Title (en)

PRODUCTION METHOD OF AN ANNULAR MAGNETIC CORE USING IRON-BASED NANOCRYSTALLINE SOFT-MAGNETIC ALLOY

Title (de)

HERSTELLUNGSVERFAHREN EINES RINGFÖRMIGEN MAGNETISCHEN KERNS MIT EINER NANOKRISTALLINEN WEICHMAGNETISCHEN LEGIERUNG AUF EISENBASIS

Title (fr)

PROCÉDÉ DE FABRICATION D'UN NOYAU MAGNÉTIQUE ANNULAIRE UTILISANT UN ALLIAGE MAGNÉTIQUE DOUX NANOCRISTALLIN À BASE DE FER

Publication

EP 2958116 A1 20151223 (EN)

Application

EP 14751452 A 20140214

Priority

- JP 2013027500 A 20130215
- JP 2014053536 W 20140214

Abstract (en)

An annular magnetic core made of an Fe-based, nano-crystalline, soft-magnetic alloy, in which part of Fe is substituted by Ni and/or Co; having AC specific permeability μr 100k(50) of 4000 or more at a frequency of 100 kHz and DC magnetic field intensity of 50 A/m, AC specific permeability μr 100k(150) of 2500 or more at a frequency of 100 kHz and DC magnetic field intensity of 150 A/m, and the maximum permeability μ Max of 8000 or less, and a magnetic flux density B 400 of 1.3 T or more, at DC magnetic field intensity of 400 A/m.

IPC 8 full level

H01F 3/04 (2006.01); **C22C 38/00** (2006.01); **C22C 45/02** (2006.01); **H01F 1/153** (2006.01)

CPC (source: EP)

C21D 1/74 (2013.01); **C21D 1/78** (2013.01); **C21D 9/0068** (2013.01); **C22C 38/00** (2013.01); **C22C 38/002** (2013.01); **C22C 38/02** (2013.01); **C22C 38/08** (2013.01); **C22C 38/12** (2013.01); **C22C 38/16** (2013.01); **C22C 38/32** (2013.01); **C22C 45/02** (2013.01); **H01F 1/15333** (2013.01); **H01F 3/04** (2013.01)

Cited by

EP3553799A4; US11025103B2; US11289252B2; US11955262B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2958116 A1 20151223; **EP 2958116 A4 20161012**; **EP 2958116 B1 20200101**; CN 105074843 A 20151118; CN 105074843 B 20180608; ES 2775211 T3 20200724; JP 6075438 B2 20170208; JP WO2014126220 A1 20170202; WO 2014126220 A1 20140821

DOCDB simple family (application)

EP 14751452 A 20140214; CN 201480008901 A 20140214; ES 14751452 T 20140214; JP 2014053536 W 20140214; JP 2015500319 A 20140214