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230V
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SAKO SOLAR · 天德普储能

Powering Homes · Empowering Families

Top Brand Solar Inverter & Lithium Battery & Energy Storage System & C&I ESS Manufacturer



European Middle East Asia Africa
Solar Energy Storage System

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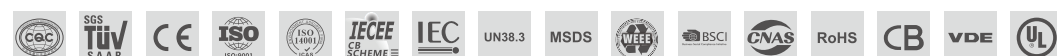
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Version: SK-IN 26.04



Off Grid MPPT Solar Inverter



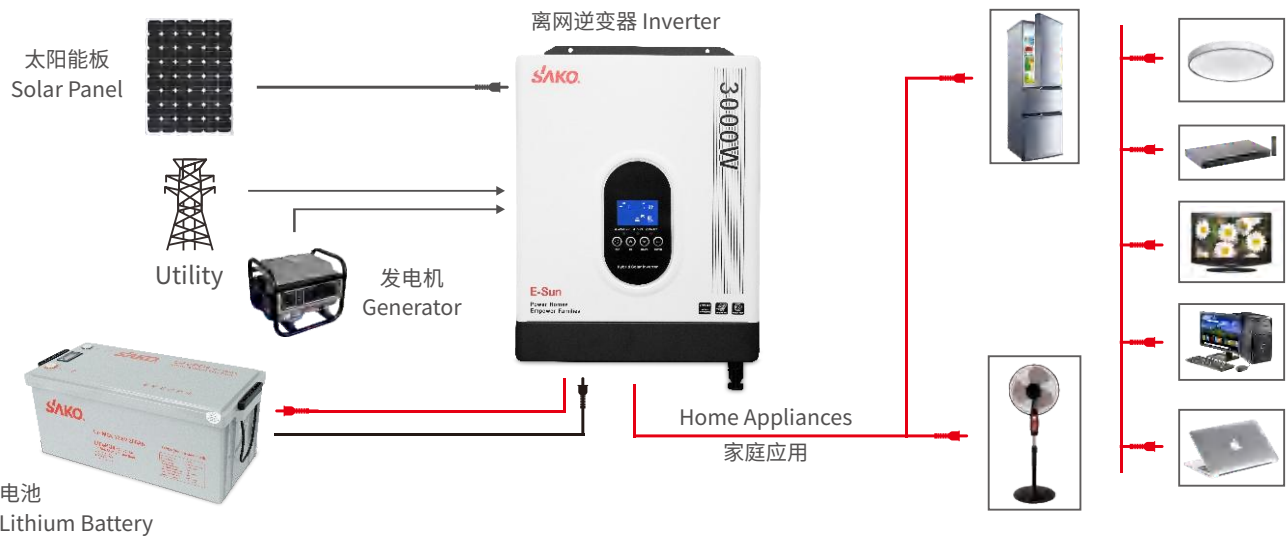
TECHNICAL PARAMETER

Model	E-SUN 1.2K	E-SUN 2K	E-SUN 3K
The rated power	1200VA/1200W	2000VA/1800W	3000VA/3000W
INPUT			
Voltage	230VAC		
Selectable Voltage Range	170-280VAC (UPS), 90-280VAC (Appliances)		
Frequency Range	50Hz/60Hz (Auto sensing)		
OUTPUT			
AC Voltage Regulation (Batt. Model)	230VAC ± 5%		
Surge Power	2400VA	4000VA	6000VA
Power factor	1.0	0.9	1.0
Efficiency(Peak)	> 92.5%	> 94%	> 94%
Transfer Time	10ms (UPS), 20ms (Appliances)		
Wave form	Pure sine wave		
No Load Power Consumption	<23W	<35W	
BATTERY			
Battery voltage	12VDC	12VDC	24VDC
Low battery alarming voltage	11.0VDC	11.0VDC	22.0VDC
Low battery cut off protection voltage	10.5VDC	10.5VDC	21VDC
Low battery recovery voltage	11.5VDC	11.5VDC	23.0VDC
Floating Charge Voltage	13.5VDC	13.5VDC	27VDC
Overcharge Protection	16.0VDC	16.0VDC	32VDC
MPPT SOLAR CHARGER & AC CHARGER			
Maximum PV Array Power	800W	2000W	3000W
MPPT Range Operation Vol	20-100VDC	50-430VDC	50-430VDC
Maximum PV Array Open Circuit Vol.	120VDC	450VDC	450VDC
Number of MPPT trackers / Max output current	50A	80A	80A
Maxmum AC Charge Current	50A	60A	60A
Maximum Efficiency	98%	98%	98%
BEST PANEL CONFIGUTATION			
Maximum PV Array Power	800W	2000W	3000W
Best Panel configuration	600W 1PCS in 1 S	600W 2-4 PCS in 1 S	600W 2-5 PCS in 1 S
CHARACTERISTIC			
Display	LCD	LCD	LCD
Communication Interface	W/O	RS485(BMS) communication port	
Parallel Capabillty	W/O	W/O	W/O
PHYSICAL			
Packing size, D*W*H(mm)	347mm*247mm*103mm	473*391*174mm	473*391*174mm
N.W. kg	3.7kg	6.0kg	6.7kg
G.W. kg	4.2kg	6.5kg	7.2kg
OPERATING ENVIRONMENT			
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Operating Temperature Range	0°C to 55°C	0°C to 55°C	0°C to 55°C
Storage Temperature	-15°C-60°C	-15°C-60°C	-15°C-60°C

MAIN FEATURES

- MPPT Solar Charge Controller Inside
- Wide PV Input Range
- Reliable quality, economic design
- Smart battery protection. Compatible with LiFePO4
- Configurable battery & AC/Solar priority via LCD setting
- With BMS for lithium battery communication

