



Green energy  
change life ~



High-Technology Enterprise

## Foshan Suoer Electronic Industry Co.,Ltd

**Solar Charge Controller >> ●**

**Power Supply Transformer >> ●**

**Solar Inverter/battery Chager >> ●**

Five Star Quality, derived From Suoer Technology!



### Foshan Suoer Electronic Industry Co.,Ltd

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MADE IN CHINA



Suoer Wechat Account



Facebook Fan Page

Five Star Quality, derived From Suoer Technology!



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



# Company Introduction

Suoer Electronic Industrial Company Limited integrates R&D, manufacture and sales together. Located at Dali town, Nanhai district, Foshan city, Guangdong province, it is 20 kilometers away from Guangzhou with convenient transportation and beautiful scenery. We have built a 20,000 square meters industrial park with standard workshops, advanced equipments and leading R&D center.

The company pushes forward many world's leading products, including power inverter, car power inverter, battery charger, power frequency inverter, scenery complementary control inverter, wind generator and other products.

Suoer sticks to the spirit of "innovative development, win-win benefit" and the principle of "technical refinement, upward unity, and joint development". We adhere to the virtue of strict management system, perfect after-sale service system and regard creating a famous industry brand as our duty. We try our best to provide quality products and first-class service for our customers.



Sufficient Inventory

Multiple Mixing Lines

Excellent R & D Team

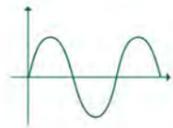
Excellent Sales Team

# certificate

## Products Contents



- <Grid Tie / UPS / Pure Sine Wave / Solar Power Inverter-----01/07
- <Car / Solar Power Inverter-----08/14
- <UPS / Car / Sine Wave / Solar Power Inverter-----15/21
- <Intelligent / Digital / Lithium / Car / Pulse / Battery Chager-----22/29
- <Intelligent / Digital / Electric Car / Battery Chager-----30/33
- <Waterproof / PWM / MPPT / Solar Charge Controller-----34/40



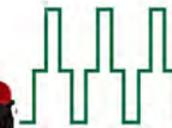
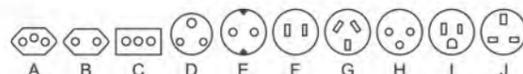
FEATURES

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.

Technical parameter

GTI-D-series

Model	GTI-D1000B	GTI-D600B	GTI-D300B
Output Power	1000W	600W	300W
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%	>87%
Maximum Efficiency	>89%	>89%	>90%
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	180*195*88.5mm



Range of application



FEATURES

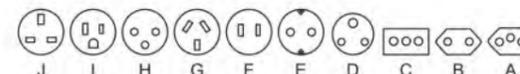
1. 5V 1A USB charging interface
2. Battery/output voltage, battery capacity, AC loads real-time LCD display.
3. New connecting terminal screws
4. Modified sine waveform output
5. OEM & ODM are acceptable

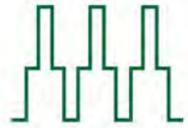
>> SDB-2000A >>

Technical parameter

SDB-series

Model	SDB-500A	SDB-500B	SDB-1000A	SDB-1000B	SDB-1500A	SDB-1500B	SDB-2000A	SDB-2000B
Output voltage	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V
Output power	300W	300W	600W	600W	800W	800W	1000W	1000W
Peak power	500W	500W	1000W	1000W	1500W	1500W	2000W	2000W
Output frequency	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz
USB interface	DC5V1A	DC5V1A	DC5V1A	DC5V1A	DC5V1A	DC5V1A	DC5V1A	DC5V1A
NO-load current	<0.3A	<0.2A	<0.5A	<0.3A	<1A	<0.5A	<1A	<0.5A
Working volt	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V
Voltage range	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V
Alarm voltage	10.5V	21V	10.5V	21V	10.5V	21V	10.5V	21V
low-voltage	10V	20.5V	10V	20.5V	10V	20.5V	10V	20.5V
Overvoltage	16V	31V	16V	31V	16V	31V	16V	31V
Efficiency	>85%	>85%	>85%	>85%	>85%	>85%	>85%	>85%
Size	20.3*11.2*5.5CM		22.5x11.2x5.5cm		24.5*12.5*7.5CM		32*18*8.5CM	
Weight	0.59KG		0.75KG		1.37KG		2.47KG	
Output waveform	Modified sine wave		Modified sine wave		Modified sine wave		Modified sine wave	





Range of application



New



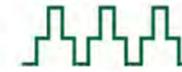
FEATURES

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

Technical parameter

SDB-D-series

Model	SDB-D1500A	SDB-D1500B	SDB-D2000A	SDB-D2000B
Output voltage	AC230V	AC230V	AC230V	AC230V
Output power	1000W	1000W	1500W	1500W
Peak power	1500W	1500W	2000W	2000W
Output frequency	50Hz	50Hz	50Hz	50Hz
USB interface	DC12V	DC24V	DC12V	DC24V
NO-load current	<1A	<0.5A	<1A	<0.5A
Working volt	DC12V	DC24V	DC12V	DC24V
Voltage range	10.5-15V	21-30V	10.5-15V	21-30V
Alarm voltage	10.5V	21V	10.5V	21V
low-voltage	10V	20.5V	10V	20.5V
Overvoltage	16V	31V	16V	31V
Efficiency	70%~80%			
Size	24*12.5*7.5CM		32*18*8.5CM	
Weight	13.7KG		2.47KG	
Output waveform	Modified sine wave		Modified sine wave	



New



SON-1400MPPT

FEATURES

1. Advanced modified sine waveform output(Almost suitable for most of home resistive appliances)(SON-1400MPPT)
1. Perfect sine waveform output(FPC-T1800CA)
2. Built-in AC charger 20A(FPC-1800CA)
3. Built-in MPPT charging controller 30A(SON-1400MPPT)
3. Built-in PWM charging controller 30A(FPC-T1800CA)
4. Auto switch to inverter output/mains supply acc to the AC voltage range(<15ms)
5. Input voltage range of mains:170V-280V or 90V-280V
6. Auto identification of output frequency:50Hz or 60Hz
7. LCD+LED screen display(Output power, Output voltage, battery capacity)
8. Overcharge protection, Overload protection, Over-voltage protection, Short circuit protection, Low battery protection



New

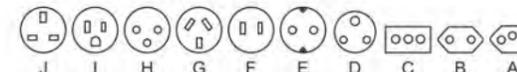
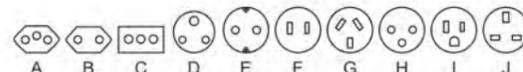


FPC-T1800CA

Technical parameter

SON-1400MPPT/FPC-T1800CA

MODEL		SON-1400MPPT	FPC-T1800CA
CAPACITY	VA/W	1400VA/800w	1800VA/900w
BATTERY	VDC	12V	12V
INPUT	Normal Voltage	230V	230V
	Voltage Range	170-280VAC(narrow range ) 90-280VAC(wide range)	170-280VAC(narrow range ) 90-280VAC(wide range)
OUTPUT	Voltage	230V AC	230V AC
	Voltage Regulation(Bat.model)	+10%~-18%	+10%~-18%
	Frequency	50Hz or 60Hz	50Hz or 60Hz
	Frequency Regulation(Bat.model)	±1Hz	±1Hz
BATTERY&CHARGER	Output Waveform	Modified Sine wave	Pure sine wave
	Charger current	15Amp or 20Amp Selectable ±2A	15Amp or 20Amp Selectable ±2A
	Overcharge protection	15V	15V
THANSFERTIMET	Typical	<15ms	<15ms
EFFICIENCY	AC to AC	>95%	>95%
	DC to AC	>80%	>80%
DISPLAY INDICATOR	AC model	Display output power ,output voltage	Display output power ,output voltage
	Battery Mode	The mark will flicker every 1 second	The mark will flicker every 1 second
	Battery Charging Mode	Display the battery capacity	Display the battery capacity
	Fault	Display fault	Display fault
AUDIBLE ALARM	Low battery at battery model	Sounding every 2seconds	Sounding every 2seconds
	Overload	Sounding every 0.5seconds	Sounding every 0.5seconds
	Fault	Display fault	Display fault
Protection	Full protection	Discharge, overcharge, overload, over temperature protection.	Discharge, overcharge, overload, over temperature protection
PHYSICAL	Dimension		
	Net weight(kgs)		
ENVIROMENT	Operation enviroment	0-50°C,5%-90% relative humidity (non-condensing)	0-50°C,5%-90% relative humidity (non-condensing)
	Storage enviroment	-15 to 55,5% to 95% humidity (non-condensing)	-15 to 55,5% to 95% humidity (non-condensing)
	Noise Level	Less than 50db	Less than 50db





### FEATURES

1. 5V 1A USB charging interface.
2. Pure sine wave output.
3. Applicable for sensitive loads (Applicable for Air conditioner).
4. Peak power 6000W(2s)
5. Multiple safe protections.
6. Input and output are completely independent.
7. Universal socket, suitable for all kinds of plugs.
8. High-precision voltage stability technology.
9. Aerospace-grade silence technology.
10. Gained CE,CTA,ISO,RoSH certificates guaranteed.
11. 100% pure sine wave output waveform: designed for sensitive loads(Total Harmonic Distortion(THD) < 3%).

