

Title (en)  
METHOD FOR PROTECTING A BATTERY CIRCUIT BY DETECTING A DEFECTIVE SCREWED ELECTRICAL CONNECTION

Title (de)  
VERFAHREN ZUM SCHUTZ EINER BATTERIESCHALTUNG DURCH ERKENNUNG EINER DEFECTEN ELEKTRISCHEN SCHRAUBVERBINDUNG

Title (fr)  
PROCEDE DE PROTECTION D'UN CIRCUIT DE BATTERIE AVEC DETECTION D'UNE LIAISON ELECTRIQUE VISSEE DEFECTUEUSE

Publication  
**EP 4356470 A1 20240424 (FR)**

Application  
**EP 22722859 A 20220419**

Priority  
• FR 2106321 A 20210615  
• FR 2022050728 W 20220419

Abstract (en)  
[origin: WO2022263732A1] The invention relates to a method for protecting a circuit comprising a switch (6) and a battery with several modules (1, N) by detecting a defective screwed electrical connection (3), two adjacent modules being connected by a connection bar (4) attached to one of the two adjacent modules by a screwed electrical connection (3), an overall voltage at the terminals of the circuit being measured and a voltage for each connection bar (4) being measured between its two electrical connections (3). If the overall voltage ( $V_p$ ) at the terminals of the circuit reduced by a sum of the voltages ( $V_1$  to  $V_{N-1}$ ) of the connection bars (4) between their two screwed electrical connections (3) is greater than a first predetermined voltage value, it is concluded that at least one of the screwed electrical connections (3) is defective and the switch (6) is at least temporarily open or a first alert requesting the opening of the switch (6) is emitted.

IPC 8 full level  
**H01M 10/48** (2006.01); **H01M 50/567** (2021.01); **H01M 50/574** (2021.01); **H01M 50/583** (2021.01)

CPC (source: EP)  
**H01M 10/482** (2013.01); **H01M 50/567** (2021.01); **H01M 50/574** (2021.01); **H01M 50/583** (2021.01); **H01M 50/51** (2021.01); **H01M 50/517** (2021.01)

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)  
**FR 3123990 A1 20221216**; CN 117597813 A 20240223; EP 4356470 A1 20240424; WO 2022263732 A1 20221222

DOCDB simple family (application)  
**FR 2106321 A 20210615**; CN 202280042798 A 20220419; EP 22722859 A 20220419; FR 2022050728 W 20220419