Introduction:
This is a Maximum Power Point Tracking(MPPT) function with high efficiency MPPT charge controller. It has many advantages such as self cooling, system voltage automatic recognition, wide rang of PV input,bcharge for all kinds of batteries, intelligent discharge control, RS232 / LAN communication function etc. It is the most high-end product in solar market.

Feature:
1.MPPT charge mode, conversion efficiency up to 99%.
2.12V/24V/36V/48V battery system automatic recognition, convenient for customers to use.
3.Maximum PV input voltage up to DC150V.
4.Controllers can be connected in unlimited parallels.
5.Memory function, to save the setting, date, time, generating capacity and so on .
6.Charge mode: three stages (fast charge ,constant charge ,floating charge). To extend the life span of the battery
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, such as lithium battery etc.
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 to Solar Eagle software.
10.RS232 and LAN communication port, IP and Gate address could be defined by the users and it can be used all around the world. And communication protocol can be provided to help customer manage all information .
11.Provide professional upper computer software, it could show work status and set parameters of the discharge system.
12.With intelligent design, customers can enjoy a lifelong upgrade online service
13.Adopting the well-known brand components, the devices can suffer the temperature at least 105℃.The lifespan 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 .
15.CE,ROHS,FCC certifications approved, other certifications can also be made based on different requirements.
16. 2 years warranty and 3~10 years extended technical service.

- **Parameter:**

MPPT controller Model: Master-80A Series		80A
Charge Mode	MPPT(Maximum Power Point Tracking)	
Charge Method	3 stages: fast charge(MPPT),constant voltage, floating charge	
System Type	DC12V/24V/36V/48V	Automatic recognition
Soft Start Time	DC12V/24V/36V/48V	≤10S
Conversion Efficiency	DC12V/24V/36V/48V	≥96.5%,≤99%
PV Modules Utilization Rate	DC12V/24V/36V/48V	≥99%
System Voltage	12V system	DC9V~15V
	24V system	DC18V~28V
	36V system	DC32V~40V
	48V system	DC42V~60V
Error system		The battery voltage is not in above range when the controller is switched on

PV Input Characteristics		
MPPT Working Voltage and Range	12V system	DC16V~DC150V
	24V system	DC30V~DC150V
	36V system	DC45V~DC150V
	48V system	DC60V~DC150V
Input Low Voltage recovery Point	12V system	DC22V
	24V system	DC34V
	36V system	DC50V
	48V system	DC65V
Input Over voltage Protection Point	DC12V/24V/36V/48V	DC150V
Input Over voltage Recovery Point	DC12V/24V/36V/48V	DC145V
Max. PV Power	12V system	960W
	24V system	1920W
	36V system	2880W
	48V system	3840W
Charge characteristic		
Selectable Battery Types (Default type is GEL battery)	DC12V/24V/36V/48V	Sealed lead acid, vented Gel, NiCd battery (Other types of the batteries also can be defined)
Charge mode	DC12V/24V/36V/48V	constant current-constant voltage-floating charge
Constant Voltage	DC12V/24V/36V/48V	Please check the charge voltage according to the battery type form.
Floating Charge Voltage	DC12V/24V/36V/48V	
Rate charge current	DC12V/24V/36V/48V	80A
Current-limiting Protection	DC12V/24V/36V/48V	85A
Temperature Factor	DC12V/24V/36V/48V	±0.02%/℃
Temperature Compensation	DC12V/24V/36V/48V	14.2V-(The highest temperature-25℃)*0.3
Output Ripples(peak)	DC12V/24V/36V/48V	200mV
Charger voltage accuracy	DC12V/24V/36V/48V	≤±1.5%
Discharge characteristic		
Setting Control	Controller or PC software	
Max discharge current	DC12V/24V/36V/48V	100A
Discharge protection	DC12V/24V/36V/48V	fuse
Double-time control	DC12V/24V/36V/48V	On in morning ,off in morning / On in night ,off in night
ON / OFF mode	DC12V/24V/36V/48V	ON / OFF
PV voltage control	DC12V/24V/36V/48V	PV voltage on, PV voltage off
PV voltage / time delay control	DC12V/24V/36V/48V	PV voltage on, time delay off

Control ON/OFF mode		
Discharge voltage protection	DC12V/24V/36V/48V	Set by user Output off when it under (exceed) setting voltage;
Communication Features		
RS232 communication	DC12V/24V/36V/48V	Chose COM communication port
LAN communication	DC12V/24V/36V/48V	Set IP and Gate address for controller and solar eagle ;
		Then chose TCP communication
Protection Function		
Input Low Voltage Protection		Check the input characteristics
Input Over voltage Protection		Check the input characteristics
Temperature Protection		95℃
Temperature rise protection		Above 85℃,decrease the output power, decrease 3A per degree.
Other Parameters		
Thermal methods		Self-cooling
Components		World brand raw materials. Compliance with EU standards. All rated temperature of electrolytic capacitors not less than 105℃
Smell		No peculiar smell and toxic substances.
Environment Protection		Meet the 2002/95/EC,
		no cadmium hydride and fluoride
Physical		
Measurement DxWxH (mm)		420*280*102
Packing DxWxH (mm)		500*360*195
N.G(kg)		7.1
G.N(kg)		8.5
Color		Blue, Green, White (optional) or OEM
Safety		CE, PSE, FCC, EMC
EMC		EN61000
Type of Mechanical Protection		IP50
Environment		
Humidity		0~90%RH (no condense)
Altitude		0~3000m
Operating Temperature		-20℃ ~ +40℃
Storage Temperature		-40℃ ~ +75℃
Atmospheric Pressure		70~106kPa