Title (en)
METHOD FOR STARTING A BRUSHLESS D.C. MOTOR

Title (de)
VERFAHREN ZUM STARTEN EINES BUERSTENLOSEN GLEICHSTROMMOTORS

Title (fr)
PROCEDE POUR DEMARRER UN MOTEUR COURANT CONTINU SANS BALAIS

Publication
EP 1459436 A2 20040922 (DE)

Application
EP 02794997 A 20021216

Priority
• DE 0204582 W 20021216
• DE 10162380 A 20011219

Abstract (en)
[origin: WO03052919A2] The invention relates to a method for starting a brushless d.c. motor comprising a multi-phase stator winding. According to the invention, a plurality of current pulses is applied to the stator winding while the rotor is stationary, a current build-up period is measured in the stator winding for each current pulse until a current threshold has been reached and the rotor position is derived from the current build-up periods that have been measured. The aim of the invention is to obtain a controlled acceleration without the use of a sensor and to precisely determine the rotor position without using complex control technology. To achieve this, a plurality of test current pulses is successively applied to the stator winding in such a way that the test current pulses in the stator generate stator flow vectors across 360 DEG , which are electrically offset by identical angular increments. The current build-up period is measured in the aggregate current of the stator winding for each stator flow vector and the phase angle of the stator flow vector with the shortest current build-up period is determined as the rotor position.

IPC 1-7
H02P 6/20; H02P 6/16

IPC 8 full level
H02P 6/185 (2016.01); **H02P 6/22** (2006.01)

CPC (source: EP US)
H02P 6/185 (2013.01 - EP US); **H02P 6/22** (2013.01 - EP US)

Citation (search report)
See references of WO 03052919A2

Citation (examination)
• US 6091222 A 20000718 - VERTEMARA CARLO [US], et al
• US 6100656 A 20000808 - EL-SADI ASHRAF I [US], et al

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CN105531917A

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
WO 03052919 A2 20030626; **WO 03052919 A3 20031106**; DE 10162380 A1 20030703; EP 1459436 A2 20040922; JP 2005513986 A 20050512; JP 4673553 B2 20110420; US 2004113576 A1 20040617; US 6885163 B2 20050426

DOCDB simple family (application)
DE 0204582 W 20021216; DE 10162380 A 20011219; EP 02794997 A 20021216; JP 2003553701 A 20021216; US 47275003 A 20030924