Solar System Connection





On&Off Grid MPPT Solar Inverter



TECHNICAL PARAMETER

Model	E-SUN 4.2K	E-SUN 6.2K	E-SUN 10.2K	E-SUN 12K
The rated power	4200VA/3600W	6200VA/5500W	10200VA/8200W	12000W(PV+BAT)
INPUT				
Voltage	230VAC			
Selectable Voltage Range	170-280VAC (UPS), 90-280VAC (Appliances)			
Frequency Range	50Hz/60Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Model)	230VAC ± 5%			
Surge Power	8400VA	12400VA	20400VA	24000VA
Power factor	0.85	0.88	0.8	1.0
Efficiency(Peak)	> 93.5%	> 94%	> 93%	> 94%
Transfer Time	10ms (UPS), 20ms (Appliances)			
Wave form	Pure sine wave			
No Load Power Consumption	<30W	<40W	<75W	<110W
BATTERY				
Battery voltage	24VDC	48VDC	48VDC	48VDC
Low battery alarming voltage	22.0VDC	44.0VDC	44.0VDC	44.0VDC
Low battery cut off protection voltage	21.0VDC	42.0VDC	42.0VDC	42.0VDC
Low battery recovery voltage	23.0VDC	46.0VDC	46.0VDC	46.0VDC
Floating Charge Voltage	28.0VDC	56.0VDC	56.0VDC	56.0VDC
Overcharge Protection	32.0VDC	64.0VDC	64.0VDC	64.0VDC
MPPT SOLAR CHARGER & AC CHARGER				
Maximum PV Array Power	5000W	6000W	10800W	15000W
MPPT Range Operation Vol	60-450VDC	60-450VDC	90-450VDC	60-450VDC
Maximum PV Array Open Circuit Vol.	500VDC	500VDC	500VDC	500VDC
Number of MPPT trackers / Max output current	120A	120A	160A	160A
Maxmum AC Charge Current	100A	100A	120A	160A
Maximum Efficiency	98%	98%	98%	98%
BEST PANEL CONFIGUTATION				
Maximum PV Array Power	5000W	6000W	10800W	15000W
Best Panel configuration	600W/8PCS/8S1P	650W/9PCS/9S1P	600W/18PCS/9S2P	650W/18PCS/9S2P
CHARACTERISTIC				
Display	LCD&APP	LCD&APP	LCD	LCD&APP
Communication Interface	RS485(BMS) communication port			
Parallel Capabillty	W/O	W/O	W/O	W/O
PHYSICAL				
Packing size, D*W*H(mm)	560*393*196mm	560*393*196mm	607*487*227mm	595*515*212mm
N.W. kg	8.2kg	8.2kg	14.5kg	15kg
G.W. kg	8.8kg	9.2kg	16.2kg	17.5kg
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Operating Temperature Range	0°C to 55°C	0°C to 55°C	0°C to 55°C	0°C to 55°C
Storage Temperature	-15°C-60°C	-15°C-60°C	-15°C-60°C	-15°C-60°C

MAIN FEATURES

- MPPT Solar Charge Controller Inside
- Wide PV Input Range
- Reliable quality, economic design
- Remote WIFI optional
- Smart battery protection. Compatible with LiFePO4
- Configurable battery & AC/Solar priority via LCD setting
- With BMS for lithium battery communication

