### Introduction

This is a <u>solar charge controller 40A ~60A</u> that have automatic max. power point tracking function with high efficiency that almost  $30\% \sim 60\%$  higher than traditional charge controller. It also features the functions of system voltage auto recognition, wide rang of PV input ,charge for all kinds of battery,automatic discharge control,RS 232 / LAN communication function and so on. It is very high-end product for solar market with its best partner <u>I-P-TPI2 model Inverter/Charger/UPS</u>.

#### Feature

1.<u>MPPT charge</u> mode, conversion efficiency upto 99%.

2.12V/24V/48V system auto recognize.

3. Wide range of PV input with max. is DC150V.

4. Unlimited parallel connection.

5. Journal function , Save function set ,Date ,time ,Generating capacity and so on .

6. Charge mode: three stages (fast charge , constant charge , floating charge) . It prolongs service life of the batteries .

7.Discharge mode: ON/OFF mode, double time control mode, PV voltage control mode , PV voltage+time delay mode and so on .

8.Recommended battery types: sealed lead acid, vented, gel, NiCd battery. Other types of the batteries can also be defined. 9.Most information could be provide by LCD and LED like: model no.,PV input voltage,battery type,battery voltage,charging current,charging power,working status and so on. Also customer's information like company name,website and logo can be added into Solar Eagle software.

10.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 .

11. The upper computer software is displayed in 11 languages, it could show work status and set parameters of the discharge system.

12. With intelligent design, the device can be upgraded online lifelong.

13.Adopting the well-known brand components, the devices can suffer the temperature not less than 105°C. The service life is designed to use for 10 years in theory.

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

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

16.CE,ROHS certifications approved.

#### **Parameter**

Farameter					
Model:I-P-SMART2-40A/50A/60A -series		40A	50A	60A	
Charge Mode	Maximum Power I				
Method	3 stages: fast char	ge(MPPT),constant vol			
System Type	DC12V/24V/48V	Automatic recognitior	1		
	12V system	DC9V~DC15V			
System Voltage	24V system	DC18V~DC30V			
	48Vsystem	DC36V~DC60V			
Soft Start Time	12V/24V/48Vsyste m	≤105			
Dynamic Response Recovery Time	12V/24V/48Vsyste m	500us			
Conversion Efficiency	12V/24V/48Vsyste m	290.5%, 599%			
PV Modules Utilization Rate	12V/24V/48Vsyste m	≥99%			
Input Characteristics		r			
	12V system	DC18V~DC150V			
MPPT Working Voltage and Range	24V system	DC34~DC150V			
	48V system	DC65~DC150V			
	12V system	DC16V			
Low Voltage Input Protection Point	24V system	DC30V			
	48V system	DC60V			
Low Veltage Input Decevery Deint	12V system	DC22V			
Low Voltage Input Recovery Point	24V system	DC34V			
	48V system	DC65V			
Max DC Voltage	12V/24V/48V system	DC160V			
Input Overvoltage Protection Point	12V/24V/48V system	DC150			
Input Overvoltage Recovery Point	12V/24V/48V system	DC145V			
	12V system	570W	700W	900W	
Max. PV Power	24V system	1130W	1400W	1700W	
	48V system	2270W	2800W	3400W	
Output Characteristics					
Selectable Battery Types (Default type is GEL	12V/24V/48V	Sealed lead acid, ven	ted, Gel, NiCd battery		
battery)	system	(Other types of the ba	atteries also can be defin	ed)	

