LIBO Smart Home K80-5A

LIBO Smart Home K80-5A Access Control Power Supply User Manual

Model: K80-5A

1. Introduction

The LIBO Smart Home K80-5A Access Control Power Supply is a robust transformer designed to provide stable DC 12V / 5A output for various access control systems. This unit is compatible with video doorbells, access controllers, electric door locks, and exit buttons. It features a wide input voltage range of AC 90-260V, ensuring stable and precise power delivery with minimal disturbance.
Key functions include controlling various types of electric locks via NC/NO outputs and an adjustable time delay for unlocking, ranging from 0 to 15 seconds. The power supply also incorporates automatic protection functions against overload, overvoltage, and short circuits to ensure safe operation.

2. Safety Information and Important Warnings

- **Indoor Use Only:** This device is designed exclusively for indoor applications. Do not expose it to outdoor elements, moisture, or extreme temperatures.
- **Electrical Safety:** Ensure all wiring is performed by qualified personnel and complies with local electrical codes. Disconnect power before making any connections or adjustments.
- **Lock Compatibility:** When connecting with an electric controlled lock, the opening time must be set to 0 seconds. Failure to do so may result in damage to electric bolt locks.
- **Overload Protection:** The unit features automatic protection against overload, overvoltage, and short circuits. In case of a short circuit, the output will automatically disconnect and return to normal once the fault is cleared.
- **Capacity:** This power supply supports connecting with up to two electric locks simultaneously.

3. Product Overview

The K80-5A power supply is housed in an aluminum alloy enclosure, providing good heat dissipation and a lightweight design for convenient installation. It is designed to reduce the load on the access controller, simplifying wiring and minimizing potential issues.

