Idec RH2B-UL-AC110-120V

Idec RH2B-UL-AC110-120V Relay Instruction Manual

Model: RH2B-UL-AC110-120V

Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of the Idec RH2B-UL-AC110-120V Electromechanical Relay. Please read this manual thoroughly before using the product to ensure proper function and to prevent potential hazards.

Safety Information

WARNING: Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel. Disconnect all power before working with the relay.

- Always ensure power is disconnected before installation, wiring, or maintenance.
- Verify correct voltage and current ratings before connecting the relay to a circuit.
- Do not operate the relay in environments exceeding its specified temperature or humidity limits.
- Ensure proper grounding where applicable.

Product Overview

The Idec RH2B-UL-AC110-120V is a general-purpose electromechanical relay designed for various industrial control applications. It features a compact design and is suitable for DIN rail mounting.

Figure 1: Idec RH2B-UL-AC110-120V Relays in their original packaging, showing a pack of four units.

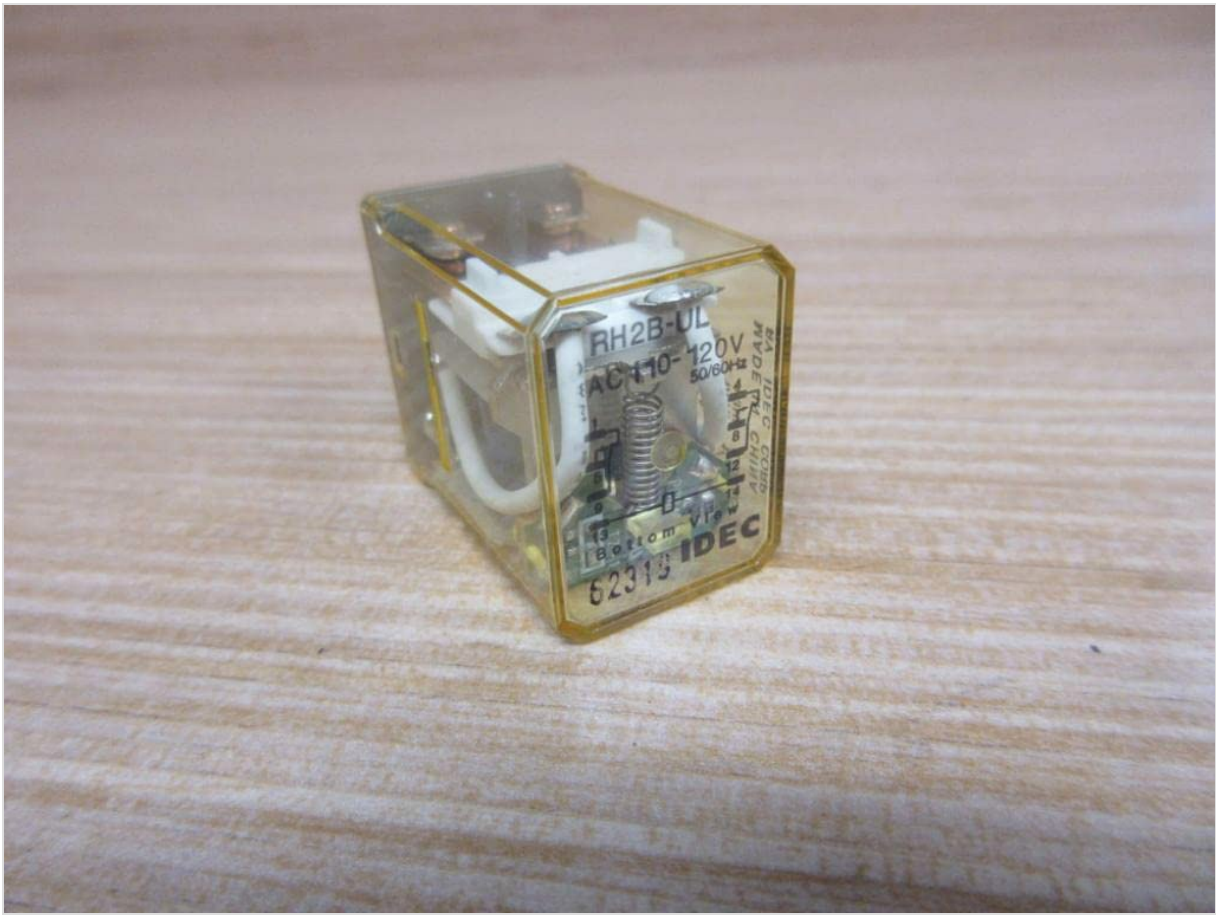


Figure 2: A single Idec RH2B-UL-AC110-120V relay, providing an angled view of the transparent casing and internal components.

