

Testing Facilities and maximum ratings of equipment to be tested

In the framework of the establishment by LS Electric of a new Testing Facility for operational electrical tests on HVDC Thyristor Valves with max voltage of 30 kV and max current of 2500 A a review of the Basic and Detailed design of the Facility has been carried out. The performed tests are based on Synthetic method replicating the switching stresses on the valves in operation, in full agreement with IEC Standard 60700-1

Tasks performed:

- Basic design-Review of the test circuit and main relevant parameters to perform:
 - Periodic firing and extinction tests,
 - Tests with transient forward voltage during recovery period,
 - Valve fault current tests.
- Detailed design review through simulations of the following tests:
 - Maximum Continuous Firing Voltage
 - Maximum Continuous Recovery Voltage
 - Maximum Temporary operating duty
 - Minimum delay and minimum extinction angles
 - Temporary undervoltage

