

Off Grid Solar Inverter



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Introduction**



**Scenarios and
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overview

Become a benchmark
enterprise in the industry

- We have a complete range of products, including off-grid inverters, MPPT controllers, solar pump inverters and lithium batteries.
- Which can form 3.5kva and 5.5kva solar off-grid system according to the actual application requirements.

Grid inverter



MPPT controller



Water pump inverter





Grid inverter application

No electricity, lack of electricity, unstable power area,

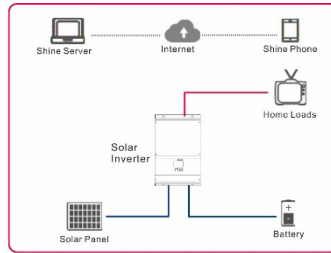
Features

- a. **Integrated MPPT controller ;**
- b. **The priority of grid and solar power supply can be set;**
- c. **Compatible with lead-acid and lithium batteries ;**
- d. **3.5kva only supports single machine ;**
- e. **5.5kva supports parallel operation, up to 9 sets ;**

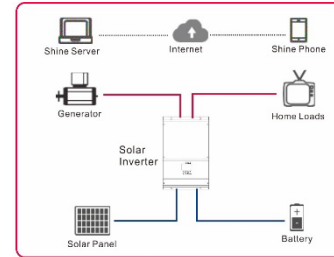
System diagram

A: Single phase application

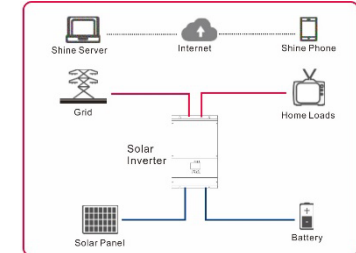
Only PV application



PV + Generator application

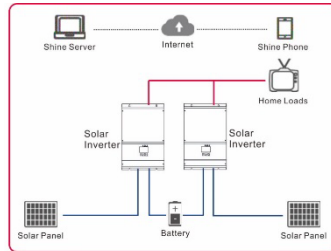


PV + Grid application

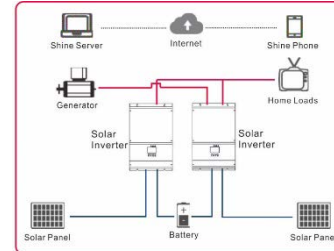


B: Parallel operation in single-phase

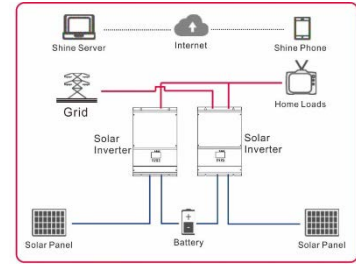
Only PV application



PV + Grid application

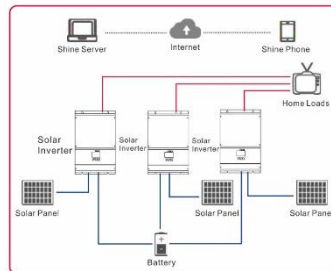


PV + Grid application

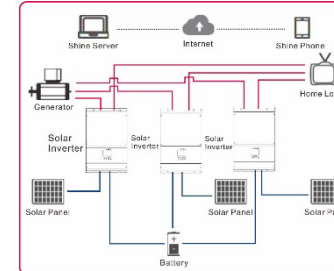


C: Parallel operation in three-phase (only 5kva available)