Setup and Installation

Follow these steps for proper installation of the Idec RH2B-UL-AC110-120V Relay:

1. **Power Disconnection:** Ensure all power to the circuit is completely disconnected before beginning installation.
2. **Mounting:** The relay is designed for DIN Rail mounting. Securely attach the relay to a standard DIN rail in your control panel.
3. **Wiring:** The relay utilizes through-hole connectors. Carefully connect the control circuit wiring to the coil terminals and the load circuit wiring to the contact terminals. Refer to the wiring diagram (if available in your system documentation) for specific terminal assignments.

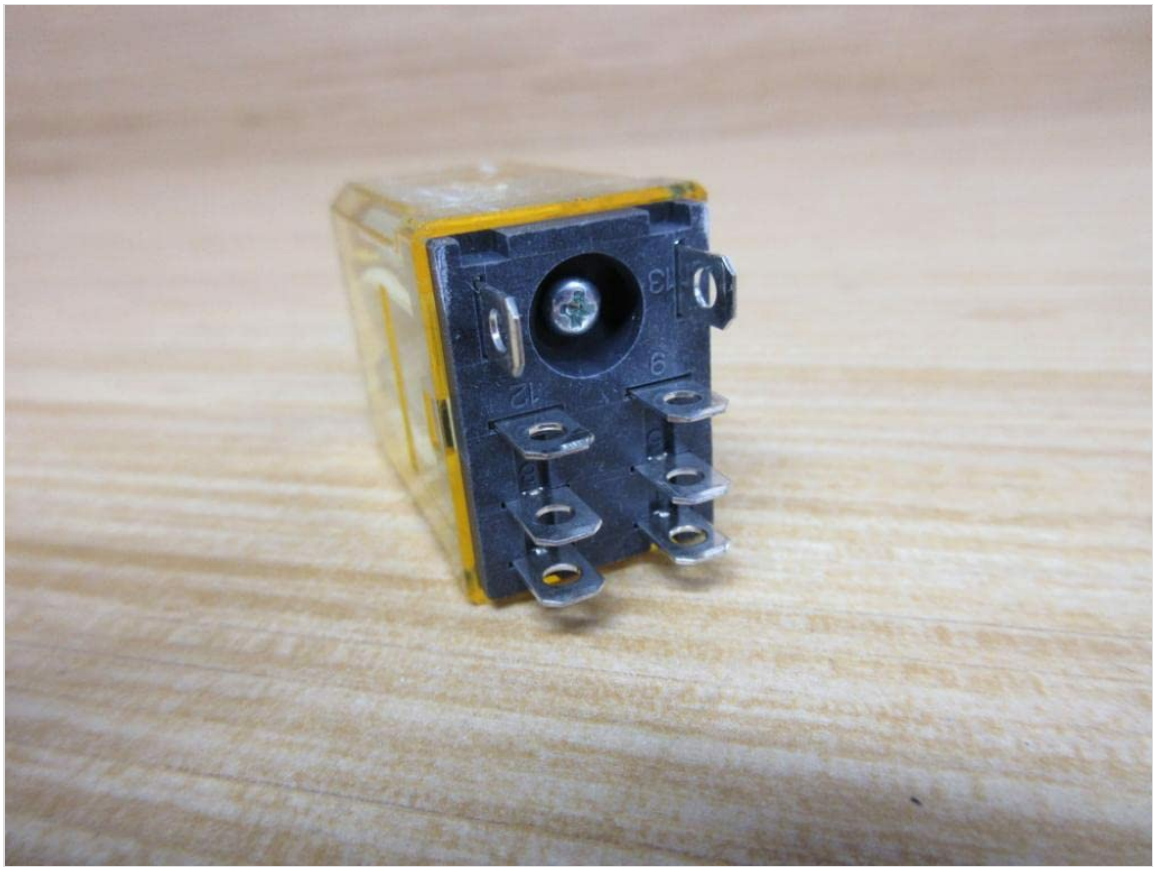


Figure 3: Bottom view of the relay, showing the through-hole connector pins for wiring connections.