outside         partial         partial         partial         partial           Hashing Charge Voltage         2022 Varian         28 2V         Sector           Adv system         58 4V         Sector         Sector           Currenclimiting Protection         2022 Verter         Sector         Sector           Adv system         30 A         Sector         Sector           Framperature Excore         2022 Verter         Sector         Sector           Adv system         21/22 Verter         Sector         Sector         Sector           Adv system         21/22 Verter         Sector         Sector         Sector           Comparature Excore         20/22 Verter         Sector         Sector         Sector           Charge Protection         20/22 Verter         Sector         Sector         Sector           Dadies Current         20/22 Verter         Sector         Sector         Sector           Charge Protection         20/22 Verter         Sector         Sector         Sect		12V/24V/48V					
Deating Charge Votage         20/24/VMPV Autom         Add V           Over Charge Protection Votage         24/V         4.4/V         5.4/V           Over Charge Protection Votage         24/V         5.4/V         5.4/V           Rated Output Current         24/V/24/V49V         40.A         50.A         66.A           Current-limiting Protection         24/V/24/V49V         40.A         50.A         66.A           Current-limiting Protection         24/V/24/V49V         40.A         50.A         66.A           Temperature Compensation         24/V/24/V49V         40.A         50.A         66.A           Dotato Experime         24/V/24/V49V         40.A         50.A         66.A           Dotato Experime         24/V/24/V49V         40.A         50.A         50.A           Dotato Experime         24/V/24/V49V         20/VV         50.D         50.A           Dotato Experime         24/V/24/V49V         20/VV         50.D         50.D           Dotato Experime         24/V24/V49V         20/VV         50.D         50.D           Dotato Experime         24/V24/V49V         20.D         50.D         50.D           Dotato Experime         24/V24/V49V         20.D         50.D         50.D	Constant Voltage						
Normality         14 AV           Over Charge Protection Voltage         24 Y system         26 AV           Bet V system         26 AV         36 A         36 A           Back Output         26 V average         86 AV         36 A         36 A           Current-limiting Protection         26 V average         44 A         35 A         36 A           State charge current         27 V average         40 A         50 A         36 A           Temperature Scator         12 V average         40 A         50 A         36 A           Dupt Ripplesphere         22 V average         20 V average         20 V average         20 V average           Dupt Ripplesphere         22 V average         20 V average         20 V average         20 V average           Dupt Ripplesphere         22 V average         20 V average         20 V average         20 V average           Dupt Ripplesphere         22 V average         20 V average         20 V average         20 V average           Dupt Ripplesphere         12 V average         20 V average         20 V average         20 V average           Dupt Ripplesphere         12 V average         20 V average         20 V average         20 V average           Dupt Ripplesphere         12 V average         3	Eloating Charge Voltage 12V/24V/48V		Please chec	Please check the charge voltage according to the battery type form.			
Devic Charge Protection Voltage         PAV vessem         PEAV vessem           Rade Output Current         2V/VAVL84W         80.A         SIA         60.A           Current Initing Protection         2V/VAVL84W         80.A         SIA         66.A           Current Initing Protection         2V/VAVL84W         80.A         SIA         66.A           EVEX.VEX.VEX.VEX.VEX.VEX.VEX.VEX.VEX.VEX		/					
Heat of Unity         Heat of							
Sated Output Current     12/02/498/V pystem     40A     50A     50A       CurrentSimiling Protection     12/02/498/V 40A     50A     50A       Sate charge current     5/02/498/V 5/02/498/V 20/02/40	Over Charge Protection Voltage						
value         Value         Value         Value         Value           Value         Value         SA         SA         SA           Parter         Value         SA         SA         SA           Parter         Value         SA         SA         SA           Parter         System         Value         SA         SA           Parter         System         Value         SA         SA           Output Parter         System         Value         Value         Value           Output Values         System         System         Value         Value           Obscharge currents         System         Value         Value         Value         Value           System         System         Value							
Current-limiting Protection         22/22/4/48V system         44A         55A         56A         56A           Rate Carge current         22/22/4/48V 22/22/4/48V         56A         50A         50A           Temperature Factor         22/22/4/48V         502         50A         50A           Comparisation         22/22/4/48V         14.22/17.04/48V         200/V         V	Rated Output Current		40A	50A	60A		
BARE charge unment:         BAR         BAR         BAR           Temperature Factor         BAR         BAR         BAR         BAR           Temperature Factor         BAR         BAR         BAR         BAR           Temperature Factor         BAR         BAR         BAR         BAR           Temperature Compensation         BAR         BAR         BAR         BAR           Didput Righesignesh         BAY/ARWARY         BAR	Current limiting Protection		444	EEA	664		
Name         DA         PDA         PDA           remperature factor         22/24/4484         20.2%/C           remperature factor         22/24/4480         20.2%/C           remperature factor         22/24/4480         20.2%/C           output Ripples(peak)         22/24/4480         20.0%/C           Output Ripples(peak)         22/24/4480         20.0m/           Output Voltage Fack-Peak Ripple         22/24/4480         21.5%           Charge voltage Fack-Peak Ripple         22/24/4480         21.5%           Database Control         22/24/4480         21.5%           Charge voltage Fack-Peak Ripple         22/24/4480         21.5%           Deloring Control         22/24/4480         21.5%           Deloring Control         22/24/4480         40.6           Deloring Control         22/24/4480         40.6           Deloring Control         22/24/4480         40.0           Deloring Control         22/24/4480         40.0           Voltage control         22/24/4480         40.0           Voltage control         22/24/4480         40.0           Voltage control         22/24/4480         40.0           Voltage control         22/24/24/4480         40.0	Current-limiting Protection		44A	SSA	00A		
Spring Welley         Spring Welley           remperature Factor         Spring Welley           14.2V-(The highest temperature-25*C)*0.3           Output Reples(pesk)         DV/24/48V           Datuat Reples(pesk)         DV/24/48V           Output Reples(pesk)         DV/24/48V           Output Reples(pesk)         DV/24/48V           Output Voltage Stability Precision         System           Output Voltage Stability Precision         DV/24/44V           Datage collarge Acak Reak Ripple         DV/24/44V           System         Dotation           Datage collarge co	Rate charge current		40A	50A	60A		
lemperature 2 actor spitem 2002%7C temperature Compensation 2002%74480 temperature Compensation 2002%74480 pytem 2000% Output Voltage Stability Precision 2002 2000% Charge voltage Peak-Peak Ripple 2000 2000% Charge voltage Peak-Peak Ripple 2000 2000% Charge voltage Peak-Peak Ripple 2000 2000% Charge voltage Peak-Peak Ripple 2000 2000% Charge voltage Peak-Peak Ripple 2000 2000% 2000			-				
