

배전계통 위치별 초전도전류제한기 적용효과 분석

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Abstract : In this paper, we investigated the current limiting characteristics due to the application location of the superconducting fault current limiter (SFCL) such as the feeder, the bus, the secondary side of transformer in a power distribution system. In addition, the quench and the recovery characteristics of the SFCL installed in each location of the power distribution system were compared each other.

Through the analysis, in case that the SFCL was applied into the feeder line, its current limiting and voltage-drop compensating characteristics were confirmed to be the more effective. On the other hand, the power burden of the SFCL was increased higher compared to the SFCL's other application location.

Key Words : current limiting characteristics, superconducting fault current limiter (SFCL), quench and the recovery characteristics.