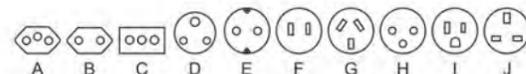
Max power 2400W,  
Easy to start the motor load.



### Technical parameter

### FPC-series

Model	FPC-1000A	FPC-1000B	FPC-2500A	FPC-2500B	FPC-3000A	FPC-3000B
Peak power	2000W(1S)		5000W(1S)			
Rated power	1000W		2500W			
Output waveform	Pure sine wave		Pure sine wave			
Output voltage	220V/230±5V		220V/230±5V			
Harmonic distortion	<3%(Impedance load)		<3%(Impedance load)			
Output frequency	50Hz(or 60Hz)		50Hz(or 60Hz)			
Standby current	0.9A	0.4A	0.9A	0.7A	0.9A	0.7A
Conversion efficiency	Maximum 94%					
Rated voltage	12V	24V	12V	24V	12V	24V
Maximum input current	120A	60A	250A	125A	300A	150A
Input voltage range	9V-16V	18V-32V	9V-16V	18V-32V	9V-16V	18V-32V
Under voltage protection	9V±0.5V	19.9V±0.2V	9V±0.5V	19.9V±0.2V	9V±0.5V	19.9V±0.2V
Under voltage tip	10.2V±0.5V	20.9V±0.2V	10.2V±0.5V	20.9V±0.2V	10.2V±0.5V	20.9V±0.2V
Under pressure recovery	12.5V±0.5V	24.7V±0.2V	12.5V±0.5V	24.7V±0.2V	12.5V±0.5V	24.7V±0.2V
Over voltage protection	15V±0.5V	30.2V±0.2V	15V±0.5V	30.2V±0.2V	15V±0.5V	30.2V±0.2V
Over voltage recovery	14.8V±0.5V	29.8V±0.2V	14.8V±0.5V	29.8V±0.2V	14.8V±0.5V	29.8V±0.2V
High temperature protection	Buzzer/LED warning		Buzzer/LED warning			
Output short circuit protection	Buzzer/LED warning		Buzzer/LED warning			
Output overload	Smart control		Smart control			
Load power factor	0.98		0.98			
USB Output	5V 1A		5V 1A			
Battery reverse protection	Fuse protection		Fuse protection			
Cooling way	Temperature control		Temperature control			
Working temperature	-20~60°C		-20~60°C degrees celsius			
Storage temperature	-20~80°C		-20~80°C degrees celsius			
Working humidity	10~90% (No condensation)		10~90% (No condensation)			
Product size(mm)	325x180x85		405x180x85		470x180x85	
N.W/G.W(KG)	2.77		4.77		5.33	



### Left side



### FEATURES

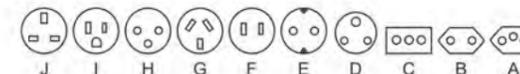
1. 5 working status indicators, Easy to know the condition of the inverter
2. Adopt new safe connecting terminal
3. Large start up power
4. Excellent improvement of loading performance, designed for small power sensitive electric appliances
5. 2 USB charging Ports 5V 1.2A/2.1A
6. Conversion efficiency is up to 94%
7. Indicators directly displays the error message
8. Built-in RS 485 communication controller(Optional)



### Technical parameter

### FPC-H-series

Model	FPC-H1000A	FPC-H1000B	FPC-H1500A	FPC-H1500B
Peak Power	2000W		2500W	
Rated Power	1000W		2000W	
Output Waveform	Pure Sine Wave			
Output Voltage	220v/230±5v			
Harmonic Distortion	<3%(Impedance Load)			
Output Frequency	50/60Hz(optional)			
Standard Current	<1.5A	<0.8A	<2A	<1A
Conversion Efficiency	Maximum 94%			
Rated Voltage	12v	24v	12V	24V
Maximum Input Current	200A	120A	250A	150A
Input Voltage Range	10-15V	20-32V	10-15V	20-32V
Under voltage protection	10V	20V	10V	20V
Under voltage tip	10.5v	21v	10.5V	21V
Under Pressure Recovery	12.3v	24.6v	12.3V	24.6V
Over Voltage Protection	15.5v	31v	15.5V	31V
Over Voltage Recovery	15v	30v	15V	30V
High Temperature Protection	95°C			
Output Short Circuit Protection	YES			
Output Overload	Intelligent Protection			
Load Power Factor	0.98			
USB Output	5V 3Amax			
Battery Reverse Protection	Fuse Protection			
Cooling Way	Intelligent Fan			
Working Temperature	-20~60°C			
Storage Temperature	-20~80°C			
Working Humidity	10-90%(No condensation)			
Product Size(mm)	338*195*80mm		475*195*80mm	





**FEATURES**

1. Perfect sine waveform output, input and output are completely independent.
2. Adopt new safe connecting terminal
3. LED screen display shows full working condition
4. Special designed for sensitive loads such as 1Pi A/C
5. Excellent loading capacity running small power sensitive electric appliances
6. 2 USB charging Ports 5V 1.2A/2.1A
7. Conversion efficiency is up to 94%
8. Built-in RS 485 communication controller(Optional)



**Technical parameter**

**FPC-D-series**

Model	FPC-D1000A	FPC-D1000B	FPC-D1500A	FPC-D1500B	FPC-D4000B	FPC-D5000B
Peak Power	2000W		2500W		6000W	8000W
Rated Power	1000W		1500W		4000W	5000W
Output Waveform	Pure Sine Wave					
Output Voltage	220V/230V±5V					
Harmonic distortion	<3%(Impedance load)					
Standby current	<1.5A	<0.8A	<1.3A	<1.3A	<1.3A	<1.3A
Conversion efficiency	Maximum 94%					
Rated Voltage	12V	24V	24V	24V	24V	24V
Maximum input current	200A	120A	250A	250A	250A	250A
Input Voltage Range	10-15V	20-32V	20-32V	20-32V	20-32V	20-32V
Under voltage protection	10V	20V	20V	20V	20V	20V
Under voltage tip	10.5V	21V	21V	21V	21V	21V
Under pressure recovery	12.3V	24.6V	24.6V	24.6V	24.6V	24.6V
Over voltage protection	15.5V	31V	31V	31V	31V	31V
Over voltage recovery	15V	30V	30V	30V	30V	30V
High temperature protection	95°C					
Output short circuit protection	Yes					
Output overload	Intelligent Protection					
Load power factor	0.98					
USB Output	5V 3Amax					
Battery reverse protection	Fuse protection					
Cooling way	Intelligent fan					
Working temperature	-20-60°C					
Storage temperature	-20-80°C					
Working humidity	10-90%(No condensation)					
Product Size	386*205*100mm		425*205*100mm		520*275*225mm	



Smart fan



Low power consumption during no-load



Multiple protections



USB Interface

**FEATURES**

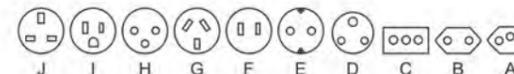
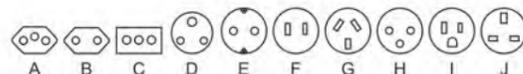
1. 1.5V 1A USB Interface
2. Modified Sine Waveform Output
3. New connecting terminal screws
4. Built-in 20A charger
5. Most Competitive price ever

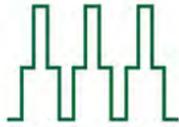


**Technical parameter**

**SUA-series**

Model	Output Voltage	Output Power	Peak Power	Frequency	No-load Current	Working Volt	Voltage Range	Efficiency	Product Size (CM)	Weight (KG)
SUA-500A	AC220V/(AC110V)	500w	1000w	50Hz	<0.3A	DC12V	10.5-15V	85%~90%	18*9.5*5.5	0.54
SUA-500B	AC220V(AC110V)	500w	1000w	50Hz	<0.3A	DC24V	21-30V	85%~90%	18*9.5*5.5	0.54
SUA-500F	AC220V(AC110V)	500w	1000w	50Hz	<0.3A	DC48V	42-60V	85%~90%	18*9.5*5.5	0.54
SUA-1000A	AC220V(AC110V)	1000w	2000w	50Hz	<0.3A	DC12V	10.5-15V	85%~90%	22*9.5*5.5	0.74
SUA-1000B	AC220V(AC110V)	1000w	2000w	50Hz	<0.3A	DC24V	21-30V	85%~90%	22*9.5*5.5	0.74
SUA-1000F	AC220V(AC110V)	1000w	2000w	50Hz	<0.3A	DC48V	42-60V	85%~90%	22*9.5*5.5	0.74
SUA-2000A	AC220V(AC110V)	2000w	4000w	50Hz	<0.3A	DC12V	10.5-15V	85%~90%	24*9.5*5.5	0.9
SUA-2000B	AC220V(AC110V)	2000w	4000w	50Hz	<0.3A	DC24V	21-30V	85%~90%	24*9.5*5.5	0.9
SUA-2000F	AC220V(AC110V)	2000w	4000w	50Hz	<0.3A	DC48V	42-60V	85%~90%	24*9.5*5.5	0.9





