

Title (en)

ROTOR AND MACHINE WITH A CYLINDRICAL CARRYING BODY

Title (de)

ROTOR UND MASCHINE MIT ZYLINDERFÖRMIGEM TRAGKÖRPER

Title (fr)

ROTOR ET MACHINE COMPRENANT UN CORPS DE SUPPORT CYLINDRIQUE

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Application

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Abstract (en)

[origin: WO2019228754A1] The invention specifies a rotor (7) for an electrical machine (1) with a central rotor axis A. The rotor comprises - at least one superconducting coil arrangement (15), - a cooling system for cooling the coil arrangement (15) to a cryogenic operating temperature, and - a carrying body (13) which mechanically carries at least one coil arrangement (15) from a radially inner side of the coil arrangement (15), - wherein the carrying body (13) has a substantially cylindrical outer contour, - wherein the carrying body (13) is predominantly composed of an amagnetic material which has a density of at most 4.6 g/cm³ and a thermal conductivity of at least 10 W/(m·K), - and wherein the carrying body (13) is designed to thermally couple the superconducting coil arrangement (15) to the cooling system. The invention further specifies an electrical machine (1) having a rotor (7) of this kind.

IPC 8 full level

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