#### 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**













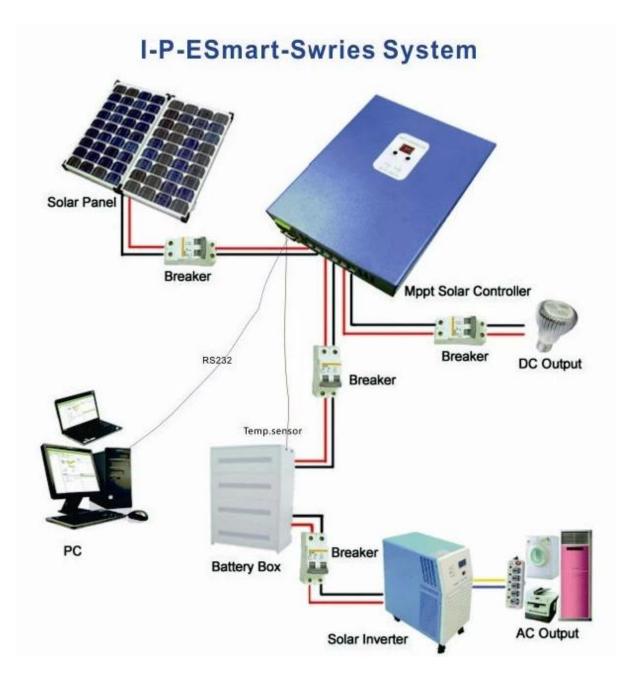
#### **Parameters**

ller modes□				
_	30A			
MPPT(maximum power point tracking)				
Three stages: constant current(MPPT),constant voltage,floating				
charge				
DC12V/24V/48V	Automatic recognition			
12V system	DC9V~DC15V			
24V system	DC18V~DC30V			
48V system	DC36V~DC60V			
12V/24V/48V	≤3S			
system				
12V/24V/48V	F00			
system	500us			
12V/24V/48V	≥96.5%,≤99%			
system				
ERISTICS				
12V system	DC14V~DC100V			
24V system	DC30~DC100V			
48V system	DC60~DC100V			
12V system	DC14V			
24V system	DC30V			
48V system	DC60V			
	Three stages: concharge DC12V/24V/48V 12V system 24V system 48V system 12V/24V/48V system 12V/24V/48V system 12V/24V/48V system ERISTICS 12V system 24V system 48V system 12V system 24V system 24V system			

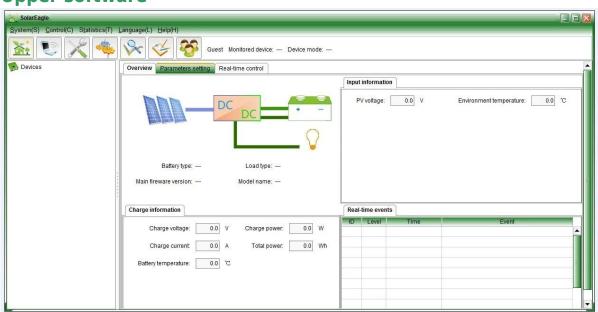
Low voltage input	12V system	DC18V	
Recovery point		DC34V	
recevery point	48V system	DC65V	
Input over voltage protection point	12V/24V/48V system	DC110V	
Input over voltage recovery point	12V/24V/48V system	DC100V	
Maximum PV	12V system (W)	426	
power	24V system (W)	852	
<u> </u>	48V system (W)	1704	
CHARGE CHREC	TRESTICS		
Selectable			
Battery Types (Default type is GEL battery)	12V/24V/48V system	Sealed lead acid, vented, Gel, NiCd battery (Other types of the batteries also can be defined)	
Constant Voltage	12V/24V/48V system	Please check the charge voltage according to the battery type form.	
Floating Charge	12V/24V/48V	Please check the charge voltage according to the	
Voltage	system	battery type form.	
Rated Input	12V/24V/48V	204	
Current	system	30A	
Current-limiting	12V/24V/48V	254	
Protection	system	35A	
Temperature	12V/24V/48V	. 0.000/ /00	
Factor	system	±0.02%/°C	
Temperature	12V/24V/48V	14 2) / /The high self server as least 2500/40 2	
Compensation	system	14.2V-(The highest temperature-25°C)*0.3	
Output	12V/24V/48V	200\	
Ripples(peak)	system	200mV	
Output Voltage Stability Precision	12V/24V/48V system	≤±1.5%	
	uge Characteristic	re	
Output voltage	ge characteristic	Base on battery voltage	
Low voltage outp	<del>t</del>	base on battery voitage	
Protection point	ut	Default 10.5V; recovery 11V; custom available ;	
Rated output Curi	rent	30A	
The output contro		Always on, always off, PV voltage control switch	
Output control se		Controller button or upper computer	
Display	c mode	peoneronici button or upper computer	
LED digital tube d	lisnlav	Battery voltage, charge current	
LED light display	ποριαγ	Charging indicator light, LOAD indicator light	
		RS232	
Protection	/ii poit∐	10232	
	Protection	Check the input characteristics	
<u> </u>		Check the input characteristics	
		Check the input characteristics	
Charge over voltage power Protection yes			
Low Voltage output Protection		yes	
		yes	
mateu output cun	icht protection	ly C3	

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°C ~ +50°C			
Storage Temperature	-40°C ~ +75°C			
Atmospheric Pressure	70~106kPa			

# **Connection diagram**



### **Upper software**



## **Company photos**



2014 Shanghai Exhibition













