

Title (en)

ARC WELDING SET WITH AN OPTIMIZED QUASI-RESONANT SOFT-SWITCHING INVERTER

Title (de)

BOGENSCHWEISSUNGSSET MIT EINEM OPTIMISIERTEN QUASIRESONANTEN WEICHUMSCHALTUNGSWANDLER

Title (fr)

POSTE DE SOUDAGE A L'ARC A ONDULEUR A COMMUTATION DOUCE QUASI RESONANT OPTIMISE

Publication

**EP 2297840 A1 20110323 (FR)**

Application

**EP 09794028 A 20090701**

Priority

- FR 2009051274 W 20090701
- FR 0854604 A 20080707

Abstract (en)

[origin: WO2010004190A1] Quasi-resonant soft-switching inverter comprising: means (4, 6) for connection to an electrical power supply (8) having a DC voltage supply terminal (6) and a reference terminal (4); a first switching cell (301) and a second switching cell (302), of quasi-resonant type, which are connected in parallel between the supply terminal (6) and the reference terminal (4), characterized in that it further includes: a passive switching pole associated with a first switching cell (301); an active switching pole associated with the second switching cell (302); a device for controlling said switching cells (30), which delivers signals to a dual thyristor module with logic control; and a device (28) for controlling said active switching pole, said device being synchronized with said device for controlling the switching cells (30).

IPC 8 full level

**H02M 3/337** (2006.01); **B23K 9/10** (2006.01); **H02M 7/5381** (2007.01); **H02M 7/5387** (2007.01)

CPC (source: EP US)

**H02M 3/01** (2021.05 - EP US); **H02M 3/33573** (2021.05 - EP US); **H02M 7/4811** (2021.05 - EP); **H02M 7/5381** (2013.01 - EP); **H02M 7/5387** (2013.01 - EP US); **Y02B 70/10** (2013.01 - EP)

Citation (search report)

See references of WO 2010004190A1

Citation (examination)

- SANCHEZ J-L ET AL: "A NEW HIGH-VOLTAGE INTEGRATED SWITCH: THE <<THYRISTOR DUAL>> FUNCTION", 11TH. INTERNATIONAL SYMPOSIUM ON POWER SEMICONDUCTOR DEVICES AND IC S. ISPSD 99. PROCEEDINGS. TORONTO, MAY 26 - 28, 1999; [INTERNATIONAL SYMPOSIUM ON POWER SEMICONDUCTOR DEVICES & IC'S], NEW YORK, NY : IEEE, US, 26 May 1999 (1999-05-26), pages 157 - 160, XP000903567, ISBN: 978-0-7803-5291-9
- "Data Sheet IXKN45N80C", 31 December 2001 (2001-12-31), Retrieved from the Internet <URL:http://www.alldatasheet.com/datasheet-pdf/pdf/151386/IXYS/IXKN45N80C.html> [retrieved on 20120807]
- WU T-F ET AL: "ANALYSIS AND DESIGN OF VARIABLE FREQUENCY AND PHASE-SHIFT CONTROLLED SERIES ROSENANT CONVERTER APPLIED FOR ELECTRIC ARC WELDING MACHINES", PROCEEDINGS OF THE 1995 IEEE IECON: INTERNATIONAL CONFERENCE ON INDUSTRIAL ELECTRONICS, CONTROL, AND INSTRUMENTATION. ORLANDO, NOV. 6 - 10, 1995. PLENARY SESSION, INVITED SESSIONS, AND POWER ELECTRONICS; [PROCEEDINGS OF THE INTERNATIONAL CONFERENCE O, vol. 1, 6 November 1995 (1995-11-06), pages 656 - 661, XP000586535, ISBN: 978-0-7803-3027-6

Designated contracting state (EPC)

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Designated extension state (EPC)

AL BA RS

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