FEATURES

1. DC 12V/24V to AC 220V 500W to 2500W
2. LED screen display
3. Applicable for mini refrigerator
4. Built-in 5V 1A USB charging interface
5. Modified sine waveform output
6. Accessories: Cigarette lighter or connecting lips is optional

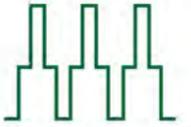
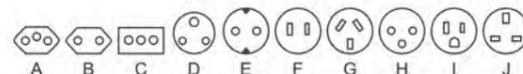
Range of application



Technical parameter

STA-series

Model	STA-500A	STA-500B	STA-1000A	STA-1000B	STA-1500A	STA-1500B	STA-2000A	STA-2000B
Output voltage	AC220V(110V)							
Rated power	400W	400W	650W	650W	1000W	1000W	1500W	1500W
Peak power	500W	500W	1000W	1000W	1500W	1500W	2000W	2000W
Frequency	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz
USB	DC 5V 1A	DC 5V1A	DC 5V 1A	DC 5V 1A	DC 5V 1A	DC 5V 1A	DC 5V 1A	DC 5V 1A
No-load current	<0.3A	<0.2A	<0.5A	<0.3A	<0.5A	<0.3A	<0.5A	<0.3A
working voltage	DC 12V	DC 24V	DC 12V	DC 24V	DC 12V	DC 24V	DC 12V	DC 24V
Voltage range	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V
Alarm voltage	10.5V	21V	10.5V	21V	10.5V	21V	10.5V	21V
Low-voltage protection	10V	20.5V	10V	20.5V	10V	20.5V	10V	20.5V
Overvoltage protection	16V	31V	16V	31V	16V	31V	16V	31V
Efficiency	70%~80%							
Size	18*11.2*5.5CM		22.5*11.2*5.5CM		24.5*12.5*7.5CM		32*18*8.5CM	
G.W.	0.56KG		0.81KG		1.37KG		2.47KG	



FEATURES

1. Intelligent soft startup of large power
2. LED screen display
3. Built-in 2 USB charging interfaces(5V 1A/2.1A).
4. Battery reverse connection protection, etc
5. Universal socket, suitable for all kinds of plugs
6. Modified sine waveform output
7. Applicable for resistive AC loads
8. Micro-computer control technology of power-saving



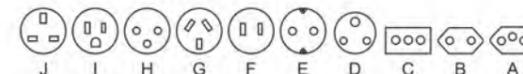
LED display/Accurate display power

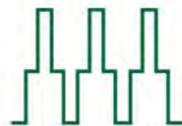
Special Design For The Car

Technical parameter

STA-E-series

Model	STA-E300A	STA-E500A	STA-E500B	STA-E1000A	STA-E1000B
output voltage	AC210~240V	AC 220V	AC 220V	AC 220V	AC 220V
Output power	300W	400W	400W	650W	650W
Peak power	600W	500W	500W	1000W	1000W
Frequency	50Hz	50Hz	50Hz	50Hz	50Hz
USB	DC 5V 2.1A 1A	DC5V 1A	DC5V 1A	DC5V 1A	DC5V 1A
No-load current	<1A	<0.3A	<0.2A	<0.5A	<0.3A
working voltage	DC 12V	DC 12V	DC 24V	DC 12V	DC 24V
Voltage range	10~15V	10.5-15V	21-30V	10.5-15V	21-30V
Alarm voltage	11.1V	10.5V	21V	10.5V	21V
Low-voltage protection	9.5V	10V	20.5V	10V	20.5V
Overvoltage protection	15.8V	16V	31V	16V	31V
Efficiency	>90%	70%~80%			
Size(cm)	130*81.5*53mm	18x9.5x5.5	18x9.5x5.5	22x9.5x5.5	22x9.5x5.5
Weight(kg)	0.45	0.56	0.56	0.81	0.81





HAA Family:HAA-1000A B/HAA-2000A B  
HAA-3000A B



Intelligent double fan The power/battery voltage display



FEATURES

1. Simulated sine waveform output
2. Intelligent cooling fan, controlled by the load
3. Built-in 5V 1A USB interface
4. Built-in soft start-up circuit and quick voltage recovering function
5. Low power consumption during no-load
6. LED screen display

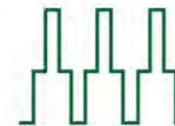
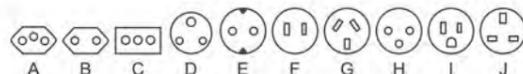


Range of application

Technical parameter

HAA-series

Model		HAA-1000A	HAA-1000B	HAA-2000A	HAA-2000B	HAA-3000A	HAA-3000B
Output	Output voltage	AC 220V(or 110V)					
	Output power	1000W	1000W	2000W	2000W	3000W	3000W
	Peak power	2000W	2000W	4000W	4000W	6000W	6000W
	Frequency	50Hz(or 60Hz)					
	USB	DC 5V 1A					
Input	No-load current	<0.5A	<0.3A	<0.5A	<0.3A	<0.8A	<0.5A
	Working voltage	DC 12V	DC 24V	DC 12V	DC 24V	DC 12V	DC 24V
	Voltage range	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V
	Alarm Voltage	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	>85%	>90%	>85%	>90%	>85%	>90%
Product Size(MM)	240x150x75		360x150x75		480x150x75		
Weight(Kg)	1.95		3		4.28		



>Same Product Shell:SUA-500A/SUA-500B/SUA-1000A /SUA-1000B



FEATURES

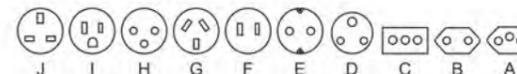
1. Built - in PWM solar charge controller 20A
2. Adopt auto PV-charging control system
3. 3.0" LED screen display.
4. Battery reverse connecting protection, etc
5. Universal socket, suitable for all kinds of plugs
6. Modified sine waveform output
7. Applicable for resistive AC loads

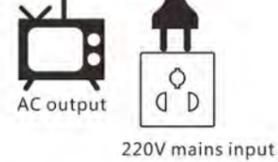
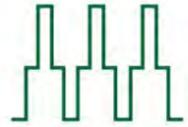


Technical parameter

SUS-series

Model	SUS-500A	SUS-500B	SUS-1000A	SUS-1000B
The built-in	12V/10A	24/10A	12V/20A	24/20A
Featured solar	100~150W/18V	200~150W/30V	100~200W/18V	200~300W/30V
External battery	12V	24V	12V	24V
USB output	1000MA		1000MA	
Output voltage	5.0+/-0.3V		5.0+/-0.3V	
Output voltage	AC 220V+/-5%		AC 220V+/-5%	
Maximum	350W		600W	
Peak power	500W		1000W	
No load current	<0.5A	<0.3A	<0.5A	<0.3A
DC input voltage	DC9.7V~15.5V	DC20V~32V	DC9.7V~15.5V	DC20V~32V
Output	50+/-3Hz		50+/-3Hz	
Conversion	70%~80%		70%~80%	
High Voltage cut	15V+/-0.5V		15V+/-0.5V	
Low voltage	11.2V+/-0.3V		11.2V+/-0.3V	
Low voltage	10V+/-0.3V		10V+/-0.3V	
Overload, short	Yes		Yes	
Output	Modified sine wave		Modified sine wave	
Cooling mode	Fan cooler		Fan cooler	
Working	-20°C~+70°C		-20°C~+70°C	
Relative	<90%RH		<90%RH	





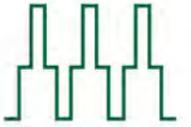
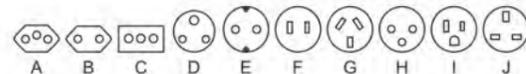
FEATURES

- 1.LCD screen display
- 2.Optional charging current:5A 10A 15A 20A 25A 30A
- 3.Over-current protection switch
- 4.Modified sine waveform output
- 5.Built-in 5V 1A USB charging interface
- 6.Rated power:1000W,Peak power:2000W

Technical parameter

HBA-series

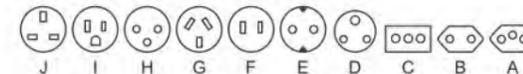
Model		HBA-1000C	HBA-2000C
Output	Output power	1000W	2000W
	Peak power	2000W	4000W
	Frequency	50Hz	
	USB input	DC 5V 1A	
DC input	Working voltage	DC 12V	
	Voltage range	10.5V-1V	
	Alarm voltage	10.5V	
	Low-voltage protection	10V	
	Over-voltage protection	16V	
	Efficiency	70%~80%	
Charge	AC input voltage	AC 220V(110V)	
	AC input range	165~265V	
	Charging current	SET5A/10A/15A/20A/25A/30A	
	Floating charge	13.5V	
Size		40.5X18X8.5cm	47X18X8.5cm
G.W.		2.72kg	3.6kg

