

2024  
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SUNCHONGLIC®



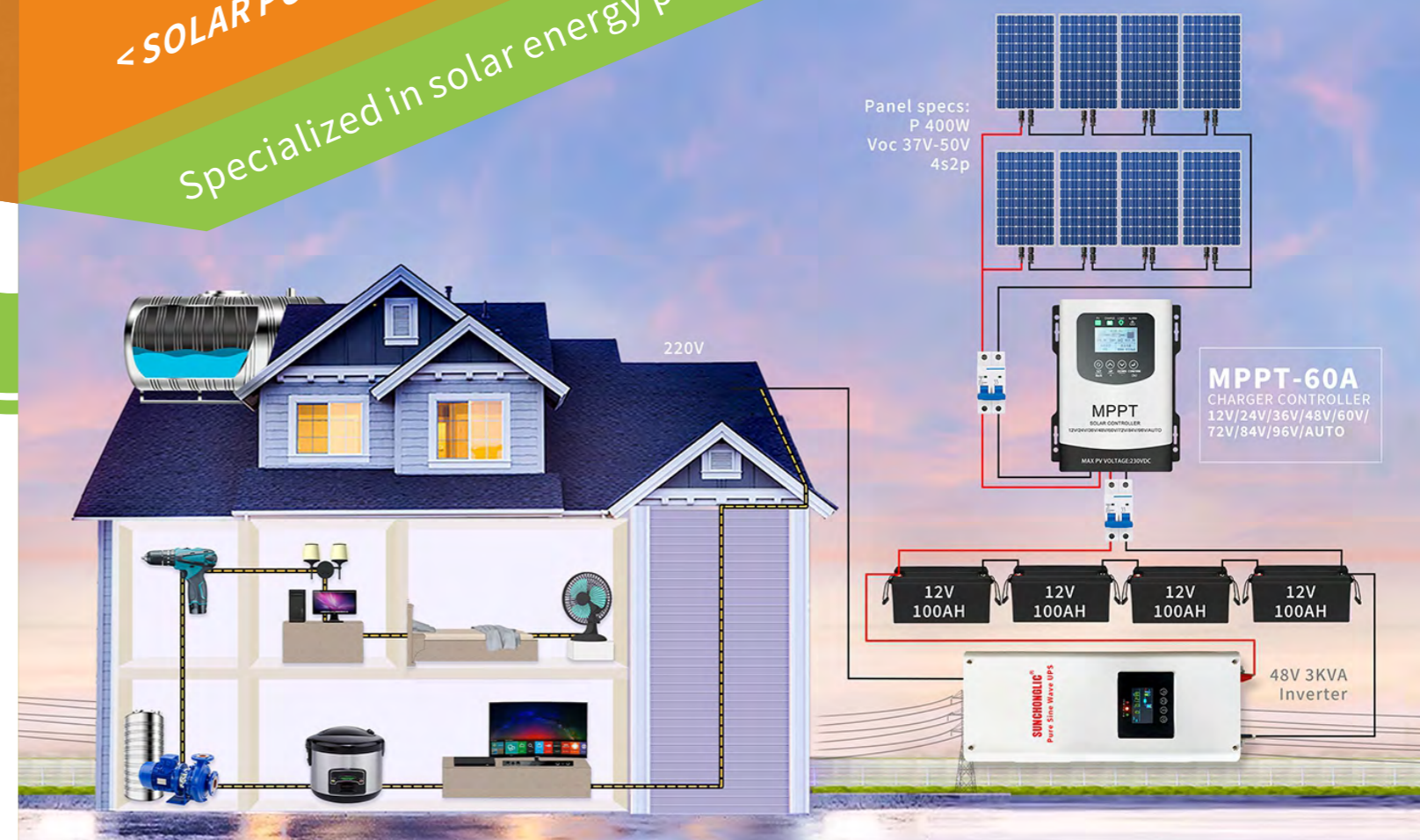
< SOLAR CONTROLLER  
< BATTERY CHARGER  
< SOLAR POWER INVERTER

Specialized in solar energy photovoltaic product for over 20 years

## Foshan Suntway Technology Co. Ltd.

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# 10+ YEARS

## SOLAR POWER SUPPLY MANUFACTURER

**SUNCHONGLIC®**

佛山升腾微科技  
Foshan Suntway Technology

**4500+sq.m.**

Workshop Area

**3+**

Production Line

**300+**

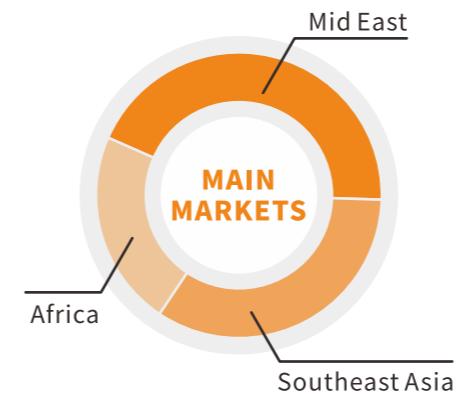
Supply Chain Partners

**USD 10M+**

Annual Amount Of Export

### Main client types

Retailer, Engineer, Wholesaler, Brand business, For private use, Manufacturer.



Assembly

Testing

Packing

We are re-engineering our information systems throughout economic global integration to meet modern advanced standards. We would sincerely welcome new and old customers from over the world to visit and contact us for future business relationships and mutual success! We hope that our solar power products will help you gain big markets.

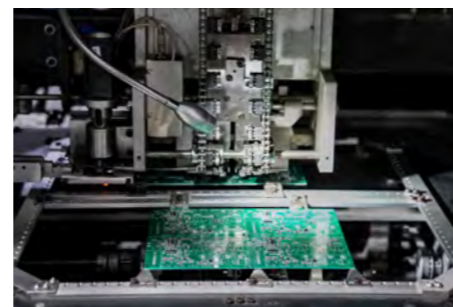
## ABOUT US

### Foshan Suntway Technology Co., Ltd.

Is established in 2014, located in Foshan city, Guangdong, China. is mainly dealing with solar power supply. With unique and innovative design, low interference technology, and high performance to price ratio, as well as more than 6,000 square meters workshop, nowadays, our factory capacity can efficiently meet all customers' requirement and demand of power supply products.

We are manufacture factory continually supplying with Low frequency hybrid solar inverter, Pure sine wave inverter, UPS charger inverter, Modified sine wave inverter, Voltage stabilizer, Gel AGM lead acid battery charger, Lithium battery charger, PWM MPPT solar charge controller, Boost MPPT solar controller, and inverter PCB board. With well-equipped testing facilities and strong technical R&D team, in the near future, we will mainly focus on the industry of solar green energy supply.

With a wide range of applications, reasonable and affordable prices and stylish designs, our products are extensively used in home appliances and some industries. Our products are widely recognized and trusted by our clients and can meet continuously changing economic and social needs. A primary strategy is superior customer satisfaction. We will constantly analyze market needs around the world to develop a full range of products for business, industry, and clean energy.



## EXHIBITION



The 133th Canton Fair  
15-19, April, 2023



The 134th Canton Fair  
16-18, October, 2023



Yiwu International Commodities Fair  
21-24, October, 2023



Solar Pakistan 2024  
27-29, February, 2024



Jakarta International Expo (JIExpo)  
6-8, March, 2024



The 135th Canton Fair  
15-19 April, 2024



Diversified Product Assembly Lines



Warehousing And Logistics Center



Inspection Of The Finished Product



Foreign Trade Sales Department



OEM & ODM is available



Standard Specification



Finished Aging



Customization According To Requirement

# PRODUCTS CONTENTS

Capture the sun, fuel the future.  
Go green with clean, renewable solar energy.



## PURE SINE WAVE INVERTER

# 1

- 01-02** FMP series .....MPPT Solar Inverter
- 03-04** HMP series .....Low Frequency Solar Inverter
- 05-05** FPV series .....Hybrid Inverter Without Battery
- 06-06** FTI series .....Grid Tie Inverter
- 07-08** FUP/FPC(DL) series .....Pure Sine Wave UPS Inverter
- 09-11** FPC series .....Pure Sine Wave Inverter

## MODIFIED SINE WAVE INVERTER

# 2

- 13-13** FB-500C series .....Socket Inverter
- 14-14** SUS series .....Solar charge Inverter
- 15-16** FTB series .....110V Inverter
- 17-17** FU series .....Modified Sine Wave UPS Inverter
- 18-27** SDB/FA/FFA/FTA/SAA-D/FS series .....Modified Sine Wave Inverter

## BATTERY CHARGER

# 3

- 28-28** FML series .....Lithium Battery Charger
- 29-29** FLA series .....LiFePO4/GEL Battery Charger
- 30-37** FON/FMA/SCL/DC/A03 series .....AGM/GEL/SLA Battery Charger

## SOLAR CHARGE CONTROLLER

# 4

- 38-40** FT-S/FT-D/FT-M series .....PWM Solar Charge Controller
- 41-43** MPPT/MPPT PLUS series .....MPPT Solar Charge Controller

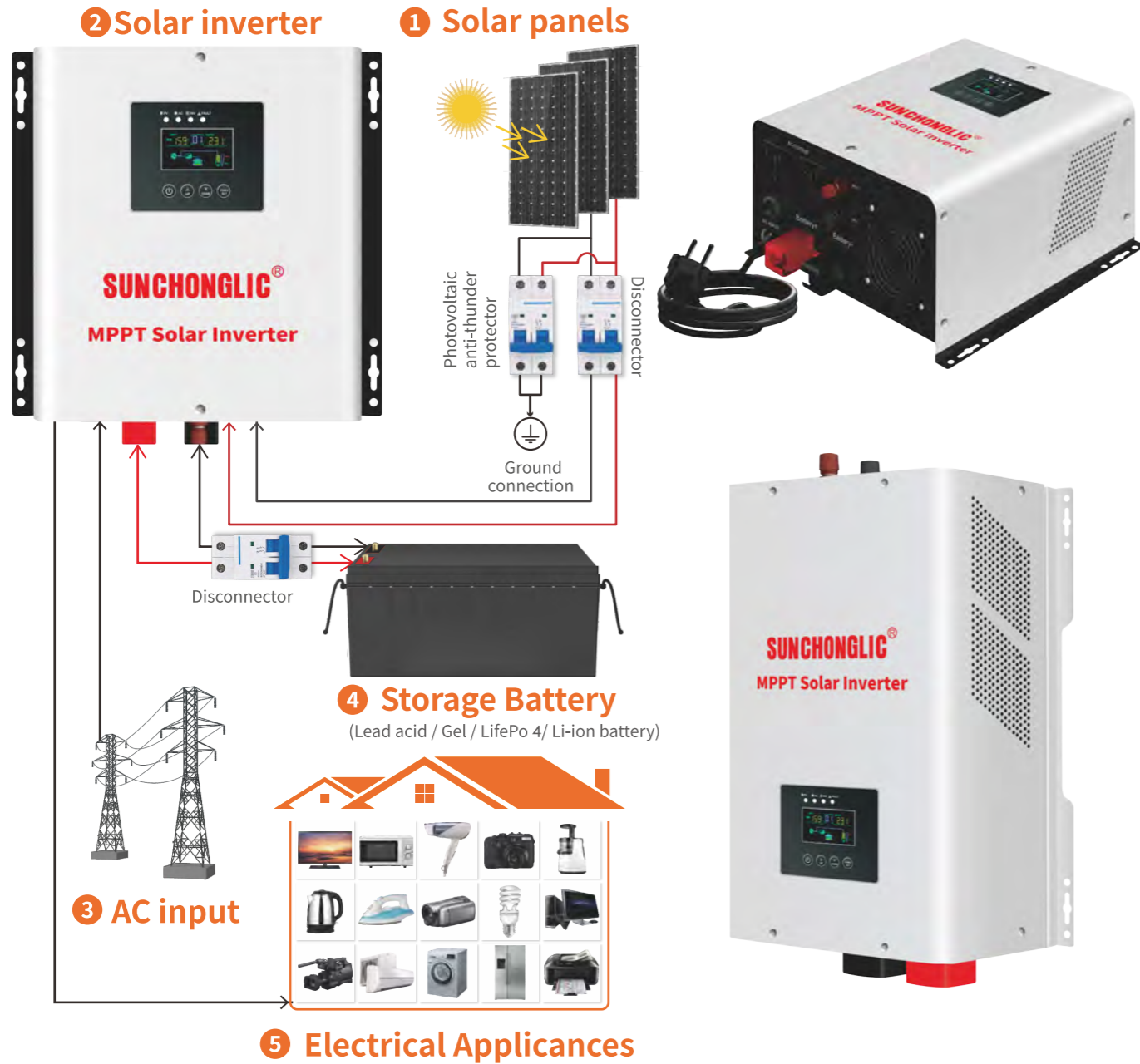
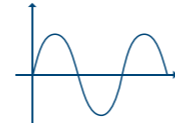
## VOLTAGE STABILIZER/SOLAR GENERATOR/LiFePO4

# 5

- 12-12** AC series .....Single-Phase Voltage Regulator Stabilizer
- 44-46** STW series .....Portable Power Station
- 47-48** LiFePO4 Lithium Battery .....LiFePO4 Lithium Battery

