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› Thermaltake Toughpower GF A3 850W ATX 3.0 Power Supply User Manual

Thermaltake PS-TPD-0850FNFACE-H

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Model: PS-TPD-0850FNFACE-H

1. OVERVIEW

The Thermaltake Toughpower GF A3 850W is a fully modular power supply unit designed for personal computers, adhering to the ATX 3.0 standard. It provides stable and efficient power delivery for various PC components, including the latest PCIe Gen 5.0 graphics cards.

Key Features:

- ATX 3.0 Compatible
- 80 PLUS Gold Certified up to 90% Efficiency
- High Amperage Single +12V Rail Design
- Bundled with a 16-pin PCIe Cable for PCIe Gen 5.0 Graphics Cards
- Fully Modular Low-Profile Flat Cables
- Continuous and Stable Power Output with an Ambient Temperature Up to 40°C/113°F
- Smart Zero Fan for minimized noise at low loads



Figure 1.1: The Thermaltake Toughpower GF A3 850W fully modular power supply unit alongside its retail box, highlighting the product's design and packaging.

2. SETUP AND INSTALLATION

2.1 Unpacking

Carefully remove the power supply unit (PSU) and all accessories from the packaging. Verify that all components listed in the product manual are present.

2.2 Connecting Cables

The Toughpower GF A3 850W is a fully modular power supply, allowing you to connect only the cables necessary for your system. Connect the required cables to the corresponding ports on the PSU and to your computer components (motherboard, CPU, GPU, storage drives, etc.). Ensure all connections are secure.

