Title (en)

ELECTRICAL CONDUCTOR FOR AN ELECTRICAL MACHINE WITH AN ELEVATED POWER-TO-WEIGHT RATIO AND ELECTRICAL COMPONENT FOR THE ELECTRICAL MACHINE

Title (de)

ELEKTRISCHER LEITER FÜR EINE ELEKTRISCHE MASCHINE MIT ERHÖHTEM LEISTUNGSGEWICHT UND ELEKTRISCHE KOMPONENTE FÜR DIE ELEKTRISCHE MASCHINE

Title (fr)

CONDUCTEUR ÉLECTRIQUE POUR UNE MACHINE ÉLECTRIQUE AVEC UN RAPPORT PUISSANCE/POIDS AUGMENTÉ ET COMPOSANT ÉLECTRIQUE POUR LA MACHINE ÉLECTRIQUE

Publication

EP 3398246 A1 20181107 (DE)

Application

EP 17702798 A 20170124

Priority

- DE 102016202071 A 20160211
- EP 2017051427 W 20170124

Abstract (en)

[origin: WO2017137250A1] The invention relates to an electrical conductor which is made up substantially of one or even several metal conductors which are sheathed by a graphene layer. Particularly in the case of the electrical conductor transporting an alternating current, the current in the conductor is forced radially outwards and therefore flows in the graphene layer. Since graphene has a substantially better conductivity than the materials customary in this application, such as copper for example, relatively low losses are accordingly produced and substantially higher degrees of efficiency can be achieved. The electrical conductor constructed in this way is used in a stator and/or rotor winding of an electrical machine, so that it has a significantly elevated power-to-weight ratio.

IPC 8 full level

H02K 3/02 (2006.01); **H01B 1/02** (2006.01); **H01B 1/04** (2006.01); **H02K 3/04** (2006.01)

CPC (source: EP US)

C01B 32/186 (2017.07 - EP US); **H01B 1/026** (2013.01 - EP US); **H01B 1/04** (2013.01 - EP US); **H02K 3/02** (2013.01 - EP US); **H02K 3/18** (2013.01 - EP US)

Citation (search report)

See references of WO 2017137250A1

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)

WO 2017137250 A1 20170817; CN 108604842 A 20180928; CN 108604842 B 20201208; DE 102016202071 A1 20170817; EP 3398246 A1 20181107; US 10749394 B2 20200818; US 2019027988 A1 20190124

DOCDB simple family (application)

EP 2017051427 W 20170124; CN 201780010832 A 20170124; DE 102016202071 A 20160211; EP 17702798 A 20170124; US 201716077145 A 20170124