

## Automatic capacitor banks with static contactors. 440 V, 50 Hz

### Particularities of capacitor bank with static contactors

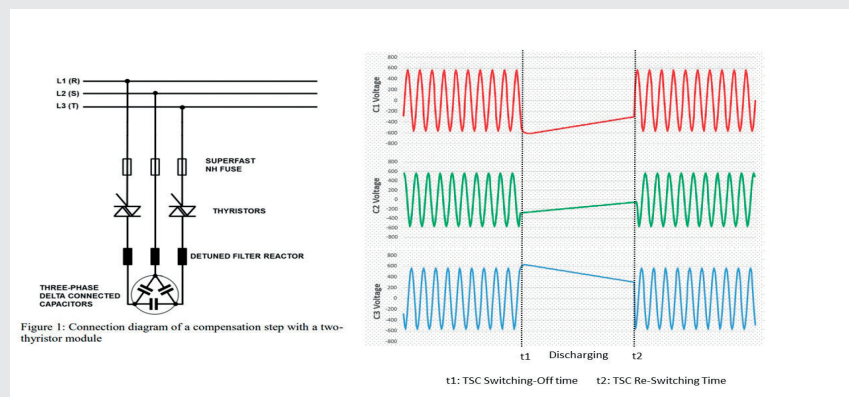
Static contactors are suitable for installations where instantaneous load fluctuations occur frequently. In such installations, conventional electromechanical contactors cannot act fast enough to connect and disconnect capacitor banks. In addition, electromechanical contactors cause switching transients which result in shorter capacitor bank lifetimes. Static contactors are the ideal solution where fast and transient-free switching is required.

The advantages of static contactors in PFC banks are as follows:

- A Static contactor instead of a conventional contactor is the best solution for applications requiring fast and transient-free switching. Static contactor switch the capacitor banks at the voltage zero-crossing instant.
- The ability to disconnect the capacitors without current and voltage transients. The disconnection occurs at the current zero-crossing instant.

- Faster switching time (max. 10ms per-phase)
- Voltage stabilization and improved electrical efficiency
- Improve service life of the PFC banks.
- Reduced maintenance cost
- Immediate response to compensate loads such as welding machines or small cord points, elevators, cranes, furnaces and, in general, those presenting short changing cycles. This is not possible with conventional contactors.

- Lower wear of capacitors and contactors. This is an immediate result.
- of eliminating all the moving mechanical parts. The useful lifetime of the PFC unit as a whole is significantly increased over solutions with conventional contactors.
- The graph shows the capacitor voltage ( $V_c$ ) and current ( $I_c$ ) waveforms. Note that, in conventional solutions with electromechanical contactors, there is no fixed point of connection and disconnection.



## General Information

- Use in significant industrial installations for reactive power compensation.
- Indoor mounting in ventilated room.
- Inside cabinet temperature max.  $\leq 55^{\circ}\text{C}$ .
- Cable entry top or bottom.
- IP31 (Others IP upon request)

## Components

- DWCAP, DWCAP RCT, MA/C/CE TER, MA/C/CE TER RCT Capacitors.
- \* Static contactors.
- \* With or without de-tuned harmonics filters.
- \* With or without On-load break switch.
- \* HRC fuses or MCB for steps protection.
- \* Microprocessor based PFC regulator.
- \* Galvanized sheet metal cabinet with color RAL 7035.

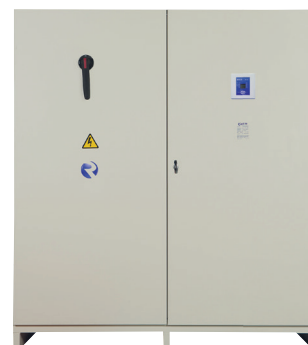
## Upon request

RTR Technical team can assist for designing PFC equipment which suit to the customer needs for different powers, voltage, frequency....

### Without On-load break switch



### With On-load break switch



### Dimensions

