

Title (en)

CONVERTER WITH REDUNDANT CIRCUIT TOPOLOGY

Title (de)

UMRICHTER MIT REDUNDANTER SCHALTUNGSTOPOLOGIE

Title (fr)

CONvertisseur ayant une topologie de commutation redondante

Publication

EP 3143686 A1 20170322 (DE)

Application

EP 15726583 A 20150529

Priority

- DE 102014213307 A 20140709
- DE 102015207117 A 20150420
- EP 2015061932 W 20150529

Abstract (en)

[origin: WO2016005101A1] The invention relates to a converter (1) for an aeroplane, comprising an intermediate circuit (3) for providing a DC voltage (18) between a positive line (15) and a negative line (16), at least two rectifiers (7) connected to the intermediate circuit (3) to produce the DC voltage (18) from the AC input voltages and at least two inverters (19) connected to the intermediate circuit (3) to produce AC output voltages from the DC voltage (18). The converter should be configured in a compact manner for aircraft construction. For this purpose, the DC voltage terminals (11) of the rectifiers (7) are connected to a first series circuit (14) and DC voltage terminals (11) of the inverters (19) are connected to a second series circuit (21). The positive line (15) and the negative line (16) of the intermediate circuit (3) are connected on the input side via the first series circuit (14) and on the output side via the second series circuit (21). At least one of the DC voltage terminals (11) comprises a shorting circuit (S1, 9) for short-circuiting terminal contacts (12) via which the DC voltage terminal (11) is connected to the respective series circuit (14, 21).

IPC 8 full level

H02M 5/458 (2006.01); **H02M 1/00** (2007.01); **H02M 1/32** (2007.01); **H02M 3/158** (2006.01); **H02M 7/25** (2006.01); **H02M 7/5387** (2007.01)

CPC (source: CN EP US)

B64D 27/24 (2013.01 - US); **B64D 47/00** (2013.01 - US); **H02K 19/34** (2013.01 - US); **H02M 5/458** (2013.01 - CN EP US);
H02M 7/25 (2013.01 - CN EP US); **H02M 7/5387** (2013.01 - CN EP US); **H02P 27/06** (2013.01 - US); **B64D 27/026** (2024.01 - US);
B64D 2221/00 (2013.01 - US); **H02M 1/0074** (2021.05 - CN EP US); **H02M 1/325** (2021.05 - CN EP US); **H02M 3/1588** (2013.01 - CN EP US);
Y02B 70/10 (2013.01 - EP US)

Citation (search report)

See references of WO 2016005101A1

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 2016005101 A1 20160114; BR 112017000294 A2 20171031; CA 2954461 A1 20160114; CN 106471724 A 20170301;
CN 106471724 B 20190405; DE 102015207117 A1 20160114; EP 3143686 A1 20170322; US 10287030 B2 20190514;
US 2017197730 A1 20170713

DOCDB simple family (application)

EP 2015061932 W 20150529; BR 112017000294 A 20150529; CA 2954461 A 20150529; CN 201580036737 A 20150529;
DE 102015207117 A 20150420; EP 15726583 A 20150529; US 201515324540 A 20150529