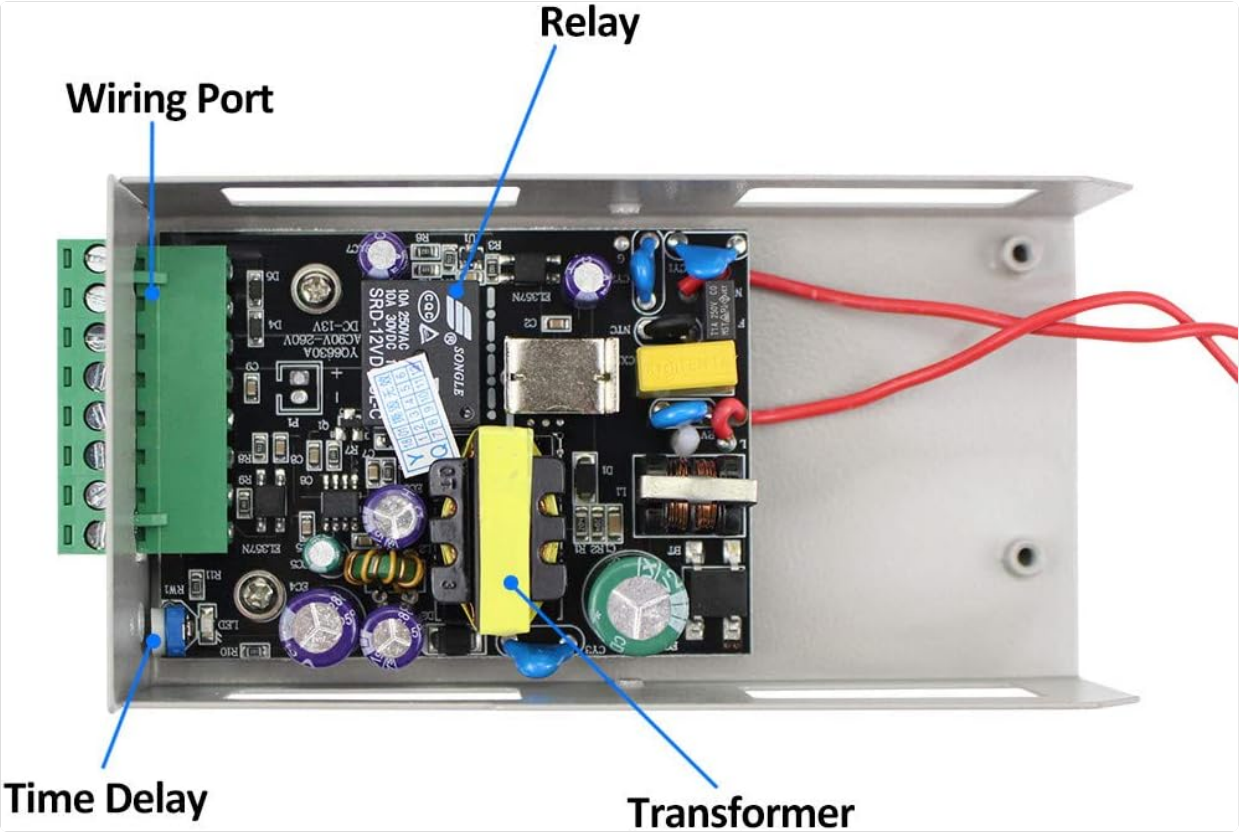


Figure 1: Front view of the LIBO Smart Home K80-5A Access Control Power Supply.

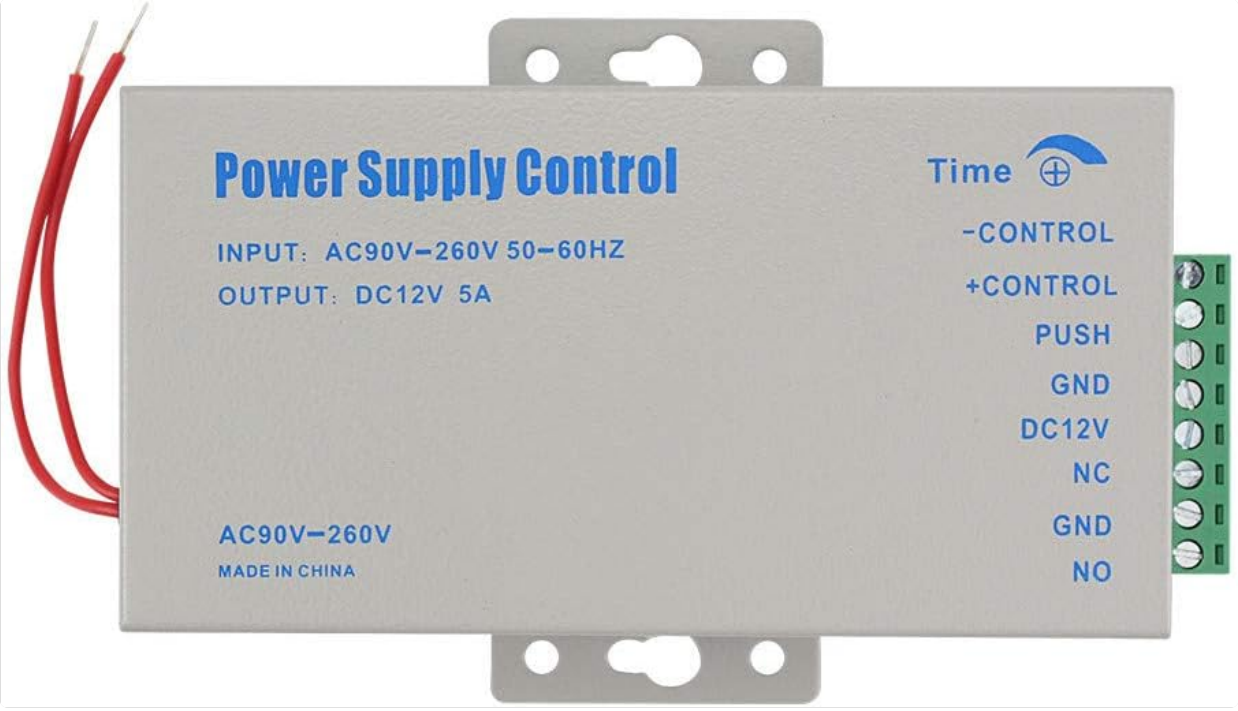


Figure 2: Top view of the K80-5A power supply showing input/output labels and time delay adjustment.

