PV3500 Series (4KW-12KW)

Low Frequency Solar Inverter
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INTRODUCTION

PV3500 series is a multi-function inverter, combining functions of inverter and mppt solar charger controller, solar charger and battery charger to offer uninterruptible power support with portable size. The comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and selectable input voltage based on different applications.

FEATURES

- Smart LCD setting (Working modes, Charge Current, Charge voltage, etc.)
- Built-in MPPT solar charge controller 60A/120A
- MPPT efficiency max 98%
- Powerful charge rate up to 100Amp
- Built-in pure copper UI transformer
- DC start & Automatic Self-Diagnostic Function
- RS485/USB monitoring function with free CD
- Supporting AGS, BTS port
- Compatible to generator

Rated power
4KW-12KW

Battery Voltage
24V, 48V

Wide AC input range
154-272Vac

Battery smart charge design

3 times surge power based on capacity
4KW-12KW

Pure copper UI transformer

MPPT solar charge controller
60A / 120A

Multi protection
INVERTER SYSTEM CONNECTION
PV3500 inverter system, it can work with battery as back up power for normal home power demands which take use of sunshine freely and save lots electricity bill for you.

Solar Inverter System Connection:
Power Inverter + Battery + Solar Panels + Grid + Application Loads

DIFFERENT WORKING MODES [the sequence that the load get power from]
You can choose different working mode based on your need.

- **SBU**
- **SOL**
- **UTI**

MONITORING SYSTEM
With USB can connect with computer monitoring the working stage and the data of PV, AC and battery. LCD setting is also available in computer.
# PV3500 Series (4KW-12KW)
## Low Frequency Solar Inverter

<table>
<thead>
<tr>
<th>Model</th>
<th>PV35-4K</th>
<th>PV35-5K</th>
<th>PV35-6K</th>
<th>PV35-8K</th>
<th>PV35-10K</th>
<th>PV35-12K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Battery System Voltage</td>
<td>24V</td>
<td>48V</td>
<td>48V</td>
<td>48VDC</td>
<td>48VDC</td>
<td>48VDC</td>
</tr>
<tr>
<td>Rated power</td>
<td>4KW</td>
<td>5KW</td>
<td>6KW</td>
<td>8.0KW</td>
<td>10.0KW</td>
<td>12.0KW</td>
</tr>
<tr>
<td>Surge rating(20ms)</td>
<td>12KW</td>
<td>15KW</td>
<td>18KW</td>
<td>24KW</td>
<td>30KW</td>
<td>36KW</td>
</tr>
<tr>
<td>Inverter indicator</td>
<td>2HP</td>
<td>2HP</td>
<td>3HP</td>
<td>4HP</td>
<td>5HP</td>
<td>6HP</td>
</tr>
</tbody>
</table>

## Features
1. Switch ON/OFF
2. LCD display
3. Inverter indicator
4. Charging indicator
5. Grid indicator
6. Fault indicator
7. PV indicator
8. BAT-
9. BAT+
10. RS485/USB communication port
11. AC input/Bypass breaker
12. AC output breaker
13. Remote control port
14. Fan
15. BTS
16. AGS
17. AC input
18. AC output
19. PV input
20. Ground
21. PVZ input (optional)
22. PVI input

## Specifications

### Inverter Output
- Waveform: Pure sine wave / same as input (bypass mode)
- Nominal output voltage RMS: 220V / 230V / 240VAC (+/-10% RMS)
- Output frequency: 50Hz / 60Hz +/- 0.3Hz
- Inverter efficiency (peak): >85% / >88%
- Line mode efficiency: >95%
- Power factor: 0.8
- Typical transfer time: 10ms (max)
- Selectable voltage range: 154~272 VAC (for personal computers)

### AC Input
- Voltage: 230VAC
- Frequency range: 50Hz / 60Hz (auto sensing)

### Battery
- Minimum start voltage: 20.0VDC/21.0VDC for 24VDC mode (40.0VDC/42.0VDC for 48VDC mode)
- Low battery alarm: 21.0VDC +/-0.3V for 24VDC mode (42.0VDC +/-0.6V for 48VDC mode)
- Low battery cutoff: 20.0VDC +/-0.3V for 24VDC mode (40.0VDC +/-0.6V for 48VDC mode)
- High voltage alarm: 32.0VDC +/-0.3V for 24VDC mode (64.0VDC +/-0.6V for 48VDC mode)
- High battery voltage recovery: 31.0VDC +/-0.3V for 24VDC mode (62.0VDC +/-0.6V for 48VDC mode)
- Idle consumption-search mode: <25W when power saver on

### AC Charger
- Output voltage: Depends on battery type
- Charger AC input breaker rating: 40A / 40A / 50A / 80A / 80A / 80A
- Overcharge protection S.D.: 31.4VDC for 24VDC mode (62.8VDC for 48VDC mode)
- Maximum charge current: 65A / 40A / 50A / 60A / 70A / 80A / 100A

### BTS
- Continuous output power: Yes, Variations in charging voltage & S.D. voltage based on the battery type

### Bypass & Protection
- Input voltage waveform: Sine wave (grid or generator)
- Nominal input frequency: 50Hz or 60Hz
- Overload protection (SMPS Load): Circuit breaker
- Output short circuit protection: Circuit breaker
- Bypass breaker rating: 40A / 63A / 63A / 63A
- Max bypass current: 40Amp / 80Amp

### Solar Charger
- Maximum PV charge current: 60A / 60A (120A optional)
- Maximum PV array power: 1600W / 3200W / 3200W / 3200W (6400W for 120A optional)
- MPPT range @ operating voltage (VDC): 32-145VDC for 24V mode, 64-147VDC for 48V mode
- Maximum PV array open circuit voltage: 147VDC
- Maximum efficiency: >98%
- Standby power consumption: <2W

### Mechanical Specifications
- Mounting: Wall mount
- Dimensions (W*H*D): 620*385*215mm / 670*410*215mm
- Net weight (solar CHG): 36 / 41 / 41 / 69v.25 / 75.75+2.5
- Shipping dimensions (W*H*D): 755*515*455mm / 898*618*443mm
- Shipping weight (Solar CHG): 56 / 61 / 64 / 89.25+2.5 / 95.5+2.5

### Other
- Operation temperature range: 0°C to 40°C
- Storage temperature: -15°C to 60°C
- Audible noise: 60dB MAX
- Display: LED + LCD
- Loading (20GP/40GP/40HQ): 140pcs / 280pcs / 320pcs

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### Notes:
- The inverter is designed for low frequency applications.
- It supports a wide range of input and output voltage settings.
- The inverter is equipped with a user-friendly interface for ease of operation.
- It comes with a comprehensive set of protections and monitoring features.
- The inverter is suitable for both grid-connected and off-grid systems.
- It is designed for durability and reliability in various environmental conditions.
- It is compliant with global safety and quality standards.
- It offers a variety of customization options to meet different project requirements.

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### Model Selection:
- PV35-4K: 4KW
- PV35-5K: 5KW
- PV35-6K: 6KW
- PV35-8K: 8KW
- PV35-10K: 10KW
- PV35-12K: 12KW

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### Application Fields:
- Residential
- Commercial
- Agricultural
- Industrial
- Outdoor applications

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### Customer Support:
For more information or inquiries, please contact us at info@must-solar.com or visit our website at www.must-solar.com.