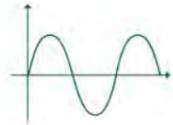


Technical parameter

MDA-series

Model	MDA-600A	MDA-600B	MDA-1000A	MDA-1000B	MDA-1300A	MDA-1300B
Output voltage	AC220V	AC220V	AC220V	AC220V	AC220V	AC220V
Output power	600W	600W	1000W	1000W	1300W	1300W
Peak power	1200W	1200W	2000W	2000W	2600W	2600W
Frequency	50HZ	50HZ	50HZ	50HZ	50HZ	50HZ
USB Output					1000mA	1000mA
NO-load current	<0.5A	<0.3A	<1A	<0.5A	<1.5A	<0.8A
Working volt	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V
Voltage range	10.5-15V	31-30V	10.5-15V	21-30V	10.5-15V	21-30V
Alarm voltage	10.5V	21V	10.5V	21V	10.5V	21V
Low-voltage protection	10V	20.5V	10V	20.5V	10V	20.5V
Overvoltage protection	16V	31V	16V	31V	16V	31V
Efficiency	>90%					
Product size	20.5X12X6CM		24.5X12X6CM		29.5X12X6CM	
Weight	0.94KG		1.27KG		1.5KG	





<<Hybrid High-frequency Photovoltaic Inverter

**UPS** With MPPT PV charge



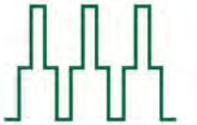
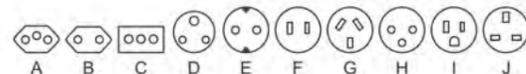
**FEATURES**

1. LCD screen display
2. Built-in 20A MPPT charge controller
3. Built-in 15AAC charger
4. Rated power 1000W, Peak power 2000W
5. Built-in electric relay of bypass AC, True uninterruptable power supply
6. True sine waveform output, Input and output are completely independent
7. Conversion efficiency is up to 88% with power saving mode
8. Most competitive price ever
9. Multiple protections of Input reverse polarity/undervoltage/overvoltage/short circuit/overload/over temperature

**SON-SUW1500VA**

**Technical parameter**

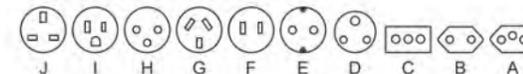
Model		SON-SUW1500VA
Built-in solar controller		500W Buck Type Control
Solar Panel SPECS		30V~120V 500W (Max)
External battery		24V 100Ah~150Ah
Capacity		1500VA
AC Input	Voltage	AC180~240V
	Frequency	50Hz±10%
DC Entered	Voltage	DC24V
	Low Voltage	DC20V
	Over Voltage	DC29V
AC Output	Voltage	AC220V±5% (DC) 190-240V (AC)
	Power	1000W
	Frequency	50±0.5Hz (DC) Synchronization Mains (AC)
	waveform	Sine Wave
Charging Time	Charging	Maximum charging current 15A
	Charging	8~15 Hours 90%
Conversion Time		≤6ms
Protection		Overload Protection, Short Circuit Protection, High Voltage Protection and low Voltage Protection
Alarm		When the battery voltage close to the critical point, the alarm changed
Environment	Noise	≤45dB
	Temperature	0°C±40°C
	Humidity	10%±90%
Dimensions		475.5*178*83.5mm

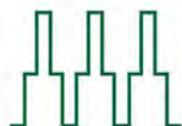


**Technical parameter**

**LDA-series**

Model	LDA-1000C	LDA-1000D	LDA-1500C	LDA-1500D	LDA-2000C	LDA-2000D
Output Voltage	AC220V	AC220V	AC220V	AC220V	AC220V	AC220V
Output Power	1000W	1000W	1500W	1500W	2000W	2000W
Peak Power	2000W	2000W	3000W	3000W	4000W	4000W
Frequency	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz
No-load Current	<1A	<0.6A	<1.5A	<0.8A	<2A	<1A
Working Voltage	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V
Voltage Range	10.5-15V	21-30V 10	10.5-15V	21-30V 10	10.5-15V	21-30V 10
Alarm Voltage	10.5V	21V	10.5V	21V	10.5V	21V
Low-voltage Protection	10V	20.5V	10V	20.5V	10V	20.5V
Overvoltage Protection	16V	31V	16V	31V	16V	31V
Efficiency	>90%					
Charging Voltage	14V	28V	14V	28V	14V	28V
Charging Current	20A	10A	20A	10A	20A	10A
Input Voltage	AC220V	AC220V	AC220V	AC220V	AC220V	AC220V
Input Voltage Range	AC220V~±10%					
Size/pcs	422*193*70MM					
G.W./PCS	3.4KG		3.9KG		4.4KG	





**Technical data SFA-series**

Model	SFA-500A	SFA-1000A
Input Voltage	A series is 12V input,B series is 24V input	
Output Voltage	220V~240V	
Rated Power	500W	1000W
Peak Power	1000W	2000W
Efficiency	>70%	
Protection	Overload protection,Input over-voltage protection, Input low-voltage protection,Over-temperature protection.	
Packed qty	20PCS	
Dimensions	160*95*55mm	200*95*55mm
N.W	0.8kg	1.03kg
Certification	ISO/CTA/CE	



>Same Product Shell:SFA-500A/ SFA-1000A

**FEATURES**

1. Built-in 10A charger
2. Reverse connecting protection
3. 5V 1A USB charging interface
4. Inverter and charger can work independent noninterference
5. Modified sine waveform output
6. 3.5V 1A USB charging interface
7. Battery reverse connected protection



**Technical parameter**

**SDA-series**

Model	SDA-300A	SDA-350A	SDA-400A	SDA-500A	SDA-600A	SDA-800A	SDA-1000A
	SDA-300B	SDA-350B	SDA-400B	SDA-500B	SDA-600B	SDA-800B	SDA-1000B
Input voltage	12V/24V(A series are 12V input,B series are 24V output)						
Output voltage	220V~240V						
Rated power	300W	350W	400W	500W	600W	800W	1000W
Peak power	600W	700W	800W	1000W	1200W	1600W	2000W
Efficiency	>70%						
Protections	Overload protection,Input over-voltage protection,Input low-voltage protection,Over-temperature protection						
Pack QTY	20pcs						
Dimensions(MM)	300W-600W:160x95x54			800W-1000W:200x95x54			
N.W.(KG)	300W-600W:0.54			800W-1000W:0.77			
Certification	ISO,CTA,CE						



- QC 3.0 fast charging technology >>
- Max inverting power 200W >>
- LCD screen display >>
- Smart temperature controlled fan >>
- Built-in phone holder >>

**New**

**FEATURES**

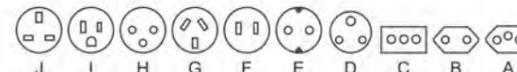
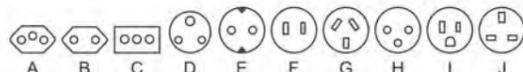
1. QC3.0/QC2.0 fast charging technology
2. Built-in modified power inverter 200W
3. LCD screen display
4. Intelligent fan controlled by temperature
5. Built-in phone holder
6. Built-in 2 USB fast charging ports 2.1A



**Technical parameter**

**STA-K350A**

Model	STA-K350A	
Output	Output Voltage	AC210~240V
	Output Power	200W
	Peak Power	400W
	Frequency	50Hz
	USB	Dual DC 5V 2.1A Support QC3.0 QC2.0 Fast Charging
Input	Cigarette Lighter Output	DC 12V 3A
	No-load Current	<0.5A
	Working Voltage	DC 12V
	Voltage Range	10~15V
	Warning Voltage	11.1V
	Low Voltage Protection	9.5V
	Over Voltage Protection	15.8V
	Max Efficiency	>90%
Size	170*80*53mm	





FEATURES

1. Built-in 10A charger (SAA-500C/1000C)
2. Reverse connecting protection
3. 5V 1A USB charging interface
4. Inverter and charger can work independent noninterference
5. Modified sine waveform output



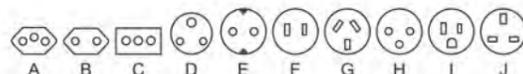
Technical data SAA-series

Model	SAA-500AF	SAA-1000AF
Input voltage	10V-15V	
Output voltage	220V AC	
Rated power	500W	1000W
Peak power	1000W	2000W
Efficiency	>70%	
Protection	Overload protection, Input over-voltage protection, Input low-voltage protection, Over-temperature protection, Battery Reverse protection	
Dimensions	160*95*55mm	200*95*55mm
N.W	0.8kg	1.03kg
Certifications	ISO,CTA,CE	

