Title (en)

MAGNET DEVICE WITH CURVED COIL WINDINGS

Publication

EP 0276360 B1 19930609 (DE)

Application

EP 87111574 A 19870810

Priority

DE 3702389 A 19870128

Abstract (en)

[origin: US4769623A] A magnetic device is arranged in a curved section of the path of electrically charged particles of an acceleration installation around a beam guiding chamber. The magnetic device contains curved coil windings built up of superconducting rectangular conductors, which have convex outsides, concave insides as well as transition regions at the coil ends between these sides. The superconducting coil windings (4a) according to the invention are arranged at least with their winding parts (57, 58) forming the convex outsides (53) and concave insides (54) in grooves of correspondingly formed coil formers of the magnetic device, with the grooves extending downward at least approximately perpendicular to the plane (x-y plane) determined by the particle path. In addition, the superconducting coil windings (4a') in the region of their coil ends (55') are bent up saddle-shaped. With these measures the effect of undesirable conductor motions on the exactitude of the magnetic fields generated by the coil windings can at least largely be excluded.

IPC 1-7

H01F 7/20; H05H 7/04

IPC 8 full level

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CPC (source: EP US)

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Cited by

US5387891A; WO9306607A1

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EP 0276360 A2 19880803; **EP 0276360 A3 19890726**; **EP 0276360 B1 19930609**; DE 3786158 D1 19930715; JP S63188908 A 19880804; US 4769623 A 19880906

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