Solar System Connection





On&Off Grid MPPT Solar Inverter



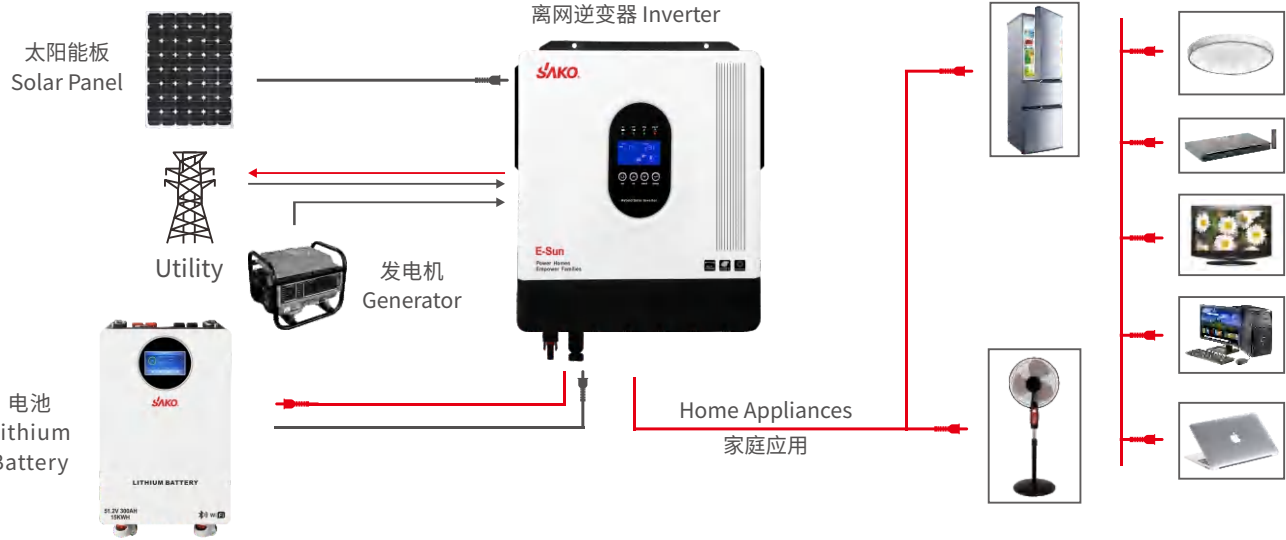
TECHNICAL PARAMETER

TECHNICAL PARAMETER		
Model	5KVA	6.5KVA
The rated power	With PV & BATT. 5KW, W/O PV. 4.2KW	6500W
INPUT		
Voltage	230Vac	
Selectable Voltage Range	170-280Vac (UPS),90-280Vac (Appliances)	
Frequency Range	50Hz/60Hz (Auto sensing)	
OUTPUT		
AC Voltage Regulation (Batt. Model)	230VAC ± 5%	
Surge Power	8400VA	13000VA
Power factor	1.0	1.0
Efficiency(Peak)	>93.5%	> 94%
Transfer Time	10ms (UPS), 20ms (Appliances)	
Wave form	Pure sine wave	
No Load Power Consunmption	<35W	<30W
BATTERY		
Battery voltage	24Vdc	48Vdc
Low battery alarming voltage	22.0Vdc	44.0Vdc
Low battery cut off protection voltage	21.0Vdc	42.0Vdc
Low battery recovery voltage	23.0Vdc	46.0Vdc
Floating Charge Voltage	28.0Vdc	56.0Vdc
Overcharge Protection	32.0Vdc	64.0Vdc
MPPT SOLAR CHARGER & AC CHARGER		
Maximum PV Array Power	9000W	9000W
MPPT Range Operation Vol	60-450Vdc	60-450Vdc
Maximum PV Array Open Circuit Vol.	500Vdc	500Vdc
Number of MPPT trackers / Max output current	160A	120A
Maxmum AC Charge Current	160A	120A
Maximum Efficiency	98%	98%
BEST PANEL CONFIGUTATION		
Maximum PV Array Power	9000W	9000W
Best Panel configuration	550W/16PCS/8S2P	550W/16PCS/8S2P
PHYSICAL		
Packing size, D*W*H(mm)	500*415*186mm	500*415*186mm
N.W. kg	7.59	7.92
G.W. kg	9	9.3
Communication Interface	RS485(BMS) communication port	RS485(BMS) communication port
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Operating Temperature Range	0°C to 55°C	0°C to 55°C
Storage Temperature	-15°C-60°C	-15°C-60°C

MAIN FEATURES

- MPPT Solar Charge Controller Inside
- Wide PV Input Range
- Reliable quality, economic design
- Remote WIFI optional
- Smart battery protection. Compatible with LiFePO4
- Configurable battery & AC/Solar priority via LCD setting
- With BMS for lithium battery communication

Solar System Connection





On&Off Grid MPPT Solar Inverter



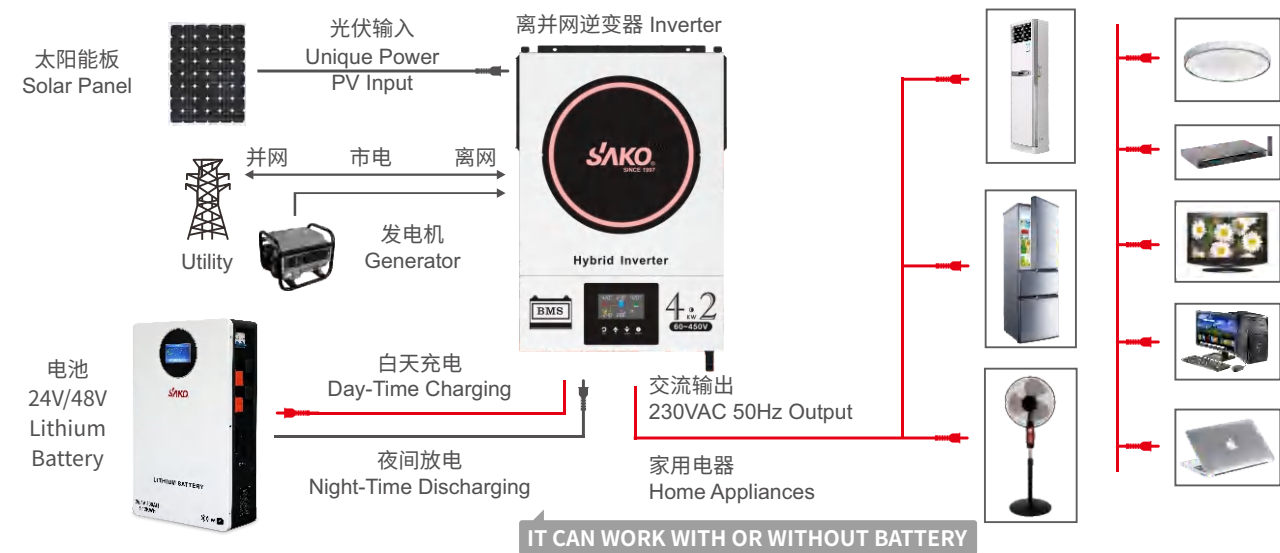
TECHNICAL PARAMETER

NEW MODEL	SUNON-ULTRA 4.2KW	SUNON-ULTRA 6.2KW
Max.PV Power	6200W	6500W
Rated Power	4200W	6200W
Max.Charge Current	120A	120A
BATTERY		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
Battery Type	Compatible with GEL, AGM, Lithium Battery	
GRID INPUT		
Voltage	230 VAC	
Selectable Voltage Range	170-280VAC(For Personal Computers);90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
Efficiency(AC Mode)	98%	
AC OUTPUT		
AC Voltage Regulation (Batt. Mode)	230 VAC ± 5%	
Surge Power	8400VA	12400VA
Efficiency (Peak)	93%	
Transfer Time	10ms typical (UPS) ; 20ms typical (Appliances)	
Waveform	Pure sine mave	
DUAL LOADS AC OUTPUT		
Full Load	4200W	6200W
Maximum Main Load	4200W	6200W
Main Load Cut Off Voltage	22VDC	44VDC
Main Load Return Voltage	27VDC	54VDC
SOLAR CHARGER &AC CHARGER		
Solar Charger Type	MPPT	
Maximum PV Array Power	6200W	6500W
Max. input Current	27A	27A
MPPT Range @ Operating Voltage	60~500VDC	60~500VDC
Maximum PV Array Open Circuit Voltage	500 VDC	
Maximum Solar Charge Current	120A	120A
Maximum AC Charge Curent	100A	100A
Maximum Charge Curent	140A	120A
PHYSICAL		
Packing Dimension,DXWXH(mm)	555*385*220mm	555*385*220mm
Weight (kgs)	10.9	11.6
Communication Interface	USB/RS232/WIFI/GPRS	
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	

MAIN FEATURES

- Pure sine wave, Hybrid, on/off grid inverter can feed into grid
 - Inverter running with or without battery
 - Build-in Lithium battery automatic activation
 - Build-in 120A MPPT solar charge controller
- High PV input voltage rang (60~500VDC)
 - Battery independent design
 - User-friendly LCD operation
 - BMS optional for lithium battery communication.