Technical parameter

SAA-series

Model	SAA-500A	SAA-1000A	SAA-500C	SAA-1000C
	SAA-500B	SAA-1000B		
Input voltage	12V/24V(A series is 12V,B series is 24V)		12V with charger	
Output voltage	220V-240V		220v~240v	
Rated power	500W	1000W	500W	1000W
Peak power	1000W	2000W	1000W	2000W
Efficiency	>70%		>85%	
Protections	Overload protection, Input over-voltage protection, Input low-voltage protection, Over-temperature protection			
Dimension(mm)	160x95x55	200x95x55	226*95*55mm	267*95*55mm
N.W.(KG)	0.8	1.03	0.75kg	0.9kg
Packed QTY(PCS)	20			
Certifications	ISO,CTA,CE			



FEATURES

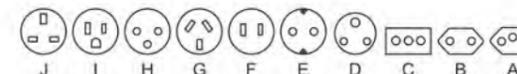
1. Modified sine waveform output
2. Battery reverse polarity protection
3. Built-in USB charging Ports 5V 1.2A
4. LCD screen display

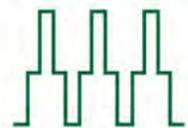


Technical parameter

SAA-D-series

Model	SAA-D600A	SAA-D600AF	SAA-D1200A	SAA-D1200AF
Input Voltage	12V	24V	12V	24V
Output Voltage	220V-240V			
Rated Power	500W	500W	1000W	1000W
Peak Power	1000W	1000W	2000W	2000W
Efficiency	>70%			
Protection	Overload protection, high voltage input cut off protection, low voltage input cut off protection, abnormal temperature detection cut off protection			
Product Size	160X95X55mm		200X95X55mm	
Weight	0.8KG		1.03KG	





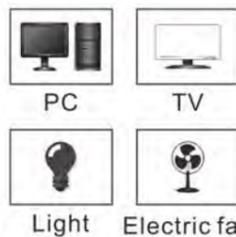
Led + LCD colorful display

SON-series

Technical parameter

Model		SON-1000VA	SON-1400VA	SON-2400VA
Capacity	VA/W	1000VA/660W	1400VA/800W	2400VA/1440W
Battery	VDC	12VDC	24VDC	24VDC
Input	Voltage	230VAC		
	Nominal Voltage	230V		
	Voltage Range	170-280VAC(Narrow Range) 90-280VAC(Wide Range)		
Output	Voltage Regulation(Bat.Mode)	+10%~18%		
	Frequency	50HZ or 60 HZ		
	Frequency Regulation (Bat .Mode)	+/-1HZ		
	Output waveform	Modified sine wave		
Battery&charger	charger current	15Amp or 20Amp Selectable±2A	10 Amp	
	Overvoltage protection	15V		
Transfertime	Typical	<15ms		
Protection	Full protection	Discharge,overcharge, overload, over temperature		
Efficiency	AC TO AC	>95%		
	DC TO AC	>80%		
Display indicator	AC Mode	Display output power,output voltage		
	Battery Mode	The mark will flicker every 1 second		
	Battery charging Mode	Display the battery capacity		
	Fault	Display fault		
Audible alarm	Low battery at battery mode	Sounding every 2 seconds		
	Overload	Sounding every 0.5 seconds		
	Fault	Continuously sounding		
Environment	operating environment	0-50°C,5%-90% relative humidity(non-condensing)		
	storage environment	-15 to55,5% to 95% humidity(non-condensing)		
	Noise Level	Less than 50dB		
Protection	Full protection	Discharge,overcharge, overload,over temperature		
Physical	Dimension(mm)	277*64.3*91.5mm		
	Weight(KG)	2.4 kg		

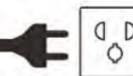
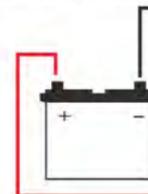
Range of application



FEATURES

1. Advanced modified sine waveform output(Almost suitable for most of home resistive appliances)
2. Built-in AC charger 15A/20A
3. Built-in PWM PV charging controller 30A
4. Auto switch to inverter output/mains supply acc to the AC voltage range (<15ms)
5. Input voltage range of mains:170V-280V or 90V-280V
6. Auto identification of output frequency:50Hz or 60Hz
7. LCD+LED screen display(Output power, Output voltage, battery capacity)
8. Overcharge protection, Overload protection, Over-voltage protection, Short circuit protection, Low battery protection

Power/voltage/current/show



220V mains input

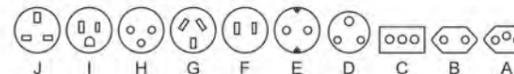
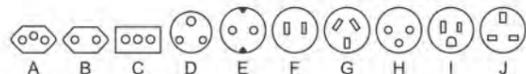
FEATURES

1. Full Pulse charging mode ensures fast charging and full charging.
2. Three phase charging mode
3. LED screen display
4. Adjustable current:5A 10A 15A 20A 25A 30A
5. Reverse protection, short circuit protection

Technical parameter

MC-series

Model	MC-1230A	MC-1230B	MC-1240A	MC-1240B	MC-2415A
Input Voltage	180V/240V	180V/240V	180V/240V	180V/240V	180V/240V
Apply to the battery voltage (DC)	12V	12V	12V	12V	24V
Maximum charge voltage	15V	15V	15V	15V	30V
Maximum Charger Current	30A	30A	40A	40A	15A
Display method	Digital	Digital	Digital	Digital	Digital
Rated power	47~63HZ	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-phase;pulse	Three-phase;pulse	Three-phase;pulse	Three-phase;pulse	Three-phase;pulse
Full load efficiency	>90%	>90%	>90%	>90%	>90%
Size	285x165x100MM				
N.W/CTN	18KG	18KG	18KG	18KG	17.67KG
Packed QTY/CTN	8PCS	8PCS	8PCS	8PCS	8PCS
Certification	ISO,CTA,CE				





DC Family :DC-1210A/DC-1220A/DC-1230A

FEATURES

1. Car Engine start function(10s)
2. Battery autofix feature
3. LCD screen display(Charging time, Temperature, Charging current/voltage, Battery capacity)
4. Ajustable charging current 4A/8A/12A/20A/30A/40A
5. Reverse connecting protection
6. Three phase charging mode
7. OEM & ODM are acceptable

FEATURES

1. Input voltage:100V-240V @50Hz
2. Max output charging current:4A/6A
3. Applicable for lead-acid battery(15.2V), maintenance-free battery(14.7V), gel battery(13.7V)
4. Output DC voltage can be manually regulated(15.2V, 14.7V, 13.7V) 5. LCD screen display 6. Compa

DC-W Family :DC-W1204A/DC-W1206A /DC-W1210A

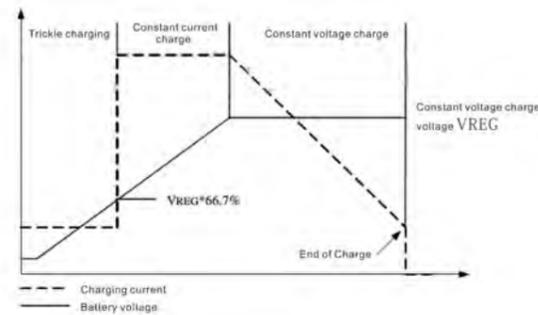


Technical parameter

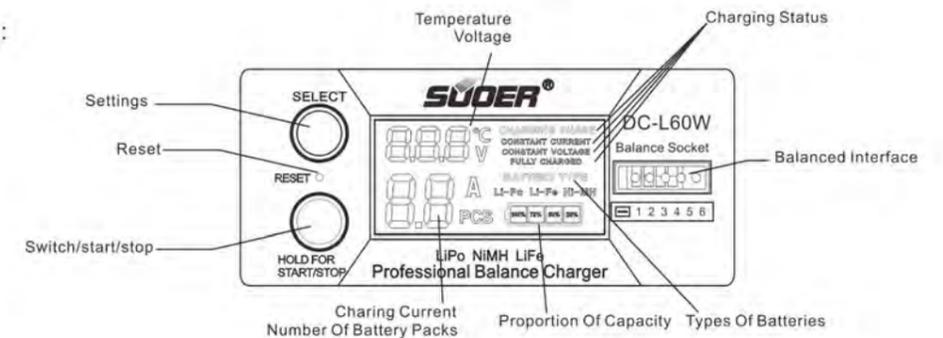
DC-W-series

Model	DC-1210A	DC-1220A	DC-1230A	DC-1240A	DC-W1204A	DC-W1206A	DC-W1210A
Input Voltage	180V/240V	180V/240V	180V/240V	180V/240V	180V/240V	180-250V	180-250V
Apply to the battery voltage (DC)	12V	12V	12V	12V	12V	12V	12V
Maximum charge voltage	15.5V	15V	15V	15V	15.3V;14.7V;14.3V;12V	15.3V;14.7V;14.3V;12V	15.3V;14.7V;14.3V;12V
Maximum Charger Current	10A	20A	20A	30A	4A	40A	50A
Display method	Digital	Digital	Digital	Digital	LCD	LCD	LCD
Rated power	47~63HZ	47~63HZ	47~63HZ	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-phase	Three-phase	Four-phase	Three-phase	Four-phase	Four-phase	Four-phase
Full load efficiency	>90%	>90%	>90%	>90%	>90%	>90%	>90%
Dimensions	153*96*55MM	183*96*55MM	188*128*68MM	235*128*68MM	186*105*30.8MM	186*105*30.8MM	200*97*59MM
N.W/CTN	18.65KG	19.32KG	1.2KG	1.5KG	17.18KG	18KG	0.62KG
Packed QTY/CTN	20PCS	16PCS	20PCS	20PCS	30PCS	30PCS	20PCS
Certification	ISO,CTA,CE						

