

CAPACITOR DUTY CONTACTORS AND QUICK DISCHARGE RESISTORS

Application

Aplicación

In low voltage installations, when a capacitor get connected, a greater transient and inrush phenomena occurs. This has the consequence that the switching of the capacitor results in a high transient and this transient can disturbs the electrical network. A part of the nominal current, occurs an over current higher than $180 \times I_n$ and high frequency (3-15 kHz) while a period of 1-2 ms. This peak currents caused by the connection of capacitors are depend on the following factors:

- Network inductances
- Power transformers and short-circuit voltages
- Fixed or automatic systems for correction power factor
- Presence of harmonics

The peak current for large magnitude is undesirable and it is dangerous for the standard contactors and increases stress on the capacitors. For that reason, we recommend the utilization of specific designed contactors for capacitors switching model TC1-D of RTR Energía that ensures proper operation for this application.

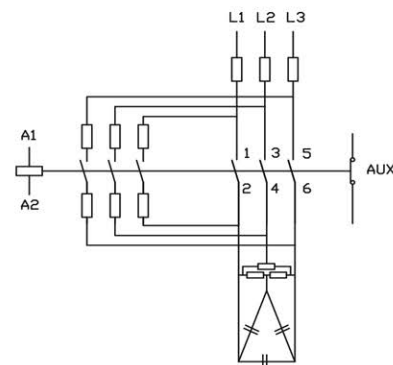
Operating system

Contactors for capacitor applications are designed to accomplish special operating requirements.

These contactors incorporate a frontal block with damping resistors to absorb the current peak in the connection of the capacitors.



Connection Diagram



Code	Model	Coil voltage	Capacitor Power
	TC1-D	V	kVAr
CONT0025009	TC1-D2*	230	2,5
CONT0050018	TC1-D5*	230	5
CONT0125032	TC1-D12	230	7,5 -12,5
CONT0150040	TC1-D16	230	15
CONT0200050	TC1-D20	230	20
CONT0300065	TC1-D33	230	25-30
CONT0400085	TC1-D40	230	35-40
CONT0600125	TC1-D60	230	50-60
CONT0700150	TC1-D70	230	60-70

Auxiliary Contacts

Code	Model
Auxiliares	TC1-D
CONT0AUX000	TC1-D2/TC1-D5