4. **Voltage Verification:** Confirm that the supply voltage for the coil matches the relay's specified voltage of 110-120V AC, 50/60Hz.

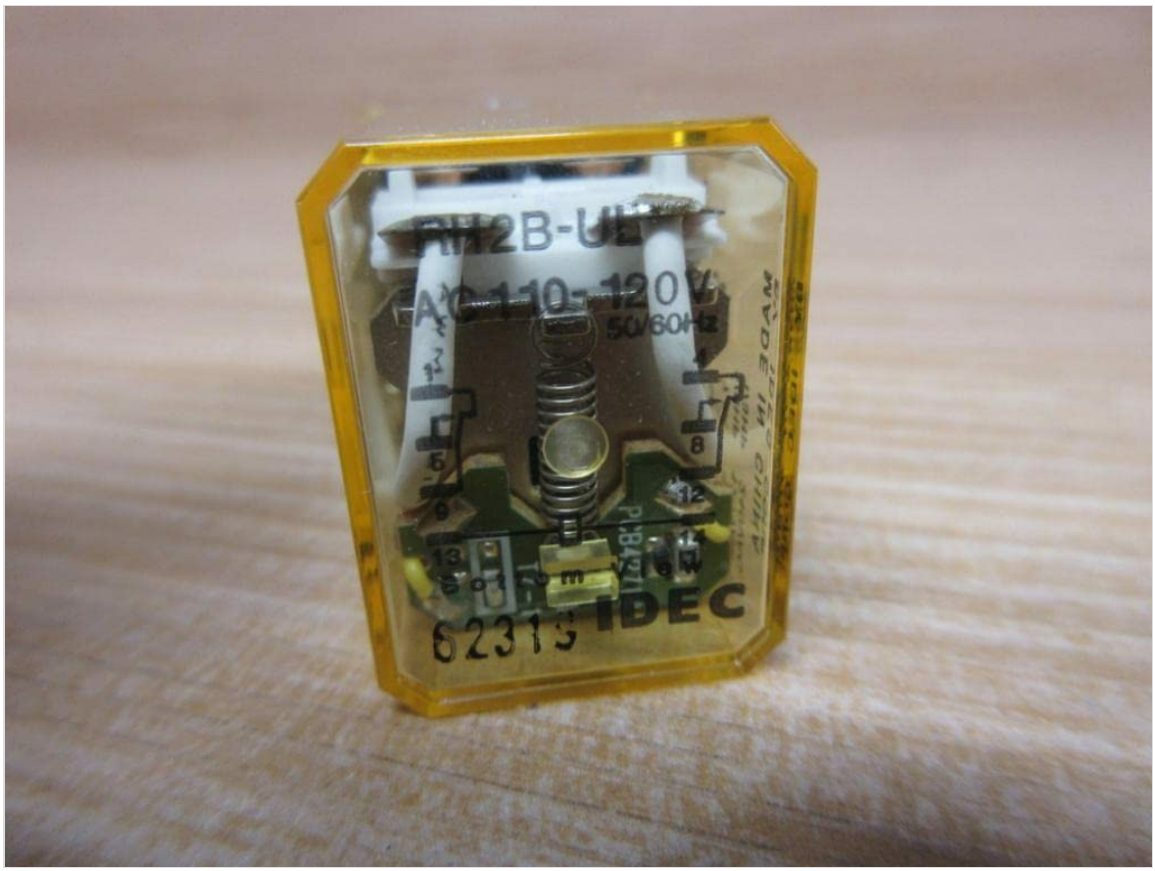


Figure 4: Close-up view of the relay's transparent casing, highlighting the model number and voltage specifications (AC110-120V, 50/60Hz).

5. **Load Verification:** Ensure the connected load does not exceed the relay's contact ratings (e.g., 10A resistive at 240VAC).

