



Specialized in solar energy photovoltaic product for over 20 years

Five Star Quality, derived From Sunchonglic Technology!



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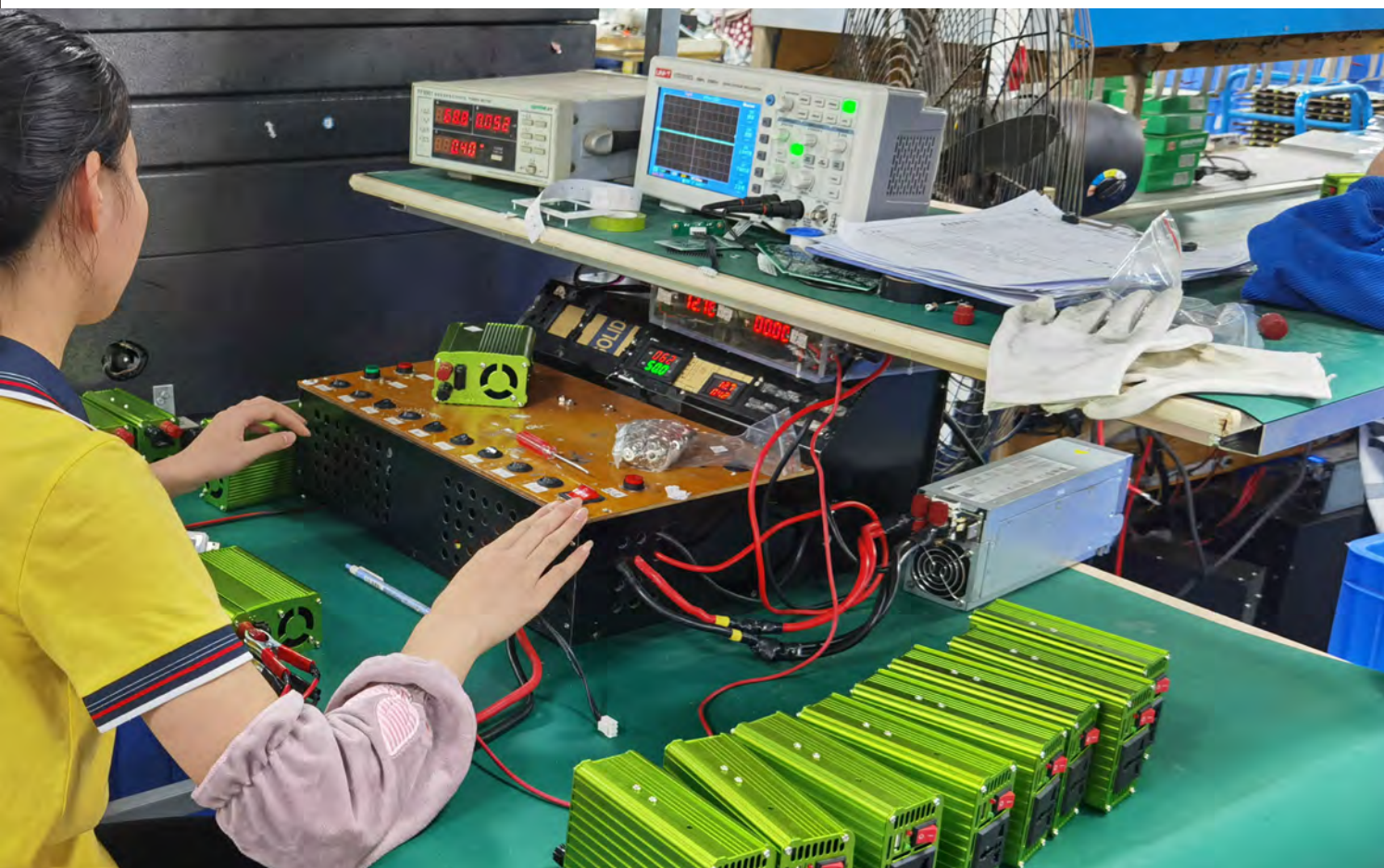
MADE IN CHINA



@sunchonglic

- ◆ LEAD ACID BATTERY CHARGER
- ◆ LEAD ACID BATTERY CHARGER
- ◆ SOLAR CHARGE CONTROLLER
- ◆ SOLAR CHARGE CONTROLLER

Five Star Quality, derived From SunChonglic Technology!



Sunchonglic sticks to the idea of "innovative development and technical refinement", and it has developed series of high-tech product which are popular and approbated by both of domestic and abroad customers. It proves its strength by obtaining several international patents.



Company Introduction

Established in 2015, located in Foshan city, Guangdong province, China. Guangdong SunChongLic Industry Co., Ltd. is mainly dealing with home appliance accessories. With unique and innovative design, low interference technology, and performance -to -price ratio. With more than 10, 000 square meters logistics center, nowadays, our products are exported to more than 200 countries in the world and regions.

Sunchonglic power factory is dealing with Refrigeration parts, Electric fan motor (OEM & ODM), PCB power board, Washing machine parts, Induction cooker parts, Air conditioner parts, Refrigerator parts, Microwave Oven parts, Soldering iron, Remote control, LCD wall mount/bracket, Power cable, RVV cable, AGM/GEL battery charger, Solar charge controller/regulator, High/Low hybrid solar inverter, Solar pumping inverter, and all kinds of home appliance accessories.

With a wide range of applications, reasonable prices and stylish designs, our products are extensively used in home appliance accessories and other 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.

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!



Sufficient Inventory Multiple Mixing Lines Excellent R & D Team Excellent Sales Team

Exhibition

— Products Contents —



Guangzhou Int'l Refrigeration, Air-Condition, Ventilation, Air-Improving Equipment Exhibition
16-18 August, 2019



The 126th Canton Fair
15-19 October, 2019



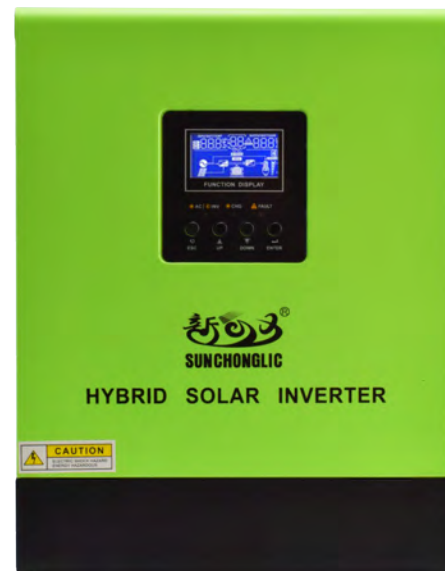
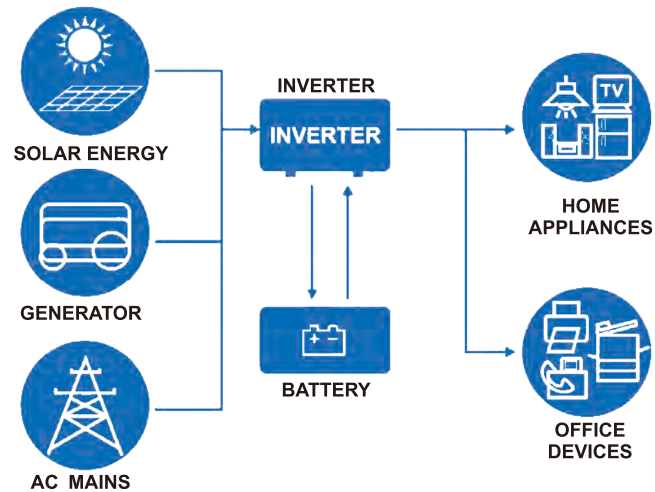
The VIETNAM EXPO 2019
4-7 December, 2019



The IEAE - India International Electronics And Smart Appliances Expo 2019
12-14 December, 2019

- 01-04 FPS/FMPS/FVM2/HES~Series Hybrid Solar Inverter
- 05-06 FPL/FSP~Series Low Frequency Hybrid Inverter
- 07-08 FPV~Series Solar Pumping Controller /VFD
- 09-10 FSSI~Series Off Grid Hybrid Storage Solar Inverter
- 11-15 FA/FFA~Series Modified Sine Wave Inverter
- 16-18 SAA/FTA/SDB~Series Modified Sine Wave Inverter
- 19-20 FPC/FFU~Series Pure Sine Wave Inverter
- 21-22 FTI/FTI-SM/FTI-DM~Series Grid Tie Inverter
- 23-28 FMA/DC/FON/A03~Series AGM/GEL/SLA Battery Charger
- 29-31 FT-C/FT-S~Series PWM Solar Charge Controller
- 32-34 FT-MP~Series MPPT Solar Charge Controller

FPS~series PWM



FEATURES

1. Equipped with PWM solar charge controller to maximize and regulate DC power from the solar array for charging the battery bank.
2. Transformerless design provides reliable power conversion in compact size
3. Besides, it's worry-free to start up motor-typeloads such as refrigerators, motors, pumps, compressors and laser printers as well as electronic loads like TVs, Computers, power tool and battery chargers

Model	FPS-1K-12	FPS-3K-24	FPS-3K-48	FPS-5K-48
Rated Power	1000VA 800W	3000VA 2400W	3000VA 2400W	5000VA 4000W
Parallel Capability	No	No	No	yes,6 units
Input				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers); 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz /60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%			
Surge Power	2000VA	6000VA	6000VA	10000VA
Efficiency (Line Mode)	> 93% (Rated R load, battery fully charged)			
Transfer Time	10 ms (For Personal Computers); 20 ms (For Home Appliances)			
Waveform	Pure Sine Wave			
BATTERY & AC CHARGER				
Battery Voltage	12V DC	24V DC	48V DC	48V DC
Bulk Charge Voltage				
Flooded Battery	12 V	24 V		48 V
AGM/GEL Battery	13.5 V	27 V		54 V
Floating charging voltage	15.5 V	31 V		60 V
SOLAR CHARGER & AC CHARGER				
Maximum PV Array Power	600W	1200W		2400W
PWM Range @ Operating Voltage	15V- 18V	30V-36V		60V - 72V
Maximum PV Array Open Circuit Voltage	40V	80V		105V
Maximum Solar Charge Current	50A			
Maximum AC charge Current	20A	30A		60A
Maximum Charge Current	50A			110A
Maximum Efficiency	90%			
Standby Power Consumption	2W			
PHYSICAL				
Dimension, DxWxH(mm)	95*240*316	100*272*355		120*295*468
Net Weight(kgs)	5	6.9		9.8
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity(Non-condensing)			
Operating Temperature	0°C to 55°C			
Storage Temperature	15°C to 60°C			

