Feature:

1.MPPT charge mode,conversion efficiency up to 99%,can save 30%~60% of the power than traditional controller.

2.With high efficient MPPT operation scheme and adopting TI28035 chip,make the Solar panels utilization rate up to 99%.

3.Intelligent design,the device can be upgraded online,customers enjoy the lifelong upgrade service.

4.Compliance with the 2002/95/EC environment protecting demand, doesn't include the Cadmium, hydride and fluoride

5.Adopting the well-known brand components,the devices can suffer the temperature not less than 105℃.The service life is designed to extend to 10 years in theory.

6.Charge mode: three stages (fast charge,constant charge,floating charge)

7.12V/24V/48V/96V system auto recognize for easy control.

8. 12V/24V/48V system maximum solar input is DC 150V ,96V system maximum solar input is DC 300V ;

9. Connected Battery Type choosing: Sealed lead acid, vented, Gel, NiCd battery. Other types of the batteries can also be defined.

10.LCD and LEDs show all kinds of parameter like products model, PV input voltage,battery voltage,charge current,charge power,work condition,and also can add customers'company name and website.

11.Communication Port.RS232 communication can provide communication protocol, This make the unified and integrated management more convenient to customers.

12.With providing a Microsoft by connecting with PC that can show the working state and all parameters in 7 languages.

13.Extensible LAN remote control.

14.Equipment integrity: controller+CD-ROM(microcomputer software) + communication wire+Anderson terminals;

15.CE,ROHS,FCC,PSE certifications approved.The device also can support to pass the other certifications.

16. 2years warranty. And 3~10 years extended warranty service also can be provided.

Parameter:

Model: I-P-MSC-DC12V/24V/48V/96V-series		20A	30A
Charge Mode	Maximum Power Point Tracking		
Method	3 stages: fast charge(MPPT),constant voltage,floating charge		
System Type	DC12V/24V/48V/96V	Automatic recognition	
System Voltage	12V system	DC9V~DC15V	
	24V system	DC18V~DC30V	
	48Vsystem	DC36V~DC60V	
	96Vsystem	DC72V~DC120V	
Soft Start Time	12V/24V/48V/96V	≤10S	
Dynamic Response Recovery Time	12V/24V/48V/96V	500us	
Conversion Efficiency	12V/24V/48V/96V	≥96.5%,≤99%	
PV Modules Utilization Rate	12V/24V/48V/96V	≥99%	
Input Characteristics			
MPPT Working Voltage and Range	12V system	DC18V~DC150V	
	24V system	DC34~DC150V	
	48V system	DC65~DC150V	
	96Vsystem	DC125~DC300V	

Low Voltage Input Protection Point	12V system	DC16V	
	24V system	DC30V	
	48V system	DC60V	
	96Vsystem	DC120V	
Low Voltage Input Recovery Point	12V system	DC22V	
	24V system	DC34V	
	48V system	DC65V	
	96Vsystem	DC125V	
Max DC Voltage	12V/24V/48V system	DC160V	
	96Vsystem	DC300V	
Input Overvoltage Protection Point	12V/24V/48V system	DC150	
	96Vsystem	DC300V	
Input Overvoltage Recovery Point	12V/24V/48V system	DC145V	
	96Vsystem	DC295V	
Max. PV Power	12V system	280W	450W
	24V system	560W	850W
	48V system	1120W	1700W
	96Vsystem	2240W	3400W

Output Characteristics

Selectable Battery Types (Default type is GEL battery)	12V/24V/48V/96Vsystem	Sealed lead acid, vented, Gel, NiCd battery (Other types of the batteries also can be defined)	
Constant Voltage	12V/24V/48V/96Vsystem	Please check the charge voltage according to the battery type form.	
Floating Charge Voltage	12V/24V/48V/96Vsystem		
Over Charge Protection Voltage	12V system	14.6V	
	24V system	29.2V	
	48V system	58.4V	
	96V system	116.8V	
Rated Output Current	12V/24V/48V/96Vsystem	20A	30A
Current-limiting Protection	12V/24V/48V/96Vsystem	25A	35A
Temperature Factor	12V/24V/48V/96Vsystem	±0.02%/℃	
Temperature Compensation	12V/24V/48V/96Vsystem	14.2V-(The highest temperature-25℃)*0.3	
Output Ripples(peak)	12V/24V/48V/96Vsystem	200mV	
Output Voltage Stability Precision	12V/24V/48V/96Vsystem	≤±1.5%	

Display

LCD display	Input,output parameter and output power etc (check the LCD display instruction)
LED display	3 LEDs indicates:Fault indicate light,charge indicate light, power source indicate light(check the LED instruction)
Software Control through PC(communication port)	RS232 (matching) or LAN(optional)

Protection

Input Low Voltage Protection	Check the input characteristics
Input Overvoltage Protection	Check the input characteristics
Input Polarity Reversal Protection	yes

Output Overvoltage Protection	Check the output characteristics
Output Polarity Reversal Protection	yes
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.
Components	World brand raw materials. Compliance with EU standards. All rated temperature of electrolytic capacitors not less than 105℃
Smell	No peculiar smell and and toxic substances.
Environment Protection	Meet the 2002/95/EC,no cadmium hydride and fluoride
Physical	
Measurement DxWxH(mm)	270*185*90
N.G(kg)	3
G.N(kg)	3.6
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

The specification is only for reference. Subject to change without prior notice.
We provide OEM and ODM service. The 36V/72V/96V model also can be custom made for you.

