

MPPT SOLAR CHARGE CONTROLLER

- PC1800F SERIES (60/80/100A)
- PC1800A SERIES (60/80A)
- PC1600A SERIES (20/30/40A)

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

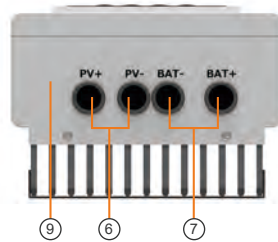
- LCD display , easy to operate on LCD screen
- Multi stage charging
(3-stage charging , parallel charging and equalized charging function)
- BTS - Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel , lead-acid battery
- With RS485 & USB communication port
- Protection: PV array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

Back panel printing description

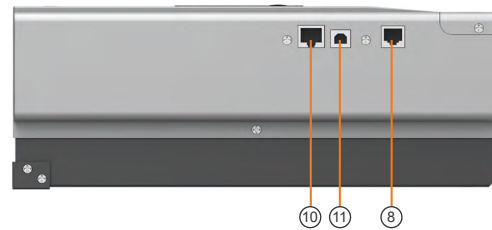


— PC1800A SERIES (60/80A)

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

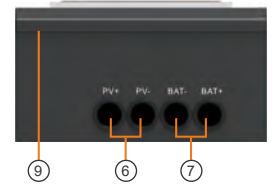


— PC1800F SERIES (60/80/100A)

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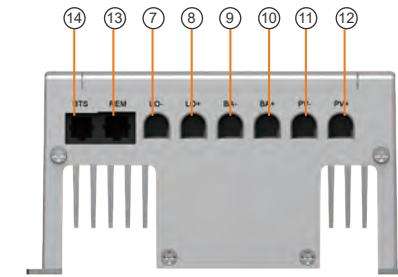
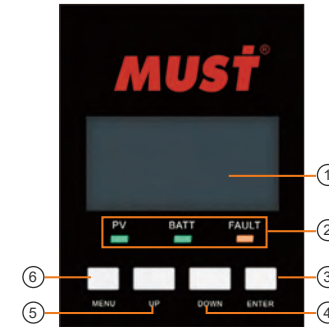
6. PV connectors
7. Battery connectors
8. Battery temperature sensor terminal



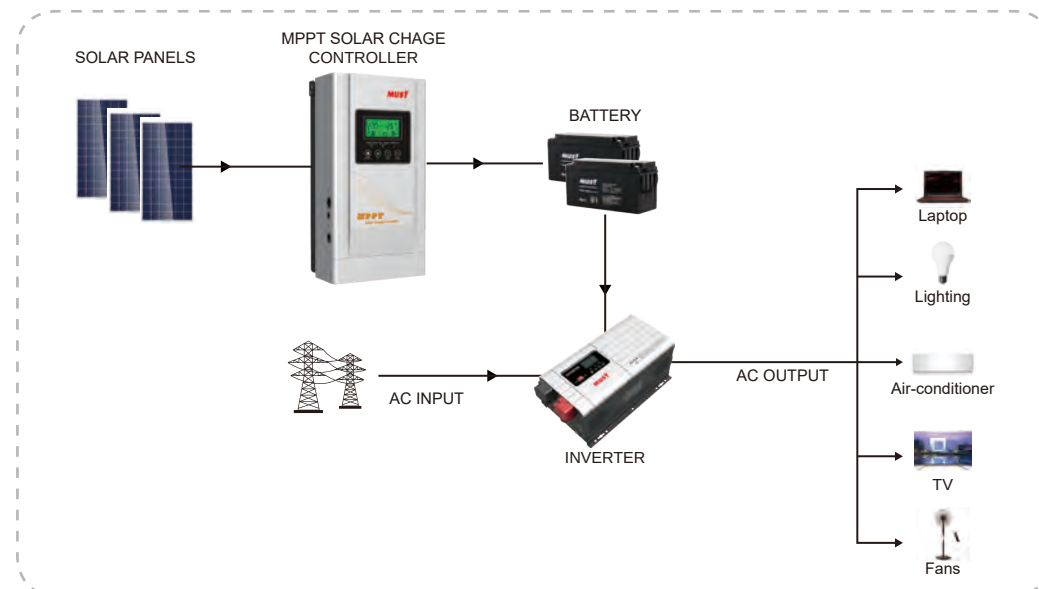
9. Wiring box cover
10. RS485 communication port
11. USB

— PC1600A SERIES (20/30/40A)

1. LCD Display
2. LED Indicator
3. Confirm the selection in setting mode
4. Decrease the setting data
5. Increase the setting data
6. Enter or exit setting mode
7. The load negative terminal
8. The load positive terminal
9. The battery negative terminal
10. The battery positive terminal
11. PV array negative terminal
12. PV array positive terminal
13. Communication network terminal
14. Remote external temerature terminal



