



PC1800F SERIES (60A/80A/100A)

MPPT Solar Charge Controller

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MPPT Solar Charge Controller



INTRODUCTION

MPPT (Maximum Power Point Tracking) Solar Charge Controller offer an efficient, safe, multi-stage recharging process that prolongs battery life and assures peak performance from a solar array. Each Charge Controller allows customized battery recharging.

FEATURES

- LCD display , easy to operate on LCD screen
- Multi stage charging (3-stage charging , parallel charging and equalized charging function)
- BTS - Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel , lead-acid battery
- With RS485 & USB communication port
- Protection: PV array short circuit, PV reverse polarity, Battery reverse polarity, Over charging, Output short circuit



Max charging current
60A to 100A



Radiating mode
Fan cooling



Multi protection



Battery smart
charge design



Battery DC voltage
12V/24V/48V (Auto detection)
36V (Setting)



Peak conversion efficiency:98%
(MPPT Efficiency 99%)



Charging set points
Absorption stage
Float stage

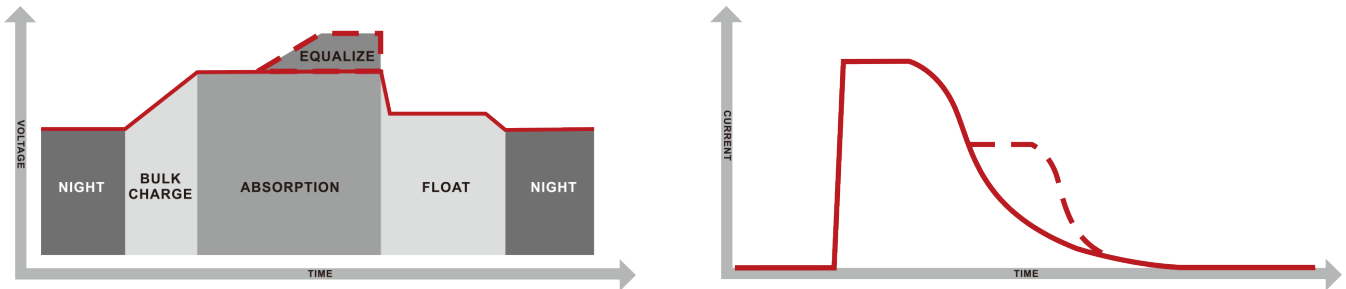
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EQUALIZE STAGE CHARGING FUNCTION

Equalization function reverses the buildup of negative chemical effects like stratification, a condition where acid concentration is greater at the bottom of the battery than at the top. Equalization also helps to remove sulfate crystals that might have built up on the plates.



BATTERY REVERSE PROTECTION

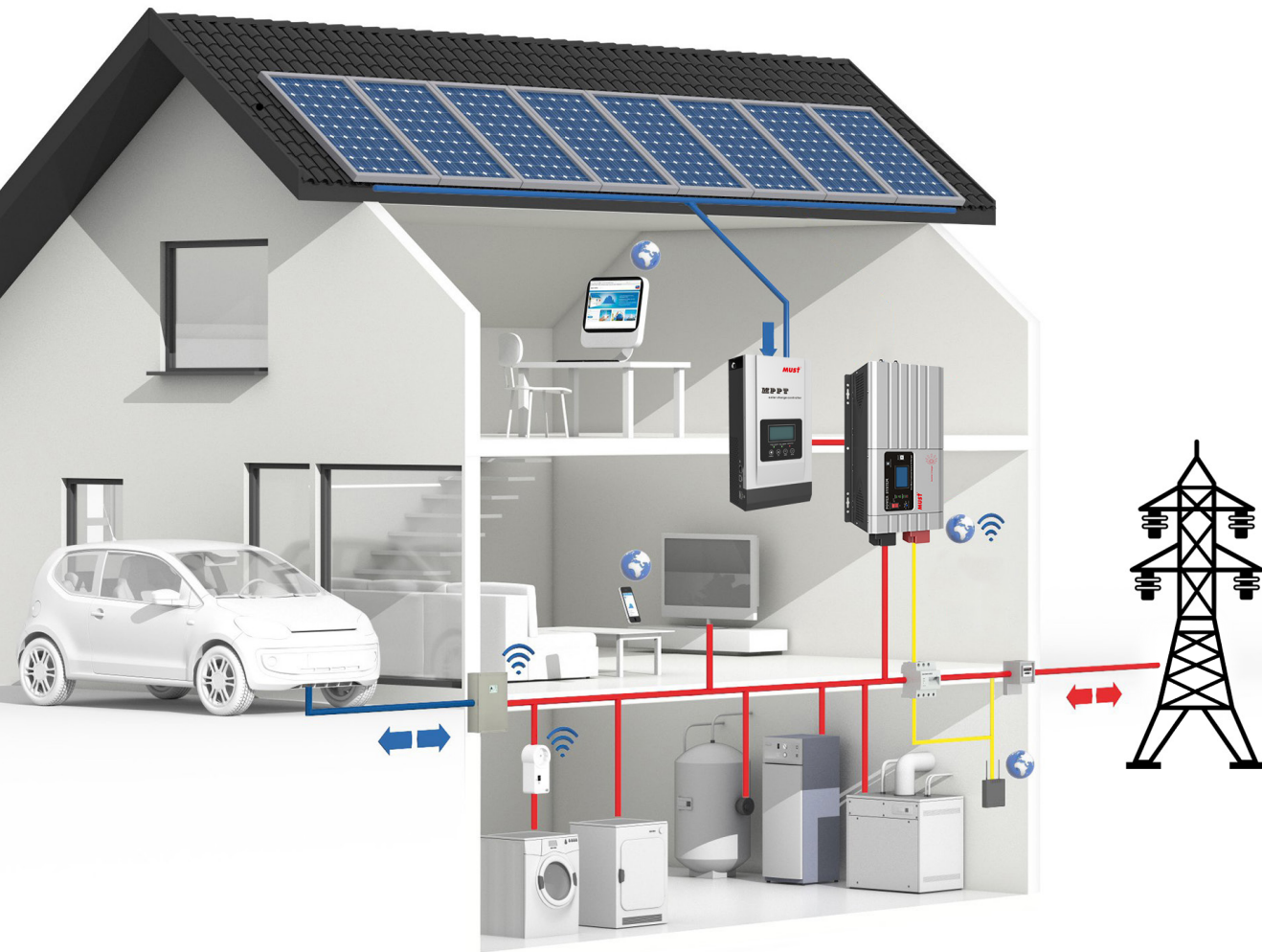
There's a battery reverse protection function in the board, then the controller will be perfectly protected even installer or user connect the battery in reverse pole accidentally

