

TOCT1-25Z

Generic TOCT1-25Z Din Rail Modular Contactor Instruction Manual

Models: TOCT1-25Z (DC 12V Coil, DC 24V Coil)

1. INTRODUCTION

This manual provides essential information for the safe installation, operation, and maintenance of the Generic TOCT1-25Z Din Rail Modular Contactor. This device is designed for reliable AC power switching in various applications, controlled by a DC 12V or 24V coil.

Please read this manual thoroughly before installation and operation to ensure proper use and to prevent potential hazards.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel. Disconnect all power before working on the contactor or associated circuits.

- Ensure proper wiring and polarity as indicated on the device.
- Do not exceed the specified voltage and current ratings.
- Protect the device from moisture, dust, and extreme temperatures.
- Always follow local electrical codes and regulations during installation and operation.
- Never attempt to repair a damaged contactor; replace it with a new one.

3. PRODUCT FEATURES

- **Precision Electrical Control:** Ensures reliable power switching for HVAC systems and industrial equipment with smooth operation.
- **Durable Silver Alloy Contacts:** Provides superior conductivity and arc resistance for extended product lifespan.
- **Universal Voltage Compatibility:** Works with 24V/120V/208V systems (main circuit) and DC 12V/24V coil control for flexible installations.
- **Weather-Resistant Housing:** Protects internal components from moisture, dust, and temperature fluctuations.
- **Quick-Connect Terminals:** Simplified wiring with clearly marked screw terminals for hassle-free maintenance.
- **Quiet Operation:** Operates at less than 15dB, ensuring minimal noise disturbance.

4. SETUP AND INSTALLATION

The TOCT1-25Z modular contactor is designed for standard 35mm Din Rail mounting. Follow these steps for proper installation:

- 1. Mounting:** Securely attach the contactor to a standard 35mm Din Rail. Ensure it clicks firmly into place.



Image: The TOCT1-25Z modular contactor shown mounted on a standard Din Rail, illustrating its compact design and secure attachment mechanism.

2. Wiring the Coil (Control Circuit):

- Identify the coil terminals, typically marked with '+' and '-' for DC voltage.
- For DC 24V coil models, connect the DC 24V control voltage to the coil terminals.



Image: A close-up view of the TOCT1-25Z contactor, highlighting the 24VDC coil input terminals and the internal wiring diagram. A warning about confirming polarity is visible.

- For DC 12V coil models, connect the DC 12V control voltage to the coil terminals.



Image: A close-up view of the TOCT1-25Z contactor, highlighting the 12VDC coil input terminals and the internal wiring diagram. A warning about confirming polarity is visible.

- **Important:** Observe correct polarity for DC coils. A warning label on the device indicates "Please confirm polarity before using!".

3. Wiring the Main Circuit (Load):

- Connect the AC load circuit to the main power terminals (e.g., 1, 3 for input and 2, 4 for output).
- Ensure all connections are tight and secure to prevent loose contacts and overheating.
- Verify that the main circuit voltage and current do not exceed the contactor's ratings (e.g., 25A, 250V/500V).

4. Final Check:

Before applying power, double-check all wiring for correctness and security.

5. OPERATING INSTRUCTIONS

The TOCT1-25Z modular contactor operates by energizing its DC coil, which then closes or opens the main AC contacts to control the connected load.

- **Activation:** When the specified DC control voltage (12V or 24V) is applied to the coil terminals, the contactor will activate, changing the state of its main contacts (e.g., 2NO contacts will close, 1NO 1NC will have NO close and NC open).
- **Deactivation:** Removing the control voltage from the coil terminals will deactivate the contactor, returning the main contacts to their original state.
- **Status Indication:** The contactor features a disconnection display, where an indicator light provides

clear visual feedback on its operational status (open or closed).

