## Feature:

- 1. MPPT charge mode, conversion efficiency upto 99%, can save 30%~60% of the power thantraditional controller.
- 2. With high efficient MPPT operation scheme and adopting Tl28035 chip,make the Solar panels utilization rate upto 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°C. 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 system auto recognize for easy control.
- 8. Nominal maximum solar input is DC 150V
- 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+temperature sensing wire+Anderson terminals;
- 15.CE,ROHS,FCC,PSE certifications approved. The device also can support to pass the other certifications.
- 16. 2 years warranty. And 3~10 years extended warranty service also can be provided.

## **Parameter:**

Maximum Power Point Tracking   Method   3 stages: fast transpe(MPTP). constant voltage.floating charge   System Type   DC12V/24V/48V   Automatic recognition   Method   Meth	raiailletei.			•			
Method   Stages: fast charge(MPPT), constant voltage, floating charge   System   Ype   DC12//24//48V   Automatic recognition	Model:I-P-MSC-DC12V/24V/48V-series		40A	50A	60A		
DC12V/24V/48V   Automatic recognition							
12V system			PT),constant voltage,floating charge				
24V system	System Type						
ABVsystem   DC36V-DC60V   SON   SO							
Soft Start Time	System Voltage						
Dynamic Response							
Recovery Time	Soft Start Time	12V/24V/48Vsystem	≤105				
PV Modules Utilization Rate Input Characteristics	Dynamic Response Recovery Time	12V/24V/48Vsystem	500us				
Input Characteristics	Conversion Efficiency	12V/24V/48Vsystem	≥96.5%,≤99%				
12V system	PV Modules Utilization Rate	12V/24V/48Vsystem	≥99%	≥99%			
APPT Working Voltage and Range	Input Characteristics						
ABV system   DC16V	MPPT Working Voltage and Range	12V system	DC18V~DC150V				
12V system		24V system	DC34~DC150V				
Low Voltage Input Protection Point   24V system   DC30V		48V system	DC65~DC150V				
ABV system   DC60V		12V system	DC16V	DC16V			
12V system   DC34V	Low Voltage Input Protection Point	24V system	DC30V				
DC34V   ABV system   DC34V   ABV system   DC65V		48V system	DC60V	DC60V			
Add   System   DC65V	Low Voltage Input Recovery Point	12V system	DC22V				
Max DC Voltage   12V/24V/48V system   DC160V		24V system	DC34V				
Input Overvoltage Protection Point   12V/24V/48V system   DC150V		48V system	DC65V				
Input Overvoltage Recovery Point   12V/24V/48V system   DC145V	Max DC Voltage	12V/24V/48V system	DC160V				
12V system   130W   700W   900W   1700W   24V system   1130W   1400W   1700W   3400W   3400W	Input Overvoltage Protection Point	12V/24V/48V system	DC150V				
Max. PV Power         24V system 48V system         1130W         1400W         1700W           Output Characteristics         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 Voltage         12V/24V/48V system         14.6V           Over Charge Protection Voltage         24V system         29.2V           48V system         29.2V           48V system         58.4V           Rated Output Current         12V/24V/48V system         40A         50A         60A           Current-limiting Protection         12V/24V/48V system         4AA         55A         66A           Temperature Factor         12V/24V/48V system         ±0.02%/°C           Temperature Compensation         12V/24V/48V system         ±0.02%/°C	Input Overvoltage Recovery Point	12V/24V/48V system	DC145V				
A8V system   2270W   2800W   3400W   3400W	Max. PV Power	12V system	570W	700W	900W		
Output Characteristics  Selectable Battery Types (Default type is GEL battery)  12V/24V/48V system  Constant Voltage  12V/24V/48V system  12V/24V/48V system  12V system  12V system  12V system  12V system  12V system  14.6V  Over Charge Protection Voltage  24V system  24V system  29.2V  48V system  58.4V  Rated Output Current  12V/24V/48V system  12V/24V/48V system  58.4V  Rated Output Current  12V/24V/48V system  12V/24V/48V system  12V/24V/48V system  58.4V  AVA  50A  60A  Current-limiting Protection  12V/24V/48V system  12V/24V/48V system  44A  55A  66A  Temperature Factor  12V/24V/48V system  12V/24V/48V system  12V/24V/48V system  40.02%/°C  Temperature Compensation  12V/24V/48V system  14.2V-(The highest temperature-25°C)*0.3		24V system	1130W	1400W	1700W		
Output Characteristics  Selectable Battery Types (Default type is GEL battery)  12V/24V/48V system  Constant Voltage  12V/24V/48V system  12V/24V/48V system  12V system  12V system  12V system  12V system  12V system  14.6V  Over Charge Protection Voltage  24V system  24V system  29.2V  48V system  58.4V  Rated Output Current  12V/24V/48V system  12V/24V/48V system  58.4V  Rated Output Current  12V/24V/48V system  12V/24V/48V system  12V/24V/48V system  58.4V  AVA  50A  60A  Current-limiting Protection  12V/24V/48V system  12V/24V/48V system  44A  55A  66A  Temperature Factor  12V/24V/48V system  12V/24V/48V system  12V/24V/48V system  40.02%/°C  Temperature Compensation  12V/24V/48V system  14.2V-(The highest temperature-25°C)*0.3		48V system	2270W	2800W	3400W		
12V/24V/48V system   12V/24V/48V system   12V/24V/48V system   14.6V	Output Characteristics						
12V/24V/48V system	Selectable Battery Types (Default type is GEL battery)	12V/24V/48Vsystem					
12V/24V/48V system	Constant Voltage	12V/24V/48V system	Diament of the				
12V system   14.6V   24V system   29.2V   48V system   58.4V   50.4   60.4	Floating Charge Voltage	12V/24V/48V system	—Please check the charge voltage according to the battery type form.				
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%/°C           Temperature Compensation         12V/24V/48V system         14.2V-(The highest temperature-25°C)*0.3	Over Charge Protection Voltage	12V system	14.6V				
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%/°C           Temperature Compensation         12V/24V/48V system         14.2V-(The highest temperature-25°C)*0.3		24V system	29.2V	29.2V			
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%/°C           Temperature Compensation         12V/24V/48V system         14.2V-(The highest temperature-25°C)*0.3				58.4V			
Current-limiting Protection         12V/24V/48V system         44A         55A         66A           Temperature Factor         12V/24V/48V system         ±0.02%/°C           Temperature Compensation         12V/24V/48V system         14.2V-(The highest temperature-25°C)*0.3	Rated Output Current		40A	50A	60A		
Temperature Factor 12V/24V/48V system ±0.02%/°C Temperature Compensation 12V/24V/48V system 14.2V-(The highest temperature-25°C)*0.3			44A		66A	-	
Temperature Compensation 12V/24V/48V system 14.2V-(The highest temperature-25°C)*0.3							
				14.2V-(The highest temperature-25°C)*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°C,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℃ ~				
torage Temperature -40°C ~ +75°C		<u> </u>			
Atmospheric Pressure	70~106	ikPa			