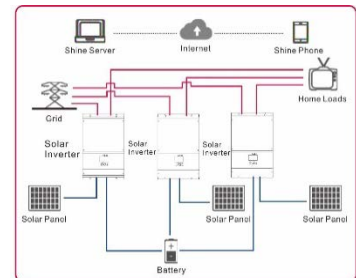
Only PV application



PV + Generator application



PV + Grid application

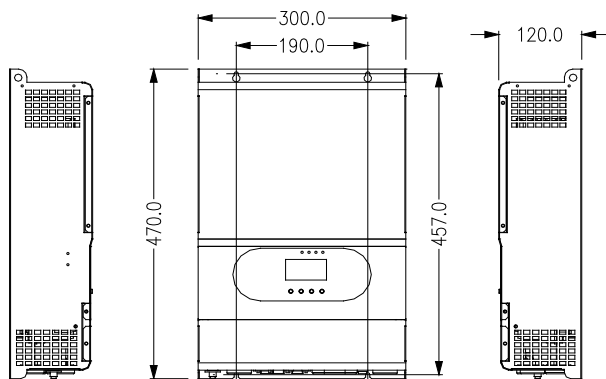


MK1000 Off-grid solar inverter

Product introduction

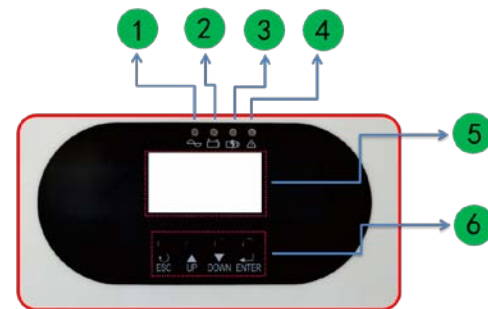
MK1000-SD series is a pure sine wave high-frequency solar inverter control integrated machine with a wide PV input range. When the energy is sufficient, it can be loaded without the battery. It has high energy density, small size, simple operation, and easy operation. It has the advantages of high efficiency and low no-load loss. Widely used in household systems, communication base stations, monitoring systems, pastoral areas, 5G auxiliary power supply, etc.

size and installation size



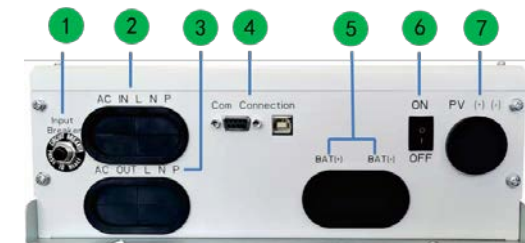
3.5KW-5.5KW

Panel Description



- 1, Grid Indicator
- 2, Status Indicator
- 3, Charging Indicator
- 4, Fault Indicator
- 5, LCD Display
- 6, Function Buttons

Panel Description



- 1, Circuit Breaker
- 2, AC input
- 3, AC output
- 4, RS-232 Communication port
- 5, Battery input
- 6, Power on/off switch
- 7, PV input

MK1000 3500–5500W

High frequency, 220Vac output

DATASHEET	MK1000-3024-SD	MK1000-3024-HD	MK1000-5048-SD
BATTERY			
Voltage	24VDC	24VDC	48VDC
Start Voltage	23VDC	23VDC	46VDC
Constant Charging Voltage	28.2VDC	28.2VDC	56.4VDC
Overcharge Voltage	30.2VDC	30.2VDC	60.4VDC
Float Charge Voltage	27VDC	27VDC	54VDC
INVERTER OUTPUT			
Rated Power	3500VA/3500W	3500VA/3500W	5500VA/5500W
Parallel	Not Available	Not Available	Yes, 9 units maximum
Output Voltage Capability (VAC)	220VAC ± 5%	220VAC ± 5%	220VAC ± 5%
Output Frequency	50\60Hz	50\60Hz	50\60Hz
Overload Protection	10s(110-130%) ; 3s(130-150%) ; 200ms(150%)		
Cold Start Voltage	23.0 Vdc	46.0 Vdc	46.0 Vdc
Surge Power	6000VA	6000VA	10000VA
Peak Efficiency	94%	93.50%	94%
Waveform	Pure sine wave		
Transfer time	10ms(personal computer),10ms(household load)		
SOLAR CHARGER			
Maximum PV Array Power	1500W	4000W	5500W
MPPT Range Operating Voltage(VDC)	30VDC-115VDC	120VDC-430VDC	
Maximum PV Array Open Circuit Voltage	145VOC	500VOC	500VOC
Maximum Charge Current	60A	120A	80A
Maximum Efficiency	99.5%	99.5%	99.5%
Energy Saving Power Consumption	<10W	<10W	<15W
Standby Power Consumption	<60W		