>>Schematic diagram of charging process



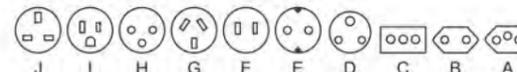
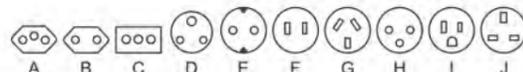
<<Introduce:



Technical parameter

DC-L-series

Lithium Battery Charger	
Model	DC-L60W
Charging Mode	Floating Charging, Constant Current, Constant Voltage
Input Voltage	AC110~240V 50/60Hz
Output Voltage	DC3V~25V
Max Output Current	6A
Rated Power	60W
Numbers of batteries	2~6 pieces
Product Size	186X105X30.8mm



Similar models: SON-1203/SON-1203B /SON-1203D

### FEATURES

- Omni-directional battery protection functions.
- The power will be turned off automatically when the battery gets fully charged.
- Three-phase charging mode makes it charge quickly.
- Reverse connect protection and short circuit protection.
- It can judge whether there is a battery, and will shut down automatically if there is no one.
- No spark appears when connecting, very safe.
- Hanging style design makes it easy to install.



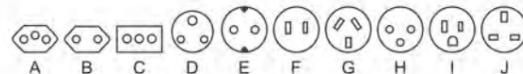
Similar models :SON-1205/SON-1205B



### Technical parameter

### SON-series

Model	SON-1203	SON-1203B	SON-1205	SON-1205B
Input Voltage	110V/240V	110V/240V	110V/240V	110-250V
Apply to the battery voltage (DC)	12V	12V	12V	12V
Maximum charge voltage	14V	15.3V	15.3V	15.3V
Maximum Charger Current	3A	3A	5A	5A
Display method	LED	LED	Digital stripes lights	Digital stripes lights
Rated power	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-	Three-phase	Four-phase	Four-phase
Full load efficiency	>90%	>90%	>90%	>90%
Dimensions	150*85*55mm	150*85*55mm	150*85*55mm	150*85*55mm
N.W/CTN	21.08kg	17.1kg	36.58kg	
Packed QTY/CTN	60PCS	60PCS	60PCS	
Certification	ISO,CTA,CE			



Similar models :SON-1207/SON-1208



### FEATURES

1. Max charging current: 5-6A
2. Rated input voltage: 110-240V
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)

>>SON-1210D>>



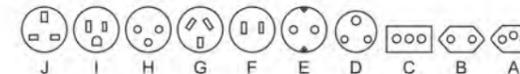
>>SON-1206D>>



### Technical parameter

### SON-series

Model	SON-1206D	SON-1207	SON-1208	SON-1210
Input Voltage	110-250V	110-250V	110-250V	110-250V
Apply to the battery voltage (DC)	12V	12V	12V	12V
Maximum charge voltage	15V	14V	14V	15.5V
Maximum Charger Current	6A	7A	8A	10A
Display method	Digital tube lights	LED	LED	LED
Rated power	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-phase	Three-	Three-phase;pulse	Three-phase
Full load efficiency	>90%	>90%	>90%	>90%
Dimensions	168*78*62MM	150*85*55mm	150*85*55mm	
N.W/CTN	20.7kg	21.08kg	21.08kg	20.2kg
Packed QTY/CTN	50PCS	60PCS	60PCS	40PCS
Certification	ISO,CTA,CE			



>> SON-1210D+ >>



FEATURES

1. Max charging current:10A
2. Rated input current:110-240V
3. Adopt PWM charging mode, auto stop charging when the battery gets fully charged
4. LCD screen display:Charging voltage/Battery capacity/Charging current
5. Auto battery detection, auto regulate the charging current acc to the battery capacity
6. Applicable for gel battery and lead-acid battery

Similar models :SON-1220/SON-1220B /SON-1230B



Technical parameter

SON-series

Model	SON-1210D+	SON-1220	SON-1220B	SON-1230B
Input Voltage	110-250V	110-250V	180V-250	180V-250V
Apply to the battery voltage (DC)	12V	12V	12V	12V
Maximum charge voltage	15V	15.5V	15.3V	15.3V
Maximum Charge Current	10A	20A	20A	30A
Display method	Digital tube lights	LED	LED	LED
Rated power	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-phase	Three-phase	Three-phase	Three-phase
Full load efficiency	>90%	>90%	>90%	>90%
Dimensions	168*78*62MM			
N.W/CTN	29.2kg	26.05kg	20.75kg	17.98kg
Packed QTY/CTN	50PCS	30PCS	30PCS	20PCS
Certification	ISO,CTA,CE			



FEATURES

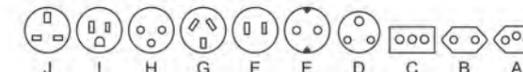
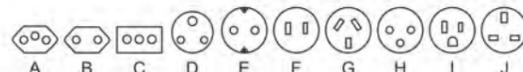
1. Adopt PWM three-step fast charging mode
2. Applicable for 48V/60V/72V electric viecles:Electric tricycles , Electric cars ,Electric lift trucks ,Electric pallet trucks ,Forklift trucks, Golf carts,Electric sightseeing cars ,Electric tour buses and electric cars, and small generator set,etc.
3. Input voltage AC 220V±20%
4. LED screen displays voltage out, current, capacity, parameter and status.
5. Output charging current:48V/13A,60V/11A,72V/9A



Technical parameter

SON-series

Model	SON-2420B	SON-4803	SON-4880D	SON-6080D	SON-7280D
Input Voltage	180V-250V	180V-250V	190V-250V	190V-250V	190V-250V
Apply to the battery voltage (DC)	24V	48V	48V	60V	72V
Maximum charge voltage	30V	59V	60V	75V	90V
Maximum Charge Current	20A	3A	9A	7A	6A
Display method	LED	LED	Digital tube lights	Digital tube lights	Digital tube lights
Rated power	47~63HZ	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Three-phase	Three-phase;pulse	Three-phase	Three-phase	Three-phase
Full load efficiency	>90%	>90%	>90%	>90%	>90%
Dimensions					
N.W/CTN	17.64kg	24.17kg			
Packed QTY/CTN	20PCS	42PCS	20PCS	20PCS	20PCS
Certification	ISO,CTA,CE				





SON-10A<sup>+</sup>  
(6V/12V)



SON-20A<sup>+</sup>  
(12V/24V)

FEATURES

1. Max charging current:10A/20A
2. Rated input current:220V
3. Adopt PWM charging mode, auto stop charging when the battery gets fully charged
4. New LED screen display control panel
5. 6V/12V manual switch(SON-10A+), 12V/24V manual switch(SON-20A+)
6. Applicable for gel battery and lead-acid battery



SON-10A

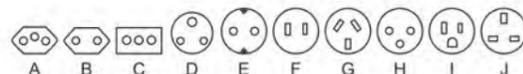


SON-20A

Technical parameter

Model	SON-10A	SON-10A+	SON-20A	SON-20A
Input Voltage	AC 220V±10% 50Hz	AC 220V±10% 50Hz	AC 220V±10% 50Hz	AC 220V±10% 50Hz
Rated Voltage	6V/12V	6V/12V	12V/24V	12V/24V
Constant charge current	10A±5%	10A±5%	20A±5%	20A±5%
Size	128*92*53MM	180*126*73MM	130*96*60MM	185*120*68MM

SON-series



Similar models :MB-4820A/MB-4812A/MB-1250A



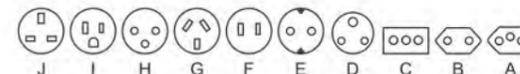
FEATURES

1. High performance and good stability
2. Applicable for gel battery, lead- acid battery and maintenance-free battery
3. Special designed for electric cars
4. Smart and easy to carry
5. Universal socket, suitable for all kinds of plugs

Technical parameter

Model	MB-4820A	MB-4812A	MB-1250A
Input Voltage	90V-270V	90V-270V	220V-240V
Apply to the battery voltage (DC)	48V	48V	12V
Maximum charge voltage			
Maximum Charger Current	1.3A	1A	1A
Display method	no	no	no
Rated power			
Charging mode	Three-steps	Three-steps	Three-steps
Full load efficiency	>91%	>91%	>90%
Dimensions	150*85*55mm	150*85*55mm	150*85*55mm
N.W/CTN	23.84kg	22.9kg	22.86kg
Packed QTY	50PCS	50PCS	50PCS
Certification	ISO,CTA,CE		

MB-series



FEATURES

1. Automatic identification of 12V/24V battery
2. Max charging current 8A
3. Three phase charging mode
4. Reverse connecting protection, overcharge protection, short circuit protection
5. Adjustable charging current: 2A, 4A, 7A
6. No sparks when connecting the battery
7. OEM & ODM are acceptable

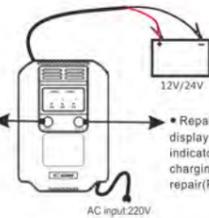


>> A02-1224A >>

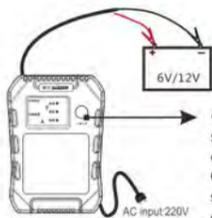


>> A02-1224B >>

Manual operation/automatic charging options: by volume selection key: OU = 2A slow charge, OU = 4A conventional charge, OU = 6.9A fast charge, automatic charge.



