

## 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.It has an efficient MPPT algorithm, MPPT efficiency  $\geq 99.5\%$  and converter efficiency up to 98%.
- 2.Charge mode: three stages (constant current, constant voltage, floating charge), it prolongs service life of the batteries.
- 3.Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control .
- 4.Battery system voltage automatic recognition.
- 5.Three kinds of commonly used lead-acid battery (Seal\Gel\Flooded) parameter settings fcan be selected by the user, and the user can also customize the parameters for other battery charging.
- 6.It has a current limiting charging function. When the power of PV is too large, the controller automatically keeps the charging power, and the charging current will not exceed the rated value.
- 7.Support multi - machine parallel to realize system power upgrade.
- 8.High definition LCD display function to check the device running data and working status, also can support modify the controller display parameter.
- 9.RS485 communication, we can offer communication protocol to convenient user's integrated management and secondary development.
- 10.Support PC software monitoring and WiFi module to realize APP cloud monitoring.
- 11.CE, RoHS, FCC certifications approved, we can assist clients to pass various certifications.
- 12.3 years warranty, and 3~10 years extended warranty service also can be provided.

## Parameter

MASTER series		48BL-80A	48BH-80A
Product category	Controller Properties	MPPT (maximum power point tracking)	
	MPPT efficiency	$\geq 99.5\%$	
	Standby power	0.5W~1.2W	
	System voltage	Automatic recognition	48V
	Heat-dissipating method	Air cooling	
Input			
	Max.PV input voltage(VOC)	DC150V	DC300V

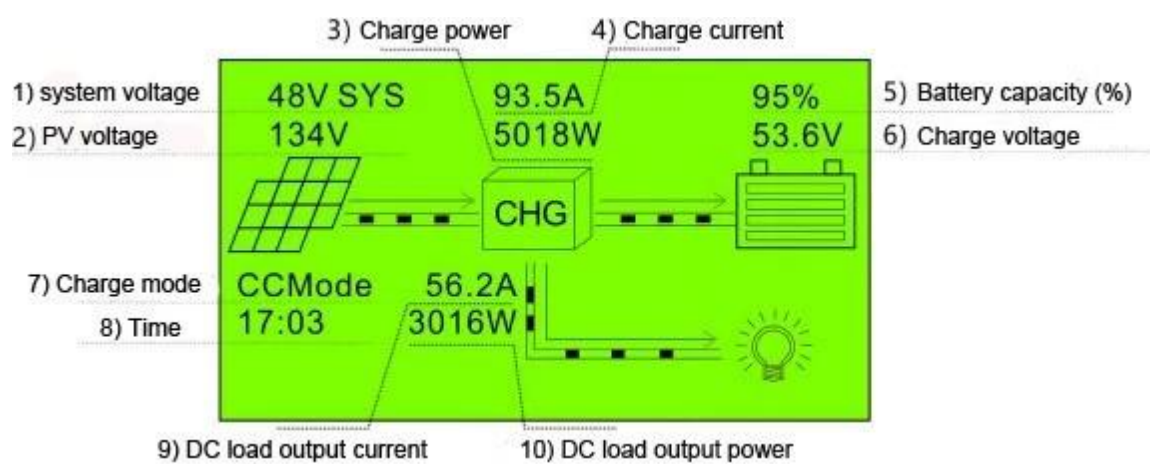
Characteristics	Start the charge voltage point		Battery voltage + 3V	Battery voltage + 10V
	Low input voltage protection point		Battery voltage + 2V	Battery voltage + 5V
	Over voltage protection point		DC150V	DC300V
	Rated PV power	12V system	1040W	□
		24V system	2080W	□
		36V system	3120W	□
		48V system	4160W	4160W
		96V system	□	□
Charge Characteristics	Selectable Battery Types(Default Gel battery)		Sealed lead acid, Gel battery, Flooded (Other types of the batteries also can be defined)	
	Charge rated current		80A	80A
	Charging Method		3-Stage: constant current(fast charging)-constant voltage-floating charge	
LOAD Characteristics	Load voltage		The same as the battery voltage	
	Load rated current		80A	80A
	Load control mode		On\Off mode, PV voltage control mode, Dual-time control mode, PV + Time control mode	
Display & Communication	Display mode		High-definition LCD segment code backlight display	
	Communication mode		8-pin RJ45 port/RS485/support PC software monitoring/support WiFi module to realize APP cloud monitoring	
Other Parameters	Protect function		Input-output over \ under voltage protection,Prevention of connection reverse protection,battery shedding protection etc.	
	Operation Temperature		-20℃~+50℃	
	Storage Temperature		-40℃~+75℃	
	IP(Ingress protection)		IP43	
	Max. connection size		50mm2	
	Net Weight (kg)		7.1	
	Gross Weight (kg)		8.8	
	Product Size□mm□		420*280*95	
Packing Size(mm)		510*368*210		

