

SUOER

**Off Grid, On Grid,
Backup Power & ESS Expert**

SUOER

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FOSHAN SUOER ELECTRONIC INDUSTRY CO.,LTD

About Suoer

Foshan Suoer Electronic Industry Co., Ltd.

Founded in 2005, is located in the National High-tech Zone of Shishan Town, Nanhai District, Foshan City, Guangdong Province. The company is based on the new energy industry, focusing on distributed photovoltaic power generation, photovoltaic water pumping, and energy storage photovoltaic power generation. In other fields, it is a high-tech enterprise specializing in the R&D, production, sales and service of photovoltaic inverters for core equipment such as photovoltaic power generation systems.



COMPANY ADVANTAGES



01 Aging cabinet



02 AI automatic horizontal plug-in machine 01



03 Inverter intelligent assembly line



04 Adequate inventory



05 Assembly workshop 02

EXHIBITIONS AT HOME AND ABROAD



07 Attend several foreign exhibitions every year



08 Canton Fair

CUSTOMER FEEDBACK CHART



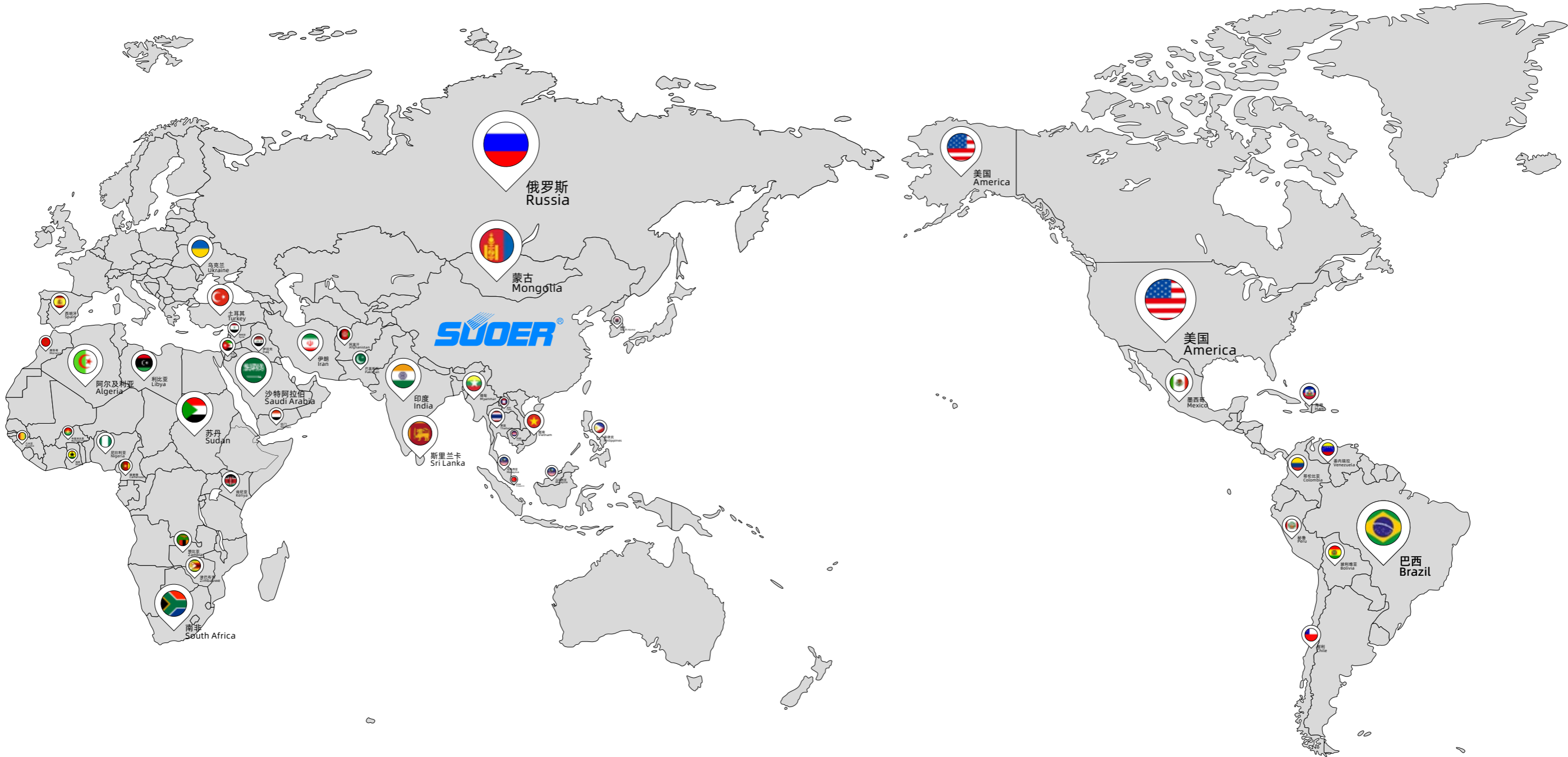
09 Belgium
1.5MW Project Volume
VMS-5K-48V



10 Salt Lake City, USA
2 MW Project Volume
MPS-5K-48V-PLUS

SUOER 2005-2023 GLOBAL NETWORK LAYOUT

In **150** countries and regions, Suoer has spread all over the world, forming a global supply chain network, establishing a competitive foundation in the international market, and enhancing its international influence.



Product Certification And Honorary Qualification



CONTENTS

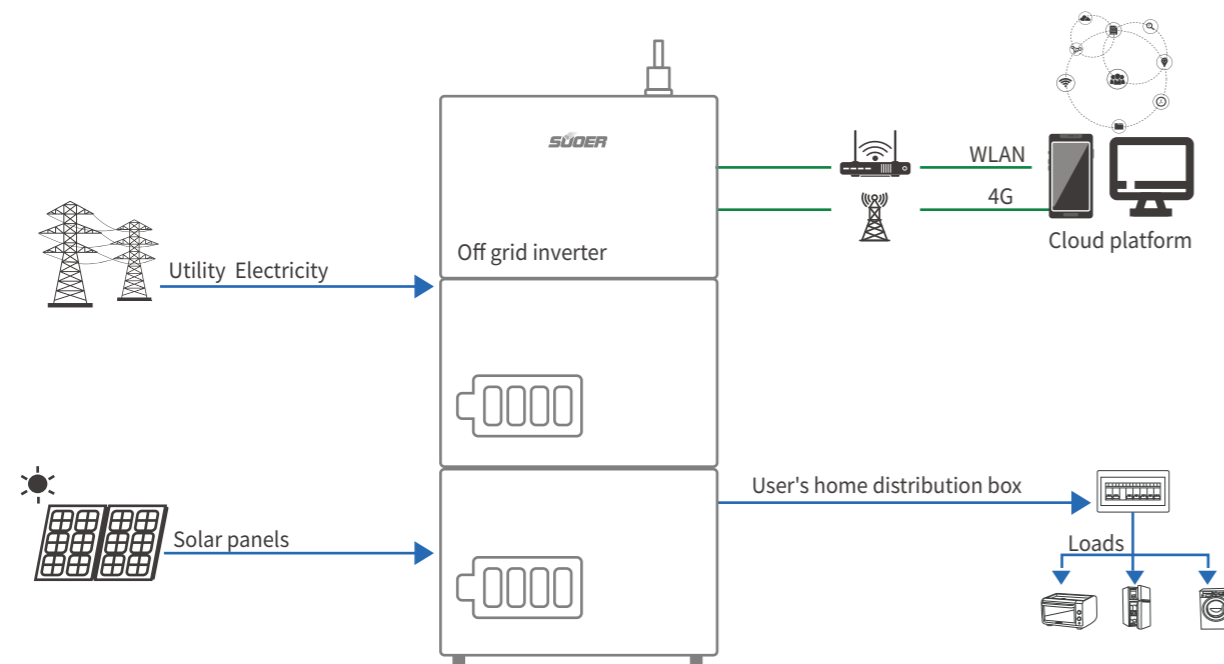
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HOME ENERGY STORAGE SYSTEM

Photovoltaic household energy storage system (split type)

The system consists of three parts: hybrid inverter, energy storage battery cabinet, and AC/DC distribution box, each of which is installed independently, and the installation location is convenient and flexible. Multiple power supply modes such as photovoltaic priority power supply or mains priority photovoltaic supplementary power supply can be selected, and lithium iron phosphate battery pack is used as the energy storage battery. The battery capacity can be selected by the user, and the 1C charge and discharge function can be realized.

