

# PWM SOLAR CONTROLLER

Off-grid system intelligent core, multiple protection, built-in intelligent control system, intelligent control and Circuit protection system



(schematic diagram of line connection)

## Application Scenarios



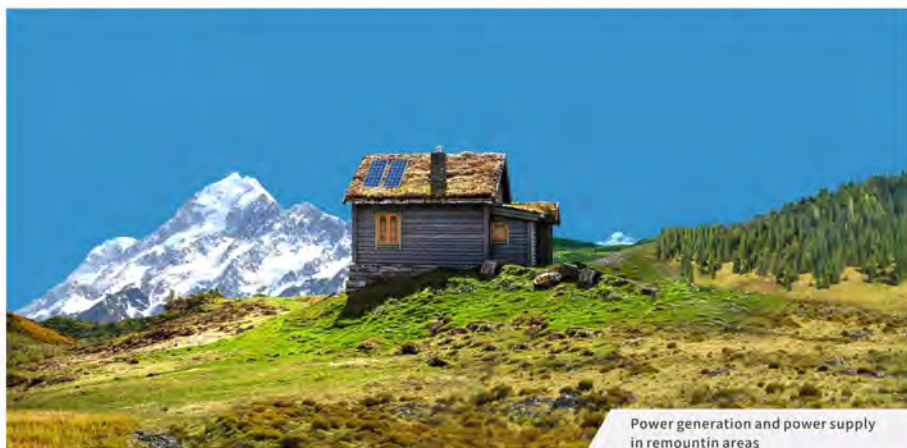
Solar off-grid power generation



Solar streetlights



New energy electric vehicle system



Power generation and power supply in mountainous areas



Water storage system power supply



## SOLAR PRODUCTS AND SOLUTIONS

The solar control system is composed of solar panels, batteries, controllers and loads.

The solar controller, called solar charge/discharge controller, is an automatic control device used in solar power generation system, which controls the charging of multi-way solar cell array and power supply of solar inverter load. It specifies and controls the charging and discharge conditions of the storage battery, and controls the output of solar cell assembly and storage battery to the load according to the power demand of the load, which is the core control part of the whole PV power supply system.

## PWM Solar Charge Controller Series

LS	System voltage	System current	Product size	Weight	Functional characteristics
	12v/24vAuto or 48v	20A,30A	187*90*47mm	318g	1. Multifunctional LCD screen; 2. All metal large terminals; 3. With current display; 4. Add hard wear-resistant shell; 5. Heat dissipation backboard with thorns;
	12v/24vAuto or 48v	40A	195*105*50mm	324g	
	12v/24vAuto or 48v	50A,60A	187*122*57mm	588g	
KLS1830					
	12v/24vAuto	20A,40A	185*93*42mm	270g	1. Double USB output, plug and play; 2. Display with current; 3. Imported raw material PCB board;
YJSS					
	12v/24vAuto	10A*20A,40A	133*70*35mm	271g	1. Data memory function; 2. Small size easy to operate; 3. Multifunctional display screen;
BLS960					
	12v/24vAuto	20A,30A	168*92*42mm	320g	1. Multifunctional LCD screen 2. Double USB output, 3. The operation is simple and easy to use; 4. Heat dissipation backboard with thorns;
CM3024Z					
	12v/24vAuto or 48V	20A,30A,40A	188*92*52mm	297g	1. With thermal sensors and temperature sensors; 2. With current, voltage display; 3. Heat dissipation backboard with thorns;
CM5024Z					
	12v/24vAuto or 48V	50A, 60A	188*130*62mm	504g	1. With thermal sensors and temperature sensors; 2. With current, voltage display; 3. Heat dissipation backboard with thorns;
KYZ					
	12v/24vAuto	10A,20A,30A	133*70*35mm	134g	1. With backlight function; 2. Can remember and store data; 3. Can be charged for lead acid, lithium ion polymer, lithium iron phosphate battery, 4. DC 12V DC outlet;



# LCD solar charge controller

## YJSS Series



- LCD Display
- USB output
- Low heat

### Technical Parameters

MODEL	YJSS10	YJSS20	YJSS30	YJSS4840	YJSS4850
Rated Voltage	12V/24V auto			48V	
Charge Current	10A	20A	30A	40A	50A
Discharge Current	10A	20A	30A	40A	50A
Max Solar Voltage	<50V			<100V	
Low Voltage Disconnect	10.7/21.4V			42.8V	
Low Voltage Reconnect	12.6/25.2V			50.4V	
Float Charge	13.7/27.4V			54.8V	
Standby Current	<15mA				
Charging Mode	PWM (Pulse Width Modulation)				
Working Temperature	-20℃ to +60℃				
Size(L × W × H)	133 × 70 × 30 mm				
USB Output	2* 5V/3A				
weight	150g				

# User's Manual

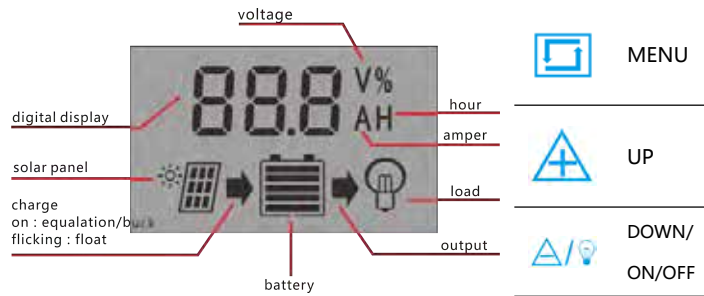
## SAFETY INSTRUCTIONS

1. **Make sure your battery has enough voltage** for the controller to recognize the battery type before first installation.
  2. The battery cable should be as short as possible to minimize loss.
  3. The regulator is only suitable for lead acid batteries: OPEN, AGM, GEL **it is not suited for nickel metal hydride, lithium ions or other batteries.**
  4. The charge regulator is only suitable for regulating solar modules.
- Never connect another charging source to the charge regulator.**

## PRODUCT FEATURES

1. Build-in industrial micro controller.
2. Big LCD display, all adjustable parameter.
3. Fully 4-stage PWM charge management.
4. Build-in short-circuit protection, open-circuit protection, reverse protection, over-load protection.
5. Dual mosfet Reverse current protection, low heat production.