Solar system connection



Specification — PC1600A

MODEL		PC16-2015A		PC16-3015A		PC16-4015A	
Nominal Battery System Voltage		12VDC \ 24VDC (Auto Detection)					
CONTROLLER INPUT	PV Open Circuit Voltage		100VDC@12V \ 145VDC @24V				
	PV Array MPPT Voltage Range		16VDC~100VDC@12VDC/32VDC~130VDC@24VDC				
	Max PV Input Power(12V)	300W	450W		600W		
	Max PV Input Power(24V)	600W	900W		1200W		
BATTERY	Absorption Voltage		12.5VDC \ 25.0VDC				
	Refloat Voltage		13.7VDC \ 27.4VDC				
	Float Voltage		14.3VDC \ 28.6VDC				
	Low Voltage Protection Point		10.0VDC \ 20.0VDC				
DC OUTPUT	Output Voltage		10.0~14.5VDC \ 20.0~29.0VDC				
	Peak Conversion Efficiency		98%(MPPT Efficiency 99%)				
	Max Charging Current	20 amps continuous	30 amps continuous		40 amps continuous		
	Max Output Current	20 amps continuous	20 amps continuous		20 amps continuous		
	Low Voltage alarm		10.25VDC \ 20.5VDC				
	Low Voltage cut off		10.0VDC \ 20.0 VDC				
	Low Voltage Recovery		11.0VDC \ 22.0VDC				
GENERAL SPRCIFICATION	Radiating Mode		Automatic cooling				
DISPLAY & PROTECTION	LED Indication	Systematic operation, LV indication, LV protection, Over charge protection Loads protection, Short circuit protection					
	LED Display	Charge Voltage, Charge Current, Voltage of storage battery, Capacity of storage battery, Output current					
	Alarm Protections	PV array short circuit, PV reverse polarity					
		Battery reverse polarity, Over charging protction					
		Output short circuit protection					
		Low voltage protection for storage battery					
MECHANICAL SPECIFICATIONS	Mounting	Wall mount					
	Machine Dimension (W*H*D)(mm)	154*236*88mm (color box / pcs)					
	Gross Wight (kg)(per pcs)	2.2kg	2.65kg		2.65kg		
	Package Dimension (W*H*D)(mm)	610*308*230mm (4pcs / Carton)					
	Gross Weight (kg)(per carton)	10.8kg	13.4kg		13.4kg		
OTHER	Environmental Rating	Indoor					
	Operation Temperature Range	0℃ ~ 55℃					
	Loading (20GP/40GP/40HQ)	2500pcs \ 5000pcs \ 5800pcs					

Specification — PC1800A

MODEL		PC18-6015A		PC18-8015A	
Nominal Battery System Voltage		12V \ 24V \ 48VDC (Auto detection); 36V (Setting)			
ELECTRICAL SPECIFICATIONS	Maximum Battery Current	60Amps		80Amps	
	Battery Voltage	12V	24V	36V	48V
	Maximum Solar Input Voltage	100V	145V		
	PV Array MPPT Voltage Range	15~95V	30~130V	45~130V	60~130V
	Maximum Input Power	12 Volt-940W 24 Volt-1880W 36 Volt-2820W 48 Volt-3760W		12 Volt-1250W 24 Volt-2500W 36 Volt-3750W 48 Volt-5000W	
	Protections	Solar high voltage disconnect; Solar high voltage reconnect; Battery high voltage disconnect; Battery high voltage reconnect; High temperature disconnect;High temperature reconnect			
BATTERY CHARGING	Charging Algorithm	3-Step or 4-Step (Li)			
	Temperature Compensation Coefficient	-5mV \ ℃ \ cell (25℃ ref.)			
	Temperature Compensation Set Points	Absorption, Float			
	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 / GEL / LEAD Battery (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				
MECHANICAL AND ENVIRONMENT	Product Size (W*H*D)(mm)	315*160*135			
	Product Weight (kg)	4.7kg			
	Ambient Temperature Range	-10℃ to 55℃			
	Storage Temperature	-40℃ to 75℃			
	Humidity	0%~90% RH (No condensing)			
	Enclosure	IP20			

Specification — PC1800F

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		
	Maximum Solar Input Voltage	100V	145V				
	PV Array MPPT Voltage Range	15~95V	30~130V	45~130V	60~130V		
	Maximum Input Power	12 Volt-940W 24 Volt-1880W 36 Volt-2820W 48 Volt-3760W	12 Volt-1250W 24 Volt-2500W 36 Volt-3750W 48 Volt-5000W	12 Volt-1560W 24 Volt-3120W 36 Volt-4680W 48 Volt-6250W			
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 Conefficient	-5mv \ °C \cell (25°C vef)					
	Peak Conversion Efficiency	98% (MPPT Efficiency 99%)					
	Mximum Battery Current	60Amps	80Amps	100Amps			
	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)(mm)	152*85*294 (per pcs)					
	G.W (kg)	3kg\pcs					
	Package Dimension (W*H*D)(mm)	625*366*232 (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					