

GROWATT MIN 3000TL-XH

Growatt MIN 3000TL-XH Single-Phase Hybrid Inverter

USER MANUAL

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of the Growatt MIN 3000TL-XH Single-Phase Hybrid Inverter. The Growatt MIN 3000TL-XH is a single-phase hybrid inverter designed for both grid-tied operation and battery storage, offering a maximum output power of 3000W. It features two independent MPPT controllers, allowing for flexible solar panel configurations, and is compatible with Growatt ARK XH batteries ranging from 5.12 to 17.92 kW. Its compact, IP65-rated design makes it suitable for outdoor installation in private or commercial settings.

2. SAFETY INFORMATION

Please read all safety instructions carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Installation must be performed by qualified personnel only.
- Ensure the inverter is disconnected from all power sources (DC and AC) before performing any maintenance or service.
- Do not open the inverter casing. There are no user-serviceable parts inside.
- The inverter is IP65 rated for outdoor use, but avoid direct exposure to extreme weather conditions.
- Ensure proper grounding of the inverter.
- Keep children and unauthorized persons away from the inverter.

3. SETUP AND INSTALLATION

The Growatt MIN 3000TL-XH inverter is designed for easy installation. Follow these steps for proper setup.

3.1 Unpacking and Inspection

Carefully unpack the inverter and inspect it for any signs of damage during transit. Report any damage to your supplier immediately.

3.2 Mounting the Inverter

Choose a suitable mounting location, preferably on a solid wall, away from direct sunlight and sources of heat. Ensure adequate ventilation around the unit.



Image: Growatt MIN 3000TL-XH Inverter. This image displays the front of the inverter, highlighting its sleek, compact design and the user interface panel.

3.3 Electrical Connections

Connect the DC input from the solar panels to the MPPT inputs, ensuring correct polarity. Connect the AC output to the grid. If using batteries, connect the Growatt ARK XH battery system to the designated battery terminals. All connections must comply with local electrical codes.

- **DC Input:** Connect solar panel strings to the two independent MPPT inputs.
- **AC Output:** Connect to the single-phase grid (phase and neutral).
- **Battery Connection:** For hybrid operation, connect compatible Growatt ARK XH batteries. Communication between the inverter and battery is via data cable, no separate gateway is required.
- **Grounding:** Ensure the inverter is properly grounded.

4. OPERATING THE INVERTER

Once installed, the Growatt MIN 3000TL-XH inverter will automatically begin operation when sufficient solar power is available and grid connection is established.

4.1 Display and Controls

The inverter features a touch button and an OLED display for monitoring system status and adjusting settings. Refer to the on-screen menu for detailed information.

4.2 Operating Modes

The MIN 3000TL-XH operates as a hybrid inverter, capable of:

- **Grid-tied operation:** Feeding excess solar power to the grid.
- **Battery charging:** Storing excess solar power in connected batteries.
- **Battery discharging:** Supplying power from batteries to loads or the grid.
- **Self-consumption:** Prioritizing power usage from solar and batteries for local loads.

4.3 Export Control

The inverter supports export control functionality, allowing you to limit the amount of power fed back to the grid, if required by local regulations.

5. MAINTENANCE

The Growatt MIN 3000TL-XH inverter requires minimal maintenance. Regular checks ensure optimal performance and longevity.

- **Visual Inspection:** Periodically check the inverter and all connections for any visible damage, corrosion, or loose wiring.
- **Cleaning:** Keep the inverter's cooling fins and vents free from dust and debris to ensure proper heat dissipation. Use a soft, dry cloth for cleaning.
- **Performance Monitoring:** Regularly monitor the inverter's performance via the display or a connected monitoring system to ensure it is operating efficiently.
- **Firmware Updates:** Check with Growatt support or your installer for any available firmware updates to ensure the inverter has the latest features and optimizations.

6. TROUBLESHOOTING

This section provides guidance for common issues. For more complex problems, contact qualified service personnel.

Problem	Possible Cause	Solution
Inverter not producing power	No DC input (solar panels), AC grid disconnected, Inverter fault	Check solar panel connections and sunlight. Verify AC grid connection. Check inverter display for error codes.
Low power output	Insufficient sunlight, dirty solar panels, shading, MPPT issue	Ensure panels are clean and free from shading. Check MPPT input voltages on display.
Error message on display	Internal fault, connection issue, overvoltage/undervoltage	Note the error code and consult the full Growatt manual or contact technical support.

7. SPECIFICATIONS

Key technical specifications for the Growatt MIN 3000TL-XH Single-Phase Hybrid Inverter.

Feature	Value
Model	MIN 3000TL-XH
Maximum Efficiency	98.2%
MPPT Controllers	2 independent
Recommended Max DC Panel Power	6000 W
Max Voltage	500 V

Feature	Value
Start-up Voltage	100 V
Operating Voltage Range	70-500 V
Nominal Voltage	360 V
Overvoltage Protection	SPD Type II continuous
Display	Touch button and OLED display
Ingress Protection	IP65
Compatible Batteries	Growatt ARK XH (5.12 to 17.92 kW)

8. WARRANTY AND SUPPORT

For warranty information, please refer to the warranty card included with your product or visit the official Growatt website. Keep your purchase receipt as proof of purchase.

For technical support, troubleshooting assistance beyond this manual, or spare parts, please contact your authorized Growatt dealer or Growatt customer service. Provide your product model and serial number when seeking support.





Manufacturer: GROWATT
Model Number: MIN 3000TL-XH



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Related Documents - MIN 3000TL-XH

	<p>Growatt MIN TL-XH Series Inverter: Installation & Operation Manual</p> <p>Comprehensive guide for the installation, operation, safety, and maintenance of Growatt MIN TL-XH series single-phase hybrid inverters, including models MIN 2500TL-XH through MIN 6000TL-XH. Learn about setup, connections, and troubleshooting.</p>
	<p>Growatt MID 11-30KTL3-XH User Manual: Installation, Operation, and Maintenance Guide</p> <p>Comprehensive user manual for the Growatt MID 11-30KTL3-XH series of hybrid solar inverters. Covers installation, electrical connections, commissioning, operation, maintenance, and troubleshooting for photovoltaic (PV) plant operating personnel and qualified electricians.</p>

	<p>Growatt MIN TL-X Series Solar Inverter User Manual</p> <p>Comprehensive user manual for the Growatt MIN TL-X series solar inverters, covering installation, operation, safety, specifications, and troubleshooting.</p>
	<p>Growatt MIN TL-XE Series Installation and Operation Manual</p> <p>Comprehensive installation and operation manual for Growatt MIN TL-XE series solar inverters (2500W to 6000W). Covers safety, setup, electrical connections, commissioning, maintenance, troubleshooting, and technical specifications.</p>
	<p>Growatt Solar Inverters and Energy Storage Systems Catalog</p> <p>Comprehensive catalog of Growatt solar inverters, including single-phase, three-phase, and storage products, along with monitoring systems and project case studies. Features detailed specifications, benefits, and technical data for residential and commercial applications.</p>
	<p>Growatt MID 8-15KTL3-XH L Series User Manual</p> <p>Comprehensive user manual for the Growatt MID 8-15KTL3-XH L series hybrid solar inverters, covering installation, operation, safety, maintenance, and troubleshooting.</p>