4. Specifications

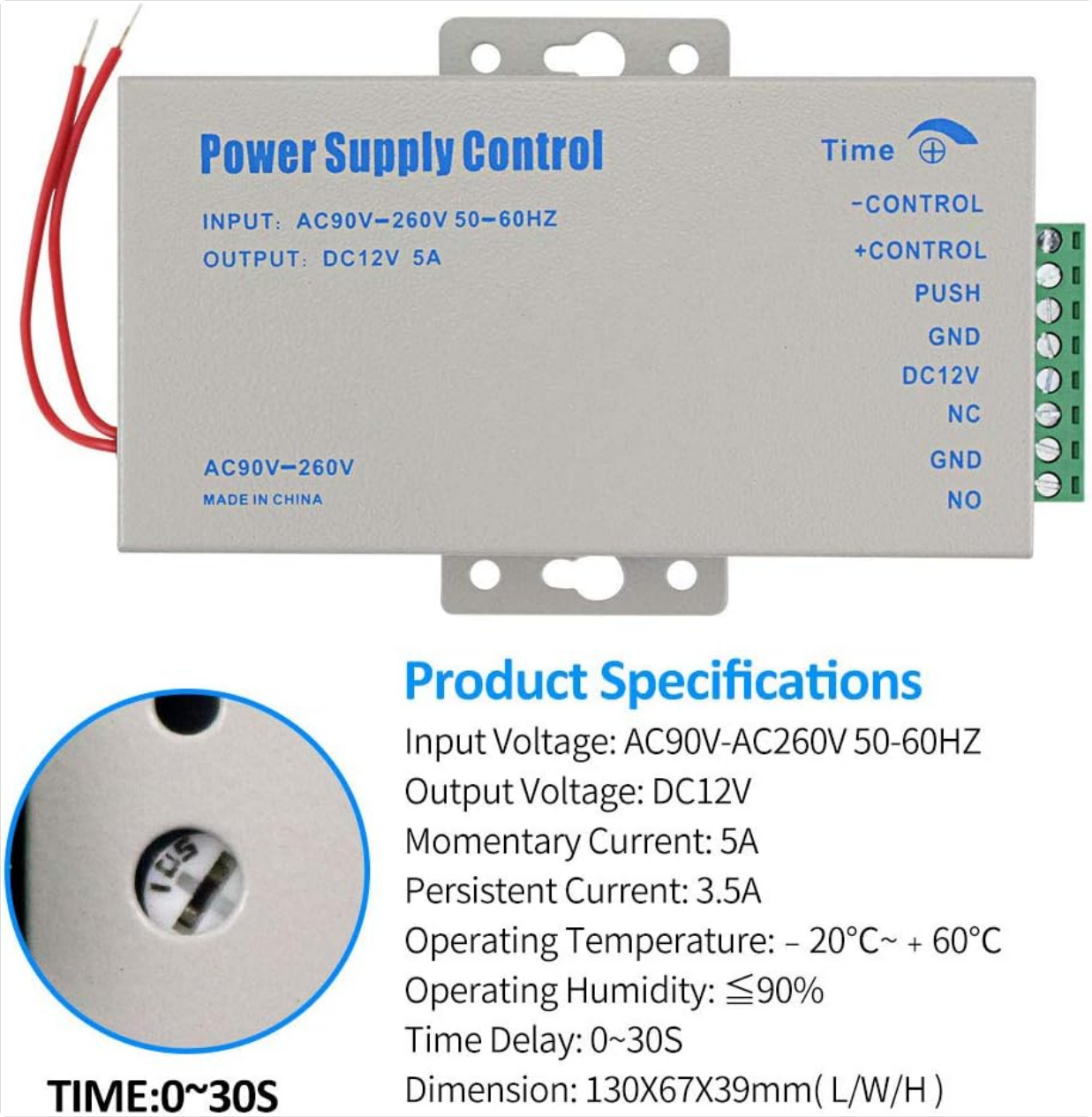


Figure 3: Visual representation of product specifications and time delay adjustment knob.

