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 180xIn 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

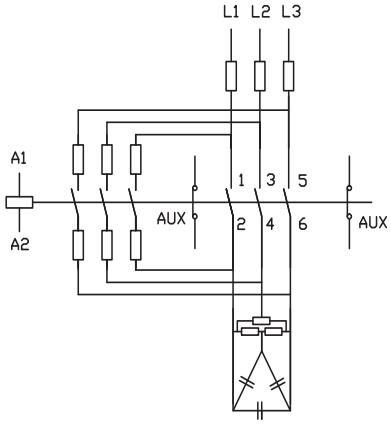
The peak current for large magnitude is undesirable and it is dangerous for the standard contactors and increases stress on the capacitors. For that reason, we recommend the utilization of specific designed contactors for capacitors switching model MOC of RTR Energía that ensures proper operation for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

Operating system

This contactors are AC-6b category 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.

Code	Model	Coil voltage	Capacitor Power
	TC1-D	V	kVAr
CONT0025009	MO18	230	2,5
CONT0050018	MO18	230	5
CONT0125032	MOC12,5	230	12,5
CONT0150040	MOC15	230	15
CONT0200050	MOC20	230	20
CONT0250057	MOC25	230	25
CONT0300065	MOC30	230	30
CONT0333080	MOC35	230	35
CONT0400085	MOC50	230	40
CONT0500100	MOC50	230	50
CONT0600125	MOC70	230	60
CONT0700150	MOC70	230	70
CONT0800150	MOC80	230	80

Connection Diagram



Quick Discharge Resistor

For fast reactive power switching requirements RTR Energia recommends for use quick discharge resistors connected on Contactors through 2NC auxiliary contacts for fast discharging the capacitors for reduce high transient current while connecting again. (ref. the connection diagram)

Code	Type	Resistance
		Ω
MONTARRESISTCON	RD-1K8	2x1800