

Title (en)

Starter apparatus for an internal combustion engine

Title (de)

Anlassvorrichtung einer Brennkraftmaschine

Title (fr)

Dispositif de démarrage d'un moteur thermique

Publication

**EP 1669592 A1 20060614 (FR)**

Application

**EP 05292261 A 20051026**

Priority

FR 0412717 A 20041130

Abstract (en)

The device has a front planetary speed reducer (19) rotatively connecting a pulley (80) to an armature shaft (14) driven by an electric motor (16). The reducer has planet gears (36) driving a sun gear (52), a planet carrier (40) on which the gears (36) are mounted and a ring gear (44) with teeth to drive the gears (36). The ring gear is housed in an inner bore (84) of the pulley and the carrier is fixed relative to a case (48).

IPC 8 full level

**F02N 15/02** (2006.01); **F02N 11/00** (2006.01)

CPC (source: EP)

**F02N 11/00** (2013.01); **F02N 15/02** (2013.01)

Citation (search report)

- [A] EP 0384808 A1 19900829 - VALEO EQUIP ELECTR MOTEUR [FR]
- [A] GB 484886 A 19380511 - ALEXANDRE MOISY
- [A] EP 1293665 A2 20030319 - DENSO CORP [JP]

Cited by

WO2010037200A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1669592 A1 20060614**; FR 2878584 A1 20060602; FR 2878584 B1 20061229

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