

Title (en)  
SINGLE-LAYER MULTI-STRAND CABLE HAVING IMPROVED ENERGY AT BREAK AND AN IMPROVED TOTAL ELONGATION

Title (de)  
EINLAGIGES MEHRADRIGES KABEL, DAS EINE VERBESSERTE REISSDEHNUNG UND VERBESSERTE GESAMTDEHNUNG AUFWEIST

Title (fr)  
CÂBLE MULTI-TORONS À UNE COUCHE À ÉNERGIE À RUPTURE AMÉLIORÉE ET À ALLONGEMENT TOTAL AMÉLIORÉ

Publication  
**EP 4087970 A1 20221116 (FR)**

Application  
**EP 20845790 A 20201218**

Priority  
• FR 2000097 A 20200107  
• FR 2020052526 W 20201218

Abstract (en)  
[origin: WO2021140287A1] The invention relates to a multi-strand cable (50) having a 1xN structure comprising a single layer (52) of N strands (54) that are helically wound about a main axis (A), each strand (54) consisting of a layer (56) of metal wires (F1) and comprising M>1 metal wires that are helically wound about an axis (B). The cable (50) has a total elongation  $A_t > 8.10\%$ , and the energy-at-break index  $E_r = rA_t$  of the cable (50) is defined as  $E_r = \int A_t \sigma(A_i) \times dA_i$ , where  $\sigma(A_i)$  is the tensile stress in MPa measured at the elongation  $A_i$ , and  $dA_i$  is the elongation such that  $E_r$  is strictly greater than 52 MJ/m<sup>3</sup>.

IPC 8 full level  
**D07B 1/06** (2006.01)

CPC (source: EP KR US)  
**D07B 1/0613** (2013.01 - EP KR US); **D07B 1/0646** (2013.01 - KR US); **D07B 7/025** (2013.01 - KR); **D07B 1/0646** (2013.01 - EP); **D07B 7/025** (2013.01 - EP US); **D07B 2201/1048** (2013.01 - EP KR US); **D07B 2201/1064** (2013.01 - EP KR US); **D07B 2201/2007** (2013.01 - KR); **D07B 2201/2008** (2013.01 - EP); **D07B 2201/2022** (2013.01 - EP KR US); **D07B 2207/4072** (2013.01 - EP KR); **D07B 2401/2005** (2013.01 - EP KR); **D07B 2401/201** (2013.01 - EP KR US)

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2021140287 A1 20210715**; CN 114929963 A 20220819; CN 114929963 B 20230721; EP 4087970 A1 20221116; EP 4087970 B1 20240828; JP 2023509076 A 20230306; KR 20220116335 A 20220822; US 2023349097 A1 20231102

DOCDB simple family (application)  
**FR 2020052526 W 20201218**; CN 202080092137 A 20201218; EP 20845790 A 20201218; JP 2022541819 A 20201218; KR 20227026903 A 20201218; US 202017791272 A 20201218