

Title (en)

BRUSHLESS DC MOTOR AND METHOD FOR PROVIDING AN ANGLE SIGNAL

Title (de)

BÜRSTENLOSER GLEICHSTROMMOTOR UND VERFAHREN ZUR BEREITSTELLUNG EINES WINKELSIGNALS

Title (fr)

MOTEUR À COURANT CONTINU SANS BALAIS ET PROCÉDÉ PERMETTANT DE PRODUIRE UN SIGNAL D'ANGLE

Publication

EP 3446071 A1 20190227 (DE)

Application

EP 17710700 A 20170308

Priority

- DE 102016206768 A 20160421
- EP 2017055449 W 20170308

Abstract (en)

[origin: WO2017182191A1] The invention relates to a brushless DC motor (1) as an external rotor with an analysis and control unit (7), a stator, a rotor, a co-rotating bell (5), and a sensor (10) which detects an angular position of the rotor. The invention also relates to a method for providing an angle signal. A target (20) with at least one electrically conductive track (22) is attached to the co-rotating bell (5), and the sensor (10) is designed as an eddy current sensor with at least one coil. The sensor (10) is arranged at a radial distance from the target (20) such that the at least one electrically conductive track (22) at least partly covers the at least one coil. The sensor (10) provides an angle signal as a function of the at least one coil being covered by the at least one electrically conductive track (22), said angle signal uniquely representing the absolute angular position of the rotor up to 360°.

IPC 8 full level

G01D 5/20 (2006.01)

CPC (source: EP KR US)

G01D 5/202 (2013.01 - EP KR US); **G01D 5/2225** (2013.01 - EP KR US); **H02K 29/12** (2013.01 - EP KR US); **G01D 2205/775** (2021.05 - EP)

Citation (search report)

See references of WO 2017182191A1

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 2017182191 A1 20171026; CN 109073418 A 20181221; DE 102016206768 A1 20171026; EP 3446071 A1 20190227; JP 2019514013 A 20190530; JP 6856665 B2 20210407; KR 20180136451 A 20181224; US 2019162560 A1 20190530

DOCDB simple family (application)

EP 2017055449 W 20170308; CN 201780024511 A 20170308; DE 102016206768 A 20160421; EP 17710700 A 20170308; JP 2018554744 A 20170308; KR 20187030159 A 20170308; US 201716091925 A 20170308