

## 삼상 분리형 자속구속형 전류제한기의 동작 특성 분석

두승규, 두호익, 박충렬, 김민주, 김용진, 한병성  
전북대학교

### **Analysis of Operational Characteristics of Separated Three-Phase Flux-Lock SFCL**

Seung-Gyu Doo, Ho-Ik Du, Chung-Ryul Park., Min-ju Kim, Yong-Jin Kim and Byoung-Sung Han  
Chonbuk National Univ.

**Abstract :** We investigated the operational characteristics of the separated three-phase flux-lock type superconducting fault current limiter (SFCL). The single-phase lock type SFCL consist of two coils, which are wound in parallel through an iron core. The high- $T_c$  superconducting(HSTC) thin film connected in series with secondary coil. The separated three-phase flux-lock type SFCL consist of three single-phase flux-lock type SFCL. In a normal condition, the SFCL is not operate. When a fault occurs, the current of a HSTC thin film exceeds its critical current by fault current, the resistance of the HSTC thin film generated. Therefore fault current was limited by SFCL. The separated three-phase flux-lock type SFCL are operated in fault condition such as the the single line-to-ground fault, the double line-to-ground fault and the triple line-to-ground fault. The experimental results, the SFCL operational characteristics was dependent on fault condition

**Key Words :** separated three-phase flux-lock type superconducting fault current limiter, high- $T_c$  superconducting thin film, fault condition

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