# MPPT SOLAR INVERTER

FMP~series  
12V/24V/48V

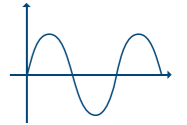


FEATURES

1. Pure sine waveform output with built-in transformer and voltage stabilizer(Specially designed for start up inductive loads)
2. Built-in 30A/60A MPPT solar controller and 20A AC charger.
3. Support Lead acid battery/Gel battery/lithium iron phosphate battery/ternary lithium battery/customized battery.
4. 3 times start-up peak power of resisting voltaic impingement, excellent loading capability.
5. Built-in Lithium battery activation function
6. PV array Open circuit input voltage 100V/180V DC
- 7.Support 3 working modes: Mains priority,Battery priority,PV priority

# MPPT SOLAR INVERTER

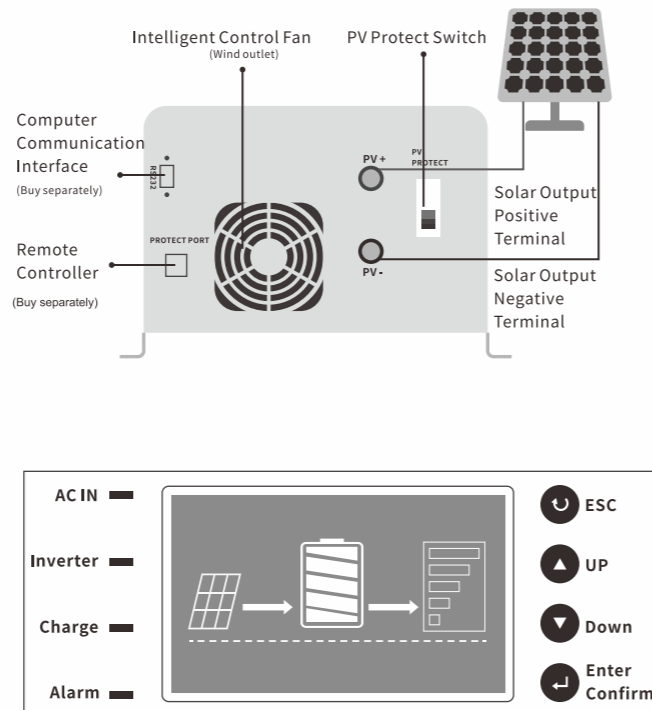
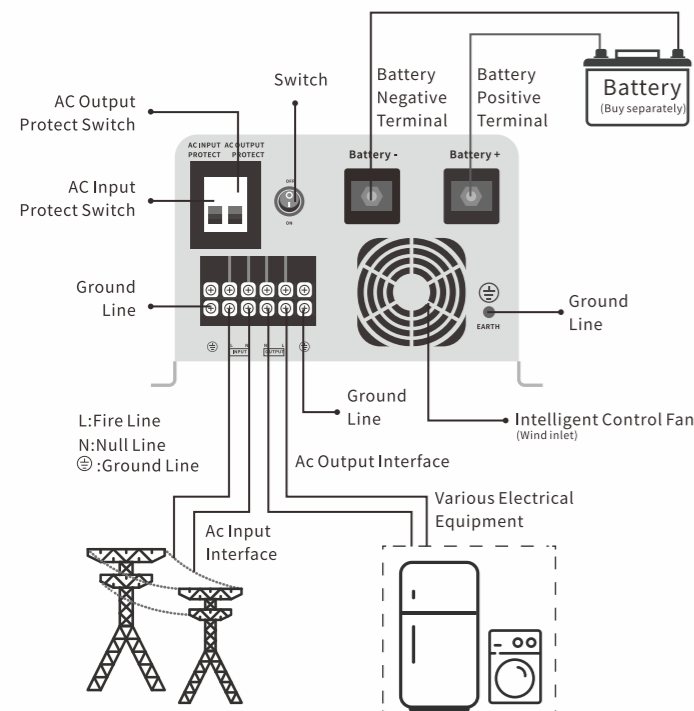
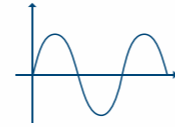
FMP~series  
12V/24V/48V



Model	Capacity	1KW	1.5KW	2KW	3KW	5KW
	Peak capacity	3KW	4.5KW	6KW	9KW	15KW
	Battery voltage	12V		24V		48V
	Charging current	20A			30A	60A
	PV input port	One route(60A)				
	PV input voltage range	15V-180V(12V system); 30V-180V(24V system); 60V-180V(48V system)				
	Max PV input capacity	60A: 720W (12V system) 1440W(24V system) 2880W(48V system)				
	Max charging current, can be adjustable	OFF 30A/60A(can switch OFF PV charging)				
	MPPT efficiency	≈99%				
	Unattended mode	Inverter is OFF mode:MPPT can charge battery if there is sunshine				
	DC input voltage range	10.5VDC-15VDC (single battery voltage 12V)				
	AC input voltage range	110VAC:(80-130)VAC; 220VAC: (160-260)VAC/(130-280)VAC,can adjust at site				
	AC input frequency	45HZ-65HZ auto test				
	AC charging current can choose	OFF(can switch off AC charging function)				
	Output wave	Pure sine wave				
	Output efficiency	≈90%				
	Output voltage	200V/210V/220V/230V/240V can adjust at site				
	Output frequency	50Hz/60Hz can adjust at site				
	ECO mode and loss	5W				
	Inverter working mode	AC priority, DC priority, ECO mode, unattended mode, generator mode				
	LCD working mode	Normal mode/"ON" mode				
	Battery types	Lead-acid battery/GEL battery/ lithium iron phosphate battery/ ternary lithium battery				
	Battery customized parameters	Constant voltage charging, Floating charging, battery recover, AC recover, low voltage alarm and low voltage protection				
	Battery charging types	Lead-acid: three steps, constant current charging, constant voltage charging, floating charging Lithium battery: constant current charging, constant voltage charging				
	Lithium battery string numbers can choose	lithium iron phosphate battery:3.2V single one ternary lithium battery:3.7V single one				
	Protections	Battery low voltage/battery over voltage/over load protection/ high temperature protection/charging type protections				
	LCD display	AC station, DC station, charging station and alarm				
	Front panel display	Working station, input and output voltage, PV parameters and inverter parameters				
	Language	Chinese/English can choose				
	Transfer time	<5ms				
	Heat-dissipating type	Intelligent temperature control				
	Working temperature	(-10°C~40°C)				
	Altitude	≤3000m				

## HMP~series MPPT

12V/24V/48V

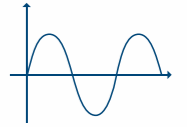


### FEATURES

1. Pure sine waveform output with built-in transformer and AVR stabilizer (Specially designed to start up inductive loads such as air conditioner, refrigerators, motors, water pumps, compressors and laser printers)
2. Solar hybrid inverter built-in 80A MPPT solar controller and AC charger.
3. Output voltage (200V/210V/220V/230V/240V) & Output frequency (50Hz/60Hz) can be manually regulated at site.
4. Support Lead acid battery/Gel battery/lithium iron phosphate battery/ternary lithium battery/customized battery.
5. RS232/RS485 Communications port is available.
6. 3 times start-up peak power of resisting voltaic impingement, excellent loading capability.
7. High conversion efficiency is up to 90%.
8. Built-in Lithium battery activation function
9. PV array Open circuit voltage 230V DC
10. Support 3 working modes: Mains priority, Battery priority, PV priority

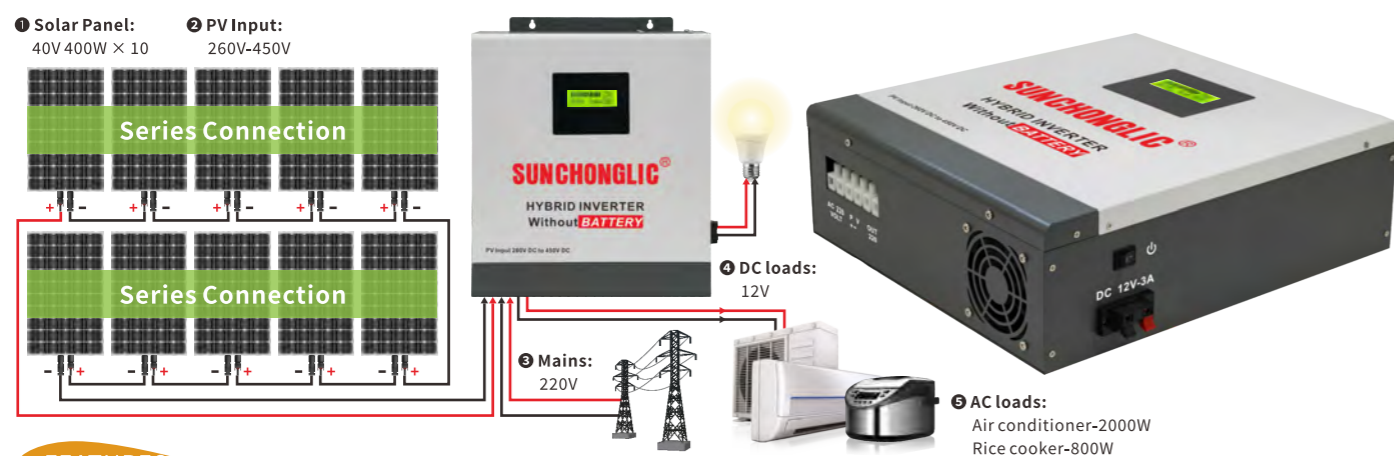
## HMP~series MPPT

12V/24V/48V



Model	Capacity	2KW	3KW	4KW	5KW	6KW	8KW	10KW	12KW
	Peak capacity	6KW	9KW	12KW	15KW	18KW	24KW	30KW	36KW
Battery voltage		12V/24V/48V	24V/48V	24V/48V	24V/48V	48V	48V	48V	48V
INBUILT MPPT	Charging current	60A							
	PV input port	One route (60A)							
	PV input voltage range	15V-180V(12V system); 30V-180V(24V system); 60V-180V(48V system)							
	Max PV input capacity	60A: 720W (12V system) 1440W(24V system) 2880W(48V system)							
	Max charging current, can be adjustable	OFF 30A/60A (can switch OFF PV charging)							
	MPPT efficiency	≈ 99%							
	Unattended mode	Inverter is OFF mode: MPPT can charge battery if there is sunshine							
INPUT	DC input voltage range	10.5VDC-15VDC (single battery voltage 12V)							
	AC input voltage range	110VAC: (80-130)VAC; 220VAC: (160-260)VAC / (130-280)VAC, can adjust at site							
	AC input frequency	45HZ-65HZ auto test							
	AC charging current can choose	OFF (can switch off AC charging function)							
OUTPUT	Output wave	Pure sine wave							
	Output efficiency	≈ 90%							
	Output voltage	200V/210V/220V/230V/240V can adjust at site							
	Output frequency	50Hz/60Hz can adjust at site							
WORKING MODE	ECO mode and loss	5W							
	Inverter working mode	AC priority, DC priority, ECO mode, unattended mode, generator mode							
BATTERY PARAMETER	LCD working mode	Normal mode/"ON" mode							
	Battery types	Lead-acid battery/GEL battery/ lithium iron phosphate battery/ ternary lithium battery/customized battery							
	Battery customized parameters	Constant voltage charging, Floating charging, battery recover, AC recover, low voltage alarm and low voltage protection							
	Battery charging types	Lead-acid: three steps, constant current charging, constant voltage charging, floating charging Lithium battery: constant current charging, constant voltage charging							
LCD DISPLAY	Lithium battery string numbers can choose	lithium iron phosphate battery: 3.2V single one ternary lithium battery: 3.7V single one							
	Protections	Battery low voltage/battery over voltage/over load protection/ high temperature protection/charging type protections							
LCD DISPLAY	LCD display	AC station, DC station, charging station and alarm							
	Front panel display	Working station, input and output voltage, PV parameters and inverter parameters							
	Language	Chinese/English can choose							
Transfer time	<5ms								
Heat-dissipating type	Intelligent temperature control								
Communications	RS232/RS485 (can choose)								
Working temperature	(-10°C~40°C)								
Altitude	≤3000m								
Inverter size (L*W*Hmm)	495*320*220mm				560*390*200mm				
Packing size (L*W*Hmm)	600*380*290mm				715*420*316mm				
Net weight (kg) (About)	16.5kg	19.5kg	22kg	25kg	28kg	31.5kg	36kg	40kg	
Gross weight (kg) (About)	19.5kg	22kg	25kg	28kg	31kg	36kg	41kg	41kg	

