please double the values in 24V system.