

Title (en)
INVERTER DESIGN COMPRISING A NONLINEAR INDUCTOR

Title (de)
WECHSELRICHTERENTWURF MIT NICHTLINEARER INDUKTIVITÄT

Title (fr)
CONCEPTION D'ONDULEUR COMPRENANT UN INDUCTEUR NON LINÉAIRE

Publication
EP 3891767 A1 20211013 (EN)

Application
EP 19820817 A 20191202

Priority

- FI 20186042 A 20181204
- FI 2019050860 W 20191202

Abstract (en)
[origin: WO2020115360A1] According to an aspect, there is provided an inverter (100). The inverter (100) comprises a DC source (102); a power conversion unit(104); and an output filter unit (106) comprising at least one nonlinear inductor (108) configured for two operating areas, wherein the at least one nonlinear inductor (108) comprises a changing inductance value, the changing inductance value first configured for operation in a first operating area and configured to change to a different inductance value for operation in a second operating area before core saturation;and wherein the power conversion unit (104) is configured to receive a DC input from the DC source(102)and to provide an AC output filtered by the output filter unit(106).

IPC 8 full level
H01F 3/10 (2006.01); **H01F 38/02** (2006.01); **H02M 1/12** (2006.01); **H02M 7/48** (2007.01)

CPC (source: EP FI)
H01F 3/10 (2013.01 - EP); **H01F 3/14** (2013.01 - FI); **H01F 27/24** (2013.01 - FI); **H01F 27/34** (2013.01 - FI); **H01F 29/00** (2013.01 - FI); **H01F 38/023** (2013.01 - EP FI); **H02M 1/12** (2013.01 - FI); **H02M 1/126** (2013.01 - EP); **H02M 7/48** (2013.01 - EP); **H01F 3/14** (2013.01 - EP); **H01F 2003/106** (2013.01 - EP); **H01F 2038/026** (2013.01 - EP)

Citation (examination)
WOLFLE W ET AL: "POWER FACTOR CORRECTION FOR AC-DC CONVERTERS WITH COST EFFECTIVE INDUCTIVE FILTERING", 31ST.ANNUAL IEEE POWER ELECTRONICS SPECIALISTS CONFERENCE. PESC 00. CONFERENCE PROCEEDINGS. GALWAY, IRELAND, JUNE 18 - 23, 2000; [ANNUAL POWER ELECTRONICS SPECIALISTS CONFERENCE], NEW YORK, NY : IEEE, US, vol. CONF. 31, 18 June 2000 (2000-06-18), pages 332 - 337, XP000987924, ISBN: 978-0-7803-5693-1, DOI: 10.1109/PESC.2000.878872

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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