## FPV~series



### FEATURES

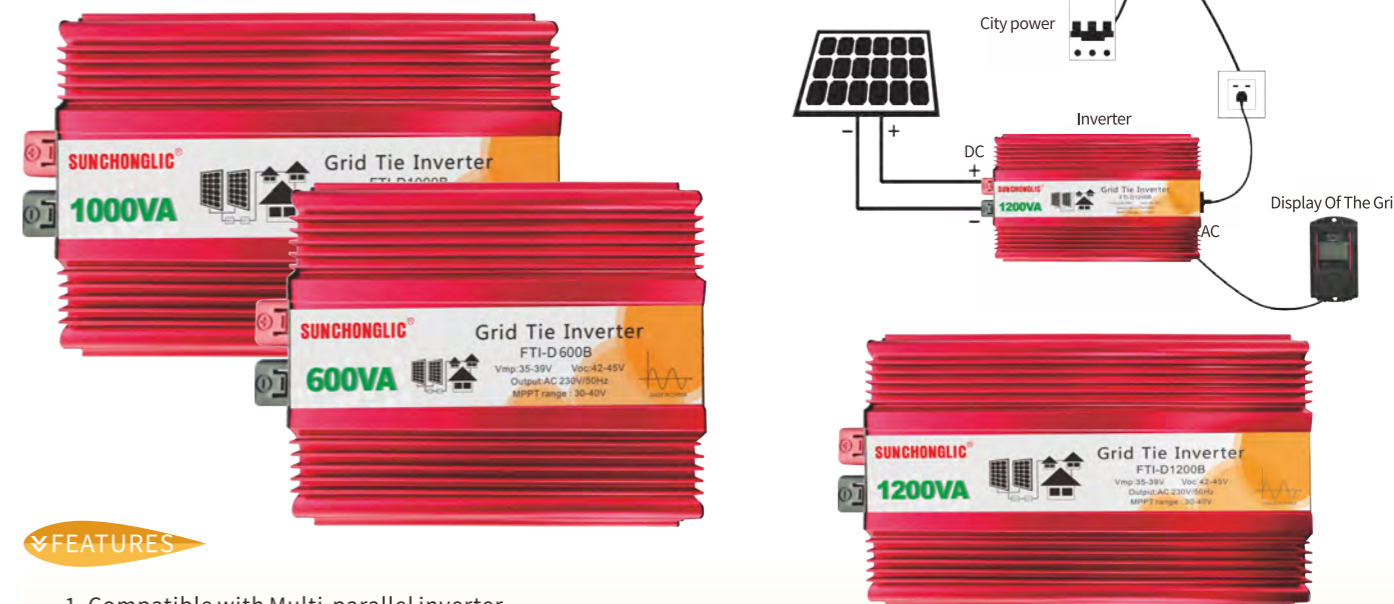
1. PV array input voltage range 260V DC to 450V DC.
2. No extra external battery is needed, much more economical and affordable solar system for home.
3. Mains 220V AC output.
4. Built-in 12V DC output interface.
5. Multiple safe protections, Anti-islanding protection.
6. Built-in uninterrupted power supply.

Model		FPV-5.5KVA	FPV-7.5KVA	FPV-10KVA
PV DC input parameters	Maximum input power (W)	3500W	5000W	7000W
	PV input voltage range (Vdc)	260V DC-450V DC		
	PV max input current (Idc)	13	18	23
AC input parameters	AC input range (Vac)	150VAC-300VAC		
	AC rated voltage (Vac)	220VAC		
AC output parameters	Peak output power (W)	5000	6000	8000
	Rated output power (W)	3500	5000	7000
	Output waveform	Pure Sine Wave		
	Output voltage range (Vac)	160VAC-240VAC		
	Maximum output current (A)	18A	25A	35A
	Rated output voltage (Vac)	220/230		
	Rated output current (A)	16A	22.7A	28A
	Output frequency range (Hz)	40Hz-50Hz		
	Current harmonics (at rated power)	<5%		
	Maximum efficiency	95%		
Environmental parameters	Operating temperature range (*C)	-25~+60		
	Relative humidity	0~95% No condensation		
	Altitude (m)	≤2000		
	Cooling method	Fan cooling		
	Nighttime energy consumption (W)	<0.2		
Communication	Noise decibel (dB)	<50		
	LCD	2 lines of character display		
Mechanical properties	Dimensions (width x depth x height) mm	375*330*125		
	Weight (Kg)	5.6		

## FTI~series

MPPT

24V



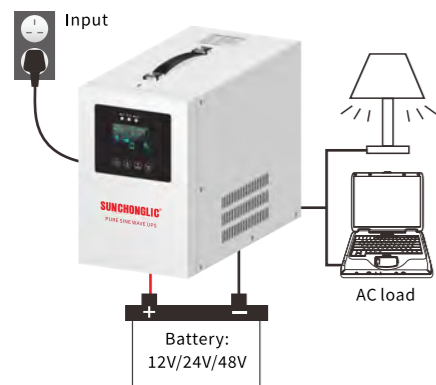
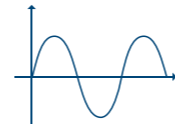
### FEATURES

1. Compatible with Multi-parallel inverter
2. Anti-islanding protection, frequency protection
3. Adopt specialized wiring terminal, greatly improve reliability and safety performance
4. Small power grid-tie inverter can be paralleled to obtain large power output.
5. Low standby power consumption, high conversion efficiency
6. Cooling fan is controlled and regulated by load power and temperature.
7. Intelligent MPPT charge technology
8. Multiple inverter are compatible in the circuit in parallel, small power inverter can provide high power output.

Model	FTI-D600B	FTI-D1000B	FTI-D1200B
Output Power	500W	950W	1200W
Voltage of Solar Panel	Vmp:35-39V,Voc:42-45V		
Recommended power of solar panel	600-650W	1000-1100W	1000-1200W
MPPT Voltage Range	30-40V		
AC Voltage Range	190-260V		
Voltage frequency range of electric network	50HZ ± 1%		
Power factor	>97.5%		
MPPT Efficiency	>99%		
Total harmonic distortion	<5%		
Phase Shift	<2%		
Conversion Efficiency	>86%	>85%	
Maximum Efficiency	>89%		
Protection function	AC over/low voltage protection; Input high/low voltage protection; High temperature protection; Island protection; Frequency protection etc.		
Working temperature	-20°C-45°C		
Waterproof level	Design for interior		
Cooling method	Controlled by smart fan		
Standby Power	2-3W		
Display mode	Grip of LED + LCD screen display		

# PURE SINE WAVE UPS INVERTER

**FUP~series**  
12V/24V



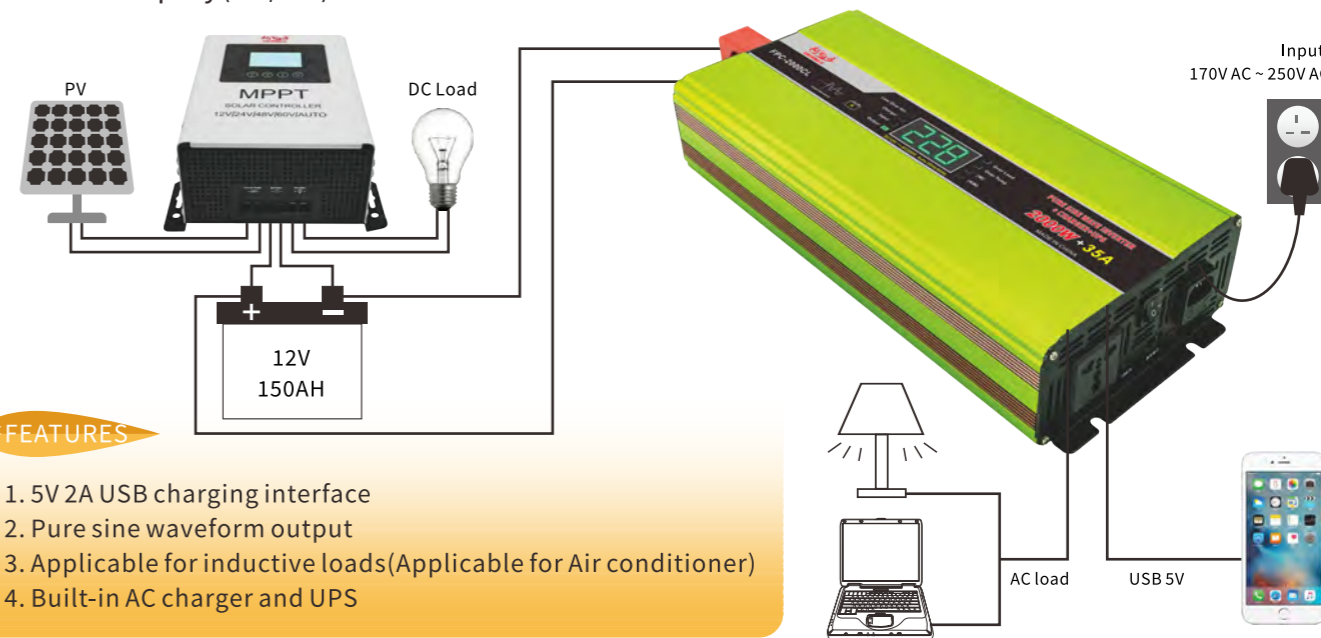
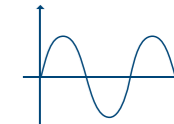
**FEATURES**

1. Automatic recharge
2. Generator compatible
3. Protection for overload
4. Interruptible buzzer alarm
5. Battery not included
6. LCD & status LED display
7. Smart battery management
8. High Reliability Microprocessor
9. Heavy duty copper transformer
10. AVR (automatic voltage regulator)
11. Auto restart while AC is recovering

SPECIFICATION	Model	500VA	800VA	1000VA	1500VA	2000VA	3000VA	
	Power	350W	500W	700W	1050W	1400W	2100W	
INPUT	Voltage range	AC150-265V						
	Frequency range	50Hz/60Hz						
OUTPUT	AC Voltage Regulation (Batt. Mode)	AC220V±25V						
	Frequency range (Batt. Mode)	50Hz/60Hz						
	Waveform	Pure Sine Wave						
BATTERY	Battery Type(external)	12V			24V			
	Rated battery voltage	12VDC(10-16V)			24VDC(20-32V)			
	Charge Modes	3 stage: bulk, boost, float						
	Charging current	DC15A		DC20A		DC25A		
GENERAL CHARACTERISTICS	Protection	Overload, Overheat, Output high/low voltage, Battery low voltage, Short-circuit, Over-charge, Over-discharge						
	Switch time	10ms						
	Operating Humidity	10-90%						
	Operating Temperature	0°C~+40°C						
	Class Protection	IP20						
ENV	Dimension DxWxH(mm)	146x237x170		146x338x170		/	/	
	Net Weight	3.9KG	4.5KG	6.4KG	7.5KG	/	/	

# PURE SINE WAVE UPS INVERTER

**FPC(CL/DL)~series**  
With LED display(CL/DL)



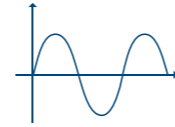
**FEATURES**

1. 5V 2A USB charging interface
2. Pure sine waveform output
3. Applicable for inductive loads(Applicable for Air conditioner)
4. Built-in AC charger and UPS

Model	FPC-500CL	FPC-1000CL	FPC-2000CL	FPC-3000DL
DC Input	Rated Battery Voltage	12VDC(10-15VDC)		
	Rated current	50A	100A	200A
	No-load current	≤800mA	≤1000mA	≤1500mA
	Efficiency	≥90%		≥88%
AC Output	Battery Type	Lead-acid Battery		
	Rated power	500W	1000W	2000W
	AC Voltage	220VAC		
	Frequency	50Hz		
Mains	Power failure switching time	10ms		
Charging	Current	6A	10A	35A
	Low Voltage Alarm	10.5-15V		21-30V
Input protection	Battery under-voltage shutdown	9.5-10V		19-20V
	Battery Low Voltage Recovery	11.5-12V		23-24V
	Battery Over voltage Protection	15-15.5V		30-31V
	Battery Over voltage Recovery	14.5-15V		29-30V
Output protection	Reverse connection protection	NO		
	Output Short	Turn off the output and resume after restart		
	Overload protection	When the output power is bigger than the rated value: FPC-1000CL over 1000W. FPC-2000CL over 2000W. FPC-3000CL over than 3000W. inverter will automatically turn off the output, and recover after 2S. It will try to recover 3 times and after all 3 failures, the output will be turned off.		
ENV	Overload temperature	Turn off the output when the internal temperature is higher than 85°C, and automatically resume the output when it is lower than 70°C		
	Working environment temperature	-40~70°C		
	Working humidity	20%~95%RH		
Other	Storage temperature/humidity	-40~85°C,10~90%RH		
	Packing/CTN	/		

# PURE SINE WAVE INVERTER

## FPC(AL)~series 12V With LED display(AL)



FEATURES

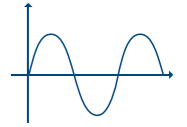
1. 5V 2A USB charging interface
2. Pure sine waveform output
3. Input and output are completely independent
4. Universal socket, suitable for all kinds of plugs
5. High-precision voltage stability technology
6. Aerospace-grade quiet technology
7. 100% pure sine wave output waveform: designed for sensitive loads(Total Harmonic Distortion(THD)<3%
8. Multiple safe protections,including overload/overvoltage/low voltage/high temperature and output short circuit protection



Model	FPC-300AL	FPC-500AL
Output voltage	AC 220V	
Output power	300W	500W
Peak power	600W	1000W
USB output		
Frequency		
No-load current	<0.8A	<1A
Working voltage	DC12V	DC12V
Voltage range	10.5-15V	10.5-15V
Alarm range	10.5V	10.5V
Low-voltage protection	10V	10V
Over-voltage protection	16V	16V
Efficiency maximum		
Anti-backup protection	yes	
Size/CTN(CM)	42x44x30	42x44x30
G.M/CTN(KG)	23.25	26.4
Packing(QTY/CTN)	20	

