Thermaltake TTP-1050AH2FLG

Thermaltake Toughpower GF A3 1050W ATX 3.0/PCI-E 5.0 Power Supply User Manual

Model: TTP-1050AH2FLG

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Thermaltake Toughpower GF A3 1050W ATX 3.0/PCI-E 5.0 Power Supply. This power supply unit (PSU) is designed to deliver stable and efficient power to your computer system, featuring 80 PLUS Gold certification, ATX 3.0 compatibility, and a native PCIe Gen 5.0 12VHPWR connector.

Figure 1.1: Front view of the Thermaltake Toughpower GF A3 1050W Power Supply.

2. Safety Information

Please read and understand all safety instructions before installing or operating this power supply. Failure to follow these instructions may result in electric shock, fire, or damage to the product and connected components.

- **Do not** open the PSU casing. High voltages are present inside, even when the unit is unplugged.
- **Do not** insert any objects into the fan grille or ventilation openings.
- Ensure the PSU is installed in a well-ventilated area, free from excessive heat, humidity, and dust.
- Connect the PSU to a grounded power outlet.
- Use only the modular cables provided with this power supply. Using incompatible cables may cause damage.
- Before connecting or disconnecting any cables, ensure the system is powered off and the PSU's main power switch is in the 'OFF' position.

3. Package Contents

Verify that all items are present in your package:

- Thermaltake Toughpower GF A3 1050W Power Supply Unit
- AC Power Cord

- Modular Cable Set (as detailed below)
- Mounting Screws
- User Manual (this document)

Modular Cable Overview

The Toughpower GF A3 1050W is a fully modular power supply, allowing you to connect only the cables necessary for your system. Refer to the table below for the included cable types and quantities.

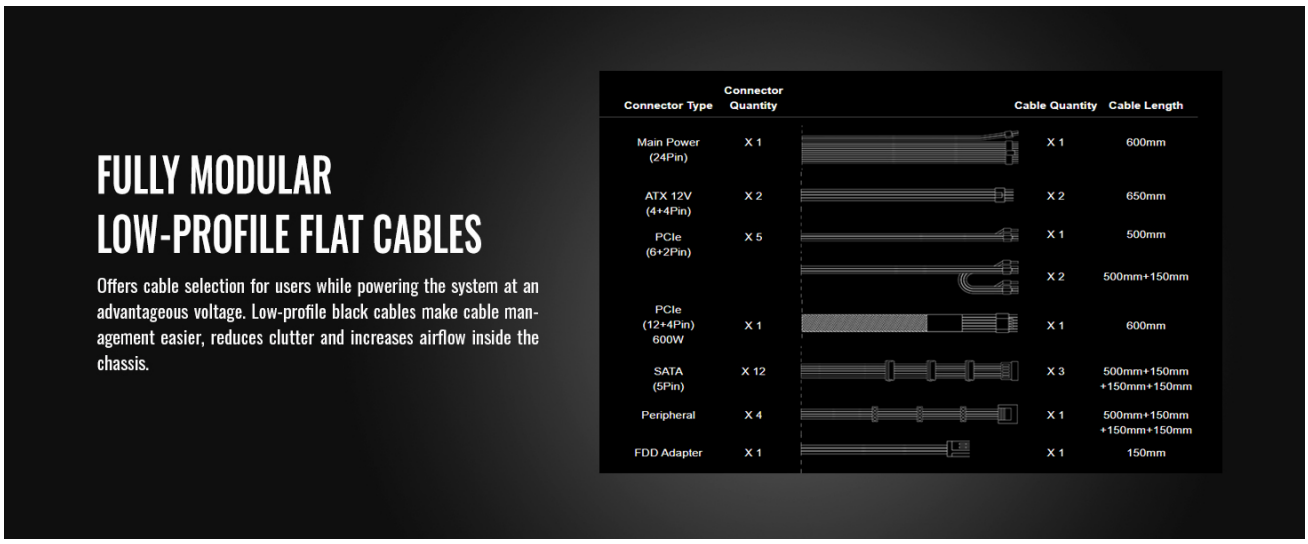

Figure 3.1: Included modular cables and their specifications.

4. Installation

Follow these steps to install your power supply into your computer system.

4.1 Physical Installation

1. Ensure your computer is powered off and unplugged from the wall outlet.
2. Remove the side panel of your computer case to access the PSU mounting area.
3. Position the Thermaltake Toughpower GF A3 1050W PSU into the designated bay in your chassis. Ensure the fan is oriented correctly for optimal airflow (typically facing downwards if there's a bottom vent, or upwards if not).
4. Secure the PSU to the chassis using the provided mounting screws.

Figure 4.1: Modular cable connection ports on the PSU.

4.2 Connecting Modular Cables

Connect the necessary modular cables to your PSU and system components. Refer to your motherboard and component manuals for specific connection points.