Solar System Connection





On&Off Grid MPPT Solar Inverter



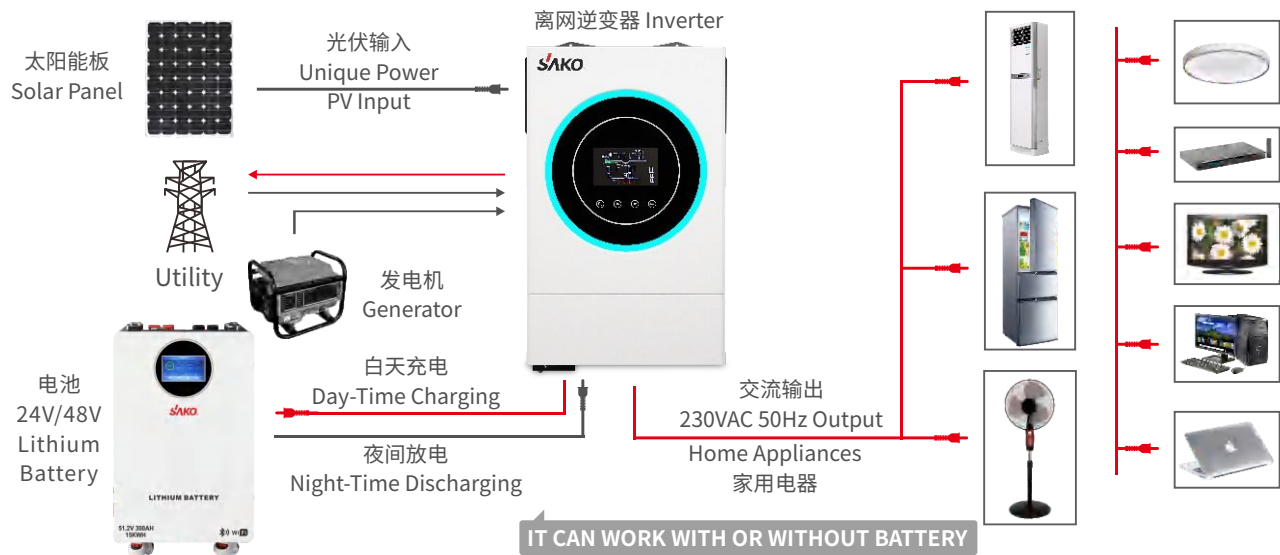
TECHNICAL PARAMETER

MODEL	SUNON V 4.5KVA/24V	SUNON V 6.5KVA/48V
Rated Power	4200W	6200W
BATTERY		
Battery Voltage	24 VDC	48 VDC
Floating Charge Voltage	27 VDC	54 VDC
Overcharge Protection	33 VDC	63 VDC
INPUT		
Voltage	230 VAC	
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
OUTPUT		
AC Voltage Regulation (Batt. Mode)	230 VAC ± 5%	
Surge Power	8400VA	12400VA
Efficiency (Peak)	90% ~ 93%	
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
SOLAR CHARGER & AC CHARGER		
Solar Charger Type	MPPT	
Maximum PV Array Power	5000W	6000W
Max. Input Current	27A	27A
MPPT Range @ Operating Voltage	60-450V	60-450V
Maximum PV Array Open Circuit Voltage	500 VDC	
Maxmum Solar Charge Current	120 A	120 A
Maximum AC Charge Current	100 A	100 A
Maximum Charge Current	120 A	120 A
PHYSICAL		
Packing Dimension,D X W X H (mm)	583mm*380mm*214mm	583mm*380mm*214mm
Weight (kgs)	11.9	12.6
Communication Interface	USB/RS232/RS485(BMS)/Local WiFi/Dry-contact	
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	

MAIN FEATURES

- Built-in Remote WiFi for mobile monitoring (App is available)
- With OTG function,supports data events stored
- Optional for RGB or movable LCD case design
- Reserved communication port (RS485, CAN-BUS or RS232) for BMS
- Battery independent design
- Battery equalization extends lifecycle
- Dual(Twin) AC Output
- Enhanced charging power
- Built-in anti-dust kit
- Hybrid can work as off grid or on grid inverter

