

Title (en)

THERMAL METHOD FOR QUICKLY DRIVING A SUPERCONDUCTIVE COIL FROM THE SUPERCONDUCTIVE TO THE NORMAL STATE, AND  
DEVICE TO CARRY OUT THE METHOD

Publication

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Application

**EP 82111359 A 19821208**

Priority

DE 3151119 A 19811223

Abstract (en)

[origin: US4486800A] A method and apparatus for making a fast transition of the entire superconducting winding of an electrical apparatus, which is arranged in a vacuum chamber and is cooled by a cryogenic medium, from the superconducting operating state into the normal-conducting state by heating the entire winding in case of a disturbance of a section of the winding which causes that section to become normal-conducting is disclosed. A predetermined quantity of a gas which is at a higher temperature and which would be frozen at the superconducting operating temperature is introduced into the vacuum chamber such that the superconducting parts of the winding are heated above the critical transition temperature characteristic for superconduction. The pressure in the spaces containing the cryogenic medium can also be increased by a predetermined value such that boiling of the cryogenic medium is suppressed when the superconducting parts are heated to at least the critical transition temperature.

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