CONDIS®

> HV Capacitors

Supply of CLR capacitors to RTE France to guarantee power supply to Strasbourg metropolitan area

GENERAL

Power reactance connected in series (CLR) in a high voltage system can help to reduce the level of short-circuit current in case of failures and rebalance flows. Introducing these elements into an existing network helps to compensate the continuous increase of short-circuit current produced by the new power created by generators. The addition of CONDIS' High Voltage Capacitors helps to attenuate transients induced by the reactors.

CUSTOMER CASE

Adding a reactor to the Graffenstadden-Marlenheim 225 kV link rebalances flows between links supplying Strasbourg.

After conducting transient studies on the new reactor configuration, it was determined that a high voltage capacitor in parallel with the reactor was necessary.

Based on the provided specification, CONDIS' experts were able to design a 30 nF capacitor in a single unit.

Why CONDIS ?

Our experts can design and manufacture customised, high-quality capacitors with higher capacitance values per capacitor compared to our competitors.

Furthermore, capacitors can be purchased directly from us, independently of reactors, enabling a cost-effective approach to extending the lifetime expectancy of your circuit breakers.

> **FIND RELATED CONTENT BY VISITING OUR WEBSITE**

CONDIS®

> HV Capacitors

Capacitors for Current Limiting Reactors

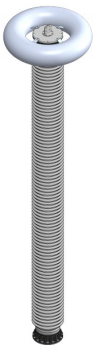
CURRENT LIMITING REACTORS (CLR) ARE USED WHEN THE SHORT-CIRCUIT CURRENT IN A DISTRIBUTION OR TRANSMISSION ELECTRICAL SYSTEM WILL EXCEED THE INTERRUPTING RATING OF THE SWITCHGEAR.

CLR ARE AN ALTERNATIVE TO THE REPLACEMENT OF A CIRCUIT BREAKER IN THE SWITCHGEAR BY LIMITING SHORT-CIRCUIT CURRENT LEVELS.

IT ALLOWS A LONGER OPERATION OF THE CIRCUIT BREAKER AND AVOIDS ITS PREMATURE WEAR.

CLR are associated with big inductances. This could produce severe transient recovery voltage (TRV) or rise the rate of recovery voltage (RRRV) across the circuit breaker contacts, during an opening in case of short line fault. CLR capacitors help mitigate this phenomenon.

CLR capacitors are installed in parallel to the series reactor (CLR) and/or on each of its terminal phase to ground.



KEY ADVANTAGE

Based on a highly flexible technology, our experts design CLR capacitors to meet specific mechanical and electrical requirements.

- ✓ Long maintenance-free lifetime
- ✓ Swiss Made
- ✓ Larger capacitance value than competition in one single capacitor

PRODUCT FEATURES

These are sample values. Values out of these ranges are available upon request.

Capacitance	built up to 30 nF
Typical cantilever strength value	built up to 25 kNm
Nominal voltage Um	built from 63 kV up to 550 kV 50/60Hz
Switching impulse voltage	built up to 1175 kV 250/2500 µs
Lightning impulse voltage	built up to 1550 kV 1.2/50 µs
Adapted corona rings can be included if required	
Support insulators can be included if required	