Specification	Value
Model	K80-5A
Enclosure Material	Aluminum alloy / Iron
Dimensions (L x W x H)	Approx. 13 x 6.7 x 3.9 cm (5.12 x 2.64 x 1.46 inches)
Input Voltage	AC 90 ~ 260 V / 50 ~ 60Hz
Output Voltage	DC 12 V
Output Current	5 Amps (Momentary), 3.5 Amps (Persistent)
Output Wattage	60 Watts
Adjustable Unlock Time	0 ~ 15 seconds (arbitrarily adjustable)

Specification	Value
Operating Temperature	-20°C ~ +60°C
Operating Humidity	≤90%
Weight	350 Grams

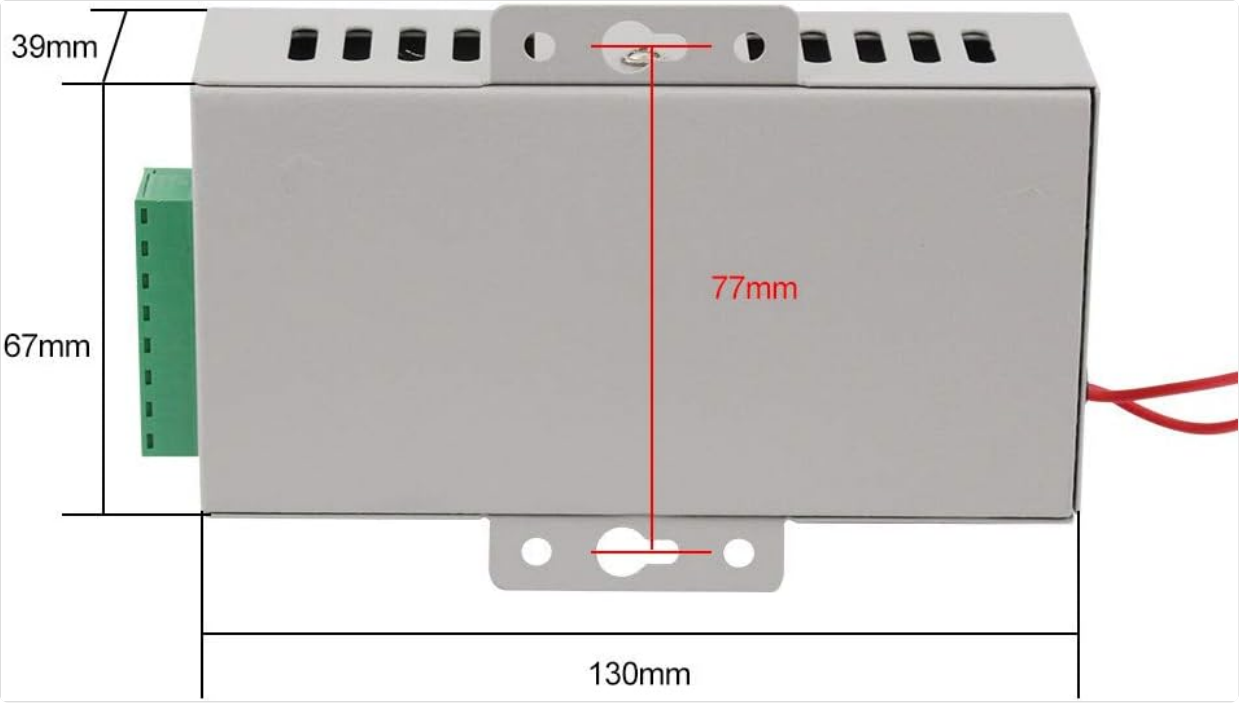


Figure 4: Detailed dimensions of the K80-5A power supply in millimeters.

