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## Current Limiting and Recovery Characteristics of A Trigger Type SFCL using Double Quench

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The current limiting and recovery characteristics of a trigger type superconducting fault current limiter (SFCL) using double quench, which consists of a power switch, two separated current limiting reactors and two superconducting (SC) elements, were analyzed. The suggested trigger type SFCL can perform two fault current limiting operations (single quench operation and double quench operation) according to the amplitude of the initial fault current. In case of lower amplitude of the initial fault current, the fault current limiting operation of the SFCL can be performed through the occurrence of the single quench in SC1 element connected in series with the power switch. In case of larger amplitude of the initial fault current, the second quench in SC2 element connected in parallel with one of the separated current limiting reactors after the first quench in SC1 element occurs, namely, double quench, is contributed to the larger fault current limiting operation of the SFCL. Through the analysis on the short-circuit tests, the effective current limiting and recovery characteristics of the suggested trigger type SFCL using double quench could be confirmed.

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