Solar Residential Energy Storage System



All-in-one



Technical parameters

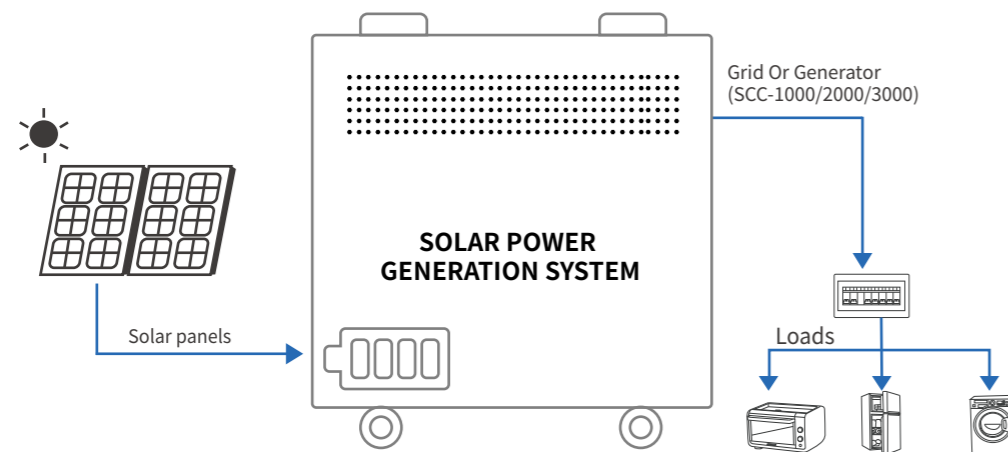
Model	SEM-053A5E
Power/Capacity	5KW/5KWH
Input - inverter	
AC input voltage range	176Vac-280Vac (bypass model)
AC input maximum current	30A
Input frequency	50Hz/60Hz
MPPT voltage range	240-450V
Maximum PV Array Open Circuit Voltage	500V
MPPT MAX power	4KW
Input-energy storage	
Battery type	Lithium iron phosphate battery
Battery capacity	5KWH
Battery operating voltage range	42Vdc-58vdc
Maximum charge current	100A
Maximum discharge current	100A
Output-inverter	
AC output voltage	230Vac±5%
AC Max output power	5KW/1 phase
Output frequency	50Hz/60Hz
Max Efficiency	99%
Protection	
PV input short circuit protection	Yes
PV input over/under voltage protection	Yes
PV input lightning protection	Yes
AC input short circuit protection	Yes
AC input over/under voltage protection	Yes
Battery input short circuit protection	Yes
Battery over/under voltage protection	Yes
AC output short circuit protection	Yes
AC output leakage protection	Yes
AC output over/under voltage protection	Yes
AC output overload protection	Yes
Overheating protection	Yes
General parameters	
Display	7-inch touch screen
Communication	WIFI,bluetooth RS232
Data platform	Web,APP
Operationg temperature	-10°C-45°C
Working humidity	0%-95%RH
Altitude	4000m(Derating above 2000m)
Size	670×550×340
Weight	Cabinet:37kg;battery:45kg
Installation method	Wheeled mobility; wall hanging; floor mounted
Cooling method	force air cooling
Protection class	IP20
Standard	
Standard	CE,ROHS , UN38.3,MSDS

Technical parameters

Model	SEM-103A5E	SEM-153A5E
Power/Capacity	10KW/10KWH	15KW/15KWH
Input - inverter		
AC input voltage range	176Vac-280Vac (bypass model)	290Vac-480Vac (bypass model)
AC input maximum current	60A/1 phase	30A/3 phase
Input frequency	50Hz/60Hz	50Hz/60Hz
MPPT voltage range	240-450V	120-350V
Maximum PV Array Open Circuit Voltage	500V	450V
MPPT MAX power	10KW	15KW
Input-energy storage		
Battery type	Lithium iron phosphate battery	Lithium iron phosphate battery
Battery capacity	10KWH	15KWH
Battery operating voltage range	42Vdc-58vdc	42Vdc-58vdc
Maximum charge current	120A	240A
Maximum discharge current	200A	400A
Output-inverter		
AC output voltage	230Vac±5%	380Vac±5%
AC Max output power	10KW/1 phase	15KW/3 phase
Output frequency	50Hz/60Hz	50Hz/60Hz
Max Efficiency	99%	99%
Protection		
PV input short circuit protection	Yes	Yes
PV input over/under voltage protection	Yes	Yes
PV input lightning protection	Yes	Yes
AC input short circuit protection	Yes	Yes
AC input over/under voltage protection	Yes	Yes
Battery input short circuit protection	Yes	Yes
Battery over/under voltage protection	Yes	Yes
AC output short circuit protection	Yes	Yes
AC output leakage protection	Yes	Yes
AC output over/under voltage protection	Yes	Yes
AC output overload protection	Yes	Yes
Overheating protection	Yes	Yes
General parameters		
Display	7-inch touch screen	7-inch touch screen
Communication	WIFI,bluetooth RS232	WIFI,bluetooth RS232
Data platform	Web,APP	Web,APP
Operationg temperature	-10°C-45°C	-10°C-45°C
Working humidity	0%-95%RH	0%-95%RH
Altitude	4000m(Derating above 2000m)	4000m(Derating above 2000m)
Size	580×1650×210	710×1710×370
Weight	Cabinet:47kg;battery:90kg	Cabinet:105kg;Battery:135kg
Installation method	Floor-standing	Floor-standing
Cooling method	force air cooling	force air cooling
Protection class	IP20	IP20
Standard		
Standard	CE,ROHS , UN38.3,MSDS	CE,ROHS , UN38.3,MSDS

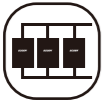
SOLAR POWER GENERATION SYSTEM

The small solar power generator system consists of solar controller, inverter, and battery, realizing portable power supply . Trolley design, convenient and flexible. Solar energy supply, clean and environmental.



Model	SCC-500	SCC-1000	SCC-2000	SCC-3000
Power/Capacity	500W/1.8KWH	1KW/2.56KWH	2000W/5.12KWH	3000W/5.12KWH
Input - inverter				
AC input voltage range	/	176Vac-264Vac	176Vac-264Vac	176Vac-264Vac
AC input maximum current	/	7A	13A	20A
Input frequency	/	46Hz-64Hz	46Hz-64Hz	46Hz-64Hz
PV voltage range	12-50V	44-80V	44-80V	44-80V
Maximum PV Array Open Circuit Voltage	54V	84V	84V	84V
PV MAX power	0.3KW	1KW	2KW	2KW
Input-energy storage				
Battery type	Lead acid battery	Lithium iron phosphate battery	Lithium iron phosphate battery	Lithium iron phosphate battery
Battery capacity	1.8KWH	51.2V30AH/1.53KWH 51.2V50AH/2.56KWH (optional)	51.2V50AH/2.56KWH 51.2V100AH/5.12KWH (optional)	51.2V100AH/5.12KWH
Battery operating voltage range	10.5Vdc-14.7Vdc	43.2Vdc-58.4Vdc	43.2Vdc-58.4Vdc	43.2Vdc-58.4Vdc
Maximum charge current	30A	30A	60A	60A
Maximum discharge current	48A	25A	50A	75A
Output-inverter				
AC output voltage	230Vac±5%	230Vac±5%	230Vac±5%	230Vac±5%
AC Max output power	0.5KW	1KW	2KW	3KW
Output frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Max Efficiency	92%	92%	92%	92%
Protection				
PV input short circuit protection	Yes	Yes	Yes	Yes
PV input over/under voltage protection	Yes	Yes	Yes	Yes
PV input lightning protection	/	Optional	Optional	Optional
AC input short circuit protection	/	Yes	Yes	Yes
AC input over/under voltage protection	/	Yes	Yes	Yes
Battery input short circuit protection	Yes	Yes	Yes	Yes
Battery over/under voltage protection	Yes	Yes	Yes	Yes
AC output short circuit protection	Yes	Yes	Yes	Yes
AC output leakage protection	Yes	Yes	Yes	Yes
AC output over/under voltage protection	Yes	Yes	Yes	Yes
AC output overload protection	Yes	Yes	Yes	Yes
Overheating protection	Yes	Yes	Yes	Yes
General parameters				
Display	LCD+button	LCD 7-inch touch screen(optional)	LCD 7-inch touch screen(optional)	LCD 7-inch touch screen(optional)
Communication	/	Optional	Optional	Optional
Data platform	/	Optional	Optional	Optional
Operationing temperature	-10°C-45°C	-10°C-45°C	-10°C-45°C	-10°C-45°C
Working humidity	0%-95%RH	0%-95%RH	0%-95%RH	0%-95%RH
Altitude	4000m(Derating above 2000m)	4000m(Derating above 2000m)	4000m(Derating above 2000m)	4000m(Derating above 2000m)
Size	525×525×180	525×525×180	550×650×200	650×650×200
Weight	Cabinet:11kg;Battery:33kg	Cabinet:11kg;Battery:15kg	Cabinet:15kg;Battery:27kg	Cabinet:20kg;Battery:45kg
Installation method	Wheeled mobility	Wheeled mobility	Wheeled mobility	Wheeled mobility
Cooling method	force air cooling	force air cooling	force air cooling	force air cooling
Protection class	IP20	IP20	IP20	IP20
Standard				
Standard	CE,ROHS ,UN38.3,MSDS	CE,ROHS ,UN38.3,MSDS	CE,ROHS ,UN38.3,MSDS	CE,ROHS ,UN38.3,MSDS

