

Task 10: Measurements of Surge Arresters

(Laboratory F1-13, main lab)

Determine the response of three types of surge arresters (measuring spherical sparking gap, valve lighting arrester, overvoltage limiter) to applied atmospheric voltage impulse $1.2/50 \mu\text{s}$ with different peak values. For each surge arresters, responses for different impulses should be plotted to one graph (total 3 graphs). Further, responses of one chosen peak value for all surge arresters should be plotted to one graph (total 1 graph). Conclusion should be contained evaluation of all measured surge arresters and comparison between them.

Used equipment:

RG two-stage impulse generator 200 kV, 10 kJ

D voltage divider 200 kV (resistive-capacitive)

OSC digital oscilloscope LeCroy

S measured surge arrester (measuring spherical sparking gap, valve lighting arrester, overvoltage limiter)

Measurement circuit:

