## GEYA GYHC-25 1Pole 25A 1NC

# GEYA GYHC-25 Automatic Modular Contactor

1Pole 25A 1NC 220VAC Instruction Manual

## 1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of the GEYA GYHC-25 Automatic Modular Contactor. This device is designed for household circuit control applications, featuring a 1-pole configuration with a 25A current rating and one normally closed (1NC) contact, operating at 220VAC. Please read this manual thoroughly before installation and use.


Image 1.1: Front view of the GEYA GYHC-25 1-Pole Modular Contactor, showing terminals A1, A2, and contact 1 and 2, along with specifications like Ui~ 500V, Ue~ 250V, Ie(AC-7a) 25A, Ie(AC-7b) 9A.

## 2. Safety Information

- **Electrical Hazard:** Installation and maintenance must be performed by qualified personnel only. Ensure power is disconnected before any work on the contactor or associated circuits.
- **Voltage:** Verify that the supply voltage matches the contactor's rated voltage (220VAC for this model).
- **Overcurrent Protection:** Install appropriate overcurrent protection devices (e.g., circuit breakers) upstream of the contactor.
- **Wiring:** Use correct wire gauges and ensure all connections are tight to prevent overheating and electrical arcing.
- **Environment:** Do not install in environments with excessive moisture, dust, corrosive gases, or extreme temperatures outside the specified operating range.

## 3. Product Features

The GEYA GYHC-25 Modular Contactor incorporates several design elements for enhanced performance and

user convenience:

- **Low Power Consumption:** Optimized electromagnetic system significantly reduces holding power, addressing high energy consumption common in traditional contactors.
- **Low Noise Operation:** Advanced design and automated manufacturing processes minimize operational noise.
- **Extended Lifespan:** Offers an electrical life exceeding 100,000 cycles and a mechanical life greater than 12,000,000 cycles.
- **Quality Materials:** Constructed with custom plastic, brand silver points, and RoHS compliant components.
- **Visualization Window:** An integrated instruction window clearly indicates the contactor's on/off state.
- **Transparent Flip Cover:** A new transparent flip cover design allows for easy identification and labeling.

