

Title (en)

MULTI-CONTACTOR DEVICE, IN PARTICULAR FOR CONTROLLING AN ELECTRIC STARTER

Title (de)

VORRICHTUNG MIT MEHREREN SCHÜTZEN, INSbesondere ZUR STEUERUNG EINES ELEKTRISCHEN ANLASSERS

Title (fr)

DISPOSITIF MULTICONTACTEUR, NOTAMMENT POUR LA COMMANDE D'UN DÉMARREUR ÉLECTRIQUE

Publication

EP 2795650 B1 20151118 (FR)

Application

EP 12816760 A 20121221

Priority

- FR 1162255 A 20111222
- FR 2012053036 W 20121221

Abstract (en)

[origin: WO2013093365A1] The invention relates to a starter (290) for an internal combustion engine, said starter comprising: a) an electric motor (150); b) a drive assembly including a pinion (160) movable between a so-called free position and a so-called meshed position, wherein said pinion (160) is rotatably linked to the electric motor (150) and to the internal combustion engine (290); c) an electric switching device (230) including a main actuator (220) capable, when engaged, of moving and holding a means, referred to as plunger (130), in position, said plunger being linked with the movement of the pinion (160) between the free position and the meshed position, by means of a linking means, referred to as lever (260); d) a means connected to the plunger, which is capable of establishing electrical power contact between the electric motor (150) and a power source (100) when the pinion (160) is in the meshed position; e) and including an auxiliary actuator (240) capable, when engaged, of opening the power contact and a means (211, 212) for separately controlling the main actuator (220) and the auxiliary actuator (240).

IPC 8 full level

H01H 51/06 (2006.01)

CPC (source: EP US)

F02N 11/08 (2013.01 - US); **F02N 11/0803** (2013.01 - US); **F02N 11/0851** (2013.01 - US); **F02N 11/087** (2013.01 - EP US);
F02N 15/067 (2013.01 - EP US); **H01H 50/54** (2013.01 - US); **H01H 51/065** (2013.01 - EP US); **F02N 11/0814** (2013.01 - EP US);
F02N 11/0844 (2013.01 - EP US); H01H 1/24 (2013.01 - EP US); **H01H 9/42** (2013.01 - EP US)

Cited by

FR3038347A1; US2022341384A1; US11585309B2; EP3728828A1

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)

WO 2013093365 A1 20130627; BR 112014014250 A2 20170613; BR 112014014250 A8 20170613; BR 112014014275 A2 20170613;
BR 112014014275 A8 20170613; CN 104126215 A 20141029; CN 104126215 B 20170630; CN 104126216 A 20141029;
CN 104126216 B 20160511; EP 2795650 A1 20141029; EP 2795650 B1 20151118; EP 2795651 A1 20141029; EP 2795651 B1 20151118;
FR 2985084 A1 20130628; FR 2985084 B1 20150313; KR 101903832 B1 20181002; KR 20140110959 A 20140917;
KR 20140110961 A 20140917; US 2014345554 A1 20141127; US 2014373801 A1 20141225; US 9470199 B2 20161018;
US 9599087 B2 20170321; WO 2013093371 A1 20130627

DOCDB simple family (application)

FR 2012053036 W 20121221; BR 112014014250 A 20121221; BR 112014014275 A 20121221; CN 201280070422 A 20121221;
CN 201280070509 A 20121221; EP 12816760 A 20121221; EP 12816771 A 20121221; FR 1162255 A 20111222; FR 2012053051 W 20121221;
KR 20147020229 A 20121221; KR 20147020270 A 20121221; US 201214367170 A 20121221; US 201214368188 A 20121221