

[Manuals.plus](#) /

› [Greluma](#) /

› Greluma 12V 20A 240W Power Supply Adapter Instruction Manual

Greluma ZL660LUM

Greluma 12V 20A 240W Power Supply Adapter

Model: ZL660LUM

1. PRODUCT OVERVIEW

The Greluma 12V 20A 240W Power Supply Adapter is a regulated universal switching transformer designed to convert AC 110V/220V input to a stable DC 12V 20A output. This compact and robust unit is suitable for a wide range of applications requiring a reliable 12V DC power source, including LED lighting, security systems, industrial automation, and DIY electronics projects.

It features built-in protection functions to ensure safe operation and high efficiency compared to linear power supplies, contributing to energy savings.



Figure 1.1: Greluma 12V 20A 240W Power Supply Adapter, showcasing its metal housing and terminal block.

2. SAFETY INFORMATION AND PRECAUTIONS

Important: For indoor use only. To ensure extended life, avoid operating the unit for prolonged periods at currents exceeding its rated capacity.

- Always ensure the power supply is disconnected from the AC mains before making any connections or adjustments.
- Verify the input voltage switch setting (110V/220V) matches your local power supply before connecting. Incorrect setting can cause damage.
- Ensure proper ventilation around the unit to prevent overheating. Do not cover the ventilation holes.
- This power supply is equipped with short-circuit, overload, and overvoltage protection functions to safeguard connected devices.
- Only qualified personnel should perform installation and wiring.

Protection Functions

Technology/Expertise/Strength/Quality/Service

1 Short-circuit Protection

5 Overvoltage Protection

2 Boot Protection

6 Overload Protection

3 Leakage Protection

7 Over-Current Protection

4 Overheat Protection



Figure 2.1: Overview of the power supply's built-in protection functions, including short-circuit, overvoltage, overload, boot, leakage, overheat, and over-current protection.



Attention:

110V/220V is selected by switch. Please set the switch to 220V for Europe

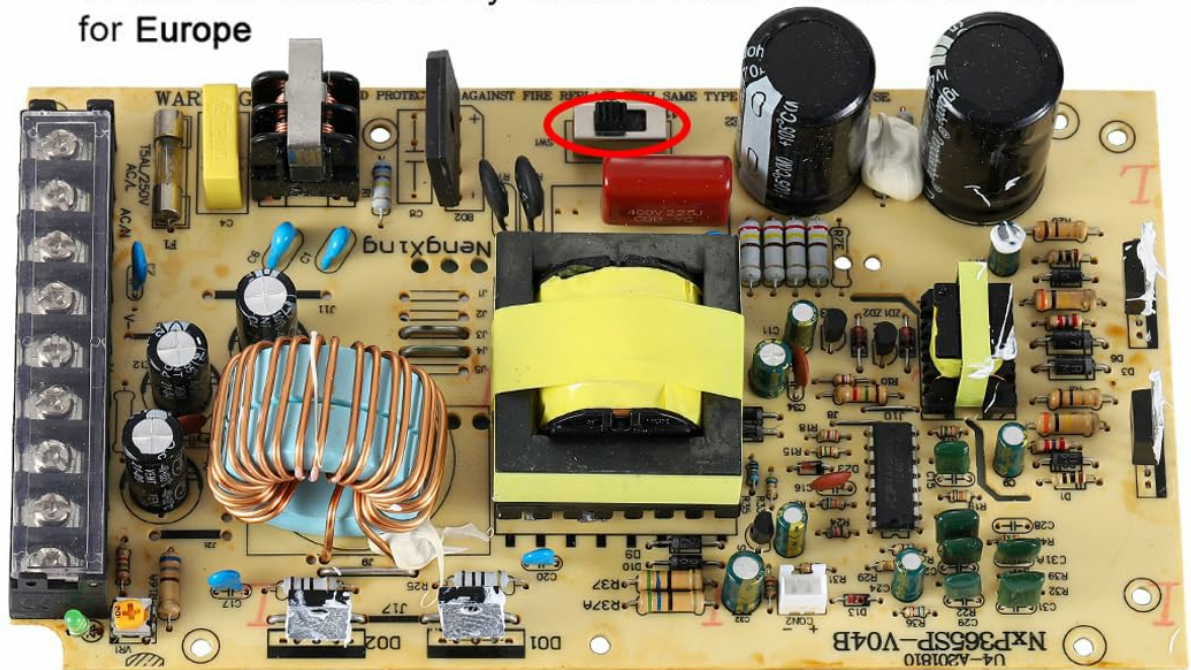


Figure 2.2: Close-up of the 110V/220V voltage selection switch. Ensure this switch is set correctly for your region before use.

