

Overview

The LandStar(LS) LPLW 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 of 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 reduce the cost, and increase the system flexibility. The features are listed below.

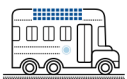


Features

- 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 no less than 30mA
- Multiple load control modes
- Load test function for detecting the system
- Light ON delay time can be adjustable, the minimum value is 10s
- Strong penetration and long communication distance with 2.4G communication technology
- Low power consumption control function of 2.4G wireless communication
- Ultra-low power consumption mode in transporting
- Enter the password when it is set parameters
- Controller's parameter can be set via the APP, RC11 and FC02
- Extensive electronic protections

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



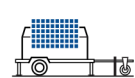
Solar Backpack



Solar Boat



Solar Street Light



Solar Power Generator

Technical Specifications

Model		LS101240LPLW	LS101260LPLW	LS102460LPLW	LS2024120LPLW
Nominal system voltage		12VDC		12/24VDC◆ or Auto	
Rated charge current		10A		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		≤30mA			
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			
	UVWR▼	Sealed/Gel/Flooded:12.2V;User:9-17V			
	UVW▼	Sealed/Gel/Flooded:12.0V;User:9-17V			
	Low Voltage Recover 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):14.5V/Li-NiCoMn(3s):12.5V/User:9-17V			
	UVWR▼	LiFePO4(4s):12.8V/Li-NiCoMn(3s):12.2V/User:9-17V			
	UVW▼	LiFePO4(4s):12.0V/Li-NiCoMn(3s):10.5V/User:9-17V			
	Low Voltage Reconnect Voltage▼	LiFePO4(4s):12.8V/Li-NiCoMn(3s):10.5V/User:9-17V			
	Low Voltage Disconnect Voltage▼	LiFePO4(4s):11.1V/Li-NiCoMn(3s):9.3V/User:9-17V			

Self-consumption	≤19mA(12V); ≤35mA(24V)		
Charge Circuit Voltage Drop	≤0.17V		
Communication way	2.4G		
Communication distance	≤20m		
Working environment temperature	-40℃ ~ +55℃		
Enclosure	IP68(1.5m,72h)		
Overall dimension(mm)	87x58x22.8mm	87x63x24.8mm	108.5x118x25.6mm
Mounting dimension(mm)	80mm		100.5 x 76mm
Mounting hole size(mm)	Φ4		Φ5
Power cable(AWG/mm ²)	PV/BAT:14/2.5 LOAD:18 /1.0		PV/BAT:12/4.0 LOAD:18/1.0
Net weight	0.17kg	0.20kg	0.40kg

◆ The controller is not recognized system voltage and no temperature compensation when the battery connects the lithium battery

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