

Title (en)

SPACE-SAVING INVERTER WITH REDUCED SWITCHING LOSSES AND INCREASED LIFE

Title (de)

PLATZSPARENDER WECHSELRICHTER MIT REDUZIERTEN SCHALTVERLUSTEN UND ERHÖHTER LEBENSDAUER

Title (fr)

ONDULEUR À FAIBLE ENCOMBREMENT AVEC PERTES DE COMMUTATION RÉDUITES ET DURÉE DE VIE ACCRUE

Publication

**EP 2005568 A1 20081224 (DE)**

Application

**EP 07726940 A 20070315**

Priority

- EP 2007052451 W 20070315
- DE 102006016502 A 20060407

Abstract (en)

[origin: WO2007115893A1] The invention relates to an inverter, and in particular a solar inverter. According to the invention, the inverter has a step-up converter (4), a mains-commutated controlled converter (2) and a filter (6), with the filter (6) being linked on the output side to the AC-side connections 10 (12, 14, 16), and with the step-up converter (4) being linked on the output side to the DC-side connections (8, 10) of the mains-commutated controlled converter (2) with a power semiconductor switch (28) which can be turned off being provided, together with a back-to-back parallel-connected diode (30) in each case as converter valves (T1, T2; T3, T4; T5, T6) for each phase (R, S, T) of the mains-commutated controlled converter (2), and with the controlled side of these power semiconductor switches (28) which can be turned off being linked to a control device (32) to whose inputs phase voltages that have been determined from a power supply system (18) are applied. This results in an inverter, in particular a solar inverter, which costs less and saves more space.

IPC 8 full level

**H02M 7/539** (2006.01); **H02J 3/38** (2006.01); **H02M 1/12** (2006.01)

CPC (source: EP KR US)

**H02J 3/38** (2013.01 - EP KR US); **H02M 1/12** (2013.01 - KR); **H02M 1/126** (2013.01 - EP US); **H02M 7/5387** (2013.01 - EP US); **H02M 7/539** (2013.01 - EP KR US); **H02M 1/007** (2021.05 - EP US)

Citation (search report)

See references of WO 2007115893A1

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 MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**DE 102006016502 A1 20071018**; CN 101416375 A 20090422; EP 2005568 A1 20081224; JP 2009533013 A 20090910; KR 20080109908 A 20081217; US 2009285005 A1 20091119; WO 2007115893 A1 20071018

DOCDB simple family (application)

**DE 102006016502 A 20060407**; CN 200780010972 A 20070315; EP 07726940 A 20070315; EP 2007052451 W 20070315; JP 2009503519 A 20070315; KR 20087027157 A 20081105; US 29633207 A 20070315