

PWM Solar Charge Controller

SP series

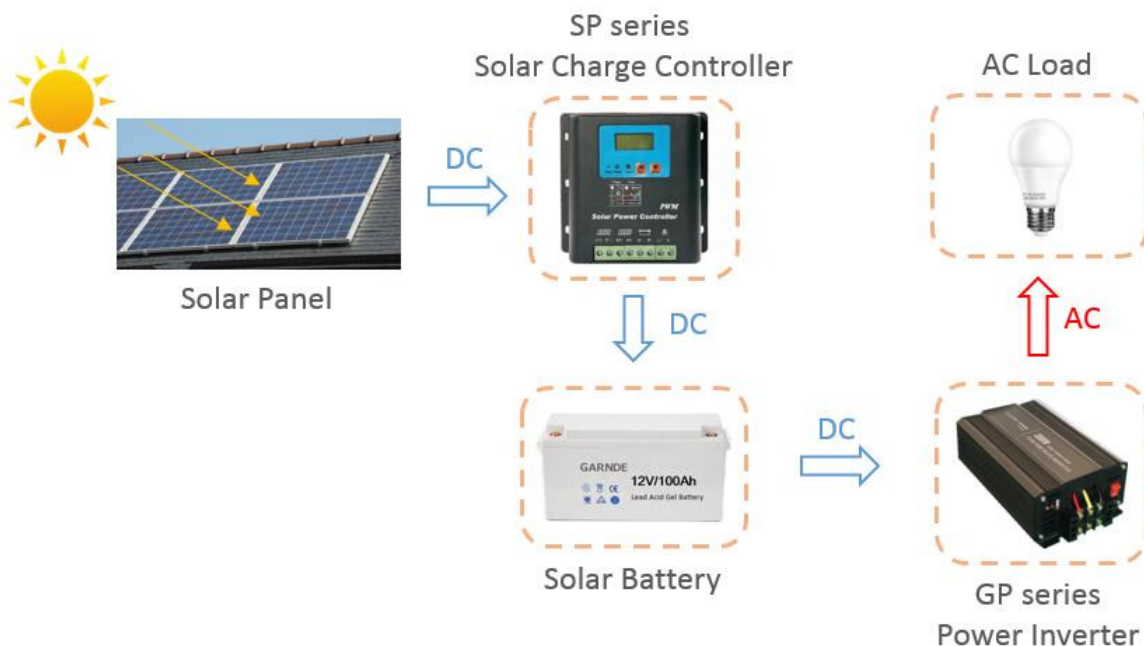


SP Medium

SP Large

INTRODUCTION

SP series solar charge controllers are developed for off-grid solar system and energy storage solar system. Integrating highly efficient PWM charging, the adventurer increases battery lifespan by regulating the charge flowing from the solar panels to the battery bank. SP series solar charge controllers are developed of aluminum shell, with excellent heat radiation structure, it can extend the lifespan significantly.



FUNCTIONAL CHARACTERISTICS

- Can be used in 12V/24V/36V/48V/96V/192V/240V off-grid solar power systems
- High speed high performance dual MCU design
- Aluminum shell, excellent heat radiation
- EMC design
- Tandem type PWM charge main electric circuit, 3-6% higher charge efficiency than non-PWM, extend lifespan of solar system
- LCD display, complete manual display, intelligent batteries charging status display
- External temperature sensor, high precision temperature compensation
- Auto save of settings
- LED display for user to read running status of solar panels, batteries and loads
- Over-charge protection, over-discharge protection, over-load protection, short-circuit protection and battery wrong-connecting protection, anti-thunder-stroke protection

TECHNICAL SPECIFICATIONS

SP Medium						
Model	SP24-30	SP24-40	SP24-50	SP24-60	SP24-80	
INPUT						
Max. PV Input Voltage	36V/55V					
Max. PV Input Power	12V	360W	480W	600W	720W	960W
	24V	720W	960W	1200W	1440W	1920W
BATTERY CHARGING						
Battery System Voltage	12V/24V auto recognition					
Max. Charging Current	30A	40A	50A	60A	80A	
Charging Mode	PWM					
Battery Types Supported	Lead Acid Battery, Gel Battery, Flooded Battery, Lithium Battery					
PROTECTION						
PV Input Over Voltage Protection; Over Current Protection; Under Voltage Protection; Overload Protection						
Short Circuit Protection; Over Temperature Protection						
OTHERS						
Remote Control	Optional					
Communication Method	RS485 (RS232 optional)					
Own Consumption	< 20mA					
Ambient Temperature	-25 °C - 60 °C					
Protection Grade	IP30					
Dimensions	150 x 135 x 63 mm (5.9 x 5.3 x 2.5 inches)					
Weight	1.1 kgs (2.5 lbs)			1.1 kgs (2.5 lbs)		
Packing	CTN: 34 x 32 x 26 cm, 12 pcs, 18.4 kgs (13.4 x 12.6 x 10.2 inches, 12 pcs, 40.6 lbs)					
Warranty	3 years					

