

Title (en)  
INCREASED CAPACITY OVERHEAD INSULATED WIRE

Title (de)  
ISOLIERTE FREILEITUNG MIT ERHÖHTER KAPAZITÄT

Title (fr)  
FIL ISOLÉ AÉRIEN À CAPACITÉ ACCRUE

Publication  
**EP 3971914 A4 20230809 (EN)**

Application  
**EP 20823424 A 20200612**

Priority  
• KR 20190070883 A 20190614  
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Abstract (en)  
[origin: EP3971914A1] The present invention relates to an overhead insulated wire in which the surface of a conductor or between conductors has been insulated by using an insulator, the overhead insulated wire comprising: an electrical conductor layer (10) comprising an aluminum wire (2) surrounding a reinforcing wire (1); a semi conductive layer (20) containing carbon-based nanoparticles surrounding the electrical conductor layer (10); an insulation layer (30) containing carbon-based nanoparticles and inorganic nanoparticles surrounding the semi conductive layer (20); a heat conductive layer (40) containing carbon-based nanoparticles and inorganic nanoparticles surrounding the insulation layer (30); and a weather resistant covering layer (50) containing carbon-based nanoparticles and inorganic nanoparticles surrounding the heat conductive layer (40), thereby increasing the continuous use temperature of the overhead insulated wire to 150 °C and improving an allowable current capacity by 50%, compared to an existing allowable current capacity to thereby cope with an increase in demand for transmission capacity of the overhead insulated wire without excessive investment costs and solve the increase in sag thereof.

IPC 8 full level  
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Citation (search report)  
• [A] EP 0981192 A1 20000223 - FURUKAWA ELECTRIC CO LTD [JP]  
• [A] EP 3432317 A1 20190123 - LS CABLE & SYSTEM LTD [KR]  
• See references of WO 2020251296A1

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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

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