- **Main Power (24-pin):** Connect the 24-pin cable to your motherboard's main power connector.
- **ATX 12V (4+4-pin):** Connect one or two 4+4-pin cables to your motherboard's CPU power connectors.
- **PCIe (6+2-pin):** Connect 6+2-pin PCIe cables to your graphics card(s) if they require traditional PCIe power connectors.
- **PCIe (12+4-pin / 12VHPWR):** For NVIDIA RTX 40 Series and other PCIe 5.0 graphics cards, use the native 12VHPWR cable. This cable can deliver up to 600W. Ensure it is fully seated into both the PSU and the graphics card.

Figure 4.2: The native 12VHPWR connector for PCIe Gen 5.0 graphics cards.

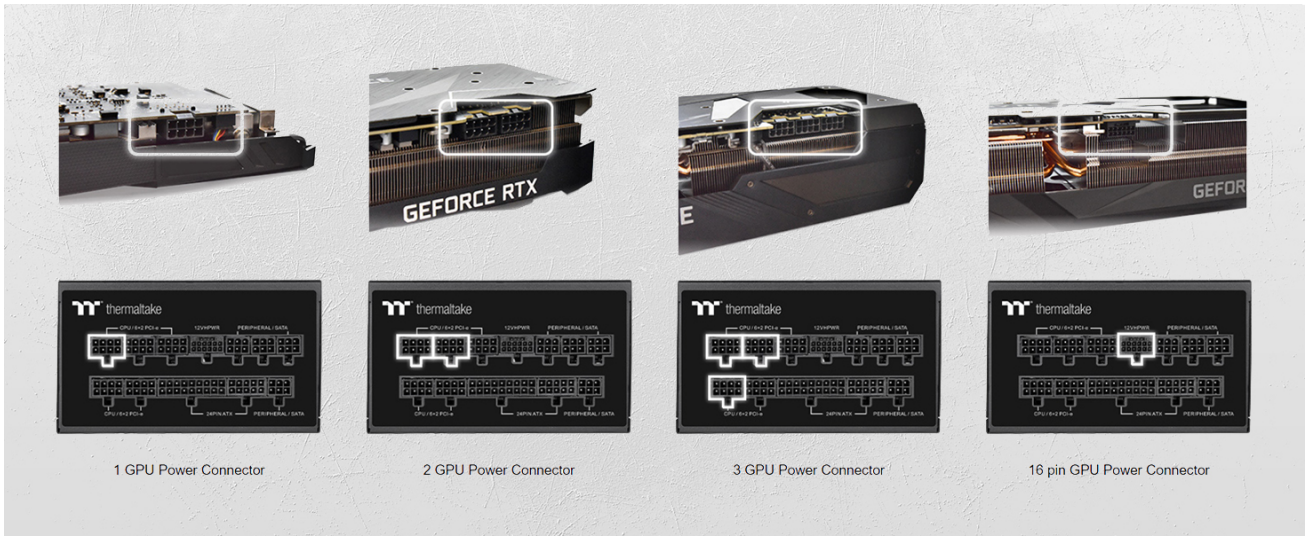

Figure 4.3: Examples of GPU power connector types and their connections.

- **SATA (5-pin):** Connect SATA power cables to SSDs, HDDs, and optical drives.
- **Peripheral (4-pin):** Connect peripheral power cables to older components or fan controllers.
- **FDD Adapter:** Use if your system requires a floppy disk drive power connector.

After all cables are securely connected, replace the computer case side panel.

5. Operation

5.1 Powering On

1. Ensure all cables are correctly connected.
2. Connect the AC power cord to the PSU and then to a grounded wall outlet.
3. Flip the main power switch on the back of the PSU to the 'ON' position.
4. Press the power button on your computer case to start the system.

5.2 Smart Zero Fan Feature

The Toughpower GF A3 1050W features a Smart Zero Fan mode. When enabled, the 120mm fluid bearing fan will not spin until the power supply load exceeds 30%. This feature minimizes noise during low-load operation.

Figure 5.1: Location of the main power switch and Smart Zero Fan switch.

To enable or disable the Smart Zero Fan, use the switch located next to the main power switch on the rear of the PSU. When the switch is in the 'ON' position, the Smart Zero Fan feature is active. When in the 'OFF' position, the fan will operate continuously.

6. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your power supply.

- **Cleaning:** Periodically clean the exterior of the PSU and the fan grille to prevent dust buildup. Use compressed air to gently clear dust from the fan and vents. **Ensure the PSU is powered off and unplugged before cleaning.**
- **Environment:** Maintain a clean, cool, and dry operating environment for your computer system to prevent excessive heat and dust accumulation within the PSU.