5. Setup and Installation

Before installation, ensure the main power supply is disconnected. The K80-5A power supply is designed for easy integration into existing access control systems.

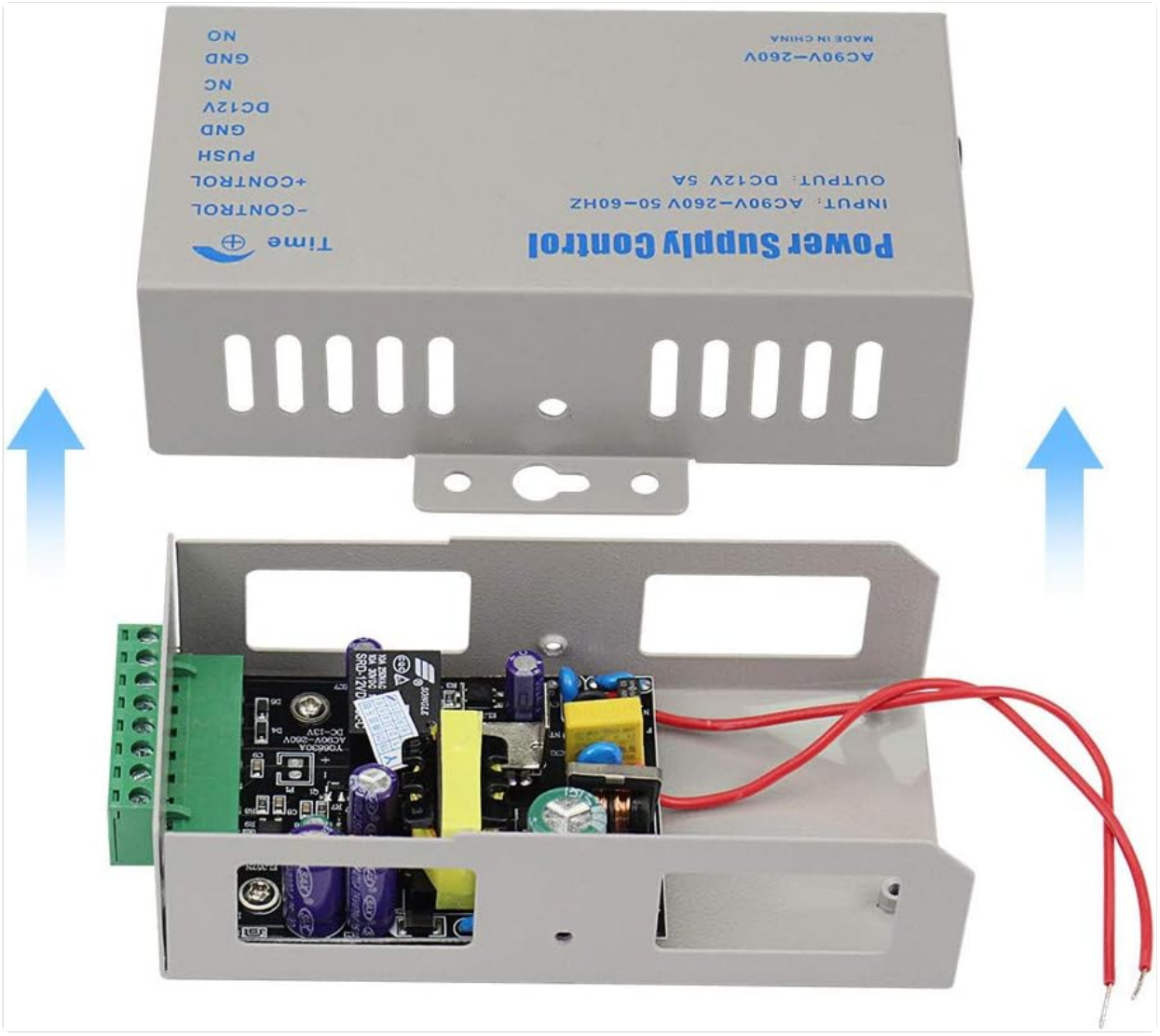


Figure 5: Internal view highlighting the Wiring Port, Relay, Transformer, and Time Delay adjustment.



