

## BTF-LIGHTING QZT-2404000F

# BTF-LIGHTING 24V 4A 96W Power Supply Adapter Instruction Manual

## INTRODUCTION

This BTF-LIGHTING 24V 4A 96W Power Supply Adapter is designed to convert 100-240V AC input to 24V DC output, suitable for various low voltage electronic devices. It features a standard 5.5x2.1mm DC output plug and includes a female DC barrel connector for versatile use. The adapter is ETL Certified, ensuring safe operation with built-in protections against overload, over-voltage, thermal issues, and short circuits. Its plug-and-play design allows for easy installation without complex wiring.

The adapter is ideal for powering devices such as 24V LED strips, LED strings, LED matrices, CCTV cameras, security systems, computer projects, and other 24V electronic devices with a power requirement of 96W or less.

## SETUP

The BTF-LIGHTING 24V 4A 96W Power Supply Adapter is designed for simple plug-and-play installation. No hardwiring or soldering is required.

- Verify Compatibility:** Ensure your electronic device requires a 24V DC power input and has a power requirement of 96W or less. Using the adapter with incompatible devices may cause damage.
- Check Connector Size:** Confirm that your device's DC input jack is compatible with the standard 5.5x2.1mm size. A female DC barrel connector is included for adapting to screw terminal connections if needed.
- Connect to Device:** Connect the DC output plug of the power supply adapter to your device's DC input.
- Connect to Power Outlet:** Plug the AC input cable of the power supply adapter into a standard 100-240V AC wall outlet.
- Power Indicator:** The indicator light on the adapter will illuminate, signaling that power is being supplied.



Figure 1: Two common connection methods for the power supply adapter. Method 1 shows direct plug-in to a compatible DC jack. Method 2 shows connecting to a female DC barrel connector with screw terminals, requiring screws to be loosened before use.

## OPERATING INSTRUCTIONS

Once properly connected, the BTF-LIGHTING 24V 4A 96W Power Supply Adapter will provide a stable 24V DC output to your electronic device(s).

- **Power On:** The adapter begins supplying power immediately upon being plugged into an active AC outlet and connected to a device.
- **Load Management:** Ensure the total wattage of all connected devices does not exceed the adapter's maximum capacity of 96W. Overloading can lead to reduced performance, overheating, or damage to the adapter and connected devices.
- **Non-Dimmable:** This power adapter is non-dimmable. Do not attempt to use it with dimming circuits unless the connected device itself handles dimming.
- **Indoor Use:** The adapter has an IP30 rating, meaning it is designed for indoor use only. Protect it from water, high humidity, and extreme temperatures.



Figure 2: Electrical specifications and typical application of the 24V 4A power supply.

## MAINTENANCE

Proper maintenance ensures the longevity and safe operation of your power supply adapter.

- **Storage:** Store the adapter in a dry environment, away from moisture, direct sunlight, and extreme temperatures.
- **Inspection:** Regularly inspect the adapter's casing, cables, and connectors for any signs of damage, such as cuts, fraying, or loose connections. If damage is found, discontinue use immediately and replace the adapter.
- **Cleaning:** Clean the adapter with a soft, dry cloth. Do not use liquid cleaners, abrasive materials, or solvents, as these can damage the casing or internal components.
- **Ventilation:** Ensure the adapter is placed in a well-ventilated area during operation to prevent overheating. Do not cover the adapter or place it in enclosed spaces.

## TROUBLESHOOTING

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If you encounter issues with your BTF-LIGHTING 24V 4A 96W Power Supply Adapter, refer to the following troubleshooting steps:

- **No Power Output / Indicator Light Off:**
  - Check if the AC input cable is securely plugged into both the wall outlet and the adapter.
  - Verify that the wall outlet is functional by testing it with another device.
  - Ensure the DC output plug is firmly connected to your device.
- **Device Not Functioning Correctly:**
  - Confirm that your device requires 24V DC input. Using an incorrect voltage can damage the device or the adapter.
  - Ensure the total power consumption of your connected devices does not exceed 96W. Overloading can cause instability or damage.
  - Check for any loose connections between the adapter and your device.
- **Adapter Overheating:**
  - Ensure the adapter is placed in a well-ventilated area and not covered by anything that could obstruct airflow.
  - Reduce the load on the adapter by disconnecting some devices if the total wattage exceeds 96W.
  - If overheating persists after ensuring proper ventilation and load, discontinue use and contact customer support.

