

A More Sustainable Future







Introduction

This is a MPPT (maximum Power Point Tracking) smart solar controller, with charging and discharging function, increasing 30%~60% efficiency than traditional PWM controller. It has automatic recognition function, three Stages charging function, also supports many kinds of battery charging and discharging, RS232 communication etc, It's our company's MPPT solar controller e-SMART series.

Features

- 1. MPPT charging mode, peak efficiency up to 99%, saving 30%~60% solar panel than traditional PWM controller.
- 2. DC12V/24V/48V battery system automatic recognition, users would like to use in different system conveniently.
- 3. DC12V/24V/48V system, maximum PV input voltage up to DC100V.
- 4. Charge type: three stages charge fast charge(MPPT), constant voltage,

floating charge, protected our battery, lead to a long use age.

- 5. Discharge type owns always on pattern and always off pattern, it also has PV voltage solar controlling switch pattern.
- 6. Clients can auto select any one in the 4 kinds of commonly used batteries, Sealed lead acid, vented, Gel, NiCd and custom other batteries.
- 7. Digital tube display controller battery voltage and charging current, upper computer display various parameters, such as model, PV input voltage, battery types, battery voltage, charging current, charging power, working condition etc.
- 8. **RS232 communication**, and that providing communication protocol, it's convenient for customer's integration management.
- 9. This controller could be paralleled infinitely.
- 10. CE, RoHS Certifications approved; cooperating with clients through the other certifications.
- 11. 2 years warranty; 3~10 years extended technical service.

Products photos







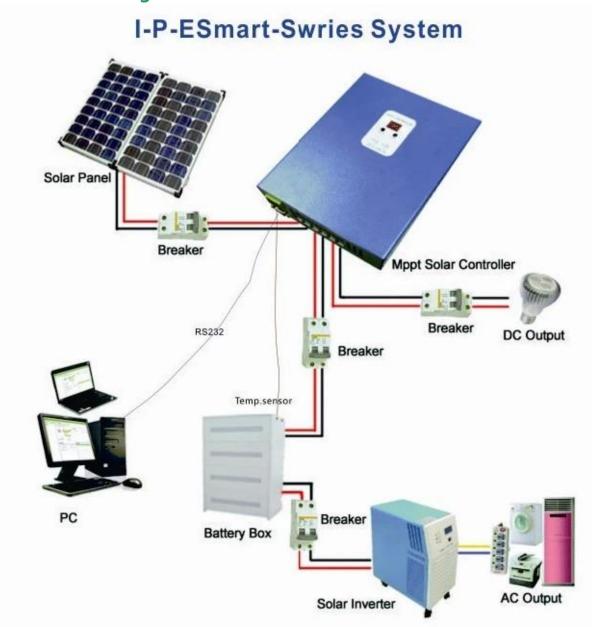


Parameters

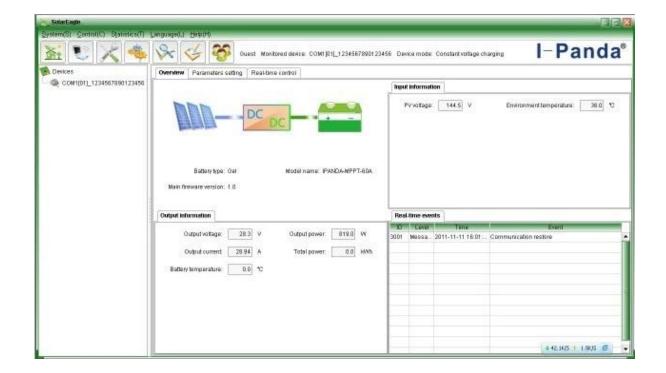
MPPT solar charge controller		404
modes[]		40A
-P-e-SMART-12V/2		<u> </u>
Charge mode	MPPT(maximum power point tracking)	
Charge method		stant current(MPPT),constant voltage,floating charge
System type	DC12V/24V/48V	Automatic recognition
System voltage	12V system	DC9V~DC15V
	24V system	DC18V~DC30V
	48V system	DC36V~DC60V
Soft start time	12V/24V/48V system	≤3S
Dynamic response recovery and range		500us
MPPT efficiency	12V/24V/48V system	≥96.5%,≤99%
INPUT CHARACTE	RISTICS	
MPPT working voltage and Range	12V system	DC14V~DC100V
	24V system	DC30~DC100V
	48V system	DC60~DC100V
Low voltage input Protection point	12V system	DC14V
	24V system	DC30V
	48V system	DC60V
Low voltage input Recovery point	12V system	DC18V
	24V system	DC34V
	48V system	DC65V
nput over voltage protection point	12V/24V/48V system	DC110V
nput over voltage recovery point	12V/24V/48V system	DC100V
Maximum PV power	12V system (W)	568
	24V system (W)	1136
	48V system (W)	2272

