**Woljay LY2NJ**

# Woljay LY2NJ AC 220V Electromagnetic Power Relay Instruction Manual

Model: LY2NJ

## Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Woljay LY2NJ AC 220V Electromagnetic Power Relay. Please read this manual thoroughly before use and retain it for future reference.

## Safety Information

**WARNING:** Electrical shock hazard. Always disconnect power before installing, servicing, or removing this device. Installation should be performed by qualified personnel only. Ensure all wiring complies with local and national electrical codes.

- Do not exceed the specified voltage and current ratings.
- Ensure proper grounding where applicable.
- Avoid exposing the relay to moisture or extreme temperatures.

## Product Overview

The Woljay LY2NJ is a DPDT (Double Pole Double Throw) electromagnetic power relay designed for general purpose switching applications. It features an indicator light for operational status and comes with a compatible socket base for easy mounting and wiring.



Image: The Woljay LY2NJ electromagnetic power relay (right) with its corresponding 8-pin socket base (left). The relay has a clear blue casing showing internal components and metal terminals. The black socket base features screw terminals for wiring and a blue release clip.

## Specifications

| Feature | Description |
|---|---|
| Product Name | Electromagnetic Power Relay |
| Model No. | LY2NJ |
| Type | DPDT (Double Pole Double Throw) |
| Socket Model | DTF08A |
| Number of Terminals | 8 |
| Mount Rail Type | 35mm DIN Rail |
| Shell Material | Plastic |
| Coil Voltage | 220VAC |
| Contact Capacity | 10A 220VAC / 10A 24VDC |
| Fixing Mount Hole Size | 6 x 4mm (0.24" x 0.16") |
| Total Size (Approx.) | 68 x 22 x 65mm (2.7" x 0.9" x 2.6") (L*W*H) |

## Setup and Installation

1. **Power Disconnection:** Before beginning any installation, ensure that the main power supply to the circuit is completely disconnected and locked out to prevent accidental energization.
2. **Mounting the Socket Base:** The DTF08A socket base is designed for 35mm DIN rail mounting. Securely attach the

socket base to the DIN rail in your control panel or enclosure. Alternatively, use the fixing mount holes (6 x 4mm) to screw the base to a flat surface if DIN rail mounting is not preferred.

3. **Wiring the Socket Base:** Connect the control circuit wiring to the appropriate screw terminals on the socket base. Refer to the relay's pinout diagram (typically printed on the relay or base) for correct coil and contact connections. Ensure all connections are tight and secure. The coil voltage for this relay is 220VAC.
4. **Inserting the Relay:** Carefully align the 8 pins of the LY2NJ relay with the corresponding slots in the socket base. Gently push the relay into the base until it is fully seated. A slight click may be heard as it locks into place.
5. **Verification:** Double-check all wiring connections for correctness and security before restoring power.

## Operating Instructions

Once installed and wired correctly, the LY2NJ relay operates automatically based on the control signal applied to its coil. When 220VAC is applied to the coil terminals, the internal electromagnetic mechanism will energize, causing the DPDT contacts to switch their state. The integrated indicator light will illuminate when the coil is energized, providing visual confirmation of the relay's operational status.

- **Energizing the Coil:** Apply 220VAC to the coil terminals. The indicator light will turn ON.
- **Contact Switching:** Upon coil energization, the DPDT contacts will switch from their normally closed (NC) to normally open (NO) positions, or vice-versa, depending on the specific contact pair.
- **De-energizing the Coil:** Remove the 220VAC supply from the coil terminals. The indicator light will turn OFF, and the contacts will return to their original state.

## Maintenance

The Woljay LY2NJ relay is designed for reliable operation with minimal maintenance. However, periodic inspection can help ensure long-term performance:

- **Visual Inspection:** Regularly check the relay and its base for any signs of physical damage, discoloration, or loose connections.
- **Cleanliness:** Keep the relay and its surroundings free from dust, dirt, and moisture. Use a dry, soft cloth for cleaning. Do not use solvents.
- **Connection Integrity:** Periodically verify that all screw terminals on the socket base are tight and that wires are securely connected.
- **Contact Inspection:** If possible and safe to do so (with power disconnected), inspect the relay contacts for excessive wear or pitting, especially in high-current switching applications.

## Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| Relay does not energize (indicator light OFF) | No power to coil; Incorrect coil voltage; Loose wiring; Faulty relay. | Check 220VAC supply to coil; Verify wiring connections; Replace relay if faulty. |
| Relay energizes but contacts do not switch | Damaged contacts; Mechanical failure. | Replace relay. |
| Contacts switch intermittently | Unstable coil voltage; Loose connections; Worn contacts. | Check power supply stability; Tighten connections; Replace relay. |

| | | |
|---|---|---|
| Overheating | Exceeding contact capacity; Poor ventilation. | Ensure load current is within 10A; Improve ventilation around the relay. |

## Warranty and Support

For warranty information or technical support regarding your Woljay LY2NJ Electromagnetic Power Relay, please refer to the purchase documentation or contact your supplier. Keep your proof of purchase for any warranty claims.

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