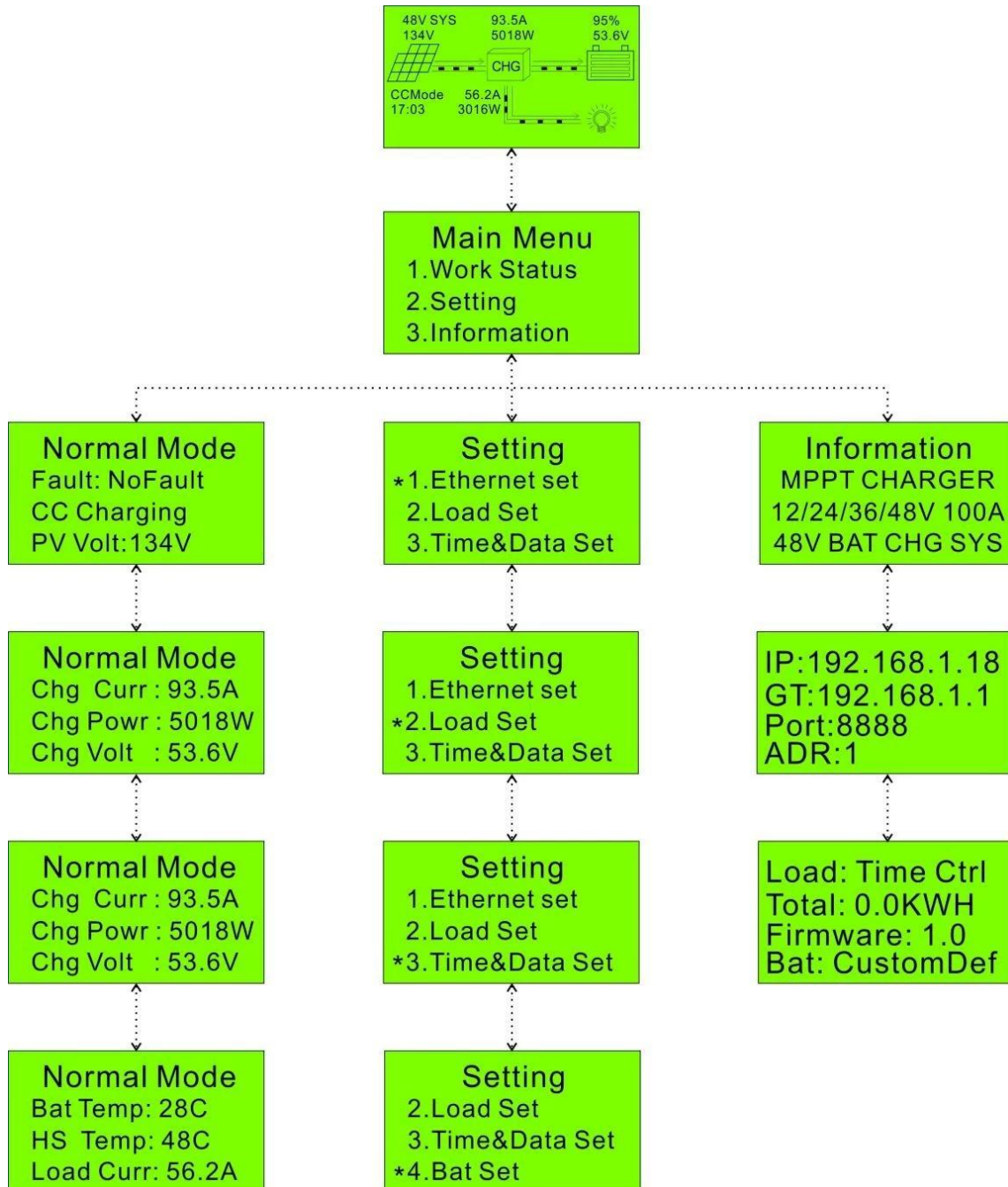
Remark:Above is company's standard parameters;