Wall-mounted Lithium Iron Phosphate Battery



Parallel up to 16Units



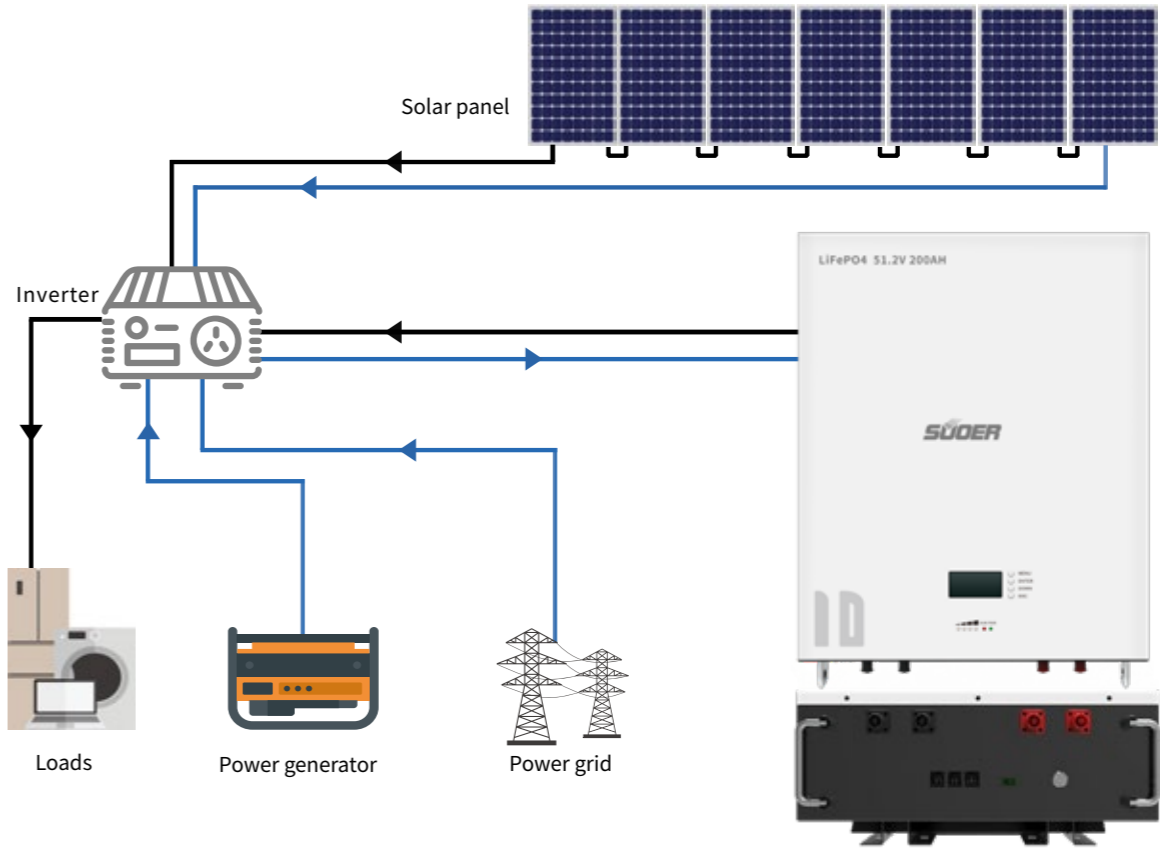
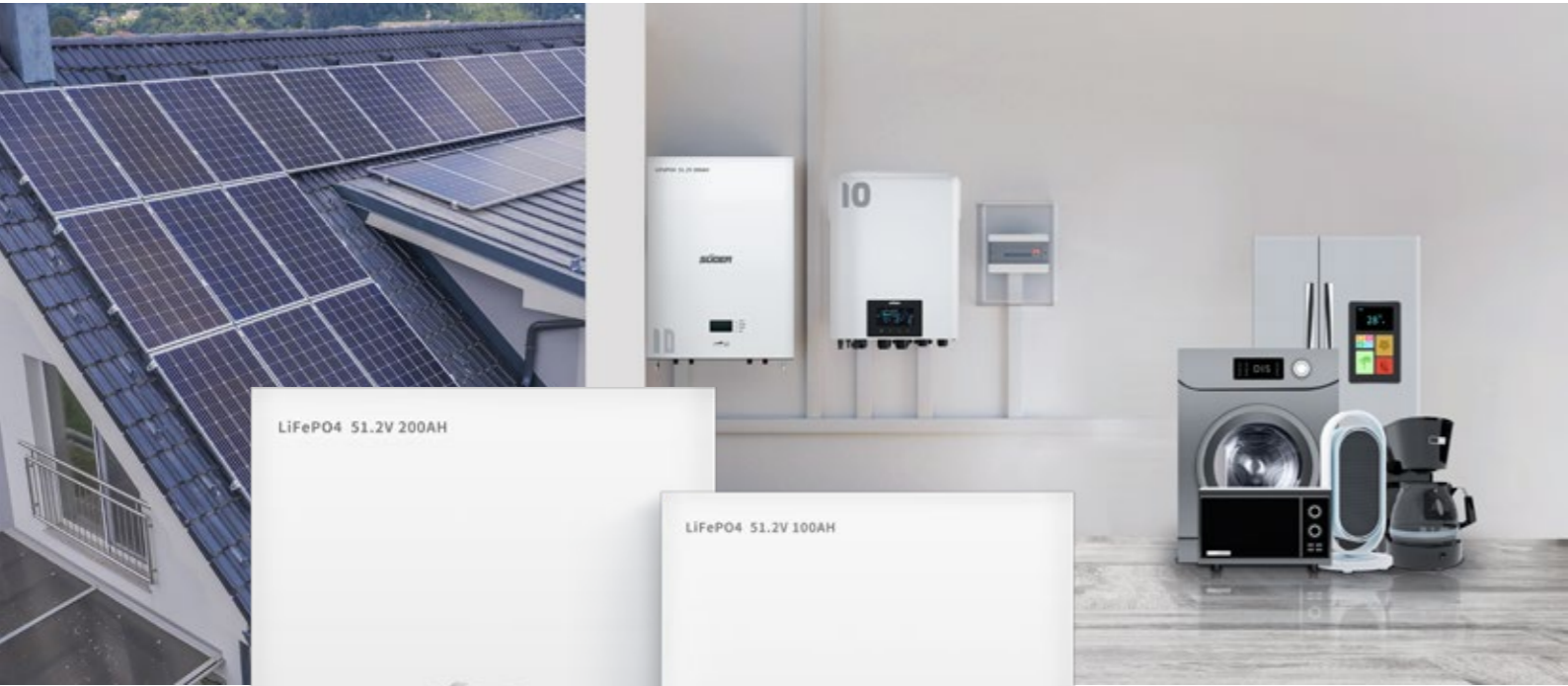
6,000 times High cycle life



Custom BMS communication protocol



Warranty is 5 + 5 years



Technical parameters

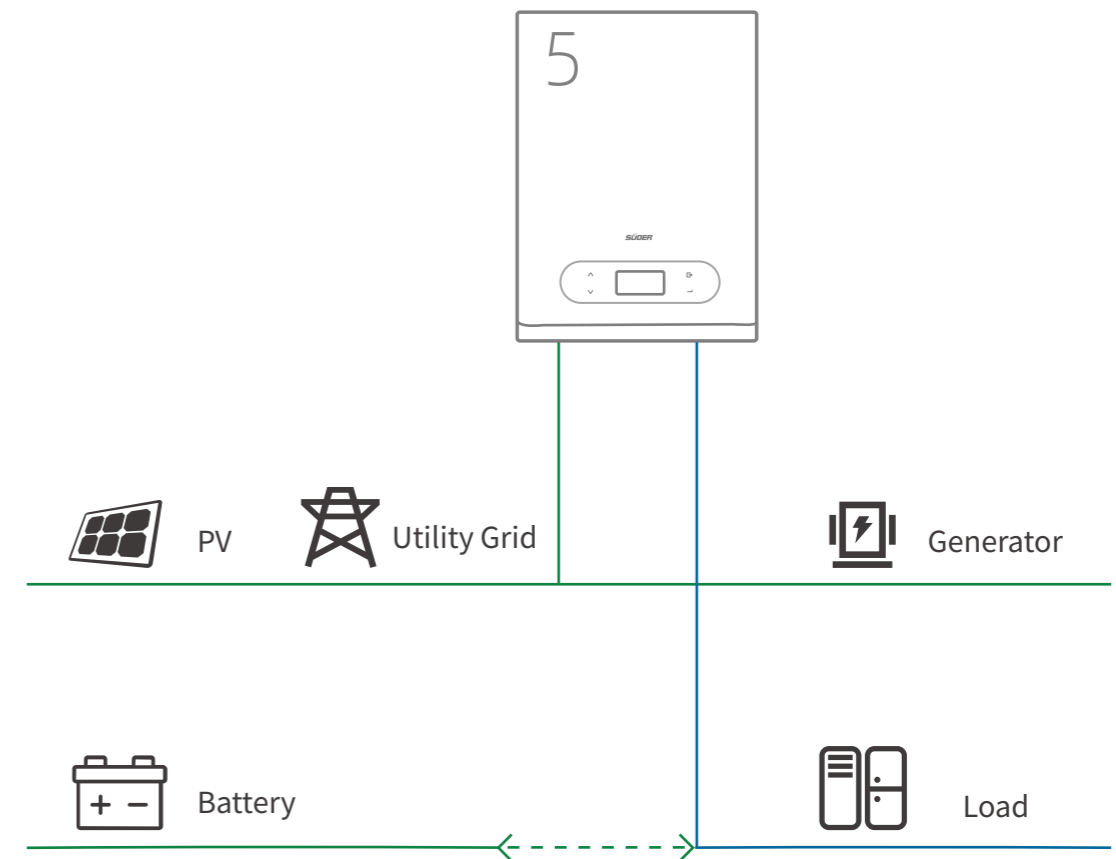
Model	SLH-100AH-51.2V	SLH-200AH-51.2V
Nominal voltage	51.2V	51.2V
Rated capacity	100Ah (5.12KWh)	200Ah (10.24KWh)
Dimension(L*W*H)	415*150*580mm	525*195*650mm
Weight	~45KG	~85KG
Charge method	CC/CV/VP	
Charge current	0.5C standard 1C maximum continuous charge current	
Discharge cut-off voltage	43.2V	
Display	LCD screen	
Communication	RS485/CAN	
Working temperature	Charge:0~+50°C ; Discharge: -20~+55°C	
Storage temperature	short-term recommendation: -10~+45°C (<3 months, SOC: 20%~50%); long-term storage: -10~+40°C(<1 year, SOC: 30%~60%)	
Storage humidity	50%~95%RH	
Shipment status	Voltage: 51.2~52.8V SOC: 40%~60%	