3. SETUP AND WIRING

This power supply features a terminal block for AC input and DC output connections. Follow these steps for proper setup:

3.1. Terminal Identification

Product Functions

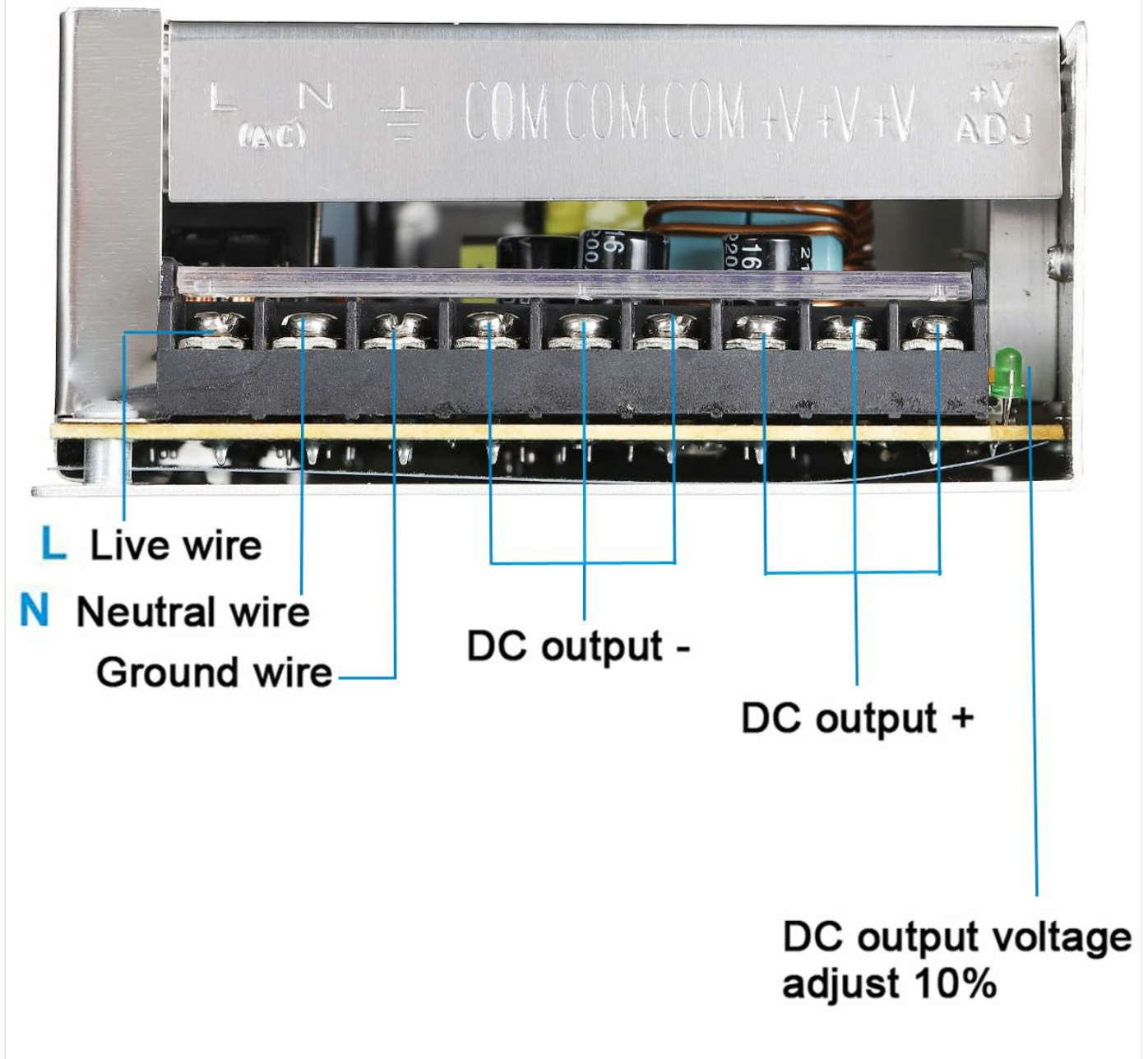


Figure 3.1: Detailed view of the terminal block, showing connections for Live (L), Neutral (N), Ground (), DC output negative (COM), DC output positive (+V), and the voltage adjustment potentiometer (ADJ).

