

Title (en)

SINGLE TRANSFORMER THREE-PORT MULTIDIRECTIONAL CONVERTER FOR ELECTRIC VEHICLES

Title (de)

MULTIDIREKTIONALER UMRICHTER MIT EINEM EINZELNEN TRANSFORMATOR UND DREI ANSCHLÜSSEN FÜR ELEKTROFAHRZEUGE

Title (fr)

CONVERTISSEUR MULTI-DIRECTIONNEL AVEC TROIS PORTS ET UN TRANSFORMATEUR UNIQUE POUR LES VOITURES ÉLECTRIQUES

Publication

**EP 2875572 A2 20150527 (FR)**

Application

**EP 13740250 A 20130719**

Priority

- FR 1257035 A 20120720
- EP 2013065314 W 20130719

Abstract (en)

[origin: WO2014013058A2] The invention relates to a charging device including a reversible AC/DC converter enabling power to be supplied to two outlets that have different voltages. Said charging device is particularly suitable for use as an on-board electric motor vehicle device. The device enables power to be supplied to both a traction battery, at a relatively high voltage, and apparatuses from the very low-voltage grid. Said device has a small overall size and low weight. The invention rests on a DC/DC converter (in the AC/DC converter) having multiple reversible outlets that includes a single transformer.

IPC 8 full level

**H02M 3/335** (2006.01); **B60L 11/18** (2006.01); **H02J 3/32** (2006.01); **H02J 7/00** (2006.01); **H02M 3/337** (2006.01)

CPC (source: CN EP US)

**B60L 15/007** (2013.01 - CN EP US); **B60L 53/14** (2019.01 - CN EP US); **B60L 53/24** (2019.01 - EP US); **B60L 58/12** (2019.01 - CN);

**B60L 58/20** (2019.01 - CN EP US); **H02J 3/322** (2020.01 - CN EP US); **H02M 3/33592** (2013.01 - CN EP US);

**H02M 3/3378** (2013.01 - CN EP US); **B60L 2210/10** (2013.01 - CN EP US); **B60L 2210/30** (2013.01 - CN EP US);

**B60L 2210/40** (2013.01 - CN EP US); **H02J 7/0068** (2013.01 - CN EP US); **H02M 1/009** (2021.05 - CN EP US); **Y02E 60/00** (2013.01 - US);

**Y02T 10/64** (2013.01 - EP US); **Y02T 10/70** (2013.01 - EP US); **Y02T 10/7072** (2013.01 - EP US); **Y02T 10/72** (2013.01 - EP US);

**Y02T 10/92** (2013.01 - EP); **Y02T 90/12** (2013.01 - US); **Y02T 90/14** (2013.01 - EP US); **Y04S 10/126** (2013.01 - US)

Citation (search report)

See references of WO 2014013058A2

Cited by

CN110235336A; CN110268595A; WO2020056604A1; WO2020056605A1; WO2020056603A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2014013058 A2 20140123**; **WO 2014013058 A3 20140424**; CA 2875924 A1 20140123; CN 104471850 A 20150325;

EP 2875572 A2 20150527; FR 2993728 A1 20140124; HK 1203702 A1 20151030; US 2015375628 A1 20151231

DOCDB simple family (application)

**EP 2013065314 W 20130719**; CA 2875924 A 20130719; CN 201380035854 A 20130719; EP 13740250 A 20130719; FR 1257035 A 20120720; HK 15103886 A 20150422; US 201314411936 A 20130719