

Title (en)
CABLE FOR TRANSMITTING ELECTRICAL SIGNALS

Title (de)
KABEL ZUM ÜBERTRAGEN VON ELEKTRISCHEN SIGNALEN

Title (fr)
CÂBLE DE TRANSMISSION DE SIGNAUX ÉLECTRIQUES

Publication
EP 3430633 A1 20190123 (DE)

Application
EP 17711090 A 20170315

Priority
• DE 102016003134 A 20160315
• EP 2017000339 W 20170315

Abstract (en)
[origin: WO2017157521A1] The invention relates to a cable (10) for transmitting electrical signals, comprising an outer casing (12) made of an electrically insulating material and at least N lines n with $N \geq 2$ and $N \in \mathbb{N}$, which are arranged inside the outer casing (12), wherein each line m has a total of M wires (16, 18, 20, 22) made of an electrically conductive material with $M \geq 1$ and $M \in \mathbb{N}$, wherein the wire m (16, 18, 20, 22) with $m \in [1, M]$, $m \in \mathbb{N}$ of the line n with $n \in [1, N]$, $n \in \mathbb{N}$ is surrounded by a dielectric (24, 26, 28, 30) having a predetermined value for the relative permittivity $\epsilon_r(m, n) > 1$. The following applies for at least two different lines: $n = j$ and $n = (j+s) \in r(m, j) = \epsilon_r(m, j+s) - k(s)$ with $m \in [1, M]$, $m \in \mathbb{N}$, $j \in [1, N - 1]$, $j \in \mathbb{N}$, $s \in [1, N - j]$, $s \in \mathbb{N}$, wherein $k(s) \in \mathbb{R}$ and $k(s) \in [-2.0, -0.01]$ and $k(s) \in [0.01, 2.0]$.

IPC 8 full level
H01B 11/00 (2006.01); **H01B 7/02** (2006.01)

CPC (source: EP KR US)
H01B 7/02 (2013.01 - KR); **H01B 7/0216** (2013.01 - US); **H01B 11/005** (2013.01 - EP KR US); **H01B 11/06** (2013.01 - KR); **H01B 11/08** (2013.01 - US); **H01B 3/30** (2013.01 - EP US); **H01B 7/02** (2013.01 - EP US)

Citation (search report)
See references of WO 2017157521A1

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 2017157521 A1 20170921; CN 108885925 A 20181123; CN 108885925 B 20191119; DE 102016003134 A1 20170921; EP 3430633 A1 20190123; EP 3430633 B1 20200122; JP 2019508858 A 20190328; KR 20180121535 A 20181107; TW 201805959 A 20180216; US 10347397 B2 20190709; US 2019080823 A1 20190314

DOCDB simple family (application)
EP 2017000339 W 20170315; CN 201780017431 A 20170315; DE 102016003134 A 20160315; EP 17711090 A 20170315; JP 2018548329 A 20170315; KR 20187026371 A 20170315; TW 106108350 A 20170314; US 201716084478 A 20170315