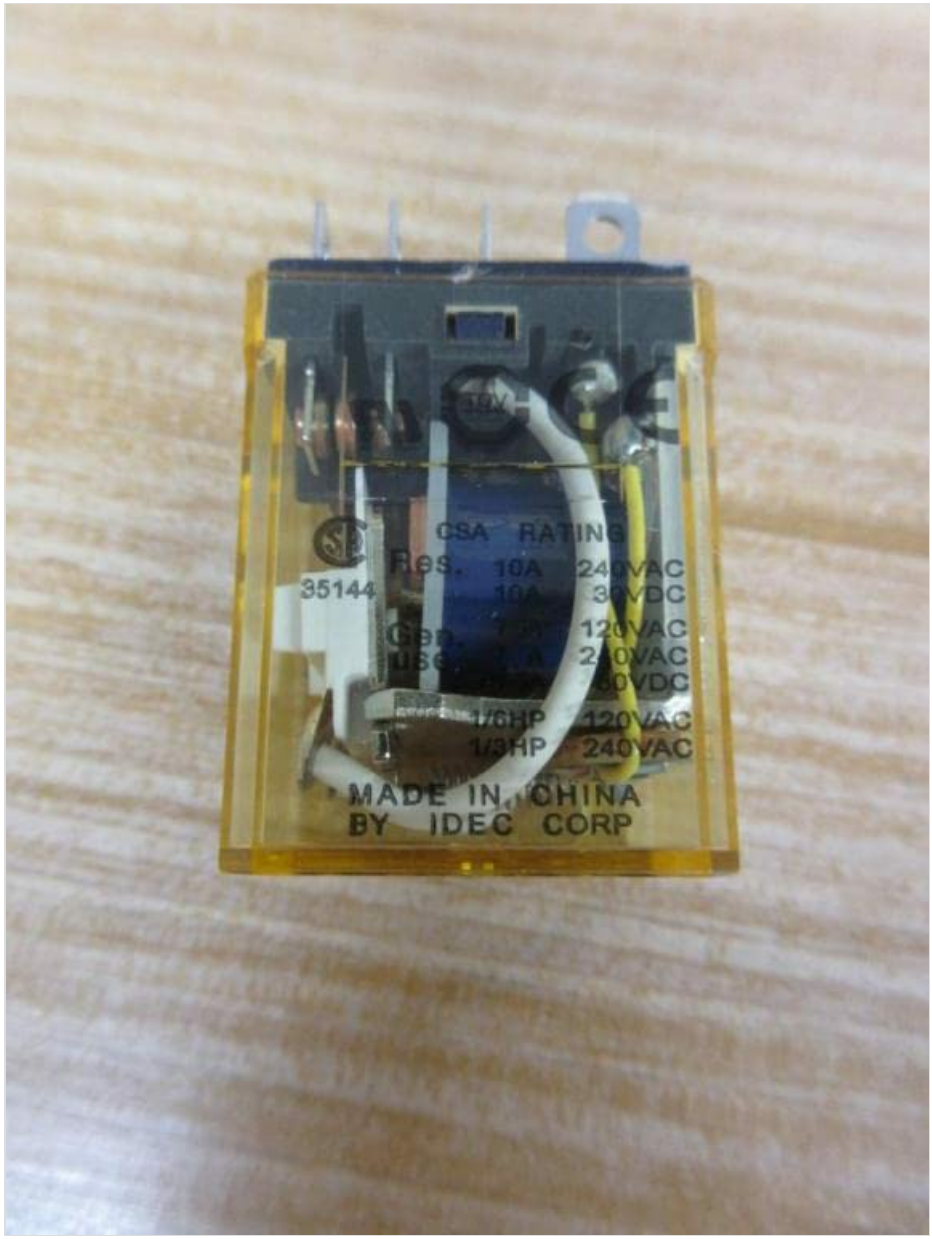


Figure 5: Side view of the relay, displaying detailed electrical ratings and certifications.

6. **Final Check:** Before restoring power, double-check all connections for security and correctness.

Operating Instructions

The Idec RH2B-UL-AC110-120V Relay operates automatically based on the control signal applied to its coil. When the specified AC voltage (110-120V) is applied to the coil, the relay contacts will switch, opening or closing the connected load circuit. When the voltage is removed, the contacts return to their original state.

