

Title (en)

METHOD FOR MONITORING ONE OR MORE ELECTRIC DRIVES OF AN ELECTROMECHANICAL SYSTEM

Title (de)

VERFAHREN ZUR ÜBERWACHUNG EINES ODER MEHRERER ELEKTRISCHER ANTRIEBE EINER ELEKTROMECHANISCHEN ANLAGE

Title (fr)

PROCÉDÉ DE SURVEILLANCE D'UN OU DE PLUSIEURS ENTRAÎNEMENTS ÉLECTRIQUES D'UN SYSTÈME ÉLECTROMÉCANIQUE

Publication

EP 4226494 A1 20230816 (DE)

Application

EP 21783441 A 20210923

Priority

- DE 102020126587 A 20201009
- EP 2021076254 W 20210923

Abstract (en)

[origin: CA3193757A1] The invention relates to a method for monitoring one or more electric drives (M1, M2, M3, M4) of an electromechanical system, in particular of a wind direction tracking system of a wind turbine, wherein the one or more drives (M1, M2, M3, M4) act upon a movable machine component of the installation, for example upon a bearing ring (2) of an azimuth bearing (1). The method is characterized in that: during operation of the drives, a plurality of currents, for example phase currents of multiple phases (L1, L2, L3), and/or of multiple drives (M1, M2, M3, M4), are measured at a predefined sampling rate and stored as a measured value series each containing a predefined number m of measured values; statistical characteristic values are in each case calculated from one or more measured value series; and one or more items of state information and/or state forecasts is/are generated for one or more drives by analysing the variation over time of the characteristic values and/or by analysing a correlation of the characteristic values of different motor currents.

IPC 8 full level

H02P 29/024 (2016.01); **F03D 17/00** (2016.01); **H02P 5/74** (2006.01); **H02P 23/14** (2006.01)

CPC (source: EP US)

F03D 7/0204 (2013.01 - US); **F03D 15/00** (2016.05 - US); **F03D 17/00** (2016.05 - EP US); **F03D 80/70** (2016.05 - US); **H02P 5/74** (2013.01 - EP); **H02P 9/006** (2013.01 - US); **H02P 23/14** (2013.01 - EP); **H02P 29/024** (2013.01 - EP); **F03D 7/0204** (2013.01 - EP); **F05B 2260/80** (2013.01 - EP); **F05B 2270/602** (2013.01 - EP); **H02P 2101/15** (2015.01 - US); **Y02E 10/72** (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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102020126587 A1 20220414; CA 3193757 A1 20220414; EP 4226494 A1 20230816; US 2023304478 A1 20230928; WO 2022073773 A1 20220414

DOCDB simple family (application)

DE 102020126587 A 20201009; CA 3193757 A 20210923; EP 2021076254 W 20210923; EP 21783441 A 20210923; US 202118023428 A 20210923