

Title (en)

ELECTRIC MACHINE AND METHOD FOR OPERATING AN ELECTRIC MACHINE

Title (de)

ELEKTRISCHE MASCHINE UND VERFAHREN ZUM BETREIBEN EINER ELEKTRISCHEN MASCHINE

Title (fr)

MACHINE ÉLECTRIQUE ET PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UNE MACHINE ÉLECTRIQUE

Publication

**EP 2727223 A2 20140507 (DE)**

Application

**EP 12750310 A 20120629**

Priority

- AT 9432011 A 20110629
- AT 2012050091 W 20120629

Abstract (en)

[origin: WO2013000007A2] What is disclosed are: an electric machine (1) and a method for operating an electric machine (1) comprising at least one in particular magnetic bearing (2, 3), in particular an axial bearing (17), with at least one armature (4), which has at least one armature winding (4') having at least one end winding (6', 7'), and comprising at least one magnetic field excitation system (5), which has, in a movement direction (8), motor poles (9, 10) with at least partially alternating polarity (11) for torque and/or force formation in this movement direction (8), wherein at least one armature winding (4') is magnetically coupled to the magnetic field excitation system (5) via at least one air gap (12). In order to provide simplicity in terms of design, it is proposed for the magnetic field excitation system (5) to comprise at least one bearing pole (13), at least one end winding (6', 7') of the armature winding (4') interacting at least partially with the magnetic field (15) of said bearing pole so as to form at least one force (16) running at an angle to the movement direction (8), in particular an axial force for the magnetic axial bearing (17).

IPC 8 full level

**H02K 7/09** (2006.01); **F16C 32/04** (2006.01)

CPC (source: EP)

**F16C 32/04** (2013.01); **H02K 7/09** (2013.01)

Citation (search report)

See references of WO 2013000007A2

Citation (examination)

- GB 2090479 A 19820707 - GANZ VILLAMOSSAGI MUEVEK
- US 6157109 A 20001205 - SCHIFERL RICH F [US], et al
- US 2008238230 A1 20081002 - MOCHIDA TAKASHI [JP], et al

Designated contracting state (EPC)

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