## SPECIFICATIONS

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| Feature         | Specification |
|-----------------|---------------|
| Model Number    | QZT-2404000F  |
| Input Voltage   | 100-240V AC   |
| Input Frequency | 50/60Hz       |
| Output Voltage  | 24V DC        |
| Output Current  | 4A (Max)      |

| Feature               | Specification   |
|-----------------------|---|
| Output Wattage        | 96W (Max)   |
| DC Connector Size     | 5.5x2.1mm   |
| Safety Certifications | ETL, CE, FCC, UKCA, RoHS  |
| Protection Features   | Overload cut-off, Over-voltage cut-off, Automatic thermal cut-off, Short circuit protection |
| Operating Environment | Indoor Use Only (IP30)  |
| Color                 | Black   |
| Material              | Plastic   |



Figure 3: Product dimensions and connector details.

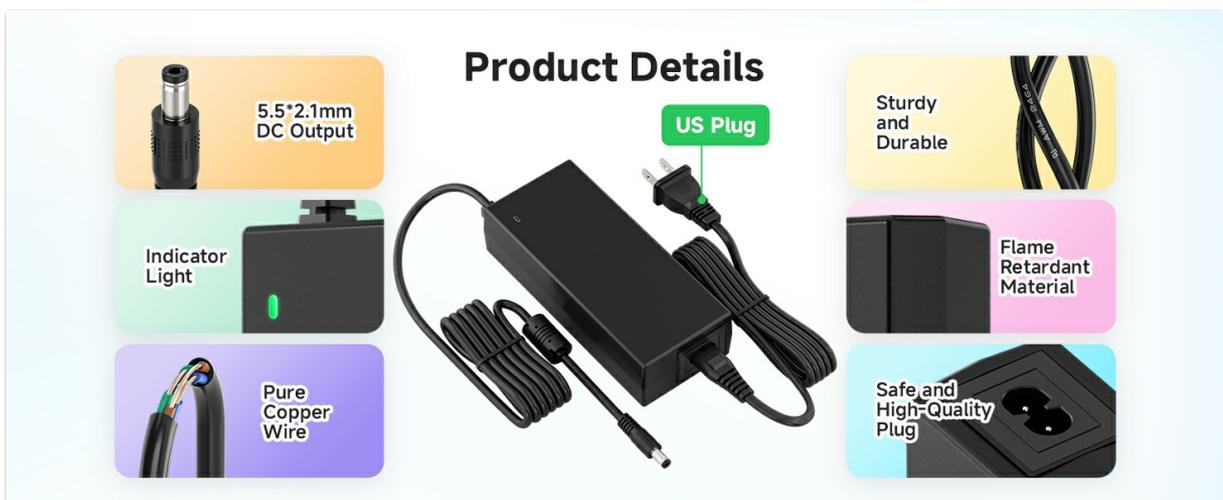


Figure 4: Multiple safety protection features for reliable operation.



Figure 5: Universal compatibility with various 24V electronic devices.

## WARRANTY AND SUPPORT

The BTF-LIGHTING 24V 4A 96W Power Supply Adapter is manufactured with high-quality components and undergoes rigorous testing to ensure reliability and safety. It is ETL Certified, providing assurance of safe usage, and also holds CE, FCC, UKCA, and RoHS certifications.

For assistance with product selection, setup, or any other inquiries, please contact BTF-LIGHTING's customer support team. Refer to the product packaging or the official BTF-LIGHTING website for specific contact information and warranty details.