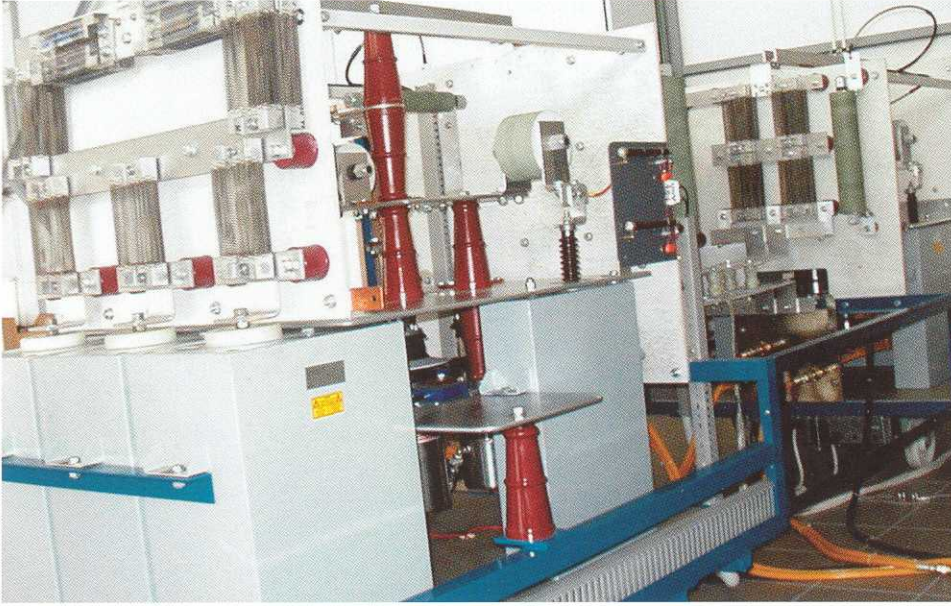


## SURGE CURRENT GENERATOR



Our Lightning and Surge Current Generator is able to produce, apart from the typical wave shapes 8/20  $\mu$ s, 8/80  $\mu$ s and 10/350  $\mu$ s, surge currents of any wave shape within front time  $T_f=4$  and tail time  $T_t=20$  up to 500  $\mu$ s.

The peak values ( $I_{peak}$ ) of the output current can vary from 5 kA up to 100 kA, with maximum stored energy 187kJ and maximum charge transferred to the specimen 80 C.

Due to the modular construction and configuration, the generator is also capable to perform for

research purposes simulation tests of multiple lightning stroke applications with currents having a maximum value 50 kA. In combination the lightning impulse voltage generator and long duration generators, with which our laboratory is equipped, are able to perform multiple stroke (synthesis) tests that are included in European (EN) and International (IEC) Standards. Apart from the tests performed on LPCs and SPDs, we are also capable to test the ability of other structures, such as wings and axes of wind power generators and helicopters, radar antennas, parts of airplane and ship components, submarines periscope towers, metal parts of bridges, reservoirs and fuel tank installations, wire ropes of cable cars, etc., which should also be able to withstand a lightning impact.

## SURGE VOLTAGE GENERATOR

It can produce surge voltages from 5 kV up to 500 kV of wave shape 1,2 / 50  $\mu$ s and maximum current 4 kA and switching impulse voltages up to 460 kV with a wave shape 250/2500  $\mu$ s.

Apart from the tests performed for lightning and surge protection applications, the insulation testing of cap and pin or post insulators, power cables, switchboards, as well as insulation materials is also possible.

