

Title (en)

Device and method for starter support in a motor vehicle

Title (de)

Vorrichtung und Verfahren zur Starterunterstützung in einem Kraftfahrzeug

Title (fr)

Dispositif et procédé destinés au soutien d'un démarreur dans un véhicule automobile

Publication

**EP 2157313 A3 20150610 (DE)**

Application

**EP 09164366 A 20090702**

Priority

DE 102008041298 A 20080818

Abstract (en)

[origin: EP2157313A2] The support device (10) comprises a coupling device (14), which is connected between a temporary energy storage unit (12) and an energy delivery point (16). The energy delivery point is arranged for connection to a vehicle starter (20). The temporary energy storage unit is arranged for delivering a portion of the energy buffered in the temporary energy storage unit to the vehicle starter over the coupling device and the energy delivery point. Independent claims are included for the following: (1) a method for supporting a battery during the start of an internal combustion engine of a motor vehicle; and (2) an electrical system management module for a motor vehicle.

IPC 8 full level

**F02N 11/08** (2006.01); **B60R 16/03** (2006.01); **H02J 7/00** (2006.01); **F02N 5/02** (2006.01); **F02N 5/04** (2006.01); **F02N 11/04** (2006.01)

CPC (source: EP)

**F02N 11/0866** (2013.01); **F02N 5/02** (2013.01); **F02N 5/04** (2013.01); **F02N 11/04** (2013.01); **F02N 2011/0885** (2013.01)

Citation (search report)

- [X] WO 02066293 A1 20020829 - SIEMENS AG [DE], et al
- [X] GB 2047816 A 19801203 - LUK LAMELLEN & KUPPLUNGSBAU
- [X] EP 1106823 A1 20010613 - SIEMENS AG [DE]
- [X] US 6199650 B1 20010313 - MASBERG ULLRICH [DE], et al
- [X] EP 1247979 A2 20021009 - ISAD ELECTRONIC SYS GMBH & CO [DE]
- [X] JP 2006029142 A 20060202 - TOYOTA MOTOR CORP
- [X] DE 4135025 A1 19920430 - MAGNETI MARELLI SPA [IT]
- [I] EP 1674719 A1 20060628 - FORD GLOBAL TECH LLC [US]

Cited by

DE102012222061A1; CN110392967A; EP2685086A3; US10246035B2; WO2014033215A1

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

**EP 2157313 A2 20100224; EP 2157313 A3 20150610;** DE 102008041298 A1 20100225

DOCDB simple family (application)

**EP 09164366 A 20090702;** DE 102008041298 A 20080818