NOYITO NOACDC12851-D

NOYITO AC to DC Power Supply Module Instruction Manual

Model: NOACDC12851-D

1. Introduction

This manual provides essential information for the safe and effective use of the NOYITO AC to DC Power Supply Module. This module is designed with a double-sided PCB for stable and reliable performance, making it suitable for various civil and industrial control systems requiring dual 12V and 5V DC outputs from an AC input.

2. Safety Information

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

- **Electrical Hazard:** This module operates with high voltage AC input. Always disconnect the AC power source before making any connections or performing maintenance.
- **Proper Enclosure:** Ensure the module is installed in a suitable enclosure to prevent accidental contact with live components and to protect it from environmental factors.
- **Ventilation:** Provide adequate ventilation to prevent overheating. For 5V output exceeding 500mA up to 1A, additional cooling may be required.
- **Overload Protection:** Do not exceed the specified output power of 100W. Overloading can lead to damage or fire.
- **Short-Circuit Protection:** While the module includes short-circuit protection, avoid intentional short circuits.
- **Professional Installation:** Installation should be performed by qualified personnel familiar with electrical systems.

3. Product Features

- Double-sided PCB design for stable and reliable performance.
- Wide input voltage range: AC 100-260V, 50/60Hz.

- Dual DC outputs: 12V 8A and 5V 500mA (up to 1A with additional cooling).
- Total output power: 100W.
- Built-in protection against overcurrent, overload, and short-circuits.
- Low ripple noise: ≤ 200mV.

4. Specifications

Parameter	Value
Brand	NOYITO
Model Number	NOACDC12851-D
Input Voltage	AC 100-260V, 50/60Hz
Output 1	DC 12V, 8A
Output 2	DC 5V, 500mA (up to 1A with additional cooling)
Total Output Power	100W
Ripple Noise	≤ 200mV
Protection Features	Overcurrent, Overload, Short-circuit
Dimensions (L x W x H)	11 x 5.7 x 2.8 cm (4.33 x 2.24 x 1.1 inches)
Weight	150 Grams (5.29 oz)
Cooling Method	Air

5. Product Overview and Connections

The NOYITO AC to DC Power Supply Module features clearly labeled input and output terminals for easy connection. Refer to the image below for a visual guide to the connection points.