Repair Charge: Press Repair to display RE = ON means open repair, indicator light indicates repair start charging, RE = OF means closed repair (Repair time is 90 minutes).



Capacity selection / repair switch: Short pressing for electric current selection (OU=1A, OU=2A, OU=4A, OU=6.9A, OU=AU fully-automatic charge); press 3 seconds for opening the repair function (display RE = ON); repair indicator light is often said to start repairing charge, press 3 seconds again for closing the repair function (display RE=OF); when the charger is in the mode of repairing, short press can also turn to repair electric current, repair time is 90 minutes.



>> A01-0612A >>

Technical parameter

A01/A02-series

Model	A02-1224A	A02-1224B	A01-0612A
Input Voltage	170V-250V	170V-250V	170V-250V
Apply to the battery voltage (DC)	12V / 24V (automatic recognition)	12V / 24V (automatic recognition)	6V / 12V Adaptive
Charge Current	2A, 4A, 6.9A	2A, 4A, 6.9A	2A, 4A, 6.9A or Automatic
Rated power	50HZ	50HZ	50HZ
Charging mode	Three-phase	Three-phase	Three-phase
Full load efficiency	≥87%	≥87%	≥87%
Dimensions/CTN	540*420*460MM	540*420*460MM	490*370*380MM
N.W/CTN	26.2KG	26.2KG	
Packed QTY/CTN	20 PCS	20 PCS	
Certification	ISO,CTA,CE		



>> A03-1224 >>

FEATURES

1. Input voltage: 176V—264V
2. Adjustable charging current: 10A, 20A, 30A
3. Auto identification of 12V/24V battery
4. Three phase charging mode
5. Battery repaired technology

- Identify The Battery Voltage >>
- Auto Stop When Full Recharge >>
- Digital Display/Multiple Protection >>
- Automatic Fire Extinguishing >>

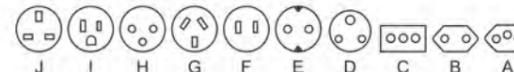
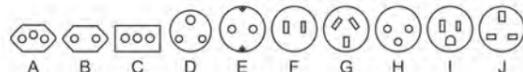


>> A04-1240 >>

Technical parameter

A03/A04-series

Model	A03-1224	A04-1240
Input Voltage	176V~264V	220v±10%
Apply to the battery voltage (DC)	12/24V(Automatic)	12V
Charge Current	10A	6A-40A adjustable
Rated power	50HZ	50HZ
Charging mode	Three-phase	Three-phase
Full load efficiency		
Dimensions/CTN	650*365*515MM	650*365*515MM
N.W/CTN	17.6KG	17.6KG
Packed QTY/CTN	4PCS	4 PCS
Certification	ISO,CTA,CE	



**Technical data**

**MA-series**

Model	MA-1210A	MA-1220A	MA-1220(MA-1204)	MA-1230A
Input Voltage	220V/240V	220V/240V	220V/240V	220V/240V
Apply to the battery voltage (DC)	12V	12V	12V	12V
Maximum charge voltage	15.5V	15V	15V	15V
Maximum Charger Current	10A	20A	20A	30A
Rated power	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	460*300*340mm	505*345*440mm	190*130*60mm	475*335*380mm
N.W	0.7KG	1.37kg	1.03kg	0.8KG
Packed QTY	20PCS	16pcs	16pcs	12pcs
Certification	ISO,CTA,CE			



Similar models:MA-1210A/MA-1220A/MA-1204/MA-1230A



Similar models :MA-1220A/MA-1204A/MA-2410



Similar models :MA-1230A/MA-2415A/MA-1230E/MA-1240A/MA-1250A

**Technical parameter**

**MA-series**

Model	MA-2410	MA-2415A	MA-1230E	MA-1240A	MA-1250A
Input Voltage	220V/240V	220V/240V	220V/240V	180-250V	180-250V
Apply to the battery voltage (DC)	24V	24V	12V	12V	12V
Maximum charge voltage	10V	15V	15V	15V	15V
Maximum Charger Current	30A	30A	30A	40A	50A
Rated power	47~63HZ	47~63HZ	47~63HZ	47~63HZ	47~63HZ
Charging mode	Four-phase	Four-phase	Four-phase	Four-phase	Four-phase
Full load efficiency	>90%	>90%	>90%	>90%	>90%
Dimensions	175*130*60MM	225*145*80MM	225*145*80MM	225*145*80MM	225*145*80MM
N.W	1.1KG	1.1KG	1.4KG	1.6KG	1.6KG
Packed QTY	8pcs	6pcs	12pcs	12pcs	12pcs
Certification	ISO,CTA,CE				

**PMW** >>> IP67 waterproof level controller,aging-resistance,corrosion resistance.



>Same Product Shell:ST-F1205/ST-F1210



>Same Product Shell:ST-F1220/ST-F1230

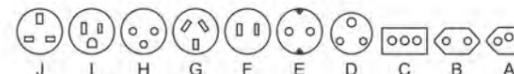
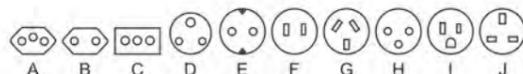
**FEATURES**

1. PWM fast charging mode
2. LED display
3. MCU Control management system
4. Auto battery voltage identification
5. Light control mode,Time control mode
6. Reverse connecting protection
7. Hanging style design makes it convenient to install
8. Water-proof, Moisture-proof, Dust-proof
9. Special design for streetlamps

**Technical parameter**

**ST-F-series**

Model	ST-F1205	ST-F1210	ST-F1220	ST-F1230
voltage range of solar panel	15V-40V		18V-24V	
			36V-48V	
Battery voltage	12V-24V		12V/24V	
Max output current	5A	10A	20A	30A
Max charging current	5A	10A	24A	35A
Recommended solar panel power	12V(40W)	12V(80W)	12V(200W)	12V(300W)
	24V(80W)	24V(160W)	24V(400W)	24V(600W)
Battery capacity	24AH	60AH	120AH	180AH
Overload current protection	30s		30s	
Waterproof Level	Ip67		Ip67	
System standby power consumption	<10MA		<20MA	
Size(mm)	74x24.2x141		108x100x30	128x100x30



>>>> All model products are the same size >>>>



**FEATURES**

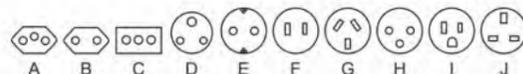
1. PWM charging mode
2. LCD display
3. Set real time clock
4. Auto voltage identification
5. Light control mode, Time control mode
6. Reverse connecting protection
7. Hanging style design makes it convenient to install
8. 2 USB charging interface(5V 1A)
9. 12V/24V/48V/60V

**Technical parameter**

**ST-W-series**

Category	ST-W1210	ST-W1220	ST-W1230
Model			
Adapt to battery voltage	12V/24V Battery		
Max current output	10A	20A	30A
Solar panel power	12V(90W)24V(180W)	12V(180W)24V(360W)	12V(270W)24V(540W)
Product size	125*86*33.5mm		

Category	ST-W4810	ST-W4820	ST-W4830	ST-W6010	ST-W6020	ST-W6030
Model						
Adapt to battery voltage	48V Battery			60V Battery		
Max current output	10A	20A	30A	10A	20A	30A
Solar panel power	360W	720W	1000W	450W	900W	1250W
Product size	125*86*33.5mm					



>>>> All model products are the same size >>>>



**FEATURES**

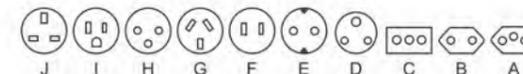
1. PWM charging mode
2. LCD display
3. Set real time clock
4. Auto voltage identification
5. Light control mode, Time control mode
6. Reverse connecting protection
7. Hanging style design makes it convenient to install
8. 2 USB charging interface(5V 1A)
9. 12V/24V/48V/60V

