

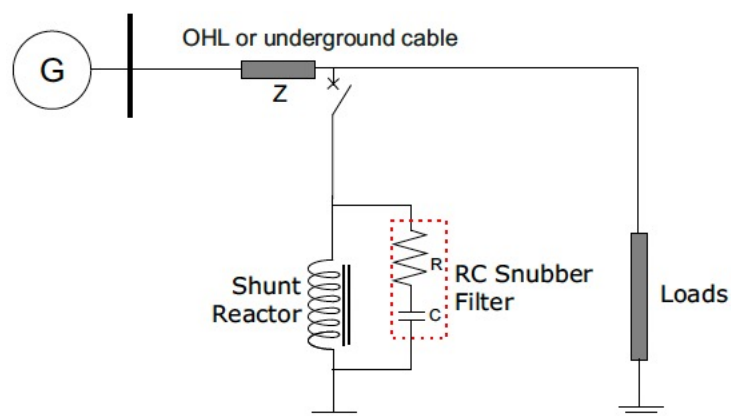
RC Snubber Filters

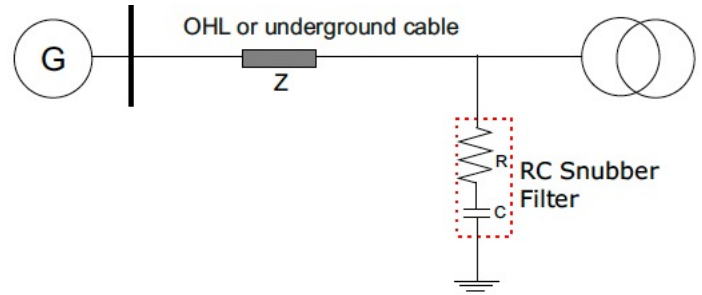
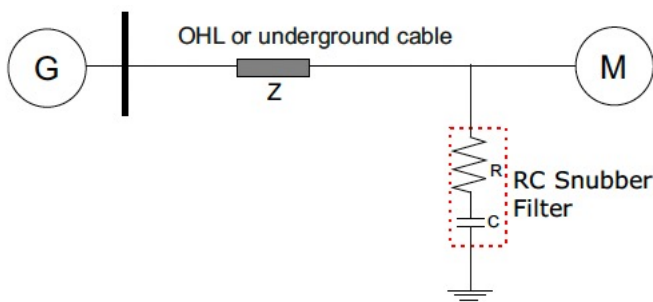


RC Snubber Filters consist of a capacitor and resistor connected in series across a switch which is controlling an inductive load.

For reactive power compensation, and mainly for voltage regulation purposes, shunt reactors are used at different voltage levels in the electric utility. During the turnoff action of the breaker or contactor of a shunt reactor, huge over-voltages are created due to the sudden interrupt of an inductive current. In order to prevent any damage to system equipment, voltage clampers, so called RC snubber filters are used in parallel with shunt reactors. They clamp the voltage overshoot due to the current interruption and damp out the oscillations safely.

Typical Connection Diagrams





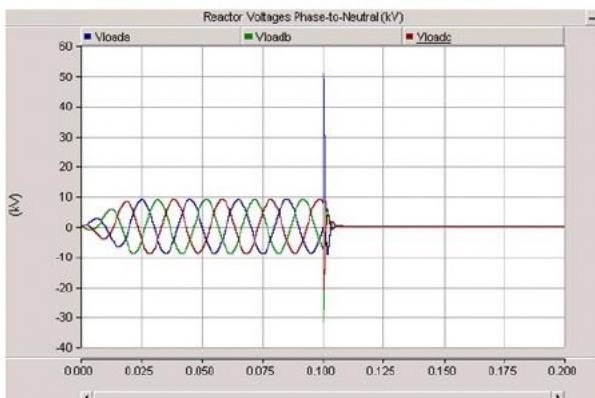
Advantages

- Longer insulation lifetime for machinery
- Protects against insulation failures between windings
- Protects against arcs between the contacts of vacuum circuit breakers and other switchgear due to high frequency over voltage
- Protects against high frequency over voltage specifically caused by arc furnaces
- Optional earth fault relay

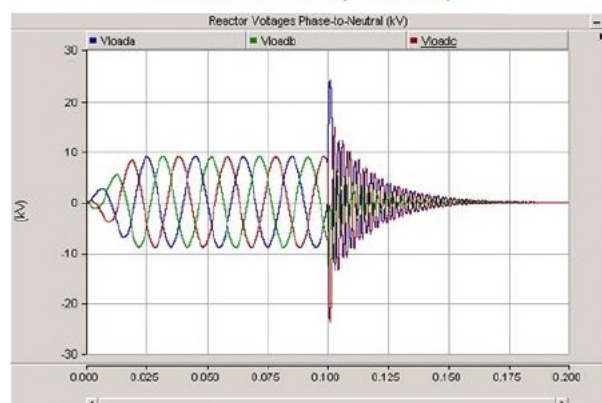
Application Areas

- Large motors
- Generators
- Induction and arc furnaces
- Shunt reactors
- Dry type transformers

without RC Filter during switching



with RC filter during switching



C and R values are calculated as per system parameters.