

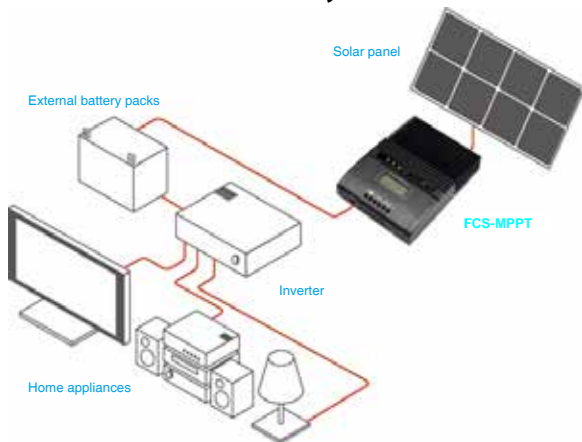
MPPT Solar Charge Controller



- Intelligent Maximum Power Point Tracking technology
- Built-in DSP controller with high performance
- Automatic battery voltage detection
- Three-stage charging optimizes battery performance
- Auto load-detection
- Multifunction LCD displays detailed information
- Reverse polarity protection for solar panel and battery
- Overcharge and overload protection
- IP 43 protection for outdoor and harsh environment
- Suitable for battery types of sealed lead acid, vented, Gel, and NiCd

SOLAR CHARGE CONTROLLER

Standalone Solar Power System:



Combined MPPT technology and DSP controller, FCS-MPPT will convert best voltage to charge battery based on varied temperature. Compared to traditional solar charge controller, it allows your solar panels to operate at their optimum power output voltage, providing higher efficiency up to 98% with lower power loss.

Integrated FCS-MPPT with inverter, solar panel, and external battery packs, it will become a standalone solar power system to generate green power for your home appliances. FCS-MPPT will convert solar power to charge external batteries, and then provide power to home appliances via inverter.

MPPT Solar Charge Controller Selection Guide

MODEL	FCS-MPPT-300WATT	FCS-MPPT-600WATT
INPUT		
MPPT Range @ Operating Voltage	15 V ~ 33 V @ 12 V	30 V ~ 66 V @ 24 V or 15 V ~ 33 V @ 12 V
Maximum PV Array Open Circuit Voltage	50 V	75 V @ 24 V or 50 V @ 12 V
Maximum PV Array Power	300 W	600 W @ 24V or 300W @12V
Maximum Current	18 A	
OUTPUT		
Nominal Battery Voltage	12 V	24 V or 12V (Auto sensing)
Connected Battery Type	Sealed lead acid, vented, Gel, NiCd battery	
Maximum Charging Current	25 A	
Maximum Efficiency	98%	
Standby Power Consumption	1 W	2 W
Charging Method	Three stages: bulk, absorption, and floating	
PROTECTION		
Overload Protection	> 110% : audible alarm	
Overcharge Protection	Yes	
Polarity Reversal Protection @ Solar Cell & Battery	Yes	
INDICATORS		
LCD Panel	LCD panel indicating solar power, load level, battery voltage/capacity, charging current, and fault conditions	
LED Display	Three indicators for solar, charging, and load status	
PHYSICAL		
Dimension, D x W x H (mm)	135 x 170 x 57.5	220 x 170 x 57.5
Net Weight (Kgs)	0.92	1.85
Connector	Input/Output terminal block	
Type of Mechanical Protection	IP 43	
ENVIRONMENT		
Humidity	0 ~ 100% RH (No condensing)	
Operating Temperature	-20°C to 55°C	
Storage Temperature	-40°C to 75°C	
Altitude	0 ~ 3000 m	

Product specifications are subject to change without further notice

MPPT Solar Charge Controller PWM Solar Charge Controller

- Intelligent Maximum Power Point Tracking technology increases efficiency 25%~30%
- Compatible for PV systems in 12V, 24V or 48V
- Three-stage charging optimizes battery performance
- Maximum charging current up to 60A
- Maximum efficiency up to 98%
- Battery temperature sensor (BTS) automatically provides temperature compensation
- Support wide range of lead-acid batteries including wet, AGM, and gel batteries
- Multifunction LCD displays detailed information



- 12VDC or 24VDC available
- Two-stage charging method
- Lightweight design



FCS-MPPT 3KW Specification

MODEL	FCS-MPPT-3000		
PV INPUT			
MPPT Range	60 VDC ~ 115 VDC		
Maximum PV Array Open Circuit Voltage	145VDC		
Maximum PV Array Power	800W	1600W	3200W
Maximum Input Current	50 A		
BATTERY			
Nominal Battery Voltage	12 V	24 V	48 V
Connected Battery Type	Sealed lead acid, AGM or Gel		
Maximum Charging Current	60 A		
Maximum Efficiency	98%		
Charging Method	Three stages: bulk, absorption and floating		
PHYSICAL			
Dimension, D X W X H (mm)	315 x 165 x 128		
Net Weight (kgs)	4.5		
Type of Mechanical Protection	IP 31		
COMMUNICATION			
Standard	RS-232 and Dry contact		
Optional	USB, Modbus and SNMP		
ENVIRONMENT			
Humidity	5 ~ 95% RH (No condensing)		
Operating Temperature	0°C to 55°C		
Storage Temperature	-15°C to 60°C		

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PWM Solar Charge Controller Selection Guide

MODEL	FCS-120W	FCS-240W
INPUT		
Maximum PV Array Open Circuit Voltage	25 V	50 V
Maximum PV Array Power	120 W	240 W
Maximum Current	10 A	
OUTPUT		
Nominal Battery Voltage	12 V	24 V
Connected Battery Type	Sealed lead acid battery	
Maximum Charging Current	10 A	
Ripple Voltage	< ± 1 V	
Maximum Efficiency	99.0 %	
Charging Method	Two stages: bulk and floating 1 / floating 2	
INDICATORS		
LED Display	Green LED indicating charging status	
PHYSICAL		
Dimension, D X W X H (mm)	93 x 60 x 29	
Net Weight	160 g	
Connector	Input/Output terminal block	
Type of Mechanical Protection	IP 31	
ENVIRONMENT		
Operating Temperature	-20°C to 55°C	
Storage Temperature	-40°C to 75°C	
Altitude	0 ~ 3000 m	

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