- **L (Live wire):** Connect to the live wire of your AC mains.
- **N (Neutral wire):** Connect to the neutral wire of your AC mains.
- **(Ground wire):** Connect to the protective earth ground. This is crucial for safety.
- **COM (DC output -):** Connect to the negative terminal of your DC load.
- **+V (DC output +):** Connect to the positive terminal of your DC load.
- **ADJ (Voltage Adjustment):** A potentiometer for fine-tuning the DC output voltage by approximately $\pm 10\%$.

3.2. Installation Steps

1. **Verify Voltage Switch:** Before connecting any wires, ensure the 110V/220V switch (refer to Figure 2.2) is set to match your local AC supply voltage.
2. **Mounting:** Securely mount the power supply in a well-ventilated area using appropriate fasteners. Ensure there is adequate space around the unit for air circulation.

3. **AC Input Wiring:** Connect your AC mains power cable to the L, N, and terminals. Use appropriately sized wires for the current rating.
4. **DC Output Wiring:** Connect your DC load to the COM (-) and +V (+) terminals. Observe correct polarity.
5. **Double-Check Connections:** Before applying power, carefully inspect all connections to ensure they are secure and correctly wired.

4. OPERATING INSTRUCTIONS

Once the power supply is correctly installed and wired, you can proceed with operation:

1. **Power On:** Apply AC power to the unit. The power supply should activate.
2. **Voltage Adjustment (Optional):** If your application requires a precise 12V output or a slightly different voltage within the adjustable range, use a small screwdriver to carefully turn the 'ADJ' potentiometer while monitoring the output voltage with a multimeter. Adjust slowly to avoid overshooting the desired voltage.
3. **Load Connection:** Connect your 12V DC devices to the output terminals. Ensure the total current draw of your devices does not exceed 20A.
4. **Power Off:** To turn off the power supply, disconnect the AC mains power.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of your power supply:

- **Cleaning:** Periodically clean the exterior of the power supply, especially the ventilation holes, to prevent dust buildup. Use a soft, dry cloth. Do not use liquid cleaners.
- **Ventilation:** Ensure that the area around the power supply remains clear and well-ventilated. Obstructions can lead to overheating.
- **Connection Check:** Occasionally inspect the wiring connections to ensure they remain tight and free from corrosion.
- **Environmental Conditions:** Operate the power supply within its specified temperature range (20°C to +60°C) and avoid high humidity environments.

6. TROUBLESHOOTING

If you encounter issues with your power supply, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No output voltage	No AC input power Incorrect 110V/220V switch setting Internal fuse blown Overload protection activated	Check AC power source and connections Verify switch setting (disconnect power first) Contact support; do not attempt to replace fuse Reduce load; disconnect and reconnect power
Output voltage too low/high	ADJ potentiometer misadjusted Overload condition	Adjust ADJ potentiometer with a multimeter Reduce load; ensure total current is within 20A
Unit overheating	Insufficient ventilation Excessive load	Ensure clear airflow around the unit Reduce load; ensure total current is within 20A
Intermittent power	Loose connections Faulty wiring	Check and secure all wiring connections Inspect wires for damage and replace if necessary

If the problem persists after attempting these solutions, please contact Greluma customer support.

7. SPECIFICATIONS

Feature	Specification
Model Number	ZL660LUM
Input Voltage	AC 110V/220V (selectable)
Output Voltage	DC 12V
Output Current	20 Amps
Output Power	240 Watts
Efficiency	Typically 70% to 90%
Protection Functions	Short circuit, Overload, Overvoltage
Power Source	Corded Electric
Product Dimensions	8.27 x 4.53 x 2.17 inches (210 x 115 x 55 mm)
Item Weight	1.32 Pounds (0.6 kg)
Operating Temperature	20°C to +60°C

Product Dimension



Figure 7.1: Diagram illustrating the physical dimensions of the power supply in both inches and millimeters.

8. APPLICATIONS

The Greluma 12V 20A 240W Power Supply Adapter is versatile and can be used in various applications, including but not limited to:

- LED Light Strips and LED Displays
- Security Camera Systems
- Industrial Automation Equipment
- 3D Printers
- DIY Electronic Projects
- Medical Power Supply applications
- Solar Photovoltaic Power Supply systems

