

Title (en)

METHOD FOR COOLING A TRANSVERSE FLOW SYNCHRONOUS MACHINE AND TRANSVERSE FLOW SYNCHRONOUS MACHINE

Title (de)

VERFAHREN ZUR KÜHLUNG EINER SYNCHRONMASCHINE MIT TRANSVERSALER FLUSSFÜHRUNG UND SYNCHRONMASCHINE MIT TRANSVERSALER FLUSSFÜHRUNG

Title (fr)

PROCEDE DE REFROIDISSEMENT D'UNE MACHINE SYNCHRONE A FLUX TRANSVERSAL ET MACHINE SYNCHRONE A FLUX TRANSVERSAL

Publication

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Application

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Abstract (en)

[origin: WO03026102A1] The invention concerns a method for cooling a transverse flow synchronous machine comprising a rotor and a stator forming at least respectively an outer intermediate gap in the radial direction. The outer stator, which is associated with the rotor so as to be spaced apart therefrom by a ventilating interstice in the radial direction, comprises in the circumferential direction a plurality of substantially efficient individual elements spaced apart from one another by specific distances and associated with the rotor in corresponding and complementary manner. According to said method, at least a partial zone of the stator is cooled, and the inside of the synchronous machine is partly filled at least with a cooling medium. The invention is characterized in that when the synchronous machine is not operating and is being mounted, a layer of cooling medium is formed whereof the surface is at least at the zone of the outer intermediate gap located beneath the axis of symmetry of the synchronous machine, between the rotor and the stator, and when the synchronous machine is operating, the rotation of the rotor drives the cooling medium, which is then sprayed in the intermediate gaps between the individual elements of the stator.

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