Solar System Connection





Off Grid MPPT Solar Inverter



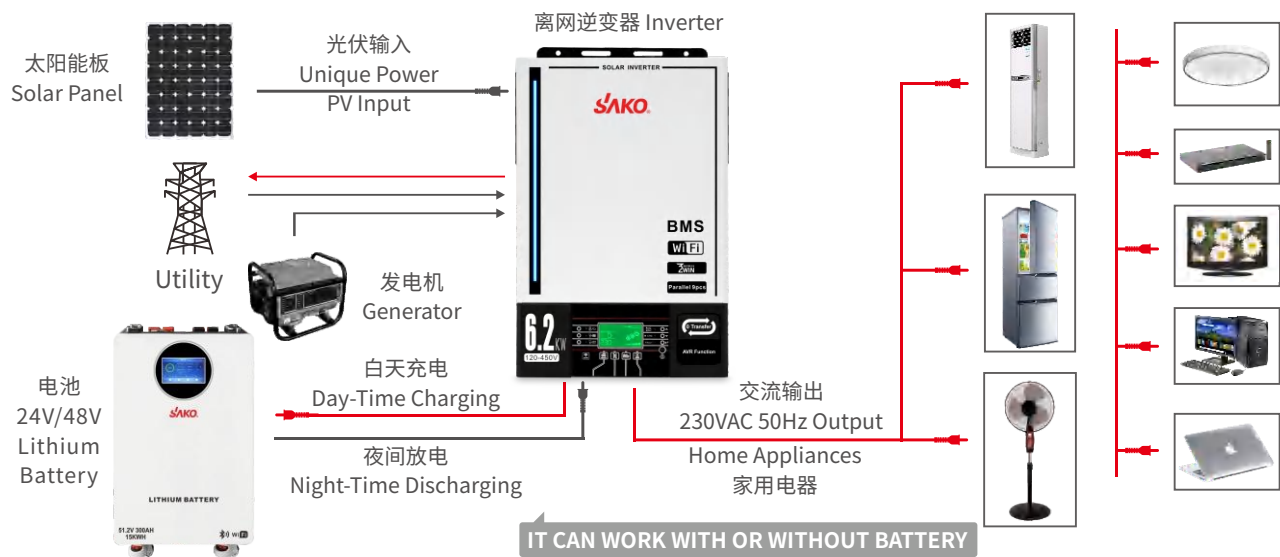
TECHNICAL PARAMETER

Model No.	4.2KW	6.2KW
Max. PV Input Power	5000W	6000W
Rated AC Output Power	4200W	6200W
PV Input (DC)		
Nominal DC Volt/Max DC Voltage	360Vdc/450Vdc	
Start-up Voltage/Initial Feeding Voltage	120Vdc	
MPPT Voltage Range	120-430Vdc	
Max. Input Current	27A	
Output (AC)		
Nominal Output Volt	230Vac, Single Phase	
Output Voltage Range	230Vac±5% （nline mode） or 110-280Vac (ECO Mode)	
Transfer Time	Line mode--Battery mode 0ms, Inverter--Bypass 4ms	
Nominal Output Current	17.4A	27A
Power Factor	1	
Efficiency		
Max. Conversion Efficiency (DC/AC)	93%(Peak Efficiency)	
AC Input (AC)		
AC Start-up Voltage/Auto Restart Volt.	120Vac-140Vac/180Vac	
Acceptable Input Voltage Range	110-280Vac	
Max. AC Input Current	30A	40A
Battery & Charger		
Battery Type Supported	AGM, Gel, flooded, tubular, LiFePo4	
Battery nominal voltage	24Vdc	48Vdc
Max Solar Charge Current	120A	
Max AC Charge Current	120A	
Max Total Charge Current	120A	
Physical		
Products Dimension,D X W X H (mm)	468x295x140 mm	468x295x140 mm
Packing Dimension,D X W X H (mm)	530x377x225 mm	530x377x225 mm
Product Net Weight(Kg)	12.0Kg	12.3Kg
Product Gross Weight(Kg)	13.5Kg	13.8Kg
Parallel functions Optional	Yes, optional, max. 9pcs	
Communication Interface	USB/RS232/RS485(BMS)/dry contact/WIFI.	
Environment		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	
Enclosure	IP20	

MAIN FEATURES

- 120A MPPT solar charger inside, max pv input 6000W (27A)
- Optional for bypass mode or AVR mode when there is AC
- Optional for parallel operation up to 9 units
- With BMS for lithium battery communication,Compatible with Lead acid, AGM, Gel, flooded, tubular,LiFePo4.
- Various communication such as USB/RS232/RS485(BMS)/dry contact/WIFI.
- Movable LCD.
- Zero-transfer Time
- Twin output
- Wifi monitor built inside
- Wide PV input range (Up to 450Vdc), support no battery working during the day time.

