Title (en)

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

Title (de)

BOGENSCHWEISSUNGSSET MIT EINEM OPTIMIERTEN 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 DESIGH 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)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

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