FMPS~series MPPT



- 1 Power on/off switch
- 2 AC Input
- 3 AC Output
- 4 Circuit Breaker
- 5 PV Input
- 6 Dry contact
- 7 Battery Input
- 8 Rs232 Communication Port

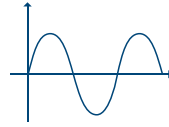
FEATURES

1. Pure sine wave inverter
2. Cold startfunction
3. Selectable input voltage range for home appliances and personal computers
4. Selectable charging current based on applications
5. Configurable AC/Solar input priority via LCD setting
6. Compatible to mains voltage or generator power
7. Auto restart while AC is recovering
8. Overload and short circuit protection
9. Smart battery charger design for optimized battery performance
10. Built-in MPPT solar charge controller
11. Parallel operation with up to 9 units onits available for KS 4K/5K



Model	FMPS-1K-24	FMPS-3K-24	FMPS-3K-48	FMPS-5K-48
Rated Power	1000VA 800W	3000VA 2400W	3000VA 2400W	5000VA 4000W
Parallel Capability	No	No	No	yes,6 units
Input				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers); 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz /60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%			
Surge Power	2000VA	6000VA	6000VA	10000VA
Efficiency (Line Mode)	> 95% (Rated R load, battery fully charged)			
Transfer Time	10 ms (For Personal Computers); 20 ms (For Home Appliances)			
Waveform	Pure Sine Wave			
BATTERY & AC CHARGER				
Battery Voltage	24 VDC	24 VDC	48 VDC	48 VDC
Bulk Charge Voltage				
Flooded Battery	29.2 V			58.4 V
AGM/GEL Battery	28.2 V			56.4 V
Floating charging voltage	27.0 V			54.0 V
SOLAR CHARGER & AC CHARGER				
Maximum PV Array Power	600W	600W	3000W	4000W
MPPT Range @ Operating Voltage	30VDC - 66VDC		60VDC - 115VDC	
Maximum PV Array Open Circuit Voltage	75 VDC		145 VDC	
Maximum Solar Charge Current	25A		60A	
Maximum AC charge Current	20A	30A	15A	60A
Maximum Charge Current	45A	55A	75A	120A
Maximum Efficiency	98%			
Standby Power Consumption	2W			
PHYSICAL				
Dimension, DxWxH(mm)	128 x 272 x 355		120x295x468	140 x 295 x 468
Net Weight(kgs)	7.4	8	8	13.5
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity(Non-condensing)			
Operating Temperature	0°C to 55°C			
Storage Temperature	15°C to 60°C			

FVM2~series MPPT



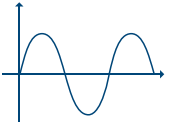
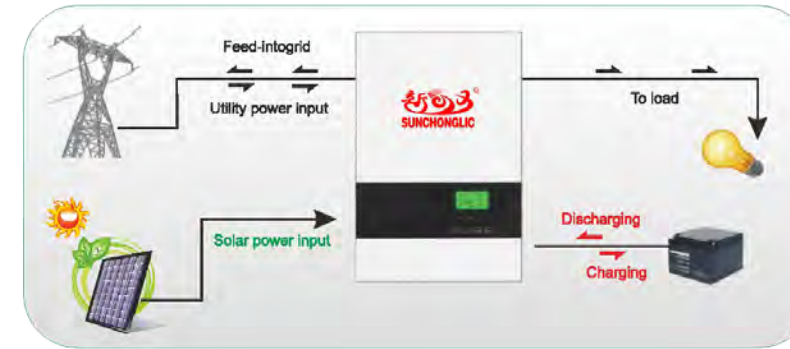
FEATURES

1. Pure sine wave waveform output hybrid solar inverter.
2. Output power factor, PF=1.
3. Parallel operation is up to 9 units.
4. High PV input voltage range.
5. Battery independent design.
6. Built-in 100A MPPT solar charger and Built-in 80A AC charger.
7. Battery equalization function to optimize battery performance and extend lifecycle.
8. Built-in anti-dust kit for harsh environment.

Model	FVM2-3K-24	FVM2-5.5K-48
Rated power	3000VA/3000W	5500VA/5500W
INPUT		
Voltage	230VAC	
Selectable Voltage Range	170-280 VAC(For Personal Computers);	
Frequency Range	90-280VAC(For Home Appliances)	
OUTPUT		
50Hz/60Hz (Auto sensing)		
AC Voltage Regulation(Batt. Mode)	230VAC ±5%	
Surge Power	6000VA	11000VA
Efficiency(Peak)	Up to 93.5%	
Transfer Time	10 ms(For personal computers); 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
BATTERY		
Battery voltage	24 VDC	48 VDC
Floating charge voltage	27 VDC	54 VDC
Overcharge protection	33 VDC	63 VDC
SOLAR CHARGER & AC CHARGER		
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC
Maximum PV Array Power	5500W	5500W
MPPT Range @ Operating Voltage	120V-450 VDC	120V-450 VDC
Maximum Solar Charge Current	100A	100A
Maximum AC Charge Current	80A	80A
Maximum Charge Current	100A	100A
PHYSICAL		
Dimension D x W x H (mm)	100*300*440	
Net Weight (kgs)	9	10
Communication Interface	USB/RS232	
ENVIRONMENT		
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	



HES~series MPPT



FEATURES

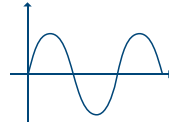
1. Output power factor PF=1.0.
2. On-grid with energy storage
3. Configurable AC/Solar Charger priority via LCD setting
4. Smart battery charger design for optimized battery performance
5. Compatible to mains voltage or generator power
6. Overload ,Over temperature , Short circuit protection ,Fault record ,History record
7. External WIFI devices
8. Parallel operation with up to 9 units

MODEL	HES plus 3k-24	HES plus 3.2k-48	HES plus 5.5k-48
Max PV Array Power	5000W		
Rated Output Power	3000W	3200W	5500W
Maximum PV Array Open Circuit Voltage	500VDC		
MPPT Range @ Operating Voltage	120-450VDC		
GRID-TIE OPERATION			
GRID OUTPUT(AC)			
Nominal Output Voltage	220/230/240VAC		
Output Voltage Range	184-265VAC		
Nominal Output Current	13.6A/13.0A/12.5A	14.5A/13.9A/13.3A	25A/23.9A/22.9A
Efficiency	Up to 93.5%		
OFF-GRID, HYBRID OPERATION			
GRID INPUT			
Acceptable Input Voltage Range	120-280VAC		
Frequency Range	50Hz/60Hz(Auto sensing)		
BATTERY MODE OUTPUT(AC)			
Nominal Output Voltage	220/230/240VAC		
Output Wave form	Pure sine wave		
BATTERY & CHARGER			
Nominal DC Voltage	24VDC	48VDC	
Maximum Solar Charge Current	90A		
Maximum AC Charge Current	60A		
Maximum Charge Current	90A		
Emergency output power			
Maximum output Power	3000W	3200W	5500W
Surge Power	6000W	6400W	11000W
Automatic Transfer Time	<8ms		
GENERAL			
INTERFACE			
Parallel Function	Yes		
Communication	USB or RS232/Dry-Contact		
ENVIRONMENT			
Humidity	0-90% RH (No Condensing)		
Operating Temperature	0 to 50°C		
Net Weight(KG)	9	10	
Rough Weight(KG)	10	11	
Dimenson(WxDxH)mm	115x300x400		

Note: Product specification are subject to change without further notice.

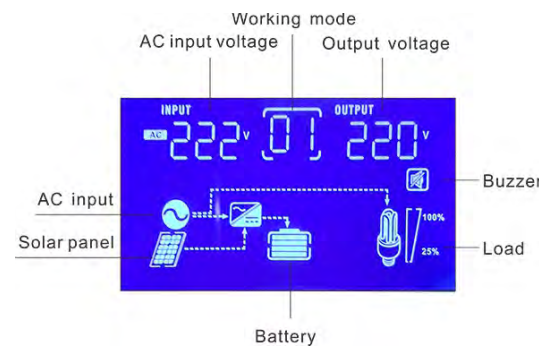


FPL~series PWM MPPT



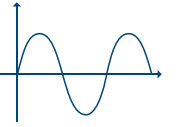
FEATURES

- 64-bits DSP Intelligent control chipset.
- LED and LCD display with multi-function, Real-time display of dynamic values.
- Built-in PWM/MPPT solar charging controller
- Built-in automatic AC charger and automatic AC mains switcher. Switch time $\leq 5ms$.
- High Transfer efficiency is above 90%.
- Continuous stable pure sine wave output with built-in AVR stabilizer.
- 3 times surge power, excellent loading capability.