Solar System Connection





On&Off Grid MPPT Solar Inverter



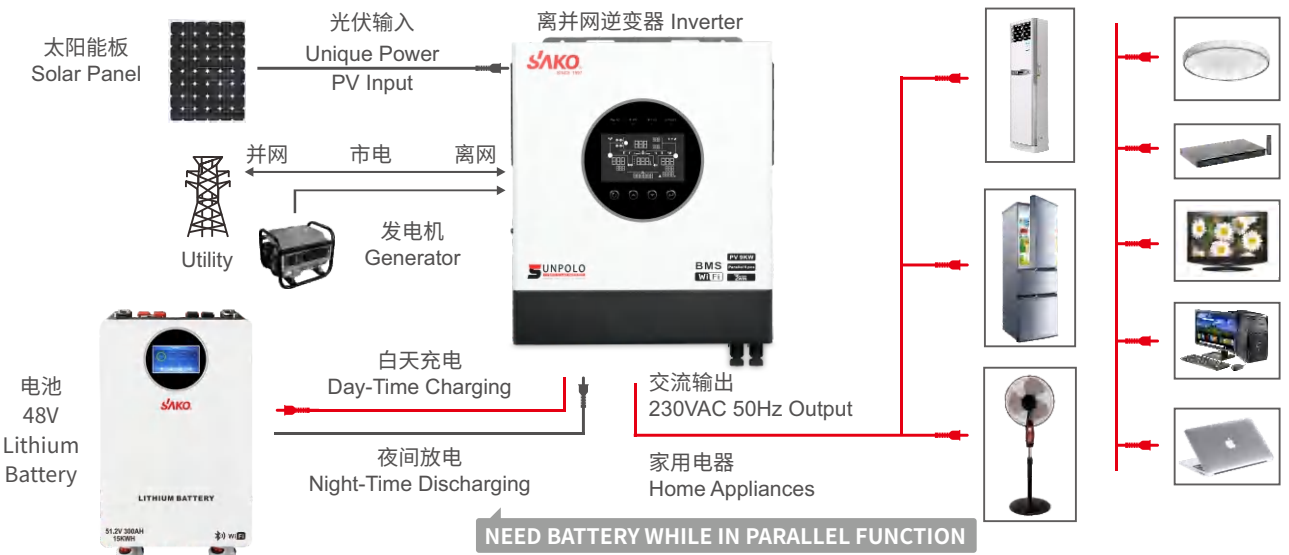
TECHNICAL PARAMETER

Model	SUNPOLO-6KW	SUNPOLO-12KW	SUNPOLO-14KW
The rated power	6000W	12000W(PV+BAT)	14000W(PV+BAT)
INPUT			
Voltage	230VAC		
Selectable Voltage Range	170-280VAC (UPS), 90-280VAC (Appliances)		
Frequenecy Range	50Hz/60Hz (Auto sensing)		
OUTPUT			
AC Voltage Regulation (Batt. Model)	230VAC ± 5%	230VAC ± 5%	230VAC ± 5%
Surge Power	12000VA	24000VA	28000VA
Power factor	1	1	1
Efficiency(Peak)	>94%	>94%	>94%
Transfer Time	10ms (UPS), 20ms (Appliances)	10ms (UPS), 20ms (Appliances)	10ms (UPS), 20ms (Appliances)
Wave form	Pure sine wave	Pure sine wave	Pure sine wave
No Load Power Consumption	<30W	<30W	<65W
BATTERY			
Battery voltage	48VDC	48VDC	48VDC
Low battery alarming voltage	44.0VDC	44.0VDC	44.0VDC
Low battery cut off protection voltage	42.0VDC	42.0VDC	42.0VDC
Low battery recovery voltage	46.0VDC	46.0VDC	46.0VDC
Floating Charge Voltage	56.0VDC	56.0VDC	56.0VDC
Overcharge Protection	64.0VDC	64.0VDC	64.0VDC
MPPT SOLAR CHARGER & AC CHARGER			
Maximum PV Array Power	9000W	15000W	18000W
MPPT Range Operation Vol	60-450VDC	60-450VDC	90-450VDC
Maximum PV Array Open Circuit Vol.	500VDC	500VDC	500VDC
Number of MPPT trackers / Max output current	120A	160A	250A
Maxmum AC Charge Current	120A	160A	210A
Maxmum Efficiency	98%	98%	98%
BEST PANEL CONFIGUTATION			
Maximum PV Array Power	9000W	15000W	18000W
Best Panel configuration	600W/16PCS/8S2P	550W/27PCS/9S3P	600W/28PCS/7S4P
CHARACTERISTIC			
Number of AC output	2		
Display	LCD&APP		
Communication Interface	RS485(BMS) communication port		
Parallel Capabillty	supports 6pcs		
PHYSICAL			
Packing size, D*W*H(mm)	500*415*186mm	595*515*210mm	725*515*195mm
N.W. kg	8Kg	15Kg	18.0Kg
G.W. kg	9.5Kg	16.5Kg	20.5Kg
Communication Interface	RS485(BMS) communication port		
OPERATING ENVIRONMENT			
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Operating Temperature Range	0°C to 55°C		
Storage Temperature	-15°C-60°C		

MAIN FEATURES

- Smart battery management. Compitable with different types of batteries: Lead acid, AGM, Gel, flooded, tubular,LiFePo4
- Two independent AC power sources (Utility + generator) connected and switched automatically (grid power get the priority)
- Built-in Remote WIFI for mobile monitoring(Android/IOS)
- Dual outputs (L1/L2) for smart load management for 6K/12K
- 120/160/250A MPPT solar charger inside, max pv input (2*27A,Max. 40A)
- Wide PV input range (Up to 500Vdc), support no battery working during the day time.
- On grid and off grid solar inverter, support self-consumption and feed into the grid.
- Max. PV input current 40A
- Built-in BMS
- Parallel up to 6 units

Solar System Connection



SINGLE PHASE HYBRID INVERTER

SUNIN-6K/8K/10K/12K-L1P1-EU

MAIN FEATURES

- 

Colorful touch LCD,
IP66 protection degree
- 

Ac coupling to retrofit
existing solar system
- 

Max. 6 pcs parallel for on-
grid and off-grid operation;
Support multiple batteries
parallel
- 

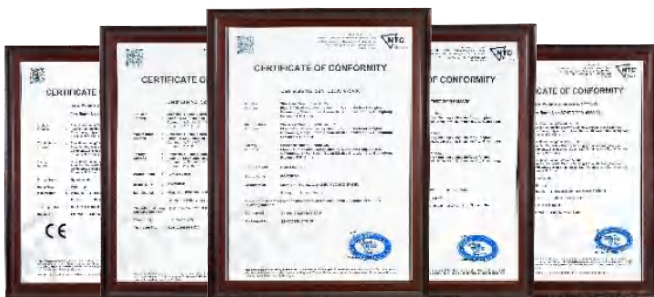
Max. charging/
discharging current
of 125/190/220/250A
- 

6 time periods for
battery charging/
discharging
- 

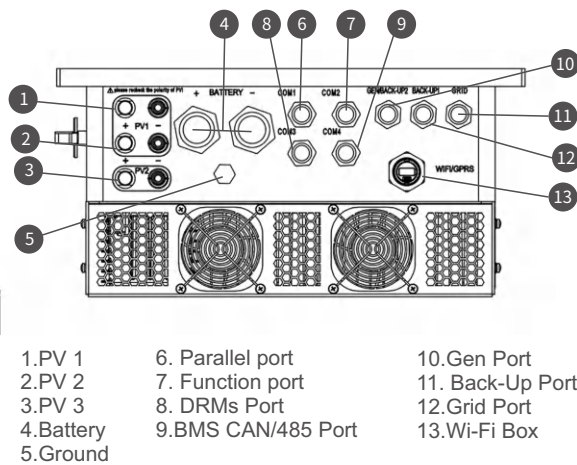
Support storing energy
from diesel generator