## LCD DISPLAY/KEY



MENU: switch between different display, or to enter/exit setting by long press.

UP: press to increase value.

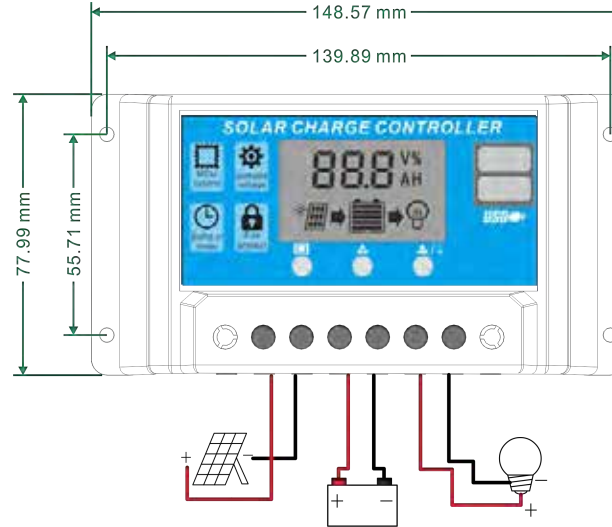
DOWN: press to decrease value.

## SYSTEM CONNECTION

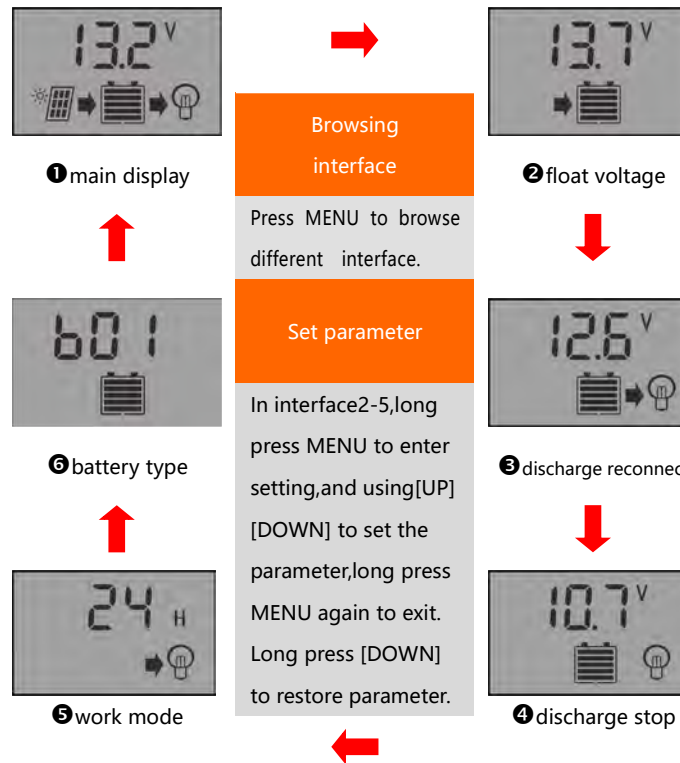
1. Connect the battery to the charge regulator - plus and minus.
2. Connect the photovoltaic module to the regulator - plus and minus.
3. Connect the consumer to the charge regulator - plus and minus.

**The reverse order applies when deinstalling!**

**An improper sequence order can damage the controller!**



## DISPLAY/SETTING



Attn:

1. press the [Down] button to ON/OFF load manually at main display.
2. the work mode is working as below:
  - [24H] load output 24 hours
  - [1-23H] load on after sunset and closed after setting hours
  - [0H] Dusk to dawn

## TROUBLE SHOOTING

Situation	Probable cause	Solution
Charge icon not on when sunny	Solar panel opened or reversed	Reconnect
Load icon off	Mode setting wrong Battery low	Set again recharge
Load icon slow flashing	Over load	Reduce load watt
Load icon slow flashing	Short circuit protection	Auto reconnect
Power off	Battery too low/reverse	Check battery/connection

## TECHNICAL PARAMETER

MODEL	RSPWM10	RSPWM20	RSPWM30	RSPWM40	RSPWM50
Batt voltage	12V/24V Auto				
Charge current	10A	20A	30A	40A	50A
Discharge current	10A	20A	30A	40A	50A
Max Solar input	<50V				
Equalization	B01 sealed	B02 Gel	B03 flood		
	14.4V	14.2V	14.6V		
Float charge	13.7V (default, adjustable)				
Discharge stop	10.7V (default, adjustable)				
Discharge reconnect	12.6V (default, adjustable)				
USB output	5V/2A				
Self-consume	<10mA				
Operating temperature	-35~+60 °C				
Size/Weight	133*70*35mm /150g				

**\*all red color voltage X2 ,X4 while using 24V /48V system.**

**\*Product specifications are subject to change without prior notice.**