



OFF-GRID HYBRID SOLAR INVERTER 3500 / 5500 PF 1.0

Hybrid Power System
Inverter 3500 / 5500 are a multi-function inverter/charger, combining function of inverter, solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/Solar charger priority, and acceptable input voltage based on different applications.

FEATURES

- Pure sine wave inverter & ECO friendly
- Configurable input voltage range for home appliances and personal computers.
- Configurable battery charging current based on applications via LCD setting.
- Configurable AC/Solar Charger priority.
- Compatible to mains voltage or Generator power.
- Auto restart while AC is recovering & Cold start function.
- Overload/ Over temperature & Short circuit protection.
- Smart battery charger design for optimized battery performance.
- ON / OFF Bypass Switch
- Minimum PV Voltage 170V, can work without battery.

SOLAR INVERTER

3500 / 5500 PF 1.0

SPECIFICATIONS

MODEL

3500
5500

LINE MODE

| | |
|---------------------------------|--|
| Input Voltage Waveform | Sinusoidal (Utility or Generator) |
| Nominal Input voltage | 230Vac |
| Low Loss voltage | 170Vac±7V (UPS); 90Vac±7V (Appliances) |
| Low Loss Return voltage | 180Vac±7V (UPS); 100Vac±7V (Appliances) |
| High Loss Voltage | 280Vac±7V |
| High Loss Return Voltage | 270Vac±7V |
| Max AC Input Voltage | 300Vac |
| Nominal Input Frequency | 50Hz / 60Hz (Auto detection) |
| Low Loss Frequency | 40±1Hz |
| Low Loss Return Frequency | 42±1Hz |
| High Loss Frequency | 65±1Hz |
| High Loss Return Frequency | 63±1Hz |
| Output Short Circuit Protection | Circuit Breaker |
| Efficiency (Line Mode) | >95% (Rated R load, battery full charged) |
| Transfer Time | 10ms typical (UPS) 20ms typical (Appliances) |

INVERTER MODE

| | | |
|-------------------------------|---|---|
| Rated Output Power | 3.5KW | 5.5KW |
| Output Voltage Waveform | Pure Sine Wave | |
| Output Voltage Regulation | 230Vac±5% | |
| Output Frequency | 50Hz | |
| Peak Efficiency | 93% | |
| Overload Protection | 5s@≥150% load; 10s@110%~150% load | |
| Surge Capacity | 2* rated power for 5 seconds | |
| Nominal DC Input Voltage | 24Vdc | 48Vdc |
| Cold Start Voltage | 23Vdc | 46Vdc |
| Low DC Warning Voltage | @load <50%: 23.0Vdc, @load ≥50%: 22.0Vdc | @load <50%: 46.0Vdc, @load ≥50%: 44.0Vdc |
| Low DC Warning Return Voltage | @load <50%: 23.5Vdc, @load ≥50%: 23.0Vdc | @load <50%: 47.0Vdc, @load ≥50%: 46.0Vdc |
| Low DC Cut-Off Voltage | @load <50%: 21.5Vdc, @load ≥50%: 21.0Vdc | @load <50%: 43.0Vdc, @load ≥50%: 42.0Vdc |
| High DC Recovery Voltage | 32Vdc | 62Vdc |
| High DC Cut-off Voltage | 33Vdc | 63Vdc |
| No Load Power Consumption | <35W | |

CHARGE MODE - UTILITY CHARGING MODE

| | | |
|---------------------------|---|---|
| Charging Algorithm | 3-Step | |
| AC Charging Current (Max) | 80Amp (@VI/P=230Vac) | 60Amp (@VI/P=230Vac) |
| Bulk Charging Voltage | Flooded Battery: 29.2, AGM / Gel Battery: 28.2 | Flooded Battery: 58.4, AGM / Gel Battery: 56.4 |
| Floating Charging Voltage | 27Vdc | 54Vdc |

CHARGE MODE - MPPT SOLAR CHARGING MODE

| | | |
|---|--|-------|
| Max. PV Array Power | 4000W | 6000W |
| Nominal PV Voltage | 240Vdc | |
| PV Array MMPT Voltage Range | 120~450Vdc | |
| Max.PV Array Open Circuit Voltage | 500Vdc | |
| Max Charging Current (AC charger plus solar charger) | 100Amp | |
| Dimension (D*W*H) / Net Weight | 100 X 300 X 440mm / 9.7 Kgs | |
| Safety Certification | CE | |
| Operating Temperature Range | -10°C~ 50° C | |
| Storage temperature | -15°C~ 60°C | |
| Humidity | 5% to 95% Relative Humidity (Non-condensing) | |

OFF-GRID HYBRID

SOLAR INVERTER**3500 / 5500** PF 1.0**Basic System Architecture**

The following illustration shows basic application of this Inverter/ Charger. It also includes following devices to have a complete running system:

- Generator or Utility
- PV Modules

Consult with your system integrator for other possible system architectures depending on your requirements.

The inverter can power all kind of appliances in home or office environment, including motor-type appliances such as Tube light, Fan, Refrigerator and Air Conditioner.

