

Overview

Land Dream Series (LD in short) is an economical and traditional PWM solar controller. It can not only extend the service life of battery, but also provide necessary protection over the whole system. We own its outlook design patent. The double buttons and LCD screen show you the working parameters of the whole system, clear and understandable. This series is widely applied in solar home system, traffic signal, solar lighting system, etc.

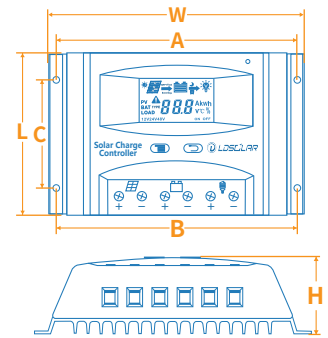
Features

- ▶ Automatic Identification System Voltage, 12V/24V or 48V auto recognition.
- ▶ Humanized LCD displaying and double button operation of man-machine interface.
- ▶ Completed technical data for setup and modify.
- ▶ High efficiency intelligent PWM 3stage charging
- ▶ The load control mode can be selected, the timer function can be reset for street light at night.
- ▶ Discharge capacity control
- ▶ RS485 communication interface (optional)
- ▶ Discharge Counter of Ampere Hour
- ▶ Working Storage Function: record the total run time of system, record timers of error during running time, record times of full charged battery.
- ▶ Reliable over voltage protection, short circuit protection, overload protection, overcharge protection, over-discharge protection.
- ▶ Accurate temperature compensation, correcting the charging and discharging voltage automatically, improving the battery lifetime.
- ▶ Roundly reverse connected protection.
- ▶ Solar Panels, Battery, Solar Charge Controller positive poles are all connected together, adopting negative MOSFET in series control circuit.



Mechanical size

Model	LD2410C/LD2420C	LD2430S	LD2440S/LD2450S/LD2460S	LD4830S/LD4840S	LD4850S/LD4860S
Charge and load current	10A/20A	30A	40A/50A/60A	30A/40A	50A/60A
Size (L×W×H)mm	168×92×41	190×108×41.5	200.1×127×55.3	190×108×41.5	200.1×127×55.3
Mounting holes distance (A×B×C)mm	157.5×157.5×50	179.5×179.5×66	189.6×189.6×85	179.5×179.5×66	189.6×189.6×85
Mounting hole size	Φ5mm				
Weight(g)	310/320	410	680/690/740	440/695	700/750
Terminal scale	4mm ² /12AWG	16mm ² /6AWG	25mm ² /4AWG	16mm ² /6AWG	25mm ² /4AWG



▶ Please refer to the indicator diagram on the right

▶ Dimension reference drawing

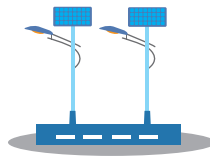
Application scenario



Solar RV



Household solar energy



Solar street lamp



Solar Power Generator



Solar boat

Safety Protection



Over Charging Protection



Over Discharging Protection



Overload Protection



Short Circuit Protection



Solar Reverse Connected Protection



Battery Reverse Connected Protection



Battery Over-Voltage Protection



Temperature Compensation



Reverse Flow of Current Protection

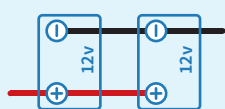


Solar Short Circuit Protection

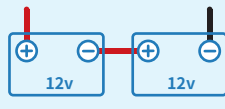
Technical specifications

Model	LD2410C	LD2420C	LD2430S	LD2440S	LD2450S	LD2460S	LD4830S	LD4840S	LD4850S	LD4860S
System Voltage	12V/24V DC auto						48V DC			
PV Max Input Voltage	55V						100V			
Self-consumption	<10mA									
Max Charging current	10A	20A	30A	40A	50A	60A	30A	40A	50A	60A
Max Discharging current	10A	20A	30A	40A	50A	60A	30A	40A	50A	60A
Battery type	Sealed(Default)/Gel/Flood									
LVD※*	11.0V ADJ 9V...12V ; x2/24V ; x4/48V									
LVR※*	12.6V ADJ 11V...13.5V ; x2/24V ; x4/48V									
Float Voltage※*	13.8V ADJ 13V... 15V ; x2/24V ; M/48V									
Boost Voltage※*	14.4V ADJ 13V...17V ; x2/24 ; x4/48V battery voltage less than 12.6V auto boost 2hours									
Battery Over Voltage ※*	16.5V ; x2/24V ; x4/48V									
Reverse Connection Protection	yes									
Load Over Current Protection	Yes, each 30s auto restart again									
USB Output	Optional						/			
Charging Type	PWM									
Charge circuit voltage drop	<=0.25V									
Discharge circuit voltage drop	<=0.1V									
Temperature Consumption#	For 12Vsystem:-24mV /°C ; x2/24V ; x4/48V									
Relative humidity	≤95%, N.C.									
WorkingTemperature	-20°C~+55°C(Product can work continuously at full load)									
LCD temperature range	-20°C~+70°C									
Waterproof grade	IP32									

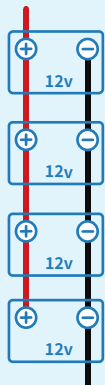
Connection



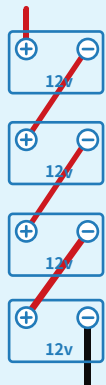
2x12v to 12v parallel



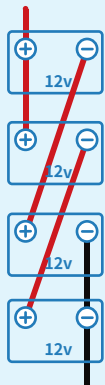
2x12v to 24v series



4x12v to 12v parallel



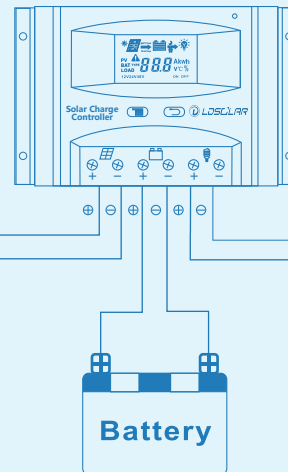
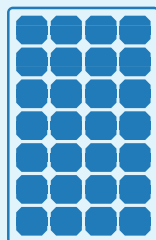
4x12v to 48v series



4x12v to 24v series/parallel

● Example Wiring Methods

Solar Panel



Load

● Connection diagram