CHARGE CHRECT	RESTICS			
Selectable Battery				
Types	12V/24V/48V	Sealed lead acid, vented, Gel, NiCd battery		
(Default type is	system	(Other types of the batteries also can be defined) ☐		
GEL				
battery)	1 2 \ //2 4 \ / / 4 0 \ /	Please shock the sharge voltage asserting to the		
Constant Voltage	12V/24V/48V system	Please check the charge voltage according to the battery type form.		
Floating Charge	12V/24V/48V	battery type form.		
Voltage	system			
Rated Input	12V/24V/48V			
Current	system	40A		
Current-limiting	12V/24V/48V			
Protection	system	45A		
Temperature	12V/24V/48V	L 0. 0.207 /9C		
Factor	system	±0.02%/°C		
Temperature	12V/24V/48V	14.2V-(The highest temperature-25°C)*0.3		
Compensation	system	14.2V-(The highest temperature-25 C) 0.5		
Output	12V/24V/48V	200mV		
Ripples(peak)	system	2001118		
Output Voltage	12V/24V/48V			
Stability	system	≤±1.5%		
Precision				
Output Discharge Characteristics				
Output voltage		Base on battery voltage		
Low voltage output	-	Default 10.5V; recovery 11V; custom available;		
Protection point				
Rated output Current		30A		
The output control		Always on, always off, PV voltage control switch		
Output control set mode		Controller button or upper computer		
Display LED digital tube display		Battery voltage, charge current		
LED light display		Charging indicator light, LOAD indicator light		
		RS232		
PC□communication port□ Protection		N3232		
Input Low Voltage Protection Input Overvoltage Protection		Check the input characteristics Check the input characteristics		
Charge over voltage power Protection		***************************************		
Low Voltage output		yes		
Protection		yes		
Rated output Current protection		yes		
Temperature Protection		yes		
Other Parameters				
Noise		≤40dB		
Thermal heat-dissipating method		Itself cooling fan cooling		
Components		Imported material, with EU standards.		
Certification		CE\FCC\ROHS		
Physical				
Measurement D x W x H(mm)		205*168*60		
package size D x W x H(mm)		265*196*110		
N.G(KG)		1.8kg		
G.N(KG)		2kg		
Type of Mechanical Protection		IP25		
Environment				
Humidity		0~90%RH (no condense)		
Altitude		0~3000m		
Operating Temperature		-20℃ ~ +50℃		
Storage Temperature		-40℃ ~ +75℃		
Atmospheric Pressure		70~106kPa		

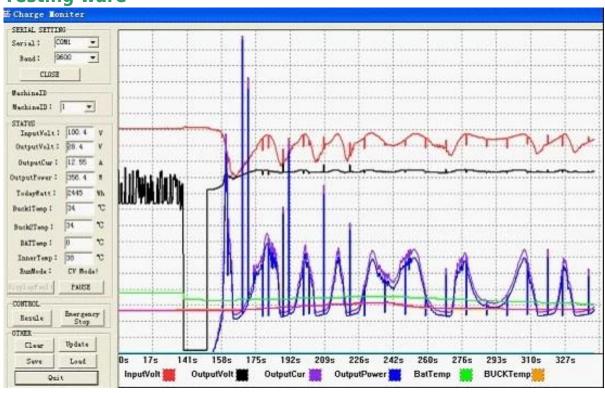
Connection diagram



Upper software



Testing ware



Certification







Company photo



Shanghai International Photovoltaic Power Generation Conference & Exhibition