# PURE SINE WAVE INVERTER

## FPC(AL/BL)~series With LED display(AL/BL)



FEATURES

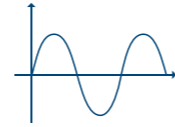
1. 5V 2A USB charging interface
2. Applicable for inductive loads(Applicable for Air conditioner)
3. Input and output are completely independent
4. Universal socket, suitable for all kinds of plugs
5. High-precision voltage stability technology
6. Aerospace-grade quiet technology
7. 100% pure sine wave output waveform: designed for sensitive loads(Total Harmonic Distortion(THD)<3%
8. Multiple safe protections, including overload/overvoltage/low voltage/high temperature and output short circuit protection

Model	1000AL	1000BL	1500AL	1500BL	2000AL	2000BL	3000AL	3000BL	
DC Input	Rated Battery Voltage	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC
	Rated current	100A	50A	150A	75A	200A	100A	300A	150A
	No-load current	<1000mA	<500mA	<1000mA	<500mA	<1300mA	<750mA	<1500mA	<750mA
	Efficiency	>90%				>88%			
AC Output	Battery Type	Lead-acid Battery							
	Rated power	1000W		1500W		2000W		3000W	
	AC Voltage	220VAC							
	Frequency	50Hz							
Input protection	Waveform	Pure Sine Wave							
	Low Voltage Alarm	10-15.5V	20-21V	10-15.5V	20-21V	10-15.5V	20-21V	10-15.5V	20-21V
	Battery under-voltage shutdown	9.5-10V	19-20V	9.5-10V	19-20V	9.5-10V	19-20V	9.5-10V	19-20V
	Battery Low Voltage Recovery	11.5-12V	23-24V	11.5-12V	23-24V	11.5-12V	23-24V	11.5-12V	23-24V
	Battery Over voltage Protection	15-15.5V	30-31V	15-15.5V	30-31V	15-15.5V	30-31V	15-15.5V	30-31V
	Battery Over voltage Recovery	14-14.5V	28-29V	14-14.5V	28-29V	14-14.5V	28-29V	14-14.5V	28-29V
	Revers connection Voltage	NO							
Output protection	Output Short protection	Turn off the output and resume after restart							
	Overload protection	Turn off the output and resume after restart							
	Overtemperature protection	Turn off the output when the internal temperature is higher than 85°C, and automatically resume the output when it is lower than 70°C							
ENV	Working environment temperature	-40~70°C							
	Working humidity	20%~95%RH							
	Storage temperature/humidity	-40~85°C,10~90%RH							
Other	Packing/CTN	470x440x360mm		/					



FPC~series

12V/24V



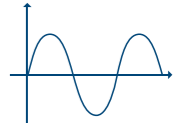
FEATURES

1. 5V 1A USB charging interface.
2. Pure sine waveform output
3. Applicable for inductive loads (Applicable for Air conditioner).
4. Multiple safe protections
5. Input and output are completely independent.
6. Universal socket, suitable for all kinds of plugs.
7. High-precision voltage stability technology.
8. Aerospace-grade silence technology.
9. 100% pure sine wave output waveform: designed for sensitive loads(Total Harmonic Distortion(THD) <3%).

Model	FPC-1000A	FPC-1000B	FPC-2000A	FPC-2000B	FPC-3000A	FPC-3000B
Output voltage	AC220V					
Output power	1000W	1000W	2000W	2000W	3000W	3000W
Peak power	2000W	2000W	4000W	4000W	6000W	6000W
USB output	5V1000MA					
Frequency	50hz					
No-load current	<0.9A	<0.4A	<0.9A	<0.7A	<0.9A	<0.8A
Working voltage	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V
Voltage range	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V
Alarm range	10.5V	21V	10.5V	21V	10.5V	21V
Low-voltage protection	10V	20.5V	10V	20.5V	10V	20.5V
Over-voltage protection	16V	31V	16V	31V	16V	31V
Efficiency maximum	94%					
Anti-backup protection	Nothing					
Size/CTN(CM)	44.5x39.5x32.5		47.5x42.5x31.5		53x47.5x31.5	
G.M/CTN(KG)	14.5		20.13		28.28	
Packing(QTY/CTN)	4					

AC~series

90-310V



FEATURES

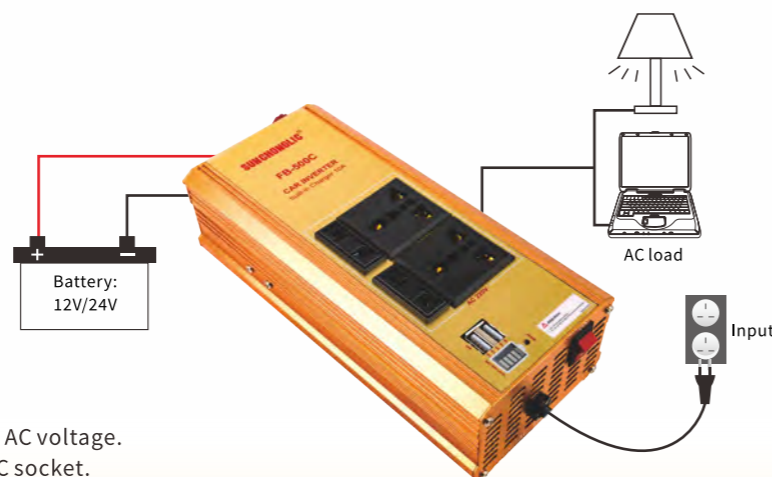
- Single-phase voltage stabilizer protects against surges, drawdowns and voltage fluctuations in the mains:
1. Heating boiler electronics;
  2. Pumping equipment;
  3. Televisions, audio and video equipment;
  4. Computers and peripheral equipment;
  5. Lighting equipment;
  6. Other household and office equipment with low power consumption.

Model	AC-600VA	AC-800VA	AC-1000VA	AC-2000VA	AC-3000VA
AC input voltage range	90-310±5V				
Input low voltage recovery	110±5V				
Input Overvoltage Recovery	290±5V				
The output voltage	230±4V				
Input Voltage Frequency Range	43-47±1Hz				
smart fan	NO			YES	
Output Power	V≥190V Input voltage V≥190V	620W	720W	1000W	2000W
	V≤185V Input voltage V≤185V	W=V*2.88	W=V*3.65	1000W	W=V*9.76
Rated output current	2.7A	3.1A	5A	8.8A	12.2A
Rated input current	3.1A	3.9A	9.2A	10.5A	14A
LED Display	LED lights		LCD screen+ LED light		

# SOCKET INVERTER

## FB~series

Built-in AC charger 5A



### FEATURES

1. This inverter is device that transfer DC voltage to AC voltage.
2. With 4 Outlets, dual universal sockets and dual AC socket.
3. Built in dual 5V 2.1A USB charging interface.
4. Modified sine waveform output.
5. Two in one inverter, solar inverter+5A charger.
6. Apply for digital products, office appliances, small household appliances, portable electric power tools, etc.
7. Input and output are completely independent
8. Universal socket, suitable for all kinds of plugs
9. Multiple safe protections are designed, including overload/overvoltage/low voltage/high temperature, output short circuit protection and battery reverse protection.

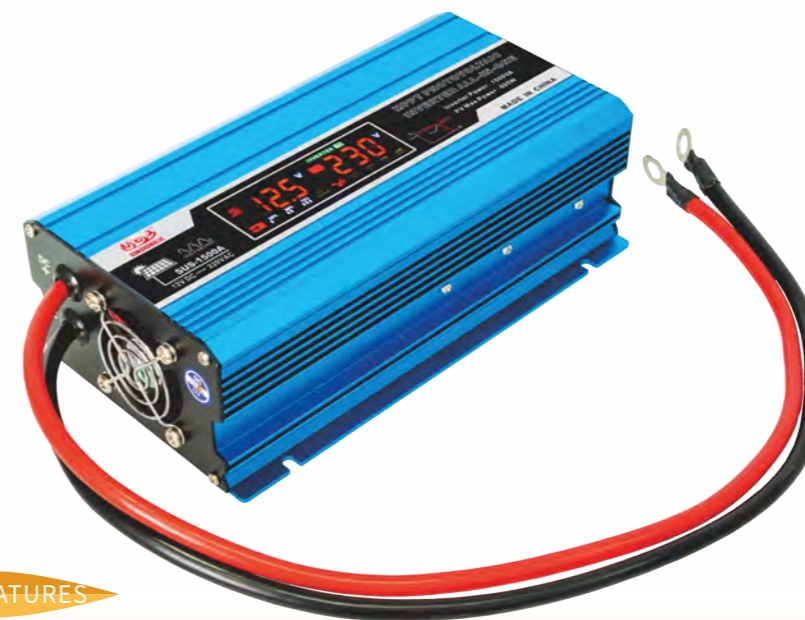
Model	FB-500C
Output Voltage	220V
Peak Power	500VA
Frequency	50HZ
Dual USB output	DC 5V/2.1A
Input Voltage	AC220V~230V
Charger current	5A
Waveform	Modified Sine Wave
Socket	Dual universal socket & Dual AC socket

# SOLAR CHARGE INVERTER

## SUS~series

Built-in PWM/MPPT solar controller

MPPT



### FEATURES

1. Built-in PWM/MPPT solar controller
2. Modified sine waveform output 12V 1000VA/1500VA
3. Big LED display screen

Model	SUS-1000A	Model	SUS-1500A
Solar controller	12V/10A PWM	The built-in controller	600W MPPT
Solar panel	100~200W/50V	Featured solar panel specifications	100~150W/50V
External battery	12V	External battery	12V 100Ah~200Ah
USB output	5V 1A	Solar input range	18V~50V
Output USB interface	5.0+/-0.3V	Solar power output	600W max
Output voltage	AC 220V+/-5%	Solar charging voltage	14.3V
Rated output power	600W	Output voltage of the inverter	AC 220V±5%
Peak power	1000W	Maximum continuous power	800W
No load current	<0.5A	Peak power	<0.8A
DC input voltage	DC9.7V~15.5V	DC input voltage	DC9.7V~15.5V
Output frequency	50Hz±3Hz	Output frequency	50Hz±3Hz
Conversion efficiency	70%~80%	Conversion efficiency	>88%
High voltage cut-off protection	15V±0.5V	High pressure cut off	15V±0.5V
Low voltage alarm	11.2V±0.3V	Low voltage alarm	10.2V±0.3V
Low voltage cut-off protection	10V±0.3V	Low cut	10V±0.3V
Overload/short circuit protection	Yes	Overload/short circuit protection	Yes
Output waveform	Modified sine waveform	Output waveform	Modified sine waveform
Cooling mode	Cooling fan	Cooling mode	Cooling fan
Operating temperature	-20°C~+70°C	Working environment temperature	-20°C~40°C @ 100% load/ 60 @ 60% load
Relative humidity	<90%RH	Relative humidity	<90%RH
		Overall dimensions	230x127x67mm
		The weight of the inverter	1.5kg

# 110V INVERTER

## FTB~series

110V DC12V-AC 110V/60HZ



### FEATURES

1. Aerospace-grade silence technology, smart fan with energy saving
2. Energy saving control microcomputer.
3. Smart power starting
4. Power display, battery electric power display
5. Low battery protection, Electricity can cause under the condition of low alarm and automatically shut down, LED display. Must shut off the power switch and open the power switch again to restart inverter power supply
6. Overload and short circuit protection, if the output load overload or short circuit, it would automatically shut off, LED display; Must shut off the power switch and open the power switch again to restart inverter power supply.
7. Shell temperature protection, in the event of overheating temperature, it will start shut down safely.
8. Inverter have advanced anti-jamming technology, fully functional protection circuit and soft start circuit, convenient mode of operation.
9. Soft-start circuit has the function of gradually raise the output voltage when startup to eliminate cold start failure. And also has the function of instantaneous output voltage drop and fast recovery to reduce the load boot instantly overloaded

Model		FTB-800A	FTB-1000A
OUTPUT	Output Voltage	AC110V	
	Output Power	800W	1000W
	Frequency	60HZ	
	USB	DC 5V/1A	
INPUT	No-load current	<0.3A	<1A
	Working voltage	DC12V	
	Voltage Range	10.5-15V	
	Alarm Voltage	10V-10.5V	10.5V-15V
	Low-voltage protection	9V-10V	
	Over voltage protection	15V-16V	
	Efficiency	>85%	
SIZE/CTN(cm)		50x31x35	/
G.W/CTN(KG)		19.9KG	/
Packing/CTN		20PCS	/

# 110V INVERTER

## FTB~series

110V DC24V-AC 110V/60HZ



### FEATURES

1. It is very portable and easy to use, no matter it connect to a car or other 12V/24V battery.
2. It could provide home appliance with reliable AC power such as TV, DVD players and electric tools, etc.
3. Modified sine waveform output.
4. Built in 5V 2A USB charging interface
5. Conversion efficiency is up to 90%.
6. Low leakage current, less than 90μA.
7. Intelligent speed regulation fan.
8. Multiple protections: short circuit protection/overheat protection/overload protection/input overvoltage protection/input under voltage protection.
9. Applications: Vehicles, yachts, home appliances, office and portable equipment, etc.