Imperature Compensation         I2/V24/448V         14.2V-(The highest temperature.25*C)40.3           Output Ripples(peak)         I2/V24/448V         200mV           Output Ripples(peak)         I2/V24/448V         21.5%           Output Ripples(peak)         I2/V24/448V         21.5%           Output Ripples(peak)         I2/V24/448V         21.5%           Output Ripples(peak)         I2/V24/448V         21.5%           Output Ripples(peak)         I2/V24/448V         20.0mV           Stating Control         I2/V24/448V         20.0mV           Datage scuracy         I2/V24/448V         20.0mV           Stating Control         I2/V24/448V         Mo           Double-time control         I2/V24/448V         Vice 30.4*2           Double-time control         I2/V24/448V         N / OFF           V voltage control         I2/V24/448V         V voltage onff           V voltage protection         System         V voltage onff           Discharge Protection         System         V voltage oncommunication           System         System         V voltage Control is in tools reaging :	Temperature Factor		±0.02%/°C				
ierapitation         bystem         12,224 free mystet temperature-25 C/PU3           Output Ripples(peak)         bystem         200mV           Output Votage Stability Precision         20/224/48V         sz1.5%           Other Votage Stability Precision         20/224/48V         sz1.5%           Other Votage Accuracy         21/224/48V         sz1.5%           Discharge characteristic         Controller or LAN           Discharge characteristic         Controller or LAN           Add Atarge current         52/224/48V           Discharge protection         System           Discharge protection         System           Discharge protection         22/224/48V           Dube-time control         22/224/48V           Dube-time control         22/224/48V           Dube-time control         22/224/48V           Dube-time control         22/224/48V           V votage control         22/224/48V           System         PV votage origitm delay off           System         V votage origitm delay off           System         System           System         V votage origitm delay off           System         System           System         V votage origitm delay off           System <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>							
Output Voltage Stability Precision         System         200mv           Output Voltage Stability Precision         System         \$±1.5%           Charge voltage Asak Ripple         System         \$±1.5%           Charge voltage Stability Precision         System         \$±1.5%           Dickharge characteristic         System         \$<1.5%	lemperature Compensation		14.2V-(The I	highest temperature-25%	C)*0.3		
Bit Register         Stand Web	Output Bipples(peak)		200mV				
Output Votage Stability President         \$x1.3%           Charge votage Peak-Peak Ripple         \$2/3/4/48V         200mV           Charge votage Areak Ripple         \$2/3/4/48V         \$x1.5%           Solcharge characteristic         Controller or LAN           Solcharge characteristic         Controller or LAN           Max discharge current         \$2/3/47/48V         \$40.4           Discharge anacteristic         David Solvage Present         \$2/3/47/48V           Nak discharge protection         \$2/3/47/48V         \$40.4           Double-time control         \$2/3/47/48V         \$40.4           Double-time control         \$2/3/47/48V         \$40.4           Double-time control         \$2/3/47/48V         \$40.4           Double-time control         \$2/3/47/48V         \$40.7           Double-time control         \$2/3/47/48V         \$40.7           Voltage control         \$2/3/2/47/48V         \$40.9           Voltage control         \$2/3/2/47/48V         \$40.9           Station         \$2/3/2/47/48V         \$40.0           Station         \$2/3/2/47/48V         \$40.8           Station         \$2/3/2/47/48V         \$51.9           Station         \$2/3/2/47/48V         \$51.0           Statis Con			200111				
Charge voltage Peak-Peak Ripple         12/12/44/48V         20mV           Charger voltage accuracy         12/12/44/48V         \$±1.5%           Discharge characteristic         Controller or LAN           Max discharge current         12/12/44/48V         40A           Discharge protection         System         40A           Discharge protection         System         40A           Dauble-time control         System         40A           Dauble-time control         System         0N / OFF           Voltage protection         System         0N / OFF           Voltage filme delay control         System         Voltage on[DPV voltage on[PV voltage onff           Voltage protection         System         Voltage on[DPV voltage onff           Voltage protection         System         Voltage on[DPV voltage onff           Discharge voltage protection         System         Voltage on the system           Voltage filme delay control         System         Chose COM communication           RS322 Communication         System         Chose COM communication           Puit/V44/V4SV         System         Set IP and Gate address for controller and solar eagle :Then chose TCP communication           Protection         System         Set IP and Gate address for controller and solar eagle :Then chose	Output Voltage Stability Precision		≤±1.5%				
Charge voltage peak-reak npipe         Evitem         Control           Charger voltage accuracy         12/2/24/48V System         \$1.5%           Discharge characteristic         Controller or LAM           Mad (scharge current         12/2/24/48V System         40A           Discharge protection         12/2/24/48V Use 30A*2         Use 30A*2           Double-time control         52/24         60 in morning , 0f in morning / 0 n in night , off in night           Double-time control         52/24         60 in morning / 0 n in night , off in night           Double-time control         52/24         60 in morning / 0 n in night , off in night           Double-time control         52/24         60 in morning / 0 n in night , off in night           Discharge protection         12/2/24/48V System         60 in dage and fill morning / 0 n in night , off in night           PV valtage control         12/2/24/48V System         60 valtage onf time delay off           System         12/2/24/48V Valtage onf time in valtage rotection         50 valtage onf time valtage and time valtage rotection           System         52/2/24/48V Valtage onf time delay off         52/2/24/48V Valtage onf time on time valtage rotection           System         12/2/24/48V Valtage Protection         Check the input characteristics           Diput to worntage Protection         Check the input characteristics </td <td></td> <td></td> <td></td> <td></td> <td></td>							
Charger voltage accuracy         12/V24/48/V         ±1.5%           Discharge characteristic         Controller or LAN           Max discharge current         12/V24/48/V         40.A           Discharge protection         12/V24/48/V         40.A           Double-time control         12/V24/48/V         40.A           Double-time control         12/V24/48/V         40.A           Double-time control         12/V24/48/V         40.A           ON / OFF         0.N / OFF         0.N / OFF           V voltage control         12/V24/48/V         9.V voltage on[PV voltage off           V voltage control         12/V24/48/V         9.V voltage on[PV voltage off           V voltage control         12/V24/48/V         9.V voltage on[PV voltage off           Discharge protection         12/V24/48/V         9.V voltage on[PV voltage off           System         9.V voltage on[PV voltage off         12/V24/48/V           Discharge protection         12/V24/48/V         9.V voltage on controller and solar eagle :Then chose TCP communication           System         12/V24/48/V         Set IP and Gate address for controller and solar eagle :Then chose TCP communication           System         12/V24/48/V         Set IP and Gate address for controller and solar eagle :Then chose TCP communication           System	Charge voltage Peak-Peak Ripple		200mV				
