Title (en)

USE OF A MAGNETIC CORE FOR A CURRENT TRANSFORMER, METHOD FOR THE PRODUCTION OF A MAGNETIC CORE AND CURRENT TRANSFORMER WITH A MAGNETIC CORE

Title (de)

VERWENDUNG EINES MAGNETKERNS FÜR EINEN STROMWANDLER, VERFAHREN ZUR HERSTELLUNG EINES MAGNETKERNS UND STROMWANDLER MIT EINEM MAGNETKERN

Title (fr)

UTILISATION D'UN NOYAU MAGNETIQUE POUR UN TRANSFORMATEUR D'INTENSITE, PROCEDE DE FABRICATION D'UN NOYAU MAGNETIQUE ET TRANSFORMATEUR D'INTENSITE EQUIPE D'UN TEL NOYAU

Publication

EP 1129459 B1 20040602 (DE)

Application

EP 99963240 A 19991115

Priority

- DE 9903630 W 19991115
- DE 19852423 A 19981113

Abstract (en)

[origin: WO0030131A1] The magnetic core (M) consists of a coiled amorphous ferromagnetic alloy strip (B) Its saturation-permeability is greater than 20 000 and lower than 300 000. The saturation-magnetostriction of the magnetic core (M) is less than 0.5 ppm. The core (M) is substantially free from mechanical stress and has an anisotropic axis (A) along which the magnetization of the magnetic core (M) can be oriented in a particularly easy manner and which is perpendicular to a plane in which the center line of the strip (B) runs. The composition of the alloy essentially corresponds to the formula Coa(Fe1-xMnx)bNicXdSieBfCg whereby X is at least one of the elements V, Nb, Ta, Cr, Mo, W, Ge, P, a g is indicated in atom % and a, b, c, d, e, f, g and x meet the following conditions: 40 </= a </= 82; 3 </= b </= 10; 0 </= c </= 30; 0 </= d </= 5; 0 </= e </= 20; 7 </= f </= 26; 0 </= g </= 3; with 15 </= d + e + f + g </= 33 and 0 </= x </= 1.

IPC 1-7

H01F 38/28; H01F 1/153

IPC 8 full level

C22C 45/04 (2006.01); **H01F 1/153** (2006.01); **H01F 27/24** (2006.01); **H01F 38/28** (2006.01)

CPC (source: EP KR US)

H01F 1/15316 (2013.01 - EP US); **H01F 38/28** (2013.01 - EP KR US)

Citation (examination)

WO 0017897 A1 20000330 - VACUUMSCHMELZE GMBH [DE], et al

Cited by

DE102008051561B4; DE102008051561A1; EP2343715A1; DE102010004223A1; US8813355B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 0030131 A1 20000525; DE 59909661 D1 20040708; EP 1129459 A1 20010905; EP 1129459 B1 20040602; JP 2002530853 A 20020917; KR 100606514 B1 20060731; KR 20010080442 A 20010822; US 6580347 B1 20030617

DOCDB simple family (application)

DE 9903630 W 19991115; DE 59909661 T 19991115; EP 99963240 A 19991115; JP 2000583052 A 19991115; KR 20017006032 A 20010512; US 83171701 A 20010917