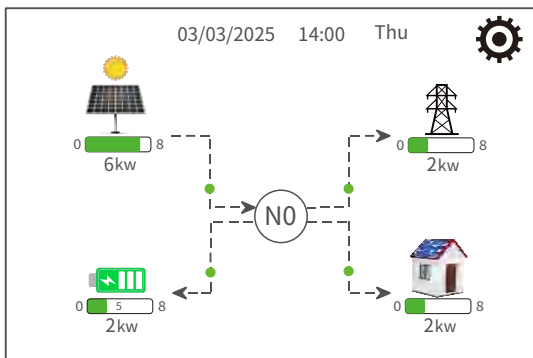
CERTIFICATIONS



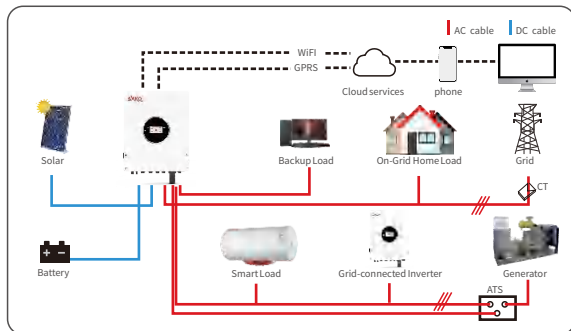
PRODUCT CHARACTERISTICS



LCD DISPLAY ICONS



BASIC SYSTEM ARCHITECTURE



IP66 Residential Energy Storage Hybrid Inverter



TECHNICAL PARAMETER

Product Models	SUNIN-6KM2-L1P1-ATEU	SUNIN-8KM2-L1P1-ATEU	SUNIN-10KM3-L1P1-EU	SUNIN-12KM3-L1P1-EU
Battery Input Parameters				
Battery Type	Lithium or Lead-acid Battery			
Rated Battery Voltage (V)	48V			
Maximum Charging Voltage (V)	≤60(configurable)			
Maximum Charging/Discharging Current (A)	125A	190A	220A	250A
PV Input Parameters				
Maximum DC Input Power (W)	12000W	16000W	18000W	20000W
Maximum DC Input Voltage (V)	500V			
MPPT Voltage Range (V)	150~450V			
Start-up Voltage(V)	125V			
Maximum Input Current(A)	20A/20A	30A/18A	32A/32A/32A	32A/32A/32A
Number of MPPT Trackers	2	2	3	3
AC Output Parameters (Grid-tied)				
Maximum Apparent Output Power (VA)	6600	8800	11000	13200
Rated Output Voltage (V)	220/230V			
Rated Output Frequency (Hz)	50/60Hz			
Maximum Output Current (A)	30A/28.7A	40A/38.2A	50A/47.9A	60A/57.4A
Output Power Factor	1(0.8 leading ~ 0.8 lagging)			
AC Output Parameters (Off-grid)				
Rated Output Power (W)	6000	8000	10000	12000
Peak Output Power (W)	>200%,15sec			
Rated Output Voltage (V)	220/230V			
Rated Output Frequency (Hz)	50/60Hz			
Rated Output Current (A)	26.1A	34.8A	43.5A	52.2A
Efficiency				
Max. Efficiency (PV)	98%			
Max. Efficiency (Battery)	94.5%			
European Efficiency	97.5%			
Protection				
PV Reverse Polarity Protection	Integrated			
PV Insulation Resistance Detection	Integrated			
Residual Current Detection	Integrated			
Output Overcurrent Protection	Integrated			
Output Short-circuit Protection	Integrated			
Output Overvoltage Protection	Integrated			
General Parameters				
Operating Temperature (°C)	-40~60°C(derating above 45°C)			
Storage Temperature (°C)	-30~65°C			
Relative Humidity	0~95%			
Operating Altitude (m)	≤4000(derating above 2000m)			
Cooling Method	Intelligent Forced Air Cooling			
Noise (dB)	<55dB			
Weight (kg)	21.5kg			
Dimensions (W × H × D mm)	198*427*554mm			
IP Rating	IP66			
Topology	High-frequency Isolation (Battery Side)			
Safety / EMC Certification	IEC62109, IEC61000, IS16169 & IS16221(BIS)			
Grid Compliance	IEC61727, EN50549-1, VDE-4105, NRS-097-2-1, OVE-Richtlinie R25, UNE217001/2, Ordinance No.140			
Other Certifications	IEC61683, IEC62116, EN50530, IEC60068			



THREE PHASE HYBRID INVERTER

SUNIN-6/8/10/12/15K-L1P3-EU

MAIN FEATURES

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100% three-phase unbalanced output, with each phase capable of delivering up to 50% of the rated power.
- 

Ac coupling to retrofit existing solar system
- 

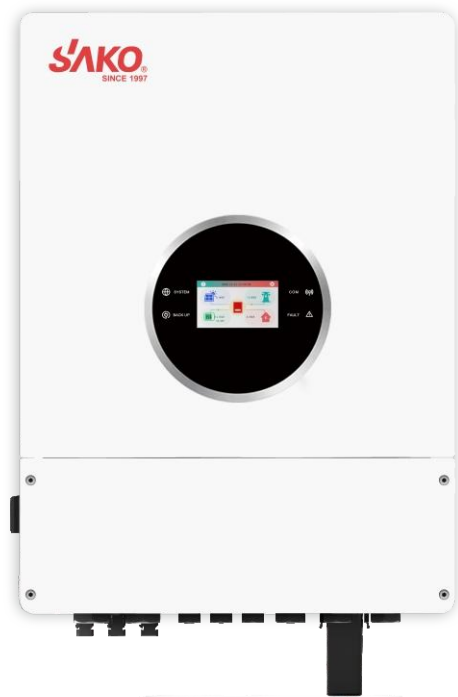
Max. 6 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 