Figure 6: The K80-5A power supply shown with its detachable terminal block for easier wiring.

5.1 Wiring Connections

The power supply features a terminal block with clearly labeled connections. Refer to Figure 5 and Figure 2 for connection points.

- **Input (AC90-260V):** Connect the AC power source to the designated input terminals.
- **Output (DC12V 5A):** Connect your access control devices (e.g., electric locks, access controller) to the DC12V and GND terminals.
- **Lock Control (NC/NO/COM):** Use these terminals to connect to various types of electric locks.
- **Control Inputs (+CONTROL, -CONTROL, PUSH):** These inputs are for connecting external control signals, such as an exit button or access controller output.

5.2 Mounting

The unit can be mounted using the integrated mounting tabs. Ensure it is installed in a dry, well-ventilated area, away from direct heat sources or moisture.

6. Operating Instructions

6.1 Powering On

Once all connections are securely made and verified, connect the AC input to a power source. The unit will power on and provide DC 12V output.

6.2 Adjusting Time Delay

The K80-5A features an adjustable time delay for unlocking, ranging from 0 to 15 seconds. This is controlled by a potentiometer (variable resistor) located on the circuit board (refer to Figure 5, labeled "Time Delay").

1. Carefully open the enclosure to access the circuit board.
2. Locate the potentiometer marked for time delay adjustment.
3. Using a small screwdriver, gently turn the potentiometer clockwise to increase the delay or counter-clockwise to decrease it.
4. Test the delay setting with your connected lock.
5. **Important:** As noted in the safety section, when connecting with an electric controlled lock, the opening time must be set to 0 seconds to prevent damage.

7. Maintenance

The LIBO Smart Home K80-5A Access Control Power Supply is designed for reliable operation with minimal maintenance. Follow these guidelines to ensure longevity:

- **Keep Clean:** Periodically clean the exterior of the unit with a soft, dry cloth. Avoid using liquid cleaners or solvents.
- **Ventilation:** Ensure that the ventilation slots on the enclosure are not obstructed to allow for proper heat dissipation.
- **Environmental Conditions:** Operate the unit within the specified temperature and humidity ranges. Avoid environments with excessive dust, moisture, or corrosive gases.
- **Connection Checks:** Periodically inspect all wiring connections to ensure they remain secure and free from corrosion.

8. Troubleshooting

This section addresses common issues you might encounter with the K80-5A power supply.

8.1 No Power Output

- **Check Input Power:** Verify that the AC input power source is active and correctly connected to the power supply.
- **Check Connections:** Ensure all output wiring to connected devices is secure and free from short circuits.
- **Overload/Short Circuit Protection:** The unit has automatic protection. If a short circuit or overload occurred, the output might be temporarily disconnected. Remove the fault and the unit should return to normal operation.

8.2 Incorrect Time Delay Operation

- **Adjust Potentiometer:** Re-adjust the time delay potentiometer as described in Section 6.2.
- **Lock Type:** Ensure that if an electric controlled lock is used, the time delay is set to 0 seconds to prevent damage.

8.3 Device Not Responding

- **Verify Output Voltage:** Use a multimeter to check if the power supply is providing a stable DC 12V output.
- **Check Device Compatibility:** Ensure the connected access control device is compatible with a DC 12V / 5A power source.

9. Warranty and Support

Specific warranty information for the LIBO Smart Home K80-5A Access Control Power Supply is typically provided at the point of purchase or within the product packaging. Please refer to your purchase documentation for details regarding warranty coverage and duration.
For technical support, installation assistance, or troubleshooting beyond the scope of this manual, please contact your retailer or the LIBO Smart Home customer service department. Have your product model number (K80-5A) and purchase details ready when contacting support.

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