Off Grid Photovoltaic Energy Storage Solutions

The inverter will control the PV power generation to give priority to the load for use, and the excess power will be considered to charge the battery. When the load does not have enough power, the inverter will control the battery discharge to power the load.



System Topology View



VMS 3KVA/5KVA

Technical parameters



Pure sine wave solar inverter



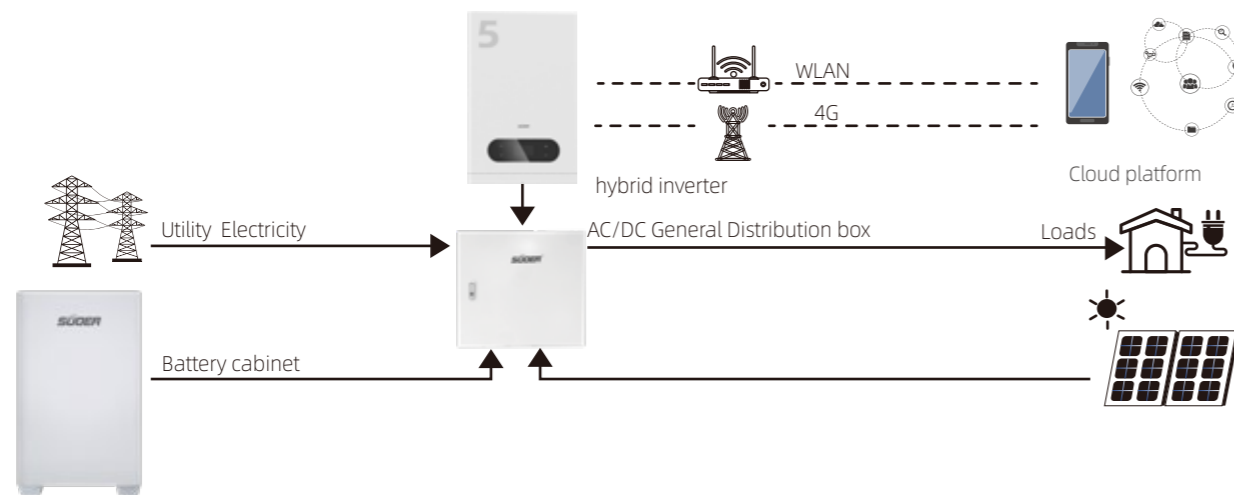
High pv input voltage range



Built-in 80A MPPT solar charger



Solar Residential Energy Storage System



MODEL	VMS-III-3.2K-24V	VMS-III-5K-48V
Rated Power	3200VA/3200W	5000VA/5000W
Input		
Voltage	230 VAC±5%	
Selectable Voltage Range	90-280 VAC	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
Output		
AC Voltage Regulation (Batt.Mode)	230VAC ± 5%	
Surge Power	6000VA	10000VA
Efficiency(Peak) PV to INV	97%	
Efficiency(Peak) Battery to INV	94%	
Transfer Time	10 ms~20 ms	
Waveform	Pure sine wave	
Battery & AC Charger		
Battery Voltage	24 VDC	48 VDC
Floating Charge Voltage	27 VDC	54 VDC
Overcharge Protection	33 VDC	63 VDC
Maximum Charge Current	80A	60A
Solar Charger		
Maximum PV Array Power	4000W	
MPPT Range @ Operating Voltage	120 - 450VDC	
Maximum PV Array Open Circuit Voltage	500VDC	
Maximum Charging Current	80A	
Maximum Efficiency	98%	
Communication interface	USB/Rs232	
Monitoring	WIFI/GPRS(optional)	
Physical		
Dimension, DxWxH (mm)	138 X 310 X 520	
Net Weight (kgs)	9	10
Operating Environment		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10 °C - 55 °C	
Storage Temperature	-15 °C - 60 °C	

VMS-IV 8KVA/11KVA



Customization of Settings



Parallel operation with up to 6 units



Convenient Operation

MODEL	VMS-IV-8K	VMS-IV-11K
Rated power	8000VA/8000W	11000VA/11000W
Parallel capability	YES, 6 units	YES, 6 units
Voltage	230 VAC	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)	50 Hz/60 Hz (Auto sensing)
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%	230VAC ± 5%
Surge Power	16000VA	22000VA
Efficiency (Peak)	93%	93%
Transfer Time	10 ms (For Personal Computers), 20 ms (For Home Appliances)	10 ms (For Personal Computers), 20 ms (For Home Appliances)
Waveform	Pure sine wave	Pure sine wave
Battery Voltage	48 VDC	48 VDC
Floating Charge Voltage	54 VDC	54 VDC
Overcharge Protection	66 VDC	66 VDC
Solar Charger Type	MPPT	MPPT
Maximum PV Array Power	8000W (4000W x 2)	11000W (5500W x 2)
MPPT Range @ Operating Voltage	90 ~ 450 VDC	90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC
Maximum PV Input Current	27A x 2(MAX 40A)	27A x 2(MAX 40A)
Maximum Solar Charge Current	120A	120A
Maximum AC Charge Current	120A	120A
Maximum Charge Current	120A	120A
	Physical	Physical
Dimension, D x W x H (mm)	147.4 x 432.5 x 553.6	147.4 x 432.5 x 553.6
Net Weight (kgs)	18.4	18.4
Communication Interface	RS485	RS485
	Operating environment	Operating environment
Humidity	5% to 95% Relative Humidity(Non-condensing)	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10°C to 50°C	-10°C to 50°C
Storage Temperature	-15°C to 60°C	-15°C to 60°C
	Standard	Standard
Compliance Safety	CE	CE

MPS 5KVA



Pure sine wave solar inverter



Parallel operation with up to 9 units



Built-in 80A MPPT solar charger

Technical parameters

MODEL	MPS-5K-48V-PLUS
Rated Power	5KVA/5KW
Input	
Voltage	230 VAC±5%
Selectable Voltage Range	90-280 VAC
Frequency Range	50 Hz/60 Hz (Auto sensing)
Output	
AC Voltage Regulation (Batt.Mode)	230VAC ± 5%
Surge Power	10000VA
Efficiency(Peak)	93%
Transfer Time	10 ms~20 ms
Waveform	Pure sine wave
Battery & AC Charger	
Battery Voltage	48VDC
Floating Charge Voltage	54 VDC
Overcharge Protection	60VDC
Maximum Charge Current	60A
Solar Charger	
Maximum PV Array Power	4000W
MPPT Range @ Operating Voltage	60 - 115VDC
Maximum PV Array Open Circuit Voltage	145VDC
Maximum Charging Current	80A
Maximum Efficiency	98%
Communication interface	USB/Rs232
Monitoring	WIFI/GPRS(optional)
Physical	
Dimension, DxWxH (mm)	138 X 310 X 520
Net Weight (kgs)	9
Operating Environment	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10 °C - 55 °C
Storage Temperature	-15 °C - 60 °C

