

Transient recovery voltage of a circuit-breaker at transmission lines with magnetically controlled current-limiting reactors

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This paper represents the analytical simulation of the transient recovery voltage (TRV) of a new magnetically controlled current-limiting reactor (MCCLR), which allows determining TRV and showing that it does not exceed permissible level. A mathematical model of MCCLR, taking into account the capacities of windings, was described. A comparison, based on the rate of TRV, was made for the case of installation of a conventional uncontrolled concrete CLR and MCCLR.

Keywords: transient recovery voltage, current limiting reactor, circuit-breaker, short-circuit.