Model		FTB-2000B
INPUT	Rated battery voltage	24V
	Rated current	80A
	No load current	≤700mA
	Efficiency	≥90%
	Battery type	Lead-acid battery
AC OUTPUT	Rated Power	1800W
	AC voltage	110 VAC
	Frequency	60Hz
INPUT PROTECTION	Waveform	Modified sine wave
	Battery under voltage shutdown	20V±0.5V
	Battery under voltage recovery	22V±0.5V
	Battery over voltage protection	31.5V±0.5V
OUTPUT PROTECTION	Battery over voltage recovery	30V±0.5V
	Output short circuit	Protection: turn off output and resume after restart
	Over load	Protection: output power>1800W, turn off output and resume after restart
ENV	Over heat	Internal temperature >90°C,turn off output Internal temperature <80°C,automatically resume output
	Working temperature	-40~+70°C
	Working humidity	20%~95%RH
OTHERS	Storage temperature/humidity	-40~+85°C, 10%~95%RH
	Dimension	256x155x85mm

## FU~series

12V Built-in 10A/15A/20A AC charger



### FEATURES

1. Built-in UPS power switch
2. 5V 1A USB charging interface
3. Inverter and charger can work independent noninterference
4. Modified sine waveform output
5. Built-in 10A/15A/20A battery charger



MODEL		FU-1000C	FU-2000C	FU-3000C
EXTERNAL BATTERY		12V 50Ah~200AH		
AC INPUT	Voltage	AC 110~230V		
	Frequency	50Hz±10%		
DC INPUT	Voltage	DC12V		
	Low voltage protection	DC10V		
	Over voltage protection	DC16V		
AC OUTPUT	Voltage	AC 230V		
	Output power	1000VA	2000VA	3000VA
	Frequency	50±0.5Hz		
	Waveform	Modified sine wave		
CHARGING	Efficiency	≥85%		
	Charging current	10A	15A	20A
PROTECTION		Input reverse polarity/Undervoltage/Overload/Input over-voltage/Short circuit/Over-temperature protection		
UPS SWITCH TIME		10ms		
ENVIRONMENT	Noise	≤45db		
	Temperature	0°C±40°C		
	Humidity	10%±90%		
DIMENSIONS		335x440x350mm/ctn		
WEIGHT		14kg/ctn		

## SDB~series

12V



Range of application



### FEATURES

1. 5V 1A USB charging interface
2. Battery/output voltage, battery capacity, AC loads real-time LCD display.
3. New connecting terminal screws
4. Modified sine waveform output
5. OEM & ODM are acceptable

Model	SDB-500A	SDB-1000A	SDB-2000A
Output Voltage	AC230V		
Output Power	300W	600W	1000W
Peak Power	500W	1000W	2000W
Output Frequency	50HZ		
USB Interface	DC 5V/1A		
No-load current	<0.5A		
Working voltage	DC 12V		
Voltage Range	10.5-15V		
Alarm Voltage	10.5V		
Low-voltage	10V		
Over voltage	16V		
Efficiency	>85%		
SIZE/CTN(cm)	46X31X35	50X31X35	/
G.W/CTN(KG)	16.68KG	20.27KG	/
Packing/CTN	20PCS		
Output Waveform	modified sine wave		

## FA(A/AF/BF)~series

12V/24V



### FEATURES

1. Battery reverse protection(AF/BF)
2. 5V 1A USB charging interface
3. Inverter and charger can work independent noninterference
4. Modified sine waveform output



• Type:  
 FA(A): 12V  
 FA(AF): 12V Battery Reverse Protection  
 FA(BF): 24V Battery Reverse Protection

Model	FA-350		FA-500		FA-1000		FA-1500			FA-2000		FA-3000			
Type	A	AF	A	AF	A	AF (110V)	A	AF	BF	A	AF	BF	A	BF	
Output Voltage	220V				110V		220V								
Rated Power	220W	350W	600W		650W	700W	750W	800W	750W	900W	850W				
Peak Power	350W	500W	1000W		1500W			2000W		3000W					
Frequency	50HZ														
USB	DC 5V/1A														
No-load current	<0.5A														
Voltage Range	10.5-15V														
Alarm Voltage	10.5-15V														
Low-voltage protection	10.5V														
Over voltage protection	15V														
Efficiency	70%~80%														
SIZE/CTN(cm)	39x30x34		46x30x33		/	46x30x33		54x30x33		44x25.8x32					
G.W/CTN(KG)	14.26KG		16.94/19.08		/	16.94/17.50		23.32KG		18.6KG					
Packing/CTN	20PCS				12PCS										

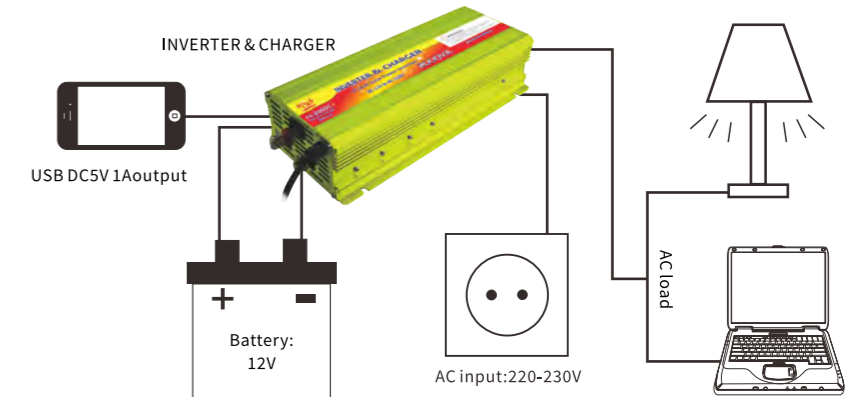
## FA(C)~series

12V Built-in 10A/20A AC charger



### FEATURES

1. Battery reverse protection(AF)
2. 5V 1A USB charging interface
3. Inverter and charger can work independent noninterference
4. Modified sine waveform output
5. Built-in 10A/20A battery charger



Model	FA-1000C	FA-2000C
Output Voltage	220V	
Rated Power	650W	850W
Peak Power	1000W	2000W
Frequency	50HZ	
USB	DCx5V/1A	
No-load current	<0.5A	
Voltage Range	10.5-15V	
Alarm Voltage	10.5V	
Low-voltage protection	10V	
Over voltage protection	16V	
Efficiency	≥85%	
SIZE/CTN(cm)	59x32x33	40x34x32
G.W/CTN(KG)	23.5KG	18.9KG
Packing/CTN	20PCS	10PCS

# MODIFIED SINE WAVE INVERTER

## FFA~series

12V Built-in battery reverse protection



### FEATURES

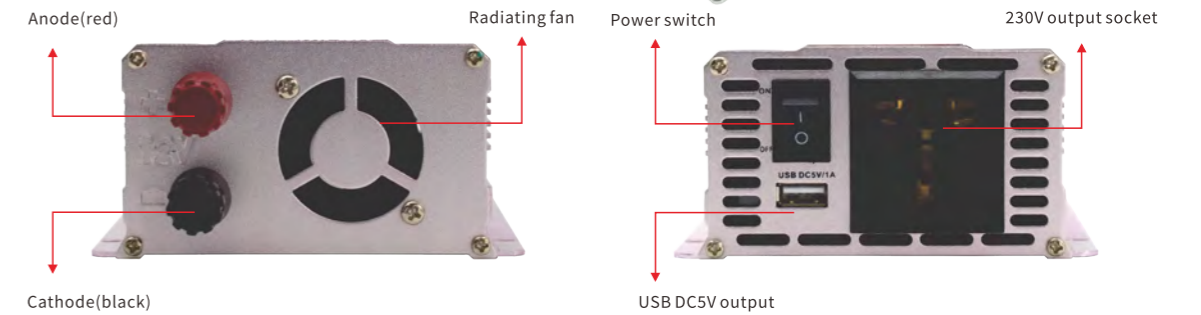
1. Built-in external circuit fuse
2. Battery reverse protection
3. 5V 1A USB charging interface
4. Modified sine waveform output

Model	FFA-350A	FFA-500A	FFA-500A(110V)	FFA-500B	FFA-1000A	FFA-1000B
Output Voltage	220VAC		110VAC	220VAC		
Output Waveform	Modified sine waveform					
Rated Power	220W	350W		650W		
Peak Power	350W	500W		1000W		
Working Voltage	DC12V		DC24V	DC12V	DC24V	
Frequency	50HZ					
USB charging	DC 5V/1A					
Protection	Battery reverse protection					
Fuse	Built in external circuit fuse					
No-load current	<0.5A					
Voltage Range	10.5V-15V		21V-30V	10.5V-15V	21V-30V	
Alarm Voltage	10.5V-15V		21V-30V	10.5V-15V	21V-30V	
Low-voltage protection	10.5V		21V	10.5V	21V	
Over voltage protection	15V		30V	15V	30V	
Efficiency	70%~80%					
SIZE/CTN(cm)	39x30x33	/		39x30x34	46x31x34	46x30x34
G.W/CTN(KG)	13.55KG	/		14.26KG	17.90KG	16.94KG
Packing/CTN	20PCS					

# MODIFIED SINE WAVE INVERTER

## FTA~series

12V/24V



### FEATURES

1. DC 12V/24V to AC 220V 500W to 4000W
2. LED screen display
3. Applicable for refrigerator
4. Built-in 5V 1A USB charging interface
5. Advanced modified 'sine waveform output, can run some inductive loads smoothly
6. Accessories: Cigarette lighter or connecting lips is optional

Model	FTA-500A	FTA-1000A	FTA-1500A	FTA-2000A	FTA-3000A	
OUTPUT	Output Voltage	AC230V				
	Output Power	400W	650W	1000W	1500W	2000W
	Peak Power	500W	1000W	1500W	2000W	3000W
	Frequency	50HZ				
	USB	DC 5V/1A				
INPUT	No-load current	<0.3A	<0.5A		<1A	
	Working voltage	DC12V				
	Voltage Range	10.5-15V				
	Alarm Voltage	10.5V				
	Low-voltage protection	10V				
	Over voltage protection	16V				
	Efficiency	>85%				
SIZE/CTN(cm)	42x31x35	50x31x35	47.5x30x38	44.5x39x31.5	44x45x32	
G.W/CTN(KG)	16.6KG	21.8KG	20.35KG	13.02KG	15.58KG	
Packing/CTN	20PCS		12PCS	4PCS		

## SAA-D~series

12V Built-in battery reverse protection



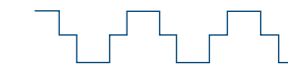
### FEATURES

1. Battery anti-reverse protection
2. Overload protection, High/low input voltage protection
3. USB charging interface
4. Input voltage display

Model	SAA-D600AF	SAA-D1200AF
Input Voltage Range	10-15VDC	
Output Voltage	220V	
Output Frequency	50hz+/-2hz	
Output waveform	modified sine wave	
Rated Power	400W	650W
Peak Power	600W	1200W
Fuse	10A	15A
Efficiency	>90%	
Low battery alarm(nominal)	10.4-11V	
Low battery shutdown point(nominal)	9.7-10.3V	
High battery shutdown point(nominal)	14.5-15.5V	
Battery drain with no AC load(12V input)	<0.3A	
Battery drain with no AC load(24V input)	<0.2A	
Peak efficiency	>90%	
USB charging	DC 5V/1A	
Pieces/CTN	20PCS	
Weight/CTN	39X30X33	46X30X33
Dimensions/CTN	13.96KG	17.98KG

## SAA-D~series

12V Built-in LED display screen



### FEATURES

1. Built-in LED display screen
2. Overload protection, High/low input voltage protection
3. USB charging interface
4. Input voltage display

Model	SAA-D3000A	SAA-D4000A
Input Voltage Range	10-15VDC	
Output Voltage	220V	
Output Frequency	50hz+/-2hz	
Output waveform	modified sine wave	
Rated Power	1200W	1500W
Peak Power	3000VA	4000VA
Fuse	30A	40A
Efficiency	>90%	
Low battery alarm(nominal)	10.4-11V	
Low battery shutdown point(nominal)	9.7-10.3V	
High battery shutdown point(nominal)	14.5-15.5V	
Battery drain with no AC load(12V input)	<0.3A	
Battery drain with no AC load(24V input)	<0.2A	
Peak efficiency	>90%	
USB charging	DC 5V/1A	
Pieces/CTN	20PCS	
Weight/CTN	/	/
Dimensions/CTN	/	/

## FS~series

12V



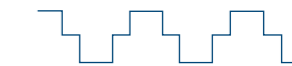
### FEATURES

1. Modified sine waveform output.
2. used for small appliances and devices, such as Lights, Fans, TVs, and other small electronic devices, etc.

Model	FS-100A	FS-150A	FS-200A	FS-300A
Output Voltage	220VAC			
Output Waveform	Modified sine waveform			
Rated Power	100VA	150VA	200VA	300VA
Working voltage	DC12V			
Frequency	50Hz			
Application	Home appliance, Car, etc.			