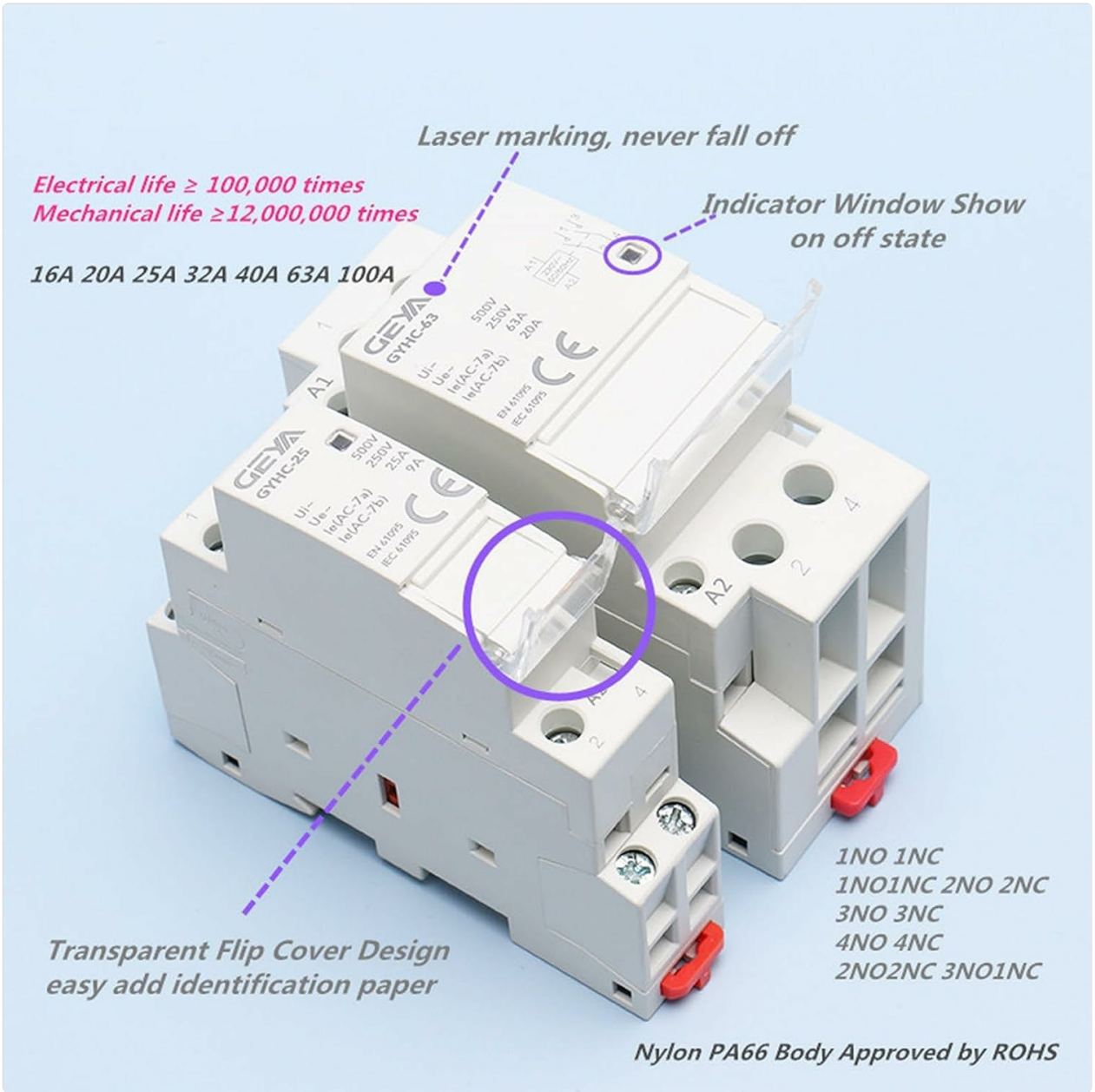



Image 3.1: Detailed view of GEYA modular contactors highlighting features such as electrical and mechanical life, indicator window for on/off state, transparent flip cover for labeling, and the use of Nylon PA66 body material.

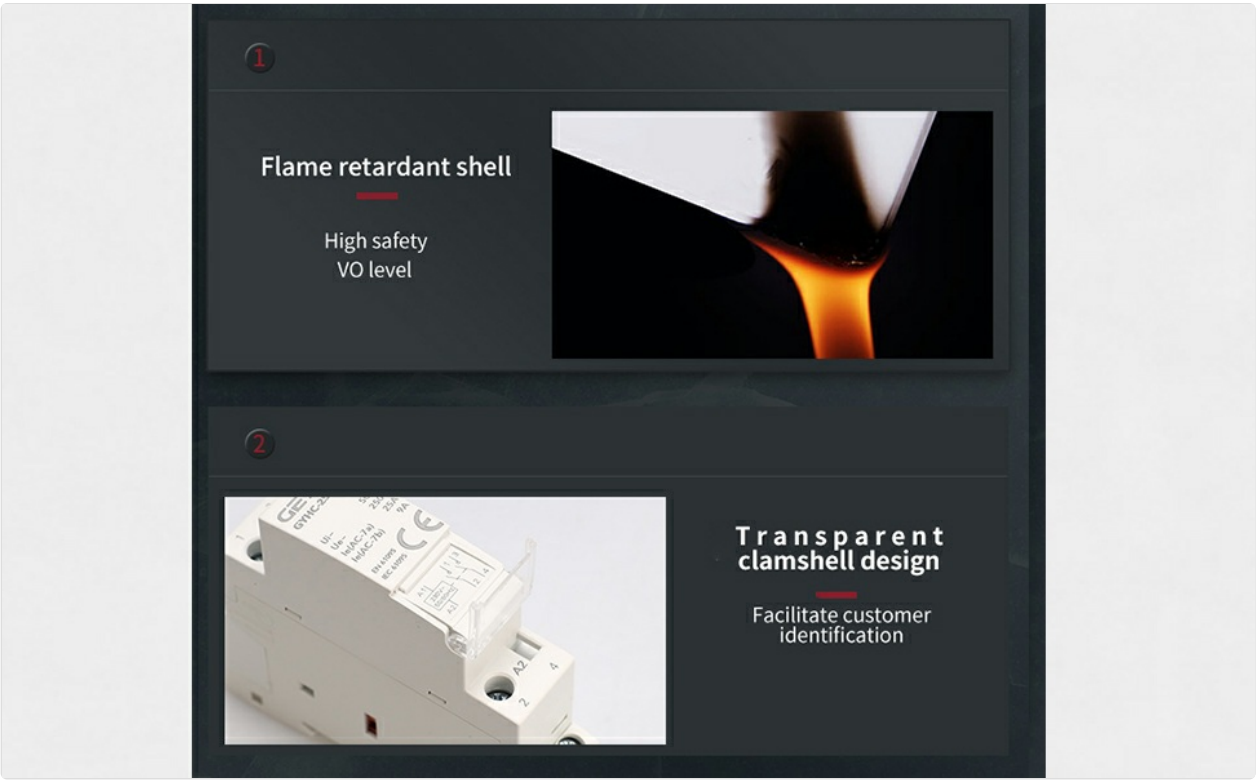



Image 3.2: Close-up of a GEYA contactor illustrating the visual window for status indication and durable laser marking for clear text that resists fading.

## 4. Setup and Installation

The GEYA GYHC-25 contactor is designed for Din Rail mounting. Follow these general steps for installation:

1. **Power Disconnection:** Ensure all power to the circuit is completely disconnected at the main breaker before beginning installation.
2. **Mounting:** Securely attach the contactor to a standard 35mm Din Rail. Ensure it clicks firmly into place.
3. **Wiring:** Connect the control circuit to terminals A1 and A2. Connect the main power circuit to terminals 1 and 2. For this 1NC model, terminal 1 and 2 will be normally closed, meaning current flows when the coil is de-energized, and opens when the coil is energized. Refer to the wiring diagram below for proper connections.
4. **Verification:** Double-check all wiring connections for tightness and correctness.
5. **Power Restoration:** Once installation is complete and verified, restore power to the circuit.

