

Title (en)  
CONVERTER CIRCUIT AND METHOD FOR TRANSFERRING ELECTRICAL ENERGY

Title (de)  
WANDLERSCHALTUNG UND VERFAHREN ZUM ÜBERTRAGEN VON ELEKTRISCHER ENERGIE

Title (fr)  
CIRCUIT CONVERTISSEUR POUR LE TRANSFERT D'ÉNERGIE ÉLECTRIQUE

Publication  
**EP 2751918 A2 20140709 (DE)**

Application  
**EP 12731358 A 20120620**

Priority  
• DE 102011081720 A 20110829  
• EP 2012061840 W 20120620

Abstract (en)  
[origin: WO2013029827A2] The invention relates to a converter circuit (50) for transferring electrical energy, in particular for application in a motor vehicle wiring system (38, 42), which converter circuit comprises an electromagnetic transfer unit (60) having three electromagnetic transfer members (62, 64, 66) that can be electromagnetically coupled to each other in order to transfer electromagnetic energy, wherein the first electromagnetic transfer member (62) is connected to a first bi-directional converter circuit that comprises a first voltage connection pole pair (80) for connecting an AC voltage source and/or sink (54), wherein the second electromagnetic transfer member (64) is connected to a rectifier converter circuit that is connected on the outlet side to an electrical energy store (88), and wherein the third electromagnetic transfer member (66) is connected to a second bi-directional converter circuit that comprises a second voltage pole pair (96) for connecting a DC voltage source and/or sink (98), and a control unit (100) that is connected to the first bi-directional converter circuit, the second bi-directional converter circuit and the rectifier converter circuit, in order to control the exchange of electrical energy between the AC voltage source and/or sink (54), the DC voltage source and/or sink (98) and/or the electrical energy store (88).

IPC 8 full level  
**H02M 3/335** (2006.01); **B60L 11/18** (2006.01); **B60L 50/10** (2019.01); **H02J 7/00** (2006.01); **H02J 7/02** (2006.01)

CPC (source: EP KR US)  
**B60L 15/2045** (2013.01 - EP KR US); **B60L 50/14** (2019.01 - EP KR US); **B60L 50/16** (2019.01 - EP KR US); **B60L 53/14** (2019.01 - EP KR US); **B60L 58/20** (2019.01 - EP KR US); **H02J 7/02** (2013.01 - EP US); **H02J 50/10** (2016.02 - KR); **H02J 50/12** (2016.02 - EP US); **H02M 1/10** (2013.01 - EP KR US); **H02M 3/33584** (2013.01 - EP KR US); **B60L 2210/30** (2013.01 - EP KR US); **B60L 2210/46** (2013.01 - EP KR US); **B60L 2240/421** (2013.01 - EP KR US); **B60L 2240/423** (2013.01 - EP KR US); **H02J 3/1842** (2013.01 - EP US); **H02J 2207/20** (2020.01 - EP KR US); **H02J 2207/40** (2020.01 - EP US); **H02J 2310/48** (2020.01 - EP US); **Y02T 10/64** (2013.01 - EP KR US); **Y02T 10/70** (2013.01 - EP KR US); **Y02T 10/7072** (2013.01 - EP KR US); **Y02T 10/72** (2013.01 - EP KR US); **Y02T 90/12** (2013.01 - KR US); **Y02T 90/14** (2013.01 - EP KR US)

Citation (search report)  
See references of WO 2013029827A2

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 102011081720 A1 20130228**; CN 103765747 A 20140430; EP 2751918 A2 20140709; JP 2014525728 A 20140929; KR 20140057298 A 20140512; US 2014225432 A1 20140814; WO 2013029827 A2 20130307; WO 2013029827 A3 20131121

DOCDB simple family (application)  
**DE 102011081720 A 20110829**; CN 201280041885 A 20120620; EP 12731358 A 20120620; EP 2012061840 W 20120620; JP 2014527535 A 20120620; KR 20147005263 A 20120620; US 201214241124 A 20120620