SVM 3KVA



Pure sine wave solar inverter

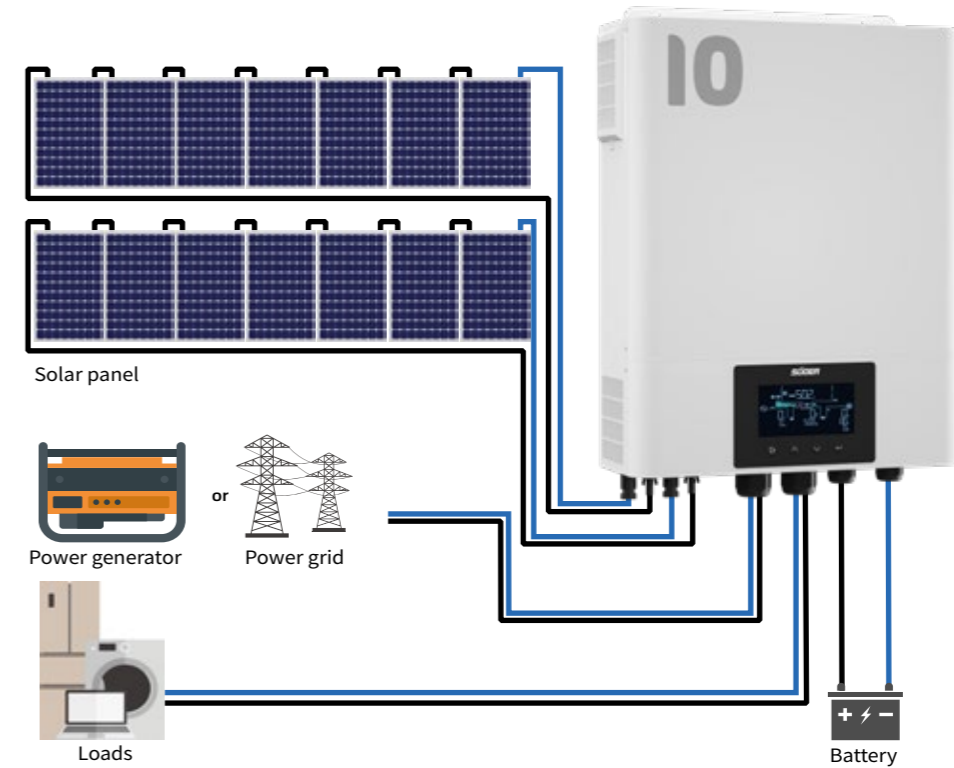


Built-in 60A AC charger + 40A MPPT Solar charge

Technical parameters

MODEL	SVM-3K-24V
Rated Power	3KVA/3KW
Input	
Voltage	230 VAC±5%
Selectable Voltage Range	90-280 VAC
Frequency Range	50 Hz/60 Hz (Auto sensing)
Output	
AC Voltage Regulation (Batt.Mode)	230VAC ± 5%
Surge Power	6kVA
Efficiency(Peak)	90%
Transfer Time	10 ms~20 ms
Waveform	Pure sine wave
Battery & AC Charger	
Battery Voltage	24VDC
Floating Charge Voltage	27 VDC
Overcharge Protection	33VDC
Maximum Charge Current	60A
Solar Charger(MPPT)	
Maximum PV Array Power	960W
MPPT Range @ Operating Voltage	30 - 80VDC
Maximum PV Array Open Circuit Voltage	100VDC
Maximum Charging Current	40A
Maximum Efficiency	98%
Communication interface	USB/Rs232
Monitoring	WIFI/GPRS(optional)
Physical	
Dimension, DxWxH (mm)	138 X 310 X 520
Net Weight (kgs)	9
Operating Environment	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-20 °C - 55 °C
Storage Temperature	-35 °C - 60 °C

SVM 10KVA



Technical parameters

Model	SVM-II-10.2KW
Phase	1phase
Maximum PV Input Power	10200W
Rated Output Power	10200W/10200VA
Maximum Solar Charging Current	180A
AC input	
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC
Acceptable Input Voltage Range	90~280VAC
Rated AC Input Current	50A
Nominal operating frequency	50/60Hz
Surge power	20400W
AC output	
Nominal Output Voltage	220/230/240VAC
Output Voltage Range	195~253VAC
Nominal Output Current	44.3A@230V
Power Factor	>0.99
Nominal operationing frequency	50/60Hz
PV input (DC)	
Maximum DC Voltage	500VDC
MPPT Voltage Range	90VDC~450VDC
Number of MPPT Trackers/Maximum Input Current	2/27A
Battery mode output (AC)	
Nominal Output Voltage	48VDC
Output Waveform	Pure sine wave
Efficiency(DC to AC)	94%
Battery & charger	
Nominal DC Voltage	48VDC
Maximum Solar Charging Current	120A
Maximum AC Charging Current	120A
Maximum Charge Current	120A
Environment	
Operating Temperature	-10~50°C

SVP 3K



Pure sine wave solar inverter



Built-in 20A AC charger + 50A PWM solar charger

MODEL	SVP-3K-24V
Rated Power	3KVA/3KW
Input	
Voltage	230 VAC ± 5%
Selectable Voltage Range	90-280 VAC
Frequency Range	50 Hz/60 Hz (Auto sensing)
Output	
AC Voltage Regulation (Batt.Mode)	230VAC ± 5%
Surge Power	6kVA
Efficiency(Peak)	93%
Transfer Time	10 ms~20 ms
Waveform	Pure sine wave
Battery & AC Charger	
Battery Voltage	24VDC
Floating Charge Voltage	27 VDC
Overcharge Protection	33VDC
Maximum Charge Current	20A
Solar Charger	
Maximum PV Array Power	1200W
MPPT Range @ Operating Voltage	30 - 32VDC
Maximum PV Array Open Circuit Voltage	80VDC
Maximum Charging Current	50A
Maximum Efficiency	98%
Communication interface	Rs232
Monitoring	WIFI/GPRS(optional)
Physical	
Dimension, DxWxH (mm)	138 X 310 X 460
Net Weight (kgs)	9
Operating Environment	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10 °C - 50 °C
Storage Temperature	-15 °C - 60 °C

PL 1.5K/1KW/3K/5K



Pure sine wave solar inverter



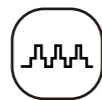
High efficiency



Toroidal transformer technology

MODEL	PL-1.5KA	PLP-1000	PL-3KVA	PL-5KVA
Rated capacity	1500VA/1000W	1000W	3000VA/1800W	5000VA/3000W
Mains Input				
Voltage range	230 VAC ±5%			
Frequency range	50Hz/60Hz ±2.5Hz			
The Output				
Battery efficiency	81%	83%	83%	85%
Waveform	Pure sine wave			
The utility efficiency	93%			
Efficiency(Peak) PV to INV	AC220V ±5%			
Output Frequency	50/60Hz ±1% (battery mode)			
Transfer time	8ms			
Battery				
Voltage	12V	12V	24V	48V
Charge current	0-20A	0-30A	0-30A	0-30A
Charging Current	/	30A(PWM)	60A(MPPT)	60A(MPPT)
Max PV Array open circuit voltage	/	50VDC	105VDC	105VDC
Display				
Method	LCD+LED			
Content	input/output voltage, Battery capacity,load capacity,machine mode,frequency			
Protect				
Output short circuit	Breakdown insurance of power status,Inverse shutdown			
Overload	When the load exceeds 105 %,the buzzer gives out an alarm sound and does not shut down.Load over 110%,120%,60 seconds protection shutdown;Load more than 130%, 10 seconds protection shutdown;Load overload 150%,0.5 second protection shutdown;			
High main voltage	Turn off power supply and inverter automatically			
Low battery voltage	The machine will automatically shut off the output,and the machine will automatically resume charging when the mains power is restored			
Over-term perature	To turn it off			
Work Environment				
Temperature	-10 - 50°C			
Altitude	≤3000m			

