Introduction:

This is a Maximum Power Point Tracking(MPPT) function with high efficiency <u>MPPT charge controller</u>. 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 ≥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 $3\sim10$ years extended warranty service also can be provided.

Parameter[]

M	ASTER series	48BL-80A	48BH-80A	
	Controller Properties	MPPT (maximum power point tracking)		
Product category	MPPT efficiency	≥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	

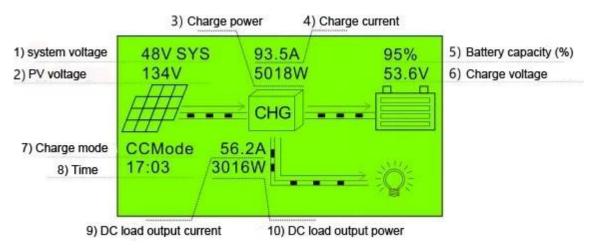
Characteristics		e voltage point	Battery voltage + 3V	Battery voltage + 10V
	Low input voltage protection		Battery voltage + 2V	Battery voltage + 5V
	point Over voltage protection point		DC150V	DC300V
		12V system	1040W	
		24V system	2080W	
	Rated PV power		3120W	
		48V system	4160W	4160W
		96V system		
Charge Characteristics	Selectable Battery Types(Default Gel battery)		Sealed lead acid, Gel battery, Flooded (Other types of the batteries also can be defined)	
	Charge rat	ed current	80A	80A
	Charging Method		3-Stage: constant current(fast charging)-constant voltage-floating charge	
	Load voltage		The same as the battery voltage	
LOAD Characteristics	Load rated current		80A	80A
	Load control mode		On\Off mode, PV voltage control mode, Dual-time control mode, PV + Time control mode	
Display &	Display mode		High-definition LCD segment code backlight display	
Communication	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°C~+50°C	
	Storage Temperature		-40°C~+75°C	
	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	

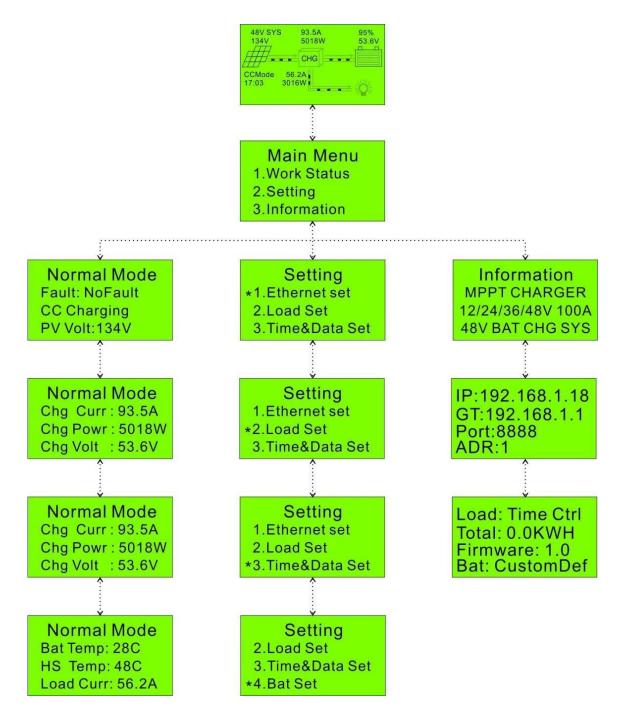
Remark: Above is company's standard parameters;

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[]

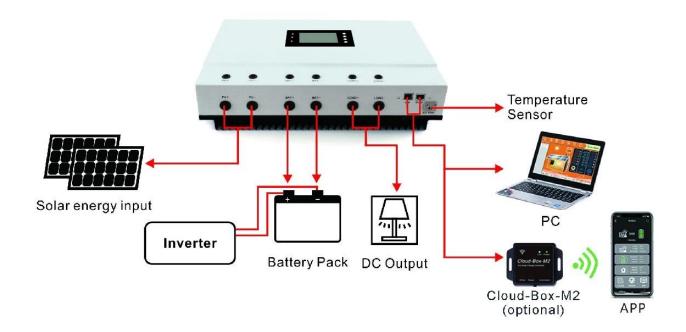
Note: All above information is a sample which is the working state of Master in some time . In different working stage the parameters will change, like working mode , charge current ,charge mode ,charge power and so on ; In the fault mode it will show fault mode ;

Upper Computer Software and Test Software

	Running State	Bat Parameters Of Controller	Load Output Parameters Of Controller
	Aunning State	Dat farameters of Controller	Load Output Farameters of Controller
Port: COM1 🗸	Standby	Bat Category: FLD System Volt.: (Auto)12 V	
Rate: 9600 🗸		C. V. Charge: 14.6 V Float Charge: 13.8 V	⊖Load Control Mode: On Mode
mate.	Real-time Data	Equalizing.V : 14.8 V Equalizing.T : 30 min	
ess : 1 🔍		Max. Chg Curr. : 60.0 A Max. LoadCurr. : 30.0 A	
	PV Volt.: 0.1V	Battery Over: 15.0 V Over Recover: 14.8 V	
med CLOSE	BAT Volt.: 14.2V	Battery Low: 10.5 V Low Recover: 11.0 V	ONote:If Vbat exceeds the protection, will turn of
	LoadVolt.: 14.1V		
	CHG Curr. : 0.0A	Bat Parameters Set	Load Output Set
CHECK ADDRESS	LoadCurr. : 0.4A	Select Battery	Light Mode
	CHG Power: OW	BatType: FLD V Sys.Volt.: Auto V	On Load->PV Low: 30.0 V Off Delay: 10 min
	LoadPower: 5W	Max. CHG -I: 60.0 A	OffLoad->PV OK: 50 0 V Off Delay: 10 min
STOP MONITOR	InnerTemp: 27.0°C	Max. Cod-I: 30.0 A SAVE	
	BAT Temp: 25.0°C	Max. Load-1: 30.0 A	Dual Timer Mode
	Alarm Tip: PV Low	Lead Acid Battery(9~15V) Lithium Battery	Timer1->On Time: 18 : 30 Off Time: 21 : 3
START EDIT		C.V. Charge: 14.4 V Charge Volt.: 14.4 V	Timer2->On Time: 5: 10 Off Time: 6: 3
	- Electricity Statistics-	Equalizing V: 14.6 V NominalVolt.: 12.8 V	Timere you time. I a to to the time. I a
SET TIME		Float Charge: 13.7 V Battery Over: 15.0 V	Light-Time Mode
	Day CHG: 0.0kWh	Equalizing T: 30 min Over Recover: 14.4 V	
	Month CHG: 0.0kWh	Battery Over: 15.0 V Battery Low: 7.5 V	Dark>On Load->PvLow: 30.0 V On Hour: 17 Dawn>OffLoad->Pv Ok: 50.0 V On Hour: 0
RESTORE	Total CHG: 0.0kWh	Over Recover: 14.8 V Low Recover: 8.0 V	Dawnorfildad Yr ox. Do. d Y ox hour.
	Day Used: 0.5kWh MonthUsed: 0.5kWh	Battery Low: 10.5 V	Load Mode Selection:
	MonthUsed: U. 5kWh TotalUsed: O. 5kWh	Im Presser 11.0 V	
ATA CORRECTTION	TotalUsed. U. 5kWh	Low Recover. SAVE	On Mode 🗸 SAVE

The interface of upper computer software working state

System connection diagram[]



Parallel connection diagram

