

Title (en)

IMPULSE START IN A HYBRID DRIVETRAIN

Title (de)

IMPULSSTART IN EINEM HYBRID-ANTRIEBSSTRANG

Title (fr)

DÉMARRAGE PAR IMPULSIONS DANS UNE CHAÎNE CINÉMATIQUE HYBRIDE

Publication

EP 3672821 A1 20200701 (DE)

Application

EP 18765573 A 20180823

Priority

- DE 102017214787 A 20170823
- EP 2018072799 W 20180823

Abstract (en)

[origin: WO2019038394A1] Method for operating a hybrid drive device of a motor vehicle, a hybrid drive device and a motor vehicle. The hybrid drive device comprises an internal combustion engine, an electric machine and an impulse start module which comprises two clutches (KS, KO) and a flywheel mass. The method comprises the following steps: opening the first clutch of the impulse start module, detecting an activation request for the internal combustion engine, closing the first clutch when the second clutch is opened or closed in order to start the internal combustion engine.

IPC 8 full level

B60K 6/48 (2007.10); **B60K 6/10** (2006.01); **B60K 6/30** (2007.10); **B60K 17/02** (2006.01); **B60W 10/02** (2006.01); **B60W 10/06** (2006.01);
B60W 10/08 (2006.01); **B60W 10/26** (2006.01); **B60W 20/40** (2013.01 - EP); **B60W 30/192** (2013.01 - US);
B60W 30/194 (2013.01 - EP); **F02N 11/06** (2013.01 - US); **F02N 15/025** (2013.01 - US); **B60K 2006/4808** (2013.01 - US);
B60K 2006/4816 (2013.01 - US); **B60K 2006/4825** (2013.01 - EP US); **B60K 2006/4833** (2013.01 - US); **B60K 2006/4841** (2013.01 - US);
B60W 20/10 (2013.01 - US); **B60W 2510/0208** (2013.01 - EP); **B60W 2510/0216** (2013.01 - EP); **B60W 2510/0225** (2013.01 - EP);
B60W 2510/0241 (2013.01 - EP US); **B60W 2510/025** (2013.01 - EP); **B60W 2510/0638** (2013.01 - EP); **B60W 2510/081** (2013.01 - EP);
B60W 2510/244 (2013.01 - EP); **B60W 2520/04** (2013.01 - EP); **B60W 2555/20** (2020.02 - EP); **B60W 2710/021** (2013.01 - EP);
B60W 2710/022 (2013.01 - EP); **B60W 2710/023** (2013.01 - EP); **B60W 2710/025** (2013.01 - EP); **B60W 2710/026** (2013.01 - EP);
B60W 2710/027 (2013.01 - EP); **B60W 2710/028** (2013.01 - EP); **B60W 2710/081** (2013.01 - EP); **B60W 2710/082** (2013.01 - EP);
B60W 2710/10 (2013.01 - EP); **B60W 2710/1005** (2013.01 - EP); **B60W 2710/244** (2013.01 - EP); **F02N 2300/2002** (2013.01 - US);
Y02T 10/62 (2013.01 - EP)

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2019038394 A1 20190228; CN 110382274 A 20191025; CN 110382274 B 20220913; DE 102017214787 A1 20190228;
EP 3672821 A1 20200701; MX 2019011722 A 20191121; US 11359593 B2 20220614; US 2020208600 A1 20200702; ZA 201906627 B 20200930

DOCDB simple family (application)

EP 2018072799 W 20180823; CN 201880014910 A 20180823; DE 102017214787 A 20170823; EP 18765573 A 20180823;
MX 2019011722 A 20180823; US 202016797935 A 20200221; ZA 201906627 A 20191008