

Title (en)

Electromagnetic contactor with a double contact and starter for a heat engine having the same

Title (de)

Elektromagnetisches Schütz mit Doppelkontakt und damit versehener Anlasser eines Verbrennungsmotor

Title (fr)

Contacteur électromagnétique à double contact et démarreur pour moteur thermique l'incorporant

Publication

**EP 2385538 B1 20120509 (FR)**

Application

**EP 11152651 A 20110131**

Priority

FR 1053596 A 20100507

Abstract (en)

[origin: EP2385538A1] The switch (10) has an electrically controllable microactuator i.e. micro-solenoid (MS), for authorizing or prohibiting the switching between closed contact operating states according to the electric control i.e. current, applied to the microactuator. The switching is prohibited by the microactuator using the force opposing the thrust of a movable contact wafer (CM) when the microactuator is electrically excited. An assembly with an electric coil (BO) and a movable magnetic core (NM) is arranged between grip jaws of a copper contact-spring clip (ET) of the microactuator.

IPC 8 full level

**H01H 47/32** (2006.01); **F02N 11/08** (2006.01); **F02N 15/06** (2006.01); **H01H 51/06** (2006.01)

CPC (source: EP US)

**F02N 11/087** (2013.01 - EP US); **F02N 15/067** (2013.01 - EP US); **H01H 47/32** (2013.01 - EP US); **H01H 51/065** (2013.01 - EP US); **F02N 11/0851** (2013.01 - EP US); **H01H 47/04** (2013.01 - EP US)

Cited by

FR3017989A1; FR3017992A1; FR3038347A1; FR3074857A1; FR3017991A1; KR20180032617A; CN108140515A; FR3017990A1; FR3066640A1; EP2980819A1; FR3024586A1; FR3053080A1; US10068734B2; US10002734B2; US10804059B2; US8558648B2; WO2017220885A1; WO2015128564A1; WO2017012816A1; WO2015128565A1; EP2442330B1

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)

**EP 2385538 A1 20111109**; **EP 2385538 B1 20120509**; AT E557411 T1 20120515; CN 102270548 A 20111207; CN 102270548 B 20140514; ES 2384221 T3 20120702; FR 2959862 A1 20111111; FR 2959862 B1 20150102; JP 2011256861 A 20111222; JP 5603290 B2 20141008; US 2011273250 A1 20111110; US 8446238 B2 20130521

DOCDB simple family (application)

**EP 11152651 A 20110131**; AT 11152651 T 20110131; CN 201110117503 A 20110509; ES 11152651 T 20110131; FR 1053596 A 20100507; JP 2011103391 A 20110506; US 201113102142 A 20110506