Feature:

1.MPPT charge mode,conversion efficiency upto 99%
2.12V/24V/48V system auto recognize
3.Wide range of PV input with max. is DC150V .
4.Journal function , Save function set ,Date ,time ,Generating capacity and so on .
5.Charge mode: three stages (fast charge ,constant charge ,floating charge) .It prolongs service life of the batteries .
6.Discharge mode: ON mode, OFF mode, double time control mode, PV voltage control mode ,PV voltage plus time delay mode and so on .
7.Recommended battery types: sealed lead acid, vented, gel, NiCd battery. Other types of the batteries can also be defined.
8.Most information could be provide by LCD and LED like: model number , PV input voltage, battery type , battery voltage , charging current , charging power , working status and so on. Also customer information like company name,website and logo can be added into Solar Eagle software.
9.RS232 and LAN communication port. IP and Gate address could be user define it satisfy global area.And communication protocol can be provided to help customer manage all information
10.The upper computer software is displayed in 11 languages, it could show work status and set parameters of the discharge system.
11.With intelligent design,the device can be upgraded online lifelong.
12.Adopting the well-known brand components,the devices can suffer the temperature not less than 105℃.The service life is designed to use for 10 years in theory.
13.Compliance with the 2002 95 EC environment protecting demand, does not include the Cadmium, hydride and fluoride etc material
14.Equipment integrity: controller ,CD-ROM(microcomputer software), communication wire , temperature sensing wire,Anderson terminals
15.CE,ROHS certifications approved.
16.2 years warranty. And 3~10 years extended warranty service also can be provided.

Technical Specification:

MODEL□SMART2-20A/25A/30A - SERIES		20A	25A	30A
Charge Mode		Maximum Power Point Tracking		
Discharge Mode		Intelligent control		
System Type		12V 24V 48V Automatic recognition		
Soft Start Time		≤10S		
Dynamic Response Recovery Time		500us		
Conversion Efficiency		≥96.5%,≤99%		
PV Modules Utilization Rate		≥99%		
INPUT CHARACTERISTICS				
MPPT Working Voltage and Range	12V system	DC18V~DC150V		
	24V system	DC34~DC150V		
	48V system	DC65~DC150V		
Low Voltage Input Protection Point	12V system	DC16V		
	24V system	DC30V		
	48V system	DC60V		
Low Voltage Input Recovery Point	12V system	DC22V		
	24V system	DC34V		
	48V system	DC65V		
Max. DC Voltage		DC160V		
Input Overvoltage Protection Point		DC150		
Input Overvoltage Recovery Point		DC145V		

Max. PV Power	12V system	286W	357W	429W
	24V system	572W	715W	858W
	48V system	1144W	1430W	1716W
CHARGE CHARACTERISTICS				
Selectable Battery Types		Sealed lead acid, vented, Gel, NiCd battery(Default type is GEL battery)		
Other types of Battery Setting		Constant charge	User-defined constant/floating charge voltage range between DC10V~DC15 (based on 1 pcs 12V battery)	
		Floating charge		
Battery Type Setting		12V/24V/48V SYS	Controller and upper monitor	
Charge Type		12V/24V/48V SYS	Three Stages :Fast charge/Constant charge/Floating charge	
Rated Output Current		20A	25A	30A
Current-limiting Protection		25A	30A	35A
Temperature Factor		±0.02%/℃		
Temperature Compensation		14.2V-(The highest temperature-25℃)*0.3		
Output Ripples(peak)		200mV		
Output Voltage Stability Precision		≤±1.5%		
Charge voltage Peak-Peak Ripple		200mV		
Charger voltage accuracy		≤±1.5%		
DISCHARGE CHARACTERISTICS				
Setting Control		Controller or LAN		
Max discharge current		30A		
Max discharge power		420W	840W	1680W
Discharge protection		fuse 40A*2		
Double-time control		On in morning ,off in morning / On in night ,off in night		
ON / OFF mode		ON / OFF		
PV voltage control		PV voltage on,PV voltage off		
PV voltage / time delay control		PV voltage on,time delay off		
Discharge voltage protection		Output off when it under setting voltage; Factory set is 10.5 .(Note : set based on 1 battery)		
COMMUNICATION PORT				
RS232 Communication		Chose COM communication		
LAN Communication		Set IP and Gate address for controller and solar eagle ;Then chose TCP communication		
PROTECTIONS				
Input Low Voltage Protection		Check the in/output characteristics		
Input Overvoltage Protection				
Input Polarity Reversal Protection				
Output Overvoltage Protection				
Output Polarity Reversal Protection				
Short-circuit Protection		Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit		
Temperature Protection		95℃		
Temperature protection		Above 85℃,decrease the output power, decrease 3A per degree.		
OTHER PARAMETERS				
Noise		≤40dB		

