

Title (en)

ELECTRICAL MACHINE HAVING CAPABILITY TO GENERATE LATERAL FORCES

Title (de)

ELEKTRISCHE MASCHINE MIT DER FÄHIGKEIT, LATERAL KRÄFTE ZU ERZEUGEN

Title (fr)

MACHINE ELECTRIQUE POUVANT PRODUIRE DES FORCES LATERALES

Publication

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Application

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Abstract (en)

[origin: WO03032470A1] This invention is a rotating electrical machine comprising two major components capable of relative rotation about a common axis and separated by an air gap in which magnetic fields linking the two main components through the air gap act both to exert torque and lateral forces. A set of windings is present on at least one of these components and this set of winding is used to generate a distribution of flux having two parts: the first part serving primarily to case torque and the second part serving to cause a net lateral force between the two main components. This machine uses the physical connection of the coils within the phases of the machine such that separate sources can be used for supplying currents for generating torque and lateral forces independently. The voltage and current ratings of the supply used for generating the lateral forces can both be substantially lower than the corresponding ratings of the supply used for generating the torque.

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