Discharge characteristic         Controller         CANTOLIE           Setting corrent         System         40A           Discharge protection         System         40A           Double-time control         System         Use 30A*2           Double-time control         System         On in morning , off in morning , off in morning / On in night , off in night           Double-time control         System         ON / OFF           Viotage control         System         V voltage on[PV voltage off           Vivotage protection         System         V voltage on[PV voltage off           Vistage protection         System         V voltage on[PV voltage off           System         V voltage on[PV voltage off         System           V voltage protection         System         Chose COM communication           System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Protection         Check the input characteristics           Input Uvervolage Protection         Check the input characteristics           Input Swstem         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Input Ovevolage Protection         Check the input characte	Charger veltage accuracy		<+1 E9/				
Setting Control         Controller or LAW           Max discharge current         12/V24V/48W         40A           Discharge protection         12/V24V/48W         fues 30A*2           Double-time control         12/V24V/48W         fues 30A*2           Double-time control         12/V24V/48W         fues 30A*2           Double-time control         12/V24V/48W         ON / OFF           Very voltage control         12/V24V/48W         PV voltage on(DPV voltage onf           Very voltage control         12/V24V/48W         PV voltage on(DPV voltage onf           Very voltage control         12/V24V/48W         PV voltage on(DPV voltage onf           System         Output off when it under setting voltage; factory set is 10.5. (Note : set based on 1 battery )           Communication Features         12/V24V/48W           System         Onsee COM communication           System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Protection         Check the input characteristics           Input Devorollage Protection         Check the input characteristics           Output Overvinduge Protection         Check the input characteristics           Output Overvinduge Protection         Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Termpar		System	251.3%				
Nax discharge current         12/V24/48V         40A           Discharge protection         12/V24/48V         fuse 30A*2           Double-time control         12/V24/48V         on in morning , off in morning / On in night , off in night           Double-time control         12/V24/48V         on in morning , off in morning / On in night , off in night           Double-time control         12/V24/48V         on / OFF           PV voltage control         12/V24/48V         PV voltage on[PV voltage off           System         PV voltage protection         12/V24/48V           Discharge voltage protection         12/V24/48V         PV voltage on[PV voltage on]PV voltage on]PV voltage on]           Steam         Dupto off when it under setting voltage; Factory set is 10.5.4 Note : set based on 1 battery )           Steam         Dupto off when it under setting voltage; Factory set is 10.5.4 Note : set based on 1 battery )           Steam         Dupto off when it under setting voltage; Factory set is 10.5.4 Note : set based on 1 battery )           Steam         Dupto off when it under setting voltage; Factory set is 10.5.4 Note : set based on 1 battery )           Steam         Dupto off when it under setting voltage; Factory set is 10.5.4 Note : set based on 1 battery )           Steam         Dupto off when it under setting voltage; Factory set is 10.5.4 Note : set based on 1 battery )           Steam         Dupto voltage Prot							
Max discharge current         System         PUA           Discharge protection         12/V24V/48W         fue 30A*2           Double-time control         System         On in morning, off in morning / On in night, off in night           Double-time control         System         On / OFF           DV / OFF mode         System         ON / OFF           PV voltage control         System         PV voltage on[]PV voltage onff           System         PV voltage on[]PV voltage onff         System           PV voltage protection         System         PV voltage on[]PV voltage; Factory set is 10.5. ( Note : set based on 1 battery )           Communication Features         System         Output off when it under setting voltage; Factory set is 10.5. ( Note : set based on 1 battery )           Communication         System         Output off when it under setting voltage; Factory set is 10.5. ( Note : set based on 1 battery )           Communication         System         Output off when it under setting voltage; Factory set is 10.5. ( Note : set based on 1 battery )           Input Overvoltage Protection         EV2V4V/48W         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Input Overvoltage Protection         Check the input characteristics         Output Overvoltage Protection           Output Overvoltage Protection         Kes         Set IP and Gate address fo	Setting Control		oller or LAN				
System         12V/24V48V         kus 30A*2           Double-time control         12V/24V48V         On in morning , off in morning / On in night , off in night           Double-time control         12V/24V48V         ON / OFF           DV voltage control         12V/24V48V         ON / OFF           PV voltage control         12V/24V48V         PV voltage on[PV voltage off           Discharge voltage protection         12V/24V48V         PV voltage on[Time delay off           Discharge voltage protection         12V/24V48V         Output off when it under setting voltage; Factory set is 10.5 . ( Note : set based on 1 battery )           Scanse         12V/24V48V         Output off when it under setting voltage; Factory set is 10.5 . ( Note : set based on 1 battery )           Scanse         12V/24V48V         Set IP and Gate address for controller and solar eagle; Then chose TCP communication           Protection         E2V/24V48V         Set IP and Gate address for controller and solar eagle; Then chose TCP communication           Protection         Check the input characteristics         Doubput Poleinty Reversal Protection           Protection         Check the input characteristics         Doubput Poleinty Reversal Protection           Stort-circuit Protection         Peccee after eliminating the Short-circuit fault, no problem for long term Short-circuit emperature folection           Short-circuit Protection         Pec	Max discharge current		40A				
Discharge protection by setem in the 2007/2 (2017) and the protection by the protect			C 20140				
Datable states         On In morning , or In morning , or In morning , or In might           DAI / OFF mode         System         ON / OFF           PV voltage control         System         PV voltage on[PV voltage off           PV voltage / time delay control         System         PV voltage on[Itime delay off           PV voltage protection         System         PV voltage on[Itime delay off           System         PV voltage on[Itime delay off         System           System         VV voltage on[Itime delay off         System           System         System         VV voltage on[Itime delay off           System         System         Output off when it under setting voltage; Factory set is 10.5 .( Note : set based on 1 battery )           Communication Features         System         Notage Protection         Check the input characteristics           S232 Communication         System         Check the input characteristics         Input Overolage Protection         Check the input characteristics           Input Overolage Protection         Check the input characteristics         Input Overolage Protection         Check the output characteristics           Output Overolage Protection         Keeversal Protection         Set         Set           Disch Circuit Protection         Keever after eliminating the Short-circuit fault, no problem for long term Short-circuit	Discharge protection		fuse 30A*2				
