

Title (en)
SELF-OSCILLATING DC-DC CONVERTER AND METHOD THEREFOR

Title (de)
SELBSTSCHWINGENDER DC-DC-WANDLER UND VERFAHREN DAZU

Title (fr)
CONVERTISSEUR CC/CC AUTOHÉTÉRODYNE ET PROCÉDÉ À CET EFFET

Publication
EP 2089961 A1 20090819 (DE)

Application
EP 06807792 A 20061109

Priority
EP 2006068276 W 20061109

Abstract (en)
[origin: WO2008055545A1] The present invention relates to a self-oscillating DC-DC converter with two input connections, - a first (Q1) and a second bipolar transistor (Q2), wherein each bipolar transistor (Q1, Q2) has a control electrode, a reference electrode and a working electrode; at least one first coupling capacitor (C4, C5); wherein a first and a second switching section are formed by the working electrode - reference electrode section of the first or second bipolar transistor (Q1, Q2), wherein the two switching sections are connected in series; a rectifier (GL1), whose output is coupled to two output connections; and wherein the DC-DC converter furthermore comprises: a transformer (TRI) with a primary winding (PW), a secondary winding (SW) and at least one control winding (StW1; StW2), wherein the primary winding is coupled between a connection between the two switching sections and the coupling capacitor (C4; C5), the secondary winding is coupled to the input of the rectifier (GL1) and a control winding is associated with each bipolar transistor (Q1, Q2), said control winding being coupled to the control electrode of the respective bipolar transistor, and at least one timer (Z1, Z2), which is coupled between the corresponding control winding and the control electrode. The invention moreover relates to a method for operating the DC-DC converter.

IPC 8 full level
H02M 3/338 (2006.01)

CPC (source: EP KR US)
H02M 3/338 (2013.01 - KR); **H02M 3/3382** (2013.01 - EP US)

Citation (search report)
See references of WO 2008055545A1

Citation (examination)
• US 5499175 A 19960312 - NORO MASAO [JP]
• EP 1001520 A2 20000517 - SONY CORP [JP]
• TIETZE U ET AL: "Halbleiterschaltungstechnik", 1 January 2002, SPRINGER VERLAG, Berlin, ISBN: 978-3-540-42849-7

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2008055545 A1 20080515; CN 101523711 A 20090902; EP 2089961 A1 20090819; KR 20090087048 A 20090814; US 2010073965 A1 20100325; US 8369109 B2 20130205

DOCDB simple family (application)
EP 2006068276 W 20061109; CN 200680056050 A 20061109; EP 06807792 A 20061109; KR 20097011823 A 20061109; US 51444809 A 20090511