

Title (en)

MAGNET ASSEMBLY WITH CRYOSTAT AND MAGNET COIL SYSTEM, WITH COLD STORAGE AT THE POWER CONNECTIONS

Title (de)

MAGNETANORDNUNG MIT KRYOSTAT UND MAGNETSPULENSYSTEM, MIT KÄLTESPEICHERN AN DEN STROMZUFÜHRUNGEN

Title (fr)

DISPOSITIF MAGNÉTIQUE POURVU DE CRYOSTAT ET DE SYSTÈME DE BOBINES MAGNÉTIQUES, D'ACCUMULATEURS DE FROID SUR LES ALIMENTATIONS EN COURANT

Publication

**EP 3467852 B1 20200415 (DE)**

Application

**EP 18198875 A 20181005**

Priority

DE 102017217930 A 20171009

Abstract (en)

[origin: US2019108932A1] A magnet assembly (1) with a cryostat (2) has a superconducting magnet coil system (3), an active cooling device (4) for the coil system, and current leads (5a, 5b) for charging the coil system. The current leads have at least one normal-conducting region (15a, 15b), wherein multiple cold reservoirs (20) are thermally coupled to the current leads along the normal-conducting region thereof, in order to absorb heat the normal-conducting region during charging of the magnet coil system. The current leads have a variable cross-sectional area B in the normal-conducting region along the extension direction thereof, wherein at least over a predominant fraction of their overall length in the normal-conducting region, the cross-sectional area B decreases from a cold end (18a, 18b) toward a warm end (19a, 19b). This provides a magnet assembly requiring reduced cooling power during charging, with less heat introduced into the magnet coil system in normal operation.

IPC 8 full level

**H01F 6/06** (2006.01)

CPC (source: CN EP US)

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