SP Medium

Model	SP48-30	SP48-40	SP48-50	SP48-60	SP48-80	SP96-25	SP96-50
INPUT							
Max. PV Input Voltage	85V/100V					250V	
Max. PV Input Power	36V	1080W	1440W	1800W	2160W	2880W	/
	48V	1440W	1920W	2400W	2880W	3840W	/
	96V	/	/	/	/	/	2400W
BATTERY CHARGING							
Battery System Voltage	36V/48V auto recognition					96V	
Max. Charging Current	30A	40A	50A	60A	80A	25A	50A
Charging Mode	PWM						
Battery Types Supported	Lead Acid Battery, Gel Battery, Flooded Battery, Lithium Battery						
PROTECTION							
PV Input Over Voltage Protection; Over Current Protection; Under Voltage Protection; Overload Protection							
Short Circuit Protection; Over Temperature Protection							
OTHERS							
Remote Control	Optional						
Communication Method	RS485 (RS232 optional)						
Own Consumption	< 15mA						
Ambient Temperature	-25°C - 60°C						
Protection Grade	IP30						
Dimensions	150 x 135 x 63 mm (5.9 x 5.3 x 2.5 inches)						
Weight	1.1 kgs (2.5 lbs)	1.2 kgs (2.6 lbs)				1.2 kgs (2.6 lbs)	
Packing	CTN: 34 x 32 x 26 cm, 12 pcs, 18.4 kgs (13.4 x 12.6 x 10.2 inches, 12 pcs, 40.6 lbs)						
Warranty	3 years						

TECHNICAL SPECIFICATIONS

SP Large							
Model	SP24-100	SP24-120	SP24-150	SP48-100	SP48-120	SP48-150	
INPUT							
Max. PV Input Voltage	36V/55V			85V/100V			
Max. PV Input Power	12V	1200W	1440W	1800W	/	/	/
	24V	2400W	2880W	3600W	/	/	/
	36V	/	/	/	3600W	4320W	5400W
	48V	/	/	/	4800W	5760W	7200W
BATTERY CHARGING							
Battery System Voltage	12V/24V auto recognition			36V/48V auto recognition			
Max. Charging Current	100A	120A	150A	100A	120A	150A	
Charging Mode	PWM						
Battery Types Supported	Lead Acid Battery, Gel Battery, Flooded Battery, Lithium Battery						
PROTECTION							
PV Input Over Voltage Protection; Over Current Protection; Under Voltage Protection; Overload Protection							
Short Circuit Protection; Over Temperature Protection							
OTHERS							
Remote Control	Optional						
Communication Method	RS485 (RS232 optional)						
Own Consumption	< 30mA						
Ambient Temperature	-25 °C - 60 °C						
Protection Grade	IP30						
Dimensions	216 x 203 x 107 mm (8.5 x 8.0 x 4.2 inches)						
Weight	3.4 kgs (7.5 lbs)						
Packing	CTN: 43 x 37 x 24 cm, 6 pcs, 24.2 kgs (16.9 x 14.6 x 9.4 inches, 6 pcs, 53.3 lbs)						
Warranty	3 years						

SP Large

Model	SP96-80	SP96-100	SP192-30	SP192-60	SP240-30	SP240-60
INPUT						
Max. PV Input Voltage	220V		350V		390V	
Max. PV Input Power	96V	7680W	9600W	/	/	/
	192V	/	/	5760W	11520W	/
	240V	/	/	/	/	7200W 14400W
BATTERY CHARGING						
Battery System Voltage	96V		192V		240V	
Max. Charging Current	80A	100A	30A	60A	30A	60A
Charging Mode	PWM					
Battery Types Supported	Lead Acid Battery, Gel Battery, Flooded Battery, Lithium Battery					
PROTECTION						
PV Input Over Voltage Protection; Over Current Protection; Under Voltage Protection; Overload Protection						
Short Circuit Protection; Over Temperature Protection						
OTHERS						
Remote Control	Optional					
Communication Method	RS485 (RS232 optional)					
Own Consumption	< 20mA	< 80mA	< 80mA	< 80mA	< 80mA	< 80mA
Ambient Temperature	-25 °C - 60 °C					
Protection Grade	IP30					
Dimensions	216 x 203 x 107 mm (8.5 x 8.0 x 4.2 inches)					
Weight	3.4 kgs (7.5 lbs)					
Packing	CTN: 43 x 37 x 24 cm, 6 pcs, 24.2 kgs (16.9 x 14.6 x 9.4 inches, 6 pcs, 53.3 lbs)					
Warranty	3 years					

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