Model	FPL-1.5K-12	FPL-3K-24	FPL-5K-48	FPL-6K-48	
Rated capacity	1000W	3000VA (1800W)	5000VA (3000W)	6000VA (4000W)	
Input	Voltage	(145-275)VAC	(170-275)VAC		
	Frequency	(50Hz/60Hz $\pm 5Hz$)Auto			
Output	Voltage	AC220V $\pm 5%$ (battery mode)			
	Frequency	50/60Hz $\pm 1%$ (battery mode)			
Output waveform	Sine wave				
Efficiency	$\geq 90%$				
Solar input voltage	24V(PWM) < 55VDC 12V(PWM) < 30VDC	(MPPT) < 150VDC / 48V(PWM) < 100VDC / 24V(PWM) < 55VDC			
Solar charge current	30A	60A	80A	80A	
Battery	Optional				
Battery rated voltage	12/24VDC	24/48VDC	24/48VDC	48VDC	
Max AC charge current	5~15A	5~50A	5~50A	5~50A	
Protect	Overload, short, circuit, battery high and low voltage and AC input high and low voltage protection				
Conversion way	Interactive				
Capacity of overload	110%~120% turn to bypass after 30secs, 160% maintain 300ms and then shut down				
Operating environment	Temperature	-20- +75°C			
	Humidity	10%-90%			
Size:L*W*H(mm)	280x130x290	397X154X474	456X161X513	456X161X513	
G.W(kg)	18(2pcs)	23(1pc)	27.4(1pc)	29.5(1pc)	

FSP~series MPPT

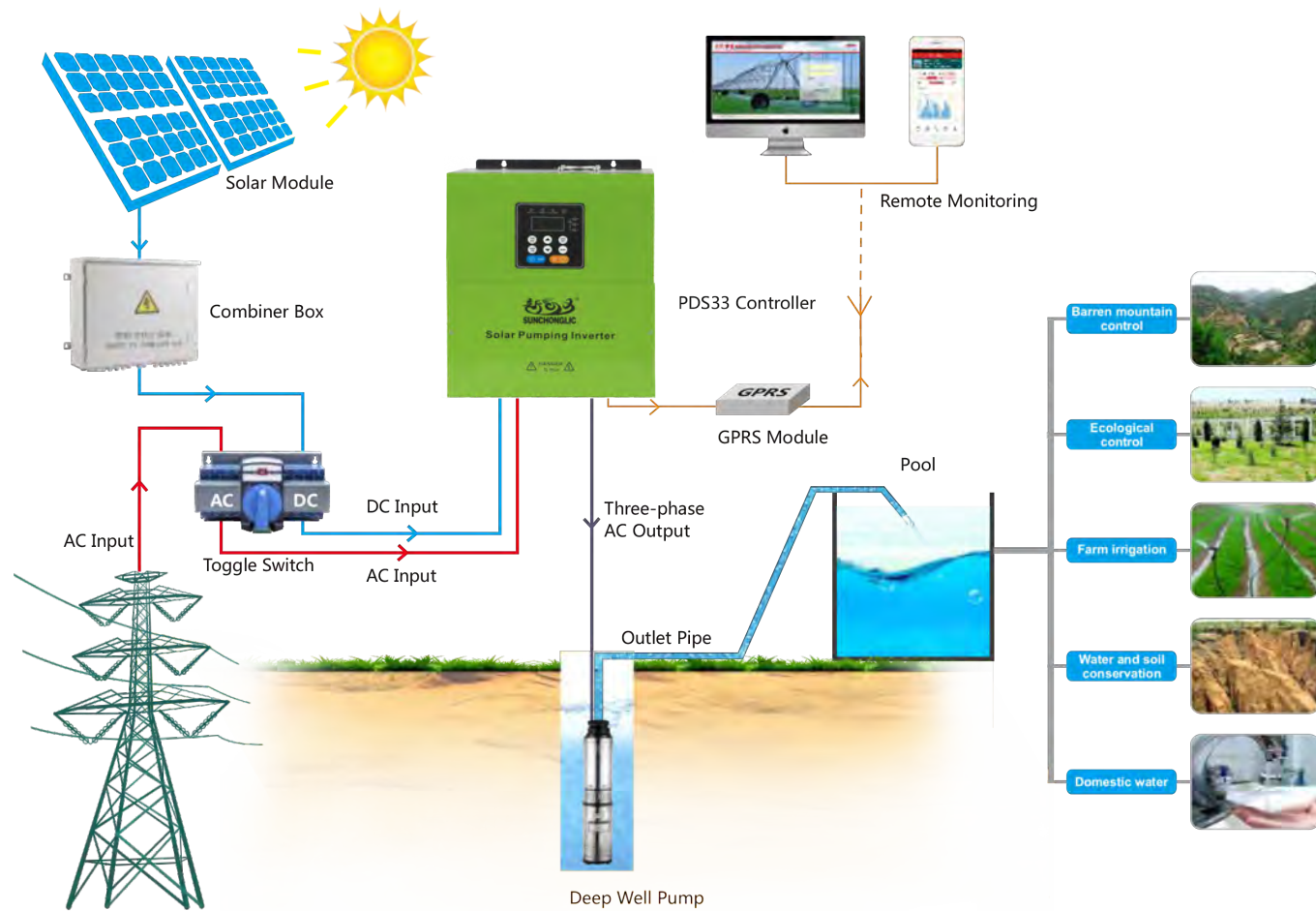


FEATURES

- Built-in MPPT solar controller.
- Pure sine wave output.
- With Iso-transformer.
- DIP switch to set AC input voltage range and low battery trip-voltage.
- Output power factor is 0.9-1 and output socket can choose.
- Well accept generator's output and auto generator start terminal.
- Full automatic and silent operation.
- Automatically transfer between battery and line modes.
- Microprocessor control guarantees high reliability.
- Remote control, BTS function (optional).
- Four-steps intelligent charging control to recharging time.
- The charging current is up to 85 Amp, can adjust through front panel.
- AC/solar output priority optional.
- Charging mode priorities optional.
- Battery type can choose through front panel.

Model	1KW	1.5KW	2KW	3KW	4KW	5KW	6KW	8KW	10KW	
Input Wave Form	Sine wave (utility or generator)									
Normal Voltage	120VAC(option) 230VAC									
Normal input frequency	50Hz/60Hz (auto detection)									
Frequency range	47Hz-65Hz									
Output Wave form	(Bypass mode) same as input									
Over-Load Protection	Circuit breaker									
Short circuit Protection	Circuit breaker									
Efficiency on line transfer mode.	$> 95%$									
Line transfer time	10ms Typical									
Bypass without battery connected	Yes									
Inverter output	Yes									
Output wave form	Pure sine wave									
Output continuous power watts	1000	1500	2000	3000	4000	5000	6000	8000	10000	
Surge ratings	3000	4500	6000	9000	12000	15000	18000	24000	30000	
Power factor	0.9-1.0									
Nominal output voltage rms	120VAC(option) 230VAC						230VAC			
Output Voltage regulation										
Output Frequency	50Hz $\pm 0.3Hz$ or 60Hz $\pm 0.3Hz$									
Short circuit Protection	Yes, fault after 1 secs									
Inverter input										
Normal input voltage	24V/48V						48V			
Minimum start voltage	20V/40V						40V			
Low battery alarm	21V/42V						42V			
Low battery trip	20V/40V						40V			
High voltage alarm	32V/64V						64V			
Charger	+/- 10% RMS									
Output Voltage	Dependent on battery type									
Charge current	10-85A MAX						70A	85A		
Battery initial voltage for start up	0-15.7v for 12V(*2 for 24v; *4 for 48V)									
Over charge Protection	15.7v / 12v(*2 / 24v, *4 / 48v)									
Solar Charger										
MPPT Range @ Operating voltage.	30-115VDC/60-115VDC									
Maximum PV Array Open Circuit Voltage	145VDC									
Maximum Charging Current	60A									
Maximum Efficiency	$> 96%$									

FPV~series



FEATURES

Smartness

1. Self-adaptive power point tracking technology with up to 99% efficiency
2. Automatic regulation of pump flow
3. Self-adaptation to the drive used in the installation

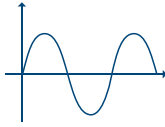
Cost effectiveness

1. Plug-and-play system design
2. Embedded pump functions
3. Battery-free for most applications
4. Effortless maintenance

Model	-SS	-S	-2T	-4T
AC input voltage(V)	220(-15%)~240(+10%) (1PH)		220(-15%)~240(+10%) (3PH)	380(-15%)~440(+10%) (3PH)
Max.DC voltage(V)	440	440	440	800
Start-up voltage(V)	200	200	200	300
Lowest working voltage(V)	150	150	150	250
Recommended DC input voltage range (V)	200~400	200~400	200~400	300~750
Recommended MPP voltage(V)	330	330	330	550

Series	Model	Rated output power(Kw)	Rated input current(A)	Rated output current(A)
-SS (0.4-2.2Kw)	FPV100-0R4G-SS	0.4	6.5	4.2
	FPV100-0R7G-SS	0.75	9.3	7.2
	FPV100-1R5G-SS	1.5	15.7	10.2
	FPV100-2R2G-SS	2.2	24	14
-S (0.4-2.2Kw)	FPV100-0R4G-S	0.4	6.5	2.5
	FPV100-0R7G-S	0.75	9.3	4.2
	FPV100-1R5G-S	1.5	15.7	7.5
-2T (4-7.5Kw)	FPV100-004G-2T	4	17	16
	FPV100-5R5G-2T	5.5	25	20
	FPV100-7R5G-2T	7.5	33	30
-4T (0.75-110Kw)	FPV100-0R7G-4T	0.75	3.4	2.5
	FPV100-1R5G-4T	1.5	5.0	4.2
	FPV100-2R2G-4T	2.2	5.8	5.5
	FPV100-004G-4T	4.0	13.5	9.5
	FPV100-5R5G-4T	5.5	19.5	14
	FPV100-7R5G-4T	7.5	25	18.5
	FPV100-011G-4T	11	32	25
	FPV100-015G-4T	15	40	32
	FPV100-018G-4T	18.5	47	38
	FPV100-022G-4T	22	51	45
	FPV100-030G-4T	30	70	60
FPV100-037G-4T	37	80	75	

FSSI~series



FEATURES

1. DSP Intelligent control chipset.
2. 3 times peak power, excellent loading capability.
3. AC prior/ECO mode/Battery prior selectable(optional).
4. Combine inverter/solar controller/battery all in one.
5. Adding fault code to monitor real-time work situations.
6. Continuous stable pure sine wave output with inbuilt AVR stabilizer.
7. LCD display.
8. Inbuilt automatic AC charger and AC mains switcher, stwitch time ≤ 4ms.



