

Title (en)

HIGH POWER RECTIFIER CIRCUIT PARTICULARLY FOR ALUMINIUM ELECTROLYSIS

Title (de)

HOCHLEISTUNGS-GLEICHRICHTERSCHALTUNG INSBESONDERE ZUR ALUMINIUMELEKTROLYSE

Title (fr)

CIRCUIT REDRESSEUR A FORTE PUISSANCE NOTAMMENT POUR ÉLECTROLYSE DE L'ALUMINIUM

Publication

EP 2289161 A1 20110302 (FR)

Application

EP 09753921 A 20090528

Priority

- EP 2009056519 W 20090528
- FR 0853524 A 20080529

Abstract (en)

[origin: WO2009144266A1] The invention relates to a three-phased rectifier circuit that comprises two or more transformers (TR1, TR2) to be connected in parallel to an alternating electric network (R) on the primary side (PI, PI', P2), and each to at least one semi-conductor rectifying bridge (PR1, PR2) on the secondary side (S1, S2), wherein the rectifying bridges (PR1, PR2) connected to different transformers are mounted in series on the direct side and are intended to power a user device (10) with direct current. One of the rectifying bridges (PR1) is a thyristor rectifying bridge and the remaining rectifying bridge(s) (PR2) are diode rectifying bridges. The diode rectifying bridge(s) (PR2) supply a voltage higher than that provided by the thyristor rectifying bridge (PR1). The invention further comprises a switching means (12) associated with each diode rectifying bridge (PR2) in order to enable the diode rectifying bridge (PR2) to operate in an idle mode in one position, and to enable the diode rectifying bridge (PR2) to operate as a rectifier in another position. The invention can particularly be used for the power supply in series of aluminium electrolysis tanks.

IPC 8 full level

C25C 3/16 (2006.01); **H02M 7/10** (2006.01); **H02M 7/19** (2006.01)

CPC (source: EP)

C25C 3/16 (2013.01); **H02M 7/10** (2013.01); **H02M 7/19** (2013.01)

Citation (search report)

See references of WO 2009144266A1

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 TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

WO 2009144266 A1 20091203; EP 2289161 A1 20110302; FR 2932033 A1 20091204; FR 2932033 B1 20121228

DOCDB simple family (application)

EP 2009056519 W 20090528; EP 09753921 A 20090528; FR 0853524 A 20080529