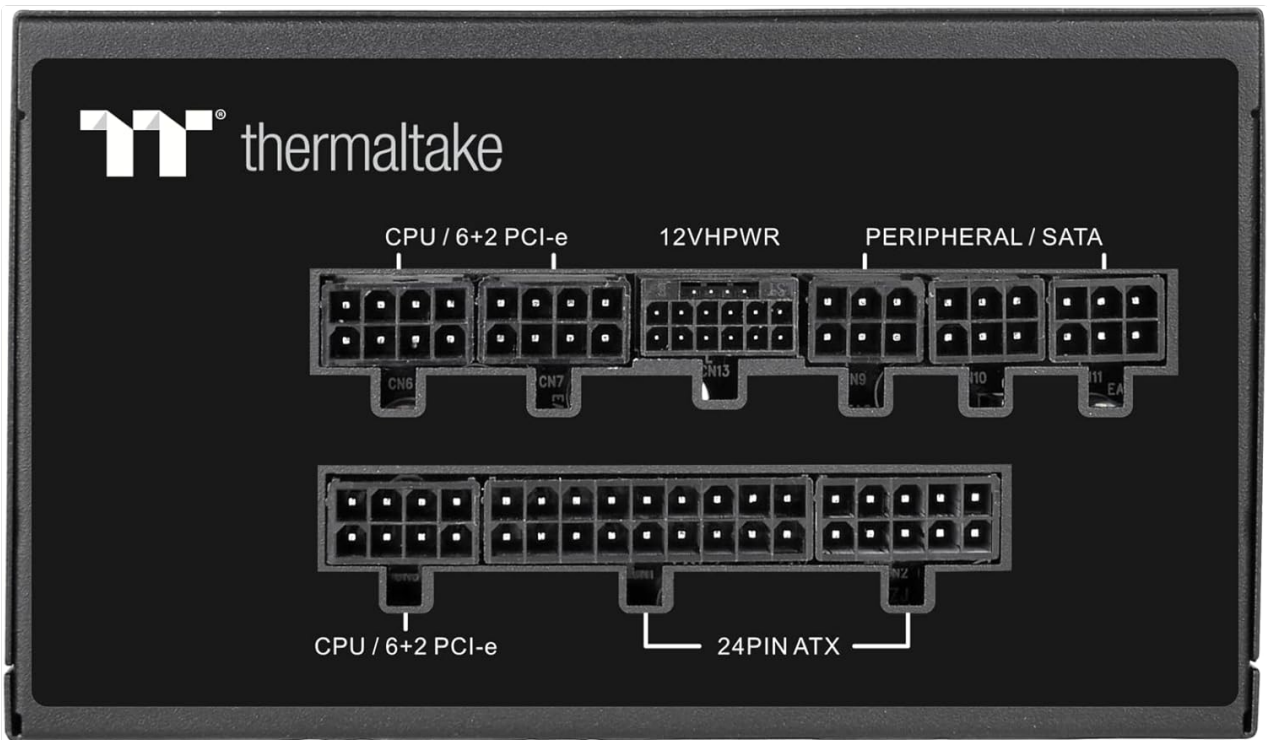


Figure 2.1: Modular cable connection ports on the power supply, including dedicated ports for CPU/PCI-e, 12VHPWR, Peripheral/SATA, and the 24-pin ATX connector.

2.3 Mounting the PSU

Install the PSU into the designated power supply bay in your computer case. Secure it using the provided screws. Ensure adequate ventilation around the PSU for optimal cooling.

3. OPERATION

3.1 Powering On/Off

After all components are connected and secured, connect the AC power cord to the PSU and then to a wall outlet. Flip the main power switch on the rear of the PSU to the 'ON' position. You can then power on your computer using its case power button.

3.2 Smart Zero Fan Feature

The Smart Zero Fan feature allows the PSU fan to remain off when the power supply is under low load, minimizing noise. The fan will automatically activate when the load increases to maintain optimal cooling. You can toggle this feature using the dedicated switch on the rear panel of the PSU.



Figure 3.1: The rear panel showing the main power switch, AC power input, and the Smart Zero Fan toggle switch.

4. MAINTENANCE

To ensure the longevity and optimal performance of your power supply, regular maintenance is recommended. Keep the PSU and its fan grille free from dust accumulation. Use compressed air to gently clear dust from the fan and vents. Ensure the computer case has good airflow to prevent overheating.

5. TROUBLESHOOTING

Common Issues and Solutions:

- **No Power:** Ensure the AC power cord is securely connected to both the PSU and the wall outlet. Check that the main power switch on the PSU is in the 'ON' position. Verify that the wall outlet is functional.
- **System Instability/Crashes:** This could indicate insufficient power or a faulty component. Ensure all power cables are correctly and securely connected to your motherboard, CPU, and graphics card. Check if your system's power requirements exceed the PSU's capacity.
- **Fan Not Spinning:** If the Smart Zero Fan feature is enabled, the fan will not spin under low load. This is normal operation. If the system is under load and the fan still does not spin, ensure the Smart Zero Fan switch is in the correct position or try disabling it to force the fan on. If the issue persists, contact support.
- **Unusual Noises:** If you hear grinding or clicking noises, power off your system immediately and inspect the PSU for any obstructions in the fan. Do not attempt to open the PSU.

If you encounter persistent issues not covered here, please refer to the warranty and support section for further assistance.

6. SPECIFICATIONS

Below are the detailed specifications for the Thermaltake Toughpower GF A3 850W Power Supply:

Feature	Specification
Model Name	Toughpower GF A3
Item Model Number	PS-TPD-0850FNFACE-H
Wattage	850W
Form Factor	ATX
Efficiency Certification	80 PLUS Gold
Cooling Method	Air (Smart Zero Fan)
Power Supply Design	Full Modular
Compatible Devices	Personal Computer
Connector Type	ATX, PCIe Gen 5.0 (16-pin), CPU, SATA, Peripheral
Item Weight	5.72 pounds (2.6 Kilograms)
Manufacturer	THERMALTAKE



Figure 6.1: Detailed electrical specifications and model information found on the PSU's side label.

7. WARRANTY AND SUPPORT

7.1 Warranty Information

The Thermaltake Toughpower GF A3 850W Power Supply comes with a **10-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

7.2 Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please visit the official Thermaltake website or contact their customer support. Have your product model number (PS-TPD-0850FNFAGE-H) and proof of purchase ready when contacting support.