INSTRUCTIONS FOR USING

Capacitor Switching Contactor

A capacitor switching contactor is a specialized device designed for switching capacitors in reactive power compensation systems. This device combines a contactor with a starter specifically designed for AC-6b capacitor applications, aiming to reduce the initial inrush current.

Model		Capacitor capacity (at 400~440V)	Rated current (at 400~440V)
MC3-9C	MC3-9 with AC-9	9.7kVAr	14A
MC3-12C	MC3-12 with AC-9	12.5kVAr	18A
MC3-18C	MC3-18 with AC-9	16.7kVAr	24A
MC3-22C	MC3-22 with AC-9	18kVAr	26A



Model		Capacitor capacity (at 400~440V)	Rated current (at 400~440V)
MC3-32C	MC3-32 with AC-9	25kVAr	36A
MC3-40C	MC3-40 with AC-9	33.3kVAr	48A



Model		Capacitor capacity (at 400~440V)	Rated current (at 400~440V)
MC3-50C	MC3-50 with AC-50	40kVAr	58A
MC3-65C	MC3-65 with AC-50	45.7kVAr	66A
MC3-75C	MC3-75 with AC-50	54kVAr	78A
MC3-85C	MC3-85 with AC-50	60kVAr	87A

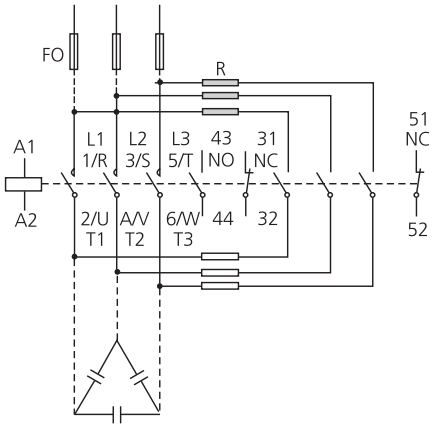


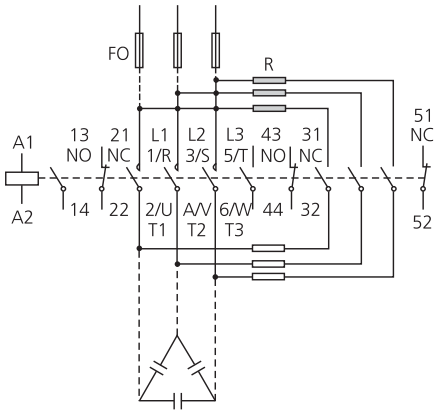
⚠Disconnect power from the source before performing installation, modification, or maintenance. Ensure the capacitor is fully discharged prior to installation.

⚠Terminal screws must be properly tightened and checked frequently.

⚠Do not continuously turn the capacitor on and off within short periods of time to avoid damaging the device due to high inrush currents.

WIRING DIAGRAM





MC3-9C, MC3-12C MC3-18C, MC3-22C	MC3-32C, MC3-40C, MC3-50C MC3-65C, MC3-75C, MC3-85C

CAUTION

1. Before installation, make sure to read the user manual carefully to ensure proper operation.

2. The installation, maintenance, and testing of the contactor must be performed by qualified engineers with specialized knowledge.

3. Do not install the contactor in environments with shocks, high temperatures, humidity, dust, corrosive gases, excessive vibration, or similar conditions to prevent fire hazards and equipment malfunctions:

a) Ambient Temperature: -5~55°C

b) Relative Humidity: ≤95%

c) Altitude: less than 2000m

d) Do not install the contactor in an environment with shocks, high temperatures, humidity, dust, conductive powder, corrosive gases, excessive vibration, or similar conditions.

4. Use the contactor within the rated voltage and current specified on the nameplate; otherwise, it may result in malfunctions.

5. Use the appropriate wires and terminal connections, and tighten the terminal screws to the specified torque to avoid overheating:

a) M4: 2.5 ~ 10 mm^2 / 23 kgf.cm

b) M5: 4 ~ 16 mm^2 / 41 kgf.cm

c) M8: 10 ~ 50 mm^2 / 52 kgf.cm

6. Annually, check the condition of the contacts (for any signs of burning or wear), clean the dust on the contactor, especially the inrush current suppression components

7. The coil is designed (copper coil without electronic components) to withstand the peak voltage when the capacitor discharges. Ensure compliance with the correct voltage range corresponding to the rated voltage of each coil:

a) AC Coil 220V 50/60Hz: 187 ~ 242 V

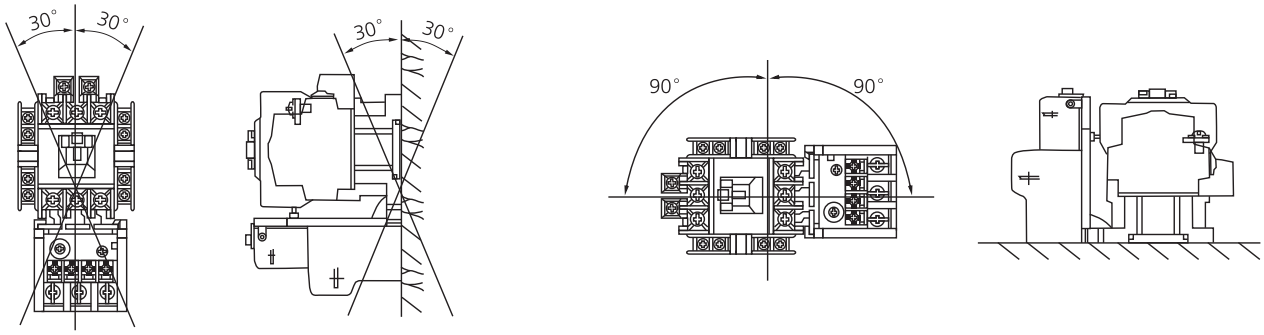
b) AC Coil 240V 50/60Hz: 204 ~ 264 V

c) AC Coil 380V 50/60Hz: 323 ~ 418 V

d) AC Coil 415V 50/60Hz: 353 ~ 456 V

8. When the device becomes useless, it should be disposed of as industrial waste

9. Contactors can be mounted on DIN rails or screwed. Mounting can be either vertical or horizontal, but the deviation should not exceed 30 degrees on either side.



TROUBLESHOOTING

1. Contactor does not switch on:

- Check the power supply to the coil.
- Inspect the controller or control signal.

2. Contacts are burnt:

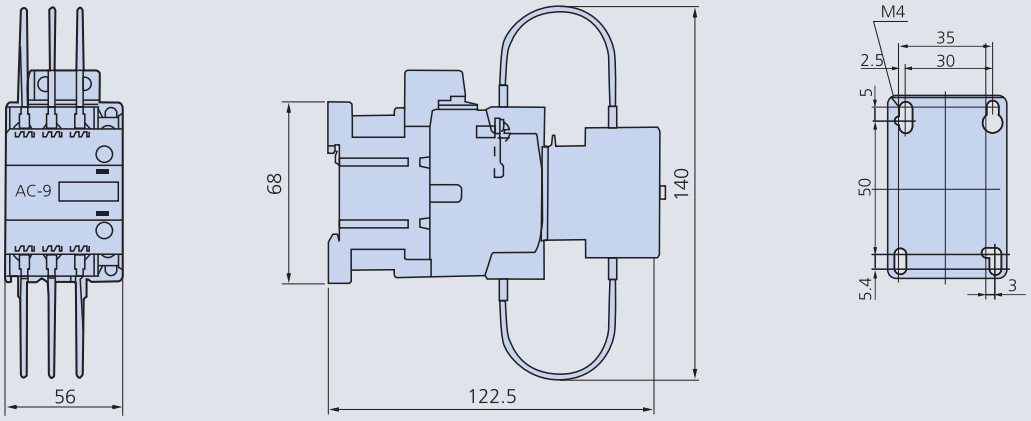
- Check the capacitor and protective devices. Replace contacts if necessary.

3. Unusual noise:

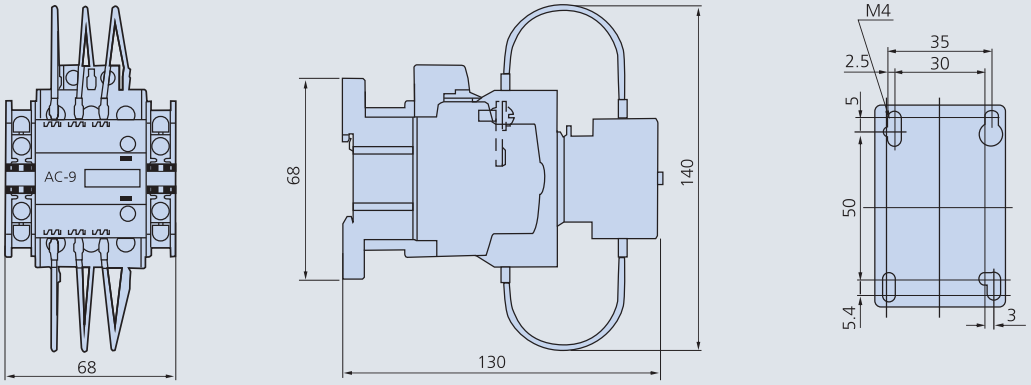
- Inspect the coil and magnetic core

DIMENSIONS

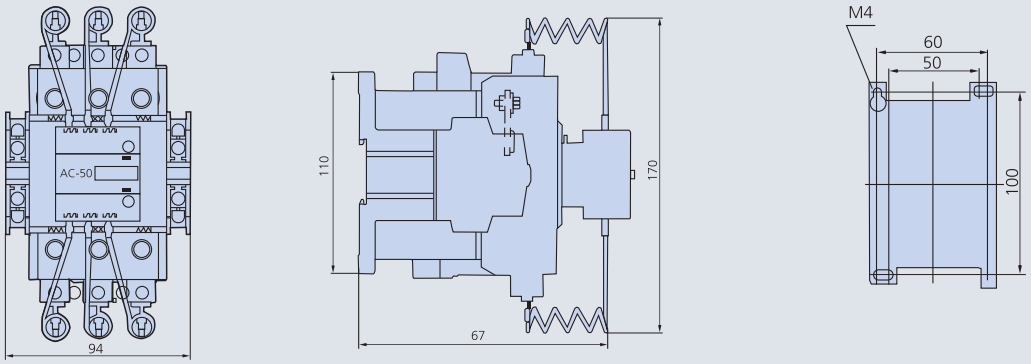
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