System         System         System           DN / OFF mode         12/V/24/V48V System         DN / OFF           PV voltage control         12/V/24/V48V System         PV voltage on[Dime delay off           System         PV voltage protection         12/V/24/V48V System         PV voltage on[Dime delay off           Discharge voltage protection         12/V/24/V48V System         Output off when it under setting voltage; Factory set is 10.5. (Note : set based on 1 battery )           Communication Features         12/V/24/V48V System         Chose COM communication           AN Communication         12/V/24/V48V System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Protection         System         Device the input characteristics         Input Ovoltage Protection           Input Dvoltage Protection         Check the input characteristics         Output Overvoltage Protection         Device the output characteristics           Output Overvoltage Protection         Check the output characteristics         Output Overvoltage Protection         Device the output power, decrease 3A per degree.           Other Parameters         Set Gate address for controller stop working, fan also stop ran.         Noise         Set Gate address for controller stop working, fan also stop ran.           Temperature protection         Above 85°c, decrease the output power, decrease 3A per degree.         Other Para	Double-time control		On in morni	na off in morning / On in	night off in night		
VM / UPF mode     System     VV voltage on/IV voltage voltage rotection       V voltage voltage protection     I 2V/24/V4V       System     Voltage Vol							
Violtage control         12/V24/V48V System         PV voltage of[PV voltage off           PV voltage / time delay control         12/V24/V48V System         PV voltage on[]time delay off           Discharge voltage protection         12/V24/V48V System         PV voltage on[]time delay off           Discharge voltage protection         12/V24/V48V System         Output off when it under setting voltage; Factory set is 10.5. (Note : set based on 1 battery )           Communication         12/V24/V48V System         Chose COM communication           System         12/V24/V48V System         Set IP and Gate address for controller and solar eagle; Then chose TCP communication           Protection         12/V24/V48V System         Set IP and Gate address for controller and solar eagle; Then chose TCP communication           Protection         Check the input characteristics         Input Ovorvoltage Protection         Check the input characteristics           Input Overvoltage Protection         Check the output characteristics         Output Polarity, Reversal Protection         Yes           Temperature Protection         Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit         Temperature Protection         Set Oddee           Other Parameters         Set Oddiar 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         Capactors not less t	ON / OFF mode		ON / OFF				
VV Voitage control         System         PV Voitage on [PV voitage on]           PV voitage / time delay control         System         PV voitage on [Itime delay off           PV voitage protection         System         PV voitage on [Itime delay off           Communication Features         System         PV voitage protection           System         System         Chose COM communication           System         System         Chose COM communication           System         System         Set IP and Gate address for controller and solar eagle ; Then chose TCP communication           Protection         Check the input characteristics         Input Overvoitage Protection           Input Overvoitage Protection         Check the input characteristics         Input Overvoitage Protection           Input Overvoitage Protection         Check the output characteristics         Computer Set IP and Gate address for controller and solar eagle ; Then chose TCP communication           Input Overvoitage Protection         Check the input characteristics         Computer Set IP and Gate address for controller and solar eagle ; Then chose TCP communication           Solupat Polarity Reversal Protection         Keecover after eliminating the Short-circuit fault, no problem for long term Short-circuit Temperature protection           Output of the Parametrs         Soc         Soc         Soc           Noise         Soc							
PV voltage / time delay control         12/V24V/48V System           Discharge voltage protection         12/V24V/48V System           Discharge voltage protection         12/V24V/48V System           Station         12/V24V/48V System           R5232 Communication         12/V24V/48V System           Chose COM communication         12/V24V/48V System           Voltage Protection         12/V24V/48V System           Protection         12/V24V/48V System           Ipput Low Voltage Protection         Check the input characteristics           Input Overvoltage Protection         Check the output characteristics           Input Overvoltage Protection         Check the output characteristics           Output Overvoltage Protection         Check the output characteristics           Output Overvoltage Protection         Ves           Short-circuit Protection         Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Temperature Protection         95°C           Temperature Protection         85°C, decrease the output power, decrease 3A per degree.           Other Parameters         Set 000000000000000000000000000000000000	PV voltage control		PV voltage o	on <pre>DPV voltage off</pre>			
Disk arge voltage protection         Disk arge voltage protection           Disk arge voltage protection         12V/24V/48V System         Output off when it under setting voltage; Factory set is 10.5. (Note : set based on 1 battery )           AN Communication         12V/24V/48V System         Chose COM communication           AN Communication         12V/24V/48V System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Protection         Check the input characteristics Input Devoltage Protection         Check the input characteristics           Input Ovoltage Protection         Check the output characteristics         Output Overvoltage Protection           Output Overvoltage Protection         Check the output characteristics         Output Overvoltage Protection           Output Overvoltage Protection         Check the output characteristics         Output Overvoltage Protection           Output Overvoltage Protection         Protection         Set IP           Output Overvoltage Protection         Set IP         Set IP           Output Overvoltage Protection         Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Temperature protection         Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit           No precluin smell and to volt subtances         Sort circuit fault in the stop stop working, fan alos opt ran.	DV (veltage (time delay, central		D) ( ) volta do a	un⊟time delau off			
Discharge voitage protection System Output of when it under setting voitage; Factory set is 10.5. (Note: set based on 1 battery ) Communication Features  AS232 Communication  I2V/24V/48V System  System  I2V/24V/48V System I2V/24V/48V System I2V/24V/48V System I2V/24V/48V System I2V/24V System I2V/24V/48V System I2V/24V/48V S	PV Voltage / time delay control		PV Voltage C	onllume delay on			
Dystell         Location           Communication Features         12V/24V/48V           RS232 Communication         12V/24V/48V           System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Protection         Check the input characteristics           Input Low Voltage Protection         Check the input characteristics           Input Overvoltage Protection         Check the input characteristics           Output Overvoltage Protection         yes           Short-Circuit Protection         yes           Short-Circuit Protection         gs*c           Temperature Protection         gs*c           Output Overvoltage Protection         Above 85*C, decrease the output power, decrease 3A per degree.           Other Parameters         Above 85*C, decrease the output power, decrease 3A per degree.           Noise         Saft of arr an slowly or stop; when controller stop working, fan also stop ran.           Components         World brand raw materials. Compliance with EU standards. All rated 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*C           Sniftl         No peculiar smell and toxic substances.           Environment Protection         Po	Discharge voltage protection		Output off w	hen it under setting volt	age: Factory set is 10.5. (Note : set based on 1 battery)		