Model	FSSI 300W	FSSI 500W	FSSI 1000W	FSSI 1500W	
Built-in LiFePO4 Battery Capacity	1*48AH(614.4WH) battery	1*78AH(998.4WH) battery	2*78AH(1996.8WH) battery	2*120AH(3072WH) battery	
Description	300W 12V Low frequency pure sine wave Inverter +12V 20A PWM Solar controller +1*12.8V48AH LiFePO4 battery, Actual battery capacity :48AH	500W 12V Low frequency pure sine wave Inverter +12V 30A PWM Solar controller +1*12V78AH LiFePO4 battery, Actual battery capacity :78AH	1KW 24V Low frequency pure sine wave Inverter +24V 40A PWM Solar controller +1*25.6V 78AH LiFePO4 battery, Actual battery capacity :156AH	1.5KW 24V Low frequency pure sine wave Inverter +24V 50A PWM Solar controller +1*25.6V 120AH LiFePO4 battery, Actual battery capacity :240AH	
Capacity	Rated power	300W	500W	1KW	
	Peak power	900W	1.5KW	3KW	
Input	Standard battery voltage	12VDC	12VDC	24VDC	
	AC input voltage range	73~138VAC(110VAC) / 145~275VAC(220VAC)			
Output	AC input frequency range	45Hz~65Hz(50Hz/60Hz automatic recognition)			
	Conversion efficiency	≥90%(Battery mode); >99%(AC mode)			
	Output voltage	110VAC±2% / 220VAC±2%(Battery mode); 110VAC±10% / 220VAC±10%(AC mode)			
	Output frequency	50/60Hz±1%(Battery mode); Tracking Automatically(AC mode)			
AC charger	Output waveform	Pure Sine Wave			
	THD	≤3%			
PWM Solar charger	DC Output port	USB outputs (×4), 12VDC outputs (×4)			
	AC charging current	max 20A			
Solar panel	AC charging method	Three-stage(constant current, constant voltage, floating charge)			
	Charging mode	SMART controller			
	Max PV input voltage(at 25°C)	50V			
	PV input voltage range	15~44V	15~44V	30~44V	30~44V
Inbuilt battery	Charge & discharge current	20A	30A	40A	50A
	Max PV input power	280W	420W	1120W	1400W
Other	Solar panel standard	1*160W	1*275W	2*275W	3*160W
	Capacity	1*12.8V48AH	1*12.8V78AH	25.6V78AH	25.6V120AH
Working mode (selectable)	Battery size(LxWxH)/pcs	1* (160*145*165mm)	1* (247*165*157mm)	1* (247*165*299mm)	1* (352*165*299mm)
	Transfer time	≤4ms			
Work environment	Protection	with over-voltage, low-voltage, overload, short circuit, high temperature protections			
	Display	LCD			
Physical	Cooling way	Cooling fan in intelligent control			
	Communication	RS232/RS485(Optional)			
Packing	d1	AC priority mode			
	d2(optional)	ECO priority mode			
Environment	d3(optional)	Solar priority mode			
	Operating temperature	-10°C~40°C			
Physical	Storage temperature	-15°C~60°C			
	Elevation	2000m(More than derating)			
Packing	Humidity	0%~95%, No condensation			
	Dimension, L x W x H(mm)	450*200*430	450*200*430	520*220*580	520*220*580
Physical	Net weight(kg)(with battery)	16.45	20.85	35.6	45.5
	Humidity	510*260*570	510*260*570	580*280*720	580*280*720
Packing	Dimension, L x W x H(mm)	23.85	27.45	43.95	54.1
	Net weight(kg)(with battery)	1pcs per wooden case			

* All specifications are subject to change without prior notice.

FSSI~series

FEATURES

1. Low frequency, pure sine wave output.
2. Wide AC voltage input range, AVR output.
3. Built-in EI transformer/toroidal transformer optional.
4. LCD real-time display, concise and straight forward.
5. AC prior/EC mode/Battery prior selectable.
6. 50Hz/60Hz automatic recognition.



Model	FSSI 3000W	FSSI 5000W
Rated Power	3000W	5000W
Peak power	9000W	15000W
Battery Voltage	48(51.2)VDC	48(51.2)VDC
Built-in LiFePO4 Battery Capacity	51.2V120AH(6144WH) battery	51.2V198AH(10137.6WH) battery
Description	3000W 12V Low frequency pure sine wave Inverter +12V 50A PWM Solar controller +1*51.2V120AH LiFePO4 battery, Actual battery capacity :120AH	5000W 12V Low frequency pure sine wave Inverter +12V 60A PWM Solar controller +1*51.2V198AH LiFePO4 battery, Actual battery capacity :198AH
Capacity	Rated power	3000W
	Peak power	9000W
Input	Battery Input Voltage Range	42V~60V for 48V system
	AC Input Voltage Range	73VAC~138VAC or 145VAC~275VAC
	AC Input Frequency Range	45Hz~65Hz(50Hz/60Hz automatic recognition)
Output (Battery Mode)	Efficiency	≥90%
	Output Voltage	110VAC±2% or 220VAC±2%
Output (AC Mode)	Output Frequency	50Hz±0.5 or 60Hz±0.5
	Output Wave	Pure Sine Wave
	Output waveform distortion	≤3% (Line load)
	Output Voltage	110VAC±10% or 220VAC±10%
AC charger	Output Frequency	Tracking Automatically
	Efficiency	>99%
Battery Type	current	Max 15A
	voltage	Charge Voltage: 28V for 24V system, 56V for 48V system; Float Voltage: 27.6V for 24V system, 55.2V for 48V system
	method	Three-stage(constant current, constant voltage, floating charge)
PWM Solar charger	Customize battery	Charge and discharge parameters of different types of batteries (such as lithium batteries, etc.) can be customized according to user requirements
	Charging mode	SMART controller
	Max PV input voltage(at 25°C)	100V
	PV input voltage range	60~88V
Solar panel	Charge & discharge current	50A
	Max PV input power	2800W
Inbuilt battery	Solar panel standard	6*275W/30V(2S3P)
	Capacity	1*51.2V120AH
Working Mode (Selectable)	Battery size(LxWxH)/pcs	1* (500*400*315mm)
	AC prior (01)	Under AC prior mode, device will always use utility source and through regulator to supply loads as well as charge battery(charging current selectable); when utility is with high/low/serious distortion or other abnormal, device will auto power converter battery source to supply loads.
	EC mode (02)	Under Energy saving mode, device detects load, when the load is <10% rated power, device will auto on/off AC output; when the load is >10% rated power, device will start AC output.
Protection	Battery prior (03)	Under Battery prior mode, device will always use battery source to coverter high quality electricity for load; when battery source is failed, device will auto use utility source and through regulator to supply loads.
	Battery low voltage alarm	22V for 24V system; 44V for 48V system
	Battery low voltage protection	21V for 24V system; 42V for 48V system
	Battery high voltage alarm	30V for 24V system; 60V for 48V system
Alarm	Battery high voltage protection	34V for 24V system; 68V for 48V system
	Battery high voltage recover	29V for 24V system; 58V for 48V system
	Overload protection	Automatic protection(battery mode), circuit breaker or fuse (AC mode)
	Inverter output short circuit protection	Automatic protection (battery mode), circuit breaker or fuse (AC mode)
Environment	Temperature protection	>90°C(Shut down output)
	A	Normal working condition, buzzer has no alarm sound
Physical	B	Buzzer sounds 4 times per second when battery failure, voltage abnormality, overload
	C	When the machine is turned on for the first time, the buzzer will prompt 5 when the machine is normal
Packing	Transfer Time	≤4ms
	Display	LCD
Physical	Thermal method	Cooling fan in intelligent control
	Communication	RS232(Optional)
Environment	Operating temperature	-20°C~55°C
	Storage temperature	-15°C~60°C
Physical	Noise	≤55dB
	Elevation	2000m (More than derating)
Packing	Humidity	0%~95%, No condensation
	Dimension, L x W x H(mm)	820*450*720
Physical	Net weight(kg)(with battery)	115
	Dimension, L x W x H(mm)	875*500*880
Packing	Gross weight(kg)(with battery)	140
	Quantity/CTN	1pcs per wooden case

Note: All specifications are subject to change without prior notice

FA~series



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-350A	FA-500A	FA-1000A	FA-1500A	FA-2000A	FA-3000A
Output Voltage	220V	220V	220V	220V	220V	220V
Rated Power	200W	350W	600W	600W	800W	900W
Peak Power	350W	500W	1000W	1500W	2000W	3000W
Frequency	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz
USB	DC 5V/1A	DC 5V/1A	DC 5V/1A	DC 5V/1A	DC 5V/1A	DC 5V/1A
No-load Current	<0.5A	<0.5A	<0.5A	<0.5A	<0.5A	<0.5A
Voltage Range	10.5-15V	10.5-15V	10.5-15V	10.5-15V	10.5-15V	10.5-15V
Alarm Voltage	10.5-15V	10.5-15V	10.5-15V	10.5-15V	10.5-15V	10.5-15V
Low-voltage protection	10.5V	10.5V	10.5V	10.5V	10.5V	10.5V
Over voltage protection	15V	15V	15V	15V	15V	15V
Efficiency	70%~80%	70%~80%	70%~80%	70%~80%	70%~80%	70%~80%
SIZE/CTN(cm)	39*30*34	39*30*34	46*30*34	46*30*3	54*30*33	44*28.5*32
G.W./CTN	14.26KG	14.26KG	19.08KG	17.50KG	23.32KG	18.KG
Packing/CTN	20PCS					12PCS

FA~series

Built-in battery reverse protection



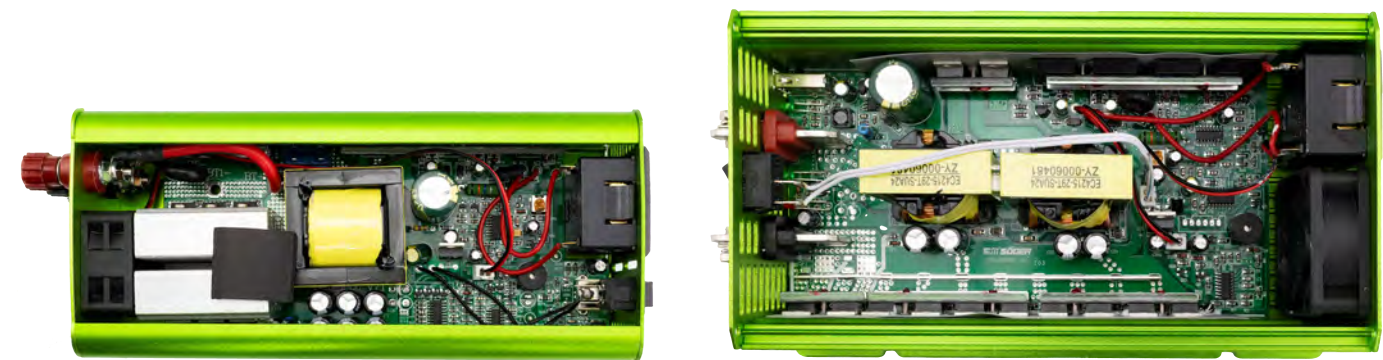
FEATURES

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-350AF	FA-500AF	FA-1000AF	FA-1500AF	FA-2000AF
Output Voltage	220V	220V	220V	220V	220V
Rated Power	200W	350W	600W	600W	800W
Peak Power	350W	500W	1000W	1500W	2000W
Frequency	50Hz	50Hz	50Hz	50Hz	50Hz
USB	DC 5V/1A	DC 5V/1A	DC 5V/1A	DC 5V/1A	DC 5V/1A
No-load Current	<0.5A	<0.5A	<0.5A	<0.5A	<0.5A
Voltage Range	10.5-15V	10.5-15V	10.5-15V	10.5-15V	10.5-15V
Alarm Voltage	10.5-15V	10.5-15V	10.5-15V	10.5-15V	10.5-15V
Low-voltage protection	10.5V	10.5V	10.5V	10.5V	10.5V
Over voltage protection	15V	15V	15V	15V	15V
Efficiency	70%~80%	70%~80%	70%~80%	70%~80%	70%~80%
SIZE/CTN(cm)	39*30*34	39*30*34	46*30*34	46*30*3	54*30*33
G.W./CTN	14.26KG	14.26KG	19.08KG	17.50KG	23.32KG
Packing/CTN	20PCS				

