

Schneider Electric CAE40M5

Schneider Electric EasyPact TVS CAE40M5 Control Relay User Manual

Model: CAE40M5

1. PRODUCT OVERVIEW

The Schneider Electric EasyPact TVS CAE40M5 is a control relay designed for industrial applications, specifically for utilization categories AC-15/AC-14 up to 10A/690V. This compact relay provides four (4) normally open (NO) instantaneous contacts and operates with a 220V 50Hz AC coil. It is engineered for demanding applications requiring standard reliability and durability, supporting operating rates up to 3 cycles per second.

Its compact design (45mm width) allows for versatile mounting options, including clipping onto a 35mm DIN rail or fixing with screws. The CAE40M5 is multi-standards certified (IEC, CCC, EAC) and is Green Premium compliant (RoHs/Reach), ensuring adherence to environmental and safety regulations.



Figure 1: Front view of the Schneider Electric EasyPact TVS CAE40M5 Control Relay, showing terminal markings and branding.

2. PACKAGE CONTENTS

Upon unpacking, please verify that the following item is included:

- 1 x Schneider Electric EasyPact TVS CAE40M5 Control Relay with 4NO contacts and 220V 50Hz AC coil.

3. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and servicing should only be performed by qualified personnel. Disconnect all power before working on the device or connected equipment.

- Always follow local and national electrical codes.
- Ensure proper grounding.
- Do not operate the relay if it appears damaged.
- Use appropriate personal protective equipment (PPE).

4. INSTALLATION AND SETUP

The CAE40M5 control relay offers flexible mounting options and screw clamp terminal connections for secure wiring.

4.1 Mounting

The relay can be mounted in two ways:

1. **DIN Rail Mounting:** Align the relay's rear clip with a standard 35mm DIN rail. Press firmly until the relay snaps securely into place.
2. **Screw Mounting:** Utilize the integrated screw holes on the relay's base. Secure the relay to a flat surface using appropriate screws (not included).

4.2 Wiring Connections

The CAE40M5 features screw clamp terminals for reliable electrical connections. Refer to the terminal markings on the relay for correct wiring:

- **Coil Terminals (A1, A2):** Connect the 220V 50Hz AC power supply to these terminals to energize the coil.
- **Normally Open (NO) Contacts:** The relay provides four NO contacts. These contacts are open when the coil is de-energized and close when the coil is energized. Connect your control circuit loads to these terminals as required.

Ensure all connections are tight and secure to prevent loose contacts and potential hazards.



Figure 2: Side view of the control relay, illustrating its compact form factor and additional markings.

5. OPERATING PRINCIPLES

The Schneider Electric EasyPact TVS CAE40M5 is an electromagnetic control relay. When the 220V 50Hz AC voltage is applied to the coil terminals (A1 and A2), an electromagnetic field is generated. This field attracts an armature, causing the normally open (NO) contacts to close.

When the voltage is removed from the coil, the electromagnetic field collapses, and a spring mechanism returns the armature to its original position, opening the NO contacts. This action allows the relay to control higher power circuits or provide isolation between control and power circuits.

6. MAINTENANCE

The CAE40M5 control relay is designed for long-term reliability with minimal maintenance. However, periodic inspection is recommended to ensure optimal performance and safety.

- **Visual Inspection:** Regularly check 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.
- **Terminal Tightness:** Periodically verify that all screw clamp terminals remain tight.

Note: Do not attempt to open or repair the relay. Refer servicing to qualified personnel.

7. TROUBLESHOOTING

If the control relay is not functioning as expected, consider the following basic troubleshooting steps:

- **Relay Not Energizing:**
 - Check if the 220V 50Hz AC supply is present at coil terminals A1 and A2.
 - Verify that the coil connections are secure.
 - Inspect the relay for any visible damage.
- **Contacts Not Closing/Opening:**
 - Ensure the coil is receiving the correct voltage.
 - Check the load connections to the NO contacts.
 - Confirm the relay is rated for the connected load (AC-15/AC-14 up to 10A/690V).

If the issue persists after these checks, contact Schneider Electric support or a qualified electrician.

8. SPECIFICATIONS

Attribute	Specification
Brand	Schneider Electric
Model Number	CAE40M5
Product Type	Control Relay
Coil Voltage	220V AC, 50Hz
Contact Configuration	4 Normally Open (4NO)
Utilization Categories	AC-15/AC-14
Rated Current	Up to 10A

Rated Voltage	Up to 690V
Mounting Type	35mm DIN Rail or Screw Fixing
Terminal Type	Screw Clamp Terminals
Dimensions (LxWxH)	21 x 12 x 5 Centimeters
Item Weight	400 g
Certifications	IEC, CCC, EAC
Environmental Compliance	Green Premium (RoHs/Reach)

9. WARRANTY AND SUPPORT

For information regarding warranty coverage, technical support, or service, please contact Schneider Electric directly through their official website or authorized distributors. Keep your purchase receipt for warranty claims.

Schneider Electric Official Website: www.se.com