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REVIEW ON POSITIONING OF HTS FAULT CURRENT LIMITERS IN AN ELECTRIC POWER GRID

Content:

Increase in demand and power generation capacity of electrical power systems has led to an increase in the fault current levels which can exceed the maximum designed short-circuit ratings of the switchgear. An unbalance is generated owing to the rapidly changing large single-phase loads. Subsequently, the unbalanced loads cause an unbalanced transmission line. A voltage unbalance causes a control error in these systems. A suitably designed SFCL connected in a power system can solve these problems and decrease the stress on network devices. However it is equally important to place the SFCL at an optimum position in the power system to improve its reliability and safety. This paper presents a review on these aspects including the status of various commercially available SFCL systems located in various power grids all over the world.

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