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.









## The Figures of the PC Firmware and Testing Software

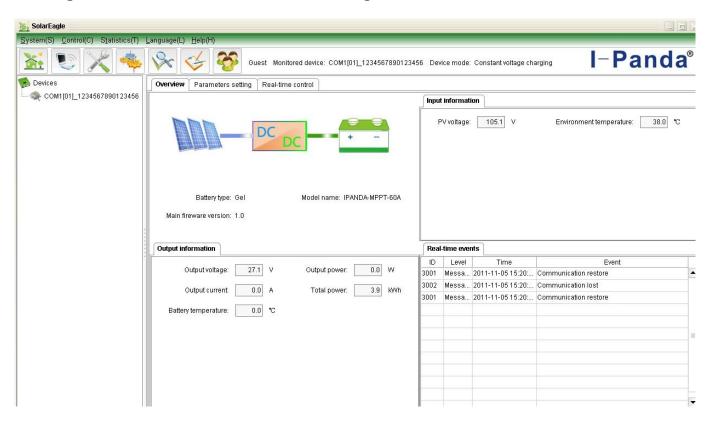


Figure 1: PC Firmware

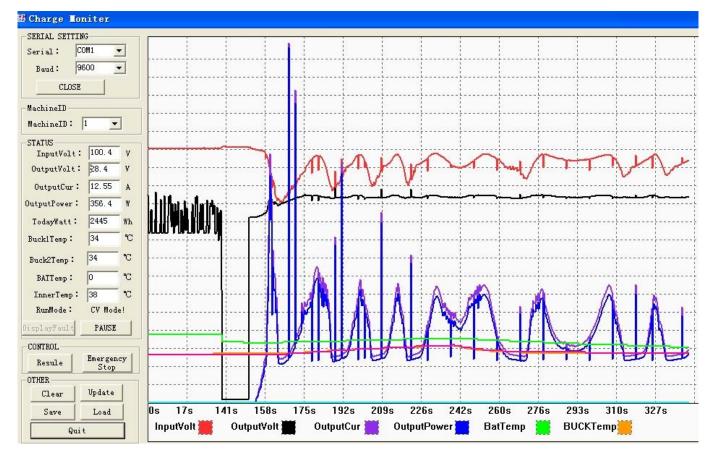


Figure: Testing Software





## Package