## FS~series

12V



### FEATURES

1. Built-in universal output socket
2. Modified sine waveform output
3. OEM & ODM is acceptable

Model	FS-350A	FS-500A	FS-1000A	FS-1500A	FS-2000A	FS-3000A
Output Voltage	220V					
Rated Power	220W	350W	600W	650W	800W	1000W
Peak Power	350W	500W	1000W	1500W	2000VA	3000VA
Frequency	50HZ					
No-load current	<0.5A					
Voltage Range	10.5-15V					
Alarm Voltage	10.5-15V					
Low-voltage protection	10.5V					
Over voltage protection	15V					
Efficiency	70%~80%					
SIZE/CTN(cm)	39x30x34	39x30x34	46x30x33	54x30x33	/	
G.W/CTN(KG)	14.26KG	14.26KG	16.94KG	15.02KG	/	
Packing/CTN	20PCS					12PCS



## FS(C)~series

12V Built-in 10A/15A AC charger



### FEATURES

- 1.5V 1A USB charging interface
- Built-in universal output socket
- Modified sine waveform output

Model	FS-1000C	FS-2000C	Model	FS-3000C
Output Voltage	220V	220V	Output Voltage	220V
Rated Power	600W	700W	Peak Power	3000VA
Peak Power	1000W	2000W	Frequency	50HZ
Frequency	50HZ	50HZ	USB output voltage	DC 5V
USB	DC 5V/1A	DC 5V/1A	USB output current	1A
No-load current	<0.5A	<0.5A	Input Voltage	AC150-250V
Voltage Range	10.5-15V	10.5-15V	Charger Voltage	DC14.5V
Alarm Voltage	10.5V	10.5V	Charger current	15A
Low-voltage protection	10V	10V	12V battery	100-200Ah
Over voltage protection	16V	16V	SIZE/CTN(mm)	300x125x50
Efficiency	≥85%	≥85%	Weight	1150g
SIZE/CTN(cm)	/	65x35x38	Packing/CTN	12PCS
G.W/CTN(KG)	/	23KG		
Packing/CTN	/	20PCS		

## FML~series

LiFe PO4 14.6V



### FEATURES

1. Built-in Lithium battery BMS activation function
2. Max charging current 30A
3. Charge current can be regulated
4. Designed for LiFePO4(4S)



Model	FML-1230A
Product Name	14.6V 4s Lithium Iron Phosphate Charger
Input voltage range	170V-250V AC
Maximum charging current	30A
Input frequency	50/60Hz
Current adjustment gear	Press button to switch from 10/20A/30A
Standby power consumption	<7W
Activation voltage	Built-in auto lithium battery activation function
No-load voltage	14.6V DC
Display method	Digital tube: charging voltage/current
Constant voltage charging voltage	14.6V DC
Battery reverse protection	Yes
Ageing (Constant voltage)	30A/15 minutes
Output short circuit protected	Yes
Cooling fan	Controlled by loads

## FLA~series

12V/24V Lead acid battery OR 4S/8S LiFe Po4 battery



### FEATURES

1. Built-in Lithium battery activation function
2. Applicable for lead acid battery and LiFePO4 battery
3. Designed for 12V/24V lead acid battery or 4S/8S LiFePO4 battery
4. Adopt smart pulse charging mode

Model	FLA-20A
Input Voltage	AC 150V-250V 50/60Hz
Charging Voltage	12V/24V
Constant Current Charging Current	20A±10%
Constant Voltage Charging Voltage	14.4/28.8V ±0.4V
Size(mm)	185X105X50
Weight(Kg)	0.515

## FON~series

PWM

12V



### FEATURES

1. Smart Charging
2. Short Circuit Protection
3. Battery Reverse Protection
4. Pulse Charging Repair Mode
5. Three Phase Charging Mode

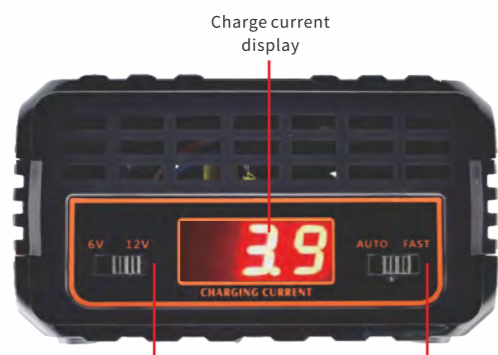
AC input:150V-250V

Model	FON-1206Q
Maximum Charging Current	6A
Applicable Battery Voltage(DC)	12V
Rated Input Voltage(AC)	150V-250V
Rated Frequency	47~63HZ
Full load Efficiency	≥87%
Mechanical Shock And Quake-proof Degree	SAEJ1378
Temperature Range	-20°C~+90°C
SIZE/CTN(cm)	62.5x44.5x36.5
G.W/CTN(KG)	19.68KG
Packing/CTN	50PCS

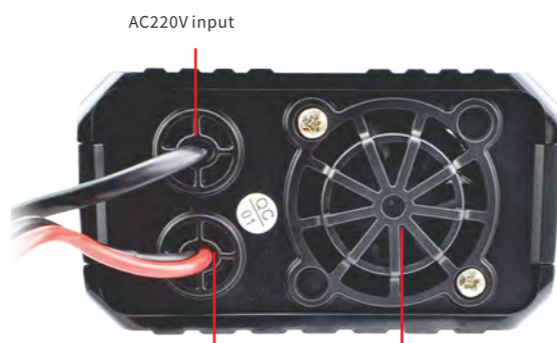
## FON~series

6V/12V/24V

PWM



FON-10A+: 6V/12V switch  
FON-20A+: 12V/24V switch



Connect the battery Cooling fan



### FEATURES

1. applicable to { FON-10A+: 6V and 12V lead-acid batteries  
FON-20A+: 12V and 24V
2. Standard three-stage charging mode
3. With standard gear and fast charge
4. The temperature control cooling fan mute saving
5. Termination a battery reverse protection
6. The charging current digital display

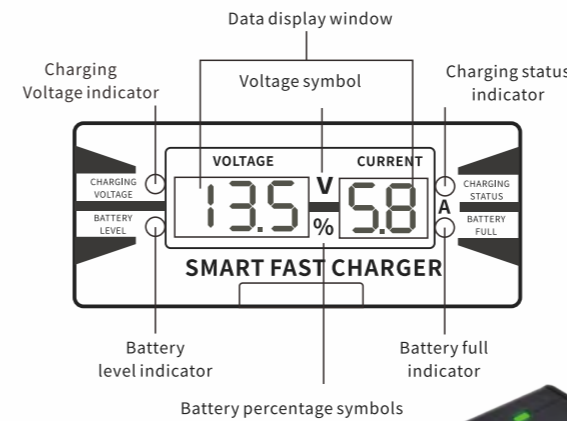
Model	FON-10A+	FON-20A+
Input Voltage	AC150V-250V50/60Hz	
Charging Voltage	6V/12V	12V/24V
Constant Current Charging Current	-10A±10%	
Constant Current Charging Current	6.8/13.7V±0.3V	13.7/27.4V±0.4V
Constant Voltage Charging Voltage	7.2/14.4V±0.4V	14.4/28.8V±0.4V
Size/CTN(CM)	39*30*35	52*30*42
G.W/CTN(KG)	10.4	18
Packing(QTY/CTN)	20PCS	

## FON~series

12V

PWM

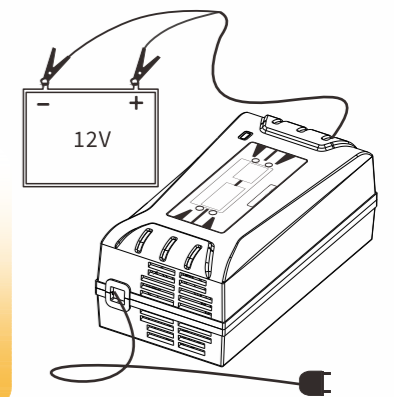
Display 4 sets of data according to the working status of the charger(see below)



<<FON-1206D/FON-1210D+



<<FON-1203B/FON-1205B



AC Input

### FEATURES

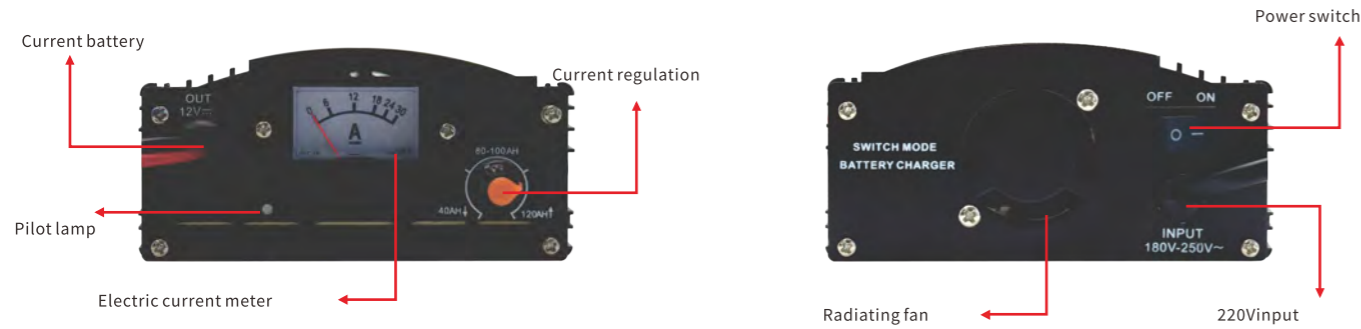
1. Max charging current:5-6A
2. Rated input voltage: 150-240V
3. Adopt PWM charging mode, auto stop charging when the battery gets fully charged
4. Charging voltage/Battery capacity/Charging current LCD real-time display
5. Auto battery detection
6. Applicable for gel battery, lead-acid battery and maintenance-free battery
7. Prevent battery from losing liquid(Low battery dehydration rate)

Model	FON-1203B	FON-1205BS	FON-1205B	FON-1206D	FON-1210D+
Input Voltage	180V/230V			110V/250V	150V/250V
Apply to the battery voltage(DC)	12V				
Maximum charge voltage	14.7V				
Maximum Charger Current	3A	5A	6A	10A	
Display method	Indicator light			LED digital tube	
AC Input Frequency	47-63HZ				
Charging mode	Three-phase				
Full load efficiency	>90%				
Dimensions	57x42x38			62.5x44.5x36.5	
G.W/CTN(KG)	17.1KG			20.7KG	29.2KG
Packing/CTN	60PCS			50PCS	

## FMA~series

PWM

12V/24V



### FEATURES

1. Ammeter dial indicator
2. Charging current can be regulated (MA-1220/1230)
3. Adopt PWM charging technology
4. Constant charging voltage: 14.5V-14.8V DC
5. Designed for lead acid battery only
6. Three/Four phase charging mode
6. OEM & ODM are acceptable
7. Reverse battery +/- protection

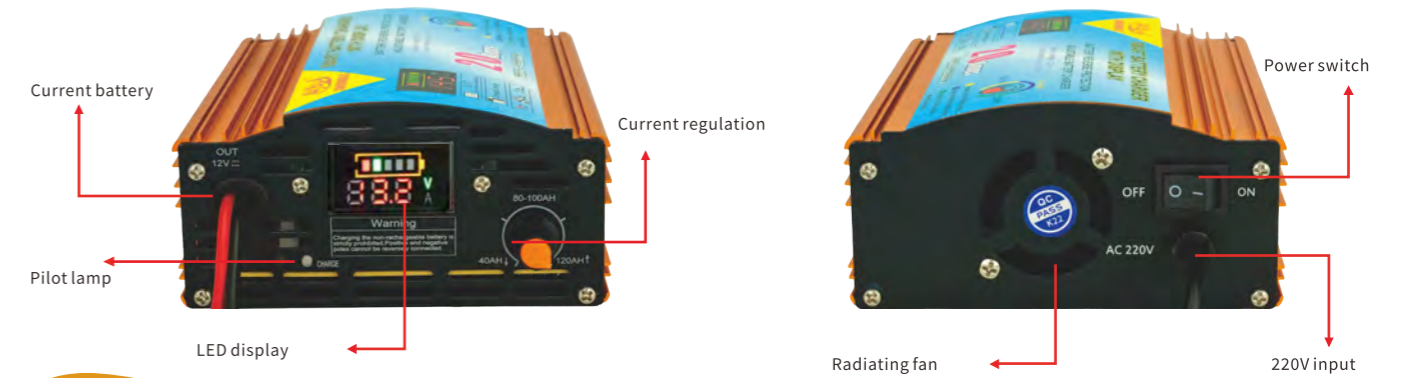


Model	FMA-1210AS	FMA-1220AS	FMA-1230A	FMA-1240A	FMA-1250A	FMA-2420A	FMA-2430A
Input Voltage	AC150V-250V			AC220V 10% 50HZ			
Rated Power	12V			24V			
Constant charge current	10A±5%	30A±5%	40A±5%	50A±5%	20A±5%	30A±5%	
Constant charge voltage	14.5-14.8V			29-29.6V			
Floating voltage	13.8V			14.7V		27.5V	
Charge mode	Three-step			Four-step		Three-step	
SIZE/CTN(cm)	46x30x33	50.5x34.5x44	47.5x33.5x38				
G.W/CTN(KG)	10.1KG	19.48KG	19KG		16.3KG		
Packing/CTN	20PCS	16PCS	12PCS				

## FMA~series

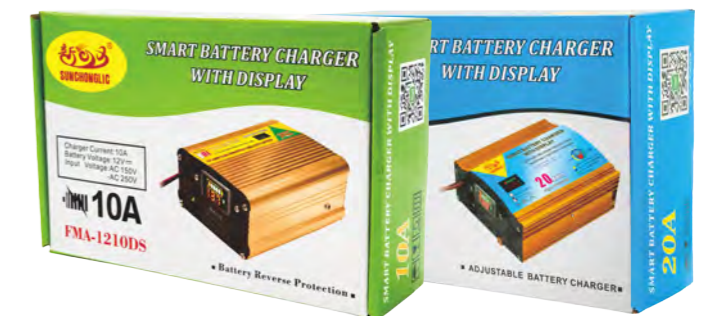
PWM

With LED display



### FEATURES

1. LED display
2. Charging current can be regulated (FMA-1220/1230)
3. Adopt PWM charging technology
4. Constant charging voltage: 14.5V-14.8V DC
5. Designed for lead acid battery only
6. Three/Four phase charging mode
6. OEM & ODM are acceptable
7. Reverse battery +/- protection



Model	FMA-1210DS	FMA-1220DS	FMA-1230DS
Input Voltage	AC150V-250V		
Rated Voltage	12V		
Rated Frequency	47-63Hz		
Battery type	Lead-Acid Battery/AGM/GEL/SLA Battery		
Display Screen Specs	LED Display (battery capacity, charging current, charging voltage)		
Constant charge current	10A±5%	20A±5%	30A±5%
Constant charge voltage	14.5-14.8V		
Floating voltage	13.8V		
Charge mode	Three-step		Four-step
Full load efficiency	≥87%		

SCL~series

PWM

6V/12V



FEATURES

1. Five-star omni-directional protect the batteries.
2. Full of power auto off,protect the battery.
3. Three-phase smart charging,fast charging.
4. Reverse protection,short circuit protection.
5. Automatic repair battery.
6. Automatic identification of 6V/12V battery.
7. Activate old batteries,the battery is not used for a long time.
8. Auto identify battery, no battery auto close output.
9. Hanging design,easy to install.