SON 1500VA/2400VA



Modified sine wave
solar inverter



Buit-in PWM

Technical parameters

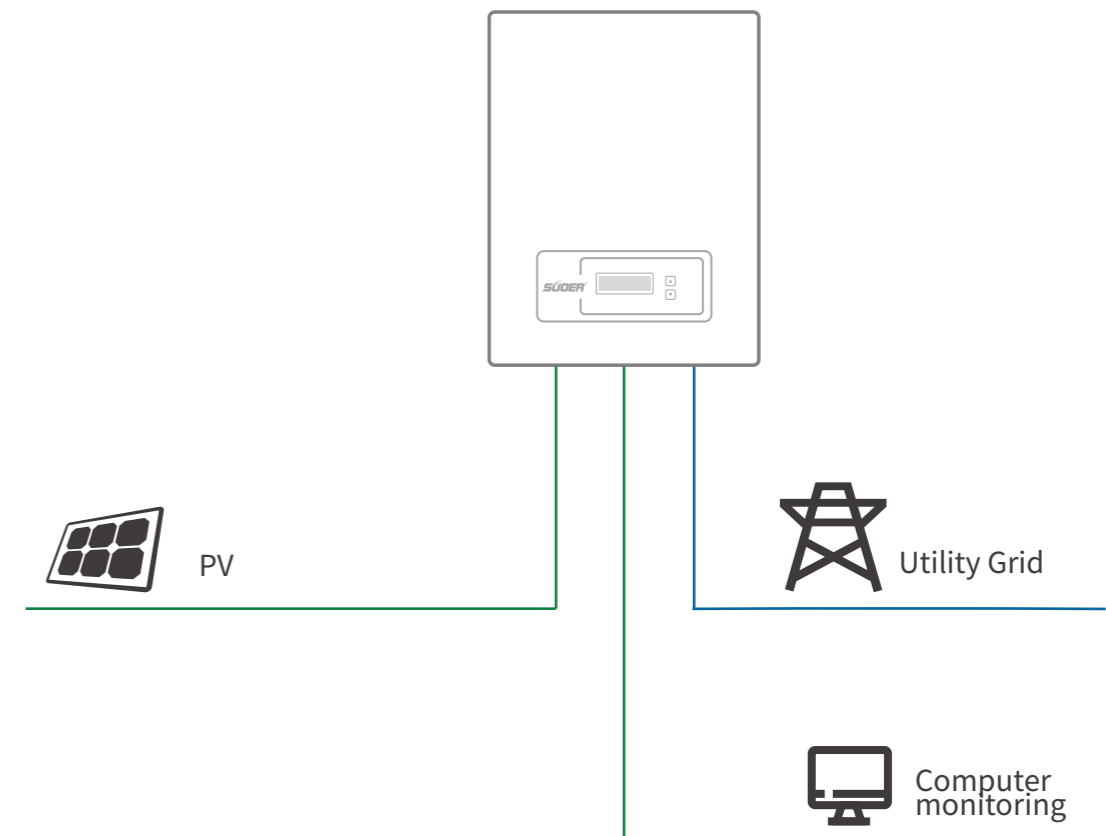
MODEL	SON-1500VA	SON-2400VA
Input		
Nominal Voltage	220~240VAC	220~240VAC
Voltage Range	90~280VAC	90~280VAC
Nominal Frequency	50Hz or 60Hz(Auto Detection)	50Hz or 60Hz(Auto Detection)
Solar		
Nominal Voltage	18Vdc	36Vdc
Charging Current	50A±1Amax	50A±1Amax
Output		
Voltage	±10%	±10%
Frequency	50/60Hz0.1Hz	50/60Hz0.1Hz
Waveform	Modified Sine-wave	Modified Sine-wave
Efficiency(AC to AC)	>95%	>95%
Efficiency(DC to DC)	±10%	±10%
Battery		
Norminal Voltage	12Vdc	24Vdc
Charger		
Charging Voltage	14.4DC	28.8DC
Charging Current	15A20A±2Amax	10A15A±1Amax
Overcharging Protection	16.0V	32.0V
Transfer		
Time	15-20ms typical(narrow range)40ms max(wide range)	
Audible Alarm		
Low Battery Voltage inbattery mode	Buzzing every 2 seconds	Buzzing every 2 seconds
Overload	Buzzing every 0.5 seconds	Buzzing every 0.5 seconds
Fault	Buzzing continuously	Buzzing continuously
Environment		
Temperature	0~40°C	0~40°C

On Grid Photovoltaic Energy Storage Solutions

This inverter is the one which DC electricity produced by solar panels is turned into grid-compatible AC electricity. AC electricity produced can reduce your electricity bill.



System Topology View



SOG 3K/5K



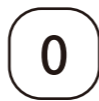
Wifi/GPRS(optional)
Smart monitoring,RS485



Anti-islanding
protection



IP65 ingress
protection



Zero export
to grid

Technical parameters

MODEL	SOG-3K-SM	SOG-5K-DM
Rated Power	3000W	5000W
Input		
Recommended max PV input power	3100W	5200W
Max DC power for single MPPT	3100W	3000W
Number of independent MPPT	/	2
Number of DC inputs	/	1 for each MPPT
Max. Input voltage	500V	500V
Number of MPPT/String per MPPT	1/1	2/1
Start-up input voltage	120V	
Rated input voltage	380V	
MPPT voltage range	100-490V	100-490V
Full load DC voltage range	240-400V	240-400V
Max.Input current per MPPT	13A	13A
Max.Input current	13A	13A
Output Data (AC)		
Max. AC power	3000W	5000W
Max. output current	/	/
Max.AC output current	14A	22A
Nominal grid voltage	L/N/PE,220Vac,230Vac,240Vac	
Grid voltage range	(According to local standard) 150V-280VAC	
Nominal frequency	50Hz/60Hz	
Grid frequency range	50Hz/60Hz	
Active power adjustable range	0-3000W	0-5000W
THDi	<3%	
Power factor	1 default(adjustable +/-0.8)	
Performance		
Max.Efficiency	97.6%	97.4%
European weighted efficiency	97%	96.9%
Self-consumption at night	<10W	<10W
MPPT adaptation efficiency	93.5%	99.5%
Protection		
DC reverse polarity protection	No	
DC switch	Yes	Yes
Anti-Islanding protection	Yes	Yes
Overtoltage category	II(DC side)/III(AC side)	
Over temp protection	Yes	Yes
Leakage current protection	Yes	Yes
Over voltage protection	Yes	Yes
Over current protection	Yes	Yes
Earth fault protection	Yes	Yes
SPD	MOV:Type III standard	
Communication		
Power management App	Yes	Yes
Standard communication mode	Rs485,WiFi/GPRS(optional)	
General Data		
Topology	Transformerless	
Allowable relative humidity range	0~100%	
Noise	<25dB	
Cooling	Natural	
Max.Operating altitude	≤2000m	
Display	LCD	
Protective level	IP65	
Ambient temperature range	-25°C~+60°C	-25°C~+60°C
Dimensions (W / H / D)	265*126*325mm	437*320*135mm
Weight	8.6kg	14.6kg

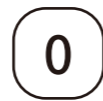
GTI 1200



Pure sine wave solar inverter



Anti-islanding protection



Zero export to grid

Display Of The Grip

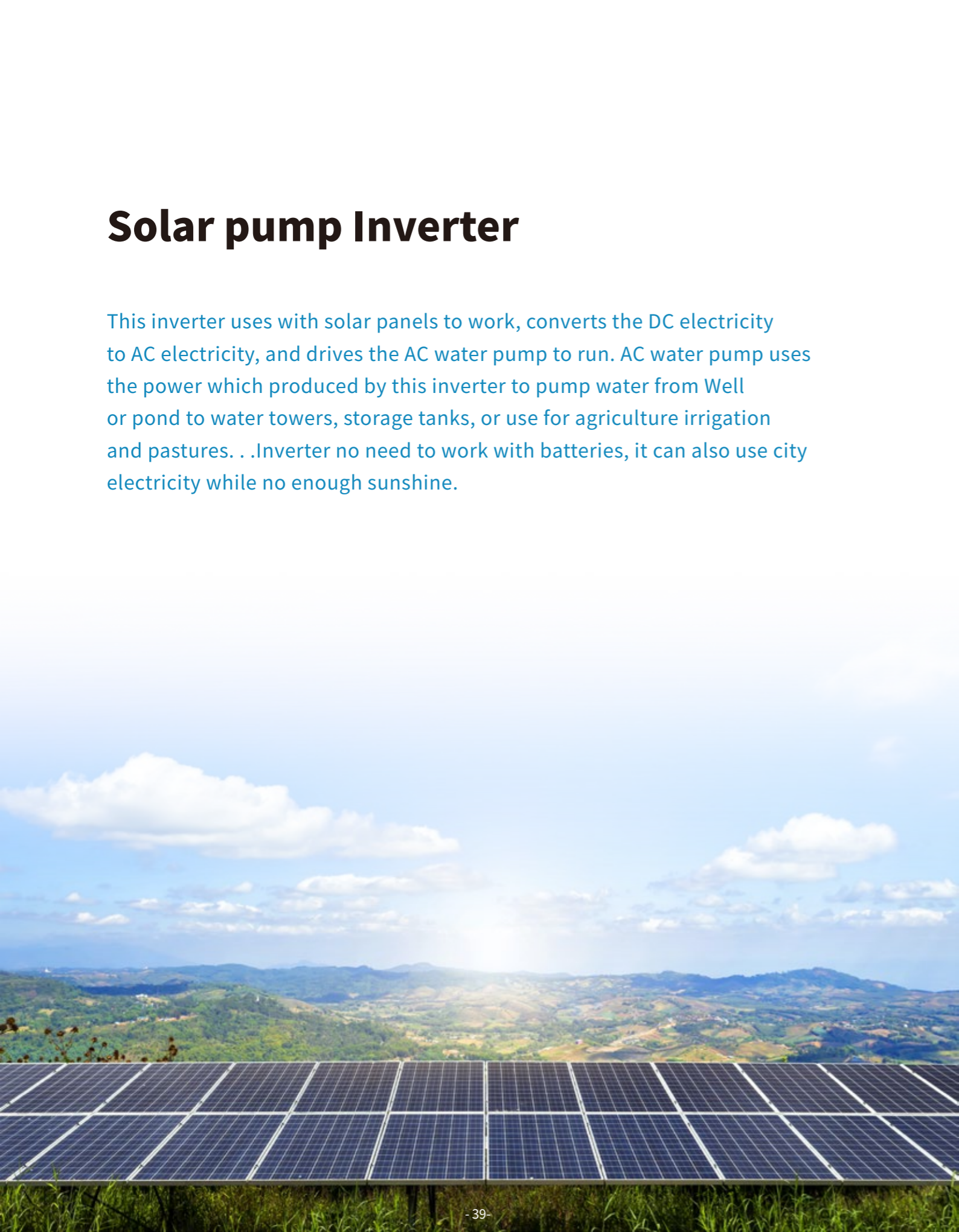
1. Screen displays 5 parameters in turn: Output voltage, output current, output power, gross power generation, total generation time.
2. Power switch on the handle is used to control the backlight.
3. Press the "rest" button with a small wooden stick for more than 5 seconds, release the indicator light after the red light and green light are on at the same time, and clear the total power generation and power generation time after release;
4. Press the "CT" button with a small wooden stick for more than 5 seconds, release the indicator light after the red light and green light are on at the same time, and switch between full power and CT mode