FA~series



FEATURES

1. Battery reverse protection(BF)
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

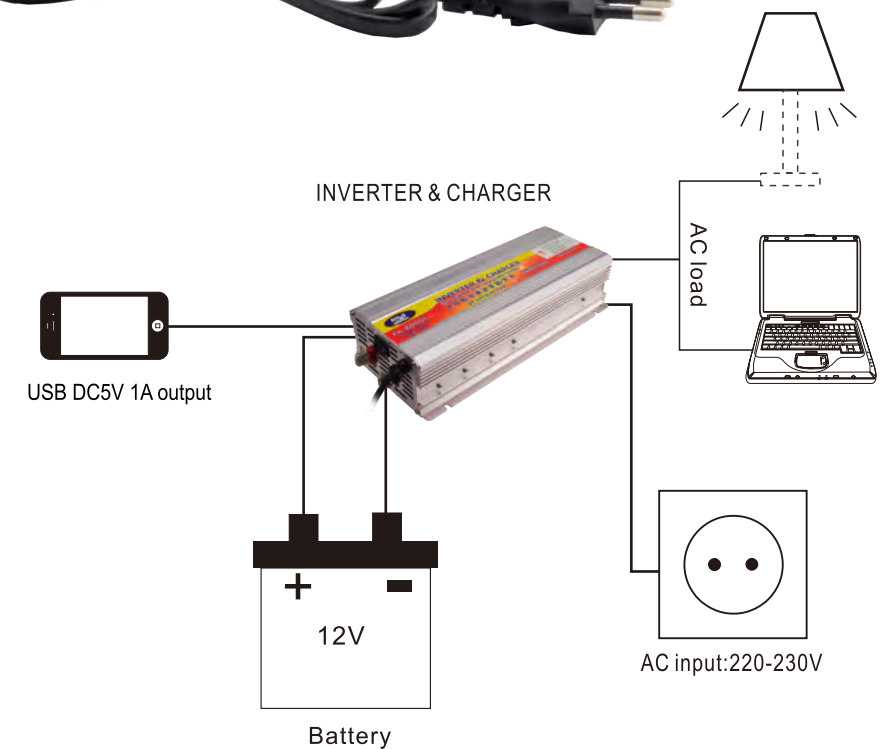
Model	FA-1500BF	FA-2000BF	FA-3000BF
Output Voltage	AC230V	AC230V	AC230V
Output Power	750W	750W	850W
Frequency	50Hz	50Hz	50Hz
USB Output	1000mA	1000mA	1000mA
No-load Current	<0.3A	<0.3A	<0.3A
Working volt	DC24V	DC24V	DC24V
Voltage Range	21-30V	21-30V	21-30V
Efficiency	>90%	>90%	>90%
SIZE/CTN(cm)	24*9.5*5.5CM	24*9.5*5.5CM	23*12.7*6.7CM

FA~series



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	Output Voltage	Rated Power	Peak Power	Frequency	USB	No-load Current	Voltage Range	Alarm Voltage	Low-voltage protection	Over voltage protection	Efficiency	SIZE/CTN(cm)	G.W./CTN
FA-1000C	220V	1000W	1500W	50Hz	DC 5V/1A	<0.5A	10.5-15V	10.5V	10V	16V	≥ 85%	267*95*55	23.5KG
FA-2000C	220V	2000W	2500W	50Hz	DC 5V/1A	<0.5A	10.5-15V	10.5V	10V	16V	≥ 85%	267*95*55	18.9KG

FFA~series



FEATURES

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

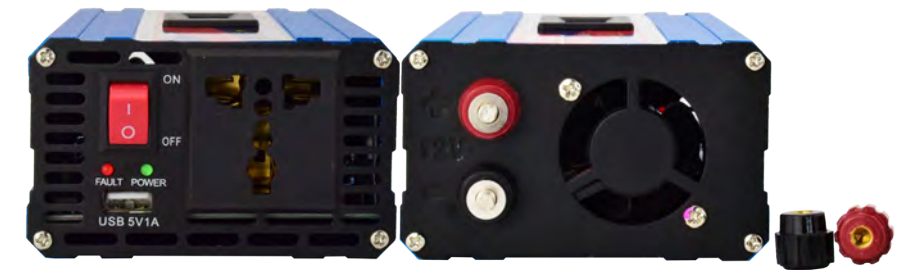
Model	FFA-350A	FFA-500A	FFA-500A(110V)	FFA-500B	FFA-1000A	FFA-1000B
Output Voltage	220VAC		110VAC	220VAC		
Output Waveform	Modified sine waveform					
Rated Power	200W	350W		600W		
Peak Power	350W	500W		1000W		
Working Voltage	DC12V	DC12V	DC12V	DC24V	DC12V	DC24V
Frequency	50HZ					
USB charging	DC5V 1A					
Protection	Battery reverse protection					
Fuse	Built in external circuit fuse					
No-load Current	<0.5A					
Voltage Range	10.5-15V	10.5-15V	10.5-15V	21-30V	10.5-15V	21-30V
Alarm Voltage	10.5-15V	10.5-15V	10.5-15V	21-30V	10.5-15V	21-30V
Low-voltage protection	10.5V	10.5V	10.5V	21V	10.5V	21V
Over-voltage protection	15V	15V	15V	30V	15V	30V
Efficiency	70%~80%					
SIZE/CTN(CM)	39*30*33	39*30*33	39*30*33	39*30*34	46*31*34	46*30*33
G.W./CTN	13.55KG	13.55KG	13.55KG	14.26KG	17.9KG	16.9KG
Packing/CTN	20PCS					

SAA~series



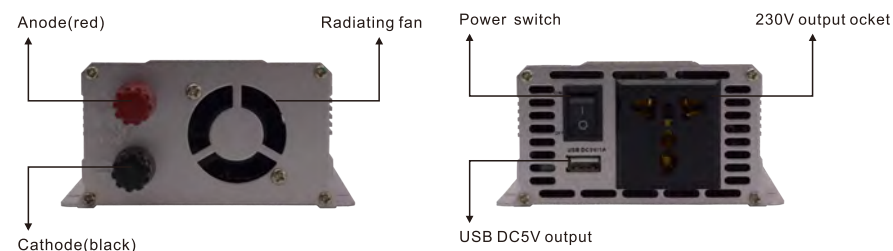
FEATURES

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



Mode	SAA-D600AF	SAA-D1200AF
Output Voltage	220V	
Output Frequency	50Hz+/-2HZ	
Output Waveform	modified sine wave	
Input Voltage range	10-15V	
Fuse	10A/15A/20A/30A/40A/70A/100A/140A	
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 (at 12V input)	<0.3A	
Battery drain with no AC load (at 24V input)	<0.2A	
Peak efficiency	>90%	
Continues AC output power	60W/80W/100W/120W/145W/200W/240W/400W/640W/800W	
30-minute AC output power	80W/100W/120W/150W/180W/250W/300W/500W/800W/1000W	
Maximum AC output power	160W/200W/240W/300W/360W/500W/600W/1000W/1600W/2000W	
USB charging	DC 5V/1A	

FTA~series

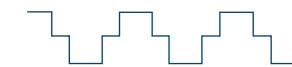


FEATURES

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	AC230V	AC230V	AC230V	AC230V
	Output Power	400W	650W	1000W	1500W	2000W
	Peak Power	500W	1000W	1500W	2000W	3000W
	Frequency	50Hz	50Hz	50Hz	50Hz	50Hz
	USB	DC5v 1A	DC5v 1A	DC5v 1A	DC5v 1A	DC5v 1A
Input	No-load Current	<0.3A	<0.5A	<0.5A	<0.5A	<1A
	working volt	DC12V	DC12V	DC12V	DC12V	DC12V
	Voltage range	10.5-15V	10.5-15V	10.5-15V	10.5-15V	10.5-15V
	Alarm voltage	10.5V	10.5V	10.5V	10.5V	10.5V
	Low-voltage protection	10V	10V	10V	10V	10V
	Over voltage protection	16V	16V	16V	16V	16V
	Efficiency	>85%	>85%	>85%	>85%	>85%
	SIZE/CTN	18*11.2*5.5cm	22.5*11.2*5.5cm	24.5*12.5*7.5cm	32*18*8.5cm	36*18*8.5cm
	G.W./CTN	16.6KG	21.8KG	20.35KG	13.02KG	15.58KG

SDB~series



Range of application

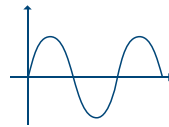


FEATURES

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	AC230V	AC230V
Output power	300W	600W	1000W
Peak power	500W	1000W	2000W
Output frequency	50Hz	50Hz	50Hz
USB interface	DC5V1A	DC5V1A	DC5V1A
NO-load current	<0.3A	<0.5A	<1A
Working volt	DC12V	DC12V	DC12V
Voltage range	10.5-15V	10.5-15V	10.5-15V
Alarm voltage	10.5V	10.5V	10.5V
low-voltage	10V	10V	10V
Overvoltage	16V	16V	16V
Efficiency	>85%	>85%	>85%
Size	20.3*11.2*5.5CM	22.5*11.2*5.5cm	32*18*8.5CM
Weight	0.59KG	0.75KG	2.47KG
Output waveform	Modified sine wave		

FPC~series



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%).