Model	SCL-D2A
Maximum Charging Current	6V/1.5A 12V/2A
Applicable Battery Voltage(DC)	6V,12V
Rated Input Voltage(AC)	100-240V
Rated Frequency	47~63HZ
Power factor	≥0.85
Full load Efficiency	≥87%
Temperature Range	-40°C~+95°C
Mechanical Shock And Quake-proof Degree	Agree with the SAEJ1378 requirements
SIZE/CTN(cm)	62.5x44.5x36.5
G.W/CTN(KG)	19.68KG
Packing/CTN	50PCS

DC~series

With LCD display



FEATURES

1. Car Engine start function
2. LCD screen display(Charging time, Temperature, Charging current/voltage,Battery capacity)
3. Adjustable charging current 4A/8A/12A/20A/30A
4. Battery reverse protection
5. Three phase charging mode
6. OEM & ODM are acceptable

Model	DC-1210A	DC-1220A	DC-1230A	DC-1240A
Input Voltage	180V/240V			
Apply to the battery voltage(DC)	12V			
Maximum charge voltage	14.7V			
Maximum Charger Current	10A	20A	30A	40A
Display method	Digital			
AC Input Frequency	47-63HZ			
Charging mode	Three-phase		Four-phase	Three-phase
Full load efficiency	>90%			
Dimensions	48x31x39.5	52x31x39.5	56x31x39.5	65x31x39.5
G.W/CTN(KG)	18.65KG	24.5KG	25.8KG	31.6KG
Packing/CTN	20PCS			
Certification	ISO,CTA,CE			

## A03~series 12V/24V



### FEATURES

1. Input voltage: 170V-250V
2. Adjustable charging current: 3-30A
3. Auto identification of 12V/24V battery
4. Three phase charging mode
5. Battery repaired technology

Model	A03-1224
Charging Current	3-30A
Applicable Battery Voltage(DC)	12V/24V adaptive
Rated Input Voltage(AC)	170V-250V
Rated Frequency	50HZ
Full load Efficiency	≥87%
Mechanical Shock And Quake-proof Degree	Agree with the SAEJ1378 requirements
Temperature Range	-20°C~+90°C

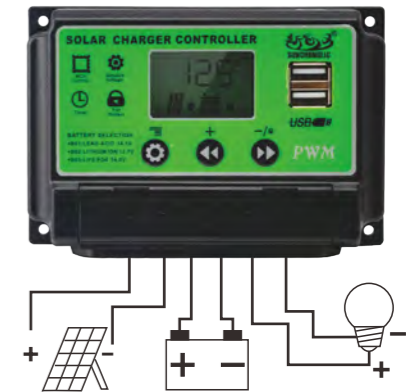
## FT-S~series 12V/24V

PWM



### FEATURES

1. Applicable for 3 types of batteries:  
B01 Lead acid battery  
B02 Lithium ion battery  
B03 Lithium iron phosphate battery  
The power-off memory function can automatically memory retention of users' last settings
2. Large-screen LCD display, Charging and discharging parameters can be fully customized
3. Adopt complete three phase PWM charge management (Constant current mode, Constant voltage mode, Floating charge mode)
4. Overcurrent protection, Short circuit protection, Open circuit protection and battery reverse protection.
5. Double MOS tube anti-reverse circuit protect, which prevents battery current from flowing back to the solar cell at night to cause power loss.



Model	FT-S1210	FT-S1220	FT-S1230
System Voltage	12V/24V		
Maximum input voltage	<50V		
Rated current	10A	20A	30A
External 12V battery recommended Solar panel specifications	100-150W/18V	200-300W/18V	300-450W/18V
External 24V battery recommended Solar panel specifications	100-150W/36V	200-300W/36V	300-450W/36V
External battery	12V 100-150AH		
	24V 100-150AH		
Battery type	B01=Lead Acid Battery 12V		
	B02=Lithium-ion battery 3 series 3.7v=11.1V		
	B03=Lithium-ion phosphate battery 4 series 3.2V=12.8V		
Charging voltage	*14.3V(B01)	*12.6V(B02)	*14.6V(B03)
Low voltage cut-off voltage	*10.7V(B01)	*9V(B02)	*10V(B03)
Low power recovery voltage	*12.6V(B01)	*10.5V(B02)	*12V(B03)
USB output	5V/2A		
Standby current	<10mA		
Working temperature	-35~+60°C		
Size/CTN(CM)	47*30*54.5		
G.W/CTN(KG)	28.5		
Packing(QTY/CTN)	100PCS		

## FT-D~series

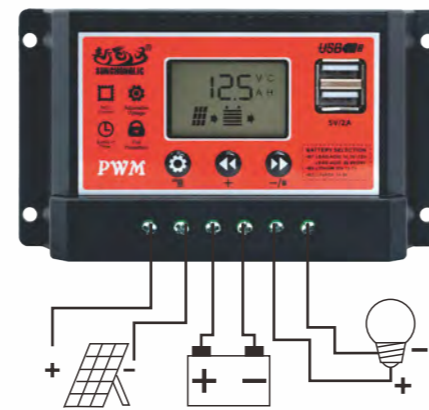
12V/24V

PWM



### FEATURES

- Applicable for 3 types of batteries:  
B01 Lead acid battery  
B02 Lithium ion battery  
B03 Lithium iron phosphate battery  
The power-off memory function can automatically memory retention of users' last settings
- Large-screen LCD display, Charging and discharging parameters can be fully customized
- Adopt complete three phase PWM charge management (Constant current mode, Constant voltage mode, Floating charge mode)
- Overcurrent protection, Short circuit protection, Open circuit protection and battery reverse protection.
- Double MOS tube anti-reverse circuit protect, which prevents battery current from flowing back to the solar cell at night to cause power loss.



Model	FT-D1210	FT-D1220	FT-D1230
<b>System Voltage</b>	12V/24V system is only designed for lead-acid batteries with auto sense function		
<b>Solar PV input maximum voltage</b>	12V System<25V; 24V system<50V		
<b>Rated current</b>	10A	20A	30A
<b>External 12V battery recommended Solar panel specifications</b>	100-150W/18V	150-250W/18V	200-350W/18V
<b>External 24V battery recommended Solar panel specifications</b>	150-200W/36V	300-400W/36V	400-500W/36V
<b>Battery capacity recommended</b>	12V/24-80Ah	12V/60-150Ah	12V/100-200Ah
	24V/24-80Ah	24V/60-150Ah	24V/100-200Ah
<b>Battery type</b>	B01=Lead Acid Battery 12V/24V auto sense		
	B02=Lithium-ion battery 3 series 3.7V=11.1V		
	B03=Lithium iron phosphate battery 4 series 3.2V=12.8V		
<b>Charging voltage</b>	14.3V(B01)	12.6V(B02)	14.6V(B03)
<b>Low voltage cut-off voltage</b>	10.7V(B01)	9V(B02)	10V(B03)
<b>Low power recovery voltage</b>	12.6V(B01)	10.5V(B02)	12V(B03)
<b>USB output</b>	5V/2A		
<b>Standby current</b>	<10mA		
<b>Working temperature</b>	-35~+60°C		
<b>Size/CTN(CM)</b>	47*30*54.5		
<b>G.W/CTN(KG)</b>	28.5		
<b>Packing(QTY/CTN)</b>	100PCS		

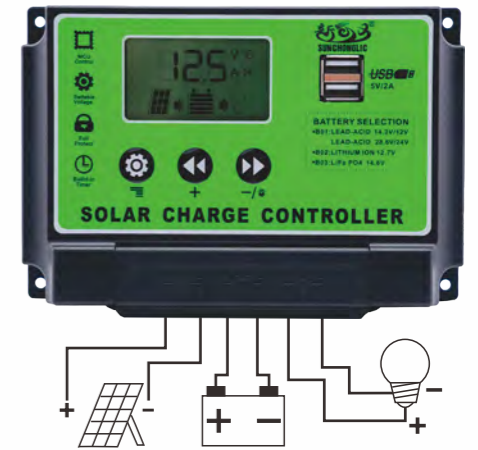
## FT-M~series

12V/24V



### FEATURES

- Applicable for 3 types of batteries:  
B01 Lead acid battery  
B02 Lithium ion battery  
B03 Lithium iron phosphate battery
- Power-cut memory function.The power-cut memory function can automatically memory retention of users' last settings.
- Large-screen LCD display. Charging and discharging parameters can be fully customized.
- Adopt complete three phase charge management (Constant current mode,Constant voltage mode,Floating charge mode)
- Multiple protections.Overcurrent protection, Short circuit protection, Open circuit protection and Battery reverse protection.
- Double MOS tube anti-reverse circuit protection, which prevents battery current from flowing back to the solar cell at night to cause power loss.



Model	FT-M1240	FT-M1250	FT-M1260
<b>System Voltage</b>	12V/24V		
<b>Maximum PV input voltage</b>	<54V		
<b>Rated current</b>	40A	50A	60A
<b>External 12V battery recommended Solar panel specifications</b>	500-600W/18V	700-800W/18V	800-900W/18V
<b>External 24V battery recommended Solar panel specifications</b>	1000-1300W/36V	1500-1600W/36V	1800-2000W/36V
<b>External battery</b>	12V 150-200Ah		
	24V 150-200Ah		
<b>Battery type</b>	B01=Lead Acid Battery 12V/24V		
	B02=Lithium-ion battery 3 series 3.7V=11.1V		
	B03=Lithium iron phosphate battery 4 series 3.2V=12.8V		
<b>Charging voltage(24V*2)</b>	14.3V(B01)	12.6V(B02)	14.6V(B03)
<b>Low-voltage cut off voltage(24V*2)</b>	10.7V(B01)	9V(B02)	10V(B03)
<b>Low power recovery voltage(24V*2)</b>	12.6V(B01)	10.5V(B02)	12V(B03)
<b>USB output</b>	5V/2A		
<b>Standby current</b>	<10mA		
<b>Working temperature</b>	-35~+60°C		
<b>Size/CTN(CM)</b>	/		
<b>G.W/CTN(KG)</b>	/		
<b>Packing(QTY/CTN)</b>	/		

## MPPT~series

12V/24V/36V/48V/60V/72V/84V/96V/AUTO

MPPT



### FEATURES

This controller is used in solar off-grid power generation systems to automatically adjust battery charging and discharging. It has an advanced tracking algorithm to obtain the maximum power of the solar cell components and charge the battery; at the same time, its low voltage disconnect(LVD)function can prevent the battery from over-discharging and causing damage.

The battery charging process of the MPPT controller is optimized to extend battery life and improve system performance. Its comprehensive self-test function and electronic protection function can avoid damage caused by installation errors and system failures. Although the controller is easy to operate and use, in order to enable you to better use all the functions of the controller and improve your photovoltaic system.

Model	30A/40A	50A/60A	100A/200A
Charging mode	MPPT automatic maximum power tracking		
Charging method	MPPT tracks maximum power,fast charge,balanced charge,and float charge		
Battery Type	Lead Acid	(12V/24V/36V/48V/96V Auto+Adjustable12V/24V/36V/48V/60V/72V/84V/96V)	
	Gel	12V/24V/36V/48V/60V/72V/84V/96V	
	LifePo 4	Single voltage 3.2* numbers of strings(2 strings-45 strings adjustable)	
	Li-ion	Single voltage 3.7* numbers of strings(2 strings-45 strings adjustable)	
USER	Adjustable limit voltage for equal charge, float charge and DC discharge:8V-170V		
With lithium battery activation function	With photovoltaic input,there is charging voltage(activate lithium battery), can be used without battery DC output		
PV max open circuit input voltage	0-230V		
The charging current is adjustable	0-30A	0-50A	0-100A
	0-40A	0-60A	0-120A
Start charging	PV voltage is greater than + 3V of battery voltage(low current charging on rainy days)		
Direct charging current output	DC continuous output 25A	DC continuous output 60A	DC continuous output 100A
Temperature compensation	According to the temperature of the battery,the charging voltage and current are automatically compensated to prolong the battery life		
Display communication	LCD display with touch button:(generating capacity/photovoltaic voltage/battery voltage/charging current/power/operation status)Chinese and English display Setting:(battery type,charging current,return to factory) 8-pin RS485 communication interface(operation status and setting can be queried)		
Working environment temperature	-20°C-40°C		
Protection level	Ip21		
Altitude	0-3000m		
Product size	202x215x100mm	218x265x100mm	/

## MPPT~series

12V/24V/48V/60V/AUTO

MPPT



### FEATURES

- 1.Innovative maximum power point tracking technology can significantly improve the energy utilization rate of the solar system, with conversion efficiency of up to 97%.
- 2.Quickly scan the entire I-V curve, and efficiently track the maximum power point.
- 3.Three types of lead-acid batteries, sealed, colloidal, and open type, and lithium battery series are optional.
- 4.With automatic protection of overcharge, overdischarge, overload and short circuit.



