Title (en)

Electrical conduit, in particular a high voltage energy cable or high frequency cable with a large conduit cross-section

Title (de)

Elektrischer Leiter, insbesondere ein Hochspannungs-Energiekabel oder Hochfrequenz-Kabel mit einem grossen Leiterquerschnitt

Title (fr)

Conducteur électrique, notamment un câble d'énergie haute tension ou câble haute fréquence doté d'une grande section conductrice

Publication

**EP 2360700 A1 20110824 (DE)**

Application

**EP 10000958 A 20100130**

Priority

EP 10000958 A 20100130

Abstract (en)

The electrical conductor such as high-voltage power cable or high-frequency cable comprises a larger conductor cross-section, and a selected number of wires composed of single strands (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37) that are insulated against each other and are arranged around a conductor center, where the conductor is passed from each of its strands to a position web in equal length sections at its entire cross-sectional area from inside to outside and vice-versa. The electrical conductor such as high-voltage power cable or high-frequency cable comprises a larger conductor cross-section, and a selected number of wires composed of single strands (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37) that are insulated against each other and are arranged around a conductor center, where the conductor is passed from each of its strands to a position web in equal length sections at its entire cross-sectional area from inside to outside and vice-versa. The position web is composed of number of sections, which commonly have a meander-like layer progression. The conductor cross-section is divided into sections and is radially passed to a sectional surface from position to position with each meander-like progression of the position web. The position web is formed as non-overlapping orbit, and is divided into two adjacent sections in the conductor cross-section. The position web passes the layers of the strands initially into a first section of the conductor cross-section from position to position in alternating directions from inside to outside, subsequently passes the layers of the strands into a second section of the conductor cross-section in alternating directions from outside to inside, and uniformly crosses over to the bottom layer of the first section of the conductor cross-section in the conductor center. The position web passes the layers of the strands individually to the conductor center section-skipping in alternating directions from inside to the outside and skips from the outer layer abruptly into the conductor center and then crosses over to the bottom layer of the strands. The individual strands are covered with a lacquer insulating coating, and are wrapped by an insulating film, where the insulation is removed from the strands of the outer layer for potential equalization.

Abstract (de)

Die Erfindung betrifft einen elektrischen Leiter, insbesondere ein Hochspannungs-Energiekabel oder Hochfrequenz-Kabel mit einem großen Leiterquerschnitt. Der Erfindung liegt die Aufgabe zugrunde, eine Leiterausbildung aufzufinden, mit welcher der Skin-Effekt weiter verringert wird, als dies bei dem Millikenleiter der Fall ist. Diese Aufgabe ist erfindungsgemäß dadurch gelöst, dass der Leiter in gleich langen Abschnitten auf seiner gesamten Querschnittsfläche von jeder seiner Litzen auf einer Positionsbahn von innen nach außen und umgekehrt durchlaufen ist.

IPC 8 full level

**H01B 7/30** (2006.01)

CPC (source: EP)

**H01B 7/306** (2013.01); H01B 13/0278 (2013.01)

Citation (search report)

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- [A] GB 415294 A 19340823 - HUMPHREYS MILLIKEN, et al
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Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**EP 2360700 A1 20110824**

DOCDB simple family (application)

**EP 10000958 A 20100130**