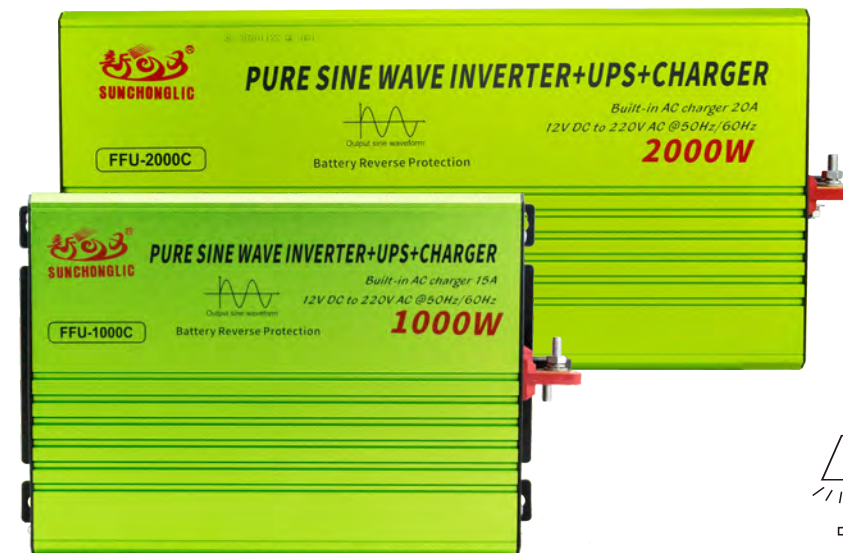
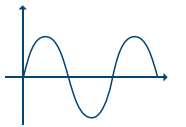
Model	FPC-300AL	FPC-500AL	FPC-1000A	FPC-1000B	FPC-2000A	FPC-2000B	FPC-3000A	FPC-3000B
Output voltage	AC220V	AC220V	AC220V	AC220V	AC220V	AC220V	AC220V	AC220V
Output power	300W	500W	650W	650W	1600W	1600W	2500W	2500W
Peak power	600W	1000W	1500W	1500W	3000W	3000W	4000W	4000W
USB outup	5V 1000mA							
Frequency	50Hz							
No-load current	<0.8A	<1A	<0.9A	<0.4A	<0.9A	<0.7A	<0.9A	<0.8A
Working volt	DC12V	DC12V	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V
Voltage range	10.5-15V	10.5-15V	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V
Alarm voltage	10.5V	10.5V	10.5V	21V	10.5V	21V	10.5V	21V
Low-voltage protection	10V	10V	10V	20.5V	10V	20.5V	10V	20.5V
Overvoltage protection	16V	16V	16V	31V	16V	31V	16V	31V
Efficiency maximum	94%							
Anti-backup protection	yes		nothing					
Product size	20X9.4X5.5cm	22.5X9.4X5.5cm	32.5X18X85cm		36.5X17.7X8.3cm		47X17.7X8.3cm	
Weight	0.69Kg	0.84Kg	2.77Kg		3.93Kg		5.33Kg	



<<Special applicable for inductive loads.

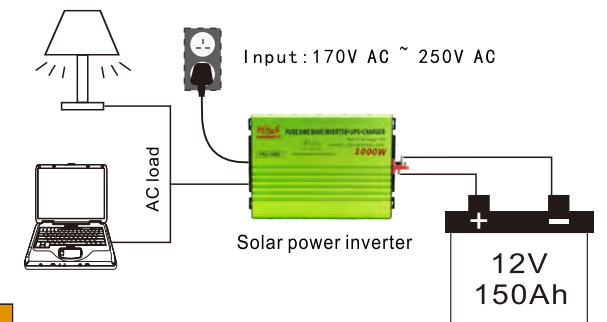


FFU~series

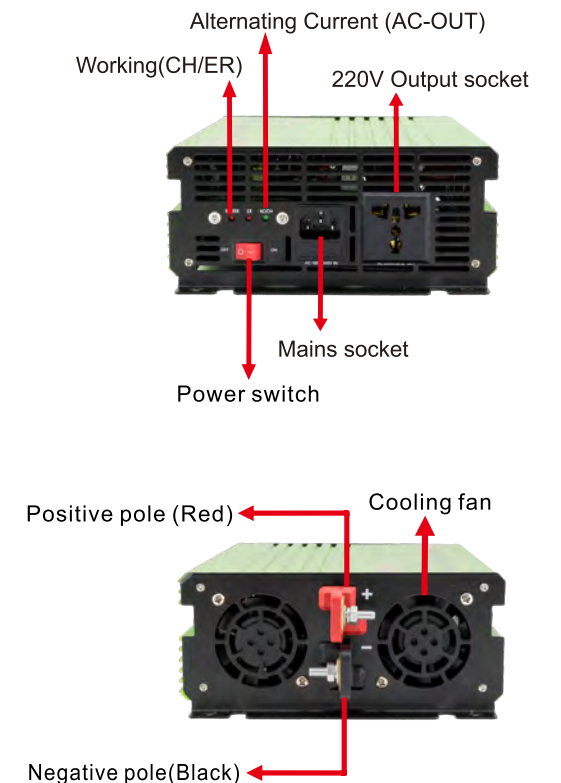


FEATURES

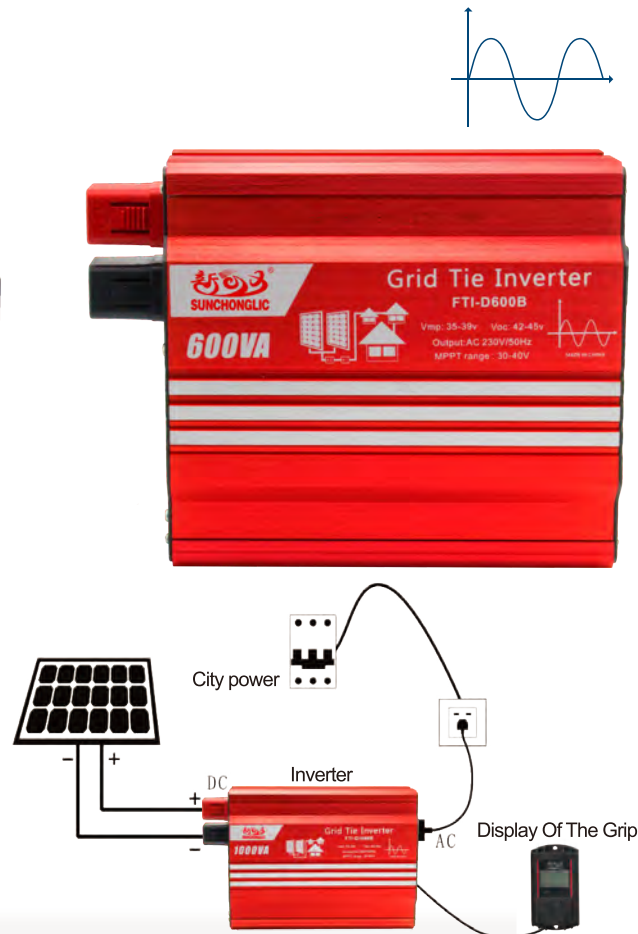
1. Perfect sine waveform output
2. Built-in 15A/20A AC battery charger
3. Battery reverse protection
4. Working frequency 50Hz/60Hz auto sense
5. Auto UPS power supply switch
6. 12V DC to 220V AC output



Model	FFU-1000C	FFU-2000C	FFU-3000C
Input Power	AC 220V	AC 220V	AC 220V
Output Power	1000W	2000W	3000W
Peak Power	2000W	4000W	6000W
Frequency	50/60Hz ± 0.1Hz Auto Sense	50/60Hz ± 0.1Hz Auto Sense	50/60Hz ± 0.1Hz Auto Sense
Waveform	Pure sine waveform output (THD < 3%)		
Switch Time	5ms		
No-load current	<1A	<1A	<1A
Working voltage	DC12V	DC12V	DC12V
Voltage range	9.5 ~ 14.5V	9.5 ~ 14.5V	9.5 ~ 14.5V
Alarm voltage	10V+4%	10V+4%	10V+4%
Low voltage protection	9.5V ± 4%	9.5V ± 4%	9.5V ± 4%
DC current	94A	94A	94A
Maximum power	89%	89%	89%
No-load loss	≤ 10W @ Standby mode		
Shutdown mode	≤ 0.1mA		
Battery type	Lead-acid battery		
Mains input voltage	170-250V AC	170-250V AC	170-250V AC
Charging Current (Max)	15A	20A	30A
Charging voltage	13.7V-14.7V	13.7V-14.7V	13.7V-14.7V



FTI~series MPPT



FEATURES

1. Compatible with Multi-parallel inverters
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 inverters are compatible in the circuit in parallel, small power inverters can provide high power output.

Model	FTI-D1000B	FTI-D600B
Output Power	1000W	600W
Solar Panel	Vmp:35-39V, Voc:42-45V	
MPPT Voltage Range	30-40V	
AC Voltage Range	190-260V	
Voltage Frequency	50HZ±1%	
Power factor	>97.5%	
MPPT Efficiency	>99%	
Total Harmonic	<5%	
Phase Shift	<2%	
Conversion Efficiency	>85%	>86%
Maximum Efficiency	>89%	>89%
Operating	-20°C-45°C	
Waterproof Rate	Interior Design	
Cooling Mode	Intelligent design of the electric fan control system	
Standby Power Loss	2-3W	
Product Size	257*195*88.5mm	210*195*88.5mm



