

Title (en)
CONVERTER COMPRISING REDUNDANT SWITCH-FUSE COMBINATIONS AND METHOD FOR SELECTIVE TRIGGERING OF THE FUSE IN THE EVENT OF SWITCH FAILURE

Title (de)
UMRICHTER MIT REDUNDANTEN SCHALTER-SCHMELZSICHERUNGSKOMBINATIONEN UND VERFAHREN ZUM SELEKTIVEN AUSLÖSEN DER SICHERUNG IM SCHALTERVERSAGENSFALL

Title (fr)
CONVERTISSEUR AYANT DES COMBINAISONS REDONDANTES D'INTERRUPTEUR-COUPÉ-CIRCUIT À FUSIBLE ET PROCÉDÉ DE DÉCLENCHEMENT SÉLECTIF DE LA SÉCURITÉ DANS LE CAS D'UNE DÉFAILLANCE D'INTERRUPTEUR

Publication
EP 3143684 A1 20170322 (DE)

Application
EP 15725288 A 20150520

Priority

- DE 102014213309 A 20140709
- DE 102015206627 A 20150414
- EP 2015061129 W 20150520

Abstract (en)
[origin: WO2016005092A1] The invention relates to a converter (1) comprising an intermediate circuit (3) for providing a DC voltage (10) between a positive conductor (11) and a negative conductor (12), a phase conductor (8, 9) for receiving and/or output of an AC voltage, and a half-bridge circuit (17) comprising a first switch arrangement (18) for connecting the positive conductor (11) to the phase conductor (8, 9) and a second switch arrangement (19) for connecting the negative conductor (12) to the phase conductor (8, 9). In case of a defect of a semiconductor switch (20, 21) of the converter (1), the converter (1) is to be able to protect itself and continue to operate. For this purpose, the first switch arrangement (18) and the second switch arrangement (19) respectively have a parallel connection made of multiple switching branches (Z) and, in each switching branch (Z), one of the semiconductor switches (20, 21) is provided with an intrinsic safety fuse (22) switched in series to the contact gap of the semiconductor switch (20, 21).

IPC 8 full level
B60L 50/13 (2019.01); **H02M 1/32** (2007.01); **B60L 50/15** (2019.01); **H02H 3/05** (2006.01); **H02H 7/122** (2006.01); **H02M 1/088** (2006.01); **H02M 5/458** (2006.01); **H02M 7/493** (2007.01)

CPC (source: EP US)
B60L 50/13 (2019.01 - EP US); **B60L 50/15** (2019.01 - EP US); **H02H 3/05** (2013.01 - EP US); **H02H 7/1216** (2013.01 - EP US); **H02H 7/122** (2013.01 - EP US); **H02M 1/084** (2013.01 - US); **H02M 1/32** (2013.01 - EP US); **H02M 5/458** (2013.01 - US); **H02M 7/493** (2013.01 - EP US); **H02P 27/06** (2013.01 - US); **H02P 31/00** (2013.01 - US); **H02H 3/08** (2013.01 - EP US); **H02M 1/088** (2013.01 - EP US); **H02M 1/325** (2021.05 - EP US); **H02M 5/4585** (2013.01 - EP US)

Citation (search report)
See references of WO 2016005092A1

Citation (examination)
DE 19639279 A1 19980402 - ABB DAIMLER BENZ TRANSP [CH]

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 2016005092 A1 20160114; BR 112017000204 A2 20171031; CA 2954477 A1 20160114; CN 106797173 A 20170531; DE 102015206627 A1 20160128; EP 3143684 A1 20170322; US 2017197509 A1 20170713

DOCDB simple family (application)
EP 2015061129 W 20150520; BR 112017000204 A 20150520; CA 2954477 A 20150520; CN 201580034867 A 20150520; DE 102015206627 A 20150414; EP 15725288 A 20150520; US 201515324505 A 20150520