Max. charging/ discharging current of 240A
- 

6 time periods for battery charging/ discharging
- 

Support storing energy from diesel generator
- 

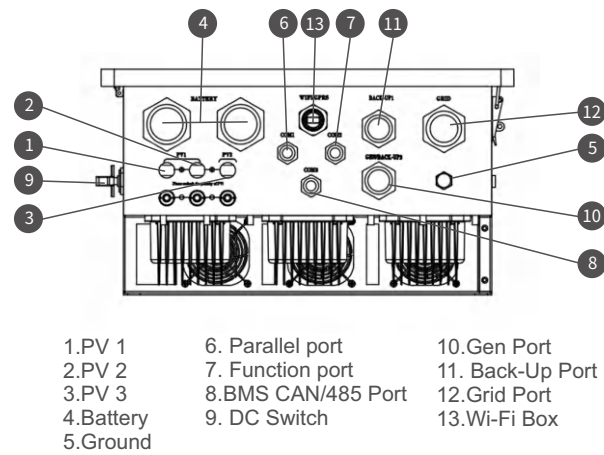
48V low voltage battery, transformer isolation design



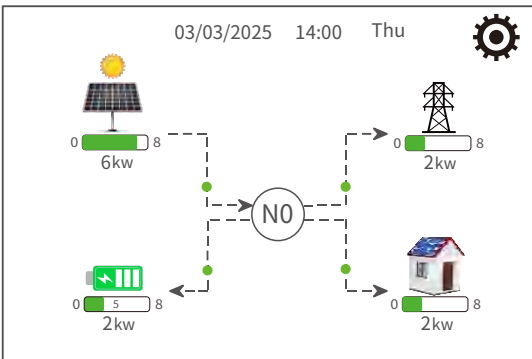
CERTIFICATIONS



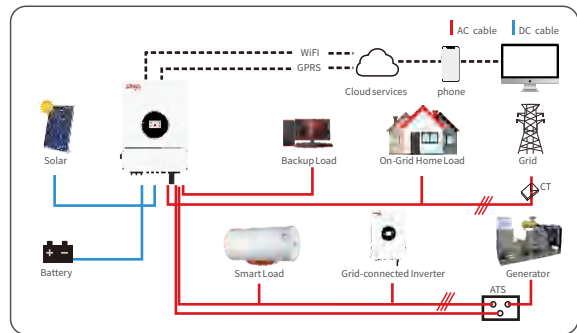
PRODUCT CHARACTERISTICS



LCD DISPLAY ICONS



BASIC SYSTEM ARCHITECTURE



IP66 Residential Energy Storage Hybrid Inverter



TECHNICAL PARAMETER

Product Models	SUNIN-6KM3-L1P3-EU	SUNIN-8KM3-L1P3-EU	SUNIN-10KM2-L1P3-ATEU	SUNIN-12KM2-L1P3-ATEU	SUNIN-15KM2-L1P3-ATEU
Battery Input Parameters					
Battery Type	Lithium or Lead-acid Battery				
Rated Battery Voltage (V)	48V				
Maximum Charging Voltage (V)	≤60V(configurable)				
Maximum Charging/Discharging Current (A)	120A	160A	210A	250A	280A
PV Input Parameters					
Maximum DC Input Power (kW)	10kW	12kW	20kW	24kW	30kW
Maximum DC Input Voltage (V)	1000				
MPPT Voltage Range (V)	200~800V				
Start-up Voltage (V)	150V				
Maximum Input Current (A)	20A/20A	20A/20A	36A/18A	36A/18A	36A/18A
Number of MPPT Trackers	2	2	2	2	2
AC Output Parameters (Grid-tied)					
Maximum Apparent Output Power (VA)	6600	8800	11000	13200	16500
Rated Output Voltage (V)	380/400V				
Rated Output Frequency (Hz)	50/60Hz				
Maximum Output Current (A)	10A	13.4A	16.7A	20A	25A
Output Power Factor	1(0.8 leading ~ 0.8 lagging)				
AC Output Parameters (Off-grid)					
Rated Output Power (W)	6000	8000	10000	12000	15000
Peak Output Power (W)	>200%,15sec				
Rated Output Voltage (V)	380/400V				
Rated Output Frequency (Hz)	50/60Hz				
Rated Output Current (A)	9.1A	12.1A	15.2A	18.2A	22.8A
Efficiency					
Max. Efficiency (PV)	98%				
Max. Efficiency (Battery)	94.5%				
European Efficiency	97.5%				
Protection					
PV Reverse Polarity Protection	Integrated				
PV Insulation Resistance Detection	Integrated				
Residual Current Detection	Integrated				
Output Overcurrent Protection	Integrated				
Output Short-circuit Protection	Integrated				
Output Overvoltage Protection	Integrated				
General Parameters					
Operating Temperature (°C)	-25~60°C(derating above 45°C)				
Storage Temperature (°C)	-30~65°C				
Relative Humidity	0~95%				
Operating Altitude (m)	≤4000m(derating above 2000m)				
Cooling Method	Intelligent Forced Air Cooling				
Noise (dB)	<55dB				
Weight (kg)	38kg				
Dimensions (W × H × D mm)	475*683*256mm				
IP Rating	IP66				
Topology	High-frequency Isolation (Battery Side)				
Safety / EMC Certification	IEC62109, IEC61000, IS16169 & IS16221(BIS)				
Grid Compliance	IEC61727, EN50549-1, VDE-4105, NRS-097-2-1, OVE-Richtlinie R25, UNE217001/2, Ordinance No.140				
Other Certifications	IEC61683, IEC62116, EN50530, IEC60068				

