

Title (en)
CABLE FOR TRANSMITTING ELECTRICAL SIGNALS

Title (de)
KABEL ZUM ÜBERTRAGEN VON ELEKTRISCHEN SIGNALEN

Title (fr)
CÂBLE DE TRANSMISSION DE SIGNAUX ÉLECTRIQUES

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Application
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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 $k(s) \in [0.01, 2.0]$.

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