CONDIS®

> HV Capacitors

SUPPLY OF CLR CAPACITORS TO NORTH AMERICAN UTILITIES TO SOLVE TRV ISSUES

CHALLENGES

Growing share of inverter-based generators, like wind turbines and solar farms, brings environmental benefits but also challenges to ensure power quality and short-circuit current capabilities of the installed equipment. Nonlinear loads like data centers and superchargers add to these challenges.

OUR SOLUTION

In this situation, the installation of Current Limiting Reactors (CLR) provides a **cost-effective and timely response** to this problem, avoiding the need to replace heavy equipment such as circuit breakers in Brownfield substations.

The addition of CONDIS' capacitors helps to attenuate transients induced by the reactors.

Why CONDIS ?

Some recent customers have found themselves in the situation mentioned above, and with CONDIS they found a partner who is able to support them in their project.

Indeed, as world leader in high-voltage capacitors, our experts can design and manufacture **customized and high-quality capacitors with a higher capacitance value per capacitor than its competition**.

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

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

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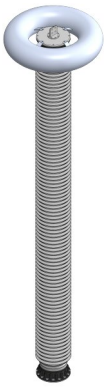
CURRENT LIMITING REACTORS (CLR) CAPACITORS

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