

Title (en)

Hybrid core for power inductor

Title (de)

Hybridkern für einen Leistungsinduktor

Title (fr)

Noyau hybride pour inducteur de puissance

Publication

EP 2453450 A1 20120516 (EN)

Application

EP 10014552 A 20101112

Priority

EP 10014552 A 20101112

Abstract (en)

A hybrid core for a power inductor is made of at least two different soft magnetic materials which differ from each other in at least two magnetic parameters. Inductors for both single-phase and three-phase applications have superior performance with respect to targeted properties such as inductance, dc bias capability, core losses, winding losses and/or dimensions as compared to equivalent inductors made of a single magnetic material.

IPC 8 full level

H01F 3/10 (2006.01); **H01F 27/33** (2006.01); **H01F 37/00** (2006.01)

CPC (source: EP)

H01F 3/10 (2013.01); **H01F 27/33** (2013.01); **H01F 37/00** (2013.01); **H01F 2003/106** (2013.01)

Citation (applicant)

DE 3305708 A1 19840823 - TRANSFORMATOREN UNION AG [DE]

Citation (search report)

- [X] US 6980077 B1 20051227 - CHANDRASEKARAN SRIRAM [US], et al
- [XI] EP 1806759 A2 20070711 - SAMSUNG ELECTRONICS CO LTD [KR]
- [X] US 4100521 A 19780711 - HORI YASURO

Cited by

US2017005566A1; CN115583832A; US9318253B2; DE102014218043A1; EP2998971A1; CN107993787A; EP3113196A1; US10381916B2; US8723633B2; US11244780B2; JP2018041773A; CN110832607A; JP2020523775A; WO2019007738A1

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)

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