

Title (en)

Method for producing cables with aluminium wires

Title (de)

Verfahren zur Herstellung von Kabeln mit Aluminiumleiter

Title (fr)

Procédé destiné à la fabrication de câbles dotés de conducteurs en aluminium

Publication

EP 2378611 A1 20111019 (DE)

Application

EP 10305380 A 20100413

Priority

EP 10305380 A 20100413

Abstract (en)

The method for producing an electrical cable having a conductor (10) and a connecting portion (20) of copper metal axially fixed on the conductor, comprises pressing the connecting portion against the conductor. The conductor consists of strands and positive-fitting and/or force-fitting into a receiving recess in a first portion of a first tool (1), or distance of an opening cross-section of the first tool. The connecting portion is moved along the axis of the conductor against a wire. The method for producing an electrical cable having a conductor (10) and a connecting portion (20) of copper metal axially fixed on the conductor comprises pressing the connecting portion against the conductor. The conductor consists of strands and positive-fitting and/or force-fitting into a receiving recess in a first portion of a first tool (1), or distance of an opening cross-section of the first tool. The connecting portion is moved along the axis of the conductor against a wire. The conductor and the connecting portion during the pressing in contact to the wire with the connecting portion flow through electricity. The conductor is heated to a maximum of a softening temperature. The connecting portion in the receiving recess of the first tool is pressed out against the conductor. The connecting portion has a smaller cross sectional area than the inside cross sectional area of the receiving recess of the first tool. The connecting portion is held into a second tool (2) of positive-fitting and/or force-fitting, and a section (5) protrudes over the second tool, which is partially moved in the receiving recess of the first tool, where a front surface of the connecting portion is pressed into the first section of the first tool, in which the conductor is held. The front surface of the connecting portion is moved against the axial extension (10-90%) of the first section of the conductor. The connecting portion has a flat or convex face that is disposed at an angle of 10-90° against the longitudinal axis of the conductor pressed portion of the connecting part. An independent claim is included for an electrical cable.

Abstract (de)

Die Erfindung stellt ein Verfahren zur Herstellung einer stoffschlüssigen Verbindung, bzw. durch das Verfahren hergestellte elektrische Kabel bereit, bei dem ein oder mehrere Leiter (10), die aus Kupfer oder vorzugsweise aus Aluminium sind, dadurch mit einem Anschlusssteil (20) aus einem Kupferwerkstoff, insbesondere einem massiven oder aus Litzen in einer Hülse bestehenden Abschnitt eines Anschlusssteils (20), stoffschlüssig verbunden werden, dass das Anschlusssteil (20) im Wesentlichen in axialer Richtung gegen den oder die Aluminiumleiter (10) gepresst wird.

IPC 8 full level

H01R 4/62 (2006.01); **B23K 20/22** (2006.01); **H01R 11/11** (2006.01); **H01R 43/00** (2006.01)

CPC (source: EP)

H01R 4/62 (2013.01); **H01R 43/00** (2013.01); **H01R 11/11** (2013.01)

Citation (applicant)

- DE 19908031 B4 20090813 - AUTO KABEL MAN GMBH [DE]
- US 2806215 A 19570910 - REDSLOB JEAN J

Citation (search report)

- [XII] US 4098449 A 19780704 - NOESEN STANLEY J
- [XA] US 2003031889 A1 20030213 - SHINDO TAKAHIKO [JP], et al
- [XI] US 3949466 A 19760413 - O'BRIEN JOHN L, et al
- [XAI] DE 620829 C 19351028 - CARL CREMER
- [XA] DE 1031448 B 19580604 - SIEMENS AG

Cited by

CN117913614A

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

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