

Overview

Ocean Dream Series (OD in short) is our newest designed PWM solar controllers. Its specialty lies in the inner 32 bits CPU, which enables the controllers to work faster and more stable. It built 4USB port and a screw driver inside. Besides, our unique black&Red big terminals design facilitate your connection in real application. The white frosted plastic shell is very natural no matter where it is placed in your home or RV.

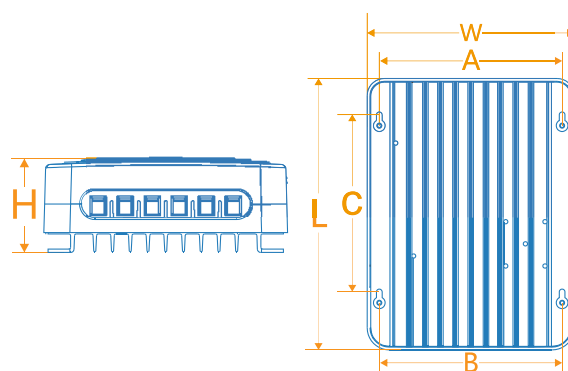
Features

- ▶ 32bits CPU, sampling precision is higher, operation speed is faster
- ▶ 12V/24VDC 12V/24V/48VDC Automatic Identification System Voltage
- ▶ 3 stages PWM charging: Bulk, Boost, Float
- ▶ Sealed, Gel, Flooded, LiFePO4, Li(NiCoMn)O2 battery selection procedure
- ▶ Humanized LCD displaying, dynamic display operation data and working state.
- ▶ Built-in operation log, account system working state
- ▶ Multi load control mode: Normal mode
- ▶ Temperature Compensation Function and Controller Over Temperature Protection Function
- ▶ Fullset digital protection functions: Overcharging, Over-discharging, Overload, Short Circuit, Reverse Connection, Controller Over-Temperature and so on.
- ▶ colorful connector distinguish plus and minus poles.
- ▶ 5V 2.4A USB output (10A 20A 5V 1.5A and 30A 40A 50A 60A 5V 2.4A)



Mechanical size

Charge and load current	10A	20A	30A/40A	50A	60A
Size (L×W×H)mm	165×120×39.4	170×130×50	190×145×55	190×145×56	
Mounting holes distance (A×B×C)mm	84×92×134	111×114×124	128×128×124	128×128×124	
Mounting hole size	Φ5mm				
Weight(g)	225	350	450	690	780
Terminal scale	10mm ² /8AWG	16mm ² /6AWG	25mm ² /4AWG	25mm ² /4AWG	



● Please refer to the indicator diagram on the right

● Dimension reference drawing

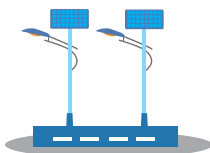
Application scenario



Solar RV



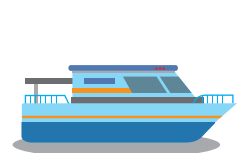
Household solar energy



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



Over Temperature Protection



Thunder Protection



Reverse Flow of Current Protection

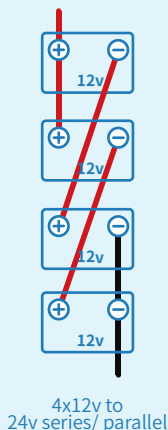
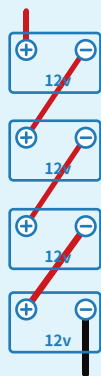
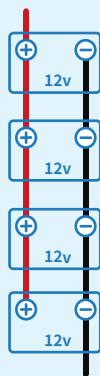
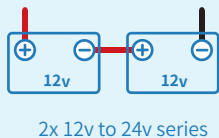
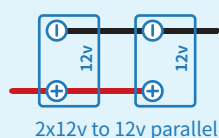


Solar Short Circuit Protection

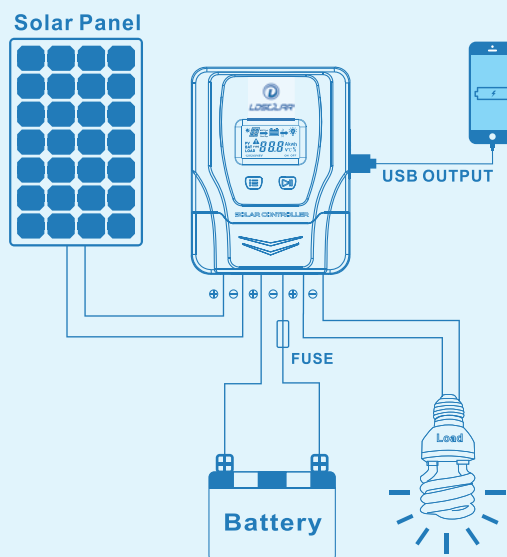
Technical specifications

Model	OD2410C	OD2420C	OD2430C	OD2430S	OD2440S	OD2450S	OD2460S	OD4830S	OD4840S	OD4850S	OD4860S
System Voltage	12V/24V DC auto							12V/24V/48V DC auto			
PV Max Input Voltage	55V							100V			
Self-consumption	<10mA										
Max Charging current	10A	20A	30A	30A	40A	50A	60A	30A	40A	50A	60A
Max Discharging current	10A	20A	20A	30A	40A	50A	60A	30A	40A	50A	60A
Battery type	Sealed(Default)/Gel/Flood/Lithium										
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※* Battery Over Voltage ※*	13.8V ADJ 13V... 15V ; x2/24V ; M/48V battery voltage less than 12.6v auto boost 2hours 16.5V ; x2/24V ; x4/48V										
Reverse Connection Protection	yes										
Load Over Current Protection	Yes, each 30s auto restart again										
Controller Over Temperature	yes										
USB Output	5VDC/1.5A 2PCS			5VDC/2.4A 4PCS				5VDC/2.4A 4PCS			
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



● Example Wiring Methods



● Connection diagram