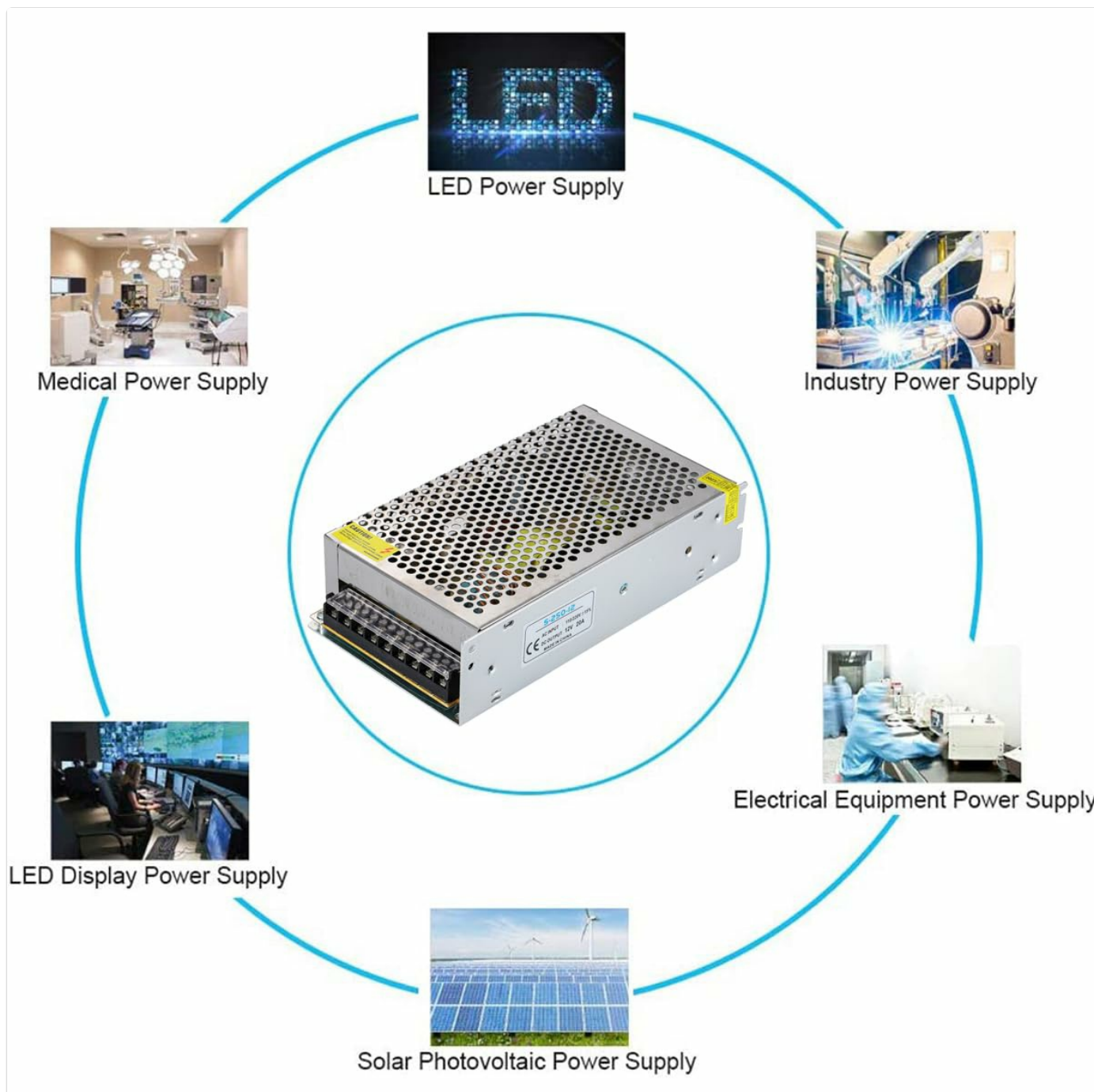


Figure 8.1: Visual representation of common applications for the 12V 20A 240W power supply, including LED, medical, industrial, electrical equipment, and solar systems.

9. WHAT'S IN THE BOX

The product package typically includes:

- 1 x Greluma 12V 20A 240W Power Supply Adapter

10. WARRANTY AND SUPPORT

For warranty information or technical support, please contact the manufacturer directly. When contacting support, please provide your product model number (ZL660LUM) and any relevant purchase details.

Manufacturer: Wuhanmakejiyuxiangongsi

Brand: Greluma

Email: lumiletech@outlook.com

EU Representative: eVatmaster Consulting GmbH

Address: Bettinastr. 30, 60325 Frankfurt am Main, Germany
Email: contact@evatmaster.com
For product identification, you may also refer to the internal product ID [X001SD7W6V](#).



Figure 10.1: Product packaging displaying manufacturer details, EU representative information, model number, batch number, and compliance marks.

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.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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.

Submit question

Open the live page

<https://manuals.plus/asin/B0C6D38TPK>

More documents and user manuals: <https://manuals.plus/>