Pictures:

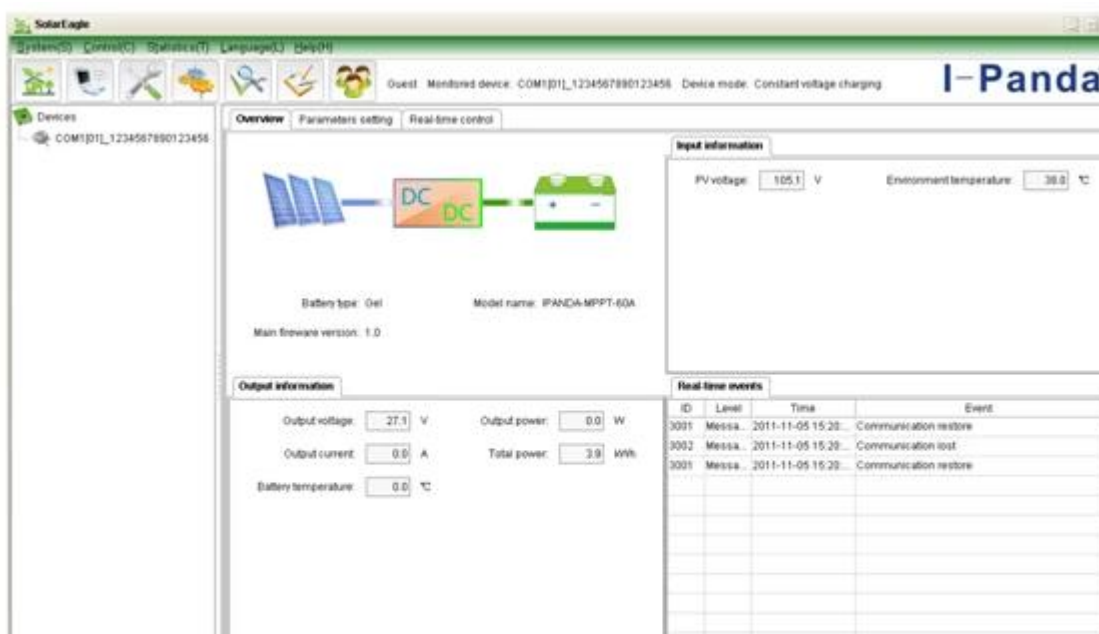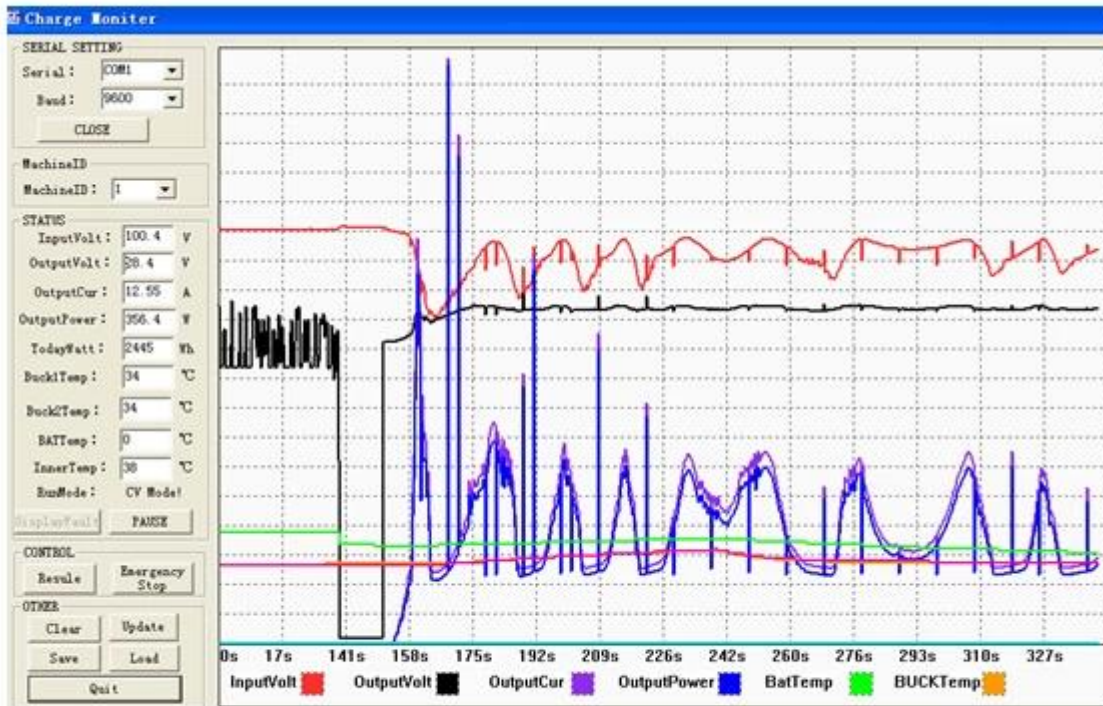## The Figures of the PC Firmware and Testing Software

Figure 1: PC Firmware

Figure2: Testing Software

Note: 1) Attachment have upper computer software , suitable for all computer system .

2) Trafficker will provide neutral upper computer software and CD ,or software with customer's logo .

3) WIN7 , WIN8 system user , please log in as administrator: More details please check the manul .

Other Parameters

Details please check design brief 、technical documents 、product manual .