APPLICABLE PLACE

The solar charge controller is an automatic control device, it can be used in all solar power systems to control solar panel array to charge batteries.

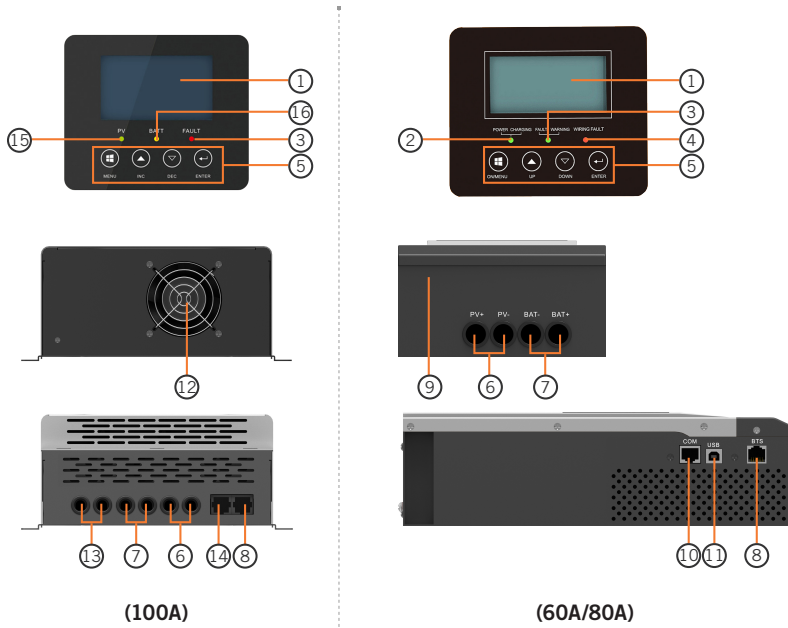
Solar Inverter System Connection:

Power Inverter + Solar Charge Controller + Battery + Solar Panels + Grid + Application Loads



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1. LCD display
2. Power ON/Charging indicator
3. Fault and warning indicator
4. Wiring fault indicator
5. Operation button
6. PV connextors
7. Battery connectors
8. Battery temperature sensor terminal
9. Wiring box cover
10. RS485 communication port
11. USB
12. FAN
13. Load connextors
14. Communication network terminal
15. PV indicator
16. Battery indicator

MODEL		PC18-6015F		PC18-8015F		PC18-10015F	
Nominal Battery System Voltage		12V/24V/48VDC (Auto detection); 36V (Setting)					
CONTROLLER INPUT	Battery Voltage	12V	24V	36V	48V	48V	
	Maximum Solar Input Voltage	100V	145V				
	PV Array MPPT Voltage Range	15~95V	30~130V	45~130V	60~130V	60~130V	
	Maximum Input Power	12Volt-940W 24Volt-1880W 36Volt-2820W 48Volt-3760W		12Volt-1250W 24Volt-2500W 36Volt-3750W 48Volt-5000W		12Volt-1550W 24Volt-3100W 36Volt-4650W 48Volt-6200W	
BATTERY	Charging Set Points	Absorption Stage			Float Stage		
	Flooded Battery	14.2V/28.4V/42.6V/56.8V			13.7V/27.4V/41.1V/54.8V		
	AGM (Default)	14.4V/28.8V/43.2V/57.6V			13.7V/27.4V/41.1V/54.8V		
	Over-charging Voltage	15.5V/30.0V/45.0V/60.0V					
	Over-charging Comeback Voltage	14.5V/29.5V/44.5V/59.0V					
	Battery Defect Voltage	10.0V/17.0V/25.5V/34.0V					
	Temperature Compensation Coefficient	-5mv / °C /cell (25°C vef)					
	Peak Conversion Efficiency	98% (MPPT Efficiency 99%)					
Max Charging Current	60amps continuous @ 40°C ambient		80amps continuous @ 40°C ambient		100amps continuous @ 40°C ambient		
GENERAL SPECIFICATION	Radiating Mode	Fan cooling					
DISPLAY & PROTECTION	Protections	Solar high voltage disconnect Solar high voltage reconnect Battery high voltage disconnect Battery high voltage reconnect High temperature disconnect High temperature reconnect					
MECHANICAL SPECIFICATIONS	Mounting	Wall mount					
	Machine Dimension (W*H*D)	152*85*294 mm (per pcs)				175*82.9*257.1	
	G.W (kg)	3kg/pcs					
	Package Dimension (W*H*D)	625*366*232 mm (4pcs / Carton)				/	
	Gross Weight (kg)	14kg					
OTHER	Environmental Rating	Indoor					
	Operation Temperature Range	-10~55°C					
	Ambient Humidity	0~90% relative humidity (non-condensing)					
	Altitude	≤3000m					