S232 Communication       12/2/4/48V System       Chose COM communication         LAN Communication       12/2/42/48V System       Set IP and Gate address for controller and solar eagle ;Then chose TCP communication         Protection       Check the input characteristics         Input Low Voltage Protection       Check the input characteristics         Input Overvoltage Protection       Check the input characteristics         Input Overvoltage Protection       Check the output characteristics         Output Polarity Reversal Protection       Keese         Short-circuit Protection       Check the output characteristics         Control Uptup Volarity Reversal Protection       Keese         Short-circuit Protection       Set Of a spectral set and the short-circuit fault, no problem for long term Short-circuit         Temperature Protection       Set C         Temperature Protection       Set C         Temperature Protection       Set C         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°C         Shrell       No peculiar smell and toxic substances.         Environment Protection       Set P sol		System					
Sky 22 communication         System         Chose COW communication           LAN Communication         12V/24V/48V System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Protection		121/241/481					
LAN Communication         12//24//48V System         Set IP and Gate address for controller and solar eagle ;Then chose TCP communication           Protection         Check the input characteristics         Input Low Voltage Protection         Check the input characteristics           Input Devervoltage Protection         Check the output characteristics         Input Overvoltage Protection         Check the output characteristics           Output Polarity Reversal Protection         Yes         Soft Check the output characteristics         Input Check the output characteristics           Short-circuit Protection         Kec ver after eliminating the Short-circuit fault, no problem for long term Short-circuit           Temperature Protection         Above 85°C, decrease the output power, decrease 3A per degree.           Other Parameters         Soft Check the argulated by temperature, when inner temperature is too low, fan ran slowly or stop; when controller stop working, fan also stop ran.           Noise         \$40dB           Forced air cooling, fan speed rate regulated by temperature, when inner temperature of electrolytic capacitors not less than 105°C           Smell         No peculiar smell and toxic substances.           Environment Protection         Meet the 2002/95/EC, no cadmium hydride and fluoride           Physical         Set (PA, PS, PSE, FCC           Measurement DxWxH (mm)         270*185*90           NG(kg)         3.6           Gol	RS232 Communication		Chose COM	communication			
pystem         pystem           Input Low Voltage Protection         Check the input characteristics           Input Overvoltage Protection         Check the input characteristics           Input Voltage Protection         yes           Output Voltage Protection         Check the output characteristics           Output Voltage Protection         yes           Short-circuit Protection         Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Temperature Protection         B5°C           Temperature protection         Above 85°C, decrease the output power, decrease 3A per degree.           Other Parameters         Stored 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         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°C           Smell         No peculiar smell and toxic substances.           Environment Protection         Meet the 2002/5/EC, no cadmium hydride and fluoride           Physical         Gale           Gold         Steren (optional)           Safety         CE, RoH	AN Communication		Cat ID and C	ata addraga far controlla	ar and color cords. Then chose TCD communication		
Input Low Voltage Protection         Check the input characteristics           Input Overvoltage Protection         Check the input characteristics           Input Polarity Reversal Protection         Yes           Output Polarity Reversal Protection         Kecover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Temperature Protection         Becover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Temperature Protection         Becover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Temperature protection         Becover after eliminating the Short-circuit fault, no problem for long term Short-circuit           Other Parameters         StoddB           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°C           Smell         No peculiar smell and toxic substances.           Environment Protection         Meet the 2002/95/EC,no cadmium hydride and fluoride           Physical         3           Goldy         3.6           Color         Blue/Green (optional)           Safety         <		System	Set IP and G	ale address for controlle	er and solar eagle ; men chose TCP communication		
Input Overvoltage Protection         Check the input characteristics           Input Polarity Reversal Protection         Yes           Output Vervoltage 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°C           Temperature protection         Above 85°C, decrease the output power, decrease 3A per degree.           Other Parameters         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°C           Smell         No peculiar smell and toxic substances.           Environment Protection         270°185°90           N.G(kg)         3.6           Gold         ENVironment           Safety         CR, RoHS, PSE, FCC           EM         ENVironment           Protection         IP21           Environment         Protection           Type of Mechanical Protection         IP21           Environment         PO+90%RH ( no condense)           Al	Protection						
Input Polarity Reversal Protection         yes           Output Overvoitage Protection         Check the output characteristics           Output Polarity Reversal Protection         yes           Short-circuit Protection         gs°c           Short-circuit Protection         95°C           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°C           Smell         No peculiar smell and toxic substances.           Environment Protection         270*185*90           N.G(kg)         3.6           Color         Blue/Green (optional)           Safety         CE, RoHS, PSE,FCC           EM         ENG000           Type of Mechanical Protection         IP21           Environment         Uncondense)           Altiude         0~3000m           Operating Temperature         -20°C ~ +40°C           Storage Temperature         -20°C ~ × +40°C							
Output Overvoltage Protection         Check the output characteristics           Output Polarity Reversal Protection         yes           Sont-circuit Protection         95°C           Temperature Protection         95°C           Other Parameters         Above 85°C, decrease the output power, decrease 3A per degree.           Other Parameters         Voise           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°C           Smell         No peculiar smell and toxic substances.           Environment Protection         Meet the 2002/95/EC,no cadmium hydride and fluoride           Physical         3           G.N(kg)         3           G.N(kg)         3.6           Color         Blue/Green (optional)           Safety         C.E., RoHS, PSE, FCC           EMC         EN61000           Type of Mechanical Protection         IP21           Environment Humidity         0~90%RH ( no condense)           Altiude         0~300m           G.N(kg)         0~90%RH ( no condense)           Altiude         -3000				iput 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°C           Temperature protection         Above 85°C, decrease the output power, decrease 3A per degree.           Other Parameters         *40dB           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°C           Smell         No peculiar smell and toxic substances.           Environment Protection         Meet the 2002/95/EC, no cadmium hydride and fluoride           Physical         #           Measurement DxWxH (mm)         270*185*90           NG(kg)         3           Color         Blue/Green (optional)           Safety         CE, RoHS, PSE,FCC           ENC         EN61000           Type of Mechanical Protection         IP21           Environment         #           Environment         #           Gord         Diversen (optional)           Safety </td <td></td> <td></td> <td>,</td> <td>The first state for the</td> <td></td>			,	The first state for the			
