

Title (en)

CHARGING DEVICE AND METHOD FOR CHARGING AN ELECTRICAL ENERGY STORE

Title (de)

LADEVORRICHTUNG UND VERFAHREN ZUM LADEN EINES ELEKTRISCHEN ENERGIESPEICHERS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE CHARGE D'UN ACCUMULATEUR D'ÉNERGIE ÉLECTRIQUE

Publication

**EP 2721720 A2 20140423 (DE)**

Application

**EP 12716015 A 20120423**

Priority

- DE 102011077716 A 20110617
- EP 2012057361 W 20120423

Abstract (en)

[origin: WO2012171685A2] The present invention relates to a charging device (10) for charging an electrical energy store (20), comprising a first and a second input voltage terminal (12, 14), for connecting the charging device (10) to an AC voltage source, a first and a second output voltage terminal (16, 18) for connecting the charging device (10) to the energy store (20) to be charged, a rectifier voltage converter circuit (22), which on the input side is connected to the input voltage terminals (12, 14) and on the output side is connected to a first and a second intermediate circuit voltage terminal (24, 26) and is designed to provide an intermediate circuit DC voltage (UZK) between the intermediate circuit voltage terminals (24, 26), a DC voltage converter circuit (32) which on the input side is connected to the intermediate circuit terminals (24, 26) and on the output side is connected to the output voltage terminals (16, 18) of the charging device (10), wherein the DC voltage converter circuit (32) is designed to provide a DC output voltage (UO) and a DC output current (IO) at the output terminals (16, 18), wherein the intermediate circuit DC voltage (UZK) can be set by means of the rectifier voltage converter circuit (22) in order to set an electrical power (P) that is transmitted from the input voltage terminals (12, 14) to the output voltage terminals (16, 18) or the energy store (20) to be charged.

IPC 8 full level

**H02J 7/02** (2006.01); **H02J 7/04** (2006.01); **H02M 3/335** (2006.01); **H02M 7/12** (2006.01)

CPC (source: EP US)

**H02J 7/02** (2013.01 - EP US); **H02M 1/4225** (2013.01 - EP US); **H02M 3/3376** (2013.01 - EP US); **H02M 7/217** (2013.01 - EP US); **H02J 2207/20** (2020.01 - EP US); **H02M 1/007** (2021.05 - EP US); **Y02B 40/00** (2013.01 - EP US); **Y02B 70/10** (2013.01 - EP US)

Citation (search report)

See references of WO 2012171685A2

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

DOCDB simple family (publication)

**DE 102011077716 A1 20121220**; CN 103688440 A 20140326; EP 2721720 A2 20140423; US 2014103863 A1 20140417; WO 2012171685 A2 20121220; WO 2012171685 A3 20130718

DOCDB simple family (application)

**DE 102011077716 A 20110617**; CN 201280029475 A 20120423; EP 12716015 A 20120423; EP 2012057361 W 20120423; US 201214126833 A 20120423