Title (en)

ENGAGEMENT RELAY FOR AND A METHOD FOR OPERATING AN ELECTRIC MACHINE, PREFERABLY EMBODIED AS A STARTER DEVICE, WITH AN ENGAGEMENT RELAY

Title (de)

EINRÜCKRELAIS FÜR SOWIE VERFAHREN ZUM BETREIBEN EINER VORZUGSWEISE ALS STARTVORRICHTUNG AUSGEBILDETEN ELEKTRISCHEN MASCHINE MIT EINEM EINRÜCKRELAIS

Title (fr)

RELAIS D'ENGRÈNEMENT ET PROCÉDÉ DE FONCTIONNEMENT D'UNE MACHINE ÉLECTRIQUE CONÇUE DE PRÉFÉRENCE COMME UN DISPOSITIF DE DÉMARRAGE ET POURVUE D'UN RELAIS D'ENGRÈNEMENT

Publication

EP 3513420 B1 20201028 (DE)

Application

EP 17769070 A 20170919

Priority

- DE 102016218032 A 20160920
- EP 2017073656 W 20170919

Abstract (en)

[origin: WO2018054909A1] The invention relates to an engagement relay (20) for an electric machine which preferably serves as a starter device (10) for engaging a pinion (25), wherein the engagement relay (20) has a contact device (65) for electrically connecting electrical contacts (120, 121), having a switching axis (67) which can be actuated for the purpose of electrical connection, having a thrust motor (60) which serves to shift the switching axis (67), and the thrust motor (60) has a movable part (57) which serves to activate the switching axis (67), wherein the movable part (57) is connected to a driver (85), wherein a stop part (84) can move relative to the movable part (57) of the thrust motor (60) and in a state of rest of the engagement relay (20) there is a gap (s) between the stop part (84) and the driver (85), wherein after the switching of the engagement relay (20) a contact device (65) is activated and as a result a switch of the circuit of the starter motor (23) is closed, wherein a movable part (57) of a thrust motor (60) of the engagement relay (20) is connected to a driver (85), and by means of a switch-on movement of the movable part (57) the driver (85) brings about an engagement force with an engagement lever (22), in order to mesh a pinion (25) in a toothed ring (15), characterized in that a stop part (84) is arranged between the movable part (57) of the thrust motor (60) and the driver (85), wherein firstly there is a gap (s) with an initial size between the driver (85) and the stop part (84), and when the movable part (57) of the thrust motor (60) moves during switching the gap (s) is made smaller.

IPC 8 full level

H01H 51/06 (2006.01); **F02N 15/06** (2006.01)

CPC (source: EP US)

F02N 11/0851 (2013.01 - US); **F02N 11/087** (2013.01 - US); **F02N 15/067** (2013.01 - EP US); **H01H 50/20** (2013.01 - US); **H01H 50/34** (2013.01 - US); **H01H 50/66** (2013.01 - US); **H01H 51/065** (2013.01 - EP US); F02N 11/00 (2013.01 - EP US)

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)

DE 102017216605 A1 20180322; CN 109891545 A 20190614; CN 109891545 B 20210702; EP 3513420 A1 20190724; EP 3513420 B1 20201028; EP 3513420 B8 20201216; HU E053396 T2 20210628; US 11536237 B2 20221227; US 2019285043 A1 20190919; WO 2018054909 A1 20180329

DOCDB simple family (application)

DE 102017216605 A 20170919; CN 201780057915 A 20170919; EP 17769070 A 20170919; EP 2017073656 W 20170919; HU E17769070 A 20170919; US 201716335214 A 20170919