Short-circuit Protection       Recover after eliminating the Short-circuit fault, no problem for long term Short-circuit         Temperature Protection       95°C         Temperature protection       Above 85°C, decrease the output power, decrease 3A per degree.         Other Parameters          Noise       <40dB				utput characteristics			
Temperature Protection       95°C         Temperature protection       Above 85°C, decrease the output power, decrease 3A per degree.         Other Parameters       ≤40dB         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°C         Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC, no cadmium hydride and fluoride         Physical       3         G.N(kg)       3.6         Color       Blue/Green (optional)         Safety       CE, RoHS, PSE,FCC         Environment       IP21         Environment       0-90%RH ( no condense)         Altitude       0-3000m         Operating Temperature       20°C ~ +40°C				r aliminating the Chart of	circuit fault, no problem for long term Chart circuit		
Temperature protection       Above 85°C, decrease the output power, decrease 3A per degree.         Other Parameters       SetUdB         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°C         Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC,no cadmium hydride and fluoride         Physical       270*185*90         NG(kg)       3.6         Color       Blue/Green (optional)         Safety       CE, ROHS, PSE,FCC         EMC       EN41000         Type of Mechanical Protection       IP21         Environment       IP21         Environment       O~90%RH (no condense)         Altitude       0~3000m         Operating Temperature       40°C ~ +75°C							
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°C         Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC, no cadmium hydride and fluoride         Physical       270*185*90         N.G(kg)       3.6         Color       Blue/Green (optional)         Safety       CE, RoHS, PSE,FCC         EMC       ENVION         Environment       IP21         Humidity       0~90%RH ( no condense)         Altitude       0~3000m         Operating Temperature       20°C ~ +40°C         Storage Temperature       40°C ~ +75°C				decrease the output now	wer, decrease 3A per degree.		
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°C         Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC, no cadmium hydride and fluoride         Physical       270*185*90         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	Other Parameters						
Internal methods       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°C         Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC, no cadmium hydride and fluoride         Physical       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         Humidity       0~90%RH ( no condense)         Altitude       0~3000m         Operating Temperature       20°C ~ ±40°C         Storage Temperature       40°C ~ ±75°C	Noise		≤40dB				
Components       World brand raw materials. Compliance with EU standards. All rated temperature of electrolytic capacitors not less than 105°C         Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC,no cadmium hydride and fluoride         Physical       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       0~90%RH ( no condense)         Altitude       0~3000m         Operating Temperature       20°C ~ +40°C         Storage Temperature       -40°C ~ +75°C	Thermal methods			Forced air cooling, fan speed rate regulated by temperature, when inner temperature is too low,			
capacitors not less than 105°C         Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC,no cadmium hydride and fluoride         Physical       270*185*90         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       0~90%RH ( no condense)         Altitude       0~3000m         Operating Temperature       -20°C ~ +40°C         Storage Temperature       -40°C ~ +75°C							
Smell       No peculiar smell and toxic substances.         Environment Protection       Meet the 2002/95/EC,no cadmium hydride and fluoride         Physical       270*185*90         McG(kg)       3         G.N(kg)       3.6         Color       Blue/Green (optional)         Safety       CE, RoHS, PSE,FCC         EMC       EN61000         Type of Mechanical Protection       IP21         Environment	Components				nce with $EU$ standards. All rated temperature of electrolytic		
Environment Protection       Meet the 2002/95/EC,no cadmium hydride and fluoride         Physical       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       -90%RH ( no condense)         Altitude       0~3000m         Operating Temperature       -20°C ~ +40°C         Storage Temperature       -40°C ~ +75°C							
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°C ~ +40°C           Storage Temperature         -40°C ~ +75°C							
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       IP21         Humidity       0~90%RH ( no condense)         Altitude       0~3000m         Operating Temperature       -20°C ~ +40°C         Storage Temperature       -40°C ~ +75°C	Physical			, - 0, _ 0, cuumum ny			
G.N(kg)     3.6       Color     Blue/Green (optional)       Safety     CE, RoHS, PSE,FCC       EMC     EN61000       Type of Mechanical Protection     IP21       Environment     V       Humidity     0~90%RH ( no condense)       Altitude     0~3000m       Operating Temperature     -20°C ~ +40°C       Storage Temperature     -40°C ~ +75°C	Measurement DxWxH (mm)		270*185*90				
Color     Blue/Green (optional)       Safety     CE, RoHS, PSE,FCC       EMC     EN61000       Type of Mechanical Protection     IP21       Environment     0~90%RH ( no condense)       Altitude     0~3000m       Operating Temperature     -20°C ~ +40°C       Storage Temperature     -40°C ~ +75°C	N.G(kg)						
Safety     CE, RoHS, PSE,FCC       EMC     EN61000       Type of Mechanical Protection     IP21       Environment     0~90%RH ( no condense)       Altitude     0~3000m       Operating Temperature     -20°C ~ +40°C       Storage Temperature     -40°C ~ +75°C	G.N(kg)						
EMC     EN61000       Type of Mechanical Protection     IP21       Environment     0~90%RH ( no condense)       Humidity     0~90%RH ( no condense)       Altitude     0~3000m       Operating Temperature     -20°C ~ +40°C       Storage Temperature     -40°C ~ +75°C							
Type of Mechanical Protection     IP21       Environment     0~90%RH ( no condense)       Humidity     0~900%RH ( no condense)       Altitude     0~3000m       Operating Temperature     -20°C ~ +40°C       Storage Temperature     -40°C ~ +75°C				SE,FCC			
Environment         Humidity       0~90%RH ( no condense)         Altitude       0~3000m         Operating Temperature       -20°C ~ +40°C         Storage Temperature       -40°C ~ +75°C	-						
Humidity         0~90%RH ( no condense)           Altitude         0~3000m           Operating Temperature         -20°C ~ +40°C           Storage Temperature         -40°C ~ +75°C			IFZI				
Altitude         0~3000m           Operating Temperature         -20°C ~ +40°C           Storage Temperature         -40°C ~ +75°C		n~anª	%RH ( no conde	nse)			
Operating Temperature     -20°C ~ +40°C       Storage Temperature     -40°C ~ +75°C							
Storage Temperature -40°C ~ +75°C							
	Storage Temperature	-40°C	~ +75℃				
	Atmospheric Pressure						

