

Additional accessories

Quick discharge reactors

Installing two quick discharge reactors or potential transformers between the phases of the bank makes it possible to reduce the capacitor discharge time from 10 minutes to approximately 10 seconds.

This reduced discharge time :

- Provides safety for personnel during any interventions
- Reduces the waiting period before ground (closing of MALT isolating switch)
- Makes it possible to reactivate the banks in steps more quickly after a power cut, although a min. time of 5 minutes is essential between two discharges, in order to ensure correct cooling of the discharge reactors.

Damping reactors

Installing single phase damping reactors in series on each phase of the capacitor bank makes it possible to reduce the switching currents to values that are acceptable for the corresponding operating device.

These are necessary in the following situations :

- Step capacitor banks
- Very high mains short-circuit power in relation to the power of the capacitor bank to be connected
- Frequent control operations of the capacitor bank

Detuned reactors

For mains supplies with a high level of harmonic interference, installing a detuned reactor, generally three-phase and connected in series with the capacitor bank, is the only effective protection.

The detuned reactor performs a dual role:

- Increasing the impedance of the capacitor in relation to the harmonic currents
- Shifting the parallel resonance frequency of the source and the capacitor to below the main frequencies of the harmonic currents that are causing interference

Note: The detuned reactor also performs the functions of a damping reactor.

Contactor

The installation of a capacitor at the input of the capacitor bank enables it to be controlled by a PLC or a regulation system.

This contactor must always be used with three damping reactors or a detuned reactor in order to damp the inrush currents.

Other possible components

- Earthing switch
- Switch
- Circuit switch
- Power factor controller to control automatic capacitor banks