## Product Parts:

NO.	Quantity	Description
1	1PC	MPPT Solar controller□Blue,Green or White□
2	2 pc	hangers(To install the controller on the wall )
3	8 set	Screw(To keep the hangers into the controller )
4	1 pc	RJ45 turn to RS485 communication cable
5	1 pc	Temperature sensing wire

## The Main Information of MPPT

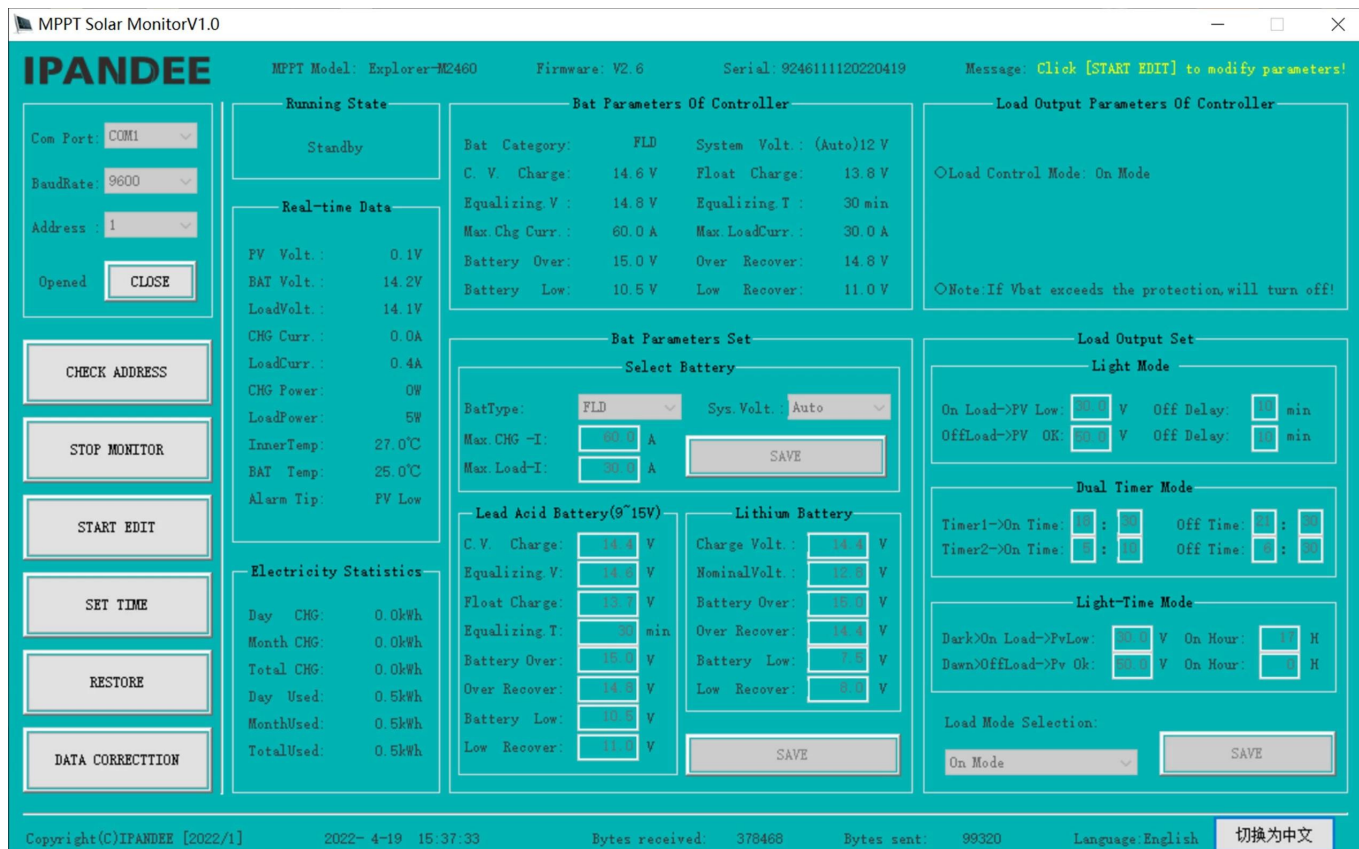




## Setting page

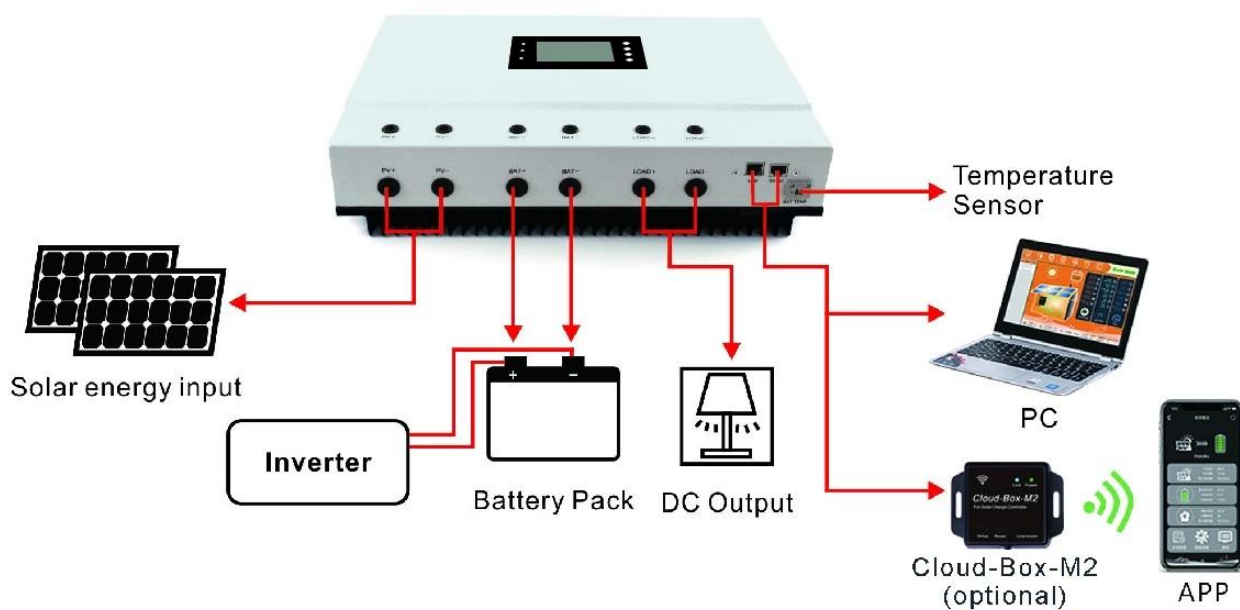
Note: All above information is a sample which is the working state of Master in some time . In different working stage the parameters will change, like working mode , charge current ,charge mode ,charge power and so on ; In the fault mode it will show fault mode ;

## Upper Computer Software and Test Software



The interface of upper computer software working state

## System connection diagram



## Parallel connection diagram

