

Title (en)

METHOD FOR DETERMINING A STATOR CURRENT VECTOR FOR STARTING A SYNCHRONOUS MACHINE OF A DRIVE OF A PASSENGER TRANSPORTATION APPARATUS

Title (de)

VERFAHREN ZUM BESTIMMEN EINES STATORSTROMVEKTORS ZUM STARTEN EINER SYNCHRONMASCHINE EINES ANTRIEBS EINER PERSONENBEFÖRDERUNGSVORRICHTUNG

Title (fr)

PROCÉDÉ DE DÉTERMINATION D'UN VECTEUR DE COURANT STATORIQUE POUR DÉMARRER UNE MACHINE SYNCHRONE D'UN ENTRAÎNEMENT D'UN DISPOSITIF DE TRANSPORT DE PERSONNES

Publication

EP 3238336 A1 20171101 (DE)

Application

EP 15816160 A 20151218

Priority

- DE 102014226967 A 20141223
- EP 2015080577 W 20151218

Abstract (en)

[origin: WO2016102385A1] The present invention relates to a method for determining a stator current vector (U_{max}) for starting a synchronous machine (111) of a drive (110) of a passenger transportation apparatus (100) having a rotor (122) and having a stator (121) with a stator winding, wherein different stator current vectors ($U_1, U_2, U_3, U_4, U_5, U_6$) with different stator current vector directions are impressed on the stator winding over the course of a plurality of current application operations, wherein a minimum stator current vector (U_6) with a minimum stator current vector direction is determined from the different stator current vectors ($U_1, U_2, U_3, U_4, U_5, U_6$), a minimum drive torque which acts on the rotor being generated in the synchronous machine (111) at said minimum stator current vector, wherein a starting stator current vector (U_{max}) with a starting stator current vector direction is determined from the minimum stator current vector (U_6), and wherein the starting stator current vector (U_{max}) is impressed on the stator winding for starting the synchronous machine (111).

IPC 8 full level

H02P 1/46 (2006.01); **H02P 6/18** (2016.01); **H02P 6/20** (2016.01); **H02P 6/26** (2016.01)

CPC (source: EP KR US)

B66B 1/304 (2013.01 - US); **H02P 1/46** (2013.01 - EP KR US); **H02P 6/18** (2013.01 - EP US); **H02P 6/183** (2013.01 - EP KR US);
H02P 6/20 (2013.01 - EP KR US); **H02P 6/26** (2016.02 - EP KR US); **H02P 21/34** (2016.02 - US)

Citation (search report)

See references of WO 2016102385A1

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)

DE 102014226967 A1 20160623; CN 107534404 A 20180102; EP 3238336 A1 20171101; JP 2018506250 A 20180301;
KR 20170099991 A 20170901; US 10486936 B2 20191126; US 2017349396 A1 20171207; WO 2016102385 A1 20160630

DOCDB simple family (application)

DE 102014226967 A 20141223; CN 201580073531 A 20151218; EP 15816160 A 20151218; EP 2015080577 W 20151218;
JP 2017533221 A 20151218; KR 20177020606 A 20151218; US 201515539073 A 20151218