Note: <u>OEM and ODM service</u> are provided. The 36V/72V/96V model also can be custom made for you.

### **Product Parts**

NO.	Quantity	Description
1	1 unit	Charge controller
2	2 рс	Terminals

3	2 рс	Gallow pulley
4	4	(For install the controller on the wall )
4	4 set	Screw
		(For install the controller on the wall )
5	1 pc	232 turn to RJ45 communication cable
6	1 pc	User manual
7	1 pc	Temperature sensing wire
8	2 рс	Fuse wire



Blue



Green



Upper Computer Software

Parts



Package

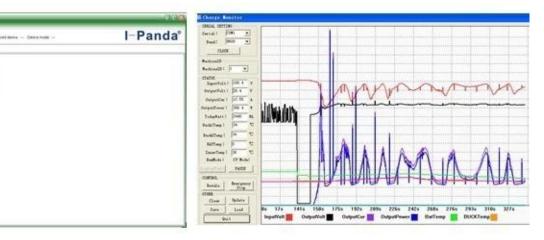
Upper Computer Software and Test Software

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Description         Text	B Dente	Contrate Parameters setting	The section of the se				
Back comparising     U(2)     Find comparising     U(2)       Back comparison     U(2)     Split       Contract contraction     U(2)     Split       Contract contraction     U(2)     Split       Second contraction     U(2)     Split		interties.		Non			
Land variable (and a low of a		Box maps million	10	1000	Test rouge often		
Berning basis of the strength         Charles (Mark)         Load on Physikage         Charles (Mark)           Berning basis of the strength         Charles (Mark)         Load of Physikage         Charles (Mark)           Berning basis of the strength         Charles (Mark)         Load of Physikage         Charles (Mark)           Berning basis of the strength         Charles (Mark)         Load of Physikage         Charles (Mark)		No. charge carried		Auto			
Berning basis of the strength         Charles (Mark)         Load on Physikage         Charles (Mark)           Berning basis of the strength         Charles (Mark)         Load of Physikage         Charles (Mark)           Berning basis of the strength         Charles (Mark)         Load of Physikage         Charles (Mark)           Berning basis of the strength         Charles (Mark)         Load of Physikage         Charles (Mark)		Lond of the last	Seattle 14	Anni			
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The interface of upper computer software working state

The interface of upper computer software parameter setting state



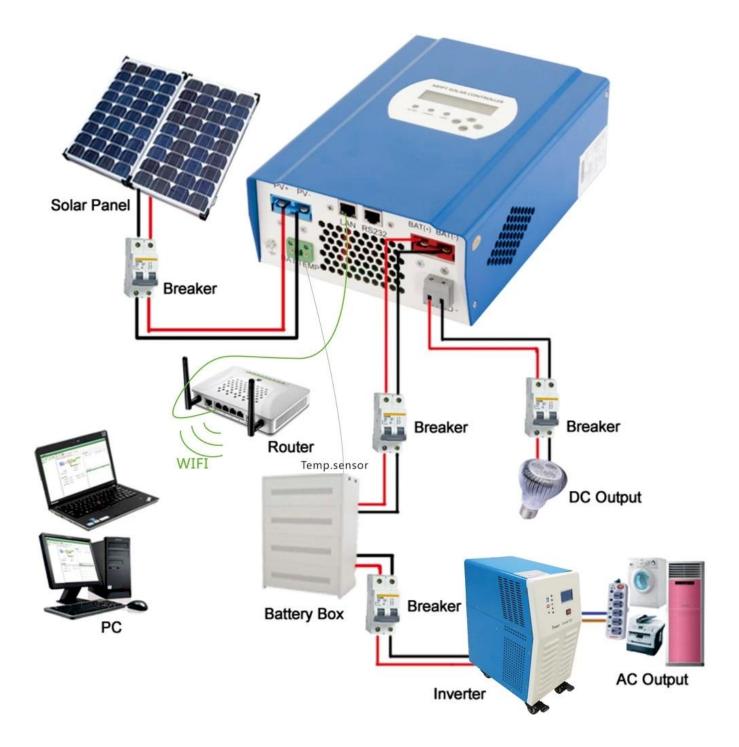
Upper computer software on/off interface and generating capacity record clean interface

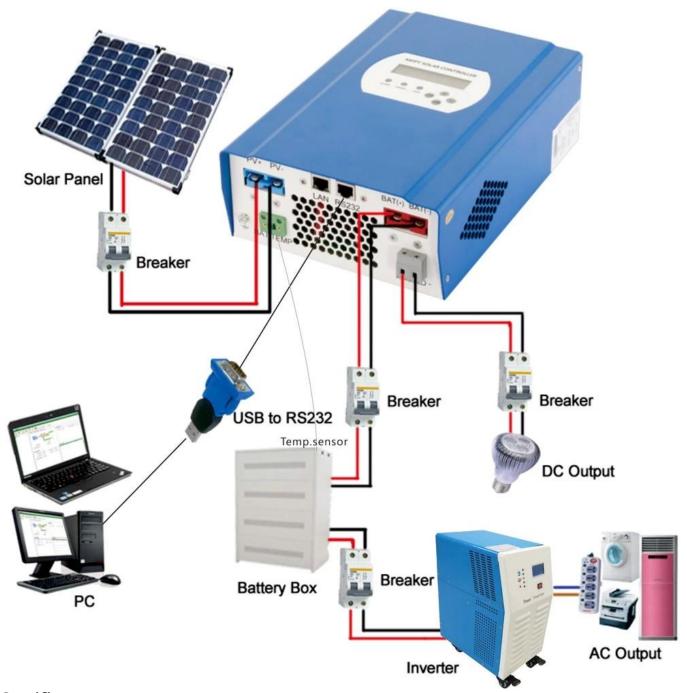
The interface of test software working state

### **MPPT Connection**

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# Certificates

ISO2008 ISO2004 CE FCC ROHS

## Service and **Contact**

- $1.\ensuremath{\operatorname{OEM}}$  and  $\ensuremath{\operatorname{ODM}}$  orders are provided.
- 2. Power solution consult available based on technical group
- 3. 24 months warranty; 3 to 10 years extended
- 4. Free technical study and discussion on products are provided every year.