

**MPPT SOLAR CHARGE CONTROLLER**

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

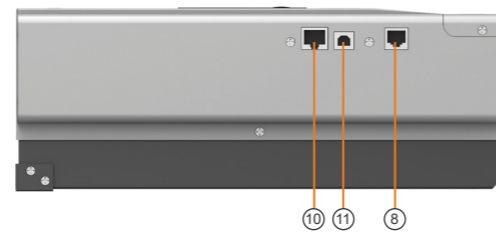
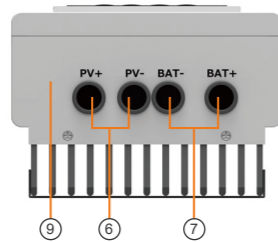
MPPT (Maximum Power Point Tracking) Solar Charge Controller offer an efficient, safe, multi-stage recharging process that prolongs battery life and assures peak performance from a solar array. Each Charge Controller allows customized battery recharging.



**Features**

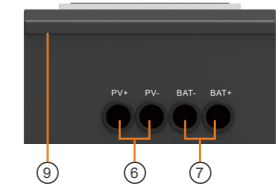
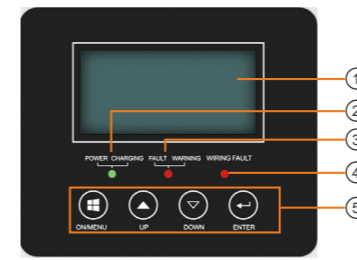
- LCD display , easy to operate on LCD screen
- Multi stage charging  
(3-stage charging , parallel charging and equalized charging function)
- BTS - Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel , lead-acid battery
- With RS485 & USB communication port
- Protection: PV 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                 | 6. PV connextors                       | 9. Wiring box cover         |
| 2. Power ON/Charging indicator | 7. Battery connectors                  | 10.RS485 communication port |
| 3. Fault and warning indicator | 8. Battery temperature sensor terminal | 11.USB                      |
| 4. Wiring fault indicator      |  |                             |
| 5. Operation button            |  |                             |

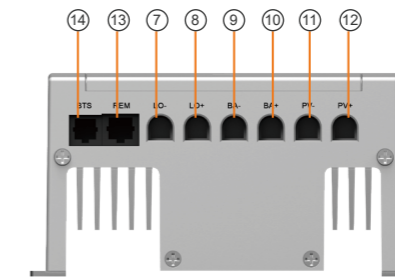
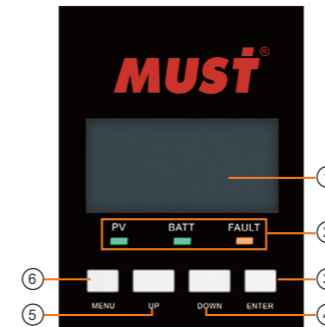


**— PC1800F SERIES (60/80/100A)**

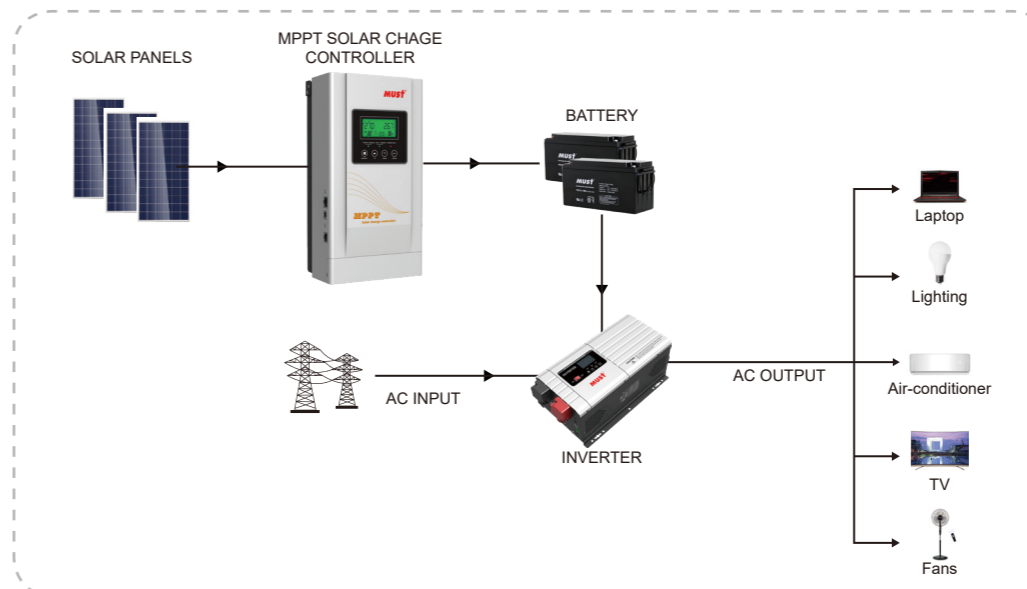
- |                                |  |                             |
|--------------------------------|--|-----------------------------|
| 1. LCD display                 | 6. PV connectors                       | 9. Wiring box cover         |
| 2. Power ON/Charging indicator | 7. Battery connectors                  | 10.RS485 communication port |
| 3. Fault and warning indicator | 8. Battery temperature sensor terminal | 11.USB                      |
| 4. Wiring fault indicator      |  |                             |
| 5. Operation button            |  |                             |

**— 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 temperature 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 SPECIFICATION	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 PV array short circuit, PV reverse polarity		
	Alarm Protections	Battery reverse polarity, Over charging protection		
		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°C ~ 55°C		
	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	
	Battery Voltage	12V	24V
	Maximum Solar Input Voltage	100V	145V
	PV Array MPPT Voltage Range	15~95V	30~130V
	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 \ °C \ cell (25°C 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°C to 55°C	
	Storage Temperature	-40°C to 75°C	
	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
	Maximum Solar Input Voltage	100V	145V	
	PV Array MPPT Voltage Range	15~95V	30~130V	45~130V
	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 Coefficient	-5mV \ °C \ cell (25°C ref)		
	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		