Technical parameters

MODEL	GTI-D1200
Output Power	1000W
Voltage of Solar panel	Vmp:42-45V ;Voc:50V
Recommended power of solar panel	1200-1500W
MPPT voltage range	30-45V
AC voltage range	190~260V
Voltage frequency range of electric network	50/60Hz±1%
Power factor	>0.97
MPPT efficiency	>99%
Total harmonic distortion	<5%
Phase shift	<2%
Conversion efficiency	>80%
Max efficiency	≥86%
Protection function	Electric network over voltage and under voltage protection; Input high/low voltage protection; High temperature protection; Island protection; Frequency protection etc.
Working temperature	-20°C~50°C
Protective level	Design for interior
Cooling method	Controlled by smart fan
Standby power	2~3W
Display mode	Grip of LED + LCD screen display
Dimensions (W / H / D)	91*221*328.7mm

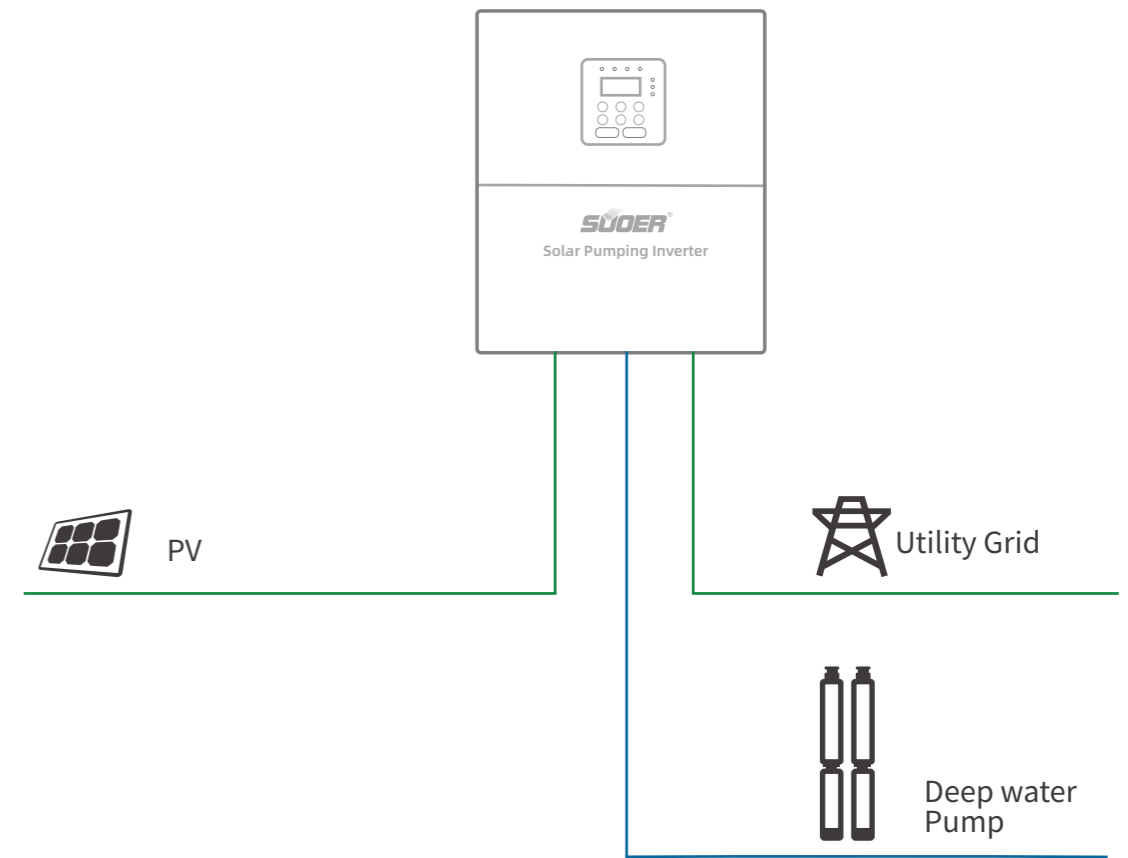
Solar pump Inverter

This inverter uses with solar panels to work, converts the DC electricity to AC electricity, and drives the AC water pump to run. AC water pump uses the power which produced by this inverter to pump water from Well or pond to water towers, storage tanks, or use for agriculture irrigation and pastures. . Inverter no need to work with batteries, it can also use city electricity while no enough sunshine.



System Topology View

Solar Variable-frequency Drive,VFD



PV100_{SS/S/4T}



PV100_{SS/S/4T}

Technical parameters

Model	PV100-0R7G-SS	PV100-1R5GSS	PV100-2R2G-SS	PV100-004G-SS	PV100-1R5G-S	PV100-2R2G-S
PV Input Data						
Max.DC Voltage(V)	440VDC	440VDC	440VDC	440VDC	440VDC	440VDC
Start-up Voltage(V)	200VDC	200VDC	200VDC	200VDC	200VDC	200VDC
Lowest Working Voltage(V)	150VDC	150VDC	150VDC	150VDC	150VDC	150VDC
Recommended DC input Voltage Range (V)	200~400VDC	200~400VDC	200~400VDC	200~400VDC	200~400VDC	200~400VDC
Recommended MPPT Voltage	330VDC	330VDC	330VDC	330VDC	330VDC	330VDC
AC/Generator						
AC Input Voltage (V)	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase
Rated Input current(A)	9.3A	15.7A	24A	30A	15.7A	24A
Output Data						
Rated Output Power(KW)	750W	1500W	2200W	4000W	1500W	2200W
Rated Output Voltage(V)	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Single Phase	220(-15%)~240(+10%)VAC Three Phase	220(-15%)~240(+10%)VAC Three Phase
Rated Output Current(A)	7.2A	10.2A	14A	23A	7.5A	10A
Output Frequency	50HZ/60HZ (optional)					
Protection						
Surge Protection(AC)	Yes					
Under voltage Protection	Yes					
Short Circuit Protection	Yes					
Over heated Protection	Yes					
Protection Level	The protection level of standard inverter is IP20					
General Date						
Ambient Temperature Range	-20°C~45°C					
Cooling Method	Fan Cooling					

PV100 SS/S/4T

Technical parameters

Model	PV100-1R5G-4T	PV100-2R2G-4T	PV100-004G-4T	PV100-5R5G-4T	PV100-7R5G-4T	PV100-011G-4T	PV100-015G-4T
PV Input Data							
Max.Input Voltage(Voc)	800VDC	800VDC	800VDC	800VDC	800VDC	800VDC	800VDC
Start-up Voltage(V)	300VDC	300VDC	300VDC	300VDC	300VDC	300VDC	300VDC
Lowest Working Voltage(V)	250VDC	250VDC	250VDC	250VDC	250VDC	250VDC	250VDC
Recommended DC input Voltage Range	300~750VDC	300~750VDC	300~750VDC	300~750VDC	300~750VDC	300~750VDC	300~750VDC
Recommended MPPT Voltage	550VDC	550VDC	550VDC	550VDC	550VDC	550VDC	550VDC
AC/Generator							
Input Voltage	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase
Rated Input current(A)	5A	5.8A	13.5A	19.5A	25A	32A	40A
Output Data							
Rated Output Power(KW)	1500W	2200W	4000W	5500W	7500W	11000W	15000W
Rated Output Voltage(V)	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase
Rated Output Current(A)	4.2A	5.5A	9.5A	14A	18.5A	25A	32A
Output Frequency	50HZ/60HZ (optional)						
Protection							
Surge Protection(AC)	Integrated						
Under voltage Protection	Integrated						
Open Circuit Protection	Integrated						
Short Circuit Protection	Integrated						
Over heated Protection	Integrated						
Protection Level	The protection level of standard inverter is IP20,butthis field is not displayed						
General Date							
Ambient Temperature Range	-20°C~45°C						
Cooling Method	Fan Cooling						
Standard Warranty(month)	12						