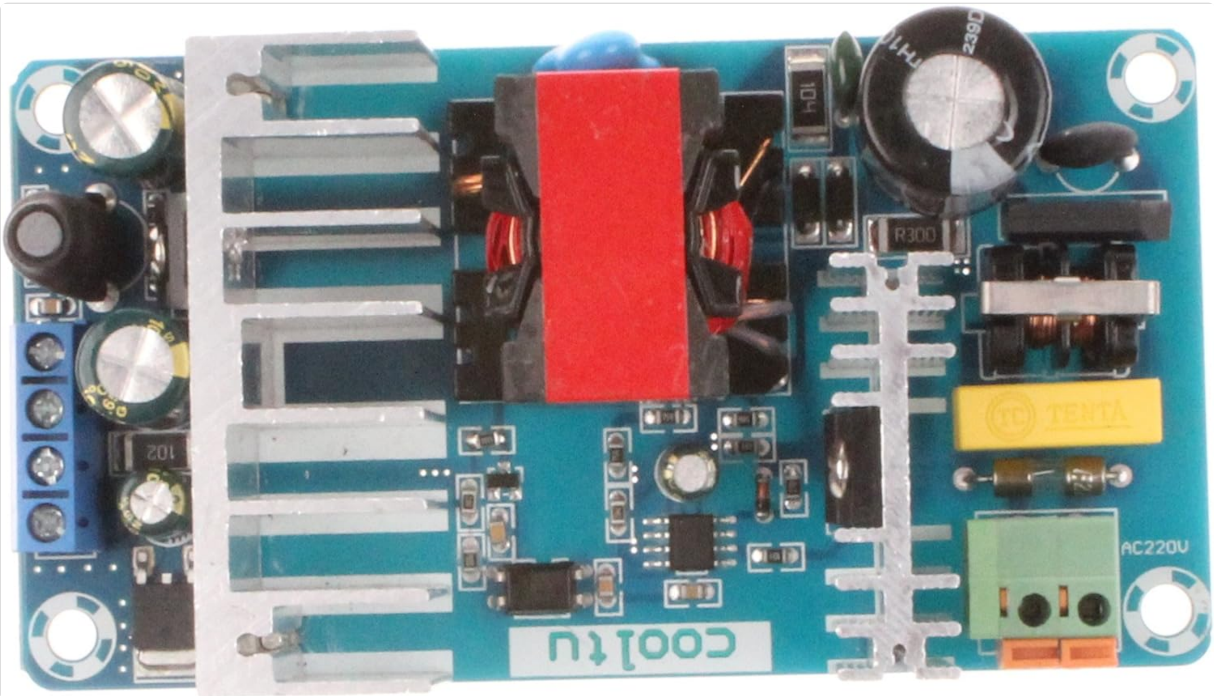

Image 1: Top view of the NOYITO AC to DC Power Supply Module, showing the AC input terminal block on the left and the DC output terminal block on the right. The output terminals are labeled +5V, GND, GND, and +12V.

Connection Points:

- **AC Input:** Located on the left side of the module (green terminal block). Connect your AC 100-260V power source here.
- **DC Output:** Located on the right side of the module (blue terminal block). This block provides the dual DC outputs:
    - **+5V:** Positive terminal for 5V DC output.
    - **GND:** Ground terminals (common for both 5V and 12V outputs).
    - **+12V:** Positive terminal for 12V DC output.

6. Setup and Installation

Follow these steps for safe and proper installation of the power supply module:

1. **Mounting:** Securely mount the module within a suitable, non-conductive enclosure using the mounting holes provided on the PCB. Ensure there is sufficient space around the module for air circulation.
2. **AC Input Connection:** With the main AC power source disconnected, connect the AC input wires to the green terminal block on the left side of the module. Ensure a secure connection for both live and neutral wires.
3. **DC Output Connection:** Connect your load devices to the blue DC output terminal block on the right. Carefully match the +5V, +12V, and GND terminals to your device's power input requirements.
4. **Double-Check Connections:** Before applying power, verify all connections are correct and secure to prevent damage to the module or connected devices.
5. **Power On:** Once all connections are verified, connect the main AC power source. The module should now provide stable DC outputs.

7. Operating Instructions

The NOYITO AC to DC Power Supply Module is designed for continuous operation within its specified parameters. Once installed and powered, it will provide the regulated 12V and 5V DC outputs.

- **Load Management:** Ensure the total power consumption of all connected devices does not exceed 100W.
- **Cooling:** Monitor the module's temperature during operation, especially when drawing higher currents from the 5V output. If necessary, enhance cooling with a fan or improved ventilation.
- **Environmental Conditions:** Operate the module within a clean, dry environment, free from excessive dust, moisture, and corrosive gases.

8. Maintenance

The NOYITO Power Supply Module requires minimal maintenance. Regular checks can help ensure its longevity and reliable operation.

- **Visual Inspection:** Periodically inspect the module for any signs of physical damage, loose connections, or discoloration due to overheating.
- **Cleaning:** If dust accumulates on the module, especially on the heatsinks, disconnect power and

gently clean with a soft brush or compressed air. Do not use liquids.

- **Connection Integrity:** Ensure all terminal connections remain tight and secure.

9. Troubleshooting

If you encounter issues with your NOYITO Power Supply Module, consider the following troubleshooting steps:

- **No Output Voltage:**
  - Check if the AC input power is connected and active.
  - Verify the AC input voltage is within the 100-260V range.
  - Inspect all wiring for loose connections or breaks.
- **Intermittent Output:**
  - Check for unstable AC input power.
  - Ensure the load is not exceeding the module's maximum power (100W) or current ratings (12V 8A, 5V 1A).
  - Check for overheating; improve ventilation if necessary.
- **Module Overheating:**
  - Reduce the load connected to the module.
  - Ensure adequate airflow around the module. Consider adding a fan if operating at high loads, especially for the 5V output.
- **Incorrect Output Voltage:**
  - Verify the load is not drawing excessive current, which can cause voltage drop.
  - Ensure the output terminals are correctly wired to your device.

10. Warranty and Support

Specific warranty details for the NOYITO AC to DC Power Supply Module are not provided in this document. For warranty claims or technical support, please refer to the retailer or manufacturer's official website where the product was purchased.