

Title (en)

CHARGING APPARATUS FOR MOTOR VEHICLES, AND CHARGING METHOD

Title (de)

LADEVORRICHTUNG FÜR KRAFTFAHRZEUGE UND LADEVERFAHREN

Title (fr)

DISPOSITIF DE CHARGE POUR DES VÉHICULES À MOTEUR ET PROCÉDÉ DE CHARGE

Publication

**EP 2646273 A2 20131009 (DE)**

Application

**EP 11763685 A 20110929**

Priority

- DE 102010062369 A 20101202
- EP 2011067022 W 20110929

Abstract (en)

[origin: WO2012072308A2] The present invention discloses a charging apparatus without potential isolation for motor vehicles: having a first switchable isolation apparatus (1) which is designed to open and/or to close at least the conductor (LL), through which current flows, of a charging cable (11) which couples the charging apparatus (15) to a supply system, in order to establish or cancel potential isolation between the vehicle mass and neutral conductors of the charging cable (11); having a second switchable isolation apparatus (2) which is designed to open and/or to close at least one line (LB), which connects a high-voltage vehicle battery (7) to the charging apparatus (15) and/or to an on-board vehicle electrical system (6); and having a monitoring apparatus (3) which is designed to monitor a fault state (F) of the charging apparatus (15) or of the motor vehicle (11) and to transmit a control signal (Sig1, Sig2) to the first and/or the second isolation apparatus (1, 2) depending on the fault state (F), and a charging method.

IPC 8 full level

**B60L 3/00** (2006.01); **B60L 3/04** (2006.01); **B60L 11/18** (2006.01); **H02J 7/02** (2006.01)

CPC (source: EP US)

**B60L 3/003** (2013.01 - EP); **B60L 3/0069** (2013.01 - EP); **B60L 3/04** (2013.01 - EP); **B60L 53/18** (2019.01 - EP US); **H02H 3/33** (2013.01 - EP US); **B60L 2240/662** (2013.01 - EP); **B60L 2240/667** (2013.01 - EP); **B60L 2250/16** (2013.01 - EP); **H02J 7/0031** (2013.01 - EP); **Y02T 10/70** (2013.01 - EP); **Y02T 10/7072** (2013.01 - EP); **Y02T 10/72** (2013.01 - EP); **Y02T 90/14** (2013.01 - EP); **Y02T 90/16** (2013.01 - EP)

Citation (search report)

See references of WO 2012072308A2

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)

**DE 102010062369 A1 20120606**; CN 103313871 A 20130918; CN 103313871 B 20160706; EP 2646273 A2 20131009; WO 2012072308 A2 20120607; WO 2012072308 A3 20130502

DOCDB simple family (application)

**DE 102010062369 A 20101202**; CN 201180058167 A 20110929; EP 11763685 A 20110929; EP 2011067022 W 20110929