MK1000 3500–5500W

High frequency, 220Vac output

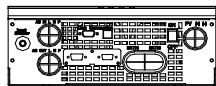
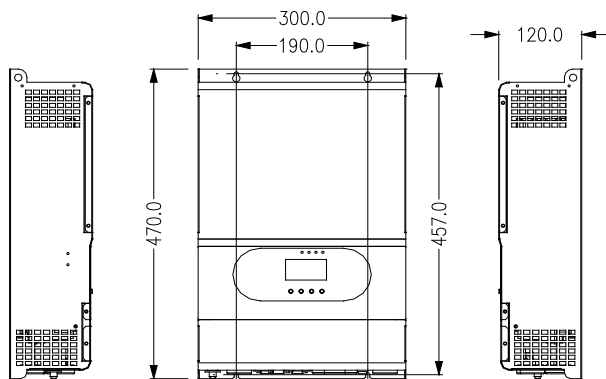
DATASHEET	MK1000-3024-SD	MK1000-3024-HD	MK1000-5048-SD
AC INPUT			
Power Factor	>0.99		
Input Voltage	220Vac, 50\60Hz±0.1%		
Input Voltage Range	90-280Vac±3V(Normal mode) \ 170-280Vac±3V(UPS mode)		
Frequency Range	40-70Hz± 0.1%(Auto sensing)		
DISPLAY			
LCD	Operation mode/ load/ input/ output, etc		
INTERFACE			
RS232	5PIN/Pitch2.0mm, baud rate 2400		
Communication Interface	2X5PIN/Pitch2.54mm; SNMP/ USB / WIFI/ BMS(Lithium Battery)		
Parallel (optional)	NO	NO	YES, DB9
OPERATION ENVIRONMENT			
Humidity	5%-95%		
Operation Temperature Range	0° C - 55° C		
Storage Temperature Range	-15° C - 60° C		
Altitude	≤1000m , >1000m derated to use , the max is 4000m, Referance IEC62040		
OPERATION ENVIRONMENT			
Dimensions(W*H*Dmm)	300*470*120mm		
Installation Dimensions(A*Bmm)	190*457mm		
Shipping Dimensions(W*H*Dmm)	360*523*181mm		
Net Weight(kg)	10.8	10.8	11.1

MK1200 Off-grid solar inverter

Product introduction

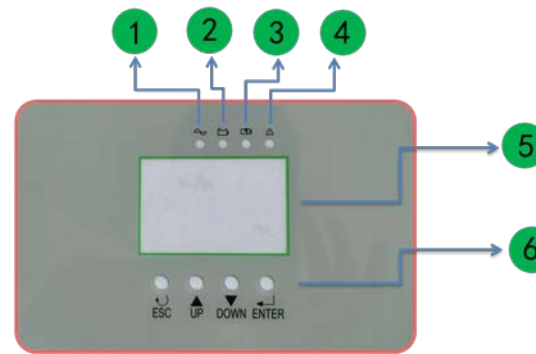
MK1200-HD series is a pure sine wave high-frequency solar inverter control integrated machine with a wide PV input range. When the energy is sufficient, it can be loaded without the battery. It has high energy density, small size, simple operation, and easy operation. It has the advantages of high efficiency and low no-load loss. Widely used in household systems, communication base stations, monitoring systems, pastoral areas, 5G auxiliary power supply, etc.

size and installation size



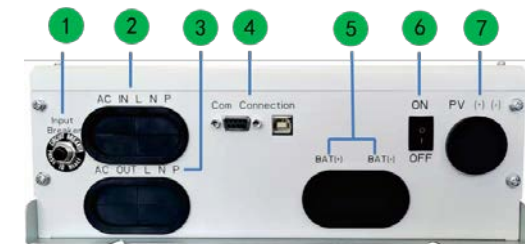
3.5KW-5.5KW

Panel Description



- 1, Grid Indicator
- 2, Status Indicator
- 3, Charging Indicator
- 4, Fault Indicator
- 5, LCD Display
- 6, Function Buttons

Panel Description



- 1, Circuit Breaker
- 2, AC input
- 3, AC output
- 4, RS-232 Communication port
- 5, Battery input
- 6, Power on/off switch
- 7, PV input

