

عنوان مقاله:

Transient Recovery Voltage Effects on The 20 kV Circuit Breakers During Fault Clearance

محل انتشار:

سومین کنفرانس بین المللی توسعه فناوری در مهندسی برق ایران (سال: 1399)

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خلاصه مقاله:

In this paper, the Transient Recovery Voltage which is induced during the opening process of the Circuit Breakers is investigated. Furthermore, the origin of this phenomenon and the parameters that affect it are expressed in detail. In order to evaluate withstand capability of different Circuit Breakers against Transient Recovery Voltage, relevant IEEE and IEC standards are discussed in detail. A formula for calculation of this criteria is also presented. To study the effect of this incident on the Circuit Breakers, a computer simulation using PSCAD/EMTDC software is carried out. For better evaluation, actual data of an electrical substation is utilized in the simulation process. Different techniques to mitigate the Transient Recovery Voltage are also presented. The simulation results show that the proposed techniques can reduce this event significantly

کلمات کلیدی:

Circuit Breaker, Fault Clearing, Transient Recovery Voltage

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