

Title (en)  
METHOD FOR MONITORING ROLLING BEARINGS

Title (de)  
VERFAHREN ZUR ÜBERWACHUNG VON WÄLZLAGERN

Title (fr)  
PROCÉDÉ DE SURVEILLANCE DE PALIERS DE TAMBOUR

Publication  
**EP 3707807 A1 20200916 (DE)**

Application  
**EP 18796651 A 20181102**

Priority  
• DE 102017125890 A 20171106  
• EP 2018080012 W 20181102

Abstract (en)  
[origin: WO2019086606A1] The present invention relates to a method and an apparatus for monitoring a rolling bearing (2) of an electric motor (1), wherein the rolling bearing (2) forms a capacitive parasitic antenna (3), having the following steps of: a. capturing the electromagnetic spectrum (7) emitted by the parasitic antenna (3) in a manner triggered by spark formation in the rolling bearing (2) over a respectively defined period t during operation of the electric motor (1); b. evaluating the number N of electromagnetic pulses (a, b, c, d, e) received in the spectrum and the amplitude A of said pulses; c. capturing the change in the number N of electromagnetic pulses (a, b, c, d, e) and/or the amplitude A of said pulses, and d. determining whether the increase in the number N and/or in the amplitudes A of the electromagnetic pulses (a, b, c, d, e) increases in a non-linear manner with time.

IPC 8 full level  
**H02K 7/08** (2006.01); **G01H 17/00** (2006.01); **H02K 11/30** (2016.01); **H02K 11/35** (2016.01); **H02K 15/00** (2006.01)

CPC (source: EP US)  
**G01D 5/244** (2013.01 - US); **G01M 13/04** (2013.01 - US); **G01R 31/001** (2013.01 - EP); **G01R 31/343** (2013.01 - EP); **H02K 7/083** (2013.01 - EP); **H02K 11/35** (2016.01 - EP); **H02K 15/00** (2013.01 - EP); **F16C 19/06** (2013.01 - US); **F16C 2233/00** (2013.01 - US); **F16C 2380/26** (2013.01 - US); **G01H 9/00** (2013.01 - EP); **G01R 23/16** (2013.01 - EP); **G01R 29/0892** (2013.01 - EP)

Citation (search report)  
See references of WO 2019086606A1

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 2019086606 A1 20190509**; CN 111316540 A 20200619; CN 111316540 B 20220722; DE 102017125890 A1 20190509; EP 3707807 A1 20200916; US 11105711 B2 20210831; US 2020264073 A1 20200820

DOCDB simple family (application)  
**EP 2018080012 W 20181102**; CN 201880071823 A 20181102; DE 102017125890 A 20171106; EP 18796651 A 20181102; US 201816761747 A 20181102