MK1200 3500–5500W

High frequency, 220Vac output

DATASHEET	MK1000-3024-SD	MK1000-3024-HD	MK1000-5048-SD
BATTERY			
Voltage	24VDC	48VDC	
Start Voltage	23VDC	46VDC	
Constant Charging Voltage	28.2VDC	56.4VDC	
Overcharge Voltage	30.2VDC	60.4VDC	
Float Charge Voltage	27VDC	54VDC	
INVERTER OUTPUT			
Rated Power	3500VA/3500W	5500VA/5500W	
Parallel	Not Available	Yes, 9 units maximum	
Output Voltage Capability (VAC)	220VAC ± 5%	220VAC ± 5%	
Output Frequency	50\60Hz	50\60Hz	
Overload Protection	10s(110-130%) ; 3s(130-150%) ; 200ms(150%)		
Cold Start Voltage	23.0 Vdc	46.0 Vdc	
Surge Power	6000VA	10000VA	
Peak Efficiency	94%	94%	
Waveform	Pure sine wave		
Transfer time	10ms(personal computer), 10ms(household load)		
SOLAR CHARGER			
Maximum PV Array Power	1500W	5500W	
MPPT Range Operating Voltage(VDC)	30VDC-115VDC	120VDC-430VDC	
Maximum PV Array Open Circuit Voltage	145VOC	500VOC	
Maximum Charge Current	60A	80A	
Maximum Efficiency	99.5%	99.5%	
Energy Saving Power Consumption	<10W	<15W	
Standby Power Consumption	<60W		

MK1200 3500–5500W

High frequency, 220Vac output

DATASHEET	MK1000-3024-SD	MK1000-3024-HD	MK1000-5048-SD
AC INPUT			
Power Factor	>0.99		
Input Voltage	220Vac, 50\60Hz±0.1%		
Input Voltage Range	90-280Vac±3V(Normal mode) \ 170-280Vac±3V(UPS mode)		
Frequency Range	40-70Hz± 0.1%(Auto sensing)		
DISPLAY			
LCD	Operation mode/ load/ input/ output, etc		
INTERFACE			
RS232	5PIN/Pitch2.0mm, baud rate 2400		
Communication Interface	2X5PIN/Pitch2.54mm; SNMP/ USB / WIFI/ BMS(Lithium Battery)		
Parallel (optional)	NO	YES, DB9	
OPERATION ENVIRONMENT			
Humidity	5%-95%		
Operation Temperature Range	0° C - 55° C		
Storage Temperature Range	-15° C - 60° C		
Altitude	≤1000m , >1000m derated to use , the max is 4000m, Reference IEC62040		
OPERATION ENVIRONMENT			
Dimensions(W*H*Dmm)	300*470*120mm		
Installation Dimensions(A*Bmm)	190*457mm		
Shipping Dimensions(W*H*Dmm)	360*523*181mm		
Net Weight(kg)	10.8	11.1	

Exterior drawing



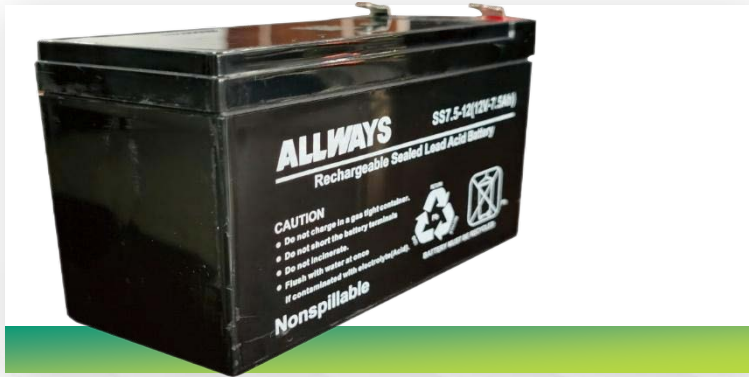
MK1000



MK1200



Energy storage battery



Model(Lead acid)	MCN-12-7R5	MCN-12-009	MCN-12-012	MCN-12-030	MCN-12-060	MCN-12-100
Voltage	12V	12V	12V	12V	12V	12V
Capacity	7.5Ah	9Ah	12Ah	30Ah	60Ah	100Ah
Storage temperature range	0° C – 35° C					
Battery size(W*H*Dmm)	151*94*65mm					
Weight (Kg)						

On-site scenarios and applications



On-site scenarios and applications



THANKS

