

SP Handy Series

An advanced and easy-to-use Solar inverter with energy exchange functions, and its anti-dust filter design that helps to increase its lifespan.

Battery-free operation available and high PV input voltage.



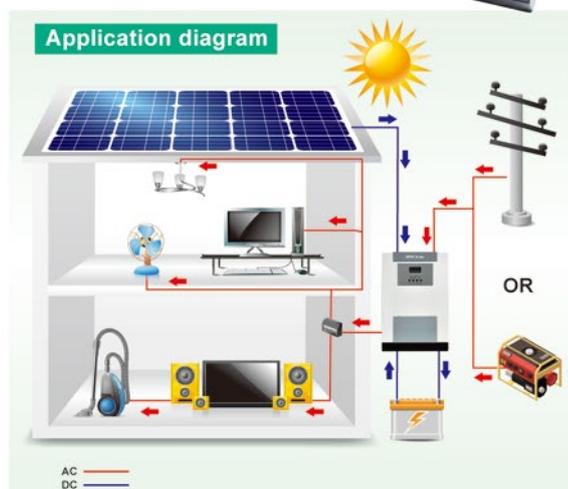
BMS



Wi-Fi

Features

- High PV input range
- Feasible for without-battery operation
- Pure sine wave inverter with PF1
- Selectable high power charging current
- Compatible with mains or generator power
- Built-in MPPT solar charger
- Overload and short circuit protection
- Support Battery Management System (BMS)
- Cold start function
- The Anti-Dust Filter design can increase the lifespan



Specifications

MODEL	SP1200 Handy	SP2500 Handy	SP3000 Handy	SP5000 Handy
Rated Power	1200VA/1200W	2500VA/2500W	3000VA/3000W	5000VA/5000W
INPUT				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz/60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%			
Surge Power	2400VA	5000VA	6000VA	10000VA
Peak Efficiency	93%			
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)			
Waveform	Pure sine wave			
BATTERY				
Battery Voltage	12 VDC	24 VDC	24 VDC	48 VDC
Floating Charge Voltage	13.5 VDC	27 VDC	27 VDC	54 VDC
Overcharge Protection	16 VDC	33 VDC	33 VDC	63 VDC
SOLAR CHARGER & AC CHARGER				
Maximum PV Input Power	2000W	3000W		5000W
Maximum PV Array Open Circuit Voltage	350Vdc	450Vdc		500Vdc
PV Array MPPT Voltage Range	30 ~ 300Vdc	30 ~ 400Vdc		120~450Vdc
	30 ~ 60Vdc with battery connected only			
Maximum Solar Charging Current	100A		100A	
Maximum AC Charging Current	80A		100A	
Maximum Charging Current	100A		100A	
Maximum PV Input Current	13A		18A	
PHYSICAL				
Dimension (D × W × H)	90 x 288 x 357mm		110 x 288 x 390mm	100 x 300 x 440mm
Net Weight	6.5kg	7kg	7.2kg	10kg
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity(Non-condensing)			
Operating Temperature	-10°C ~ 55°C			
Storage Temperature	-15°C ~ 60°C			

Specifications are subject to change without notice.

OPTI-Solar Asia:
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OPTI-Solar USA:
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OPTI-Solar Middle East:
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OPTI-Solar Europe B.V.:
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SP3500-5500 Handy

SP Handy Series

Dual AC outlet design that improves power distribution.



Dual Output



Touchable Button



BMS



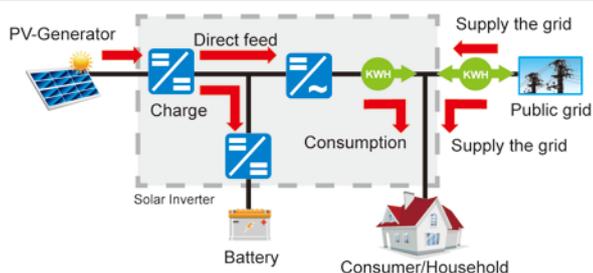
Wi-Fi

Features

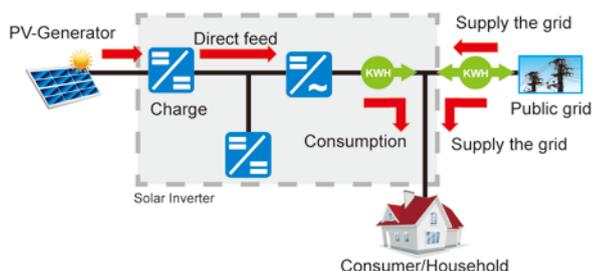
- High PV input range
- Feasible for without-battery operation
- Pure sine wave inverter
- Selectable high power charging current
- Compatible with mains or generator power
- Smart battery charger design for battery performance optimization
- Built-in MPPT solar charge controller
- Overload and short circuit protection
- Cold start function
- Dual AC output design

Operation Diagram:

Operation with battery



Operation without battery



Specifications

MODEL	SP3500 Handy	SP5500 Handy
Rated Power	3500VA/3500W	5500VA/5500W
INPUT		
Voltage	230 VAC	
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
OUTPUT		
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%	
Surge Power	7000VA	11000VA
Peak Efficiency	93%	
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
BATTERY		
Battery Voltage	24 VDC	48 VDC
Floating Charge Voltage	27 VDC	54 VDC
Overcharge Protection	32 VDC	63 VDC
SOLAR CHARGER & AC CHARGER		
Maximum PV Array Power	5000W	6000W
Maximum PV Array Open Circuit Voltage	500Vdc	
Maximum PV Array Current	30A	
PV Array MPPT Voltage Range	60~450Vdc	
Maximum Solar Charging Current	100A	
Maximum AC Charging Current	100A	
Maximum Charging Current	100A	
Maximum PV Input Current	27A	
Maximum PV Input Short Circuit Current	30A	
PHYSICAL		
Dimension (D×W×H)	107 × 323 × 420mm	
Net Weight	9.5kg	10.5kg
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C ~ 55°C	
Storage Temperature	-15°C ~ 60°C	

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