FTI-SM/FTI-DM~series MPPT

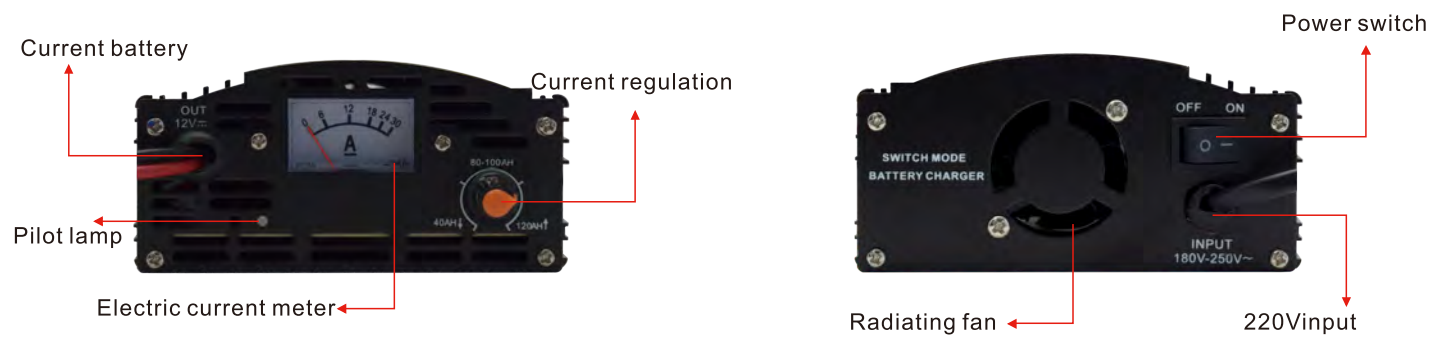


FEATURES

1. Smaller and lighter
2. IP65 protection
3. Easy installation
4. Reactive power controller
5. Digital controller

Model	FTI-3K-SM	FTI-5K-DM	FTI-10K-DM
Input			
Max.DC voltage/Nominal DC voltage	500Vdc/380Vdc	500Vdc/380Vdc	1000Vdc/620Vdc
MPPT voltage range	100-490Vdc	100-490Vdc	250-950Vdc
Min./start DC voltage	120/150Vdc	120/150Vdc	200/250Vdc
Full load MPPT voltage range	240-400Vdc	200-400Vdc	480-800Vdc
Max PV voltage	500V	500V	1000V
High efficiency	97.50%	97.50%	98%
Full load voltage range		/	480-800Vdc
Norminal DC voltage		/	620Vdc
Number of MPPT trackers	1	2	2
Strings per MPPT tracker	1	1	1
Max.DC power per MPPT tracker		3000w	/
Max.input current per MPPT tracker	13A	13A/13A	13A/13A
Output(AC)			
Max.AC output power	3000W	5000W	11KW
Nominal AC output power		/	10KW
Nominal AC voltage	230Vac	230Vac	400Vac
AC voltage range	230Vac±20%	230Vac±20%	400Vac±20%
Norminal AC grid frequency	50/60Hz	50/60Hz	50/60Hz
AC grid frequency range	50/60Hz(±5Hz)	50/60Hz(±5Hz)	50/60Hz(±5Hz)
Max.output current	14A	22A	17A
Power factor	Lagging 0.9-leading 0.9	Lagging 0.9-leading 0.9	0.8 leading-0.8lagging
THDI	<3%	<3%	<3%
AC connection	LN+PE	LN+PE	3W+N+PE/3W+PE
Topology	Transformer-less	Transformer-less	Transformer-less
Efficiency			
Max.efficiency	97.60%	97.50%	98.00%
Euro efficiency	97%	97%	97.50%
MPPT efficiency	99.90%	99.90%	/
Consumption:standby/night	<5W/0.2W	<5w/<0.2w	/
Protection devices			
AC leakage current fault protection	Yes	Yes	Yes
Ground fault protection	Yes	Yes	Yes
Anti-islanding protection	Yes	Yes	Yes
DC overvoltage protection	Yes	Yes	Yes
DC surge protection	Yes	Yes	Yes
AC surge protection	Yes	Yes	Yes
DC reverse-polarity protection	Yes	Yes	Yes
Physical			
Dimensions (W/L/D) in mm	264/326/127	329*466*149	553*715*228
Weight	8.6kg	15.5KG	35KG
Environment			
Operating temperature range	-25°C~+60°C	-25°C~+60°C	-25°C~+60°C
Noise emission (typical)	≤25db	≤25db	≤40db
Cooling type	Natural cooling	Natural cooling	Natural cooling
Protection rating	IP65	IP65	IP65
Features			
LCD display	Yes	Yes	Yes
Interfaces	RS485	RS485	RS485(Wifi Plug/GPRS Plug optional)
Optional	DC Switch/Wifi Plug/GPRS Plug	DC Switch/Wifi Plug/GPRS Plug	/

FMA~series



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
input Voltage	AC150V-250V	AC150V-250V	AC220V 10% 50Hz	AC220V 10% 50Hz	AC220V 10% 50Hz	AC220V 10% 50Hz
Rated Power	12V	12V	12V	12V	12V	24V
Constant charge current	10A±5%	10A±5%	30A±5%	40A±5%	50A±5%	20A±5%
Constant charge voltage	14.5-14.8V	14.5-14.8V	14.5-14.8V	14.5-14.8V	14.5-14.8V	29-29.6V
floating voltage	13.8V	13.8V	13.8V	14.7V	14.7V	27.5V
charge mode	Three-step	Three-step	Four-step	Four-step	Four-step	Three-step

DC~series



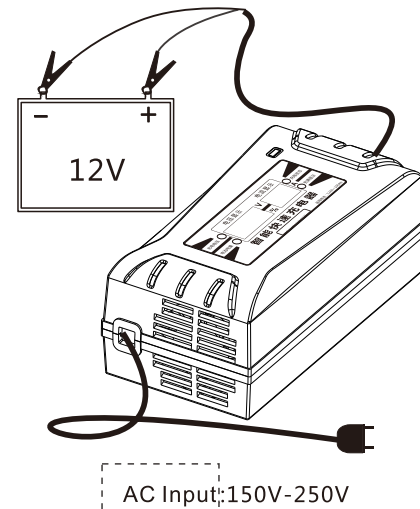
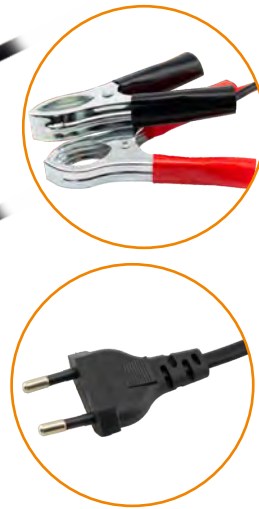
FEATURES

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



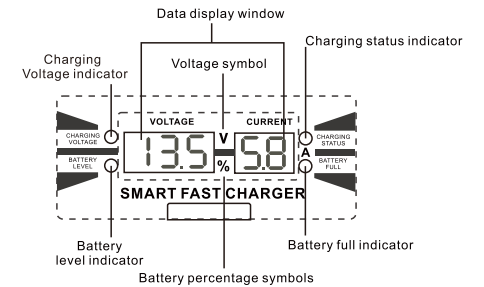
Model	DC-1210A	DC-1220A	DC-1230A	DC-1240A
Input Voltage	180V/240V	180V/240V	180V/240V	180V/240V
Apply to the battery voltage (DC)	12V	12V	12V	12V
Maximum charge voltage	15.5V	15V	15V	15V
Maximum Charger Current	10A	20A	30A	40A
Display method	Digital	Digital	Digital	Digital
AC Input Frequency	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-phase	Three-phase	Four-phase	Three-phase
Full load efficiency	>90%	>90%	>90%	>90%
Dimensions	153*96*55MM	183*96*55MM	188*128*68MM	235*128*68MM
G.W/CTN	18.65KG	24.5KG	25.8KG	31.6KG
Packed QTY/CTN	20PCS	16PCS	20PCS	20PCS
Certification	ISO,CTA,CE			

FON~series



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)



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



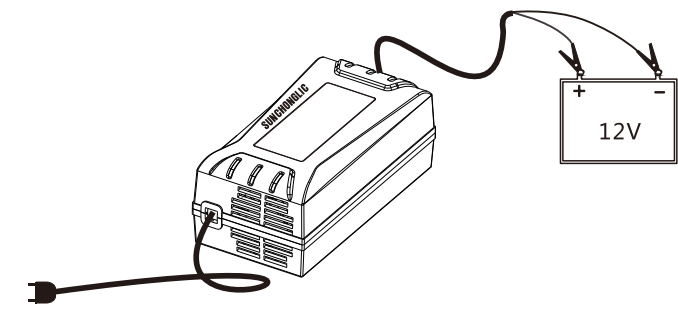
Model	FON-1203B	FON-1205B	FON-1206D	FON-1210D+
Input Voltage	180V-230V	180V-230V	110-250V	150-250V
Apply to the battery voltage (DC)	12V	12V	12V	12V
Maximum charge voltage	15.3V	15.3V	15V	15V
Maximum Charger Current	3A	5A	6A	10A
Display method	indicator light	indicator light	LED digital tube	LED digital tube
AC Input Frequency	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-phase	Four-phase	Three-phase	Three-phase
Full load efficiency	>90%	>90%	>90%	>90%
Dimensions	150*85*55mm	150*85*55mm	168*78*62MM	168*78*62MM
N.W/CTN	17.1kg	20.4kg	20.7kg	29.2kg
Packed QTY/CTN	60PCS	60PCS	50PCS	50PCS

FON~series

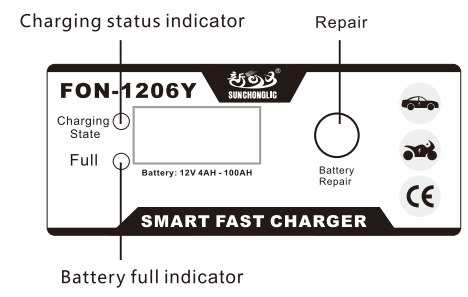


FEATURES

1. This charger micro controller MCU intelligent control and management of battery charging process, the battery is full automatically stop charging.
2. It adopts efficient three-phase (constant current phase, constant voltage phase, floating charging phase) digital management of charging ways.
3. With battery-line detection, short circuit, overcharge, overvoltage and reverse polarity protection and other functions.
4. The detailed charge indicator or LCD display shows charging process directly reflects facilitate users to quickly understand the current state of the battery.



