

Title (en)

SYNCHRONOUS MACHINE HAVING MAGNETIC BEARING EXCITED BY THE ROTOR

Title (de)

SYNCHRONMASCHINE MIT VOM ROTOR ERREGTEN MAGNETLAGERN

Title (fr)

MACHINE SYNCHRONE AVEC PALIERS MAGNÉTIQUES EXCITÉS PAR LE ROTOR

Publication

EP 2038983 A1 20090325 (DE)

Application

EP 07765674 A 20070627

Priority

- EP 2007056431 W 20070627
- DE 102006032344 A 20060712

Abstract (en)

[origin: WO2008006699A1] A superconductive synchronous machine having superconductive magnetic bearings. A superconductor (6) on the stator side as a first bearing part is disposed opposite from a second bearing part (12) on the rotor side, the second being part being magnetically and mechanically connected via a flux feed section (11) to the pole core (9) of the rotor. A superconductive exciting coil (10) in the rotor pole core (9) excites both the pole core (9) and the second bearing part (12). In order to cool the superconductive exciting coil (10), coolant feeds (16, 16', 24, 25) are provided, which are sealed in relation to the rotor shaft (8, 8') by ferrofluid seals (26). The power for the exciting coil is fed via slip rings (21) or by being inductively connected (29) at the rotor shaft (8').

IPC 8 full level

H02K 1/22 (2006.01); **H02K 7/09** (2006.01); **H02K 9/19** (2006.01); **H02K 55/04** (2006.01)

CPC (source: EP KR US)

F16C 32/04 (2013.01 - KR); **F16C 32/0438** (2013.01 - EP US); **H02K 7/09** (2013.01 - EP KR US); **H02K 55/04** (2013.01 - EP US);
F16C 2380/26 (2013.01 - EP US); **H02K 1/22** (2013.01 - EP US); **Y02E 40/60** (2013.01 - EP US)

Citation (search report)

See references of WO 2008006699A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

WO 2008006699 A1 20080117; AU 2007271814 A1 20080117; AU 2007271814 B2 20100930; CN 101490927 A 20090722;
CN 101490927 B 20111012; DE 102006032344 B3 20080207; EP 2038983 A1 20090325; KR 20090038457 A 20090420;
US 2009280990 A1 20091112; US 7944105 B2 20110517

DOCDB simple family (application)

EP 2007056431 W 20070627; AU 2007271814 A 20070627; CN 200780026370 A 20070627; DE 102006032344 A 20060712;
EP 07765674 A 20070627; KR 20097002883 A 20090212; US 37316907 A 20070627