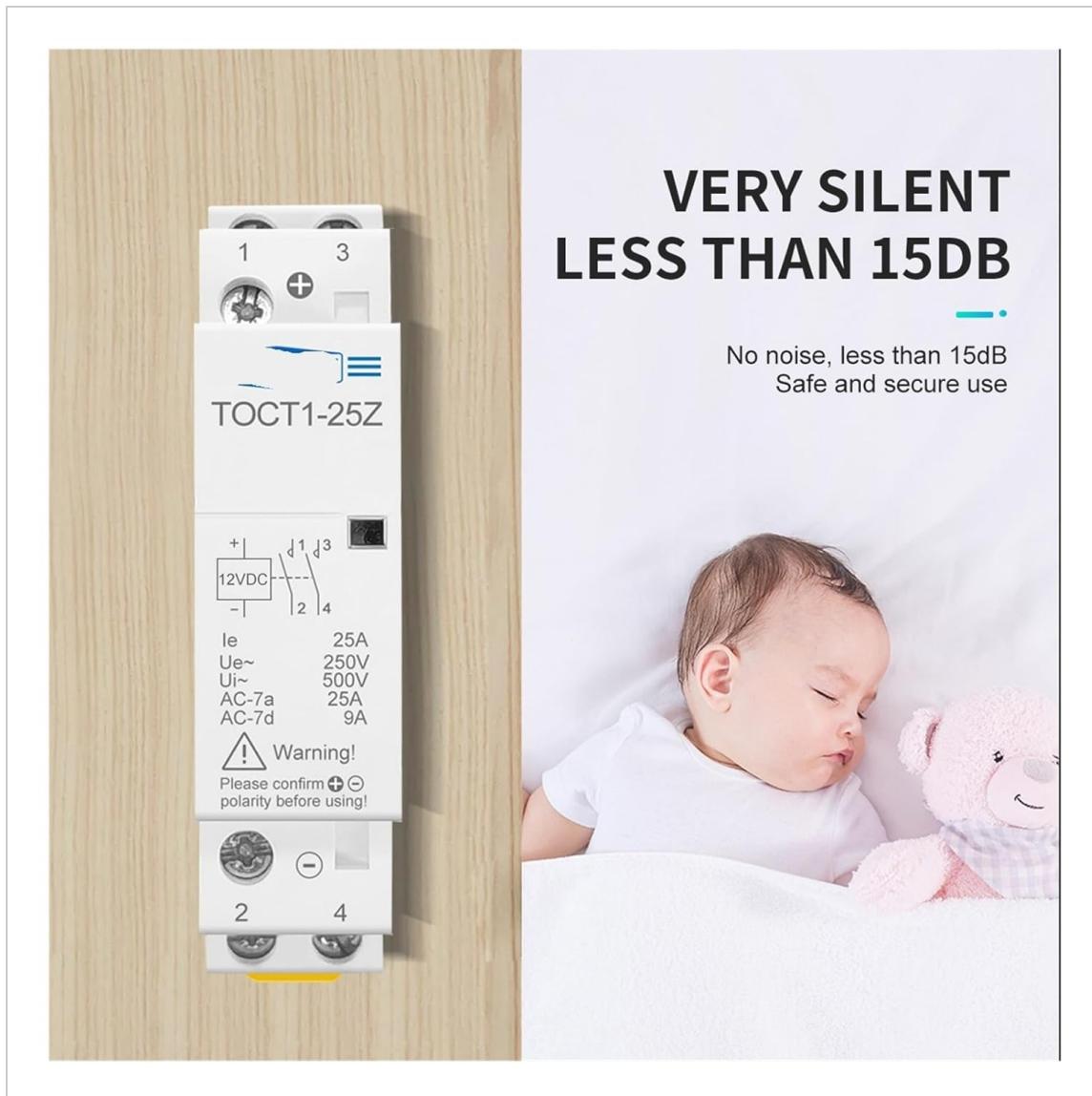


Image: The TOCT1-25Z contactor with a visual representation of its "Breaking Instructions," showing how the indicator light clearly displays the disconnection status.

- **Quiet Performance:** The contactor is designed for very quiet operation, with noise levels typically less than 15dB, making it suitable for household and noise-sensitive environments.

BREAKING INSTRUCTIONS

Adopting a new type of disconnection display
the indicator light is clear at a glance



Image: A visual emphasizing the quiet operation of the TOCT1-25Z contactor, stating "VERY SILENT LESS THAN 15DB," suitable for environments requiring minimal noise.

6. MAINTENANCE

The TOCT1-25Z modular contactor is designed for long-term, reliable operation with minimal maintenance. However, periodic checks are recommended:

- **Visual Inspection:** Regularly inspect the contactor for any signs of physical damage, discoloration, or loose connections.
- **Terminal Tightness:** Periodically check that all wiring terminals are securely tightened. Loose connections can lead to overheating and device failure.
- **Cleaning:** If necessary, gently clean the exterior of the contactor with a dry, soft cloth. Do not use solvents or abrasive cleaners.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent premature wear.

CAUTION: Always disconnect power to the circuit before performing any inspection or maintenance.

7. TROUBLESHOOTING

If the contactor is not functioning as expected, consider the following common issues and solutions:

Problem	Possible Cause	Solution
Contactor does not activate when control voltage is applied.	<ul style="list-style-type: none"> ◦ No control voltage. ◦ Incorrect control voltage (e.g., 12V coil with 24V). ◦ Incorrect polarity for DC coil. ◦ Loose coil wiring. ◦ Damaged coil. 	<ul style="list-style-type: none"> ◦ Verify control voltage presence and correct level. ◦ Ensure correct coil voltage matches supply. ◦ Check and correct polarity. ◦ Tighten coil connections. ◦ Replace contactor if coil is damaged.
Contactor activates but load does not receive power.	<ul style="list-style-type: none"> ◦ No power to main circuit. ◦ Loose main circuit wiring. ◦ Damaged main contacts. 	<ul style="list-style-type: none"> ◦ Verify power supply to the main circuit. ◦ Tighten main circuit connections. ◦ Replace contactor if contacts are damaged.
Contactor makes unusual noise or hums excessively.	<ul style="list-style-type: none"> ◦ Loose mounting. ◦ Foreign object interfering with armature. ◦ Coil issue (e.g., incorrect voltage, damage). 	<ul style="list-style-type: none"> ◦ Ensure contactor is securely mounted on Din Rail. ◦ Inspect for obstructions. ◦ Verify coil voltage and inspect for damage.

8. SPECIFICATIONS

Model Number	TOCT1-25Z
Brand	Generic
Electricity Type	DC (for coil control), AC (for main circuit)
Coil Voltage Options	DC 12V, DC 24V
Main Circuit Rating Current (Ie)	25A
Main Circuit Rating Voltage (Ue)	250V / 500V
Number of Poles	2 (e.g., 2NO or 1NO 1NC configurations)
Mounting Type	Din Rail Mount
Operating Noise Level	Less than 15dB
Dimensions (Approx.)	0.39 x 0.39 x 0.39 inches (Package Dimensions)

Item Weight	3.53 ounces
Certification	CE

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the retailer or manufacturer's official website. Keep your purchase receipt for any warranty claims.

If you encounter issues not covered in this manual, please contact customer support for assistance.