AC input: 90V-250V



Model	Maximum Charging Current	Applicable Battery Voltage (DC)	Rated Input Voltage (AC)	Rated Frequency	Full Load Efficiency	Mechanical Shock And Quake-proof Degree	Temperature Range	Product size (mm)	Products to reset (kg)
FON-1206Y	6A	12V	90V-250V	47~63Hz	≥87%I	SAEJ1378	-20~+90°C	168*78*62mm 168*78*62mm	0.32kg 0.36kg

FON~series



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	AC150V~250V50/60Hz
Charging Voltage	6V/12V	12V/24V
Constant Current Charging Current	10A±10%	10A±10%
Constant Current Charging Voltage	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 (mm)	130*96*60	185*120*68
weight (Kg)	0.42	0.75



A03~series



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	-40~+90°C

FT-C~serie
(12V/24V)



Double USB output(5V2.1A)

FEATURES

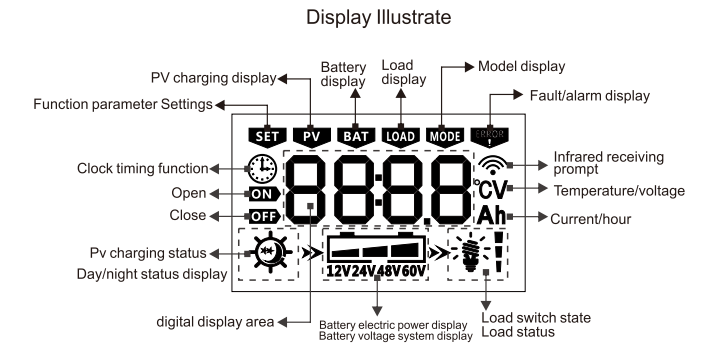
1. Clock timing function
2. Built-in two 5V 2.1A USB interfaces
3. Extreme Low Power Consumption
4. LCD Display with backlight
5. Light control mode, Time control mode
6. Reverse protection, short circuit protection
7. Designed for 12V/24V solar power system
8. Hanging style design makes it convenient to install
9. Available in 10A/20A/30A/40A
10. Simple options, automatic memory retention of users' settings

>FT-C1220/FT-C1230/FT-C1250

>FT-C1210/FT-C1240/FT-C1260

Model	FT-C1210	FT-C1220	FT-C1230	FT-C1240	FT-C1250	FT-C1260
Battery voltage	12V/24V, battery<16V:12V, Battery>18V:24V					
Maximum charging voltage	12V:18-24V Standard specifications solar panels(24V battery*2)					
Maximum charging current	10A	20A	30A	40A	50A	60A
Maximum output current	12A	24A	35A	45A	55A	65A
Maximum charging voltage	Convenient switch:(24V Battery *2,Parameters can adjust in the Settings menu) Set 1:Low: 14.2V(28.4V),Gel battery(Default Option) Set 2:Default:14.5V(29V)(Conventional lead-acid batteries) Set 3:High: 15.2V(30.4V)(Liquid lead-acid battery)					
Low voltage protection voltage	10.5V(24 battery*2,Parameters can adjust in the Settings menu)					
Low voltage recovery voltage	12.5V(24 battery*2,Parameters can adjust in the Settings menu)					
Auto recovery from overload	30S					
Double USB output	5V 2.1A			No		
Opening time of DC	0-24 hours can be chosen					

FT-C~series
(48V)



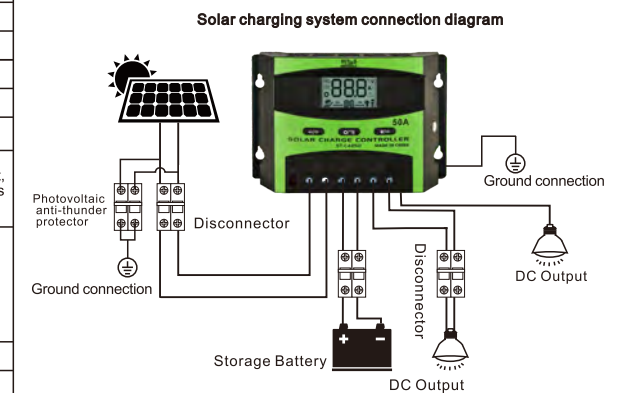
>FT-C4830/FT-C4850

>FT-C4840/FT-C4860

FEATURES

1. Clock timing function
2. Built-in two 5V 2.1A USB interfaces
3. Extreme Low Power Consumption
4. LCD Display with backlight
5. Light control mode, Time control mode
6. Reverse protection, short circuit protection
7. Designed for 12V/24V solar power system
8. Hanging style design makes it convenient to install
9. Available in 10A/20A/30A/40A
10. Simple options, automatic memory retention of users' settings

Model	FT-C4830	FT-C4840	FT-C4850	FT-C4860
To adapt to the battery voltage	48V single voltage system			
Rating charger voltage	Open loop voltage 18-24V Standard specifications solar panels*4			
Rating charger current	30A	40A	50A	60A
Recommended power of solar panel	1080W	1440W	1800W	2160W
Rated output current	30A	40A	50A	60A
Maximum Output Current	35A	45A	55A	65A
Recommended capacity of battery pack	>180A	>240A	>300A	>360A
Rating charger voltage	Convenient switch: (Parameters can adjust in the Settings menu) Set 1: Low: 56V, Gel battery(Default option) Set 2: Default: 58V(Conventional lead-acid batteries) Set 3: High: 60V(Liquid lead-acid battery)			
Under-voltage protection voltage	Default 41V(Parameters can adjust in the Settings menu)			
Owe pressure recovery voltage	Default 50V(Parameters can adjust in the Settings menu)			
Load overload automatic Recovery time	30S			
DC output			12V 1.0A	
Double USB output	5V 2.0A			
Infrared remote control distance	<5m			
Stand-by power consumption	<30mA			
Overall dimensions	203mm*120mm*43mm		210mm*145mm*60mm	
Installation of fixed size	190mm*65mm		192mm*80mm	
Product weight(G.W)	0.5kg		0.9kg	



FT-S~serie **PWM**
(12V/24V)



✓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 protection, 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	12V 100-150Ah	12V 100-150Ah
	24V 100-150Ah	24V 100-150Ah	24V 100-150Ah
Battery Type	B01=Lead Acid Battery 12V		
	B02=Lithium-ion battery 3 series 3.7V=11.1V		
	B03=Lithium iron 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 / Weight	125*86*34mm/200g		

FT-MP~serie **MPPT**
(12V/24V/48V)

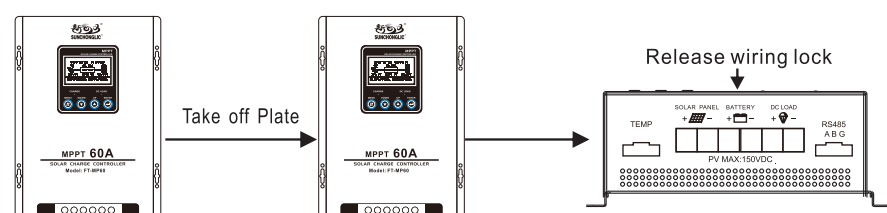


✓FEATURES

- Excellent heat dissipation design and intelligent control of cooling fan.
- Maximum power tracking technology can significantly increase the energy utilization rate of the solar system and can reach 97% of transfer efficiency.
- Quick scan the entire I-V curve, can track the maximum power point within several seconds.
- Applicable for 3 types of batteries. Charging program can be selected. Lead acid battery/Colloid storage battery Lithium ion battery
- Overcurrent protection, Short circuit protection, Overcharge protection, Overdischarge protection and Overload protection.

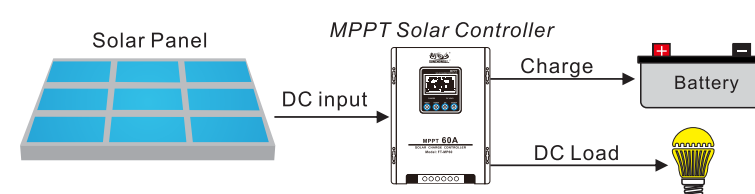
Model	FT-MP30	FT-MP40	FT-MP50	FT-MP60	FT-MP100
LCD Display	LCD panel indicating solar power, load level, battery voltage/capacity, charging current, and fault conditions				
LED Display	DC output indication				
PC Upon Computer (Communication port)	RS-485(Optional)				
Input low voltage protection	Reference input attribute				
Input high voltage protection	Reference input attribute				
Input polarity reverse protection	yes				
Output polarity reverse protection	yes				
short-circuit protection	Could be short-circuited for a long time, could be recovered after the short-circuit fault is eliminated				
High temperature protection	90 degrees Celsius				
Audible noise	≤45dB				
Heat dissipation mode	Intelligent air cooling				
Product Size (L*W*H) mm	315×230×90		380×360×140		
Carton Size (L*W*H) mm	350×275×135		445×425×195		
Gross Weight (kg)	4.03		9.4		
Net Weight (kg)	3.62		9.65		
Type of mechanical protection	IP32				

**FT-MP~serie
(12V/24V/48V)**



Model: FT-MP40/50/60A Series		FT-MP30	FT-MP40	FT-MP50	FT-MP60	FT-MP100
Charging mode	MPPT automatic maximum power point tracking					
Charging method	Three stages: Constant current charging(MPPT), Equalizing charging, float charging					
System Type	12V/24V/48V	Automatic recognition / Manual setting				
System identification voltage range	12V System	DC9V-DC15V				
	24V System	DC18V-DC30V				
	48V System	DC36V-DC60V				
Quiescent dissipation	12V/24V/48V	≤2W				
Overall Unit efficiency	12V/24V/48V	≥96.5%				
Photovoltaic module utilization ratio	12V/24V/48V	≤99%				
MPPT Working voltage range	12V System	DC18V-DC150V				
	24V System	DC30V-DC150V				
	48V System	DC65V-DC150V				

**FT-MP~serie
(12V/24V/48V)**



Environmental requirements	
Humidity	0~90%RH (No Dew)
Height above sea level	0~3500m
Ambient temperature	-20℃~+60℃
storage temperature	-40℃~+70℃
Photovoltaic module configuration	
System voltage (battery voltage)	Photovoltaic module load voltage (recommended data)
12V System	18V~144V
24V System	36V~144V
48V System	72V~144V



Maximum solar input power	12V System	450W	570W	700W	900W	1500W
	24V System	750W	1130W	1400W	1700W	2900W
	48V System	1500W	2270W	2800W	3400W	5700W
Optional battery type (default lead-acid-free maintenance-free battery)	Sealed lead acid, Gel, NiCd battery or User-Defined)					
Floating charging voltage (lead acid battery)	12V System	13.8V(Customizable floating charge voltage)				
	24V System	27.6V(Customizable floating charge voltage)				
	48V System	55.2V(Customizable floating charge voltage)				
Average charge voltage (lead acid battery)	12V System	14.4V(Customizable floating charge voltage)				
	24V System	28.8V(Customizable floating charge voltage)				
	48V System	57.6V(Customizable floating charge voltage)				
Rated current	12V/24V/48V	30A	40A	50A	60A	100A
Current-limiting protection	12V/24V/48V	30A	40A	50A	60A	100A
Temperature coefficient	12V/24V/48V	±0.02%/℃				
Auto temperature compensation	12V/24V/48V	-4mV℃				