Thermal methods	Forced air cooling, fan speed rate regulated by temperature, when inner temperature is too low, fan ran slowly or stop; when controller stop working, fan also stop ran.
Environment Protection	World brand raw materials. Compliance with EU standards. Meet the 2002/95/EC without cadmium hydride, fluoride, peculiar smell and toxic substances.All rated temperature of electrolytic capacitors not less than 105℃
PHYSICAL	
Measurement DxWxH (mm)	270*185*90
N.G(kg)	2.1
G.N(kg)	2.4
Color	Blue/Green (optional)
Safety	CE, RoHS, PSE,FCC
EMC	EN61000
Type of Mechanical Protection	IP21
ENVIRONMENT	
Humidity	0~90%RH (no condense)
Altitude	0~3000m
Operating Temperature	-20℃ ~ +40℃
Storage Temperature	-40℃ ~ +75℃
Atmospheric Pressure	70~106kPa

Note: We provide OEM and ODM service.The 36V/72V/96V model also can be custom made for you.

Product Parts:

Blue

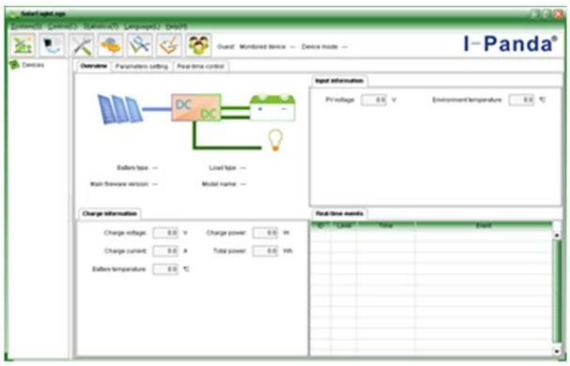
Green

Upper Computer

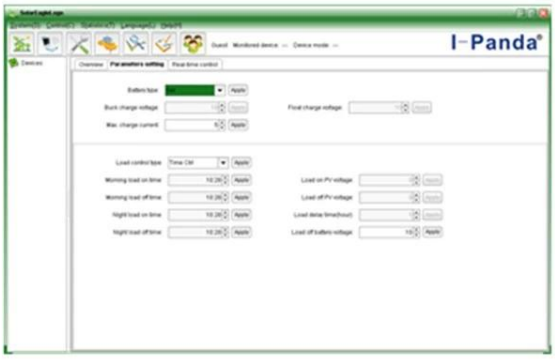
Package

NO.	Quantity	Description
1	1 pc	Charge controller
2	2 pc	Gallow pulley (For install the controller on the wall)
3	4 set	Screw (For install the controller on the wall)
4	1 pc	232 turn to RJ45 communication cable
5	1 pc	User manual
6	1 pc	Temperature sensing wire
7	2 pc	Fuse wire

Upper Computer Software and testing Software:

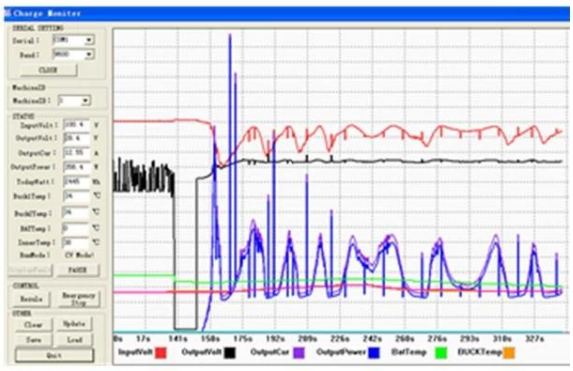


The interface of upper computer software working state



The interface of upper computer software parameter setting state

Upper computer software on/off interface and generating capacity record clean interface



The interface of test software working state

Note:

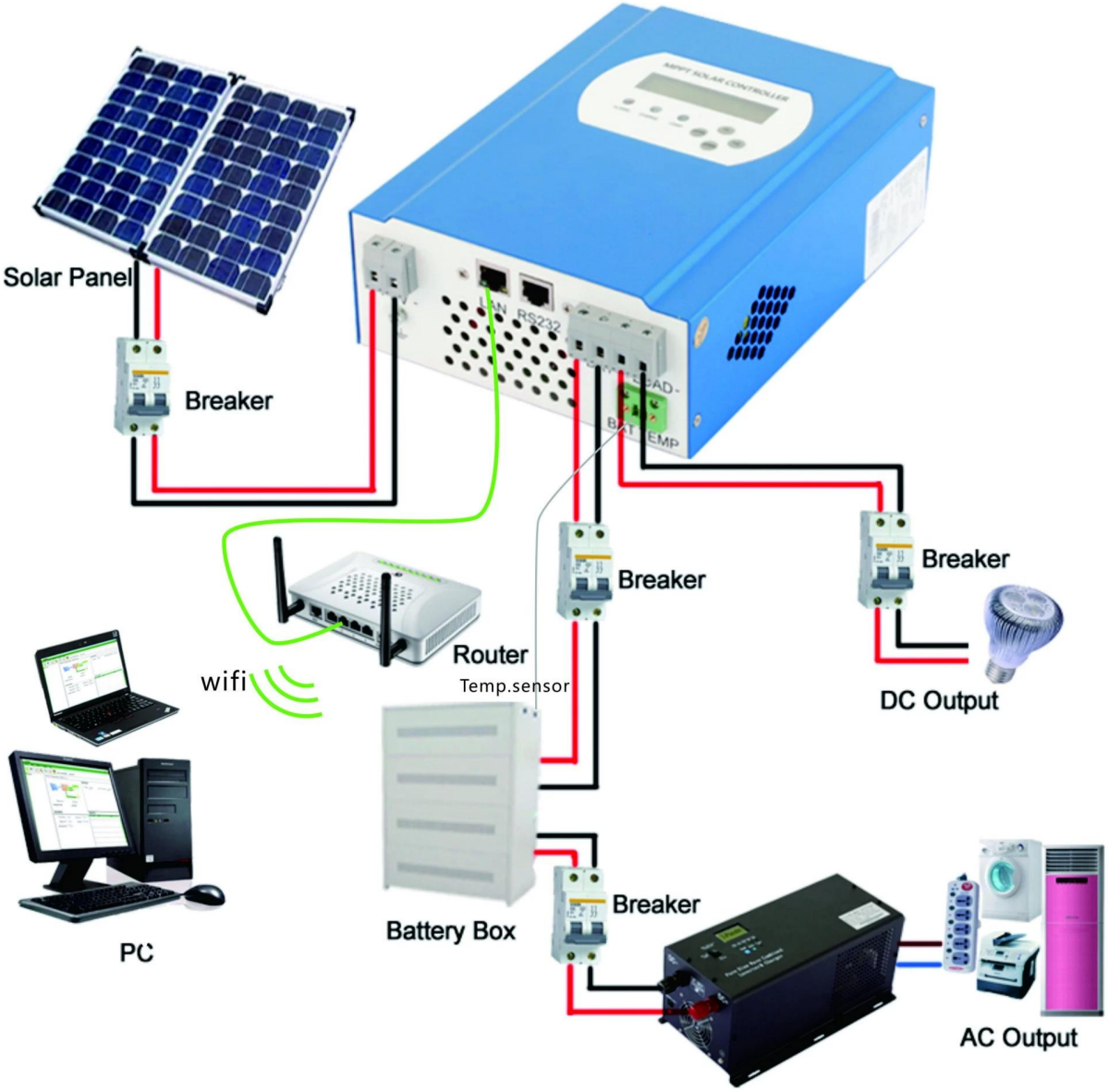
1) Attachment is upper computer software which is suitable for all computer systems .
2) Trafficker will provide neutral upper computer software and CD,or with customer's logo.
3) WIN7,IN8 system user,please log in as administrator.More details please check the manual**.**

Information on Display and Settable Parameters:

Note:

1) All above information is a sample which is the working state of MPPT in sometime. In different working stage the parameters will change like work mode, charge current ,charge mode ,charge power and so on ; In the fault mode it will show fault mode ;
2) If all above dates show means this could change;the details please check the manual.

Installation



Note:

1) Above is off-grid solar system connection picture ;

2)Other ways for PC-communication, please check the manul for details;

Other Parameters □

Please check design brief,technical documents,product manual for more details.