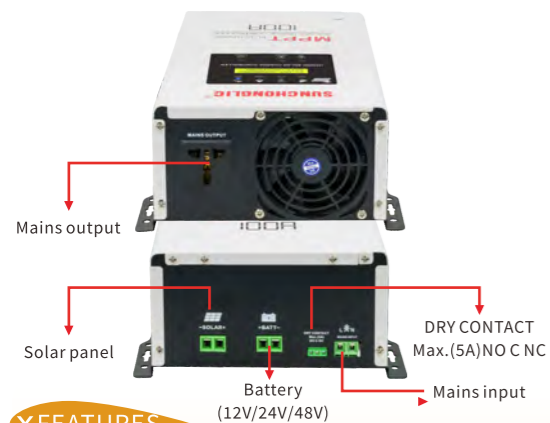
Model	30A/40A	60A/80A
Charging mode	MPPT automatic maximum power tracking	
Charging method	MPPT tracks maximum power,fast charge,balanced charge,and float charge	
Battery Type	Lead Acid	(12V/24V/48V/60V Auto+Adjustable12V/24V/48V/60V)
	Gel	12V/24V/48V/60V
	LifePo 4	Single voltage 3.2* numbers of strings(2 strings-45 strings adjustable)
	Li-ion	Single voltage 3.7* numbers of strings(2 strings-45 strings adjustable)
USER	Adjustable limit voltage for equal charge, float charge and DC discharge:8V-170V	
With lithium battery activation function	With photovoltaic input,there is charging voltage(activate lithium battery)	
PV max open circuit input voltage	0-180V	
The charging current is adjustable	0-30A	0-60A
	0-40A	0-80A
Start charging	PV voltage is greater than + 3V of battery voltage(low current charging on rainy days)	
Direct charging current output	DC continuous output 20A	DC continuous output 40A
Temperature compensation	According to the temperature of the battery,the charging voltage and current are automatically compensated to prolong the battery life	
Working environment temperature	-20°C-40°C	
Protection level	Ip21	
Altitude	0-3000m	
Product size	202x215x100mm	218x265x100mm



## MPPT PLUS~series

12V/24V/48V/AUTO

MPPT



### FEATURES

1. Designed for 12V/24V/48V battery system.
2. Built-in DC loads output.
3. Max PV array input voltage 150V DC.
4. Built-in uninterrupted power supply.
5. Solar panel: Max 1500W for 12V system, Max 3000W for 24V system, Max 6000W for 48V system.
6. The most economical solar compensatory system for home to save on your utility bill.



Model	MPPT-70A	MPPT-100A	MPPT-120A
Battery system voltage	12V/24V/48V		
Reverse battery protection	None (reverse connection will cause damage to the machine)		
Solar input voltage range	24-130V		
Solar reverse polarity protection	Field Effect Transistor		
Maximum charging current	70A	100A	120A
Maximum photovoltaic power	Max 1500W for 12V system, Max 3000W for 24V system, Max 6000W for 48V system.		
Conversion efficiency	87-94%		
Battery Type	Lithium iron phosphate battery (both items ① and ② in the parameter settings must be set to 14.6V) Ternary lithium battery (both items ① and ② in parameter settings must be set to 12.6V)		
Charging voltage	14.6V 12V lead-acid battery/lithium iron phosphate battery: 14.6V 29.2V 24V lead-acid battery: 29.2V		
Conditions for opening the mains	<math>20 \pm 2V</math> 12V system: PV voltage <math>20 \pm 2V</math> <math>40 \pm 2V</math> 24V system: PV voltage <math>40 \pm 2V</math> Battery voltage $\leq 11.5V$ (24V system* 2) default (adjustable range 10-13V) (Enable hybrid charging of mains and solar power)		
Shutdown of mains power condition	12V system: PV voltage > $24 \pm 4V$ and battery voltage $\geq 14V$ 24V system: PV voltage > $48 \pm 4V$ and battery voltage $\geq 28V$ Battery voltage $\geq 14V$ (24V system*2) default (adjustable range 12.5-16V)		
Switching conditions of expansion port (5A)	Battery voltage $\geq 10V$ default (adjustable range 10-14V), C is connected to NC and disconnected from NO $\geq 11.5V$ default (adjustable range 10-14V), C is connected to NO and disconnected from NC		

## STW~series

MPPT



Inverter Mode	STW-2000	STW-2500	STW-3000	STW-4000
DC Input Voltage	24V/18-30V	24V/18-30V	48V/18-30V	48V/18-30V
Rated Power	2000W	2500W	3000W	4000W
Peak Power	4000W	5000W	6000W	8000W
Output Voltage	110/230V			
Frequency	50/60 $\pm 1$ HZ			
Charge Mode				
Rated Power	800W		1000W	
Charging Time	2 hours	3 hours	3 hours	4 hours
Output Rated Voltage	24V/18-30V	24V/18-30V	48V/40-60V	48V/40-60V
Output Ripple	300mV		500mV	
AC Input Voltage	85-264Vac			
Frequency	50/60 $\pm 5$ HZ			
Power Factor	0.99			
Solar Charger (MPPT)				
Output Power	900W			
Input PV Voltage	35V-60V		65V-120VA	
Conversion Efficiency	93%		95%	
Functions				
USB Interface	QC3.0 (18W) *2			
PD Output	Type-C (60W)*2			
DC Output	14V/8A*4			
PV Input Interface	XT-60*1			
Output Socket	AC Socket*4			
Display Screen	LED*1			
Battery Pack				
Battery Capacity	1433Wh 25.6V/56Ah	2048Wh 25.6V/80Ah	2688Wh 48V/56Ah	3840Wh 48V/80Ah
Battery Type	LiFeP04			
Other				
Mains Priority	Mains will charge battery with first priority under mains mode			
UPS switch time	10ms			
Size	(Length*Width*Height) 460mm*340mm*285mm10ms			

## STW~series

MPPT



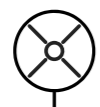
### 300W



Television  
About 2 hours



Laptop  
About 2 hours



Electric fan  
About 4 hours



LED Lights  
About 8 hours



Electric drill  
About 2 hours



Mobile Phone  
About 20 hours

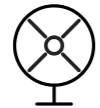
### 600W



Television  
About 4 hours



Laptop  
About 4 hours



Electric fan  
About 8 hours



LED Lights  
About 16 hours



Electric drill  
About 4 hours



Mobile Phone  
About 40 hours



Refrigerator  
About 6 hours

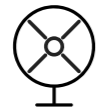
### 1000W



Television  
About 8 hours



Laptop  
About 8 hours



Electric fan  
About 16 hours



LED Lights  
About 32 hours



Electric drill  
About 8 hours



Mobile Phone  
About 80 hours



Refrigerator  
About 12 hours



Rice cooker  
About 1 hours

## STW~series

MPPT



BREAK PROTECTION

OVERLOAD PROTECTION

OVER-TEMPERATURE PROTECTION

OVERVOLTAGE PROTECTION

POWER-OFF PROTECTION



### 320W AC output solar power system

- LiFePO4 battery type: 12.8V 15Ah 200Wh
- Inverter power: Power 320W, peak 700W
- Solar panel charging time: 18V 50W, 5 hours
- Charging time: 3.5 hours on the mains charger
- AC output: 220V
- Dual DC5521 Output interface: 12V
- Dual USB-A 5V 2A, TYPE-C QC 3.0: 60W
- LED brightness: 200 lm
- LED life: 50,000 hours
- Material: Flame retardant metal
- Product size: 252\*150\*120mm (system host)
- Product weight: 3.3Kg (system host)
- AC charger: DC 19V 3.42A

### Polycrystalline solar panel size

Power	Voltage	Finished Size	Carton Size	Package quantity	Weight
30W	18	350*600*17*17	62*27*36	15	2.52
35W	18	350*670*17*17	68*27*36	15	2.70
40/50W	18	670*445*25*20	68*21*45.5	7	3.12
60W	18	670*535*30*25	68*20*54.5	6	3.83
70W	18	670*640*30*25	68*20*65	6	4.41
80W	18	670*760*35*25	77*16*68	4	5.30
90W	18	670*835*35*25	85*16*68	4	6.14
100W	18	670*940*35*25	95*16*68	4	6.85
	18	540*1190*35*25	55*16*120	4	6.83
120W	18	670*1000*35*25	103*16*68	4	6.93
140W	18	670*1135*35*25	115*16*68	4	7.88
150W	18	670*1210*35*25	122*16*68	4	8.30
160W	18	670*1360*35*25	68*16*137	4	9.22
180W	18	670*1480*35*25	149*16*68	4	11.08
200W	18	992*1265*40*35	127.5*11*100	2	14.49
250W	18	992*1320*40*35	133*11*100	2	14.91
300W	18	992*1640*40*35	165*11*100	2	17.54
330W	18	992*1950*40*35	196*11*100	2	21.00

# LIFEPO4 LITHIUM BATTERY

## LiFePO4 ~series



### FEATURES

1. Longer Cycle Life: Offers up to 15 times longer cycle life and 5 times longer float/calendar life than lead acid battery.
2. Lighter Weight: About 40% weight of a comparable lead acid battery, save up to 60% in weight.
3. Quick Charge: Short charge time compared with lead acid battery. Low Self-Discharge: Lower self-discharge compared with lead acid battery, longer storage time without recharging
4. Superior Safety: Multi-protection methods built inside to protect the battery from overcharge, over discharge and short circuit situation.
5. High Efficient: Higher round-trip energy efficiency of the average (92%) than lead acid battery 80% (discharge from 100% to 0% and back to 100% charged).



Mode	24200	48100	48200	
Initial Capacity	200Ah	100Ah	200Ah	
Nominal voltage	25.6V	51.2V	51.2V	
Approx. Weight (Kg)	44.8KG	45KG	88KG	
Charge	Max Charge voltage	29.2V	58.4V	58.4V
	Standard charge current	100A		
	Max Charge current	100A		
Discharge	Min Discharge voltage	21.6V	43.2V	43.2V
	Standard Discharge current	150A	120A	150A
	Max Discharge Current	150A	120A	150A
	Max Discharge Current	300A	240A	300A
Charge temperature	0~+65°C			
Discharge temperature	-20~+65°C			
Storage temperature	0~+35°C			
AC Impedance	≤20mΩ	≤30mΩ		
Storage humidity	<75%R.H.			

# LIFEPO4 LITHIUM BATTERY

### FEATURES

1. Flexibly and Easy Installation-wall-mounted or floor-mounted
2. Easy Management-Real time online monitoring system battery status, intelligent warning
3. Strong Compatibility-Covering all mainstream protocols and matching most mainstream inverters
4. Long Life-4 times long static and 8 consistency screening make the battery more durable
5. Safety & Reliability-Nano-coating and self-healing technology construct the LFP channel to add a firewall to the battery



Mode	48280	
Nominal voltage	48V	
Nominal capacity	280Ah	
Dimensions	Length	588±2mm (24.6inch)
	Width	260±2mm (10.6inch)
	Height	852±2mm (39.3inch)
Approx. net weight	140kg (308.6lbs)±2kg	
Approx. gross weight	165kg (363.8lbs)±2kg	
Electrical Parameters (25°C)	Rated Voltage	51.2V
	Rated Capacity (Cs)	280Ah@25°C
	Energy	14336Wh
	Months Self Discharge	<3%
	Charge Efficiency	99.5%@ 0.2C
Discharge Efficiency	96-99% @ 1C	
Terminal Diameter	M8	
Internal resistance (Fully charged, 25°C)	≤20mΩ	
Cycle life	>3000 cycles @ 0.2C 100%D.O.D	
Capacity affected by temperature	40°C	101%
	25°C	100%
	0°C	90%
	-10°C	75%
Nominal operating temperature	25°C±3°C (77°F±5°F)	
Operating temperature range	Discharge	-20°C-60°C (-4°F~140°F)
	Charge	0°C~45°C (32°F~113°F)
	Storage	0°C~40°C (32°F-104°F)
Water Dust Resistance	Ip50	
Charge Voltage	57V	
Standard Charge Mode(25°C±2°C, <75%RH)	0.2CA Constant Current to 57V, then Constant Voltage 57V, until the current drops to 0.02CA, before use, rest 30 minutes	
Charge Current	80A	
Maximum Charge Current	100A	
Charge Cut off Voltage	57V	
Continuous Discharge Current	200A	
Maximum Pulse Current	240A (<1S)	
Discharge Cut Off Voltage	46V	
Communicate Protocol (optional)	Rs485	
SOC (optional)	Screen/LED/PC Software	
Application connection	1 string 1 parallel	
Mechanical	16 Strings	
Cell	Metal	