Introduction:

This is a smart solar charge controller which has advanced [MPPT technology .Solar charge controller](#) is one of the important parts in the off-grid solar system. For having the advanced MPPT technology, the controller can trace the peak power with 99% conversion efficiency. MPPT microprocessor, inside the controller，making 30% more charge current with significantly less power than tradition. In addition to this, easier installing and supporting to expand volume are other advantages. It can also store energy to different kinds of batteries. We provide battery choice(Vented，Sealed，Gel，NiCd).

Parameter:

Model:I-P-MSC-DC12V/24V/48V-series		40A	50A	60A
Charge Mode	Maximum Power Point Tracking			
Method	3 stages: fast charge(MPPT),constant voltage,floating charge			
System Type	DC12V/24V/48V	Automatic recognition		
System Voltage	12V system	DC9V~DC15V		
	24V system	DC18V~DC30V		
	48Vsystem	DC36V~DC60V		
Soft Start Time	12V/24V/48Vsystem	≤10S		
Dynamic Response Recovery Time	12V/24V/48Vsystem	500us		
Conversion Efficiency	12V/24V/48Vsystem	≥96.5%,≤99%		
PV Modules Utilization Rate	12V/24V/48Vsystem	≥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	12V/24V/48V system	DC160V		
Input Overvoltage Protection Point	12V/24V/48V system	DC150V		
Input Overvoltage Recovery Point	12V/24V/48V system	DC145V		
Max. PV Power	12V system	570W	700W	900W
	24V system	1130W	1400W	1700W
	48V system	2270W	2800W	3400W
Output Characteristics				
Selectable Battery Types (Default type is GEL battery)	12V/24V/48Vsystem	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 Voltage	12V/24V/48V system			
Over Charge Protection Voltage	12V system	14.6V		
	24V system	29.2V		
	48V system	58.4V		
Rated Output Current	12V/24V/48V system	40A	50A	60A
Current-limiting Protection	12V/24V/48V system	44A	55A	66A
Temperature Factor	12V/24V/48V system	±0.02%/℃		
Temperature Compensation	12V/24V/48V system	14.2V-(The highest temperature-25℃)*0.3		
Output Ripples(peak)	12V/24V/48V system	200mV		
Output Voltage Stability Precision	12V/24V/48V system	≤±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.

Top

Input

Accessories
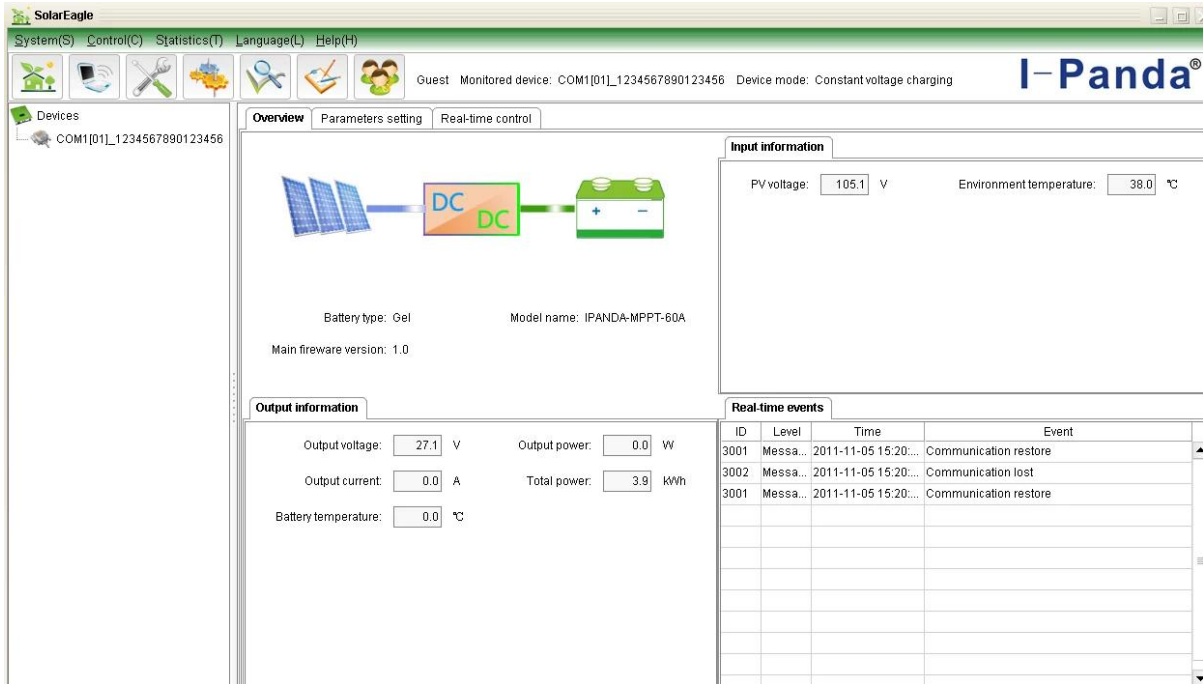
The Figures of the PC Firmware and Testing Software