7. Troubleshooting

If you encounter issues with your power supply, refer to the following basic troubleshooting steps:

- **No Power:**
  - Ensure the AC power cord is securely connected to both the PSU and the wall outlet.
  - Verify the main power switch on the PSU is in the 'ON' position.
  - Check the wall outlet or power strip for functionality.
  - Confirm all modular cables are firmly seated in both the PSU and the respective components (motherboard, GPU, drives).
- **System Instability/Random Shutdowns:**
  - Ensure your system's power requirements do not exceed the PSU's capacity.
  - Check for proper ventilation within your computer case to prevent overheating.
  - Verify all power connectors are correctly installed and not loose.
- **Fan Not Spinning (at low load):**
  - This may be normal if the Smart Zero Fan feature is enabled and the system load is below 30%.
  - Disable the Smart Zero Fan feature to test if the fan spins continuously.

If issues persist after performing these steps, please contact Thermaltake customer support for further assistance.

8. Specifications

Detailed technical specifications for the Thermaltake Toughpower GF A3 1050W Power Supply:

Feature	Specification
Model	TTP-1050AH2FLG
Max. Output Capacity	1050W
Color	Black
Dimension (W / H / D)	150mm(W) x 86mm(H) x 140mm(D)
PFC (Power Factor Correction)	Active PFC
Power Good Signal	100-150 msec
Hold Up Time	> 17msec
Input Current	20A-8A
Input Frequency Range	50Hz/60Hz
Input Voltage	100-240V~
Operating Temperature	5°C to + 45°C
Operating Humidity	20% to 85%, non-condensing
Storage Temperature	-40°C to + 55°C
Storage Humidity	10% to 95%, non-condensing

Feature	Specification
Cooling System	12cm FDB Fan
Efficiency	Meet 80 PLUS® Gold at 115Vac input
MTBF	100,000 hrs minimum
Safety Approval	FCC/ICES/CB/cTUVus
PCI-E 6+2PIN	5
PCIE 12+4PIN (12VHPWR)	1 (600W)

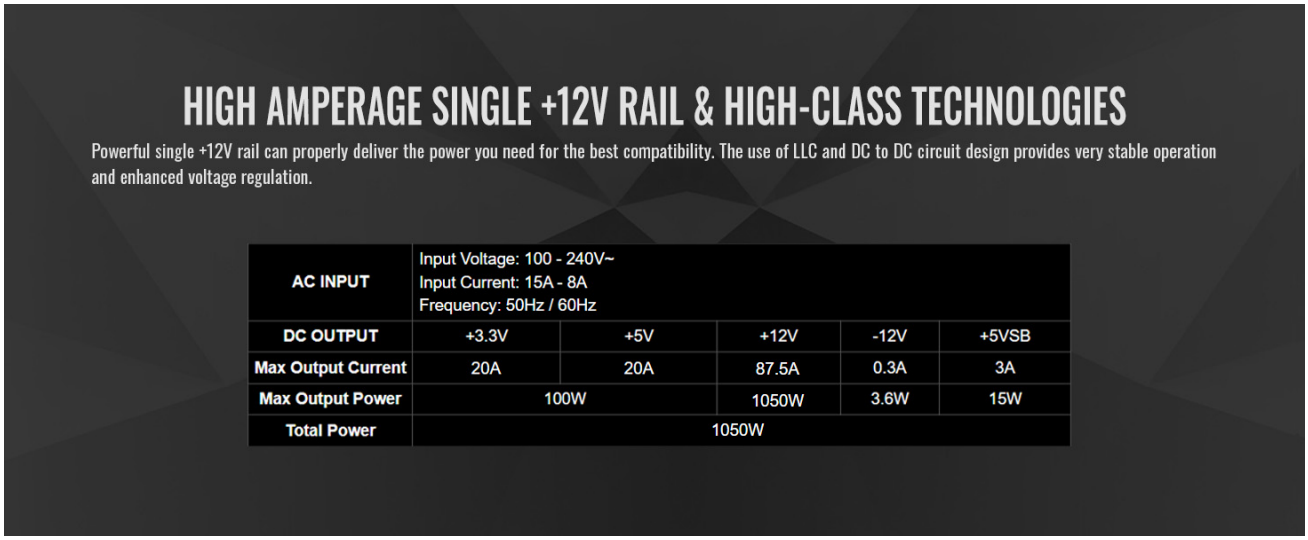

Figure 8.1: Detailed AC Input and DC Output electrical specifications.

9. Warranty

The Thermaltake Toughpower GF A3 1050W Power Supply comes with a**10-year warranty**. This warranty covers defects in materials and workmanship under normal use. For specific terms, conditions, and warranty claim procedures, please refer to the official Thermaltake website or contact their customer support.

10. Support

For additional assistance, technical support, or to download the latest user guides and drivers, please visit the official Thermaltake website:

www.thermaltake.com

You can also refer to the official User Manual (PDF) available online:

Download User Manual (PDF)

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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