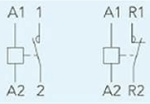
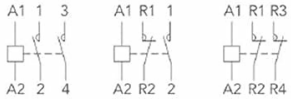
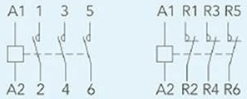
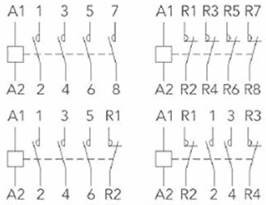
| Type | | Rated current | | Control voltage (V AV)(50/60Hz) | Contact |
|---|---|---|---|---|---|
| | | AC-7a | AC-7b | | |
| 1P |  | 16A | 6A | 24V/48V/110V/230V | 1NO<br>1NC |
| | | 20A | 7A | | |
| | | 25A | 9A | | |
| 2P |  | 16A | 6A | 24V/48V/110V/230V | 2NO<br>2NC<br>1NO1NC |
| | | 20A | 7A | | |
| | | 25A | 9A | | |
| | | 32A | 12A | | |
| | | 40A | 15A | | |
| | | 63A | 20A | | |
| 3P |  | 16A | 6A | 24V/48V/110V/230V | 3NO<br>3NC |
| | | 20A | 7A | | |
| | | 25A | 9A | | |
| | | 32A | 12A | | |
| | | 40A | 15A | | |
| | | 63A | 20A | | |
| 4P |  | 16A | 6A | 24V/48V/110V/230V | 4NO<br>4NC<br>2NO2NC<br>3NO1NC |
| | | 20A | 7A | | |
| | | 25A | 9A | | |
| | | 32A | 12A | | |
| | | 40A | 15A | | |
| | | 63A | 20A | | |

Image 4.1: Wiring diagram table illustrating various contactor types (1P, 2P, 3P, 4P) with their respective rated currents, control voltages, and contact configurations (NO, NC, NO/NC combinations). For the 1P 1NC model, refer to the 1P section with 1NC contact type.

## 5. Operating Instructions

The GEYA GYHC-25 is an automatic modular contactor. Its operation is controlled by the voltage applied to its coil terminals (A1 and A2).

- **Energizing the Coil:** When the rated control voltage (220VAC for this model) is applied to terminals A1 and A2, the contactor coil energizes.
- **Contact State Change:** For the 1NC (Normally Closed) model, energizing the coil will cause the main contact (between terminals 1 and 2) to open, interrupting the circuit. When the coil is de-energized, the contact will return to its closed state, completing the circuit.
- **Status Indication:** Observe the visualization window on the front of the contactor. This window will indicate the current on/off state of the contacts, providing a clear visual confirmation of operation.

## 6. Maintenance

Regular maintenance ensures the longevity and reliable operation of your contactor.

- **Periodic Inspection:** Annually inspect the contactor for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** Ensure the contactor is free from dust and debris. Use a dry, soft cloth for cleaning. Do not use solvents or abrasive cleaners.
- **Terminal Tightness:** Periodically check the tightness of all terminal screws. Loose connections can lead to overheating and failure.
- **Environmental Conditions:** Ensure the operating environment remains within specified conditions (temperature, humidity, absence of corrosive substances).

## 7. Troubleshooting

If you encounter issues with your GEYA GYHC-25 contactor, consider the following:

- **Contactor Not Operating:**
  - Check if the control voltage (220VAC) is correctly applied to terminals A1 and A2.
  - Verify that the control circuit wiring is correct and secure.
  - Ensure there is no power interruption to the control circuit.
- **Overheating:**
  - Check for loose terminal connections.
  - Ensure the load current does not exceed the rated current (25A for AC-7a, 9A for AC-7b).
  - Verify proper ventilation around the contactor.
- **Unusual Noise:**
  - Ensure the mounting is secure and the contactor is not vibrating against other components.
  - If the noise persists and is significant, the unit may require replacement.

For issues not resolved by these steps, contact qualified electrical personnel or GEYA customer support.

## 8. Specifications

| Attribute | Value |
|---|---|
| Brand | GEYA |
| Model | GYHC-25 |
| Configuration | 1Pole 1NC |
| Rated Current (AC-7a) | 25A |
| Rated Current (AC-7b) | 9A |
| Control Voltage (Ue) | 220VAC |
| Insulation Voltage (Ui) | 500V |
| Material | Copper (contacts), Nylon PA66 (body) |
| Mounting Type | Din Rail |
| Electrical Life | > 100,000 times |
| Mechanical Life | > 12,000,000 times |
| Standards | EN 61095, IEC 61095 |

## 9. Warranty and Support

Specific warranty details are not provided in this manual. For warranty information, technical support, or further

inquiries, please refer to the official GEYA website or contact your point of purchase.

You can visit the GEYA Store for more products and information:GEYA Store on Amazon