Figure 1: PC Firmware

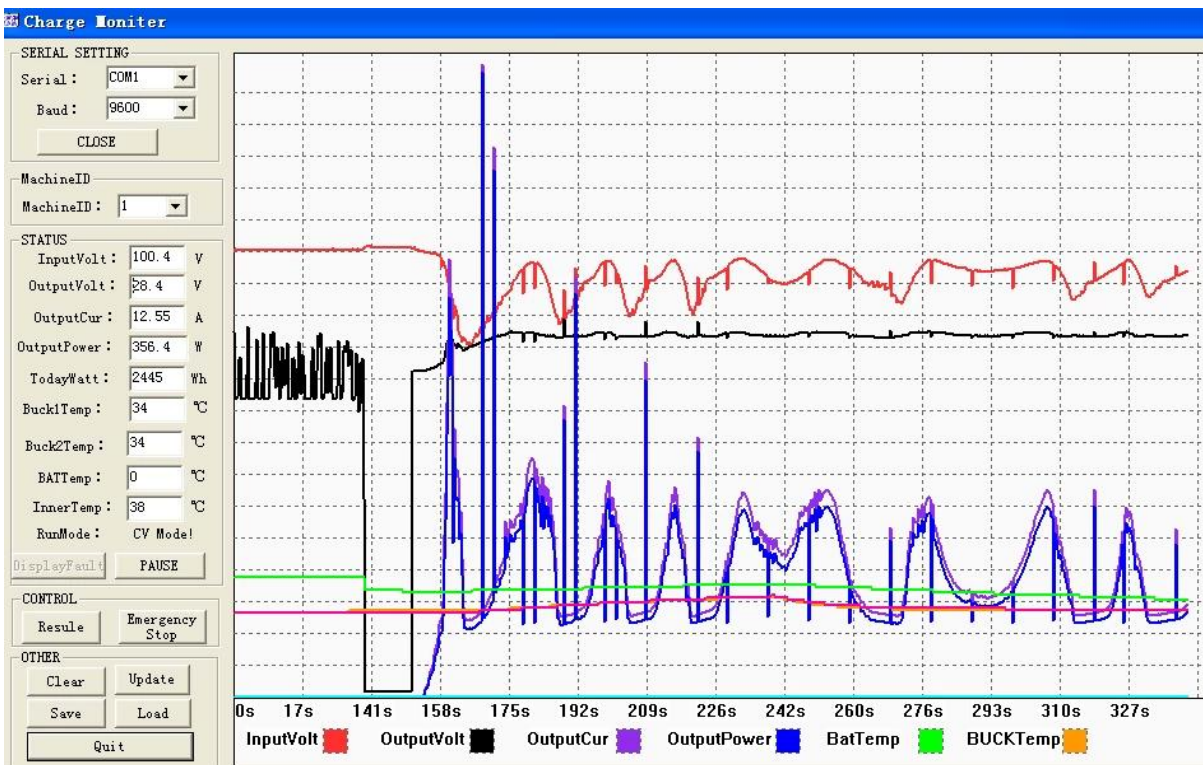
Figure: Testing Software

PV+   PV-

BAT(+)   BAT(-)

RS232