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Distance Protection Performance Analysis

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Abstract : This paper presents simulation-based case study that indicate the need for accurate dynamic modeling of distance protection relay. In many cases, a static analysis based on current and voltage phasors may be sufficient to assess the performance of distance protection. There are several circumstances under which such a simplified study does not provide the depth of analysis necessary to obtain accurate results, however. This letter present study of the influences of magnetizing inrush and power swing on the performance of distance protection relay. One type of numerical distance protection relay has been investigated: 7SA511. The study has been performed in order to demonstrate the relay response when dynamic model of distance relay is utilized.

Keywords : distance protection, magnitizing inrush, power swing, dynamic model of protection relays, simulatio
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