

Title (en)

starting system with a control device separated of the starter

Title (de)

Anlasssystem mit einer Steuervorrichtung getrennt von dem Anlasser

Title (fr)

système de démarrage à organe de contrôle séparé du démarreur

Publication

**EP 1378661 B1 20120111 (FR)**

Application

**EP 03291638 A 20030703**

Priority

FR 0208306 A 20020703

Abstract (en)

[origin: EP1378661A1] The starter system has a battery (3) supplying the starter (10). The starter motor (1) is connected by a power cable (11) to the battery through a high power switch (18). The starter pinion is controlled by an electromagnet (13) connected to the battery through a low power semiconductor switch (17). A controller (20,21) ensures starter cables are connected to the battery only during starting.

IPC 8 full level

**F02N 11/08** (2006.01); **F02N 15/06** (2006.01)

CPC (source: EP)

**F02N 11/0862** (2013.01); **F02N 11/087** (2013.01); **F02N 11/0814** (2013.01); **F02N 11/0851** (2013.01); **F02N 15/066** (2013.01); **F02N 15/067** (2013.01); **F02N 2300/108** (2013.01); **F02N 2300/30** (2013.01)

Cited by

FR2923869A1; EP2508747A4; FR2858366A1; US9297347B2; WO2005015005A1

Designated contracting state (EPC)

DE ES FR GB HU IT

DOCDB simple family (publication)

**EP 1378661 A1 20040107**; **EP 1378661 B1 20120111**; FR 2843782 A1 20040227; FR 2843782 B1 20060127

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