**Technical parameter**

**ST-W-series**

Category	ST-W1240	ST-W1250	ST-W1260
Model			
Adapt to battery voltage	12V/24V Battery		
Max current output	40A	50A	60A
Solar panel power	12V(360W)24V(720W)	12V(450W)24V(900W)	12V(540W)24V(1080W)
Product size	200*173*63mm		

Category	ST-W4840	ST-W4850	ST-W4860	ST-W6040	ST-W6050	ST-W6060
Model						
Adapt to battery voltage	48V Battery			60V Battery		
Max current output	40A	50A	60A	40A	50A	60A
Solar panel power	1440W	1800W	2160W	1800W	2250W	2700W
Product size	200*173*63mm					





FEATURES

1. Clock timing function
2. Built-in two 5V 2.1A USB interfaces
3. Extreme Low Power Consumption
4. Built-in IR self-learning infrared remote control to turn the DC loads on and off
5. LCD Display with backlight
6. Adjustable charging voltage(Low:14.2V, Default:14.5V,High:15.2V)
7. Light control mode,Time control mode
8. Reverse protection,short circuit protection
9. Designed for 12V/24V solar power system
- 10.Hanging style design makes it convenient to install
- 11.Available in 10A/20A/30A/40A
- 12.Simple options,automatic memory retention of users' settings

>Same Product Color:ST-C1210/ST-C1230/ST-C1250  
 >Same Product Color:ST-C1220/ST-C1240/ST-C1260

Double USB output(5V2.1A)



Technical parameter

ST-C-series

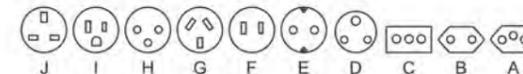
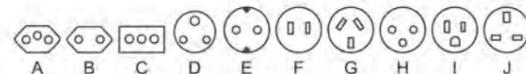
Model	ST-C1210	ST-C220	ST-C1230	ST-C1240	ST-C1250	ST-C1260
To adapt to the battery	12V/24V,battery<16V:12V,Battery>18V:24V					
Maximum charging voltage	12V:18-24V Standard specifications solar panels(24V battery*2)					
Maximum charging current	10A	20A	30A	40A	50A	60A
The largest output voltage	13A	26A	39A	45A	55A	65A
Maximum charging voltage	Convenient switch:(24V Battery *2,Parameters can adjust in the Settings menu) Set 1:Low:14.2V,Gel battery(Default Option) Set 2:Default:14.5V(Conventional lead-acid batteries) Set 3:High:15.2(Liquid lead-acid battery)					
Low voltage protection voltage	10.5V(24 battery*2,Parameters can adjust in the Settings menu)					
Low pressure recovery voltage	12.5V(24 battery*2,Parameters can adjust in the Settings menu)					
Load overload automatic recovery	30S					
Double USB output	5V 2.1A				No	
Load relating to open time	0-24 hours can choose					
Infrared remote control distance	>5m					



Technical parameter

SON-MPPT-series

MPPT Solar controller	System/Voltage	SON-MPPT-10A	SON-MPPT-20A	SON-MPPT-30A	SON-MPPT-40A
charging mode	Maximum power point tracking automatically				
charging way	Three -phase:constant current ,constant voltage ,floating				
System type	DC12V/24V/48V	12V/24V	12V/24V	12V/24V/48V	12V/24V/48V
System identification of voltage	12v	DC9VDC15V			
	24v	DC18V-DC30V			
	48v	DC36V-DC60V			
Soft start time	12v/24v/48v	≤10s			
Response time to recover	12v/24v/48v	500us			
the machine efficiency	12v/24v/48v	≥96.5%,≤99%			
Photovoltaic utilization	12v/24v/48v	≥99%			
The input features					
MPPT working voltage and scope	12V	DC18V-DC150V			
	24V	DC34V-DC150V			
	48V	DC65V-DC150V			
The input low voltage protection	12V	DC16V			
	24V	DC30V			
	48V	DC60V			
The input low pressure recovery points	12V	DC22V			
	24V	DC34V			
	48V	DC65V			
Maximum input voltage	12v/24v/48v	DC160V			
Input overvoltage protection	12v/24v/48v	DC150V			
input overvoltage recovery points	12v/24v/48v	DC145V			
The largest solar panels power input	12V	350W	570W	700W	900W
	24V	800W	1130W	1400W	1700W
	48V			2800W	3400W
The charging characteristics					
Battery types to choose from (the default for gel gel battery)	12v/24v/48v	Sealed Lead- Acid Battery,Opzs Battery,gel battery,nickel-cadmium batteries(customized for other types of battery charging)			
constant pressure voltage	12v/24v/48v	Refer to the battery type charging voltage meter.			
float charging voltage	12v/24v/48v				
The overcharger protection voltage	12V	14.6V			
	24V	29.2V			
	48V	58.4V			
The output current rating	12v/24v/48v	10A	20A	30A	40A
current limiting protection	12v/24v/48v	12A	22A	33A	44A
The temperature coefficient of	12v/24v/48v	±0.02%/°C			
Automatic temperature compensation	12v/24v/48v	14.2v-(maximum temperature-25°C)*0.3			
Grain output voltage peak-peak	12v/24v/48v	200mV			
The output voltage accuracy	12v/24v/48v	≤±1.5%			





>>SON-MPPT-10A



>> SON-MPPT-20A



>>SON-MPPT-30A

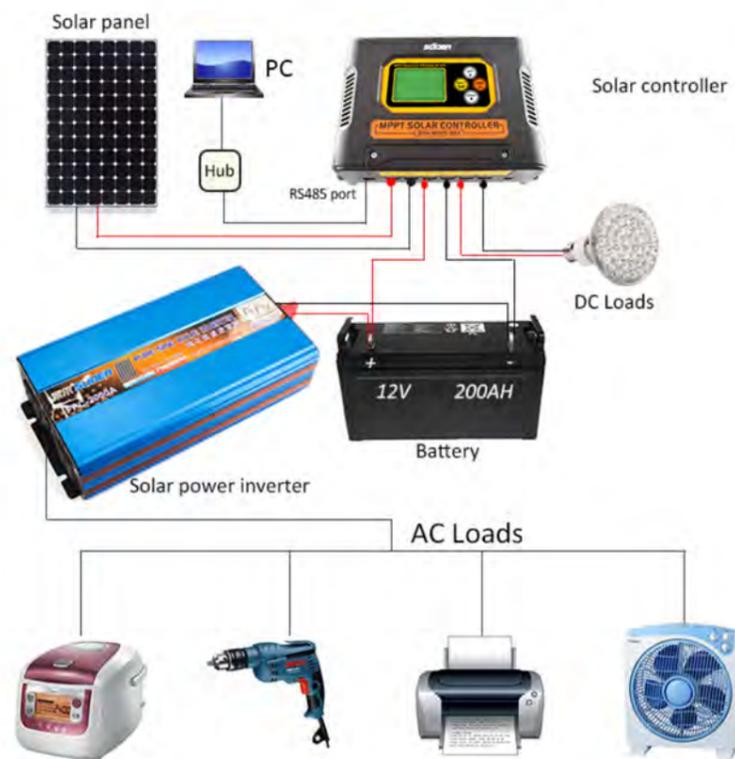


>> SON-MPPT-40A

FEATURES

1. Clock timing function
2. Regulatory mechanism of temperature compensation (Only available in 30A/40A/50A/60A)
3. Extreme Low Power Consumption
4. Built-in solar data monitoring interface(RS485) (Only available in 30A/40A/50A/60A)
5. LCD Display with backlight
6. Good heat dissipation effect with less noise
7. Light control mode, Time control mode
8. Reverse protection, short circuit protection
9. Designed for 12V/24V/48V solar power system
10. Hanging style design makes it convenient to install
11. Available in 10A/20A/30A/40A/50A/60A

How a solar system works?



>>>> All model products are the same size >>>>



- ◆MCU control
- ◆Load turns on work, LVR can be seted up
- ◆Overloading protection
- ◆Short circuit protection
- ◆Reverse polarity connection protection
- ◆Thunder and Lighting protection
- ◆Overdischarge protection
- ◆Overcharge protection

Technical parameter

ST-G-series

	ST-G1205	ST-G1210	ST-G1215	ST-G1220	ST-G1230
Rated charging power	60W	120W	180W	240W	360W
Charging current rating	5A	10A	15A	20A	30A
Battery voltage	12V/24V				
Charging voltage	13.6V/27.2V				
Float charging voltage	13.8V/27.6V				
Discharge cut-off voltage	10.5V/21V				
Battery over-voltage protection	17V/34V				
Output protection	>1.25 times rated current 60s protection				
	>1.5 times rated current 5s protection				
	>3 times rated current straightway protection				
	>short circuit immediately protection				
Discharge cut-off voltage	10mA				
Standby loss	0.2mA				
Charging circuit pressure drop	≤0.26V				
Discharge circuit voltage drop	≤0.15V				
Charging control mode	PWM pulse width modulation				
Size(mm)	167x124x50				

