

Title (en)

ELECTRIC MACHINE WITH A ROTOR CONSTRUCTED OF PERMANENT MAGNETS AND MAGNETIC FLUX GUIDES

Title (de)

ELEKTRISCHE MASCHINE, DEREN ROTOR AUS DAUER_MAGNETEN UND MAGNETFLUSS-LEITSTÜCKEN AUFGEBAUT IST

Title (fr)

MACHINE ELECTRIQUE A ROTOR CONSTITUE D'AIMANTS PERMANENTS ET D'ELEMENTS CONDUCTEURS DE FLUX MAGNETIQUE

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Application

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Abstract (en)

[origin: DE19737391A1] The invention relates to an electric machine with a stator and a rotor (2) which are separated by an air gap (12). According to the invention, (a) the rotor (2) is constructed with magnetized permanent magnets (8), said magnets being arranged in an essentially circumferential manner, and a magnetic flux guide arrangement(10) consisting of at least one magnetic flux guide (10a, 10b). Each arrangement is situated between two adjacent permanent magnets (8). (b) The invention also provides that the permanent magnets (8), when looking at overall shape, each have a circumferential width that increases from the edge of the air gap at the upper end to the lower end of said magnets. (c) Additionally, the invention provides that the guide arrangements (10) between two adjacent permanent magnets (8), when looking at overall shape, each have a circumferential width that decreases from the edge of the air gap at the upper end to the lower end of said arrangements. According to the invention, the guides (10a, 10b) are arranged so that the lower end of said guides spread away from one another in a circumferential direction. The guides have at least one shoulder (20) with which they are supported on an adjacent permanent magnet (8) to prevent dislocation in the direction of the air gap (12).

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