- Ensure the control signal is within the specified voltage range for reliable operation.
- Observe any indicator lights on the relay (if present) to confirm coil energization.

Maintenance

The Idec RH2B-UL-AC110-120V Relay is designed for long-term, reliable operation with minimal maintenance. However, periodic inspection is recommended:

- **Visual Inspection:** Periodically check the relay for any signs of physical damage, discoloration, or loose connections.

- **Cleaning:** If necessary, gently clean the exterior of the relay with a dry, soft cloth. Do not use solvents or abrasive cleaners.
- **Contact Inspection:** In critical applications, inspect contacts for pitting or wear. Replace the relay if significant wear is observed.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent premature failure.

Troubleshooting

If the relay is not functioning as expected, consider the following common issues:

Problem	Possible Cause	Solution
Relay coil does not energize.	No power to coil, incorrect voltage, faulty wiring, or damaged coil.	Check power supply, verify voltage (110-120V AC), inspect wiring connections, test coil continuity.
Contacts do not switch.	Coil not energizing, contacts welded, or mechanical failure.	Refer to "Relay coil does not energize" solutions. If coil is good, replace relay.
Load not receiving power.	Relay contacts not closing, open circuit in load wiring, or faulty load.	Verify relay operation. Check load circuit wiring and the load itself.

If troubleshooting steps do not resolve the issue, contact Idec technical support or a qualified electrician.

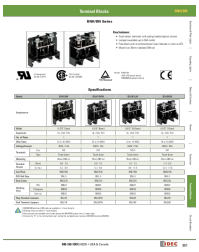
Specifications

Parameter	Value
Model Number	RH2B-UL-AC110-120V
Brand	Idec
Coil Voltage	110-120V AC
Frequency	50/60 Hz
Current Rating (Resistive)	10A @ 240VAC, 10A @ 30VDC
Current Rating (General Use)	7.5A @ 120VAC, 7A @ 240VAC, 7.5A @ 30VDC
Horsepower Rating	1/6 HP @ 120VAC, 1/3 HP @ 240VAC
Mounting Type	DIN Rail Mount
Connector Type	Through Hole
Operation Mode	Automatic
Item Weight	0.01 ounces
Manufacturer	Idec

Warranty and Support

For warranty information and technical support, please contact Idec directly through their official website or customer service channels. Keep your purchase receipt for warranty claims.
Idec Official Website: us.idec.com

Related Documents - RH2B-UL-AC110-120V

	IDEC Relay Selection Guide A comprehensive guide to selecting IDEC relays, covering various series like RV8H, RJ, RH, RU, RR, RL, RY, RF, and RSC solid-state relays. It details specifications, features, and cross-references for industrial applications.
	IDEC YW Series Switches & Pilot Lights - Comprehensive Product Catalog Explore the IDEC YW Series of Ø22 and Ø30 switches and pilot lights, including emergency stop switches, pushbuttons, selector switches, key selector switches, and pilot lights. View specifications, part numbers, dimensions, and accessories.
	IDEC BNH/BN Series Terminal Blocks: Specifications, Dimensions, and Accessories Comprehensive guide to IDEC BNH/BN series terminal blocks, including key features, detailed specifications, dimensions, accessories, and installation instructions. Covers BNH, BN, and BN Power Block series.
	IDEC RF1V Force Guided Relays & SF1V Relay Sockets | Safety Circuit Components Explore IDEC's RF1V Force Guided Relays and SF1V Relay Sockets, designed for flexible and reliable safety circuit construction. Features include EN50205 compliance, fast response, and shock resistance.
	IDEC SmartRelay FL1F: IIoT-Ready Compact Programmable Relay Discover the IDEC SmartRelay FL1F, a versatile and compact IIoT-ready programmable relay designed for efficient automation, control, and remote monitoring. This document details its features, extensive I/O capabilities, communication protocols (Modbus TCP, MQTT), web server functionality, and comprehensive technical specifications.

[IDEC Ø22 CW Series Touchless Switches CW1H/CW4H Product Overview]

Explore the IDEC Ø22 CW Series Flush Silhouette Touchless Switches (CW1H/CW4H). These industrial switches offer hygienic, contact-free operation, advanced sensing capabilities, and robust durability (IP65/67, UL Type 4X) for diverse indoor and outdoor applications.