

Title (en)  
HYBRID DRIVE TRAIN OF A MOTOR VEHICLE

Title (de)  
HYBRIDANTRIEBSSTRANG EINES KRAFTFAHRZEUGS

Title (fr)  
CHAÎNE DE TRANSMISSION HYBRIDE DE VÉHICULE AUTOMOBILE

Publication  
**EP 1931528 A1 20080618 (DE)**

Application  
**EP 06791656 A 20060825**

Priority  
• EP 2006008343 W 20060825  
• DE 102005046533 A 20050928

Abstract (en)  
[origin: WO2007036275A1] The invention relates to a hybrid drive train of a motor vehicle, having a series arrangement of an internal combustion engine, a first electric machine which can be operated predominantly as a generator, a second electric machine which can be operated predominantly as an electric motor, and a final drive, and having a driving battery which can be connected to the two electric machines via switchable lines and an electronic power system, and having a control unit for controlling the energy flow between the electric machines and the driving battery. In order to achieve compact dimensions and improved efficiency, there is provision for the two electric machines to be combined in an electromagnetic gear mechanism (6) having a rotatably mounted drive rotor (7) which is connected to an input shaft, having a rotatably mounted output rotor (8) which is connected to an output shaft, and having a common stator (9) which is connected fixedly in terms of rotation to a housing component and is mounted such that it is axially displaceable, wherein the drive rotor (7) and the output rotor (8) have permanent magnets with changing polarity which are distributed in each case on the circumference, in an axially adjacent manner in a cylindrical arrangement, and wherein the stator (9), in a radially adjacent arrangement to the permanent magnets of the rotors (7, 8), has at least one squirrel-cage winding which is connected to an associated electronic power system (13);, wherein the effective transmission ratio can be set by an axial displacement of the stator (9) relative to the rotors (7, 8).

IPC 8 full level  
**B60K 6/26** (2007.10); **B60K 6/448** (2007.10); **B60K 6/48** (2007.10); **B60L 50/16** (2019.01)

IPC 8 main group level  
**B60K** (2006.01)

CPC (source: EP US)  
**B60K 6/26** (2013.01 - EP US); **B60K 6/448** (2013.01 - EP US); **B60K 6/48** (2013.01 - EP US); **B60L 15/20** (2013.01 - EP US); **B60L 50/16** (2019.01 - EP US); **B60L 50/61** (2019.01 - EP US); **B60L 58/20** (2019.01 - EP US); **B60W 10/08** (2013.01 - EP US); **B60W 20/10** (2013.01 - US); **B60W 20/13** (2016.01 - US); **B60K 17/02** (2013.01 - EP US); **B60K 2006/268** (2013.01 - EP); **B60L 2210/10** (2013.01 - EP US); **B60L 2240/12** (2013.01 - EP US); **B60L 2240/421** (2013.01 - EP US); **B60L 2240/441** (2013.01 - EP US); **B60L 2260/12** (2013.01 - EP US); **B60L 2260/26** (2013.01 - EP US); **B60W 20/00** (2013.01 - EP); **Y02T 10/62** (2013.01 - EP US); **Y02T 10/64** (2013.01 - EP US); **Y02T 10/70** (2013.01 - EP US); **Y02T 10/7072** (2013.01 - EP US); **Y02T 10/72** (2013.01 - EP US)

Citation (search report)  
See references of WO 2007036275A1

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)  
**WO 2007036275 A1 20070405**; EP 1931528 A1 20080618; JP 2009509831 A 20090312; JP 4473334 B2 20100602; US 2008236915 A1 20081002

DOCDB simple family (application)  
**EP 2006008343 W 20060825**; EP 06791656 A 20060825; JP 2008532617 A 20060825; US 5646808 A 20080327