PV100 SS/S/4T

Technical parameters

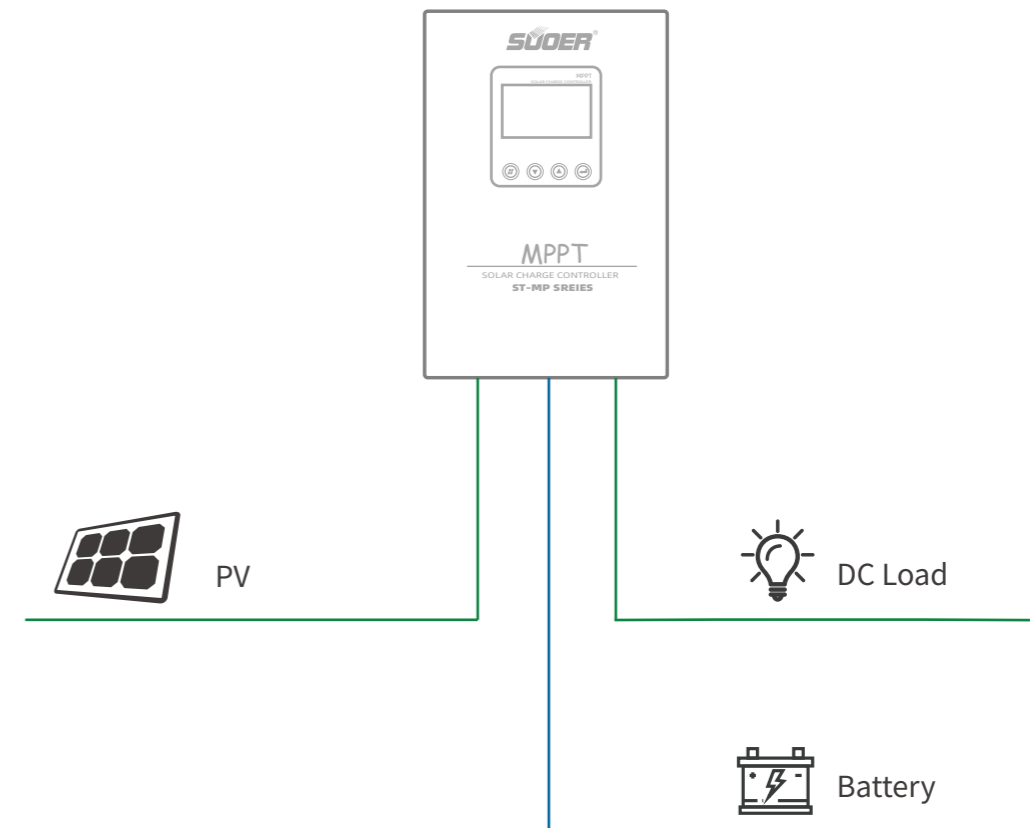
Model	PV100-018G-4T	PV100-022G-4T	PV100-030G-4T	PV100-037G-4T	PV100-045G-4T	PV100-055G-4T	PV100-075G-4T
PV Input Data							
Max.Input Voltage(Voc)	800VDC	800VDC	800VDC	800VDC	800VDC	800VDC	800VDC
Start-up Voltage(V)	300VDC	300VDC	300VDC	300VDC	300VDC	300VDC	300VDC
Lowest Working Voltage(V)	250VDC	250VDC	250VDC	250VDC	250VDC	250VDC	250VDC
Recommended DC input Voltage Range	300~750VDC	300~750VDC	300~750VDC	300~750VDC	300~750VDC	300~750VDC	300~750VDC
Recommended MPPT Voltage	550VDC	550VDC	550VDC	550VDC	550VDC	550VDC	550VDC
AC/Generator							
Input Voltage	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase
Rated Input current(A)	47A	51A	70A	80A	94A	128A	160A
Output Data							
Rated Output Power(KW)	18500W	22000W	30000W	37000W	45000W	55000W	75000W
Rated Output Voltage(V)	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase	380(-15%)~440(+10%)VAC Three Phase
Rated Output Current(A)	38A	45A	60A	75A	92A	115A	150A
Output Frequency	50HZ/60HZ (optional)						
Protection							
Surge Protection(AC)	Integrated						
Under voltage Protection	Integrated						
Open Circuit Protection	Integrated						
Short Circuit Protection	Integrated						
Over heated Protection	Integrated						
Protection Level	The protection level of standard inverter is IP20,butthis field is not displayed						
General Date							
Ambient Temperature Range	-20°C~45°C						
Cooling Method	Fan Cooling						
Standard Warranty(month)	12						

Mppt Solar Controller

This Solar Controller adopts MPPT maximum power tracking technology , it can quickly and accurately track the maximum power point of the solar cell and significantly improve the energy utilization rate of the solar system. It is widely used in solar off-grid photovoltaic systems, manage the charge and discharge of solar panels, batteries and DC loads in the system.



System Topology View



ST-MP 30A/40A/60A



99.9%

MPPT tracking efficiency up to 99.9%



Auto. Identify battery voltage 12v/24v/48v



Apply to different type of battery

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Technical parameters

MODEL	ST-MP30A	ST-MP40A	ST-MP60A	
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	Automatical 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		
Max conversion efficiency	12V/24V/48V	≥96.5%		
Photovoltaic module utilization ratio	12V/24V/48V	≤99%		
Input Characteristics				
mppt working voltage range	12V system	DC18V-DC150V		
	24V system	DC30V-DC150V		
	48V system	DC65V-DC150V		
Maximum DC input short circuit current per MPPT	12V system	450W	570W	900W
	24V system	750W	1130W	1700W
	48V system	1500W	2270W	3400W
Output Characteristics				
Optional battery type (default lead-acid maintenance-free battery)	/	sealed lead acid,Gel,Nicd,LiFePo battery or Use-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	60A
current-limiting protection	12V/24V/48V	30A	40A	60A
temperature coefficient	12V/24V/48V	±0.02%/°C		
Auto temperature compensation	12V/24V/48V	-4mV°C		
Display				
LCD display	/	LCD panel indicating solar power,load level,battery voltage/capacity,charging current,and fault conditions		
LED display	/	DC output indication		
Protection				
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	/	fan cooling		
Protective level	/	Ip32		
Environmental requirements				
Humidity	/	0~90%RH(No Dew)		
height above sea level	/	0~3500m		
Ambient temperature	/	-20°C~+60°C		
storage temperature	/	-40°C~+70°C		
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		

SMP 60A



99.9%

MPPT tracking efficiency up to 99.9%



Auto. Identify battery voltage 12v/24v/36v/48v



Apply to different type of battery



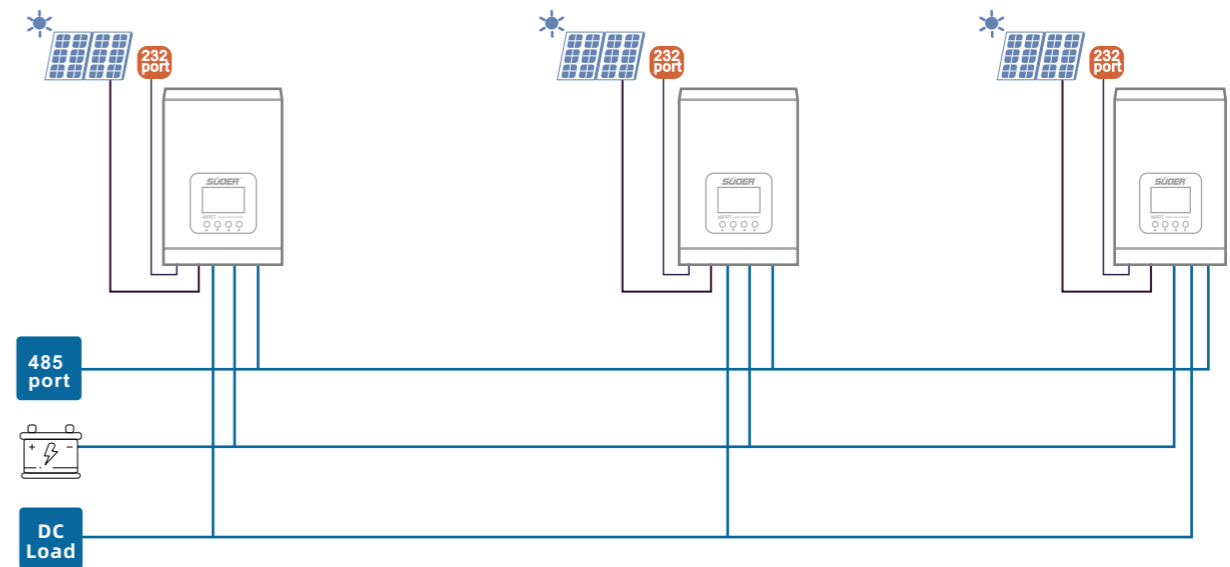
Temperature compensation

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SMP-60A

Power Connection

Three controllers in parallel:



Technical parameters

MODEL	SMP-60A
System voltage	12V/24V/36V/48V Auto
No-load loss	0.7 W to 1.2W
Battery voltage	9V to 70V
Max. solar input voltage	150V (25°C), 145V (-25°C)
Max. power point voltage range	Battery voltage +2V to 120V
Rated charging current	60A
Rated load current	20A
Max. capacitive load capacity	10000uF
Max. photovoltaic system input power	800W/12V; 1600W/24V; 2400W/36V; 3200W/48V
Conversion efficiency	≤98%
MPPT tracking efficiency	>99%
Temperature compensation factor	-3mv/*C/2V (default)
Operating temperature	-35°C to +45°C
Protective level	Ip32